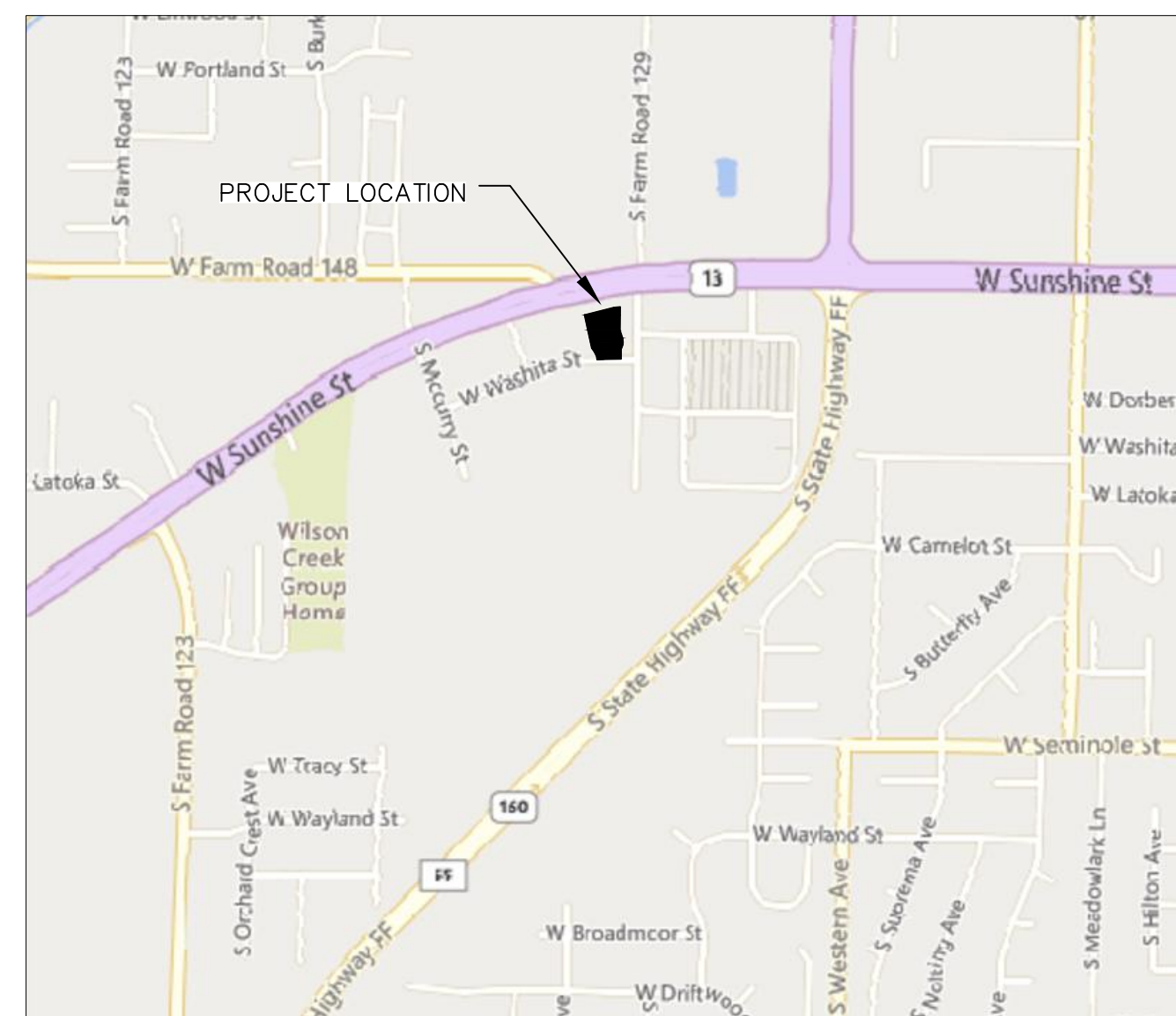


CIVIL CONSTRUCTION PLANS FOR McDONALD'S NEW PROJECT L/C 024-1290 3720 WEST SUNSHINE STREET SPRINGFIELD, GREENE COUNTY, MISSOURI



VICINITY MAP
N.T.S.

Sheet Number	Sheet Title
C1.0	COVER SHEET
C1.1	GENERAL NOTES
---	ALTA NSPS LAND TITLE SURVEY
C2.0	DEMOLITION PLAN
C3.0	EROSION CONTROL PLAN
C3.1	EROSION CONTROL DETAILS
C3.2	EROSION CONTROL DETAILS
C4.0	SITE PLAN
C5.0	DRIVE-THRU COORDINATE PLAN
C6.0	PAVING PLAN
C7.0	GRADING PLAN
C8.0	PRE-DEVELOPED DRAINAGE PLAN
C8.1	POST-DRAINAGE DEVELOPED PLAN
C9.0	UTILITY PLAN
C10.0	STANDARD DETAILS
C10.1	STANDARD DETAILS
C10.2	STANDARD DETAILS
C10.3	STANDARD DETAILS
C10.4	STANDARD DETAILS
C10.5	STANDARD DETAILS
L1.0	LANDSCAPE PLAN
LI1.0	IRRIGATION PLAN
LI1.1	IRRIGATION NOTES & DETAILS
LI1.2	IRRIGATION DETAILS
---	PHOTOMETRIC PLAN
SD-1	SITE FOUNDATION DETAILS
SD-2	SITE FOUNDATION DETAILS
SD-3	SITE FOUNDATION DETAILS
TE-1	TRASH ENCLOSURE/STORAGE BUILDING DETAILS

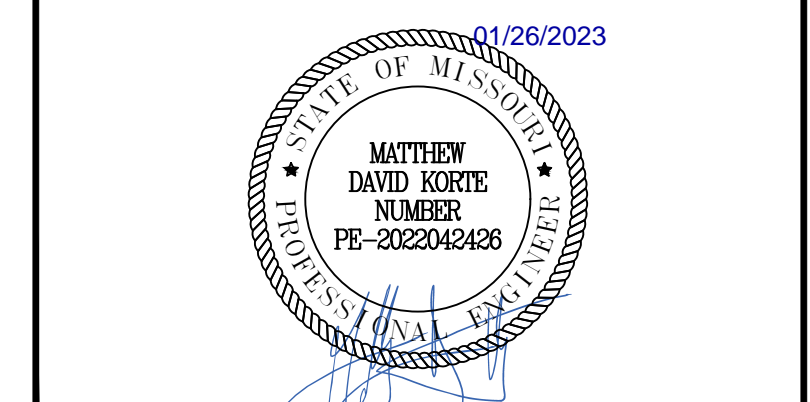
AREA CONSTRUCTION MANAGER:	McDONALD'S USA, LLC NASHVILLE FIELD OFFICE 1801 WEST END AVE, SUITE 1000 NASHVILLE, TN 37203 CONTACT: AMY SWITZER PHONE: (913) 660-2205
CIVIL ENGINEER:	LANGAN 8951 CYPRESS WATERS BLVD., SUITE 150 DALLAS, TX 75019 CONTACT: MARGARET GRISSOM PHONE: (817) 328-3242
LANDSCAPE ARCHITECT:	LANGAN 2700 KELLY ROAD, SUITE 200 WARRINGTON, PA 18976 CONTACT: MICHAEL SZURA, LA PHONE: (215) 491-6500
STRUCTURAL ENGINEER:	LANGAN 1818 MARKET STREET, SUITE 3300 PHILADELPHIA, PA 19103 CONTACT: LATISHA GARRETT, PE PHONE: (267) 838-5350
SURVEYOR:	ANDERSON ENGINEERING, INC 3213 S. WEST BYPASS SPRINGFIELD, MO 65087 CONTACT: KENT R. PETERSON, PLS PHONE: (417) 866-2741

**** NOTICE TO CONTRACTOR - BIDDING ****

All questions regarding the General Contractor's preparation of his bid shall be directed to the McDonald's Construction Department. Sub-contractors must direct their questions through the General Contractor only. The Consulting Architect and/or Engineer shall not be contacted by the General Contractors, Sub-contractors, or Suppliers without direct prior authorization from McDonald's.

Date	Description	No.
Revisions		

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LANGAN
Langan Engineering and Environmental Services, Inc.
8951 Cypress Waters Blvd, Suite 150
Dallas, TX 75019
T: 817.328.3200 www.langan.com
MO Certificate of Authorization No. F001330220

Project
**McDONALD'S
NEW PROJECT
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD**

GREENE COUNTY MISSOURI

Drawing Title
COVER SHEET

Project No. 520054201	Drawing No. C1.0
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	
Sheet 1 of 29	



Know what's below.
Call before you dig.

DEMOLITION NOTES

- 1. REFER TO MCDONALD'S SPECIFICATIONS SECTION 017329.
2. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS AND PINS.
3. CONTRACTOR SHALL REMOVE PAVEMENT IN ACCORDANCE WITH SPECIFICATIONS.
4. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO: DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
5. ALL WORK ON THIS PLAN SHALL BE DONE IN STRICT ACCORDANCE WITH SITE WORK SPECIFICATIONS.
6. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURE.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE PUBLIC DURING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO: CONSTRUCTION FENCING, BARRICADES, SIGNAGE, ETC.
8. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITIES AND NOTIFYING THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING CONSTRUCTION.
9. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TRAFFIC CONTROL NECESSARY FOR DRIVE DEMOLITION/CONSTRUCTION.

UTILITY NOTES

- 1. REFER TO MCDONALD'S SPECIFICATIONS SECTIONS 220523, 221116, 221316, 221319, 221413, 221423, 231123, 330513, 331116, AND 333100.
2. ALL ELECTRICAL/CONDUIT RUNS ARE SCHEMATIC ONLY. LOT LIGHTS ARE TO BE WIRED TO 2 (TWO) OR MORE CIRCUITS IN AN ALTERNATING SEQUENCE.
3. PRIVATE UTILITY CONNECTIONS SHOWN ARE SCHEMATIC ONLY. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES PRIOR TO BID.
4. ADJUST TO FINISHED GRADE ANY ACCESS POINTS FOR EXISTING UTILITIES REMAINING.
5. IT SHALL BE THE SIGN INSTALLER'S RESPONSIBILITY TO ENSURE THE PROPOSED SIGN LOCATION DOES NOT INTERFERE WITH ANY UTILITIES AND COMPLIES WITH ALL APPLICABLE CITY CODES.
6. REFER TO THE BUILDING ELECTRICAL AND PLUMBING DRAWINGS FOR UTILITY SERVICE ENTRANCE LOCATIONS, SIZES, AND CIRCUITING.
7. 2" EMPTY CONDUIT TO LOCATIONS SHOWN AT THE LOT PERIMETER FOR LOT LIGHTING IS BY THE GENERAL CONTRACTOR.

SITE NOTES

- 1. CONTRACTOR SHALL REFER TO ARCHITECTURAL BUILDING PLANS FOR EXACT LOCATION AND ORIENTATION OF EXTERIOR DOORS.
2. TRASH ENCLOSURE FINISH TO MATCH BUILDING. REFER TO TRASH ENCLOSURE/STORAGE DETAILS FOR FOUNDATION DESIGN.
3. LOCATION OF ID SIGN IS APPROXIMATE. IT IS THE RESPONSIBILITY OF THE SIGN CONTRACTOR TO VERIFY COMPLIANCE WITH SETBACK, SIZE/HEIGHT AND RELATED ZONING REQUIREMENTS PRIOR TO SETTING.
4. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.
5. DUE TO NATURE OF THE WORK, ALL DIMENSIONS SHOWN SHALL BE CONSIDERED APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO BEGINNING CONSTRUCTION.
6. BASES, CONDUIT, AND WIRING FOR ALL SIGNS ARE BY THE GENERAL CONTRACTOR. GENERAL CONTRACTOR TO COORDINATE WITH ACM AND SIGN PROVIDER FOR ANCHOR BOLTS.

GRADING NOTES

- 1. THE EARTHWORK FOR ALL BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL BUILDING PLANS AND SPECIFICATIONS.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITIES AND NOTIFYING THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING CONSTRUCTION.
3. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING STORM SEWER STRUCTURES, PIPES, AND ALL UTILITIES PRIOR TO CONSTRUCTION.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURBS, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
5. PROPOSED SPOT GRADES SHOWN ARE TO TOP OF PAVEMENT UNLESS OTHERWISE NOTED.
6. EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT ONE FOOT (1').
7. ALL UN-SURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE FOUR (4) INCHES OF TOPSOIL.
8. FOR LOCATION OF ALL UTILITY ENTRANCES, SEE ARCHITECTURAL PLANS AND SPECIFICATIONS.
9. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL PLANS, POWER COMPANY, TELEPHONE COMPANY & GAS COMPANY FOR ACTUAL ROUTING OF POWER AND SERVICES TO BUILDING.
10. CONSTRUCTION SHALL COMPLY WITH ALL GOVERNING CODES AND BE CONSTRUCTED TO SAME.
11. THE CONTRACTOR SHALL MAINTAIN DUST CONTROL ON SITE AT ALL TIMES BY WATERING SITE AS OFTEN AS NEEDED.
12. CONTRACTOR SHALL FIELD VERIFY ELEVATIONS OF ADJACENT PROPERTIES TO MCDONALD'S SITE.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TRAFFIC CONTROL NECESSARY FOR DRIVE DEMOLITION/CONSTRUCTION.
14. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR AT GROUND BREAK.
15. CURB ELEVATIONS SHALL BE 6" ABOVE FINISH PAVEMENT UNLESS NOTED OTHERWISE.
16. ALL LANDSCAPE AREAS SHALL BE ROUGH GRADED TO 6" BELOW TOP OF ALL WALKS AND CURBS.

EROSION CONTROL SEQUENCE

- 1. INSTALL COMPOST FILTER SOCK AROUND PERIMETER OF PROPERTY AND DISTURBED AREAS AS SHOWN.
2. INSTALL INLET PROTECTION FOR ALL EXISTING GRATE INLETS, CURB INLETS AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES, IF PRESENT.
3. CONSTRUCT TEMPORARY CONSTRUCTION EXIT, INSTALL PORTA POTTY, SOLID WASTE DUMPSTER, MATERIAL STORAGE AREA, WITH SILT CONTROL KIT.
4. COMMENCE GRUBBING AND REMOVAL OF VEGETATION IN AREA TO RECEIVE CUT OR FILL.
5. COMMENCE GRADING OPERATION FOR BUILDING PAD PREPARATION (SEE GRADING PLAN).
6. INSTALL ALL UNDERGROUND UTILITIES.
7. FINALIZE PAVEMENT SUBGRADE PREPARATION.
8. INSTALL ALL PROPOSED STORM SEWER PIPES AND INLET PROTECTION.
9. CONSTRUCT ALL GRATE INLETS AND DRAINAGE STRUCTURES.
10. REMOVE INLET PROTECTION DEVICES AROUND INLETS AND MANHOLES NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.
11. INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT, CURB & GUTTER.
12. INSTALL ALL PAVING, CURB & GUTTER.
13. COMPLETE PLANTING AND/OR SEEDING OF VEGETATED AREAS TO ACCOMPLISH STABILIZATION, IN ACCORDANCE WITH THE LANDSCAPING PLAN.
14. REMOVE TEMPORARY CONSTRUCTION EXIT AND COMPOST FILTER SOCK.

SWPPP NOTES

- 1. THE MDEQ SMALL CONSTRUCTION GENERAL PERMIT (SCGP) REQUIRES THAT THE PERMITEE REVERSE OR UPDATE THIS SWPPP WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE.
2. ALL MEASURES STATED ON THE EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORMWATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE.
a. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
b. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED.
c. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED.
d. THE TEMPORARY PARKING AND STORAGE AREA (IF PRESENT) SHALL BE KEPT IN GOOD CONDITION.
e. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS OR SEDIMENT TRAPS (IF PRESENT) SHALL BE MAINTAINED IN OPERATIONAL CONDITION AT ALL TIMES.
f. MAINTENANCE PROCEDURES FOR THE EROSION AND SEDIMENTATION CONTROL SYSTEMS SPECIFIED ARE GIVEN IN SECTION 5 OF THE STORM WATER POLLUTION PREVENTION PLAN.

GENERAL NOTES

- 1. GENERAL CONTRACTOR MUST PROVIDE EXACT "AS BUILT" INFORMATION UPON COMPLETION.
2. IT IS STRONGLY RECOMMENDED THAT NO CONTRACTUAL AGREEMENT OF ANY KIND BE SIGNED PRIOR TO RECEIVING AND THOROUGHLY REVIEWING ALL APPROVALS FROM ALL OF THE REGULATORY AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT.
3. CONTRACTOR SHALL CONTACT APPROPRIATE JURISDICTION AGENCIES PRIOR TO CONSTRUCTION TO CONFIRM IF INDEPENDENT TESTING OR INSPECTIONS WILL BE REQUIRED AS A CONDITION OF THEIR ACCEPTANCE OF WORK.
4. ALL MATERIALS AND CONSTRUCTION WITHIN EASEMENTS AND R.O.W. SHALL CONFORM TO ALL GOVERNING AUTHORITIES' JURISDICTION STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
5. TOPOGRAPHIC INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY PERFORMED BY ANDERSON ENGINEERING, INC.
6. FLOOD STATEMENT: ACCORDING TO MAP NO. 28033C0055H, DATED DECEMBER 17, 2010, OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY, NATIONAL FLOOD INSURANCE PROGRAM MAP, THIS PROPERTY IS WITHIN FLOOD ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

EROSION CONTROL NOTES

- 1. CONTRACTOR MUST COMPLETE A CONSTRUCTION SITE NOTICE, OBTAIN SIGNED COPIES OF SCNOI FORM FOR BOTH OWNER AND CONTRACTOR (IF APPLICABLE TO THIS SITE), AND POST THEM AT THE CONSTRUCTION SITE, IN ACCORDANCE WITH THE MISSOURI SMALL CONSTRUCTION GENERAL PERMIT (SCGP).
2. THE CONTRACTOR SHALL ADHERE TO THE SEQUENCE OF OPERATIONS FOR EROSION CONTROL IMPLEMENTATION SHOWN HEREON.
3. THE CONTRACTOR SHALL MODIFY THIS PLAN TO SHOW LOCATIONS OF TEMPORARY WASHDOWN AREAS, PORTABLE TOILETS, EQUIPMENT MAINTENANCE/REPAIR AREAS, STOCKPILE AREAS, FUEL STORAGE AREAS, CONCRETE WASH-OUT PITS, AND POLLUTANT CONTROLS FOR EACH, AS SOON AS POSSIBLE.
4. THE GENERAL CONTRACTOR SHALL PERFORM ALL REQUIRED INSPECTIONS OF STORMWATER CONTROLS AND PRACTICES AT FREQUENCIES GIVEN IN THE SCGP, AND SHALL COMPLETE AND SIGN APPROPRIATE INSPECTION FORMS.
5. OIL AND GREASE ABSORBING MATERIALS SHALL BE READILY AVAILABLE ON-SITE AND SHALL BE PROMPTLY USED TO CONTAIN AND/OR CLEAN UP ALL FUEL OR CHEMICAL SPILLS OR LEAKS.
6. DUST CONTROL SHALL BE ACCOMPLISHED BY WATERING DRY, EXPOSED AREAS ON A REGULAR BASIS.
7. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR AT LEAST FOURTEEN DAYS SHALL BE TEMPORARILY STABILIZED WITH VEGETATION AND MULCH.
8. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED SHALL BE PERMANENTLY SEEDDED WITHIN FOURTEEN DAYS PER SEEDING OR LANDSCAPING SPECIFICATIONS.
9. ALL VEHICLES SHALL BE CLEANED AT THE CONSTRUCTION EXIT POINTS ACCORDING TO NOTES SHOWN ON THE DETAIL THEREOF.
10. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ONTO ADJACENT ROADWAYS BY VEHICLES EXITING THE SITE SHALL BE CLEANED OR REMOVED IMMEDIATELY.
11. CONTRACTOR SHALL PREVENT ANY SILTATION FROM ENTERING THE STORM SEWER SYSTEM.
12. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SILT IN ANY TEMPORARY OR PERMANENT DETENTION PONDS, STORM SEWER INLETS AND PIPES, AND ALONG SILT FENCES, WITHIN 48 HOURS AFTER INSPECTION OF DEVICES REVEALS THE PRESENCE OF EXCESSIVE SILTATION.
13. SILT FENCES SHALL BE PLACED AROUND ANY STOCKPILES USED ON THIS SITE.
14. THE CONTRACTOR IS ADVISED TO CONSTRUCT TEMPORARY OR PERMANENT FENCING AROUND DETENTION PONDS AND SEDIMENT BASINS AT THE EARLIEST POSSIBLE TIME TO PREVENT ACCIDENTAL ACCESS BY PERSONS OR ANIMALS.
15. ANY ADDITIONAL EROSION CONTROL MEASURES REQUIRED TO ENSURE COMPLIANCE WITH THE SCGP OR LOCAL PERMIT REQUIREMENTS SHALL BE IMPLEMENTED BY THE CONTRACTOR, AT NO ADDITIONAL EXPENSE TO THE OWNER.
16. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND PROPERLY DISPOSED OF OFF-SITE WITHIN THIRTY DAYS AFTER STABILIZATION OF ALL SURFACES.
17. THE CONTRACTOR SHALL ASSUME LIABILITY FOR DAMAGE TO ADJACENT PROPERTIES AND/OR PUBLIC RIGHT-OF-WAY RESULTING FROM FAILURE TO FULLY IMPLEMENT AND EXECUTE ALL EROSION CONTROL PROCEDURES SHOWN AND NOTED IN THESE PLANS.
18. WHENEVER DIRT, ROCK, OR OTHER MATERIALS ARE IMPORTED OR EXPORTED ON THE PRIMARY CONSTRUCTION SITE, CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR COMPLIANCE WITH ALL MDEQ STORMWATER REQUIREMENTS FOR THE REMOTE SITE.
19. ALL SLOPES ON SITE WHICH ARE 3:1 OR STEEPER SHALL BE STABILIZED BY TRACK WALKING (TRAVERSING UP AND DOWN THE SLOPE WITH A TRACKED VEHICLE) FOLLOWED BY INSTALLATION OF EROSION CONTROL BLANKET INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
20. THE CONTRACTOR SHALL NOTE ON SITE PLAN THE LOCATION OF ALL MATERIAL STORAGE AREAS, EQUIPMENT STORAGE AREAS, PETROLEUM TANKS, SOLID WASTE RECEPTACLES, SANITARY FACILITIES, CONCRETE WASHOUT AREAS, ANY ON-SITE OR OFF-SITE BORROW OR STOCKPILE AREA, ANY ON-SITE OR OFF-SITE SUPPORT ACTIVITIES (SUCH AS ASPHALT OR CONCRETE PLANTS).
21. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORD OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, ACTUAL MEASUREMENTS TAKEN IN THE FIELD.

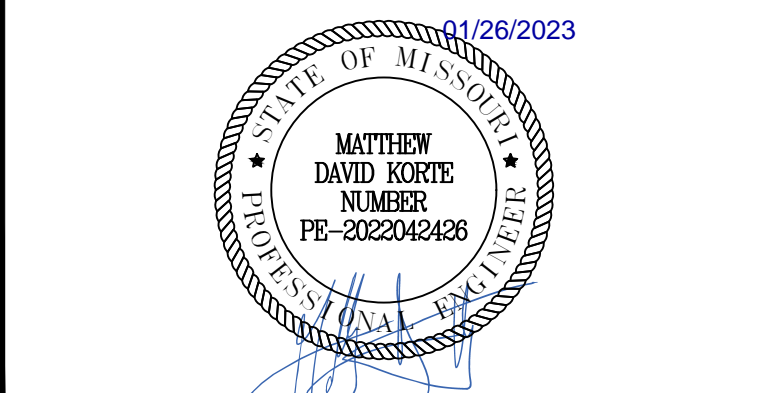
PAVING NOTES

- 1. REFER TO MCDONALD'S SPECIFICATIONS SECTIONS 079200, 321216, 321236, 321313, 321613, 321713, AND 321723.
2. REFER TO SITE PLAN FOR ADDITIONAL DIMENSION, RADI, ETC.
3. THE PAVING CONTRACTOR SHALL NOT PLACE PERMANENT PAVEMENT UNTIL ALL SLEEVING FOR ELECTRIC, GAS, TELEPHONE, CABLE TV, SITE IRRIGATION, ETC. HAS BEEN INSTALLED.
4. CONTRACTOR TO REFER TO BUILDING & STRUCTURAL PLANS FOR FOUNDATION DESIGN.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TRAFFIC CONTROL NECESSARY FOR DRIVE DEMOLITION/CONSTRUCTION.
6. SIDEWALKS AROUND THE BUILDING SHALL HAVE THE SAME SUBGRADE AS BUILDING FOUNDATION AS DESCRIBED IN GEOTECH REPORT PROVIDED BY PROFESSIONAL SERVICE INDUSTRIES, INC. (PROJECT NO. 0040447-1)
7. MCDONALD'S RESERVES THE RIGHT TO REQUEST A COMPACTION AND/OR A CORE SAMPLE. IF TESTS PROVE CORRECT, PER THE SOILS REPORT, TESTS WILL BE AT THE EXPENSE OF MCDONALD'S, OTHERWISE G.C., WILL BE CHARGED.

Table with 3 columns: Date, Description, No.

Revisions

McDonald's USA, LLC logo and disclaimer text regarding confidentiality and reproduction of drawings.



LANGAN logo and contact information: Langan Engineering and Environmental Services, Inc., 8951 Cypress Waters Blvd, Suite 150, Dallas, TX 75019.

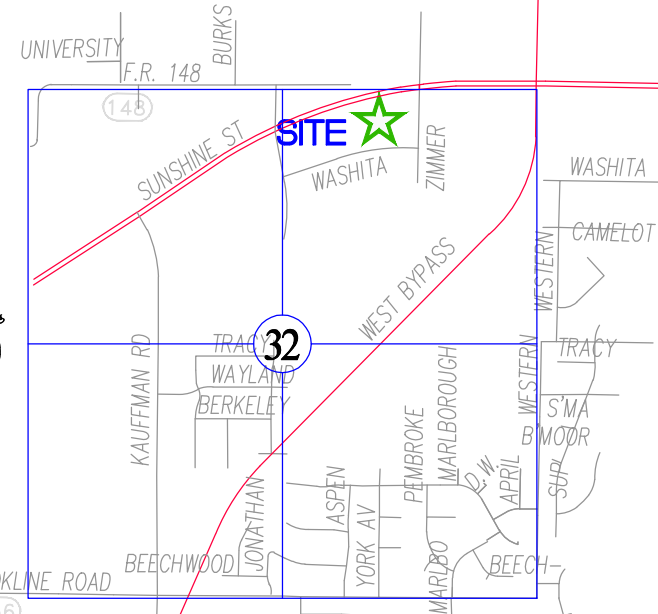
T: 817.328.3200 www.langan.com MO Certificate of Authorization No. F001330220

Project: McDONALD'S NEW PROJECT L/C 024-1290 3720 WEST SUNSHINE STREET SPRINGFIELD

GREENE COUNTY MISSOURI Drawing Title

GENERAL NOTES

Table with Project No. (520054201), Drawing No. (C1.1), Date (DECEMBER 2022), and Checked By (DWL) fields.



LOCATION SKETCH
SEC. 32, T29N, R22W
SCALE: 1"=2000'

ZONING DATA

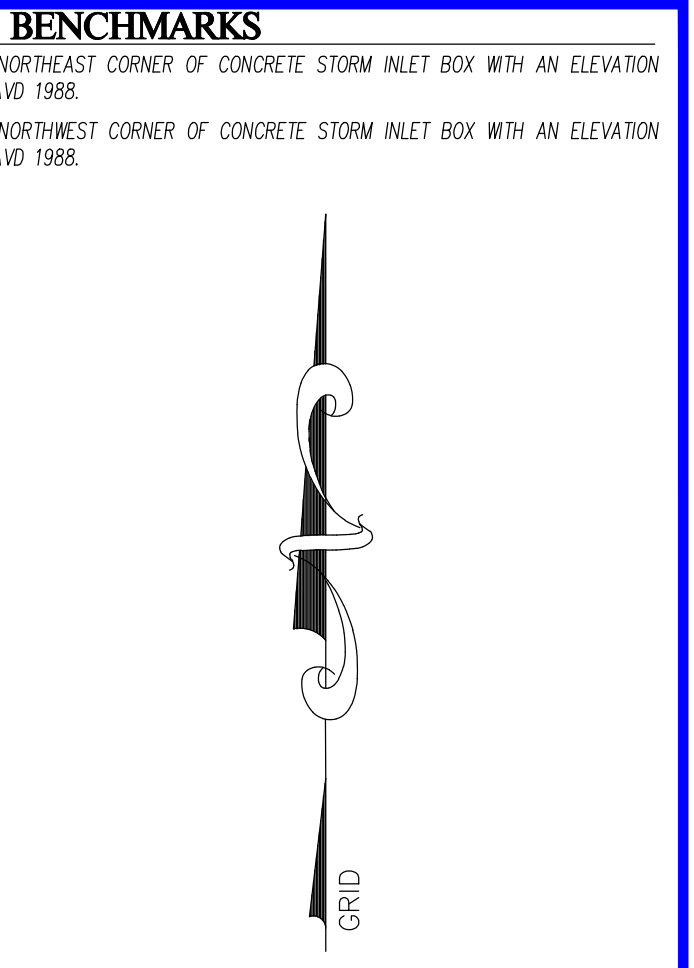
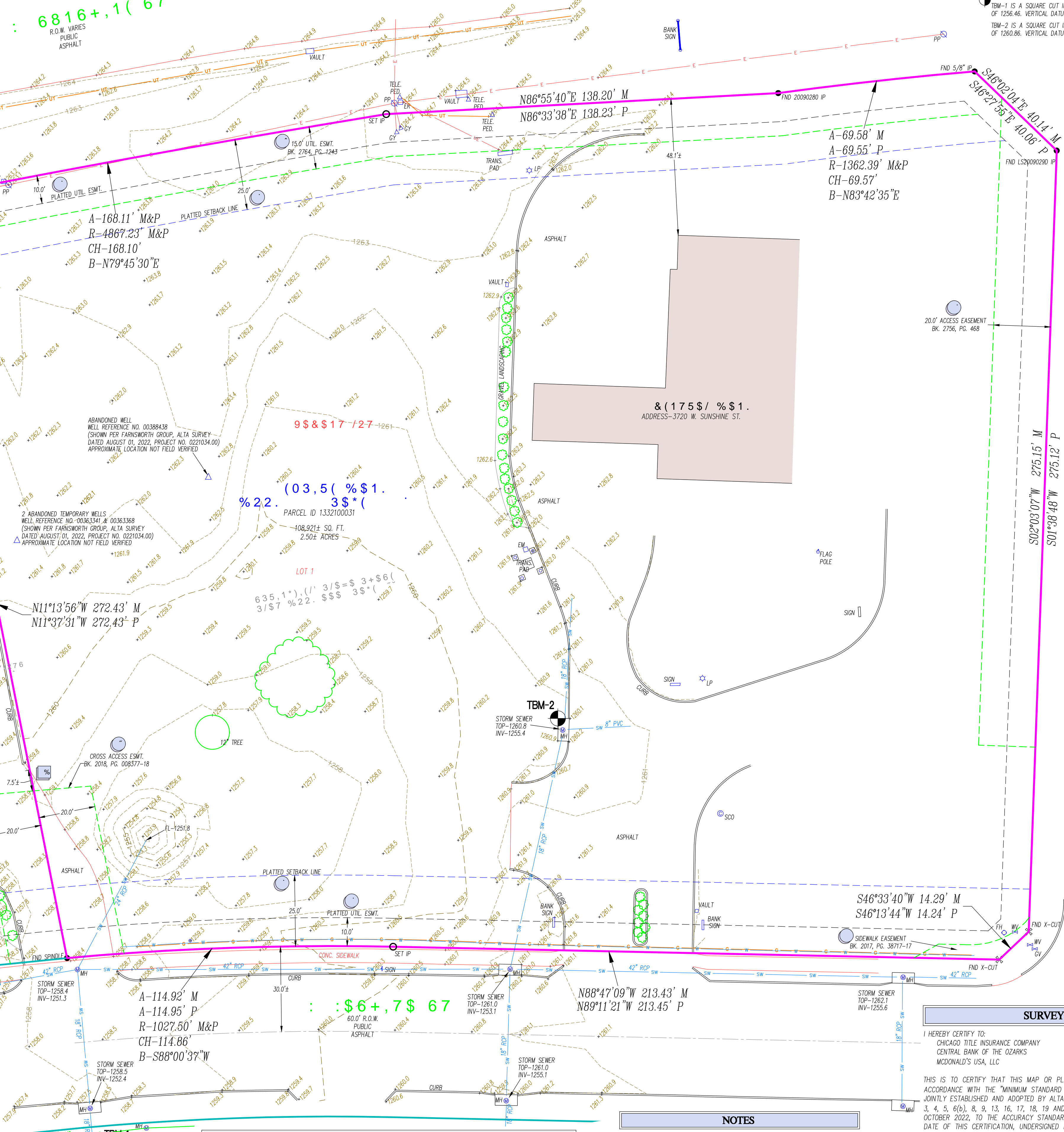
SUBJECT PROPERTIES ARE ZONED HC (HIGHWAY COMMERCIAL DISTRICT). THE SITE ALSO SETS IN A CONDITIONAL OVERLAY DISTRICT (COO 1, ORDINANCE NO. 5670).
MINIMUM YARD REQUIREMENTS:
 FRONT YARD:
 B. 25 FEET ALONG A STREET CLASSIFIED AS A COLLECTOR OR HIGHER CLASSIFICATION STREET OR AS REQUIRED BY SECTION 36-45.1 SUPPLEMENTAL OPEN SPACE AND YARD REGULATIONS.
 C. 15 FEET ALONG A STREET CLASSIFIED AS A LOCAL STREET OR AS REQUIRED BY SECTION 36-45.3 SUPPLEMENTAL OPEN SPACE AND YARD REGULATIONS.
 D. THE FRONT YARD SETBACK MAY BE REDUCED BELOW THE MINIMUM REQUIRED ABOVE IF A CONDITIONAL USE PERMIT IS APPROVED IN ACCORDANCE WITH SECTION 36-36.3. CONDITIONAL USE PERMITS, OR AN APPROVED PRELIMINARY PLAT IN ACCORDANCE WITH THE CITY'S SUBDIVISION REGULATIONS.
 SIDE YARD: NONE, EXCEPT AS REQUIRED BY SECTION 36-45.3 SUPPLEMENTAL OPEN SPACE AND YARD REGULATIONS, AND THE BUFFERYARD REQUIREMENTS IN SUBSECTION (B).
 REAR YARD: NONE, EXCEPT AS REQUIRED BY THE BUFFERYARD REQUIREMENTS IN SUBSECTION (B).
 HOWEVER, IN NO EVENT MAY A STRUCTURE BE ERRECTED CLOSER TO THE CENTERLINE OF AN EXISTING OR PLANNED STREET THAN AS PRESCRIBED BELOW. EXCEPT AS PERMITTED BY SUBSECTION 36-30.1(7)(B) AND SUBSECTION 36-30.1(7)(D).
STREET CLASSIFICATION:
 COLLECTOR (WASHITA) REQUIRED SETBACK FROM RIGHT-OF-WAY CENTER LINE: 30 FEET PLUS THE REQUIRED YARD SETBACK EXPRESSWAY (SUNSHINE) 65 FEET PLUS THE REQUIRED YARD SETBACK
 INFORMATION FOUND AT (HTTP://MAPS.SPRINGFIELD.MO.GOV/MAPGALLERY)

LEGEND

- CP CONTROL POINT
 - FND IP FOUND IRON PIN
 - SET IP SET IRON PIN
 - RIGHT-OF-WAY MARKER
 - POWER POLE W/ GUY
 - MANHOLE
 - SCD SEWER CLEANOUT
 - GM GAS METER
 - LP LIGHT POLE
 - SIGN
 - WM WATER METER
 - WV WATER VALVE
 - GV GAS VALVE
 - FH FIRE HYDRANT
 - TR TELEPHONE RISER
 - BP BUMPER POST
 - IG GRATE INLET
- PROPERTY LINE
 - SS SANITARY SEWER
 - SW STORM SEWER
 - T TELEPHONE LINE
 - UT UNDERGROUND TELEPHONE
 - G GAS LINE
 - W WATER LINE
 - E OVERHEAD ELECTRIC LINE
 - UE UNDERGROUND ELECTRIC
 - X FENCE LINE
 - RETAINING WALL
 - LINE LABELS
 - MEASURED: 100' M
 - MEASURED: 100' D
 - MEASURED: 100' M
 - MEASURED: 100' P
 - TREELINE
 - BUSH
 - ER ELECTRICAL RISER
 - EM ELECTRIC METER

NOTES CORRESPONDING TO SCHEDULE B-2

- CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NO. KC0221188, DATED MAY 11, 2022 AT 8:00 AM.
- BUILDING LINES, RESTRICTIONS, UTILITY, DRAINAGE, STORM SEWER, SANITARY SEWER AND WATERLINE EASEMENTS SHOWN ON THE PLAT RECORDED IN PLAT BOOK AAA AT PAGE 195, AFFECTS SUBJECT PROPERTY AS SHOWN.
- COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, SOURCE OF INCOME, GENDER, GENDER IDENTITY, GENDER EXPRESSION, MEDICAL CONDITION OR GENETIC INFORMATION, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH IN THE DECLARATION OF CROSS ACCESS EASEMENT COVENANTS RUNNING WITH THE LAND RECORDING DATE: MARCH 13, 2018, RECORDING NO.: BOOK 2018 AT PAGE 008377-18. AFFECTS SUBJECT PROPERTY AS SHOWN.
- COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, SOURCE OF INCOME, GENDER, GENDER IDENTITY, GENDER EXPRESSION, MEDICAL CONDITION OR GENETIC INFORMATION, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH IN THE DECLARATION OF CROSS ACCESS EASEMENT COVENANTS RUNNING WITH THE LAND RECORDING DATE: MARCH 13, 2018, RECORDING NO.: BOOK 2018 AT PAGE 008378-18. AFFECTS SUBJECT PROPERTY AS SHOWN.
- EASEMENT FOR SIDEWALK GRANTED TO THE CITY OF SPRINGFIELD, MISSOURI BY THE INSTRUMENT RECORDED IN BOOK 2017 PAGE 38717-17. AFFECTS SUBJECT PROPERTY AS SHOWN.
- EASEMENT GRANTED TO THE CITY OF SPRINGFIELD, MISSOURI BY THE INSTRUMENT RECORDED IN BOOK 2014 PAGE 7725-14. LIES SOUTH AND DOES NOT AFFECT SUBJECT PROPERTY.
- EASEMENT FOR DRAINAGE GRANTED TO THE CITY OF SPRINGFIELD, MISSOURI BY THE INSTRUMENT RECORDED IN BOOK 2014 PAGE 7894-14. LIES SOUTHWEST AND DOES NOT AFFECT SUBJECT PROPERTY.
- EASEMENT FOR EMERGENCY ACCESS GRANTED TO THE CITY OF SPRINGFIELD, MISSOURI BY THE INSTRUMENT RECORDED IN BOOK 2014 PAGE 7693-14. LIES SOUTH AND DOES NOT AFFECT SUBJECT PROPERTY.
- EASEMENT FOR SIDEWALK GRANTED TO THE CITY OF SPRINGFIELD, MISSOURI BY THE INSTRUMENT RECORDED IN BOOK 2014 PAGE 7692-14. LIES SOUTHWEST AND DOES NOT AFFECT SUBJECT PROPERTY.
- ABUTTER'S RIGHT OF ACCESS TO HIGHWAY NO. 166 FROM THE PREMISES IN QUESTION, SUCH RIGHT OF ACCESS HAVING BEEN GRANTED TO THE STATE OF MISSOURI BY THE DEED FILED IN BOOK 1000 PAGE 125 AND MODIFIED IN AGREEMENT FOR SHIFTING STATE HIGHWAY ENTRANCE IN BOOK 1157 PAGE 557 AND BY DUTY CLAIM DEED RECORDED IN BOOK 1477 PAGE 211. ASSIGNS ACCESS TO U.S. HIGHWAY 60 WHEN NO OUTER ROADWAY IS BEING MAINTAINED.
- UTILITY EASEMENT GRANTED TO THE CITY OF SPRINGFIELD, MISSOURI BY THE INSTRUMENT RECORDED IN BOOK 2764 PAGE 1243. AFFECTS SUBJECT PROPERTY AS SHOWN.
- NON-EXCLUSIVE ACCESS EASEMENT GRANTED TO WAL-MART STORES EAST, INC AND ARKANSAS CORPORATION RECORDED IN BOOK 2756 AT PAGE 468. AFFECTS SUBJECT PROPERTY AS SHOWN.



UTILITY NOTE:
THIS SURVEY REFLECTS ABOVE GROUND INDICATIONS OF UTILITIES AND INFORMATION AVAILABLE FROM UTILITY COMPANIES. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPREHEND ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. LOCATE NUMBER 222931575.

SURVEYORS NOTE:
WITH THIS SURVEY WE DO NOT GUARANTEE THAT OWNERSHIP IS TO THE SURVEY LINES DEPICTED HEREON. THIS SURVEY IS A GRAPHIC REPRESENTATION OF THE OPINION OF THE SURVEYOR AS TO THE LOCATION OF THE RECORD DESCRIPTION. NO OPINION AS TO THE VALIDITY OF TITLE IS GIVEN OR IMPLIED.

FLOOD NOTE:
BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE X OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 28027003366, WHICH BEARS AN EFFECTIVE DATE OF DECEMBER 17, 2010 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS.

ANDERSON ENGINEERING
EMPLOYEE OWNED
 ENGINEERS · SURVEYORS
 LABORATORIES · DRILLING
 3213 S WEST BYPASS
 SPRINGFIELD, MO 65807
 PHONE (417) 866-2741
 A LICENSED MISSOURI ENGINEERING CORPORATION
 COA 00062

LANGAN

3720 W. SUNSHINE STREET
 SPRINGFIELD, MO, 65807

REVISIONS

NO.	DESCRIPTION	DATE

DRAWING INFORMATION

PROJECT NO: 22SP20241
 DRAWN BY: BAC
 CHECK BY: KRP
 FIELD BOOK: -
 DATE: 11/01/2022

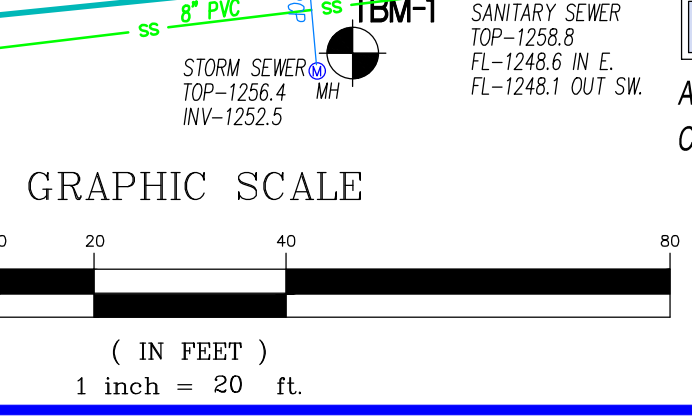
ISSUED BY: KENT R. PETERSON
 LICENSE NO: PLS No. 2695

SHEET TITLE

ALTA/NSPS SURVEY

SHEET NUMBER

1



5 (& 25' (6 & 5, 37, 21

ALL OF LOT ONE (1), IN FINAL PLAT FOR SPRINGFIELD PLAZA PHASE 1, A SUBDIVISION IN GREENE COUNTY, MISSOURI, ACCORDING TO PLAT FILED IN BOOK AAA, PAGE 195.

STATEMENT OF ENCROACHMENTS

CONCRETE BLOCK RETAINING WALL AND TRANSFORMER PAD ALONG THE WESTERLY PROPERTY LINE ENCROACHES ONTO THE SUBJECT PROPERTY.

A PORTION OF THE ASPHALT ACCESS DRIVE AT THE SOUTHWEST CORNER OF THE SUBJECT PROPERTY IS OUTSIDE OF THE PROVIDED CROSS ACCESS EASEMENT.

NOTES

- THE VACANT LOT HAS NO STRIPED PARKING SPACES ON IT.
- NO EARTH MOVING, BUILDING CONSTRUCTION OR ADDITIONS OBSERVED ON SUBJECT PROPERTY AT TIME OF THE FIELD SURVEY.
- DO NOT OBSERVE ANY CHANGES IN THE STREET RIGHT-OF-WAY OR SIDEWALK CONSTRUCTION ON SUBJECT PROPERTY AT THE TIME OF FIELD SURVEY.
- DO NOT OBSERVE ANY EVIDENCE OF A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL ON SUBJECT PROPERTY AT THE TIME OF FIELD SURVEY.
- CONTOURS ARE AT ONE FOOT INTERVALS.
- SURVEY IS BASED OFF OF CITY OF SPRINGFIELD BENCHMARK (COS #286) ELEV=1206.39.

SURVEYORS DECLARATION

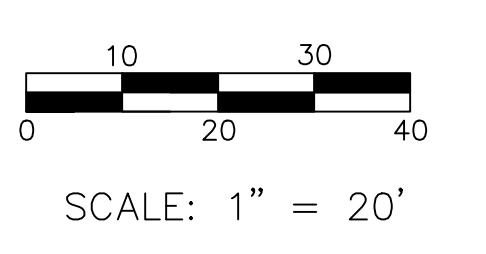
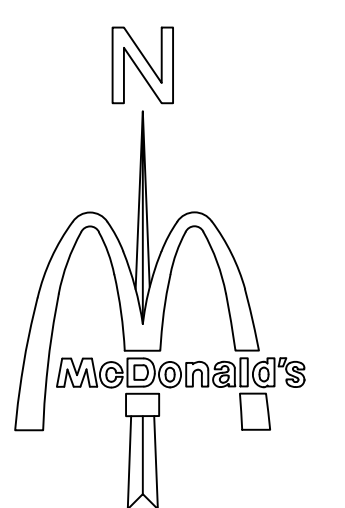
I HEREBY CERTIFY TO:
 CHICAGO TITLE INSURANCE COMPANY
 CENTRAL BANK OF THE OZARKS
 McDONALD'S USA, LLC

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS" JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS IN FEBRUARY 23, 2021, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(a), 8, 9, 13, 16, 17, 18, 19 AND 20 TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON OCTOBER 2022, TO THE ACCURACY STANDARDS AS ADOPTEED 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. DRAWING LAST REVISED ON NOVEMBER 07, 2022.

ANDERSON ENGINEERING, INC. LC 62 BY:

 KENT R. PETERSON, PLS-2659

11-07-2022
 DATE



W. SUNSHINE ST

W. WASHITA ST.

LEGEND

AREA OF REMOVAL (PAVEMENT, BUILDINGS, UNDERGROUND UTILITIES, CURBS, SIGNS, LIGHT POLES, LIGHT FIXTURES, ETC. UNLESS OTHERWISE NOTED.)

SAWCUT LINE

UTILITY CONTACTS

CITY OF SPRINGFIELD
CONTACT: MATT TAYLOR
PHONE: (417) 864-1000

CITY UTILITIES (WATER, GAS, ELECTRIC)
CONTACT: JOSH CAREY
PHONE: (417) 831-8816

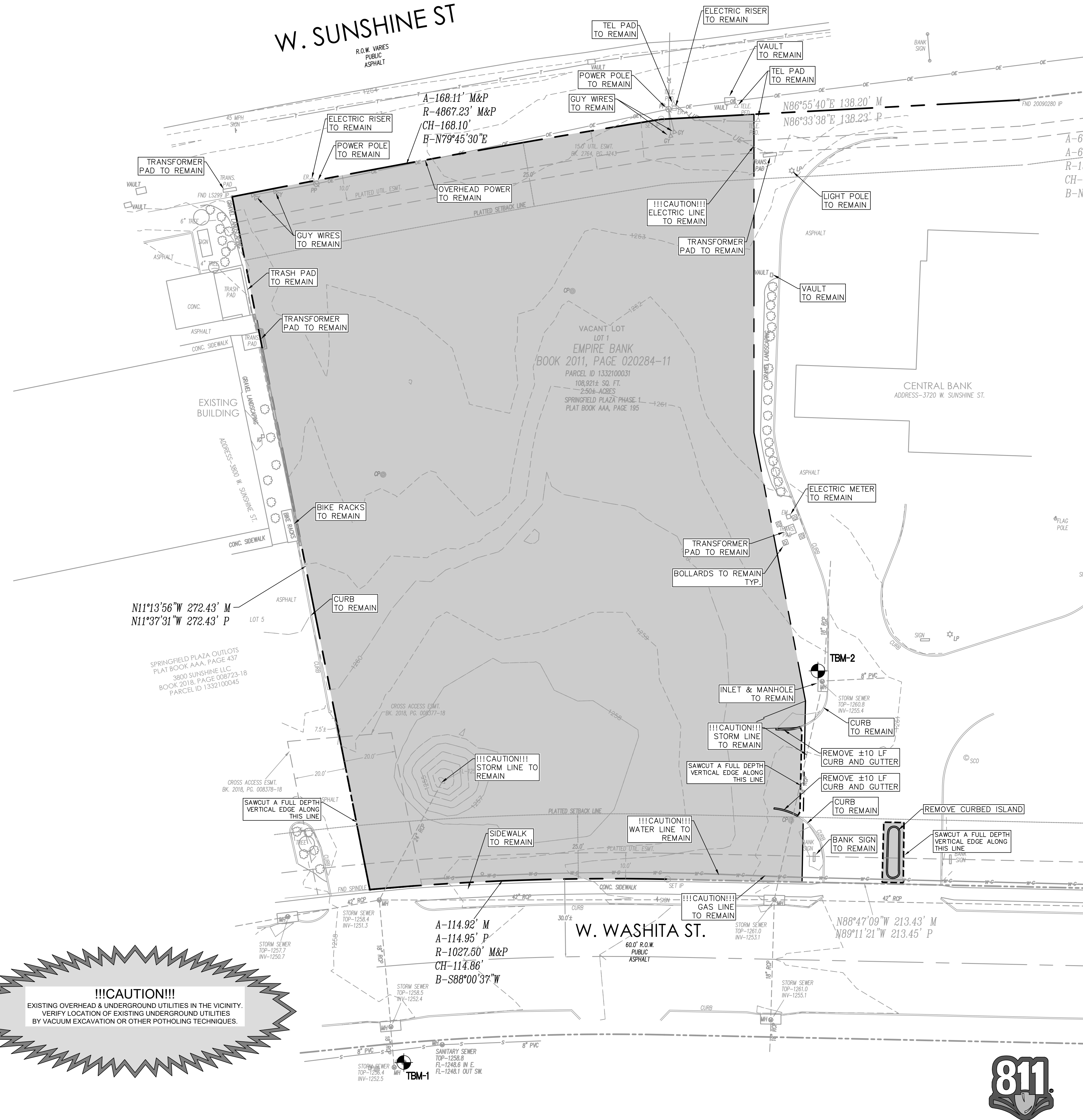
AT&T (TELEPHONE)
CONTACT: CINDY JEFFERS
PHONE: (417) 836-7383

BENCHMARK

SITE TEMPORARY BENCHMARKS:

- A SQUARE CUT IN THE NORTHEAST CORNER OF CONCRETE STORM INLET BOX
ELEVATION = 1256.46 (NAVD88)
- A SQUARE CUT IN THE NORTHWEST CORNER OF CONCRETE STORM INLET BOX
ELEVATION = 1260.86 (NAVD88)

!!!CAUTION!!!
EXISTING OVERHEAD & UNDERGROUND UTILITIES IN THE VICINITY.
VERIFY LOCATION OF EXISTING UNDERGROUND UTILITIES
BY VACUUM EXCAVATION OR OTHER POTHOLING TECHNIQUES.



Date	Description	No.
Revisions		

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T: 817.328.3200 www.langan.com
MO Certificate of Authorization No. F001330220

Project **McDONALD'S NEW PROJECT**
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD

GREENE COUNTY MISSOURI
Drawing Title

DEMOLITION PLAN

Project No. 520054201	Drawing No. C2.0
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	
Sheet 4 of 29	



ACREAGE SUMMARY	
TOTAL SITE	1.275 AC
TOTAL DISTURBED	±1.275 AC
WEIGHTED PRE-CONSTRUCTION RUNOFF COEFFICIENT	0.30
WEIGHTED POST-CONSTRUCTION RUNOFF COEFFICIENT	0.80
POST AREA ROOFED OR PAVED	1.055 AC
POST AREA LANDSCAPED	0.22 AC

LEGEND	
	LANDSCAPE AREAS
	CONSTRUCTION ENTRANCE (RE: C3.1 EROSION CONTROL DETAILS)
	PERMEABLE PAVERS
	CONCRETE WASHOUT (RE: C3.3 EROSION CONTROL DETAILS)
	STOCKPILE (RE: C3.3 EROSION CONTROL DETAILS)
---XXX---	EXISTING CONTOUR
---XXX---	PROPOSED CONTOUR
	EXISTING DRAINAGE FLOW ARROW
	PROPOSED DRAINAGE FLOW ARROW
LD	LIMITS OF DISTURBANCE
IP	SUMPED CURB INLET FILTER (RE: C3.3 EROSION CONTROL DETAILS)
CFS	COMPOST FILTER SOCK (RE: C3.2 CITY OF SPRINGFIELD EROSION CONTROL DETAILS)
	GRATE INLET FILTER (RE: C3.2 CITY OF SPRINGFIELD EROSION CONTROL DETAILS)
	CONSTRUCTION FENCING AROUND PAVERS

*****CAUTION - NOTICE TO CONTRACTOR*****

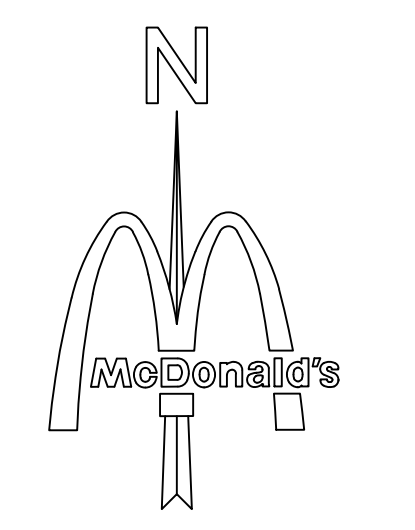
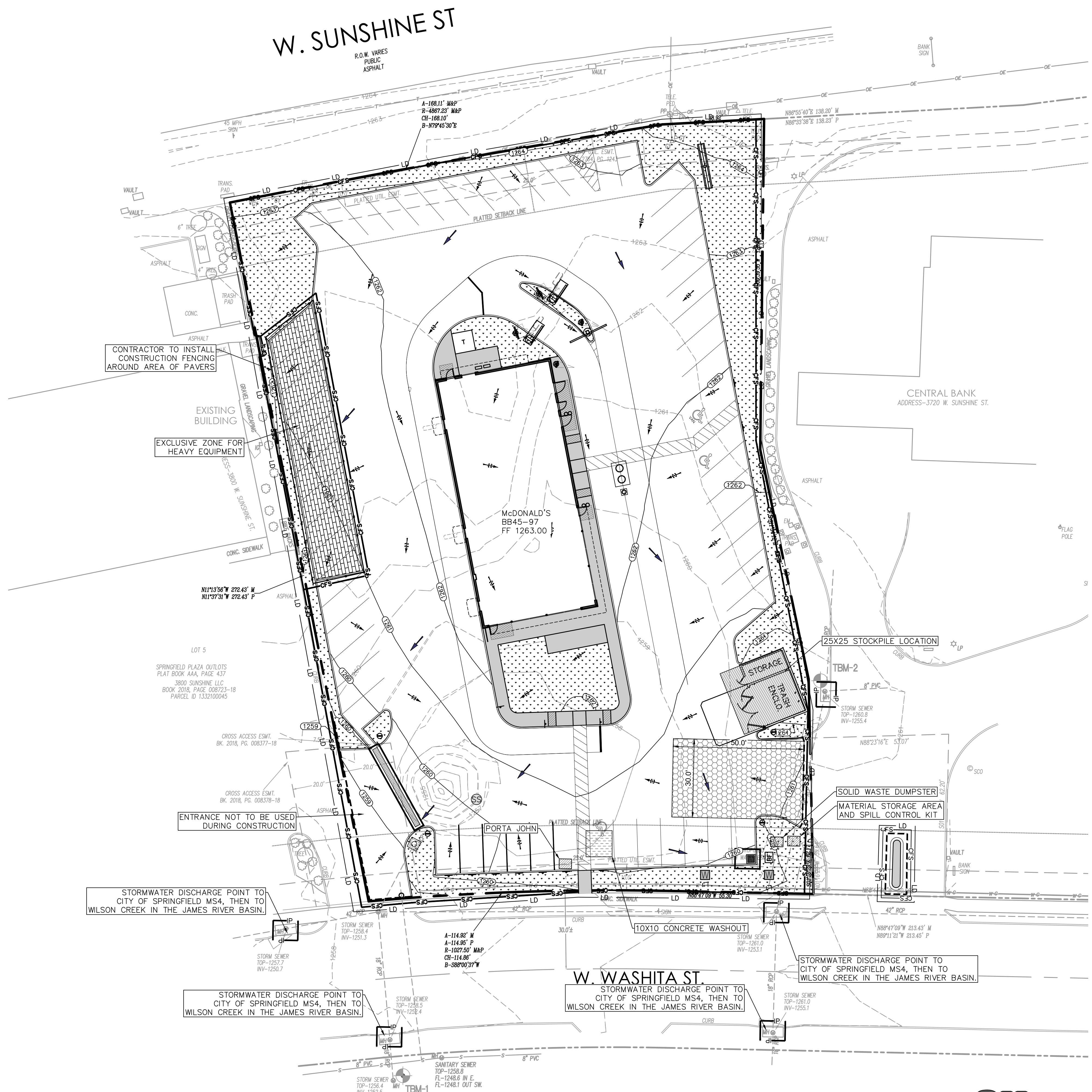
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORD OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, ACTUAL MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION PROVIDED HEREON IS NOT TO BE TAKEN AS EXACT OR FULLY COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL EXISTING UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS AS SHOWN.

