PROJECT

MO'BETTAH'S RESTAURANT

PROJECT ADDRESS/LOCATION 520 NW CHIPMAN RD., LEE'S SUMMIT MO 64086

PARCEL ID NUMBERS 52-900-03-64-00-0-00-000

LOT ACREAGE 0.88 ACRES LIMIT OF DISTURBANCE (LOD) 0.88 ACRES

PARCEL ZONING PMIX - PLANNED MIXED USE **EXISTING BUILDING CONDITIONS** VACANT UNDEVELOPED LAND

LEGAL DESCRIPTION LOT 4C-2, SUMMIT ORCHARD, LOT 4C-1, 4C-2 AND 4C-3,

CORRECTED SUMMIT ORCHARD, LOTS 4A-4E, A SUBDIVISION IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF.

PROJECT SUMMARY

THE APPLICANT PROPOSES A RESTAURANT WITH A DRIVE-THROUGH BUILDING. THE PROPOSED IMPROVEMENTS INCLUDE PARKING SPACES, A TRASH ENCLOSURE, LANDSCAPE SCREENING, STORMWATER INFRASTRUCTURE, AND APPLICABLE UTILITIES.

AGENCY CONTACTS

DEVELOPMENT SERVICES CITY OF LEE'S SUMMIT

> **RYAN ELAM - DIRECTOR** 220 SE GREEN STREET LEE'S SUMMIT, MO 64063

(816) 969-1202

ENGINEERING CITY OF LEE'S SUMMIT

KENT MONTER - ENGINEERING MANAGER

220 SE GREEN STREET LEE'S SUMMIT, MO 64063

(816) 969-1229

UTILITY DEPARTMENT CITY OF LEE'S SUMMIT

> 1200 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081

(816) 969-1900

FIRE DEPARTMENT LEE'S SUMMIT FIRE DEPARTMENT

> JIM EDEN - ASSISTANT CHIEF 207 SOUTHEAST DOUGLAS ST. LEE'S SUMMIT, MO 64063

(816) 969-1240

ELECTRIC KANSAS CITY POWER AND LIGHT COMPANY

(888) 471-5275

SPIRE ENERGY NATURAL GAS

(816) 756-5252

PARKING SCHEDULE

REQUIRED 14 SPACE PER 1000 SF OF FLOOR AREA

= 40 SPACES

PROPOSED 40 TYPICAL SPACES

> 2 ADA SPACES **42 TOTAL SPACES**

SITE COVERAGE CALCULATION

PROPOSED IMPERVIOUS AREA = 0.670 AC (76.14%) = 0.210 AC (23.86%) PROPOSED OPEN SPACE AREA

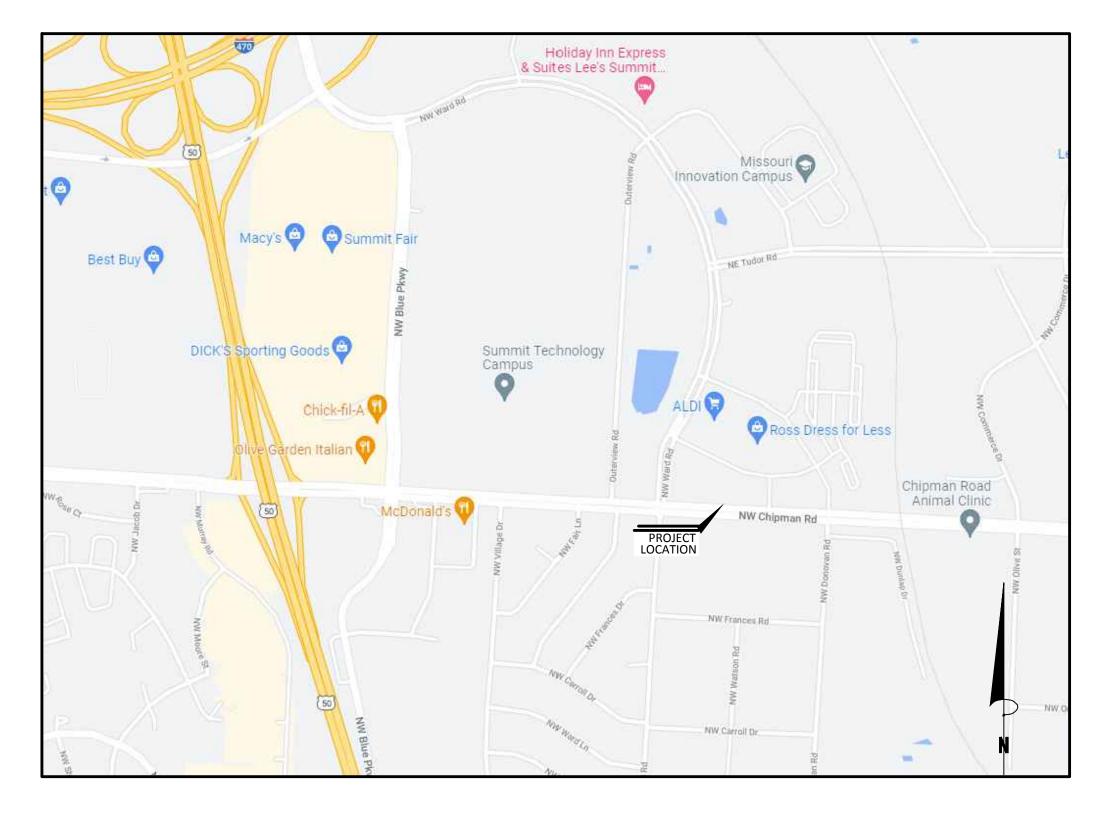
NOTES

- NO ACTIVE, INACTIVE OR CAPPED OIL AND GAS WELLS WITHIN THE AREA OF THE PROJECT SITE.
- FINAL BUILDING UTILITY CONNECTIONS TO BE DETERMINED PER ARCHITECT DRAWINGS.
- NO WETLANDS ON SITE.
- SITE IS LOCATED IN ZONE X (OUTSIDE OF THE 100-YEAR FLOOD PLAIN) PER FEMA FIRM NUMBER 29095C0417G, EFFECTIVE JANUARY 20, 2017.
- ELEVATIONS ARE BASED ON:

BENCHMARKS ELEV: 1010.19 No. 103 CONTROL/ TBM (1005943.8164, 2822115.1076) ELEV: <u>1000.36</u> CONTROL/ TBM (1005613.4472, 2821932.7384)

FINAL DEVELOPMENT PLANS FOR: MO' BETTAHS 520 NW CHIPMAN RD

LEE'S SUMMIT, MO 64086



VICINITY MAP

ENGINEER

BOWMAN CONSULTING GROUP, LTD 5601 Democracy Drive, Suite 205 Plano, Texas 75025 [Phone] 972.497.2990 Contact: Kofi Addo, P.E.

DEVELOPER

SAVORY DEVELOPMENT FUND, LLC 1557 W Innovation Way Lehi, Utah 84043 [Phone] 208.860.4661 Contact: Cass Tenney

LANDSCAPE ARCHITECT

EVERGREEN DESIGN GROUP, INC 4625 Lindell, Suite 200 St. Louis, MO 63101 [Phone] 800.680.6630 Contact: James Gibson

Bowman

FIRM NO. 2018010514

RELEASED FOR CONSTRUCTION As Noted on Plans Review Lee's Summit, Missouri

| | | | REVISIONS | DESCRIPTION | |
|--------------------------|--------------------------------------|--|-----------|-------------|---|
| (| | | | | |
| SHEET NUMBER SHEET TITLE | | | | | |
| C0.0 | COVER SHEET | | | | |
| CO.1 | CO.1 GENERAL NOTES | | | | |
| 1 OF 1 | | | | | |
| C1.0 | EROSION CONTROL PLAN | | | NOIS | |
| C1.1 | EROSION CONTROL DETAILS | | | REVISION | |
| C2.0 | SITE AND PAVING PLAN | | | | T |
| C3.0 | GRADING AND DRAINAGE PLAN | | | | |
| C3.1 | STORM DRAIN PROFILES | | | | |
| C4.0 | EXISTING DRAINAGE AREA MAP | | | | |
| C4.1 | PROPOSED DRAINAGE AREA MAP | | | | l |
| C5.0 | UTILITY PLAN | | | | |
| C6.0 | CONSTRUCTION DETAILS (1 OF 4) | | | | |
| C6.1 | CONSTRUCTION DETAILS (2 OF 4) | | | | |
| C6.2 | CONSTRUCTION DETAILS (3 OF 4) | | | | |
| C6.3 | CONSTRUCTION DETAILS (4 OF 4) | | | I | |
| LP-1 LANDSCAPE PLANTING | | | | H H H | |
| LP-2 | LANDSCAPE DETAILS AND SPECIFICATIONS | | | Ĭ | |

LANDSCAPE IRRIGATION

IRRIGATION DETAILS AND SPECIFICATIONS

IRRIGATION DETAILS

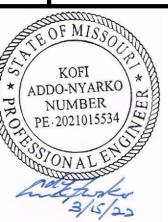
LI-1

LI-2

LI-3

PRCOM20220590

COVER



DESIGN DRAWN BB BB JOB No. 070460-01-001 SHEET C0.0

GENERAL NOTES:

- I. ALL ELEVATIONS SHOWN ARE BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY ANDERSON ENGINEERING DATED JULY 07TH, 2021.
- 2. CONTRACTOR SHALL VERIFY ACCURACY OF ANY TEMPORARY BENCHMARKS SHOWN PRIOR TO UTILIZING THEM FOR CONSTRUCTION.
- THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES PRIOR TO BEGINNING DIGGING OPERATIONS. IF UTILITIES OTHER THAN THOSE SHOWN ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND TAKE STEPS TO PROTECT THE LINE(S) AND ENSURE CONTINUED SERVICE. DAMAGE CAUSED TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR. ADDITIONALLY, THE CONTRACTOR SHALL CONFIRM THE CONNECTION POINTS OF NEW UTILITIES TO EXISTING UTILITIES PRIOR TO BEGINNING NEW CONSTRUCTION.
- 4. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL AND PREVENTION STRUCTURES SHOWN ON THE PLANS. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH THE DISTURBANCE OF THE LAND AND SHALL REMAIN FUNCTIONAL UNTIL THE CONTRIBUTING DISTURBED AREAS ARE STABILIZED. SILT BARRIERS WILL BE INSTALLED AS NECESSARY TO PREVENT EXCESSIVE SEDIMENTATION OF DOWNSTREAM AREAS. DEVICES SHALL BE IN ACCORDANCE WITH JACKSON COUNTY FOR CONSTRUCTION ACTIVITIES. THE CITY OF LEE'S SUMMIT SHALL BE GIVEN AT LEAST A 48-HOUR NOTICE PRIOR TO PERFORMING ANY INSPECTION, SITE DISTURBANCE OR UTILITY WORK
- 5. IF WORK IS SUSPENDED OR DELAYED FOR FOURTEEN (14) DAYS, THE CONTRACTOR SHALL TEMPORARILY STABILIZE THE DISTURBED AREA AT CONTRACTORS EXPENSE.
- THE TREE PROTECTION IN THE AREAS OF WORK SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE START OF LAND DISTURBANCE ACTIVITIES. UNLESS SPECIFICALLY SHOWN ON THESE PLANS, THE DESTRUCTION OF ANY REGULATED TREES IS PROHIBITED. PROTECTIVE BARRICADES SHALL BE PLACED AROUND ALL TREES DURING ALL PHASES OF CONSTRUCTION.
- 7. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF UNSUITABLE MATERIAL IS DISCOVERED PRIOR TO BEGINNING ANY REMOVAL OPERATION.
- 8. CONTRACTOR WILL BE REQUIRED TO ADJUST MANHOLE FRAMES TO MATCH FINAL GRADE AT NO ADDITIONAL COST.
- 9. ANY DAMAGE TO EXISTING PAVEMENT MUST BE REPAIRED AT CONTRACTOR'S EXPENSE.
- 10. ALL RIGHT-OF-WAY AND DRAINAGE EASEMENT CONSTRUCTION SHALL MEET APPLICABLE CITY OF LEE'S SUMMIT STANDARD SPECIFICATIONS UNLESS SPECIFIED ELSEWHERE AND APPROVED IN WRITING BY THE ENGINEER.
- 11. WHERE FIELD INSPECTIONS ARE REQUIRED BY THE CITY, THE CONTRACTOR SHALL NOTIFY THE ENGINEERING DIVISION A MINIMUM OF 48 HOURS IN ADVANCE TO SCHEDULE SUCH INSPECTIONS.
- 12. A COMPLETE SET OF APPROVED DRAWINGS AND SPECIFICATIONS MUST BE MAINTAINED ON SITE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK. THESE DRAWINGS SHALL BE MADE AVAILABLE TO THE COUNTY PERSONNEL AT THEIR REQUEST.
- 13. ANY REVISIONS DURING CONSTRUCTION WHICH ALTER THE ROAD LAYOUT, CONSTRUCTION METHODS, RIGHT-OF-WAY LOCATIONS OR STORM DRAINAGE AS INDICATED AND APPROVED BY THE CITY MUST BE SUBMITTED AND APPROVED IN WRITING BY THE CITY ENGINEER.
- 14. THE CONTRACTOR AND ALL SUB-CONTRACTORS HIRED BY THE CONTRACTOR SHALL BE LICENSED TO WORK IN THE STATE OF MISSOURI.
- 15. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL CONSTRUCTION PERMITS NECESSARY FROM
- 16. ALL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" CURRENT EDITION. ALL DRAINAGE WILL BE MADE FUNCTIONAL DAILY AS WORK PROGRESSES.
- 17. EACH EXISTING ROAD WILL BE CLEANED OF DEBRIS AND RESTORED DAILY, OR MORE OFTEN IF NECESSARY.
- 18. NEW PAVEMENT TO BE FLUSH WITH EDGE OF EXISTING PAVEMENT.
- 19. ALL CONSTRUCTION, INCLUDING SANITARY SEWER AND WATER INFRASTRUCTURE SHALL BE IN ACCORDANCE WITH CITY OF LEE'S SUMMIT'S DESIGN AND CONSTRUCTION MANUAL.
- 20. THE SEDIMENT AND EROSION CONTROL PLAN MUST BE KEPT ON SITE AT ALL TIMES, AND IN A DESIGNATED AREA THAT IS ACCESSIBLE TO THE INSPECTORS.
- 21. SEDIMENT AND EROSION CONTROL INSPECTIONS MUST BE COMPLETED BY A CERTIFIED INSPECTOR.
- 22. SEDIMENT AND EROSION CONTROL SHOULD INCLUDE A CONCRETE WASHOUT/STAGING AREA FOR SITE AND BUILDING CONSTRUCTION AND ALL OTHER PURPOSES OF THE DEVELOPMENT.
- 23. CONSTRUCTION DEBRIS MUST BE PLACED INSIDE CONTAINERS AND NOT LEFT EXPOSED TO THE ELEMENTS.
- 24. SITE MUST BE BUILT ACCORDING TO APPROVED CITY PLANS UNLESS SEDIMENT AND EROSION CONTROL PLAN DOCUMENTS ARE UPDATED BY THE ORIGINAL PREPARER, REVIEWED AND APPROVED. OTHERWISE PERMITS WILL BE INVALIDATED.
- 25. NO OBSTRUCTIONS, TO INCLUDE BUT NOT LIMITED TO FENCES, STRUCTURES, OR LANDSCAPING MAY BE PERMITTED OR BUILT WITHIN ANY SWALES OR DRAINAGE EASEMENT.
- 26. CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION OF UNDERGROUND UTILITIES WITH THE APPROPRIATE UTILITY COMPANY.
- 27. PIPE LENGTHS THAT ARE SHOWN ON THE PLANS ARE 2D LENGTH FROM CENTER TO CENTER. FIELD ADJUSTMENT OF THE ACTUAL PIPE LENGTHS MAY BE NECESSARY.
- 28. THE CONTRACTOR SHALL STAGE CLEARING AND GRUBBING WORK TO MINIMIZE THE AMOUNT OF EROSION AND SEDIMENTATION.
- 29. THE CONTRACTOR SHALL PROVIDE APPROPRIATE BARRICADES, WARNING LIGHTS, AND WARNING SIGNS TO ENSURE THE SAFETY OF THE PUBLIC AT ALL TIMES.
- 30. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION SIGNAGE AND MAINTENANCE OF EXISTING PERMANENT SIGNS DURING CONSTRUCTION.
- 31. THE CONTRACTOR SHALL VERIFY PROPERTY LINES, BUILDING DIMENSIONS, AND ALL OTHER SITE CONDITIONS PRIOR TO CONSTRUCTION. ANY SIGNIFICANT VARIATIONS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- 32. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS ON THE JOB. BOWMAN CONSULTING GROUP SHALL BE NOTIFIED IN WRITING OF ANY VARIATION FROM THE DIMENSIONS, CONDITIONS, AND SPECIFICATIONS SHOWN BY THESE DRAWINGS.
- 33. ALL CURVE RADII ARE SHOWN TO THE FACE OF CURB UNLESS NOTED OTHERWISE.

- 34. ALL DRAINAGE WILL BE MADE FUNCTIONAL DAILY AS WORK PROGRESSES.
- 35. AT THE CONCLUSION OF THE CONSTRUCTION PROJECT, ALL COMPONENTS OF THIS DESIGN PACKAGE SHALL BE IN OPERABLE CONDITION, MEETING ITS REQUIREMENTS.
- 36. THE CONTRACTOR SHALL CONTACT MISSOURI 811, UTILITY COMPANY REPRESENTATIVES, PERFORM TEST PITS, REVIEW CURRENT TEST PIT DATA, AND WHATEVER OTHER OPERATIONS AVAILABLE TO ENSURE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES IN THE AREA OF CONSTRUCT TO INSURE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES IN THE AREA OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY BOWMAN CONSULTING GROUP, LTD. OF ANY POTENTIAL CONFLICTS PRIOR TO COMMENCING CONSTRUCTION.
- 37. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND MAKE ALL INSPECTIONS NECESSARY IN ORDER TO DETERMINE THE FULL EXTENT OF THE WORK REQUIRED TO MAKE THE PROPOSED WORK CONFORM TO THE DRAWINGS AND SPECIFICATIONS.
- 38. UTILITY COMPANIES SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF ANY EXCAVATION
- 39. ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE INSTALLED TO THE REQUIRED DISTANCE BEYOND THE RIGHT-OF-WAY LINE PRIOR TO THE INSTALLATION OF ANY SUBBASE MATERIAL. CURB AND GUTTER OR SIDEWALK.
- 40. ADDITIONAL SILTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS DIRECTED BY THE INSPECTOR DURING FIELD REVIEW.
- 41. ALL SURFACED STREETS SHALL BE MAINTAINED IN A CLEAR CONDITION; FREE OF DUST, MUD OR SNOW AT ALL TIMES. THE DEVELOPER SHALL PROVIDE ADEQUATE MEANS TO CLEAN TRUCKS AND OTHER EQUIPMENT USING SURFACED STREETS.
- 42. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENTS AND/OR RECONSTRUCTIONS OF ALL UTILITY COVER (MANHOLE FRAMES AND COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.
- 43. THE CONTRACTOR MUST HAVE THE APPROVED SET OF CONSTRUCTION PLANS AND ALL APPLICABLE PERMITS IN POSSESSION PRIOR TO THE START OF CONSTRUCTION. AT LEAST ONE (1) COPY OF THE APPROVED PLANS, WITH REVISIONS, MUST BE KEPT ON-SITE AT ALL TIMES.
- 44. THESE PLANS MAKE NO REPRESENTATION AS TO THE SUBSURFACE CONDITIONS AND THE PRESENCE OF SUBSURFACE WATER OR THE NEED FOR SUBSURFACE DRAINAGE FACILITIES.
- 45. STORM SEWER AND CULVERT PIPE SHALL BE REINFORCED CONCRETE PIPE TO CONFORM TO THE CURRENT A.A.S.H.T.O. DESIGNATION M170, UNLESS OTHERWISE DESIGNATED ON THESE PLANS.
- 46. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A SAFE CONSTRUCTION SITE AND COMPLYING WITH ALL OSHA REGULATIONS.
- 47. EMERGENCY VEHICLE ACCESS SHALL BE PROVIDED DURING ALL PHASES OF CONSTRUCTION
- 48. WHERE IMPROVEMENTS ARE PROPOSED WITHIN EXISTING EASEMENTS OF RECORD, THE DEVELOPER SHALL OBTAIN WRITTEN PERMISSION FROM THE AUTHORITIES THAT ARE DOMINANT TENEMENTS OF THESE EASEMENTS FOR PERMIT FOR ANY DISTURBANCES WITHIN THESE AREAS PRIOR TO CONSTRUCTIONS
- 49. ALL FINISHED GRADING, SEEDING, SODDING OR PAVING SHALL BE DONE IN SUCH MANNER TO PRECLUDE THE PONDING OF WATER.
- 50. ALL SIDEWALKS TO BE 4" THICK CONCRETE UNLESS OTHERWISE SHOWN ON THE PLAN.
- 51. THE ENGINEER SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK SHOWN ON THESE PLANS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S SCHEDULES OF FAILURE TO CARRY OUR THE WORK. THE ENGINEER IS NOT RESPONSIBLE FOR ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES, OR OF ANY OTHER PERSONS PERFORMING PORTIONS OF THE WORK.
- 52. ALL GAS LINES REQUIRE A MINIMUM OF 1 FOOT VERTICAL AND 5 FEET HORIZONTAL SEPARATION. CONSTRUCTION WITHIN 10 FEET OF THE GAS LINE REQUIRES A GAS LINE REPRESENTATIVE TO BE PRESENT DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE GAS COMPANY PRIOR TO CONSTRUCTION.
- 53. NO TREES SHALL BE PLANTED IN THE WATER AND SEWER EASEMENTS.
- 54. UNLESS OTHERWISE NOTED HEREIN, CONSTRUCTION OF PAVEMENT AND DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT STANDARDS.
- 55. UPON AWARD OF CONTRACT, THE CONTRACTOR SHALL OBTAIN THE NECESSARY LOCAL TRADE PERMITS (INCLUDING APPLICATIONS AND FEES) ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS AND IN THE CONTRACT DOCUMENTS.
- 56. ALL ROAD IMPROVEMENTS AT THE DRIVE CONNECTIONS ARE TO BE COORDINATED WITH THE CITY OF LEE'S SUMMIT ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.
- 57. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS.
- 58. IN ORDER TO ENSURE PROPER DRAINAGE, KEEP A MINIMUM OF 0.5% SLOPE ON THE CURB.
- 59. CURB AND GUTTER SHOWN ON PLANS MAY REQUIRE ADJUSTMENT BASED UPON FIELD CONDITIONS ASSOCIATED STORM DRAINAGE MAY ALSO REQUIRE MODIFICATION BASED UPON FIELD CONDITIONS.
- 60. NO ACTIVE, INACTIVE OR CAPPED OIL AND GAS WELLS WITHIN THE AREA OF THE PROJECT SITE.
- 61. THE CONTRACTOR SHALL CONTACT THE CITY OF LEE'S SUMMIT DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH AN INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

GENERAL BE ADDO-NYARKO NUMBER 20 PE-2021015534/5

DESIGN | DRAWN | CHKD

JOB No. 070460-01-001

SHEET

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LEGAL DESCRIPTION

LOT 4C-2, SUMMIT ORCHARD, LOT 4C-1, 4C-2 AND 4C-3, CORRECTED SUMMIT ORCHARD, LOTS 4A- 4E, A SUBDIVISION IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF.

SURVEYOR'S GENERAL NOTES & TABLE A NOTES

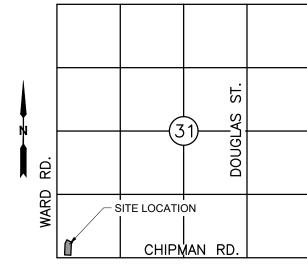
- 1). THIS SURVEY IS BASED UPON THE FOLLOWING INFORMATION PROVIDED BY THE CLIENT OR RESEARCHED BY THIS SURVEYOR. (A). LOT 4C-2, MINOR PLAT LOT 4C, CORRECTED SUMMIT ORCHARDS, LOT 4A-4E, IN DOCUMENT 2021E0082033.
- 2). THE TITLE REPORT WAS FURNISHED BY (FIRST AMERICAN TITLE INSURANCE COMPANY FILE NO. NCS-1070411-SLC1, DATED: JULY 27, 2021 @ 8:00 A.M.
- 3). BEARINGS AND DISTANCE SHOWN HEREON ARE BASED UPON THE MISSOURI STATE PLANE COORDINATE SYSTEM, 1983, MISSOURI WEST ZONE (NSRS 2011)
- 4). WITH THIS SURVEY, ANDERSON ENGINEERING, INC., AND THIS LAND SURVEYOR DOES NOT GUARANTEE THAT OWNERSHIP IS TO THE SURVEY LINES DEPICTED HEREON. THIS SURVEY IS A GRAPHIC REPRESENTATION OF THE OPINION OF SAID SURVEYOR AND THE OPINION OF SAID ANDERSON ENGINEERING, INC., AS TO THE LOCATION OF THE RECORD DESCRIPTION(S). NO OPINION AS TO THE VALIDITY OF THE TITLE IS GIVEN OR IMPLIED.
- 5). PROPERTY ADDRESS IS: 520 NW CHIPMAN ROAD, LEE'S SUMMIT, MO 64086
- 6). SUBJECT PROPERTY IS LOCATED IN ZONE "X", AREA OF MINIMAL FLOOD HAZARD. AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP NUMBER 29095C0417G. EFFECTIVE DATE: JANUARY 20, 2017
- 7). SUBJECT PROPERTY CONTAINS: 38,265 SQ. FT., 0.88 ACRES ±. SUBJECT PROPERTY IS ZONED: (PLANNED MIX USED) PER LEES SUMMIT ZONING MAP. NO ZONING DOCUMENTS WERE PROVIDED. NO BUILDINGS EXIST ON SITE.
- 8). THIS COMPANY ASSUMES NO RESPONSIBILITY IN THE LOCATION OF EXISTING UTILITIES WITHIN THE SUBJECT PREMISES. THIS IS AN ABOVE-GROUND SURVEY THE UNDERGROUND UTILITIES, IF SHOWN, ARE BASED ON INFORMATION PROVIDED BY THE VARIOUS UTILITY COMPANIES AND THESE LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. THERE MAY BE ADDITIONAL UNDERGROUND UTILITIES NOT SHOWN ON THIS DRAWING.
- 9). SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT SURVEYED OR EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO EVIDENCE OR STATEMENT IS MADE CONCERNING THE EXISTENCE OR UNDERGROUND OR OVERHEAD CONDITIONS, CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS PROPERTY.
- 10). NOTE TO THE CLIENT, INSURER, AND LENDER WITH REGARD TO TABLE A, ITEM 11, SOURCE INFORMATION FROM PLANS AND MARKINGS WILL BE COMBINED WITH OBSERVED EVIDENCE OF UTILITIES PURSUANT TO SECTION 5.E.IV. TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE, IN WHICH CASE THE SURVEYOR SHALL NOTE ON THE PLAT OR MAP HOW THIS AFFECTED THE SURVEYOR'S ASSESSMENT OF THE LOCATION OF THE UTILITIES. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION AND/OR A PRIVATE UTILITY LOCATE REQUEST MAY BE NECESSARY.
- 11). NO PROPOSED CHANGES IN THE STREET(S) AS SHOWN HEREON, WERE PROVIDED TO THIS SURVEYOR OR HAS KNOWLEDGE OF AS OF THE DATE OF THIS SURVEY
- 12). ITEM 17- "RECIPROCAL EASEMENT AND OPERATING AGREEMENT" GUARANTEES ACCESS TO AND FOR EXISTING AND FUTURE DEVELOPMENTS. THIS IS BLANKET EASEMENT.

LEGEND

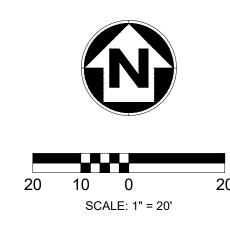
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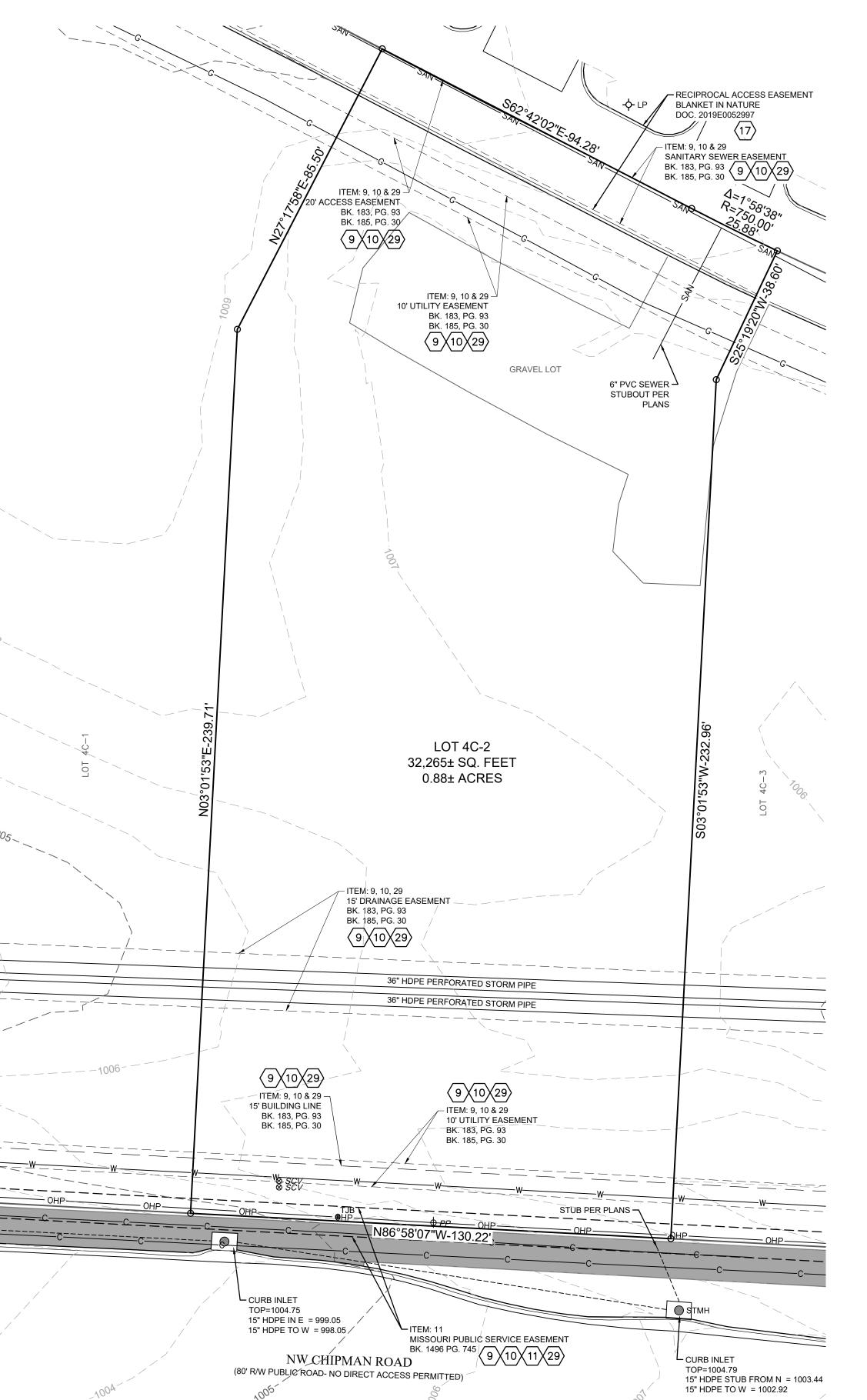
CAP AE INC. LC-62

| • DRAIN | = STORM DROP INLET | G | = UNDERGROUND GAS LINES |
|----------------|---------------------------|-----|-----------------------------------|
| STMH | = STORM MANHOLE | | = SANITARY SEWER PIPES |
| -수 - LP | = LIGHT POLE | OHP | = OVERHEAD POWER LINE |
| | = COMMUNICATION MANHOLE | C | = UNDERGROUND COMMUNICATION LINES |
| \cap FVT | = GOOGLE FIBER VAULT | | |
| ф FН | = FIRE HYDRANT | | |
| ⋈WV | = WATER VALVE | | |
| SSMH | = SANITARY SEWER MANHOLE | | |
| ⊗ SCV | = SPRINKLER CONTROL VALVE | | |
| ⊞ TJB | = TRAFFIC CONTROL VAULT | | = SIDEWALK |
| ightharpoons T | = COMMUNICATION MARKER | | |
| ф <i>РР</i> | = POWER POLE | | |



__LOCATION MAP_
SECTION 31, TOWNSHIP 48, RANGE 31
JACKSON COUNTY, MISSOURI
SCALE: 1" = 2000'





NOTES CORRESPONDING TO SCHEDULE B, PART II (EXCEPTIONS)

- 1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART IREQUIREMENTS ARE MET. NOT A SURVEY MATTER
- 2. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. NOT A SURVEY MATTER.
- 3. EASEMENTS, OR CLAIMS OF EASEMENTS, NOT SHOWN BY THE PUBLIC RECORDS. NOT A SURVEY MATTER.
- 4. ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION OR ADVERSE CIRCUMSTANCES AFFECTING TITLE THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE SURVEY OF THE LAND OR THAT COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND.
- 5. ANY LIEN OR RIGHT TO A LIEN FOR SERVICES, LABOR, MATERIAL OR EQUIPMENT, UNLESS SUCH LIEN IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY AND NOT OTHERWISE EXCEPTED FROM COVERAGE HEREIN. NOT A SURVEY MATTER.
- 6. TAXES, OR SPECIAL ASSESSMENTS, IF ANY, NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS. NOT A SURVEY MATTER.
- 7. THE LIEN OF THE GENERAL TAXES FOR THE YEAR 2021, AND THEREAFTER. NOT A SURVEY MATTER. GENERAL, STATE, COUNTY AND CITY TAXES AND ASSESSMENTS FOR THE YEAR 2020 IN THE AMOUNT OF \$504.98 ARE PAID. PARCEL NO. 52-900-03-64-00-0-000. NOT A SURVEY MATTER.
- 8. THE LIEN OF THE CITY OF LEE'S SUMMIT, MISSOURI SPECIAL ASSESSMENT TAXES, IF ANY; NONE DUE OR PAYABLE. NOT A SURVEY MATTER.
- 9. EASEMENTS, RESTRICTIONS AND SETBACK LINES AS PER PLAT, SUMMIT ORCHARD, LOTS 4A-4E, RECORDED IN PLAT BOOK 183, PAGE 93; SUMMIT ORCHARD FIRST PLAT, LOTS 1-4 & TRACT A, RECORDED IN PLAT BOOK 163, PAGE 87; SUMMIT INNOVATION CENTER 2ND PLAT, LOTS 7A AND 8, RECORDED IN PLAT BOOK 160, PAGE 1; SUMMIT INNOVATION CENTER FIRST PLAT, RECORDED IN PLAT BOOK 156, PAGE 64; SUMMIT FAIR, LOTS 11A & 11B, RECORDED IN PLAT BOOK 138, PAGE 1 AND SUMMIT FAIR, SECOND PLAT LOTS 8, 10-14, AND TRACT C, RECORDED IN PLAT BOOK 122, PAGE 1. THIS EXCEPTION AFFECTS SUBJECT PROPERTY AND IS SHOWN HEREON.
- 10. EASEMENTS, RESTRICTIONS AND SETBACK LINES PER PLAT, RECORDED AS CORRECTED SUMMIT ORCHARD, LOTS 4A-E, RECORDED AUGUST 29, 2019 AS DOCUMENT NO. 2019E0068481, IN PLAT BOOK 185, PAGE 30. THIS EXCEPTION AFFECTS SUBJECT PROPERTY AND IS SHOWN HEREON.
- 11. EASEMENT GRANTED TO MISSOURI PUBLIC SERVICE COMPANY, RECORDED FEBRUARY 7, 1961, AS DOCUMENT NO. 762400, IN BOOK 1496, PAGE 745. DOES AFFECT SUBJECT PROPERTY.
- 12. EASEMENT GRANTED TO THE GAS SERVICE COMPANY, RECORDED JUNE 16, 1961, AS DOCUMENT NO. 770224, IN BOOK 1517, PAGE 96. DOES NOT AFFECT SUBJECT PROPERTY.
- 13. RIGHT OF WAY AGREEMENT GRANTED TO THE GAS SERVICE COMPANY, RECORDED JUNE 23, 1970, AS DOCUMENT NO. I-62891, IN BOOK 188, PAGE 1869. PARTIAL RELEASE OF RIGHT OF WAY AGREEMENT RECORDED OCTOBER 21, 2008, AS DOCUMENT NO. 2008E0111404.

