GENERAL CONSTRUCTION NOTES

OWNER DIRECTLY FROM THE TESTING AGENCY.

EROSION CONTROL MAINTENANCE

UNDERMINING, OR DETERIORATION.

CONDITIONS DEMAND.

FOLLOWING ACTIVITIES:

REFER TO THE STANDARD SPECIFICATIONS.

CALENDAR DAYS FOLLOWING THE INSPECTION.

EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.

TYPICAL OWNER/ENGINEER OBSERVATIONS

CONTRACTOR SHALL NOTIFY OWNER AND/OR ENGINEER 48 HOURS IN ADVANCE OF THE

- PRE-CONSTRUCTION MEETING, SUBGRADE PREPARATION, BASE INSTALLATION

INSTALLATION, CONNECTIONS TO WATER AND SEWER MAINS, TESTS OF UTILITIES

INSTALLATION OF STRUCTURES, CHECK VALVES, HYDRANTS, METERS, ETC., SIDEWALK

ASPHALT INSTALLATION, UNDERGROUND PIPING AND UTILITIES INSTALLATION.

- 1. THE CONTRACTOR AND SUBCONTRACTORS SHALL OBTAIN A COPY OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" (LATEST EDITION) AND BECOME FAMILIAR WITH THE CONTENTS PRIOR TO COMMENCING WORK, AND, UNLESS OTHERWISE NOTED, ALL WORK SHALL CONFORM AS APPLICABLE TO THESE STANDARDS AND SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL CLEAR AND GRUB ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, EXISTING PAVEMENT AND ALL OTHER DELETERIOUS MATERIAL.
- 3. THE EXISTING SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS QUALITY LEVEL "D" UNLESS OTHERWISE NOTED. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ACSE 38/02, ENTITLED STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF SUBSURFACE QUALITY DATA BY THE FHA. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE COMMENCING ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND 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, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
- 4. 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. THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS IF REQUIRED PRIOR TO CONSTRUCTION.
- 6. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL. TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, GEOTECHNICAL REPORT AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
- 7. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN
- ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER.

 8. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF MINNESOTA PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.
- 10. ANY WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED.
- 11. ANY WELL DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.
- 13. SHOULD CONTRACTOR ENCOUNTER ANY DEBRIS LADEN SOIL, STRUCTURES NOT IDENTIFIED IN THE DOCUMENTS, OR OTHER SOURCE OF POTENTIAL CONTAMINATION, THEY SHALL IMMEDIATELY CONTACT THE ENGINEER AND OWNER.

ALL MEASURES STATED ON THE EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER

POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION AS REQUIRED BY ALL

JURISDICTIONS UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF

THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A CERTIFIED

PERSON AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL

1. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS

2. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE

3. THE CONSTRUCTION ENTRANCE(S) SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT

4. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR

5. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER BUT IN NO CASE LATER THAN 2

TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING

PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS

REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE SILT FENCE.

SHOULD BE FERTILIZED, WATERED AND RESEEDED AS NEEDED. FOR MAINTENANCE REQUIREMENTS

INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF

EROSION CONTROL NOTES

- 1. THE STORM WATER POLLUTION PREVENTION PLAN ("SWPPP") IS COMPRISED OF THE EROSION CONTROL PLAN, THE STANDARD DETAILS, THE PLAN NARRATIVE, ATTACHMENTS INCLUDED IN THE SPECIFICATIONS OF THE SWPPP, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
- 2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF MINNESOTA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS
- 3. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE PERMITTING AGENCY OR OWNER.
- 4. SITE ENTRY AND EXIT LOCATIONS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ON A PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY. WHEN WASHING IS REQUIRED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN. ALL FINES IMPOSED FOR DISCHARGING SEDIMENT ONTO PUBLIC AREAS SHALL BE PAID BY THE CONTRACTOR.
- 5. TEMPORARY SEEDING OR OTHER APPROVED METHODS OF STABILIZATION SHALL BE INITIATED WITHIN 7 DAYS OF THE LAST DISTURBANCE ON ANY AREA OF THE SITE.
- 6. THE CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
- 7. CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
- 8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
- SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
- 11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
- WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

 12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE PLAN SHALL BE INITIATED AS SOON AS IS PRACTICABLE.
- 13. ALL STAGING AREAS, STOCKPILES, SPOILS, ETC. SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. OTHERWISE, COVERING OR ENCIRCLING THESE AREAS WITH SOME PROTECTIVE MEASURE WILL BE NECESSARY.
- 14. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING ANY EROSION CONTROL DEVICE WHICH THEY DISTURB. EACH CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DEFICIENCIES IN THE ESTABLISHED EROSION CONTROL MEASURES THAT MAY LEAD TO UNAUTHORIZED DISCHARGE OR STORM WATER POLLUTION, SEDIMENTATION, OR OTHER POLLUTANTS. UNAUTHORIZED POLLUTANTS INCLUDE (BUT ARE NOT LIMITED TO) EXCESS CONCRETE DUMPING OR CONCRETE RESIDUE, PAINTS,
- SOLVENTS, GREASES, FUEL AND LUBRICANT OIL, PESTICIDES, AND ANY SOLID WASTE MATERIALS.

 15. EROSION CONTROL DEVICES SHOWN ON THESE PLANS SHALL BE INSTALLED PRIOR TO THE START OF LAND-DISTURBING ACTIVITIES ON THE PROJECT.
- 16. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THIS PROJECT. CHANGES ARE TO BE APPROVED BEFORE CONSTRUCTION BY THE DESIGN ENGINEER AND THE CITY OF BLOOMINGTON ENGINEERING DIVISION.
- 17. IF THE EROSION CONTROL PLAN AS APPROVED CANNOT CONTROL EROSION AND OFF-SITE SEDIMENTATION FROM THE PROJECT, THE EROSION CONTROL PLAN WILL HAVE TO BE REVISED AND/OR ADDITIONAL EROSION CONTROL DEVICES WILL BE REQUIRED ON SITE. ANY REVISIONS TO THE EROSION CONTROL PLAN MADE BY THE CONTRACTOR MUST BE APPROVED BY THE ENGINEER.

PAVING AND STRIPING NOTES

- 1. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN JURISDICTION'S RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR MINNESOTA/DOT SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS
- ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D) AND CITY STANDARDS.
- CONTRACTOR SHALL FURNISH ALL PAVEMENT MARKINGS FOR FIRE LANES, ROADWAY LANES, PARKING STALLS, ACCESSIBLE PARKING SYMBOLS, ACCESS AISLES, STOP BARS AND SIGNS, AND MISCELLANEOUS STRIPING WITHIN THE PARKING LOT AS SHOWN ON THE PLANS.
- 4. ALL EXPANSION JOINTS SHALL EXTEND THROUGH THE CURB.
- 5. THE MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS SHALL BE 2 FEET.
- ALL JOINTS, INCLUDING EXPANSION JOINTS WITH REMOVABLE TACK STRIPS, SHALL BE SEALED WITH JOINT SEALANT.
- 7. THE MATERIALS AND PROPERTIES OF ALL CONCRETE SHALL MEET THE APPLICABLE REQUIREMENTS IN THE A.C.I. (AMERICAN CONCRETE INSTITUTE) MANUAL OF CONCRETE PRACTICE.
- 8. CONTRACTOR SHALL APPLY A SECOND COATING OVER ALL PAVEMENT MARKINGS PRIOR TO ACCEPTANCE BY OWNER FOLLOWED BY A COAT OF GLASS BEADS AS APPLICABLE PER THE PROJECT DOCUMENTS.
- 9. ANY EXISTING PAVEMENT, CURBS AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE TO THE SATISFACTION OF THE ENGINEER AND OWNER.
- 10. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY SUITABLE ACCESSIBLE ROUTES (PER A.D.A). GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO CURRENT ADA STATE/NATIONAL STANDARDS. IN NO CASE SHALL ACCESSIBLE RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2%. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5%. IN NO CASE SHALL ACCESSIBLE PARKING STALLS OR AISLES EXCEED 2% (1.5% TARGET) IN ALL DIRECTIONS. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS AND GATES SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET IN ANY LOCATION PRIOR TO PAVING. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A COMPLIANCE ISSUES.
- 11. MAXIMUM JOINT SPACING IS TWICE THE DEPTH OF THE CONCRETE PAVEMENT IN FEET.

GRADING AND DRAINAGE NOTES

 GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.

3. CONTRACTOR SHALL ENSURE THERE IS POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS SO THAT

- THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL ADJUST BMP'S AS NECESSARY AND REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.
- SURFACE RUNOFF WILL DRAIN BY GRAVITY TO NEW OR EXISTING DRAINAGE OUTLETS. CONTRACTOR SHALL ENSURE NO PONDING OCCURS IN PAVED AREAS AND SHALL NOTIFY ENGINEER IF ANY GRADING DISCREPANCIES ARE FOUND IN THE EXISTING AND PROPOSED GRADES PRIOR TO PLACEMENT OF PAVEMENT OR UTILITIES.
- 4. CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, POWER POLES, GUY WIRES, AND TELEPHONE BOXES THAT ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION. EXISTING CASTINGS AND STRUCTURES TO REMAIN SHALL BE ADJUSTED TO MATCH THE PROPOSED FINISHED GRADES.
- 5. BACKFILL FOR UTILITY LINES SHALL BE PLACED PER DETAILS, STANDARDS, AND SPECIFICATIONS SO THAT THE UTILITY WILL BE STABLE. WHERE UTILITY LINES CROSS THE PARKING LOT, THE TOP 6 INCHES SHALL BE COMPACTED SIMILARLY TO THE REMAINDER OF THE LOT. UTILITY DITCHES SHALL BE VISUALLY INSPECTED DURING THE EXCAVATION PROCESS TO ENSURE THAT UNDESIRABLE FILL IS NOT USED.
- 6. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF 4" OF TOPSOIL AT COMPLETION OF WORK. ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED.
- 7. AFTER PLACEMENT OF SUBGRADE AND PRIOR TO PLACEMENT OF PAVEMENT, CONTRACTOR SHALL TEST AND OBSERVE PAVEMENT AREAS FOR EVIDENCE OF PONDING. ALL AREAS SHALL ADEQUATELY DRAIN TOWARDS THE INTENDED STRUCTURE TO CONVEY STORM RUNOFF. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER AND ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED.
- 8. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT FULL DEPTH FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.
- 9. THE CONTRACTOR SHALL INSTALL PROTECTION OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
- 10. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS.
 THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY
 EXCAVATION
- 11. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO MINNESOTA/DOT STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL COVERN
- 12. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SODDED OR SEEDED AS SPECIFIED IN THE PLANS, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SODDED OR SEEDED AND MULCHED AS SHOWN ON THE LANDSCAPING PLAN.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- 14. SOD, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
- 15. THE CONTRACTOR SHALL ENSURE THAT LANDSCAPE ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER.
- 16. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS AND MINNESOTA/DOT SPECIFICATION.
- 17. ALL CONCRETE/ASPHALT SHALL BE INSTALLED PER GEOTECH REPORT, CITY OF BLOOMINGTON AND MINNESOTA/DOT SPECIFICATIONS.
- 18. SPOT ELEVATIONS ARE TO FLOWLINE OF CURB UNLESS OTHERWISE NOTED.
- 19. LIMITS OF CONSTRUCTION ARE TO THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED ON THE PLAN.20. IMMEDIATELY REPORT TO THE OWNER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS
- AND CONSTRUCTION DOCUMENTS.
- 21. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES, AND SHALL REPAIR ALL DAMAGE TO EXISTING UTILITIES THAT OCCUR DURING CONSTRUCTION WITHOUT COMPENSATION.
- 22. BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
- 23. ALL PROPOSED GRADES ONSITE SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE INDICATED ON THE PLANS. ANY SLOPES STEEPER THAN 4:1 REQUIRE EROSION AND SEDIMENT CONTROL BLANKET.
- 24. ADHERE TO ALL TERMS AND CONDITIONS AS NECESSARY IN THE GENERAL N.P.D.E.S. PERMIT AND STORMWATER POLLUTION PREVENTION PLAN FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- 25. ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- 26. CONTRACTOR SHALL ENSURE MINIMUM GRADES ARE MET WITHIN PAVED AREAS, 1.2% FOR ASPHALT PAVING AND 0.6% FOR CONCRETE PAVING.

WATER STORM SEWER & SANITARY SEWER NOTES

- 1. THE CONTRACTOR SHALL CONSTRUCT GRAVITY SEWER LATERALS, MANHOLES, GRAVITY SEWER LINES, AND DOMESTIC WATER AND FIRE PROTECTION SYSTEM AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
- 2. ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR UTILITY LOCATION AND COORDINATION IN ACCORDANCE WITH THE NOTES CONTAINED IN THE GENERAL CONSTRUCTION SECTION OF THIS SHEET.

3. THE CONTRACTOR SHALL RESTORE ALL DISTURBED VEGETATION IN KIND, UNLESS SHOWN OTHERWISE

- 4. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.
- RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING IN ANY D.I. PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER OR OWNER, RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

5. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S

- 6. WATER FOR FIRE FIGHTING SHALL BE MADE AVAILABLE FOR USE BY THE CONTRACTOR PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.
- 7. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT. THE MOST STRINGENT SHALL GOVERN
- REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

 8. UNDERGROUND LINES SHALL BE SURVEYED BY A STATE OF MINNESOTA PROFESSIONAL LAND SURVEYOR
- PRIOR TO BACK FILLING.

 9. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT MAY NOT BE LIMITED TO, INFILTRATION AND EXFILTRATION, TELEVISION INSPECTION AND A MANDREL TEST ON GRAVITY SEWER. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE UTILITY PROVIDER, OWNER

AND JURISDICTIONAL AGENCY AS REQUIRED.

- 10. CONTRACTOR SHALL PROVIDE FOR A MINIMUM HORIZONTAL CLEARANCE OF 10' AND A VERTICAL CLEARANCE OF 18" BETWEEN WATER AND SANITARY SEWER MANHOLES AND LINES.
- 11. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- 12. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT UNLESS OTHERWISE STATED BY CITY AND STATE DESIGN STANDARDS AND SPECIFICATIONS.
- 13. UNLESS OTHERWISE STATED IN CITY AND STATE DESIGN STANDARDS AND SPECIFICATIONS, ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL

BE LABELED "STORM SEWER". EXISTING CASTINGS AND STRUCTURES WITHIN PROJECT LIMITS SHALL BE

14. TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY LAND SURVEYORS. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.

ADJUSTED TO MEET THESE CONDITIONS AND THE PROPOSED FINISHED GRADE.

- 15. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO
- 16. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR FROM INVERT IN TO INVERT
- 17. ROOF DRAINS SHALL BE CONNECTED TO STORM SEWER BY PREFABRICATED WYES OR AT STORM STRUCTURES. ROOF DRAINS AND TRUCK WELL DRAIN SHALL RUN AT A MINIMUM 1% SLOPE, UNLESS NOTED OTHERWISE, AND TIE IN AT THE CENTERLINE OF THE STORM MAIN.
- 18. ALL ROOF AND SANITARY SEWER DRAINS SHALL BE INSULATED IF 7' OF COVER CANNOT BE PROVIDED.
- THE CONTRACTOR SHALL PROTECT EXISTING UNDERGROUND UTILITIES AND APPURTENANCES THAT ARE TO REMAIN FROM DAMAGE DURING CONSTRUCTION OPERATIONS.
 THE LOCATION OF EXISTING UTILITIES, STORM DRAINAGE STRUCTURES AND OTHER ABOVE AND BELOW-GRADE IMPROVEMENTS ARE APPROXIMATE AS SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE AND INVERT ELEVATIONS OF EACH PRIOR TO THE START OF
- 21. A MINIMUM OF 5' SEPARATION IS REQUIRED BETWEEN UTILITIES AND TREES UNLESS A ROOT BARRIER IS
- 22. GAS, PHONE AND ELECTRIC SERVICES SHOWN FOR INFORMATIONAL PURPOSES ONLY. DRY UTILITY COMPANIES MAY ALTER THE DESIGN LAYOUT DURING THEIR REVIEW. CONTRACTOR TO COORDINATE FINAL DESIGN AND INSTALLATION WITH LITHITY COMPANIES.
- FINAL DESIGN AND INSTALLATION WITH UTILITY COMPANIES.

