MKEC CIVIL GENERAL NOTES:

OVERALL:

1. CONTRACT DOCUMENTS HEREIN REFER TO ENGINEER SEALED PLANS, PROJECT SPECIFICATIONS, AUTHORITY HAVING JURISDICTION (AHJ) STANDARD DETAILS AND SPECIFICATIONS, THE FINAL GEOTECHNICAL REPORT AND ALL ISSUED ADDENDA, AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS. IN CASE OF CONFLICTING SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION AND DETAIL MUST BE FOLLOWED.
2. ANY MENTION OF MUNICIPAL, COUNTY, STATE, OR OTHER GOVERNMENTAL ENTITIES SHALL BE CONSTRUED AS REFERRING TO THE AHJ PERTINENT TO THE SPECIFIC SCOPE OF THE PROJECT IN QUESTION.
3. ALL CONSTRUCTION AND MATERIALS MUST BE IN ACCORDANCE WITH CONTRACT DOCUMENTS. THE AHJ SPECIFICATIONS MUST GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICTING SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION AND DETAIL MUST BE FOLLOWED.
4. THE CONTRACTOR MUST FURNISH ALL MATERIAL AND LABOR TO CONSTRUCT THE PROJECT AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE AHJ SPECIFICATIONS AND REQUIREMENTS.
5. THE CONTRACTOR IS EXPECTED TO VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING CONDITIONS. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR UNKNOWN EXISTING CONDITIONS THAT COULD BE DETERMINED FROM A SITE VISIT.
6. UNLESS OTHERWISE NOTED, THE EXISTING CONDITIONS SHOWN ON THESE PLANS WERE PROVIDED BY THE TOPOGRAPHIC SURVEY PREPARED BY THE PROJECT SURVEYOR, AND ARE BASED ON THE BENCHMARKS SHOWN. THE CONTRACTOR MUST REFERENCE THE SAME BENCHMARKS.
7. THE CONTRACTOR MUST REVIEW AND VERIFY THE EXISTING TOPOGRAPHIC SURVEY SHOWN ON THE PLANS REPRESENTS EXISTING FIELD CONDITIONS PRIOR TO CONSTRUCTION, AND MUST REPORT ANY DISCREPANCIES FOUND TO THE OWNER AND ENGINEER IN WRITING PRIOR TO CONSTRUCTION.
8. IF THE CONTRACTOR DOES NOT ACCEPT THE EXISTING TOPOGRAPHIC SURVEY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR MUST SUPPLY AT THEIR OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED PROFESSIONAL LAND SURVEYOR TO THE OWNER AND ENGINEER FOR REVIEW.
9. CONTRACTOR MUST PROVIDE ALL CONSTRUCTION SURVEYING AND STAKING.
10. CONTRACTOR MUST VERIFY HORIZONTAL AND VERTICAL CONTROL, INCLUDING BENCHMARKS PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS. PROPERTY LINES AND CORNERS MUST BE HELD AS THE HORIZONTAL LIMITS UNLESS OTHERWISE NOTED.
11. THE CONTRACTOR MUST REVIEW AND VERIFY ALL DIMENSIONS, ELEVATIONS, AND FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. ANY DISCREPANCIES ON THE DRAWINGS MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER, AND IF APPLICABLE THE AHJ AND OWNER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE AHJ, ENGINEER, AND OWNER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
12. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES, DIMENSIONS, AND PLAN SCALES AND SHALL IMMEDIATELY NOTIFY THE OWNER/ ENGINEER/ ARCHITECT OF ANY SUCH DISCREPANCIES. ALL QUANTITIES, DIMENSIONS, AND PLAN SCALES PROVIDED ARE GENERAL INFORMATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALL QUANTITIES NECESSARY FOR THE COMPLETION OF THE WORK AS DESCRIBED IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE WORK DESCRIBED IN THE CONSTRUCTION DOCUMENTS IRRESPECTIVE OF THE QUANTITIES, DIMENSIONS, AND PLAN SCALES NOTED, NOT NOTED, OR NOTED INCORRECTLY.
13. NO CHANGES TO THE APPROVED CONSTRUCTION PLANS WILL BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER OF RECORD.
14. CONTRACTOR MUST THOROUGHLY CHECK COORDINATION OF APPLICABLE DESIGN PLANS BETWEEN CIVIL, LANDSCAPE, MEP, STRUCTURAL, ARCHITECTURAL, AND ANY OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER AND ENGINEER MUST BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.
15. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENTS THE BEST INFORMATION AVAILABLE TO THE ENGINEER. ALL UTILITIES ACTUALLY EXISTING MAY NOT BE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL UTILITIES WHETHER THE UTILITIES ARE SHOWN ON THE PLAN, NOT SHOWN ON THE PLANS, OR SHOWN INCORRECTLY. UTILITIES DAMAGED THROUGH THE FAILURE OF THE CONTRACTOR TO OBTAIN THE LOCATION OF THE UTILITIES SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR SHALL, PRIOR TO ANY EXCAVATION OR NEW CONSTRUCTION, HAVE ALL UTILITIES FIELD LOCATED BY THE APPROPRIATE UTILITY COMPANY, MUNICIPAL DEPARTMENT, OR ON-CALL SERVICE.
16. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK TO HAVE THEM LOCATE THEIR EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR MUST PROVIDE AN ADEQUATE MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
17. CONTRACTOR MUST CALL 811 AN ADEQUATE AMOUNT OF TIME PRIOR TO COMMENCING CONSTRUCTION OR ANY EXCAVATION.
18. CONTRACTOR MUST USE EXTREME CAUTION AS THE SITE CONTAINS VARIOUS KNOWN AND UNKNOWN PUBLIC AND PRIVATE UTILITIES.
19. THE LOCATIONS, ELEVATIONS, DEPTH, AND DIMENSIONS OF EXISTING UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM AVAILABLE UTILITY COMPANY MAPS AND PLANS, AND ARE CONSIDERED APPROXIMATE AND INCOMPLETE. IT MUST BE THE CONTRACTORS' RESPONSIBILITY TO VERIFY THE PRESENCE, LOCATION, ELEVATION, DEPTH, AND DIMENSION OF EXISTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION SO THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE ENGINEER MUST BE NOTIFIED WHEN A PROPOSED IMPROVEMENT CONFLICTS WITH AN EXISTING UTILITY.
20. THE CONTRACTOR MUST BE FULLY RESPONSIBLE FOR ALL DAMAGES DUE TO THE CONTRACTORS' FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED MUST BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
21. THE CONTRACTOR MUST BE RESPONSIBLE TO OBTAIN ALL REQUIRED CONSTRUCTION PERMITS, APPROVALS, AND BONDS PRIOR TO CONSTRUCTION.
22. THE CONTRACTOR MUST HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES A COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, GEOTECHNICAL REPORT AND ADDENDA, PROJECT AND AHJ SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, EROSION CONTROL PLANS, SWPPP AND INSPECTION REPORTS.
23. ALL SHOP DRAWINGS AND OTHER DOCUMENTS THAT REQUIRE ENGINEER REVIEW MUST BE SUBMITTED BY THE CONTRACTOR IN ADVANCE OF CONSTRUCTION OF THAT ITEM, SO THAT NO LESS THAN 10 BUSINESS DAYS OR AS DICTATED BY CONTRACT DOCUMENTS FOR REVIEW AND RESPONSE IS AVAILABLE.
24. THE SCOPE OF WORK FOR THE CIVIL IMPROVEMENTS SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. IF APPLICABLE, REFERENCE THE BUILDING PLANS (E.G. ARCHITECTURAL, STRUCTURAL, MEP) FOR AREAS WITHIN 5-FEET OF THE BUILDING AND WITHIN THE BUILDING FOOTPRINT.
25. IF APPLICABLE, REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ALL FINAL BUILDING DIMENSIONS.
26. THE PROPOSED BUILDING FOOTPRINT(S) SHOWN IN THESE PLANS WERE PROVIDED TO MKEC BY THE PROJECT ARCHITECT AT THE TIME THESE PLANS WERE PREPARED. IT MAY NOT BE THE FINAL CORRECT VERSION BECAUSE THE BUILDING DESIGN WAS ONGOING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFIRMING THE FINAL CORRECT VERSION OF THE BUILDING FOOTPRINT WITH THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO LAYOUT. DIMENSIONS AND/OR COORDINATES SHOWN ON THESE PLANS WERE BASED ON THE ABOVE STATED ARCHITECTURAL FOOTPRINT, AND ARE THEREFORE A PRELIMINARY LOCATION OF THE BUILDING. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY WHAT PART OF THE BUILDING THE ARCHITECT'S FOOTPRINT REPRESENTS (E.G. SLAB, OUTSIDE WALL, MASONRY LEDGE, ETC.....) AND TO CONFIRM ITS FINAL POSITION ON THE SITE BASED ON THE FINAL ARCHITECTURAL FOOTPRINT, CIVIL DIMENSION CONTROL PLAN, SURVEY BOUNDARY AND/OR PLAT. ANY DIFFERENCES FOUND MUST BE REPORTED TO MKEC IMMEDIATELY. THE BUILDING MUST NOT BE STAKED FROM THE CIVIL DRAWING.
27. ALL CONSTRUCTION MUST COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING SUBSEQUENT ADDENDA.
28. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL MATERIALS TESTING MUST BE COORDINATED WITH THE APPROPRIATE AHJ INSPECTOR AND COMPLY WITH AHJ STANDARD SPECIFICATIONS AND GEOTECHNICAL REPORT. TESTING MUST BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING MATERIALS. OWNER MUST APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR MATERIALS TESTING.
29. ALL COPIES OF MATERIALS TEST RESULTS MUST BE SENT TO THE OWNER AND ENGINEER DIRECTLY FROM THE TESTING AGENCY.
30. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE MATERIALS, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND AHJ SPECIFICATIONS.
31. SITE SAFETY IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. ENGINEER IS NOT AND SHALL NOT BE RESPONSIBLE FOR SITE SAFETY.
32. MKEC IS NOT RESPONSIBLE FOR ANY AND ALL MEANS AND METHODS OF CONSTRUCTION EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS PROJECT.
33. TOP RIM ELEVATIONS OF ALL EXISTING AND PROPOSED MANHOLES MUST BE COORDINATED WITH TOP OF PAVEMENT OR FINISHED GRADE AND MUST BE ADJUSTED TO BE FLUSH WITH THE ACTUAL FINISHED GRADE AT THE TIME OF PAVING OR 0.4 FEET INCREASE WHEN PLACED IN LANDSCAPING.
34. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ALL EXISTING AND PROPOSED VALVES, FIRE HYDRANTS, AND OTHER UTILITY APPURTENANCES TO MATCH ACTUAL FINISHED GRADES AT THE TIME OF PAVING AND/OR FINAL GRADING.
35. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SEQUENCING AND PHASING, AND MUST CONTACT THE APPROPRIATE AHJ OFFICIALS, INCLUDING BUILDING OFFICIAL, ENGINEERING INSPECTOR, AND FIRE MARSHALL TO LEARN OF ANY REQUIREMENTS.
36. CONTRACTOR MUST KEEP LEGIBLE, ORGANIZED, AND AN ACCURATE RECORD OF CONSTRUCTION, INCLUDING ANY DEVIATIONS OR VARIANCES FROM THE PLANS.
37. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT PLANS TO THE ENGINEER, OWNER, AND AHJ IDENTIFYING ALL DEVIATIONS AND VARIATIONS FROM THESE PLANS MADE DURING CONSTRUCTION.
38. CONTRACTOR IS RESPONSIBLE FOR PREPARATION, SUBMITTAL, AND APPROVAL BY THE AHJ OF A TRAFFIC CONTROL PLAN PRIOR TO THE START OF CONSTRUCTION, AND THEN THE IMPLEMENTATION OF THE PLAN.
39. TRAFFIC CONTROL SIGNAGE (IF APPLICABLE) MUST CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND AHJ STANDARDS. THE CONTRACTOR MUST FURNISH AND MAINTAIN ALL NECESSARY BARRICADES, WARNING SIGNS, LIGHTS AND FLAGMEN AS WARRANTED. COST MUST BE SUBSIDIARY TO THE PROJECT.
38. THE CONTRACTOR MUST ABIDE BY ALL OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES.
39. THE CONTRACTOR MUST BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS MUST BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
40. ANY CURB, GUTTER, SIDEWALKS, AND PAVING THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
41. COST OF EXCAVATION, HAULING, AND DUMPING OF EXCESS EXCAVATION MUST BE SUBSIDIARY TO THE PROJECT.
42. THE CONTRACTOR MUST PAY ALL PERMIT & OTHER ASSOCIATED FEES REQUIRED BY LOCAL, STATE, & FEDERAL AGENCIES.
43. IF THERE IS A DISCREPANCY BETWEEN CIVIL PLANS AND PROJECT SPECIFICATIONS, THE PLANS SHALL GOVERN.
44. CONTRACTOR MUST COORDINATE WITH THE AHJ REGARDING ANY WORK WITHIN PUBLIC RIGHT OF WAY AND OBTAIN PERMITS AS REQUIRED.
45. IF BLASTING IS REQUIRED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE AGENCIES TO OBTAIN THE REQUIRED PERMITS. IF BLASTING IS ALLOWED, THE CONTRACTOR SHALL PERFORM BLASTING OPERATIONS ACCORDING TO STATE REGULATIONS AND LOCAL ORDINANCES.

DEMOLITION:

1. THIS PRELIMINARY DEMOLITION PLAN SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACT THAT ARE TO BE DEMOLISHED AND REMOVED FROM THE SITE. MKEC DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON AVAILABLE INFORMATION, SHOWS ALL IMPROVEMENTS AND UTILITIES, THAT THE IMPROVEMENTS AND UTILITIES ARE SHOWN ACCURATELY, OR THAT THE UTILITIES SHOWN CAN BE REMOVED. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ITS OWN SITE RECONNAISSANCE TO SCOPE ITS WORK AND TO CONFIRM WITH THE OWNERS OF IMPROVEMENTS AND UTILITIES THE ABILITY AND PROCESS FOR THE REMOVAL OF THEIR FACILITIES.
2. THIS PLAN IS INTENDED TO GIVE A GENERAL GUIDE TO THE CONTRACTOR, NOTHING MORE. THE GOAL OF THE DEMOLITION IS TO LEAVE THE SITE IN A STATE SUITABLE FOR THE CONSTRUCTION OF THE PROPOSED PROJECT OR DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC. TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR.
3. CONTRACTOR MUST REVIEW ALL APPLICABLE REPORTS, WHICH MAY INCLUDE BUT NOT LIMITED TO ENVIRONMENTAL SITE ASSESSMENT, ASBESTOS BUILDING INSPECTION, GEOTECHNICAL REPORT, AND OTHER APPLICABLE REPORTS THAT DESCRIBE SITE CONDITIONS PRIOR TO BIDDING AND IMPLEMENTING THE DEMOLITION WORK. ENGINEER IS NOT RESPONSIBLE FOR PROCURING, PROVIDING, OR THE ACCURACY OF SITE INVESTIGATIONS OR REPORTS.
4. CONTRACTOR MUST CONTACT THE OWNER TO VERIFY WHETHER ADDITIONAL REPORTS OR AMENDMENTS TO THE ABOVE CITED REPORTS HAVE BEEN PREPARED AND TO OBTAIN/REVIEW/AND COMPLY WITH THE RECOMMENDATION OF SUCH STUDIES PRIOR TO STARTING ANY WORK ON THE SITE.
5. CONTRACTOR MUST COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW THE SITE, DETERMINE THE APPLICABLE REGULATIONS, RECEIVE THE REQUIRED PERMITS AND AUTHORIZATIONS, AND COMPLY.
6. MKEC DOES NOT REPRESENT THAT THE REPORTS AND SURVEYS REFERENCED ABOVE ARE ACCURATE, COMPLETE, OR COMPREHENSIVE SHOWING ALL ITEMS THAT WILL NEED TO BE DEMOLISHED AND REMOVED.
7. SURFACE PAVEMENT INDICATED MAY OVERLAY OTHER HIDDEN STRUCTURES, SUCH AS ADDITIONAL LAYERS OF PAVEMENT, FOUNDATIONS OR WALLS, THAT ARE ALSO TO BE REMOVED.
8. CLEARED AND DEMOLISHED ITEMS, AS WELL AS, EXCESS MATERIALS SHALL BECOME THE CONTRACTOR'S PROPERTY AND BE REMOVED FROM THE SITE WITH THE EXCEPTION OF STRIPPED TOPSOIL, SATISFACTORY EXCESS EXCAVATION AND OTHER MATERIALS INDICATED ON THE DRAWINGS TO BE STOCKPILED AND/OR OTHERWISE TO REMAIN ON THE OWNER'S PROPERTY.

GRADING:

1. THE CONTRACTOR AND GRADING SUBCONTRACTOR MUST VERIFY THE SUITABILITY OF EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE CIVIL ENGINEER MUST BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
2. CONTRACTOR MUST OBTAIN ANY AND ALL REQUIRED GRADING PERMITS FROM THE AHJ.
3. PROPOSED CONTOURS ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS AND DESIGNATED GRADIENT ARE TO BE USED IN CASE OF DISCREPANCY. UNLESS OTHERWISE NOTED, PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN:
   - 3.1. OUTSIDE THE PAVEMENT ARE TO TOP OF FINISHED GRADE.
   - 3.2. IN PAVED AREA REFLECT TOP OF PAVEMENT SURFACE.
   - 3.3. UNLESS OTHERWISE NOTED IN LOCATIONS ALONG A CURB LINE, ADD 6-INCHES (OR THE HEIGHT OF THE CURB) TO THE PAVING GRADE FOR TOP OF CURB ELEVATION.
4. THE CONTRACTOR MUST PROVIDE AN APPROPRIATE ELEVATION ADJUSTMENT ALLOWING FOR THE THICKNESS OF PAVEMENT, SUBGRADE THICKNESS, SIDEWALK, TOPSOIL, MULCH, STONE, LANDSCAPING, RIP-RAP AND ALL OTHER SURFACE MATERIALS THAT WILL CONTRIBUTE TO THE TOP OF FINISHED GRADE.
5. ANY EARTHWORK QUANTITIES OR SITE BALANCING SHOWN BY THESE PLANS ARE FOR REFERENCE ONLY. THE CONTRACTOR MUST PROVIDE THEIR OWN EARTHWORK CALCULATION TO DETERMINE THEIR CONTRACT QUANTITIES AND COST. ANY SIGNIFICANT VARIANCE FROM A BALANCED SITE MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CIVIL ENGINEER. ALL IMPORT AND EXPORT OF SOIL MATERIAL SHALL BE THE RESPONSIBILITY AND AT THE EXPENSE OF THE CONTRACTOR.
6. ALL SITE WORK FOR THIS PROJECT IS CONSIDERED "UNCLASSIFIED". THE TERM "UNCLASSIFIED" EXCAVATION SHALL BE DEFINED AS MEANING THE SITE CONTRACTOR BEARS THE ENTIRE RISK OF THE SOIL QUANTITIES AND/ OR TYPES (E.G. ROCK, CLAY, PEAT, SILT, SHALE, ETC.) ENCOUNTERED ABOVE THE BOTTOM OF REQUIRED EXCAVATIONS AND OVER-EXCAVATED / TREATED SOILS AREAS. ABOVE THE BOTTOM OF REQUIRED EXCAVATIONS, THE SITE CONTRACTOR SHALL BEAR THE ENTIRE COST OF SUCH ADDITIONAL WORK IN THE EVENT IT BECOMES NECESSARY FOR UNSUITABLE SOILS TO BE HANDLED, REMOVED FROM THE SITE, OR FOR SUITABLE FILL MATERIAL TO BE IMPORTED TO THE SITE. THIS DEFINITION OF "UNCLASSIFIED" SUPERSEDES ANY CONTRARY DEFINITIONS OR STATEMENTS WHICH MAY BE CONTAINED IN THE SPECIFICATIONS, PLANS, OR OTHER CONTRACT DOCUMENTS. THE UNCLASSIFIED SITE SHALL INCLUDE ALL WORK ABOVE THE BOTTOM OF REQUIRED EXCAVATIONS AND/ OR REQUIRED SOIL REMEDIATION/ REPLACEMENT.
7. ALL IMPORT AND EXPORT OF SOIL MATERIAL SHALL BE THE RESPONSIBILITY AND AT THE EXPENSE OF THE CONTRACTOR.
8. EROSION CONTROL MEASURES MUST BE INSTALLED PRIOR TO THE START OF GRADING. REFERENCE EROSION CONTROL PLAN, DETAILS, GENERAL NOTES, AND SWPPP FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
9. BEFORE ANY EARTHWORK IS PERFORMED, THE CONTRACTOR MUST STAKE OUT AND MARK THE LIMITS OF THE PROJECT'S PROPERTY LINE AND SITE IMPROVEMENTS. THE CONTRACTOR MUST PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
10. UNLESS OTHERWISE NOTED, CONTRACTOR TO REMOVE ALL EXCESS EXCAVATION MATERIALS FROM THE PROJECT SITE AND DISPOSE OF IN A MANNER THAT ADHERES TO LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS. THE CONTRACTOR MUST KEEP A RECORD OF WHERE EXCESS EXCAVATION WAS DISPOSED, ALONG WITH THE RECEIVING LANDOWNER'S APPROVAL TO DO SO.
11. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF TOPSOIL AT THE COMPLETION OF FINE GRADING. CONTRACTOR MUST REFER TO LANDSCAPE ARCHITECTURE PLANS FOR SPECIFICATIONS AND REQUIREMENTS FOR TOPSOIL.
12. CONTRACTOR MUST MAINTAIN SUITABLE SITE DRAINAGE PRIOR TO, DURING, AND AFTER CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
13. NO EARTHWORK FILL MUST BE PLACED IN ANY EXISTING DRAINAGE WAY, SWALE, CHANNEL, DITCH, CREEK, OR FLOODPLAIN FOR ANY REASON OR ANY LENGTH OF TIME, UNLESS INDICATED SPECIFICALLY BY THE PLANS.
14. TEMPORARY CULVERTS MAY BE REQUIRED IN SOME LOCATIONS TO CONVEY RUN-OFF.
15. REFER TO DIMENSION CONTROL PLAN, AND PLAT FOR HORIZONTAL DIMENSIONS.
16. THE CONTRACTOR MUST CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND CONDITION FILL PER THE PROJECT GEOTECHNICAL ENGINEER'S SPECIFICATIONS. THE FILL MATERIAL TO BE USED MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
17. THE SCOPE OF WORK FOR CIVIL IMPROVEMENT SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. CONTRACTOR MUST REFER TO THE GEOTECHNICAL REPORT AND STRUCTURAL PLANS AND SPECIFICATIONS FOR FILL MATERIAL, CONDITIONING, AND PREPARATION IN THE BUILDING PAD.
18. CONTRACTOR MUST ENSURE THAT SUFFICIENT POSITIVE SLOPE AWAY FROM THE BUILDING PAD IS ACHIEVED FOR ENTIRE PERIMETER OF THE PROPOSED BUILDING(S) DURING GRADING OPERATIONS AND IN THE FINAL CONDITION. IF THE CONTRACTOR OBSERVES THAT THIS WILL NOT BE ACHIEVED, THE CONTRACTOR MUST CONTACT THE ENGINEER TO REVIEW THE LOCATION.
19. CONTRACTOR MUST RECONSTRUCT SUBGRADES DAMAGED BY FREEZING TEMPERATURE, FROST, RAIN, ACCUMULATED WATER, OR CONSTRUCTION ACTIVITIES, WITHOUT ADDITIONAL COMPENSATION.
20. THE CONTRACTOR MUST TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. CONTRACTOR MUST CONTROL DUST BY SPRINKLING WATER, OR BY OTHER MEANS APPROVED BY THE AHJ, AT NO ADDITIONAL COST TO THE OWNER.
21. CONTRACTOR MUST COORDINATE WITH THE UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS NEEDED FOR GRADING OPERATIONS AND TO ACCOMMODATE PROPOSED GRADE, INCLUDING THE UNKNOWN UTILITIES NOT SHOWN ON THESE PLANS. CONTRACTOR MUST REFER TO THE MKEC CIVIL GENERAL NOTES “OVERALL” SECTION OF THESE PLANS FOR ADDITIONAL INFORMATION.
22. EXISTING TREE LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. CONTRACTOR MUST REPORT ANY DISCREPANCIES FOUND IN THE FIELD THAT AFFECT THE GRADING PLAN TO THE CIVIL ENGINEER.
23. NO TREE MUST BE REMOVED OR DAMAGED WITHOUT PRIOR AUTHORIZATION OF THE OWNER OR OWNER'S REPRESENTATIVE. EXISTING TREES MUST BE PRESERVED WHENEVER POSSIBLE AND GRADING IMPACT TO THEM HELD TO A MINIMUM. ADDITIONALLY, NO TREE MUST BE REMOVED UNLESS A TREE REMOVAL PERMIT HAS BEEN ISSUED BY THE AHJ, OR AHJ HAS OTHERWISE CONFIRMED IN WRITING THAT ONE IS NOT NEEDED FOR THE TREE(S).
24. AFTER PLACEMENT OF SUBGRADE AND PRIOR TO PLACEMENT OF PAVEMENT, CONTRACTOR MUST TEST AND OBSERVE PAVEMENT AREAS FOR EVIDENCE OF PONDING AND INADEQUATE SLOPE FOR DRAINAGE. ALL AREAS MUST ADEQUATELY DRAIN TOWARDS THE INTENDED STRUCTURE TO CONVEY STORMWATER RUNOFF. CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER AND ENGINEER IF ANY AREAS OF POOR DRAINAGE ARE DISCOVERED.
25. PROPOSED GRADING FIELD ADJUSTMENTS SHALL BE APPROVED IN WRITING BY THE CIVIL ENGINEER PRIOR TO CONSTRUCTION.
26. RETAINING WALLS SHOWN ON THE PLANS SHALL BE MODULAR BLOCK UNLESS OTHERWISE NOTED. THE ENGINEER WHOSE SEAL APPEARS ON THESE PLANS IS NOT RESPONSIBLE FOR THE DESIGN, STRUCTURAL INTEGRITY, OR SUITABILITY OF ANY RETAINING WALLS. THE BOTTOM OF WALL ELEVATIONS LISTED ON THESE PLANS ARE FINISHED GRADES AT THE WALL. ANY AMOUNT OF WALL AND FOOTINGS BELOW FINISHED GRADE REQUIRED BY THE RETAINING WALL DESIGN SHALL BE INSTALLED. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF ALL RETAINING WALLS AND SHALL SUBMIT CONSTRUCTION PLANS, SHOW DRAWINGS, AND DETAILS TO THE ARCHITECT / OWNER FOR REVIEW AND APPROVAL. THE WALL DESIGN SHALL INCLUDE A GLOBAL STABILITY ANALYSIS. WALL LOADING SHALL INCLUDE A MINIMUM SURCHARGE LOAD OF TWICE THE SOIL UNIT WEIGHT PER SQUARE FOOT OR APPLICABLE AASHTO VEHICLE LOADING, WHICH EVER IS APPLICABLE OR GREATER.