 ASSIGNMENT OF EASEMENTS AND RIGHTS-OF-WAY TO LACLEDE GAS COMPANY, RECORDED SEPTEMBER 3, 2013, AS DOCUMENT NO. 2013E0093218.

 DOES NOT AFFECT SUBJECT PROPERTY.
- 14. TERMS AND PROVISIONS OF THE DECLARATION OF RESTRICTIVE COVENANT AND GRANT OF ACCESS, EXCEPT THAT PART PERTAINING TO THE USE RESTRICTIONS UNDER THE RESTRICTIVE COVENANT, DATED APRIL 24, 2007, BY AND BETWEEN TOWNSEND SUMMIT, LLC, A DELAWARE LIMITED LIABILITY COMPANY AND MISSOURI DEPARTMENT OF NATURAL RESOURCES, RECORDED APRIL 24, 2007, AS DOCUMENT NO. 2007F0054314, NOT A SURVEY MATTER
- 15. TERMS, PROVISIONS AND RESTRICTIONS AS CONTAINED IN THE CERTIFICATE OF COMPLETION DATED JULY 11, 2007, FROM THE DEPARTMENT OF NATURAL RESOURCES, STATE OF MISSOURI, RECORDED AUGUST 8, 2007, AS DOCUMENT NO. 2007E0104283. NOT A SURVEY MATTER.
- 16. TERMS AND PROVISIONS OF THE DEVELOPMENT AGREEMENT DATED SEPTEMBER 6, 2016, AND APPROVED BY CITY ORDINANCE NUMBER 7885, AS EVIDENCED BY THE MEMORANDUM OF DEVELOPMENT AGREEMENT BETWEEN TOWNSEND SUMMIT, LLC AND THE CITY OF LEE'S SUMMIT, MISSOURI FOR THE SUMMIT ORCHARD DEVELOPMENT FILED SEPTEMBER 8, 2016, AS DOCUMENT NO. 2016E0083148. CERTIFICATE OF COMPLETION AND COMPLIANCE FOR THE SUMMIT ORCHARD DEVELOPMENT AGREEMENT, RECORDED SEPTEMBER 24, 2020, AS DOCUMENT NO. 2020E0087174. NOT A SURVEY MATTER. DOES NOT AFFECT SUBJECT PROPERTY.
- 17. ACCESS EASEMENT AGREEMENT BETWEEN TOWNSEND SUMMIT, LLC AND SUMMIT ORCHARDS COMMUNITY IMPROVEMENT DISTRICT, RECORDED JULY 11, 2019, AS DOCUMENT NO. 2019E0052997. DOES AFFECT SUBJECT PROPERTY. INGRESS/EGRESS ACCESS, INDIRECT ACCESS IS PROVIDED TO NW WARD ROAD AND NW DONOVAN ROAD.
- 18. MEMORANDUM OF SUMMIT ORCHARDS CID COOPERATIVE AGREEMENT, BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, SUMMIT ORCHARDS COMMUNITY IMPROVEMENT DISTRICT AND TOWNSEND SUMMIT, LLC, RECORDED JULY 8, 2019, AS DOCUMENT NO. 2019E0051682. AFFECTS SUBJECT PROPERTY, NOT PLOTTABLE
- 19. RECIPROCAL EASEMENT AND OPERATING AGREEMENT, BY TOWNSEND SUMMIT, LLC, RECORDED SEPTEMBER 17, 2019 AS DOCUMENT NO. 2019E0074368. AFFECT SUBJECT PROPERTY, NOT A SURVEY MATTER.
- 20. TERMS AND PROVISIONS OF AN UNRECORDED LEASE, BY AND BETWEEN TOWNSEND SUMMIT, LLC, A DELAWARE LIMITED LIABILITY COMPANY AS LESSOR AND ALDI INC., A KANSAS CORPORATION AS LESSEE, AS DISCLOSED BY A MEMORANDUM OF LEASE RECORDED OCTOBER 29, 2019 AS DOCUMENT NO. 2019E0088260 OF OFFICIAL RECORDS. MEMORANDUM OF LEASE RECORDED OCTOBER 29, 2019 AS DOCUMENT NO. 2019E0088260 OF OFFICIAL RECORDS. DOES NOT AFFECT SUBJECT PROPERTY.
- 21. TERMS AND PROVISIONS OF AN UNRECORDED LEASE, BY AND BETWEEN TOWNSEND SUMMIT, LLC, A DELAWARE LIMITED LIABILITY COMPANY AS LESSOR AND ROSS DRESS FOR LESS, INC., A VIRGINIA CORPORATION AS LESSEE, AS DISCLOSED BY A MEMORANDUM OF LEASE RECORDED NOVEMBER 12, 2019 AS DOCUMENT NO. 2019E0092622 OF OFFICIAL RECORDS. DOES NOT AFFECT SUBJECT PROPERTY.
- 22. TERMS AND PROVISIONS OF AN UNRECORDED LEASE, BY AND BETWEEN TOWNSEND SUMMIT, LLC AS LESSOR AND FIVE BELOW, INC. AS LESSEE, AS DISCLOSED BY A SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT AGREEMENT RECORDED JANUARY 31, 2020 AS DOCUMENT NO. 2020E0009310 OF OFFICIAL RECORDS. DOES NOT AFFECT SUBJECT PROPERTY.
- 23. TERMS AND PROVISIONS OF AN UNRECORDED LEASE DATED FEBRUARY 28, 2020, BY AND BETWEEN TOWNSEND SUMMIT, LLC, A DELAWARE LIMITED LIABILITY COMPANY AS LESSOR AND LC RESTAURANT, LLC, A DELAWARE LIMITED LIABILITY COMPANY AS LESSEE, AS DISCLOSED BY A MEMORANDUM OF GROUND LEASE RECORDED MARCH 9, 2020 AS DOCUMENT NO. 2020E0020258 OF OFFICIAL RECORDS. DOES NOT AFFECT SUBJECT PROPERTY
- 24. UTILITY EASEMENT GRANTED TO CITY OF LEE'S SUMMIT, MISSOURI, RECORDED APRIL 10, 2020, AS DOCUMENT NO. 2020E0029624. DOES NOT
- 25. TERMS AND PROVISIONS OF AN UNRECORDED LEASE DATED DECEMBER 7, 2019, BY AND BETWEEN TOWNSEND SUMMIT, LLC, A DELAWARE LIMITED LIABILITY COMPANY AS LESSOR AND BLACKSTONE FB, LLC AS LESSEE, AS DISCLOSED BY A LEASEHOLD SUBORDINATION, NONDISTURBANCE AND ATTORNMENT AGREEMENT AND ESTOPPEL CERTIFICATE RECORDED AUGUST 3, 2020 AS DOCUMENT NO. 2020E0067234 OF OFFICIAL RECORDS. DOES NOT AFFECT SUBJECT PROPERTY.
- 26. TERMS AND PROVISIONS OF AN UNRECORDED LEASE DATED APRIL 7, 2020, BY AND BETWEEN TOWNSEND SUMMIT, LLC, A DELAWARE LIMITED LIABILITY COMPANY AS LESSOR AND NGUYEN-NGUYEN SITUATIONS LLC, A MISSOURI LIMITED LIABILITY COMPANY AS LESSEE, AS DISCLOSED BY A LEASEHOLD SUBORDINATION, NONDISTURBANCE AND ATTORNMENT AGREEMENT AND ESTOPPEL CERTIFICATE RECORDED OCTOBER 2, 2020 AS DOCUMENT NO. 2020E0091093 OF OFFICIAL RECORDS. DOES NOT AFFECT SUBJECT PROPERTY.
- 27. ANY CLAIM THAT THE TITLE IS SUBJECT TO A TRUST OR LIEN CREATED UNDER THE PERISHABLE AGRICULTURAL COMMODITIES ACT (7 U.S.C. §§499A, ET SEQ.) AND/OR THE PACKERS AND STOCKYARDS ACT (7 U.S.C. §§181 ET SEQ.) OR UNDER SIMILAR STATE LAWS. NOT A SURVEY MATTER.
- 28. TENANCY RIGHTS, EITHER AS MONTH TO MONTH, OR BY VIRTUE OF WRITTEN LEASES OF PERSONS IN POSSESSION OF ANY PART OF THE SUBJECT PROPERTY. DOES NOT AFFECT SUBJECT PROPERTY.
- 29. EASEMENTS, RESTRICTIONS AND SETBACK LINES AS PER PLAT, RECORDED AS/IN PLAT BOOK I-194, PAGE 60, DOCUMENT NO. 2021E0082033. THIS EXCEPTION AFFECTS SUBJECT PROPERTY AND IS SHOWN HEREON.

TO: TOWNSEND SUMMIT, LLC., SAVOY DEVELOPEMENT I, LLC, A DELAWARE LIMITED LIABILITY COMPANY & FIRST AMERICAN TITLE INSURANCE TITLE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS" JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(a), 6(b), 7(a) 7(b)(1), 7(b)(2), 7(c), 8, 9, 10, 11(a), 11(b), 13, 16, 17, AND 18 OF TABLE "A" THEREOF. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR REGISTERED IN THE STATE OF MISSOURI, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN, AND THAT SAID SURVEY MEETS OR EXCEEDS THE CURRENT MISSOURI STANDARDS FOR PROPERTY BOUNDARY SURVEYS AS ESTABLISHED BY THE MISSOURI BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, PROFESSIONAL LAND SURVEYORS AND LANDSCAPE ARCHITECTS, AND THE MISSOURI DEPARTMENT OF AGRICULTURE LAND SURVEY PROCESM.

THE FIELD WORK WAS COMPLETED ON 2021-04-23.

DATE: 8/31/2021
SAMUEL J. DEPRIEST MISSOURI PLS 2013000041
ANDERSON ENGINEERING INC. LC-62



ENGINEERS • SURVEYORS • LABORATORIES • DRILLING V 141TH TERRACE. • KANSAS CITY, MO 64145 • PHONE (813) 777-0400

| DATE DRAWN CHECK B CHECK B DATE: FIELD BC | DRAWING INFO. | MJE | MJE LC-62 | PLS 2013000041 | 2021-07-02 | | 21KC20060 | |
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| | DRAM | | | LICENSE NO. | DATE: | FIELD BOOK: | JOB NUMBER: | |
| | | DATE | DAIE | 8-26-21 | | | | 21 |
| DESCRIPTION PER SAVORY LLC. UPDATED TITLE REPORT | | ВУ | B√ | TSA | | | | s, INC. 202 |
| | REVISIONS | DESCRIPTION | DESCRIPTION PER SAVORY LLC. | UPDATED TITLE REPORT | | | | © COPYRIGHT ANDERSON ENGINEERING, INC. 2021 |
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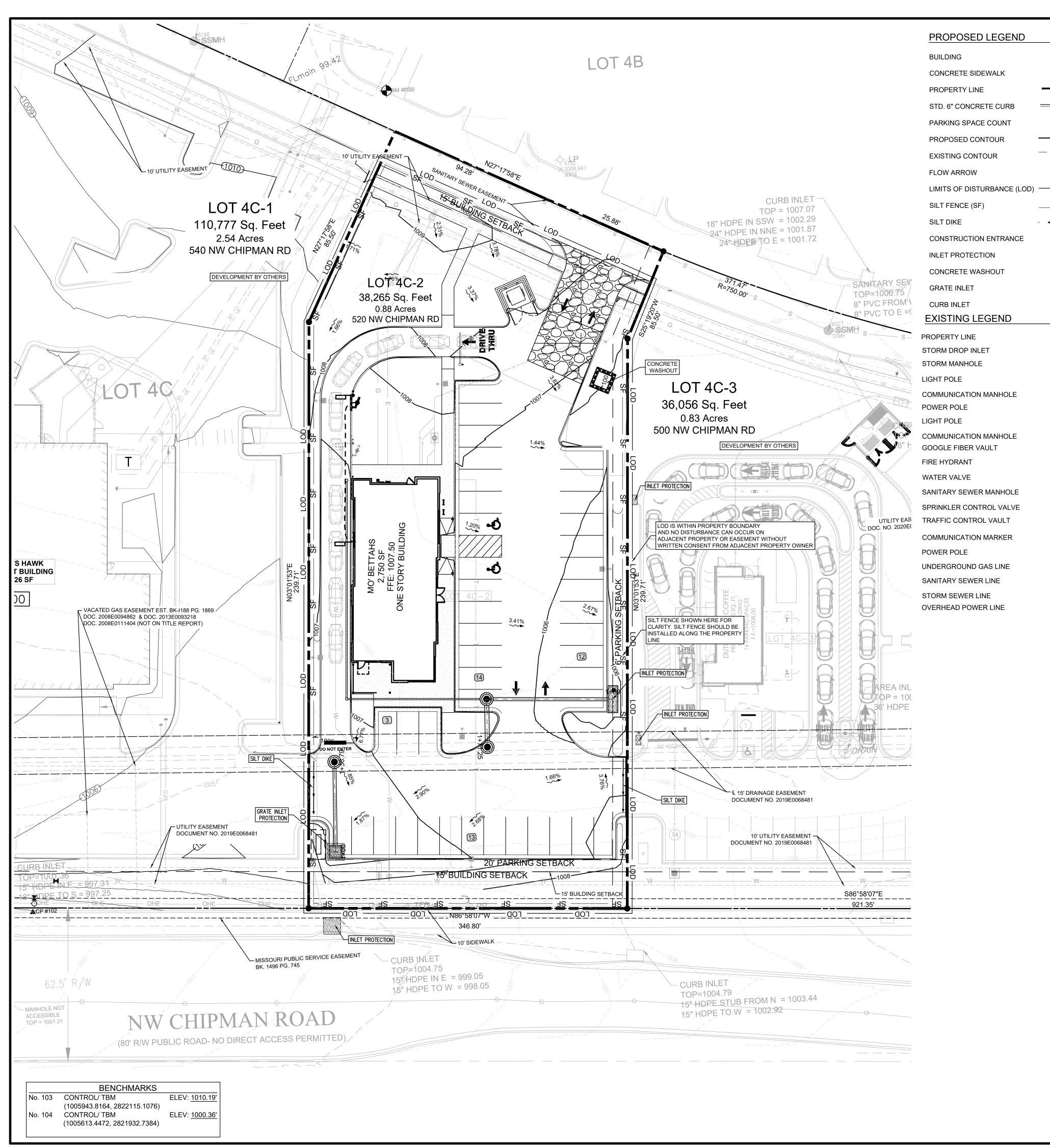
SAMUEL J.
DEPRIEST

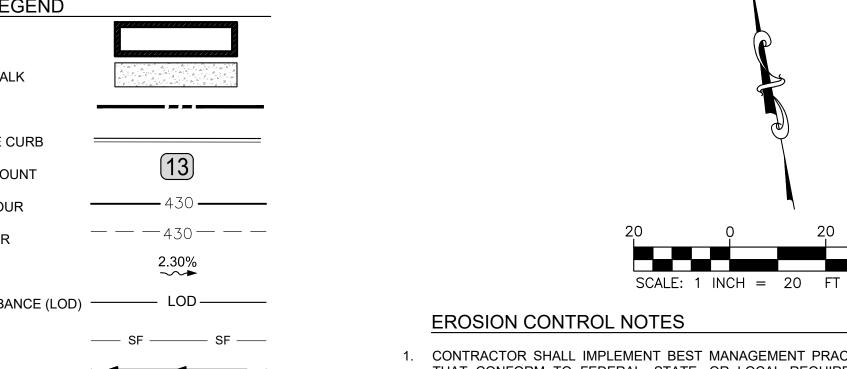
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- 1. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP AND THAT CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DIRECTED BY PERMITTING AGENCY AND OWNER OR AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
- PERMIT FOR ANY CONSTRUCTION ACTIVITY MUST BE MAINTAINED ON SITE AT ALL TIMES.
 CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY
- THE GENERAL PERMIT.

 4. GENERAL 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.
- ALL WASH WATER 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.
- DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
 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.

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

 10. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
- 11. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE SODDED/LANDSCAPED PER PLANS. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
- 12. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
- 13. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- 14. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
- 15. ON-SITE AND OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
- 16. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF
- VELOCITIES AND EROSION.

 17. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT EROSION AND SEDIMENTATION
- EROSION AND SEDIMENTATION.

 18. CONTRACTOR SHALL DESIGNATE/IDENTIFY AREAS INSIDE THE LIMITS OF DISTURBANCE, FOR WASTE
- DISPOSAL AND DELIVERY AND MATERIAL STORAGE.

 19. CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH THE EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN, NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.

CONSTRUCTION SEQUENCE

- 1. CONDUCT PRE-CONSTRUCTION MEETING WITH THE CITY TO DISCUSS EROSION AND SEDIMENT
- CONTROLS AND CONSTRUCTION PHASING.
 2. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE.
 INSTALL CONSTRUCTION FENCES.
- 4. PREPARE TEMPORARY PARKING AND STORAGE AREAS.
- INSTALL INLET PROTECTION, SILT DIKES, AND SILT FENCE ON THE SITE AS SHOWN ON PLANS WITHIN THE CONSTRUCTION LIMITS.
- 6. DEMO EXISTING STRUCTURES, PAVEMENT, AND SPECIFIED UTILITIES.7. BEGIN GRADING THE SITE.
- 7. BEGIN GRADING THE SITE.

 8. BEGIN CONSTRUCTION OF UTILITIES.
- BEGIN CONSTRUCTION OF UTILITIES.
 BEGIN SUBGRADE PREPARATION AND CONSTRUCTION OF STRUCTURES.
- 10. BEGIN INSTALLATION OF CURB, GUTTER, AND PAVING.
- 11. COMPLETE PERMANENT STABILIZATION ON AREAS WHERE CONSTRUCTION HAS COMPLETED.12. COMPLETE FINAL GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL AREAS.
- COMPLETE FINAL GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL AR
 OBTAIN CONCURRENCE FROM THE OWNER AND THE CITY THAT THE SITE HAS BEEN FULLY STABILIZED.
- 14. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.15. STABILIZE ALL AREAS DISTURBED BY BMP REMOVAL.

CONTRACTOR MAY COMPLETE CONSTRUCTION RELATED ACTIVITIES CONCURRENTLY ONLY IF ALL

PRECEDING BMPS HAVE BEEN COMPLETELYINSTALLED.

THE ACTUAL SCHEDULE FOR IMPLEMENTING POLLUTANT CONTROL MEASURES WILL BE DETERMINED BY THE PROJECT CONSTRUCTION PROGRESS AND RECORDED BY THE GENERAL CONTRACTOR ON THESE PLANS.

| SOIL EROSION/SEDIMI NOTE: GENERAL CONTRACTO | | | | | | | | | | | | | | | | | | |
|------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| CONSTRUCTION SEQUENCE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | ОСТ | NOV | DEC | JAN | FEB | MAR | APR | MAY | Jl |
| ROUGH GRADE/SEDIMENT CONTROL | | | | | | | | | | | | | | | | | | |
| TEMPORARY CONTROL MEASURES | | | | | | | | | | | | | | | | | | |
| STRIP & STOCKPILE TOPSOIL | | | | | | | | | | | | | | | | | | |
| STORM FACILITIES | | | | | | | | | | | | | | | | | | |
| SITE CONSTRUCTION | | | | | | | | | | | | | | | | | | |
| FINISH GRADING | | | | | | | | | | | | | | | | | | |
| FOUNDATION/BUILDING CONSTRUCTION | | | | | | | | | | | | | | | | | | |
| PERMANENT CONTROL STRUCTURES | | | | | | | | | | | | | | | | | | |
| LANDSCAPING/SEED/FINAL STABILIZATION | | | | | | | | | | | | | | | | | | |





THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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PLAN

CONTROL

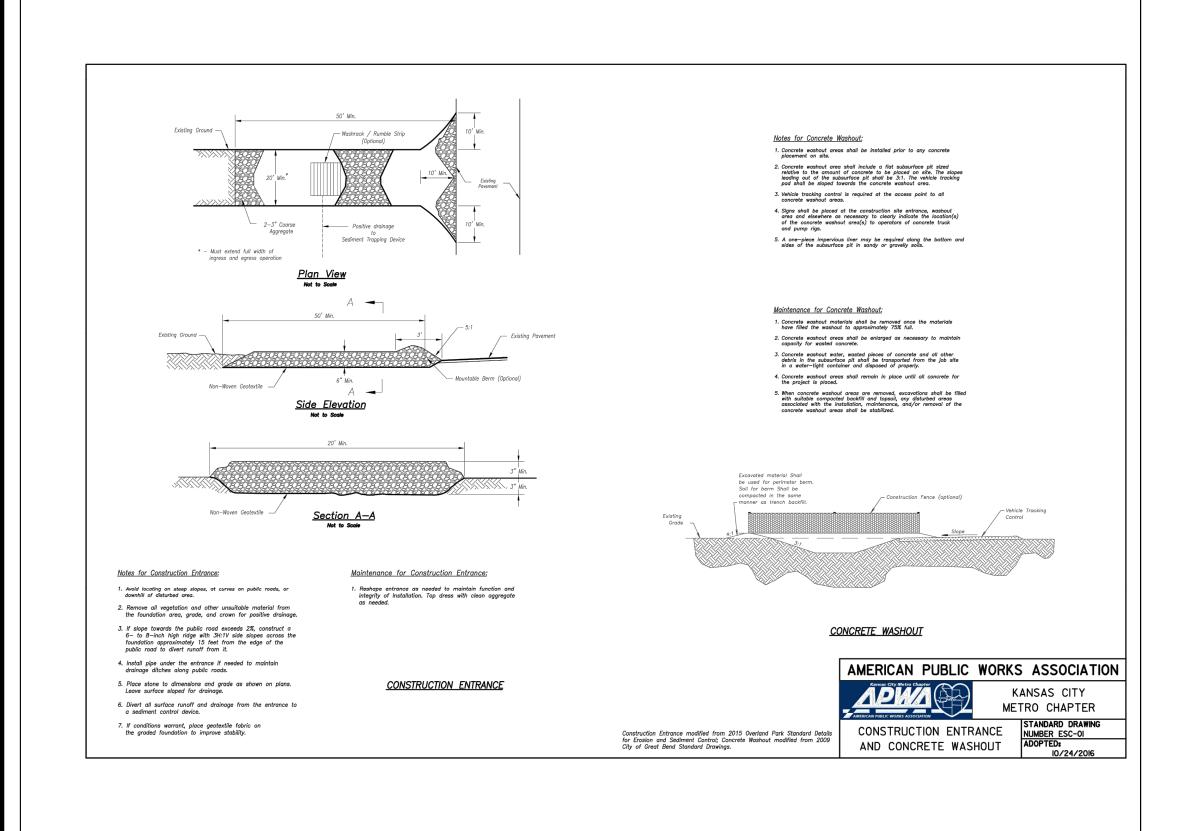
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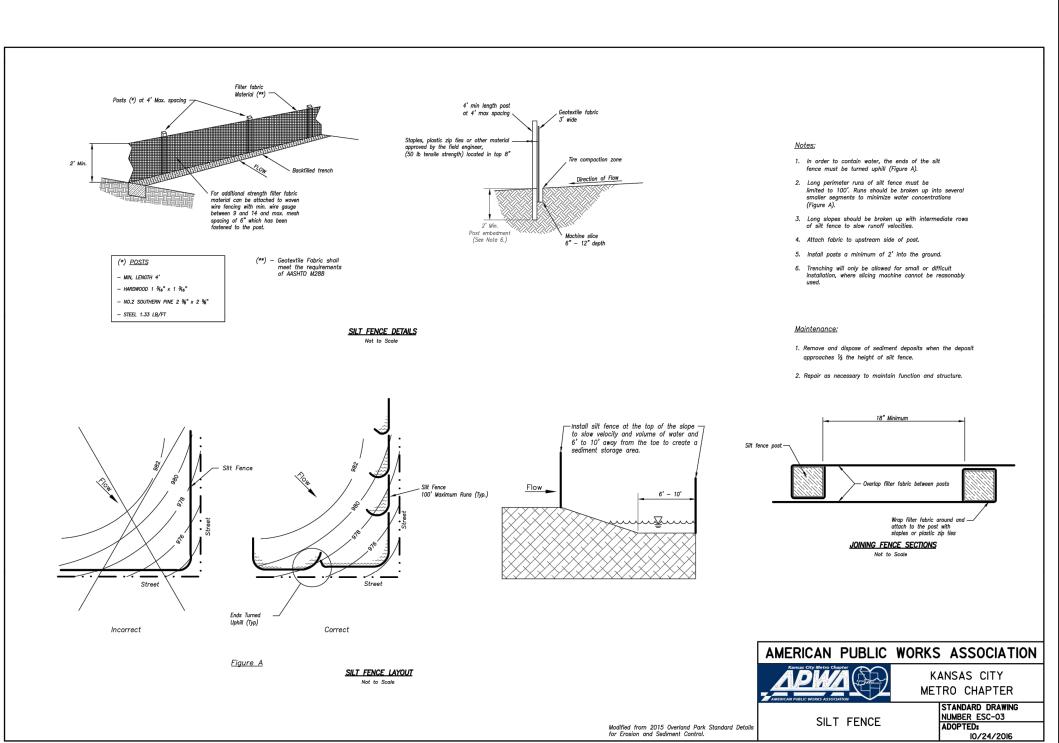
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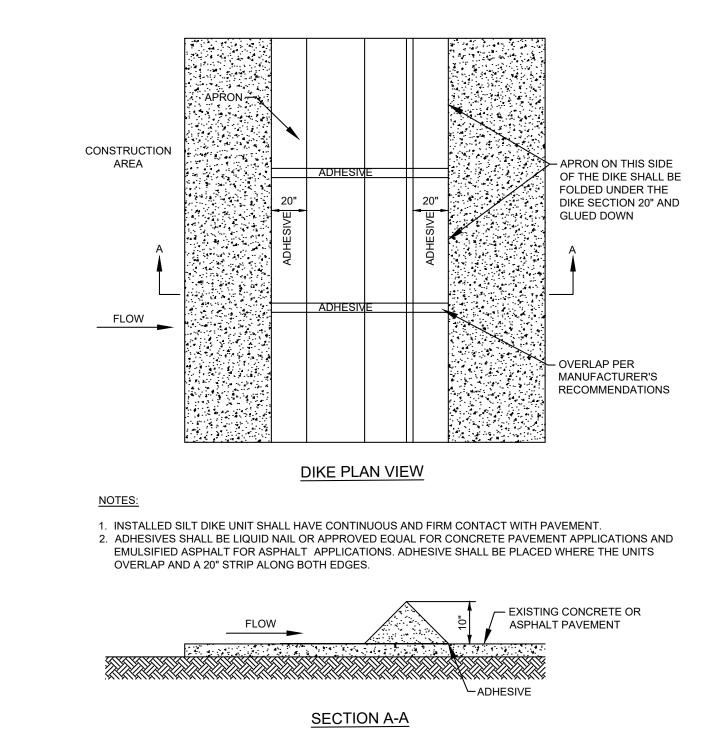
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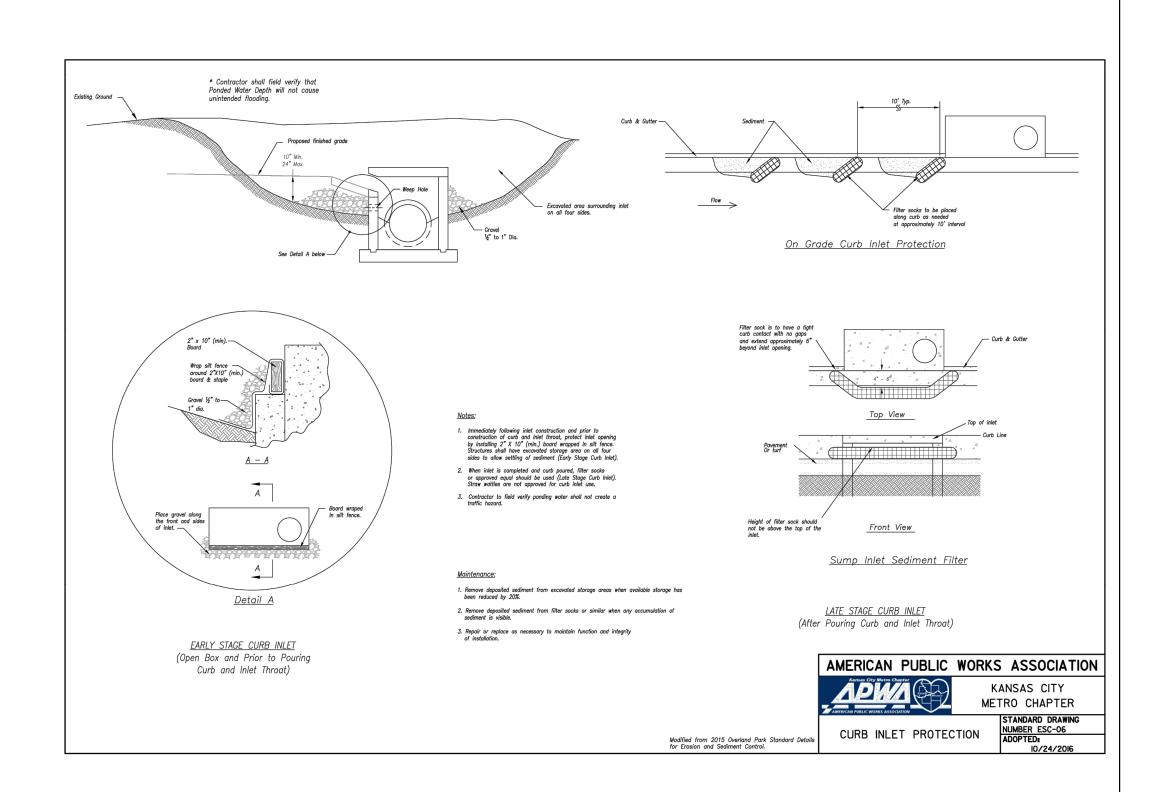
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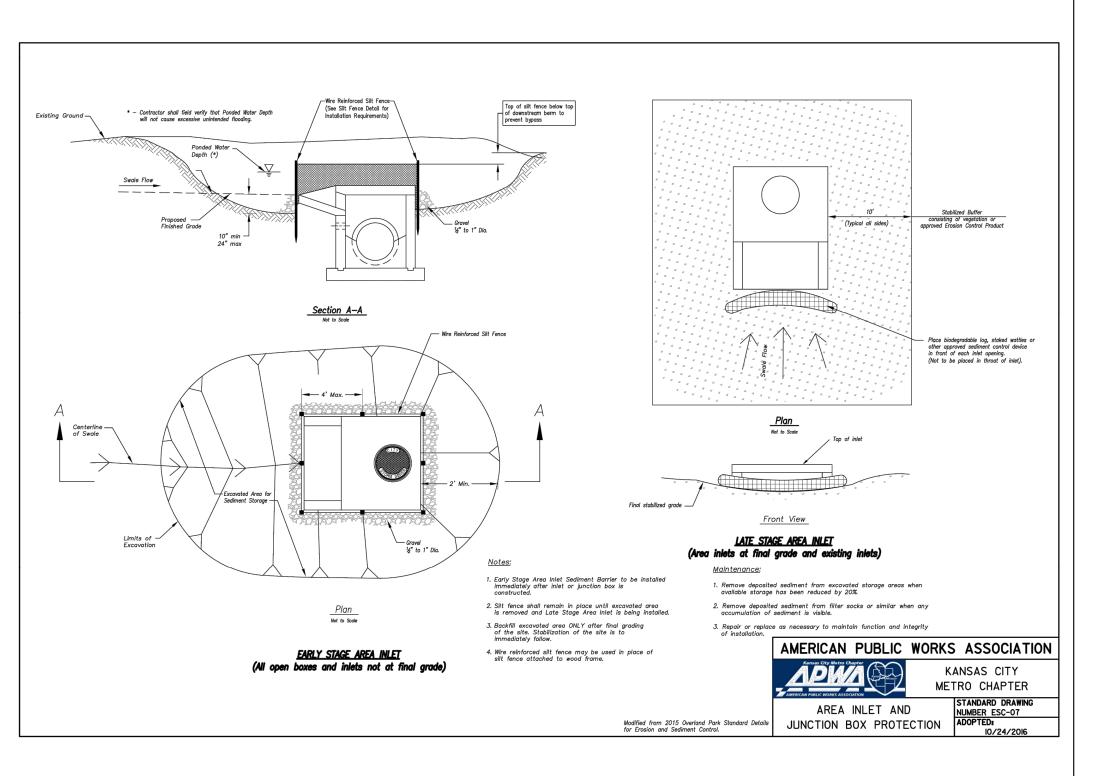
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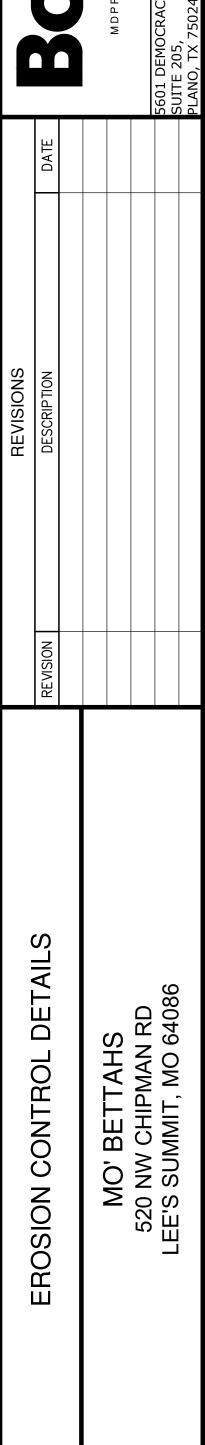