 23. COORDINATE UTILITY INSTALLATION WITH IRRIGATION DESIGN AND INSTALLATION.
- 24. ALL DIMENSIONS ARE TO FLOW LINE OF CURB UNLESS OTHERWISE NOTED. PERIMETER WALL DIMENSIONS ARE TO INSIDE WALL FACE. REFERENCE ARCHITECTURAL PLANS FOR EXACT WALL WIDTH AND
- 25. REFERENCE ARCHITECTURAL PLANS (BY OTHERS). FOR EXACT BUILDING DIMENSIONS, DOORS, AND MATERIALS SPECIFICATIONS.
- 26. REFERENCE M.E.P. PLANS (BY OTHERS) FOR MECHANICAL EQUIPMENT DIMENSIONS AND SPECIFICATIONS.
- 27. CONTRACTOR SHALL REFERENCE STRUCTURAL PLANS (BY OTHERS) FOR STOOPS, RETAINING WALLS, FOOTINGS AND FOUNDATIONS. PLANS AND SPECIFICATIONS.

28. CONTRACTOR SHALL REFERENCE M.E.P PLANS (BY OTHERS) FOR LIGHT POLE WIRING.

29. CONTRACTOR SHALL REFERENCE LANDSCAPE PLANS FOR SITE PAVING, PLANTS, FURNISHINGS, DOG PARK, FENCING AND SCREENING FEATURES.

3RD PARTY TEST REPORTS REQ'D

TEST REPORTS REQUIRED FOR CLOSE OUT INCLUDE, BUT ARE NOT LIMITED TO:

- DENSITY TEST REPORTS
- BACTERIOLOGICAL TESTS OF WATER SYSTEM
- PRESSURE TEST OF WATER/SEWER
- LEAK TESTS ON SEWER SYSTEM AND GREASE TRAPS
- ANY OTHER TESTING REQUIRED BY THE AGENCY/MUNICIPALITY

REFER TO GEOTECHNICAL REPORT NO. B1907929.
BRAUN INTERTEC
11001 HAMPSHIRE AVENUE S
MINNEAPOLIS, MN 55438
DATED NOVEMBER 22, 2019

BKV
GROUP
Architecture
Interior Design
Landscape Architecture
Engineering

Boarman Kroos Vogel Group

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CONSULTANTS



Kimley» Horn

3700 AMERICAN

ISSUE # DATE DESCRIPTION
02/12/2020 DRC REVIEW

CONSTRUCTION

CERTIFICATION

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DRAWN BY LEC
CHECKED BY MGC

WILLIAM D. MATZEK, P.E.

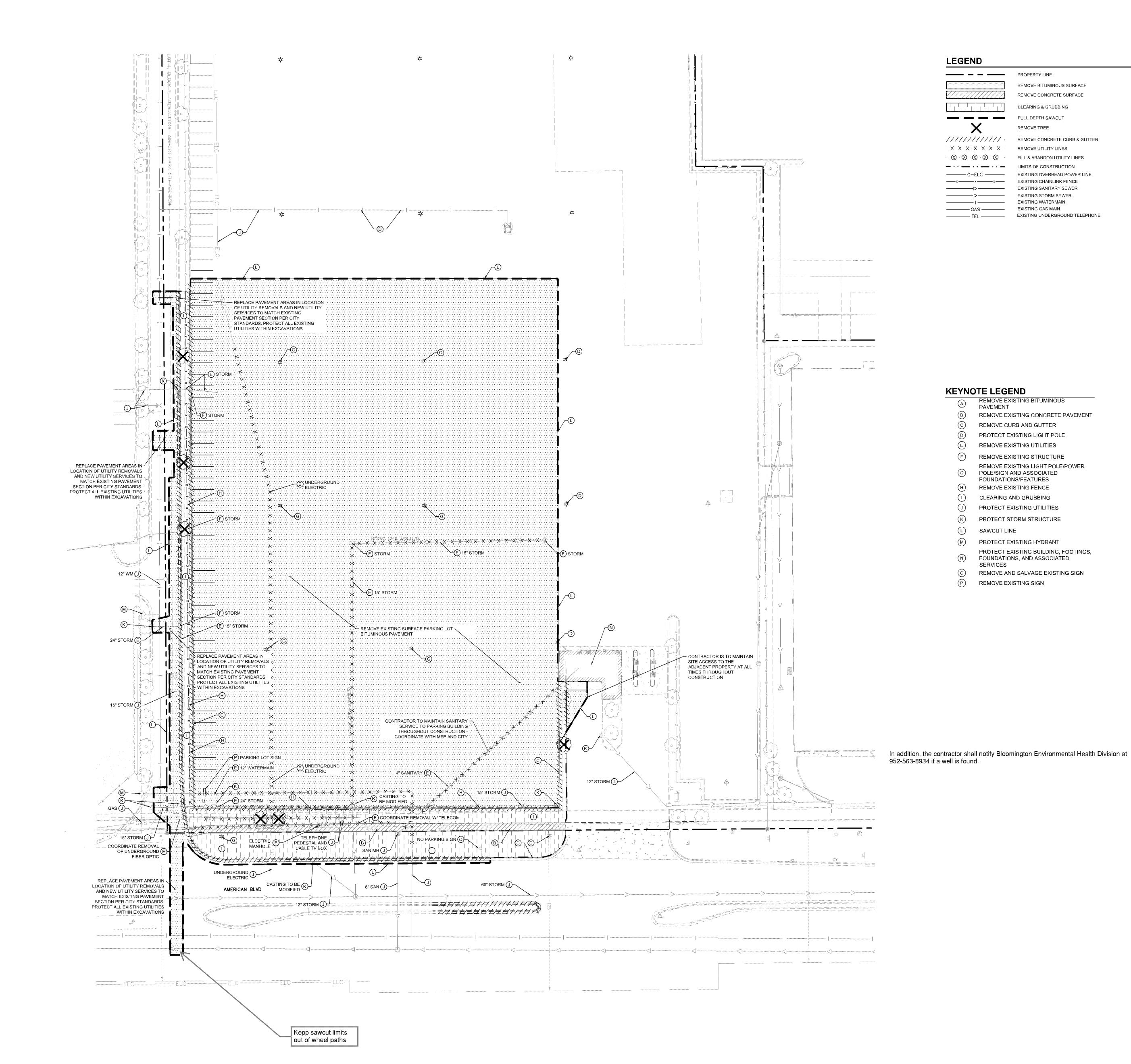
GENERAL NOTES

COMMISSION NUMBER 160116000

SHEET NUMBER

SHEET TITLE

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PL202000028

LEGEND

REMOVE BITUMINOUS SURFACE REMOVE CONCRETE SURFACE CLEARING & GRUBBING FULL DEPTH SAWOUT ·//////// REMOVE CONCRETE CURB & GUTTER REMOVE UTILITY LINES FILL & ABANDON UTILITY LINES EXISTING STORM SEWER EXISTING WATERMAIN

PROPERTY LINE

EXISTING GAS MAIN

EXISTING UNDERGROUND TELEPHONE

EXISTING CONTOUR ======= EXISTING CURB & GUTTER EXISTING SIGN EXISTING STORM MANHOLE EXISTING STORM CATCHBASIN EXISTING GAS METER EXISTING GATE VALVE EXISTING HYDRANT EXISTING METAL COVER EXISTING ELECTRICAL METER EXISTING TELEPHONE MANHOLE EXISTING CABLE BOX EXISTING GUY WIRE EXISTING POWER POLE EXISTING LIGHT POLE EXISTING TREE

- REMOVE EXISTING BITUMINOUS PAVEMENT
- REMOVE EXISTING CONCRETE PAVEMENT
- REMOVE CURB AND GUTTER
- PROTECT EXISTING LIGHT POLE REMOVE EXISTING UTILITIES
- REMOVE EXISTING STRUCTURE
- REMOVE EXISTING LIGHT POLE/POWER
- POLE/SIGN AND ASSOCIATED FOUNDATIONS/FEATURES
- REMOVE EXISTING FENCE CLEARING AND GRUBBING
- PROTECT EXISTING UTILITIES
- PROTECT STORM STRUCTURE
- SAWCUT LINE
- PROTECT EXISTING HYDRANT PROTECT EXISTING BUILDING, FOOTINGS,
- FOUNDATIONS, AND ASSOCIATED SERVICES
- REMOVE AND SALVAGE EXISTING SIGN REMOVE EXISTING SIGN

DEMOLITION PLAN NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC. SUCH THAT THE IMPROVEMENTS ON THE PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE PROJECT

EXISTING TREE LINE

- 2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL. CONTRACTOR SHALL PROVIDE COPIES OF THE PERMIT AND
- RECEIPTS OF DISPOSAL OF MATERIALS TO THE OWNER AND OWNERS REPRESENTATIVE. 3. THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO ADJACENT PROPERTIES AT ALL TIMES. UTILITY SERVICES SHALL NOT BE INTERRUPTED WITHOUT APPROVAL FROM THE CONSTRUCTION
- MANAGER AND COORDINATION WITH THE ADJACENT PROPERTIES AND/OR THE CITY. 4. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL
- AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
- 5. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR LOCATIONS OF EXISTING UTILITIES WITHIN ALL AREAS OF PROPOSED WORK.
- 6. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS ANY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PRECEDING WITH THE WORK.
- 7. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC, AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN ANY ROAD RIGHT-OF-WAY DURING CONSTRUCTION.
- 8. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC. (AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES) AS APPROVED BY THE CONSTRUCTION MANAGER. MAINTENANCE OF TRAFFIC CONTROL SHALL BE COORDINATED IN ACCORDANCE WITH
- BLOOMINGTON, HENNEPIN COUNTY AND MINNESOTA/DOT. 9. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES DURING CONSTRUCTION, AND SHALL NOTIFY ALL PROPERTIES IF ACCESS WILL BE INTERRUPTED OR ALTERED AT ANY TIME DURING
- 10. PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
- 11. CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND
- 12. THE CONTRACTOR SHALL COORDINATE WATER MAIN WORK WITH THE FIRE DEPT. AND THE CITY WATER DEPARTMENT TO PLAN PROPOSED IMPROVEMENTS AND TO ENSURE ADEQUATE FIRE PROTECTION IS CONSTANTLY AVAILABLE TO THE SITE THROUGHOUT THIS SPECIFIC WORK AND THROUGH ALL PHASES OF CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATER MAIN SHUT OFFS WITH THE CITY OF BLOOMINGTON DURING CONSTRUCTION. ANY COSTS

ASSOCIATED WITH WATER MAIN SHUT OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO

- EXTRA COMPENSATION WILL BE PROVIDED. 13. REFER TO SURVEY FOR ALL EXISTING INVERT AND RIM ELEVATIONS.
- 14. ALL UTILITIES SHOWN ARE EXISTING UTILITIES.
- 15. IN THE EVENT A WELL IS FOUND, THE CONTRACTOR SHALL CONTACT THE ENGINEER AND OWNER IMMEDIATELY. ALL WELLS SHALL BE SEALED BY A LICENSED WELL CONTRACTOR IN ACCORDANCE WITH ALL STATE OF MINNESOTA REQUIREMENTS.
- 16. IN THE EVENT THAT UNKNOWN CONTAINERS OR TANKS ARE ENCOUNTERED, THE CONTRACTOR SHALL CONTACT THE OWNER AND/OR OWNERS REPRESENTATIVE IMMEDIATELY. ALL CONTAINERS SHALL BE DISPOSED OF AT A PERMITTED LANDFILL PER THE PROJECT DOCUMENTS.
- 17. CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY EXISTING DRAINTILE IS ENCOUNTERED ON SITE. NO ACTIVE DRAINTILE SHALL BE REMOVED WITHOUT APPROVAL FROM THE ENGINEER.

TRUE NORTH PLAN NORTH

GRAPHIC SCALE IN FEET

Architecture Interior Design Landscape Architecture Engineering

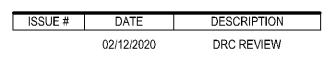
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PROJECT TITLE

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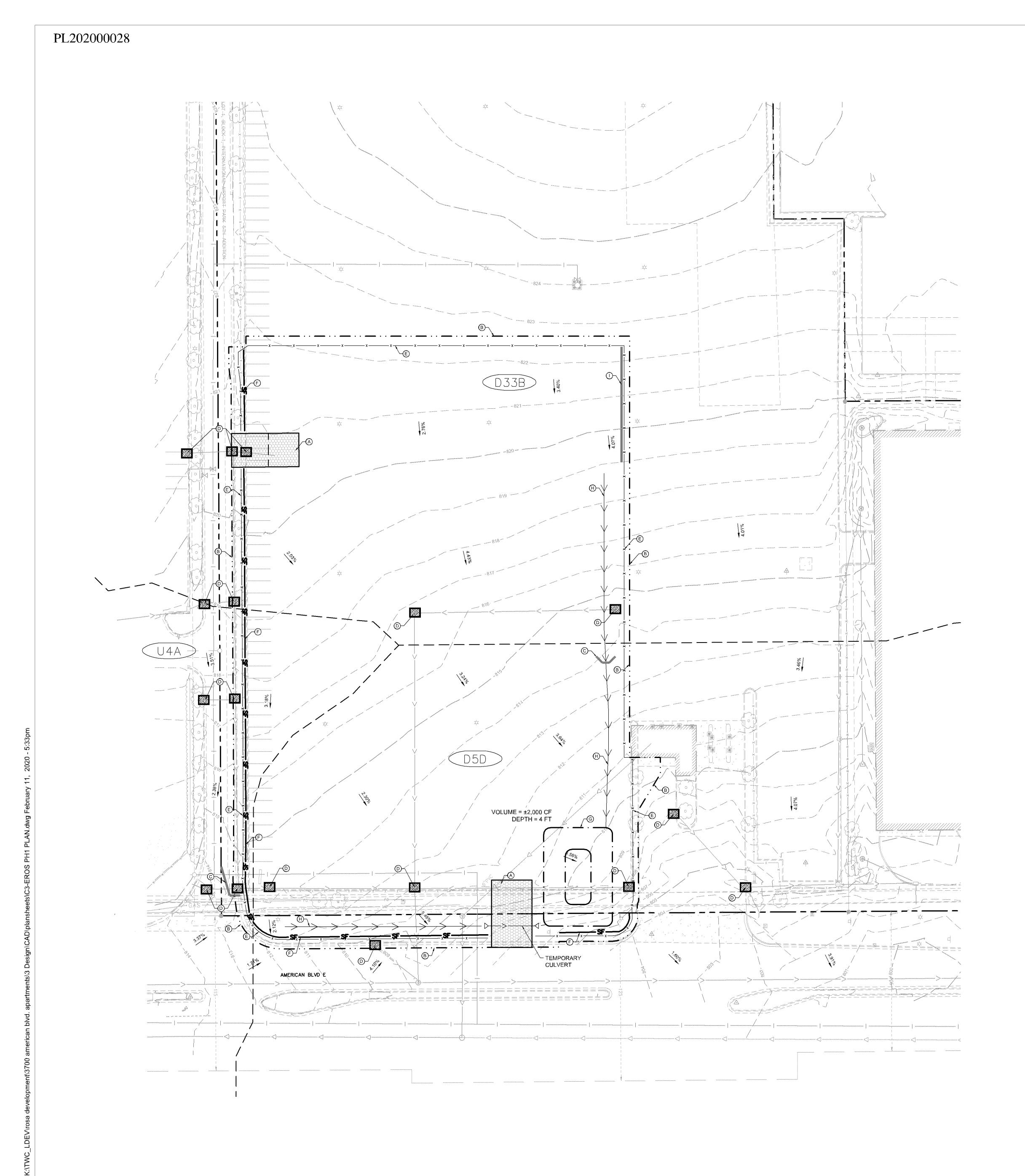
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WILLIAM D. MATZEK, P.E.