PAVING:

1. ALL PAVING MATERIALS AND CONSTRUCTION MUST BE IN ACCORDANCE WITH THESE PLANS, THE AHJ STANDARD DETAILS AND SPECIFICATIONS, THE FINAL GEOTECHNICAL REPORT AND ALL ISSUED ADDENDA, AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS. THE AHJ SPECIFICATIONS MUST GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICTING SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION/DETAIL MUST BE FOLLOWED.
2. ALL PRIVATE ON-SITE PAVING AND PAVING SUBGRADE MUST COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT, INCLUDING ALL ADDENDA. CONSEQUENTLY, THE ENGINEER OF RECORD WHOSE SEAL APPEARS ON THESE PLANS IS NOT RESPONSIBLE FOR THE DURABILITY OR SUITABILITY OF THE PAVEMENT SECTIONS SHOWN.
3. ALL FIRELANE PAVING AND PAVING SUBGRADE MUST COMPLY WITH AHJ STANDARDS AND DETAILS. IF THESE ARE DIFFERENT THAN THOSE IN THE GEOTECHNICAL REPORT, THEN THE MORE RESTRICTIVE MUST BE FOLLOWED.
4. ALL PUBLIC PAVING AND PAVING SUBGRADE MUST COMPLY WITH AHJ STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ANY REQUIRED INSPECTIONS BY THE AHJ, INCLUDING PAYMENT OF ANY ASSOCIATED FEES.
5. CONTRACTOR IS RESPONSIBLE FOR ALL PAVING AND PAVING SUBGRADE TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL PAVING AND PAVING SUBGRADE TESTING MUST BE COORDINATED WITH THE APPROPRIATE AHJ INSPECTOR. TESTING MUST BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING PAVING AND SUBGRADE. OWNER MUST APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR PAVING AND PAVING SUBGRADE TESTING.
6. IT MUST BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE PAVING AND PAVING SUBGRADE, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND AHJ SPECIFICATIONS.
7. DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR MUST ADHERE TO GEOTECHNICAL REPORT'S RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PROPOSED BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, IF NONE IS CURRENTLY EXISTING.
8. COMPACTED SUBGRADE AND AGGREGATE BASE UNDER PAVING AND SIDEWALK SECTIONS SHALL EXTEND A MINIMUM OF 2-FEET BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB, WHICHEVER IS APPLICABLE. IN THE CASE OF CONFLICTING REQUIREMENTS, THE MORE RESTRICTIVE MUST BE FOLLOWED.
9. CURB RAMPS ALONG PUBLIC STREETS AND IN THE PUBLIC RIGHT-OF-WAY MUST BE CONSTRUCTED BASED ON THE AHJ STANDARD CONSTRUCTION DETAIL AND SPECIFICATIONS.
10. PRIVATE CURB RAMPS ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) MUST CONFORM TO ADA AND AHJ STANDARDS.
11. ALL ACCESSIBLE RAMPS, CURB RAMPS, STRIPING, AND PAVEMENT MARKINGS MUST CONFORM TO ADA AND AHJ STANDARDS, LATEST EDITION.
12. CONTRACTOR MUST CONSTRUCT PROPOSED PAVEMENT TO MATCH EXISTING PAVEMENT WITH A SMOOTH, FLUSH, CONNECTION.
13. CONTRACTOR MUST FURNISH AND INSTALL ALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, HANDICAPPED PARKING SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDING AS SHOWN ON THE PLANS. ALL PAINT AND PAVEMENT MARKINGS MUST ADHERE TO AHJ AND OWNER STANDARDS.
14. REFER TO GEOTECHNICAL REPORT FOR PAVING JOINT LAYOUT PLAN REQUIREMENTS FOR PRIVATE PAVEMENT.
15. REFER TO AHJ STANDARD DETAILS AND SPECIFICATIONS FOR JOINT LAYOUT PLAN REQUIREMENTS FOR PUBLIC PAVEMENT.
16. ALL REINFORCING STEEL MUST CONFORM TO THE GEOTECHNICAL REPORT, AHJ STANDARDS, AND ASTM A-615, GRADE 60, AND MUST BE SUPPORTED BY BAR CHAIRS. CONTRACTOR MUST USE THE MORE STRINGENT OF THE AHJ, GEOTECHNICAL STANDARDS, AND PAVING DETAILS.
17. ALL JOINTS MUST EXTEND THROUGH THE CURB.
18. THE MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS MUST BE 2 FEET.
19. CONTRACTOR MUST SUBMIT A JOINTING PLAN TO THE ENGINEER AND OWNER PRIOR TO BEGINNING ANY OF THE PAVING WORK.
20. ALL SAWCUTS MUST BE FULL DEPTH FOR PAVEMENT REMOVAL AND CONNECTION TO EXISTING PAVEMENT.
21. FIRE LANES MUST BE MARKED AND LABELED AS A FIRELANE PER AHJ STANDARDS.
22. UNLESS THE PLANS SPECIFICALLY DICTATE TO THE CONTRARY, ON-SITE AND OTHER DIRECTIONAL SIGNS MUST BE ORIENTED SO THEY ARE READILY VISIBLE TO THE ONCOMING TRAFFIC FOR WHICH THEY ARE INTENDED.
23. CONTRACTOR IS RESPONSIBLE FOR INSTALLING NECESSARY CONDUIT FOR LIGHTING, IRRIGATION, ETC. PRIOR TO PLACEMENT OF PAVEMENT. ALL PROJECT CONSTRUCTION DOCUMENTS (I.E. CIVIL, MEP, LANDSCAPE, IRRIGATION, AND ARCHITECTURAL) MUST BE CONSULTED. BEFORE PLACING PAVEMENT, CONTRACTOR MUST VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA, AHJ, AND FHWA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ACCESSIBLE ROUTES.
24. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE MUST LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESS AISLES MUST NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
25. CONTRACTOR MUST TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR MUST CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA SLOPE COMPLIANCE ISSUES.

UTILITIES:

1. EXISTING UTILITIES ARE SHOWN FROM BOTH FIELD SURVEY AND RECORD INFORMATION. THE CONTRACTOR MUST FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING STORM SEWER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY STORM SEWER, AND MUST NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
2. PAVEMENT REMOVAL MAY BE REQUIRED TO ACCOMMODATE UTILITY SERVICE INSTALLATION. PAVEMENT TO BE SAWCUT ITS ENTIRE DEPTH PRIOR TO REMOVAL. PAVEMENT AND ANY SUBGRADE REMOVAL MUST BE REPLACED IN KIND SO AS TO MATCH EXISTING INSTALLATION.
3. IN THE CASE OF CONCRETE PAVEMENT REMOVAL, IF REMOVAL IS WITHIN 3' OF AN EXISTING JOINT, THEN PAVEMENT MUST BE REMOVED TO THE NEAREST JOINT. MATCH JOINT PATTERN OF EXISTING PAVEMENT. JOINTS MUST BE SEALED.
4. INSTALLATION, BEDDING, & TESTING OF UTILITY INSTALLATIONS MUST BE AS PER THE AHJ SPECIFICATIONS AND STANDARD DETAILS.
5. CONTRACTOR TO VERIFY LOCATION AND SIZE OF EXISTING WATER MAIN PRIOR TO CONSTRUCTION. CONTRACTOR MUST COORDINATE WITH CITY ON TAP REQUIREMENTS AND INSPECTIONS PRIOR TO EXCAVATION AND TAP CONSTRUCTION
6. UTILITY PIPE LENGTHS ARE PROVIDED FOR INFORMATION ONLY. CONTRACTOR TO VERIFY ACTUAL LENGTHS OF PIPE REQUIRED PRIOR TO INSTALLING UTILITY PIPE LINES.
7. UTILITY CONTRACTOR TO COORDINATE BUILDING CONNECTION POINTS WITH PLUMBING PLANS AND BUILDING CONTRACTOR.
8. UNLESS OTHERWISE NOTED IN THE PROJECT SPECIFICATIONS OR CONSTRUCTION DOCUMENTS PIPE MATERIALS MUST MEET AHJ REQUIREMENTS. IN CASE OF CONFLICTING SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION/DETAIL MUST BE FOLLOWED.
9. ALL WATER AND WASTEWATER SERVICES MUST TERMINATE 5-FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE.
10. CONTRACTOR MUST COMPLY WITH AHJ REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AMOUNT OF PRIOR NOTICE THAT IS REQUIRED, AND MUST COORDINATE DIRECTLY WITH THE APPROPRIATE AHJ DEPARTMENT.
11. CONTRACTOR MUST SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURROUNDING PROPERTIES.
12. CONTRACTOR MUST MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTION (IF NECESSARY, BY USE OF TEMPORARY METHODS APPROVED BY THE AND OWNER). THIS WORK MUST BE CONSIDERED SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION MUST BE ALLOWED.
13. THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR MUST REPAIR ALL DAMAGED LINES IMMEDIATELY. ALL REPAIRS OF EXISTING WATER MAINS, WATER SERVICES, SEWER MAINS, AND SANITARY SEWER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMPENSATION MUST BE ALLOWED.
14. VALVE ADJUSTMENTS MUST BE CONSTRUCTED SUCH THAT THE COVERS ARE AT FINISHED SURFACE GRADE OF THE PROPOSED PAVEMENT.
15. THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT, BUT NOT REMOVED, MUST BE PLUGGED AND ABANDONED IN PLACE. THIS WORK MUST BE CONSIDERED AS A SUBSIDIARY COST TO THE PROJECT AND NO ADDITIONAL COMPENSATION MUST BE ALLOWED.
16. ALL FIRE HYDRANTS, VALVES, TEES, BENDS, WYES, REDUCERS, FITTINGS, AND ENDS MUST BE MECHANICALLY RESTRAINED AND/OR THRUST BLOCKED TO AHJ STANDARDS.
17. CONTRACTOR MUST INSTALL A FULL SEGMENT OF WATER OR WASTEWATER PIPE CENTERED AT ALL UTILITY CROSSINGS SO THAT THE JOINTS ARE GREATER THAN 10-FEET FROM THE CROSSING. WASTEWATER FULL SEGMENT MUST BE CAST IRON OR PIPE ENCASED IN CONCRETE.
18. CONTRACTOR MUST MAINTAIN A MINIMUM OF 2-FEET OF VERTICAL CLEARANCE BETWEEN THE WATER LINE AND OTHER UTILITIES. AS NECESSARY, THE CONTRACTOR SHOULD INSTALL VERTICAL BENDS ON PROPOSED WATER LINES AT UTILITY CROSSINGS TO MAINTAIN THE MINIMUM SEPARATION. ALL CROSSING AND LOCATIONS WHERE WATER IS LESS THAN 2-FEET FROM WASTEWATER, WASTEWATER CONSTRUCTION AND MATERIALS MUST COMPLY WITH KDHE MINIMUM STANDARDS OF DESIGN; CHAPTER VI SANITARY SEWER DESIGN.
19. ALL WATER AND WASTEWATER MUST BE TESTED IN ACCORDANCE WITH THE AHJ, AWWA, AND KDHE STANDARDS AND SPECIFICATIONS. AT A MINIMUM, THIS MUST CONSIST OF THE FOLLOWING:
   - 19.1. ALL WATERLINES MUST BE HYDROSTATICALLY TESTED AND CHLORINATED BEFORE BEING PLACED INTO SERVICE. CONTRACTOR MUST COORDINATE WITH THE AHJ FOR THEIR REQUIRED PROCEDURES AND MUST ALSO COMPLY WITH KDHE REGULATIONS.
   - 19.2. WASTEWATER LINES AND MANHOLES MUST BE PRESSURE TESTED. CONTRACTOR MUST COORDINATE WITH THE AHJ FOR THEIR REQUIRED PROCEDURES AND MUST ALSO COMPLY WITH KDHE REGULATIONS. AFTER COMPLETION OF THESE TESTS, A TELEVISION INSPECTION MUST BE PERFORMED AND PROVIDED TO THE AHJ AND OWNER ON A DVD.
20. CONTRACTOR MUST INSTALL DETECTABLE WIRING OR MARKING TAPE A MINIMUM OF 12” ABOVE WATER AND WASTEWATER LINES. MARKER DECALS MUST BE LABELED “CAUTION - WATER LINE”, OR “CAUTION - SEWER LINE”. DETECTABLE WIRING AND MARKING TAPE MUST COMPLY WITH AHJ STANDARDS, AND MUST BE INCLUDED IN THE COST OF THE WATER AND WASTEWATER PIPE.
21. DUCTILE IRON PIPE MUST BE PROTECTED FROM CORROSION BY A LOW-DENSITY POLYETHYLENE LINER WRAP THAT IS AT LEAST A SINGLE LAYER OF 8-MIL. ALL DUCTILE IRON JOINTS MUST BE BONDED.
22. WATERLINES MUST BE INSTALLED AT NO LESS THAN THE MINIMUM COVER REQUIRED BY THE AHJ. IN CASE OF CONFLICTING REQUIREMENTS, THE MORE RESTRICTIVE MUST BE FOLLOWED.
23. CONTRACTOR MUST PROVIDE CLEAN-OUTS FOR PRIVATE SANITARY SEWER LINES AT ALL CHANGES IN DIRECTION AND 100-FOOT INTERVALS, OR AS REQUIRED BY THE APPLICABLE PLUMBING CODE. CLEAN-OUTS REQUIRED IN PAVEMENT OR SIDEWALKS MUST HAVE CAST IRON COVERS FLUSH WITH FINISHED GRADE.
24. CONTRACTOR MUST PROVIDE BACKWATER VALVES FOR PLUMBING FIXTURES AS REQUIRED BY THE APPLICABLE PLUMBING CODE (E.G. FLOOR ELEVATION OF FIXTURE UNIT IS BELOW THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER). CONTRACTOR MUST REVIEW BOTH MEP AND CIVIL PLANS TO CONFIRM WHERE THESE ARE REQUIRED.
25. STORM SEWER PIPE LENGTHS ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
26. ALL WATER, WASTEWATER, AND STORM SEWER MATERIALS AND CONSTRUCTION MUST COMPLY WITH AHJ STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
27. THE SITE UTILITY CONTRACTOR MUST PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE STORM SEWER.
28. FLOW LINE, TOP-OF-CURB, RIM, THROAT, AND GRATE ELEVATIONS OF PROPOSED INLETS MUST BE VERIFIED WITH THE GRADING PLAN AND FIELD CONDITIONS PRIOR TO THEIR INSTALLATION.
29. ALL PRIVATE WATER, WASTEWATER, AND STORM SEWER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS MUST ADHERE TO THE APPLICABLE PLUMBING CODE. CONTRACTOR MUST ARRANGE FOR REQUIRED AHJ INSPECTIONS.
30. ALL PVC TO RCP CONNECTIONS AND ALL STORM PIPE CONNECTIONS ENTERING STRUCTURES OR OTHER STORM PIPES MUST HAVE A CONCRETE COLLAR AND BE GROUTED TO ASSURE THE CONNECTION IS WATERTIGHT.
31. ALL PUBLIC STORM SEWER LINES MUST BE MINIMUM CLASS III RCP. PRIVATE STORM SEWER LINES 18-INCHES AND GREATER MUST BE CLASS III RCP OR OTHER APPROVED MATERIAL. WHERE COVER EXCEEDS 20-FEET OR IS LESS THAN 2-FEET, CLASS IV RCP MUST BE USED.
32. IF CONTRACTOR PROPOSES TO USE HDPE OR PVC IN LIEU OF RCP FOR PRIVATE STORM SEWER, CONTRACTOR MUST SUBMIT TECHNICAL DATA TO THE OWNER, ENGINEER AND AHJ ENGINEER/INSPECTOR FOR APPROVAL PRIOR TO ORDERING THE MATERIAL. ANY PROPOSED HDPE AND PVC MUST BE WATERTIGHT.
33. THE CONTRACTOR MUST PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER, WASTEWATER, AND STORM SEWER LINES.
34. EMBEDMENT FOR ALL WATER, WASTEWATER, AND STORM SEWER LINES, PUBLIC OR PRIVATE, MUST BE PER AHJ STANDARD DETAILS.
35. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE PROJECT STATE, TO THE AHJ PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH AHJ, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES MUST BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE AHJ.
36. THE CONTRACTOR MUST KEEP TRENCHES FREE FROM WATER.

EROSION CONTROL/SEEDING:

1. THE CONTRACTOR MUST COMPLY WITH ALL LOCAL, STATE, AND FEDERAL EROSION CONTROL AND WATER QUALITY REQUIREMENTS, LAWS, AND ORDINANCES THAT APPLY TO THE CONSTRUCTION SITE LAND DISTURBANCE.
2. CONTRACTOR MUST COMPLY WITH THE REQUIREMENTS OF THE KDHE NPDES CONSTRUCTION STORMWATER GENERAL PERMIT NO. S-MCST-2208-1, FEDERAL PERMIT NO. KSR100000.
3. CONTRACTOR MUST COMPLY WITH ALL KDHE AND EPA STORM WATER POLLUTION PREVENTION REQUIREMENTS.
4. THE NOI NEEDS TO BE SENT TO KDHE AT LEAST 60 DAYS BEFORE STARTING CONSTRUCTION. CONSTRUCTION SITE SOIL DISTURBING ACTIVITIES MAY COMMENCE ONLY WHEN THE OWNER OR OPERATOR RECEIVES AN AUTHORIZATION FOR THE CONSTRUCTION ACTIVITY FROM KDHE BUREAU OF WATER. ALL PRIMARY OPERATORS MUST PROVIDE A COPY OF THE AUTHORIZED NOI TO THE OPERATOR OF ANY MS4 (TYPICALLY THE AHJ) RECEIVING DISCHARGE FROM THE SITE.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE SWPPP IF APPLICABLE, INCLUDING POSTING SITE NOTICE, INSPECTIONS, DOCUMENTATION, AND SUBMISSION OF ANY INFORMATION REQUIRED BY THE KDHE AND EPA (E.G. NOI).
6. ALL CONTRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP MUST SIGN THE REQUIRED CONTRACTOR CERTIFICATION STATEMENT ACKNOWLEDGING THEIR RESPONSIBILITIES AS SPECIFIED IN THE SWPPP.
7. A COPY OF THE SWPPP, INCLUDING NOI, SITE NOTICE, CONTRACTOR CERTIFICATIONS, AND ANY REVISIONS, MUST BE SUBMITTED TO THE AHJ AND THE CONTRACTOR MUST BE RETAINED ON-SITE DURING CONSTRUCTION.
8. A NOTICE OF TERMINATION (NOT) MUST BE SUBMITTED TO KDHE BY ANY PRIMARY OPERATOR WITHIN 30 DAYS AFTER ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND A UNIFORM VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY STRUCTURES, A TRANSFER OF OPERATIONAL CONTROL HAS OCCURRED, OR THE OPERATOR HAS OBTAINED ALTERNATIVE AUTHORIZATION UNDER A DIFFERENT PERMIT. A COPY OF THE NOT MUST BE PROVIDED TO THE OPERATOR OF ANY MS4 RECEIVING DISCHARGE FROM THE SITE.
9. EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT MUST BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE.
10. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT.
11. CONTRACTOR IS SOLELY RESPONSIBLE FOR INSTALLATION, IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL EROSION CONTROL DEVICES, BMP, AND FOR UPDATING THE EROSION CONTROL PLAN DURING CONSTRUCTION AS FIELD CONDITIONS CHANGE.
12. CONTRACTOR MUST DOCUMENT THE DATES OF INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL FOR EACH BMP EMPLOYED IN THE SWPPP IF APPLICABLE.
13. AS STORM SEWER INLETS ARE INSTALLED ON-SITE, TEMPORARY EROSION CONTROL DEVICES MUST BE INSTALLED AT EACH INLET PER APPROVED DETAILS.
14. THE EROSION CONTROL DEVICES MUST REMAIN IN PLACE UNTIL THE AREA IT PROTECTS HAS BEEN PERMANENTLY STABILIZED.
15. CONTRACTOR MUST PROVIDE ADEQUATE EROSION CONTROL DEVICES NEEDED DUE TO PROJECT PHASING.
16. CONTRACTOR MUST OBSERVE THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES AND MAKE FIELD ADJUSTMENTS AND MODIFICATIONS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE SITE. IF THE EROSION CONTROL DEVICES DO NOT EFFECTIVELY CONTROL EROSION AND PREVENT SEDIMENTATION FROM WASHING OFF THE SITE, THEN THE CONTRACTOR MUST NOTIFY THE ENGINEER.
17. OFF-SITE SOIL BORROW, SPOIL, AND STORAGE AREAS (IF APPLICABLE) ARE CONSIDERED AS PART OF THE PROJECT SITE AND MUST ALSO COMPLY WITH THE EROSION CONTROL REQUIREMENTS FOR THIS PROJECT. THIS INCLUDES THE INSTALLATION OF BMP'S TO CONTROL EROSION AND SEDIMENTATION AND THE ESTABLISHMENT OF PERMANENT GROUND COVER ON DISTURBED AREAS PRIOR TO FINAL APPROVAL OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE SWPPP AND EROSION CONTROL PLAN TO INCLUDE BMPS FOR ANY OFF-SITE THAT ARE NOT ANTICIPATED OR SHOWN ON THE EROSION CONTROL PLAN.
18. ALL STAGING, STOCKPILES, SPOIL, AND STORAGE MUST BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. PROTECTIVE MEASURES MUST BE PROVIDED IF NEEDED TO ACCOMPLISH THIS REQUIREMENT, SUCH AS COVERING OR ENCIRCLING THE AREA WITH AN APPROPRIATE BARRIER.
19. CONTRACTORS MUST INSPECT ALL EROSION CONTROL DEVICES, BMPS, DISTURBED AREAS, AND VEHICLE ENTRY AND EXIT AREAS WEEKLY AND WITHIN 24 HOURS OF ALL RAINFALL EVENTS OF 0.5 INCHES OR GREATER, AND KEEP A RECORD OF THIS INSPECTION IN THE SWPPP BOOKLET IF APPLICABLE, TO VERIFY THAT THE DEVICES AND EROSION CONTROL PLAN ARE FUNCTIONING PROPERLY.
20. CONTRACTOR MUST CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS IN ACCORDANCE WITH AHJ SPECIFICATIONS. CONTRACTOR MUST ENSURE THAT ALL CONSTRUCTION TRAFFIC USES THE STABILIZED ENTRANCE AT ALL TIMES FOR ALL INGRESS/EGRESS.
21. SITE ENTRY AND EXITS MUST BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING AND FLOWING OF SEDIMENT AND DIRT ONTO OFF-SITE ROADWAYS. ALL SEDIMENT AND SOIL FROM THE SITE THAT IS DEPOSITED ONTO AN OFF-SITE ROADWAY MUST BE REMOVED IMMEDIATELY.
22. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS FROM THE AFFECTED OFF-SITE ROADWAYS THAT ARE A RESULT OF THE CONSTRUCTION, AS REQUESTED BY OWNER AND AHJ. AT A MINIMUM, THIS SHOULD OCCUR ONCE PER DAY FOR THE OFF-SITE ROADWAYS.
23. WHEN WASHING OF VEHICLES IS REQUIRED TO REMOVE SEDIMENT PRIOR TO EXITING THE SITE, IT MUST BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP BMP.
24. CONTRACTOR MUST INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ON-SITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER KDHE AND AHJ STANDARDS. IF NO ENGINEERING DESIGN HAS BEEN PROVIDED FOR A SEDIMENTATION BASIN ON THESE PLANS, THEN THE CONTRACTOR MUST ARRANGE FOR AN APPROPRIATE DESIGN TO BE PROVIDED.
25. ALL FINES IMPOSED FOR SEDIMENT OR DIRT DISCHARGED FROM THE SITE MUST BE PAID BY THE RESPONSIBLE CONTRACTOR.
26. WHEN SEDIMENT OR DIRT HAS CLOGGED THE CONSTRUCTION ENTRANCE VOID SPACES BETWEEN STONES OR DIRT IS BEING TRACKED ONTO A ROADWAY, THE AGGREGATE PAD MUST BE WASHED DOWN OR REPLACED. RUNOFF FROM THE WASH-DOWN OPERATION MUST NOT BE ALLOWED TO DRAIN DIRECTLY OFF SITE WITHOUT FIRST FLOWING THROUGH ANOTHER BMP TO CONTROL SEDIMENTATION. PERIODIC RE-GRADING OR NEW STONE MAY BE REQUIRED TO MAINTAIN THE EFFECTIVENESS OF THE CONSTRUCTION ENTRANCE.
27. TEMPORARY SEEDING OR OTHER APPROVED STABILIZATION MUST BE INITIATED WITHIN 14 DAYS OF THE LAST DISTURBANCE OF ANY AREA, UNLESS ADDITIONAL CONSTRUCTION IN THE AREA IS EXPECTED WITHIN 21 DAYS OF THE LAST DISTURBANCE.
28. CONTRACTOR MUST FOLLOW GOOD HOUSEKEEPING PRACTICES DURING CONSTRUCTION, ALWAYS CLEANING UP DIRT, LOOSE MATERIAL, AND TRASH AS CONSTRUCTION PROGRESSES.
29. UPON COMPLETION OF FINE GRADING, ALL SURFACES OF DISTURBED AREAS MUST BE PERMANENTLY STABILIZED. STABILIZATION IS ACHIEVED WHEN THE AREA IS EITHER COVERED BY PERMANENT IMPERVIOUS STRUCTURES, SUCH AS BUILDINGS, SIDEWALK, PAVEMENT, OR A UNIFORM PERENNIAL VEGETATIVE COVER.
30. AT THE CONCLUSION OF THE PROJECT, ALL INLETS, DRAIN PIPE, CHANNELS, DRAINAGEWAYS AND BORROW DITCHES AFFECTED BY THE CONSTRUCTION MUST BE DREDGED, AND THE SEDIMENT GENERATED BY THE PROJECT MUST BE REMOVED AND DISPOSED IN ACCORDANCE WITH APPLICABLE REGULATIONS.
31. THE CONTRACTOR SHALL SEED, MULCH, OR OTHERWISE STABILIZE ANY DISTURBED AREA WHERE THE LAND DISTURBANCE ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS AFTER SOIL DISTURBING ACTIVITIES HAVE CEASED. ALL SEEDING ACTIVITY SHALL INCLUDE MULCHING OR EQUIVALENT SOIL STABILIZING BMP MEASURE OF THE DISTURBED AREA. THE CONTRACTOR SHALL PERFORM INSPECTIONS OF EROSION AND SEDIMENT CONTROL MEASURE AT LEAST ONCE PER WEEK AND WHENEVER A RAINFALL TOTAL OF 0.5 INCHES OR GREATER IS OBSERVED BASED ON A SINGLE MONITORING EVENT; OR BASED ON THE CUMULATIVE TOTAL OF TWO CONSECUTIVE MONITORING EVENTS WHEN THE RAINFALL TOTAL OF THE FIRST MONITORING EVENT IS LESS THAN 0.5 INCHES. THE CONTRACTOR SHALL MAINTAIN AN INSPECTION LOG INCLUDING THE INSPECTOR'S NAME, DATE OF INSPECTION, OBSERVATIONS AS TO THE EFFECTIVENESS OF THE EROSION AND SEDIMENT CONTROL MEASURES, ACTIONS NECESSARY TO CORRECT DEFICIENCIES, WHEN DEFICIENCIES ARE CORRECTED, AND THE SIGNATURE OF THE PERSON PERFORMING THE INSPECTION. CONTRACTOR SHALL ADD EROSION CONTROL MEASURE AS NECESSARY TO CONTROL SEDIMENT RUNOFF FROM THE SITE, ADDITIONAL MEASURES SHALL BE AT THE CONTRACTORS EXPENSE.
32. CONTRACTOR MUST PROVIDE A SIGN NEAR THE ENTRANCE WITH THE FOLLOWING INFORMATION:
   - 32.1. CONTACT NAME AND INFORMATION
   - 32.2. A COPY OF THE NOI
   - 32.3. LOCATION OF SWPPP

ABBREVIATIONS:

A	AREA
AC	ACRES
ADA	AMERICANS WITH DISABILITIES ACT
AHJ	AUTHORITY HAVING JURISDICTION
AWWA	AMERICAN WATER WORKS ASSOCIATION
B-B	BACK-TO-BACK
BC	BEGIN CURVE
BCR	BEGIN CURB RETURN
BM	BENCHMARK
BMP	BEST MANAGEMENT PRACTICE
BOC	BACK OF CURB
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
BW	FINISHED GRADE AT BOTTOM OF WALL
CFS	CUBIC FEET PER SECOND
CITY	CITY, TOWN, OR OTHER APPLICABLE LOCAL GOVERNMENT JURISDICTION
C/L	CENTERLINE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEAN-OUT
CONC	CONCRETE
CP	CONTROL POINT
CY	CUBIC YARDS
DEMO	DEMOLITION
DG	DECOMPOSED GRANITE
DTL	DETAIL
EA	EACH
EC	END CURVE
ECR	END CURB RETURN
EG	EXISTING GROUND
EL	ELEVATION
ELEC	ELECTRICAL / ELECTRICITY
ELEV	ELEVATION
EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
ESMT	EASEMENT
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EX	EXISTING
F-F	FACE-TO-FACE
FFE	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
FH	FIRE HYDRANT
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FL	FLOW LINE
FOC	FACE OF CURB
FT	FEET
HGL	HYDRAULIC GRADE LINE
KDHE	KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
KDOT	KANSAS DEPARTMENT OF TRANSPORTATION
LAT	LATERAL
LF	LINEAR FEET
LT	LEFT
MAX	MAXIMUM
ME	MATCH EXISTING ELEVATION
MEP	MECHANICAL, ELECTRICAL AND PLUMBING
MH	MANHOLE
MIN	MINUTE/MINIMUM
MKEC	MKEC ENGINEERING, INC.
MW	MONITORING WELL
NO	NUMBER
NOI	NOTICE OF INTENT
NOT	NOTICE OF TERMINATION
NTS	NOT TO SCALE
OC	ON CENTER
OFF	OFFSET
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCC	PORTLAND CEMENT CONCRETE
PE	PROFESSIONAL ENGINEER
PGL	PROPOSED GRADE LINE
PI	POINT OF INFLECTION
PIV	POST INDICATOR VALVE
PL	PROPERTY LINE
PP	POWER POLE
PROP	PROPOSED
PRC	POINT OF REVERSE CURVATURE
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INFLECTION
PVMT	PAVEMENT
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
RT	RIGHT
SF	SQUARE FEET
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
ST	STORM WATER SEWER
STA	STATION
STD	STANDARD
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
SWS	STORM WATER SEWER
SY	SQUARE YARDS
TC	TOP OF CURB
TEMP	TEMPORARY
TW	TOP OF WALL
TYP	TYPICAL
VC	VERTICAL CURVE
WTR	WATER
WW	WASTEWATER

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP: 04/30/26

ISSUED FOR PERMIT
NOT FOR CONSTRUCTION

CIVIL PLANS FOR
THE RESERVE AT THE MEADOWS
GODDARD, KS

CIVIL GENERAL NOTES

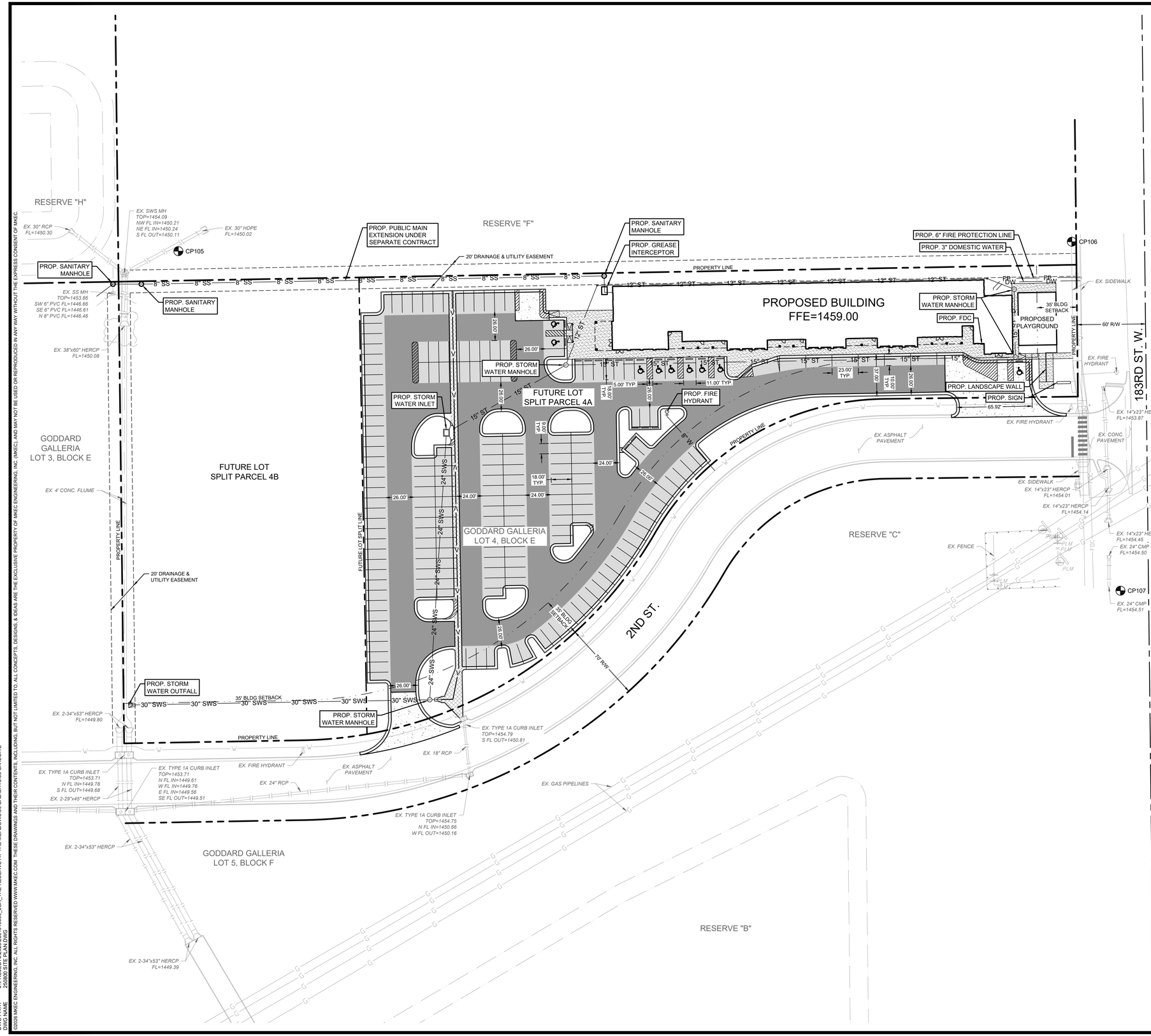
PROJECT NO. 2501010800
SCALE

DRAWN	DESIGNED	CHECKED
BKS	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO.
C-002

PLOTTED BY BRYAN SMITH 3/6/2026 2:11 PM
DWG PATH J:\PROJECTS\2025\2501010800_JGR_THE RESERVE AT THE MEADOWS\00 CAD\SHTS\05 CIVIL\SITE
DWG NAME 250800 GEN NOTES.DWG



SITE SUMMARY	
LOT AREA (EXISTING)	± 222,906 S.F. (5.12 AC.)
LOT AREA (PARCEL 4A)	± 124,213 S.F. (2.85 AC.)
BUILDING AREA (FOOTPRINT)	± 18,276 S.F. (0.42 AC.)
BUILDING AREA (GROSS FLOOR AREA)	± 75,765 S.F. (1.74 AC.)
PERCENT LOT COVERAGE (PARCEL 4A)	15%
PERVIOUS AREA (POST CONSTRUCTION)	± 108,279 S.F. (2.49 AC.)
TOTAL IMPERVIOUS AREA (PRE-CONSTRUCTION)	± 1,788 S.F. (0.04 AC.)
TOTAL IMPERVIOUS AREA (POST CONSTRUCTION)	± 114,627 S.F. (2.63 AC.)

