CITY OF MESA GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO CURRENT UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION AS PUBLISHED BY THE MARICOPA ASSOCIATION OF GOVERNMENTS AND AS AMENDED BY THE CITY OF MESA. ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THESE AMENDED SPECIFICATIONS AND DETAILS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
2. THE INFORMATION SHOWN ON DRAWINGS CONCERNING THE TYPE AND LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND HAS NOT BEEN INDEPENDENTLY VERIFIED BY THE ENGINEER OR THE ENGINEER'S AGENT. 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 MAY OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND AND OVERHEAD UTILITIES.
   A. CALL **602-263-1100** OR **811** FOR BLUE STAKE SERVICES.
   B. CALL SALT RIVER POWER FOR POLE BRACING, ELECTRIC SERVICE OR CONSTRUCTION SCHEDULING AT **602-236-8888**.
   C. CALL CITY OF MESA ELECTRICAL FOR POLE BRACING, ELECTRICAL SERVICE OR CONSTRUCTION SCHEDULING AT **480-644-2251** WITHIN CITY OF MESA ELECTRICAL SERVICE TERRITORY (DOWNTOWN MESA).
   D. WHEN EXCAVATING IN OR ADJACENT TO A CITY PARK OR AQUATIC FACILITY THE CONTRACTOR SHALL CONTACT AQUATICS AND PARKS MAINTENANCE AT **480-644-3097** TO REQUEST ASSISTANCE IN LOCATING UNDERGROUND UTILITY FACILITIES.
   E. WHEN EXCAVATING IN OR ADJACENT TO LANDSCAPING WITHIN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL CONTACT TRANSPORTATION FIELD OPERATIONS AT **480-644-3380** TO REQUEST ASSISTANCE IN LOCATING UNDERGROUND IRRIGATION FACILITIES.
3. TRAFFIC CONTROL SHALL CONFORM TO THE CITY OF MESA TEMPORARY TRAFFIC CONTROL MANUAL. ELECTRONIC COPIES ARE AVAILABLE AT http://www.mesaaz.gov/business/barricading-temporary-traffic-control-permits. HARD COPIES CAN BE MADE AVAILABLE AT DEVELOPMENT SERVICES, 55 N. CENTER ST., MESA, ARIZONA
4. CONTRACTOR TO NOTIFY TRAFFIC OPERATIONS AT **480-644-3126** PRIOR TO SIGN REMOVAL AND WHEN READY TO PERMANENTLY RELOCATE SIGN.
5. CONTRACTOR TO OBTAIN ANY PERMITS REQUIRED UNLESS OTHERWISE INDICATED, AND COORDINATE ALL IRRIGATION DRY-UPS, RELOCATIONS, AND REMOVALS BY OTHERS.
6. CONTRACTOR SHALL POTHOLE EXISTING UTILITIES AHEAD OF CONSTRUCTION TO ALLOW FOR ANY NECESSARY ADJUSTMENTS IN GRADE LINE AND TO VERIFY PIPE MATERIALS FOR ORDERING THE APPROPRIATE TRANSITION AND TIE-IN FITTINGS THAT MAY BE REQUIRED.
7. THE CONTRACTOR IS RESPONSIBLE TO REMOVE ALL ABANDONED UTILITIES THAT INTERFERE WITH PROPOSED IMPROVEMENTS. THE CITY OF MESA UTILITIES DEPARTMENT LOCATING SECTION WILL ASSIST THE CONTRACTOR AS NEEDED, IN DETERMINING IF THE UTILITY (GAS, WATER, AND WASTEWATER ONLY) IS ABANDONED BY CALLING **480-644-4500**.
8. PRIOR TO START OF CONSTRUCTION ON PRIVATE PROPERTY (EASEMENTS), THE CONTRACTOR SHALL GIVE THE OWNER SUFFICIENT TIME (MINIMUM 48 HOURS) TO REMOVE ANY ITEMS IN CONFLICT WITH CONSTRUCTION. THE CONTRACTOR SHALL ARRANGE TO REMOVE AND REPLACE ALL OTHER CONFLICTS AS REQUIRED.
9. THE CONTRACTOR SHALL COORDINATE WORK SCHEDULES TO PREVENT ANY CONFLICTING WORK CONDITIONS WITH THE CITY OF MESA UTILITY AND TRANSPORTATION CREWS.
10. THE CONTRACTOR IS ADVISED THAT A DUST CONTROL PERMIT AND A DUST CONTROL PLAN MAY BE REQUIRED BY THE MARICOPA COUNTY AIR QUALITY DEPARTMENT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THIS PERMIT, IF NECESSARY, AND COMPLY WITH ITS REQUIREMENTS. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE A COPY OF THE DUST CONTROL PERMIT AND DUST CONTROL PLAN TO THE CITY FOR REVIEW.
11. INSPECTIONS SHALL BE PROVIDED BY THE CITY OF MESA. THE CONTRACTOR SHALL NOTIFY THE CITY INSPECTION DEPARTMENT AT LEAST 48 HOURS IN ADVANCE OF ANY CONSTRUCTION.
12. THE JOB SITE SHALL BE CLEANED OF ANY DEBRIS OR SPOIL RESULTING FROM THIS PROJECT AT THE COMPLETION OF CONSTRUCTION.
13. ALL EQUIPMENT AND MATERIALS NOT SHOWN OR SPECIFIED ON THE PLANS OR SPECIFICATIONS, BUT REQUIRED TO COMPLETE THIS PROJECT, SHALL BE SUPPLIED BY THE CONTRACTOR AS PART OF THIS CONTRACT WORK (NO ADDITIONAL COST TO THE CITY).
14. WHEREVER PAVEMENT REPLACEMENT PER MESA STD DETAIL M-19.04.1 OR MAG STD DETAIL 200 IS REFERRED TO WITHIN THESE PLANS, BACKFILLING SHALL BE PER THE CITY OF MESA STREET TRENCH BACKFILLING AND PAVEMENT REPLACEMENT POLICY STATEMENT, REVISED SEPTEMBER 29, 1999.
15. FOR PURPOSES OF PAVEMENT PER MAG STD DETAIL 200 OR MESA STD DETAIL M-19.04.1, INTERSECTIONS ARE DEFINED BY THE CURB RETURNS IN ALL DIRECTIONS.
16. ANY SURVEY MARKERS DISTURBED OR DAMAGED BY THE CONTRACTOR SHALL BE REPLACED IN KIND BY A REGISTERED LAND SURVEYOR AT NO ADDITIONAL COST TO THE CITY.
17. ALL EXISTING PAVEMENT MARKINGS, SIGNS, AND SIGNAL EQUIPMENT THAT ARE NOT PART OF THIS PROJECT BUT NEED TO BE REMOVED, REPLACED, RELOCATED, OR REPAIRED BECAUSE OF CONTRACTOR'S WORK WILL BE DONE AT THE CONTRACTOR'S EXPENSE.
18. THE CONTRACTOR IS ADVISED THAT DAMAGE TO ANY PUBLIC SERVICES OR SYSTEMS AS A RESULT OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AND INSPECTED BY THE CITY INSPECTOR. DEPENDING ON DAMAGES, ALL REPAIRS SHALL BE DONE WITHIN 24 HOURS. THE CONTRACTOR IS ADVISED THAT ANY COSTS RELATED TO REPAIR OR REPLACEMENT OF DAMAGED PUBLIC SERVICES OR SYSTEMS AS A RESULT OF CONTRACTOR'S NEGLIGENCE SHALL BE BORNE BY THE CONTRACTOR.

WATER, WASTEWATER, AND STORM GENERAL NOTES

1. MATERIALS AND INSTALLATION OF WATER AND SEWER MAINS, WATER METERS AND SERVICE LINE CONNECTIONS SHALL CONFORM TO CURRENT CITY DETAILS, MESA AMENDMENTS TO MAG SPECIFICATIONS, AND THE APPROVED PRODUCTS LIST. SEE BELOW FOR APPROVED PRODUCT LISTS FOR WATER AND WASTEWATER.
   - WATER
   - WASTEWATER
2. IN ACCORDANCE WITH ARIZONA ADMINISTRATIVE CODE (A.A.C). R18-4-213, ALL MATERIALS WHICH MAY COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NATIONAL SANITATION FOUNDATION (NSF) STANDARDS 60, 61, AND 372 AND SHALL BE LEAD-FREE AS DEFINED IN A.A.C. R18-5-504 AND R18-4-101.
3. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL NECESSARY FITTINGS AND ADAPTERS REQUIRED TO CONNECT DIFFERENT TYPES OF WATER MAIN MATERIALS.
4. PER MESA AMENDMENTS 610.4.2 ALL MINOR VERTICAL OR HORIZONTAL DEFLECTIONS SHALL BE BY PIPE JOINT DEFLECTION UNLESS OTHERWISE NOTED. PIPE JOINT DEFLECTION SHALL NOT EXCEED 3 DEGREES OR 2/3 OF PIPE MANUFACTURER'S RECOMMENDATIONS WHICHEVER IS LESS.
5. PER MAG AND MESA AMENDMENTS 610.11 ALL WATER LINE TESTS SHALL BE COMPLETED SO THAT NO EXISTING LINES, EXISTING VALVES, OR NEWLY INSTALLED VALVES WHICH ARE CONNECTED TO THE OPERATING WATER SYSTEM ARE INCLUDED IN THE TESTS. ALLOWABLE TIMEFRAMES SHOULD FOLLOW MESA AMENDMENTS TO MAG AND MUST BE COORDINATED WITH THE CITY INSPECTOR. FOR A DAYTIME TIE-IN, THE CONTRACTOR SHALL COMPLETE ALL WORK NECESSARY TO RESTORE UTILITY SERVICE AND FULLY OPEN THE TIE-IN AREA TO TRAFFIC WITHIN THE TIME ALLOWED.
6. WATER LINE FLUSHING, PRESSURE TESTING, AND DISINFECTION SHALL BE COMPLETED PER MAG SPECIFICATION SECTION 611, MESA AMENDMENTS TO MAG SPECIFICATION SECTION 611, AND AWWA C651 (CURRENT VERSION).
7. SOURCE WATER UTILIZED FOR FILLING, FLUSHING AND TESTING SHALL BE OBTAINED FROM A HYDRANT METER ORDERED THROUGH PERMIT SERVICES AND SET BY CITY OF MESA WATER RESOURCES STAFF. IT IS PROHIBITED TO OPEN A VALVE TO THE EXISTING WATER SYSTEM TO FILL A NEWLY CONSTRUCTED OR REPAIRED PIPELINE AS OUTLINED IN THE MESA AMENDMENTS TO MAG SECTION 610.11 AND 611.
8. WATER METERS, METER BOXES, LIDS, ETC. IN CONFLICT WITH NEW CONSTRUCTION SHALL BE RELOCATED PER CITY OF MESA STANDARD DETAIL M-49 BY THE CONTRACTOR. THE RELOCATION SHALL INCLUDE ALL MATERIALS NECESSARY TO RECONNECT THE METER TO THE CITY DISTRIBUTION SYSTEM. SERVICE LINE EXTENSIONS, IF APPROVED IN WRITING BY MESA WATER RESOURCES DEPARTMENT, SHALL CONFORM TO MESA STANDARD DETAIL M-49. WHEN SERVICE LINE EXTENSIONS ARE APPROVED PER MESA STANDARD DETAIL M-49, SERVICE LINE COUPLINGS SHALL NOT BE PLACED UNDER ROADWAY SURFACES, CONCRETE GUTTERS, CURB AND GUTTER, OR CONCRETE DRIVEWAYS.
9. VALVES SHALL BE INSTALLED WITH VALVE BOX AND COVER PER MAG STD DETAILS 391-1, TYPE C WITH A DEEP-SKIRTED LID (4-INCHES MINIMUM) AS NOTED IN THE APPROVED PRODUCTS LIST.
10. ALL WATER LINE ABANDONMENT CUT AND PLUGS FOR ACTIVE LINES SHALL CONFORM TO THE FOLLOWING:
    A. 12" AND SMALLER DIAMETER PER MESA STANDARD DETAIL M-50.
    B. 16" DIAMETER PER M.A.G. STANDARD DETAIL 390, TYPE B.
    C. GREATER THAN 16" DIAMETER, AS DESIGNED PER PLAN.
11. LIME-TREATED AGGREGATE BASE COURSE (ABC) MATERIAL, RECLAIMED CONCRETE MATERIAL (RCM), AND RECLAIMED ASPHALT PAVEMENT (RAP) MATERIALS ARE PROHIBITED FOR USE IN THE PIPE EMBEDMENT ZONE (BEDDING, HAUNCHING, INITIAL BACKFILL) FOR WATERLINE CONSTRUCTION PER MESA AMENDMENTS 601.4.2.
12. PER MESA AMENDMENTS 610.11, APPLICATIONS TO THE CITY OF MESA ENGINEERING INSPECTOR AND REVIEWED AND APPROVED BY THE WATER RESOURCES DEPARTMENT FOR WATER SYSTEM SHUTDOWN FOR THE PURPOSES OF CONSTRUCTION-RELATED ACTIVITIES SHALL BE MADE A MINIMUM OF FIVE (5) BUSINESS DAYS PRIOR TO THE SCHEDULED SHUTDOWN DATE. THE REQUEST SHALL INCLUDE PRIMARY AND SECONDARY VALVE NUMBERS, WHETHER A TEST SHUTDOWN IS REQUESTED, AND THE DATE AND DURATION OF THE REQUESTED SHUTDOWN. PER MAG 610.11, THE CITY OF MESA DOES NOT GUARANTEE A COMPLETE SHUTDOWN.
13. REQUIRED BACKFLOW PREVENTION ASSEMBLIES SHALL INCLUDE MANUFACTURERS AND MODELS DESIGNATED IN THE CURRENT “LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES” AS PUBLISHED BY THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH, UNIVERSITY OF SOUTHERN CALIFORNIA.
14. BACKFLOW PREVENTION ASSEMBLIES SHALL BE TESTED AND APPROVED BY A CERTIFIED TECHNICIAN DESIGNATED IN THE CURRENT CITY OF MESA “LIST OF APPROVED INSPECTORS” PRIOR TO THE REQUEST FOR FINAL INSPECTION.
15. ALL WATER METERS ARE TO BE SUPPLIED BY THE CITY OF MESA. CHARGES FOR INSTALLING NEW SERVICES AND METERS WILL BE IN ACCORDANCE WITH THE CURRENT UTILITY SERVICE FEE SCHEDULE. METERS TWO INCHES OR LESS WILL BE DELIVERED AND INSTALLED BY CITY FORCES. METERS LARGER THAN TWO INCHES WILL BE DELIVERED BY THE CITY AND INSTALLED BY THE CONTRACTOR AND REQUIRE SCHEDULING AND INSPECTIONS WITH CITY FORCES. CONTACT THE DEVELOPMENT SERVICES DEPARTMENT AT 480-644-4273 FOR THE SPECIFIC PROCEDURE. SEE M-27.01 FOR MORE INFORMATION.
16. WHEN GROUTING OR CASTING CONCRETE AROUND PVC SEWER PIPE, SUCH AS AT MANHOLE OR VAULT PENETRATIONS, THE CONTRACTOR SHALL INSTALL WATER STOPS PER MESA AMENDMENTS TO MAG SPECIFICATION 625 AND MANUFACTURERS RECOMMENDATIONS.
17. SEWER BUILDING CONNECTION LATERALS SHALL BE INSTALLED PER MAG STANDARD DETAIL 440. LATERAL WYES SHALL BE INSTALLED AT NO GREATER THAN A 45 DEGREE ANGLE FROM HORIZONTAL. SEWER LATERAL SLOPES SHALL BE AS INDICATED ON MAG STANDARD DETAIL 440 AND IN NO CIRCUMSTANCE SHALL SEWER LATERAL SLOPES EXCEED 7/8” PER FOOT FOR 6” LATERALS AND 1-1/2” PER FOOT FOR 4” LATERALS. FITTINGS SHALL BE INSTALLED WITH NO ANGULAR JOINT DEFLECTION AND ALL CONNECTIONS SHALL BE GASKETED OR SEALED PER MAG SPECIFICATIONS.
18. SEWER MANHOLE BASES, BENCHES, SHELVES, AND CHANNELS SHALL BE CONSTRUCTED PER MAG STANDARD DETAIL 420. EACH INLET PIPE SHALL HAVE A DESIGNATED, FORMED CHANNEL AND BENCHING. THE DIMENSIONS OF CHANNELS, SHELF SLOPE, AND MINIMUM INLET PIPE ANGLES SHALL BE CONSTRUCTED PER MAG STANDARD DETAIL 420-3.
19. PER MESA DESIGN STANDARDS, SEWER MANHOLES SHALL BE CONSTRUCTED PER MAG STANDARD DETAILS 420-1, TYPE 'A' TOP; AND 423-2 EXCEPT THAT:
    A. MANHOLE SHAFT DIAMETERS SHALL BE 5 FEET.
    B. MANHOLE RINGS AND COVERS SHALL HAVE 30-INCH DIAMETERS.
    C. STEPS SHALL NOT BE INCLUDED.

PAVING GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE ALL DRIVEWAY LOCATIONS WITH PRIVATE PROPERTY OWNERS AND THE CITY INSPECTOR.
2. FOR THE APPROVED LIST OF PAVING PRODUCTS SEE: http://www.mesaaz.gov/business/engineering/approve-products-equipment-natural-gas-line-contractors.
3. ALL GUTTER GRADES LESS THAN 0.0020 FT/FT SHALL BE STAKED ALONG THE ACTUAL GUTTER ALIGNMENT (NOT OFFSET) AND CHECKED BY CITY OF MESA INSPECTOR IMMEDIATELY PRIOR TO PLACEMENT OF CONCRETE.
4. ALL FRAMES, COVERS, VALVE BOXES, ETC. SHALL BE ADJUSTED BY THE CONTRACTOR TO FINISHED GRADE AFTER PLACEMENT OF ASPHALT CONCRETE SURFACE COURSE PER MAG STD DETAILS 270, 422, OR 391-1-C.

GAS GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE CURRENT CITY OF MESA GAS OPERATIONS, MAINTENANCE, EMERGENCY RESPONSE, AND CONSTRUCTION PRACTICE MANUAL.
2. WHEN GAS MAIN AND/OR SERVICES ARE EXPOSED, CONTACT THE CITY OF MESA AT **480-644-2261** FOR INSPECTION OF THE EXPOSED PIPE AND COATING PRIOR TO BACKFILLING THE TRENCH.
3. BEDDING OR SHADING MATERIAL ADJACENT TO THE CITY GAS PIPE SHALL BE SELECT SANDY TYPE SOIL FREE OF ROCK OR DEBRIS THAT WILL PASS THROUGH A 3/8 INCH "SCREEN" AS INSPECTED AND APPROVED BY THE CITY GAS INSPECTION PERSONNEL.
4. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS AS INDICATED ON MESA STD DETAIL M-58 WHEN TRENCHING FOR THE WATER LINE WHERE A GAS MAIN IS TO BE INSTALLED IN THE SAME TRENCH.
5. CONTACT THE GAS DIVISION AT **480-250-2982** FOR SCHEDULING AND COORDINATION OF THE INSTALLATION OF NATURAL GAS MAINS AND/OR SERVICES.
6. GAS LINE SHALL MAINTAIN A NOMINAL TWELVE (12) INCHES (MINIMUM OF EIGHT (8) INCHES) SEPARATION FROM EXISTING WATER, WASTEWATER, ELECTRICAL, CABLE TV, AND TELCO FACILITIES.

ITS/TRAFFIC SIGNAL GENERAL NOTES

1. THE CITY OF MESA REQUIRES AT LEAST TWO INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA) CERTIFIED TRAFFIC SIGNAL TECHNICIANS ON SITE DURING ALL PHASES OF ANY TRAFFIC SIGNAL WORK. AT LEAST ONE TECHNICIAN MUST LEVEL II CERTIFICATION OR HIGHER. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE VERIFICATION OF CERTIFICATION. IF A JOB SITE IS INSPECTED AND CERTIFIED TECHNICIAN IS NOT ON SITE, A STOP WORK ORDER WILL BE ISSUED. TEMPORARY AND CONTRACT EMPLOYEES DO NOT SATISFY THIS REQUIREMENT.
2. THE CONTRACTOR SHALL IMMEDIATELY REPORT ANY TRAFFIC SIGNAL DAMAGE TO THE ENGINEERING INSPECTOR OR ITS OPERATIONS SUPERVISOR AT **480-644-3129**. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR DAMAGE TO ANY TRAFFIC SIGNAL EQUIPMENT SUCH AS CONTROLLER CABINET AND EQUIPMENT, DETECTOR LOOPS, PULL BOXES, CONDUIT, POLES, MAST ARMS, HEADS OR RELATED EQUIPMENT AS A RESULT OF THIS PROJECT. A CITY OF MESA TECHNICIAN SHALL INSPECT THESE REPAIRS.
   A. A TRAFFIC SIGNAL CANNOT BE DARK OR IN FLASH FOR MORE THAN TWO HOURS.
   B. A LOSS OF COMMUNICATION SHALL BE REPAIRED WITHIN 24 HOURS.
   C. DETECTOR LOOPS SHALL BE REPLACED IN TWO WEEKS UNLESS THE TRAFFIC SIGNAL FOREMAN AGREES IN WRITING TO A DIFFERENT SCHEDULE.
3. IF THE CONTRACTOR CANNOT RESPOND OR MAKE THE REPAIRS WITHIN ABOVE NOTED TIME FRAMES, THE CITY TRAFFIC SIGNAL GROUP WILL MAKE THE NECESSARY REPAIRS AND CHARGE THE CONTRACTOR USING A "REPAIR ORDER FORM”.
4. THE CONTRACTOR IS ADVISED THAT ANY COSTS RELATED TO REPAIR OR REPLACEMENT OF DAMAGED TRAFFIC SIGNAL EQUIPMENT AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE SHALL BE BORNE BY THE CONTRACTOR.
5. IF THERE IS A TRAFFIC SIGNAL PROBLEM (INDICATION OUTAGES, KNOCKDOWNS, UTILITY POWER OUTAGES, ETC.) THAT IS NOT A DIRECT RESULT OF THE CONTRACTOR'S OR SUBCONTRACTOR'S WORK, AN ITS TECHNICIAN SHALL BE CALLED TO RESPOND. IF IT IS DETERMINED THE CONTRACTOR'S OR SUBCONTRACTOR'S WORK CAUSED THE TRAFFIC SIGNAL MALFUNCTION, THE CONTRACTOR THROUGH A “REPAIR ORDER FORM” SHALL PAY ALL COSTS OF REPAIRS.
6. TRAFFIC SIGNAL DETECTOR LOOPS SHALL BE INSTALLED IN ASPHALT CONCRETE PAVEMENT BEFORE THE FINAL LIFT. THE LOOP CONDUCTORS SHALL BE INSTALLED PER MESA STD DETAIL M-96.1.
7. THE CONTRACTOR IS ADVISED TO CONTACT THE CITY'S TRANSPORTATION CENTER AT 480-644-5888 AT LEAST 48 HOURS PRIOR TO ANY WORK WITHIN THE VICINITY OF OR THROUGH A SIGNALIZED INTERSECTION WHICH WILL CHANGE TRAFFIC LANE PATTERNS.

ITD FIBER OPTIC GENERAL NOTES

1. FIBER OPTIC DUCT WORK MAY BE INSTALLED BY EITHER OPEN CUT OR GUIDED BORE UNLESS OTHERWISE NOTED. ANY SURFACE RESTORATION RELATED TO EITHER METHOD IS A NON-PAY ITEM AND SHALL BE INCIDENTAL TO THE CORRESPONDING BID ITEM FOR CONDUIT INSTALLATION UNLESS OTHERWISE NOTED. SURFACE RESTORATION SHALL BE COMPLETED IN ACCORDANCE WITH CITY OF MESA AND MAG STANDARD SPECIFICATIONS. ASPHALT DRIVEWAY OR PARKING LOT RESTORATION SHALL COMPLY WITH MAG STD DETAIL 200, TYPE B; AND MAG SPECIFICATION SECTION 336 UNLESS OTHERWISE NOTED.
2. FOR NON-CAPITAL (PRIVATE) PROJECTS, NO COMPONENT OR PART OF THE CONDUIT FIBER SYSTEM SHALL BE INSTALLED, CONSTRUCTED, LOCATED ON, OR ATTACHED TO ANY PROPERTY WITHIN THE CITY'S PUBLIC RIGHT-OF-WAY UNTIL CONTRACTOR HAS APPLIED FOR AND RECEIVED APPROVAL FOR RIGHT-OF-WAY PERMITS AND/OR RIGHT-OF-WAY ENCROACHMENT PERMITS FOR SUCH WORK ON THE CONDUIT FIBER SYSTEM.
3. ALTHOUGH THE EXACT PLACEMENT AND LOCATIONS OF CONDUIT FIBER SYSTEM MAY BE REVISED DURING THE PERMIT PROCESS, IT IS THE CITY'S EXPRESSED DESIRE TO HAVE THE CONDUIT FIBER SYSTEM INSTALLED OUTSIDE PAVED AREAS WHENEVER FEASIBLE. FURTHERMORE, WHEN NECESSARY FOR THE CONDUIT FIBER SYSTEM TO CROSS UNDER CITY STREETS OR PAVED AREAS, THE CONTRACTOR SHALL USE DIRECTIONAL BORING PER MESA STD DETAILS M-18 AND M-18.1.
4. PULL BOXES AND VAULTS ARE SHOWN ACCORDING TO AVAILABLE DATA. FIELD ADJUSTMENTS MAY BE NECESSARY TO AVOID CONFLICTS AND INTERCEPT EXISTING CONDUIT. CONFIRM FINAL LOCATION OF ALL NEW PULL BOXES AND VAULTS WITH CITY OF MESA REPRESENTATIVE.
5. WIDTH OF PLAN SYMBOLS MAY BE GREATER THAN ACTUAL DISTURBED AREAS. ITEMS DEPICTED ON THE PLANS ARE TO BE INSTALLED WITHIN THE RIGHT-OF-WAY OR PERMANENT EASEMENT WHERE NOTED ON THE PLANS.
6. THE CITY REQUIRES AT LEAST ONE CERTIFIED TECHNICIAN ON SITE DURING ALL PHASES OF ANY TELECOMMUNICATIONS WORK. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE VERIFICATION OF CERTIFICATION. IF A JOB SITE IS INSPECTED AND A CERTIFIED TECHNICIAN IS NOT ON SITE, THE JOB WILL BE SHUT DOWN.
7. THE CONTRACTOR IS ADVISED TO CONTACT THE CITY'S ITS DEPARTMENT AT **480-644-3129**, 48 BUSINESS HOURS PRIOR TO ANY WORK WITHIN THE VICINITY OF OR THROUGH A SIGNALIZED INTERSECTION WHICH WILL CHANGE TRAFFIC LANE PATTERNS.
8. THE CONTRACTOR SHALL IMMEDIATELY REPORT ANY TRAFFIC SIGNAL DAMAGE TO THE ENGINEERING INSPECTOR. DAMAGE TO ANY TRAFFIC SIGNAL EQUIPMENT SUCH AS CONTROLLER CABINET AND EQUIPMENT, DETECTOR LOOPS, PULL BOXES, CONDUIT, POLES, MAST ARMS, HEADS OR RELATED EQUIPMENT AS A RESULT OF THIS PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED BY THE APPROPRIATE IMSA LEVEL CERTIFIED TRAFFIC SIGNAL TECHNICIAN ACCORDING TO CITY OF MESA TRAFFIC SIGNAL SPECIFICATION. A CITY OF MESA TRAFFIC SIGNAL TECHNICIAN SHALL INSPECT THESE REPAIRS.
   A. A TRAFFIC SIGNAL CANNOT BE DARK OR IN FLASH FOR MORE THAN TWO HOURS.
   B. A LOSS OF COMMUNICATION SHALL BE REPAIRED WITHIN 24 HOURS.
   C. DETECTOR LOOPS SHALL BE REPLACED IN TWO WEEKS UNLESS THE ITS FOREMAN AGREES IN WRITING TO A DIFFERENT SCHEDULE.
   D. IF THE CONTRACTOR CANNOT RESPOND OR MAKE THE REPAIRS WITHIN ABOVE NOTED TIME FRAMES, THE CITY OF MESA WILL MAKE THE NECESSARY REPAIRS AND CHARGE THE CONTRACTOR.
   E. IF THERE IS AN OUTAGE(S) THAT IS NOT A DIRECT RESULT OF THE CONTRACTOR'S OR SUBCONTRACTOR'S WORK, CITY OF MESA SHALL BE CALLED TO RESPOND. IF IT IS DETERMINED THE CONTRACTOR'S OR SUBCONTRACTOR'S WORK CAUSED THE OUTAGE, THE CONTRACTOR SHALL PAY ALL COSTS OF REPAIRS.
9. ALL SIDEWALK REPLACEMENT SHALL BE PER MAG STD DETAIL 230.
10. THE CONTRACTOR SHALL VIDEOTAPE THE ENTIRE PROJECT AREA PRIOR TO START OF CONSTRUCTION. THE VIDEOTAPE SHALL INCLUDE THE ENTIRE PROJECT AREA WHERE THE CONTRACTOR WILL BE PERFORMING THE WORK AND SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO STARTING WORK.
11. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF MESA TO ATTAIN ANY NECESSARY PERMITS FROM ADOT.
12. RIGHTS-OF-WAY FOR ALL WORK SPECIFIED IN THIS CONTRACT MAY NOT BE SHOWN ON THE PLANS, AND THE CONTRACTOR SHALL NOT ENTER OR OCCUPY WITH PERSONNEL, TOOLS, EQUIPMENT, OR MATERIALS ANY PRIVATE GROUND OUTSIDE THE RIGHT-OF-WAY WITHOUT THE CONSENT OF THE OWNER.
13. POTHOLING AND RELATED SURFACE RESTORATION SHALL BE COMPLETED IN ACCORDANCE WITH CITY OF MESA STD DETAILS M-18 THRU M-18.3, MAG STD DETAIL 212, AND SPECIFICATION SECTION 335. IN THE CASE OF A CONFLICT BETWEEN THE TWO SPECIFICATIONS THE CITY OF MESA'S REQUIREMENTS SHALL PREVAIL.

ITD FIBER SPLICING AND INSTALLATION NOTES

1. THE CONTRACTOR SHALL NOTIFY THE ITD REPRESENTATIVE 48 HOURS IN ADVANCE OF FIBER OPTIC CABLE INSTALLATION INTO ANY EXISTING OR NEW CONDUIT.
2. DISTANCES SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL CAREFULLY MEASURE DISTANCES AND MAKE ALLOWANCES FOR SLACK BEFORE ORDERING AND CUTTING CABLE.
3. FUSION SPLICES SHALL BE PERFORMED WITH EQUIPMENT HAVING THE FOLLOWING FEATURES: AUTOMATIC FIBER ALIGNMENT AND AUTOMATIC LIGHT INJECTION WITH DETECTION DEVICES OR PROFILE ALIGNMENT ALGORITHMS TO PROPERLY ALIGN THE FIBER CORES AND ESTIMATE SPLICE LOSSES. “V” GROOVE ALIGNMENT SHALL NOT BE PERMITTED.
4. ALL FIBER OPTIC WORK SHALL BE PERFORMED IN OFFICE TYPE ENVIRONMENTS IN BUILDINGS, SPLICE TRAILERS AND SPLICING TENTS WITH FLOORS.
5. AT THE TIME OF FIBER OPTIC CABLE INSTALLATION, LIVE 120/240 VAC AND/OR 280 VAC POWER CONDUCTORS SERVING TRAFFIC CONTROL EQUIPMENT AND LIGHTING MAY BE PRESENT IN JUNCTION BOXES, WHERE FIBER IS TO BE INSTALLED. THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS.
6. CABLE SHALL BE INSTALLED AS ONE CONTINUOUS PIECE WITH NO SPLICES, EXCEPT WHERE INDICATED ON PLANS.
7. ALL CONDUITS TO BE UTILIZED FOR THE FIBER SYSTEM SHALL BE BLOWN OUT WITH COMPRESSED AIR AND HAVE A METAL DISK MANDREL PULLED THROUGH. AN ITD REPRESENTATIVE SHALL BE ON SITE DURING MANDREL PROCEDURE.
8. INSTALL ONE (1) NO.12 XHHW COPPER STRANDED IN 1” PVC ABOVE FIBER CONDUIT.
9. THE CONTRACTOR SHALL USE LUBRICANT OF THE TYPE AND QUANTITY AS RECOMMENDED BY THE CABLE MANUFACTURER WHEN PULLING CABLE.
10. DURING PULLING, A FIBER OPTIC BREAK AWAY SWIVEL SHALL BE USED.
11. THE CONTRACTOR SHALL ENSURE THAT THE TENSILE LOAD ON THE CABLE DOES NOT EXCEED MANUFACTURER SPECIFICATIONS BY USING A SUITABLE RATED SHEAR PIN AND A SYSTEM WHICH INCLUDES A MEANS OF ALERTING THE INSTALLER WHEN PULLING TENSION APPROACHES THE LIMIT AND DISPLAYS THE ACTUAL TENSION ON THE CABLE.
12. DURING PULLING, THE CABLE SHALL BE CONTINUOUSLY LUBRICATED.
13. MANUFACTURER RECOMMENDED PULLING SPEEDS SHALL NOT BE EXCEEDED.
14. FIBER OPTIC SPLICING SHALL BE PERFORMED ONLY AT THE DESIGNATED LOCATIONS SHOWN ON THE PLANS.
15. THE CONTRACTOR SHALL CERTIFY THAT THE INSTALLATION OF THE COMMUNICATIONS CABLE SUB-SYSTEM IS IN ACCORDANCE WITH THE CABLE AND SPLICE MANUFACTURER'S RECOMMENDATIONS AND THE PROJECT SPECIFICATIONS.
16. THE CONTRACTOR SHALL NOT CAUSE THE CABLE TO VIOLATE THE MINIMUM BENDING RADIUS FOR WHICH THE CABLE WAS DESIGNED.
17. IF THE CABLE IS DAMAGED DURING INSTALLATION, THE ENTIRE LENGTH OF CABLE BETWEEN THE NEAREST SPLICE POINTS SHOWN ON THE PLANS SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
18. ONE HUNDRED (100) FEET OF EACH CABLE SHALL BE LOOSELY LOOPED AND COILED IN EACH FIBER OPTIC 4' X 4' MANHOLE.
19. SIXTY (60) FEET OF EACH CABLE SHALL BE LOOSELY LOOPED AND COILED IN EACH FIBER OPTIC NO. 9 PULL BOX.
20. TWENTY-FIVE (25) FEET OF EACH CABLE SHALL BE LOOSELY LOOPED AND COILED IN EACH FIBER OPTIC NO. 7 PULL BOX.
21. TWENTY-FIVE (25) FEET OF EACH CABLE SHALL BE LOOSELY COILED AND RACKED INSIDE EQUIPMENT ROOMS.
22. THE SLACK LENGTH REQUIREMENTS ARE MINIMUMS. THE CONTRACTOR MAY PROVIDE EXTRA SLACK, NOT TO EXCEED THREE TIMES THE MINIMUM AMOUNT, FOR CONTRACTOR'S SPLICING CONVENIENCE, AT NO ADDITIONAL COST TO THE CITY.
23. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EMPTY REELS AND RESIDUAL MATERIALS.
24. A PERMANENT HIGH-QUALITY LABEL IDENTIFYING EACH CABLE SHALL BE APPLIED TO THE CABLE WITHIN TWO (2) FEET OF THE SPLICE CLOSURE AND/OR PATCH PANEL.

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
GENERAL NOTES

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-C-001
SHEET ---- OF ##

FUJIFILM PROPRIETARY AND CONFIDENTIAL

CITY OF MESA GENERAL NOTES

ITD FIBER OPTIC TESTING NOTES

1. ALL FIBER OPTIC TESTING SHALL BE PERFORMED WITH AN OTDR CAPABLE OF PRODUCING PC COMPATIBLE OUTPUT FILES.
2. ELECTRONIC SUBMITTAL ON CD SHALL BE REQUIRED. TEST RESULTS SUPPLIED ELECTRONICALLY SHALL BE IN PDF FORMAT, OTDR NATIVE FORMAT, AND INCLUDE OTDR SOFTWARE FOR VIEWING.
3. FIBERS SHALL BE IDENTIFIED BY STRAND NUMBER.
4. EACH BINDER SHALL HAVE A COVER SHEET INDICATING WHICH CABLE(S) WERE TESTED, THE OTDR USER'S NAME, THE REVIEWER'S NAME, THE TYPE OF TEST PERFORMED, AND THE DATE(S) OF THE TEST. FOR INTERMEDIATE RESULTS, AN INDEX OF SHEETS THAT CONTAIN ANY DISCREPANCIES WITH THE SPECIFICATIONS SHALL BE PROVIDED IMMEDIATELY FOLLOWING THE COVER SHEET.
5. COVER SHEETS FOR FINAL TEST RESULTS SHALL BEAR THE REVIEWER'S SIGNATURE, THE DATE, AND A STATEMENT INDICATING THAT THE INSTALLATION COMPLIES WITH THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
6. ALL OTDR TRACES SHALL BEAR THE SIGNATURE OR INITIALS AND PRINTED NAME OF THE CONTRACTOR'S EMPLOYEE WHO HAS REVIEWED THE TRACES. THE CONTRACTOR SHALL PLACE A CHECK MARK ON ALL TRACES THAT SATISFY THE REQUIREMENTS IDENTIFIED HEREIN. FOR INTERMEDIATE TEST RESULTS, THE CONTRACTOR SHALL HIGH LIGHT ANY DISCREPANCIES WHICH MAY EXIST AND PLACE A POST-IT FLAG ON THE SUBJECT PAGE. THE PAGE SHALL BEAR A SHORT DESCRIPTION OF THE PROPOSED CORRECTIVE ACTION (E.G. RE-SPLICE).
7. SINGLE-MODE FIBER OPTIC CABLE SHALL BE TESTED IN ACCORDANCE WITH EIA-455-61 OR ANY SUBSEQUENT REVISIONS OR REPLACEMENTS. CABLE SEGMENTS HAVING ATTENUATION GREATER THAN 0.4 DB/KM AT 1310 NM AND 0.3 DB/KM AT 1550 NM SHALL BE REJECTED. CABLE SEGMENT LOSS EVENTS GREATER THAN 0.20 DB SHALL BE REJECTED.
8. MULTI-MODE FIBER OPTIC CABLE ATTENUATION SHALL BE LESS THAN OR EQUAL TO 0.35 DB PER KM AT 1310 NM AND 0.25 DB PER KM AT1550 NM.
9. THE MAXIMUM INSERTION LOSS FOR CONNECTORS SHALL BE 0.50 DB. THE CONNECTORS SHALL BE POLISHED TO ENSURE THAT BACK REFLECTION DOES NOT EXCEED 30 DB.
10. POST INSTALLATION TESTING: THE FIBER OPTIC CABLE SHALL BE TESTED AFTER INSTALLATION TO VERIFY THE INTEGRITY OF THE FIBER OPTIC CABLE PLANT AND ITS PERFORMANCE. THE CONTRACTOR SHALL PERFORM AN INSERTION LOSS TEST ON EACH OUTSIDE PLANT CABLE USING THE ATTENUATION TEST SETS IN ACCORDANCE WITH EIA-455-171. OTDR TESTING IN ACCORDANCE WITH EIA-455-59 AND EIA-455-61 SHALL ALSO BE REQUIRED. SPLICES TESTING 0.1 DB OR GREATER SHALL BE RESPLICED BY CONTRACTOR AT NO ADDITIONAL COST TO THE CITY. CONNECTORS TEST GREATER THAN 0.5 DB SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.
11. THE CONTRACTOR SHALL PERFORM BIDIRECTIONAL OTDR TESTING ON ALL FIBERS. BARE FIBER ADAPTERS SHALL BE USED FOR OTDR TESTING. THE CONTRACTOR SHALL USE A POWER METER TO PERFORM ATTENUATION MEASUREMENTS.
12. THE CONTRACTOR SHALL PERFORM OTDR TESTING ON ALL FIBERS WITH THE ITD REPRESENTATIVE PRESENT BEFORE FINAL ACCEPTANCE. THE CONTRACTOR PROVIDED OPERATOR SHALL BE QUALIFIED TO PERFORM THE TEST. WRITTEN TEST RESULTS SHALL BE PROVIDED TO THE CITY OF MESA FIELD INSPECTOR FOR EACH FIBER TESTED. UNACCEPTABLE RESULTS SHALL REQUIRE THE CONTRACTOR TO REINSTALL NECESSARY SECTIONS OF CABLE, SPLICING ONLY AT POINTS INDICATED ON PLANS, AND AT THE CONTRACTOR'S EXPENSE.
13. THE CONTRACTOR SHALL COMPLETE A FIBER OPTIC CONTINUITY TEST WITH A MODULATED LIGHT SOURCE AND POWER METER TO VERIFY THAT SPLICES HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
14. RE-TESTING SHALL BE REQUIRED IF ANY SPLICE CLOSURE IS OPENED AFTER TESTING. AFTER COMPLETING THE REWORK, THE CONTRACTOR SHALL USE AN OTDR IN ACCORDANCE WITH EIA-455-59 AND EIA-455-61 TO TEST EACH AND EVERY FIBER STRAND PASSING THROUGH ANY SPLICE TRAY THAT WAS OPENED BY THE CONTRACTOR.

ITD FIBER OPTIC MATERIALS

1. REFERENCES TO A MANUFACTURER'S TRADE NAME OR CATALOG NUMBER ARE FOR THE PURPOSE OF IDENTIFICATION TO ESTABLISH A LEVEL OF QUALITY, AND THE CONTRACTOR WILL NOT BE PERMITTED TO FURNISH LIKE MATERIALS OF OTHER MANUFACTURERS, EXCEPT WHERE MANUFACTURER NAME IS NOT INDICATED, PROVIDED IF THEY ARE OF EQUAL QUALITY, COMPLETE WITH SPECIFICATIONS FOR THIS PROJECT, AND ARE APPROVED BY THE ENGINEER.
2. SEE TECHNICAL SPECIFICATIONS FOR FIBER OPTIC MATERIAL INFORMATION.
3. SEE TECHNICAL SPECIFICATIONS FOR PULL BOX MATERIALS INFORMATION. PULL BOX COVER LETTERING SHALL BE 1" LETTERS CAST IN STANDARD MARKINGS CITY OF MESA ITS FIBER OPTICS. PULL BOX COVER WILL BE SECURED WITH A 5-POINT SECURITY BOLT.
4. EACH FIBER SHALL BE DISTINGUISHABLE BY MEANS OF A COLOR CODE IN ACCORDANCE WITH TIA/EIA-598.
5. THE CABLE MANUFACTURER SHALL CERTIFY THAT THE CABLE IS IN CONFORMANCE WITH THE SPECIFICATIONS.
6. THE CONTRACTOR SHALL FURNISH AND INSTALL OUTDOOR RATED SPLICE CLOSURE IN MANHOLES AND SPLICE FIBER CABLE. THE CONTRACTOR SHALL FURNISH AND INSTALL FIBER PATCH PANEL IN CABINETS AND TERMINATE FIBER. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL COUPLERS AND CONNECTORS.
7. ALL PATCH PANEL CONNECTORS SHALL BE LC TYPE CONNECTORS OR APPROVED EQUAL.

AIR PRODUCTS GENERAL NOTES

1. CONTRACTOR WILL REQUEST AND MAINTAIN A VALID ONE CALL NOTICE FOR THE DURATION OF THE EXCAVATION PERIOD. CONTRACTOR IS TO CONTACT AIR PRODUCTS 48 HOURS IN ADVANCE TO WORKING WITHIN TEN (10) FEET OF PIPELINE AT **480-225-1406**, **480-225-1889**, OR **480-899-1177**. CONTRACTOR SHALL USE SOFT DIG METHODS TO LOCATE AND IDENTIFY THE 6" NITROGEN PIPELINE WHEN THE WORK HAS BROUGHT THEM TO WITHIN FIVE (5) FEET OF THE 6" PIPELINE.
2. ANY CONTINUOUS EXPOSURE THAT UNDERMINES THE PIPELINE FOR FIFTEEN (15) FEET OR MORE SHALL BE SUPPORTED BY THE CONTRACTOR USING AN APPROVED METHOD AGREED UPON BY THE AIR PRODUCTS REPRESENTATIVE AND THE CONTRACTOR.
3. THE CONTRACTOR SHALL PROVIDE AND ALLOW SAFE JOB SITE ACCESS FOR THE AIR PRODUCTS REPRESENTATIVE TO THE NITROGEN PIPELINE FOR THE PURPOSE OF INSPECTIONS FOR PIPE AND OR COATING DAMAGE, OR REPAIR IF REQUIRED.
4. ANY NEW FACILITY BEING INSTALLED OR EXCAVATION DURING THIS PROJECT SHALL MAINTAIN A TWO (2) FOOT SEPARATION FROM THE NITROGEN PIPELINE IN ALL DIRECTIONS.
5. BACK FILL MATERIAL SHALL CONSIST OF CLEAN SAND FOR TWO FEET AROUND THE NITROGEN PIPELINE. SLURRY IS NOT TO BE PLACED ON OR WITHIN TWO (2) FOOT OF A NITROGEN PIPELINE.
6. IF DURING THE PROJECT THE CONTRACTOR ENCOUNTERS ANY AIR PRODUCTS TEST STATION(S) AND/OR VENT STATION(S) AND IT IS DETERMINED THAT A RELOCATION OF THESE FACILITIES IS NECESSARY, THE CONTRACTOR SHALL PROVIDE TRENCHING AND BACKFILLING AS REQUIRED TO AN ADEQUATE DEPTH AND WIDTH FROM THE EXISTING TEST/VENT STATION(S) TO AN AREA AGREED UPON BY ALL PARTIES IN THE FIELD. OTHER THAN WELDING, AIR PRODUCTS WILL PROVIDE THE MATERIALS AND LABOR TO RELOCATE TEST/VENT STATION(S).
7. CONTRACTOR SHALL PROVIDE PROTECTION FOR ANY AND ALL AIR PRODUCTS FACILITIES ABOVE AND BELOW GROUND WITHIN THE SCOPE OF THIS PROJECT FOR THE DURATION OF THE PROJECT.

STREET LIGHTING GENERAL NOTES

1. ALL WORKMANSHIP, MATERIAL AND INSTALLATION SHALL COMPLY WITH THE CURRENT MAG UNIFORM STANDARD DETAILS AND SPECIFICATIONS AS AMENDED BY THE CITY OF MESA, THE CITY OF MESA ENGINEERING & DESIGN STANDARDS AND THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRIC CODE.
2. THE CITY OF MESA REQUIRES AT LEAST ONE IMSA CERTIFIED LEVEL I ROADWAY LIGHTING OR TRAFFIC SIGNAL TECHNICIAN ON SITE DURING ALL PHASES OF ANY STREET LIGHT WORK. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE VERIFICATION OF CURRENT CERTIFICATION. IF A JOB SITE IS INSPECTED AND A CERTIFIED TECHNICIAN IS NOT ON SITE, THE JOB WILL BE SHUT DOWN.
3. CONTRACTOR SHALL SUBMIT A LIST CONTAINING NAMES AND QUALIFIED STATUS OF PERSONNEL THAT WILL BE ON THE IMMEDIATE JOB SITE TO THE INSPECTOR PRIOR TO STARTING ANY TYPE OF CONSTRUCTION. ANY CHANGE IN THIS LIST WILL REQUIRE IMMEDIATE NOTIFICATION TO THE INSPECTOR.
4. DURING THE CONSTRUCTION OR WARRANTY PERIOD, IF THE CONTRACTOR FAILS TO OR IS UNABLE TO COMPLY WITHIN TWO (2) WORKING DAYS OF A REQUEST OF THE INSPECTOR OR IF A STREET LIGHT OUTAGE MAKES IT NECESSARY FOR CITY FORCES TO DO WORK THAT IS NORMALLY THE CONTRACTOR'S RESPONSIBILITY, THE CITY WILL BE JUSTIFIED IN BILLING THE CONTRACTOR. A SEPARATE BILLING SHALL COVER EACH INCIDENT REQUIRING WORK BY CITY FORCES. THE AMOUNT OF EACH BILLING SHALL BE EITHER $350.00 OR THE ACTUAL ACCUMULATED CHARGES FOR EMPLOYEES' TIME, MATERIALS, AND EQUIPMENT, WHICHEVER IS GREATER. EMPLOYEES' TIME WILL BE BILLED AT EACH INDIVIDUAL'S HOURLY RATE PLUS THE APPLICABLE CITY OVERHEAD RATE.
5. INSPECTIONS SHALL BE REQUESTED BY THE ELECTRICAL CONTRACTOR IN ACCORDANCE WITH THE FOLLOWING LIST:
   A. BEFORE STARTING PROJECT (PRE-JOB INSPECTION).
   B. BEFORE FILLING PULL BOX HOLES WITH AGGREGATE.
   C. BEFORE BACKFILLING TRENCH AND COVERING CONDUIT.
   D. WHEN THE POLE FOUNDATIONS ARE DUG, ANCHOR BOLTS, GROUND WIRE AND GROUND PLATE ARE READY AND IN PLACE, PRIOR TO POURING CONCRETE.
   E. BEFORE PULLING WIRE.
   F. BEFORE INSTALLATION OF FIXTURES AND PHOTOCELL.
   G. BEFORE MAKING SPLICES.
   H. WHEN PROJECT IS COMPLETED. IF NECESSARY, A LIST OF DISCREPANCIES WILL BE SUBMITTED TO THE CONTRACTOR FOR CORRECTIVE ACTION. FAILURE TO HAVE THESE ITEMS INSPECTED AND APPROVED BEFORE PROCEEDING WILL RESULT IN REJECTION OF THE WORK DONE, AND REMOVAL OF ALL SUCH WORK WILL BE REQUIRED.
6. ALL STREET LIGHTS SHALL BE CONNECTED TO THE PERMANENT POWER SUPPLY BY THE AGENCY SUPPLYING POWER. STREET LIGHT SYSTEMS WILL NOT BE ACCEPTED UNTIL THE SYSTEM HAS BEEN ENERGIZED AND FULLY OPERATIONAL FOR A MINIMUM ONE-HOUR TEST PERIOD AT RATED VOLTAGE.
7. WHERE LIGHTING CONTROL CABINETS ARE UTILIZED, STREET LIGHT CIRCUITS SHALL BE 240 VOLT. WHERE CABINETS ARE NOT USED, STREET LIGHT CIRCUITS SHALL BE 120 VOLT. ALL SERVICES SHALL BE 120/240 VOLT. ALL CONTROL CIRCUITS SHALL BE 120 VOLT.
8. BEFORE DISCONNECTING ANY EXISTING STREET LIGHTS, THE NEW LIGHT SYSTEM SHALL BE WORKING OR TEMPORARY LIGHTING INSTALLED. EXISTING STREET LIGHTS TO BE REMOVED AND NEW STREET LIGHTS SHALL NOT OPERATE AT THE SAME TIME.
9. POLES HAVING MULTIPLE LUMINAIRES SHALL HAVE TWO (2) CONDUCTORS AND ONE (1) BOND WIRE PER LUMINAIRE. THE CONDUCTORS SHALL BE MARKED AS PAIRS AT THE HAND HOLE.
10. ALL UNDERGROUND CIRCUIT CONDUCTORS SHALL BE BLACK, UNLESS OTHERWISE NOTED.
11. WHERE STREET LIGHTS OR CIRCUITS ARE 120 VOLT, ONE CONDUCTOR SHALL BE UNFUSED AND BE EITHER WHITE OR MARKED WHITE, AS REQUIRED.
12. ALL CIRCUIT CONDUCTORS IN CONDUIT SHALL BE XHHW/XHHW-2 INSULATION, EXCEPT PHOTOCELL CIRCUIT SHALL BE TRAYCABLE (SEE NOTE 13 THIS PAGE).
13. THE TRAY CABLE SHALL BE [ROME FR-EPR XHHW-2 CONDUCTORS, CPE JACKET, 600VOLTS] FRPC 4/3 (COLORS: BLACK-RED-WHITE) OR EQUIVALENT. RUN UNDERGROUND FROM THE LIGHTING CONTROL CABINET TO THE HANDHOLE OF THE PHOTOCELL LIGHT POLE, WHICH SHALL BE CONTINUOUS & WITHOUT SPLICES. FROM THE HANDHOLE UP, THREE (3) CONDUCTORS OF NO. 14 AWG THHN OR EQUIVALENT WILL BE SPLICED WITH BUTT SPLICES (NO WIRE NUTS) TO THE TERMINAL BLOCK OF THE PHOTOCELL CONTROLLED LUMINAIRE. BUTT SPLICES SHALL BE INSULATED AND THE CRIMP TYPE.
14. MINIMUM DEPTH FROM TOP OF CURB OR ROADWAY TO TOP OF CONDUIT SHALL BE TWENTY-FOUR (24) INCHES. MAXIMUM DEPTH SHALL BE FORTY-EIGHT (48) INCHES, UNLESS OTHERWISE APPROVED.
15. UNDERGROUND WIRING SHALL BE INSTALLED IN SCHEDULE 40 RIGID PVC CONDUIT, UL APPROVED FOR ABOVE GROUND AND UNDERGROUND USE WITH 90 DEGREE C WIRE. WHERE TWENTY-FOUR (24) INCHES COVER IS NOT POSSIBLE, GALVANIZED RIGID STEEL CONDUIT (GRS) SHALL BE USED.
16. GALVANIZED RIGID STEEL CONDUIT (GRS) SHALL BE DOUBLE WRAPPED WITH 20-MIL TAPE TO SIX (6) INCHES PAST THE THREADED METAL COUPLING. COMPRESSION COUPLINGS ARE NOT ALLOWED. PRIOR APPROVAL IS NEEDED FOR ANY DESIGN USING GRS CONDUIT. ALL CONDUITS SHALL BE BLOWN OUT USING 90-PSI AIR PRESSURE BEFORE PULLING WIRE.
17. A TWO-PIECE EXPANSION JOINT COUPLING SHALL BE INSTALLED IN PVC CONDUIT RUNS AT INTERVALS NOT TO EXCEED ONE-HUNDRED (100) FEET.
18. ALL FORTY-FIVE (45) AND NINETY (90) DEGREE BENDS OF CONDUIT SHALL HAVE A RADIUS OF NOT LESS THAN EIGHTEEN (18) INCHES. FACTORY BENDS ONLY SHALL BE USED.
19. ALL JOINTS BETWEEN PVC CONDUIT, COUPLINGS AND FITTINGS SHALL BE PREPARED WITH PURPLE PRIMER AND CEMENTED TOGETHER WITH GRAY PVC CEMENT.
20. THE CONDUIT LOCATIONS SHOWN ON PLANS ARE DIAGRAMMATIC REPRESENTATIONS ONLY. CONTRACTOR IS TO INSTALL CONDUIT TO AVOID CONFLICTS. THE CONTRACTOR MAY, AT HIS OPTION, BORE FOR THE PLACEMENT OF CONDUIT PER MESA STD DETAIL M-18. ALL CONDUITS SHALL BE PLACED WITHIN EXISTING RIGHT-OF-WAY UNLESS OTHERWISE APPROVED.
21. STREET LIGHT CONDUITS SHOULD BE INSTALLED PRIOR TO RESIDENTIAL DRIVEWAY INSTALLATIONS. IF STREET LIGHT CONDUIT IS INSTALLED AFTER RESIDENTIAL DRIVEWAY INSTALLATION, CONTRACTOR SHALL BORE CONDUIT UNDER DRIVEWAY. MEANDERING THE CONDUIT BEHIND THE ENTRANCE WILL NOT BE PERMITTED.
22. BACKFILL REQUIREMENTS FOR ALL TRENCHES SHALL CONFORM TO ARTICLE 300 OF THE NATIONAL ELECTRIC CODE, SECTION 601 OF THE UNIFORM STANDARD SPECIFICATIONS, AND MESA STD DETAIL M-19.4 FOR STREET TRENCH BACKFILL AND PAVEMENT REPLACEMENT.
23. WITH THE EXCEPTION OF DETACHED SIDEWALKS, PULL BOXES SHALL BE INSTALLED (SEE MESA STD DETAILS M-74.1 AND M-74.2) FIVE (5) FEET (CENTER TO CENTER) BETWEEN STREET LIGHT POLES AND PULL BOXES.
24. PHOTOCELL RECEPTACLE SHALL BE POSITIONED ON LUMINAIRE SO THAT WHEN INSTALLED, THE PHOTOCELL WILL FACE NORTH.
25. ALL SHORTING CAPS TO BE LOW PROFILE TYPE. NO HIGHER THAN 1-1/2" ABOVE SOCKET.
26. ALL PHOTOCELL CIRCUIT CONDUIT MUST BE 1-1/2" OR LARGER (TO INCLUDE CONDUIT STUBBING UP AT PHOTOCELL LIGHT POLE).
27. ALL FINISHED POLE FOUNDATIONS, SERVICE ENTRANCE SECTIONS, LIGHTING CONTROL CABINET PADS AND PULLBOXES SHALL BE AT SIDEWALK GRADE UNLESS OTHERWISE NOTED.
28. WHEN CONCRETE FOUNDATIONS ARE POURED, THEY SHALL BE VIBRATED WITH A MECHANICAL VIBRATOR.
29. POLE FOUNDATIONS SHALL CURE FOR 72 HOURS BEFORE INSTALLING LIGHT POLES OR REMOVING POLE BRACING.
30. ALL POLE FOUNDATIONS SHALL HAVE A COPPER GROUNDING PLATE PER MESA STD DETAIL M-73.6, G-101.
31. ALL STEEL POLES AND STEEL POLE PARTS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH MAG STANDARD SPECIFICATION 771.
32. ALL POLES SHALL BE WIRED USING TWO (2) NO. 12 BLACK THHN/THWN 90 DEGREE C STRANDED COPPER CONDUCTORS, 600 VOLT, NEC APPROVED AND ONE (1) NO.12 GREEN THHN/THWN STRANDED COPPER BOND WIRE GROUNDING THE LUMINAIRE. WIRES SHALL RUN FROM THE LUMINAIRE TO MINIMUM OF TWELVE (12) INCHES BELOW POLE HANDHOLE FOR TERMINATION. POLES HAVING MULTIPLE LUMINAIRES SHALL HAVE TWO (2) CONDUCTORS AND ONE (1) BOND WIRE PER LUMINAIRE, AND THE CONDUCTORS SHALL BE MARKED AS PAIRS AT THE HANDHOLE.
33. THREE WIRES SHALL BE RUN CONTINUOUSLY WITHOUT SPLICES FROM THE PHOTOCELL TO THE HAND HOLE COVER WHERE IT WILL BE BUTT SPLICED TO THE 14-4 TRAY (SEE NOTE 13 THIS PAGE). THEY SHALL BE NO. 12 THHN/THWN 90 DEGREE C STRANDED COPPER CONDUCTORS, 600 VOLT, NEC APPROVED. THE "POWER TO PHOTO" SHALL BE IDENTIFIED BY BLACK INSULATION. THE "POWER FROM PHOTO" SHALL BE IDENTIFIED BY RED INSULATION. THE NEUTRAL SHALL BE IDENTIFIED BY WHITE INSULATION.
34. ALL LIGHTING CONDUCTORS AND BOND WIRES SHALL BE COPPER.
35. ALL PVC CONDUIT RUNS SHALL CONTAIN A MINIMUM NO. 8 GREEN XHHW INSULATED SEVEN (7) STRAND COPPER BOND WIRE.
36. ALL CONDUCTORS SHALL BE STRANDED.
37. THE NO. 8 STRANDED GROUNDING WIRE IN THE CONCRETE POLE FOUNDATION GOING TO THE GROUNDING PLATE SHALL BE INSULATED WITH XHHW INSULATION THROUGH THE CONCRETE FOUNDATION AND TWO (2) INCHES EACH SIDE OF THE CONCRETE FOUNDATION.
38. ALL LIGHTING CONTROL CABINETS SHALL BE INSTALLED WITHIN TWO (2) WEEKS OF BEGINNING THE STREET LIGHT IMPROVEMENTS.
39. EACH LUMINAIRE SHALL BE FUSED BEHIND THE POLE HANDHOLE COVER USING AN HEB TYPE FUSE HOLDER WITH INSULATING BOOTS AND A 5-AMP FNM FUSE OR APPROVED EQUAL.
40. ALL FINISHED STREET LIGHT POLE FOUNDATIONS AND CONTROLLER PAD SHALL BE AT SIDEWALK GRADE AND ADJACENT TO SIDEWALK UNLESS OTHERWISE NOTED. STREET LIGHT PULL BOXES SHALL BE AT SIDEWALK GRADE AND TWELVE (12) INCHES FROM SIDEWALK UNLESS OTHERWISE NOTED. (MESA STD DETAIL M-74.2, INSTALLATION NOTE 1).
41. PROJECT SHALL BE BLUE STAKED BEFORE ANY DIGGING IS STARTED BY CALLING **602-263-1100** OR **811**.
42. ALL HIGH-PRESSURE SODIUM LAMPS SHALL CONFORM TO THE APPROPRIATE LAMP SPECIFICATION FOR ITS PARTICULAR WATTAGE. SEE LAMP SPECIFICATION, MESA STD DETAIL M-71.
43. ALL SPLICES INCLUDING GROUNDS AND BONDS SHALL BE DONE WITH A GEL CAP STUB SPLICE KIT, GEL CAP #SL-2/0-3 HOLE, OTHER GEL CAP PRODUCTS OF APPROPRIATE SIZE OR APPROVED EQUAL. FOR APPROVED STREET LIGHT MATERIALS SEE: http://www.mesaaz.gov/business/engineering/approve-products-equipment-natural-gas-line-contractors.
44. STATION NUMBERS ARE APPROXIMATE. IN SUBDIVISIONS, LOCATE STREET LIGHT POLES AND LIGHTING CONTROL CABINETS ACCORDING TO LOT LINE MEASUREMENTS.
45. STREET PAVING PERMITTEE/CONTRACTOR IS HEREBY NOTIFIED THAT STREET PAVING WILL NOT BE ACCEPTED BY THE CITY OF MESA UNTIL ALL STREET LIGHTS, RETENTION BASINS AND LANDSCAPING IMPROVEMENTS ARE INSTALLED AND ACCEPTED.
46. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT ALL WORK ASSOCIATED WITH THE STREET LIGHTING SYSTEM IS INSPECTED AND APPROVED BY THE CITY PRIOR TO BACKFILLING TRENCHES OR COVERING ANY WORK. CONTACT THE CITY OF MESA ENGINEERING FIELD INSPECTOR TO ARRANGE FOR STREET LIGHT SYSTEM INSPECTION.
47. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL P-301 POLES WHERE IMPACTED BY PROJECT REQUIREMENTS. ALL OTHER LIGHTING EQUIPMENT SHALL BE RETURNED TO THE LIGHTING FOREMAN (**480-644-3178**) WITH 48 HOURS NOTICE.