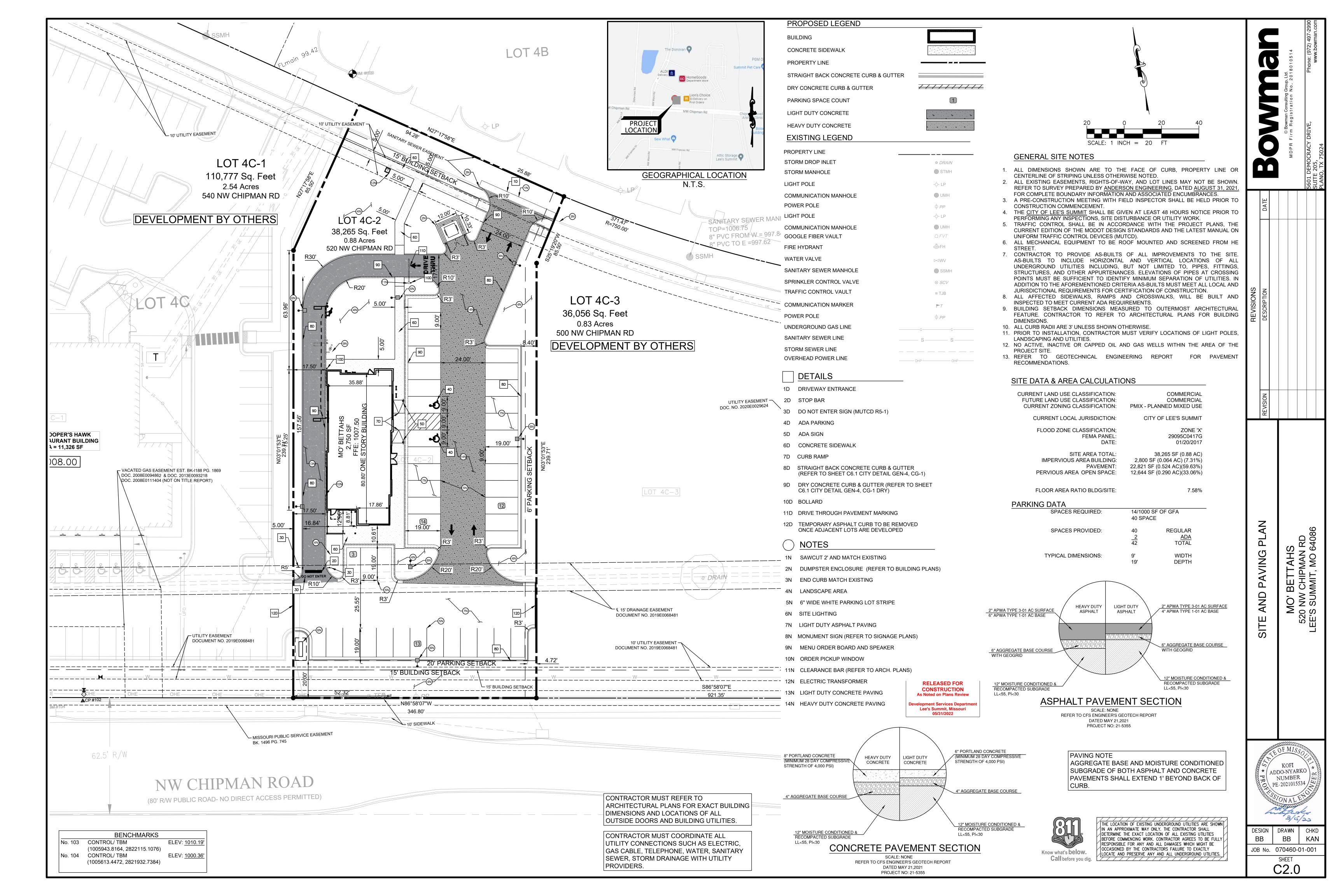
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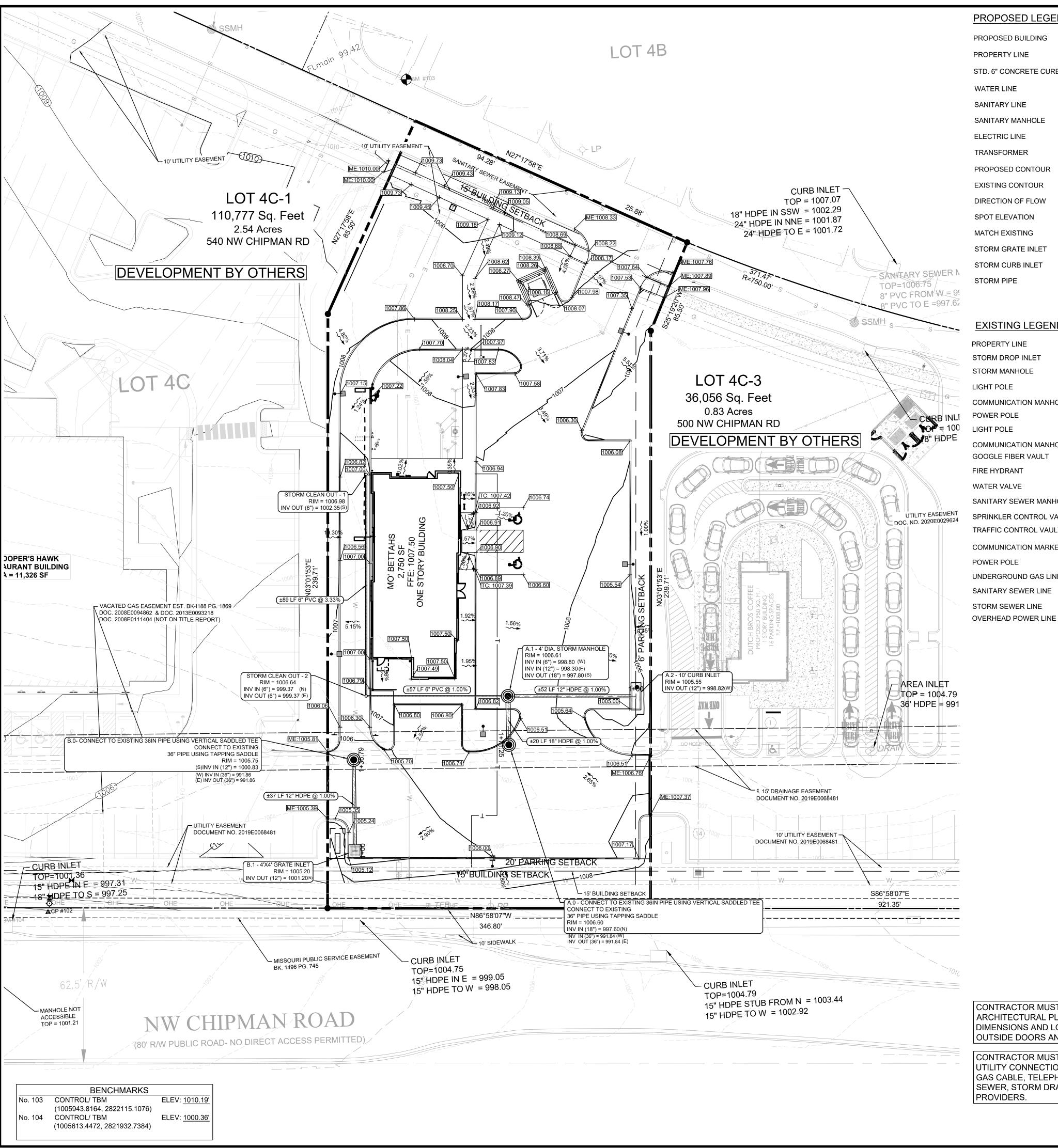
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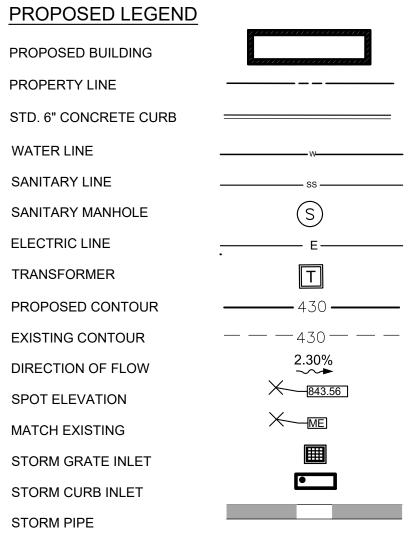
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EXISTING LEGEND

| PROPERTY LINE | | |
|-------------------------|---|-------------------------|
| STORM DROP INLET | | © DRAIN |
| STORM MANHOLE | | STMH |
| LIGHT POLE | | - \(- \text{LP} |
| COMMUNICATION MANHOLE | | ■ UMH |
| POWER POLE | | ф PP |
| LIGHT POLE | | -\$- LP |
| COMMUNICATION MANHOLE | | ■ UMH |
| GOOGLE FIBER VAULT | | $\bigcap FVT$ |
| FIRE HYDRANT | | ⊚ FH |
| WATER VALVE | | ⋈WV |
| SANITARY SEWER MANHOLE | | SSMH |
| SPRINKLER CONTROL VALVE | | \otimes SCV |
| TRAFFIC CONTROL VAULT | | ⊞ TJB |
| COMMUNICATION MARKER | | > 7 |
| POWER POLE | | ф PP |
| UNDERGROUND GAS LINE | G | |
| SANITARY SEWER LINE | S | s |
| STORM SEWER LINE | | |

GRADING NOTES

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF ALL EXISTING UTILITIES (ABOVE AND BELOW GROUND) AS SHOWN ON THESE PLANS ARE APPROXIMATE AND WERE LOCATED BASED ON EITHER VISUAL OBSERVATIONS AT THE SITE EXISTING SURVEYS, AND/OR FROM UTILITY OWNERS. THE OWNER DOES NOT GUARANTEE THAT EXISTING UTILITY LOCATIONS ARE EXACT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATIONS OF EXISTING UTILITIES (ABOVE AND BELOW GROUND) BEFORE BEGINNING ANY CONSTRUCTION. THE CONTRACTOR SHALL CALL APPROPRIATE UTILITY COMPANIES AND THE UTILITIES PROTECTION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY OWNER AND/OR ENGINEER OF ANY UTILITY CONFLICTS WITH THE PROPOSED IMPROVEMENTS SHOWN ON

SCALE: 1 INCH = 20 FT

- ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING AND COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
- 3. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDING AND FOR ALL NATURAL AND PAVED AREAS.
- 4. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH CITY SPECIFICATIONS UNTIL HEALTHY STAND OF GRASS IS OBTAINED.
- 5. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
- 6. CONTRACTOR TO REVIEW GEOTECHNICAL REPORT PROVIDED BY THE 7. ALL PROPOSED SPOT ELEVATIONS ARE PAVEMENT GRADES, UNLESS
- OTHERWISE NOTED, TOP OF CURB ELEVATIONS ARE 6 INCH ABOVE ELEVATIONS SHOWN ON THIS PLAN.
- 8. ALL ELEVATIONS PRESENTED IN THESE PLANS ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF NAVD 88.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MANAGING CONSTRUCTION ACTIVITIES TO ENSURE THAT PUBLIC STREETS AND RIGHT-OF-WAYS ARE KEPT CLEAN OF MUD, DUST OR DEBRIS. DUST ABATEMENT SHALL BE MAINTAINED BY ADEQUATE WATERING OF THE SITE BY THE CONTRACTOR
- 10. CLEAR AND GRUB WITHIN WORK LIMITS FOR ALL SURFACE VEGETATION. TREES, STUMPS, BRUSH, ROOTS, ETC. DO NOT DAMAGE OR REMOVE TRESS EXCEPT AS APPROVED BY THE ENGINEER OR AS SHOWN ON THE DRAWINGS. PROTECT ALL ROOTS TWO INCHES IN DIAMETER OR LARGER.
- STRIP WORK LIMITS, REMOVING ALL ORGANIC MATTER WHICH CANNOT B COMPACTED INTO A STABLE MASS. ALL TRESS, BRUSH, AND DEBRIS ASSOCIATED WITH CLEARING, STRIPPING OR GRADING SHALL BE REMOVED AND DISPOSED OFF SITE BY THE CONTRACTOR.
- 12. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, STRAIGHT GRADES SHALL BE RUN BETWEEN ALL FINISH GRADE ELEVATIONS AND/OR FINISH CONTOUR LINES SHOWN. FINISH PAVEMENT GRADES AT TRANSITION TO EXISTING PAVEMENT SHALL MATCH EXISTING PAVEMENT GRADES OR SHALL BE FEATHERED PAST JOINTS WITH EXISTING PAVEMENT AS REQUIRED TO PROVIDE A SMOOTH, FREE DRAINAGE SURFACE.
- 13. ALL EXISTING AND CONSTRUCTED MANHOLES, CLEANOUTS, MONUMENTS, GAS VALVES, WATER VALVES, AND SIMILAR STRUCTURES SHALL BE ADJUSTED TO MATCH FINISH GRADE OF THE PAVEMENT, SIDEWALK, LANDSCAPED AREA. OR MEDIAN STRIP WHEREIN THEY LIE. 14. CONTRACTOR SHALL HYDROSEED ALL EXPOSED SLOPES AND DISTURBED
- AREAS WHICH ARE NOT SCHEDULED TO BE LANDSCAPED.

ADA NOTES

- 1. THE DESIGN PROFESSIONAL SIGNING THIS DOCUMENT REPRESENTS THAT TO THE BEST OF HIS/HER PROFESSIONAL JUDGEMENT, KNOWLEDGE, AND BELIEF THE DESIGN SPECIFICATIONS HEREIN COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA).
- 2. ALL GRADES/SLOPES SHOWN ON THIS PLAN WERE DESIGNED AT OR BELOW MAXIMUMS ALLOWED BY THE AMERICANS WITH DISABILITIES ACT (ADA). IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES, AND THE ADA DESIGN MANUAL. IN THE EVENT THAT A DESIGN QUESTION SHOULD ARISE, OR A FIELD CONDITION PRESENT ITSELF THAT IS DIFFERENT FROM THOSE SHOWN ON THESE PLANS, WORK SHOULD CEASE AND THE ENGINEER SHOULD BE NOTIFIED SO THAT AN ACCEPTABLE SOLUTION CAN BE DETERMINED.
- 3. THE CONTRACTOR IS ADVISED TO CAREFULLY CHECK ALL THE PHASES OF WORK RELATING TO ADA ACCESSIBILITY FOR THIS PROJECT. SINCE THE CODE DOES NOT ALLOW FOR CONSTRUCTION TOLERANCE, ANY CONSTRUCTION THAT EXCEEDS MAXIMUM OR MINIMUM DIMENSIONS AND SLOPES AS REQUIRED BY ADA ARE SUBJECT TO REJECTION AND MAY BE REQUIRED TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- SINCE THE CIVIL ENGINEER OR SURVEYOR CANNOT CONTROL THE EXACT METHODS OR MEANS USED BY THE GENERAL CONTRACTOR OR THEIR SUBCONTRACTORS DURING GRADING AND CONSTRUCTION OF THE PROJECT, THE CIVIL ENGINEER OR SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE FINAL ACCEPTANCE OF AMERICANS WITH DISABILITIES ACT ACCESSIBILITY RELATED ITEMS BY THE CITY, ANY OTHER AUTHORITY, OR AFFECTED PARTIES.

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THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES

ADDO-NYARKO NUMBER PE-2021015534/E

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KAN

PLAN

DRAINAGE

AND

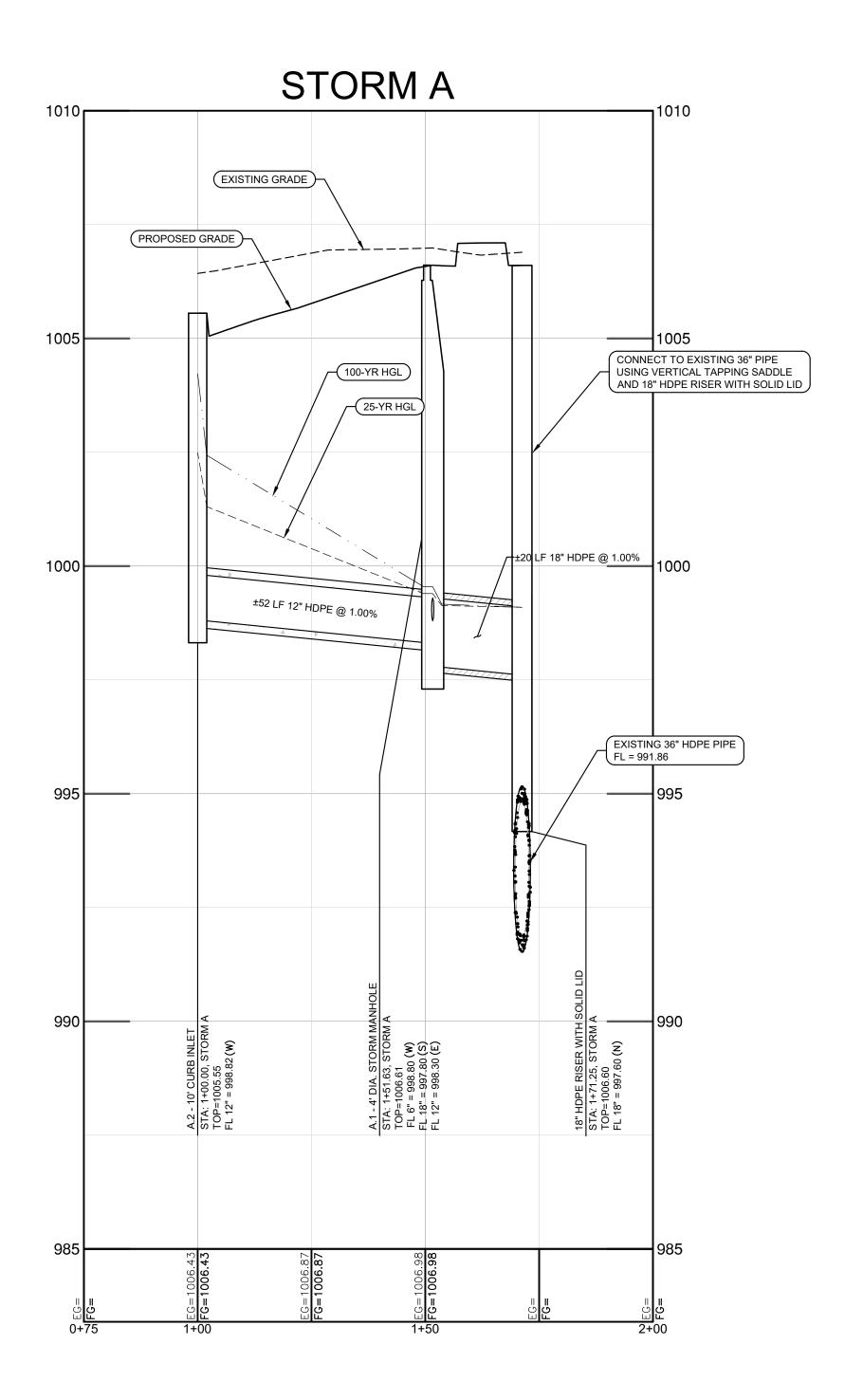
GRADING

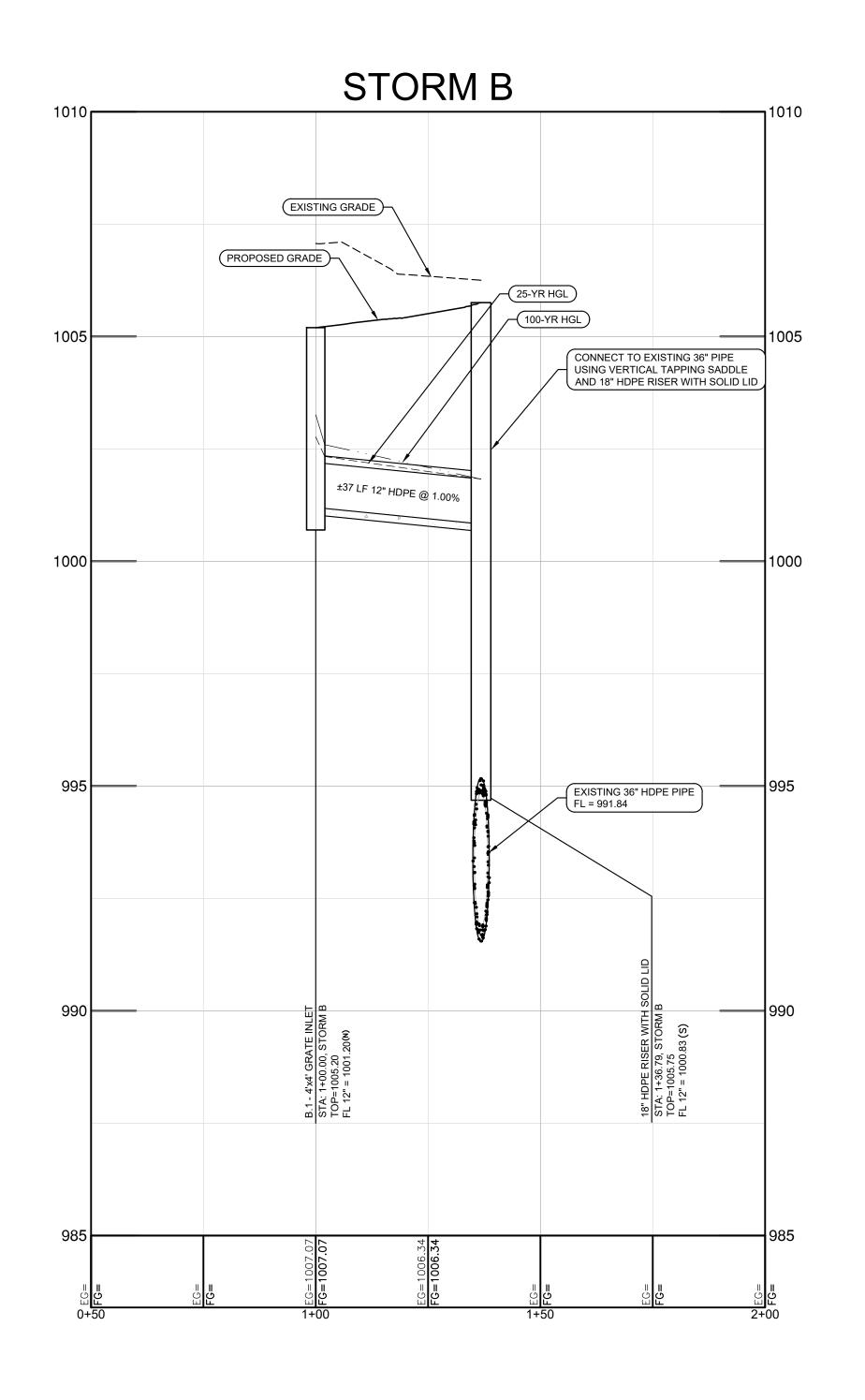
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DESIGN | DRAWN | BB BB JOB No. 070460-01-001 SHEET

CONTRACTOR MUST REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND LOCATIONS OF ALL OUTSIDE DOORS AND BUILDING UTILITIES.

CONTRACTOR MUST COORDINATE ALL UTILITY CONNECTIONS SUCH AS ELECTRIC, GAS CABLE, TELEPHONE, WATER, SANITARY SEWER, STORM DRAINAGE WITH UTILITY PROVIDERS.



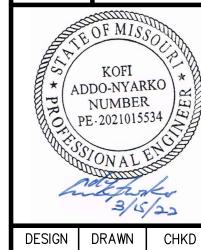






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| | | | REVISIONS | | | |
|-----|----------------------|----------|-------------|------|---------------------------------------|----------------|
| | SIORM DRAIN PROFILES | REVISION | DESCRIPTION | DATE | | |
| TE | | | | | | J |
| OF | | | | | © Bowman Consulting Group. Ltd. | a Group, Ltd. |
| MIS | MO' BELLIAHS | | | | MDPR Firm Registration No. 2018010514 | No. 2018010514 |
| 500 | 520 NW CHIPMAN RD | | | | | |
| | | | | | 5601 DEMOCRACY DRIVE, | Phone: (972) 4 |
| አ | | | | | PLANO, TX 75024 | WWW.D.WW |

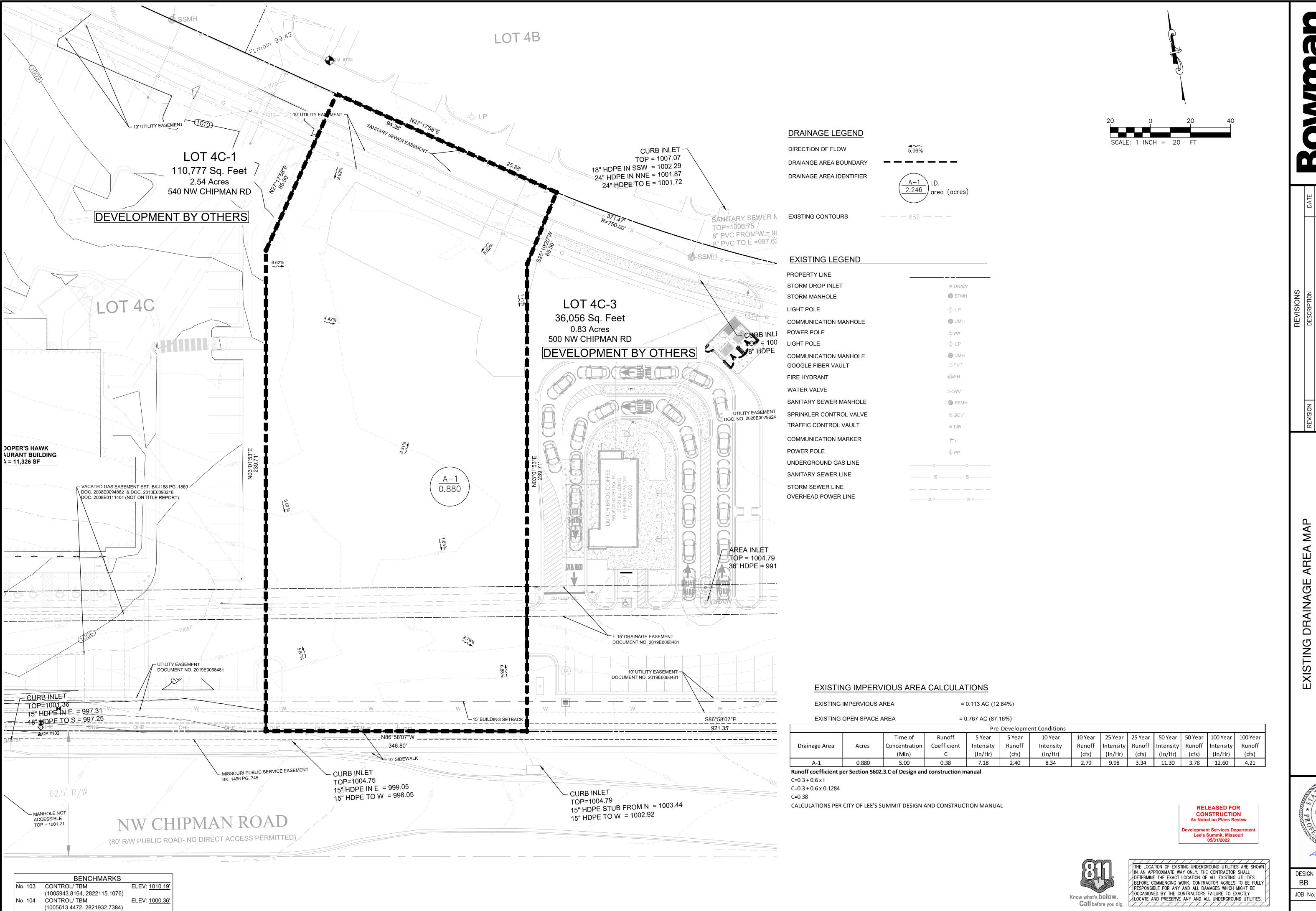


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SHEET C3.1

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MDPR Firm Registration No. 2018010514

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MDPR Firm Regis)