*****NOTE TO CONTRACTOR*****

THE CONTRACTOR SHALL NOTE ON SITE PLAN THE LOCATION OF ALL MATERIAL STORAGE AREAS, EQUIPMENT STORAGE AREAS, PETROLEUM TANKS, SOLID WASTE RECEIPTABLES, SANITARY FACILITIES, CONCRETE WASHOUT AREAS, ANY ON-SITE OR OFF-SITE BORROW OR STOCKPILE AREA, ANY ON-SITE OR OFF-SITE SUPPORT ACTIVITIES (SUCH AS ASPHALT OR CONCRETE PLANTS). CONTRACTOR SHALL ALSO PREPARE, KEEP ON SITE, AND MAINTAIN CURRENT A LIST OF MATERIALS WITH APPROXIMATE QUANTITIES, WHICH ARE STORED ON SITE.

BMP Phasing Table

Project Stage	Erosion Control BMP Reference Number	BMP Description	Date installed	Date removed
A. Pre-construction	A1	Construction exit		
	A2	Existing storm inlet protection		
	A3	Porta potty, solid waste dumpster, material storage area, spill control kit		
	A4	Compost filter sock		
B. Clearing and mass grading	B1	Compost filter sock		
	B2	Temporary and permanent seeding		
	B3	Stockpile topsoil		
C. Building construction	C1	Inlet protection		
	C2	Concrete washout pit		
D. Final stabilization	D1	Planting and/or seeding vegetated areas		
	D2	Removal of temporary BMPs		



SCALE: 1" = 20'

Date	Description	No.
Revisions		

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LANGAN

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MO Certificate of Authorization No. F001330220

Project: **McDONALD'S NEW RESTAURANT**
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD

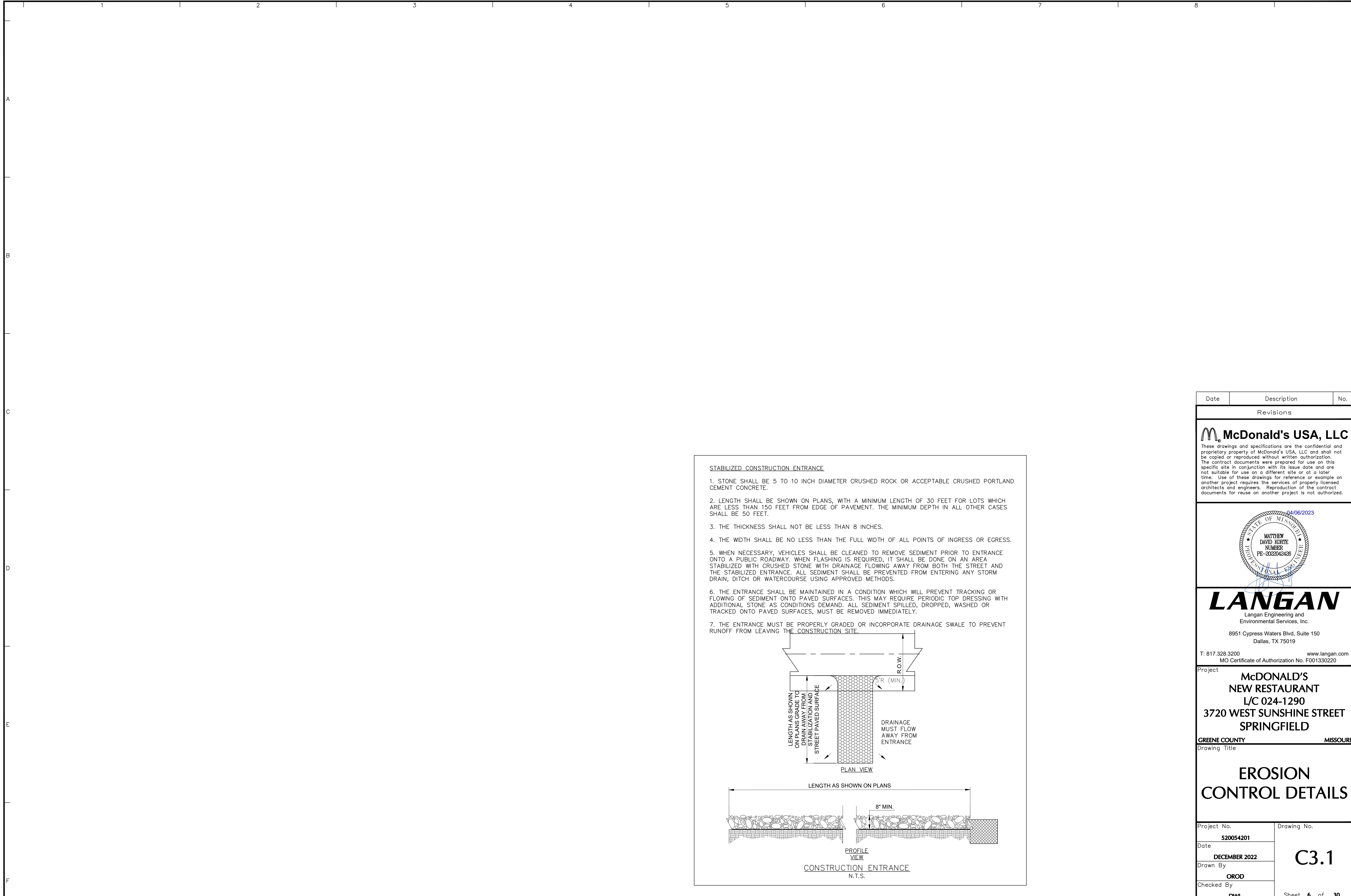
GREENE COUNTY MISSOURI

Drawing Title

EROSION CONTROL PLAN

Project No.	Drawing No.
520054201	C3.0
Date	
DECEMBER 2022	
Drawn By	
OROD	
Checked By	
DWL	Sheet 5 of 30

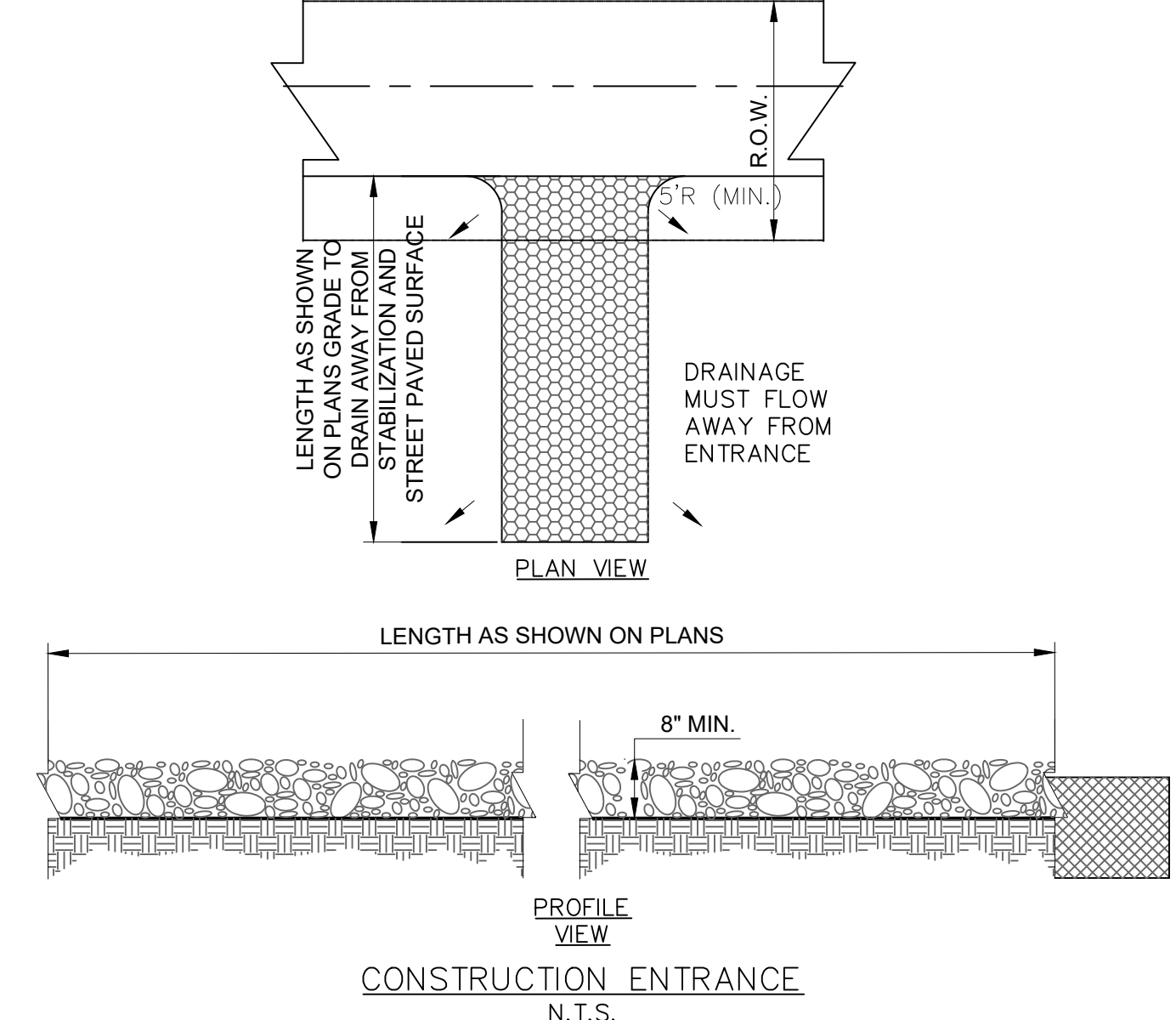




Project No. 520054201

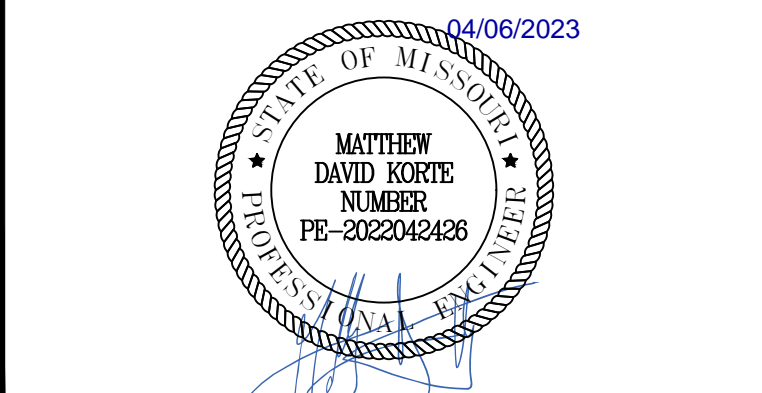
STABILIZED CONSTRUCTION ENTRANCE

1. STONE SHALL BE 5 TO 10 INCH DIAMETER CRUSHED ROCK OR ACCEPTABLE CRUSHED PORTLAND CEMENT CONCRETE.
2. LENGTH SHALL BE SHOWN ON PLANS, WITH A MINIMUM LENGTH OF 30 FEET FOR LOTS WHICH ARE LESS THAN 150 FEET FROM EDGE OF PAVEMENT. THE MINIMUM DEPTH IN ALL OTHER CASES SHALL BE 50 FEET.
3. THE THICKNESS SHALL NOT BE LESS THAN 8 INCHES.
4. THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN FLASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PAVED SURFACES, MUST BE REMOVED IMMEDIATELY.
7. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.



Date	Description	No.
Revisions		

M. McDonald's USA, LLC
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 Dallas, TX 75019
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Project
**McDONALD'S
 NEW RESTAURANT
 L/C 024-1290
 3720 WEST SUNSHINE STREET
 SPRINGFIELD**

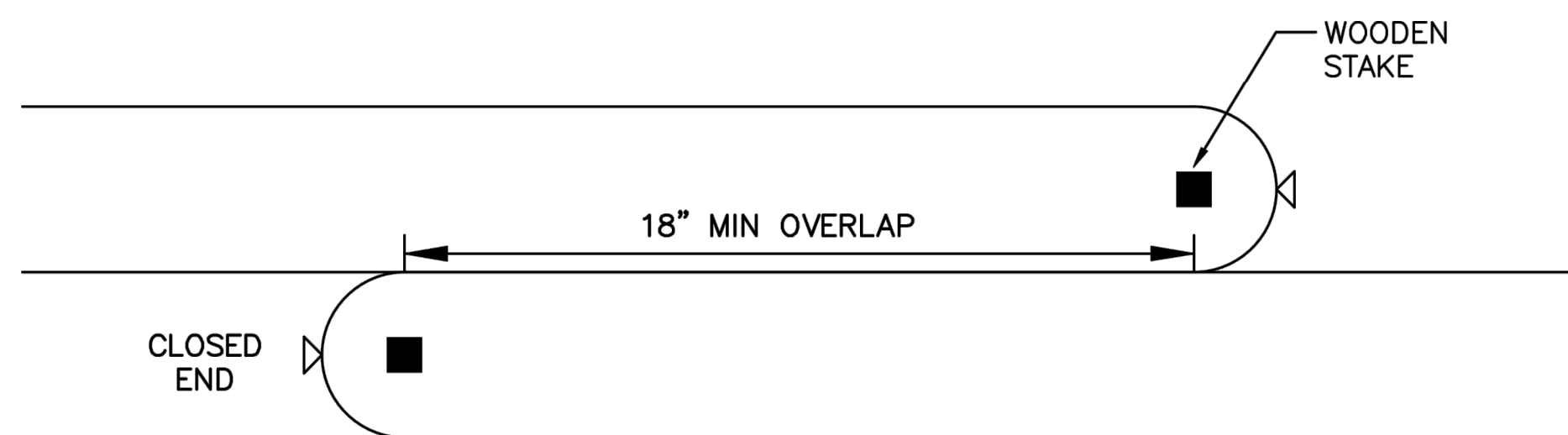
GREENE COUNTY MISSOURI
 Drawing Title

**EROSION
 CONTROL DETAILS**

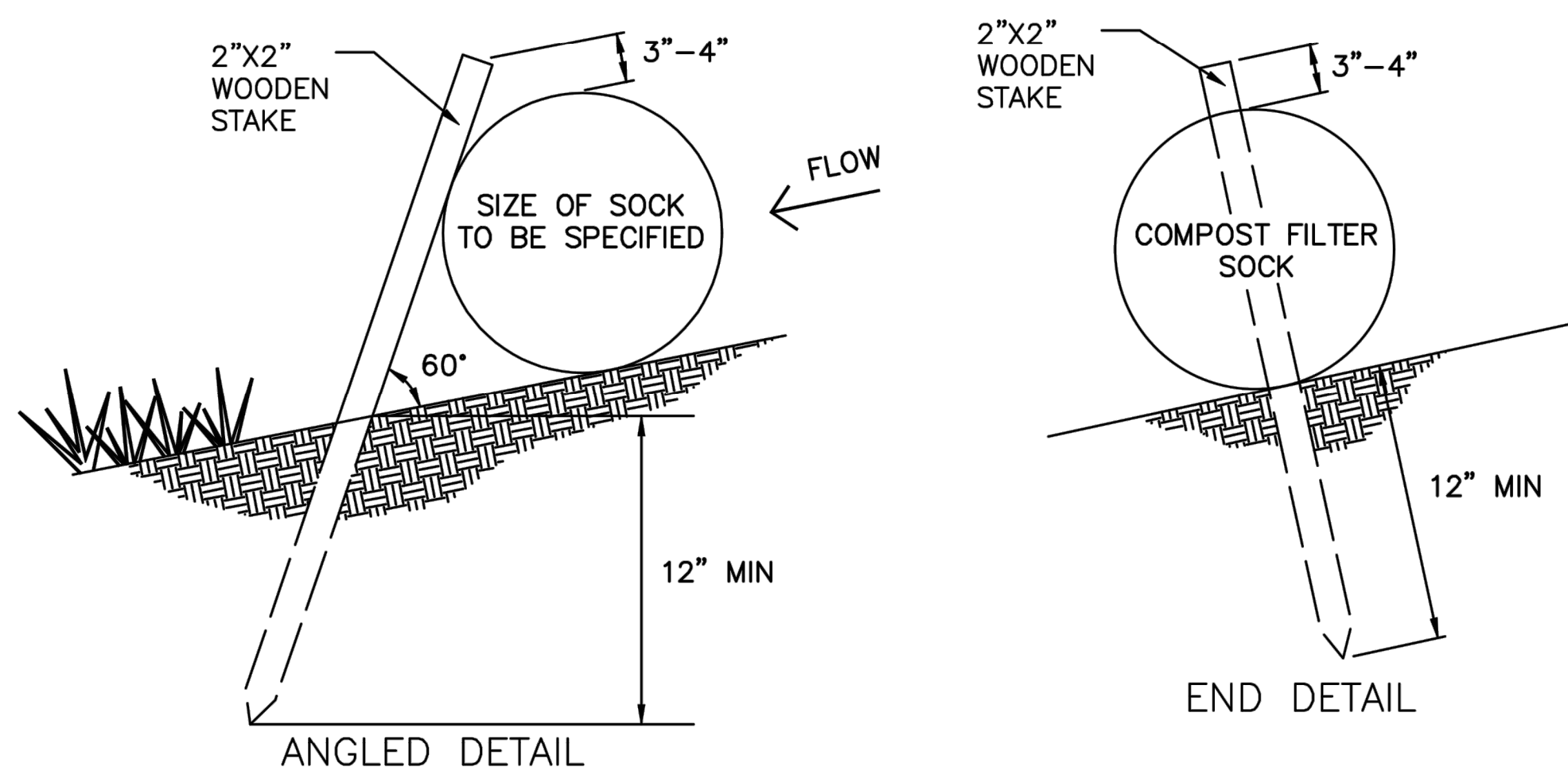
Project No. 520054201	Drawing No. C3.1
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	
Sheet 6 of 30	

NOTES:

1. COMPOST SOCK SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE ACTIVITIES.
2. COMPOST SOCKS ARE GENERALLY PLACED ALONG THE PERIMETER OF A SITE, AT INTERVALS ALONG A SLOPE, AT AREA INLETS, OR AS DITCH CHECKS TO SLOW DOWN RUNOFF AND RETAIN SEDIMENT.
3. MANUFACTURER'S SPECIFICATIONS SHALL BE FOLLOWED FOR SELECTING SOCK DIAMETER.
4. VEHICLES AND MACHINERY SHALL BE PREVENTED FROM DAMAGING THE SOCK.
5. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE HEIGHT OF THE SOCK.
6. BROKEN STAKES AND TORN SECTIONS SHALL BE REPLACED AND REPAIRED.
7. SOCK SHALL BE REMOVED AFTER PERMANENT VEGETATION IS ESTABLISHED.



PLAN VIEW



SECTION VIEW

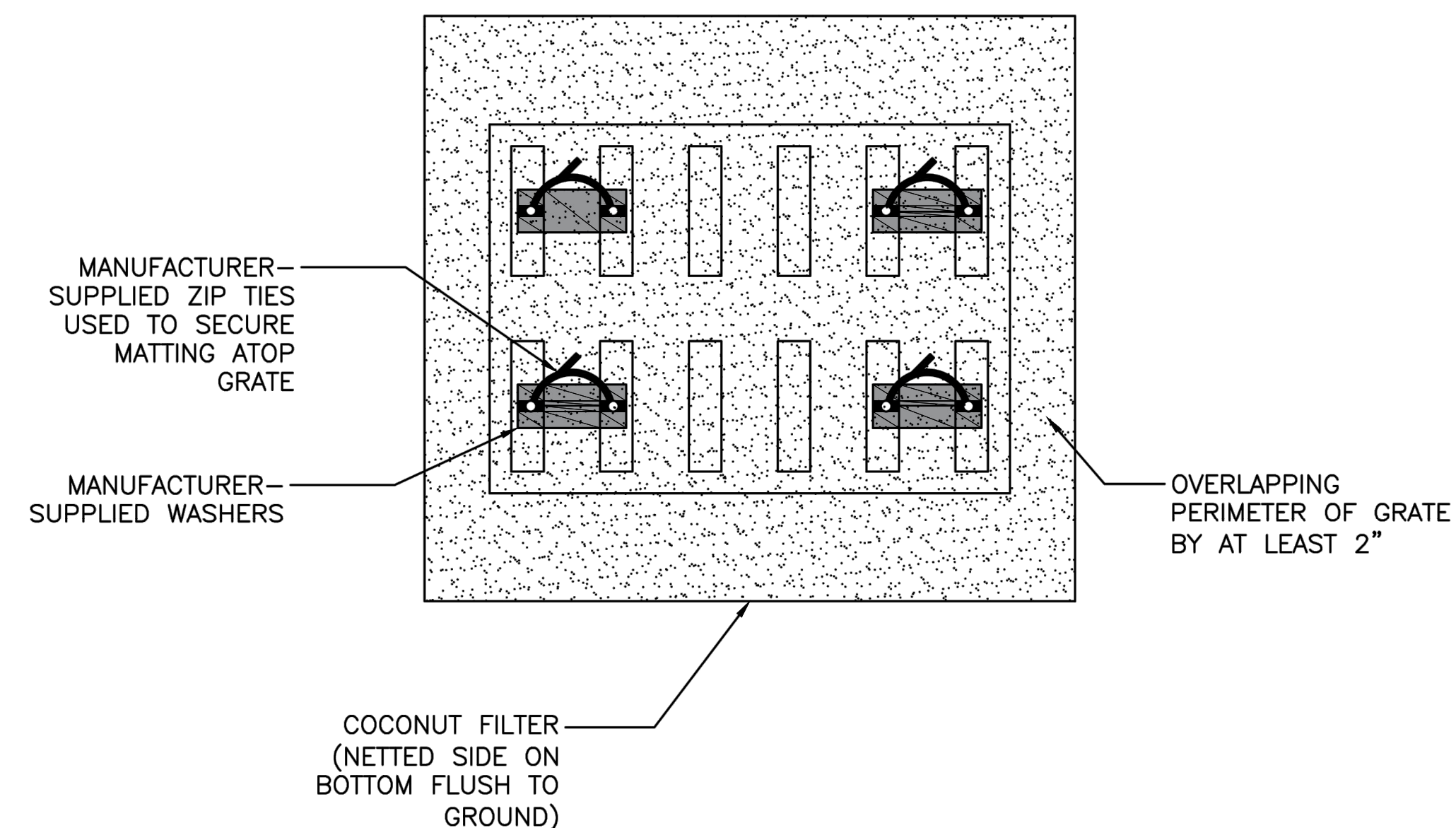
ENVIRONMENTAL SERVICES DEPT.
SPRINGFIELD, MO.

COMPOST SOCK

UPDATED: NOV. 2020
BMP MANUAL

NOTES:

1. GRATE INLET FILTERS SHALL BE PLACED PRIOR TO DISTURBANCE AND AFTER GRATES ARE INSTALLED.
2. A CURB INLET BMP SHALL BE INSTALLED IN CONJUNCTION WITH THE GRATE INLET FILTER WHEN A GRATE IS CONNECTED TO A CURB INLET.
3. SEDIMENT AND DEBRIS COLLECTED ON TOP AND SIDES OF INLET FILTERS SHALL BE REMOVED AFTER EACH RAIN EVENT WITH A BROOM.
4. INLET FILTERS SHALL BE REPLACED WHEN PERFORMANCE IS NO LONGER SATISFACTORY.
5. INLET FILTERS SHALL ONLY BE REMOVED WHEN UPSTREAM AREAS ARE PERMANENTLY STABILIZED.



ENVIRONMENTAL SERVICES DEPT.
SPRINGFIELD, MO.

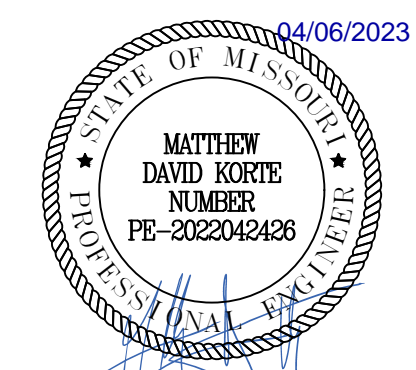
GRATE INLET FILTER

UPDATED: DEC. 2018
BMP MANUAL

Date	Description	No.
Revisions		

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Project
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NEW RESTAURANT
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD**

GREENE COUNTY MISSOURI
Drawing Title

**EROSION
CONTROL DETAILS**

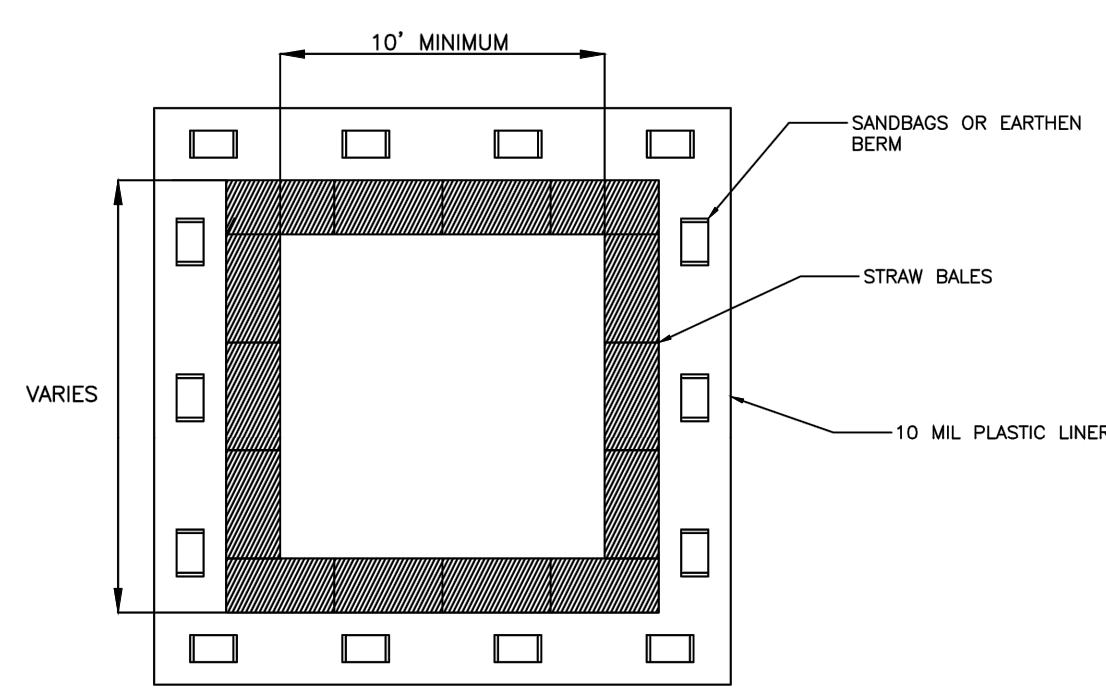
Project No. 520054201	Drawing No. C3.2
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	

Sheet 7 of 30

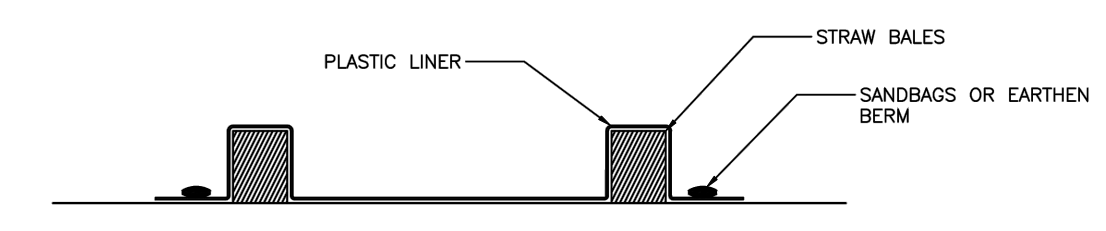
- NOTES:
1. WASHOUT CONTAINMENT SHALL BE INSTALLED FOR DURATION OF CONCRETE WORK AND RETAIN CONCRETE AND OTHER WASHOUT LIQUIDS UNTIL EVAPORATION OR REMOVAL BY PUMP.
 2. CONTAINMENT SHALL BE SIZED FOR EXPECTED WASHOUT VOLUMES.
 3. AVOID PLACING NEAR STORM DRAINS, STREAMS, SINKHOLES, OUTFALLS OR OTHER LOW AREAS WHERE WATER PONDS OR FLOWS.
 4. OTHER APPROVED LEAK-PROOF CONTAINMENT IS ACCEPTABLE.
 5. TRAPS SHALL BE ROUTINELY MAINTAINED AT 75% CAPACITY AND REPLACED AS NECESSARY TO PERFORM.
 6. THE WASHOUT PIT SHALL BE COVERED BEFORE PREDICTED RAIN EVENTS TO PREVENT OVERFLOW.
 7. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 50 FT OF THE TEMPORARY CONCRETE WASHOUT FACILITY.



SIGNAGE



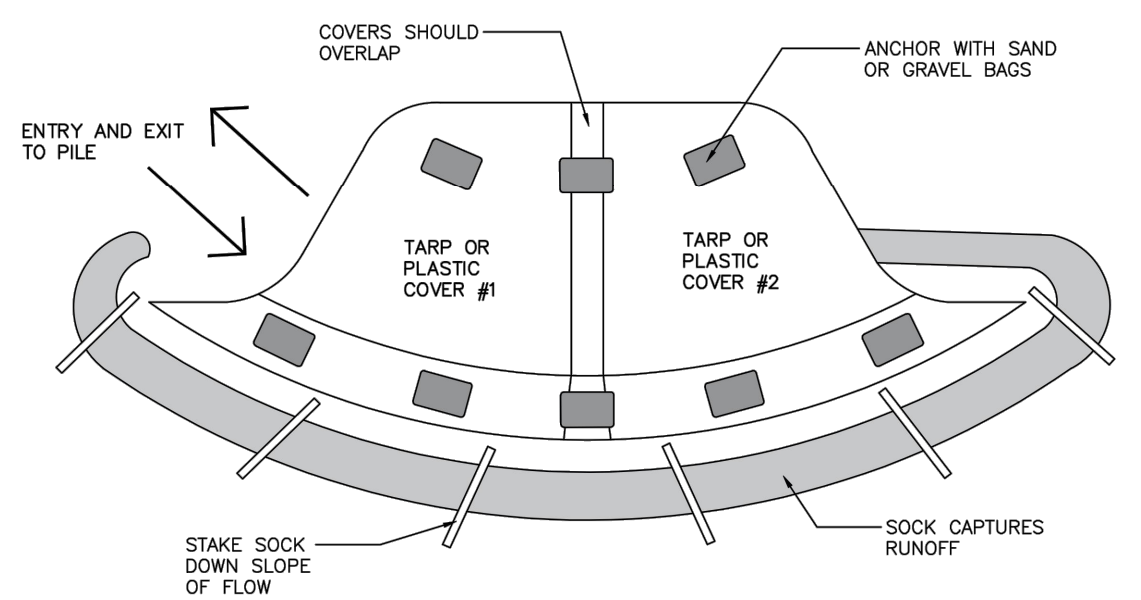
PLAN VIEW



SECTION VIEW

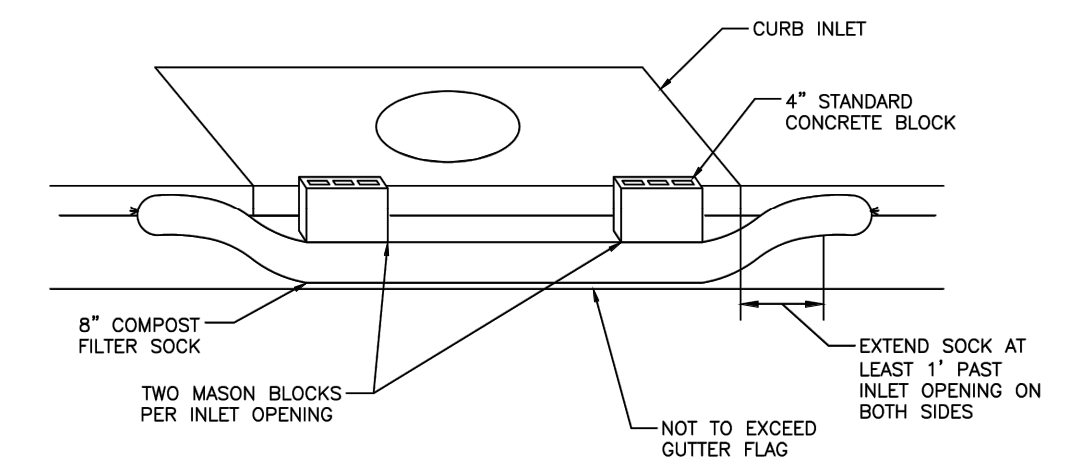
ENVIRONMENTAL SERVICES DEPT. SPRINGFIELD, MO. CONCRETE WASHOUT UPDATED: AUG. 2018 BMP MANUAL

- NOTES:
1. PLASTIC COVERS SHALL BE INSTALLED OVER STOCKPILES AS THEY ARE GENERATED THROUGHOUT THE PROJECT. COVERS SHALL PREVENT EROSION AND SEDIMENT TRANSFER PRIOR TO RAIN EVENTS.
 2. SEAMS SHALL BE TAPED OR WEIGHTED DOWN THEIR ENTIRE LENGTH.
 3. COMPOST FILTER SOCK SHALL BE INSTALLED TO RETAIN SEDIMENT RUNOFF.
 4. STOCKPILE SLOPES SHALL NOT EXCEED 2:1.
 5. OFF-SITE BORROW/FILL AREAS SHALL ALSO BE PROTECTED BY ADEQUATE SEDIMENT AND EROSION CONTROL BMPs. IF PART OF A JOB DISTURBING 1 ACRE OR GREATER THEIR LOCATION SHALL BE NOTED WITHIN THE SWPPP.
 6. ADHERE TO COMPOST FILTER SOCK STANDARDS FOR MAINTENANCE.
 7. STOCKPILE BMPs MAY BE REMOVED AFTER AREA IS STABILIZED.



ENVIRONMENTAL SERVICES DEPT. SPRINGFIELD, MO. STOCKPILE CONTROL UPDATED: DEC. 2020 BMP MANUAL

- NOTES:
1. COMPOST SOCK SHALL BE INSTALLED PRIOR TO DISTURBANCE AND AS INLETS ARE INSTALLED.
 2. COMPOST SOCK SHALL BE INSTALLED IN CONJUNCTION WITH GRATE INLET FILTER WHEN A GRATE IS CONNECTED TO A CURB INLET.
 3. SEDIMENT ACCUMULATION SHALL BE REMOVED WHEN ACCUMULATION REACHES HALF THE HEIGHT OF THE SOCK.
 4. COMPOST SOCK SHALL BE REPLACED OR REINSTALLED WHEN DAMAGED AND PERFORMANCE IS NO LONGER SATISFACTORY.
 5. UPSTREAM AREAS MUST BE STABILIZED BEFORE REMOVAL OF COMPOST SOCK.

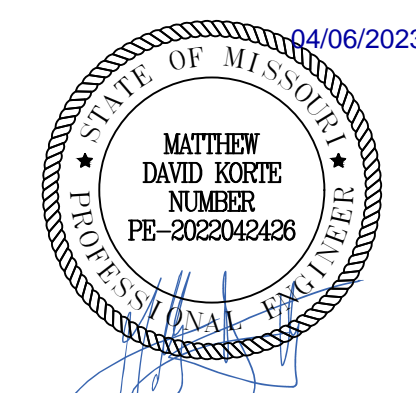


ENVIRONMENTAL SERVICES DEPT. SPRINGFIELD, MO. SUMPED CURB INLET FILTER UPDATED: JAN 2019 BMP MANUAL

Date	Description	No.
------	-------------	-----

Revisions

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Project
**McDONALD'S
 NEW RESTAURANT
 L/C 024-1290
 3720 WEST SUNSHINE STREET
 SPRINGFIELD**

GREENE COUNTY MISSOURI
 Drawing Title

**EROSION
 CONTROL DETAILS**

Project No. 520054201	Drawing No. C3.3
Date FEBRUARY 2023	
Drawn By EWM	
Checked By	
Sheet 8 of 30	

LEGEND

LIGHT STANDARD (15' CLEAR FROM ALL OVERHEAD UTILITY LINES) (24" CLEAR FROM BACK OF CURB)

ROAD SIGN

McDONALD'S DIGITAL MENU BOARD

McDONALD'S ORDER HERE CANOPY

McDONALD'S DIGITAL PRE-BROWSE BOARD

McDONALD'S DOUBLE GATEWAY

McDONALD'S DIRECTIONAL SIGN

DETECTOR LOOP (LOCATION TO BE APPROVED BY McDONALD'S) (RE: C10.0 STANDARD DETAILS)

"DRIVE-THRU" WITH "CIRCLE / ARROW" - COLOR : YELLOW

PAINTED "STOP" AND 12" STOP BAR WITH "STOP" SIGN - COLOR : YELLOW *

"THANK YOU" AT END OF PATH - COLOR : YELLOW

"CIRCLE / ARROW" - COLOR : YELLOW

ARROW PATH DIRECTION - COLOR : WHITE

ROLL-FORWARD ARROW PATH DIRECTION - COLOR : YELLOW

STRAIGHT DRIVE-THRU "ARROW MARKING" - COLOR: YELLOW

KEY NOTE LEGEND

MARK	MARK DESCRIPTION
1	CONCRETE VERTICAL CURB @DRIVE-THRU (RE: C10.2 STANDARD DETAILS)
2	CURB AND GUTTER @NON-DRIVE-THRU AREAS (RE: C10.2 STANDARD DETAILS)
3	MOUNTABLE CURB RAISED ISLAND (RE: C10.3 STANDARD DETAILS)
4	TURN DOWN CURB (RE: C10.3 STANDARD DETAILS)
5	REINFORCED CONCRETE SIDEWALK (RE: C10.3 STANDARD DETAILS)
6	McDONALD'S MOBILE SIGNS (COORDINATE WITH OWNER/OPERATOR FOR EXACT LOCATIONS)
7	H.C. ACCESS RAMP @ 1:12 MAX SLOPE (RE: C10.1 STANDARD DETAILS)
8	HANDICAP ACCESSIBLE SIGN (POLE MOUNTED) (RE: C10.1 STANDARD DETAILS)
9	NOT USED
10	BOLLARD (RE: C10.1 STANDARD DETAILS)
11	5' GUARDRAIL @ INGRESS/EGRESS DOOR (RE: C10.1 STANDARD DETAILS)
12	BIKE RACK (RE: C10.1 STANDARD DETAILS)
13	McDONALD'S ROLL-FORWARD SIGNS (COORDINATE WITH OWNER/OPERATOR FOR EXACT LOCATIONS)
14	DRAINAGE STRUCTURE (RE: C8.1 POST DEVELOPED DRAINAGE PLAN)
15	LANDSCAPE FINISH GRADE 1" BELOW TOP OF CURB IN ALL LAWN AREAS AND 2" BELOW TOP OF CURB IN ALL BED AREAS
16	6" DRIVE-THRU STRIPING - COLOR : YELLOW
17	4" DIAGONAL PAINTED ISLANDS AT DRIVE-THRU - COLOR : YELLOW
18	6" MERGE POINT - COLOR : YELLOW
19	4" PARKING STALL STRIPING - COLOR : WHITE (TYP)
20	4" DIAGONAL PAINTED ISLANDS IN PARKING AREA - COLOR : WHITE
21	HANDICAP ACCESSIBLE SPACES / SYMBOLS / CROSSWALK - COLOR : (PER STATE/CITY REQUIREMENTS)
22	4" OOSP STRIPING - COLOR : YELLOW
23	8" OOSP STRIPING - COLOR : YELLOW

SITE INFORMATION

LAND AREA:	±52,830 SF (1.21 AC)
CURRENT ZONING:	HC - HIGHWAY COMMERCIAL DISTRICT WITH CONDITIONAL OVERLAY DISTRICT - 1 VACANT RESTAURANT W/DRIVE-THRU
EXISTING USE:	VACANT
PROPOSED USE:	RESTAURANT W/DRIVE-THRU
BUILDING AREA (APPROXIMATE):	4,365 GFA
BUILDING LOT COVERAGE:	4,365 SF/52,830 SF = 0.08%
PARKING CALCULATIONS:	1 SPACE PER 70 SF, PLUS 6 QUEUING SPACES + 1
PARKING SPACED REQUIRED:	63
PARKING SPACES PROVIDED:	57 (10%)
STACKING REQUIRED:	7
STACKING PROVIDED:	14
HANDICAP PARKING REQUIRED:	3
HANDICAP PARKING PROVIDED:	3
BICYCLE PARKING REQUIRED:	15
BICYCLE PARKING PROVIDED:	15
PROPOSED LANDSCAPE OPEN SPACE:	9,812 SF (18.6%)
PROPOSED BRICK PAVERS:	1,770 SF (3.4%)

FIRE APPARATUS ACCESS LANES SHALL BE MARKED WITH 4" RED STRIPING ON EACH SIDE OF THE FIRE LANE ALONG THE ENTIRE LENGTH OF THE LANE AND "NO PARKING FIRE LANE" SHALL BE STENCILED IN 12" LETTERS EVERY 50' IN THE CENTER OF THE FIRE LANE (PERPENDICULAR TO TRAFFIC FLOW AND IN ALTERNATING DIRECTIONS). IF A CURB IS PRESENT ALONG ONE SIDE OF THE LANE THE CURB SHOULD BE PAINTED RED IN PLACE OF THE 4" STRIPING. (2018 IFC 503.3)

PARKING CALCULATIONS:

PARKING REQUIRED:	4,368 / 70 = 63
10% REDUCTION:	63 X 10% = 6.3
PARKING PROVIDED:	57
BICYCLE PARKING REQUIRED:	3
BICYCLE PARKING SUBSTITUTION:	6 X 2 = 12
BICYCLE PARKING PROVIDED:	15

STANDARD ACCESSIBILITY REQUIREMENTS

PARKING:
ACCESSIBLE PARKING SPACES SHALL BE AS NOTED TO A MIN. 96" WIDE OR A MIN. 132" WIDE FOR VAN DESIGNATED SPACES WITH A MAXIMUM SLOPE OF 2% (IN ALL DIRECTIONS). ALL BUILDINGS SHALL HAVE AT LEAST ONE VAN ACCESSIBLE SPACE.

EACH ACCESSIBLE PARKING SPACE SHALL HAVE A VERTICALLY MOUNTED (OR SUSPENDED) SIGN SHOWING THE SYMBOL OF ACCESSIBILITY. AT LEAST ONE SPACE MUST INCORPORATE "VAN-ACCESSIBLE" BELOW THE SYMBOL OF ACCESSIBILITY. SIGN SHALL BE LOCATED AS NOTED TO 80" (MIN.) ABOVE THE ADJACENT PAVED SURFACE TO BOTTOM OF TEXT.

ALL ACCESS AISLES SERVING ACCESSIBLE PARKING SPACES SHALL BE AS NOTED TO A 60" WIDE MINIMUM.

RAMPS:
RAMPS EXCEEDING 6" IN RISE (EXCLUDING CURB RAMPS) SHALL HAVE APPROPRIATE EDGE PROTECTION WITH HANDRAILS ON EACH SIDE AT BETWEEN 34" AND 38" AND EXTEND 12" BEYOND THE TOP AND BOTTOM OF RAMP. HANDRAIL SHALL NOT DIMINISH THE CLEAR AREA REQUIRED FOR TOP AND BOTTOM LANDINGS SERVING THE RAMPS.

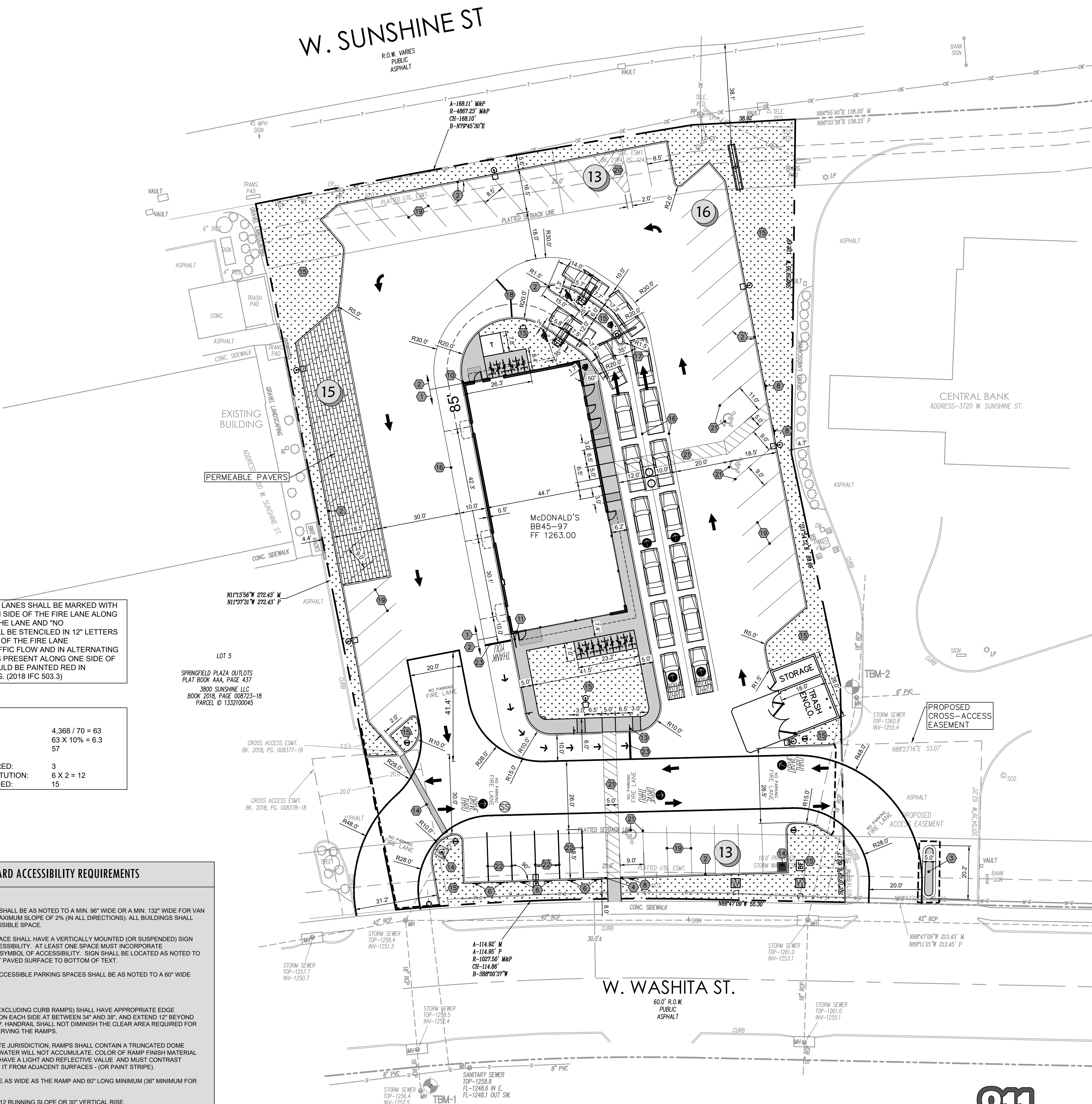
IF REQUIRED BY LOCAL OR STATE JURISDICTION, RAMPS SHALL CONTAIN A TRUNCATED DOME SURFACE ARRANGED SO THAT WATER WILL NOT ACCUMULATE. COLOR OF RAMP FINISH MATERIAL (INCLUDING CONCRETE) SHALL HAVE A LIGHT AND REFLECTIVE VALUE AND MUST CONTRAST SIGNIFICANTLY TO DISTINGUISH IT FROM ADJACENT SURFACES. (OR PAINT STRIPE)

LANDINGS FOR RAMPS SHALL BE AS WIDE AS THE RAMP AND 60" LONG MINIMUM (36" MINIMUM FOR CURB RAMPS).

RAMPS SHALL NOT EXCEED A 1:12 RUNNING SLOPE OR 30° VERTICAL RISE.

RAMPS AND LANDING SHALL NOT EXCEED 1:48 (2% CROSS SLOPE).

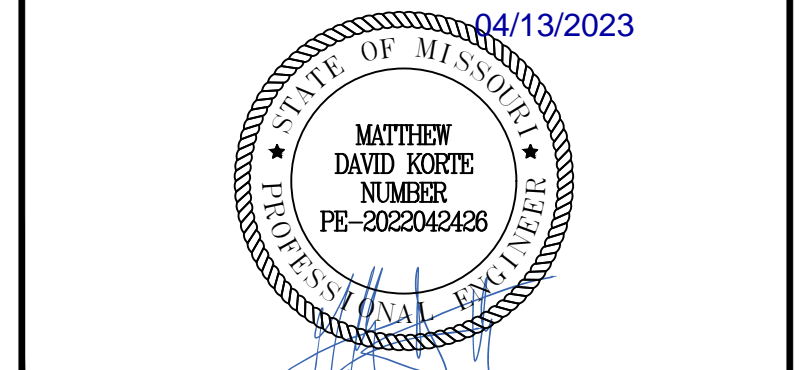
SIDEWALKS AND ACCESSIBLE ROUTES:
SIDEWALKS MUST BE AT LEAST 36" WIDE WITH A CROSS SLOPE THAT SHALL NOT EXCEED 1:48 (2%). LONGITUDINAL SLOPE OF ANY SIDEWALK (ACCESSIBLE ROUTE) SHALL NOT EXCEED 1:20 (5%).



Date	Description	No.
Revisions		

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MO Certificate of Authorization No. F001330220

Project **McDONALD'S NEW PROJECT**
L/C 024-1290
3740 WEST SUNSHINE STREET
SPRINGFIELD

GREENE COUNTY MISSOURI
Drawing Title

SITE PLAN

Project No.	520054201	Drawing No.	C4.0
Date	DECEMBER 2022		
Drawn By	OROD		
Checked By	DWL	Sheet 9 of 30	



NOTICE TO CONTRACTOR

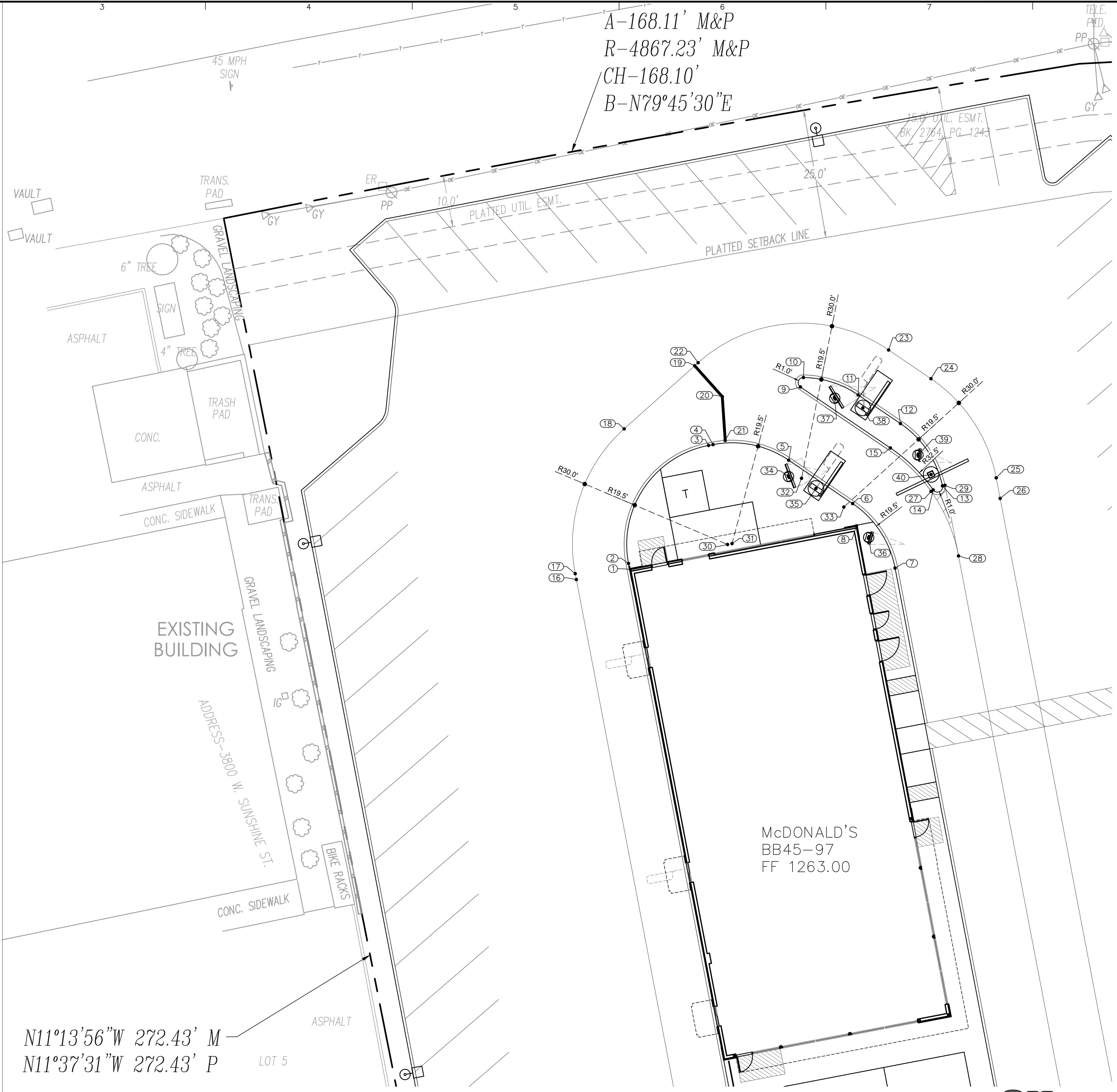
- COORDINATES SHOWN ARE AT BACK OF CURB OR CENTERLINE OF FOUNDATION OR STRIPE.
- VERIFY LOCATION OF CDS AND MENU BOARDS WITH ACM PRIOR TO POURING FOUNDATIONS.
- COORDINATES BASED ON GEODETIC NORTH AS PROVIDED BY SURVEYOR.
- IT IS REQUIRED BY McDONALD'S THAT ALL DRIVE THRU EQUIPMENT AND PAVEMENT IMPROVEMENTS IN THE DRIVE THRU AREA BE FIELD LOCATED AND STAKED BY A PROFESSIONAL SURVEYOR.