LANDSCAPE GENERAL NOTES

1. LANDSCAPE CONTRACTOR SHALL CONFIRM LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION AND SHALL BE RESPONSIBLE FOR THE FOLLOWING:
   A. DAMAGES TO SUCH UTILITIES CAUSED AS A RESULT OF THE CONTRACTOR'S ACTIVITIES.
   B. DAMAGES TO EXISTING WALKS, WALLS, DRIVES, CURBS, ETC.
   C. INSPECTING THE SITE IN ORDER TO BE FULLY AWARE OF EXISTING CONDITIONS PRIOR TO SUBMITTING A BID.
2. INSTALLATION OF ALL LANDSCAPE AND IRRIGATION MATERIALS SHALL COMPLY WITH SECTIONS 424, 425, 757, AND 795 OF THE MAG STANDARD SPECIFICATIONS.
3. CONTRACTOR SHALL REPAIR ANY DAMAGE MADE TO THE EXISTING SPRINKLER SYSTEM TO THE SATISFACTION OF THE CITY AT NO ADDITIONAL COST TO THE CITY.
4. LANDSCAPE REMOVAL IS A NON-PAY ITEM UNLESS OTHERWISE NOTED.
5. ALL EXISTING VEGETATION, WEEDS, DEBRIS, ETC. NOTED TO BE REMOVED ON THE PLANS AND SPECIFICATIONS SHALL BE REMOVED FROM PROJECT AREA AND DISPOSED OF PROPERLY OFF THE SITE AT THE CONTRACTOR'S EXPENSE (SCARIFY EXISTING SUBGRADE, MINIMUM SIX (6) INCHES DEPTH).
6. DAMAGE TO TURF SHALL BE REPAIRED BY CONTRACTOR, I.E., RUTS FILLED WITH CLEAN SOIL, COMPACTED TO MATCH SURROUNDING GRADES, EXCESS SOIL, ROCK, ETC. SHALL BE REMOVED TO LEAVE THE SITE CLEAN.
7. ALL PLANT MATERIAL, OTHER THAN TREES, SHALL CONFORM TO GRADING, TYPE, ETC. AS SET FORTH IN THE AMERICAN STANDARD FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN. ALL TREES SHALL CONFORM TO THE CURRENT ARIZONA NURSERY ASSOCIATION TREE SPECIFICATIONS AND MAG SPEC 795.7. SHOULD ANY CONFLICTS IN THE SPECIFICATIONS OCCUR, THE ARIZONA NURSERY ASSOCIATION'S SPECIFICATIONS SHALL PREVAIL.
8. CITY RESERVES THE RIGHT TO INSPECT SHRUBS AND CONTAINERED TREES FOR CONDITION OF ROOT BALLS. FOR ANY SUCH INSPECTIONS WHICH MAY DESTROY ROOTBALL, CONTRACTOR SHALL SUPPLY ADDITIONAL PLANT AT NO COST TO CITY.
9. PLANT PITS SHALL BE INSPECTED BY CITY PRIOR TO PLANTING BY THE CONTRACTOR BY REQUESTING AN INSPECTION 48 HOURS IN ADVANCE.
10. ROUGH AND FINE GRADING TO ESTABLISH UNIFORM SMOOTH GRADE IS INCLUDED IN THIS PROJECT.
11. SOIL TEST FOR FERTILITY AND ADDITIVE RECOMMENDATIONS (FOR TURF AND ORNAMENTALS) SHALL BE COMPLETED BY CONTRACTOR TO DETERMINE IF ADDITIVES ARE REQUIRED. CONTRACTOR SHALL PROVIDE COPY OF SOIL TEST RESULTS FOR REVIEW AND APPROVAL TO ENGINEERING INSPECTOR AT LEAST SEVEN (7) DAYS PRIOR TO ANTICIPATED PLANTING. AFTER APPROVAL BY THE CITY, THE CONTRACTOR SHALL PROVIDE AND INCORPORATE ANY ADDITIVES REQUIRED PRIOR TO OR AT TIME OF PLANTING.
12. PLANT PIT SOIL MIXTURE SHALL CONSIST OF FOUR AND ONE-HALF PARTS NATURAL FERTILE, FRIABLE SOIL AND ONE PART HUMUS BY VOLUME, THOROUGHLY MIXED PRIOR TO BACKFILLING IN PITS. BACKFILLING SHALL BE IN 6" LIFTS WITH EACH LIFT WATER SETTLED WITHOUT PUDDLING.
13. CONTRACTOR SHALL STAKE TREE AND SHRUB LOCATIONS FOR 5-GALLON PLANTS AND LARGER. STAKES SHALL BE MARKED WITH PLANT NAME OR PLANT LEGEND ITEM NUMBER FROM PLANS.
14. ALL EXISTING (GAS, ELECTRIC, WATER, ETC.) COVERS AND BOXES SHALL REMAIN UNCOVERED. CONTRACTOR TO ADJUST TO FINAL GRADE AS NECESSARY. NON-PAY ITEM (NPI) UNLESS OTHERWISE NOTED.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THE UNDERGROUND SPRINKLER SYSTEMS IN ADVANCE OF CONSTRUCTION. THE SPRINKLER SYSTEM LOCATIONS NOTED ON PLANS ARE FOR REFERENCE ONLY.
16. CONTRACTOR TO VERIFY DEPTH OF ALL INLET STRUCTURES AND SPRINKLER SYSTEMS PRIOR TO TRENCHING FOR LOW-FLOW CHANNEL.
17. CONTRACTOR TO PROVIDE PUMPING WITHIN FIVE (5) DAYS AFTER THE NOTICE TO PROCEED IS GIVEN AS REQUIRED TO DRY THE AREA SUFFICIENTLY TO BEGIN CONSTRUCTION.
18. CONTRACTOR SHALL ARRANGE FOR SPRINKLER SYSTEM SHUTDOWN DURING CONSTRUCTION BY CONTACTING THE ENGINEERING INSPECTOR.
19. NO ROCKS LARGER THAN 1" IN DIAMETER SHALL BE ALLOWED IN THE TOP SIX (6) INCHES OF TOPSOIL WHERE TURF ESTABLISHMENT IS SPECIFIED. ROCK REMOVAL AS NECESSARY IS A NON-PAY (NPI) ITEM UNLESS OTHERWISE NOTED.
20. WHERE CALICHE IS ENCOUNTERED IN PLANT PITS, DEPTH AND WIDTH OF PIT SHALL BE INCREASED BY ONE-THIRD (1/3) OVER SPECIFICATION, AND A LIQUID PENETRATOR, "AL-KALICHE" OR EQUAL, SHALL BE INCORPORATED FOR EACH PIT PER MANUFACTURER'S RECOMMENDATIONS.
21. CONTRACTOR SHALL INSTALL DECOMPOSED GRANITE TO A ROLLED DEPTH PER THE APPROVED PLANS AND SPECIFICATIONS. DECOMPOSED GRANITE SHALL BE PER THE APPROVED PLANS AND SPECIFICATIONS WITH THE COLOR AS SPECIFIED ON THE PLANS. PRE-EMERGENT HERBICIDE SHALL BE APPLIED BEFORE AND AFTER PLACEMENT OF DECOMPOSED GRANITE PER THE MANUFACTURER'S RECOMMENDATIONS. PRE-EMERGENT HERBICIDE SHALL BE SURFLAN, DACTHAL, OR APPROVED EQUAL. SAMPLE TO BE PROVIDED FOR CITY REVIEW AND APPROVAL. CONTRACTOR SHALL WASH OFF ROCK MULCH ONCE FINAL PLACEMENT HAS OCCURRED.
22. RESTORE ALL EXISTING LANDSCAPE IRRIGATION SYSTEMS, COMPONENTS AND LANDSCAPE AREAS IMPACTED BY ANY WORK UNDER THIS CONTRACT. RESTORE ALL EXISTING IRRIGATION AND LANDSCAPE IN ACCORDANCE WITH THE LANDSCAPE RESTORATION NOTES INDICATED WITHIN THESE DOCUMENTS. AT A MINIMUM, ALL RESTORATION SHALL BE IN ACCORDANCE WITH M.A.G. SPECIFICATION 107.9 - PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE. ALL RESTORATION WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY OF MESA ENGINEER.
23. ALL RESTORATION WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE REFERENCED DETAILS AND ANY ADDITIONAL DETAILS PROVIDED.
24. REFER TO LANDSCAPE PLANTING SHEETS AND ENGINEERING DRAWINGS FOR ADDITIONAL RESTORATION NOTES AND REQUIRED COORDINATION.

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
GENERAL NOTES

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED
DRAWING	020-C-002

SHEET ---- OF ##

FUJIFILM PROPRIETARY AND CONFIDENTIAL

CITY OF MESA GENERAL NOTES

LANDSCAPE IRRIGATION GENERAL NOTES

1. IRRIGATION DRAWINGS ARE DIAGRAMMATIC ONLY AND ARE INTENDED TO CONCEPTUALLY CONVEY FULL COVERAGE BY THE IRRIGATION SYSTEM. PRINTS SHALL NOT BE SCALED. IRRIGATION LINES SHALL BE PLACED IN PLANTERS AND TURF AREAS, RATHER THAN UNDER PAVEMENT, WHERE POSSIBLE. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION LAYOUT OF THE SYSTEM IN ACCORDANCE WITH THE DRAWINGS TO PROPORTIONALLY COVER THE GIVEN AREAS AS SHOWN. THE LAYOUT MAY BE MODIFIED IF NECESSARY TO OBTAIN FULL COVERAGE TO SUIT THE MANUFACTURER'S STANDARD SPECIFIED HEADS. MODIFICATIONS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT BEFORE ANY MODIFICATIONS ARE TO BE INSTALLED. DO NOT DECREASE THE NUMBER OF IRRIGATION HEADS OR EMITTERS INDICATED UNLESS THE LANDSCAPE ARCHITECT IS NOTIFIED IN WRITING AND HAS ACCEPTED. THE SYSTEM SHALL BE TESTED FOR COMPLETE COVERAGE AND ALL NECESSARY AND PROPER ADJUSTMENTS HAVE BEEN MADE TO GET FULL AND PROPER COVERAGE PRIOR TO ACCEPTANCE BY THE OWNER
2. PRIOR TO THE INSTALLATION OF ANY IRRIGATION SYSTEM COMPONENTS THE CONTRACTOR SHALL VERIFY THE STATIC PRESSURE OF THE AVAILABLE WATER POINT OF CONNECTION. IN THE EVENT THAT THE STATIC PRESSURE IS LESS THAN THE FIELD VERIFIED AMOUNT NOTED IN THE APPROVED PLANS AND SPECIFICATIONS THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF THE DISCREPANCY. THE LANDSCAPE ARCHITECT WILL ASSESS THE SITUATION AND ADJUST THE DESIGN IF NECESSARY. THE CONTRACTOR SHALL NOT CONTINUE IRRIGATION WORK UNTIL THE LANDSCAPE ARCHITECT HAS PROVIDED WRITTEN APPROVAL TO DO SO.
3. ALL IRRIGATION PIPE TYPE AND SIZE PER THE APPROVED PLANS AND SPECIFICATIONS. ALL MAINLINE PIPE SHALL BE NEW PVC PIPE. ALL MAINLINE FITTINGS SHALL BE ASTM 2466 OR ASTM 2464 FITTINGS. ALL LATERAL LINE PIPE SHALL BE NEW PVC PIPE. FITTINGS ON ALL PVC LATERAL LINES SHALL BE ASTM 2466 FITTINGS UNLESS OTHERWISE SHOWN ON THE PLANS AND DETAILS.
4. LIVE IRRIGATION MAINLINES SHALL BE INSTALLED A MINIMUM OF 24" BELOW FINISH GRADE. BACKFILL THE TRENCH AROUND LIVE SERVICE MAINLINES ACCORDING TO CITY OF MESA STANDARDS. LATERAL LINES SHALL BE PLACED A MINIMUM OF 18" BELOW FINISH GRADE.
5. WATER SERVICE LINE TO METER WILL BE PROVIDED BY GENERAL CONTRACTOR. WATER METER WILL BE INSTALLED BY THE CITY. INSTALL THE IRRIGATION MAINLINE TO THE BACKFLOW PREVENTION DEVICE AND WATER METER, CONNECTIONS AND BACKFLOW SHALL BE INSTALLED AS PER INDUSTRY AND CITY OF MESA STANDARDS.
6. ALL VALVES SHALL BE LOCATED IN GROUPS AS SHOWN ON DRAWINGS IN LANDSCAPE AREAS. VALVES SHALL BE LOCATED A MINIMUM OF 12" AWAY FROM ANY BUILDING, FENCE, MOWSTRIP, SIDEWALK OR CURB.
7. ALL VALVES ARE TO BE WIRED TO CONTROLLERS USING #14 AWG DIRECT BURY WIRE AND WATER-RESISTANT WIRE CONNECTORS. COMMON WIRE SHALL BE #12 AWG DIRECT BURIAL WIRE AND WATER-RESISTANT WIRE CONNECTORS. ALL VALVE WIRES UNDER PAVING SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES BURIED 24" DEEP. RUN ONE EXTRA WIRE FROM THE CONTROLLER TO EACH GROUP OF VALVES FOR FUTURE USE AND COIL A 48" LOOP OF WIRE IN A PULL BOX. MARK THE WIRE COIL WITH A CHRISTY TAG NOTING ITS CORRESPONDING STATION NUMBER.
8. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE NEW IRRIGATION CONTROLLER IN THE LOCATION INDICATED ON THE PLANS. CONTRACTOR IS RESPONSIBLE FOR POWER CONNECTIONS FROM THE ELECTRICAL METER AND ALL SYSTEMS.
9. PROVIDE AND INSTALL ALL THE MANUFACTURER'S RECOMMENDED SURGE AND LIGHTNING PROTECTION EQUIPMENT ON ALL CONTROLLERS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY SITE ITEMS DAMAGED DURING THE COURSE OF CONSTRUCTION WHERE CONSTRUCTION ACTIVITIES HAVE DISTURBED THE SITE INSIDE OR OUTSIDE OF THE CONTRACT LIMITS. ALL AREAS SHALL BE REPAIRED AND RESTORED TO ORIGINAL CONDITION. REPAIRED AREAS SHALL BE CONSTRUCTED TO PROVIDE A SMOOTH TRANSITION IN GRADING AND MATERIALS FROM EXISTING TO NEW CONSTRUCTION.
11. THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS OF THE IRRIGATION SYSTEM SHOWING EXACT MEASURED AND DIMENSIONED LOCATIONS OF ALL VALVE BOXES, PULL BOXES, QUICK COUPLERS, METER MANIFOLD EQUIPMENT, CONTROLLERS, SLEEVES AND OTHER ITEMS. TIE DIMENSIONS TO PERMANENT FEATURES SUCH AS STRUCTURES.
12. IRRIGATION SLEEVES SHALL BE INSTALLED BENEATH ALL PAVEMENT, DRIVEWAYS AND DRAINAGE STRUCTURES THAT ARE CROSSED WITH IRRIGATION MAINLINE OR LATERAL PIPE OR CONTROLLER WIRE. ALL SLEEVES SHALL BE SCHEDULE 40 PIPE. SIZE SHALL BE 4" FOR ALL PIPING. SIZE SHALL BE 2" WHERE ONLY CONTROLLER WIRE IS PROVIDED. SLEEVES SHALL BE EXTENDED 6" INTO LANDSCAPE AREA.
13. ONLY ONE VALVE SHALL BE PROVIDED PER VALVE BOX. ALL HARDWARE SHALL BE STAINLESS STEEL. BOLTS SHALL HAVE WASHERS. EXPANSION COILS SHALL BE PROVIDED AT EACH WIRE CONNECTION IN VALVE BOX. WRAP WIRE AROUND 1/2" PVC PIPE 15 TIMES. COVER SHALL BE EMBOSSED WITH 1/2" LETTERS ON CONTROLLER AND ON VALVES WITH CORRESPONDING FIELD NUMBER.
14. ADEQUATE PRESSURE SHALL BE VERIFIED FOR ALL PIPE RUNS PRIOR TO COVERING PIPE IN TRENCHES. OWNER'S REPRESENTATIVE SHALL BE PRESENT FOR ALL IRRIGATION PRESSURE TESTING PRIOR TO COVERING TRENCHES.
15. ALL WORK AND MATERIALS MUST MEET CITY OF MESA STANDARDS.
16. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS INCLUDING ALL APPURTENANCES AND LABOR NECESSARY TO INSTALL THE COMPLETE AUTOMATIC SPRINKLER SYSTEM FROM THE METER. WATER USAGE CHARGES SHALL BE PAID BY CONTRACTOR UNTIL PROJECT FINAL ACCEPTANCE BY CITY OF MESA.
17. PROJECT RECORD DRAWINGS FOR IRRIGATION SYSTEM:
    A. MAINTAIN ON SITE AND SEPARATE FROM DOCUMENTS USED FOR CONSTRUCTION, ONE COMPLETE SET OF CONTRACT DOCUMENTS AS PROJECT RECORD DOCUMENTS. KEEP DOCUMENTS CURRENT. DO NOT PERMANENTLY COVER WORK UNTIL AS-BUILT INFORMATION IS RECORDED.
    B. RECORD PIPE AND WIRING NETWORK ALTERATIONS. RECORD WORK WHICH IS INSTALLED DIFFERENTLY THAN SHOWN ON THE CONSTRUCTION DRAWINGS. RECORD ACCURATE REFERENCE DIMENSIONS, MEASURED FROM AT LEAST TWO PERMANENT REFERENCE POINTS, OF EACH IRRIGATION SYSTEM VALVE, EACH BACKFLOW PREVENTION DEVICE, EACH CONTROLLER OR CONTROLLER UNIT, EACH SLEEVE END, EACH STUB-OUT FOR FUTURE PIPE OR WIRING CONNECTIONS, AND OTHER IRRIGATION COMPONENTS ENCLOSED WITHIN A VALVE BOX.

PARK LIGHT GENERAL NOTES

1. ALL WORKMANSHIP, MATERIAL AND INSTALLATION SHALL COMPLY WITH THE CURRENT M.A.G. UNIFORM STANDARD DETAILS AND SPECIFICATIONS AS AMENDED BY THE CITY OF MESA, THE CITY OF MESA ENGINEERING & DESIGN STANDARDS AND THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRIC CODE.
2. DURING THE CONSTRUCTION OR WARRANTY PERIOD, IF THE CONTRACTOR FAILS TO OR IS UNABLE TO COMPLY WITHIN TWO (2) WORKING DAYS OF A REQUEST OF THE INSPECTOR OR IF A PARK LIGHT OUTAGE MAKES IT NECESSARY FOR CITY FORCES TO DO WORK THAT IS NORMALLY THE CONTRACTOR'S RESPONSIBILITY, THE CITY WILL BE JUSTIFIED IN BILLING THE CONTRACTOR. A SEPARATE BILLING SHALL COVER EACH INCIDENT REQUIRING WORK BY CITY FORCES. THE AMOUNT OF EACH BILLING SHALL BE EITHER $350.00 OR THE ACTUAL ACCUMULATED CHARGES FOR EMPLOYEES' TIME, MATERIALS, AND EQUIPMENT, WHICHEVER IS GREATER. EMPLOYEES' TIME WILL BE BILLED AT EACH INDIVIDUAL'S HOURLY RATE PLUS THE APPLICABLE CITY OVERHEAD RATE.
3. INSPECTIONS SHALL BE REQUESTED BY THE ELECTRICAL CONTRACTOR IN ACCORDANCE WITH THE FOLLOWING LIST:
    A. BEFORE STARTING PROJECT (PRE-JOB INSPECTION).
    B. BEFORE FILLING PULL BOX HOLES WITH AGGREGATE.
    C. BEFORE BACKFILLING TRENCH AND COVERING CONDUIT.
    D. WHEN THE POLE FOUNDATIONS ARE DUG, ANCHOR BOLTS, GROUND WIRE AND GROUND PLATE ARE READY AND IN PLACE, PRIOR TO POURING CONCRETE.
    E. BEFORE PULLING WIRE.
    F. BEFORE INSTALLATION OF FIXTURES AND PHOTOCELL.
    G. BEFORE MAKING SPLICES.
    H. WHEN PROJECT IS COMPLETED.

    IF NECESSARY, A LIST OF DISCREPANCIES WILL BE SUBMITTED TO THE CONTRACTOR FOR CORRECTIVE ACTION. FAILURE TO HAVE THESE ITEMS INSPECTED AND APPROVED BEFORE PROCEEDING WILL RESULT IN REJECTION OF THE WORK DONE, AND REMOVAL OF ALL SUCH WORK WILL BE REQUIRED.
4. ALL PARK LIGHTING SHALL BE CONNECTED TO THE PERMANENT POWER SUPPLY BY THE AGENCY SUPPLYING POWER. STREET LIGHT SYSTEMS WILL NOT BE ACCEPTED UNTIL THE SYSTEM HAS BEEN ENERGIZED AND FULLY OPERATIONAL FOR A MINIMUM ONE-HOUR TEST PERIOD AT RATED VOLTAGE.
5. BEFORE DISCONNECTING ANY EXISTING LIGHTS, THE NEW LIGHT SYSTEM SHALL BE WORKING OR TEMPORARY LIGHTING INSTALLED. EXISTING PARK LIGHTS TO BE REMOVED AND NEW PARK LIGHTS SHALL NOT OPERATE AT THE SAME TIME.
6. POLES HAVING MULTIPLE LUMINAIRES SHALL HAVE TWO (2) CONDUCTORS AND ONE (1) BOND WIRE PER LUMINAIRE. THE CONDUCTORS SHALL BE MARKED AS PAIRS AT THE HANDHOLE. ALL UNDERGROUND CIRCUIT CONDUCTORS SHALL BE BLACK, UNLESS OTHERWISE NOTED.
7. MINIMUM DEPTH FROM FINISHED GRADE TO TOP OF CONDUIT SHALL BE THIRTY-SIX (36) INCHES. MAXIMUM DEPTH SHALL BE FORTY-EIGHT (48) INCHES, UNLESS OTHERWISE APPROVED.
8. UNDERGROUND WIRING SHALL BE INSTALLED IN SCHEDULE 40 RIGID PVC CONDUIT, UL APPROVED FOR ABOVE GROUND AND UNDERGROUND USE WITH 90 DEGREE C WIRE. WHERE THIRTY-SIX (36) INCHES COVER IS NOT POSSIBLE, GALVANIZED RIGID STEEL CONDUIT (GRS), SHALL BE USED. GRS CONDUIT SHALL BE DOUBLE WRAPPED WITH 20-MIL TAPE TO SIX (6) INCHES PAST THE THREADED METAL COUPLING. COMPRESSION COUPLINGS ARE NOT ALLOWED. PRIOR APPROVAL IS NEEDED FOR ANY DESIGN USING GRS CONDUIT.
9. ALL CONDUITS SHALL BE BLOWN OUT USING 90-PSI AIR PRESSURE BEFORE PULLING WIRE.
10. A TWO-PIECE EXPANSION JOINT COUPLING SHALL BE INSTALLED IN PVC CONDUIT RUNS AT INTERVALS NOT TO EXCEED ONE-HUNDRED (100) FEET.
11. ALL FORTY-FIVE (45) AND NINETY (90) DEGREE BENDS OF CONDUIT SHALL HAVE A RADIUS OF NOT LESS THAN EIGHTEEN (18) INCHES. FACTORY BENDS ONLY SHALL BE USED.
12. ALL JOINTS BETWEEN PVC CONDUITS, COUPLINGS & FITTINGS SHALL BE PREPARED WITH PURPLE PRIMER AND CEMENTED TOGETHER WITH GRAY PVC CEMENT.
13. THE CONDUIT LOCATIONS SHOWN ON PLANS ARE DIAGRAMMATIC REPRESENTATIONS ONLY. CONTRACTOR IS TO INSTALL CONDUIT TO AVOID CONFLICTS. THE CONTRACTOR MAY AT HIS OPTION BORE FOR THE PLACEMENT OF CONDUIT PER MESA STD DETAIL M-18 AND M-18.1. ALL CONDUITS SHALL BE PLACED WITHIN EXISTING RIGHT-OF-WAY UNLESS OTHERWISE APPROVED.
14. LIGHTING CONDUITS SHOULD BE INSTALLED PRIOR TO DRIVEWAY, PARKING LOT, OR SIDEWALK INSTALLATIONS. IF LIGHTING CONDUIT IS INSTALLED AFTER DRIVEWAY, PARKING LOT, OR SIDEWALK INSTALLATIONS, CONTRACTOR SHALL BORE CONDUIT UNDER DRIVEWAY.
15. BACKFILL REQUIREMENTS FOR ALL TRENCHES SHALL CONFORM TO ARTICLE 300 OF THE N.E.C., SECTION 601 OF THE UNIFORM STANDARD SPECIFICATIONS, AND MESA STD DETAIL M-19.4 FOR STREET TRENCH BACKFILL AND PAVEMENT REPLACEMENT.
16. WITH THE EXCEPTION OF DETACHED SIDEWALKS, PULL BOXES SHALL BE INSTALLED (SEE MESA STD DETAILS M-74.1 AND M-74.2) FIVE (5) FEET (CENTER TO CENTER) BETWEEN STREET LIGHT POLES AND PULL BOXES.
17. PHOTOCELL RECEPTACLE SHALL BE POSITIONED ON LUMINAIRE SO THAT WHEN INSTALLED THE PHOTOCELL WILL FACE NORTH.
18. ALL SHORTING CAPS TO BE LOW PROFILE TYPE. NO HIGHER THAN 1-1/2" ABOVE SOCKET.
19. ALL PHOTOCELL CIRCUIT CONDUIT MUST BE 1-1/2" OR LARGER (TO INCLUDE CONDUIT STUBBING UP AT PHOTOCELL LIGHT POLE).
20. ALL FINISHED POLE FOUNDATIONS, SERVICE ENTRANCE SECTIONS, LIGHTING CONTROL CABINET PADS AND PULLBOXES SHALL BE AT SIDEWALK GRADE UNLESS OTHERWISE NOTED.
21. WHEN CONCRETE FOUNDATIONS ARE POURED, THEY SHALL BE VIBRATED WITH A MECHANICAL VIBRATOR.
22. POLE FOUNDATIONS SHALL CURE FOR 72 HOURS BEFORE INSTALLING LIGHT POLES OR REMOVING POLE BRACING.
23. ALL POLE FOUNDATIONS SHALL HAVE A COPPER GROUNDING PLATE PER MESA STD DETAIL M-73.6, G-101.
24. ALL STEEL POLES AND STEEL POLE PARTS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH MAG STANDARD SPECIFICATION 771.
25. ALL POLES SHALL BE WIRED USING TWO (2) NO. 12 BLACK THHN/THWN 90 DEGREE C STRANDED COPPER CONDUCTORS, 600 VOLT, NEC APPROVED AND ONE (1) NO. 12 GREEN THHN/THWN STRANDED COPPER BOND WIRE GROUNDING THE LUMINAIRE. WIRES SHALL RUN FROM THE LUMINAIRE TO MINIMUM OF TWELVE (12) INCHES BELOW POLE HANDHOLE FOR TERMINATION. POLES HAVING MULTIPLE LUMINAIRES SHALL HAVE TWO (2) CONDUCTORS AND ONE (1) BOND WIRE PER LUMINAIRE, AND THE CONDUCTORS SHALL BE MARKED AS PAIRS AT THE HANDHOLE.
26. THREE WIRES SHALL BE RUN CONTINUOUSLY WITHOUT SPLICES FROM THE PHOTOCELL LIGHTING CONTROL CABINET. THEY SHALL BE NO. 12 THHN/THWN 90 DEGREE C STRANDED COPPER CONDUCTORS, 600 VOLT, NEC APPROVED. THE "POWER TO PHOTO" SHALL BE IDENTIFIED BY BLACK INSULATION. THE "POWER FROM PHOTO" SHALL BE IDENTIFIED BY RED INSULATION. THE NEUTRAL SHALL BE IDENTIFIED BY WHITE INSULATION.
27. ALL LIGHTING CONDUCTORS AND BOND WIRES SHALL BE COPPER.
28. ALL PVC CONDUIT RUNS SHALL CONTAIN A MINIMUM NO. 8 GREEM XHHW INSULATED SEVEN (7) STRAND COPPER BOND WIRE.
29. ALL CONDUCTORS SHALL BE STRANDED.
30. THE NO. 8 STRANDED GROUNDING WIRE IN THE CONCRETE POLE FOUNDATION GOING TO THE GROUNDING PLATE SHALL BE INSULATED WITH XHHW INSULATION THROUGH THE CONCRETE FOUNDATION AND TWO (2) INCHES EACH SIDE OF THE CONCRETE FOUNDATION.
31. ALL LIGHTING CONTROL CABINETS SHALL BE INSTALLED WITHIN TWO (2) WEEKS OF BEGINNING THE STREET LIGHT IMPROVEMENTS.
32. EACH LUMINAIRE SHALL BE FUSED BEHIND THE POLE HANDHOLE COVER USING AN HEB TYPE FUSE HOLDER WITH INSULATING BOOTS AND A 5-AMP FNM FUSE OR APPROVED EQUAL.
33. ALL PULLBOXES AND LIGHTING CONTROL CABINET PADS SHALL BE ADJACENT TO SIDEWALK UNLESS OTHERWISE NOTED.
34. PROJECT SHALL BE BLUE STAKED BEFORE ANY DIGGING IS STARTED BY CALLING **602-263-1100** OR **811**.
35. ALL HIGH-PRESSURE SODIUM LAMPS SHALL CONFORM TO THE APPROPRIATE LAMP SPECIFICATION FOR ITS PARTICULAR WATTAGE. SEE LAMP SPECIFICATION, MESA STD DETAIL M-71.
36. ALL SPLICES INCLUDING GROUNDS AND BONDS SHALL BE DONE WITH A GEL CAP STUB SPLICE KIT, GEL CAP #SL-210-3 HOLE, OTHER GEL CAP PRODUCTS OF APPROPRIATE SIZE OR APPROVED EQUAL. FOR APPROVED STREET LIGHT MATERIALS SEE: http://www.mesaaz.gov/business/engineering/approve-products-equipment-natural-gas-line-contractors.
37. THE EXISTING LIGHT AND ELECTRICAL EQUIPMENT SHALL BE RETURNED TO THE CITY OF MESA STORAGE YARD AT 2430 NORTH CENTER STREET. CONTRACTOR SHALL CALL THE PARK MAINTENANCE FOREMAN, AT **480-644-3097**, 48 HOURS PRIOR TO DELIVERING THE EQUIPMENT. CITY PARK PERSONNEL WILL OPEN THE YARD AND SUPERVISE THE LOADING, HAULING AND UNLOADING OF THIS EQUIPMENT.

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS
McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
GENERAL NOTES

FUJI NO.: CLIENT PROJ. NO.
A&E FIRM NO.: 147051
DRAWN: C.WILLIAMS
CHECKED: A.MONSOUR
DATE: 01/14/2025
SCALE: AS NOTED
DRAWING
020-C-003
SHEET ----OF ##

LEGEND

EXISTING	PROPOSED	
▩		RIPRAP
▒	▒	CONCRETE
▭	▭	BUILDING
	▩	GRAVEL
	░	HEAVY DUTY ASPHALT PAVEMENT
▒		CONCRETE SIDEWALK
═	═	CURB
≡	≡	CURB AND GUTTER
═	═	SITE WALL
—X—X—	—XX—XX—	FENCE LINE
—— — ——		MONUMENT LINE
—— - - ——		PROPERTY LINE
— — — —	— — — E — — —	UNDERGROUND ELECTRIC
—— 8 SS ——	— — — SS — — —	SANITARY SEWER
	— — — SSFM — — —	SANITARY SEWER FORCE MAIN
—— W —— —— 12 W ——	—— W ——	WATER
		FIRE DRAIN
▬	— — — FP — — —	FIRE PROTECTION LINE
— CHWR — CHWR — CHWR —		CHILLED WATER RETURN
— CHWS — CHWS — CHWS —		CHILLED WATER SUPPLY
▬▭▬▭▬	SD	STORM PIPE
(SD)	●	STORM DRAIN MANHOLE
◘	■	STORM DRAIN INLET
▦ ◍	◍	DRAINAGE GRATE
(SS)	○	SANITARY SEWER MANHOLE
	∘	SANITARY SEWER CLEANOUT
⊗⊗	⋈	WATER VALVE
☒	■	WATER METER
	▶	WATERLINE REDUCER
⊣ ⊢		FITTINGS
FDC	⌃	FIRE DEPARTMENT CONNECTION
◕	●	FIRE HYDRANT
⌽		ELECTRICAL OUTLET
☼ ¤		LIGHT
⊚		POWER POLE
E		ELECTRICAL BOX
◎		WOOD POST
✳ ◷		VEGETATION
✺		TREE
▭		CONCRETE WHEEL STOP
♿		HANDICAP PARKING
▧		NO PARKING AREA
—o—		SIGN
X 28.93		SPOT ELEVATION
(XX)		MANHOLE
XX		BOXES AND VAULTS
✢		SECTION CORNER
▷○◁		QUARTER SECTION CORNER
✕		FOUND/SET SCRIBED X AS NOTED
⊛		FOUND/SET CONTROL PANEL
⌖		FOUND/SET PROJECT BENCHMARK AS NOTED
◉		FOUND REBAR CAPPED ###
⊡		CALCULATED POINT
○		FOUND MONUMENT AS NOTED
▣		FOUND BRASS CAP IN HAND HOLE
		FOUND BRASS CAP FLUSH
◎		SET $\frac{1}{2}$" REBAR RPA RLS ####
● +		POINT OF CURVATURE AND TANGENCY TICKS
	▩	GRAVEL FILTER BERM
	▩ (OP)	OUTLET PROTECTION
	(IP) ▨	INLET PROTECTION
	—— —— SF ——	SILT FENCE
	▬	DEMOLISH AND REMOVE
	✕	REMOVE FEATURE/APPURTENANCE
	/ / / / / / /	REMOVE LINEAR FEATURE
	– – – – – – – –	SAWCUT
	— — · — — · —	TOP OF BANK
	— ·· — ·· —	TOE OF SLOPE
	⨂	CONNECT TO EXISTING UTILITY
	◉	DRY WELL

ABBREVIATIONS

ADOT	ARIZONA DEPARTMENT OF TRANSPORTATION
APN	ACCESSORY PARCEL NUMBER
AVG	AVERAGE
BEG	BEGINNING
BOT	BOTTOM
BLDG	BLDG
C	CONCRETE
(C)	CALCULATED
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COMM	COMMUNICATION
DATR	DRAWN ACCORDING TO RECORD
DIAM	DIAMETER
DIP	DUCTILE IRON PIPE
E	ELECTRIC,
ELEC ESMT	ELECTRICAL EASEMENT
EL JB	ELECTRICAL JUNCTION BOX
FC	FACE OF CURB
FD	FIRE DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FFE	FINISHED FLOOR ELEVATION
FL	FLOW LINE
FP	FLAG POLE
G	GUTTER
GAL	GALLON
GD	GROUND
GDACS	GLOBAL DISASTER ALERT AND COORDINATION SYSTEM
GR	GRATE
HYD	HYDRANT
ICB	IRRIGATION CONTROL BOX
INC	INCORPORATED
INV	INVERT
IRR	IRRIGATION
LLC	LIMITED LIABILITY COMPANY
(M)	MEASURED
MC	MARICOPA COUNTY
MCR	MARICOPA COUNTY RECORDS
MG	MATCH GRADE
MH	MANHOLE
MUTE	MULTI-USE TRAIL EASEMENT
P	PAVEMENT
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE CONDUIT
(N)	RECORD
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RLS	REGISTERED LAND SURVEYOR
ROS	RECORD OF SURVEY
ROW	RIGHT-OF-WAY
RR	RIPRAP
SCO	SEWER CLEANOUT
SD	STORM DRAIN
SF	SQUARE FEET
SS	SANITARY SEWER
SVT	SIGHT VISIBILITY TRIANGLE
SW	STORM WATER
T	TELEPHONE
TC	TOP OF CURB
TOE	TOP OF EMBANKMENT
TOP	TOP OF POINT
TOSL	TOE OF SLOPE
TPBK	TOP OF BANK
TRANS	TRANSFORMER
TW	TOP OF WALL
V	VAULT
VNAE	VEHICLE NON-ACCESS EASEMENT
W	WATER
VC	VERTICAL CURB
VC&G	VERTICAL CURB & GUTTER

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

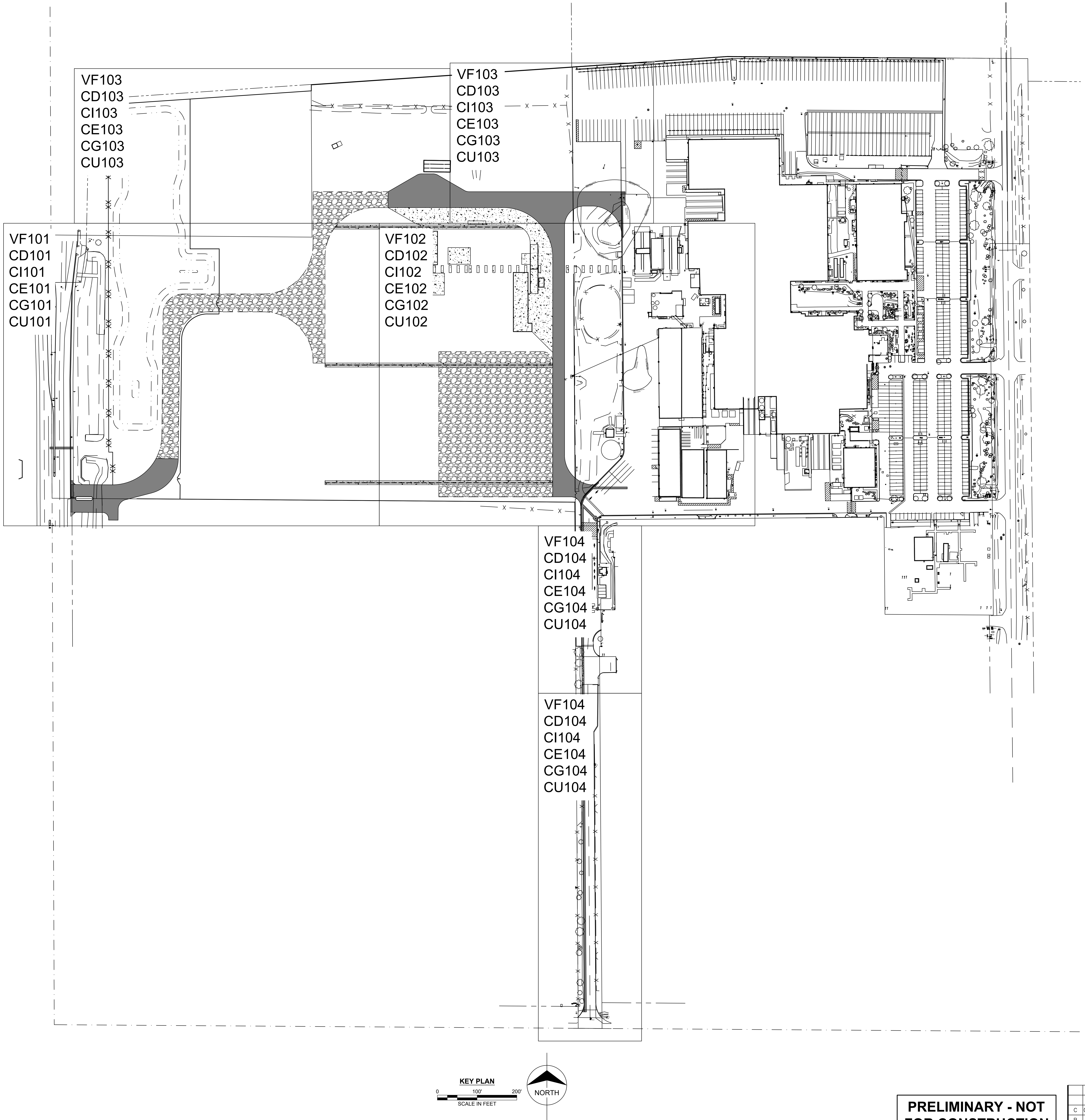
FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
LEGEND AND ABBREVIATIONS

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-C-004
SHEET ---- OF ##


VF103
CD103
CI103
CE103
CG103
CU103
VF103
CD103
CI103
CE103
CG103
CU103
VF101
CD101
CI101
CE101
CG101
CU101
VF102
CD102
CI102
CE102
CG102
CU102
VF104
CD104
CI104
CE104
CG104
CU104
VF104
CD104
CI104
CE104
CG104
CU104
KEY PLAN
0
100'
200'
SCALE IN FEET
NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

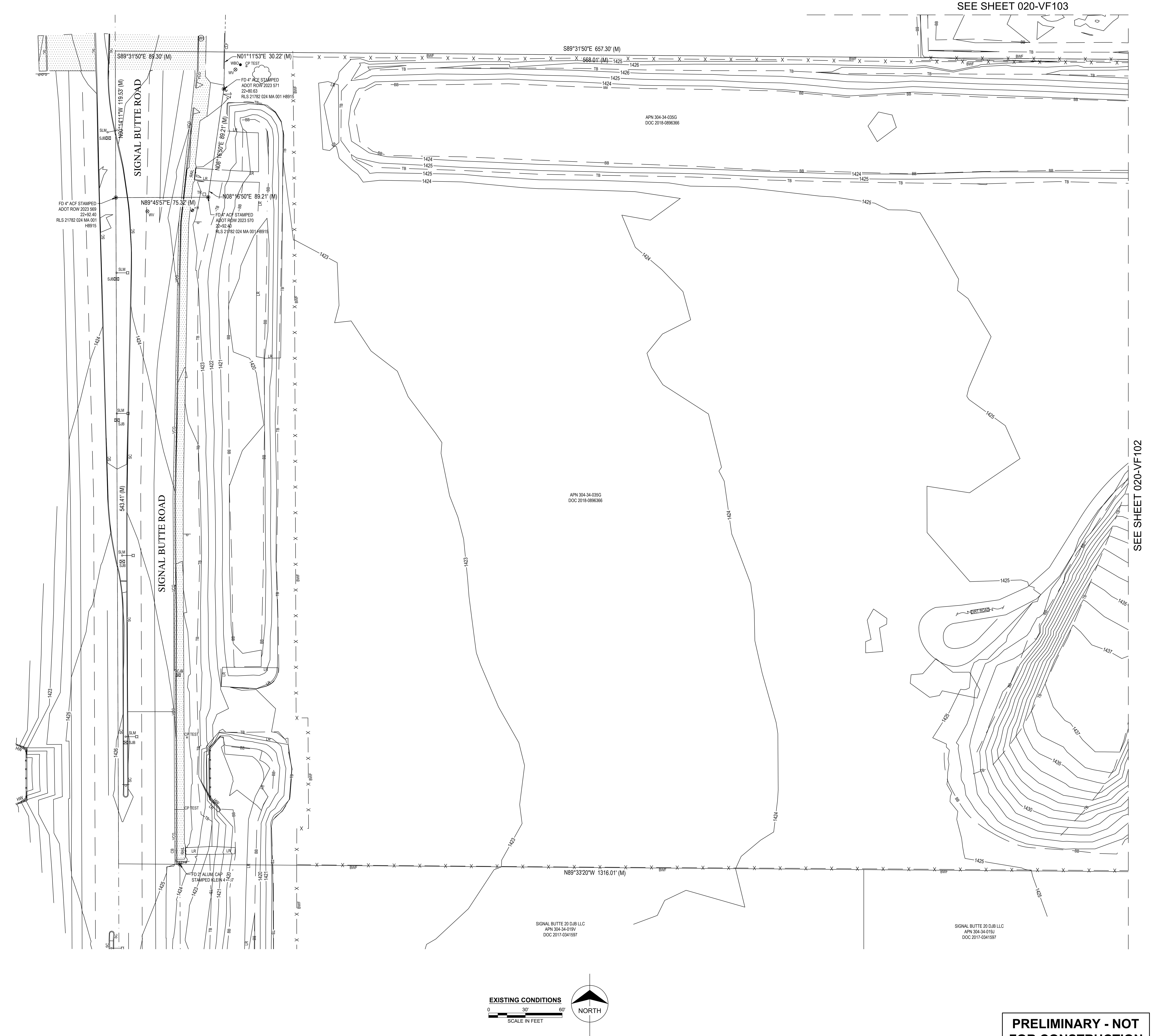
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
KEY PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

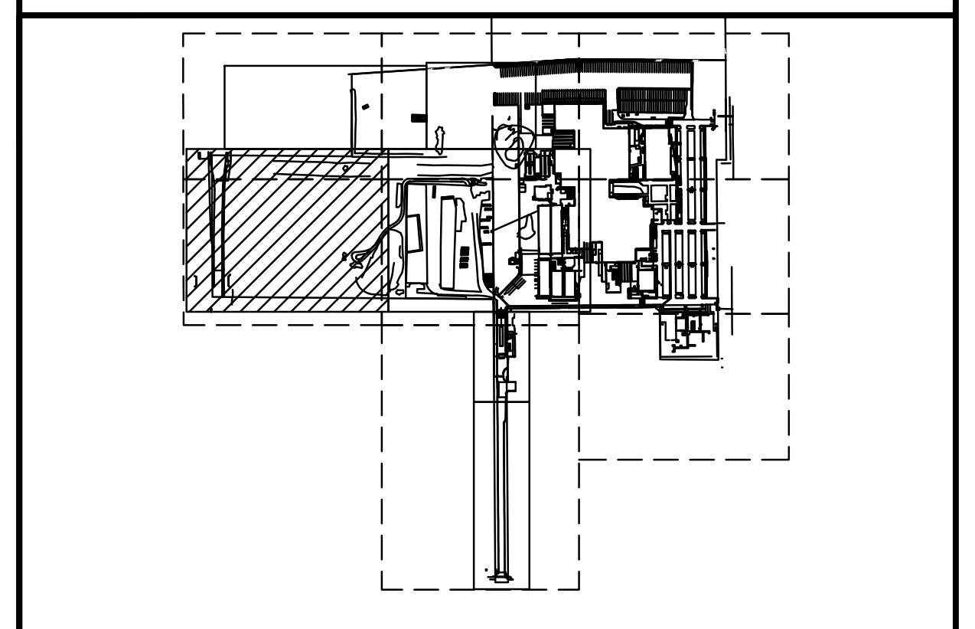
DRAWING
020-C-005
SHEET ---- OF ##


SEE SHEET 020-VF103
SEE SHEET 020-VF102
SIGNAL BUTTE ROAD
SIGNAL BUTTE ROAD
S89°31'50"E 89.30' (M)
S89°31'50"E 657.30' (M)
568.01' (M)
N01°11'53"E 30.22' (M)
N00°14'11"W 119.53' (M)
N08°16'50"E 89.21' (M)
N08°16'50"E 89.21' (M)
N89°45'57"E 75.32' (M)
543.41' (M)
N89°33'20"W 1316.01' (M)
FD 4" ACF STAMPED
ADOT ROW 2023 571
22+80.63
RLS 21782 024 MA 001 H8915
FD 4" ACF STAMPED
ADOT ROW 2023 569
22+92.40
RLS 21782 024 MA 001
H8915
FD 4" ACF STAMPED
ADOT ROW 2023 570
22+92.40
RLS 21782 024 MA 001 H8915
FD 2" ALUM. CAP
STAMPED KLEIN 4-17
APN 304-34-035G
DOC 2018-0896366
APN 304-34-035G
DOC 2018-0896366
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019V
DOC 2017-0341597
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019J
DOC 2017-0341597
DIRT ROAD
CP TEST
1423
1424
1425
1426
1430
1435
1437
NORTH
0
30'
60'
SCALE IN FEET

EXISTING CONDITIONS

PRELIMINARY - NOT FOR CONSTRUCTION

SURVEY NOTES



KEY PLAN
NOT TO SCALE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

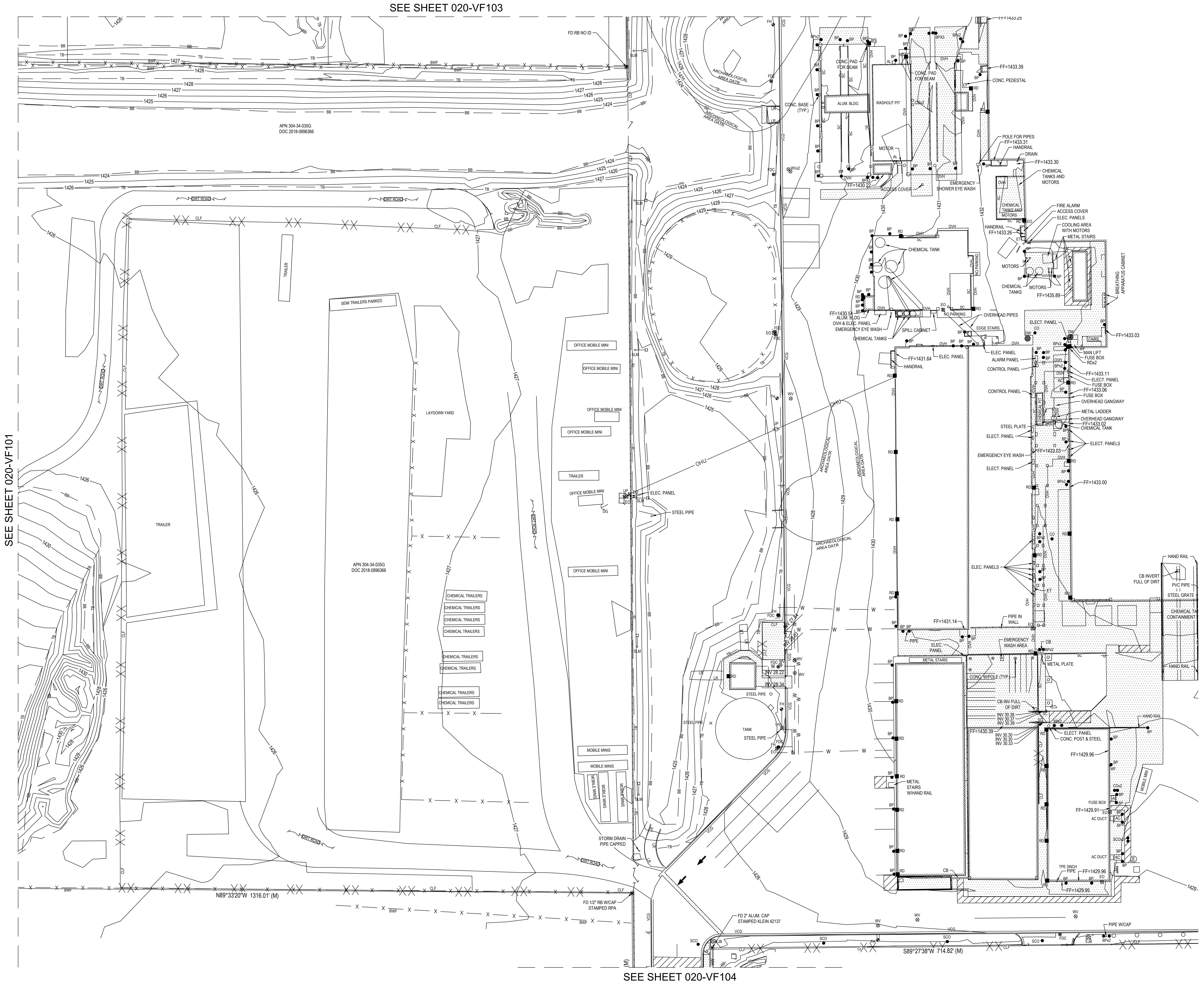
FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
EXISTING CONDITIONS

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-VF101
SHEET ---- OF ##


SEE SHEET 020-VF103
SEE SHEET 020-VF101
SEE SHEET 020-VF104
APN 304-34-035G
DOC 2018-0896366
DIRT ROAD
LAYDOWN YARD
SEMI TRAILERS PARKED
TRAILER
OFFICE MOBILE MINI
CHEMICAL TRAILERS
MOBILE MINIS
ARCHAEOLOGICAL AREA DATR
ELEC. PANEL
STEEL PIPE
STORM DRAIN PIPE CAPPED
FD RB NO ID
FD 1/2" RB W/CAP STAMPED RPA
FD 2" ALUM. CAP STAMPED KLEIN 42137
N89°33'20"W 1316.01' (M)
S89°27'38"W 714.82' (M)
TANK
CONC. PAD FOR BEAM
ALUM. BLDG
WASHOUT PIT
CONC. BASE (TYP.)
MOTOR
ACCESS COVER
EMERGENCY SHOWER EYE WASH
CONC. PEDESTAL
POLE FOR PIPES
HANDRAIL
DRAIN
CHEMICAL TANKS AND MOTORS
FIRE ALARM
COOLING AREA WITH MOTORS
METAL STAIRS
BREATHING APPARATUS CABINET
CHEMICAL TANK
SPILL CABINET
NO PARKING
OVERHEAD PIPES
EDGE STAIRS
ALARM PANEL
CONTROL PANEL
MAN LIFT
FUSE BOX
OVERHEAD GANGWAY
METAL LADDER
STEEL PLATE
ELECT. PANELS
EMERGENCY EYE WASH
PIPE IN WALL
EMERGENCY WASH AREA
METAL PLATE
CONC. W/POLE (TYP.)
CB INV FULL OF DIRT
CONC. POST & STEEL
METAL STAIRS W/HAND RAIL
AC DUCT
HAND RAIL
CB INVERT FULL OF DIRT
PVC PIPE
STEEL GRATE
CHEMICAL TANK CONTAINMENT
PIPE W/CAP
FF=1433.39
FF=1433.31
FF=1433.30
FF=1433.26
FF=1435.89
FF=1433.03
FF=1433.11
FF=1433.06
FF=1433.02
FF=1433.00
FF=1430.54
FF=1430.22
FF=1431.64
FF=1431.14
FF=1430.39
FF=1429.96
FF=1429.91
FF=1429.95
INV 28.22
INV 28.34
INV 30.38
INV 30.37
INV 30.39
INV 30.30
INV 30.33

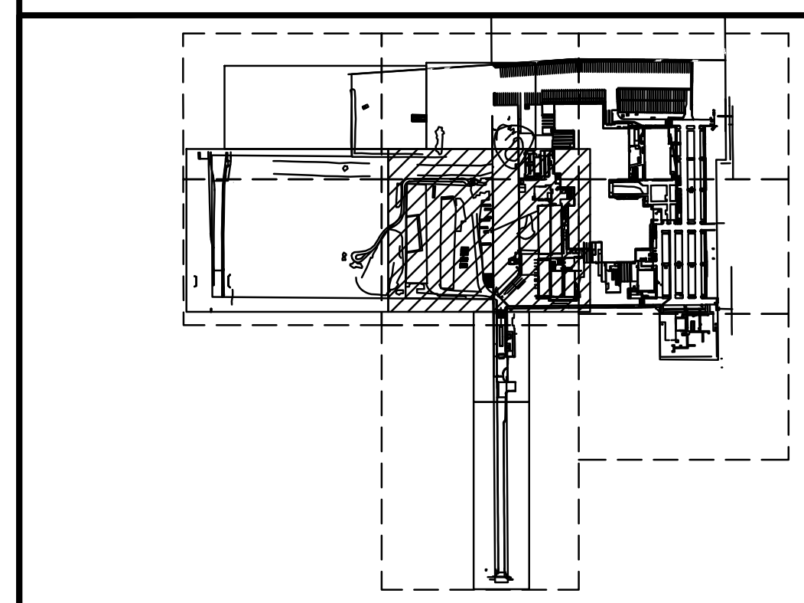
EXISTING CONDITIONS

0 30' 60'
SCALE IN FEET

NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

SURVEY NOTES



KEY PLAN
NOT TO SCALE

NORTH

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

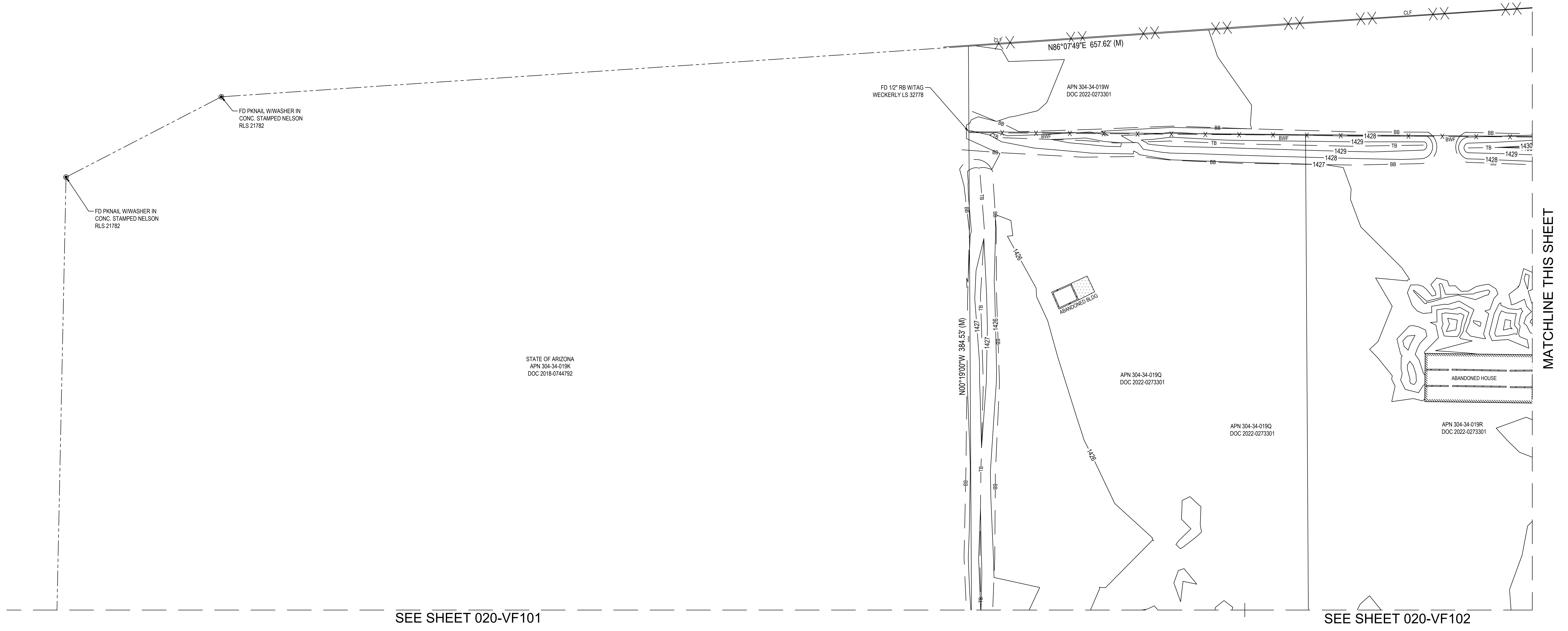
FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
EXISTING CONDITIONS

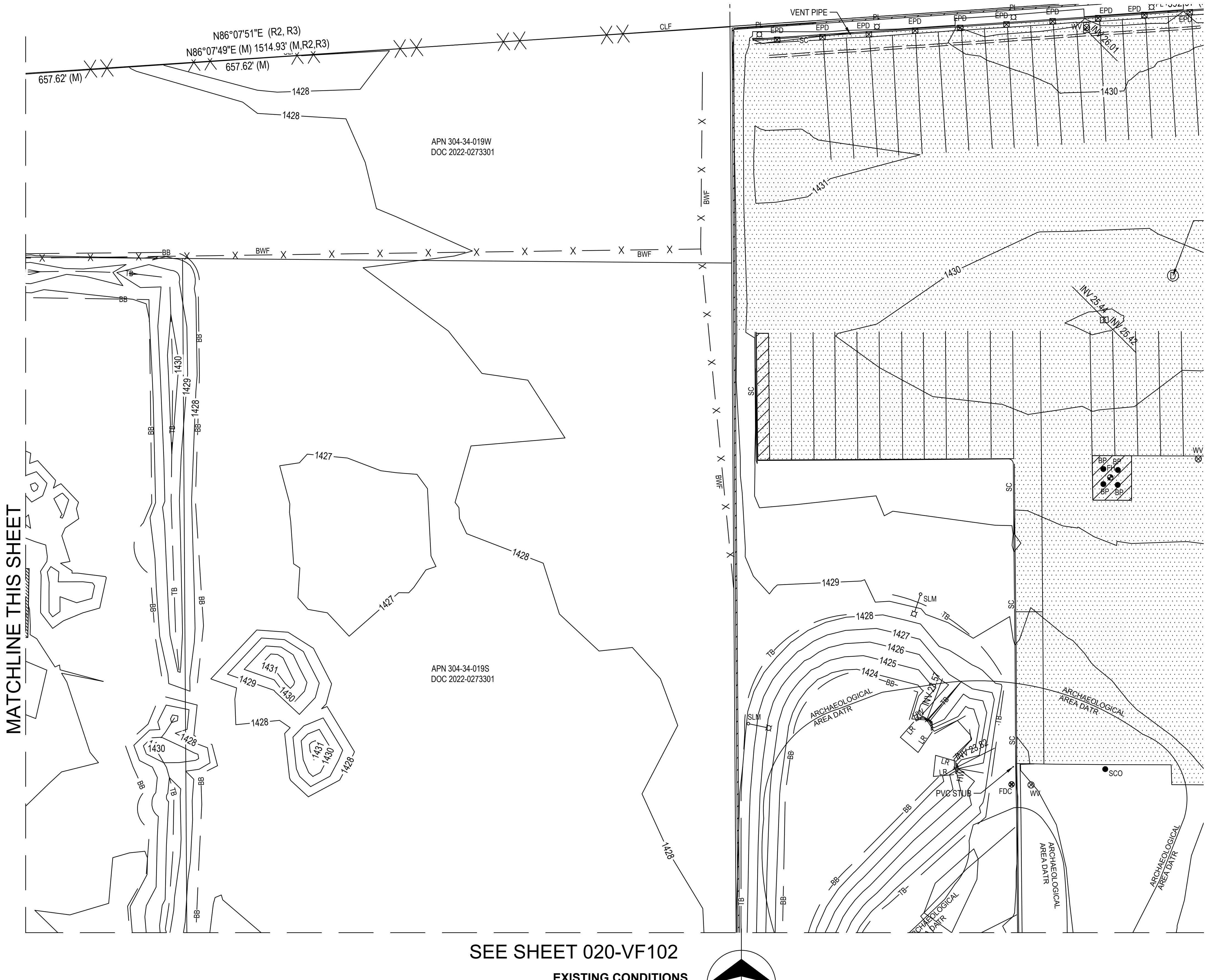
REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-VF102
SHEET ---- OF ##


N86°07'49"E 657.62' (M)
CLF
FD PKNAIL W/WASHER IN CONC. STAMPED NELSON RLS 21782
FD PKNAIL W/WASHER IN CONC. STAMPED NELSON RLS 21782
FD 1/2" RB W/TAG WECKERLY LS 32778
APN 304-34-019W DOC 2022-0273301
STATE OF ARIZONA APN 304-34-019K DOC 2018-0744792
N00°19'00"W 384.53' (M)
ABANDONED BLDG
APN 304-34-019Q DOC 2022-0273301
APN 304-34-019Q DOC 2022-0273301
APN 304-34-019R DOC 2022-0273301
ABANDONED HOUSE
BB
TB
BWF
1426
1427
1428
1429
1430
MATCHLINE THIS SHEET
SEE SHEET 020-VF101
SEE SHEET 020-VF102

EXISTING CONDITIONS
0 30' 60'
SCALE IN FEET
NORTH

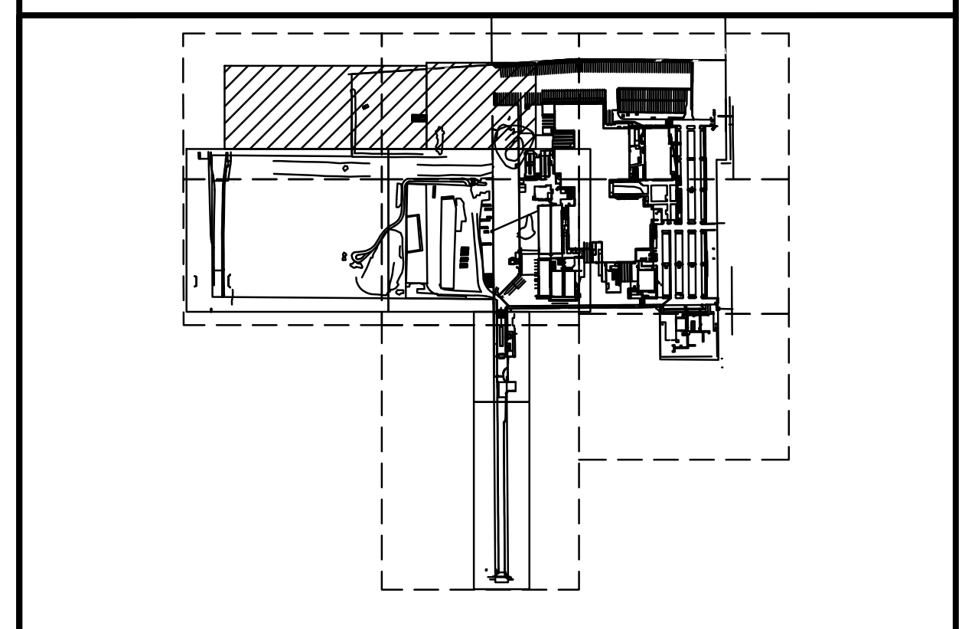

N86°07'51"E (R2, R3)
N86°07'49"E (M) 1514.93' (M,R2,R3)
657.62' (M)
657.62' (M)
CLF
VENT PIPE
EPD
PL
SC
WV
INV 26.01
INV 25.44
INV 25.42
FH
BP
APN 304-34-019W DOC 2022-0273301
APN 304-34-019S DOC 2022-0273301
BWF
BB
TB
1427
1428
1429
1430
1431
SLM
ARCHAEOLOGICAL AREA DATR
PVC STUB
FDC
SCO
MATCHLINE THIS SHEET

SEE SHEET 020-VF102

EXISTING CONDITIONS
0 30' 60'
SCALE IN FEET
NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

SURVEY NOTES



KEY PLAN
NOT TO SCALE
NORTH

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

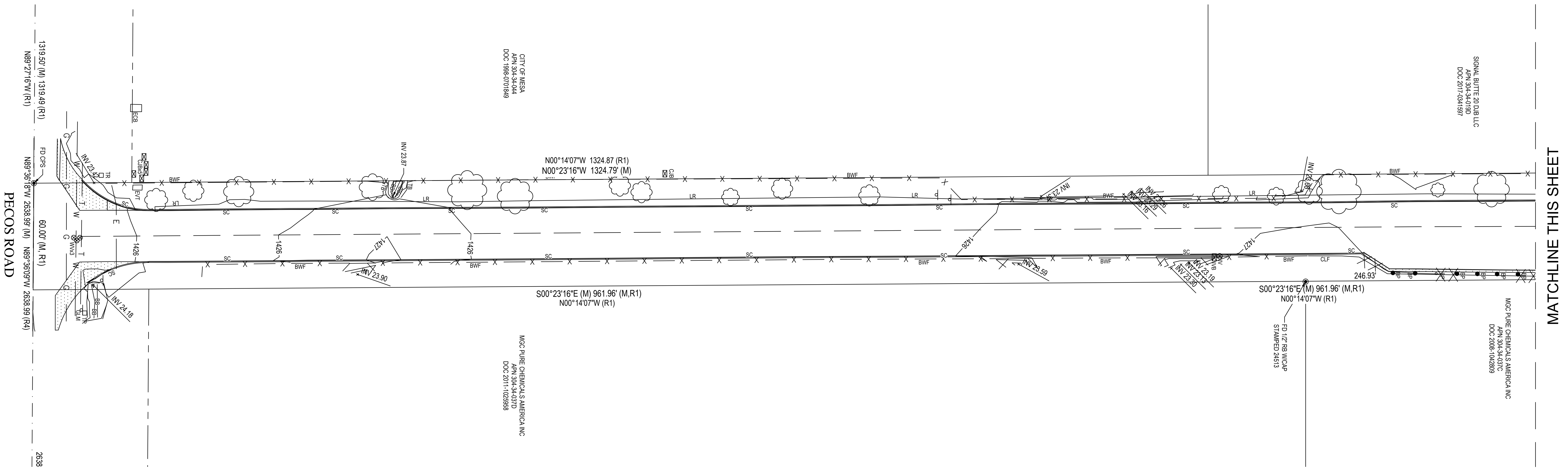
FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
EXISTING CONDITIONS