PARKING SUMMARY		
	STALLS REQUIRED	STALLS PROVIDED
STANDARD AUTO PARKING	142	198
ACCESSIBLE AUTO PARKING	5	9
TOTAL AUTO PARKING	147	207

NOTE: BASED ON INFORMATION PROVIDED BY JGR.
1.5/UNIT (57 UNITS x 1.5 = 86 STALLS)
1/250 SF OF RETAIL AREA (15,203 SF/250 SF = 61 STALLS)

NOTES

1. SITE PLAN IS CONCEPTUAL IN NATURE AND INTENDED FOR DEVELOPMENT REVIEW. THIS CONCEPT SHOULD NOT BE USED FOR PRICING OR CONSTRUCTION.

LEGEND

- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING STORM WATER SEWER
- EXISTING GAS LINE
- EXISTING FIBER OPTIC LINE
- EXISTING FENCE
- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- PROPOSED SANITARY SEWER
- PROPOSED STORM WATER SEWER
- PROPOSED WATER LINE
- PROPOSED DOMESTIC WATER LINE
- PROPOSED FIRE PROTECTION LINE
- PROPOSED 5" ASPHALT PAVEMENT
- PROPOSED 4" ASPHALT PAVEMENT
- PROPOSED 8" CONCRETE
- PROPOSED 6" CONCRETE
- PROPOSED CONCRETE SIDEWALK

CONTROL POINTS

THE HORIZONTAL DATUM IS BASED ON THE KANSAS COORDINATE SYSTEM OF 1983, NAD83(2011), EPOCH:2010.0000, SOUTH ZONE AND BASED ON THE "US SURVEY FOOT" DEFINITION. COORDINATES SHOWN HAVE BEEN MODIFIED TO THE GROUND USING A COMBINED ADJUSTMENT FACTOR OF 1.000120014, STATE PLANE COORDINATES CAN BE CALCULATED BY MULTIPLYING THE SHOWN VALUES BY 0.99988.

THE VERTICAL DATUM IS BASED ON THE NAVD 88 DATUM, GEOID18.

CP105
N: 1675470.143 E: 1585788.537 EL: 1456.558
DESCRIPTION OF CONTROL POINT: 5/8" REBAR WITH MKEC CPA AT THE SW END OF BERM AT THE TOP OF BERM.

CP106
N: 1675478.400 E: 1586572.217 EL: 1456.589
DESCRIPTION OF CONTROL POINT: +CUT ON THE WEST END OF SIDEWALK WEST OF 183RD/ AND SE OF WALMART.

CP107
N: 1675172.351 E: 1586614.849 EL: 1455.989
DESCRIPTION OF CONTROL POINT: REBAR WITH 2 ½" PLASTIC DISC STAMPED "TOPO POINT" ON THE SOUTH RETURN OF MOST SOUTHERLY DRIVE OF KPC PIPELINE ENTRANCE.

BENCHMARKS :
BM106
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ALL CONTROL POINTS SHOWN HAVE ELEVATIONS ESTABLISHED USING STANDARD SURVEYING PROCEDURES AND CAN BE USED AS TEMPORARY BENCHMARKS. WHEN USING A CONTROL POINT AS A TEMPORARY BENCHMARK, IT IS RECOMMENDED THAT CROSS-CHECKS BE MADE TO OTHER CONTROL POINTS OR BENCHMARKS TO CONFIRM ELEVATIONS PRIOR TO USE.

N

SCALE: 1"=40'
0 40 80

WARNING
EXISTING UNDERGROUND UTILITIES IN THE AREA CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ANY REPAIRS TO EXISTING UTILITIES DUE TO DAMAGE INCURRED DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE PLANS.

MKEC
Wichita, KS • 316.684.9600

ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP: 04/30/26

ISSUED FOR PERMIT
NOT FOR CONSTRUCTION

THE RESERVE AT THE MEADOWS

CIVIL PLANS FOR
GODDARD, KS

OVERALL
SITE PLAN

PROJECT NO. 2501010800
SCALE 1"=40'

DRAWN	DESIGNED	CHECKED
BKS	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO. C-050

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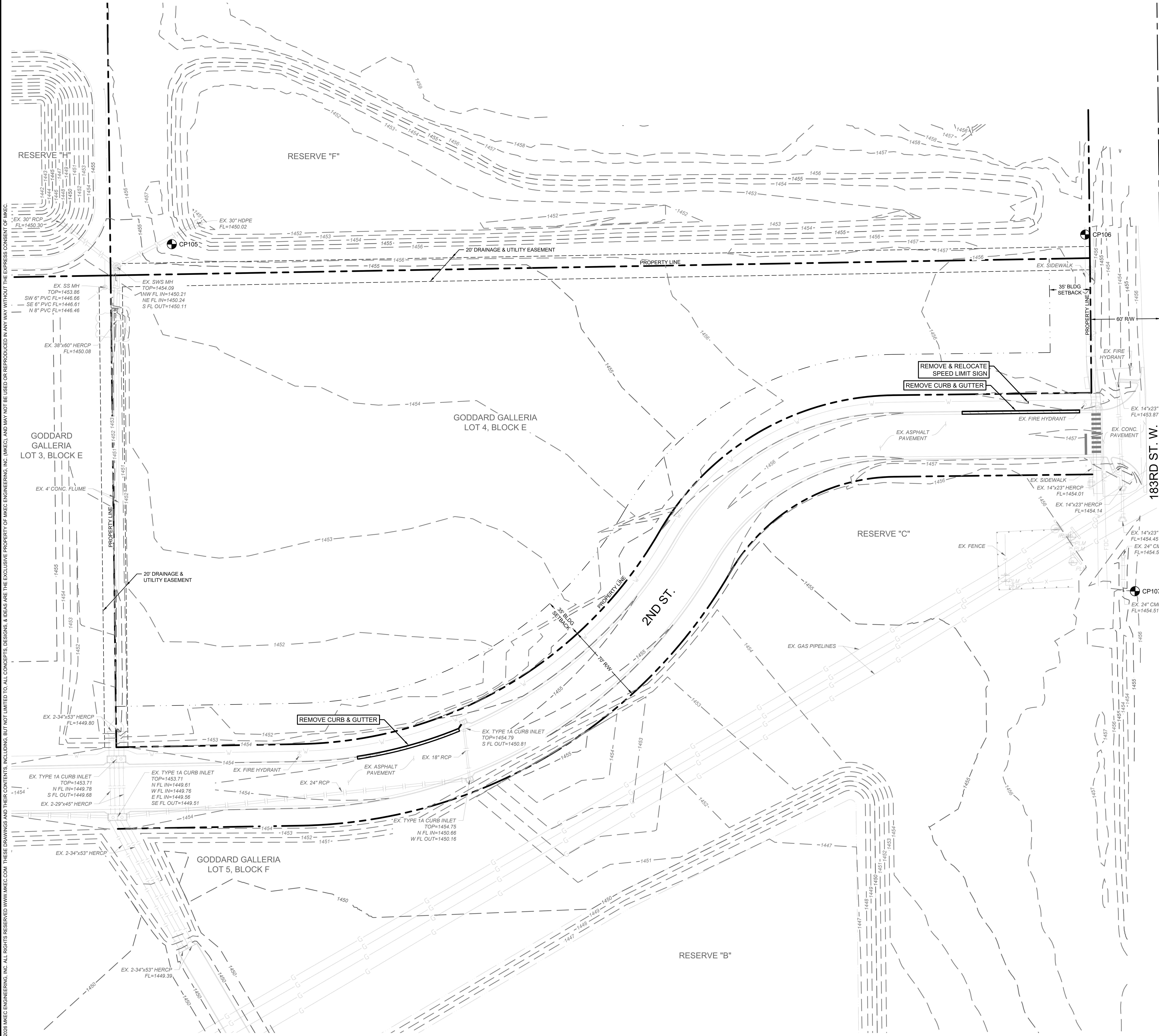
DWG NAME 250800 SITE PLAN.DWG



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NOTES

1. PRIOR TO DEMOLITION ACTIVITIES, CONTRACTOR TO NOTIFY THE ENGINEER IMMEDIATELY SHOULD THERE BE ANY DISCREPANCIES OR IF THE EXISTING CONDITIONS VARY FROM THOSE SHOWN ON THESE PLANS.
2. ALL MATERIALS REMOVED FROM THE SITE SHALL BE DISPOSED OF PER LOCAL AND STATE REQUIREMENTS.
3. CONTRACTOR TO COORDINATE WITH FRANCHISE UTILITY PROVIDERS FOR REMOVAL/RELOCATION OF EXISTING SERVICES.
4. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR AND REPLACE EXISTING CONCRETE SIDEWALK, CURB, AND ANY EXISTING PAVEMENT DAMAGED DURING CONSTRUCTION.
5. CONTRACTOR SHALL OBTAIN ALL PERMITS NECESSARY PRIOR TO THE START OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, RIGHT-OF-WAY, HAULING AND LAND DISTURBANCE PERMITS WITH THE APPROPRIATE LOCAL JURISDICTION.
6. THE EXISTING SURFACE DEPICTED IN THESE DRAWINGS IS A COMBINATION OF MKEC'S FIELD SURVEY AND THE PROPOSED SURFACE FOR THE PUBLIC ROADWAY IMPROVEMENTS ALONG 2ND STREET. MKEC'S SURVEY WAS OBTAINED PRIOR TO THE PUBLIC INFRASTRUCTURE PROJECT WORK. DISCREPANCIES MAY EXIST TO THE ACTUAL EXISTING SURFACE AT THE TIME OF THIS PROJECT'S WORK. CONTRACTOR TO VERIFY EXISTING TIE IN ELEVATIONS ALONG 2ND STREET.

LEGEND

- 1454 — EXISTING CONTOURS
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING STORM WATER SEWER
- EXISTING GAS LINE
- EXISTING FIBER OPTIC LINE
- EXISTING FENCE
- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- XXXXXXXXXXXXXXXXXXXXX · FENCE & UTILITY REMOVAL
- PAVEMENT REMOVAL

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP: 04/30/26

ISSUED FOR PERMIT
NOT FOR CONSTRUCTION

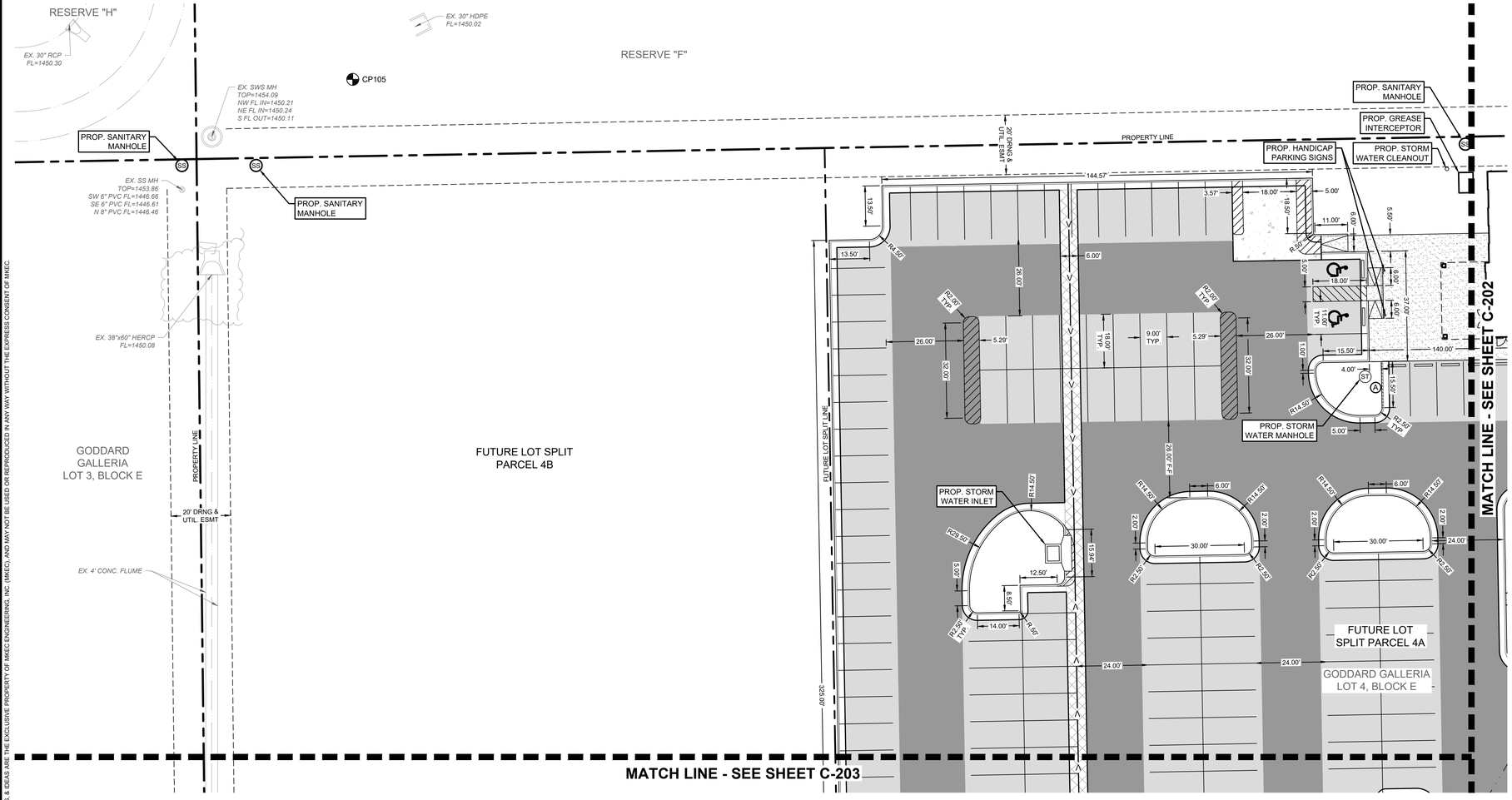
CIVIL PLANS FOR
THE RESERVE AT THE MEADOWS
GODDARD, KS

DEMOLITION PLAN

PROJECT NO.		2501010800
SCALE		1"=40'
DRAWN	DESIGNED	CHECKED
BKS	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO.
C-101



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2. REFER TO GEOTECHNICAL REPORT PREPARED FOR JGR ARCHITECTS, PREPARED BY PROFESSIONAL SERVICE INDUSTRIES, INC., PROJECT NO. 03382639 DATED NOVEMBER 21, 2025. CONTRACTOR SHALL REFER TO REPORT FOR RECOMMENDED PAVEMENT THICKNESS, SUBGRADE PREPARATION AND TRENCH BACKFILLING. IF ANY DISCREPANCIES ARISE BETWEEN THE PLANS, SPECIFICATIONS AND GEOTECHNICAL REPORT, THE MORE CONSERVATIVE REQUIREMENT SHALL GOVERN.
3. ALL DIMENSIONS ARE TO BACK OF CURB, UNLESS OTHERWISE NOTED.
4. UNLESS OTHERWISE NOTED, PARKING STALLS SIZING:
   - 4.1. STANDARD PARKING STALLS ARE 9'x18', MEASURE FROM FACE OF CURB.
   - 4.2. ACCESSIBLE PARKING STALLS ARE 11'x18' WITH A 5' LOADING AISLE, MEASURE FROM FACE OF CURB
5. PAVEMENT MARKINGS SHALL BE AN UNDILUTED ALKYD TRAFFIC PAINT. APPLY PAINT WITH MECHANICAL EQUIPMENT TO PRODUCE PAVEMENT MARKINGS WITH UNIFORM, STRAIGHT EDGES. APPLY AT MANUFACTURER'S RECOMMENDED RATE TO PROVIDE A MINIMUM WET FILM THICKNESS OF 15 MILS. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR SURFACE PREPARATION AND APPLICATION.
   - 5.1. PARKING STRIPING SHALL BE 4" WIDE, WHITE IN COLOR.
   - 5.2. CROSSWALK STRIPING SHALL BE 24" WIDE, WHITE IN COLOR.
   - 5.3. ACCESSIBLE PARKING STALL LOADING AISLE STRIPING SHALL BE 4" WIDE, 2' ON CENTER AT 45° ANGLE, WHITE IN COLOR.
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6. BUILDING FOOTPRINT AS SHOWN IS THE OUTSIDE FACE OF THE STRUCTURAL FOUNDATION. REFER TO STRUCTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
7. CONTRACTOR TO DRILL & EPOXY #4 BARS (L=2'-0"; MIN. 9" EMBED) @ 24" O.C. INTO EXIST. CONCRETE PAVEMENT AND CURB & GUTTER WHEREVER PROPOSED ABUTS EXISTING.
8. AGGREGATE BASE UNDER PAVEMENT SHALL EXTEND A MINIMUM OF 1' BEYOND THE BACK OF CURB.
9. UNLESS OTHERWISE NOTED, ALL CURB TO BE FULL (6"). REFER TO GRADING PLAN FOR DETERMINATION OF CURB TYPE (REVERSE OR STANDARD) TO BE CONSTRUCTED.
10. PRIVATE SIDEWALK CONSTRUCTION:
    - 10.1. UNLESS OTHERWISE NOTED, ALL SIDEWALKS SHALL BE 4" THICK CONCRETE.
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    - 10.3. THE MAXIMUM PERMISSIBLE SLOPES OF THE WHEELCHAIR RAMPS ARE 12:1.
    - 10.4. SIDEWALK EXPANSION JOINT FILLER SHALL BE GREY, SELF-LEVELLING POLYURETHANE SEALANT.
    - 10.5. EXPANSION JOINTS MAXIMUM DISTANCE = 50'-0", USE 1" X 4" PREMOLDED EXPANSION JOINT MATERIAL.
    - 10.6. SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A MEDIUM BROOMING TRANSVERSE TO THE SLOPES OF THE RAMP.
    - 10.7. CONCRETE SIDEWALK JOINTS SHALL BE 5'X5'(OR 6') IN GENERAL, WITH 6.25' MAXIMUM SPACING HAVING A WIDTH TO LENGTH RATIO OF 1:1.25.
    - 10.8. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGN TO ENGINEER FOR APPROVAL, PRIOR TO CONSTRUCTION.
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    - 10.11. NORMAL WEIGHT CONCRETE AGGREGATE SHALL MEET ASTM C33.
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    - 10.13. COMPACTED FILL CONTRACTOR SHALL COMPACT FILL TO 95% DENSITY(ASTM D698).
11. CONTRACTOR SHALL BE RESPONSIBLE FOR REQUIRED TRAFFIC CONTROL NECESSARY ON SURROUNDING STREETS FOR CONSTRUCTION. TRAFFIC CONTROL SHALL COMPLY WITH THE LATEST EDITION OF MUTCD AND AUTHORITIES HAVING JURISDICTION STANDARDS AND SPECIFICATIONS.
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13. INSTALL IRRIGATION SLEEVES IN THE LOCATIONS NOTED ON THE PLANS. TWO SLEEVES ARE REQUIRED AT EACH LOCATION: (1) 1.5" AND (1) 4" PVC CLASS 200 SDR 21. BOTH SHALL EXTEND 18" BEYOND THE BACK OF CURB OR SIDEWALK, BURIED 30" MIN. DEPTH AND BE MARKED WITH A TEMPORARY T-POST MARKER AT EACH END.

LEGEND

- EXISTING FENCE
- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- PROPOSED 5" ASPHALT PAVEMENT
- PROPOSED 4" ASPHALT PAVEMENT
- PROPOSED 8" CONCRETE
- PROPOSED 6" CONCRETE
- PROPOSED CONCRETE SIDEWALK
- Ⓐ PROPOSED CURB TRANSITION (FULL TO FLUSH)

N

SCALE: 1"=20'
0 20 40

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PLOT SCALE J:\PROJECTS\2025\2501010800_JGR_THE RESERVE AT THE MEADOWS\00 CAD\SHTS\05 CIVIL\SITE
DWG NAME 2501800 DIM PAVE.DWG

MKEC
Wichita, KS • 316.684.9600

ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP. 04/30/26

ISSUED FOR PERMIT
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CIVIL PLANS FOR
THE RESERVE AT THE MEADOWS
GODDARD, KS

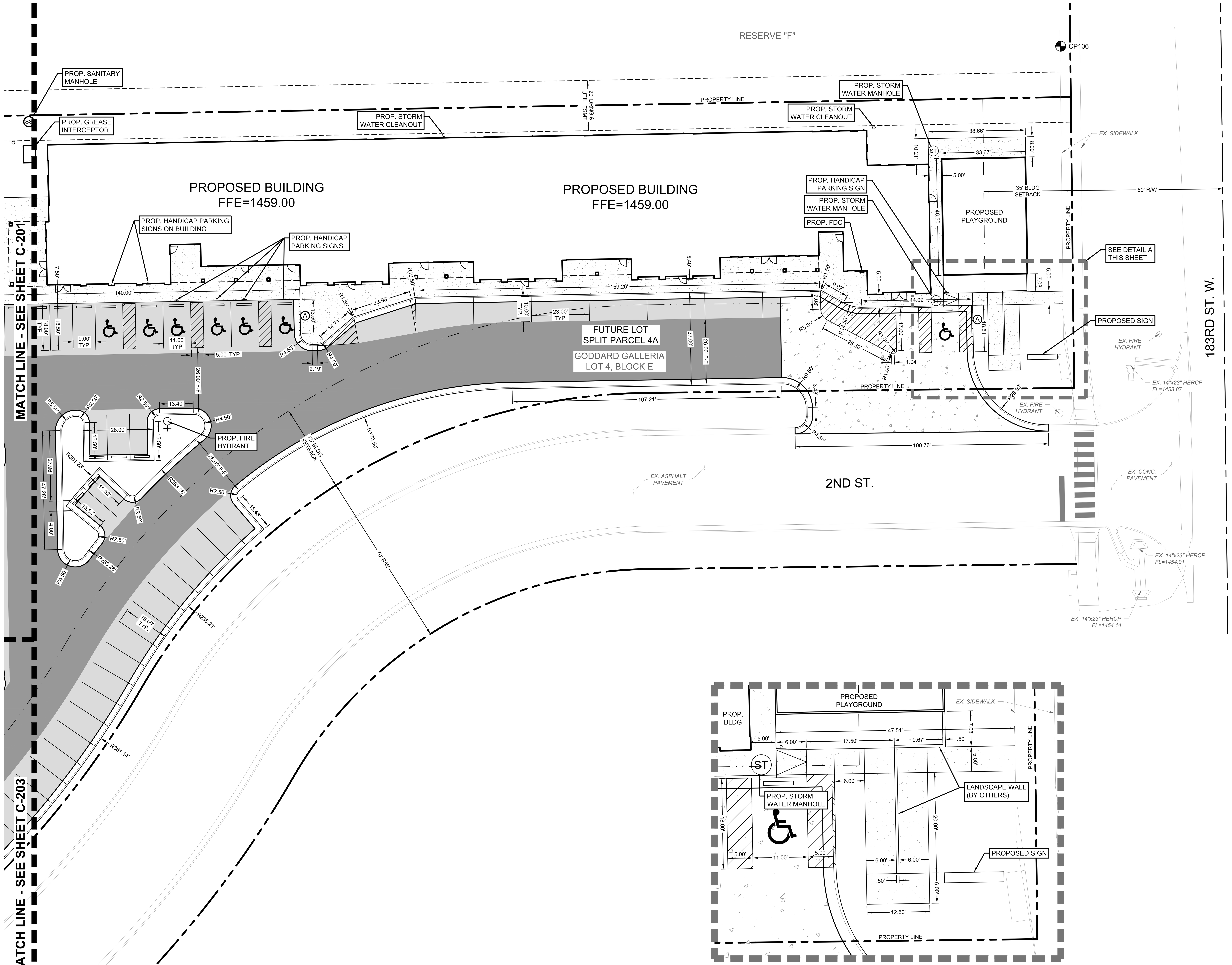
DIMENSIONAL CONTROL AND PAVING PLAN (1 OF 3)

PROJECT NO. 2501010800
SCALE 1"=20'

DRAWN	DESIGNED	CHECKED
BKS	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO. C-201



DETAIL A

SCALE: 1" = 10'

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- PROPOSED 4" ASPHALT PAVEMENT
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- PROPOSED 6" CONCRETE
- PROPOSED CONCRETE SIDEWALK
- (A) PROPOSED CURB TRANSITION (FULL TO FLUSH)

N

SCALE: 1"=20'

0 20 40

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CIVIL PLANS FOR

THE RESERVE AT THE MEADOWS

GODDARD, KS

DIMENSIONAL CONTROL AND PAVING PLAN (2 OF 3)