DRAWN BY CHECKED BY COMMISSION NUMBER 160116000 SHEET TITLE

DEMO PLAN

SHEET NUMBER



ROCK ENTRANCE EROSION CONTROL BLANKET INLET PROTECTION SILT FENCE, OFFSET FOR CLARITY SAFETY FENCE, OFFSET FOR CLARITY TEMPORARY CHECK DAM URBAN LAND-DORSET COMPLEX, 0 TO 8 PERCENT SLOPES DORSET-TWO INLETS COMPLEX, 12 TO 18 PERCENT SLOPES URBAN LAND-UDIPSAMMENTS (CUT AND FILL LAND) COMPLEX, 0 TO 2 PERCENT SLOPES TEMPORARY DIVERSION DITCH

KEYNOTE LEGEND A CONSTRUCTION ENTRANCE B LIMITS OF DISTURBANCE © TEMPORARY CHECK DAM (D) INLET PROTECTION CONSTRUCTION SAFETY FENCE, OFFSET FROM BACK OF (F) SILT FENCE G) SEDIMENT TRAP BASIN (H) TEMPORARY DIVERSION DITCH

() ROCK SOCK	
LIMITS OF DISTURBANCE	3.08 AC
TOTAL SITE AREA	2.92 AC
PRE-DEVELOPMENT PERVIOUS AREA	0.30 AC
PRE-DEVELOPMENT IMPERVIOUS AREA	2.78 AC
POST-DEVELOPMENT PERVIOUS AREA	0.87 AC
POST-DEVELOPMENT IMPERVIOUS AREA	2.21 AC

BMP QUANTITIES		
ВМР	UNIT	QUANTITY
CONSTRUCTION ENTRANCE	EA.	2
ROCK SOCK	LF	85
INLET PROTECTION	EA.	17
SAFETY FENCE	LF	1,340
SILT FENCE	LF	635
SEDIMENT TRAP BASIN	EA.	1
CHECK DAM	EA.	1
DIVERSION DITCH	LF	420

EROSION CONTROL PLAN NOTES

- 1. ALL PERIMETER SILT FENCE AND ROCK CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO CONSTRUCTION.
- 2. THE CONTRACTOR SHALL CONSTRUCT DRAINAGE BASINS PRIOR TO SITE GRADING.
- 3. THE CONTRACTOR SHALL INSTALL CATCH BASIN EROSION CONTROL MEASURES. 4. WITHIN ONE WEEK (7 DAYS) OF SITE GRADING, ALL DISTURBED AREAS SHALL BE STABILIZED WITH SEED, SOD, OR ROCK BASE. REFER TO LANDSCAPE PLANS FOR
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CITY, STATE, AND WATERSHED DISTRICT PERMITS.
- 6. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES, INCLUDING THE REMOVAL OF SILT IN FRONT OF SILT FENCES DURING THE DURATION OF THE
- CONSTRUCTION. 7. ANY EXCESS SEDIMENT IN PROPOSED BASINS SHALL BE REMOVED BY THE
- 8. REMOVAL ALL EROSION CONTROL MEASURES AFTER VEGETATION IS ESTABLISHED.
- 9. THE CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENT TRACKED ONTO EXISTING STREETS AND PAVED AREAS AND SHALL SWEEP ADJACENT STREETS AS NECESSARY IN ACCORDANCE WITH CITY REQUIREMENTS.

10. IF BLOWING DUST BECOMES A NUISANCE, THE CONTRACTOR SHALL APPLY WATER

SEQUENCE OF CONSTRUCTION:

FROM A TANK TRUCK TO ALL CONSTRUCTION AREAS.

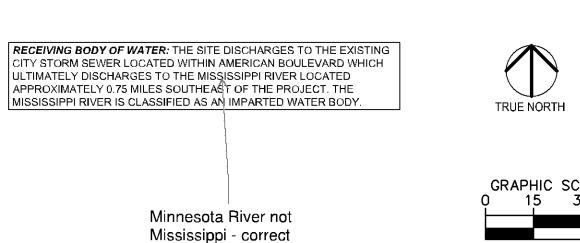
UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAYDOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.

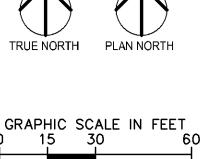
BMP AND EROSION CONTROL INSTALLATION SEQUENCE SHALL BE AS FOLLOWS:

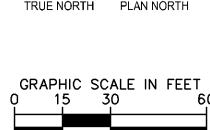
- INSTALL INLET PROTECTION AT EXISTING STORMWATER CULVERTS. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE (1), CONCRETE WASHOUT
- PIT (1) AND INSTALL SILT FENCE. PREPARE TEMPORARY PARKING AND STORAGE AREA. CONSTRUCT AND STABILIZE DIVERSIONS AND TEMPORARY SEDIMENT TRAPS.

on all sheets

- PERFORM CLEARING AND GRUBBING OF THE SITE. PERFORM MASS GRADING. ROUGH GRADE TO ESTABLISH PROPOSED DRAINAGE PATTERNS. START CONSTRUCTION OF THE BUILDING PAD AND STRUCTURES.
- TEMPORARILY SEED WITH PURE LIVE SEED, THROUGHOUT CONSTRUCTION, DISTURBED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE OR AS REQUIRED BY NPDES AND/OR CITY OF BLOOMINGTON GRADING PERMIT.







Architecture Interior Design Landscape Architecture Engineering

Boarman Kroos Vogel Group

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PROJECT TITLE

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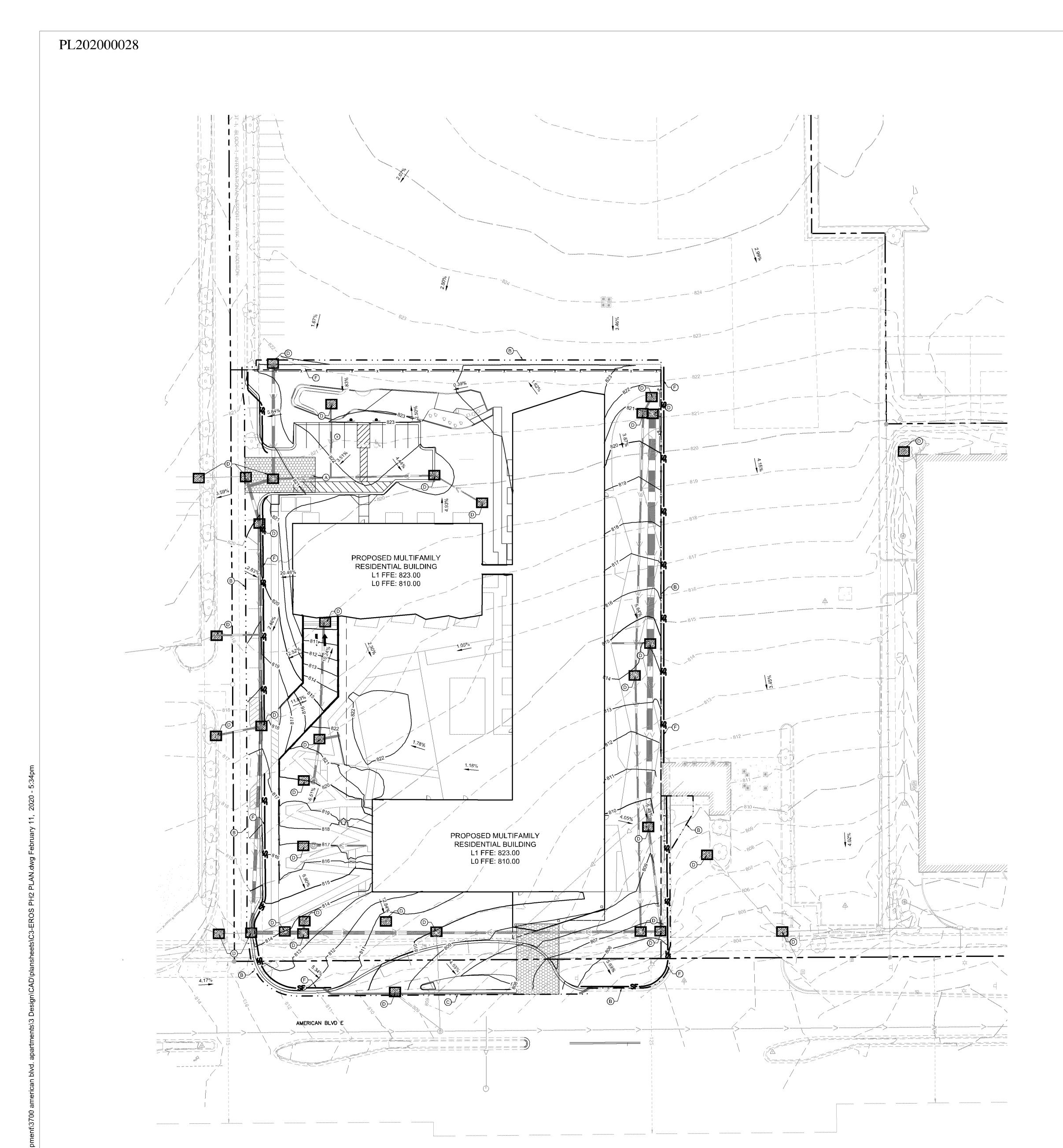
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WILLIAM D. MATZEK, P.E.

CHECKED BY COMMISSION NUMBER 160116000 SHEET TITLE **EROSION AND** SEDIMENT **CONTROL PLAN** - PHASE 1

SHEET NUMBER



ROCK ENTRANCE EROSION CONTROL BLANKET

PROPOSED STORM SEWER

KEYNOTE LEGEND

(A) CONSTRUCTION ENTRANCE (B) LIMITS OF DISTURBANCE

© ROCK SOCK (D) INLET PROTECTION

© CONSTRUCTION SAFETY FENCE, OFFSET FROM BACK OF CURB/LIMITS OF DISTURBANCE FOR CLARITY

F SILT FENCE

LIMITS OF DISTURBANCE	3.08 AC
TOTAL SITE AREA	2.92 AC
PRE-DEVELOPMENT PERVIOUS AREA	0.30 AC
PRE-DEVELOPMENT IMPERVIOUS AREA	2.78 AC
POST-DEVELOPMENT PERVIOUS AREA	0.87 AC
POST-DEVELOPMENT IMPERVIOUS AREA	2.21 AC

BMP QUANTITIES		
ВМР	UNIT	QUANTITY
CONSTRUCTION ENTRANCE	EA.	2
ROCK SOCK	LF	140
INLET PROTECTION	EA.	31
SAFETY FENCE	LF	0
SILT FENCE	LF	910

EROSION CONTROL PLAN NOTES

1. ALL PERIMETER SILT FENCE AND ROCK CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO CONSTRUCTION.

- 2. THE CONTRACTOR SHALL CONSTRUCT DRAINAGE BASINS PRIOR TO SITE GRADING. 3. THE CONTRACTOR SHALL INSTALL CATCH BASIN EROSION CONTROL MEASURES. 4. WITHIN ONE WEEK (7 DAYS) OF SITE GRADING, ALL DISTURBED AREAS SHALL BE STABILIZED WITH SEED, SOD, OR ROCK BASE. REFER TO LANDSCAPE PLANS FOR
- 5. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CITY, STATE, AND WATERSHED DISTRICT PERMITS.
- 6. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES, INCLUDING THE REMOVAL OF SILT IN FRONT OF SILT FENCES DURING THE DURATION OF THE
- 7. ANY EXCESS SEDIMENT IN PROPOSED BASINS SHALL BE REMOVED BY THE
- 8. REMOVAL ALL EROSION CONTROL MEASURES AFTER VEGETATION IS ESTABLISHED. 9. THE CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENT TRACKED ONTO EXISTING STREETS AND PAVED AREAS AND SHALL SWEEP ADJACENT STREETS AS NECESSARY IN ACCORDANCE WITH CITY REQUIREMENTS.
- 10. IF BLOWING DUST BECOMES A NUISANCE, THE CONTRACTOR SHALL APPLY WATER FROM A TANK TRUCK TO ALL CONSTRUCTION AREAS.

SEQUENCE OF CONSTRUCTION:

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING. LAYDOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.

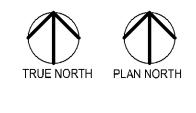
BMP AND EROSION CONTROL INSTALLATION SEQUENCE SHALL BE AS FOLLOWS: 1. TEMPORARILY SEED, THROUGHOUT CONSTRUCTION, DENUDED AREAS THAT WILL

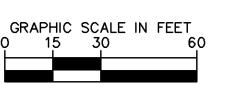
- BE INACTIVE FOR 7 DAYS OR MORE.

 2. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, UNDERGROUND SYSTEM, CURBS AND GUTTERS. 3. INSTALL APPROPRIATE INLET PROTECTION AT ALL STORM SEWER STRUCTURES AS EACH INLET STRUCTURE IS INSTALLED.

 4. PERMANENTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO
- 5. PREPARE SITE FOR PAVING.
- PAVE SITE AND INSTALL STRIPING. 7. INSTALL APPROPRIATE INLET PROTECTION DEVICES FOR PAVED AREAS AS WORK
- 8. COMPLETE GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL
- OBTAIN CONCURRENCE WITH THE CIVIL ENGINEERING CONSULTANT THAT THE SITE HAS BEEN FULLY STABILIZED THEN: 1. REMOVE ALL REMAINING TEMPORARY EROSION ADN SEDIMENT CONTROL 2. STABILIZE ANY AREAS DISTURBED BY THE REMOVAL OF BMPS.

RECEIVING BODY OF WATER: THE SITE DISCHARGES TO THE EXISTING CITY STORM SEWER LOCATED WITHIN AMERICAN BOULEVARD WHICH ULTIMATELY DISCHARGES TO THE MISSISSIPPI RIVER LOCATED APPROXIMATELY 0.75 MILES SOUTHEAST OF THE PROJECT. THE MISSISSIPPI RIVER IS CLASSIFIED AS AN IMPARTED WATER BODY.





