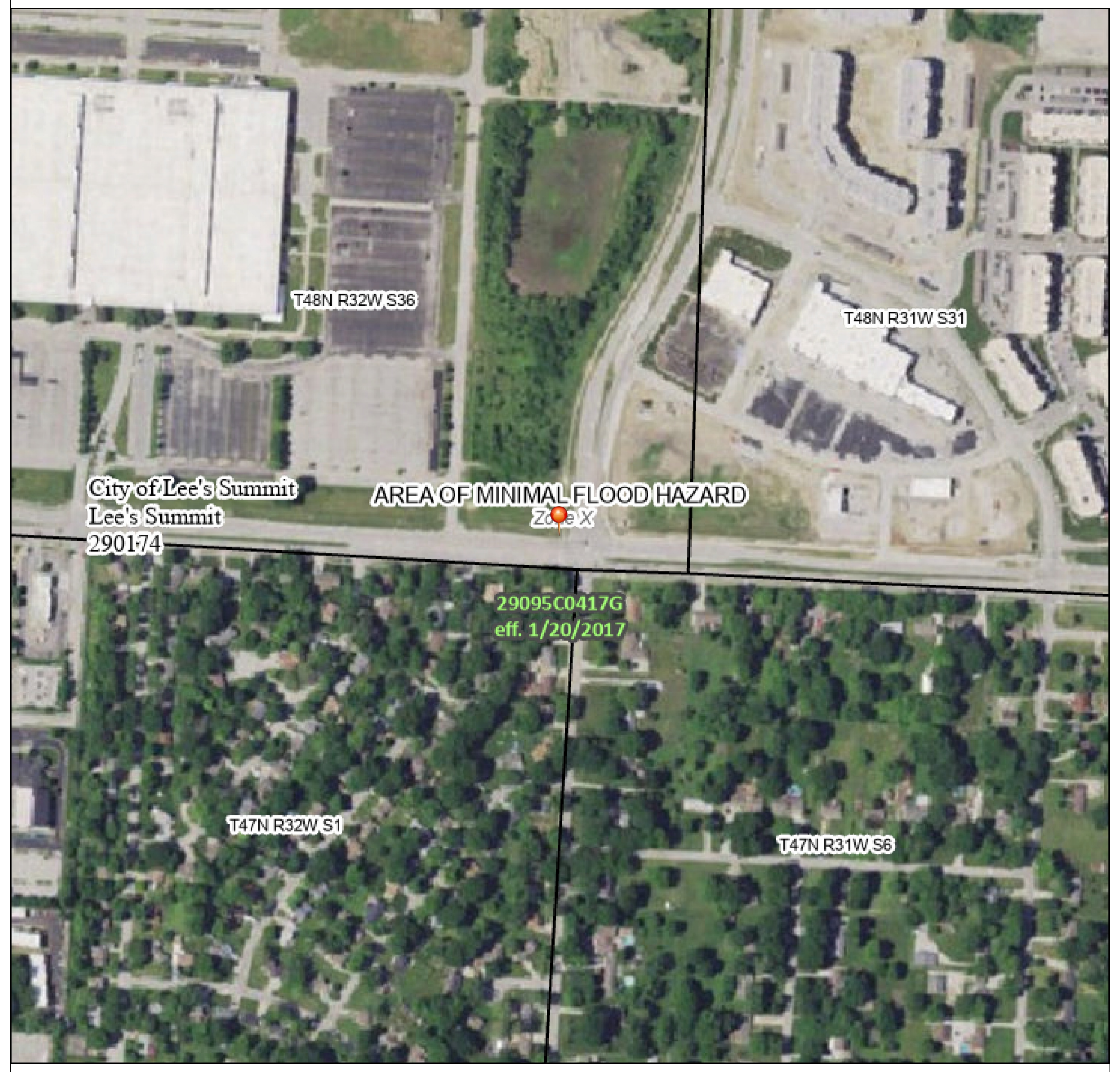


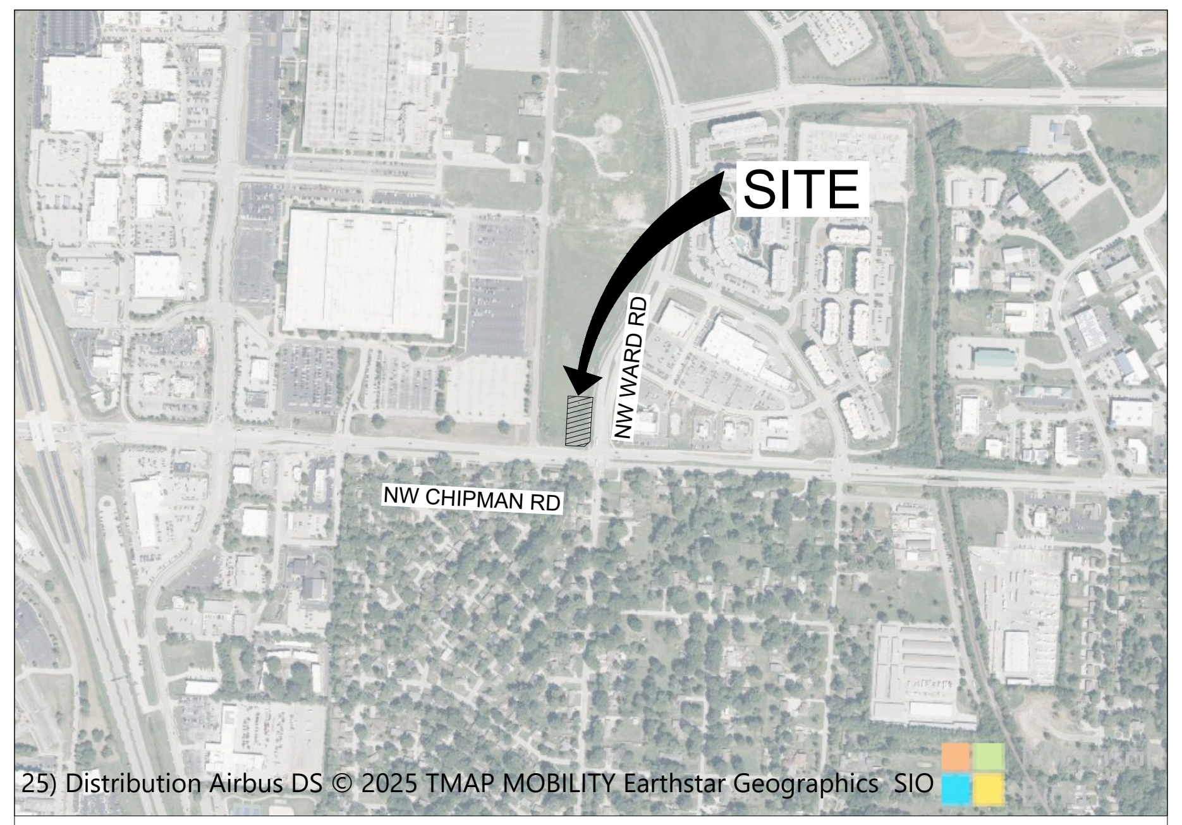
FLOOD INSURANCE RATE MAP

(N.T.S.)

FINAL DEVELOPMENT PLAN

Valvoline
Instant Oil Change

610 NW CHIPMAN RD
LEE'S SUMMIT, MO 64086
JACKSON COUNTY
ZONING: PMIX PLANNED MIXED USE


SITE
NW WARD RD
NW CHIPMAN RD
25) Distribution Airbus DS © 2025 TMAP MOBILITY Earthstar Geographics SIO

LOCATION MAP
(N.T.S)

DRAWING INDEX AND ISSUANCE LOG

PERMIT SET

SHEET #	SHEET NAME	12/05/2025 OWNER REVIEW SET	12/22/2025 PERMIT SET	01/26/2026 PERMIT SET REV1	02/11/2026 PERMIT SET REV2	02/27/2026 PERMIT SET REV3	MM/DD/YYYY REVISION 4	MM/DD/YYYY REVISION 5	MM/DD/YYYY REVISION 6	MM/DD/YYYY REVISION 7	MM/DD/YYYY REVISION 8
C-1.0	COVER SHEET	●	●	●	●	●					
C-1.1	GENERAL NOTES	●	●	●	●	●					
C-3.0	DEMOLITION PLAN	●	●	●	●	●					
C-3.1	EROSION CONTROL PLAN PHASE 1 OF 2	●	●	●	●	●					
C-3.2	EROSION CONTROL PLAN PHASE 2 OF 2	●	●	●	●	●					
C-4.0	SITE PLAN	●	●	●	●	●					
C-4.1	PAVING PLAN	●	●	●	●	●					
C-4.2	UTILITY PLAN	●	●	●	●	●					
C-4.3	OVERALL SITE PLAN					●					
C-5.0	GRADING PLAN	●	●	●	●	●					
C-5.1	STORM DRAIN PLAN	●	●	●	●	●					
C-5.2	PRE-DEVELOPMENT DRAINAGE PLAN	●	●	●	●	●					
C-5.3	POST-DEVELOPMENT DRAINAGE PLAN	●	●	●	●	●					
C-6.0	LANDSCAPE PLAN	●	●	●	●	●					
C-6.1	LANDSCAPE DETAILS	●	●	●	●	●					
C-6.2	IRRIGATION PLAN	●	●	●	●	●					
C-6.3	IRRIGATION DETAILS	●	●	●	●	●					
C-8.0	PHOTOMETRIC PLAN	●	●	●	●	●					
C-10.0	DETAILS SHEET 1 OF 5	●	●	●	●	●					
C-10.1	DETAILS SHEET 2 OF 5	●	●	●	●	●					
C-10.2	DETAILS SHEET 3 OF 5	●	●	●	●	●					
C-10.3	DETAILS SHEET 4 OF 5	●	●	●	●	●					
C-10.4	DETAILS SHEET 5 OF 5					●					
ATTACHMENT	ALTA SURVEY 1 OF 2	●	●	●	●	●					
	ALTA SURVEY 2 OF 2	●	●	●	●	●					
	FLOOR PLAN - LOWER LEVEL		●	●	●	●					
	FLOOR PLAN - UPPER LEVEL		●	●	●	●					
	ROOF PLAN AND DETAILS		●	●	●	●					
	OPERATION EQUIPMENT PLAN AND SCHEDULE		●	●	●	●					
	EXTERIOR ELEVATIONS		●	●	●	●					
	DUMPSTER ENCLOSURE		●	●	●	●					
	MECHANICAL DETAILS			●	●	●					
	LIFE SAFETY PLAN					●					

OWNER/DEVELOPER:

VALVOLINE

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HFA

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(479) 273-7780, EXT. 355
(816) 872 -7190
JOB NO. 06-24-20062

SURVEYOR

ALTA/NSPS LAND TITLE SURVEY

ATWELL
1250 EAST DIHL ROAD, SUITE 300
NAPERVILLE, IL 60563
(630) 577-0800
SURVEYOR'S JOB NO. 25006813

GEOTECHNICAL ENGINEER:

ECS MIDWEST, LLC
1575 BARCLAY BOULEVARD
BUFFALO GROVE, IL 60089
(847) 279-0366
PROJECT NO. 16:15951

MISSOURI 811®

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LUBE EQUIPMENT SUPPLIER
DEVON INDUSTRIES, INC.
BRIAN STOOPS
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GARRETT SMALL

PLANNING & ZONING
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816-969-1238 OR 816-969-1200
HECTOR.SOTO@CITYOFLS.NET

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MARK.SONDER@CITYOFLS.NET

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WATER/WASTEWATER
LEE'S SUMMIT WATER UTILITIES DEPT
816-969-1900

ELECTRIC
EVERGY
PHILLIP INGRAM OR
RON DEJARNETTE
816-347-4339 OR
816-347-4316

GAS
SPIRE
LUCAS WALLS
816-969-2218

TELEPHONE
AT&T
CLAYTON ANSPAUGH
913-383-4929
CA4089@ATT.COM

LEGAL DESCRIPTION PER FIDELITY NATIONAL TITLE INSURANCE COMPANY, TITLE COMMITMENT NO.: KCC251158, COMMITMENT EFFECTIVE DATE: MAY 2, 2025 AT 8:00AM

L 10F, SUMMIT FAIR, LOTS 10D-10F, A SUBDIVISION IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEROF.

FIRE ACCESS ROAD NOTE:

ALL FIRE ACCESS LANES SHALL BE HEAVY DUTY ASPHALT CAPABLE OF SUPPORTING 75,000-POUNDS.

OIL-GAS WELLS:

ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES STATE OIL & GAS COUNCIL WELLS, LOCATED AT WW.DNR.MO.GOV/GEOLOGY/GEOSRV/OILANG.HTM, THERE ARE NO OIL OR GAS WELLS ON THE PROPERTY SHOWN HEREON.

PRE-CONSTRUCTION MEETING NOTE:

THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

HFA
HFA-AE , LTD.

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
t 479.273.7780
f 888.520.9685
www.hfa-ae.com

DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

Diego A. Garcia

06-MAR-26 10:06:45

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

Valvoline
Instant Oil Change

VALVOLINE INSTANT OIL CHANGE

610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
COVER SHEET

SHEET #
C-1.0

Drawing Name: \\HFA-FILE02\2024 Projects\06\06-24-20062 VIOC Lee's Summit, MO (NW Chipman)\04-Design\Civil\DWGs\06-24-20062 - C-1 COVER & NOTES.dwg Last Modified: Mar 06, 2026 - 9:44am Plotted on: Mar 06, 2026 - 9:45am by daniel.friede

GENERAL NOTES

1. THE CONTRACTOR SHALL RETAIN A FULL SET OF LATEST APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS ON SITE DURING ALL CONSTRUCTION ACTIVITIES. LOCAL AUTHORITY'S STANDARDS SHALL SUPERSEDE ALL HFA STANDARDS.
2. THE CONTRACTOR WILL MAINTAIN ANY REQUIRED ACCESS TO ADJACENT PROPERTIES.
3. ANY TEMPORARY CONSTRUCTION EASEMENTS REQUIRED FOR PRIVATE WORK RELATED TO THE PROJECT SHALL BE ACQUIRED BY THE OWNER. NO WORK WILL BE PERFORMED ON PRIVATE PROPERTY WITHOUT WRITTEN PERMISSION OF THE AFFECTED PROPERTY OWNER.
4. COORDINATE START-UP AND ALL CONSTRUCTION ACTIVITIES WITH THE OWNER.
5. CONSTRUCTION METHODS AND MATERIALS, NOT SPECIFIED IN THESE PLANS, ARE TO MEET OR EXCEED THE SITE WORK SPECIFICATIONS PROVIDED BY HFA, OR AS OTHERWISE SPECIFIED BY THE OWNER.
6. ALL CONSTRUCTION WORK AND UTILITY WORK OUTSIDE OF PROPERTY BOUNDARIES SHALL BE PERFORMED IN COOPERATION WITH, AND IN ACCORDANCE WITH, REGULATIONS OF THE AUTHORITIES CONCERNED.
7. PUBLIC CONVENIENCE AND SAFETY: THE CONTRACTOR SHALL CONDUCT ALL WORK IN A MANNER THAT WILL INSURE, AS FAR AS PRACTICABLE, THE LEAST OBSTRUCTION TO TRAFFIC; AND SHALL PROVIDE FOR THE CONVENIENCE AND SAFETY OF THE GENERAL PUBLIC AND RESIDENTS ALONG, AND ADJACENT TO, HIGHWAYS IN THE CONSTRUCTION AREA IN AN ADEQUATE AND SATISFACTORY MANNER, IN ACCORDANCE WITH THE DOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
8. ALL AERIAL IMAGES ARE FOR REFERENCE ONLY AND ARE NOT TO SCALE.
9. ALL IMPORTED FILL SHALL BE FREE OF ROCKS GREATER THAN 12" IN DIAMETER AND ANY DETRIMENTAL ORGANIC MATERIAL OR REFUSE DEBRIS.
10. SAFETY RAILINGS ARE REQUIRED ON ANY RETAINING WALL 30" OR GREATER IN HEIGHT.
11. PROPOSED SPOT ELEVATIONS ARE AT TOP OF FINISHED CURB UNLESS OTHERWISE SPECIFIED.
12. THE GENERAL CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
13. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE. INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY DURING THE DURATION OF THE CONSTRUCTION. THIS WILL BE APPLICABLE 24 HOURS A DAY.
14. ALL DIMENSIONS SHOWN ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
15. ALL SIGNS AND TRAFFIC CONTROL DEVICES TO FOLLOW THE GUIDELINES OF THE MUTCD.
16. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR ALL BUILDING DIMENSIONS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND ENGINEER IN THE EVENT THERE ARE DISCREPANCIES DETERMINED BETWEEN PLANS.
17. THE DESIGN, INSPECTION AND CERTIFICATION OF ANY RETAINING WALL OVER 4FT SHALL BE BY A REGISTERED ENGINEER.
18. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
19. THE CONTRACTOR SHALL ENSURE ALL NECESSARY PERMITS ARE OBTAINED PRIOR TO CONSTRUCTION.
20. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING PARKING, SIDEWALKS, DRIVES, ETC. CLEAR AND FREE FROM ANY CONSTRUCTION ACTIVITY, AND/OR MATERIAL, TO ENSURE EASY AND SAFE PEDESTRIAN AND VEHICULAR TRAFFIC TO AND FROM THE SITE.
21. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF THE PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE POINTS.
22. THE ENGINEER OF RECORD SHALL REVIEW AND APPROVE MATERIAL SUBMITTALS.
23. THE DEMOLITION OF ANY EXISTING UNDERGROUND STORAGE TANKS, FUELING DISPENSERS, OR FUELING RELATED APPURTENANCES SUCH AS SUPPLY LINES, SHALL BE REMOVED PER LOCAL, STATE AND FEDERAL REQUIREMENTS.
24. THE CONTRACTOR SHALL MAINTAIN THE SITE AND PROVIDE 6' TALL CHAIN LINK SECURITY FENCE AROUND THE SITE UNTIL SUCH TIME AS THE OWNER TAKES OVER.
25. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL THROUGHOUT THE PROJECT, INCLUDING PROPER TRAFFIC CONTROL DEVICES AND/OR PERSONNEL AS REQUIRED. THIS INCLUDES BOTH VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH MUTCD.

EROSION CONTROL NOTES

1. EROSION CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO DEMOLITION COMMENCING.
2. IF TOP SOIL OR OTHER SOIL IS TO BE STOCKPILED FOR MORE THAN 30 DAYS, A TEMPORARY COVER OF ANNUAL RYE OR OTHER SUITABLE GRASS SHALL BE PLANTED. STOCKPILE IS TO BE A MINIMUM DISTANCE OF 25' FROM ALL DRAINAGE STRUCTURES.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
4. WHEN SILT FENCE OR WATTLES ARE NOT PLACED AT A CONSTANT ELEVATION FOLLOWING CONTOURS ON STEEP SLOPES, THE "J" HOOK METHOD SHOULD BE USED (AT 50FT INTERVALS) TO CREATE PONDING AND PREVENT EROSION OF THE TRENCH BACKFILL OF SILT FENCE INSTALLATION
5. THE CONTRACTOR SHALL INCORPORATE PERMANENT EROSION CONTROL FEATURES AT THE EARLIEST PRACTICAL TIME. TEMPORARY EROSION CONTROL MEASURES WILL BE USED TO CORRECT CONDITIONS THAT DEVELOP DURING CONSTRUCTION THAT WERE UNFORESEEN DURING THE DESIGN STAGE, THAT ARE NEEDED PRIOR TO INSTALLATION OF PERMANENT EROSION CONTROL FEATURES, OR THAT ARE NEEDED TEMPORARILY TO CONTROL EROSION THAT DEVELOPS DURING NORMAL CONSTRUCTION PROJECTS, BUT ARE NOT ASSOCIATED WITH PERMANENT CONTROL FEATURES ON THE PROJECT.
6. ALL STORM WATER POLLUTION PREVENTION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.
7. ALL WASH WATER FROM CONCRETE TRUCKS, VEHICLE AND EQUIPMENT CLEANING, ETC. SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
8. GENERAL CONTRACTOR SHALL DENOTE THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, AND AREA FOR PORTABLE FACILITIES, OFFICE TRAILERS AND TOILET FACILITIES.
9. THE CONTRACTOR WILL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY SWPPP. ADDITIONAL BMPS SHALL BE IMPLEMENTED AS NECESSARY AS THE PROJECT PROGRESSES AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
10. THE CONTRACTOR SHALL OBTAIN AND FOLLOW THE SWPPP AS APPROVED BY LOCAL AND STATE AGENCIES.
11. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 14 DAYS SHALL REQUIRE TEMPORARY SEED.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM DETENTION STRUCTURES AT ALL POINTS THROUGHOUT CONSTRUCTION.
13. THE CONTRACTOR SHALL ADJUST EROSION CONTROL MEASURES THROUGHOUT GRADING AS NECESSARY TO PERFORM EFFECTIVELY.
14. RE-VEGETATION SHALL BE REQUIRED TO MEET THE FOLLOWING PERFORMANCE STANDARDS (SEDIMENT CONTROLS SHALL REMAIN IN PLACE UNTIL RE-VEGETATION IS ESTABLISHED).
15. A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE REQUIRED TO BE EITHER EXISTING OR INSTALLED IN AREAS TO BE RE-VEGETATED. ANY APPLICATION OF TOPSOIL AND SEEDING UNDER THE DRIP LINE OF A TREE SHOULD BE MINIMIZED TO 3 INCHES SO AS NOT TO DAMAGE THE TREES ROOT SYSTEM.
16. ALL CONSTRUCTION TO BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACK FILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.
17. PROVIDE COMPLETE AND UNIFORM COVERAGE THAT MINIMIZES EROSION AND RUNOFF.
    - A. ZERO TO 10% GRADE: RE-VEGETATION SHALL BE A MINIMUM OF SEEDING AND MULCHING.
    - B. 10:1 UP TO 4:1 GRADE: RE-VEGETATION SHALL BE A MINIMUM OF HYDRO-SEEDING WITH MULCH AND FERTILIZER, SOD, OR GROUNDCOVER. SAID PLANTING SHALL PROVIDE COMPLETE AND UNIFORM COVERAGE THAT MINIMIZES EROSION AND RUNOFF.
    - C. 4:1 TO 3:1 GRADE: THE SLOPE SHALL BE COVERED WITH LANDSCAPE FABRIC AND HYDRO-SEEDED WITH MULCH AND FERTILIZER, OR STAKED SOD, OR GROUNDCOVER. SAID PLANTING SHALL PROVIDE COMPLETE AND UNIFORM COVERAGE THAT MINIMIZES EROSION AND RUNOFF.
    - D. MORE THAN 3:1 GRADE: ANY FINISH GRADE OVER 3:1 SHALL BE STABILIZED WITH ONE OR MORE OF THE FOLLOWING:
    - E. RETAINING WALLS; CRIBBING WITH LANDSCAPE FABRIC; TERRACING WITH GROUNDCOVER; RIPRAP; STAKED SOD (UP TO 2:1 SLOPE)
    - F. IF CRIBBING, TERRACING, OR RIPRAP IS USED, THE SLOPE'S STABILITY AND ERODIBILITY MUST BE EQUIVALENT TO OR BETTER THAN ITS PREDEVELOPMENT STATE.

20. PERMANENT EROSION CONTROL: THE DEVELOPER SHALL INCORPORATE PERMANENT EROSION CONTROL FEATURES AT THE EARLIEST PRACTICAL TIME. TEMPORARY EROSION CONTROL MEASURES WILL BE USED TO CORRECT CONDITIONS THAT DEVELOP DURING CONSTRUCTION THAT WERE UNFORESEEN DURING THE DESIGN STAGE, THAT ARE NEEDED PRIOR TO INSTALLATION OF PERMANENT EROSION CONTROL FEATURES, OR THAT ARE NEEDED TEMPORARILY TO CONTROL EROSION THAT DEVELOPS DURING NORMAL CONSTRUCTION PROJECTS, BUT ARE NOT ASSOCIATED WITH PERMANENT CONTROL FEATURES ON THE PROJECT.
21. DUST: WHERE EXCESSIVE DUST MAY BECOME A PROBLEM, A PLAN FOR SPRAYING WATER ON HEAVILY TRAVELED DIRT AREAS SHALL BE ADDRESSED.
22. CONSTRUCTION EXITS: A STABILIZED ROCK EXIT IS REQUIRED ON CONSTRUCTION SITES. ROCK EXITS MUST BE AT LEAST 20' WIDE BY 50' LONG BY 6" THICK STABILIZED ROCK HAVING A MINIMUM AVERAGE DIAMETER OF 3". IF THERE IS AN EXISTING CURB, LOOSE MATERIAL SUCH AS FILL DIRT OR GRAVEL SHALL NOT BE USED TO RAMP UP TO IT FROM THE STREET. TEMPORARY WOODEN RAMPS IN FRONT OF CURBS ARE ACCEPTABLE.
23. DEBRIS, MUD, AND SOIL IN PUBLIC STREETS: DEBRIS, MUD AND SOIL SHALL NOT BE ALLOWED ON PUBLIC STREETS BUT IF ANY DEBRIS, MUD, OR SOIL FROM DEVELOPMENT SITES REACHES THE PUBLIC STREET IT SHALL BE IMMEDIATELY REMOVED VIA SWEEPING OR OTHER METHODS OF PHYSICAL REMOVAL. DEBRIS, MUD, OR SOIL IN THE STREET MAY NOT BE WASHED OFF THE STREET OR WASHED INTO THE STORM DRAINAGE SYSTEM. STORM DRAINAGE SYSTEMS DOWNSTREAM OF A DEVELOPMENT SITE SHOULD BE PROTECTED FROM DEBRIS, MUD, OR SOIL IN THE EVENT THAT DEBRIS, MUD, OR SOIL REACHES THE DRAINAGE SYSTEM.
24. FRANCHISE AND PRIVATE UTILITIES: THE PROPERTY OWNER OR MAIN CONTRACTOR ONSITE WILL BE RESPONSIBLE FOR RESTORING ALL EROSION AND SEDIMENT CONTROL SYSTEMS AND PUBLIC INFRASTRUCTURE DAMAGED OR DISTURBED BY UNDERGROUND PRIVATE OR FRANCHISE UTILITY CONSTRUCTION SUCH AS WATER AND SEWER SERVICE LEADS, TELEPHONE, GAS, CABLE, ETC. EROSION AND SEDIMENT CONTROL SYSTEMS MUST BE IMMEDIATELY RESTORED AFTER EACH UTILITY CONSTRUCTION.

MISSOURI 811

EROSION CONTROL PLANNING SEQUENCE TO BE USED (IF NOT SPECIFIED ON EROSION CONTROL PLAN)

PHASE I

1. INSTALL STABILIZED CONSTRUCTION ENTRANCES/EXITS.
2. PREPARE TEMPORARY PARKING AND STORAGE AREAS. UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING: TRAILERS, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASH-OUT, MASON'S AREA, FUEL AND MATERIALS STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., DENOTE THEM ON THE SITE MAPS THROUGHOUT THE CONSTRUCTION PROGRESS.
3. CONSTRUCT THE SILT FENCES ON THE SITE.
4. HALT ALL ACTIVITIES AND CONTACT THE CIVIL ENGINEER CONSULTANT TO PERFORM INSPECTION OF BMPS. GENERAL CONTRACTOR SHALL SCHEDULE AND CONDUCT STORM WATER PRE-CONSTRUCTION MEETING WITH ENGINEER AND ALL GROUND-DISTURBING CONTRACTORS BEFORE PROCEEDING WITH CONSTRUCTION.
5. CLEAR AND GRUB THE SITE.
6. START CONSTRUCTION OF THE BUILDING PAD AND STRUCTURES.
7. BEGIN GRADING THE SITE.

PHASE II

1. TEMPORARILY SEED DISTURBED AREAS.
2. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
3. INSTALL RIP-RAP AROUND OUT STRUCTURES.
4. INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES.
5. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.
6. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IF SITE IS STABILIZED.

DEMOLITION NOTES

1. THE LOCATION OF THE UTILITIES SHOWN HAVE BEEN DETERMINED BY INFORMATION GATHERED AND SHALL NOT BE USED AS EXACT. CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES TO VERIFY EXACT LOCATIONS PRIOR TO DEMOLITION.
2. THE CONTRACTOR SHALL COORDINATE WITH THE PROPER UTILITY COMPANIES FOR REMOVAL AND RELOCATIONS OF THE RESPECTIVE UTILITY. THE CONTRACTOR SHALL VERIFY ANY WORK THAT MAY BE DONE BY THE UTILITY COMPANIES.
3. CONTRACTOR SHALL PROTECT THE PUBLIC WITH BEST MANAGEMENT PRACTICES.
4. CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING STRUCTURES, PAVEMENT, AND VEGETATION THAT IS NOT TO BE DISTURBED AND IS RESPONSIBLE FOR ANY DAMAGES TO THEM.
5. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL MATERIALS RESULTING FROM OPERATION ACCORDING TO GOVERNING AUTHORITIES AND SHALL OBTAIN THE PROPER PERMITS REQUIRED FOR DISPOSAL AND DEMOLITION.
6. THE CONTRACTOR SHALL MAINTAIN CONTINUOUS ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION AND AVOID ANY PROPERTY DAMAGE DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL DEVICES PRIOR TO DEMOLITION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SERVICES TO ANY NECESSARY UTILITIES DURING CONSTRUCTION.
9. FOR ALL ITEMS NOTED TO BE REMOVED, REMOVE NOT ONLY THE ABOVE GROUND ELEMENTS, BUT ALSO REMOVE ALL UNDERGROUND ELEMENTS AS WELL INCLUDING, BUT NOT LIMITED TO; FOUNDATIONS, GRAVEL FILLS, TREE ROOTS, PIPES, TANKS, ETC.
10. BACKFILL ALL EXCAVATIONS RESULTING FROM THE DEMOLITION WORK MEETING THE REQUIREMENTS FOR FILL OUTLINED IN THE GEOTECHNICAL INVESTIGATION REPORT FOR THIS SITE.
11. ASBESTOS AND ANY OTHER HAZARDOUS MATERIAL SHALL BE PROPERLY PERMITTED AND REMOVED BY THE CONTRACTOR. CONTRACTOR SHALL SECURE ALL PERMITS FOR DEMOLITION AND REMOVAL OF MATERIALS FROM THE SITE.
12. LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE PLANS. ANY DAMAGE INCURRED TO ANY SURROUNDING AREAS SHALL BE REPAIRED / REPLACED AT THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL PROTECT EXISTING ADJACENT STRUCTURES, PAVEMENT, UTILITIES, LANDSCAPE, ETC. FROM DAMAGE DURING CONSTRUCTION.
13. DEMOLITION AND REMOVAL OF UNDERGROUND STORAGE TANKS, FUELING DISPENSERS, AND FUELING RELATED APPURTENANCES SUCH AS SUPPLY LINES SHALL BE REMOVED AND DISPOSED OF PER LOCAL, STATE, AND FEDERAL REQUIREMENTS. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF SUPPLY LINES AND APPURTENANCES AND REMOVE PER REQUIREMENTS. CONTRACTOR SHALL SECURE ALL PERMITS FOR DEMOLITION AND REMOVAL OF MATERIALS FROM THE SITE.
14. CONTRACTOR SHALL ENSURE THAT SERVICES TO ALL UTILITIES TO BE REMOVED HAS BEEN DISCONTINUED AND SHUT OFF. ALL UTILITY LINES SHALL BE CAPPED PER UTILITY COMPANY STANDARDS.
15. CONTRACTOR SHALL COORDINATE WITH ADJACENT PROPERTY OWNERS PRIOR TO DEMOLITION OF MATERIALS ALONG PROPERTY LINES.

SITE NOTES

1. UNLESS OTHERWISE SHOWN, ALL CURB RADII SHALL BE 5'.
2. ASPHALT CONCRETE SURFACE AND BASE COURSE MATERIALS SHOULD MEET OR EXCEED THE REQUIREMENTS AS OUTLINED IN THE SPECIFICATIONS OR AS SPECIFIED BY THE STATE OR LOCAL JURISDICTION, WHICHEVER IS MORE STRINGENT.
3. AN INDEPENDENT TESTING LABORATORY, SELECTED AND PAID FOR BY THE CONTRACTOR AND APPROVED BY THE OWNER, SHALL BE RETAINED TO PERFORM CONSTRUCTION TESTING OF IN-PLACE ASPHALT CONCRETE COURSES FOR COMPLIANCE WITH REQUIREMENTS FOR THICKNESS AND SURFACE SMOOTHNESS REQUIREMENTS AS SPECIFIED IN THE CONSTRUCTION SPECIFICATIONS.
4. ALL REMOVAL OF ASPHALT PAVEMENT WILL BE SAW CUT.
5. CURBS MUST BE CAULKED BEFORE BACKFILLED AND STREET PAVED. ACCEPTABLE SUPPLIERS ARE: OMNI SEAL 50, PERCORA 864 AND 865, DOW CORNING 888, OR PRE-APPROVED EQUAL.
6. CONCRETE PIPE SHALL MEET LOCAL JURISDICTION OR DOT SPECS. NO DAMAGED OR REPAIRED PIPE WILL BE ALLOWED.
7. ANY DAMAGE TO THE EXISTING PUBLIC STREET DUE TO CONSTRUCTION SHALL BE REPAIRED/REPLACED AT THE CONTRACTORS EXPENSE.
8. PROVIDE A SMOOTH LINE BY FULL DEPTH SAW CUT FOR STREET WIDENING (TYP).
9. ALL EXISTING CURB CUTS WILL BE REMOVED AND REPLACED WITH STANDARD CURB, ANY CURB TO REMAIN THAT IS CURRENTLY DAMAGED OR CRACKED SHALL BE REMOVED AND REPLACED WITH STANDARD CURB, AND CURB DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED.
10. DRIVEWAY APPROACHES SHALL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE WITH A BROOM FINISH.
11. DETECTABLE WARNINGS ARE REQUIRED WHEN CONSTRUCTING OR ALTERING CURB RAMPS. A 24 IN WIDE STRIP OF DETECTABLE WARNING (TRUNCATED DOMES) SHOULD BE INSTALLED AT THE BOTTOM OF A CURB RAMP TO INDICATE THE TRANSITION FROM THE SIDEWALK TO THE STREET OR AS INDICATED ON DRAWINGS.
12. MINIMUM DENSITY FOR ASPHALT SHALL BE 92% OF THE MAXIMUM THEORETICAL DENSITY.
13. SUBGRADE SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR.
14. BASE COURSE SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR ON LOCAL AND RESIDENTIAL STREETS.

CONCRETE NOTES:

15. CONCRETE PAVING AND STRUCTURES SHOULD CONFORM TO PROJECT SPECIFICATION AND DETAILS. IF A DISCREPANCY IS FOUND THE MORE STRINGENT SHALL APPLY.
16. AN INDEPENDENT TESTING LABORATORY, SELECTED AND PAID FOR BY THE CONTRACTOR, AND APPROVED BY OWNER, SHALL BE RETAINED TO PERFORM CONSTRUCTION TESTING OF CONCRETE FOR COMPLIANCE WITH REQUIREMENTS OF THE CONSTRUCTION SPECIFICATIONS.
17. VERTICAL CONCRETE SURFACES EXPOSED TO THE GENERAL PUBLIC SHALL BE WET-RUBBED TO A SMOOTH FINISH AFTER FORMS HAVE BEEN REMOVED. HORIZONTAL SURFACES SHALL BE BROOMED AS REQUIRED IN THE CONSTRUCTION SPECIFICATIONS.

PAVING NOTES

1. PLACE EXPANSION JOINT BETWEEN MEDIUM DUTY AND HEAVY DUTY CONCRETE.
2. CONTRACTOR TO PROVIDE DIAGONAL CONTROL JOINT FROM CORNERS OF PAVING TRANSITIONS.

GRADING NOTES

1. PROPOSED CONTOURS ARE AT FINISHED GRADE.
2. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY BUILDING AND PAVING. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON SITE. EXCESS TOPSOIL MAY BE WASTED IN FILL SLOPES, EXCEPT THAT NO TOPSOIL WILL BE WASTED WITHIN 10 FEET OF THE EDGE OF THE BUILDING OR PAVED AREA. BURNING OF TIMBER AND DEBRIS SHALL COMPLY WITH AHJ ORDINANCES.
3. AREAS TO RECEIVE FILL SHALL BE SCARIFIED AND THE TOP 8 INCH DEPTH COMPACTED TO 95% STANDARD PROCTOR OF THE MAXIMUM LABORATORY DENSITY. ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED.
4. OFF-SITE FILL MATERIAL (GRAVELLY CLAY), SHALL HAVE A PLASTICITY INDEX OF 15 OR LESS AND A CBR VALUE GREATER THAN 3. OFF-SITE FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER PRIOR TO BRINGING ON SITE.
5. AREAS THAT ARE TO BE CUT TO SUBGRADE LEVELS SHALL BE PROOF-ROLLED WITH A FULLY LOADED TANDEM-AXLE DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOILS. CUT AREAS ARE TO BE SCARIFIED AND RECOMPACTED TO 95% STANDARD PROCTOR AND TESTED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF BASE MATERIAL.
6. IN ALL AREAS OF EXCAVATION, IF UNSUITABLE SOILS ARE ENCOUNTERED, A QUALIFIED GEOTECHNICAL ENGINEER SHALL RECOMMEND TO THE OWNER ON THE METHODS OF UNDERCUTTING AND REPLACEMENT OF PROPERLY COMPACTED, APPROVED FILL MATERIAL. ALL PROOF-ROLLING AND UNDERCUTTING SHALL BE PERFORMED DURING A SUFFICIENT DURATION OF DRY WEATHER.
7. AN INDEPENDENT CERTIFIED TESTING LABORATORY, SELECTED AND PAID FOR BY THE CONTRACTOR, AND APPROVED BY THE OWNER, SHALL BE RETAINED TO PERFORM CONSTRUCTION TESTING OF THE SUBGRADE FOR COMPLIANCE WITH THE MINIMUM REQUIREMENTS OF SUBGRADE COMPACTION. FOR BASE COURSE AND ASPHALT PAVING SEE TYPICAL SECTIONS AND SPECS.
8. ALL SLOPES ARE TO BE 3H:1V OR FLATTER UNLESS OTHERWISE INDICATED.
9. CONTRACTOR SHALL REFER TO THE STORMWATER POLLUTION PREVENTION PLAN AND REPORT FOR STORMWATER QUALITY CONTROL INCLUDING EROSION AND SEDIMENT CONTROL. PROPER MEASURES SHALL BE PRACTICED TO PREVENT EROSION ALONG THE EDGE OF PROPERTY, TOE OF SLOPE, AND ALONG DITCHES. MUD AND DEBRIS ARE NOT ALLOWED TO FLOW ONTO ADJACENT PROPERTIES OR PUBLIC ROADWAYS.
10. THE CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS.
11. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL PERMIT REQUIREMENTS FOR THE DISPOSAL OF MATERIALS FROM THE SITE.
12. ALL DISTURBED AREAS SHALL RECEIVE 4 INCHES OF TOPSOIL AND BE RE-VEGETATED. VEGETATION MUST BE ESTABLISHED TO MINIMIZE EROSION PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
13. PRIOR TO THE INSTALLATION OF STORM OR SANITARY SEWER, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL CROSSINGS AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS PRIOR TO CONSTRUCTION. THE ENGINEER WILL NOT BE HELD LIABLE IF THE ENGINEER IS NOT NOTIFIED OF DESIGN CONFLICTS.
14. ALL GRADED AND OTHERWISE DISTURBED AREAS SHALL BE STABILIZED WITHIN 15 DAYS IMMEDIATELY AFTER GRADING OR DISTURBANCE HAS CEASED.
15. PERMANENT IMPROVEMENTS SUCH AS STREETS, STORM SEWERS, CURB AND GUTTERS, AND OTHER FEATURES FOR CONTROL OF RUNOFF SHALL BE SCHEDULED COINCIDENTAL TO REMOVING VEGETATIVE COVER FROM THE AREA SO THAT LARGE AREAS ARE NOT LEFT EXPOSED BEYOND THE CAPACITY OF TEMPORARY CONTROL MEASURES.
16. EROSION AND SEDIMENT CONTROL SYSTEMS MUST BE IMMEDIATELY RESTORED AFTER EACH UTILITY CONSTRUCTION. THE PROPERTY OWNER OR MAIN CONTRACTOR ONSITE WILL BE RESPONSIBLE FOR RESTORING ALL EROSION AND SEDIMENT CONTROL SYSTEMS AND PUBLIC INFRASTRUCTURE DAMAGED OR DISTURBED BY UNDERGROUND PRIVATE OR FRANCHISE UTILITY CONSTRUCTION SUCH AS WATER AND SEWER SERVICE LEADS, TELEPHONE, GAS, CABLE, ETC.
17. ALL CURBS SHALL BE 6 INCHES ABOVE FINISH GRADE UNLESS OTHERWISE SPECIFIED.
18. PRIOR TO DEMOLITION OCCURRING, EROSION CONTROL DEVICES ARE TO BE INSTALLED PER BMP SEQUENCE.
19. ALL STORM SEWER PIPE CONNECTIONS TO STRUCTURES SHALL BE GROUTED TO INSURE CONNECTION AT STRUCTURE IS WATER TIGHT. ALL STORM SEWER STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.
20. ALL DRAINAGE STRUCTURES SHALL MEET H20 LOADING WHEN IN PAVED TRAFFIC AREAS. AND BE FLUSH WITH FINISHED GRADES IN PAVED AREAS.
21. EXISTING DRAINAGE STRUCTURES TO REMAIN SHALL BE INSPECTED AND REPAIRED AS NECESSARY. REMOVE ALL SILT AND DEBRIS.
22. FILLS SHALL BE LIMITED TO 10FT VERTICAL HEIGHT UNLESS INFORMATION DEMONSTRATING SLOPE STABILITY, EROSION CONTROL, AND DRAINAGE CONTROL IS PROVIDED ALONG WITH RE-VEGETATION.
23. TRANSITION GUTTER TO ALLOW A 4 INCH DEPRESSION AT CURB INLETS. (12FT FOR UPSTREAM SIDE AND SAGS AND 4FT FOR DOWNSTREAM SIDE)
24. STEPS ARE REQUIRED IN STORM DRAIN MANHOLES THAT ARE AT 4FT OF DEPTH AND GREATER. CENTERLINE OF MANHOLE LID SHALL BE 2FT FROM THE WALL WHERE STEPS ARE LOCATED. STEPS SHALL BE COPOLYMER POLYPROPYLENE PLASTIC WITH STEEL CORE.
25. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR PAVED AND UNPAVED AREAS.
26. PIPE LENGTHS SHOWN ARE APPROXIMATE. CONTRACTOR TO CONFIRM ALL PIPE LENGTHS.

UTILITY NOTES

1. EXISTING UTILITIES SHOWN ON PLANS HAVE BEEN SHOWN IN THEIR APPROXIMATE LOCATIONS PER AVAILABLE INFORMATION.
2. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE APPROPRIATE UTILITY AUTHORITIES, AND THE OWNER, AND CONTRACTOR HAVE BEEN NOTIFIED BY HFA.
3. CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP ANY WATER MAIN UNLESS DULY AUTHORIZED TO DO SO BY THE AHJ. ANY ADVERSE CONSEQUENCES OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE LIABILITY OF THE CONTRACTOR. HFA AND THE OWNER ARE TO BE HELD HARMLESS.
4. ALL TRENCHING, BACKFILLING AND PIPE LAYING IS TO MEET ALL OSHA REQUIREMENTS.
5. THE LOCATION, DESCRIPTION AND SIZE OF ALL ABOVE-GROUND AND UNDER-GROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN DETERMINED WITH DUE CARE AND DILIGENCE, USING CURRENT TECHNIQUES, EQUIPMENT AND PROPER ACCURACY CONTROL PROCEDURES. HOWEVER, INFORMATION SHOWN HEREON IS NOT WARRANTED TO BE CORRECT IN EVERY DETAIL BECAUSE OF INACCURACIES IN OR LACK OF EXISTING DATA OR MAPS AND THE INABILITY TO VERIFY IN THE FIELD. PERSONS USING INFORMATION CONTAINED HEREON ARE HEREBY CAUTIONED ACCORDINGLY.
6. REFER TO BUILDING PLANS FOR SITE LIGHTING ELECTRICAL PLANS.
7. ALL DESIGNS ARE SUBJECT TO THE AHJ'S LATEST DESIGN CRITERIA (WATER, SEWER, STREETS AND DRAINAGE). REVIEW FOR PLAT APPROVAL IS NOT APPROVAL OF PUBLIC IMPROVEMENTS, AND ALL PROPOSED IMPROVEMENTS ARE SUBJECT TO FURTHER REVIEW AT THE TIME CONSTRUCTION PLANS ARE SUBMITTED.
8. WATER AND SEWER IMPACT FEES WILL APPLY FOR THE ADDITIONAL IMPACT TO THE SYSTEM. THE FEES WILL BE BASED ON THE AHJS STANDARD REQUIREMENTS. THESE WILL BE PAID FOR BY THE OWNER.
9. ALL UTILITY SERVICE LINES TO BE CONNECTED TO NEW MAINS OR RELOCATED AS NEEDED FOR INSTALLATION OF STORM SEWER SYSTEM.
10. ALL CONDUITS PLACED BY CONTRACTOR MUST HAVE 48" OF COVER AT FINAL GRADE AND MARKED WITH POSTS TO IDENTIFY THE ENDS OF CONDUITS. THERE MUST BE A MINIMUM SEPARATION OF 12" BETWEEN ELECTRICAL CONDUITS AND CONDUITS FOR OTHER UTILITIES.
11. SERVICE TAPS ON EXISTING MAINS SHALL BE MADE BY THE CITY, AND FEES PAID BY OWNER.
12. ALL UNDERGROUND LINES TO BE INSPECTED PRIOR TO BACK FILLING.
13. DIMENSIONS SHOWN ARE TO CENTER OF PIPE OR FITTING.
14. TESTING OF WATER AND SEWER LINES SHALL BE AT CONTRACTOR'S EXPENSE.
15. TOPS OF EXISTING MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS, AND MANHOLES IN UNPAVED AREAS ARE TO BE 1" ABOVE FINISHED GRADES.
16. ALL UTILITIES UNDER PAVED AREAS SHALL RECEIVE HIGH-QUALITY GRANULAR BASE COURSE BACKFILL FULL DEPTH.
17. MAINTAIN MINIMUM HORIZONTAL SEPARATION OF 10' BETWEEN WATER AND SEWER AND 5' BETWEEN OTHER UNDERGROUND UTILITIES SUCH AS STORM SEWER, ELECTRICAL, GAS, AND CONDUITS.
18. ALL WATER, GAS AND ELECTRICAL METERS WITHIN THE PROJECT AREA ARE TO BE ABANDONED AND RETURNED TO THE APPROPRIATE AUTHORITY.
19. COORDINATION OF ALL CONDUIT PLACEMENT SHALL BE MADE WITH UTILITY PROVIDERS AND INSTALLED BY GENERAL CONTRACTOR.
20. ALL WATER AND SEWER FORCE MAIN FITTINGS SHALL BE RESTRAINED THROUGH THE USE OF THRUST BLOCKING PER DETAIL SHEETS OR APPROVED EQUAL.
21. PROPOSED UTILITIES THAT ARE TO BE BURIED IN THE SAME TRENCH SHALL BE COORDINATED WITH AND APPROVED BY THE INVOLVED UTILITIES.
22. THE CONTRACTOR SHALL FIELD VERIFY DEPTH AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION OF PROPOSED UTILITIES. ALL PROPOSED UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH GOVERNING AGENCY.
23. THE GOVERNING AHJ SHALL BE NOTIFIED NO LESS THAN 48 HOURS PRIOR TO THE INSTALLATION OF PUBLIC UTILITIES, INFRASTRUCTURE, ROADWAY, ETC. TESTING SHALL BE COORDINATED WITH THE AHJ BY THE ENGINEER OF RECORD AS REQUIRED.
24. CONTRACTOR TO CONFIRM ALL CLEARANCE HEIGHTS OF OVERHEAD UTILITIES. IF FINISHED ELEVATION OF GRADING REDUCES CLEARANCE OF LOWEST LINE TO LESS THAN 16.5', CONTRACTOR SHALL CONTACT UTILITY, OWNER, AND ENGINEER. HFA IS NOT RESPONSIBLE FOR ANY DAMAGE TO OVERHEAD UTILITIES.

LANDSCAPE NOTES

1. ALL PLANT MATERIAL TO ARRIVE AT THE SITE WITH MOIST SOIL.
2. STRUCTURAL SOIL MUST BE INDICATED ON PLANS AND INSPECTED BY THE LANDSCAPE ARCHITECT AT THE TIME OF INSTALLATION.
3. WHEEL STOPS OR CURB ARE REQUIRED BETWEEN PARKING AND LANDSCAPING.
4. WIRE BASKETS AND BURLAP TO BE REMOVED DURING TREE PLANTING.
5. LOCATE ALL UTILITIES AND SITE LIGHTING CONDUITS BEFORE LANDSCAPE CONSTRUCTION BEGINS. LANDSCAPE CONTRACTOR TO CONTACT "ONE CALL" PRIOR TO BEGINNING WORK.
6. NOTIFY THE PROFESSIONAL OF RECORD OR THEIR DESIGNATED REPRESENTATIVE OF ANY LAYOUT DISCREPANCIES PRIOR TO PLANTING.
7. MAINTAIN 5' MIN HORIZONTAL SEPARATION BETWEEN TREE PLANTINGS AND WATER SANITARY SEWER LINES.
8. ALL PLANTING TO BE COMPLETED ACCORDING TO DETAILS, SPECIFICATIONS OR AHJ REQUIREMENTS, WHICHEVER IS MORE STRINGENT.
9. ALL PLANT MATERIALS SHALL MEET REQUIREMENTS ESTABLISHED BY THE AMERICAN STANDARD OF NURSERY STOCK.
10. ALL DISTURBED AREAS NOT RECEIVING PLANTINGS OR SOD, SHALL RECEIVE SEEDING PER LANDSCAPE PLAN. THESE AREAS SHOULD RECEIVE WATER UNTIL GRASS HAS BEEN ESTABLISHED.
11. IF IRRIGATION IS NOT TO BE INSTALLED, SUFFICIENT HOSE BIBS SHALL BE INSTALLED TO MEET THE NEEDS OF SITE PLANTINGS.
12. PLANT QUANTITIES SHOWN IN PLANT SCHEDULE ARE FOR REFERENCE ONLY AND SHALL BE VERIFIED WITH THE PLAN BY THE LANDSCAPE CONTRACTOR.
13. ALL TREES AND NATURAL AREAS SHOWN ON THE PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.
14. PROTECTIVE FENCES SHALL BE ERECTED ACCORDING TO DETAILS FOR TREE PROTECTION, IF REQUIRED.
15. PROTECTIVE FENCES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
16. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIPLINES.
17. PROTECTIVE FENCES SHALL SURROUND THE TREES OR GROUP OF TREES AND WILL BE LOCATED AT OR BEYOND THE DRIPLINE. FOR NATURAL AREAS, PROTECTIVE FENCES SHALL FOLLOW THE LIMIT OF CONSTRUCTION LINE, IN ORDER TO PREVENT THE FOLLOWING: A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT. B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6"). C. WOUNDS TO EXPOSED ROOTS, TRUNK, OR LIMBS BY MECHANICAL EQUIPMENT. D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.
18. EXCEPTIONS TO INSTALLING FENCES AT DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:
    - A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT.
    - B. WHERE PERMEABLE PAVING IS TO BE INSTALLED WITHIN A TREE'S DRIPLINE, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
    - C. WHERE TREES ARE CLOSE TO PROPOSED BUILDING, ERECT THE FENCE TO ALLOW 6 TO 10 FEET OF WORKSPACE BETWEEN THE FENCE AND THE BUILDING.
    - D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS.
    - E. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN 4 FEET TO A TREE TRUNK. PROTECT THE TRUNK WITH STRAPPED ON PLANKING TO A HEIGHT OF 8 FEET (OR LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.

20. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
21. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL, BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
22. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
23. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
24. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS.
25. ALL FINISHED PRUNING MUST BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE AMERICAN NATIONAL STANDARD, ANSI-A300 PRUNING, 2008 OR LATER)

IRRIGATION NOTES

1. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO STARTING WORK ON THE SITE. UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATED, AND SHOULD BE VERIFIED ON THE CIVIL UTILITY PLAN AND IN THE FIELD.
2. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, LICENSES, METERS, TAPS, AND IMPACT FEES REQUIRED TO INSTALL THE SYSTEM.
3. CONTRACTOR SHALL REFER TO THE IRRIGATION PLAN FOR HEAD, LINE, AND VALVE PLACEMENT RELATIVE TO THE PROPOSED PLANTING PLAN. IRRIGATION SYSTEM SHALL PROVIDE 100% HEAD-TO-HEAD COVERAGE.
4. CONTRACTOR SHALL ADJUST HEADS AND NOZZLES TO PROVIDE 100% COVERAGE IN THE AREAS INDICATED ON THE PLAN. AVOID CONFLICTS WITH EXISTING AND PROPOSED PLANT MATERIAL, PAVING, STRUCTURES, AND UTILITY LINES. ADJUSTABLE ARC NOZZLES SHALL BE SUBSTITUTED IN PLACE OF FIXED ARC NOZZLES AS NECESSARY TO PREVENT OVER SPRAY ONTO PAVEMENT. IRRIGATION HEADS SHALL BE PLACED AND ADJUSTED TO PREVENT SPRAY ONTO BUILDINGS OR WALKWAYS.
5. VERIFY IN THE FIELD, THE LOCATION OF LINES, HEADS, OR VALVES WITHIN THE DRIP LINE OF ANY EXISTING TREES. HAND EXCAVATE OR BORE WITHIN THE DRIPLINE OF ANY TREE.
6. IRRIGATION CONTRACTOR SHALL COORDINATE INSTALLATION OF THE SYSTEM WITH THE LANDSCAPE CONTRACTOR SO THAT ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS.
7. THE PROFESSIONAL OF RECORD OR OWNER'S REPRESENTATIVE SHALL APPROVE THE FLAGGED LAYOUT OF THE SYSTEM PRIOR TO TRENCHING.
8. ALL MAIN LINE PIPING SHALL BE BURIED TO HAVE A MINIMUM COVER OF 18". ALL LATERAL PIPING DOWNSTREAM OF THE MAINLINE SHALL BE BURIED TO HAVE A MINIMUM COVER OF 12".
9. ALL WIRING FROM THE IRRIGATION CONTROLLER TO THE REMOTE CONTROL VALVES SHALL BE UF-14 DIRECT BURIAL CABLE. ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES ONLY.
10. THE IRRIGATION CONTRACTOR IS RESPONSIBLE TO COORDINATE THE PLACEMENT OF SLEEVES PRIOR TO PAVING. SLEEVE MATERIAL SHALL BE SCHEDULE 40 AND AT A MINIMUM DEPTH OF 18".
11. THE IRRIGATION CONTRACTOR IS REQUIRED TO REPAIR WITH APPROVED IN KIND MATERIALS ANY DAMAGE INCLUDING BUT NOT LIMITED TO: THE BUILDING, STRUCTURES, PAVING, OR PLANTINGS. DAMAGE TO UTILITIES BY THE IRRIGATION CONTRACTOR SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE, AND THE REGULATING UTILITY PROVIDER.
12. CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DISCREPANCIES IN EQUIPMENT USAGE, AREA DIMENSIONS OR STATIC WATER PRESSURE EXIST THAT MIGHT NOT HAVE BEEN PRESENT OR KNOWN INFORMATION IN THE DESIGN. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISION NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
13. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL LAWNS DISTURBED OUTSIDE OF OF CONSTRUCTION DISTURBANCE AREAS. ALL IRRIGATION DISTURBANCE OUTSIDE OF CONSTRUCTION DISTURBANCE SHALL HAVE THE TRENCHES BACKFILLED WITH TOPSOIL, AS DESCRIBED IN THE GENERAL LANDSCAPE NOTES AND BE GRADED SMOOTH PER THE GRADING PLAN. IRRIGATION CONTRACTOR SHALL FOLLOW THE GENERAL LANDSCAPE NOTES FOR SEEDING OR SODDING FOR REPAIRING REQUIRED LAWN AREAS.

CITY NOTES

1. ALL CONSTRUCTION SHALL FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813. WHERE DISCREPANCIES EXIST BETWEEN THESE PLANS AND THE DESIGN AND CONSTRUCTION MANUAL, THE DESIGN AND CONSTRUCTION MANUAL SHALL PREVAIL.
2. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

HFA
HFA-AE , LTD.

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DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

06-MAR-26 10:07:11

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

Valvoline
Instant Oil Change

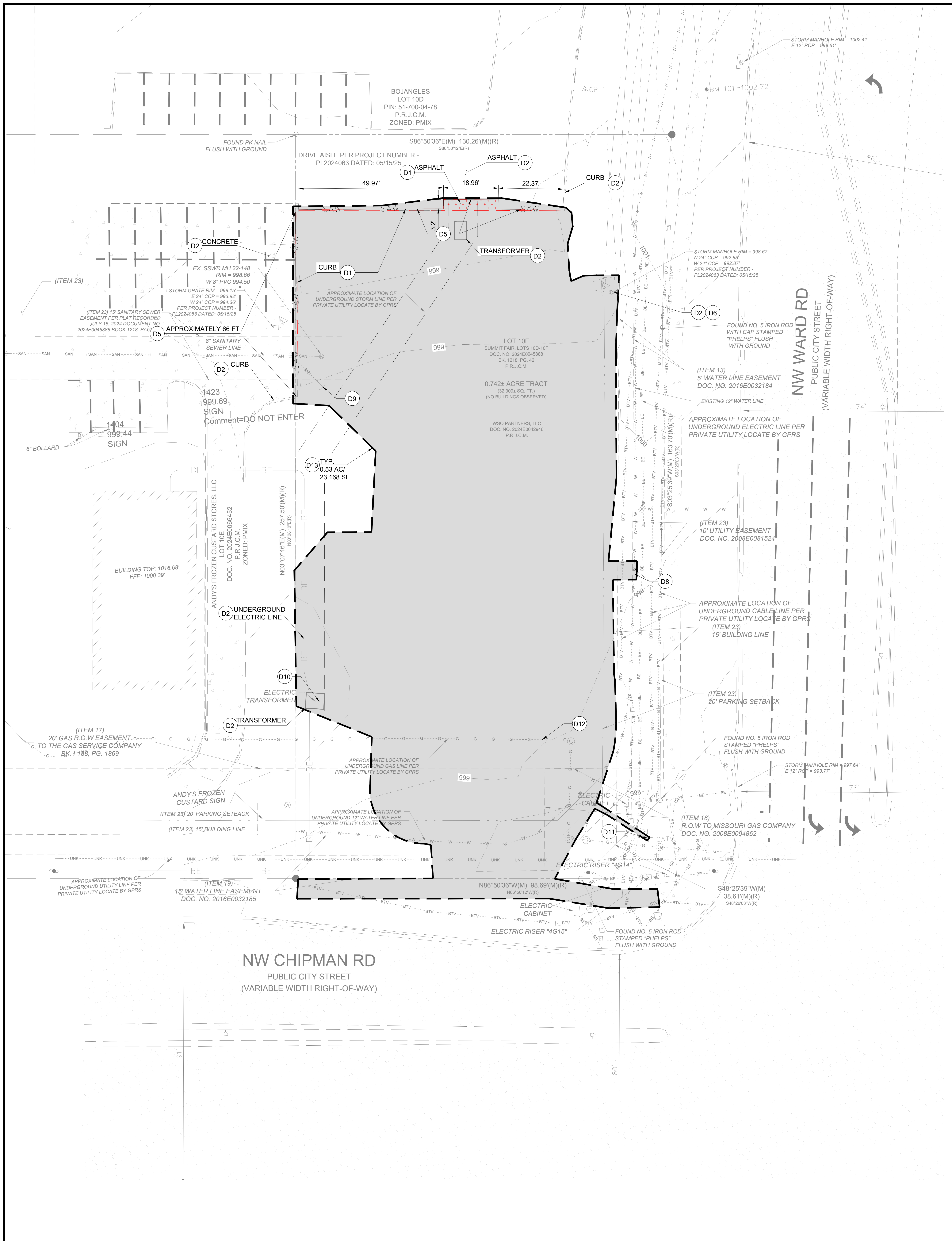
VALVOLINE INSTANT OIL CHANGE

610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
GENERAL NOTES

SHEET #
C-1.1



BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
ZONED: PMIX
FOUND PK NAIL FLUSH WITH GROUND
S86°50'36"E(M) 130.26'(M)(R)
S86°50'12"E(R)
DRIVE AISLE PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
D1 ASPHALT
ASPHALT D2
CURB D2
49.97'
18.96'
22.37'
3.2'
SAW
D5
TRANSFORMER D2
D2 CONCRETE
CURB D1
(ITEM 23)
EX. SSWR MH 22-148
RIM = 998.66
W 8" PVC 994.50
STORM GRATE RIM = 998.15'
E 24" CCP = 993.92'
W 24" CCP = 994.36'
PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
(ITEM 23) 15' SANITARY SEWER EASEMENT PER PLAT RECORDED JULY 15, 2024 DOCUMENT NO. 2024E0045888 BOOK 1218, PAGE
D5 APPROXIMATELY 66 FT
8" SANITARY SEWER LINE
D2 CURB
APPROXIMATE LOCATION OF UNDERGROUND STORM LINE PER PRIVATE UTILITY LOCATE BY GPRS
999
D9
1423
999.69
SIGN
Comment=DO NOT ENTER
1404
999.44
SIGN
6" BOLLARD
D13 TYP.
0.53 AC/
23,168 SF
LOT 10F
SUMMIT FAIR, LOTS 10D-10F
DOC. NO. 2024E0045888
BK. 1218, PG. 42
P.R.J.C.M.
0.742± ACRE TRACT
(32,309± SQ. FT.)
(NO BUILDINGS OBSERVED)
WSO PARTNERS, LLC
DOC. NO. 2024E0042946
P.R.J.C.M.
BUILDING TOP: 1016.68'
FFE: 1000.39'
ANDY'S FROZEN CUSTARD STORES, LLC
LOT 10E
DOC. NO. 2024E0066452
P.R.J.C.M.
ZONED: PMIX
N03°07'46"E(M) 257.50'(M)(R)
N03°08'10"E(R)
D2 UNDERGROUND ELECTRIC LINE
D10
ELECTRIC TRANSFORMER
D2 TRANSFORMER
(ITEM 17)
20' GAS R.O.W EASEMENT TO THE GAS SERVICE COMPANY BK. I-188, PG. 1869
APPROXIMATE LOCATION OF UNDERGROUND GAS LINE PER PRIVATE UTILITY LOCATE BY GPRS
ANDY'S FROZEN CUSTARD SIGN
(ITEM 23) 20' PARKING SETBACK
(ITEM 23) 15' BUILDING LINE
APPROXIMATE LOCATION OF UNDERGROUND 12" WATER LINE PER PRIVATE UTILITY LOCATE BY GPRS
APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINE PER PRIVATE UTILITY LOCATE BY GPRS
(ITEM 19)
15' WATER LINE EASEMENT
DOC. NO. 2016E0032185
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
STORM MANHOLE RIM = 1002.41'
E 12" RCP = 999.61'
CP 1
BM 101=1002.72
86'
STORM MANHOLE RIM = 998.67'
N 24" CCP = 992.85'
W 24" CCP = 992.87'
PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
D2 D6
FOUND NO. 5 IRON ROD WITH CAP STAMPED "PHELPS" FLUSH WITH GROUND
(ITEM 13)
5' WATER LINE EASEMENT
DOC. NO. 2016E0032184
EXISTING 12" WATER LINE
APPROXIMATE LOCATION OF UNDERGROUND ELECTRIC LINE PER PRIVATE UTILITY LOCATE BY GPRS
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
74'
S03°25'39"W(M) 163.70'(M)(R)
S03°26'03"W(R)
(ITEM 23)
10' UTILITY EASEMENT
DOC. NO. 2008E0081524
D8
APPROXIMATE LOCATION OF UNDERGROUND CABLE LINE PER PRIVATE UTILITY LOCATE BY GPRS
(ITEM 23)
15' BUILDING LINE
(ITEM 23)
20' PARKING SETBACK
D12
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
STORM MANHOLE RIM = 997.64'
E 12" RCP = 993.77'
78'
ELECTRIC CABINET
D11
(ITEM 18)
R.O.W TO MISSOURI GAS COMPANY
DOC. NO. 2008E0094862
ELECTRIC RISER "4G14"
N86°50'36"W(M) 98.69'(M)(R)
N86°50'12"W(R)
S48°25'39"W(M)
38.61'(M)(R)
S48°26'03"W(R)
ELECTRIC CABINET
ELECTRIC RISER "4G15"
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
1001
1000
998
91'
80'

GENERAL DEMOLITION NOTES:

1. ANY DEMOLITION IS TO BE PERFORMED IN STRICT CONFORMANCE WITH ALL APPLICABLE CITY, COUNTY AND STATE, AND/OR GOVERNING BODY'S STANDARDS.
2. THE DEMOLITION PLAN SHALL BE DONE IN CONJUNCTION WITH THE GEOTECHNICAL INVESTIGATION REPORT.
3. EROSION AND SEDIMENT CONTROL MEASUREMENTS SHALL BE MAINTAINED AT ALL TIMES DURING DEMOLITION.
4. THE PURPOSE OF THIS DRAWING IS TO CONVEY THE OVERALL SCOPE OF WORK AND IT IS NOT INTENDED TO COVER ALL DETAILS OR SPECIFICATIONS REQUIRED TO COMPLY WITH GENERALLY ACCEPTED DEMOLITION PRACTICES. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE SITE, SCOPE OF WORK, AND ALL EXISTING CONDITIONS AT THE JOB SITE PRIOR TO BIDDING AND COMMENCING THE WORK. THE DEMOLITION CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, OR PROCEDURES USED TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND IS LIABLE FOR THE SAFETY OF THE PUBLIC OR CONTRACTOR'S EMPLOYEES DURING THE COURSE OF THE PROJECT.
5. THE DEMOLITION PLAN IS INTENDED TO SHOW REMOVAL OF KNOWN SITE FEATURES AND UTILITIES AS SHOWN ON THE SURVEY. THERE MAY BE OTHER SITE FEATURES, UTILITIES, STRUCTURES, AND MISCELLANEOUS ITEMS BOTH BURIED AND ABOVE GROUND THAT ARE WITHIN THE LIMITS OF WORK THAT MAY NEED TO BE REMOVED FOR THE PROPOSED PROJECT THAT ARE NOT SHOWN HEREON. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF SUCH ITEMS AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL CONTACT RESPECTIVE UTILITY COMPANIES PRIOR TO DEMOLITION TO COORDINATE DISCONNECTION AND REMOVAL OF EXISTING UTILITIES WITHIN THE AREA OF WORK.
6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES THAT ARE INTENDED TO CONTINUE TO PROVIDE SERVICE WHETHER THESE UTILITIES ARE SHOWN ON THE PLAN OR NOT.
7. UPON DISCOVERY OF ANY UNDERGROUND TANKS, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE. NO REMOVAL OF TANKS SHALL OCCUR UNTIL AUTHORIZED BY OWNER.
8. BUILDING AND APPURTENANCES DESIGNATED FOR DEMOLITION SHALL NOT BE DISTURBED BY THE CONTRACTOR UNTIL HE HAS FURNISHED WITH NOTICE TO PROCEED BY THE OWNER. AS SOON AS SUCH NOTICE HAS BEEN GIVEN, THE CONTRACTOR SHALL PERFORM THE DEMOLITION, UNDER THE DIRECTION OF THE OWNER'S REPRESENTATIVE.
9. ALL EXISTING UTILITIES WITHIN THE EXISTING BUILDING ARE TO BE REMOVED, WHERE CONFLICTS OCCUR WITH GRADE, BEAMS, PILES, PROPOSED UTILITIES AND TRENCH BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS AND GEOTECHNICAL REPORT.
10. FOUNDATIONS, FLOORS, FLOOR SLABS, AND ANY OTHER UNDERGROUND BUILDING STRUCTURES SHALL BE REMOVED IN ACCORDANCE WITH THE SPECIFICATIONS. AREAS OF STRUCTURE REMOVAL SHALL BE BACKFILLED IN ACCORDANCE WITH SPECIFICATIONS AND THE GEOTECHNICAL REPORT.
11. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL UNSUITABLE MATERIAL AND DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL CITY, STATE, AND FEDERAL LAWS AND ORDINANCES.
12. ALL MATERIAL, EXCEPT THAT BELONGING TO A PUBLIC UTILITY COMPANY OR DENOTED FOR SALVAGE, SHALL BECOME PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE OWNER OF WATER, ELECTRIC, OR GAS METERS WHEN THE METERS ARE READY FOR REMOVAL, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTING ALL UTILITIES IN COMPLIANCE WITH LOCAL REQUIREMENTS. DISCONNECT TRANSFORMERS AS REQUIRED FOR BUILDING DEMOLITION.
13. AS SOON AS DEMOLITION WORK HAS BEEN COMPLETED, THE FINAL GRADE OF BACKFILL IN DEMOLITION AREAS SHALL BE COMPACTED PER THE GEOTECHNICAL REPORT TO PRESENT A NEAT, WELL DRAINED APPEARANCE, AND TO PREVENT WATER FROM DRAINING UNNECESSARILY ONTO ADJACENT PROPERTIES. CONTRACTOR SHALL GRADE SITE TO EXISTING STORM DRAINAGE SYSTEM TO REMAIN ON SITE.
14. EXISTING TREES TO REMAIN SHOULD BE PROTECTED FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION.
15. THE CONTRACTOR IS TO COORDINATE WORK IN THIS PROJECT TO ENSURE ACCESS TO ADJACENT PROPERTIES AT ALL TIMES.
16. THE USE OF EXPLOSIVES SHALL NOT BE PERMITTED.

DEMOLITION KEY NOTES

#

D1	EXISTING TO BE REMOVED
D2	EXISTING TO REMAIN
D5	LIMITS OF SAWCUT AND FULL DEPTH PAVEMENT REMOVAL
D6	EXISTING STRUCTURE TO BE PROTECTED DURING DEMOLITION AND CONSTRUCTION PHASES.
D8	CONTRACTOR TO COORDINATE WITH LOCAL WATER SEWER DEPARTMENT FOR POINT OF CONNECTION
D9	CONTRACTOR TO COORDINATE WITH LOCAL SANITARY SEWER DEPARTMENT FOR POINT OF CONNECTION
D10	CONTRACTOR TO COORDINATE WITH LOCAL ELECTRIC COMPANY FOR POINT OF CONNECTION
D11	CONTRACTOR TO COORDINATE WITH LOCAL TELEPHONE COMPANY FOR POINT OF CONNECTION
D12	CONTRACTOR TO COORDINATE WITH LOCAL GAS COMPANY FOR POINT OF CONNECTION
D13	DEMOLITION LIMITS

EXISTING LEGEND

———	BOUNDARY LINE	○	FOUND SURVEY MONUMENT
— — —	BOUNDARY ADJACENT / ROW LINE	●	SET SURVEY MONUMENT
— — —	EASEMENT LINE	△	SITE CONTROL POINT
═ ═ ═	EXISTING CURB LINE	◐	SITE BENCHMARK
- - -STS- - -STS- - -	UNDERGROUND STORM LINE	P.R.J.C.M.	PUBLIC RECORDS OF JACKSON COUNTY, MISSOURI
- - -BE- - -BE- - -	UNDERGROUND ELECTRIC LINE		
- - -UNK- - -UNK- - -	UNSPECIFIED UTILITY LINE	DOC. NO.	DOCUMENT NUMBER
- - -W- - -W- - -	UNDERGROUND WATER LINE	BK. , PG.	BOOK, PAGE
- - -G- - -G- - -	UNDERGROUND GAS LINE	○—	EXISTING HYDRANT
- - -BTV- - -BTV- - -	UNDERGROUND CABLE LINE	Ⓔ	EXISTING ELECTRIC METER
585	EXISTING MAJOR GROUND CONTOUR	☐ E	EXISTING ELECTRIC RISER
586	EXISTING GROUND CONTOUR	🅃	EXISTING TELEPHONE HAND HOLE
		🄵	EXISTING FIBER OPTIC HAND HOLE
▨	EXISTING BUILDING	Ⓡ	EXISTING STORM MANHOLE/CATCH BASIN
		Ⓢ	EXISTING SANITARY MANHOLE
░	EXISTING ASPHALT	Ⓣ	EXISTING TELEPHONE MANHOLE
		☐	EXISTING STORM INLET
░	EXISTING CONCRETE	Ⓑ	EXISTING BOLLARD
		Ⓦ	EXISTING WATER METER
⊡	EXISTING TRAFFIC SIGNAL	Ⓖ	EXISTING GAS VALVE
☼	EXISTING LIGHT POLE	☐ CATV	EXISTING CABLE RISER
		●	EXISTING UTILITY POLE

PROPOSED LEGEND

━━ ▪▪ ━━ ▪▪ ━━	PROPERTY LINE
▬ ▬ ▬ ▬ ▬	LIMITS OF DISTURBANCE
——SAW——	PROPOSED SAW CUT
⊞	ASPHALT TO BE REMOVED.
▩	AREA OF DISTURBANCE

SURVEY PROVIDED BY:

ATWELL
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800

DATED: 15 SEPTEMBER, 2025

N

20 15 10 5 0 10 20 30 40

SCALE: 1 inch = 20 ft.

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DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER
PE-2023012235

Diego A. Garcia

06-MAR-26 10:07:16

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

Valvoline
Instant Oil Change

VALVOLINE
INSTANT
OIL CHANGE

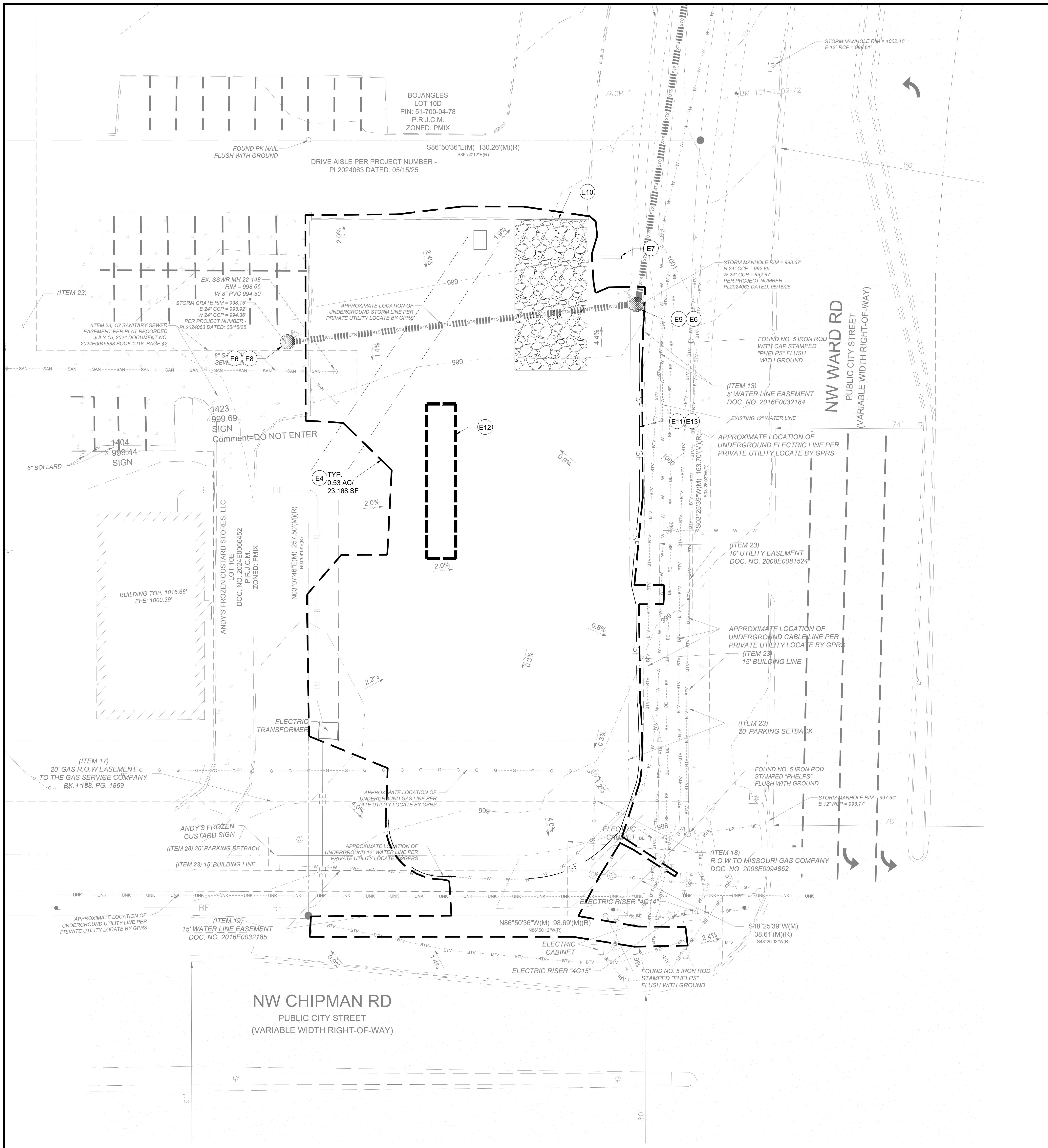
610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
DEMOLITION PLAN

SHEET #
C-3.0

Drawing Name: \\HFA-FILE01\2024 Projects\06\06-24-20062 VIOC Lee's Summit, MO (NW Chipman)\04-Design\Civil\DWGs\06-24-20062 – C-3 DEMO & EROSION.dwg Last Modified: Feb 27, 2026 – 8:22am Plotted on: Mar 06, 2026 – 9:45am by daniel.friede


BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
ZONED: PMIX
FOUND PK NAIL FLUSH WITH GROUND
S86°50'36"E(M) 130.26'(M)(R)
S86°50'12"E(R)
DRIVE AISLE PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
CP 1
BM 101=1002.72
STORM MANHOLE RIM = 1002.41'
E 12" RCP = 999.61'
86'
E10
E7
STORM MANHOLE RIM = 998.67'
N 24" CCP = 992.85'
W 24" CCP = 992.87'
PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
E9
E6
(ITEM 23)
EX. SSWR MH 22-148
RIM = 998.66
W 8" PVC 994.50
STORM GRATE RIM = 998.15'
E 24" CCP = 993.92'
W 24" CCP = 994.36'
PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
(ITEM 23) 15' SANITARY SEWER EASEMENT PER PLAT RECORDED JULY 15, 2024 DOCUMENT NO. 2024E0045888 BOOK 1218, PAGE 42
APPROXIMATE LOCATION OF UNDERGROUND STORM LINE PER PRIVATE UTILITY LOCATE BY GPRS
E6
E8
999
2.0%
2.4%
1.9%
1.4%
4.4%
1001
FOUND NO. 5 IRON ROD WITH CAP STAMPED "PHELPS" FLUSH WITH GROUND
(ITEM 13) 5' WATER LINE EASEMENT DOC. NO. 2016E0032184
EXISTING 12" WATER LINE
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
74'
1423
999.69
SIGN
Comment=DO NOT ENTER
1404
999.44
SIGN
6" BOLLARD
E12
E11
E13
E4
TYP.
0.53 AC/
23,168 SF
APPROXIMATE LOCATION OF UNDERGROUND ELECTRIC LINE PER PRIVATE UTILITY LOCATE BY GPRS
1000
0.9%
S03°25'39"W(M) 163.70'(M)(R)
S03°26'03"W(R)
(ITEM 23) 10' UTILITY EASEMENT DOC. NO. 2008E0081524
ANDY'S FROZEN CUSTARD STORES, LLC
LOT 10E
DOC. NO. 2024E0066452
P.R.J.C.M.
ZONED: PMIX
N03°07'46"E(M) 257.50'(M)(R)
N03°08'10"E(R)
BUILDING TOP: 1016.68'
FFE: 1000.39'
0.8%
0.3%
2.2%
APPROXIMATE LOCATION OF UNDERGROUND CABLE LINE PER PRIVATE UTILITY LOCATE BY GPRS
(ITEM 23) 15' BUILDING LINE
(ITEM 23) 20' PARKING SETBACK
ELECTRIC TRANSFORMER
(ITEM 17) 20' GAS R.O.W EASEMENT TO THE GAS SERVICE COMPANY BK. I-188, PG. 1869
APPROXIMATE LOCATION OF UNDERGROUND GAS LINE PER PRIVATE UTILITY LOCATE BY GPRS
4.0%
1.2%
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
STORM MANHOLE RIM = 997.64'
E 12" RCP = 993.77'
78'
ANDY'S FROZEN CUSTARD SIGN
(ITEM 23) 20' PARKING SETBACK
(ITEM 23) 15' BUILDING LINE
APPROXIMATE LOCATION OF UNDERGROUND 12" WATER LINE PER PRIVATE UTILITY LOCATE BY GPRS
ELECTRIC CABINET
998
(ITEM 18) R.O.W TO MISSOURI GAS COMPANY DOC. NO. 2008E0094862
ELECTRIC RISER "4G14"
APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINE PER PRIVATE UTILITY LOCATE BY GPRS
(ITEM 19) 15' WATER LINE EASEMENT DOC. NO. 2016E0032185
N86°50'36"W(M) 98.69'(M)(R)
N86°50'12"W(R)
S48°25'39"W(M)
38.61'(M)(R)
S48°26'03"W(R)
2.4%
ELECTRIC CABINET
ELECTRIC RISER "4G15"
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
91'
80'

GENERAL EROSION NOTES:

A. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF MISSOURI, MORA PERMIT FOR STORM WATER DISCHARGES AND BECOME FAMILIAR WITH THEIR CONTENTS.

B. THE TEMPORARY PARKING AND STORAGE AREA SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AREA, EQUIPMENT CLEANING AREA, EMPLOYEE BREAK AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES. THE EXACT LOCATIONS SHALL BE COORDINATED WITH THE OWNERS CONSTRUCTION MANAGER.

C. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN THESE MATERIALS AND STORM WATER THAT IS DISCHARGED FROM THE SITE.

D. MAINTAIN ON THE SITE OR HAVE READILY AVAILABLE SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

E. DUST ON THE SITE SHALL BE CONTROLLED BY SPRAYING WATER ON DRY AREAS OF THE SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

F. NO RUBBISH, TRASH, GARBAGE, OR OTHER SUCH MATERIALS SHALL BE DISCHARGED INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

G. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.

H. NEW OR AFFECTED CUT OR FILLED SLOPES MUST BE AT AN ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER, AND MUST BE PROVIDED WITH A GROUND COVER SUFFICIENT TO RETAIN EROSION WITHIN 21 CALENDAR DAYS OF COMPLETION OF ANY PHASE (ROUGH OR FINAL) OF GRADING.

I. A PERMANENT GROUND COVER, SUFFICIENT RESTRAIN EROSION, MUST BE PROVIDED WITHIN THE SHORTER OF 15 WORKING OR 90 CALENDAR DAYS (IF IN A HIGH QUALITY ZONE, THE SHORTER OF 15 WORKING OR 60 CALENDAR DAYS) AFTER COMPLETION OF CONSTRUCTION OR DEVELOPMENT ON ANY PORTION OF THE TRACT.

J. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. THE EXACT LOCATIONS SHALL BE COORDINATED WITH THE OWNERS CONSTRUCTION MANAGER.

K. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

L. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION/RETENTION POND AFTER THE STABILIZATION OF THE SITE AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS. CONTRACTORS OR SUBCONTRACTORS WILL ALSO BE RESPONSIBLE TO CLEAN THE SWALE FROM ANY SEDIMENT IF NECESSARY.

M. IF SOIL STOCKPILING IS EMPLOYED ON THE SITE, SILT FENCES SHALL BE USED TO HELP CONTAIN THE SEDIMENT.

N. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

O. SEDIMENT BASINS ARE ATTRACTIVE TO CHILDREN AND CAN BE VERY DANGEROUS. IN ALL CASES, LOCAL ORDINANCES AND REGULATIONS REGARDING HEALTH AND SAFETY MUST BE ADHERED TO.

P. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER FINAL STABILIZATION. FINAL STABILIZATION HAS OCCURRED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OF THE COVER FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES HAS BEEN EMPLOYED.

Q. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, SILT DIKES, ETC.) TO HELP PREVENT EROSION AND STORM WATER POLLUTION.

R. ALL OFF-SITE CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR STORM DRAINS & UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURE SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF OF THE SILT FENCE.
4. THE VEHICLE TRACKING CONTROL SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRED PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
6. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.

PROJECT INFORMATION

THE PROPOSED PROJECT WILL CONSTRUCT A VEHICLE SERVICE STATION CONSISTING OF A 1,462 S.F. BUILDING AND ASSOCIATED PARKING AREA.

ACREAGE OF SITE IS 0.742 ACRES.

DISTURBED ACREAGE OF SITE (INCLUDING OFF-SITE WORK) IS 0.53 ACRES.

ANTICIPATED CONSTRUCTION START DATE IS JUNE 5, 2026 AND COMPLETION DATE IS DECEMBER 7, 2026.

VALVOLINE'S CONTRACTOR TO TAKE APPROPRIATE MEASURES TO KEEP SEDIMENT FROM ESCAPING SITE AND ALL ACCUMULATED SEDIMENT SHALL BE CLEANED OUT AND REMOVED FROM SITE.

EXISTING LEGEND:

─────	BOUNDARY LINE	○	FOUND SURVEY MONUMENT
── ── ──	BOUNDARY ADJACENT / ROW LINE	●	SET SURVEY MONUMENT
─ ─ ─ ─	EASEMENT LINE	△	SITE CONTROL POINT
═ ═ ═	EXISTING CURB LINE	◕	SITE BENCHMARK
---STS-----STS---	UNDERGROUND STORM LINE	P.R.J.C.M.	PUBLIC RECORDS OF JACKSON COUNTY, MISSOURI
---BE-----BE---	UNDERGROUND ELECTRIC LINE		
---UNK-----UNK---	UNSPECIFIED UTILITY LINE	DOC. NO.	DOCUMENT NUMBER
---W-----W---	UNDERGROUND WATER LINE	BK. , PG.	BOOK, PAGE
---G-----G---	UNDERGROUND GAS LINE		EXISTING HYDRANT
---BTV-----BTV---	UNDERGROUND CABLE LINE	Ⓔ	EXISTING ELECTRIC METER
585	EXISTING MAJOR GROUND CONTOUR	☐ E	EXISTING ELECTRIC RISER
586	EXISTING GROUND CONTOUR	Ⓣ	EXISTING TELEPHONE HAND HOLE
		Ⓕ	EXISTING FIBER OPTIC HAND HOLE
▨	EXISTING BUILDING	Ⓡ	EXISTING STORM MANHOLE/CATCH BASIN
		Ⓢ	EXISTING SANITARY MANHOLE
	EXISTING ASPHALT	Ⓣ	EXISTING TELEPHONE MANHOLE
		☐	EXISTING STORM INLET
	EXISTING CONCRETE	Ⓑ	EXISTING BOLLARD
		Ⓦ	EXISTING WATER METER
	EXISTING TRAFFIC SIGNAL	Ⓖ	EXISTING GAS VALVE
☼	EXISTING LIGHT POLE	☐ CATV	EXISTING CABLE RISER
		●	EXISTING UTILITY POLE

PROPOSED LEGEND

───── ─ ─ ─────	PROPERTY LINE
────XXXX────	CONTOUR ELEVATIONS
▬ ▬ ▬ ▬	LIMIT OF DISTURBED AREA
	TEMPORARY CONSTRUCTION EXIT
──── SF ────	SEDIMENTATION/SILT FENCE WITH WIRE SUPPORT
⊠	CONCRETE WASHOUT AREA
[▬ ▬]	STABILIZED STAGING AREA
	EROSION EELS SEDIMENT BARRIER

KEY NOTES

#

E4	LIMIT OF DISTURBED AREA
E6	EXISTING STRUCTURE TO BE PROTECTED DURING DEMOLITION AND CONSTRUCTION PHASES.
E7	SWPPP SIGN.
E8	PROTECT STORM SEWER STRUCTURE (BLOCK AND AGGREGATE JUNCTION/GRATE INLET BOX SEDIMENT DEVICE). SEE DETAIL ON SHEET C-10.2.
E9	PROTECT STORM SEWER CURB INLET (BLOCK AND AGGREGATE CURB INLET SEDIMENT DEVICE). SEE DETAIL ON SHEET C-10.2.
E10	CONSTRUCTION ENTRANCE TO BE INSTALLED PRIOR TO CONSTRUCTION ACTIVITIES. SEE DETAIL ON SHEET C-10.2.
E11	SILT FENCE TO BE INSTALLED PRIOR TO CONSTRUCTION ACTIVITIES. SEE DETAIL ON SHEET C-10.2.
E12	STORAGE/STAGING AREA.
E13	SILT FENCE INSTALLATION AND CONDITION TO BE INSPECTED, ASSESSED, AND REPORTED ON TO THE CITY OF LEE'S SUMMIT OR ACTING RESIDENT ENGINEER. REPORTS TO BE MADE ON A WEEKLY BASIS TO MAINTAIN EROSION CONTROLS ALONG ALL PROPERTY BOUNDARIES. SILT FENCING IS TO BE MAINTAINED THROUGHOUT ALL CONSTRUCTION ACTIVITIES. ANY SILT AND/OR SEDIMENT BUILD UP SHALL BE REMOVED AT CONTRACTOR'S EXPENSE IMMEDIATELY AND SILT FENCE SHALL BE RE-INSTALLED AS REQUIRED TO MAINTAIN EROSION CONTROLS.

SEQUENCE OF CONSTRUCTION

PHASE I
1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
2. PREPARE TEMPORARY PARKING AND STORAGE AREA.
3. CONSTRUCT THE SILT FENCES ON THE SITE.
4. INSTALL ALL PERIMETER SEDIMENT MEASURES.
5. INSTALL ALL TEMPORARY EROSION & SEDIMENT CONTROLS AS NEEDED.

PHASE II
6. BEGIN DEMOLISHING SITE.
7. BEGIN GRADING THE SITE.
8. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.
9. TEMPORARILY SEED DENUDED AREAS.
10. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS.
11. INSTALL INLET/FLUME PROTECTION DEVICES.
12. PREPARE SITE FOR PAVING.

PHASE III
13. PAVE SITE.
14. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING, SODDING, AND PERMANENT MATTING BLANKET.
15. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED.

SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TEMPORARY CONTROL MEASURES																								
STRIP & STOCKPILE TOPSOIL																								
STORM FACILITIES																								
TEMPORARY CONSTRUCTION ROADS																								
FOUNDATION / BUILDING CONSTRUCTION																								
SITE CONSTRUCTION																								
PERMANENT CONTROL STRUCTURES																								
FINISH GRADING																								
LANDSCAPING/SEED/FINAL STABILIZATION																								

SURFACE STABILIZATION MEASURES

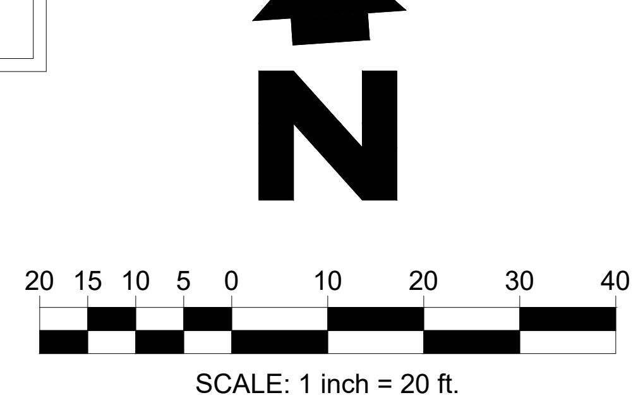
KEY	PRACTICE	DESCRIPTION	NOTES
M	DISTURBED AREA STABILIZATION(W/ MULCHING ONLY)	Temporary protection for disturbed areas; as an erosion retardant cover when temporary grassing is inapplicable.	Straw (1-2 tons/acre), Wood chips (5-6 tons/acre),, Wood fiber (0.5-1 tons/acre), Bark (35 cy/acre), Corn stalks (4-6 tons / acre), or Nets/Mats/Chemical stabilizers applicable
TS	DISTURBED AREA STABILIZATION(W/ TEMP. SEEDING)	Planting rapid-growing annual grasses, small grains, or legumes to provide initial, temporary cover for erosion control on disturbed areas.	May-Aug.: German millet (40 lbs./ac), Aug.-Dec.: Rye grain (120 lbs./ac), Jan.-May: Mixture of Rye grain (120 lbs./ac) and Kobe lespedeza (50 lbs./ac) 750 (1000 lbs.-for Fall) lbs./ac of 10-10-10 fertilizer
PS	DISTURBED AREA STABILIZATION(W/ PERM. SEEDING)	Controlling runoff and preventing erosion by establishing a perennial vegetative cover with seed.	Mixture of Tall fescue (80 lbs./ac) and Kobe lespedeza (40 lbs./ac) with 1000 lbs./ac of 10-10-10 fertilizer and 4,000 lbs./ac of lime *May-Aug.: Add 10 lbs./ac German millet *Oct.-Feb.: Add 40 lbs./ac Rye grain
SO	DISTURBED AREA STABILIZATION(W/ PERM. SODDING)	Transplanting vegetative sections of plant materials to promptly stabilize areas that are subject to erosion.	Warm Season: Hybrid Bermuda grass, Zaysiagrass, Centipede grass, or St Augustine grass Cool Season: Tall fescue/Kentucky bluegrass
DC	DUST CONTROL	Utilize dust control methods whenever there are offsite impacts, especially periods of drought until final stabilization is reached.	Phasing the project, vegetative cover, Mulch, sprinkling water, spray-on-adhesive, calcium chloride, barriers, etc.

24 HR EMERGENCY CONTACT:
JOHN FULK – 913-420-3253

SURVEY PROVIDED BY:

ATWELL
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800

DATED: 15 SEPTEMBER, 2025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SCALE: 1 inch = 20 ft.

HFA-AE , LTD.

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
t 479.273.7780
f 888.520.9685
www.hfa-ae.com

DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

06-MAR-26 10:07:21

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

VALVOLINE INSTANT OIL CHANGE

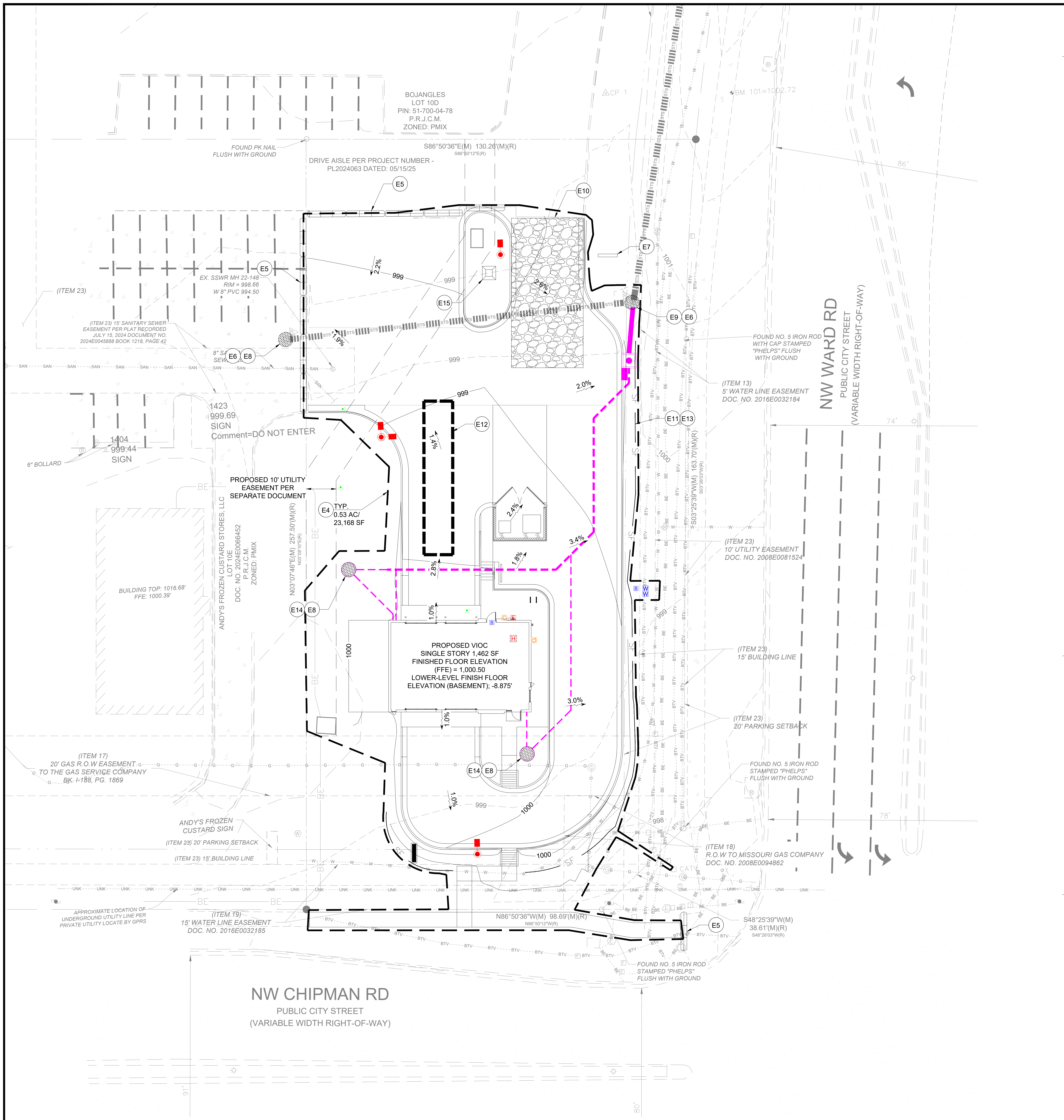
610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
EROSION CONTROL PLAN PHASE 1 OF 2

SHEET #
C-3.1

Chipman)\04-Design\Civil\DWGs\06-24-20062 - C-3 DEMO & EROSION.dwg Last Modified: Feb 27, 2026 - 8:22am Plotted on: Mar 06, 2026 - 9:48am by daniel.friede


BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
ZONED: PMIX
FOUND PK NAIL FLUSH WITH GROUND
DRIVE AISLE PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
S86°50'36"E(M) 130.20'(M)(R)
(ITEM 23)
(ITEM 23) 15' SANITARY SEWER EASEMENT PER PLAT RECORDED JULY 15, 2024 DOCUMENT NO. 2024E0045888 BOOK 1218, PAGE 42
EX. SSWR MH 22-148 RIM = 998.66 W 8" PVC 994.50
1423 999.69 SIGN Comment=DO NOT ENTER
1404 999.44 SIGN
6" BOLLARD
PROPOSED 10' UTILITY EASEMENT PER SEPARATE DOCUMENT
TYP 0.53 AC/ 23,168 SF
ANDY'S FROZEN CUSTARD STORES, LLC LOT 10E DOC. NO. 2024E066452 P.R.J.C.M. ZONED: PMIX
BUILDING TOP: 1016.68' FFE: 1000.39'
N03°07'46"E(M) 257.50'(M)(R)
PROPOSED VIOC SINGLE STORY 1,462 SF FINISHED FLOOR ELEVATION (FFE) = 1,000.50 LOWER-LEVEL FINISH FLOOR ELEVATION (BASEMENT): -8.875'
(ITEM 17) 20' GAS R.O.W EASEMENT TO THE GAS SERVICE COMPANY BK. I-188, PG. 1869
ANDY'S FROZEN CUSTARD SIGN
(ITEM 23) 20' PARKING SETBACK
(ITEM 23) 15' BUILDING LINE
APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINE PER PRIVATE UTILITY LOCATE BY GPRS
(ITEM 19) 15' WATER LINE EASEMENT DOC. NO. 2016E0032185
N86°50'36"W(M) 98.69'(M)(R)
S48°25'39"W(M) 38.61'(M)(R)
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
FOUND NO. 5 IRON ROD WITH CAP STAMPED "PHELPS" FLUSH WITH GROUND
(ITEM 13) 5' WATER LINE EASEMENT DOC. NO. 2016E0032184
(ITEM 23) 10' UTILITY EASEMENT DOC. NO. 2008E0081524
(ITEM 23) 15' BUILDING LINE
(ITEM 23) 20' PARKING SETBACK
(ITEM 18) R.O.W TO MISSOURI GAS COMPANY DOC. NO. 2008E0094862
S03°25'39"W(M) 163.70'(M)(R)
NW WARD RD
PUBLIC CITY STREET (VARIABLE WIDTH RIGHT-OF-WAY)
NW CHIPMAN RD
PUBLIC CITY STREET (VARIABLE WIDTH RIGHT-OF-WAY)
E4 E5 E6 E7 E8 E9 E10 E11 E12 E13 E14 E15
2.0% 1.4% 2.8% 1.8% 3.4% 3.0% 1.0% 2.4% 1.9% 2.6%
999 1000

GENERAL EROSION NOTES:

A. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF MISSOURI, MORA PERMIT FOR STORM WATER DISCHARGES AND BECOME FAMILIAR WITH THEIR CONTENTS.

B. THE TEMPORARY PARKING AND STORAGE AREA SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AREA, EQUIPMENT CLEANING AREA, EMPLOYEE BREAK AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES. THE EXACT LOCATIONS SHALL BE COORDINATED WITH THE OWNERS CONSTRUCTION MANAGER.

C. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN THESE MATERIALS AND STORM WATER THAT IS DISCHARGED FROM THE SITE.

D. MAINTAIN ON THE SITE OR HAVE READILY AVAILABLE SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

E. DUST ON THE SITE SHALL BE CONTROLLED BY SPRAYING WATER ON DRY AREAS OF THE SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

F. NO RUBBISH, TRASH, GARBAGE, OR OTHER SUCH MATERIALS SHALL BE DISCHARGED INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

G. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.

H. NEW OR AFFECTED CUT OR FILLED SLOPES MUST BE AT AN ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER, AND MUST BE PROVIDED WITH A GROUND COVER SUFFICIENT TO RETAIN EROSION WITHIN 21 CALENDAR DAYS OF COMPLETION OF ANY PHASE (ROUGH OR FINAL) OF GRADING.

I. A PERMANENT GROUND COVER, SUFFICIENT RESTRAIN EROSION, MUST BE PROVIDED WITHIN THE SHORTER OF 15 WORKING OR 90 CALENDAR DAYS (IF IN A HIGH QUALITY ZONE, THE SHORTER OF 15 WORKING OR 60 CALENDAR DAYS) AFTER COMPLETION OF CONSTRUCTION OR DEVELOPMENT ON ANY PORTION OF THE TRACT.

J. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. THE EXACT LOCATIONS SHALL BE COORDINATED WITH THE OWNERS CONSTRUCTION MANAGER.

K. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

L. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION/RETENTION POND AFTER THE STABILIZATION OF THE SITE AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS. CONTRACTORS OR SUBCONTRACTORS WILL ALSO BE RESPONSIBLE TO CLEAN THE SWALE FROM ANY SEDIMENT IF NECESSARY.

M. IF SOIL STOCKPILING IS EMPLOYED ON THE SITE, SILT FENCES SHALL BE USED TO HELP CONTAIN THE SEDIMENT.

N. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

O. SEDIMENT BASINS ARE ATTRACTIVE TO CHILDREN AND CAN BE VERY DANGEROUS. IN ALL CASES, LOCAL ORDINANCES AND REGULATIONS REGARDING HEALTH AND SAFETY MUST BE ADHERED TO.

P. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER FINAL STABILIZATION. FINAL STABILIZATION HAS OCCURRED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OF THE COVER FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES HAS BEEN EMPLOYED.

Q. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, SILT DIKES, ETC.) TO HELP PREVENT EROSION AND STORM WATER POLLUTION.

R. ALL OFF-SITE CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR STORM DRAINS & UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURE SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF OF THE SILT FENCE.
4. THE VEHICLE TRACKING CONTROL SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRED PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
6. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.

PROJECT INFORMATION

THE PROPOSED PROJECT WILL CONSTRUCT A VEHICLE SERVICE STATION CONSISTING OF A 1,462 S.F. BUILDING AND ASSOCIATED PARKING AREA.

ACREAGE OF SITE IS 0.742 ACRES.

DISTURBED ACREAGE OF SITE (INCLUDING OFF-SITE WORK) IS 0.53 ACRES.

ANTICIPATED CONSTRUCTION START DATE IS JUNE 5, 2026 AND COMPLETION DATE IS DECEMBER 7, 2026.

VALVOLINE'S CONTRACTOR TO TAKE APPROPRIATE MEASURES TO KEEP SEDIMENT FROM ESCAPING SITE AND ALL ACCUMULATED SEDIMENT SHALL BE CLEANED OUT AND REMOVED FROM SITE.

EXISTING LEGEND

———————	BOUNDARY LINE	○	FOUND SURVEY MONUMENT
—— —— ——	BOUNDARY ADJACENT / ROW LINE	●	SET SURVEY MONUMENT
— — — — —	EASEMENT LINE	△	SITE CONTROL POINT
═ ═ ═ ═ ═	EXISTING CURB LINE	⊕	SITE BENCHMARK
- - STS - - STS - -	UNDERGROUND STORM LINE	P.R.J.C.M.	PUBLIC RECORDS OF JACKSON COUNTY, MISSOURI
- - BE - - BE - -	UNDERGROUND ELECTRIC LINE	DOC. NO.	DOCUMENT NUMBER
- - UNK - - UNK - -	UNSPECIFIED UTILITY LINE	BK. , PG.	BOOK, PAGE
- - W - - W - -	UNDERGROUND WATER LINE		EXISTING HYDRANT
- - G - - G - -	UNDERGROUND GAS LINE	Ⓔ	EXISTING ELECTRIC METER
- - BTV - - BTV - -	UNDERGROUND CABLE LINE	☐ E	EXISTING ELECTRIC RISER
585	EXISTING MAJOR GROUND CONTOUR	🅃	EXISTING TELEPHONE HAND HOLE
586	EXISTING GROUND CONTOUR	🄵	EXISTING FIBER OPTIC HAND HOLE
▨	EXISTING BUILDING	Ⓡ	EXISTING STORM MANHOLE/CATCH BASIN
		Ⓢ	EXISTING SANITARY MANHOLE
	EXISTING ASPHALT	Ⓣ	EXISTING TELEPHONE MANHOLE
		☐	EXISTING STORM INLET
	EXISTING CONCRETE	Ⓑ	EXISTING BOLLARD
		Ⓦ	EXISTING WATER METER
	EXISTING TRAFFIC SIGNAL	Ⓖ	EXISTING GAS VALVE
☼	EXISTING LIGHT POLE	☐ CATV	EXISTING CABLE RISER
		●	EXISTING UTILITY POLE

PROPOSED LEGEND

——— – – ———	PROPERTY LINE
———XXXX———	CONTOUR ELEVATIONS
▬ ▬ ▬ ▬	LIMIT OF DISTURBED AREA
	TEMPORARY CONSTRUCTION EXIT
——— SF ———	SEDIMENTATION/SILT FENCE WITH WIRE SUPPORT
	CONCRETE WASHOUT AREA
	STABILIZED STAGING AREA
	EROSION EELS SEDIMENT BARRIER

KEY NOTES

#

E4	LIMIT OF DISTURBED AREA
E5	EROSION EELS SEDIMENT BARRIER. SEE DETAIL ON SHEET C-10.2.
E6	EXISTING STRUCTURE TO BE PROTECTED DURING DEMOLITION AND CONSTRUCTION PHASES.
E7	SWPPP SIGN.
E8	PROTECT STORM SEWER STRUCTURE (BLOCK AND AGGREGATE JUNCTION/GRATE INLET BOX SEDIMENT DEVICE). SEE DETAIL ON SHEET C-10.2.
E9	PROTECT STORM SEWER CURB INLET (BLOCK AND AGGREGATE CURB INLET SEDIMENT DEVICE). SEE DETAIL ON SHEET C-10.2.
E10	CONSTRUCTION ENTRANCE TO BE INSTALLED PRIOR TO CONSTRUCTION ACTIVITIES. SEE DETAIL ON SHEET C-10.2.
E11	SILT FENCE TO BE INSTALLED PRIOR TO CONSTRUCTION ACTIVITIES. SEE DETAIL ON SHEET C-10.2.
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E14	PROPOSED STRUCTURES TO BE PROTECTED DURING CONSTRUCTION PHASES.
E15	CONCRETE WASHOUT. SEE DETAIL ON SHEET C-10.2.

SEQUENCE OF CONSTRUCTION

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SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
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JOHN FULK – 913-420-3253

SURVEY PROVIDED BY:

ATWELL
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800

DATED: 15 SEPTEMBER, 2025

N

20 15 10 5 0 10 20 30 40
SCALE: 1 inch = 20 ft.

HFA
HFA-AE , LTD.

1705 S. Walton Blvd., Suite 3
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PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

06-MAR-26 10:07:26

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

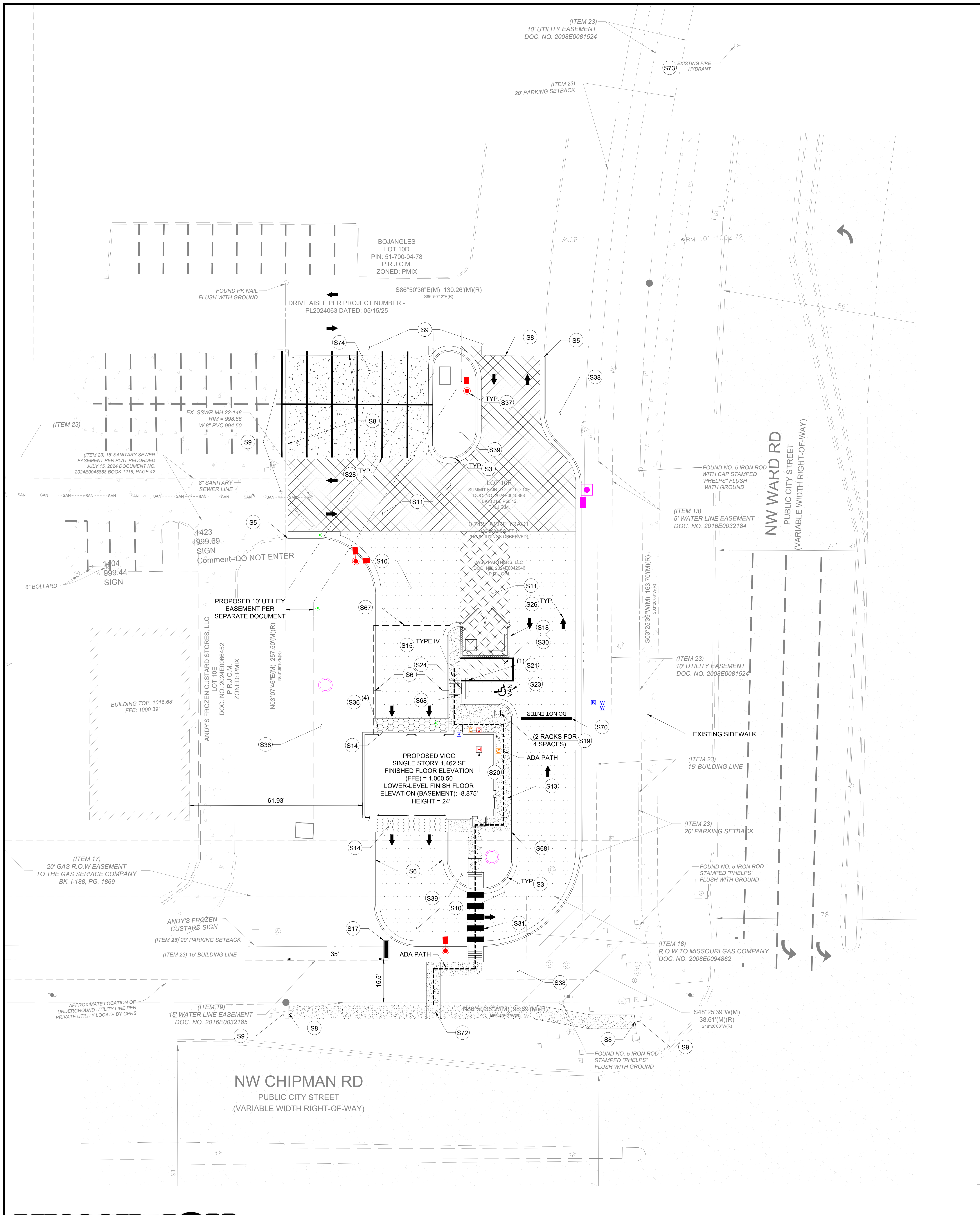
VALVOLINE
INSTANT
OIL CHANGE

610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
EROSION CONTROL
PLAN PHASE 2 OF 2

SHEET #
C-3.2



BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
ZONED: PMIX
FOUND PK NAIL FLUSH WITH GROUND
S86°50'36"E(M) 130.26'(M)(R)
S86°50'12"E(R)
DRIVE AISLE PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
EX. SSWR MH 22-148
RIM = 998.66
W 8" PVC 994.50
(ITEM 23)
(ITEM 23) 15' SANITARY SEWER EASEMENT PER PLAT RECORDED JULY 15, 2024 DOCUMENT NO. 2024E0045888 BOOK 1218, PAGE 42
8" SANITARY SEWER LINE
1423
999.69
SIGN
Comment=DO NOT ENTER
1404
999.44
SIGN
6" BOLLARD
PROPOSED 10' UTILITY EASEMENT PER SEPARATE DOCUMENT
ANDY'S FROZEN CUSTARD STORES, LLC
LOT 10E
DOC. NO. 2024E0066452
P.R.J.C.M.
ZONED: PMIX
N03°07'46"E(M) 257.50'(M)(R)
N03°08'10"E(R)
BUILDING TOP: 1016.68'
FFE: 1000.39'
LOT 10F
SUMMIT FAIR, LOTS 10D-10F
DOC. NO. 2024E0045888
BK. 1218, PG. 42
P.R.J.C.M.
0.742± ACRE TRACT
(32,309± SQ. FT.)
(NO BUILDINGS OBSERVED)
WSO PARTNERS, LLC
DOC. NO. 2024E0042946
P.R.J.C.M.
PROPOSED VIOC
SINGLE STORY 1,462 SF
FINISHED FLOOR ELEVATION
(FFE) = 1,000.50
LOWER-LEVEL FINISH FLOOR
ELEVATION (BASEMENT); -8.875'
HEIGHT = 24'
61.93'
TYPE IV
VAN
(2 RACKS FOR 4 SPACES)
ADA PATH
DO NOT ENTER
TYP.
S3 S5 S6 S8 S9 S10 S11 S13 S14 S15 S17 S18 S19 S20 S21 S23 S24 S26 S28 S30 S31 S36 S37 S38 S39 S67 S68 S70 S72 S73 S74
(1)
(4)
(ITEM 23) 10' UTILITY EASEMENT DOC. NO. 2008E0081524
EXISTING FIRE HYDRANT
(ITEM 23) 20' PARKING SETBACK
CP 1
BM 101=1002.72
FOUND NO. 5 IRON ROD WITH CAP STAMPED "PHELPS" FLUSH WITH GROUND
(ITEM 13) 5' WATER LINE EASEMENT DOC. NO. 2016E0032184
S03°25'39"W(M) 163.70'(M)(R)
S03°26'03"W(R)
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
EXISTING SIDEWALK
(ITEM 23) 15' BUILDING LINE
(ITEM 23) 20' PARKING SETBACK
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
(ITEM 17) 20' GAS R.O.W EASEMENT TO THE GAS SERVICE COMPANY BK. I-168, PG. 1869
ANDY'S FROZEN CUSTARD SIGN
(ITEM 23) 20' PARKING SETBACK
(ITEM 23) 15' BUILDING LINE
35'
15.5'
ADA PATH
(ITEM 18) R.O.W TO MISSOURI GAS COMPANY DOC. NO. 2008E0094862
APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINE PER PRIVATE UTILITY LOCATE BY GPRS
(ITEM 19) 15' WATER LINE EASEMENT DOC. NO. 2016E0032185
N86°50'36"W(M) 98.69'(M)(R)
S48°25'39"W(M) 38.61'(M)(R)
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)

GENERAL SITE NOTES:

1. CONTRACTOR MUST SECURE ALL NECESSARY PERMITS PRIOR TO STARTING WORK.
2. IF THE CONTRACTOR, IN THE COURSE OF THE WORK, FINDS ANY DISCREPANCIES BETWEEN THE PLANS AND THE PHYSICAL CONDITIONS OF THE LOCALITY, OR ANY ERRORS OR OMISSIONS IN THE PLANS OR IN THE LAYOUT AS GIVEN BY THE ENGINEER, IT SHALL BE HIS DUTY TO IMMEDIATELY INFORM THE ENGINEER, IN WRITING, AND THE ENGINEER WILL PROMPTLY VERIFY THE SAME. ANY WORK DONE AFTER SUCH A DISCOVERY, UNTIL AUTHORIZED, WILL BE AT THE CONTRACTOR'S RISK.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS, AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
4. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE TO THE STATE AND LOCAL GOVERNMENT AGENCY'S LATEST CONSTRUCTION SPECIFICATIONS AND DETAILS.
5. ALL HANDICAP SITE FEATURES SHALL BE CONSTRUCTED TO MEET ALL FEDERAL, STATE AND LOCAL CODE.
6. NOTIFY THE CITY INSPECTOR TWENTY-FOUR (24) HOURS BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
7. THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, REFERENCE POINTS, AND STAKES.
8. ARCHITECTURAL PLANS ARE TO BE USED FOR BUILDING STAKE OUT.
9. ALL DIMENSIONS ARE FROM FACE OF BUILDING, CURB, AND WALL UNLESS OTHERWISE SPECIFIED ON PLANS.
10. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
11. CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO ANY EXISTING ITEM AND/OR MATERIAL INSIDE OR OUTSIDE CONTRACT LIMITS DUE TO CONSTRUCTION OPERATION.
12. ALL STREET SURFACES, DRIVEWAYS, CULVERTS, CURB AND GUTTERS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED OR REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.
13. ALL ROAD WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE AND LOCAL GOVERNMENT AGENCY SPECIFICATIONS.
14. STANDARD/HEAVY DUTY PAVEMENT AND CONCRETE SECTIONS SHALL FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED BY ECS MIDWEST, LLC, DATED OCTOBER 16, 2025
15. ALL CURB RADII SHALL BE 5' UNLESS OTHERWISE NOTED ON THE PLANS.