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-VF103
SHEET ---- OF ##

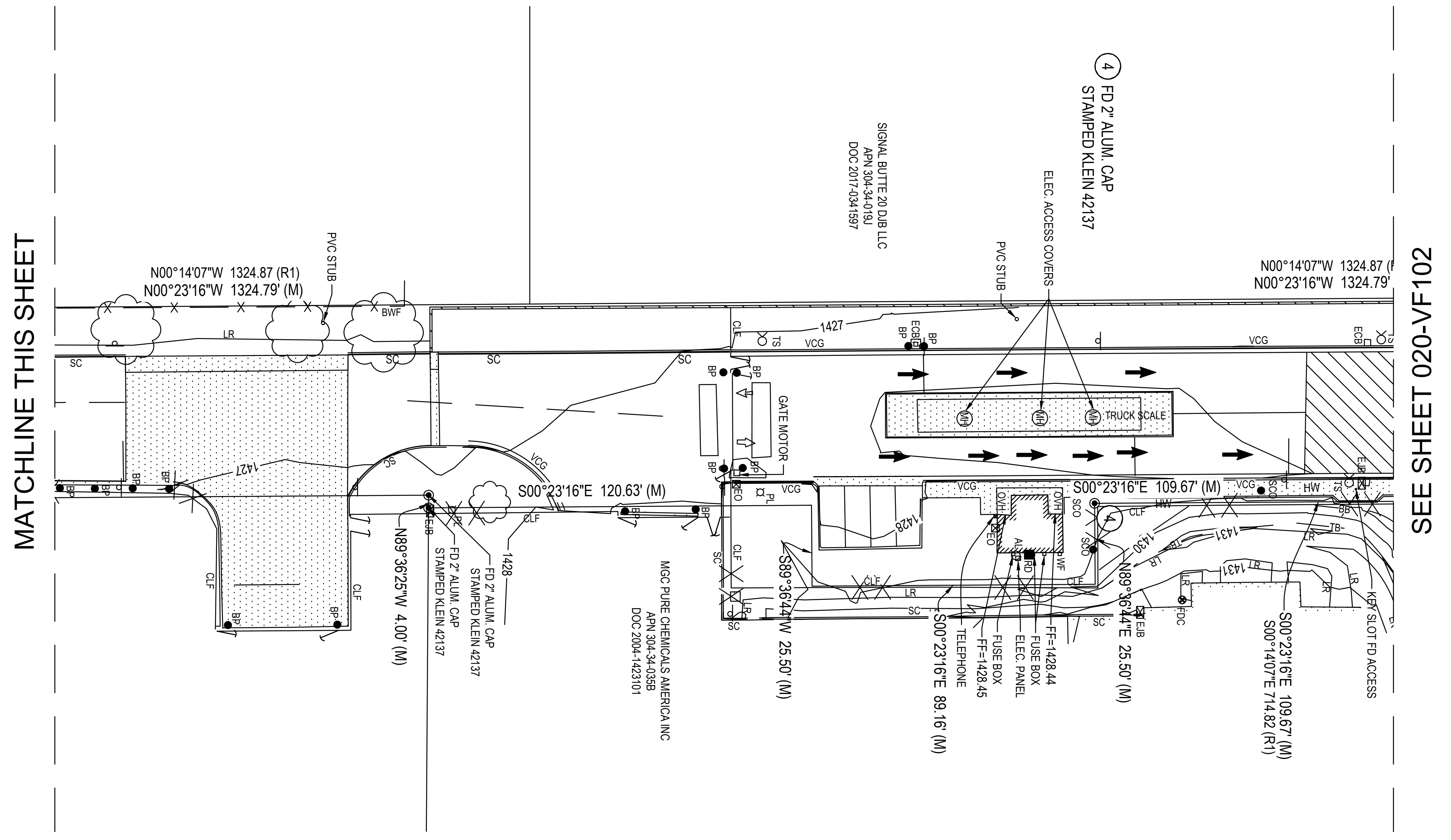
FUJIFILM PROPRIETARY AND CONFIDENTIAL

SURVEY NOTES


PECOS ROAD
1319.50' (M) 1319.49 (R1)
N89°27'16"W (R1)
N89°36'16"W 2638.99 (M) N89°36'09"W 2638.99 (R4)
60.00' (M,R1)
FD CPS
CITY OF MESA
APN 304-34-044
DOC 1995-0701849
N00°14'07"W 1324.87 (R1)
N00°23'16"W 1324.79' (M)
S00°23'16"E (M) 961.96' (M,R1)
N00°14'07"W (R1)
S00°23'16"E (M) 961.96' (M,R1)
N00°14'07"W (R1)
246.93'
FD 1/2" RB W/CAP STAMPED 24513
MGC PURE CHEMICALS AMERICA INC
APN 304-34-037D
DOC 2011-1022658
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019D
DOC 2017-0341597
MGC PURE CHEMICALS AMERICA INC
APN 304-34-037C
DOC 2008-1042800
INV 23.87
INV 23.90
INV 24.18
INV 23.59
INV 22.40
1426
1427
BWF
SC
LR
CLF
2638
MATCHLINE THIS SHEET

EXISTING CONDITIONS

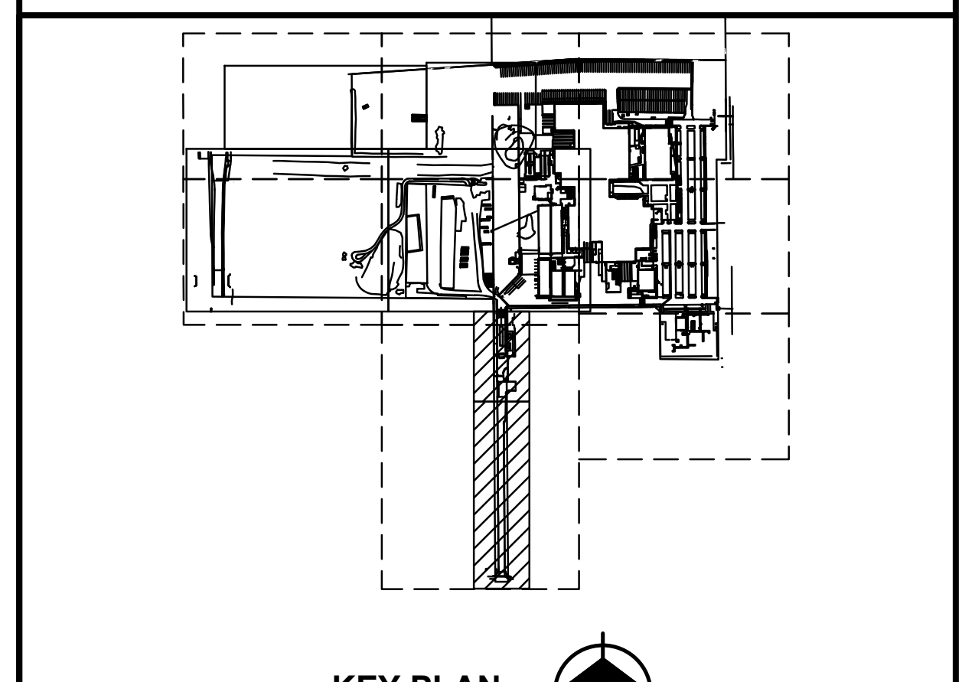
0
30'
60'
SCALE IN FEET
NORTH


MATCHLINE THIS SHEET
SEE SHEET 020-VF102
4 FD 2" ALUM. CAP STAMPED KLEIN 42137
ELEC. ACCESS COVERS
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019D
DOC 2017-0341597
N00°14'07"W 1324.87 (R1)
N00°23'16"W 1324.79' (M)
N00°14'07"W 1324.87 (R
N00°23'16"W 1324.79'
PVC STUB
1427
TRUCK SCALE
GATE MOTOR
S00°23'16"E 120.63' (M)
S00°23'16"E 109.67' (M)
N89°36'25"W 4.00' (M)
FD 2" ALUM. CAP STAMPED KLEIN 42137
1428
MGC PURE CHEMICALS AMERICA INC
APN 304-34-037B
DOC 2008-1042101
S89°36'44"W 25.50' (M)
S00°23'16"E 89.16' (M)
N89°36'44"E 25.50' (M)
TELEPHONE
FF=1428.45
FUSE BOX
ELEC. PANEL
FF=1428.44
S00°23'16"E 109.67' (M)
S00°14'07"E 714.82' (R1)
KEY SLOT FD ACCESS
VCG
CLF
SC
LR
BWF

EXISTING CONDITIONS

0
30'
60'
SCALE IN FEET
NORTH

PRELIMINARY - NOT FOR CONSTRUCTION



KEY PLAN
NOT TO SCALE

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

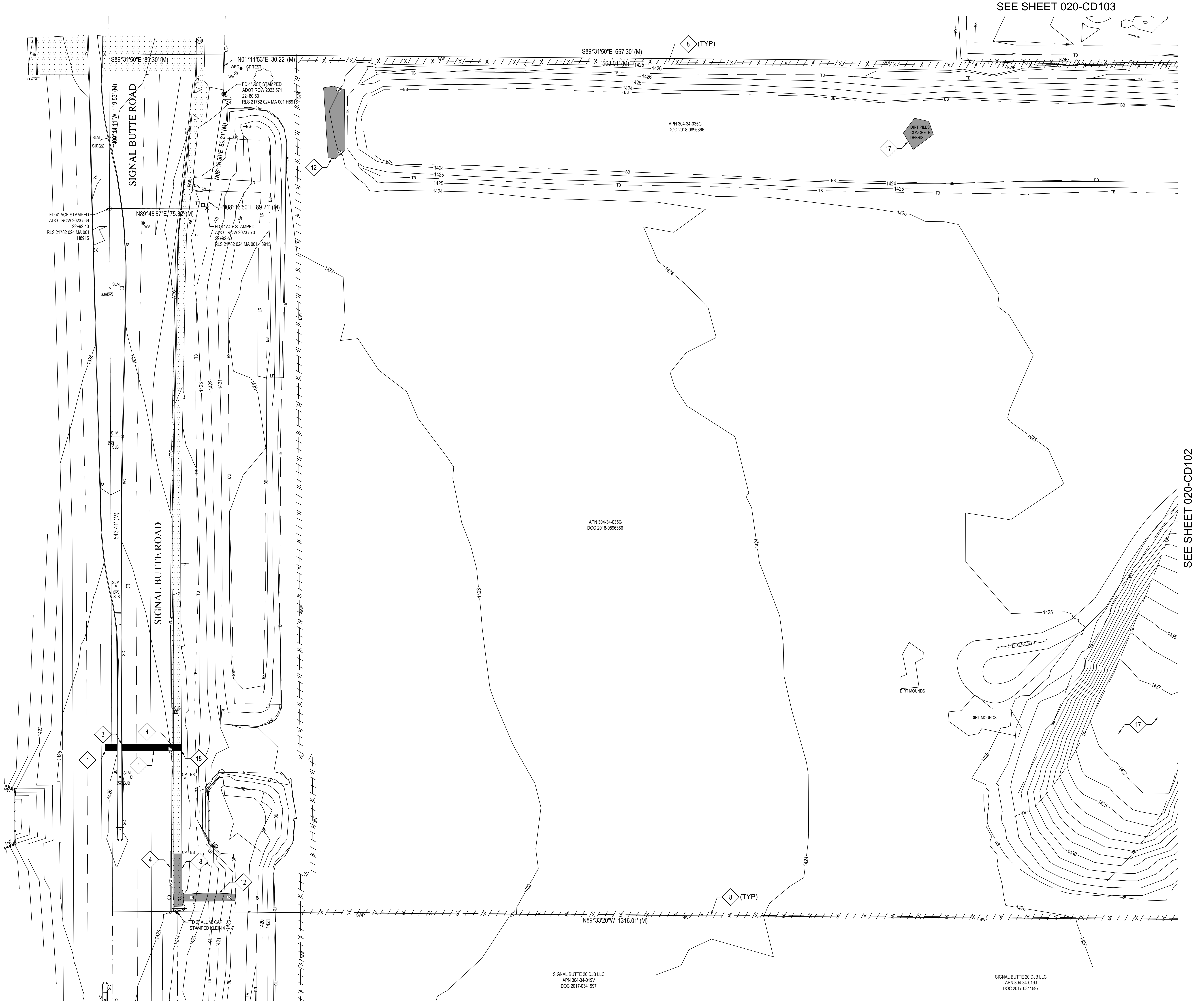
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
EXISTING CONDITIONS

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-VF104
SHEET ---- OF ##


SEE SHEET 020-CD103
SEE SHEET 020-CD102
S89°31'50"E 89.30' (M)
N01°11'53"E 30.22' (M)
S89°31'50"E 657.30' (M)
568.01' (M)
N00°14'11"W 119.53' (M)
N08°16'50"E 89.21' (M)
N08°16'50"E 89.21' (M)
N89°45'57"E 75.32' (M)
543.41' (M)
N89°33'20"W 1316.01' (M)
SIGNAL BUTTE ROAD
SIGNAL BUTTE ROAD
FD 4" ACF STAMPED ADOT ROW 2023 571 22+80.63 RLS 21782 024 MA 001 H8915
FD 4" ACF STAMPED ADOT ROW 2023 569 22+92.40 RLS 21782 024 MA 001 H8915
FD 4" ACF STAMPED ADOT ROW 2023 570 22+92.40 RLS 21782 024 MA 001 H8915
FD 2" ALUM. CAP STAMPED KLEIN 4 37
WBO
CP TEST
WV
SLM
SJB
CJB
VCG
RAIL
TR
FH
CB
HW
MH
CLF
BWF
TB
BB
LR
SC
8 (TYP)
8 (TYP)
12
17
17
1
1
3
4
4
18
18
12
DIRT PILES, CONCRETE DEBRIS
DIRT MOUNDS
DIRT MOUNDS
DIRT ROAD
APN 304-34-035G DOC 2018-0896366
APN 304-34-035G DOC 2018-0896366
SIGNAL BUTTE 20 DJB LLC APN 304-34-019V DOC 2017-0341597
SIGNAL BUTTE 20 DJB LLC APN 304-34-019J DOC 2017-0341597
1420
1421
1422
1423
1424
1425
1426
1430
1435
1437

SITE DEMOLITION PLAN

0 30' 60'
SCALE IN FEET

NORTH

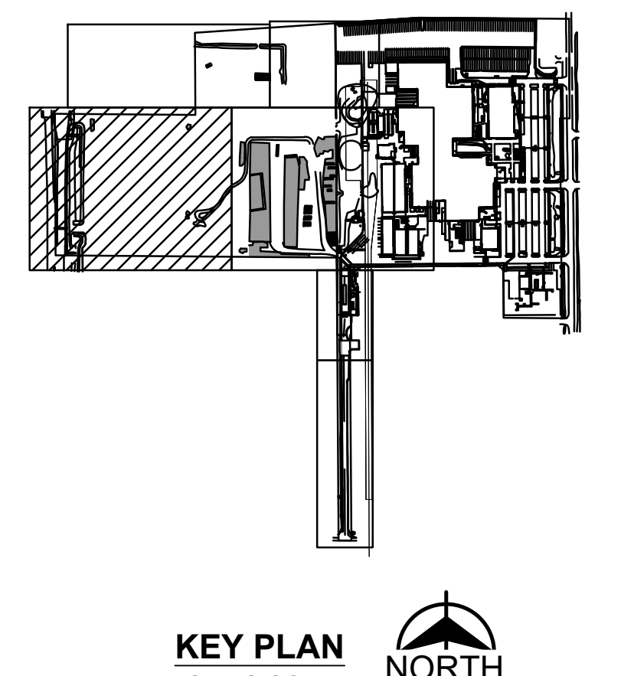
PRELIMINARY - NOT FOR CONSTRUCTION

GENERAL NOTES

1. REMOVE CONCRETE PAVEMENT TO NEAREST JOINT
2. SEE ELECTRICAL FOR EXTENT OF ROUTING ASSOCIATED WITH PAVEMENT CUTS AND REPLACEMENT

DEMOLITION NOTES

1. SAWCUT AND REMOVE ASPHALT PAVEMENT
2. REMOVE CONCRETE PAVEMENT
3. REMOVE CONCRETE CURB
4. REMOVE CONCRETE CURB AND GUTTER
5. REMOVE CONCRETE VALLEY GUTTER
6. REMOVE WALL
7. REMOVE CHAIN LINK FENCE
8. REMOVE BARBED WIRE FENCE
9. REMOVE BARRIER POST
10. REMOVE CHAIN LINK GATE
11. REMOVE LIGHT POLE
12. REMOVE RIP RAP
13. REMOVE AND RELOCATE TRAILER
14. RELOCATE MOBILE OFFICE MINI
15. REMOVE ABANDONED BUILDING
16. REMOVE HEADWALL
17. REMOVE EXCESS MATERIAL
18. REMOVE SIDEWALK
19. REMOVE GRAVEL
20. REMOVE WATER VALVE
21. REMOVE FIRE DEPARTMENT CONNECTION
22. REMOVE FIRE HYDRANT



KEY PLAN
NOT TO SCALE
NORTH

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

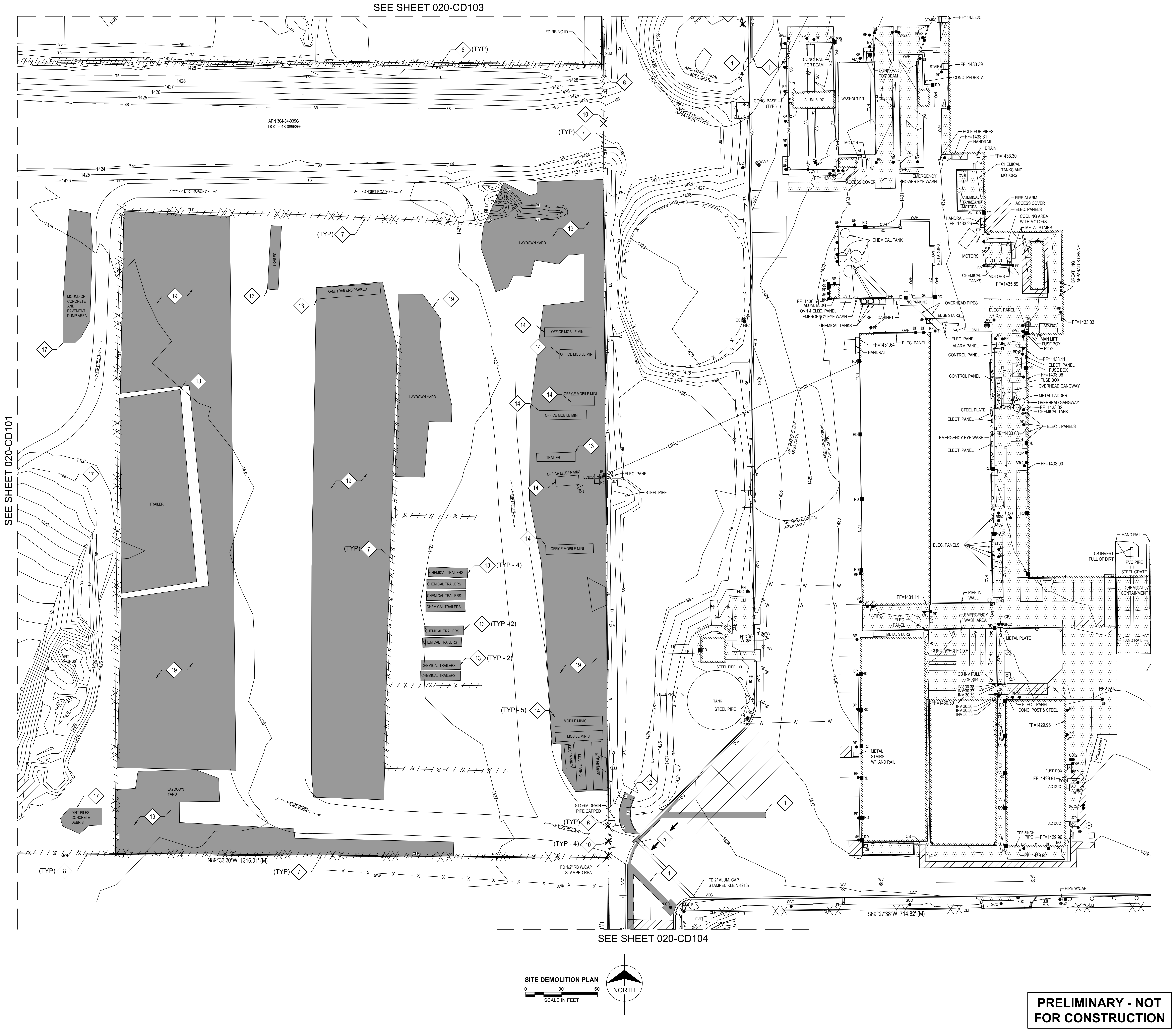
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
DEMOLITION PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED
DRAWING	020-CD101

SHEET ---- OF ##


SEE SHEET 020-CD103
SEE SHEET 020-CD101
SEE SHEET 020-CD104
APN 304-34-035G
DOC 2018-0896366
FD RB NO ID
DIRT ROAD
LAYDOWN YARD
TRAILER
MOUND OF CONCRETE AND PAVEMENT, DUMP AREA
SEMI TRAILERS PARKED
OFFICE MOBILE MINI
CHEMICAL TRAILERS
MOBILE MINIS
DIRT MOUND
DIRT PILES, CONCRETE DEBRIS
ARCHAEOLOGICAL AREA DATR
ELEC. PANEL
STEEL PIPE
TANK
STORM DRAIN PIPE CAPPED
FD 1/2" RB W/CAP STAMPED RPA
FD 2" ALUM. CAP STAMPED KLEIN 42137
N89°33'20"W 1316.01' (M)
S89°27'38"W 714.82' (M)
ALUM. BLDG
WASHOUT PIT
CONC. PAD FOR BEAM
CONC. BASE (TYP.)
CONC. PEDESTAL
MOTOR
ACCESS COVER
EMERGENCY SHOWER EYE WASH
POLE FOR PIPES
CHEMICAL TANKS AND MOTORS
CHEMICAL TANK
FIRE ALARM ACCESS COVER
COOLING AREA WITH MOTORS
METAL STAIRS
BREATHING APPARATUS CABINET
SPILL CABINET
OVERHEAD PIPES
EDGE STAIRS
MAN LIFT
FUSE BOX
ALARM PANEL
CONTROL PANEL
OVERHEAD GANGWAY
METAL LADDER
STEEL PLATE
ELECT. PANELS
EMERGENCY EYE WASH
HAND RAIL
CB INVERT FULL OF DIRT
PVC PIPE
STEEL GRATE
CHEMICAL TANK CONTAINMENT
EMERGENCY WASH AREA
METAL PLATE
CONC. W/POLE (TYP.)
CB INV FULL OF DIRT
INV 30.38
INV 30.37
INV 30.39
INV 30.30
INV 30.33
CONC. POST & STEEL
METAL STAIRS W/HAND RAIL
AC DUCT
TPE 3INCH PIPE
PIPE W/CAP
FF=1433.39
FF=1433.30
FF=1433.26
FF=1435.89
FF=1430.54
FF=1433.03
FF=1431.64
FF=1433.11
FF=1433.06
FF=1433.02
FF=1433.00
FF=1431.14
FF=1430.39
FF=1429.96
FF=1429.91
FF=1429.95
(TYP)
(TYP - 4)
(TYP - 2)
(TYP - 5)
SITE DEMOLITION PLAN
0
30'
60'
SCALE IN FEET
NORTH

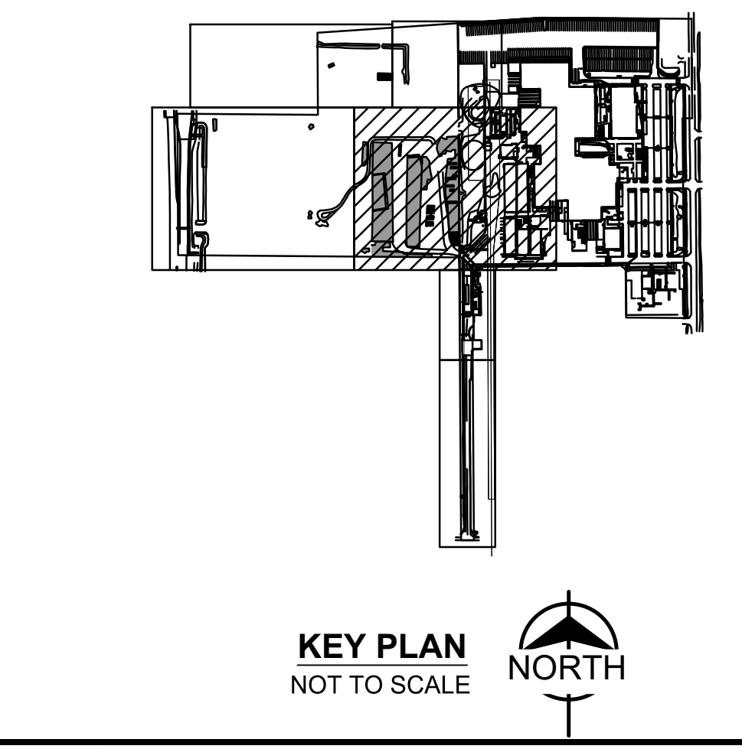
PRELIMINARY - NOT FOR CONSTRUCTION

GENERAL NOTES

1. REMOVE CONCRETE PAVEMENT TO NEAREST JOINT
2. SEE ELECTRICAL FOR EXTENT OF ROUTING ASSOCIATED WITH PAVEMENT CUTS AND REPLACEMENT

DEMOLITION NOTES

1. SAWCUT AND REMOVE ASPHALT PAVEMENT
2. REMOVE CONCRETE PAVEMENT
3. REMOVE CONCRETE CURB
4. REMOVE CONCRETE CURB AND GUTTER
5. REMOVE CONCRETE VALLEY GUTTER
6. REMOVE WALL
7. REMOVE CHAIN LINK FENCE
8. REMOVE BARBED WIRE FENCE
9. REMOVE BARRIER POST
10. REMOVE CHAIN LINK GATE
11. REMOVE LIGHT POLE
12. REMOVE RIP RAP
13. REMOVE AND RELOCATE TRAILER
14. RELOCATE MOBILE OFFICE MINI
15. REMOVE ABANDONED BUILDING
16. REMOVE HEADWALL
17. REMOVE EXCESS MATERIAL
18. REMOVE SIDEWALK
19. REMOVE GRAVEL
20. REMOVE WATER VALVE
21. REMOVE FIRE DEPARTMENT CONNECTION
22. REMOVE FIRE HYDRANT



KEY PLAN
NOT TO SCALE

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

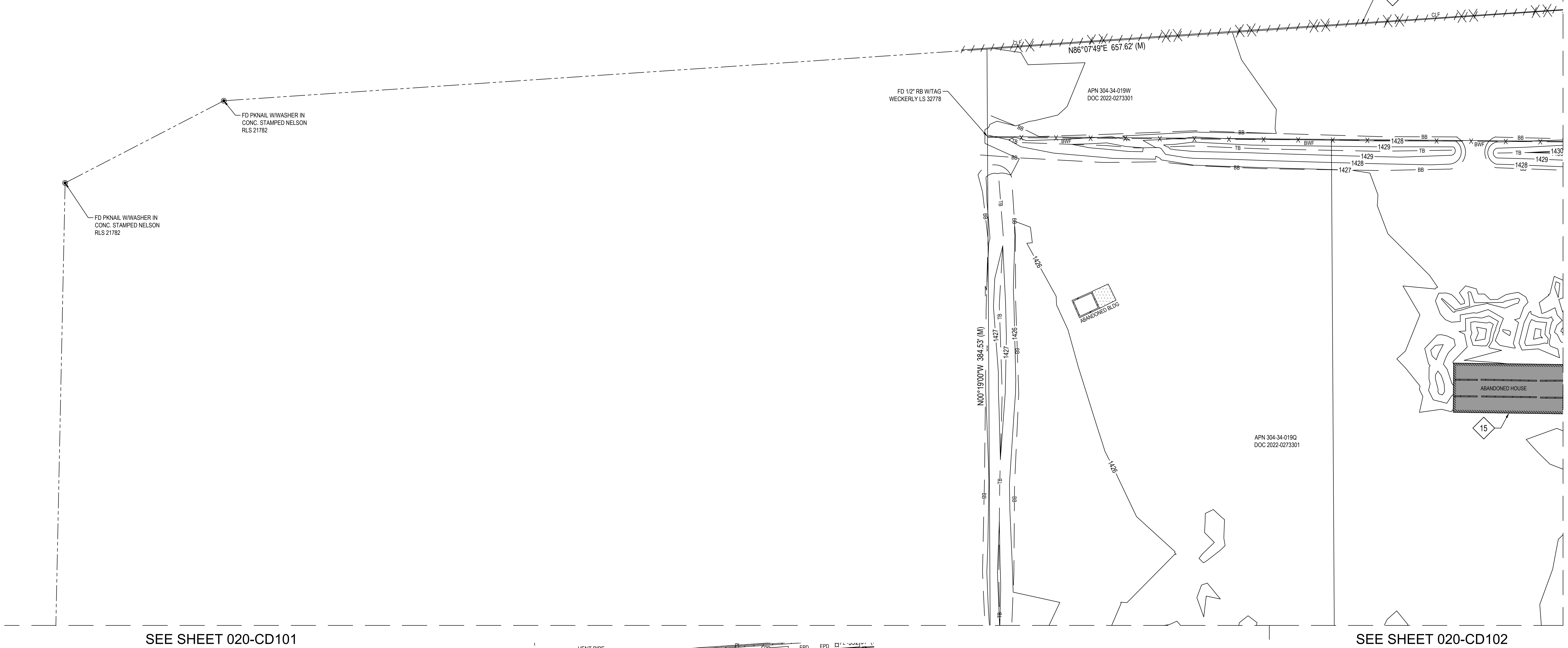
FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN

DEMOLITION PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-CD102
SHEET ---- OF ##

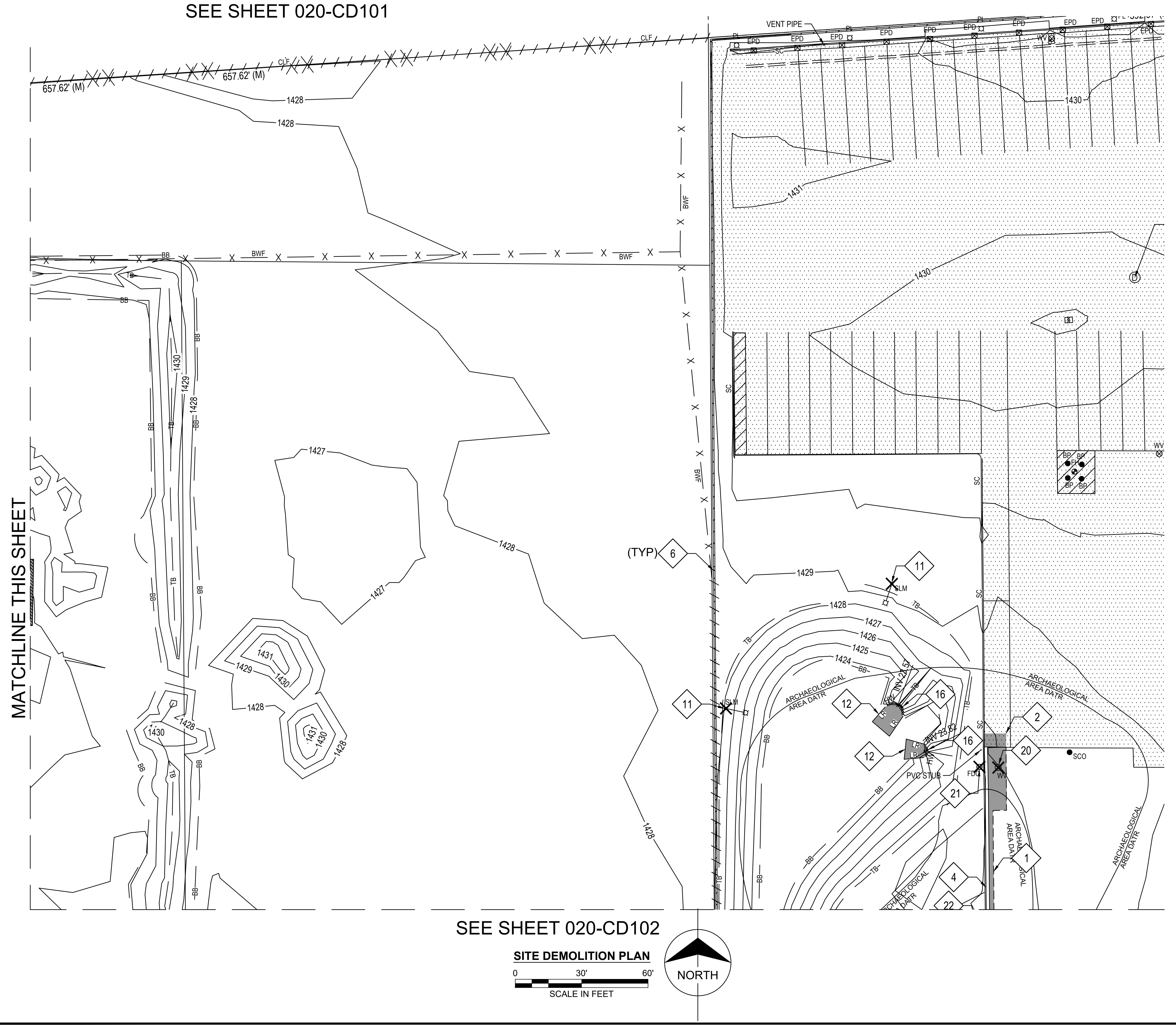

7 (TYP)
CLF
N86°07'49"E 657.62' (M)
FD PKNAIL W/WASHER IN
CONC. STAMPED NELSON
RLS 21782
FD PKNAIL W/WASHER IN
CONC. STAMPED NELSON
RLS 21782
FD 1/2" RB W/TAG
WECKERLY LS 32778
APN 304-34-019W
DOC 2022-0273301
BWF
BB
TB
1428
1429
1427
1430
1426
ABANDONED BLDG
N00°19'00"W 384.53' (M)
APN 304-34-019Q
DOC 2022-0273301
ABANDONED HOUSE
15
MATCHLINE THIS SHEET
SEE SHEET 020-CD101
SEE SHEET 020-CD102

SITE DEMOLITION PLAN

0 30' 60'

SCALE IN FEET

NORTH


VENT PIPE
EPD
CLF
657.62' (M)
1428
1430
1431
BWF
BB
TB
1429
1427
1426
1425
1424
MATCHLINE THIS SHEET
(TYP) 6
11
12
16
2
20
21
1
4
22
ARCHAEOLOGICAL AREA DATR
PVC STUB
SCO
SC
SEE SHEET 020-CD102

SITE DEMOLITION PLAN

0 30' 60'

SCALE IN FEET

NORTH

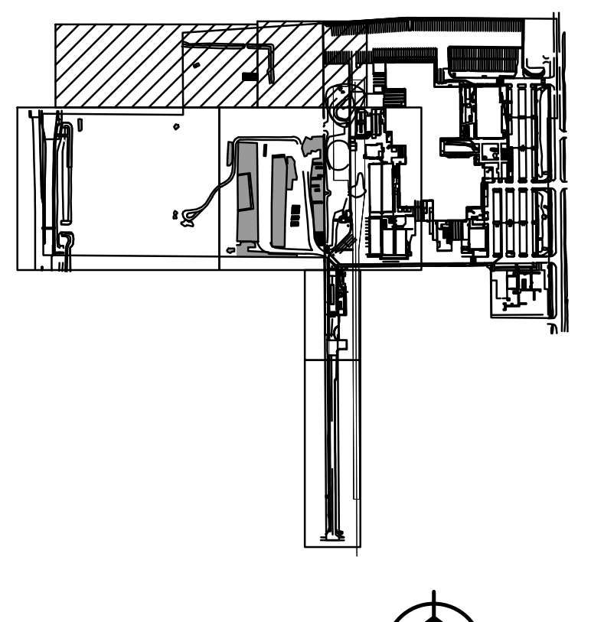
PRELIMINARY - NOT FOR CONSTRUCTION

GENERAL NOTES

1. REMOVE CONCRETE PAVEMENT TO NEAREST JOINT
2. SEE ELECTRICAL FOR EXTENT OF ROUTING ASSOCIATED WITH PAVEMENT CUTS AND REPLACEMENT

DEMOLITION NOTES

1. SAWCUT AND REMOVE ASPHALT PAVEMENT
2. REMOVE CONCRETE PAVEMENT
3. REMOVE CONCRETE CURB
4. REMOVE CONCRETE CURB AND GUTTER
5. REMOVE CONCRETE VALLEY GUTTER
6. REMOVE WALL
7. REMOVE CHAIN LINK FENCE
8. REMOVE BARBED WIRE FENCE
9. REMOVE BARRIER POST
10. REMOVE CHAIN LINK GATE
11. REMOVE LIGHT POLE
12. REMOVE RIP RAP
13. REMOVE AND RELOCATE TRAILER
14. RELOCATE MOBILE OFFICE MINI
15. REMOVE ABANDONED BUILDING
16. REMOVE HEADWALL
17. REMOVE EXCESS MATERIAL
18. REMOVE SIDEWALK
19. REMOVE GRAVEL
20. REMOVE WATER VALVE
21. REMOVE FIRE DEPARTMENT CONNECTION
22. REMOVE FIRE HYDRANT



KEY PLAN

NOT TO SCALE

NORTH

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

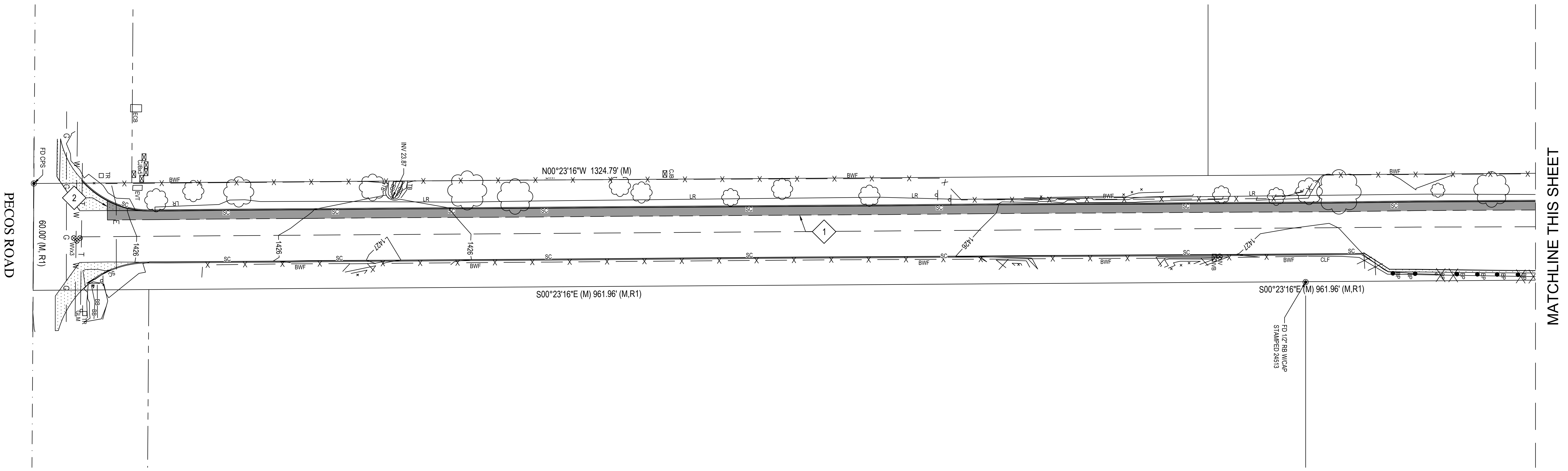
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
DEMOLITION PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

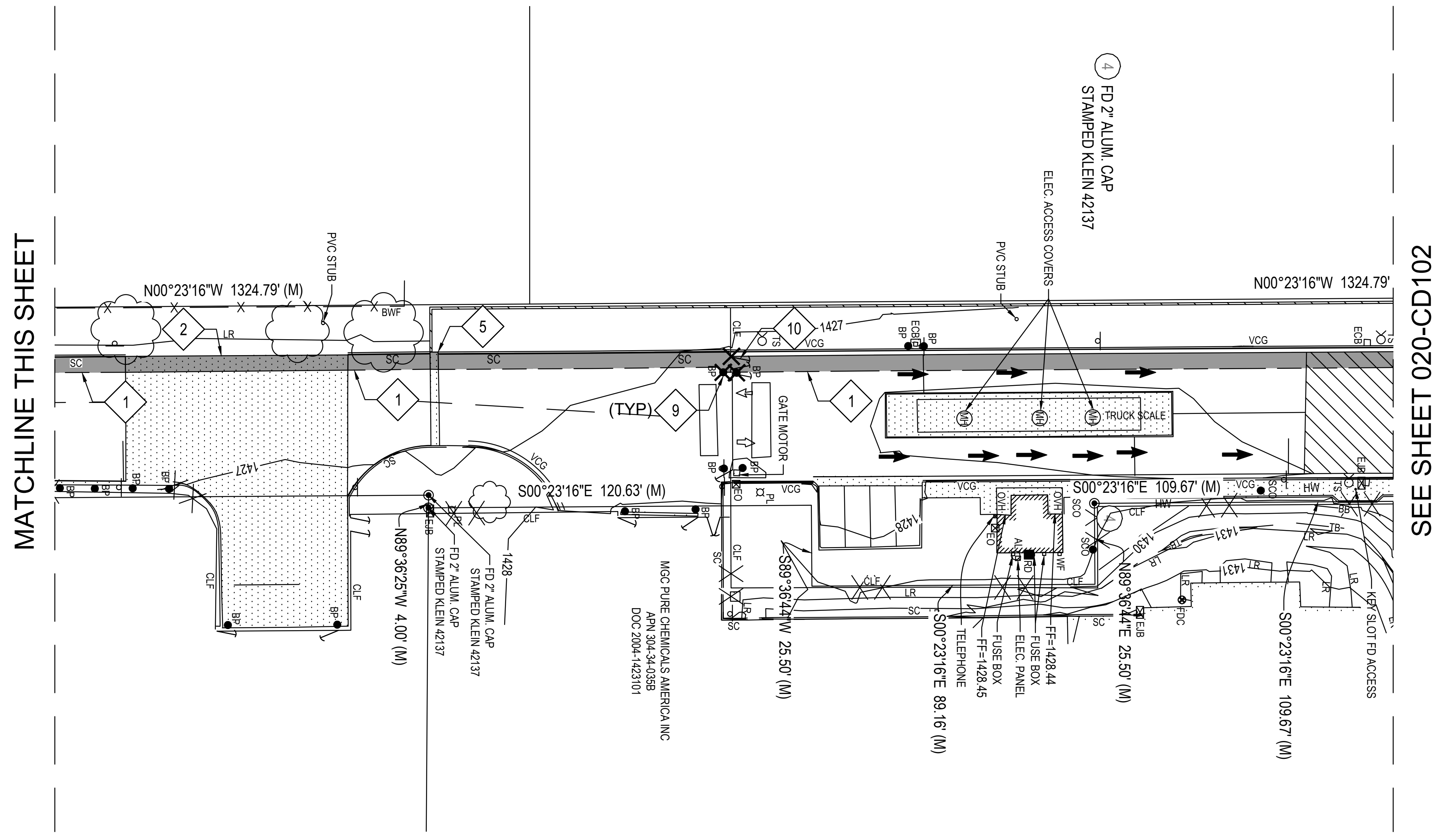
DRAWING
020-CD103
SHEET ---- OF ##


PECOS ROAD
60.00' (M,R1)
N00°23'16"W 1324.79' (M)
S00°23'16"E (M) 961.96' (M,R1)
S00°23'16"E (M) 961.96' (M,R1)
FD 1/2" RB W/CAP STAMPED 24513
FD CPS
INV 23.87
BWF
LR
SC
CLF
1426
1427
1
2
MATCHLINE THIS SHEET

SITE DEMOLITION PLAN

0 30' 60'
SCALE IN FEET

NORTH


MATCHLINE THIS SHEET
SEE SHEET 020-CD102
N00°23'16"W 1324.79' (M)
N00°23'16"W 1324.79'
PVC STUB
FD 2" ALUM. CAP STAMPED KLEIN 42137
ELEC. ACCESS COVERS
TRUCK SCALE
GATE MOTOR
(TYP)
1
2
5
9
10
4
S00°23'16"E 120.63' (M)
S00°23'16"E 109.67' (M)
N89°36'25"W 4.00' (M)
S89°36'44"W 25.50' (M)
N89°36'44"E 25.50' (M)
S00°23'16"E 89.16' (M)
S00°23'16"E 109.67' (M)
MGC PURE CHEMICALS AMERICA INC APN 304-34-035B DOC 2004-1423101
FF=1428.44
FUSE BOX
ELEC. PANEL
FUSE BOX
FF=1428.45
TELEPHONE
KEY SLOT FD ACCESS
1427
1428
1430
1431
BWF
LR
SC
CLF
VCG
BP
SCO
FDC

SITE DEMOLITION PLAN

0 30' 60'
SCALE IN FEET

NORTH

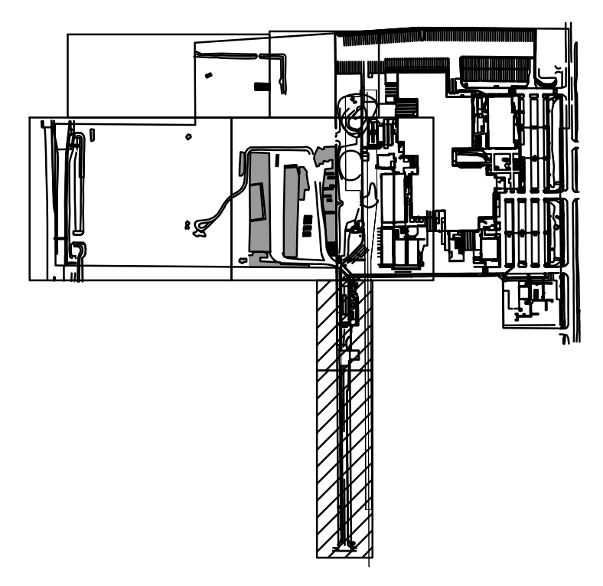
PRELIMINARY - NOT FOR CONSTRUCTION

GENERAL NOTES

1. REMOVE CONCRETE PAVEMENT TO NEAREST JOINT
2. SEE ELECTRICAL FOR EXTENT OF ROUTING ASSOCIATED WITH PAVEMENT CUTS AND REPLACEMENT

DEMOLITION NOTES

1. SAWCUT AND REMOVE ASPHALT PAVEMENT
2. REMOVE CONCRETE PAVEMENT
3. REMOVE CONCRETE CURB
4. REMOVE CONCRETE CURB AND GUTTER
5. REMOVE CONCRETE VALLEY GUTTER
6. REMOVE WALL
7. REMOVE CHAIN LINK FENCE
8. REMOVE BARBED WIRE FENCE
9. REMOVE BARRIER POST
10. REMOVE CHAIN LINK GATE
11. REMOVE LIGHT POLE
12. REMOVE RIP RAP
13. REMOVE AND RELOCATE TRAILER
14. RELOCATE MOBILE OFFICE MINI
15. REMOVE ABANDONED BUILDING
16. REMOVE HEADWALL
17. REMOVE EXCESS MATERIAL
18. REMOVE SIDEWALK
19. REMOVE GRAVEL
20. REMOVE WATER VALVE
21. REMOVE FIRE DEPARTMENT CONNECTION
22. REMOVE FIRE HYDRANT



KEY PLAN
NOT TO SCALE

NORTH

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

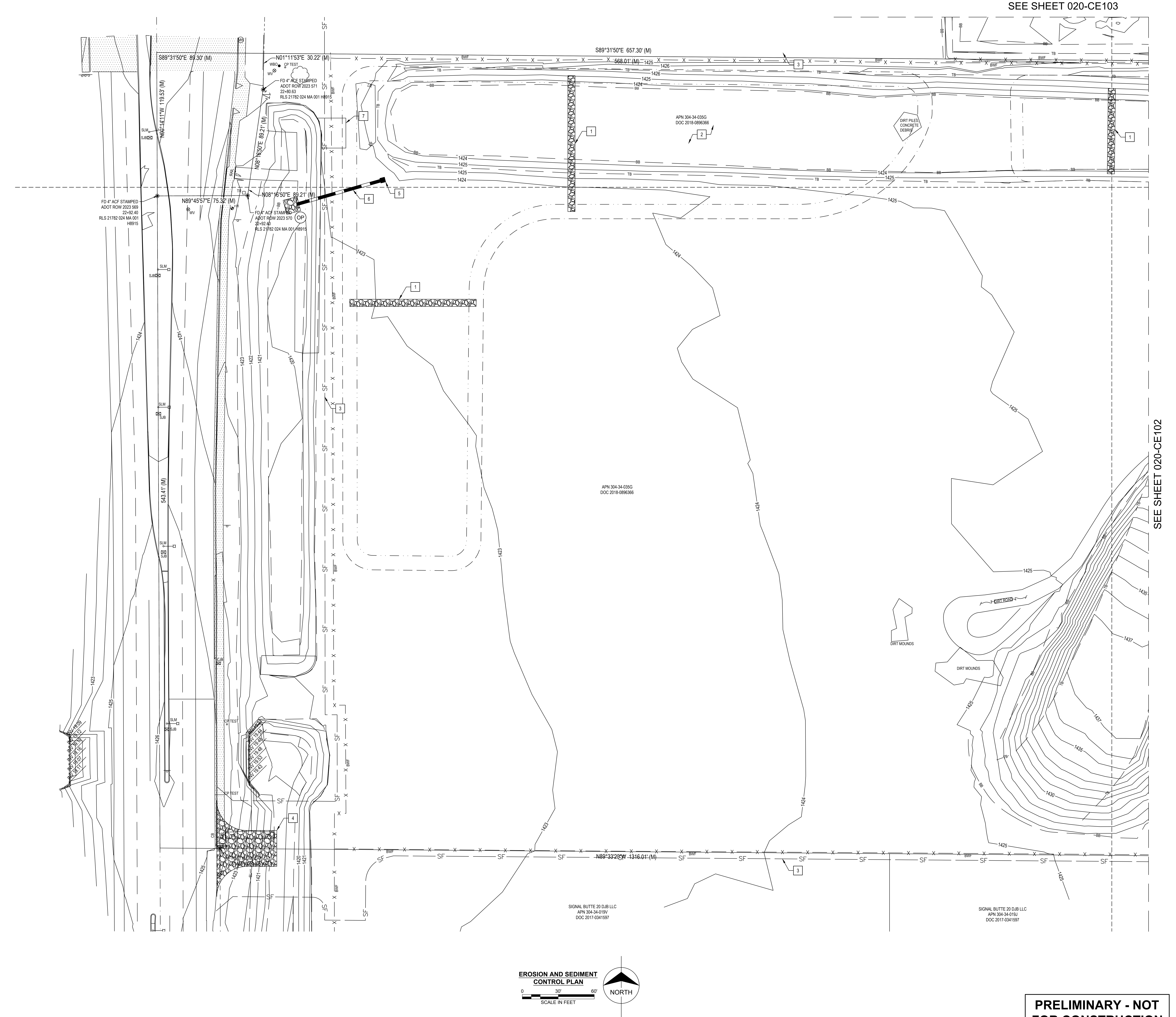
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
DEMOLITION PLAN

FUJI NO.: CLIENT PROJ. NO.
A&E FIRM NO.: 147051
DRAWN: C.WILLIAMS
CHECKED: A.MONSOUR
DATE: 01/14/2025
SCALE: AS NOTED
DRAWING
020-CD104
SHEET ---- OF ##

SEE SHEET 020-CE103


S89°31'50"E 89.30' (M)
N01°11'53"E 30.22' (M)
S89°31'50"E 657.30' (M)
568.01' (M)
N00°14'11"W 119.53' (M)
N08°16'50"E 89.21' (M)
N08°16'50"E 89.21' (M)
N89°45'57"E 75.32' (M)
543.41' (M)
N89°33'20"W 1316.01' (M)
FD 4" ACF STAMPED ADOT ROW 2023 571 22+80.63 RLS 21782 024 MA 001 H8915
FD 4" ACF STAMPED ADOT ROW 2023 569 22+92.40 RLS 21782 024 MA 001 H8915
FD 4" ACF STAMPED ADOT ROW 2023 570 22+92.40 RLS 21782 024 MA 001 H8915
CP TEST
OP
APN 304-34-035G DOC 2018-0896366
APN 304-34-035G DOC 2018-0896366
DIRT PILES CONCRETE DEBRIS
DIRT MOUNDS
DIRT MOUNDS
DIRT ROAD
SIGNAL BUTTE 20 DJB LLC APN 304-34-019V DOC 2017-0341597
SIGNAL BUTTE 20 DJB LLC APN 304-34-019J DOC 2017-0341597
SF
BWF
TB
BB
SLM
SJB
WV
1
2
3
4
5
6
7
1420
1421
1422
1423
1424
1425
1426
1430
1435
1437
0
30'
60'
SCALE IN FEET
NORTH

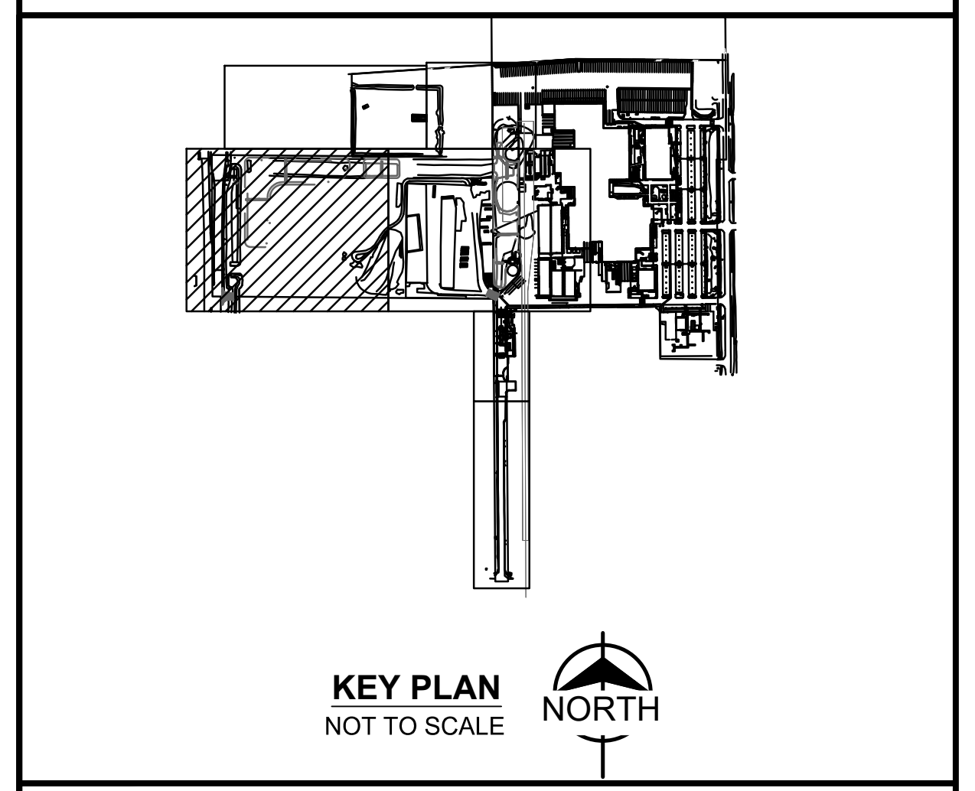
EROSION AND SEDIMENT CONTROL PLAN

SEE SHEET 020-CE102

PRELIMINARY - NOT FOR CONSTRUCTION

#	CONSTRUCTION NOTES

1. GRAVEL FILTER BERM
2. SEDIMENT BASIN
3. SILT FENCE
4. CONSTRUCTION ENTRANCE
5. SEDIMENT TRAP RISER STRUCTURE
6. SEDIMENT TRAP OUTFALL PIPE (24" RCP)
7. SEDIMENT TRAP EMERGENCY SPILLWAY



KEY PLAN
NOT TO SCALE

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

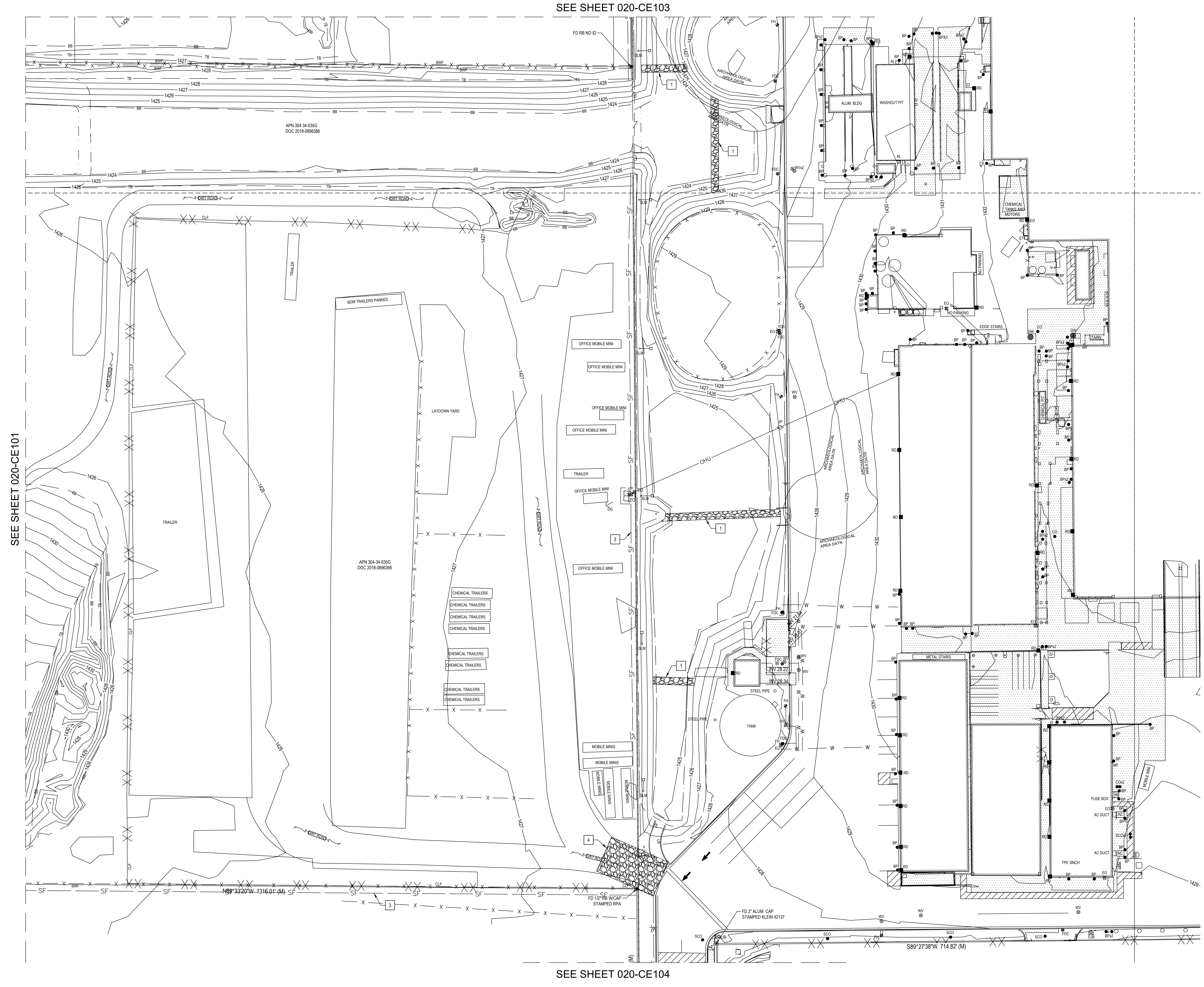
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

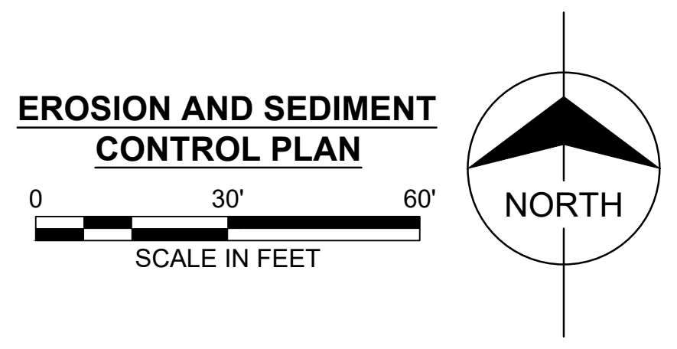
FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
EROSION AND SEDIMENT CONTROL PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020–CE101
SHEET ---- OF ##


SEE SHEET 020-CE103
SEE SHEET 020-CE101
SEE SHEET 020-CE104
FD RB NO ID
APN 304-34-035G
DOC 2018-0896366
DIRT ROAD
TRAILER
SEMI TRAILERS PARKED
LAYDOWN YARD
OFFICE MOBILE MINI
CHEMICAL TRAILERS
MOBILE MINIS
ARCHAEOLOGICAL AREA DATR
ALUM. BLDG
WASHOUT PIT
CHEMICAL TANKS AND MOTORS
NO PARKING
EDGE STAIRS
METAL STAIRS
CHEMICAL PIT
STEEL PIPE
TANK
INV 28.22
INV 28.34
FUSE BOX
AC DUCT
TPE 3INCH
OHU
FD 1/2" RB W/CAP STAMPED RPA
FD 2" ALUM. CAP STAMPED KLEIN 42137
N88°33'20"W 1316.01' (M)
S89°27'38"W 714.82' (M)
1
3
4

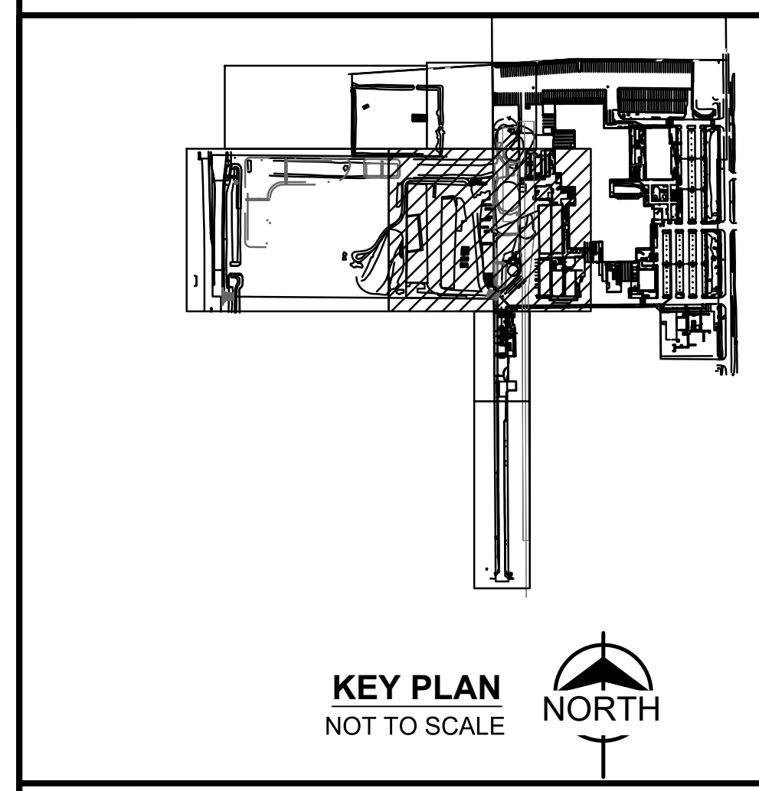
EROSION AND SEDIMENT CONTROL PLAN


0
30'
60'
SCALE IN FEET
NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

CONSTRUCTION NOTES

1. GRAVEL FILTER BERM
2. SEDIMENT BASIN
3. SILT FENCE
4. CONSTRUCTION ENTRANCE
5. SEDIMENT TRAP RISER STRUCTURE
6. SEDIMENT TRAP OUTFALL PIPE (24" RCP)
7. SEDIMENT TRAP EMERGENCY SPILLWAY



KEY PLAN
NOT TO SCALE

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS MCDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

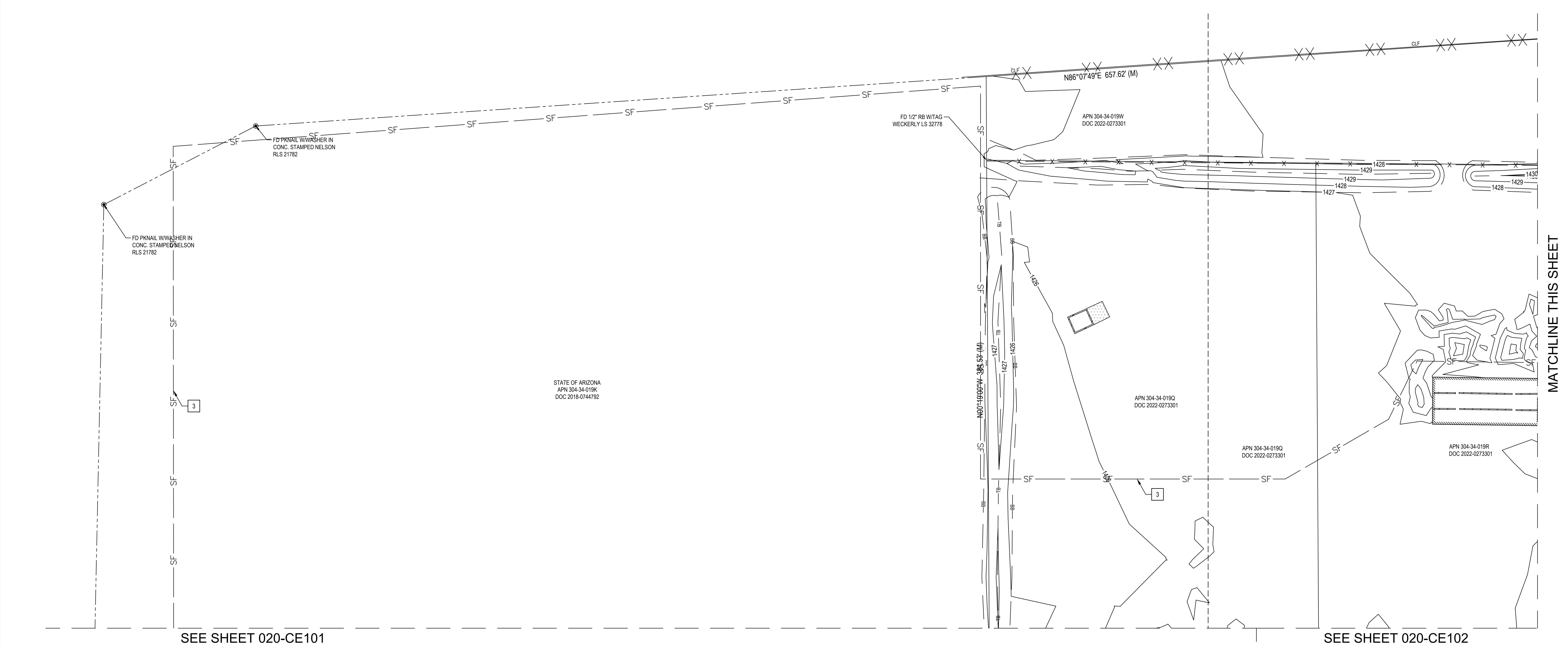
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
EROSION AND SEDIMENT CONTROL PLAN