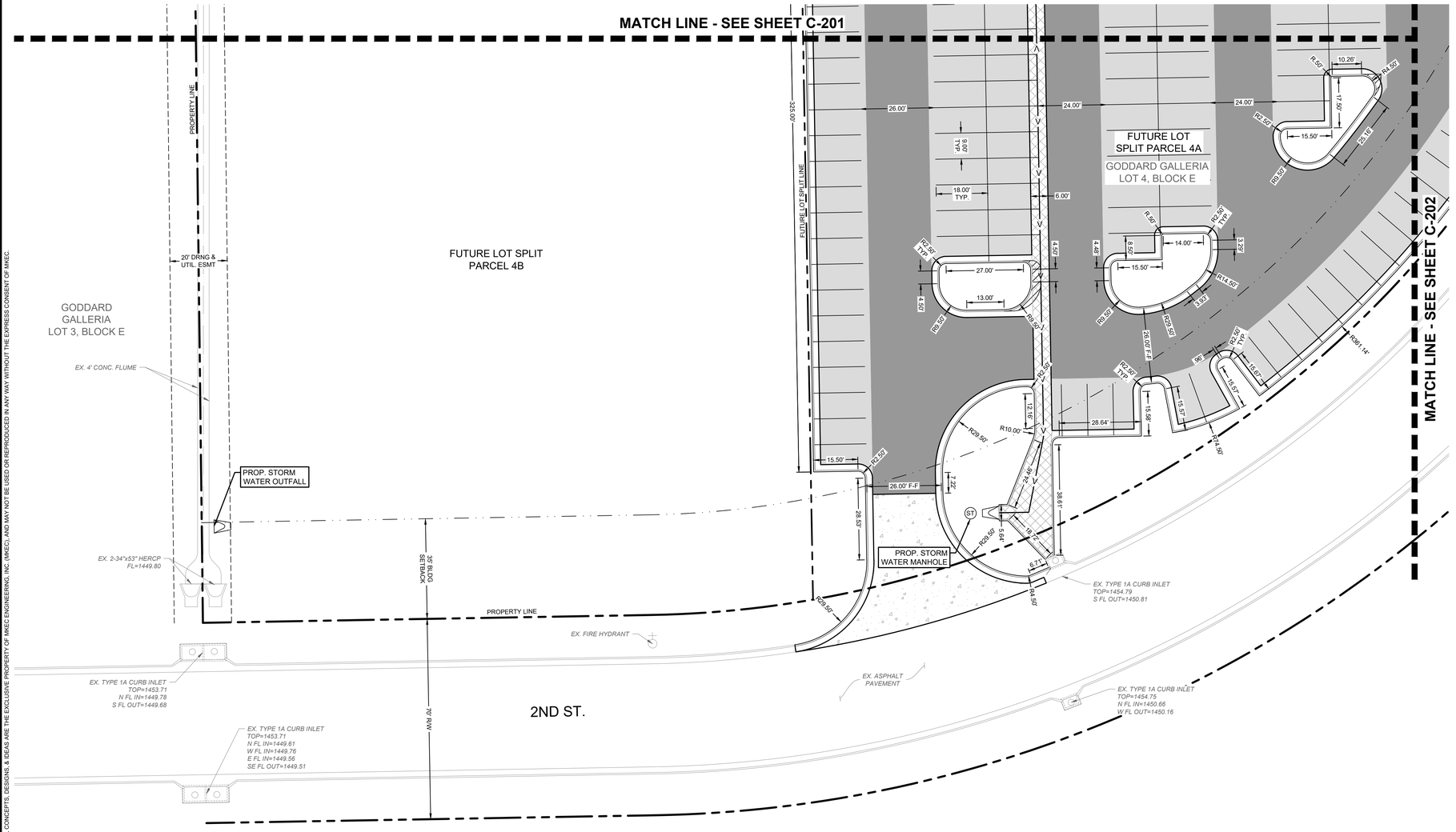
PROJECT NO. 2501010800

SCALE 1"=20'

DRAWN	DESIGNED	CHECKED
BKS	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO.
C-202



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4. UNLESS OTHERWISE NOTED, PARKING STALLS SIZING:
   - 4.1. STANDARD PARKING STALLS ARE 9'x18', MEASURE FROM FACE OF CURB.
   - 4.2. ACCESSIBLE PARKING STALLS ARE 11'x18' WITH A 5' LOADING AISLE, MEASURE FROM FACE OF CURB
5. PAVEMENT MARKINGS SHALL BE AN UNDILUTED ALKYD TRAFFIC PAINT. APPLY PAINT WITH MECHANICAL EQUIPMENT TO PRODUCE PAVEMENT MARKINGS WITH UNIFORM, STRAIGHT EDGES. APPLY AT MANUFACTURER'S RECOMMENDED RATE TO PROVIDE A MINIMUM WET FILM THICKNESS OF 15 MILS. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR SURFACE PREPARATION AND APPLICATION.
   - 5.1. PARKING STRIPING SHALL BE 4" WIDE, WHITE IN COLOR.
   - 5.2. CROSSWALK STRIPING SHALL BE 24" WIDE, WHITE IN COLOR.
   - 5.3. ACCESSIBLE PARKING STALL LOADING AISLE STRIPING SHALL BE 4" WIDE, 2' ON CENTER AT 45° ANGLE, WHITE IN COLOR.
   - 5.4. ACCESSIBLE PARKING STALL LOADING AISLE STRIPING SHALL BE 4" WIDE, 2' ON CENTER AT 45° ANGLE, WHITE IN COLOR.
6. BUILDING FOOTPRINT AS SHOWN IS THE OUTSIDE FACE OF THE STRUCTURAL FOUNDATION. REFER TO STRUCTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
7. CONTRACTOR TO DRILL & EPOXY #4 BARS (L=2'-0", MIN. 9" EMBED) @ 24" O.C. INTO EXIST. CONCRETE PAVEMENT AND CURB & GUTTER WHEREVER PROPOSED ABUTS EXISTING.
8. AGGREGATE BASE UNDER PAVEMENT SHALL EXTEND A MINIMUM OF 1' BEYOND THE BACK OF CURB.
9. UNLESS OTHERWISE NOTED, ALL CURB TO BE FULL (6"). REFER TO GRADING PLAN FOR DETERMINATION OF CURB TYPE (REVERSE OR STANDARD) TO BE CONSTRUCTED.
10. PRIVATE SIDEWALK CONSTRUCTION:
    - 10.1. UNLESS OTHERWISE NOTED, ALL SIDEWALKS SHALL BE 4" THICK CONCRETE.
    - 10.2. SIDEWALKS SHALL NOT EXCEED 2% CROSS SLOPE OR 5% LONGITUDINAL SLOPE.
    - 10.3. THE MAXIMUM PERMISSIBLE SLOPES OF THE WHEELCHAIR RAMPS ARE 12:1.
    - 10.4. SIDEWALK EXPANSION JOINT FILLER SHALL BE GREY, SELF-LEVELLING POLYURETHANE SEALANT.
    - 10.5. EXPANSION JOINTS MAXIMUM DISTANCE = 50'-0", USE 1" X 4" PREMOLDED EXPANSION JOINT MATERIAL.
    - 10.6. SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A MEDIUM BROOMING TRANSVERSE TO THE SLOPES OF THE RAMP.
    - 10.7. CONCRETE SIDEWALK JOINTS SHALL BE 5'X5'(OR 6') IN GENERAL, WITH 6.25' MAXIMUM SPACING HAVING A WIDTH TO LENGTH RATIO OF 1:1.25.
    - 10.8. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGN TO ENGINEER FOR APPROVAL, PRIOR TO CONSTRUCTION.
    - 10.9. CONCRETE SHALL CONFORM TO THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE."
    - 10.10. PORTLAND CEMENT SHALL CONFORM TO ASTM-C-150, TYPE I OR III.
    - 10.11. NORMAL WEIGHT CONCRETE AGGREGATE SHALL MEET ASTM C33.
    - 10.12. REINFORCING SHALL MEET ASTM A615 OR GR60.
    - 10.13. COMPACTED FILL CONTRACTOR SHALL COMPACT FILL TO 95% DENSITY(ASTM D698).
11. CONTRACTOR SHALL BE RESPONSIBLE FOR REQUIRED TRAFFIC CONTROL NECESSARY ON SURROUNDING STREETS FOR CONSTRUCTION. TRAFFIC CONTROL SHALL COMPLY WITH THE LATEST EDITION OF MUTCD AND AUTHORITIES HAVING JURISDICTION STANDARDS AND SPECIFICATIONS.
12. CONTRACTOR TO PROVIDE A CONCRETE JOINTING PLAN FOR ENGINEER REVIEW DURING SUBMITTAL PROCESS. THE PLAN SHOULD CLEARLY IDENTIFY LONGITUDINAL, CONTRACTION AND EXPANSION JOINTS. IT IS GENERALLY EXPECTED THAT JOINTS SHOULD NOT EXCEED 24X THE PAVEMENT THICKNESS, WITH A MAX SPACING OF 12', AND NOT CREATE SMALL OR IRREGULAR SHAPED PANELS.
13. INSTALL IRRIGATION SLEEVES IN THE LOCATIONS NOTED ON THE PLANS. TWO SLEEVES ARE REQUIRED AT EACH LOCATION: (1) 1.5" AND (1) 4" PVC CLASS 200 SDR 21. BOTH SHALL EXTEND 18" BEYOND THE BACK OF CURB OR SIDEWALK, BURIED 30" MIN. DEPTH AND BE MARKED WITH A TEMPORARY T-POST MARKER AT EACH END.

LEGEND

- EXISTING FENCE
- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- PROPOSED 5" ASPHALT PAVEMENT
- PROPOSED 4" ASPHALT PAVEMENT
- PROPOSED 8" CONCRETE
- PROPOSED 6" CONCRETE
- PROPOSED CONCRETE SIDEWALK
- Ⓐ PROPOSED CURB TRANSITION (FULL TO FLUSH)

N

SCALE: 1"=20'

0 20 40

WARNING

EXISTING UNDERGROUND UTILITIES IN THE AREA CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ANY REPAIRS TO EXISTING UTILITIES DUE TO DAMAGE INCURRED DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE PLANS.

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP. 04/30/26

ISSUED FOR PERMIT
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CIVIL PLANS FOR

THE RESERVE AT THE MEADOWS

GODDARD, KS

DIMENSIONAL CONTROL AND PAVING PLAN (3 OF 3)

PROJECT NO. 2501010800

SCALE 1"=20'

DRAWN	DESIGNED	CHECKED
BKS	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO. C-203

PLOTTED BY BRYAN SMITH 3/6/2026 2:12 PM
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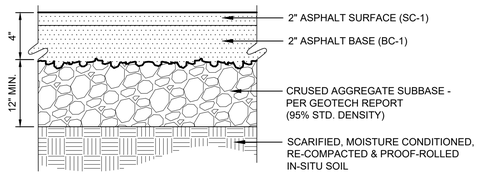
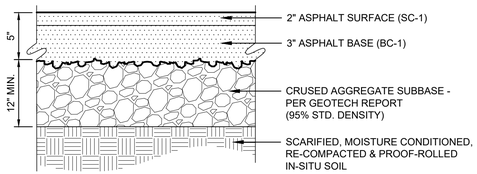
DWG NAME 250800 DIM PAVE.DWG



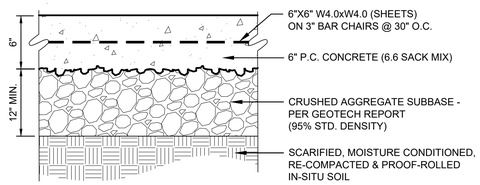
1 TYP. SECTION: 4" ASPHALTIC PVMT.

SCALE: NTS



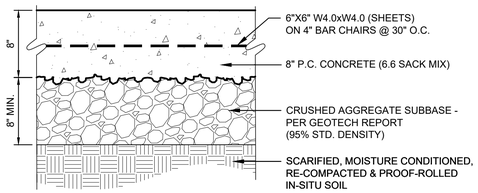
2 TYP. SECTION: 5" ASPHALTIC PVMT.

SCALE: NTS



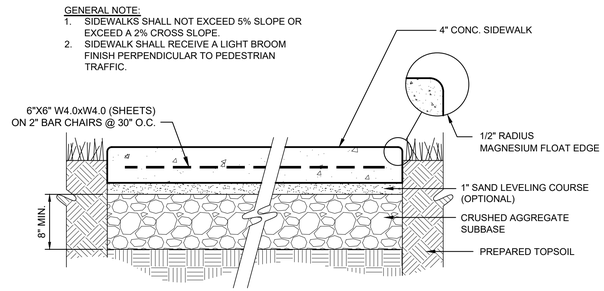
3 TYP. SECTION: 6" CONC. PVMT.

SCALE: NTS



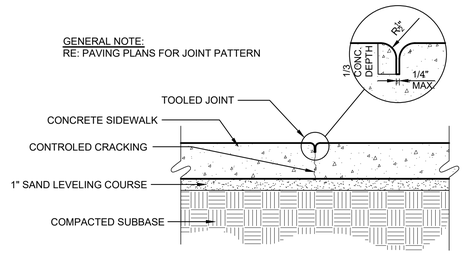
4 TYP. SECTION: 8" CONC. PVMT.

SCALE: NTS



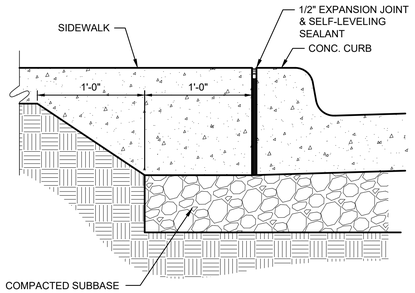
5 CONC. SIDEWALK

SCALE: NTS



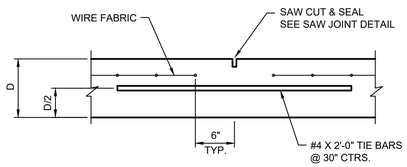
6 SIDEWALK TOOLED JOINT

SCALE: NTS



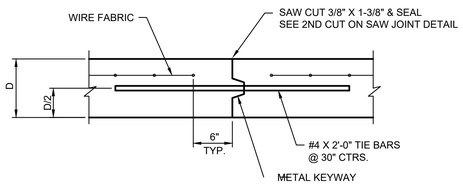
7 CONC. SIDEWALK @ CURB

SCALE: NTS



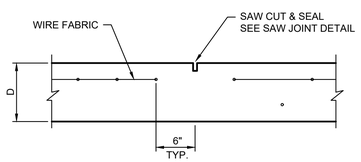
8 LONGITUDINAL JOINT DETAIL

SCALE: NTS



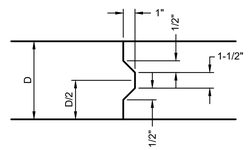
9 OPTIONAL LONGITUDINAL JOINT DETAIL

SCALE: NTS



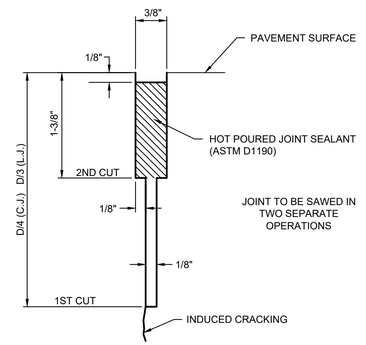
10 CONTRACTION JOINT DETAIL

SCALE: NTS



11 KEYWAY DETAIL

SCALE: NTS



12 SAW JOINT DETAIL

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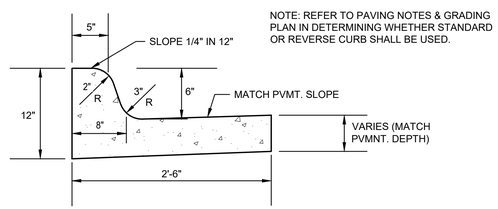
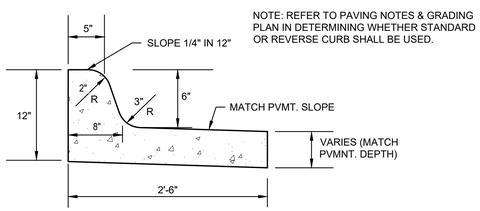


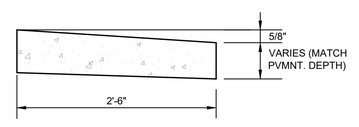
13 FULL CURB & GUTTER (STANDARD)

SCALE: NTS



14 FULL CURB & GUTTER (REVERSE)

SCALE: NTS



15 FLUSH CURB

SCALE: NTS

PLOTTED BY BRYAN SMITH 3/6/2026 2:12 PM
DWG PATH J:\PROJECTS\2025\2501010800_GR_THE RESERVE AT THE MEADOWS\00 CAD\SHTS\05 CIVIL\SITE
DWG NAME 250800 PAVING DETAILS.DWG

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP. 04/30/26

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CIVIL PLANS FOR

THE RESERVE AT THE MEADOWS

GODDARD, KS

PAVING DETAILS
(1 OF 2)

PROJECT NO. 2501010800

SCALE NTS

DRAWN	DESIGNED	CHECKED
CNA	TMBB	SPE

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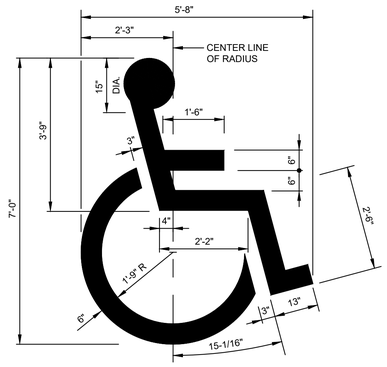
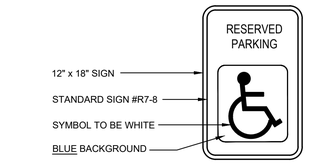
0	ISSUED FOR PERMIT	03/06/26

SHEET NO. C-251



1 HANDICAP PAVEMENT MARKING

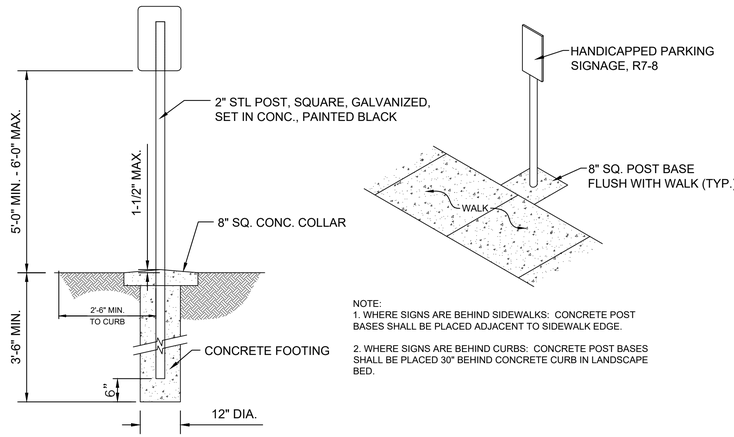
SCALE: NTS



NOTES:
1. ALL SIGNS TO BE 0.080" THICK ALUMINUM
2. ALL SIGNS SHALL CONFORM WITH ALL CURRENT A.D.A., FEDERAL, STATE AND LOCAL CODES AND REGULATIONS.
3. ONE AT EACH HANDICAP STALL

2 HANDICAPPED PARKING SIGN

SCALE: NTS

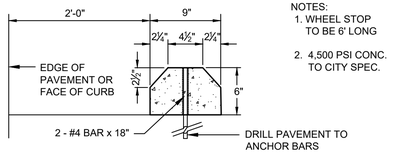


NOTE:
1. WHERE SIGNS ARE BEHIND SIDEWALKS: CONCRETE POST BASES SHALL BE PLACED ADJACENT TO SIDEWALK EDGE.

2. WHERE SIGNS ARE BEHIND CURBS: CONCRETE POST BASES SHALL BE PLACED 30" BEHIND CONCRETE CURB IN LANDSCAPE BED.

3 MISC. SIGN MOUNTING DETAIL

SCALE: NTS

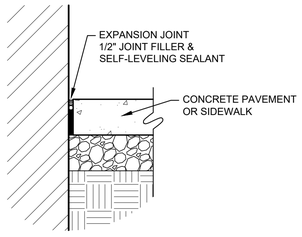


NOTES:
1. WHEEL STOP TO BE 6' LONG

2. 4,500 PSI CONC. TO CITY SPEC.

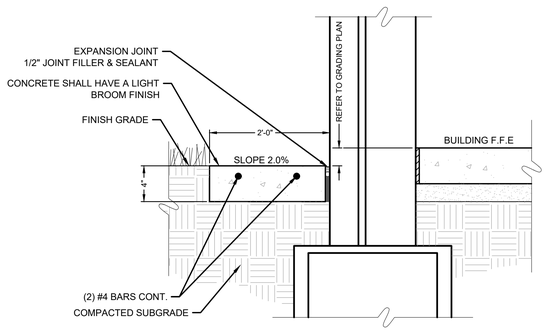
4 WHEEL STOP DETAIL

SCALE: NTS



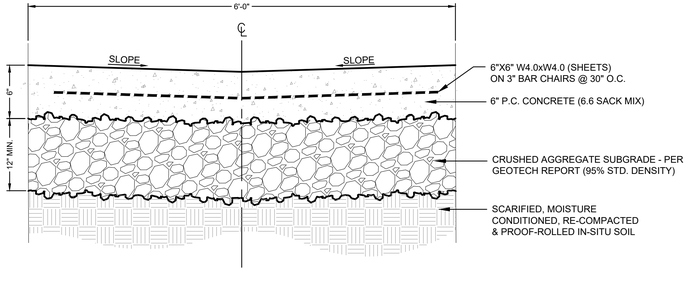
5 EXPANSION JOINT AT BUILDING

SCALE: NTS



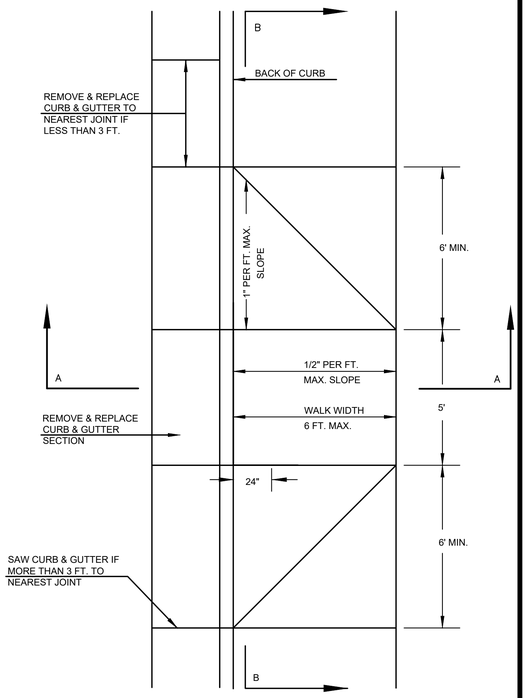
6 CONCRETE MOWSTRIP AT BUILDING

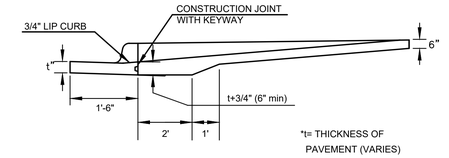
SCALE: NTS



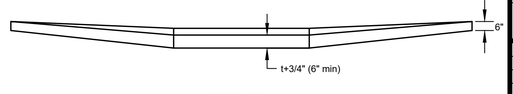
7 TYP. SECTION: 6' CONC. VALLEY GUTTER

SCALE: NTS





SECTION A-A



SECTION B-B

8 WHEEL CHAIR RAMP

SCALE: NTS

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CIVIL PLANS FOR

THE RESERVE AT THE MEADOWS

GODDARD, KS

PAVING DETAILS (2 OF 2)

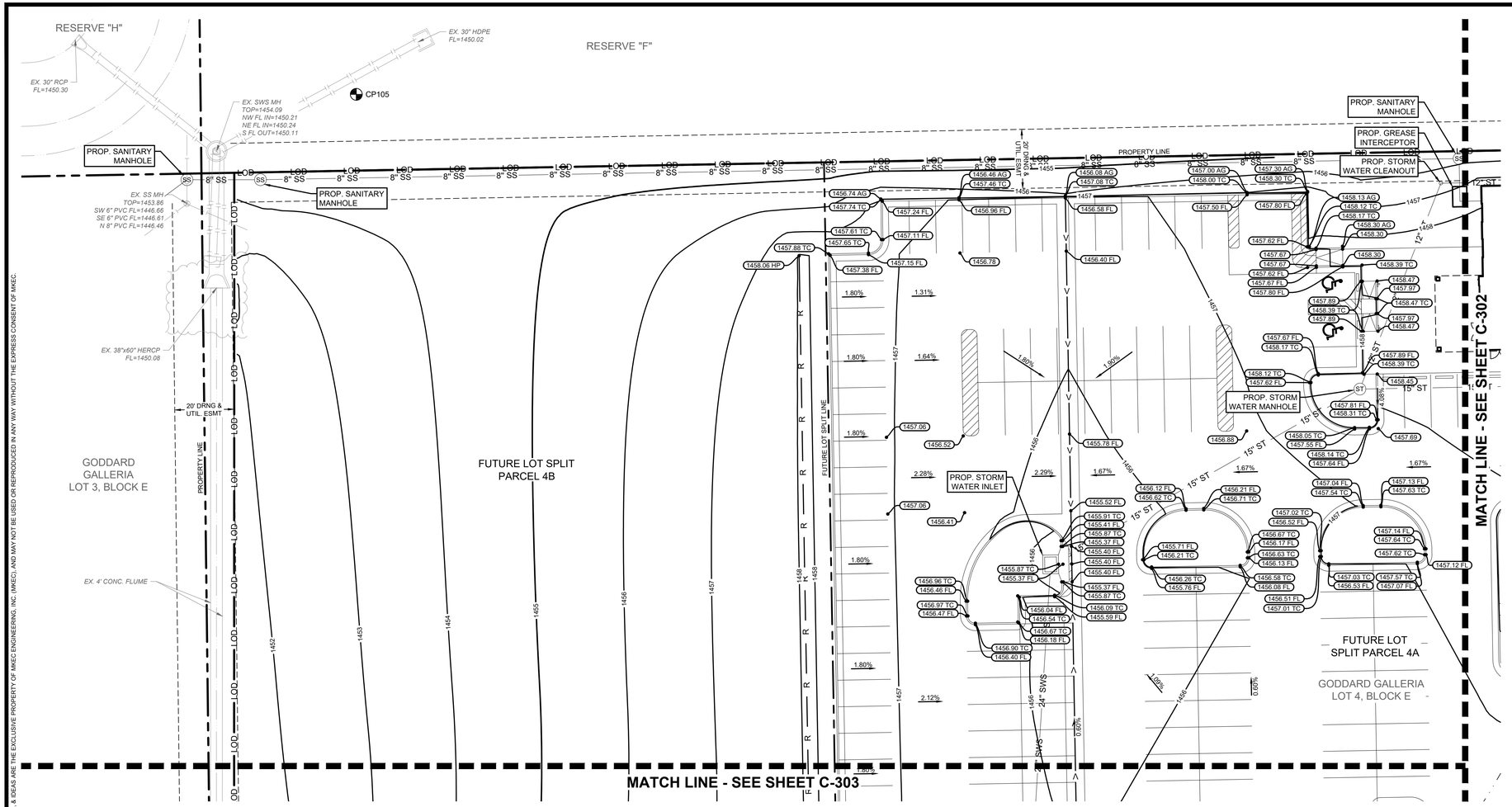
PROJECT NO. 2501010800

SCALE NTS

DRAWN	DESIGNED	CHECKED
CNA	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO. C-252



NOTES

1. ALL SPOT ELEVATIONS REPRESENT FINISHED SURFACE OR FLOW LINE GRADES, UNLESS OTHERWISE NOTED.
2. ALL CURB SPOT ELEVATIONS ARE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
3. SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER SLOPE LABELS AT ALL TIMES.
4. GRADES IN ALL SIDEWALK, ACCESSIBLE ROUTES, INCLUDING DRIVEWAYS CROSSINGS SHALL CONFORM TO ALL APPLICABLE ACCESSIBLE STANDARDS: NOT TO EXCEED 5% ALONG TRAVEL PATH WITH NOT MORE THAN 2% CROSS SLOPE AND NOT TO EXCEED 2% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS.
5. MAXIMUM SLOPE IN TURF AREAS SHALL BE 4:1.
6. SITE GRADING SHALL NOT CAUSE ADVERSE DRAINAGE IMPACTS TO NEIGHBORING PROPERTIES.
7. REFER TO GEOTECHNICAL REPORT PREPARED FOR JGR ARCHITECTS, PREPARED BY PROFESSIONAL SERVICE INDUSTRIES, INC., PROJECT NO. 03382639 DATED NOVEMBER 21, 2025.
8. SATISFACTORY SOIL AND FILL MATERIAL SHALL BE PROVIDED PER THE GEOTECHNICAL REPORT. SEE GEOTECHNICAL REPORT FOR MAXIMUM FILL LIFT THICKNESS
9. CLEAR AND GRUB IMPROVEMENT AREA. REMOVE ALL ORGANIC AND TOPSOIL MATERIAL REGARDLESS OF SIZE AND DEPTH. ALL CLEARED, EXCESS AND WASTE MATERIAL SHALL BECOME CONTRACTORS PROPERTY AND SHALL BE REMOVED FROM THE PROJECT SITE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE EARTHWORK QUANTITIES. ALL IMPORT AND EXPORT OF SOIL MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT THEIR EXPENSE.
11. NOTIFY TESTING AGENCY WHEN EXCAVATIONS HAVE REACHED REQUIRED SUBGRADE. SUBGRADE SHALL BE PREPARED AND COMPACTED PER THE GEOTECHNICAL REPORT.
12. LANDSCAPING ITEMS INCLUDING FENCE PROTECTION ARE SHOWN ON THIS PLAN FOR VISUAL PURPOSES ONLY. REF: LANDSCAPING PLANS FOR ALL TREE PRESERVATION, PROTECTION AND REMOVAL DESIGN ITEMS.