BENCHMARK

SITE TEMPORARY BENCHMARKS:

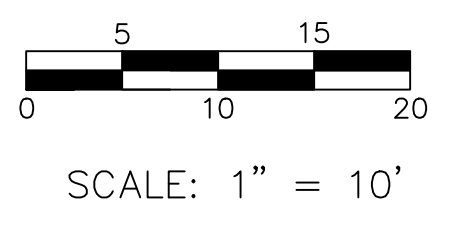
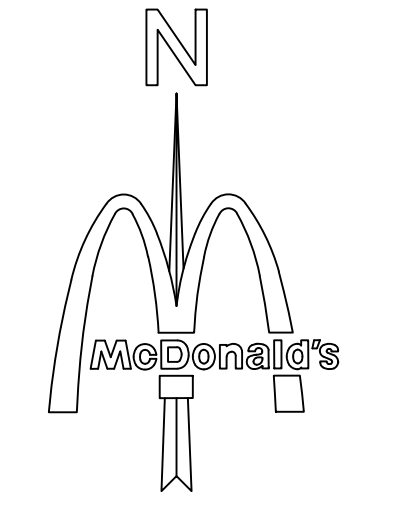
- A SQUARE CUT IN THE NORTHEAST CORNER OF CONCRETE STORM INLET BOX
ELEVATION = 1256.46 (NAVD88)
- A SQUARE CUT IN THE NORTHWEST CORNER OF CONCRETE STORM INLET BOX
ELEVATION = 1260.86 (NAVD88)

Point #	Northing	Easting	FULL DESCRIPTION
1	492217.7151	1391130.8837	BUILDING CORNER
2	492218.8354	1391130.5420	POINT OF CURVATURE
3	492241.6562	1391146.0245	POINT OF TANGENCY
4	492241.8223	1391146.8911	POINT OF CURVATURE
5	492238.8074	1391161.5081	POINT OF TANGENCY
6	492230.4106	1391173.8848	POINT OF CURVATURE
7	492217.9427	1391182.0887	POINT OF TANGENCY
8	492226.0950	1391174.6300	BUILDING CORNER
9	492252.9711	1391163.7865	POINT OF CURVATURE
10	492254.7984	1391164.3666	POINT OF COMPOUND CURVATURE
11	492251.4386	1391174.9513	POINT OF TANGENCY
12	492245.8839	1391183.1388	POINT OF CURVATURE
13	492233.8402	1391191.2566	POINT OF COMPOUND CURVATURE
14	492233.0524	1391189.4627	POINT OF REVERSE CURVATURE
15	492241.1685	1391181.1833	POINT OF TANGENCY
16	492215.7162	1391120.4485	STRIPE POINT
17	492216.8597	1391120.2295	STRIPE POINT OF CURVATURE
18	492244.8667	1391129.6953	STRIPE POINT OF TANGENCY
19	492257.0714	1391143.3426	MERGE POINT STRIPED
20	492251.1082	1391148.6755	MERGE POINT STRIPED
21	492242.6268	1391149.2376	MERGE POINT STRIPED
22	492257.6639	1391144.0051	STRIPE POINT OF CURVATURE
23	492260.1276	1391180.8462	STRIPE POINT OF TANGENCY
24	492254.5729	1391189.0337	STRIPE POINT OF CURVATURE
25	492235.3915	1391201.6552	STRIPE POINT OF TANGENCY
26	492231.4176	1391202.4165	STRIPE POINT
27	492232.7636	1391189.0546	STRIPE POINT
28	492220.2945	1391194.3655	STRIPE POINT OF TANGENCY
29	492233.9451	1391191.7454	STRIPE POINT
30	492222.5046	1391149.6937	RADIUS POINT
31	492222.6706	1391150.5603	RADIUS POINT
32	492235.3018	1391164.0035	RADIUS POINT
33	492229.7471	1391172.1910	RADIUS POINT
34	492235.6347	1391161.4846	PRIMARY OUTDOOR DIGITAL MENU BOARD
35	492233.3323	1391166.7765	PRIMARY ORDER HERE CANOPY
36	492223.8530	1391176.9812	DIGITAL OUTDOOR PRE-BROWSE MENU BOARD
37	492250.7918	1391170.4246	SECONDARY OUTDOOR DIGITAL MENU BOARD
38	492248.9228	1391175.8578	SECONDARY ORDER HERE CANOPY
39	492239.7903	1391186.5222	DIGITAL OUTDOOR PRE-BROWSE MENU BOARD
40	492236.0431	1391189.0540	DOUBLE GATEWAY



N11°13'56"W 272.43' M
 N11°37'31"W 272.43' P

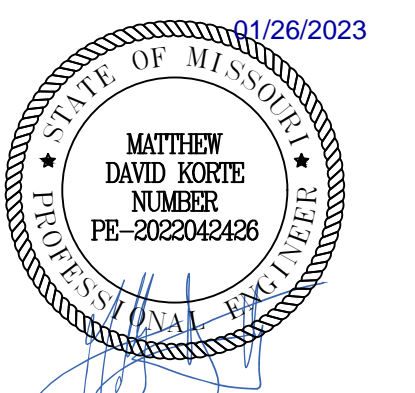
A-168.11' M&P
 R-4867.23' M&P
 CH-168.10'
 B-N79°45'30"E



Date	Description	No.
Revisions		

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Project
**McDONALD'S
 NEW PROJECT
 L/C 024-1290
 3720 WEST SUNSHINE STREET
 SPRINGFIELD**

GREENE COUNTY MISSOURI
 Drawing Title

**DRIVE-THRU
 COORDINATE PLAN**

Project No. 520054201	Drawing No. C5.0
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	
	Sheet 9 of 29



LEGEND

- REINFORCED CONCRETE SIDEWALK. MINIMUM 4" THICK REINFORCED WITH #3 BARS @ 18" O.C.E.W. CONCRETE TO BE 3,500 PSI 28-DAY STRENGTH
- HEAVY DUTY REINFORCED CONCRETE @ DRIVE-THRU
- HEAVY DUTY ASPHALT @ DRIVING AREAS
- LIGHT DUTY ASPHALT *
- REINFORCED CONCRETE PAVEMENT @ TRASH ENCLOSURE APRON. MINIMUM 7" THICK REINFORCED WITH #4 BARS @ 18" O.C.E.W. CONCRETE TO BE 4,000 PSI 28-DAY STRENGTH
- PERMEABLE BRICK PAVERS
- LANDSCAPE AREA
- SAWCUT LINE
- 4" IRRIGATION SLEEVES (RE: LI1.0 IRRIGATION PLAN FOR LOCATION, SIZE AND MATERIAL)

*REFER TO GEOTECH REPORT PROVIDED BY PROFESSIONAL SERVICE INDUSTRIES, INC IN REPORT NO. 0040447-1 FOR ALL PAVING SPECIFICATIONS.

PAVING SPECIFICATION

VERIFY W/ MCDONALD'S:	ASPHALT	<input checked="" type="checkbox"/>	CONCRETE	<input checked="" type="checkbox"/>
CONTRACTOR TO BID:	ASPHALT	<input checked="" type="checkbox"/>	CONCRETE	<input checked="" type="checkbox"/>

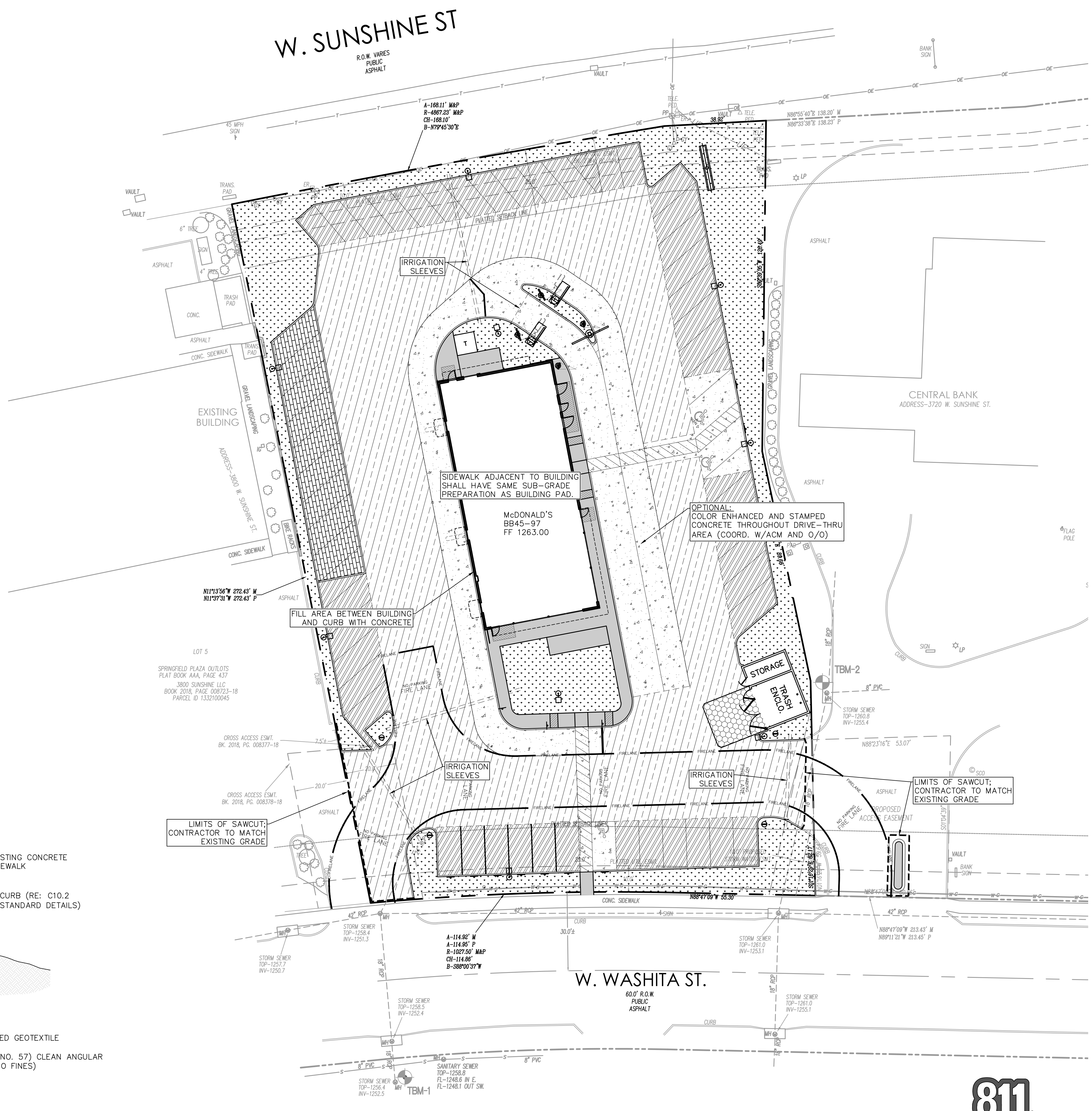
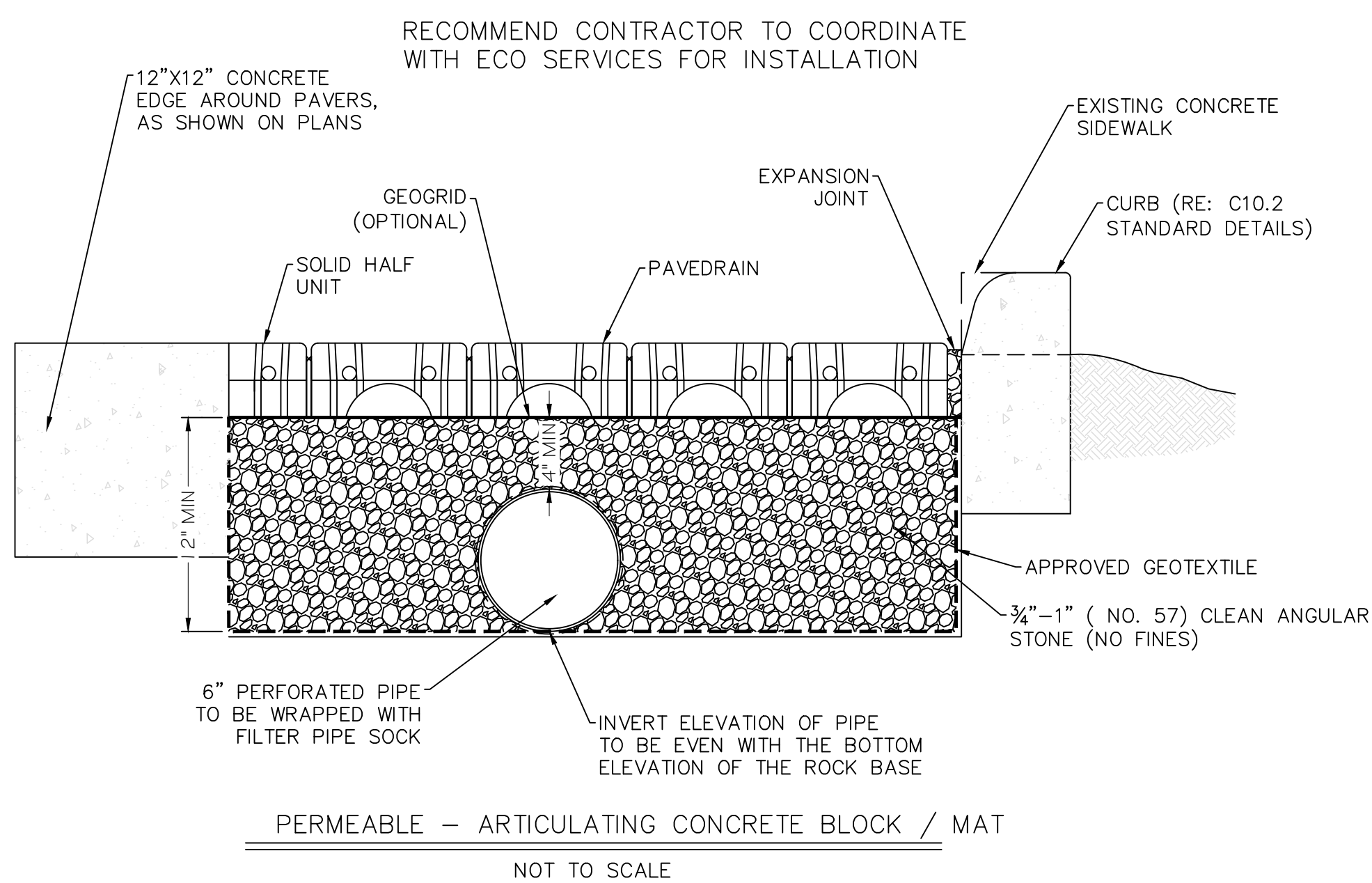
ASPHALT PAVEMENT RECOMMENDATIONS - BASE BID

PAVEMENT MATERIALS	CAR PARKS	DRIVEWAYS
ASPHALT SURFACE COURSE	1-1/2"	1-1/2"
ASHPALTIC BINDER COURSE	2-1/2"	3-1/2"
BASE ROCK	6"	6"

CONCRETE PAVEMENT RECOMMENDATIONS - ALTERNATE BID

PAVEMENT MATERIALS	HEAVY DUTY
PORTLAND CEMENT CONCRETE PAVEMENT	6"
BASE ROCK	4"

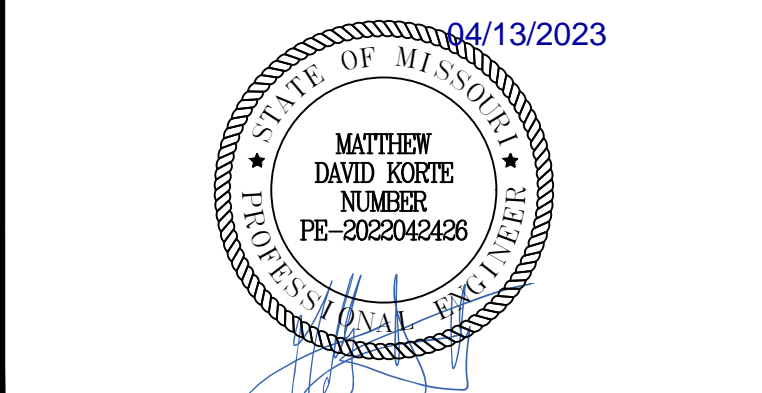
- PAVEMENT NOTES:**
- PAVEMENT AND SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY PROFESSIONAL SERVICE INDUSTRIES, INC. DATED SEPTEMBER 8, 2022. PROJECT NO. 0040447-1.
 - SUBGRADE SHOULD BE SCARIFIED AND COMPACTED TO AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR (ASTM D1559) MAXIMUM DRY DENSITY WITH LOOSE THICKNESS OF 8 INCHES PRIOR TO COMPACTION. SEE SECTION 5.0 OF GEOTECH REPORT.
 - PAVEMENT MAY BE PLACED AFTER THE SUBGRADE HAS BEEN PROPERLY COMPACTED, FINE-GRADED AND PROOF ROLLED AS SPECIFIED IN THE SOILS REPORT.
 - ALL WORK SHALL BE IN ACCORDANCE WITH THE MISSOURI DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND MCDONALD'S SPECIFICATIONS.
 - WATER SHOULD NOT BE ALLOWED TO POND BEHIND CURBS AND SATURATE THE BASE MATERIALS. GRANULAR BASE MATERIAL SHOULD EXTEND THROUGH THE SLOPE PROVIDING UNDERGROUND DRAINAGE AN EXIT PATH. REFER TO C10.2 FOR CONCRETE JOINT SPECIFICATIONS UNLESS NOTED OTHERWISE IN THE SOILS REPORT.
 - ALL CONCRETE PAVEMENT SHALL BE 4,000 PSI @ 28 DAYS AND REINFORCED WITH #4 BARS @ 18" O.C.E.W AND WELDED WIRE MESH UNLESS OTHERWISE NOTED.
 - IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION. THE INFORMATION ABOVE IS BEING PROVIDED FOR REFERENCE ONLY AND SHALL NOT BE RELIED ON AS ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REFERRING TO THE GEOTECHNICAL REPORT REFERENCED ABOVE FOR ALL PAVEMENT/ARTHWORX REQUIREMENTS.



Date	Description	No.
Revisions		

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MO Certificate of Authorization No. F001330220

Project **McDONALD'S NEW PROJECT**
L/C 024-1290
3740 WEST SUNSHINE STREET
SPRINGFIELD

GREENE COUNTY MISSOURI
Drawing Title

PAVING PLAN

Project No.	Drawing No.
520054201	C6.0
Date	Drawn By
DECEMBER 2022	OROD
Checked By	DWL
Sheet 11 of 30	



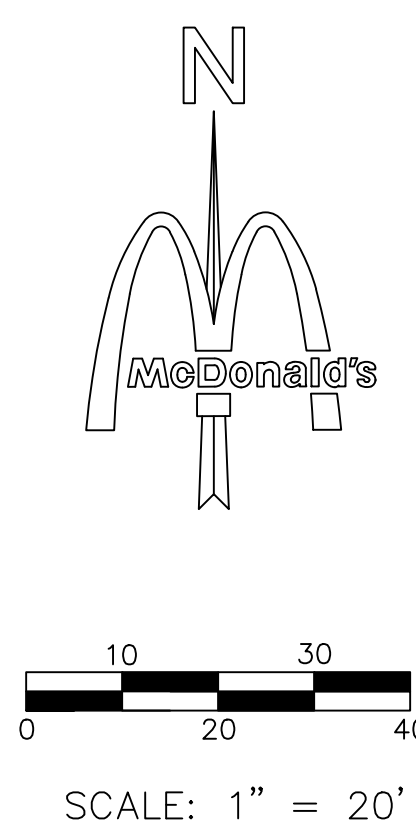
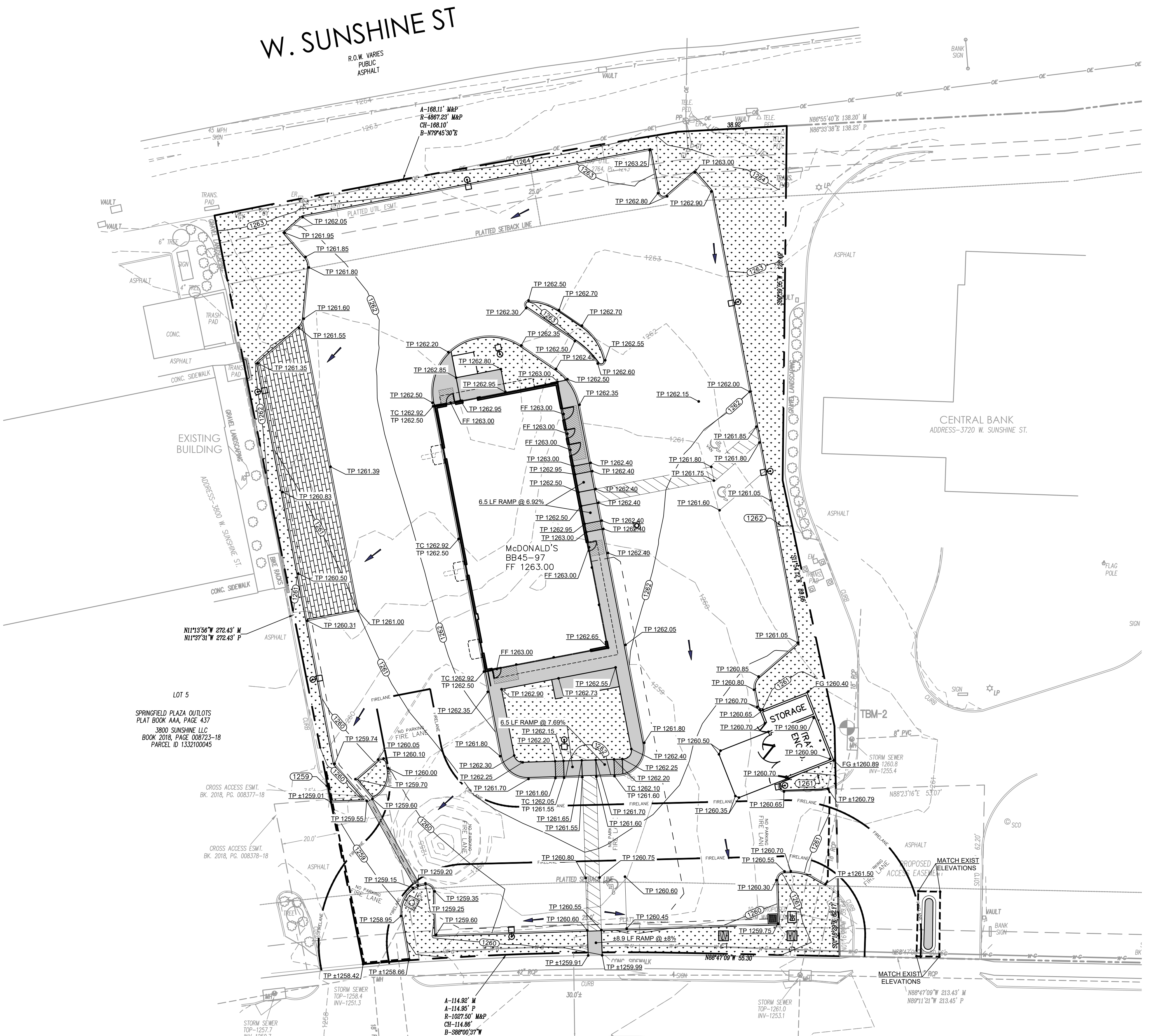
THE ENGINEER OF RECORD IS REQUIRED TO SUBMIT AN AS-BUILT CERTIFICATION OF THE STORMWATER CONTROL MEASURES UPON COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO IDENTIFY THE LIST OF STORMWATER CONTROL MEASURES REQUIRING CERTIFICATION AND COORDINATE DURING CONSTRUCTION TO ALLOW THE ENGINEER TO MAKE ANY OBSERVATIONS NECESSARY DURING CONSTRUCTION TO CERTIFY THE MEASURES.

GENERAL CONTRACTOR AND LANDSCAPE CONTRACTOR RESPONSIBILITIES

GENERAL CONTRACTOR SHALL BACKFILL BEHIND BACK OF CURB UP TO TWO (2) INCHES BELOW TOP OF CURB ELEVATION. FILL SHALL BE CLEAN FILL MATERIAL FREE OF ORGANIC MATERIALS AND CONSTRUCTION DEBRIS. GENERAL CONTRACTOR SHALL GRADE AREAS TO DRAIN PER THE APPROVED GRADING PLAN AT A GRADE TWO (2) INCHES BELOW FINAL GRADE. LANDSCAPE CONTRACTOR WILL PROVIDE THE ADDITIONAL TWO (2) INCHES OF MATERIAL PER THE LANDSCAPE PLAN.

STANDARD ACCESSIBILITY REQUIREMENTS

- A. PARKING:** ACCESSIBLE PARKING SPACES SHALL BE AS NOTED TO A MIN. 96" WIDE OR A MIN. 132" WIDE FOR VAN DESIGNATED SPACES WITH A MAXIMUM SLOPE OF 2% (IN ALL DIRECTIONS). ALL BUILDINGS SHALL HAVE AT LEAST ONE VAN ACCESSIBLE SPACE. EACH ACCESSIBLE PARKING SPACE SHALL HAVE A VERTICALLY MOUNTED (OR SUSPENDED) SIGN SHOWING THE SYMBOL OF ACCESSIBILITY. AT LEAST ONE SPACE MUST INCORPORATE "VAN-ACCESSIBLE" BELOW THE SYMBOL OF ACCESSIBILITY. SIGN SHALL BE LOCATED AS NOTED TO 80" (MIN.) ABOVE THE ADJACENT PAVED SURFACE TO BOTTOM OF TEXT. ALL ACCESS AISLES SERVING ACCESSIBLE PARKING SPACES SHALL BE AS NOTED TO A 60" WIDE MINIMUM.
- B. RAMPS:** RAMPS EXCEEDING 6" IN RISE (EXCLUDING CURB RAMPS) SHALL HAVE APPROPRIATE EDGE PROTECTION WITH HANDRAILS ON EACH SIDE AT BETWEEN 34" AND 38" AND EXTEND 12" BEYOND THE TOP AND BOTTOM OF RAMP. HANDRAIL SHALL NOT DIMINISH THE CLEAR AREA REQUIRED FOR TOP AND BOTTOM LANDINGS SERVING THE RAMPS. IF REQUIRED BY LOCAL OR STATE JURISDICTION, RAMPS SHALL CONTAIN A TRUNCATED DOME SURFACE ARRANGED SO THAT WATER WILL NOT ACCUMULATE. COLOR OF RAMP FINISH MATERIAL (INCLUDING CONCRETE) SHALL HAVE A LIGHT AND REFLECTIVE VALUE AND MUST CONTRAST SIGNIFICANTLY TO DISTINGUISH IT FROM ADJACENT SURFACES - (OR PAINT STRIPE). LANDINGS FOR RAMPS SHALL BE AS WIDE AS THE RAMP AND 60" LONG MINIMUM (36" MINIMUM FOR CURB RAMPS). RAMPS SHALL NOT EXCEED A 1:12 RUNNING SLOPE OR 30° VERTICAL RISE. RAMPS AND LANDING SHALL NOT EXCEED 1:48 (2% CROSS SLOPE).
- C. SIDEWALKS AND ACCESSIBLE ROUTES:** SIDEWALKS MUST BE AT LEAST 36" WIDE WITH A CROSS SLOPE THAT SHALL NOT EXCEED 1:48 (2%). LONGITUDINAL SLOPE OF ANY SIDEWALK (ACCESSIBLE ROUTE) SHALL NOT EXCEED 1:20 (5%).



Part # GISB-24-24-24

Flow Specifications				
Description of filter opening	Percent Open based on Screen Area	Total Square Inches per Unit	Square Inches of Total Unobstructed Openings	Flow Rate (Cubic Feet per Second)
Skimmer protected by-pass	100%	162.3	162.3	6.7 cfs
Coarse Screen 3/4" x 1-3/4" stainless steel flattened expanded	62%	143.5	89.0	4.3cfs
Medium Screen 10x10 mesh stainless steel	56%	143.5	80.4	4.3cfs
Fine screen 1/4" x 1/8" mesh stainless steel	68%	156.1	106.1	6.3cfs
THROAT FLOW RATE		TREATED FLOW RATE		
Total: 4.4 cfs		Total: 14.9cfs		

FLOW RATES BASED ON UNOBSTRUCTED OPENINGS

REMOVE GRATE REINSTALL GRATE

BOX MANUFACTURED FROM MARINE GRADE FIBERGLASS & GEL COATED FOR UV PROTECTION

5 YEAR MANUFACTURERS WARRANTY

PATENTED

ALL FILTER SCREENS ARE STAINLESS STEEL

SUNTREE TECHNOLOGIES
7800 CLEARLAKE RD, SUITE #2
COCOA, FL 32922
TEL. 321-637-2552 FAX 321-637-7554
GRATE INLET SKIMMER BOX
GISB-24-24-24
DATE: 05/20/04 SCALE: SF = 1/5
DRAFTER: N.R.B. UNITS = INCHES

LEGEND

- TC = TOP OF CURB
- TP = TOP OF PAVEMENT
- FG = FINISHED GRADE
- FF = FINISHED FLOOR
- ± = MATCH EXISTING GRADE
- GRADE BREAK
- - - - - EXISTING CONTOUR
- XXX --- PROPOSED CONTOUR
- ▨ LEVEL LANDING @ 2% MAX SLOPE IN ANY DIRECTION
- ▨ PERMEABLE BRICK PAVERS

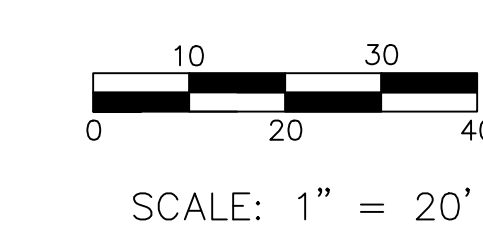
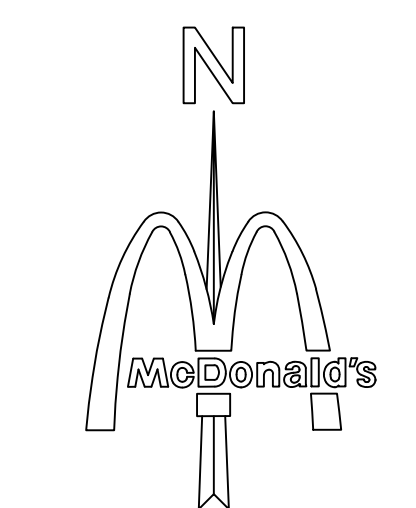
Date	Description	No.
Revisions		
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04/13/2023		
LANGAN		
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T: 817.328.3200 www.langan.com MO Certificate of Authorization No. F001330220		
Project McDONALD'S NEW PROJECT L/C 024-1290 3740 WEST SUNSHINE STREET SPRINGFIELD		
GREENE COUNTY MISSOURI		
Drawing Title GRADING PLAN		
Project No.	Drawing No.	
520054201	C7.0	
Date	DECEMBER 2022	
Drawn By	OROD	
Checked By	DWL	
Project No. 520054201		Sheet 12 of 30



W. SUNSHINE ST

LEGEND

- DRAINAGE AREA LINE
- EXISTING CONTOUR
- DRAINAGE AREA NUMBER
DRAINAGE AREA (ACRES)
- EXISTING DRAINAGE DIRECTION



PRE-DEVELOPMENT DRAINAGE AREA CALCULATIONS - FULL SITE

Drainage Area Designation	Area (ac)	Impervious Area (ac)	Pervious Area (ac)	Time of concentration (tc)	Runoff Coefficient (c)	2-Year, 24-Hour Runoff (in)	10-Year, 24-Hour Runoff (in)	25-Year, 24-Hour Runoff (in)	100-Year, 24-Hour Runoff (in)	2-Year Peak Discharge (cfs)	10-Year Peak Discharge (cfs)	25-Year Peak Discharge (cfs)	100-Year Peak Discharge (cfs)
EX-1	1.275	0.0	1.275	5	0.30	3.77	8.55	6.56	8.18	1.44	2.12	2.51	3.13

Date	Description	No.
Revisions		

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 Langan Engineering and Environmental Services, Inc.
 8951 Cypress Waters Blvd, Suite 150
 Dallas, TX 75019
 T: 817.328.3200 www.langan.com
 MO Certificate of Authorization No. F001330220

Project: **McDONALD'S NEW PROJECT**
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD

GREENE COUNTY MISSOURI
 Drawing Title

PRE-DEVELOPED DRAINAGE PLAN

Project No.	520054201	Drawing No.	C8.0
Date	DECEMBER 2022		
Drawn By	OROD		
Checked By	DWL		

811
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W. SUNSHINE ST

R.O.W. VARIES
PUBLIC
ASPHALT

A-168.11' MAP
R-4867.23' MAP
CH-168.10'
B-N7945.30' E

A-114.82' M
A-114.86' P
R-1027.50' MAP
B-114.86' P
B-388'00.37' W

STORM SEWER
TOP-1258.4
INV-1251.3

STORM SEWER
TOP-1258.4
INV-1251.3

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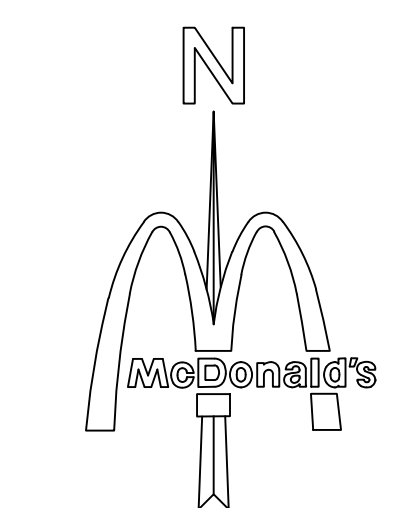
STORM SEWER
TOP-1258.4
INV-1251.3

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TOP-1258.4
INV-1251.3

STORM SEWER
TOP-1258.4
INV-1251.3

STORM SEWER
TOP-1258.4
INV-1251.3



SCALE: 1" = 20'

POST-DEVELOPMENT DRAINAGE AREA CALCULATIONS - FULL SITE

Drainage Area Designation	Area	Impervious Area	Pervious Area	Time of concentration	Runoff Coefficient	2-Year, 24-Hour Runoff	10-Year, 24-Hour Runoff	25-Year, 24-Hour Runoff	100-Year, 24-Hour Runoff	2-Year Peak Discharge	10-Year Peak Discharge	25-Year Peak Discharge	100-Year Peak Discharge
-	(ac)	(ac)	(ac)	(tc)	(c)	(in)	(in)	(in)	(in)	(cfs)	(cfs)	(cfs)	(cfs)
DA-1	0.59	0.48	0.11	5	0.90	3.77	5.55	6.56	8.18	2.00	2.94	3.48	4.34
DA-2	0.175	0.175	0.0	5	0.90	3.77	5.55	6.56	8.18	0.59	0.87	1.03	1.29
DA-3	0.51	0.41	0.10	5	0.90	3.77	5.55	6.56	8.18	1.73	2.54	3.01	3.75

STA 2+02.68 ~ STRM 1.0
CONSTR 6" PERFORATED
PIPE WITH CLEANOUT
(REF C6.0 STANDARD DETAILS)
FL 6" = 1258.72'

DA-1
0.59

STA 1+12.66 ~ STRM 1.0
CONSTR 6" PERFORATED PIPE WITH 12"x6" REDUCER
(REF C10.6 STANDARD DETAILS)
FL 6" = 1258.00'
FL 12" = 1257.50'

DA-2
0.175

McDONALD'S
BB45-97
FF 1263.00

8 LF 6" HDPE @ 1.25%
STA 1+36.65 ~ STRM 3.0
CONSTR 45' BEND
FL 6" = 1258.90'
FL 6" = 1258.90'

3 LF 6" HDPE @ 1.77%
STA 1+33.82 ~ STRM 3.0
CONSTR 45' BEND
FL 6" = 1258.85'
FL 6" = 1258.65'

DA-3
0.51

LOT 5
SPRINGFIELD PLAZA OUTLOTS
PLAT BOOK AAA, PAGE 437
3800 SUNSHINE LLC
BOOK 2018, PAGE 008723-18
PARCEL ID 1332100045

STA 0+58.62 ~ STRM 1.0
CONSTR 45' BEND
FL 12" = 1256.42'
FL 12" = 1256.42'

STA 0+42.42 ~ STRM 1.0
CONSTR 45' BEND
FL 12" = 1256.09'
FL 12" = 1256.09'

STA 0+41.79 ~ STRM 1.0
CONSTR TRENCH DRAIN
(REF C10.6 STANDARD DETAILS)
TOP = 1259.57'
FL 12" = 1256.08'
FL 12" = 1256.08'

STA 0+08.04 ~ STRM 1.0
CONSTR TRENCH DRAIN
(REF C10.6 STANDARD DETAILS)
TOP = 1259.19'
FL 12" = 1255.41'
FL 12" = 1255.41'

STA 0+00.00 ~ STRM 1.0
CONSTR 3'x3' JUNCTION BOX
(REF C10.6 STANDARD DETAILS)
TOP = 1259.63'
FL 24" RCP (OUT)=1251.85 (APPROX.)
FL 12" NE = 1255.25'
FL 12" SE = 1255.75'

STA 0+05.46 ~ STRM 1.0
CONSTR 45' BEND
FL 12" = 1255.36'
FL 12" = 1255.36'

5 LF 12" HDPE @ 2.00%
STA 0+19.91 ~ STRM 2.0
CONSTR 45' BEND
FL 12" = 1256.00'
FL 12" = 1256.00'

STA 0+13.15 ~ STRM 3.0
CONSTR 45' BEND
FL 6" = 1257.50'
FL 6" = 1257.50'

STA 1+31.00 ~ STRM 2.0
CONSTR 2'x2' GRATE INLET
(REF C10.6 STANDARD DETAILS)
TOP = 1259.75'
FL 12" = 1257.50'

STA 0+91.27 ~ STRM 2.0
STA 0+00.00 ~ STRM 3.0
CONSTR 12"x6" WYE
FL 6" = 1257.30'
FL 12" = 1256.80'
FL 12" = 1256.80'

W. WASHITA ST.

60.0' R.O.W.
PUBLIC
ASPHALT

LEGEND

- DRAINAGE AREA LINE
- XXX --- EXISTING CONTOUR
- XXX --- PROPOSED CONTOUR
- X XXX DRAINAGE AREA NUMBER
- XXX DRAINAGE AREA (ACRES)
- PERVIOUS AREA
- PERMEABLE BRICK PAVERS

Date	Description	No.
Revisions		

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04/14/2023
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DAVID KORTE
NUMBER
PE-2022042426

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Project
**McDONALD'S
NEW PROJECT
L/C 024-1290
3740 WEST SUNSHINE STREET
SPRINGFIELD**

GREENE COUNTY MISSOURI
Drawing Title

**POST-DEVELOPED
DRAINAGE PLAN**

Project No. 520054201	Drawing No. C8.1
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	
Sheet 14 of 30	

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WATER PIPE MATERIAL SPECIFICATIONS

3/4", 1.5", 2" - TYPE "K" COPPER
6", 8" - C900 DR 18 PVC

ALL WATER LINES MUST BE INSTALLED 48" BELOW FINISH GRADE.

WATER LINES SHALL BE INSTALLED ABOVE SEWER LINES WHEN POSSIBLE.

WATER LINES SHALL HAVE 2" VERTICAL CLEARANCE AT SANITARY SEWER CROSSINGS.

SANITARY SEWERLINE MATERIAL SPECIFICATIONS

ALL SANITARY SEWER PIPE TO BE SDR-35

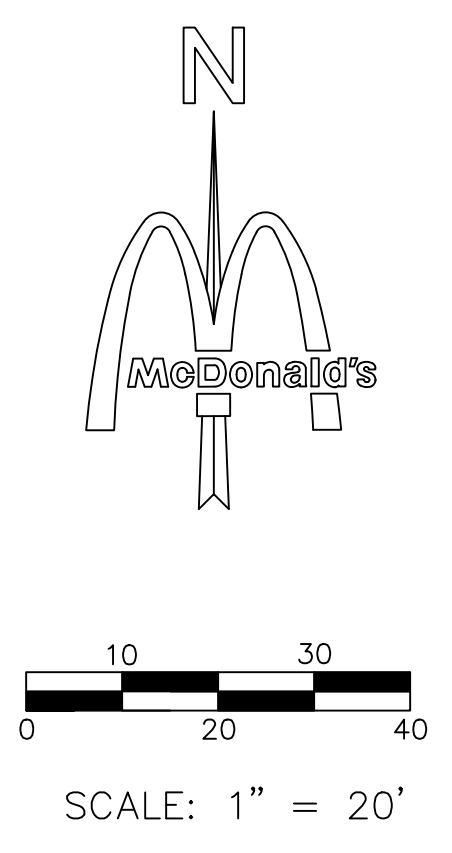
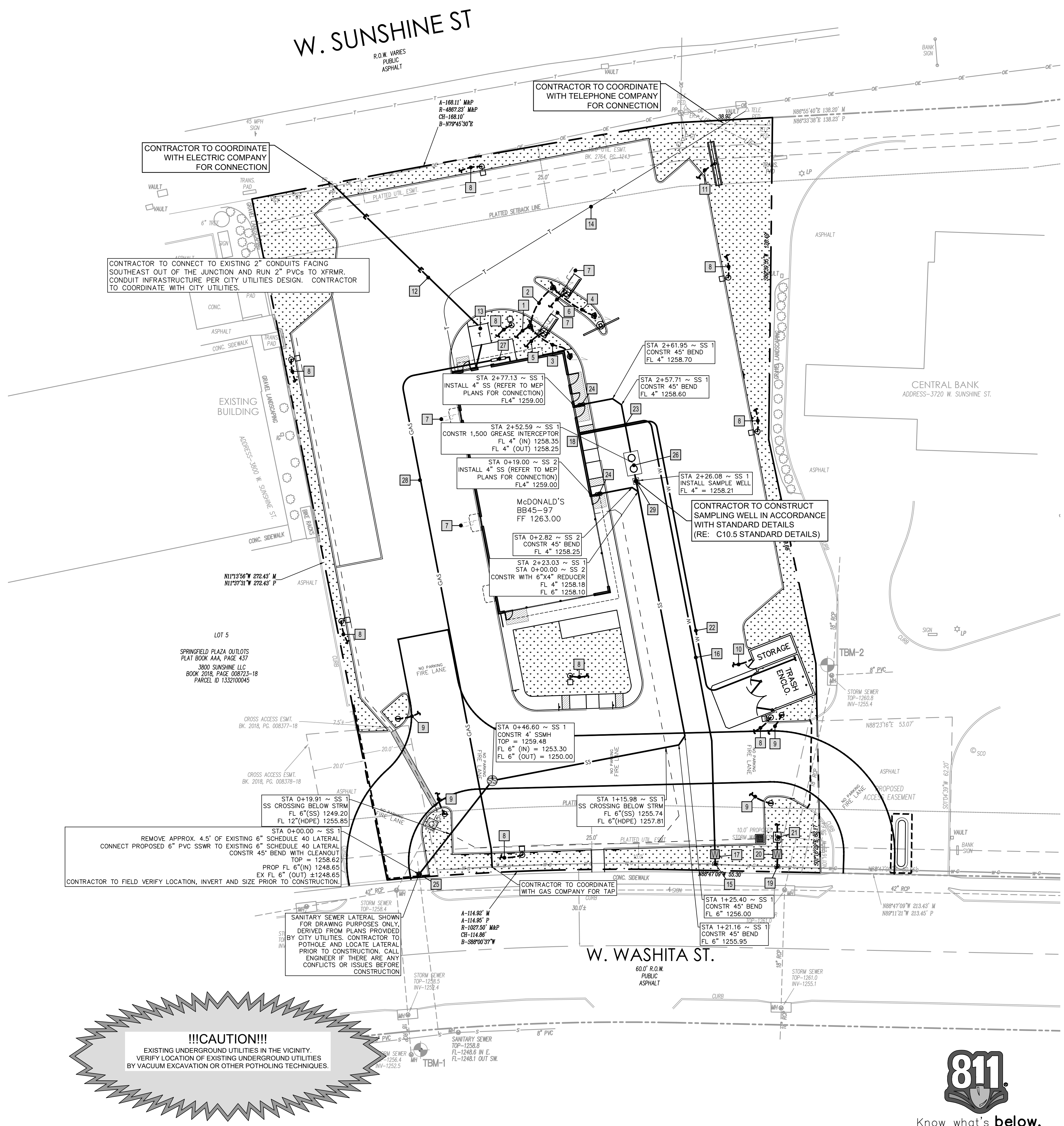
UTILITY CONTACTS

CITY OF SPRINGFIELD
CONTACT: MATT TAYLOR
PHONE: (417) 864-1000

CITY UTILITIES (WATER, GAS, ELECTRIC)
CONTACT: JOSH CAREY
PHONE: (417) 831-8816

AT&T (TELEPHONE)
CONTACT: CINDY JEFFERS
PHONE: (417) 836-7383

MARK	MARK DESCRIPTION
1	(1) 2" PVC CONDUIT (FOR CAT6 DATA CABLES FROM BUILDING) AND (1) 3/4" PVC CONDUIT FROM PANEL CP TO MENU BOARD #1
2	(1) 1-1/4" PVC CONDUIT (FOR CAT6 DATA CABLES FROM BUILDING) AND (1) 3/4" PVC CONDUIT FROM MENU BOARD #1 TO MENU BOARD #2
3	(1) 1" PVC CONDUIT (FOR CAT 6 DATA CABLES FROM BUILDING) AND (1) 3/4" PVC CONDUIT FROM MENU BOARD #1 TO PRE-BROWSE BOARD #1
4	(1) 1" PVC CONDUIT (FOR CAT6 DATA CABLES FROM BUILDING) AND (1) 3/4" PVC CONDUIT FROM MENU BOARD #2 TO PRE-BROWSE BOARD #2
5	(2) 1-1/2" PVC CONDUITS (ONE EACH FOR C0D1 DATA AND LOOP DETECTOR), AND (1) 1/2" STEEL CONDUIT (FROM PANEL CP AND PANEL LP TO C0D1)
6	(2) 1-1/2" PVC CONDUITS (ONE EACH FOR C0D2 DATA AND LOOP DETECTOR), AND (1) 1/2" STEEL CONDUIT (FROM PANEL CP AND PANEL LP TO C0D2)
7	1- 1/2" SLEEVE FOR VEHICLE LOOP DETECTOR
8	1" CONDUIT WITH WIRE TO/FROM SITE LIGHTING
9	1/2" CONDUIT WITH WIRE TO DIRECTIONAL SIGN
10	3/4" CONDUIT WITH WIRE TO TRASH ENCLOSURE / STORAGE BUILDING
11	3/4" CONDUIT WITH WIRE TO ROAD SIGN
12	UNDERGROUND ELECTRICAL SERVICE TO TRANSFORMER (GC TO VERIFY ROUTE, NUMBER & SIZE OF CONDUITS W/ CITY UTILITIES.)
13	PROPOSED PRIMARY JUNCTION PER CITY UTILITIES
14	UNDERGROUND TELEPHONE/INTERNET SERVICE TO SITE - (2) 4" CONDUITS (GC TO VERIFY ROUTE, NUMBER & SIZE OF CONDUITS W/ TELE. CO.)
15	INSTALL 8" X 2" TAPPING SLEEVE AND VALVE ASSEMBLY FOR DOMESTIC SERVICE LINE TO BUILDING
16	2" DOMESTIC WATER LINE TO BUILDING
17	2" DOMESTIC WATER METER (PER LOCAL CODES)
18	2" DOMESTIC BACKFLOW PREVENTION DEVICE IN BUILDING (PER LOCAL CODES)
19	INSTALL 8" X 1" TEE WITH 1" VALVE FOR IRRIGATION SERVICE TO SITE
20	1" IRRIGATION METER (PER LOCAL CODES)
21	1" IRRIGATION BACKFLOW PREVENTION DEVICE (PER LOCAL CODES)
22	3/4" WATER SERVICE TO TRASH ENCLOSURE FOR HOSE BIB
23	CONTRACTOR TO MAINTAIN 2' VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER LINE CROSSINGS
24	TWO-WAY SANITARY SEWER CLEANOUT WITH CAST IRON COVER (H-20 RATED WHEN IN PAVED AREAS)
25	SINGLE SANITARY SEWER CLEANOUT WITH CAST IRON COVER (H-20 RATED WHEN IN PAVED AREAS)
26	1,500 GALLON GREASE TRAP (PER LOCAL CODES)
27	PROPOSED GAS METER (VERIFY USAGE W/ ACM) (GC TO VERIFY LOCATION W/ GAS COMPANY)
28	GAS SERVICE LINE TO BUILDING (VERIFY USAGE W/ ACM) (GC TO VERIFY ROUTE & SIZE W/ GAS COMPANY)
29	PROPOSED SAMPLE WELL (RE: C10.5 STANDARD DETAILS)



Date	Description	No.
Revisions		

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MO Certificate of Authorization No. F001330220

Project **McDONALD'S NEW PROJECT L/C 024-1290 3740 WEST SUNSHINE STREET SPRINGFIELD**

GREENE COUNTY MISSOURI
Drawing Title

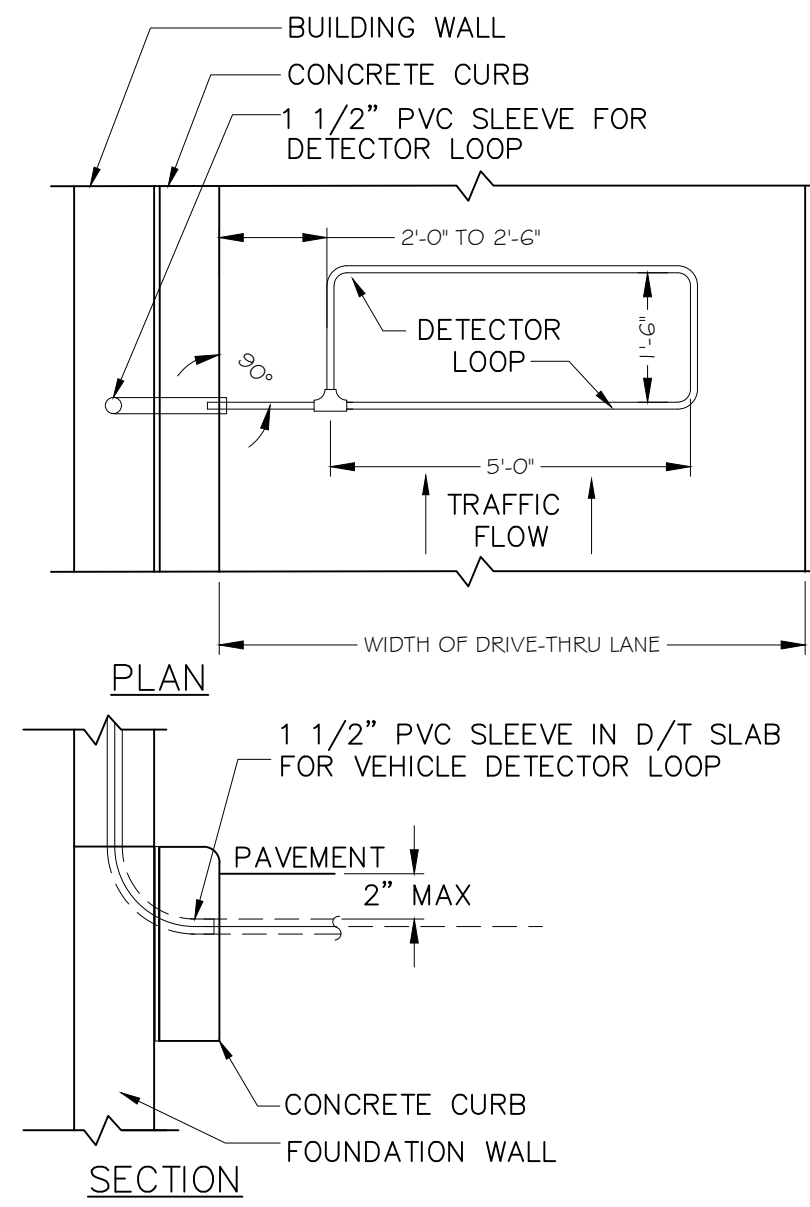
UTILITY PLAN

Project No.	520054201	Drawing No.	C9.0
Date	DECEMBER 2022	Drawn By	OROD
Checked By	DWL	Sheet 15 of 30	

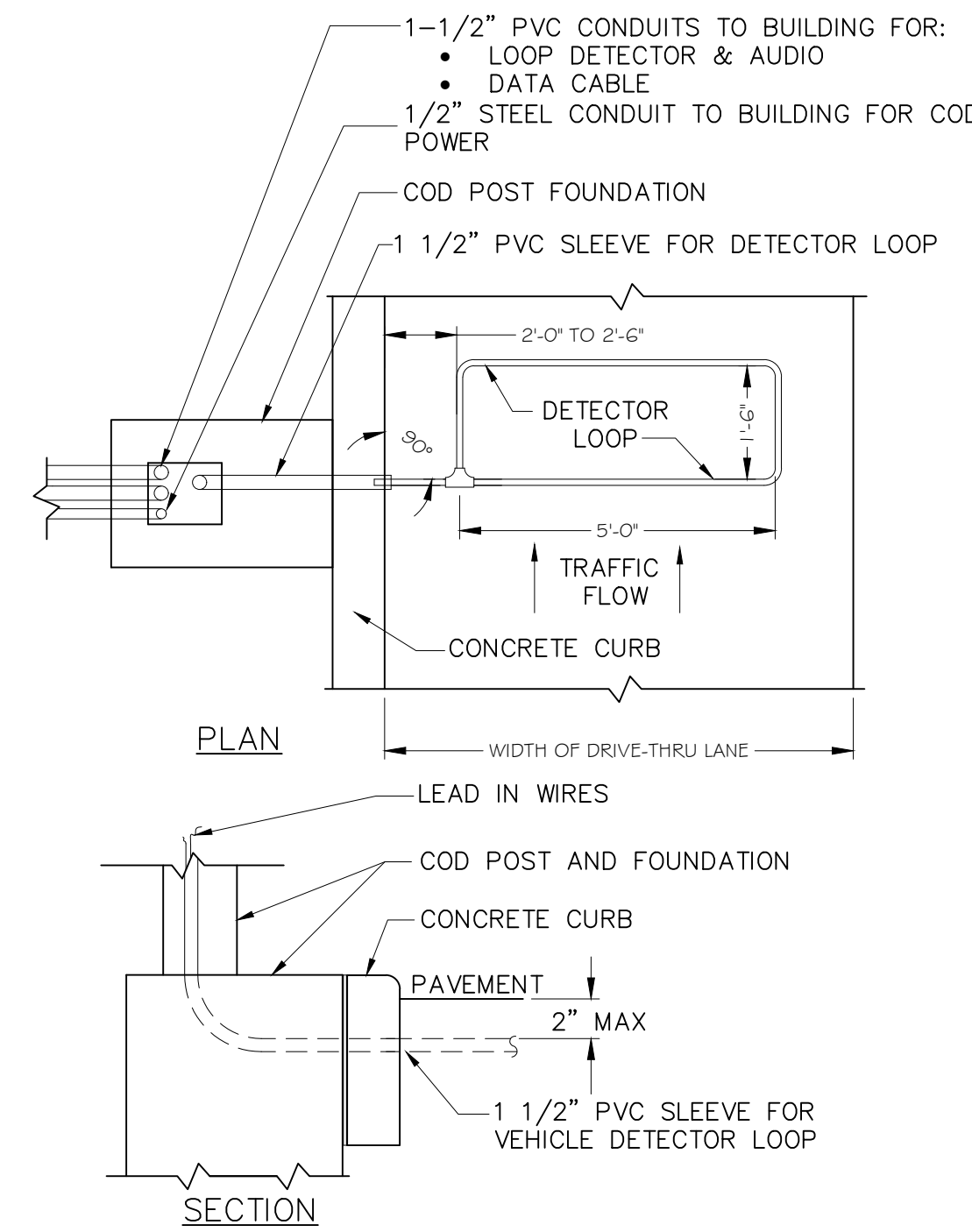


NOTES:

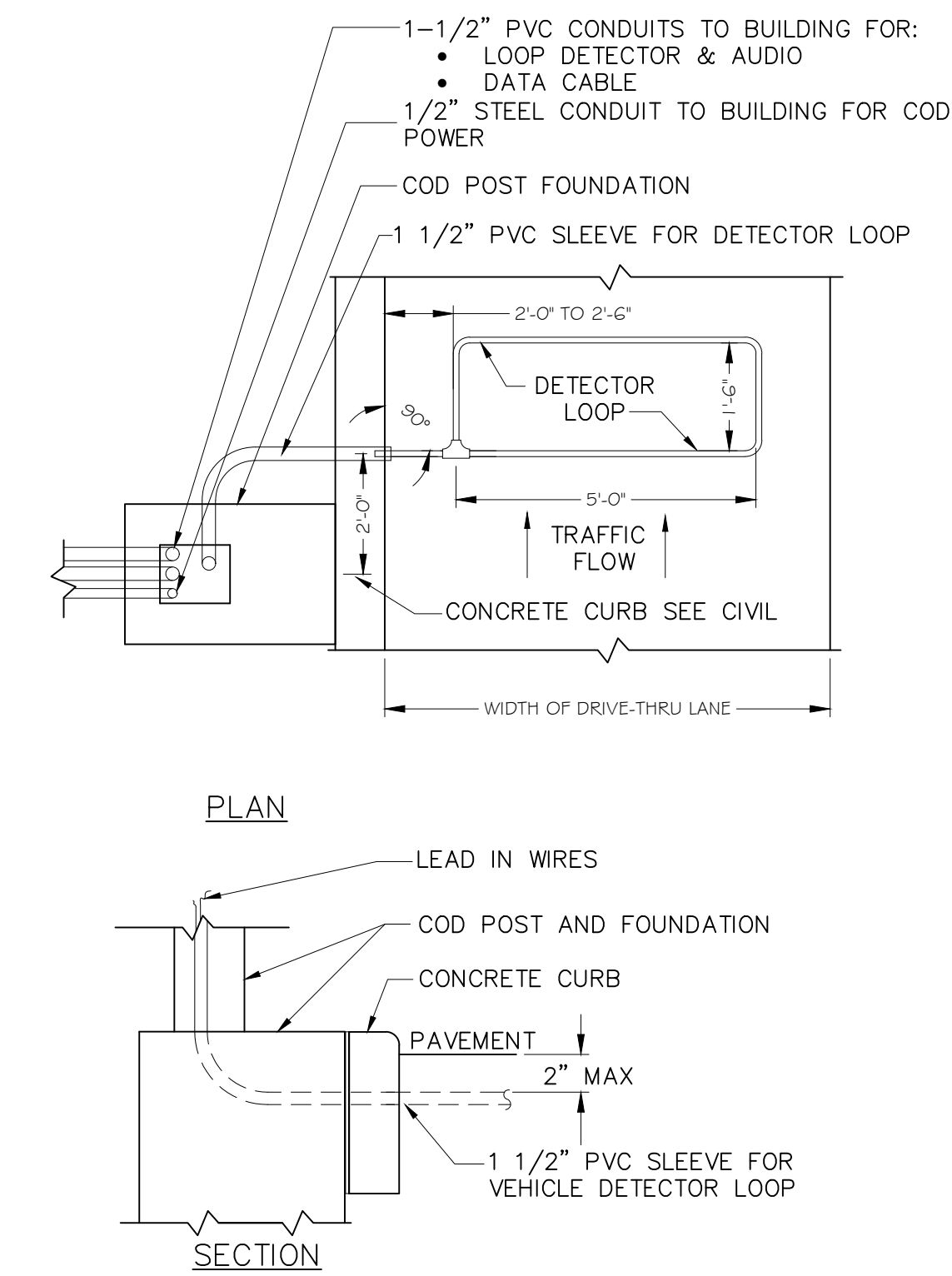
1. VERIFY CONDUIT SIZES AND LAYOUT WITH DETECTOR LOOP MANUFACTURER.
2. CENTER VEHICLE DETECTOR LOOP IN DRIVE THRU LANE. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
3. NO STEEL (REBAR OR ELECTRICAL WIRE) SHALL BE USED WITHIN 2' OF LOOP.
4. DETECTOR LOOP MANUFACTURERS: DETECTOR LOOPS MAY BE BY ONE OF THE FOLLOWINGS COMPANIES OR EQUAL.
3M: 1-800-328-0033
HME: 1-800-848-4468
5. DETECTOR LOOP MATERIAL:
PVC TUBING 1/2" I.D. 100 PSI MADE FROM ONE LENGTH OF THIN FOURTEEN GAUGE STRANDED WIRE. LEAD-IN IS PRE-TWISTED AT FACTORY.
6. DETECTOR LOOP CONSTRUCTION:
FORMED WITH ONE CONTINUOUS LENGTH OF PVC WITH NO SHARP CORNERS AS DETAILED. WIRE LOOPED, FORMED, & PIGTAILED AS DETAILED.