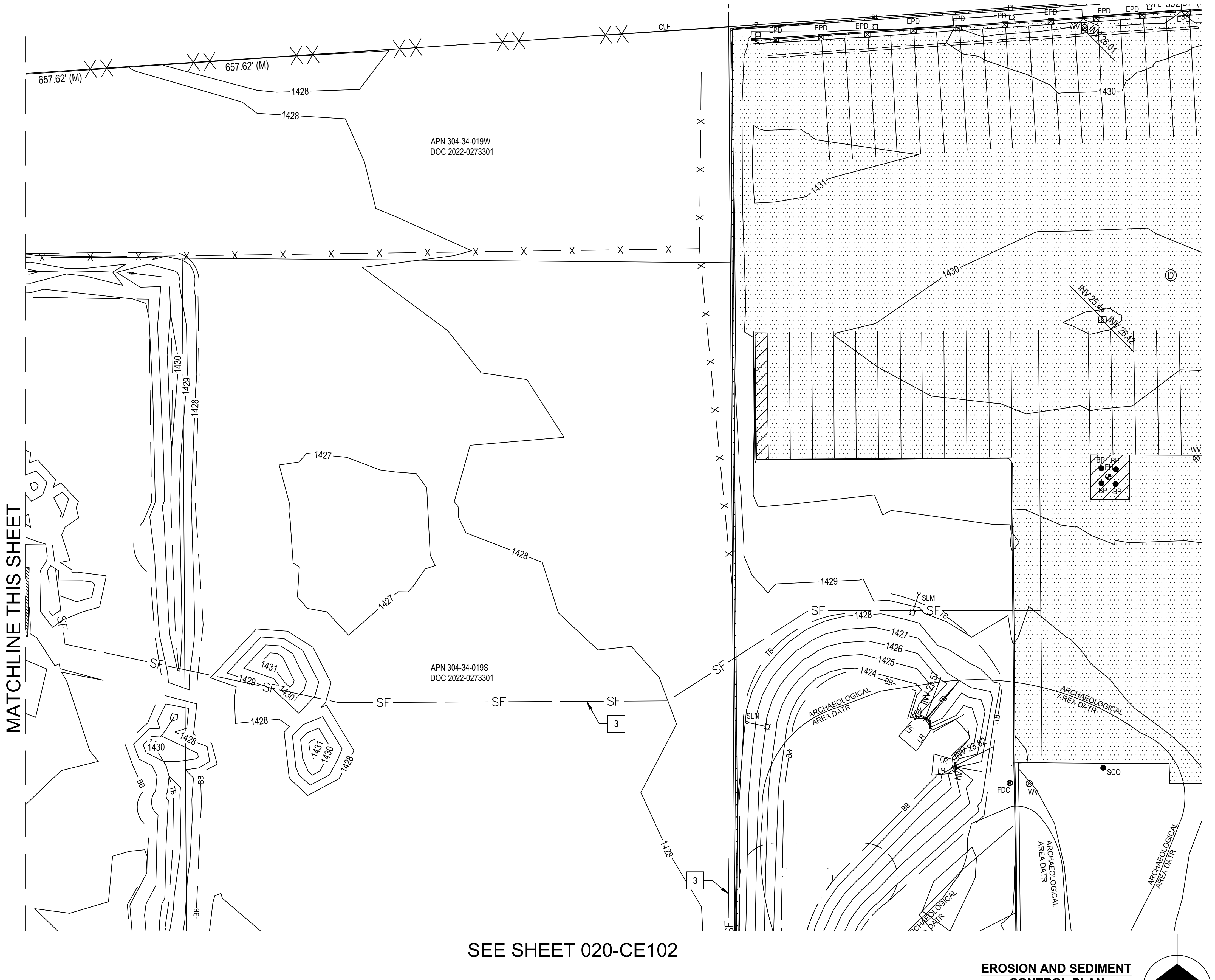
FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020–CE102
SHEET ---- OF ##


N86°07'49"E 657.62' (M)
CLF
SF
FD PKNAIL W/WASHER IN CONC. STAMPED NELSON RLS 21782
FD PKNAIL W/WASHER IN CONC. STAMPED NELSON RLS 21782
FD 1/2" RB W/TAG WECKERLY LS 32778
APN 304-34-019W DOC 2022-0273301
STATE OF ARIZONA APN 304-34-019K DOC 2018-0744792
N00°14'00"W 385.53' (M)
APN 304-34-019Q DOC 2022-0273301
APN 304-34-019Q DOC 2022-0273301
APN 304-34-019R DOC 2022-0273301
1426
1427
1428
1429
1430
3
MATCHLINE THIS SHEET

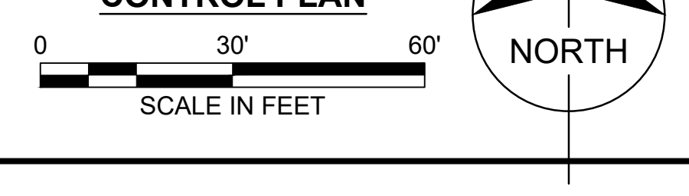
SEE SHEET 020-CE101

SEE SHEET 020-CE102


657.62' (M)
CLF
EPD
APN 304-34-019W DOC 2022-0273301
APN 304-34-019S DOC 2022-0273301
1427
1428
1429
1430
1431
INV 25.44
INV 25.42
SLM
ARCHAEOLOGICAL AREA DATR
FDC
WV
SCO
3
MATCHLINE THIS SHEET

SEE SHEET 020-CE102

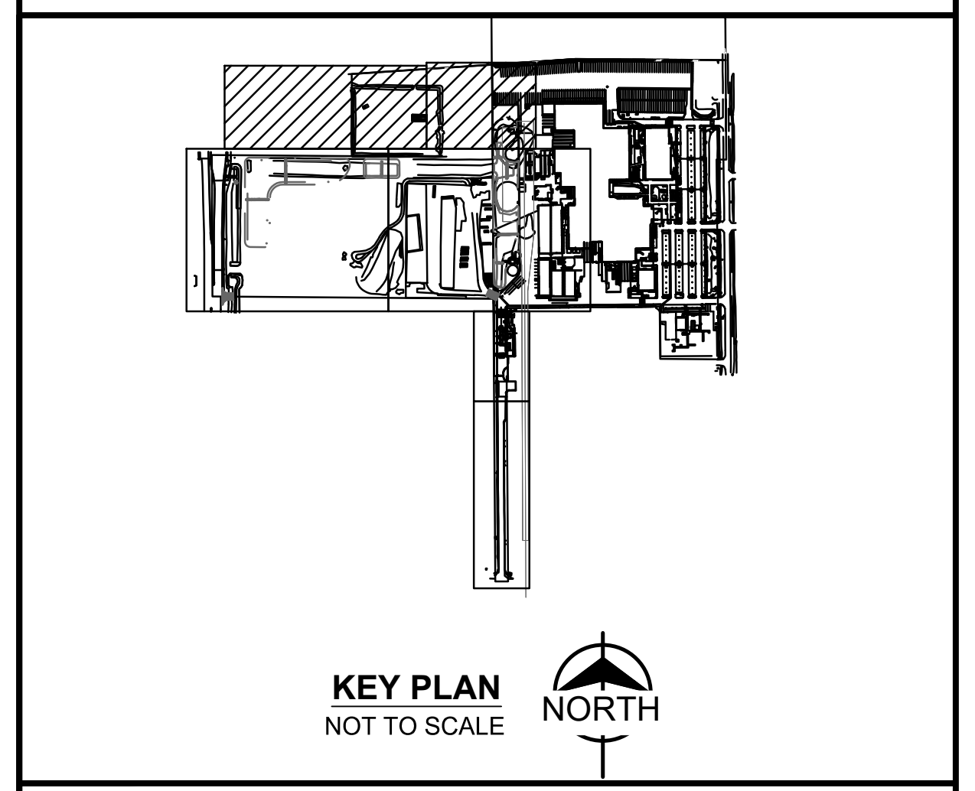
EROSION AND SEDIMENT CONTROL PLAN


0
30'
60'
SCALE IN FEET
NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

#	CONSTRUCTION NOTES

1. GRAVEL FILTER BERM
2. SEDIMENT BASIN
3. SILT FENCE
4. CONSTRUCTION ENTRANCE
5. SEDIMENT TRAP RISER STRUCTURE
6. SEDIMENT TRAP OUTFALL PIPE (24" RCP)
7. SEDIMENT TRAP EMERGENCY SPILLWAY



KEY PLAN
NOT TO SCALE

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

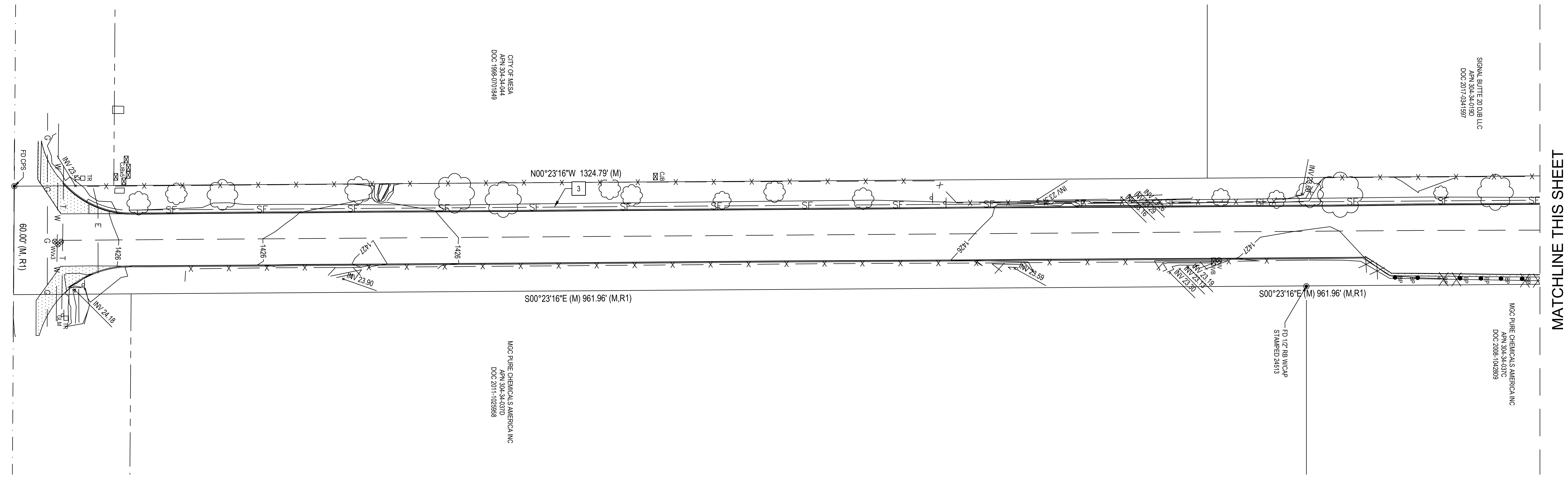
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
EROSION AND SEDIMENT CONTROL PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

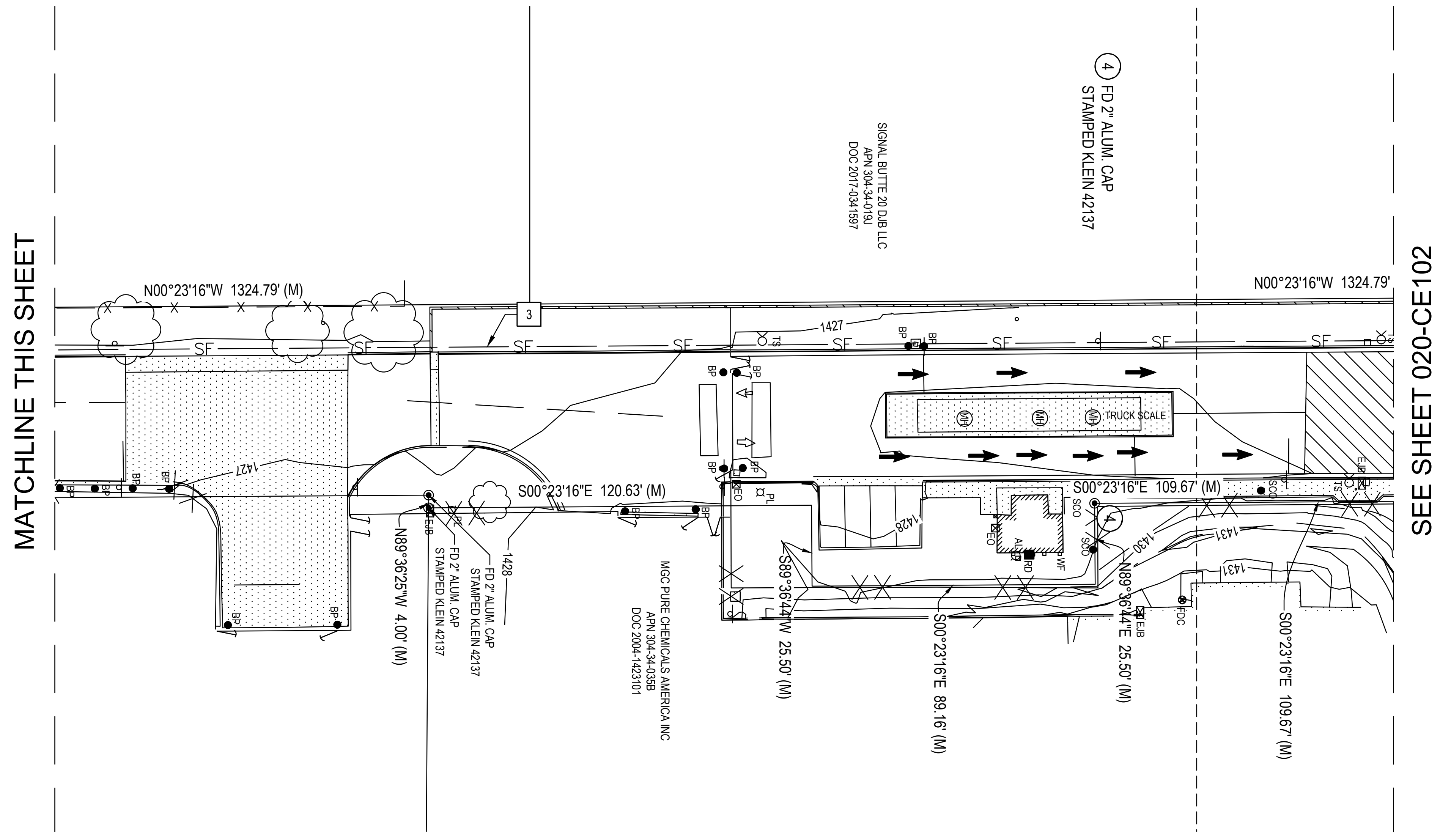
DRAWING
020-CE103
SHEET ---- OF ##


CITY OF MESA
N00°23'16"W 1324.79' (M)
3
SF
60.00' (M,R1)
1426
1427
S00°23'16"E (M) 961.96' (M,R1)
S00°23'16"E (M) 961.96' (M,R1)
FD 1/2" RB W/CAP STAMPED 24513
MSC PURE CHEMICALS AMERICA INC
SIGNAL BUTTE 20 DJB LLC
MATCHLINE THIS SHEET

EROSION AND SEDIMENT CONTROL PLAN

0 30' 60'
SCALE IN FEET

NORTH


MATCHLINE THIS SHEET
N00°23'16"W 1324.79' (M)
N00°23'16"W 1324.79'
3
SF
4
FD 2" ALUM. CAP STAMPED KLEIN 42137
SIGNAL BUTTE 20 DJB LLC
TRUCK SCALE
S00°23'16"E 120.63' (M)
S00°23'16"E 109.67' (M)
N89°36'25"W 4.00' (M)
FD 2" ALUM. CAP STAMPED KLEIN 42137
MSC PURE CHEMICALS AMERICA INC
S89°36'44"W 25.50' (M)
S00°23'16"E 89.16' (M)
N89°36'44"E 25.50' (M)
S00°23'16"E 109.67' (M)
SEE SHEET 020-CE102

EROSION AND SEDIMENT CONTROL PLAN

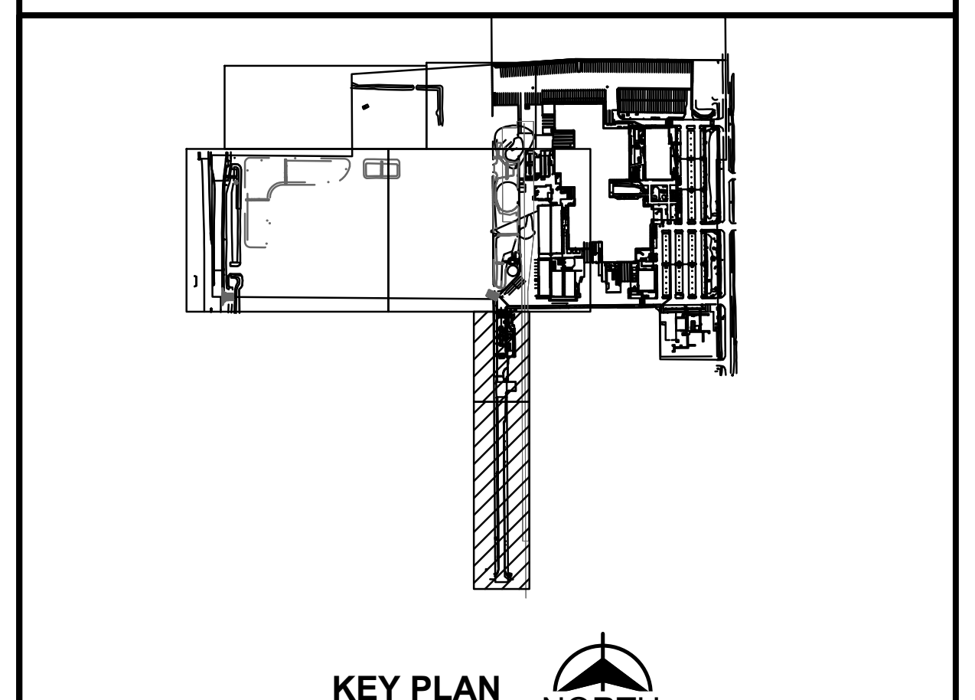
0 30' 60'
SCALE IN FEET

NORTH

CONSTRUCTION NOTES

1. GRAVEL FILTER BERM
2. SEDIMENT BASIN
3. SILT FENCE
4. CONSTRUCTION ENTRANCE
5. SEDIMENT TRAP RISER STRUCTURE
6. SEDIMENT TRAP OUTFALL PIPE (24" RCP)
7. SEDIMENT TRAP EMERGENCY SPILLWAY

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.



KEY PLAN
NOT TO SCALE
NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

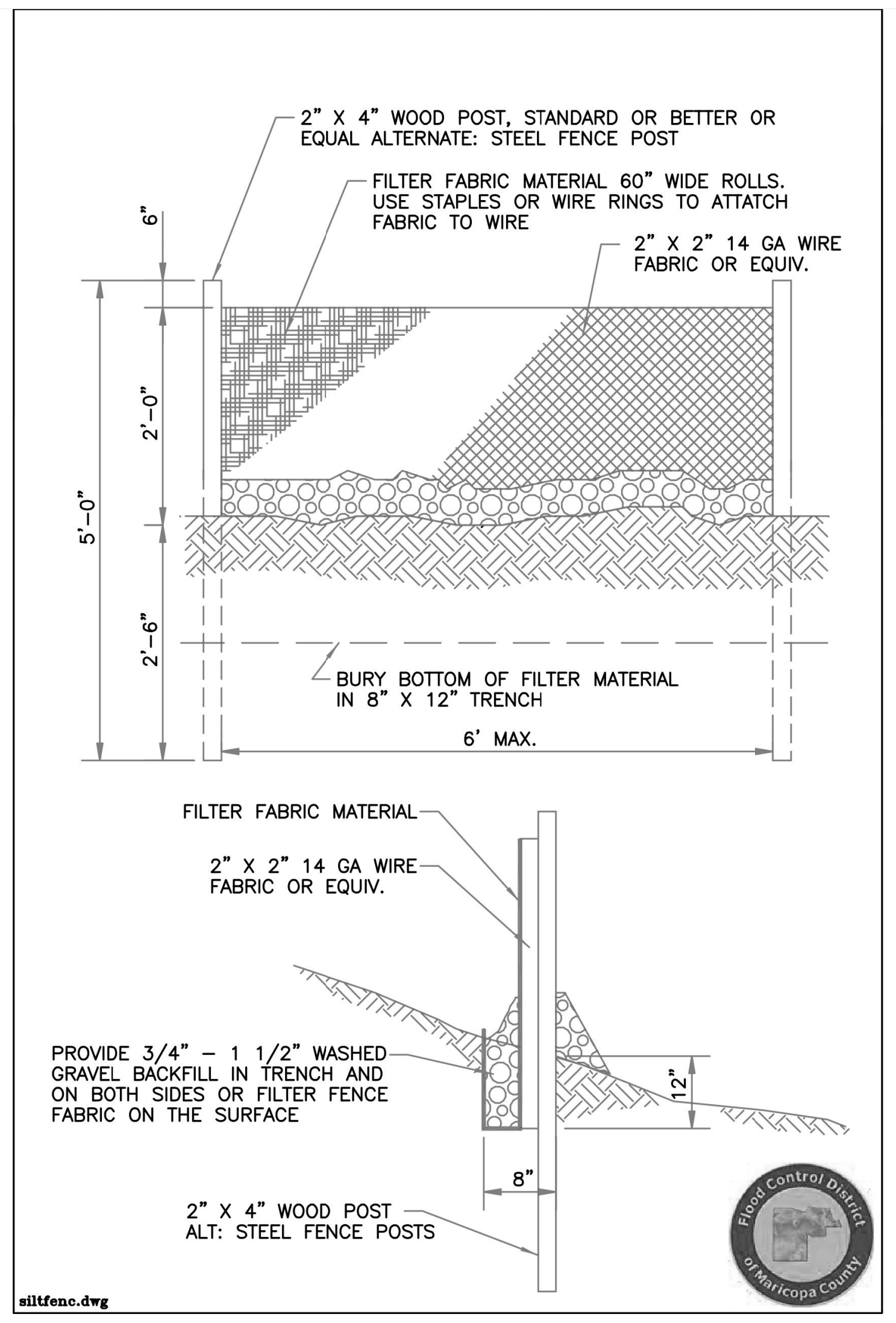
FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
EROSION AND SEDIMENT CONTROL PLAN

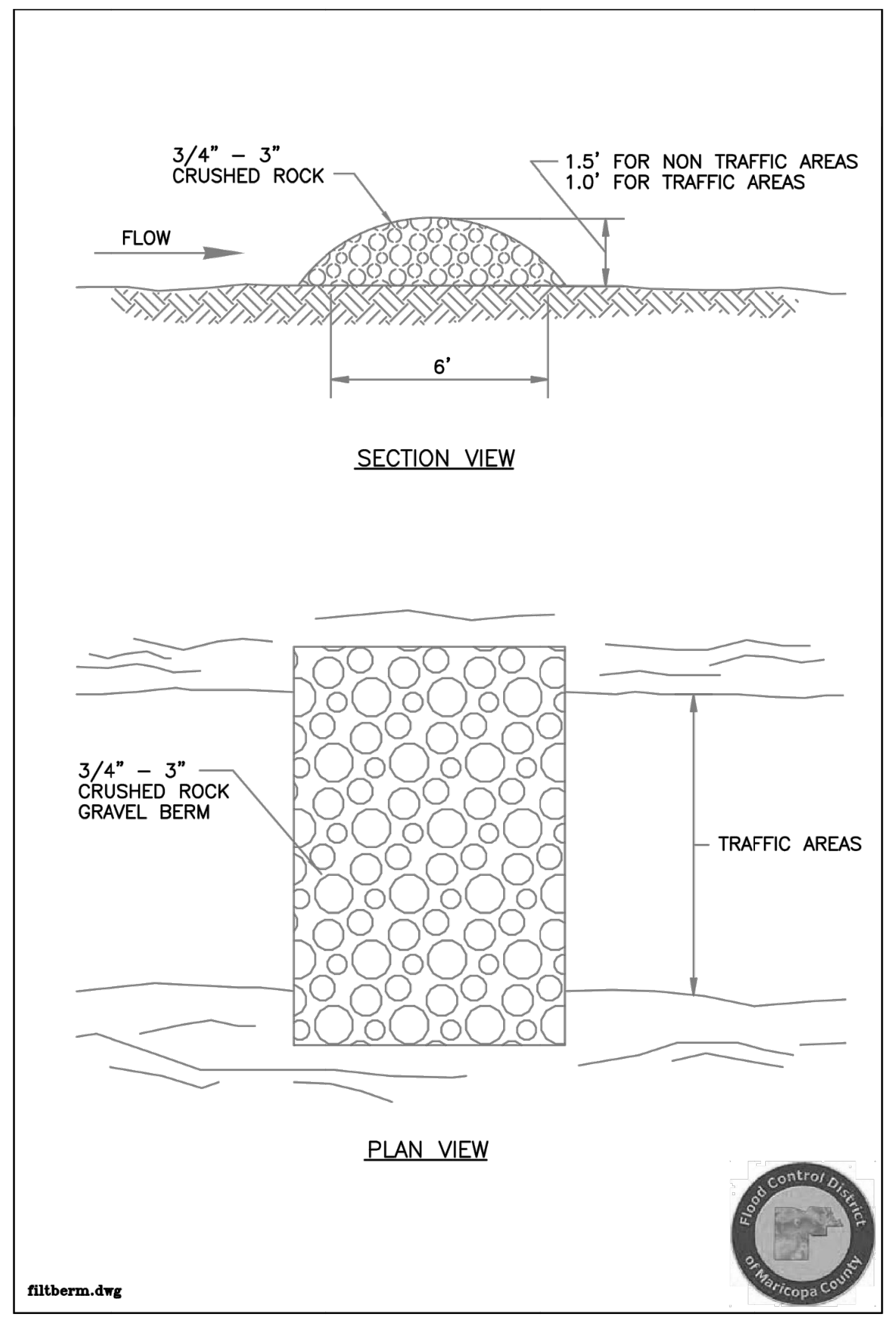
FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-CE104
SHEET ---- OF ##

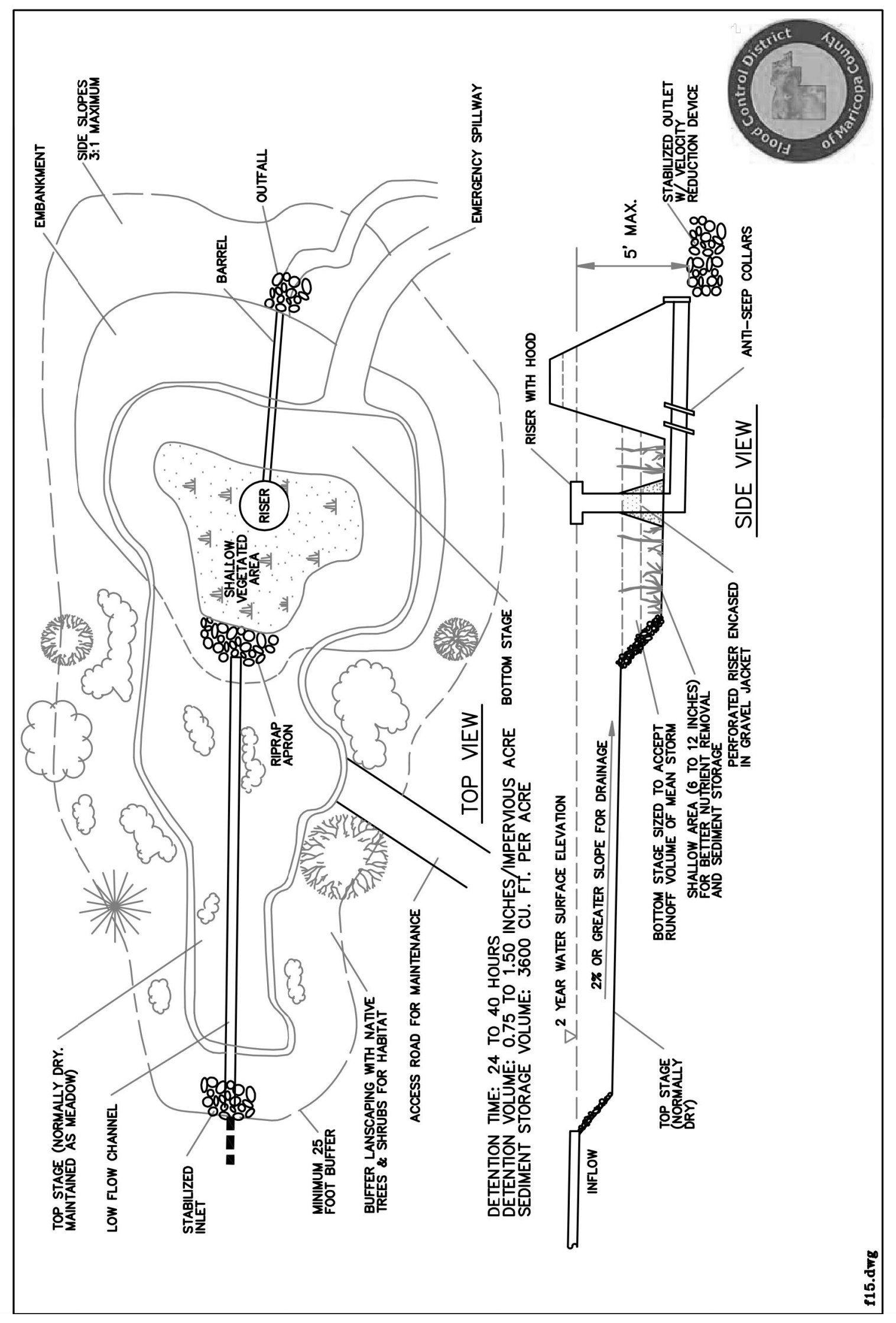
SPC-5 Silt Fence Drawing


2" X 4" WOOD POST, STANDARD OR BETTER OR EQUAL ALTERNATE: STEEL FENCE POST
FILTER FABRIC MATERIAL 60" WIDE ROLLS. USE STAPLES OR WIRE RINGS TO ATTACH FABRIC TO WIRE
2" X 2" 14 GA WIRE FABRIC OR EQUIV.
6"
2'-0"
5'-0"
2'-6"
BURY BOTTOM OF FILTER MATERIAL IN 8" X 12" TRENCH
6' MAX.
FILTER FABRIC MATERIAL
2" X 2" 14 GA WIRE FABRIC OR EQUIV.
PROVIDE 3/4" – 1 1/2" WASHED GRAVEL BACKFILL IN TRENCH AND ON BOTH SIDES OR FILTER FENCE FABRIC ON THE SURFACE
12"
8"
2" X 4" WOOD POST ALT: STEEL FENCE POSTS
siltfenc.dwg
Flood Control District of Maricopa County

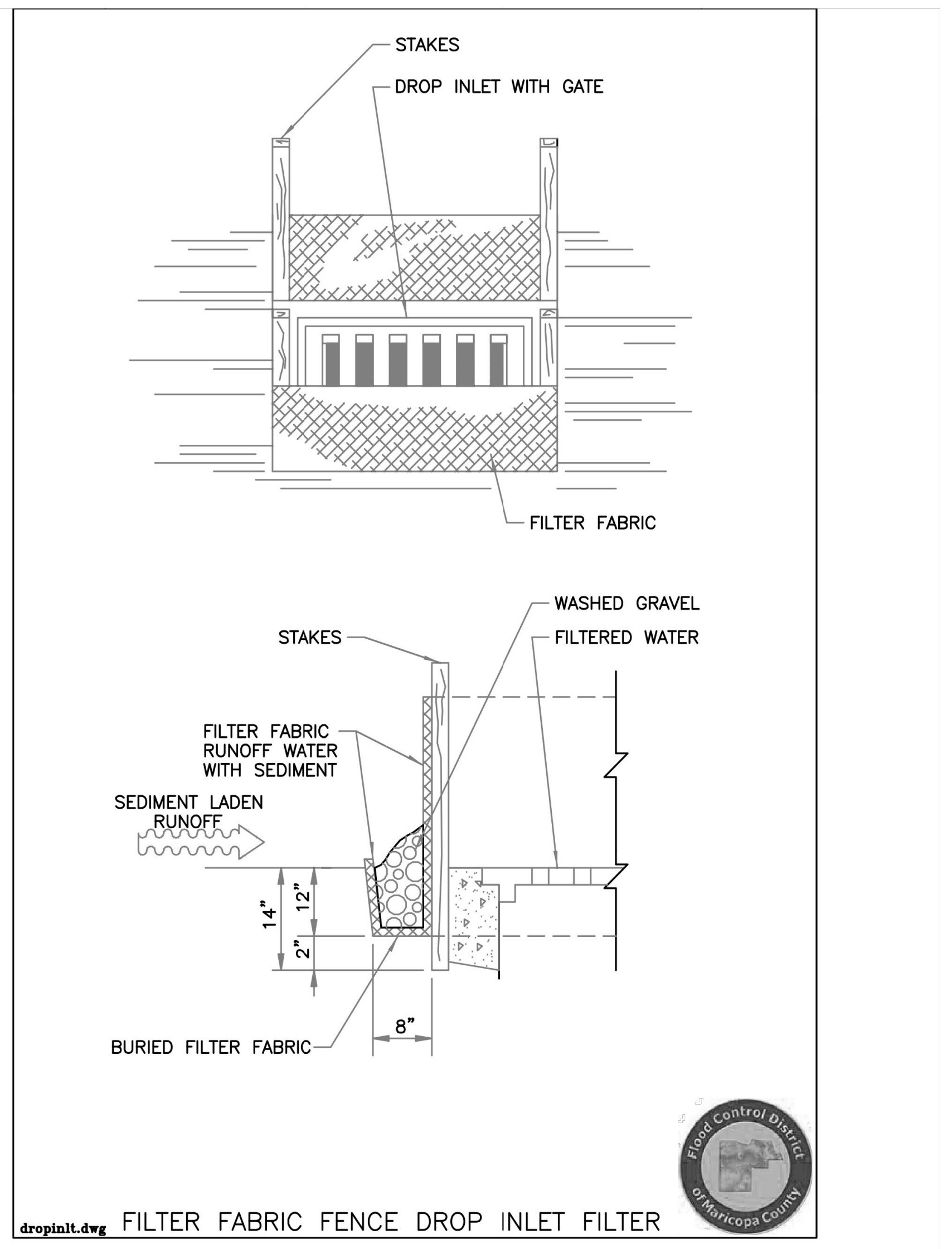
SPC-3 Gravel Filter Berms Drawing


3/4" – 3" CRUSHED ROCK
1.5' FOR NON TRAFFIC AREAS
1.0' FOR TRAFFIC AREAS
FLOW
6'
SECTION VIEW
3/4" – 3" CRUSHED ROCK GRAVEL BERM
TRAFFIC AREAS
PLAN VIEW
filtberm.dwg
Flood Control District of Maricopa County

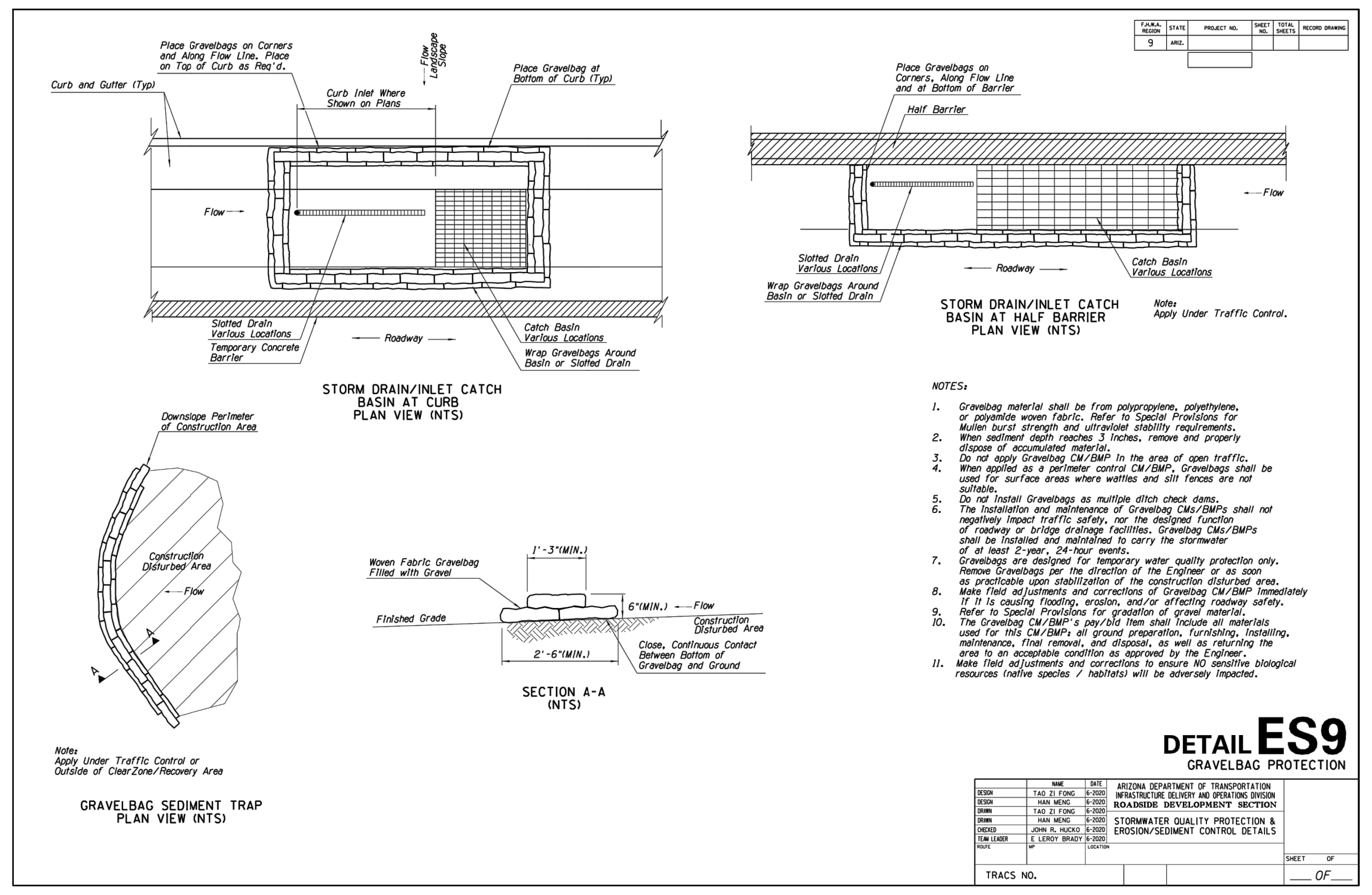
SPC-8 Temporary Sediment Basins Drawing


EMBANKMENT
SIDE SLOPES 3:1 MAXIMUM
BARREL
OUTFALL
EMERGENCY SPILLWAY
STABILIZED OUTLET W/ VELOCITY REDUCTION DEVICE
5' MAX.
ANTI-SEEP COLLARS
RISER WITH HOOD
SIDE VIEW
RISER
SHALLOW VEGETATED AREA
BOTTOM STAGE
RIPRAP APRON
TOP VIEW
TOP STAGE (NORMALLY DRY. MAINTAINED AS MEADOW)
LOW FLOW CHANNEL
STABILIZED INLET
MINIMUM 25 FOOT BUFFER
BUFFER LANSCAPING WITH NATIVE TREES & SHRUBS FOR HABITAT
ACCESS ROAD FOR MAINTENANCE
DETENTION TIME: 24 TO 40 HOURS
DETENTION VOLUME: 0.75 TO 1.50 INCHES/IMPERVIOUS ACRE
SEDIMENT STORAGE VOLUME: 3600 CU. FT. PER ACRE
2 YEAR WATER SURFACE ELEVATION
2% OR GREATER SLOPE FOR DRAINAGE
INFLOW
TOP STAGE (NORMALLY DRY)
BOTTOM STAGE SIZED TO ACCEPT RUNOFF VOLUME OF MEAN STORM
SHALLOW AREA (6 TO 12 INCHES) FOR BETTER NUTRIENT REMOVAL AND SEDIMENT STORAGE
PERFORATED RISER ENCASED IN GRAVEL JACKET
f15.dwg
Flood Control District of Maricopa County

SPC-7 Storm Drain Drop Inlet Protection Drawing


STAKES
DROP INLET WITH GATE
FILTER FABRIC
WASHED GRAVEL
STAKES
FILTERED WATER
FILTER FABRIC RUNOFF WATER WITH SEDIMENT
SEDIMENT LADEN RUNOFF
14"
12"
2"
8"
BURIED FILTER FABRIC
dropinlt.dwg
Flood Control District of Maricopa County

FILTER FABRIC FENCE DROP INLET FILTER


F.H.W.A. REGION
STATE
PROJECT NO.
SHEET NO.
TOTAL SHEETS
RECORD DRAWING
9
ARIZ.
Curb and Gutter (Typ)
Place Gravelbags on Corners and Along Flow Line. Place on Top of Curb as Req'd.
Flow
Landscape Slope
Curb Inlet Where Shown on Plans
Place Gravelbag at Bottom of Curb (Typ)
Flow
Slotted Drain Various Locations
Temporary Concrete Barrier
Roadway
Catch Basin Various Locations
Wrap Gravelbags Around Basin or Slotted Drain
Place Gravelbags on Corners, Along Flow Line and at Bottom of Barrier
Half Barrier
Flow
Slotted Drain Various Locations
Wrap Gravelbags Around Basin or Slotted Drain
Roadway
Catch Basin Various Locations
Downslope Perimeter of Construction Area
Construction Disturbed Area
Flow
A
Woven Fabric Gravelbag Filled with Gravel
1'-3"(MIN.)
6"(MIN.)
Flow
Finished Grade
Construction Disturbed Area
2'-6"(MIN.)
Close, Continuous Contact Between Bottom of Gravelbag and Ground

STORM DRAIN/INLET CATCH BASIN AT CURB PLAN VIEW (NTS)

STORM DRAIN/INLET CATCH BASIN AT HALF BARRIER PLAN VIEW (NTS)

Note:
Apply Under Traffic Control.

SECTION A-A (NTS)

Note:
Apply Under Traffic Control or Outside of ClearZone/Recovery Area

GRAVELBAG SEDIMENT TRAP PLAN VIEW (NTS)

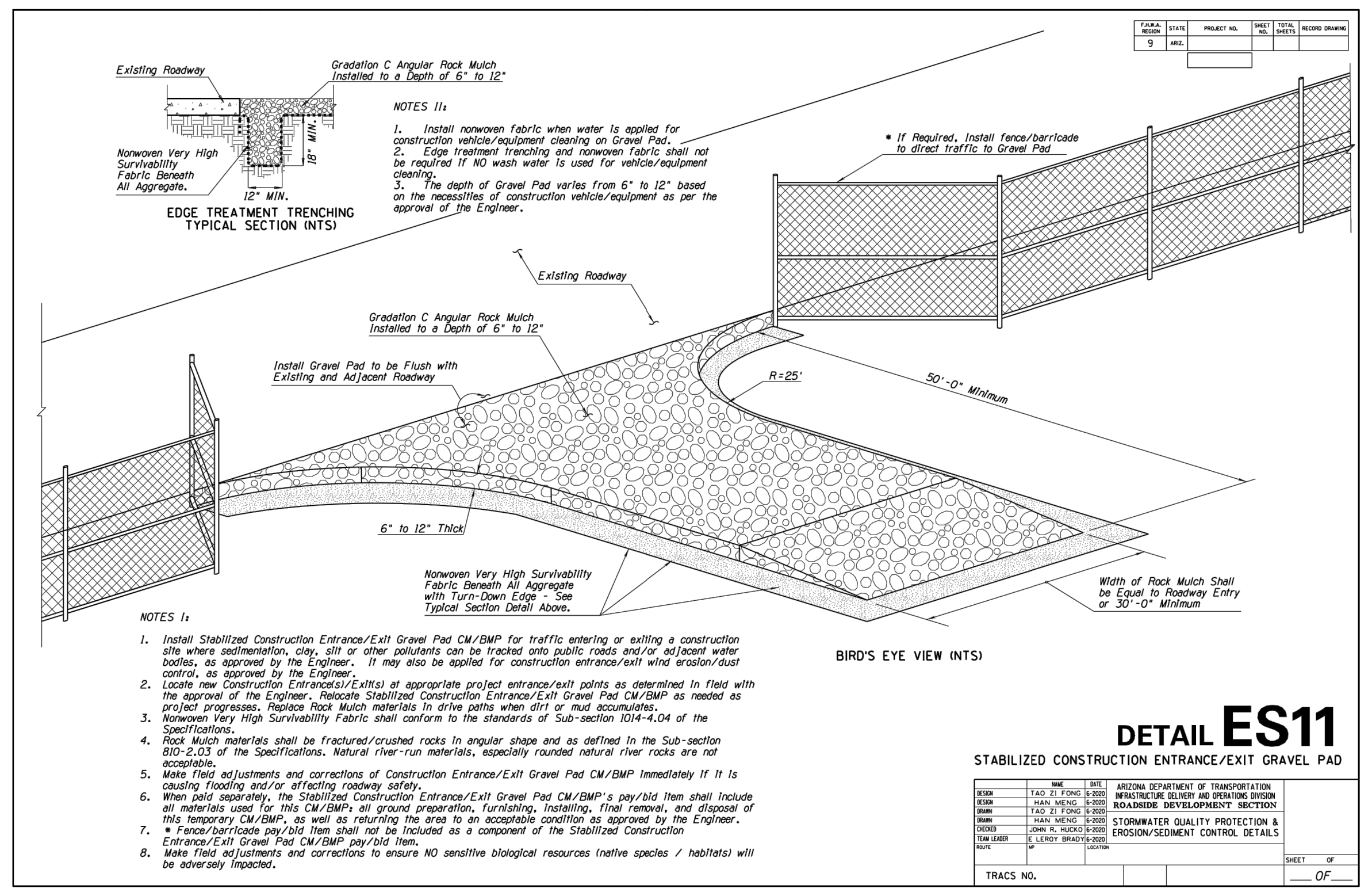
NOTES:

1. Gravelbag material shall be from polypropylene, polyethylene, or polyamide woven fabric. Refer to Special Provisions for Mullen burst strength and ultraviolet stability requirements.
2. When sediment depth reaches 3 inches, remove and properly dispose of accumulated material.
3. Do not apply Gravelbag CM/BMP in the area of open traffic.
4. When applied as a perimeter control CM/BMP, Gravelbags shall be used for surface areas where wattles and silt fences are not suitable.
5. Do not install Gravelbags as multiple ditch check dams.
6. The installation and maintenance of Gravelbag CMs/BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities. Gravelbag CMs/BMPs shall be installed and maintained to carry the stormwater of at least 2-year, 24-hour events.
7. Gravelbags are designed for temporary water quality protection only. Remove Gravelbags per the direction of the Engineer or as soon as practicable upon stabilization of the construction disturbed area.
8. Make field adjustments and corrections of Gravelbag CM/BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
9. Refer to Special Provisions for gradation of gravel material.
10. The Gravelbag CM/BMP's pay/bid item shall include all materials used for this CM/BMP: all ground preparation, furnishing, installing, maintenance, final removal, and disposal, as well as returning the area to an acceptable condition as approved by the Engineer.
11. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL ES9
GRAVELBAG PROTECTION

	NAME	DATE
DESIGN	TAO ZI FONG	6-2020
DESIGN	HAN MENG	6-2020
DRAWN	TAO ZI FONG	6-2020
DRAWN	HAN MENG	6-2020
CHECKED	JOHN R. HUCKO	6-2020
TEAM LEADER	E LEROY BRADY	6-2020
ROUTE	MP	LOCATION

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADSIDE DEVELOPMENT SECTION
STORMWATER QUALITY PROTECTION & EROSION/SEDIMENT CONTROL DETAILS
TRACS NO.
SHEET OF
___ OF ___


F.H.W.A. REGION
STATE
PROJECT NO.
SHEET NO.
TOTAL SHEETS
RECORD DRAWING
9
ARIZ.
Existing Roadway
Gradation C Angular Rock Mulch Installed to a Depth of 6" to 12"
Nonwoven Very High Survivability Fabric Beneath All Aggregate.
18" MIN.
12" MIN.
* If Required, Install fence/barricade to direct traffic to Gravel Pad
Existing Roadway
Gradation C Angular Rock Mulch Installed to a Depth of 6" to 12"
Install Gravel Pad to be Flush with Existing and Adjacent Roadway
R=25'
50'-0" Minimum
6" to 12" Thick
Nonwoven Very High Survivability Fabric Beneath All Aggregate with Turn-Down Edge - See Typical Section Detail Above.
Width of Rock Mulch Shall be Equal to Roadway Entry or 30'-0" Minimum

EDGE TREATMENT TRENCHING TYPICAL SECTION (NTS)

NOTES II:

1. Install nonwoven fabric when water is applied for construction vehicle/equipment cleaning on Gravel Pad.
2. Edge treatment trenching and nonwoven fabric shall not be required if NO wash water is used for vehicle/equipment cleaning.
3. The depth of Gravel Pad varies from 6" to 12" based on the necessities of construction vehicle/equipment as per the approval of the Engineer.

BIRD'S EYE VIEW (NTS)

NOTES I:

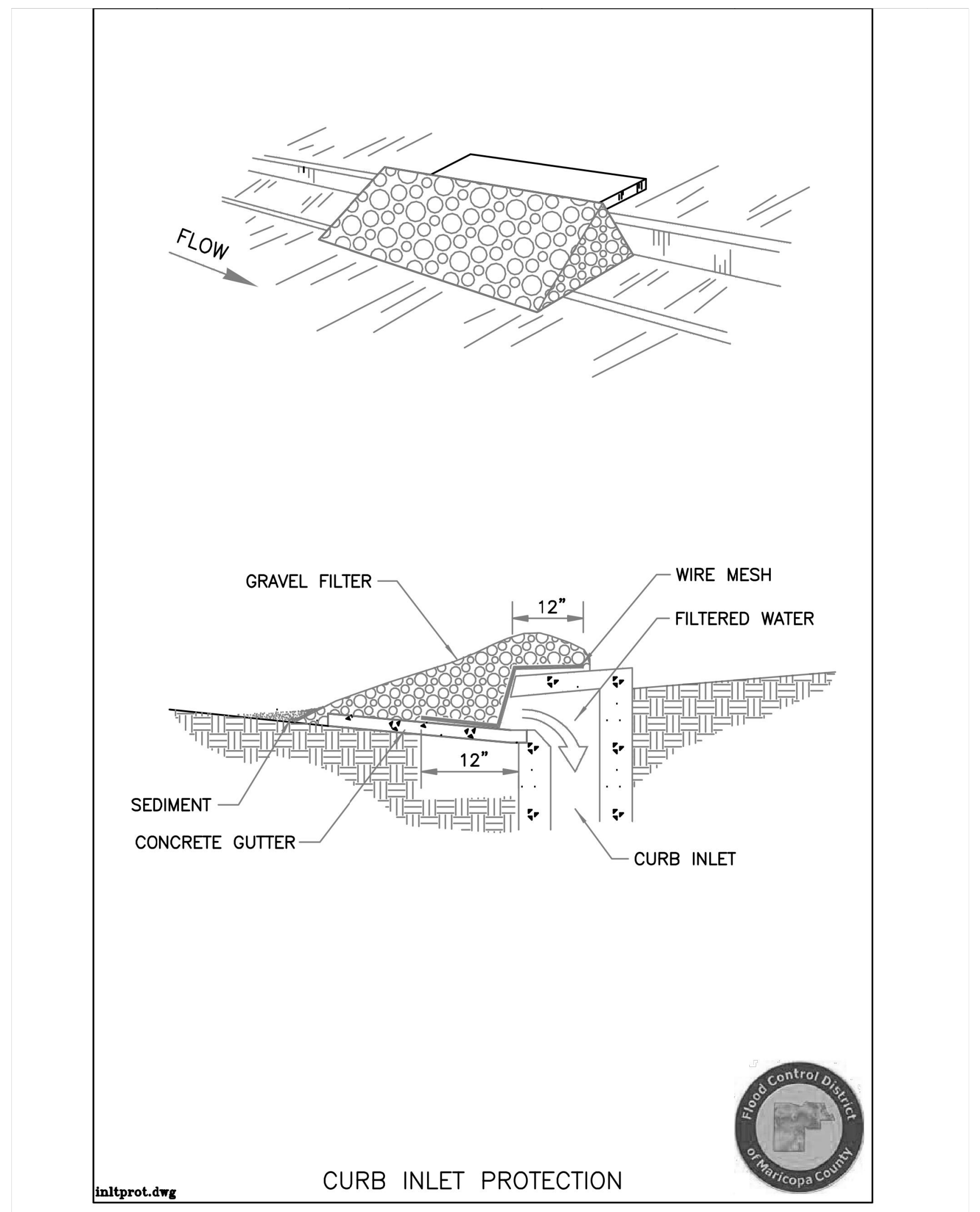
1. Install Stabilized Construction Entrance/Exit Gravel Pad CM/BMP for traffic entering or exiting a construction site where sedimeniation, clay, silt or other pollutants can be tracked onto public roads and/or adjacent water bodies, as approved by the Engineer. It may also be applied for construction entrance/exit wind erosion/dust control, as approved by the Engineer.
2. Locate new Construction Entrance(s)/Exit(s) at appropriate project entrance/exit points as determined in field with the approval of the Engineer. Relocate Stabilized Construction Entrance/Exit Gravel Pad CM/BMP as needed as project progresses. Replace Rock Mulch materials in drive paths when dirt or mud accumulates.
3. Nonwoven Very High Survivability Fabric shall conform to the standards of Sub-section 1014-4.04 of the Specifications.
4. Rock Mulch materials shall be fractured/crushed rocks in angular shape and as defined in the Sub-section 810-2.03 of the Specifications. Natural river-run materials, especially rounded natural river rocks are not acceptable.
5. Make field adjustments and corrections of Construction Entrance/Exit Gravel Pad CM/BMP immediately if it is causing flooding and/or affecting roadway safety.
6. When paid separately, the Stabilized Construction Entrance/Exit Gravel Pad CM/BMP's pay/bid item shall include all materials used for this CM/BMP: all ground preparation, furnishing, installing, final removal, and disposal of this temporary CM/BMP, as well as returning the area to an acceptable condition as approved by the Engineer.
7. * Fence/barricade pay/bid item shall not be included as a component of the Stabilized Construction Entrance/Exit Gravel Pad CM/BMP pay/bid item.
8. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL ES11
STABILIZED CONSTRUCTION ENTRANCE/EXIT GRAVEL PAD

	NAME	DATE
DESIGN	TAO ZI FONG	6-2020
DESIGN	HAN MENG	6-2020
DRAWN	TAO ZI FONG	6-2020
DRAWN	HAN MENG	6-2020
CHECKED	JOHN R. HUCKO	6-2020
TEAM LEADER	E LEROY BRADY	6-2020
ROUTE	MP	LOCATION

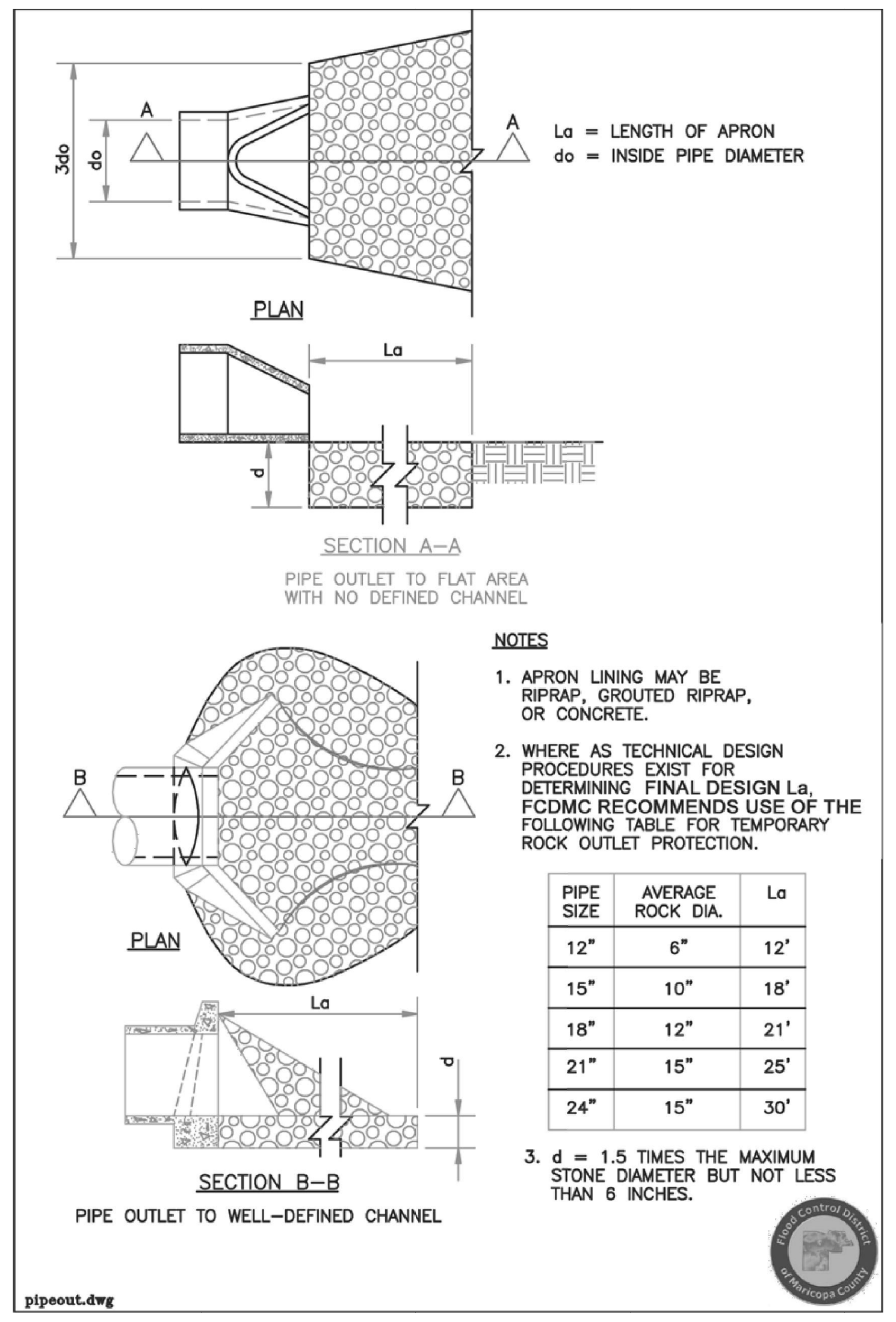
ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADSIDE DEVELOPMENT SECTION
STORMWATER QUALITY PROTECTION & EROSION/SEDIMENT CONTROL DETAILS
TRACS NO.
SHEET OF
___ OF ___

SPC-7 Storm Drain Curb Inlet Protection Drawing


FLOW
GRAVEL FILTER
12"
WIRE MESH
FILTERED WATER
12"
SEDIMENT
CONCRETE GUTTER
CURB INLET
Flood Control District of Maricopa County
inltprot.dwg

CURB INLET PROTECTION

EC-11 Outlet Protection, Velocity Dissipation Devices Drawing


3do
do
A
A
PLAN
La
d
B
B
PLAN
La
d
pipeout.dwg
Flood Control District of Maricopa County

La = LENGTH OF APRON
do = INSIDE PIPE DIAMETER

SECTION A–A

PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL

NOTES

1. APRON LINING MAY BE RIPRAP, GROUTED RIPRAP, OR CONCRETE.
2. WHERE AS TECHNICAL DESIGN PROCEDURES EXIST FOR DETERMINING FINAL DESIGN La, FCDMC RECOMMENDS USE OF THE FOLLOWING TABLE FOR TEMPORARY ROCK OUTLET PROTECTION.

PIPE SIZE	AVERAGE ROCK DIA.	La
12"	6"	12'
15"	10"	18'
18"	12"	21'
21"	15"	25'
24"	15"	30'

3. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6 INCHES.