LEGEND

- XXX — SPOT ELEVATION
- XXX.XX TC — TOP OF CURB
- XXX.XX RIM — TOP OF RIM/STRUCTURE
- XXX.XX FL — FLOWLINE
- XXX.XX ME — MATCH EXISTING
- XXX.XX HP — HIGH POINT
- XXX.XX TW — FINISHED GRADE AT TOP OF WALL
- XXX.XX BW — FINISHED GRADE AT BOTTOM OF WALL
- 1456 — PROPOSED CONTOURS
- 1456 — EXISTING CONTOURS
- EXISTING SANITARY SEWER
- W — EXISTING WATER LINE
- EXISTING STORM WATER SEWER
- G — EXISTING GAS LINE
- F O C — EXISTING FIBER OPTIC LINE
- X — X — EXISTING FENCE
- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- 8" SS — 8" SS — PROPOSED SANITARY SEWER
- 30" SWS — PROPOSED STORM WATER SEWER
- 8" W — 8" W — PROPOSED WATER LINE
- DW — DW — PROPOSED DOMESTIC WATER LINE
- FP — FP — PROPOSED FIRE PROTECTION LINE
- R — R — PROPOSED RIDGE LINE
- > — > — PROPOSED FLOW LINE
- LOD — LOD — LIMITS OF DISTURBANCE

N

SCALE: 1"=20'
0 20 40

WARNING
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PLOTTED BY BRYAN SMITH 3/6/2026 2:13 PM
PATH J:\JOBS\2025\2501010800_JGR_THE RESERVE AT THE MEADOWS\00 CAD\SHTS\05 CIVIL\SITE
DWG NAME 2501010800 GRADING.DWG

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP. 04/30/26

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NOT FOR CONSTRUCTION

CIVIL PLANS FOR
THE RESERVE AT THE MEADOWS
GODDARD, KS

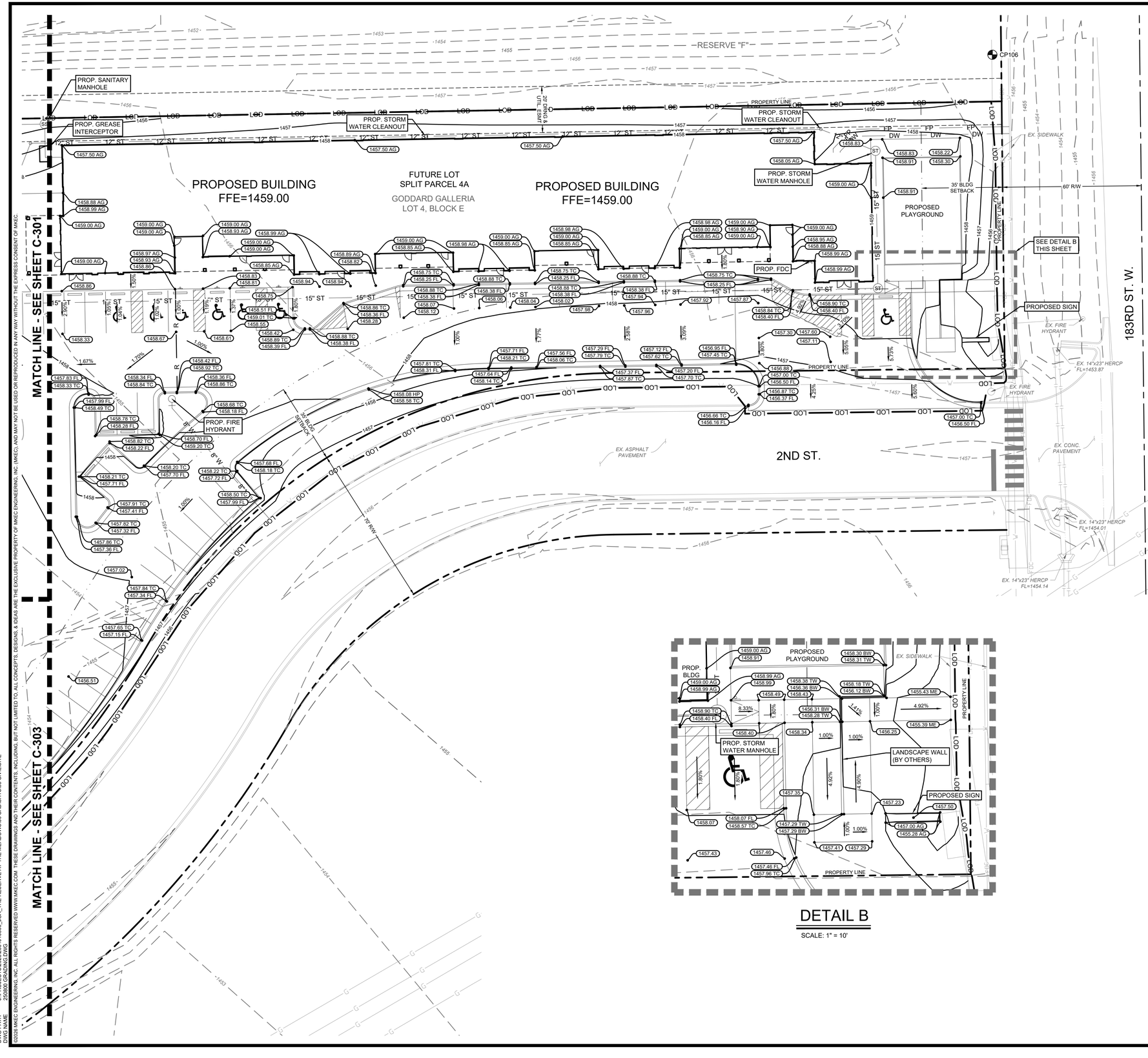
GRADING PLAN
(1 OF 3)

PROJECT NO. 2501010800
SCALE 1"=20'

DRAWN	DESIGNED	CHECKED
BKS	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO.
C-301



DETAIL B

SCALE: 1" = 10'

NOTES

1. ALL SPOT ELEVATIONS REPRESENT FINISHED SURFACE OR FLOW LINE GRADES, UNLESS OTHERWISE NOTED.
2. ALL CURB SPOT ELEVATIONS ARE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
3. SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER SLOPE LABELS AT ALL TIMES.
4. GRADES IN ALL SIDEWALK, ACCESSIBLE ROUTES, INCLUDING DRIVEWAYS CROSSINGS SHALL CONFORM TO ALL APPLICABLE ACCESSIBLE STANDARDS: NOT TO EXCEED 5% ALONG TRAVEL PATH WITH NOT MORE THAN 2% CROSS SLOPE AND NOT TO EXCEED 2% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS.
5. MAXIMUM SLOPE IN TURF AREAS SHALL BE 4:1.
6. SITE GRADING SHALL NOT CAUSE ADVERSE DRAINAGE IMPACTS TO NEIGHBORING PROPERTIES.
7. REFER TO GEOTECHNICAL REPORT PREPARED FOR JGR ARCHITECTS, PREPARED BY PROFESSIONAL SERVICE INDUSTRIES, INC., PROJECT NO. 03382639 DATED NOVEMBER 21, 2025.
8. SATISFACTORY SOIL AND FILL MATERIAL SHALL BE PROVIDED PER THE GEOTECHNICAL REPORT. SEE GEOTECHNICAL REPORT FOR MAXIMUM FILL LIFT THICKNESS
9. CLEAR AND GRUB IMPROVEMENT AREA. REMOVE ALL ORGANIC AND TOPSOIL MATERIAL REGARDLESS OF SIZE AND DEPTH. ALL CLEARED, EXCESS AND WASTE MATERIAL SHALL BECOME CONTRACTORS PROPERTY AND SHALL BE REMOVED FROM THE PROJECT SITE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE EARTHWORK QUANTITIES. ALL IMPORT AND EXPORT OF SOIL MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT THEIR EXPENSE.
11. NOTIFY TESTING AGENCY WHEN EXCAVATIONS HAVE REACHED REQUIRED SUBGRADE. SUBGRADE SHALL BE PREPARED AND COMPACTED PER THE GEOTECHNICAL REPORT.
12. LANDSCAPING ITEMS INCLUDING FENCE PROTECTION ARE SHOWN ON THIS PLAN FOR VISUAL PURPOSES ONLY. REF: LANDSCAPING PLANS FOR ALL TREE PRESERVATION, PROTECTION AND REMOVAL DESIGN ITEMS.

LEGEND

XXX — SPOT ELEVATION	XXX.ME — MATCH EXISTING
XXX.TC — TOP OF CURB	XXX.HP — HIGH POINT
XXX.RIM — TOP OF RIM/STRUCTURE	XXX.TW — FINISHED GRADE AT TOP OF WALL
XXX.FL — FLOWLINE	XXX.BW — FINISHED GRADE AT BOTTOM OF WALL
1456 — PROPOSED CONTOURS	
1456 — EXISTING CONTOURS	
W — EXISTING SANITARY SEWER	
W — EXISTING WATER LINE	
S — EXISTING STORM WATER SEWER	
G — EXISTING GAS LINE	
FOC — EXISTING FIBER OPTIC LINE	
X — X — EXISTING FENCE	
PROPERTY LINE	
SETBACK LINE	
EASEMENT LINE	
8" SS — PROPOSED SANITARY SEWER	
30" SWS — PROPOSED STORM WATER SEWER	
8" W — PROPOSED WATER LINE	
DW — PROPOSED DOMESTIC WATER LINE	
FP — PROPOSED FIRE PROTECTION LINE	
R — PROPOSED RIDGE LINE	
PROPOSED FLOW LINE	
LOD — LIMITS OF DISTURBANCE	

N

SCALE: 1"=20'

0 20 40

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DWG NAME 250800 GRADING.DWG

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP: 04/30/26

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CIVIL PLANS FOR

THE RESERVE AT THE MEADOWS

GODDARD, KS

GRADING PLAN
(2 OF 3)

PROJECT NO. 2501010800

SCALE 1"=20'

DRAWN	DESIGNED	CHECKED
BKS	TMBB	SPE

NO.	REVISION	DATE
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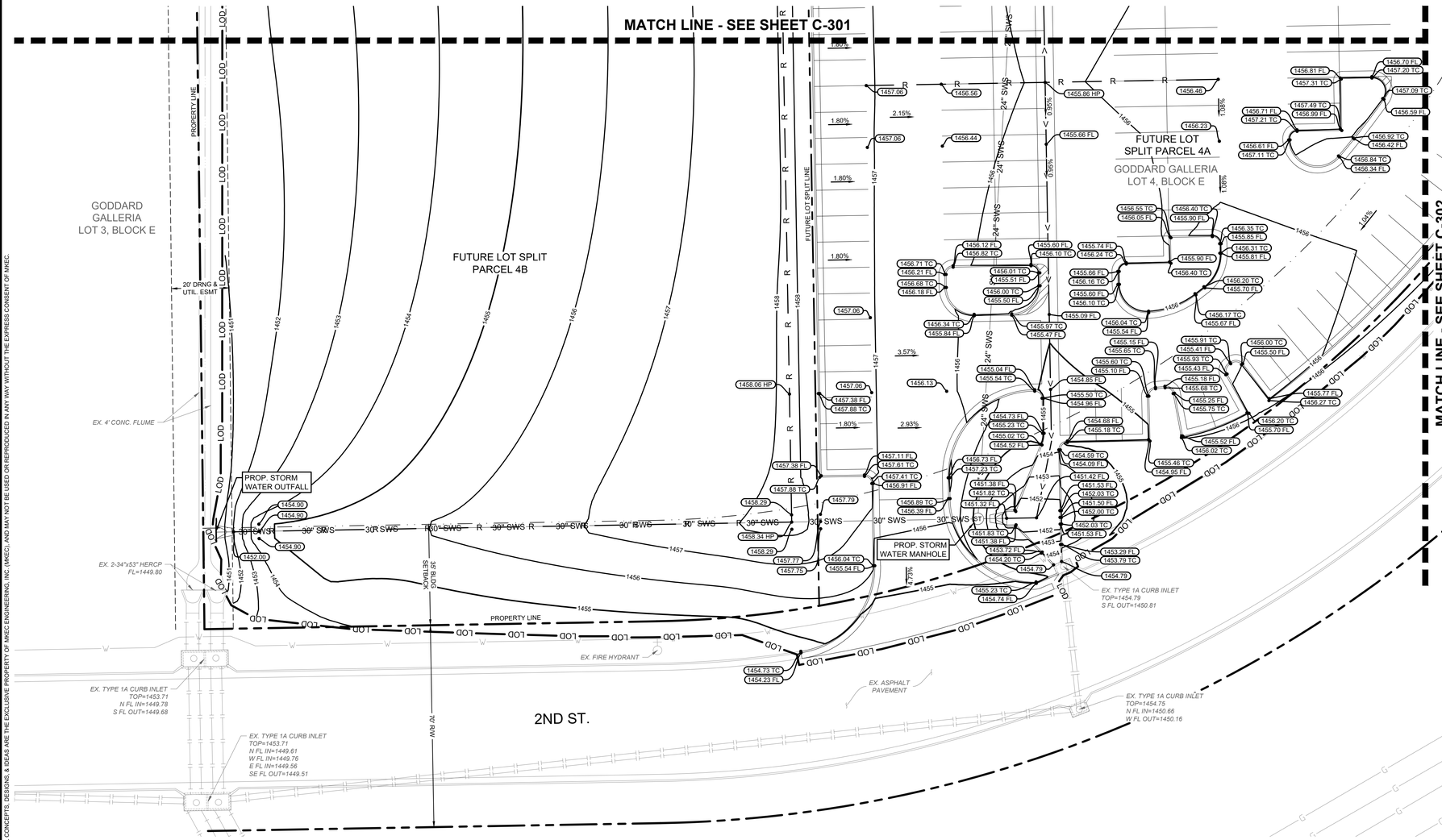
SHEET NO.
C-302



NOTES

1. ALL SPOT ELEVATIONS REPRESENT FINISHED SURFACE OR FLOW LINE GRADES, UNLESS OTHERWISE NOTED.
2. ALL CURB SPOT ELEVATIONS ARE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
3. SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER SLOPE LABELS AT ALL TIMES.
4. GRADES IN ALL SIDEWALK, ACCESSIBLE ROUTES, INCLUDING DRIVEWAYS CROSSINGS SHALL CONFORM TO ALL APPLICABLE ACCESSIBLE STANDARDS: NOT TO EXCEED 5% ALONG TRAVEL PATH WITH NOT MORE THAN 2% CROSS SLOPE AND NOT TO EXCEED 2% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS.
5. MAXIMUM SLOPE IN TURF AREAS SHALL BE 4:1.
6. SITE GRADING SHALL NOT CAUSE ADVERSE DRAINAGE IMPACTS TO NEIGHBORING PROPERTIES.
7. REFER TO GEOTECHNICAL REPORT PREPARED FOR JGR ARCHITECTS, PREPARED BY PROFESSIONAL SERVICE INDUSTRIES, INC., PROJECT NO. 03382639 DATED NOVEMBER 21, 2025.
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XXX.RIM TOP OF RIM/STRUCTURE	XXX.TW FINISHED GRADE AT TOP OF WALL
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8" W PROPOSED WATER LINE	
DW PROPOSED DOMESTIC WATER LINE	
FP PROPOSED FIRE PROTECTION LINE	
R PROPOSED RIDGE LINE	
PROPOSED FLOW LINE	
LOD LIMITS OF DISTURBANCE	

N

SCALE: 1"=20'
0 20 40

WARNING
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P.E. NO. 24423 EXP. 04/30/26

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CIVIL PLANS FOR

THE RESERVE AT THE MEADOWS

GODDARD, KS

GRADING PLAN
(3 OF 3)

PROJECT NO. 2501010800

SCALE 1"=20'

DRAWN	DESIGNED	CHECKED
BKS	TMBB	SPE

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SHEET NO. C-303

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DWG NAME 250800 GRADING.DWG

RESERVE "H"

RESERVE "F"

EX. 30" RCP
FL=1450.30

EX. 30" HDPE
FL=1450.02

CP105

EX. SWS MH
TOP=1454.09
NW FL IN=1450.21
NE FL IN=1450.24
S FL OUT=1450.11

PROP. PUBLIC MAIN
EXTENSION UNDER
SEPARATE CONTRACT

20' DRNG &
UTIL. ESMT

PROPERTY LINE

8" SS

STA. 10+75.0, SWS LINE 3
INSTALL 6" CLEANOUT
1-12" 45° BEND
1-12" 22.5° BEND
TOP=1456.6
FL 12"=1452.85
FL 12"=1452.85

T2" ST

PROP. GREASE
INTERCEPTOR
REF: MEP

12" ST

SWS LINE 3
74.96 L.F. OF 12" PVC
@ 0.55% SLOPE

EX. SS MH
TOP=1453.86
SW 6" PVC FL=1446.66
SE 6" PVC FL=1446.61
N 8" PVC FL=1446.46

EX. 38"x60" HERCP
FL=1450.08

STA. 13+55.0, SWS LINE 2=
STA. 10+00.0, SWS LINE 3
INSTALL 4' DIA. SHALLOW MH
TOP=1459.3
FL 15"=1452.44
FL 12"=1452.44
FL 15"=1452.34

15" ST

FUTURE LOT SPLIT LINE

GODDARD
GALLERIA
LOT 3, BLOCK E

FUTURE LOT SPLIT
PARCEL 4B

SWS LINE 2
120.38 L.F. OF 15" RCP
@ 0.40% SLOPE

SWS LINE 2
394.36 L.F. OF 15" RCP
@ 0.40% SLOPE

STA. 12+34.6, SWS LINE 2
INSTALL TYPE 1A CURB INLET (5'X4')
TOP=1455.9
FL 15"=1451.86
FL 24"=1451.86

EX. 4' CONC. FLUME

SWS LINE 2
234.63 L.F. OF 24" RCP
@ 0.25% SLOPE

24" SWS

FUTURE LOT
SPLIT PARCEL 4A

GODDARD GALLERIA
LOT 4, BLOCK E

MATCH LINE - SEE SHEET C-402

MATCH LINE - SEE SHEET C-403

NOTES

1. REFER TO SHEET C-002 FOR GENERAL NOTES.
2. REFER TO MEP PLANS FOR STORM SEWER PIPES WITHIN 5' AND UNDERNEATH BUILDING.
3. UNLESS OTHERWISE NOTED IN CONSTRUCTION DOCUMENTS OR PROJECT SPECIFICATIONS PIPE MATERIALS MUST BE AS FOLLOWS:

WATERLINE	
2-1/2" OR SMALLER	-ASTM D2241 SDR 26
4" OR LARGER	-C900 OR C905 PVC
SANITARY SEWER	
6" OR SMALLER	-SCHEDULE 40 PVC
STORM SEWER, RAIN LEADERS AND UNDERDRAINS	
6" OR SMALLER	-SCHEDULE 40 PVC
8" TO 15"	-ASTM D3034 SDR-35 PVC
18" OR LARGER	-ASTM F2306 AND AASHTO M294 HDPE
	-CLASS III RCP **

** CLASS III RCP SHALL BE UPGRADED TO CLASS IV RCP WHEN PIPE COVER IS LESS THAN 2-FEET OR EXCEEDS 20-FEET.

LEGEND

- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING STORM WATER SEWER
- EXISTING GAS LINE
- EXISTING FIBER OPTIC LINE
- EXISTING FENCE
- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- PROPOSED SANITARY SEWER
- PROPOSED STORM WATER SEWER
- PROPOSED WATER LINE
- PROPOSED DOMESTIC WATER LINE
- PROPOSED FIRE PROTECTION LINE

N

SCALE: 1"=20'
0 20 40

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DWG NAME 2501010800 UTILITY PLANS.DWG

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP. 04/30/26

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CIVIL PLANS FOR

THE RESERVE AT THE MEADOWS

GODDARD, KS

UTILITY PLAN
(1 OF 3)

PROJECT NO. 2501010800

SCALE 1"=20'

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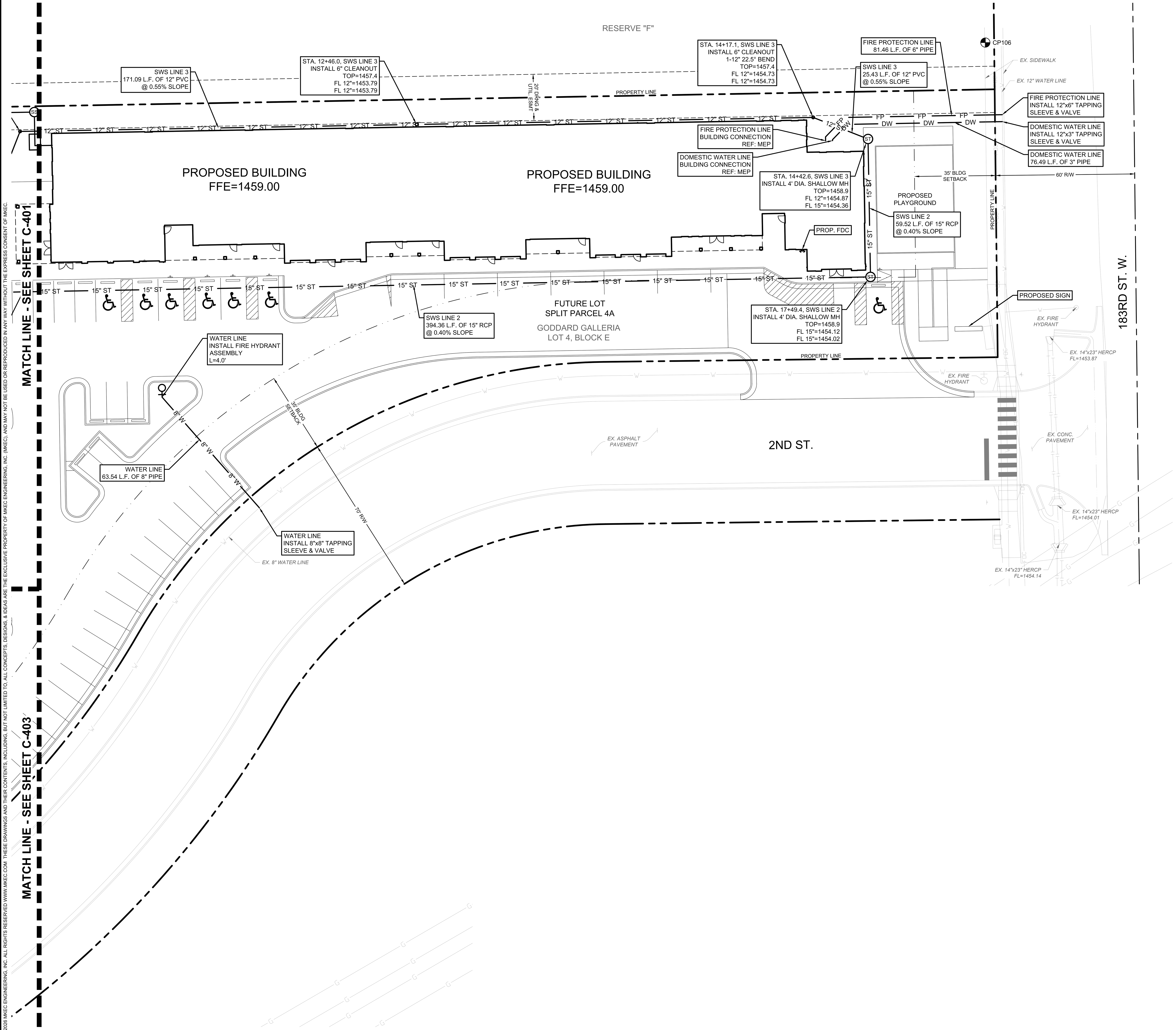
SHEET NO.
C-401



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LEGEND

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THE RESERVE AT THE MEADOWS
GODDARD, KS

UTILITY PLAN
(2 OF 3)

PROJECT NO. 2501010800

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SHEET NO.
C-402

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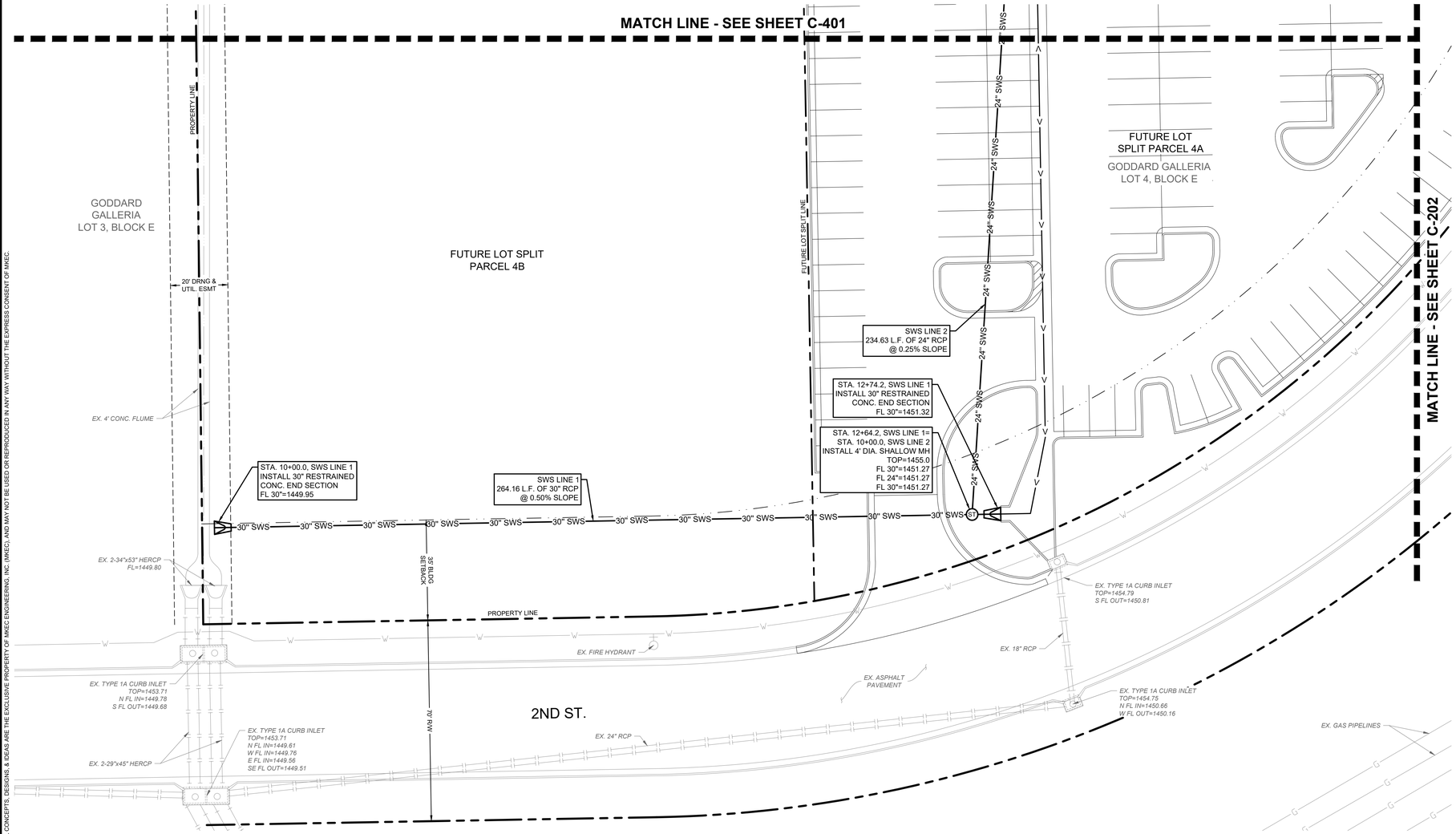
DWG NAME 250800 UTILITY PLANS.DWG



NOTES

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LEGEND

- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING STORM WATER SEWER
- EXISTING GAS LINE
- EXISTING FIBER OPTIC LINE
- EXISTING FENCE
- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- PROPOSED SANITARY SEWER
- PROPOSED STORM WATER SEWER
- PROPOSED WATER LINE
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- PROPOSED FIRE PROTECTION LINE

N

SCALE: 1"=20'
0 20 40

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THE RESERVE AT THE MEADOWS

CIVIL PLANS FOR
GODDARD, KS

UTILITY PLAN
(3 OF 3)

PROJECT NO. 2501010800
SCALE 1"=20'

DRAWN	DESIGNED	CHECKED
BKS	TMBB	SPE

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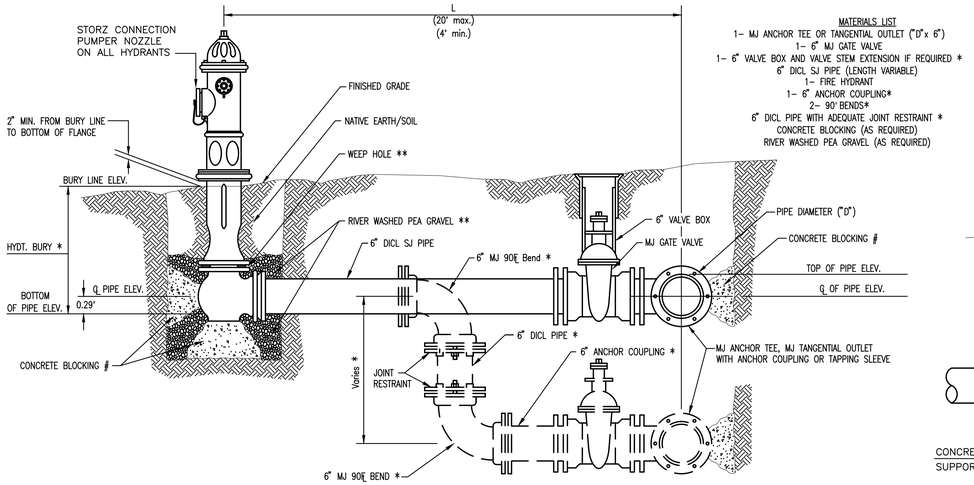
SHEET NO.
C-403



MATERIALS LIST
1- MJ ANCHOR TEE OR TANGENTIAL OUTLET ("D"x 6")
1- 6" MJ GATE VALVE
1- 6" VALVE BOX AND VALVE STEM EXTENSION IF REQUIRED *
6" DICL SJ PIPE (LENGTH VARIABLE)
1- FIRE HYDRANT
1- 6" ANCHOR COUPLING*
2- 90° BENDS*
6" DICL PIPE WITH ADEQUATE JOINT RESTRAINT *
CONCRETE BLOCKING (AS REQUIRED)
RIVER WASHED PEA GRAVEL (AS REQUIRED)

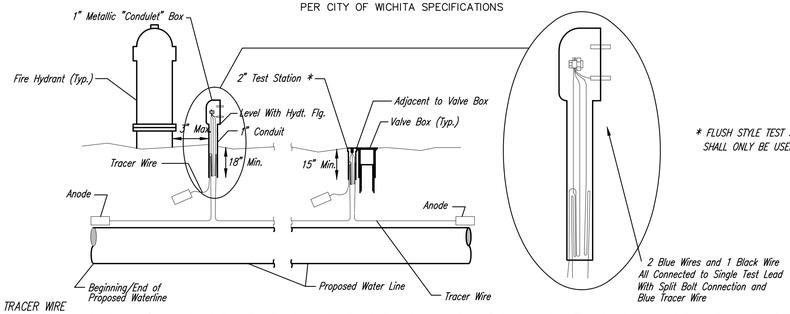
* IF THE REQUIRED HYDRANT BURY IS IN EXCESS OF 5', BUT LESS THAN 7', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY. IF THE REQUIRED HYDRANT BURY IS GREATER THAN 7', CONTRACTOR SHALL USE 5' HYDRANT BURY, 2-MJ 90℄ BENDS, 6" ANCHOR COUPLING AND 6" DICL PIPE AS NECESSARY FOR VERTICAL ADJUSTMENT. THE CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING AT HYDRANT AND MEGALUGS, OR SIMILAR RESTRAINT BETWEEN 90℄ BENDS TO SECURE ALL FITTINGS DURING TESTING AND OPERATION. THE CONTRACTOR SHALL PROVIDE A VALVE STEM EXTENSION PER DETAIL THIS SHEET.