Architecture Interior Design Landscape Architecture Engineering

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PROJECT TITLE

3700 AMERICAN

02/12/2020

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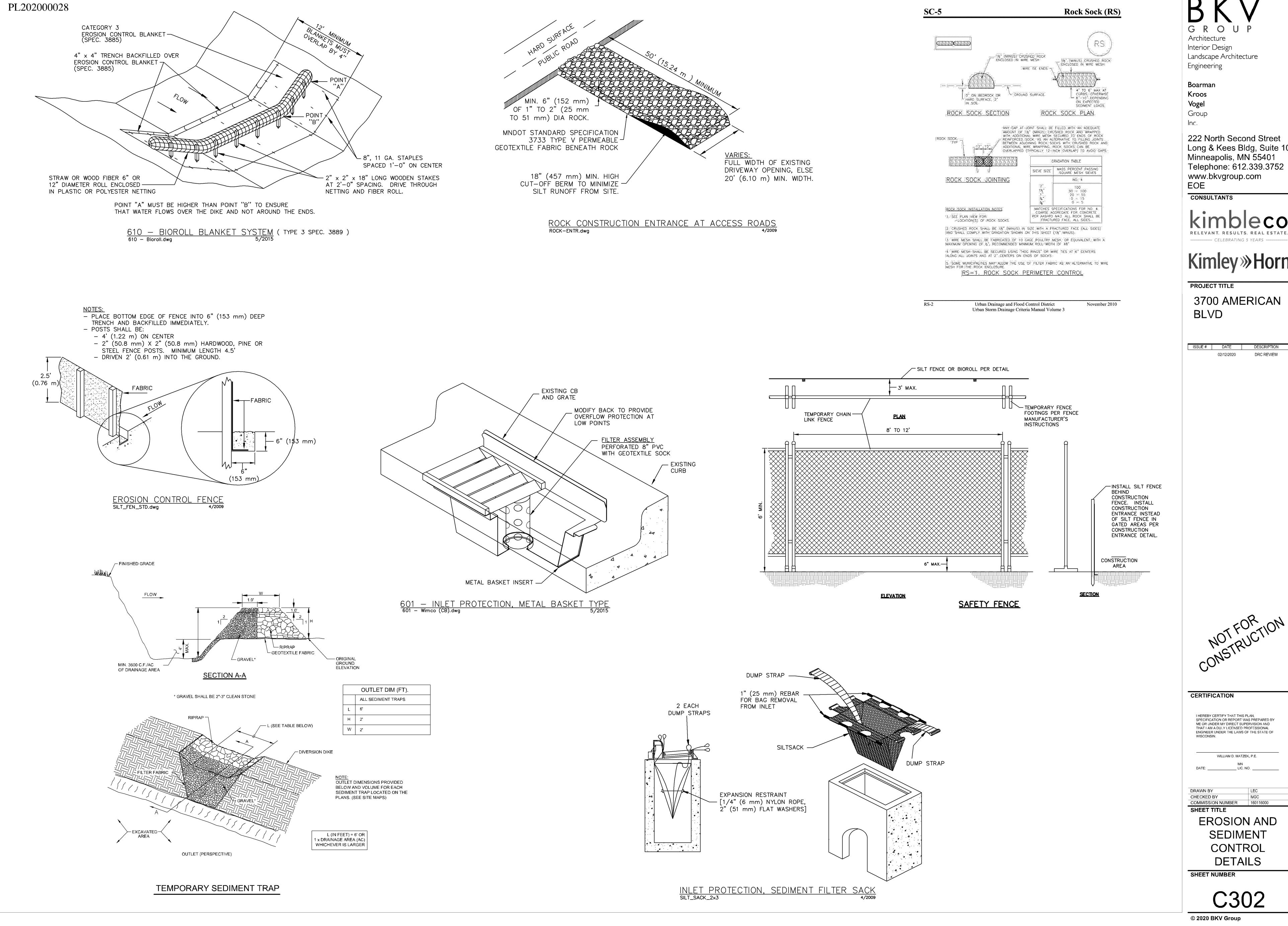
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CONTROL PLAN - PHASE 2

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SHEET NUMBER



Landscape Architecture

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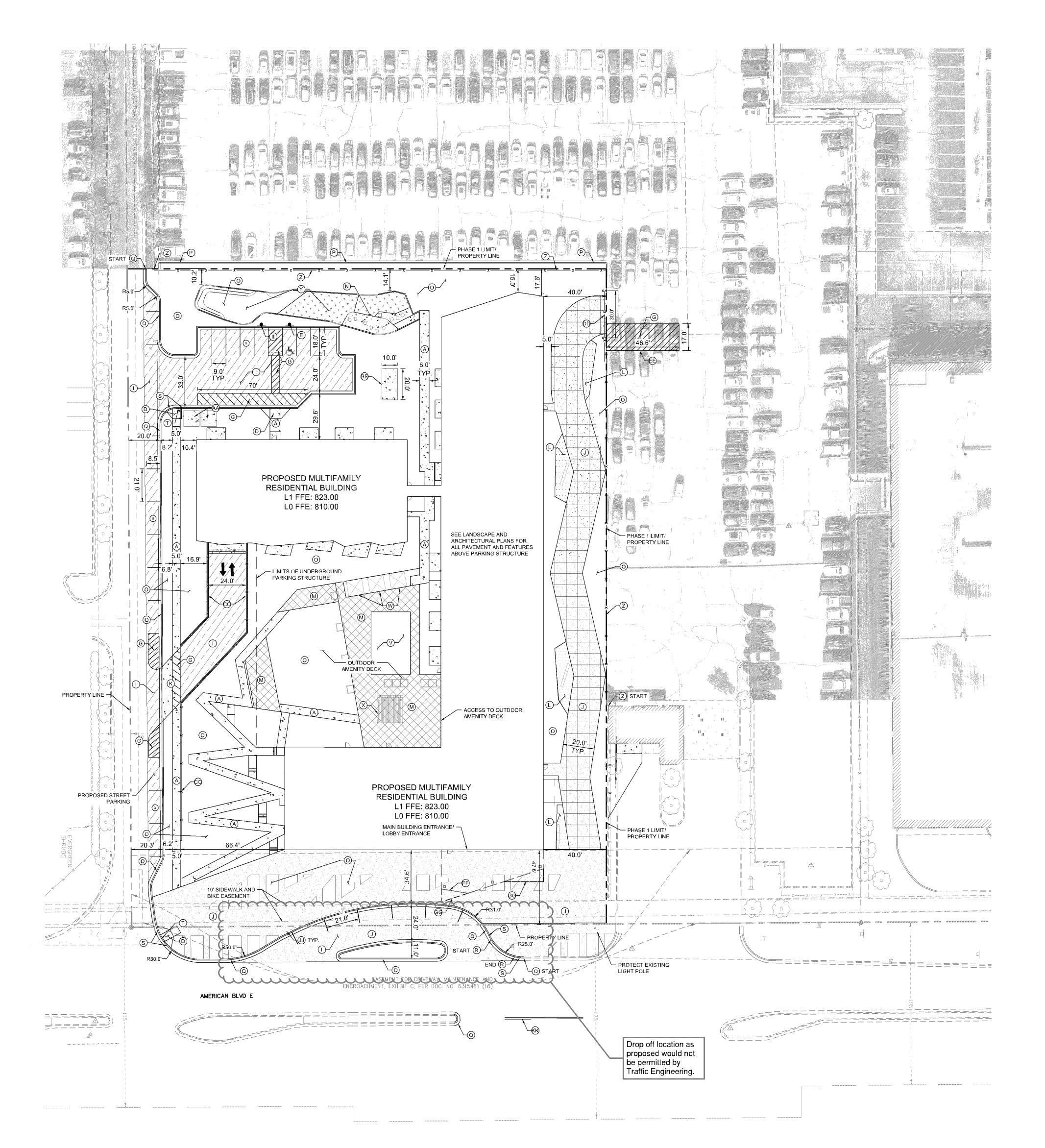
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WILLIAM D. MATZEK, P.E.

COMMISSION NUMBER 160116000 **EROSION AND** SEDIMENT

> CONTROL **DETAILS**



PROPOSED CURB AND GUTTER PROPOSED STANDARD DUTY ASPHALT PROPOSED HEAVY DUTY ASPHALT PROPOSED DECORATIVE CONCRETE PAVEMENT, SEE LANDSCAPE PLANS

PROPERTY LINE

PROPOSED CONCRETE SIDEWALK PERMEABLE UNIT PAVING, SEE LANDSCAPE PLANS

> PEDESTAL PAVERS, SEE LANDSCAPE PLANS PEA GRAVEL, SEE LANDSCAPE PLANS

> > LANDSCAPE AREA, SEE LANDSCAPE PLANS

PROPERTY SUMMARY 3700 AMERICAN BLVD	
PROPOSED IMPERVIOUS AREA	2.21 AC
PROPOSED PERVIOUS AREA	0.87 AC
TOTAL DISTURBED AREA	3.08 AC
ZONING SUM	MARY
EXISTING ZONING	HR-X (HIGH INTENSITY MIXED USE WITH RESIDENTIAL)
PROPOSED ZONING	HR-X (HIGH INTENSITY MIXED USE WITH RESIDENTIAL)
PARKING SETBACKS	STREET ROW = 20' NON-STREET ROW = 5'
	FRONT = NA

BUILDING DATA	SUMMARY
AREAS	
PROPOSED PROPERTY	2.92 AC
BUILDING AREA	31,700 SF (30.7% OF TOTAL PROPERTY AREA)
PARKING	
REQUIRED PARKING	1.47 SPACES PER UNIT

BUILDING SETBACKS

KEYNOTE LEGEND

(A) CONCRETE SIDEWALK

- (B) EXISTING PIPE BOLLARD
- MATCH EXISTING EDGE OF PAVEMENT/ CURB & GUTTER
- ACCESSIBLE CURB RAMP
- (E) ACCESSIBLE PARKING SIGN
- (F) ACCESSIBLE PARKING G AREA STRIPED WITH 4" SYSL @ 45° 2' O.C.
- H -NOT USED-HEAVY DUTY ASPHALT PAVEMENT
- J DECORATIVE CONCRETE PAVEMENT, SEE LANDSCAPE PLANS (K) STANDARD CONCRETE PAVEMENT
- (L) PERMEABLE UNIT PAVING, SEE LANDSCAPE PLANS
- (M) PEDESTAL PAVERS, SEE LANDSCAPE PLANS (N) PEA GRAVEL, SEE LANDSCAPE PLANS
- LANDSCAPE AREA, SEE LANDSCAPE PLANS (P) B612 CURB & GUTTER (TYP.)
- (Q) B618 CURB & GUTTER (TYP.)
- (R) S412 CURB & GUTTER (TYP.)
- (s) TRANSITION CURB
- U COMMERCIAL DRIVEWAY APRON

T FLAT CURB

- (V) POOL, BY OTHERS (W) CABANAS, BY OTHERS
- (X) PERGOLA, BY OTHERS Y) DOG RUN AREA, SEE ARCHITECTURAL PLANS
- (Z) SECURITY FENCE, SEE ARCHITECTURAL PLANS (AA) 10' X 10' CONCRETE TRANSFORMER PAD, SEE MEP PLANS
- (BB) 20' X 10' CONCRETE GENERATOR PAD, SEE MEP PLANS

(FF) APPROXIMATE LIMIT OF BUILDING OVERHANG

- RETAINING WALL WITH 42" DECORATIVE METAL FENCE, (SEE ARCHITECTURAL PLANS), DESIGNED BY OTHERS ELECTRONIC CANTILEVER SECURITY GATE, SEE
- ARCHITECTURAL PLANS NO PARKING AREA
- GG APPROXIMATE LIMIT OF BALCONY OVERHANG
- (HH) BUILDING COLUMN (II) "LOADING AREA" SIGNAGE, BY OTHERS
- (JJ) BOLLARDS, SEE LANDSCAPE PLANS
- (KK) PAVEMENT STRIPING

SIDE = 0'

REAR = 0'

- SITE PLAN NOTES ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
- 2. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING
- UTILITY ENTRANCE LOCATIONS. ALL INNER CURBED RADII ARE TO BE 3' AND OUTER CURBED RADII ARE TO BE 10' UNLESS OTHERWISE NOTED. STRIPED RADII ARE TO BE 5'.
- 4. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE
- 5. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE
- 6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, (UNLESS OTHERWISE NOTED ON PLANS) INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES REQUIREMENTS

AND PROJECT SITE WORK SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL

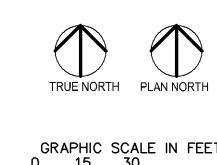
- COST SHALL BE INCLUDED IN BASE BID. SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY BY SAMBATEK, INC., DATED 03/04/2019. KIMLEY-HORN ASSUMES NO LIABILITY FOR ANY ERRORS, INACCURACIES, OR
- OMISSIONS CONTAINED THEREIN. 8. TOTAL LAND AREA IS 2.92ACRES.
- 9. CONTRACTOR SHALL REFERENCE ARCH / MEP PLANS FOR SITE LIGHTING AND ELECTRICAL PLAN.
- 10. REFERENCE ARCHITECTURAL PLANS FOR DUMPSTER ENCLOSURE DETAILS. 11. REFER TO FINAL PLAT OR ALTA SURVEY FOR EXACT LOT AND PROPERTY

14. ALL PARKING STALLS TO BE 9' IN WIDTH AND 18' IN LENGTH UNLESS OTHERWISE

BOUNDARY DIMENSIONS.

INDICATED.

- 12. ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT. 13. ALL DIMENSIONS ARE ROUNDED TO THE NEAREST TENTH FOOT.





Boarman Kroos Vogel Group Inc.

222 North Second Street Long & Kees Bldg, Suite 101 Minneapolis, MN 55401 Telephone: 612.339.3752 www.bkvgroup.com EOE

CONSULTANTS



PROJECT TITLE

3700 AMERICAN BLVD

02/12/2020

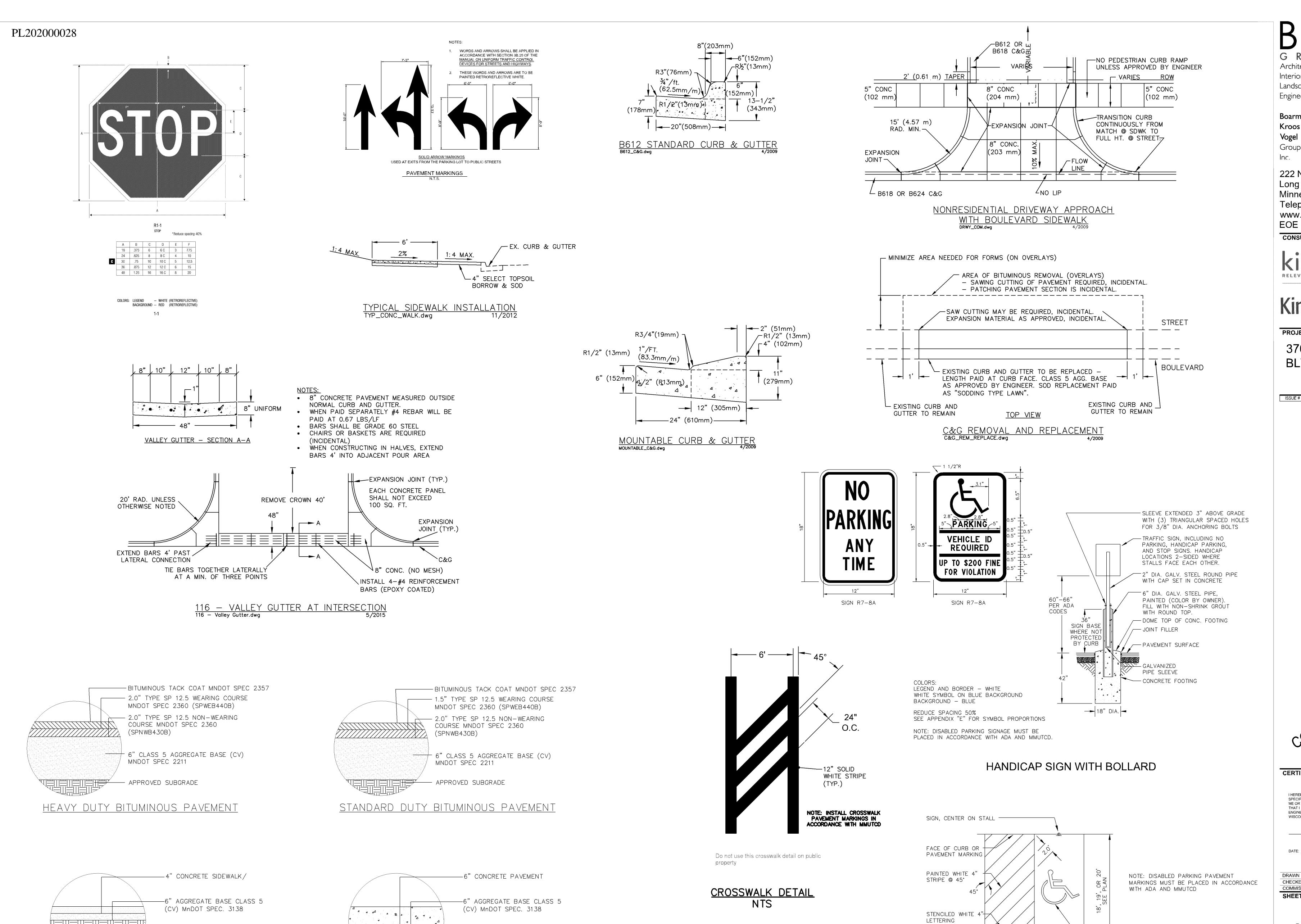
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF

WILLIAM D. MATZEK, P.E.