SECTION B–B

PIPE OUTLET TO WELL–DEFINED CHANNEL

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

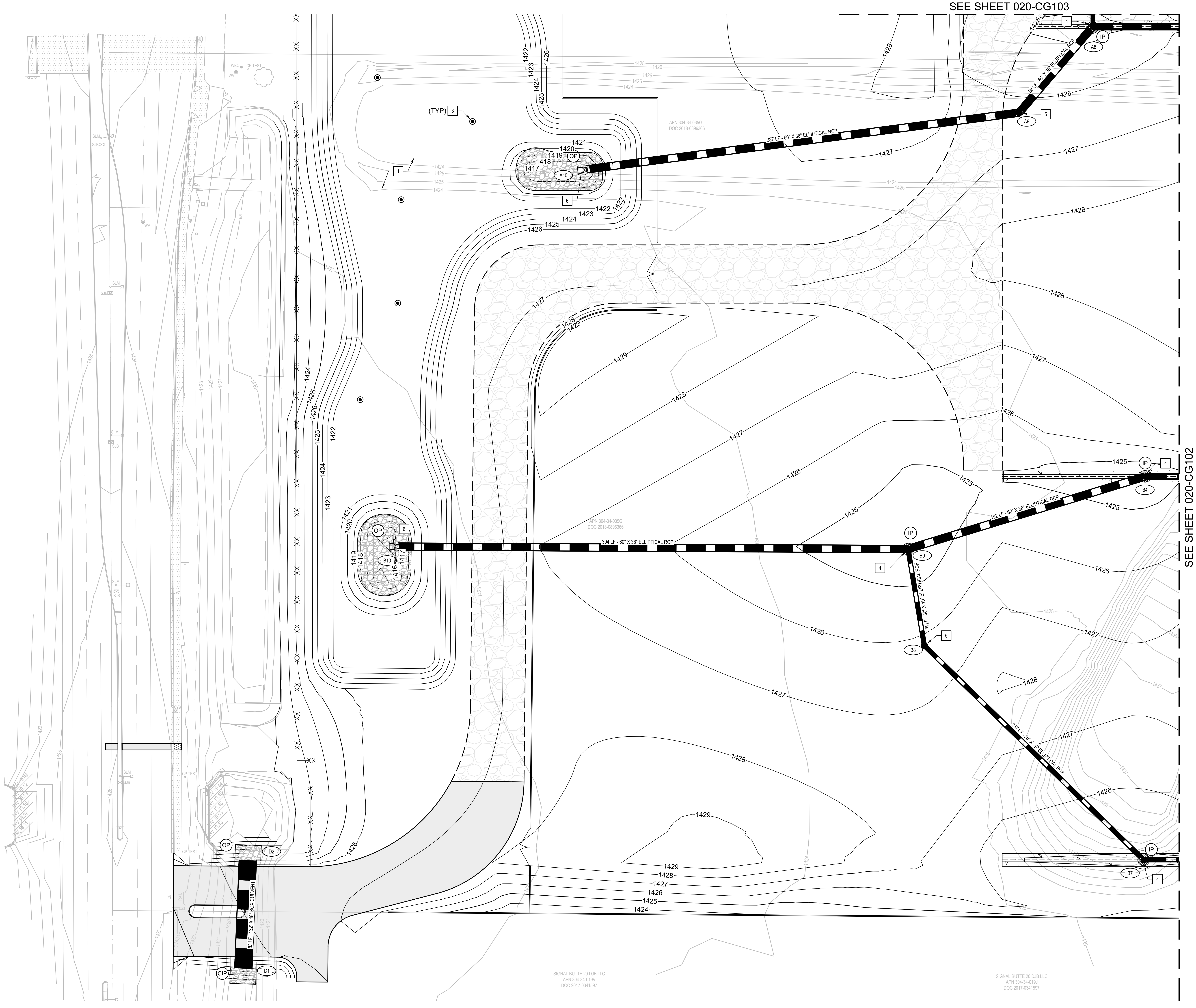
NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
EROSION AND SEDIMENT CONTROL DETAILS

FUJI NO.: CLIENT PROJ. NO.
A&E FIRM NO.: 147051
DRAWN: C.WILLIAMS
CHECKED: A.MONSOUR
DATE: 01/14/2025
SCALE: AS NOTED
DRAWING
020-CE501
SHEET ---- OF ##

FUJIFILM PROPRIETARY AND CONFIDENTIAL


SEE SHEET 020-CG103
SEE SHEET 020-CG102
337 LF - 60" X 38" ELLIPTICAL RCP
88 LF - 60" X 38" ELLIPTICAL RCP
394 LF - 60" X 38" ELLIPTICAL RCP
192 LF - 60" X 38" ELLIPTICAL RCP
76 LF - 30" X 19" ELLIPTICAL RCP
237 LF - 30" X 19" ELLIPTICAL RCP
83 LF - 132" X 48" BOX CULVERT
(TYP) 3
1
4
5
6
IP
OP
CIP
A8
A9
A10
B4
B7
B8
B9
B10
D1
D2
1416
1417
1418
1419
1420
1421
1422
1423
1424
1425
1426
1427
1428
1429
APN 304-34-035G
DOC 2018-0896366
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019V
DOC 2017-0341597
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019J
DOC 2017-0341597

DRAINAGE AND GRADING PLAN

0 30' 60'
SCALE IN FEET
NORTH

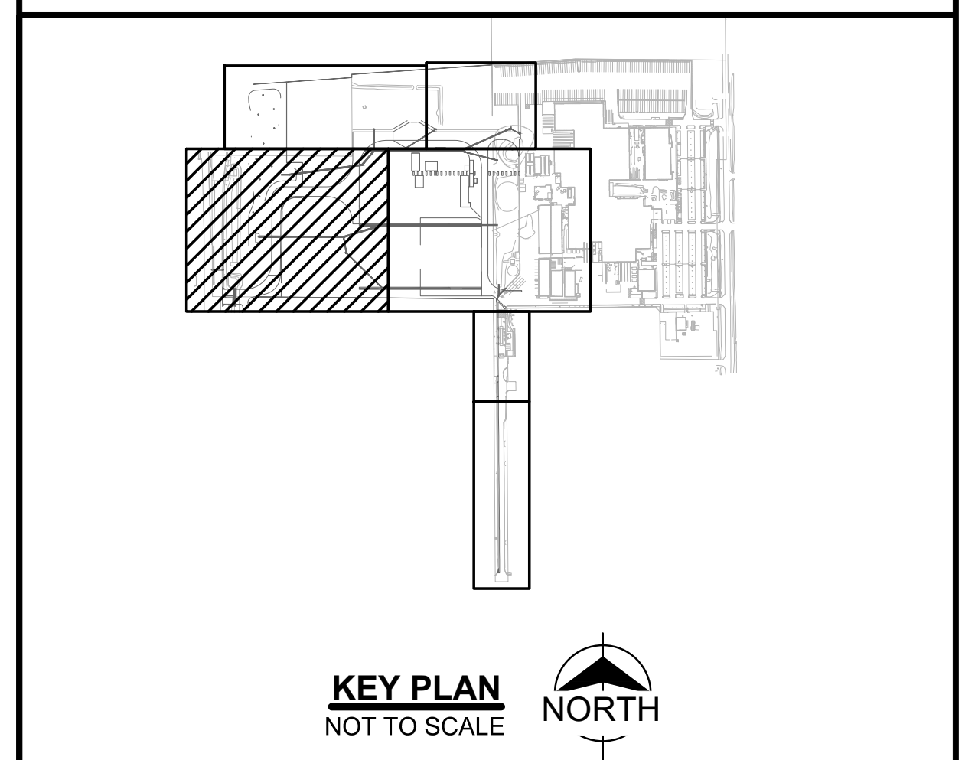
PRELIMINARY - NOT FOR CONSTRUCTION

CONSTRUCTION NOTES

1. AT SAWCUT AND CONCRETE REMOVAL LOCATIONS, MATCH GRADE.

CONSTRUCTION NOTES

1. STORMWATER INFILTRATION BASIN
2. CONNECT TO EXISTING STORMWATER SYSTEM
3. DRY WELL
4. STORMWATER INLET
5. STORMWATER MANHOLE
6. FLARED END SECTION


KEY PLAN
NOT TO SCALE
NORTH

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

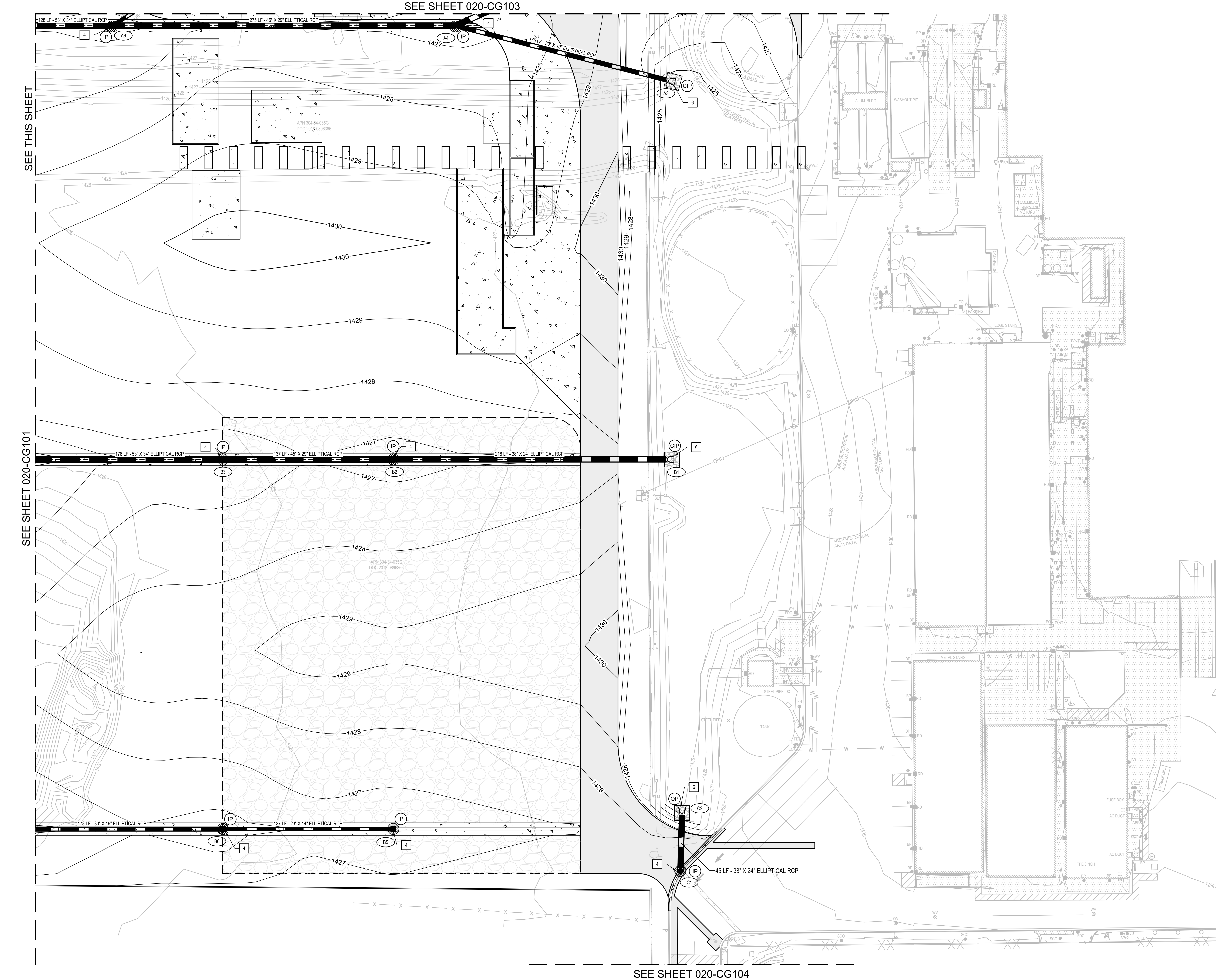
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

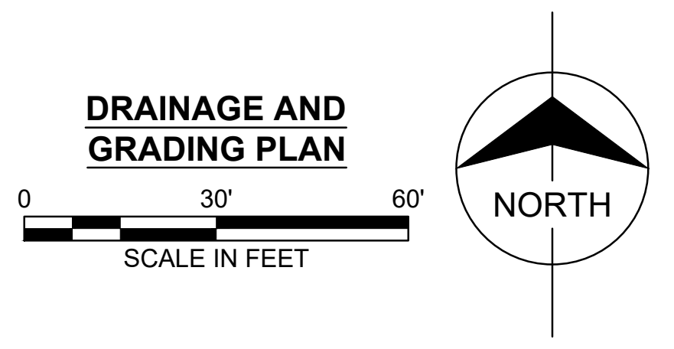
FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
DRAINAGE AND GRADING PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-CG101
SHEET ---- OF ##


SEE SHEET 020-CG103
SEE THIS SHEET
SEE SHEET 020-CG101
SEE SHEET 020-CG104
128 LF - 53" X 34" ELLIPTICAL RCP
275 LF - 45" X 29" ELLIPTICAL RCP
175 LF - 30" X 19" ELLIPTICAL RCP
176 LF - 53" X 34" ELLIPTICAL RCP
137 LF - 45" X 29" ELLIPTICAL RCP
218 LF - 38" X 24" ELLIPTICAL RCP
178 LF - 30" X 19" ELLIPTICAL RCP
137 LF - 23" X 14" ELLIPTICAL RCP
45 LF - 38" X 24" ELLIPTICAL RCP
IP
A6
A4
A3
CIP
B3
B2
B1
B6
B5
C2
C1
OP
4
6
1425
1426
1427
1428
1429
1430
APN 304-34-035G
DOC 2018-0896366
ALUM. BLDG
WASHOUT PIT
CHEMICAL TRANSFER MOTORS
EDGE STAIRS
NO PARKING
ARCHAEOLOGICAL AREA DATR
METAL STAIRS
STEEL PIPE
TANK
FUSE BOX
AC DUCT
TPE BNCH

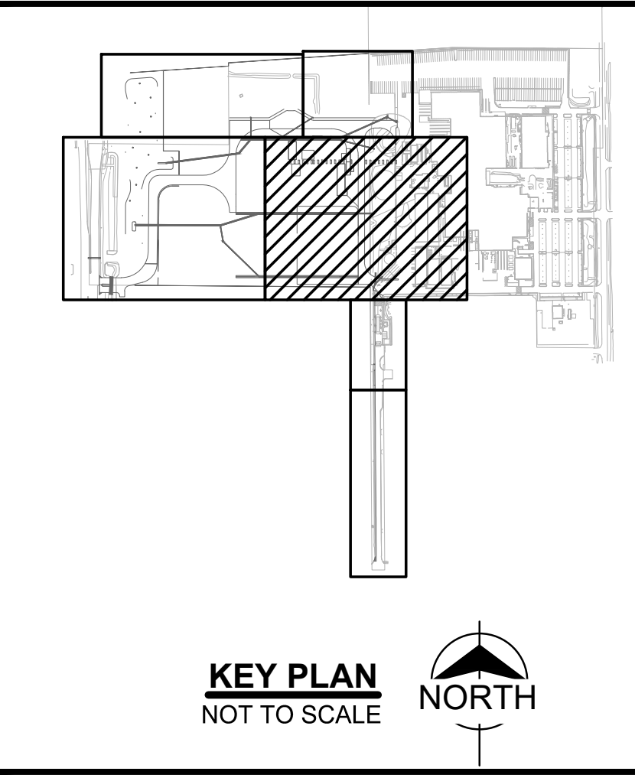
DRAINAGE AND GRADING PLAN


0
30'
60'
SCALE IN FEET
NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

#	CONSTRUCTION NOTES
1.	AT SAWCUT AND CONCRETE REMOVAL LOCATIONS, MATCH GRADE.

#	CONSTRUCTION NOTES
1.	STORMWATER INFILTRATION BASIN
2.	CONNECT TO EXISTING STORMWATER SYSTEM
3.	DRY WELL
4.	STORMWATER INLET
5.	STORMWATER MANHOLE
6.	FLARED END SECTION


KEY PLAN
NOT TO SCALE
NORTH

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

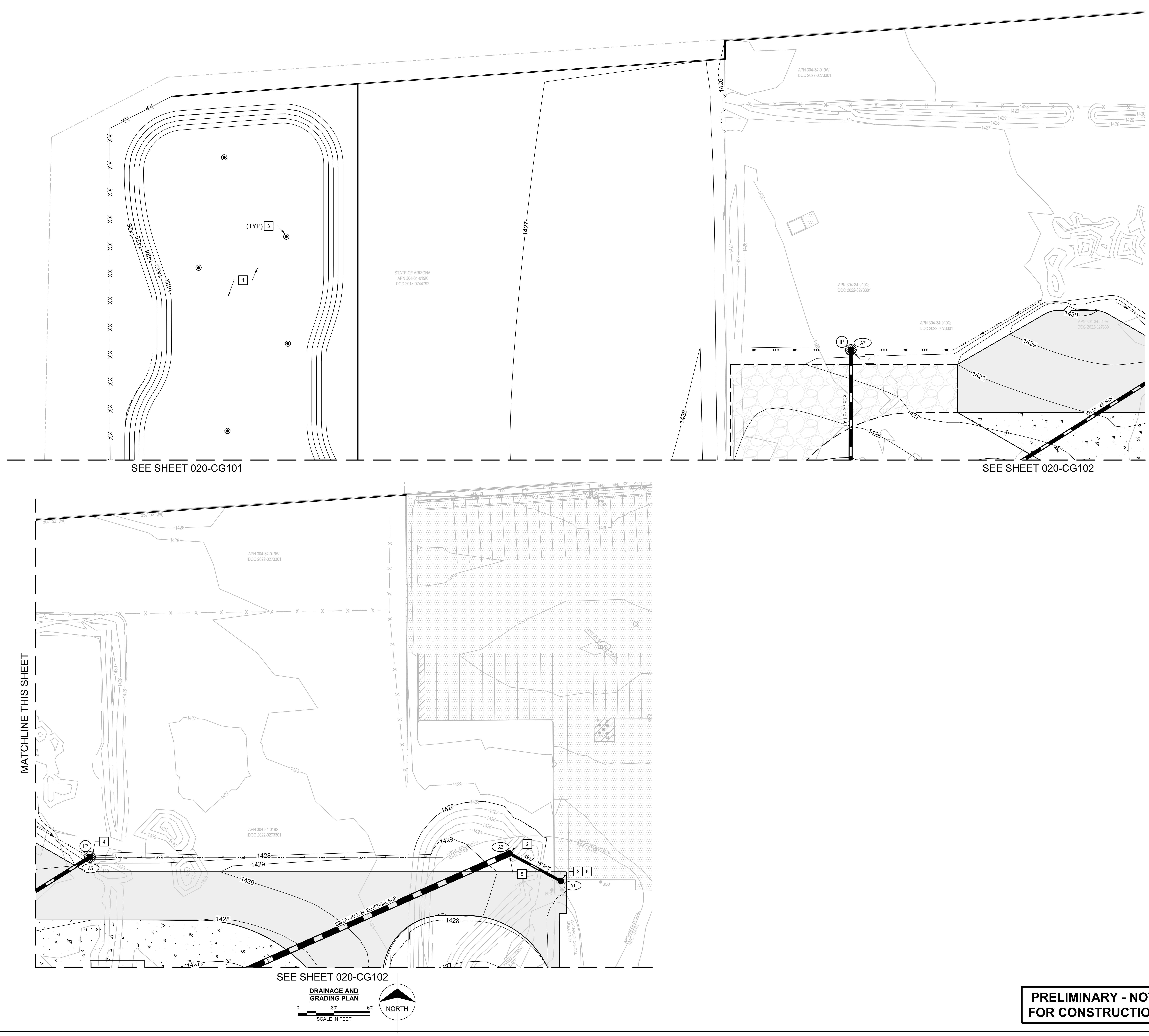
FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN

DRAINAGE AND GRADING PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-CG102
SHEET ---- OF ##


(TYP)
3
1
1426
1425
1424
1423
1422
1427
1428
1429
1430
STATE OF ARIZONA
APN 304-34-019K
DOC 2018-0744792
APN 304-34-019W
DOC 2022-0273301
APN 304-34-019Q
DOC 2022-0273301
APN 304-34-019R
DOC 2022-0273301
APN 304-34-019S
DOC 2022-0273301
IP
A7
4
101 LF - 24" RCP
191 LF - 24" RCP
SEE SHEET 020-CG101
SEE SHEET 020-CG102
MATCHLINE THIS SHEET
A5
A2
A1
2
5
2 5
258 LF - 45" X 29" ELLIPTICAL RCP
49 LF - 15" RCP
ARCHAEOLOGICAL AREA DATR
FDC
SEE SHEET 020-CG102
DRAINAGE AND GRADING PLAN
0
30'
60'
SCALE IN FEET
NORTH

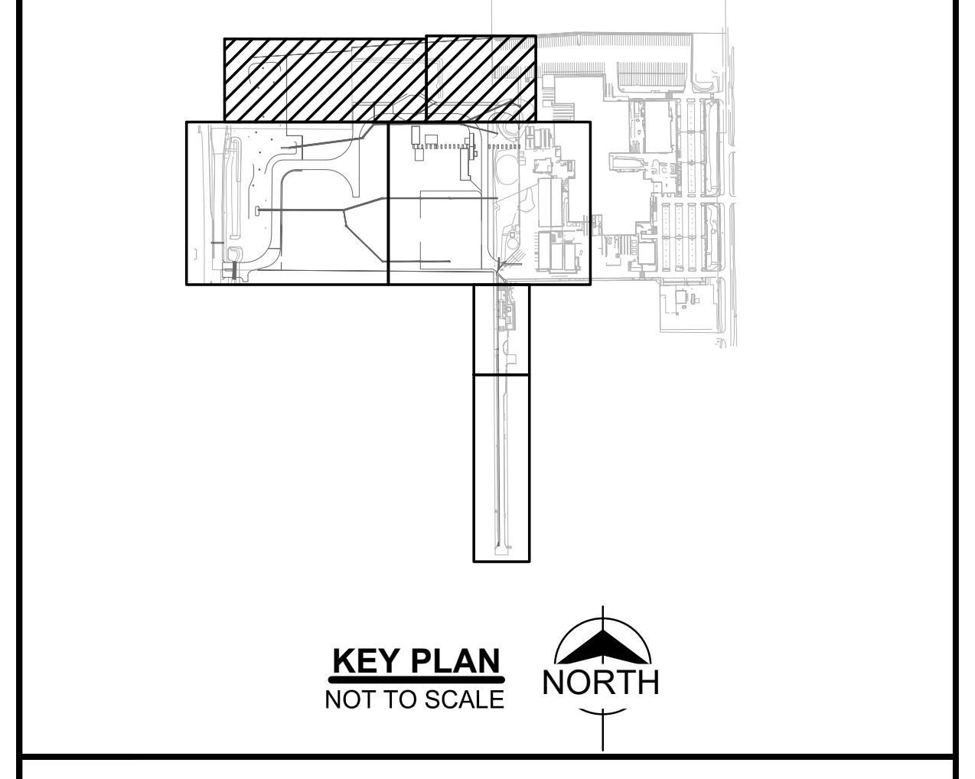
PRELIMINARY - NOT FOR CONSTRUCTION

CONSTRUCTION NOTES

1. AT SAWCUT AND CONCRETE REMOVAL LOCATIONS, MATCH GRADE.

CONSTRUCTION NOTES

1. STORMWATER INFILTRATION BASIN
2. CONNECT TO EXISTING STORMWATER SYSTEM
3. DRY WELL
4. STORMWATER INLET
5. STORMWATER MANHOLE
6. FLARED END SECTION


KEY PLAN
NOT TO SCALE
NORTH

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

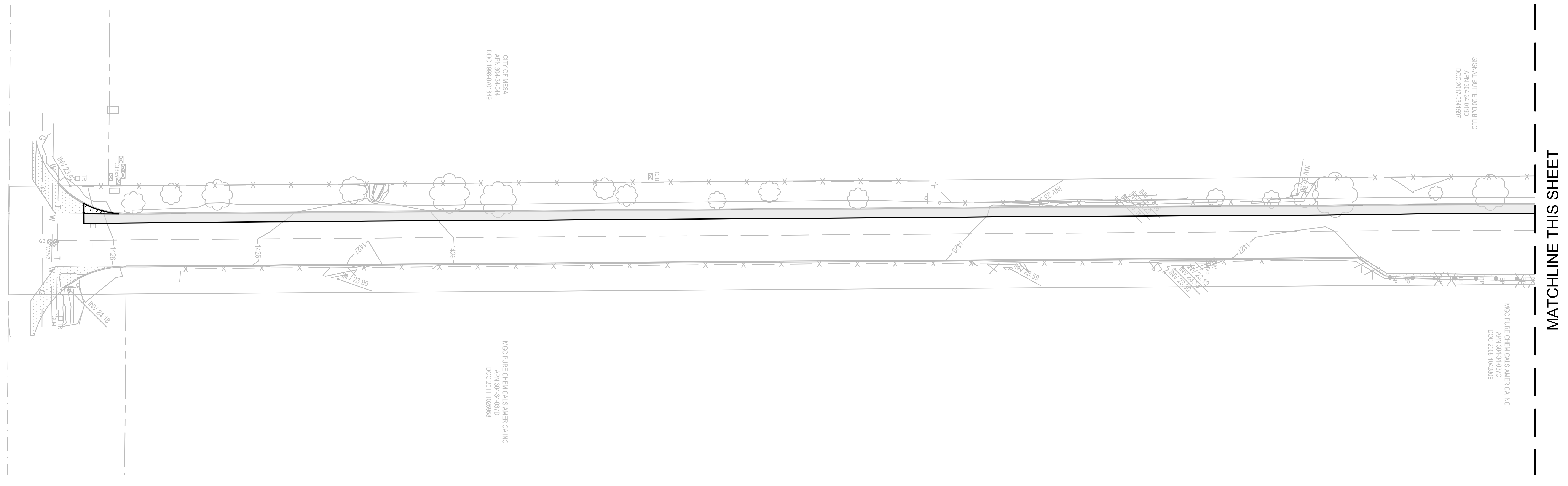
BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
DRAINAGE AND GRADING PLAN

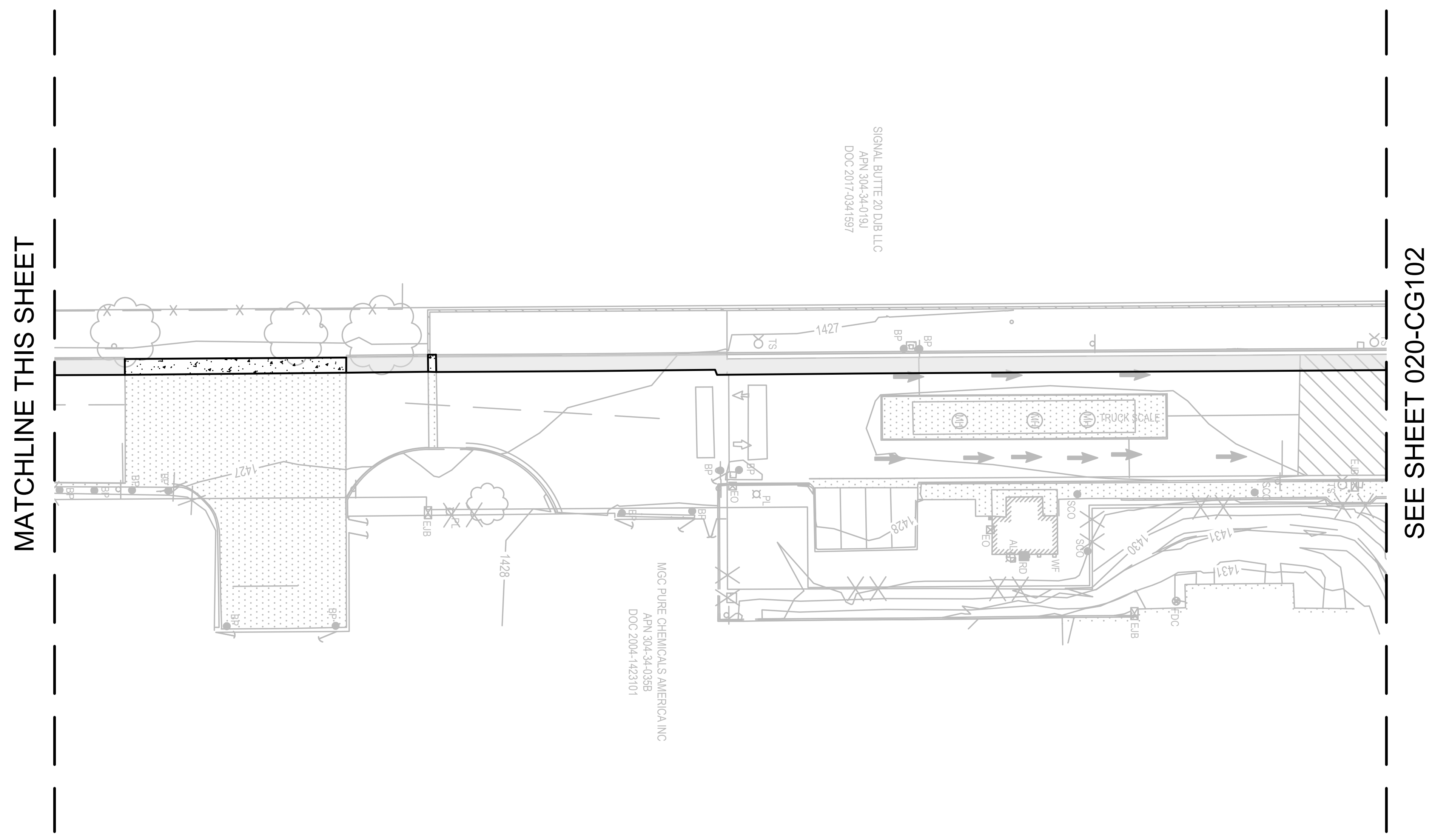
FUJI NO.: CLIENT PROJ. NO.
A&E FIRM NO.: 147051
DRAWN: C.WILLIAMS
CHECKED: A.MONSOUR
DATE: 01/14/2025
SCALE: AS NOTED
DRAWING
020-CG103
SHEET ---- OF ##


CITY OF MESA
APN 304-34-044
DOC 1998-0701849
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019D
DOC 2017-0341597
MGC PURE CHEMICALS AMERICA INC
APN 304-34-037D
DOC 2011-1025958
MGC PURE CHEMICALS AMERICA INC
APN 304-34-037C
DOC 2008-1042809
BP
MATCHLINE THIS SHEET

DRAINAGE AND GRADING PLAN

0 30' 60'
SCALE IN FEET

NORTH


SIGNAL BUTTE 20 DJB LLC
APN 304-34-019J
DOC 2017-0341597
MGC PURE CHEMICALS AMERICA INC
APN 304-34-035B
DOC 2004-1423101
1427
TS
BP
EO
MATCHLINE THIS SHEET
SEE SHEET 020-CG102

DRAINAGE AND GRADING PLAN

0 30' 60'
SCALE IN FEET

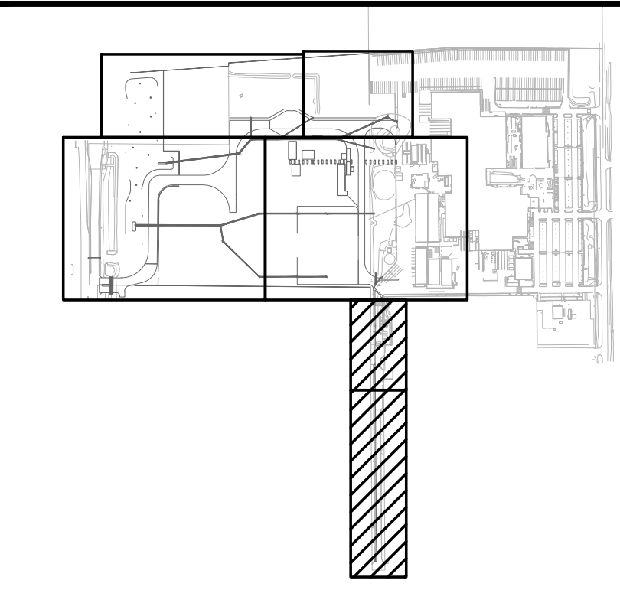
NORTH

CONSTRUCTION NOTES

1. AT SAWCUT AND CONCRETE REMOVAL LOCATIONS, MATCH GRADE.

CONSTRUCTION NOTES

1. STORMWATER INFILTRATION BASIN
2. CONNECT TO EXISTING STORMWATER SYSTEM
3. DRY WELL
4. STORMWATER INLET
5. STORMWATER MANHOLE
6. FLARED END SECTION



KEY PLAN
NOT TO SCALE

NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
DRAINAGE AND GRADING PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-CG104
SHEET ---- OF ##

STORM STRUCTURE SCHEDULE

ID:	DETAILS:
A1	STORM MANHOLE N:835980.78 E:798034.15 RIM=1428.08 INV OUT=1423.98(NW-15")
A2	STORM MANHOLE N:836003.86 E:797991.39 RIM=1429.36 INV IN=1423.74(SE-15") INV OUT=1423.56(SW-45")
A3	ELLIPTICAL FES N:835856.06 E:797925.16 RIM=N/A INV OUT=1424.10(W-30")
A4	CATCH BASIN N:835899.54 E:797755.94 RIM=1427.20 INV IN=1422.78(E-30") INV IN=1422.27(NE-45") INV OUT=1422.27(W-45")
A5	DOME GRATE INLET N:836000.83 E:797642.69 RIM=1428.83 INV OUT=1423.89(SW-15")
A6	CATCH BASIN N:835899.54 E:797480.94 RIM=1425.55 INV IN=1420.90(E-45") INV IN=1422.93(NE-15") INV OUT=1420.90(W-53")
A7	DOME GRATE INLET N:836000.54 E:797352.98 RIM=1426.18 INV OUT=1422.37(S-15")
A8	CATCH BASIN N:835899.54 E:797352.65 RIM=1424.80 INV IN=1420.16(E-53") INV IN=1421.86(N-15") INV OUT=1419.82(SW-60")
A9	STORM MANHOLE N:835833.03 E:797295.78 RIM=1425.74 INV IN=1419.39(NE-60") INV OUT=1419.39(W-60")

STORM STRUCTURE SCHEDULE

ID:	DETAILS:
A10	ELLIPTICAL FES N:835819.91 E:797200.29 RIM=N/A INV IN=1418.91(E-60")
B1	ELLIPTICAL FES N:835551.92 E:797924.12 RIM=N/A INV OUT=1424.67(W-38")
B2	CATCH BASIN N:835551.92 E:797706.11 RIM=1427.55 INV IN=1421.94(E-38") INV OUT=1421.94(W-53")
B3	CATCH BASIN N:835551.92 E:797569.58 RIM=1427.14 INV IN=1421.26(E-53") INV OUT=1421.26(W-53")
B4	CATCH BASIN N:835551.92 E:797393.21 RIM=1425.11 INV IN=1419.92(E-53") INV OUT=1419.59(W-60")
B5	CATCH BASIN N:835255.71 E:797706.11 RIM=1427.04 INV OUT=1423.41(W-23")
B6	CATCH BASIN N:835255.71 E:797569.58 RIM=1426.36 INV IN=1422.74(E-23") INV OUT=1422.32(W-30")
B7	CATCH BASIN N:835255.71 E:797391.92 RIM=1425.77 INV IN=1421.42(E-30") INV OUT=1421.42(NW-30")
B8	STORM MANHOLE N:835421.21 E:797222.63 RIM=1425.80 INV IN=1420.24(SE-30") INV OUT=1420.24(N-30")

STORM STRUCTURE SCHEDULE

ID:	DETAILS:
B9	CURB INLET N:835495.91 E:797209.98 RIM=1423.79 INV IN=1418.64(E-60") INV IN=1419.85(S-30") INV OUT=1418.64(W-60")
B10	ELLIPTICAL FES N:835498.19 E:796808.43 RIM=N/A INV IN=1416.62(E-60")
C1	CATCH BASIN N:835222.03 E:797936.17 RIM=1428.64 INV OUT=1423.76(N-38")
C2	ELLIPTICAL FES N:835266.64 E:797937.40 RIM=N/A INV IN=1423.54(S-38")
D1	ENDWALL N:835171.88 E:796696.52 RIM=N/A INV OUT=1419.23(N-132")
D2	ENDWALL N:835255.17 E:796699.96 RIM=N/A INV IN=1419.19(S-132")

STORM PIPING SCHEDULE

ID	DETAILS:
A1-A2	49 LF - 15" RCP @ 0.50%
A2-A4	258 LF - 45" X 29" ELLIPTICAL RCP @ 0.50%
A3-A4	175 LF - 30" X 19" ELLIPTICAL RCP @ 0.76%
A4-A6	275 LF - 45" X 29" ELLIPTICAL RCP @ 0.50%
A5-A6	191 LF - 15" RCP @ 0.50%
A6-A8	128 LF - 53" X 34" ELLIPTICAL RCP @ 0.58%
A7-A8	101 LF - 15" RCP @ 0.51%
A8-A9	88 LF - 60" X 38" ELLIPTICAL RCP @ 0.50%
A9-A10	96 LF - 60" X 38" ELLIPTICAL RCP @ 0.50%
B1-B2	218 LF - 38" X 24" ELLIPTICAL RCP @ 1.25%
B2-B3	137 LF - 53" X 34" ELLIPTICAL RCP @ 0.50%
B3-B4	176 LF - 53" X 34" ELLIPTICAL RCP @ 0.76%
B4-B9	192 LF - 60" X 38" ELLIPTICAL RCP @ 0.50%
B5-B6	137 LF - 23" X 14" ELLIPTICAL RCP @ 0.50%
B6-B7	178 LF - 30" X 19" ELLIPTICAL RCP @ 0.50%
B7-B8	237 LF - 30" X 19" ELLIPTICAL RCP @ 0.50%
B8-B9	76 LF - 30" X 19" ELLIPTICAL RCP @ 0.51%
B9-B10	402 LF - 60" X 38" ELLIPTICAL RCP @ 0.50%
C1-C2	45 LF - 38" X 24" ELLIPTICAL RCP @ 0.50%
D1-D2	83 LF - 132" X 48" BOX CULVERT @ 0.05%

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM

FUJIFILM Electronic Materials U.S.A., Inc.

6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

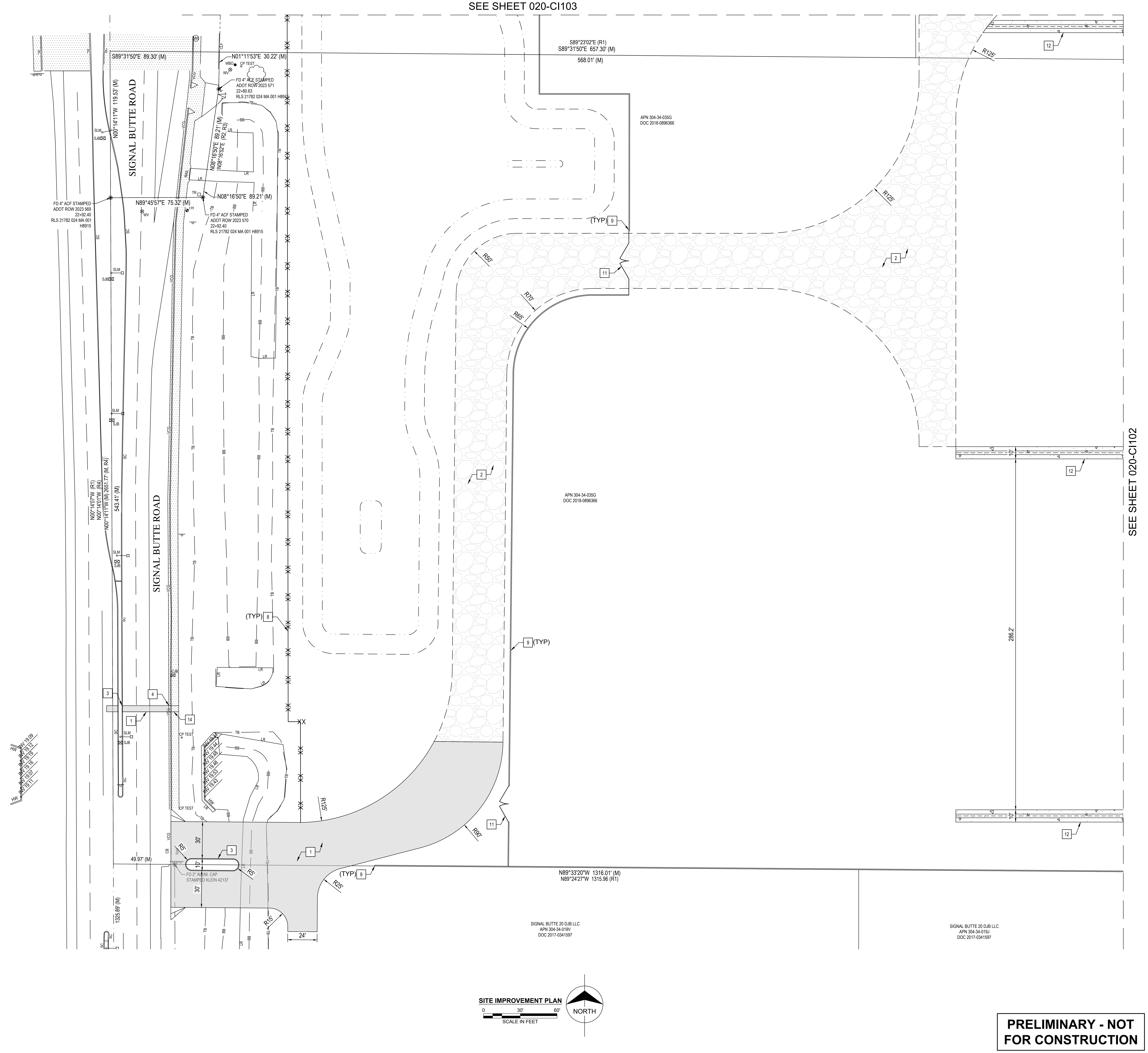
FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
STORM SCHEDULE

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

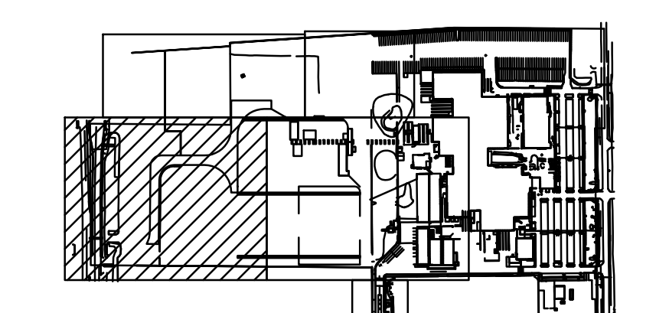
FUJI NO.: CLIENT PROJ. NO.
A&E FIRM NO.: 147051
DRAWN: C.WILLIAMS
CHECKED: A.MONSOUR
DATE: 01/14/2025
SCALE: AS NOTED
DRAWING
020-CG105
SHEET ---- OF ##


SEE SHEET 020-CI103
SEE SHEET 020-CI102
SIGNAL BUTTE ROAD
SIGNAL BUTTE ROAD
S89°31'50"E 89.30' (M)
N01°11'53"E 30.22' (M)
S89°23'02"E (R1)
S89°31'50"E 657.30' (M)
568.01' (M)
N00°14'11"W 119.53' (M)
N08°16'50"E 89.21' (M)
N08°16'52"E (R2, R3)
N08°16'50"E 89.21' (M)
N89°45'57"E 75.32' (M)
FD 4" ACF STAMPED
ADOT ROW 2023 571
22+80.63
RLS 21782 024 MA 001 H8915
FD 4" ACF STAMPED
ADOT ROW 2023 569
22+92.40
RLS 21782 024 MA 001
H8915
FD 4" ACF STAMPED
ADOT ROW 2023 570
22+92.40
RLS 21782 024 MA 001 H8915
N00°14'07"W (R1)
N00°14'01"W (R4)
N00°14'11"W (M) 2651.77' (M, R4)
543.41' (M)
APN 304-34-035G
DOC 2018-0896366
APN 304-34-035G
DOC 2018-0896366
WBO
CP TEST
WV
MH
CLF
VCG
RAIL
SLM
SJB
SC
TR
TB
BB
LR
HW
CB
CJB
INV 19.09
INV 19.12
INV 19.19
INV 19.16
INV 19.07
INV 19.11
INV 19.34
INV 19.44
INV 19.48
INV 19.48
INV 19.53
INV 19.43
FD 2" ALUM. CAP
STAMPED KLEIN 42137
49.97' (M)
1325.89' (M)
30'
10'
30'
24'
R5'
R5'
R15'
R25'
R60'
R125'
R50'
R70'
R65'
R125'
R125'
286.2'
10'
10'
(TYP) 9
(TYP) 8
9 (TYP)
(TYP) 9
1
2
3
4
11
12
14
N89°33'20"W 1316.01' (M)
N89°24'27"W 1315.96 (R1)
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019V
DOC 2017-0341597
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019J
DOC 2017-0341597
SITE IMPROVEMENT PLAN
0
30'
60'
SCALE IN FEET
NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

CONSTRUCTION NOTES

1. HEAVY DUTY ASPHALT PAVEMENT
2. GRAVEL
3. CONCRETE CURB (TYPE A)
4. CONCRETE CURB AND GUTTER (TYPE A)
5. CONCRETE PAVEMENT
6. CONCRETE EQUIPMENT PAD (SEE STRUCTURAL PLANS FOR DETAILS)
7. TRUCK LOADING BAY
8. WROUGHT IRON PERIMETER FENCE (SEE ARCHITECTURAL PLANS FOR DETAILS)
9. 8' TALL PERIMETER WALL (SEE STRUCTURAL PLANS FOR DETAILS)
10. CONTAINMENT SUMP (SEE MECHANICAL PLANS FOR DETAILS)
11. 12' WIDE MANUAL DOUBLE SWING GATE
12. CONCRETE VALLEY GUTTER
13. UTILITY PIPE RACK FOUNDATIONS (SEE STRUCTURAL PLANS FOR DETAILS)
14. CONCRETE SIDEWALK
15. ISOTAINER SCALE



KEY PLAN
NOT TO SCALE

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

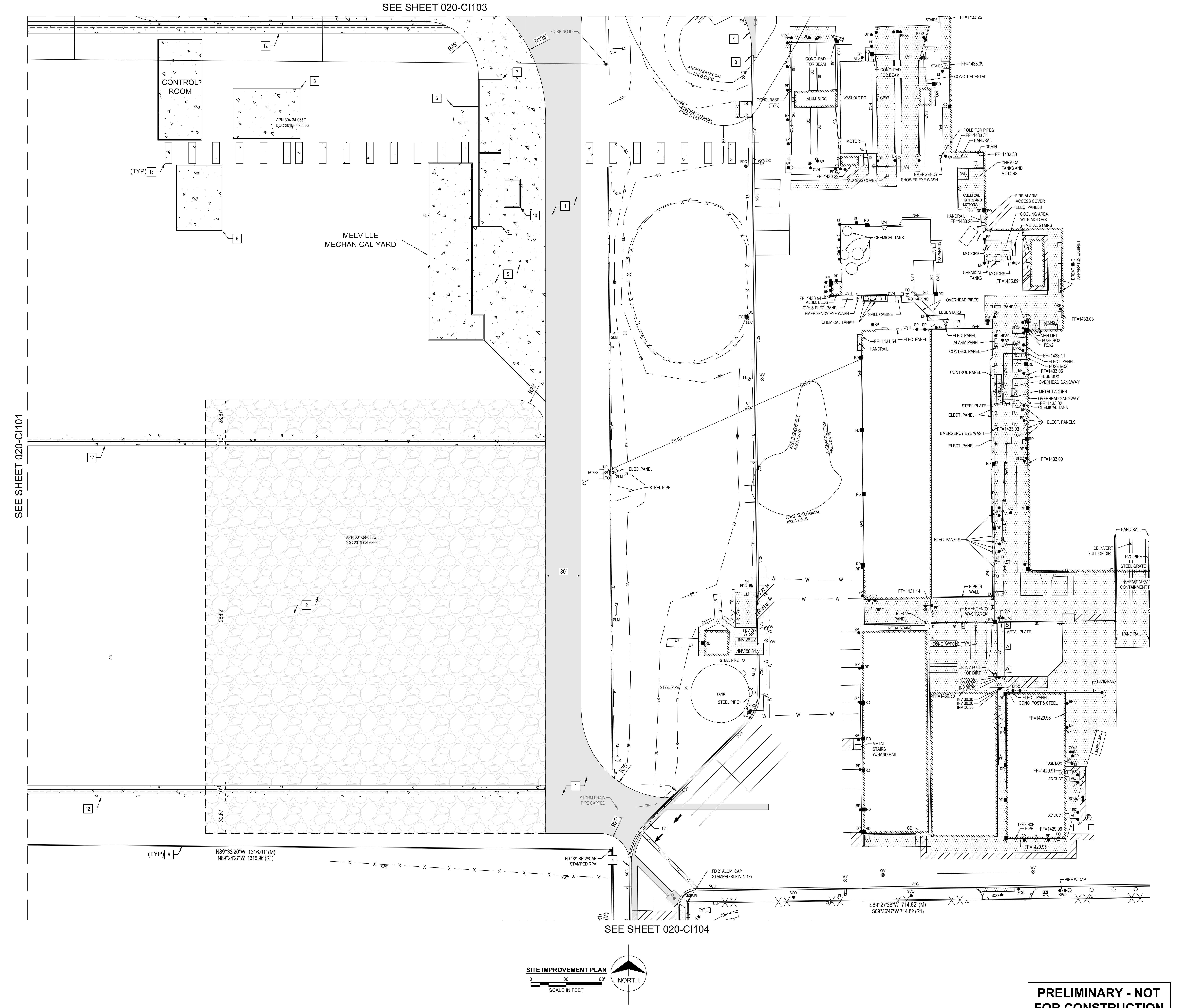
FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA PROJECT MELVILLE PHASE 1 30% DESIGN

SITE PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-CI101
SHEET ---- OF ##

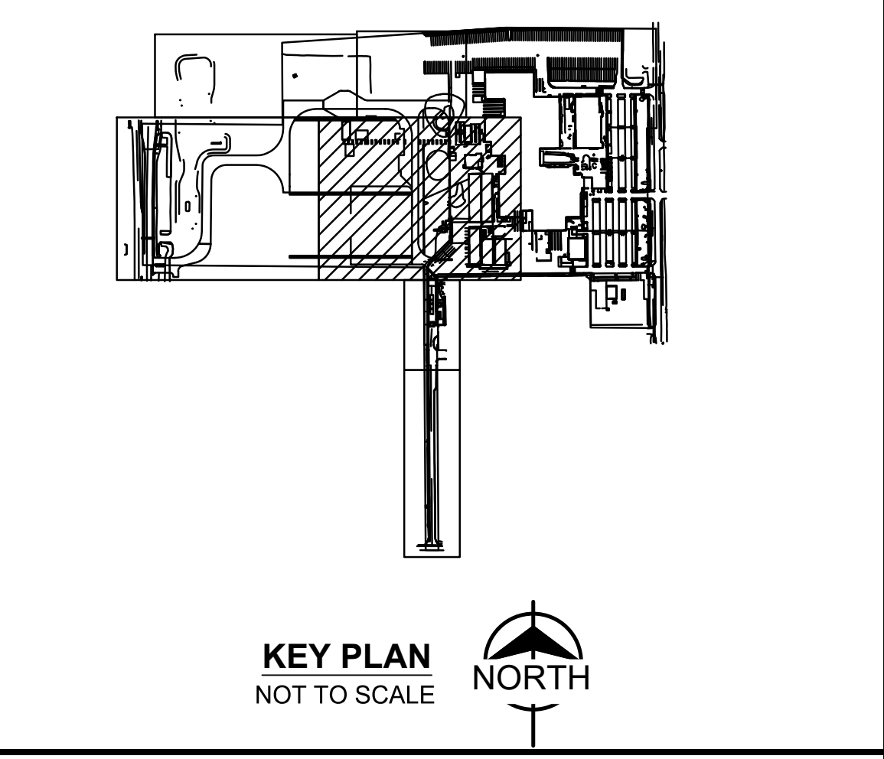


SEE SHEET 020-CI103
SEE SHEET 020-CI101
SEE SHEET 020-CI104
CONTROL ROOM
MELVILLE MECHANICAL YARD
APN 304-34-035G
DOC 2015-0896366
FD RB NO ID
R45'
R125'
R25'
R75'
30'
28.67'
10'
286.2'
30.67'
(TYP)
ARCHAEOLOGICAL AREA DATR
ALUM. BLDG
WASHOUT PIT
CONC. PAD FOR BEAM
MOTOR
ACCESS COVER
EMERGENCY SHOWER EYE WASH
CONC. PEDESTAL
POLE FOR PIPES
HANDRAIL
DRAIN
CHEMICAL TANKS AND MOTORS
FIRE ALARM ACCESS COVER
ELEC. PANELS
COOLING AREA WITH MOTORS
METAL STAIRS
CHEMICAL TANK
MOTORS
CHEMICAL TANKS
BREATHING APPARATUS CABINET
SPILL CABINET
OVERHEAD PIPES
EMERGENCY EYE WASH
EDGE STAIRS
ELEC. PANEL
ALARM PANEL
CONTROL PANEL
MAN LIFT
FUSE BOX
OVERHEAD GANGWAY
METAL LADDER
STEEL PLATE
STEEL PIPE
PIPE IN WALL
EMERGENCY WASH AREA
METAL PLATE
CONC. W/POLE (TYP.)
CB INV FULL OF DIRT
CB INVERT FULL OF DIRT
PVC PIPE
STEEL GRATE
CHEMICAL TANK CONTAINMENT
HAND RAIL
CONC. POST & STEEL
METAL STAIRS W/HAND RAIL
TANK
STORM DRAIN PIPE CAPPED
FF=1433.25
FF=1433.39
FF=1433.31
FF=1433.30
FF=1430.22
FF=1433.26
FF=1435.89
FF=1430.54
FF=1433.03
FF=1431.64
FF=1433.11
FF=1433.06
FF=1433.02
FF=1433.00
FF=1431.14
FF=1430.39
FF=1429.96
FF=1429.91
FF=1429.95
INV 28.22
INV 28.34
INV 30.38
INV 30.37
INV 30.39
INV 30.30
INV 30.33
N89°33'20"W 1316.01' (M)
N89°24'27"W 1315.96 (R1)
FD 1/2" RB W/CAP STAMPED RPA
FD 2" ALUM. CAP STAMPED KLEIN 42137
S89°27'38"W 714.82' (M)
S89°36'47"W 714.82 (R1)
PIPE W/CAP
0
30'
60'
SCALE IN FEET
NORTH

SITE IMPROVEMENT PLAN

CONSTRUCTION NOTES

1. HEAVY DUTY ASPHALT PAVEMENT
2. GRAVEL
3. CONCRETE CURB (TYPE A)
4. CONCRETE CURB AND GUTTER (TYPE A)
5. CONCRETE PAVEMENT
6. CONCRETE EQUIPMENT PAD (SEE STRUCTURAL PLANS FOR DETAILS)
7. TRUCK LOADING BAY
8. WROUGHT IRON PERIMETER FENCE (SEE ARCHITECTURAL PLANS FOR DETAILS)
9. 8' TALL PERIMETER WALL (SEE STRUCTURAL PLANS FOR DETAILS)
10. CONTAINMENT SUMP (SEE MECHANICAL PLANS FOR DETAILS)
11. 12' WIDE MANUAL DOUBLE SWING GATE
12. CONCRETE VALLEY GUTTER
13. UTILITY PIPE RACK FOUNDATIONS (SEE STRUCTURAL PLANS FOR DETAILS)
14. CONCRETE SIDEWALK
15. ISOTAINER SCALE



KEY PLAN
NOT TO SCALE

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM PROPRIETARY AND CONFIDENTIAL

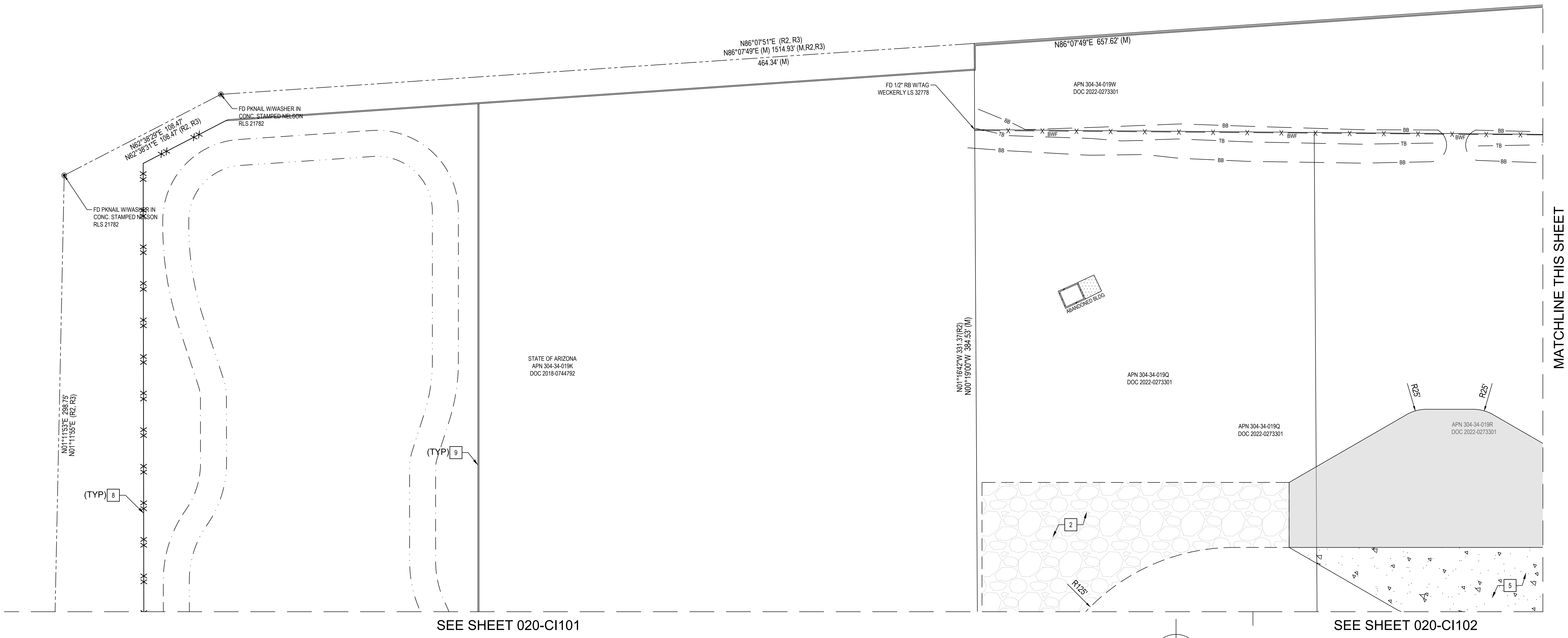
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN

SITE PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

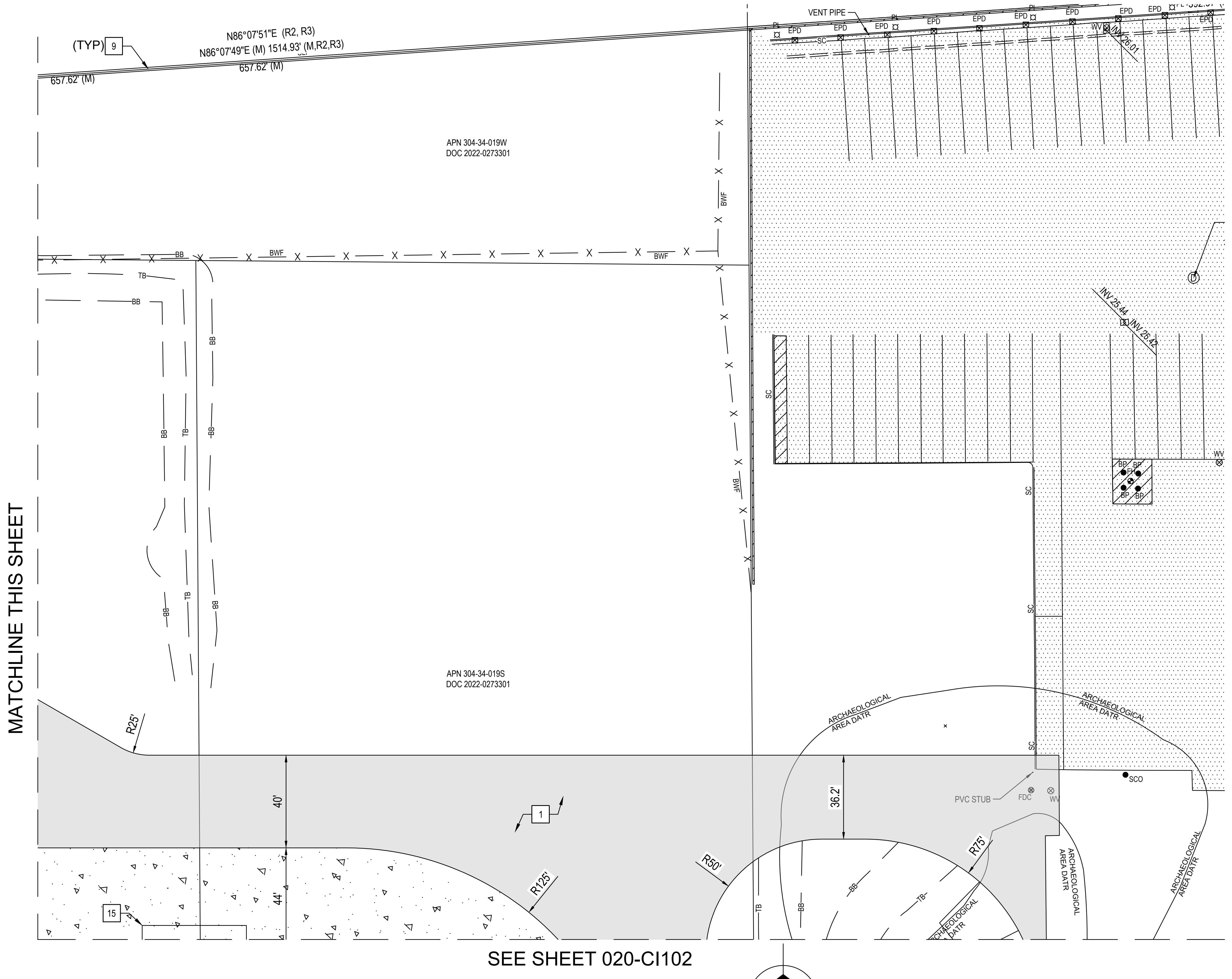
DRAWING
020–CI102
SHEET ---- OF ##


N86°07'51"E (R2, R3)
N86°07'49"E (M) 1514.93' (M,R2,R3)
464.34' (M)
N86°07'49"E 657.62' (M)
FD PKNAIL W/WASHER IN CONC. STAMPED NELSON RLS 21782
N62°38'29"E 108.47'
N62°38'31"E 108.47' (R2, R3)
FD PKNAIL W/WASHER IN CONC. STAMPED NELSON RLS 21782
FD 1/2" RB W/TAG WECKERLY LS 32778
APN 304-34-019W DOC 2022-0273301
BB
TB
BWF
N01°11'53"E 298.75'
N01°11'55"E (R2, R3)
(TYP) 8
(TYP) 9
STATE OF ARIZONA APN 304-34-019K DOC 2018-0744792
N01°16'42"W 331.37(R2)
N00°19'00"W 384.53' (M)
ABANDONED BLDG
APN 304-34-019Q DOC 2022-0273301
APN 304-34-019Q DOC 2022-0273301
APN 304-34-019R DOC 2022-0273301
R25'
R25'
R125'
2
5
MATCHLINE THIS SHEET
SEE SHEET 020-CI101
SEE SHEET 020-CI102

SITE IMPROVEMENT PLAN

0 30' 60'
SCALE IN FEET

NORTH


(TYP) 9
N86°07'51"E (R2, R3)
N86°07'49"E (M) 1514.93' (M,R2,R3)
657.62' (M)
657.62' (M)
VENT PIPE
PL
EPD
SC
WV
INV 26.01
APN 304-34-019W DOC 2022-0273301
BWF
BB
TB
INV 25.44
INV 25.42
BP
FH
APN 304-34-019S DOC 2022-0273301
MATCHLINE THIS SHEET
R25'
40'
1
36.2'
PVC STUB
FDC
SCO
ARCHAEOLOGICAL AREA DATR
R50'
R75'
R125'
44'
15
SEE SHEET 020-CI102

SITE IMPROVEMENT PLAN

0 30' 60'
SCALE IN FEET

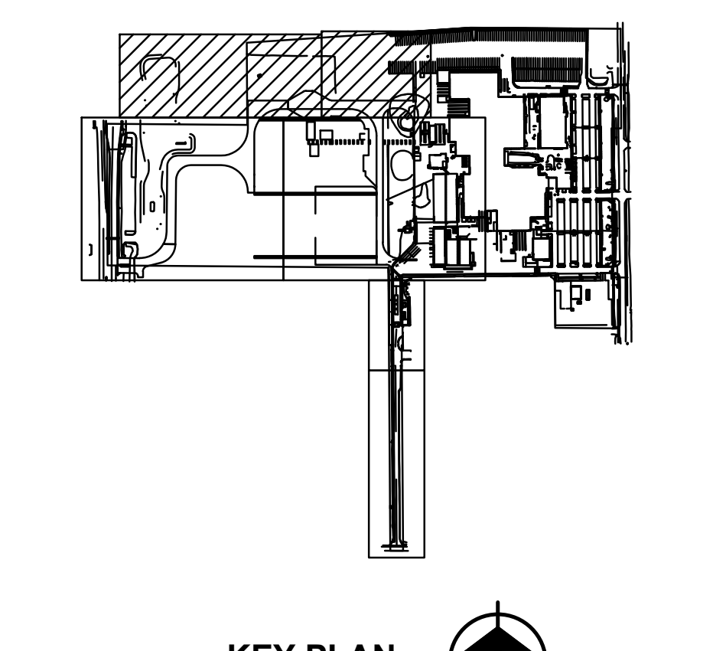
NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

CONSTRUCTION NOTES

1. HEAVY DUTY ASPHALT PAVEMENT
2. GRAVEL
3. CONCRETE CURB (TYPE A)
4. CONCRETE CURB AND GUTTER (TYPE A)
5. CONCRETE PAVEMENT
6. CONCRETE EQUIPMENT PAD (SEE STRUCTURAL PLANS FOR DETAILS)
7. TRUCK LOADING BAY
8. WROUGHT IRON PERIMETER FENCE (SEE ARCHITECTURAL PLANS FOR DETAILS)
9. 8' TALL PERIMETER WALL (SEE STRUCTURAL PLANS FOR DETAILS)
10. CONTAINMENT SUMP (SEE MECHANICAL PLANS FOR DETAILS)
11. 12' WIDE MANUAL DOUBLE SWING GATE
12. CONCRETE VALLEY GUTTER
13. UTILITY PIPE RACK FOUNDATIONS (SEE STRUCTURAL PLANS FOR DETAILS)
14. CONCRETE SIDEWALK
15. ISOTAINER SCALE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.