SITE KEY NOTES

#

S3	CG-1 CURB AND GUTTER PER AHJ STANDARDS. REFER TO DETAIL ON C-10.43 (BY OTHERS)
S5	TAPER CURB TO MATCH EXISTING
S6	TAPER CURB FROM 6" TO 0" OVER 10'. REFER TO DETAIL ON C-10.0
S8	MATCH EXISTING PAVEMENT ELEVATION. REFER TO DETAIL ON C-10.0
S9	EXISTING PAVEMENT TO REMAIN
S10	STANDARD DUTY ASPHALT PAVING (PER PAVING PLAN)
S11	HEAVY DUTY CONCRETE PAVING (PER PAVING PLAN)
S13	CONCRETE SIDEWALK. REFER TO DETAIL ON C-10.0
S14	EXTEND SAME CONCRETE FINISHING PROCESS AS INTERNAL SERVICE BAYS
S15	ADA SIDEWALK RAMP @ 8.33% MAX. REFER TO DETAIL ON C-10.0
S17	MONUMENT / PYLON SIGN (PER ARCH. PLANS)
S18	DUMPSTER ENCLOSURE (PER ARCH. PLANS)
S19	BICYCLE RACK (SEE NOTE FOR NUMBER). REFER TO DETAIL ON C-10.0
S20	CONDENSING UNIT. REFER TO MECHANICAL PLANS
S21	CONCRETE WHEEL STOPS (SEE NOTE FOR NUMBER). REFER TO DETAIL ON C-10.0
S23	ADA ACCESSIBLE PARKING SPACE AND AISLE STRIPING & SYMBOL OF ACCESSIBILITY (TYPICAL-PER ADA AND LOCAL REQUIREMENTS), REFER TO DETAIL ON C-10.0
S24	VAN ACCESSIBLE PARKING SIGN (TYPICAL-PER ADA AND LOCAL REQUIREMENTS). REFER TO DETAIL ON C-10.0
S26	DIRECTIONAL TRAFFIC ARROW (PER LOCAL CODES). REFER TO DETAIL ON C-10.0
S28	PARKING STALL STRIPING (PER LOCAL CODES). REFER TO DETAIL ON C-10.0
S30	4" WIDE PAINTED STRIPES, 2' OFF CENTER @ 45° (PER LOCAL CODES)
S31	PEDESTRIAN CROSSWALK STRIPING. (PER LOCAL CODES) REFER TO CITY OF LEE'S SUMMIT DETAIL ON C-10.3
S36	BOLLARD (SEE NOTE FOR NUMBER). REFER TO DETAIL ON C-10.0
S37	LIGHT POLE (TYPICAL-PER LIGHTING PLAN)
S38	LANDSCAPE AREA (PER LANDSCAPE PLAN)
S39	LANDSCAPE ISLAND (PER LANDSCAPE PLAN)
S67	SERVICE BELL HOSE, (PER ARCH PLANS)
S68	TYPE "B" CURB AND GUTTER WITH FLUSH SIDEWALK, REFER TO DETAIL ON C-10.0
S70	'DO NOT ENTER' PAVEMENT MARKING, REFER TO DETAIL ON C-10.1
S72	CONCRETE SIDEWALK PER LOCAL CODES. REFER TO CITY OF LEE'S SUMMIT DETAIL ON C-10.3
S73	EXISTING FIRE HYDRANT
S74	STANDARD DUTY CONCRETE PAVING (PER PAVING PLAN)

SITE BENCHMARKS AND CONTROL:

CP 1:	SET NO. 5 REBAR WITH YELLOW PLASTIC CAP STAMPED "AT WELL LLC" GRID NORTHING: 1004897.61 (NAD83) GRID EASTING: 2818804.20 (NAD83) ELEVATION: 999.44' (NAVD88)
BM 3:	FOUND CHISELED SQUARE IN CONCRETE GRID NORTHING: 1004952.82 (NAD83) GRID EASTING: 2818513.73 (NAD83) ELEVATION: 999.37' (NAVD88)
BM 101:	FOUND CUT CROSS IN CONCRETE SIDEWALK GRID NORHTING: 1004895.46 (NAD83) GRID EASTING: 2818846.27 (NAD83) ELEVATION : 1002.72' (NAVD88)

SETBACK REQUIREMENTS:

MINIMUM CORNER SIDE:	10'
MINIMUM INTERIOR SIDE:	NONE
MINIMUM REAR:	20'

LEGAL DESCRIPTION PER FIDELITY NATIONAL TITLE INSURANCE COMPANY, TITLE COMMITMENT NO.: KCC251158, COMMITMENT EFFECTIVE DATE: MAY 2, 2025 AT 8:00AM

L 10F, SUMMIT FAIR, LOTS 10D-10F, A SUBDIVISION IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEROF.

FIRE ACCESS ROAD NOTE:

ALL FIRE ACCESS LANES SHALL BE HEAVY DUTY ASPHALT CAPABLE OF SUPPORTING 75,000-POUNDS.

OIL-GAS WELLS:

ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES STATE OIL & GAS COUNCIL WELLS, LOCATED AT WW.DNR.MO.GOV/GEOLOGY/GEOSRV/OILANG.HTM, THERE ARE NO OIL OR GAS WELLS ON THE PROPERTY SHOWN HEREON.

PRE-CONSTRUCTION MEETING NOTE:

THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

SITE
NW WARD RD
NW CHIPMAN RD
© 2025 Microsoft Corporation © 2025 Maxar ©CNES (2025) Distribution Airbus DS © 2025 TMAP MOBILITY Earthstar Geographics SIO

LOCATION MAP
(N.T.S)

EXISTING LEGEND

———	BOUNDARY LINE	○	FOUND SURVEY MONUMENT
— — —	BOUNDARY ADJACENT / ROW LINE	●	SET SURVEY MONUMENT
— — — —	EASEMENT LINE	△	SITE CONTROL POINT
═ ═ ═	EXISTING CURB LINE	◐	SITE BENCHMARK
— — STS — — STS — —	UNDERGROUND STORM LINE	P.R.J.C.M.	PUBLIC RECORDS OF JACKSON COUNTY, MISSOURI
— — BE — — BE — —	UNDERGROUND ELECTRIC LINE		
— — UNK — — UNK — —	UNSPECIFIED UTILITY LINE	DOC. NO.	DOCUMENT NUMBER
— — W — — W — —	UNDERGROUND WATER LINE	BK. , PG.	BOOK, PAGE
— — G — — G — —	UNDERGROUND GAS LINE		EXISTING HYDRANT
— — BTV — — BTV — —	UNDERGROUND CABLE LINE	Ⓔ	EXISTING ELECTRIC METER
585	EXISTING MAJOR GROUND CONTOUR	☐ E	EXISTING ELECTRIC RISER
586	EXISTING GROUND CONTOUR	T	EXISTING TELEPHONE HAND HOLE
		F	EXISTING FIBER OPTIC HAND HOLE
▨	EXISTING BUILDING	®	EXISTING STORM MANHOLE/CATCH BASIN
		Ⓢ	EXISTING SANITARY MANHOLE
	EXISTING ASPHALT	Ⓣ	EXISTING TELEPHONE MANHOLE
		☐	EXISTING STORM INLET
	EXISTING CONCRETE	Ⓑ	EXISTING BOLLARD
		Ⓦ	EXISTING WATER METER
	EXISTING TRAFFIC SIGNAL	Ⓖ	EXISTING GAS VALVE
☼	EXISTING LIGHT POLE	☐ CATV	EXISTING CABLE RISER
		●	EXISTING UTILITY POLE

PROPOSED LEGEND

——— — — ———	PROPERTY LINE
═══	PROPOSED CURB & GUTTER
— — —	PROPOSED SERVICE BELL HOSE
■—●	PROPOSED SITE LIGHT, SEE PHOTOMETRIC PLAN
▣ ○	PROPOSED DRAINAGE STRUCTURES (SEE GRADING/DRAINAGE PLANS)
WM	WATER METER, (SEE UTILITY PLAN)
●	SEWER STRUCTURES, (SEE UTILITY PLAN)
➡	DIRECTIONAL PAVEMENT MARKING
▩	PROPOSED HEAVY DUTY CONCRETE PAVEMENT. REFER TO DETAIL P9 ON PAVING PLAN
▒	PROPOSED CONCRETE SIDEWALK PAVEMENT. REFER TO DETAIL P10 ON PAVING PLAN.
⬡	EXTEND SAME CONCRETE FINISHING PROCESS AS INTERNAL SERVICE BAYS
░	PROPOSED STANDARD DUTY ASPHALT PAVEMENT. REFER TO KEYNOTE P6 ON PAVING PLAN.
░	PROPOSED STANDARD DUTY CONCRETE PAVEMENT. REFER TO KEYNOTE P10 PAVING PLAN.

SITE DATA SUMMARY	
VALVOLINE TRACT:	0.742 ACRES/32,309 SF
ZONING:	PMIX PLANNED MIXED USE
LAND USE:	VEHICLE SERVICES
BUILDING SF:	1,462 SF
F.A.R. (FLOOR/AREA RATIO):	1:0.05
LOT COVERAGE:	0.742 (32.309 SF)
PARKING REQUIRED:	6 (1 ADA)
PARKING PROVIDED:	11 (1 ADA)
PERVIOUS COVER:	13,202 SF
IMPERVIOUS COVER:	19,107 SF
REQUIRED BICYCLE PARKING:	0
PROVIDED BICYCLE PARKING:	4

SURVEY PROVIDED BY:

ATWELL
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800

DATED: 15 SEPTEMBER, 2025

N

20 15 10 5 0 10 20 30 40
SCALE: 1 inch = 20 ft.

HFA
HFA-AE , LTD.

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
t 479.273.7780
f 888.520.9685
www.hfa-ae.com

DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

06-MAR-26 10:07:31

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

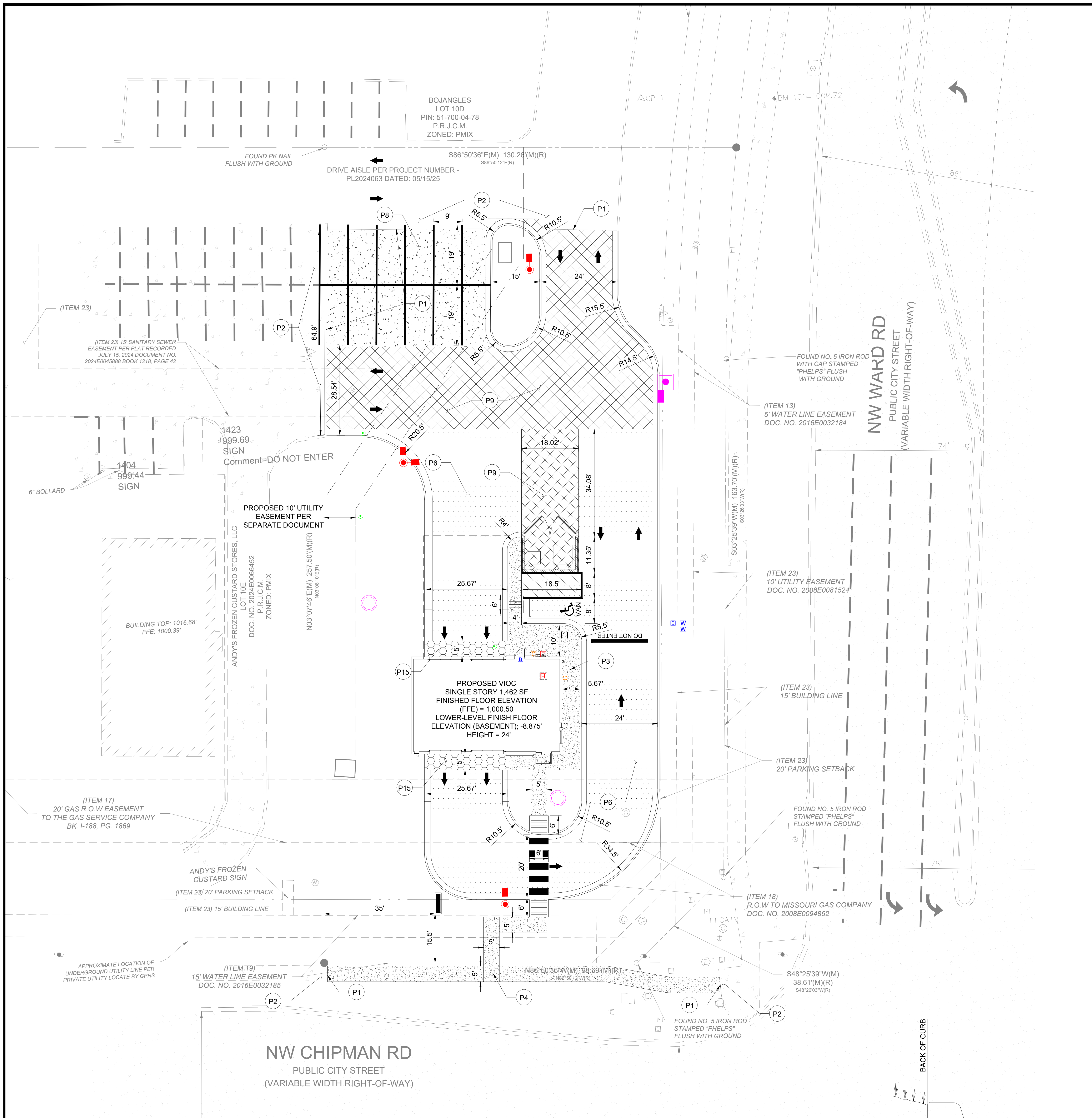
VALVOLINE
INSTANT
OIL CHANGE

610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
SITE PLAN

SHEET #
C-4.0


BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
ZONED: PMIX
FOUND PK NAIL FLUSH WITH GROUND
S86°50'36"E(M) 130.26'(M)(R)
S86°50'12"E(R)
DRIVE AISLE PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
(ITEM 23)
(ITEM 23) 15' SANITARY SEWER EASEMENT PER PLAT RECORDED JULY 15, 2024 DOCUMENT NO. 2024E0045888 BOOK 1218, PAGE 42
P1
P2
P8
P9
P6
P3
P4
P15
9'
19'
15'
24'
64.9'
28.54'
R5.5'
R10.5'
R15.5'
R14.5'
R20.5'
R4'
18.02'
34.08'
11.35'
18.5'
8'
25.67'
6'
4'
10'
5'
5.67'
VAN
R34.5'
20'
35'
15.5'
DO NOT ENTER
1423
999.69
SIGN
Comment=DO NOT ENTER
1404
999.44
SIGN
6" BOLLARD
PROPOSED 10' UTILITY EASEMENT PER SEPARATE DOCUMENT
BUILDING TOP: 1016.68'
FFE: 1000.39'
ANDY'S FROZEN CUSTARD STORES, LLC
LOT 10E
DOC. NO. 2024E0066452
P.R.J.C.M.
ZONED: PMIX
N03°07'46"E(M) 257.50'(M)(R)
N03°08'10"E(R)
PROPOSED VIOC
SINGLE STORY 1,462 SF
FINISHED FLOOR ELEVATION
(FFE) = 1,000.50
LOWER-LEVEL FINISH FLOOR
ELEVATION (BASEMENT); -8.875'
HEIGHT = 24'
(ITEM 17)
20' GAS R.O.W EASEMENT
TO THE GAS SERVICE COMPANY
BK. I-188, PG. 1869
ANDY'S FROZEN CUSTARD SIGN
(ITEM 23) 20' PARKING SETBACK
(ITEM 23) 15' BUILDING LINE
APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINE PER PRIVATE UTILITY LOCATE BY GPRS
(ITEM 19)
15' WATER LINE EASEMENT
DOC. NO. 2016E0032185
N86°50'36"W(M) 98.69'(M)(R)
N86°50'12"W(R)
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
91'
CP 1
BM 101=1002.72
86'
FOUND NO. 5 IRON ROD WITH CAP STAMPED "PHELPS" FLUSH WITH GROUND
(ITEM 13)
5' WATER LINE EASEMENT
DOC. NO. 2016E0032184
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
74'
S03°25'39"W(M) 163.70'(M)(R)
S03°26'03"W(R)
(ITEM 23)
10' UTILITY EASEMENT
DOC. NO. 2008E0081524
(ITEM 23)
15' BUILDING LINE
(ITEM 23)
20' PARKING SETBACK
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
78'
(ITEM 18)
R.O.W TO MISSOURI GAS COMPANY
DOC. NO. 2008E0094862
CATV
S48°25'39"W(M)
38.61'(M)(R)
S48°26'03"W(R)
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
Civil\DWGs\06-24-20062 – C-4 SITE & PAVING.dwg Last Modified: Feb 27, 2026 – 11:04am Plotted on: Mar 06, 2026 – 9:49am by daniel.friede

GENERAL PAVING NOTES:

1. CONTRACTOR MUST SECURE ALL NECESSARY PERMITS PRIOR TO STARTING WORK.
2. IF THE CONTRACTOR, IN THE COURSE OF THE WORK, FINDS ANY DISCREPANCIES BETWEEN THE PLANS AND THE PHYSICAL CONDITIONS OF THE LOCALITY, OR ANY ERRORS OR OMISSIONS IN THE PLANS OR IN THE LAYOUT AS GIVEN BY THE ENGINEER, IT SHALL BE HIS DUTY TO IMMEDIATELY INFORM THE ENGINEER, IN WRITING, AND THE ENGINEER WILL PROMPTLY VERIFY THE SAME. ANY WORK DONE AFTER SUCH A DISCOVERY, UNTIL AUTHORIZED, WILL BE AT THE CONTRACTOR'S RISK.
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5. ALL HANDICAP SITE FEATURES SHALL BE CONSTRUCTED TO MEET ALL FEDERAL, STATE AND LOCAL CODE.
6. NOTIFY THE COUNTY INSPECTOR TWENTY-FOUR (24) HOURS BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
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13. ALL ROAD WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE AND LOCAL GOVERNMENT AGENCY SPECIFICATIONS.
14. STANDARD/HEAVY DUTY PAVEMENT AND CONCRETE SECTIONS SHALL FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED BY ECS MIDWEST, LLC, DATED OCTOBER 16, 2025
15. ALL CURB RADII SHALL BE 5' UNLESS OTHERWISE NOTED ON THE PLANS.

EXISTING LEGEND

———————	BOUNDARY LINE	○	FOUND SURVEY MONUMENT
—— —— ——	BOUNDARY ADJACENT / ROW LINE	●	SET SURVEY MONUMENT
— — — — —	EASEMENT LINE	△	SITE CONTROL POINT
═ ═ ═ ═ ═	EXISTING CURB LINE	◐	SITE BENCHMARK
– – STS – – STS – –	UNDERGROUND STORM LINE	P.R.J.C.M.	PUBLIC RECORDS OF JACKSON COUNTY, MISSOURI
– – BE – – BE – –	UNDERGROUND ELECTRIC LINE	DOC. NO.	DOCUMENT NUMBER
– – UNK – – UNK – –	UNSPECIFIED UTILITY LINE	BK. , PG.	BOOK, PAGE
– – W – – W – –	UNDERGROUND WATER LINE	⊸	EXISTING HYDRANT
– – G – – G – –	UNDERGROUND GAS LINE	Ⓔ	EXISTING ELECTRIC METER
– – BTV – – BTV – –	UNDERGROUND CABLE LINE	☐ E	EXISTING ELECTRIC RISER
585	EXISTING MAJOR GROUND CONTOUR	🅃	EXISTING TELEPHONE HAND HOLE
586	EXISTING GROUND CONTOUR	🄵	EXISTING FIBER OPTIC HAND HOLE
▨	EXISTING BUILDING	®	EXISTING STORM MANHOLE/CATCH BASIN
░	EXISTING ASPHALT	Ⓢ	EXISTING SANITARY MANHOLE
░	EXISTING CONCRETE	Ⓣ	EXISTING TELEPHONE MANHOLE
		☐	EXISTING STORM INLET
		Ⓑ	EXISTING BOLLARD
		Ⓦ	EXISTING WATER METER
		Ⓖ	EXISTING GAS VALVE
⌖	EXISTING TRAFFIC SIGNAL	☐ CATV	EXISTING CABLE RISER
☼	EXISTING LIGHT POLE	●	EXISTING UTILITY POLE

PROPOSED LEGEND

——— – – ———	PROPERTY LINE
═══	PROPOSED CURB & GUTTER
– – – – –	PROPOSED SERVICE BELL HOSE
■–●	PROPOSED SITE LIGHT, SEE PHOTOMETRIC PLAN
▣ ■ ◎	PROPOSED DRAINAGE STRUCTURES (SEE GRADING/DRAINAGE PLANS)
WM	WATER METER, (SEE UTILITY PLAN)
◉	SEWER STRUCTURES, (SEE UTILITY PLAN)
➡	DIRECTIONAL PAVEMENT MARKING
▩	PROPOSED HEAVY DUTY CONCRETE PAVEMENT. REFER TO DETAIL P9 ON PAVING PLAN
░	PROPOSED CONCRETE SIDEWALK PAVEMENT. REFER TO DETAIL P10 ON PAVING PLAN.
⬡	EXTEND SAME CONCRETE FINISHING PROCESS AS INTERNAL SERVICE BAYS
░	PROPOSED STANDARD DUTY ASPHALT PAVEMENT. REFER TO KEYNOTE P6 ON PAVING PLAN.
░	PROPOSED STANDARD DUTY CONCRETE PAVEMENT. REFER TO KEYNOTE P10 PAVING PLAN.

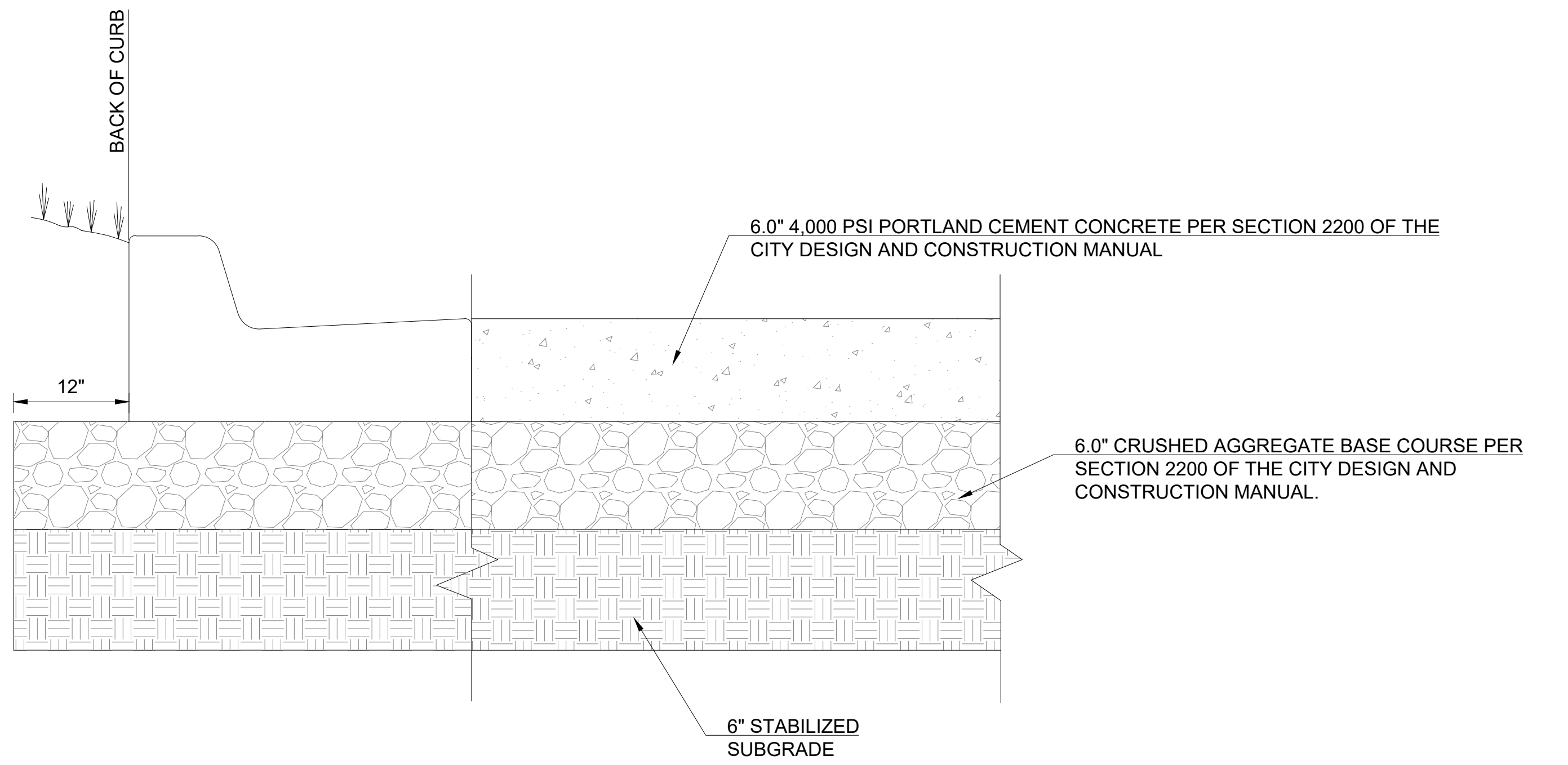
PAVING KEY NOTES

#

P1	MATCH EXISTING PAVEMENT ELEVATION
P2	EXISTING PAVEMENT TO REMAIN
P3	CONCRETE SIDEWALK. REFER TO DETAIL ON C-10.0
P4	CONCRETE SIDEWALK PER LOCAL CODES. REFER TO CITY OF LEE'S SUMMIT DETAIL ON C-10.3
P6	STANDARD DUTY ASHPHALT PAVING (SEE PAVING DETAIL)
P8	STANDARD DUTY CONCRETE PAVING (SEE PAVING DETAIL)
P9	HEAVY DUTY CONCRETE PAVING (SEE PAVING DETAIL)
P15	EXTEND SAME CONCRETE FINISHING PROCESS AS INTERNAL SERVICE BAYS

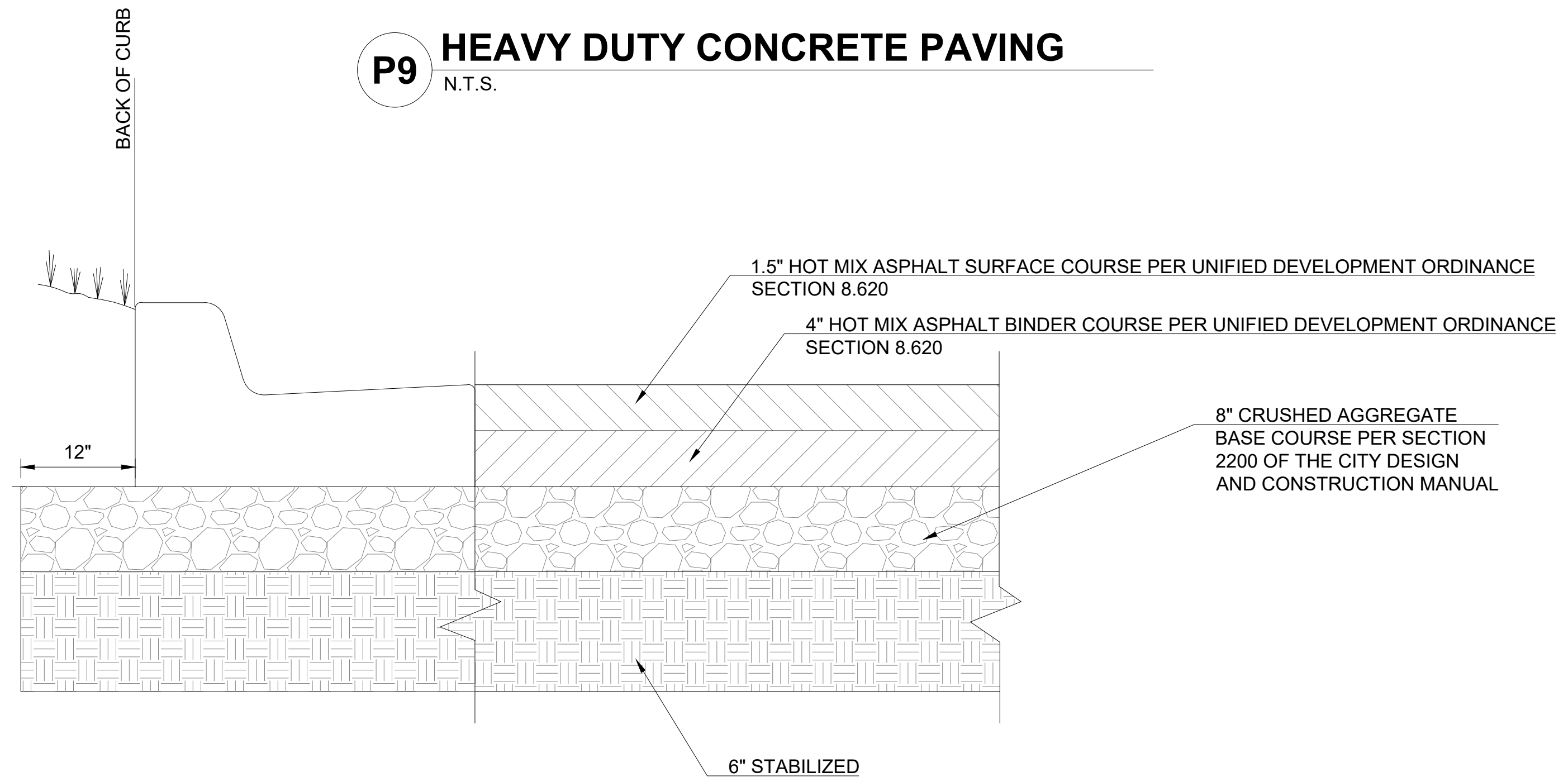
PAVING NOTES:

1. ALL ASPHALT MATERIALS SHALL CONFORM TO THE KCMMB ASPHALT MATERIAL SPECIFICATION, CURRENT EDITION.
2. ALL CONCRETE MATERIALS FOR PAVING CURB AND GUTTER, SIDEWALKS, PATHS, COMMERCIAL DRIVEWAYS AND OTHER PAVEMENTS IN THE RIGHT OF WAY SHALL CONFORM TO THE KCMMB SPECIFICATIONS.


BACK OF CURB
12"
6.0" 4,000 PSI PORTLAND CEMENT CONCRETE PER SECTION 2200 OF THE CITY DESIGN AND CONSTRUCTION MANUAL
6.0" CRUSHED AGGREGATE BASE COURSE PER SECTION 2200 OF THE CITY DESIGN AND CONSTRUCTION MANUAL.
6" STABILIZED SUBGRADE

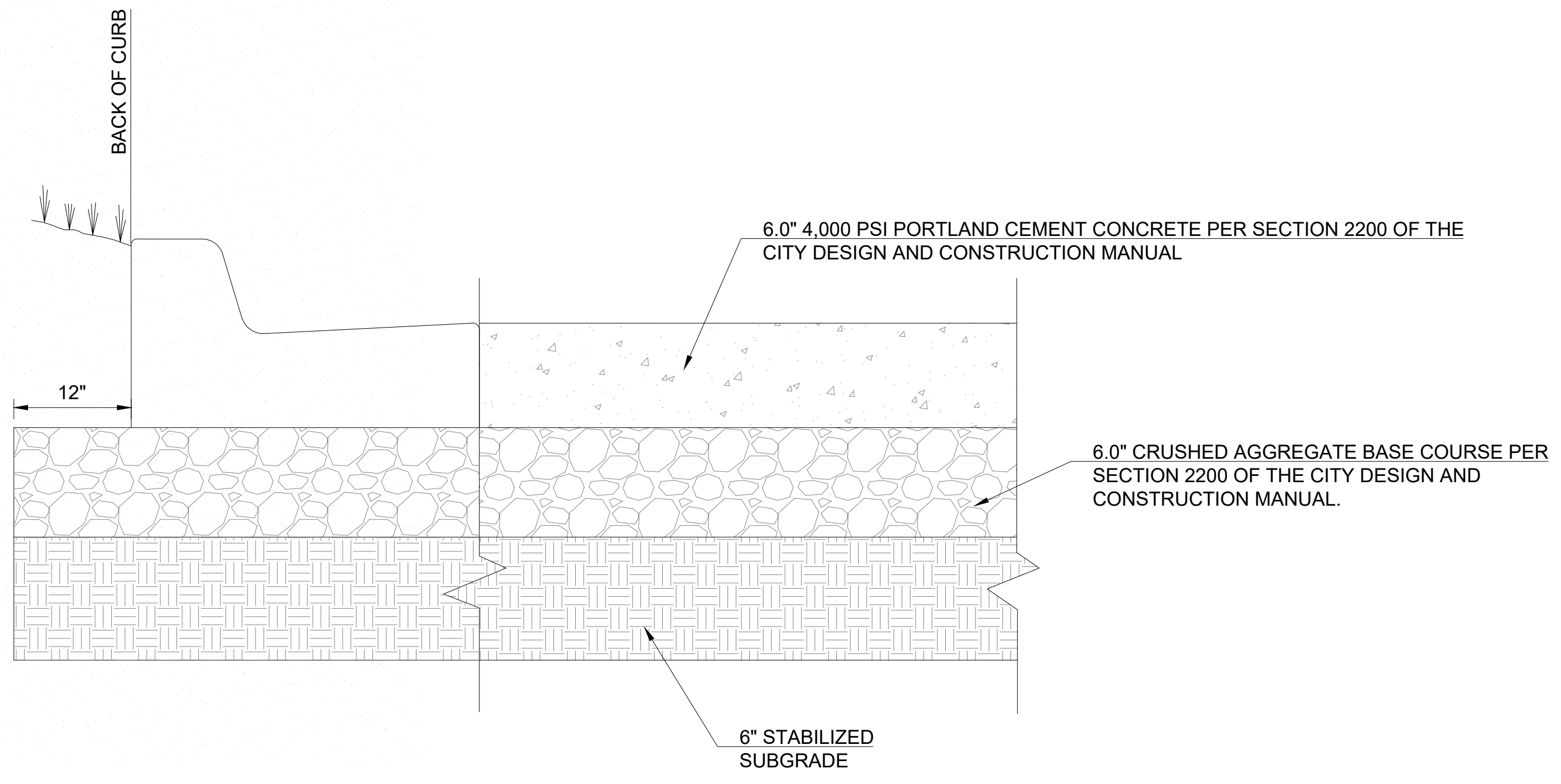
P9 HEAVY DUTY CONCRETE PAVING

N.T.S.


BACK OF CURB
12"
1.5" HOT MIX ASPHALT SURFACE COURSE PER UNIFIED DEVELOPMENT ORDINANCE SECTION 8.620
4" HOT MIX ASPHALT BINDER COURSE PER UNIFIED DEVELOPMENT ORDINANCE SECTION 8.620
8" CRUSHED AGGREGATE BASE COURSE PER SECTION 2200 OF THE CITY DESIGN AND CONSTRUCTION MANUAL
6" STABILIZED SUBGRADE

P6 STANDARD DUTY ASPHALT PAVING

N.T.S.


BACK OF CURB
12"
6.0" 4,000 PSI PORTLAND CEMENT CONCRETE PER SECTION 2200 OF THE CITY DESIGN AND CONSTRUCTION MANUAL
6.0" CRUSHED AGGREGATE BASE COURSE PER SECTION 2200 OF THE CITY DESIGN AND CONSTRUCTION MANUAL.
6" STABILIZED SUBGRADE

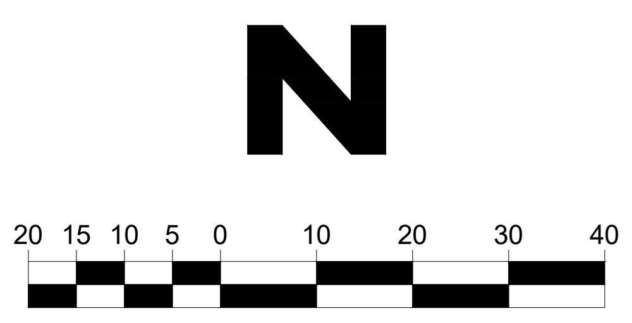
P8 STANDARD DUTY CONCRETE PAVING

N.T.S.

SURVEY PROVIDED BY:

ATWELL
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800

DATED: 15 SEPTEMBER, 2025


N
20 15 10 5 0 10 20 30 40

SCALE: 1 inch = 20 ft.

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DATE	ISSUE
12/05/2025	OWNER REVIEW SET
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01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

06-MAR-26 10:07:37

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

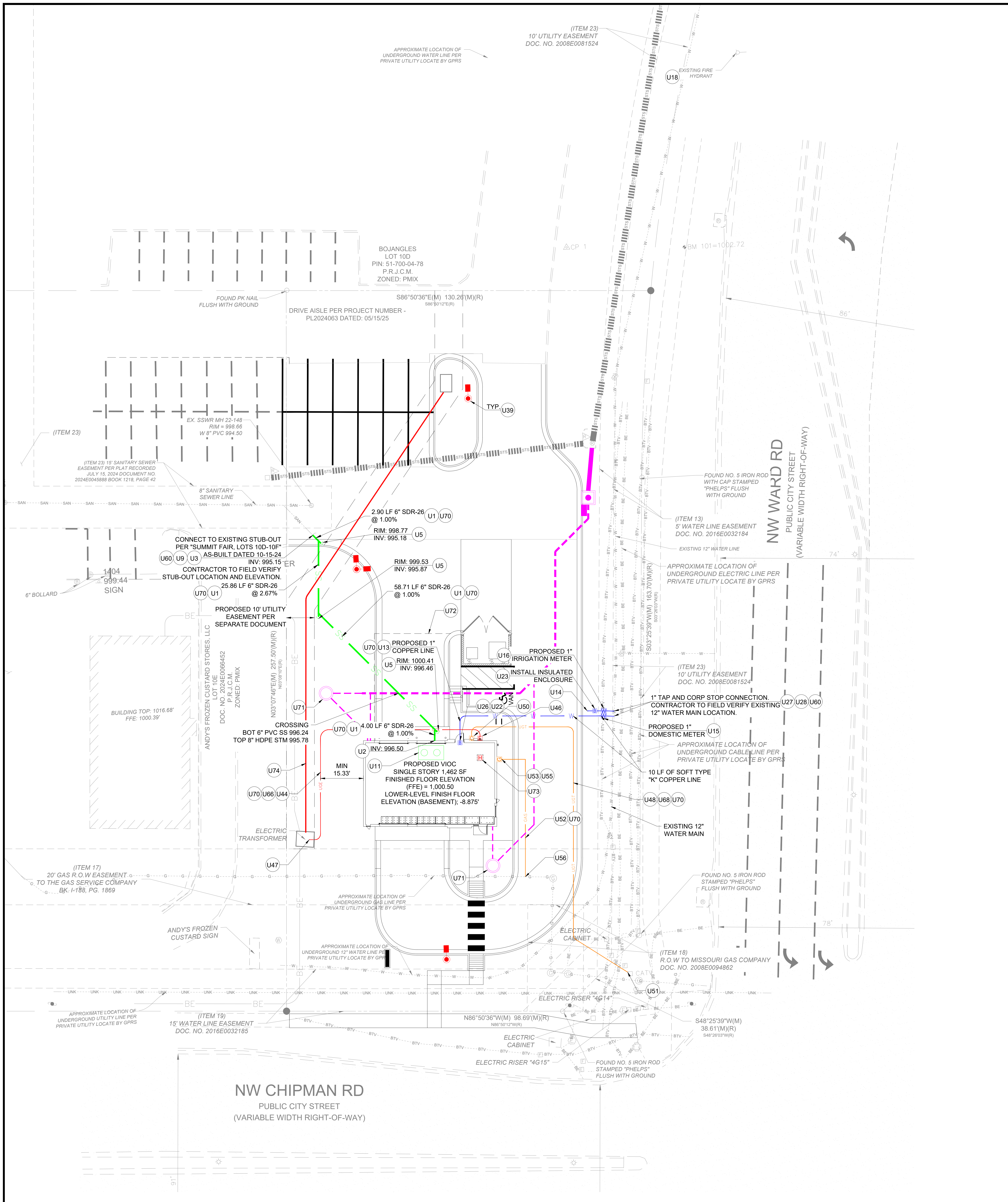
VALVOLINE INSTANT OIL CHANGE

610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
PAVING PLAN

SHEET #
C-4.1


(ITEM 23)
10' UTILITY EASEMENT
DOC. NO. 2008E0081524
APPROXIMATE LOCATION OF UNDERGROUND WATER LINE PER PRIVATE UTILITY LOCATE BY GPRS
EXISTING FIRE HYDRANT
U18
BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
ZONED: PMIX
CP 1
BM 101=1002.72
FOUND PK NAIL FLUSH WITH GROUND
S86°50'36"E(M) 130.26'(M)(R)
DRIVE AISLE PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
TYP
U39
(ITEM 23)
EX. SSWR MH 22-148
RIM = 998.66
W 8" PVC 994.50
(ITEM 23) 15' SANITARY SEWER EASEMENT PER PLAT RECORDED JULY 15, 2024 DOCUMENT NO. 2024E0045888 BOOK 1218, PAGE 42
8" SANITARY SEWER LINE
FOUND NO. 5 IRON ROD WITH CAP STAMPED "PHELPS" FLUSH WITH GROUND
(ITEM 13)
5' WATER LINE EASEMENT
DOC. NO. 2016E0032184
EXISTING 12" WATER LINE
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
2.90 LF 6" SDR-26 @ 1.00%
U1 U70
RIM: 998.77
INV: 995.18
U5
CONNECT TO EXISTING STUB-OUT PER "SUMMIT FAIR, LOTS 10D-10F" AS-BUILT DATED 10-15-24
INV: 995.15
CONTRACTOR TO FIELD VERIFY STUB-OUT LOCATION AND ELEVATION.
U60 U9 U3
RIM: 999.53
INV: 995.87
U5
1404
999.44
SIGN
6" BOLLARD
25.86 LF 6" SDR-26 @ 2.67%
U70 U1
58.71 LF 6" SDR-26 @ 1.00%
U1 U70
APPROXIMATE LOCATION OF UNDERGROUND ELECTRIC LINE PER PRIVATE UTILITY LOCATE BY GPRS
S03°25'39"W(M) 163.70'(M)(R)
S03°26'03"W(R)
PROPOSED 10' UTILITY EASEMENT PER SEPARATE DOCUMENT
U72
PROPOSED 1" COPPER LINE
U70 U13
RIM: 1000.41
INV: 996.46
U5
U16
PROPOSED 1" IRRIGATION METER
U23
INSTALL INSULATED ENCLOSURE
U14
U26 U22 U50
U46
VAN
(ITEM 23)
10' UTILITY EASEMENT
DOC. NO. 2008E0081524
1" TAP AND CORP STOP CONNECTION. CONTRACTOR TO FIELD VERIFY EXISTING 12" WATER MAIN LOCATION.
U27 U28 U60
PROPOSED 1" DOMESTIC METER
U15
APPROXIMATE LOCATION OF UNDERGROUND CABLE LINE PER PRIVATE UTILITY LOCATE BY GPRS
10 LF OF SOFT TYPE "K" COPPER LINE
U48 U68 U70
EXISTING 12" WATER MAIN
BUILDING TOP: 1016.68'
FFE: 1000.39'
ANDY'S FROZEN CUSTARD STORES, LLC
LOT 10E
DOC. NO. 2024E0066452
P.R.J.C.M.
ZONED: PMIX
N03°07'46"E(M) 257.50'(M)(R)
N03°08'10"E(R)
U71
CROSSING
BOT 6" PVC SS 996.24
TOP 8" HDPE STM 995.78
U70 U1
4.00 LF 6" SDR-26 @ 1.00%
U2
INV: 996.50
U11
U74
MIN 15.33'
PROPOSED VIOC
SINGLE STORY 1,462 SF
FINISHED FLOOR ELEVATION (FFE) = 1,000.50
LOWER-LEVEL FINISH FLOOR ELEVATION (BASEMENT); -8.875'
U53 U55
U73
U70 U66 U44
U52 U70
ELECTRIC TRANSFORMER
U47
U56
U71
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
(ITEM 17)
20' GAS R.O.W EASEMENT TO THE GAS SERVICE COMPANY
BK. I-188, PG. 1869
APPROXIMATE LOCATION OF UNDERGROUND GAS LINE PER PRIVATE UTILITY LOCATE BY GPRS
ANDY'S FROZEN CUSTARD SIGN
APPROXIMATE LOCATION OF UNDERGROUND 12" WATER LINE PER PRIVATE UTILITY LOCATE BY GPRS
ELECTRIC CABINET
(ITEM 18)
R.O.W TO MISSOURI GAS COMPANY
DOC. NO. 2008E0094862
U51
ELECTRIC RISER "4G14"
APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINE PER PRIVATE UTILITY LOCATE BY GPRS
(ITEM 19)
15' WATER LINE EASEMENT
DOC. NO. 2016E0032185
N86°50'36"W(M) 98.69'(M)(R)
S48°25'39"W(M)
38.61'(M)(R)
ELECTRIC CABINET
ELECTRIC RISER "4G15"
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)

UTILITY KEY NOTES

U1	SANITARY SEWER (SEE NOTE FOR TYPE, SIZE AND SLOPE)
U2	SANITARY SEWER POINT OF ENTRY (PER MEP PLANS)
U3	SANITARY SEWER POINT OF CONNECTION
U5	SANITARY SEWER CLEAN-OUT. REFER TO DETAIL ON C-10.1
U9	CONNECT TO EXISTING SANITARY SEWER, STUB-OUT. (CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION)
U11	OIL-WATER SEPARATOR IN BUILDING (PER MEP/ARCH. PLANS)
U13	DOMESTIC WATER LINE (SEE NOTE FOR TYPE AND SIZE)
U14	IRRIGATION WATER LINE (TYPE AND SIZE PER IRRIGATION PLAN)
U15	DOMESTIC WATER METER (SEE NOTE FOR SIZE)
U16	IRRIGATION WATER METER (SEE NOTE FOR SIZE)
U18	EXISTING FIRE HYDRANT
U22	BACKFLOW PREVENTER IN BUILDING
U23	REDUCED PRESSURE BACKFLOW PREVENTER. REFER TO DETAIL ON C-10.1
U26	WATER LINE POINT OF ENTRY (PER MEP PLANS)
U27	WATER LINE POINT OF CONNECTION. REFER TO DETAIL ON C-10.1
U28	CONTRACTOR SHALL COORDINATE WITH WATER DEPARTMENT TO ENSURE THAT SERVICE IS NOT INTERRUPTED AT ANY TIME.
U39	LIGHT POLE LOCATIONS (SEE LIGHTING PLAN FOR DETAILS)
U44	UNDERGROUND ELECTRIC SERVICE
U46	ELECTRIC SERVICE POINT OF ENTRY (PER MEP PLANS)
U47	ELECTRIC SERVICE POINT OF CONNECTION
U48	UNDERGROUND TELEPHONE SERVICE (INSTALL TWO 2" CONDUITS)
U50	TELEPHONE SERVICE POINT OF ENTRY (PER MEP PLANS)
U51	TELEPHONE SERVICE POINT OF CONNECTION
U52	GAS SERVICE LINE. CONTRACTOR SHALL COORDINATE WITH GAS COMPANY FOR THE INSTALLATION OF THE GAS SERVICE LINE.
U53	GAS METER
U55	GAS LINE POINT OF ENTRY (PER MEP PLANS)
U56	GAS LINE POINT OF CONNECTION
U60	CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
U66	ELECTRIC SERVICE LINE. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY PRIOR TO ANY EXCAVATION OR INSTALLATION OF CONDUITS. NO OTHER UTILITIES ALLOWED IN ELECTRIC DITCH. CONTRACTOR SHALL INSTALL TWO (2) - 4" SECONDARY CONDUITS FROM THE TRANSFORMER TO THE BUILDING. (SEE MEP PLANS).
U68	TELEPHONE SERVICE LINE. CONTRACTOR SHALL COORDINATE WITH TELEPHONE COMPANY PRIOR TO ANY EXCAVATION OR INSTALLATION OF CONDUITS.
U70	UTILITY TRENCH AND BEDDING, REFER TO DETAIL ON C-10.1
U71	FOUNDATION SUMP PUMP, REFER TO DETAIL ON C-10.1
U72	BELL HOSE LOCATION, SEE MEP PLANS
U73	HVAC CONDENSER ON ROOF, SEE MEP PLANS
U74	CONSTRUCT ONE 4" SCHEDULE 40 PVC CONDUIT FOR UTILITY EXTENSION.

EXISTING LEGEND

	BOUNDARY LINE	○	FOUND SURVEY MONUMENT
	BOUNDARY ADJACENT / ROW LINE	●	SET SURVEY MONUMENT
	EASEMENT LINE	△	SITE CONTROL POINT
	EXISTING CURB LINE		SITE BENCHMARK
STS STS	UNDERGROUND STORM LINE	P.R.J.C.M.	PUBLIC RECORDS OF JACKSON COUNTY, MISSOURI
BE BE	UNDERGROUND ELECTRIC LINE		
UNK UNK	UNSPECIFIED UTILITY LINE	DOC. NO.	DOCUMENT NUMBER
W W	UNDERGROUND WATER LINE	BK. , PG.	BOOK, PAGE
G G	UNDERGROUND GAS LINE		EXISTING HYDRANT
BTV BTV	UNDERGROUND CABLE LINE	Ⓔ	EXISTING ELECTRIC METER
585	EXISTING MAJOR GROUND CONTOUR	☐ E	EXISTING ELECTRIC RISER
586	EXISTING GROUND CONTOUR	T	EXISTING TELEPHONE HAND HOLE
		F	EXISTING FIBER OPTIC HAND HOLE
▨	EXISTING BUILDING	Ⓡ	EXISTING STORM MANHOLE/CATCH BASIN
		Ⓢ	EXISTING SANITARY MANHOLE
	EXISTING ASPHALT	Ⓣ	EXISTING TELEPHONE MANHOLE
		☐	EXISTING STORM INLET
	EXISTING CONCRETE	Ⓑ	EXISTING BOLLARD
		Ⓦ	EXISTING WATER METER
	EXISTING TRAFFIC SIGNAL	Ⓖ	EXISTING GAS VALVE
☼	EXISTING LIGHT POLE	☐ CATV	EXISTING CABLE RISER
		●	EXISTING UTILITY POLE

PROPOSED LEGEND

	PROPERTY LINE
	CURB AND GUTTER
	EASEMENT LINE
GAS	GAS LINES
UGT	TELEPHONE LINES
SS SS	SANITARY SEWER LINES
W W	WATER LINES
UGE	UNDERGROUND ELECTRIC LINES
■●	LIGHT POLES
⊙	SANITARY SEWER CLEAN OUT
○ ○	OIL & WATER SEPARATOR
W	WATER METER
B	RPZ/BFP
	DRAINAGE STRUCTURES (SEE GRADING/DRAINAGE PLANS)
	STORM SEWER ROOF DRAIN AND SUMP PUMP PIPE

GENERAL UTILITY NOTES:

1. CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND ENSURE NO CONFLICTS EXIST WITH PROPOSED IMPROVEMENTS. NOTIFY ENGINEER IMMEDIATELY IF UTILITIES ARE LOCATED DIFFERENTLY THAN SHOWN. THE CONTRACTOR SHALL COORDINATE WITH EACH RESPECTIVE UTILITY COMPANY IN ORDER TO RELOCATE IF NEEDED IN CONFORMANCE WITH THEIR GUIDELINES.
2. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO THE REMOVAL OF INDICATED UTILITIES ON SITE (SEE DEMOLITION PLAN). CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS REQUIRED FOR DEMOLITION AND HAUL OFF FROM THE APPROPRIATE AUTHORITIES.
3. AUTHORIZATION MUST BE OBTAINED FROM THE (CITY WATER/SEWER AUTHORITY) TO CONSTRUCT, ALTER OR MODIFY A WATER OR SEWER LINE. CONSTRUCTION OF WATER AND SEWER INFRASTRUCTURE WILL BE AUTHORIZED BY THE WATER SYSTEM UPON:
   - APPROVAL OF SUBMITTED PLANS.
   - NOTIFICATION OF THE WATER SYSTEM AT LEAST 24 HOURS PRIOR TO STARTING CONSTRUCTION.
4. AT THE COMPLETION OF THE WATER AND/OR SEWER CONSTRUCTION AND PRIOR TO RECORDING THE FINAL PLAT, THE CONTRACTOR WILL FURNISH THE WATER SYSTEM INSPECTOR RECORD DRAWINGS OF THE PROJECT.
5. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE GAS COMPANY FOR THE CONSTRUCTION OF THE GAS LINE BETWEEN METER AND MAIN.
6. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE POWER COMPANY FOR THE CONSTRUCTION OF ELECTRICAL CONDUIT TO PROVIDE SERVICE TO THE TRANSFORMER.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING, PRIOR TO CONSTRUCTION, ALL EXISTING LOCATIONS AND INVERT ELEVATIONS OF SANITARY SEWERS, STORM DRAINAGE, AND WATER MAINS. IF ANY INVERT ELEVATION VARIES MORE THAN 0.1 FT. FROM RECORD ELEVATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. WORK SHALL NOT PROCEED UNTIL THE CONTRACTOR IS NOTIFIED BY THE ENGINEER.
8. CONNECT TO EXISTING UTILITIES AND INSTALL UTILITIES IN COMPLIANCE WITH REQUIREMENTS OF APPROPRIATE JURISDICTIONAL AGENCIES.
9. COORDINATE WITH BUILDING PLANS TO ASSURE ACCURACY OF UTILITY CONNECTIONS AND COMPLIANCE WITH LOCAL CODES.
10. ALL SEWERS TO BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING CLEANING OF ANY SILT OR DEBRIS ACCUMULATED IN STRUCTURES.
11. ALL SURPLUS EXCAVATED MATERIAL FROM THE TRENCH SHALL BE DISPOSED OFF THE SITE BY CONTRACTOR.
12. COORDINATE EXACT TRENCHING, ROUTING, AND POINT OF TERMINATION WITH ALL UTILITY COMPANIES.
13. ALL WATER LINES SHALL HAVE AT LEAST FOUR AND ONE HALF (4.5) FEET ABOVE GROUND COVER FROM THE TOP OF THE PIPE TO THE FINISHED GROUND SURFACE.
14. ALL WATER LINES 2" OR SMALLER SHALL BE TYPE K-COPPER.
15. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING UTILITY LOCATES.

SURVEY PROVIDED BY:

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630.577.0800

DATED: 15 SEPTEMBER, 2025

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20 15 10 5 0 10 20 30 40
SCALE: 1 inch = 20 ft.

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02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER
PE-2023012235

06-MAR-26 10:07:42

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

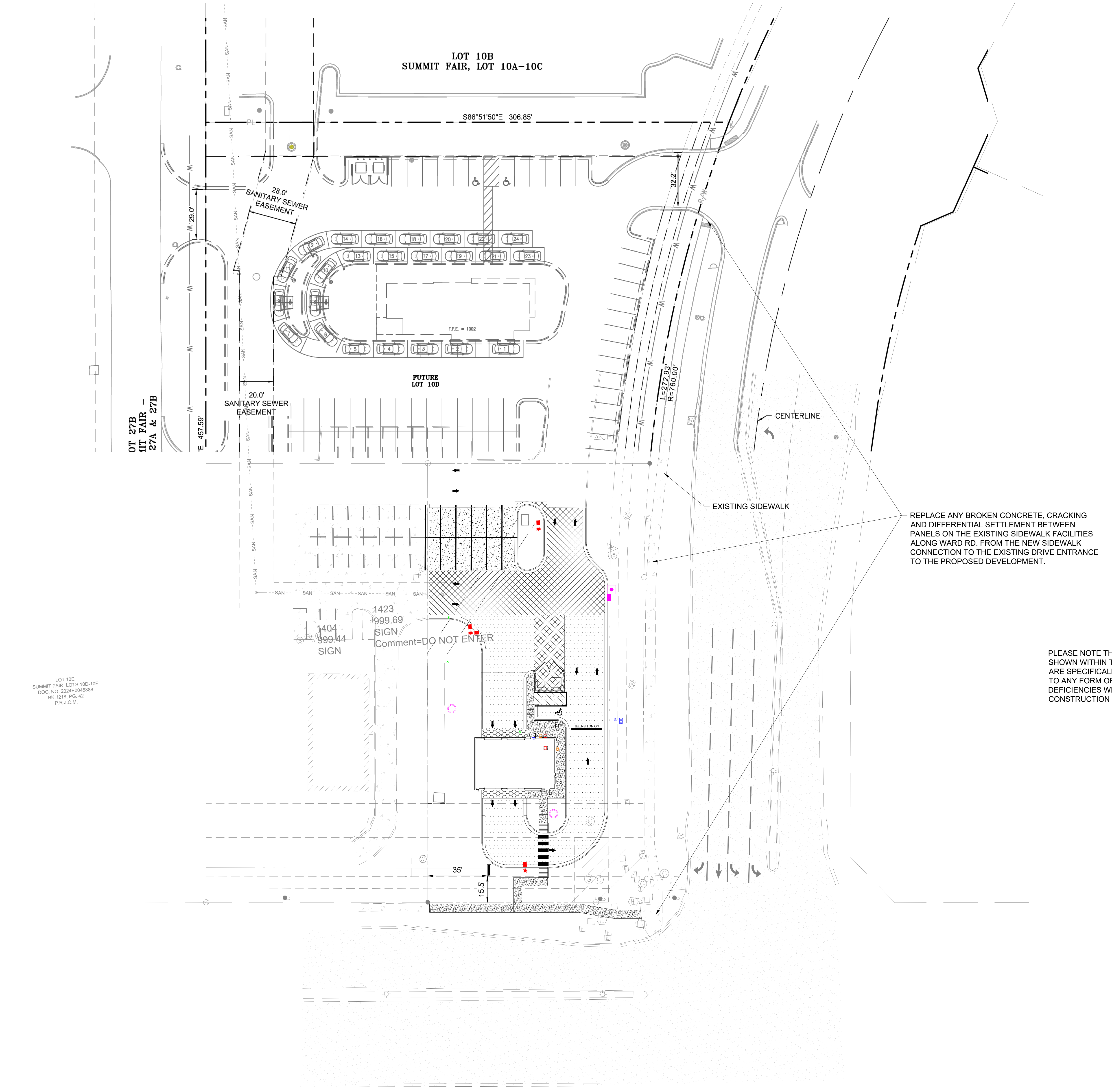
VALVOLINE INSTANT OIL CHANGE

610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
UTILITY PLAN

SHEET #
C-4.2


LOT 10B
SUMMIT FAIR, LOT 10A–10C
S86°51'50"E 306.85'
PL
28.0'
SANITARY SEWER EASEMENT
29.0'
20.0'
SANITARY SEWER EASEMENT
OT 27B
IIT FAIR –
27A & 27B
E 457.59'
SAN
W
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
F.F.E. = 1002
FUTURE
LOT 10D
32.2'
L=272.93'
R=760.00'
CENTERLINE
EXISTING SIDEWALK
1423
999.69
SIGN
Comment=DO NOT ENTER
1404
999.44
SIGN
LOT 10E
SUMMIT FAIR, LOTS 10D-10F
DOC. NO. 2024E0045888
BK. I218, PG. 42
P.R.J.C.M.
DO NOT ENTER
35'
15.5'
CATV

REPLACE ANY BROKEN CONCRETE, CRACKING AND DIFFERENTIAL SETTLEMENT BETWEEN PANELS ON THE EXISTING SIDEWALK FACILITIES ALONG WARD RD. FROM THE NEW SIDEWALK CONNECTION TO THE EXISTING DRIVE ENTRANCE TO THE PROPOSED DEVELOPMENT.

PLEASE NOTE THAT ALL EXISTING SIDEWALKS/CURB RAMPS SHOWN WITHIN THESE PLANS, REGARDLESS IF REPAIR AREAS ARE SPECIFICALLY SHOWN OR NOT, MUST BE REPAIRED PRIOR TO ANY FORM OF OCCUPANCY, REGARDLESS IF THE DEFICIENCIES WERE EXISTING CONDITIONS OR AS A RESULT OF CONSTRUCTION ACTIVITIES

EXISTING LEGEND

———	BOUNDARY LINE	○	FOUND SURVEY MONUMENT
— — —	BOUNDARY ADJACENT / ROW LINE	●	SET SURVEY MONUMENT
— — —	EASEMENT LINE	△	SITE CONTROL POINT
═ ═ ═	EXISTING CURB LINE	⊕	SITE BENCHMARK
– – –STS– – – – –STS– – –	UNDERGROUND STORM LINE	P.R.J.C.M.	PUBLIC RECORDS OF JACKSON COUNTY, MISSOURI
– – –BE– – – – –BE– – –	UNDERGROUND ELECTRIC LINE		
– – –UNK– – – – –UNK– – –	UNSPECIFIED UTILITY LINE	DOC. NO.	DOCUMENT NUMBER
– – –W– – – – –W– – –	UNDERGROUND WATER LINE	BK. , PG.	BOOK, PAGE
– – –G– – – – –G– – –	UNDERGROUND GAS LINE		EXISTING HYDRANT
– – –BTV– – – – –BTV– – –	UNDERGROUND CABLE LINE	Ⓔ	EXISTING ELECTRIC METER
585	EXISTING MAJOR GROUND CONTOUR	☐ E	EXISTING ELECTRIC RISER
586	EXISTING GROUND CONTOUR	T	EXISTING TELEPHONE HAND HOLE
		F	EXISTING FIBER OPTIC HAND HOLE
▨	EXISTING BUILDING	Ⓡ	EXISTING STORM MANHOLE/CATCH BASIN
		Ⓢ	EXISTING SANITARY MANHOLE
	EXISTING ASPHALT	Ⓣ	EXISTING TELEPHONE MANHOLE
		☐	EXISTING STORM INLET
	EXISTING CONCRETE	Ⓑ	EXISTING BOLLARD
		Ⓦ	EXISTING WATER METER
	EXISTING TRAFFIC SIGNAL	Ⓖ	EXISTING GAS VALVE
☼	EXISTING LIGHT POLE	☐ CATV	EXISTING CABLE RISER
		●	EXISTING UTILITY POLE

PROPOSED LEGEND

——— – – ———	PROPERTY LINE
═══	PROPOSED CURB & GUTTER
– – – –	PROPOSED SERVICE BELL HOSE
■—●	PROPOSED SITE LIGHT, SEE PHOTOMETRIC PLAN
▣ ■ ○	PROPOSED DRAINAGE STRUCTURES (SEE GRADING/DRAINAGE PLANS)
WM	WATER METER, (SEE UTILITY PLAN)
●	SEWER STRUCTURES, (SEE UTILITY PLAN)
➡	DIRECTIONAL PAVEMENT MARKING
▩	PROPOSED HEAVY DUTY CONCRETE PAVEMENT. REFER TO DETAIL P9 ON PAVING PLAN
▒	PROPOSED CONCRETE SIDEWALK PAVEMENT. REFER TO DETAIL P10 ON PAVING PLAN.
⬡	EXTEND SAME CONCRETE FINISHING PROCESS AS INTERNAL SERVICE BAYS
░	PROPOSED STANDARD DUTY ASPHALT PAVEMENT. REFER TO KEYNOTE P6 ON PAVING PLAN.

SURVEY PROVIDED BY:

ATWELL
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NAPERVILLE, IL 60563
630.577.0800

DATED: 15 SEPTEMBER, 2025

N

40 30 20 10 0 20 40 60 80

SCALE: 1 inch = 40 ft.

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Bentonville, Arkansas 72712
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02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

Diego A. Garcia

06-MAR-26 10:07:47

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

Valvoline
Instant Oil Change

VALVOLINE INSTANT OIL CHANGE

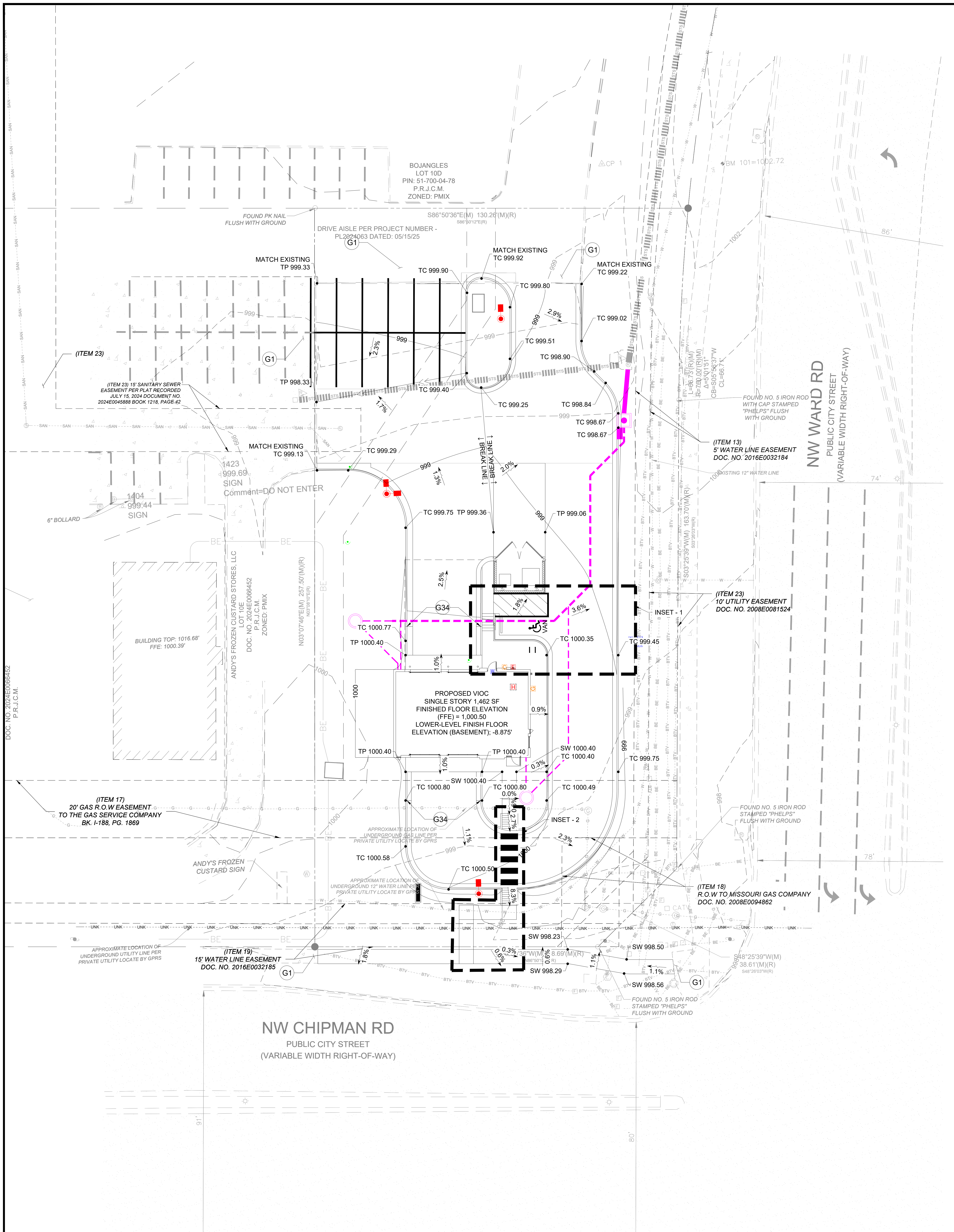
610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
OVERALL SITE PLAN

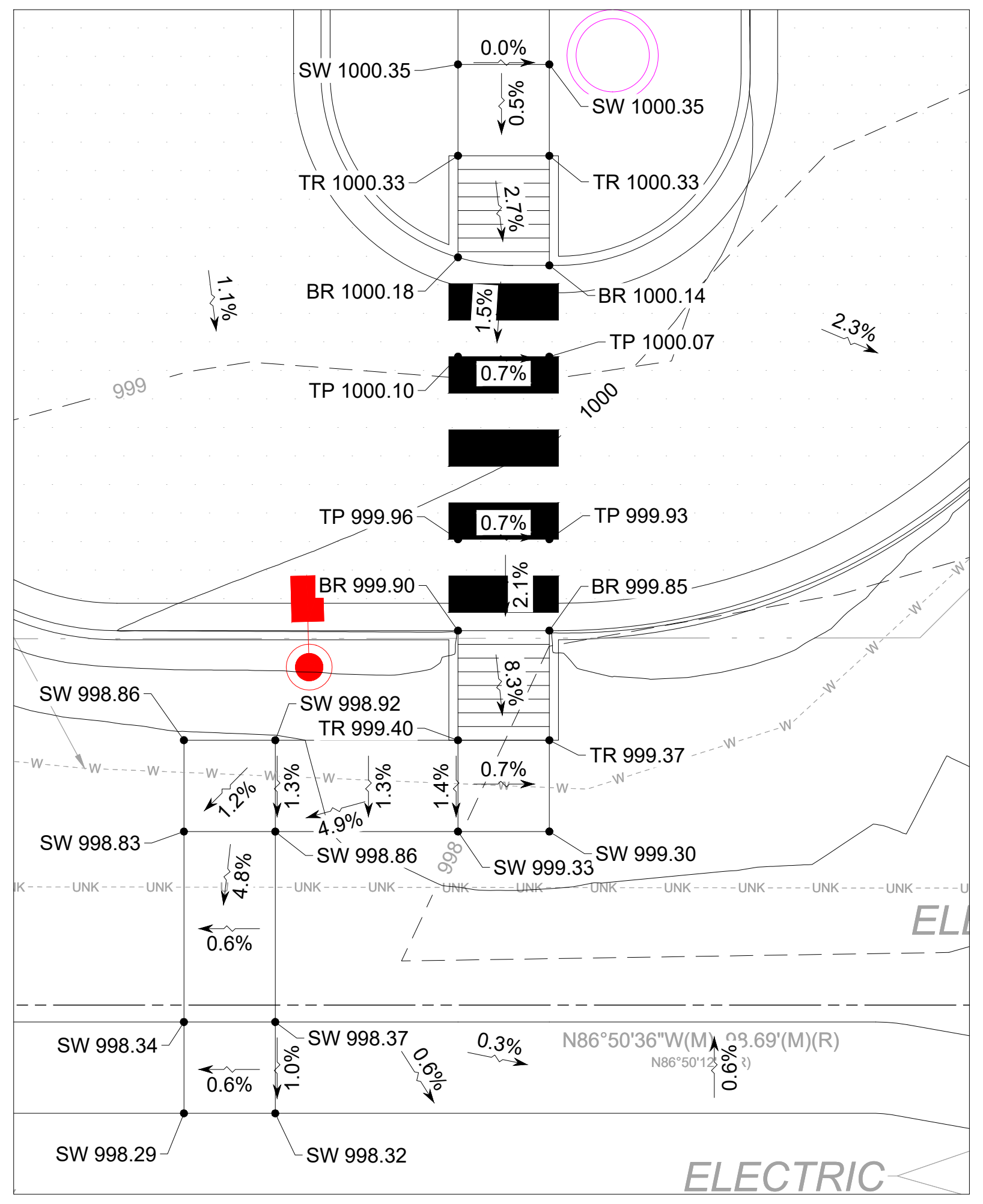
SHEET #
C-4.3

MISSOURI 811®


BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
ZONED: PMIX
FOUND PK NAIL FLUSH WITH GROUND
S86°50'36"E(M) 130.26'(M)(R)
S86°50'12"E(R)
DRIVE AISLE PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
G1
MATCH EXISTING TP 999.33
MATCH EXISTING TC 999.92
MATCH EXISTING TC 999.22
MATCH EXISTING TC 999.13
TC 999.90
TC 999.80
TC 999.02
TC 999.51
TC 998.90
TC 999.40
TC 999.25
TC 998.84
TC 998.67
TC 998.67
TC 999.29
TP 998.33
TC 999.75 TP 999.36
TP 999.06
BREAK LINE
(ITEM 23)
(ITEM 23) 15' SANITARY SEWER EASEMENT PER PLAT RECORDED JULY 15, 2024 DOCUMENT NO. 2024E0045888 BOOK 1218, PAGE 42
1423 999.69 SIGN Comment=DO NOT ENTER
1404 999.44 SIGN
6" BOLLARD
CP 1
BM 101=1002.72
FOUND NO. 5 IRON ROD WITH CAP STAMPED "PHELPS" FLUSH WITH GROUND
(ITEM 13) 5' WATER LINE EASEMENT DOC. NO. 2016E0032184
EXISTING 12" WATER LINE
L=66.73'(R)(M)
R=760.00'(R)(M)
Δ=5°01'51"
CB=S05°56'37"W
CL=66.71'
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
86'
74'
78'
(ITEM 23) 10' UTILITY EASEMENT DOC. NO. 2008E0081524
INSET - 1
S03°25'39"W(M) 163.70'(M)(R)
S03°26'03"W(R)
BUILDING TOP: 1016.68' FFE: 1000.39'
ANDY'S FROZEN CUSTARD STORES, LLC LOT 10E DOC. NO. 2024E0066452 P.R.J.C.M. ZONED: PMIX
N03°07'46"E(M) 257.50'(M)(R)
N03°08'10"E(R)
DOC. NO. 2024E0066452 P.R.J.C.M.
G34
TC 1000.77
TP 1000.40
TC 1000.35
TC 999.45
PROPOSED VIOC
SINGLE STORY 1,462 SF
FINISHED FLOOR ELEVATION
(FFE) = 1,000.50
LOWER-LEVEL FINISH FLOOR
ELEVATION (BASEMENT); -8.875'
TP 1000.40
TP 1000.40
SW 1000.40
TC 1000.40
SW 1000.40
TC 1000.80
TC 1000.80
TC 1000.49
TC 999.75
TC 1000.58
TC 1000.50
INSET - 2
SW 998.23
SW 998.29
SW 998.50
SW 998.56
(ITEM 17) 20' GAS R.O.W EASEMENT TO THE GAS SERVICE COMPANY BK. I-188, PG. 1869
APPROXIMATE LOCATION OF UNDERGROUND GAS LINE PER PRIVATE UTILITY LOCATE BY GPRS
APPROXIMATE LOCATION OF UNDERGROUND 12" WATER LINE PER PRIVATE UTILITY LOCATE BY GPRS
APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINE PER PRIVATE UTILITY LOCATE BY GPRS
ANDY'S FROZEN CUSTARD SIGN
(ITEM 19) 15' WATER LINE EASEMENT DOC. NO. 2016E0032185
(ITEM 18) R.O.W TO MISSOURI GAS COMPANY DOC. NO. 2008E0094862
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
S48°25'39"W(M) 38.61'(M)(R)
S48°26'03"W(R)
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
2.3%
1.7%
2.9%
1.3%
2.0%
2.5%
1.8%
3.6%
1.0%
0.9%
0.3%
0.0%
2.7%
1.1%
8.3%
0.6%
999
1000
1002
VAN

GENERAL GRADING/DRAINAGE NOTES:

1. ALL GRADING AND SITE PREPARATION SHALL CONFORM WITH SPECIFICATIONS CONTAINED IN THE GEOTECHNICAL REPORT.
2. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE TO THE CITY LATEST CONSTRUCTION SPECIFICATIONS AND DETAILS.
3. PRIOR TO ANY EXCAVATION OF THE PROJECT SITE, THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, REFERENCE POINTS AND STAKES.
5. ALL INDICATED ELEVATIONS ARE FINISHED ELEVATIONS.
6. FIELD VERIFY LOCATIONS, SIZES AND IF APPLICABLE INVERTS OF EXISTING UTILITIES FOR PROPOSED CONNECTIONS PRIOR TO CONSTRUCTION.
7. LOCATE AND PROTECT ALL UTILITIES ASSOCIATED WITH THE PROJECT PRIOR TO CONSTRUCTION.
8. INSTALL SILT CONTROL MEASURES BEFORE BEGINNING SITE WORK. THESE MEASURES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
9. MAINTAIN PROPER SITE DRAINAGE AT ALL TIMES DURING CONSTRUCTION. PREVENT STORM WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.
10. INSTALL ALL APPROPRIATE TREE PROTECTION MEASURES PRIOR TO GRADING.
11. CUT AND FILL SLOPES SHALL HAVE A MAXIMUM SLOPE OF 2:1.
12. ALL EXCAVATION SHALL INCLUDE CLEARING, STRIPPING AND STOCKPILING TOPSOIL, REMOVING UNSUITABLE MATERIALS, THE CONSTRUCTION OF EMBANKMENTS, CONSTRUCTION FILLS, AND THE FINAL SHAPING AND TRIMMING TO THE THE LINES AND GRADES SHOWN ON THE PLANS.
13. ALL TREES, BRUSH, AND ORGANIC TOPSOIL AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED, UNLESS OTHERWISE SPECIFIED, AND DISPOSED OF AT AN OFF-SITE LOCATION, WITH THE EXCEPTION THAT ENOUGH TOPSOIL SHALL BE RETAINED FOR RESPREAD AND GENERAL LANDSCAPING. AREAS WHICH ARE TO BE FILLED SHALL BE COMPACTED TO A MAXIMUM DENSITY OF 95% AS DETERMINED BY THE MODIFIED AASHTO COMPACTION TEST IN THE PAVED AREAS AND 85% IN THE OTHER AREAS.
14. STRIP AND STOCKPILE TOPSOIL. SPREAD FOUR (4) INCHES MINIMUM OF TOPSOIL ON LANDSCAPE AREAS AND REMOVE EXCESS TOPSOIL FROM SITE. PREPARE SUB-GRADE FOR PAVEMENT AND CURBS AND BACKFILL CURBS AFTER CURB CONSTRUCTION.
15. PROVIDE SUPPLY OF TOPSOIL FOR LANDSCAPE CONTRACTOR FOR INSTALLATION IN ALL LANDSCAPE ISLANDS.
16. PROVIDE AND INSTALL TOPSOIL IN DISTURBED AREAS TO BE GRASSED, TO INCLUDE PAVEMENT SHOULDERS AND DETENTION AREAS.
17. ALL EARTHWORK AND BASE COURSE FOR THE PARKING AREA SHALL BE COMPACTED TO A MINIMUM OF 95% MODIFIED LABORATORY DENSITY. CERTIFICATION SAID COMPACTION SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER, OR HIS/HER REPRESENTATIVE, PRIOR TO THE PLACEMENT OF THE BASE COURSE MATERIAL. BOTH PROOF ROLLING AND COMPACTION TESTING MUST BE APPROVED AND WITNESSED BY THE ENGINEER OR OWNER REPRESENTATIVE.
18. THE PAVEMENT SUBGRADE AND BASE COURSE MATERIAL SHALL BE INSPECTED AND APPROVED BY THE ENGINEER OR OWNER REPRESENTATIVE PRIOR TO CONSTRUCTING THE BASE AND SURFACE COURSES THEREON.
19. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE TO ALL INLETS AND CATCH BASINS. AREAS OF SURFACE PONDING SHALL BE CORRECTED BY CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
20. IF AREAS ARE DISTURBED BEYOND PROPOSED GRADES BY NEGLIGENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY REGRADING OR REPAIR TO MATCH ORIGINAL EXISTING CONDITIONS.
21. SHORING SHALL BE DONE AS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR THE SAFETY OF PERSONNEL. SHORING SHALL BE IN ACCORDANCE WITH ALL O.S.H.A AND LOCAL REGULATIONS.
22. STRUCTURES FOR STORM SEWERS SHALL BE IN ACCORDANCE WITH THESE IMPROVEMENT PLANS AND THE APPLICABLE STANDARD SPECIFICATIONS. WHERE GRANULAR TRENCH BACKFILL IS REQUIRED AROUND THESE STRUCTURES, THE COST SHALL BE CONSIDERED AS INCIDENTAL AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE STRUCTURE.
23. CONFIRM INVERTS OF ALL EXISTING STORM INLETS AND SANITARY SEWER MANHOLES BEFORE COMMENCING CONSTRUCTION.
24. ALL STORM SEWER LINES 18"-54" DIAMETER ARE TO BE REINFORCED CONCRETE PIPE ACCORDING TO ASTM C-76 TYPE III, UNLESS OTHERWISE SPECIFIED ON PLANS.
25. A GEOTEXTILE MATTING (LANDLOCK TRM 450 OR EQUIVALENT) SHALL BE USED FOR EROSION CONTROL AN ALL SLOPES GREATER THAN 3H:1V.
26. DRAINAGE STRUCTURES AND DETENTION POND SHALL BE MAINTAINED BY PROPERTY OWNERS.
27. CONTRACTOR SHALL ADHERE TO PROPOSED GRADES ALONG CREEKS, ESPECIALLY IN THE AREA OF THE PROPOSED DETENTION POND. IF AREAS ARE DISTURBED BEYOND PROPOSED GRADES BY NEGLIGENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY PENALTIES INCURRED.
28. ALL PROPOSED SPOT ELEVATIONS SHOWN INDICATE FINISHED GRADED ELEVATIONS AT EDGE OF PAVEMENT AND/OR GRADE BREAKS, UNLESS OTHERWISE NOTED.
29. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
30. LOWER-LEVEL EXCAVATION REQUIRED TO BE COMPLETED BY CONTRACTOR.


SW 1000.35
0.0%
0.5%
SW 1000.35
TR 1000.33
2.7%
TR 1000.33
1.1%
BR 1000.18
BR 1000.14
TP 1000.07
2.3%
0.7%
TP 1000.10
1000
999
TP 999.96
0.7%
TP 999.93
BR 999.90
2.1%
BR 999.85
SW 998.86
8.3%
SW 998.92
TR 999.40
TR 999.37
0.7%
SW 998.83
1.2%
1.3%
4.9%
1.4%
SW 998.86
SW 999.33
SW 999.30
4.8%
0.6%
ELE
SW 998.34
SW 998.37
0.3%
N86°50'36"W(M) 69.69'(M)(R)
0.6%
1.0%
0.6%
SW 998.29
SW 998.32
ELECTRIC

INSET - 2
SCALE: 1 INCH = 10 FT

EXISTING LEGEND

LEGEND	
"SQE"	SET 5/8" IR (W/CAP STAMPED "QUIDDITY ENG. PROPERTY CORNER")
"SX"	SET CUT "X" IN CONCRETE
AE	AERIAL EASEMENT
ACCE	ACCESS EASEMENT
APPROX	APPROXIMATE
BBI	TYPE "BB" INLET
CD	CENTERLINE OF DITCH
CDS	CONCRETE DITCH STRUCTURE
CF	CLERK'S FILE
CLF	CHAIN LINK FENCE
CM	CONTROLLING MONUMENT
CPP	CORRUGATED PLASTIC PIPE
ECD	ELECTRICAL CONDUIT
EI	TYPE "E" INLET
EL	EDGE OF LANDSCAPING
ESMT	EASEMENT
EV	UNDERGROUND ELECTRICAL VAULT
FC	FILM CODE
FND	FOUND
FV	FLUSH VALVE/FIRE HYDRANT
GA	GUY ANCHOR
GB	GRADE BREAK
GI	GRATE TOP INLET
GLM	GAS LINE MARKER
HCAD	HARRIS COUNTY APPRAISAL DISTRICT
HCDR	HARRIS COUNTY DEED RECORDS
HCMR	HARRIS COUNTY MAP RECRORS
HCOPRRP	HARRIS COUNTY OFFICIAL PUBLIC RECORDS OF REAL PROPERTY
IR	IRON ROD
LP	LIGHT POLE/POST
MH	MANHOLE
No.	NUMBER
PG	PAGE
PPC	POWER POLE W/DOWN CONDUIT
PVC	POLYVINYL CHLORIDE PIPE
ROW	RIGHT-OF-WAY
SAN	SANITARY MANHOLE
SAW	SAMPLE WELL
SN	SIGN
SSE	SANITARY SEWER EASEMENT
STME	STORM EASEMENT
STM	STORM MANHOLE
TPD	TELEPHONE PEDESTAL
THH	TELEPHONE HAND HOLE
UE	UTILITY EASEMENT
VOL	VOLUME
W/	WITH
WLE	WATER LINE EASEMENT
WM	WATER METER
WV	WATER VALVE

△1 12" WATER RELOCATION & 6" FORCE MAIN ALONG GRANT ROAD BETWEEN PAWNEE BEND AND LONGWOOD BEND PREPARED BY COSTELLO, 4-17-2017

△2 ROCK CREEK PLAZA PREPARED BY PARADISE ENGINEERING, 9-11-2015

——> —— · · · ——> —— · · · ——	PIN FLAG FIBER OPTIC
—— STM ——	STORM SEWER LINE
—— SAN —— SAN ——	SANITARY LINE
—— WRL —— WRL ——	WATERLINE
—— UT —— UT ——	UNDERGROUND TV CABLE
—— UC —— UC ——	UNDERGROUND CABLE
—— UE —— UE ——	UNDERGROUND ELECTRICAL
————	UNDERGROUND GAS
—— UC —— UC ——	UNDERGROUND TELEPHONE
————	TOP OF BANK
////	ASPHALT
————	OVERHEAD POWER
▨	CONCRETE

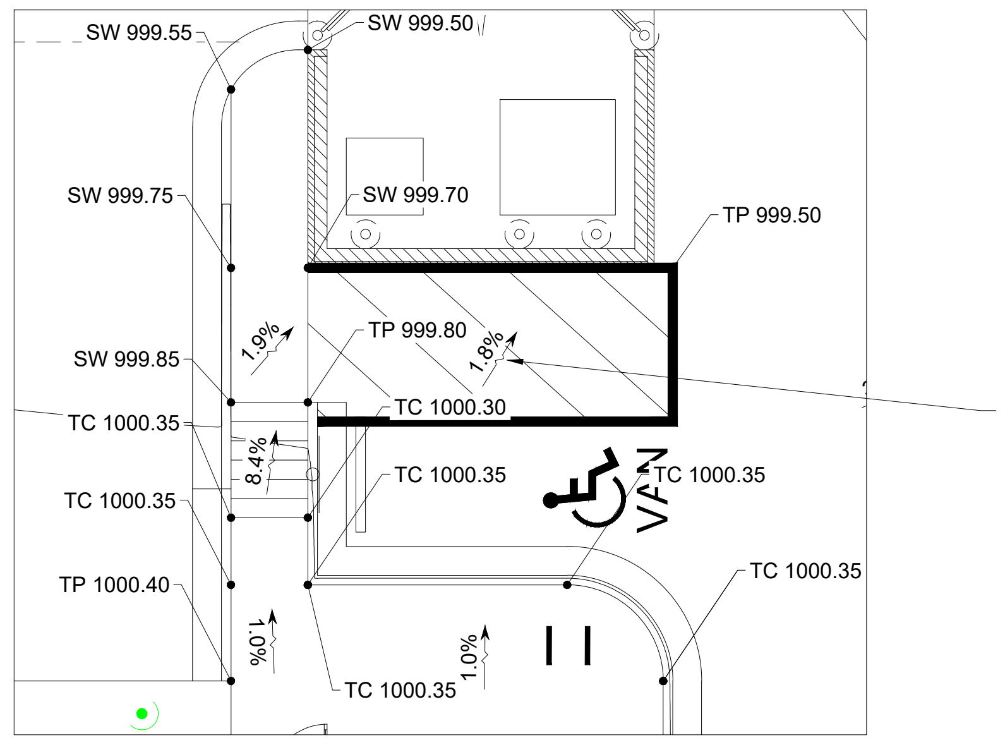
PROPOSED LEGEND

————	PROPERTY LINE
═══	CURB & GUTTER
—— XXXX ——	PROPOSED CONTOUR
— — — —	BREAKLINE
▬▬ STM-> ▬▬	STORM SEWER PIPE
▬ ▬ ▬ ▬	STORM SEWER ROOF DRAIN AND SUMP PUMP PIPE
——>>——	FLOWLINE
⊙	STORM SEWER CLEAN OUT
◎	SUMP PUMP (SEE MEP PLANS/DETAILS)
X%	DRAINAGE SLOPE AND DIRECTION
EG XXXX	EXISTING SPOT ELEVATION
FG XXXX	FINISH GRADE ELEVATION
BR XXXX	BOTTOM OF RAMP
TR XXXX	TOP OF RAMP
SW XXXX	SIDEWALK ELEVATION
TC XXXX	TOP OF CURB
FL XXXX	FLOW LINE

GRADING KEY NOTES

#

G1	MATCH EXISTING PAVEMENT ELEVATION.
G34	TRANSITION CURB FROM 6" TO 0" OVER 10'


SW 999.55
SW 999.50
SW 999.75
SW 999.70
TP 999.50
SW 999.85
1.9%
TP 999.80
1.8%
TC 1000.35
TC 1000.30
8.4%
TC 1000.35
TC 1000.35
TC 1000.35
VAN
TP 1000.40
TC 1000.35
1.0%
1.0%
TC 1000.35

ADA PARKING NOT TO EXCEED 2% SLOPE IN ANY DIRECTION

INSET - 1
SCALE: 1 INCH = 10 FT

SURVEY PROVIDED BY:

ATWELL
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800

DATED: 15 SEPTEMBER, 2025

N

20 15 10 5 0 10 20 30 40

SCALE: 1 inch = 20 ft.

HFA
HFA-AE , LTD.

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
t 479.273.7780
f 888.520.9685
www.hfa-ae.com

DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

Diego A. Garcia
06-MAR-26 10:07:53

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

Valvoline
Instant Oil Change

VALVOLINE INSTANT OIL CHANGE

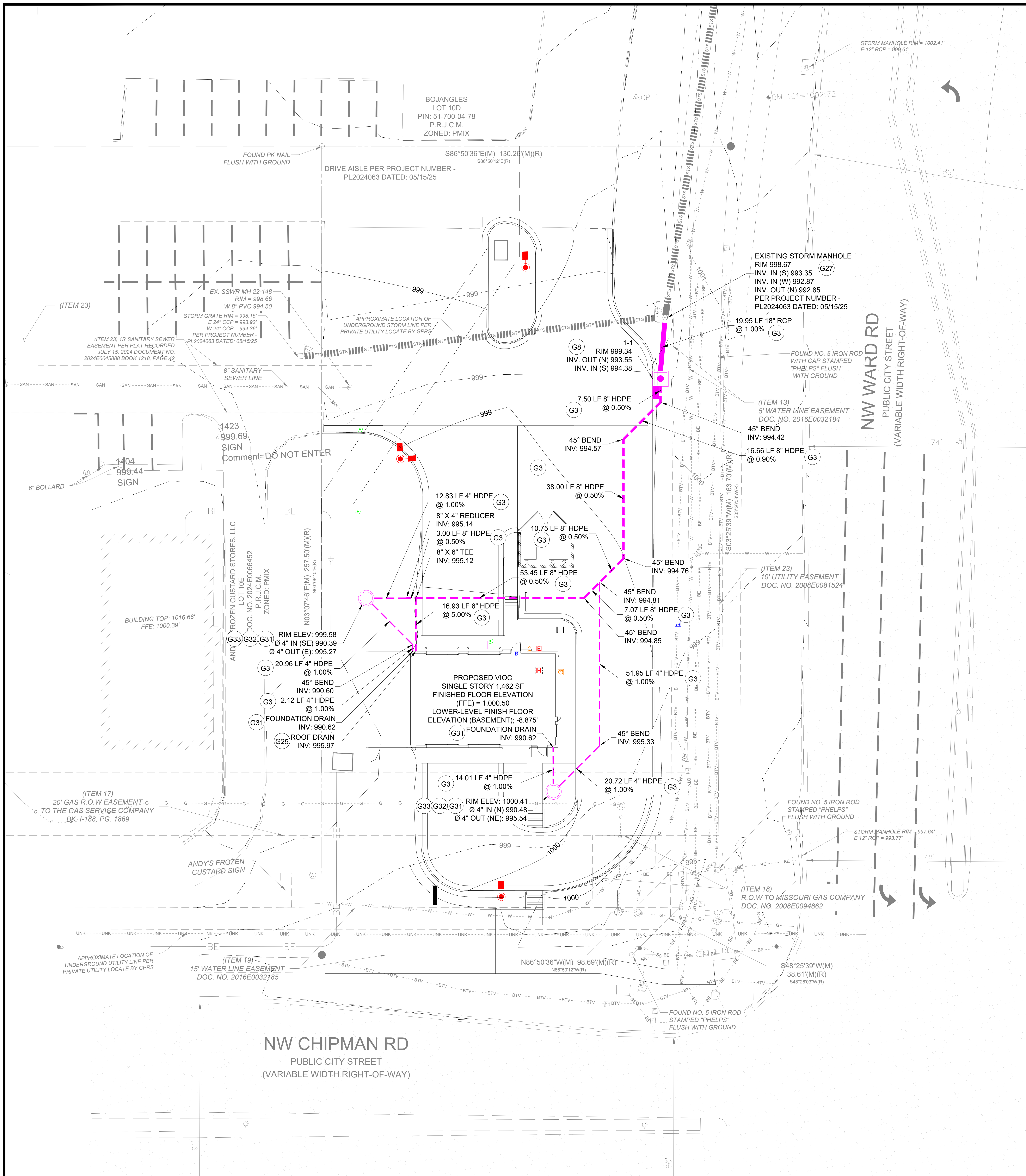
610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
GRADING PLAN

SHEET #
C-5.0

MISSOURI 811


BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
ZONED: PMIX
FOUND PK NAIL FLUSH WITH GROUND
S86°50'36"E(M) 130.20'(M)(R)
DRIVE AISLE PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
(ITEM 23)
EX. SSWR MH 22-148
RIM = 998.66
W 8" PVC 994.50
STORM GRATE RIM = 998.15'
E 24" CCP = 993.92'
W 24" CCP = 994.36'
PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
(ITEM 23) 15' SANITARY SEWER EASEMENT PER PLAT RECORDED JULY 15, 2024 DOCUMENT NO. 2024E0045888 BOOK 1218, PAGE 42
APPROXIMATE LOCATION OF UNDERGROUND STORM LINE PER PRIVATE UTILITY LOCATE BY GPRS
8" SANITARY SEWER LINE
EXISTING STORM MANHOLE
RIM 998.67
INV. IN (S) 993.35
INV. IN (W) 992.87
INV. OUT (N) 992.85
PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
G27
19.95 LF 18" RCP @ 1.00%
G3
G8
1-1
RIM 999.34
INV. OUT (N) 993.55
INV. IN (S) 994.38
FOUND NO. 5 IRON ROD WITH CAP STAMPED "PHELPS" FLUSH WITH GROUND
7.50 LF 8" HDPE @ 0.50%
(ITEM 13) 5' WATER LINE EASEMENT DOC. NO. 2016E0032184
45° BEND INV: 994.42
16.66 LF 8" HDPE @ 0.90%
45° BEND INV: 994.57
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
1423
999.69
SIGN
Comment=DO NOT ENTER
1404
999.44
SIGN
6" BOLLARD
38.00 LF 8" HDPE @ 0.50%
12.83 LF 4" HDPE @ 1.00%
8" X 4" REDUCER INV: 995.14
3.00 LF 8" HDPE @ 0.50%
8" X 6" TEE INV: 995.12
10.75 LF 8" HDPE @ 0.50%
53.45 LF 8" HDPE @ 0.50%
45° BEND INV: 994.76
S03°25'39"W(M) 163.70'(M)(R)
(ITEM 23) 10' UTILITY EASEMENT DOC. NO. 2008E0081524
BUILDING TOP: 1016.68'
FFE: 1000.39'
ANDY'S FROZEN CUSTARD STORES, LLC
LOT 10E
DOC. NO. 2024E066452
P.R.J.C.M.
ZONED: PMIX
N03°07'46"E(M) 257.50'(M)(R)
16.93 LF 6" HDPE @ 5.00%
45° BEND INV: 994.81
7.07 LF 8" HDPE @ 0.50%
45° BEND INV: 994.85
G33 G32 G31
RIM ELEV: 999.58
Ø 4" IN (SE) 990.39
Ø 4" OUT (E): 995.27
20.96 LF 4" HDPE @ 1.00%
45° BEND INV: 990.60
2.12 LF 4" HDPE @ 1.00%
FOUNDATION DRAIN INV: 990.62
ROOF DRAIN INV: 995.97
G25
PROPOSED VIOC
SINGLE STORY 1,462 SF
FINISHED FLOOR ELEVATION
(FFE) = 1,000.50
LOWER-LEVEL FINISH FLOOR
ELEVATION (BASEMENT): -8.875'
FOUNDATION DRAIN INV: 990.62
51.95 LF 4" HDPE @ 1.00%
45° BEND INV: 995.33
14.01 LF 4" HDPE @ 1.00%
RIM ELEV: 1000.41
Ø 4" IN (N) 990.48
Ø 4" OUT (NE): 995.54
20.72 LF 4" HDPE @ 1.00%
(ITEM 17) 20' GAS R.O.W EASEMENT TO THE GAS SERVICE COMPANY BK. I-188, PG. 1869
ANDY'S FROZEN CUSTARD SIGN
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
STORM MANHOLE RIM = 997.64'
E 12" RCP = 993.77'
(ITEM 18) R.O.W TO MISSOURI GAS COMPANY DOC. NO. 2008E0094862
APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINE PER PRIVATE UTILITY LOCATE BY GPRS
(ITEM 19) 15' WATER LINE EASEMENT DOC. NO. 2016E0032185
N86°50'36"W(M) 98.69'(M)(R)
S48°25'39"W(M) 38.61'(M)(R)
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)

GENERAL GRADING/DRAINAGE NOTES:

1. ALL GRADING AND SITE PREPARATION SHALL CONFORM WITH SPECIFICATIONS CONTAINED IN THE GEOTECHNICAL REPORT.
2. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE TO THE CITY LATEST CONSTRUCTION SPECIFICATIONS AND DETAILS.
3. PRIOR TO ANY EXCAVATION OF THE PROJECT SITE, THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, REFERENCE POINTS AND STAKES.
5. ALL INDICATED ELEVATIONS ARE FINISHED ELEVATIONS.
6. FIELD VERIFY LOCATIONS, SIZES AND IF APPLICABLE INVERTS OF EXISTING UTILITIES FOR PROPOSED CONNECTIONS PRIOR TO CONSTRUCTION.
7. LOCATE AND PROTECT ALL UTILITIES ASSOCIATED WITH THE PROJECT PRIOR TO CONSTRUCTION.
8. INSTALL SILT CONTROL MEASURES BEFORE BEGINNING SITE WORK. THESE MEASURES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
9. MAINTAIN PROPER SITE DRAINAGE AT ALL TIMES DURING CONSTRUCTION. PREVENT STORM WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.
10. INSTALL ALL APPROPRIATE TREE PROTECTION MEASURES PRIOR TO GRADING.
11. CUT AND FILL SLOPES SHALL HAVE A MAXIMUM SLOPE OF 2:1.
12. ALL EXCAVATION SHALL INCLUDE CLEARING, STRIPPING AND STOCKPILING TOPSOIL, REMOVING UNSUITABLE MATERIALS, THE CONSTRUCTION OF EMBANKMENTS, CONSTRUCTION FILLS, AND THE FINAL SHAPING AND TRIMMING TO THE THE LINES AND GRADES SHOWN ON THE PLANS.
13. ALL TREES, BRUSH, AND ORGANIC TOPSOIL AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED, UNLESS OTHERWISE SPECIFIED, AND DISPOSED OF AT AN OFF-SITE LOCATION, WITH THE EXCEPTION THAT ENOUGH TOPSOIL SHALL BE RETAINED FOR RESPREAD AND GENERAL LANDSCAPING. AREAS WHICH ARE TO BE FILLED SHALL BE COMPACTED TO A MAXIMUM DENSITY OF 95% AS DETERMINED BY THE MODIFIED AASHTO COMPACTION TEST IN THE PAVED AREAS AND 85% IN THE OTHER AREAS.
14. STRIP AND STOCKPILE TOPSOIL. SPREAD FOUR (4) INCHES MINIMUM OF TOPSOIL ON LANDSCAPE AREAS AND REMOVE EXCESS TOPSOIL FROM SITE. PREPARE SUB-GRADE FOR PAVEMENT AND CURBS AND BACKFILL CURBS AFTER CURB CONSTRUCTION.
15. PROVIDE SUPPLY OF TOPSOIL FOR LANDSCAPE CONTRACTOR FOR INSTALLATION IN ALL LANDSCAPE ISLANDS.
16. PROVIDE AND INSTALL TOPSOIL IN DISTURBED AREAS TO BE GRASSED, TO INCLUDE PAVEMENT SHOULDERS AND DETENTION AREAS.
17. ALL EARTHWORK AND BASE COURSE FOR THE PARKING AREA SHALL BE COMPACTED TO A MINIMUM OF 95% MODIFIED LABORATORY DENSITY. CERTIFICATION SAID COMPACTION SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER, OR HIS/HER REPRESENTATIVE, PRIOR TO THE PLACEMENT OF THE BASE COURSE MATERIAL. BOTH PROOF ROLLING AND COMPACTION TESTING MUST BE APPROVED AND WITNESSED BY THE ENGINEER OR OWNER REPRESENTATIVE.
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20. IF AREAS ARE DISTURBED BEYOND PROPOSED GRADES BY NEGLIGENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY REGRADING OR REPAIR TO MATCH ORIGINAL EXISTING CONDITIONS.
21. SHORING SHALL BE DONE AS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR THE SAFETY OF PERSONNEL. SHORING SHALL BE IN ACCORDANCE WITH ALL O.S.H.A AND LOCAL REGULATIONS.
22. STRUCTURES FOR STORM SEWERS SHALL BE IN ACCORDANCE WITH THESE IMPROVEMENT PLANS AND THE APPLICABLE STANDARD SPECIFICATIONS. WHERE GRANULAR TRENCH BACKFILL IS REQUIRED AROUND THESE STRUCTURES, THE COST SHALL BE CONSIDERED AS INCIDENTAL AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE STRUCTURE.
23. CONFIRM INVERTS OF ALL EXISTING STORM INLETS AND SANITARY SEWER MANHOLES BEFORE COMMENCING CONSTRUCTION.
24. ALL STORM SEWER LINES 18"-54" DIAMETER ARE TO BE REINFORCED CONCRETE PIPE ACCORDING TO ASTM C-76 TYPE III, UNLESS OTHERWISE SPECIFIED ON PLANS.
25. A GEOTEXTILE MATTING (LANDLOCK TRM 450 OR EQUIVALENT) SHALL BE USED FOR EROSION CONTROL AN ALL SLOPES GREATER THAN 3H:1V.
26. DRAINAGE STRUCTURES AND DETENTION POND SHALL BE MAINTAINED BY PROPERTY OWNERS.
27. CONTRACTOR SHALL ADHERE TO PROPOSED GRADES ALONG CREEKS, ESPECIALLY IN THE AREA OF THE PROPOSED DETENTION POND. IF AREAS ARE DISTURBED BEYOND PROPOSED GRADES BY NEGLIGENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY PENALTIES INCURRED.
28. ALL PROPOSED SPOT ELEVATIONS SHOWN INDICATE FINISHED GRADED ELEVATIONS AT EDGE OF PAVEMENT AND/OR GRADE BREAKS, UNLESS OTHERWISE NOTED.
29. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
30. LOWER-LEVEL EXCAVATION REQUIRED TO BE COMPLETED BY CONTRACTOR.

EXISTING LEGEND

———	BOUNDARY LINE	○	FOUND SURVEY MONUMENT
— — —	BOUNDARY ADJACENT / ROW LINE	●	SET SURVEY MONUMENT
— — — —	EASEMENT LINE	△	SITE CONTROL POINT
═ ═ ═	EXISTING CURB LINE	◐	SITE BENCHMARK
- - -STS- - - - -STS- - -	UNDERGROUND STORM LINE	P.R.J.C.M.	PUBLIC RECORDS OF JACKSON COUNTY, MISSOURI
- - -BE- - - - -BE- - -	UNDERGROUND ELECTRIC LINE		
- - -UNK- - - - -UNK- - -	UNSPECIFIED UTILITY LINE	DOC. NO.	DOCUMENT NUMBER
- - -W- - - - -W- - -	UNDERGROUND WATER LINE	BK. , PG.	BOOK, PAGE
- - -G- - - - -G- - -	UNDERGROUND GAS LINE		EXISTING HYDRANT
- - -BTV- - - - -BTV- - -	UNDERGROUND CABLE LINE	Ⓔ	EXISTING ELECTRIC METER
585	EXISTING MAJOR GROUND CONTOUR	☐ E	EXISTING ELECTRIC RISER
586	EXISTING GROUND CONTOUR	T	EXISTING TELEPHONE HAND HOLE
		F	EXISTING FIBER OPTIC HAND HOLE
▨	EXISTING BUILDING	Ⓡ	EXISTING STORM MANHOLE/CATCH BASIN
		Ⓢ	EXISTING SANITARY MANHOLE
░	EXISTING ASPHALT	Ⓣ	EXISTING TELEPHONE MANHOLE
		☐	EXISTING STORM INLET
░	EXISTING CONCRETE	Ⓑ	EXISTING BOLLARD
		Ⓦ	EXISTING WATER METER
	EXISTING TRAFFIC SIGNAL	Ⓖ	EXISTING GAS VALVE
☼	EXISTING LIGHT POLE	☐ CATV	EXISTING CABLE RISER
		●	EXISTING UTILITY POLE

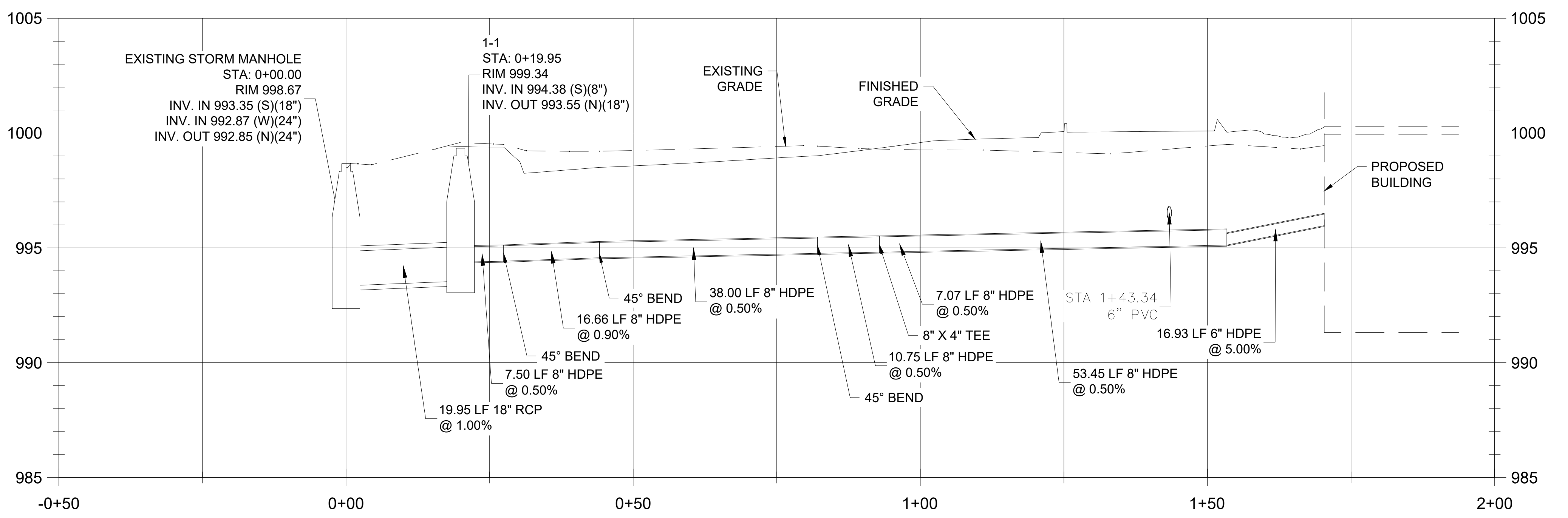
PROPOSED LEGEND

——— — — ———	PROPERTY LINE
═══	CURB & GUTTER
——— XXXX ———	PROPOSED CONTOUR
— — —	STORM SEWER ROOF DRAIN AND SUMP PUMP PIPE
○	SUMP PUMP (SEE MEP PLANS/DETAILS)
▣	CURB INLET WITH EXTENSION

STORM DRAIN KEY NOTES

#

G3	STORM SEWER (SEE NOTE FOR TYPE, SIZE AND SLOPE). REFER TO CITY OF LEE'S SUMMIT STANDARD DETAIL
G8	SINGLE WINGED CURB INLET (SWCI). REFER TO CITY OF LEE'S SUMMIT STANDARD DETAIL
G25	ROOF DRAINS - PER ARCH. PLANS (SEE NOTE FOR NUMBER AND SIZE)
G27	CONNECT TO EXISTING STORM DRAIN PIPE, MANHOLE, STUB-OUT, OR INLET. (CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION)
G31	REFER TO PLUMBING PLAN FOR FOUNDATION DRAIN DESIGN
G32	REFER TO PLUMBING AND ELECTRICAL PLANS FOR SUMP PUMP, POWER AND LOW VOLTAGE DESIGN.
G33	FOUNDATION SUMP PUMP MANHOLE STRUCTURE PER DETAIL ON C-10.1

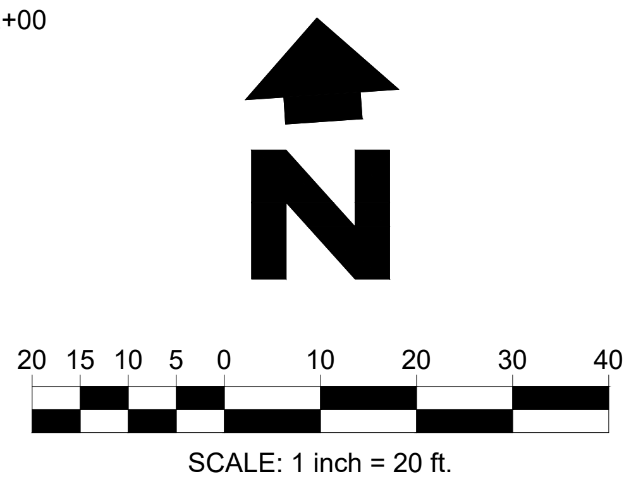


STORM SEWER LINE - 1
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=5'

SURVEY PROVIDED BY:

ATWELL
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800

DATED: 15 SEPTEMBER, 2025


N
20 15 10 5 0 10 20 30 40

SCALE: 1 inch = 20 ft.