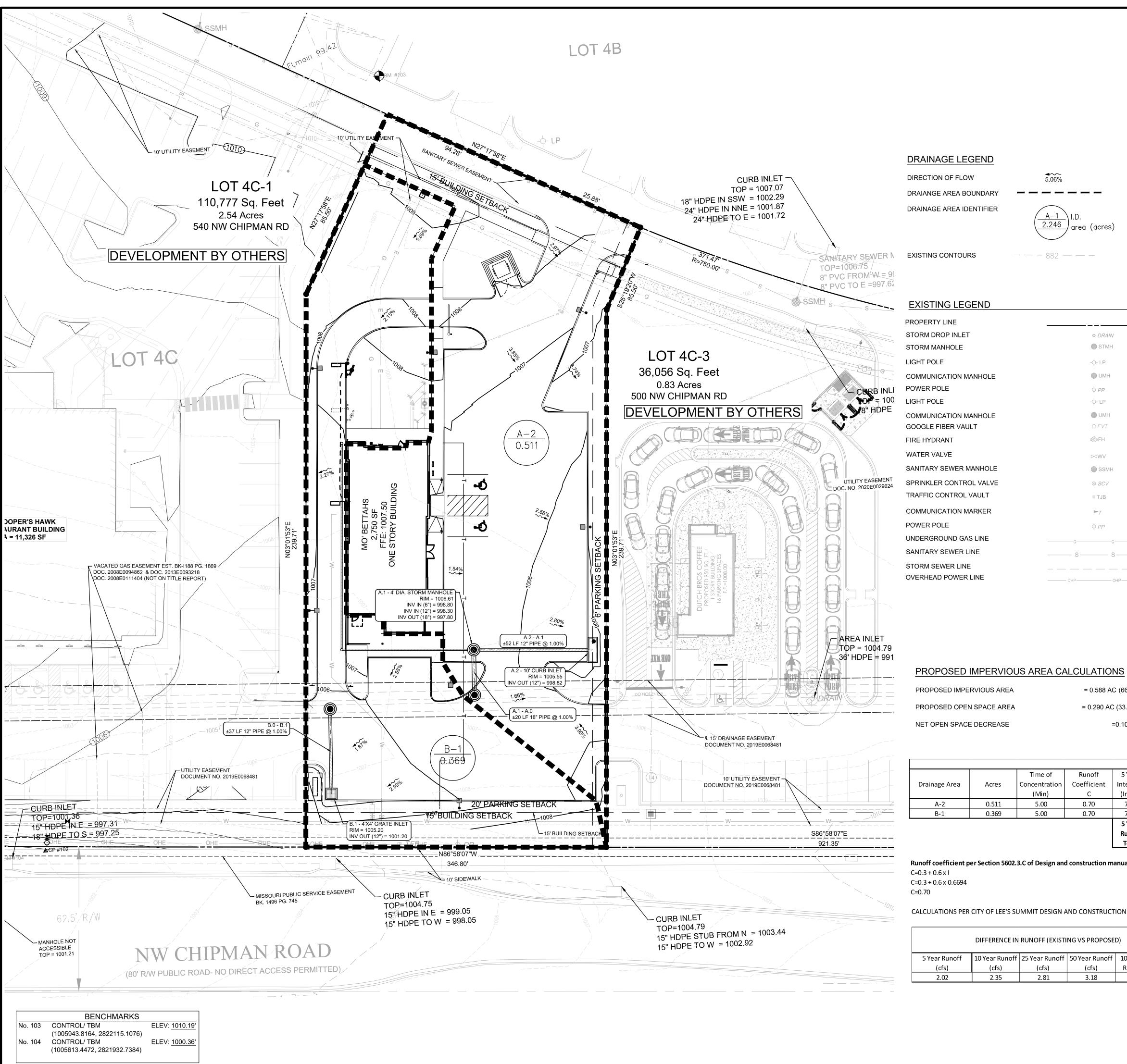
5601 DEMOCRACY DRIVE,

REVISION DESCRIPTION

MO' BETTAHS 520 NW CHIPMAN RD

KOFI
ADDO-NYARKO
NUMBER
PE-2021015534

DESIGN DRAWN CHKD
BB BB KAN
JOB No. 070460-01-001
SHEET





₹~~ 5.06% DRAIANGE AREA BOUNDARY DRAINAGE AREA IDENTIFIER ./area (acres)

— — — 882 — — —

| PROPERTY LINE | | |
|-------------------------|------------------|-------|
| STORM DROP INLET | ® DR. | 4/N |
| STORM MANHOLE | ST | MH |
| LIGHT POLE | -\$- LP | |
| COMMUNICATION MANHOLE | ◎ UN | IH |
| POWER POLE | \$\phi_{PP}\$ | |
| LIGHT POLE | - - | |
| COMMUNICATION MANHOLE | ◎ UN | IH |
| GOOGLE FIBER VAULT | $\cap FV$ | T |
| FIRE HYDRANT | ФFН | |
| WATER VALVE | ⋈WV | |
| SANITARY SEWER MANHOLE | | MH |
| SPRINKLER CONTROL VALVE | \otimes SC | V |
| TRAFFIC CONTROL VAULT | ⊞ TJB | |
| COMMUNICATION MARKER | ► 7 | |
| POWER POLE | \$\rightarrow PP | |
| UNDERGROUND GAS LINE | | —-G |
| SANITARY SEWER LINE | S | - S |
| STORM SEWER LINE | | |
| OVERHEAD POWER LINE | OHP | — OHP |

A.2 CURB INLET

= 0.290 AC (33.06%)

PROPOSED IMPERVIOUS AREA = 0.588 AC (66.94%)

=0.109 AC

INLET CAPACITY CALCULATIONS

SCALE: 1 INCH = 20 FT

Qi = Co x h x L $(2 g x do)^{0.5}$ Qi = $0.67 \times 0.83 \times 10(2 \times 32.2 \times 0.75)^{0.5}$ Qi = 38.65 CFS

B.1 GRATE INLET

Qi = Co x h x L $(2 g x do)^{0.5}$ Qi = $0.67 \times 0.83 \times 16(2 \times 32.2 \times 0.75)^{0.5}$ Qi = 61.84 CFS

PIPE SIZING CALCULATIONS

A.2 - A.1 D = $[(Qn) / (K_Q \times So^{0.5})]^{0.375}$ D = $[(4.51 \times 0.01) / (0.46(0.05)^{0.5}]^{0.375}$

D = 0.73 FT = 8.8 IN **USE 12IN PIPE**

B.0 - B.1

USE 12IN PIPE

D = $[(Qn) / (K_Q \times So^{0.5})]^{0.375}$ D = $[(3.25 \times 0.01) / (0.46(0.05)^{0.5}]^{0.375}$ D = 0.32 FT = 3.8 IN

| | Post-Development Conditions | | | | | | | | | | | | |
|---------------|-----------------------------|---------------|-------------|-----------|--------|-----------|---------|-----------|---------|-----------|---------|-----------|----------|
| | | Time of | Runoff | 5 Year | 5 Year | 10 Year | 10 Year | 25 Year | 25 Year | 50 Year | 50 Year | 100 Year | 100 Year |
| Drainage Area | Acres | Concentration | Coefficient | Intensity | Runoff | Intensity | Runoff | Intensity | Runoff | Intensity | Runoff | Intensity | Runoff |
| | | (Min) | С | (In/Hr) | (cfs) | (In/Hr) | (cfs) | (In/Hr) | (cfs) | (In/Hr) | (cfs) | (In/Hr) | (cfs) |
| A-2 | 0.511 | 5.00 | 0.70 | 7.18 | 2.57 | 8.34 | 2.98 | 9.98 | 3.57 | 11.30 | 4.04 | 12.60 | 4.51 |
| B-1 | 0.369 | 5.00 | 0.70 | 7.18 | 1.85 | 8.34 | 2.15 | 9.98 | 2.58 | 11.30 | 2.92 | 12.60 | 3.25 |
| | | | | 5 Year | | 10 Year | | 25 Year | | 50 Year | | 100 Year | |
| | | | | Runoff | 4.42 | Runoff | 5.14 | Runoff | 6.15 | Runoff | 6.96 | Runoff | 7.76 |
| | | | | Total | | Total | | Total | | Total | | Total | |

Runoff coefficient per Section 5602.3.C of Design and construction manual

CALCULATIONS PER CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL

| | DIFFERENCE IN | RUNOFF (EXISTI | NG VS PROPOSE | D) | |
|---------------|----------------|----------------|----------------|----------|----------|
| 5 Year Runoff | 10 Year Runoff | 25 Year Runoff | 50 Year Runoff | 100 Year | Net |
| (cfs) | (cfs) | (cfs) | (cfs) | Runoff | Change |
| 2.02 | 2.35 | 2.81 | 3.18 | 3.55 | Increase |





THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

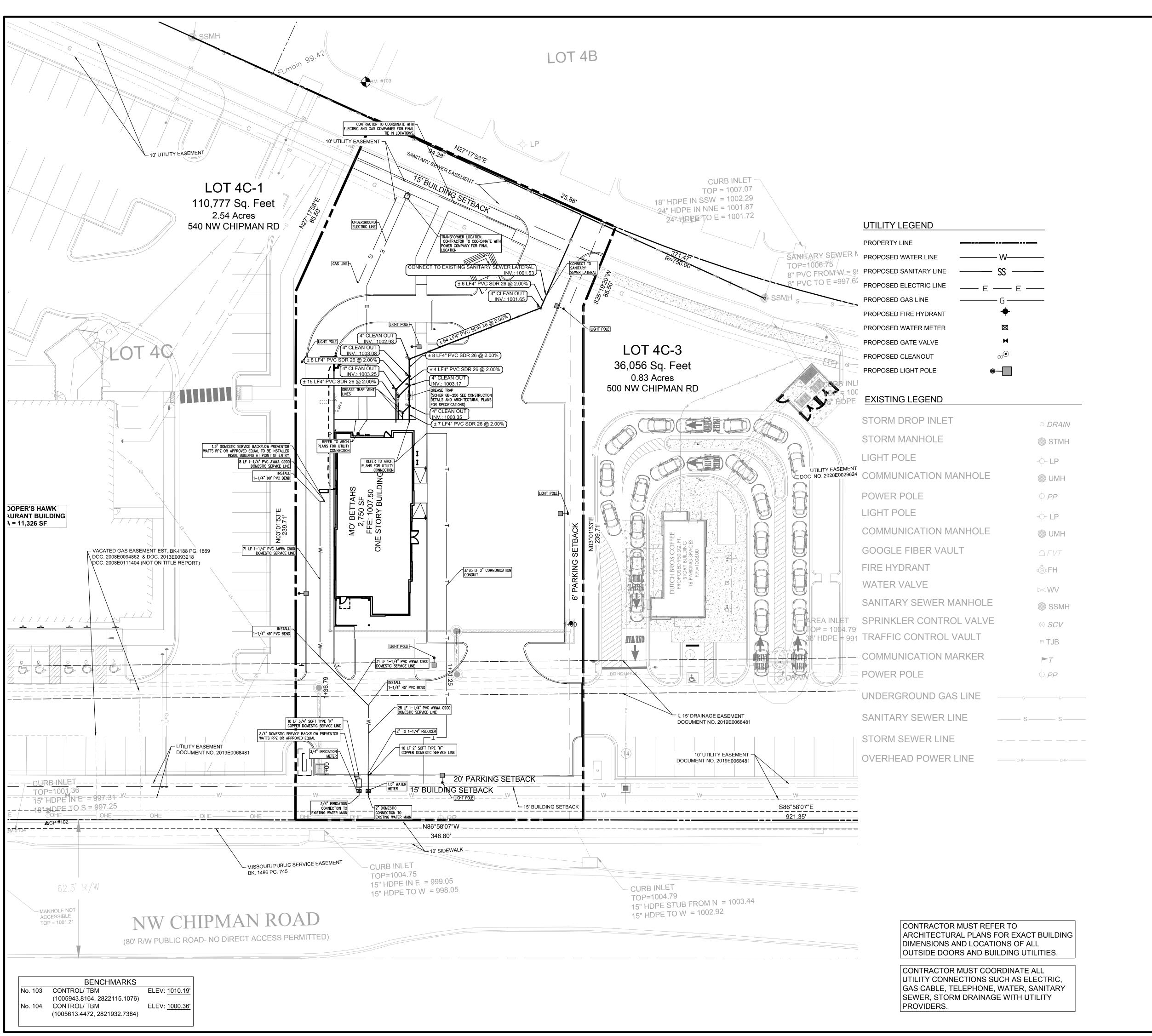
KOFI ADDO-NYARKO NUMBER NUMBER PE-2021015534

AREA

PROPOSED DRAINAGE

MO' BET 520 NW CHIP EE'S SUMMIT,

DESIGN | DRAWN | CHKD BB BB KAN JOB No. 070460-01-001 SHEET C4.1



20 0 20 40 SCALE: 1 INCH = 20 FT

UTILITY NOTES

- CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND IS RESPONSIBLE TO REPAIR ANY DAMAGE TO EXISTING UTILITIES DURING CONSTRUCTION AT NO COST TO THE OWNER.
- 2. ALL UTILITIES ARE SHOWN FROM INFORMATION GATHERED AND SHOULD NOT BE USED AS EXACT. CONTRACTOR SHALL VERIFY EXACT DEPTHS AND LOCATIONS PRIOR TO UTILITY INSTALLATION AND NOTIFY THE ENGINEER OF RECORD IF THERE ARE ANY DEVIATIONS ROM WHAT IS SHOWN ON PLANS.
- CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANY FOR INSTALLATION AND SPECIFICATION REQUIREMENTS.
 ALL PIPE MATERIALS SHALL COMPLY WITH LOCAL REGULATIONS.
- 5. ALL TRENCHING AND BEDDING SHALL BE PER THE UTILITY TRENCH AND BEDDING DETAIL.

REVIEWED, AND APPROVED PRIOR TO STARTING CONSTRUCTION.

- 6. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR ALL BUILDING UTILITY TIE INS.
- 7. THE CONTRACTOR IS TO FIELD VERIFY THE EXACT LOCATIONS AND
- DEPTHS OF UTILITY LINES.

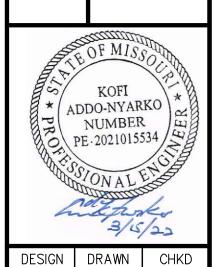
 8. ALL CERTIFICATES AND SHOP DRAWINGS MUST BE SUBMITTED,
- 9. CONTRACTOR TO PROVIDE AS-BUILTS OF ALL IMPROVEMENTS TO THE SITE. AS-BUILTS TO INCLUDE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES INCLUDING, BUT NOT LIMITED TO, PIPES, FITTINGS, STRUCTURES, AND OTHER APPURTENANCES. ELEVATIONS OF PIPES AT CROSSING POINTS MUST BE SUFFICIENT TO IDENTIFY MINIMUM SEPARATION OF UTILITIES AS DEFINED BY ENGINEER. IN ADDITION TO THE AFOREMENTIONED CRITERIA, AS-BUILTS MUST MEET ALL LOCAL AND JURISDICTIONAL REQUIREMENTS FOR CERTIFICATION OF CONSTRUCT.
- UNDERGROUND UTILITIES TO BE FIELD VERIFIED IN RIGHT-OF-WAY WORK WITH EXISTING UTILITIES.
- 11. UTILITY CONNECTIONS ARE SHOWN TO WITHIN 5 FEET OF THE BUILDING. CONTRACTOR TO REFER TO BUILDING PLANS FOR EXACT CONNECTION POINTS ON BUILDING AND VERIFY THAT THERE ARE NO CONFLICTS PRIOR TO START OF CONSTRUCTION.

RELEASED FOR
CONSTRUCTION
As Noted on Plans Review

Development Services Departr
Lee's Summit, Missouri
05/31/2022



THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



BB

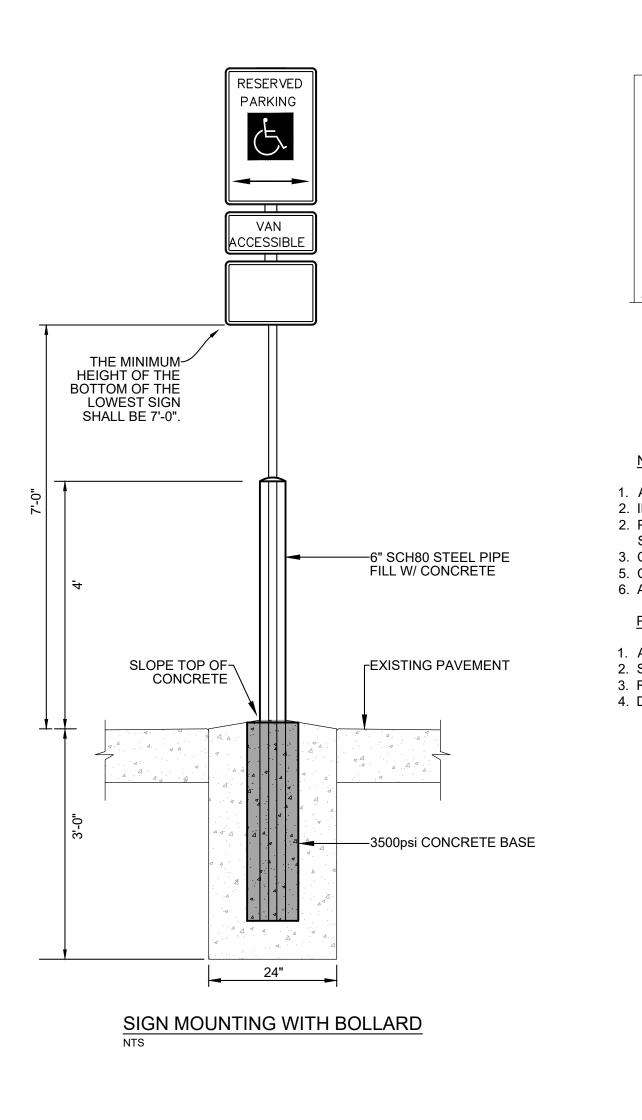
JOB No. 070460-01-001

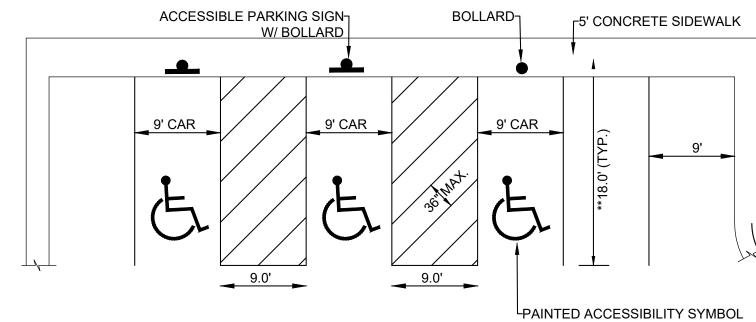
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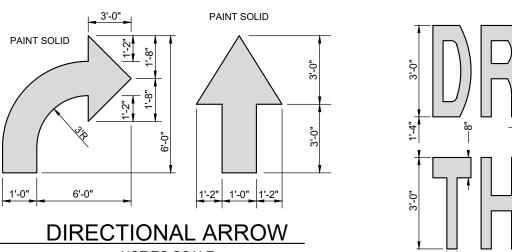
<u>NOTES</u>

- 1. ACCESSIBLE PARKING AND ACCESSIBLE AISLES SHALL NOT EXCEED 2% IN SLOPE IN ANY DIRECTION.
- 2. IF ONLY ONE ACCESS AISLE IS INSTALLED, IT IS TO BE A VAN SIZE.
- 2. PARKING STALL DIMENSIONING SHALL BE IN ACCORDANCE WITH APPLICABLE GOVERNING AUTHORITY'S AND ADA STANDARDS AND IF DIFFERENT THAN THIS DETAIL SHALL BE THE DIMENSIONING SHOWN ON THE SITE LAYOUT PLAN.
- 3. CONTRACTOR SHALL USE 4" WIDE WHITE REFLECTIVE PAINT FOR STRIPING ON ASPHALT PARKING LOTS.
- 5. CONTRACTOR SHALL USE 4" WIDE YELLOW REFLECTIVE PAINT FOR STRIPING ON CONCRETE PARKING LOTS. 6. ADA SIGNS IN BOLLARDS AND BOLLARDS SHALL BE INSTALLED WHEN PARKING IS ADJACENT TO FLUSH CURB OR A RAMP.

PARKING LOT STRIPING SPECIFICATIONS

- 1. ALWAYS FOLLOW ALL APPLICABLE GOVERNING AUTHORITY'S STANDARDS.
- 2. SURFACES SHOULD BE CLEAN, DRY, AND FREE FROM LOOSE OR PEELING PAINT.
- 3. REMOVE ALL OIL, DUST, GREASE, DIRT, AND OTHER FOREIGN MATERIAL TO ENSURE ADEQUATE ADHESION.
- 4. DO NOT APPLY WHEN AIR OR SURFACE TEMPERATURES ARE BELOW 40°F.

STANDARD PARKING STALL



NOT TO SCALE

NOT TO SCALE

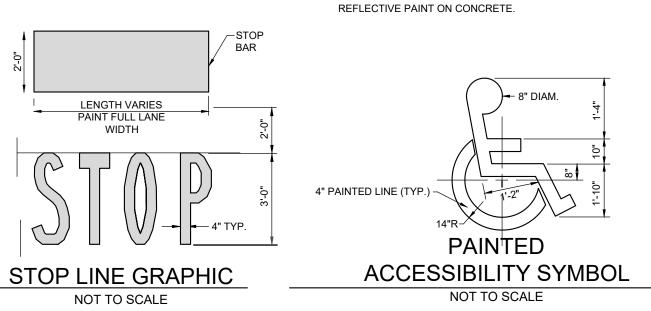
CONTRACTOR SHALL USE WHITE

REFLECTIVE PAINT ON CONCRETE.

2. IF STOP SIGN IS PROPOSED, STOP LINE GRAPHIC IS NOT REQUIRED.

REFLECTIVE PAINT ON ASPHALT & YELLOW

CONTRACTOR SHALL USE WHITE REFLECTIVE PAINT ON ASPHALT & YELLOW REFLECTIVE PAINT ON CONCRETE.



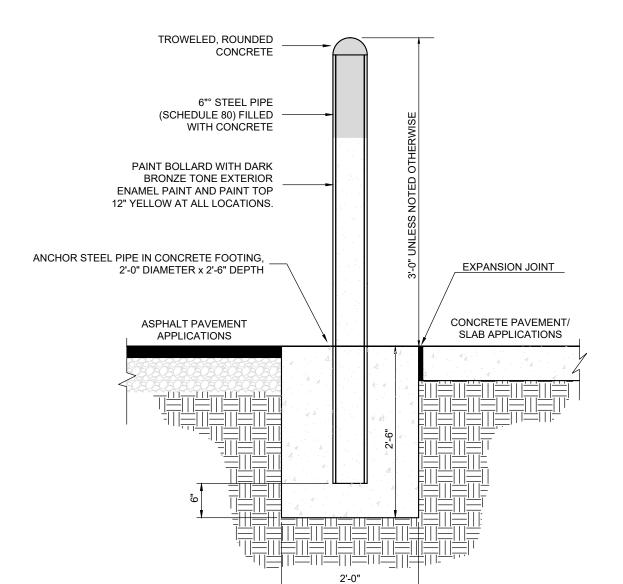
1. CONTRACTOR SHALL USE WHITE

REFLECTIVE PAINT ON ASPHALT & YELLOW

DRIVE-THRU GRAPHICS

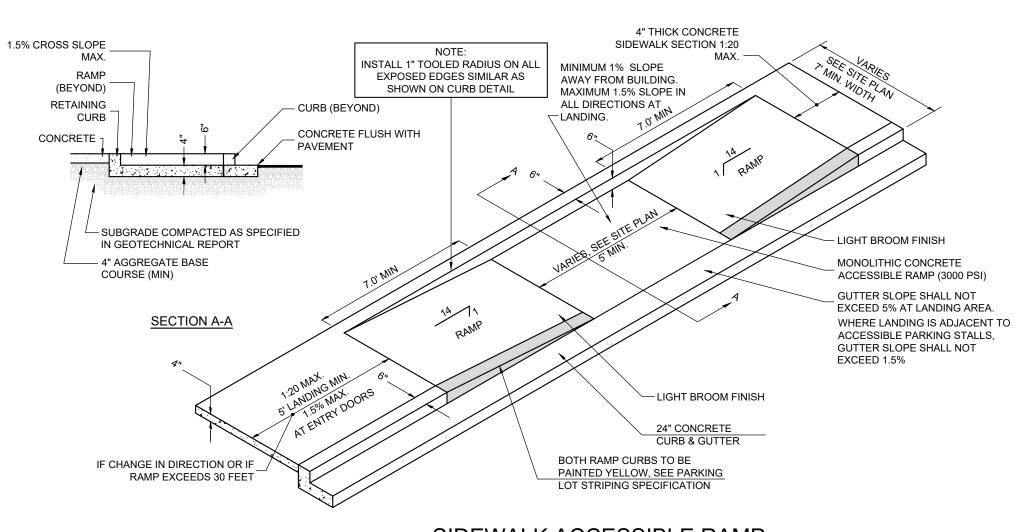
NOT TO SCALE

1. CONTRACTOR SHALL USE WHITE REFLECTIVE PAINT ON ASPHALT & YELLOW REFLECTIVE PAINT ON CONCRETE, UNLESS UPON VERIFICATION BY THE GENERAL CONTRACTOR IT IS DETERMINED THAT LOCAL, STATE, OR ADA CODES DIFFER, IN WHICH CASE THESE CODES SHALL GOVERN.



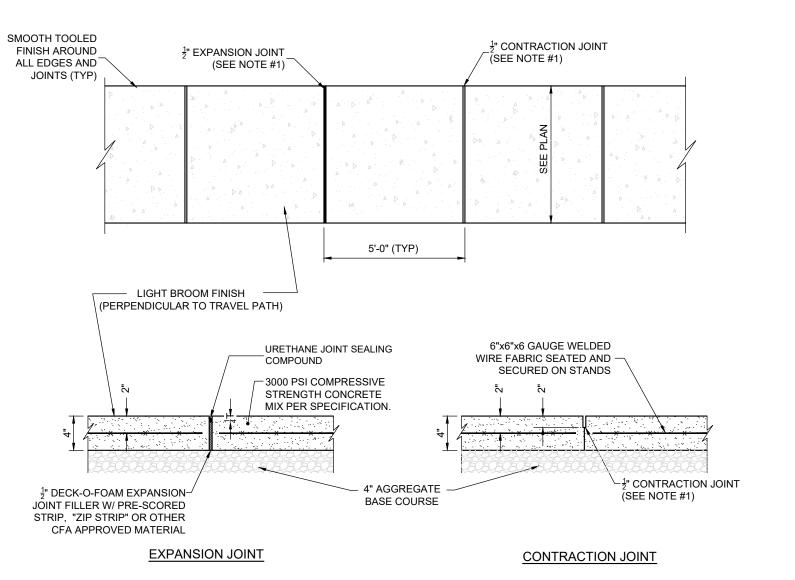
CONCRETE BOLLARD

NOT TO SCALE NOTE: BOLLARD HEIGHT SHALL BE 5'-0" AT DRIVE-THRU WINDOW AND INSIDE DUMPSTER ENCLOSURE



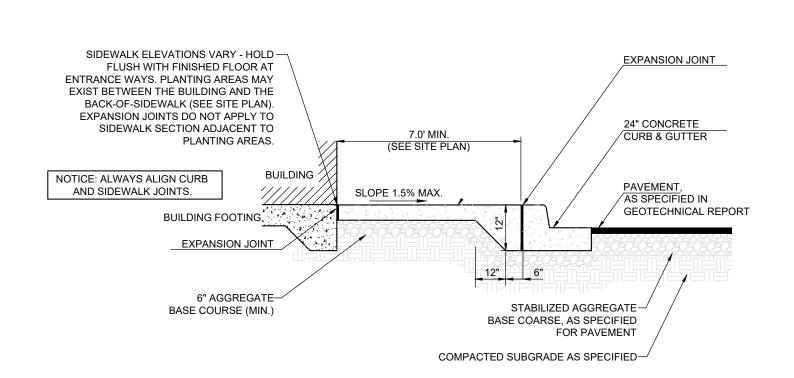
SIDEWALK ACCESSIBLE RAMP

NOT TO SCALE

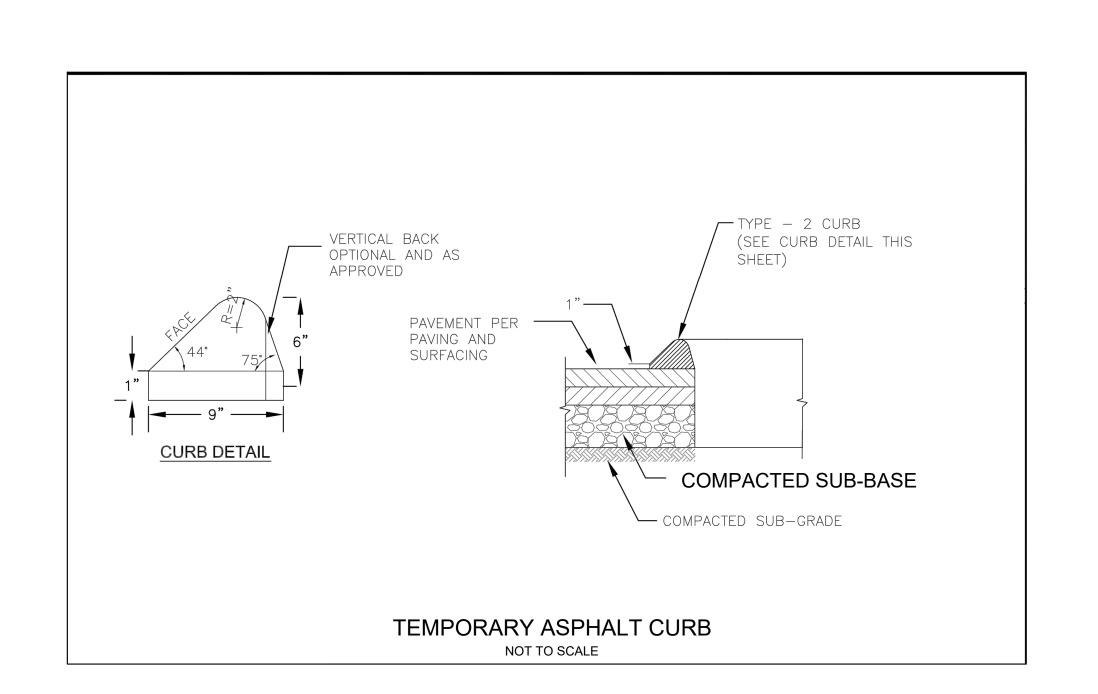


TYPICAL CONCRETE SIDEWALK NOT TO SCALE

JOINTS AT 5'-0" O.C. TOOLED $\frac{1}{2}$ " WIDE, 1" DEEP OR MAX. $\frac{D}{4}$ DEEP WHICHEVER IS GREATER. EXPANSION JOINTS AT 20' MAX. & ALL P.C.s, UNLESS APPROVED OR INDICATED OTHERWISE ON PLAN VIEW JOINT PATTERN.