** CAUTION: WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES. PLACE 1 CUBIC FOOT OF RIVER WASHED PEA GRAVEL AROUND EACH WEEP HOLE.

CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.

FIRE HYDRANT ASSEMBLY

PER CITY OF WICHITA SPECIFICATIONS



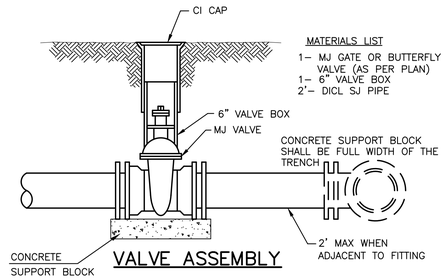
* FLUSH STYLE TEST STATIONS SHALL ONLY BE USED IN PAVEMENT.

TRACER WIRE
Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. Split-bolt connectors shall be used at splice locations. Electrical tape shall cover all splices so no bare wire is exposed. Test stations shall be installed adjacent to all fire hydrants along the waterline and at blowoffs or valves near the ends of the waterlines. Any exceptions to the location of test stations shall be approved by the engineer. At each test station, the tracer wire shall be connected to a 3 lb. Zinc or magnesium anode. Anodes shall also be attached to the tracer wire at both the beginning and the end of the proposed waterline. A typical layout of the tracer wire and test station is provided in the above figure.
WIRE
The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermal plastic insulation or Blue No. 12 AWG CCS with 30 mil HDPE insulation. The insulation shall be heat, oil, and gasoline resistant as manufactured by Temple Electric or approved equal. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. The insulation sheathing shall be removed such that 1" bare copper wire at all points of connection. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.
TEST STATIONS
The test station for fire hydrant applications shall be a 1 inch galvanized "conduiet" style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station T2PS3B as manufactured by HANDLEY Industries or approved equal. The "conduit" style test station shall be attached to a 1 inch rigid galvanized conduit with a minimum length of 36" and plastic end bushing. The flush style shall have the word "WATER" stamped or molded into the lid. All test stations shall be manufactured using molded blue tops or sufficiently coated with blue enamel paint. The tracer wire and the anode wire shall be installed to allow 10 inches of wire within the test station. In concrete environments such as sidewalks or in the downtown area the contractor shall use the flush style test station. The location of all test stations shall be approved by the engineer, recorded, and shown in the as-built drawings.
ANODES
The anodes shall be 3 lb. bare zinc or magnesium. The anodes shall be buried at the same elevation as the waterline at each test station. The anodes shall be connected to Black No. 12 THHN annealed soft copper wire which shall be extended to the test station.

TRACER WIRE DETAIL

COST IS SUBSIDIARY TO PIPE INSTALLATION

FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*

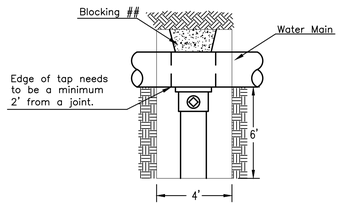


MATERIALS LIST
1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1- 6" VALVE BOX
2'- DICL SJ PIPE

CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

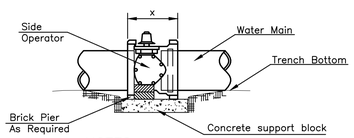
2' MAX WHEN ADJACENT TO FITTING

VALVE ASSEMBLY



CITY TAP

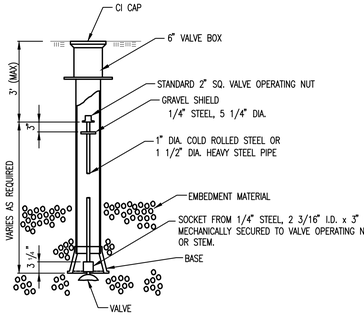
When the City of Wichita makes tap, blocking is to be done by Contractor



NOTES

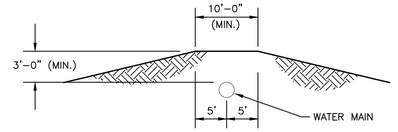
1. This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
2. 6" Valve Box and Cover required per City of Wichita Std. Specifications.
3. Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



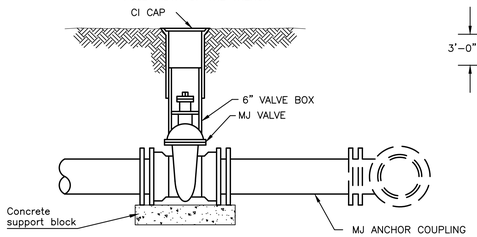
VALVE STEM EXTENSION DETAIL

NOTE: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.



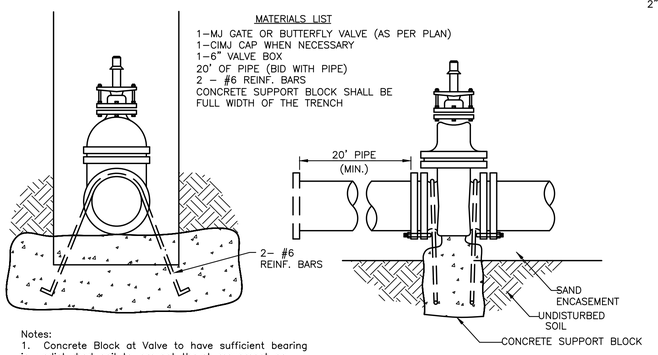
PROTECTIVE FILL DETAIL

MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN 3'. (COST SUBSIDIARY TO PIPE INSTALLATION)



MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-MJ ANCHOR COUPLING (12" OR SMALLER)
1-6" VALVE BOX
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

ANCHORED VALVE ASSEMBLY



MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-CIMJ CAP WHEN NECESSARY
1-6" VALVE BOX
20' OF PIPE (BID WITH PIPE)
2 - #6 REINF. BARS
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

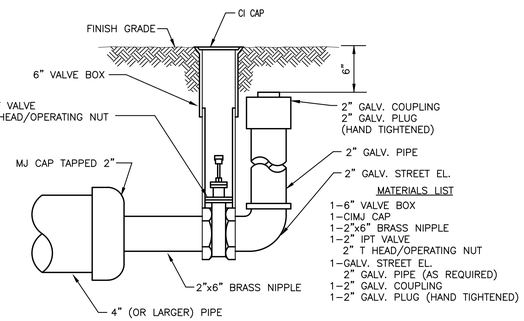
Notes:
1. Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.

2. The thrust block shall be constructed such that bolts, nuts, and other MJ accessories are kept clear of concrete.

3. All valves at dead ends and at other locations as called out on the plans shall be blocked as shown here.

THRUST AT VALVES	
VALVE	THRUST AT 150 #/in²
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL



MATERIALS LIST
1-6" VALVE BOX
1-CIMJ CAP
1-2"x6" BRASS NIPPLE
1-2" IPT VALVE
2" T HEAD/OPERATING NUT
1-GALV. STREET EL.
2" GALV. PIPE (AS REQUIRED)
1-2" GALV. COUPLING
1-2" GALV. PLUG (HAND TIGHTENED)

2" BLOWOFF ASSEMBLY

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DRAWING PATH J:\2025\2501010800_JGR_THE RESERVE AT THE MEADOWS\00 CAD\SHTS\05 CIVIL\SITE
DWG NAME 2501010800 UTILITY DETAILS.DWG

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP. 04/30/26

ISSUED FOR PERMIT
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THE RESERVE AT THE MEADOWS

CIVIL PLANS FOR
GODDARD, KS

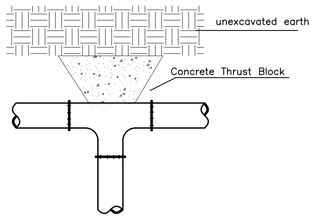
WATER ASSEMBLY DETAILS

PROJECT NO. 2501010800
SCALE NTS

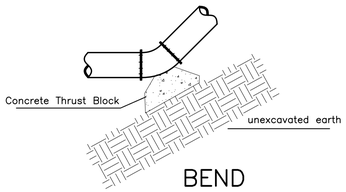
DRAWN	DESIGNED	CHECKED
CNA	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

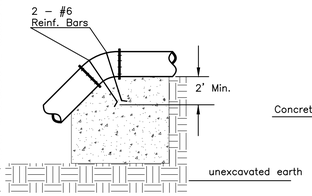
SHEET NO. C-451



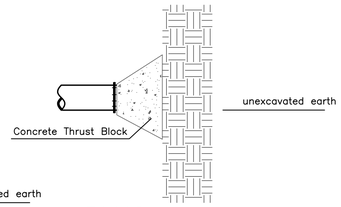
TEE



BEND



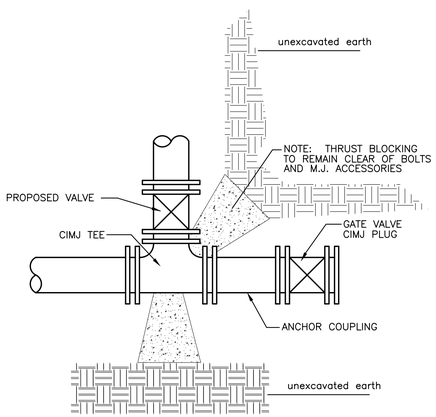
VERTICAL BEND



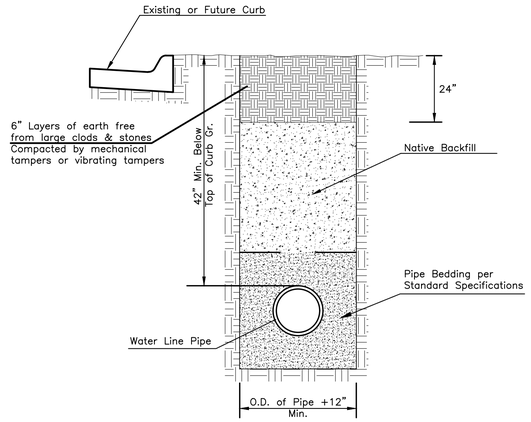
PLUG

PIPE SIZE	THRUST AT FITTINGS IN TONS–AT 150#/IN P					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.8
8"	4.9	6.95	3.75	1.90	.96	4.9
12"	11.4	16.1	8.75	4.45	2.25	11.4
16"	20.15	28.5	15.4	7.85	3.95	20.15
20"	31.15	44.0	23.85	12.15	6.10	31.15
24"	44.55	63.0	34.1	17.4	8.75	44.55

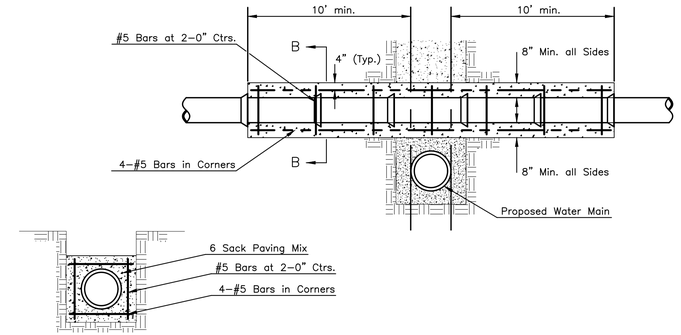
TYPICAL THRUST BLOCKS



KEY BLOCK DETAIL



TRENCH COMPACTION IN ROAD RIGHT–OF–WAY

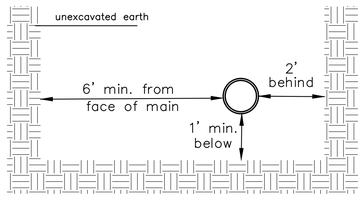


Note: Encasement to begin and end at a Bell on Sanitary Sewer Pipe.

SECTION B–B

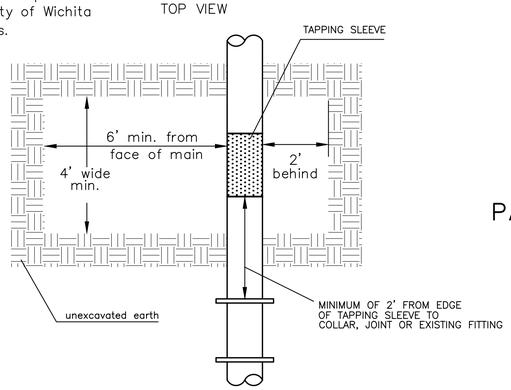
REINFORCED CONCRETE ENCASEMENT OF SANITARY SEWER

SIDE VIEW

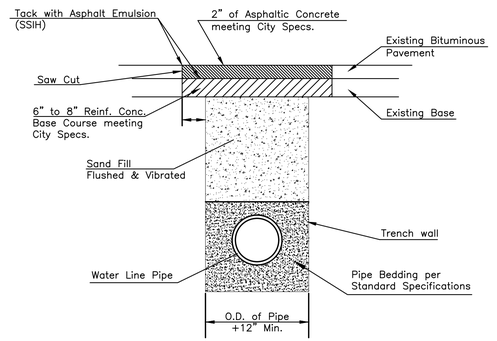


Note: When shoring is required it is to be per The City of Wichita Standard Specifications.

TOP VIEW



EXCAVATION FOR WET TAP



PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS

PLANS GOVERN
UNLESS OTHERWISE NOTED ON PLANS

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DWG NAME 2508000 UTILITY DETAILS.DWG

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP. 04/30/26

ISSUED FOR PERMIT
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CIVIL PLANS FOR

THE RESERVE AT THE MEADOWS

GODDARD, KS

MISC. WATER DETAILS

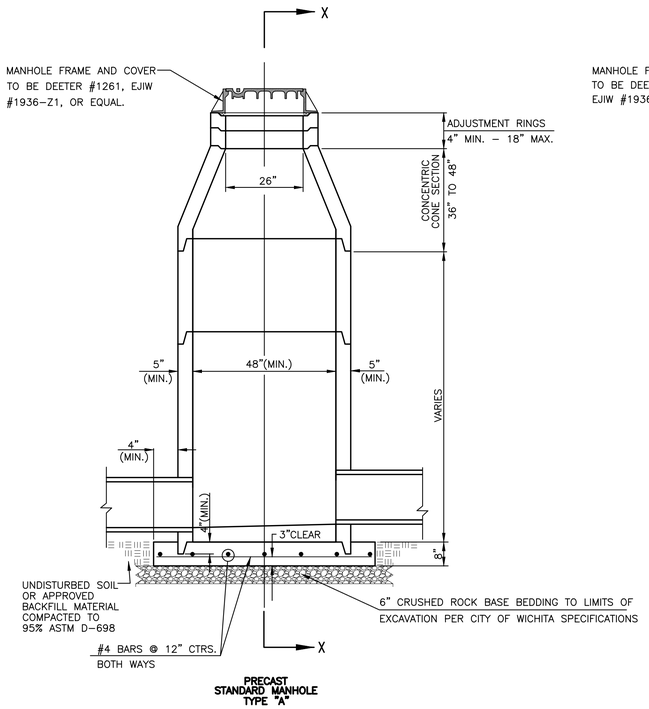
PROJECT NO. 2501010800

SCALE NTS

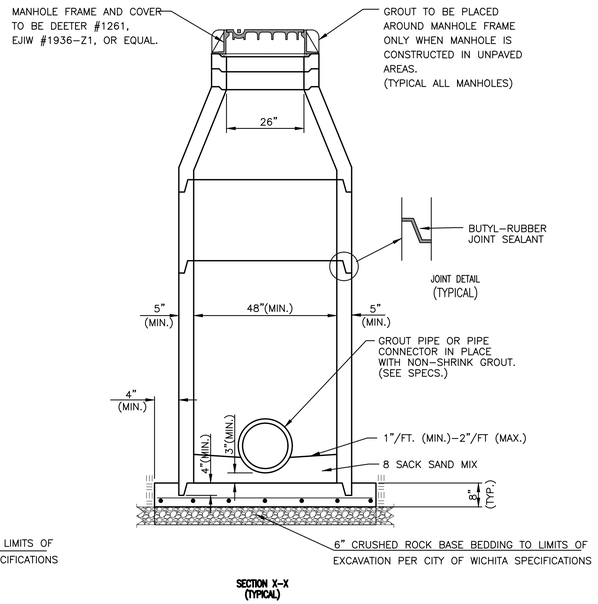
DRAWN	DESIGNED	CHECKED
CNA	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

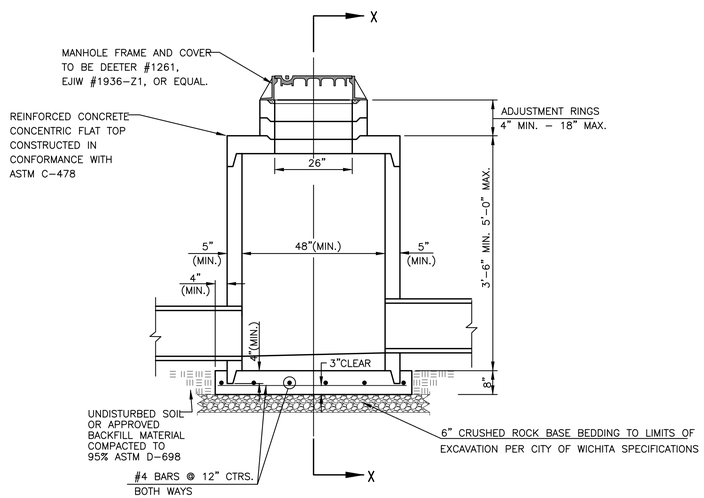
SHEET NO. C-452



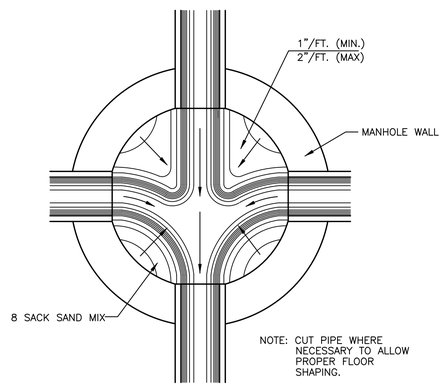
PRECAST STANDARD MANHOLE TYPE "A"



SECTION X–X (TYPICAL)



PRECAST SHALLOW MANHOLE TYPE "B"



TYPICAL MANHOLE FLOOR SHAPING

GENERAL NOTES

1. IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL HAVE THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
2. STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
3. ALL MANHOLE CONSTRUCTION SHALL BE WATER TIGHT.
4. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
5. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF ASTM C–478 AS MODIFIED BY THE SPECIFICATIONS.
6. CONCRETE USED FOR MANHOLE CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO MANHOLE BASE.
8. MANHOLES WITH PIPE SIZES 24" AND LARGER SHALL HAVE 5 FOOT INSIDE DIAMETER (MIN.)
9. MANHOLES WITH PRECAST BASES MAY BE USED AT THE CONTRACTORS OPTION. THESE MANHOLES SHALL HAVE AN 8" MINIMUM BASE THICKNESS AND SHALL BE PLACED ON AN 8" MIN. CRUSHED ROCK BASE. PIPES SHALL BE ENCASED WITH CRUSHED ROCK TO AT LEAST 3 FEET FROM THE MANHOLE WALL.
10. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN MANHOLE WALL SHALL BE GROUTED FLUSH TO THE MANHOLE WALL WITH HYDRAULIC CEMENT AFTER THE MANHOLE IS IN PLACE. LIFTING HOLES THRU THE MANHOLE WALL WILL NOT BE ACCEPTED.
11. THE ENDS OF ALL PIPES IN MANHOLES SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE MANHOLE WALL.
12. MANHOLE INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE MANHOLE WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
13. MANHOLE FRAME AND COVER TO BE DEETER #1261, EJIW #1936–Z1, OR APPROVED EQUAL, SEE SW–303.
14. FOR FLAT GRATED INLET APPLICATION, GRATE TO BE DEETER #1933, EJIW #1205 MDI, OR APPROVED EQUAL.
15. FOR BEEHIVE GRATE APPLICATION, GRATE TO BE DEETER #4495, EJIW #120545, OR APPROVED EQUAL.

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP. 04/30/26

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CIVIL PLANS FOR
THE RESERVE AT THE MEADOWS
GODDARD, KS

STORM MANHOLE DETAILS

PROJECT NO. 2501010800
SCALE NTS

DRAWN	DESIGNED	CHECKED
CNA	TMBB	SPE

NO.	REVISION	DATE
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SHEET NO. C-453

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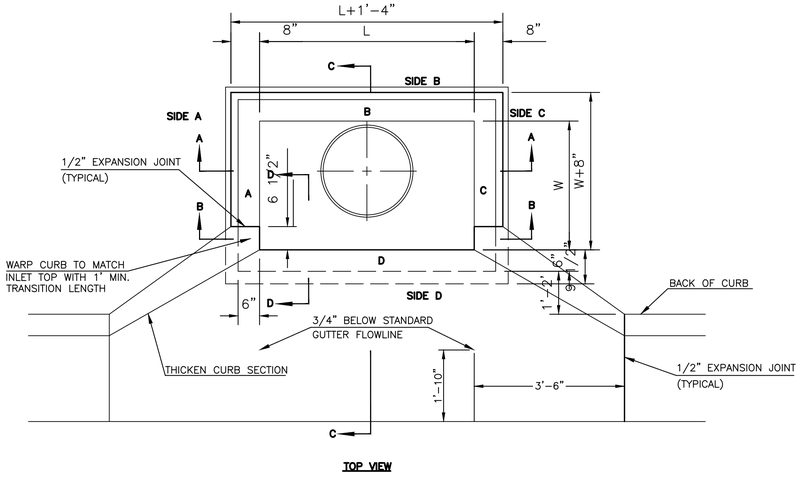
DWG NAME 2508000 UTILITY DETAILS.DWG

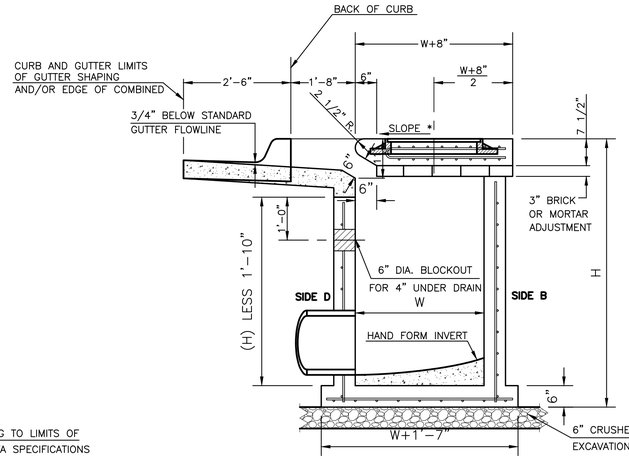


TOP VIEW

BAR SCHEDULE		
INLET OPENING	B1 BARS	SPACING
5'-0"	#4	4"
10'-0"	#6	3.5"

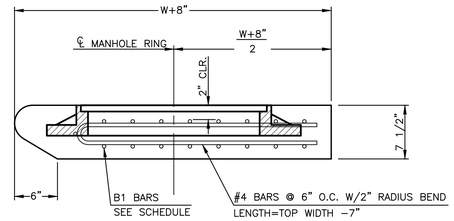
PRECAST CURB INLET WIDTHS				
W	PRE-CAST TOP SIZE			PIPE DIA.**
	WIDTH	LENGTH	TOP	
3'-0"	W+8"	L+1'-4"	7 1/2"	21" & SMALLER
4'-0"	W+8"	L+1'-4"	7 1/2"	24" & 30"
5'-0"	W+8"	L+1'-4"	7 1/2"	36" & 42"
6'-0"	W+8"	L+1'-4"	7 1/2"	48" & 54"
7'-0"	W+8"	L+1'-4"	7 1/2"	60" & 66"

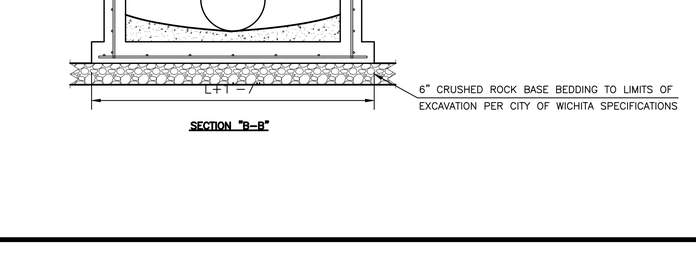
** FOR PIPES PERPENDICULAR TO INLET WALL



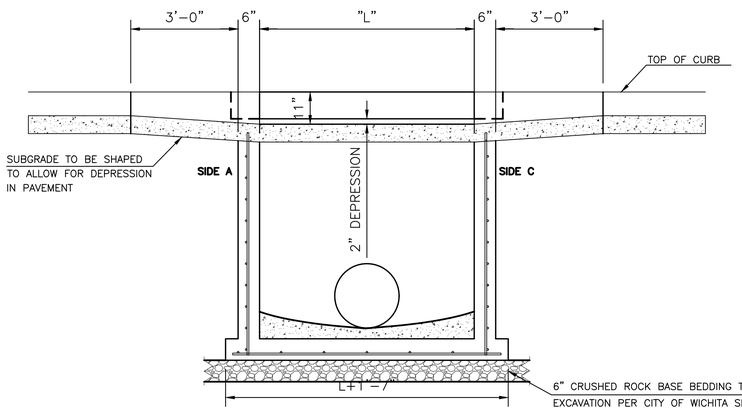
SECTION "C-C"

NOTES:
SLOPE OF INLET TOP TO MATCH SIDEWALK OR PARKING SLOPES WITHIN LIMITS INDICATED

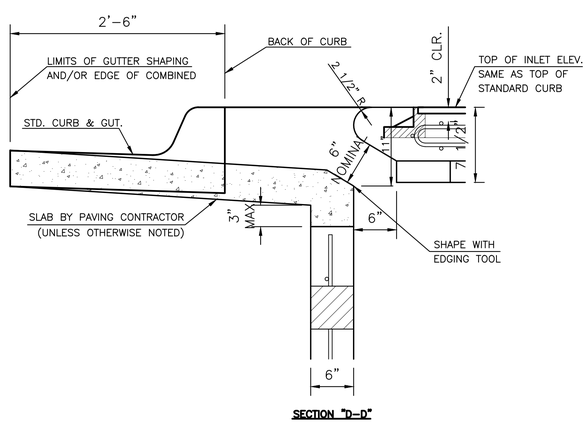




SECTION "A-A"



SECTION "B-B"



SECTION "D-D"

GENERAL NOTES

1. CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.

2. CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP OF THIS INLET WHEN W=5'-0" AND H=7'-0" OR LESS.

3. INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

4. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

5. INLET FRAME AND COVER TO BE DEETER #2014, EJIW #1936-Z4, OR APPROVED EQUAL, SEE SW-303.

6. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET WALL SHALL BE GROUTED FLUSH TO THE INLET WALL WITH HYDRAULIC CEMENT AFTER THE INLET IS IN PLACE. LIFTING HOLES THRU THE INLET WALL WILL NOT BE ACCEPTED.