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DATE	ISSUE
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02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

Diego A. Garcia

06-MAR-26 10:07:58

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

Valvoline
Instant Oil Change

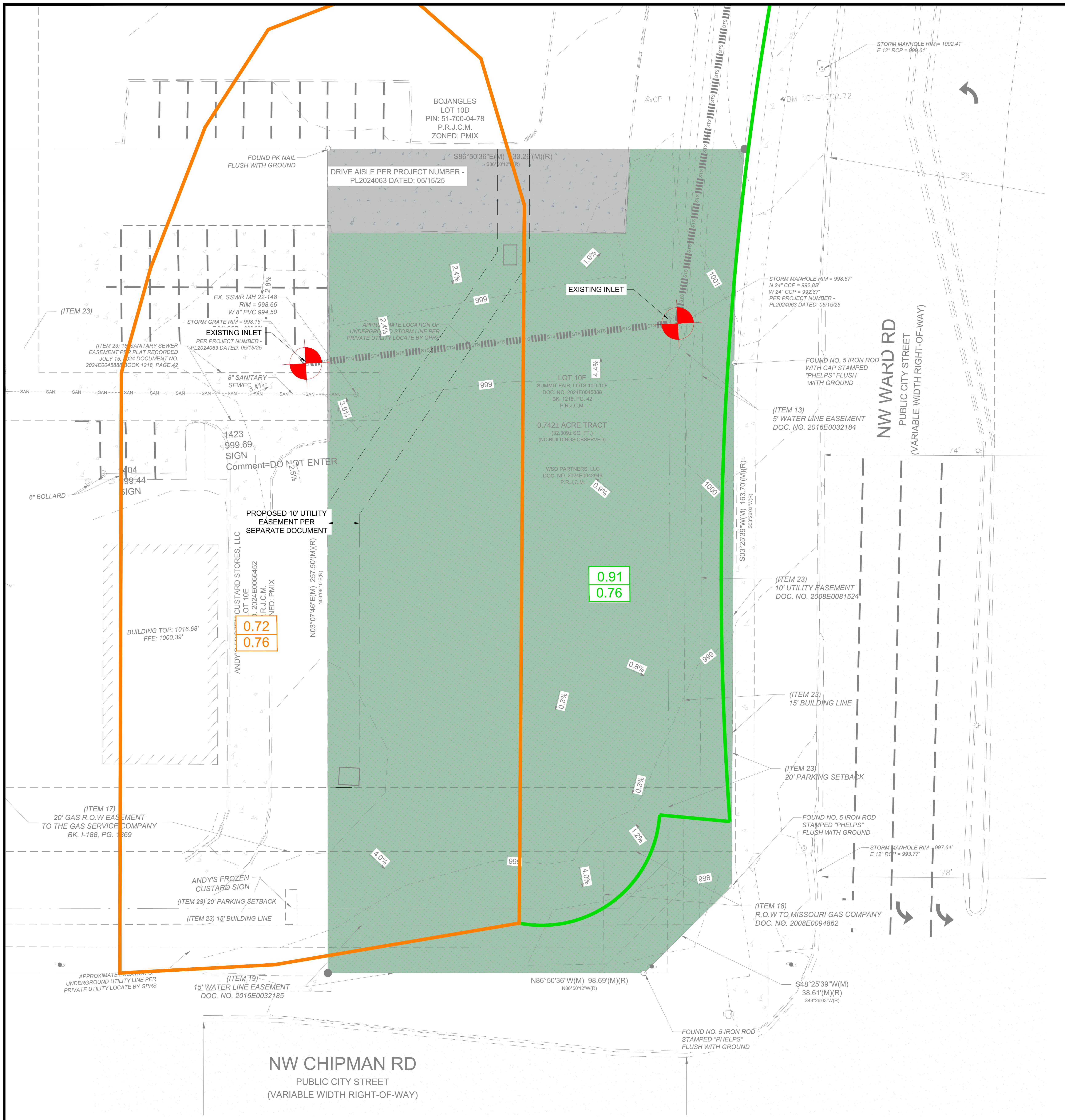
VALVOLINE
INSTANT
OIL CHANGE

610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
STORM DRAIN PLAN

SHEET #
C-5.1


BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
ZONED: PMIX
FOUND PK NAIL FLUSH WITH GROUND
S86°50'36"E(M) 130.26'(M)(R)
S86°50'12"E(R)
DRIVE AISLE PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
(ITEM 23)
EX. SSWR MH 22-148
RIM = 998.66
W 8" PVC 994.50
STORM GRATE RIM = 998.15'
EXISTING INLET
PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
(ITEM 23) 15' SANITARY SEWER EASEMENT PER PLAT RECORDED JULY 15, 2024 DOCUMENT NO. 2024E0045888 BOOK 1218, PAGE 42
8" SANITARY SEWER
APPROXIMATE LOCATION OF UNDERGROUND STORM LINE PER PRIVATE UTILITY LOCATE BY GPRS
2.8%
2.4%
3.4%
3.6%
2.5%
999
1423
999.69
SIGN
Comment=DO NOT ENTER
1404
999.44
SIGN
6" BOLLARD
PROPOSED 10' UTILITY EASEMENT PER SEPARATE DOCUMENT
ANDY'S FROZEN CUSTARD STORES, LLC
LOT 10E
DOC. NO. 2024E0066452
P.R.J.C.M.
ZONED: PMIX
BUILDING TOP: 1016.68'
FFE: 1000.39'
0.72
0.76
N03°07'46"E(M) 257.50'(M)(R)
N03°08'10"E(R)
(ITEM 17)
20' GAS R.O.W EASEMENT TO THE GAS SERVICE COMPANY
BK. I-188, PG. 1369
ANDY'S FROZEN CUSTARD SIGN
(ITEM 23) 20' PARKING SETBACK
(ITEM 23) 15' BUILDING LINE
APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINE PER PRIVATE UTILITY LOCATE BY GPRS
(ITEM 19)
15' WATER LINE EASEMENT
DOC. NO. 2016E0032185
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
CP 1
BM 101=1002.72
STORM MANHOLE RIM = 1002.41'
E 12" RCP = 999.61'
86'
1.9%
1001
EXISTING INLET
STORM MANHOLE RIM = 998.67'
N 24" CCP = 992.85'
W 24" CCP = 992.87'
PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
FOUND NO. 5 IRON ROD WITH CAP STAMPED "PHELPS" FLUSH WITH GROUND
(ITEM 13)
5' WATER LINE EASEMENT
DOC. NO. 2016E0032184
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
74'
4.4%
LOT 10F
SUMMIT FAIR, LOTS 10D-10F
DOC. NO. 2024E0045888
BK. 1218, PG. 42
P.R.J.C.M.
0.742± ACRE TRACT
(32,309± SQ. FT.)
(NO BUILDINGS OBSERVED)
WSO PARTNERS, LLC
DOC. NO. 2024E0042946
P.R.J.C.M.
0.9%
1000
S03°25'39"W(M) 163.70'(M)(R)
S03°26'03"W(R)
0.91
0.76
(ITEM 23)
10' UTILITY EASEMENT
DOC. NO. 2008E0081524
0.8%
0.3%
(ITEM 23)
15' BUILDING LINE
(ITEM 23)
20' PARKING SETBACK
1.2%
4.0%
998
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
STORM MANHOLE RIM = 997.64'
E 12" RCP = 993.77'
78'
(ITEM 18)
R.O.W TO MISSOURI GAS COMPANY
DOC. NO. 2008E0094862
N86°50'36"W(M) 98.69'(M)(R)
N86°50'12"W(R)
S48°25'39"W(M)
38.61'(M)(R)
S48°26'03"W(R)
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND

PROPOSED LEGEND

▬ ▪▪ ▬	PROPERTY LINE
═	PROPOSED CURB & GUTTER
■●	SITE LIGHT, SEE PHOTOMETRIC PLAN
■ ○ ▥ ◎	DRAINAGE STRUCTURES (SEE GRADING/DRAINAGE PLANS)
WM	WATER METER, (SEE UTILITY PLAN)
Ⓢ ◌ ●	SEWER STRUCTURES, (SEE UTILITY PLAN)
XXXX	PROPOSED CONTOUR
STM–>	STORM SEWER PIPE
– – –	STORM SEWER ROOF DRAIN AND SUMP PUMP PIPE
X%	DRAINAGE SLOPE AND DIRECTION
▬ ▬ ▬	DRAINAGE BASIN BOUNDARY
X-X	DRAINAGE AREA (ACRES)
X.XX	RUNOFF COEFFICIENT OR CURVE NUMBER
🟩 🟧	DRAINAGE AREA BOUNDARY

EXISTING AREA PROPERTIES

	AREA
ONSITE AREA	0. 74 AC

🟩	GREENSPACE
▨	IMPERVIOUS AREA
▨	BUILDING

EXISTING LEGEND

──	BOUNDARY LINE	○	FOUND SURVEY MONUMENT
— —	BOUNDARY ADJACENT / ROW LINE	●	SET SURVEY MONUMENT
— — —	EASEMENT LINE	△	SITE CONTROL POINT
═ ═	EXISTING CURB LINE	⊕	SITE BENCHMARK
STS	UNDERGROUND STORM LINE	P.R.J.C.M.	PUBLIC RECORDS OF JACKSON COUNTY, MISSOURI
BE	UNDERGROUND ELECTRIC LINE		
UNK	UNSPECIFIED UTILITY LINE	DOC. NO.	DOCUMENT NUMBER
W	UNDERGROUND WATER LINE	BK. , PG.	BOOK, PAGE
G	UNDERGROUND GAS LINE	⊸	EXISTING HYDRANT
BTV	UNDERGROUND CABLE LINE	Ⓔ	EXISTING ELECTRIC METER
585	EXISTING MAJOR GROUND CONTOUR	☐ E	EXISTING ELECTRIC RISER
586	EXISTING GROUND CONTOUR	T	EXISTING TELEPHONE HAND HOLE
		F	EXISTING FIBER OPTIC HAND HOLE
▨	EXISTING BUILDING	Ⓡ	EXISTING STORM MANHOLE/CATCH BASIN
		Ⓢ	EXISTING SANITARY MANHOLE
▨	EXISTING ASPHALT	Ⓣ	EXISTING TELEPHONE MANHOLE
		☐	EXISTING STORM INLET
▨	EXISTING CONCRETE	Ⓑ	EXISTING BOLLARD
		Ⓦ	EXISTING WATER METER
	EXISTING TRAFFIC SIGNAL	Ⓖ	EXISTING GAS VALVE
☼	EXISTING LIGHT POLE	☐ CATV	EXISTING CABLE RISER
		●	EXISTING UTILITY POLE

SURVEY PROVIDED BY:

ATWELL
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800

DATED: 15 SEPTEMBER, 2025

N

20 15 10 5 0 10 20 30 40

SCALE: 1 inch = 20 ft.

MISSOURI 811

C-5.2 DRAINAGE.dwg Last Modified: Jan 19, 2026 - 3:52pm Plotted on: Mar 06, 2026 - 9:46am by daniel.friede

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02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

Diego A. Garcia
06-MAR-26 10:08:04
DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

Valvoline
Instant Oil Change

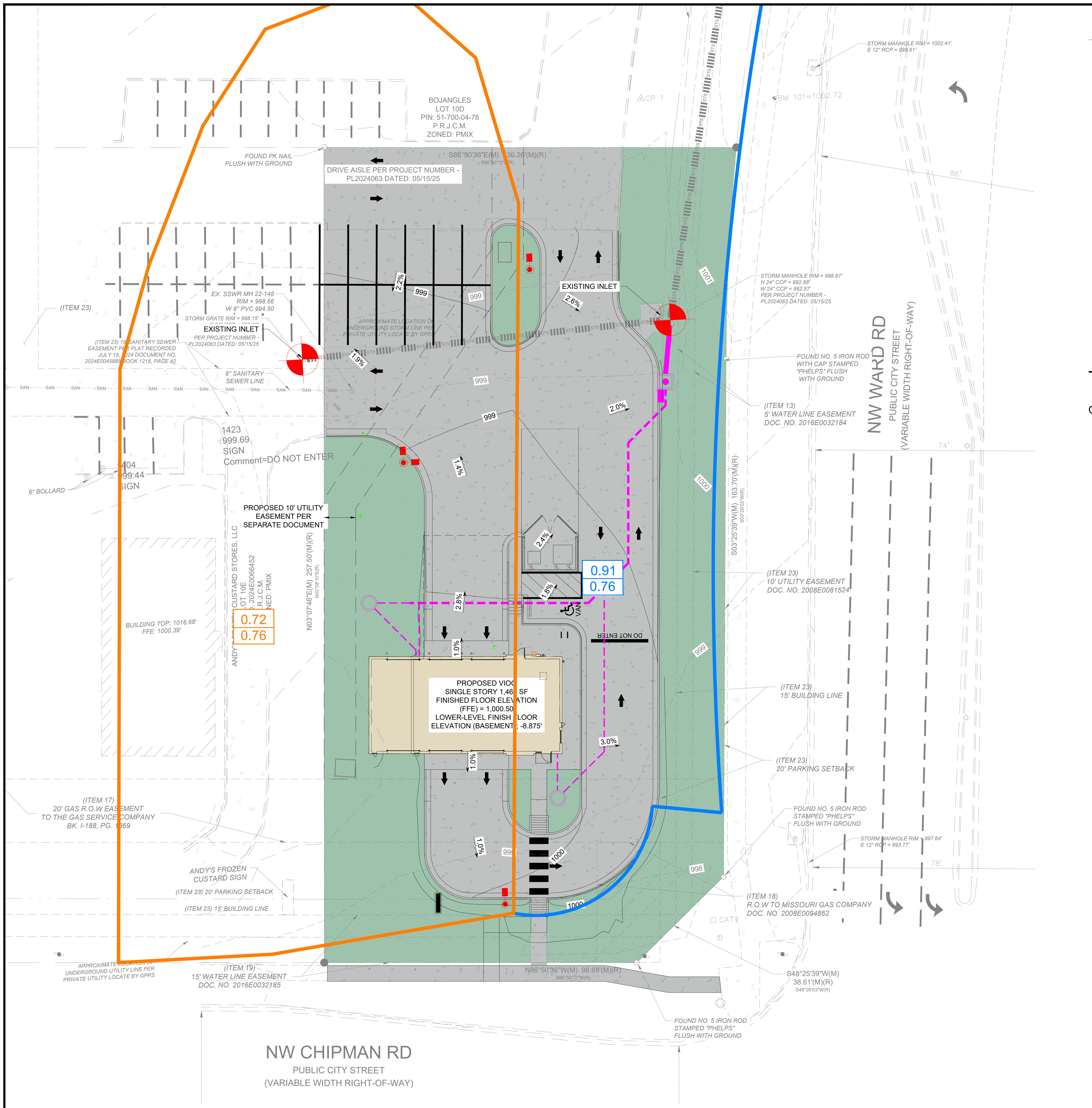
VALVOLINE INSTANT OIL CHANGE

610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
PRE-DEVELOPMENT DRAINAGE PLAN

SHEET #
C-5.2


BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
ZONED: PMIX
FOUND PK NAIL
FLUSH WITH GROUND
S86°50'36"E(M) 30.26'(M)(R)
S86°50'12"E(R)
DRIVE AISLE PER PROJECT NUMBER -
PL2024063 DATED: 05/15/25
(ITEM 23)
EX. SSWR MH 22-148
RIM = 998.66
W 8" PVC 994.50
STORM GRATE RIM = 998.15'
EXISTING INLET
PER PROJECT NUMBER -
PL2024063 DATED: 05/15/25
(ITEM 23) 15' SANITARY SEWER
EASEMENT PER PLAT RECORDED
JULY 15, 2024 DOCUMENT NO.
2024E0045888, BOOK 1218, PAGE 42
8" SANITARY
SEWER LINE
APPROXIMATE LOCATION OF
UNDERGROUND STORM LINE PER
PRIVATE UTILITY LOCATE BY GPRS
2.2%
1.9%
2.6%
2.0%
1.4%
2.4%
1.8%
2.8%
1.0%
3.0%
999
998
1000
1001
EXISTING INLET
CP 1
BM 101=1002.72
STORM MANHOLE RIM = 1002.41'
E 12" RCP = 999.61'
STORM MANHOLE RIM = 998.67'
N 24" CCP = 992.85'
W 24" CCP = 992.87'
PER PROJECT NUMBER -
PL2024063 DATED: 05/15/25
86'
74'
78'
FOUND NO. 5 IRON ROD
WITH CAP STAMPED
"PHELPS" FLUSH
WITH GROUND
(ITEM 13)
5' WATER LINE EASEMENT
DOC. NO. 2016E0032184
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
S03°25'39"W(M) 163.70'(M)(R)
S03°26'03"W(R)
(ITEM 23)
10' UTILITY EASEMENT
DOC. NO. 2008E0081524
0.91
0.76
1423
999.69
SIGN
Comment=DO NOT ENTER
1404
999.44
SIGN
6" BOLLARD
PROPOSED 10' UTILITY
EASEMENT PER
SEPARATE DOCUMENT
ANDY'S FROZEN CUSTARD STORES, LLC
LOT 10E
DOC. NO. 2024E0066452
P.R.J.C.M.
ZONED: PMIX
0.72
0.76
BUILDING TOP: 1016.68'
FFE: 1000.39'
N03°07'46"E(M) 257.50'(M)(R)
N03°08'10"E(R)
PROPOSED VIOC
SINGLE STORY 1,46 SF
FINISHED FLOOR ELEVATION
(FFE) = 1,000.50
LOWER-LEVEL FINISH FLOOR
ELEVATION (BASEMENT; -8.875'
VAN
DO NOT ENTER
(ITEM 23)
15' BUILDING LINE
(ITEM 23)
20' PARKING SETBACK
(ITEM 17)
20' GAS R.O.W EASEMENT
TO THE GAS SERVICE COMPANY
BK. I-188, PG. 1369
ANDY'S FROZEN
CUSTARD SIGN
(ITEM 23) 20' PARKING SETBACK
(ITEM 23) 15' BUILDING LINE
FOUND NO. 5 IRON ROD
STAMPED "PHELPS"
FLUSH WITH GROUND
STORM MANHOLE RIM = 997.64'
E 12" RCP = 993.77'
(ITEM 18)
R.O.W TO MISSOURI GAS COMPANY
DOC. NO. 2008E0094862
CATV
APPROXIMATE LOCATION OF
UNDERGROUND UTILITY LINE PER
PRIVATE UTILITY LOCATE BY GPRS
(ITEM 19)
15' WATER LINE EASEMENT
DOC. NO. 2016E0032185
N86°50'36"W(M) 98.69'(M)(R)
N86°50'12"W(R)
S48°25'39"W(M)
38.61'(M)(R)
S48°26'03"W(R)
FOUND NO. 5 IRON ROD
STAMPED "PHELPS"
FLUSH WITH GROUND
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)

PROPOSED LEGEND

▬ ▪▪ ▬	PROPERTY LINE
═	PROPOSED CURB & GUTTER
■●	SITE LIGHT, SEE PHOTOMETRIC PLAN
■ ○ ▥ ◎	DRAINAGE STRUCTURES (SEE GRADING/DRAINAGE PLANS)
WM	WATER METER, (SEE UTILITY PLAN)
Ⓢ ◌ ●	SEWER STRUCTURES, (SEE UTILITY PLAN)
XXXX	PROPOSED CONTOUR
STM—>	STORM SEWER PIPE
– – –	STORM SEWER ROOF DRAIN AND SUMP PUMP PIPE
X%	DRAINAGE SLOPE AND DIRECTION
▬ ▬ ▬	DRAINAGE BASIN BOUNDARY
X-X	DRAINAGE AREA (ACRES)
X.XX	RUNOFF COEFFICIENT OR CURVE NUMBER
━	DRAINAGE AREA BOUNDARY

PROPOSED AREA PROPERTIES

		AREA
ONSITE AREA		0. 701 AC
🟩	GREENSPACE	0.400 AC
▨	IMPERVIOUS AREA	0.267 AC
▨	BUILDING	0.034 AC

EXISTING LEGEND

───	BOUNDARY LINE
── ──	BOUNDARY ADJACENT / ROW LINE
— — —	EASEMENT LINE
═ ═ ═	EXISTING CURB LINE
STS	UNDERGROUND STORM LINE
BE	UNDERGROUND ELECTRIC LINE
UNK	UNSPECIFIED UTILITY LINE
W	UNDERGROUND WATER LINE
G	UNDERGROUND GAS LINE
BTV	UNDERGROUND CABLE LINE
585	EXISTING MAJOR GROUND CONTOUR
586	EXISTING GROUND CONTOUR
▨	EXISTING BUILDING
▨	EXISTING ASPHALT
▨	EXISTING CONCRETE
◘	EXISTING TRAFFIC SIGNAL
☼	EXISTING LIGHT POLE

○	FOUND SURVEY MONUMENT
●	SET SURVEY MONUMENT
△	SITE CONTROL POINT
◈	SITE BENCHMARK
P.R.J.C.M.	PUBLIC RECORDS OF JACKSON COUNTY, MISSOURI
DOC. NO.	DOCUMENT NUMBER
BK. , PG.	BOOK, PAGE
⊃—	EXISTING HYDRANT
Ⓔ	EXISTING ELECTRIC METER
☐ E	EXISTING ELECTRIC RISER
T	EXISTING TELEPHONE HAND HOLE
F	EXISTING FIBER OPTIC HAND HOLE
Ⓡ	EXISTING STORM MANHOLE/CATCH BASIN
Ⓢ	EXISTING SANITARY MANHOLE
Ⓣ	EXISTING TELEPHONE MANHOLE
☐	EXISTING STORM INLET
Ⓑ	EXISTING BOLLARD
Ⓦ	EXISTING WATER METER
Ⓖ	EXISTING GAS VALVE
☐ CATV	EXISTING CABLE RISER
●	EXISTING UTILITY POLE

SURVEY PROVIDED BY:

ATWELL
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800

DATED: 15 SEPTEMBER, 2025

N

20 15 10 5 0 10 20 30 40

SCALE: 1 inch = 20 ft.

MISSOURI 811

Drawing Name: \\HFA-FILE02\2024 Projects\06\06-24-20062 VIOC Lee's Summit, MO (NW Chipman)\04-Design\Civil\DWGs\06-24-20062 - C-5.2 DRAINAGE.dwg Last Modified: Jan 19, 2026 - 3:52pm Plotted on: Mar 06, 2026 - 9:49am by daniel.friede

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02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

06-MAR-26 10:08:10

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

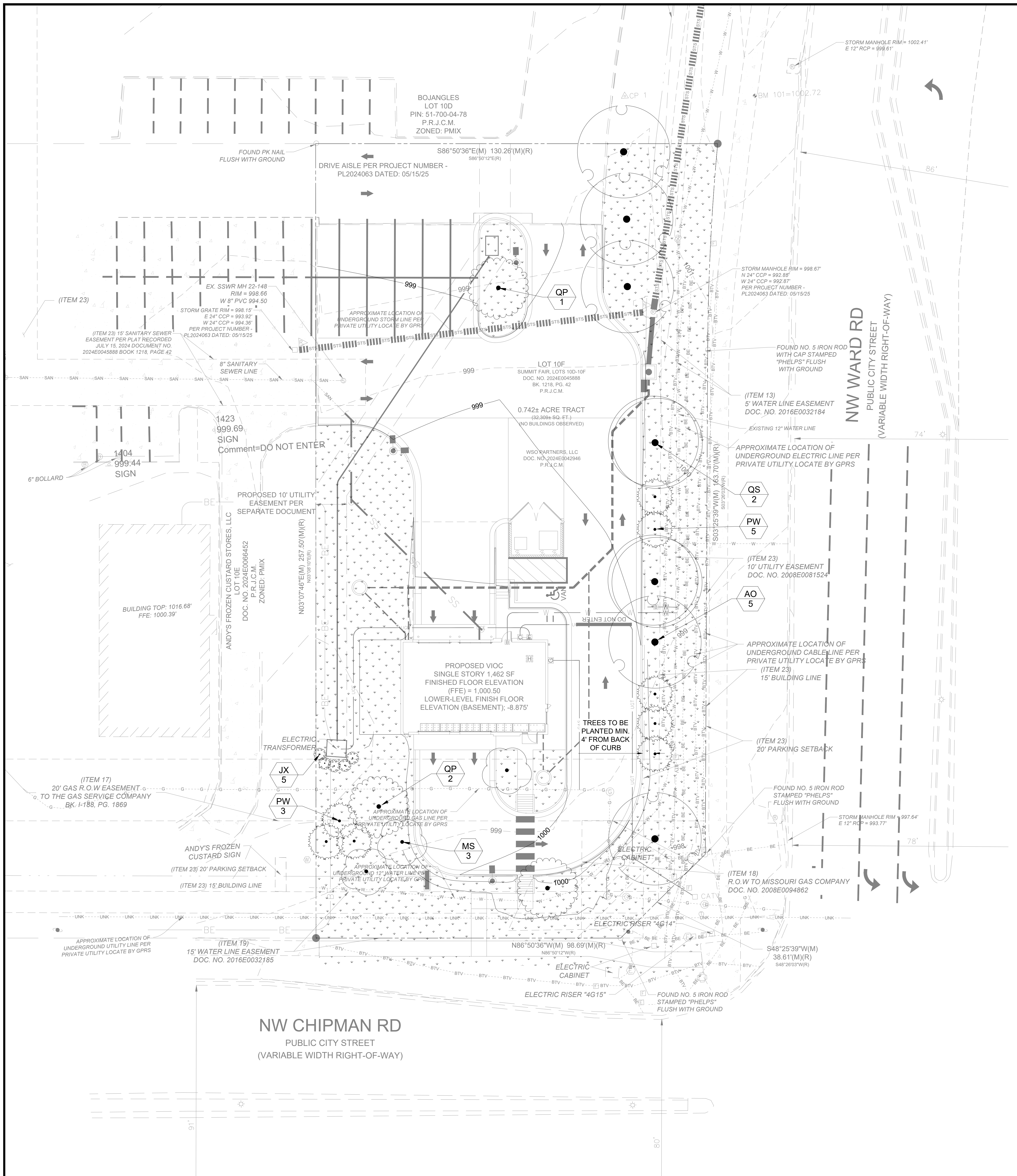
VALVOLINE
INSTANT
OIL CHANGE

610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
POST-DEVELOPMENT
DRAINAGE PLAN

SHEET #
C-5.3


BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
ZONED: PMIX
FOUND PK NAIL FLUSH WITH GROUND
S86°50'36"E(M) 130.26'(M)(R)
S86°50'12"E(R)
DRIVE AISLE PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
(ITEM 23)
EX. SSWR MH 22-148
RIM = 998.66
W 8" PVC 994.50
STORM GRATE RIM = 998.15'
E 24" CCP = 993.92'
W 24" CCP = 994.36'
PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
(ITEM 23) 15' SANITARY SEWER EASEMENT PER PLAT RECORDED JULY 15, 2024 DOCUMENT NO. 2024E0045888 BOOK 1218, PAGE 42
APPROXIMATE LOCATION OF UNDERGROUND STORM LINE PER PRIVATE UTILITY LOCATE BY GPRS
8" SANITARY SEWER LINE
QP 1
999
LOT 10F
SUMMIT FAIR, LOTS 10D-10F
DOC. NO. 2024E0045888
BK. 1218, PG. 42
P.R.J.C.M.
0.742± ACRE TRACT
(32,309± SQ. FT.)
(NO BUILDINGS OBSERVED)
WSO PARTNERS, LLC
DOC. NO. 2024E0042946
P.R.J.C.M.
1423
999.69
SIGN
Comment=DO NOT ENTER
1404
999.44
SIGN
6" BOLLARD
PROPOSED 10' UTILITY EASEMENT PER SEPARATE DOCUMENT
ANDY'S FROZEN CUSTARD STORES, LLC
LOT 10E
DOC. NO. 2024E0066452
P.R.J.C.M.
ZONED: PMIX
N03°07'46"E(M) 257.50'(M)(R)
N03°08'10"E(R)
BUILDING TOP: 1016.68'
FFE: 1000.39'
STORM MANHOLE RIM = 1002.41'
E 12" RCP = 999.61'
CP 1
BM 101=1002.72
86'
STORM MANHOLE RIM = 998.67'
N 24" CCP = 992.85'
W 24" CCP = 992.87'
PER PROJECT NUMBER - PL2024063 DATED: 05/15/25
FOUND NO. 5 IRON ROD WITH CAP STAMPED "PHELPS" FLUSH WITH GROUND
(ITEM 13)
5' WATER LINE EASEMENT
DOC. NO. 2016E0032184
EXISTING 12" WATER LINE
APPROXIMATE LOCATION OF UNDERGROUND ELECTRIC LINE PER PRIVATE UTILITY LOCATE BY GPRS
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
74'
S03°25'39"W(M) 163.70'(M)(R)
S03°26'03"W(R)
QS 2
PW 5
(ITEM 23)
10' UTILITY EASEMENT
DOC. NO. 2008E0081524
AO 5
APPROXIMATE LOCATION OF UNDERGROUND CABLE LINE PER PRIVATE UTILITY LOCATE BY GPRS
(ITEM 23)
15' BUILDING LINE
PROPOSED VIOC
SINGLE STORY 1,462 SF
FINISHED FLOOR ELEVATION
(FFE) = 1,000.50
LOWER-LEVEL FINISH FLOOR
ELEVATION (BASEMENT); -8.875'
DO NOT ENTER
VAN
TREES TO BE PLANTED MIN. 4' FROM BACK OF CURB
(ITEM 23)
20' PARKING SETBACK
ELECTRIC TRANSFORMER
JX 5
QP 2
PW 3
MS 3
(ITEM 17)
20' GAS R.O.W EASEMENT TO THE GAS SERVICE COMPANY BK. I-188, PG. 1869
APPROXIMATE LOCATION OF UNDERGROUND GAS LINE PER PRIVATE UTILITY LOCATE BY GPRS
ANDY'S FROZEN CUSTARD SIGN
(ITEM 23) 20' PARKING SETBACK
(ITEM 23) 15' BUILDING LINE
APPROXIMATE LOCATION OF UNDERGROUND 12" WATER LINE PER PRIVATE UTILITY LOCATE BY GPRS
999
1000
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
STORM MANHOLE RIM = 997.64'
E 12" RCP = 993.77'
78'
ELECTRIC CABINET
(ITEM 18)
R.O.W TO MISSOURI GAS COMPANY
DOC. NO. 2008E0094862
ELECTRIC RISER "4G14"
APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINE PER PRIVATE UTILITY LOCATE BY GPRS
(ITEM 19)
15' WATER LINE EASEMENT
DOC. NO. 2016E0032185
N86°50'36"W(M) 98.69'(M)(R)
N86°50'12"W(R)
S48°25'39"W(M)
38.61'(M)(R)
S48°26'03"W(R)
ELECTRIC CABINET
ELECTRIC RISER "4G15"
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
91'

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
EVERGREEN TREE				
⊙	PW	Pinus alba / White Pine	10` Ht.	8
LARGE SHADE TREE				
⊙	AO	Acer rubrum 'October Glory' / October Glory Red Maple	2.5" Cal.	5
⊙	QS	Quercus shumardii / Shumard Oak	2.5" Cal.	2
MEDIUM SHADE TREE				
⊙	QP	Quercus phellos / Willow Oak	2" Cal.	3
ORNAMENTAL TREE				
⊙	MS	Malus x 'Spring Snow' / Spring Snow Crabapple	1.5" Cal.	3
SHRUBS				
⊙	JX	Juniperus x 'Grey Owl' / Grey Owl Juniper	5 gal. - 24" ht. min.	5

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	SPACING	QTY
GROUND COVERS					
▨	FA	Festuca arundinacea / Tall Fescue	sod		13,801 sf

GENERAL LANDSCAPE NOTES:

THIS PLAN IS FOR LANDSCAPE LAYOUT ONLY. ALL GRADING, UTILITIES, SITE STRUCTURES, ETC. ARE FOR REFERENCE ONLY AND SHALL BE VERIFIED WITH CIVIL PLANS AND IN THE FIELD.

ALL PLANT MATERIALS SHALL ARRIVE AT THE SITE WITH SOIL MOIST.

CONTRACTORS SHALL HAVE UNDERGROUND UTILITIES LOCATED, LEGIBLY MARKED, AND SHALL REPAIR ANY AND ALL DAMAGE WHICH MAY OCCUR AS A RESULT OF LANDSCAPE INSTALLATION. UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATED, AND SHOULD BE VERIFIED ON THE CIVIL UTILITY PLAN AND IN THE FIELD.

UNDER NO CIRCUMSTANCES WILL LANDSCAPE WORK BE APPROVED FOR PAYMENT IF PLANT SIZE AND GENERAL HEALTH ARE NOT AS REQUIRED ON PLAN.

ALL TREES MUST BE STRAIGHT TRUNKED, FULL HEADED AND MEET ALL REQUIREMENTS AS SPECIFIED.

ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT AND THE OWNER BEFORE, DURING AND AFTER INSTALLATION.

THE LANDSCAPE ARCHITECT MUST APPROVE ANY ALTERATIONS OR REVISIONS TO THE LANDSCAPE PLAN.

THE CONTRACTOR SHALL PROTECT EXISTING FEATURES ON SITE.

ALL DISTURBED AREAS ON AND OFF THE SITE, INCLUDING THE TEMPORARY DETENTION AREA, SHALL BE COMPLETELY SODDED WITH GRASS SPECIFIED ON PLANS.

MAINTENANCE:

> THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN ON THESE PLANS, BEFORE PRICING THE WORK.
>
> THE LANDSCAPE CONTRACTOR SHALL FULLY MAINTAIN ALL PLANTING (INCLUDING BUT NOT LIMITED TO WATERING, SPRAYING, MULCHING, FERTILIZING, ETC.) OF PLANTING AREAS AND LAWNS FOR 90 DAYS AFTER SUBSTANTIAL COMPLETION.
>
> THE LANDSCAPE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR ONE (1) YEAR BEGINNING AT THE DATE OF SUBSTANTIAL COMPLETION. THE LANDSCAPE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE THE END OF THE GUARANTEE PERIOD (AS PER DIRECTION OF THE OWNER).
>
> ANY PLANT MATERIAL WHICH DIES, TURNS BROWN OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.

STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1) REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR ALL NEW PLANT MATERIAL. ALL NEW PLANT MATERIAL SHALL BE PLANTED AND MAINTAINED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN NATIONAL STANDARDS INSTITUTE REQUIREMENTS FOR TREE, SHRUB, AND OTHER WOODY PLANT MAINTENANCE (ANSI A300 PARTS 1 THROUGH 6).

ALL TOPSOIL (4"-5" IN PLANTING BEDS) (1"-2" FOR SEED AND SOD AREAS) APPLIED TO THE SITE SHALL BE LOAMY, FRIABLE SOIL, CONTAINING A MINIMUM OF 1.5 PERCENT BY DRY WEIGHT ORGANIC MATTER; FREE FROM SUBSOIL, REFUSE, ROOTS, HEAVY OR STIFF CLAY, STONES LARGER THAN 25 MM (1 IN.), NOXIOUS SEEDS, STICKS, BRUSH, LITTER, AND OTHER DELETERIOUS SUBSTANCES; SUITABLE FOR THE GERMINATION OF SEEDS AND THE SUPPORT OF VEGETATIVE GROWTH. THE PH VALUE SHALL BE BETWEEN 5.5 AND 6.5.

ALL PLANTING AREAS SHALL BE TOP DRESSED WITH SHREDDED HARDWOOD MULCH AT A MIN. 4" DEPTH ON DEWITT PRO 5 LANDSCAPE FABRIC. TOP OF MULCH SHALL BE EVEN WITH TOP OF CURBS OR EDGING. SEE CIVIL PLANS FOR ELEVATIONS. SECURE FABRIC WITH PINS OR STAPLES (2"x5"). PINS SHALL BE PLACED AT 5' O.C. AND JOINTS SHALL OVERLAP BY 12"

LANDSCAPE EDGING TO BE STEEL AND SHALL BE DARK IN COLOR.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT INSTALLED LANDSCAPING DOES NOT INTERFERE WITH OR OBSTRUCT ANY ADA PATHS OR OTHER VEHICULAR OR PEDESTRIAN USE AREAS. IT SHALL BE THE OWNER'S RESPONSIBILITY TO MAINTAIN ALL LANDSCAPING SO AS TO NOT INTERFERE WITH OR OBSTRUCT ANY ADA PATHS OR OTHER VEHICULAR OR PEDESTRIAN USE AREAS.

CITY OF LEE'S SUMMIT LANDSCAPE NOTES:

ONLY ORNAMENTAL TREES AND SHRUBS MAY BE PLANTED WITHIN ANY EASEMENT

CITY PLANTING REQUIREMENTS

LANDSCAPE PLAN PER APPROVED PRELIMINARY DEVELOPMENT PLAN, ORDINANCE NUMBER 10141 APPROVED MAY 20, 2025.

REQUIRED	PROVIDED
7 LARGE SHADE TREES	7 LARGE SHADE TREES
3 MEDIUM SHADE TREES	3 MEDIUM SHADE TREES
8 EVERGREEN TREES	8 EVERGREEN TREES
3 ORNAMENTAL TREES	3 ORNAMENTAL TREES
5 SPREADER EVERGREEN SHRUBS	5 SPREADER EVERGREEN SHRUBS

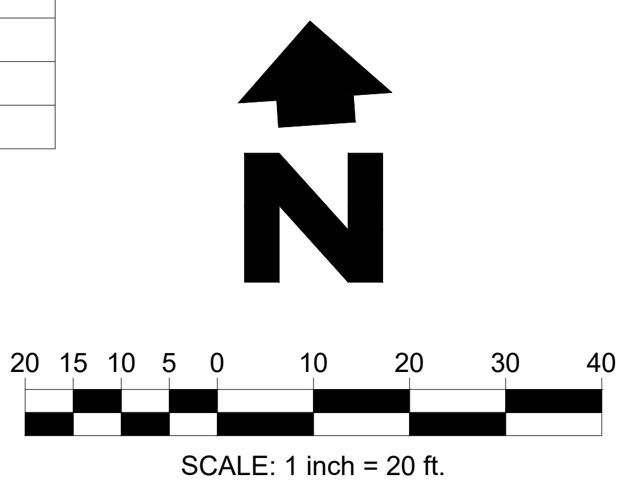
SITE DATA SUMMARY

VALVOLINE TRACT: (AFTER ROW DEDICATION)	0.742 ACRES/32,309 SF
ZONING:	PMIX PLANNED MIXED USE
BUILDING SF:	1,462 SF
F.A.R. (FLOOR/AREA RATIO):	1:0.05
LOT COVERAGE:	0.742 (32.309 SF)
PARKING REQUIRED:	6 (1 ADA)
PARKING PROVIDED:	11 (1 ADA)
PERVIOUS COVER:	13,202 SF
IMPERVIOUS COVER:	19,107 SF
REQUIRED BICYCLE PARKING:	0
PROVIDED BICYCLE PARKING:	4

SURVEY PROVIDED BY:

ATWELL
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800

DATED: 15 SEPTEMBER, 2025


N
20
15
10
5
0
10
20
30
40

SCALE: 1 inch = 20 ft.

HFA-AE , LTD.

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
t 479.273.7780
f 888.520.9685
www.hfa-ae.com

DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
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02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

06-MAR-26 10:08:16

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

VALVOLINE INSTANT OIL CHANGE

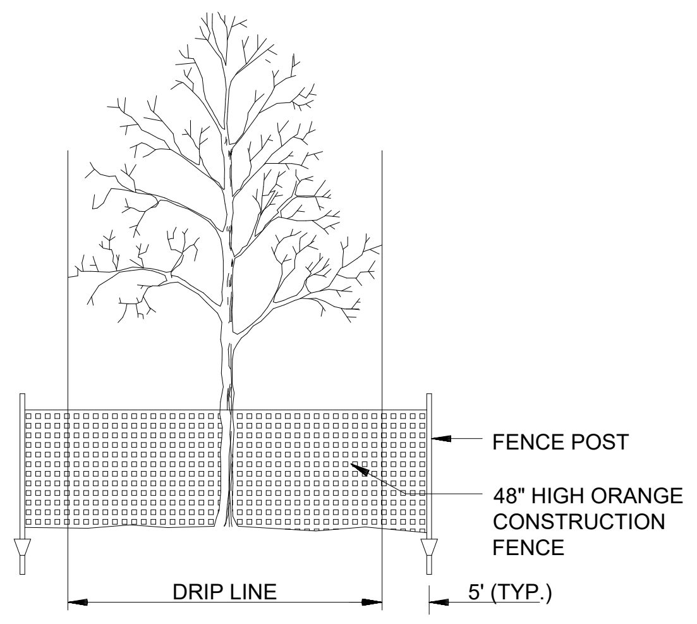
610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
LANDSCAPE PLAN

SHEET #
C-6.0

Drawing Name: \\HFA-FILE02\2024 Projects\06\06-24-20062 VIOC Lee's Summit, MO (NW Chipman)\04-Design\Civil\DWGs\06-24-20062 – C-6 LAND & IRR.dwg Last Modified: Feb 27, 2026 – 8:33am Plotted on: Mar 06, 2026 – 9:50am by daniel.friede

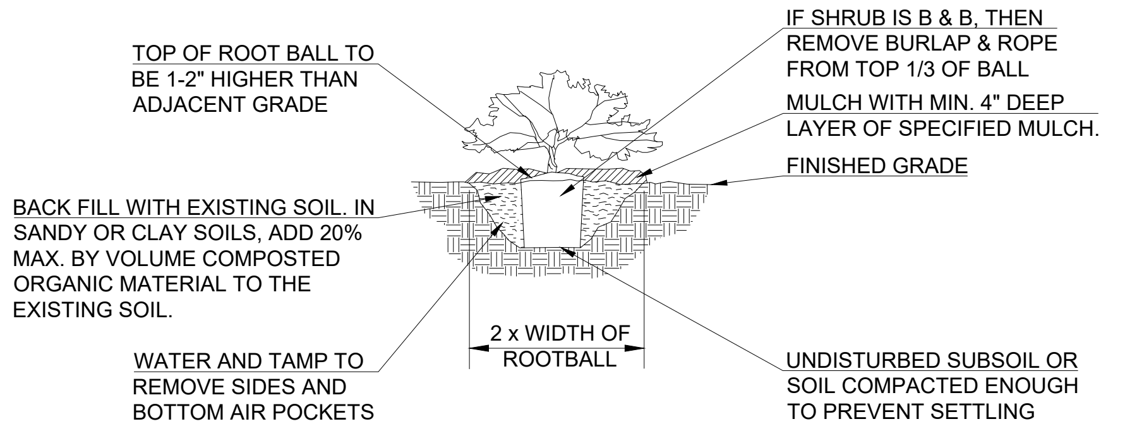

FENCE POST
48" HIGH ORANGE CONSTRUCTION FENCE
DRIP LINE
5' (TYP.)

TREE PROTECTION NOTES

1. ALL TREES SHOWN ON THIS PLAN TO BE RETAINED SHALL BE PROTECTED DURING ALL PHASES OF DEMOLITION/CONSTRUCTION WITH TEMPORARY FENCING. IT SHALL BE THE GENERAL CONTRACTORS RESPONSIBILITY TO COORDINATE WITH LANDSCAPE CONTRACTOR.
2. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING). CLEARING SHALL BE DONE BY HAND.
3. FENCES SHALL COMPLETELY SURROUND TREE OR CLUSTERS OF TREES; SHALL BE LOCATED 5' FROM THE OUTERMOST LIMITS OF THE TREE BRANCHES (DRIP LINE); AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION BY CONTRACTOR. PROJECT IN ORDER TO PREVENT THE FOLLOWING:
   - A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS.
   - B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL) OR TRENCHING.
   - C. WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT.
   - D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.
4. EXCEPTIONS TO INSTALLING FENCES 5' FROM TREE DRIP LINES MAY BE PERMITTED IN THE FOLLOWING CASES:
   - A. WHERE PERMEABLE PAVING IS TO BE INSTALLED: ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
   - B. WHERE TREES ARE CLOSE TO THE PROPOSED BUILDING: ERECT THE FENCE NO CLOSER THAN 6 FEET TO THE BUILDING.
5. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN 4 FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET (OR TO THE LIMITS OF LOWER BRANCHES) IN ADDITION TO THE REDUCED FENCING PROVIDED.
6. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN AREAS OF UNPROTECTED ROOT ZONES (UNDER DRIP LINES), THOSE AREAS SHOULD BE COVERED WITH 4 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION.
7. ALL GRADING WITHIN PROTECTED ROOT ZONE AREAS SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCING TO 2 FEET BEHIND THE GRADE CHANGE AREA. NO ROOT OVER 1 INCH DIAMETER WILL BE CUT.
8. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED WITH A CLEAN CUT FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL IMMEDIATELY. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE
9. PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIP TO EVAPORATION. LINES, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE DAMAGE TO REMAINING ROOTS.
10. TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES SHOULD BE WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS SHOULD BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
11. NO CONDUIT OR UTILITIES CAN BE INSTALLED WITHIN TREE PROTECTION AREAS. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
12. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIP LINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE. GRADING LIMITED TO 3 INCH CUT.
13. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS.
14. ALL PRUNING MUST BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES) BY A CERTIFIED ARBORIST AND SHALL BE APPROVED AND SUPERVISED BY OWNERS REPRESENTATIVE OR PROJECT URBAN FORESTER.
15. DAMAGE TO TREES OR ANY NATURAL RESOURCE DUE TO CONTRACTOR'S NEGLIGENCE DURING THE CONSTRUCTION PHASE SHALL BE APPRAISED BY THE OWNERS REPRESENTATIVE AND ORDERED REPAIRED, REPLACED, OR COMPENSATED.

3 TREE PROTECTION

N.T.S.

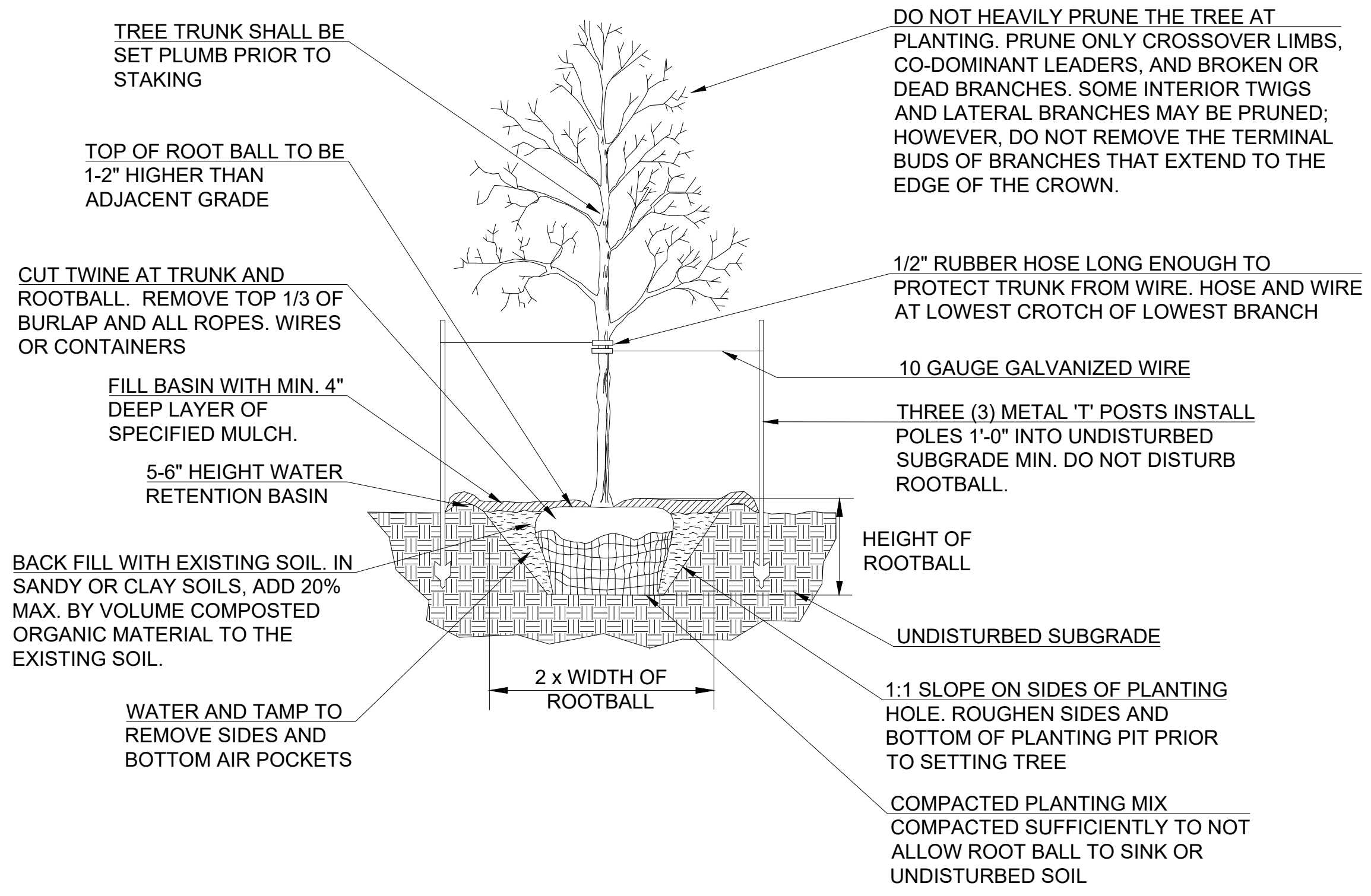

TOP OF ROOT BALL TO BE 1-2" HIGHER THAN ADJACENT GRADE
IF SHRUB IS B & B, THEN REMOVE BURLAP & ROPE FROM TOP 1/3 OF BALL
MULCH WITH MIN. 4" DEEP LAYER OF SPECIFIED MULCH.
FINISHED GRADE
BACK FILL WITH EXISTING SOIL. IN SANDY OR CLAY SOILS, ADD 20% MAX. BY VOLUME COMPOSTED ORGANIC MATERIAL TO THE EXISTING SOIL.
2 x WIDTH OF ROOTBALL
WATER AND TAMP TO REMOVE SIDES AND BOTTOM AIR POCKETS
UNDISTURBED SUBSOIL OR SOIL COMPACTED ENOUGH TO PREVENT SETTLING

1. REMOVE ANY DEAD, DYING OR SEVERELY BROKEN TWIGS OR BRANCHES. IF REMOVING THESE BRANCHED REDUCES THE SHRUB HEIGHT BELOW SPECIFIED HEIGHT THEN SHRUB SHALL BE REJECTED.
2. NEWLY PLANTED SHRUBS SHALL BE FERTILIZED WITH A TIME RELEASE FERTILIZER WITH A 20-20-20 ANALYSIS APPLIED PER MANUFACTURERS SPECIFICATION.

WEED BARRIER REQUIRED UNDER LANDSCAPE BEDS (INCLUDING MULCH AND ROCK BED)

2 SHRUB PLANTING

N.T.S.


TREE TRUNK SHALL BE SET PLUMB PRIOR TO STAKING
TOP OF ROOT BALL TO BE 1-2" HIGHER THAN ADJACENT GRADE
CUT TWINE AT TRUNK AND ROOTBALL. REMOVE TOP 1/3 OF BURLAP AND ALL ROPES. WIRES OR CONTAINERS
FILL BASIN WITH MIN. 4" DEEP LAYER OF SPECIFIED MULCH.
5-6" HEIGHT WATER RETENTION BASIN
BACK FILL WITH EXISTING SOIL. IN SANDY OR CLAY SOILS, ADD 20% MAX. BY VOLUME COMPOSTED ORGANIC MATERIAL TO THE EXISTING SOIL.
WATER AND TAMP TO REMOVE SIDES AND BOTTOM AIR POCKETS
2 x WIDTH OF ROOTBALL
DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
1/2" RUBBER HOSE LONG ENOUGH TO PROTECT TRUNK FROM WIRE. HOSE AND WIRE AT LOWEST CROTCH OF LOWEST BRANCH
10 GAUGE GALVANIZED WIRE
THREE (3) METAL 'T' POSTS INSTALL POLES 1'-0" INTO UNDISTURBED SUBGRADE MIN. DO NOT DISTURB ROOTBALL.
HEIGHT OF ROOTBALL
UNDISTURBED SUBGRADE
1:1 SLOPE ON SIDES OF PLANTING HOLE. ROUGHEN SIDES AND BOTTOM OF PLANTING PIT PRIOR TO SETTING TREE
COMPACTED PLANTING MIX COMPACTED SUFFICIENTLY TO NOT ALLOW ROOT BALL TO SINK OR UNDISTURBED SOIL

1. MARK THE NORTH SIDE OF THE TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHEN EVER POSSIBLE.
2. WRAP TREE TRUNKS ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT.
3. EACH TREE MUST BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOTBALL WITH SOIL.
4. DO NOT LIFT, ADJUST OR MOVE TREE USING THE TRUNK. USE METAL BASKET FOR THESE TASKS.
5. NEWLY PLANTED TREES SHALL BE FERTILIZED WITH A TIME RELEASE FERTILIZER WITH A 20-20-20 ANALYSIS APPLIED PER MANUFACTURERS SPECIFICATION.

1 TREE PLANTING

N.T.S.

HFA
HFA-AE , LTD.

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
t 479.273.7780
f 888.520.9685
www.hfa-ae.com

DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

06-MAR-26 10:08:21

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

Valvoline
Instant Oil Change

VALVOLINE INSTANT OIL CHANGE

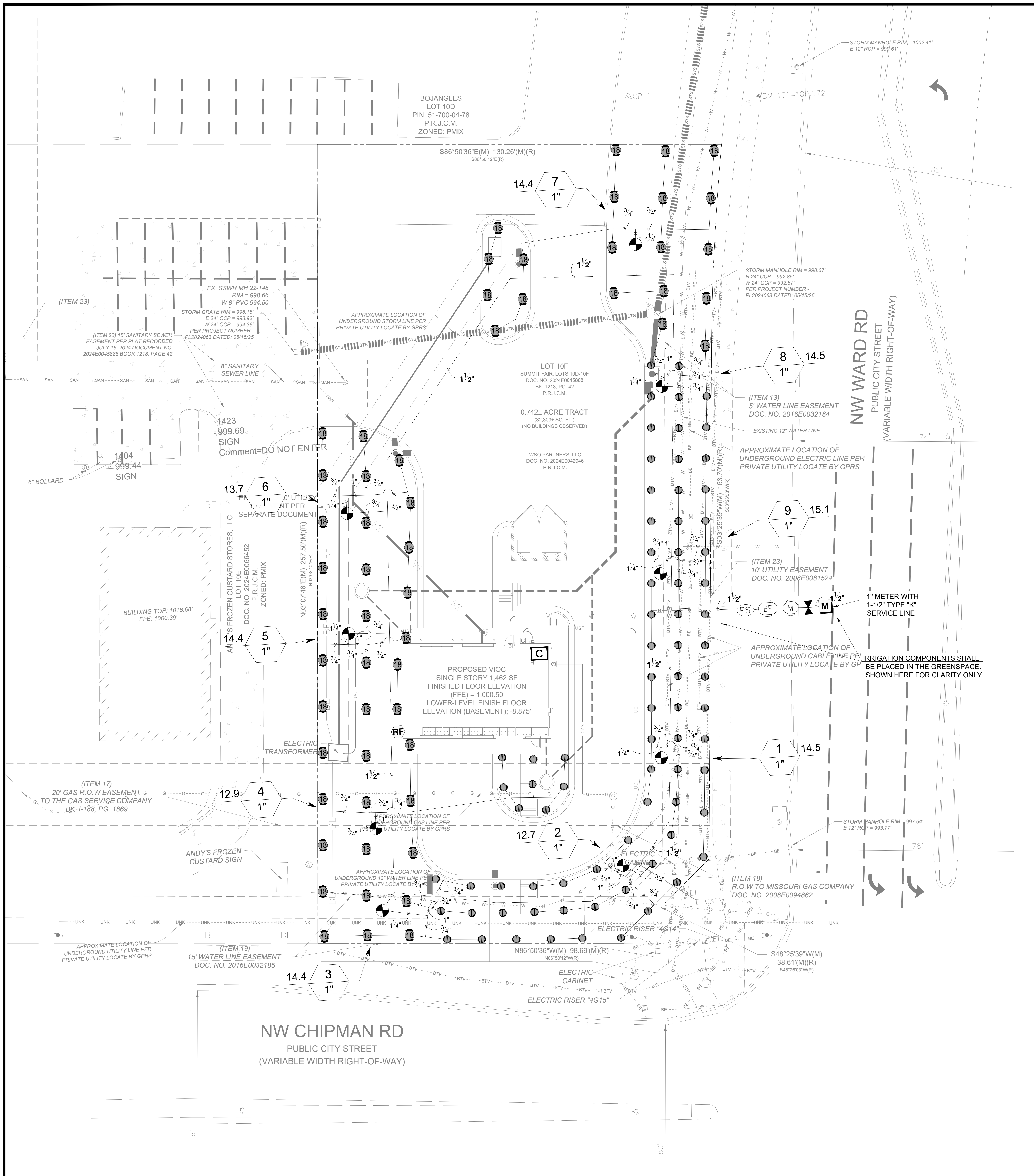
610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
LANDSCAPE DETAILS

SHEET #
C-6.1

Drawing Name: \\HFA-FILE02\2024 Projects\06\06-24-20062 VIOC Lee's Summit, MO (NW Chipman)\04-Design\Civil\DWGs\06-24-20062 - C-6 LAND & IRR.dwg Last Modified: Feb 27, 2026 - 8:33am Plotted on: Mar 06, 2026 - 9:47am by daniel.friede


BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
ZONED: PMIX
S86°50'36"E(M) 130.26'(M)(R)
S86°50'12"E(R)
(ITEM 23)
EX. SSWR MH 22-148
RIM = 998.66
W 8" PVC 994.50
STORM GRATE RIM = 998.15'
E 24" CCP = 993.92'
W 24" CCP = 994.36'
PER PROJECT NUMBER -
PL2024063 DATED: 05/15/25
(ITEM 23) 15' SANITARY SEWER
EASEMENT PER PLAT RECORDED
JULY 15, 2024 DOCUMENT NO.
2024E0045888 BOOK 1218, PAGE 42
8" SANITARY
SEWER LINE
APPROXIMATE LOCATION OF
UNDERGROUND STORM LINE PER
PRIVATE UTILITY LOCATE BY GPRS
1423
999.69
SIGN
Comment=DO NOT ENTER
1404
999.44
SIGN
6" BOLLARD
LOT 10F
SUMMIT FAIR, LOTS 10D-10F
DOC. NO. 2024E0045888
BK. 1218, PG. 42
P.R.J.C.M.
0.742± ACRE TRACT
(32,309± SQ. FT.)
(NO BUILDINGS OBSERVED)
WSO PARTNERS, LLC
DOC. NO. 2024E0042946
P.R.J.C.M.
CP 1
BM 101=1002.72
STORM MANHOLE RIM = 1002.41'
E 12" RCP = 999.61'
86'
STORM MANHOLE RIM = 998.67'
N 24" CCP = 992.85'
W 24" CCP = 992.87'
PER PROJECT NUMBER -
PL2024063 DATED: 05/15/25
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
(ITEM 13)
5' WATER LINE EASEMENT
DOC. NO. 2016E0032184
EXISTING 12" WATER LINE
APPROXIMATE LOCATION OF
UNDERGROUND ELECTRIC LINE PER
PRIVATE UTILITY LOCATE BY GPRS
74'
S03°25'39"W(M) 163.70'(M)(R)
S03°26'03"W(R)
(ITEM 23)
10' UTILITY EASEMENT
DOC. NO. 2008E0081524
1" METER WITH
1-1/2" TYPE "K"
SERVICE LINE
IRRIGATION COMPONENTS SHALL
BE PLACED IN THE GREENSPACE.
SHOWN HERE FOR CLARITY ONLY.
APPROXIMATE LOCATION OF
UNDERGROUND CABLE LINE PER
PRIVATE UTILITY LOCATE BY GPRS
FS
BF
M
ANDY'S FROZEN CUSTARD STORES, LLC
LOT 10E
DOC. NO. 2024E0066452
P.R.J.C.M.
ZONED: PMIX
N03°07'46"E(M) 257.50'(M)(R)
N03°08'10"E(R)
PROPOSED 10' UTILITY
EASEMENT PER
SEPARATE DOCUMENT
BUILDING TOP: 1016.68'
FFE: 1000.39'
PROPOSED VIOC
SINGLE STORY 1,462 SF
FINISHED FLOOR ELEVATION
(FFE) = 1,000.50
LOWER-LEVEL FINISH FLOOR
ELEVATION (BASEMENT); -8.875'
C
RF
ELECTRIC
TRANSFORMER
(ITEM 17)
20' GAS R.O.W EASEMENT
TO THE GAS SERVICE COMPANY
BK. I-188, PG. 1869
APPROXIMATE LOCATION OF
UNDERGROUND GAS LINE PER
PRIVATE UTILITY LOCATE BY GPRS
ANDY'S FROZEN
CUSTARD SIGN
APPROXIMATE LOCATION OF
UNDERGROUND 12" WATER LINE PER
PRIVATE UTILITY LOCATE BY GPRS
APPROXIMATE LOCATION OF
UNDERGROUND UTILITY LINE PER
PRIVATE UTILITY LOCATE BY GPRS
(ITEM 19)
15' WATER LINE EASEMENT
DOC. NO. 2016E0032185
ELECTRIC
CABINET
ELECTRIC RISER "4G14"
N86°50'36"W(M) 98.69'(M)(R)
N86°50'12"W(R)
ELECTRIC
CABINET
ELECTRIC RISER "4G15"
STORM MANHOLE RIM = 997.64'
E 12" RCP = 993.77'
78'
(ITEM 18)
R.O.W TO MISSOURI GAS COMPANY
DOC. NO. 2008E0094862
S48°25'39"W(M)
38.61'(M)(R)
S48°26'03"W(R)
14.4 7 1"
8 14.5 1"
9 15.1 1"
1 14.5 1"
12.7 2 1"
14.4 3 1"
12.9 4 1"
14.4 5 1"
13.7 6 1"
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
91'
80'

CRITICAL ANALYSIS

Generated:	2025-11-10 15:21
P.O.C. NUMBER: 01	
Water Source Information:	
FLOW AVAILABLE	
Water Meter Size:	1"
Flow Available	37.5 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	70 PSI
Elevation Change:	0 ft
Service Line Size:	1 1/2"
Length of Service Line:	5 ft
Pressure Available:	70 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	15.14 GPM
Flow Available at POC:	37.5 GPM
Residual Flow Available:	22.36 GPM
Critical Station:	7
Design Pressure:	45 PSI
Friction Loss:	1.1 PSI
Fittings Loss:	0.11 PSI
Elevation Loss:	0 PSI
Loss through Valve:	5.94 PSI
Pressure Req. at Critical Station:	52.2 PSI
Loss for Fittings:	0.08 PSI
Loss for Main Line:	0.78 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	12.5 PSI
Loss for Master Valve:	1.14 PSI
Loss for Water Meter:	1.14 PSI
Critical Station Pressure at POC:	67.8 PSI
Pressure Available:	70 PSI
Residual Pressure Available:	2.2 PSI

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
14 ADJ 14 F	Rain Bird R-VAN14 1806-SAM-P45 Turf Rotary, 8ft.-14ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	77	45
18 ADJ 18 F	Rain Bird R-VAN18 1806-SAM-P45 Turf Rotary, 13ft.-18ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	56	45

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
◐	Rain Bird PGA-PRS-D Globe 1" 1in., 1-1/2in., 2in. Electric Remote Control Valve, Globe. With Pressure Regulator Module.	9
⧗	Shut Off Valve	1
M	Rain Bird EFB-CP-PRS-D 1" 1in., 1-1/4”, 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator.	1
BF	Watts 919QT 1" Backflow reduced pressure zone	1
C	Rain Bird ESPLXME2 12 Station Traditionally-Wired, Commercial Controller. Indoor/Outdoor, Plastic Wall-Mount Enclosure.	1
RF	Rain Bird WR2-RFC Wireless Rain and Freeze Sensor Combo, includes 1 receiver and 1 rain/freeze sensor transmitter.	1
FS	Rain Bird FS-100-B 1in. Flow Sensor, Brass Model. Suggested Operating Range 2.0 GPM to 40.0 GPM. Size for Flow Not According to Pipe Size. Rain Bird Compatible Controllers: ESP-LXIVM(P) | LXD | LXME2(P) | ME3, or Controllers Accepting Custom K-Factor and Offset. Install in Rain Bird Valve Box.	1
M	Water Meter 1"	1
———	Irrigation Lateral Line: PVC Schedule 40 3/4"	1,508 lf
———	Irrigation Lateral Line: PVC Schedule 40 1"	45.9 lf
———	Irrigation Lateral Line: PVC Schedule 40 1 1/4"	40.6 lf
— — —	Irrigation Mainline: PVC Schedule 40 1 1/2"	652.5 lf

Valve Callout
#• Valve Number
#• Valve Flow
#"• Valve Size

NOTE TO CONTRACTOR:

ALL DISTURBED AREAS SHALL RECEIVE SEED OR SOD ACCORDING TO LANDSCAPE PLAN. ALL AREAS RECEIVING SEED OR SOD AND NOT COVERED BY THE AUTOMATIC IRRIGATION SYSTEM SHALL BE HAND WATERED UNTIL VEGETATION IS ESTABLISHED AND ABLE TO SUSTAIN ITSELF IN A CONSISTENTLY HEALTHY CONDITION.

* GENERAL IRRIGATION NOTES: *

LINE LAYOUT AND EQUIPMENT PLACEMENT IS DIAGRAMMATIC. ADJUST HEAD AND LINE LOCATIONS ON SITE TO ACCOMMODATE EXISTING JOB CONDITIONS AND TO ACHIEVE 100% COMPLETE COVERAGE. ALL HEADS, LINES, VALVES, AND OTHER IRRIGATION EQUIPMENT SHALL BE LOCATED AND ROUTED THROUGH LANDSCAPE AREAS WHENEVER POSSIBLE AND SHALL BE LOCATED WITHIN THE BOUNDS OF THE PROPERTY. LOCATION OF IRRIGATION CONTROLLER & WEATHER STATION SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND/OR OWNER. SEE CIVIL UTILITY PLANS FOR EXACT LOCATION OF WATER METER.

SPRAY HEADS SHALL BE ADJUSTED SO AS TO NOT SPRAY UNDER PRESERVED TREES.

THE CONTRACTOR SHALL DISCUSS ANY IRRIGATION LOCATED WITHIN AN EASEMENT WITH THE OWNER AND FULLY INFORM THEM OF ALL LIABILITY OF FUTURE DAMAGE TO THEIR SYSTEM BY EASEMENT OWNER.

LATERAL LINES TO BE POLYFLEX PIPE SDR 9 CTS
MAIN LINE TO BE POLYFLEX PIPE SDR 9 CTS

ALL IRRIGATION EQUIPMENT TO BE RAINBIRD, THERE SHALL BE NO SUBSTITUTIONS.

GENERAL IRRIGATION NOTES:

CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO STARTING WORK ON THE SITE. UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATED, AND SHOULD BE VERIFIED ON THE CIVIL UTILITY PLAN AND IN THE FIELD.

CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, LICENSES, METERS, TAPS, AND IMPACT FEES REQUIRED TO INSTALL THE SYSTEM.

CONTRACTOR SHALL REFER TO THE LANDSCAPE PLAN FOR HEAD, LINE, AND VALVE PLACEMENT RELATIVE TO THE PROPOSED PLANTING PLAN. IRRIGATION SYSTEM SHALL PROVIDE 100% HEAD-TO-HEAD COVERAGE.

CONTRACTOR SHALL ADJUST HEADS AND NOZZLES TO PROVIDE 100% COVERAGE IN THE AREAS INDICATED ON THE PLAN. AVOID CONFLICTS WITH EXISTING AND PROPOSED PLANT MATERIAL, PAVING, STRUCTURES, AND UTILITY LINES. ADJUSTABLE ARC NOZZLES SHALL BE SUBSTITUTED IN PLACE OF FIXED ARC NOZZLES AS NECESSARY TO PREVENT OVER SPRAY ONTO PAVEMENT. IRRIGATION HEADS SHALL BE PLACED AND ADJUSTED TO PREVENT SPRAY ONTO BUILDINGS OR WALKWAYS.

VERIFY IN THE FIELD, THE LOCATION OF LINES, HEADS, OR VALVES WITHIN THE DRIP LINE OF ANY EXISTING TREES. HAND EXCAVATE OR BORE WITHIN THE DRIPLINE OF ANY TREE.

IRRIGATION CONTRACTOR SHALL COORDINATE INSTALLATION OF THE SYSTEM WITH THE LANDSCAPE CONTRACTOR SO THAT ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS.

ALL MAIN LINE PIPING SHALL BE BURIED TO HAVE A MINIMUM COVER OF 18". ALL LATERAL PIPING DOWNSTREAM OF THE MAINLINE SHALL BE BURIED TO HAVE A MINIMUM COVER OF 12".

ALL WIRING FROM THE IRRIGATION CONTROLLER TO THE REMOTE CONTROL VALVES SHALL BE UF-14 DIRECT BURIAL CABLE. ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES ONLY.

THE IRRIGATION CONTRACTOR IS RESPONSIBLE TO COORDINATE THE PLACEMENT OF SLEEVES PRIOR TO PAVING. SLEEVE MATERIAL SHALL BE SCHEDULE 40 AND AT A MINIMUM DEPTH OF 18".

THE IRRIGATION CONTRACTOR IS REQUIRED TO REPAIR WITH APPROVED IN KIND MATERIALS ANY DAMAGE INCLUDING BUT NOT LIMITED TO: THE BUILDING, STRUCTURES, PAVING, OR PLANTINGS. DAMAGE TO UTILITIES BY THE IRRIGATION CONTRACTOR SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE, AND THE REGULATING UTILITY PROVIDER.

THE IRRIGATION SYSTEM SHALL BE DESIGNED TO OPERATE BASED ON AN AVAILABLE WATER PRESSURE OF 41 PSI. IF PRESSURE IS LESS THAN 41 PSI, CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD. IF PRESSURE IS GREATER THAN 100 PSI, A PRESSURE REDUCING VALVE SHALL BE INSTALLED FOR SAFE OPERATION OF THE IRRIGATION SYSTEM.

CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DISCREPANCIES IN EQUIPMENT USAGE, AREA DIMENSIONS OR STATIC WATER PRESSURE EXIST THAT MIGHT NOT HAVE BEEN PRESENT OR KNOWN INFORMATION IN THE DESIGN. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISION NECESSARY AT NO ADDITIONAL COST TO THE OWNER.

IRRIGATION CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL LAWNS DISTURBED OUTSIDE OF OF CONSTRUCTION DISTURBANCE AREAS. ALL IRRIGATION DISTURBANCE OUTSIDE OF CONSTRUCTION DISTURBANCE SHALL HAVE THE TRENCHES BACKFILLED WITH TOPSOIL, AS DESCRIBED IN THE GENERAL LANDSCAPE NOTES AND BE GRADED SMOOTH PER THE GRADING PLAN. IRRIGATION CONTRACTOR SHALL FOLLOW THE GENERAL LANDSCAPE NOTES FOR SEEDING OR SODDING FOR REPAIRING REQUIRED LAWN AREAS.

THIS SHEET IS FOR THE PURPOSE OF IRRIGATION LAYOUT ONLY. ALL GRADING, UTILITIES, SITE FEATURES, ETC. ARE FOR REFERENCE ONLY. PLEASE REFER TO CIVIL PLANS FOR MORE DETAILS.

ALL EMISSION DEVICES MUST BE ADJUSTED TO DIRECT FLOW OF WATER AWAY FROM IMPERVIOUS SURFACES AND MUST NOT BE INSTALLED CLOSER THAN 4" FROM THE HARDSCAPE.

ALL WIRING USED IN THE IRRIGATION SYSTEM MUST BE UL LISTED FOR DIRECT UNDERGROUND BURIAL.

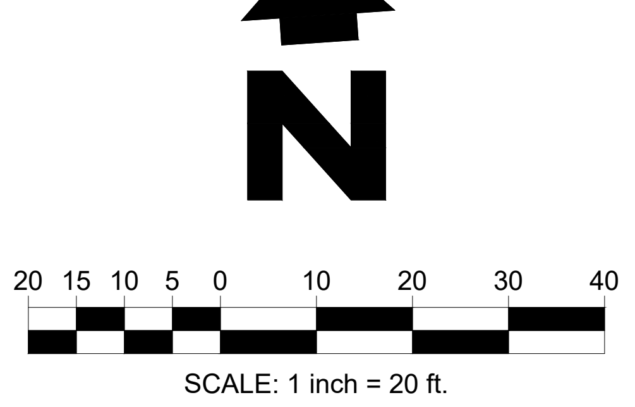
IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ), MC-178, PO BOX 13087, AUSTIN, TX 78711-3087. TCEQ'S WEBSITE IS WWW.TCEQ.STATE.TX.US

THE IRRIGATION CONTRACTOR FOR THIS SITE SHALL HAVE A TEXAS IRRIGATOR'S LICENSE AND SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS, COORDINATING REQUIRED INSPECTIONS, PROVIDING FINAL AS-BUILT DRAWINGS, CONDUCTING FINAL WALK THROUGH, ETC.

SURVEY PROVIDED BY:

ATWELL
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800

DATED: 15 SEPTEMBER, 2025


N
20 15 10 5 0 10 20 30 40
SCALE: 1 inch = 20 ft.

MISSOURI811

Civil\DWGs\06-24-20062 – C-6 LAND & IRR.dwg Last Modified: Feb 27, 2026 – 8:33am Plotted on: Mar 06, 2026 – 9:46am by daniel.friede

HFA
HFA-AE , LTD.

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
t 479.273.7780
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DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

06-MAR-26 10:08:26

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

Valvoline Instant Oil Change

VALVOLINE INSTANT OIL CHANGE

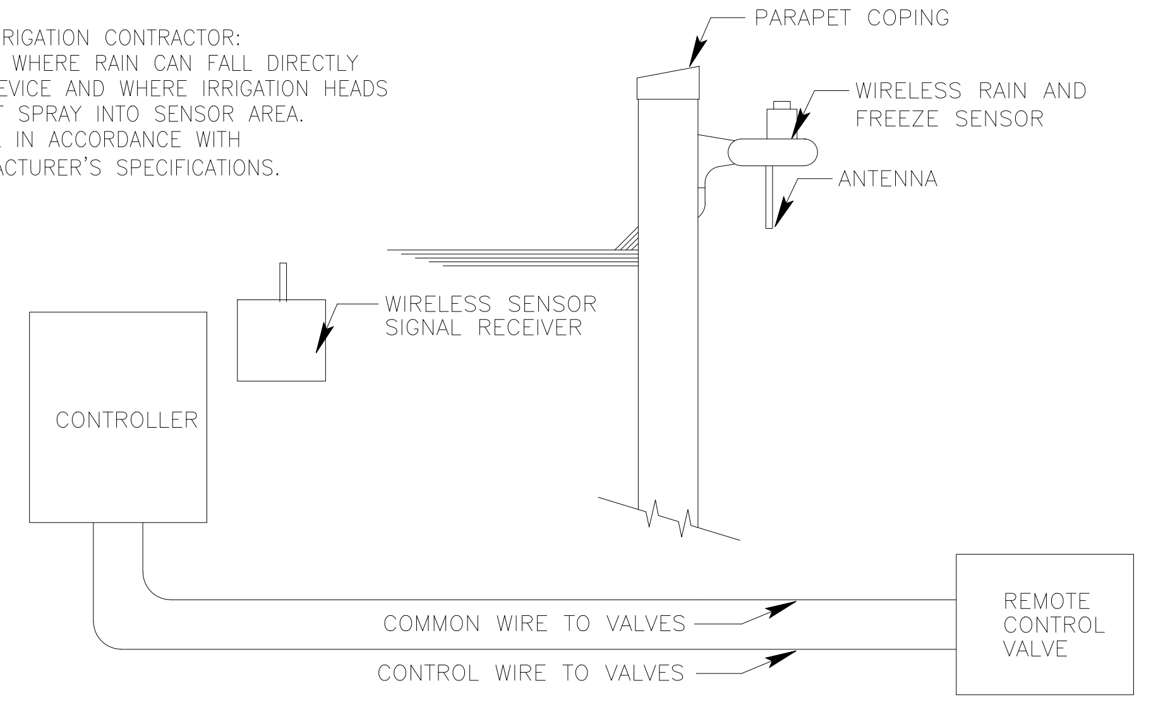
610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
IRRIGATION PLAN

SHEET #
C-6.2

NOTE TO IRRIGATION CONTRACTOR:
1. LOCATE WHERE RAIN CAN FALL DIRECTLY INTO DEVICE AND WHERE IRRIGATION HEADS CANNOT SPRAY INTO SENSOR AREA.
2. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.


PARAPET COPING
WIRELESS RAIN AND FREEZE SENSOR
ANTENNA
WIRELESS SENSOR SIGNAL RECEIVER
CONTROLLER
COMMON WIRE TO VALVES
CONTROL WIRE TO VALVES
REMOTE CONTROL VALVE

13 RAIN SENSOR

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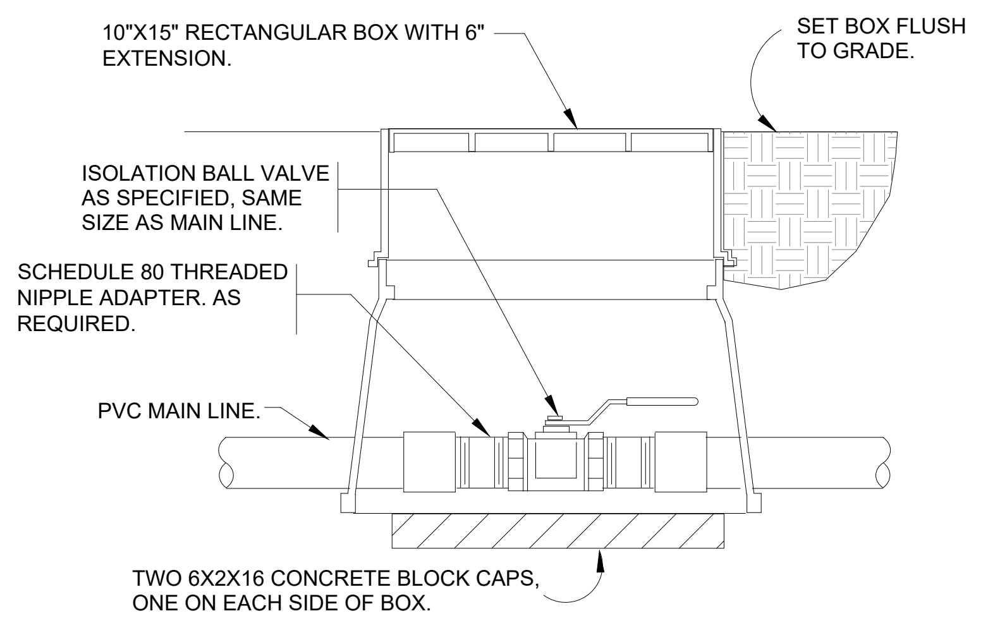
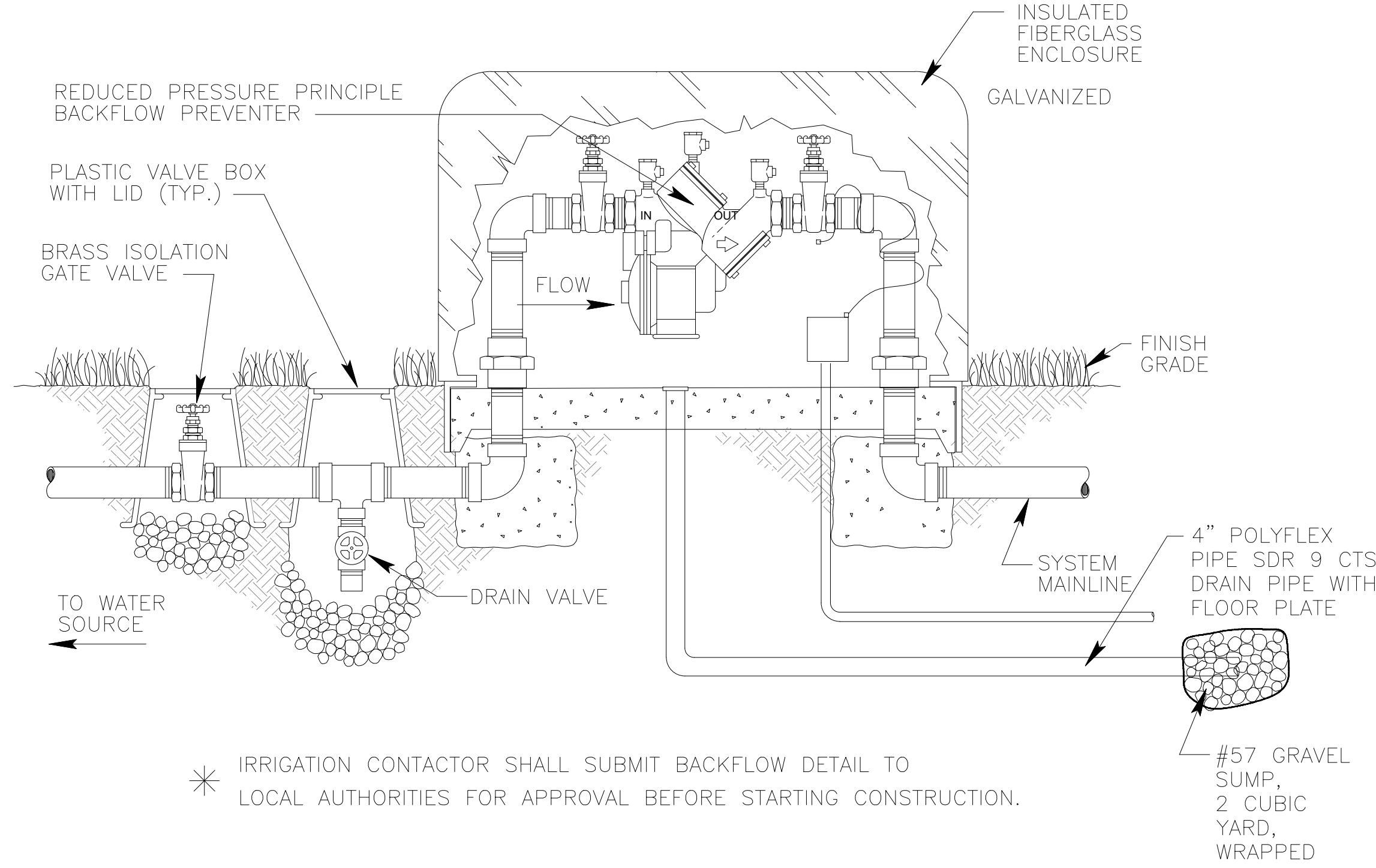

10"X15" RECTANGULAR BOX WITH 6" EXTENSION.
SET BOX FLUSH TO GRADE.
ISOLATION BALL VALVE AS SPECIFIED, SAME SIZE AS MAIN LINE.
SCHEDULE 80 THREADED NIPPLE ADAPTER. AS REQUIRED.
PVC MAIN LINE.
TWO 6X2X16 CONCRETE BLOCK CAPS, ONE ON EACH SIDE OF BOX.

12 BRASS BALL ISOLATION VALVE

NTS

CONTRACTOR TO COMPLY WITH ALL LOCAL CODES AND ORDINANCES IN REFERENCE TO PIT CONSTRUCTION, INSTALLATION AND VENTING OF BACKFLOW PREVENTION DEVICE.


INSULATED FIBERGLASS ENCLOSURE
GALVANIZED
REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER
PLASTIC VALVE BOX WITH LID (TYP.)
BRASS ISOLATION GATE VALVE
IN
OUT
FLOW
FINISH GRADE
SYSTEM MAINLINE
4" POLYFLEX PIPE SDR 9 CTS DRAIN PIPE WITH FLOOR PLATE
DRAIN VALVE
TO WATER SOURCE
#57 GRAVEL SUMP, 2 CUBIC YARD, WRAPPED WITH FABRIC

✳ IRRIGATION CONTACTOR SHALL SUBMIT BACKFLOW DETAIL TO LOCAL AUTHORITIES FOR APPROVAL BEFORE STARTING CONSTRUCTION.

11 REDUCED PRESSURE BACKFLOW DEVICE

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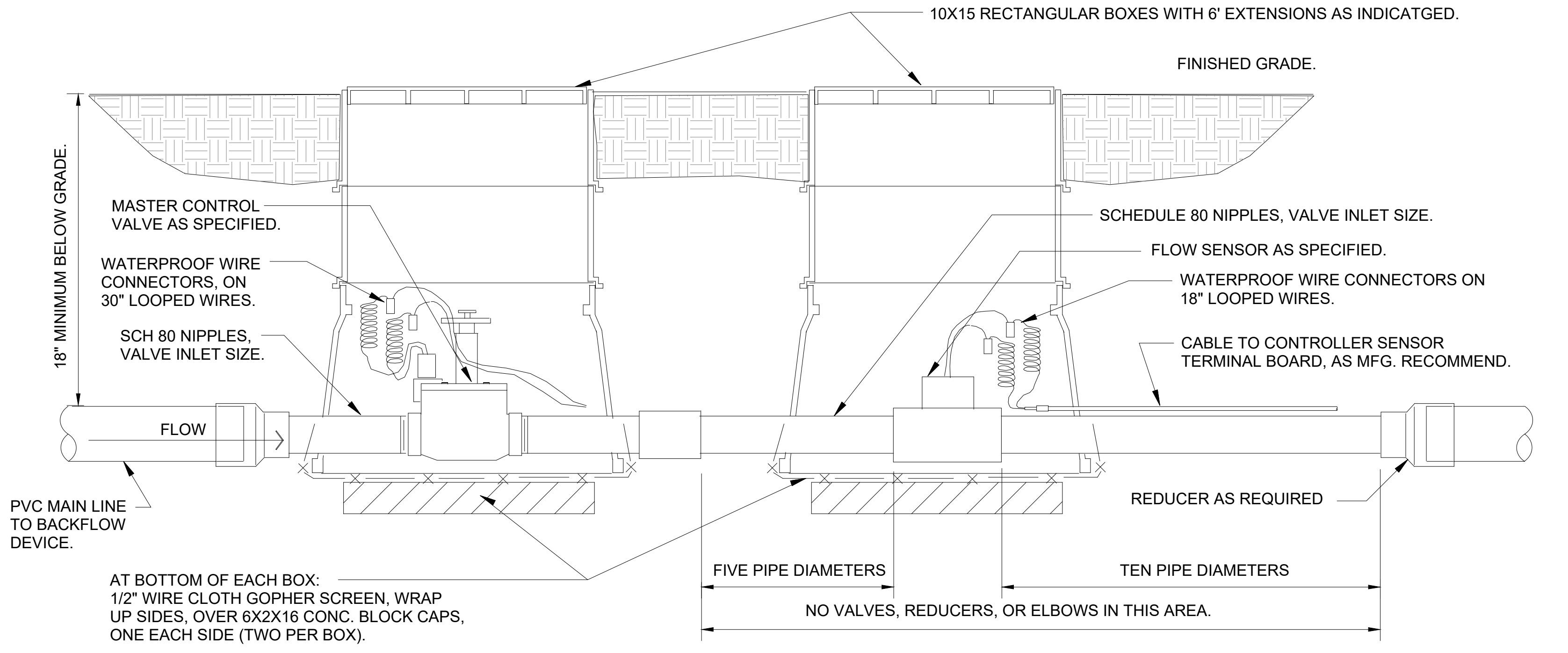
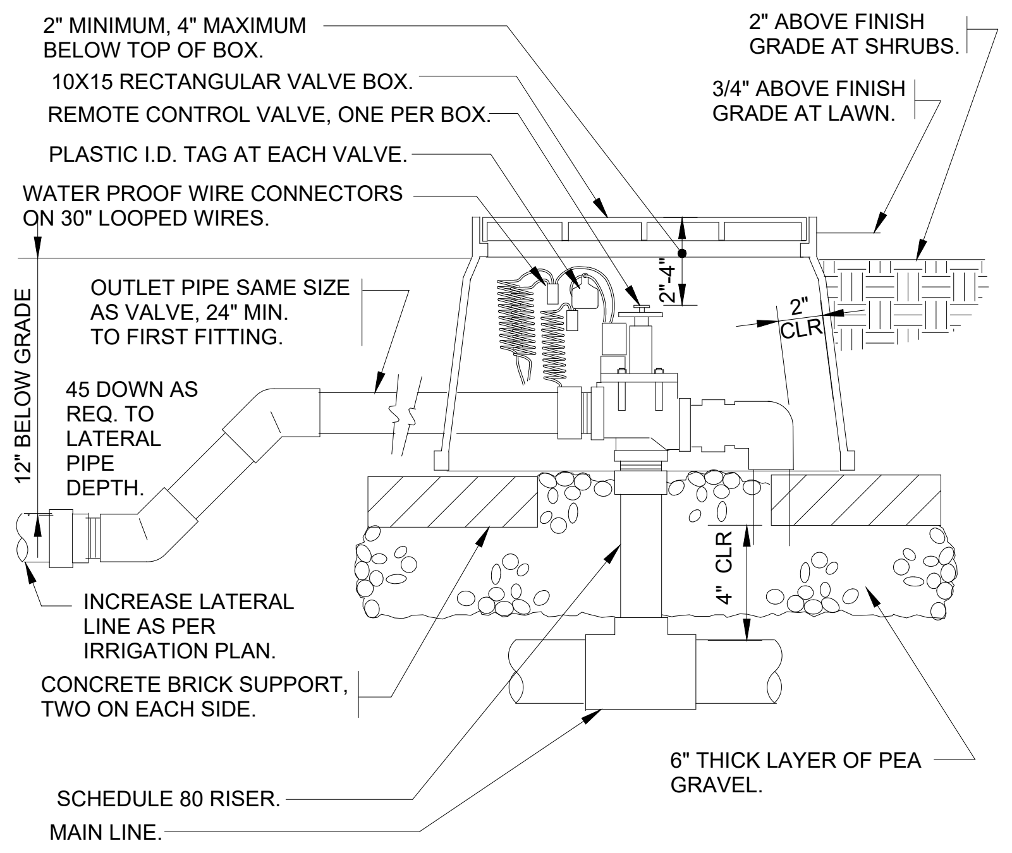

10X15 RECTANGULAR BOXES WITH 6' EXTENSIONS AS INDICATGED.
FINISHED GRADE.
18" MINIMUM BELOW GRADE.
MASTER CONTROL VALVE AS SPECIFIED.
WATERPROOF WIRE CONNECTORS, ON 30" LOOPED WIRES.
SCH 80 NIPPLES, VALVE INLET SIZE.
SCHEDULE 80 NIPPLES, VALVE INLET SIZE.
FLOW SENSOR AS SPECIFIED.
WATERPROOF WIRE CONNECTORS ON 18" LOOPED WIRES.
CABLE TO CONTROLLER SENSOR TERMINAL BOARD, AS MFG. RECOMMEND.
FLOW
PVC MAIN LINE TO BACKFLOW DEVICE.
REDUCER AS REQUIRED
AT BOTTOM OF EACH BOX: 1/2" WIRE CLOTH GOPHER SCREEN, WRAP UP SIDES, OVER 6X2X16 CONC. BLOCK CAPS, ONE EACH SIDE (TWO PER BOX).
FIVE PIPE DIAMETERS
TEN PIPE DIAMETERS
NO VALVES, REDUCERS, OR ELBOWS IN THIS AREA.

10 MASTER VALVE/FLOW SENSOR ASSEMBLY

NTS


2" MINIMUM, 4" MAXIMUM BELOW TOP OF BOX.
10X15 RECTANGULAR VALVE BOX.
REMOTE CONTROL VALVE, ONE PER BOX.
PLASTIC I.D. TAG AT EACH VALVE.
WATER PROOF WIRE CONNECTORS ON 30" LOOPED WIRES.
2" ABOVE FINISH GRADE AT SHRUBS.
3/4" ABOVE FINISH GRADE AT LAWN.
2"-4"
2" CLR
12" BELOW GRADE
OUTLET PIPE SAME SIZE AS VALVE, 24" MIN. TO FIRST FITTING.
45 DOWN AS REQ. TO LATERAL PIPE DEPTH.
4" CLR
INCREASE LATERAL LINE AS PER IRRIGATION PLAN.
CONCRETE BRICK SUPPORT, TWO ON EACH SIDE.
6" THICK LAYER OF PEA GRAVEL.
SCHEDULE 80 RISER.
MAIN LINE.

9 ELECTRIC REMOTE CONTROL VALVE

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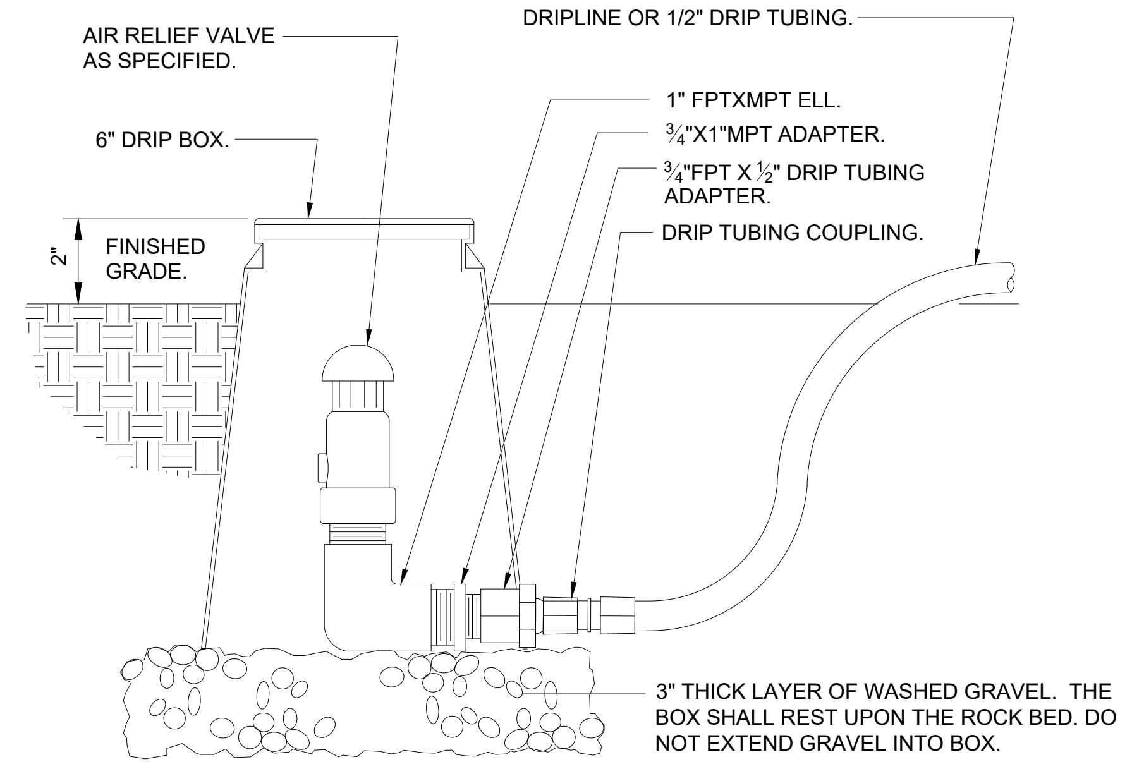
AIR RELIEF VALVE AS SPECIFIED.
DRIPLINE OR 1/2" DRIP TUBING.
6" DRIP BOX.
1" FPTXMPT ELL.
¾"X1"MPT ADAPTER.
¾"FPT X ½" DRIP TUBING ADAPTER.
DRIP TUBING COUPLING.
2"
FINISHED GRADE.
3" THICK LAYER OF WASHED GRAVEL. THE BOX SHALL REST UPON THE ROCK BED. DO NOT EXTEND GRAVEL INTO BOX.

8 DRIP AIR RELIEF VALVE IN BOX

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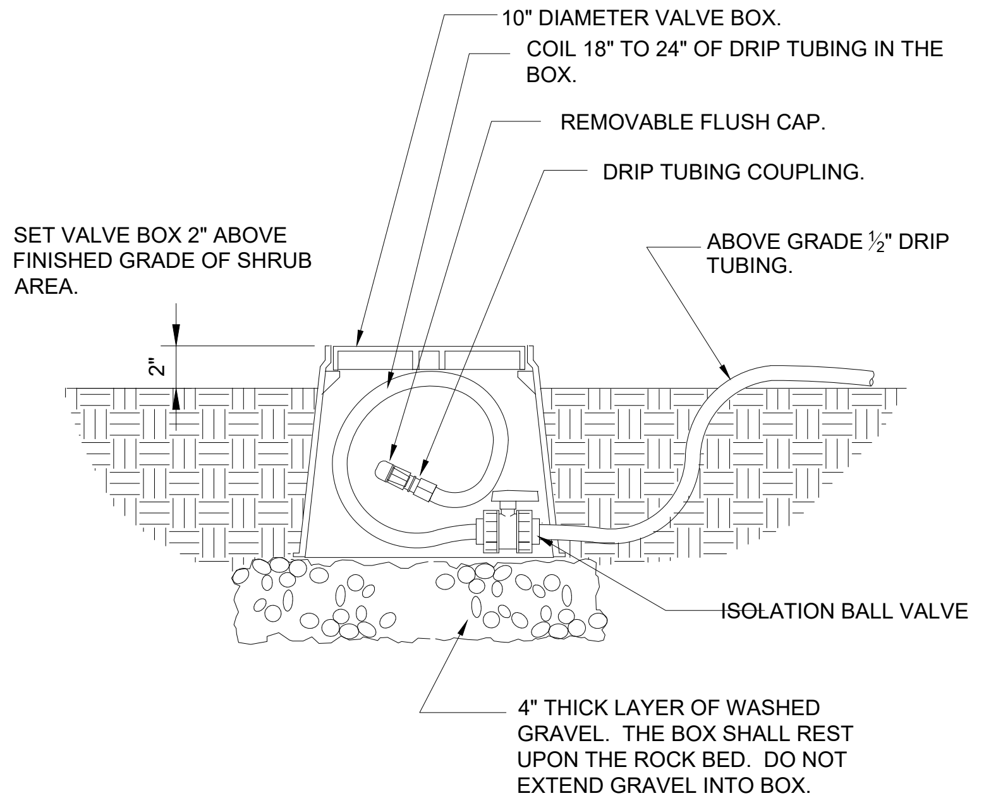
10" DIAMETER VALVE BOX.
COIL 18" TO 24" OF DRIP TUBING IN THE BOX.
REMOVABLE FLUSH CAP.
DRIP TUBING COUPLING.
SET VALVE BOX 2" ABOVE FINISHED GRADE OF SHRUB AREA.
ABOVE GRADE ½" DRIP TUBING.
2"
ISOLATION BALL VALVE
4" THICK LAYER OF WASHED GRAVEL. THE BOX SHALL REST UPON THE ROCK BED. DO NOT EXTEND GRAVEL INTO BOX.

1. LOCATE FLASH CAP ASSEMBLY AT THE END OF EACH DRIP LINE.
2. ENSURE THAT THE COILED DRIP TUBING IS OF SUFFICIENT LENGTH TO COMPLETELY EXTEND OUT OF THE VALVE BOX WHEN FLUSHING.

7 DRIP FLUSH CAP ASSEMBLY W/ BALL VALVE

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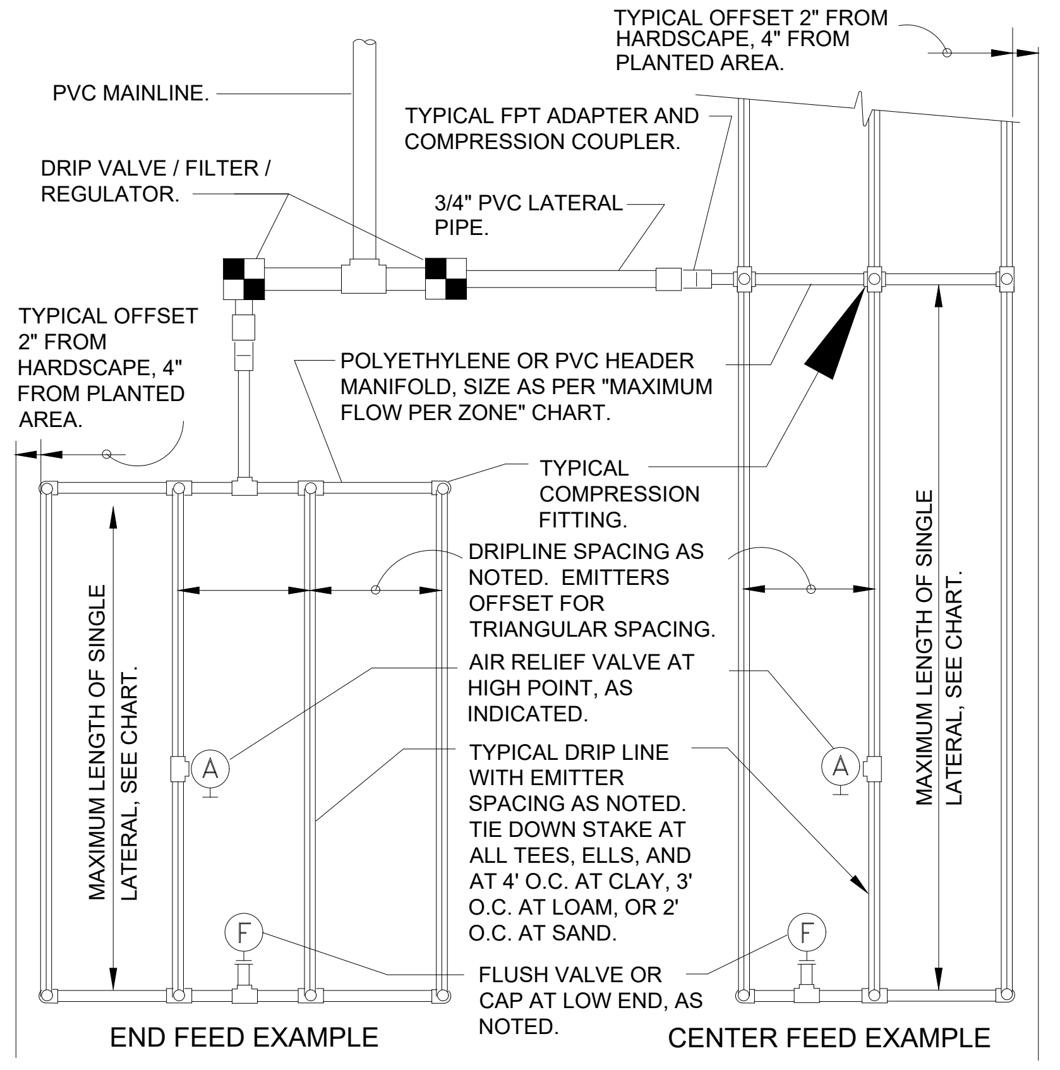

TYPICAL OFFSET 2" FROM HARDSCAPE, 4" FROM PLANTED AREA.
PVC MAINLINE.
TYPICAL FPT ADAPTER AND COMPRESSION COUPLER.
DRIP VALVE / FILTER / REGULATOR.
3/4" PVC LATERAL PIPE.
TYPICAL OFFSET 2" FROM HARDSCAPE, 4" FROM PLANTED AREA.
POLYETHYLENE OR PVC HEADER MANIFOLD, SIZE AS PER "MAXIMUM FLOW PER ZONE" CHART.
TYPICAL COMPRESSION FITTING.
DRIPLINE SPACING AS NOTED. EMITTERS OFFSET FOR TRIANGULAR SPACING.
AIR RELIEF VALVE AT HIGH POINT, AS INDICATED.
TYPICAL DRIP LINE WITH EMITTER SPACING AS NOTED. TIE DOWN STAKE AT ALL TEES, ELLS, AND AT 4' O.C. AT CLAY, 3' O.C. AT LOAM, OR 2' O.C. AT SAND.
FLUSH VALVE OR CAP AT LOW END, AS NOTED.
MAXIMUM LENGTH OF SINGLE LATERAL, SEE CHART.
A
F
END FEED EXAMPLE
CENTER FEED EXAMPLE

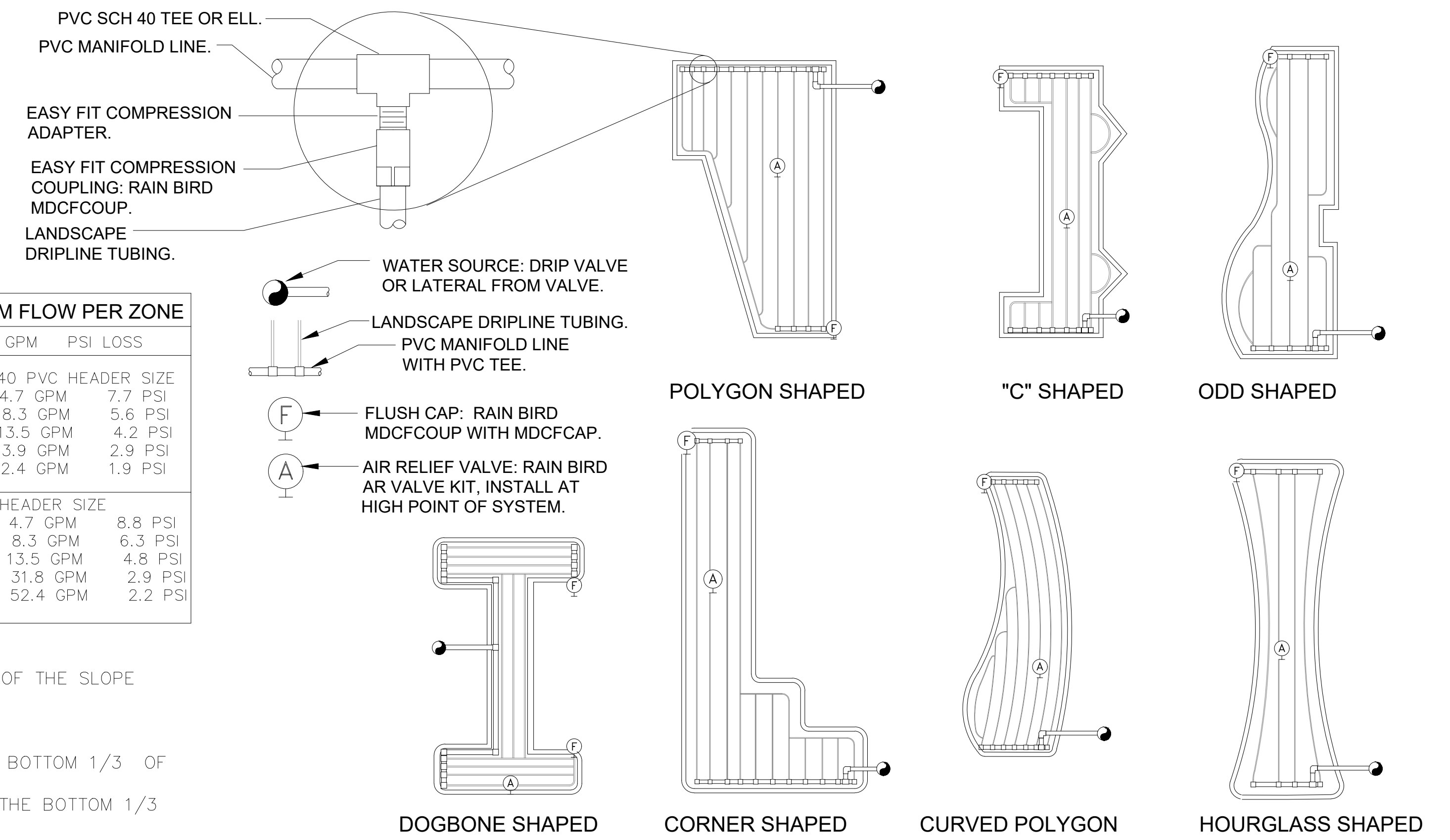
MAXIMUM LATERAL LENGTH (FEET)				
	EMITTER FLOW RATE GPH			
	12" SPACING		18" SPACING	
PSI	0.6	0.9	0.6	0.9
20	192	136	254	215
30	289	205	402	337
40	350	248	498	416
50	397	281	573	477
60	436	309	637	529

GRID PRECIPITATION RATES (IN/HR)			
EMITTER SPACING	LATERAL SPACING	EMITTER FLOW RATE	
		0.6	0.9
12	12	0.96	1.44
18	18	0.69	1.03
24	24	0.28	0.41

LATERAL FLOW PER 100 FT (GPM)			
EMITTER FLOW	12" SPACING	18" SPACING	24" SPACING
0.6 GPH	1.0 GPM	0.67 GPM	0.50 GPM
0.9 GPH	1.5 GPM	1.0 GPM	0.75 GPM

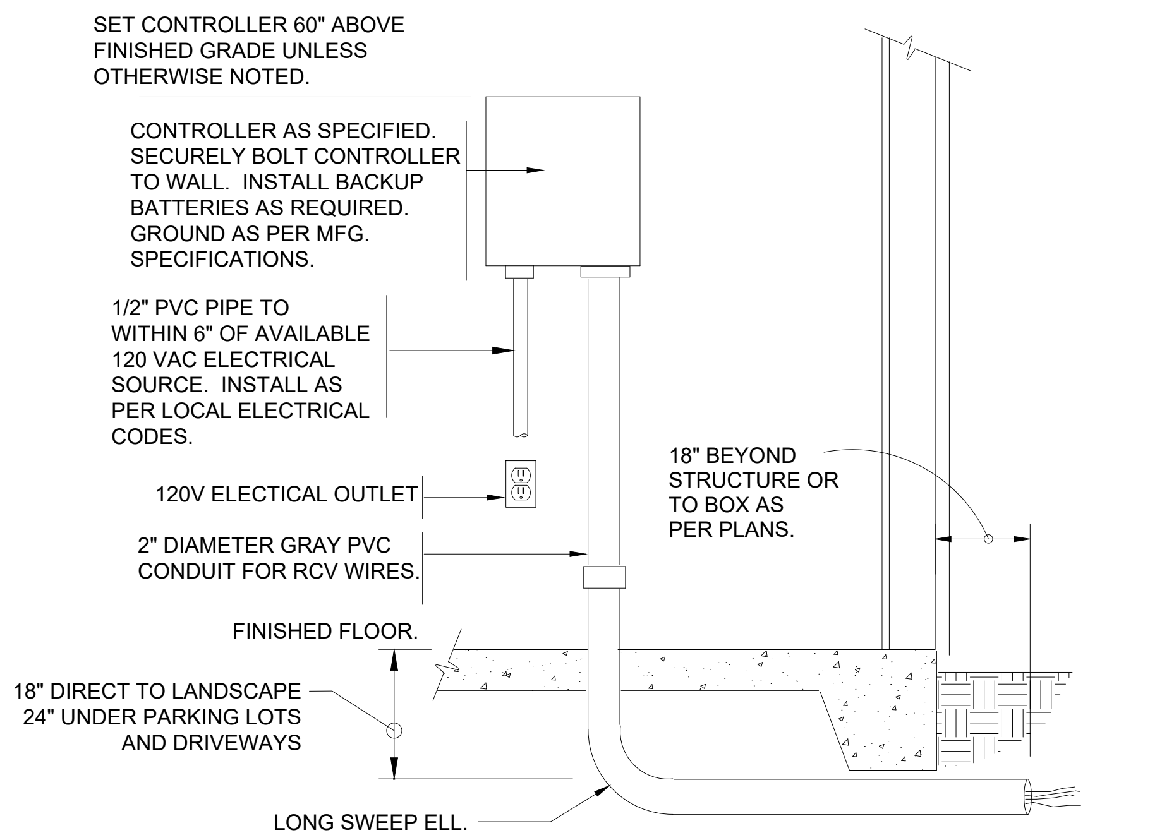
MAXIMUM FLOW PER ZONE		
	MAX GPM	PSI LOSS
SCHEDULE 40 PVC HEADER SIZE		
1/2"	4.7 GPM	7.7 PSI
3/4"	8.3 GPM	5.6 PSI
1"	13.5 GPM	4.2 PSI
1-1/2"	33.9 GPM	2.9 PSI
2"	52.4 GPM	1.9 PSI
POLY PIPE HEADER SIZE		
1/2"	4.7 GPM	8.8 PSI
3/4"	8.3 GPM	6.3 PSI
1"	13.5 GPM	4.8 PSI
1-1/2"	31.8 GPM	2.9 PSI
2"	52.4 GPM	2.2 PSI

SLOPED CONDITION NOTE:
1. DRIPLINE LATERALS SHOULD FOLLOW THE CONTOURS OF THE SLOPE WHENEVER POSSIBLE.
2. INSTALL AIR RELIEF VALVE AT HIGHEST POINT.
3. NORMAL SPACING WITHIN THE TOP 2/3 OF SLOPE.
4. INSTALL DRIPLINE AT 25% GREATER SPACING AT THE BOTTOM 1/3 OF THE SLOPE.
5. WHEN ELEVATION CHANGE IS 10 FT OR MORE, ZONE THE BOTTOM 1/3 ON A SEPARATE VALVE.


PVC SCH 40 TEE OR ELL.
PVC MANIFOLD LINE.
EASY FIT COMPRESSION ADAPTER.
EASY FIT COMPRESSION COUPLING: RAIN BIRD MDCFCOUP.
LANDSCAPE DRIPLINE TUBING.
WATER SOURCE: DRIP VALVE OR LATERAL FROM VALVE.
LANDSCAPE DRIPLINE TUBING.
PVC MANIFOLD LINE WITH PVC TEE.
F
FLUSH CAP: RAIN BIRD MDCFCOUP WITH MDCFCAP.
A
AIR RELIEF VALVE: RAIN BIRD AR VALVE KIT, INSTALL AT HIGH POINT OF SYSTEM.
POLYGON SHAPED
"C" SHAPED
ODD SHAPED
DOGBONE SHAPED
CORNER SHAPED
CURVED POLYGON
HOURGLASS SHAPED

6 TYPICAL RAIN BIRD DRIPLINE REQUIREMENTS

N.T.S.