SIDEWALK WITH CURB & GUTTER SECTION NOT TO SCALE



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NUMBER NUMBER - 2021015534 PE - 2021015534 DESIGN | DRAWN | BB BB KAN JOB No. 070460-01-001

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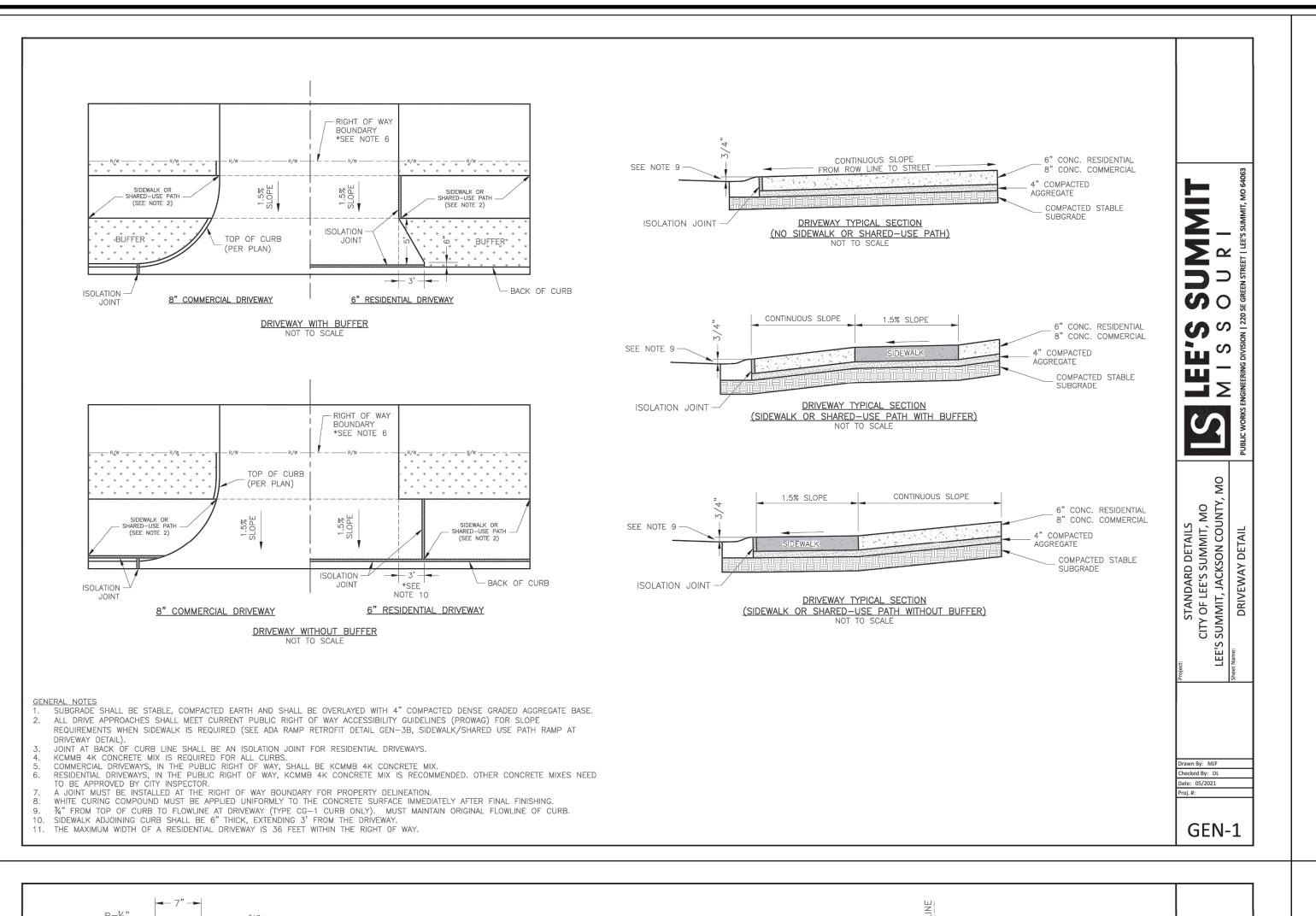
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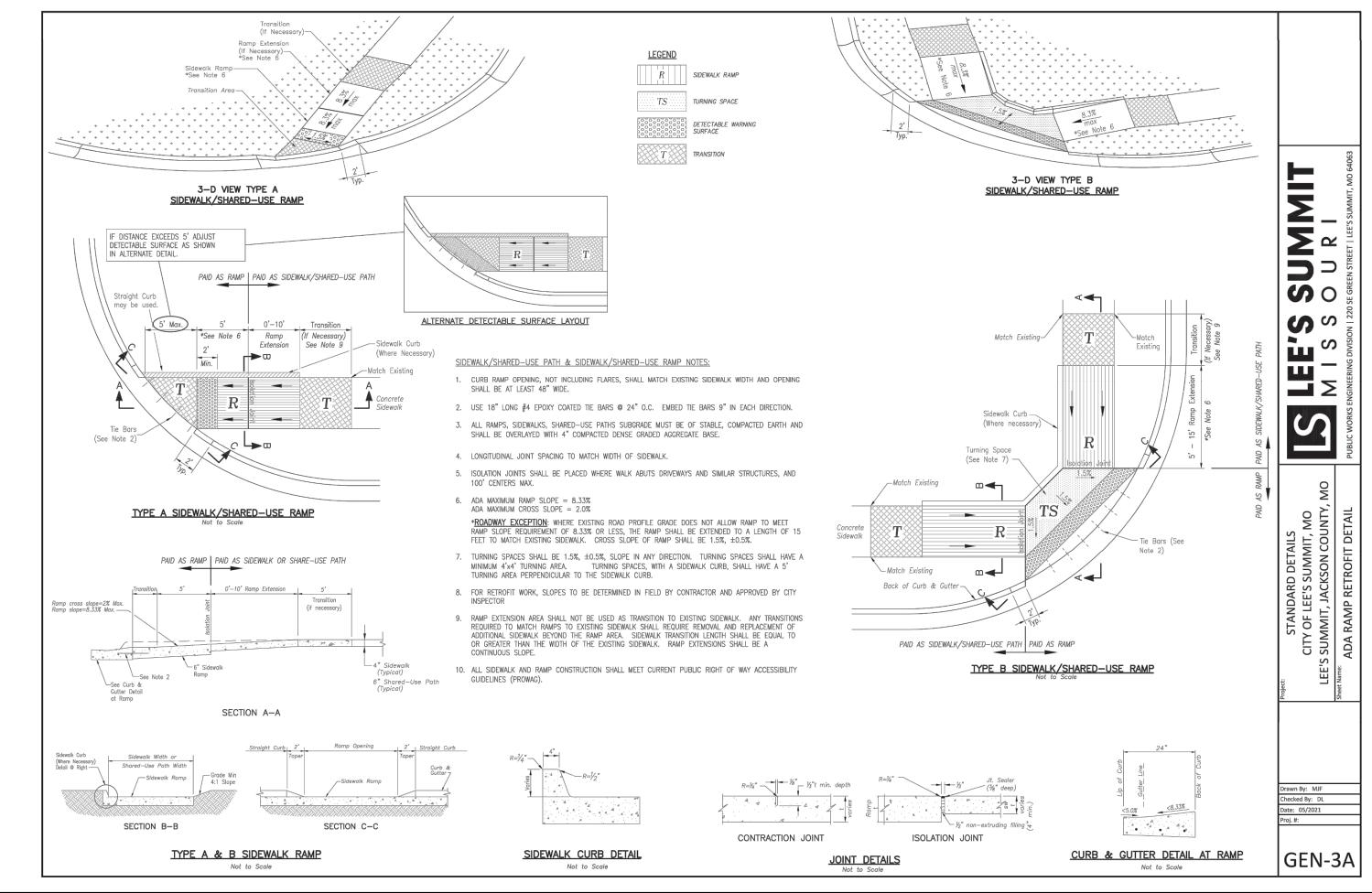
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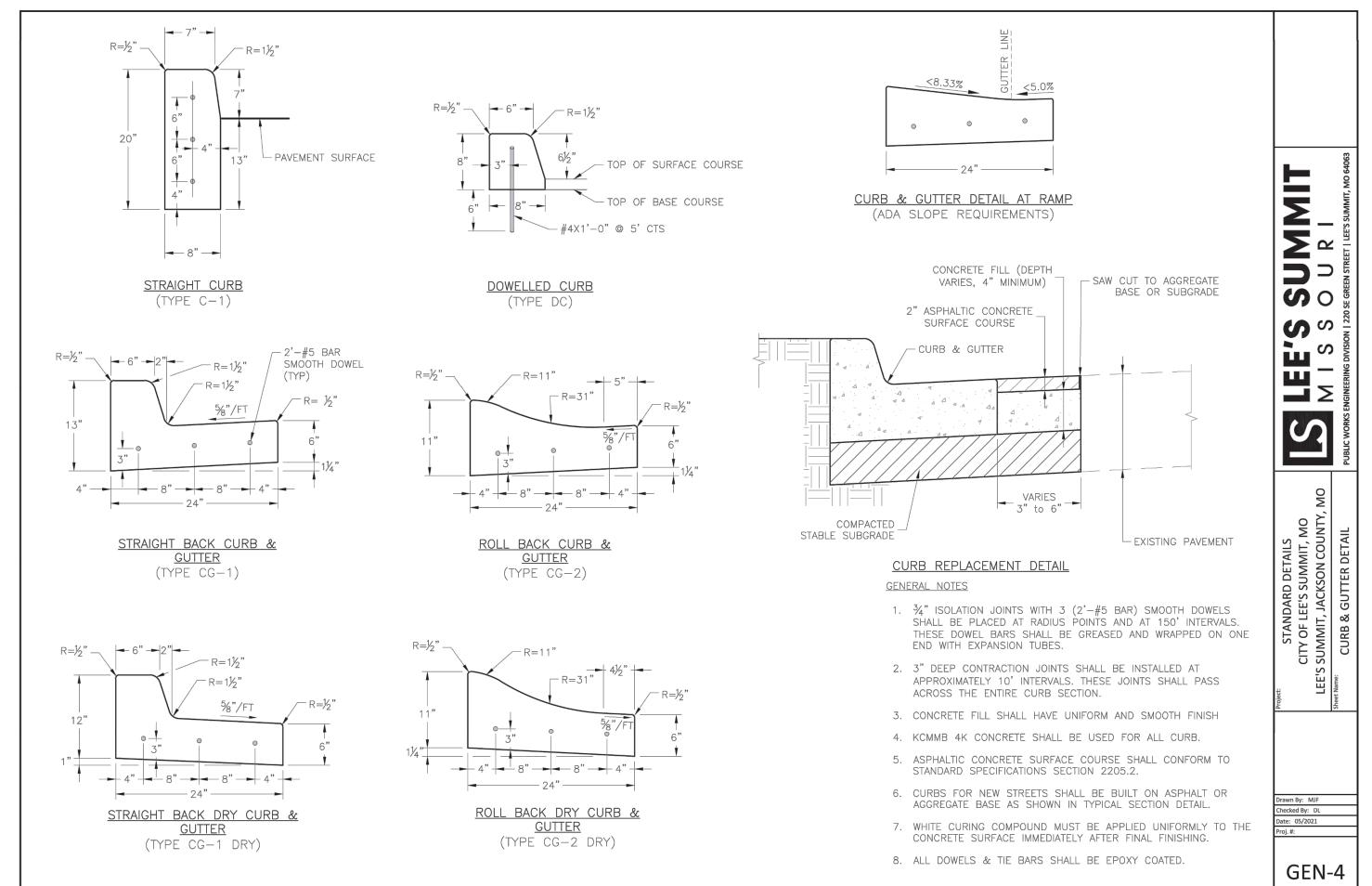
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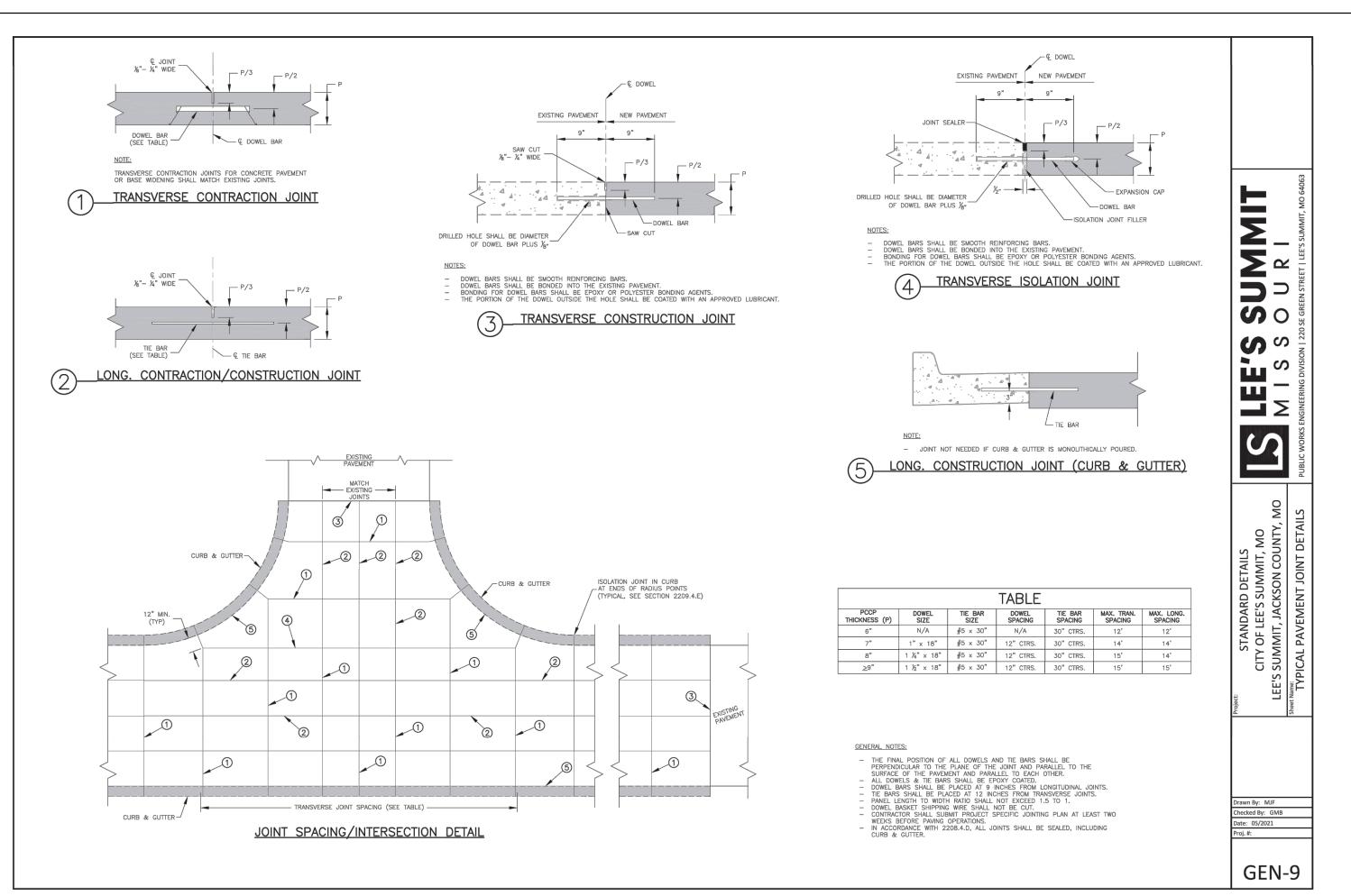
DETAILS

CONSTRUCTION









RELEASED FOR
CONSTRUCTION
As Noted on Plans Review

Development Services Department
Lee's Summit, Missouri
05/31/2022

DESIGN DRAWN CHKD
BB BB KAN

JOB No. 070460-01-001

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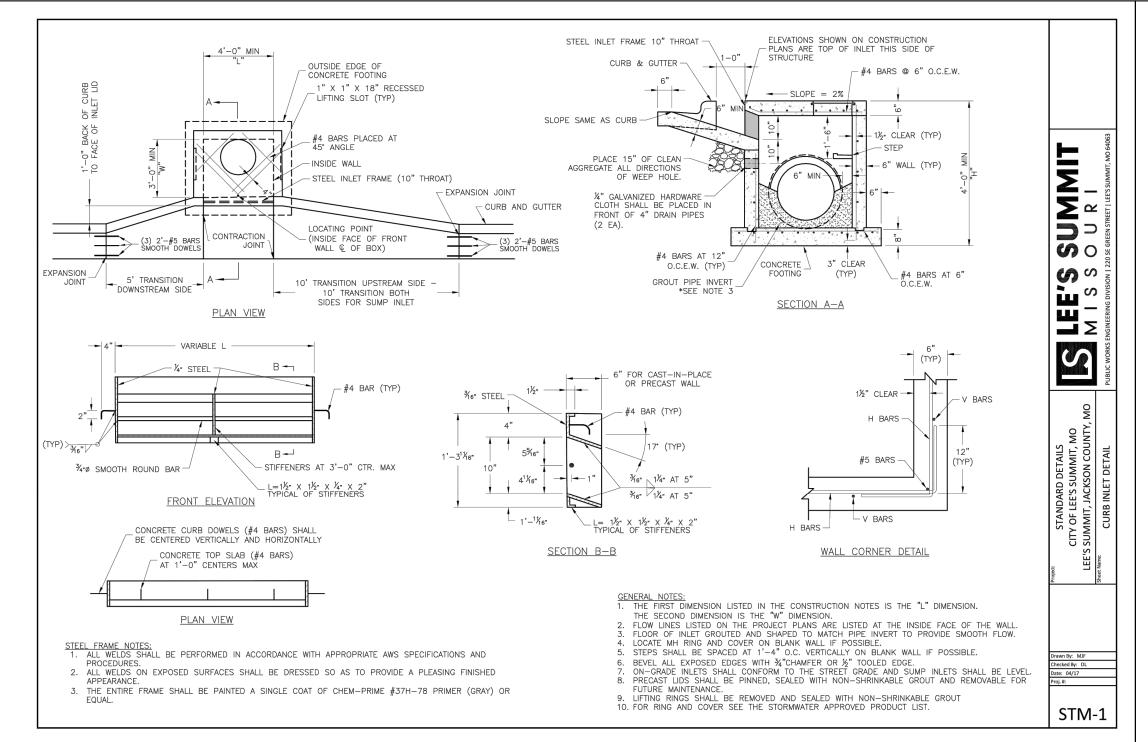
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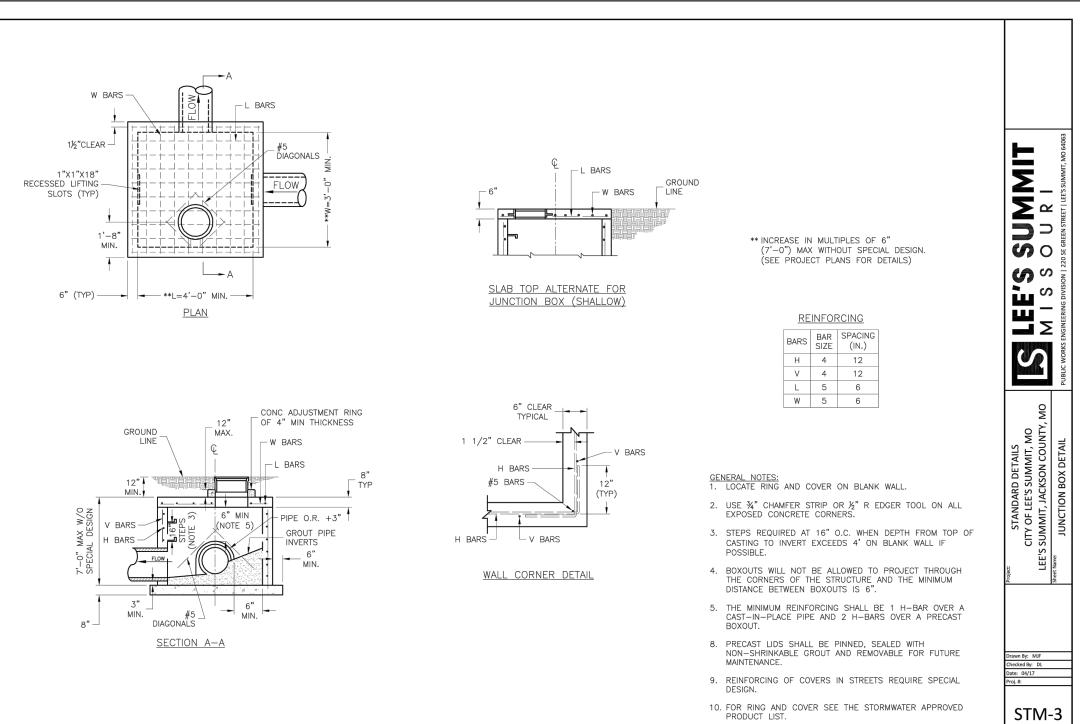
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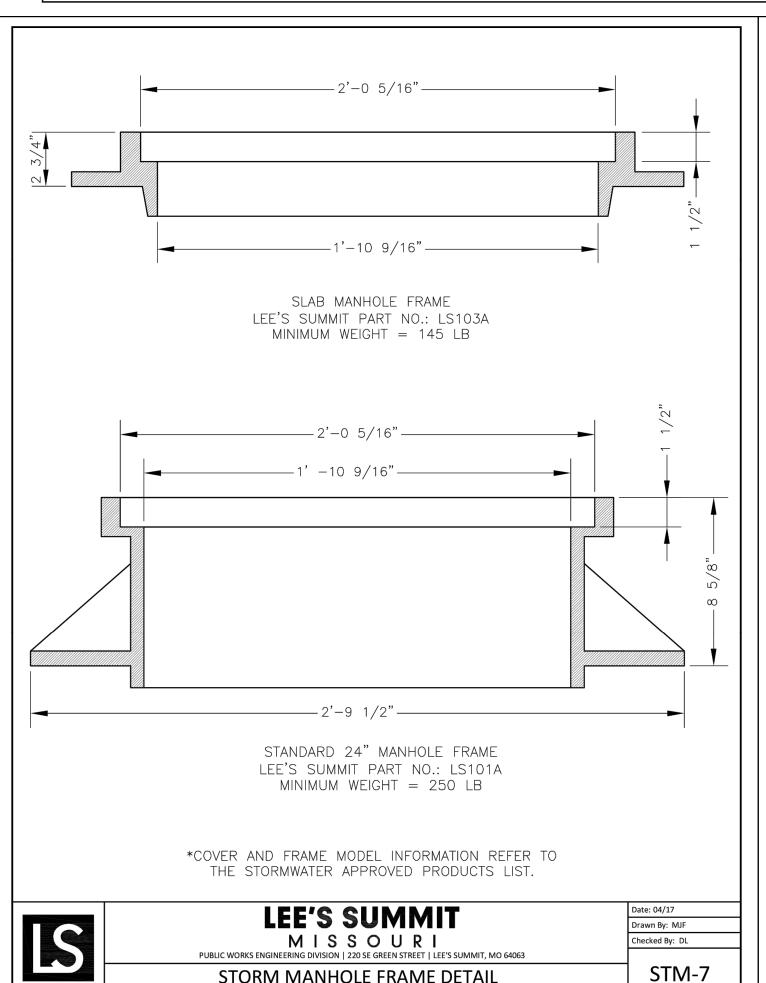
DETAILS

CONSTRUCTION

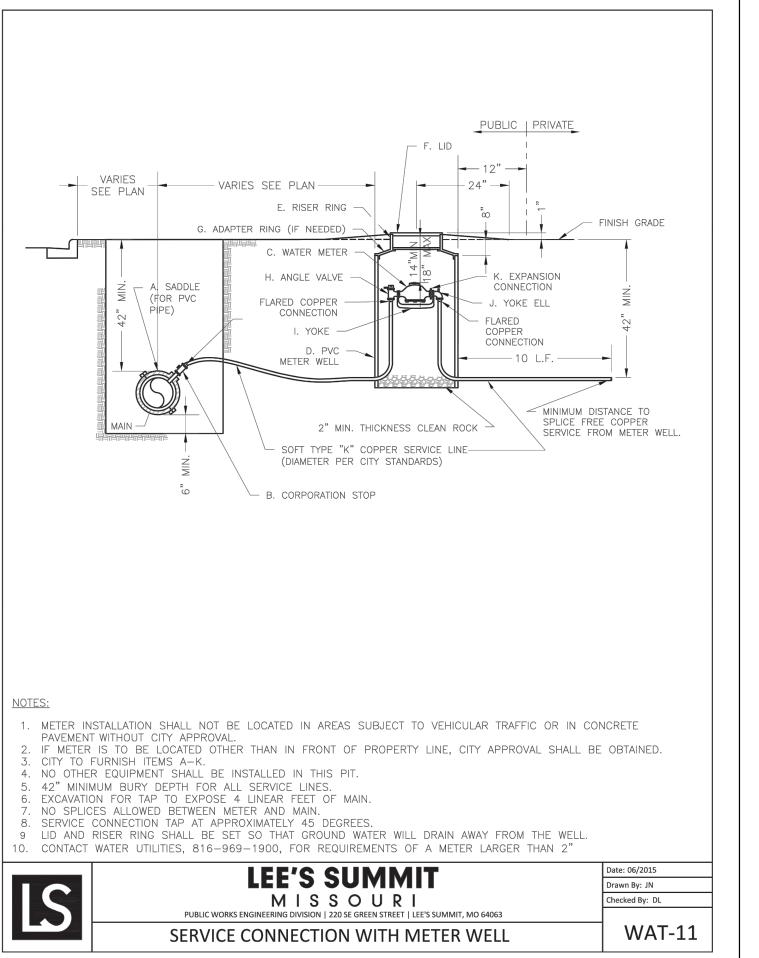
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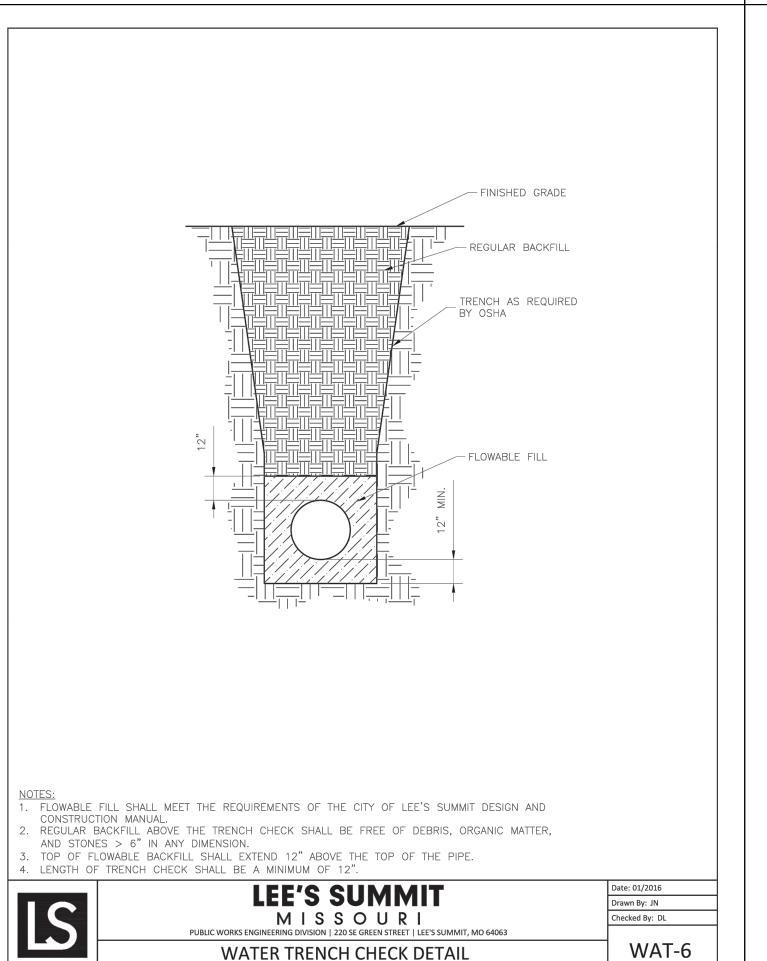




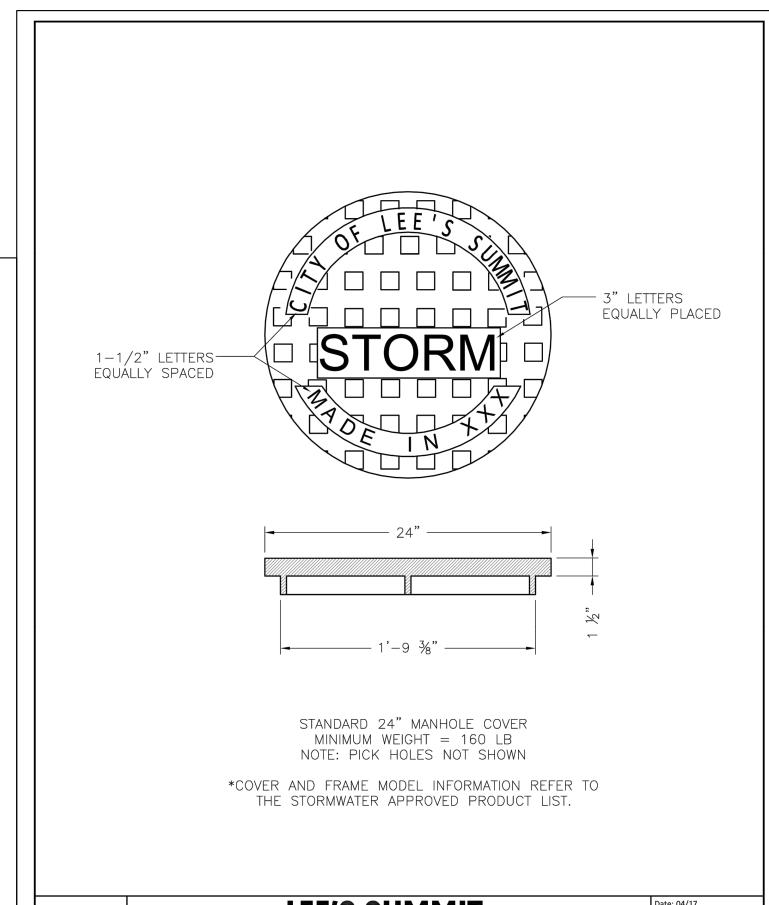


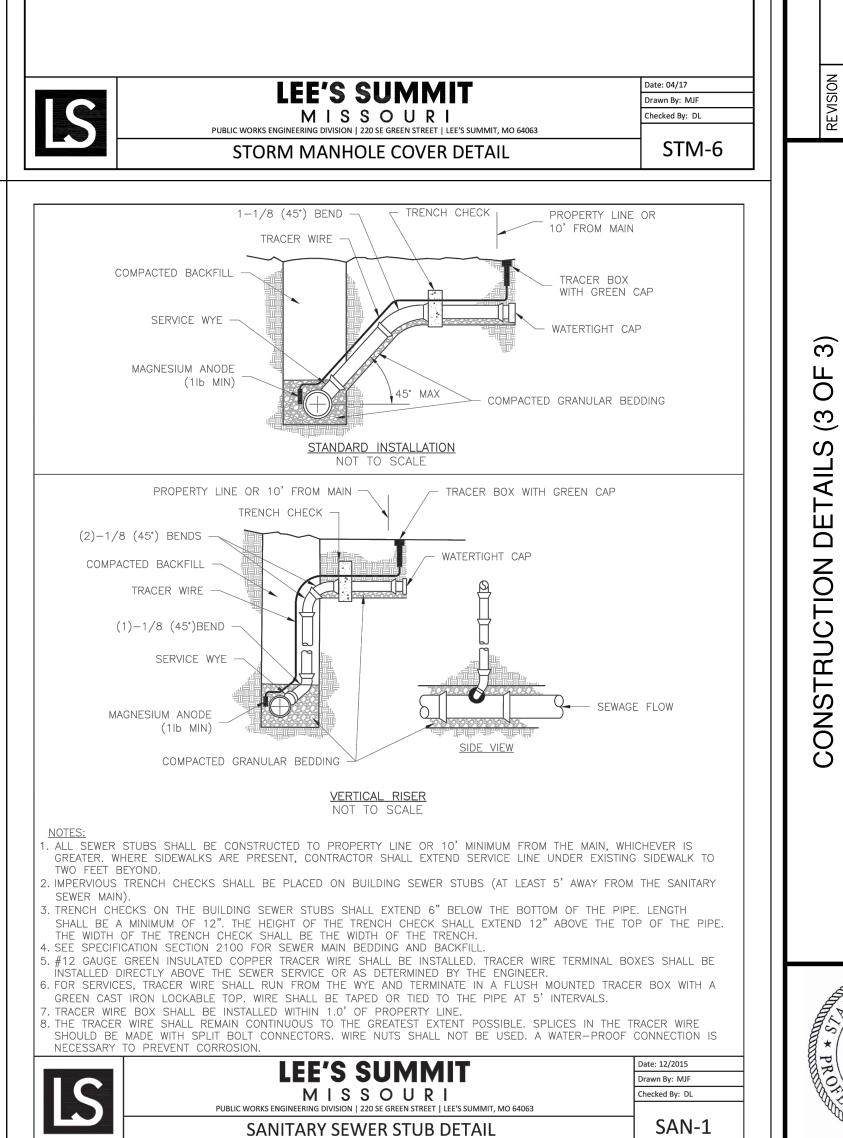
STORM MANHOLE FRAME DETAIL





WATER TRENCH CHECK DETAIL





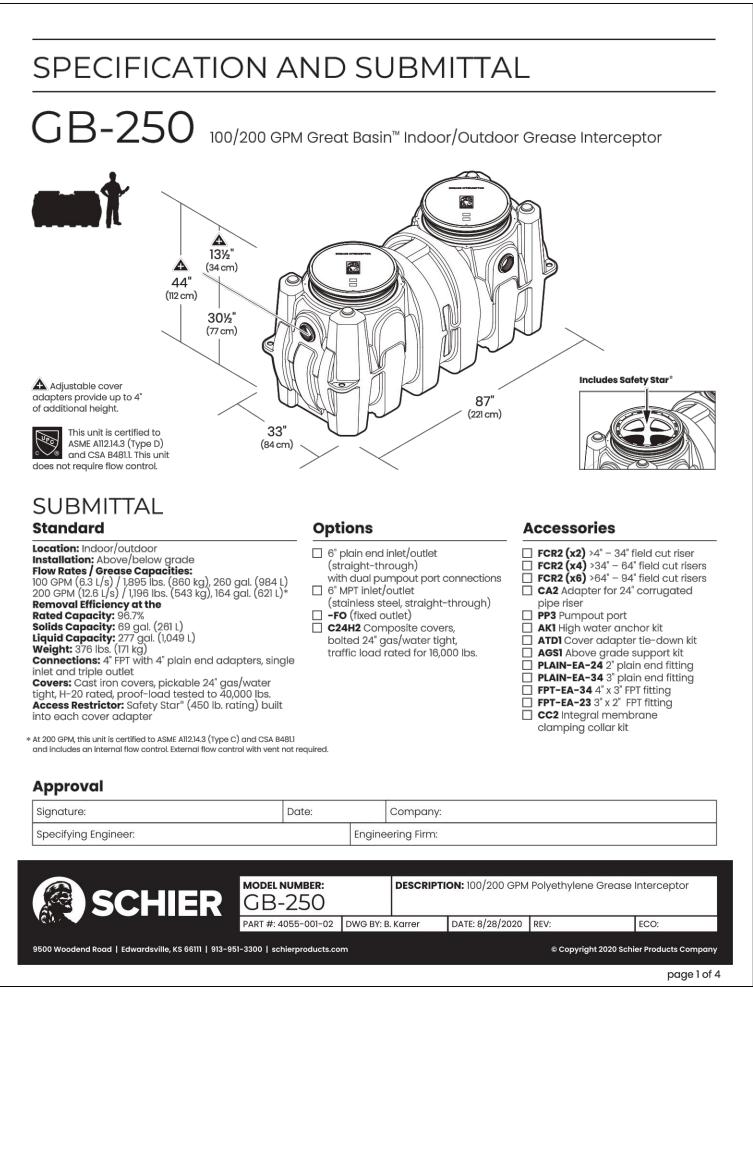


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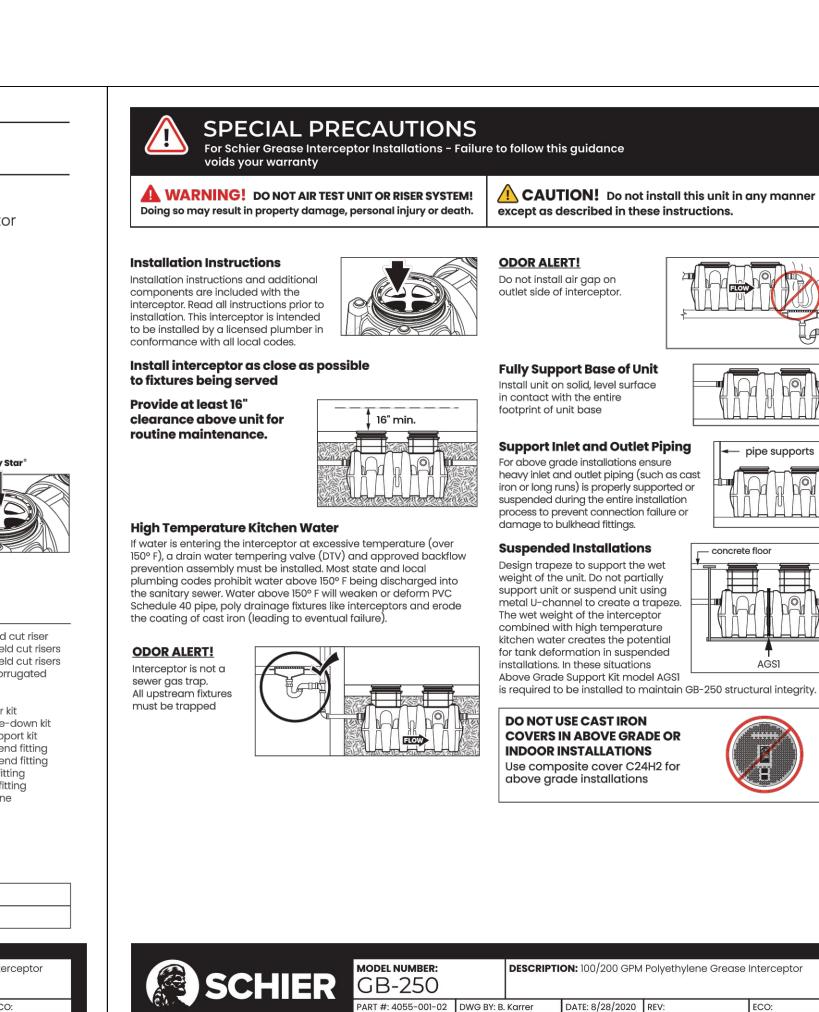
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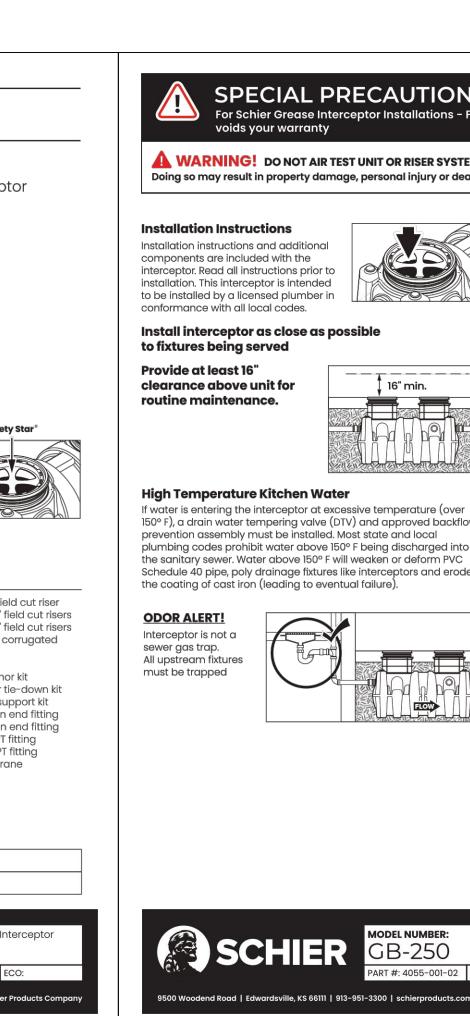
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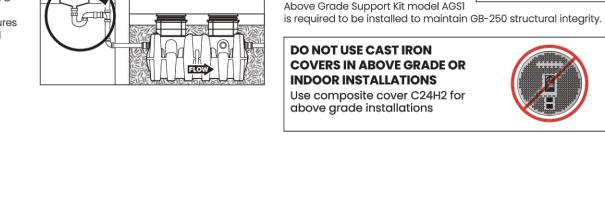
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16" min.