KEY PLAN
NOT TO SCALE

NORTH

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

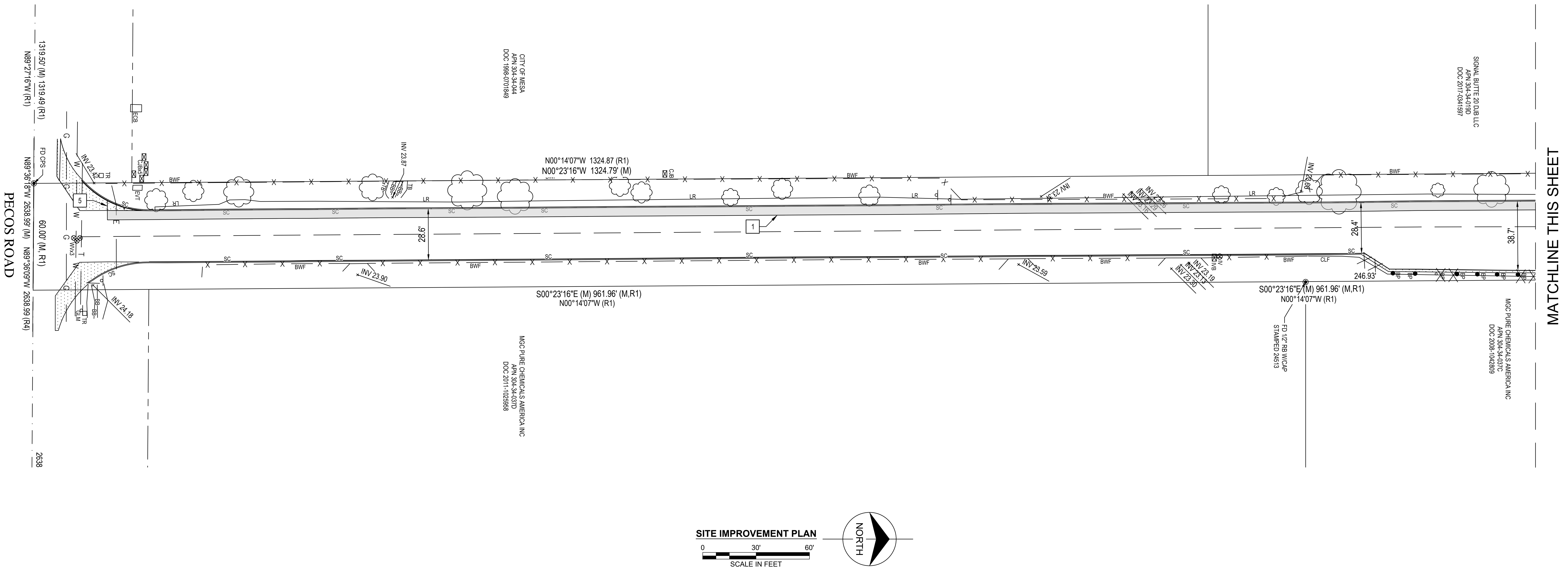
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
SITE PLAN

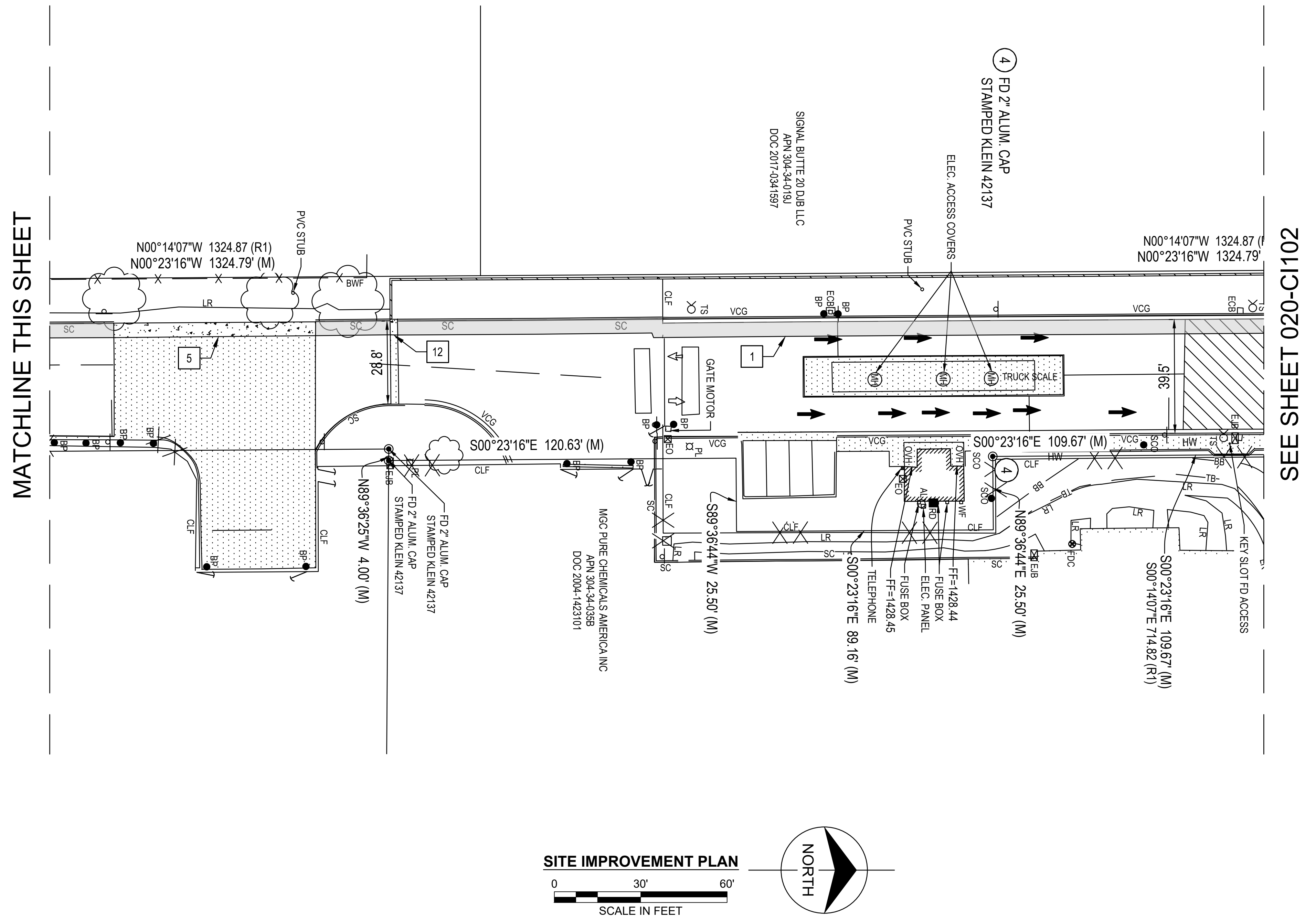
FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED
DRAWING	020–CI103

SHEET ---- OF ##


PECOS ROAD
MATCHLINE THIS SHEET
N00°14'07"W 1324.87 (R1)
N00°23'16"W 1324.79' (M)
S00°23'16"E (M) 961.96' (M,R1)
N00°14'07"W (R1)
S00°23'16"E (M) 961.96' (M,R1)
N00°14'07"W (R1)
60.00' (M,R1)
28.6'
28.4'
38.7'
246.93'
1319.50' (M) 1319.49 (R1)
N89°27'16"W (R1)
N89°36'18"W 2638.99' (M) N89°36'09"W 2638.99 (R4)
CITY OF MESA
APN 304-34-044
DOC 1999-0701849
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019D
DOC 2017-0341597
MGC PURE CHEMICALS AMERICA INC
APN 304-34-037D
DOC 2011-1029566
MGC PURE CHEMICALS AMERICA INC
APN 304-34-037C
DOC 2008-1042890
FD 1/2" RB W/CAP
STAMPED 24513
INV 23.90
INV 25.59
INV 24.18
BWF
SC
LR
CLF
1
5

SITE IMPROVEMENT PLAN

0
30'
60'
SCALE IN FEET
NORTH

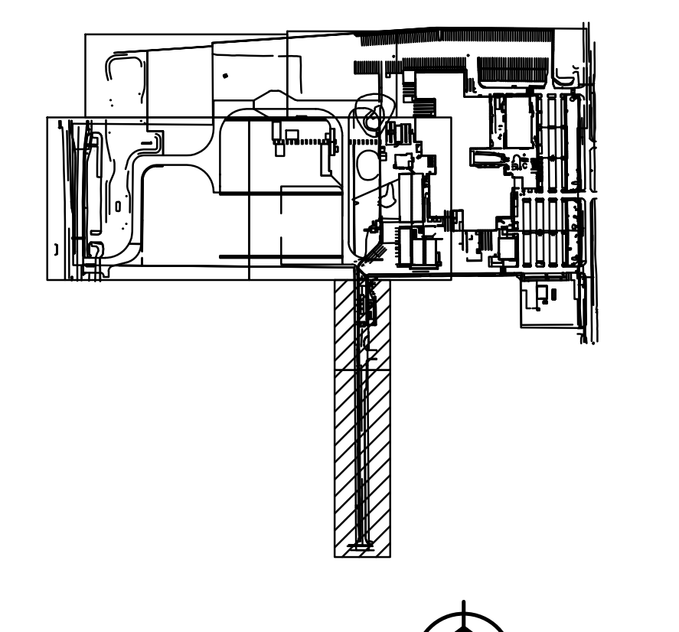

MATCHLINE THIS SHEET
SEE SHEET 020-CI102
N00°14'07"W 1324.87 (R1)
N00°23'16"W 1324.79' (M)
N00°14'07"W 1324.87 (R1)
N00°23'16"W 1324.79'
4
FD 2" ALUM. CAP
STAMPED KLEIN 42137
ELEC. ACCESS COVERS
PVC STUB
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019J
DOC 2017-0341597
TRUCK SCALE
GATE MOTOR
28.8'
39.5'
12
1
5
S00°23'16"E 120.63' (M)
S00°23'16"E 109.67' (M)
N89°36'25"W 4.00' (M)
FD 2" ALUM. CAP
STAMPED KLEIN 42137
MGC PURE CHEMICALS AMERICA INC
APN 304-34-035B
DOC 2004-1423101
S89°36'44"W 25.50' (M)
N89°36'44"E 25.50' (M)
S00°23'16"E 89.16' (M)
S00°23'16"E 109.67' (M)
S00°14'07"E 714.82' (R1)
FF=1428.44
FUSE BOX
ELEC. PANEL
FF=1428.45
TELEPHONE
KEY SLOT FD ACCESS
VCG
CLF
BWF
SC
LR

SITE IMPROVEMENT PLAN

0
30'
60'
SCALE IN FEET
NORTH

CONSTRUCTION NOTES

1. HEAVY DUTY ASPHALT PAVEMENT
2. GRAVEL
3. CONCRETE CURB (TYPE A)
4. CONCRETE CURB AND GUTTER (TYPE A)
5. CONCRETE PAVEMENT
6. CONCRETE EQUIPMENT PAD (SEE STRUCTURAL PLANS FOR DETAILS)
7. TRUCK LOADING BAY
8. WROUGHT IRON PERIMETER FENCE (SEE ARCHITECTURAL PLANS FOR DETAILS)
9. 8' TALL PERIMETER WALL (SEE STRUCTURAL PLANS FOR DETAILS)
10. CONTAINMENT SUMP (SEE MECHANICAL PLANS FOR DETAILS)
11. 12' WIDE MANUAL DOUBLE SWING GATE
12. CONCRETE VALLEY GUTTER
13. UTILITY PIPE RACK FOUNDATIONS (SEE STRUCTURAL PLANS FOR DETAILS)
14. CONCRETE SIDEWALK
15. ISOTAINER SCALE



KEY PLAN
NOT TO SCALE

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

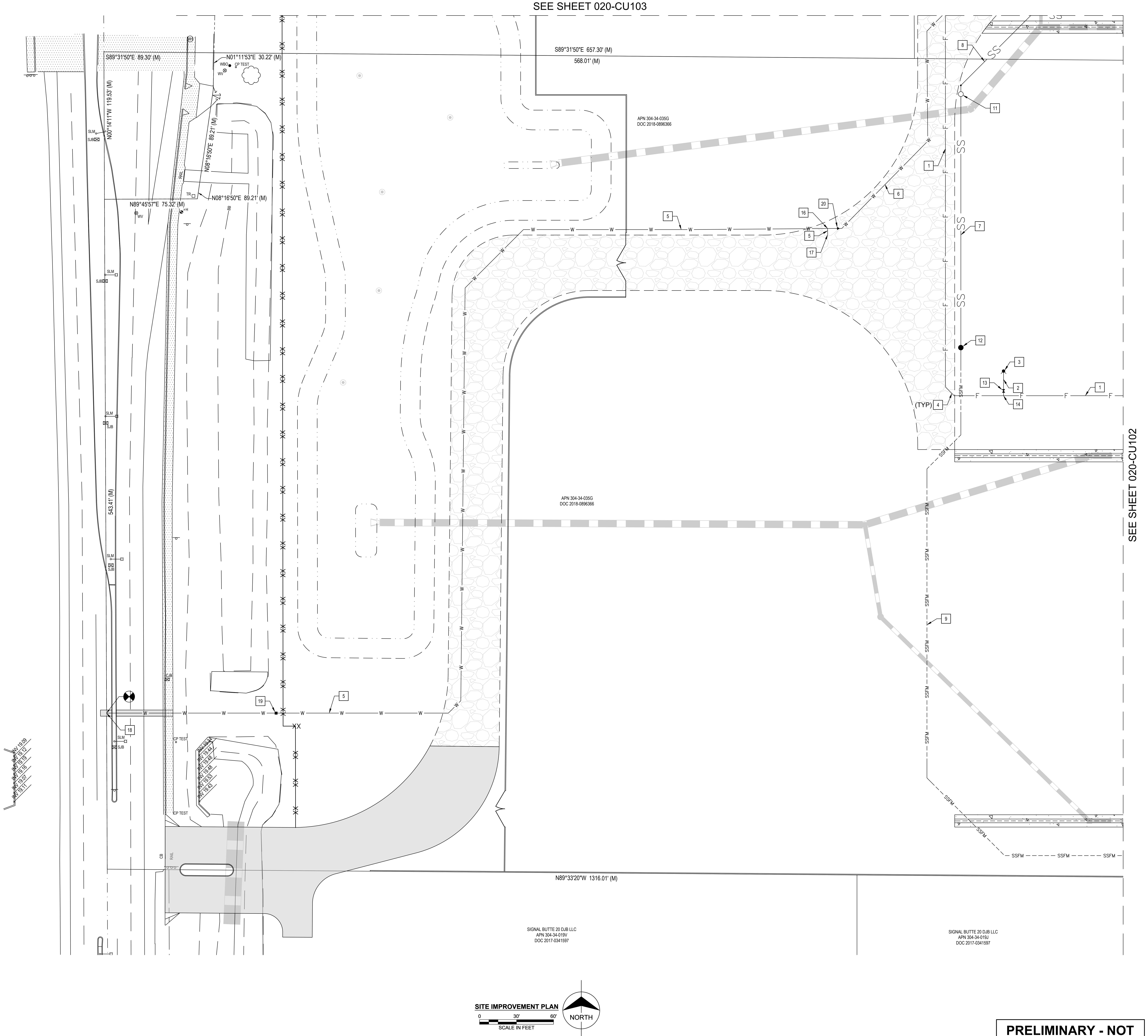
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
SITE PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020–CI104
SHEET ---- OF ##


SEE SHEET 020-CU103
SEE SHEET 020-CU102
S89°31'50"E 89.30' (M)
N01°11'53"E 30.22' (M)
S89°31'50"E 657.30' (M)
568.01' (M)
N00°14'11"W 119.53' (M)
N08°16'50"E 89.21' (M)
N08°16'50"E 89.21' (M)
N89°45'57"E 75.32' (M)
543.41' (M)
N89°33'20"W 1316.01' (M)
WBO
CP TEST
WV
MH
SLM
SJB
TR
RAIL
BB
H
CJB
CB
APN 304-34-035G
DOC 2018-0896366
APN 304-34-035G
DOC 2018-0896366
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019V
DOC 2017-0341597
SIGNAL BUTTE 20 DJB LLC
APN 304-34-019J
DOC 2017-0341597
INV 19.09
INV 19.12
INV 19.19
INV 19.16
INV 19.07
INV 19.11
INV 19.34
INV 19.44
INV 19.48
INV 19.48
INV 19.53
INV 19.43
W
F
SS
SSFM
(TYP)
1
2
3
4
5
6
7
8
9
11
12
13
14
16
17
18
19
20
0
30'
60'
SCALE IN FEET
NORTH

SITE IMPROVEMENT PLAN

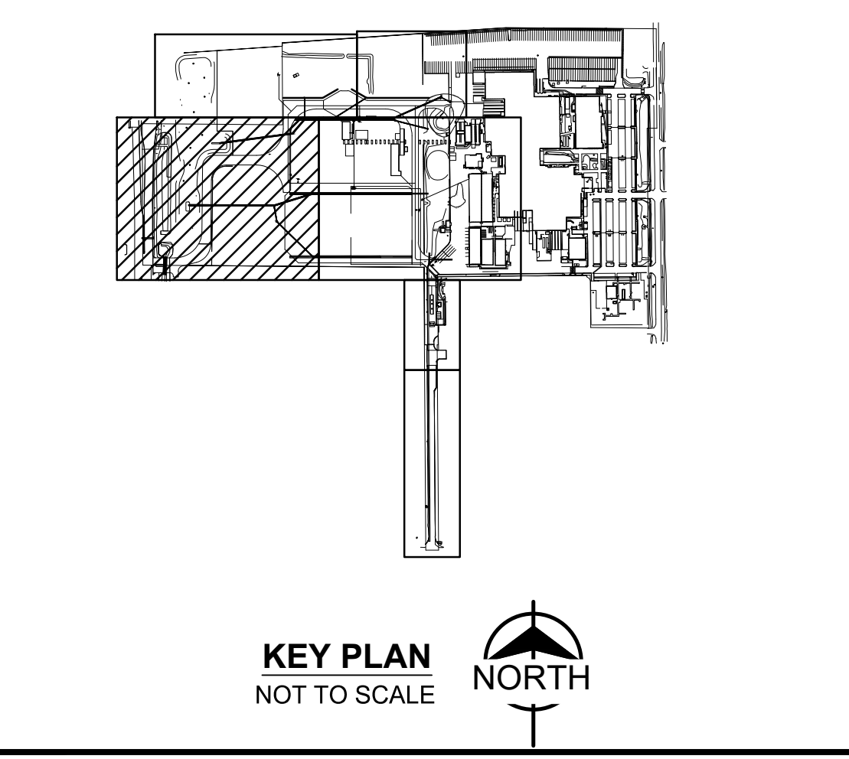
PRELIMINARY - NOT FOR CONSTRUCTION

GENERAL NOTES

1. SEE MEP PLANS FOR ALL BUILDING AND EQUIPMENT CONNECTIONS.
2. SEE ELECTRICAL PLANS FOR SITE LIGHTING LAYOUT.

CONSTRUCTION NOTES

1. 12" C-900 PVC FIRE SERVICE
2. 6" C-900 PVC FIRE SERVICE
3. FIRE HYDRANT
4. 45° BEND
5. 6" C-900 PVC DOMESTIC SERVICE
6. 4" SCH 40 PVC DOMESTIC SERVICE
7. 8" PVC SANITARY SEWER MAIN
8. 4" PVC SANITARY SEWER LATERAL
9. 1-1/2" SCH 40 PVC SANITARY SEWER FORCE MAIN
10. SANITARY SEWER CLEANOUT
11. CONCRETE SANITARY SEWER MANHOLE
12. PACKAGE PUMP STATION
13. 6" GATE VALVE & BOX
14. 12" X 6" TEE
15. 12" X 12" TEE
16. 6" X 6" TEE
17. 6" STUB PIPE FOR FUTURE EXPANSION
18. TAPPING SLEEVE AND VALVE
19. WATER METER
20. 6" X 4" REDUCER
21. ELECTRICAL DUCTBANK (SEE ELECTRICAL PLANS FOR DETAILS)



KEY PLAN
NOT TO SCALE

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

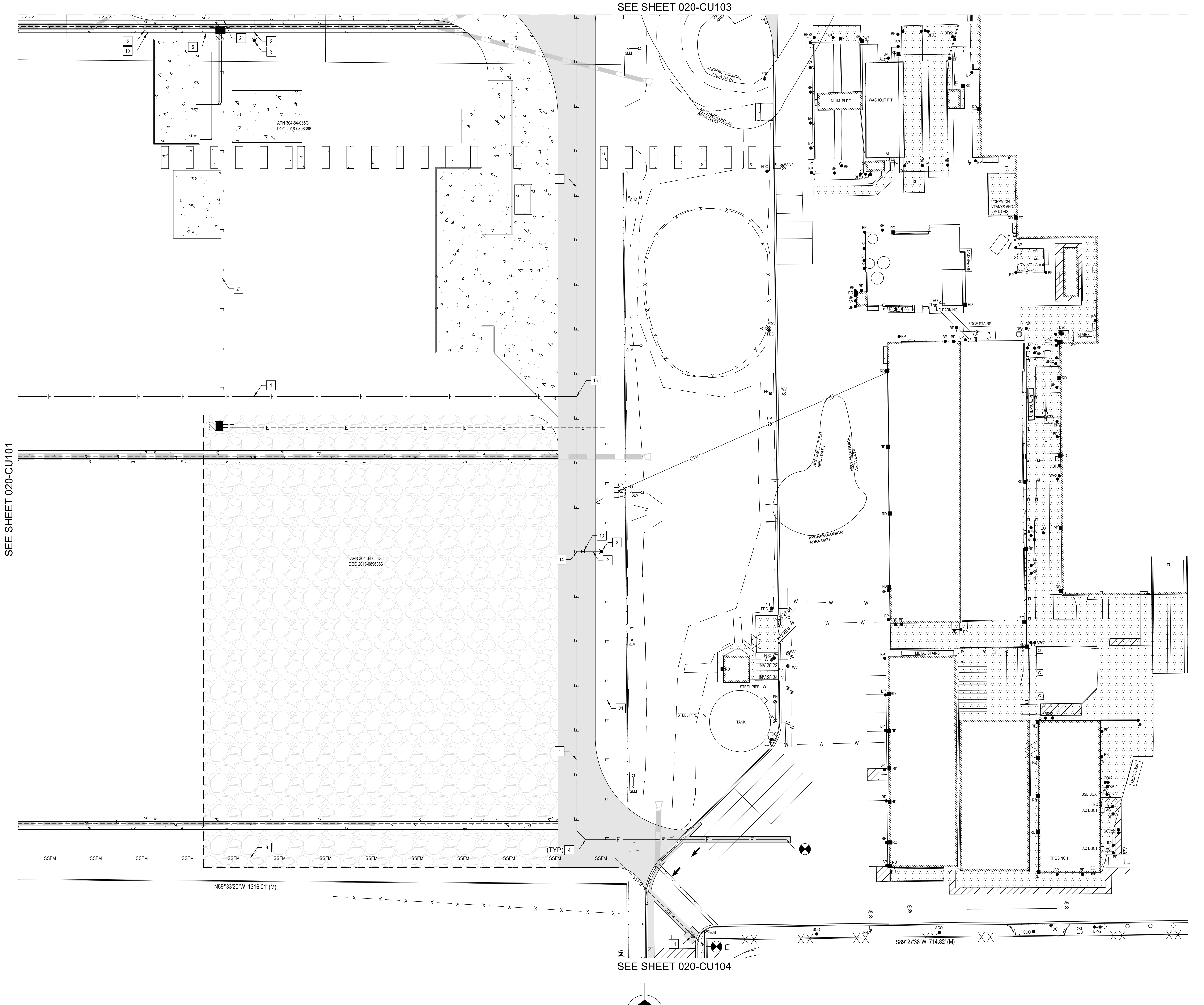
FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

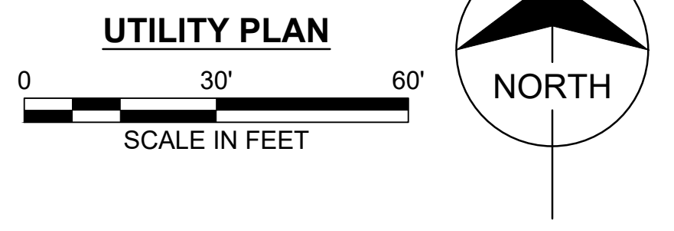
FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
UTILITY PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-CU101
SHEET ---- OF ##


SEE SHEET 020-CU103
SEE SHEET 020-CU101
SEE SHEET 020-CU104
APN 304-34-035G
DOC 2015-0896366
ARCHAEOLOGICAL AREA DATR
ALUM. BLDG
WASHOUT PIT
CHEMICAL TANKS AND MOTORS
NO PARKING
EDGE STAIRS
STAIRS
METAL STAIRS
STEEL PIPE
TANK
INV 28.22
INV 28.34
FUSE BOX
AC DUCT
TPE 3INCH
OHU
SSFM
(TYP)
N89°33'20"W 1316.01' (M)
S89°27'38"W 714.82' (M)

UTILITY PLAN


0
30'
60'
SCALE IN FEET
NORTH

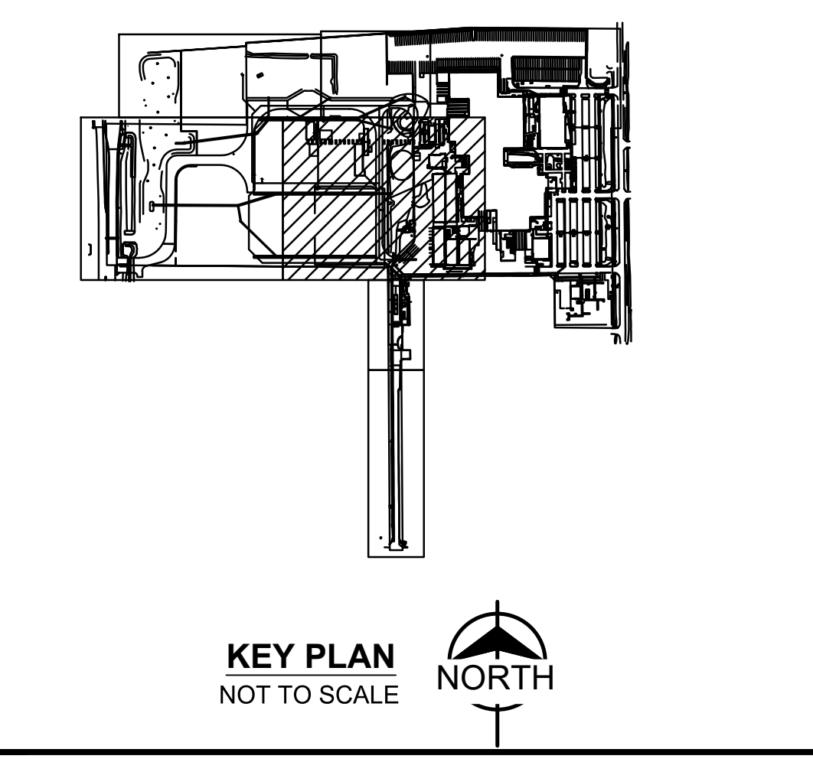
PRELIMINARY - NOT FOR CONSTRUCTION

GENERAL NOTES

1. SEE MEP PLANS FOR ALL BUILDING AND EQUIPMENT CONNECTIONS.
2. SEE ELECTRICAL PLANS FOR SITE LIGHTING LAYOUT.

CONSTRUCTION NOTES

1. 12" C-900 PVC FIRE SERVICE
2. 6" C-900 PVC FIRE SERVICE
3. FIRE HYDRANT
4. 45° BEND
5. 6" C-900 PVC DOMESTIC SERVICE
6. 4" SCH 40 PVC DOMESTIC SERVICE
7. 8" PVC SANITARY SEWER MAIN
8. 4" PVC SANITARY SEWER LATERAL
9. 1-1/2" SCH 40 PVC SANITARY SEWER FORCE MAIN
10. SANITARY SEWER CLEANOUT
11. CONCRETE SANITARY SEWER MANHOLE
12. PACKAGE PUMP STATION
13. 6" GATE VALVE & BOX
14. 12" X 6" TEE
15. 12" X 12" TEE
16. 6" X 6" TEE
17. 6" STUB PIPE FOR FUTURE EXPANSION
18. TAPPING SLEEVE AND VALVE
19. WATER METER
20. 6" X 4" REDUCER
21. ELECTRICAL DUCTBANK (SEE ELECTRICAL PLANS FOR DETAILS)



KEY PLAN
NOT TO SCALE

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

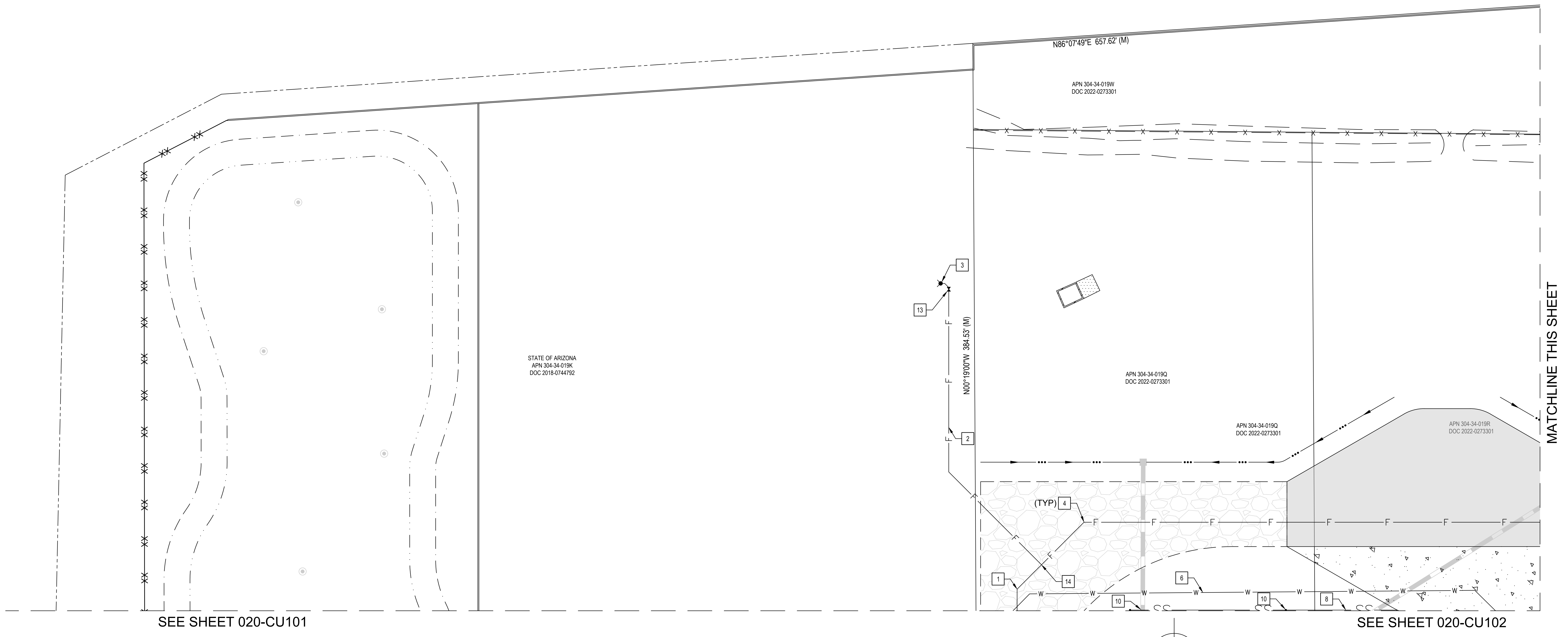
FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN

UTILITY PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-CU102
SHEET ---- OF ##

FUJIFILM PROPRIETARY AND CONFIDENTIAL

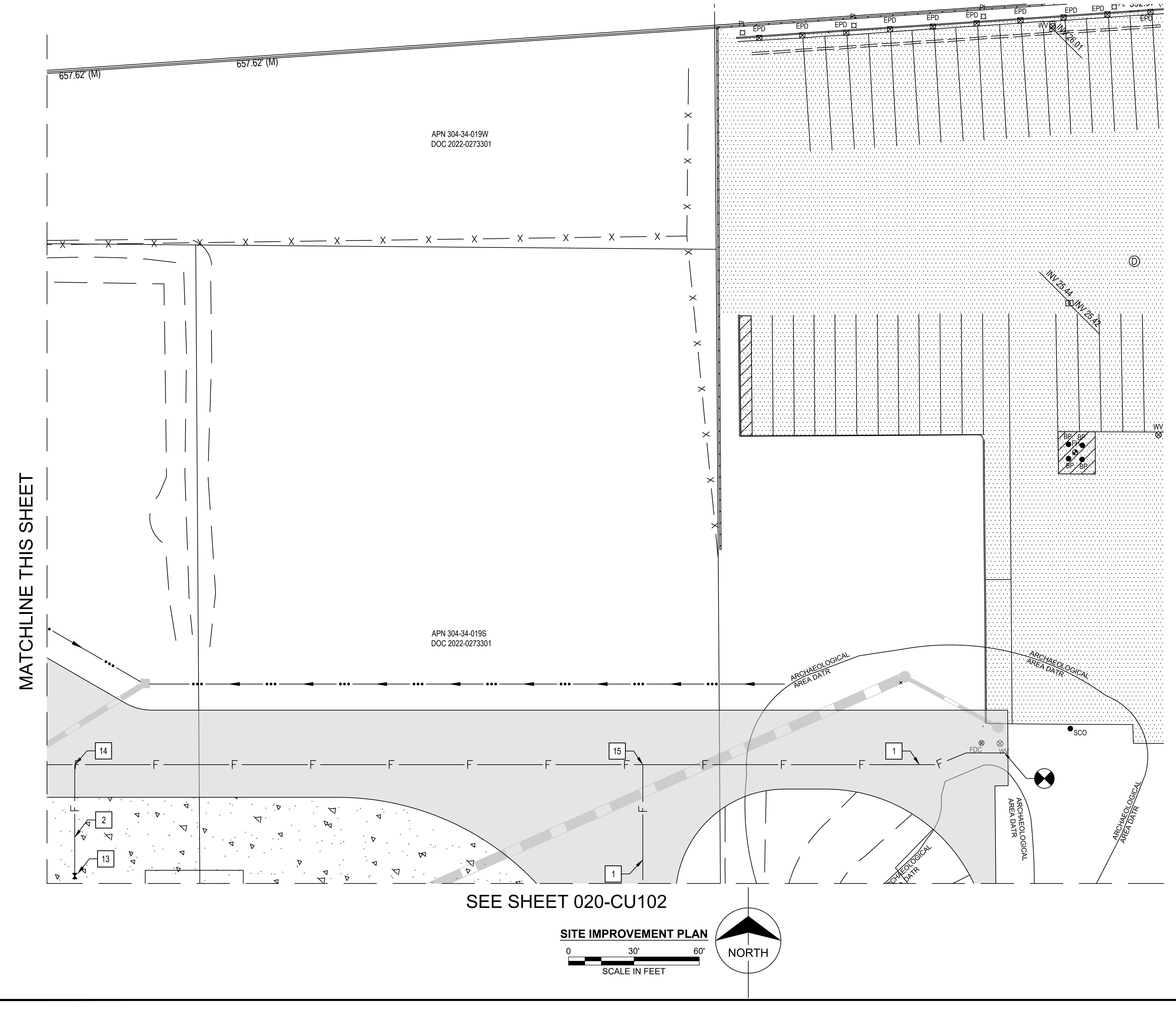

N86°07'49"E 657.62' (M)
APN 304-34-019W
DOC 2022-0273301
STATE OF ARIZONA
APN 304-34-019K
DOC 2018-0744792
N00°19'00"W 384.53' (M)
APN 304-34-019Q
DOC 2022-0273301
APN 304-34-019Q
DOC 2022-0273301
APN 304-34-019R
DOC 2022-0273301
(TYP)
3
13
2
4
1
14
6
10
10
8
MATCHLINE THIS SHEET
SEE SHEET 020-CU101
SEE SHEET 020-CU102

SITE IMPROVEMENT PLAN

0 30' 60'

SCALE IN FEET

NORTH


657.62' (M)
657.62' (M)
EPD
APN 304-34-019W
DOC 2022-0273301
INV 25.44
INV 26.30
APN 304-34-019S
DOC 2022-0273301
ARCHAEOLOGICAL AREA DATR
MATCHLINE THIS SHEET
14
15
1
2
13
1
FDC
SCO
SEE SHEET 020-CU102
NORTH

SITE IMPROVEMENT PLAN

0 30' 60'

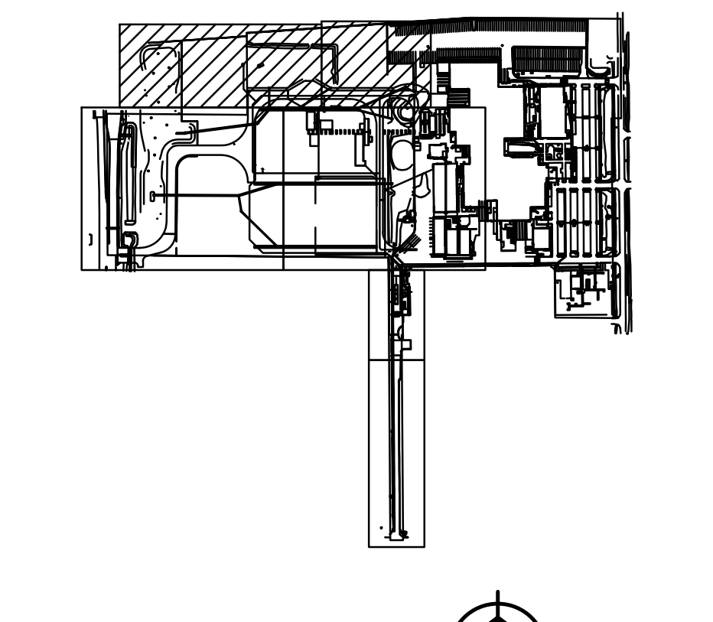
SCALE IN FEET

GENERAL NOTES

1. SEE MEP PLANS FOR ALL BUILDING AND EQUIPMENT CONNECTIONS.
2. SEE ELECTRICAL PLANS FOR SITE LIGHTING LAYOUT.

CONSTRUCTION NOTES

1. 12" C-900 PVC FIRE SERVICE
2. 6" C-900 PVC FIRE SERVICE
3. FIRE HYDRANT
4. 45° BEND
5. 6" C-900 PVC DOMESTIC SERVICE
6. 4" SCH 40 PVC DOMESTIC SERVICE
7. 8" PVC SANITARY SEWER MAIN
8. 4" PVC SANITARY SEWER LATERAL
9. 1-1/2" SCH 40 PVC SANITARY SEWER FORCE MAIN
10. SANITARY SEWER CLEANOUT
11. CONCRETE SANITARY SEWER MANHOLE
12. PACKAGE PUMP STATION
13. 6" GATE VALVE & BOX
14. 12" X 6" TEE
15. 12" X 12" TEE
16. 6" X 6" TEE
17. 6" STUB PIPE FOR FUTURE EXPANSION
18. TAPPING SLEEVE AND VALVE
19. WATER METER
20. 6" X 4" REDUCER
21. ELECTRICAL DUCTBANK (SEE ELECTRICAL PLANS FOR DETAILS)



KEY PLAN

NOT TO SCALE

NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

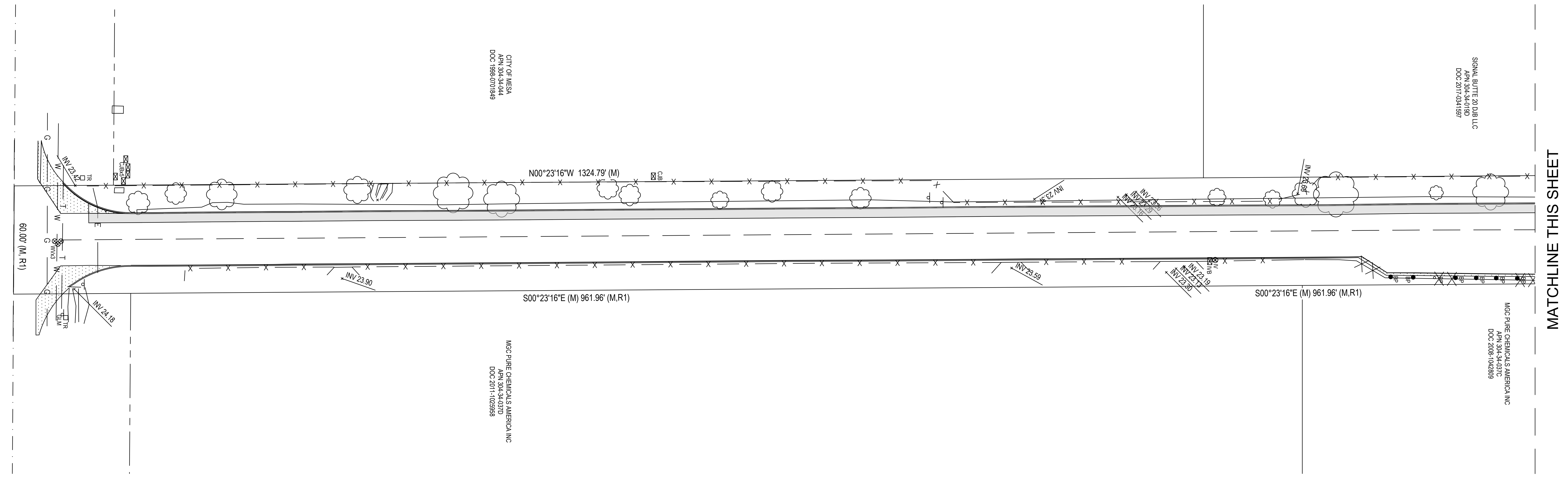
FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
UTILITY PLAN

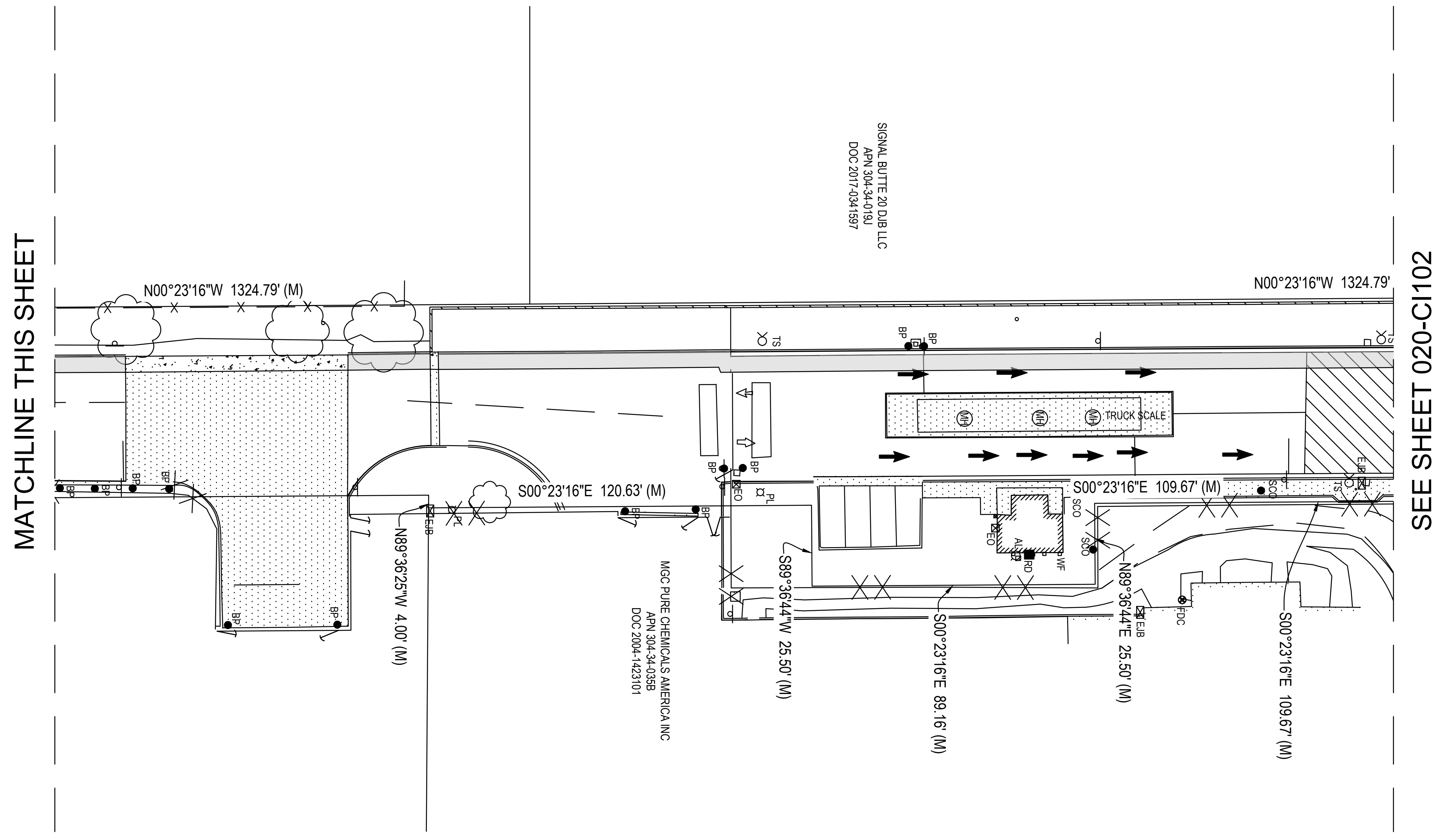
FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020-CU103
SHEET ---- OF ##


N00°23'16"W 1324.79' (M)
S00°23'16"E (M) 961.96' (M,R1)
S00°23'16"E (M) 961.96' (M,R1)
60.00' (M,R1)
INV 23.90
INV 24.18
INV 25.59
MATCHLINE THIS SHEET
CITY OF MESA
SIGNAL BUTTE 20 DJB LLC
MGC PURE CHEMICALS AMERICA INC

UTILITY PLAN

0 30' 60'
SCALE IN FEET
NORTH


MATCHLINE THIS SHEET
SEE SHEET 020-CI102
N00°23'16"W 1324.79' (M)
N00°23'16"W 1324.79'
S00°23'16"E 120.63' (M)
S00°23'16"E 109.67' (M)
N89°36'25"W 4.00' (M)
S89°36'44"W 25.50' (M)
S00°23'16"E 89.16' (M)
N89°36'44"E 25.50' (M)
S00°23'16"E 109.67' (M)
TRUCK SCALE
SIGNAL BUTTE 20 DJB LLC
MGC PURE CHEMICALS AMERICA INC

UTILITY PLAN

0 30' 60'
SCALE IN FEET
NORTH

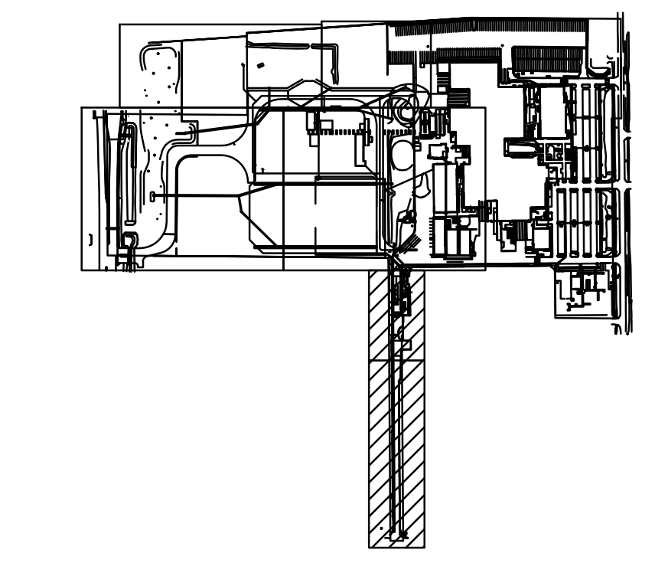
PRELIMINARY - NOT FOR CONSTRUCTION

GENERAL NOTES

1. SEE MEP PLANS FOR ALL BUILDING AND EQUIPMENT CONNECTIONS.
2. SEE ELECTRICAL PLANS FOR SITE LIGHTING LAYOUT.

CONSTRUCTION NOTES

1. 12" C-900 PVC FIRE SERVICE
2. 6" C-900 PVC FIRE SERVICE
3. FIRE HYDRANT
4. 45° BEND
5. 6" C-900 PVC DOMESTIC SERVICE
6. 4" SCH 40 PVC DOMESTIC SERVICE
7. 8" PVC SANITARY SEWER MAIN
8. 4" PVC SANITARY SEWER LATERAL
9. 1-1/2" SCH 40 PVC SANITARY SEWER FORCE MAIN
10. SANITARY SEWER CLEANOUT
11. CONCRETE SANITARY SEWER MANHOLE
12. PACKAGE PUMP STATION
13. 6" GATE VALVE & BOX
14. 12" X 6" TEE
15. 12" X 12" TEE
16. 6" X 6" TEE
17. 6" STUB PIPE FOR FUTURE EXPANSION
18. TAPPING SLEEVE AND VALVE
19. WATER METER
20. 6" X 4" REDUCER
21. ELECTRICAL DUCTBANK (SEE ELECTRICAL PLANS FOR DETAILS)



KEY PLAN
NOT TO SCALE
NORTH

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

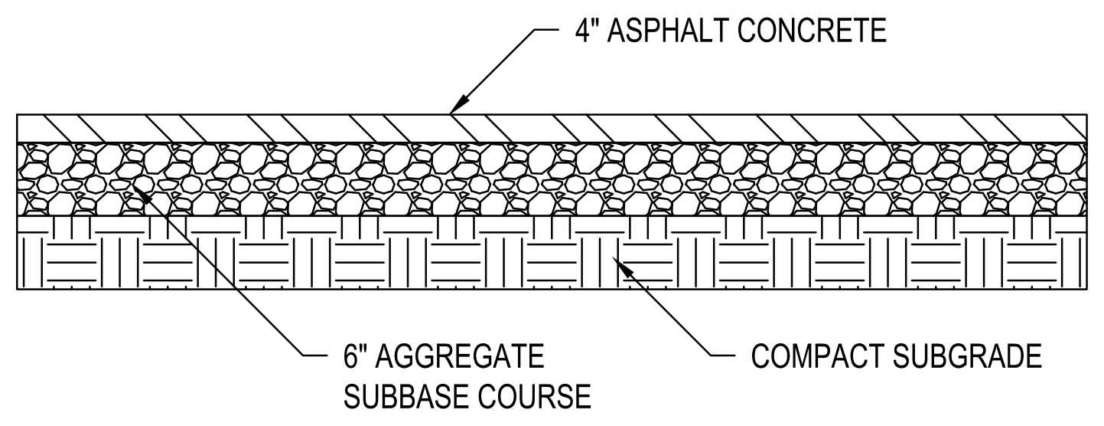
FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
UTILITY PLAN

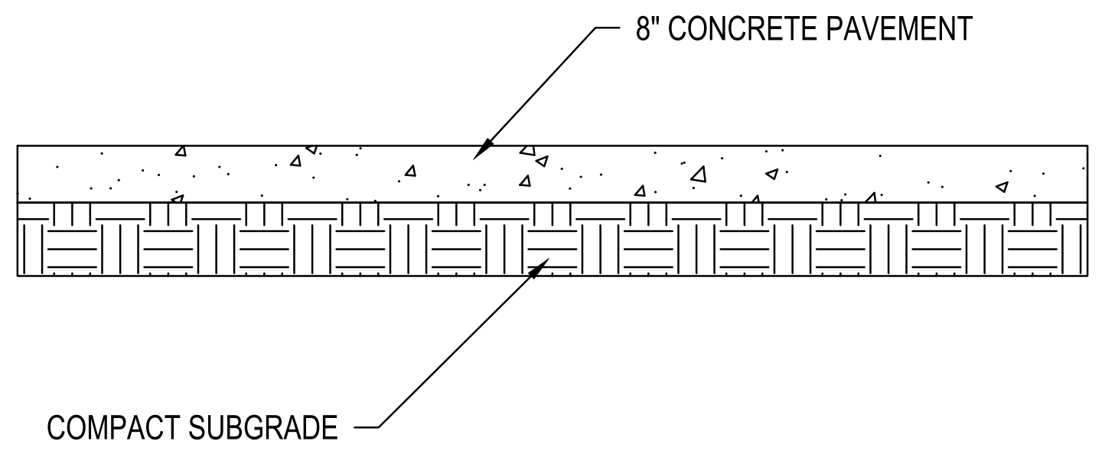
FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020–CU104
SHEET ---- OF ##


4" ASPHALT CONCRETE
6" AGGREGATE SUBBASE COURSE
COMPACT SUBGRADE

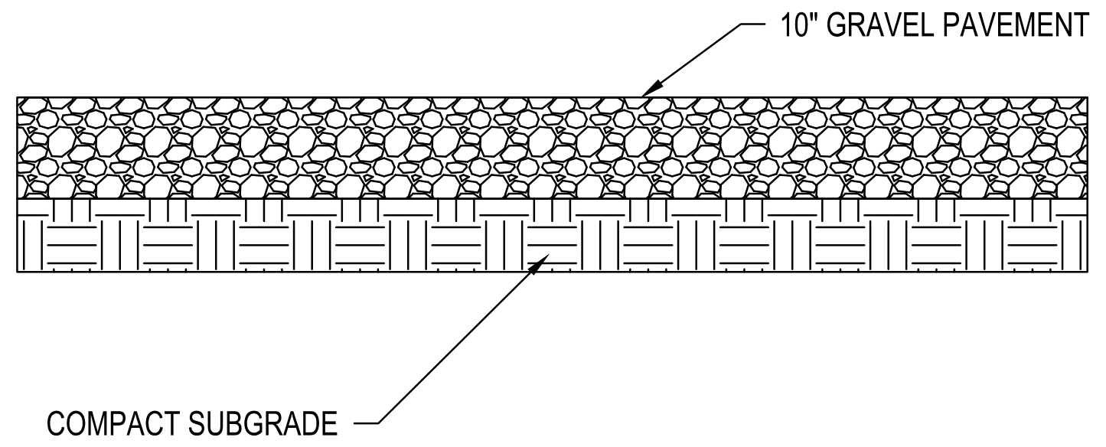
HEAVY DUTY ASPHALT PAVEMENT

NOT TO SCALE


8" CONCRETE PAVEMENT
COMPACT SUBGRADE

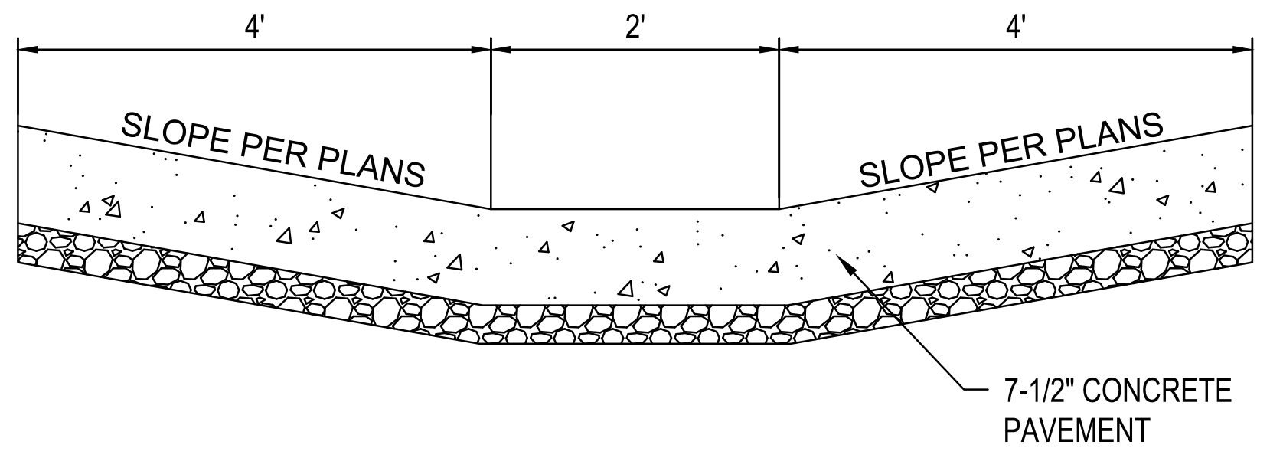
CONCRETE PAVEMENT

NOT TO SCALE


10" GRAVEL PAVEMENT
COMPACT SUBGRADE

GRAVEL PAVEMENT

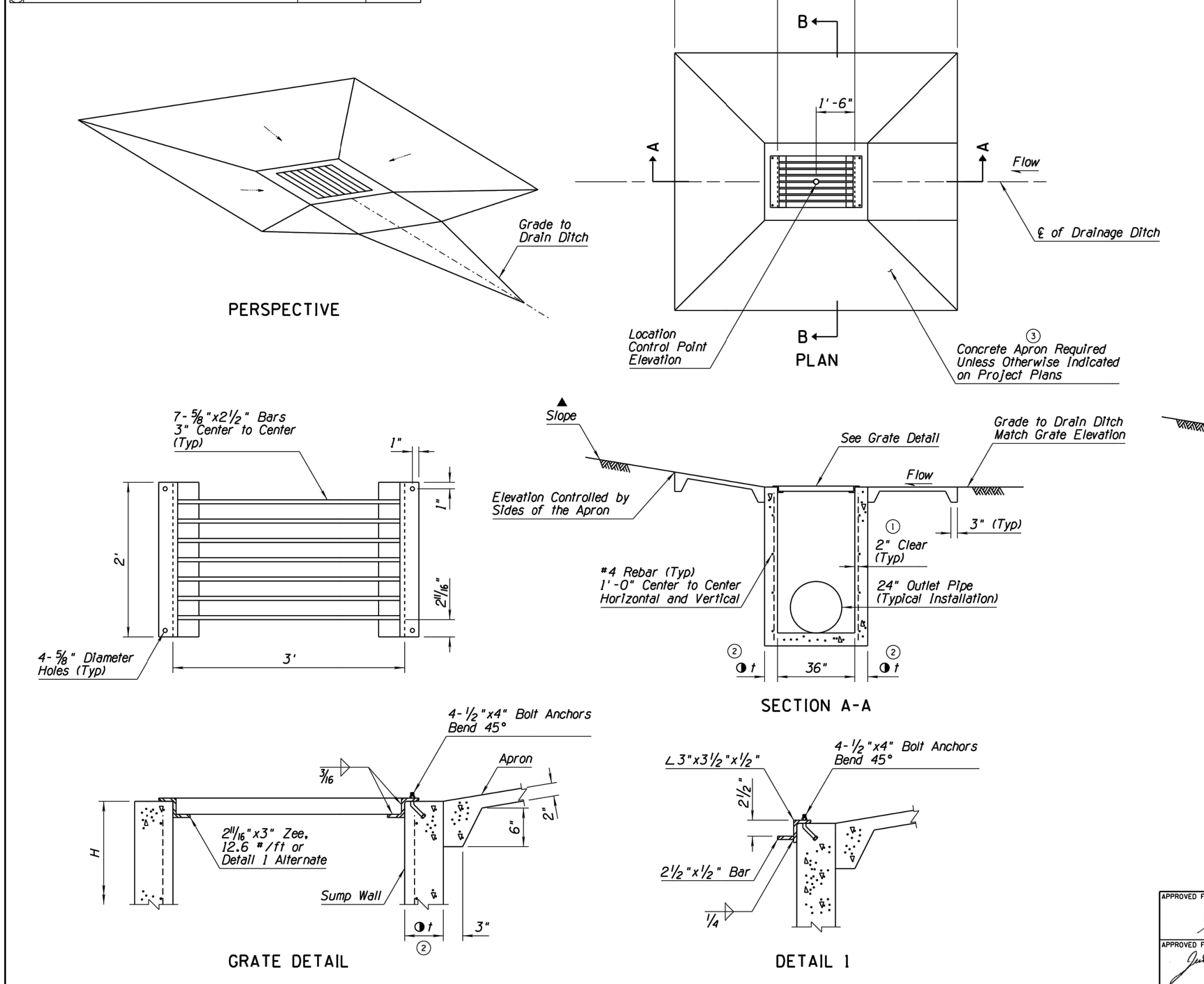
NOT TO SCALE


4'
2'
4'
SLOPE PER PLANS
SLOPE PER PLANS
7-1/2" CONCRETE PAVEMENT

VALLEY GUTTER

NOT TO SCALE

NO.	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	REVISED CLEAR COVER	RLF	5/04
2	REVISED THICKNESS SPECIFICATION	RLF	5/04
3	ADDED CONCRETE REQUIREMENT	RLF	5/04
4			

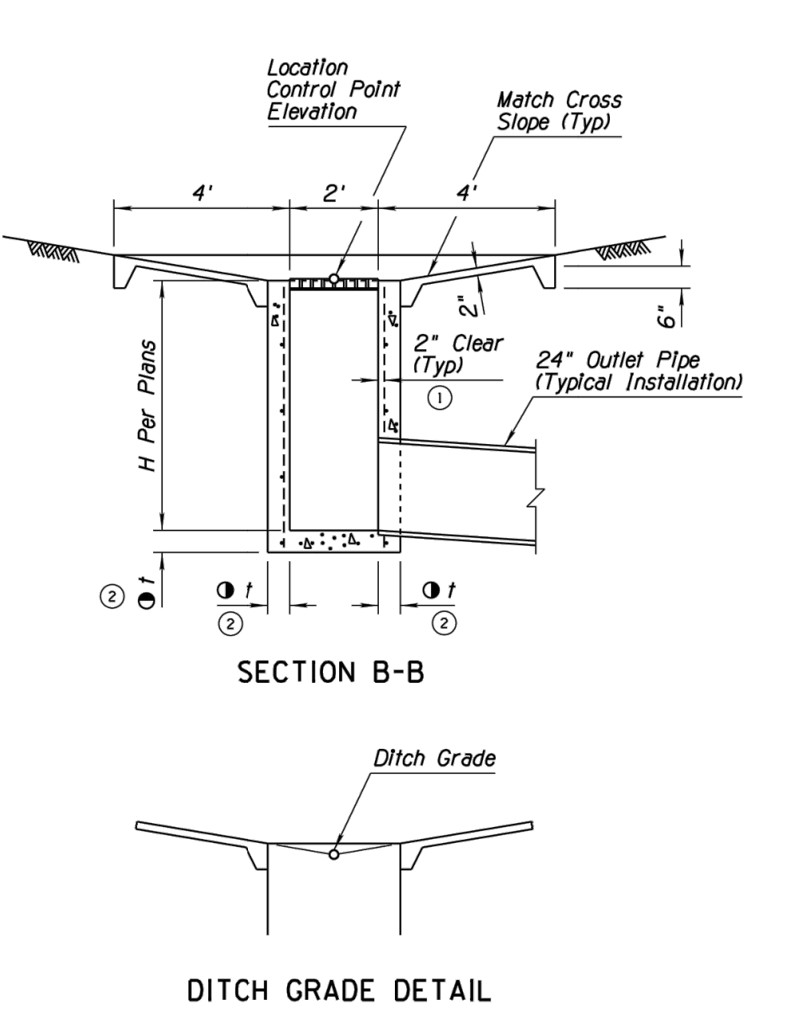

PERSPECTIVE
Varies
3'
4'
B
1'-6"
A
A
Flow
Grade to Drain Ditch
Ɇ of Drainage Ditch
Location Control Point Elevation
PLAN
Concrete Apron Required Unless Otherwise Indicated on Project Plans
7-5/8"x2 1/2" Bars 1" Center to Center (Typ)
1"
2'
3'
4-5/8" Diameter Holes (Typ)
Slope
See Grate Detail
Grade to Drain Ditch Match Grate Elevation
Flow
Elevation Controlled by Slides of the Apron
1
2" Clear (Typ)
3" (Typ)
#4 Rebar (Typ) 1'-0" Center to Center Horizontal and Vertical
24" Outlet Pipe (Typical Installation)
36"
SECTION A-A
4-1/2"x4" Bolt Anchors Bend 45°
Apron
2 3/8"x3" Zee, 12.6 #/ft or Detail 1 Alternate
Sump Wall
GRATE DETAIL
L3"x3 1/2"x1/2"
4-1/2"x4" Bolt Anchors Bend 45°
2 1/2"x1/2" Bar
1/4
3"
DETAIL 1

GENERAL NOTES

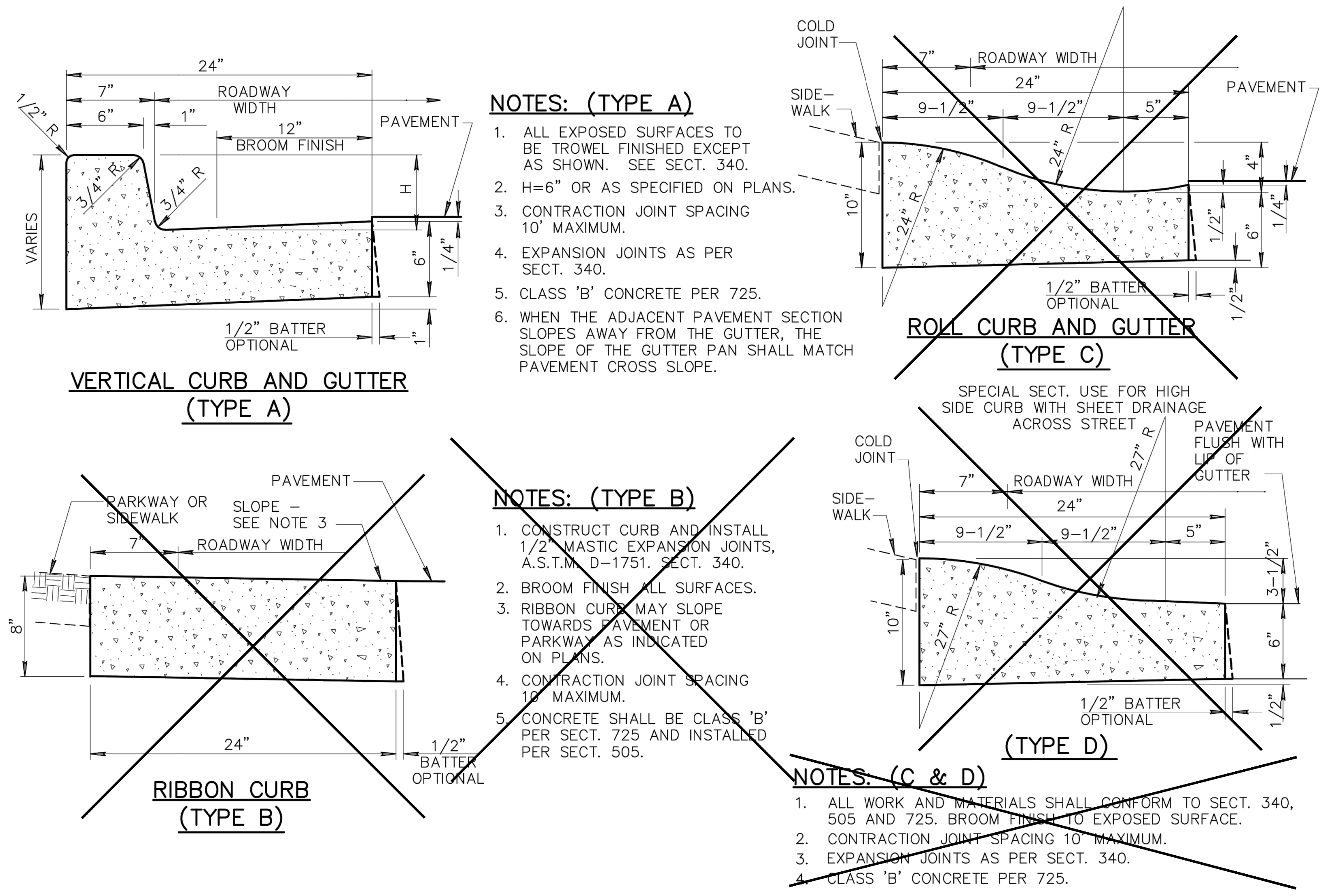
1. All concrete shall be Class B.
2. Grate and frame shall be fabricated of structural steel in accordance with ASTM A36.
3. All welding shall be in accordance with Std Spec 604-3.06.
4. Grate assembly shall be given one shop coat of Number 1 paint.

▲ Apron slopes shall match the natural flow line of the ditch. No additional depression will be allowed.

② ◑t = 6" when H is 8' or less
8" when H is greater than 8'


Location Control Point Elevation
Match Cross Slope (Typ)
4'
2'
4'
2" Clear (Typ)
24" Outlet Pipe (Typical Installation)
H Per Plans
SECTION B-B
Ditch Grade
DITCH GRADE DETAIL

APPROVED FOR DESIGN	STATE OF ARIZONA DEPARTMENT OF TRANSPORTATION ROADWAY STANDARD DRAWINGS	REV. 5/12
APPROVED FOR DISTRIBUTION	CATCH BASIN FLUSH	DRAWING NO. C-15.80


24"
7"
ROADWAY WIDTH
6"
1"
12"
BROOM FINISH
PAVEMENT
1/2" R
3/4" R
3/4" R
VARIES
H
6"
1/4"
1"
1/2" BATTER OPTIONAL
VERTICAL CURB AND GUTTER (TYPE A)
PARKWAY OR SIDEWALK
SLOPE - SEE NOTE 3
ROADWAY WIDTH
PAVEMENT
7"
8"
24"
1/2" BATTER OPTIONAL
RIBBON CURB (TYPE B)
COLD JOINT
SIDE-WALK
ROADWAY WIDTH
24"
9-1/2"
9-1/2"
5"
10"
24" R
1/2" BATTER OPTIONAL
ROLL CURB AND GUTTER (TYPE C)
SPECIAL SECT. USE FOR HIGH SIDE CURB WITH SHEET DRAINAGE ACROSS STREET
PAVEMENT FLUSH WITH LIP OF GUTTER
27" R
3-1/2"
6"
1/2"
(TYPE D)

NOTES: (TYPE A)

1. ALL EXPOSED SURFACES TO BE TROWEL FINISHED EXCEPT AS SHOWN. SEE SECT. 340.
2. H=6" OR AS SPECIFIED ON PLANS.
3. CONTRACTION JOINT SPACING 10' MAXIMUM.
4. EXPANSION JOINTS AS PER SECT. 340.
5. CLASS 'B' CONCRETE PER 725.
6. WHEN THE ADJACENT PAVEMENT SECTION SLOPES AWAY FROM THE GUTTER, THE SLOPE OF THE GUTTER PAN SHALL MATCH PAVEMENT CROSS SLOPE.