SET CONTROLLER 60" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED.
CONTROLLER AS SPECIFIED. SECURELY BOLT CONTROLLER TO WALL. INSTALL BACKUP BATTERIES AS REQUIRED. GROUND AS PER MFG. SPECIFICATIONS.
1/2" PVC PIPE TO WITHIN 6" OF AVAILABLE 120 VAC ELECTRICAL SOURCE. INSTALL AS PER LOCAL ELECTRICAL CODES.
120V ELECTICAL OUTLET
2" DIAMETER GRAY PVC CONDUIT FOR RCV WIRES.
18" BEYOND STRUCTURE OR TO BOX AS PER PLANS.
FINISHED FLOOR.
18" DIRECT TO LANDSCAPE 24" UNDER PARKING LOTS AND DRIVEWAYS
LONG SWEEP ELL.

5 INTERIOR WALL MOUNT CONTROLLER

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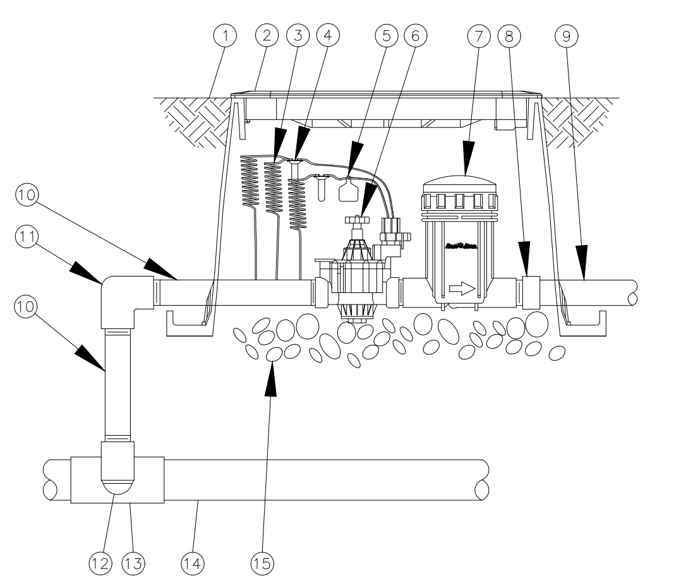
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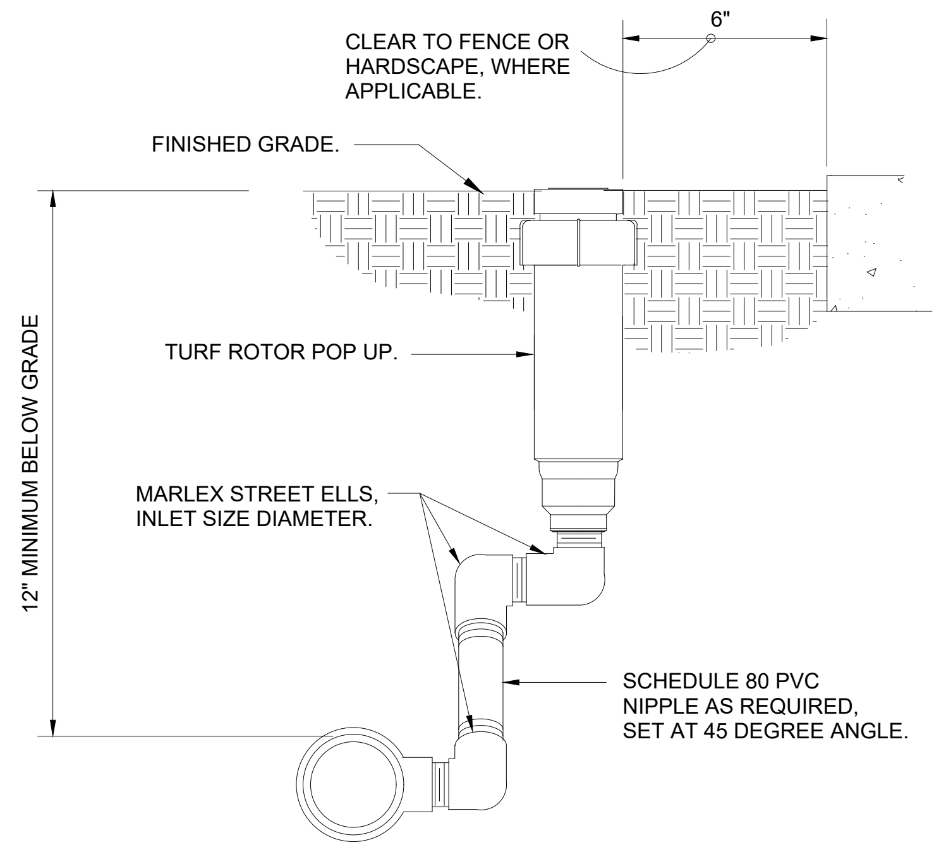
① FINISH GRADE/TOP OF MULCH
② VALVE BOX WITH COVER: RAIN BIRD VB-STD
③ 30-INCH LINEAR LENGTH OF WIRE, COILED
④ WATERPROOF CONNECTION: RAIN BIRD DB SERIES
⑤ ID TAG
⑥ REMOTE CONTROL VALVE: RAIN BIRD 100-PGA (INCLUDED IN CZK-100-PRB-LC KIT)
⑦ PRESSURE REGULATING BASKET FILTER: RAIN BIRD PRB-100 (INCLUDED IN CZK-100-PRB-LC KIT)
⑧ PVC SCH 40 FEMALE ADAPTOR
⑨ LATERAL PIPE
⑩ PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
⑪ PVC SCH 40 ELL
⑫ PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
⑬ PVC SCH 40 TEE OR ELL
⑭ MAINLINE PIPE
⑮ 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

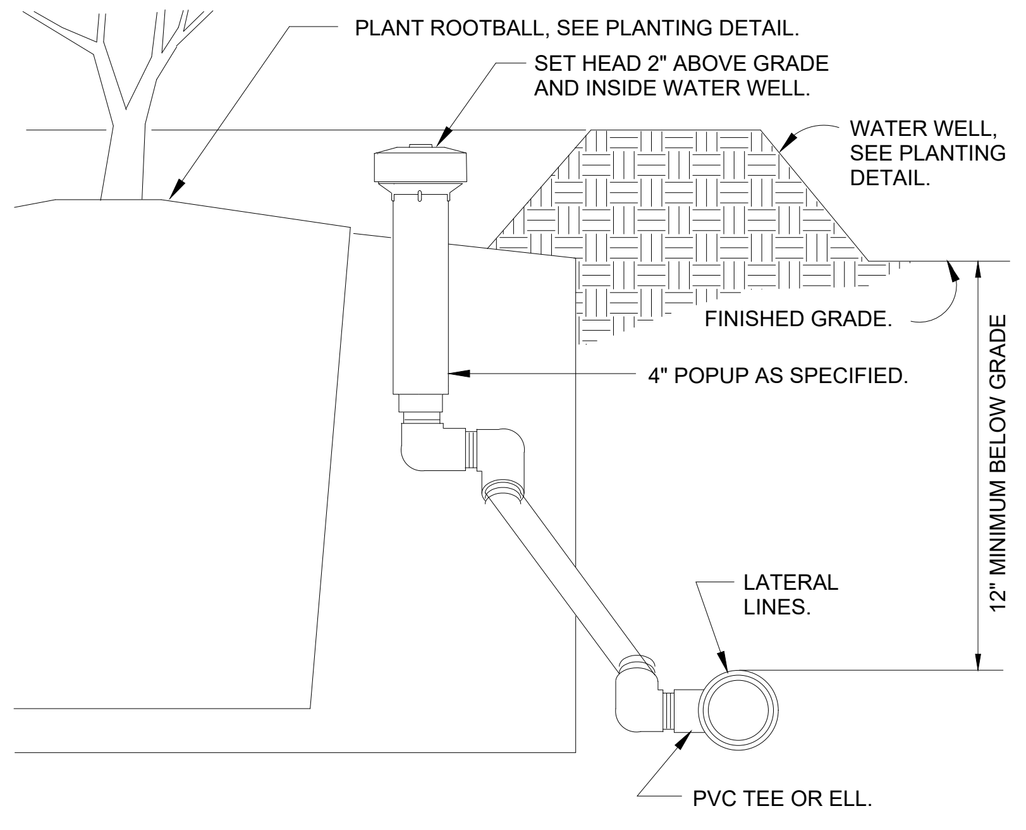
4 CZK-100-PRB-LC 1" LIGHT COMMERCIAL CONTROL ZONE KIT

NTS


CLEAR TO FENCE OR HARDSCAPE, WHERE APPLICABLE.
6"
FINISHED GRADE.
12" MINIMUM BELOW GRADE
TURF ROTOR POP UP.
MARLEX STREET ELLS, INLET SIZE DIAMETER.
SCHEDULE 80 PVC NIPPLE AS REQUIRED, SET AT 45 DEGREE ANGLE.

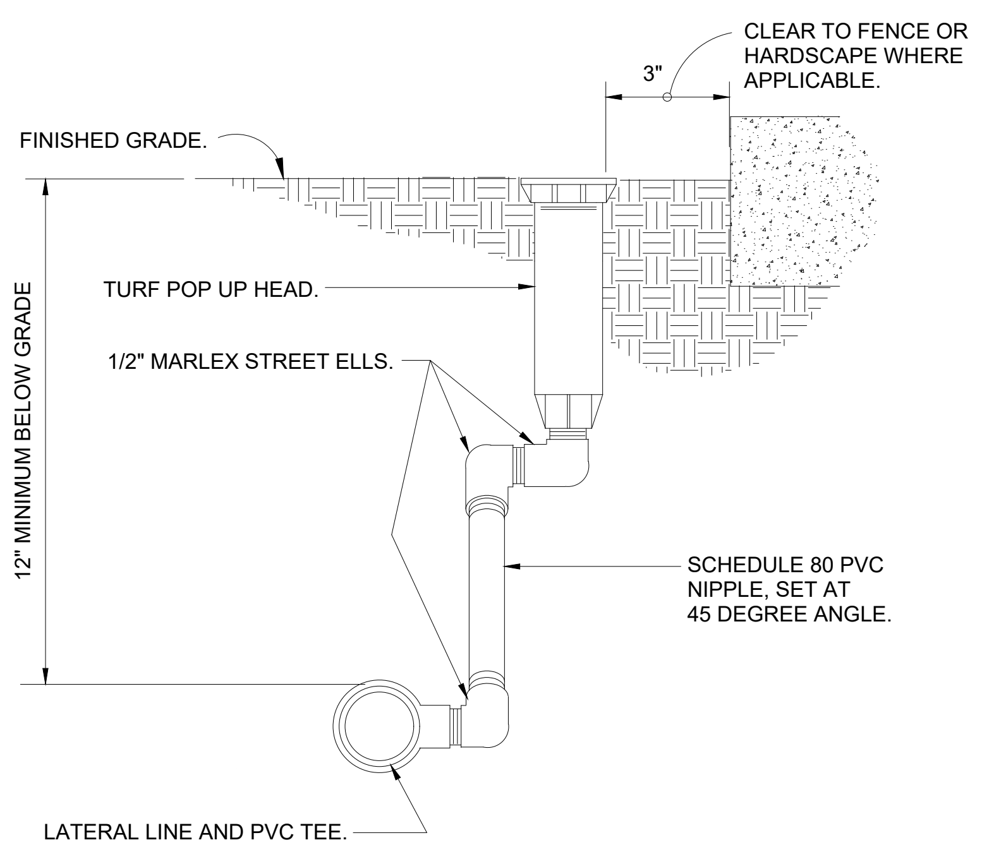
3 TURN ROTOR MARLEX ASSEMBLY

NTS


PLANT ROOTBALL, SEE PLANTING DETAIL.
SET HEAD 2" ABOVE GRADE AND INSIDE WATER WELL.
WATER WELL, SEE PLANTING DETAIL.
FINISHED GRADE.
4" POPUP AS SPECIFIED.
12" MINIMUM BELOW GRADE
LATERAL LINES.
PVC TEE OR ELL.

2 POPUP BUBBLER AT PLANT PIT W/ SWING JOINT

NTS


CLEAR TO FENCE OR HARDSCAPE WHERE APPLICABLE.
3"
FINISHED GRADE.
12" MINIMUM BELOW GRADE
TURF POP UP HEAD.
1/2" MARLEX STREET ELLS.
SCHEDULE 80 PVC NIPPLE, SET AT 45 DEGREE ANGLE.
LATERAL LINE AND PVC TEE.

1 TURF SPRAY MARLEX ASSEMBLY

NTS

HFA
HFA-AE , LTD.

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
t 479.273.7780
f 888.520.9685
www.hfa-ae.com

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02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL
DIEGO ALBERTO GARCIA
NUMBER PE-2023012235
06-MAR-26 10:08:32
DIEGO ALBERTO GARCIA, PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F
PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA
PROJECT MANAGER
KK
QUALITY CONTROL
WFM
DRAWN BY
DF

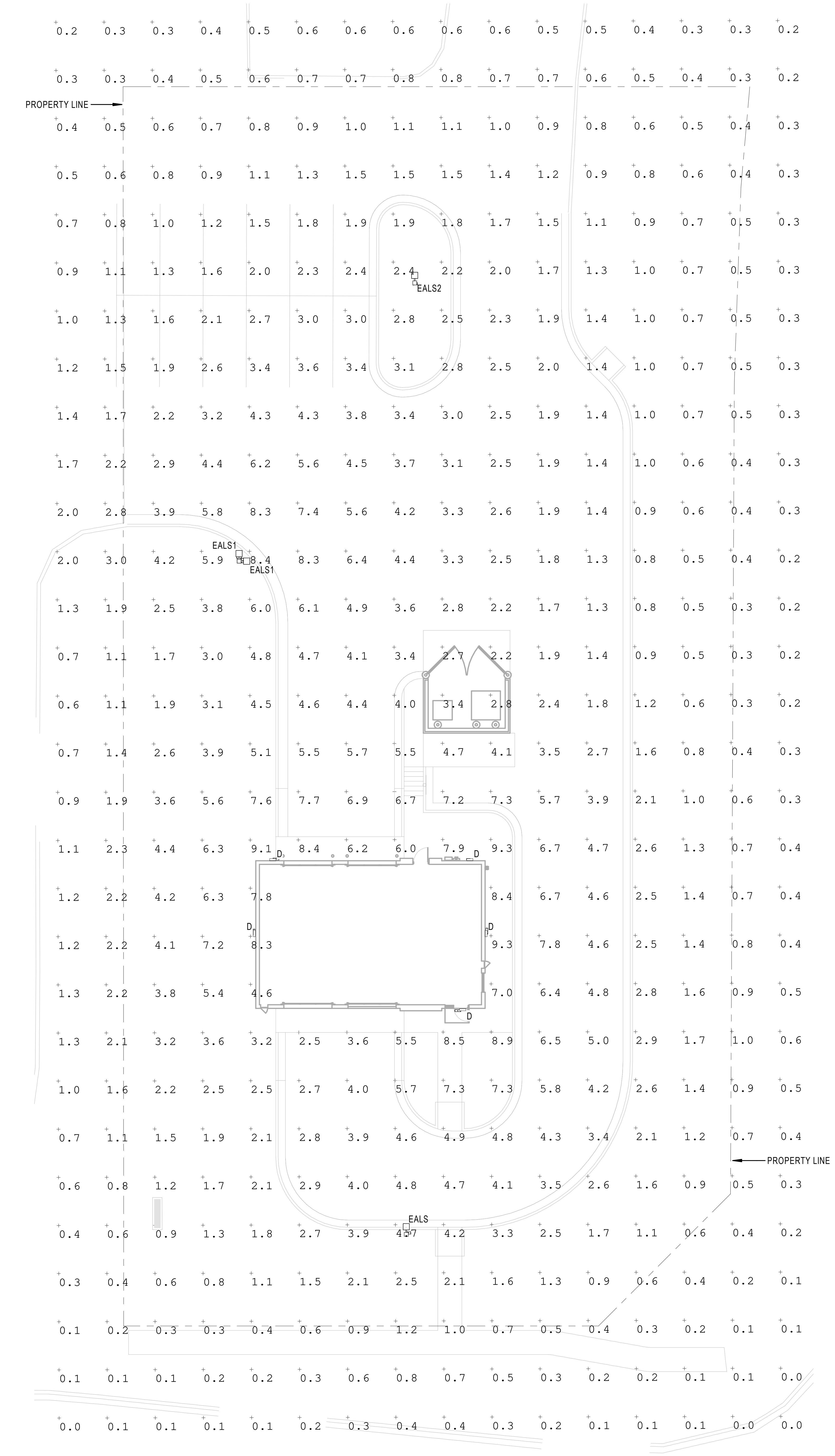
PROJECT NAME
VALVOLINE INSTANT OIL CHANGE
610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
IRRIGATION DETAILS

SHEET #
C-6.3

Drawing Name: \\HFA-FILE02\2024 Projects\06\06-24-20062 VIOC Lee's Summit, MO (NW Chipman)\04-Design\Civil\DWGs\06-24-20062 - C-6 LAND & IRR.dwg Last Modified: Feb 27, 2026 - 8:33am Plotted on: Mar 06, 2026 - 9:46am by daniel.friede


0.2 0.3 0.3 0.4 0.5 0.6 0.6 0.6 0.6 0.6 0.5 0.5 0.4 0.3 0.3 0.2
0.3 0.3 0.4 0.5 0.6 0.7 0.7 0.8 0.8 0.7 0.7 0.6 0.5 0.4 0.3 0.2
PROPERTY LINE
0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.1 1.0 0.9 0.8 0.6 0.5 0.4 0.3
0.5 0.6 0.8 0.9 1.1 1.3 1.5 1.5 1.5 1.4 1.2 0.9 0.8 0.6 0.4 0.3
0.7 0.8 1.0 1.2 1.5 1.8 1.9 1.9 1.8 1.7 1.5 1.1 0.9 0.7 0.5 0.3
0.9 1.1 1.3 1.6 2.0 2.3 2.4 2.4 2.2 2.0 1.7 1.3 1.0 0.7 0.5 0.3
EALS2
1.0 1.3 1.6 2.1 2.7 3.0 3.0 2.8 2.5 2.3 1.9 1.4 1.0 0.7 0.5 0.3
1.2 1.5 1.9 2.6 3.4 3.6 3.4 3.1 2.8 2.5 2.0 1.4 1.0 0.7 0.5 0.3
1.4 1.7 2.2 3.2 4.3 4.3 3.8 3.4 3.0 2.5 1.9 1.4 1.0 0.7 0.5 0.3
1.7 2.2 2.9 4.4 6.2 5.6 4.5 3.7 3.1 2.5 1.9 1.4 1.0 0.6 0.4 0.3
2.0 2.8 3.9 5.8 8.3 7.4 5.6 4.2 3.3 2.6 1.9 1.4 0.9 0.6 0.4 0.3
EALS1
2.0 3.0 4.2 5.9 8.4 8.3 6.4 4.4 3.3 2.5 1.8 1.3 0.8 0.5 0.4 0.2
EALS1
1.3 1.9 2.5 3.8 6.0 6.1 4.9 3.6 2.8 2.2 1.7 1.3 0.8 0.5 0.3 0.2
0.7 1.1 1.7 3.0 4.8 4.7 4.1 3.4 2.7 2.2 1.9 1.4 0.9 0.5 0.3 0.2
0.6 1.1 1.9 3.1 4.5 4.6 4.4 4.0 3.4 2.8 2.4 1.8 1.2 0.6 0.3 0.2
0.7 1.4 2.6 3.9 5.1 5.5 5.7 5.5 4.7 4.1 3.5 2.7 1.6 0.8 0.4 0.3
0.9 1.9 3.6 5.6 7.6 7.7 6.9 6.7 7.2 7.3 5.7 3.9 2.1 1.0 0.6 0.3
1.1 2.3 4.4 6.3 9.1 8.4 6.2 6.0 7.9 9.3 6.7 4.7 2.6 1.3 0.7 0.4
D
D
1.2 2.2 4.2 6.3 7.8 8.4 6.7 4.6 2.5 1.4 0.7 0.4
D
D
1.2 2.2 4.1 7.2 8.3 9.3 7.8 4.6 2.5 1.4 0.8 0.4
1.3 2.2 3.8 5.4 4.6 7.0 6.4 4.8 2.8 1.6 0.9 0.5
D
1.3 2.1 3.2 3.6 3.2 2.5 3.6 5.5 8.5 8.9 6.5 5.0 2.9 1.7 1.0 0.6
1.0 1.6 2.2 2.5 2.5 2.7 4.0 5.7 7.3 7.3 5.8 4.2 2.6 1.4 0.9 0.5
0.7 1.1 1.5 1.9 2.1 2.8 3.9 4.6 4.9 4.8 4.3 3.4 2.1 1.2 0.7 0.4
PROPERTY LINE
0.6 0.8 1.2 1.7 2.1 2.9 4.0 4.8 4.7 4.1 3.5 2.6 1.6 0.9 0.5 0.3
EALS
0.4 0.6 0.9 1.3 1.8 2.7 3.9 4.7 4.2 3.3 2.5 1.7 1.1 0.6 0.4 0.2
0.3 0.4 0.6 0.8 1.1 1.5 2.1 2.5 2.1 1.6 1.3 0.9 0.6 0.4 0.2 0.1
0.1 0.2 0.3 0.3 0.4 0.6 0.9 1.2 1.0 0.7 0.5 0.4 0.3 0.2 0.1 0.1
0.1 0.1 0.1 0.2 0.2 0.3 0.6 0.8 0.7 0.5 0.3 0.2 0.2 0.1 0.1 0.0
0.0 0.1 0.1 0.1 0.1 0.2 0.3 0.4 0.4 0.3 0.2 0.1 0.1 0.1 0.0 0.0

1
C-8.0

PHOTOMETRICS PLAN

Scale: 1" = 15'-0"

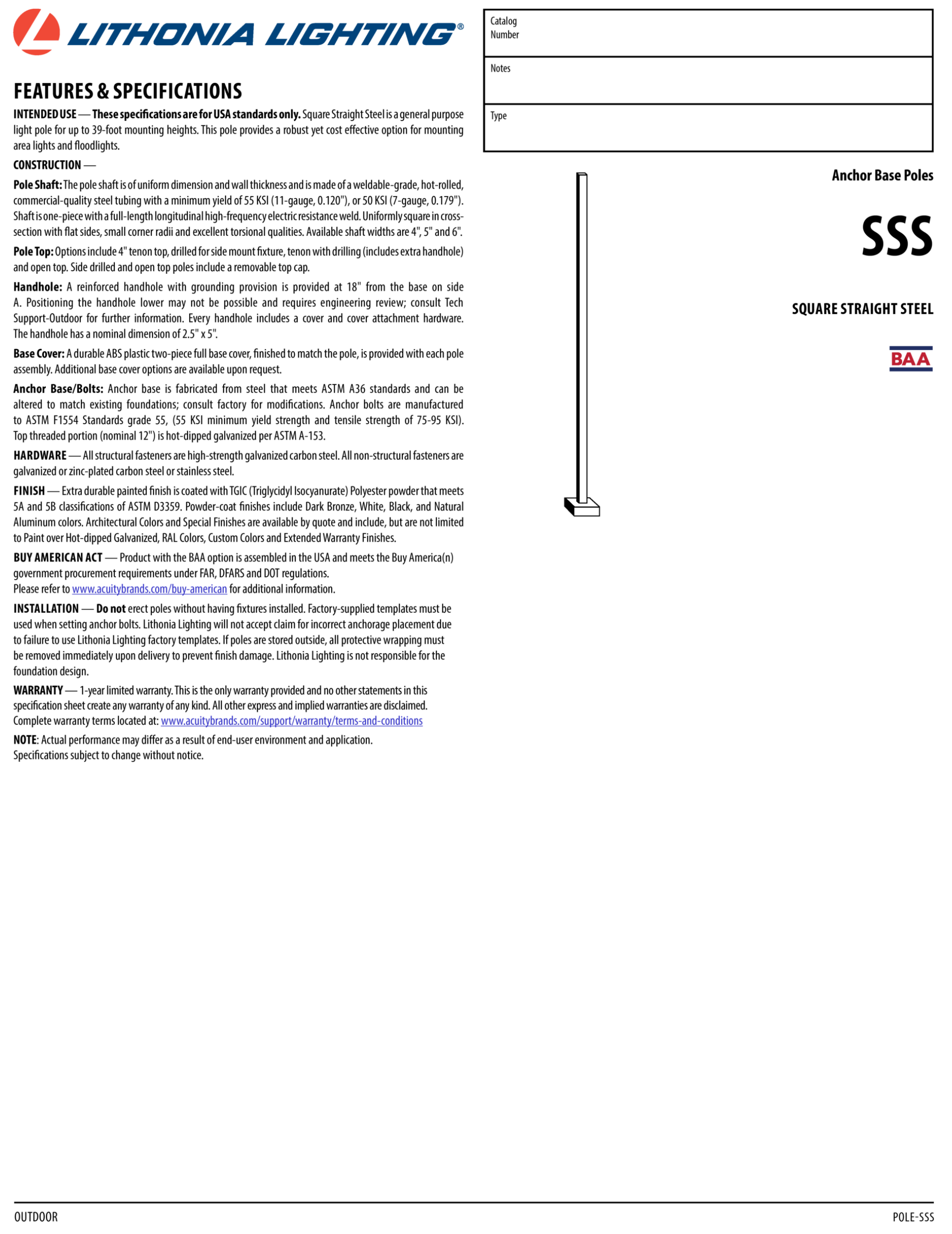
LIGHTING FIXTURE SCHEDULE

MARK	SYMBOL	MANUFACTURER MODEL	CATALOG NUMBER	LAMPS		DESCRIPTION	MOUNTING HEIGHT
				WATTS	TYPE		
EALS	⊏□	LITHONIA LED AREA LIGHT	RSX1-LED-P4-40K-R3-MVOLT-SPA-DDBXD	133W	LED	AREA LIGHT	POLE MOUNT AT 27'-6" AFF. SSS-25'-4G-DM-19AS-DDBXD
EALS1	⊏□	LITHONIA LED AREA LIGHT	RSX1-LED-P4-40K-R4-MVOLT-SPA-DDBXD	133W	LED	AREA LIGHT	POLE MOUNT AT 27'-6" AFF. SSS-25'-4G-DM-19AS-DDBXD
EALS2	⊏□	LITHONIA LED AREA LIGHT	RSX1-LED-P4-40K-R5-MVOLT-SPA-DDBXD	133W	LED	AREA LIGHT	POLE MOUNT AT 27'-6" AFF. SSS-25'-4G-DM-19AS-DDBXD
D	▭	LITHONIA WALLPACK	DSXW1-LED-P7-40K-80CRI -TFTM-MVOLT-DDBXD	73W	LED	WALLPACK	SURFACE MOUNT

GC SHALL PURCHASE ALL LIGHTING FIXTURES, CONTACTOR PANELS, SENSORS CONTROLS, ETC. FROM WB LIGHTING (VIOCSUPPORT@WBLIGHT.COM) AND PROVIDE TO EC FOR INSTALLATION.

CALCULATION SUMMARY

CALC. LABEL	UNITS	AVG	MAX	MIN	MAX/MIN
PARKING AREA	FOOTCANDLES	3.3	8.3	0.6	13.8
PROPERTY LINE	FOOTCANDLES	1.0	3.4	0.3	11.3



LITHONIA LIGHTING®

Catalog Number

Notes

Type

FEATURES & SPECIFICATIONS

INTENDED USE — **These specifications are for USA standards only.** Square Straight Steel is a general purpose light pole for up to 39-foot mounting heights. This pole provides a robust yet cost effective option for mounting area lights and floodlights.

CONSTRUCTION —

Pole Shaft: The pole shaft is of uniform dimension and wall thickness and is made of a weldable-grade, hot-rolled, commercial-quality steel tubing with a minimum yield of 55 KSI (11-gauge, 0.120"), or 50 KSI (7-gauge, 0.179"). Shaft is one-piece with a full-length longitudinal high-frequency electric resistance weld. Uniformly square in cross-section with flat sides, small corner radii and excellent torsional qualities. Available shaft widths are 4", 5" and 6".

Pole Top: Options include 4" tenon top, drilled for side mount fixture, tenon with drilling (includes extra handhole) and open top. Side drilled and open top poles include a removable top cap.

Handhole: A reinforced handhole with grounding provision is provided at 18" from the base on side A. Positioning the handhole lower may not be possible and requires engineering review; consult Tech Support-Outdoor for further information. Every handhole includes a cover and cover attachment hardware. The handhole has a nominal dimension of 2.5" x 5".

Base Cover: A durable ABS plastic two-piece full base cover, finished to match the pole, is provided with each pole assembly. Additional base cover options are available upon request.

Anchor Base/Bolts: Anchor base is fabricated from steel that meets ASTM A36 standards and can be altered to match existing foundations; consult factory for modifications. Anchor bolts are manufactured to ASTM F1554 Standards grade 55, (55 KSI minimum yield strength and tensile strength of 75-95 KSI). Top threaded portion (nominal 12") is hot-dipped galvanized per ASTM A-153.

HARDWARE — All structural fasteners are high-strength galvanized carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

FINISH — Extra durable painted finish is coated with TGIC (Triglycidyl Isocyanurate) Polyester powder that meets 5A and 5B classifications of ASTM D3359. Powder-coat finishes include Dark Bronze, White, Black, and Natural Aluminum colors. Architectural Colors and Special Finishes are available by quote and include, but are not limited to Paint over Hot-dipped Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes.

BUY AMERICAN ACT — Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations.
Please refer to www.acuitybrands.com/buy-american for additional information.

INSTALLATION — **Do not** erect poles without having fixtures installed. Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates. If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage. Lithonia Lighting is not responsible for the foundation design.

WARRANTY — 1-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
Specifications subject to change without notice.

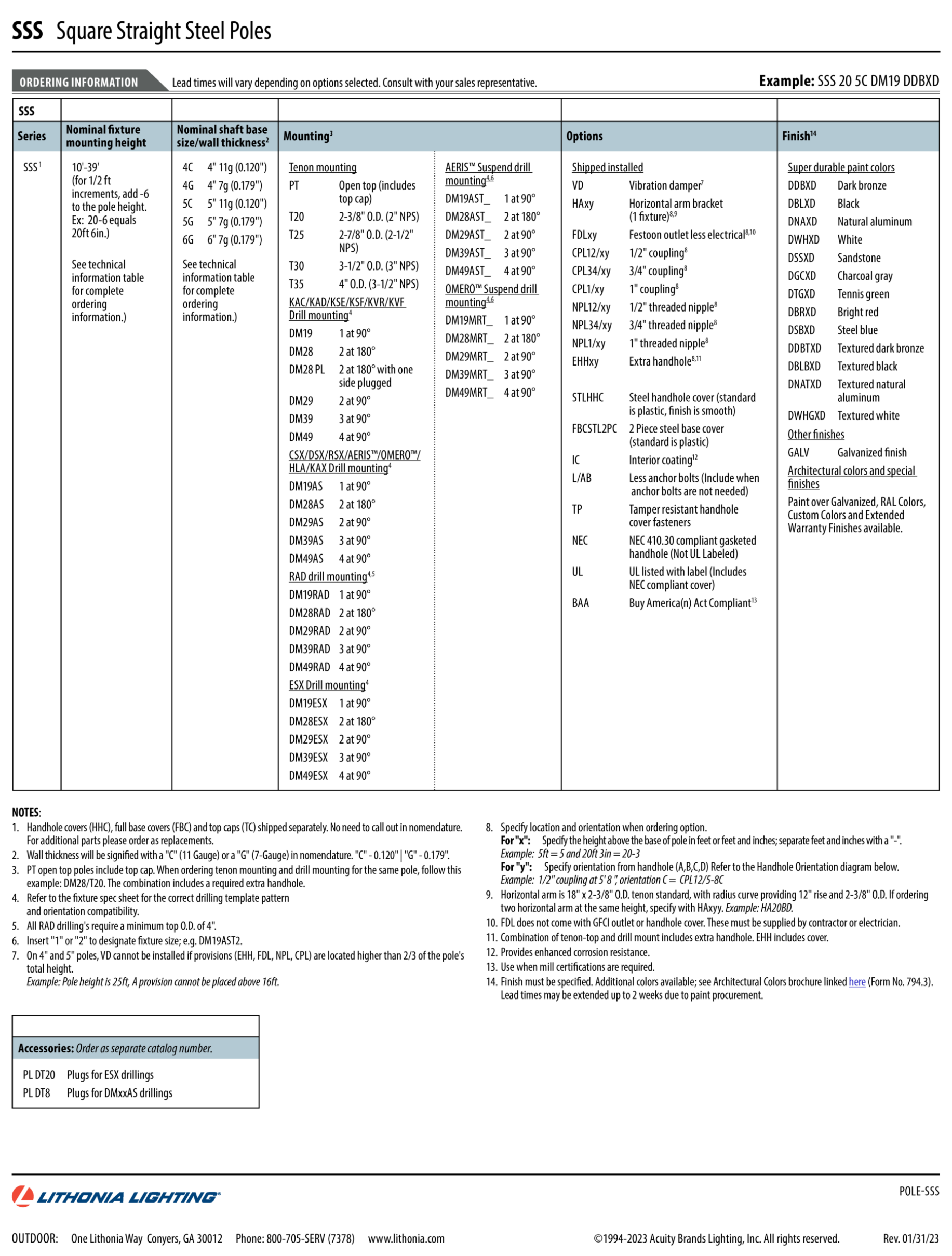
Anchor Base Poles

SSS

SQUARE STRAIGHT STEEL

BAA

OUTDOOR POLE-SSS



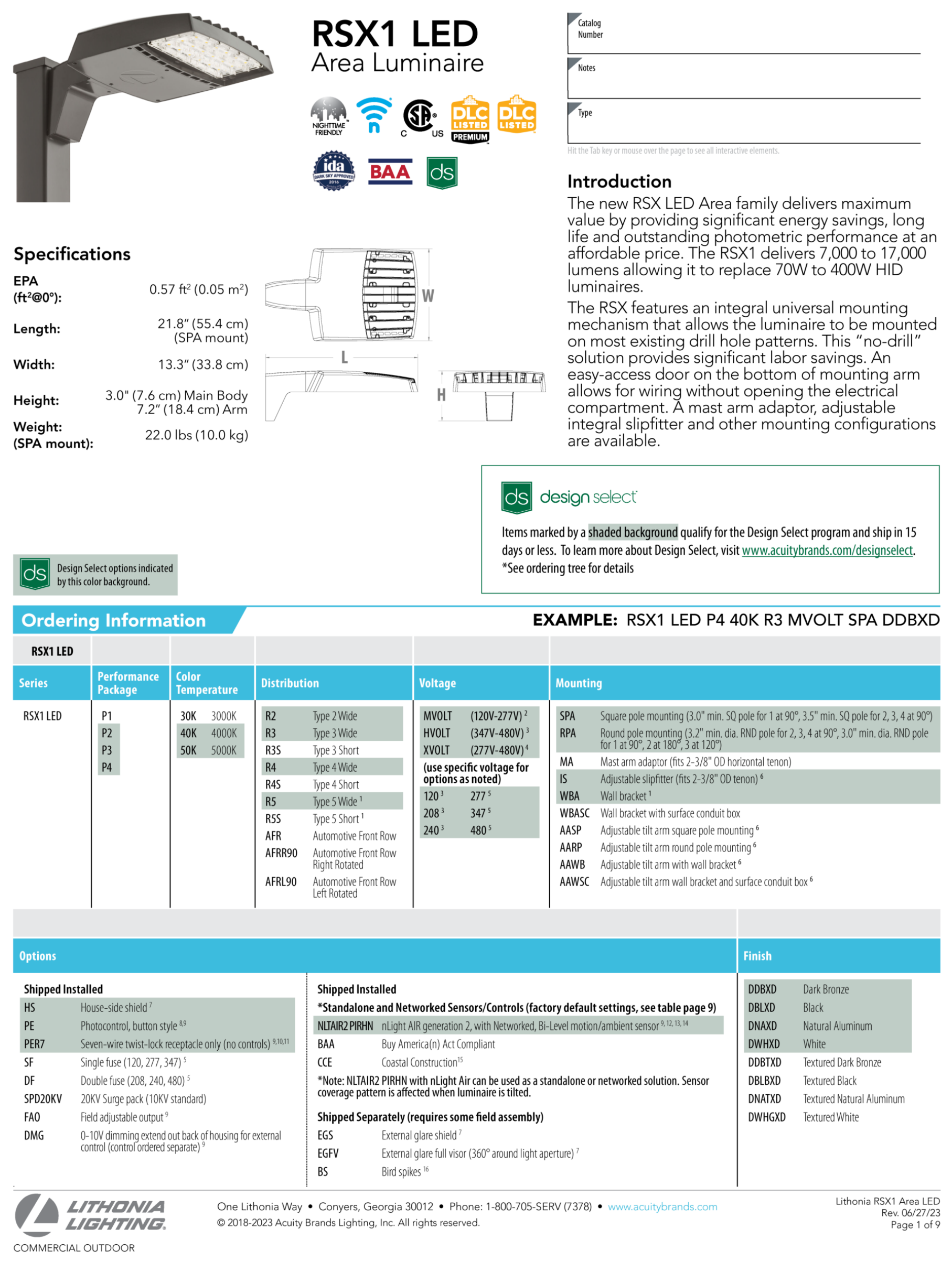
SSS Square Straight Steel Poles

EXAMPLE: SSS 20 5C DM19 DDBXD

LITHONIA LIGHTING

OUTDOOR: One Lithonia Way Conyers, GA 30012 Phone: 800-705-SERV (7378) www.lithonia.com ©1994-2023 Acuity Brands Lighting, Inc. All rights reserved. Rev. 01/31/23

POLE-SSS



RSX1 LED
Area Luminaire

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX1 delivers 7,000 to 17,000 lumens allowing it to replace 70W to 400W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor, adjustable integral slipfitter and other mounting configurations are available.

Specifications

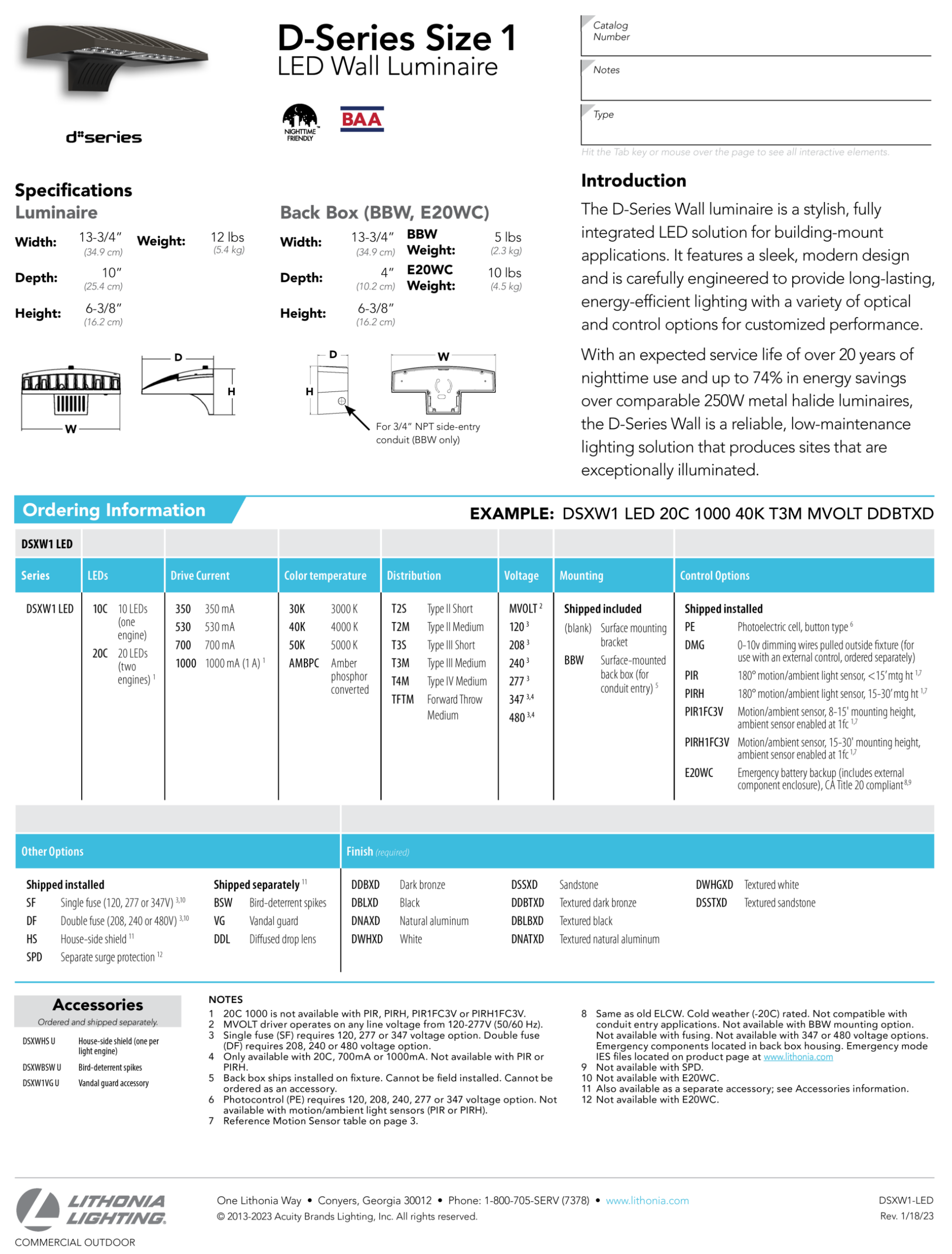
EPA (ft²@0°):	0.57 ft² (0.05 m²)
Length:	21.8" (55.4 cm) (SPA mount)
Width:	13.3" (33.8 cm)
Height:	3.0" (7.6 cm) Main Body 7.2" (18.4 cm) Arm
Weight: (SPA mount):	22.0 lbs (10.0 kg)

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Design Select options indicated by this color background.

Ordering Information EXAMPLE: RSX1 LED P4 40K R3 MVOLT SPA DDBXD



D-Series Size 1
LED Wall Luminaire

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Specifications

Luminaire

Width:	13-3/4" (34.9 cm)	Weight:	12 lbs (5.4 kg)
Depth:	10" (25.4 cm)		
Height:	6-3/8" (16.2 cm)		

Back Box (BBW, E20WC)

Width:	13-3/4" (34.9 cm)	BBW Weight:	5 lbs (2.3 kg)
Depth:	4" (10.2 cm)	E20WC Weight:	10 lbs (4.5 kg)
Height:	6-3/8" (16.2 cm)		

For 3/4" NPT side-entry conduit (BBW only)

Ordering Information EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

HFA
HFA-AE, L T D.

t 479.273.7780

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
www.hfa-ae.com

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E-2005011725-F

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CAR

PROJECT MANAGER
IN

QUALITY CONTROL
IN

DRAWN BY
AJ

PROJECT NAME

VALVOLINE INSTANT OIL CHANGE

NW CHIPMAN RD &
NW WARD RD
LEE'S SUMMIT, MO,
64086

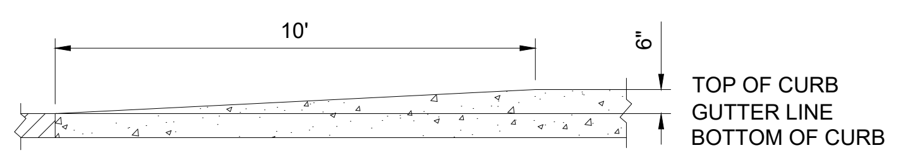
PROJECT NUMBER
06-24-20062

SHEET NAME

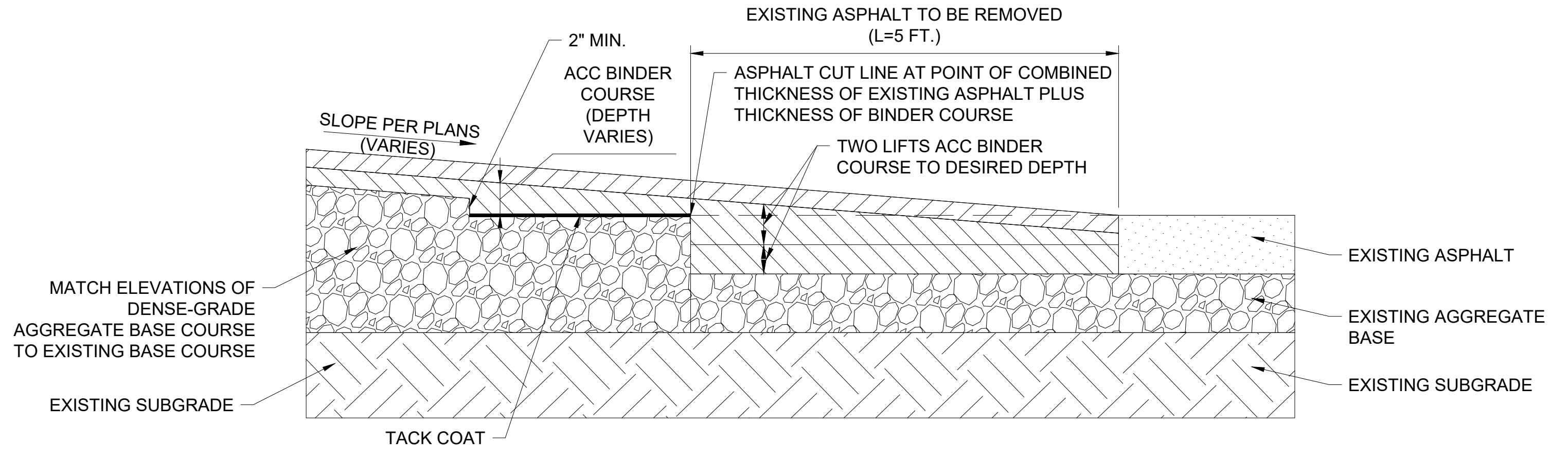
PHOTOMETRICS PLAN

SHEET #
C-8.0

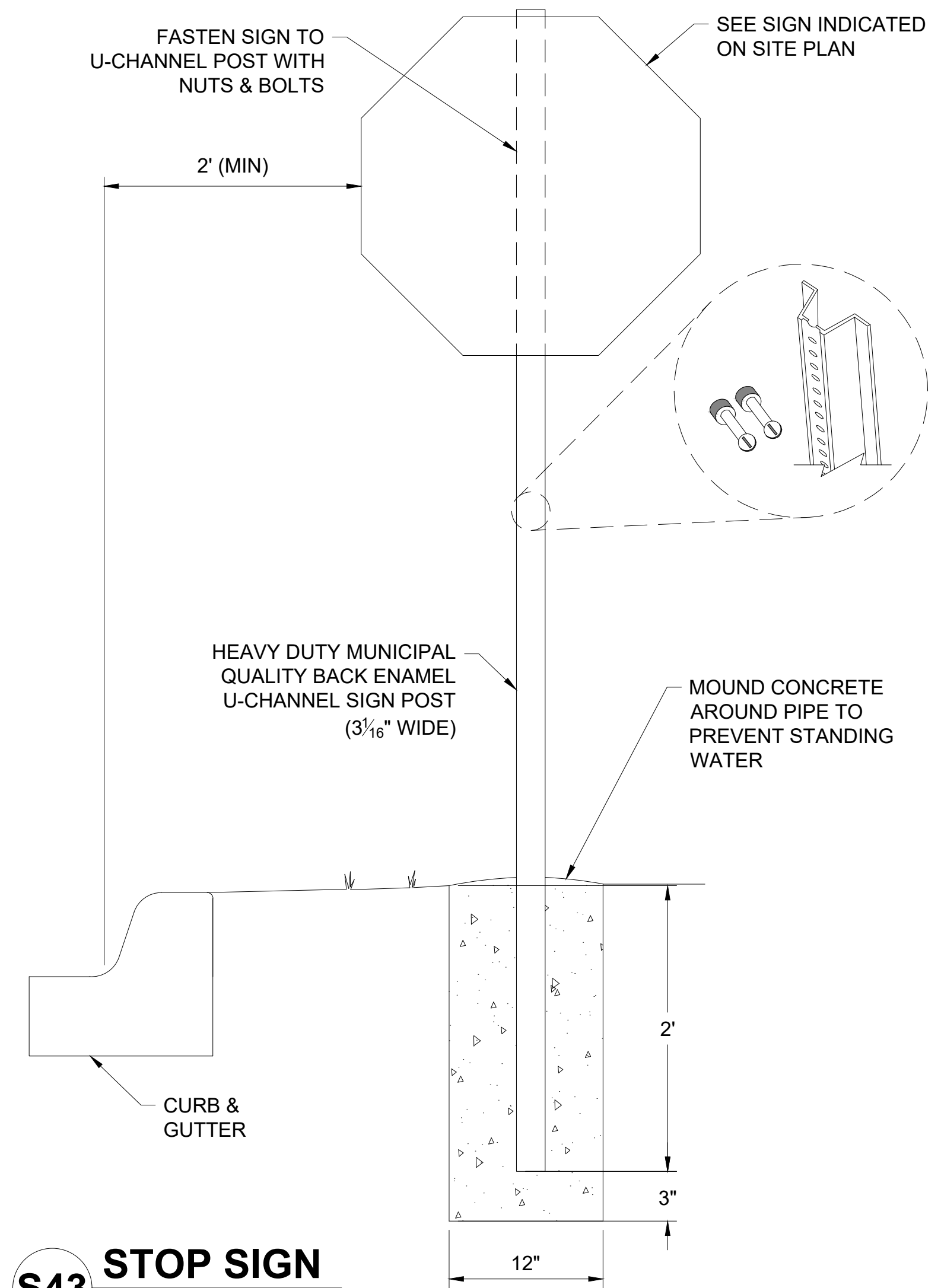
3/6/2026 12:39:44 PM C:\Users\chris.richardson\Documents\2024 Revit Projects\06-24-20062 - Lee Summit MO - 2B-Flat Roof Elec_V24_HFA.Chris.Richardson.rvt
-C-8.0-PHOTOMETRICS PLAN


10'
6"
TOP OF CURB
GUTTER LINE
BOTTOM OF CURB

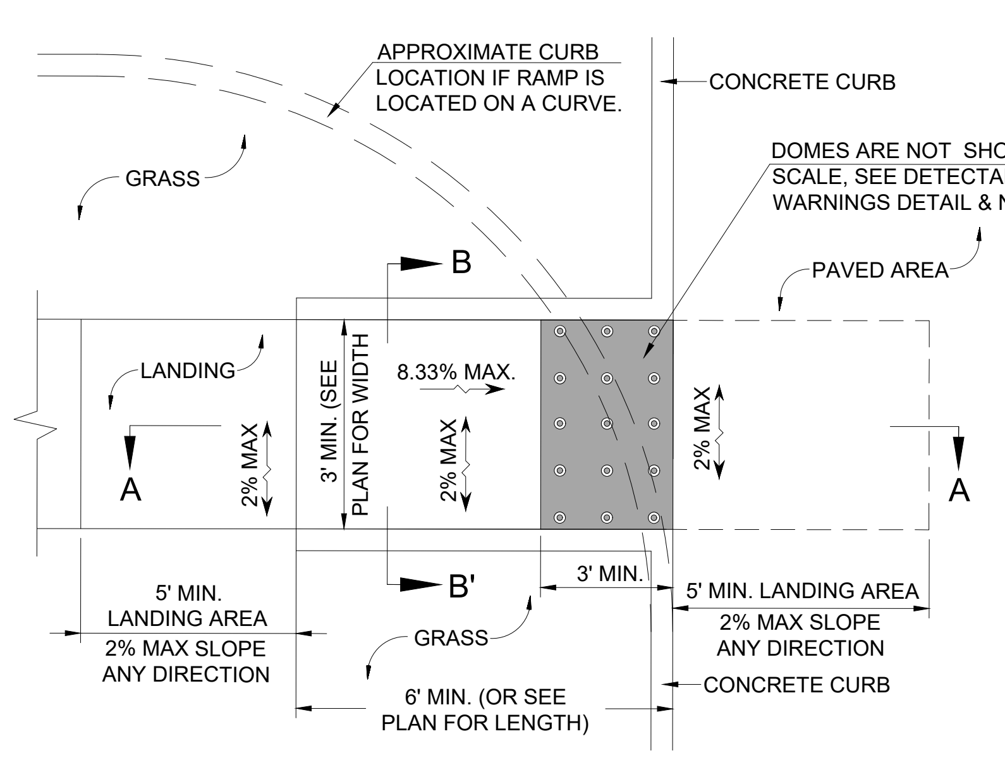
S6 CURB TAPER
N.T.S.


EXISTING ASPHALT TO BE REMOVED (L=5 FT.)
2" MIN.
ACC BINDER COURSE (DEPTH VARIES)
ASPHALT CUT LINE AT POINT OF COMBINED THICKNESS OF EXISTING ASPHALT PLUS THICKNESS OF BINDER COURSE
SLOPE PER PLANS (VARIES)
TWO LIFTS ACC BINDER COURSE TO DESIRED DEPTH
EXISTING ASPHALT
MATCH ELEVATIONS OF DENSE-GRADE AGGREGATE BASE COURSE TO EXISTING BASE COURSE
EXISTING AGGREGATE BASE
EXISTING SUBGRADE
EXISTING SUBGRADE
TACK COAT

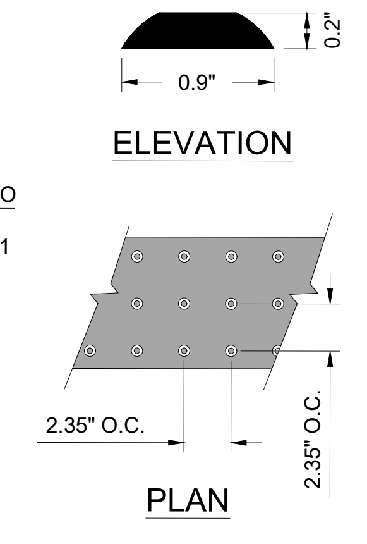
S8 MATCH EXISTING PAVEMENT ELEVATION (PAVEMENT TRANSITION)
N.T.S.


FASTEN SIGN TO U-CHANNEL POST WITH NUTS & BOLTS
SEE SIGN INDICATED ON SITE PLAN
2' (MIN)
HEAVY DUTY MUNICIPAL QUALITY BACK ENAMEL U-CHANNEL SIGN POST (3 1/16" WIDE)
MOUND CONCRETE AROUND PIPE TO PREVENT STANDING WATER
CURB & GUTTER
2'
3"
12"

S43 STOP SIGN
N.T.S.


APPROXIMATE CURB LOCATION IF RAMP IS LOCATED ON A CURVE.
CONCRETE CURB
GRASS
DOMES ARE NOT SHOWN TO SCALE, SEE DETECTABLE WARNINGS DETAIL & NOTE 1
PAVED AREA
B
LANDING
8.33% MAX.
3' MIN. (SEE PLAN FOR WIDTH
2% MAX
2% MAX
2% MAX
A
A
B'
3' MIN.
5' MIN. LANDING AREA 2% MAX SLOPE ANY DIRECTION
GRASS
5' MIN. LANDING AREA 2% MAX SLOPE ANY DIRECTION
CONCRETE CURB
6' MIN. (OR SEE PLAN FOR LENGTH)

PLAN

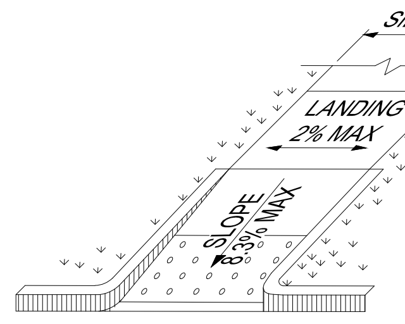

0.2"
0.9"
ELEVATION
2.35" O.C.
2.35" O.C.
PLAN

NOTE: PREFABRICATED PANELS PER A.D.A. ACCESSIBILITY GUIDELINES SECTION 4.29.2 & A4.29.2 SHALL BE USED.

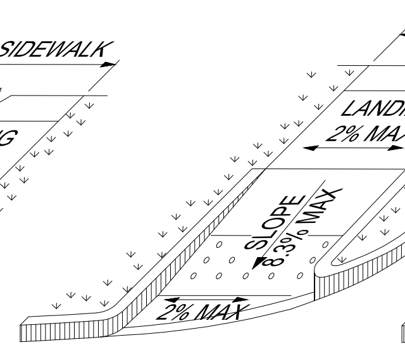
DETECTABLE WARNINGS DETAIL

NOTES:

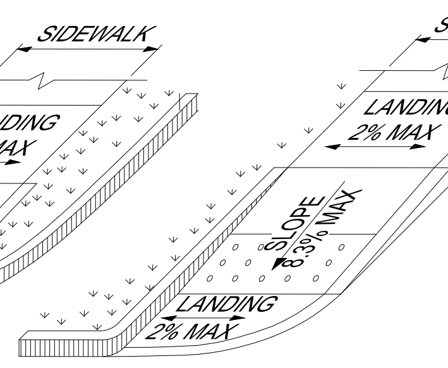
1. THE SURFACE OF RAMP SHALL HAVE DETECTABLE WARNINGS AS SHOWN. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES. SEE DETECTABLE WARNINGS DETAIL.
2. RAMP SIDE SLOPE VARIES UNIFORMLY FROM A MAXIMUM OF UP TO 10% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP.
3. CONSTRUCT PER A.D.A. STANDARDS.
4. REFER TO PLANS FOR ADJACENT SLOPES.
5. THE CROSS SLOPE OF THE RAMP SURFACE SHALL BE NO GREATER THAN 1:50.
6. CONCRETE SHALL BE P.C.C. 4,000 PSI
7. PROVIDE EXPANSION JOINT MATERIAL WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK, OR STRUCTURE WITH THE TOP OF JOINT FILLER PLUS SEALANT FLUSH WITH ADJACENT CONCRETE SURFACE.
8. SEAL JOINT WITH AN APPROVED SEALING MATERIAL.
9. PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB RAMP INCLUDING FLARED SIDE RAMPS (WHERE USED).
10. CURB RAMP AND SIDE FLARE LENGTHS (WHERE USED) ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK PITCH. SEE TABLE FOR TYPICAL RAMP DIMENSIONS.
11. WHENEVER POSSIBLE, CONSTRUCT THE TRANSITION SLOPE FROM THE CURB RAMP AND FLARE SIDES TO ADJOINING SURFACES WITH A GRADUAL CURVE RATHER THAN AN ABRUPT ANGLE.


SIDEWALK
LANDING 2% MAX
SLOPE 8.3% MAX

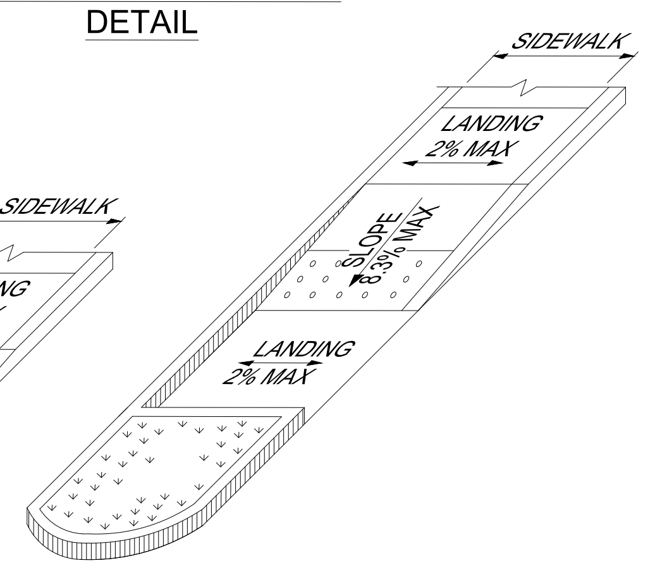
TYPE I
SIDEWALK SETBACK ON STRAIGHT CURB


SIDEWALK
LANDING 2% MAX
SLOPE 8.3% MAX
2% MAX

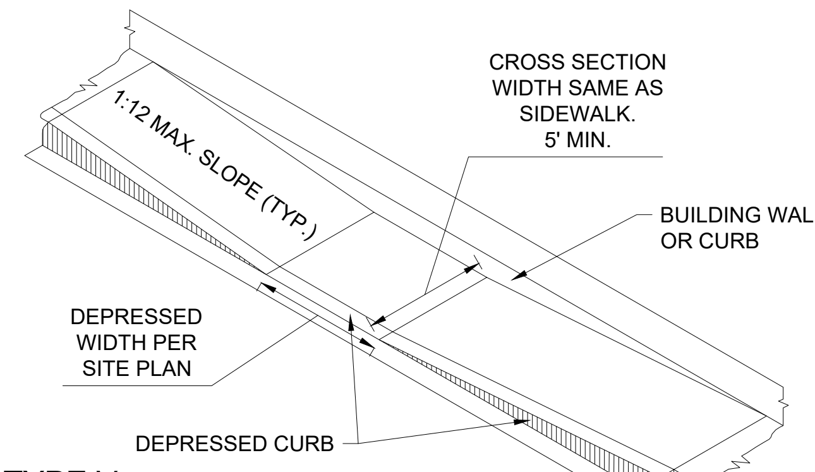
TYPE II
SIDEWALK SETBACK FROM CURB


SIDEWALK
LANDING 2% MAX
SLOPE 8.3% MAX
LANDING 2% MAX

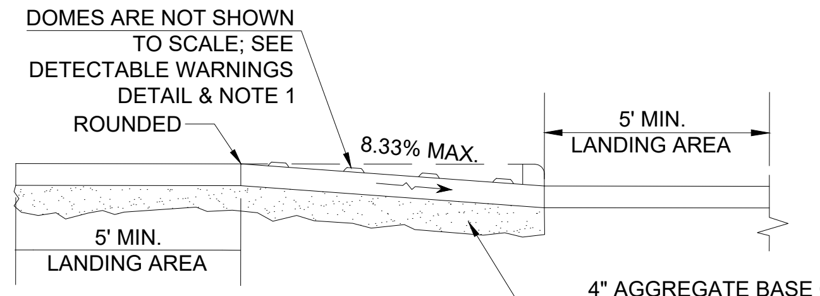
TYPE III
SIDEWALK ADJACENT TO CURB

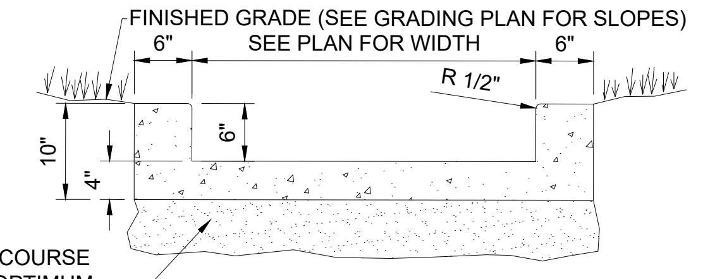

SIDEWALK
LANDING 2% MAX
SLOPE 8.3% MAX
LANDING 2% MAX

TYPE IV
SIDEWALK LANDING INTEGRAL TO CURB


CROSS SECTION WIDTH SAME AS SIDEWALK. 5' MIN.
1:12 MAX. SLOPE (TYP)
BUILDING WALL OR CURB
DEPRESSED WIDTH PER SITE PLAN
DEPRESSED CURB

TYPE V
INLINE RAMP TO SIDEWALK


DOMES ARE NOT SHOWN TO SCALE; SEE DETECTABLE WARNINGS DETAIL & NOTE 1
ROUNDED
8.33% MAX.
5' MIN. LANDING AREA
5' MIN. LANDING AREA


FINISHED GRADE (SEE GRADING PLAN FOR SLOPES)
6"
SEE PLAN FOR WIDTH
6"
R 1/2"
10"
4"
6"

4" AGGREGATE BASE COURSE COMPACTED TO 98% OPTIMUM DENSITY PER ASTM D698 OR 95% OPTIMUM DENSITY PER ASTM D1557 OR PER GEOTECHNICAL REPORT

SECTION A-A'

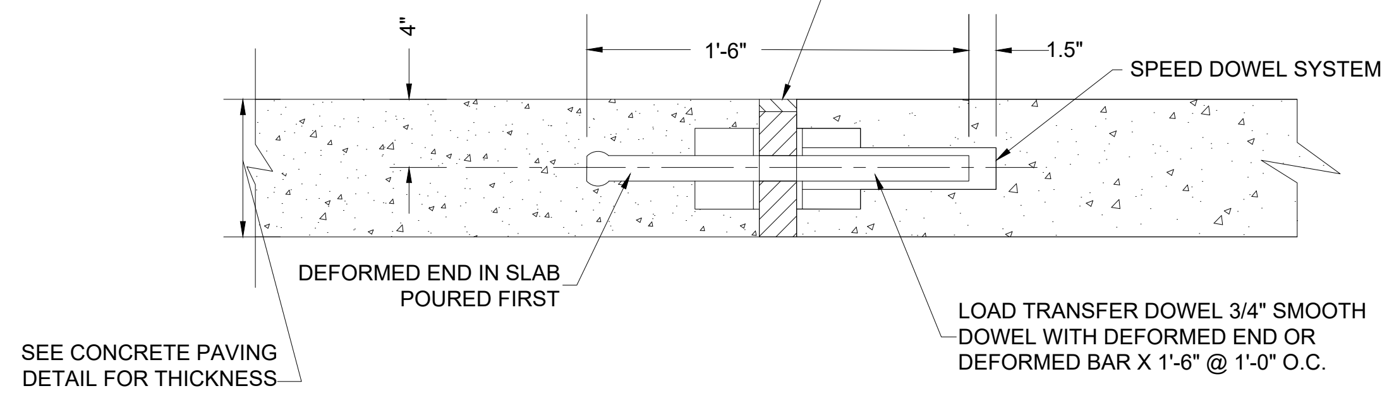
SECTION B-B'

CURB RAMP DIMENSIONS NEW CONSTRUCTION				
RISE OF RAMP*	MAX. RAMP SLOPE	NOMINAL RAMP LENGTH (1:12)	SIDE FLARE DIMENSION AT CURB (1:10) (IF USED)	SIDE FLARE DIMENSION AT CURB (1:12) (IF USED)
3"	1:12	3.0 FT	2.5 FT	3.0 FT
4"	1:12	4.0 FT	3.3 FT	4.0 FT
5"	1:12	5.0 FT	4.2 FT	5.0 FT
6"	1:12	6.0 FT	5.0 FT	6.0 FT
7"	1:12	7.0 FT	5.8 FT	7.0 FT
8"	1:12	8.0 FT	6.7 FT	8.0 FT
9"	1:12	9.0 FT	7.5 FT	9.0 FT
10"	1:12	10.0 FT	8.4 FT	10.0 FT
11"	1:12	11.0 FT	9.2 FT	11.0 FT
12"	1:12	12.0 FT	10.0 FT	12.0 FT

*CURB HEIGHT PLUS RISE OF SIDEWALK CROSS SLOPE

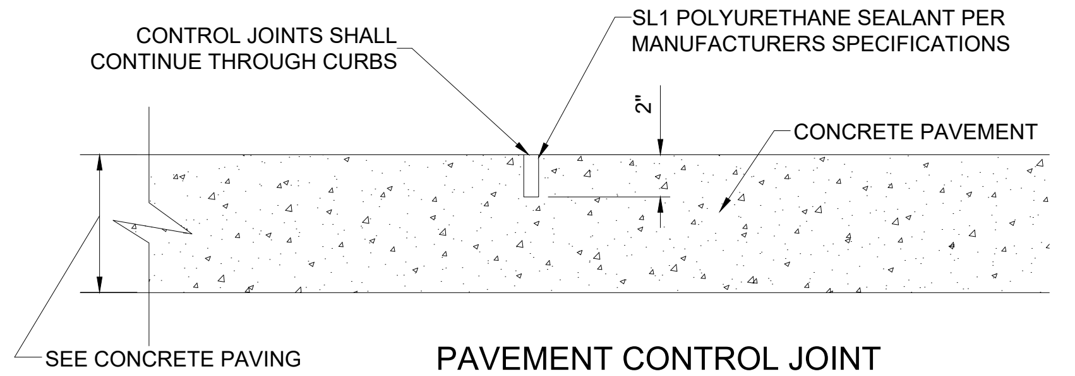
S16 S15 ADA RAMP IN SIDEWALK
N.T.S.

NOTE: TIE BARS SHOULD BE AT ALL CONSTRUCTION JOINTS PARALLEL TO TRAFFIC AND CONSIST OF GRADE 40, #4 REINFORCING BARS 24" IN LENGTH AND 48" ON-CENTER


ALL EXPANSION JOINTS TO BE SEALED WITH SONOLASTIC SL1 POLYURETHANE SEALANT PER MANUFACTURERS SPECIFICATIONS
4"
1'-6"
1.5"
SPEED DOWEL SYSTEM
DEFORMED END IN SLAB POURED FIRST
LOAD TRANSFER DOWEL 3/4" SMOOTH DOWEL WITH DEFORMED END OR DEFORMED BAR X 1'-6" @ 1'-0" O.C.
SEE CONCRETE PAVING DETAIL FOR THICKNESS AND REINFORCING

PAVEMENT EXPANSION JOINT

NOTE: CONTROL JOINTS SHALL BE SAW CUT WITHIN 24 HOURS OF CONCRETE PLACEMENT - REINFORCEMENT LAPS SHALL NOT BE LOCATED WITHIN 3 FEET OF CONTROL JOINTS

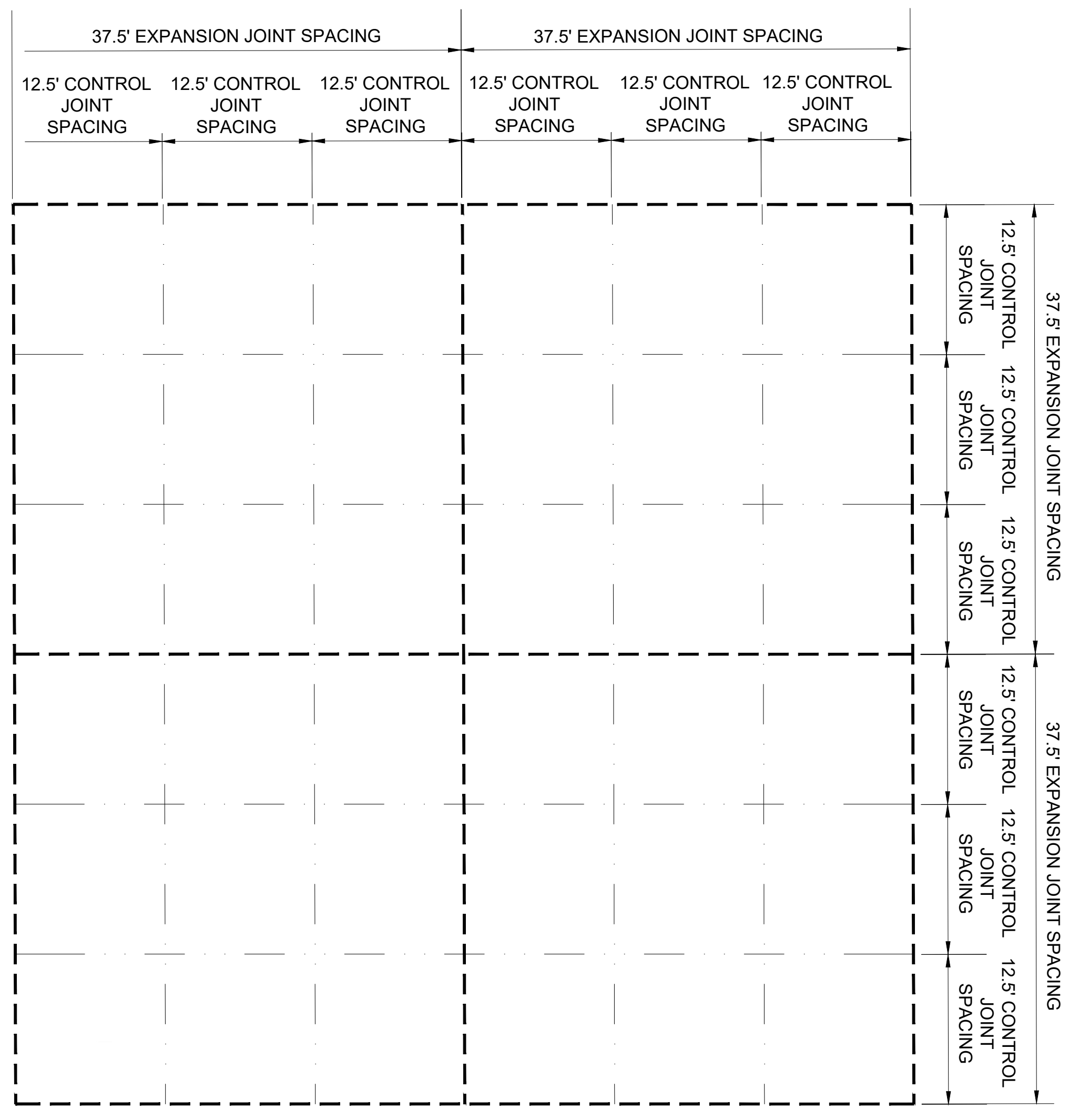

CONTROL JOINTS SHALL CONTINUE THROUGH CURBS
JOINT TO BE SEALED WITH SONOLASTIC SL1 POLYURETHANE SEALANT PER MANUFACTURERS SPECIFICATIONS
2"
CONCRETE PAVEMENT
SEE CONCRETE PAVING DETAIL FOR THICKNESS

PAVEMENT CONTROL JOINT

PROPOSED

— · · — · · — CONTROL JOINT
— — — — — — EXPANSION JOINT

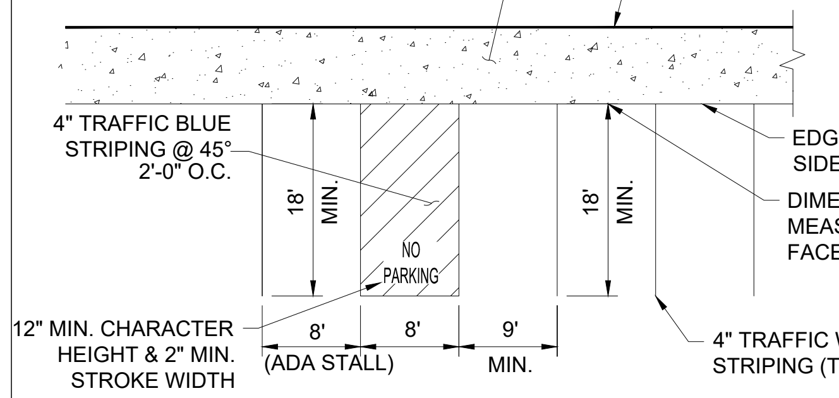
NOTE: CONTRACTOR TO FIELD ADJUST JOINTS BASED UPON SITE CONDITIONS

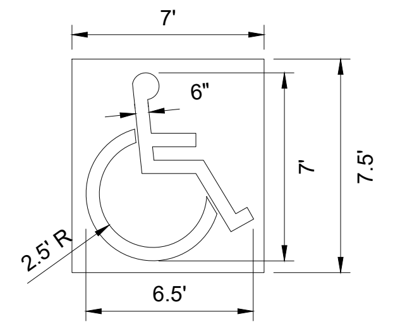

37.5' EXPANSION JOINT SPACING
37.5' EXPANSION JOINT SPACING
12.5' CONTROL JOINT SPACING
12.5' CONTROL JOINT SPACING
12.5' CONTROL JOINT SPACING
12.5' CONTROL JOINT SPACING
12.5' CONTROL JOINT SPACING
12.5' CONTROL JOINT SPACING
12.5' CONTROL JOINT SPACING
12.5' CONTROL JOINT SPACING
12.5' CONTROL JOINT SPACING
12.5' CONTROL JOINT SPACING
12.5' CONTROL JOINT SPACING
12.5' CONTROL JOINT SPACING
37.5' EXPANSION JOINT SPACING
37.5' EXPANSION JOINT SPACING

TYPICAL JOINT LAYOUT

P9 TYPICAL PAVING JOINT
N.T.S.

NOTES:
1. SEE SITE PLAN FOR COMPLETE STRIPING LAYOUT.
2. THIS IS FOR REFERENCE AND DIMENSION CONTROL ONLY.
3. ALL DIMENSIONS ARE TO CENTERLINE OF STRIPE UNLESS
4. ALL COLORS AS SHOWN OR BY LOCAL CODES.
5. STRIPING IS THE RESPONSIBILITY OF THE GENERAL


SIDEWALK (SEE WIDTH ON SITE PLAN
CURB
4" TRAFFIC BLUE STRIPING @ 45° 2'-0" O.C.
18' MIN.
NO PARKING
18' MIN.
EDGE OF SIDEWALK
DIMENSIONS ARE MEASURED FROM FACE OF CURB
12" MIN. CHARACTER HEIGHT & 2" MIN. STROKE WIDTH
8'
8'
9'
(ADA STALL)
MIN.
4" TRAFFIC WHITE STRIPING (TYP.)

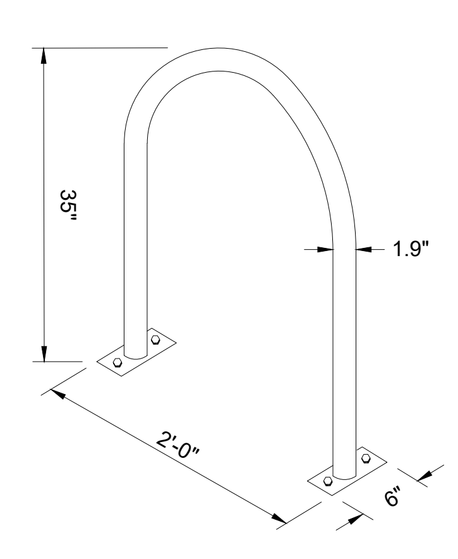

7'
6"
7'
7.5'
2.5' R
6.5'

LOCATED AT EDGE OF PARKING SPACE UNLESS ACCOMPANIED BY VAN LETTERING

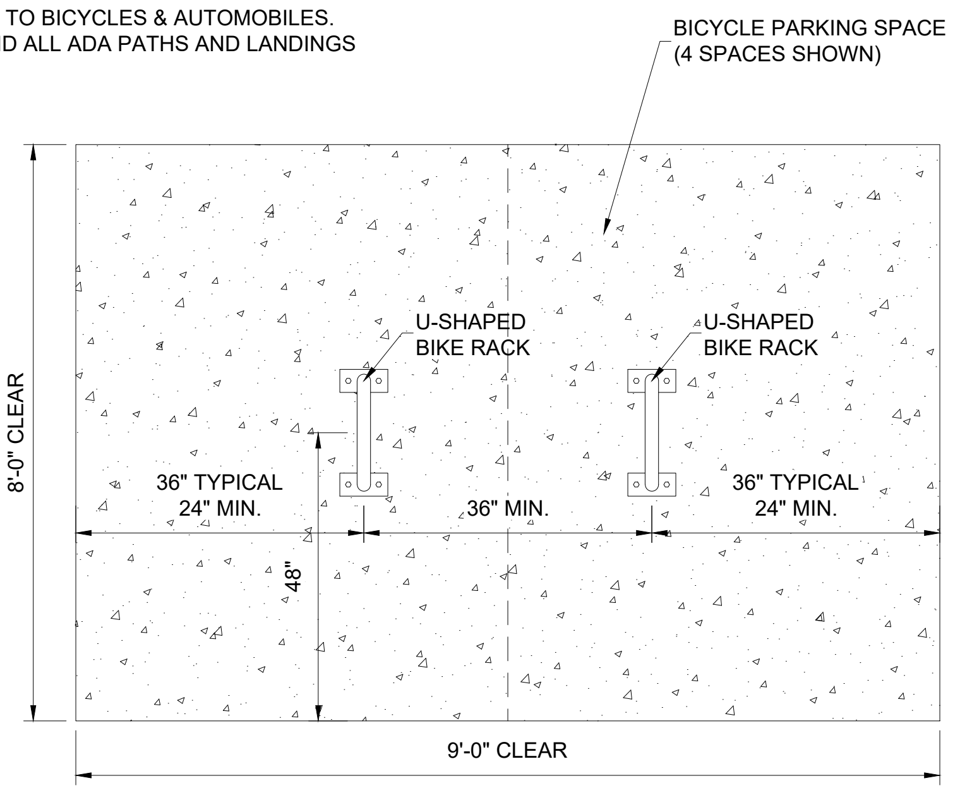
ACCESSIBLE PARKING SYMBOL

S23 S28 PARKING STALL STRIPING
N.T.S.

NOTES:
1. BIKE RACK SHALL COMPLY WITH ALL CITY OR LOCAL JURISDICTION REQUIREMENTS.
2. CONCRETE PAD AND AGGREGATE BASE TO MATCH SIDEWALK SECTION.
3. INSTALL PER MANUFACTURERS SPECIFICATIONS.
4. 3' CLEAR AROUND PAD TO MINIMIZE DAMAGE TO BICYCLES & AUTOMOBILES.
5. BIKE PAD SHALL BE SEPARATE FROM ANY AND ALL ADA PATHS AND LANDINGS

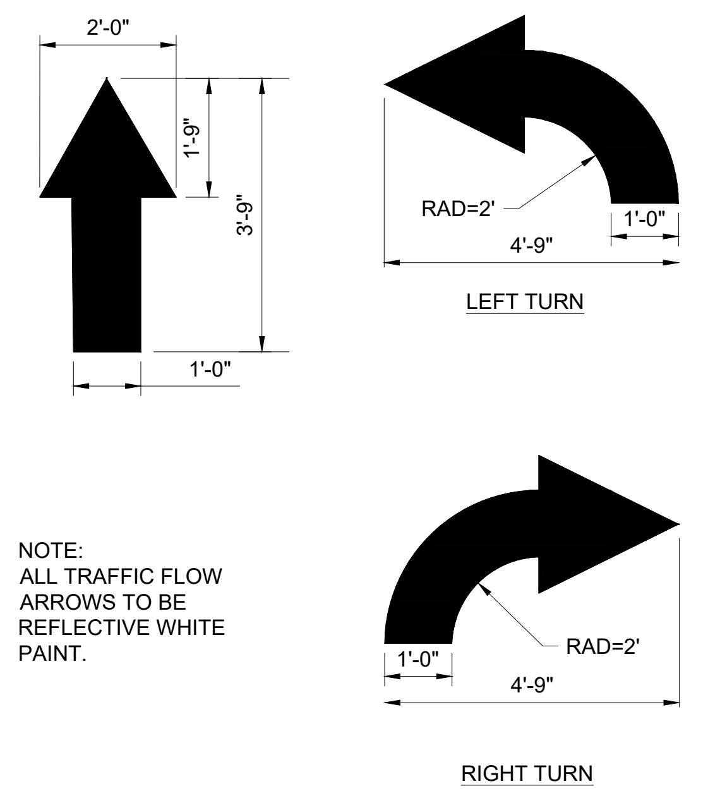


ISOMETRIC VIEW


BICYCLE PARKING SPACE (4 SPACES SHOWN)
U-SHAPED BIKE RACK
U-SHAPED BIKE RACK
36" TYPICAL 24" MIN.
36" MIN.
36" TYPICAL 24" MIN.
48"
8'-0" CLEAR
9'-0" CLEAR

PLAN VIEW

S19 U-SHAPED BIKE RACK
N.T.S.


2'-0"
1'-9"
3'-9"
1'-0"
RAD=2'
4'-9"
1'-0"
LEFT TURN
1'-0"
RAD=2'
4'-9"
RIGHT TURN

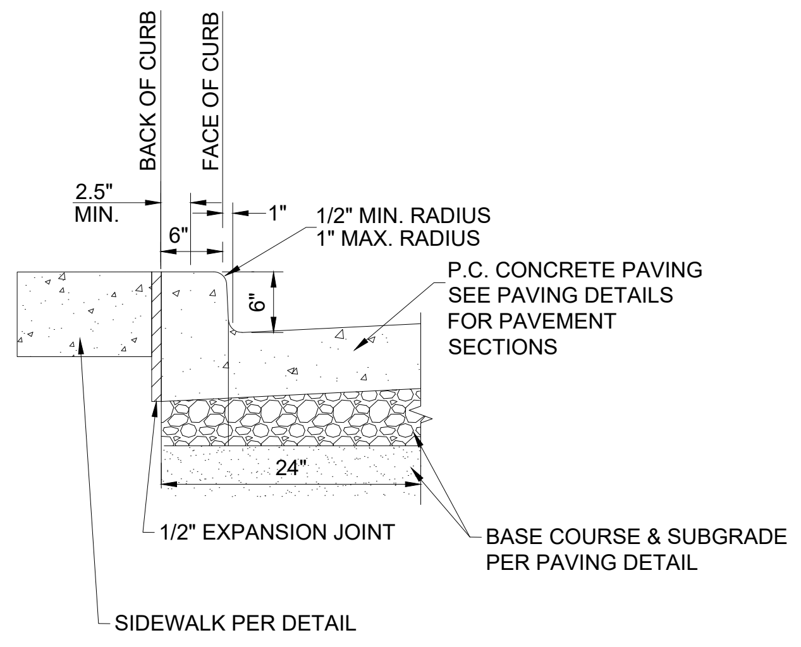
NOTE:
ALL TRAFFIC FLOW ARROWS TO BE REFLECTIVE WHITE PAINT.

MINIMUM REQUIREMENTS:

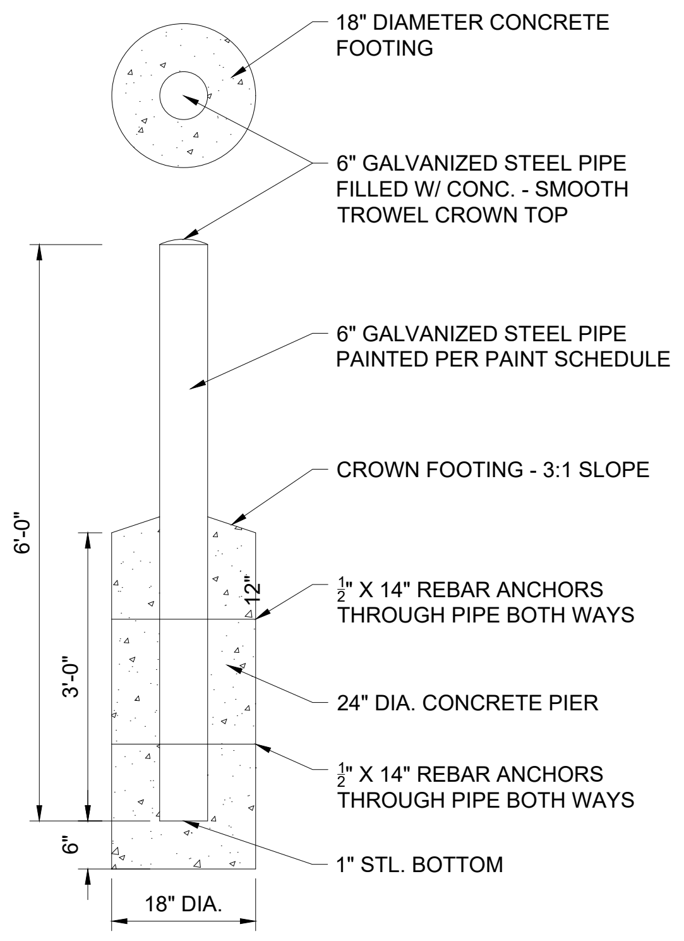
1. USE TRAINED AND EXPERIENCED PERSONNEL IN APPLYING THE PRODUCTS AND OPERATING THE EQUIPMENT REQUIRED FOR PROPERLY PERFORMED WORK.
2. PAINT SHALL BE WATERBORNE OR SOLVENT BORNE, COLOR SHALL BE REFLECTIVE WHITE UNLESS OTHERWISE SPECIFIED. PAVEMENT MARKING PAINTS SHALL COMPLY WITH APPLICABLE STATE AND LOCAL LAWS ENACTED TO ENSURE COMPLIANCE WITH FEDERAL CLEAN AIR STANDARDS. PAINT MATERIALS SHALL CONFORM TO THE RESTRICTIONS OF THE LOCAL AIR POLLUTION CONTROL DISTRICT.
3. WATERBORNE PAINT: PAINTS SHALL CONFORM TO FEDERAL SPECIFICATION TT-P-1952 (LATEST REVISION) AND ALL APPLICABLE ASTM STANDARDS WITHIN THIS SPECIFICATION.
4. SOLVENT BORNE PAINT: PAINT SHALL CONFORM TO FEDERAL SPECIFICATION A-A-2886 OR AASHTO M248. PAINT SHALL BE NON-BLEEDING, QUICK-DRYING, AND ALKYD PETROLEUM BASE PAINT SUITABLE FOR TRAFFIC-BEARING SURFACE AND BE MIXED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS BEFORE APPLICATION FOR COLOR YELLOW (UNLESS OTHER COLOR IS OTHERWISE SPECIFIED).
5. GLASS BEADS: AASHTO M 247, TYPE 1 OR FS TT-B-1325, TYPE 1, GRADATION A.
6. APPLY TWO COATS OF PAINT, AT MANUFACTURER'S RECOMMENDED RATE, WITHOUT ADDITION OF THINNER, WITH MAXIMUM OF 100 SQUARE FEET PER GALLON OR AS REQUIRED TO PROVIDE A MINIMUM WET FILM THICKNESS OF 15 MILS AND DRY FILM THICKNESS OF 7 ½ MILS PER COAT. PAINT SHALL BE APPLIED FOR A TOTAL DRY FILM THICKNESS OF 15 MILS. APPLY WITH MECHANICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES.
7. APPLY GLASS BEADS AT PEDESTRIAN CROSSWALK STRIPING AND AT LANE STRIPING AND ARROWS. BROADCAST GLASS BEADS UNIFORMLY INTO WET MARKINGS AT A RATE OF 6 LB/GAL.

S26 DIRECTIONAL TRAFFIC ARROW
N.T.S.

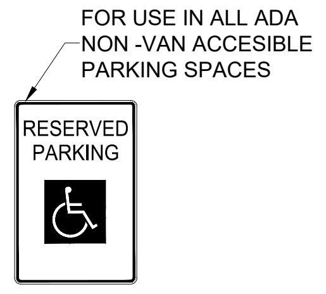
NOTES:
1. ALL CONCRETE CURBS TO BE F'C 4,000 PSI CONCRETE @ 28 DAYS.
2. CURB EXPANSION JOINTS TO MATCH SIDEWALK EXPANSION JOINT SPACING


BACK OF CURB
FACE OF CURB
2.5" MIN.
6"
1"
1/2" MIN. RADIUS 1" MAX. RADIUS
6"
P.C. CONCRETE PAVING SEE PAVING DETAILS FOR PAVEMENT SECTIONS
24"
1/2" EXPANSION JOINT
BASE COURSE & SUBGRADE PER PAVING DETAIL
SIDEWALK PER DETAIL

S68 TYPE "B" CONCRETE CURB & GUTTER WITH FLUSH SIDEWALK
N.T.S.


18" DIAMETER CONCRETE FOOTING
6" GALVANIZED STEEL PIPE FILLED W/ CONC. - SMOOTH TROWEL CROWN TOP
6" GALVANIZED STEEL PIPE PAINTED PER PAINT SCHEDULE
CROWN FOOTING - 3:1 SLOPE
1/2" X 14" REBAR ANCHORS THROUGH PIPE BOTH WAYS
24" DIA. CONCRETE PIER
1/2" X 14" REBAR ANCHORS THROUGH PIPE BOTH WAYS
1" STL. BOTTOM
6'-0"
3'-0"
12"
6"
18" DIA.

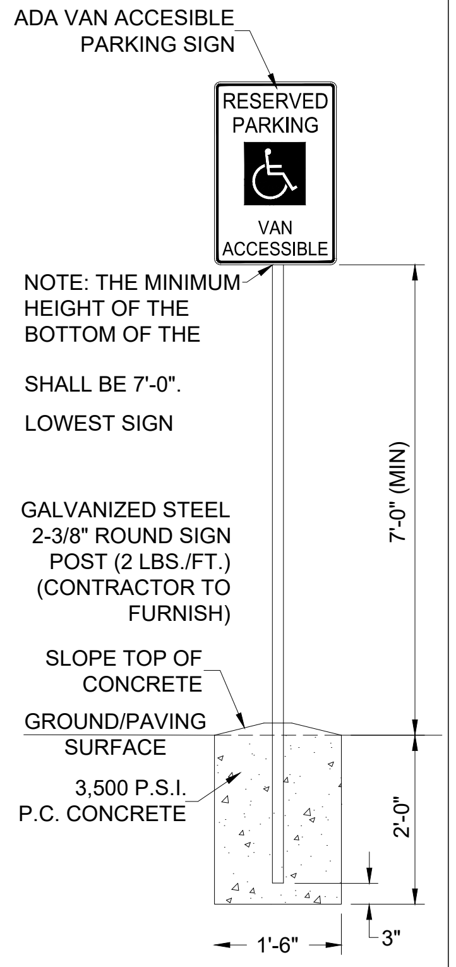
S36 BOLLARD
N.T.S.


FOR USE IN ALL ADA NON -VAN ACCESIBLE PARKING SPACES
RESERVED PARKING

TYPICAL ADA PARKING SIGN

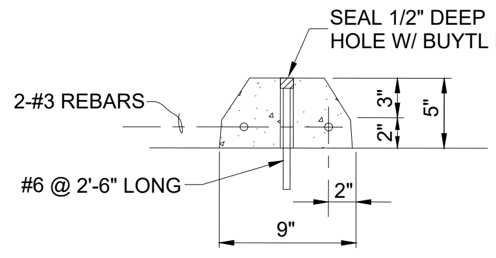
NOTE:

ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES",LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

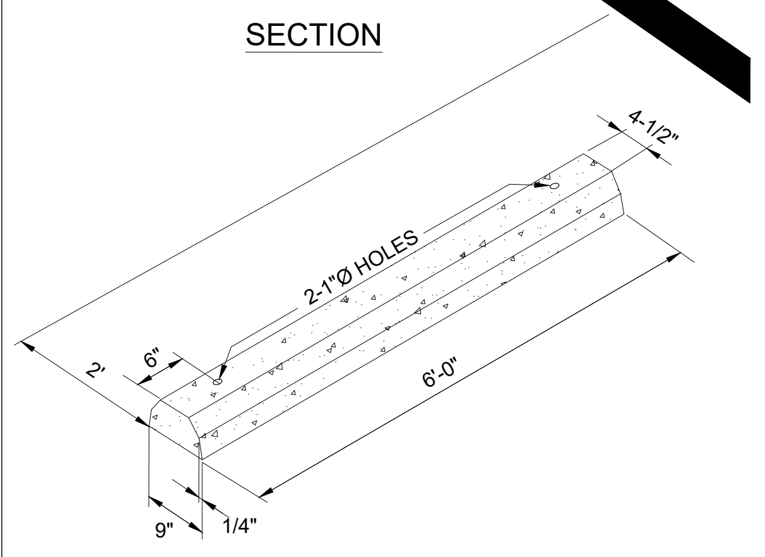

ADA VAN ACCESIBLE PARKING SIGN
RESERVED PARKING
VAN ACCESSIBLE
NOTE: THE MINIMUM HEIGHT OF THE BOTTOM OF THE
SHALL BE 7'-0".
LOWEST SIGN
GALVANIZED STEEL 2-3/8" ROUND SIGN POST (2 LBS./FT.) (CONTRACTOR TO FURNISH)
SLOPE TOP OF CONCRETE
GROUND/PAVING SURFACE
3,500 P.S.I. P.C. CONCRETE
7'-0" (MIN)
2'-0"
1'-6"
3"

S24 ADA PARKING SIGN & SITE SIGN BASE
N.T.S.

NOTES:
1. WHEEL STOPS TO BE PROVIDED BY GENERAL CONTRACTOR
2. WHEEL STOP TO BE PLACED 2' FROM EDGE OF PARKING STALL.

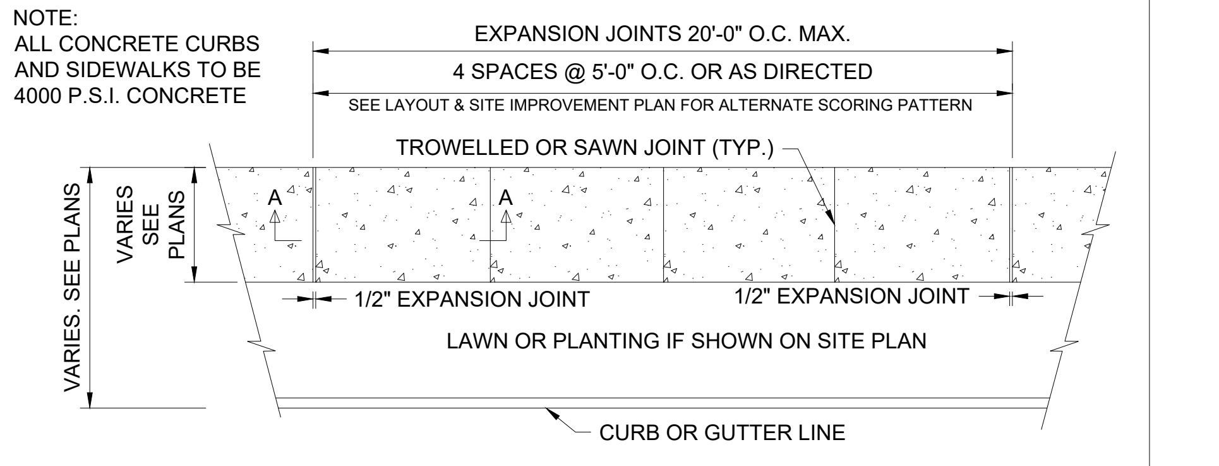

SEAL 1/2" DEEP HOLE W/ BUYTL RUBBER
2-#3 REBARS
#6 @ 2'-6" LONG
3"
2"
5"
2"
9"

SECTION

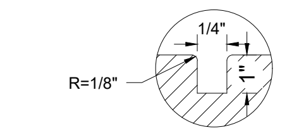

4-1/2"
2-1"Ø HOLES
2'
6"
6'-0"
9"
1/4"

S21 PRECAST CONCRETE WHEELSTOP
N.T.S.

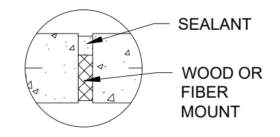
NOTE:
ALL CONCRETE CURBS AND SIDEWALKS TO BE 4000 P.S.I. CONCRETE


EXPANSION JOINTS 20'-0" O.C. MAX.
4 SPACES @ 5'-0" O.C. OR AS DIRECTED
SEE LAYOUT & SITE IMPROVEMENT PLAN FOR ALTERNATE SCORING PATTERN
TROWELLED OR SAWN JOINT (TYP.)
A
A
VARIES. SEE PLANS
VARIES SEE PLANS
1/2" EXPANSION JOINT
1/2" EXPANSION JOINT
LAWN OR PLANTING IF SHOWN ON SITE PLAN
CURB OR GUTTER LINE

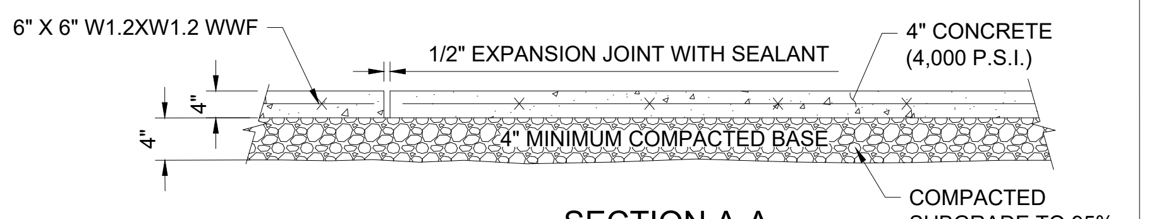
PLAN VIEW



TROWELLED OR SAWN JOINT


SEALANT
WOOD OR FIBER MOUNT

EXPANSION JOINT


6" X 6" W1.2XW1.2 WWF
1/2" EXPANSION JOINT WITH SEALANT
4" CONCRETE (4,000 P.S.I.)
4"
4"
4" MINIMUM COMPACTED BASE
COMPACTED SUBGRADE TO 95% MAXIMUM DRY DENSITY PER ASTM D1557

SECTION A-A

S13 CONCRETE SIDEWALK
N.T.S.

HFA
HFA-AE , LTD.

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
t 479.273.7780
f 888.520.9685
www.hfa-ae.com

DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

06-MAR-26 10:08:37

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

Valvoline
Instant Oil Change

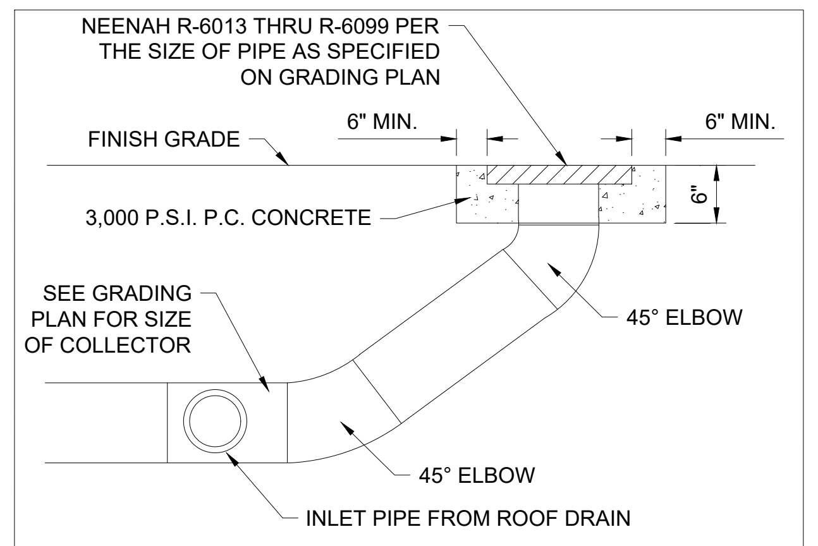
VALVOLINE
INSTANT
OIL CHANGE

610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
DETAILS SHEET 1 OF 5

SHEET #
C-10.0

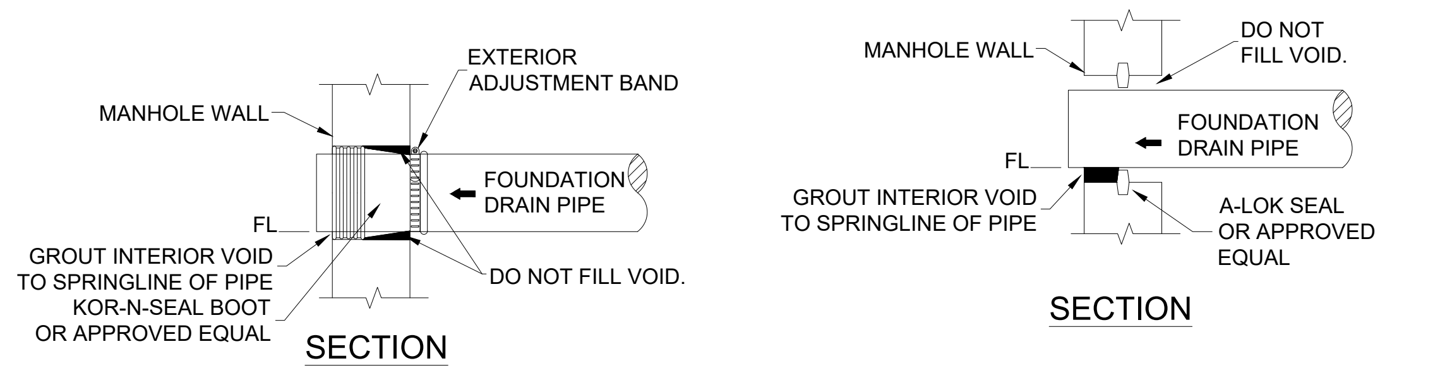

NEENAH R-6013 THRU R-6099 PER THE SIZE OF PIPE AS SPECIFIED ON GRADING PLAN
FINISH GRADE
6" MIN.
6" MIN.
6"
3,000 P.S.I. P.C. CONCRETE
SEE GRADING PLAN FOR SIZE OF COLLECTOR
45° ELBOW
45° ELBOW
INLET PIPE FROM ROOF DRAIN

G6 STORM DRAIN CLEAN-OUT

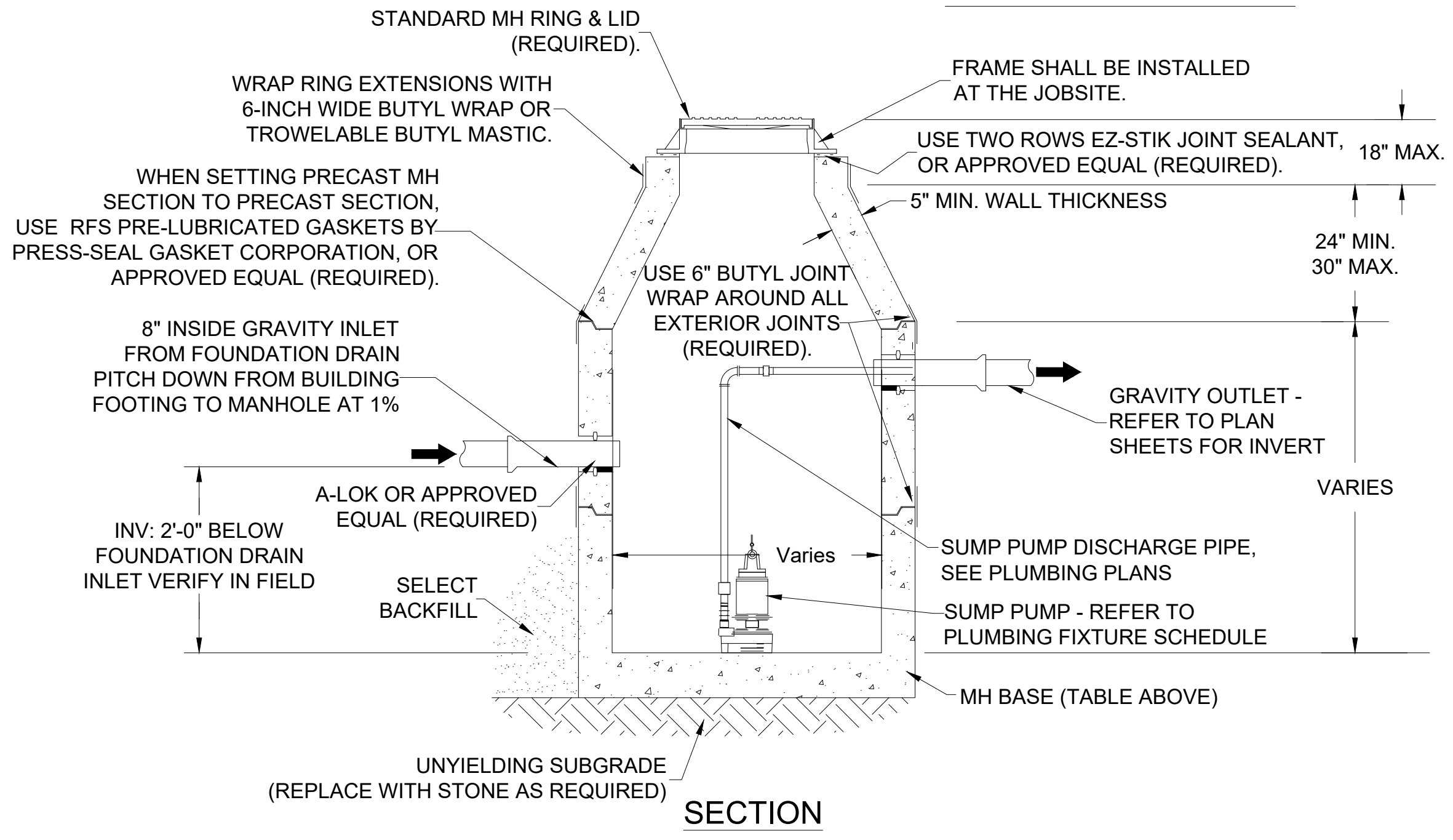
N.T.S.

Inside Diameter of Manhole	Minimum Wall Thickness	Base Thickness	Minimum Ring & Cover Size
4' DIA	5"	6"	24" (< or Equal to 24" Pipes)
5' DIA	6 1/2"	8"	
6' DIA	7"	8"	36" (> 24" Pipes)

MANHOLE INFORMATION TABLE


MANHOLE WALL
EXTERIOR ADJUSTMENT BAND
FOUNDATION DRAIN PIPE
FL
GROUT INTERIOR VOID TO SPRINGLINE OF PIPE
KOR-N-SEAL BOOT OR APPROVED EQUAL
DO NOT FILL VOID.
SECTION
MANHOLE WALL
DO NOT FILL VOID.
FOUNDATION DRAIN PIPE
FL
GROUT INTERIOR VOID TO SPRINGLINE OF PIPE
A-LOK SEAL OR APPROVED EQUAL
SECTION

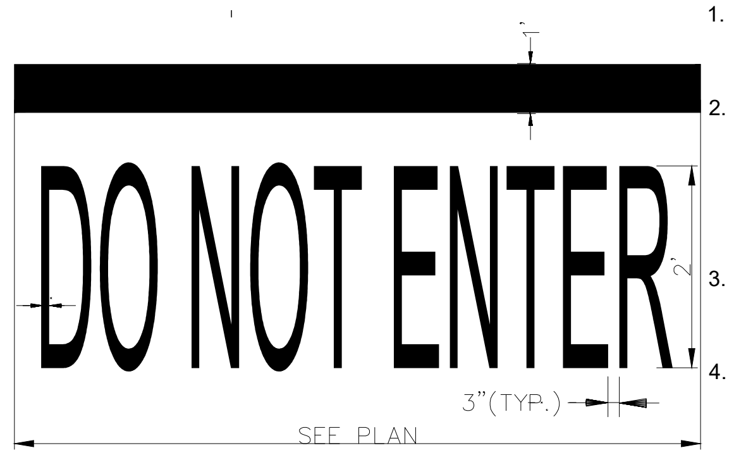
CONNECTION DETAILS


STANDARD MH RING & LID (REQUIRED).
WRAP RING EXTENSIONS WITH 6-INCH WIDE BUTYL WRAP OR TROWELABLE BUTYL MASTIC.
WHEN SETTING PRECAST MH SECTION TO PRECAST SECTION, USE RFS PRE-LUBRICATED GASKETS BY PRESS-SEAL GASKET CORPORATION, OR APPROVED EQUAL (REQUIRED).
8" INSIDE GRAVITY INLET FROM FOUNDATION DRAIN PITCH DOWN FROM BUILDING FOOTING TO MANHOLE AT 1%
A-LOK OR APPROVED EQUAL (REQUIRED)
INV: 2'-0" BELOW FOUNDATION DRAIN INLET VERIFY IN FIELD
SELECT BACKFILL
UNYIELDING SUBGRADE (REPLACE WITH STONE AS REQUIRED)
FRAME SHALL BE INSTALLED AT THE JOBSITE.
USE TWO ROWS EZ-STIK JOINT SEALANT, OR APPROVED EQUAL (REQUIRED).
18" MAX.
5" MIN. WALL THICKNESS
24" MIN.
30" MAX.
USE 6" BUTYL JOINT WRAP AROUND ALL EXTERIOR JOINTS (REQUIRED).
GRAVITY OUTLET - REFER TO PLAN SHEETS FOR INVERT
VARIES
Varies
SUMP PUMP DISCHARGE PIPE, SEE PLUMBING PLANS
SUMP PUMP - REFER TO PLUMBING FIXTURE SCHEDULE
MH BASE (TABLE ABOVE)

SECTION

U71 FOUNDATION SUMP PUMP MANHOLE

N.T.S.


1'
DO NOT ENTER
2'
4"(TYP.)
3"(TYP.)
SEE PLAN

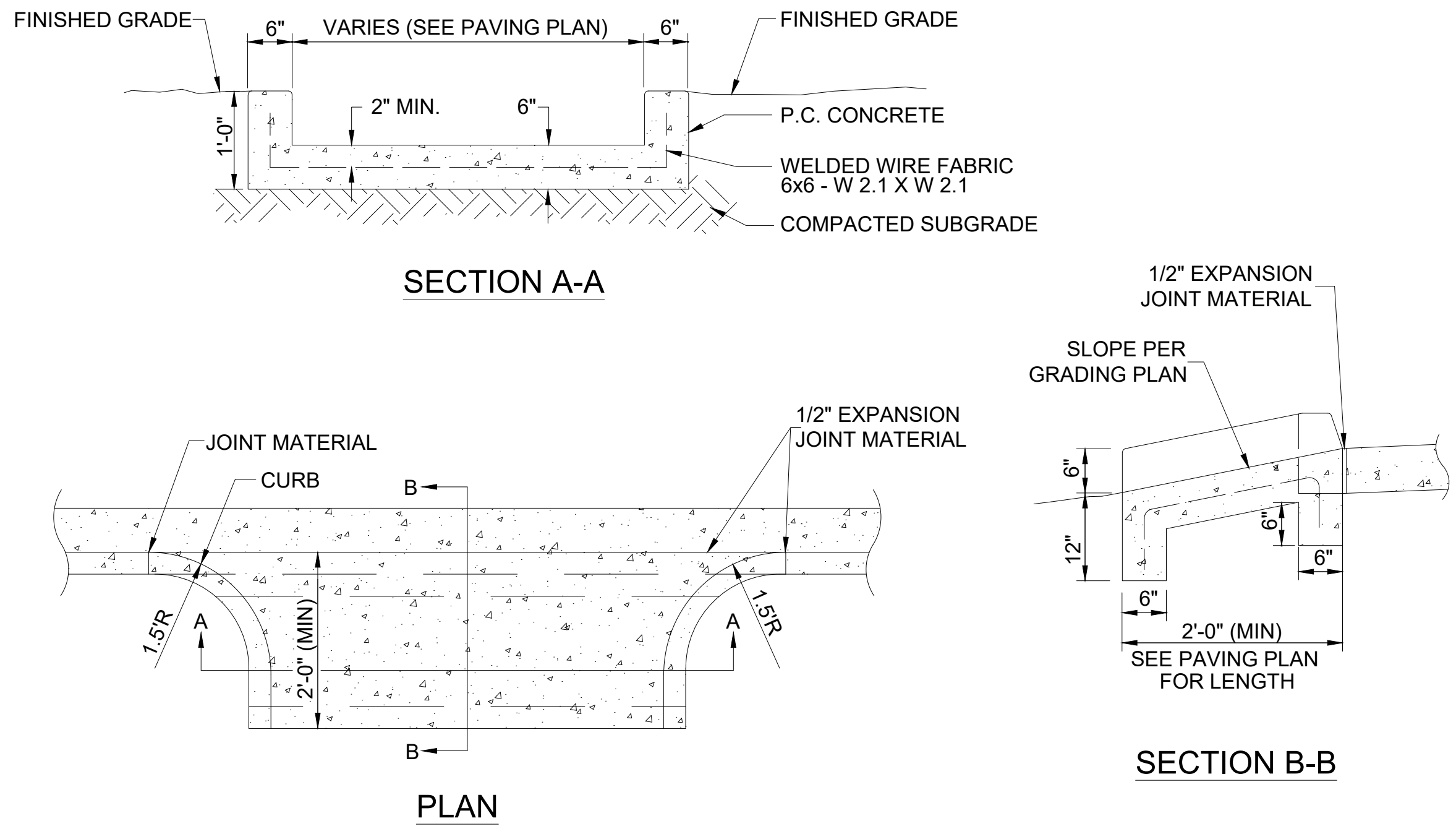
NOTE:
USE REFLECTIVE WHITE PAINT.