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DWG NAME 2501010800 UTILITY DETAILS.DWG

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP. 04/30/26

ISSUED FOR PERMIT
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CIVIL PLANS FOR
THE RESERVE AT THE MEADOWS
GODDARD, KS

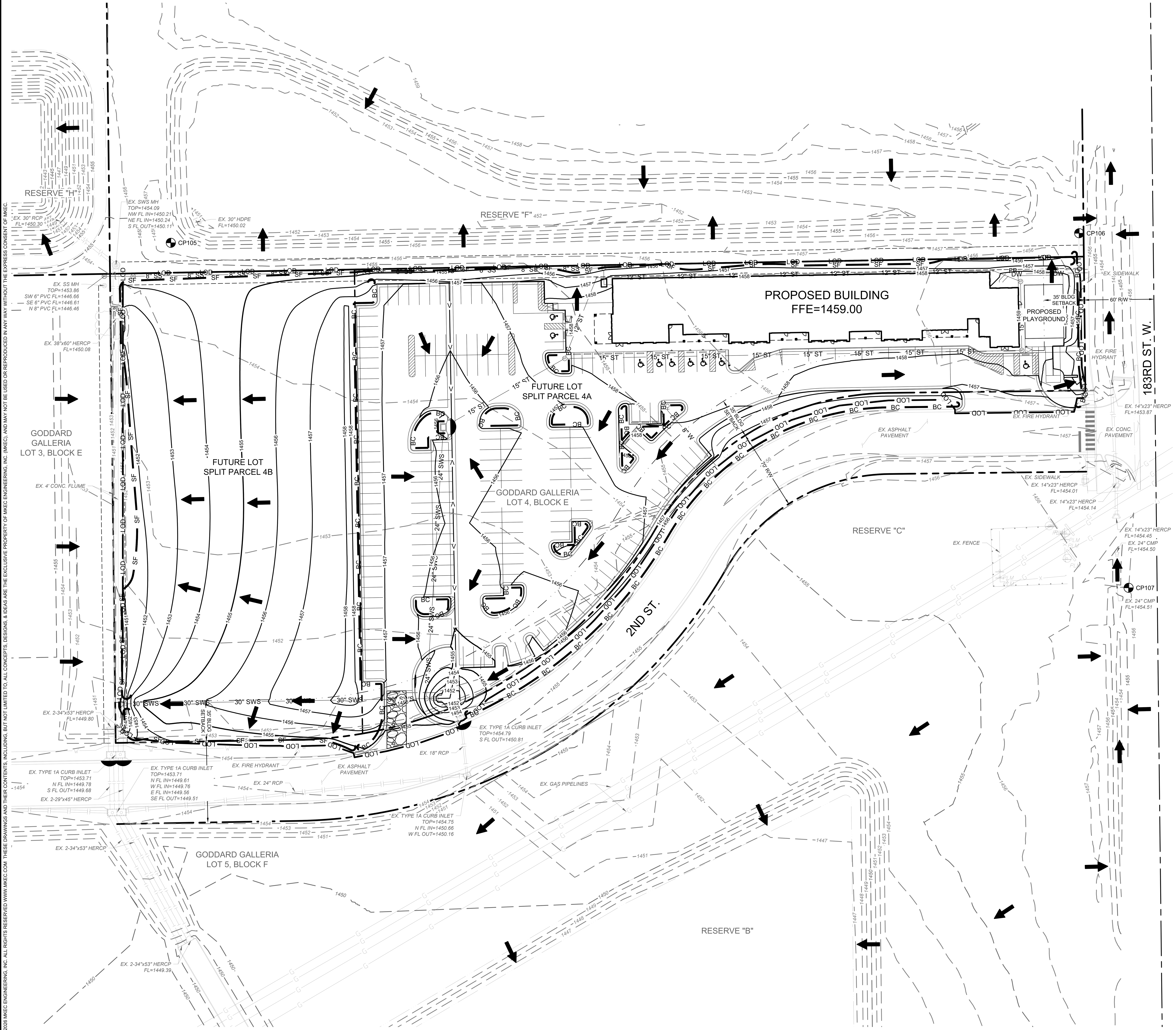
TYPE 1A CURB INLET

PROJECT NO. 2501010800
SCALE NTS

DRAWN	DESIGNED	CHECKED
CNA	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO. C-454



NOTES

1. EROSION CONTROL SHOULD MEET ALL FEDERAL, STATE, COUNTY AND LOCAL CODE STANDARDS.
2. EROSION CONTROL MEASURES MAY ONLY BE PLACED IN FRONT OF INLETS, OR IN CHANNELS, DRAINAGE WAYS OR BORROW DITCHES AT RISK OF CONTRACTOR. CONTRACTOR SHALL REMAIN LIABLE FOR ANY DAMAGE CAUSED BY THE MEASURES, INCLUDING FLOODING DAMAGE, WHICH MAY OCCUR DUE TO BLOCKED DRAINAGE. AT THE CONCLUSION OF ANY PROJECT, ALL CHANNELS, DRAINAGE WAYS AND BORROW DITCHES IN THE WORK ZONE SHALL BE DREDGED OF ANY SEDIMENT GENERATED BY THE PROJECT OR DEPOSITED AS A RESULT OF EROSION CONTROL MEASURES.
3. SEE SEEDING NOTES FOR DISTURBED AREA STABILIZATION OUTSIDE OF HARDSCAPE AND LANDSCAPE AREAS.
4. THE CONTRACTOR SHALL COMPLETE STABILIZATION WHEN SOIL DISTURBING ACTIVITIES CEASE TEMPORARILY AND WILL NOT RESUME FOR 14 DAYS OR MORE.
5. CONTRACTOR SHALL PROVIDE EROSION PROTECTION THROUGHOUT PROJECT CONSTRUCTION. THE PLAN PROVIDED HERE WITHIN IS FOR FINAL PROTECTION. VARIOUS PHASES OF THIS PLAN SHALL BE IMPLEMENTED OR MODIFIED TO CONTROL EROSION.
6. THE CONTRACTOR(S) ARE RESPONSIBLE FOR EROSION CONTROL IN CONFORMATION WITH THE APPROVED DRAWINGS UNTIL PROJECT COMPLETION.
7. ALL EXISTING AND PROPOSED EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND INFORMATION PROVIDED IN THESE PLANS AND MAINTAINED THROUGHOUT CONSTRUCTION BY THE CONTRACTOR UNTIL THE PROJECT IS COMPLETED AND THE EROSION CONTROL MEASURES ARE NO LONGER NEEDED. THE CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH MAINTENANCE AND/OR REPLACEMENT OF EROSION CONTROL MEASURES AS DETERMINED BY THE ENGINEER UNTIL PROJECT IS ACCEPTED OR THE EROSION CONTROL MEASURES ARE NO LONGER NEEDED.
8. IN ORDER TO PREVENT SILT OR SEDIMENT FROM ENTERING ADJACENT PROPERTIES, APPROPRIATE BMP'S SHALL BE IMPLEMENTED WITHIN THE PROJECT.
9. ANY MUD TRACKED ONTO ADJACENT PAVED AREAS OR STREETS SHALL BE REMOVED AT THE END OF EACH WORK DAY.
10. PER THE REQUIREMENTS OF THE NOI/SWPPP, BMP INSPECTION REPORTS SHALL BE COMPLETED BY THE CONTRACTOR WEEKLY AND WITHIN 24 HOURS AFTER A ½" RAIN. REPORTS SHALL BE KEPT WITH THE SWPPP ON SITE.
11. LANDSCAPING ITEMS INCLUDING FENCE PROTECTION ARE SHOWN ON THIS PLAN FOR VISUAL PURPOSES ONLY. REF: LANDSCAPING PLANS FOR ALL TREE PRESERVATION, PROTECTION AND REMOVAL DESIGN ITEMS.
12. CONTRACTOR SHALL PROVIDE A SIGN NEAR THE ENTRANCE WITH THE FOLLOWING INFORMATION:
    - A. CONTACT NAME AND INFORMATION
    - B. A COPY OF THE NOI
    - C. LOCATION OF SWPPP

TOTAL DISTURBED AREA = 5.2 ACRES

LEGEND

Symbol	Description
1456	PROPOSED CONTOURS
1456	EXISTING CONTOURS
	EXISTING SANITARY SEWER
W	EXISTING WATER LINE
	EXISTING STORM WATER SEWER
G	EXISTING GAS LINE
FOC	EXISTING FIBER OPTIC LINE
X	EXISTING FENCE
	PROPERTY LINE
	SETBACK LINE
	EASEMENT LINE
8" SS	PROPOSED SANITARY SEWER
30" SWS	PROPOSED STORM WATER SEWER
8" W	PROPOSED WATER LINE
DW	PROPOSED DOMESTIC WATER LINE
FP	PROPOSED FIRE PROTECTION LINE
>	PROPOSED FLOW LINE
LOD	LIMITS OF DISTURBANCE
SF	SILT FENCE
BC	BACK OF CURB PROTECTION
	INLET PROTECTION
	CONSTRUCTION ENTRANCE
	FLOW ARROW

WARNING

EXISTING UNDERGROUND UTILITIES IN THE AREA CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ANY REPAIRS TO EXISTING UTILITIES DUE TO DAMAGE INCURRED DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE PLANS.

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP: 04/30/26

ISSUED FOR PERMIT
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CIVIL PLANS FOR THE RESERVE AT THE MEADOWS

GODDARD, KS

EROSION CONTROL PLAN

PROJECT NO.	2501010800
SCALE	1"=40'

DRAWN	DESIGNED	CHECKED
LES	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO. C-501

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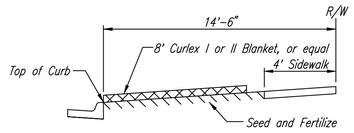
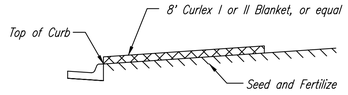
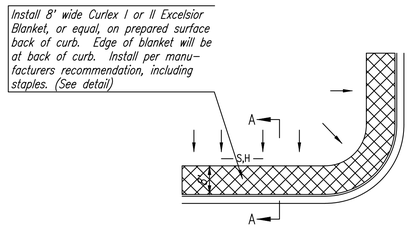
DWG NAME: 250800 EROS PLAN.DWG



SECTION B-B



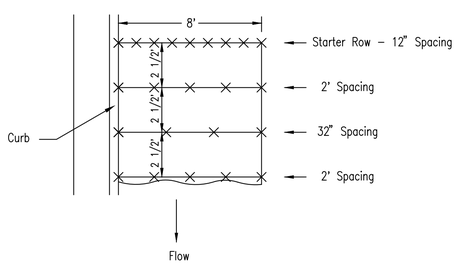
SECTION A-A



NOTES:

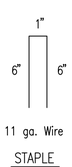
1. EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
2. EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
3. AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE GUTTER, SUPPLEMENTAL EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS NEEDED, TO FIX THE PROBLEM.

BACK OF CURB PROTECTION DETAIL



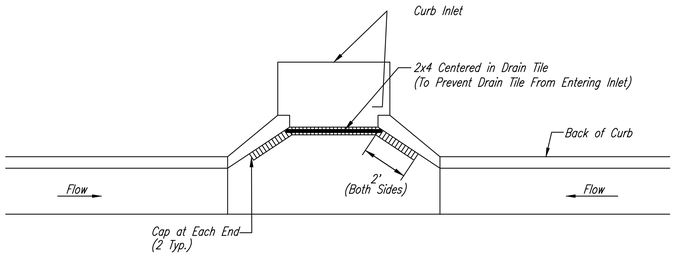
STAPLE PATTERN

NOTES: Use 6" seam overlap



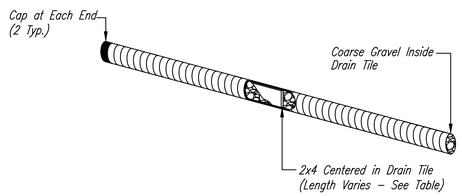
STAPLE

DETAILS FOR CURLEX I OR II BLANKETS

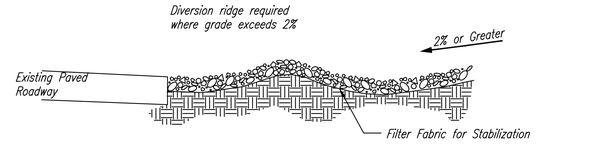


Note:
Place 4" perforated PVC pipe, filled with 1/2"-1" dia. gravel, in front of curb inlet as shown.

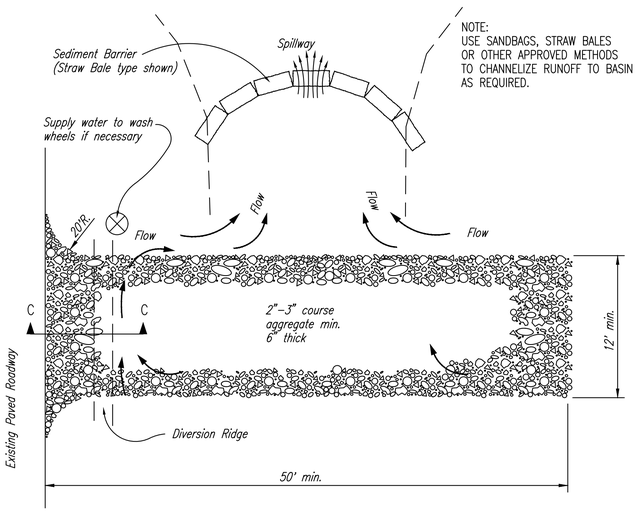
2X4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"



CURB INLET PROTECTION
4" PERFORATED PIPE W/ GRAVEL



SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
4. DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

PLOTTED BY BRYAN.SMITH 3/6/2026 2:15 PM
DWG PATH J:\MKEC PROJECTS\2501\2501010800_JGR_THE RESERVE AT THE MEADOWS\00 CAD\SHT\SU5 CIVIL\SITE
DWG NAME 250800 EROS DTLS.DWG

MKEC
Wichita, KS • 316.684.9600

ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP. 04/30/26

ISSUED FOR PERMIT
NOT FOR CONSTRUCTION

CIVIL PLANS FOR
THE RESERVE AT THE MEADOWS
GODDARD, KS

BMP 1

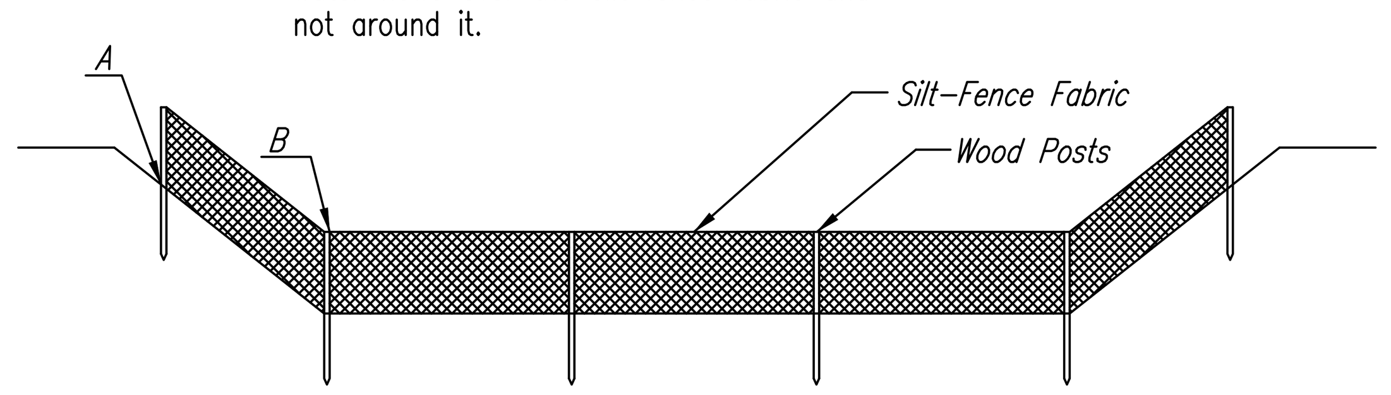
PROJECT NO. 2501010800
SCALE NO SCALE

DRAWN	DESIGNED	CHECKED
LES	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO.
C-502

NOTE: Point A must be higher than Point B so that water flows over the silt fence fabric and not around it.



ELEVATION

SILT FENCE DITCH CHECKS

(STREAM PROTECTION)

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Silt fence fabric should be attached to the wooden posts with staples, wire, zip ties, or nails.

Placement:

Place silt fence in ditches where it is unlikely that it will be overtopped.
Water should flow through a silt fence ditch check, not over it. Silt fence ditch checks often fail when overtopped.
Silt fence ditch checks should be placed perpendicular to the flowline of the ditch.
The silt fence should extend far enough so that the ground level at the ends of the fence is higher than the top of the low point of the fence. This prevents water from flowing around the check.
Silt fence ditch checks should not be placed in ditches where high flows are expected. Rock checks should be used instead.
Silt fence should be placed in ditches with slopes of 6% or less. For slopes steeper than 6%, rock checks should be used.

The following table provides check spacing for a given ditch grade:

Ditch Check Ditch grade (%)	Spacing Check Spacing (feet)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

Proper installation method:

Excavate a trench perpendicular to the ditch flowline that is at least 12" deep by 6" wide.
Extend the trench in a straight line along the entire length of the proposed ditch check.
Place the soil on the upstream side of the trench for later use.
Roll out a continuous length of silt fence fabric on the downstream side of the trench.
Place the edge of the fabric in the trench starting at the top upstream edge of the trench.
Line two sides of the trench with the fabric as shown on detail. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt fence fabric should remain exposed.
Lay the exposed silt fence on the upstream side of the trench to clear an area for driving in the posts. Just downstream of the trench, drive posts into the ground to a depth of at least 24". Place posts no more than 4' apart.
Attach the silt fence to the anchored post with staples, wire, zip ties, or nails.

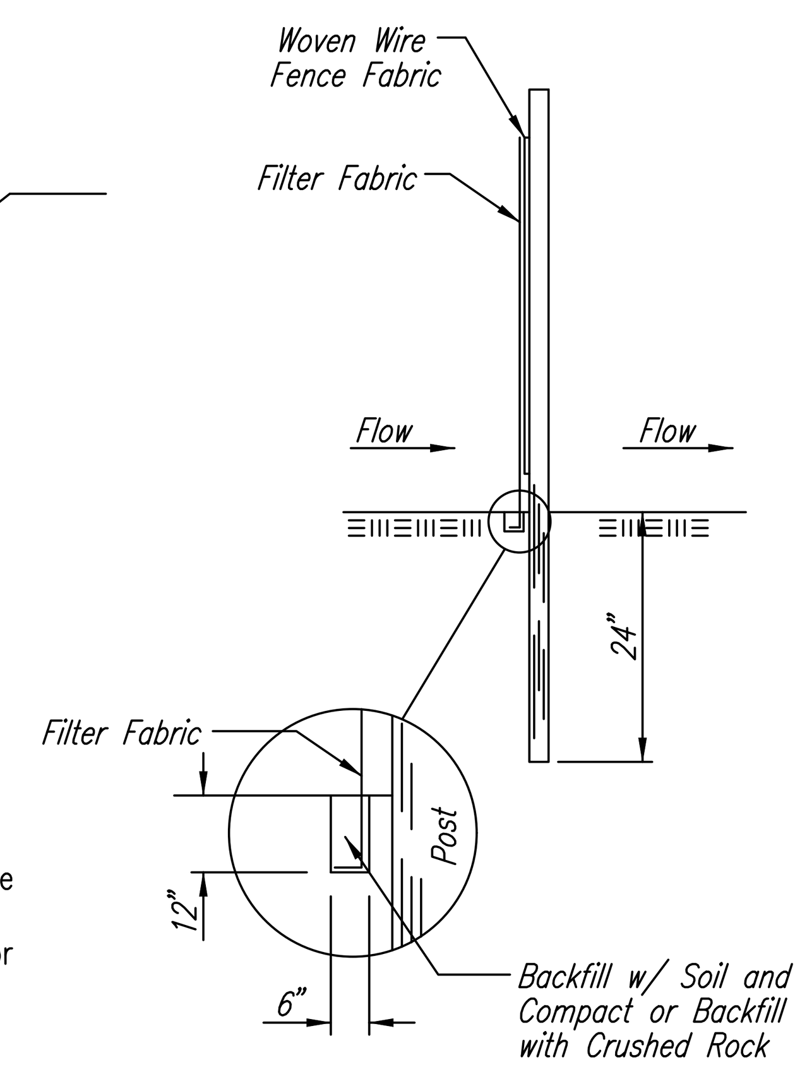
List of common placement/installation mistakes to avoid:

Water should flow through a silt fence ditch check–not over it. Place silt fence in ditches where it is unlikely that it will be overtopped. Silt fence installations quickly deteriorate when water overtops them.
Do not place silt fence posts on the upstream side of the silt fence fabric. In this configuration, the force of the water is not restricted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail.
Do not place a silt fence ditch check directly in front of a culvert outlet. It will not stand up to the concentrated flow.
Do not place silt fence ditch checks in ditches that will likely experience high flows. They will not stand up to concentrated flow.
Follow prescribed ditch check spacing guidelines. If spacing guidelines are exceeded, erosion will occur between the ditch checks.
Do not allow water to flow around the ditch check. Make sure that the ditch check is long enough so that the ground level at the ends of the fence is higher than the low point on the top of the fence.
Do not place silt fence ditch checks in channels with shallow soils underlain by rock. If the check is not anchored sufficiently, it will wash out.

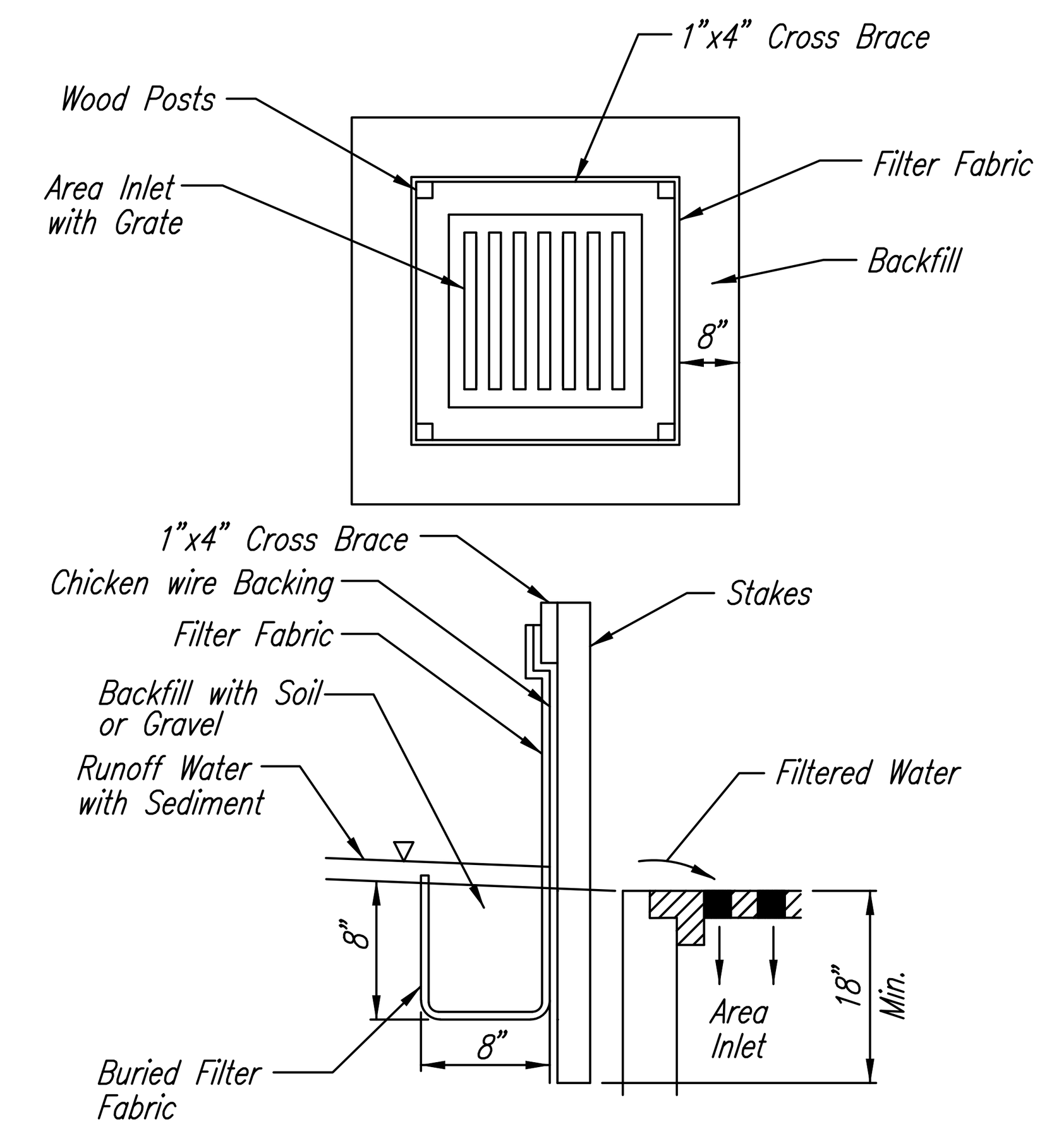
Inspection and Maintenance:

Silt fence ditch checks should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow around the ditch check?
Does water flow under the ditch check?
Does the silt fence sag excessively?
Has the silt fence torn or become detached from the posts?
Does sediment need to be removed from behind the ditch check?



ANCHOR TRENCH DETAIL



SILT FENCE BARRIERS FOR AREA INLETS

(INLET PROTECTION)

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The wire or polymeric mesh backing used to help support the silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
The material used to frame the tops of the posts should be 1" by 4" boards.
Silt fence fabric and support backing should be attached to the wooden posts and frame with staples, wire, zip ties, or nails.

Placement:

Place a silt fence drop inlet barrier in a location where it is unlikely to be overtopped.
Water should flow through silt fence, not over it. Silt fence barriers for area inlets often fail when repeatedly overtopped.
When used as a barrier for area inlets, silt fence fabric and posts must be supported at the top by a wooden frame.
When a silt fence barrier for area inlets is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper installation method:

Excavate a trench around the perimeter of the area inlet that is at least 8" deep by 8" wide.
Drive posts to a depth of at least 18" around the perimeter of the area inlet.
The distance between posts should be 4' or less. If the distance between two adjacent corner posts is more than 4', add another post(s) between them.
Connect the tops of all the posts with a wooden frame made of 1" by 4" boards. Use nails or screws for fastening.
Attach the wire or polymeric–mesh backing to the outside of the post/frame structure with staples, wire, zip ties, or nails.
Roll out a continuous length of silt fence fabric long enough to wrap around the perimeter of the area inlet. Add more length for overlapping the fabric joint. Place the edge of the fabric in the trench, starting at the outside edge of the trench. Line all three sides of the trench with the fabric. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt fence fabric should remain exposed.
Attach the silt fence to the outside of the post/frame structure with staples, wire, zip ties, or nails. The joint should be overlapped to the next post.

Note: When a silt fence barrier for area inlet is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may spread onto the roadway causing a hazardous condition.

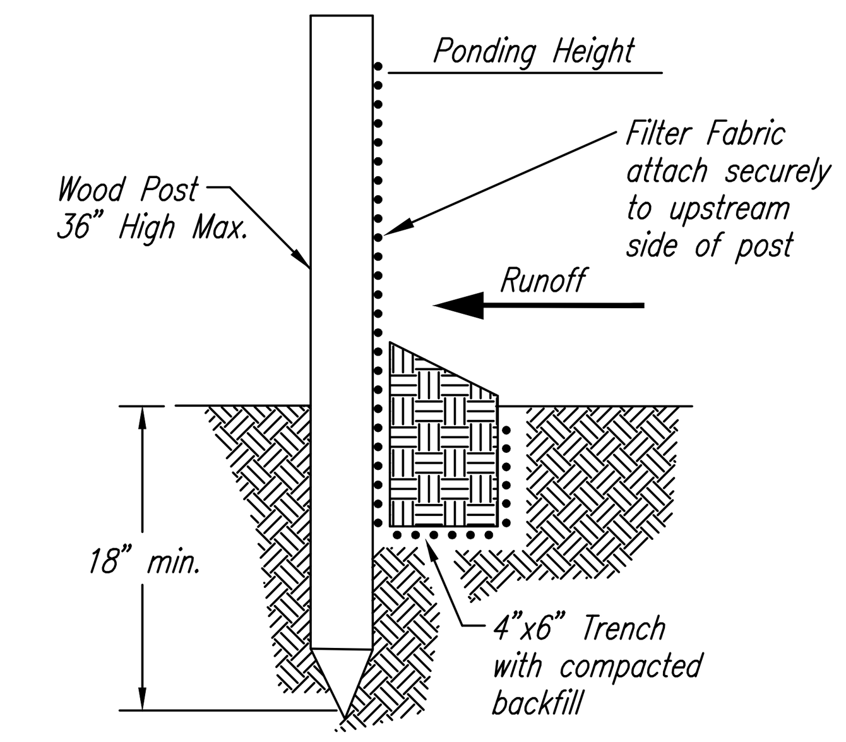
List of common placement/installation mistakes to avoid:

Water should flow through a silt fence barrier for area inlet–not over it. Place a silt fence barrier for area inlet in a location where it is unlikely to be overtopped. Silt fence barrier for area inlets often fail when repeatedly overtopped.
Do not place posts on the outside of the silt fence barrier for area inlet. In this configuration, the force of the water is not resisted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail.
Do not install silt fence barrier for area inlets without framing the top of the posts.
The corner posts around area inlets are stressed in two directions whereas a normal silt fence is only stressed in one direction. This added stress requires more support.

Inspection and Maintenance:

Silt fence barrier for area inlets should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow under the silt fence?
Does the silt fence sag excessively?
Has the silt fence torn or become detached from the posts?
Does sediment need to be removed from behind the area inlet barrier?



SILT FENCE BARRIERS

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification.
The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Silt fence fabric should be attached to the wooden posts with staples, wire, zip ties, or nails.

Placement:

A slope barrier should be used at the toe of a slope when a ditch does not exist. The slope barrier should be placed on nearly level ground 5' to 10' away from the toe of a slope. The barrier is placed away from the toe of the slope to provide adequate storage for settling out sediment.
When practicable, silt fence slope barriers should be placed along contours to avoid a concentration of flow.
Silt fence slope barriers can also be placed along right–of–way fence lines to keep sediment from crossing onto adjacent property. When placed in this manner, the slope barrier will not likely follow contours.

Proper installation method:

Excavate a trench the length of the planned slope barrier that is 6" deep by 4" wide.
Make sure that the trench is excavated along a single contour. When practicable, slope barriers should be placed along contours to avoid a concentration of flow. Place the soil on the upslope side of the trench for later use.
Roll out a continuous length of silt fence fabric on the downslope side of the trench.
Place the edge of the fabric in the trench starting at the top upslope edge. Line all three sides of the trench with the fabric. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt–fence fabric should remain exposed.
Lay the exposed silt fence upslope of the trench to clear an area for driving in the posts.
Just downslope of the trench, drive posts into the ground to a depth of at least 18".
Place posts no more than 4' apart.
Attach the silt fence to the anchored post with staples, wire, zip ties, or nails.

List of common placement/installation mistakes to avoid:

When practicable, do not place silt fence slope barriers across contours. Slope barriers should be placed along contours to avoid a concentration of flow. When the flow concentrates, it overtops the barrier and the silt fence slope barrier quickly deteriorates.
Do not place silt–fence posts on the upslope side of the silt fence fabric. In this configuration, the force of the water is not restricted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail.
Do not place silt fence slope barriers in areas with shallow soils underlain by rock. If the barrier is not sufficiently anchored, it will wash out.
Silt fence slope barriers must be dug into the ground–silt fence at ground level does not work because water will flow underneath.