CHECKED BY COMMISSION NUMBER 160116000 SHEET TITLE

SITE PLAN

SHEET NUMBER



- APPROVED SUBGRADE

CONCRETE PAVEMENT

- APPROVED SUBGRADE

CONCRETE SIDEWALK

Architecture Interior Design Landscape Architecture Engineering

Boarman Group

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RELEVANT. RESULTS. REAL ESTATE

----- CELEBRATING 5 YEARS

PROJECT TITLE

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ISSUE # DATE DESCRIPTION DRC REVIEW 02/12/2020



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SITE DETAILS

SHEET NUMBER

NO PARKING

HANDICAP PARKING STALL LAYOUT

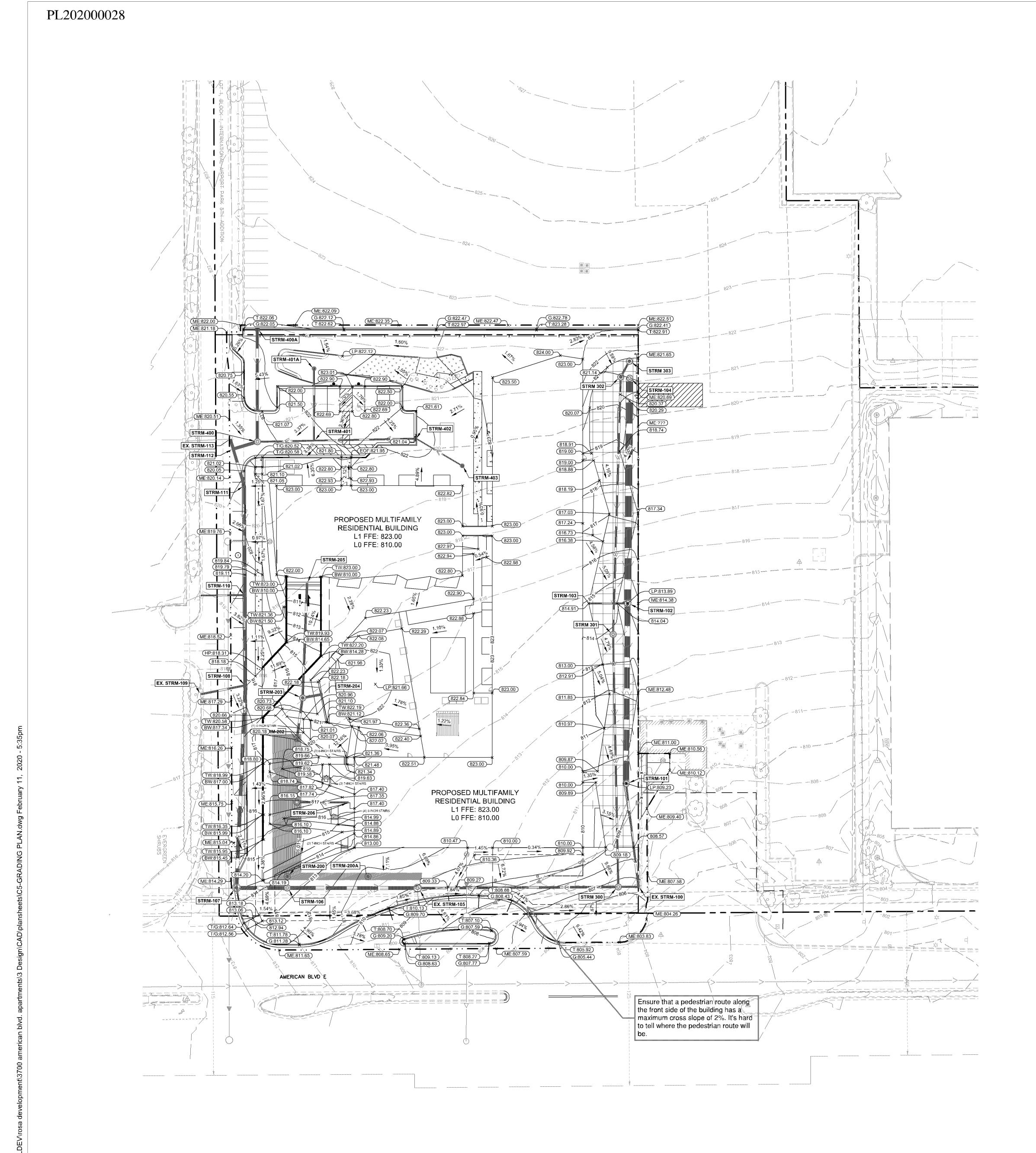
8.0' MINIMUM

PAINTED WHITE

8.0' MINIMUM PER STATE STANDARDS

LOCATION AND SIZE

C401



LLOLIND	
	PROPERTY LINE
::::::::::::::::::::::::::::::::::::::	EXISTING CONTOUR
925	PROPOSED CONTOUR
	PROPOSED STORM MANHOLE (SOLID CASTING)
	PROPOSED STORM MANHOLE (ROUND INLET CASTING)
	PROPOSED STORM MANHOLE/ CATCH BASIN (CURB INLET CASTIN
@	PROPOSED STORM SEWER CLENOUT
	PROPOSED STORM SEWER
	PROPOSED STORM SEWER
>	EXISTING STORM SEWER
	EXISTING STORM MANHOLE / STORM CATCHBASIN / SANITARY MANHOLE
	EXISTING STORM CATCHBASIN (ON CURB)
(100.00) ×	PROPOSED SPOT ELEVATION
(HP:0.0)	PROPOSED HIGH POINT ELEVATION
(LP:0.0)	PROPOSED LOW POINT ELEVATION
(G:0.00)	PROPOSED GUTTER ELEVATION
(T:0.00)	PROPOSED TOP OF CURB ELEVATION
(T/G:0.0)	PROPOSED FLUSH PAVEMENT ELEVATION
(ME:0.0)	MATCH EXISTING ELEVATION
EOF:0.0	PROPOSED EMERGENCY OVERFLOW
0.00%	PROPOSED ADA SLOPE
	RETAINING WALL
	LIMITS OF DISTURBANCE

GRADING PLAN NOTES

 ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF BLOOMINGTON, SPECIFICATIONS AND BUILDING PERMIT REQUIREMENTS.

PROPOSED CURB AND GUTTER

- CONTRACTOR TO CALL GOPHER STATE CALL ONE @ 1-800-252-1166 AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION/CONSTRUCTION FOR UTILITY LOCATIONS.
- 3. STORM SEWER PIPE SHALL BE AS FOLLOWS: RCP PER ASTM C-76
- HDPE: 0" 10" PER AASHTO M-252 HDPE: 12" OR GREATER PER ASTM F-2306
- PVC SCH. 40 PER ASTM D-3034
 STORM SEWER FITTINGS SHALL BE AS FOLLOWS:
- RCP PER ASTM C-76, JOINTS PER ASTM C-361, C-990, AND C-443 HDPE PER ASTM 3212 PVC PER ASTM D-3034, JOINTS PER ASTM D-3212
- 4. CONTRACTOR TO FIELD VERIFY THE LOCATIONS AND ELEVATIONS OR EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
- 5. SUBGRADE EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AFTER EXCAVATION TO HELP OFFSET ANY STABILITY PROBLEMS DUE TO WATER SEEPAGE OR STEEP SLOPES. WHEN PLACING NEW SURFACE MATERIAL ADJACENT TO EXISTING PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF EXISTING
- PAVEMENT.

 6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
- CONTRACTOR SHALL EXCAVATE DRAINAGE TRENCHES TO FOLLOW PROPOSED STORM SEWER ALIGNMENTS.
- GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL ROUGH GRADE TO SUBGRADE ELEVATION AND LEAVE STREET READY FOR SUBBASE.
- 9. ALL EXCESS MATERIAL, BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS, AND OTHER UNSTABLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE CONSTRUCTION SITE.
- 10. REFER TO THE UTILITY PLAN FOR SANITARY SEWER MAIN, WATER MAIN SERVICE LAYOUT AND ELEVATIONS AND CASTING / STRUCTURE SCHEDULE.
- 11. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF PAVEMENTS AND CURB AND GUTTER WITH SMOOTH UNIFORM SLOPES WITH PROVIDE POSITIVE DRAINAGE.
 12. INSTALL A MINIMUM OF 6" CLASS 5 AGGREGATE BASE UNDER CURB AND GUTTER.
- 13. UPON COMPLETION OF EXCAVATION AND FILLING, CONTRACTOR SHALL RESTORE ALL STREETS AND DISTURBED AREAS ON SITE. ALL DISTURBED AREAS SHALL BE RE-VEGETATED WITH A MINIMUM OF 4" OF TOPSOIL.
- 14. ALL SPOT ELEVATIONS/CONTOURS ARE TO FINISHED GRADE UNLESS OTHERWISE NOTED.
- 15. ALL SPOT ELEVATIONS ARE TO FLOW LINE UNLESS OTHERWISE NOTED.
- 16. GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO CURRENT ADA STATE/NATIONAL STANDARDS. SLOPES SHALL NOT EXCEED 5% LONGITUDINALLY OR EXCEED 2% CROSS SLOPE. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET IN ANY
- 17. *MAINTAIN A MINIMUM OF 0.5% GUTTER SLOPE TOWARDS LOW POINTS.
- 18. CONTRACTOR TO PROVIDE 3" INSULATION BY 5' WIDE CENTERED ON STORM PIPE IF LESS THAN 4' OF COVER IN PAVEMENT AREAS AND LESS THAN 3' OF COVER IN LANDSCAPE AREAS.
- 19. HDPE PIPE CONNECTIONS INTO ALL CONCRETE STRUCTURES MUST BE MADE WITH WATER TIGHT MATERIALS UTILIZING A-LOK OR WATERSTOP GASKET OR BOOT, CAST-IN-PLACE RUBBER BOOT, OR APPROVED EQUAL. WHERE THE ALIGNMENT PRECLUDES THE USE OF THE ABOVE APPROVED WATERTIGHT METHODS, CONSEAL 231 WATERSTOP SEALANT OR APPROVED EQUAL WILL ONLY BE ALLOWED AS APPROVED BY THE ENGINEER.
- 21. MAINTAIN A MINIMUM OF 1.25% SLOPE IN BITUMINOUS PAVEMENT AREAS, 0.5% SLOPE IN CONCRETE PAVEMENT AREAS.

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WILLIAM D. MATZEK, P.E.

MN

DRAWN BY

CHECKED BY

COMMISSION NUMBER

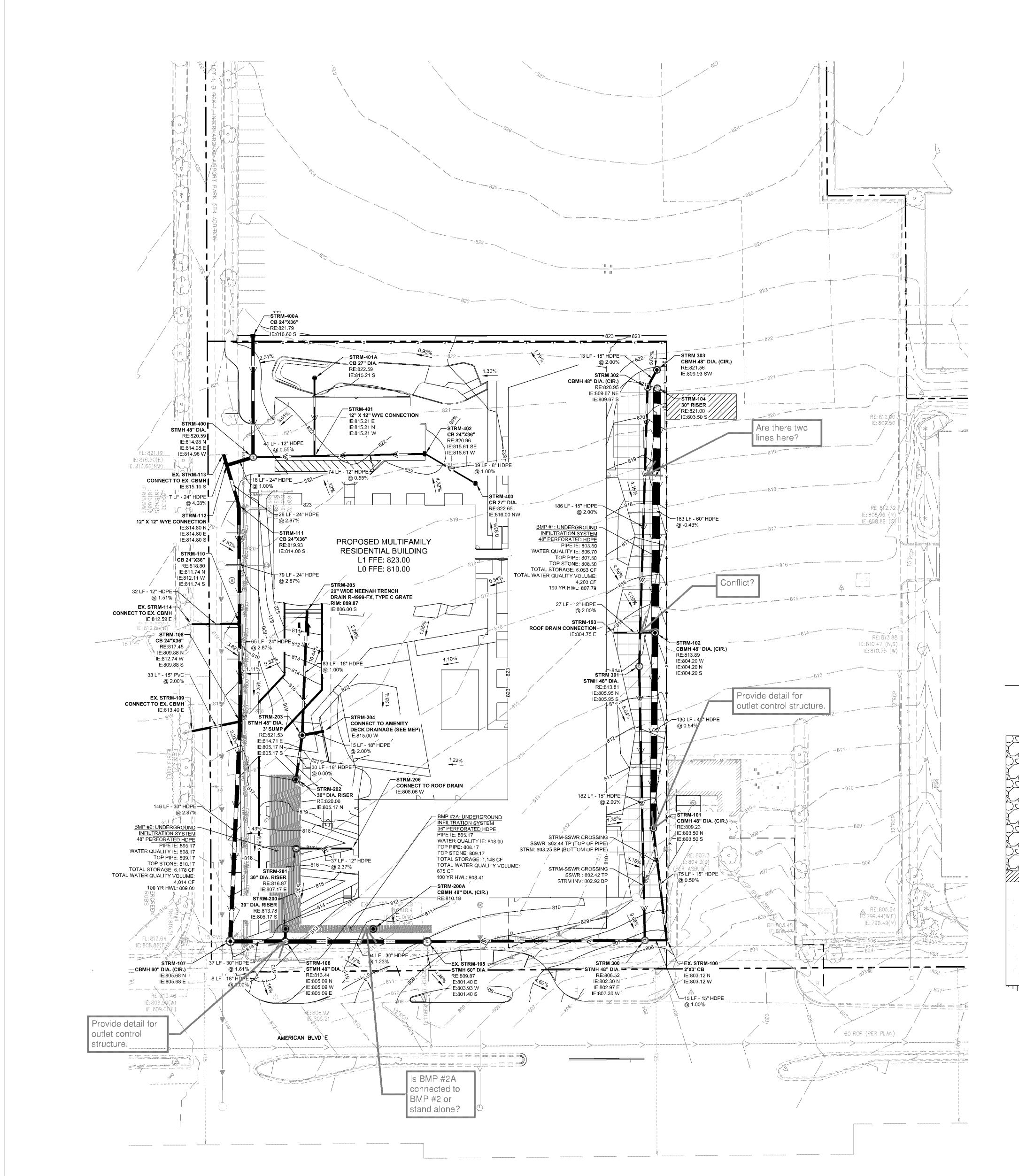
SHEET TITLE

GRADING PLAN

SHEET NUMBER

TRUE NORTH PLAN NORTH

C500



PL202000028

- FINISHED GRADE: VARIES - MINIMUM 1.5' COVER, SEE GRADING PLAN TOP STONE: VARIES (6" MINIMUM) TOP PIPE: VARIES - 1.5" CLEAN CRUSHED ANGULAR STONE, CRUSHED AND WASHED IGNEOUS AGGREGATE WITH 40% - PERFORATED HDPE PIPE - PIPE IE: VARIES BEDDING PER MANUFACTURER'S RECOMMENDATIONS, PREPARE BEDDING AND ENGINEERED SOIL TO PROMOTE INFLTRATION INTO NATIVE SUBGRADE SOILS - CONTRACTOR SHALL OVER-EXCAVATE AS NECESSARY TO NATIVE POORLY GRADED SANDY SOILS. REMOVE AND REPLACE EXISTING CLAYEY SANDS AS NECESSARY AND REPLACE WITH ENGINEERED FILL, DEPTH MAY VARY. CONTRACTOR TO PROVIDE DOCUMENTATION OF ENGINEERED SOILS MEETING DESIGN INFILTRATION RATE OF 1.60 IN / HR. REFER TO THE STORMWATER MANAGEMENT NOTES THIS SHEET. -CONTRACTOR TO PROVIDE TESTS PER UNDERGROUND STORMWATER

(BMP 1, 2, 3, 4) N.T.S.

INFILTRATION RATE OF NATIVE SUBGRADE SOILS = 0.80 IN / HR

Infiltration systems must remain offline until areas

tributary to each system are fully stabilized.

UNDERGROUND INFILTRATION SYSTEM

Show actual number of pipes and label appropriately.