MINIMUM REQUIREMENTS:

1. USE TRAINED AND EXPERIENCED PERSONNEL IN APPLYING THE PRODUCTS AND OPERATING THE EQUIPMENT REQUIRED FOR PROPERLY PERFORMED WORK.
2. PAINT SHALL BE WATERBORNE OR SOLVENT BORNE, COLOR SHALL BE REFLECTIVE WHITE UNLESS OTHERWISE SPECIFIED. PAVEMENT MARKING PAINTS SHALL COMPLY WITH APPLICABLE STATE AND LOCAL LAWS ENACTED TO ENSURE COMPLIANCE WITH FEDERAL CLEAN AIR STANDARDS. PAINT MATERIALS SHALL CONFORM TO THE RESTRICTIONS OF THE LOCAL AIR POLLUTION CONTROL DISTRICT.
3. WATERBORNE PAINT: PAINTS SHALL CONFORM TO FEDERAL SPECIFICATION TT-P-1952 (LATEST REVISION) AND ALL APPLICABLE ASTM STANDARDS WITHIN THIS SPECIFICATION.
4. SOLVENT BORNE PAINT: PAINT SHALL CONFORM TO FEDERAL SPECIFICATION A-A-2886 OR AASHTO M248. PAINT SHALL BE NON-BLEEDING, QUICK-DRYING, AND ALKYD PETROLEUM BASE PAINT SUITABLE FOR TRAFFIC-BEARING SURFACE AND BE MIXED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS BEFORE APPLICATION FOR COLOR YELLOW (UNLESS OTHER COLOR IS OTHERWISE SPECIFIED).
5. GLASS BEADS: AASHTO M 247, TYPE 1 OR FS TT-B-1325, TYPE 1, GRADATION A.
6. APPLY TWO COATS OF PAINT, AT MANUFACTURER'S RECOMMENDED RATE, WITHOUT ADDITION OF THINNER, WITH MAXIMUM OF 100 SQUARE FEET PER GALLON OR AS REQUIRED TO PROVIDE A MINIMUM WET FILM THICKNESS OF 15 MILS AND DRY FILM THICKNESS OF 7 ½ MILS PER COAT. PAINT SHALL BE APPLIED FOR A TOTAL DRY FILM THICKNESS OF 15 MILS. APPLY WITH MECHANICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES.

S70 DO NOT ENTER

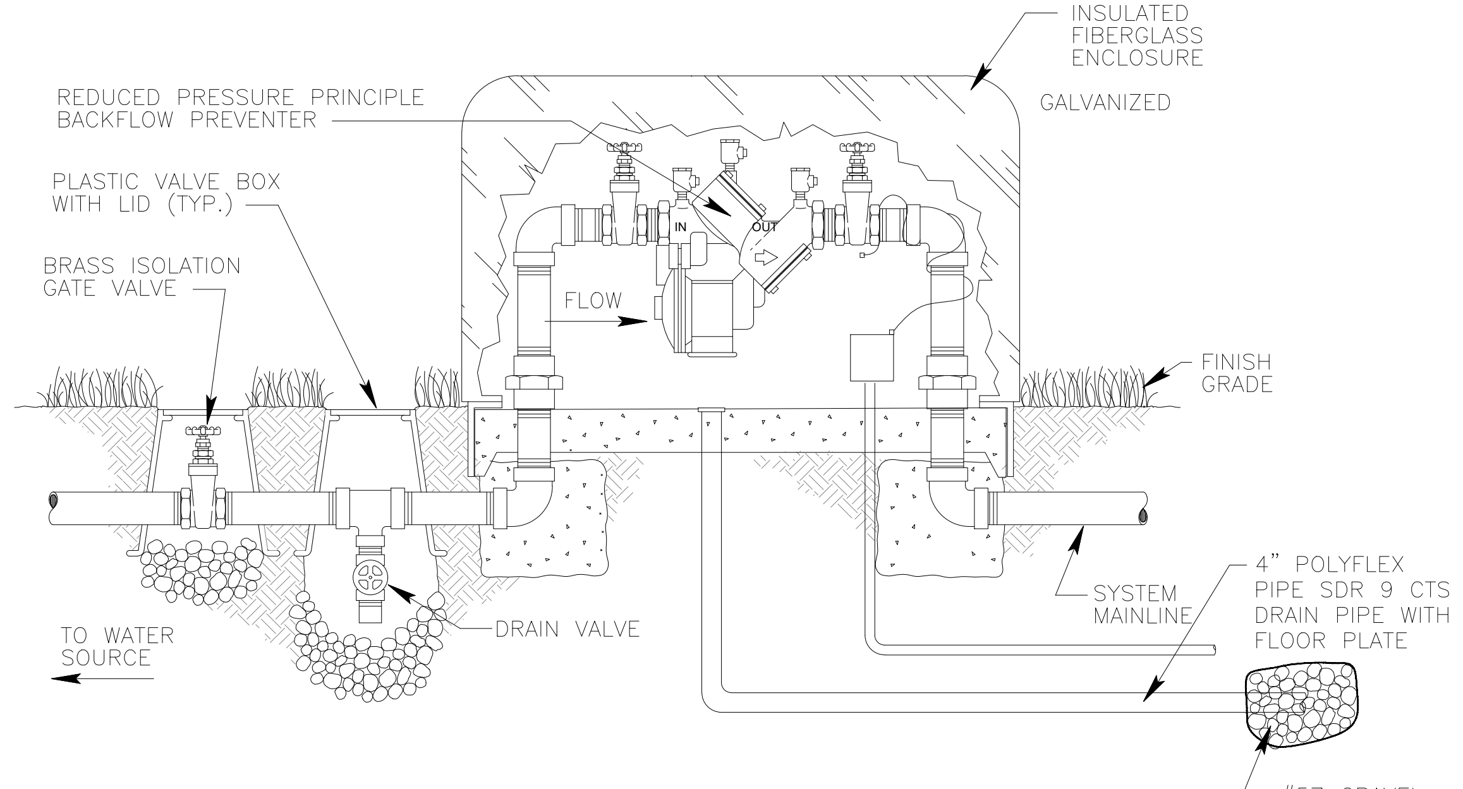
N.T.S.


FINISHED GRADE
6"
VARIES (SEE PAVING PLAN)
6"
FINISHED GRADE
1'-0"
2" MIN.
6"
P.C. CONCRETE
WELDED WIRE FABRIC 6x6 - W 2.1 X W 2.1
COMPACTED SUBGRADE
SECTION A-A
JOINT MATERIAL
CURB
B
1/2" EXPANSION JOINT MATERIAL
1.5'R
A
2'-0" (MIN)
A
1.5'R
B
PLAN
1/2" EXPANSION JOINT MATERIAL
SLOPE PER GRADING PLAN
6"
12"
6"
6"
6"
2'-0" (MIN)
SEE PAVING PLAN FOR LENGTH
SECTION B-B

G22 CONCRETE FLUME

N.T.S.

CONTRACTOR TO COMPLY WITH ALL LOCAL CODES AND ORDINANCES IN REFERENCE TO PIT CONSTRUCTION, INSTALLATION AND VENTING OF BACKFLOW PREVENTION DEVICE.

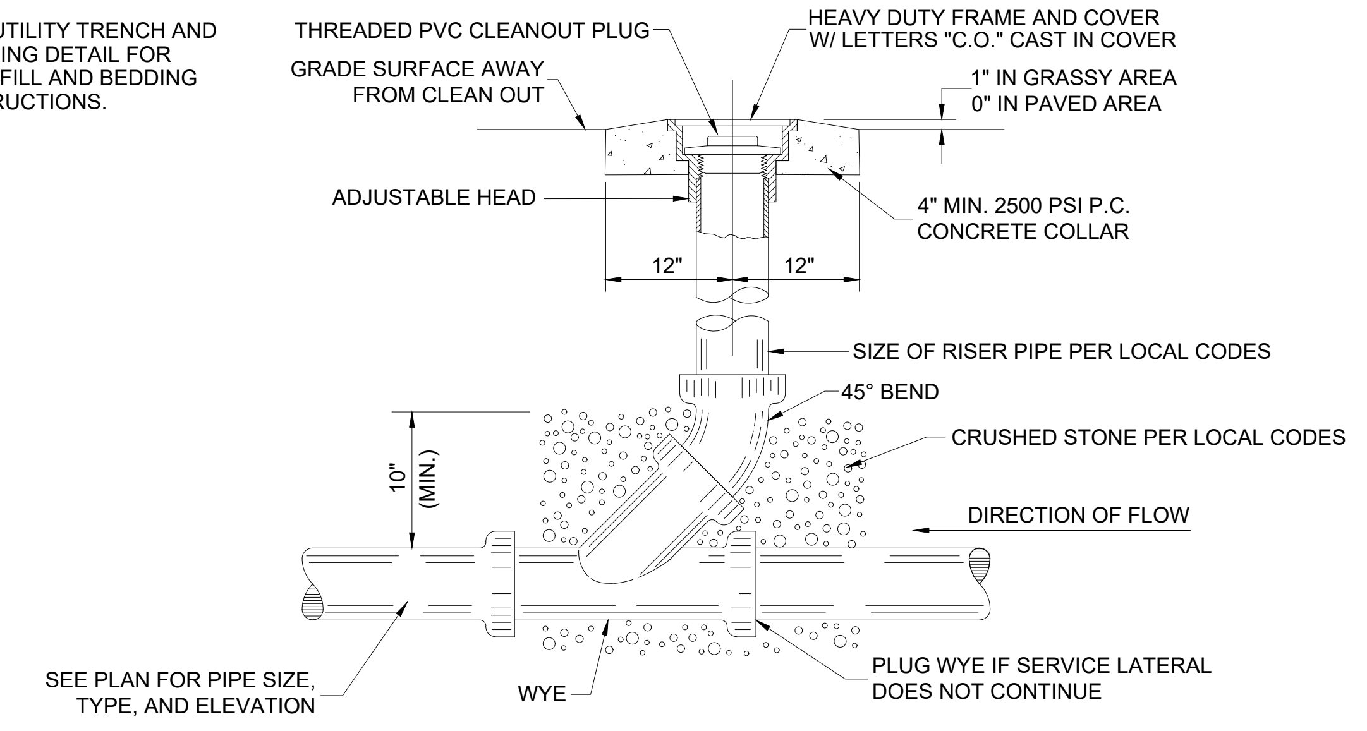

INSULATED FIBERGLASS ENCLOSURE
GALVANIZED
REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER
PLASTIC VALVE BOX WITH LID (TYP.)
BRASS ISOLATION GATE VALVE
IN
OUT
FLOW
FINISH GRADE
TO WATER SOURCE
DRAIN VALVE
SYSTEM MAINLINE
4" POLYFLEX PIPE SDR 9 CTS DRAIN PIPE WITH FLOOR PLATE
#57 GRAVEL SUMP, 2 CUBIC YARD, WRAPPED WITH FABRIC

✳ IRRIGATION CONTACTOR SHALL SUBMIT BACKFLOW DETAIL TO LOCAL AUTHORITIES FOR APPROVAL BEFORE STARTING CONSTRUCTION.

U23 REDUCED PRESSURE BACKFLOW DEVICE

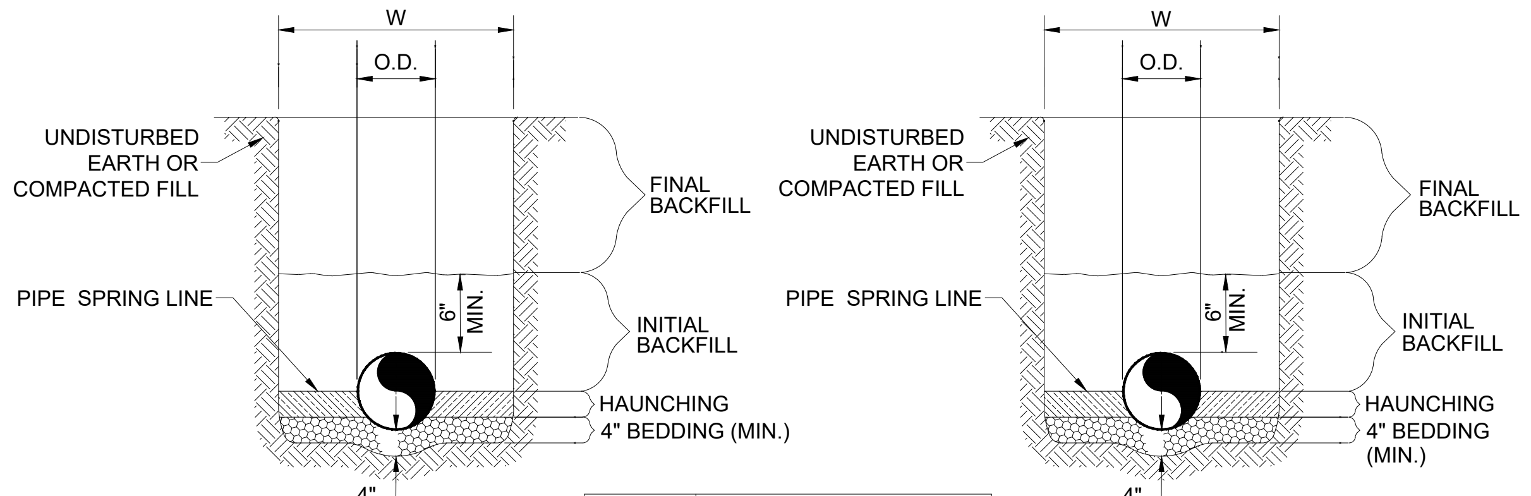
NTS

NOTE:
1. SEE UTILITY TRENCH AND BEDDING DETAIL FOR BACKFILL AND BEDDING INSTRUCTIONS.


THREADED PVC CLEANOUT PLUG
HEAVY DUTY FRAME AND COVER W/ LETTERS "C.O." CAST IN COVER
GRADE SURFACE AWAY FROM CLEAN OUT
1" IN GRASSY AREA
0" IN PAVED AREA
ADJUSTABLE HEAD
4" MIN. 2500 PSI P.C. CONCRETE COLLAR
12"
12"
SIZE OF RISER PIPE PER LOCAL CODES
45° BEND
CRUSHED STONE PER LOCAL CODES
10" (MIN.)
DIRECTION OF FLOW
SEE PLAN FOR PIPE SIZE, TYPE, AND ELEVATION
WYE
PLUG WYE IF SERVICE LATERAL DOES NOT CONTINUE

U5 SANITARY SEWER CLEAN-OUT

N.T.S.


W
O.D.
UNDISTURBED EARTH OR COMPACTED FILL
FINAL BACKFILL
PIPE SPRING LINE
6" MIN.
INITIAL BACKFILL
HAUNCHING
4" BEDDING (MIN.)
4"
W
O.D.
UNDISTURBED EARTH OR COMPACTED FILL
FINAL BACKFILL
PIPE SPRING LINE
6" MIN.
INITIAL BACKFILL
HAUNCHING
4" BEDDING (MIN.)
4"

PIPE DIA.	W
≤12"	O.D. OF PIPE + (12" TO 18")
>12"	≥ O.D. OF PIPE + 18"

WATER LINE
N.T.S.

SANITARY SEWER
N.T.S.

GENERAL NOTES

1. BEDDING SHALL BE CLASS I-A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 85% STANDARD PROCTOR.
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 85% PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
4. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
5. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3. AND 4.
6. FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 95% STANDARD PROCTOR.
7. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-89.
8. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
9. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
10. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)

U70 UTILITY TRENCH AND BEDDING

N.T.S.

HFA
HFA-AE , LTD.

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
t 479.273.7780
f 888.520.9685
www.hfa-ae.com

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01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235
Diego A. Garcia
06-MAR-26 10:08:42
DIEGO ALBERTO GARCIA, PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

VALVOLINE INSTANT OIL CHANGE

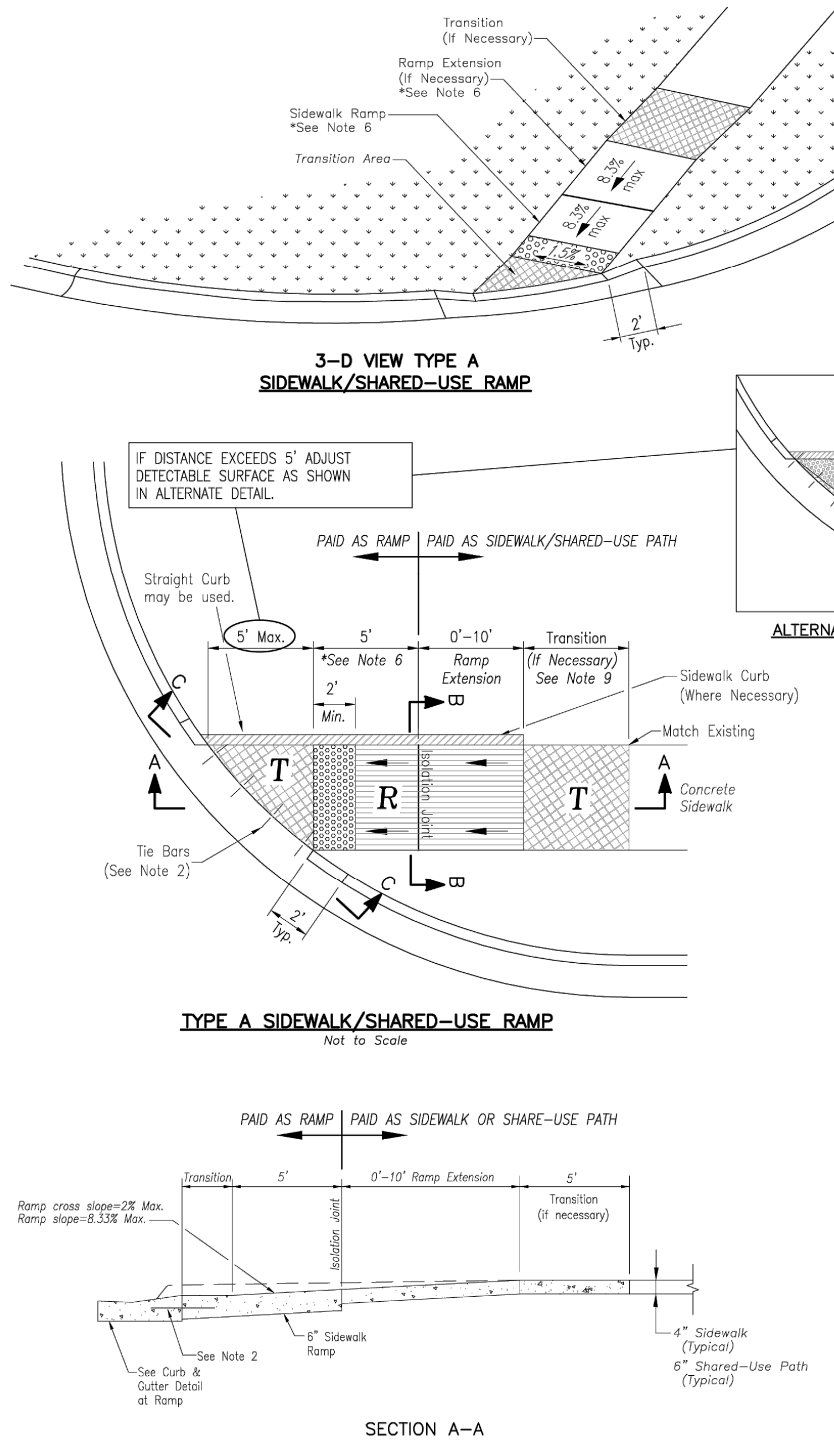
610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
DETAILS SHEET 2 OF 5

SHEET #
C-10.1

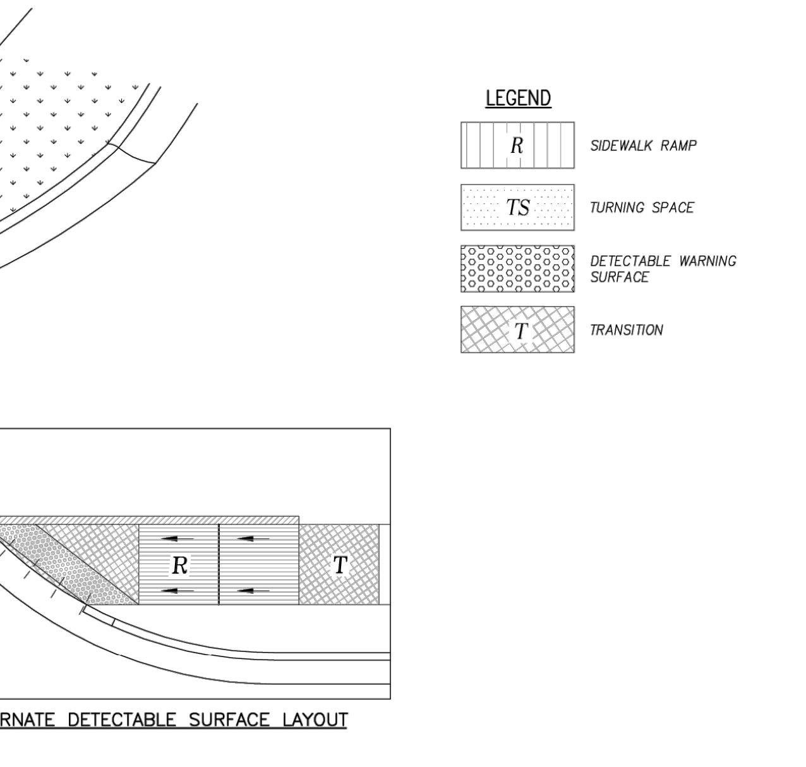
Drawing Name: \\HFA-FILE02\2024 Projects\06\06-24-20062 VIOC Lee's Summit, MO (NW Chipman)\04-Design\Civil\DWGs\06-24-20062 – C-10 DETAILS.dwg Last Modified: Feb 27, 2026 – 9:44am Plotted on: Mar 06, 2026 – 9:46am by daniel.friede


Transition (If Necessary)
Ramp Extension (If Necessary) *See Note 9
Sidewalk Ramp *See Note 6
Transition Area
Typ.
IF DISTANCE EXCEEDS 5' ADJUST DETECTABLE SURFACE AS SHOWN IN ALTERNATE DETAIL
PAID AS RAMP | PAID AS SIDEWALK/SHARED-USE PATH
Straight Curb may be used
5' Max.
*See Note 6
Min.
Ramp Extension
Tie Bars (See Note 2)
T
R
PAID AS RAMP | PAID AS SIDEWALK OR SHARE-USE PATH
Transition
0'-10' Ramp Extension
Ramp cross slope=2% Max.
Ramp slope=8.33% Max.
Curb & Gutter Detail at Ramp
6" Sidewalk Ramp
See Note 2

3-D VIEW TYPE A SIDEWALK/SHARED-USE RAMP

TYPE A SIDEWALK/SHARED-USE RAMP
Not to Scale

SECTION A-A

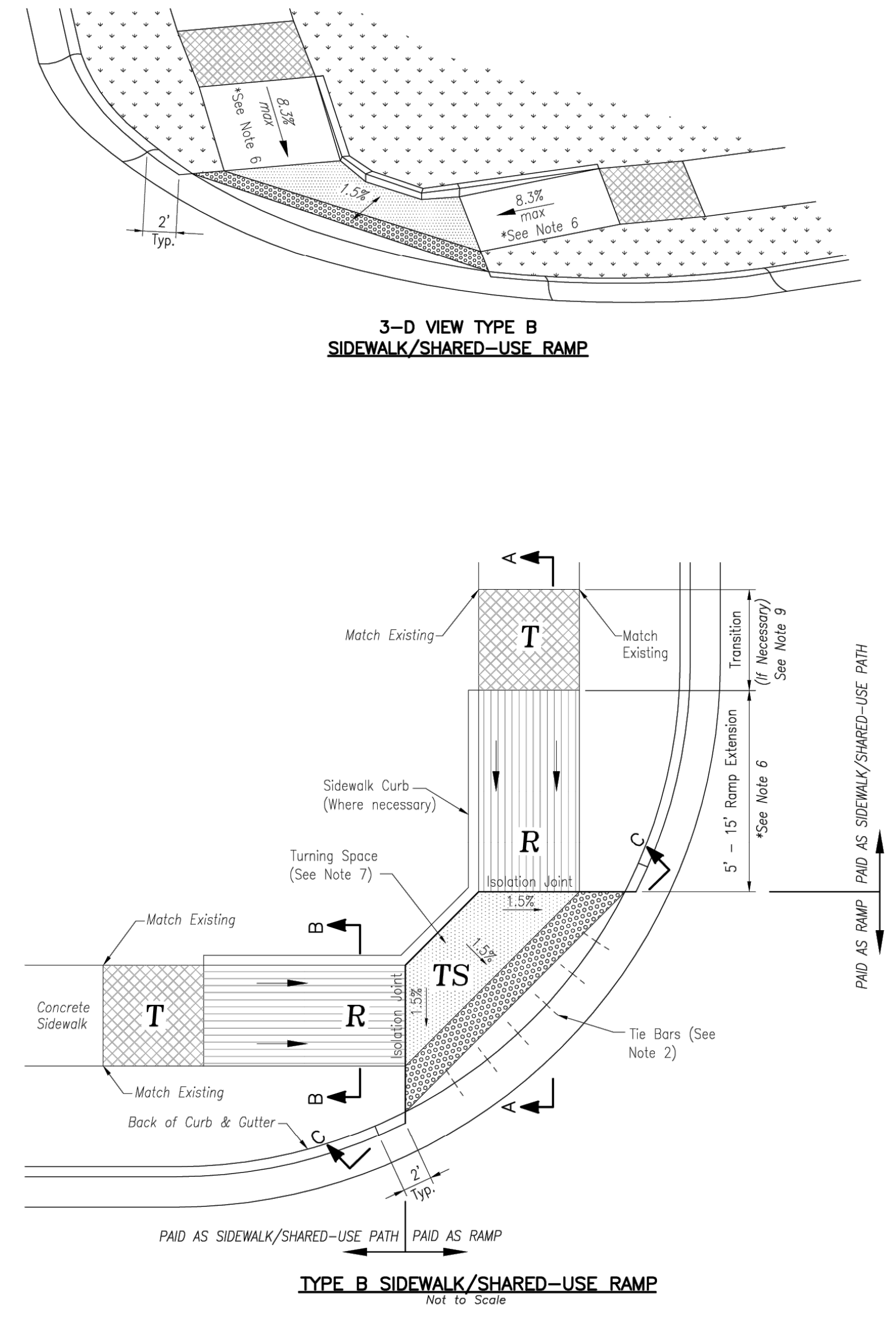

LEGEND
R SIDEWALK RAMP
TS TURNING SPACE
DETECTABLE WARNING SURFACE
T TRANSITION
R
T
Sidewalk Curb (Where Necessary)
Match Existing
Concrete Sidewalk

ALTERNATE DETECTABLE SURFACE LAYOUT

SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:

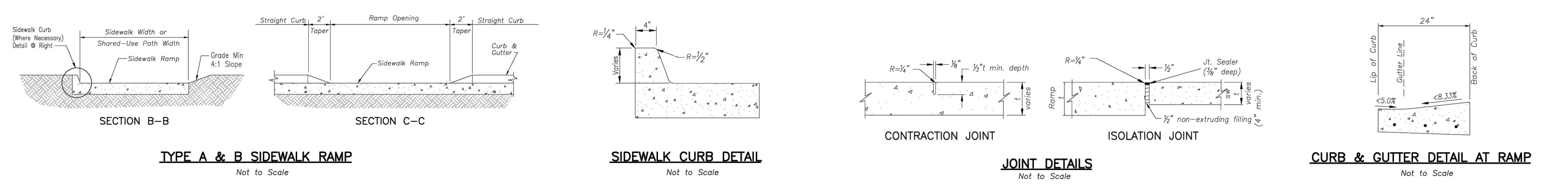
1. CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
2. USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
3. ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
4. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
5. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 100' CENTERS MAX.
6. ADA MAXIMUM RAMP SLOPE = 8.33%
ADA MAXIMUM CROSS SLOPE = 2.0%

*ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
7. TURNING SPACES SHALL BE 1.5%, ±0.5%, SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
8. FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
9. RAMP EXTENSION AREA SHALL NOT BE USED AS TRANSITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMPS TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A CONTINUOUS SLOPE.
10. ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).


Typ.
1.5%
8.33% Max
See Note 6
Match Existing
T
Transition (If Necessary) See Note 9
Sidewalk Curb (Where necessary)
R
Turning Space (See Note 7)
5' - 15' Ramp Extension *See Note 6
Isolation Joint
Match Existing
TS
Concrete Sidewalk
Back of Curb & Gutter
Tie Bars (See Note 2)
PAID AS SIDEWALK/SHARED-USE PATH | PAID AS RAMP
PAID AS RAMP | PAID AS SIDEWALK/SHARED-USE PATH

3-D VIEW TYPE B SIDEWALK/SHARED-USE RAMP

TYPE B SIDEWALK/SHARED-USE RAMP
Not to Scale


Sidewalk Curb (Where Necessary) Detail @ Right
Sidewalk Width or Shared-Use Path Width
Sidewalk Ramp
Grade Min 4:1 Slope
Straight Curb
2' Taper
Ramp Opening
Sidewalk Ramp
Curb & Gutter
R=1/4"
4"
R=1/2"
Varies
1/8"
1/3"t min. depth
Joint Sealer (1/8" deep)
1/2" non-extruding filling
24"
Lip of Curb
Gutter Line
Back of Curb

SECTION B-B

SECTION C-C

CONTRACTION JOINT

ISOLATION JOINT

TYPE A & B SIDEWALK RAMP
Not to Scale

SIDEWALK CURB DETAIL
Not to Scale

JOINT DETAILS
Not to Scale

CURB & GUTTER DETAIL AT RAMP
Not to Scale

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project:
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

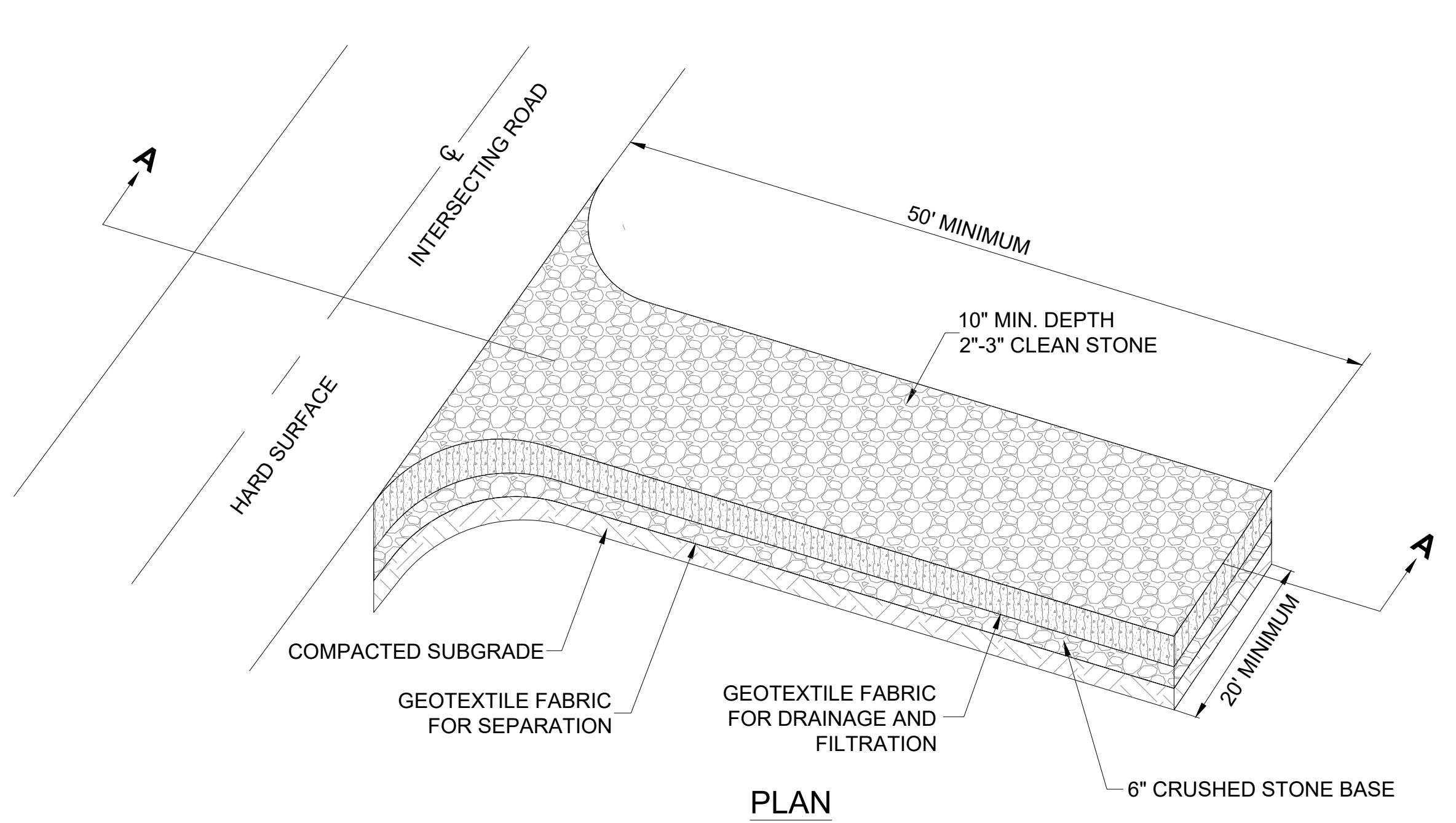
Sheet Name:
ADA RAMP RETROFIT DETAIL

Drawn By: MJF
Checked By: DL
Date: 08/2023
Proj. #:

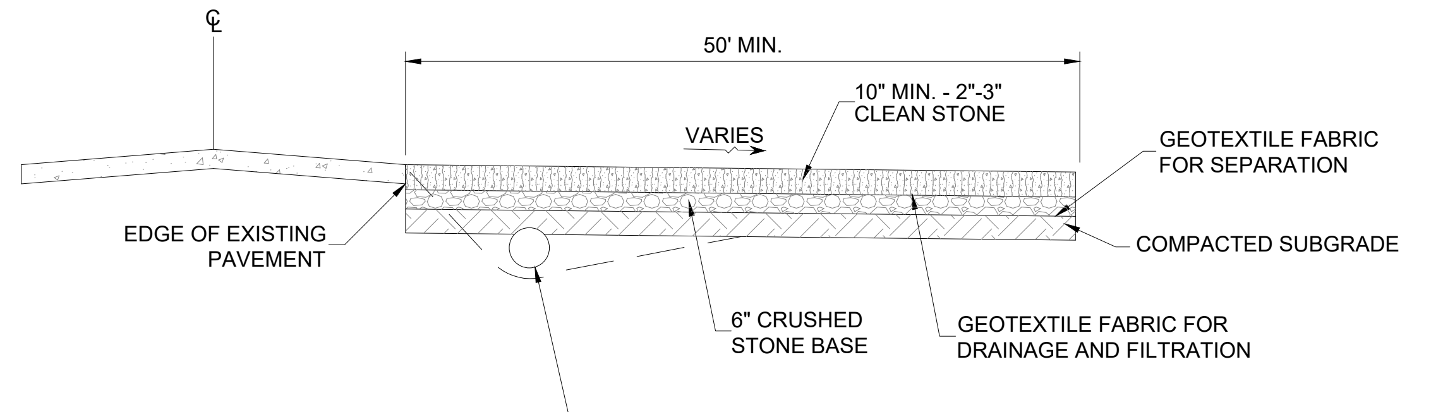
GEN-3A

NOTES:

1. CONTRACTOR TO LOCATE TEMPORARY CONSTRUCTION FENCING, JERSEY BARRIERS, OR BOTH ALONG THE SIDES OF THE CONSTRUCTION EXIT TO PREVENT CONSTRUCTION TRAFFIC FROM SHORT CIRCUITING/BYPASSING THE EXIT.


A
INTERSECTING ROAD
50' MINIMUM
10" MIN. DEPTH 2"-3" CLEAN STONE
HARD SURFACE
A
20' MINIMUM
COMPACTED SUBGRADE
GEOTEXTILE FABRIC FOR SEPARATION
GEOTEXTILE FABRIC FOR DRAINAGE AND FILTRATION
6" CRUSHED STONE BASE

PLAN


50' MIN.
VARIES
10" MIN. - 2"-3" CLEAN STONE
GEOTEXTILE FABRIC FOR SEPARATION
COMPACTED SUBGRADE
EDGE OF EXISTING PAVEMENT
6" CRUSHED STONE BASE
GEOTEXTILE FABRIC FOR DRAINAGE AND FILTRATION

SECTION A-A

PROVIDE CULVERT AS REQUIRED TO CARRY PRE-EXISTING DITCH FLOW.
SEE EROSION AND SEDIMENT CONTROL PLAN FOR LOCATION.

E10 CONSTRUCTION ENTRANCE/EXIT
N.T.S.

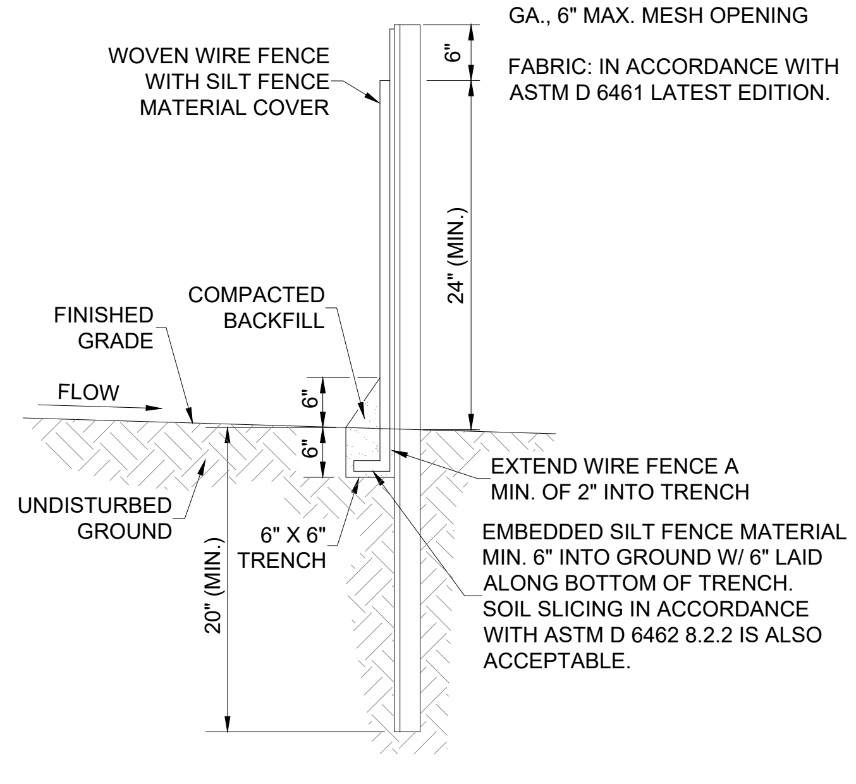
NOTES:

1. INSTALLATION SHALL COMPLY WITH ASTM D 6462 LATEST EDITION.
2. ATTACH THE WOVEN WIRE FENCE TO EACH POST AND THE GEOTEXTILE TO THE WOVEN WIRE FENCE (SPACED EVERY 30") WITH THREE WIRE TIES OR OTHER FASTENERS, ALL SPACED WITHIN THE TOP 8" OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1" VERTICALLY APART. ALSO, EACH TIE PLACED ON A POST SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
3. WHEN TWO SECTIONS OF SILT FENCE MATERIAL ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED A MINIMUM OF 60" ACROSS TWO POSTS, AS SHOWN.
4. MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE SWPPP. DEPTH OF ACCUMULATED SEDIMENTS MAY NOT EXCEED ONE-HALF THE HEIGHT OF THE FENCE. MAINTENANCE CLEANOUT MUST BE CONDUCTED REGULARLY TO PREVENT ACCUMULATED SEDIMENTS FROM REACHING ONE-HALF THE HEIGHT OF THE SILT FENCE MATERIAL ABOVE GRADE.
5. ALL SILT FENCE SHALL INCLUDE WIRE SUPPORT UNLESS THE STATIC SLICING EQUIPMENT IS UTILIZED TO INSTALL THE FENCE PER DETAIL- "SILT FENCE INSTALLATION (SLICING METHOD)".
6. WRAP APPROXIMATELY 6" OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
7. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQ. INCH. COMPACT THE UPSTREAM SIDE FIRST. COMPACT EACH SIDE TWICE FOR A TOTAL OF FOUR TRIPS.
8. ADD POST CAPS AS NEEDED BASED ON SITE CONDITIONS AND APPLICABLE AGENCY REQUIREMENTS.

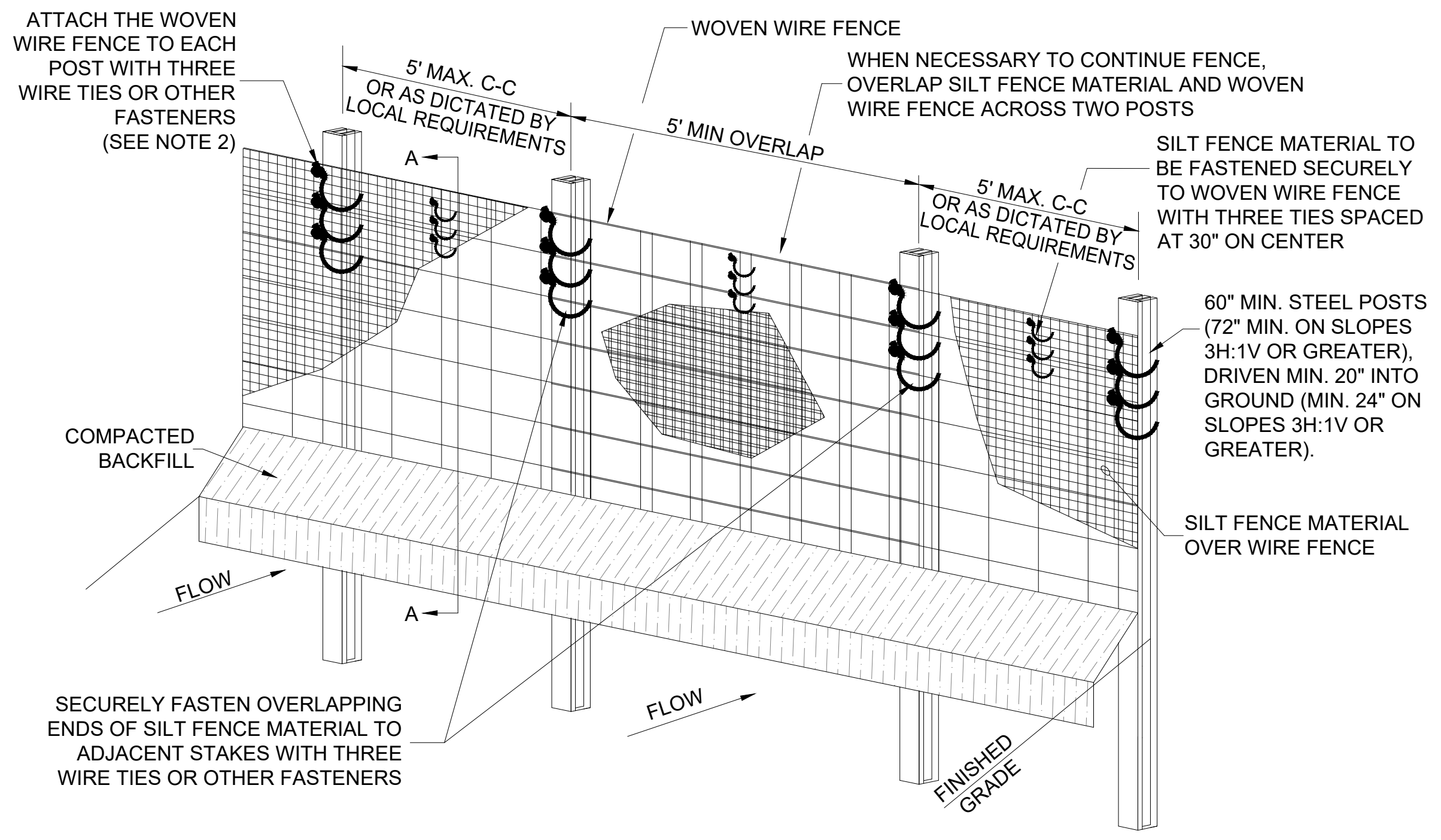
POSTS: STEEL T OR U TYPE.

FENCE: WOVEN WIRE, 14-1/2 GA., 6" MAX. MESH OPENING

FABRIC: IN ACCORDANCE WITH ASTM D 6461 LATEST EDITION.


WOVEN WIRE FENCE WITH SILT FENCE MATERIAL COVER
6"
24" (MIN.)
COMPACTED BACKFILL
FINISHED GRADE
FLOW
6"
6"
UNDISTURBED GROUND
6" X 6" TRENCH
20" (MIN.)
EXTEND WIRE FENCE A MIN. OF 2" INTO TRENCH
EMBEDDED SILT FENCE MATERIAL MIN. 6" INTO GROUND W/ 6" LAID ALONG BOTTOM OF TRENCH. SOIL SLICING IN ACCORDANCE WITH ASTM D 6462 8.2.2 IS ALSO ACCEPTABLE.

A-A SECTION

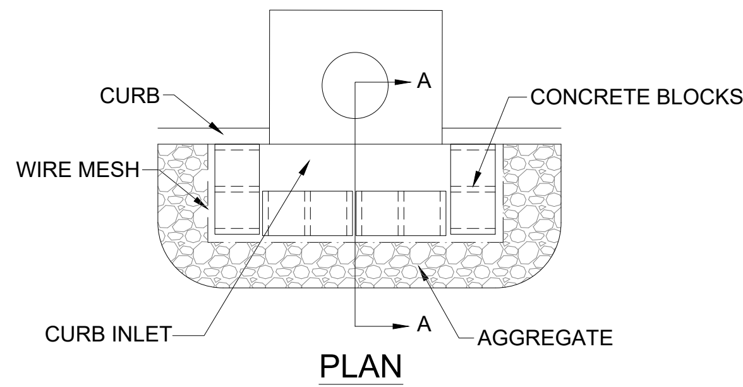

ATTACH THE WOVEN WIRE FENCE TO EACH POST WITH THREE WIRE TIES OR OTHER FASTENERS (SEE NOTE 2)
5' MAX. C-C OR AS DICTATED BY LOCAL REQUIREMENTS
WOVEN WIRE FENCE
5' MIN OVERLAP
WHEN NECESSARY TO CONTINUE FENCE, OVERLAP SILT FENCE MATERIAL AND WOVEN WIRE FENCE ACROSS TWO POSTS
5' MAX. C-C OR AS DICTATED BY LOCAL REQUIREMENTS
SILT FENCE MATERIAL TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH THREE TIES SPACED AT 30" ON CENTER
A
60" MIN. STEEL POSTS (72" MIN. ON SLOPES 3H:1V OR GREATER), DRIVEN MIN. 20" INTO GROUND (MIN. 24" ON SLOPES 3H:1V OR GREATER).
COMPACTED BACKFILL
SILT FENCE MATERIAL OVER WIRE FENCE
FLOW
A
FLOW
FINISHED GRADE
SECURELY FASTEN OVERLAPPING ENDS OF SILT FENCE MATERIAL TO ADJACENT STAKES WITH THREE WIRE TIES OR OTHER FASTENERS

ELEVATION

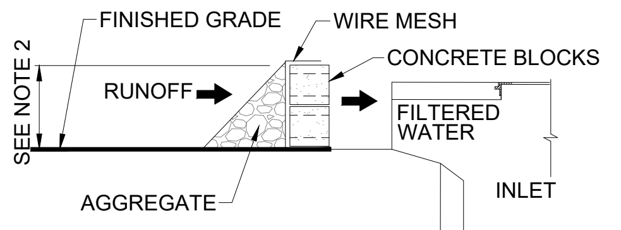
E11 SEDIMENTATION/SILT FENCE WITH WIRE SUPPORT
N.T.S.

NOTES:

1. PLACE CONCRETE BLOCKS IN A SINGLE ROW AROUND PERIMETER OF INLET ON THEIR SIDES, WITH ENDS OF ADJACENT BLOCKS ABUTTING.
2. HEIGHT OF BARRIER VARIES. USE STACKS OF 4", 8", OR 12" BLOCKS. MIN. HEIGHT OF BARRIER SHALL BE 12" AND MAX. HEIGHT SHALL BE 24".
3. PLACE HARDWARE CLOTH/WIRE MESH W/ MAX. 1/2" OPENINGS OVER VERTICAL FACE OF CONCRETE BLOCKS.
4. THE AGGREGATE SHALL BE 3/4"-2" ANGULAR CLEAN STONE, WHICH WILL SLOW THE FLOW OF THE WATER AND ALLOW IT TO FILTER THROUGH AND OVER THE MATERIAL BEFORE ENTERING THE INLET.


CURB
A
CONCRETE BLOCKS
WIRE MESH
CURB INLET
A
AGGREGATE

PLAN

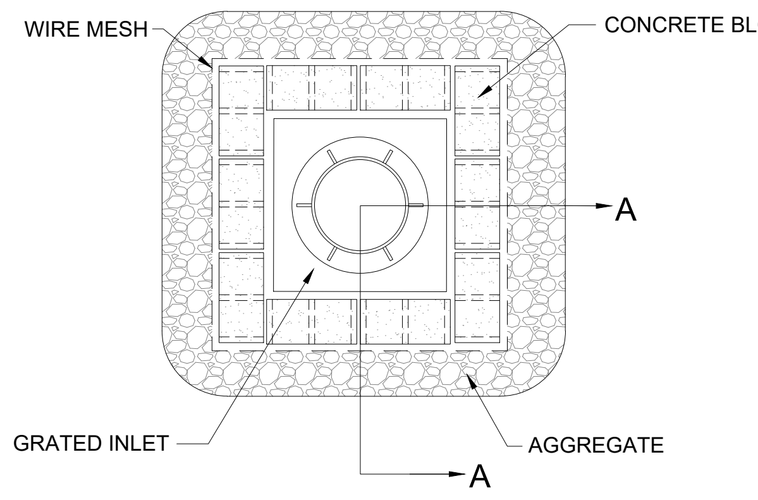

SEE NOTE 2
FINISHED GRADE
WIRE MESH
CONCRETE BLOCKS
RUNOFF
FILTERED WATER
AGGREGATE
INLET

SECTION A-A

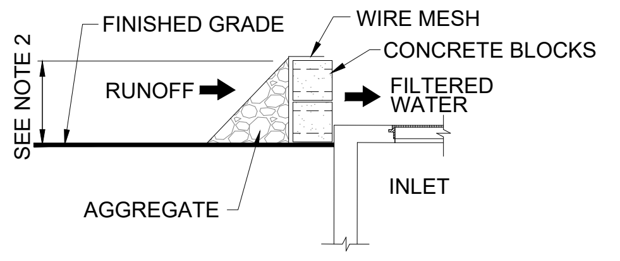
E9 BLOCK AND AGGREGATE CURB INLET SEDIMENT DEVICE
N.T.S.

NOTES:

1. PLACE CONCRETE BLOCKS IN A SINGLE ROW AROUND PERIMETER OF INLET ON THEIR SIDES, WITH ENDS OF ADJACENT BLOCKS ABUTTING.
2. HEIGHT OF BARRIER VARIES. USE STACKS OF 4", 8", OR 12" BLOCKS. MIN. HEIGHT OF BARRIER SHALL BE 12" AND MAX. HEIGHT SHALL BE 24".
3. PLACE HARDWARE CLOTH/WIRE MESH W/ MAX. 1/2" OPENINGS OVER VERTICAL FACE OF CONCRETE BLOCKS.
4. THE AGGREGATE SHALL BE 3/4"-2" ANGULAR CLEAN STONE, WHICH WILL SLOW THE FLOW OF THE WATER AND ALLOW IT TO FILTER THROUGH AND OVER THE MATERIAL BEFORE REACHING THE JUNCTION BOX LID.


WIRE MESH
CONCRETE BLOCKS
A
GRATED INLET
A
AGGREGATE

PLAN

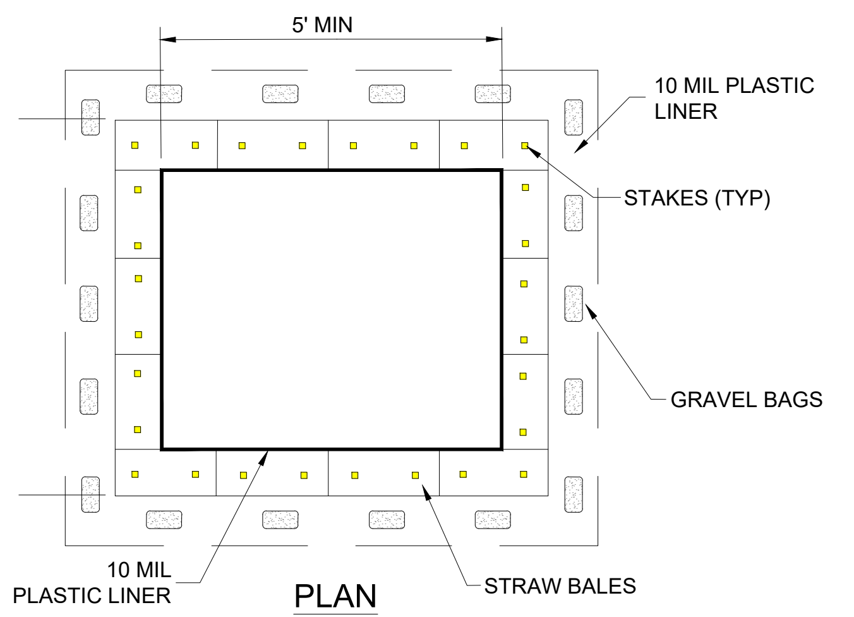

SEE NOTE 2
FINISHED GRADE
WIRE MESH
CONCRETE BLOCKS
RUNOFF
FILTERED WATER
AGGREGATE
INLET

SECTION A-A

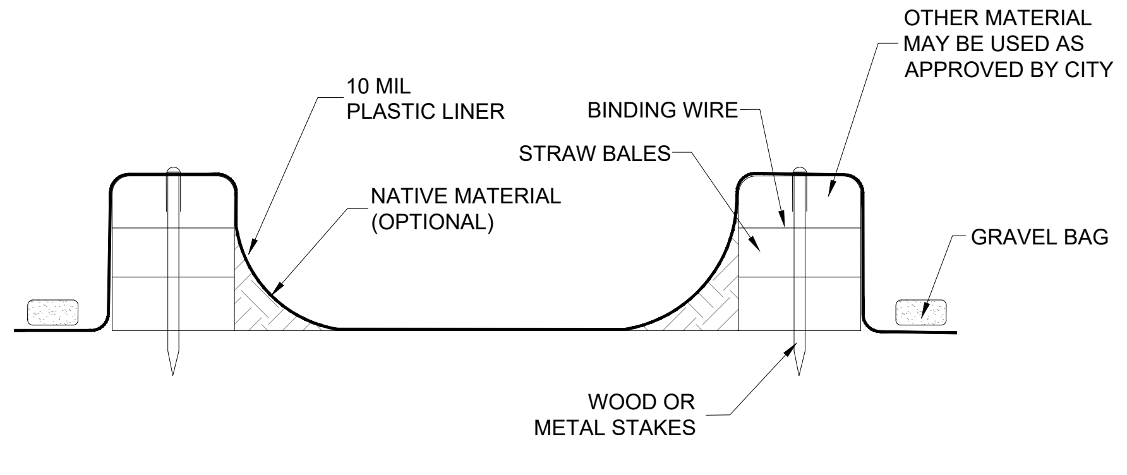
E8 BLOCK AND AGGREGATE JUNCTION BOX/GRATE INLET SEDIMENT DEVICE
N.T.S.

WASHOUT NOTES

1. NO WASHING OUT OF CONCRETE TRUCKS OR WASHING OF SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS IS ALLOWED.
2. EXCESS CONCRETE IS NOT ALLOWED TO BE DUMPED ON-SITE, EXCEPT IN DESIGNATED TEMPORARY CONCRETE WASHOUT PIT AREAS.
3. ON-SITE TEMPORARY CONCRETE WASHOUT AREAS WILL BE LOCATED AT LEAST 50 FEET FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES AS DETERMINED IN THE FIELD.
4. TEMPORARY CONCRETE WASHOUT FACILITIES WILL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
5. WASHOUT FACILITIES WILL BE CLEANED OUT OR REPLACED ONCE THE WASHOUT IS 75% FULL.
6. PLASTIC LINING MATERIAL WILL BE MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND WILL BE FREE OF HOLES, TEARS, OR OTHER DEFECTS.
7. WHEN WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR WORK, THE HARDENED CONCRETE WILL BE REMOVED AND DISPOSED OF OFFSITE. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES WILL BE REMOVED FROM THE SITE AND DISPOSED OF.


5' MIN
10 MIL PLASTIC LINER
STAKES (TYP)
GRAVEL BAGS
10 MIL PLASTIC LINER
STRAW BALES

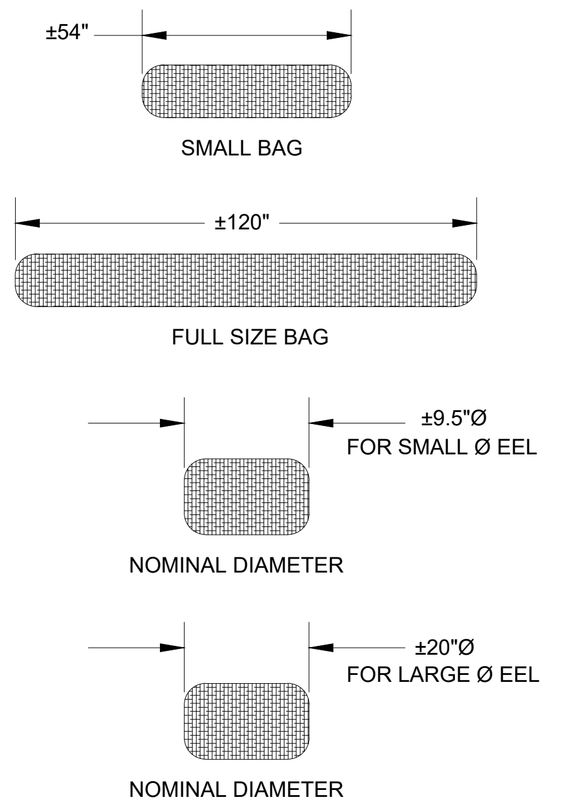
PLAN


OTHER MATERIAL MAY BE USED AS APPROVED BY CITY
10 MIL PLASTIC LINER
BINDING WIRE
STRAW BALES
NATIVE MATERIAL (OPTIONAL)
GRAVEL BAG
WOOD OR METAL STAKES

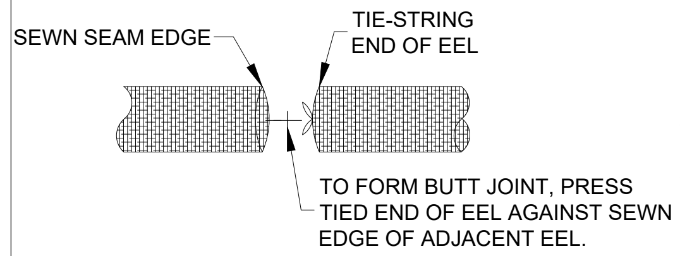
SECTION

E15 CONCRETE WASHOUT
N.T.S.

NOTE: ALL EROSION EELS™ USED FOR PERIMETER CONTROL SHALL USE MIXTURE SPECIFICATIONS 1.1 AND 1.2.


±54"
SMALL BAG
±120"
FULL SIZE BAG
±9.5"Ø FOR SMALL Ø EEL
NOMINAL DIAMETER
±20"Ø FOR LARGE Ø EEL
NOMINAL DIAMETER

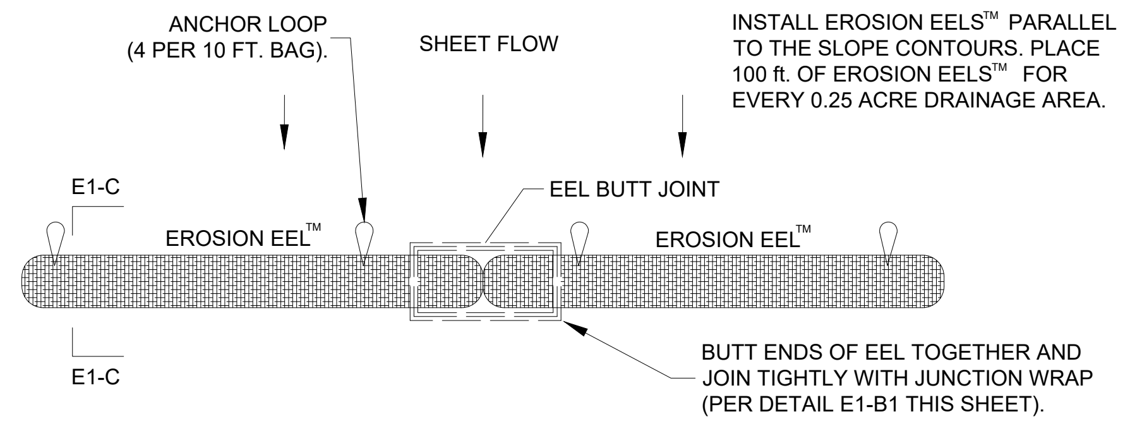
DETAIL E1-A: EROSION EELS™


SEWN SEAM EDGE
TIE-STRING END OF EEL
TO FORM BUTT JOINT, PRESS TIED END OF EEL AGAINST SEWN EDGE OF ADJACENT EEL.

DETAIL E1-B1

SPACING RECOMMENDATIONS FOR THE EROSION EEL™ FOR PERIMETER CONTROLS AND INTERCEPTING SHEET FLOW ON SLOPES

SLOPE(%)	SINGLE EEL SPACING(ft)	* STACKED DUAL EEL SPACING(ft)
0.5	300	N/A
1	200	N/A
2	160	N/A
3	80	N/A
4	50	N/A
5	40	N/A
6	35	N/A
8	30	N/A
10	25	N/A
15	+17	N/A
20	+12	+25
25	N/A	+15
33	N/A	+10
50	N/A	+6


ANCHOR LOOP (4 PER 10 FT. BAG)
SHEET FLOW
INSTALL EROSION EELS™ PARALLEL TO THE SLOPE CONTOURS. PLACE 100 ft. OF EROSION EELS™ FOR EVERY 0.25 ACRE DRAINAGE AREA.
E1-C
EEL BUTT JOINT
EROSION EEL™
EROSION EEL™
E1-C
BUTT ENDS OF EEL TOGETHER AND JOIN TIGHTLY WITH JUNCTION WRAP (PER DETAIL E1-B1 THIS SHEET).

DETAIL E1-B: INTERCEPTING SHEET FLOW PERPENDICULAR TO FLOW PATH - PLAN VIEW

GENERAL NOTES:

1. EROSION EELS™ USED IN PERIMETER CONTROL APPLICATIONS SHALL HAVE A SPECIFICATION MIXTURE 1.1 OR 1.2.
   a. MIXTURE SPECIFICATION 1.1. A FILTER MIXTURE COMPRISED OF 50% SHREDDED RUBBER AND 50% WOOD CHIP PARTICLES BY VOLUME. THE SHREDDED RUBBER SHALL BE WASHED AND PROCESSED TO REMOVE MOST, IF NOT ALL, METAL COMPONENTS. THE RUBBER SHALL BE DERIVED FROM RECYCLED TIRES AND SHALL BE SHREDDED TO PRODUCE A MAXIMUM PARTICLE SIZE OF +/- 3/4 INCH. THE WOOD CHIPS SHALL BE PRODUCED FROM HARDWOOD TREES AND SHALL CONFIRM TO AASHTO CERTIFICATION SPECIFICATION MP 9-03.
   b. MIXTURE SPECIFICATION 1.2. A FILTER MIXTURE COMPRISED OF 1/3 SHREDDED RUBBER, 1/3 WOOD CHIPS, AND 1/3 RECYCLED SYNTHETIC FIBERS. THE SHREDDED RUBBER SHALL BE WASHED AND PROCESSED TO REMOVE MOST, IF NOT ALL, METAL COMPONENTS. THE RUBBER SHALL BE DERIVED FROM RECYCLED TIRES AND SHALL BE SHREDDED TO PRODUCE A MAXIMUM PARTICLE SIZE OF +/- 3/4 INCH. THE WOOD CHIPS SHALL BE PRODUCED FROM HARDWOOD TREES AND SHALL CONFIRM TO AASHTO CERTIFICATION SPECIFICATION MP 9-03. THE SYNTHETIC FIBERS SHALL BE PRODUCED FROM RECYCLED, MANUFACTURED MATERIALS, SUCH AS, BUT NOT LIMITED TO, PRE-CONSUMER SCRAP CARPET, TIRE CHORD, AND TIRE FIBER MATERIALS.
2. EROSION EELS™ SHALL BE MANUFACTURED FROM A WOVEN GEOTEXTILE COVERING WITH INTERIOR FILTER MATERIALS SUCH AS 100% SHREDDED RUBBER (MIXTURE SPECIFICATION 1.0, 50% SHREDDED RUBBER/50% AASHTO-CERTIFIED WOOD CHIPS (MIXTURE SPECIFICATION 1.1).
3. LENGTHS OF EROSION EELS™ SHALL BE EITHER A NOMINAL +/-10 FT. OR +/- 4.5 FT. NOMINAL DIAMETER SHALL BE +/-9.5 INCHES.
4. EROSION EELS™ CAN BE PLACED AT THE TOP, ON THE FACE, OR AT THE TOE OF SLOPES TO INTERCEPT RUNOFF, REDUCE FLOW VELOCITY, RELEASE THE RUNOFF AS SHEET FLOW AND PROVIDE REMOVAL OF SEDIMENT FROM THE RUNOFF.
5. EROSION EELS™ SHALL BE INSTALLED ALONG THE GROUND CONTOUR, AT THE TOE OF SLOPES, AT AN ANGLE TO THE CONTOUR TO DIRECT FLOW AS A DIVERSION BERM, AROUND INLET STRUCTURES, IN A DITCH AS A CHECK DAM TO HELP REDUCE SUSPENDED SOLIDS LOADING AND RETAIN SEDIMENT, OR AS A GENERAL FILTER FOR ANY DISTURBED SOIL AREA.
6. NO TRENCHING IS REQUIRED FOR INSTALLATION OF EROSION EELS™
7. PREPARE BED FOR EEL INSTALLATION BY REMOVING ANY LARGE DEBRIS INCLUDING ROCKS, SOIL CLODS, AND WOODY VEGETATION. EROSION EELS™ CAN ALSO BE PLACED OVER PAVED SURFACES INCLUDING CONCRETE AND ASPHALT WITH NO SURFACE PREPARATION REQUIRED.
8. RAKE BED AREA WITH A HAND RAKE OR BY DRAG HARROW.
9. DO NOT PLACE EEL DIRECTLY OVER RILL AND GULLIES UNTIL AREA HAS BEEN HAND-EXCAVATED AND RAKED TO PROVIDE A LEVEL BEDDING SURFACE. ALL SURFACES SHALL BE UNIFORMLY COMPACTED FOR MAXIMUM SEATING OF EELS IN PLACE.
10. FOR LOCATIONS WHERE EELS WILL BE PLACED IN CONCENTRATED FLOWS (SUCH AS CHECK DAMS, INLET PROTECTION) AND FOR PERIMETER CONTROLS AT PRIMARY DISCHARGE LOCATIONS, BED THE EELS IN A FLOCMAT CRADLE PER THE DETAILED DRAWINGS.
11. FOR DITCH APPLICATIONS, THE MAXIMUM DRAINAGE AREA SHALL BE 10 ACRES.
12. IF MORE THAN ONE EROSION EEL™ IS PLACED IN A ROW, THE EELS SHALL BE OVERLAPPED A MINIMUM OF 12 INCHES TO PREVENT FLOW AND SEDIMENT FROM PASSING THROUGH THE FIELD JOINT. COMPRESS THE TWO EELS OF THE OVERLAP TIGHTLY TOGETHER EITHER BY HAND OR MANUFACTURER-APPROVED MECHANIZED MEANS.
13. WHEN USED IN DITCHES AS A CHECK DAM, EROSION EELS™ SHALL BE INSTALLED PER MANUFACTURER'S DETAILS.
14. FOR CHECK DAM APPLICATIONS, EROSION EELS™ SHALL BE PLACED PERPENDICULAR TO THE FLOW OF THE WATER. EROSION EELS SHALL CONTINUE UP THE SIDES SLOPES A MINIMUM OF 3 FEET ABOVE THE DESIGN FLOW DEPTH.
15. EROSION EELS™ SHALL REMAIN IN PLACE UNTIL FULLY ESTABLISHED VEGETATION HAS COMPLETELY DEVELOPED OR UNTIL THE STORAGE CAPACITY/FUNCTIONAL LIFE OF THE EEL HAS BEEN EXHAUSTED (REQUIRING REPLACEMENT WITH NEW EELS).
16. ANCHORING POSTS FOR CHECK DAM APPLICATIONS SHALL HAVE A MINIMUM WEIGHT OF 1.25 LBS/FT STEEL T-POSTS (5 TO 7 FT. LENGTHS) ROLLED FROM HIGH CARBON STEEL. POSTS SHOULD BE HOT-DIP GALVANIZED OR COATED WITH A WEATHER-RESISTANT PAINT FOR STEEL APPLICATION. POSTS SHOULD BE EQUIPPED WITH A METAL ANCHOR PLATE. INSTALL PER DETAILS ON THIS SHEET.
17. PLACE T-POSTS THROUGH HANDLE OF BAGS. DO NOT DRIVE POSTS THROUGH EROSION EELS™ T-POSTS ARE TO BE EMBEDDED A MINIMUM OF 2 FT INTO GROUND.

E5 EROSION EELs™ SEDIMENT BARRIER
N.T.S.

HFA
HFA-AE , LTD.

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
t 479.273.7780
f 888.520.9685
www.hfa-ae.com

DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

06-MAR-26 10:08:47

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

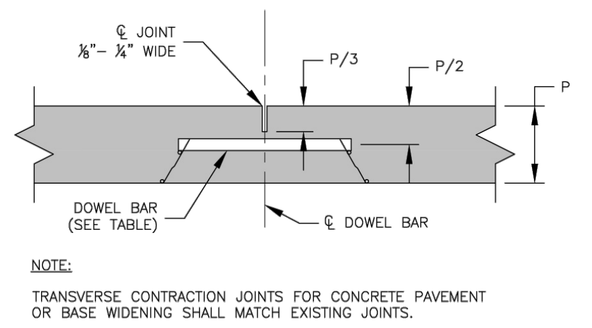
VALVOLINE
INSTANT
OIL CHANGE

610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
DETAILS SHEET 3 OF 5

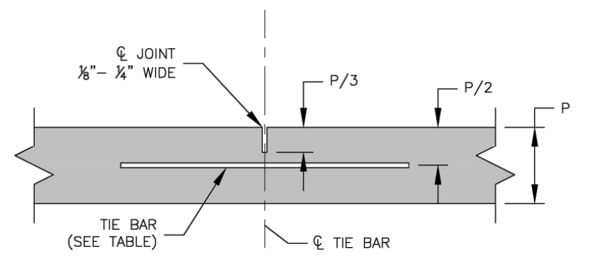
SHEET #
C-10.2


℄ JOINT
⅛"– ¼" WIDE
P/3
P/2
P
DOWEL BAR
(SEE TABLE)
℄ DOWEL BAR

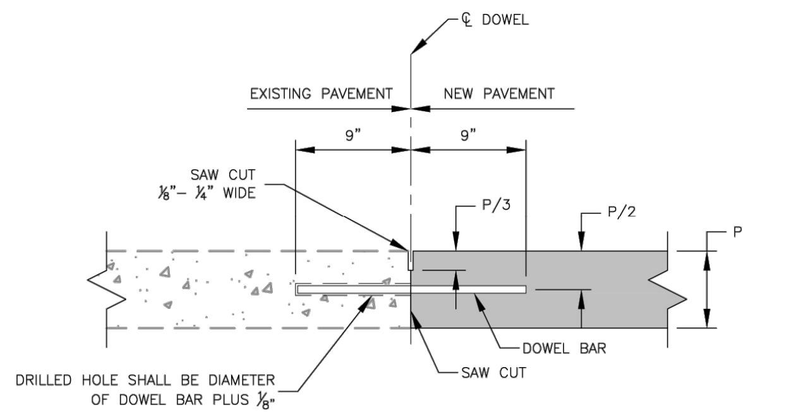
NOTE:

TRANSVERSE CONTRACTION JOINTS FOR CONCRETE PAVEMENT OR BASE WIDENING SHALL MATCH EXISTING JOINTS.

① TRANSVERSE CONTRACTION JOINT


℄ JOINT
⅛"– ¼" WIDE
P/3
P/2
P
TIE BAR
(SEE TABLE)
℄ TIE BAR

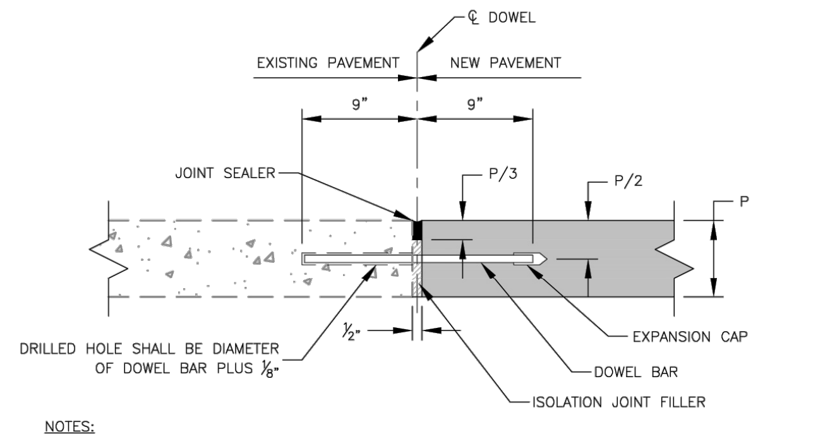
② LONG. CONTRACTION/CONSTRUCTION JOINT


℄ DOWEL
EXISTING PAVEMENT
NEW PAVEMENT
9"
9"
SAW CUT
⅛"– ¼" WIDE
P/3
P/2
P
DOWEL BAR
SAW CUT
DRILLED HOLE SHALL BE DIAMETER OF DOWEL BAR PLUS ⅛"

NOTES:

- DOWEL BARS SHALL BE SMOOTH REINFORCING BARS.
- DOWEL BARS SHALL BE BONDED INTO THE EXISTING PAVEMENT.
- BONDING FOR DOWEL BARS SHALL BE EPOXY OR POLYESTER BONDING AGENTS.
- THE PORTION OF THE DOWEL OUTSIDE THE HOLE SHALL BE COATED WITH AN APPROVED LUBRICANT.

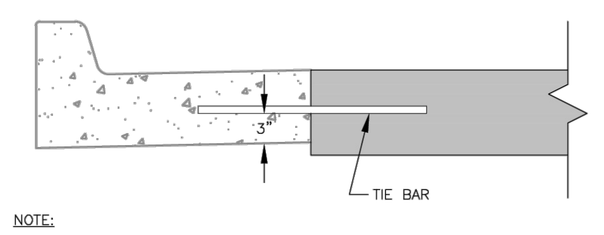
③ TRANSVERSE CONSTRUCTION JOINT


℄ DOWEL
EXISTING PAVEMENT
NEW PAVEMENT
9"
9"
JOINT SEALER
P/3
P/2
P
½"
DRILLED HOLE SHALL BE DIAMETER OF DOWEL BAR PLUS ⅛"
EXPANSION CAP
DOWEL BAR
ISOLATION JOINT FILLER

NOTES:

- DOWEL BARS SHALL BE SMOOTH REINFORCING BARS.
- DOWEL BARS SHALL BE BONDED INTO THE EXISTING PAVEMENT.
- BONDING FOR DOWEL BARS SHALL BE EPOXY OR POLYESTER BONDING AGENTS.
- THE PORTION OF THE DOWEL OUTSIDE THE HOLE SHALL BE COATED WITH AN APPROVED LUBRICANT.

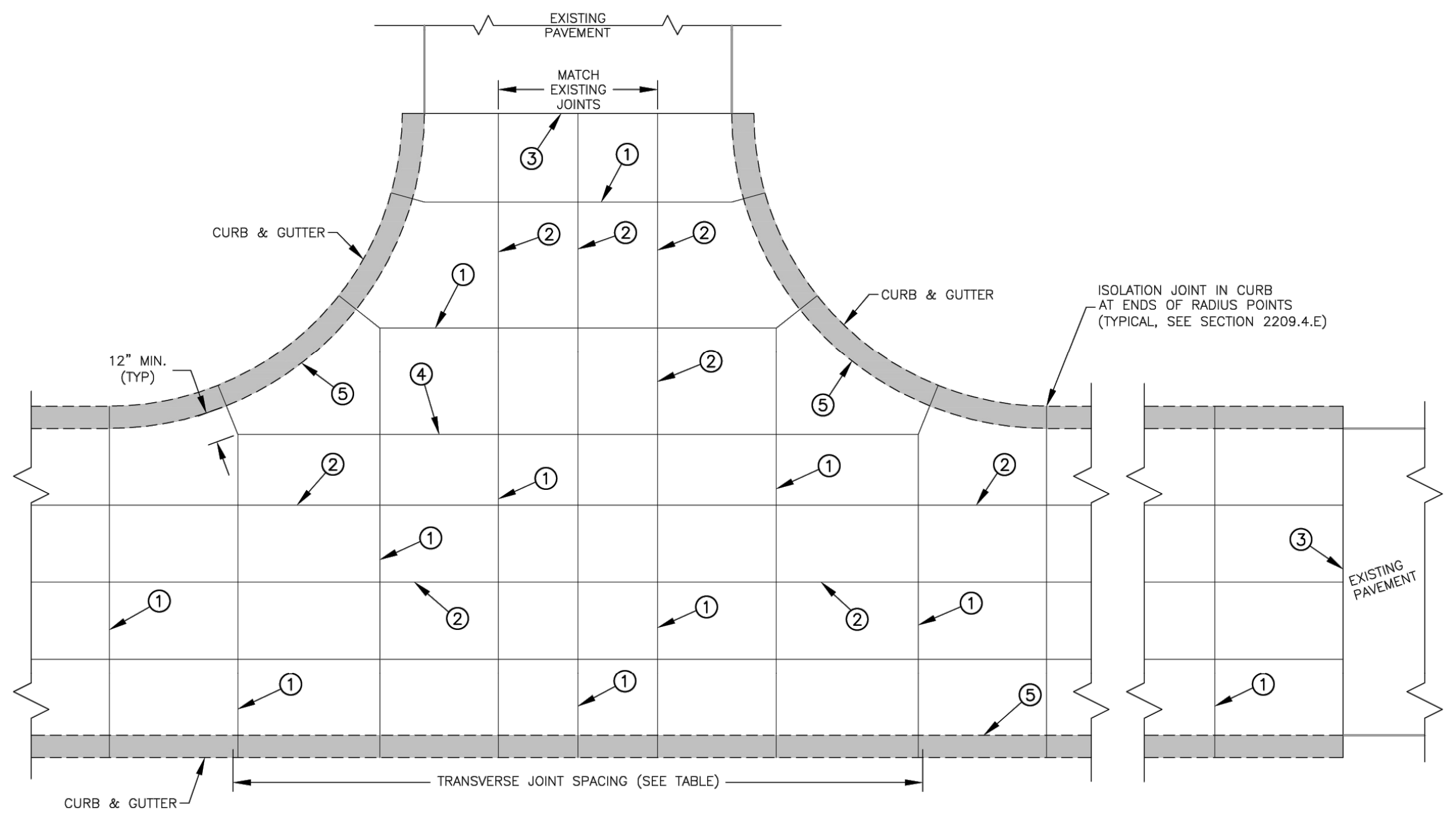
④ TRANSVERSE ISOLATION JOINT



NOTE:

- JOINT NOT NEEDED IF CURB & GUTTER IS MONOLITHICALLY POURED.

⑤ LONG. CONSTRUCTION JOINT (CURB & GUTTER)


EXISTING PAVEMENT
MATCH EXISTING JOINTS
CURB & GUTTER
CURB & GUTTER
ISOLATION JOINT IN CURB AT ENDS OF RADIUS POINTS (TYPICAL. SEE SECTION 2209.4.E)
12" MIN. (TYP.)
EXISTING PAVEMENT
CURB & GUTTER
TRANSVERSE JOINT SPACING (SEE TABLE)
①
②
③
④
⑤

JOINT SPACING/INTERSECTION DETAIL

TABLE

PCCP THICKNESS (P)	DOWEL SIZE	TIE BAR SIZE	DOWEL SPACING	TIE BAR SPACING	MAX. TRAN. SPACING	MAX. LONG. SPACING
6"	N/A	#5 x 30"	N/A	30" CTRS.	12'	12'
7"	1" x 18"	#5 x 30"	12" CTRS.	30" CTRS.	14'	14'
8"	1 ¼" x 18"	#5 x 30"	12" CTRS.	30" CTRS.	15'	14'
≥9"	1 ½" x 18"	#5 x 30"	12" CTRS.	30" CTRS.	15'	15'

GENERAL NOTES:

- THE FINAL POSITION OF ALL DOWELS AND TIE BARS SHALL BE PERPENDICULAR TO THE PLANE OF THE JOINT AND PARALLEL TO THE SURFACE OF THE PAVEMENT AND PARALLEL TO EACH OTHER.
- ALL DOWELS & TIE BARS SHALL BE EPOXY COATED.
- DOWEL BARS SHALL BE PLACED AT 9 INCHES FROM LONGITUDINAL JOINTS.
- TIE BARS SHALL BE PLACED AT 12 INCHES FROM TRANSVERSE JOINTS.
- PANEL LENGTH TO WIDTH RATIO SHALL NOT EXCEED 1.25 TO 1.
- DOWEL BASKET SHIPPING WIRE SHALL NOT BE CUT.
- CONTRACTOR SHALL SUBMIT PROJECT SPECIFIC JOINTING PLAN AT LEAST TWO WEEKS BEFORE PAVING OPERATIONS.
- IN ACCORDANCE WITH 2208.4.D, ALL JOINTS SHALL BE SEALED, INCLUDING CURB & GUTTER.

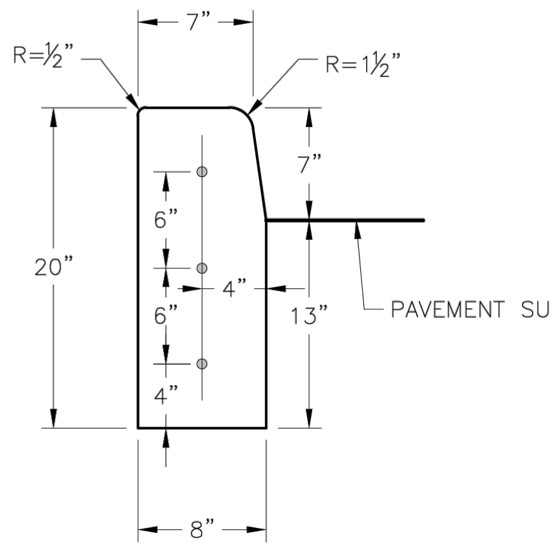
LEE'S SUMMIT
M I S S O U R I
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

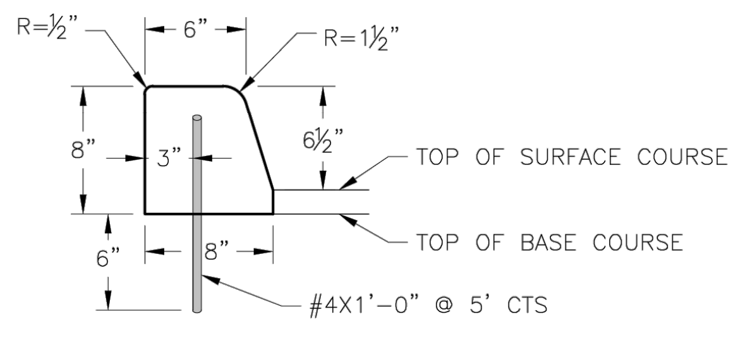
Sheet Name: TYPICAL PAVEMENT JOINT DETAILS

Drawn By: MJF
Checked By: GMB
Date: 08/2023
Proj. #:

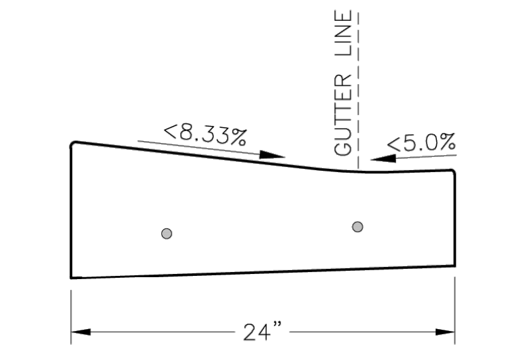
GEN-10


R=½"
7"
R=1½"
7"
6"
4"
6"
4"
20"
13"
PAVEMENT SURFACE
8"

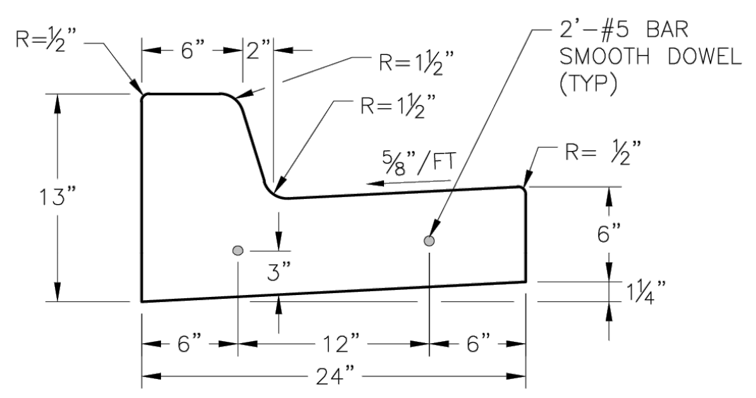
STRAIGHT CURB
(TYPE C-1)


R=½"
6"
R=1½"
8"
3"
6½"
TOP OF SURFACE COURSE
6"
8"
TOP OF BASE COURSE
#4X1'-0" @ 5' CTS

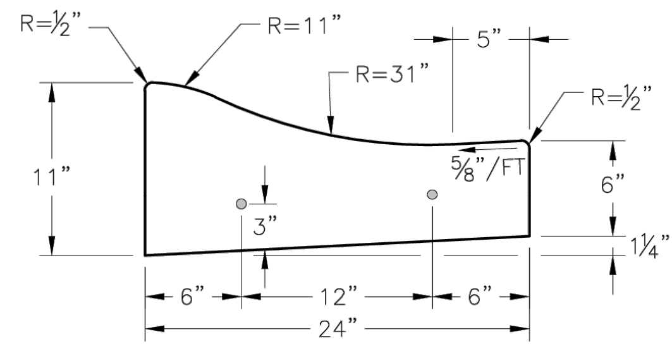
DOWELLED CURB
(TYPE DC)


GUTTER LINE
<8.33%
<5.0%
24"

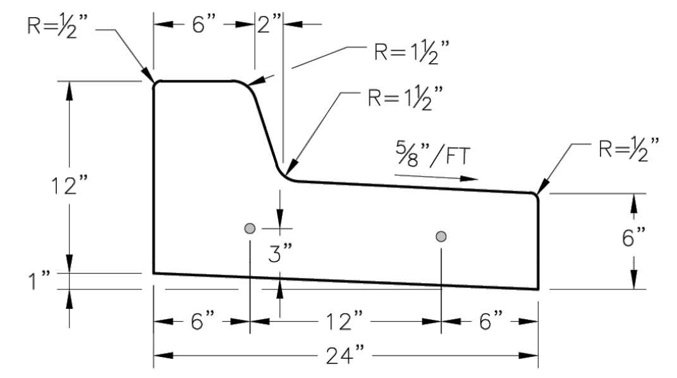
CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)


R=½"
6"
2"
R=1½"
R=1½"
2'-#5 BAR SMOOTH DOWEL (TYP)
13"
⅝"/FT
R=½"
6"
1¼"
3"
6"
12"
6"
24"

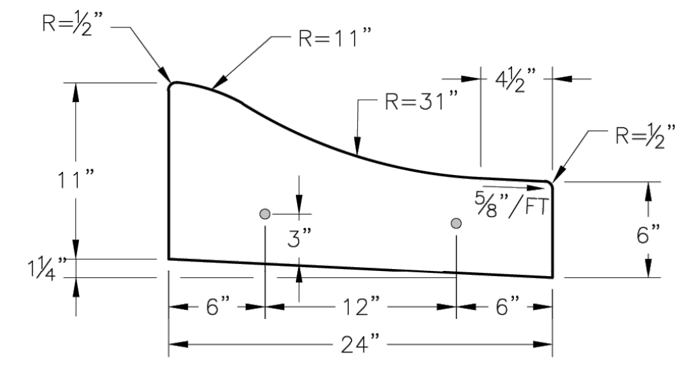
STRAIGHT BACK CURB & GUTTER
(TYPE CG-1)


R=½"
R=11"
R=31"
5"
R=½"
11"
⅝"/FT
6"
1¼"
3"
6"
12"
6"
24"

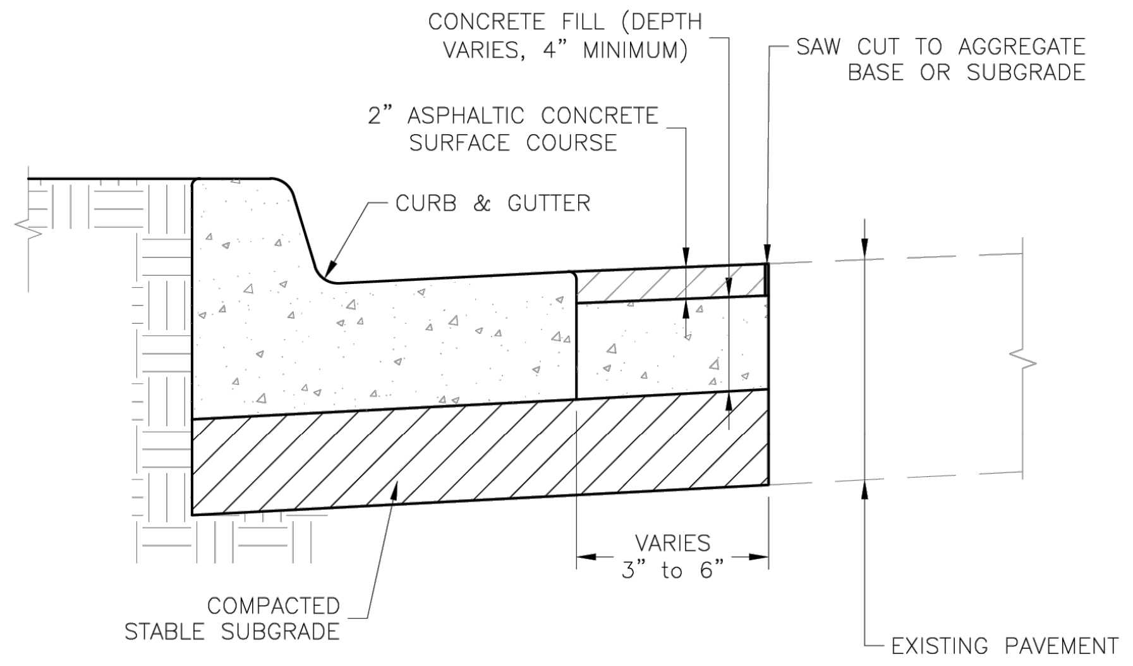
ROLL BACK CURB & GUTTER
(TYPE CG-2)


R=½"
6"
2"
R=1½"
R=1½"
⅝"/FT
R=½"
12"
1"
6"
3"
6"
12"
6"
24"

STRAIGHT BACK DRY CURB & GUTTER
(TYPE CG-1 DRY)


R=½"
R=11"
R=31"
4½"
R=½"
11"
1¼"
⅝"/FT
6"
3"
6"
12"
6"
24"

ROLL BACK DRY CURB & GUTTER
(TYPE CG-2 DRY)


CONCRETE FILL (DEPTH VARIES, 4" MINIMUM)
SAW CUT TO AGGREGATE BASE OR SUBGRADE
2" ASPHALTIC CONCRETE SURFACE COURSE
CURB & GUTTER
COMPACTED STABLE SUBGRADE
VARIES 3" to 6"
EXISTING PAVEMENT

CURB REPLACEMENT DETAIL

GENERAL NOTES

1. ¾" ISOLATION JOINTS WITH 2 (2'–#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
8. ALL DOWELS & TIE BARS SHALL BE EPOXY COATED.

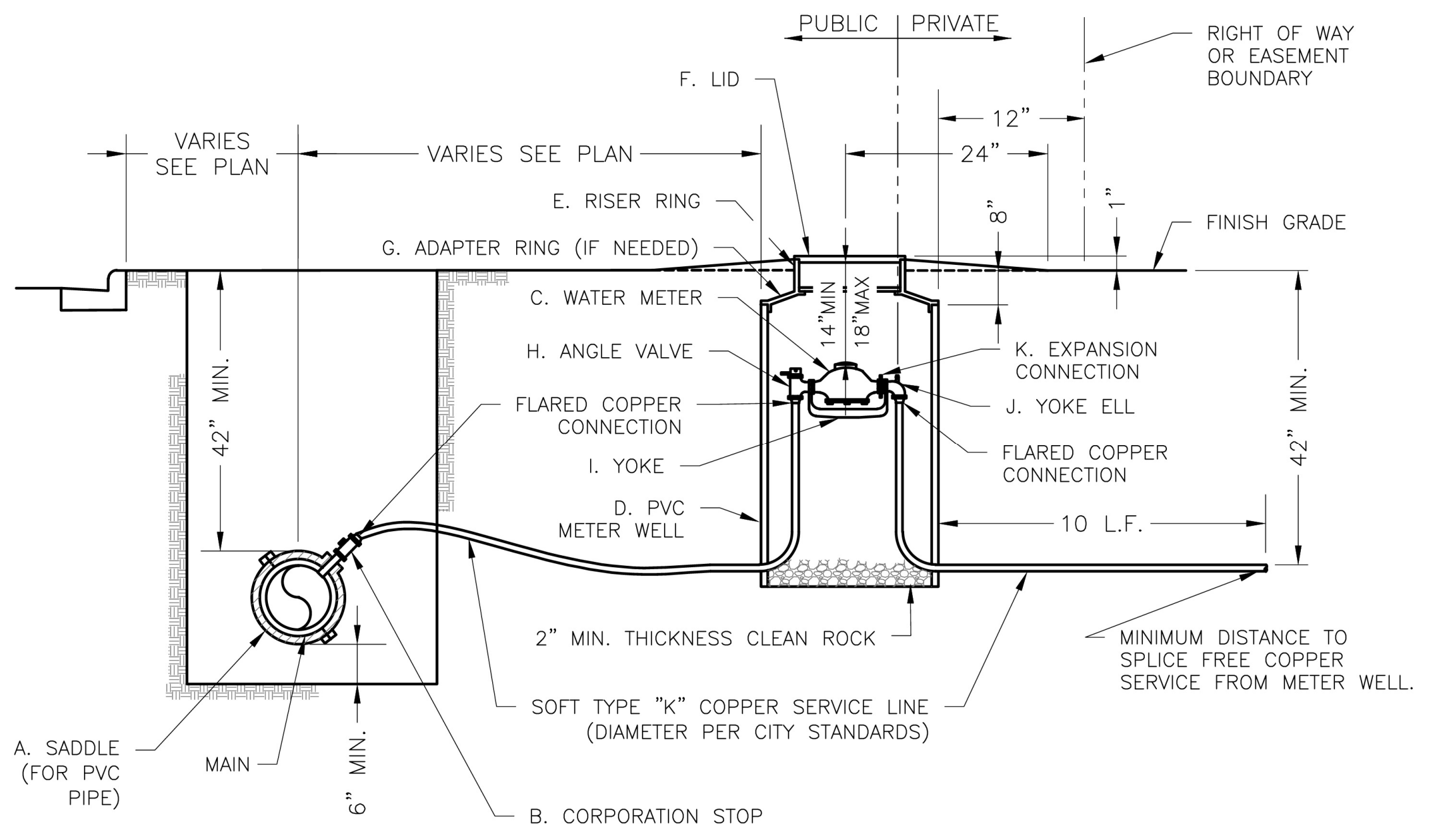
LEE'S SUMMIT
M I S S O U R I
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

Sheet Name: CURB & GUTTER DETAIL

Drawn By: MJF
Checked By: DL
Date: 08/2023
Proj. #:

GEN-4


PUBLIC | PRIVATE
RIGHT OF WAY OR EASEMENT BOUNDARY
VARIES SEE PLAN
VARIES SEE PLAN
F. LID
E. RISER RING
G. ADAPTER RING (IF NEEDED)
C. WATER METER
H. ANGLE VALVE
FLARED COPPER CONNECTION
I. YOKE
D. PVC METER WELL
K. EXPANSION CONNECTION
J. YOKE ELL
FLARED COPPER CONNECTION
12"
24"
8"
FINISH GRADE
4" MIN.
8" MAX.
42" MIN.
42" MIN.
10 L.F.
2" MIN. THICKNESS CLEAN ROCK
MINIMUM DISTANCE TO SPLICE FREE COPPER SERVICE FROM METER WELL
SOFT TYPE "K" COPPER SERVICE LINE (DIAMETER PER CITY STANDARDS)
A. SADDLE (FOR PVC PIPE)
MAIN
6" MIN.
B. CORPORATION STOP

NOTES:

1. METER INSTALLATION SHALL NOT BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC OR IN CONCRETE PAVEMENT WITHOUT CITY APPROVAL.
2. IF METER IS TO BE LOCATED OTHER THAN IN FRONT OF PROPERTY LINE, CITY APPROVAL SHALL BE OBTAINED.
3. CITY TO FURNISH ITEMS A–K.
4. NO OTHER EQUIPMENT SHALL BE INSTALLED IN THIS PIT.
5. 42" MINIMUM BURY DEPTH FOR ALL SERVICE LINES.
6. EXCAVATION FOR TAP TO EXPOSE 4 LINEAR FEET OF MAIN.
7. NO SPLICES ALLOWED BETWEEN METER AND MAIN.
8. SERVICE CONNECTION TAP AT APPROXIMATELY 45 DEGREES.
9 LID AND RISER RING SHALL BE SET SO THAT GROUND WATER WILL DRAIN AWAY FROM THE WELL.
10. CONTACT WATER UTILITIES, 816–969–1900, FOR REQUIREMENTS OF A METER LARGER THAN 2"

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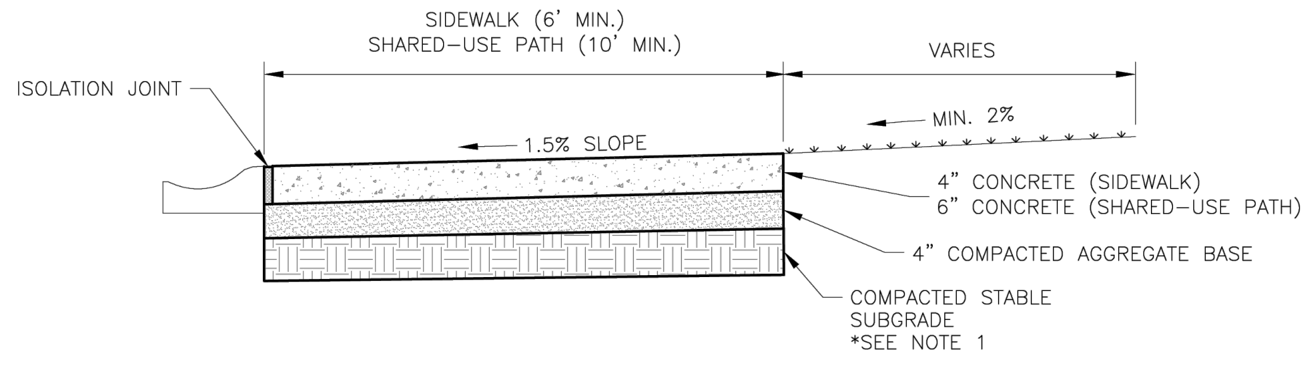
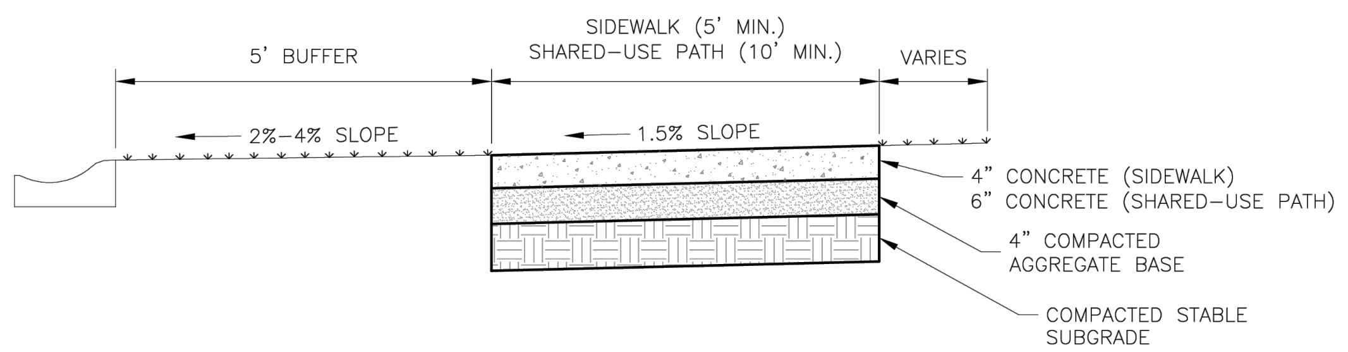
SERVICE CONNECTION WITH METER WELL

Date: 08/2023
Drawn By: MJF
Checked By: KLY

WAT-11


SIDEWALK (6' MIN.)
SHARED-USE PATH (10' MIN.)
VARIES
ISOLATION JOINT
1.5% SLOPE
MIN. 2%
4" CONCRETE (SIDEWALK)
6" CONCRETE (SHARED-USE PATH)
4" COMPACTED AGGREGATE BASE
COMPACTED STABLE SUBGRADE
*SEE NOTE 1

SIDEWALK/SHARED-USE PATH WITHOUT BUFFER
NOT TO SCALE


SIDEWALK (5' MIN.)
SHARED-USE PATH (10' MIN.)
5' BUFFER
VARIES
2%-4% SLOPE
1.5% SLOPE
4" CONCRETE (SIDEWALK)
6" CONCRETE (SHARED-USE PATH)
4" COMPACTED AGGREGATE BASE
COMPACTED STABLE SUBGRADE
*SEE NOTE 1

SIDEWALK/SHARED-USE PATH WITH BUFFER
NOT TO SCALE

GENERAL NOTES:

1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
3. KCMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS/SHARED–USE PATHS.
4. ALL SIDEWALK/SHARED–USE PATHS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. AN ISOLATION JOINT SHALL BE PLACED AT A MAXIMUM OF 100 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK/SHARED–USE PATHS, BUT NO GREATER THAN 10 FT.
6. AN ISOLATION JOINT SHALL BE PLACED WHERE THE SIDEWALK/SHARED–USE PATHS MEETS A RESIDENTIAL DRIVEWAY.
7. SHARED–USE PATHS WIDTH SHALL BE 10 FT. WIDE.
8. SIDEWALK/SHARED–USE PATHS FINISHING SHALL BE FULL BROOM FINISH OR AS DIRECTED BY CITY INSPECTOR.
9. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

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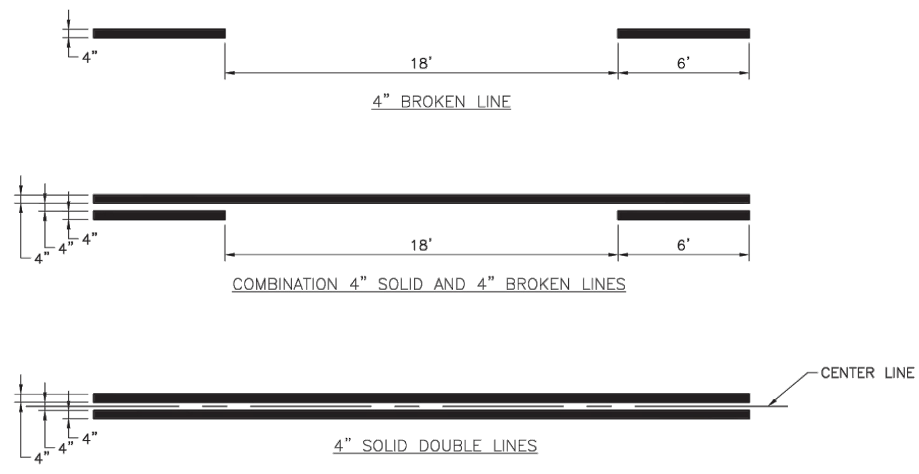
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SIDEWALK/SHARED-USE PATH DETAIL

Date: 08/2023
Drawn By: MJF
Checked By: DL

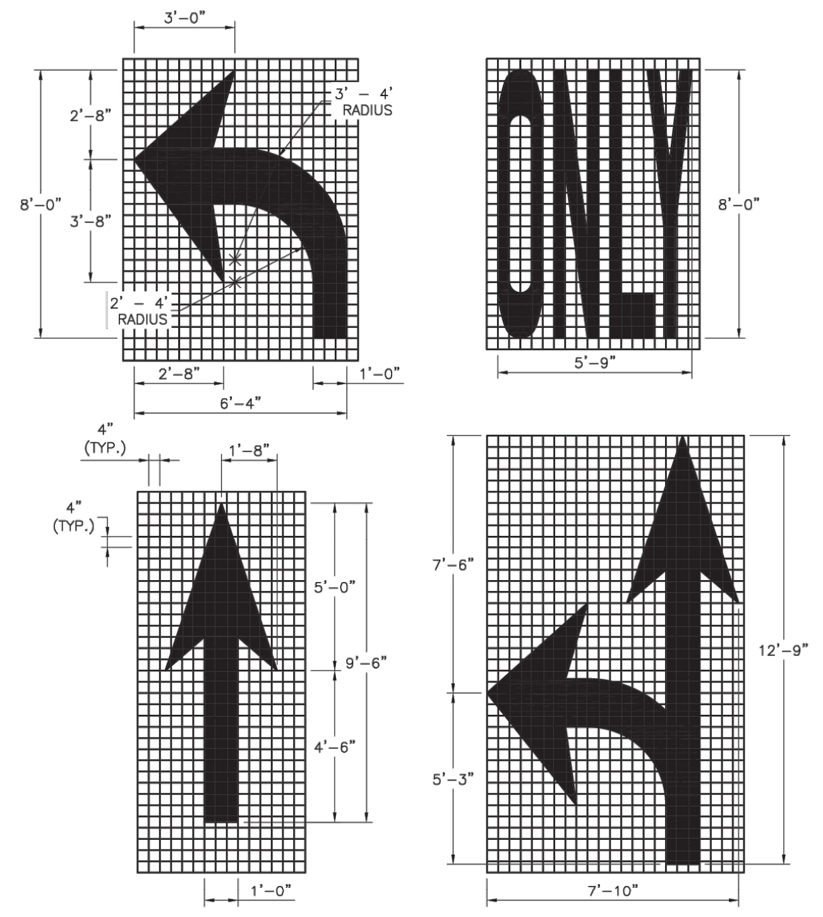
GEN-2


4"
18'
6'
4" BROKEN LINE
4"
4"
18'
6'
COMBINATION 4" SOLID AND 4" BROKEN LINES
CENTER LINE
4"
4"
4"
4" SOLID DOUBLE LINES

TYPICAL LINE DETAILS

NOTES:

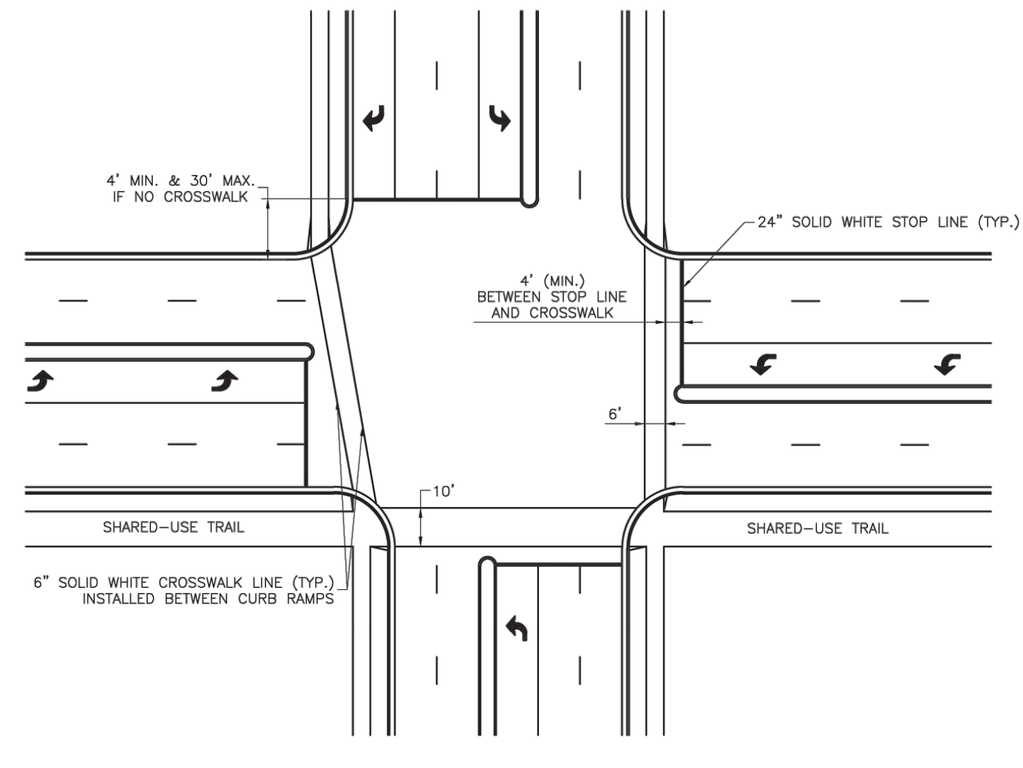
1. ALL EDGE LINE, CENTER LINE, AND LANE LINE PAVEMENT MARKINGS SHALL BE 4" WIDE UNLESS OTHERWISE NOTED.
2. EDGE LINES SHALL BE CONTINUOUS SOLID WHITE OR YELLOW LINES. RIGHT SIDE EDGE LINES SHALL BE SOLID WHITE. MEDIAN OR LEFT SIDE EDGE LINES ON DIVIDED ROADWAYS ARE TO BE SOLID YELLOW. EDGE LINES AND CENTER LINES SHALL BE CONTINUOUS ACROSS DRIVEWAYS.


3'-0"
2'-8"
3'–4' RADIUS
8'-0"
3'-8"
2'-4" RADIUS
2'-8"
6'-4"
1'-0"
ONLY
8'-0"
5'-9"
4" (TYP.)
4" (TYP.)
1'-8"
5'-0"
9'-6"
4'-6"
1'-0"
7'-6"
5'-3"
12'-9"
7'-10"

ARROW AND SYMBOL DETAILS

NOTES:

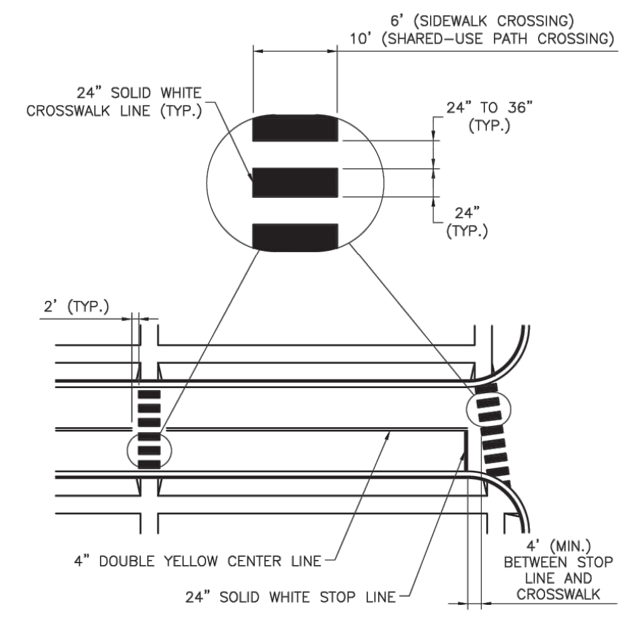
1. ALL ARROW AND SYMBOL MARKINGS SHALL BE WHITE, AND SHALL BE CENTERED IN THEIR RESPECTIVE TRAFFIC LANES.
2. RIGHT–TURN AND COMBINATION RIGHT–TURN/STRAIGHT ARROWS ARE REVERSE OF ARROWS SHOWN.