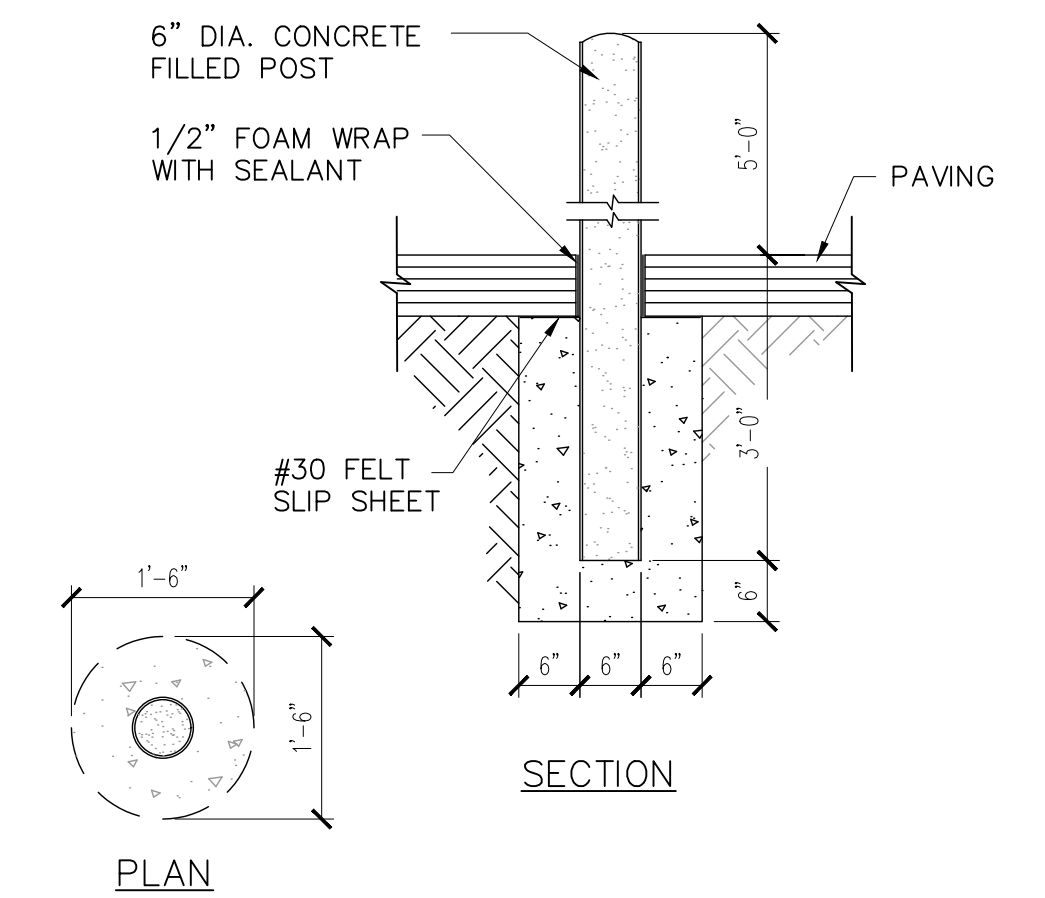
DETECTOR LOOP DETAIL AT DRIVE-THRU WINDOW
NOT TO SCALE



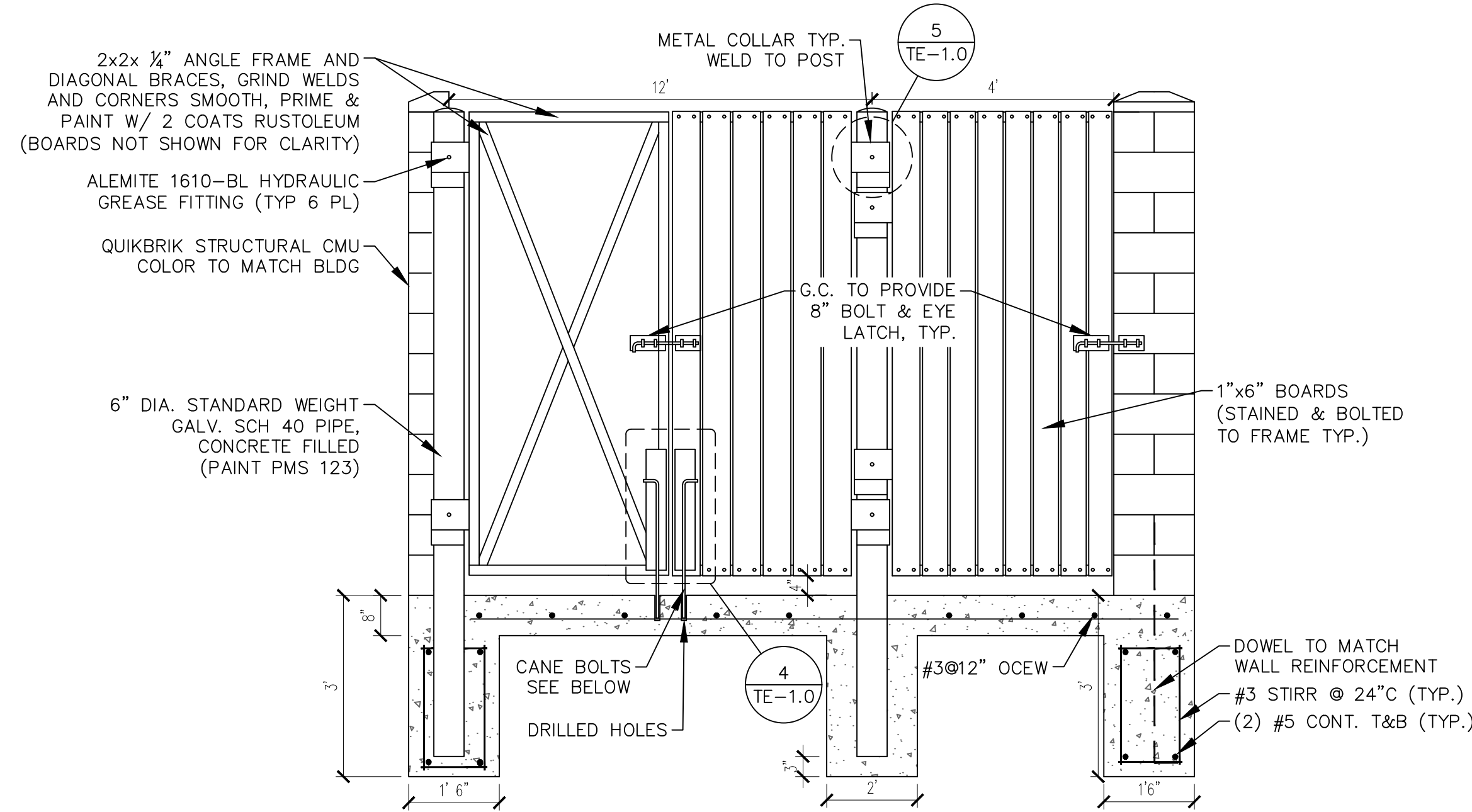
PRIMARY LANE DETECTOR LOOP DETAIL AT C.O.D.
NOT TO SCALE



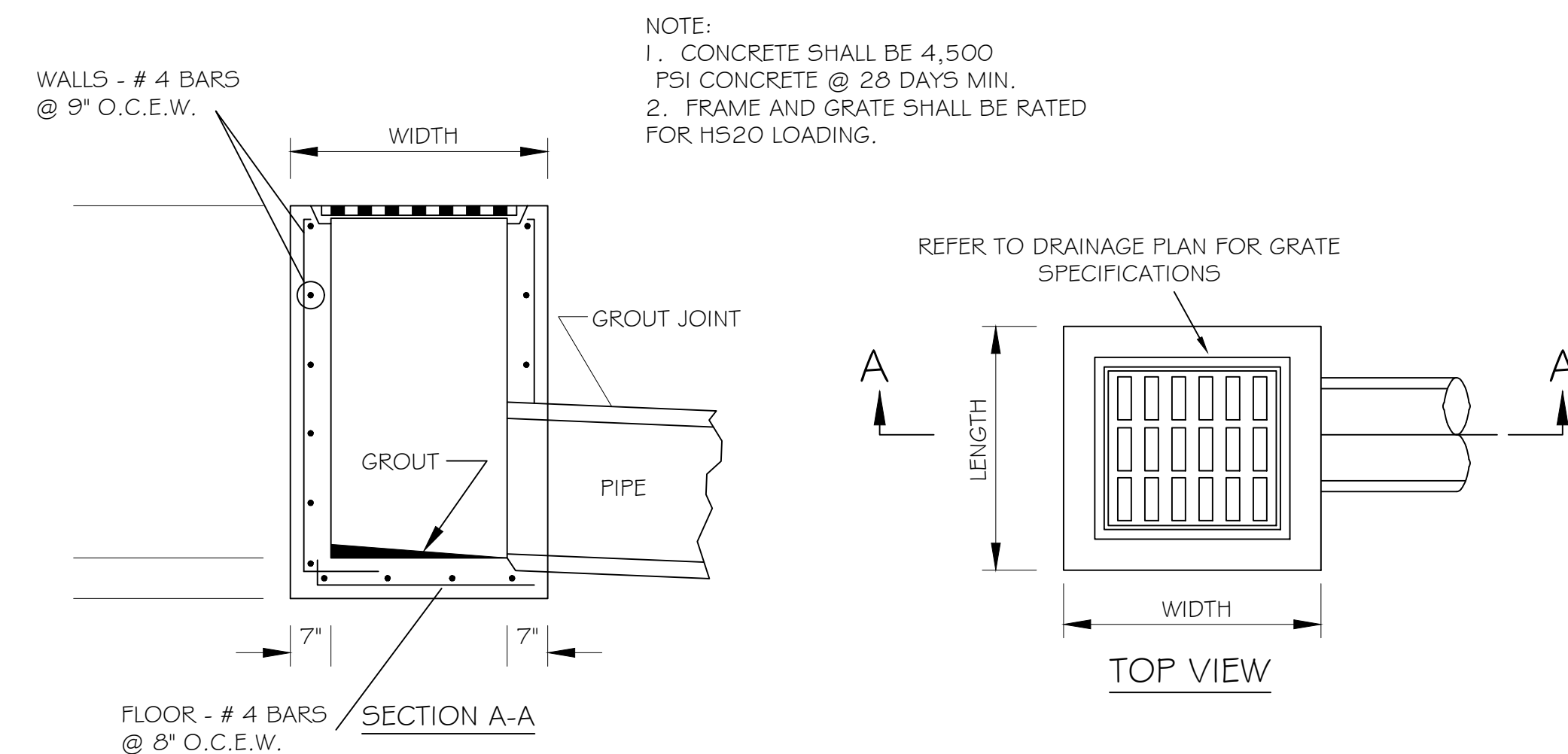
SECONDARY LANE DETECTOR LOOP DETAIL AT C.O.D.
NOT TO SCALE



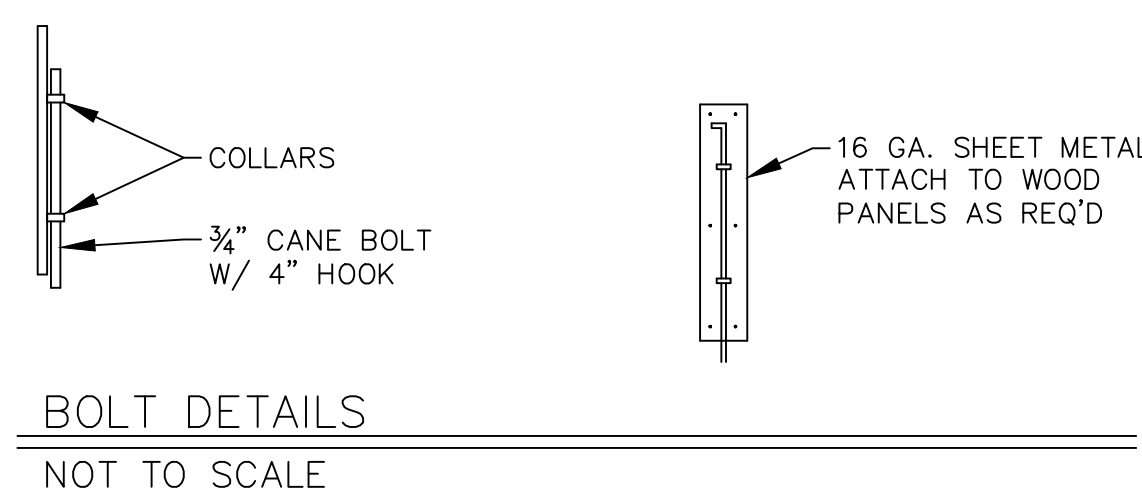
D/T POST FOOTING (BOLLARD) DETAIL
NOT TO SCALE



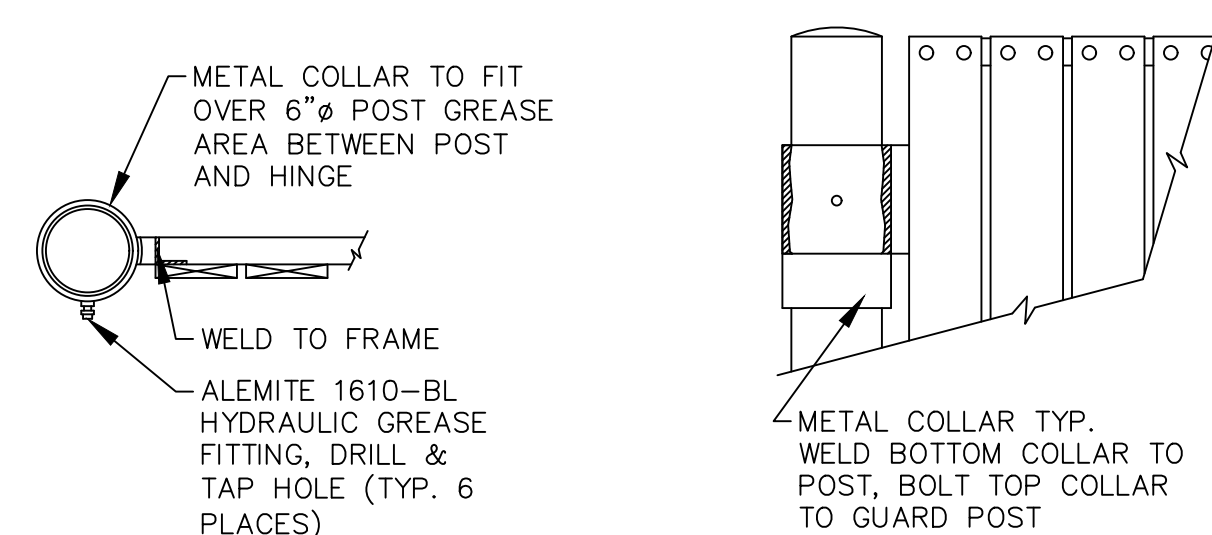
TRASH ENCLOSURE GATE AND MOUNTING DETAILS
NOT TO SCALE



TYPICAL GRATE INLET DETAIL
N.T.S.



BOLT DETAILS
NOT TO SCALE

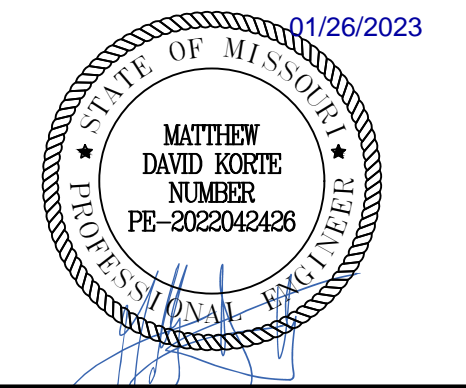


HINGE DETAILS
NOT TO SCALE

Date	Description	No.
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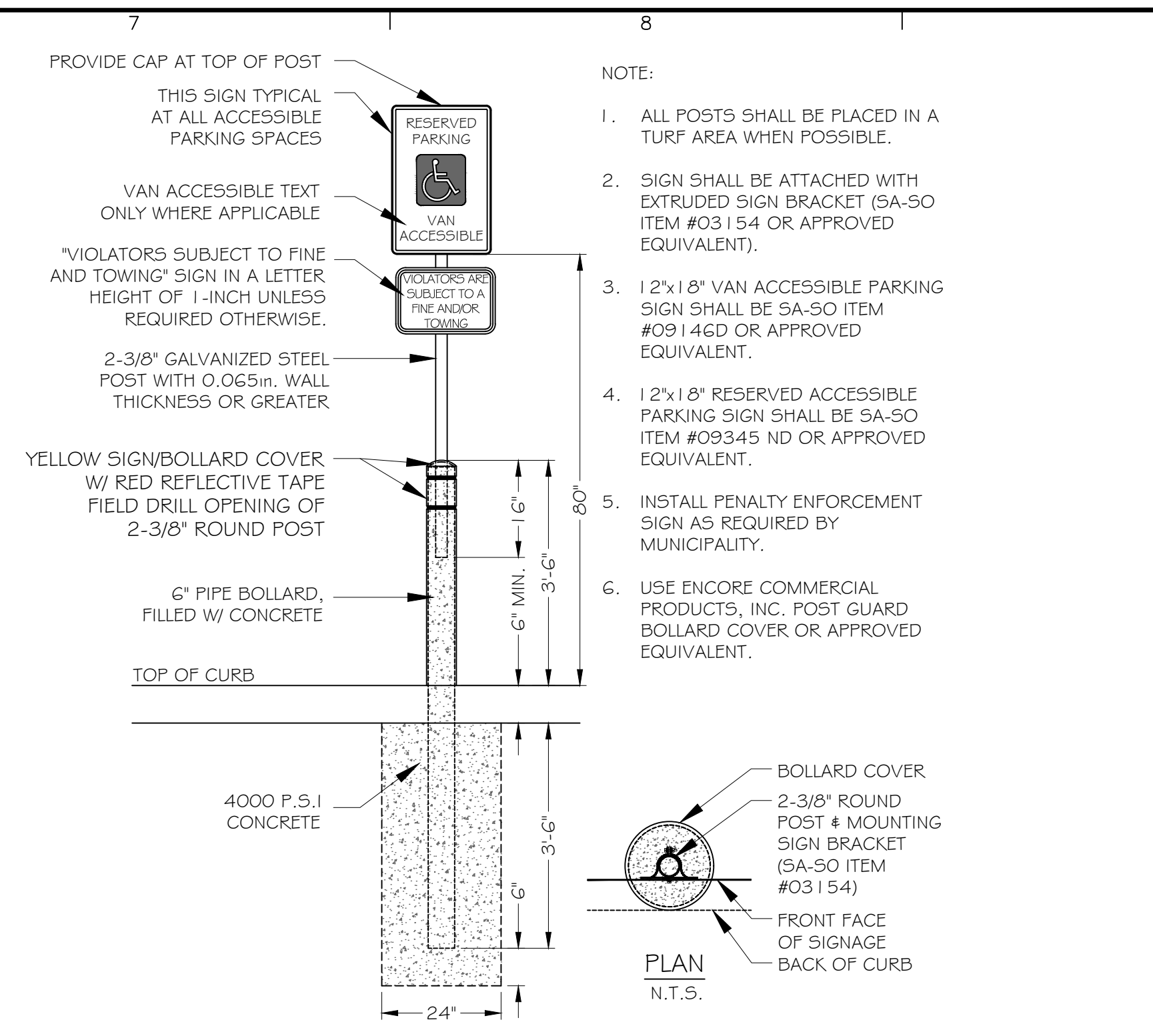
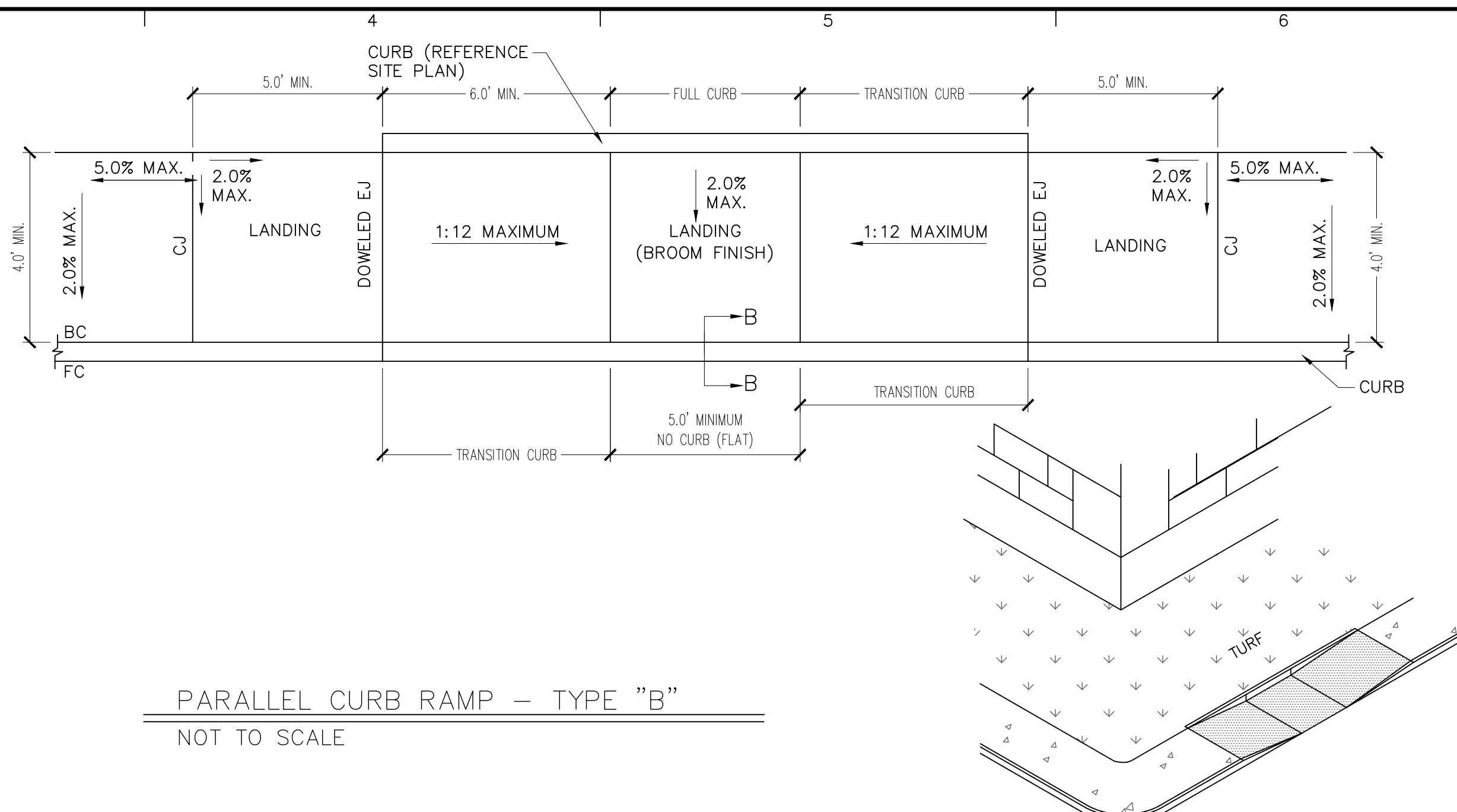
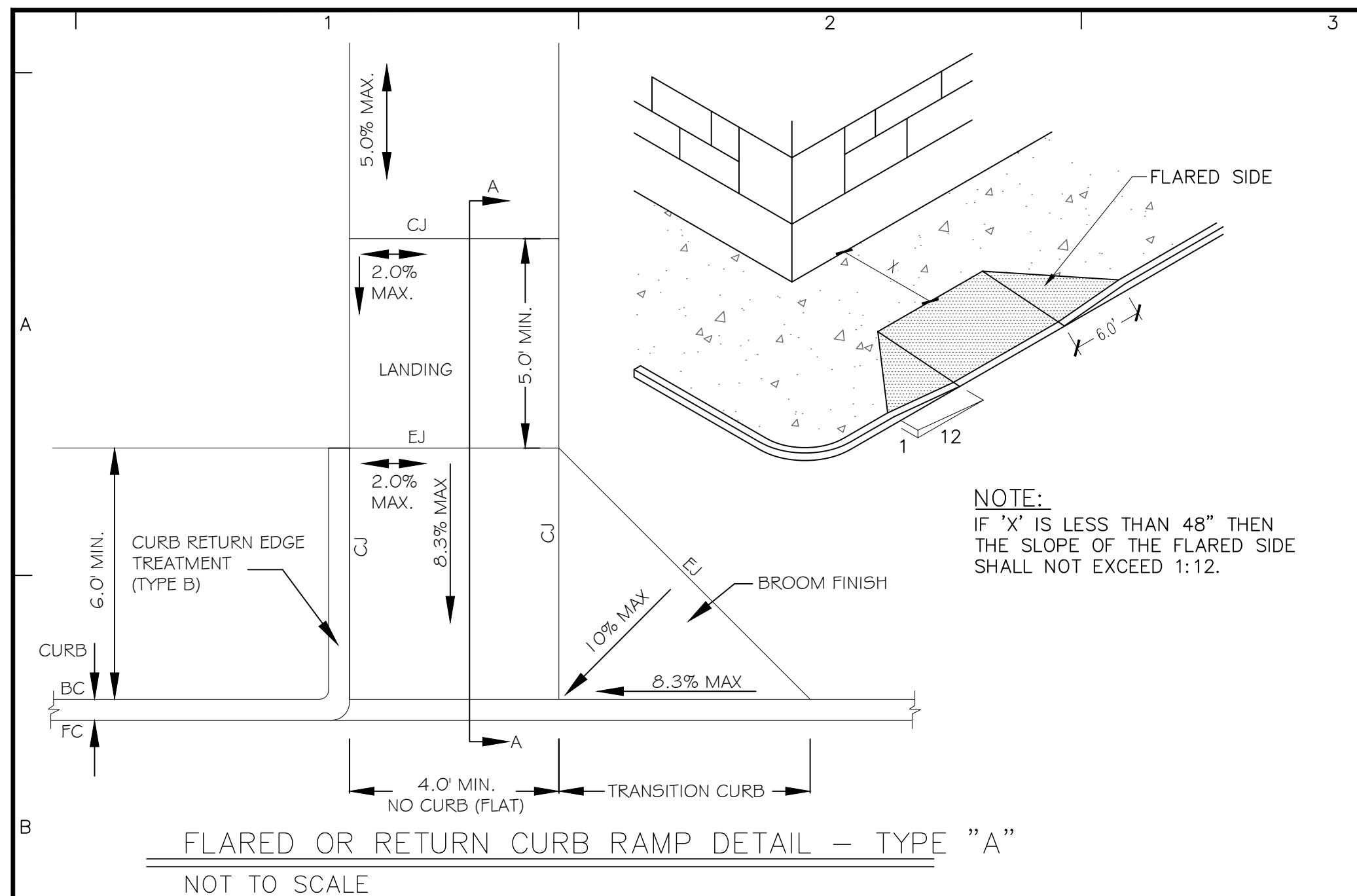
T: 817.328.3200 www.langan.com
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Project **McDONALD'S NEW PROJECT**
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD

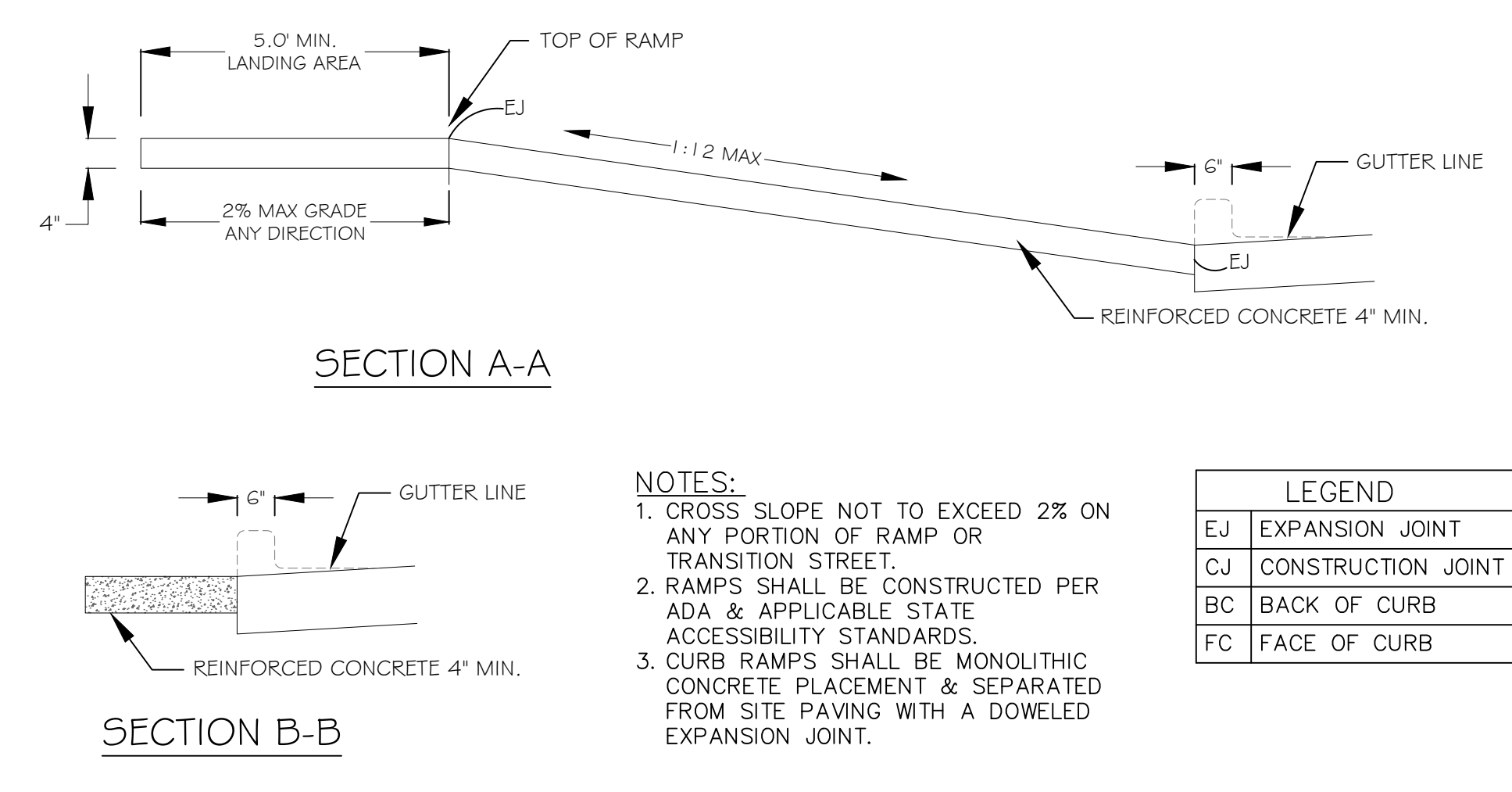
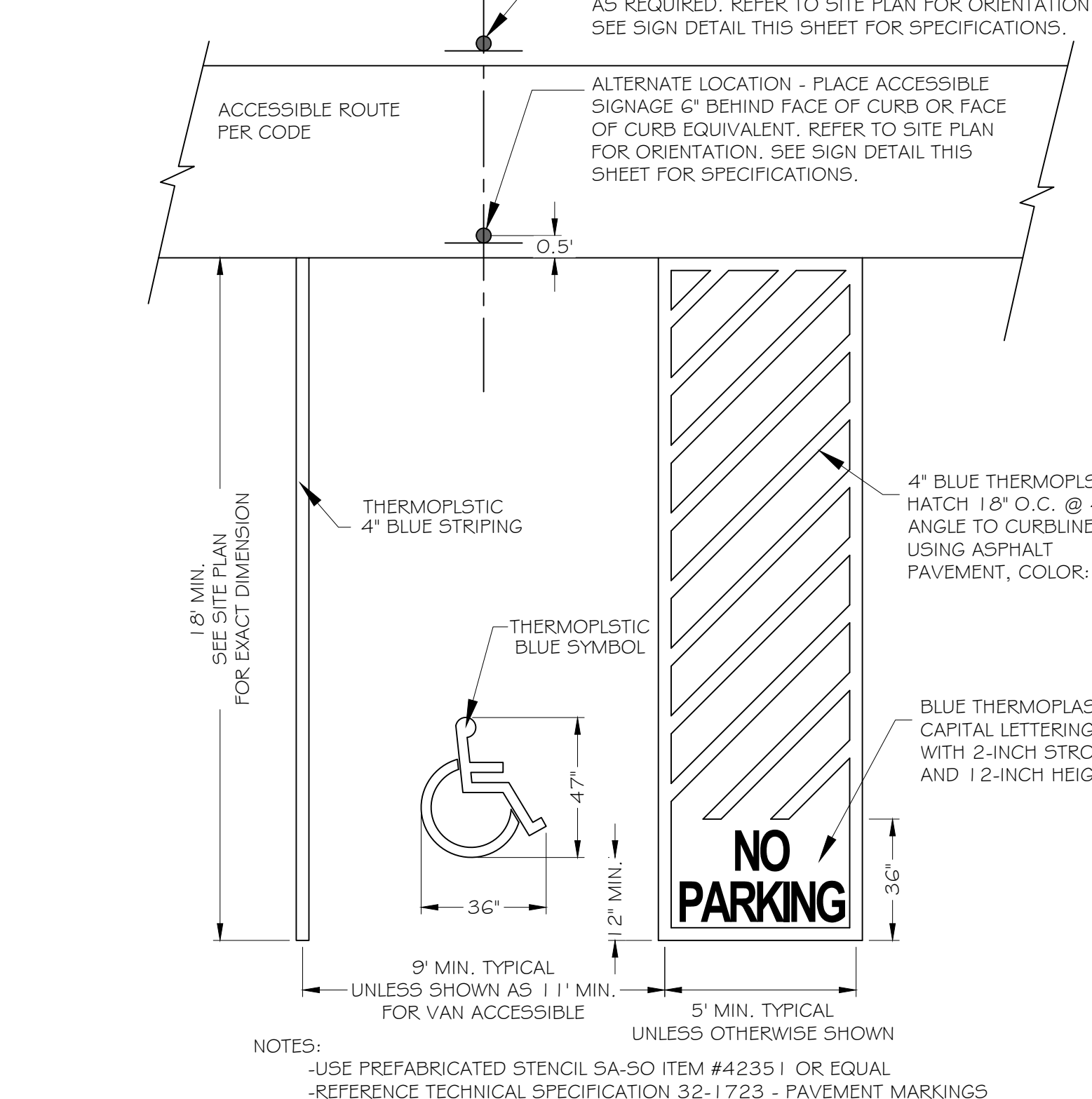
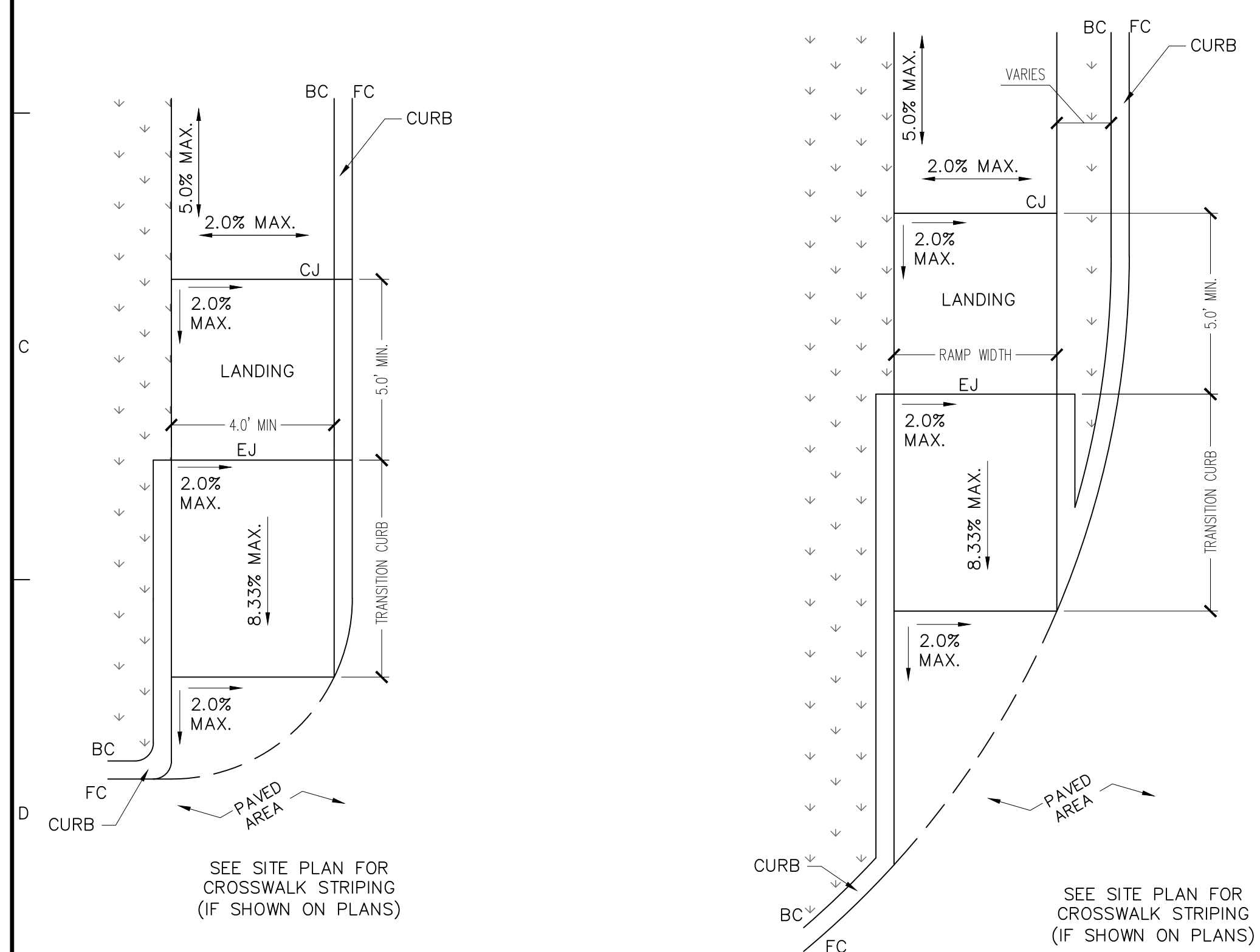
GREENE COUNTY MISSOURI
Drawing Title

STANDARD DETAILS

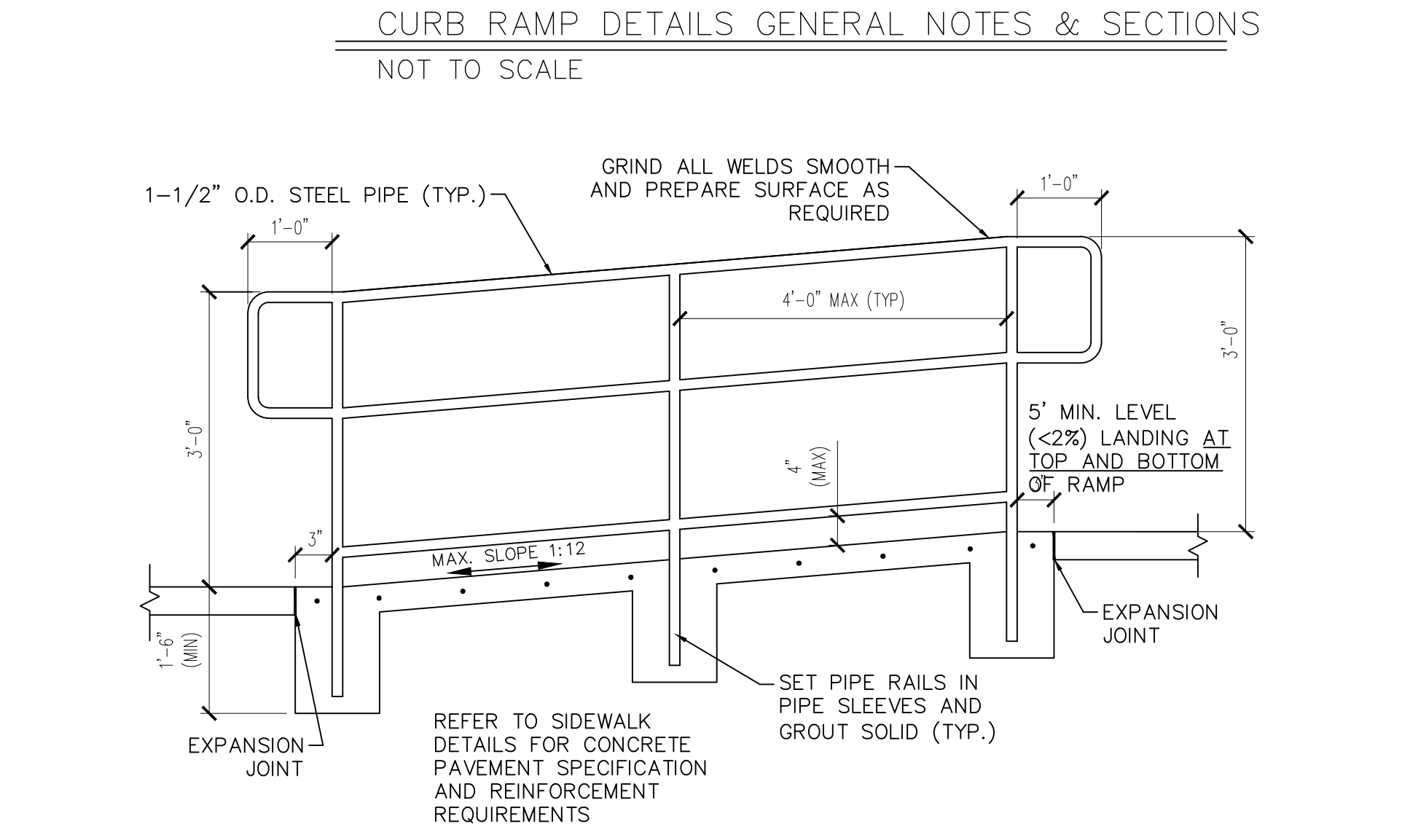
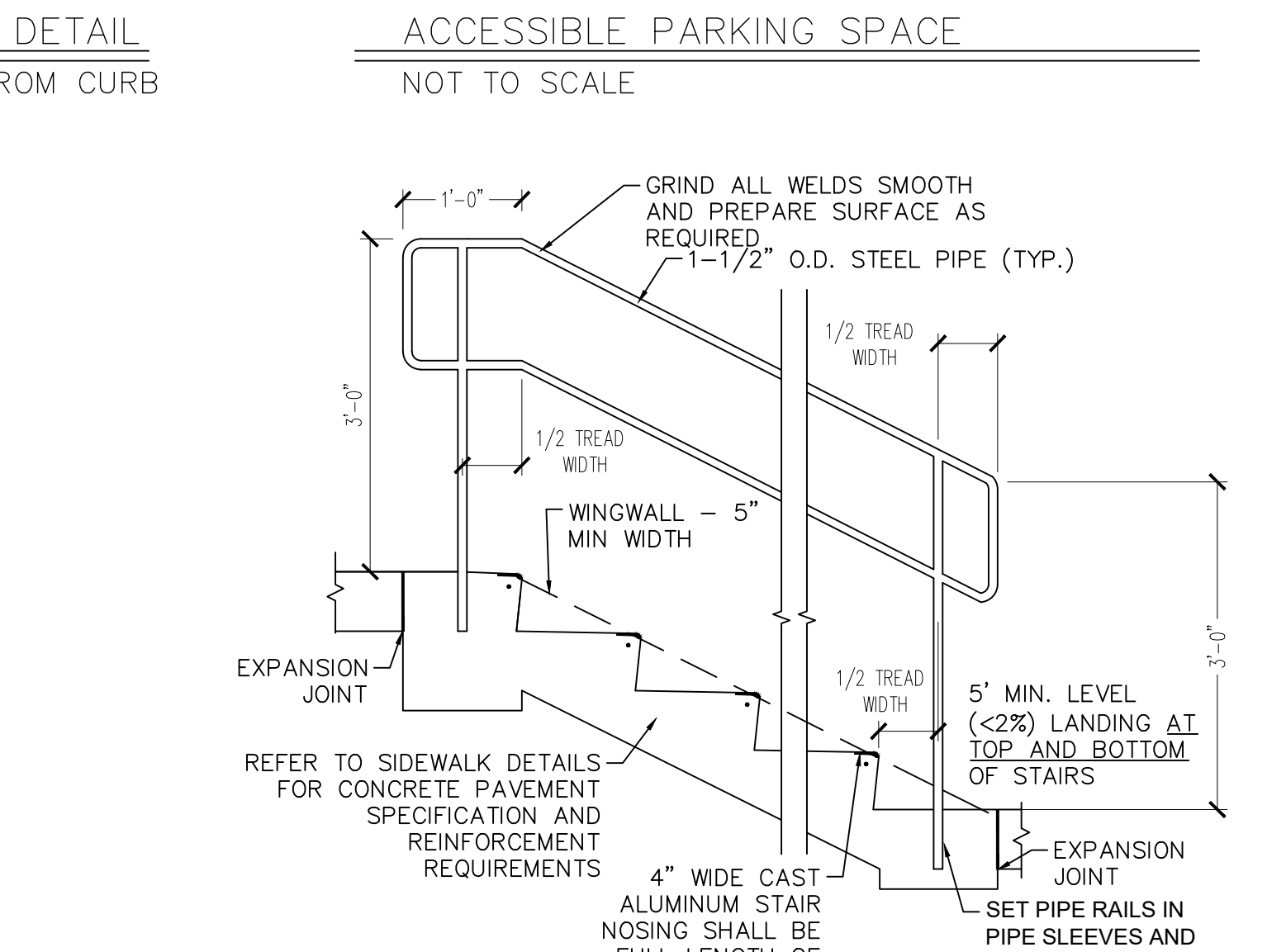
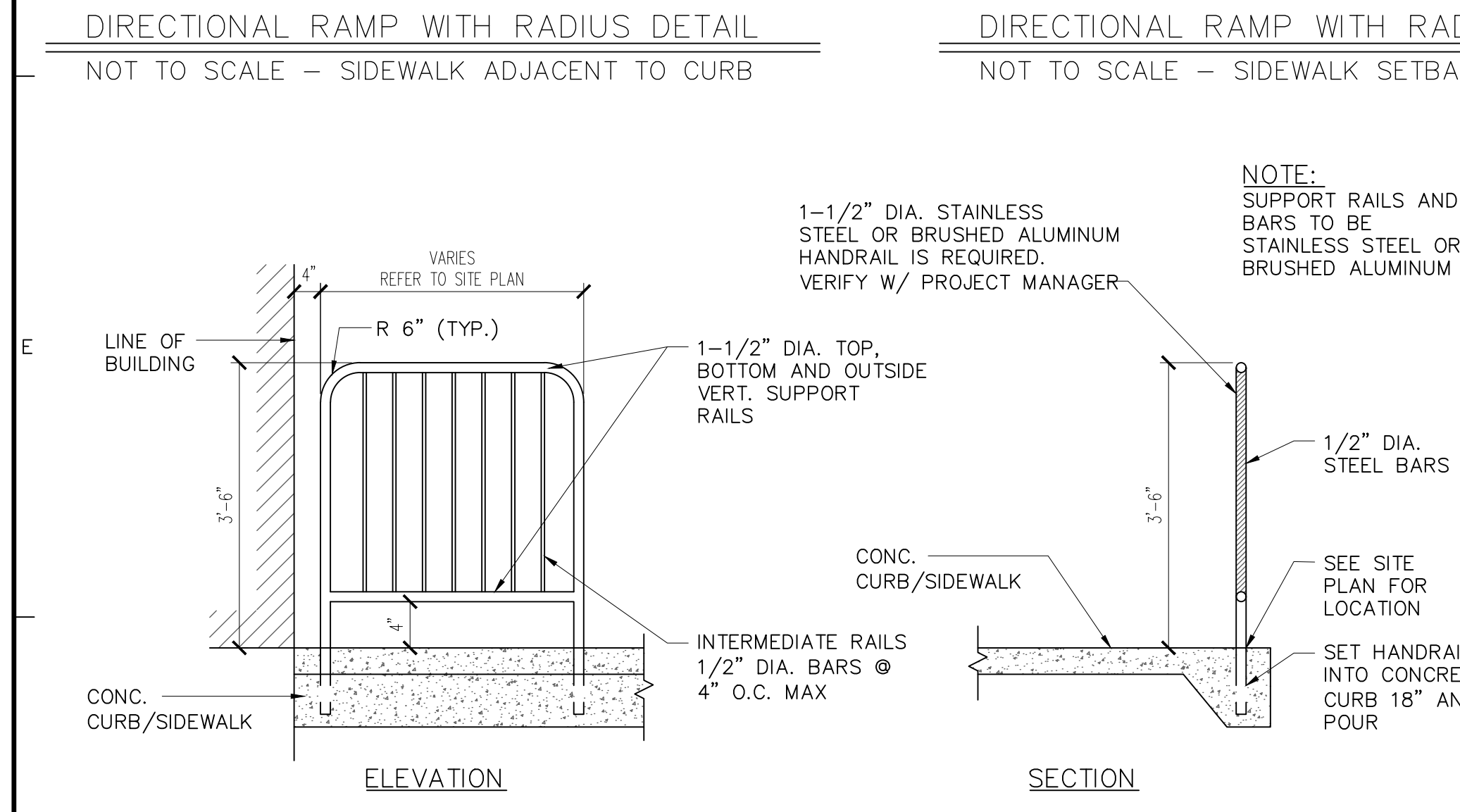
Project No. 520054201	Drawing No. C10.0
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	
Sheet 15 of 29	



- NOTE:
- ALL POSTS SHALL BE PLACED IN A TURF AREA WHEN POSSIBLE.
 - SIGN SHALL BE ATTACHED WITH EXTRUDED SIGN BRACKET (5A-50 ITEM #03154 OR APPROVED EQUIVALENT).
 - 12"x18" VAN ACCESSIBLE PARKING SIGN SHALL BE 5A-50 ITEM #09146D OR APPROVED EQUIVALENT.
 - 12"x18" RESERVED ACCESSIBLE PARKING SIGN SHALL BE 5A-50 ITEM #09345 ND OR APPROVED EQUIVALENT.
 - INSTALL PENALTY ENFORCEMENT SIGN AS REQUIRED BY MUNICIPALITY.
 - USE ENCORE COMMERCIAL PRODUCTS, INC. POST GUARD BOLLARD COVER OR APPROVED EQUIVALENT.