MANAGEMENT NOTES, DESIGN

LEGEND

	PROPERTY LINE
wannerman ($\mathcal{G}_{\mathcal{A}}$	EXISTING CONTOUR
925	— PROPOSED CONTOUR
D	PROPOSED STORM MANHOLE (SOLID CASTING)
•	PROPOSED STORM MANHOLE (ROUND INLET CASTING)
	PROPOSED STORM MANHOLE/ CATCH BASIN (CURB INLET CASTING
9	PROPOSED STORM SEWER CLENOUT
>	— PROPOSED STORM SEWER
	PROPOSED STORM SEWER
>	— EXISTING STORM SEWER
	EXISTING STORM MANHOLE / STORM CATCHBASIN / SANITARY MANHOLE
	EXISTING STORM CATCHBASIN (ON CURB)

GRADING PLAN NOTES

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 HDPE: 0" 10" PER AASHTO M-252
 HDPE: 12" OR GREATER PER ASTM F-2306
 PVC SCH. 40 PER ASTM D-3034
 STORM SEWER FITTINGS SHALL BE AS FOLLOWS:
 RCP PER ASTM C-76, JOINTS PER ASTM C-361, C-990, AND C-443
 HDPE PER ASTM 3212

PVC PER ASTM D-3034, JOINTS PER ASTM D-3212

- 4. CONTRACTOR TO FIELD VERIFY THE LOCATIONS AND ELEVATIONS OR EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
- 5. SUBGRADE EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AFTER EXCAVATION TO HELP OFFSET ANY STABILITY PROBLEMS DUE TO WATER SEEPAGE OR STEEP SLOPES. WHEN PLACING NEW SURFACE MATERIAL ADJACENT TO EXISTING PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF EXISTING
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- 9. ALL EXCESS MATERIAL, BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS, AND OTHER UNSTABLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE CONSTRUCTION SITE.
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- 17. *MAINTAIN A MINIMUM OF 0.5% GUTTER SLOPE TOWARDS LOW POINTS.
- 18. CONTRACTOR TO PROVIDE 3" INSULATION BY 5' WIDE CENTERED ON STORM PIPE IF LESS THAN 4' OF COVER IN PAVEMENT AREAS AND LESS THAN 3' OF COVER IN LANDSCAPE AREAS.
- 19. HDPE PIPE CONNECTIONS INTO ALL CONCRETE STRUCTURES MUST BE MADE WITH WATER TIGHT MATERIALS UTILIZING A-LOK OR WATERSTOP GASKET OR BOOT, CAST-IN-PLACE RUBBER BOOT, OR APPROVED EQUAL. WHERE THE ALIGNMENT PRECLUDES THE USE OF THE ABOVE APPROVED WATERTIGHT METHODS, CONSEAL 231 WATERSTOP SEALANT OR APPROVED EQUAL WILL ONLY BE ALLOWED AS APPROVED BY THE ENGINEER.
- 21. MAINTAIN A MINIMUM OF 1.25% SLOPE IN BITUMINOUS PAVEMENT AREAS, 0.5% SLOPE IN CONCRETE PAVEMENT AREAS.
- 22. COORDINATE WITH MEP ON ROOF DRAINAGE CONNECTION

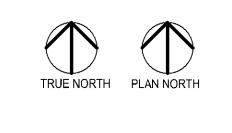
UNDERGROUND STORMWATER MANAGEMENT NOTES

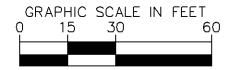
CAPACITY OF THE UNDERGROUND SYSTEM.

- 1. CONTRACTOR SHALL OVER-EXCAVATE ALL CLAYEY SANDS AS NECESSARY TO NATIVE POORLY GRADED SANDY SOILS. EXCAVATION SHALL BE REPLACED WITH SUITABLE ENGINEERED FILL MEETING THE MNDOT SPECIFICATION FOR COARSE FILTER AGGREGATE PER SECTION 3149.2H. DEPTHS OF CLAYEY SANDS EXPECTED TO VARY, CONTRACTOR SHALL VERIFY DEPTHS OF EXCAVATION AND PERFORM INFILTROMETER TESTS PRIOR TO INSTALLING UNDERGROUND
- 2. IF NATIVE SUBGRADE SOILS ARE DETERMINED TO NOT BE CONDUCIVE TO THE DESIGN INFILTRATION REQUIREMENTS, THE CONTRACTOR SHALL REMOVE AND REPLACE THE POORLY INFILTRATING SOILS TO A DEPTH WHERE THE EXISTING NATIVE SUBGRADE SOILS MEET OR EXCEED THE DESIGN INFILTRATION RATE AS REVIEWED BY THE ENGINEER.
- UPON COMPLETION OF THE STORMWATER BMP'S AND FINAL STABILIZATION OF THE TRIBUTARY DRAINAGE AREA, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE BMP'S AFTER A SIGNIFICANT RAIN EVENT THAT SHOWS THE BMP'S DRAW DOWN WITHIN 48
- 4. NO CONSTRUCTION EQUIPMENT SHALL TRAVEL WITHIN THE UNDERGROUND INFILTRATION AREAS. USE EXCAVATOR WITH TOOTHED BUCKET FOR INFILTRATION BASIN EXCAVATION TO AVOID COMPACTING OR SMEARING OF SOILS.
- 5. FINAL EXCAVATION OF UNDERGROUND INFILTRATION SYSTEM AREAS AND INSTALLATION OF OF ENGINEERED SOIL MUST OCCUR IN DRY SOIL CONDITIONS TO PREVENT SMEARING AND

COMPACTION. DO NOT WORK IN INFILTRATION SYSTEM AREA IF SOIL CONDITIONS ARE WET.

- IMMEDIATELY FOLLOWING SYSTEM CONSTRUCTION, THE EXCAVATION FOR THE TRENCH SHALL BE IMMEDIATELY BACKFILLED WITH APPROVED BACKFILL MATERIAL PER MANUFACTURER'S RECOMMENDATION, OR THE EXCAVATION SHALL BE PROTECTED WITH SILT FENCE AND OR BIO-ROLLS SUCH THAT ON-SITE SOILS DO NOT ENTER THE TRENCH EXCAVATION AND CLOG UP THE BOTTOM/SIDES OF THE TRENCH LIMITING THE INFILTRATION
- IF ANY SOILS ENTER THE TRENCH PRIOR TO BACKFILLING, THE CONTRACTOR SHALL REMOVE SOILS AND CONFIRM THE INFILTRATION CAPACITY OF THE NATIVE SUBGRADE SOILS IS MET WITH INFILTROMETER TESTS.
- 8. CONTRACTOR SHALL COORDINATE AND COMPLETE CERTIFIED AS-BUILT PLANS DEMONSTRATING ALL CONSTRUCTED STORMWATER CONVEYANCE STRUCTURES, AND STORMWATER MANAGEMENT FACILITIES (INCLUDING AS-BUILT VOLUMES) CONFORM TO DESIGN AND/OR PLANS AS APPROVED BY THE CITY.





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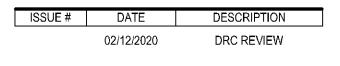
CONSULTANTS



imley»Horn

PROJECT TITLE

3700 AMERICAN BLVD



CONSTRUCTION

CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN,
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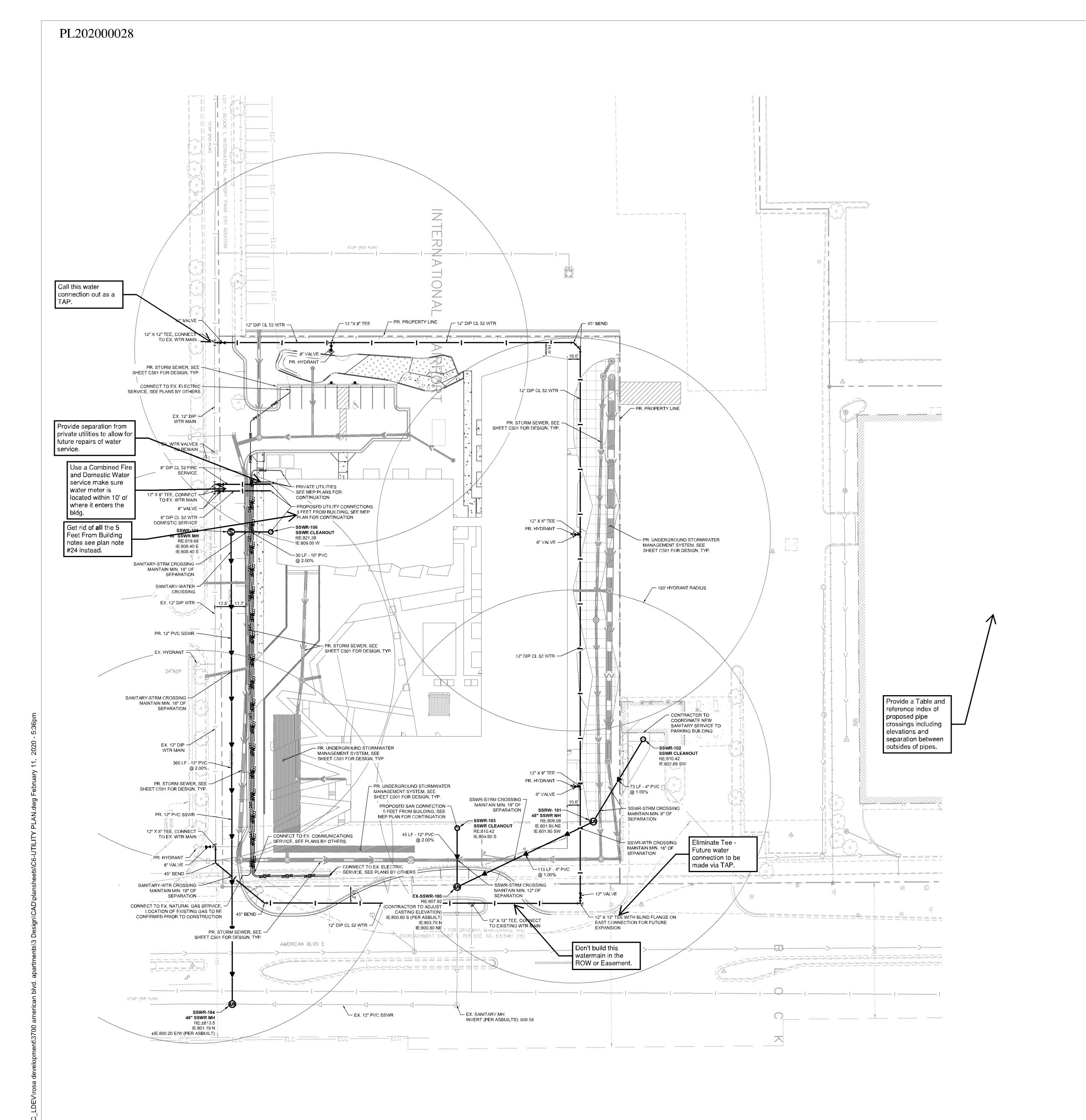
MN
TE: LIC NO

DRAWN BY LEC
CHECKED BY MGC
COMMISSION NUMBER 160116000
SHEET TITLE

STORM SEWER PLAN

SHEET NUMBER

<u>C501</u>



LEGEND PROPOSED TEE PROPOSED GATE VALVE PROPOSED HYDRANT PROPOSED SANITARY SEWER MANHOLE PROPOSED SANITARY CLEANOUT PROPOSED WATERMAIN PROPOSED SANITARY SEWER PROPOSED STORM SEWER PROPOSED STORM SEWER PROPOSED UNDERGROUND ELECTRIC EXISTING UNDERGROUND ELECTRIC EXISTING SANITARY SEWER EXISTING STORM SEWER **EXISTING WATERMAIN** EXISTING COMMUNICATIONS CABLE EXISTING STORM MANHOLE / STORM CATCHBASIN / SANITARY MANHOLE EXISTING STORM CATCHBASIN (ON CURB) EXISTING GATE VALVE EXISTING HYDRANT EXISTING ELECTRICAL TRANSFORMER

EXISTING COMMUNICATIONS BOX

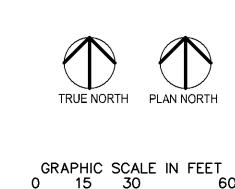
EXISTING LIGHT POLE

UTILITY PLAN NOTES

- 1. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
- 2. SANITARY SEWER PIPE SHALL BE AS FOLLOWS: 10" PVC SDR26, SCHEDULE 40, OR EQUIVALENT PER ASTM D 3034 8" PVC SDR26, SCHEDULE 40, OR EQUIVALENT PER ASTM D 3034 6" PVC SCHEDULE 40 DUCTILE IRON PIPE PER AWWA C150
- 3. WATER LINES SHALL BE AS FOLLOWS: 6" AND LARGER DUCTILE IRON PIPE PER AWWA C150 12" AND SMALLER USE CLASS 52 DIP
- A MINIMUM OF 8 MIL POLYWRAP IS REQUIRED ON ALL DIP 4. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.

ELEVATIONS, IN GREEN AREAS, WITH WATERTIGHT LIDS.

- 5. ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS WITH THRUST BLOCKING AS CALLED OUT IN SPECIFICATIONS.
- 6. ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 18" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).
- 7. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 8'-0" COVER ON ALL WATERLINES.
- 8. IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATER LINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE SCH. 40 OR C900 WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING, THE WATER LINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE. MEETING
- REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50). 9. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE
- 10. TOPS OF EXISTING MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS, AND TO BE ONE FOOT ABOVE FINISHED GROUND
- 11. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
- 12. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW
- 13. REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE-IN OF ALL UTILITIES.
- 14. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- 15. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES.
- 16. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
- 17. REFER TO BUILDING PLANS FOR SITE LIGHTING ELECTRICAL PLAN. 18. BACKFLOW DEVICES (DDCV AND PRZ ASSEMBLIES) AND METERS ARE LOCATED IN THE
- INTERIOR OF THE BUILDING, REF. ARCH. PLANS. 19. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL AUTHORITIES BLOOMINGTON WITH REGARDS TO MATERIALS AND INSTALLATION OF THE
- 20. ALL ONSITE WATERMAINS AND SANITARY SEWERS SHALL BE PRIVATELY OWNED AND
- 21. ALL WATERMAIN STUBOUTS SHALL BE MECHANICALLY RESTRAINED WITH REACTION
- BLOCKING. 22. HDPE PIPE CONNECTIONS INTO ALL CONCRETE STRUCTURES MUST BE MADE WITH
- WATER TIGHT MATERIALS UTILIZING AN A-LOK OR WATERSTOP GASKET OR BOOT, CAST-IN-PLACE RUBBER BOOT, OR APPROVED EQUAL. 23. TAPS OF LIVE WATER MAINS ARE DONE BY CITY FORCES AND PAID FOR AND
- COORDINATED WITH THE CONTRACTOR. 24. UTILITY AND MECHANICAL CONTRACTORS MUST COORDINATE THE INSTALLATION OF ALL
- WATER AND SEWER SERVICE PIPES INTO THE BUILDING TO ACCOMMODATE CITY INSPECTION AND TESTING. 25. ALL COMPONENTS OF THE WATER SYSTEM, UP TO THE WATER METER OR FIRE SERVICE
- EQUIPMENT MUST UTILIZE PROTECTIVE INTERNAL COATINGS MEETING CURRENT ANSI/AWWA STANDARDS FOR CEMENT MORTAR LINING OR SPECIAL COATINGS. THE USE OF UNLINED OR UNCOATED PIPE IS NOT ALLOWED.
- 26. ALL UNUSED WATER SERVICES MUST BE PROPERLY ABANDONED AT THE MAIN. ALL UNUSED SANITARY SEWER SERVICES MUST PROPERLY ABANDONED AT THE PROPERTY
- 27. UTILITY PERMITS ARE REQUIRED FOR CONNECTIONS TO THE PUBLIC STORM, SANITARY, AND WATER SYSTEM. CONTACT CITY OF BLOOMINGTON UTILITIES DIVISION (952-563-8777) FOR PERMIT INFORMATION.
- 28. RESTORE UTILITY TRENCHES PER STANDARDS LISTED IN ARTICLE 5, CH. 17 OF THE BLOOMINGTON CITY CODE (SEE UTILITY DETAILS).
- 29. INTERIOR CHIMNEY SEALS SHALL BE INSTALLED ON ALL SANITARY MANHOLES.