SPECIAL PRECAUTIONS

For Schier Grease Interceptor Installations - Failure to follow this guidance

ODOR ALERT!

Do not install air gap on

outlet side of interceptor.

Fully Support Base of Unit

Install unit on solid, level surface

Support Inlet and Outlet Piping

heavy inlet and outlet piping (such as cast

iron or long runs) is properly supported or

suspended during the entire installation

process to prevent connection failure or

damage to bulkhead fittings.

Suspended Installations

Design trapeze to support the wet

weight of the unit. Do not partially

support unit or suspend unit using

The wet weight of the interceptor

kitchen water creates the potential

for tank deformation in suspended

installations. In these situations

combined with high temperature

metal U-channel to create a trapeze.

For above grade installations ensure

in contact with the entire

footprint of unit base

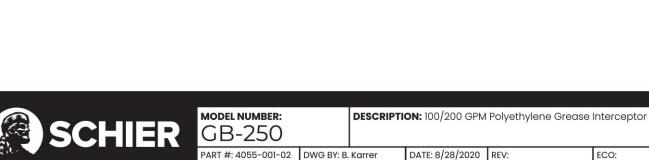
FLOW

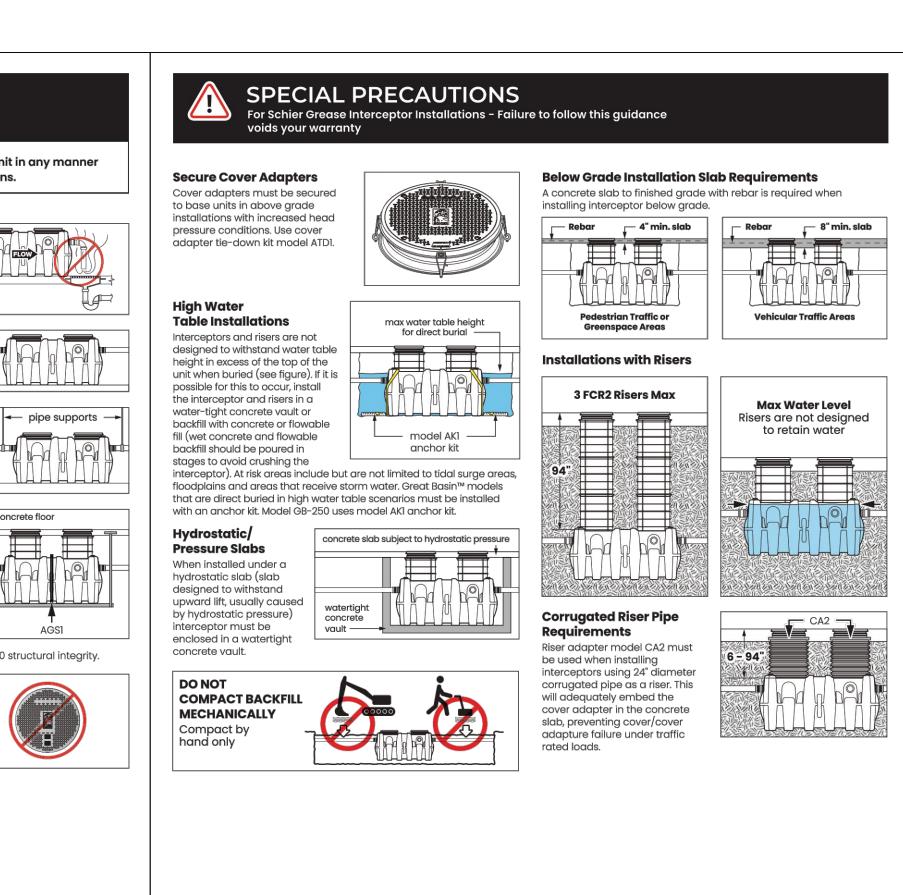
WHHHHI

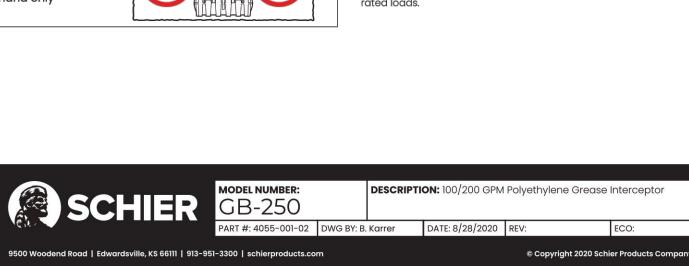
concrete floor

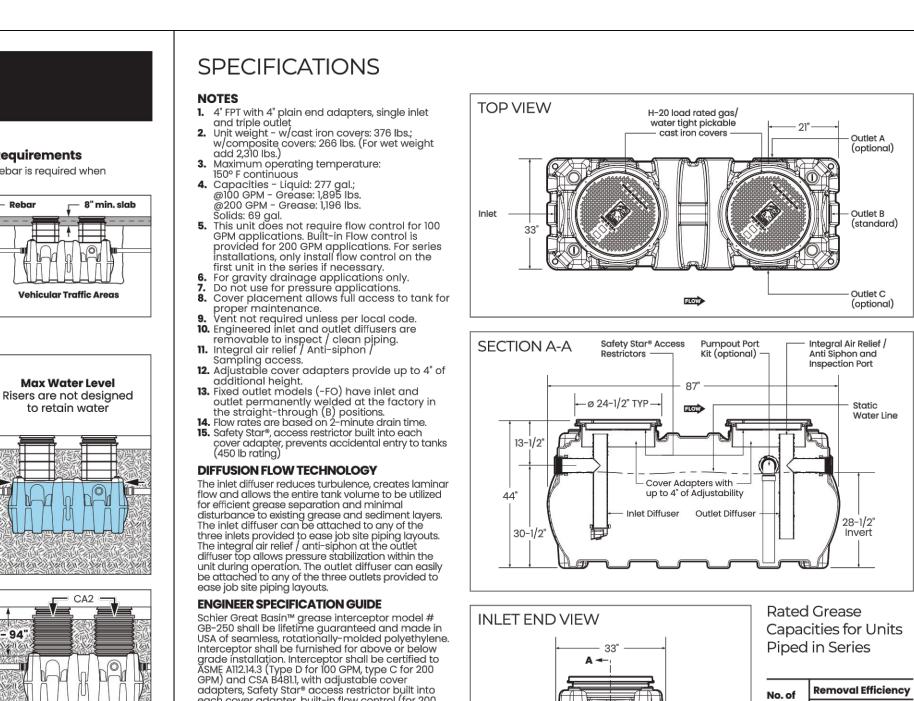
© Copyright 2020 Schier Products Compo

page 2 of 4









adapters, Safety Star® access restrictor built into

each cover adapter, built-in flow control (for 200 GPM only) and three outlet options. Interceptor flow

rate shall be 100 or 200 GPM. Interceptor grease capacity shall be 1,895 lbs. @ 100 GPM or 1,196 GPM @ 200 GPM. Cover shall provide water/ gas-tight seal and have minimum 16,000 lbs. load capacity.

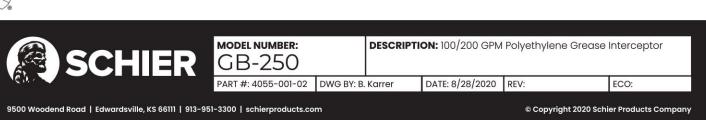
Great Basin™ hydromechanical grease interceptors are third party performance-tested and listed by IAPMO to ASME #A112.14.3 and CSA B481.1 grease

interceptor standards and greatly exceed requirements for grease separation and storage. They are compliant to the Uniform Plumbing Code

and the International Plumbing Code.

page 3 of 4

CERTIFIED PERFORMANCE



page 4 of 4

Units in 100 GPM 200GPM

3,790 lbs. 2,392 lbs.

5,685 lbs. 3,588 lbs.

7,580 lbs. 4,790 lbs

Series 96.7% 93.5%

(optional)

Water Line

Integral Air Relief /

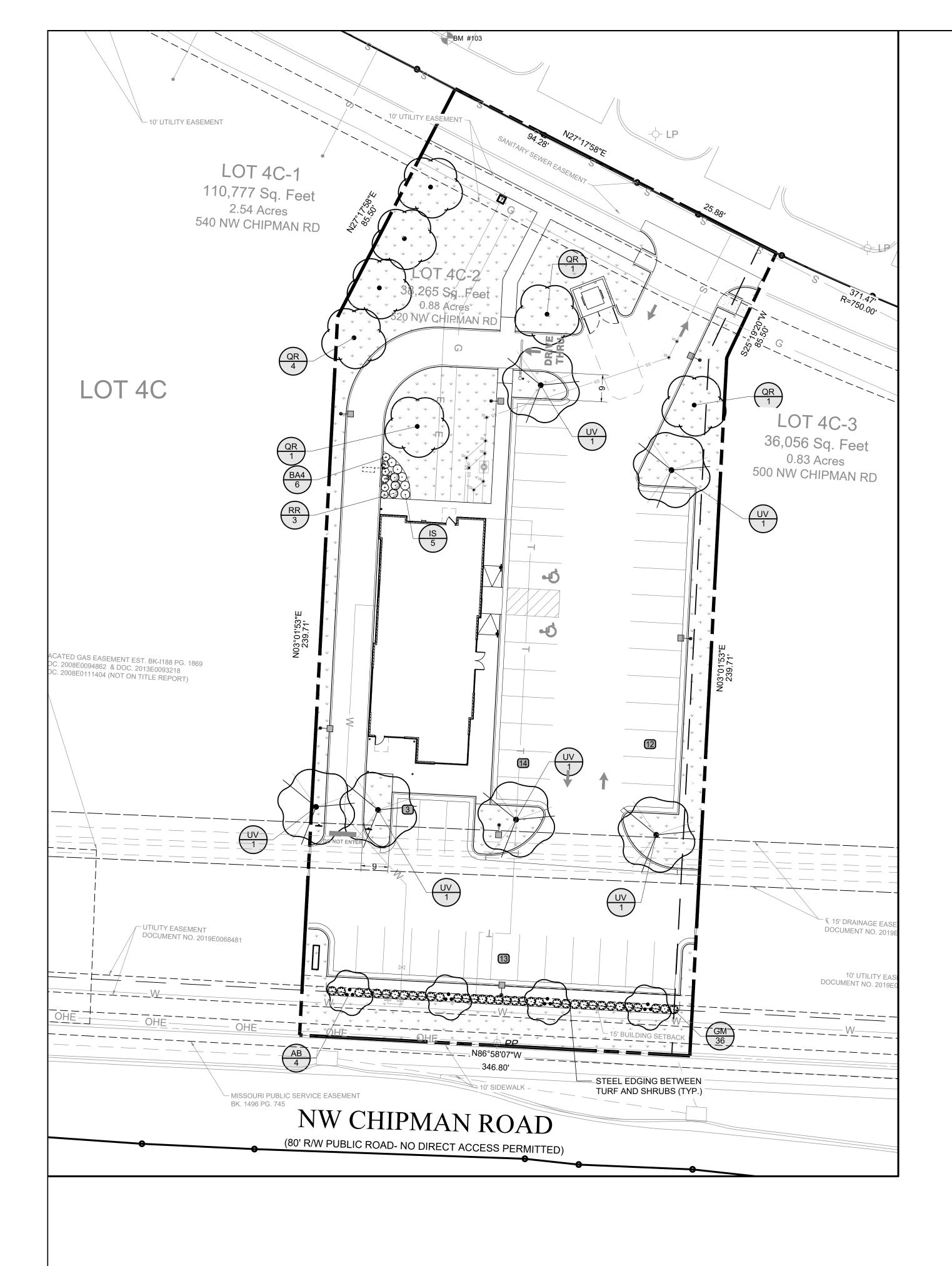
Inspection Port

(4 OF CONSTRUCTION DETAILS

4

KOFI ADDO-NYARKO NUMBER PE-2021015534 DRAWN KAN

RELEASED FOR DESIGN CONSTRUCTION BB BB As Noted on Plans Review JOB No. 070460-01-001 elopment Services Departm Lee's Summit, Missouri 05/31/2022 SHEET C6.3



PLANT SCHEDULE

| TREES | CODE | BOTANICAL / COMMON NAME | ROOT | CONT | HEIGHT | | QTY |
|-----------------------------------------|------|----------------------------------------------------------------|---------|-----------|------------|----------|-----|
| ·. | AB | Acer buergerianum / Trident Maple | 3" Cal. | B&B | 8` minimum | | 4 |
| | QR | Quercus rubra / Red Oak | 3" Cal. | B&B | 8` minimum | | 7 |
| | UV | Ulmus americana `Valley Forge` / American Elm | 3" Cal. | B&B | 8` minimum | | 6 |
| SHRUBS | CODE | BOTANICAL / COMMON NAME | SIZE | CONTAINER | | SPACING | |
| + | BA4 | Berberis thunbergii `Aurea Nana` / Japanese Barberry | 3 gal | Cont. | | 30" o.c. | 6 |
| 6 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - | GM | Buxus x `Green Mountain` / Boxwood 30" at the time of planting | | Cont. | | 36" o.c. | 36 |
| \odot | IS | Ilex vomitoria `Schillings` / Schillings Holly | 5 gal | Cont. | | 36" o.c. | 5 |
| 0 | RR | Rosa x `Knockout` TM / Rose | 3 gal | Cont. | | 36" o.c. | 3 |
| GROUND COVERS | CODE | BOTANICAL / COMMON NAME | | QTY | | | |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | FK | Festuca arundinacea `Kentucky 31` / Kentucky Tall Fescue | | 10,767 sf | | | |

LANDSCAPE CALCULATIONS

| LANDSCAPE CALCULATIONS | |
|-----------------------------------------------------------------------------------------|------------------------------|
| TOTAL SITE AREA: | .88 ac (38,287 SF) |
| STRET FRONTAGE 20' STRIP REQUIRED AT STREET FRONTAGE 1 TREE PER 30' OF STREET FRONTAGE | 20' LANDSCAPE STRIP PROVIDED |
| NW CHIPMAN RD = 130 LF/30 = 4 TREES | 4 TREES PROVIDED* |
| 1 SHRUBS PER 20' OF STREET FRONTAGE NW CHIPMAN RD = 130 LF/20 x 1 = 7 SHRUBS | 7 SHRUBS PROVIDED |
| OPEN YARD REQUIREMENTS 1 TREE PER 5,000 | |
| 35,587 / 5,000 = 7 TREES REQUIRED 2 SHRUB PER 5,000 | 7 TREES PROVIDED |
| 35,587 / 5,000 = 14 SHRUBS REQUIRED | 14 SHRUBS PROVIDED |
| PARKING AREA 5% PARKING SHALL BE LANDSCAPE TOTAL PARKING AREA = 15,544 x .05 = | 1 120 SE DDOVIDED |
| 777 SF REQUIRED | 1,130 SF PROVIDED |

1 TREE PER REQUIRED ISLAND (5) PARKING LOT SCREENING

12 18" EVERGREEN SHRUBS PER 40 LF 119 LF / 40 = 1.2 x 12 = 36 SHRUBS 36 SHRUBS PROVIDED

5 TREES PROVIDED

*BECAUSE OF OVERHEAD UTILITY LINES SMALLER SIZED TREES ARE BEING USED.

GENERAL GRADING AND PLANTING NOTES

- BY SUBMITTING A PROPOSAL FOR THE LANDSCAPE PLANTING SCOPE OF WORK. THE CONTRACTOR CONFIRMS THAT HE HAS READ, AND WILL COMPLY WITH, THE ASSOCIATED NOTES, SPECIFICATIONS, AND DETAILS WITH THIS PROJECT. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EXISTING VEGETATION (EXCEPT WHERE
- NOTED TO REMAIN). IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL
- ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS.

 a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION.
- b. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL.
- c. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (BASED ON A SOIL TEST, PER SPECIFICATIONS), AND THE FINISH GRADES TO BE ESTABLISHED.
- d. ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS. ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE FINISH SURFACE OF THE
- WALKS. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS. f. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR, AND
- ALL PLANT LOCATIONS ARE DIAGRAMMATIC. ACTUAL LOCATIONS SHALL BE VERIFIED WITH THE LANDSCAPE ARCHITECT OR DESIGNER PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT ALL REQUIREMENTS OF THE PERMITTING AUTHORITY ARE MET (I.E., MINIMUM PLANT QUANTITIES, PLANTING METHODS, TREE PROTECTION METHODS, ETC.).
- a. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DETERMINING PLANT QUANTITIES; PLANT QUANTITIES SHOWN ON LEGENDS AND CALLOUTS ARE FOR GENERAL INFORMATION ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND THE PLANT LEGEND, THE PLANT QUANTITY AS SHOWN ON THE PLAN (FOR INDIVIDUAL SYMBOLS) OR CALLOUT (FOR GROUNDCOVER PATTERNS) SHALL TAKE
- PRECEDENCE.
- b. NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT. IF SOME OF THE PLANTS ARE NOT AVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING (VIA PROPER CHANNELS). THE CONTRACTOR SHALL, AT A MINIMUM, PROVIDE REPRESENTATIVE PHOTOS OF ALL PLANTS PROPOSED
- FOR THE PROJECT. THE CONTRACTOR SHALL ALLOW THE LANDSCAPE ARCHITECT AND THE OWNER/OWNER'S REPRESENTATIVE TO INSPECT, AND APPROVE OR REJECT, ALL PLANTS DELIVERED TO THE JOBSITE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBMITTALS. THE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE IN A HEALTHY CONDITION FOR 90 DAYS AFTER ACCEPTANCE BY THE OWNER. REFER TO SPECIFICATIONS FOR CONDITIONS OF ACCEPTANCE FOR THE START
- OF THE MAINTENANCE PERIOD, AND FOR FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD. 6. SEE SPECIFICATIONS AND DETAILS FOR FURTHER REQUIREMENTS.

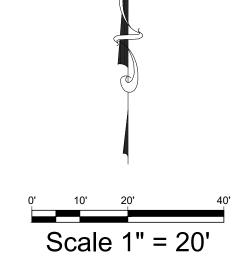
MULCHES

AFTER ALL PLANTING IS COMPLETE, CONTRACTOR SHALL INSTALL 3" THICK LAYER OF 1-1/2" SHREDDED WOOD MULCH, NATURAL (UNDYED), OVER LANDSCAPE FABRIC IN ALL PLANTING AREAS (EXCEPT FOR TURF AND SEEDED AREAS). CONTRACTOR SHALL SUBMIT SAMPLES OF ALL MULCHES TO LANDSCAPE ARCHITECT AND OWNER FOR APPROVAL PRIOR TO CONSTRUCTION. ABSOLUTELY NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED (SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE "GENERAL GRADING AND PLANTING NOTES" AND SPECIFICATIONS).

ROOT BARRIERS

THE CONTRACTOR SHALL INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN FIVE (5) FEET OF PAVING OR CURBS. ROOT BARRIERS SHALL BE "CENTURY" OR "DEEP-ROOT" 24" DEEP PANELS (OR EQUAL). BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. INSTALL PANELS PER MANUFACTURER'S RECOMMENDATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENCIRCLE THE ROOTBALL.

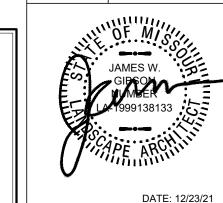




Know what's **below**.

Call before you dig.

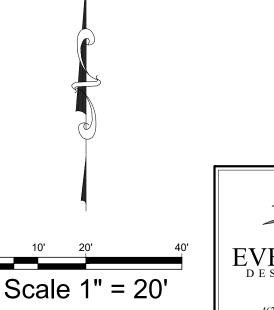


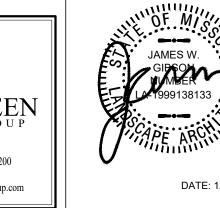


THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY

LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

DESIGN DRAWN CHKD JWG JWG **JOB No.** 070460-01-001 SHEET LP-1





PLANTING

LANDSCAPE

PLANTING SPECIFICATIONS

APPROPRIATE LOCAL JURISDICTION.

- A. QUALIFICATIONS OF LANDSCAPE CONTRACTOR ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM
- SPECIALIZING IN LANDSCAPE PLANTING. 2. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES. THE LANDSCAPE CONTRACTOR SHALL HOLD A VALID CONTRACTOR'S LICENSE ISSUED BY THE
- WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK, SPECIFIED HEREIN AND / OR SHOWN
- ON THE LANDSCAPE PLANS, NOTES, AND DETAILS. 2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL
- INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS. 3. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF

PRODUCTS

- A. ALL MANUFACTURED PRODUCTS SHALL BE NEW. B. CONTAINER AND BALLED-AND-BURLAPPED PLANTS:
 - FURNISH NURSERY-GROWN PLANTS COMPLYING WITH ANSI Z60.1-2014. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS SUN SCALD INJURIES ABRASIONS AND DISFIGUREMENT. ALL PLANTS WITHIN A SPECIES SHALL HAVE SIMILAR SIZE. AND SHALL BE OF A FORM TYPICAL FOR THE SPECIES. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE. AND WITH SIMILAR CLIMACTIC CONDITIONS
- ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED ROOT SYSTEMS, NON-POT-BOUND, FREE FROM ENCIRCLING AND/OR GIRDLING ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS
- TREES MAY BE PLANTED FROM CONTAINERS OR BALLED-AND-BURLAPPED (B&B), UNLESS SPECIFIED ON THE PLANTING LEGEND. BARE-ROOT TREES ARE NOT ACCEPTABLE. ANY PLANT DEEMED UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTABLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE
- UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE LANDSCAPE ARCHITECT AND OWNER SHALL BE THE SOLE JUDGES AS TO THE ACCEPTABILITY OF PLANT MATERIAL 5. ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS
- CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE FOR TREES UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL. WHERE CALIPER MEASUREMENTS ARE USED, THE CALIPER SHALL BE CALCULATED AS ONE-HALF OF THE SUM OF THE CALIPER OF THE THREE LARGEST TRUNKS.
- ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED. C. SOD: PROVIDE WELL-ROOTED SOD OF THE VARIETY NOTED ON THE PLANS. SOD SHALL BE CUT FROM HEALTHY, MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOD SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOD. D. SEED: PROVIDE BLEND OF SPECIES AND VARIETIES AS NOTED ON THE PLANS. WITH MAXIMUM
- PERCENTAGES OF PURITY, GERMINATION, AND MINIMUM PERCENTAGE OF WEED SEED AS INDICATED ON PLANS. EACH BAG OF SEED SHALL BE ACCOMPANIED BY A TAG FROM THE SUPPLIER INDICATING THE COMPOSITION OF THE SEED
- E. TOPSOIL: SANDY TO CLAY LOAM TOPSOIL, FREE OF STONES LARGER THAN ½ INCH, FOREIGN MATTER, PLANTS ROOTS AND SEEDS F. COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, pH RANGE OF 5.5 TO 8;
- MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH 3/4-INCH SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISIEMENS/M; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS. NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE
- G. FERTILIZER: GRANULAR FERTILIZER CONSISTING OF NITROGEN, PHOSPHORUS, POTASSIUM, AND OTHER NUTRIENTS IN PROPORTIONS, AMOUNTS, AND RELEASE RATES RECOMMENDED IN A SOIL REPORT FROM A QUALIFIED SOIL-TESTING AGENCY (SEE BELOW)
- H. MULCH: SIZE AND TYPE AS INDICATED ON PLANS, FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS. TREE STAKING AND GUYING STAKES: 6' LONG GREEN METAL T-POSTS.
- GUY AND TIE WIRE: ASTM A 641, CLASS 1, GALVANIZED-STEEL WIRE, 2-STRAND, TWISTED, 0.106 INCH 3. STRAP CHAFING GUARD: REINFORCED NYLON OR CANVAS AT LEAST 1-1/2 INCH WIDE, WITH GROMMETS TO PROTECT TREE TRUNKS FROM DAMAGE.
- STEEL EDGING: PROFESSIONAL STEEL EDGING, 14 GAUGE THICK X 4 INCHES WIDE, FACTORY PAINTED DARK GREEN. ACCEPTABLE MANUFACTURERS INCLUDE COL-MET OR APPROVED EQUAL. M. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES.

METHODS

- BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST. SOIL TESTING:
- a. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, CONTRACTOR SHALL HAVE SOIL SAMPLES FROM THE PROJECT'S LANDSCAPE AREAS TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY FACH SAMPLE SUBMITTED TO THE LAB SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL. TAKEN FROM BETWEEN THE SOIL SURFACE AND 6" DEPTH. IF NO SAMPLE LOCATIONS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL TAKE A MINIMUM OF THREE SAMPLES FROM VARIOUS REPRESENTATIVE LOCATIONS FOR TESTING. THE CONTRACTOR SHALL HAVE THE SOIL TESTING LABORATORY PROVIDE RESULTS FOR THE FOLLOWING: SOIL TEXTURAL CLASS, GENERAL SOIL FERTILITY, pH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ADSORPTION RATIO (SAR) AND BORON CONTENT.
- THE CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): SEPARATE SOIL PREPARATION AND BACKFILL MIX
- RECOMMENDATIONS FOR GENERAL ORNAMENTAL PLANTS, XERIC PLANTS, TURF, AND NATIVE SEED, AS WELL AS PRE-PLANT FERTILIZER APPLICATIONS AND RECOMMENDATIONS FOR ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE. 3. THE CONTRACTOR SHALL INSTALL SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT
- RECOMMENDATIONS. ANY CHANGE IN COST DUE TO THE SOIL REPORT RECOMMENDATIONS, EITHER INCREASE OR DECREASE, SHALL BE SUBMITTED TO THE OWNER WITH THE REPORT. FOR BIDDING PURPOSES ONLY, THE SOIL PREPARATION SHALL CONSIST OF THE FOLLOWING
- TURF: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING: NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
- PREPLANT TURF FERTILIZER (10-20-10 OR SIMILAR, SLOW RELEASE, ORGANIC) 15 LBS PER 1,000
- iii. "CLAY BUSTER" OR EQUAL USE MANUFACTURER'S RECOMMENDED RATE TREES, SHRUBS, AND PERENNIALS: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING: NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
- 12-12-12 FERTILIZER (OR SIMILAR, ORGANIC, SLOW RELEASE) 10 LBS. PER CU. YD. "CLAY BUSTER" OR EQUAL - USE MANUFACTURER'S RECOMMENDED RATE IRON SULPHATE - 2 LBS. PER CU. YD.
- 5. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE
- AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL
- WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (BASED ON A SOIL TEST, PER SPECIFICATIONS), AND THE FINISH d. ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY
- e. ENSURE THAT THE FINISH GRADE IN TURF AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 1" BELOW THE FINISH SURFACE OF THE WALKS. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS. SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS,
- CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR, AND OWNER. 6. ONCE SOIL PREPARATION IS COMPLETE, THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THERE ARE NO DEBRIS, TRASH, OR STONES LARGER THAN 1" REMAINING IN THE TOP 6" OF SOIL

GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE

- B. SUBMITTALS THE CONTRACTOR SHALL PROVIDE SUBMITTALS AND SAMPLES, IF REQUIRED, TO THE LANDSCAPE
- ARCHITECT, AND RECEIVE APPROVAL IN WRITING FOR SUCH SUBMITTALS BEFORE WORK COMMENCES. SUBMITTALS SHALL INCLUDE PHOTOS OF PLANTS WITH A RULER OR MEASURING STICK FOR SCALE PHOTOS OR SAMPLES OF ANY REQUIRED MULCHES, AND SOIL TEST RESULTS AND PREPARATION RECOMMENDATIONS FROM THE TESTING LAB (INCLUDING COMPOST AND FERTILIZER RATES AND TYPES, AND OTHER AMENDMENTS FOR TREE/SHRUB, TURF, AND SEED AREAS AS MAY BE
- APPROPRIATE). SUBMITTALS SHALL ALSO INCLUDE MANUFACTURER CUT SHEETS FOR PLANTING ACCESSORIES SUCH AS TREE STAKES AND TIES, EDGING, AND LANDSCAPE FABRICS (IF ANY). WHERE MULTIPLE ITEMS ARE SHOWN ON A PAGE, THE CONTRACTOR SHALL CLEARLY INDICATE THE
- C. GENERAL PLANTING REMOVE ALL NURSERY TAGS AND STAKES FROM PLANTS.

ITEM BEING CONSIDERED.

- EXCEPT IN AREAS TO BE PLANTED WITH ORNAMENTAL GRASSES, APPLY PRE-EMERGENT HERBICIDES AT THE MANUFACTURER'S RECOMMENDED RATE.
- TRENCHING NEAR EXISTING TREES: CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE ROOTS. TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1' FOR EVERY 1" OF TRUNK DIAMETER-AT-BREAST-HEIGHT (4.5' ABOVE THE AVERAGE
- GRADE AT THE TRUNK) ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION OR TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ. ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE
- TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD. TUNNEL UNDER SUCH ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE ANY SORT OF SEALERS OR WOUND PAINTS.
- C. TREE PLANTING TREE PLANTING HOLES SHALL BE EXCAVATED TO MINIMUM WIDTH OF TWO TIMES THE WIDTH OF THE ROOTBALL, AND TO A DEPTH EQUAL TO THE DEPTH OF THE ROOTBALL LESS TWO TO FOUR INCHES. SCARIFY THE SIDES AND BOTTOM OF THE PLANTING HOLE PRIOR TO THE PLACEMENT OF THE TREE. REMOVE ANY GLAZING THAT MAY HAVE BEEN CAUSED DURING THE EXCAVATION OF THE HOLE. FOR CONTAINER AND BOX TREES, TO REMOVE ANY POTENTIALLY GIRDLING ROOTS AND OTHER ROOT DEFECTS, THE CONTRACTOR SHALL SHAVE A 1" LAYER OFF OF THE SIDES AND BOTTOM OF THE
 - INSTALL THE TREE ON UNDISTURBED SUBGRADE SO THAT THE TOP OF THE ROOTBALL IS TWO TO FOUR INCHES ABOVE THE SURROUNDING GRADE.