- NOTES:
- CROSS SLOPE NOT TO EXCEED 2% ON ANY PORTION OF RAMP OR TRANSITION STREET.
 - RAMPS SHALL BE CONSTRUCTED PER ADA & APPLICABLE STATE ACCESSIBILITY STANDARDS.
 - CURB RAMPS SHALL BE MONOLITHIC CONCRETE PLACEMENT & SEPARATED FROM SITE PAVING WITH A DOWELED EXPANSION JOINT.
- LEGEND
- | | |
|----|--------------------|
| EJ | EXPANSION JOINT |
| CJ | CONSTRUCTION JOINT |
| BC | BACK OF CURB |
| FC | FACE OF CURB |



Date	Description	No.
Revisions		

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1/26/2023

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NUMBER
PB-2022042426

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MO Certificate of Authorization No. F001330220

Project

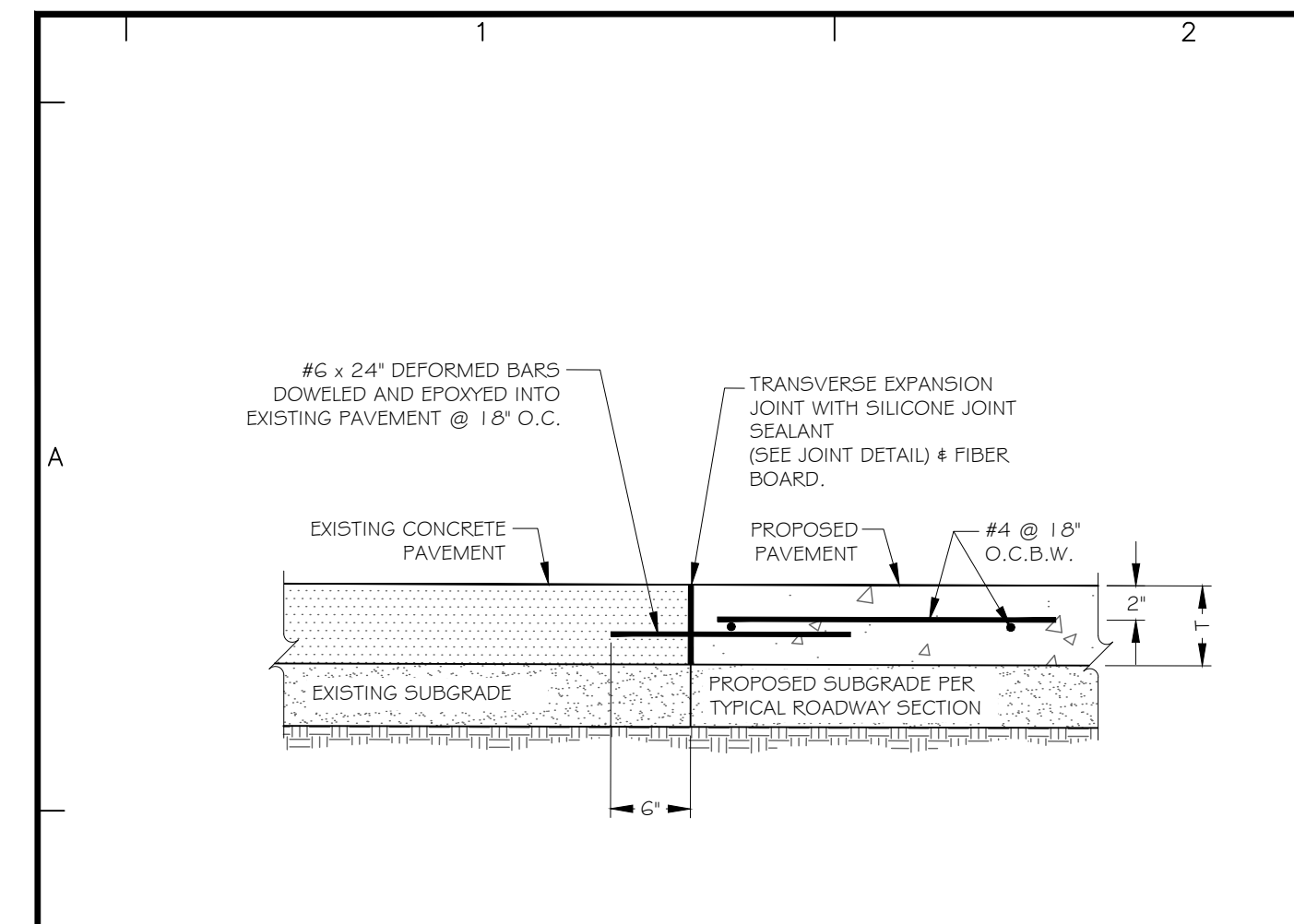
McDONALD'S NEW PROJECT
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD

GREENE COUNTY MISSOURI

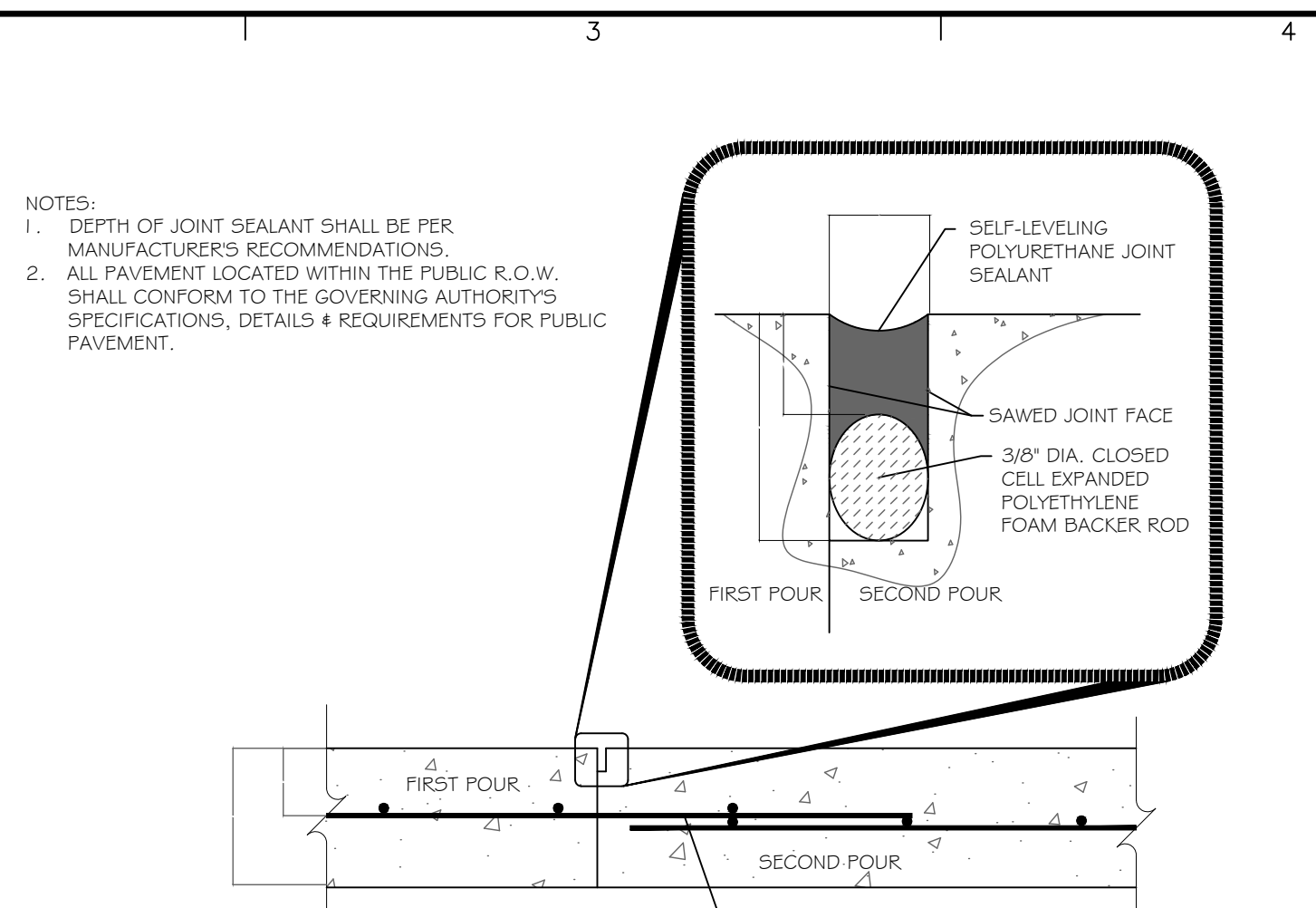
Drawing Title

STANDARD DETAILS

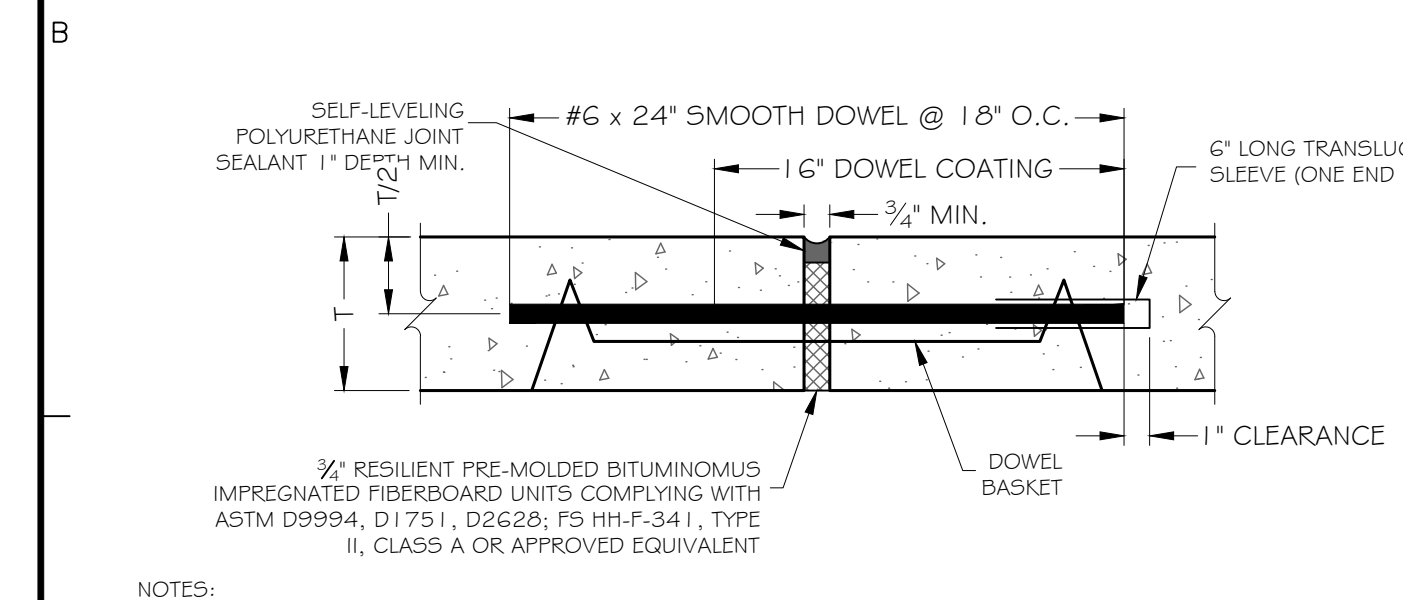
Project No.	520054201	Drawing No.	C10.1
Date	DECEMBER 2022	Sheet 16 of 29	
Drawn By	OROD		
Checked By	DWL		



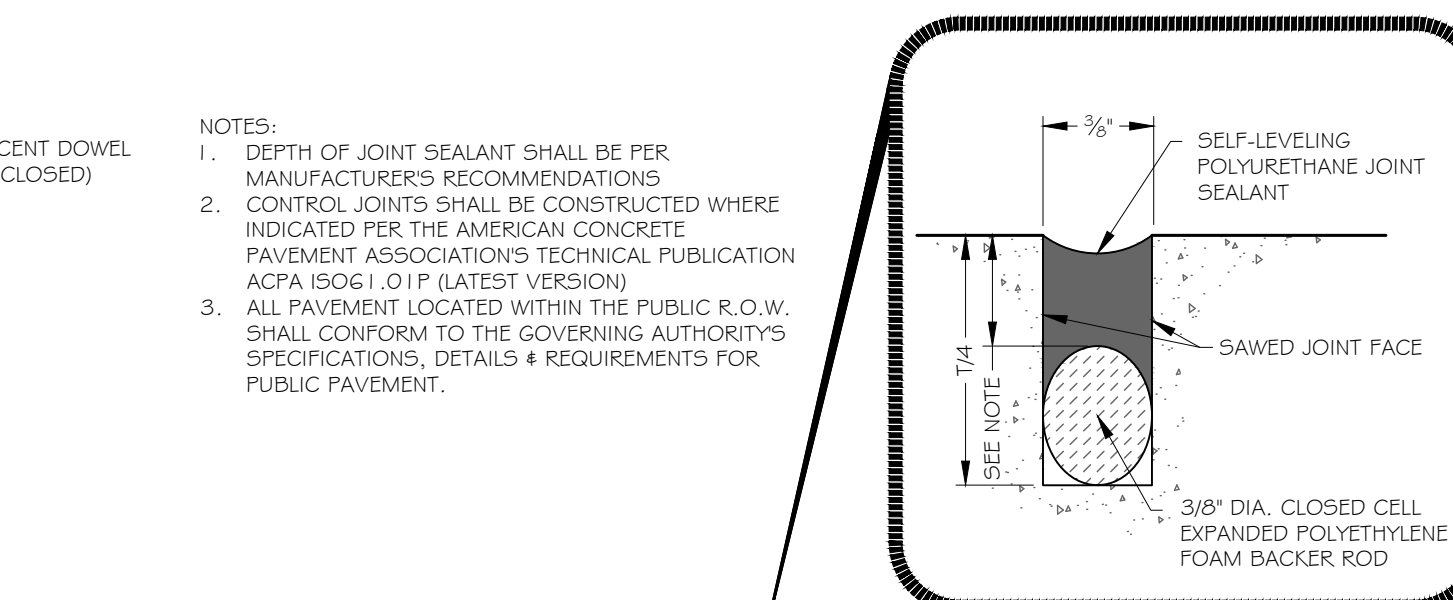
TRANSVERSE EXPANSION JOINT
NOT TO SCALE



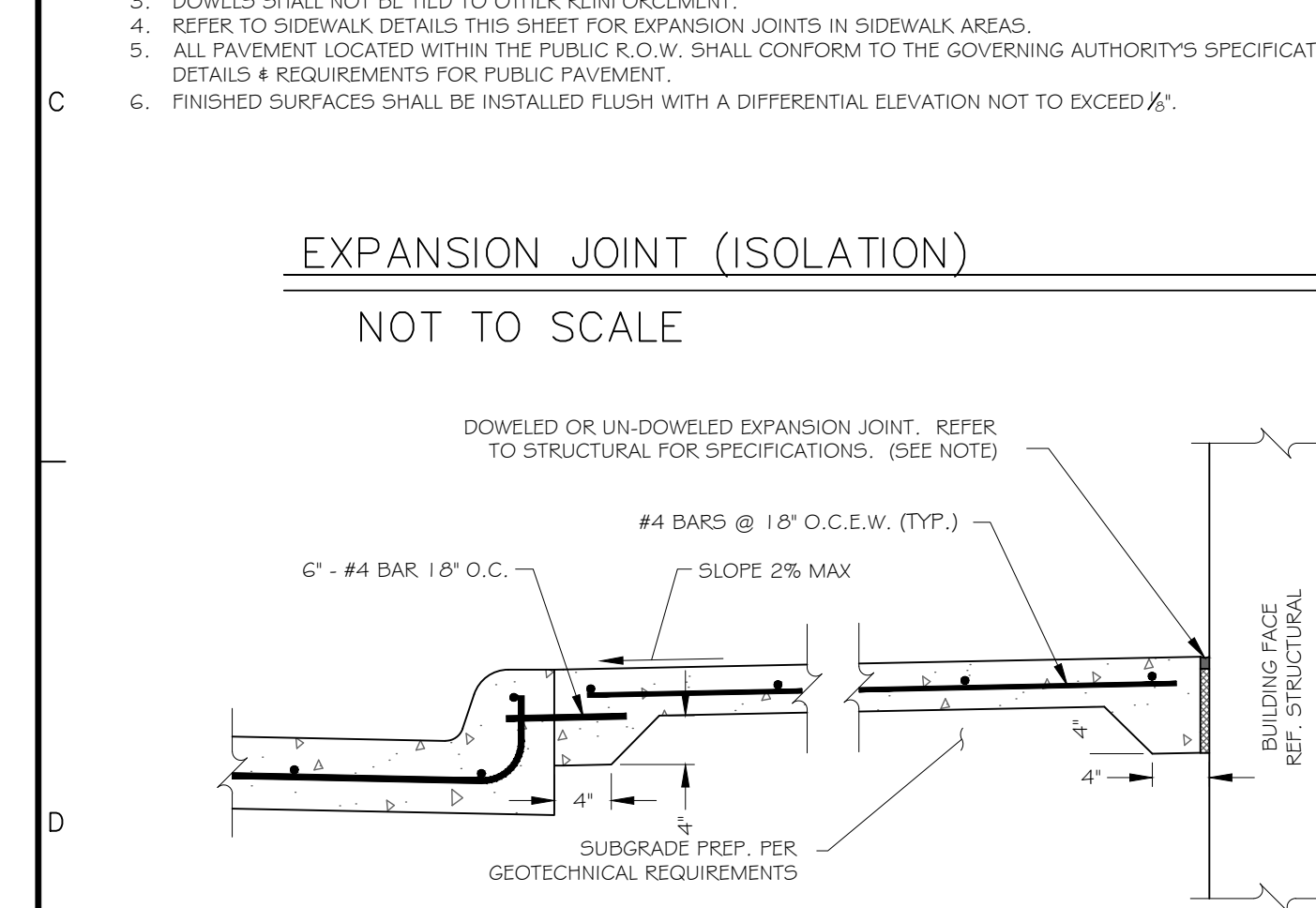
CONSTRUCTION BUTT JOINT
NOT TO SCALE



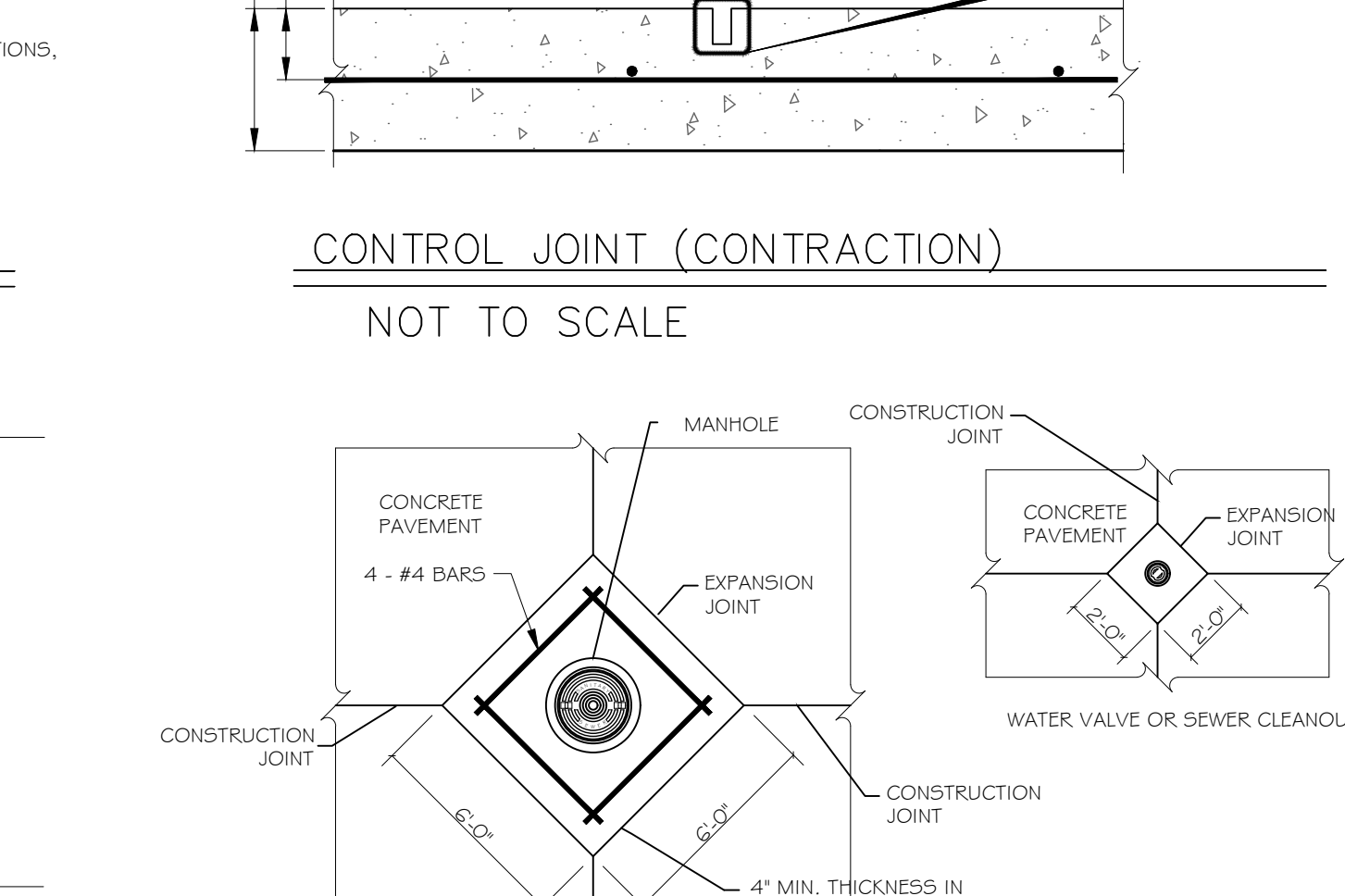
EXPANSION JOINT (ISOLATION)
NOT TO SCALE



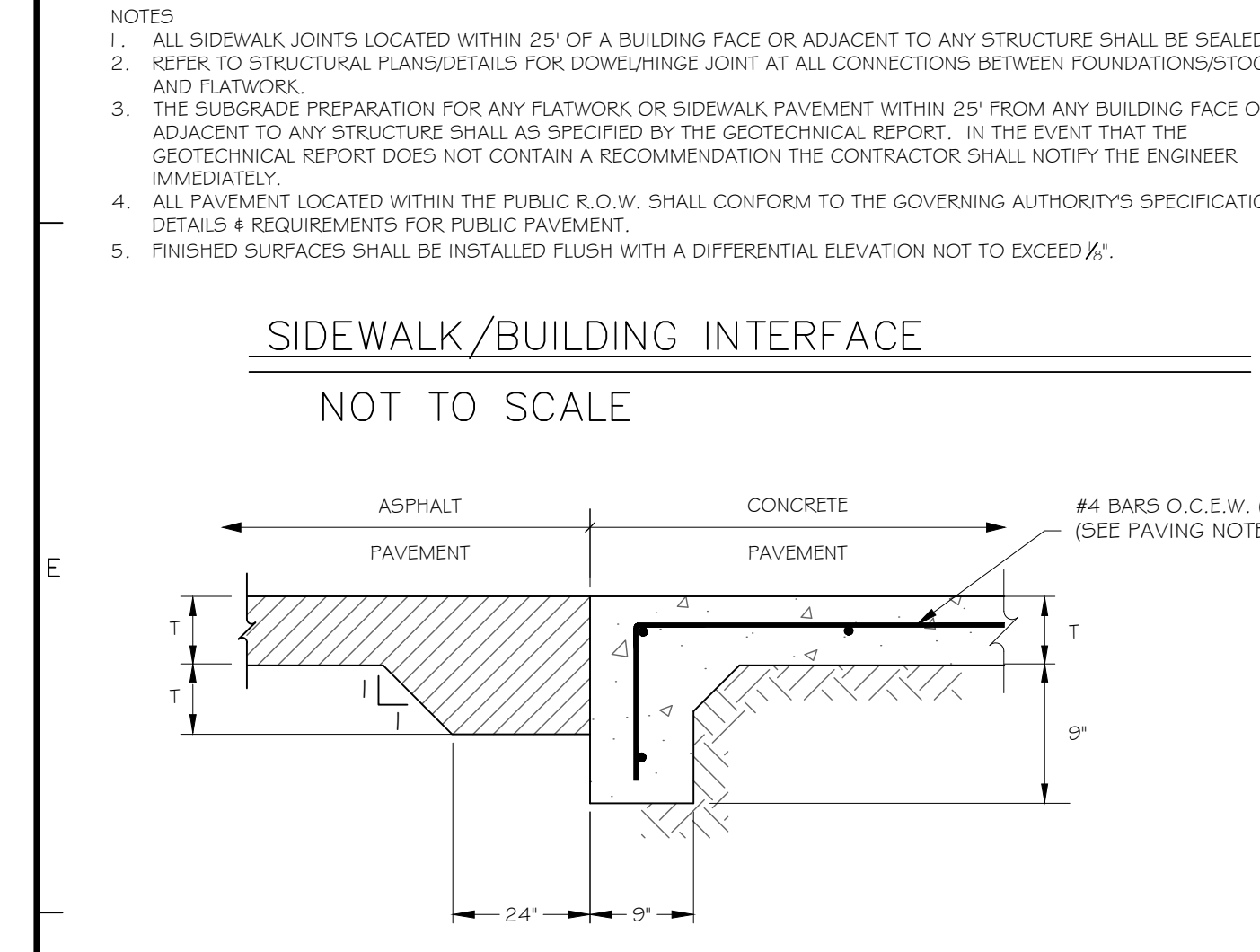
CONTROL JOINT (CONTRACTION)
NOT TO SCALE



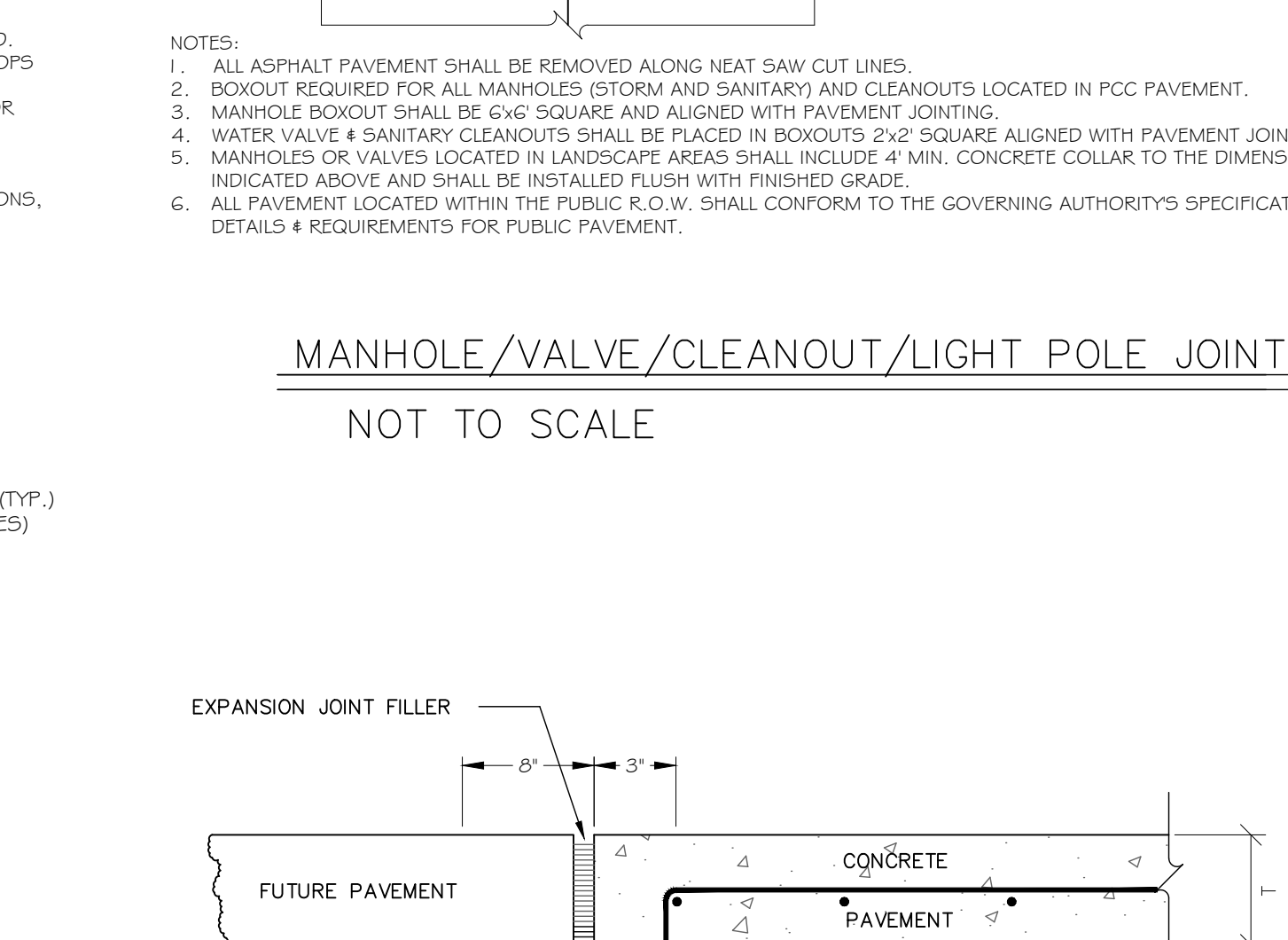
SIDEWALK/BUILDING INTERFACE
NOT TO SCALE



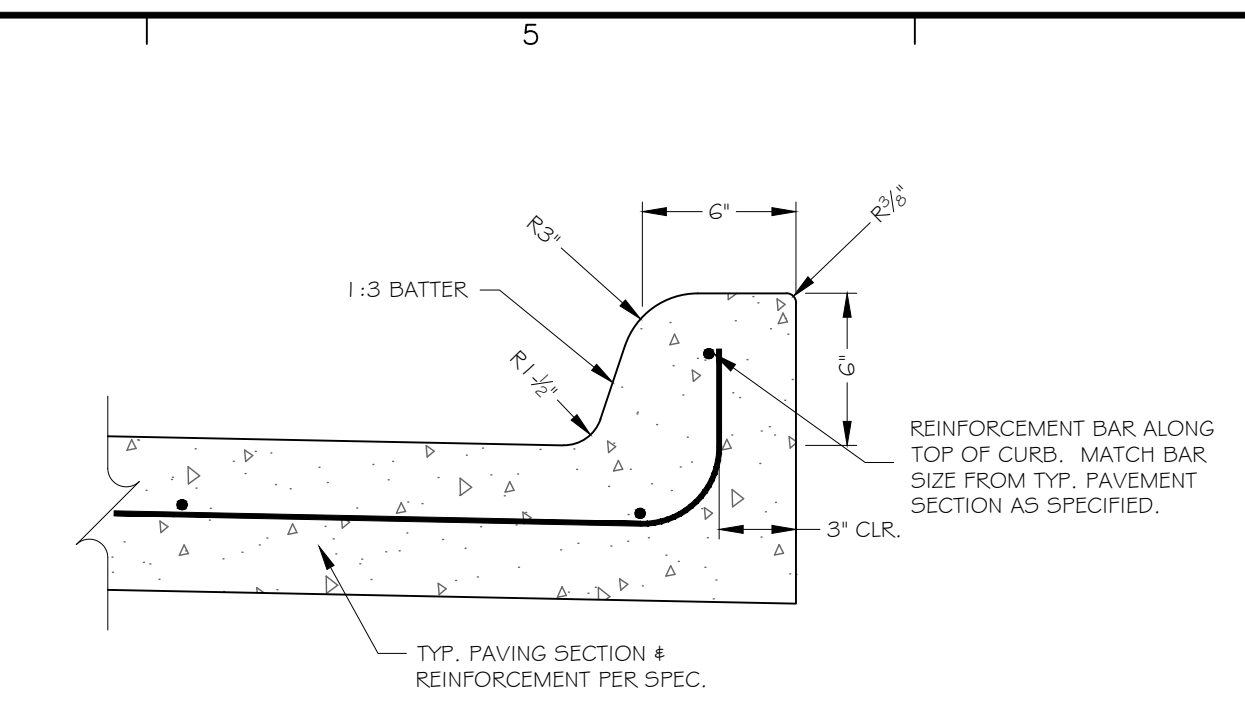
MANHOLE/VALVE/CLEANOUT/LIGHT POLE JOINTING
NOT TO SCALE



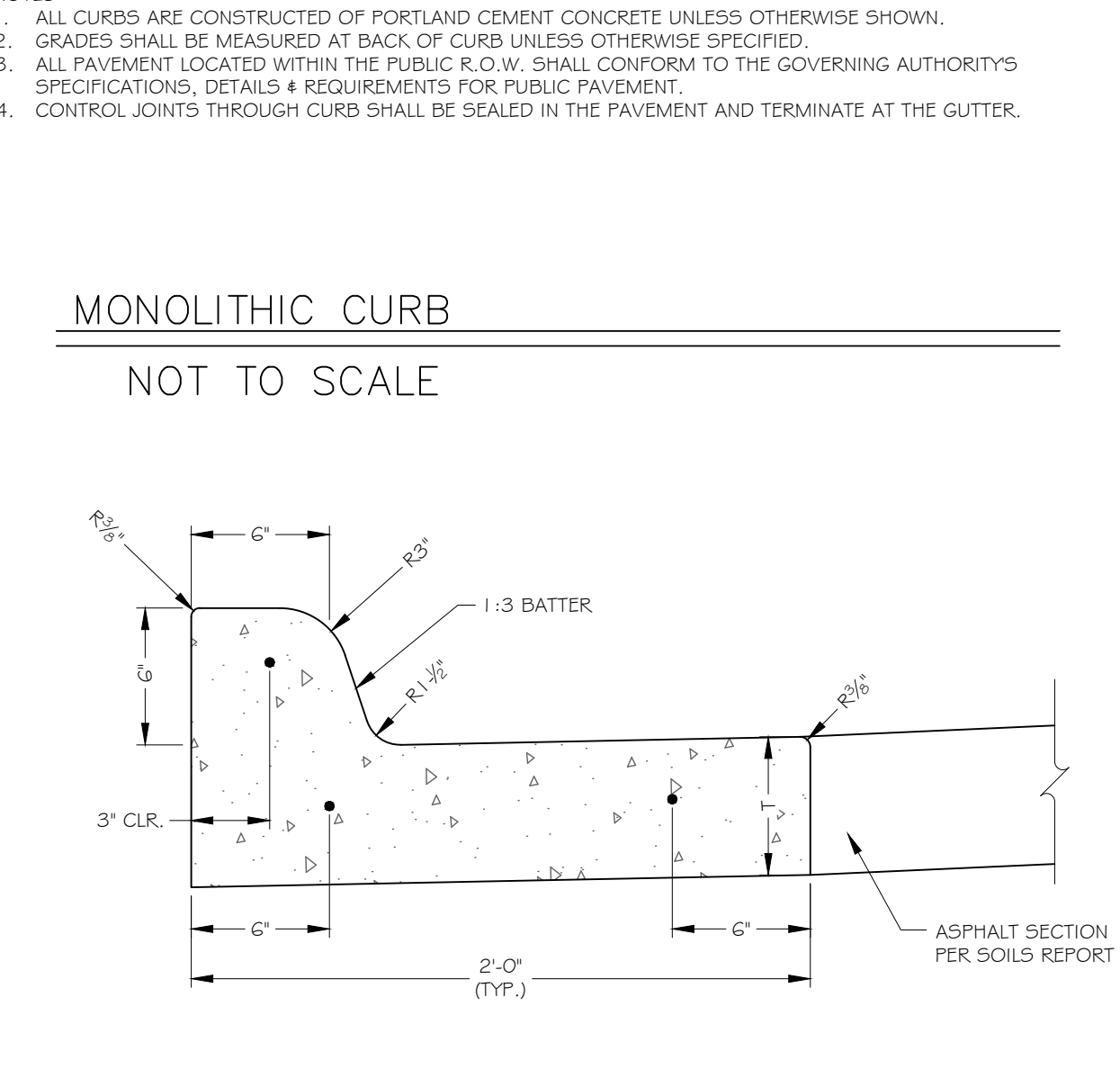
ASPHALT TO CONCRETE HEADER
NOT TO SCALE



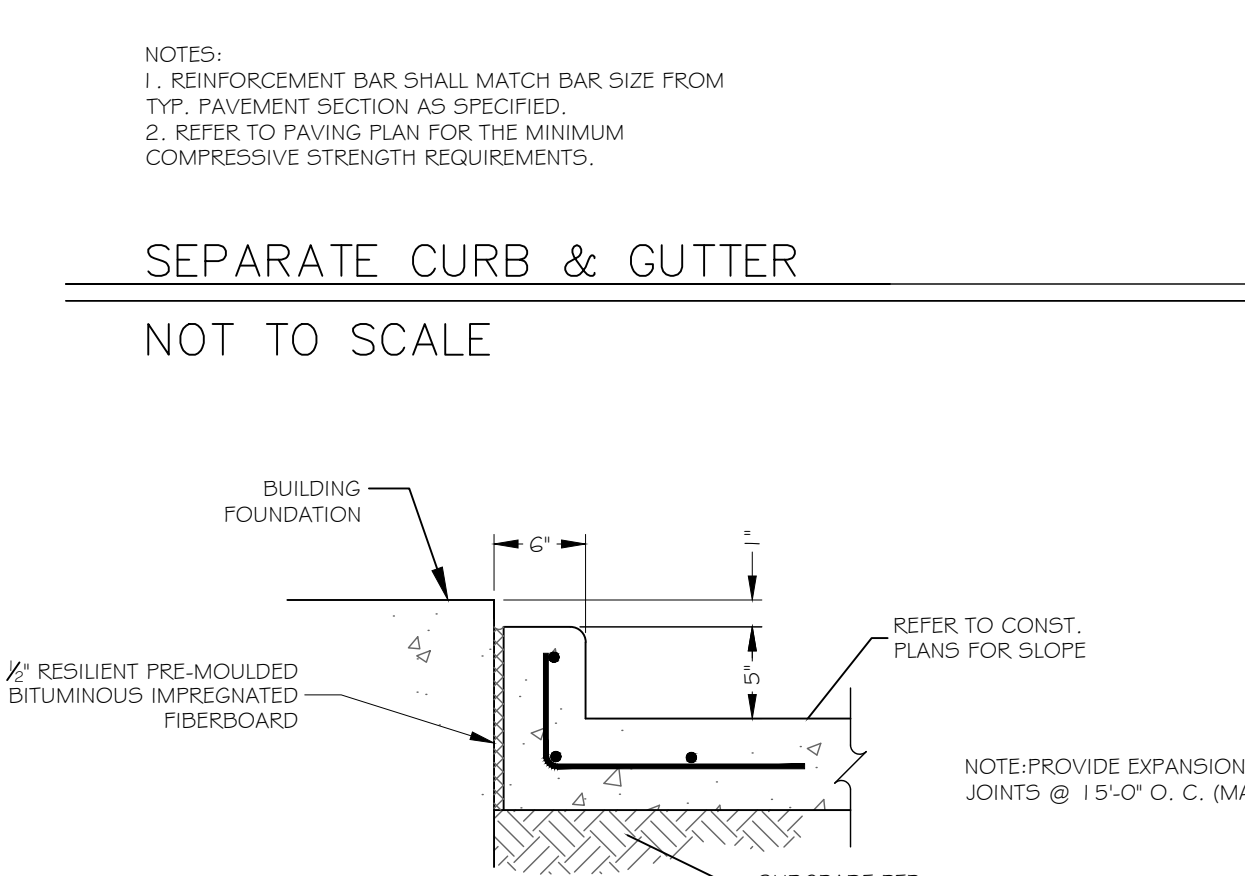
STREET HEADER FOR FUTURE PAVEMENT
NOT TO SCALE



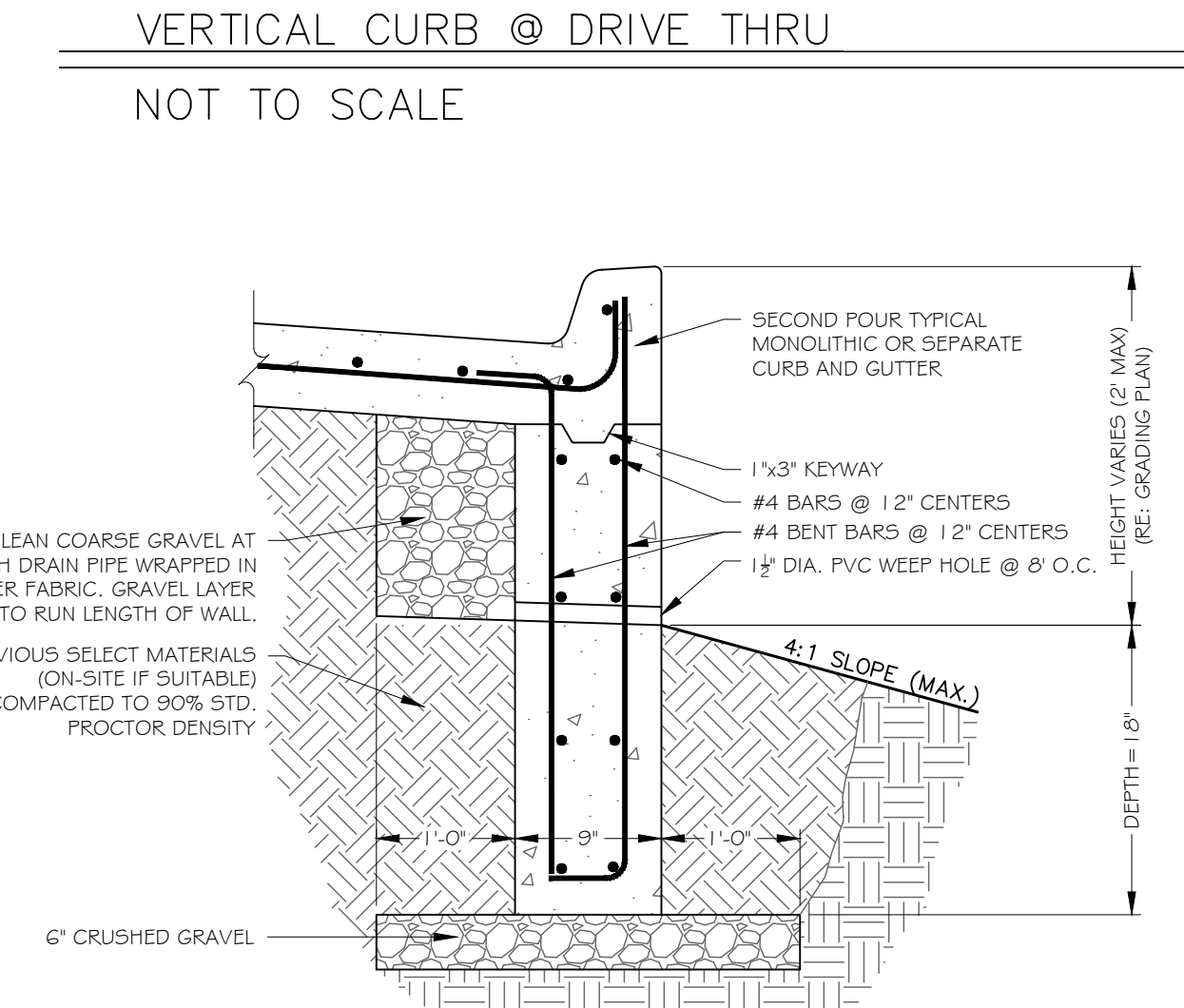
MONOLITHIC CURB
NOT TO SCALE



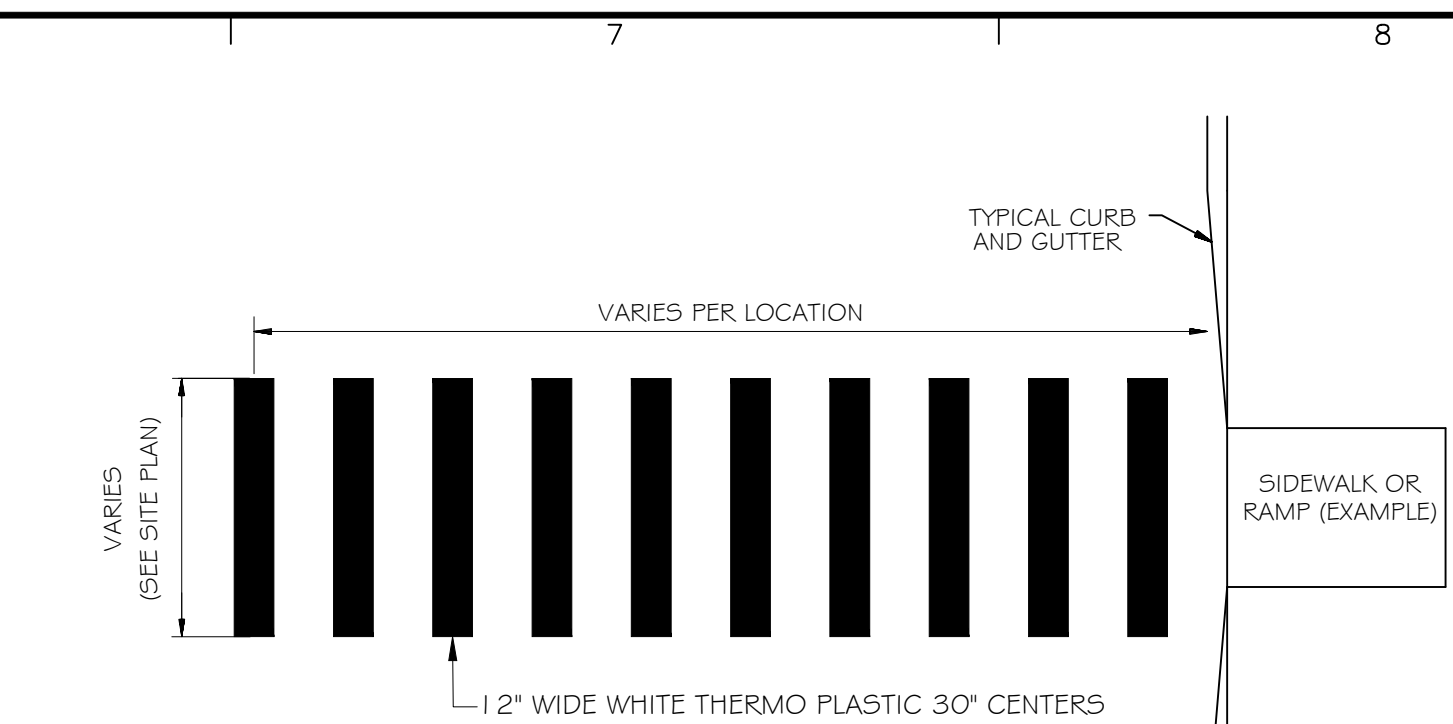
SEPARATE CURB & GUTTER
NOT TO SCALE



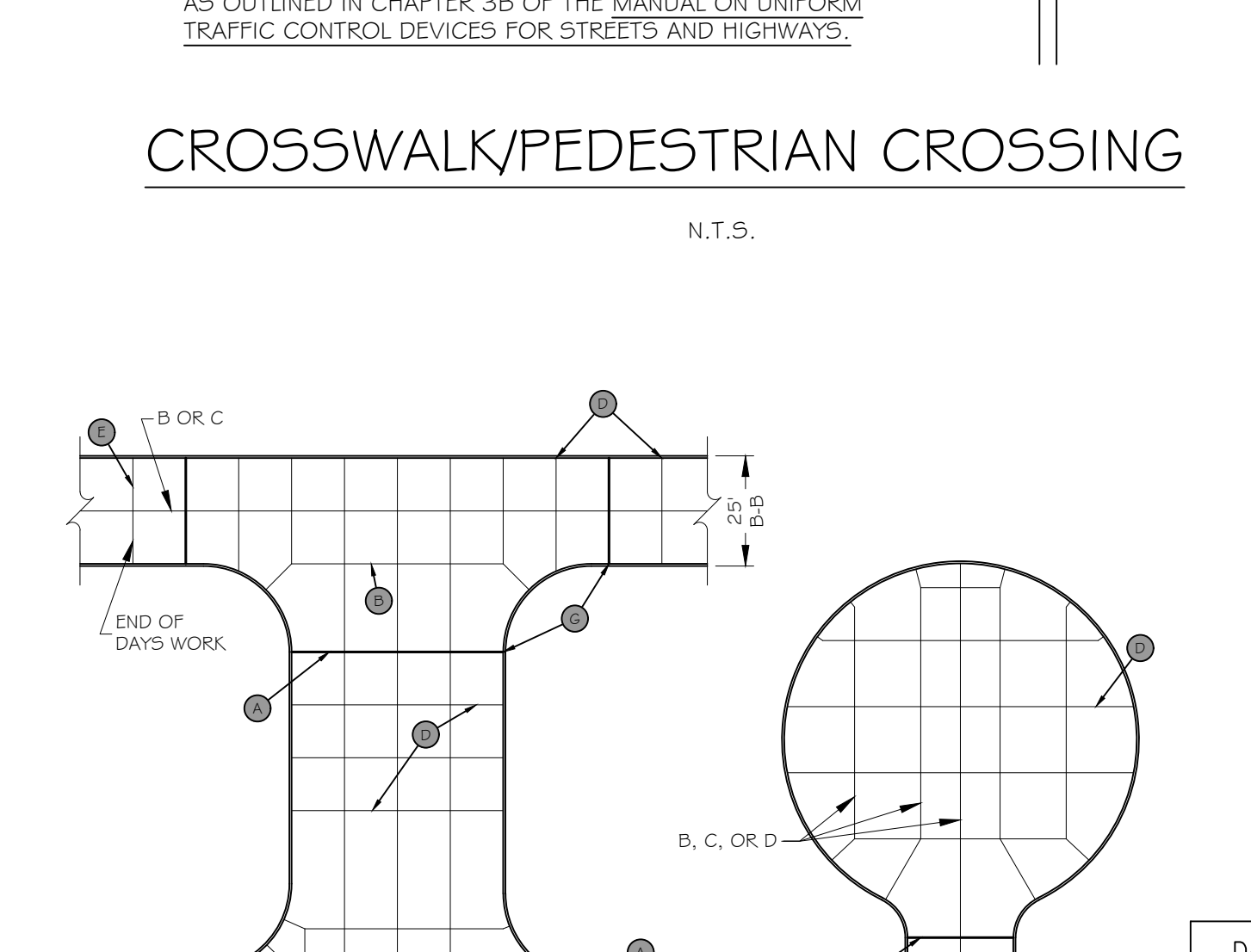
VERTICAL CURB @ DRIVE THRU
NOT TO SCALE



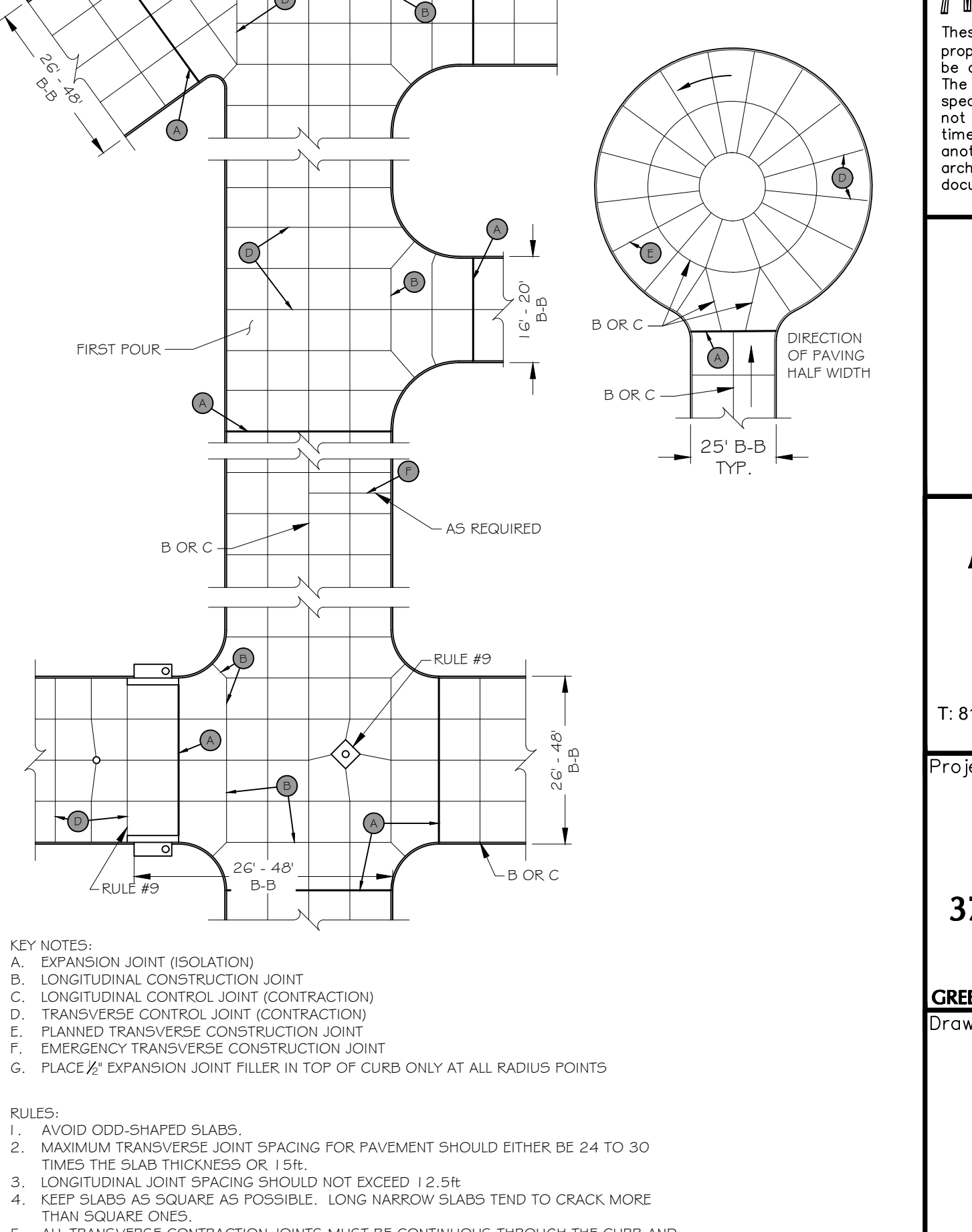
DEEPEMED CURB
NOT TO SCALE



CROSSWALK/PEDESTRIAN CROSSING
N.T.S.



TYPICAL JOINTING LAYOUT
NOT TO SCALE



TYPICAL JOINTING LAYOUT
NOT TO SCALE

NOTES:
1. PAVEMENT BARS SHALL BE BENT DOWN INTO HEADER.
2. HEADER AND PAVEMENT SHALL BE MONOLITHIC.
3. REINFORCEMENT STEEL SHALL BE PER PAVEMENT SECTION SPECIFICATIONS.
4. ALL PAVEMENT LOCATED WITHIN THE PUBLIC R.O.W. SHALL CONFORM TO THE GOVERNING AUTHORITY'S SPECIFICATIONS, DETAILS & REQUIREMENTS FOR PUBLIC PAVEMENT.
5. FINISHED SURFACES SHALL BE INSTALLED FLUSH WITH A DIFFERENTIAL ELEVATION NOT TO EXCEED 1/8".
6. SUBGRADE PREPARATION SHALL BE PER GEOTECHNICAL REPORT SPECIFICATIONS.

NOTES:
1. ALL ASPHALT PAVEMENT SHALL BE REMOVED ALONG NEAT SAW CUT LINES.
2. BOXOUT REQUIRED FOR ALL MANHOLES (STORM AND SANITARY) AND CLEANOUTS LOCATED IN FCC PAVEMENT.
3. MANHOLE BOXOUT SHALL BE 6'x6' SQUARE AND ALIGNED WITH PAVEMENT JOINTING.
4. WATER VALVE & SANITARY CLEANOUTS SHALL BE PLACED IN BOXOUTS 2'x2' SQUARE ALIGNED WITH PAVEMENT JOINTING.
5. MANHOLES OR VALVES LOCATED IN LANDSCAPE AREAS SHALL INCLUDE 4" MIN. CONCRETE COLLAR TO THE DIMENSIONS INDICATED ABOVE AND SHALL BE INSTALLED FLUSH WITH FINISHED GRADE.
6. ALL PAVEMENT LOCATED WITHIN THE PUBLIC R.O.W. SHALL CONFORM TO THE GOVERNING AUTHORITY'S SPECIFICATIONS, DETAILS & REQUIREMENTS FOR PUBLIC PAVEMENT.

NOTES:
1. REFER TO PAVING PLAN FOR THE MINIMUM COMPRESSIVE STRENGTH REQUIREMENTS.
2. REINFORCING STEEL SHALL COMPLY WITH ASTM A615, GRADE 60.
3. BACKFILLING AGAINST REINFORCED DEEPEMED CURB SHALL NOT BE PERMITTED UNTIL CONCRETE HAS REACHED ITS 28 DAY STRENGTH. CARE SHALL BE TAKEN TO AVOID EXERTING LARGE IMPACT FORCES ON THE DEEPEMED CURB.