4' MIN. & 30' MAX. IF NO CROSSWALK
24" SOLID WHITE STOP LINE (TYP.)
4' (MIN.) BETWEEN STOP LINE AND CROSSWALK
6'
10'
SHARED-USE TRAIL
SHARED-USE TRAIL
6" SOLID WHITE CROSSWALK LINE (TYP.) INSTALLED BETWEEN CURB RAMPS

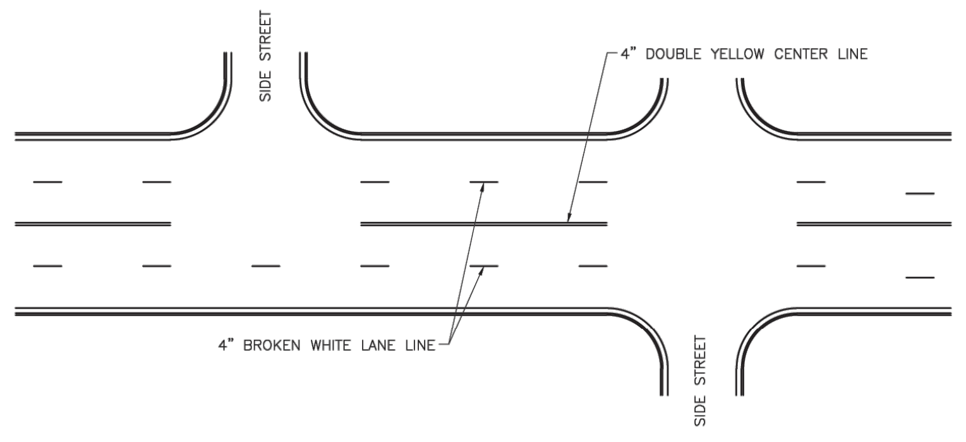
TYPICAL INTERSECTION MARKINGS

NOTES:

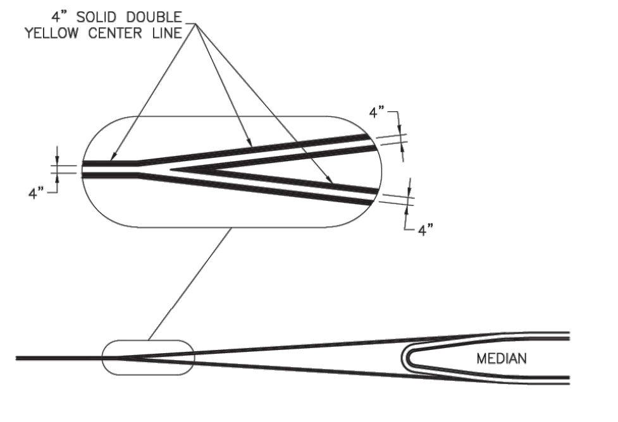
1. TRANSVERSE CROSSWALK LINES SHALL BE INSTALLED SUCH THAT THE DISTANCE BETWEEN LINES IS AT LEAST 6 FEET OR 10 FEET.
2. STOP LINES ARE REQUIRED AT SIGNALIZED INTERSECTIONS, ON MULTI–LANE STOP CONTROLLED APPROACHES, OR ADVANCE OF CROSSWALKS AT CONTROLLED INTERSECTIONS.


6' (SIDEWALK CROSSING)
10' (SHARED–USE PATH CROSSING)
24" SOLID WHITE CROSSWALK LINE (TYP.)
24" TO 36" (TYP.)
24" (TYP.)
2' (TYP.)
4" DOUBLE YELLOW CENTER LINE
24" SOLID WHITE STOP LINE
4' (MIN.) BETWEEN STOP LINE AND CROSSWALK

TYPICAL MID-BLOCK OR SCHOOL CROSS WALK


SIDE STREET
4" DOUBLE YELLOW CENTER LINE
4" BROKEN WHITE LANE LINE
SIDE STREET

TYPICAL MARKINGS FOR FOUR–LANE UNDIVIDED ROADWAY


4" SOLID DOUBLE YELLOW CENTER LINE
4"
4"
4"
MEDIAN

TYPICAL MEDIAN NOSE CENTER LINE DETAIL

PAVEMENT MARKING GENERAL NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. ALL WORDS AND SYMBOLS SHALL CONFORM TO THE LATEST EDITION OF STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS PRINTED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
3. PAVEMENT MARKINGS, EITHER TEMPORARY OR PERMANENT ARE REQUIRED AT ALL TIMES IF THE ROADWAY IS OPEN TO TRAFFIC.
4. ALL PAVEMENT MARKINGS THAT CONFLICT WITH THE DESIRED MARKINGS SHALL BE COMPLETELY REMOVED. REMOVALS SHALL NOT LEAVE THE ROAD SURFACE SCARRED WITH AN IMAGE THAT MISLEADS TRAFFIC. ANY EXCESS DAMAGE OR SCARRING OF PAVEMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
5. THE PROPOSED PERMANENT MARKINGS SHALL BE LAID OUT BY THE CONTRACTOR IN ADVANCE OF THE MARKING INSTALLATION. MARKINGS SHALL NOT BE APPLIED UNTIL THE LAYOUT HAS BEEN APPROVED BY THE CITY TRAFFIC ENGINEER.
6. CENTER LINES SHALL BE MARKED ON ALL UNDIVIDED ARTERIAL STREETS, AND ANY OTHER UNDIVIDED STREET WITH MORE THAN TWO LANES AND/OR A SPEED LIMIT OF 30 MPH OR MORE.
7. EDGE LINES SHALL BE MARKED ON ALL NON–CURBED STREETS.

LEE'S SUMMIT
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PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

Project: STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

Sheet Name: ROADWAY MARKING DETAILS

Drawn By: BWC
Checked By: MP
Date: 01/2020
Proj. #:

PM-1

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Bentonville, Arkansas 72712
t 479.273.7780
f 888.520.9685
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DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

Diego A. Garcia

06-MAR-26 12:03:13

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
DF

PROJECT NAME

Valvoline
Instant Oil Change

VALVOLINE INSTANT OIL CHANGE

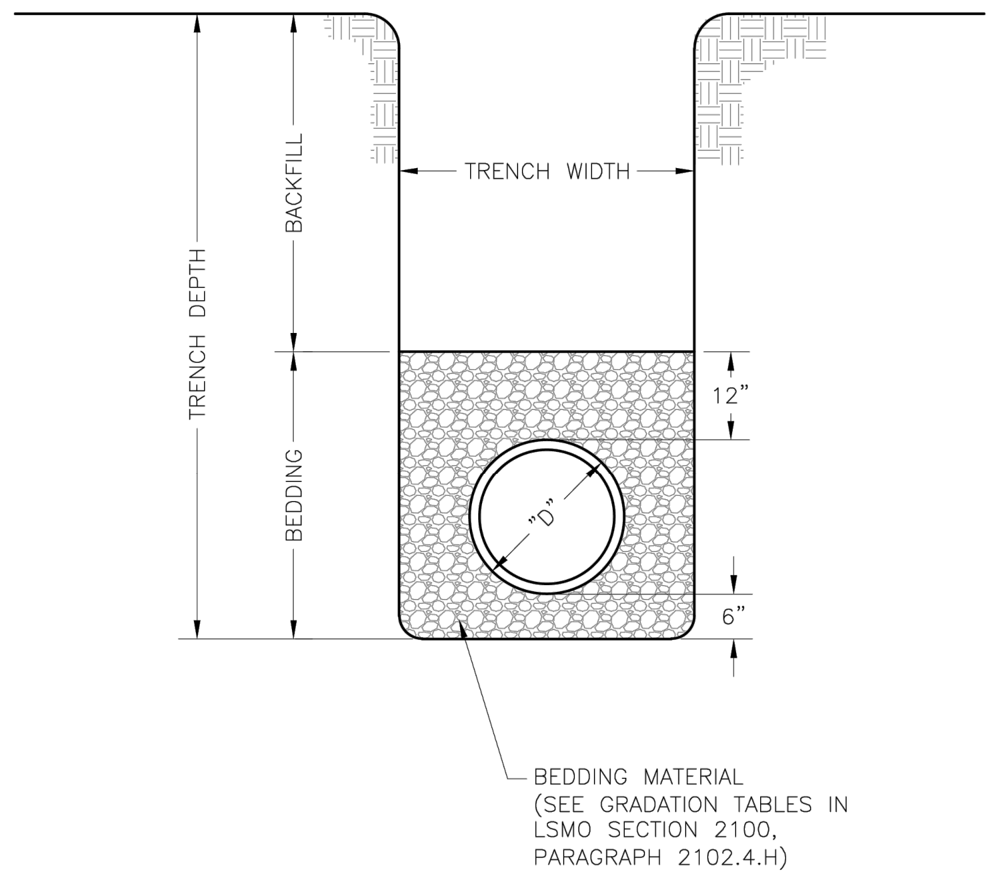
610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
DETAILS SHEET 4 OF 4

SHEET #
C-10.3

Drawing Name: \\VFA-FILE01\2024 Projects\06-24-20062 VIOC Lee's Summit, MO (NW Chipman)\VFA-Design\Civil\DWG\06-24-20062 — C-10 DETAILS.dwg Last Modified: Mar 06, 2026 — 11:25am Plotted on: Mar 06, 2026 — 11:26am by: danielfrede


TRENCH DEPTH
BACKFILL
TRENCH WIDTH
BEDDING
12"
"D"
6"
BEDDING MATERIAL (SEE GRADATION TABLES IN LSMO SECTION 2100, PARAGRAPH 2102.4.H)

NOTES:

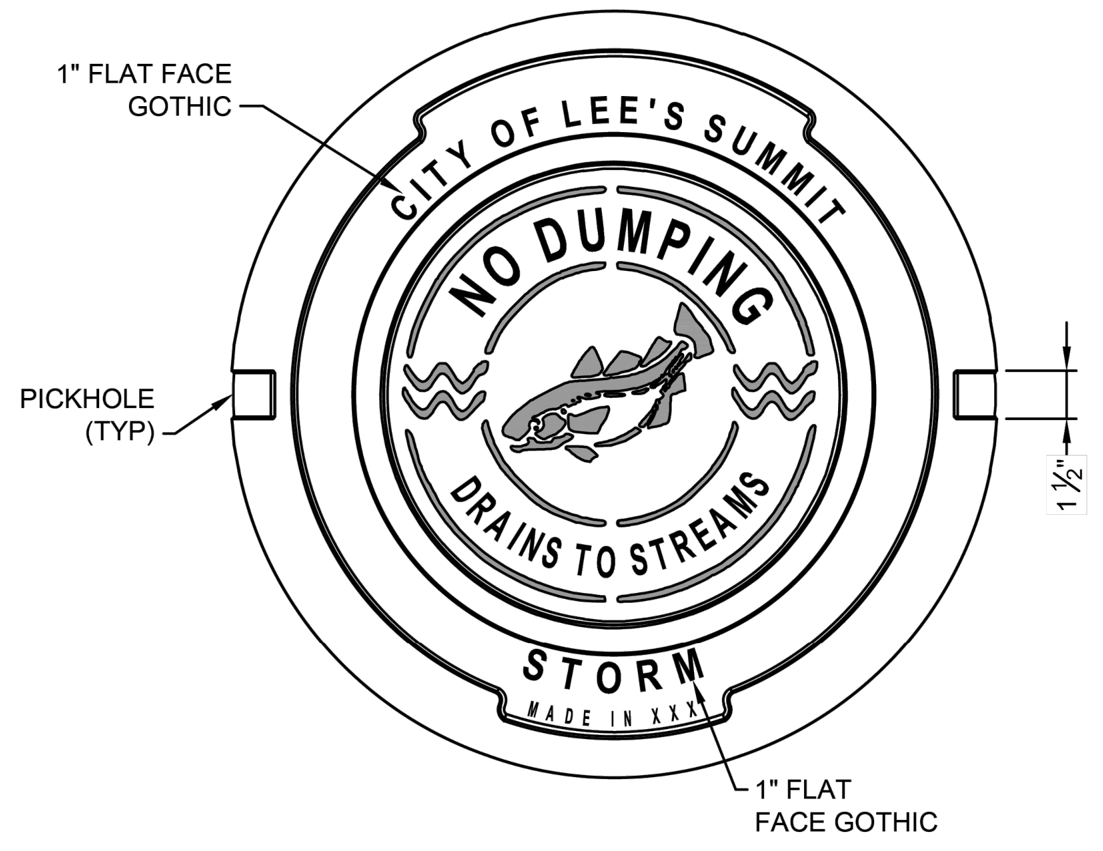
1. FOR TRENCHING AND PAVEMENT PATCHING REPAIRS WITHIN EXISTING OR FUTURE STREETS SEE STANDARD DETAIL GEN–5.
2. EXCAVATION DEPTH, SLOPES, SHORING, AND STOCKPILE LOCATIONS SHALL COMPLY WITH OSHA REGULATIONS.

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

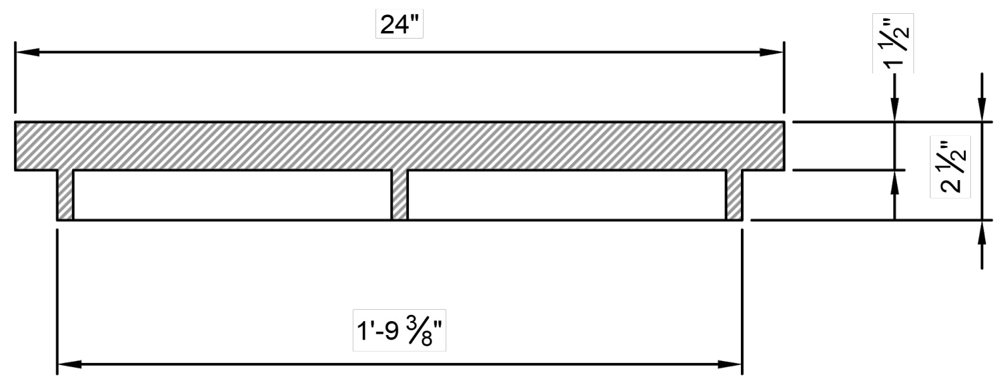
PIPE BEDDING DETAIL

Date: 08/2023
Drawn By: MJF
Checked By: GMB

GEN-6


1" FLAT FACE GOTHIC
CITY OF LEE'S SUMMIT
NO DUMPING
DRAINS TO STREAMS
STORM
MADE IN XXX
PICKHOLE (TYP)
1 ½"
1" FLAT FACE GOTHIC

PLAN VIEW



SECTION VIEW

STORM MANHOLE COVER

STANDARD 24" MANHOLE COVER
MINIMUM WEIGHT = 160 LB

*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCT LIST.

LEE'S SUMMIT
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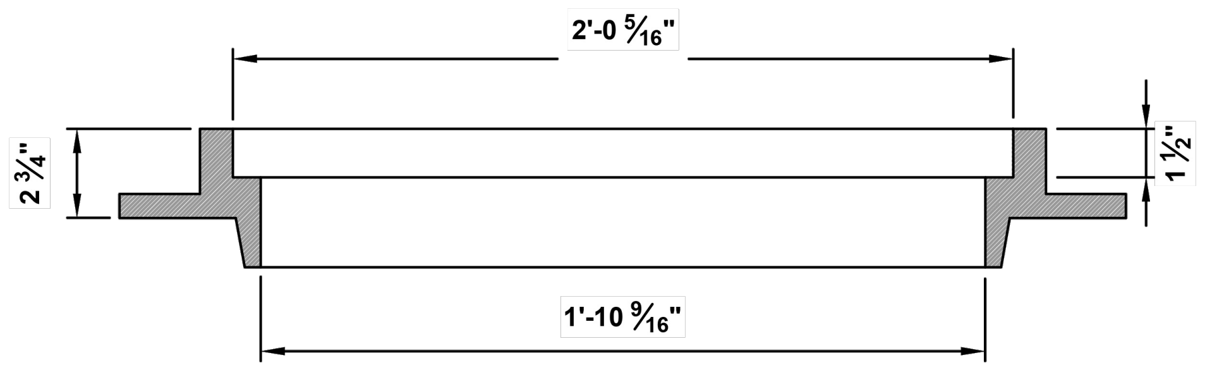
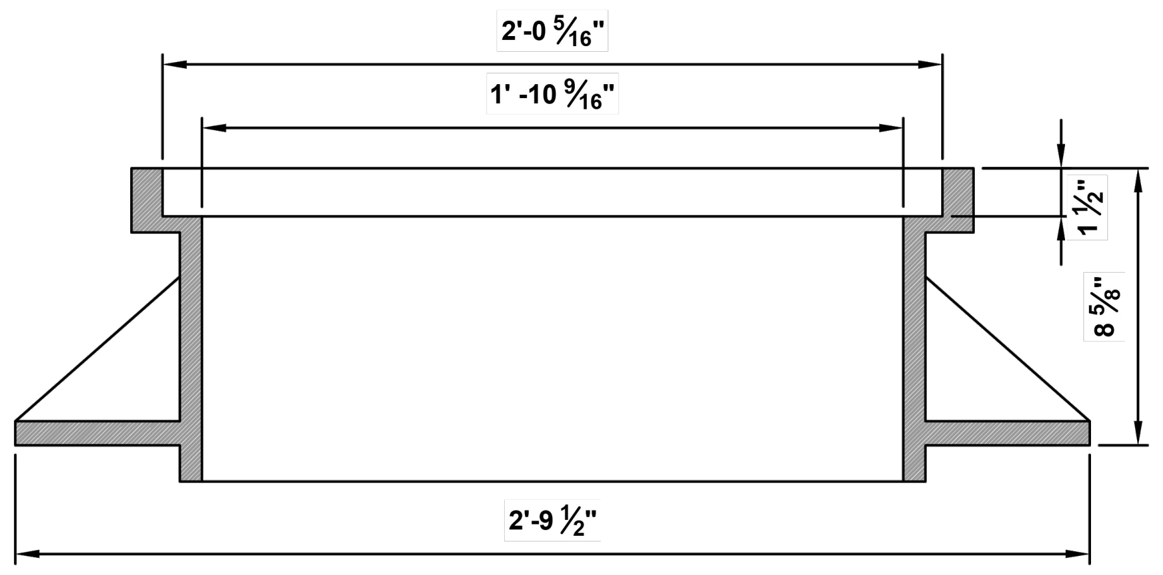
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STORM MANHOLE COVER

DATE: 04/30/2024
DRAWN BY: CNS
CHECKED BY: MJF
DWG No.
STM-6


2'-0 5⁄16"
2 ¾"
1 ½"
1'-10 9⁄16"

SLAB MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS103A
MINIMUM WEIGHT = 145 LB


2'-0 5⁄16"
1' -10 9⁄16"
1 ½"
8 ⅝"
2'-9 ½"

STANDARD 24" MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS101A
MINIMUM WEIGHT = 250 LB

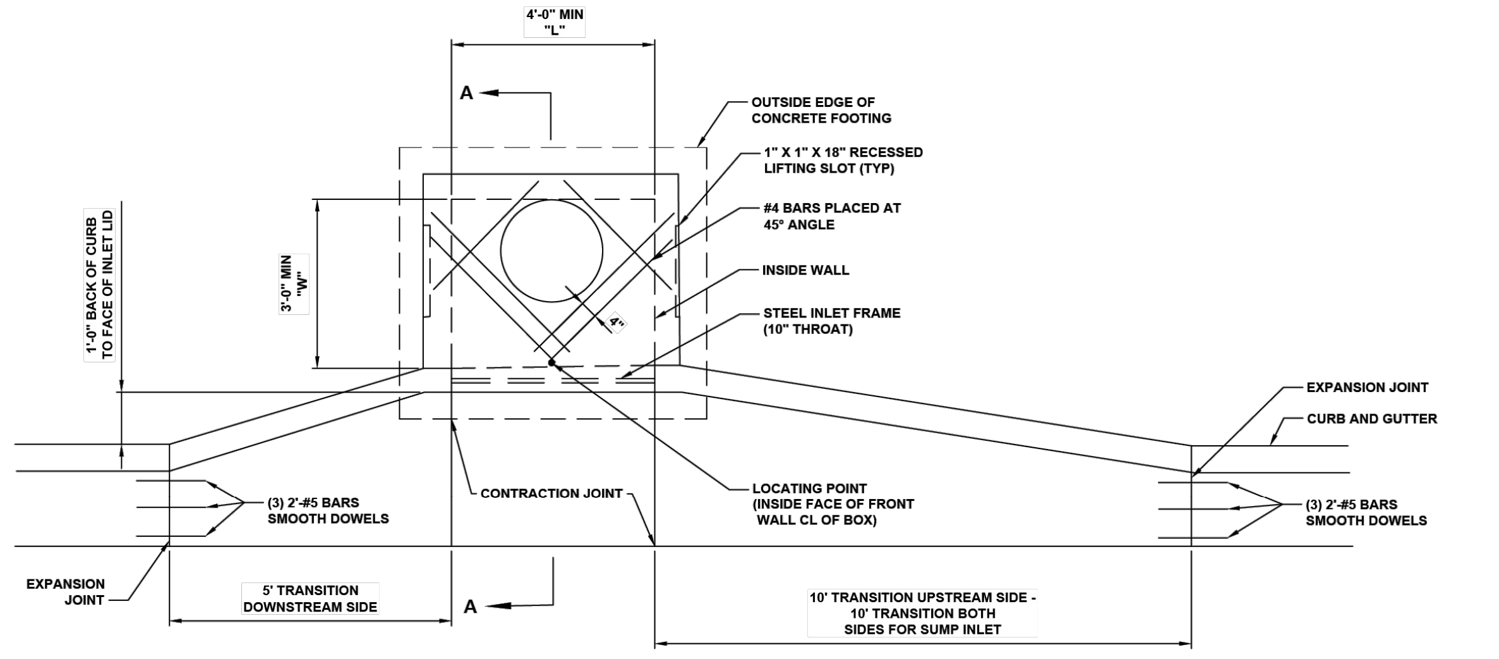
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCTS LIST.

STORM MANHOLE FRAME DETAIL

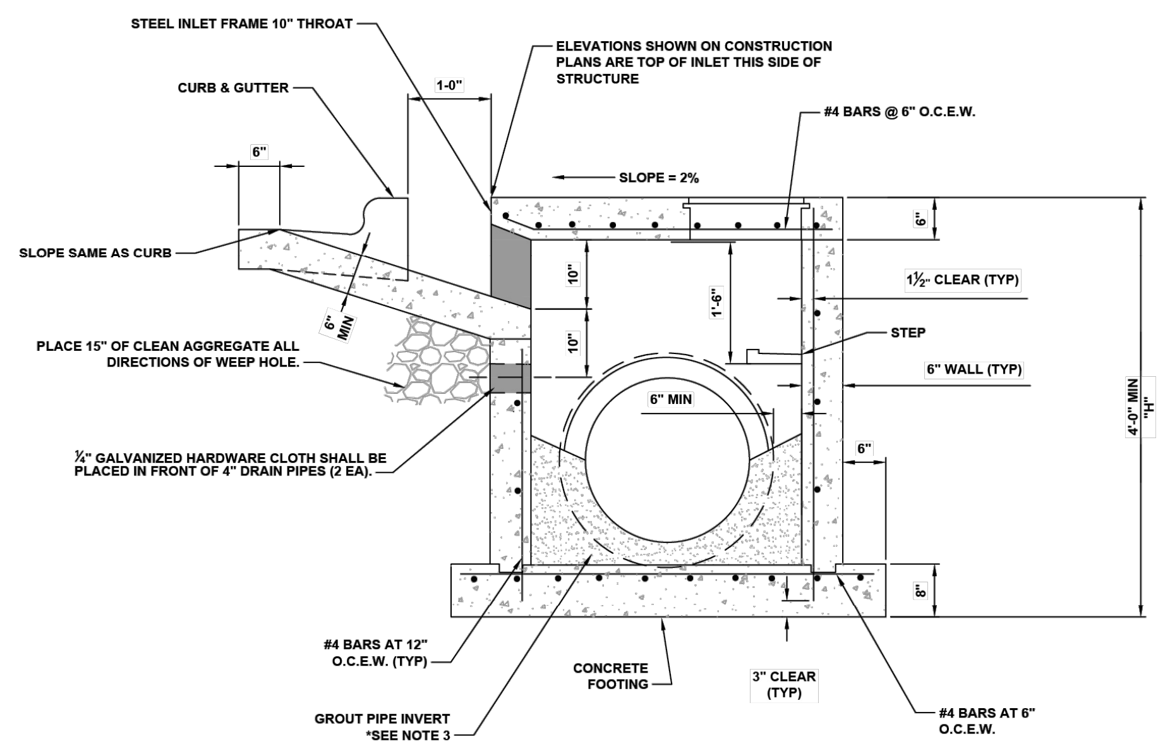
LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STORM MANHOLE FRAME DETAIL

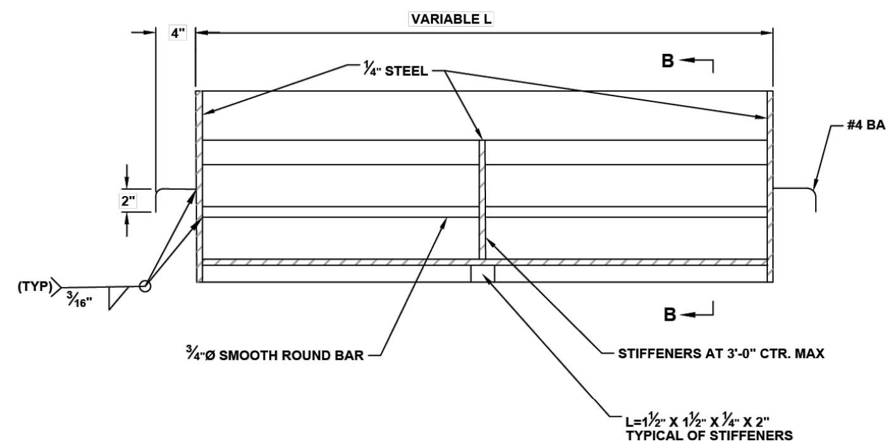
DATE: 04/30/2024
DRAWN BY: CNS
CHECKED BY: MJF
DWG No.
STM-7


4'-0" MIN "L"
A
OUTSIDE EDGE OF CONCRETE FOOTING
1" X 1" X 18" RECESSED LIFTING SLOT (TYP)
#4 BARS PLACED AT 45° ANGLE
INSIDE WALL
STEEL INLET FRAME (10" THROAT)
1'-0" BACK OF CURB TO FACE OF INLET LID
3'-0" MIN "W"
4"
EXPANSION JOINT
CURB AND GUTTER
(3) 2'-#5 BARS SMOOTH DOWELS
CONTRACTION JOINT
LOCATING POINT (INSIDE FACE OF FRONT WALL CL OF BOX)
(3) 2'-#5 BARS SMOOTH DOWELS
EXPANSION JOINT
5' TRANSITION DOWNSTREAM SIDE
A
10' TRANSITION UPSTREAM SIDE - 10' TRANSITION BOTH SIDES FOR SUMP INLET

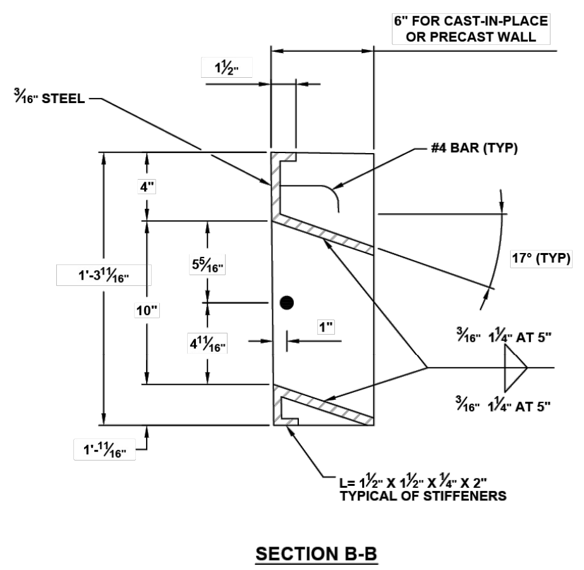
PLAN VIEW


STEEL INLET FRAME 10" THROAT
CURB & GUTTER
1-0"
ELEVATIONS SHOWN ON CONSTRUCTION PLANS ARE TOP OF INLET THIS SIDE OF STRUCTURE
#4 BARS @ 6" O.C.E.W.
6"
SLOPE = 2%
SLOPE SAME AS CURB
6" MIN
6"
10"
1'-6"
10"
1½" CLEAR (TYP)
STEP
PLACE 15" OF CLEAN AGGREGATE ALL DIRECTIONS OF WEEP HOLE.
6" WALL (TYP)
6" MIN
4'-0" MIN "H"
¼" GALVANIZED HARDWARE CLOTH SHALL BE PLACED IN FRONT OF 4" DRAIN PIPES (2 EA).
6"
8"
#4 BARS AT 12" O.C.E.W. (TYP)
CONCRETE FOOTING
3" CLEAR (TYP)
#4 BARS AT 6" O.C.E.W.
GROUT PIPE INVERT *SEE NOTE 3

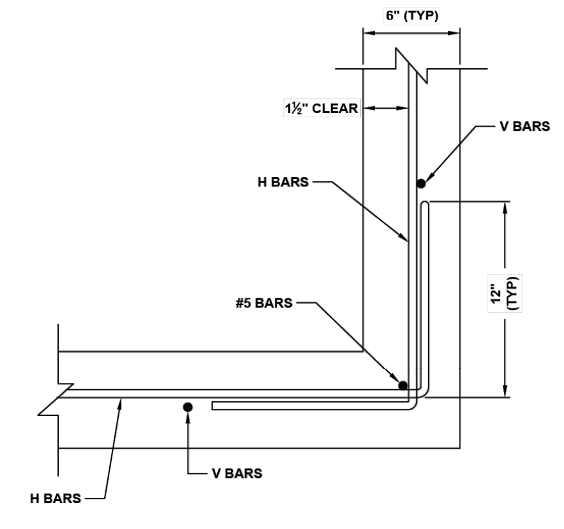
SECTION A-A


VARIABLE L
4"
¼" STEEL
B
#4 BAR (TYP)
2"
(TYP)
3⁄16"
B
¾"Ø SMOOTH ROUND BAR
STIFFENERS AT 3'-0" CTR. MAX
L=1½" X 1½" X ¼" X 2" TYPICAL OF STIFFENERS

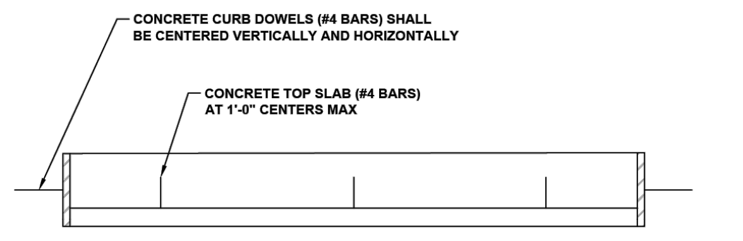
FRONT ELEVATION


6" FOR CAST-IN-PLACE OR PRECAST WALL
1½"
3⁄16" STEEL
#4 BAR (TYP)
4"
17° (TYP)
1'-3 11⁄16"
5 5⁄16"
10"
1"
4 11⁄16"
3⁄16" 1¼" AT 5"
3⁄16" 1¼" AT 5"
1'-1⁄16"
L= 1½" X 1½" X ¼" X 2" TYPICAL OF STIFFENERS

SECTION B-B


6" (TYP)
1½" CLEAR
V BARS
H BARS
#5 BARS
12" (TYP)
H BARS
V BARS

WALL CORNER DETAIL


CONCRETE CURB DOWELS (#4 BARS) SHALL BE CENTERED VERTICALLY AND HORIZONTALLY
CONCRETE TOP SLAB (#4 BARS) AT 1'-0" CENTERS MAX

PLAN VIEW

STEEL FRAME NOTES:

1. ALL WELDS SHALL BE PERFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
2. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED APPEARANCE.
3. THE ENTIRE FRAME SHALL BE PAINTED A SINGLE COAT OF CHEM-PRIME #37H-78 PRIMER (GRAY) OR EQUAL.

CURB INLET DETAIL

NOT TO SCALE

GENERAL NOTES:

1. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
2. FLOW LINES LISTED ON THE PROJECT PLANS ARE LISTED AT THE INSIDE FACE OF THE WALL.
3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
4. LOCATE MH RING AND COVER ON BLANK WALL IF POSSIBLE.
5. STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY ON BLANK WALL IF POSSIBLE.
6. BEVEL ALL EXPOSED EDGES WITH ¾"CHAMFER OR ½" TOOLED EDGE.
7. ON-GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. LIFTING RINGS SHALL BE REMOVED AND SEALED WITH NON-SHRINKABLE GROUT
10. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

REV	DESCRIPTION	DATE
A.0	INTERNAL DESIGN REVIEW	04/12/2024

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

PROJECT: STANDARD DETAILS
PUBLIC WORKS ENGINEERING
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

SHEET NAME: CURB INLET DETAILS

DRAWN BY: CNS
CHECKED BY: MJF
DATE: 04/27/2024
PROJECT #: ---.-

STM-1

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Bentonville, Arkansas 72712
t 479.273.7780
f 888.520.9685
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DATE	ISSUE
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT SET
01/26/2026	PERMIT SET REV 1
02/02/2026	BID SET
02/11/2026	PERMIT SET REV 2
02/27/2026	PERMIT SET REV 3

PROFESSIONAL SEAL

DIEGO ALBERTO GARCIA
NUMBER PE-2023012235

Diego A. Garcia
06-MAR-26 12:03:19

DIEGO ALBERTO GARCIA,
PROFESSIONAL ENGINEER
PE-2023012235
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL LICENSE NO: 2023012235

PROFESSIONAL IN CHARGE
DIEGO A. GARCIA
PROJECT MANAGER
KK
QUALITY CONTROL
WFM
DRAWN BY
DF

PROJECT NAME

VALVOLINE INSTANT OIL CHANGE

610 NW CHIPMAN RD
LEE'S SUMMIT
MO 64086

PROJECT NUMBER
06-24-20062

SHEET NAME
DETAILS SHEET 5 OF 5

SHEET #
C-10.4

ALTA/NSPS LAND TITLE SURVEY

SUMMIT FAIR, LOT 10F, A SUBDIVISION
SITUATED IN THE SOUTHEAST QUARTER OF SECTION 36,
TOWNSHIP 48 NORTH, RANGE 32 WEST,
CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

LEGAL DESCRIPTION PER FIDELITY NATIONAL TITLE INSURANCE COMPANY, TITLE COMMITMENT NO.: KCC251158, COMMITMENT EFFECTIVE DATE: MAY 2, 2025 AT 8:00AM

LOT 10F, SUMMIT FAIR, LOTS 10D–10F, A SUBDIVISION IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF.

SURVEYOR'S TITLE RESPONSE TO SURVEY RELATED SCHEDULE B, PART II EXCEPTIONS WITHIN FIDELITY NATIONAL TITLE INSURANCE COMPANY, TITLE COMMITMENT NO.: KCC251158, COMMITMENT EFFECTIVE DATE: MAY 2, 2025 AT 8:00AM

THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY ATWELL, LLC., TO DETERMINE OWNERSHIP OR EASEMENTS OF RECORD. FOR ALL INFORMATION REGARDING EASEMENT, RIGHT–OF–WAY AND TITLE OF RECORD, ATWELL, LLC. RELIED UPON THE TITLE COMMITMENT.

THIS PROPERTY MAY BE SUBJECT TO THE TERMS, PROVISIONS, COVENANTS, CONDITIONS, RESTRICTIONS, OBLIGATIONS, AND RESERVATIONS CONTAINED IN THE FOLLOWING RECORDED INSTRUMENTS.

SCHEDULE B, PART II EXCEPTIONS NUMBERS 1–8, & 24–25 ARE NOT SURVEY RELATED MATTERS AND INTENTIONALLY NOT LISTED BELOW.

9. COVENANTS AND RESTRICTIONS, TOGETHER WITH A RIGHT OF ACCESS IN FAVOR OF THE MISSOURI DEPARTMENT OF NATURAL RESOURCES, PURSUANT TO DECLARATION RECORDED APRIL 24, 2007 AS DOCUMENT NO. 2007E0054314, AS AFFECTED BY THE CERTIFICATE OF COMPLETION RECORDED AUGUST 8, 2007 AS DOCUMENT NO. 2007E0104283.
RESPONSE: NOT PLOTTED; CONDITIONS AND RESTRICTIONS ARE BLANKET IN NATURE

10. TERMS, PROVISIONS, COVENANTS, CONDITIONS, RESTRICTIONS, EASEMENTS AND PROVISIONS FOR CREATION OF A PROPERTY OWNERS ASSOCIATED WITH THE POWER TO LEVY ASSESSMENTS, ESTABLISHED PURSUANT TO STORM WATER DRAINAGE AND DETENTION EASEMENT AGREEMENT RECORDED JUNE 5, 2007 AS DOCUMENT NO. 2007E0074477.
RESPONSE: NOT PLOTTED; PURSUANT IS BLANKET IN NATURE OVER SURVEYED PROPERTY

11. TERMS AND PROVISIONS OF CITY OF LEE'S SUMMIT ORDINANCE 6622, ACCEPTING THE FINAL PLAT OF SUMMIT FAIR 2ND PLAT, LOTS 8, 10–4 & TRACT C, RECORDED AUGUST 7, 2008 AS DOCUMENT NO. 2008E0085123.
RESPONSE: PLOTTED; EASEMENTS, RESTRICTIONS AND BUILDING LINES SHOWN HEREON

12. UTILITY EASEMENTS, SANITARY SEWER EASEMENT AND PROPOSED SIDEWALKS, ESTABLISHED BY THE PLAT RECORDED AUGUST 7, 2003 AS DOCUMENT NO. 2008E0085124 IN PLAT BOOK I–122, PAGE 1, EXCEPT THOSE EASEMENTS TERMINATED BY INSTRUMENTS RECORDED AS DOCUMENT NO. 2016E0069054 AND 2016E0069059.
RESPONSE: UTILITY EASEMENTS, SANITARY SEWER AND PROPOSED SIDEWALKS SHOWN HEREON

13. WATER LINE EASEMENT GRANTED TO THE CITY OF LEE'S SUMMIT, RECORDED APRIL 13, 2016 AS DOCUMENT NO. 2016E0032184.
RESPONSE: PLOTTED; 5' WIDE WATER LINE EASEMENTS PLOTS ALONG THE EASTERN PORTION OF SURVEYED PROPERTY AND ADDITIONAL LANDS LYING NORTH OF SURVEYED PROPERTY; AS SHOWN HEREON

14. TERMS AND PROVISIONS OF THE SUMMIT ORCHARDS COMMUNITY IMPROVEMENT DISTRICT AND COOPERATIVE AGREEMENT, NOTICE OF WHICH IS GIVEN BY MEMORANDUM THEREOF RECORDED JULY 8, 2019 AS DOCUMENT NO. 2019E0051682.
RESPONSE: NOT PLOTTED; COOPERATIVE AGREEMENT IS BLANKET IN NATURE

15. BUILDING LINES, RESTRICTIONS, UTILITY, DRAINAGE, STORM WATER, SANITARY SEWER, AND WATERLINE EASEMENTS SHOWN ON THE PLAT RECORDED JANUARY 10, 2023 AS DOCUMENT NO. 2023E0001734 IN BOOK 208 AT PAGE 26; SUBJECT TO ORDINANCE NO. 9847, PROVIDING A NEW PERMANENT EASEMENT; AND PROVIDING NOTICE OF ELECTRIC EASEMENT GRATED TO MISSOURI PUBLIC SERVICE COMPANY, AND GAS EASEMENT GRANTED TO THE GAS SERVICE COMPANY, AND FURTHER VACATING WATER SYSTEM EASEMENT RECORDED IN BOOK I–1154 AT PAGE 1961, SAID ORDINANCE RECORDED MARCH 11. 2024 AS DOCUMENT NO. 2024E014842.
RESPONSE: PLOTTED; BUILDING LINES, RESTRICTIONS AND UTILITY EASEMENTS SHOWN HEREON

16. EASEMENT GRANTED TO MISSOURI PUBLIC SERVICE COMPANY, A MISSOURI CORPORATION, RECORDED FEBRUARY 7, 1961 AS DOCUMENT NO. 762400 IN BOOK I–496 AT PAGE 745.
PARTIAL RELEASE OF RIGHT OF WAY AGREEMENT RECORDED OCTOBER 21, 2008 AS DOCUMENT NO. 2008E0111404.
RESPONSE: PLOTTED; 8' PUBLIC SERVICE EASEMENT PLOTS ALONG THE SOUTHERN PORTION OF SURVEYED PROPERTY AND ADDITIONAL LANDS LYING WEST OF SURVEYED PROPERTY; AS SHOWN HEREON

17. RIGHT OF WAY GRANTED TO THE GAS SERVICE COMPANY AS MORE FULLY SET FORTH IN THE INSTRUMENT RECORDED JUNE 23, 1970 AS DOCUMENT NO. I–62891 IN BOOK I–188 AT PAGE 1869, EXCLUDING THE TEMPORARY CONSTRUCTION EASEMENT NOW EXPIRED.
ASSIGNMENT OF EASEMENTS AND RIGHTS OF WAY FROM SOUTHERN UNION COMPANY, DOING BUSINESS IN MISSOURI AS MISSOURI GAS ENERGY, SUCCESSOR IN INTEREST TO WESTERN RESOURCES, INC., FORMERLY THE KANSAS CITY POWER AND LIGHT COMPANY TO LACLEDE GAS COMPANY RECORDED SEPTEMBER 3, 2013 AS DOCUMENT NO. 2013E0093218.
RESPONSE: PLOTTED; RIGHT–OF–WAY PLOTS IN THE SOUTHERN PORTION OF THE SURVEYED PROPERTY AND ADDITIONAL LANDS LYING WEST OF SURVEYED PROPERTY; AS SHOWN HEREON

18. RIGHT OF WAY GRANTED TO MISSOURI GAS COMPANY, A DIVISION OF SOUTHERN UNION COMPANY, RECORDED SEPTEMBER 4, 2008 AS DOCUMENT NO. 2008E0094862.
RESPONSE: PLOTTED; RIGHT–OF–WAY PLOTS IN SOUTHEASTERN PORTION OF SURVEYED PROPERTY, AS SHOWN HEREON
ASSIGNMENT TO LACLEDE GAS COMPANY RECORDED SEPTEMBER 3, 2013 AS DOCUMENT NO. 2013E0093218.
RESPONSE: NOT PLOTTED; ASSIGNMENT IS BLANKET IN NATURE

19. WATER LINE EASEMENT GRANTED TO THE CITY OF LEE'S SUMMIT, RECORDED APRIL 13, 2016 AS DOCUMENT NO. 2016E0032185.
RESPONSE: PLOTTED; WATER LINE EASEMENT PLOTS IN THE SOUTHERN PORTION OF SURVEYED PROPERTY AND ADDITIONAL LANDS LYING WEST OF SURVEYED PROPERTY; AS SHOWN HEREON

20. ACCESS AND UTILITY EASEMENT AGREEMENT, BY AND AMONG, CITY OF LEE'S SUMMIT, MISSOURI, A MUNICIPAL CORPORATIONS, ECP 850 LEES SUMMIT LLC, A DELAWARE LIMITED LIABILITY COMPANY, TOWNSEND SUMMIT, LLC, A DELAWARE LIMITED LIABILITY COMPANY, AND SUMMIT SQUARE RESIDENCE III, LLC, A DELAWARE LIMITED LIABILITY COMPANY, DESCRIBED BY INSTRUMENT RECORDED JULY 27, 2023 AS DOCUMENT NO. 2023E0053538.
SIDE AGREEMENT REGARDING ACCESS AND UTILITY EASEMENT AGREEMENT, BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, A MUNICIPAL CORPORATION, TOWNSEND SUMMIT, LLC, A DELAWARE LIMITED LIABILITY COMPANY, AND SUMMIT SQUARE RESIDENCE III, LLC, A DELAWARE LIMITED LIABILITY COMPANY, RECORDED SEPTEMBER 20, 2023 AS DOCUMENT NO. 2023E0068537.
RESPONSE: PLOTTED; ACCESS AND UTILITY EASEMENTS PLOTS WEST OF THE SURVEYED PROPERTY, BUT NOT LOCATED WITHIN THE SURVEYED PROPERTY; AS SHOWN HEREON

21. UNDERGROUND UTILITY EASEMENT, GRANTED TO THE CITY OF LEE'S SUMMIT, MISSOURI, A MUNICIPAL CORPORATION, RECORDED SEPTEMBER 20, 2023 AS DOCUMENT NO. 2023E0068541.
RESPONSE: PLOTTED; UTILITY EASEMENT LOCATED NORTH OF THE SURVEYED PROPERTY, BUT NOT LOCATED WITHIN THE SURVEYED PROPERTY; AS SHOWN HEREON

22. DECLARATION OF COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS RECORDED JULY 2, 2024 AS DOCUMENT NO. 2024E0042947.
RESPONSE: NOT PLOTTED; BLANKET IN NATURE OVER SURVEYED PROPERTY

23. EASEMENTS, RESTRICTIONS AND BUILDING SETBACK LINES SHOWN ON THE PLAT RECORDED JULY 15, 2024 AS DOCUMENT NO. 2024E0045888 IN BOOK I218, PAGE 42.
RESPONSE: PLOTTED; EASEMENTS, RESTRICTIONS AND BUILDING LINES SHOWN HEREON

ALTA TABLE A NOTES: (CORRESPONDING NUMBERS COINCIDE WITH TABLE A ITEMS)

1. MONUMENTS FOUND OR AT ALL CORNERS OF THE PROPERTY ARE SHOWN HEREON.

2. APPROXIMATE ADDRESS: 610 NW CHIPMAN ROAD, LEE'S SUMMIT, MO 64086

3. SAID DESCRIBED PROPERTY IS LOCATED INSIDE AN AREA HAVING ZONE DESIGNATION "ZONE X" (AREAS OF MINIMAL FLOODING (NO SHADING) ON FLOOD INSURANCE RATE MAP COMMUNITY–PANEL NUMBER NO. 29095C0417G, WITH AN EFFECTIVE DATE OF JANUARY 20, 2017, IN LEE'S SUMMIT, STATE OF MISSOURI. IN RARE OCCASIONS, GREATER FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN–MADE OR NATURAL CAUSES. THIS STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

4. THE MEASURED ACREAGE OF THE PARCEL IS 32,309 SQUARE FEET OR 0.742 ACRES.

5. CONTOURS AT 1 FOOT INTERVALS AND GROUND ELEVATIONS SHOWN HEREON PER GROUND SURVEY. SOURCE BENCHMARK AND DATUM SHOWN HEREON.

6a./6b. THE CURRENT ZONING REPORT WAS PROVIDED FOR THIS SURVEY, PREPARED BY NATIONAL DUE DILIGENCE SERVICES, A DIVISION OF AMERICAN SURVEYING AND MAPPING INC., DATED JUNE 16, 2025. SEE SHEET NUMBER 2 FOR ZONING REPORT INFORMATION.

7a./7b1. NO BUILDINGS OBSERVED AT TIME OF SURVEY.

8. SUBSTANTIAL FEATURES OBSERVED IN THE PROCESS OF CONDUCTING THE SURVEY ARE SHOWN HEREON.

9. NUMBER AND TYPE OF PARKING SPACES: NO PARKING SPACES WERE OBSERVED ON THE SUBJECT TRACT AT THE TIME OF SURVEY.

11. NO PLANS AND/OR REPORTS OF UNDERGROUND UTILITIES EXISTING ON OR SERVING THE SURVEYED PROPERTY WERE PROVIDED BY CLIENT. UTILITIES ARE SHOWN HEREON BY EITHER OBSERVED SURFACE EVIDENCE AND/OR GROUND PENETRATING RADAR SYSTEMS, LLC (GPRS) MARKINGS (A THIRD PARTY UTILITY LOCATING SERVICE). UNDERGROUND UTILITIES ARE SHOWN PER MAPS PROVIDED THROUGH AN 811 DESIGN STAGE TICKET (NUMBER **252483519**). SEE 811 UTILITY TABLE FOR DETAILED INFORMATION REGARDING STATUS OF RESPONSES TO ONE CALL TICKET.

    SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL UNMARKED AND/OR BURIED UTILITIES IN THE AREA, EITHER IN–SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE THE EXACT LOCATION INDICATED BY SAID VISIBLE EVIDENCE.

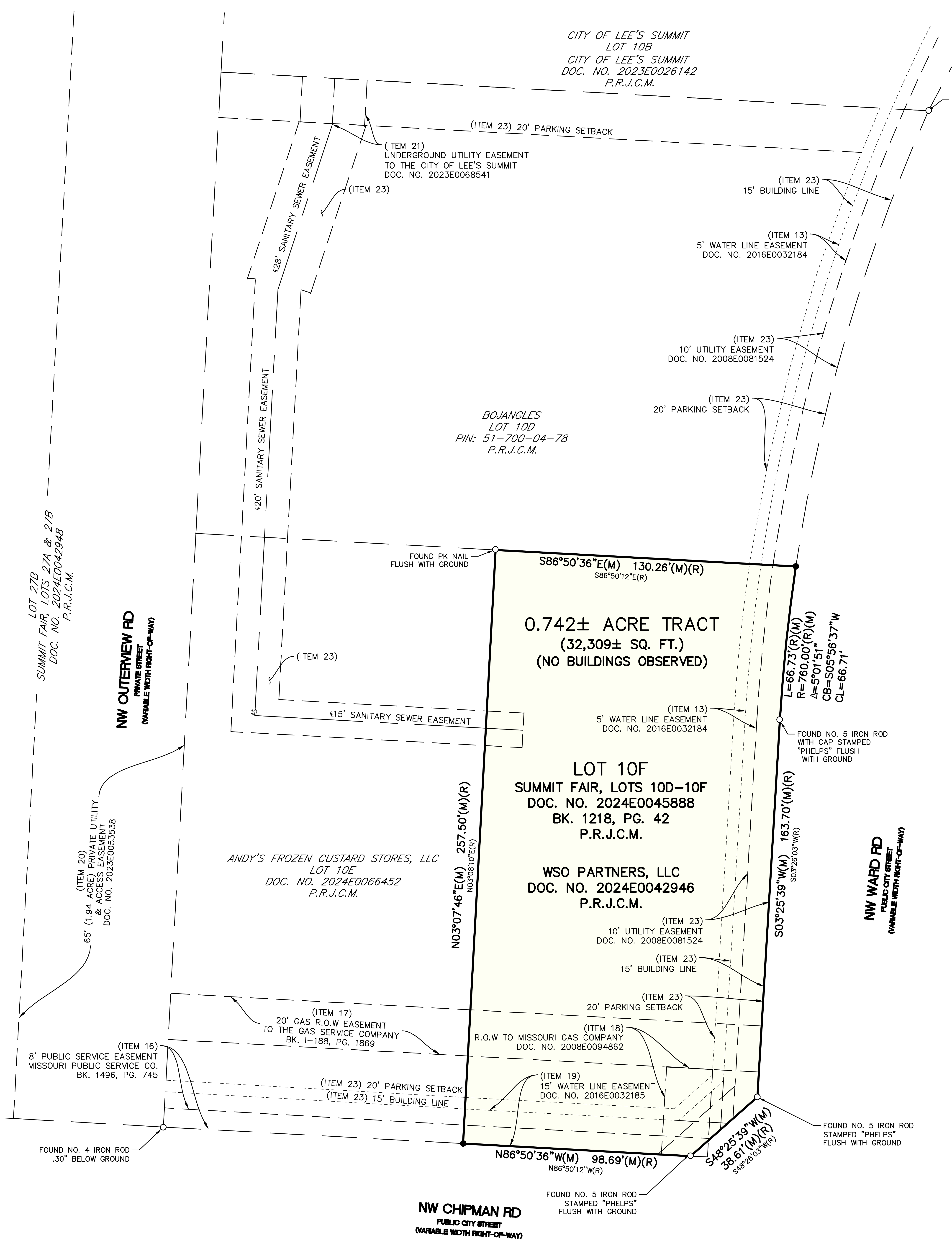
    NOTE TO THE CLIENT, INSURER, AND LENDER – WITH REGARD TO TABLE A, ITEM 11, SOURCE INFORMATION FROM PLANS AND MARKINGS WILL BE COMBINED WITH OBSERVED EVIDENCE OF UTILITIES PURSUANT TO SECTION 5.E.IV. TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE, IN WHICH CASE THE SURVEYOR SHALL NOTE ON THE PLAT OR MAP HOW THIS AFFECTED THE SURVEYOR'S ASSESSMENT OF THE LOCATION OF THE UTILITIES. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION MAY BE NECESSARY.

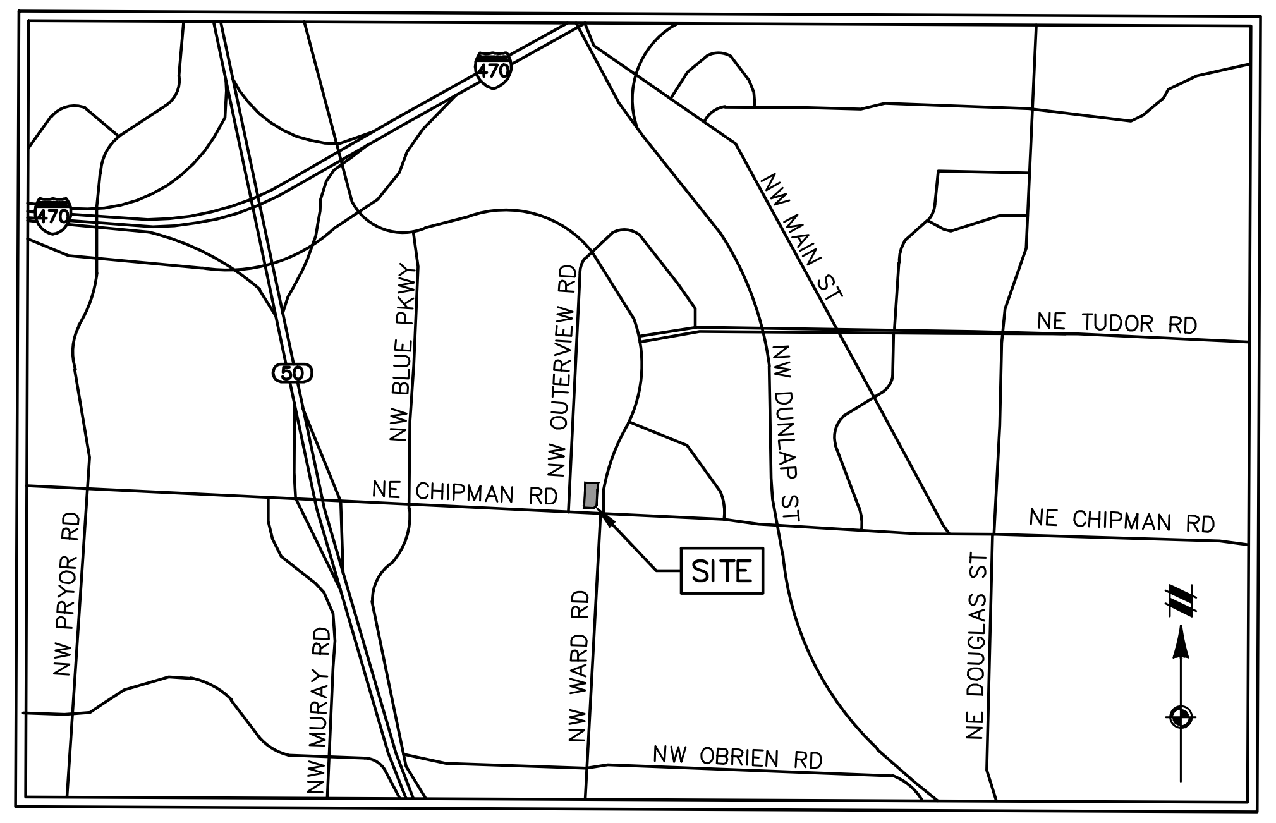
13. NAMES OF ADJOINING OWNERS ARE SHOWN HEREON.

14. THE SUBJECT PROPERTY HAS DIRECT ACCESS TO NW CHIPMAN ROAD (PUBLIC CITY STREET) ALONG THE SOUTHERN BOUNDARY LINE, AND DIRECT ACCESS TO NW WARD ROAD (PUBLIC CITY STREET) ALONG THE EASTERN BOUNDARY LINE AS SHOWN HEREON.

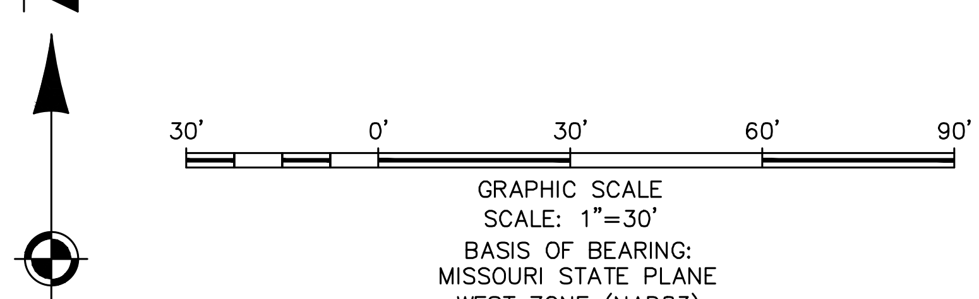
16. NO OBSERVED EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WORK.

17. THERE WAS NO INFORMATION OF PROPOSED CHANGES IN STREET RIGHT OF WAYS PROVIDED AND THERE WAS NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.


CITY OF LEE'S SUMMIT
LOT 10B
CITY OF LEE'S SUMMIT
DOC. NO. 2023E0026142
P.R.J.C.M.
FOUND NO. 5 IRON ROD WITH ILLEGIBLE CAP .2" BELOW GROUND
(ITEM 23) 20' PARKING SETBACK
(ITEM 21) UNDERGROUND UTILITY EASEMENT TO THE CITY OF LEE'S SUMMIT DOC. NO. 2023E0068541
(ITEM 23)
℄28' SANITARY SEWER EASEMENT
(ITEM 23) 15' BUILDING LINE
(ITEM 13) 5' WATER LINE EASEMENT DOC. NO. 2016E0032184
(ITEM 23) 10' UTILITY EASEMENT DOC. NO. 2008E0081524
(ITEM 23) 20' PARKING SETBACK
BOJANGLES
LOT 10D
PIN: 51–700–04–78
P.R.J.C.M.
℄20' SANITARY SEWER EASEMENT
LOT 27B
SUMMIT FAIR, LOTS 27A & 27B
DOC. NO. 2024E0042948
P.R.J.C.M.
FOUND PK NAIL FLUSH WITH GROUND
S86°50'36"E(M) 130.26'(M)(R)
S86°50'12"E(R)
0.742± ACRE TRACT
(32,309± SQ. FT.)
(NO BUILDINGS OBSERVED)
L=66.73'(R)(M)
R=760.00'(R)(M)
Δ=5°01'51"
CB=S05°56'37"W
CL=66.71'
NW OUTERVIEW RD
PRIVATE STREET
(VARIABLE WIDTH RIGHT–OF–WAY)
(ITEM 23)
℄15' SANITARY SEWER EASEMENT
(ITEM 13) 5' WATER LINE EASEMENT DOC. NO. 2016E0032184
FOUND NO. 5 IRON ROD WITH CAP STAMPED "PHELPS" FLUSH WITH GROUND
LOT 10F
SUMMIT FAIR, LOTS 10D–10F
DOC. NO. 2024E0045888
BK. 1218, PG. 42
P.R.J.C.M.
WSO PARTNERS, LLC
DOC. NO. 2024E0042946
P.R.J.C.M.
N03°07'46"E(M) 257.50'(M)(R)
N03°08'10"E(R)
S03°25'39"W(M) 163.70'(M)(R)
S03°26'03"W(R)
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT–OF–WAY)
ANDY'S FROZEN CUSTARD STORES, LLC
LOT 10E
DOC. NO. 2024E0066452
P.R.J.C.M.
65' (1.94 ACRE) PRIVATE UTILITY & ACCESS EASEMENT (ITEM 20) DOC. NO. 2023E0053538
(ITEM 23) 10' UTILITY EASEMENT DOC. NO. 2008E0081524
(ITEM 23) 15' BUILDING LINE
(ITEM 23) 20' PARKING SETBACK
(ITEM 17) 20' GAS R.O.W EASEMENT TO THE GAS SERVICE COMPANY BK. I–188, PG. 1869
(ITEM 18) R.O.W TO MISSOURI GAS COMPANY DOC. NO. 2008E0094862
(ITEM 16) 8' PUBLIC SERVICE EASEMENT MISSOURI PUBLIC SERVICE CO. BK. 1496, PG. 745
(ITEM 23) 20' PARKING SETBACK
(ITEM 23) 15' BUILDING LINE
(ITEM 19) 15' WATER LINE EASEMENT DOC. NO. 2016E0032185
FOUND NO. 4 IRON ROD .30" BELOW GROUND
N86°50'36"W(M) 98.69'(M)(R)
N86°50'12"W(R)
S48°25'39"W(M) 38.61'(M)(R)
S48°26'03"W(R)
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
FOUND NO. 5 IRON ROD STAMPED "PHELPS" FLUSH WITH GROUND
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT–OF–WAY)


470
470
50
NW PRYOR RD
NW MURAY RD
NW BLUE PKWY
NW OUTERVIEW RD
NW WARD RD
NW MAIN ST
NW DUNLAP ST
NE TUDOR RD
NE CHIPMAN RD
NE CHIPMAN RD
SITE
NE DOUGLAS ST
NW OBRIEN RD
N

VICINITY MAP
NOT TO SCALE


N
30'
0'
30'
60'
90'

GRAPHIC SCALE
SCALE: 1"=30'
BASIS OF BEARING:
MISSOURI STATE PLANE
WEST ZONE (NAD83)

LEGEND

○	FOUND SURVEY MONUMENT
●	SET SURVEY MONUMENT
P.R.J.C.M.	PUBLIC RECORDS OF JACKSON COUNTY, MISSOURI
DOC. NO.	DOCUMENT NUMBER
BK. , PG.	BOOK, PAGE
━━━━	BOUNDARY LINE
—— —— ——	BOUNDARY ADJACENT / ROW LINE
— — — — —	EASEMENT LINE
- - - - - - - -	SET BACK LINE

SOURCE DOCUMENTS:

1. MINOR PLAT OF LOT 10F, SUMMIT FAIR, LOTS 10D–10F, A SUBDIVISION IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, DOCUMENT #2024E0045888 AND BOOK I218, PAGE 42.

GENERAL NOTES

1. COMPARE ALL DISTANCES AND POINTS IN FIELD AND REPORT ANY DISCREPANCIES IN SAME TO SURVEYOR AT ONCE.
2. UTILITIES SHOWN HEREON ARE BY VISIBLE LOCATION OF ABOVE GROUND STRUCTURES, MARKINGS AND UTILITY MAPS RECEIVED FROM GROUND PENETRATING RADAR SYSTEMS, INC. (GPRS), SERVICE ORDER NO. 20251244 PLACED ON AUGUST 4, 2025. UNDERGROUND UTILITIES MAY EXIST THAT ARE NOT SHOWN HEREON.
3. CALL 811 ("COMMON GROUND ALLIANCE" NATIONAL UNDERGROUND UTILITY LOCATOR SERVICE) FOR FIELD LOCATION OF UNDERGROUND UTILITY LINES PRIOR TO ANY DIGGING OR CONSTRUCTION.
4. NO DIMENSIONS SHOULD BE ASSUMED BY SCALING.
5. BEARINGS BASED ON THE MISSOURI STATE PLANE COORDINATE SYSTEM OF 1983 (NAD83) WEST ZONE. ELEVATIONS, IF SHOWN, ARE DERIVED FROM THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) USING GEOID18.
6. ALL DISTANCE VALUES ARE US SURVEY FEET.
7. ALL DISTANCE AND AREA VALUES ARE GROUND WITH THE COMBINED SCALE FACTOR OF 1.0001005.
8. THE SURVEYED PROPERTY IS URBAN PROPERTY TYPE DEFINED BY THE CURRENT MISSOURI STANDARDS FOR PROPERTY BOUNDARY SURVEYS.
9. THIS SURVEY WAS EXECUTED IN ACCORDANCE WITH THE MISSOURI STANDARDS FOR PROPERTY BOUNDARY SURVEYS AS SET FORTH PER 2 CSR 90–60.010 – 60.070.

SURVEYORS CERTIFICATE:

STATE OF MISSOURI)
) SS
COUNTY OF JACKSON)

TO: VALVOLINE, LLC
WSO PARTNERS, LLC, A MISSOURI LIMITED LIABILITY COMPANY
FIDELITY NATIONAL TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6a, 6b, 7a, 7b1, 8, 9, 11a, 11b, 13, 14, 16, 17, AND 18 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON AUGUST 13, 2025.

DATE OF PLAT OR MAP: MARCH 06, 2026.

Joseph C. Crouch

JOSEPH C. CROUCH
MISSOURI PROFESSIONAL LAND SURVEYOR NO. 2015017836
ATWELL, LLC
MY LICENSE EXPIRES 12/31/2027

SHEET INDEX

1 ALTA – BOUNDARY AND EASEMENT INFO
2 ALTA – PLANIMETRIC AND TOPOGRAPHIC INFO

811
Know what's **below.**
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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ATWELL
www.atwell-group.com
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800
MO COA # 2011037945

A TRACT OF LAND SITUATED IN
THE CITY OF LEE'S SUMMIT,
SE 1/4 OF SECTION 36
T48N, R32W

JACKSON COUNTY, MISSOURI

CLIENT
VALVOLINE INC.
ALTA/NSPS LAND TITLE SURVEY
610 NW CHIPMAN ROAD
LEE'S SUMMIT,
MO 64086

DATE
SEPTEMBER 15, 2025

REVISIONS:
3/6/2026 – SIGNED SURVEY

JOSEPH C.
CROUCH
NUMBER
PLS–2015017836

3/6/2026

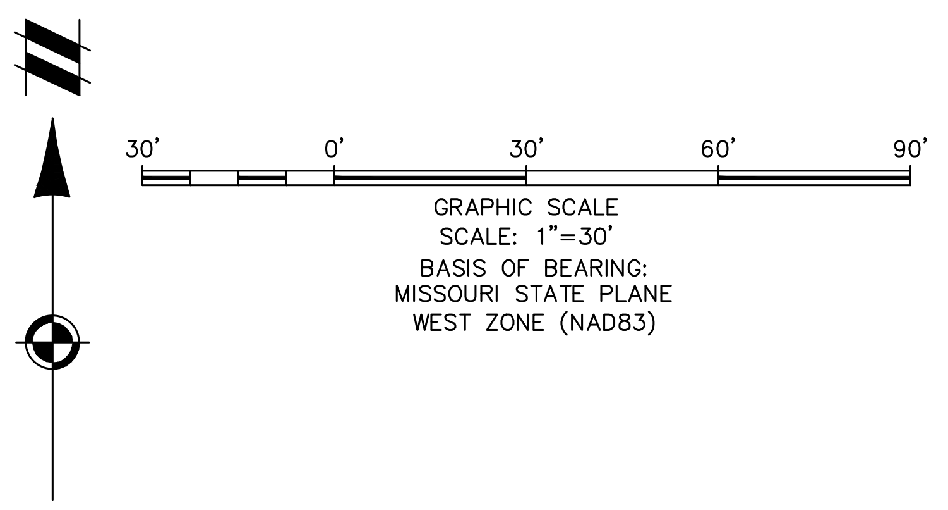
Joseph C. Crouch

JOSEPH C. CROUCH
MISSOURI PROFESSIONAL LAND SURVEYOR NO. 2015017836
ATWELL, LLC

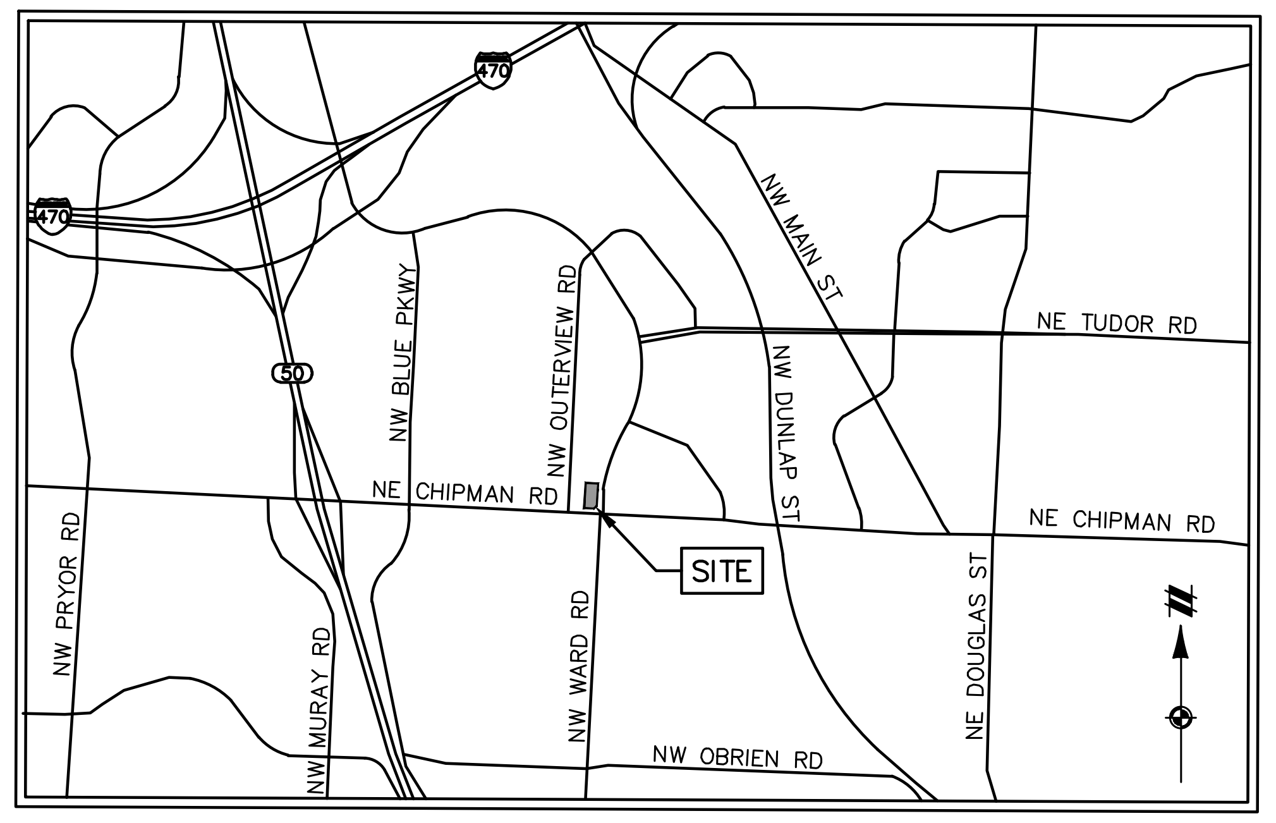
DR. AEC	CH. JCC
P.M. ASA	
CREW CHIEF: M. WILKERSON	
JOB 25006813	
SHEET NO. 1 OF 2	

ALTA/NSPS LAND TITLE SURVEY

SUMMIT FAIR, LOT 10F, A SUBDIVISION
SITUATED IN THE SOUTHEAST QUARTER OF SECTION 36,
TOWNSHIP 48 NORTH, RANGE 32 WEST,
CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI


N
30' 0' 30' 60' 90'

GRAPHIC SCALE
SCALE: 1"=30'
BASIS OF BEARING:
MISSOURI STATE PLANE
WEST ZONE (NAD83)

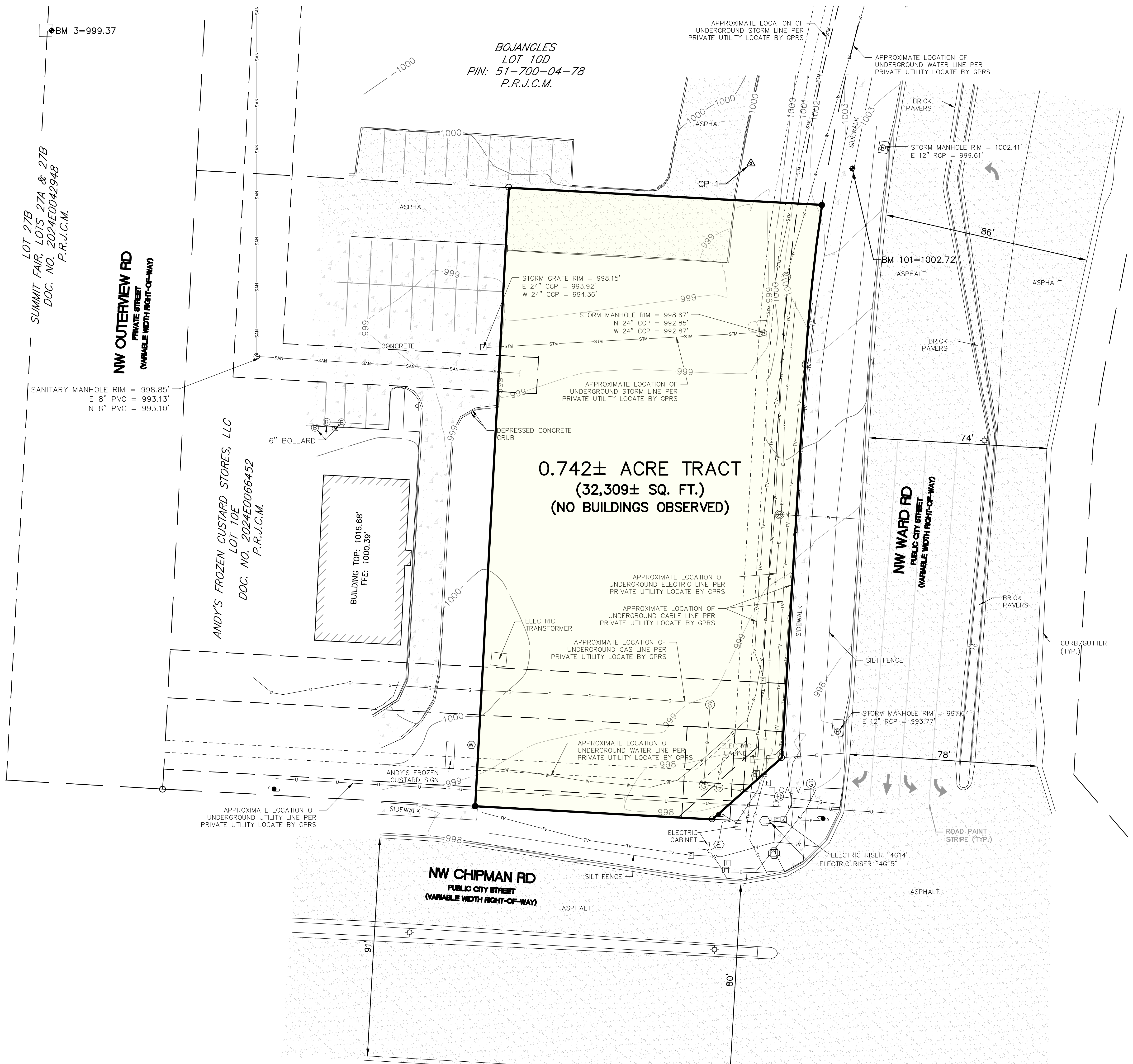

470
470
NW MAIN ST
NE TUDOR RD
NW BLUE PKWY
NW OUTERVIEW RD
NW DUNLAP ST
NE CHIPMAN RD
NE CHIPMAN RD
SITE
NW PRYOR RD
NW MURAY RD
NW WARD RD
NE DOUGLAS ST
NW OBRIEN RD
N

VICINITY MAP
NOT TO SCALE

ZONING INFORMATION

VALVOLINE, LLC. PROVIDED THE SURVEYOR OF RECORDS WITH A ZONING SUMMARY REPORT FOR PROJECT #25006813, UNDER REPORT BY: NATIONAL DUE DILIGENCE SERVICES, A DIVISION OR AMERICAN SURVEYING AND MAPPING, INC., PROJECT NO. 2523906-56993, DATED JUNE 16, 2025. INFORMATION SHOWN ON SHEETS 3, 4, AND 5 OF THAT REPORT ARE SHOWN BELOW:

1.	SUBJECT PROPERTY	
1.1.	PROPERTY ADDRESS:	700 NW WARD RD
1.2.	CITY, COUNTY, STATE:	LEE'S SUMMIT, JACKSON COUNTY, MISSOURI
1.3.	ASSESSOR PARCEL NUMBER:	51-700-01-31-00-0-00-000
1.4.	YEAR BUILT:	N/A
2.	PROPOSED LAND USE	AUTOMOTIVE REPAIR SHOP – MINOR REPAIR
3.	ZONING DISTRICT AND PERMITTED USE	
3.1.	ZONING JURISDICTION:	CITY OF LEE'S SUMMIT
3.2.	ZONING DISTRICT:	(PMIX) PLANNED MIXED USE DISTRICT
3.3.	DATE OF EXISTING ORDINANCE:	ADOPTED 2018; AMENDED 2025
3.4.	IS THE PROPOSED USE PERMITTED?	YES; PER THE ZONING LETTER ATTACHED UNDER EXHIBIT D, THE PROPOSED USE IS PERMITTED BY RIGHT.
4.	ADJACENT ZONING	
	NORTH:	(PMIX) PLANNED MIXED USE DISTRICT
	SOUTH:	RIGHT-OF-WAY
	EAST:	RIGHT-OF-WAY
	WEST:	(PMIX) PLANNED MIXED USE DISTRICT
5.	PARCEL AREA	32,234 SQUARE FEET = 0.74 ACRES
6.	ZONING REQUIREMENTS (PER SEC. 6.040 & ORD. 9551)	
6.1	MINIMUM FRONT FROM STREET:	*
	MINIMUM CORNER SIDE:	10'
	MINIMUM INTERIOR SIDE:	NONE
	MINIMUM REAR:	20'
	*15' ARTERIAL; 0' OTHER STREETS IF MAIN ENTRY AND ANY DISPLAY WINDOWS FACE STREET, OTHERWISE 15	
6.2	HEIGHT RESTRICTIONS	REQUIRED
	MAXIMUM (MEASURED IN FEET):	45'
	MAXIMUM (NUMBER OF STORIES):	N/A
6.3	AREA REQUIREMENTS	REQUIRED
	MINIMUM LOT AREA:	20,000 SQ. FT.
	MINIMUM LOT WIDTH (AT BUILDING LINE):	NONE STATED
	MINIMUM LOT FRONTAGE (AT RIGHT-OF-WAY):	NONE STATED
6.4	DENSITY RESTRICTIONS	REQUIRED
	MAXIMUM FLOOR AREA RATIO:	0.5 FAR
	MAXIMUM DWELLING UNITS PER ACRE:	NONE STATED
	MAXIMUM LOT COVERAGE (FOR BUILDING):	NONE STATED
7.	PARKING STANDARS (PER ORD. 9551)	
7.1.	PARKING USE CATEGORY:	COMMERCIAL
7.2.	PARKING SPACE FORMULA:	5 SPACES PER 1,000 SQUARE FEET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BOJANGLES
LOT 10D
PIN: 51-700-04-78
P.R.J.C.M.
LOT 27B
SUMMIT FAIR, LOTS 27A & 27B
DOC. NO. 2024E0042948
P.R.J.C.M.
NW OUTERVIEW RD
PRIVATE STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
ASPHALT
CONCRETE
1000
999
998
1001
1002
1003
SAN
STM
CP 1
APPROXIMATE LOCATION OF UNDERGROUND STORM LINE PER PRIVATE UTILITY LOCATE BY GPRS
APPROXIMATE LOCATION OF UNDERGROUND WATER LINE PER PRIVATE UTILITY LOCATE BY GPRS
BRICK PAVERS
SIDEWALK
STORM MANHOLE RIM = 1002.41'
E 12" RCP = 999.61'
86'
BM 101=1002.72
STORM GRATE RIM = 998.15'
E 24" CCP = 993.92'
W 24" CCP = 994.36'
STORM MANHOLE RIM = 998.67'
N 24" CCP = 992.85'
W 24" CCP = 992.87'
APPROXIMATE LOCATION OF UNDERGROUND STORM LINE PER PRIVATE UTILITY LOCATE BY GPRS
SANITARY MANHOLE RIM = 998.85'
E 8" PVC = 993.13'
N 8" PVC = 993.10'
6" BOLLARD
DEPRESSED CONCRETE CRUB
74'
0.742± ACRE TRACT
(32,309± SQ. FT.)
(NO BUILDINGS OBSERVED)
ANDY'S FROZEN CUSTARD STORES, LLC
LOT 10E
DOC. NO. 2024E0066452
P.R.J.C.M.
BUILDING TOP: 1016.68'
FFE: 1000.39'
NW WARD RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
ELECTRIC TRANSFORMER
APPROXIMATE LOCATION OF UNDERGROUND ELECTRIC LINE PER PRIVATE UTILITY LOCATE BY GPRS
APPROXIMATE LOCATION OF UNDERGROUND CABLE LINE PER PRIVATE UTILITY LOCATE BY GPRS
APPROXIMATE LOCATION OF UNDERGROUND GAS LINE PER PRIVATE UTILITY LOCATE BY GPRS
SILT FENCE
CURB/GUTTER (TYP.)
STORM MANHOLE RIM = 997.64'
E 12" RCP = 993.77'
78'
APPROXIMATE LOCATION OF UNDERGROUND WATER LINE PER PRIVATE UTILITY LOCATE BY GPRS
ELECTRIC CABINET
CATV
ANDY'S FROZEN CUSTARD SIGN
APPROXIMATE LOCATION OF UNDERGROUND UTILITY LINE PER PRIVATE UTILITY LOCATE BY GPRS
SIDEWALK
ELECTRIC CABINET
ELECTRIC RISER "4G14"
ELECTRIC RISER "4G15"
ROAD PAINT STRIPE (TYP.)
NW CHIPMAN RD
PUBLIC CITY STREET
(VARIABLE WIDTH RIGHT-OF-WAY)
SILT FENCE
ASPHALT
91'
80'

811 UTILITIES – TICKET NO.: 252483519				
OWNER	RESPONDED	PLOTTED	MARKED	NOTES
AT&T TRANSMISSION	NO	NO	NO	NO RESPONSE
ATT DISTRIBUTION	NO	NO	NO	NO RESPONSE
CHARTER COMMUNICATIONS	NO	NO	NO	NO RESPONSE
EVERGY	NO	NO	NO	NO RESPONSE
GOOGLE FIBER	NO	NO	NO	NO RESPONSE
SPIRE MO WEST	NO	NO	NO	NO RESPONSE
LUMEN	NO	NO	NO	NO RESPONSE
CITY OF LEES SUMMIT FIBER	NO	NO	NO	NO RESPONSE
CITY OF LEES SUMMIT WATER	NO	NO	NO	NO RESPONSE
CITY OF LEES SUMMIT SEWER	NO	NO	NO	NO RESPONSE
CITY OF LEES SUMMIT STORMSEWER	NO	NO	NO	NO RESPONSE
MNA-BLUEBIRD	NO	NO	NO	NO RESPONSE
SPECTRUM	NO	NO	NO	NO RESPONSE
UPN DBA SEGRA	NO	NO	NO	NO RESPONSE

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

SOURCE BENCHMARK:

OPUS SOLUTION ON CONTROL POINT NO. 1 USING THE FOLLOWING CORS BASE STATION:

PID:	DESIGNATION
DL6302	MORM MODOT RICHMOND CORS ARP
DM4676	MOHV MODOT HARISONVILE CORS ARP
DR8627	MOB4 MODOT BELTON CORS GRP

BENCHMARKS AND CONTROL:

COORDINATES SHOWN HEREON ARE PER MISSOURI STATE PLANE WEST ZONE (NAD83) 2011 ADJUSTMENT, IN US SURVEY FEET. ELEVATIONS SHOWN HEREON ARE PER NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) IN US SURVEY FEET.

SITE BENCHMARKS AND CONTROL: (AS SHOWN HEREON)

CP 1: SET NO. 5 REBAR WITH YELLOW PLASTIC CAP STAMPED "ATWELL LLC"
GRID NORTHING: 1004897.61 (NAD83)
GRID EASTING: 2818804.20 (NAD83)
ELEVATION: 999.44' (NAVD88)

BM 3: FOUND CHISELED SQUARE IN CONCRETE
GRID NORTHING: 1004952.82 (NAD83)
GRID EASTING: 2818513.73 (NAD83)
ELEVATION: 999.37' (NAVD88)

BM 101: FOUND CUT CROSS IN CONCRETE SIDEWALK
GRID NORTHING: 1004895.46 (NAD83)
GRID EASTING: 2818846.27 (NAD83)
ELEVATION: 1002.72' (NAVD88)

LEGEND

○	FOUND SURVEY MONUMENT
●	SET SURVEY MONUMENT
△	SITE CONTROL POINT
◈	SITE BENCHMARK
P.R.J.C.M.	PUBLIC RECORDS OF JACKSON COUNTY, MISSOURI
DOC. NO.	DOCUMENT NUMBER
BK. , PG.	BOOK, PAGE
▷—	EXISTING HYDRANT
Ⓔ	EXISTING ELECTRIC METER
☐ E	EXISTING ELECTRIC RISER
⊡	EXISTING TELEPHONE HAND HOLE
⊡	EXISTING FIBER OPTIC HAND HOLE
®	EXISTING STORM MANHOLE/CATCH BASIN
ⓢ	EXISTING SANITARY MANHOLE
ⓣ	EXISTING TELEPHONE MANHOLE
☐	EXISTING STORM INLET
Ⓑ	EXISTING BOLLARD
Ⓦ	EXISTING WATER METER
Ⓖ	EXISTING GAS VALVE
☐ CATV	EXISTING CABLE RISER
●	EXISTING UTILITY POLE
⊕	EXISTING TRAFFIC SIGNAL
☼	EXISTING LIGHT POLE
———	BOUNDARY LINE
— — —	BOUNDARY ADJACENT / ROW LINE
- - - -	EASEMENT LINE
═══	EXISTING CURB LINE
—STM—STM—	UNDERGROUND STORM LINE
—E—E—	UNDERGROUND ELECTRIC LINE
—U—U—	UNSPECIFIED UTILITY LINE
—W—	UNDERGROUND WATER LINE
—G—G—	UNDERGROUND GAS LINE
—TV—TV—	UNDERGROUND CABLE LINE
—585—	EXISTING MAJOR GROUND CONTOUR
—586—	EXISTING GROUND CONTOUR
▨	EXISTING BUILDING
▭	SURVEYED PROPERTY
░	EXISTING ASPHALT
░	EXISTING CONCRETE

811
Know what's **below.**
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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ATWELL
www.atwell-group.com
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
630.577.0800
MO COA # 2011037945

A TRACT OF LAND SITUATED IN
THE CITY OF LEE'S SUMMIT,
SE 1/4 OF SECTION 36
T48N, R32W

JACKSON COUNTY, MISSOURI

CLIENT
VALVOLINE INC.
ALTA/NSPS LAND TITLE SURVEY
610 NW CHIPMAN ROAD
LEE'S SUMMIT,
MO 64086

DATE
SEPTEMBER 15, 2025

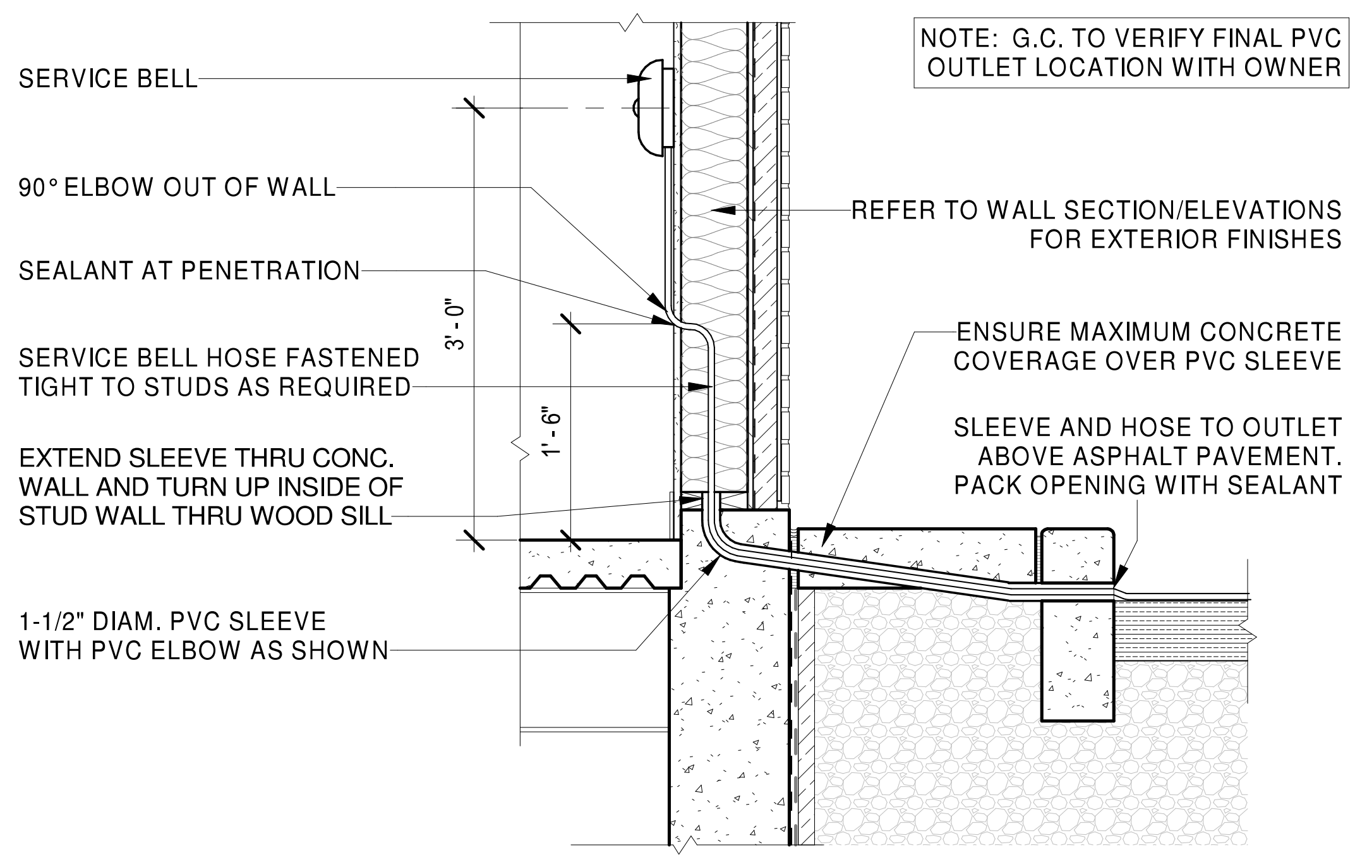
REVISIONS:
3/6/2026 – SIGNED SURVEY

JOSEPH C.
CROUCH
NUMBER
PLS-2015017836

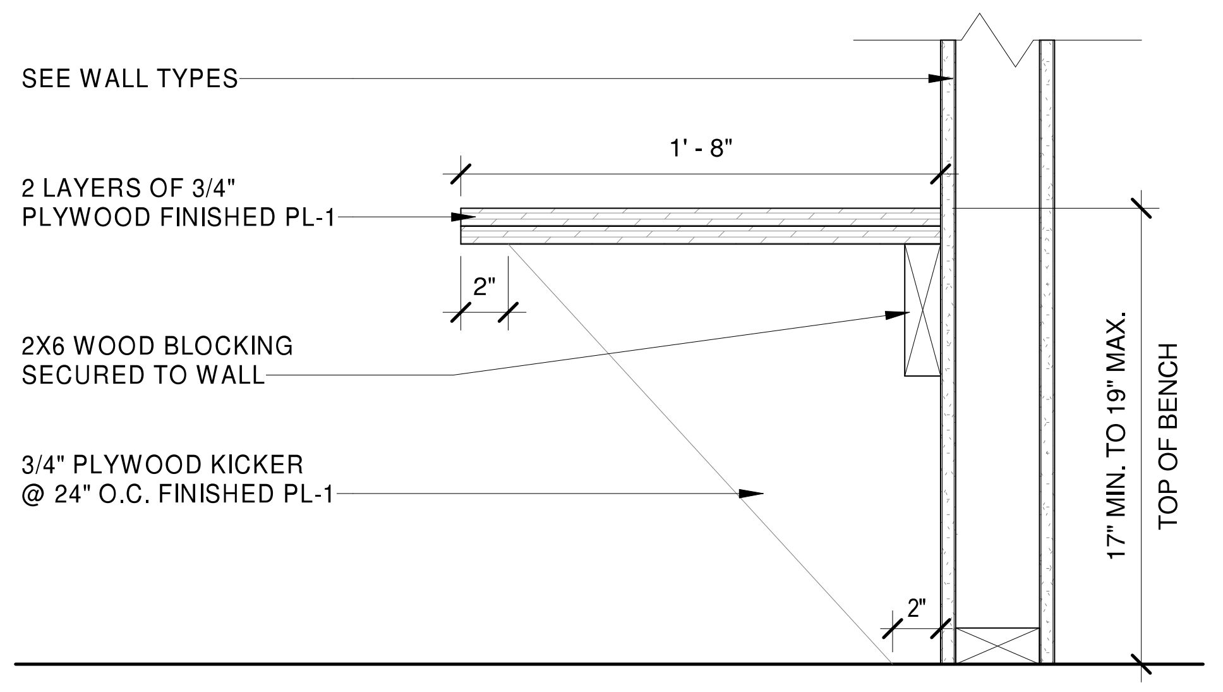
3/6/2026
Joseph C. Crouch

JOSEPH C. CROUCH
MISSOURI PROFESSIONAL LAND
SURVEYOR NO. 2015017836
ATWELL, LLC

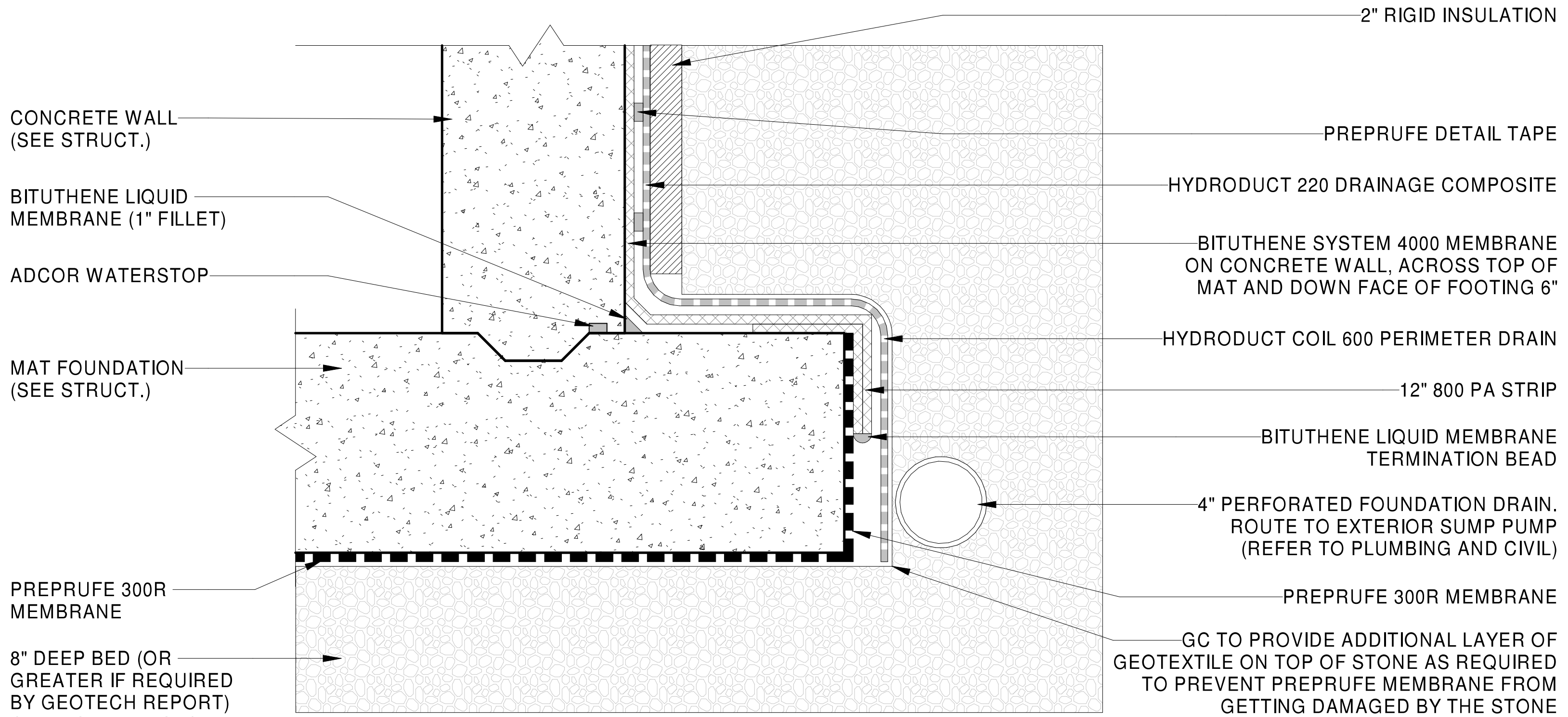
DR. AEC	CH. JCC
P.M. ASA	
CREW CHIEF: M. WILKERSON	
JOB 25006813	
SHEET NO. 2 OF 2	


SERVICE BELL
90° ELBOW OUT OF WALL
SEALANT AT PENETRATION
SERVICE BELL HOSE FASTENED TIGHT TO STUDS AS REQUIRED
EXTEND SLEEVE THRU CONC. WALL AND TURN UP INSIDE OF STUD WALL THRU WOOD SILL
1-1/2" DIAM. PVC SLEEVE WITH PVC ELBOW AS SHOWN
NOTE: G.C. TO VERIFY FINAL PVC OUTLET LOCATION WITH OWNER
REFER TO WALL SECTION/ELEVATIONS FOR EXTERIOR FINISHES
ENSURE MAXIMUM CONCRETE COVERAGE OVER PVC SLEEVE
SLEEVE AND HOSE TO OUTLET ABOVE ASPHALT PAVEMENT. PACK OPENING WITH SEALANT
3' - 0"
1' - 6"

4
A-1.1
SERVICE BELL DETAIL
Scale: 3/4" = 1'-0"


SEE WALL TYPES
2 LAYERS OF 3/4" PLYWOOD FINISHED PL-1
2X6 WOOD BLOCKING SECURED TO WALL
3/4" PLYWOOD KICKER @ 24" O.C. FINISHED PL-1
1' - 8"
2"
2"
17" MIN. TO 19" MAX.
TOP OF BENCH

3
A-1.1
BENCH DETAIL
Scale: 1 1/2" = 1'-0"


CONCRETE WALL (SEE STRUCT.)
BITUTHENE LIQUID MEMBRANE (1" FILLET)
ADCOR WATERSTOP
MAT FOUNDATION (SEE STRUCT.)
PREPRUFE 300R MEMBRANE
8" DEEP BED (OR GREATER IF REQUIRED BY GEOTECH REPORT) OF WASHED 57 STONE
2" RIGID INSULATION
PREPRUFE DETAIL TAPE
HYDRODUCT 220 DRAINAGE COMPOSITE
BITUTHENE SYSTEM 4000 MEMBRANE ON CONCRETE WALL, ACROSS TOP OF MAT AND DOWN FACE OF FOOTING 6"
HYDRODUCT COIL 600 PERIMETER DRAIN
12" 800 PA STRIP
BITUTHENE LIQUID MEMBRANE TERMINATION BEAD
4" PERFORATED FOUNDATION DRAIN. ROUTE TO EXTERIOR SUMP PUMP (REFER TO PLUMBING AND CIVIL)
PREPRUFE 300R MEMBRANE
GC TO PROVIDE ADDITIONAL LAYER OF GEOTEXTILE ON TOP OF STONE AS REQUIRED TO PREVENT PREPRUFE MEMBRANE FROM GETTING DAMAGED BY THE STONE

THE INTENT OF THIS WATERPROOFING DETAIL IS TO DEPICT THE MANUFACTURER'S STANDARD WATERPROOFING DETAIL. ALL PENETRATIONS THROUGH THE WATERPROOFING SYSTEM SHALL BE SEALED AS PER MANUFACTURER'S REQUIREMENTS TO MAINTAIN A FULL SYSTEM WARRANTY. REFER TO STRUCTURAL DRAWINGS FOR MAT FOUNDATION DESIGN AND DIMENSIONS.

NOTE: THIS WATERPROOFING DETAIL SHALL BE APPLIED AROUND THE ENTIRE PERIMETER OF THE LOWER LEVEL TO CREATE A SEALED WATERPROOFING SYSTEM AND PREVENT GROUND WATER INFILTRATION INTO THE BUILDING.

NOTE: THIS DETAIL IS WITHIN GCP'S WARRANTY SPECIFICATIONS AND IN NO WAY RELIEVES THE CONTRACTOR FROM FOLLOWING ALL MANUFACTURER SPECIFICATIONS.

2
A-1.1
WATERPROOFING DETAIL
Scale: 1 1/2" = 1'-0"

FLOOR PLAN KEY NOTES: ⬡

1	OIL- WATER SEPARATOR - SEE PLUMBING
2	LINE OF CHASE ABOVE
3	ROUTE PROCESS PIPING FROM DRUM TRANSFER PUMP @ UPPER LEVEL, DOWN IN CHASE TO LUBE BAR DRUM TRANSFER IN LUBE PIT. COORDINATE ROUNTING IN FIELD
4	MECHANICAL DUCT ABOVE. SEE MECHANICAL PLANS.
5	PROVIDE UNDERSLAB WATERPROOFING BENEATH ENTIRE LOWER LEVEL - SEE DETAIL 2/A-1.1
6	AUTO AIR DRYER, REFER TO OPERATIONS EQUIPMENT PLAN G-3.1 (COORDINATE LOCATION WITH PLUMBING DRAWINGS.)
7	OIL-WATER SEPARATOR PUMP AND BASIN - SEE PLUMBING
8	BUMP HAT STORAGE
9	GYPSUM BOARD NOT REQUIRED TO BE INSTALLED ON STUD FRAMING WHERE NOT VISIBLE BENEATH STAIR. SEE DETAIL 1/A-5.3.
10	TIRE ROTATION AIR LINE LOCATION. G.C. TO COORDINATE W/ VENDOR
11	CHANGING BENCH - SEE DETAIL 3/A-1.1
12	PROVIDE 5/8" CDX PLYWOOD IN LIEU OF GYPSUM WALL BOARD BEHIND SHELVING FROM FLOOR TO 8'-0" AFF

GENERAL NOTES

A. INTERIOR WALL SEPARATING THE SERVICE BAYS FROM THE WAITING/RESTROOM/OFFICE/MECHANICS ROOM, AND INTERIOR WALLS SURROUNDING THE RESTROOM, OFFICE AND MECHANICAL ROOM SHALL BE PROVIDED WITH SOUND BATT INSULATION FOR THE FULL HEIGHT OF THE WALLS. VAPOR BARRIER IS NOT REQUIRED IN THESE WALLS.

B. ALL EXTERIOR WALLS AND ROOF SHALL BE PROVIDED WITH INSULATION TO ACHIEVE A COMPLETELY INSULATED THERMAL ENVELOPE AS REQUIRED - REFER TO SHEET A-4.1. PROVIDE VAPOR BARRIER PER LOCAL CLIMATE REQUIREMENTS.

C. ALL GYPSUM BOARD IN SERVICE BAYS SHALL BE 5/8" HIGH ABUSE FIRE SHIELD BY NATIONAL GYPSUM.

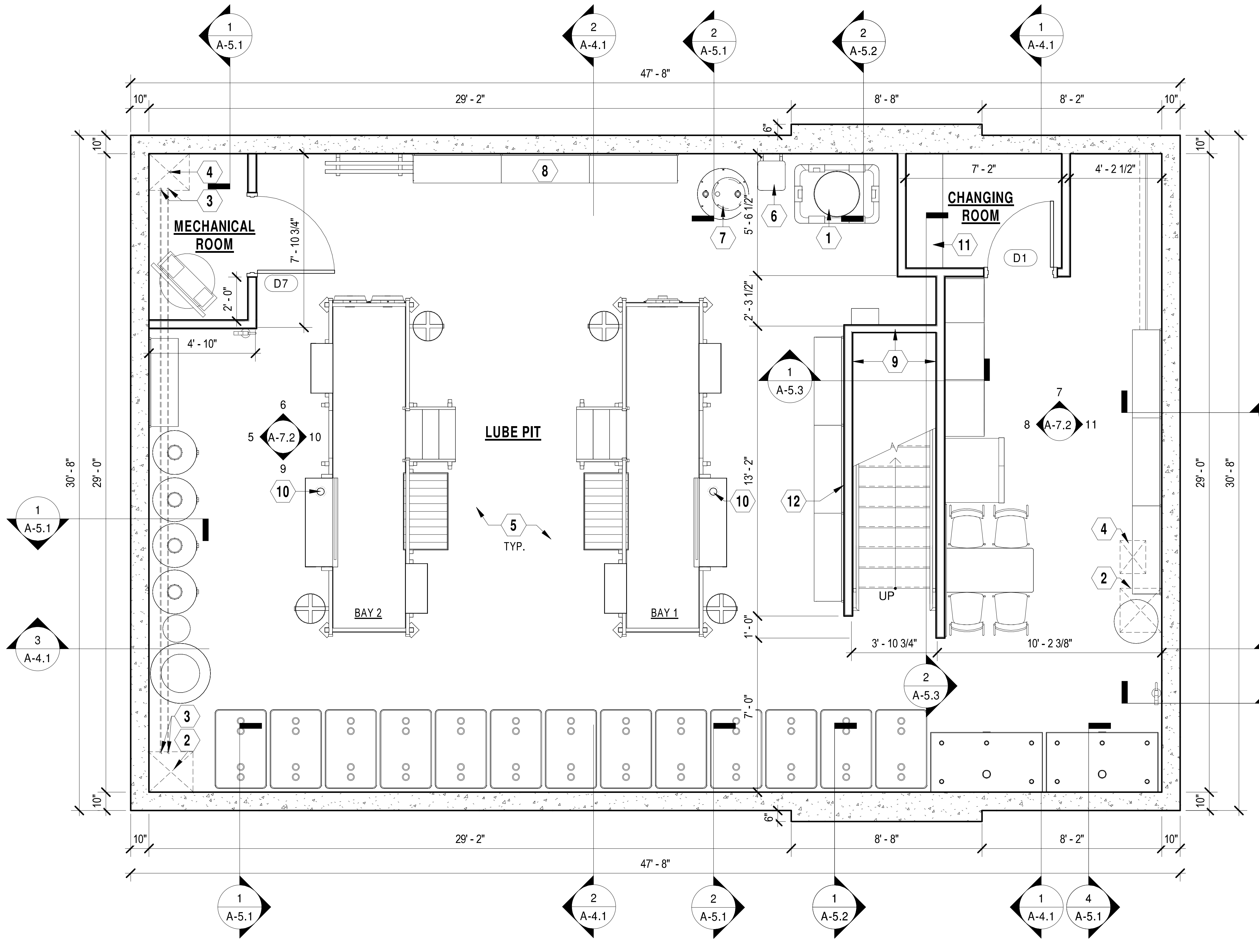
D. ALL WALLS EXTENDING TO UNDERSIDE OF PLYWOOD ROOF SHEATHING SHALL BE BRACED TO STRUCTURE AS REQUIRED. PROVIDE NECESSARY BLOCKING FOR STABLE, SECURE INSTALLATION.

E. REFER TO SHEET G-3.1 FOR EQUIPMENT SCHEDULES AND LOCATIONS.

F. DIMENSIONS FOR INTERIOR WALLS ON PLANS ARE TO ROUGH FRAMING (U.N.O.) EXTERIOR DIMENSIONS ARE TO FINISHED SURFACES AND OPENINGS.

G. REFER TO STRUCTURAL FOR FLOOR PENETRATION LOCATIONS

H. POLYETHYLENE VAPOR BARRIER TO BE USED ON WALL/ CEILING APPLICATIONS WHERE UNFACED BATT INSULATION IS USED.


1 A-5.1
2 A-4.1
2 A-5.1
2 A-5.2
1 A-4.1
47' - 8"
10"
29' - 2"
8' - 8"
8' - 2"
10"
6"
MECHANICAL ROOM
4
3
7' - 10 3/4"
2' - 0"
D7
4' - 10"
8
7
5' - 6 1/2"
6
1
CHANGING ROOM
7' - 2"
4' - 2 1/2"
11
D1
2' - 3 1/2"
9
1 A-5.3
6
5 A-7.2 10
9
LUBE PIT
10
10
13' - 2"
12
5
TYP.
7
8 A-7.2 11
1 A-5.1
1 A-5.1
3 A-4.1
3 A-4.1
3 A-5.1
4
2
UP
BAY 2
BAY 1
1' - 0"
3' - 10 3/4"
10' - 2 3/8"
2 A-5.3
7' - 0"
3
2
30' - 8"
29' - 0"
10"
10"
1 A-5.1
2 A-4.1
2 A-5.1
1 A-5.2
1 A-4.1
4 A-5.1
NORTH

1
A-1.1
FLOOR PLAN - LOWER LEVEL
Scale: 1/4" = 1'-0"

HFA
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t 479.273.7780

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
www.hfa-ae.com

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Date	Issued Record
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT

JAMI MARIE COOK
NUMBER
A-2021048657
Jami Cook
2025.12.22 08:59:35-06'00'
JAMI MARIE COOK, ARCHITECT
A-2021048657
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL IN CHARGE
JAMI MARIE COOK
PROJECT MANAGER
DAH
QUALITY CONTROL
MND
DRAWN BY
DAH

PROJECT NAME
Valvoline
Instant Oil Change
VALVOLINE
INSTANT
OIL CHANGE

NW CHIPMAN RD &
NW WARD RD
LEE'S SUMMIT, MO,
64086

PROJECT NUMBER
06-24-20062

SHEET NAME
FLOOR PLAN -
LOWER LEVEL

SHEET #
A-1.1

12/19/2025 3:01:15 PM C:\Users\dwayne.harris\Documents\2024 Revit Projects\06-24-20062 - Lee Summit MO - 2B-Flat Roof Arch_V24_HFA.Dwayne.Harris.rvt
-A-1.1-FLOOR PLAN - LOWER LEVEL

FINISH SCHEDULE

ROOM	FLOOR	BASE	WALLS FULL HEIGHT	WAINSCOT BOTTOM	WAINSCOT TOP	CEILING/ EXPOSED STRUCTURE	REMARKS
UPPER LEVEL							
WAITING ROOM	F-1	B-1	PR-3/PT-1 1	N/A	N/A	C-1	1
UNISEX RESTROOM	F-1	B-1	PR-3/PT-1/ FRP	N/A	N/A	C-1	FRP TO 4'-0" ABOVE FINISHED FLOOR.
OFFICE	F-1	B-1	PR-3/PT-5	N/A	N/A	C-1	
MECHANICS ROOM	F-1	B-1	PR-3/PT-5	N/A	N/A	PR-3/PT-5	
SERVICE BAYS	F-1	B-1	PR-3/PT-5	W-1	PR-3/PT-5	PR-3/PT-5	SEE INTERIOR ELEVATIONS FOR WAINSCOT
LOWER LEVEL							
MECHANICAL ROOM	F-2	B-1	PR-1/PT-5	N/A	N/A	PR-2/PT-5	B-1 ON STUD WALLS ONLY
LUBE PIT	F-2	B-1	PR-1/PT-5	N/A	N/A	PR-2/PT-5	PT-6 AS SHOWN ON INTERIOR ELEVATIONS; B-1 ON STUD WALLS ONLY
CHANGING ROOM	F-2	B-1	PR-1/PT-5	N/A	N/A	PR-2/PT-5	B-1 ON STUD WALLS ONLY

NOTES:

1. ANY MOISTURE PROBLEMS SUCH AS ROOF LEAKS, IMPROPER GRADING, ETC. MUST BE CORRECTED PRIOR TO PAINT APPLICATION.

2. CLEAN & PREPARE ALL SURFACES ACCORDING TO COATING MFG. RECOMMENDATIONS.

3. ALL GALVANIZED SURFACES SHALL BE CORROSION PROTECTED PER SPEC. RUSTED AREAS SHOULD BE PREPARED PER SSPC-SP2 OR SP3 HAND OR POWER TOOL CLEANING & PRIMED WITH PR-2 PRIOR TO APPLICATION OF SPECIFIED FINISH COATS.

4. ALL SURFACES SHALL RECEIVE (2) APPLICATIONS OF TOP COAT, APPLIED ACCORDING TO MFG. RECOMMENDATIONS.

5. ENTIRE DOOR & FRAME SHALL BE PAINTED ONE COLOR AS NOTED

6. ALL WELDS SHALL BE GROUND SMOOTH PRIOR TO PRIME COAT.

7. ALL EXPOSED LINTELS SHALL BE PAINTED THE SAME COLOR AS THE DOOR FRAME AT MAN DOORS AND TO MATCH THE DESERT SAND METAL COLORS AT ALL OTHER EXPOSURES.