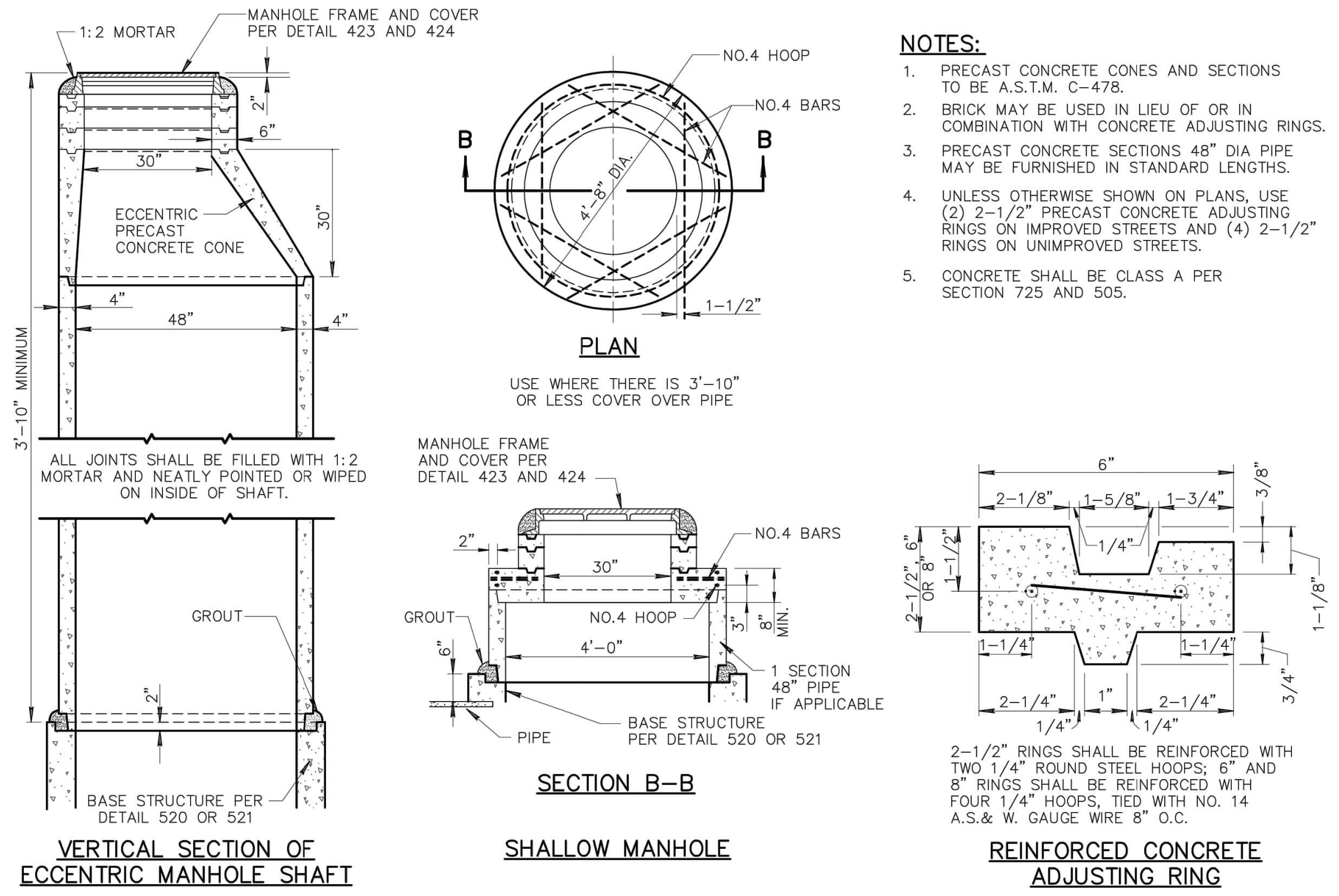
~~NOTES: (TYPE B)~~

1. ~~CONSTRUCT CURB AND INSTALL 1/2" MASTIC EXPANSION JOINTS, A.S.T.M. D-1751. SECT. 340.~~
2. ~~BROOM FINISH ALL SURFACES.~~
3. ~~RIBBON CURB MAY SLOPE TOWARDS PAVEMENT OR PARKWAY AS INDICATED ON PLANS.~~
4. ~~CONTRACTION JOINT SPACING 10' MAXIMUM.~~
5. ~~CONCRETE SHALL BE CLASS 'B' PER SECT. 725 AND INSTALLED PER SECT. 505.~~

~~NOTES: (C & D)~~

1. ~~ALL WORK AND MATERIALS SHALL CONFORM TO SECT. 340, 505 AND 725. BROOM FINISH TO EXPOSED SURFACE.~~
2. ~~CONTRACTION JOINT SPACING 10' MAXIMUM.~~
3. ~~EXPANSION JOINTS AS PER SECT. 340.~~
4. ~~CLASS 'B' CONCRETE PER 725.~~

DETAIL NO.	MARICOPA ASSOCIATION of GOVERNMENTS	STANDARD DETAIL ENGLISH	CURB AND GUTTER TYPES A, B, C AND D	REVISED 01-01-2021	DETAIL NO.
220-1					220-1

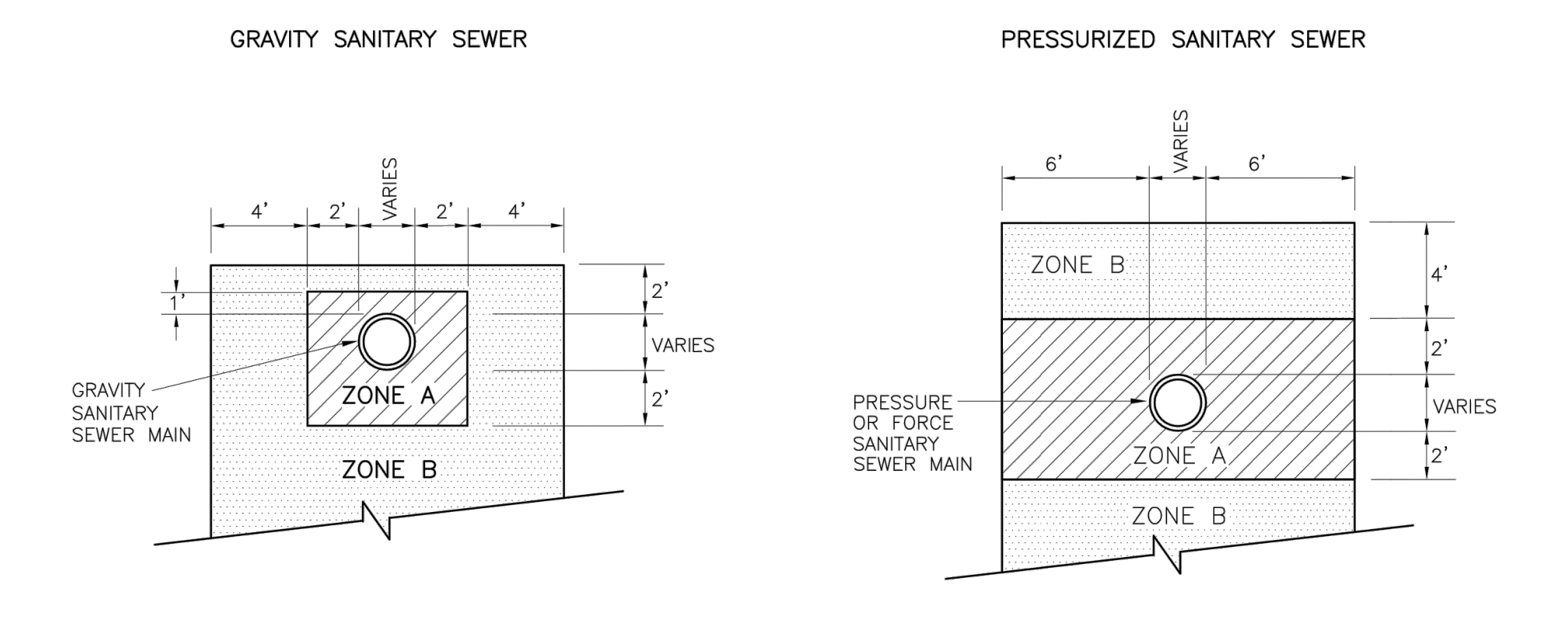

1:2 MORTAR
MANHOLE FRAME AND COVER PER DETAIL 423 AND 424
6"
30"
30"
ECCENTRIC PRECAST CONCRETE CONE
4"
48"
4"
3'-10" MINIMUM
ALL JOINTS SHALL BE FILLED WITH 1:2 MORTAR AND NEATLY POINTED OR WIPED ON INSIDE OF SHAFT.
GROUT
BASE STRUCTURE PER DETAIL 520 OR 521
VERTICAL SECTION OF ECCENTRIC MANHOLE SHAFT
NO.4 HOOP
NO.4 BARS
B
B
PLAN
1-1/2"
USE WHERE THERE IS 3'-10" OR LESS COVER OVER PIPE
MANHOLE FRAME AND COVER PER DETAIL 423 AND 424
NO.4 BARS
30"
NO.4 HOOP
4'-0"
GROUT
PIPE
1 SECTION 48" PIPE IF APPLICABLE
BASE STRUCTURE PER DETAIL 520 OR 521
SECTION B-B
SHALLOW MANHOLE
6"
2-1/8"
1-5/8"
1-3/4"
1/4"
1-1/4"
2-1/4"
3/8"
1-1/8"
3/4"
2-1/2" RINGS SHALL BE REINFORCED WITH TWO 1/4" ROUND STEEL HOOPS; 6" AND 8" RINGS SHALL BE REINFORCED WITH FOUR 1/4" HOOPS, TIED WITH NO. 14 A.S.& W. GAUGE WIRE 8" O.C.
REINFORCED CONCRETE ADJUSTING RING

NOTES:

1. PRECAST CONCRETE CONES AND SECTIONS TO BE A.S.T.M. C-478.
2. BRICK MAY BE USED IN LIEU OF OR IN COMBINATION WITH CONCRETE ADJUSTING RINGS.
3. PRECAST CONCRETE SECTIONS 48" DIA PIPE MAY BE FURNISHED IN STANDARD LENGTHS.
4. UNLESS OTHERWISE SHOWN ON PLANS, USE (2) 2-1/2" PRECAST CONCRETE ADJUSTING RINGS ON IMPROVED STREETS AND (4) 2-1/2" RINGS ON UNIMPROVED STREETS.
5. CONCRETE SHALL BE CLASS A PER SECTION 725 AND 505.

DETAIL NO.	MARICOPA ASSOCIATION of GOVERNMENTS	STANDARD DETAIL ENGLISH	STORM DRAIN MANHOLE SHAFT	REVISED 01-01-2015	DETAIL NO.
522					522

WATER LINE EXCLUSION AND EXTRA PROTECTION ZONES*


GRAVITY SANITARY SEWER
4'
2'
2'
4'
VARIES
2'
2'
VARIES
GRAVITY SANITARY SEWER MAIN
ZONE A
ZONE B
PRESSURIZED SANITARY SEWER
6'
6'
VARIES
ZONE B
4'
2'
2'
VARIES
PRESSURE OR FORCE SANITARY SEWER MAIN
ZONE A
ZONE B

NOTES:

ZONE A: NO WATER LINES ALLOWED/MINIMUM SEPARATION.

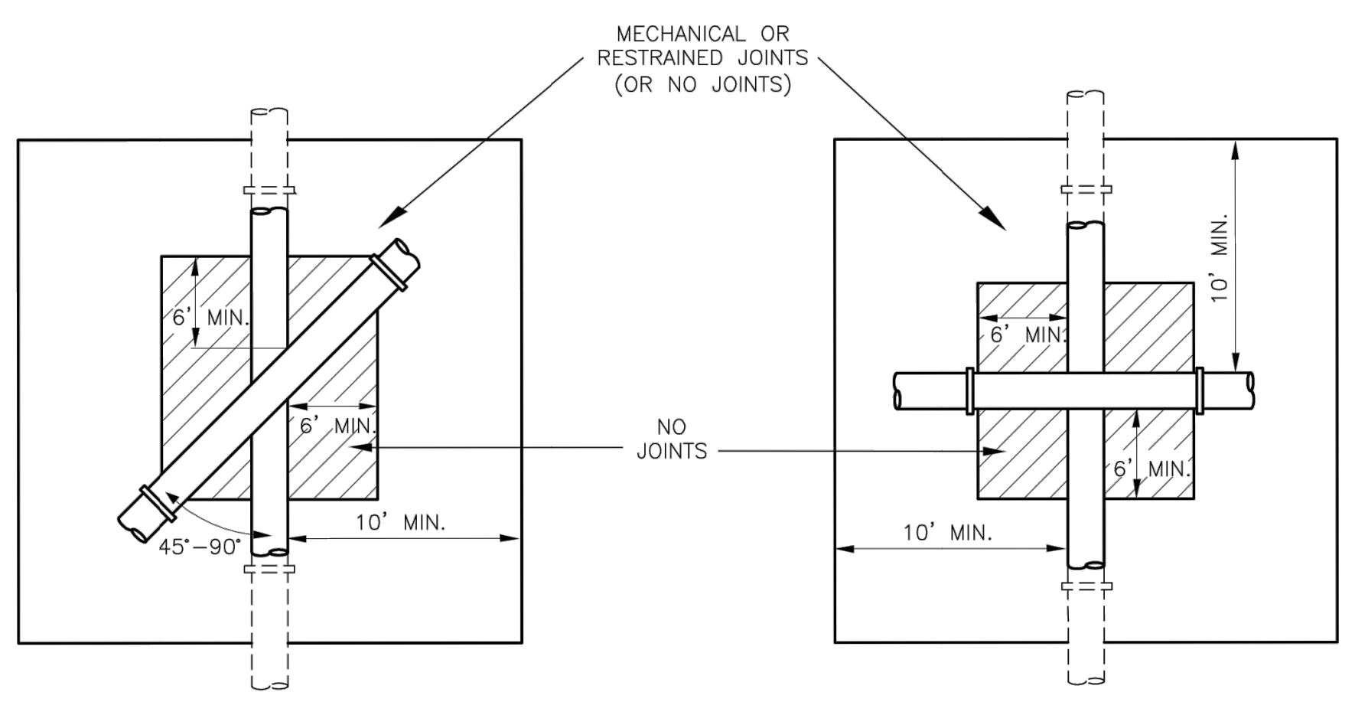
ZONE B: EXTRA PROTECTION REQUIRED FOR WATER LINES.

* REFER TO SECTION 610, WATER LINE CONSTRUCTION.

DETAIL NO.	MARICOPA ASSOCIATION of GOVERNMENTS	STANDARD DETAIL ENGLISH	WATER AND SANITARY SEWER SEPARATION/PROTECTION	REVISED 01-01-2020	DETAIL NO.
404-1					404-1

WATER LINE EXTRA PROTECTION

DUCTILE IRON PIPE WITH RESTRAINED OR MECHANICAL JOINTS*

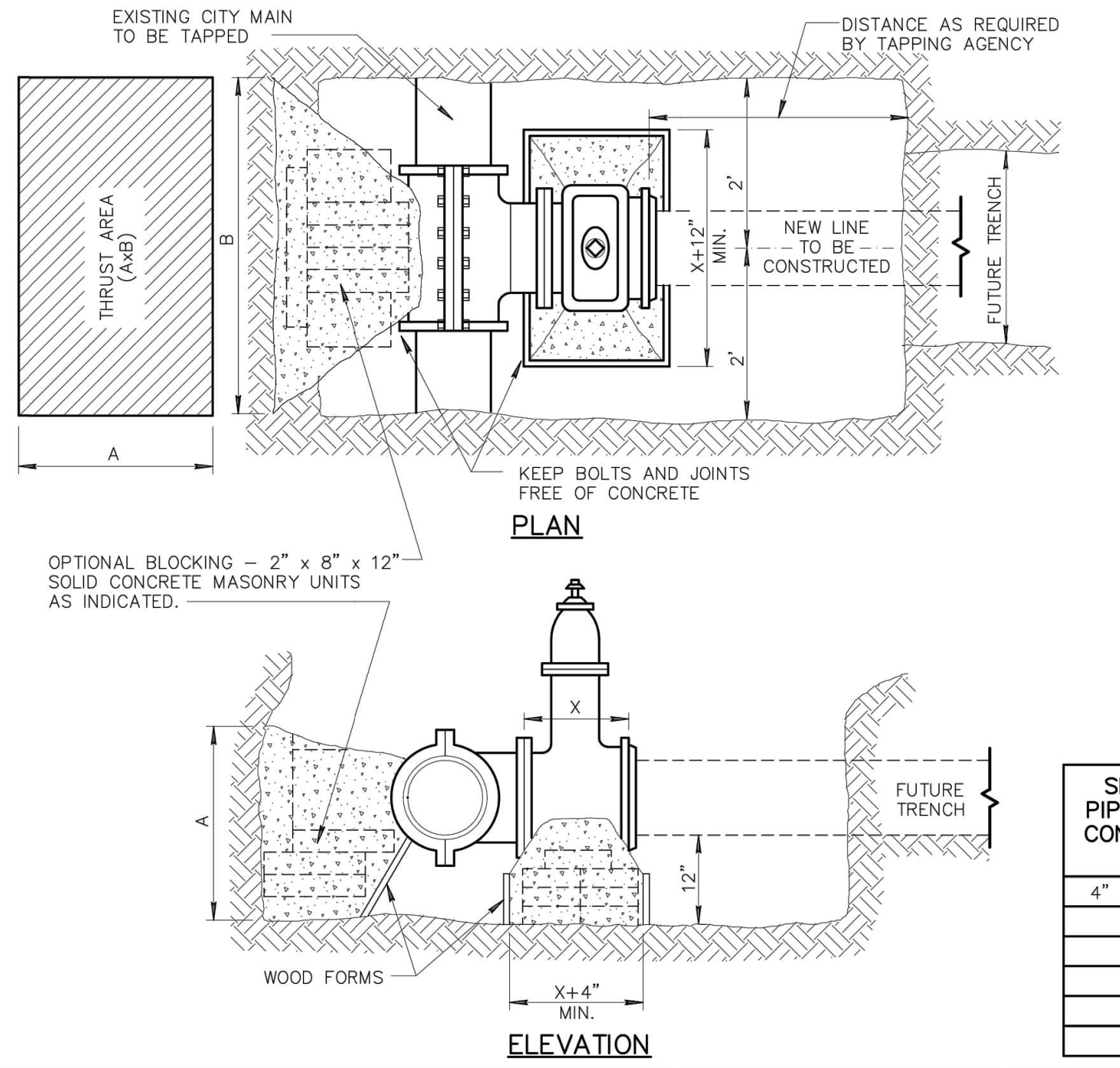

MECHANICAL OR RESTRAINED JOINTS (OR NO JOINTS)
6' MIN.
8' MIN.
45°-90°
10' MIN.
NO JOINTS
10' MIN.
8' MIN.
6' MIN.
10' MIN.

EXTRA PROTECTION DUCTILE IRON PIPE (GRAVITY OR PRESSURIZED) SEWER LINE

NOTES:

* REFER TO MAG STANDARD SPECIFICATION SECTION 610.

DETAIL NO.	MARICOPA ASSOCIATION of GOVERNMENTS	STANDARD DETAIL ENGLISH	WATER AND SANITARY SEWER SEPARATION/PROTECTION	REVISED 01-01-2006	DETAIL NO.
404-2					404-2

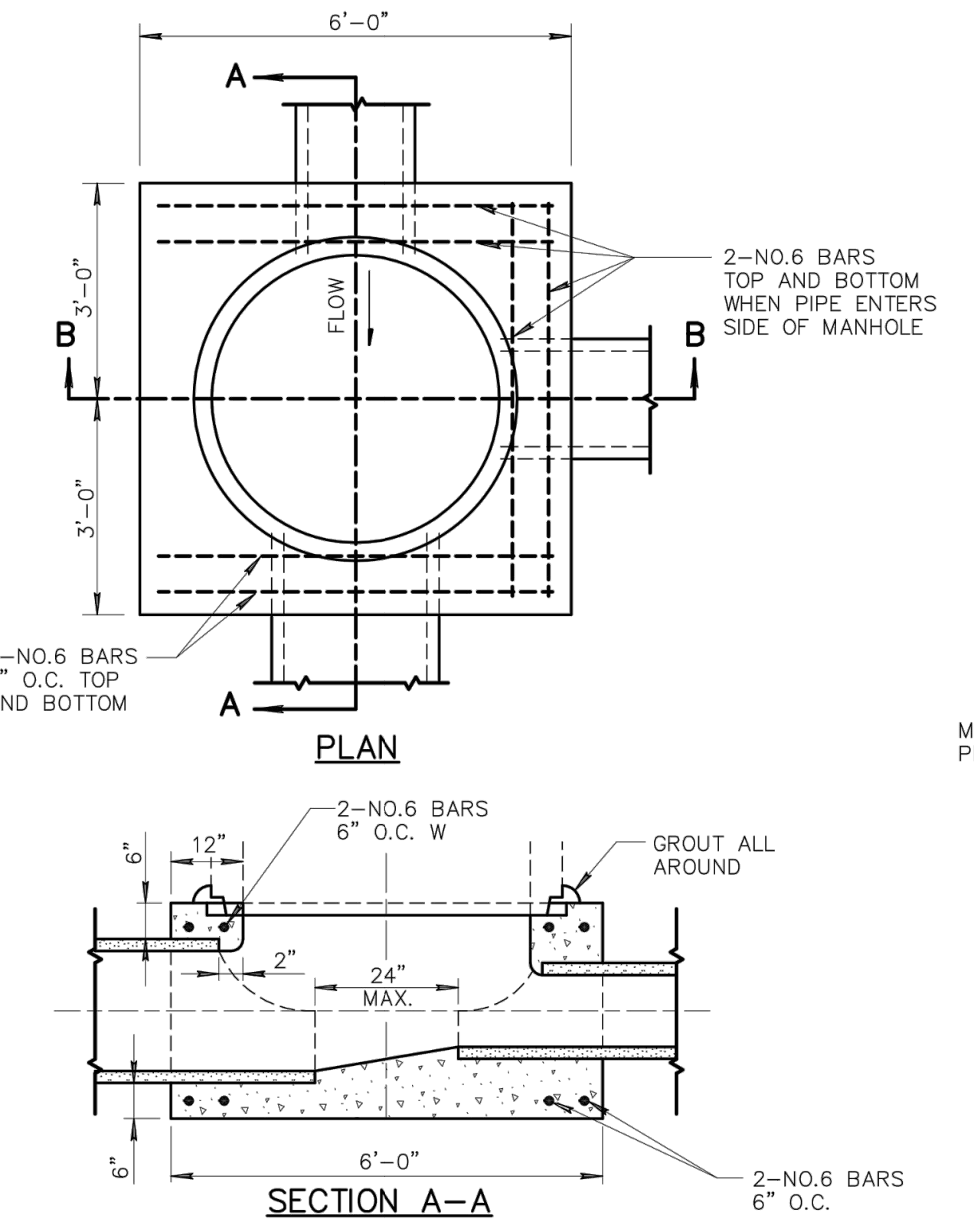

EXISTING CITY MAIN TO BE TAPPED
DISTANCE AS REQUIRED BY TAPPING AGENCY
THRUST AREA (AxB)
B
A
X+12" MIN.
NEW LINE TO BE CONSTRUCTED
FUTURE TRENCH
KEEP BOLTS AND JOINTS FREE OF CONCRETE
PLAN
OPTIONAL BLOCKING - 2" x 8" x 12" SOLID CONCRETE MASONRY UNITS AS INDICATED.
X
A
FUTURE TRENCH
12"
X+4" MIN.
WOOD FORMS
ELEVATION

NOTES:

1. TAPPING SLEEVE TO BE PLACED A MINIMUM OF 18" FROM ANY BELL COUPLING, VALVE, FITTING OR OTHER OBSTRUCTION
2. CONTRACTOR SHALL EXCAVATE AS SHOWN AND SHALL SET TAPPING SLEEVE AND VALVE AND TIGHTEN ALL BOLTS PRIOR TO THE PRESSURE TEST.
3. ALL TAPPING SLEEVES AND VALVES MUST BE PRESSURE TESTED PRIOR TO BLOCKING OR TAPPING. THE TEST MUST BE WITNESSED AND APPROVED BY THE INSPECTOR.
4. BLOCKS ARE TO EXTEND TO UNDISTURBED GROUND AND BE INSTALLED BEFORE THE TAP IS MADE. ALL FLANGE BOLTS SHALL BE FREE AND CLEAR OF CONCRETE.
5. CONCRETE THRUST BLOCKS SHALL BE CLASS 'B' PER SECT. 725. NORMALLY, CURE TIME FOR CONCRETE IS 24 HOURS BEFORE BACKFILLING.
6. TAPS SHALL BE MADE BY CITY CREWS AT PREVAILING RATES OR BY APPROVED CONTRACTORS WHEN ALLOWED BY AGENCY.
7. THIS DETAIL COVERS TAPPING SLEEVES 4" THROUGH 16" IN SIZE ON DUCTILE IRON, CAST IRON AND ASBESTOS CEMENT PIPE. ANY OTHER SIZE OR TYPE OF PIPE WILL REQUIRE A SEPARATE SUBMITTAL AND APPROVAL BY THE ENGINEER.

SIZE OF PIPE BEING CONNECTED	MINIMUM THRUST AREA REQUIRED EQUALS (AxB) (SQUARE FEET)
4" AND LESS	3
6"	4
8"	6
10"	9
12"	13
16"	23

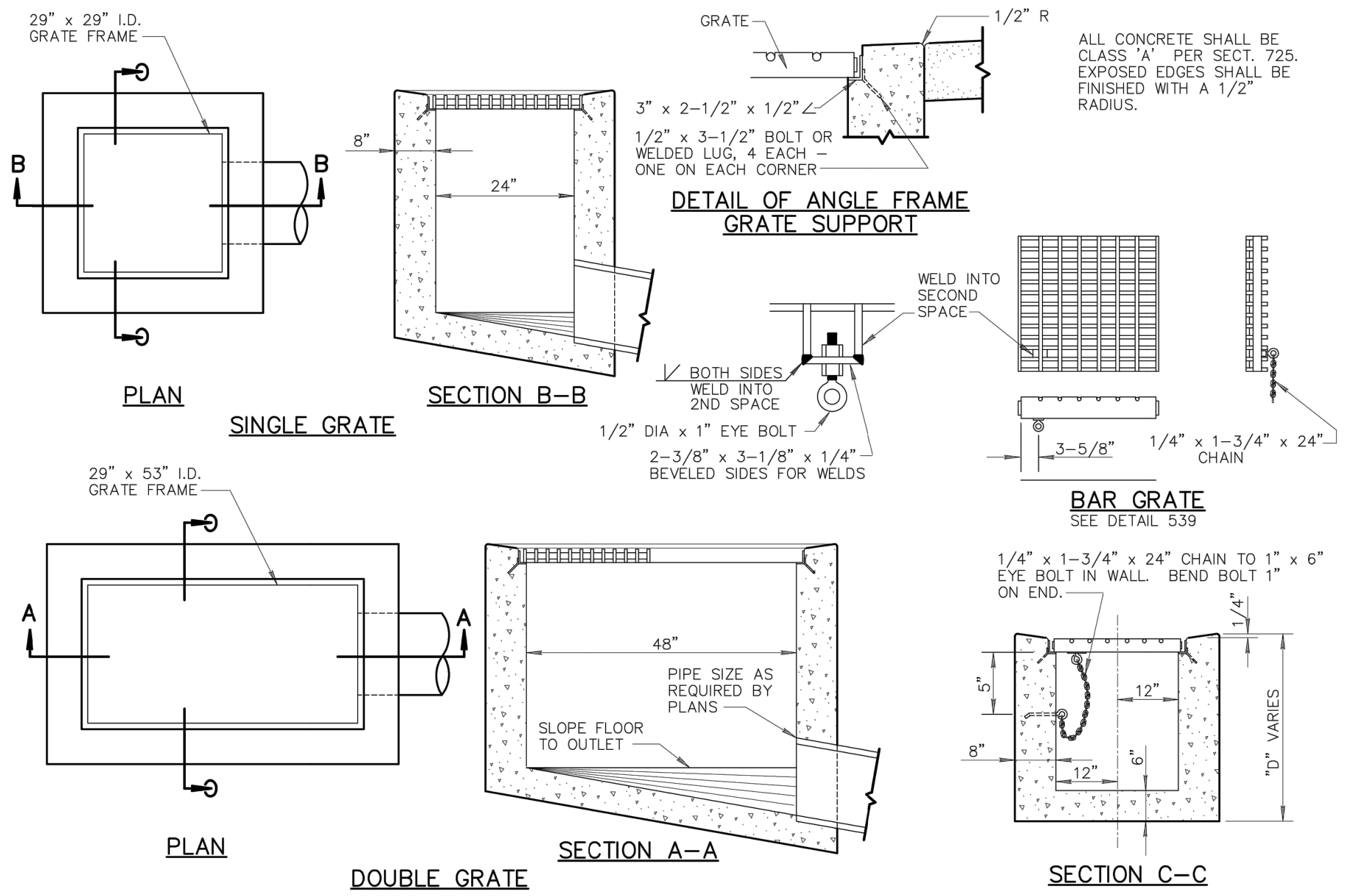
DETAIL NO.	MARICOPA ASSOCIATION of GOVERNMENTS	STANDARD DETAIL ENGLISH	INSTALLING TAPPING SLEEVES AND VALVES	REVISED 01-03-2002	DETAIL NO.
340					340


6'-0"
A
A
B
B
3'-0"
3'-0"
FLOW
2-NO.6 BARS TOP AND BOTTOM WHEN PIPE ENTERS SIDE OF MANHOLE
2-NO.6 BARS 6" O.C. TOP AND BOTTOM
PLAN
2-NO.6 BARS 6" O.C. W
12"
24" MAX
6"
6'-0"
2-NO.6 BARS 6" O.C.
SECTION A-A
MANHOLE SHAFT PER DETAIL 522
5"
48" DIA.
6"
3"
GROUT ALL AROUND
2-NO.6 BARS 6" O.C.
6'-0"
SECTION B-B

NOTES

1. ALL CONCRETE TO BE CLASS 'A' PER SECT. 725, 505.
2. MATCH SPRING LINES OF PIPE ENTERING MANHOLE UNLESS OTHERWISE NOTED.
3. CUT PIPES TO ALLOW SETTING OF 4' DIA. CYLINDRICAL FORM FROM 6" ABOVE MAIN LINE PIPE TO SPRING LINE. CUT PIPE 2" LARGER THAN FORM TO ALLOW 2" CONCRETE OVER ENDS OF ALL CUT PIPE.
4. INVERT AND BASE OF MANHOLE TO BE POURED AND INVERT TO BE SHAPED BY HAND TO MAKE SMOOTH TRANSITION. FINISH WITH RUBBER FLOAT.
5. CENTER MANHOLE ON PIPE JOINT WHERE PIPE CHANGES SIZES, LEAVING A GAP OF 12" MINIMUM, 24" MAXIMUM.

DETAIL NO.	MARICOPA ASSOCIATION of GOVERNMENTS	STANDARD DETAIL ENGLISH	STORM DRAIN MANHOLE BASE (48" AND SMALLER)	REVISED 01-01-1998	DETAIL NO.
520					520


29" x 29" I.D. GRATE FRAME
B
B
PLAN
SINGLE GRATE
8"
24"
SECTION B-B
GRATE
1/2" R
3" x 2-1/2" x 1/2" L
1/2" x 3-1/2" BOLT OR WELDED LUG, 4 EACH - ONE ON EACH CORNER
DETAIL OF ANGLE FRAME GRATE SUPPORT
WELD INTO SECOND SPACE
BOTH SIDES WELD INTO 2ND SPACE
1/2" DIA x 1" EYE BOLT
2-3/8" x 3-1/8" x 1/4" BEVELED SIDES FOR WELDS
3-5/8"
1/4" x 1-3/4" x 24" CHAIN
BAR GRATE
SEE DETAIL 539
29" x 53" I.D. GRATE FRAME
A
A
PLAN
DOUBLE GRATE
48"
PIPE SIZE AS REQUIRED BY PLANS
SLOPE FLOOR TO OUTLET
SECTION A-A
1/4" x 1-3/4" x 24" CHAIN TO 1" x 6" EYE BOLT IN WALL. BEND BOLT 1" ON END.
5"
8"
12"
12"
3/4"
"D" VARIES
SECTION C-C

ALL CONCRETE SHALL BE CLASS 'A' PER SECT. 725. EXPOSED EDGES SHALL BE FINISHED WITH A 1/2" RADIUS.

DETAIL NO.	MARICOPA ASSOCIATION of GOVERNMENTS	STANDARD DETAIL ENGLISH	CATCH BASIN - TYPE 'G'	REVISED 01-03-2002	DETAIL NO.
537					537

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

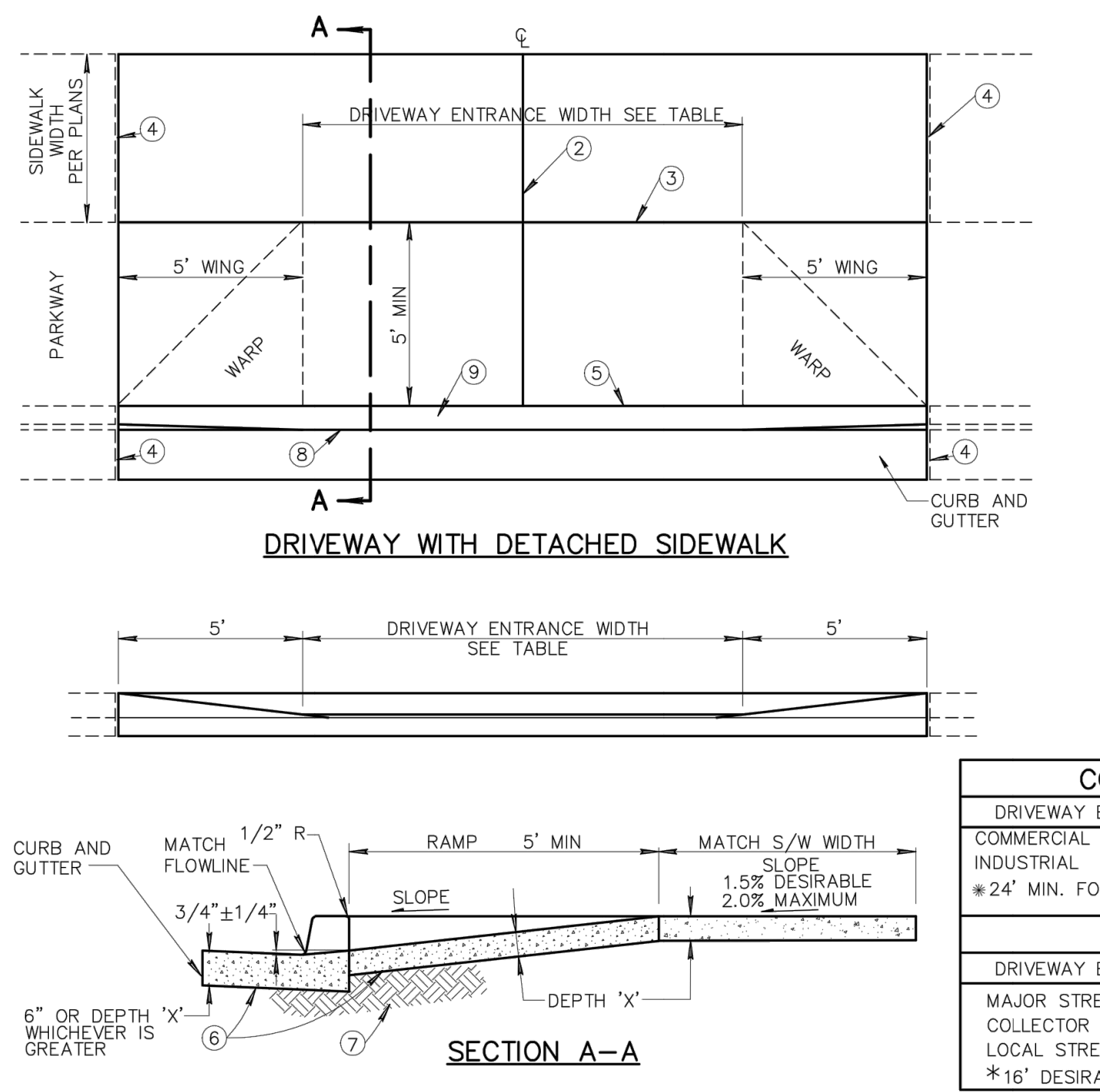
FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
SITE PLAN

FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED
DRAWING	020-CI104

SHEET ---- OF ##


A
DRIVEWAY ENTRANCE WIDTH SEE TABLE
SIDEWALK WIDTH PER PLANS
PARKWAY
5' WING
5' MIN
WARP
CURB AND GUTTER
DRIVEWAY WITH DETACHED SIDEWALK
DRIVEWAY ENTRANCE WIDTH SEE TABLE
CURB AND GUTTER
MATCH FLOWLINE
RAMP 5' MIN
MATCH S/W WIDTH
SLOPE 1.5% DESIRABLE 2.0% MAXIMUM
SLOPE
DEPTH 'X'
6" OR DEPTH 'X' WHICHEVER IS GREATER
SECTION A–A

NOTES:

1. DEPRESSED CURB SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE TYPE OF CURB USED AT THAT LOCATION.
2. CONTRACTION JOINT ON D/W CENTERLINE.
3. CONTRACTION JOINT.
4. 1/2–INCH EXPANSION JOINTS SHALL COMPLY WITH SECTION 340.
5. BACK OF CURB – CONSTRUCTION JOINT.
6. CONCRETE CLASS AS NOTED IN TABLE. CONCRETE PER SECTION 725.
7. SUBGRADE PREPARATION, SECT. 301.
8. FLOW LINE OF GUTTER.
9. DEPRESSED CURB.
10. SECT. A–A AND ELEVATION: D/W SHOWN WITH VERTICAL CURB AND GUTTER, ROLL TYPE CURB AND GUTTER TREATED SIMILARLY.
11. ROUGH BROOM FINISH FULL WIDTH OF RAMP AND WINGS.
12. TROWEL AND USE LIGHT HAIR BROOM FINISH FOR WALKWAY AREA.
13. 'DRIVEWAY ENTRANCE WIDTH' IS THE DRIVEWAY WIDTH PLUS ADDITIONAL WIDENING REQUIRED BY THE LOCAL JURISDICTION.
14. ELEVATION AT TOP OF DRIVEWAY RAMP SHALL BE EQUAL TO OR HIGHER THAN NORMAL CURB ELEVATION.

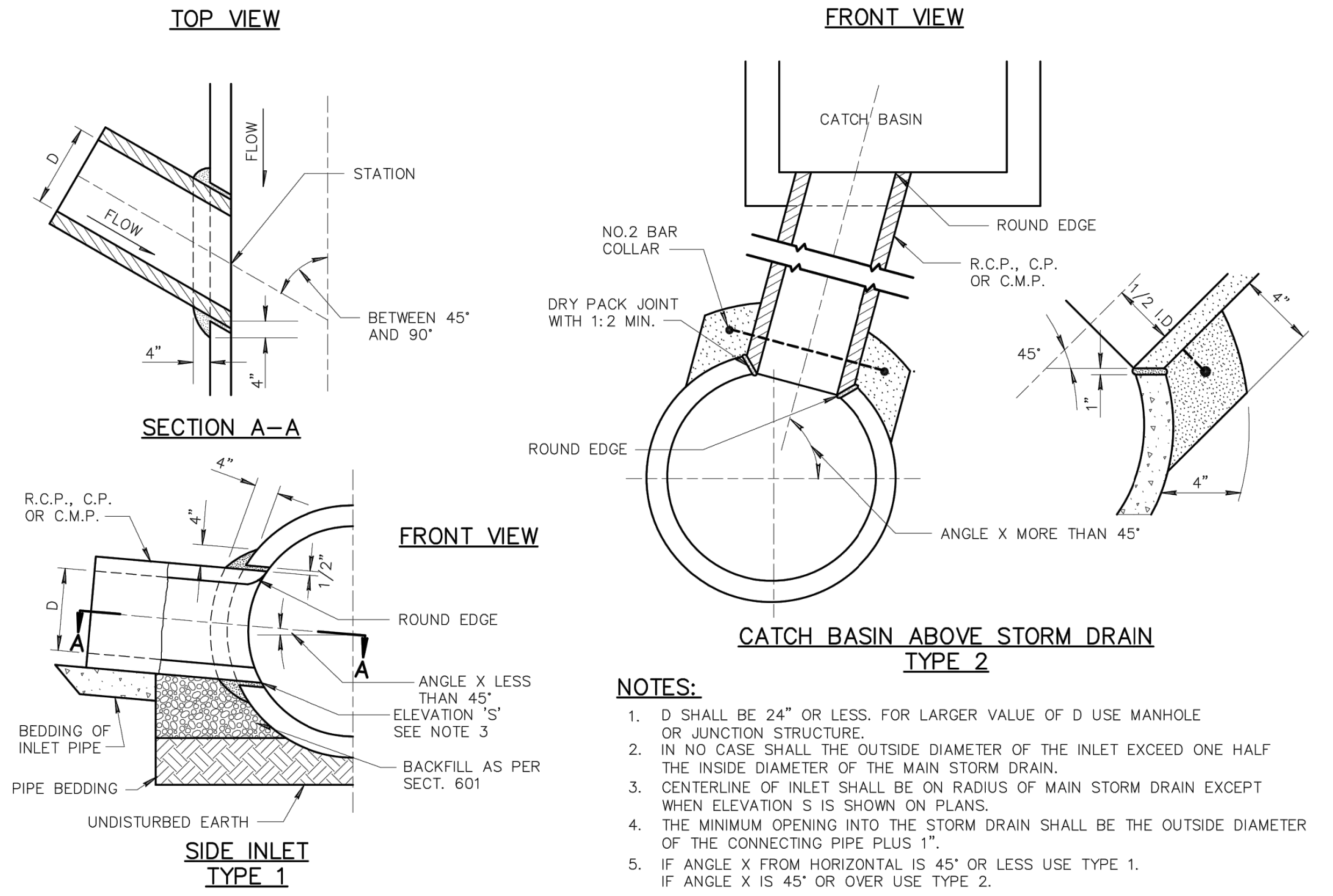
COMMERCIAL AND INDUSTRIAL

DRIVEWAY ENTRANCE WIDTH	MIN.	MAX.	CLASS	DEPTH 'X'
COMMERCIAL	✻ 16'	40'	A	9"
INDUSTRIAL	✻ 16'	40'	A	9"
✻24' MIN. FOR TWO WAY TRAFFIC				

RESIDENTIAL

DRIVEWAY ENTRANCE WIDTH	MIN.	MAX.	CLASS	DEPTH 'X'
MAJOR STREET	16'	30'	B	5"
COLLECTOR STREET	∗ 12'	30'	B	5"
LOCAL STREET	12'	30'	B	5"
∗16' DESIRABLE				

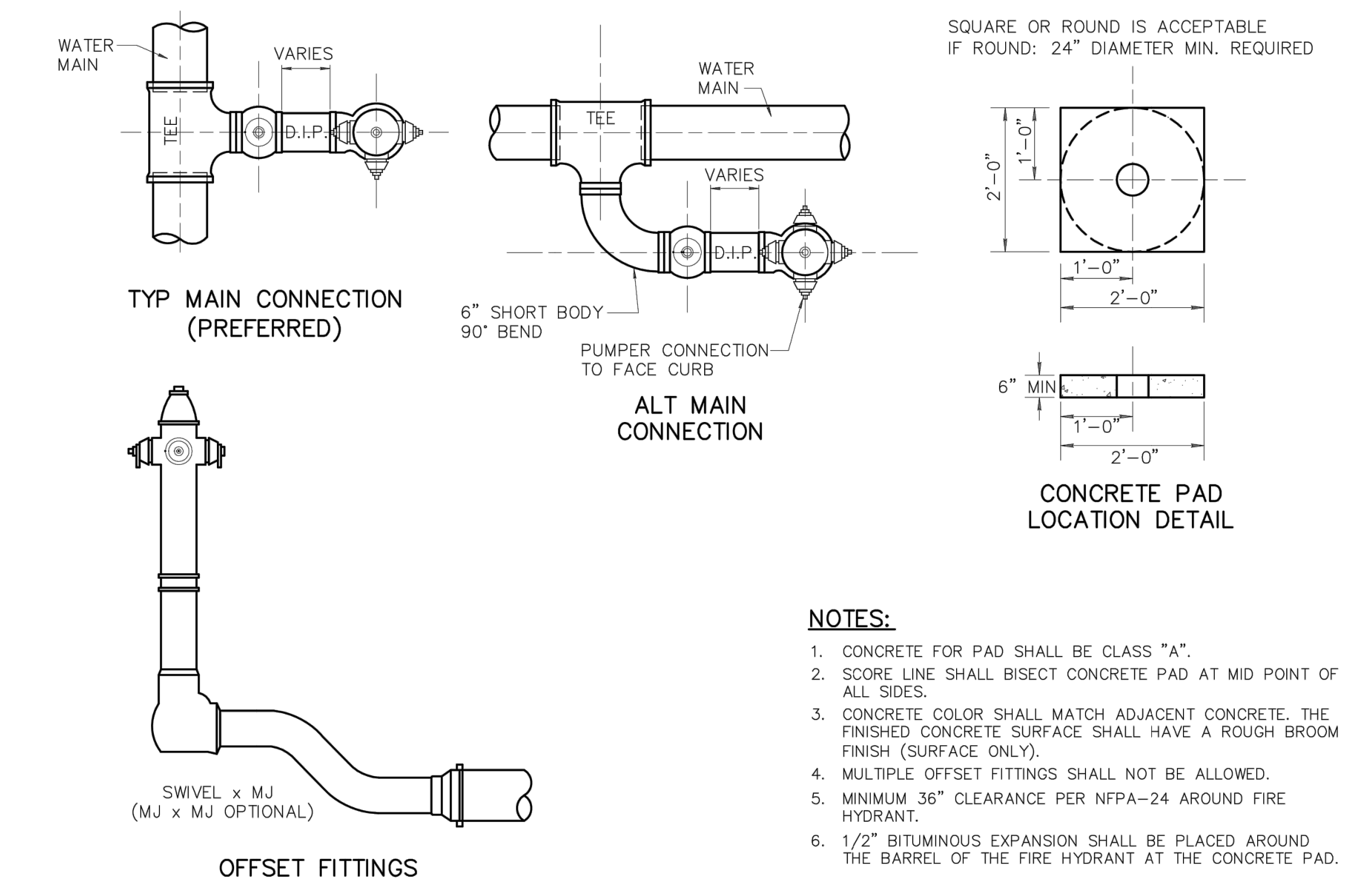
DETAIL NO. 250–1 | MARICOPA ASSOCIATION of GOVERNMENTS STANDARD DETAIL ENGLISH | DRIVEWAY ENTRANCES WITH DETACHED SIDEWALK | REVISED 01–01–2014 | DETAIL NO. 250–1


TOP VIEW
FLOW
STATION
BETWEEN 45° AND 90°
SECTION A–A
R.C.P., C.P. OR C.M.P.
FRONT VIEW
ROUND EDGE
ANGLE X LESS THAN 45°
ELEVATION 'S' SEE NOTE 3
BACKFILL AS PER SECT. 601
BEDDING OF INLET PIPE
PIPE BEDDING
UNDISTURBED EARTH
SIDE INLET TYPE 1
FRONT VIEW
CATCH BASIN
NO.2 BAR COLLAR
DRY PACK JOINT WITH 1:2 MIN.
ROUND EDGE
R.C.P., C.P. OR C.M.P.
ANGLE X MORE THAN 45°
CATCH BASIN ABOVE STORM DRAIN TYPE 2

NOTES:

1. D SHALL BE 24" OR LESS. FOR LARGER VALUE OF D USE MANHOLE OR JUNCTION STRUCTURE.
2. IN NO CASE SHALL THE OUTSIDE DIAMETER OF THE INLET EXCEED ONE HALF THE INSIDE DIAMETER OF THE MAIN STORM DRAIN.
3. CENTERLINE OF INLET SHALL BE ON RADIUS OF MAIN STORM DRAIN EXCEPT WHEN ELEVATION S IS SHOWN ON PLANS.
4. THE MINIMUM OPENING INTO THE STORM DRAIN SHALL BE THE OUTSIDE DIAMETER OF THE CONNECTING PIPE PLUS 1".
5. IF ANGLE X FROM HORIZONTAL IS 45° OR LESS USE TYPE 1. IF ANGLE X IS 45° OR OVER USE TYPE 2.

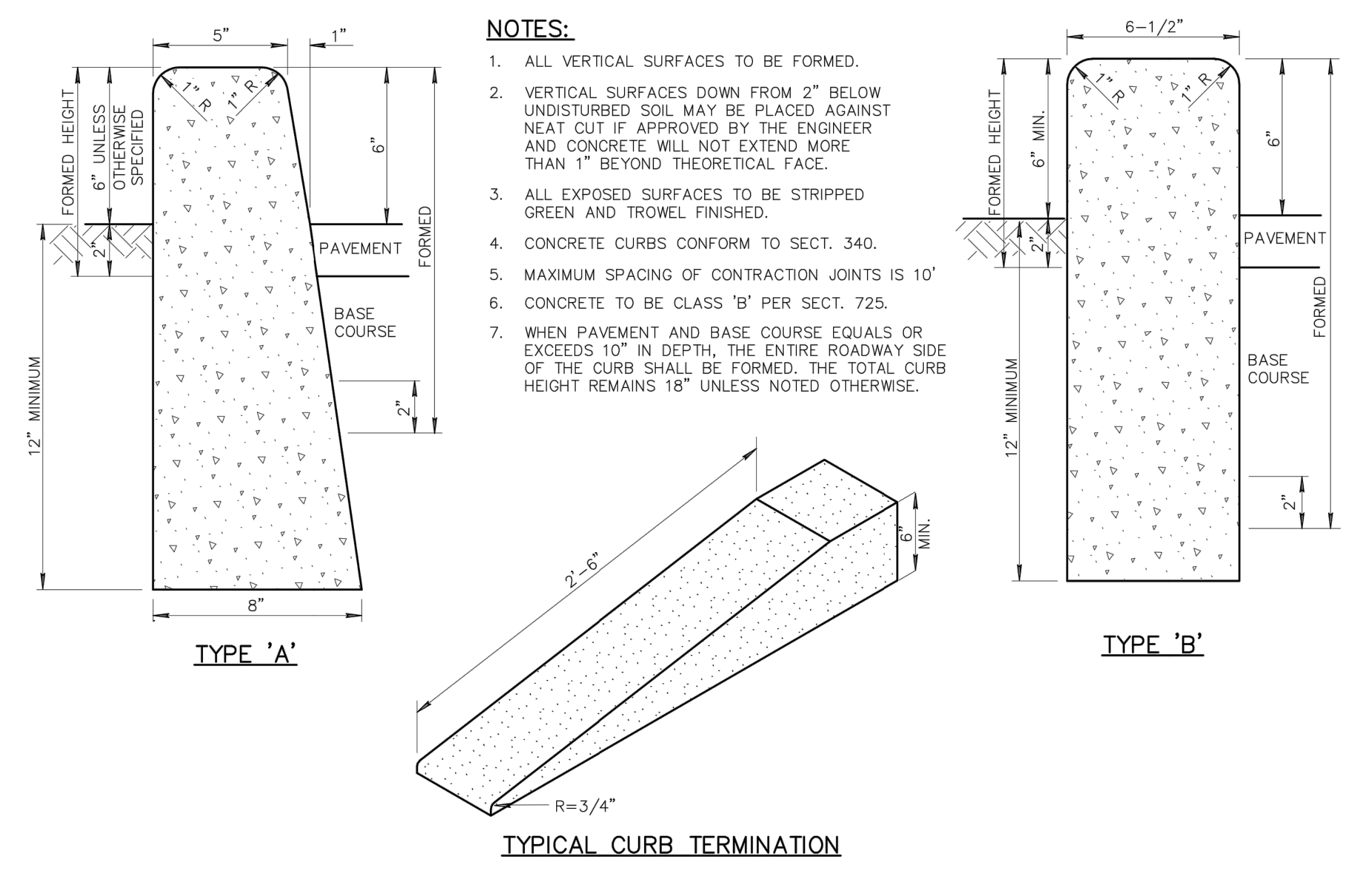
DETAIL NO. 524 | MARICOPA ASSOCIATION of GOVERNMENTS STANDARD DETAIL ENGLISH | STORM DRAIN LATERAL PIPE CONNECTIONS | REVISED 01–01–1998 | DETAIL NO. 524


WATER MAIN
VARIES
TEE
TYP MAIN CONNECTION (PREFERRED)
WATER MAIN
VARIES
6" SHORT BODY 90° BEND
PUMPER CONNECTION TO FACE CURB
ALT MAIN CONNECTION
SWIVEL x MJ (MJ x MJ OPTIONAL)
OFFSET FITTINGS
SQUARE OR ROUND IS ACCEPTABLE IF ROUND: 24" DIAMETER MIN. REQUIRED
1'–0"
2'–0"
6" MIN
CONCRETE PAD LOCATION DETAIL

NOTES:

1. CONCRETE FOR PAD SHALL BE CLASS "A".
2. SCORE LINE SHALL BISECT CONCRETE PAD AT MID POINT OF ALL SIDES.
3. CONCRETE COLOR SHALL MATCH ADJACENT CONCRETE. THE FINISHED CONCRETE SURFACE SHALL HAVE A ROUGH BROOM FINISH (SURFACE ONLY).
4. MULTIPLE OFFSET FITTINGS SHALL NOT BE ALLOWED.
5. MINIMUM 36" CLEARANCE PER NFPA–24 AROUND FIRE HYDRANT.
6. 1/2" BITUMINOUS EXPANSION SHALL BE PLACED AROUND THE BARREL OF THE FIRE HYDRANT AT THE CONCRETE PAD.

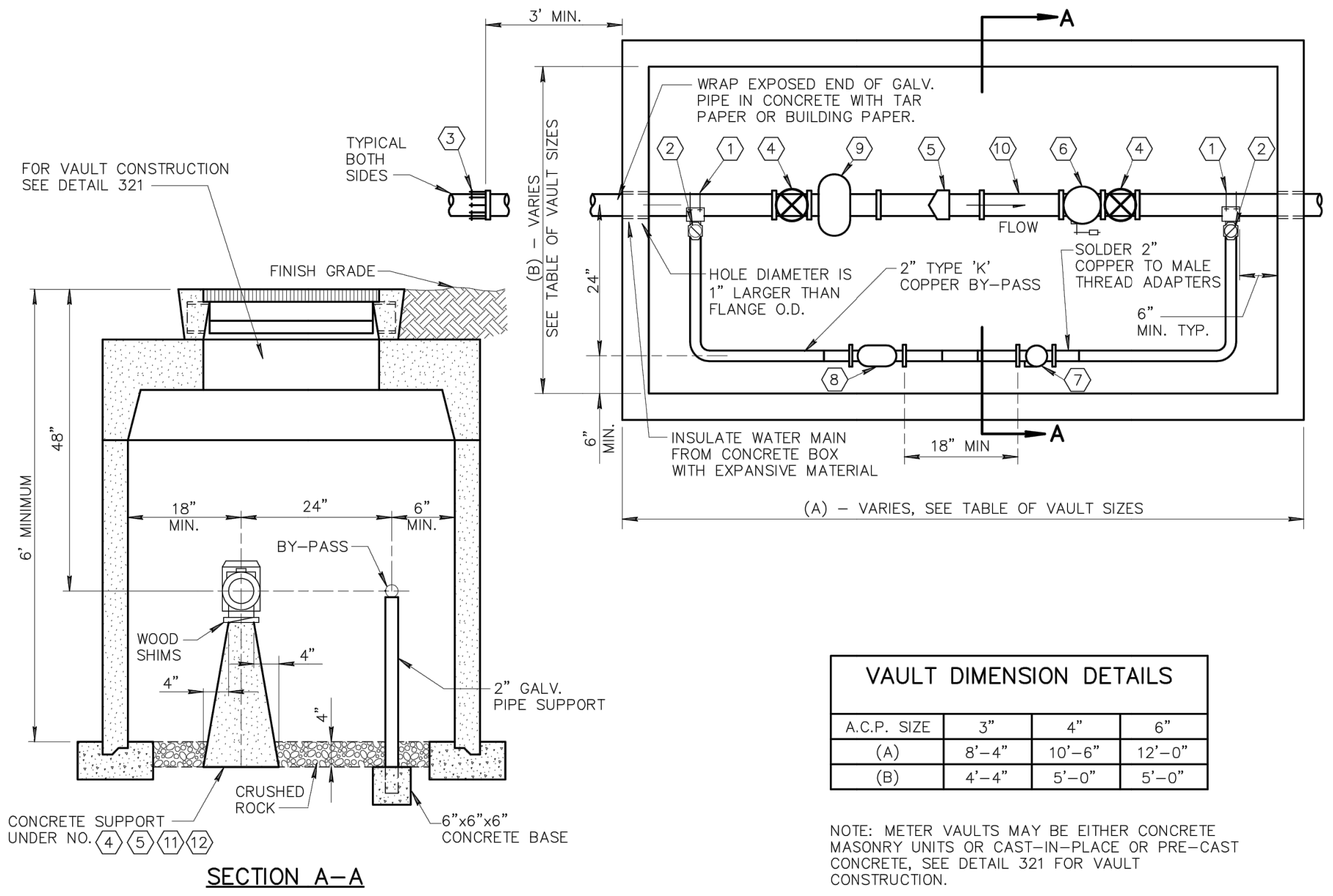
DETAIL NO. 360-3 | MARICOPA ASSOCIATION of GOVERNMENTS STANDARD DETAIL ENGLISH | FIRE HYDRANT INSTALLATION DETAILS | REVISED 01–01–2013 | DETAIL NO. 360-3


5"
1"
6" UNLESS OTHERWISE SPECIFIED
FORMED HEIGHT
PAVEMENT
BASE COURSE
FORMED
12" MINIMUM
8"
TYPE 'A'
6–1/2"
6" MIN.
2"
TYPE 'B'
2'–6"
6" MIN.
R=3/4"
TYPICAL CURB TERMINATION

NOTES:

1. ALL VERTICAL SURFACES TO BE FORMED.
2. VERTICAL SURFACES DOWN FROM 2" BELOW UNDISTURBED SOIL MAY BE PLACED AGAINST NEAT CUT IF APPROVED BY THE ENGINEER AND CONCRETE WILL NOT EXTEND MORE THAN 1" BEYOND THEORETICAL FACE.
3. ALL EXPOSED SURFACES TO BE STRIPPED GREEN AND TROWEL FINISHED.
4. CONCRETE CURBS CONFORM TO SECT. 340.
5. MAXIMUM SPACING OF CONTRACTION JOINTS IS 10'
6. CONCRETE TO BE CLASS 'B' PER SECT. 725.
7. WHEN PAVEMENT AND BASE COURSE EQUALS OR EXCEEDS 10" IN DEPTH, THE ENTIRE ROADWAY SIDE OF THE CURB SHALL BE FORMED. THE TOTAL CURB HEIGHT REMAINS 18" UNLESS NOTED OTHERWISE.

DETAIL NO. 222 | MARICOPA ASSOCIATION of GOVERNMENTS STANDARD DETAIL ENGLISH | SINGLE CURB – TYPES A, B AND TERMINATION | REVISED 01–01–2008 | DETAIL NO. 222

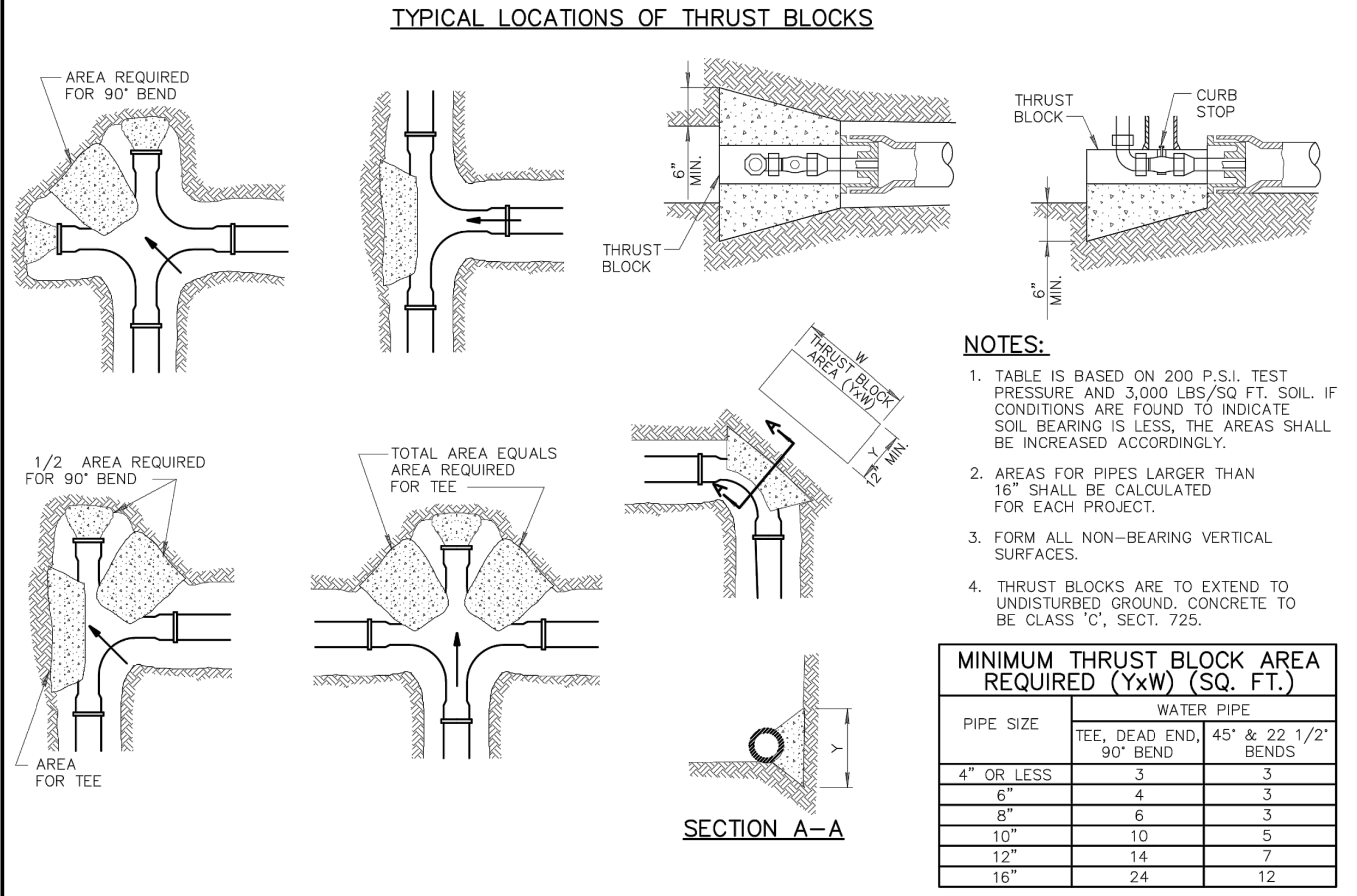

3' MIN.
FOR VAULT CONSTRUCTION SEE DETAIL 321
TYPICAL BOTH SIDES
FINISH GRADE
(B) – VARIES SEE TABLE OF VAULT SIZES
24"
6" MIN.
48"
6" MINIMUM
18" MIN.
24"
6" MIN.
BY–PASS
WOOD SHIMS
CONCRETE SUPPORT UNDER NO. ④ ⑤ ⑪ ⑫
CRUSHED ROCK
2" GALV. PIPE SUPPORT
6"x6"x6" CONCRETE BASE
SECTION A–A
WRAP EXPOSED END OF GALV. PIPE IN CONCRETE WITH TAR PAPER OR BUILDING PAPER.
FLOW
HOLE DIAMETER IS 1" LARGER THAN FLANGE O.D.
2" TYPE 'K' COPPER BY–PASS
SOLDER 2" COPPER TO MALE THREAD ADAPTERS
6" MIN. TYP.
INSULATE WATER MAIN FROM CONCRETE BOX WITH EXPANSIVE MATERIAL
18" MIN
(A) – VARIES, SEE TABLE OF VAULT SIZES

VAULT DIMENSION DETAILS

A.C.P. SIZE	3"	4"	6"
(A)	8'–4"	10'–6"	12'–0"
(B)	4'–4"	5'–0"	5'–0"

NOTE: METER VAULTS MAY BE EITHER CONCRETE MASONRY UNITS OR CAST–IN–PLACE OR PRE–CAST CONCRETE, SEE DETAIL 321 FOR VAULT CONSTRUCTION.