KEY NOTES:
A. EXPANSION JOINT (ISOLATION)
B. LONGITUDINAL CONSTRUCTION JOINT
C. LONGITUDINAL CONTROL JOINT (CONTRACTION)
D. TRANSVERSE CONTROL JOINT (CONTRACTION)
E. PLANNED TRANSVERSE CONSTRUCTION JOINT
F. EMERGENCY TRANSVERSE CONSTRUCTION JOINT
G. PLACE 1/2" EXPANSION JOINT FILLER IN TOP OF CURB ONLY AT ALL RADIUS POINTS

RULES:
1. AVOID ODD-SHAPED SLABS.
2. MAXIMUM TRANSVERSE JOINT SPACING FOR PAVEMENT SHOULD EITHER BE 24 TO 30 TIMES THE SLAB THICKNESS OR 15ft.
3. LONGITUDINAL JOINT SPACING SHOULD NOT EXCEED 12.5x.
4. KEEP SLABS AS SQUARE AS POSSIBLE. LONG NARROW SLABS TEND TO CRACK MORE THAN SQUARE ONES.
5. ALL TRANSVERSE CONTRACTION JOINTS MUST BE CONTINUOUS THROUGH THE CURB AND HAVE A DEPTH EQUAL TO 1/2 THE PAVEMENT THICKNESS.
6. IN ISOLATION JOINTS, THE FILLER MUST BE FULL DEPTH AND EXTEND THROUGH THE CURB.
7. IF THERE IS NO CURB, LONGITUDINAL JOINTS SHOULD BE TIED WITH DEFORMED BARS.
8. OFFSETS AT RADIUS POINTS SHOULD BE AT LEAST 1.5ft WIDE. JOINT INTERSECTION ANGLES LESS THAN 60° SHOULD BE AVOIDED.
9. MINOR ADJUSTMENTS IN JOINT LOCATION MADE BY SHIFTING OF SKEMING TO MEET INLETS AND MANHOLES WILL IMPROVE PAVEMENT PERFORMANCE.
10. WHEN THE PAVEMENT AREA HAS DRAINAGE STRUCTURES, PLACE JOINTS TO MEET THE STRUCTURES IF POSSIBLE.

Date	Description	No.
Revisions		

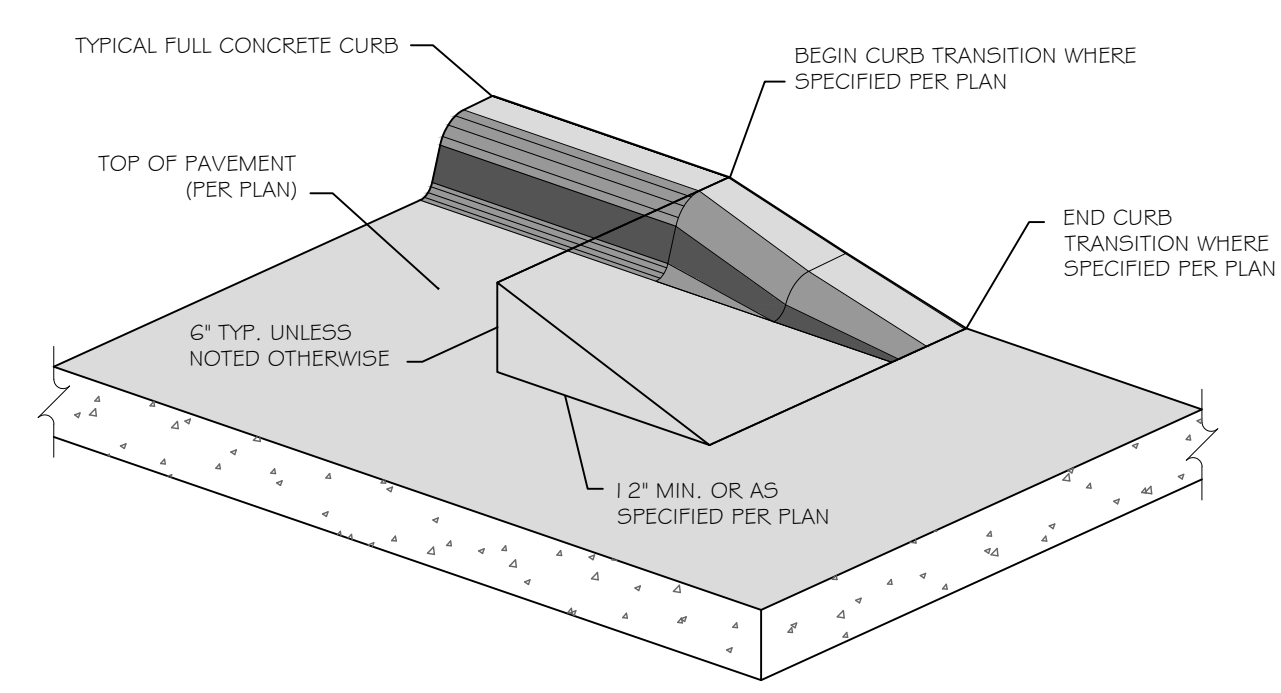
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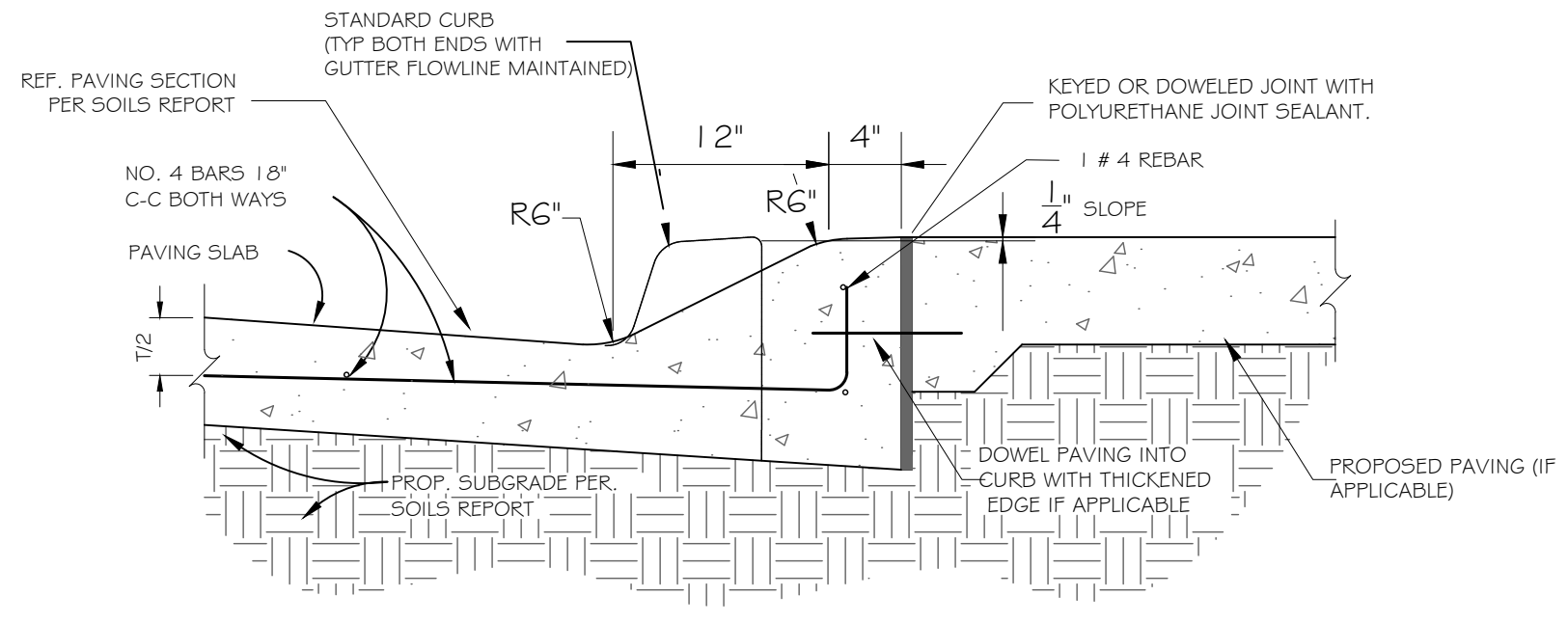
Project **McDONALD'S NEW PROJECT**
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD

STANDARD DETAILS

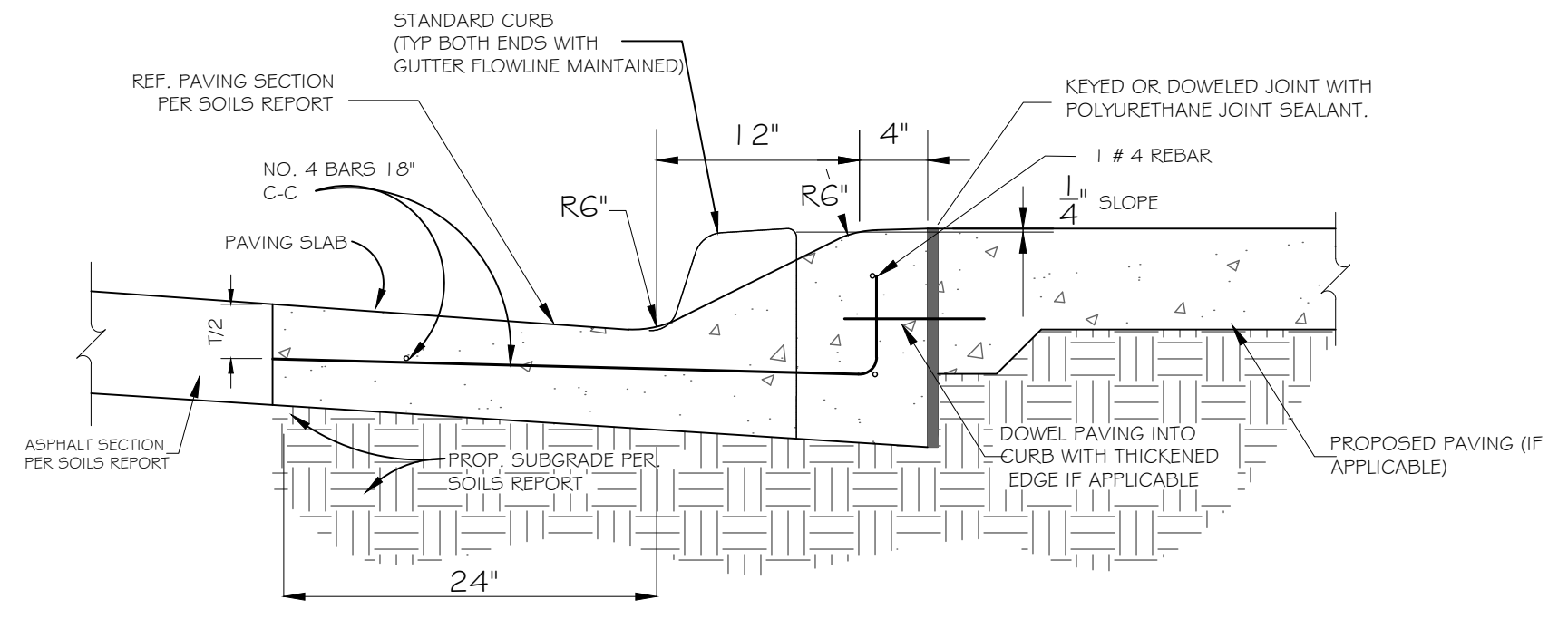
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Date	DECEMBER 2022	Sheet	17 of 29
Drawn By	OROD		
Checked By	DWL		



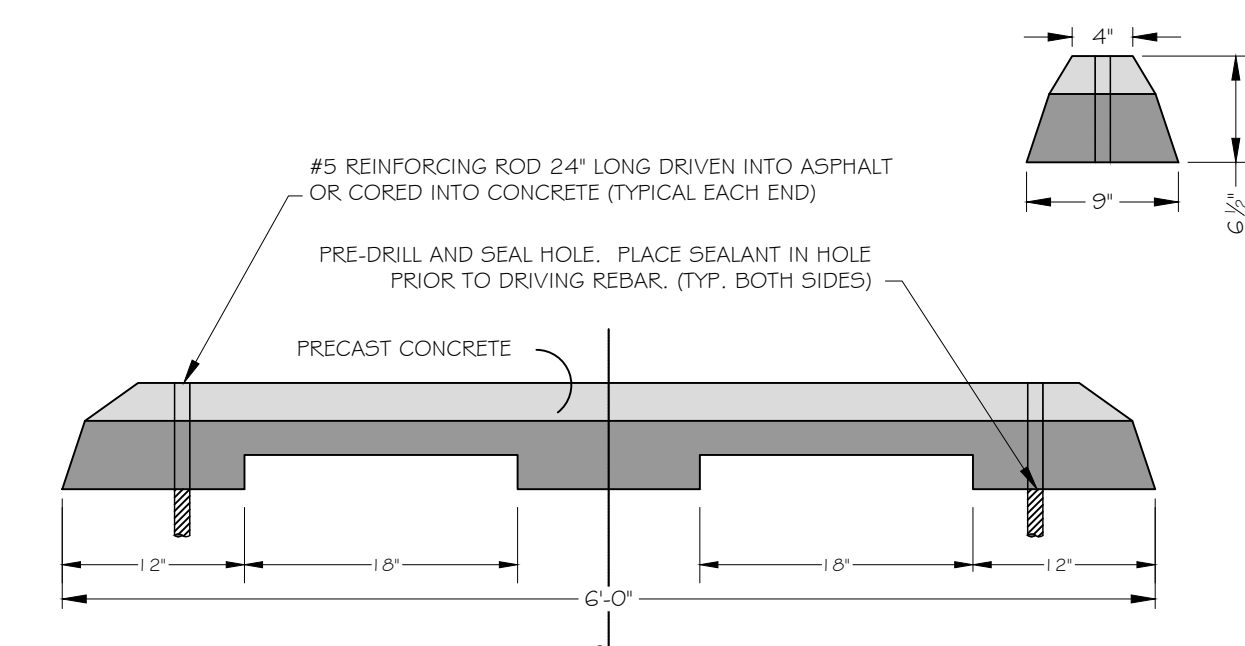
TURN DOWN CURB
NOT TO SCALE



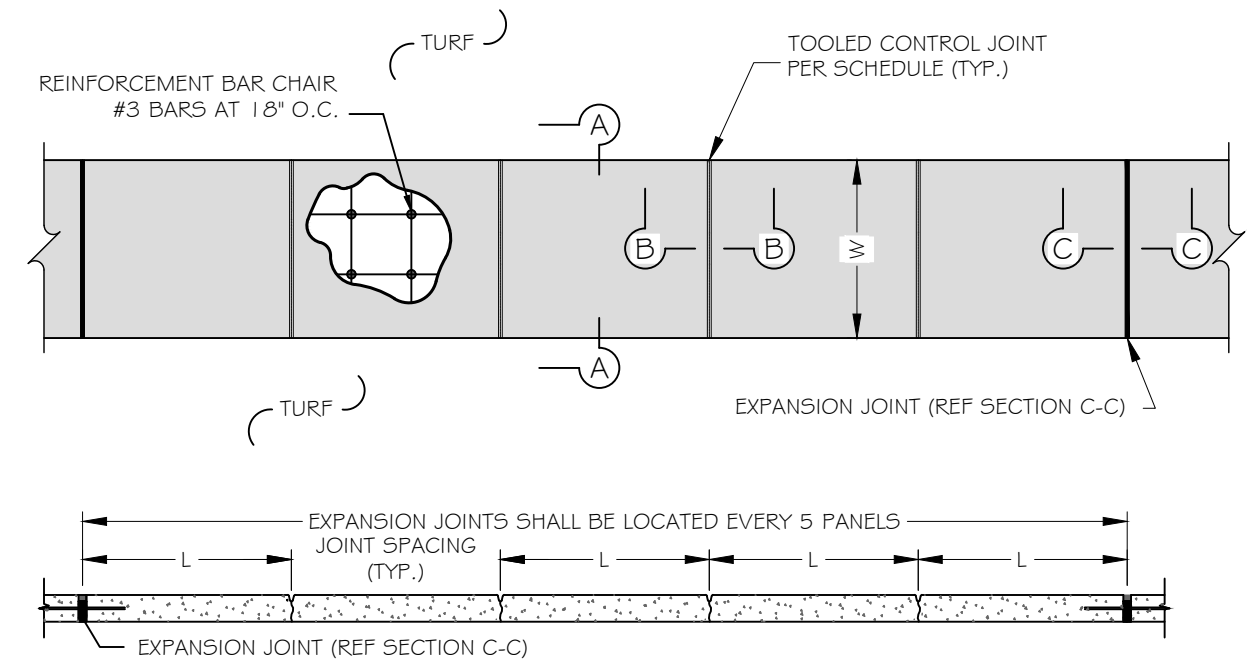
MONOLITHIC MOUNTABLE CURB
NOT TO SCALE



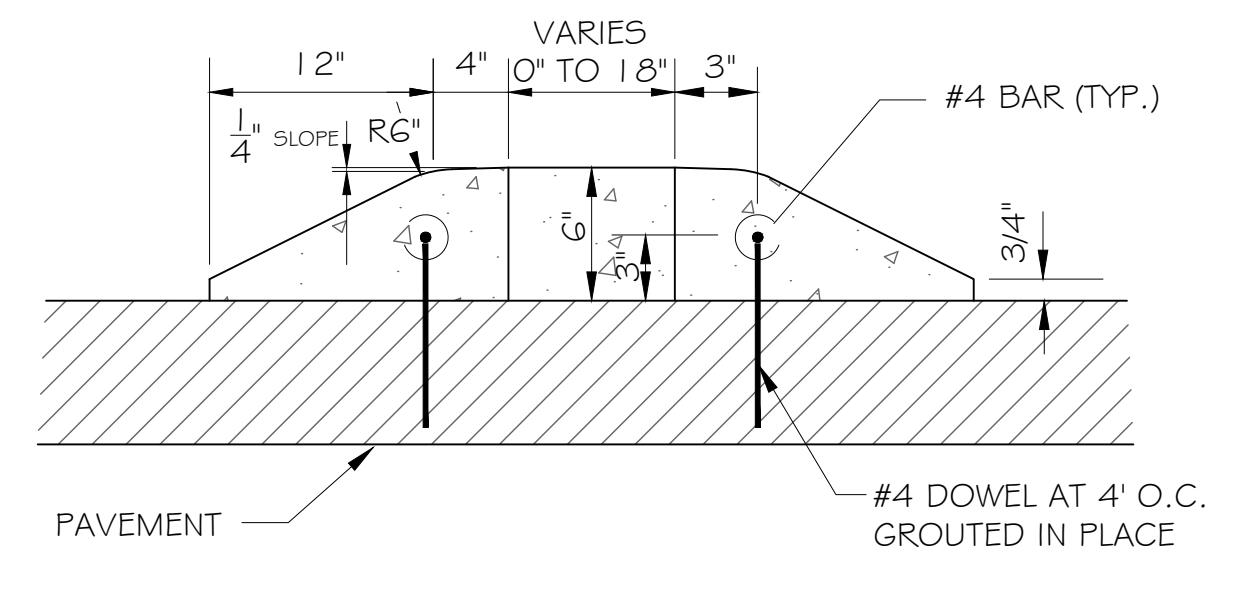
SEPARATE MOUNTABLE CURB & GUTTER
NOT TO SCALE



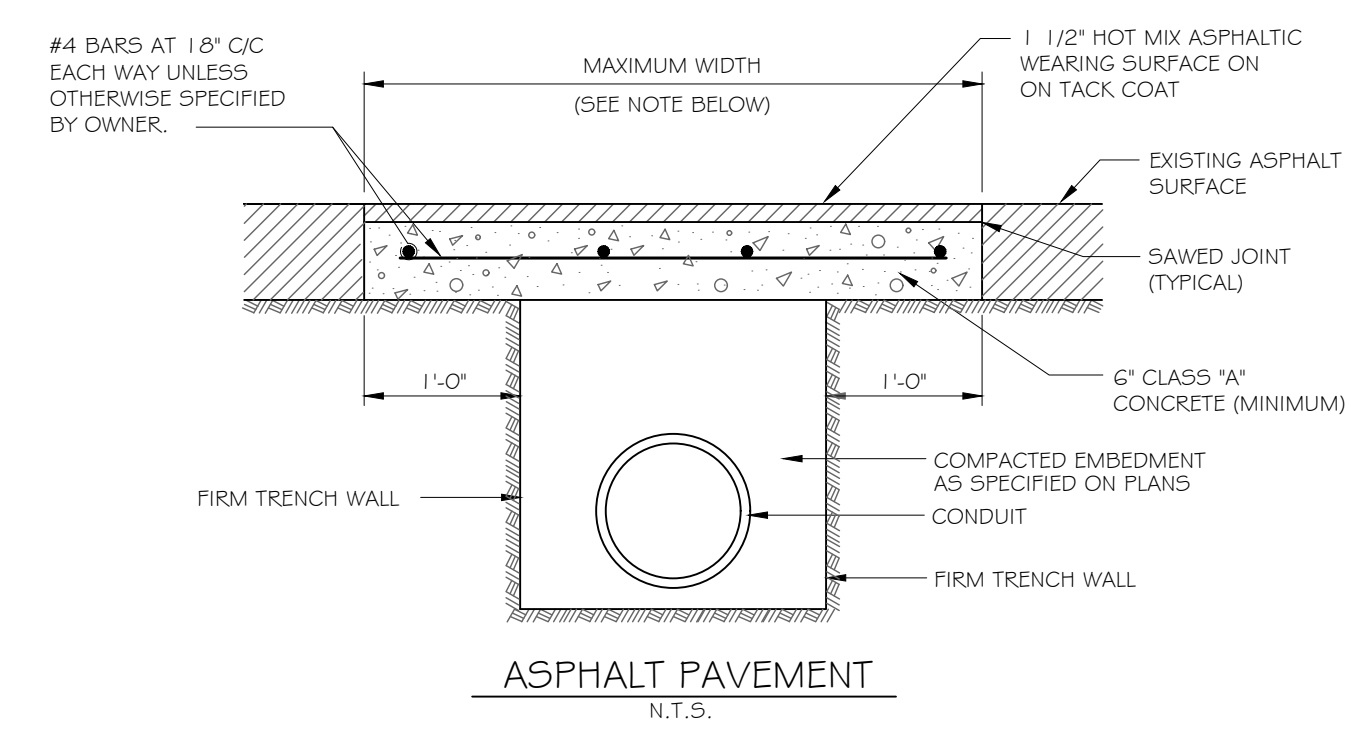
WHEEL STOP
NOT TO SCALE



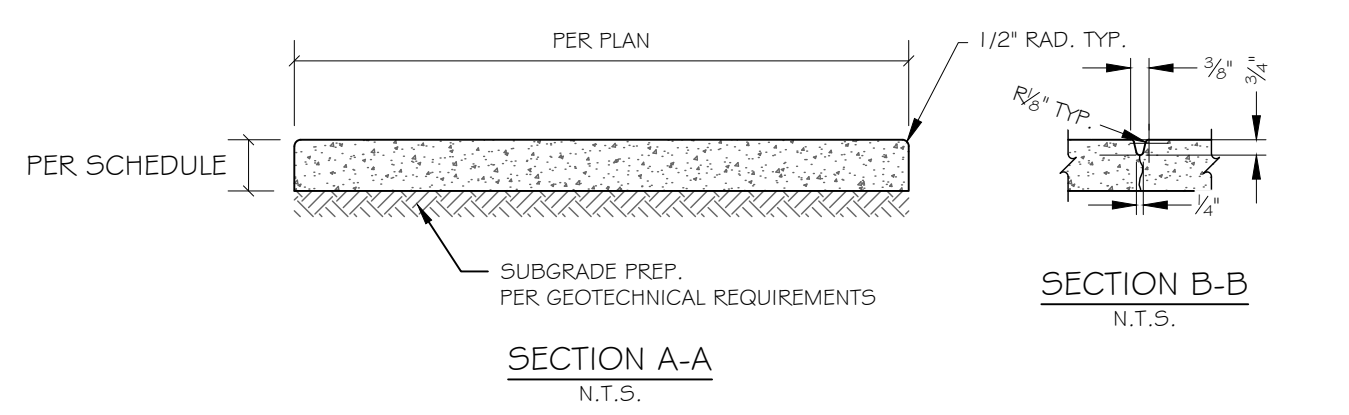
SIDEWALK NOTES:
 1. SAND CUSHION WILL NOT BE PERMITTED UNDER SIDEWALKS OR OTHER PAVEMENT.
 2. DOWEL WITH #4 BARS AT 18" C-C WHEN CONNECTING TO EXISTING SIDEWALKS, DRIVEWAYS, CURBS AND GUTTER.
 3. REFER TO PAVING PLAN FOR THE MINIMUM COMPRESSIVE STRENGTH REQUIREMENTS OR AS SPECIFIED BY THE AUTHORITY HAVING JURISDICTION, WHICHEVER IS GREATER.
 4. ALL JOINTS LOCATED WITHIN LARGE AREAS OF CONCRETE PLAZA AREAS OR PAVEMENT BETWEEN BUILDINGS SHALL BE SEALED WITH POLYURETHANE JOINT SEALANT PER JOINT DETAILS THIS SHEET.
 5. CONTRACTOR SHALL SUBMIT FULL-SIZE SCALEABLE PLAZA AREAS JOINT LAYOUT FOR APPROVAL.
 6. JOINT SEALANT IS NOT REQUIRED ON SIDEWALKS LOCATED IN TURF AREAS.
 7. ALL SIDEWALKS LOCATED WITHIN THE PUBLIC R.O.W. SHALL CONFORM TO THE GOVERNING AUTHORITY'S SPECIFICATIONS, DETAILS & REQUIREMENTS FOR SIDEWALKS.



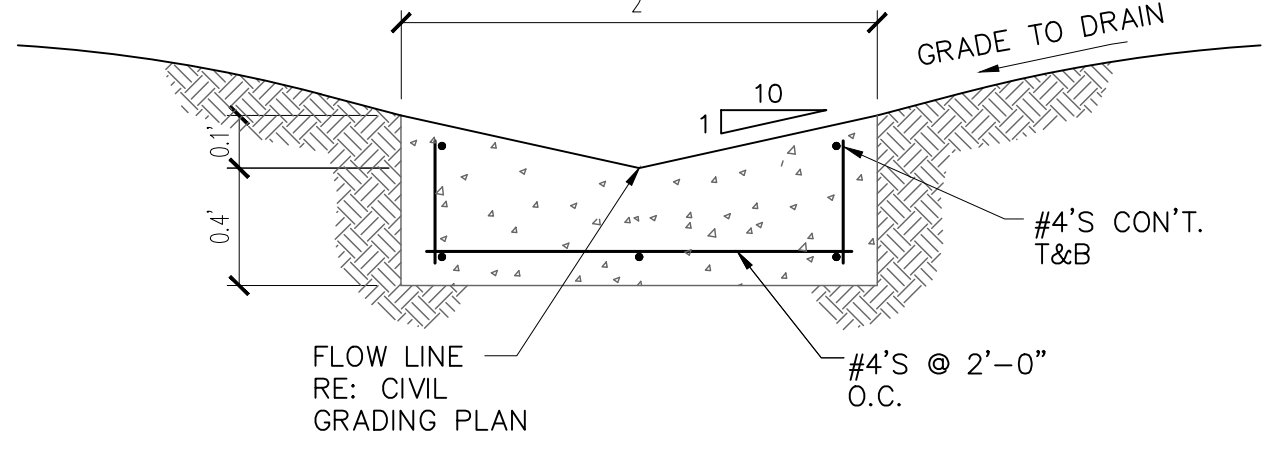
MOUNTABLE CURB RAISED ISLAND
NOT TO SCALE



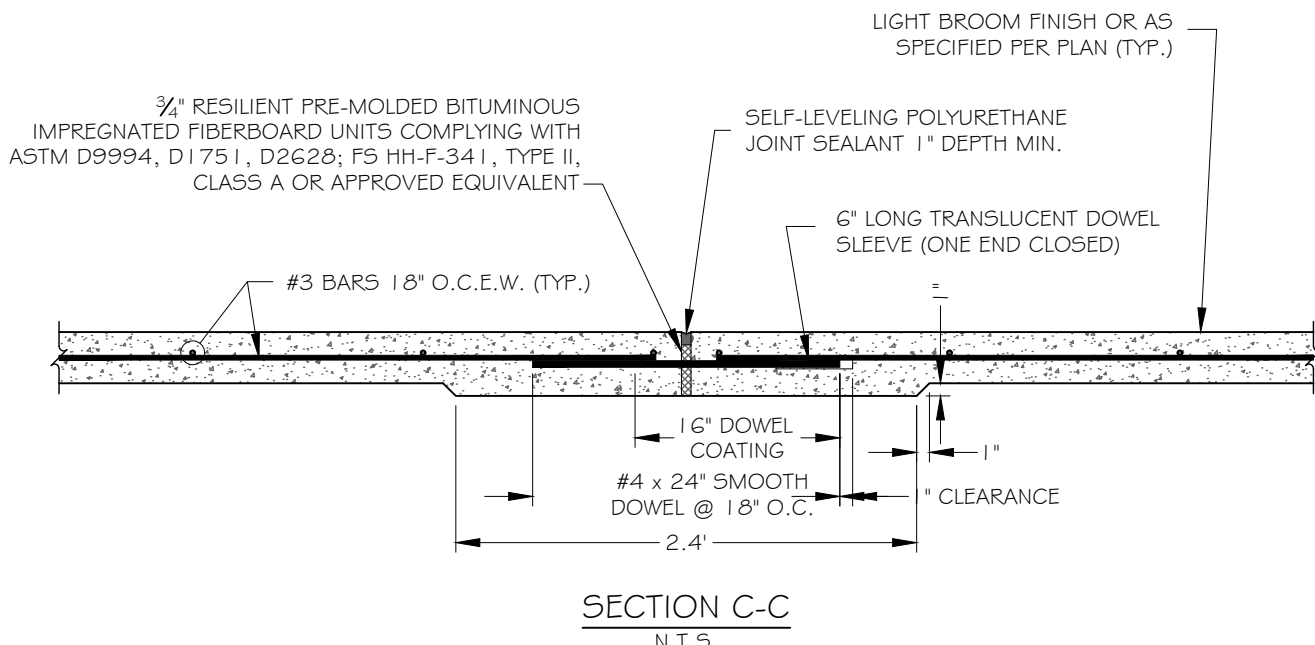
ASPHALT PAVEMENT
N.T.S.



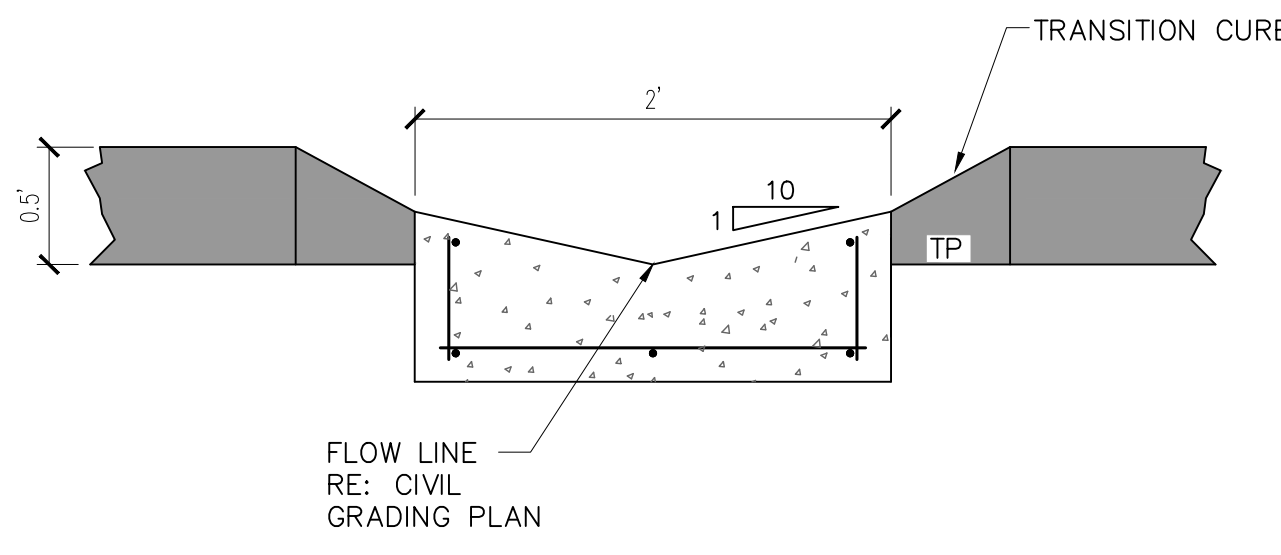
SECTION A-A
N.T.S.



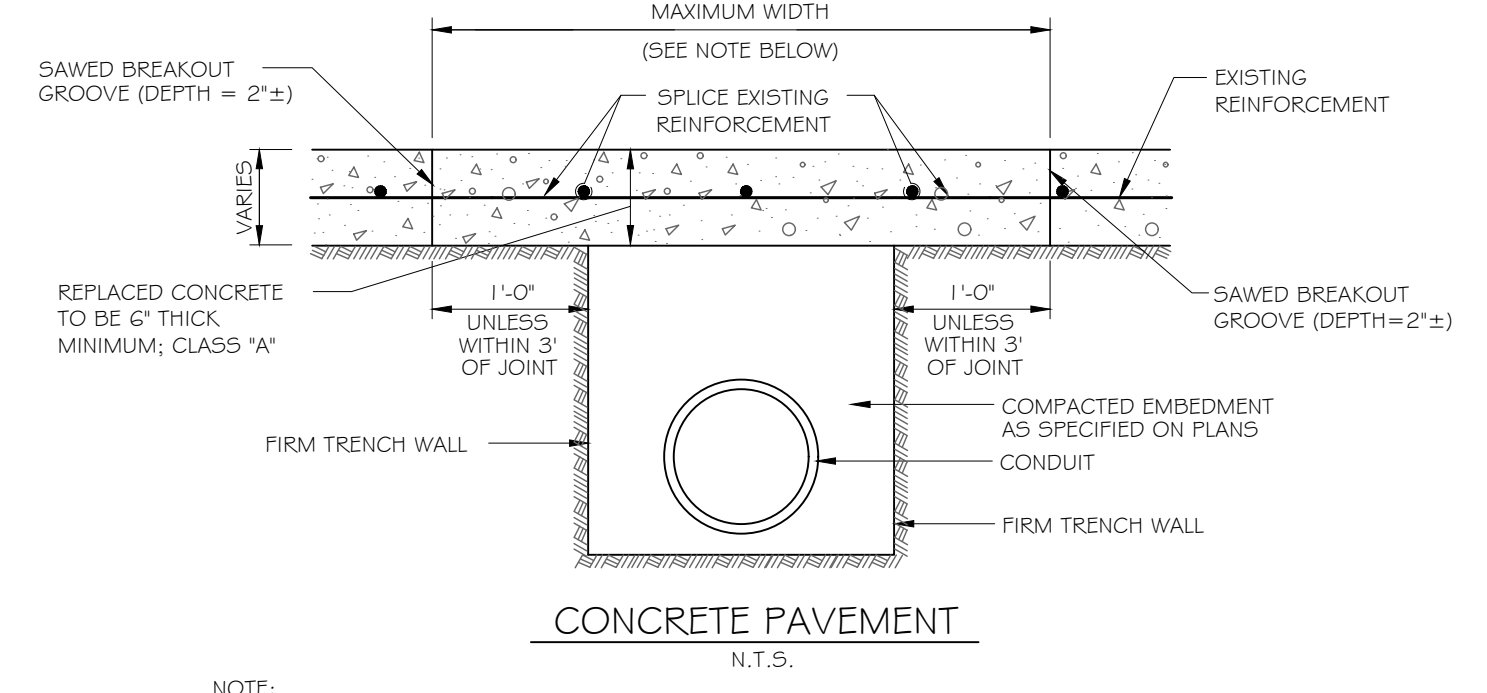
V-NOTCH CONCRETE SWALE IN GRASS AREA
NOT TO SCALE



SECTION C-C
N.T.S.



V-NOTCH CONCRETE SWALE & TRANSITION CURB
NOT TO SCALE



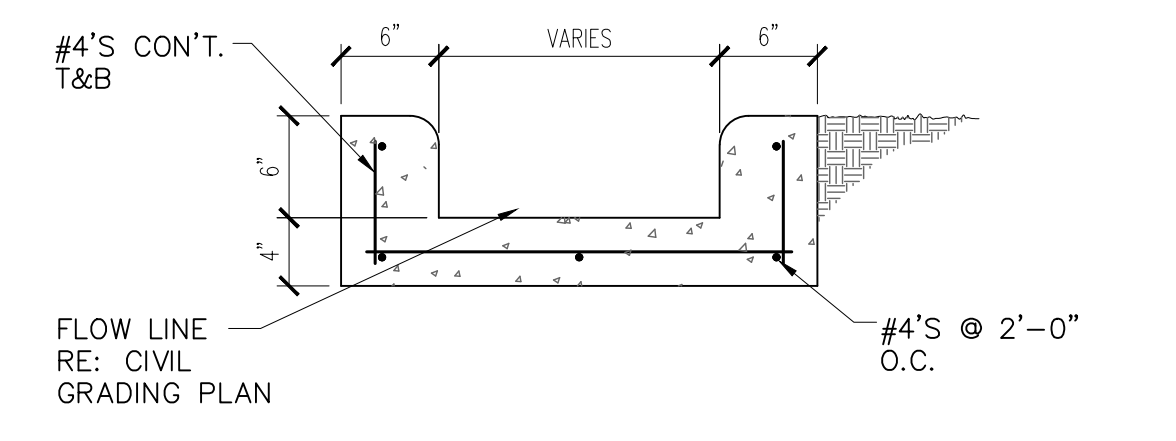
CONCRETE PAVEMENT
N.T.S.

NOTE:
 1. WHEN REMOVING CONCRETE PAVEMENT THE CONTRACTOR SHALL ENDEAVOR TO LIMIT DAMAGE TO EXISTING REINFORCEMENT SO IT MAY BE EMPLOYED IN THE REPLACEMENT OPERATION. IF ORIGINAL REINFORCEMENT IS CUT OR BROKEN, REPLACEMENT BARS OF THE SAME SIZE SHALL BE INSTALLED BY DRILLING AND DOWELING AS DIRECTED BY THE OWNER.

PAVEMENT CUT REMOVAL & REPLACEMENT
NOT TO SCALE

SIDEWALK PANEL SCHEDULE		
SIDEWALK WIDTH = W (FT.)	SIDEWALK THICKNESS = T (IN.)	JOINT SPACING = L (FT.)
4	4	4
5	4	5
6	4	5
7	5	7
8	5	8
9	5	9
10	5	10

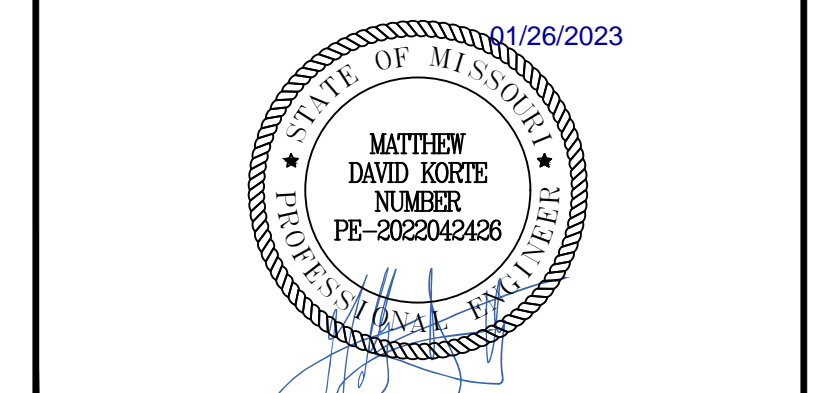
LANDSCAPE SIDEWALK
NOT TO SCALE



CONCRETE FLUME
NOT TO SCALE

Date	Description	No.
Revisions		

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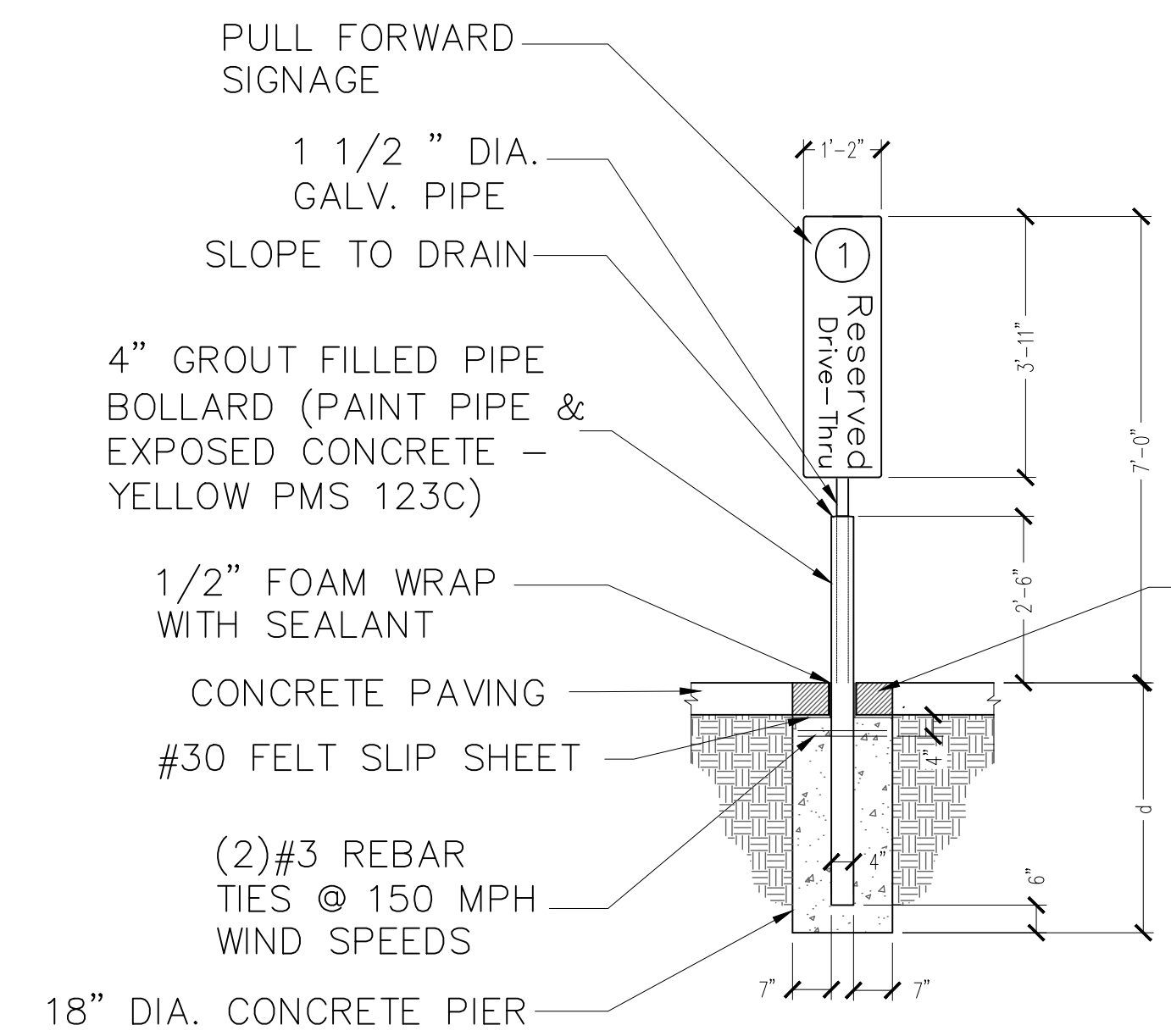
Project
McDONALD'S NEW PROJECT
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3720 WEST SUNSHINE STREET
SPRINGFIELD

GREENE COUNTY MISSOURI
 Drawing Title

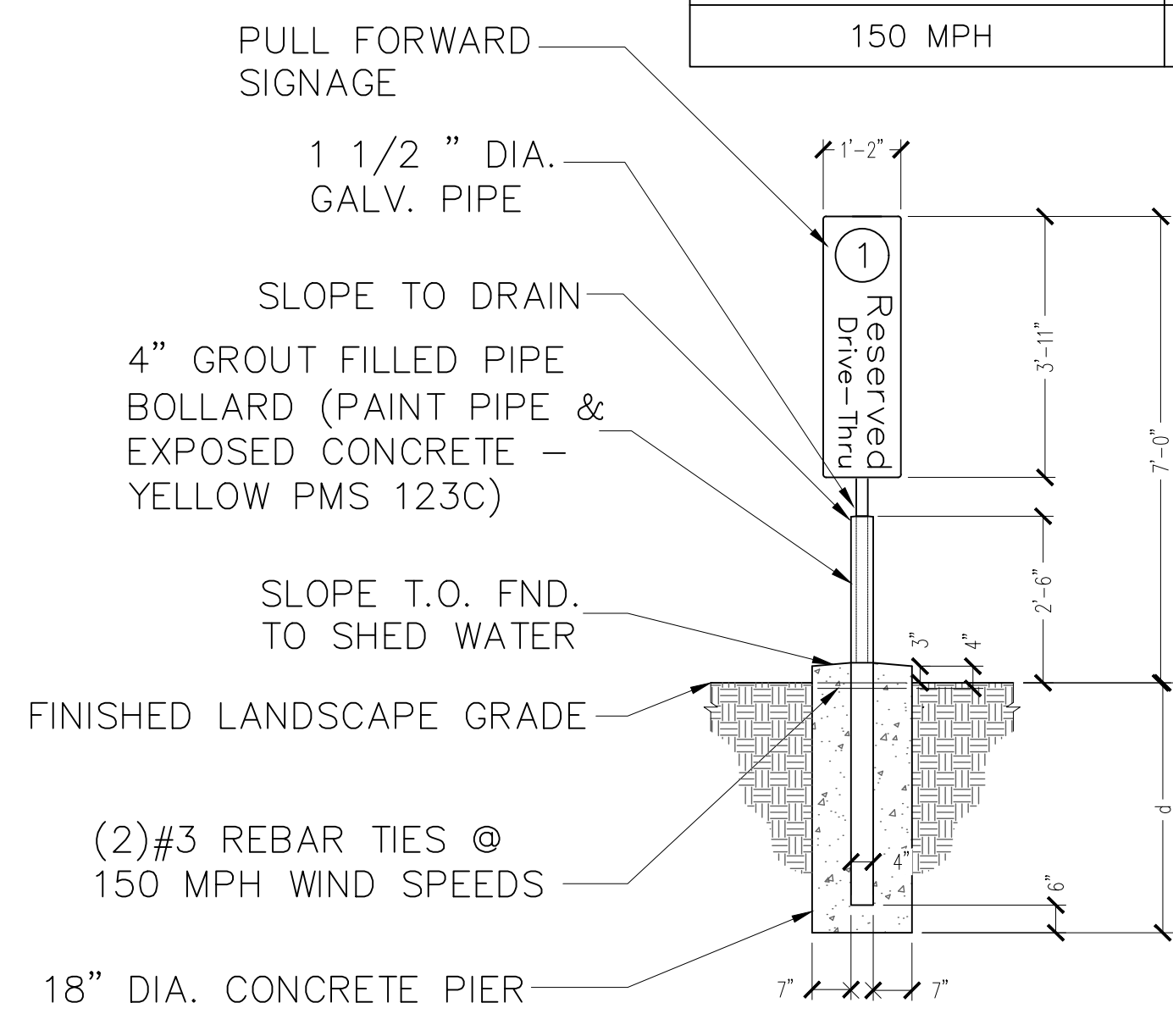
STANDARD DETAILS

Project No. 520054201	Drawing No. C10.3
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	
Sheet 18 of 29	

WIND SPEED (3 SEC. GUST) (ASCE 7-05) (MPH)	d
100 MPH	3'-9"
150 MPH	5'-3"



OOSP & MOBILE PARKING SIGN DETAIL (IN PAVING AREAS)
N.T.S.



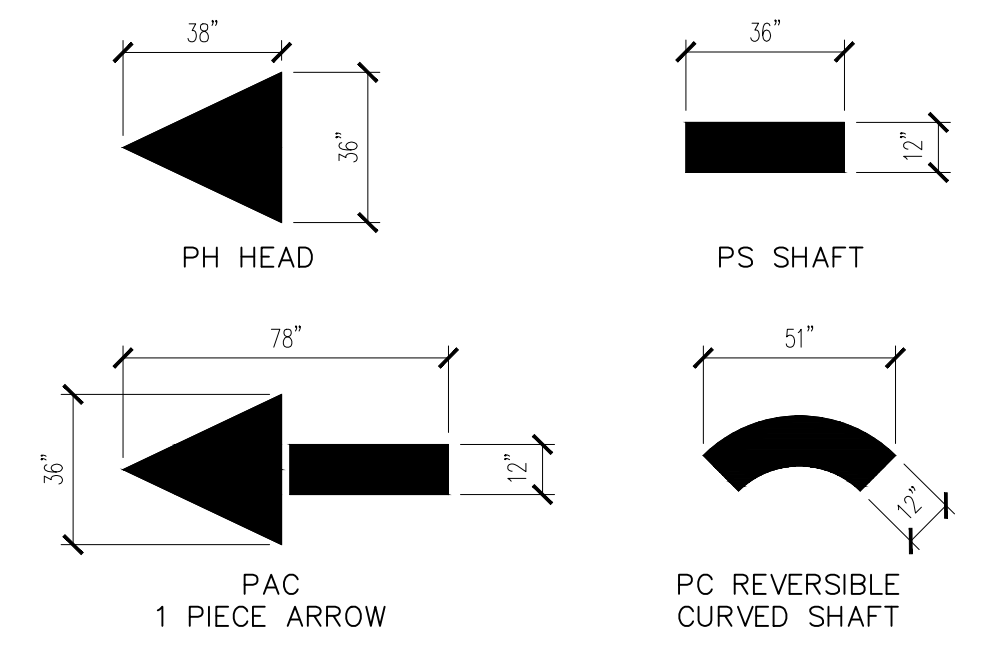
OOSP & MOBILE PARKING SIGN DETAIL (IN LANDSCAPE AREAS)
N.T.S.

6'-8" x 2'-10" x 2'-10"
THANK YOU

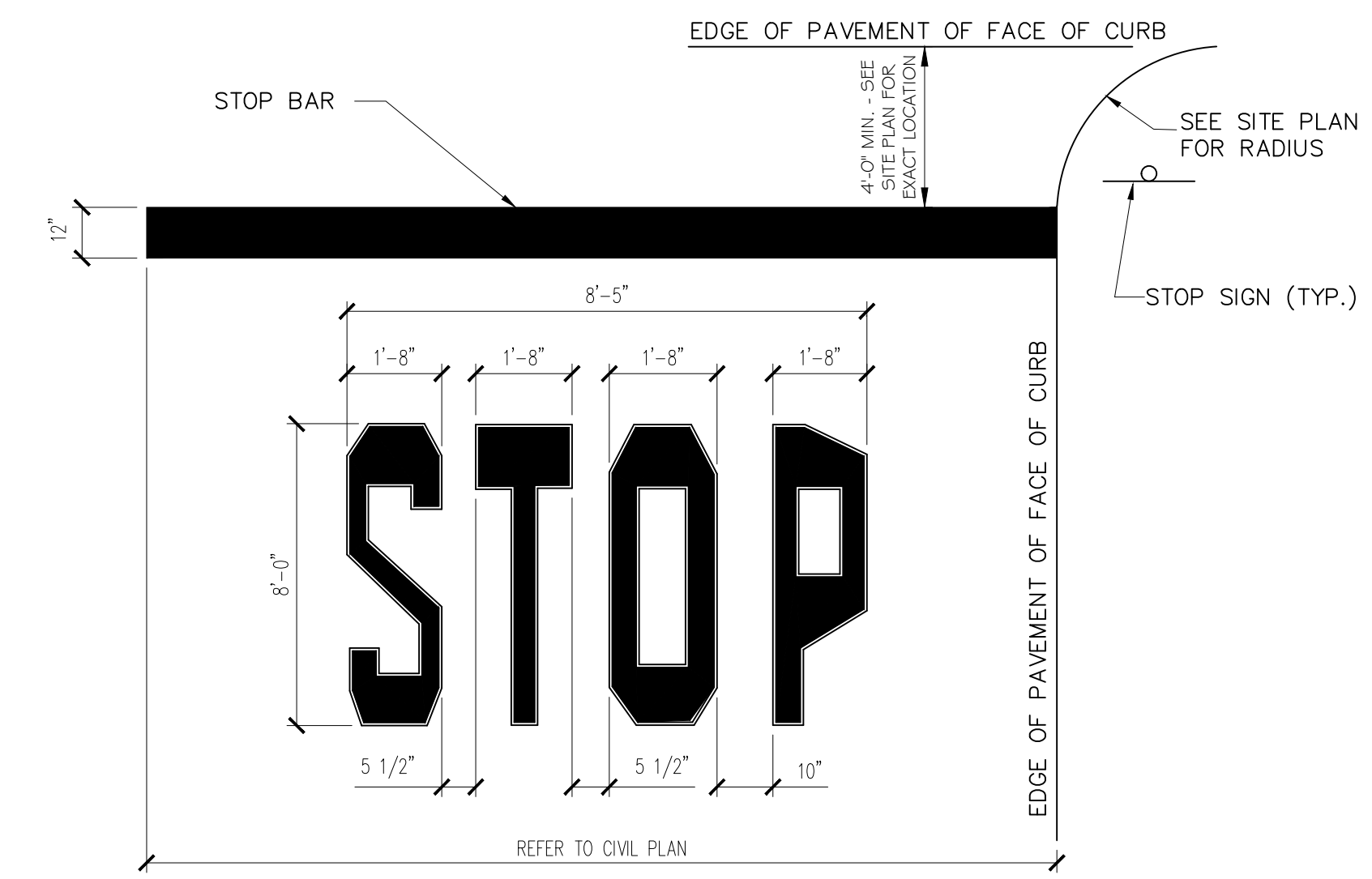
NOTES:
1. ALL TEXT SHALL BE PAINTED YELLOW (PMS 123).
2. PLACE 30'-0" FROM CENTERLINE OF PICK UP BOOTH.

PAINTED "THANK YOU"
NOT TO SCALE

NOTE:
ARROWS AND WORDS CAN BE ARRANGED IN OTHER COMBINATIONS THAN THOSE ILLUSTRATED HERE TO ACHIEVE DESIRED RESULT.



TYPICAL PAVEMENT MARKING
NOT TO SCALE



NOTE:
1. WORDS AND ARROWS FOR DRIVEWAYS SHALL BE APPLIED ACCORDING TO REQUIREMENTS AS OUTLINED IN SECTION 3B OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS
2. THESE WORDS AND BAR ARE TO BE PAINTED REFLECTIVE WHITE.

"STOP BAR"
NOT TO SCALE

OBJECTIVE OF STANDARDIZATION:
McDONALD'S OBJECTIVE IS TO STANDARDIZE OPTIMUM MARKINGS IN THE UNITED STATES TO ASSIST CUSTOMERS IN EASILY FINDING THE DRIVE-THRU LANES. THE MARKING POSITIONS ARE TO GUIDE THEM FROM ANY ENTRANCE ON THE PARKING LOT TO THE DRIVE-THRU LANE USING THE OPTIMUM ROUTE. THIS IS TYPICALLY AWAY FROM THE PRIMARY DRIVE AISLE, MOST COMMON ENTRANCE OR AROUND THE BUILDING TO INCREASE STACKING IN THE LANE. THE STANDARDIZATION FROM REGION TO REGION ASSISTS GUESTS WITH CONVENIENTLY FINDING THE DRIVE-THRU'S.

STANDARD LOT STRIPING STENCILS AND PAINT COLOR:
THESE ARE AVAILABLE FROM BETH BELL AT PAVEMENT STENCIL COMPANY, 4347-A AEROSPACE ROAD SE, ROANOKE, VA, 24014. 1-800-250-5547. THE FOLLOWING DESCRIPTION IS WHAT YOU WOULD SAY AS YOU ORDER. SHE HAS NO PART NUMBERS ASSOCIATED WITH THESE:

- LOT STRIPING STENCILS DESCRIPTION**
- DRIVE THRU
 - ROUND CIRCLE (DIRECTIONAL ARROW)
 - THANK YOU
 - DOUBLE HEADED ARROW FOR A DOUBLE DRIVE-THRU IS MADE UP OF THREE COMPONENTS.
 - PC SHAFT 12"W X 36"L, A PC REVERSIBLE CURVED SHAFT 12"W X 51"L.
 - PH ARROW HEAD 38"L X 36"W
 - LANE STRIPE IS A 6" WIDE STRIPE DONE BY THE LOT STRIPING COMPANY.
 - 39" ADA HANDICAP TEMPLATE
 - PAINT COLOR: THIS IS FOR ALL DRIVE-THRU DIRECTIONAL STRIPING INCLUDING THE PAINTED STRIPE FOR THE LANE. THE PAINT COLOR SHOULD MATCH PMS 123 YELLOW.
 - PROVIDE YELLOW PAINT ON ALL DRIVE-THRU MARKINGS UNLESS NOTED OTHERWISE.