Boarman Kroos Vogel Group

222 North Second Street Long & Kees Bldg, Suite 101 Minneapolis, MN 55401 Telephone: 612.339.3752 www.bkvgroup.com EOE



PROJECT TITLE

3700 AMERICAN

02/12/2020

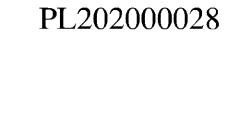
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF

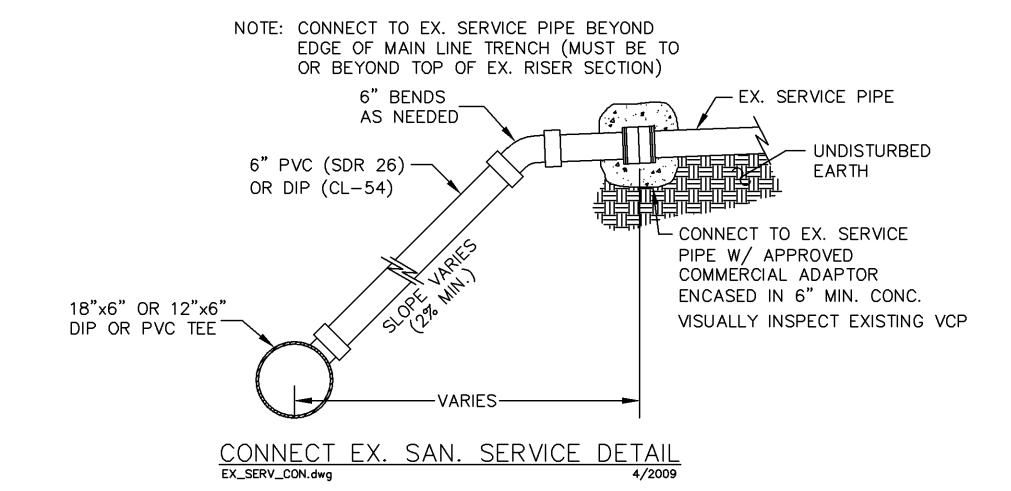
WILLIAM D. MATZEK, P.E.

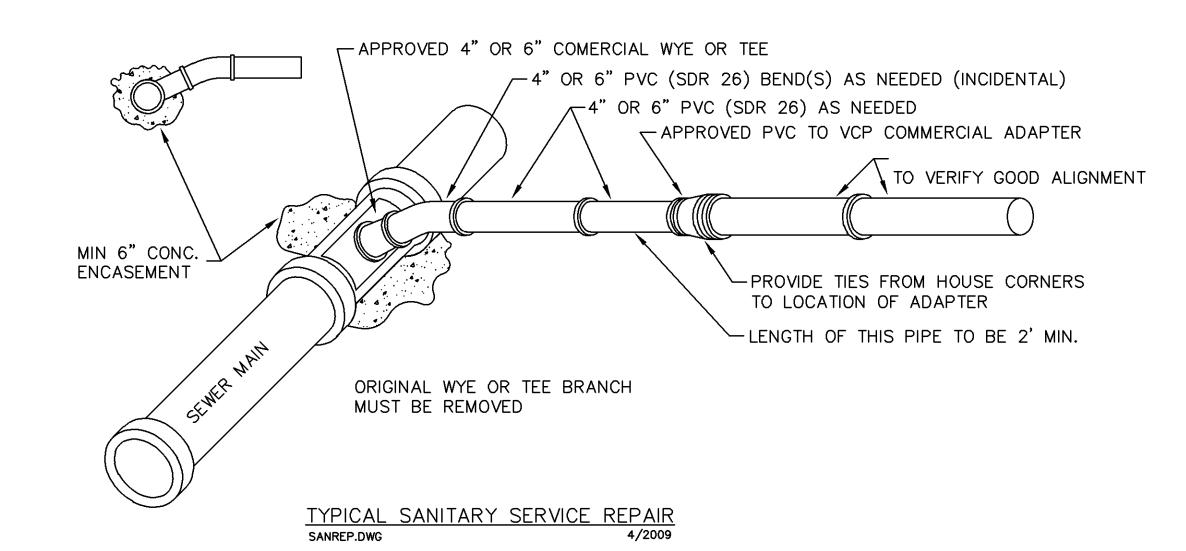
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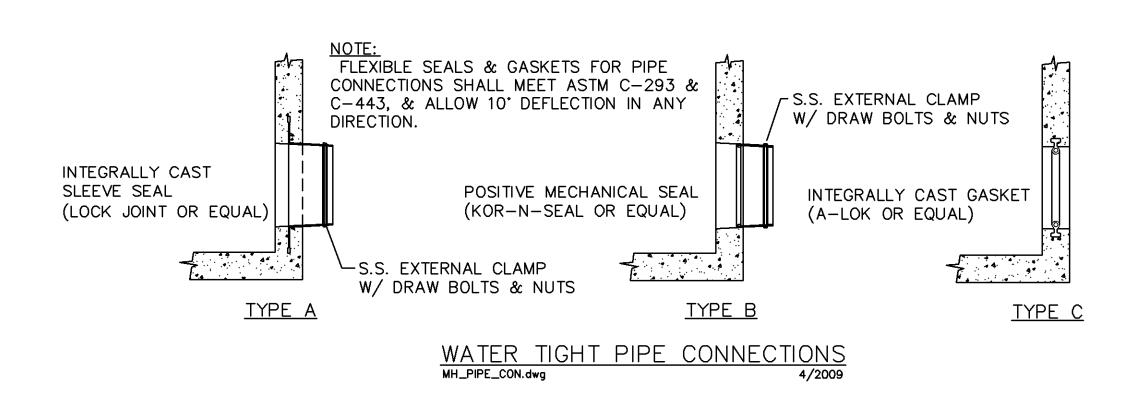
UTILITY PLAN

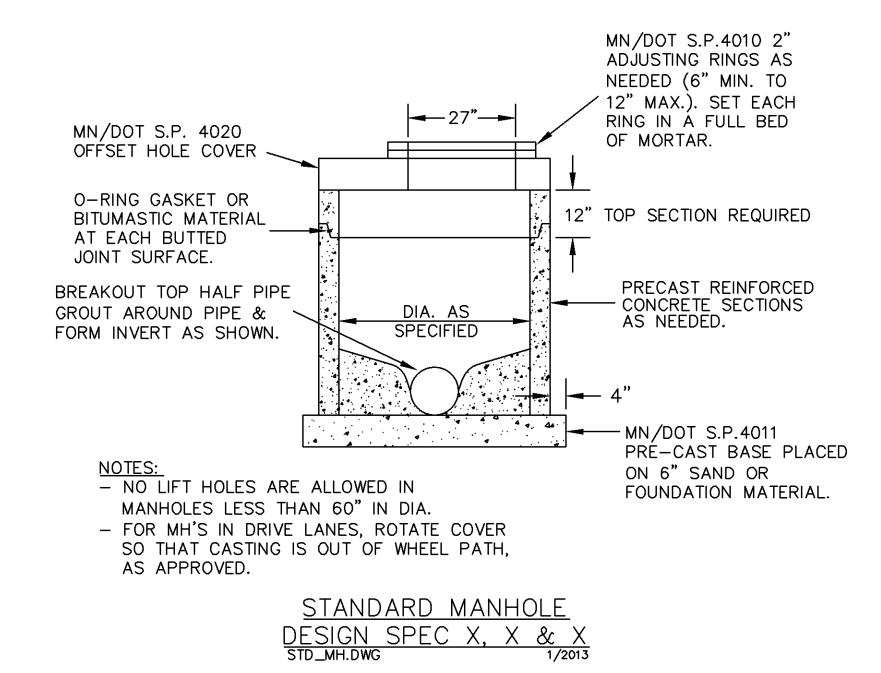
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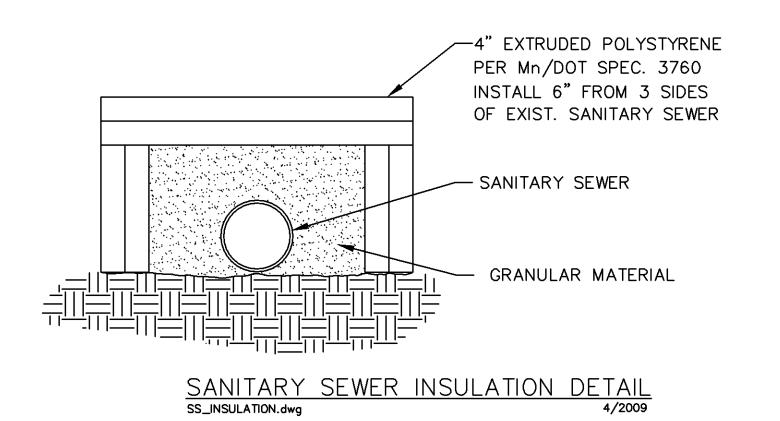


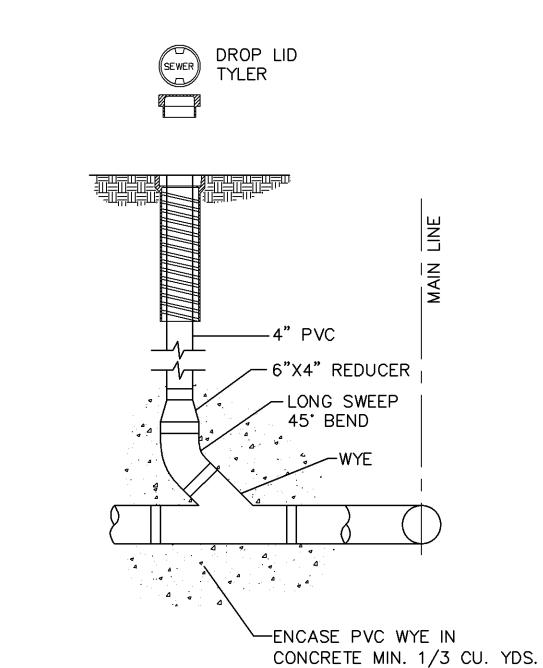










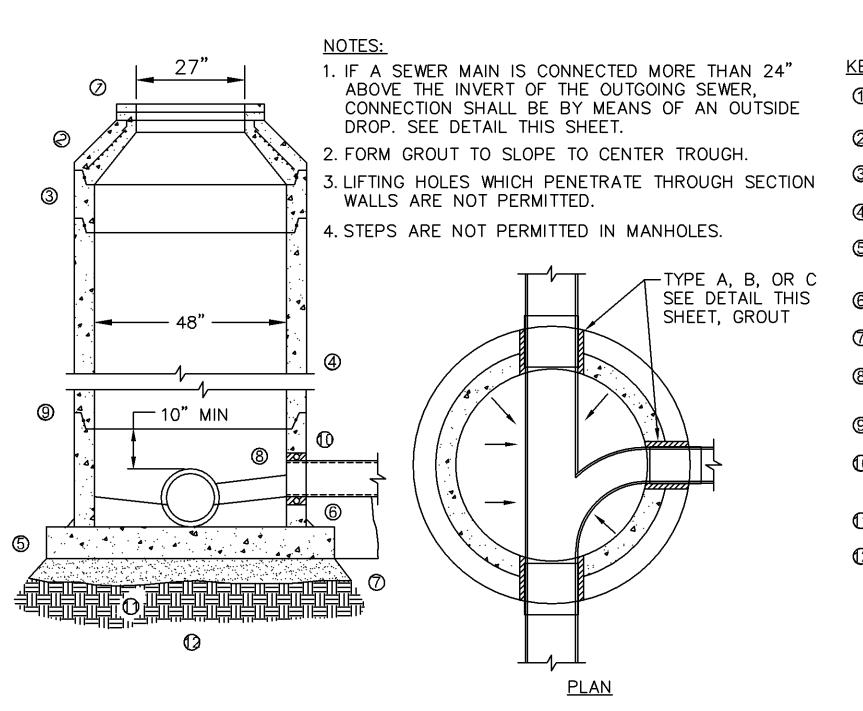


NOTES:
G.V. BOX TOP SECTION WITH DROP LID (SEWER)
ENCLOSE LONG SWEEP BEND OR COMBINATION
WYE IN CONCRETE AS SHOWN.

SANITARY SEWER CLEANOUT

↑ J-26-96 REDRAWN FROM NEW PATTERN LLR
DATE 1-15-88

NEENAH FOUNDRY COMPANY NEENAH WISCONSIN 54956



KEY NOTES:

- ① MN/DOT S.P.4010 2" ADJUSTING RINGS AS NEEDED
- [6" MIN. TO 12" MAX.]. SET EACH RING IN FULL BED OF MORTAR.

 ② MN/DOT S.P.4010 STD. SHORT CONE SECTION.
- 3 12" TOP SECTION REQUIRED.
- 4 USE ONLY PRECAST SECTIONS. NO BRICK OR BLOCK
- S 8" CAST IN-PLACE CONCRETE OR 6" PRECAST REINFORCED CONCRETE (64" MINIMUM OD)
- © CEMENT MORTAR ALL AROUND
- (7) LEAN CONCRETE TO BEAR AGAINST FIRM UNDISTURBED SOIL
- ® PROVIDE WATER TIGHT PIPE CONNECTIONS
- SEE DETAIL THIS SHEET
- O-RING GASKET

STD. SANITARY SEWER MH STD_SS_MH.dwg 1/2013

- FOR CONNECTION TO EXISTING MH'S, CORE DRILL OPENING AND PROVIDE TYPE B WATER TIGHT CONNECTOR
- 6" SAND OR FOUNDATION MATERIAL
- O UNDISTURBED SOIL OR COMPACTED SUBGRADE

GROUP
Architecture
Interior Design
Landscape Architecture
Engineering

Boarman Kroos Vogel Group Inc.

222 North Second Street Long & Kees Bldg, Suite 101 Minneapolis, MN 55401 Telephone: 612.339.3752 www.bkvgroup.com EOE

CONSULTANTS



imley»Hori

PROJECT TITLE

3700 AMERICAN BLVD

 ISSUE #
 DATE
 DESCRIPTION

 02/12/2020
 DRC REVIEW

CONSTRUCTION

CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF

WILLIAM D. MATZEK, P.E.