DETAIL NO. 345–1 | MARICOPA ASSOCIATION of GOVERNMENTS STANDARD DETAIL ENGLISH | 3", 4", 6" WATER METER | REVISED 01–01–1998 | DETAIL NO. 345–1


TYPICAL LOCATIONS OF THRUST BLOCKS
AREA REQUIRED FOR 90° BEND
THRUST BLOCK
CURB STOP
6" MIN.
1/2 AREA REQUIRED FOR 90° BEND
TOTAL AREA EQUALS AREA REQUIRED FOR TEE
AREA FOR TEE
THRUST BLOCK AREA (YxW)
12" MIN.
SECTION A–A

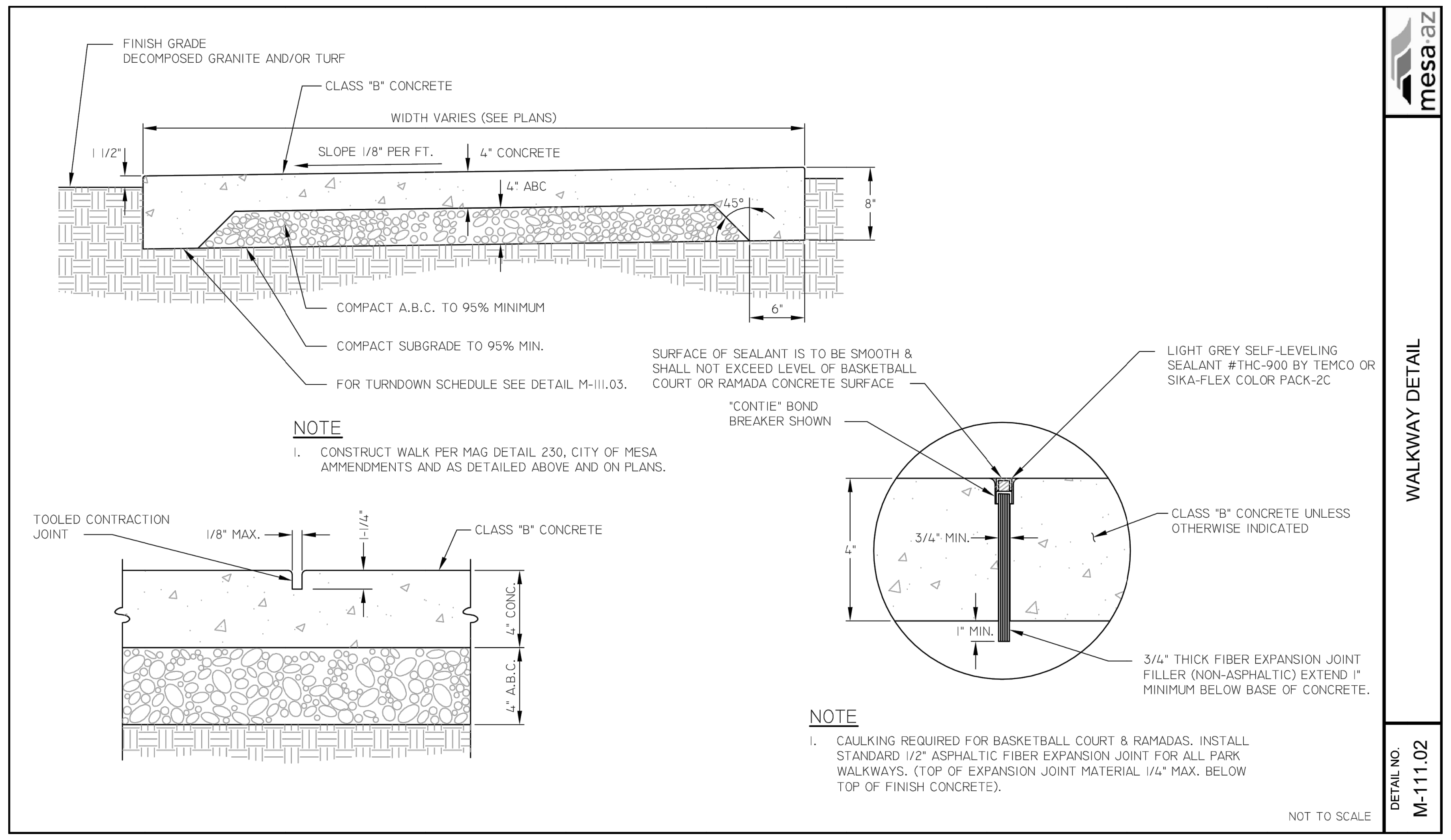
NOTES:

1. TABLE IS BASED ON 200 P.S.I. TEST PRESSURE AND 3,000 LBS/SQ FT. SOIL. IF CONDITIONS ARE FOUND TO INDICATE SOIL BEARING IS LESS, THE AREAS SHALL BE INCREASED ACCORDINGLY.
2. AREAS FOR PIPES LARGER THAN 16" SHALL BE CALCULATED FOR EACH PROJECT.
3. FORM ALL NON–BEARING VERTICAL SURFACES.
4. THRUST BLOCKS ARE TO EXTEND TO UNDISTURBED GROUND. CONCRETE TO BE CLASS 'C', SECT. 725.

MINIMUM THRUST BLOCK AREA REQUIRED (YxW) (SQ. FT.)

PIPE SIZE	WATER PIPE	
	TEE, DEAD END, 90° BEND	45° & 22 1/2° BENDS
4" OR LESS	3	3
6"	4	3
8"	6	3
10"	10	5
12"	14	7
16"	24	12

DETAIL NO. 380 | MARICOPA ASSOCIATION of GOVERNMENTS STANDARD DETAIL ENGLISH | THRUST BLOCKS FOR WATER LINES | REVISED 01–01–1998 | DETAIL NO. 380


FINISH GRADE DECOMPOSED GRANITE AND/OR TURF
CLASS "B" CONCRETE
WIDTH VARIES (SEE PLANS)
1 1/2"
SLOPE 1/8" PER FT.
4" CONCRETE
4" ABC
45°
8"
6"
COMPACT A.B.C. TO 95% MINIMUM
COMPACT SUBGRADE TO 95% MIN.
FOR TURNDOWN SCHEDULE SEE DETAIL M-111.03.
TOOLED CONTRACTION JOINT
1/8" MAX.
1-1/4"
CLASS "B" CONCRETE
4" CONC.
4" A.B.C.
SURFACE OF SEALANT IS TO BE SMOOTH & SHALL NOT EXCEED LEVEL OF BASKETBALL COURT OR RAMADA CONCRETE SURFACE
"CONTIE" BOND BREAKER SHOWN
LIGHT GREY SELF-LEVELING SEALANT #THC-900 BY TEMCO OR SIKA-FLEX COLOR PACK-2C
3/4" MIN.
4"
1" MIN.
CLASS "B" CONCRETE UNLESS OTHERWISE INDICATED
3/4" THICK FIBER EXPANSION JOINT FILLER (NON-ASPHALTIC) EXTEND 1" MINIMUM BELOW BASE OF CONCRETE.
mesa·az

NOTE

1. CONSTRUCT WALK PER MAG DETAIL 230, CITY OF MESA AMMENDMENTS AND AS DETAILED ABOVE AND ON PLANS.

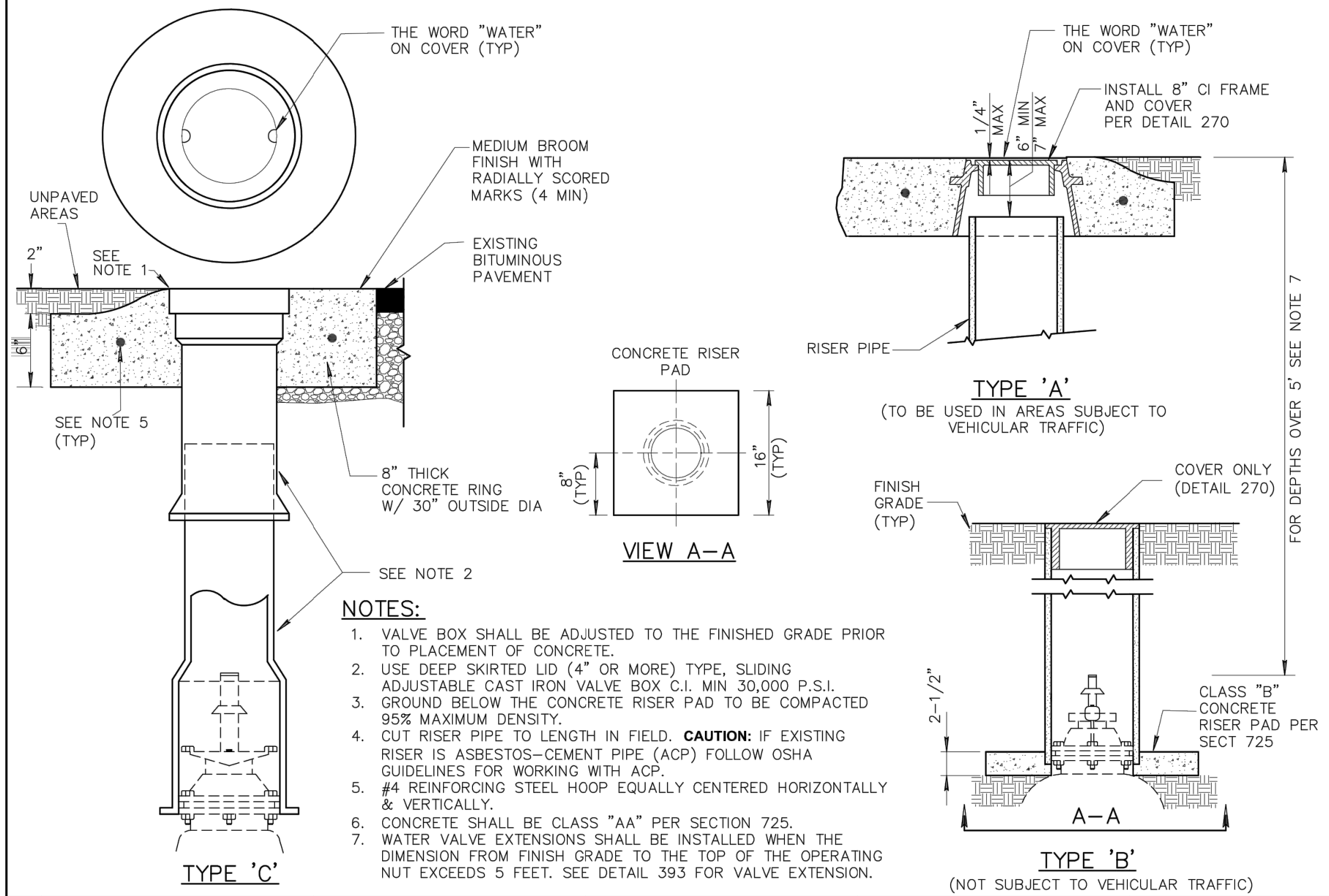
NOTE

1. CAULKING REQUIRED FOR BASKETBALL COURT & RAMADAS. INSTALL STANDARD 1/2" ASPHALTIC FIBER EXPANSION JOINT FOR ALL PARK WALKWAYS. (TOP OF EXPANSION JOINT MATERIAL 1/4" MAX. BELOW TOP OF FINISH CONCRETE).

NOT TO SCALE

WALKWAY DETAIL

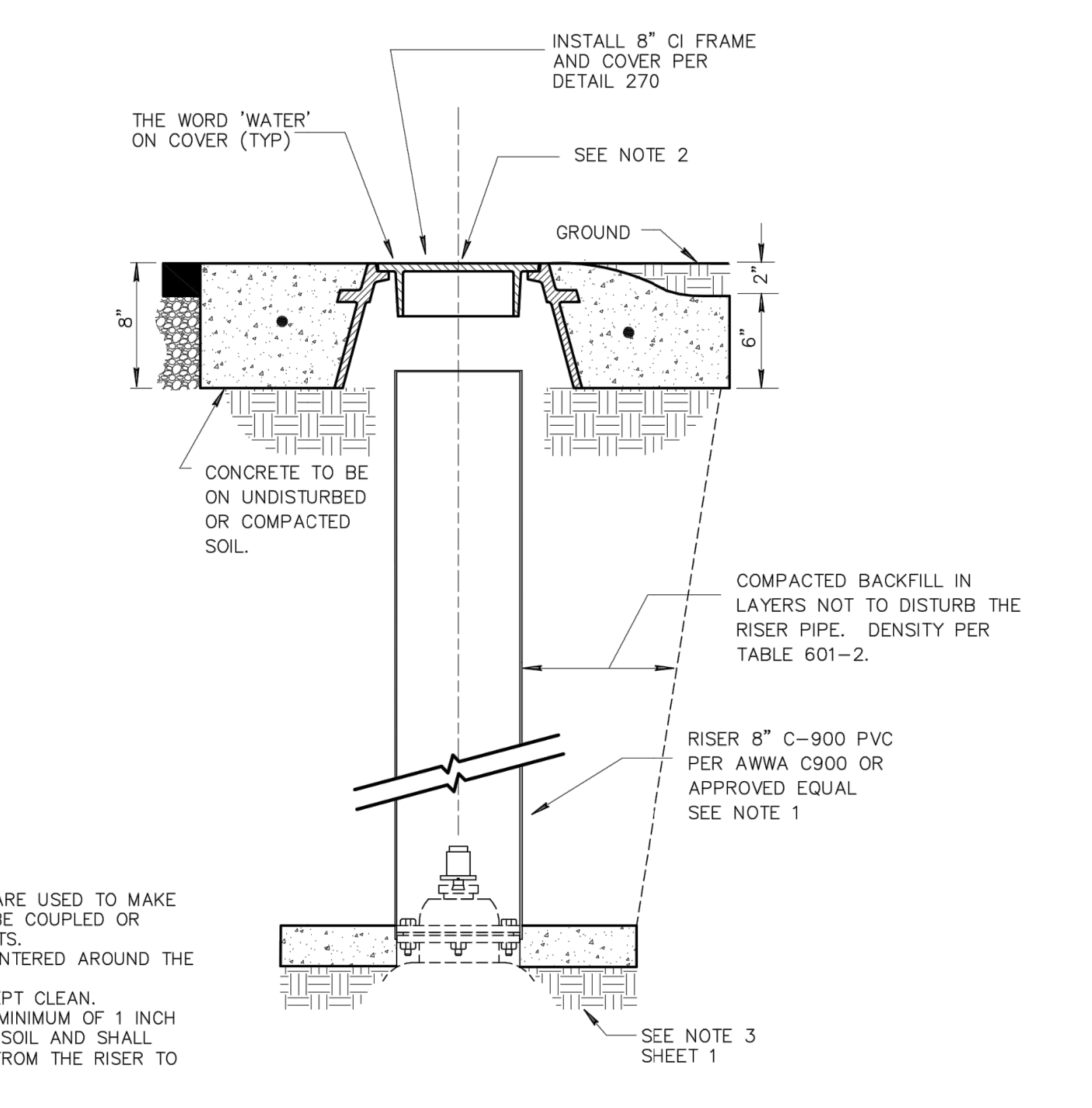
DETAIL NO. M-111.02


THE WORD "WATER" ON COVER (TYP)
UNPAVED AREAS
2"
SEE NOTE 1
EXISTING BITUMINOUS PAVEMENT
MEDIUM BROOM FINISH WITH RADIALLY SCORED MARKS (4 MIN)
6"
SEE NOTE 5 (TYP)
8" THICK CONCRETE RING W/ 30" OUTSIDE DIA
CONCRETE RISER PAD
8" (TYP)
16" (TYP)
VIEW A–A
SEE NOTE 2
TYPE 'C'
THE WORD "WATER" ON COVER (TYP)
INSTALL 8" CI FRAME AND COVER PER DETAIL 270
1/4" MAX
MIN MAX
RISER PIPE
TYPE 'A'
(TO BE USED IN AREAS SUBJECT TO VEHICULAR TRAFFIC)
FINISH GRADE (TYP)
COVER ONLY (DETAIL 270)
FOR DEPTHS OVER 5' SEE NOTE 7
2–1/2"
CLASS "B" CONCRETE RISER PAD PER SECT 725
A–A
TYPE 'B'
(NOT SUBJECT TO VEHICULAR TRAFFIC)

NOTES:

1. VALVE BOX SHALL BE ADJUSTED TO THE FINISHED GRADE PRIOR TO PLACEMENT OF CONCRETE.
2. USE DEEP SKIRTED LID (4" OR MORE) TYPE, SLIDING ADJUSTABLE CAST IRON VALVE BOX C.I. MIN 30,000 P.S.I.
3. GROUND BELOW THE CONCRETE RISER PAD TO BE COMPACTED 95% MAXIMUM DENSITY.
4. CUT RISER PIPE TO LENGTH IN FIELD. **CAUTION:** IF EXISTING RISER IS ASBESTOS–CEMENT PIPE (ACP) FOLLOW OSHA GUIDELINES FOR WORKING WITH ACP.
5. #4 REINFORCING STEEL HOOP EQUALLY CENTERED HORIZONTALLY & VERTICALLY.
6. CONCRETE SHALL BE CLASS "AA" PER SECTION 725.
7. WATER VALVE EXTENSIONS SHALL BE INSTALLED WHEN THE DIMENSION FROM FINISH GRADE TO THE TOP OF THE OPERATING NUT EXCEEDS 5 FEET. SEE DETAIL 393 FOR VALVE EXTENSION.

DETAIL NO. 391–1 | MARICOPA ASSOCIATION of GOVERNMENTS **STANDARD DETAIL ENGLISH** | VALVE BOX INSTALLATION AND GRADE ADJUSTMENT | REVISED 01–01–2018 | DETAIL NO. 391–1


INSTALL 8" CI FRAME AND COVER PER DETAIL 270
THE WORD 'WATER' ON COVER (TYP)
SEE NOTE 2
GROUND
8"
2"
6"
CONCRETE TO BE ON UNDISTURBED OR COMPACTED SOIL.
COMPACTED BACKFILL IN LAYERS NOT TO DISTURB THE RISER PIPE. DENSITY PER TABLE 601–2.
RISER 8" C–900 PVC PER AWWA C900 OR APPROVED EQUAL SEE NOTE 1
SEE NOTE 3 SHEET 1

NOTES:

1. IF TWO OR MORE SECTIONS OF PIPE ARE USED TO MAKE THE VALVE BOX RISER, THEY SHALL BE COUPLED OR BONDED TO FORM DEBRIS–TIGHT JOINTS.
2. VALVE BOX SHALL BE PLUMB AND CENTERED AROUND THE OPERATING NUT.
3. THE TOP OF THE VALVE SHALL BE KEPT CLEAN.
4. THE TOP OF THE RISER SHALL BE A MINIMUM OF 1 INCH ABOVE UNDISTURBED OR COMPACTED SOIL AND SHALL HAVE A MINIMUM CLEARANCE OF 2" FROM THE RISER TO THE LID SKIRT.

DRAFT 391–2 | MARICOPA ASSOCIATION of GOVERNMENTS STANDARD DETAIL ENGLISH | VALVE BOX INSTALLATION AND GRADE ADJUSTMENT | REVISED 01–01–2017 | DETAIL NO. 391–2

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

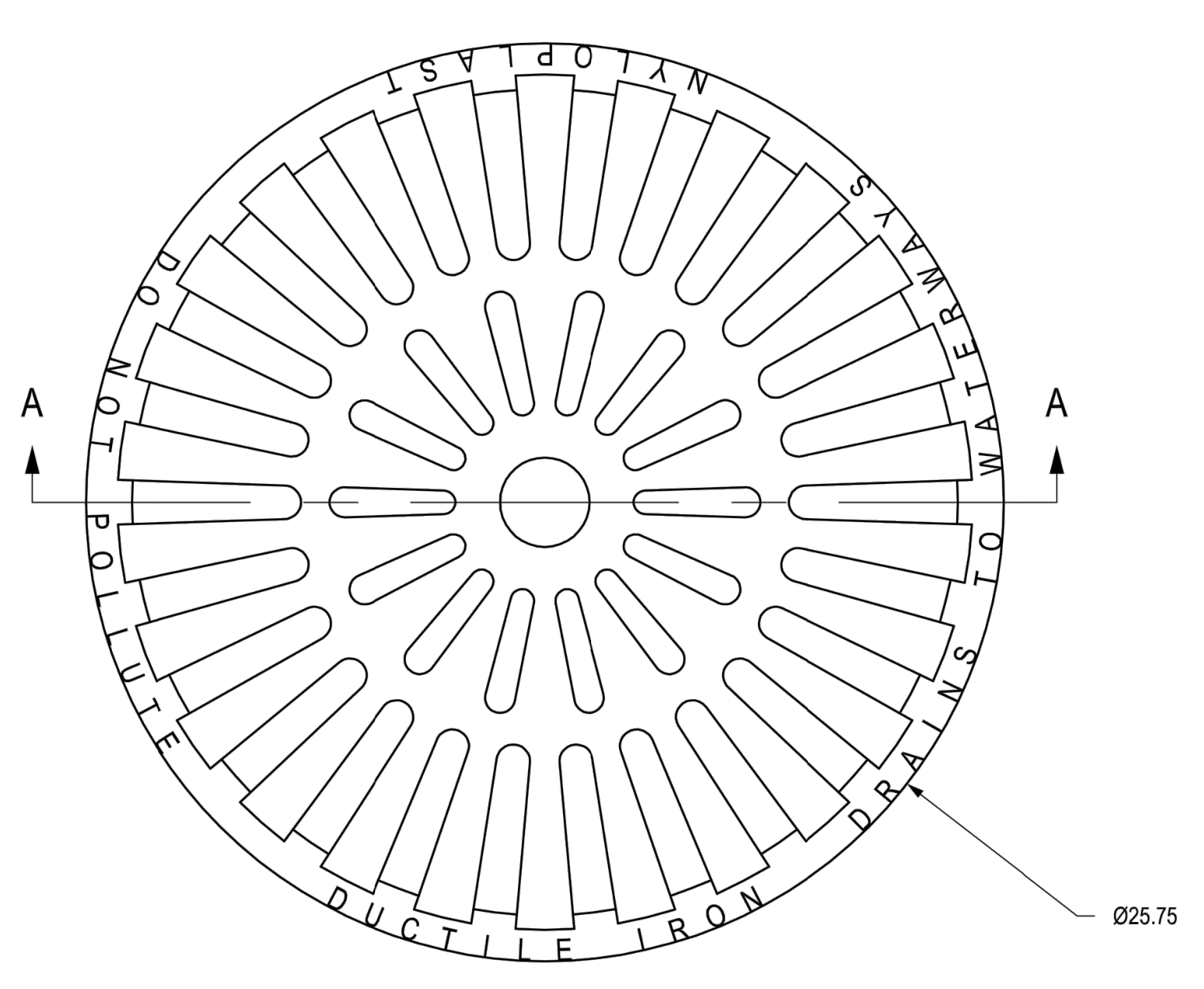
FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
SITE DETAILS

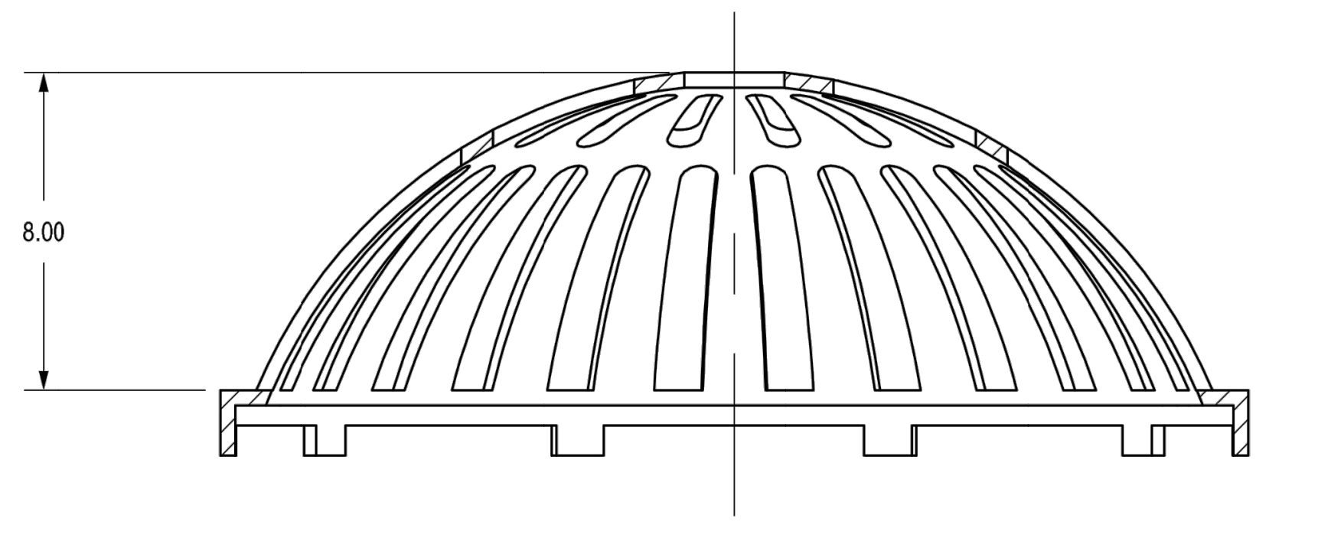
FUJI NO.:	CLIENT PROJ. NO.
A&E FIRM NO.:	147051
DRAWN:	C.WILLIAMS
CHECKED:	A.MONSOUR
DATE:	01/14/2025
SCALE:	AS NOTED

DRAWING
020–CI502
SHEET ---- OF ##

2499CGD

APPROX. DRAIN AREA = 270.64 SQ IN
APPROX. WEIGHT = 53.00 LBS


NYLOPLAST
DO NOT POLLUTE
DRAINS TO WATERWAYS
DUCTILE IRON
A
A
Ø25.75



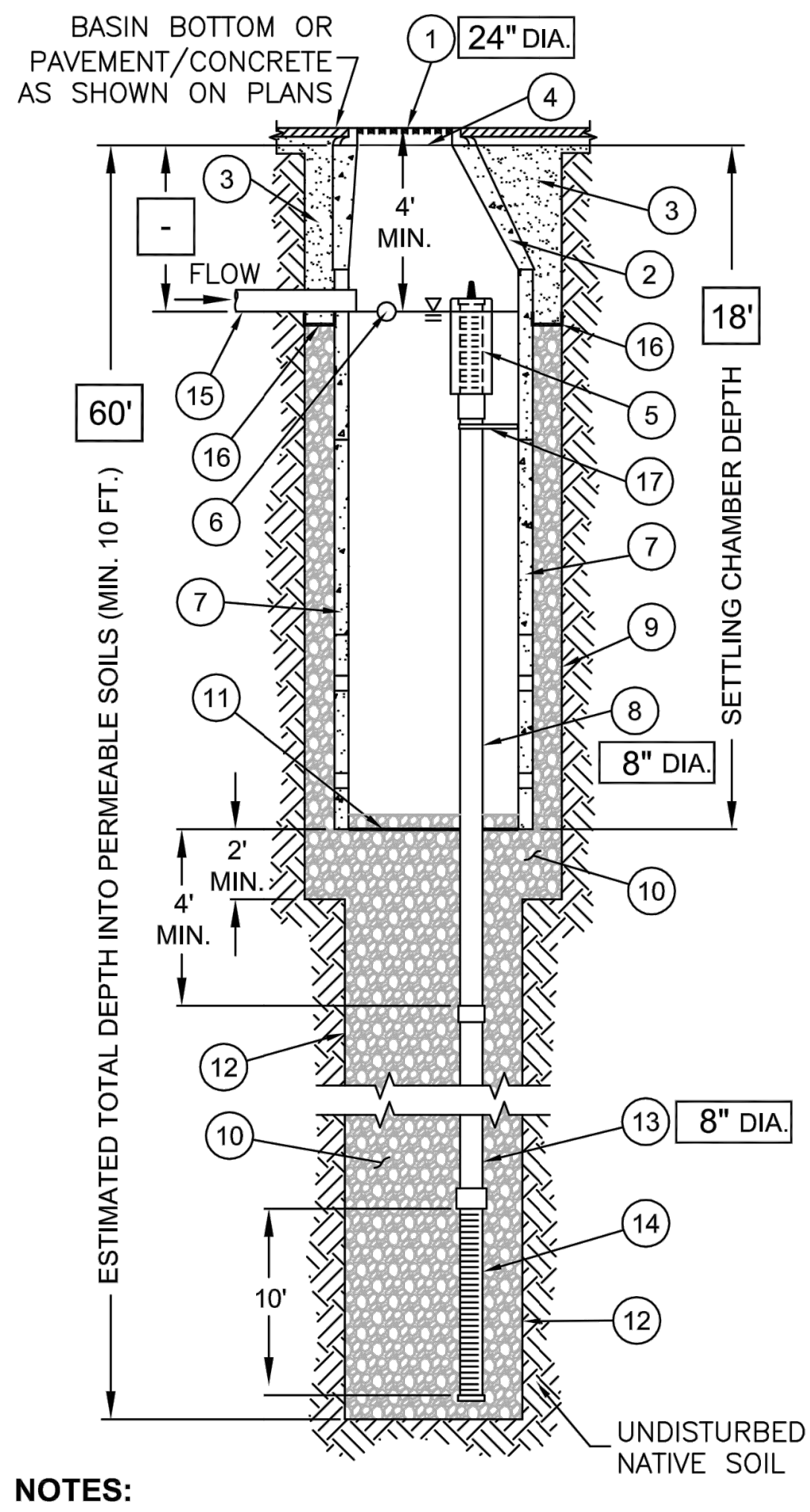
SECTION A-A

DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY
DIMENSIONS ARE IN INCHES
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
LOCKING DEVICE AVAILABLE UPON REQUEST

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST. ©2013 NYLOPLAST	DRAWN BY EBC DATE 03-08-06 REVISED BY CCA DATE 08-30-13	MATERIAL DUCTILE IRON PROJECT NO./NAME	ADS Nyloplast 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com TITLE 24 IN DOME GRATE
	DWG SIZE A	SCALE 1:6 SHEET 1 OF 1	DWG NO. 7001-110-219 REV E

PureWell™ SINGLE-CHAMBER DRYWELL DETAIL

NOT TO SCALE


BASIN BOTTOM OR PAVEMENT/CONCRETE AS SHOWN ON PLANS
24" DIA.
4' MIN.
FLOW
60'
18'
SETTLING CHAMBER DEPTH
ESTIMATED TOTAL DEPTH INTO PERMEABLE SOILS (MIN. 10 FT.)
8" DIA.
2' MIN.
4' MIN.
8" DIA.
10'
UNDISTURBED NATIVE SOIL
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

① **CAST-IRON GRATE** – CAST–IRON RING/GRATE WITH RAISED LETTERS, "STORMWATER ONLY". BOLTED IN TWO PLACES, SECURED TO THE CONE WITH MORTAR. SEE DETAIL FOR GRATE DIAMETER SIZE. RIM/GRATE ELEVATION SET AS SHOWN ON PLANS.

② **PRECAST MANHOLE CONE** – SPECIFIED WITH 4000 PSI CONCRETE.

③ **BACKFILL AROUND CONE** – COMPACTED FILL TO SUBGRADE FOR LANDSCAPE OR 1–SACK SLURRY STABILIZATION FOR PAVEMENT/CONCRETE SURFACING.

④ **GEOTEXTILE FILTER FABRIC** – 4 OZ. NON–WOVEN FABRIC. CONTRACTOR/OWNER TO REMOVE FABRIC ON GRATE ONLY AFTER ALL CONSTRUCTION IS COMPLETE.

⑤ **DEBRIS SCREEN/SHIELD** – OVERFLOW INTAKE PVC SCREEN/SHIELD WITH 2" ANTI–SIPHON VENT. USE 2' SLOTTED SCREEN PVC PIPE.

⑥ **OIL-ABSORBENT PILLOW** – MINIMUM 1 GALLON CAPACITY.

⑦ **PRE-CAST DRYWELL LINER** – 48" ID. X 54" OD. USE 4000 PSI CONCRETE. LINER SECTIONS TO BE ALIGNED CENTERED WITH DRILLED SHAFT. BOTTOM SECTION OF LINER TO HAVE PERFORATIONS. SEAL ALL LINER GAPS WITH MORTAR.

⑧ **OVERFLOW DRAIN STANDPIPE** – USE CONTINUOUS PVC SCH–40 PIPE MATERIAL WITH A MINIMUM EMBEDMENT OF 4' INTO THE GRAVEL PACK. SEE DETAIL FOR DIAMETER SIZE.

⑨ **MININUM 6' DIA. DRILLED SHAFT** – SHAFT EXCAVATED IN A MANNER TO PROTECT DRAINAGE SOILS.

⑩ **GRAVEL PACK** – 3/8" TO 1–1/2" WASHED, CLEAN GRAVEL PACK INCLUDING SURROUNDING CHAMBER.

⑪ **GEOTEXTILE INFILTRATION BARRIER** – 4 OZ. NON–WOVEN FABRIC WITH 2 INCHES OF GRAVEL COVER FOR SECURING FABRIC.

⑫ **MINIMUM 4' DIA. DRILLED SHAFT** – SHAFT EXCAVATED IN A MANNER TO PROTECT DRAINAGE SOILS.

⑬ **DRYWELL DRAIN PIPE** – USE PVC SDR–35 PIPE MATERIAL. SEE DETAIL FOR DIAMETER SIZE (MIN. 6" DIA.).

⑭ **INJECTION SCREEN** – USE SLOTTED SCH–40 PVC SCREEN PIPE.

⑮ **OPTIONAL INLET PIPE** – OPTIONAL CONNECTING PIPE, SIZE AND INVERT ELEVATION SPECIFIED PER PLANS (MIN. 4" DIA.). MORTAR SEAL CONNECTION.

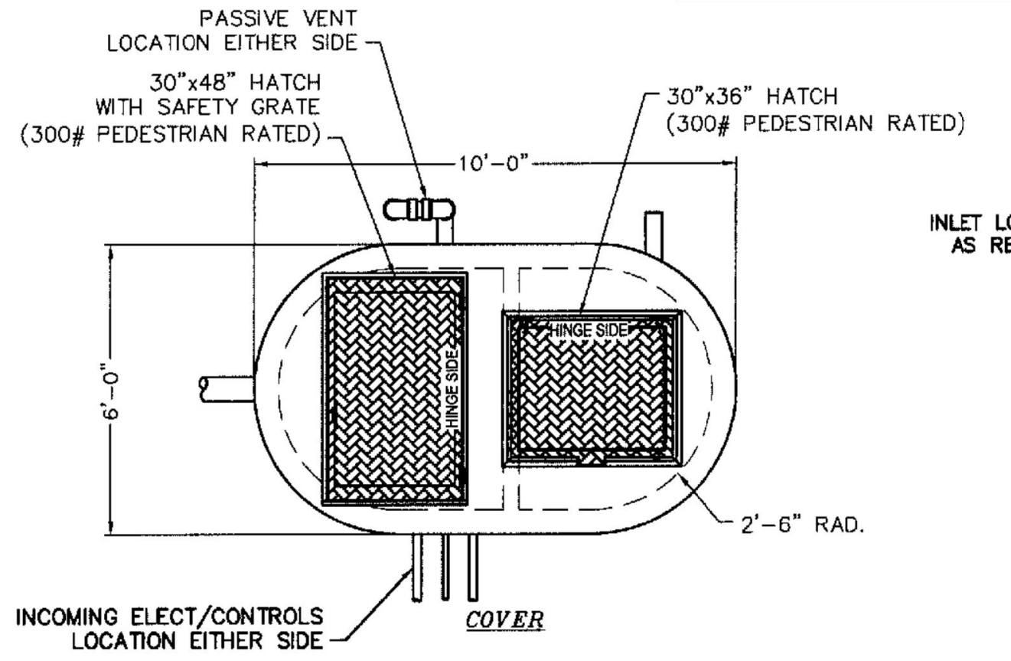
⑯ **MOISTURE BARRIER** – 6 MIL. PLASTIC BARRIER TO WRAPPED AROUND LINER WALL AND DRILL SHAFT.

⑰ **REINFORCMENT BRACKET** – USE 12 GA. STAINLESS STEEL SUPPORTING BRACKET.

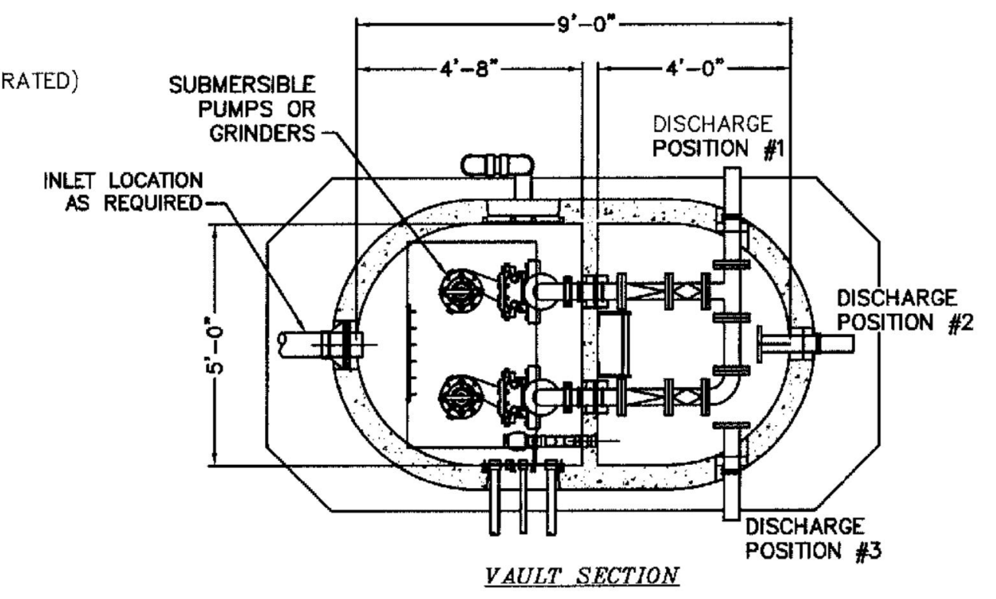
NOTES:

1. UPON COMPLETION OF INSTALLATION, CONTRACTOR SHALL VERIFY REGISTRATION OF THE INSTALLED DRYWELLS WITH A.D.E.Q. AND FURNISH THE CITY, OWNER, AND ENGINEER OF RECORD ALL PERTINENT REGISTRATION DOCUMENTATION.
2. ALL DRYWELLS SHALL BE MAINTAINED AND ARE TO BE REPLACED WHEN THEY CEASE TO DRAIN SURFACE WATER WITHIN A 36–HR PERIOD. REGULAR MAINTENANCE OF THE DRYWELL SETTLING CHAMBER IS REQUIRED TO ACHIEVE THE BEST PERFORMANCE OF THE DRYWELL.
3. THE DEVELOPMENT SERVICES DEPT. SHALL INSPECT EACH WELL SITE PRIOR TO PLACEMENT OF LINER AND BACKFILL TO VERIFY 10' PENETRATION INTO SAND AND GRAVEL. WHERE IT IS UNCLEAR WHETHER SAND AND GRAVEL HAS BEEN PENETRATED, A PERCOLATION TEST SHALL BE PERFORMED.

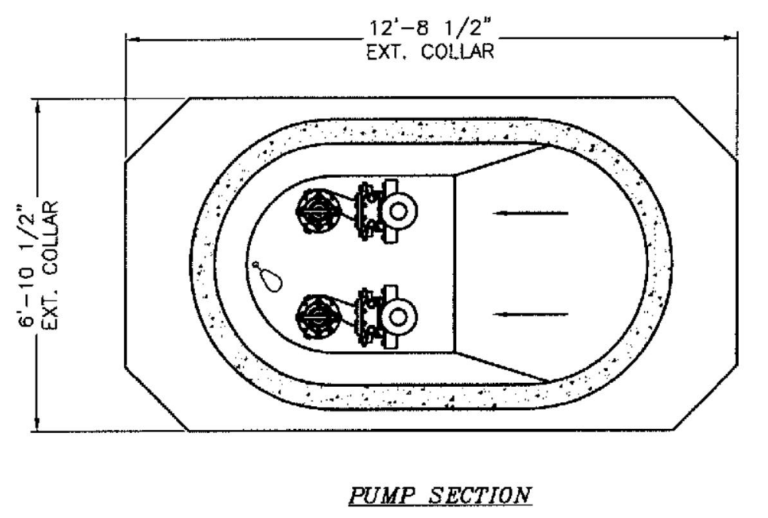
StormWater Pros, LLC
916 E. IMPALA AVENUE, STE. 101 (480) 926-1003 TEL
MESA, AZ 85204 (480) 813-9612 FAX


PASSIVE VENT LOCATION EITHER SIDE
30"x48" HATCH WITH SAFETY GRATE (300# PEDESTRIAN RATED)
30"x36" HATCH (300# PEDESTRIAN RATED)
10'–0"
6'–0"
HINGE SIDE
HINGE SIDE
2'–6" RAD.
INCOMING ELECT/CONTROLS LOCATION EITHER SIDE

COVER


9'–0"
4'–8"
4'–0"
SUBMERSIBLE PUMPS OR GRINDERS
INLET LOCATION AS REQUIRED
DISCHARGE POSITION #1
DISCHARGE POSITION #2
DISCHARGE POSITION #3
5'–0"

VAULT SECTION

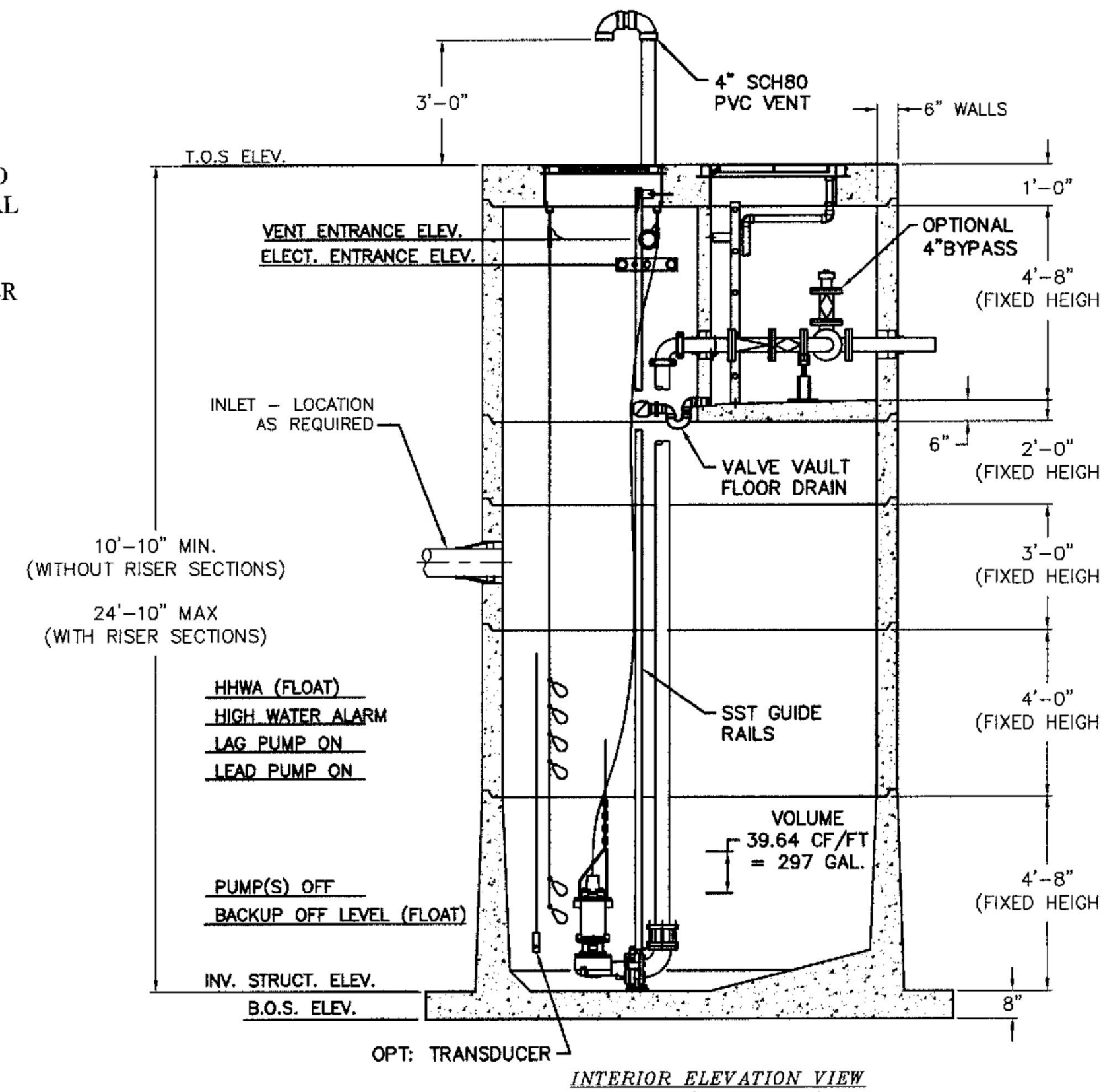

12'–8 1/2" EXT. COLLAR
6'–10 1/2" EXT. COLLAR

PUMP SECTION

OPTION LIST:

- OVERALL STRUCTURE HEIGHT FROM 10'-10" TO 24'-10" (USING STANDARD HEIGHT STRUCTURAL COMPONENTS)
- 2' & 4' VALVE VAULT EXTENSION RISERS TO INCREASE HEADROOM OR FORCE MAIN COVER WHEN REQUIRED
- H20 LOAD RATING ON HATCHES
- SAFETY GRATING FOR VALVE VAULT HATCH
- LADDER EXTENSION FOR VALVE VAULT ACCESS
- ADMIXTURE FOR HYDROGEN SULFIDE PROTECTION
- NON-FIBRATED EXTERIOR DAMPPROOFING
- DISCHARGE PIPING & VALVES SIZE 2"-4"
- PIPING MATERIALS (PVC OR DI)
- DISCHARGE POSITION #1, #2 (STD) OR #3
- BYPASS OUTLET/INLET WITH ISOLATION VALVE AND QUICK CONNECT (2"-4")
- DISCHARGE PRESSURE GAUGES
- VENTING WITH ODOR CONTROL
- CONTROL PANEL PLACEMENT
- TRANSDUCER/FLOAT LEVEL CONTROL
- INTERIOR/EXTERIOR JUNCTION BOXES
- ALUMINUM & STAINLESS TRASH BASKETS
- STAINLESS PORTABLE HOIST (300#, 1000#)

SEE COMPLETE LISTING AND OPTION DESCRIPTIONS IN THE ONELIFT SPECIFICATION GUIDE


3'–0"
4" SCH80 PVC VENT
6" WALLS
T.O.S ELEV.
VENT ENTRANCE ELEV.
ELECT. ENTRANCE ELEV.
1'–0"
OPTIONAL 4"BYPASS
4'–8" (FIXED HEIGHT)
INLET – LOCATION AS REQUIRED
6"
2'–0" (FIXED HEIGHT)
VALVE VAULT FLOOR DRAIN
10'–10" MIN. (WITHOUT RISER SECTIONS)
24'–10" MAX (WITH RISER SECTIONS)
3'–0" (FIXED HEIGHT)
HHWA (FLOAT)
HIGH WATER ALARM
LAG PUMP ON
LEAD PUMP ON
SST GUIDE RAILS
4'–0" (FIXED HEIGHT)
VOLUME 39.64 CF/FT = 297 GAL.
PUMP(S) OFF
BACKUP OFF LEVEL (FLOAT)
4'–8" (FIXED HEIGHT)
INV. STRUCT. ELEV.
B.O.S. ELEV.
8"
OPT: TRANSDUCER

INTERIOR ELEVATION VIEW
RC509 x 10'–10" to 24'–10"

APPROX. WEIGHTS:

TOP SLAB = 3 TONS
VALVE VAULT = 6.5 TONS
- USUALLY TOP SLAB & VALVE VAULT ARE FACTORY SEALED, AND SHIP AS 1-PIECE = 9.5 TONS

2' RISER SECTION - 2 TONS
3' RISER SECTON - 3 TONS
4' RISER SECTION - 4 TONS
BASE SECTION W/FLOAT COLLAR & FILLETS - 11.0 TONS

2' VALVE VAULT EXTENSION (NOT SHOWN) - 2.2 TONS
4' VALVE VAULT EXTENSION (NOT SHOWN) - 4.5 TONS

PATENT PENDING

REF:
6'ø=28.27 CF/FT
8'ø=50.26 CF/FT
RC509=39.64 CF/FT
297 Gal/Vert. FT

Oldcastle Precast®
THIS DOCUMENT IS THE PROPERTY OF OLDCASTLE PRECAST, INC. IT IS SUBMITTED FOR REFERENCE PURPOSES ONLY AND SHALL NOT BE USED IN ANY WAY INJURIOUS TO THE INTERESTS OF SAID COMPANY.
COPYRIGHT © 2011 OLDCASTLE PRECAST, INC. ALL RIGHTS RESERVED.
ONELIFT PUMP STATION
RC509 TYPICAL LAYOUT DRAWING
CUSTOMER

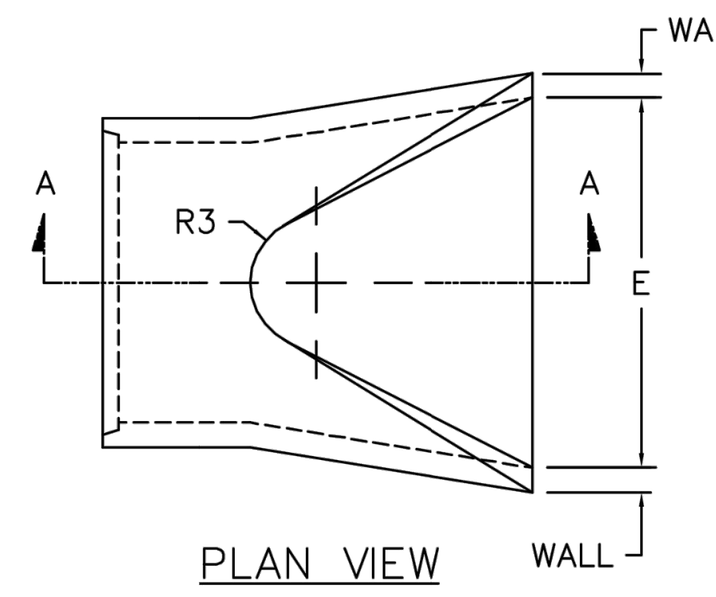
DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER
X/X/XX		KWP	KWP	KWP	
DRAWING NUMBER 324-XXXXX-001				REVISION REV DATE 7/2013	SHEET 1 OF

PUMP ONE LIFT STATION RC509

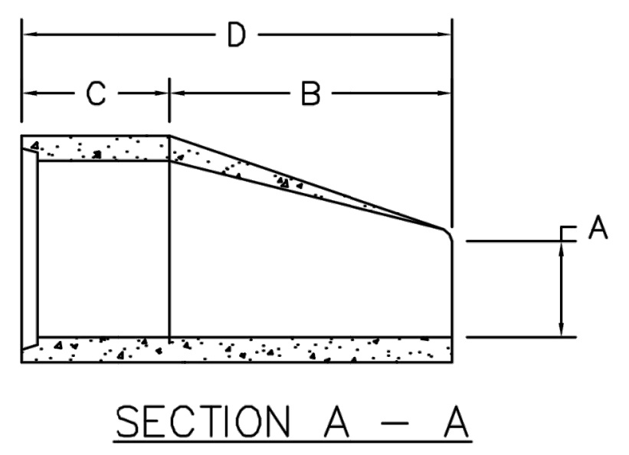
www.onelift.com | 888.965.3227

ELLIPTICAL FLARED END SECTION

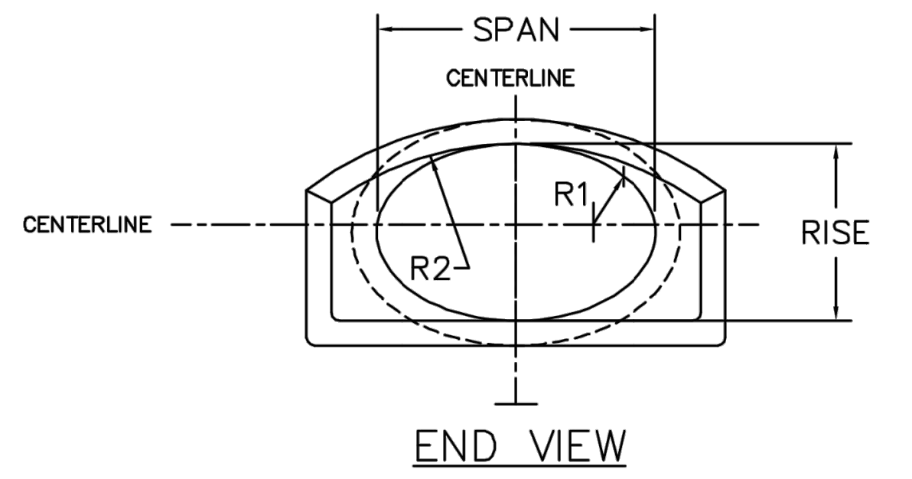
CONCRETE PIPE


WALL
A
A
R3
E
WALL

PLAN VIEW



SECTION A – A


SPAN
CENTERLINE
CENTERLINE
R1
R2
RISE

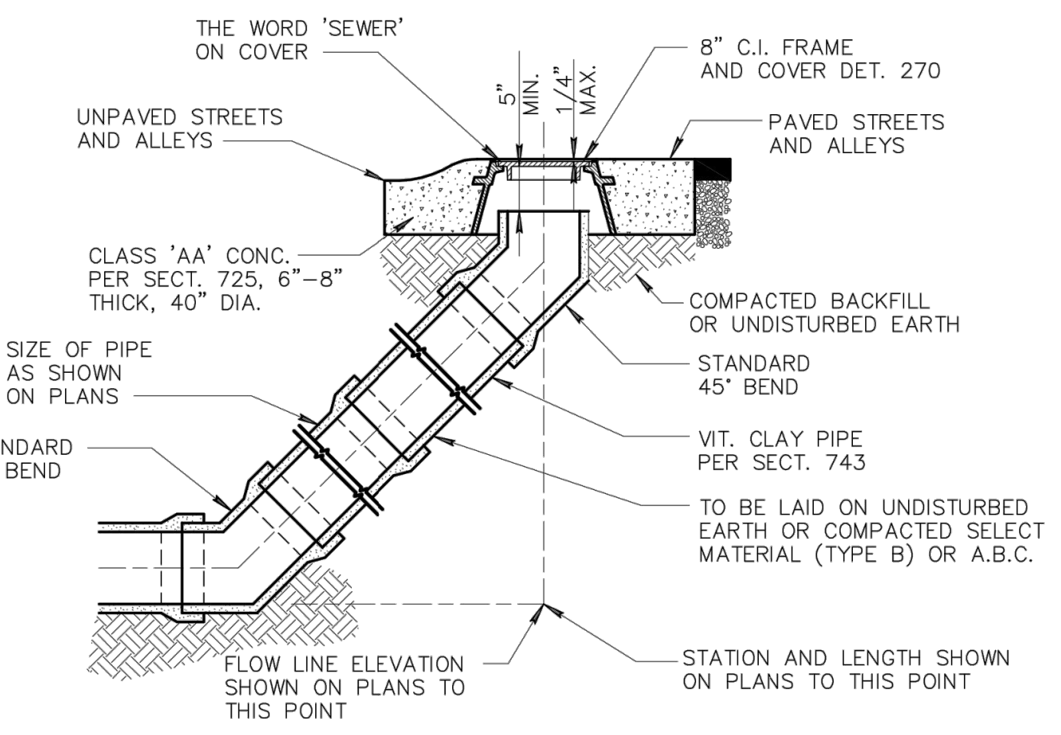
END VIEW

EQUIVALENT CIRCULAR PIPE DIAMETER	NOMINAL INSIDE RISE x SPAN	WALL THICKNESS	APPROX. WEIGHT	A	FLARE LENGTH B	BARREL LENGTH C	LAY LENGTH D	FLARE WIDTH E	R–1	R–2	R–3
18"	14" x 23"	2–3/4"	1300	8"	2'–4"	3'–9"	6'–1"	36"	6–3/32"	19–15/16"	6"
24"	19" x 30"	3–1/4"	1675	8–1/2"	3'–4"	2'–9"	6'–1"	48"	8–7/32"	26–1/4"	7"
30"	24" x 38"	3–3/4"	2450	9–1/2"	4'–6"	1'–6"	6'–0"	60"	10–1/4"	32–13/16"	9"
36"	29" x 45"	4–1/2"	4840	11–1/2"	5'–1"	3'–0"	8'–1"	72"	12–5/8"	39–3/8"	12"
42"	34" x 53"	5"	6456	15–3/4"	5'–0"	3'–0"	8'–0"	78"	14–9/32"	45–29/32"	13"
48"	38" x 60"	5–1/2"	7870	21"	5'–0"	3'–0"	8'–0"	84"	15–7/16"	51–19/32"	14"
54"	43" x 68"	6"	9990	25–1/2"	5'–0"	3'–0"	8'–0"	90"	18–21/32"	58–19/32"	16"

CP006
5/07

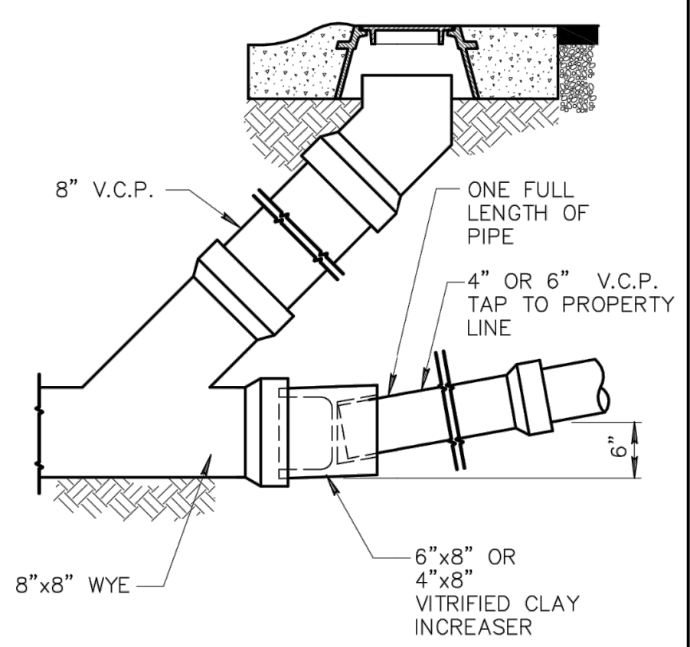
16419 TEN LANE, NAMPA, IDAHO 83687 – (208) 465–0176 – 1–800–696–5648 – FAX (208) 465–7129

* ITEMS SHOWN ARE SUBJECT TO CHANGE WITHOUT NOTICE.


THE WORD 'SEWER' ON COVER
8" C.I. FRAME AND COVER DET. 270
5" MIN.
1/4" MAX.
UNPAVED STREETS AND ALLEYS
PAVED STREETS AND ALLEYS
CLASS 'AA' CONC. PER SECT. 725, 6"–8" THICK, 40" DIA.
COMPACTED BACKFILL OR UNDISTURBED EARTH
SIZE OF PIPE AS SHOWN ON PLANS
STANDARD 45° BEND
STANDARD 45° BEND
VIT. CLAY PIPE PER SECT. 743
TO BE LAID ON UNDISTURBED EARTH OR COMPACTED SELECT MATERIAL (TYPE B) OR A.B.C.
FLOW LINE ELEVATION SHOWN ON PLANS TO THIS POINT
STATION AND LENGTH SHOWN ON PLANS TO THIS POINT

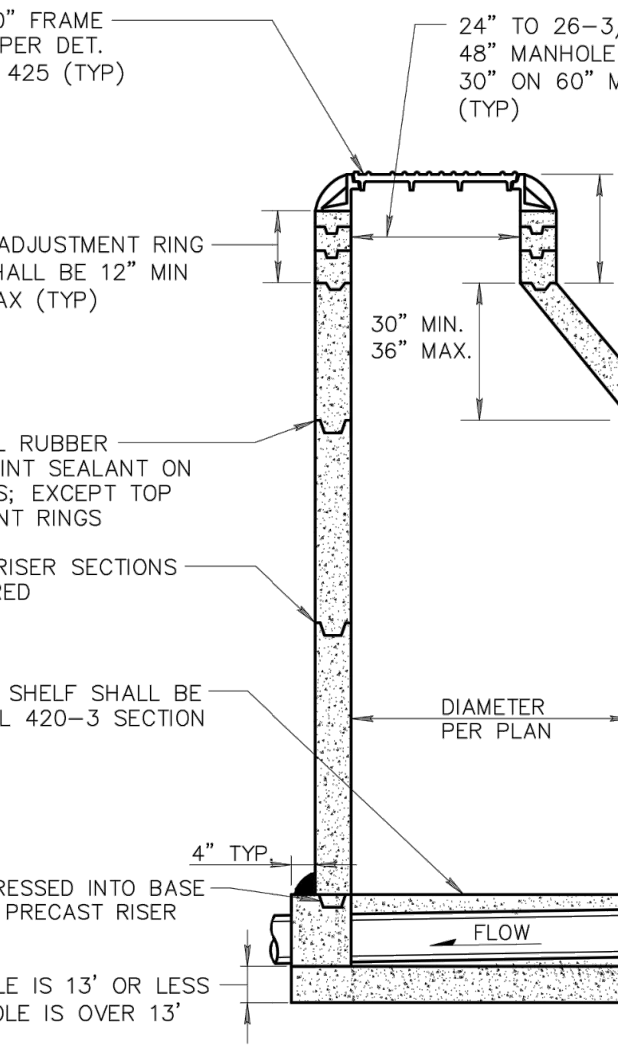
CLEANOUT INSTALLATION

NOTE:
END OF SEWER TAP TO BE SEALED AND MARKED IN ACCORDANCE WITH DET. 440


8" V.C.P.
ONE FULL LENGTH OF PIPE
4" OR 6" V.C.P. TAP TO PROPERTY LINE
6"
8"x8" WYE
6"x8" OR 4"x8" VITRIFIED CLAY INCREASER

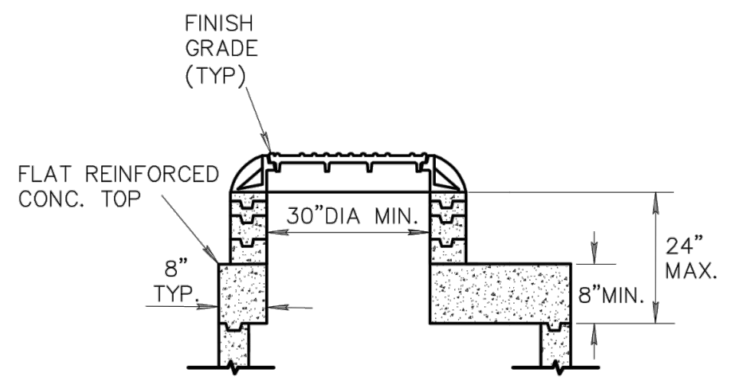
SEWER TAP AT CLEANOUT

DETAIL NO.			REVISED	DETAIL NO.
441	MARICOPA ASSOCIATION of GOVERNMENTS STANDARD DETAIL ENGLISH	SEWER CLEANOUT	01–01–2001	441


24" OR 30" FRAME & COVER PER DET. 423, 424, 425 (TYP)
24" TO 26–3/4" ON 48" MANHOLE 30" ON 60" MANHOLE (TYP)
24" MAX ADJUSTING RINGS PER DETAIL 422 (TYP)
OVERALL ADJUSTMENT RING HEIGHT SHALL BE 12" MIN TO 18" MAX (TYP)
30" MIN. 36" MAX.
USE BUTYL RUBBER MASTIC JOINT SEALANT ON ALL JOINTS; EXCEPT TOP ADJUSTMENT RINGS
PRECAST RISER SECTIONS AS REQUIRED
CONCRETE SHELF SHALL BE PER DETAIL 420–3 SECTION A–A
DIAMETER PER PLAN
CEMENT MORTAR
4" TYP.
3" MIN. 5" MAX.
KEYWAY PRESSED INTO BASE TO MATCH PRECAST RISER
FLOW
8" IF MANHOLE IS 13' OR LESS 12" IF MANHOLE IS OVER 13'
CLASS "A" CONCRETE BASE PER SECTION 725, 505

TYPE 'A' TOP
(PRECAST ECCENTRIC CONICAL TOP MANHOLE)

(PRECAST FLAT TOP M.H.)


FINISH GRADE (TYP)
FLAT REINFORCED CONC. TOP
30"DIA MIN.
8" TYP.
8"MIN.
24" MAX.

NOTES:

1. PRECAST STEEL REINFORCED MANHOLE SECTIONS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C 478 EXCEPT AS MODIFIED HEREIN.
2. CAST–IN–PLACE MANHOLE BASE TO BE CONSTRUCTED IN ONE PLACEMENT.
3. CAST–IN–PLACE MANHOLE BASE SHELF AND CHANNEL TO RECEIVE SMOOTH TROWEL FINISH.
4. MANHOLE COATINGS PER AGENCY.
5. SEE MAG DETAIL 422 FOR FINAL ADJUSTMENT TO GRADE.
6. ANY MANHOLE OVER 20' SHALL REQUIRE ENGINEER (STRUCTURAL) CALCS.
7. THE MANHOLE ACCESS POINT SHALL BE ORIENTED IN SUCH A WAY THAT THE OPENING IS DIRECTLY ABOVE THE LOWEST INVERT, OR AS OTHERWISE DIRECTED BY THE PLANS OR ENG.
8. FOR PRECAST BASE SEE DETAIL 420–2.
9. FLAT TOPS SHALL ONLY BE USED WITH APPROVAL FROM THE ENGINEER.

DETAIL NO.			REVISED	DETAIL NO.
420-1	MARICOPA ASSOCIATION of GOVERNMENTS STANDARD DETAIL ENGLISH	CONCRETE SANITARY SEWER MANHOLE	01-01-2015	420-1

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DES	CHK	APR	DESCRIPTION
C	03/24/25	CW	CW	AM	ISSUED FOR REZONING
B	01/14/25	CW	AM	AM	ISSUED FOR REZONING
A	12/01/23	CW	AM	AM	ISSUED FOR ESTIMATE

NOTICE OF EXTENDED PAYMENT PROVISION (AZ. STAT. 33-1182). THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENTS WITHIN 30 DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR PROGRESS PAYMENTS, CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES RELEASE OF RETENTION, AND CERTIFICATION AND APPROVAL OF BILLINGS AND ESTIMATES FOR FINAL PAYMENT.

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
License No. 11523

FUJIFILM
FUJIFILM Electronic Materials U.S.A., Inc.
6550 SOUTH MOUNTAIN ROAD
MESA, ARIZONA 85212

FUJIFILM PROPRIETARY AND CONFIDENTIAL

FUJIFILM ELECTRONIC MATERIALS, ARIZONA
PROJECT MELVILLE PHASE 1 30% DESIGN
SITE DETAILS

FUJI NO.: CLIENT PROJ. NO.
A&E FIRM NO.: 147051
DRAWN: C.WILLIAMS
CHECKED: A.MONSOUR
DATE: 01/14/2025
SCALE: AS NOTED
DRAWING
020–CI503
SHEET ---- OF ##