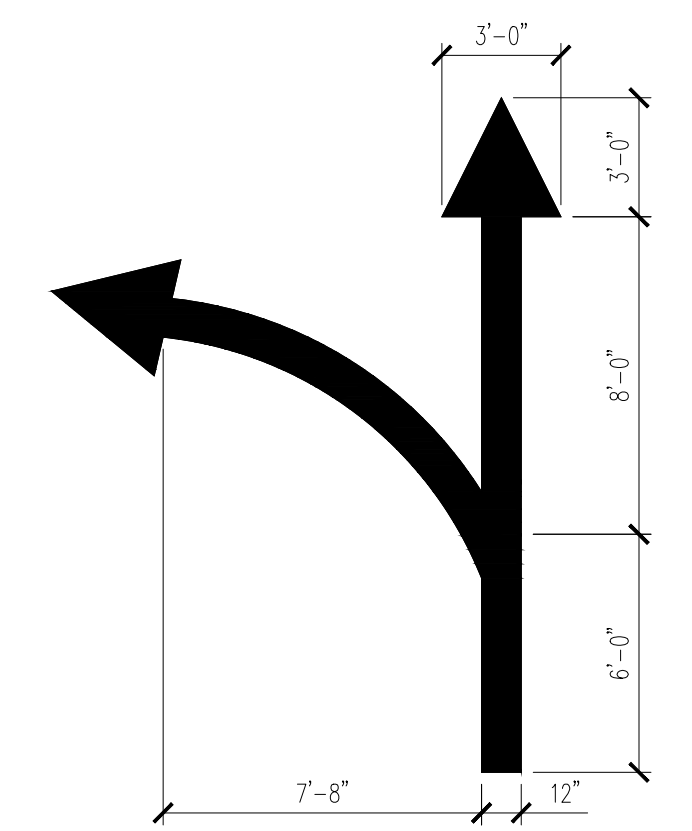
- GUIDING PRINCIPLES**
- ALL ENTRANCES TO THE LOT**
- THE WORD DRIVE THRU IS PLACED AT ALL ENTRANCES TO THE LOT APPROXIMATELY 25'-30' FROM THE CURB OR SIDEWALK. THEY SHOULD BE CENTERED IN THE DRIVEWAY (ON THE INGRESS SIDE OF THE DRIVE AISLE IF THERE IS TWO WAY TRAFFIC). RATIONALE: THIS ALLOWS THE CUSTOMER TO MOVE SAFELY ONTO THE LOT AND SEE THE DRIVE-THRU DIRECTIONAL ARROW WHEN THEY ARE SAFELY OFF THE STREET.
 - ROUND CIRCLE (DIRECTIONAL ARROW): THE CIRCLE ARROW SHOULD BE CENTERED ABOVE THE WORD "DRIVE" APPROXIMATELY 5 FEET FURTHER INTO THE PARKING LOT. RATIONALE: THE STANDARD YELLOW COLOR WITH THE WORD DRIVE-THRU SEEN FIRST AND THE ROUND ARROW BEGINS TO BRAND THE MARKINGS.

- LOT DIRECTIONAL MARKINGS:**
- ROUND CIRCLE (DIRECTIONAL ARROW): THE ARROWS SHOULD BE SPACED EVERY 40 TO 60 FEET. THIS ALLOWS EVENLY POSITIONED ARROWS THROUGHOUT THE LOT. RATIONALE: THE STRATEGIC POSITIONING ALLOWS THE CAR TO REACH AN ARROW AND OFF IN THE DISTANCE SEE THE NEXT DIRECTIONAL ARROW. THIS LEADS THEM IN THE DESIRE DIRECTION.
 - IF THERE ARE 5 OR MORE ARROWS ROUTING SOMEONE TO THE DRIVE-THRU THEN PLAN THE CORRECT PLACEMENT TO ADD THE WORD DRIVE-THRU AND POSITION THE ARROW CENTERED ABOVE THE WORD "DRIVE" SIMILAR TO THE ENTRANCE. THIS IS TO BE CENTERED BETWEEN THE ARROWS ON THE PARKING LOT. AN EXAMPLE IS IT TAKES EIGHT ARROWS TO GUIDE SOMEONE FROM THE ENTRANCE TO THE DRIVE-THRU ENTRANCE. YOU MIGHT DECIDE TO PLACE THE WORD DRIVE-THRU AT THE 4TH ARROW POSITION. RATIONALE: THE LONGER THE RUN TO THE DRIVE-THRU THIS REAFFIRMS THE COLOR AND DIRECTIONAL ARROWS ARE STEERING THEM IN THE RIGHT DIRECTION FOR THE DRIVE-THRU ENTRANCE.

- DRIVE-THRU ENTRANCE:**
- THE DOUBLE HEADED ARROW FOR DOUBLE DRIVE-THRU SHOULD BE POSITIONED TO DIRECT TRAFFIC APPROPRIATELY TO EITHER LANE AS THEY APPROACH TO THE ISLAND. EACH ARROW MUST BE CUSTOMIZED TO FIT THE LANE CONFIGURATION. RATIONALE: EACH CUSTOMER READS FROM DIFFERENT LEVELS SOME BY LOT MARKINGS, SOME AT EYE LEVEL AND OTHERS LOOK ABOVE THE VEHICLES. BY ADDRESSING ALL OF THESE METHODS IN BRANDING, THE USE IS SIMPLIFIED FOR THE MAJORITY OF THE GUESTS. THE DOUBLE ARROW INCREASES THE USAGE OF THE OUTSIDE LANE IN OFF PEAK TIMES HELPING THE RESTAURANT MAXIMIZE THE CAPACITY.

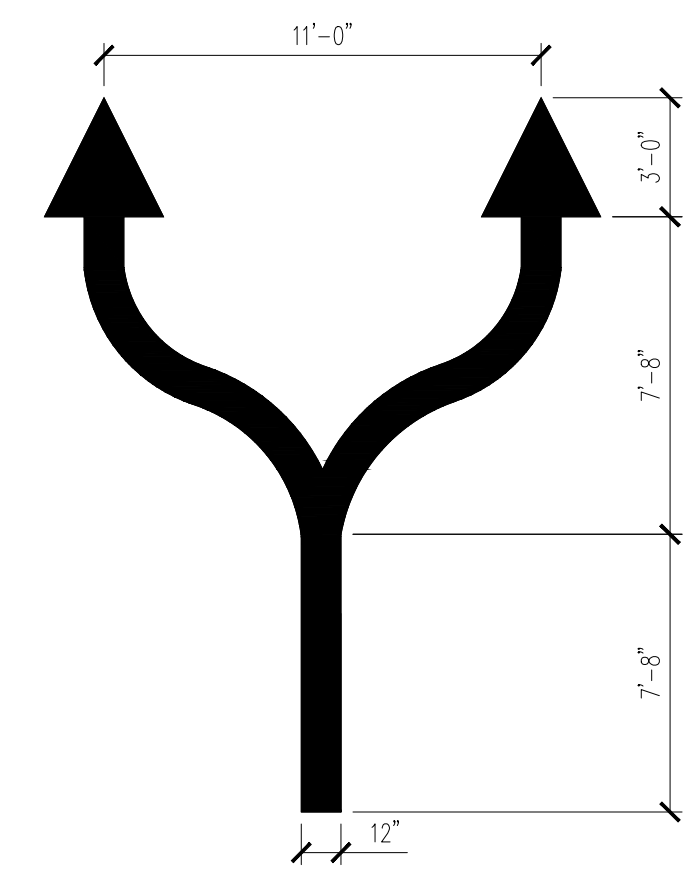
- PARKING LOT STRIPING NOT IN THE DRIVE-THRU:**
- ANY LOT STRIPING OTHER THAN THE DRIVE-THRU SHOULD BE WHITE. IF THE CITY CODE REQUIRES BLUE WITH THE HANDICAP PARKING STALLS THAT IS AN ACCEPTABLE DEVIATION. RATIONALE: THIS HELPS SUBTLY IDENTIFY WHAT IS A DRIVE-THRU MARKING FROM THE PARKING LOT MARKING AND CREATES A RUNWAY PATH TO THE LANE ENTRANCE.
 - THE ENTRANCES WILL ALL HAVE A WHITE INGRESS/ EGRESS ARROW FOR THE CUSTOMER TO EASILY IDENTIFY IF IT IS A ONE WAY OR TWO-WAY ENTRANCE. THESE ARE WITHIN 10FT FROM INGRESS POINT AND IS DESIGNED TO BE SEEN CLEARLY BEFORE A CAR MAKES A TURNING COMMITMENT. RATIONALE: THE CONSISTENCY HERE WILL HELP CUSTOMERS IDENTIFY THE FLOW OF TRAFFIC ON ALL ENTRANCES FOR THE CONSUMER WHEN THEY ARE AT A DECISION POINT.
 - ANY ADDITIONAL WHITE ARROWS NEEDED SHOULD BE POSITIONED IN BETWEEN THE DRIVE-THRU DIRECTIONAL MARKINGS.
 - ANY WORDING NEEDED OTHER THAN FOR THE DRIVE-THRU AREA SHOULD BE IN WHITE AND POSITIONED SO IT DOES NOT INTERFERE WITH THE DRIVE-THRU MARKINGS.

SHOULD YOU HAVE ADDITIONAL QUESTIONS FEEL FREE TO CONTACT THE McDONALD'S RESTAURANT DESIGN GROUP AT THE HOME OFFICE FOR FURTHER CLARIFICATIONS.



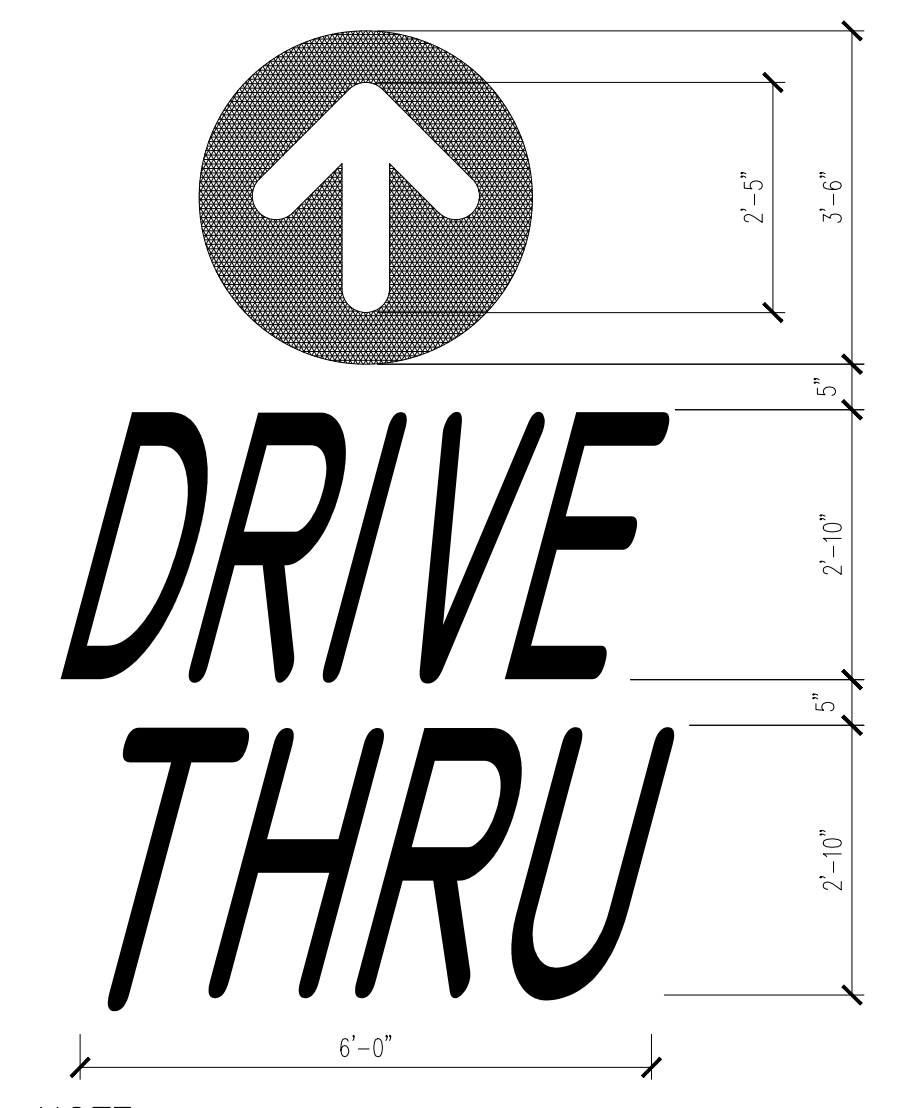
THIS IS TO BE USED ON ANY DESIGN THAT WOULD REQUIRE A "T" GATEWAY. ONLY DESIGNS THAT DO NOT HAVE A SINGLE ENTRY THAT LEADS A CAR RIGHT AT THE DECISION POINT OF THE TIP OF THE ISLAND. ONLY ONE OF OUR STANDARDS TEMPLATES HAS THIS DESIGN.

T-GATEWAY DRIVE-THRU MARKING
NOT TO SCALE



THIS IS TO BE USED ON ALL DESIGNS THAT HAVE A SINGLE POINT OF ENTRY THAT LEADS A CAR DIRECTLY TOWARD THE TIP OF THE ISLAND.

DOUBLE DRIVE-THRU MARKING
NOT TO SCALE

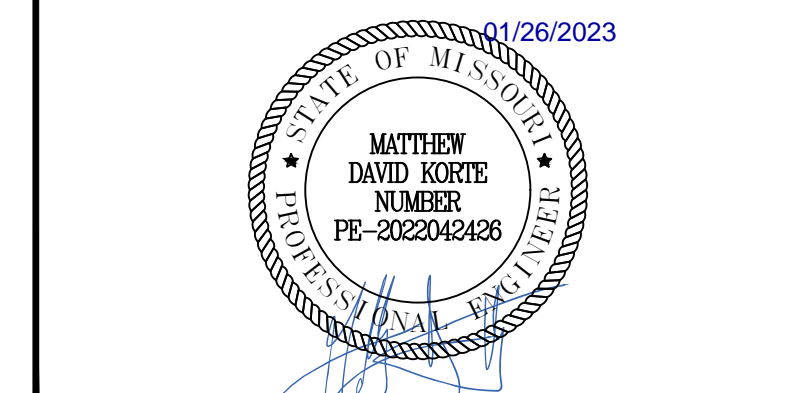


NOTE:
ALL TEXT AND ARROWS SHALL BE PAINTED YELLOW (PMS 123)

PAINTED "DRIVE THRU" MARKING
NOT TO SCALE

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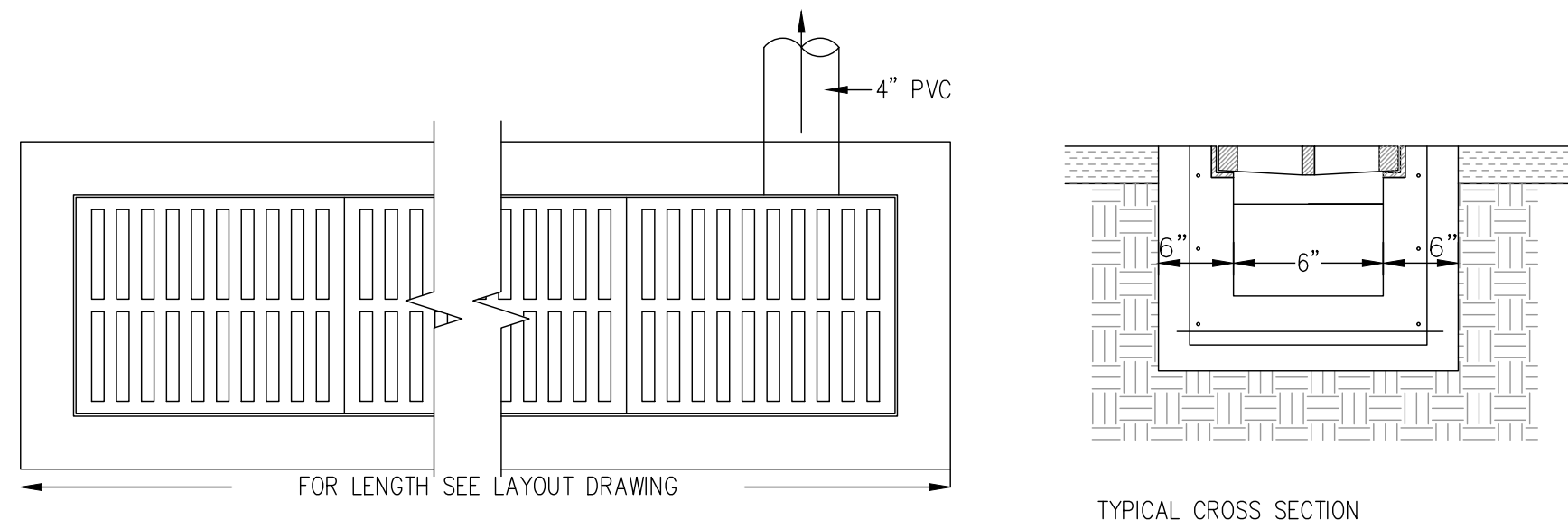


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Dallas, TX 75019
T: 817.328.3200 www.langan.com
MO Certificate of Authorization No. F001330220

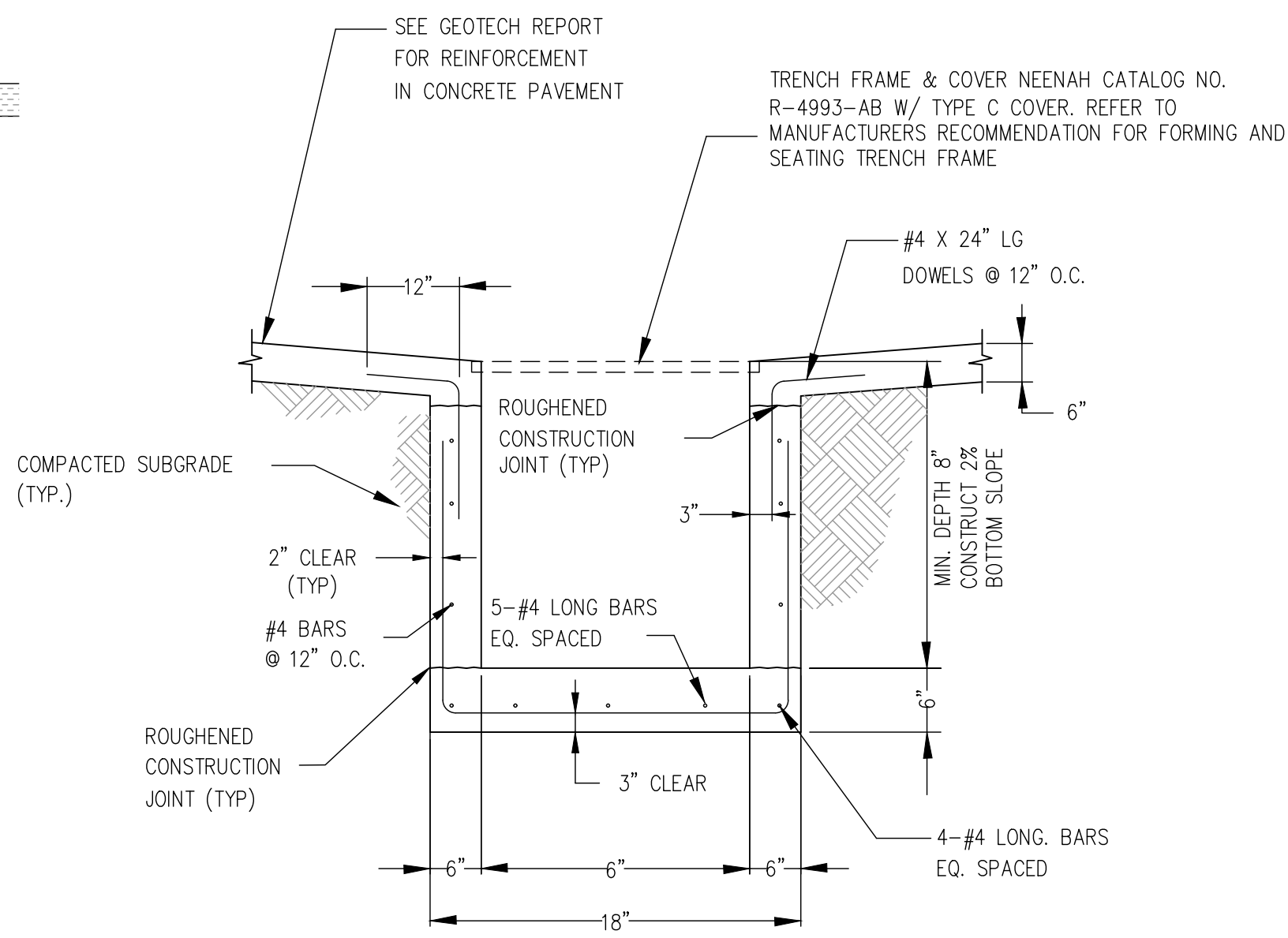
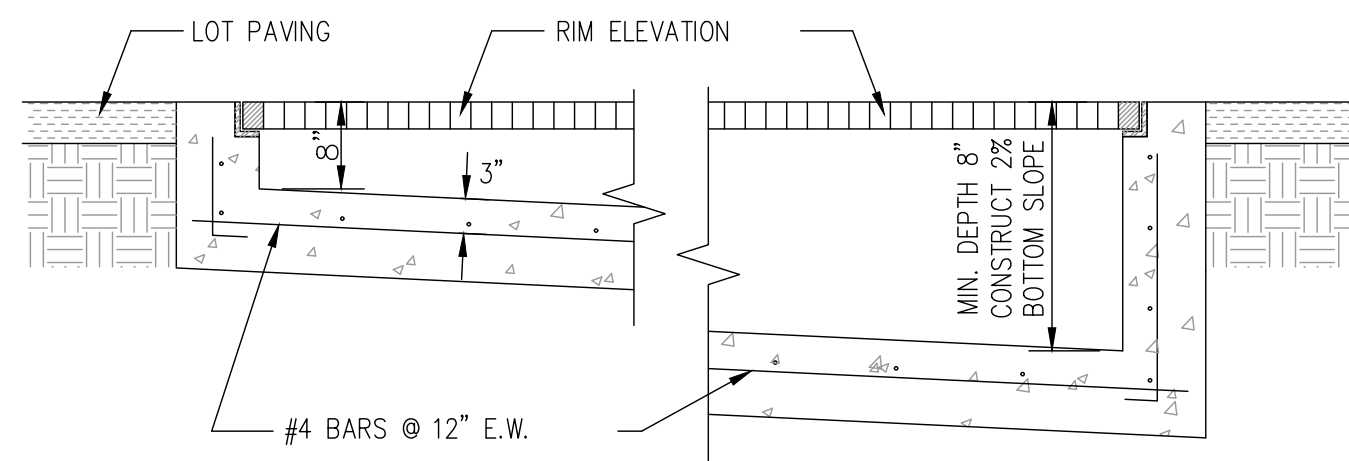
Project
McDONALD'S NEW PROJECT
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD
GREENE COUNTY MISSOURI
Drawing Title

STANDARD DETAILS

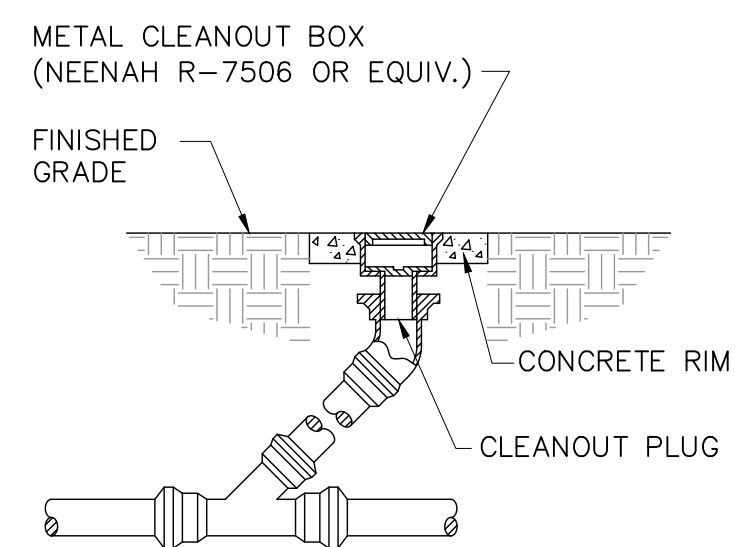
Project No. 520054201	Drawing No. C10.4
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	
Sheet 19 of 29	



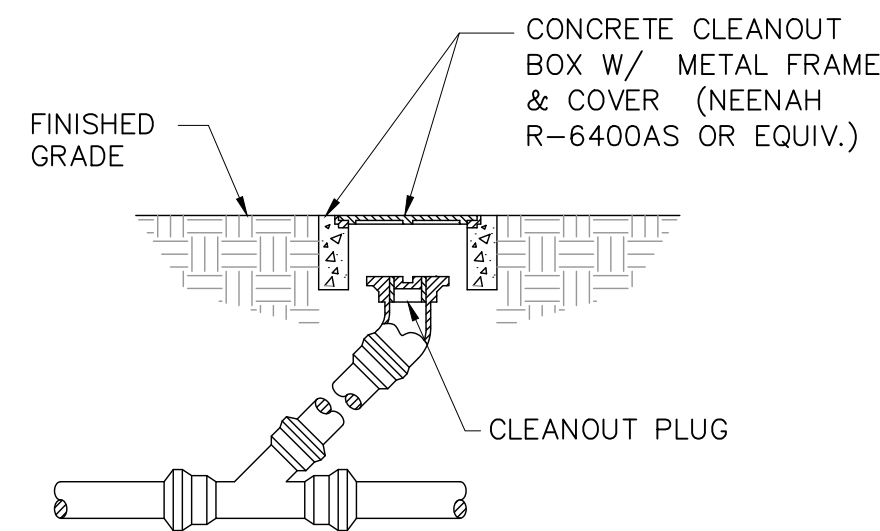
NOTE: GRATING TO BE EQUAL TO NEENAH R-4993-AB WITH "C" TYPE OF GRATING.



TRENCH DRAIN @ TRASH ENCLOSURE
NOT TO SCALE



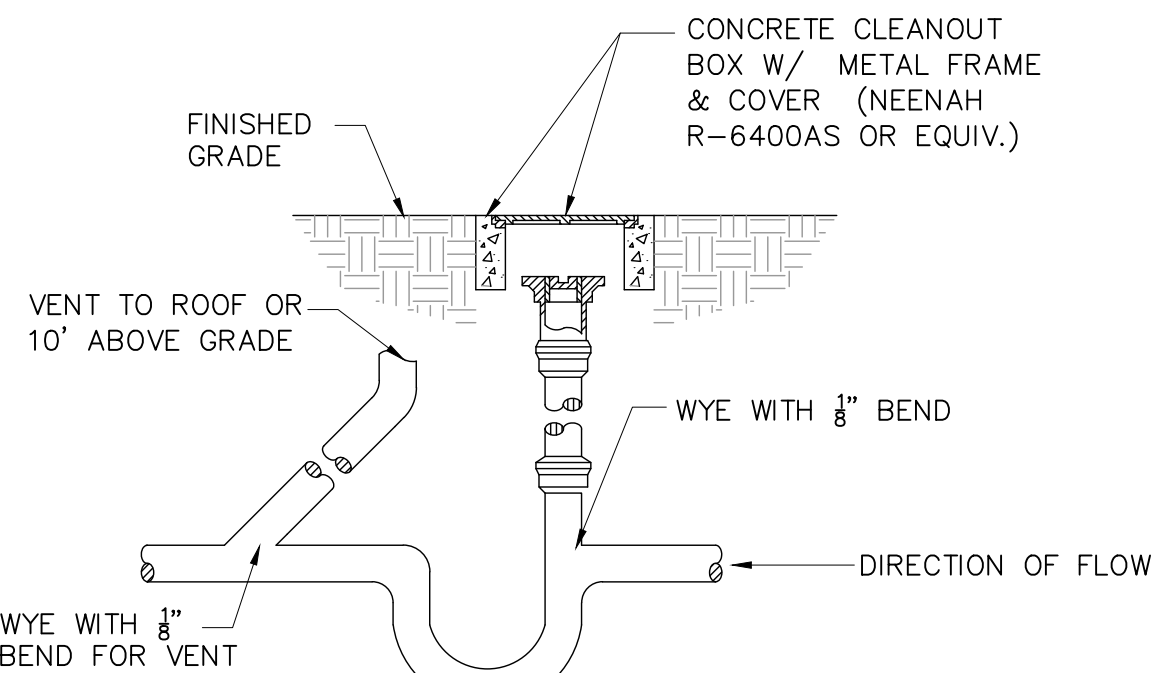
CLEANOUT IN UNPAVED AREAS



CLEANOUT IN PAVED AREAS

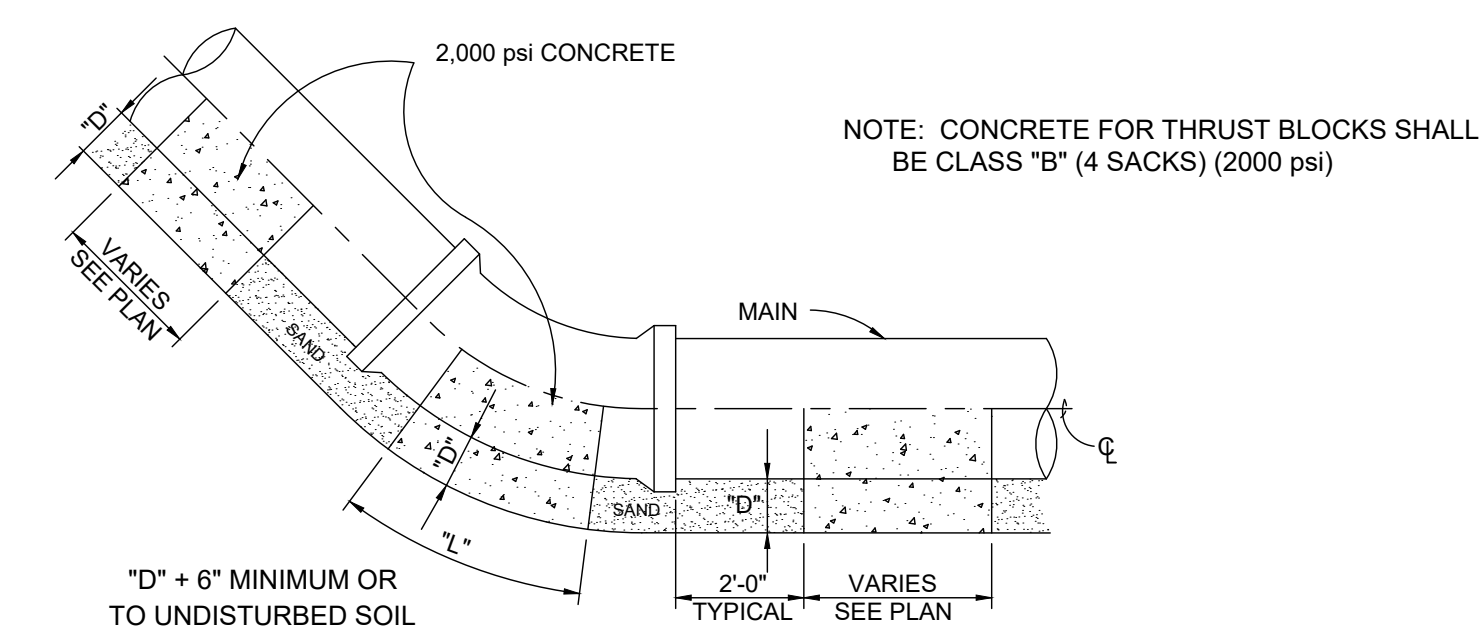
NOTE: G.C. IS TO INSTALL CLEANOUT AT ANY PIPING ANGLE CHANGES AND AT EVERY 50' IN PIPING RUNS GREATER THAN 100' IN LENGTH.

EXTERIOR CLEANOUT
NOT TO SCALE



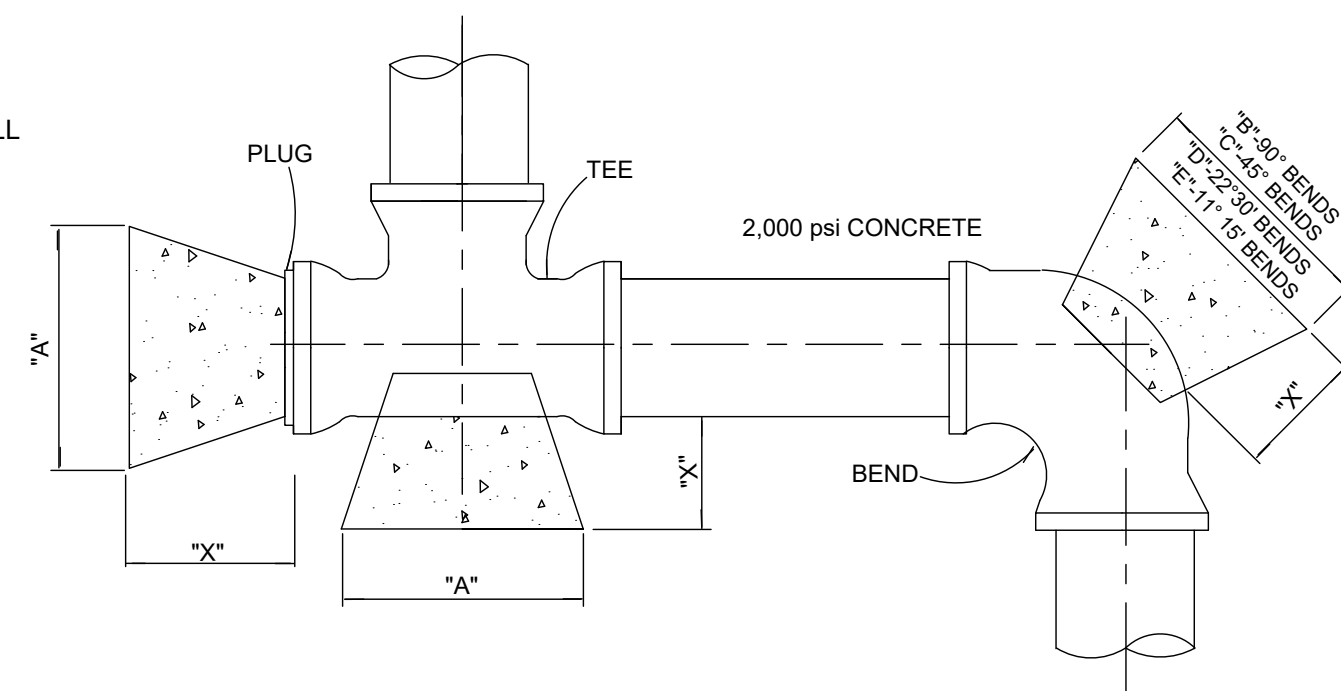
RUNNING P-TRAP

EXTERIOR TRAP AT TRENCH DRAIN
NOT TO SCALE



CONCRETE CRADLE AT VERTICAL BENDS

NOTE: MEGA LUG RETAINER GLANDS SHALL BE USED ON ALL FITTINGS AND BENDS



CONCRETE THRUST BLOCKING

PIPE SIZE	11" - 15"		22" - 30"		45"		90"	
	L	MAX. VOL.	L	MAX. VOL.	L	MAX. VOL.	L	MAX. VOL.
6"	0.42	0.02	0.45	0.02	0.50	0.02	1.00	0.04
8"	0.42	0.02	0.45	0.02	0.80	0.04	1.40	0.06
10"	0.42	0.03	0.58	0.03	1.15	0.06	2.03	0.11
12"	0.42	0.04	0.73	0.05	1.43	0.09	2.53	0.17
16"	0.42	0.08	0.74	0.14	1.48	0.27	2.61	0.48
18"	0.66	0.14	1.30	0.28				
20"	0.77	0.18	1.53	0.36				
18"	0.88	0.18	1.74	0.37				
20"	1.03	0.24	2.04	0.38				
18"	1.05	0.22	2.03	0.43				
20"	1.20	0.28	2.38	0.56				

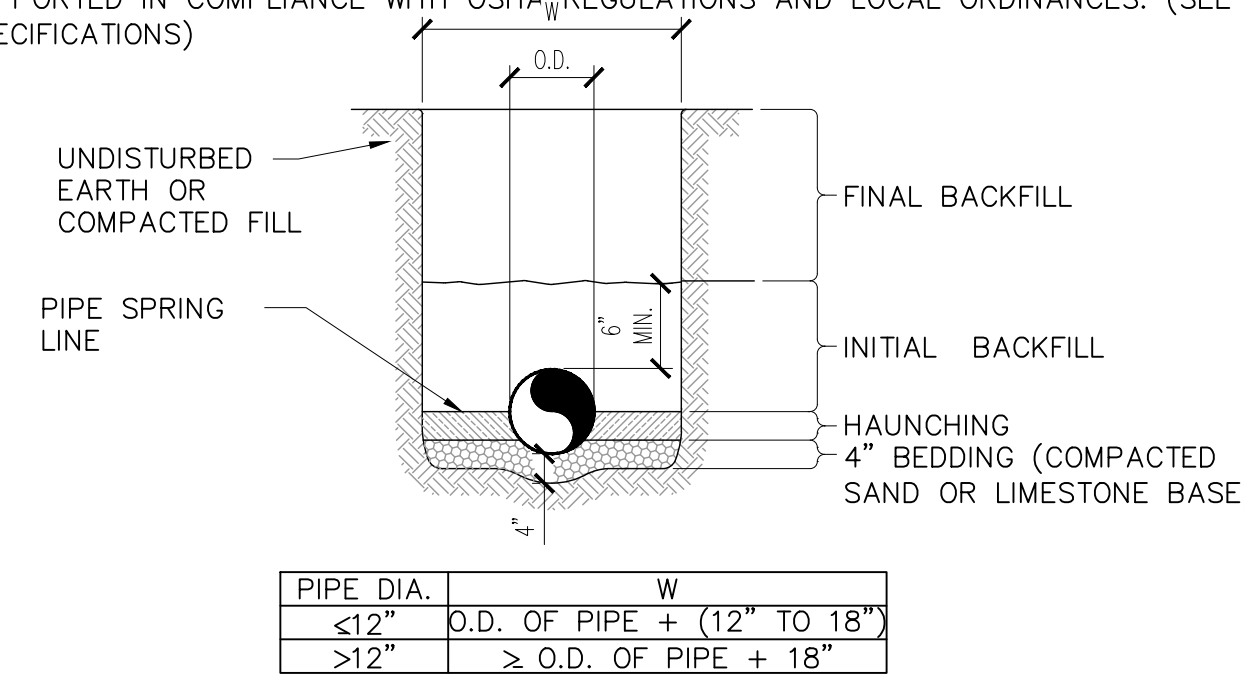
THRUST BLOCKING
NOT TO SCALE

PIPE SIZE	"X" DIM.	BLOCKING TABLE														
		PLUGS & TEES		90° BENDS		45° BENDS		22° 30' BENDS		11° 15' BENDS						
		"A" MIN. AREA	"B" MAX. VOL.	"C" MIN. AREA	"D" MAX. VOL.	"E" MIN. AREA	"F" MAX. VOL.	"G" MIN. AREA	"H" MAX. VOL.	"I" MIN. AREA	"J" MAX. VOL.					
4"	1'-0"	0.83	0.05	1'-0"	0.83	0.05	1'-0"	0.83	0.05	1'-0"	0.83	0.05	1'-0"	0.83	0.05	
6"	1'-0"	1.06	0.09	1'-0"	1.06	0.09	1'-0"	1.06	0.09	1'-0"	1.06	0.09	1'-0"	1.06	0.09	
8"	1'-0"	1.89	0.15	1'-0"	2.66	0.16	1'-0"	1.44	0.09	1'-0"	0.83	0.05	1'-0"	0.83	0.05	
10"	1'-0"	3.95	0.17	2'-0"	4.17	0.24	1'-0"	2.26	0.13	1'-0"	1.15	0.07	1'-0"	0.83	0.05	
12"	1'-0"	4.25	0.24	2'-0"	6.00	0.34	1'-0"	3.25	0.18	1'-0"	1.65	0.10	1'-0"	0.83	0.05	
16"	2'-0"	7.84	0.56	3'-0"	10.65	0.79	2'-0"	5.76	0.43	1'-0"	2.94	0.22	1'-0"	1.48	0.11	
18"	2'-0"	7.70	0.57	3'-0"	10.89	0.82	2'-0"	5.89	0.44	1'-0"	3.01	0.22	1'-0"	1.51	0.11	
20"	2'-0"	3'-0"	3.70	0.99	3'-0"	11.12	0.99	2'-0"	6.01	0.45	2'-0"	3.07	0.23	1'-0"	1.54	0.12
24"	2'-0"	3'-0"	11.33	0.84	4'-0"	16.00	1.20	3'-0"	8.65	0.65	2'-0"	4.42	0.33	1'-0"	2.22	0.17

NOTE: CALCULATIONS IN MINIMUM AREA COLUMN ARE IN SQUARE FEET. CALCULATIONS IN MAXIMUM VOLUME COLUMN ARE IN CUBIC YARDS.

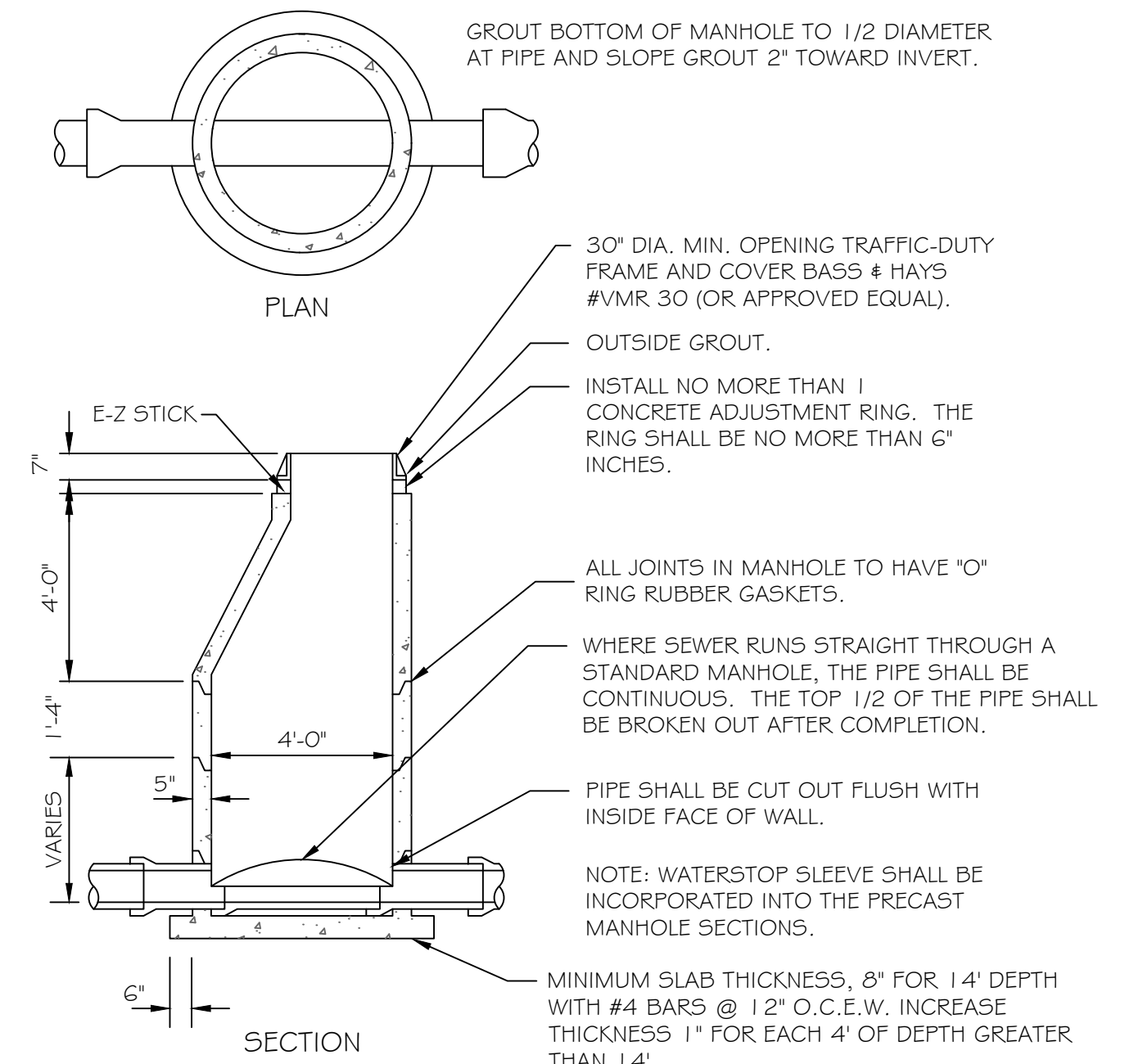
GENERAL NOTES:

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

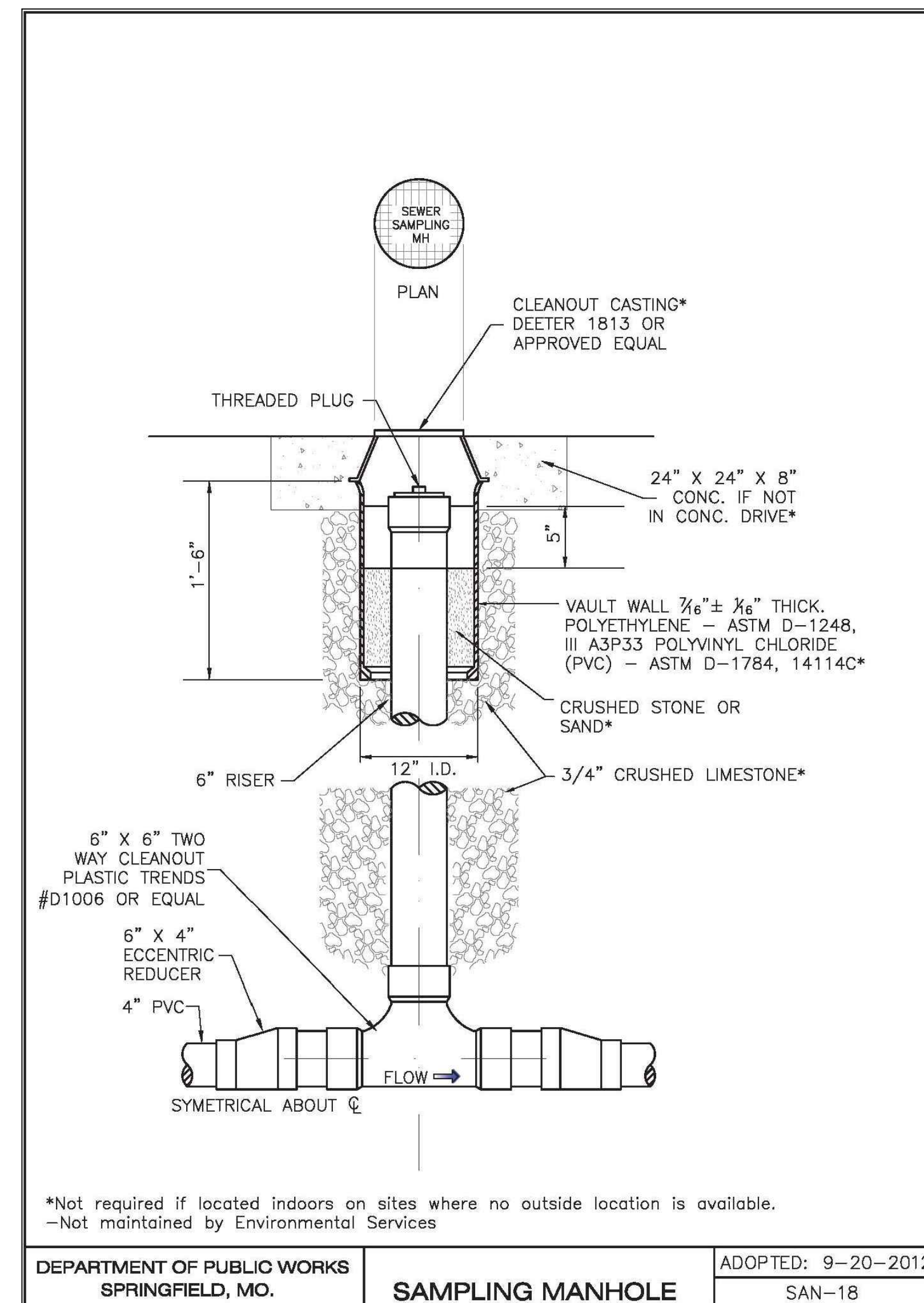


PIPE DIA.	W
<12"	O.D. OF PIPE + (12" TO 18")
>12"	≥ O.D. OF PIPE + 18"

UTILITY TRENCHING & BEDDING
NOT TO SCALE



SANITARY SEWER MANHOLE DETAIL
N.T.S.



*Not required if located indoors on sites where no outside location is available.
-Not maintained by Environmental Services

DEPARTMENT OF PUBLIC WORKS SPRINGFIELD, MO.	SAMPLING MANHOLE	ADOPTED: 9-20-2012 SAN-18
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Date	Description	No.
Revisions		

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T: 817.328.3200 www.langan.com
MO Certificate of Authorization No. F001330220

Project
McDONALD'S NEW RESTAURANT
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD
GREENE COUNTY MISSOURI
Drawing Title

STANDARD DETAILS

Project No. 520054201	Drawing No. C10.5
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	Sheet 21 of 30

LANDSCAPE PROJECT NOTES

Refer to Steward Specifications for all information needed for landscape work.

Notify Landscape Architect or designated representative of any layout discrepancies or any condition which may prohibit the installation as shown.

Verify and locate all utilities and site lighting conduits before landscape construction begins. Protection of all utilities is the responsibility of the Contractor.

All landscape planting areas illustrated shall be graded smooth with three inches (3") of topsoil and three inches (3") of compost applied and consistently blended (tilled) to a depth of nine inches (9"). If adequate or sufficient topsoil is not available on site, the Contractor shall provide topsoil per the specifications and approved by the Owner. To obtain final grade, excavation may be necessary to accept the required depth of topsoil/compost mix with surface dressing or mulch. All beds shall be crowned to anticipate settlement and ensure drainage without disrupting surrounding planned drainage paths. Any areas disturbed for any reason prior to final acceptance of the project shall be corrected by the Contractor at no additional expense to the Owner.

All landscaped areas will be irrigated with an underground automatic system.

Quantities shown on these plans are for reference only. Plant spacing is as indicated in the Plant Material List unless otherwise noted. The Contractor shall have full responsibility to provide coverage in all planting areas as specified.

All trees and shrubs shall be installed per planting details.

Trees shall be planted at least five feet (5') from any utility line or sidewalk, and to the outside of utility easements with a clear ten feet (10') around fire hydrants. Furthermore, planting within areas of turf shall give priority of location to irrigation. Trees shall not be planted within five feet (5') of a spray head or ten feet (10') of a rotor. Remaining irrigation components shall respect the location of the illustrated landscape design. Shrubs, regardless of type, shall not be planted within thirty inches (30") of bed perimeters.

All plant material shall be maintained in a healthy and growing condition, and must be replaced with similar variety and size if damaged or removed. Container grown plant material is preferred; however, ball and burlap material may be substituted as indicated in the plant material list.

All planting beds as designated shall be bordered by Owner approved four inch (4") steel edging w/ 3/4" min. thickness unless bed is bordered by concrete. Steel edging flush adjacent to river rock beds shall have a 1/2" min. thickness. Terminate edging flush with paved surface with no sharp corners exposed.

A four inch (4") dressing of Shredded hardwood mulch over a 4.1 oz. woven polypropylene, needle-punched fabric or equal weed barrier shall be used in all plant beds and around all trees. Single trees or shrubs shall be mulched to the outside edge of the saucer or landscape island (See planting details).

Fertilize all plants at the time of planting with 10-10-10 time release fertilizer.

All areas of river rock as designated shall be locally available and of an average diameter of one and one-half inches (1 1/2") minimum to three inches (3") maximum. Contractor shall install to a depth of three inches (3"). Rock should be compacted and stable under foot when applied in a pedestrian area.

SOD PROJECT NOTES

EROSION CONTROL:
Throughout the project and the maintenance period for turfgrass, it is the Contractor's responsibility to maintain the topsoil in place at specified grades. Topsoil and turfgrass losses due to erosion will be replaced by the Contractor until ESTABLISHMENT AND ACCEPTANCE is achieved.