MN

DATE: ______ LIC. NO. ____

DRAWN BY

CHECKED BY

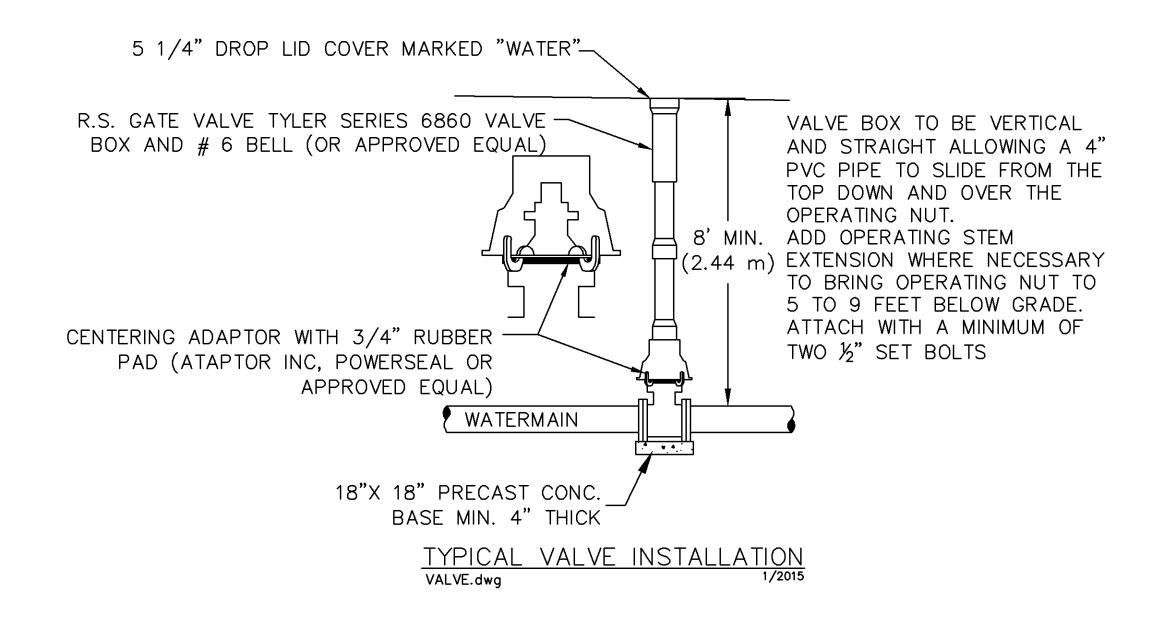
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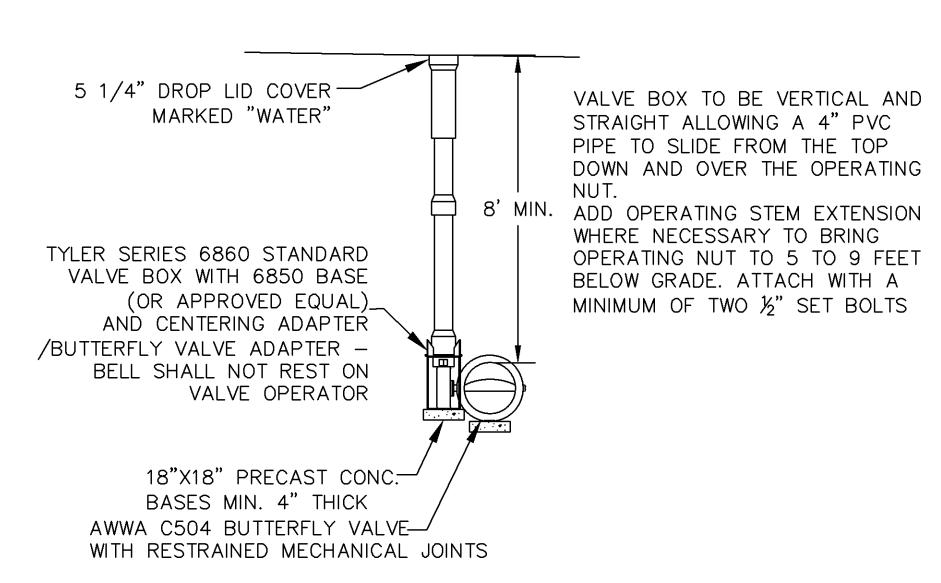
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UTILITY DETAILS

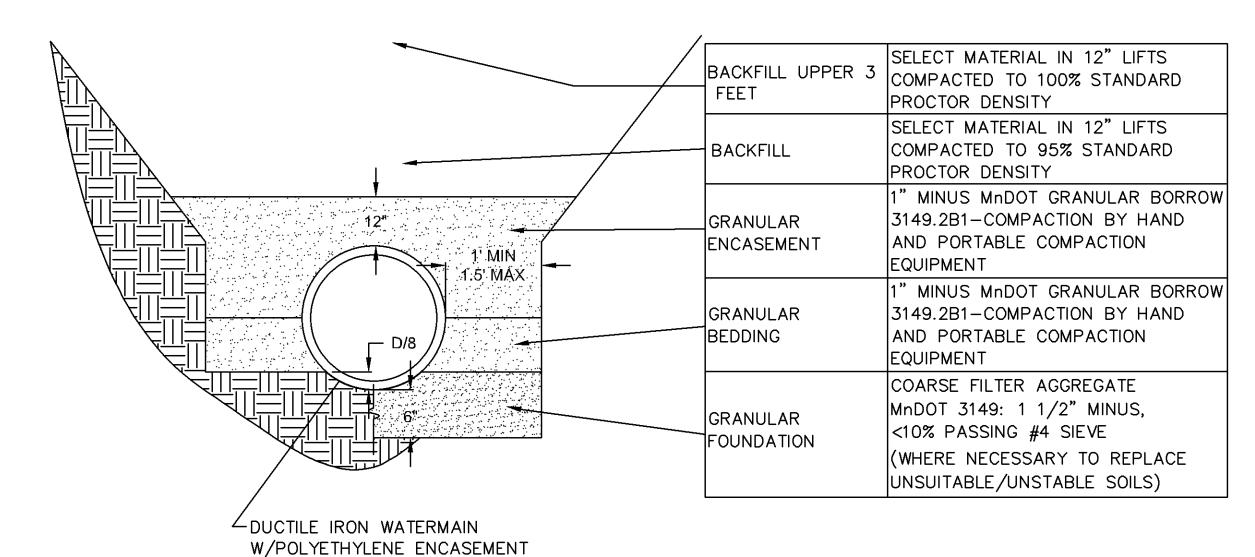
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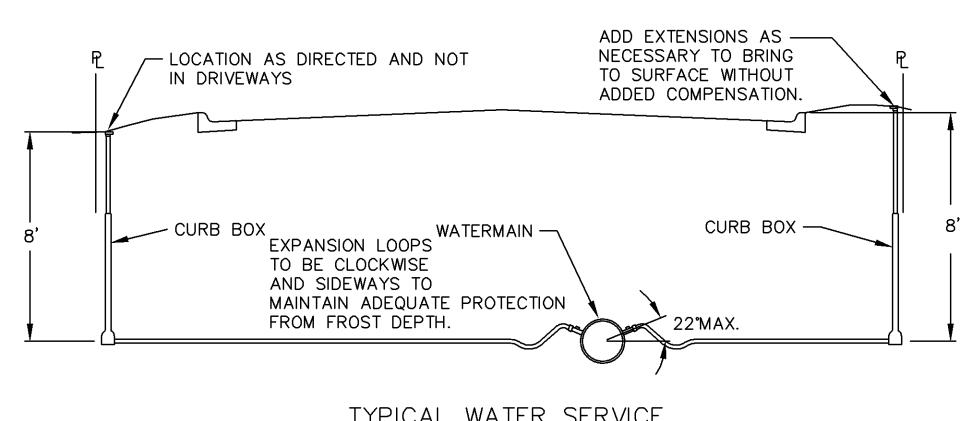




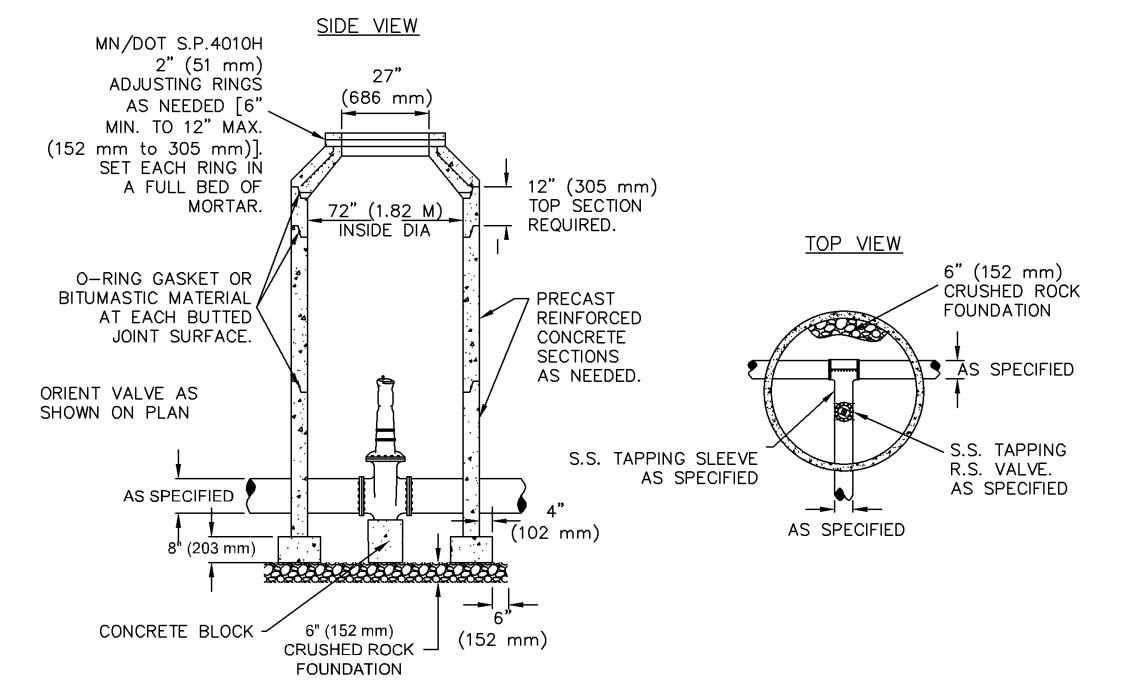
TYPICAL BUTTERFLY VALVE INSTALLATION BUTTERFLY_VALVE.dwg



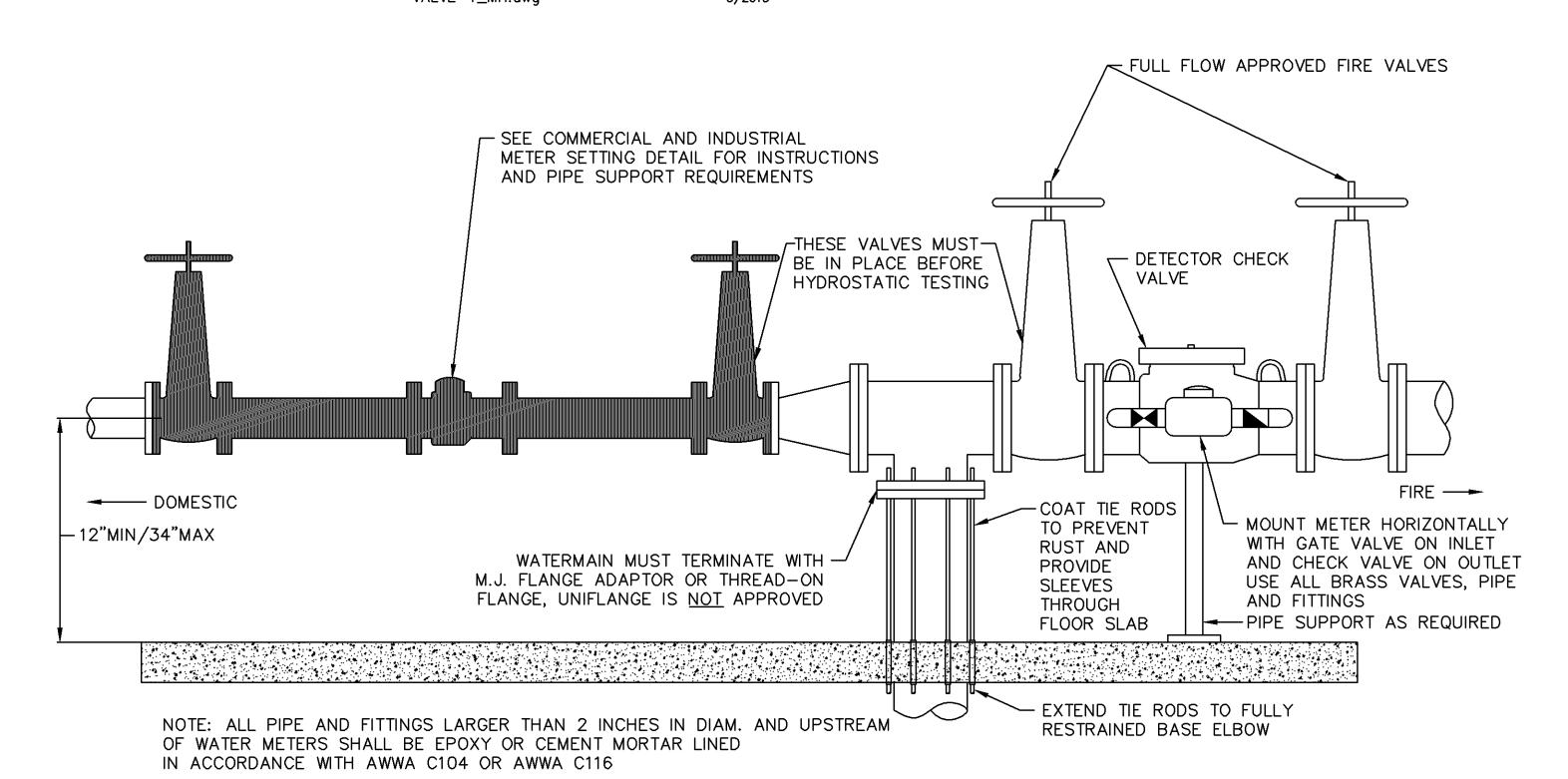
TYPICAL WATER MAIN INSTALLATION DETAIL WATERMAIN_INST.DWG



TYPICAL WATER SERVICE WAT_SERV.dwg



STANDARD TEE/VALVE MANHOLE VALVE-T_MH.dwg 5/2013



TYPICAL DOMESTIC AND FIRE SERVICE FIRE-DOMEST SERV.dwg

MIN 4'OR

AS SHOWN ON PLAN

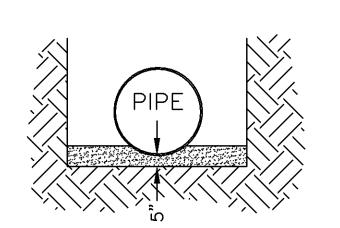
VALVE BOX -

─ WATERMAIN

6" R.S. GATE VALVE

PRECAST CONC. BASE

18"x18"x4" THICK



PIPE BEDDED IN GRANULAR BEDDING TO DEPTH OF 5 INCHES. BACKFILL COMPACTED TO FINISHED GRADE.

PIPE BEDDING DETAIL
PIPE-BED.DWG 4/2009

HYDRANT TO BE:
O WATEROUS PACER CLASSIC.
 MUELLER SUPERCENTURION 250 MODEL A-423.
o OR APPROVED EQUAL.
EQUIP WITH THREE HOSE NOZZLES/CONNECTIONS AS FOLLOWS:
ONE - FACTORY INSTALLED 5 INCH STORZ PUMPER
NOZZLE/CONNECTOR, INCLUDING A MANUFACTURER SUPPLIED
AND INSTALLED ANODIZED ALUMINUM NOZZLE CAP WITH A 1.5 INCH PENTAGON NUT AND NO ROCKER LUG.
• TWO - 2.5 INCH HOSE NOZZLES/CONNECTIONS (WITH
NATIONAL STANDARD THREADS) AND STANDARD NOZZLE CAPS
WITH 1.5 INCH PENTAGON NUTS, AND NO ROCKER LUGS.
 USE SS NUTS AND BOLTS AS APPROVED BY THE ENGINEER.
 ALL EXPOSED WATERMAIN SHALL BE WRAPPED WITH
POLYETHYLENE IN ACCORDANCE WITH AWWA C-105.
BARREL TO BE BRIGHT RED. ALL VALVES TO OBEN COUNTER OF COUNTER
 ALL VALVES TO OPEN COUNTER—CLOCKWISE. SEE TYPICAL VALVE INSTALLATION DETAIL FOR VALVE DETAILS.
WATEROUS PACER CLASSIC HYDRANTS SHALL INCLUDE
INSTALLATION OF THE MANUFACTURERS MOST CURRENT
ANTI-CHATTER BRASS UPPER VALVE WASHER.

TYPICAL HYDRANT INSTALLATION 1/2015 Hyd_instl.dwg

4' MIN-10' MAX

AS APPROVED BY CITY FORCES

Architecture Interior Design Landscape Architecture Engineering

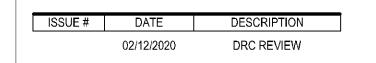
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PROJECT TITLE

3700 AMERICAN BLVD





— 16" HIGH BREAK-AWAY SECTION

POURED CONC.THRUST

BEARING SURFACE AREA

BLOCKS 2.25 SQ.FT.

— 2 LAYERS OF 8 MIL

1.5" DIA COMPACTED ROCK

(LIMESTONE IS NOT APPROVED)

POLYETHYLENE

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WILLIAM D. MATZEK, P.E.

CHECKED BY COMMISSION NUMBER 160116000 SHEET TITLE

> UTILITY **DETAILS**

SHEET NUMBER

C602