Inspection and Maintenance:

Silt fence slope barriers should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Are there any points along the slope barrier where water is concentrating?
Does water flow under the slope barrier?
Do the silt fences sag excessively?
Has the silt fence torn or become detached from the posts?
Does sediment need to be removed from behind the slope barrier?

MKEC
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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP: 04/30/26

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CIVIL PLANS FOR
THE RESERVE AT THE MEADOWS
GODDARD, KS

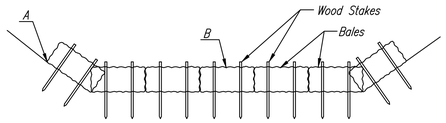
BMP 2

PROJECT NO.		
2501010800		
SCALE		
NO SCALE		
DRAWN	DESIGNED	CHECKED
LES	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO.
C-503

NOTE: Point A must be higher than Point B
so that water flows over the bales and
not around them.



STRAW BALE DITCH CHECKS

Material Specification:

Bale ditch checks may be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture.
The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Optional: The downstream scour apron should be constructed of a double-netted straw erosion-control blanket at least 6' wide.
Optional: The metal landscape staples used to anchor the erosion-control blanket should be at least 8" long.

Placement:

Bale ditch checks should be placed perpendicular to the flowline of the ditch.
The ditch check should extend far enough so that the ground level at the ends of the check is higher than the top of the lowest center bale. This prevents water from flowing around the check.
Straw bale ditch checks should not be placed in ditches where high flows are expected. Rock checks should be used instead.
Bales should be placed in ditches with slopes of 6% or less. For slopes steeper than 6%, rock checks should be used.
The following table provides check spacing for a given ditch grade:

Ditch grade (%)	Check Spacing (feet)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

Proper installation method:

Excavate a trench perpendicular to the ditch flowline that is 4" deep and a bale's width wide. Extend the trench in a straight line along the entire length of the proposed ditch check. Place the soil on the upstream side of the trench-it will be used later.
Optional: On the downstream side of the trench, roll out a length of erosion-control blanket (scour apron) equal to the length of the trench. Place the upstream edge of the erosion-control blanket along the bottom upstream edge of the trench. The erosion control blanket should be anchored in the trench with one row of 8" landscape staples placed on 18" centers. The remainder of the erosion-control blanket (the portion that is not lying in the trench) will serve as the downstream scour apron. This section of the blanket should be anchored to the ground with 8" landscape staples placed around the perimeter of the blanket on 18" centers. The remainder of the blanket should be anchored using two evenly spaced rows of 8" landscape staples on 18" centers placed perpendicular to the flowline of the ditch.
Place the bales in the trench, making sure that they are butted tightly. Two stakes should be driven through each bale along the centerline of the ditch check, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground.
Once all the bales have been installed and anchored, place the excavated soil against the upstream side of the check and compact it. The compacted soil should be no more than 3" to 4" deep and extend upstream no more than 24".

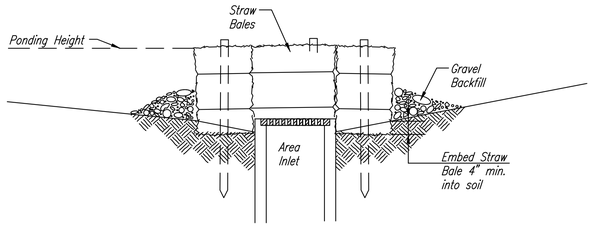
List of common placement/installation mistakes to avoid:

Do not place a bale ditch check directly in front of a culvert outlet. It will not stand up to the concentrated flow.
Do not place bale ditch checks in ditches that will likely experience high flows. They will not stand up to concentrated flow.
Follow prescribed ditch-check spacing guidelines. If spacing guidelines are exceeded, erosion will occur between the ditch checks.
Do not allow water to flow around the ditch check. Make sure that the ditch check is long enough so that the ground level at the ends of the check is higher than the top of the lowest center bale.
Do not place bale ditch checks in channels with shallow soils underlain by rock. If the check is not anchored sufficiently, it will wash out.
Bale ditch checks must be dug into the ground. Bales at ground level do not work because they allow water to flow under the check.

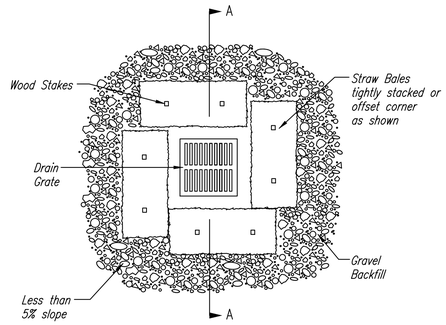
Inspection and Maintenance:

Bale ditch checks should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow around the ditch check?
Does water flow under the ditch check?
Does water flow through spaces between abutting bales?
Are any bales and/or scour aprons (optional) dislodged?
Are bales decomposing due to age and/or water damage?
Does sediment need to be removed from behind the ditch check?



SECTION A-A



STRAW BALE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

Material Specification:

Bale area inlet barriers should be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture.
The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Twine should be used to bind bales. The use of wire binding is prohibited because it does not biodegrade readily.

Placement:

Bale area inlet barriers should be placed directly around the perimeter of a drop inlet.
When a bale area inlet barrier is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper Installation Method:

Excavate a trench around the perimeter of the area inlet that is at least 4" deep by a bale's width wide.
Place the bales in the trench, making sure that they are butted tightly. Some bales may need to be shortened to fit into the trench around the area inlet. Two stakes should be driven through each bale, approximately 6" to 8" in from the bale ends.
Stakes should be driven at least 12" into the ground.
Once all the bales have been installed and anchored, place the excavated soil against the receiving side of the barrier and compact it. The compacted soil should be no more than 3" to 4" deep.
Note: When a bale area inlet barrier is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may spread onto the roadway causing a hazardous condition.

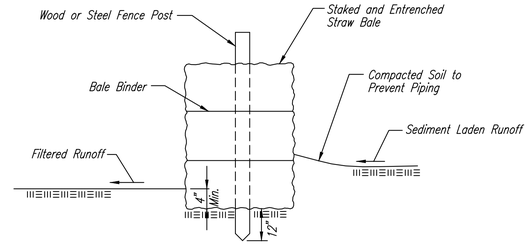
List of common placement installation mistakes to avoid:

Bales should be placed directly against the perimeter of the area inlet. This allows overtopping water to flow directly into the inlet instead of onto nearby soil causing scour.
Bale area inlet barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

Inspection and Maintenance:

Bale area inlet barriers should be inspected every 7 days and within 24 hours of a rainfall 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow under the area inlet barrier?
Does water flow through spaces between abutting bales?
Are any bales dislodged?
Are bales decomposing due to age and/or water damage?
Does sediment need to be removed from behind the area inlet barrier?



STRAW BALE BARRIERS

Material Specification:

Bale slope barriers may be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture.
The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.
Twine should be used to bind bales. The use of wire binding is prohibited because it does not biodegrade readily.

Placement:

A slope barrier should be used at the toe of a slope when a ditch does not exist. The slope barrier should be placed on nearly level ground 5' to 10' away from the toe of a slope. The barrier is placed away from the toe of the slope to provide adequate storage for settling out sediment.
When practicable, bale slope barriers should be placed along contours to avoid a concentration of flow.
Bale slope barriers can also be placed along right-of-way fence lines to keep sediment from crossing onto adjacent property. When placed in this manner, the slope barrier will not likely follow contours.

Proper installation method:

Excavate a trench the length of the planned slope barrier that is 4" deep and a bale's width wide. Make sure that the trench is excavated along a single contour. When practicable, slope barriers should be placed along contours to avoid a concentration of flow. Place the soil on the upslope side of the trench for later use.
Place the bales in the trench, making sure that they are butted tightly. Two stakes should be driven through each bale along the centerline of the ditch check, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground.
Once all the bales have been installed and anchored, place the excavated soil against the upslope side of the check and compact it. The compacted soil should be no more than 3" to 4" deep.

List of common placement/installation mistakes to avoid:

When practical, do not place bale slope barriers across contours. Slope barriers should be placed along contours to avoid a concentration of flow. Concentrated flow over a slope barrier creates a scour hole on the downslope side of the barrier. The scour hole eventually undermines the bales and the barrier fails.
Do not place bale slope barriers in areas with shallow soils underlain by rock. If the barrier is not anchored sufficiently, it will wash out.
Bale slope barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

Inspection and Maintenance:

Bale slope barriers should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Are there any points along the slope barrier where water is concentrating?
Does water flow under the slope barrier?
Does water flow through spaces between abutting bales?
Are any bales dislodged?
Are bales decomposing due to age and/or water damage?
Does sediment need to be removed from behind the slope barrier?

PLOTTED BY BRYAN SMITH-3/6/2026 2:15 PM
PATH J:\PROJECTS\2025\2501010800_JGR_THE RESERVE AT THE MEADOWS\00 CAD\SHTS\05 CIVIL\SITE
DWG NAME 2501010800 EROS DTLS.DWG

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ENGINEER: SCOTT P. EVANS
P.E. NO. 24423 EXP. 04/30/26

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CIVIL PLANS FOR

THE RESERVE AT THE MEADOWS

GODDARD, KS

BMP 3

PROJECT NO. 2501010800

SCALE NO SCALE

DRAWN	DESIGNED	CHECKED
LES	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

SHEET NO. C-504

GENERAL NOTES:

1. THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPES OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.

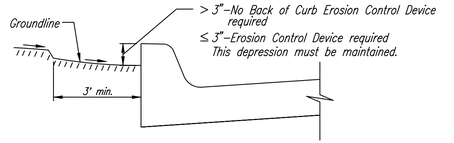
2. EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL THE DISTURBED EARTH IS RESTABILIZED.

3. IF THE PROJECT WILL DISTURB 1 ACRE OR MORE, A FEDERAL/STATE NPDES STORMWATER PERMIT IS REQUIRED. A DETAILED STORMWATER POLLUTION PREVENTION PLAN, IS REQUIRED. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED TO BE THE MINIMUM TO BE SHOWN IN THE POLLUTION PREVENTION PLAN.

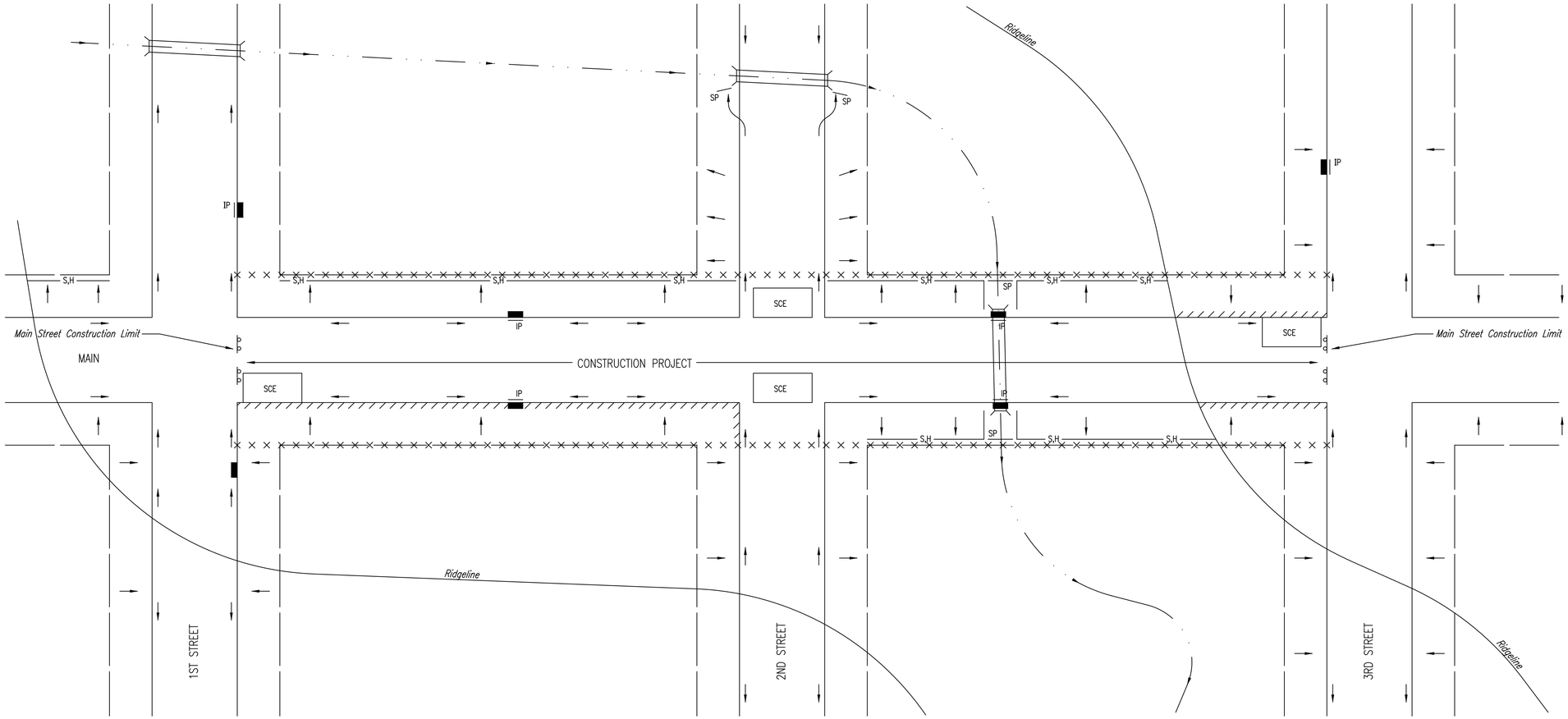
4. FOR PROJECTS DISTURBING LESS THAN 1 ACRE, CONTRACTORS ARE ENCOURAGED TO PREPARE STORMWATER POLLUTION PREVENTION PLANS PRIOR TO CONSTRUCTION. EROSION CONTROL DEVICES MUST BE USED ON ALL PROJECTS.

5. FAILURE TO USE AND MAINTAIN EROSION CONTROL DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE CONTRACTOR TO THE PENALTIES PROVIDED FOR THEREIN.

6. THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT DEVICE OTHER THAN THOSE SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED AS LONG AS THEY ARE EFFECTIVE AND MAINTAINED.



CURB BACKFILL DETAIL



LEGEND

- R–O–W LIMITS
- DRAINAGE FLOW PATH
- R/W LIMIT WITHIN CONSTRUCTION LIMIT
- STORM WATER INLETS
- IP — INLET PROTECTION
- S,H — SILT FENCE OR HAY BALE BARRIER
- SP — STREAM PROTECTION
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- BACK OF CURB PROTECTION

NOTES:

1. THE INTENT OF ALL EROSION CONTROL DEVICES IS TO KEEP ALL SEDIMENT CONFINED TO THE CONSTRUCTION SITE, AND OUT OF ALL UNDERGROUND PIPES, DITCHES, LAKES, AND OTHER DRAINAGE FACILITIES, AND OFF OF STREETS.

2. THE POINT OF COMPLIANCE IS GENERALLY THE RIGHT–OF–WAY LINES WITHIN THE LIMITS OF CONSTRUCTION.

3. EROSION CONTROL DEVICES WILL BE REQUIRED AT ALL POINTS ALONG THE PROJECT WHERE DISTURBED EARTH CAN DRAIN ONTO PRIVATE PROPERTY.

4. INLET PROTECTION DEVICES WILL BE REQUIRED WHEREVER WATER CAN DRAIN OFF THE PROJECT SITE INTO AN INLET, INCLUDING ANY SIDE STREET INLETS.

5. EROSION CONTROL DEVICES SHALL BE INSTALLED AT CREEK CROSSINGS SO AS TO PREVENT SEDIMENT FROM ENTERING THEREIN.

6. STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED, AS NEEDED, TO PREVENT MUD FROM TRACKING ONTO STREETS NOT UNDER CONSTRUCTION AND ON STREETS WITHIN THE PROJECT LIMITS IF TRAFFIC IS BEING MAINTAINED THROUGH THE PROJECT.

7. ANY MUD TRACKED ONTO STREETS MUST BE REMOVED AT THE END OF EACH WORK DAY.

8. THE CONTRACTOR WILL BE REQUIRED TO PLACE EROSION CONTROL DEVICES BACK OF CURB, WHENEVER WATER CAN DRAIN OVER CURB, TO KEEP ERODED SOIL OUT OF THE GUTTERLINES, IN ACCORDANCE WITH THE FOLLOWING:
   A. THE DEVICE REQUIRED WILL BE CURLEX I OR II EXCELSIOR BLANKET, OR EQUAL. SAID BLANKET SHALL BE PLACED OVER THE APPROPRIATE SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS. (SEE SOIL EROSION BMPs – BACK OF CURB SEDIMENT BARRIER DETAILS)
   B. THIS DEVICE SHALL BE INSTALLED IMMEDIATELY WHENEVER THE CURB IS BACKFILLED TO WITHIN 3" OF THE TOP OF CURB. (SEE CURB BACKFILL DETAIL) OTHER BMP'S MAY BE REQUIRED AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB.
   C. ADDITIONALLY, OTHER EROSION CONTROL DEVICES (HAY BALES, SILT FENCE, ETC.) WILL BE INSTALLED AT LOCATIONS OF CONCENTRATED FLOW RESULTING IN SEDIMENT OVERRUNNING THE MAT.
   D. SHOULD THE PROJECT PLANS SPECIFY THAT THE RIGHT–OF–WAY IS TO BE SODDED, THE EXCELSIOR MAT WILL NOT BE REQUIRED SO LONG AS THE SOD IS PLACED WITHIN 48 HOURS AFTER CURB BACKFILL REACHES A HEIGHT OF 3" OR LESS FROM TOP OF CURB. (SEE CURB BACKFILL DETAIL)

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CIVIL PLANS FOR

THE RESERVE AT THE MEADOWS

GODDARD, KS

BMP 4

PROJECT NO. 2501010800

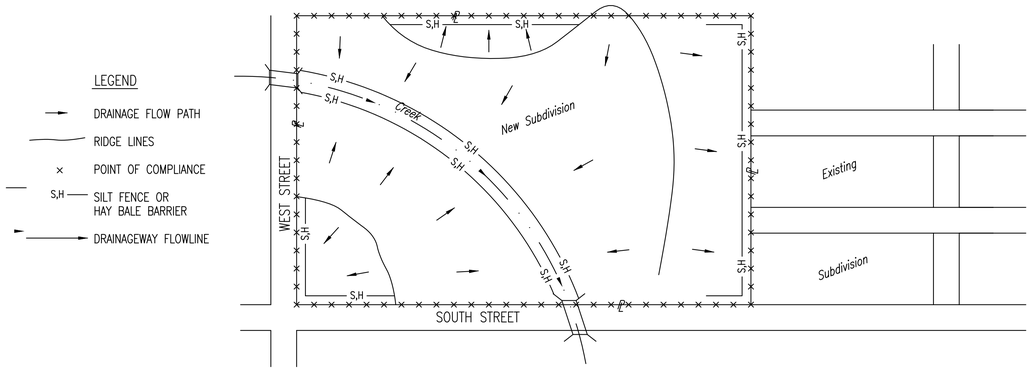
SCALE NO SCALE

DRAWN	DESIGNED	CHECKED
LES	TMBB	SPE

NO.	REVISION	DATE
0	ISSUED FOR PERMIT	03/06/26

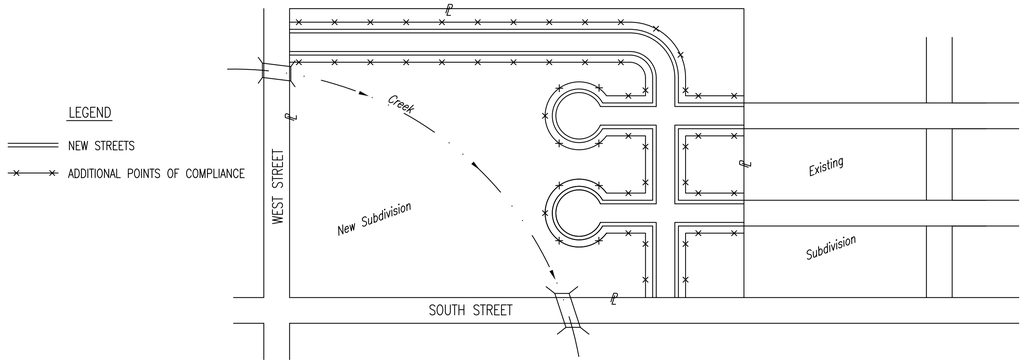
SHEET NO. C-505

PHASE 1 – INITIAL EARTHWORK AND UTILITIES (EXCEPT STORM SEWER)



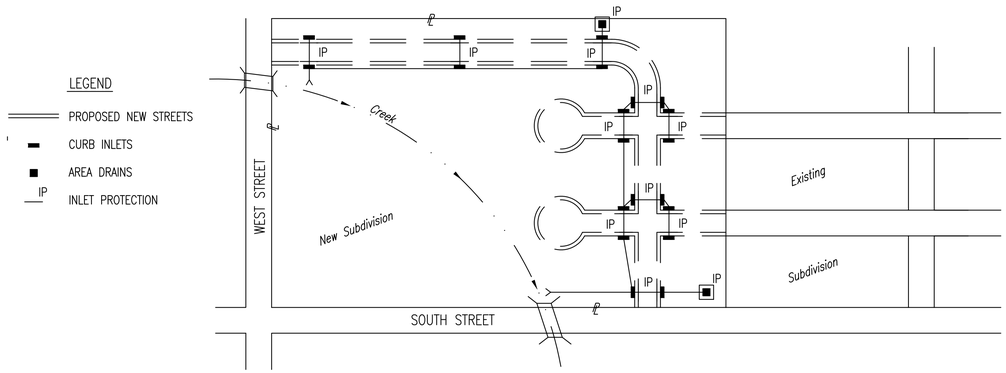
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
2. HAY BALES OR SILT FENCE MUST BE CONSTRUCTED ALONG THE PROPERTY LINE WHERE ON SITE WATER CAN DRAIN OFF THE PROPERTY. THESE EROSION CONTROL DEVICES WILL ALSO BE INSTALLED ALONG ANY DRAINAGE DITCH OR LAKE THAT CAN DISCHARGE.
3. SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR STREETS ON THE ADJACENT BOUNDARY STREETS, APPROPRIATE EROSION CONTROL DEVICES WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
4. ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED WITHIN 48 HOURS OR BY FRIDAY AT 6:00 PM, WHICHEVER IS EARLIER.
5. CONTRACTORS WORKING WITHIN THE SITE WILL NOT BE REQUIRED TO USE INDIVIDUAL EROSION CONTROL DEVICES AS LONG AS THOSE SPECIFIED ABOVE ARE IN PLACE AND EFFECTIVE. CONTRACTORS WORKING ON THE BOUNDARY LINE STREETS OR ON ADJACENT PROPERTIES TO EXTEND UTILITIES ARE EXPECTED TO USE EROSION CONTROL DEVICES AT THEIR WORK LOCATIONS, AS NEEDED.
6. UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXIT ONTO ANY EXISTING PUBLIC STREETS.
7. IF THE INITIAL EARTH WORK AND UTILITIES ARE DONE AS PART OF A PUBLIC IMPROVEMENT PROJECT, THESE EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS SPECIFIED IN THE INDIVIDUAL PROJECT CONTRACTS. THE CONTRACTOR WILL MAINTAIN THE DEVICES UNTIL COMPLETION OF THE CONTRACT, AT WHICH TIME THE DEVELOPER WILL ASSUME MAINTENANCE RESPONSIBILITIES. IF THESE CONTRACTS ARE NOT PUBLIC IMPROVEMENT PROJECTS, THE DEVELOPER WILL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THESE DEVICES.
8. WITHIN 14 DAYS OF COMPLETION OF EARTHWORK ACTIVITIES IN ANY GIVEN AREA, THAT AREA SHALL BE TEMPORARILY OR PERMANENTLY SEEDED AND MULCHED.

PHASE 3 – STREET CONSTRUCTION



1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL EROSION CONTROL DEVICES INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
2. CURB OPENING INLET PROTECTION:
   A. SUMP AREAS – INLET PROTECTION SHALL BE PROVIDED WHEN STREET SUBGRADE WORK IS COMPLETED.
   B. NON–SUMP LOCATIONS – PROVIDE INLET PROTECTION AS SOON AS BASE COURSE ASPHALT IS INSTALLED, BEFORE THE SURFACE COURSE LIFT.
3. EROSION CONTROL DEVICES WILL BE REQUIRED BACK OF CURB WHEREVER WATER CAN FLOW OVER THE CURB AND THE CURB HAS BEEN BACKFILLED TO WITHIN 3" OR LESS OF THE TOP OF CURB (SEE CURB BACKFILL DETAIL). FOR CURBS NOT YET ENTIRELY BACKFILLED (3" OR MORE BELOW TOP OF CURB), ADDITIONAL DEVICES WILL BE REQUIRED AT POINTS WHERE WATER BREAKS OVER CURB WHICH COULD RESULT IN THE PLACEMENT OF SEDIMENT IN THE GUTTER.
4. SEE DETAIL SHEET FOR BACK OF CURB PROTECTION.
5. THE BACK OF CURB PROTECTION SPECIFIED ON THIS PLAN MAY HAVE TO BE SUPPLEMENTED WITH HAY BALE OR SILT FENCE EROSION CONTROL DEVICES AT LOCATIONS WHERE CONCENTRATED FLOW RESULTS IN SEDIMENT BEING CARRIED OVER THE EXCELSIOR MATS.
6. THE STREET CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING BACK OF CURB EROSION CONTROL DEVICES.
7. THE INDIVIDUAL LOT OWNERS WILL BE RESPONSIBLE FOR MAINTAINING THE BACK OF CURB EROSION CONTROL DEVICES IN FRONT OF THEIR LOTS UNTIL SUCH TIME AS ADJACENT DISTURBED EARTH IS STABILIZED WITH GRASS OR SOD.

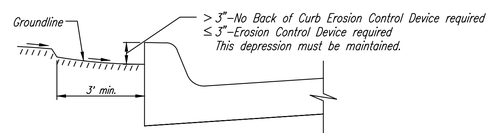
PHASE 2 – INSTALLATION OF STORM SEWER



1. DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL EROSION CONTROL DEVICES REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
2. AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
3. AREA DRAINS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, HAY BALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
4. CURB OPENING INLETS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION DEVICES MUST BE INSTALLED. IF WATER CANNOT FLOW INTO CURB INLETS UNTIL STREET CONSTRUCTION IS COMPLETE, THEN STREET CONTRACTOR WILL INSTALL INLET PROTECTION. SEE PHASE 3 – STREET CONSTRUCTION.
5. THE STORM SEWER CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THESE DEVICES.
6. THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE EROSION CONTROL DEVICES ONCE INSTALLED.
7. ALL DISTURBED GROUND WILL BE FINAL GRADED AND TEMPORARILY OR PERMANENTLY SEEDED WITHIN 14 DAYS IF COMPLETION OF WORK IN ANY GIVEN PART OF THE SUBDIVISION.
8. ONCE ALL DISTURBED GROUND DRAINING TO AN INLET HAS BEEN RESTABILIZED WITH GRASS OR SOD, THE SUBDIVISION DEVELOPER WILL BE RESPONSIBLE FOR PERMANENTLY REMOVING THE INLET PROTECTION.

GENERAL NOTES:
1. THE INTENT OF ALL EROSION CONTROL DEVICES IS TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS, LAKES, STREETS OR ANY OTHER OTHER DRAINAGE FEATURE.
2. THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
3. EROSION CONTROL DEVICES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS TO REMAIN EFFECTIVE. MAINTENANCE SHALL BE AS INDICATED ON SOIL EROSION BMP'S DETAIL SHEETS.
4. PERSONS DESTROYING EROSION CONTROL DEVICES SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING THEM OR INSTALLING SUITABLE REPLACEMENT DEVICES.
5. THE DEVELOPMENT OF ANY SUBDIVISION THAT DISTURBS 1 ACRE OR MORE WILL REQUIRE A FEDERAL/STATE NPDES STORMWATER PERMIT. THE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN IS REQUIRED. EROSION CONTROL DEVICES ARE REQUIRED. THE DETAILS SHOWN ON THIS SHEET ARE THE MINIMUM STANDARDS TO BE SHOWN ON POLLUTION PREVENTION PLANS.
6. FOR SUBDIVISIONS SMALLER THAN 1 ACRE, SOIL EROSION DEVICES ARE REQUIRED. ALSO, DEVELOPERS AND CONTRACTORS ARE ENCOURAGED TO DEVELOP POLLUTION PREVENTION PLANS FOR EACH PROJECT PRIOR TO CONSTRUCTION.
7. FAILURE TO USE AND MAINTAIN SOIL EROSION DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE SUBDIVISION DEVELOPER AND CONTRACTORS TO THE PENALTIES PROVIDED THEREIN.
8. THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE DEVICES OTHER THAN THAT SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED SO LONG AS THEY ARE EFFECTIVE AND MAINTAINED.
9. A STABILIZED EARTH SURFACE IS DEFINED AS ONE THAT IS HARD SURFACED WITH CONCRETE, ASPHALT, OR THE LIKE, OR ONE ON WHICH 70% OF THE GRASS HAS GERMINATED ON THE ENTIRE SURFACE.

SEE DETAIL SHEET FOR
BACK OF CURB PROTECTION DETAIL



CURB BACKFILL DETAIL
(STREET CONSTRUCTION ONLY)

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ENGINEER: SCOTT P. EVANS
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CIVIL PLANS FOR

THE RESERVE AT THE MEADOWS

GODDARD, KS

BMP 5

PROJECT NO. 2501010800

SCALE NO SCALE

DRAWN	DESIGNED	CHECKED
LES	TMBB	SPE

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SHEET NO.
C-506