ROOTBALL OF ALL TREES JUST BEFORE PLACING INTO THE PLANTING PIT. DO NOT "TEASE" ROOTS

- BACKFILL THE TREE HOLE UTILIZING THE EXISTING TOPSOIL FROM ON-SITE. ROCKS LARGER THAN 1" DIA. AND ALL OTHER DEBRIS SHALL BE REMOVED FROM THE SOIL PRIOR TO THE BACKFILL. SHOULD ADDITIONAL SOIL BE REQUIRED TO ACCOMPLISH THIS TASK, USE STORED TOPSOIL FROM ON-SITE OR IMPORT ADDITIONAL TOPSOIL FROM OFF-SITE AT NO ADDITIONAL COST TO THE OWNER. IMPORTED TOPSOIL SHALL BE OF SIMILAR TEXTURAL CLASS AND COMPOSITION IN THE ON-SITE SOIL.
- TREES SHALL NOT BE STAKED UNLESS LOCAL CONDITIONS (SUCH AS HEAVY WINDS OR SLOPES) REQUIRE STAKES TO KEEP TREES UPRIGHT. SHOULD STAKING BE REQUIRED. THE TOTAL NUMBER OF TREE STAKES (BEYOND THE MINIMUMS LISTED BELOW) WILL BE LEFT TO THE LANDSCAPE CONTRACTOR'S DISCRETION. SHOULD ANY TREES FALL OR LEAN, THE LANDSCAPE CONTRACTOR SHALL STRAIGHTEN THE TREE, OR REPLACE IT SHOULD IT BECOME DAMAGED. TREE STAKING SHALL ADHERE TO THE FOLLOWING GUIDELINES:
- TWO STAKES PER TREE a. 1"-2" TREES 2-1/2"-4" TREES THREE STAKES PER TREE
- TREES OVER 4" CALIPER GUY AS NEEDED THREE STAKES PER TREE MINIMUM, QUANTITY AND POSITIONS AS MUI TI-TRUNK TREES NEEDED TO STABILIZE THE TREE
- UPON COMPLETION OF PLANTING, CONSTRUCT AN EARTH WATERING BASIN AROUND THE TREE. COVER THE INTERIOR OF THE TREE RING WITH THE WEED BARRIER CLOTH AND TOPDRESS WITH MULCH (TYPE AND DEPTH PER PLANS).
- D. SHRUB, PERENNIAL, AND GROUNDCOVER PLANTING DIG THE PLANTING HOLES TWICE AS WIDE AND 2" LESS DEEP THAN EACH PLANT'S ROOTBALL. INSTALL THE PLANT IN THE HOLE. BACKFILL AROUND THE PLANT WITH SOIL AMENDED PER SOIL TEST RECOMMENDATIONS.
 - INSTALL THE WEED BARRIER CLOTH, OVERLAPPING IT AT THE ENDS. UTILIZE STEEL STAPLES TO KEEP THE WEED BARRIER CLOTH IN PLACE.
- WHEN PLANTING IS COMPLETE, INSTALL MULCH (TYPE AND DEPTH PER PLANS) OVER ALL PLANTING BEDS, COVERING THE ENTIRE PLANTING AREA
- SOD VARIETY TO BE AS SPECIFIED ON THE LANDSCAPE PLAN.
- LAY SOD WITHIN 24 HOURS FROM THE TIME OF STRIPPING. DO NOT LAY IF THE GROUND IS FROZEN. LAY THE SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS - DO NOT OVERLAP. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. ROLL THE SOD TO ENSURE GOOD CONTACT OF THE SOD'S ROOT SYSTEM WITH THE SOIL
- WATER THE SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING TO OBTAIN AT LEAST SIX INCHES OF PENETRATION INTO THE SOIL BELOW THE SOD.
- F. HYDROMULCHING TURF HYDROMULCH MIX (PER 1,000 SF) SHALL BE AS FOLLOWS:
 - a. WINTER MIX (OCTOBER 1 MARCH 31) 50# CELLULOSE FIBER MULCH 2# UNHULLED FESCUE SEED
 - 2# ANNUAL RYE SEED 15# 15-15-15 WATER SOLUBLE FERTILIZER
 - SUMMER MIX (APRIL 1 SEPTEMBER 30) 50# CELLULOSE FIBER MULCH 2# HULLED FESCUE SEED
 - 15# 15-15-15 WATER SOLUBLE FERTILIZER SEED HYDROMULCH MIX (PER 1,000 SF) SHALL BE AS FOLLOWS:
 - GENERAL 50# CELLULOSE FIBER MULCH

K. LANDSCAPE MAINTENANCE

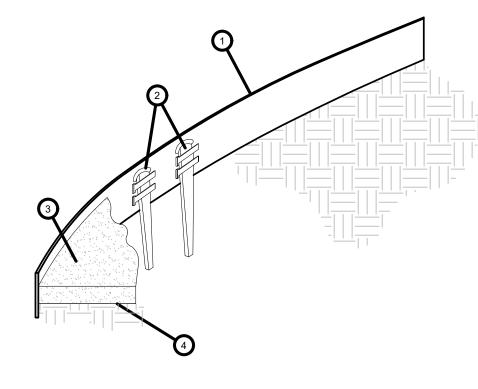
NEATLY MOWED.

- 15# 15-15-15 WATER SOLUBLE FERTILIZER SEED RATE PER LEGEND
- G. MULCH INSTALL MULCH TOPDRESSING, TYPE AND DEPTH PER MULCH NOTE, IN ALL PLANTING AREAS AND
- DO NOT INSTALL MULCH WITHIN 6" OF TREE ROOT FLARE AND WITHIN 24" OF HABITABLE STRUCTURES, EXCEPT AS MAY BE NOTED ON THESE PLANS. MULCH COVER WITHIN 6" OF CONCRETE WALKS AND CURBS SHALL NOT PROTRUDE ABOVE THE FINISH SURFACE OF THE WALKS AND CURBS. MULCH COVER WITHIN 12" OF WALLS SHALL BE AT LEAST 3" LOWER THAN THE TOP OF WALL.
- DURING LANDSCAPE PREPARATION AND PLANTING, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS IN A NEAT ORDERLY CONDITION LEGALLY DISPOSE ALL EXCAVATED MATERIALS OFF THE PROJECT SITE.
- UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY. WHEN THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION WITHIN 24 HOURS
- THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME. A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING RESTAKING OF TREES RESETTING OF PLANTS THAT HAVE SETTLED. MOWING AND AERATION OF LAWNS. WEEDING. RESEEDING AREAS WHICH HAVE NOT GERMINATED WELL TREATING FOR INSECTS AND DISEASES REPLACEMENT OF MULCH REMOVAL OF LITTER, REPAIRS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION.
- SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL, HEALTHY STAND OF PLANTS AT NO ADDITIONAL COST TO THE OWNER. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING
- CONDITIONS MUST OCCUR: THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.
- ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1 1/2 NCHES BEFORE FIRST MOWING. HYDROMULCHED AREAS SHALL SHOW ACTIVE, HEALTHY GROWTH. BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE RESODDED OR RESEEDED (AS APPROPRIATE) PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE
- L. WARRANTY PERIOD, PLANT GUARANTEE AND REPLACEMENTS THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, SOD, SEEDED/HYDROMULCHED AREAS, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S FINAL ACCEPTANCE (90 DAYS FOR ANNUAL PLANTS). THE CONTRACTOR SHALL
- IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE IMPROPERLY. AFTER THE INITIAL MAINTENANCE PERIOD AND DURING THE GUARANTEE PERIOD. THE LANDSCAPE CONTRACTOR SHALL ONLY BE RESPONSIBLE FOR REPLACEMENT OF PLANTS WHEN PLANT DEATH CANNOT BE ATTRIBUTED DIRECTLY TO OVERWATERING OR OTHER DAMAGE BY HUMAN ACTIONS. M PROVIDE A MINIMUM OF (2) COPIES OF RECORD DRAWINGS TO THE OWNER UPON COMPLETION OF WORK. A

DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.

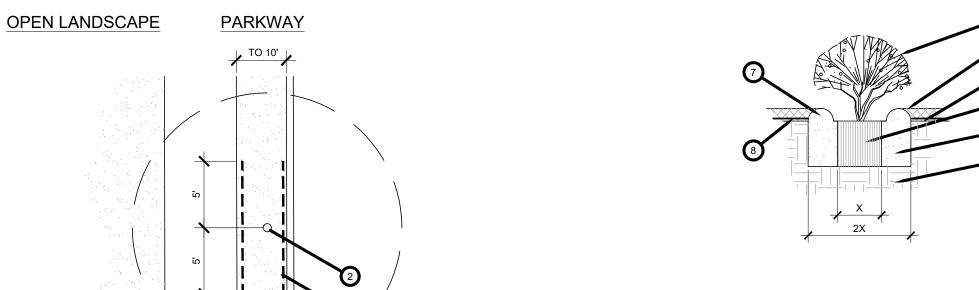
RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIFLD AND THAT ARE

REPLACE, AT HIS OWN EXPENSE AND TO THE SATISFACTION OF THE OWNER, ANY PLANTS WHICH DIE



1 ROLLED-TOP STEEL EDGING PER PLANS. TAPERED STEEL STAKES. 3 MULCH, TYPE AND DEPTH PER PLANS 4 FINISH GRADE.

> 1) INSTALL EDGING SO THAT STAKES WILL BE ON INSIDE OF PLANTING BED. 2) BOTTOM OF EDGING SHALL BE BURIED A MINIMUM OF 1" BELOW FINISH GRADE. TOP OF MULCH SHALL BE 1" LOWER THAN TOP OF EDGING.



TYPICAL WALKWAY OR PAVING

TYPICAL SYMBOL FOR LINEAR ROOT

NOTES FOR TYPE AND MANUFACTURER.

BARRIER MATERIAL. SEE PLANTING

INSTALL PER MANUFACTURER'S

TREE TRUNK

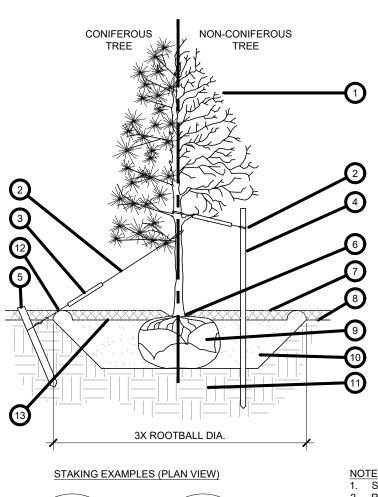
SPECIFICATIONS.

TYPICAL PLANTING AREA

TYPICAL CURB AND GUTTER

TREE CANOPY

ROOT BARRIER - PLAN VIEW



PREVAILING PREVAILING WINDS TREE PLANTING

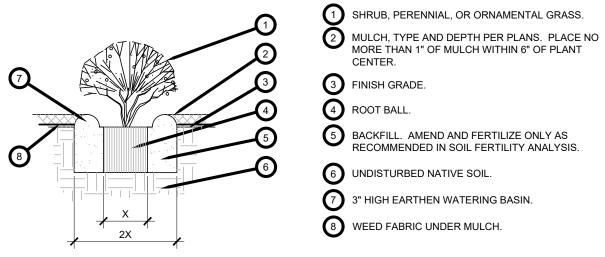
STRAPS AT TREE AND STAKE (36" BOX/2.5" CAL. TREES AND LARGER). SECURE TIES OR STRAPS TO TRUNK JUST ABOVE LOWEST MAJOR BRANCHES. 3 24" X 3/4" P.V.C. MARKERS OVER WIRES. (4) GREEN STEEL T-POSTS. EXTEND POSTS 12" MIN. INTO UNDISTURBED SOIL. 5 PRESSURE-TREATED WOOD DEADMAN, TWO PER TREE (MIN.). BURY OUTSIDE OF PLANTING PIT AND 18" MIN. INTO UNDISTURBED SOIL. 6 TRUNK FLARE. 7 MULCH, TYPE AND DEPTH PER PLANS. DO NOT PLACE MULCH WITHIN 6" OF TRUNK. (8) FINISH GRADE. 9 ROOT BALL. 10 BACKFILL. AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS 11) UNDISTURBED NATIVE SOIL. 12 4" HIGH EARTHEN WATERING BASIN. 13 FINISH GRADE.

SCARIFY SIDES OF PLANTING PIT PRIOR TO SETTING TREE. REMOVE EXCESS SOIL APPLIED ON TOP OF THE ROOTBALL THAT COVERS THE ROOT FLARE. THE PLANTING HOLE DEPTH SHALL BE SUCH THAT THE ROOTBALL RESTS ON UNDISTURBED SOIL, AND THE ROOT FLARE IS 2"-4" ABOVE FINISH GRADE. FOR B&B TREES, CUT OFF BOTTOM 1/3 OF WIRE BASKET BEFORE PLACING TREE IN HOLE, CUT OFF AND REMOVE REMAINDER OF BASKET AFTER TREE IS SET IN HOLE, REMOVE ALL NYLON TIES, TWINE, ROPE, AND OTHER PACKING MATERIAL. REMOVE AS MUCH BURLAP FROM AROUND ROOTBALL AS IS PRACTICAL. REMOVE ALL NURSERY STAKES AFTER PLANTING. FOR TREES 36" BOX/2.5" CAL. AND LARGER, USE THREE STAKES OR DEADMEN (AS APPROPRIATE), SPACED EVENLY AROUND TREE STAKING SHALL BE TIGHT ENOUGH TO PREVENT TRUNK FROM BENDING, BUT LOOSE ENOUGH TO ALLOW SOME TRUNK MOVEMENT

1 TREE CANOPY.

2 CINCH-TIES (24" BOX/2" CAL. TREES AND SMALLER) OR

2 GAUGE GALVANIZED WIRE WITH NYLON TREE



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AND

P-2

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RELEASED FOR

CONSTRUCTION

As Noted on Plans Review

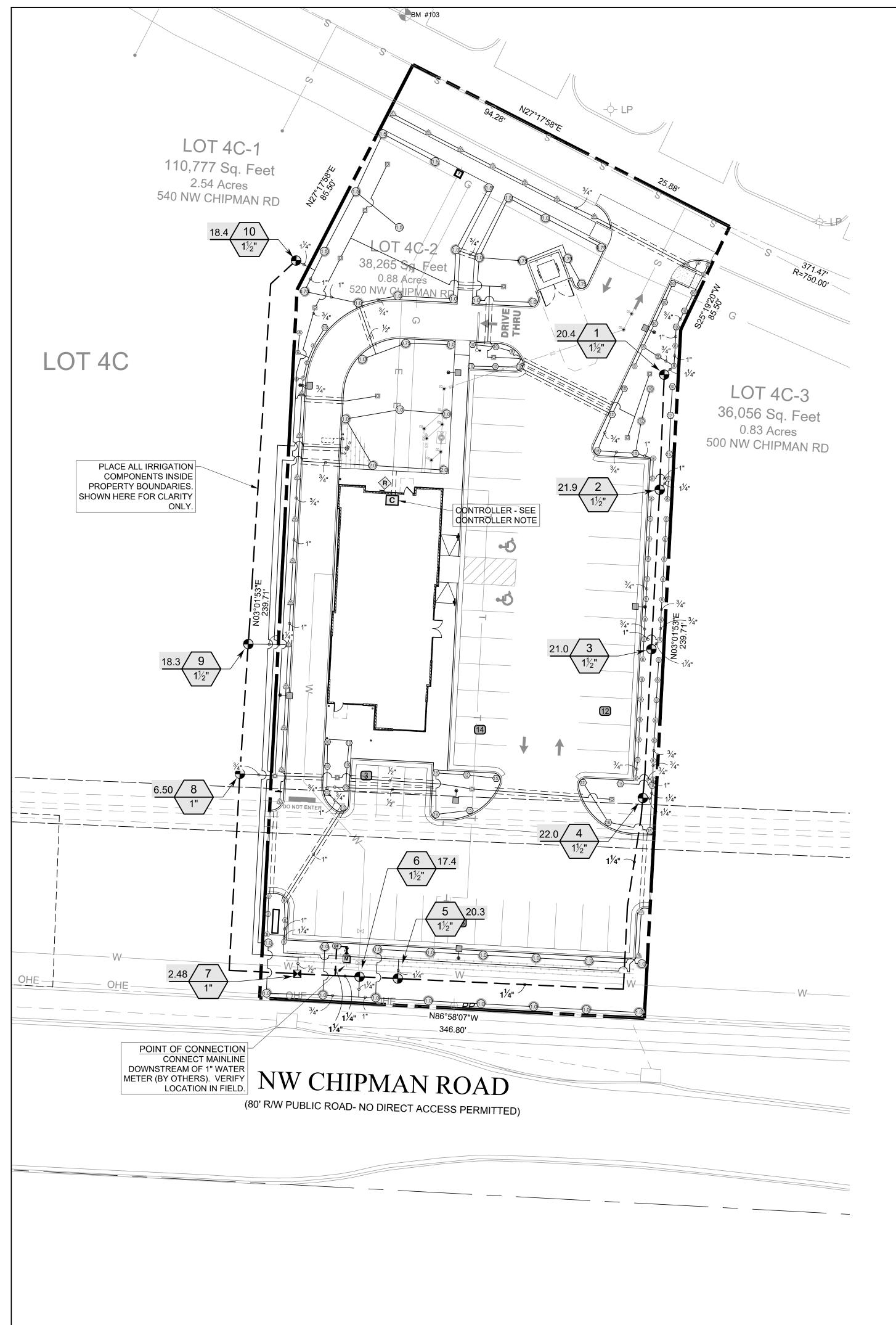
oment Services Dep

Lee's Summit, Missouri

05/31/2022

JWG **JOB No.** 070460-01-001

DATE: 12/13/21 **DESIGN** | DRAWN | CHKD JWG



CRITICAL ANALYSIS

| Generated: | 2022-01-25 12:20 |
|------------------------------------------------|------------------|
| P.O.C. NUMBER: 01 Water Source Information: | |
| FLOW AVAILABLE | 0/4 |
| Water Meter Size: Flow Available | 3/4" 22.5 GPM |
| PRESSURE AVAILABLE | |
| Static Pressure at POC: | 60.00 PSI |
| Elevation Change: | 0.00 ft |
| Service Line Size: | 1 1/2" |
| Length of Service Line: | 5 ft |
| Pressure Available: | 59.00 psi |
| DESIGN ANALYSIS | |
| Maximum Station Flow: | 21.98 GPM |
| Flow Available at POC: | 22.5 GPM |
| Residual Flow Available: | 0.52 GPM |
| Critical Station: | 2 |
| Design Pressure: | 25 PSI |
| Friction Loss: | 3.38 PSI |
| Fittings Loss: | 0.34 PSI |
| Elevation Loss: | 0 PSI |
| Loss through Valve: | 3.84 PSI |
| Pressure Req. at Critical Station: | 32.56 PSI |
| Loss for Fittings: | 0.81 PSI |
| Loss for Main Line: | 8.14 PSI |
| Loss for POC to Valve Elevation: | 0 PSI |
| Loss for Backflow: | 8.67 PSI |
| Loss for Water Meter: | 7.96 PSI |
| Critical Station Pressure at POC: | 58.14 PSI |
| Pressure Available: | 59 PSI |

VALVE SCHEDULE

| NUMBER 1 2 3 4 5 6 | MODEL Rain Bird PEB Rain Bird I EV-100 | SIZE 1-1/2" 1-1/2" 1-1/2" 1-1/2" 1-1/2" 1-1/2" | TYPE Turf Spray Turf Spray Turf Spray Turf Spray Turf Spray Turf Spray Turf Rotor | GPM 20.40 21.93 20.97 21.98 20.27 17.43 | PSI 32.4 32.56 30.51 30.12 33.26 33.25 | PSI @ POC 56.83 58.14 53.13 52.48 49.75 47.56 | PRECIP 2.54 in/h 2.15 in/h 4.25 in/h 2.87 in/h 2.43 in/h 0.46 in/h |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 7 | Rain Bird LFV-100 | 1" | Area for Dripline | 2.48 | 23.59 | 34.21 | 0.43 in/h |
| 8 | Rain Bird PEB | 1" | Bubbler | 6.50 | 24.99 | 36.2 | 1.7 in/h |
| 9 | Rain Bird PEB | 1-1/2" | Turf Spray | 18.33 | 32.24 | 50.23 | 2.09 in/h |
| 10 | Rain Bird PEB | 1-1/2" | Turf Rotor | 18.36 | 32.06 | 53.1 | 0.73 in/h |

SLEEVING / WIRING NOTES:

IN ADDITION TO PROVIDING SLEEVES FOR ALL PIPING UNDER ROADWAYS AND WALKWAYS, THE IRRIGATION CONTRACTOR SHALL PROVIDE AND INSTALL SCH. 40 PVC SLEEVES FOR ALL CONTROLLER WIRES OCCURRING UNDER ALL ROADWAYS AND WALKWAYS. SLEEVES FOR CONTROLLER WIRES SHALL BE 2" DIA. AND CONTAIN NO MORE THAN 25 WIRES.

Residual Pressure Available:

IRRIGATION DISCLAIMER

THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE-GRADE IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQURED TO MOVE SUCH ITEMS AT HIS OWN COST.

IRRIGATION CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL FINAL QUANTITIES PER DRAWINGS AND SPECIFICATIONS. ANY QUANTITIES PROVIDED ARE PROVIDED AS A CONVENIENCE TO THE CONTRACTOR ONLY AND SHALL NOT BE CONSIDERED ABSOLUTE.

AUTOMATIC DRAIN VALVES AND AIR RELIEF VALVES

INSTALL AUTOMATIC DRAIN VALVES AT THE LOW POINTS OF EACH LATERAL LINE (MIN. 2 PER VALVE) AS PER DETAIL L, SHEET LI4. INSTALL AIR RELIEF VALVES ON DRIP SYSTEMS AT THE LCOATIONS SHOWN ON THE PLANS, AS AS PER DETAILS.

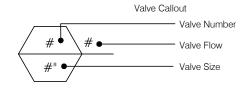
IRRIGATION SCHEDULE

| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION | QTY | PSI | | |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|------------|--------|
| EST LCS RCS CST SST | Rain Bird 1806 15 Strip Series Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. | 20 | 25 | | |
| 8 8 8 8 Q T H F | Rain Bird 1806 8 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. | 1 | 25 | | |
| (10) (10) (10) Q T H F | Rain Bird 1806 10 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. | 1 | 25 | | |
| (12) (12) (12) (12) Q T H TQ F | Rain Bird 1806 12 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. | 1 | 25 | | |
| 4 6 8 10 4 6 8 10 12 15 18 12 15 18 | Rain Bird 1806 ADJ Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. | 90 | 25 | | |
| △ □ △ □ 1401 1402 1404 1408 | Rain Bird 1806-1400 Flood 1401 Flood Bubbler 6.0" popup | 13 | 20 | | |
| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION | QTY | PSI | <u>GPM</u> | RADIUS |
| 0.75 | Rain Bird 3504-PC Turf Rotor, 4" Pop-Up. Adjustable and Full Circle. | 6 | 25 | 0.54 | 15' |
| 1.0 | Rain Bird 3504-PC Turf Rotor, 4" Pop-Up. Adjustable and Full Circle. | 29 | 25 | 0.77 | 20' |
| 1.5 | Rain Bird 3504-PC Turf Rotor, 4" Pop-Up. Adjustable and Full Circle. | 7 | 25 | 1.06 | 23' |
| 2.0 | Rain Bird 3504-PC Turf Rotor, 4" Pop-Up. Adjustable and Full Circle. | 2 | 25 | 1.40 | 27' |
| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION | QTY | | | |
| X | Rain Bird LFV-100 | 1 | | | |

| | Rain Bird XFD-06-18 XFD On-Surface Pressure Compensating Landscape Dripline. 0.6 GPH emitters at 18" O.C. Dripline laterals spaced at 18" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings. | 371.6 l.f. |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION | QTY |
| | Rain Bird PEB 1-1/2"Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration. | 9 |
| × | Nibco Ball Valve Brass, Two-Piece, Full Port, NPT x NPT, T-FP-600A | 1 |
| BF | Febco 825Y 1-1/4" Reduced Pressure Backflow Preventer | 1 |
| C | Rain Bird ESP4MEi with (1) ESP-SM6 10 Station, Hybrid Modular Indoor Controller. For Residential or Light Commercial Applications. | 1 |
| R | Rain Bird WR2-RC Wireless Rain Sensor Combo, includes 1 receiver and 1 rain sensor transmitter. | 1 |
| M | Water Meter 3/4" | 1 |
| | Irrigation Lateral Line: PVC Class 200 SDR 21 | 2,915 l.f. |

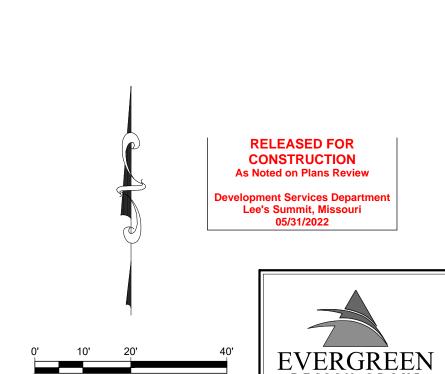
1" Low Flow DV Valve

Area to Receive Dripline



- Irrigation Mainline: PVC Schedule 40

_____ Pipe Sleeve: PVC Schedule 40



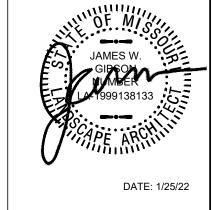
603.2 l.f.

315.9 l.f.

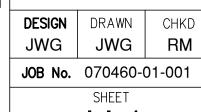
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

(800) 680-6630 4625 Lindell Blvd., Ste 200 St Louis, MO 63101

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ANDSCAPE IRRIGATION





Scale 1" = 20'

IRRIGATION SPECIFICATIONS

- A. QUALIFICATIONS OF IRRIGATION CONTRACTOR ALL WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE IRRIGATION CONTRACTING FIRM SPECIALIZING IN IRRIGATION SYSTEMS. SEE THE IRRIGATION PLAN FOR
- SPECIFIC EQUIPMENT AND SYSTEM LAYOUT THE IRRIGATION CONTRACTOR MUST HAVE ON ITS STAFF A LICENSED IRRIGATION INSTALLER, AS REGULATED BY THE APPROPRIATE LOCAL JURISDICTION. A LICENSED IRRIGATION INSTALLER SHALL BE PRESENT AT THE PROJECT SITE AT ALL TIMES AS WORK IS IN PROGRESS. THE OWNER MAY DEMAND THAT WORK STOP UNTIL THE CONTRACTOR PROVIDES FOR A LICENSED IRRIGATION INSTALLER TO BE PRESENT AT THE PROJECT SITE AND SUPERVISING ALL IRRIGATION WORK.
- A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES.
- SCOPE OF WORK WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES, FEES, AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK,
- SPECIFIED HEREIN AND/OR SHOWN ON THE IRRIGATION PLANS, NOTES, AND DETAILS. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS. IN CASE OF CONFLICT BETWEEN THESE PLANS AND LOCAL AND/OR STATE CODES, CODES SHALL
- THE INTENT OF THE IRRIGATION SYSTEM IS TO PROVIDE 100% COVERAGE OF ALL LANDSCAPE AREAS. THE IRRIGATION PLAN IS GENERALLY DIAGRAMMATIC; COORDINATE IRRIGATION INSTALLATION WITH UTILITY INSTALLATIONS. ACTUAL LOCATION OF CONTROLLER, BACKFLOW DEVICE, PIPING, VALVES, SPRAY HEADS, DRIP IRRIGATION, AND RELATED EQUIPMENT MAY NEED TO BE ADJUSTED BASED ON ACTUAL SITE CONDITIONS.
- FOR CLARITY PURPOSES, SOME IRRIGATION LINES AND EQUIPMENT ARE SHOWN IN HARDSCAPE AREAS WITHOUT ACCESS SLEEVES; THESE LINES SHALL BE INSTALLED IN A COMMON TRENCH OR AT THE BACK OF CURB IN LANDSCAPE AREAS. MINOR FIELD ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.

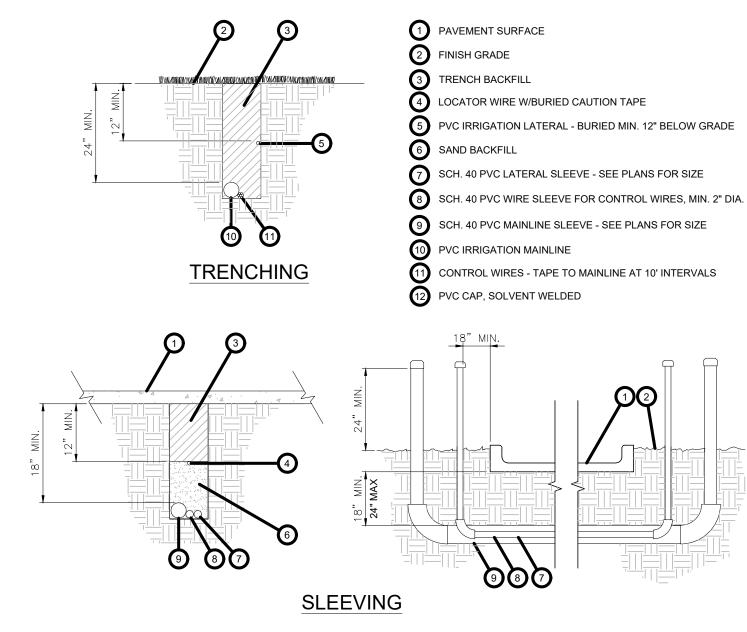
- A. ALL MATERIALS SHALL BE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE AND SHALL BE THE BEST OF THEIR CLASS AND KIND. ALL MATERIALS SHALL HAVE A MINIMUM GUARANTEE OF ONE YEAR AGAINST MATERIAL DEFECTS OR DEFECTIVE WORKMANSHIP. ALL MATERIALS SHALL BE OF THE BRANDS AND TYPES NOTED ON THE DRAWINGS OR AS SPECIFIED HEREIN, OR APPROVED EQUAL. THE CONTRACTOR MUST FIRST OBTAIN APPROVAL FROM THE IRRIGATION DESIGNER FOR AN 'APPROVED EQUAL' BEFORE INSTALLING SUCH MATERIALS IN THE FIELD, OR THE CONTRACTOR MAY BE REQUIRED TO REPLACE SUCH MATERIALS AT HIS OWN COST
- BACKFLOW PREVENTION DEVICES SHALL BE OF THE SIZE AND TYPE INDICATED ON THE DRAWINGS. INSTALL BACKFLOW PREVENTION UNITS IN ACCORDANCE WITH IRRIGATION CONSTRUCTION DETAILS AND ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.
- PRESSURE SUPPLY LINES, DOWNSTREAM OF THE POINT-OF-CONNECTION: a. SCHEDULE 40 PVC FOR ALL PIPE 1-1/2" OR LESS CLASS 315 PVC FOR ALL PIPE 2" TO 2-1/2"
- CLASS 200 PVC, GASKETED, FOR ALL PIPE 3" AND LARGER 2. SLEEVING AND NON-PRESSURE LATERAL LINES (DOWNSTREAM FROM VALVES): CLASS 200
- FITTINGS: SCH. 40 PVC, EXCEPT AS NOTED OTHERWISE. VALVES AND DRIP VALVE ASSEMBLIES: TYPE AND SIZE AS NOTED ON PLANS. EACH VALVE SHALL BEAR A PRE-MANUFACTURED, NUMBERED WATERPROOF TAG BEARING A NUMBER CORRESPONDING TO ITS VALVE SEQUENCE OF OPERATION ON THE CONTROLLER. THE
- OPERATION SEQUENCE SHALL MATCH THAT AS SHOWN ON THE PLANS. QUICK COUPLERS, BALL VALVES, AND GATE VALVES: TYPE AND SIZE PER PLANS. VALVE BOXES: TYPE AND SIZE AS NOTED ON DETAILS. ALL VALVES BOXES SHALL BE LOCKING BOLT-DOWN TYPE, FURNISHED WITH LIDS AND BOLTS. BOXES SHALL BE OF A SIZE TO CONTAIN THE ENTIRE VALVE AND/OR VALVE ASSEMBLY. THE VALVE BOX LID SHALL HAVE THE VALVE
- STATION NUMBER HEAT-BRANDED INTO THE LID WITH 2" HIGH LETTERS. FIXED SPRAY HEADS AND ROTORS: PLASTIC BODY POP-UP, WITH A REMOVABLE PLASTIC SPRAY NOZZLE. EXACT TYPE, MODEL, AND NOZZLE SHALL BE AS INDICATED ON PLANS. INTEGRAL EMITTER DRIP TUBING: TUBING MODEL AND FLOW RATE AS NOTED ON PLANS, WITH INTEGRAL EMITTERS WELDED TO THE INSIDE WALL OF THE TUBING AS AN INTEGRAL PART OF THE
- AUTOMATIC CONTROLLER: TYPE AND MODEL PER PLANS. PROVIDE VANDAL-PROOF ENCLOSURE FOR ALL EXTERIOR INSTALLATIONS. PROVIDE LINE-VOLTAGE DISCONNECT SWITCH WITH GROUND FAULT PROTECTION. 24 VOLT VALVE WIRE SHALL BE A MINIMUM OF #14 GAUGE, U.F. APPROVED FOR DIRECT BURIAL.
- SINGLE CONDUCTOR IRRIGATION WIRE. EACH CONTROLLER SHALL HAVE A DIFFERENT COLOR STATION AND COMMON WIRE. STATION WIRE - ANY COLOR EXCEPT WHITE OR BLUE COMMON WIRE - WHITE
- EXTRA COMMON WIRES BI UF
- WIRE SPLICES SHALL BE ENCASED IN A WATERPROOF COMPOUND OR GEL. ALL FIELD SPLICES SHALL BE LOCATED IN A 6 INCH ROUND VALVE BOX. RAIN SENSOR: TYPE AND MODEL PER PLANS.

- THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE-GRADE IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQURED TO MOVE SUCH ITEMS AT HIS OWN COST. ENSURE FIELD COORDINATION IS MADE EARLY ON IN THE CONSTRUCTION PHASE SO
- PLACEMENT LOCATION IS CORRECT. THE IRRIGATION CONTRACTOR SHALL MEET WITH THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK, AND SHALL OBTAIN ALL ENGINEERING, LANDSCAPE, AND OTHER APPLICABLE PLANS & DOCUMENTS. THE CONTRACTOR SHALL THOROUGHLY REVIEW THE PLANS AND REPORT ANY CONFLICTS OR DISCREPANCIES TO THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE IMMEDIATELY. THE IRRIGATION CONTRACTOR SHALL NOT WILFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN
- ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADES OR DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE IRRIGATION DESIGNER. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS AND NECESSARY COSTS.
- CHOOSE ONE: SEE UTILITY PLANS FOR IRRIGATION POINTS OF CONNECTION (TAP) AND DOMESTIC WATER SUPPLY. - OR - THE IRRIGATION CONTRACTOR SHALL COORDINATE AND PAY FOR THE INSTALLATION OF THE IRRIGATION TAP AND METER.
- THE IRRIGATION CONTRACTOR SHALL PAY ANY AND ALL FEES AND PERMITS ASSOCIATED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM.
- AT LEAST SEVEN DAYS BEFORE BEGINNING WORK, CONFIRM THE STATIC WATER PRESSURE IS AT LEAST 55 PSI AND LESS THAN 70 PSI. IF STATIC WATER PRESSURE IS OUTSIDE OF THE STATED RANGE DO NOT PROCEED WITHOUT FIRST NOTIFYING THE IRRIGATION DESIGNER AND OWNER IN WRITING AND OBTAINING SUBSPOUENT DIRECTION FOR CORRECTIONAL MEASURES. SHOULD THE IRRIGATION CONTRACTOR CHOOSE TO BEGIN THE INSTALLATION WITHOUT SUCH NOTIFICATION. THE IRRIGATION CONTRACTOR WILL ASSUME THE RESPONSIBILITY FOR ALL COSTS INCURRED TO ENSURE THE SYSTEM IS WORKING PROPERLY. NO CHANGE ORDERS WILL BE AUTHORIZED IN SUCH CIRCUMSTANCES
- THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATIONS OF WALLS, STRUCTURES AND UTILITIES.
- COORDINATE WITH THE OWNER THE PROPOSED LOCATIONS OF THE AUTOMATIC CONTROLLER AND ANY REQUIRED SLEEVES THROUGH THE BUILDING FOR CONTROL WIRES. TRENCHING NEAR EXISTING TREES: CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE
- CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE ROOTS, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1' FOR EVERY 1" OF TRUNK DIAMETER-AT-BREAST-HEIGHT (4.5' ABOVE THE
- AVERAGE GRADE AT THE TRUNK). ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE
- EXCAVATION OR TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ. ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL
- UNDER SUCH ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE ANY SORT OF SEALERS OR WOUND PAINTS.

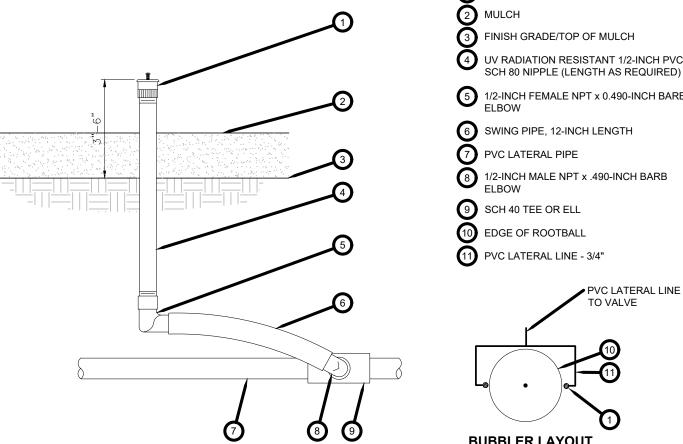
- ALL BACKFILL MATERIAL SHALL BE SUBJECT TO APPROVAL BY THE OWNER. BACKFILL MATERIAL SHALL BE FREE FROM RUBBISH, ROCK, LARGE STONES, BRUSH, SOD, FROZEN MATERIAL OR OTHER UNSUITABLE SUBSTANCES THAT MAY DAMAGE PIPE DURING THE BACKFILLING OPERATIONS. IN THE EVENT THAT THE MATERIAL FROM THE EXCAVATION OR TRENCHING IS FOUND TO BE UNSUITABLE FOR USE IN BACKFILL, IT SHALL BE REMOVED FROM THE SITE AND PROPERLY AND LEGALLY DISPOSED OF BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL THEN PURCHASE AND AND FURNISH SUITABLE BACKFILL MATERIAL CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR OTHER APPROVED MATERIALS FREE OF
- K. BACKFLOW INSTALLATION: CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING WATER SOURCES AT LOCATION SHOWN ON PLANS AND AS APPROVED BY THE OWNER. AND SHALL MAKE ANY MINOR CHANGES IN LOCATION AS MAY BE NECESSARY DUE TO ACTUAL SITE CONDITIONS BACKELOW HEIGHT SHALL BE AS PER LOCAL CODES AND IRRIGATION DETAILS. INSTALL A BRASS BALL VALVE IMMEDIATELY UPSTREAM OF THE BACKFLOW DEVICE TO SERVE AS AN ISOLATION
- PIPING 1. PIPE SIZE SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS. NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED, BUT SUBSTITUTIONS FOR LARGER SIZES MAY BE
- MAINLINE PIPE AND WIRES SHALL BE INSTALLED WITH A MINIMUM COVER OF 18 INCHES. LATERAL PIPE SHALL BE INSTALLED WITH A MINIMUM COVER OF 12 INCHES. ASSEMBLE ALL THREADED FITTINGS WITH TEFLON TAPE, WHICH SHALL BE APPLIED TO MALE
- 4. ALL SOLVENT-WELD CONNECTIONS SHALL BE MADE WITH APPROVED SOLVENT-WELD PRIMER
- PIPE SHALL BE INSTALLED WITH A MINIMUM OF 4" HORIZONTAL CLEARANCE FROM ANY OTHER PIPE AND 2" VERTICAL CLEARANCE FROM ANY PIPES THAT CROSS OVER OR UNDER.
- M. VALVES SHALL BE INSTALLED PER MANUFACTURER'S DIRECTIONS AND THE IRRIGATION DETAILS. EACH VALVE SHALL BEAR A PRE-PRINTED WATERPROOF TAG BEARING THE APPROPRIATE CONTROLLER STATION NUMBER
- N. VALVE BOXES SHALL BE INSTALLED FLUSH WITH THE GRADE, WITH CLEAN PEA GRAVEL LOCATED BELOW THE VALVE AS NOTED ON THE DETAILS. EACH VALVE BOX COVER SHALL BE
- HEAT-BRANDED WITH THE CONTROLLER STATION NUMBER. O. DRIP IRRIGATION EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S DIRECTIONS AND THE SUBSURFACE DRIP LINES SHALL BE BURIED NO MORE THAN 2" BELOW FINISH GRADE.
- DRIP LINES MOUNTED ON GRADE SHALL BE LOCATED BENEATH LANDSCAPE FABRIC. AND SECURED IN PLACE WITH WIRE STAPLES AT A MAXIMUM OF 48" ON CENTER. P. SPRAY, ROTOR, AND BUBBLER HEADS: 1. ALL SPRAY AND ROTOR HEAD LOCATIONS SHALL BE STAKED, FLAGGED AND/OR OTHERWISE
- CLEARLY MARKED ON THE GROUND PRIOR TO INSTALLATION. SPRINKLER HEAD STAKING SHALL BE INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE 2. ALL SPRAY HEADS SHALL BE CONNECTED WITH A 12 INCH MINIMUM LENGTH OF $\frac{1}{2}$ INCH FLEX PVC. THE FLEX PVC SHALL BE SOLVENT WELDED TO SCHEDULE 40 PVC FITTINGS WITH
- WELD-ON #795 SOLVENT AND #P-70 PRIMER. ALL ROTORS SHALL BE CONNECTED TO LATERAL LINES WITH PRE-MANUFACTURED SWING JOINTS. 3. ALL ROTOR, SPRAY AND BUBBLER HEADS SHALL BE SET PERPENDICULAR AND FLUSH TO
- FINISH GRADE AND WITH A CLEARANCE OF FOUR INCHES (MINIMUM) FROM THE EDGE OF ANY BUILDINGS, WALLS, BOULDERS, AND HARDSCAPE, UNLESS OTHERWISE SPECIFIED. ALL ROTOR, SPRRAY AND BUBBLER HEADS AND VALVES SHALL BE FLUSHED AND ADJUSTED FOR OPTIMUM COVERAGE WITH MINIMUM OVERSPRAY ON WALKS, STREETS, WALLS, ETC.
- AUTOMATIC CONTROLLER: INSTALL THE CONTROLLER AT THE LOCATION INDICATED BY THE OWNER. INSTALL CONTROLLER WITH A BACKUP BATTERY AS RECOMMENDED BY THE MANUFACTURER.
- THE IRRIGATION CONTRACTOR SHALL COORDINATE 120 V.A.C. ELECTRICAL POWER TO CONTROLLERS AND DEDICATE ONE (1) 20-AMP BREAKER FOR EACH CONTROLLER. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO MAKE THE FINAL HOOK-UP FROM THE ELECTRICAL SOURCE TO THE CONTROLLER UNIT ONLY. 3. ALL VALVE CONTROL WIRE SHALL BE AWG 14 TYPE UF, 600 VOLT TEST, DIRECT BURIAL, NO
- SPLICES SHALL BE ALLOWED EXCEPT AT VALVES AND CONTROLLER. WHERE SPLICES MAY BE NECESSARY DUE TO EXCESSIVELY LONG WIRE RUNS. THE CONTRACTOR SHALL MAKE ALL SPLICES IN 6" ROUND VALVE BOXES WITH 3M'S "DBY-DIRECT BURIAL SPLICE KIT". THE CONTRACTOR SHALL LABEL ALL WIRES WITH WATERPROOF TAGS AND MARKERS AT ALL SPLICES AND VALVE MANIFOLDS, AND SHALL LEAVE A 24" COIL OF EXCESS WIRE AT EACH CONNECTION.
- PROVIDE #10 COMMON WIRE, DIRECT BURIAL, TO ALL REMOTE CONTROL VALVES. CONNECT ALL DIRECT BURIAL WIRES TO VALVES USING 3M'S "DBY-DIRECT BURIAL SPLICE KIT" (UNLESS OTHERWISE SPECIFIED).
- PROVIDE THREE ADDITIONAL IRRIGATION CONTROL WIRES ALONG EACH BRANCH OF MAINLINE FOR FUTURE EXPANSION. STUB ADDITIONAL CONTROL WIRES INTO BACK OF IRRIGATION CONTROLLERS.
- THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL CONTROL WIRE SLEEVES AND PIPE SLEEVES UNDER PAVED AREAS PRIOR TO PAVING - SEE SLEEVING NOTES. INSTALL THE RAIN SENSOR IN THE VICINITY OF THE CONTROLLER, AND COORDINATE LOCATION WITH THE OWNER. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THE RAIN SENSOR IS PLACED IN A LOCATION WHERE IT CAN RECEIVE ADEQUATE RAINFALL WITHOUT
- OBSTRUCTIONS. IF IT IS PLACED IN AN INADEQUATE LOCATION, THE IRRIGATION CONTRACTOR MAY BE REQUIRED TO RELOCATE IT AT NO ADDITIONAL COST TO THE OWNER. ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- PERFORM COVERAGE TESTS AFTER SPRINKLER SYSTEM IS COMPLETED, BUT PRIOR TO ANY PLANTING AND PERFORM TESTING IN THE PRESENCE OF THE IRRIGATION DESIGNER AND THE
- CONSTRUCTION MANAGER. 2. TEST SYSTEM TO ASSURE THAT ALL LAWN AND PLANTING AREAS ARE WATERED
- COMPLETELY AND UNIFORMLY 3. MAKE ALL NECESSARY ADJUSTMENTS TO PROVIDE COMPLETE COVERAGE, INCLUDING
- REALIGNMENT OF HEADS AND REPLACEMENT OF NOZZLES. U. CLEAN UP 1. DURING IRRIGATION EXCAVATION AND INSTALLATION, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS IN A NEAT, ORDERLY CONDITION.
- DISPOSED LEGALLY OF ALL EXCAVATED MATERIALS OFF THE PROJECT SITE. V INSPECTION AND ACCEPTANCE UPON COMPLETION OF THE WORK, THE IRRIGATION CONTRACTOR SHALL PROVIDE THE SITE CLEAN. FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE IRRIGATION CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL
- WHEN THE INSPECTED WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S
- SATISFACTION WITHIN 24 HOURS THE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE
- 5. CONTROLLER CHART: THE IRRIGATION CONTRACTOR SHALL PROVIDE A 8 $\frac{1}{2}$ " X 11" COLOR-CODED, LAMINATED COPY OF THE IRRIGATION LAYOUT AND PLACE IT IN THE CONTROLLER'S COVER. THE CONTROLLER CHART SHALL CLEARLY DELINEATE THE AREAS COVERED BY EACH VALVE. USING A SEPARATE COLOR FOR EACH ZONE
- 6. TURN THE FOLLOWING ITEMS IN TO THE OWNER UPON COMPLETION OF THE INSTALLATION: QUICK COUPLER KEYS (2) CONTROLLER MANUAL (1)
- CONTROLLER KEYS (2)

ACCEPTABILITY.

- A MINIMUM OF (2) COPIES OF RECORD DRAWINGS. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING
- W. REFER TO THE PLANTING SPECIFICATIONS FOR ADDITIONAL CONDITIONS OF FINAL ACCEPTANCE AND START OF THE MAINTENANCE PERIOD. WARRANTY
- THE IRRIGATION SYSTEM SUPPLIED AND INSTALLED SHALL BE WARRANTED (LABOR AND MATERIALS) TO REMAIN OPERATIONAL FOR A PERIOD OF 12 MONTHS AFTER THE DATE OF FINAL ACCEPTANCE. DURING THIS PERIOD, THE CONTRACTOR SHALL ALSO REPAIR ANY SETTLEMENT OF THE IRRIGATION TRENCHES.
- BY THE END OF THE WARRANTY PERIOD, ANY IRRIGATION PART THAT IS EITHER NON-OPERATIONAL OR THAT IS OPERATING BELOW STANDARDS AS DETERMINED BY THE OWNER, SHALL BE REMOVED FROM THE SITE AND SHALL BE REPLACED. REPLACEMENTS SHALL BE OF THE SAME KIND AS SPECIFIED IN THE IRRIGATION LEGEND, AND SHALL BE
- INSTALLED AS ORIGINALLY SPECIFIED. IRRIGATION PARTS DAMAGED OR IMPAIRED DUE TO ACTS OF GOD, VANDALISM, AND/OR THE OWNER'S IMPROPER MAINTENANCE SHALL NOT BE COVERED BY THIS WARRANTY



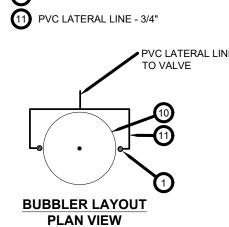
PIPE AND SLEEVE INSTALLATION



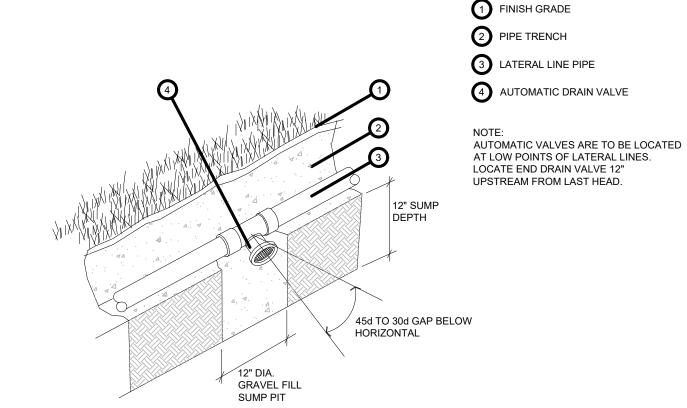
5 1/2-INCH FEMALE NPT x 0.490-INCH BARB 6 SWING PIPE, 12-INCH LENGTH 7 PVC LATERAL PIPE 8 1/2-INCH MALE NPT x .490-INCH BARB 9 SCH 40 TEE OR ELL 10 EDGE OF ROOTBALL 11) PVC LATERAL LINE - 3/4 PVC LATERAL LINE TO VALVE

1 BUBBLER PER LEGEND - 2 PER TREE

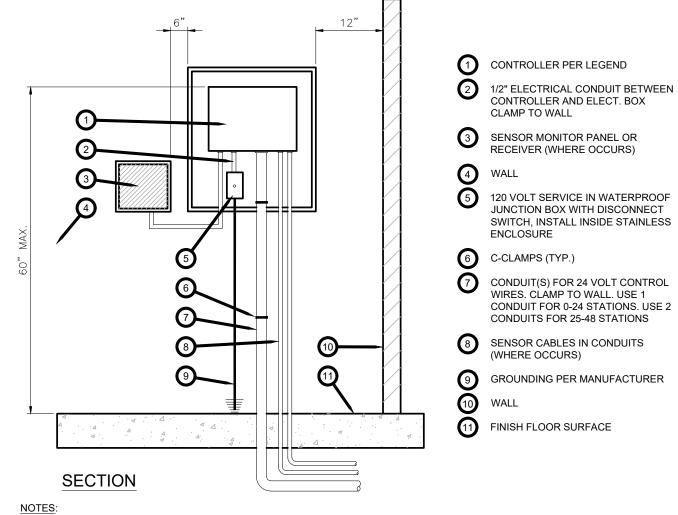
SCH 80 NIPPLE (LENGTH AS REQUIRED)



BUBBLER - TREE



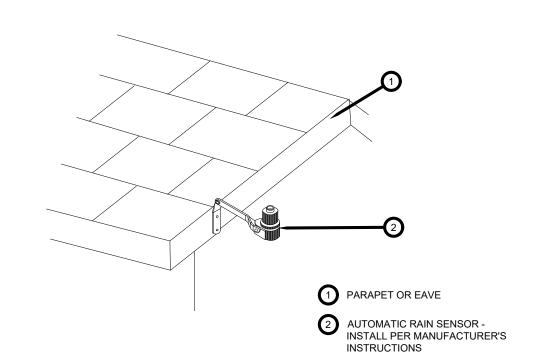
AUTOMATIC DRAIN VALVE



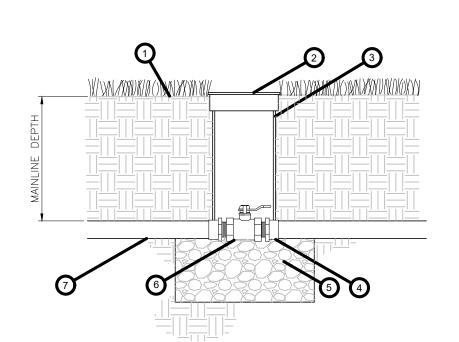
MOUNT CONTROLLER AND CABINET PER MANUFACTURER'S DIRECTIONS. 2) 120 V.A.C. POWER PROVIDED BY OTHERS. LANDSCAPE CONTRACTOR SHALL MAKE FINAL CONNECTION AT

CONTROLLER. CONNECT TO ELECTRICAL SUPPLY PER NATIONAL ELECTRIC CODE AND LOCAL CODE. 3) LOCATE GROUND ROD 8' MIN, FROM CONTROLLER, VERIFY LOCATION OF GROUND ROD, CONTROLLER AND SOURCE OF ELECTRICITY WITH MANUFACTURER'S REPRESENTATIVE AND OWNER AS PART OF PRE CONSTRUCTION MEETING.

CONTROLLER - WALL MOUNT, INDOOR



RAIN SENSOR, ROOF MOUNT



1) FINISH GRADE AT 1" BELOW TOP OF BOX IN TURF AREAS: 2" BELOW TOP OF BOX IN SHRUB/GROUNDCOVER

9" ROUND VALVE BOX

3 EXTENSION SECTION AS NECESSARY TO MEET GRADE 4 PVC MALE ADAPTER 5 3-INCH MINIMUM DEPTH OF

3/4-INCH WASHED GRAVEL 6 BRASS BALL VALVE 7 IRRIGATION MAINLINE

BRASS BALL VALVE

EVERGREEN 4625 Lindell Blvd., Ste 200 St Louis, MO 63101

www.EvergreenDesignGroup.com

RELEASED FOR

CONSTRUCTION As Noted on Plans Review

Lee's Summit, Missouri 05/31/2022

DESIGN JWG

DATE: 12/13/21 DRAWN CHKD JWG RM**JOB No.** 070460-01-001

SHEET

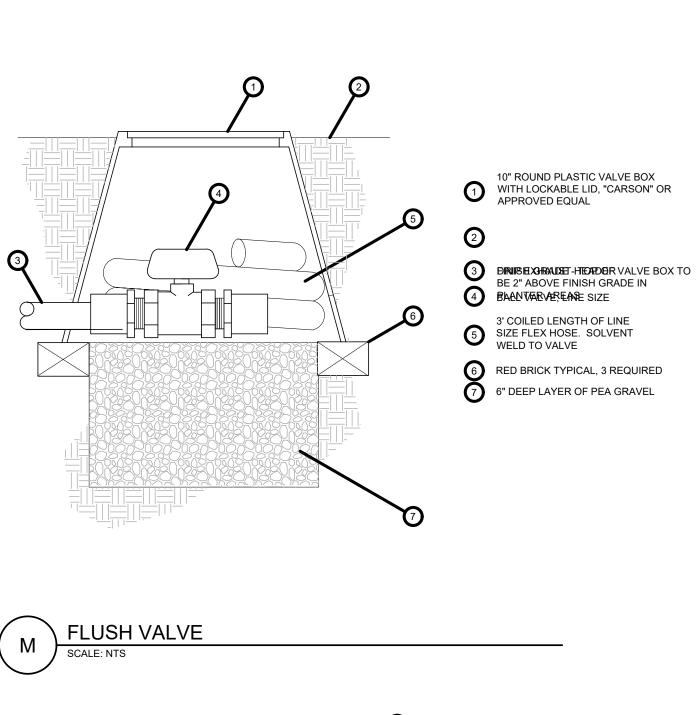
SPECIFICATION

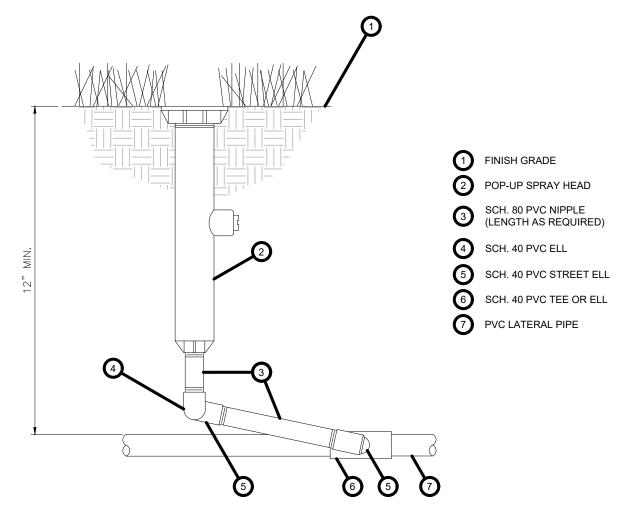
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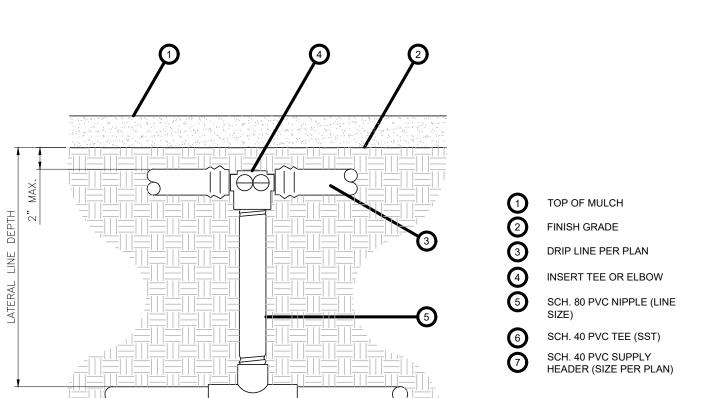
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DETAIL®

IRRIGATION

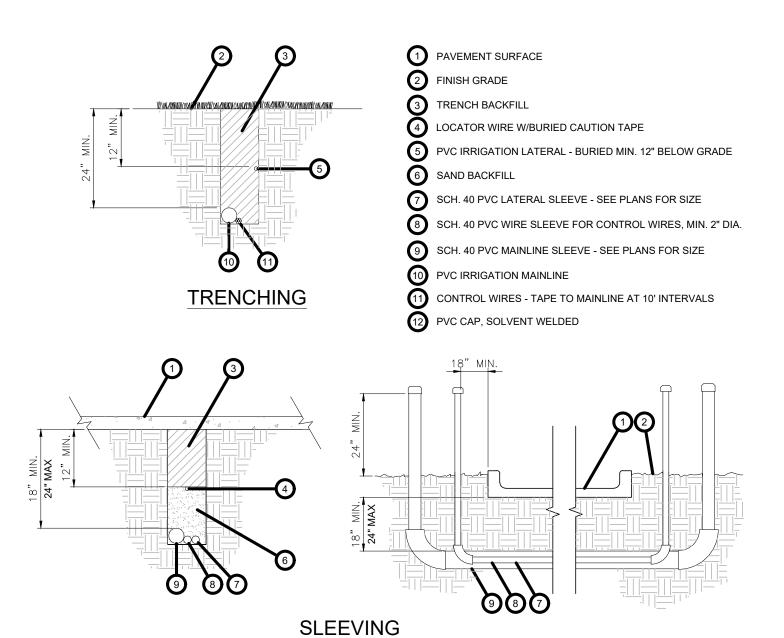




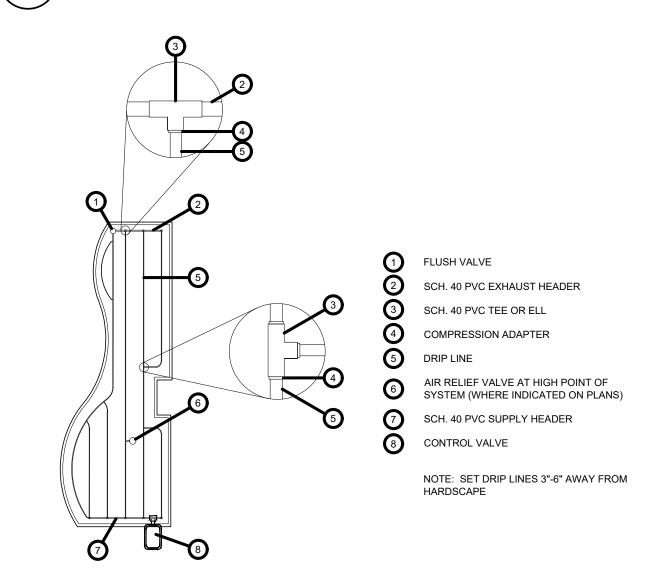


SUBSURFACE DRIPLINE CONNECTION

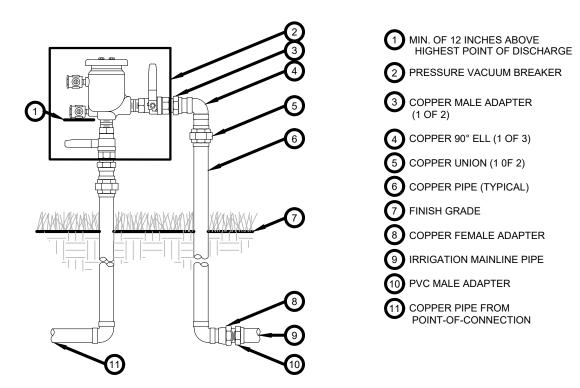
POP-UP SPRAY HEAD
SCALE: NTS



PIPE AND SLEEVE INSTALLATION

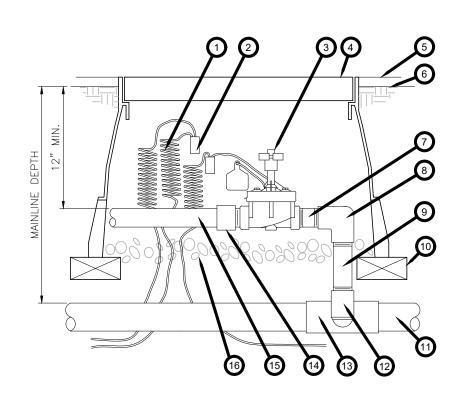


SUBSURFACE DRIP LINE LAYOUT



INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO

BACKFLOW PREVENTER, PVB SCALE: NTS



30-INCH LINEAR LENGTH OF WIRE, COILED 2 WATERPROOF CONNECTION

(ANY APPROVED)

3 REMOTE CONTROL VALVE

4 JUMBO PLASTIC VALVE BOX BY CARSON (OR EQUAL)

5 TOP OF MULCH

6 FINISHED GRADE-1" BELOW TOP OF BOX IN TURF AREAS, 2" IN SHRUB

7 PVC SCH 80 NIPPLE (CLOSE)

8 PVC SCH 40 ELL

9 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED) 10 BRICK (1 OF 4)

11 PVC MAINLINE PIPE

12 SCH. 40 PVC ELL

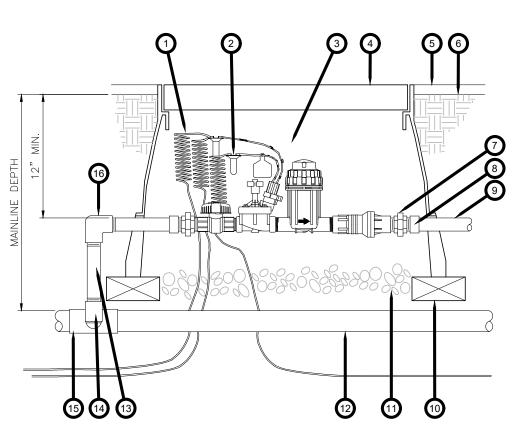
14 PVC SCH 40 MALE ADAPTER

13 PVC SCH 40 TEE OR ELL

15 PVC LATERAL PIPE

3-INCH MINIMUM DEPTH OF $\frac{3}{4}$ -INCH WASHED GRAVEL

REMOTE CONTROL VALVE



30-INCH LINEAR LENGTH OF WIRE, COILED

WATERPROOF CONNECTION (ANY APPROVED)

REMOTE CONTROL VALVE ASSEMBLY

JUMBO PLASTIC VALVE BOX BY CARSON (OR EQUAL) 5 TOP OF MULCH

6 FINISHED GRADE-1" BELOW TOP OF BOX IN TURF AREAS, 2" IN SHRUB AREAS

7 PVC UNION (2) 8 PVC SCH 40 MALE ADAPTER (2)

9 PVC LATERAL PIPE

10 BRICK (1 OF 4) (11) 3-INCH MINIMUM DEPTH OF

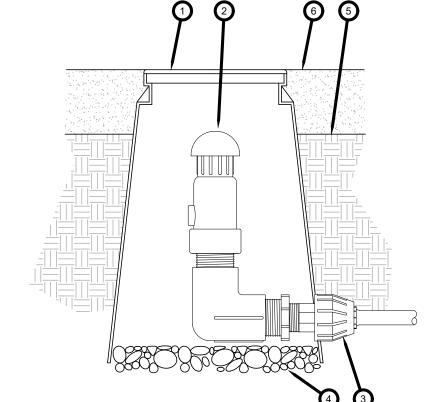
3/4-INCH WASHED GRAVEL 12 PVC MAINLINE PIPE

PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)

14 SCH. 40 PVC ELL 15 SCH. 40 PVC TEE OR ELL

16 SCH. 40 PVC THREADED ELL

DRIP CONTROL ZONE KIT
SCALE: NTS

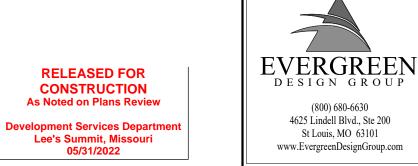


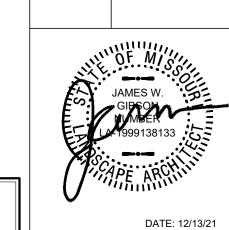
1 VALVE BOX PER PLAN 2 AIR RELIEF VALVE PER PLAN 3 ADAPTERS PER MANUFACTURER

PEA GRAVEL, 3" DEPTH 5 FINISH GRADE 6 TOP OF MULCH

> NOTE: INSTALL AT HIGHEST POINT(S) IN SYSTEM.

AIR RELIEF VALVE





IRRIGATION DETAILS

DATE: 12/13/21 **DESIGN** DRAWN CHKD JWG RM JWG **JOB No.** 070460-01-001

SHEET