8. ALL EXPOSED STEEL AT STAIR, STAIR RAIL AND PIT OPENING SHALL BE PAINTED PT-4.

9. WALL FINISHES ON THE LOWER LEVEL SHALL EXTEND UP BETWEEN THE BEAM POCKETS TO THE UNDERSIDE OF THE METAL FLOOR DECK. WALL FINISHES ON THE UPPER LEVEL IN THE SERVICE BAYS AND THE MECHANICS ROOM SHALL EXTEND UP BETWEEN THE ROOF TRUSSES TO THE UNDERSIDE OF THE PLYWOOD ROOF SHEATHING.

10. ALL EXPOSED WOOD ROOF TRUSSES, BLOCKING, PLYWOOD ROOF SHEATHING, ETC. SHALL BE PAINTED PT-5.

FINISH LEGEND

MARK	COLOR	FINISH	MANUFACTURER	PRODUCT
PRIMERS:				
PR-1	TINTED TO MATCH		SHERWIN WILLIAMS	HEAVY DUTY BLOCK FILLER B42W150
PR-2	TINTED TO MATCH		SHERWIN WILLIAMS	PRO-CRYL PRIMER B66 -1300 SERIES
PR-3	TINTED TO MATCH		SHERWIN WILLIAMS	MULTI-PURPOSE LATEX PRIMER/SEALER B51-450 SERIES
PAINTS:				
PT-1	SW7012 (CREAMY)	GLOSS	SHERWIN WILLIAMS	WATER BASED ALKYD URETHANE ENAMEL B53
PT-2	SW7515 (HOMESTEAD BROWN)	GLOSS	SHERWIN WILLIAMS	SHER-CRYL HPA
PT-3	CEILING WHITE	GLOSS	SHERWIN WILLIAMS	WATER BASED ALKYD URETHANE ENAMEL B53
PT-4	VALVOLINE RED	GLOSS	SHERWIN WILLIAMS	WATER BASED ALKYD URETHANE ENAMEL B53 - Color to match Pantone 485 RED
PT-5	ULTRA WHITE	GLOSS	SHERWIN WILLIAMS	WATER BASED ALKYD URETHANE ENAMEL B53
PT-6	SW2936 (BLACK EMERALD)	GLOSS	SHERWIN WILLIAMS	WATER BASED ALKYD URETHANE ENAMEL B53
WALL PANELS:				
W-1	MAUNA LOA (1295)	SATIN SANDSTONE	CRANE COMPOSITES	FRP PANEL W/ MATCHING COLOR TRIMS – CLASS C
W-2	S-490N - LIGHT GRAY	SMOOTH	MARLITE	FRP PANEL W/ MATCHING COLOR TRIMS – CLASS C 1
PLASTIC LAMINATE:				
PL-1	DOVE GREY	MATTE	WILSONART	STANDARD HPL FINISH D92-60
FLOOR FINISH:				
F-1	SEE FINISH NOTE D		SIKA / SHERWIN WILLIAMS	SIKAGARD 200 HD WB AND SIKAGARD H 1001
F-2	SEE FINISH NOTE E		SIKA	SIKAGARD 300 KNS
BASE:				
B-1	BLACK	SMOOTH	ROPPE OR EQUAL	700 SERIES 4” RUBBER COVE BASE
CEILING FINISH:				
C-1	WHITE	MEDIUM TEXTURE	ARMSTRONG	24"X24" CIRRUS HIGH NRC SQUARE LAY-IN CEILING PANELS SET IN PRELUDE XL ITEM NO. 7301-WH EXPOSED TEE SUSPENSION SYSTEM.

FINISH NOTES

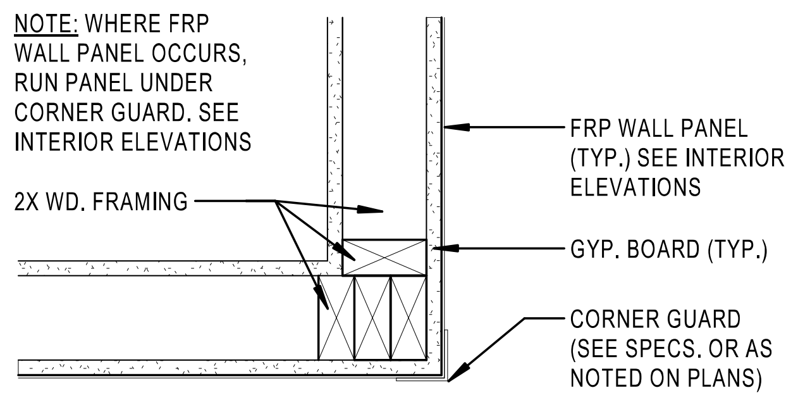
A. W-1 FINISH IS AVAILABLE THROUGH CRANE COMPOSITES. CONTACT: KEVIN BELLINGER @ (704) 904-4730. REFER TO DETAIL 4/A-7.1.

B. PROVIDE STANDARD FRP TRIMS & MOLDINGS IN COLORS TO MATCH FRP FOR FINISHES W-1. COMPLY w/ MANUFACTURERS INSTALLATION GUIDELINES USING ONLY APPROVED ADHESIVES AND SEALANTS.

C. INSIDE OF ACCESS CHASES SHALL BE PAINTED PT-6.

D. PROVIDE LIGHT BROOM FINISH. SIKAGARD 200 HD WB SHALL BE APPLIED TO HARDEN AND SEAL THE CONCRETE FLOOR SLAB IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. AFTER THE FLOOR SLAB HAS CURED, APPLY SIKAGARD H 1001 (3 COATS MIN.) IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROVIDE YELLOW CAUTION STRIPING AND BLUE END-OF-BAY MARKING INTEGRAL w/ FLOOR FINISH - SEE FLOOR PLAN. PAINT TO BE SHERWIN WILLIAMS, PROPARK WATERBORNE TRAFFIC PAINT - BLUE.

E. PROVIDE LIGHT BROOM FINISH. SIKAGARD 300 KNS SHALL BE INSTALLED WITH (3) COATS MINIMUM. TWO COATS AT INITIAL FINISH AND ONE COAT AFTER CLEANING, JUST PRIOR TO TURN OVER.


NOTE: WHERE FRP WALL PANEL OCCURS, RUN PANEL UNDER CORNER GUARD. SEE INTERIOR ELEVATIONS
2X WD. FRAMING
FRP WALL PANEL (TYP.) SEE INTERIOR ELEVATIONS
GYP. BOARD (TYP.)
CORNER GUARD (SEE SPECS. OR AS NOTED ON PLANS)

2 A-1.2 CORNER GUARD DETAIL
Scale: 1 1/2" = 1'-0"

FLOOR PLAN KEY NOTES: ⬡

⟨1⟩ YELLOW SAFETY STRIPE INTERGRAL W/FLOOR FINISH. REFER TO FINISH NOTE "D" & PIT OPENING PLAN DETAIL 1/A-9.1.

⟨2⟩ FRP FINISH THIS WALL (OR AREA). PROVIDE/INSTALL TRIM AS REQUIRED. REFER TO FINISH SCHEDULE.

⟨3⟩ PLASTIC LAMINATE COUNTERTOP AND WALL CABINETS. REFER TO INTERIOR ELEVATIONS & DETAILS 1 & 2/A-7.1

⟨4⟩ SMOKE DETECTOR. (COORDINATE LOCATION IN MECHANICS ROOM WITH OWNER)

⟨5⟩ PIPE BOLLARD (SEE PLANS FOR QUANTITY/LOCATION). REFER TO DETAIL 6/A-10.1.

⟨6⟩ WATER HEATER ON PLATFORM ABOVE SINK. REFER TO INTERIOR ELEVATIONS AND PLUMBING.

⟨7⟩ COMBINATION BOTTLE FILLING STATION AND DRINKING FOUNTAIN, REFER TO INTERIOR ELEVATIONS AND PLUMBING.

⟨8⟩ ELECTRICAL EQUIPMENT. REFER TO ELECTRICAL.

⟨9⟩ FURNISH AND INSTALL VESTIL OVERHEAD TRACK PROTECTOR - 24 1/4" HIGH =, MODEL #DSP-24 FROM NORTHERN TOOL + EQUIPMENT. SECURELY MOUNT TO FLOOR (EACH SIDE OF DOOR) TO COVER/ PROTECT VITECTOR ELECTRONIC EYES AND LIFTECH EQUIPMENT WITHOUT BLOCKING SIGHT LINE.

⟨10⟩ ROUTE LUBE BAR LINES DOWN IN SHAFT TO TANKS IN LUBE PIT.

⟨11⟩ PROVIDE SEALED CONCRETE APRONS IN FRONT OF OVERHEAD DOORS. REFER TO CIVIL FOR EXTENT OF PAVING AND FINISH MATERIAL.

⟨12⟩ EXTEND FLOOR FINISH (F-1) TO OUTER EDGE OF SLAB @ BAY DOORS.

⟨13⟩ PROVIDE PVC SLEEVE ROUTED THROUGH CONCRETE SIDEWALK AND WALL FOR SERVICE BELL RINGER HOSE. COORDINATE REQUIREMENTS WITH OWNER PRIOR TO SIDEWALK/ CURB INSTALLATION. SEE DETAIL 4/A1.1.

⟨14⟩ ANTIFREEZE FUNNEL DRAIN LINE TO BE ROUTED THROUGH WALL INTO ACCESS CHASE

⟨15⟩ PROVIDE 1 1/4" x 1 1/4" x 16 GA. STAINLESS STEEL CORNER GUARDS OVER FRP PANELS. GUARDS TO STOP AT TOP OF FRP. REFER TO DETAIL 2/A-1.2.

⟨16⟩ MECHANICAL DUCT. REFER TO MECHANICAL.

⟨17⟩ BLUE GUIDE SQUARE ON FLOOR - INTEGRAL WITH FLOOR FINISH. REFER TO FINISH NOTE "D" & PIT OPENING PLAN DETAIL 1/A-9.1.

⟨18⟩ LOCATION OF SIGNAGE ABOVE. REFER TO EXTERIOR ELEVATIONS AND SIGN SCHEDULE.

⟨19⟩ "OPEN" SIGNAGE. REFER TO EXTERIOR ELEVATIONS, SIGN SCHEDULE, AND ELECTRICAL.

⟨20⟩ EXTERIOR ACCESS DOOR. REFER TO EXTERIOR ELEVATIONS & DOOR SCHEDULE.

⟨21⟩ 2" Ø HOLE TO BE CORE DRILLED THRU FLOOR. G.C. TO COORDINATE LOCATIONS WITH OWNER.

⟨22⟩ ROYAL BLUE STRIPE INTEGRAL WITH FLOOR FINISH. REFER TO FINISH NOTE "D" & PIT OPENING PLAN DETAIL 1/A-9.1.

⟨23⟩ SLOPE CONCRETE TOPPING APPROXIMATELY 30" Ø AROUND FLOOR DRAIN (TYP.). SLOPE OF CONCRETE SHALL NOT EXCEED 1:48

⟨24⟩ 3/4" PLYWOOD ON ENTIRE WALL. PAINT PT-1 (BY G.C.).

⟨25⟩ AIR PRESSURE SHUT OFF VALVE LOCATION FOR AIR COMPRESSOR.

⟨26⟩ AIRLINE PEDESTAL (BY OWNER).

⟨27⟩ LINE OF METAL AWNING/CANOPY ABOVE. REFER TO DETAIL 5/A-5.2

⟨28⟩ INSTALL FIXED ALUMINUM ROOF ACCESS LADDER AND ROOF SCUTTLE AND LADDER UP SAFETY POST. INSTALL 5/8" PLYWOOD BEHIND ROOF ACCESS LADDER. SEE DETAIL 7/A-2.1. COORDINATE WITH STRUCTURAL DRAWINGS.

⟨29⟩ PROVIDE 5/8" CDX PLYWOOD IN LIEU OF GYPSUM WALL BOARD BEHIND SHELVING FROM FLOOR TO 8'-0" AFF

GENERAL NOTES

A. INTERIOR WALL SEPARATING THE SERVICE BAYS FROM THE WAITING/RESTROOM/OFFICE/MECHANICS ROOM, AND INTERIOR WALLS SURROUNDING THE RESTROOM, OFFICE AND MECHANICAL ROOM SHALL BE PROVIDED WITH SOUND BATT INSULATION FOR THE FULL HEIGHT OF THE WALLS. VAPOR BARRIER IS NOT REQUIRED IN THESE WALLS.

B. ALL EXTERIOR WALLS AND ROOF SHALL BE PROVIDED WITH INSULATION TO ACHIEVE A COMPLETELY INSULATED THERMAL ENVELOPE AS REQUIRED - REFER TO SHEET A-4.1. PROVIDE VAPOR BARRIER PER LOCAL CLIMATE REQUIREMENTS.

C. ALL GYPSUM BOARD IN SERVICE BAYS SHALL BE 5/8" HIGH ABUSE FIRE SHIELD BY NATIONAL GYPSUM.

D. ALL WALLS EXTENDING TO UNDERSIDE OF PLYWOOD ROOF SHEATHING SHALL BE BRACED TO STRUCTURE AS REQUIRED. PROVIDE NECESSARY BLOCKING FOR STABLE, SECURE INSTALLATION.

E. REFER TO SHEET G-3.1 FOR EQUIPMENT SCHEDULES AND LOCATIONS.

F. DIMENSIONS FOR INTERIOR WALLS ON PLANS ARE TO ROUGH FRAMING (U.N.O.) EXTERIOR DIMENSIONS ARE TO FINISHED SURFACES AND OPENINGS.

G. REFER TO STRUCTURAL FOR FLOOR PENETRATION LOCATIONS

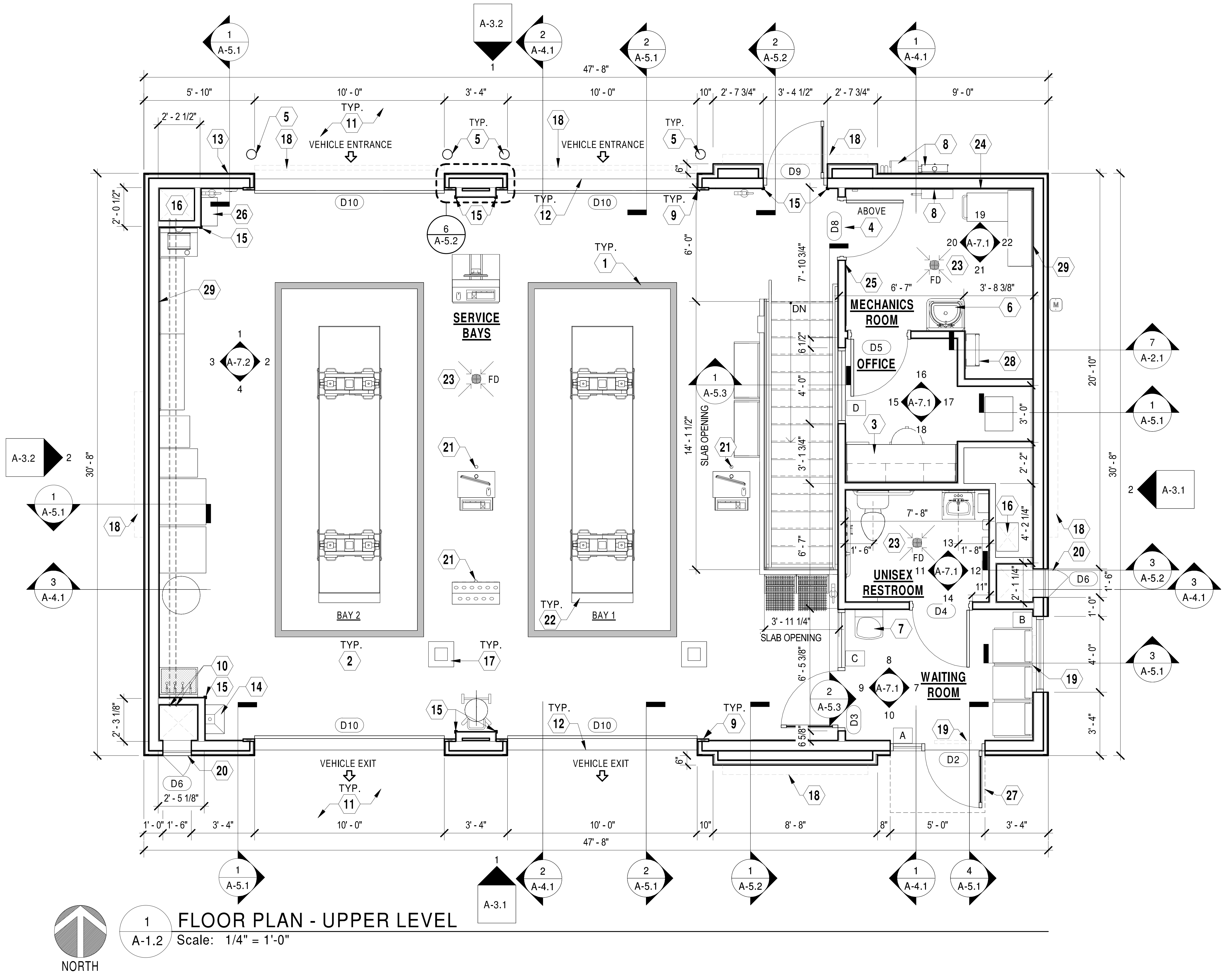
H. POLYETHYLENE VAPOR BARRIER TO BE USED ON WALL/ CEILING APPLICATIONS WHERE UNFACED BATT INSULATION IS USED.

KEY TO WALL TYPES

EXTERIOR WALL: EXTERIOR FINISH, OVER AIR/MOISTURE BARRIER, OVER PLYWOOD SHEATHING (PER STRUCTURAL), OVER 2x6 WALL STUDS (TYPE & SPACING PER STRUCTURAL). PROVIDE 5/8" HIGH ABUSE GYPSUM WALL BOARD ON INTERIOR FACE OVER POLYETHYLENE VAPOR BARRIER. INSULATE STUD CAVITY WITH BATT INSULATION.

INTERIOR WALL: 2x4 STUDS @ 16" O.C. (UNLESS OTHERWISE NOTED) w/ P.T. SILL PLATE AND DOUBLE TOP PLATES w/ 5/8" GYPSUM BOARD EACH SIDE. EXTEND WALL AND SECURE TO STRUCTURE. INSULATE STUD CAVITY WITH SOUND BATTS WHERE NOTED. INTERIOR WALLS IN THE LOWER LEVEL SHALL EXTEND UP TO THE UNDERSIDE OF THE METAL FLOOR DECK. INTERIOR WALLS AT THE UPPER LEVEL SURROUNDING THE SERVICE BAYS AND MECHANICS ROOM SHALL EXTEND UP TO THE UNDERSIDE OF THE PLYWOOD ROOF SHEATHING. ALL OTHER INTERIOR WALLS AT THE UPPER LEVEL SHALL EXTEND UP TO 6" ABOVE THE ACT CEILING.

NOTE: REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.



1 A-1.2 FLOOR PLAN - UPPER LEVEL
Scale: 1/4" = 1'-0"

HFA
HFA-AE, L T D.

t 479.273.7780

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
www.hfa-ae.com

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Date	Issued Record
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT
01/26/2026	REVISION 1

JAMI MARIE COOK
NUMBER A-2021048657
Jami Cook
JAMI MARIE COOK ARCHITECT
2026.01.22 12:42:36-06'00'
A-2021048657
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL IN CHARGE
JAMI MARIE COOK
PROJECT MANAGER
DAH
QUALITY CONTROL
MND
DRAWN BY
DAH

PROJECT NAME

Valvoline Instant Oil Change

VALVOLINE INSTANT OIL CHANGE

NW CHIPMAN RD &
NW WARD RD
LEE'S SUMMIT, MO,
64086

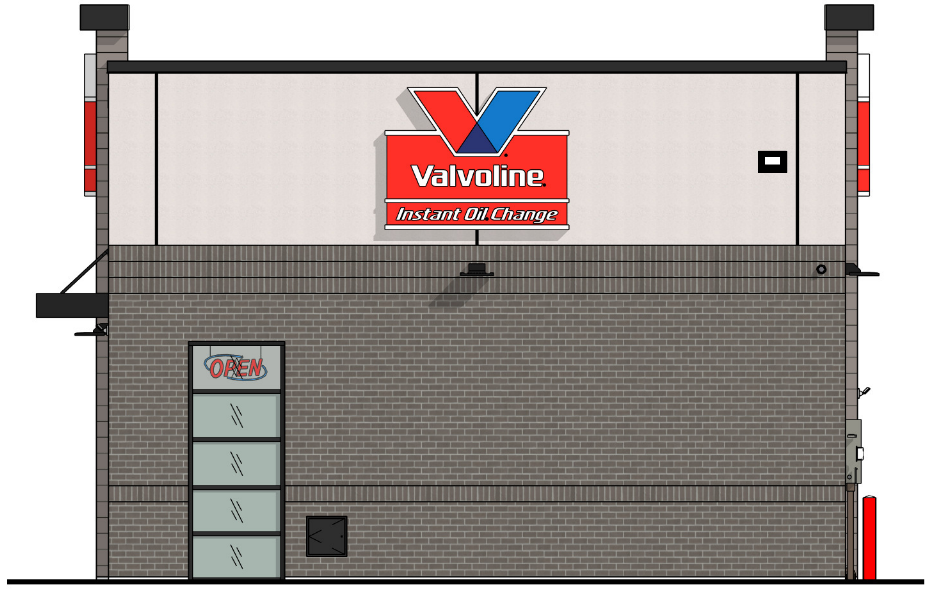
PROJECT NUMBER
06-24-20062

SHEET NAME

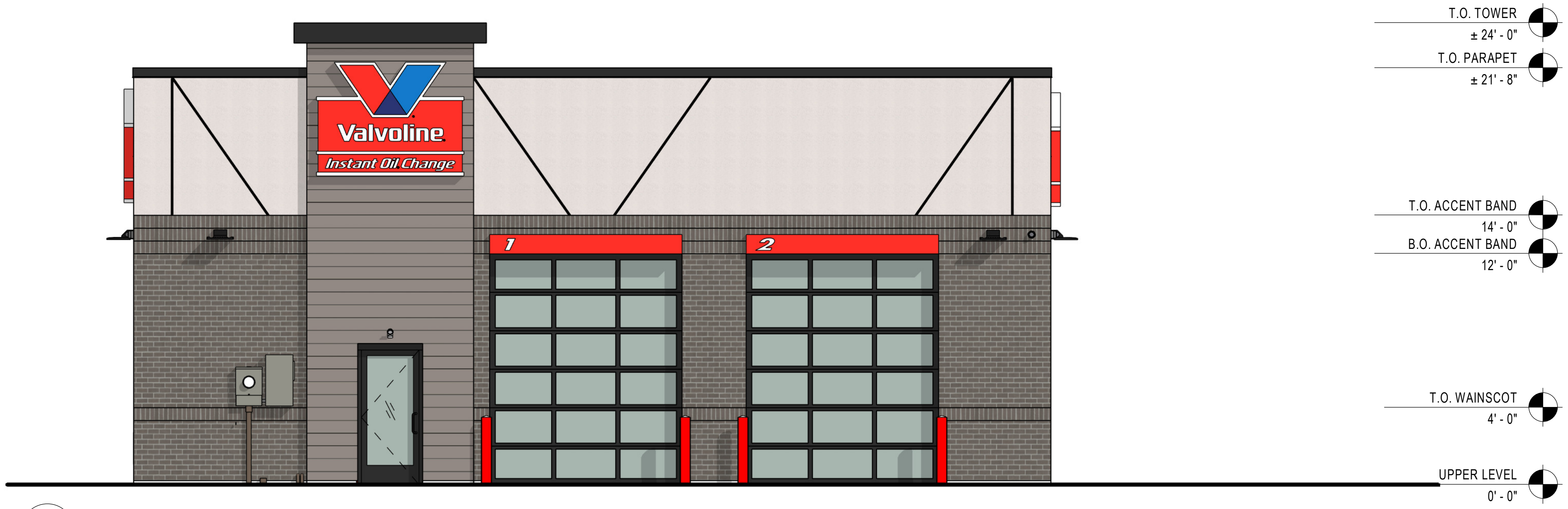
FLOOR PLAN - UPPER LEVEL

SHEET #

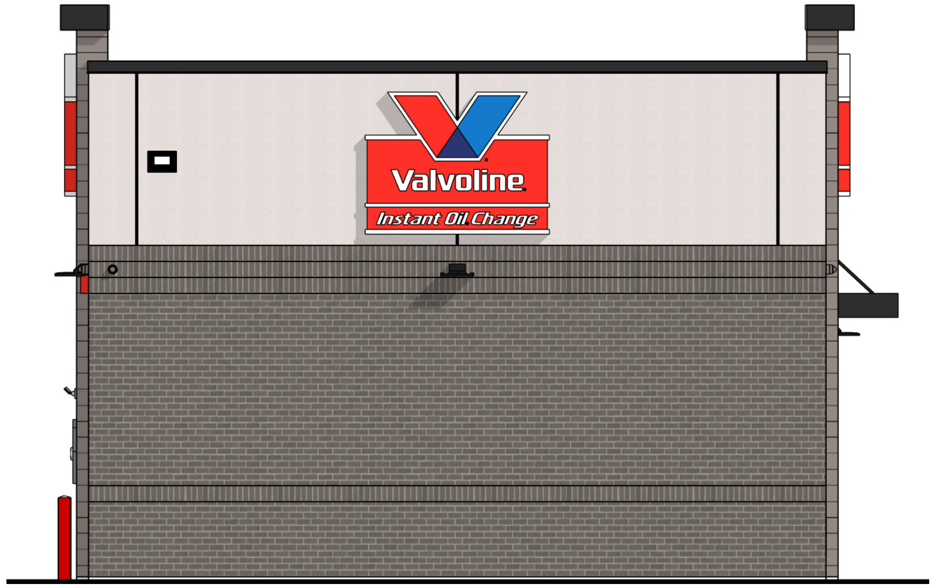
A-1.2


Valvoline
Instant Oil Change
OPEN

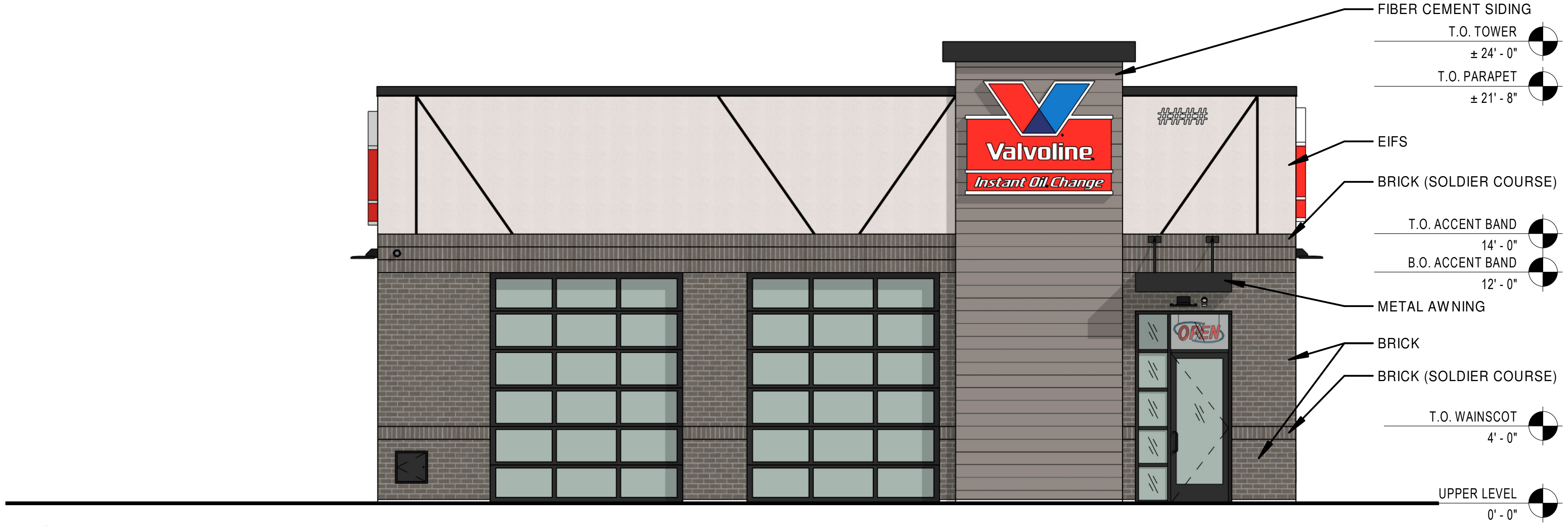
2 EXTERIOR ELEVATION (RIGHT)
Scale: 1/8" = 1'-0"


Valvoline
Instant Oil Change
1
2
T.O. TOWER
± 24' - 0"
T.O. PARAPET
± 21' - 8"
T.O. ACCENT BAND
14' - 0"
B.O. ACCENT BAND
12' - 0"
T.O. WAINSCOT
4' - 0"
UPPER LEVEL
0' - 0"

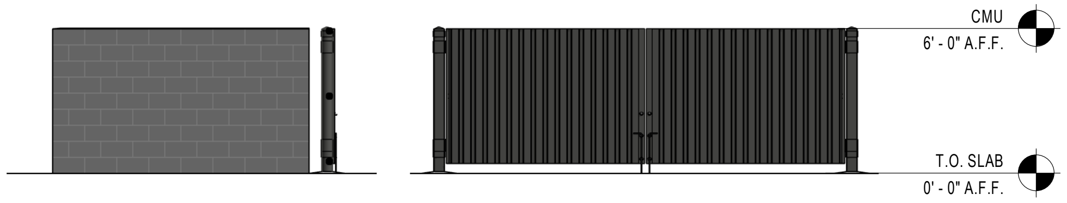
1 EXTERIOR ELEVATION (REAR)
Scale: 1/8" = 1'-0"


Valvoline
Instant Oil Change

4 EXTERIOR ELEVATION (LEFT)
Scale: 1/8" = 1'-0"


Valvoline
Instant Oil Change
OPEN
FIBER CEMENT SIDING
T.O. TOWER
± 24' - 0"
T.O. PARAPET
± 21' - 8"
EIFS
BRICK (SOLDIER COURSE)
T.O. ACCENT BAND
14' - 0"
B.O. ACCENT BAND
12' - 0"
METAL AWNING
BRICK
BRICK (SOLDIER COURSE)
T.O. WAINSCOT
4' - 0"
UPPER LEVEL
0' - 0"

3 EXTERIOR ELEVATION (FRONT)
Scale: 1/8" = 1'-0"


CMU
6' - 0" A.F.F.
T.O. SLAB
0' - 0" A.F.F.

5 TRASH ENCLOSURE ELEVATIONS
Scale: 1/8" = 1'-0"

EXTERIOR FINISHES - BRICK / BRICK / CMU

EXTERIOR INSULATED FINISH SYSTEM:	DRYVIT (SANDPEBBLE FINE) COLOR #1: #104 DOVER SKY	MASONRY SEALER:	ALL MASONRY SURFACES SHALL BE TREATED w/ SEALER.	STOREFRONT SYSTEM:	2x4 1/2" KAWNEER TRIFAB VG 451T SERIES BLACK ANODIZED ALUMINUM STOREFRONT SYSTEM W/ 1" INSULATED GLAZING.
THIN BRICK :	GLEN GERY "EBONITE VELOUR THIN BRICK"	PREFABRICATED METAL CANOPY:	AWNEX INC. "SEATTLE" DESIGN PREFINISHED TO MATCH PAC-CLAD "BLACK"	TRASH ENCLOSURE:	SPLIT FACE CMU FIELD PAINTED SHERWIN-WILLIAMS SW-7050 "USEFUL GRAY". PROVIDE MOCK-UP AND VERIFY COLOR W/ OWNER.
FIBER CEMENT SIDING (TOWER):	JAMES HARDI V-GROOVE SIDING 8.25" PAINTED SW-7018 "DOVETAIL"	PARAPET CAP FLASHING:	ALUMINUM BREAK METAL PREFINISHED TO MATCH PAC-CLAD "BLACK"	GATE SYSTEM:	FIELD PAINTED SHERWIN-WILLIAMS SW-7069 "IRON ORE". PROVIDE MOCK-UP AND VERIFY COLOR W/ OWNER.
MORTAR:	LEHIGH STANDARD KIT - "CHARCOAL"	TOWER SOFFIT AND FASCIA:	PAC-CLAD SNAP EDGE EXTENDED FASCIA (12-12") PREFINISHED TO MATCH PAC-CLAD "BLACK"	O.H. DOOR FINISH:	PREFINISHED TO MATCH PAC-CLAD "BLACK"
		THRU-WALL SCUPPER:	ALUMINUM BREAK METAL - PREFINISHED TO MATCH DIMENSIONAL METALS, INC. - "BLACK"	ACCESS PANEL:	PREFINISHED TO MATCH PAC-CLAD "BLACK"

JAMI MARIE COOK
NUMBER A-2021048657

Jami Cook
2026.03.06
12:23:12-06'00'
JAMI MARIE COOK, ARCHITECT
A-2021048657
HFA-AE, LTD
A-2005011993-F

HFA
HFA-AE, LTD.

VALVOLINE INSTANT OIL CHANGE
LEE'S SUMMIT, MO.

Valvoline
Instant Oil Change

Project No: 06-24-20062

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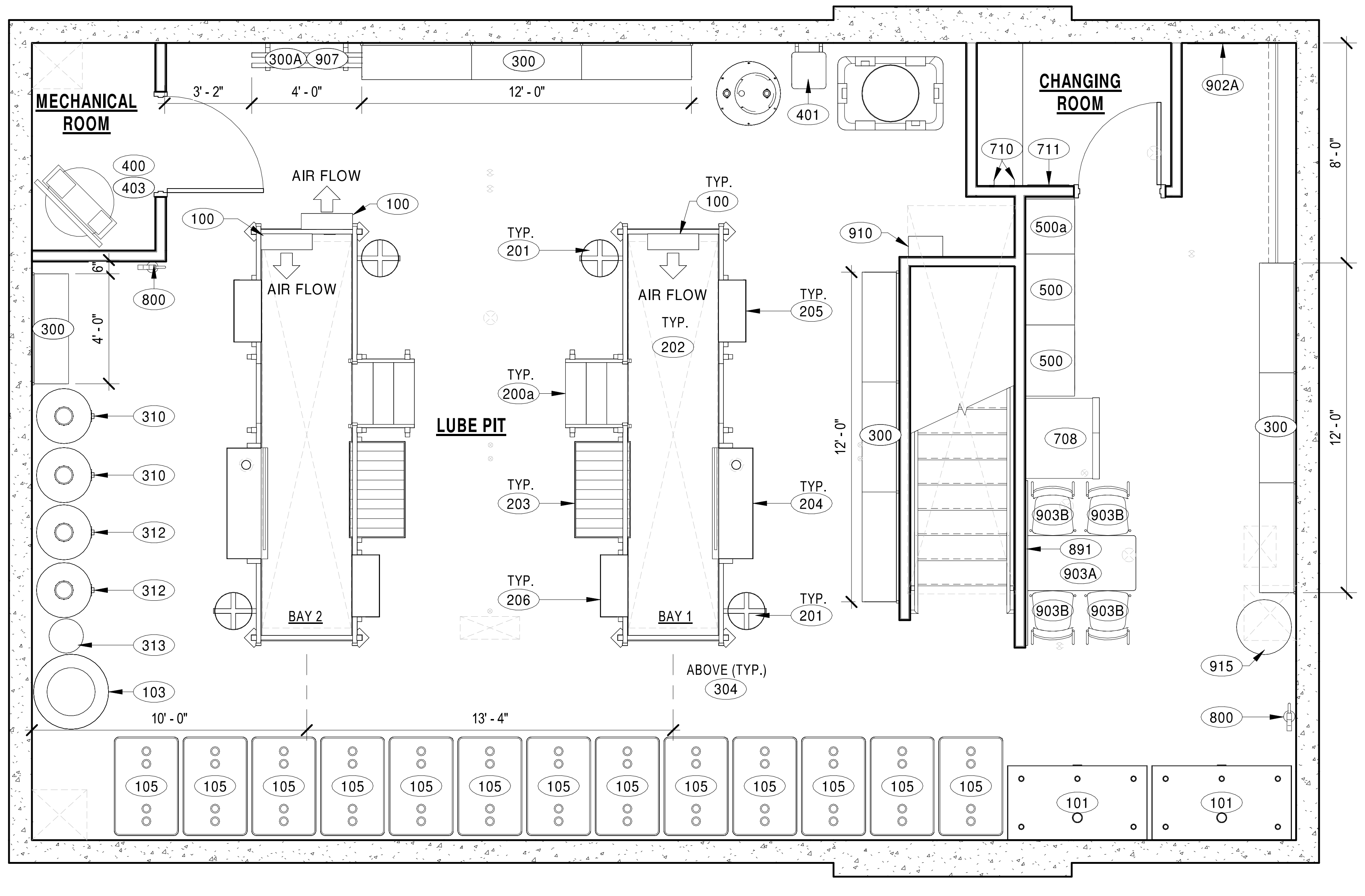
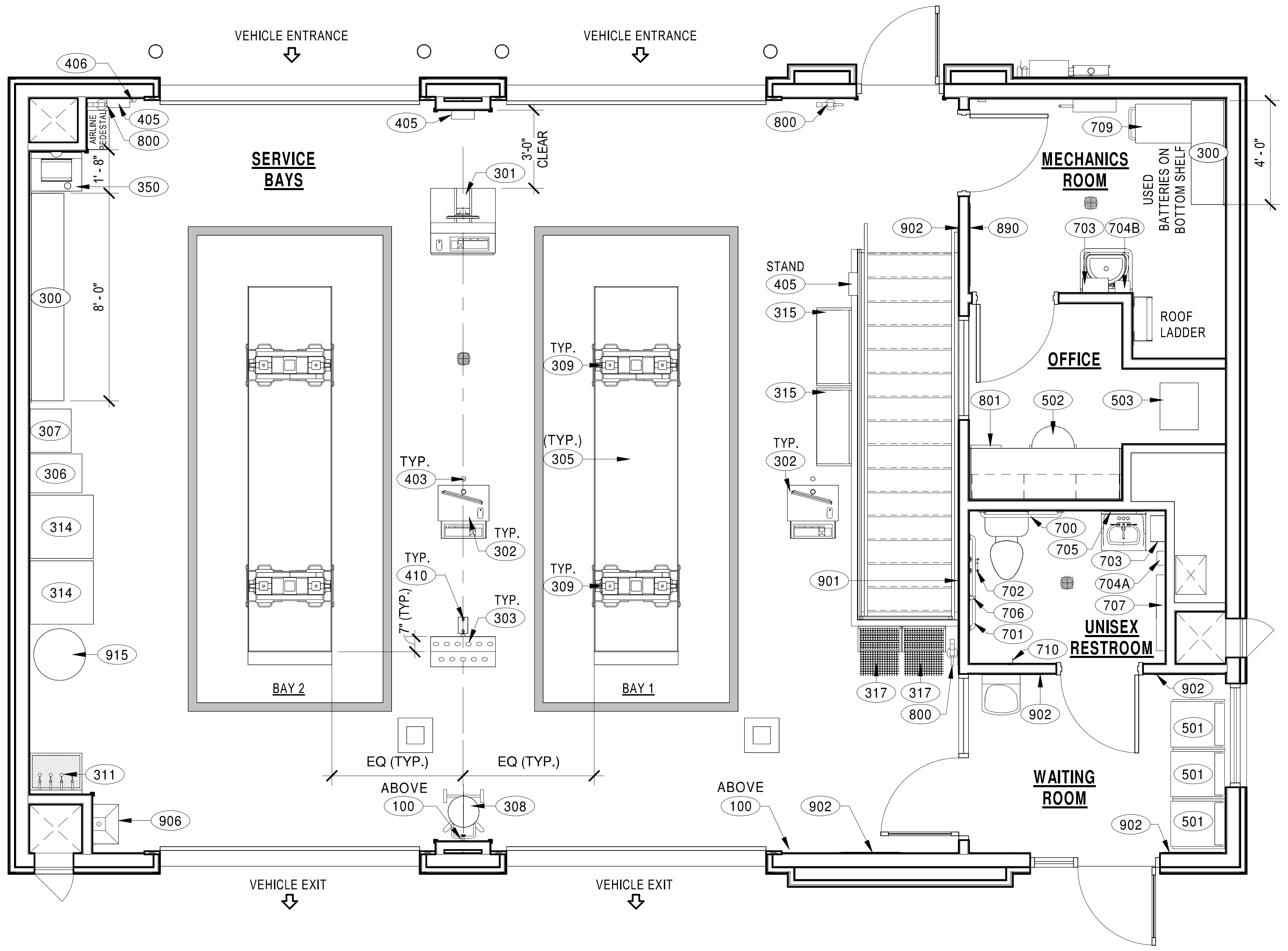


1 OPERATIONS PLAN - LOWER LEVEL
G-3.1 Scale: 1/4" = 1'-0"

NORTH



2 OPERATIONS PLAN - UPPER LEVEL
G-3.1 Scale: 1/4" = 1'-0"

NORTH

EQUIPMENT SCHEDULE

ITEM #	DESCRIPTION	QUANTITY	MANUFACTURER	MODEL #	SUPPLIED BY	INSTALLED BY	COMMENTS
100	20" WORK STATION FAN	5	TPI	U18TE	GC	GC/DEVON	GC TO INSTALL UPPER LEVEL FANS. GC TO PROVIDE CATWALK FANS TO DEVON TO INSTALL ON CATWALKS IN LOWER LEVEL.
101	500 GAL TOTAL SINGLE WALL 1 COMPARTMENT TANK	2	NEWBERRY	FTSBS-0500-VAL	DEVON	GC	PER UL 142 SPECIFICATIONS GC SHALL RECEIVE, SET AND VENT TANKS
103	200 GAL TANK - WASTE ANTIFREEZE	1	ADVANCED ROTO LLC	VT-200-HD	DEVON	GC	
105	275 GAL TOTAL DOUBLE WALL TANK	13	ROTH	DWT 1000L	DEVON	GC	PER UL 2258 SPECIFICATIONS GC SHALL RECEIVE, SET AND VENT TANKS
200	CATWALK	2	DEVON INDUSTRIES	E-915-V	DEVON	DEVON	
200a	CATWALKS STEPS	2	DEVON INDUSTRIES	E-915-ST-V	DEVON	DEVON	
201	DRUM SUPPORT BRACKET	4	DEVON INDUSTRIES	E903-B	DEVON	DEVON	
202	DRIP CATCH PAN	2	DEVON INDUSTRIES	E-915-DPV-40	DEVON	DEVON	
203	OIL FILTER DISPENSER RACK	2	DEVON INDUSTRIES	E-304	DEVON	DEVON	
204	TECHNICIAN TOOL SHELF	2	DEVON INDUSTRIES	E500-2H	DEVON	DEVON	
205	UTILITY SHELF (2-TIER)	2	DEVON INDUSTRIES	E-300	DEVON	DEVON	M-307 MOLDED RUBBER BUMPER BOTH BOTTOM CORNERS
206	UTILITY SHELF (2-TIER)	2	DEVON INDUSTRIES	E-302	DEVON	DEVON	M-307 MOLDED RUBBER BUMPER BOTH BOTTOM CORNERS
207A	TECHNICIAN STEP STOOL - LOWER LEVEL	2	COTTERMAN	LOWER LEVEL: A2N2222A320B8C2P6 -D99990001	OWNER	OWNER	NOT SHOWN ON PLAN. ONE AT EACH CATWALK
207B	TECHNICIAN STEP STOOL - UPPER LEVEL	1	COTTERMAN	UPPER LEVEL: A1N2222A320B8C2P6 -D99990010	OWNER	OWNER	NOT SHOWN ON PLAN.ONE AT UPPER LEVEL
300	15" DEEP INVENTORY SHELVING	13	LOZIER		MIDWEST	GC	SEE PLANS TO DETERMINE LINEAR FOOTAGE NEEDED. 4 SHELVES PER SECTION
300A	INVENTORY SHELVING	1	DEVON INDUSTRIES	E-601 (1'-0" DEPTH)	DEVON	DEVON	48" LENGTH OF 2 BAR SHELVING SYSTEM
301	GREETER STATION	1	DEVON INDUSTRIES	C7030-DX-BLK	DEVON	DEVON	
302	PEDESTAL POST PODIUM	2	DEVON INDUSTRIES	CP09-2M	DEVON	DEVON	
303	LUBE DISPENSING CONSOLE - 12 OUTLETS	1	DEVON INDUSTRIES	E-101-12-SS	DEVON	DEVON	HOSE GUIDES INCLUDED W/ UNIT
304	ROLLING DRAIN PAN	2	DEVON INDUSTRIES	E203-32X	DEVON	DEVON	NOT SHOWN ON PLAN
305	PIT BULL SAFETY NET	2	PNC	PITBULL	DEVON	DEVON	
306	AUTOMATIC TRANSMISSION FLUID EXCHANGER	1	ADVANTAGE ENGINEERING COMPANY	MULTI-MODE	OWNER	OWNER	
307	ANTIFREEZE DRAIN AND FILL SYSTEM	1	ADVANTAGE ENGINEERING COMPANY	CE2000	OWNER	OWNER	
308	OIL EVACUATION MACHINE	1	JOHNDOW INDUSTRIES	JDI-20EV-BV	OWNER	OWNER	
309	ROLLING PIT JACK	4	DEVON	RPJ6K	DEVON	DEVON	PLUMB DEVON
310	105 GAL WINDSHIELD WASHER FLUID TANK	2	ADVANCED ROTO LLC	VT-105-HD-VWW	DEVON	DEVON	W/ PNUEMATIC PUMP
311	OIL DISPENSING BAR	1	DEVON	OB-24	DEVON	DEVON	4 OUTLET MODEL
312	105 GAL ANTIFREEZE TANK	2	ADVANCED ROTO LLC	VT-105-HD	DEVON	DEVON	W/ PNUEMATIC PUMP
313	GEAR OIL CANISTER	1			OWNER	OWNER	
314	A/C MACHINE	2	MAHLE ARCTIC PRO	ACX2180H	OWNER	OWNER	
315	BATTERY DISPLAY SHELVING 3'-0"	2			OWNER	OWNER	
317	WINDSHIELD WIPER DISPLAY	2			OWNER	OWNER	
350	DRUM TRANSFER PUMP	1	DEVON	DPOS	DEVON	DEVON	
400	AIR COMPRESSOR - 120 GAL VERTICAL TANK	1	CHAMPION	SINGLE PHASE CHP-R2-30A-S689	DEVON	DEVON	1PH 208V. VIBRATION ISOLATION DAMPERS SHALL BE INSTALLED BY DEVON. DEVON TO INSTALL CONDENSATE DRAIN TO DISCHARGE INTO LUBE PIT SUMP / CROCK BASIN.
401	AIR DRYER	1	CHAMPION	CGD25A1	DEVON	DEVON	
403	HOSE GUIDE ASSEMBLY	2	DEVON	SAB-02	DEVON	DEVON	
405	AUTOMATIC TIRE INFLATOR	3	HALTEC CORPORATION	89-XDA-VAV	HALTEC	HALTEC	(1) STAND; ALL OTHERS WALL MOUNTED; PEX PIPING
406	SERVICE BELL RINGER	1	MILTON	#805	OWNER	GC	100' HOSE
410	AIR HOSE STAND	1	DEVON	AHS-27	DEVON	DEVON	LOCATE IN FIELD BEHIND LUBE DISPENSING CONSOLE
500	LOCKERS	2			OWNER	GC	SECURE TO WALL PER MANUFACTURER'S RECOMMENDATIONS
500a	DIRTY UNIFORM CABINET	1			OWNER	GC	SECURE TO WALL PER MANUFACTURER'S RECOMMENDATIONS
501	WAITING ROOM CHAIRS	3	REALSPACE	ITEM # 184746	OWNER	OWNER	
502	ROLLING DESK CHAIR	1	REALSPACE	ITEM # 857562	OWNER	OWNER	
503	NETWORK RACK	1	NAVE POINT	00405913	OWNER	OWNER	
700	36" HORIZONTAL GRAB BAR	1	BOBRICK	B6806X36	GC	GC	
701	42" HORIZONTAL GRAB BAR	1	BOBRICK	B6806X42	GC	GC	
702	TOILET PAPER HOLDER	1	BOBRICK	B-685	GC	GC	
703	ELECTRIC HAND DRYER	2	EXCEL DRYER	XL-SB-H-110-120V	GC	GC	STAINLESS STEEL HAND DRYER (SURFACE MOUNTED): 44" A.F.F. TO AIR OUTLET.
704A	SOAP DISPENSER	1	GRAINGER	3WU72	GC	GC	SOAP DISPENSER (WALL MOUNTED): 48" A.F.F. MAX. TO OPERABLE CONTROL AND DISPENSER OPENING CENTERLINE
704B	SOAP DISPENSER	1	GRAINGER	3U515	GC	GC	SOAP DISPENSER (WALL MOUNTED): 48" A.F.F. MAX. TO OPERABLE CONTROL AND DISPENSER OPENING CENTERLINE
705	MIRROR	1	BOBRICK	B-165X1836	GC	GC	MOUNTING HEIGHT = 40" MAX TO BOTTOM EDGE OF THE REFLECTING SURFACE.
706	18" VERTICAL GRAB BAR	1	BOBRICK	B6806X18	GC	GC	
707	BABY CHANGING STATION	1	KOALA KARE	KB200-00 CREAM	GC	GC	
708	REFRIGERATOR	1	FRIGIDAIRE	FRSS2323AB	GC	GC	BLACK SIDE BY SIDE WITH ICE MAKER
709	MOBILE TOOL BOX ON WHEELS	1	GRAINGER	32H895	OWNER	OWNER	
710	COAT HOOK	3	BOBRICK	B-212	GC	GC	MOUNTING HEIGHT = 40" A.F.F.
711	MIRROR	1	GLACIER BAY	81172	GC	GC	MOUNTING HEIGHT = 48" TO BOTTOM EDGE OF THE REFLECTING SURFACE.
800	FIRE EXTINGUISHER	5	AMEREX	B456	GC	GC	GC TO CONFIRM THE TYPE, MODEL, QUANTITY, AND LOCATION WITH LOCAL FIRE MARSHAL PRIOR TO PROCUREMENT AND INSTALLATION.
801	FLOOR SAFE	1	FIREKING SECURITY GROUP	MB2014K-SG4440	OWNER	GC	SAFE TO BE PROVIDED W/ 5 KEYS
890	CORK BOARD - 36" X 48"	1			GC	GC	
891	CORK BOARD - 72" X 53"	1			GC	GC	
901	MURAL 9'-0"W X 5'-0"H	1	BRITTEN STUDIOS		OWNER	GC	
902	SNAP FRAME DISPLAY - 47 5/8" X 29 1/2"	5		VIOC - 2744	OWNER	GC	
902A	SNAP FRAME DISPLAY - 42 3/4" X 30 3/4"	1		VIOC - 2859	OWNER	GC	
903A	BREAK AREA TABLE	1	COSCO	ITEM # 728170	OWNER	GC	
903B	BREAK AREA CHAIRS	4	REALSPACE	ITEM # 192077	OWNER	GC	
906	ANTIFREEZE FUNNEL	1	DEVON	AFWASTE-PO	DEVON	DEVON	MOUNT ON WALL @ 30" A.F.F. SEE DETAIL 3/A-7.1.
907	GLOVE DRYING HOOKS	24	DEVON	DR03STBKL	DEVON	DEVON	
910	WALL MOUNT EYE WASH STATION	1	HONEYWELL	32-000462-000-H5	GC	GC	MOUNT ON WALL @ 48" A.F.F.
915	SPILL KIT – 55 GAL DRUM	2			OWNER	GC	

PREFERRED VENDORS

1. DAYTON
2. DEVON INDUSTRIES
3. COTTERMAN
4. BRW UNLIMITED SERVICES, INC.
5. RTI
6. FLUID EVACUATORS
7. CHAMPION
8. HALTEC CORPORATION
9. MILTON
10. GRAINGER
11. BOBRICK
12. KOALA KARE
13. AMANA
14. FRIGIDAIRE
15. AMEREX
16. BEST ACCESS DOORS
17. GCP APPLIED TECHNOLOGIES
    CONTACT: KELLY PANARIELLO
    PHONE #: 201.360.9052
    EMAIL: kelly.panariello@gcpat.com
18. OVERHEAD DOOR
    CONTACT: MIKE ROGERS
    2501 S. STATE HWY 121, SUITE 200
    LEWISVILLE, TX 75067
    PHONE #: 469.549.7136
    EMAIL: Mike_Rogers@overheaddoor.com

19. MIDWEST RETAIL SERVICES INC.
    CONTACT: WILL KALAL
    PHONE #: 614.647.5720
    EMAIL: wkalal@mw-rs.com

GENERAL NOTES

1. GC RESPONSIBLE TO OBTAIN FROM OWNER A DETAILED LIST OF ALL EQUIPMENT TO BE SUPPLIED BY OWNER, DEVON AND OWNERS VENDORS.
2. GC SHALL COORDINATE RECEIVING AND SAFELY STORING ALL EQUIPMENT DELIVERED TO SITE FROM OWNER, DEVON AND OWNERS VENDORS.
3. GC SHALL BECOME FAMILIAR WITH ALL EQUIPMENT MOUNTING REQUIREMENTS PRIOR TO CONSTRUCTION START.
4. GC TO PROVIDE SOLID BLOCKING IN WALLS AS REQUIRED FOR ALL WALL MOUNTED EQUIPMENT.
5. GC SHALL PROVIDE THE ELECTRICAL AND PLUMBING ROUGH INS AND FINAL CONNECTIONS FOR THE EQUIPMENT. REFER TO THE PLUMBING AND ELECTRICAL DRAWINGS.

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Date	Issued Record
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT

JAMI MARIE COOK
NUMBER A-2021048657

Jami Cook

2025.12.22 08:59:29-06'00'
JAMI MARIE COOK, ARCHITECT
A-2021048657
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL IN CHARGE
JAMI MARIE COOK
PROJECT MANAGER
DAH
QUALITY CONTROL
MND
DRAWN BY
DAH

PROJECT NAME

Valvoline Instant Oil Change

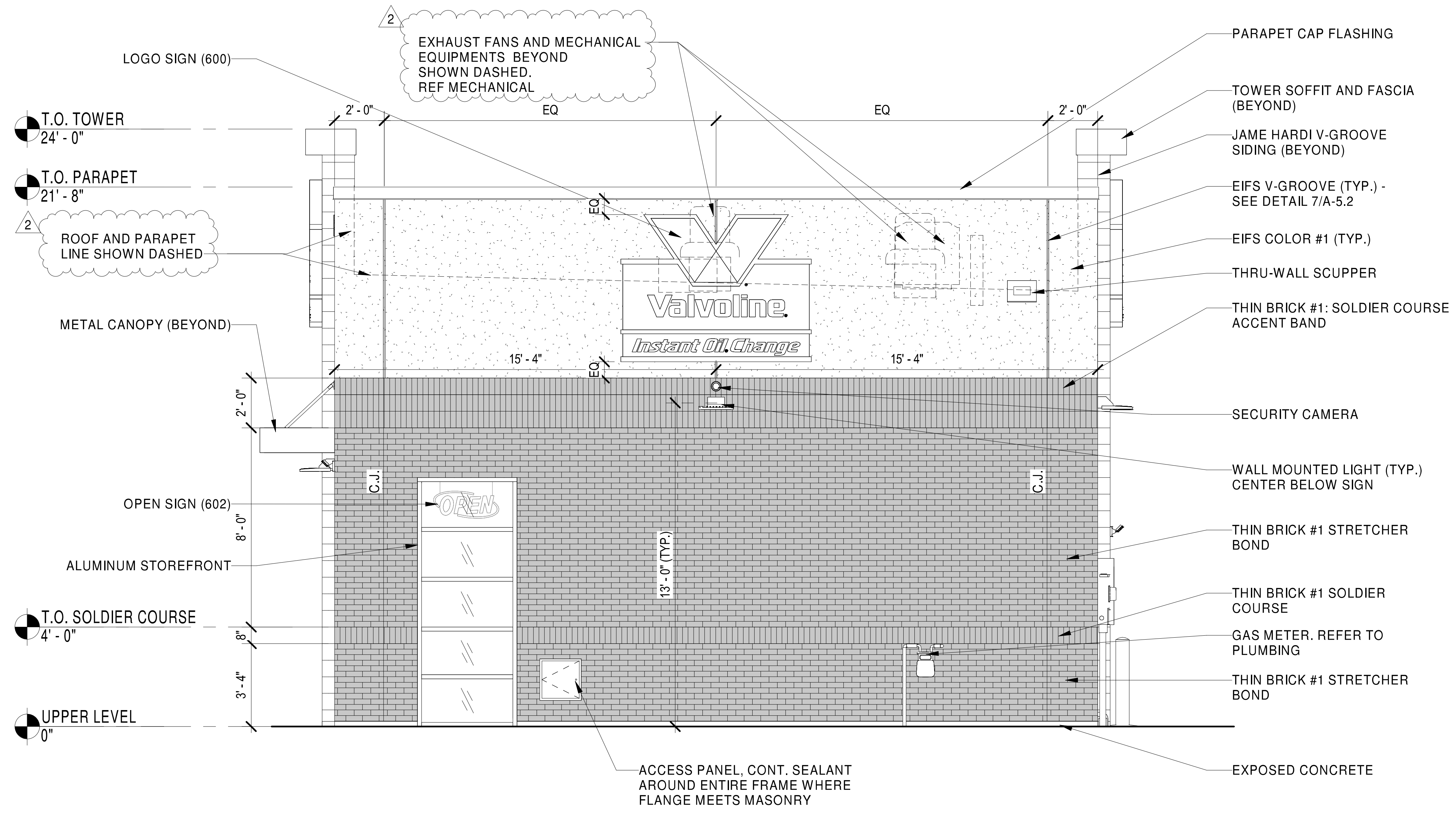
VALVOLINE INSTANT OIL CHANGE

NW CHIPMAN RD &
NW WARD RD
LEE'S SUMMIT, MO,
64086

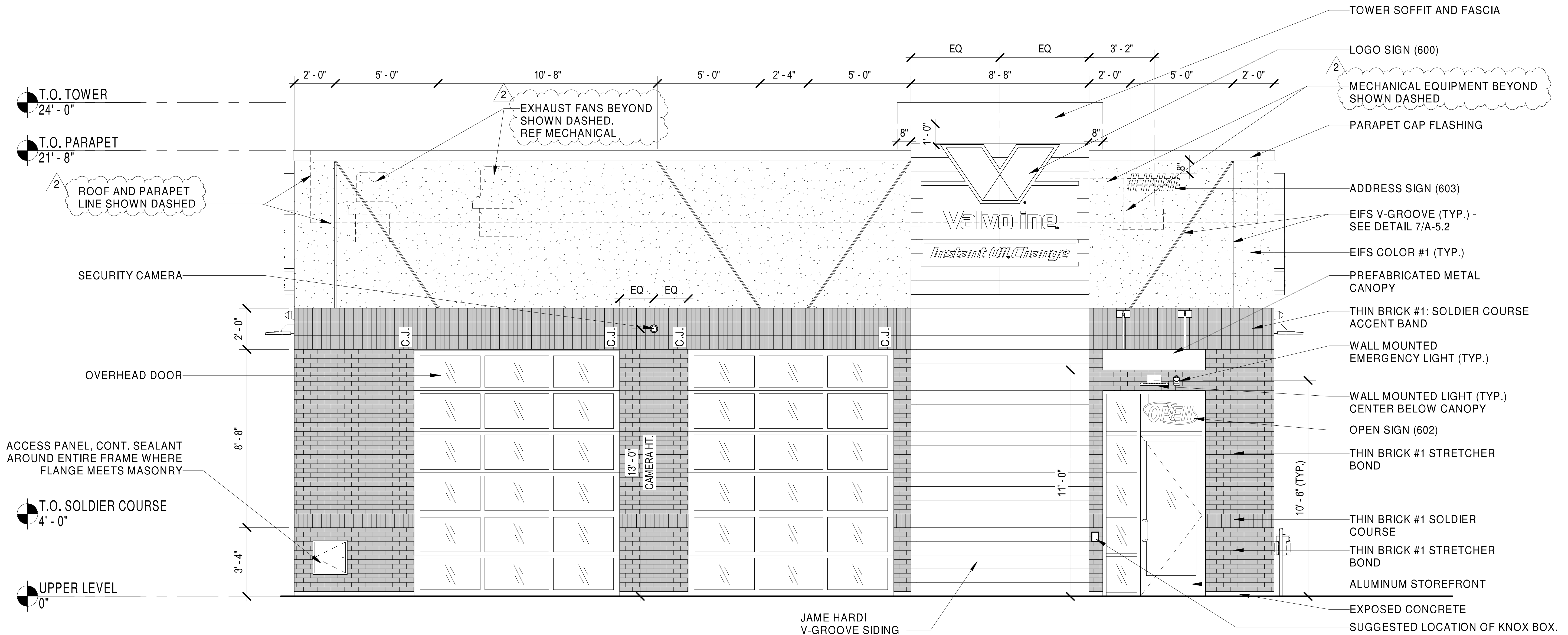
PROJECT NUMBER
06-24-20062

SHEET NAME
OPERATIONS EQUIPMENT PLAN AND SCHEDULE

SHEET #
G-3.1


LOGO SIGN (600)
2
EXHAUST FANS AND MECHANICAL EQUIPMENTS BEYOND SHOWN DASHED. REF MECHANICAL
PARAPET CAP FLASHING
T.O. TOWER
24' - 0"
T.O. PARAPET
21' - 8"
2'-0"
EQ
EQ
2'-0"
TOWER SOFFIT AND FASCIA (BEYOND)
JAME HARDI V-GROOVE SIDING (BEYOND)
2
ROOF AND PARAPET LINE SHOWN DASHED
EIFS V-GROOVE (TYP.) - SEE DETAIL 7/A-5.2
EIFS COLOR #1 (TYP.)
THRU-WALL SCUPPER
METAL CANOPY (BEYOND)
THIN BRICK #1: SOLDIER COURSE ACCENT BAND
15' - 4"
15' - 4"
EQ
EQ
2'-0"
SECURITY CAMERA
C.J.
C.J.
WALL MOUNTED LIGHT (TYP.) CENTER BELOW SIGN
OPEN SIGN (602)
8'-0"
13'-0" (TYP.)
THIN BRICK #1 STRETCHER BOND
ALUMINUM STOREFRONT
THIN BRICK #1 SOLDIER COURSE
T.O. SOLDIER COURSE
4' - 0"
8"
GAS METER. REFER TO PLUMBING
3'-4"
THIN BRICK #1 STRETCHER BOND
UPPER LEVEL
0"
EXPOSED CONCRETE
ACCESS PANEL, CONT. SEALANT AROUND ENTIRE FRAME WHERE FLANGE MEETS MASONRY

2 EXTERIOR ELEVATION (OVERALL RIGHT)
A-3.1 Scale: 1/4" = 1'-0"


TOWER SOFFIT AND FASCIA
EQ
EQ
3'-2"
LOGO SIGN (600)
2'-0"
5'-0"
10'-8"
5'-0"
2'-4"
5'-0"
8'-8"
2'-0"
5'-0"
2'-0"
2
MECHANICAL EQUIPMENT BEYOND SHOWN DASHED
T.O. TOWER
24' - 0"
2
EXHAUST FANS BEYOND SHOWN DASHED. REF MECHANICAL
PARAPET CAP FLASHING
8"
1'-0"
8"
8"
T.O. PARAPET
21' - 8"
ADDRESS SIGN (603)
2
ROOF AND PARAPET LINE SHOWN DASHED
EIFS V-GROOVE (TYP.) - SEE DETAIL 7/A-5.2
EIFS COLOR #1 (TYP.)
SECURITY CAMERA
PREFABRICATED METAL CANOPY
EQ
EQ
2'-0"
C.J.
C.J.
C.J.
C.J.
THIN BRICK #1: SOLDIER COURSE ACCENT BAND
WALL MOUNTED EMERGENCY LIGHT (TYP.)
OVERHEAD DOOR
WALL MOUNTED LIGHT (TYP.) CENTER BELOW CANOPY
OPEN SIGN (602)
ACCESS PANEL, CONT. SEALANT AROUND ENTIRE FRAME WHERE FLANGE MEETS MASONRY
8'-8"
13'-0" CAMERA HT.
11'-0"
10'-6" (TYP.)
THIN BRICK #1 STRETCHER BOND
T.O. SOLDIER COURSE
4' - 0"
THIN BRICK #1 SOLDIER COURSE
3'-4"
THIN BRICK #1 STRETCHER BOND
UPPER LEVEL
0"
ALUMINUM STOREFRONT
EXPOSED CONCRETE
JAME HARDI V-GROOVE SIDING
SUGGESTED LOCATION OF KNOX BOX. CONFIRM WITH FIRE MARSHAL

1 EXTERIOR ELEVATION (OVERALL FRONT)
A-3.1 Scale: 1/4" = 1'-0"

ELEVATION NOTES

1. EIFS SHALL BE DRYVIT, CLASS PB DRAINAGE SYSTEM WITH FLUID APPLIED WATER RESISTIVE BARRIER BEHIND INSULATION BOARD.
2. SIGNAGE SHOWN ON THESE ELEVATIONS IS FOR GENERAL REFERENCE PURPOSES ONLY. ALL SIGNAGE SHALL BE APPLIED FOR & PERMITTED UNDER A SEPARATE SIGNAGE SUBMITTAL.
3. G.C. SHALL PROVIDE BLOCKING IN STUD WALL BEHIND EACH SIGN AS REQUIRED BY SIGN VENDOR - FIELD VERIFY REQUIREMENTS W/ VENDOR & OWNER'S REPRESENTATIVE.
4. ALL FLASHING, SOFFIT, FASCIA, BREAK METAL, ETC SHALL MATCH MANUFACTURER'S STANDARD DETAILS.
5. ALL MASONRY WITH CORNER EXPOSURES TO HAVE SAME PROFILE AS FACE OF THE STANDARD MASONRY PRODUCT. NO CUT SURFACE ARE TO BE EXPOSED
6. ALL EXTERIOR SECURITY CAMERAS SHALL BE INSTALLED OVER ELECTRICAL BOXES RECESSED FLUSH WITH THE EXTERIOR WALL FINISH - REFER TO ELECTRICAL FOR ADDITIONAL INFORMATION.

EXTERIOR FINISHES

EXPOSED CONCRETE:	RUBBED FINISH
THIN BRICK SYSTEM:	MODULAR PANEL SYSTEM WITH INTEGRAL DRAINAGE THIN BRICK #1: GLEN GERY "EBONITE VELOUR THIN BRICK"
FIBER CEMENT SIDING (TOWER):	JAMES HARDI V-GROOVE SIDING 8.25" PAINTED SW-7018 "DOVETAIL"
MORTAR:	LEHIGH STANDARD KIT - "CHARCOAL"
MASONRY SEALER:	ALL MASONRY SURFACES SHALL BE TREATED W/ SEALER.
EXTERIOR INSULATED FINISH SYSTEM :	DRYVIT (SANDPEBBLE FINE) COLOR #1: #104 DOVER SKY
PREFABRICATED METAL CANOPY:	AWNEX INC. - "SEATTLE" DESIGN COLOR: "BLACK"
PARAPET CAP FLASHING:	ALUMINUM BREAK METAL PREFINISHED TO MATCH PAC-CLAD "BLACK"
TOWER SOFFIT AND FASCIA:	PAC-CLAD SNAP EDGE EXTENDED FASCIA (12-1/2") PREFINISHED TO MATCH PAC-CLAD "BLACK"
THRU-WALL SCUPPER:	ALUMINUM BREAK METAL PREFINISHED TO MATCH DIMENSIONAL METALS, INC. - "BLACK"
STOREFRONT SYSTEM:	2x4 1/2" KAWNEER TRIFAB VG 451T SERIES BLACK ANODIZED ALUMINUM STOREFRONT SYSTEM W/ 1" INSULATED GLAZING.
O.H. DOOR FINISH:	PREFINISHED TO MATCH PAC-CLAD "BLACK"
ACCESS PANEL:	PREFINISHED TO MATCH PAC-CLAD "BLACK"

SIGNAGE SCHEDULE

NUMBER	DESCRIPTION	SIZE	ILLUMINATED	QUANTITY
600	LOGO SIGN	7'-8" x 5'-11" (45 SF)	INTERNALLY	4
	PROVIDED BY OWNER, INSTALLED BY SIGN CONTRACTOR			
601	LANE INDICATOR SIGN	10'-0" x 1'-0" (10 SF)	NO	2
	PROVIDED BY OWNER, INSTALLED BY SIGN CONTRACTOR			
602	OPEN SIGN	2'-7 1/2" x 11 1/2" (2.52 SF)	INTERNALLY	2
	PROVIDED BY OWNER, INSTALLED BY SIGN CONTRACTOR			
603	ADDRESS SIGN	VERTICALLY BRUSHED STAINLESS STEEL ADDRESS NUMBERS - 10" TALL ARIAL BOLD FONT	NO	1
	PROVIDED AND INSTALLED BY G.C.			
605	MONUMENT SIGN	REFER TO SHEET A-11.1	INTERNALLY	1
	PER LOCAL AND DEVELOPMENTAL RESTRICTIONS			

ALL SIGNAGE ARE PERMITTED SEPARATELY BY VENDOR.

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12/22/2025	PERMIT
02/02/2026	BID SET
02/11/2026	REVISION 2

JAMI MARIE COOK
NUMBER A-2021048657

Jami Cook
2026.02.10 16:13:40-06'00'
JAMI MARIE COOK, ARCHITECT
A-2021048657
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL IN CHARGE
JAMI MARIE COOK
PROJECT MANAGER
DAH
QUALITY CONTROL
MND
DRAWN BY
DAH

PROJECT NAME
Valvoline Instant Oil Change
VALVOLINE INSTANT OIL CHANGE

NW CHIPMAN RD &
NW WARD RD
LEE'S SUMMIT, MO,
64086

PROJECT NUMBER
06-24-20062

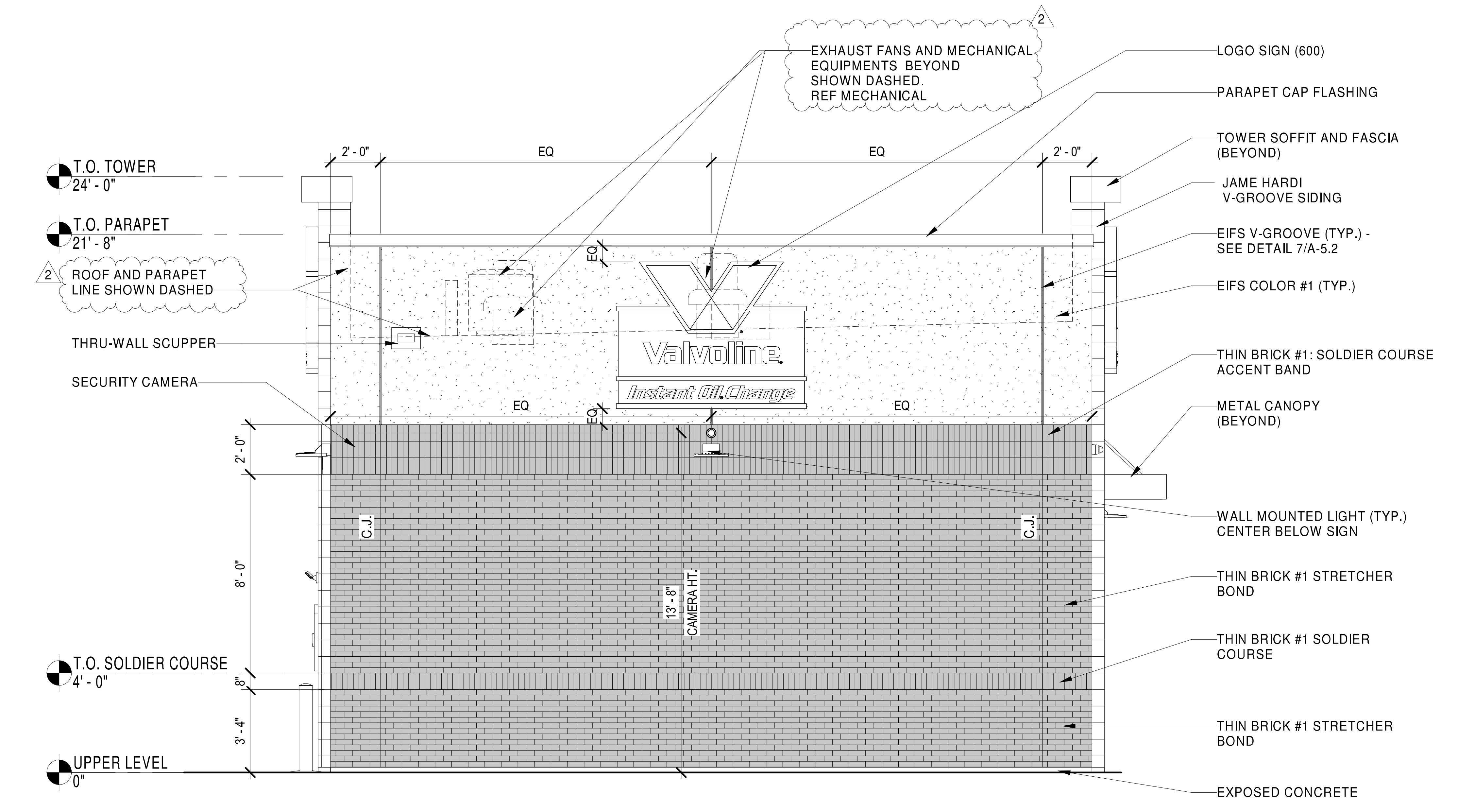
SHEET NAME
EXTERIOR ELEVATIONS

SHEET #
A-3.1

2/5/2026 12:46:11 PM C:\Users\dwayne.harris\Documents\2024 Revit Projects\06-24-20062 - Lee Summit MO - 2B-Flat Roof Arch_V24_HFA.Dwayne.Harris.rvt
-A-3.1 -EXTERIOR ELEVATIONS-REVISION 2

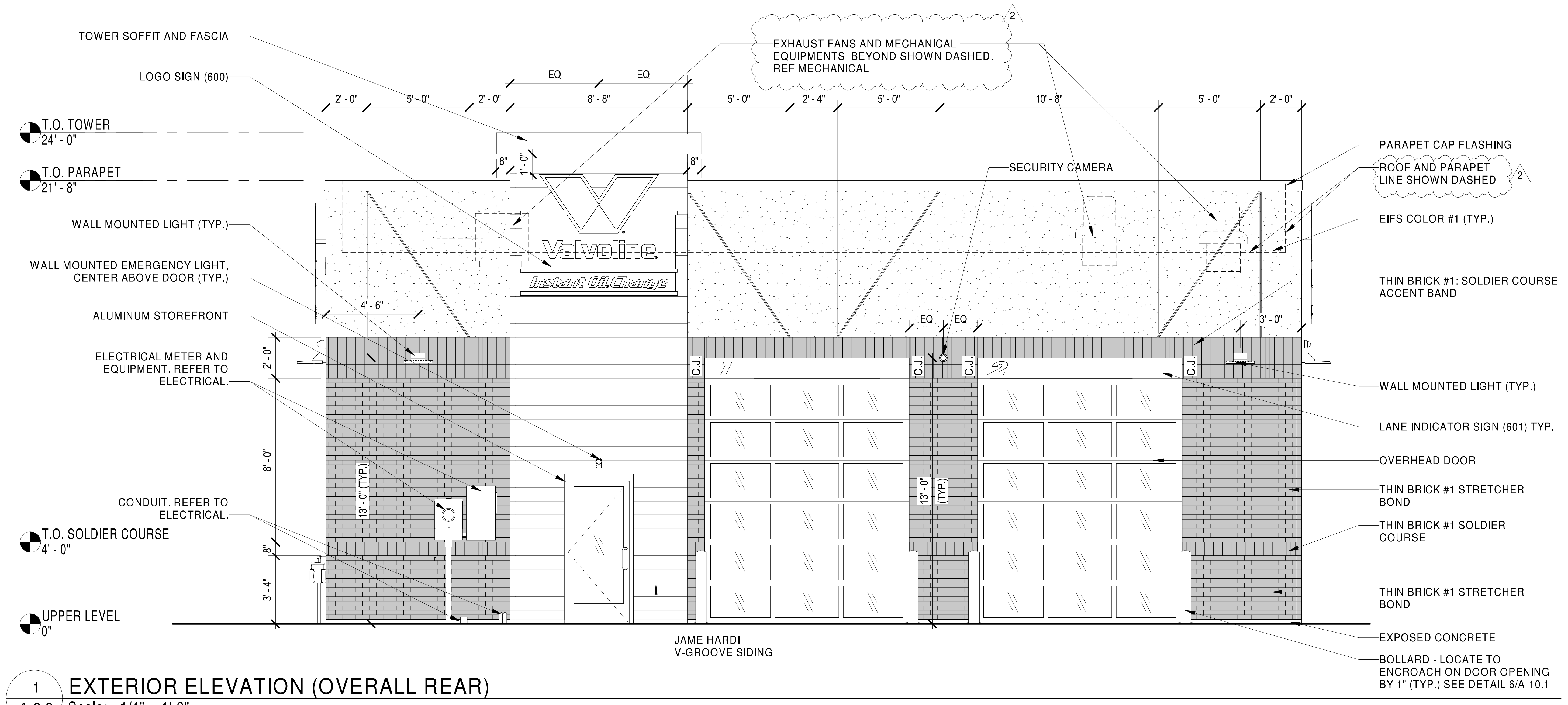
ELEVATION NOTES

1. SEE SHEET A-3.1 FOR ELEVATION NOTES.
2. SEE SHEET A-3.1 FOR EXTERIOR FINISHES.
3. SEE SHEET A-3.1 FOR SIGNAGE SCHEDULE.



EXHAUST FANS AND MECHANICAL EQUIPMENTS BEYOND SHOWN DASHED. REF MECHANICAL
2
LOGO SIGN (600)
PARAPET CAP FLASHING
TOWER SOFFIT AND FASCIA (BEYOND)
JAME HARDI V-GROOVE SIDING
EIFS V-GROOVE (TYP.) - SEE DETAIL 7/A-5.2
EIFS COLOR #1 (TYP.)
THIN BRICK #1: SOLDIER COURSE ACCENT BAND
METAL CANOPY (BEYOND)
WALL MOUNTED LIGHT (TYP.) CENTER BELOW SIGN
THIN BRICK #1 STRETCHER BOND
THIN BRICK #1 SOLDIER COURSE
THIN BRICK #1 STRETCHER BOND
EXPOSED CONCRETE
T.O. TOWER
24' - 0"
T.O. PARAPET
21' - 8"
2
ROOF AND PARAPET LINE SHOWN DASHED
THRU-WALL SCUPPER
SECURITY CAMERA
T.O. SOLDIER COURSE
4' - 0"
UPPER LEVEL
0"
2' - 0"
EQ
EQ
2' - 0"
EQ
EQ
EQ
EQ
2' - 0"
8' - 0"
8"
3' - 4"
13' - 8"
CAMERA HT.
C.J.
C.J.
Valvoline
Instant Oil Change

2
A-3.2
EXTERIOR ELEVATION (OVERALL LEFT)
Scale: 1/4" = 1'-0"



TOWER SOFFIT AND FASCIA
LOGO SIGN (600)
EXHAUST FANS AND MECHANICAL EQUIPMENTS BEYOND SHOWN DASHED. REF MECHANICAL
2
T.O. TOWER
24' - 0"
T.O. PARAPET
21' - 8"
WALL MOUNTED LIGHT (TYP.)
WALL MOUNTED EMERGENCY LIGHT, CENTER ABOVE DOOR (TYP.)
ALUMINUM STOREFRONT
ELECTRICAL METER AND EQUIPMENT. REFER TO ELECTRICAL.
CONDUIT, REFER TO ELECTRICAL.
T.O. SOLDIER COURSE
4' - 0"
UPPER LEVEL
0"
JAME HARDI V-GROOVE SIDING
SECURITY CAMERA
PARAPET CAP FLASHING
ROOF AND PARAPET LINE SHOWN DASHED
2
EIFS COLOR #1 (TYP.)
THIN BRICK #1: SOLDIER COURSE ACCENT BAND
WALL MOUNTED LIGHT (TYP.)
LANE INDICATOR SIGN (601) TYP.
OVERHEAD DOOR
THIN BRICK #1 STRETCHER BOND
THIN BRICK #1 SOLDIER COURSE
THIN BRICK #1 STRETCHER BOND
EXPOSED CONCRETE
BOLLARD - LOCATE TO ENCROACH ON DOOR OPENING BY 1" (TYP.) SEE DETAIL 6/A-10.1
EQ
EQ
2' - 0"
5' - 0"
2' - 0"
8' - 8"
5' - 0"
2' - 4"
5' - 0"
10' - 8"
5' - 0"
2' - 0"
8"
1' - 0"
8"
4' - 6"
EQ
EQ
3' - 0"
2' - 0"
8' - 0"
8"
3' - 4"
13' - 0" (TYP.)
13' - 0" (TYP.)
C.J.
C.J.
C.J.
C.J.
1
2
Valvoline
Instant Oil Change

1
A-3.2
EXTERIOR ELEVATION (OVERALL REAR)
Scale: 1/4" = 1'-0"

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-A-3.2-EXTERIOR ELEVATIONS-REVISION 2

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12/22/2025	PERMIT
02/02/2026	BID SET
02/11/2026	REVISION 2

JAMI MARIE COOK
NUMBER A-2021048657

Jami Cook
2026.02.10 16:13:45-06'00'
JAMI MARIE COOK, ARCHITECT
A-2021048657
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL IN CHARGE
JAMI MARIE COOK
PROJECT MANAGER
DAH
QUALITY CONTROL
MND
DRAWN BY
DAH

PROJECT NAME

Valvoline
Instant Oil Change

VALVOLINE
INSTANT
OIL CHANGE

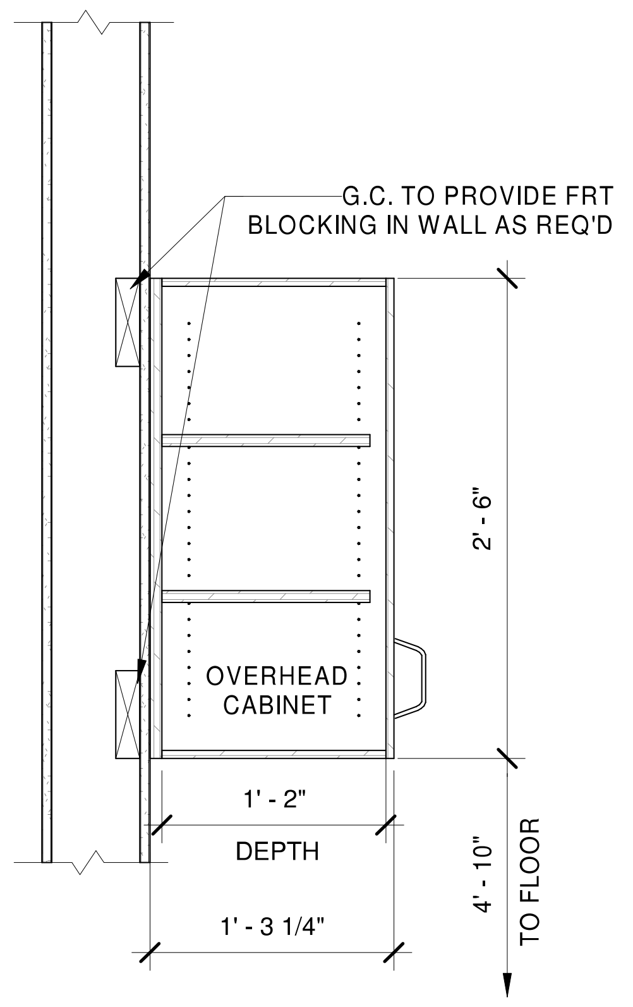
NW CHIPMAN RD &
NW WARD RD
LEE'S SUMMIT, MO,
64086

PROJECT NUMBER
06-24-20062

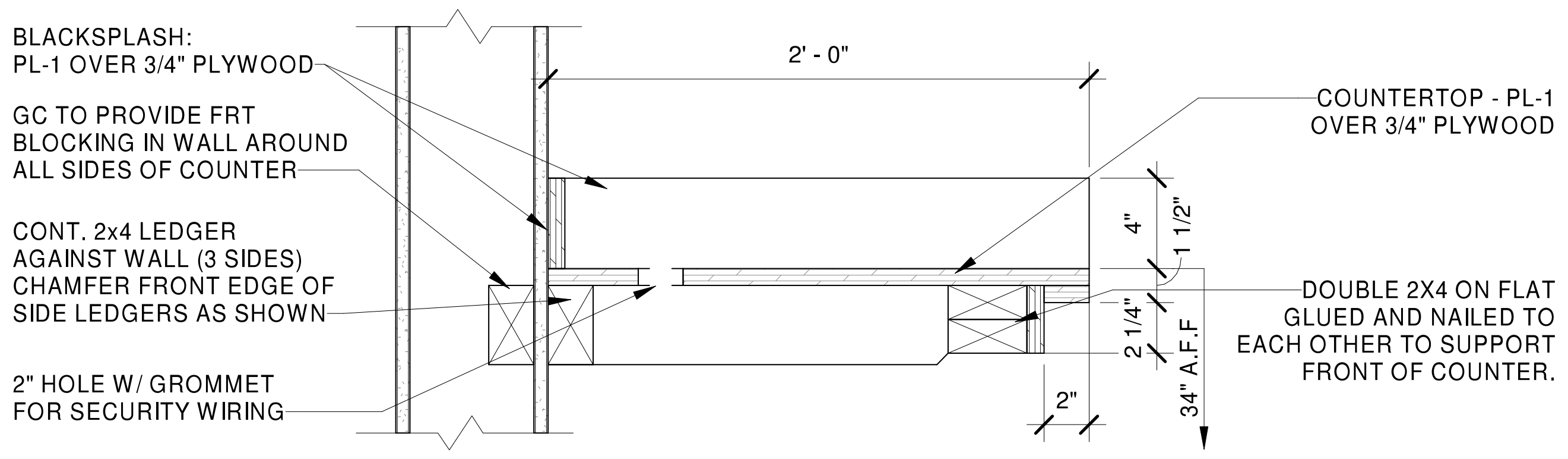
SHEET NAME

EXTERIOR
ELEVATIONS

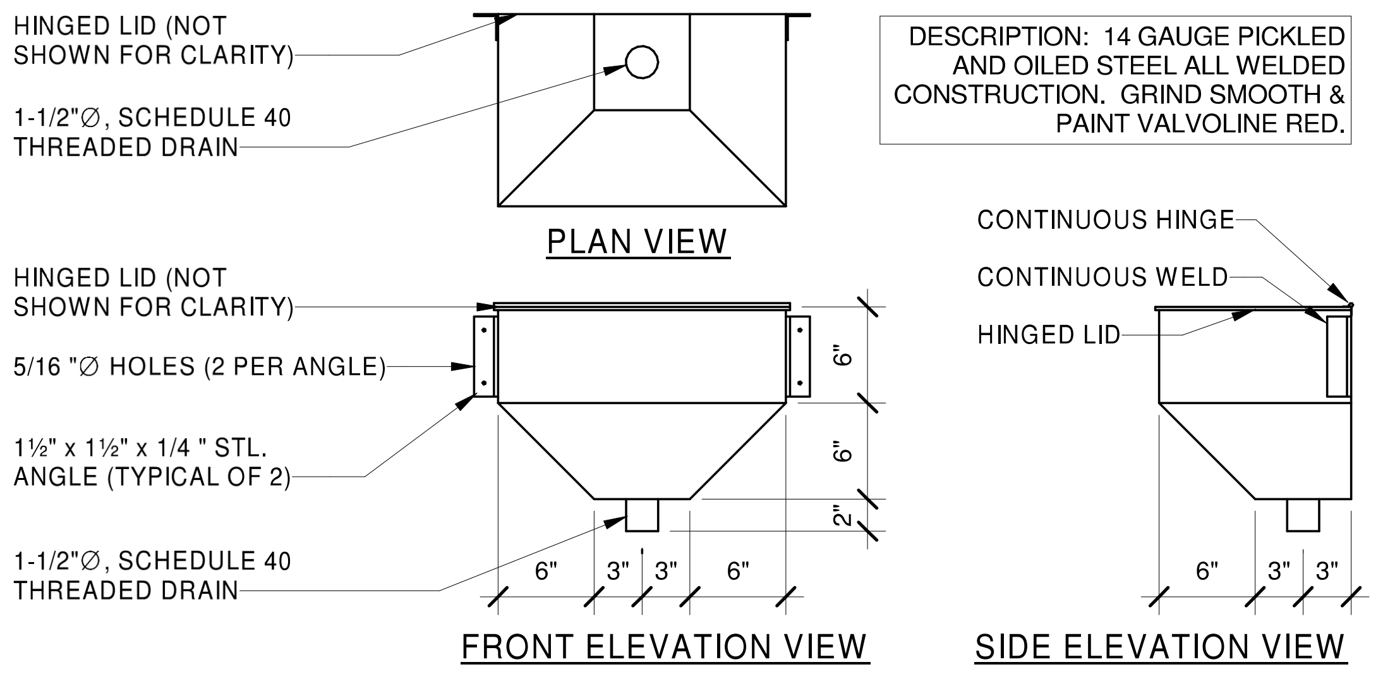
SHEET #
A-3.2


G.C. TO PROVIDE FRT BLOCKING IN WALL AS REQ'D
OVERHEAD CABINET
2' - 6"
1' - 2"
DEPTH
1' - 3 1/4"
4' - 10"
TO FLOOR

1 A-7.1 UPPER CABINET DETAIL
Scale: 1" = 1'-0"

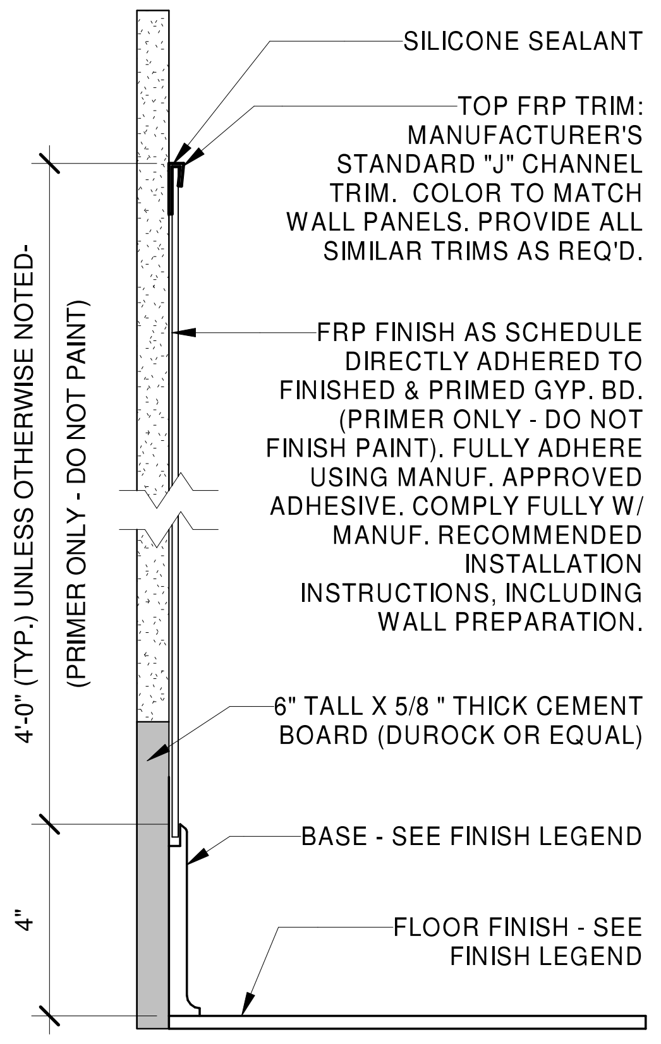

BLACKSPLASH: PL-1 OVER 3/4" PLYWOOD
GC TO PROVIDE FRT BLOCKING IN WALL AROUND ALL SIDES OF COUNTER
CONT. 2x4 LEDGER AGAINST WALL (3 SIDES) CHAMFER FRONT EDGE OF SIDE LEDGERS AS SHOWN
2" HOLE W/ GROMMET FOR SECURITY WIRING
2' - 0"
COUNTERTOP - PL-1 OVER 3/4" PLYWOOD
4"
1 1/2"
2 1/4"
2"
34" A.F.F
DOUBLE 2X4 ON FLAT GLUED AND NAILED TO EACH OTHER TO SUPPORT FRONT OF COUNTER.

2 A-7.1 COUNTERTOP DETAIL
Scale: 1 1/2" = 1'-0"

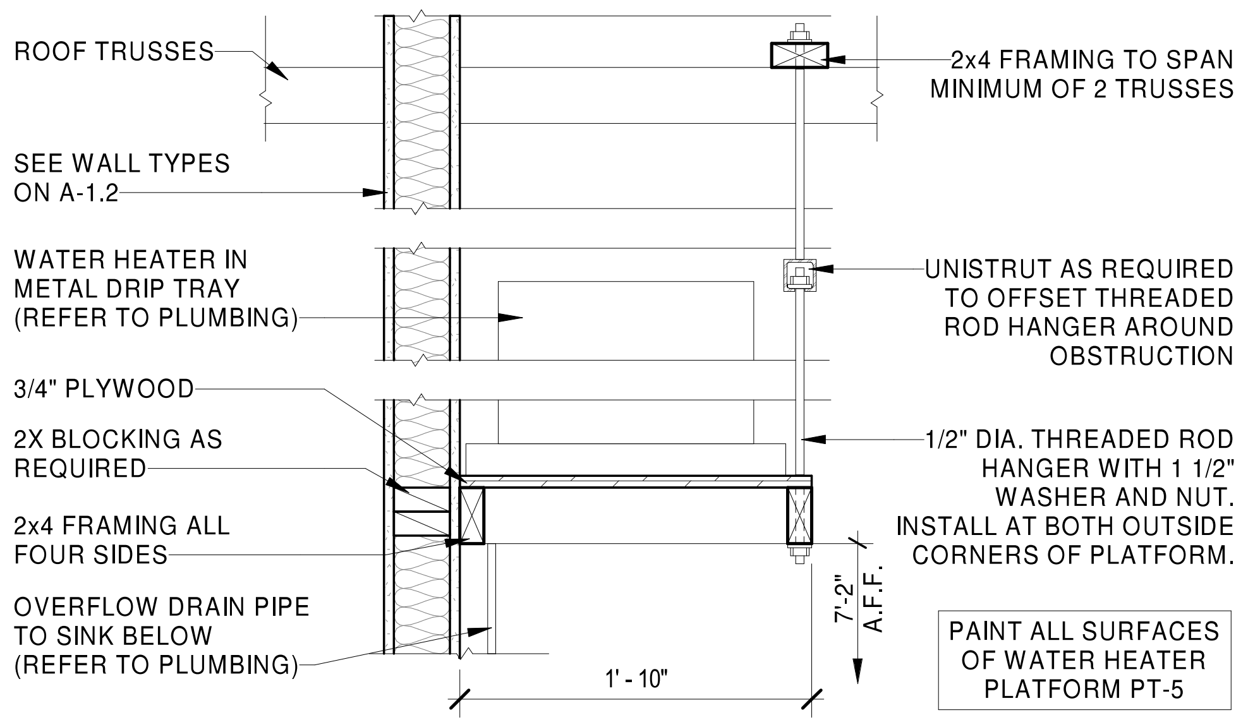

HINGED LID (NOT SHOWN FOR CLARITY)
1-1/2"∅, SCHEDULE 40 THREADED DRAIN
PLAN VIEW
HINGED LID (NOT SHOWN FOR CLARITY)
5/16 "∅ HOLES (2 PER ANGLE)
1½" x 1½" x 1/4 " STL. ANGLE (TYPICAL OF 2)
1-1/2"∅, SCHEDULE 40 THREADED DRAIN
6"
6"
2"
6"
3"
3"
6"
FRONT ELEVATION VIEW
CONTINUOUS HINGE
CONTINUOUS WELD
HINGED LID
6"
3"
3"
SIDE ELEVATION VIEW

DESCRIPTION: 14 GAUGE PICKLED AND OILED STEEL ALL WELDED CONSTRUCTION. GRIND SMOOTH & PAINT VALVOLINE RED.

3 A-7.1 ANTIFREEZE FUNNEL DETAIL
Scale: 1" = 1'-0"

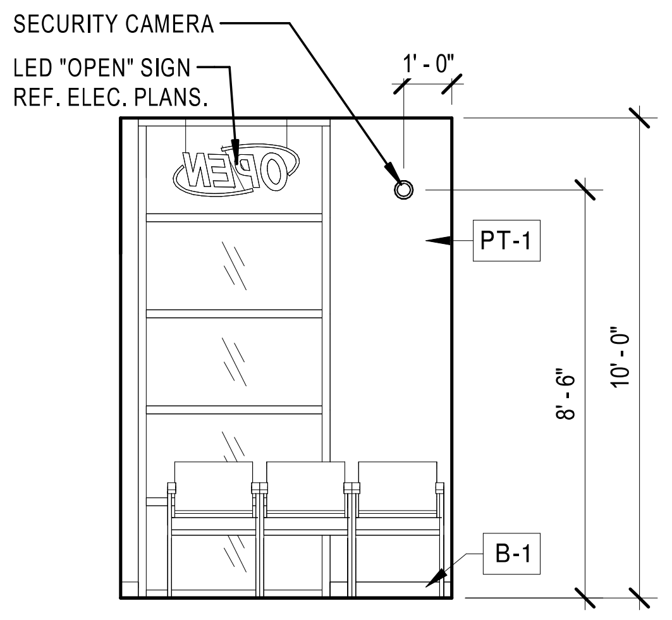

SILICONE SEALANT
TOP FRP TRIM: MANUFACTURER'S STANDARD "J" CHANNEL TRIM. COLOR TO MATCH WALL PANELS. PROVIDE ALL SIMILAR TRIMS AS REQ'D.
FRP FINISH AS SCHEDULE DIRECTLY ADHERED TO FINISHED & PRIMED GYP. BD. (PRIMER ONLY - DO NOT FINISH PAINT). FULLY ADHERE USING MANUF. APPROVED ADHESIVE. COMPLY FULLY W/ MANUF. RECOMMENDED INSTALLATION INSTRUCTIONS, INCLUDING WALL PREPARATION.
4'-0" (TYP.) UNLESS OTHERWISE NOTED-
(PRIMER ONLY - DO NOT PAINT)
6" TALL X 5/8 " THICK CEMENT BOARD (DUROCK OR EQUAL)
BASE - SEE FINISH LEGEND
4"
FLOOR FINISH - SEE FINISH LEGEND

4 A-7.1 WAINSCOT DETAIL
Scale: 3" = 1'-0"

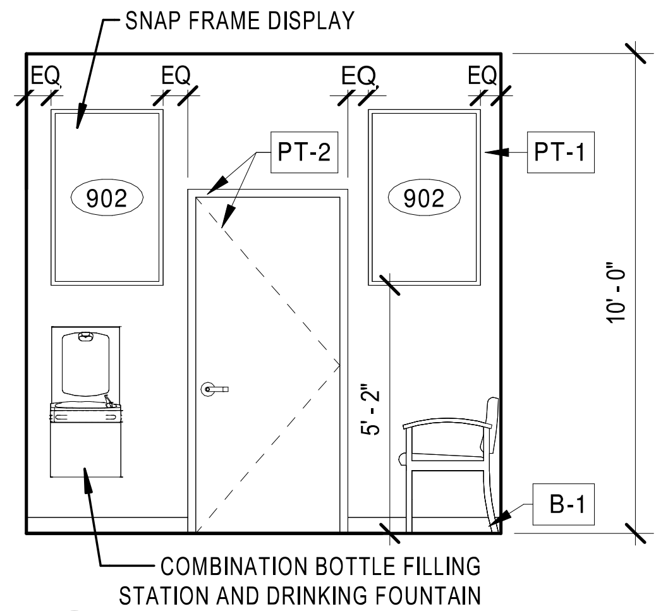

ROOF TRUSSES
SEE WALL TYPES ON A-1.2
WATER HEATER IN METAL DRIP TRAY (REFER TO PLUMBING)
3/4" PLYWOOD
2X BLOCKING AS REQUIRED
2x4 FRAMING ALL FOUR SIDES
OVERFLOW DRAIN PIPE TO SINK BELOW (REFER TO PLUMBING)
1' - 10"
7'-2" A.F.F.
2x4 FRAMING TO SPAN MINIMUM OF 2 TRUSSES
UNISTRUT AS REQUIRED TO OFFSET THREADED ROD HANGER AROUND OBSTRUCTION
1/2" DIA. THREADED ROD HANGER WITH 1 1/2" WASHER AND NUT. INSTALL AT BOTH OUTSIDE CORNERS OF PLATFORM.

PAINT ALL SURFACES OF WATER HEATER PLATFORM PT-5

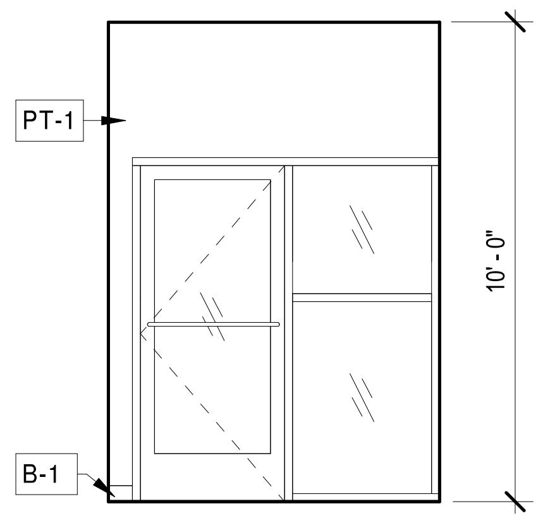
5 A-7.1 WATER HEATER PLATFORM
Scale: 1" = 1'-0"


SECURITY CAMERA
LED "OPEN" SIGN REF. ELEC. PLANS.
1' - 0"
OPEN
PT-1
8' - 6"
10' - 0"
B-1

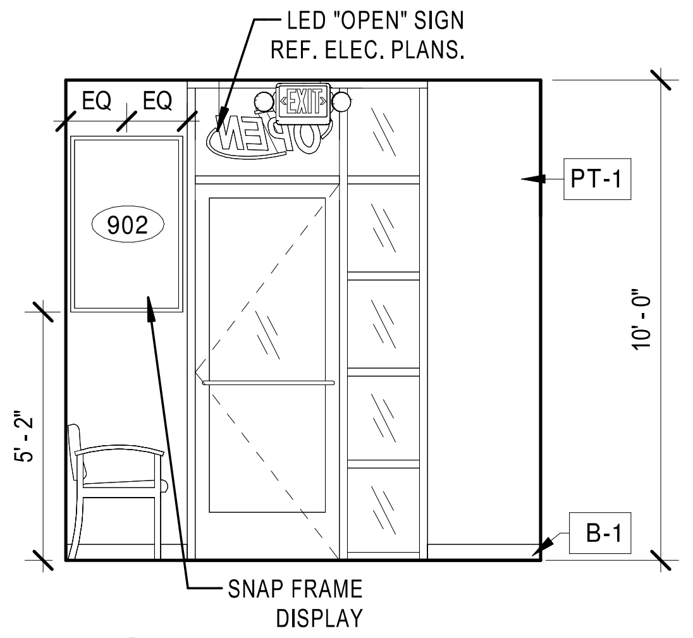
7 A-7.1 WAITING ROOM
Scale: 1/4" = 1'-0"


SNAP FRAME DISPLAY
EQ
EQ
EQ
EQ
902
PT-2
902
PT-1
10' - 0"
5' - 2"
B-1
COMBINATION BOTTLE FILLING STATION AND DRINKING FOUNTAIN

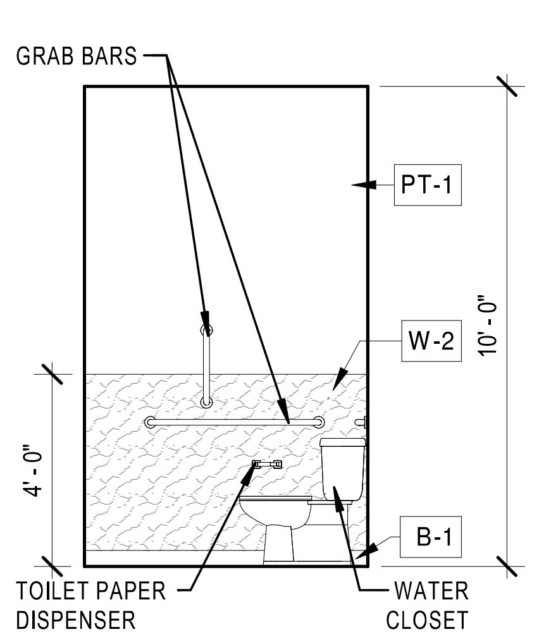
8 A-7.1 WAITING ROOM
Scale: 1/4" = 1'-0"



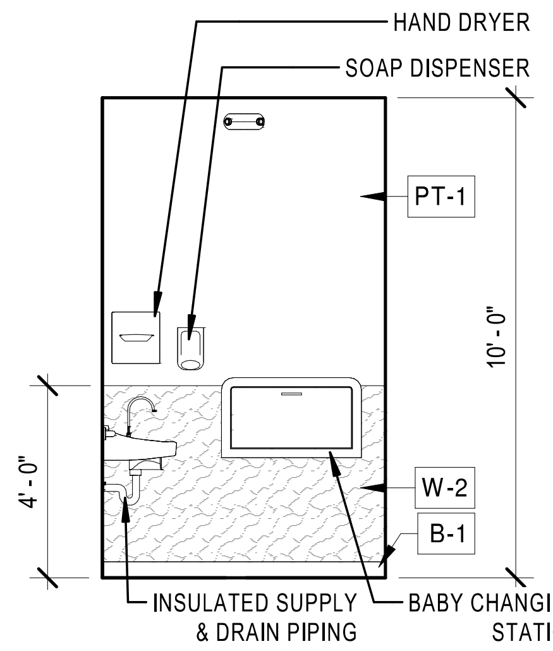
9 A-7.1 WAITING ROOM
Scale: 1/4" = 1'-0"


LED "OPEN" SIGN REF. ELEC. PLANS.
EQ
EQ
EXIT
OPEN
902
PT-1
5' - 2"
10' - 0"
B-1
SNAP FRAME DISPLAY

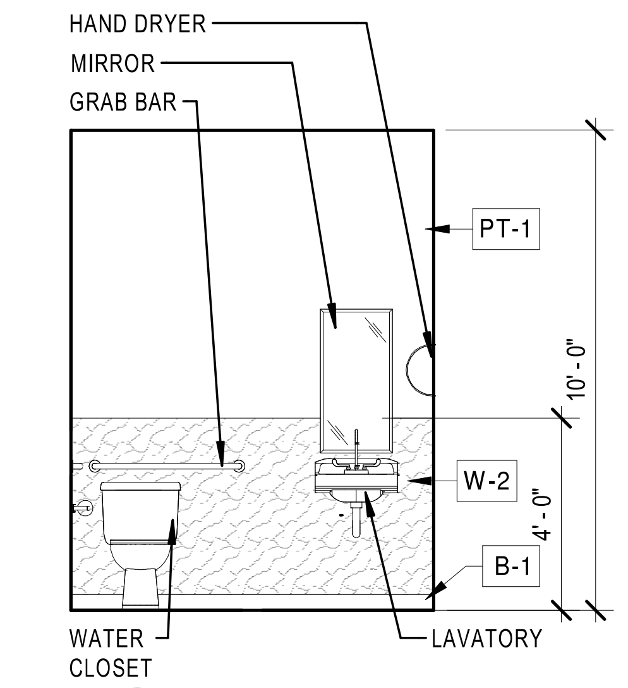
10 A-7.1 WAITING ROOM
Scale: 1/4" = 1'-0"


1
GRAB BARS
PT-1
W-2
10' - 0"
4' - 0"
B-1
TOILET PAPER DISPENSER
WATER CLOSET

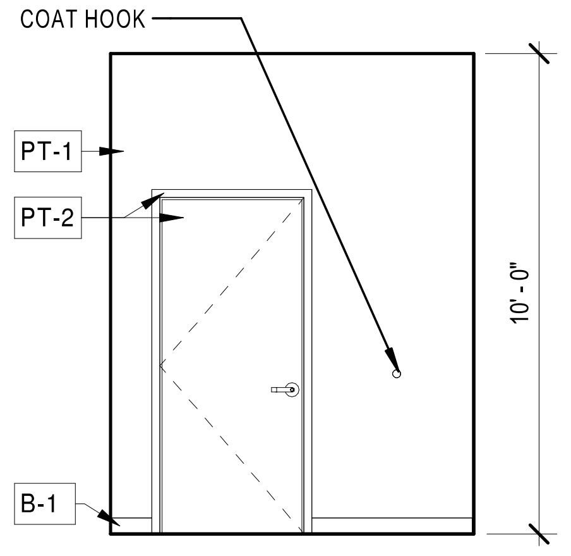
11 A-7.1 UNISEX TOILET
Scale: 1/4" = 1'-0"


HAND DRYER
SOAP DISPENSER
PT-1
10' - 0"
4' - 0"
W-2
B-1
INSULATED SUPPLY & DRAIN PIPING
BABY CHANGING STATION

12 A-7.1 UNISEX TOILET
Scale: 1/4" = 1'-0"

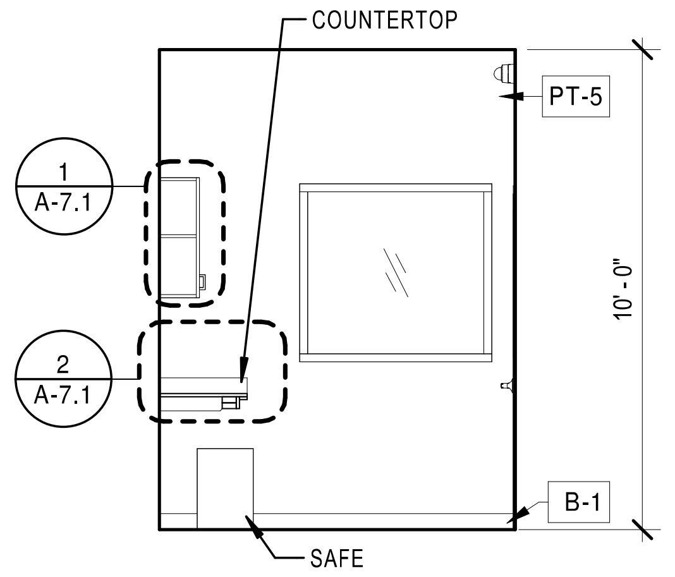

HAND DRYER
MIRROR
GRAB BAR
PT-1
10' - 0"
W-2
4' - 0"
B-1
WATER CLOSET
LAVATORY

13 A-7.1 UNISEX TOILET
Scale: 1/4" = 1'-0"

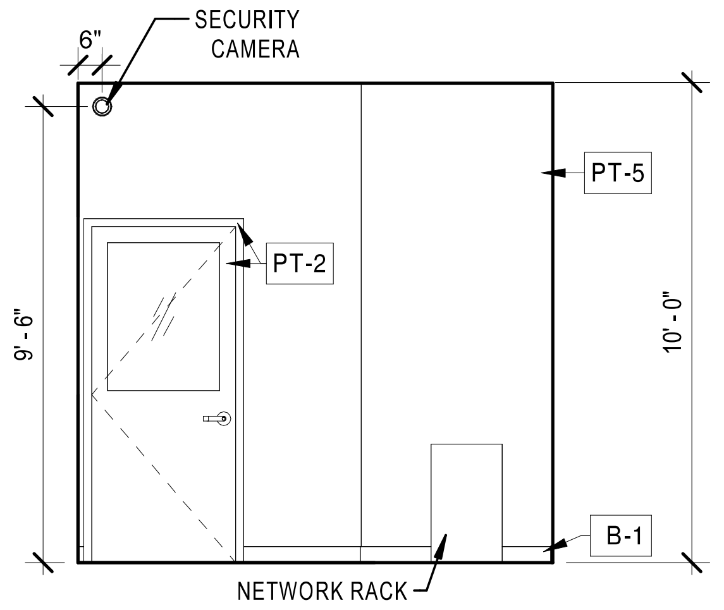

COAT HOOK
PT-1
PT-2
10' - 0"
B-1

14 A-7.1 UNISEX TOILET
Scale: 1/4" = 1'-0"

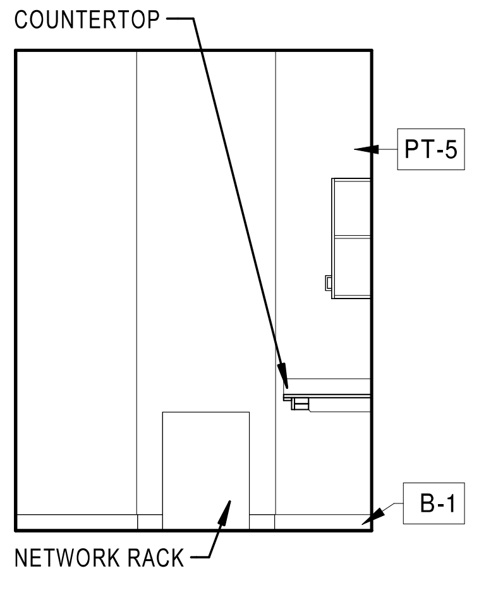
REFER TO ELECTRICAL DRAWINGS FOR POWER AND DATA AND SUMP PUMP ALARMS LOCATIONS IN THE OFFICE.


COUNTERTOP
1 A-7.1
2 A-7.1
PT-5
10' - 0"
B-1
SAFE

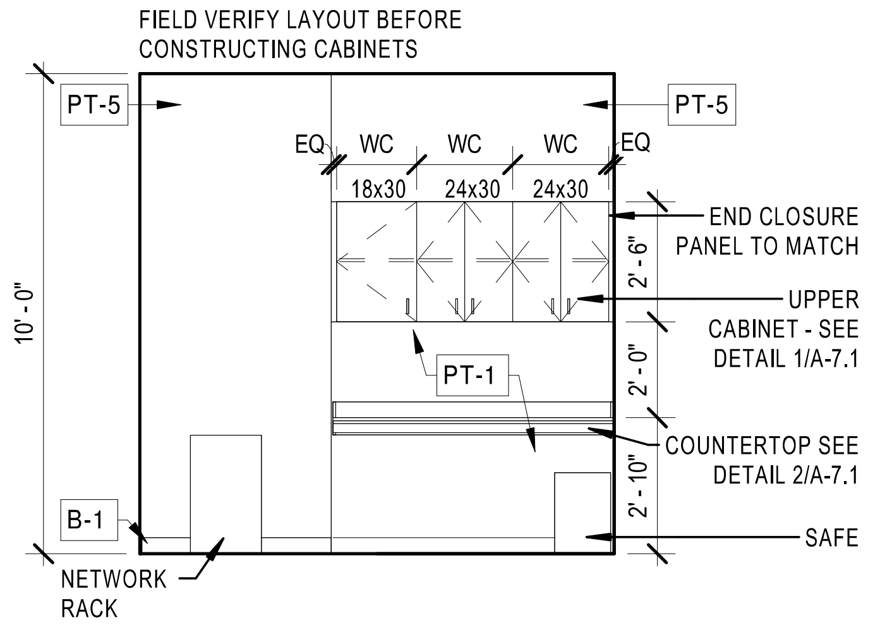
15 A-7.1 OFFICE
Scale: 1/4" = 1'-0"


6"
SECURITY CAMERA
PT-5
PT-2
9' - 6"
10' - 0"
B-1
NETWORK RACK

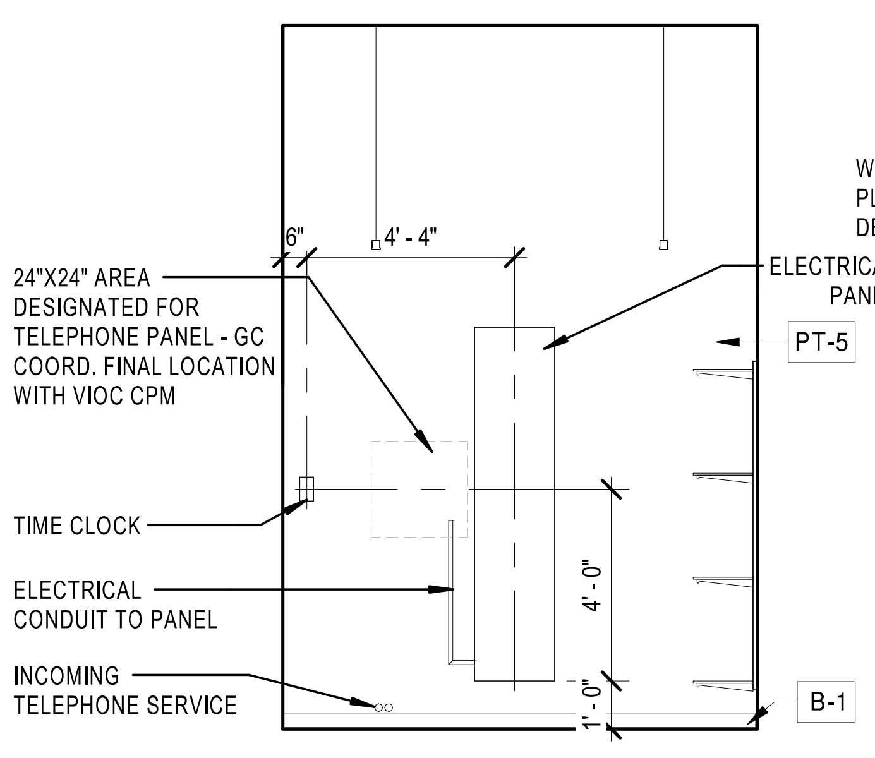
16 A-7.1 OFFICE
Scale: 1/4" = 1'-0"


COUNTERTOP
PT-5
B-1
NETWORK RACK

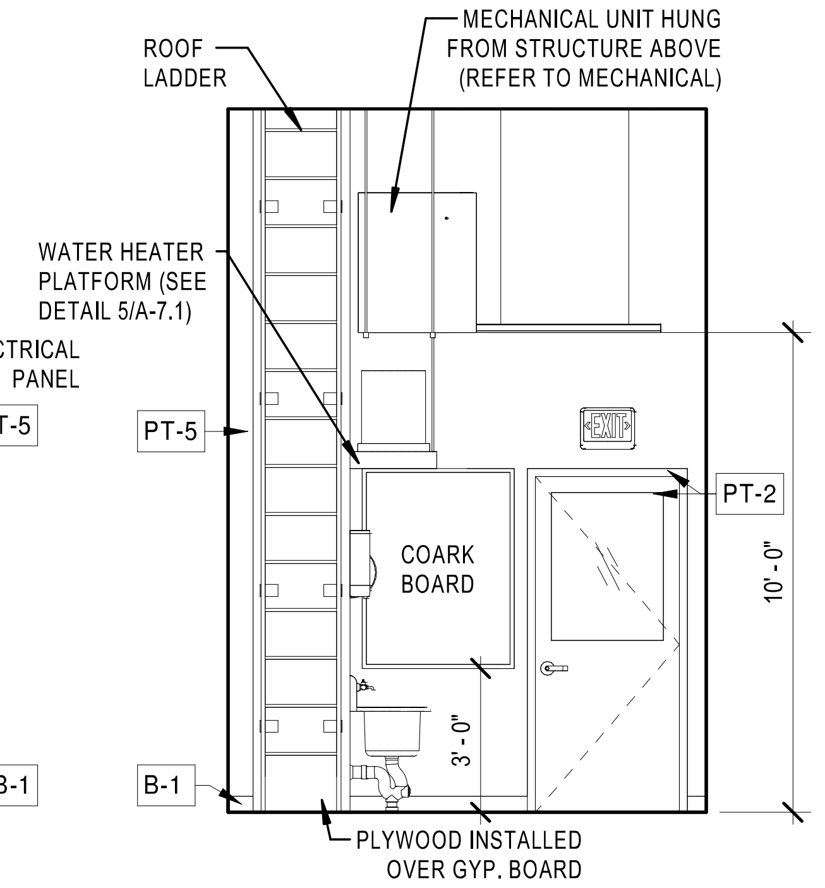
17 A-7.1 OFFICE
Scale: 1/4" = 1'-0"


FIELD VERIFY LAYOUT BEFORE CONSTRUCTING CABINETS
PT-5
PT-5
EQ
WC
WC
WC
EQ
18x30
24x30
24x30
END CLOSURE PANEL TO MATCH
UPPER CABINET - SEE DETAIL 1/A-7.1
PT-1
COUNTERTOP SEE DETAIL 2/A-7.1
2' - 6"
2' - 0"
2' - 10"
10' - 0"
B-1
NETWORK RACK
SAFE

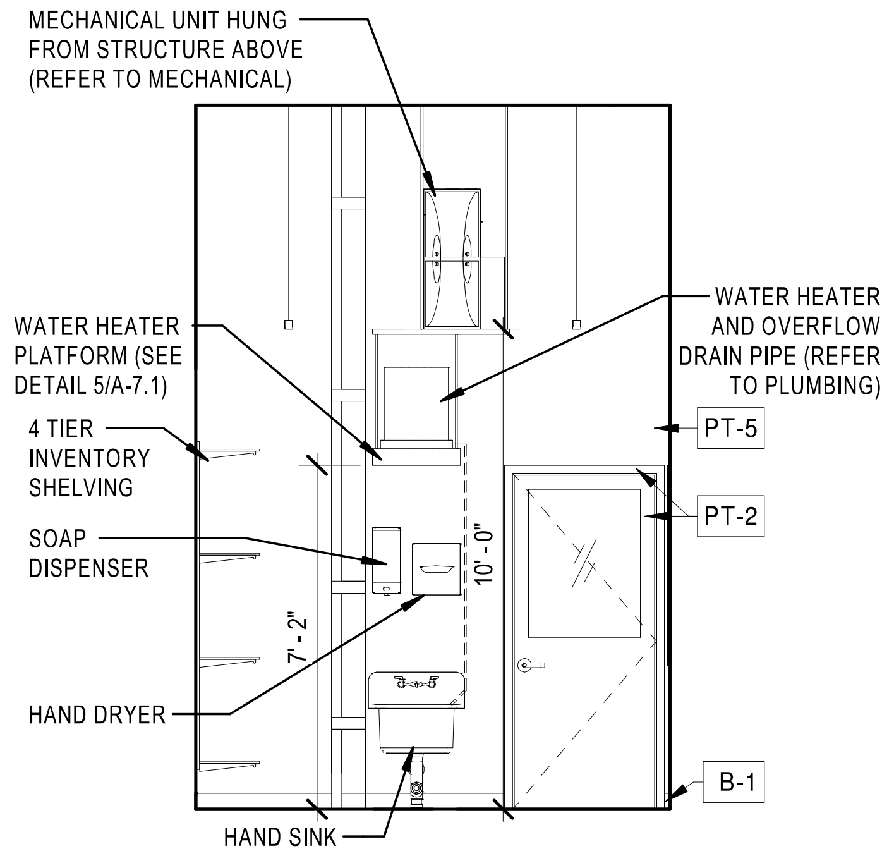
18 A-7.1 OFFICE
Scale: 1/4" = 1'-0"


24"X24" AREA DESIGNATED FOR TELEPHONE PANEL - GC COORD. FINAL LOCATION WITH VIOC CPM
TIME CLOCK
ELECTRICAL CONDUIT TO PANEL
INCOMING TELEPHONE SERVICE
6"
4' - 4"
ELECTRICAL PANEL
PT-5
4' - 0"
1' - 0"
B-1

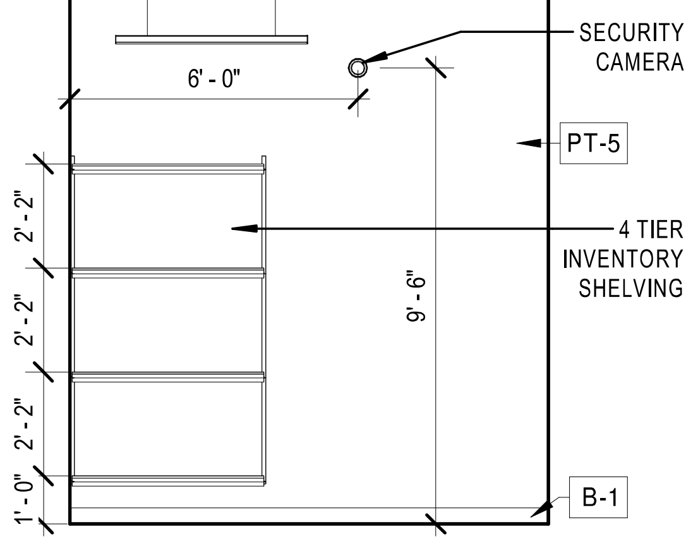
19 A-7.1 MECHANICS ROOM
Scale: 1/4" = 1'-0"


ROOF LADDER
MECHANICAL UNIT HUNG FROM STRUCTURE ABOVE (REFER TO MECHANICAL)
WATER HEATER PLATFORM (SEE DETAIL 5/A-7.1)
PT-5
EXIT
PT-2
COARK BOARD
10' - 0"
3' - 0"
B-1
PLYWOOD INSTALLED OVER GYP. BOARD

20 A-7.1 MECHANICS ROOM
Scale: 1/4" = 1'-0"


MECHANICAL UNIT HUNG FROM STRUCTURE ABOVE (REFER TO MECHANICAL)
WATER HEATER PLATFORM (SEE DETAIL 5/A-7.1)
4 TIER INVENTORY SHELVING
SOAP DISPENSER
HAND DRYER
7' - 2"
10' - 0"
WATER HEATER AND OVERFLOW DRAIN PIPE (REFER TO PLUMBING)
PT-5
PT-2
B-1
HAND SINK

21 A-7.1 MECHANICS ROOM
Scale: 1/4" = 1'-0"


6' - 0"
SECURITY CAMERA
PT-5
4 TIER INVENTORY SHELVING
2' - 2"
2' - 2"
2' - 2"
1' - 0"
9' - 6"
B-1

22 A-7.1 MECHANICS ROOM
Scale: 1/4" = 1'-0"

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Bentonville, Arkansas 72712
www.hfa-ae.com

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Date	Issued Record
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT
01/26/2026	REVISION 1

JAMI MARIE COOK
NUMBER
A-2021048657

JAMI MARIE COOK ARCHITECT
A-2021048657
HFA-AE, LTD
A-2005011993-F
2026.01.22 12:42:41-06'00'

PROFESSIONAL IN CHARGE
JAMI MARIE COOK
PROJECT MANAGER
DAH
QUALITY CONTROL
MND
DRAWN BY
DAH

PROJECT NAME

Valvoline
Instant Oil Change

VALVOLINE INSTANT OIL CHANGE

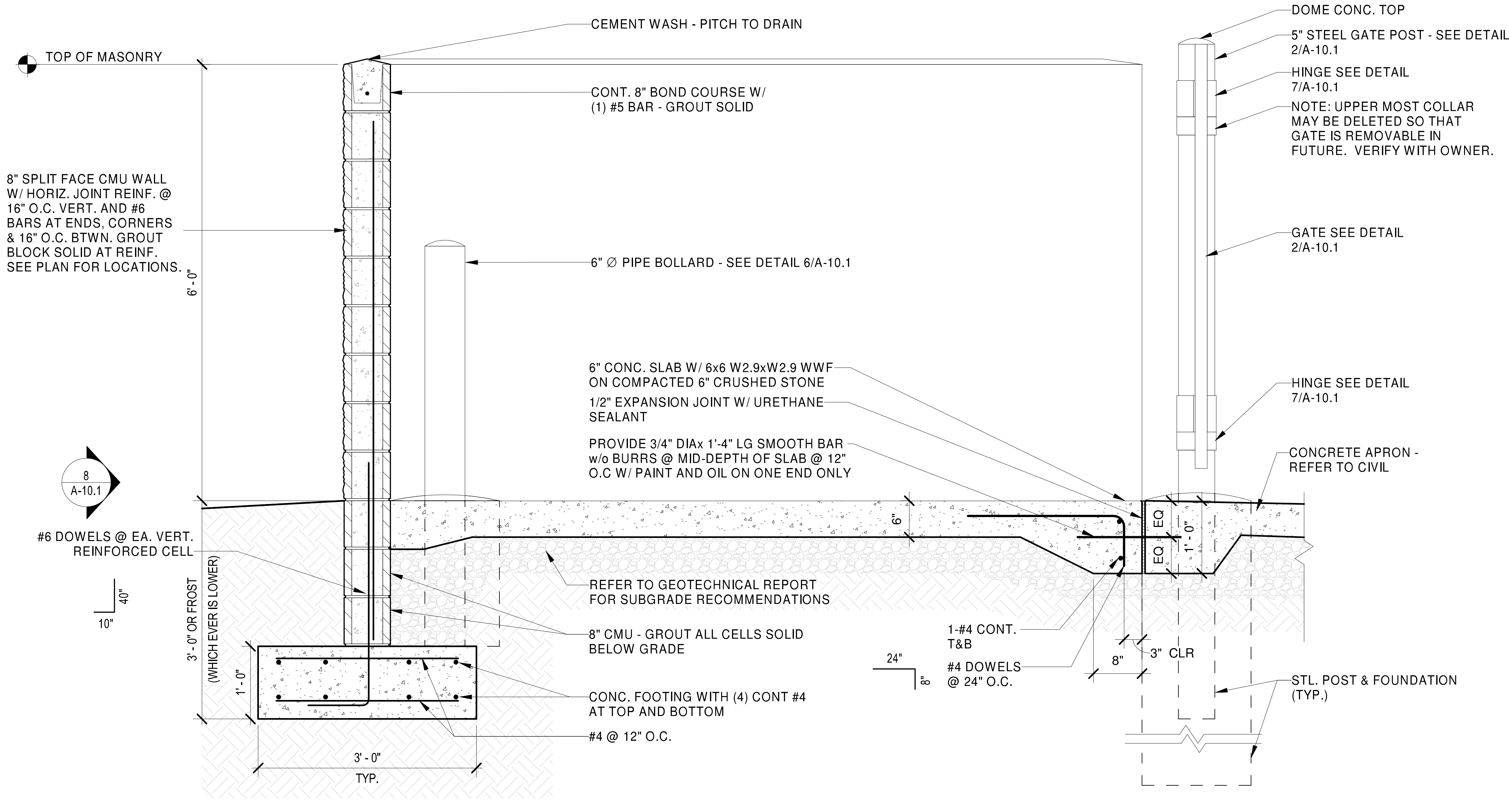
NW CHIPMAN RD &
NW WARD RD
LEE'S SUMMIT, MO,
64086

PROJECT NUMBER
06-24-20062

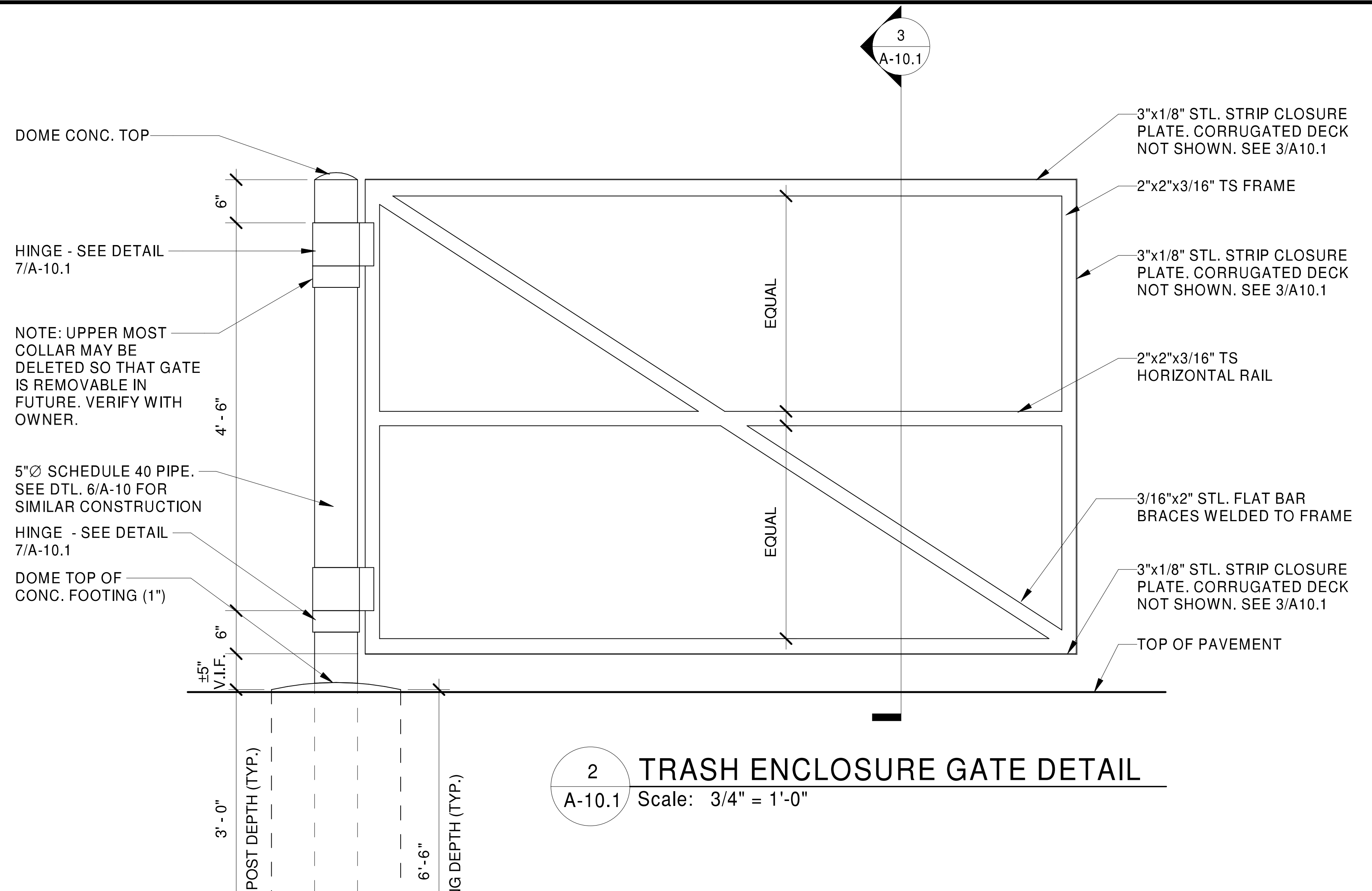
SHEET NAME
DETAILS AND INTERIOR ELEVATIONS

SHEET #
A-7.1

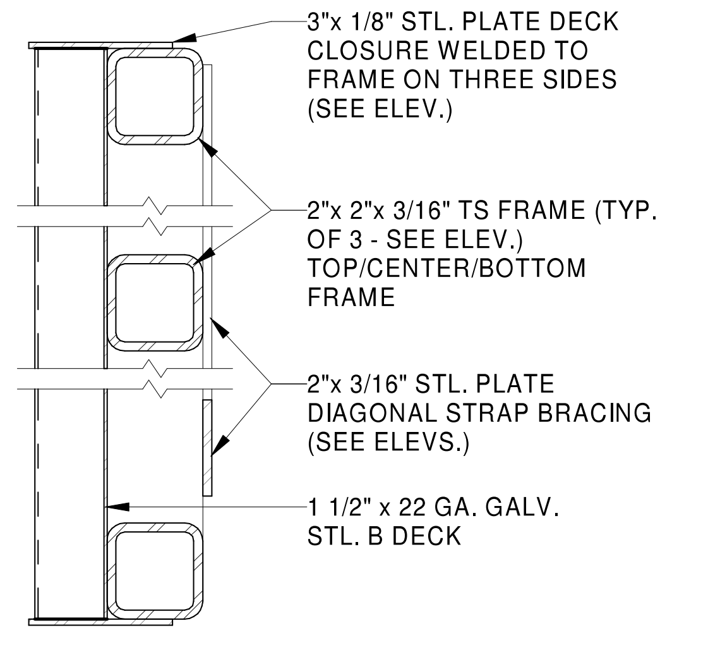
1/20/2026 11:52:37 AM C:\Users\dwayne.harris\Documents\2024 Revit Projects\06-24-20062 - Lee Summit MO - 2B-Flat Roof Arch_V24_HFA.Dwayne.Harris.rvt
-A-7.1-DETAILS AND INTERIOR ELEVATIONS-REVISION 1


TOP OF MASONRY
CEMENT WASH - PITCH TO DRAIN
CONT. 8" BOND COURSE W/ (1) #5 BAR - GROUT SOLID
8" SPLIT FACE CMU WALL W/ HORIZ. JOINT REINF. @ 16" O.C. VERT. AND #6 BARS AT ENDS, CORNERS & 16" O.C. BTWN. GROUT BLOCK SOLID AT REINF. SEE PLAN FOR LOCATIONS.
6' - 0"
6" ∅ PIPE BOLLARD - SEE DETAIL 6/A-10.1
6" CONC. SLAB W/ 6x6 W2.9xW2.9 WWF ON COMPACTED 6" CRUSHED STONE
1/2" EXPANSION JOINT W/ URETHANE SEALANT
PROVIDE 3/4" DIAx 1'-4" LG SMOOTH BAR w/o BURRS @ MID-DEPTH OF SLAB @ 12" O.C W/ PAINT AND OIL ON ONE END ONLY
8
A-10.1
6"
#6 DOWELS @ EA. VERT. REINFORCED CELL
40"
10"
3' - 0" OR FROST (WHICH EVER IS LOWER)
1' - 0"
REFER TO GEOTECHNICAL REPORT FOR SUBGRADE RECOMMENDATIONS
8" CMU - GROUT ALL CELLS SOLID BELOW GRADE
CONC. FOOTING WITH (4) CONT #4 AT TOP AND BOTTOM
#4 @ 12" O.C.
3' - 0"
TYP.
24"
8"
1-#4 CONT. T&B
#4 DOWELS @ 24" O.C.
8"
3" CLR
EQ
EQ
1' - 0"
DOME CONC. TOP
5" STEEL GATE POST - SEE DETAIL 2/A-10.1
HINGE SEE DETAIL 7/A-10.1
NOTE: UPPER MOST COLLAR MAY BE DELETED SO THAT GATE IS REMOVABLE IN FUTURE. VERIFY WITH OWNER.
GATE SEE DETAIL 2/A-10.1
HINGE SEE DETAIL 7/A-10.1
CONCRETE APRON - REFER TO CIVIL
STL. POST & FOUNDATION (TYP.)

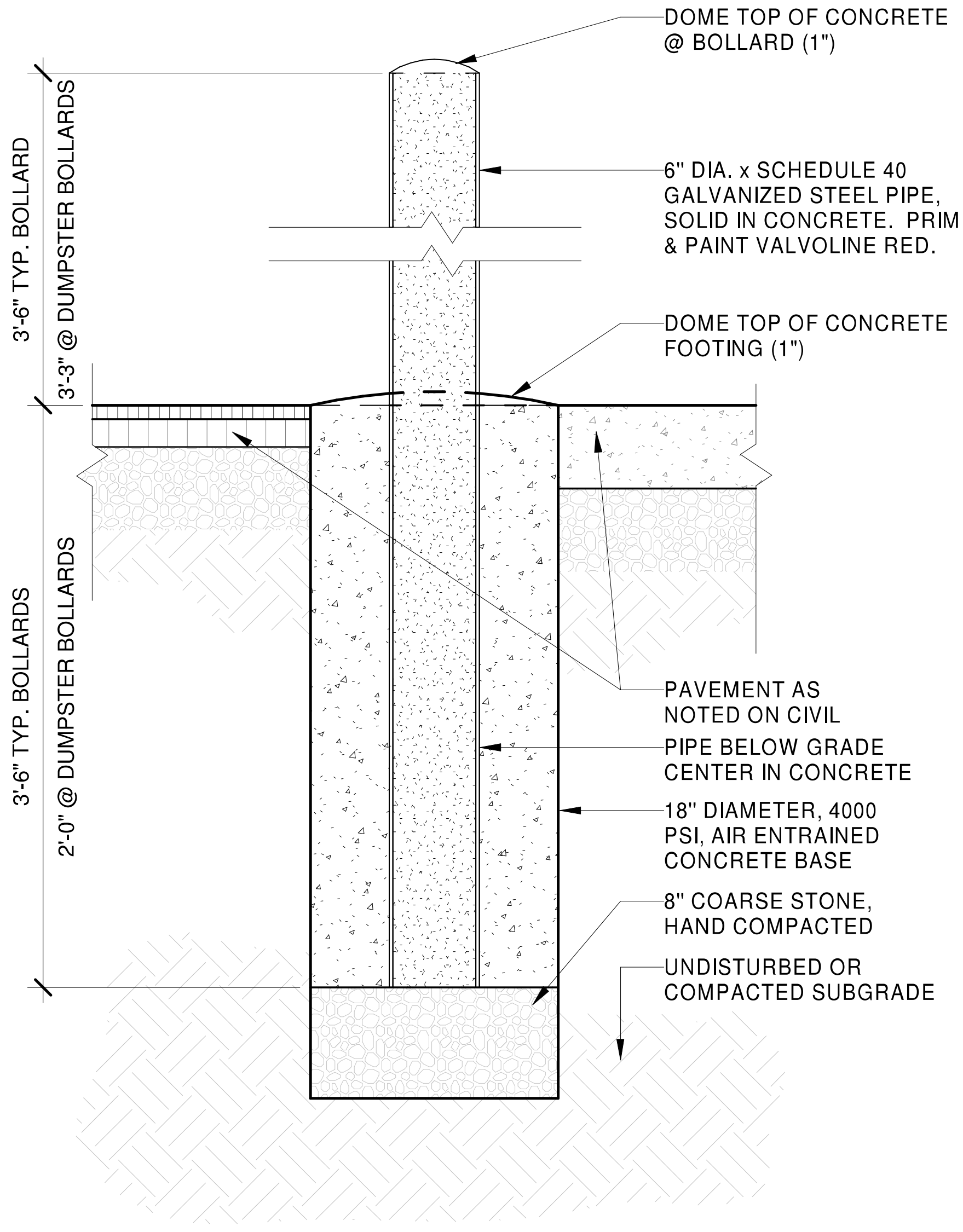
1 A-10.1 SECTION @ TRASH ENCLOSURE
Scale: 3/4" = 1'-0"


3
A-10.1
DOME CONC. TOP
HINGE - SEE DETAIL 7/A-10.1
NOTE: UPPER MOST COLLAR MAY BE DELETED SO THAT GATE IS REMOVABLE IN FUTURE. VERIFY WITH OWNER.
5"∅ SCHEDULE 40 PIPE. SEE DTL. 6/A-10 FOR SIMILAR CONSTRUCTION
HINGE - SEE DETAIL 7/A-10.1
DOME TOP OF CONC. FOOTING (1")
STL. POST & FOUNDATION (TYP.)
6"
4' - 6"
6"
±5" V.I.F.
3' - 0"
POST DEPTH (TYP.)
6'-6"
FOOTING DEPTH (TYP.)
1'-6" Ø
FOOTING
EQUAL
EQUAL
3"x1/8" STL. STRIP CLOSURE PLATE. CORRUGATED DECK NOT SHOWN. SEE 3/A10.1
2"x2"x3/16" TS FRAME
3"x1/8" STL. STRIP CLOSURE PLATE. CORRUGATED DECK NOT SHOWN. SEE 3/A10.1
2"x2"x3/16" TS HORIZONTAL RAIL
3/16"x2" STL. FLAT BAR BRACES WELDED TO FRAME
3"x1/8" STL. STRIP CLOSURE PLATE. CORRUGATED DECK NOT SHOWN. SEE 3/A10.1
TOP OF PAVEMENT

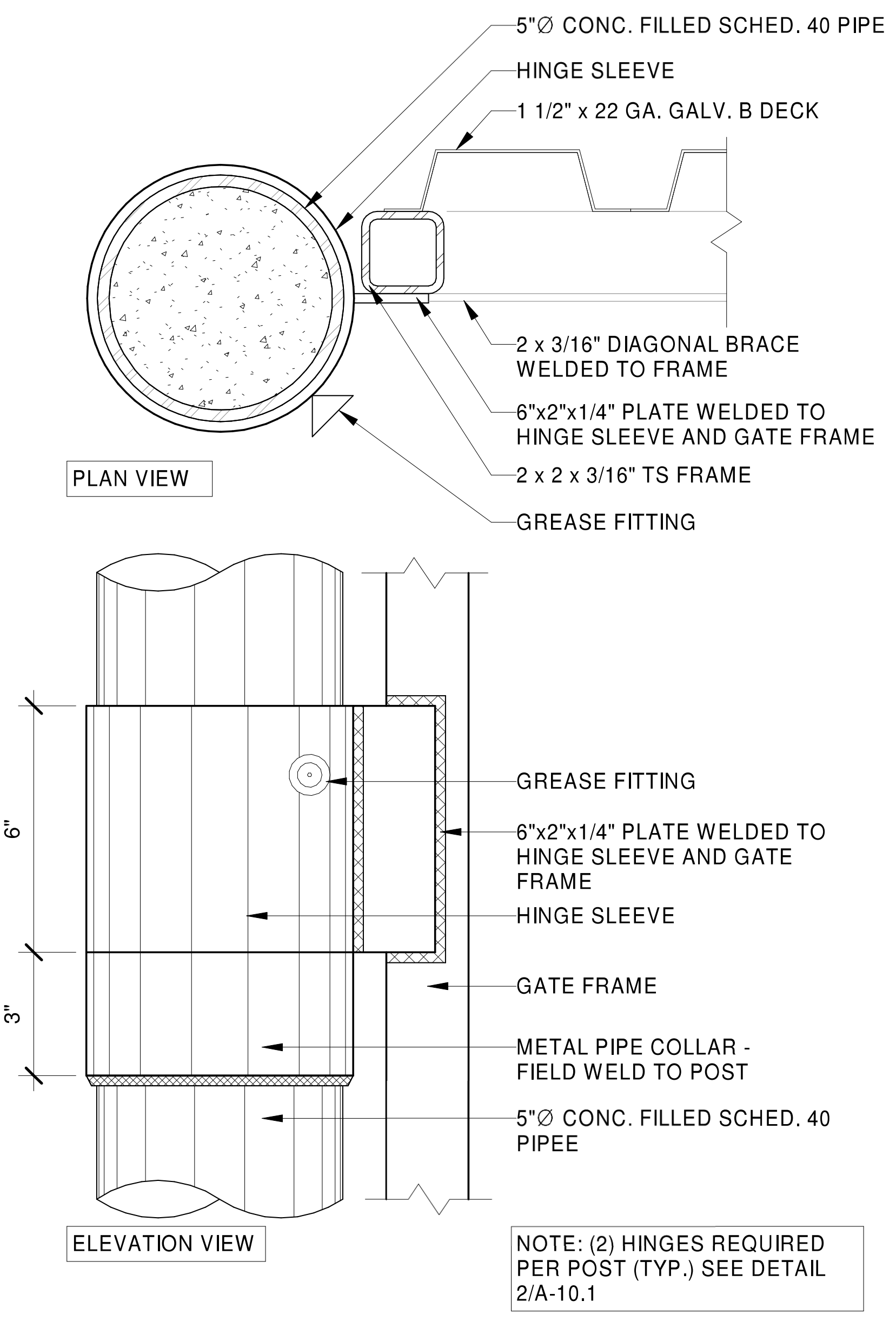
2 A-10.1 TRASH ENCLOSURE GATE DETAIL
Scale: 3/4" = 1'-0"


3"x 1/8" STL. PLATE DECK CLOSURE WELDED TO FRAME ON THREE SIDES (SEE ELEV.)
2"x 2"x 3/16" TS FRAME (TYP. OF 3 - SEE ELEV.) TOP/CENTER/BOTTOM FRAME
2"x 3/16" STL. PLATE DIAGONAL STRAP BRACING (SEE ELEVS.)
1 1/2" x 22 GA. GALV. STL. B DECK

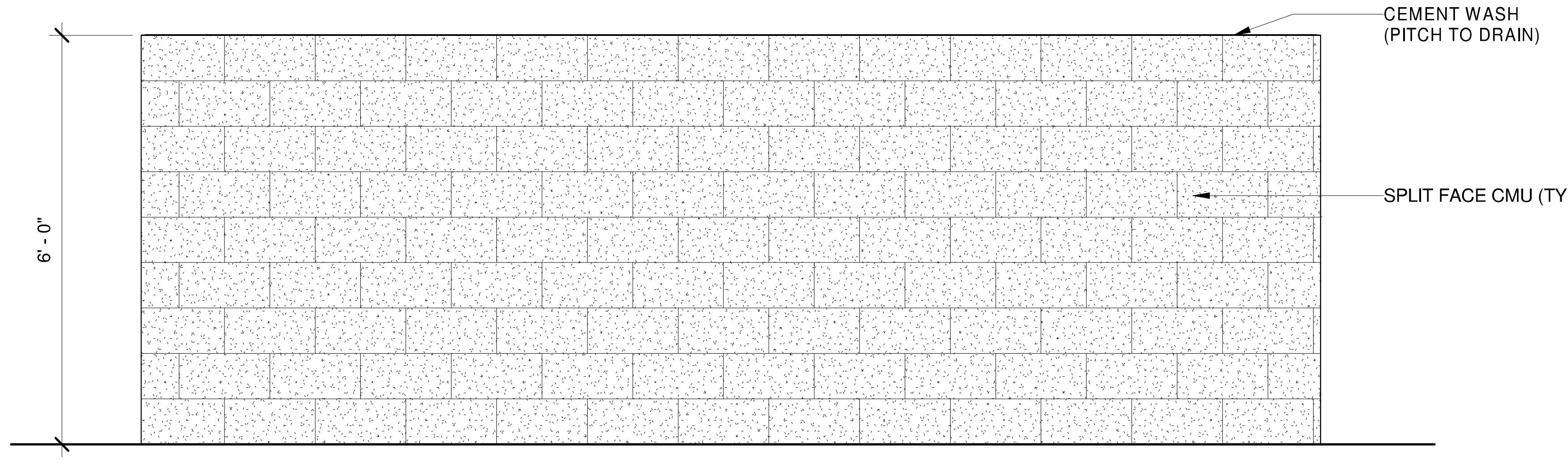
3 A-10.1 GATE SECTION
Scale: 3" = 1'-0"


DOME TOP OF CONCRETE @ BOLLARD (1")
6" DIA. x SCHEDULE 40 GALVANIZED STEEL PIPE, SOLID IN CONCRETE. PRIME & PAINT VALVOLINE RED.
DOME TOP OF CONCRETE FOOTING (1")
3'-6" TYP. BOLLARD
3'-3" @ DUMPSTER BOLLARDS
3'-6" TYP. BOLLARDS
2'-0" @ DUMPSTER BOLLARDS
PAVEMENT AS NOTED ON CIVIL
PIPE BELOW GRADE CENTER IN CONCRETE
18" DIAMETER, 4000 PSI, AIR ENTRAINED CONCRETE BASE
8" COARSE STONE, HAND COMPACTED
UNDISTURBED OR COMPACTED SUBGRADE

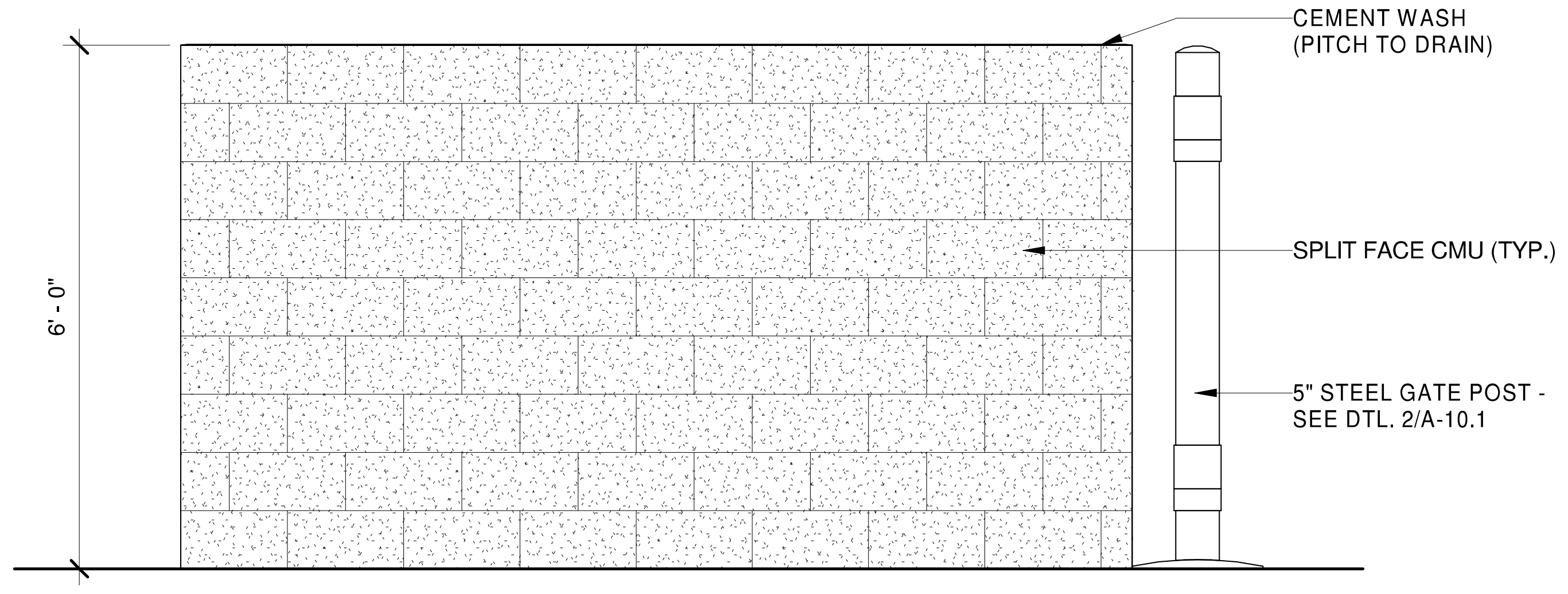
6 A-10.1 BOLLARD DETAIL
Scale: 1" = 1'-0"


5"∅ CONC. FILLED SCHED. 40 PIPE
HINGE SLEEVE
1 1/2" x 22 GA. GALV. B DECK
2 x 3/16" DIAGONAL BRACE WELDED TO FRAME
6"x2"x1/4" PLATE WELDED TO HINGE SLEEVE AND GATE FRAME
2 x 2 x 3/16" TS FRAME
GREASE FITTING
PLAN VIEW
6"
3"
GREASE FITTING
6"x2"x1/4" PLATE WELDED TO HINGE SLEEVE AND GATE FRAME
HINGE SLEEVE
GATE FRAME
METAL PIPE COLLAR - FIELD WELD TO POST
5"∅ CONC. FILLED SCHED. 40 PIPEE
ELEVATION VIEW
NOTE: (2) HINGES REQUIRED PER POST (TYP.) SEE DETAIL 2/A-10.1

7 A-10.1 HINGE DETAIL
Scale: 3" = 1'-0"

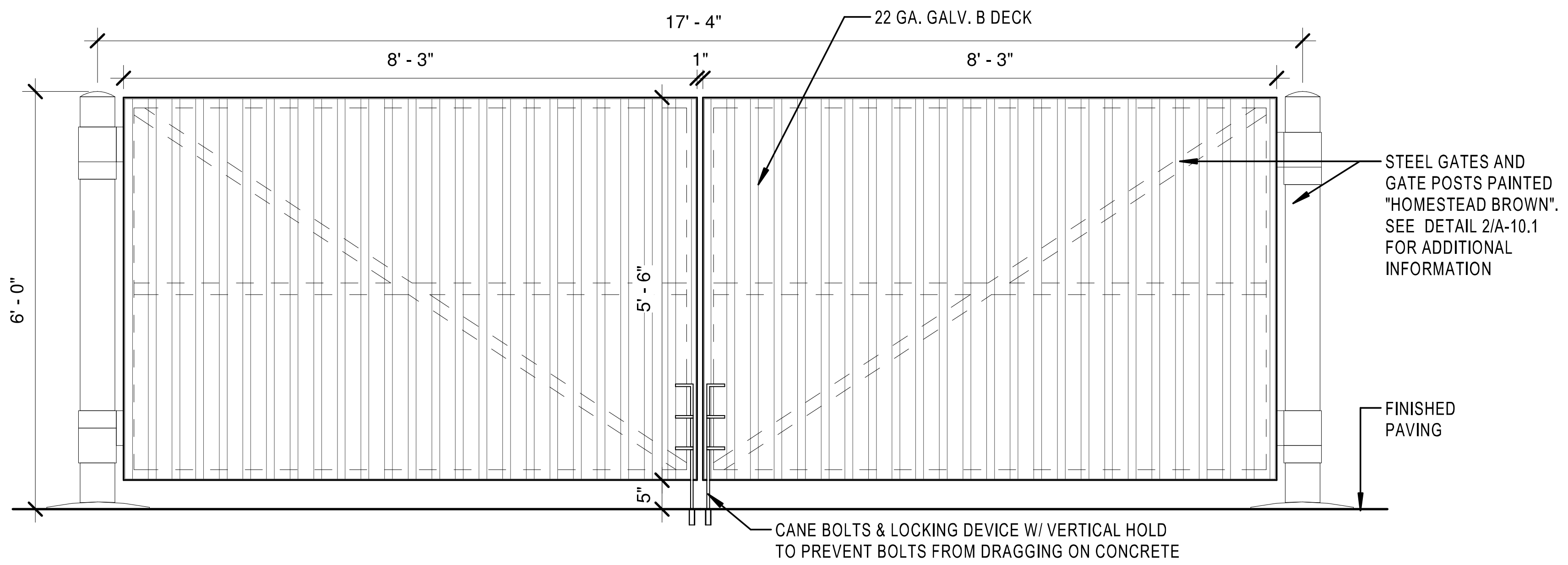

6' - 0"
CEMENT WASH (PITCH TO DRAIN)
SPLIT FACE CMU (TYP.)

4 A-10.1 DUMPSTER ENCLOSURE REAR ELEVATION
Scale: 1/2" = 1'-0"

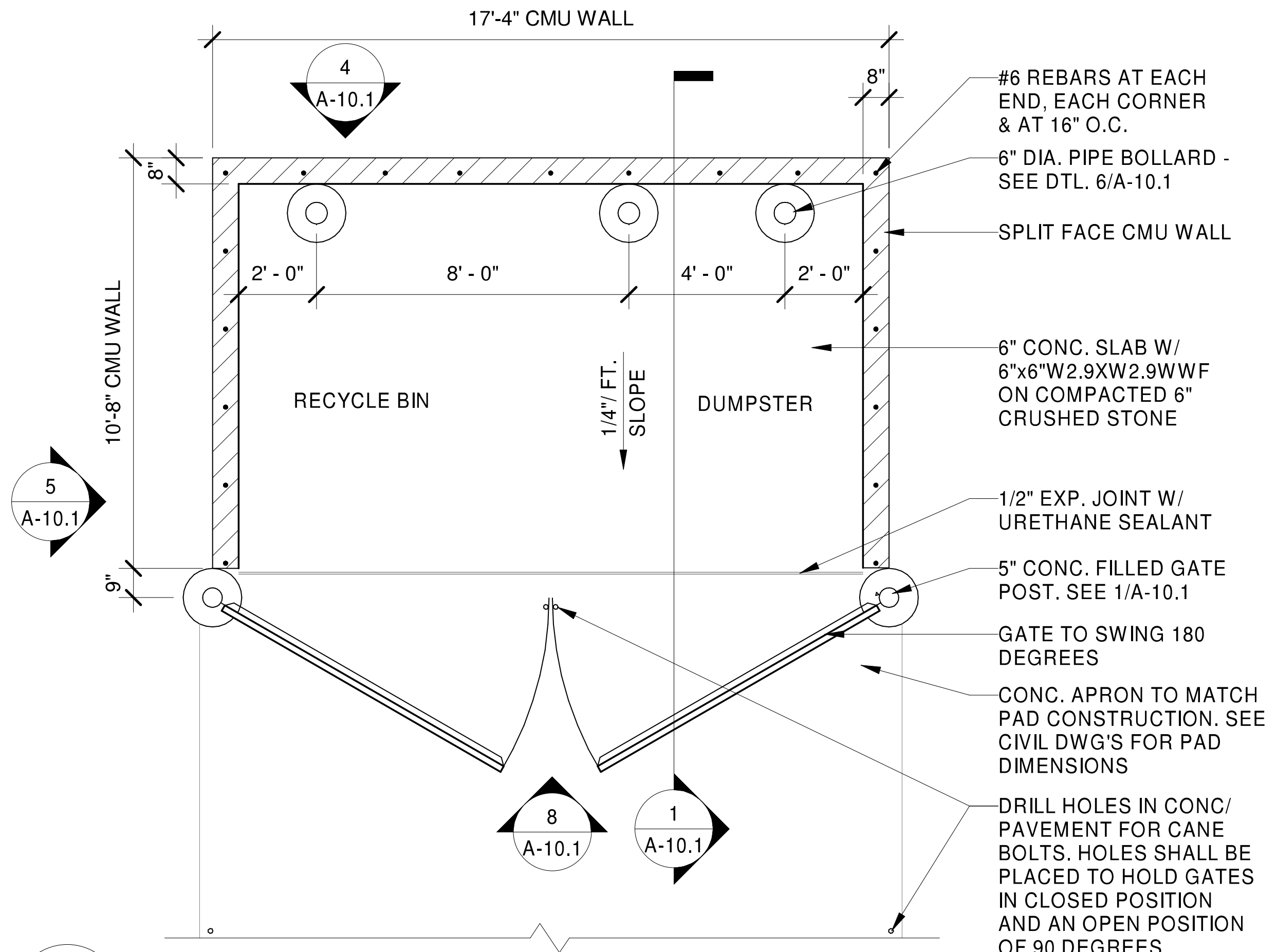

6' - 0"
CEMENT WASH (PITCH TO DRAIN)
SPLIT FACE CMU (TYP.)
5" STEEL GATE POST - SEE DTL. 2/A-10.1

5 A-10.1 TYP. DUMPSTER ENCLOSURE SIDE ELEVATION
Scale: 1/2" = 1'-0"

NOTE:
GATES SHALL BE EQUIPPED WITH DROP (CANE) BOLTS, HEAVY DUTY HINGES AND LATCHES (WITH PADLOCK) DRILL HOLES 2" DEEP IN CONC. / PAVING TO ALLOW DROP BOLTS TO HOLD GATES IN CLOSED POSITION AND AT AN OPEN POSITION OF 90°. POSITION VERTICAL HOLD TO KEEP CANE BOLTS FROM DRAGGING CONC.


17' - 4"
8' - 3"
1"
8' - 3"
22 GA. GALV. B DECK
6' - 0"
5' - 6"
5"
STEEL GATES AND GATE POSTS PAINTED "HOMESTEAD BROWN". SEE DETAIL 2/A-10.1 FOR ADDITIONAL INFORMATION
FINISHED PAVING
CANE BOLTS & LOCKING DEVICE W/ VERTICAL HOLD TO PREVENT BOLTS FROM DRAGGING ON CONCRETE

8 A-10.1 DUMPSTER ENCLOSURE FRONT ELEVATION
Scale: 1/2" = 1'-0"


17'-4" CMU WALL
4
A-10.1
8"
8"
#6 REBARS AT EACH END, EACH CORNER & AT 16" O.C.
6" DIA. PIPE BOLLARD - SEE DTL. 6/A-10.1
SPLIT FACE CMU WALL
2' - 0"
8' - 0"
4' - 0"
2' - 0"
10'-8" CMU WALL
RECYCLE BIN
1/4"/ FT. SLOPE
DUMPSTER
6" CONC. SLAB W/ 6"x6"W2.9XW2.9WWF ON COMPACTED 6" CRUSHED STONE
5
A-10.1
1/2" EXP. JOINT W/ URETHANE SEALANT
9"
5" CONC. FILLED GATE POST. SEE 1/A-10.1
GATE TO SWING 180 DEGREES
CONC. APRON TO MATCH PAD CONSTRUCTION. SEE CIVIL DWG'S FOR PAD DIMENSIONS
8
A-10.1
1
A-10.1
DRILL HOLES IN CONC/ PAVEMENT FOR CANE BOLTS. HOLES SHALL BE PLACED TO HOLD GATES IN CLOSED POSITION AND AN OPEN POSITION OF 90 DEGREES TYP. AT ALL GATES

9 A-10.1 DUMPSTER ENCLOSURE PLAN
Scale: 1/4" = 1'-0"

EXTERIOR FINISHES

SPLIT FACE CMU AND MORTAR:
FIELD PAINT: PR-1 FOLLOWED BY TWO COATS OF FINISH PAINT AS FOLLOWS:
- SHERWIN WILLIAMS SW-7050 (USEFUL GRAY)

BOLLARDS / GUARD POSTS:
FIELD PAINT: PR-2 FOLLOWED BY TWO COATS OF PT-4 (VALVOLINE RED)

GATES & GATE POSTS:
FIELD PAINT: PR-2 FOLLOWED BY TWO COATS OF SHERWIN WILLIAMS SW-7069 (IRON ORE)

GENERAL NOTES:
- ALL MASONRY SURFACES SHALL BE TREATED W/ SEALER. REFER TO SPECS.
- ALL EXTERIOR TRASH ENCLOSURE STEEL SHALL BE GALVANIZED PRIOR TO PAINTING.

C:\Users\dwayne.harris\Documents\2024 Revit Projects\06-24-20062 - Lee Summit MO - 2B-Flat Roof Arch_V24_HFA.Dwayne.Harris.rvt
12/19/2025 3:13:35 PM
-A-10.1-DUMPSTER ENCLOSURE

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HFA-AE, LTD.

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Bentonville, Arkansas 72712
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Date	Issued Record
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT

JAMI MARIE COOK
NUMBER A-2021048657

Jami Cook
2025.12.22 09:00:50-06'00'
JAMI MARIE COOK, ARCHITECT
A-2021048657
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL IN CHARGE
JAMI MARIE COOK
PROJECT MANAGER
DAH
QUALITY CONTROL
MND
DRAWN BY
DAH

PROJECT NAME

VALVOLINE INSTANT OIL CHANGE

NW CHIPMAN RD &
NW WARD RD
LEE'S SUMMIT, MO,
64086

PROJECT NUMBER
06-24-20062

SHEET NAME
DUMPSTER ENCLOSURE

SHEET #
A-10.1

SPLIT SYSTEM SCHEDULE

NOTES:
1. CRANKCASE HEATER
2. CYCLE PROTECTOR
3. R-454B REFRIGERANT
4. RETURN AIR FILTERS
5. ACOUSTICALLY LINE THE FIRST 10'-0" OF BOTH SUPPLY AND RETURN DUCTS.
6. CONCENTRIC VENT KIT
7. 7-DAY PROGRAMMABLE THERMOSTAT
8. 5-YEAR COMPRESSOR WARRANTY
9. DRAIN PAN
10. 15 SEER

TAG	MANUFACTURER	MODEL	NOMINAL TONNAGE	SUPPLY AIR	OUTSIDE AIR	ESP	HP	ELECTRICAL				COOLING CAPACITY		HEATING CAPACITY		WEIGHT	NOTES
								VOLTAGE	MCA	MOCP	PHASE	TOTAL MBH	SENSIBLE MBH	INPUT MBH	OUTPUT MBH		
CU-1	CARRIER	26SCA536W003	3				--	208 V	17.6	30	1	33.69	23.06	--	--	177	1,2,3,8,10
F-1	CARRIER	59SC6A060M17**16	3	1000 CFM	100 CFM	0.50 in-wg	1/2	120 V	10.1	15	1	33.69	23.06	60	58	179	3,4,5,6,7,9,10

FAN SCHEDULE

NOTES:
1. BACKDRAFT DAMPER
2. FAN SPEED CONTROLLER
3. TIME DELAY SWITCH
4. TERMINATE WITH ROOF CAP
5. RC-75 SET (4) - ISOLATORS
6. ELECTRIC DISCONNECT
7. INLET & OUTLET FLEXIBLE CONNECTIONS
8. FLOOR SPRING ISOLATION
9. EPOXY POWDER WITH UV COATING
10. INSULATED ROOF CURB
11. ALUMINUM BIRD SCREEN
12. DAMPER TRAY

TAG	MANUFACTURER	MODEL	AREA SERVED	LOCATION	CFM	ESP	FAN TYPE	DRIVE TYPE	SONES	RPM	HP	ELECTRICAL		WEIGHT	NOTES
												VOLTAGE	PHASE		
EF-1	COOK	GEMINI GC-148	TOILET ROOM	CEILING MOUNTED	100	0.375 in-wg	CABINET	DIRECT	2.0	974	FRACT.	115 V	1	16 LBS	1,2,3,4
EF-2	COOK	120C17D (VF)	LOWER LEVEL	ROOF	1200	0.500 in-wg	DOWNBLAST CENT.	DIRECT	10.1	1407	1/2	115 V	1	37 LBS	1,2,6,9,10,11,12
EF-3	COOK	120C17D (VF)	PIT LEVEL	ROOF	800	0.500 in-wg	DOWNBLAST CENT.	DIRECT	6.7	1152	1/2	115 V	1	37 LBS	1,2,9,10,11,12
TF-1	COOK	120SQN17D(VF)	LOWER LEVEL	CEILING MOUNTED	1000	0.500 in-wg	INLINE CENT.	DIRECT	8.3	1339	1/2	115 V	1	78 LBS	1,2,5,6,7,8

FAN SCHEDULE (OPTIONAL ALTERNATE)

NOTES:
1. BACKDRAFT DAMPER
2. FAN SPEED CONTROLLER
3. TIME DELAY SWITCH
4. TERMINATE WITH ROOF CAP
5. RC-75 SET (4) ISOLATORS
6. ELECTRIC DISCONNECT
7. INLET & OUTLET FLEXIBLE CONNECTIONS
8. FLOOR SPRING ISOLATION
9. EPOXY POWDER WITH UV
10. INSULATED ROOF CURB
11. ALUMINUM BIRD SCREEN
12. DAMPER TRAY

TAG	MANUFACTURER	MODEL	AREA SERVED	LOCATION	CFM	ESP	FAN TYPE	DRIVE TYPE	SONES	RPM	HP	ELECTRICAL		WEIGHT	NOTES
												VOLTAGE	PHASE		
EF-1	GREENHECK	SP-B150	TOILET ROOM	CEILING MOUNTED	100	0.375 in-wg	CABINET	DIRECT	1.5	753	FRAC.	115	1	15 LBS	1,2,3,4,5
EF-2	GREENHECK	G-120-VG	LOWER LEVEL	ROOF MOUNTED	1200	0.500 in-wg	DOWNBLAST CENT.	DIRECT	10.3	1304	1/2	115	1	49 LBS	1,2,6,9,10,11,12
EF-3	GREENHECK	G-120-VG	UPPER LEVEL	ROOF MOUNTED	800	0.500 in-wg	DOWNBLAST CENT.	DIRECT	7.5	1101	1/2	115	1	49 LBS	1,2,6,9,10,11,12
TF-1	GREENHECK	SQ-120-VG	LOWER LEVEL	CEILING MOUNTED	1000	0.500 in-wg	INLINE CENT.	DIRECT	5.4	1267	1/2	115	1	60 LBS	1,2,5,6,7,8

GAS FIRED RADIANT HEATER SCHEDULE

TAG	MANUFACTURER	MODEL	AREA SERVED	MOUNTING	MBH INPUT	AIR SUPPLY SIZE	FLUE SIZE	ELECTRICAL		
								VOLTAGE	PHASE	FLA
RH-1	SPACE-RAY	LTU 75-30-N5 (30')	SERVICE BAY	CEILING HUNG	75	4"Ø	4"Ø	120 V	1	2.6
RH-2	SPACE-RAY	LTU 75-30-N5 (30')	SERVICE BAY	CEILING HUNG	75	4"Ø	4"Ø	120 V	1	2.6

AIR DEVICE SCHEDULE

TAG	MANUF.	MODEL	TYPE	MOUNTING	FACE SIZE	NECK SIZE	THROW
EG-1	TITUS	55FL	EXHAUST GRILLE	SURFACE	12"x20"	10"x18"	N/A
EG-2	TITUS	55FL	EXHAUST GRILLE	SURFACE	18"x18"	16"x16"	N/A
RG-1	TITUS	350RL	DUCT MOUNTED RETURN GRILLE	DUCT	14" X 14"	12" X 12"	N/A
RG-2	TITUS	PAR-AA	ARCHITECTURAL CEILING - RETURN	LAY-IN	12"x12"	6"x6"	N/A
RG-3	TITUS	23RL	RETURN GRILLE	SURFACE	20"x20"	18"x18"	N/A
RG-4	TITUS	PAR-AA	ARCHITECTURAL CEILING - RETURN	LAY-IN	24"x24"	10"x10"	N/A
SD-1	TITUS	OMNI-AA	ARCHITECTURAL CEILING DIFFUSER - SUPPLY	LAY-IN	24"x24"	10"ø	4-WAY
SD-2	TITUS	OMNI-AA	ARCHITECTURAL CEILING DIFFUSER - SUPPLY	LAY-IN	12"x12"	6"ø	4-WAY
SG-1	TITUS	300FL	DUCT MOUNTED SUPPLY GRILLE	DUCT	14" X 12"	12"x10"	ADJUSTABLE
SG-2	TITUS	272FL	SURFACE MOUNTED SUPPLY GRILLE	SURFACE	20"x16"	18"x14"	ADJUSTABLE

ELECTRIC DUCT HEATER SCHEDULE

NOTES:
1. THERMOSTAT
2. CONTROL OPTION G

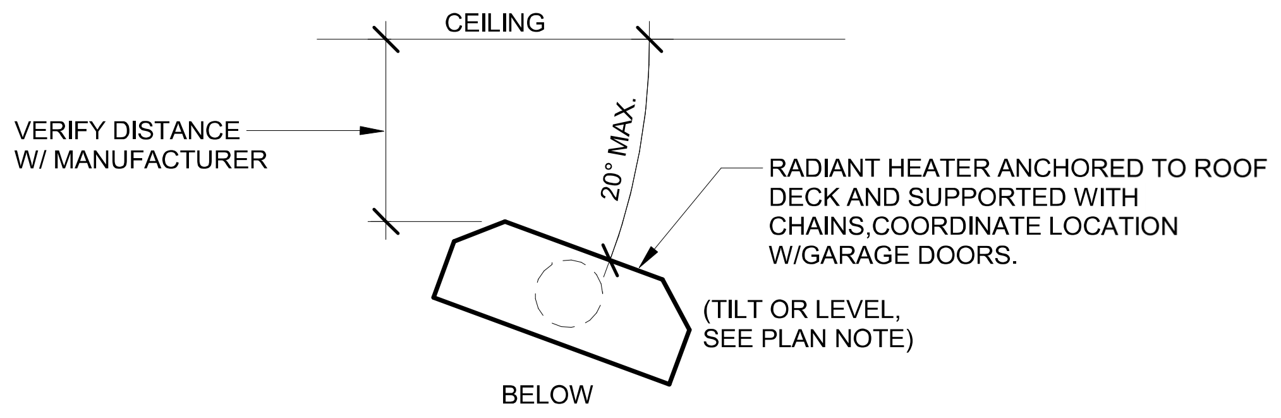
TAG	MANUFACTURER	MODEL	AREA SERVED	DUCT SIZE	ELECTRICAL			STAGES	NOTES
					KW	VOLTAGE	PHASE		
EDH-1	INDEECO	QUA	PIT	14x18	30	208 V	3	2	1 & 2

ELECTRIC CEILING HEATER SCHEDULE

NOTES:
1. REMOTE THERMOSTAT
2. ALUMINUM FRONT GRILLE
3. SURFACE MOUNTING BOX FOR ALUMINUM FRONT GRILLE
4. DISCONNECT
5. SURFACE MOUNTING SLEEVE FIF-FSM-N
6. 208/240V PRIMARY TRANSFORMER 24V SEC. TRANSFORMER RELAY FIR-FTR4-Z

TAG	MANUFACTURER	MODEL	AREA SERVED	ELECTRICAL				WEIGHT	NOTES
				KW	AMPS	VOLTAGE	PHASE		
ECH-1	INDEECO	931IF-F4008-N	PIT LEVEL	4.0	19.2	208 V	1	23 LBS	ALL
ECH-2	INDEECO	931IF-F4008-N	PIT LEVEL	4.0	19.2	208 V	1	23 LBS	ALL

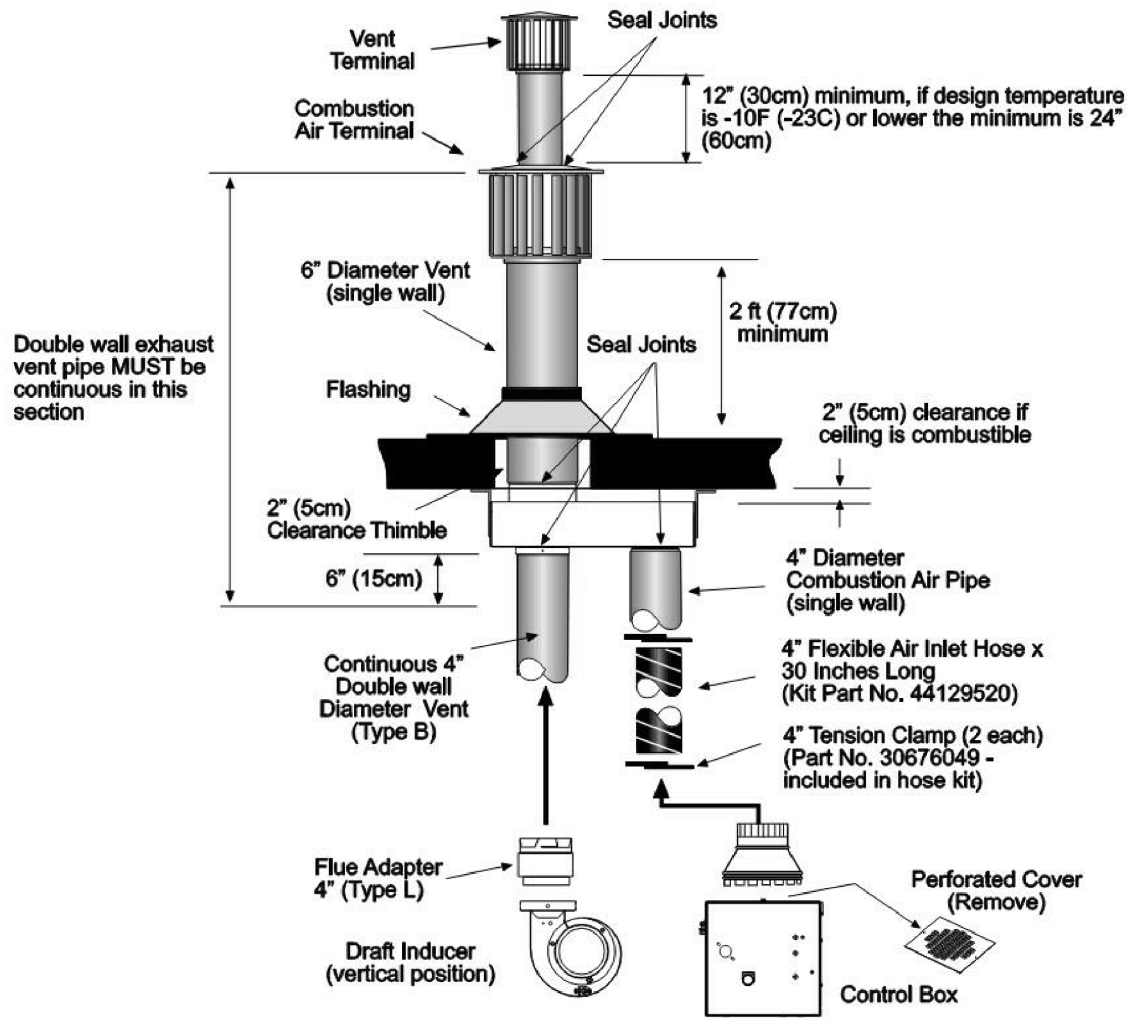
SEQUENCE OF OPERATION - HEATING
1. SERVICE BAY - RADIANT HEATERS SHALL BE CYCLED FROM THERMOSTATS AS SHOWN ON PLAN.
2. EXHAUST FAN (EF-2) AND TRANSFER FAN (TF-1) SHALL BE ENERGIZED WHENEVER THE LIGHTS IN THE BASEMENT ARE TURNED ON. INTERLOCK BY ELECTRICAL CONTRACTOR, SEE ELEC. SHEETS.


CEILING
VERIFY DISTANCE W/ MANUFACTURER
20° MAX.
RADIANT HEATER ANCHORED TO ROOF DECK AND SUPPORTED WITH CHAINS,COORDINATE LOCATION W/GARAGE DOORS.
(TILT OR LEVEL, SEE PLAN NOTE)
BELOW

NOTE:
RH-1 SHALL BE MOUNTED TO TILT IN TOWARD THE SERVICE BAY. HEATERS SHALL BE MOUNTED IN ACCORDANCE TO MFG. INSTRUCTIONS.HEATERS SHALL BE CYCLED FROM THERMOSTAT AS SHOWN ON PLAN.

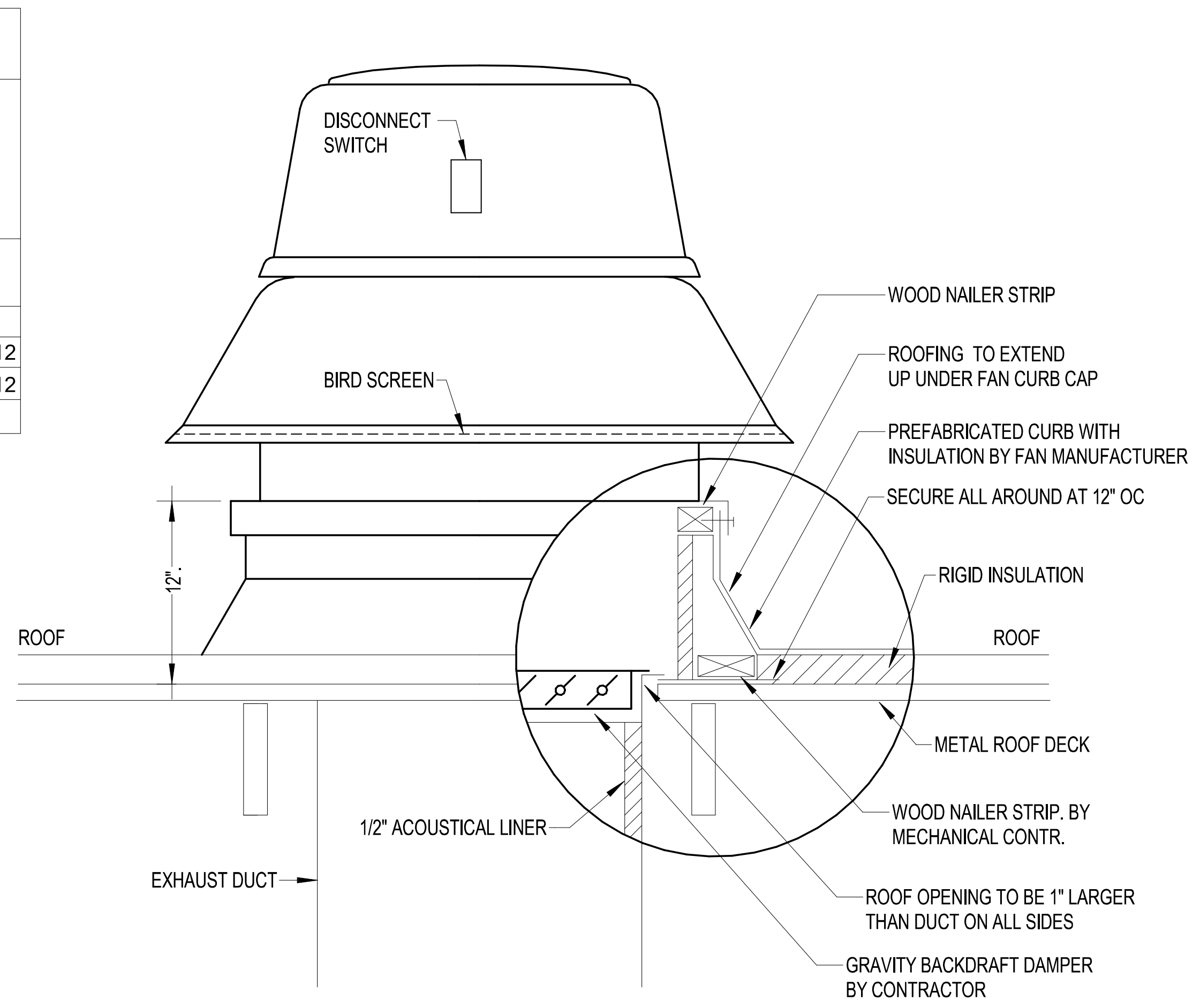
4 M-2.1 RADIANT HEATER DETAIL

Scale: NO SCALE


Vent Terminal
Seal Joints
Combustion Air Terminal
12" (30cm) minimum, if design temperature is -10F (-23C) or lower the minimum is 24" (60cm)
6" Diameter Vent (single wall)
2 ft (77cm) minimum
Double wall exhaust vent pipe MUST be continuous in this section
Seal Joints
Flashing
2" (5cm) clearance if ceiling is combustible
2" (5cm) Clearance Thimble
6" (15cm)
4" Diameter Combustion Air Pipe (single wall)
Continuous 4" Double wall Diameter Vent (Type B)
4" Flexible Air Inlet Hose x 30 Inches Long (Kit Part No. 44129520)
4" Tension Clamp (2 each) (Part No. 30676049 - included in hose kit)
Flue Adapter 4" (Type L)
Perforated Cover (Remove)
Draft Inducer (vertical position)
Control Box

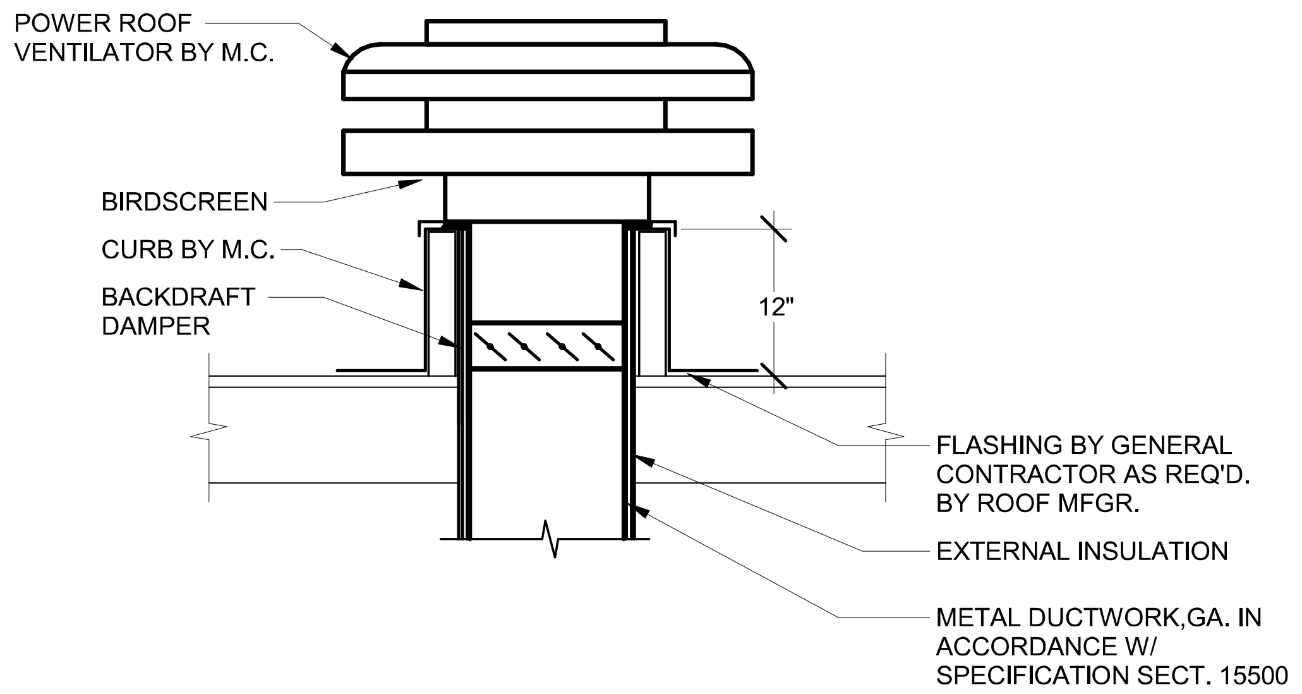
5 M-2.1 CONCENTRIC VENT THROUGH ROOF DETAIL

Scale: NO SCALE


DISCONNECT SWITCH
BIRD SCREEN
WOOD NAILER STRIP
ROOFING TO EXTEND UP UNDER FAN CURB CAP
PREFABRICATED CURB WITH INSULATION BY FAN MANUFACTURER
SECURE ALL AROUND AT 12" OC
RIGID INSULATION
12".
ROOF
ROOF
METAL ROOF DECK
1/2" ACOUSTICAL LINER
WOOD NAILER STRIP. BY MECHANICAL CONTR.
EXHAUST DUCT
ROOF OPENING TO BE 1" LARGER THAN DUCT ON ALL SIDES
GRAVITY BACKDRAFT DAMPER BY CONTRACTOR

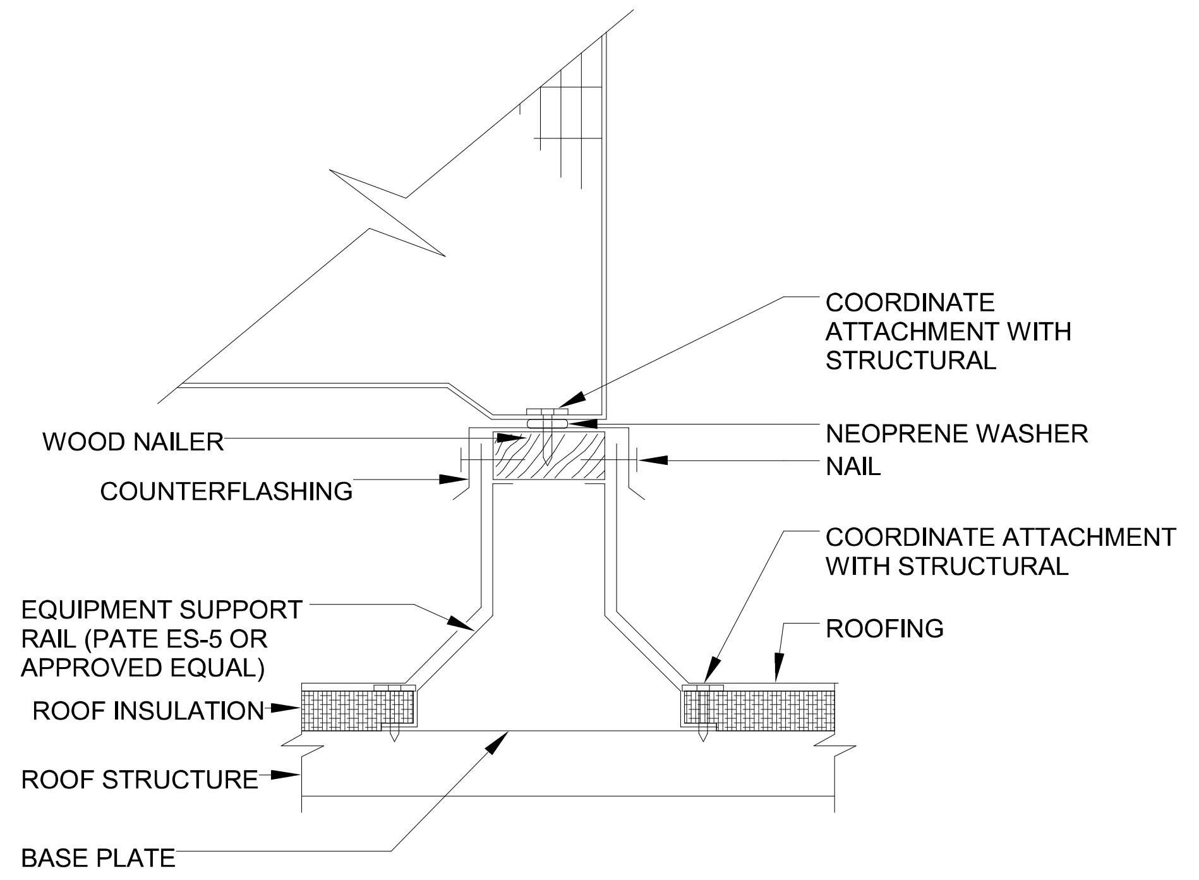
6 M-2.1 EXHAUST FAN DETAIL

Scale: NO SCALE


POWER ROOF VENTILATOR BY M.C.
BIRDSCREEN
CURB BY M.C.
BACKDRAFT DAMPER
12"
FLASHING BY GENERAL CONTRACTOR AS REQ'D. BY ROOF MFGR.
EXTERNAL INSULATION
METAL DUCTWORK,GA. IN ACCORDANCE W/ SPECIFICATION SECT. 15500

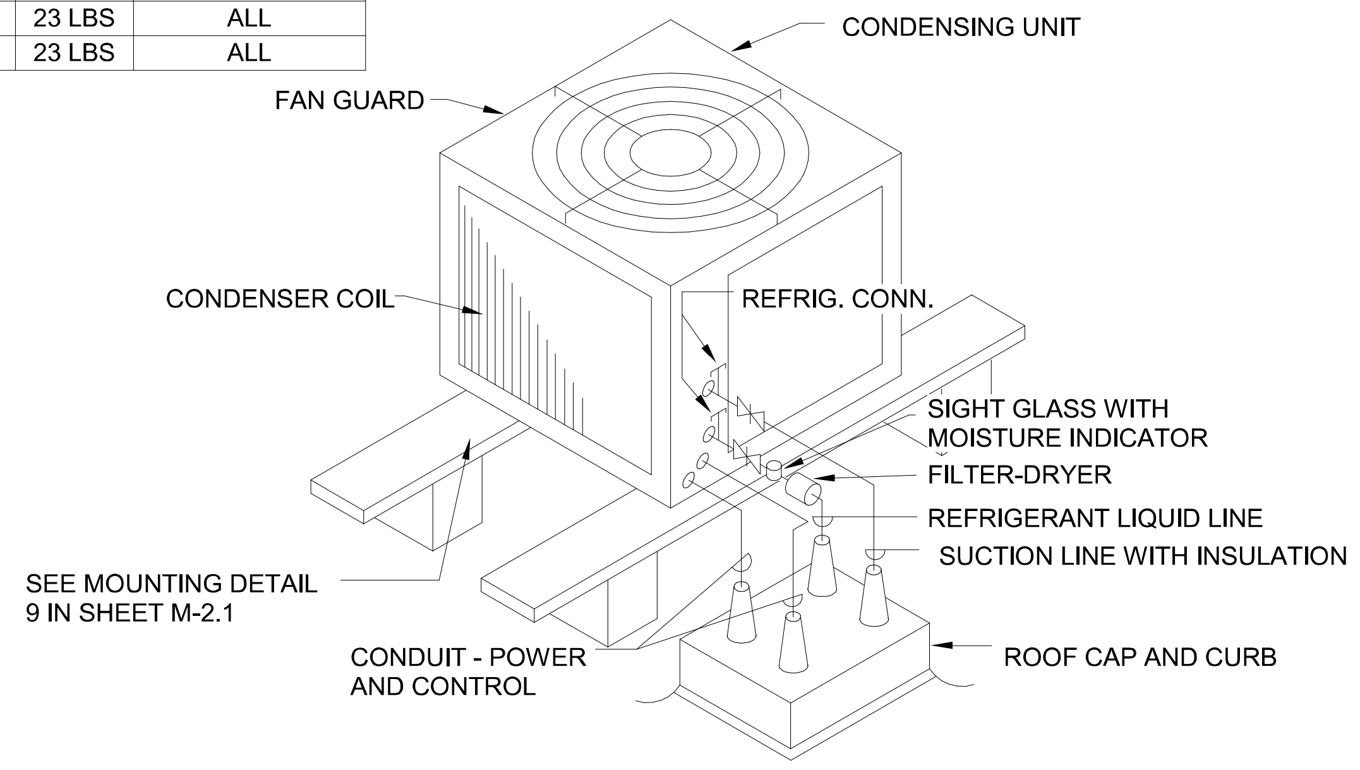
7 M-2.1 ROOF VENTILATOR DETAIL

Scale: NO SCALE


COORDINATE ATTACHMENT WITH STRUCTURAL
WOOD NAILER
NEOPRENE WASHER
NAIL
COUNTERFLASHING
COORDINATE ATTACHMENT WITH STRUCTURAL
ROOFING
EQUIPMENT SUPPORT RAIL (PATE ES-5 OR APPROVED EQUAL)
ROOF INSULATION
ROOF STRUCTURE
BASE PLATE

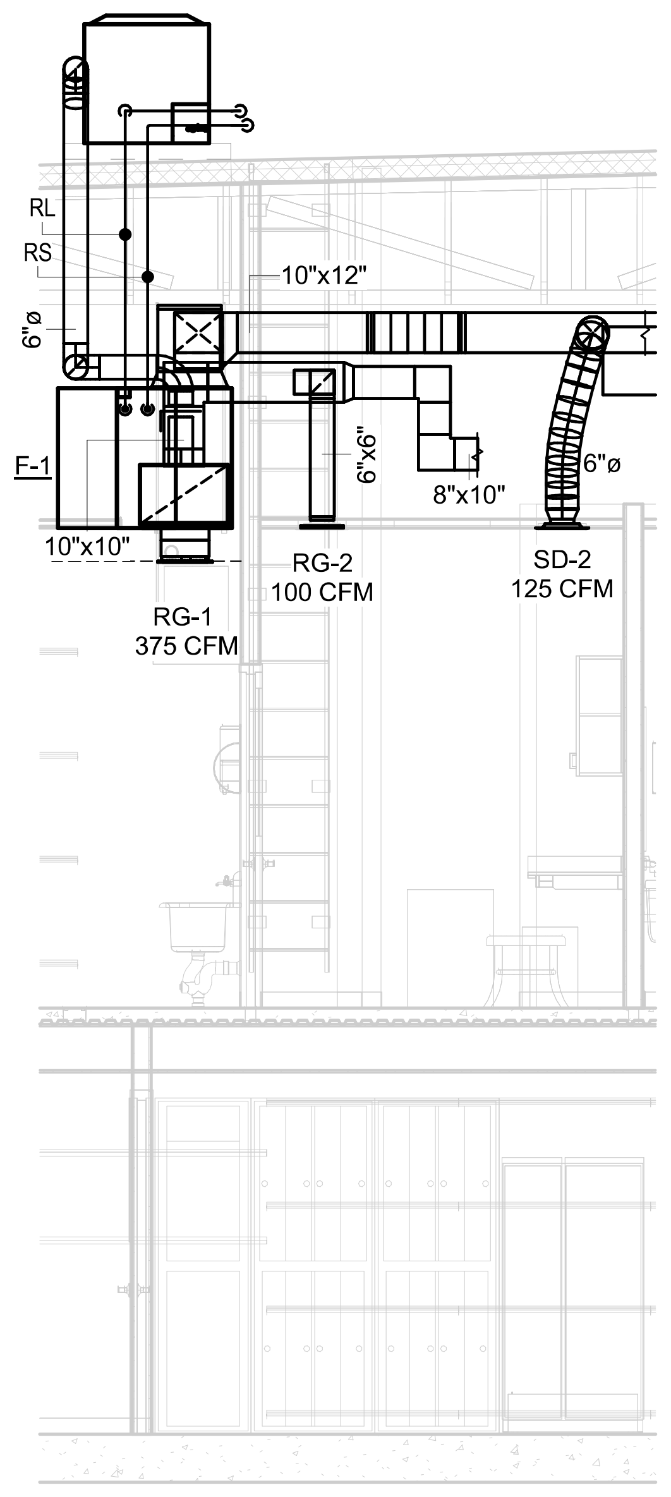
9 M-2.1 CONDENSING UNIT ROOF MOUNTING

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


CONDENSING UNIT
FAN GUARD
CONDENSER COIL
REFRIG. CONN.
SIGHT GLASS WITH MOISTURE INDICATOR
FILTER-DRYER
REFRIGERANT LIQUID LINE
SUCTION LINE WITH INSULATION
SEE MOUNTING DETAIL 9 IN SHEET M-2.1
CONDUIT - POWER AND CONTROL
ROOF CAP AND CURB

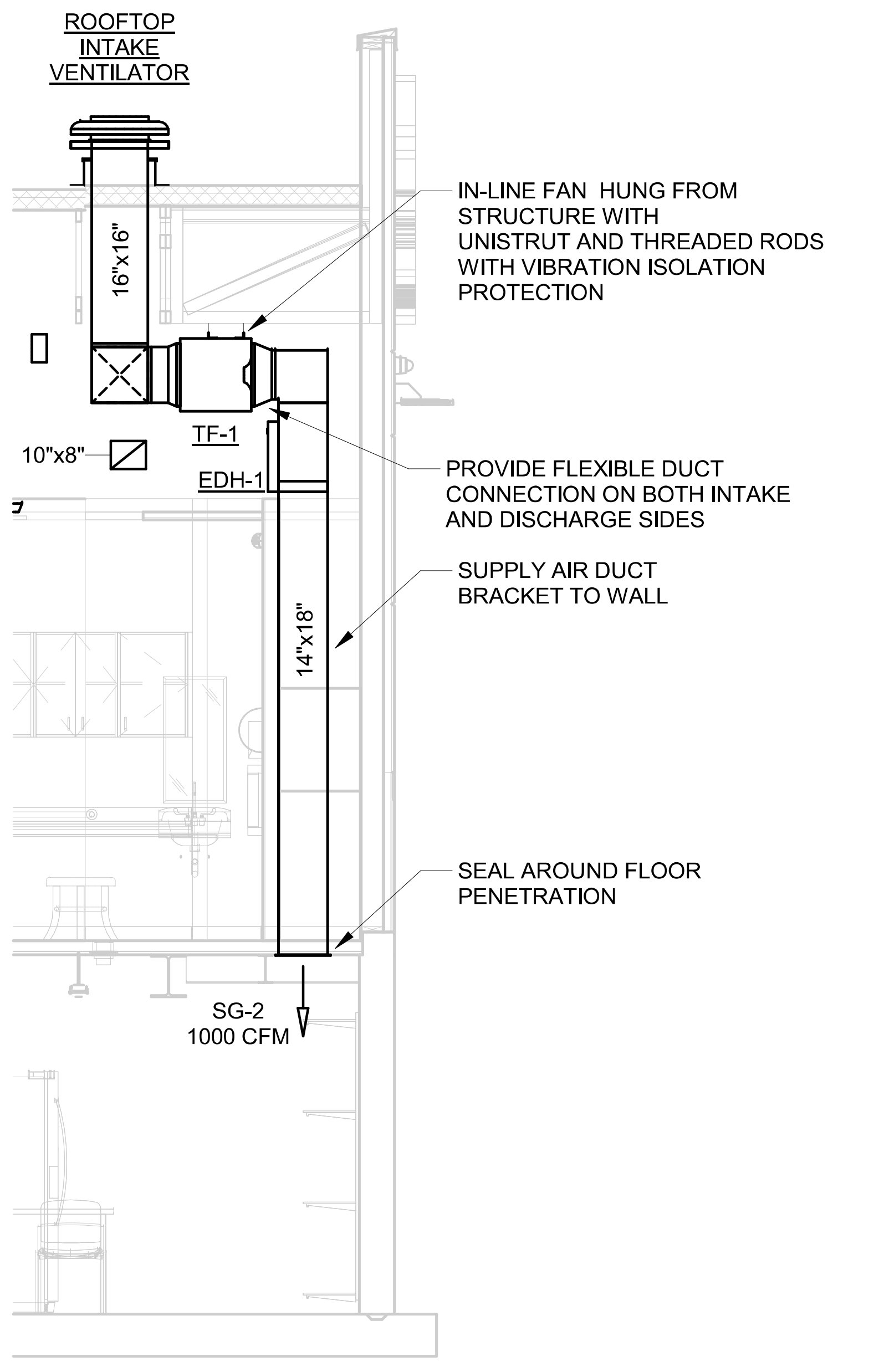
8 M-2.1 CONDENSING UNIT DETAIL

Scale: 3/16" = 1'-0"


RL
RS
6"ø
10"x12"
F-1
6"x6"
8"x10"
6"ø
10"x10"
RG-2
100 CFM
SD-2
125 CFM
RG-1
375 CFM

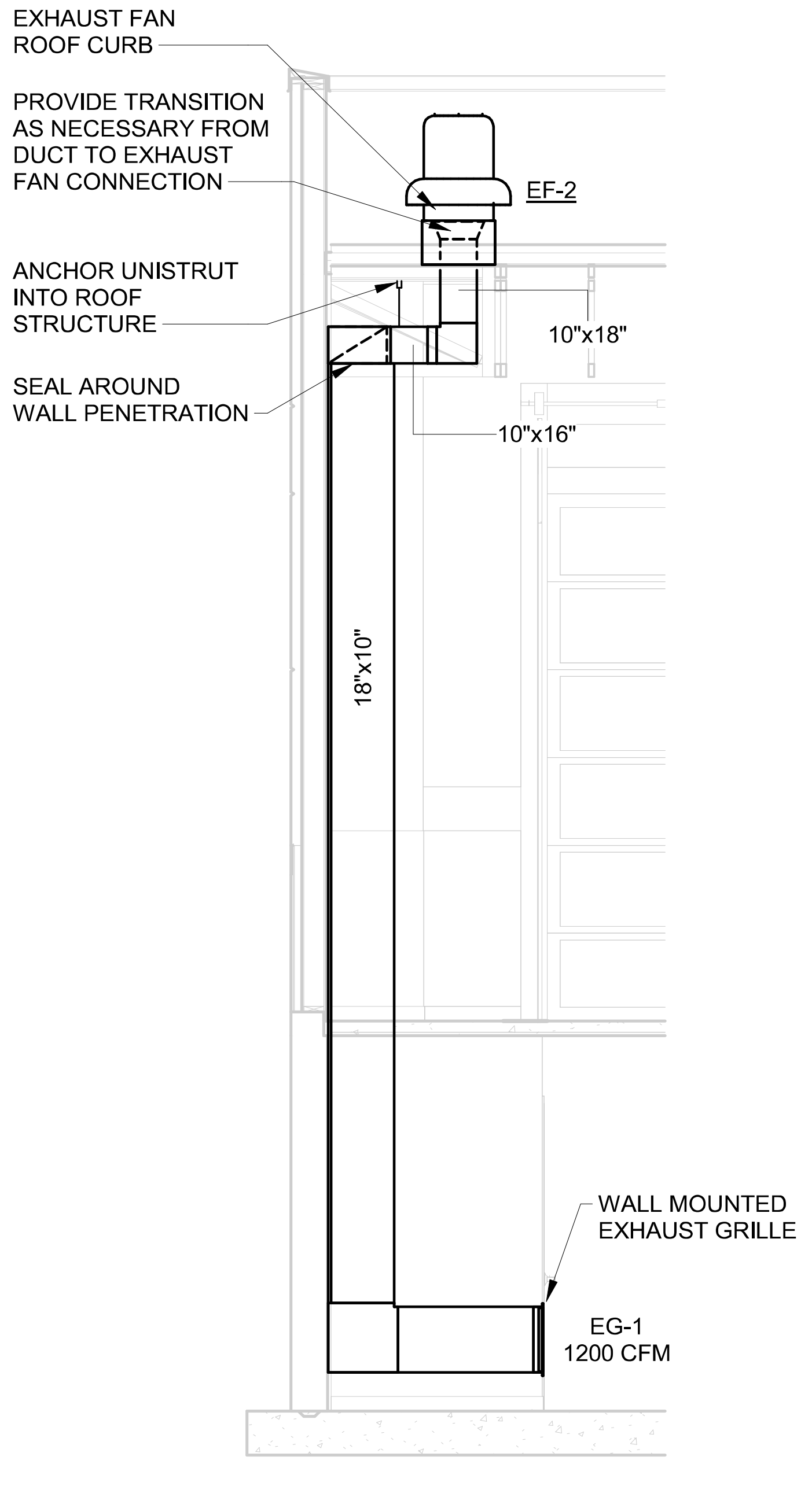
1 M-2.1 MECHANICAL ELEVATION

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


ROOFTOP INTAKE VENTILATOR
16"x16"
IN-LINE FAN HUNG FROM STRUCTURE WITH UNISTRUT AND THREADED RODS WITH VIBRATION ISOLATION PROTECTION
10"x8"
TF-1
EDH-1
PROVIDE FLEXIBLE DUCT CONNECTION ON BOTH INTAKE AND DISCHARGE SIDES
SUPPLY AIR DUCT BRACKET TO WALL
14"x18"
SEAL AROUND FLOOR PENETRATION
SG-2
1000 CFM

2 M-2.1 SECTION AT LOWER LEVEL TRANSFER FAN

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


EXHAUST FAN ROOF CURB
PROVIDE TRANSITION AS NECESSARY FROM DUCT TO EXHAUST FAN CONNECTION
EF-2
ANCHOR UNISTRUT INTO ROOF STRUCTURE
10"x18"
SEAL AROUND WALL PENETRATION
10"x16"
18"x10"
WALL MOUNTED EXHAUST GRILLE
EG-1
1200 CFM

3 M-2.1 SECTION AT LOWER LEVEL EXHAUST FAN

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

12/16/2025 10:26:31 AM
-M-2.1-MECHANICAL DETAILS
C:\Users\aline.maldonado\Documents\2024 Revit Projects\06-24-20062 - Lee Summit MO - 2B-Flat Roof Mep_V24_HFA.Aline.Maldonado.rvt

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Date	Issued Record
12/05/2025	OWNER REVIEW SET
15/22/2025	PERMIT SET

JOHN KENNETH RALEY
NUMBER
PE-2018039253

2025.12.22 10:05:44-06'00'

JOHN KENNETH RALEY, P.E.
PE-2018039253
HFA-AE, LTD
E-2005011725-F

PROFESSIONAL IN CHARGE
JOHN KENNETH RALEY
PROJECT MANAGER
JPJ
QUALITY CONTROL
JPJ
DRAWN BY
AAMA

PROJECT NAME

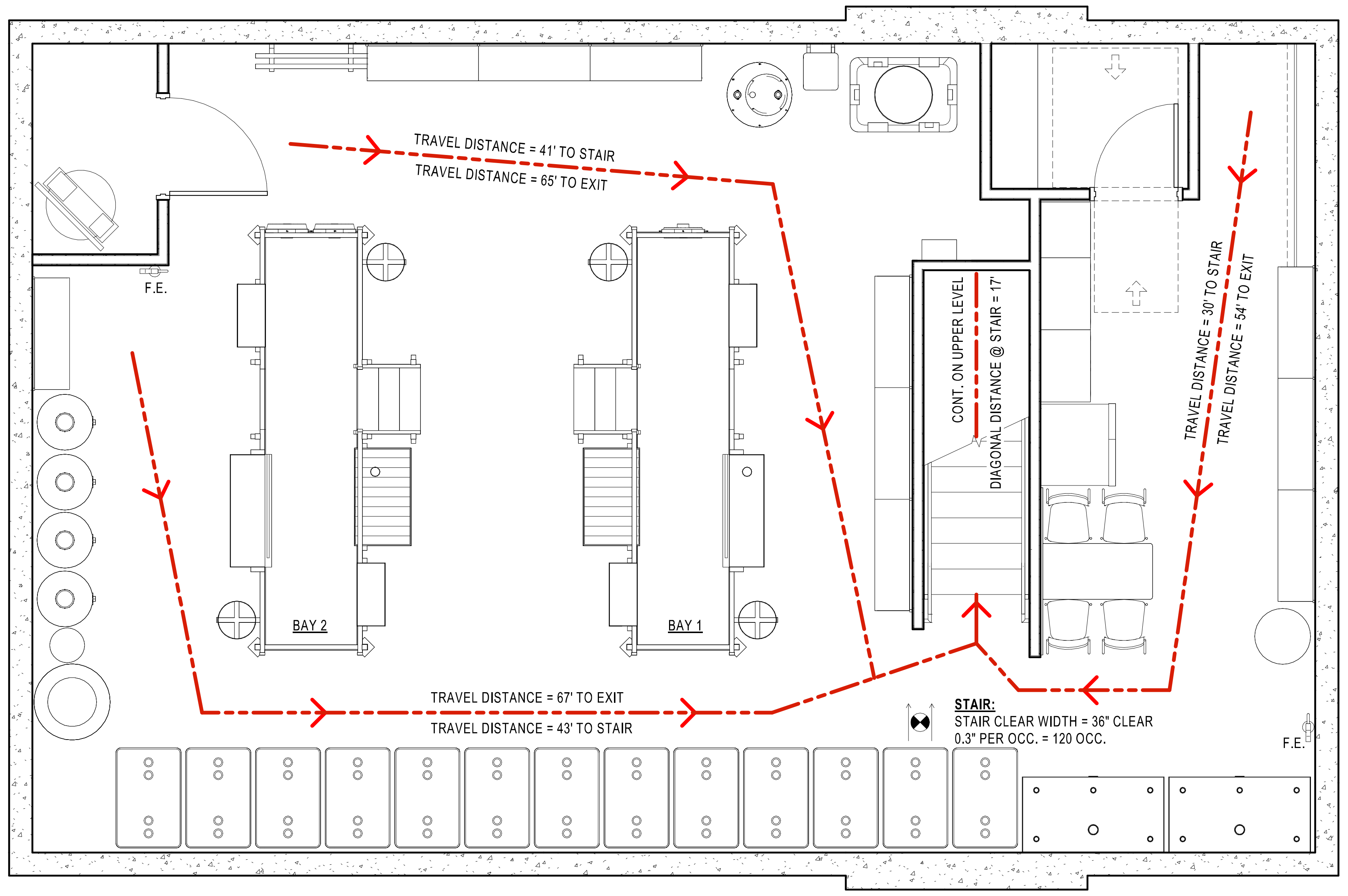
VALVOLINE
INSTANT
OIL CHANGE

NW CHIPMAN RD &
NW WARD RD
LEE'S SUMMIT, MO,
64086

PROJECT NUMBER
06-24-20062

SHEET NAME
MECHANICAL
DETAILS

SHEET #
M-2.1


F.E.
TRAVEL DISTANCE = 41' TO STAIR
TRAVEL DISTANCE = 65' TO EXIT
BAY 2
BAY 1
CONT. ON UPPER LEVEL
DIAGONAL DISTANCE @ STAIR = 17'
TRAVEL DISTANCE = 30' TO STAIR
TRAVEL DISTANCE = 54' TO EXIT
TRAVEL DISTANCE = 67' TO EXIT
TRAVEL DISTANCE = 43' TO STAIR
F.E.

STAIR:
STAIR CLEAR WIDTH = 36" CLEAR
0.3" PER OCC. = 120 OCC.

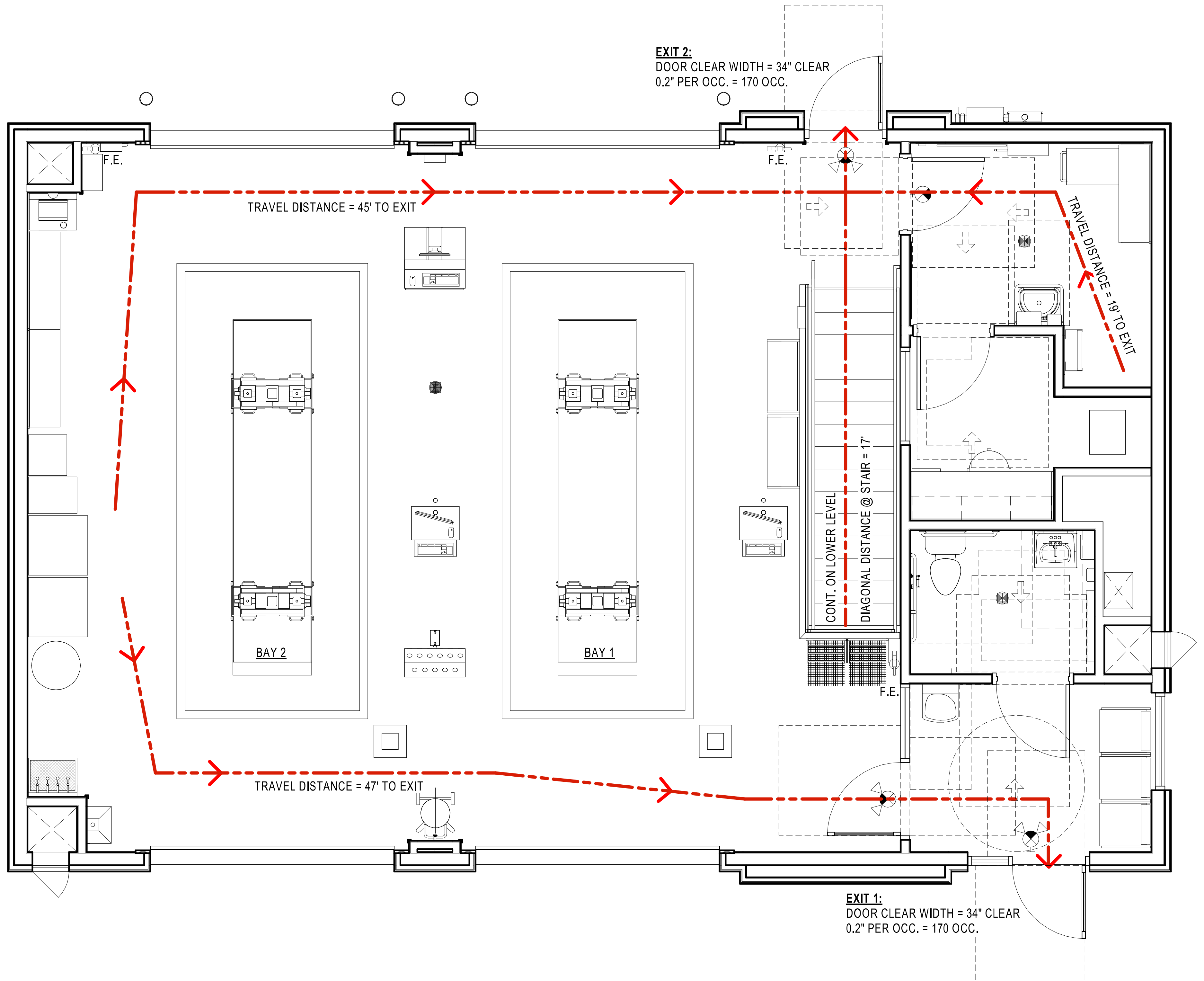
NORTH

1
G-1.1

LIFE SAFETY PLAN - LOWER LEVEL

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

EXIT 2:
DOOR CLEAR WIDTH = 34" CLEAR
0.2" PER OCC. = 170 OCC.


F.E.
F.E.
TRAVEL DISTANCE = 45' TO EXIT
TRAVEL DISTANCE = 19' TO EXIT
BAY 2
BAY 1
CONT. ON LOWER LEVEL
DIAGONAL DISTANCE @ STAIR = 17'
F.E.
TRAVEL DISTANCE = 47' TO EXIT

EXIT 1:
DOOR CLEAR WIDTH = 34" CLEAR
0.2" PER OCC. = 170 OCC.

NORTH

2
G-1.1

LIFE SAFETY PLAN - UPPER LEVEL

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

LEGEND

— - - —	MINIMUM 3'-0" WIDE CLEAR PATH OF EGRESS TRAVEL
⊗	DIRECTIONAL EXIT SIGN
⊗	EXIT SIGN W/ DUAL HEAD EMERGENCY LIGHTS
⊗	EXIT SIGN
F.E.	FIRE EXTINGUISHER - MAX. 75' SEPARATION BETWEEN FIRE EXTINGUISHERS TYP.

NOTES

1. GENERAL CONTRACTOR SHALL FURNISH AND INSTALL FIRE EXTINGUISHERS AS SCHEDULED WITH MOUNTING BRACKETS AND ACCESSORIES AT 4'-0" A.F.F. OR AS REQUIRED BY GOVERNMENTAL AUTHORITIES. MAXIMUM TRAVEL DISTANCE OF 75'-0" FOR PLACEMENT OR WHERE MORE STRINGENT PER LOCAL JURISDICTIONS. BOTTOM OF FIRE EXTINGUISHERS SHALL BE NO HIGHER THAN 27" AFF.
2. GENERAL CONTRACTOR TO PROVIDE ALL REQUIRED PLACARDS PER LOCAL JURISDICTIONS. PROVIDE LAMINATED VINYL ARROW SIGN AT EACH EXTINGUISHER. ALL EXTINGUISHERS SHALL CARRY AN EXPIRATION DATE OF ONE YEAR BEYOND THE DATE OF BUILDING TURNOVER. LOCATIONS SHOWN ON DRAWINGS ARE FOR GENERAL REPRESENTATION, G.C. SHALL COORDINATE ACTUAL PLACEMENT OF FIRE EXTINGUISHERS WITH FIRE MARSHALL.
3. VEHICLE FUEL SYSTEMS ARE NOT SERVICED IN THIS FACILITY. IN THE CASE A FUEL SYSTEM IS IN NEED OF REPAIR, EMPLOYEES ARE TO INSTRUCT VEHICLE OWNERS TO TAKE THE VEHICLE TO A LOCAL REPAIR STATION OFF PREMISES.
4. VEHICLES FUELED BY NONODORIZED GASES ARE NOT SERVICED IN THIS FACILITY.
5. PER BUILDING CODE TABLE 1006.2.1, THE MAXIMUM COMMON PATH OF TRAVEL IS 100'-0" FOR A S USE BASED ON THE OCCUPANT LOAD.
6. PER BUILDING CODE SECTION 903.2.9 GROUP S-1, AN AUTOMATIC SPRINKLER SYSTEM IS NOT REQUIRED BASED ON THIS BUILDING NOT MEETING ANY OF THESE CONDITIONS. ALSO, PER SECTION 903.2.9.1 REPAIR GARAGES, A SYSTEM IS NOT REQUIRED BASED ON ANY OF THESE CONDITIONS.

CODE INFORMATION

CODE: 2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL FIRE CODE
2017 NATIONAL ELECTRICAL CODE
2009 ICC/ANSI A117.1

OCCUPANCY CLASSIFICATION:	S-1 STORAGE (REPAIR GARAGE)
CONSTRUCTION TYPE:	V-B
ALLOWABLE BUILDING HEIGHT:	40 FT. AND ONE STORY ABOVE GRADE MAX.
ACTUAL BUILDING HEIGHT:	± 24' 0"
BUILDING ALLOWABLE AREA:	9,000 S.F./STORY
ACTUAL BUILDING AREA:	1,462 S.F. - UPPER LEVEL (EXTERIOR F.O. BUILDING)

OCCUPANT LOAD - LOWER LEVEL:

LUBE PIT (STORAGE/MECHANICAL):	1,193 S.F./300(NET)	= 4
CHANGING/BREAK/LOCKER (BUSINESS):	141 S.F./150(NET)	= 1
TOTAL OCCUPANT LOAD:	1,334 S.F. (NET)	= 5 OCC.

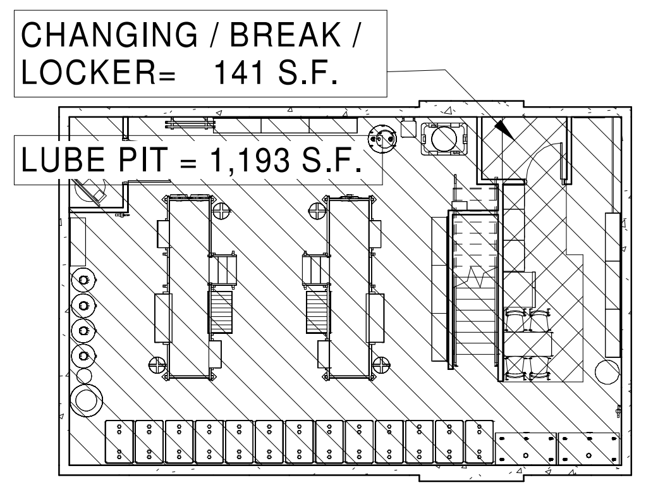
OCCUPANT LOAD - UPPER LEVEL:

SERVICE BAYS/ MECHANICS ROOM (STORAGE):	1,155 S.F./300(NET)	= 4
OFFICE/ TOILET/ WAITING (BUSINESS):	184 S.F./150(NET)	= 2
TOTAL OCCUPANT LOAD:	1,339 S.F.(NET)	= 6 OCC.

OCCUPANT LOAD - TOTAL:

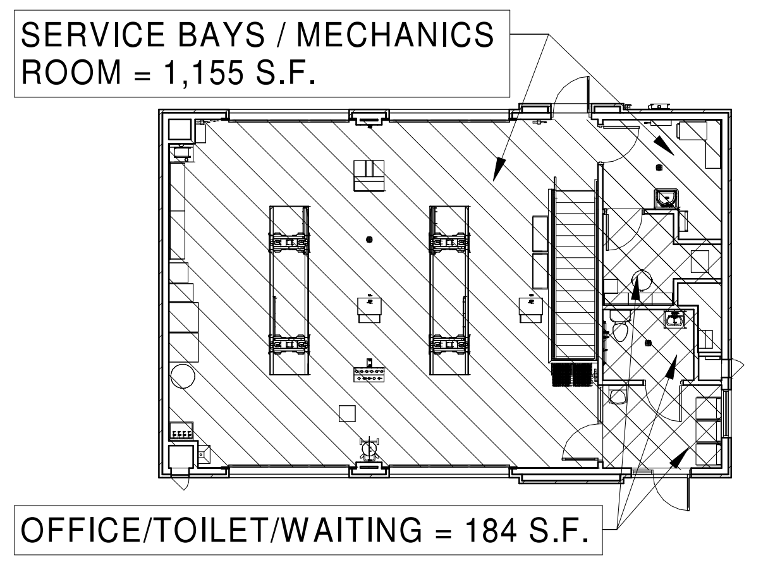
LOWER LEVEL + UPPER LEVEL:	2,673 S.F.	= 11 OCC.

AREA SUMMARY


CHANGING / BREAK / LOCKER= 141 S.F.
LUBE PIT = 1,193 S.F.

AREA DIAGRAM - LOWER LEVEL

1,334 S.F. NET (INSIDE FACE OF EXTERIOR WALLS) GROSS AREA = FIRE AREA


SERVICE BAYS / MECHANICS ROOM = 1,155 S.F.
OFFICE/TOILET/WAITING = 184 S.F.

AREA DIAGRAM - UPPER LEVEL

1,339 S.F. NET (INSIDE FACE OF EXTERIOR WALLS)
GROSS AREA = FIRE AREA

▧	S-1 (STORAGE) OCCUPANCY
▩	B (BUSINESS) OCCUPANCY

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Date	Issued Record
12/05/2025	OWNER REVIEW SET
12/22/2025	PERMIT

JAMI MARIE COOK
NUMBER A-2021048657

2025.12.22 08:59:19-06'00'
JAMI MARIE COOK, ARCHITECT
A-2021048657
HFA-AE, LTD
A-2005011993-F

PROFESSIONAL IN CHARGE
JAMI MARIE COOK
PROJECT MANAGER
DAH
QUALITY CONTROL
MND
DRAWN BY
DAH

PROJECT NAME

VALVOLINE INSTANT OIL CHANGE

NW CHIPMAN RD &
NW WARD RD
LEE'S SUMMIT, MO,
64086

PROJECT NUMBER
06-24-20062

SHEET NAME

LIFE SAFETY PLAN

SHEET #

G-1.1

12/19/2025 2:26:20 PM C:\Users\dwayne.harris\Documents\2024 Revit Projects\06-24-20062 - Lee Summit MO - 2B-Flat Roof Arch_V24_HFA.Dwayne.Harris.rvt
-G-1.1-LIFE SAFETY PLAN