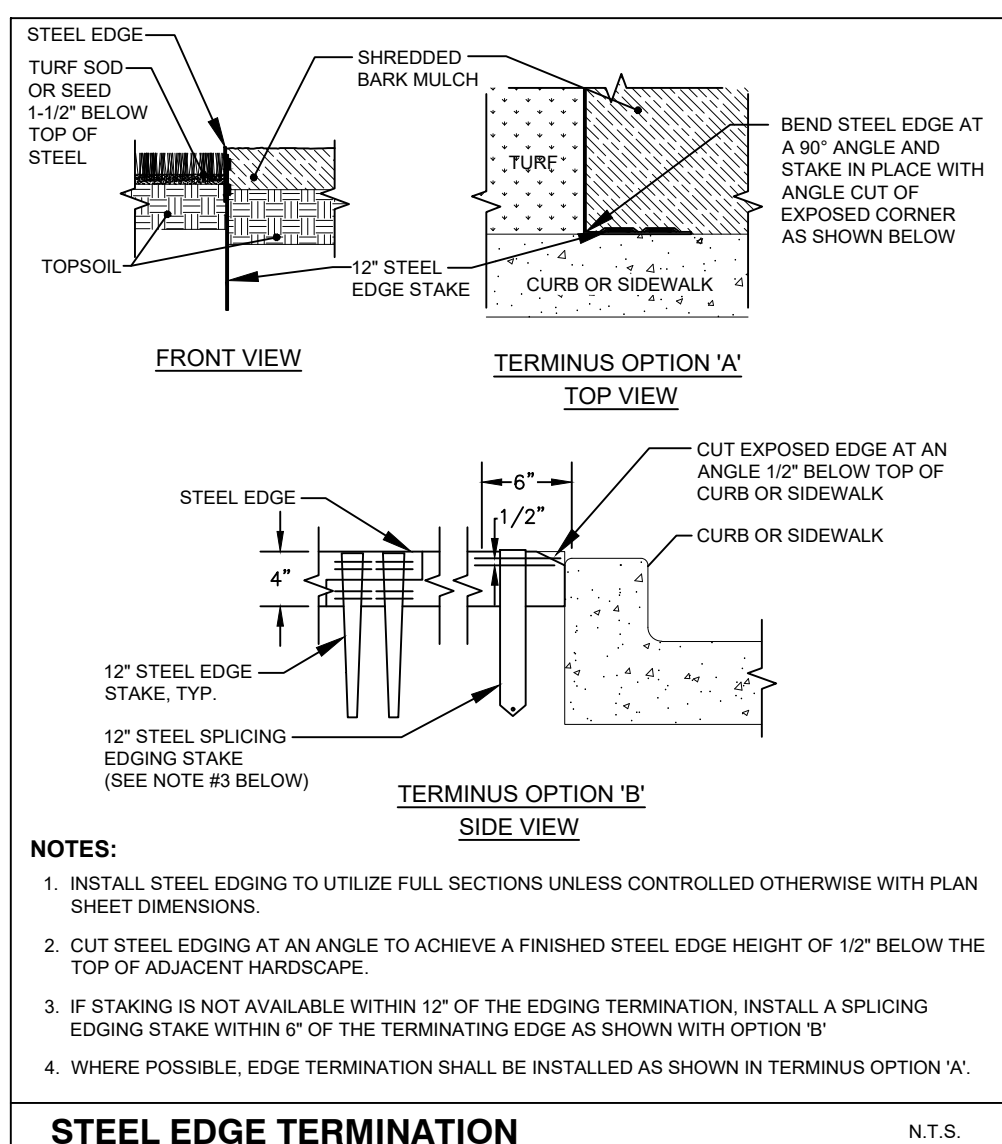
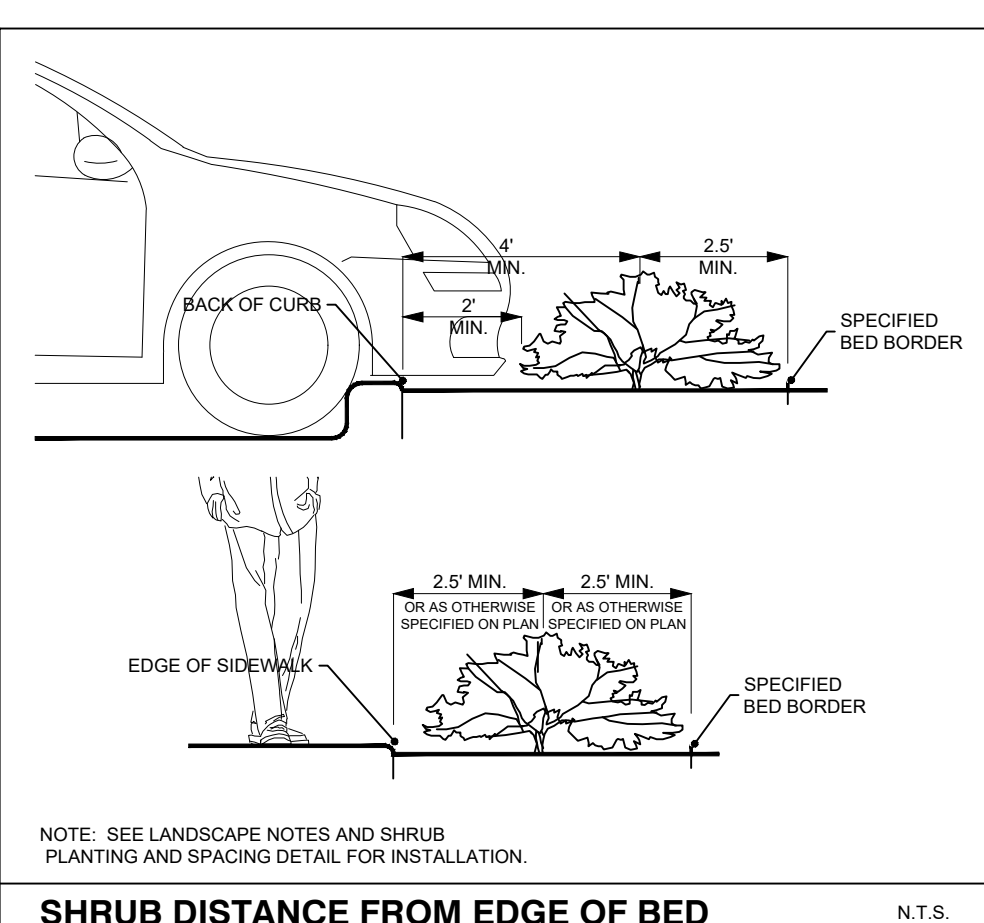
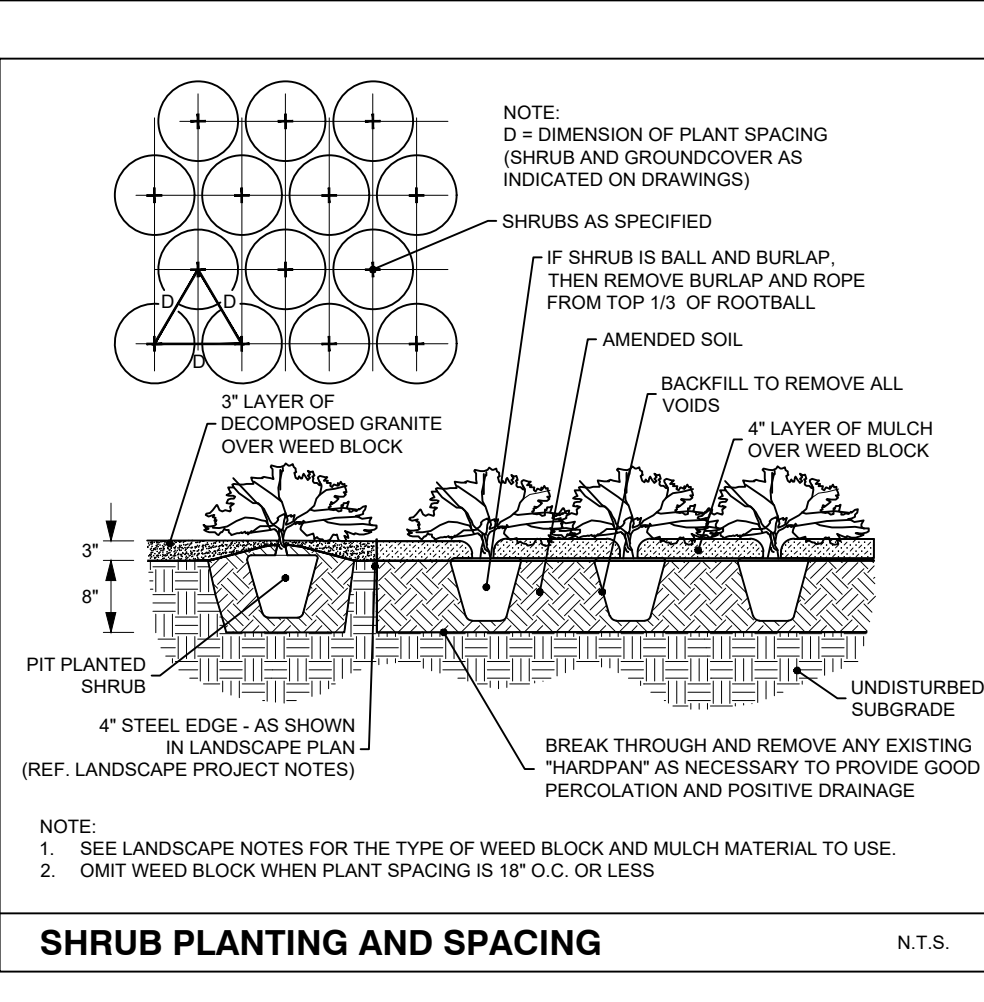
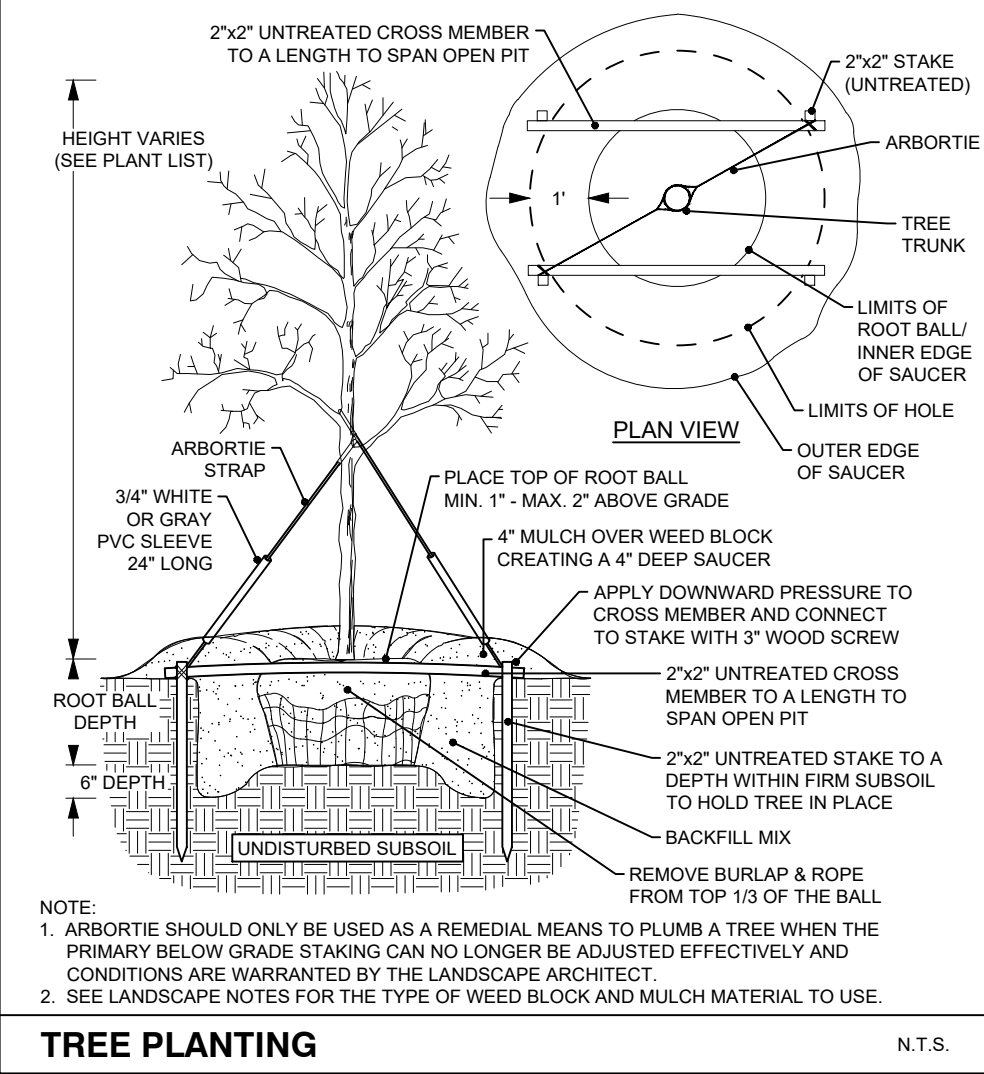
SOIL PREPARATION:
All slopes and areas disturbed by construction, except those occupied by buildings, structures, or paving shall be graded smooth and four (4") inches of topsoil applied. If adequate topsoil is not available onsite, the Contractor shall provide topsoil as approved by the Owner. The area shall be dressed to typical sections and plowed to a depth of five (5") inches. Soil shall be further prepared by the removal of debris, weeds and stones larger than 3/4 inch in diameter. After tillage and cleaning, all areas to receive turf shall be leveled, fine graded, and drag with a weighted spike harrow or float drag.

GRASS SOD:
Turfgrass sod shall be 100% "Cynodon dactylon" (Common Bermuda grass). Sod shall consist of stems, leaf blades, rhizomes and roots with a healthy, white system of dense, thickly matted roots throughout the soil of the sod for a thickness not less than three-quarters (3/4") inch. Sod shall be alive, healthy, vigorous, free of insects, disease, stones, and undesirable foreign materials and grasses. The grass shall have been moved prior to sod cutting so that the height of grass shall not exceed two (2") inches. Sod shall have been produced on growing beds of clay-loam topsoil. Sod shall not be harvested or planted when its moisture condition is so excessively wet or dry that its survival will be affected. All sod is to be harvested, delivered, and planted within a thirty-six (36) hour period of time. Sod shall be protected from exposure to wind, sun, and freezing. Should installation occur between November and March, sod shall include an over-seed of Annual Rye for a green-in appearance.

IRRIGATION:
In the absence of an irrigation system or areas beyond the coverage limits of a permanent irrigation system, Contractor shall water sod temporarily to develop adequate growth and establishment before regular maintenance begins. Turf shall be watered until firmly established.

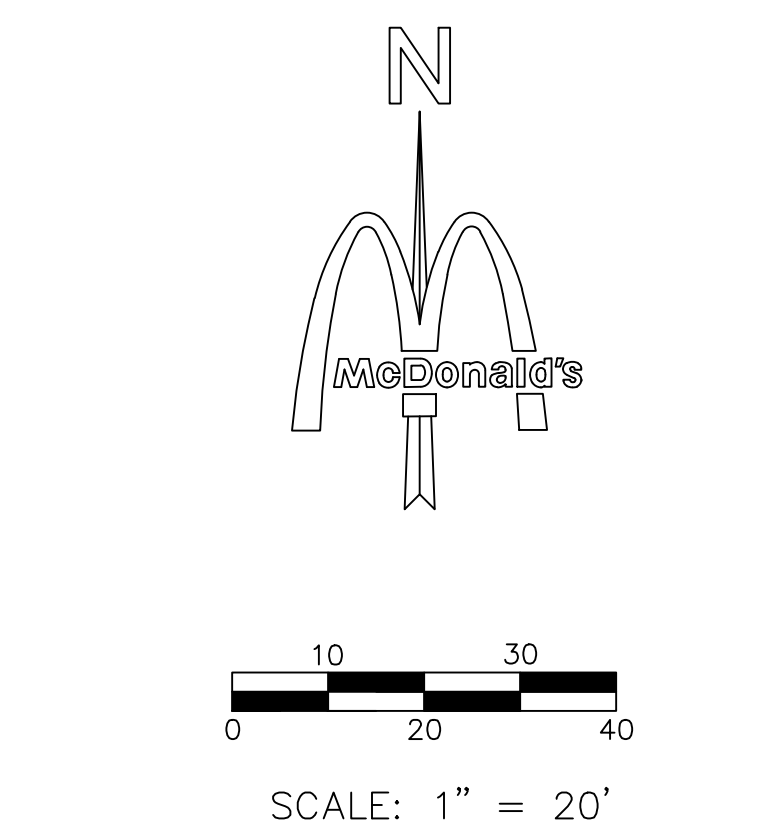
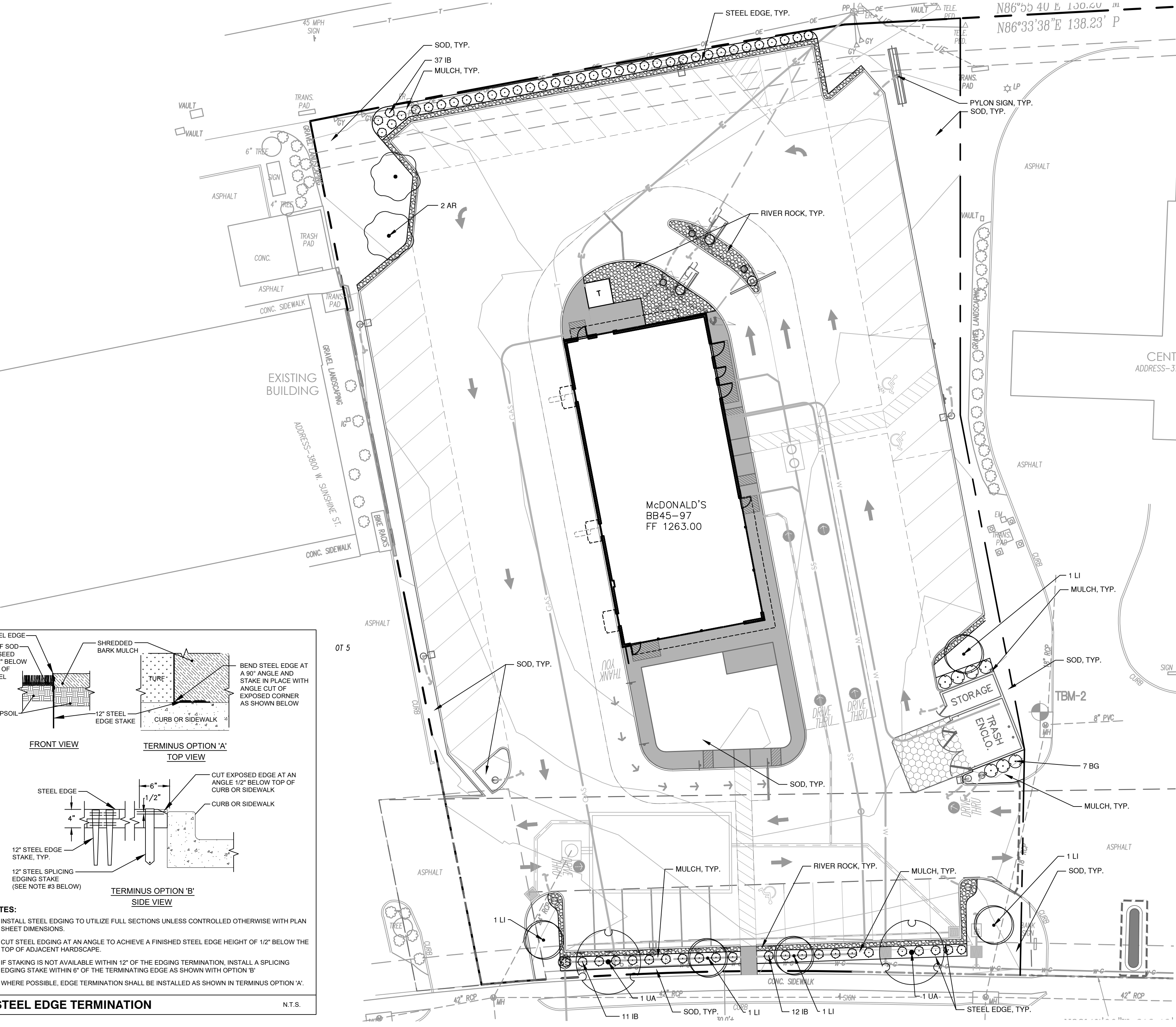
Water shall be furnished by the Contractor with means and methods available to achieve acceptable turf. The water source shall be clean and free of industrial wastes or other substances harmful to the growth of the turf.

MAINTENANCE REQUIREMENTS:
Vegetation should be inspected regularly to ensure that plant material is established properly and remains healthy. Mowing, trimming and supervision of water applications shall be the responsibility of the Contractor until the Owner or Owner's Representative accepts and assumes regular maintenance.



PLANT SCHEDULE						
TREES	KEY	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	REMARKS
	AR	2	ACER RUBRUM / RED MAPLE	2.5' CAL.	B&B	
	UA	2	ULMUS AMERICANA / AMERICAN ELM	2.5' CAL.	B&B	
UNDERSTORY TREES	KEY	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	REMARKS
	LI	5	LAGERSTROEMIA INDICA / CRAPE MYRTLE	2.5' CAL.	B&B	SINGLE STEM
SHRUBS	KEY	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	REMARKS
	BG	7	BUXUS X 'GREEN GEM' / GREEN GEM BOXWOOD	5 GAL.	CONTAINER	
	IB	60	ILEX CORNUTA 'BURFORDII NANA' / DWARF BURFORD HOLLY	3 GAL.	CONTAINER	

SPRINGFIELD, MO LANDSCAPE ORDINANCE COMPLIANCE CHART			
ORDINANCE SECTION	DESCRIPTION	REQUIRED/PROVIDED	COMPLIANCE
Sec 36-482 9(a)	Minimum of 5% on parking lot should be devoted to interior landscaping (8 pts for each percent up to 10% then 6 pts after that between 10-20%)	REQUIRED: 55,525 sf x 0.05= 2,776.25 sf PROVIDED: 9,505 sf (17%)(8x10=80 + (7x6)=122 pts)	COMPLIES
Sec 36-482 9(a)	Minimum of 1 canopy Tree or 2 understory trees required for every 30 parking spaces (6 pts for each Tree)	REQUIRED: 57/30 = 2 Canopy trees PROVIDED: 2 Canopy Trees (18 pts)	COMPLIES
Sec 36-482 9(b)	Minimum of 1 canopy tree, 1 understory tree, and 4 shrubs for every 100 LF of street frontage (6 pts for each canopy tree, 4 pts for each ornamental, and 2 pts for each shrub)	REQUIRED: 150 LF= 1.5 canopy trees, 1.5 understory trees, and 6 shrubs PROVIDED: 2 canopy and 2 understory trees and 23 shrubs (12+8+46= 66 pts)	COMPLIES
Sec 36-482 10	200 points required to meet landscape requirements for zoning	REQUIRED: 200 Points in total based off all the rows above PROVIDED: 206 Points	COMPLIES



Date	Description	No.
Revisions		

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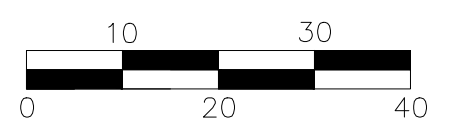
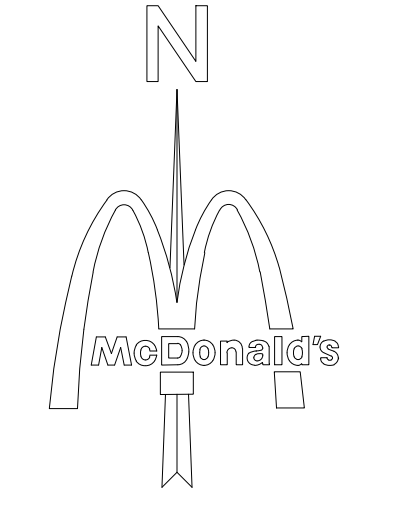
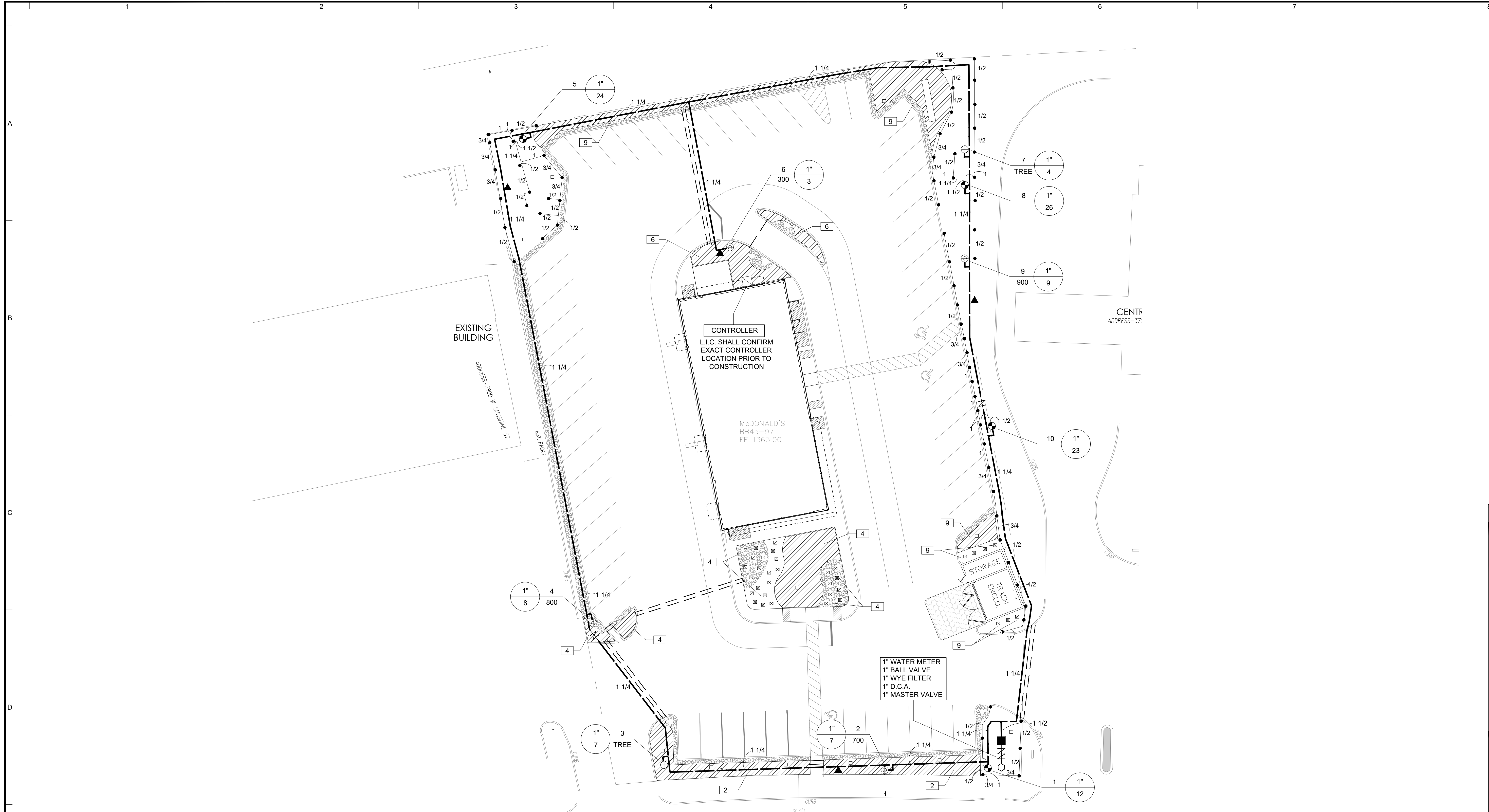
Project **McDONALD'S NEW PROJECT**
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD

GREENE COUNTY MISSOURI
 Drawing Title

LANDSCAPE PLAN

Project No.	Drawing No.
520054201	L-1.0
Date	JANUARY 2023
Drawn By	DH
Checked By	JOS/MS
Sheet 21 of 29	





SCALE: 1" = 20'



Know what's below.
Call before you dig.

Date	Description	No.
Revisions		

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Project: **McDONALD'S NEW PROJECT**
 L/C 024-1290
 3720 WEST SUNSHINE STREET
 SPRINGFIELD

GREENE COUNTY MISSOURI

Drawing Title

IRRIGATION PLAN

Project No.	520054201	Drawing No.	L11.0
Date	01/04/2023		
Drawn By	GA		
Checked By	AM		
		Sheet	12 of 12

IRRIGATION LEGEND

- ☐ RAINBIRD XERI-BUG SINGLE / MULTI OUTLET (XB-T-10-PC / XBT-10-6) POINT SOURCE DRIP EMITTERS. SEE INSTALLATION NOTE #16 REGARDING EMITTER LAYOUT AND CONNECTION TO DRIP VALVE ASSEMBLY
 - ☐ RAINBIRD 1806-SAM-PRS SERIES POP UP SPRAY HEADS WITH ADAPTER AND RAINBIRD #1402 SERIES BUBBLER NOZZLES. (TWO PER TREE) SEE INSTALLATION NOTE #13 REGARDING TREE BUBBLER LATERAL PIPE
 - ☐ RAINBIRD 1804-SAM-PRS SERIES POP UP SPRAY HEAD WITH SST / EST SERIES NOZZLE AS NOTED BELOW
 - ☐ RAINBIRD 1804-SAM-PRS SERIES POP UP SPRAY HEAD WITH U-SERIES NOZZLE AS NOTED BELOW
 - ☐ NETAFIM TECHLINE TLHCVR5-12 SERIES DRIP TUBE IN SHRUB BED INSTALLED AT 2" DEPTH SEE INSTALLATION NOTE #16 REGARDING DRIP TUBE LAYOUT IN SHRUB BEDS.
 - ⊕ RAINBIRD PEB SERIES ELECTRIC REMOTE CONTROL VALVE
 - ⊕ RAINBIRD PEB SERIES ELECTRIC REMOTE CONTROL "TREE BUBBLER ZONE" VALVE SEE INSTALLATION NOTE #13 REGARDING TREE BUBBLER LATERAL PIPE
 - ⊕ NETAFIM CONTROL ZONE KIT MODEL #NCZ-1S SERIES WITH 50 PSI PRESSURE REGULATOR AND SCREEN FILTER
 - ▲ RAINBIRD 33-DNP QUICK COUPLING VALVE WITH LOCKING PURPLE COVER AND 3/4" PVC BALL VALVE
 - ▲ ZURN / WILKINS 350 SERIES D.C.A. INSTALLED PER CITY CODE, WITH SAME SIZE ZURN / WILKINS 850 SERIES BRONZE BALL VALVE AND ZURN / WILKINS YB SERIES BRONZE WYE FILTER WITH 20 MESH STAINLESS STEEL SCREEN
 - ▲ LASCO "V101N" SERIES SCH. 80 PVC TRUE UNION BALL VALVE, MAINLINE SIZE
 - ▲ IRRIGATION WATER METER AND TAP, SIZE AS NOTED ON THE PLAN
 - ▲ RAINBIRD ESP-Me SERIES AUTOMATIC CONTROLLER WITH TWO ESPSM6 MODULES, LNK WIFI MODULE, AND WR2-RFC RAIN / FREEZE SENSOR LOCATE SENSOR AS FIELD DIRECTED BY THE LANDSCAPE ARCHITECT
 - MASTER ELECTRIC VALVE
 - CLASS 200 PVC MAINLINE PIPE
 - CLASS 200 (EXCEPT 1/2 INCH #315) PVC LATERAL PIPE
 - ONE 4" CLASS 200 SLEEVE PIPE
 - TWO 4" CLASS 200 SLEEVE PIPES
- L.I.C. SHALL SELECT SPRAY NOZZLES FOR "HEAD-TO-HEAD" COVERAGE, ADJUSTED FOR NO OVERTSPRAY ONTO WALLS AND WALKS. NO OVERTSPRAY INTO STREETS IS PERMITTED.

James Pole
 IRRIGATION CONSULTANTS
 IRRIGATION DESIGN, CONSULTING, AND LANDSCAPE WATER MANAGEMENT

TEXAS L.I.C. #658
 100 N. LOCUST ST., SUITE 3
 DENTON, TEXAS 76201

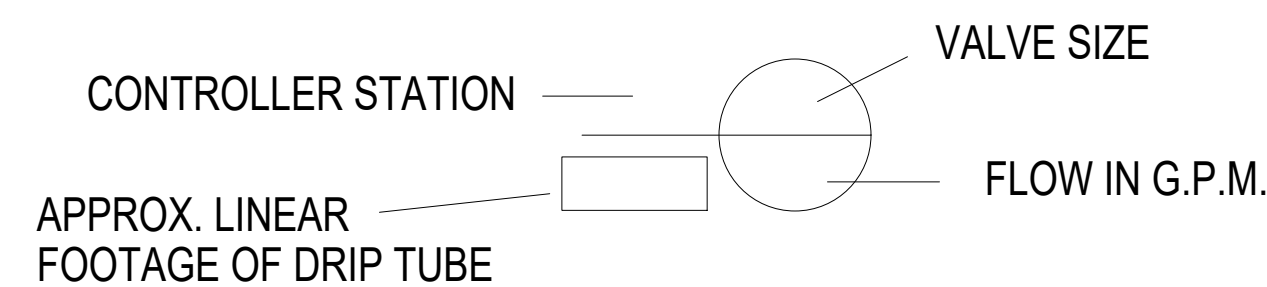
OFFICE: 940.243.2364
 FAX: 940.382.2475
 james@jamespoleirrigation.com

INSTALLATION NOTES

- COORDINATE IRRIGATION INSTALLATION WITH PLANTING PLAN AND SITE CONDITIONS TO PROVIDE COMPLETE COVERAGE WITH MINIMUM OVERSPRAY. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER. THE IRRIGATION CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE MANDATED IRRIGATION ORDINANCES AND CODES, AND WILL SECURE ALL REQUIRED PERMITS. L.I.C. SHALL PAY ANY ASSOCIATED FEES UNLESS OTHERWISE NOTED. ALL LOCAL CODES SHALL PREVAIL OVER ANY DISCREPANCIES HEREIN AND SHALL BE ADDRESSED BEFORE ANY CONSTRUCTION BEGINS.
- NO MACHINE TRENCHING SHALL BE PERMITTED WITHIN THE ROOT ZONE OF EXISTING TREES. HAND-DIG ONLY, WITHIN THE ROOT ZONES OF EXISTING TREES. NO ROOTS OVER 1" DIAMETER SHALL BE CUT. STAKE ALL PROPOSED TRENCH ROUTES NEAR EXISTING TREES FOR APPROVAL BY THE LANDSCAPE ARCHITECT BEFORE DIGGING BEGINS.
- CONFIRM MINIMUM STATIC WATER PRESSURE OF 65 PSI AT THE HIGHEST ELEVATION OF THE SYSTEM LIMITS, AND MAXIMUM STATIC WATER PRESSURE OF 90 P.S.I. AT THE LOWEST ELEVATION OF THE SYSTEM LIMITS AT LEAST 7 DAYS BEFORE BEGINNING WORK. IF STATIC WATER PRESSURE IS OUTSIDE THE RANGE STATED ABOVE, DO NOT PROCEED UNTIL DIRECTED BY THE LANDSCAPE ARCHITECT.
- LATERAL PIPE SHALL BE INSTALLED AT A MINIMUM DEPTH OF 12 INCHES. MAINLINE PIPE AND WIRES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 18 INCHES. NO MACHINE TRENCHING SHALL BE PERMITTED WITHIN EXISTING TREE ROOT ZONES. WHEN HAND - TRENCHING WITHIN EXISTING TREE ROOT ZONES, NO ROOTS LARGER THAN 1" DIAMETER SHALL BE CUT.
- UNSLEEVED PIPES MAY BE SHOWN UNDER PAVEMENT FOR GRAPHIC CLARITY ONLY. INSTALL THESE PIPES IN ADJACENT LANDSCAPED AREAS.
- ELECTRIC POWER SHALL BE PROVIDED WITHIN FIVE FEET OF CONTROLLER LOCATION BY GENERAL CONTRACTOR. L.I.C. TO PROVIDE FINAL HARD-WIRE TO CONTROLLER.
- 24 VOLT VALVE WIRE SHALL BE A MINIMUM OF #14 GAUGE, U.F. APPROVED FOR DIRECT BURIAL, SINGLE CONDUCTOR "IRRIGATION WIRE". WIRE SPLICES SHALL INCLUDE DBY CONNECTORS AS MANUFACTURED BY 3M COMPANY. ALL FIELD SPLICES SHALL BE LOCATED IN A ROUND VALVE BOX OF SUFFICIENT SIZE TO ALLOW INSPECTION.
- VALVE BOXES SHALL BE INSTALLED FLUSH WITH GRADE, SUPPORTED BY BRICKS IF NEEDED, WITH 3 INCHES OF CLEAN PEA GRAVEL LOCATED BELOW THE VALVE. USE 12" x 17" RECTANGULAR VALVE BOXES WITH PURPLE LID FOR QUICK COUPLING VALVES, AND 10" ROUND BOXES FOR ELECTRIC VALVES UNLESS NOTED OTHERWISE. D.C.A., WITH UPSTREAM BALL VALVE AND WYE FILTER SHALL BE BOXED AND LOCATED ACCORDING TO LOCAL CODE.
- USE RIGID SCH. 80 PVC SWING JOINT ASSEMBLIES TO CONNECT ALL QUICK COUPLERS.
- ALL SPRAY HEADS SHALL BE CONNECTED WITH A 12" MINIMUM LENGTH OF 1/2" FLEX PVC. THE FLEX PVC SHALL BE SOLVENT WELDED TO SCHEDULE 40 PVC FITTINGS WITH WELD-ON #795 SOLVENT AND #P-70 PRIMER.
- PROVIDE ONE QUICK COUPLER KEY WITH SWIVEL HOSE ELL FOR EVERY SIX Q.C. VALVES. (MINIMUM ONE SET).
- CONTRACTOR IS TO CONTACT APPROPRIATE AUTHORITIES AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.
- LATERAL PIPE TO TREE STREAM BUBBLER HEADS IS OMITTED FOR GRAPHIC CLARITY. CONNECT TREE BUBBLER HEADS TO VALVES AS SHOWN WITH CLASS 200 PVC PIPE SIZED TO ALLOW A MAXIMUM FLOW VELOCITY OF 5 FEET PER SECOND.
- THE PROPOSED LOCATIONS OF ALL ABOVE-GROUND EQUIPMENT INCLUDING BACKFLOW PREVENTORS, CONTROLLERS AND WEATHER SENSORS SHALL BE STAKED BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE BEFORE THESE ITEMS ARE INSTALLED.
- ALL HEADS SHALL BE INSTALLED A MINIMUM OF 4" FROM PAVEMENT EDGES. (6" OR GREATER WHERE REQUIRED BY LOCAL CODE.) FINAL HEAD ADJUSTMENTS BY THE CONTRACTOR SHALL INCLUDE THE ADDITION OF CHECK VALVES WHERE NEEDED TO PREVENT EXCESSIVE LOW HEAD DRAINAGE. THE CONTRACTOR SHALL BUDGET FOR, AND INSTALL CHECK VALVES FOR UP TO 10% OF THE TOTAL NUMBER OF HEADS WHEN NEEDED, WITH NO ADDITIONAL COST TO THE OWNER.
- WHERE SHOWN ON THE PLANS, MASS SHRUB / GROUND COVER BEDS SHALL INCLUDE NETAFIM TECHLINE TLHCVXR SERIES DRIP TUBE WITH PRE-INSTALLED .53 GPH DRIP EMITTERS AT 12" INTERVALS (TLHCVXR5-12), INSTALLED IN CENTER-FED GRIDS WITH ROWS SPACED 18" APART. INDIVIDUAL DRIP TUBE RUNS SHALL NOT EXCEED 150 L.F. PVC LATERAL "TRUNK" LINES SHALL BE INSTALLED 10" DEEP. DRIP TUBE SHALL BE SET 2" BELOW FINISHED SOIL GRADE (NOT INCLUDING MULCH LAYER), SECURELY STAKED EVERY 18". NETAFIM #TL050MPV-1 FLUSH VALVES SHALL BE INSTALLED AT THE FARTHEST POINTS FROM THE ZONE VALVE. USE 17 MM BARBED FITTINGS FOR DRIP LINE CONNECTIONS. SET THE MAXIMUM OPERATING PRESSURE AT 50 PSI. TECHLINE CV SHALL BE INSTALLED PERPENDICULAR TO SLOPE FACE. INSTALL TLVC IN-LINE CHECK VALVES FOR EVERY 4.5 FEET OF DRIP LINE ELEVATION CHANGE WITHIN THE ZONE. USE NETAFIM STAPLES (#TL56) TO SECURE TUBING EVERY 18" EACH DRIP ZONE SHALL INCLUDE ONE MAINTENANCE "FLAG" WHICH SHALL CONSIST OF A 12" POP-UP SPRAY HEAD AND COMPLETELY CLOSED SPRAY NOZZLE. THE POP-UP HEAD SHALL BE CONNECTED TO THE DRIP ZONE PIPE, SET FLUSH WITH GRADE, AND LOCATED AT THE FARTHEST DISTANCE FROM THE DRIP VALVE ASSEMBLY. INSTALL THE "FLAG" HEAD ADJACENT TO EDGING OR IN LOW PLANTINGS FOR EASE OF VIEWING. SPARSLEY SPACED, INDIVIDUAL SHRUB PLANTINGS MAY INCLUDE RAINBIRD #XBT-10 SINGLE-OUTLET EMITTERS OR RAINBIRD #XBT-10-6 MULTI-OUTLET EMITTERS INSTALLED AS DETAILED. PROVIDE MINIMUM TWO, 1 G.P.H. OUTLETS PER INDIVIDUAL SHRUB. SINGLE / MULTI-OUTLET EMITTERS MAY BE CONNECTED TO THE SAME DRIP ZONE VALVE WHICH SERVES ADJACENT DRIP TUBE GRIDS, UNLESS NOTED OTHERWISE.

IRRIGATION LEGEND

- ☒ RAINBIRD XERI-BUG SINGLE / MULTI OUTLET (XBT-10-PC / XBT-10-6) POINT SOURCE DRIP EMITTERS.
SEE INSTALLATION NOTE #16 REGARDING EMITTER LAYOUT AND CONNECTION TO DRIP VALVE ASSEMBLY
 - ☐ RAINBIRD 1806-SAM-PRS SERIES POP UP SPRAY HEADS WITH ADAPTER AND RAINBIRD #1402 SERIES BUBBLER NOZZLES. (TWO PER TREE)
SEE INSTALLATION NOTE #13 REGARDING TREE BUBBLER LATERAL PIPE
 - RAINBIRD 1804-SAM-PRS SERIES POP UP SPRAY HEAD WITH SST / EST SERIES NOZZLE AS NOTED BELOW
 - RAINBIRD 1804-SAM-PRS SERIES POP UP SPRAY HEAD WITH U-SERIES NOZZLE AS NOTED BELOW
 - ▨ NETAFIM TECHLINE TLHCVXR5-12 SERIES DRIP TUBE IN SHRUB BED INSTALLED AT 2" DEPTH
SEE INSTALLATION NOTE #16 REGARDING DRIP TUBE LAYOUT IN SHRUB BEDS.
 - ⊕ RAINBIRD PEB SERIES ELECTRIC REMOTE CONTROL VALVE
 - ⊕ RAINBIRD PEB SERIES ELECTRIC REMOTE CONTROL, "TREE BUBBLER ZONE" VALVE
SEE INSTALLATION NOTE #13 REGARDING TREE BUBBLER LATERAL PIPE
 - ⊕ NETAFIM CONTROL ZONE KIT MODEL #NCZ-1S SERIES WITH 50 PSI PRESSURE REGULATOR AND SCREEN FILTER
 - ▲ RAINBIRD 33-DNP QUICK COUPLING VALVE WITH LOCKING PURPLE COVER AND 3/4" PVC BALL VALVE
 - ⊕ ZURN / WILKINS 350 SERIES D.C.A. INSTALLED PER CITY CODE, WITH SAME SIZE ZURN / WILKINS 850 SERIES BRONZE BALL VALVE AND ZURN / WILKINS YB SERIES BRONZE WYE FILTER WITH 20 MESH STAINLESS STEEL SCREEN
 - ⊕ LASCO "V101N" SERIES SCH. 80 PVC TRUE UNION BALL VALVE, MAINLINE SIZE
 - ⊕ IRRIGATION WATER METER AND TAP, SIZE AS NOTED ON THE PLAN
 - ⊕ RAINBIRD ESP-Me SERIES AUTOMATIC CONTROLLER WITH TWO ESPSM6 MODULES, LNK WIFI MODULE, AND WR2-RFC RAIN / FREEZE SENSOR LOCATE SENSOR AS FIELD DIRECTED BY THE LANDSCAPE ARCHITECT
 - MASTER ELECTRIC VALVE
 - CLASS 200 PVC MAINLINE PIPE
 - CLASS 200 (EXCEPT 1/2 INCH #315) PVC LATERAL PIPE
 - ONE 4" CLASS 200 SLEEVE PIPE
 - TWO 4" CLASS 200 SLEEVE PIPES
- L.I.C. SHALL SELECT SPRAY NOZZLES FOR "HEAD-TO-HEAD" COVERAGE, ADJUSTED FOR NO OVERSPRAY ONTO WALLS AND WALKS. NO OVERSPRAY INTO STREETS IS PERMITTED.



DRIP VALVE TAG



IRRIGATION SLEEVE NOTES

Piping and control wires shall be installed in separate sleeves under paving. Refer to the irrigation plan for sleeve size and location.

Sleeve elevation shall be twenty-four (24") inches below top of pavement.

Sleeves shall extend one (1') foot beyond the edge of pavement and be staked for location.

All sleeves shall be Schedule 40 PVC pipe, capped on both ends, and sized at least two times larger than the diameter of the pipe inside the sleeve. Sleeve locations shall be marked onto the top of curb with a saw-cut of two parallel lines that are two (2") inches long and one (1") inch apart.

The Contractor responsible for the installation of sleeves shall also be responsible to locate any sleeve which cannot be found during the installation of the irrigation system.



Date	Description	No.
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Revisions

McDonald's USA, LLC

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LANGAN

Langan Engineering and Environmental Services, Inc.

8951 Cypress Waters Blvd, Suite 150
Dallas, TX 75019

T: 817.328.3200

www.langan.com

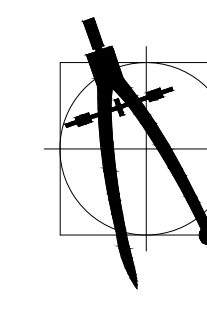
Project: McDonald's
NEW PROJECT
L/C 024-1290
3720 WEST SUNSHINE
STREET
SPRINGFIELD

GREENE COUNTY MISSOURI

Drawing Title

NOTES &
DETAILS

Project No.	Drawing No.	
520054201	L11.1	
Date		01/04/2023
Drawn By		GA
Checked By		AM
Sheet 12 of 12		



James Pole

IRRIGATION CONSULTANTS

IRRIGATION DESIGN, CONSULTING, AND
LANDSCAPE WATER MANAGEMENT

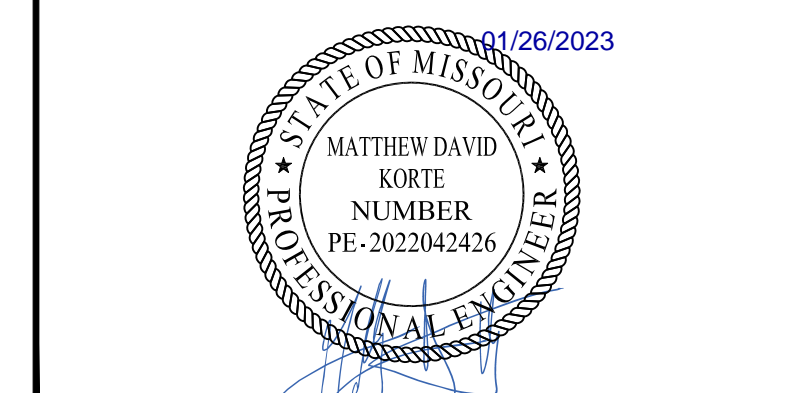
TEXAS L.I.C. #658
100 N. LOCUST ST., SUITE 3
DENTON, TEXAS 76201

OFFICE: 940.243.2364
FAX: 940.382.2475
james@jamespoleirrigation.com



Date	Description	No.
Revisions		

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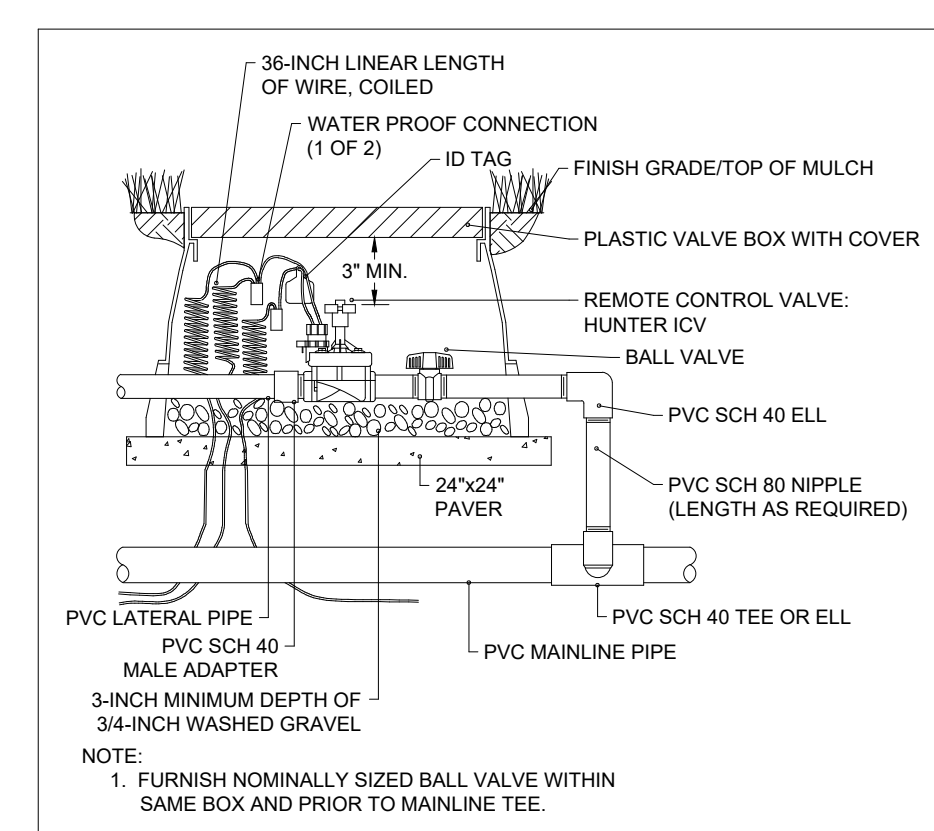


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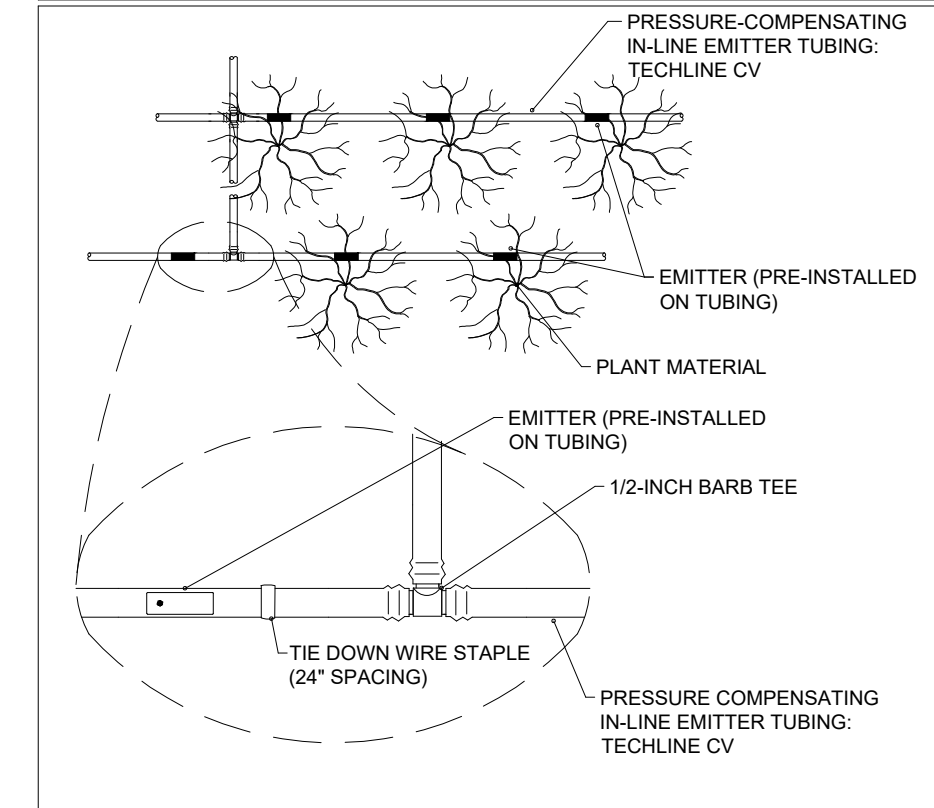
Project: **McDONALD'S NEW PROJECT**
 L/C 024-1290
 3720 WEST SUNSHINE STREET
 SPRINGFIELD
 GREENE COUNTY MISSOURI

Drawing Title: **NOTES & DETAILS**

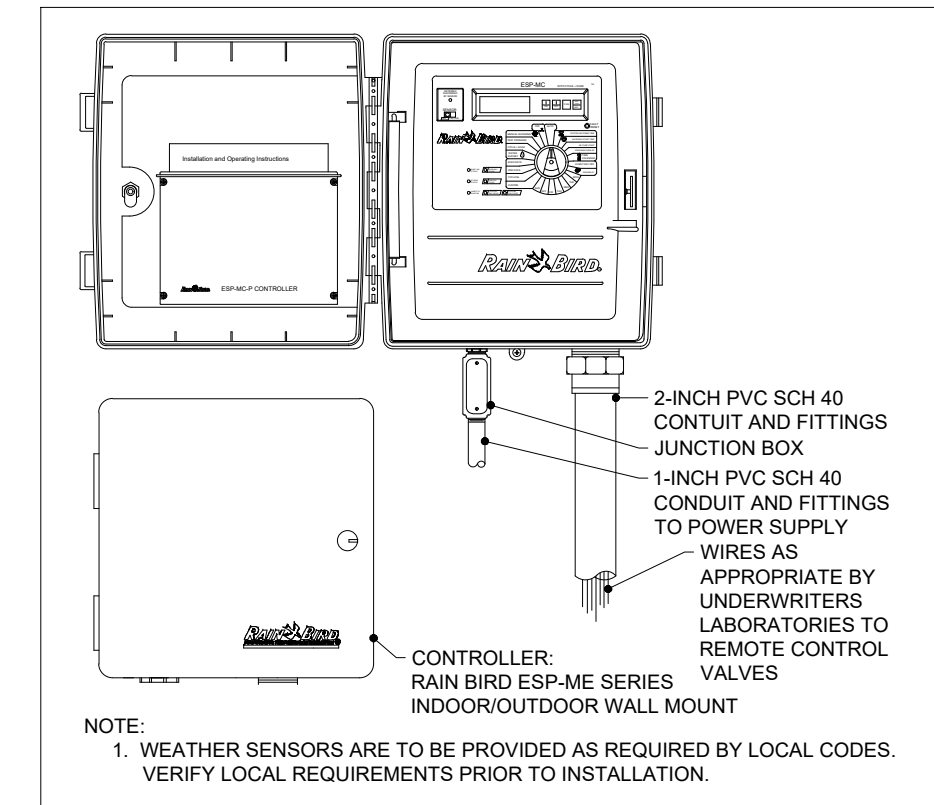
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01/04/2023	
Drawn By	
GA	
Checked By	
AM	
	Sheet 12 of 12



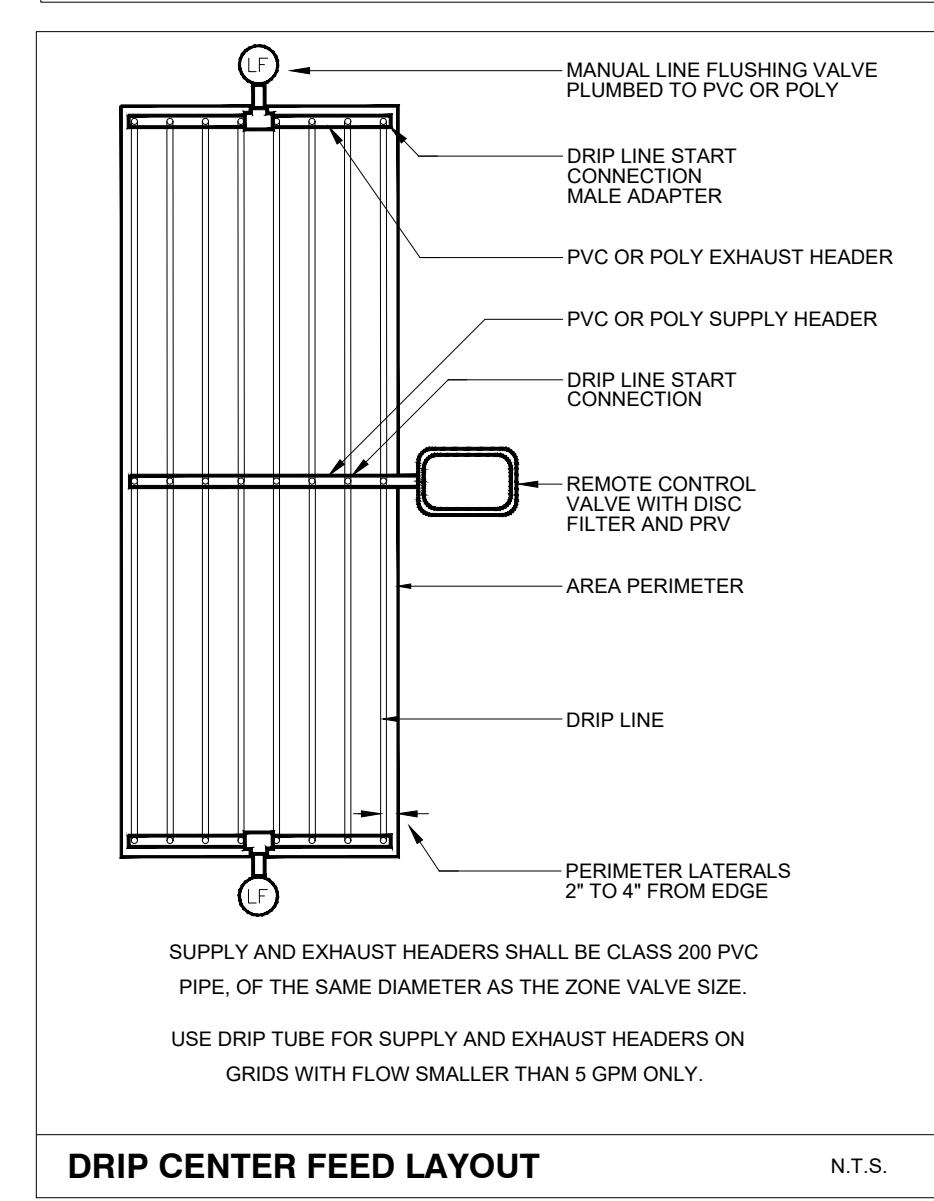
ICV REMOTE CONTROL VALVE N.T.S.



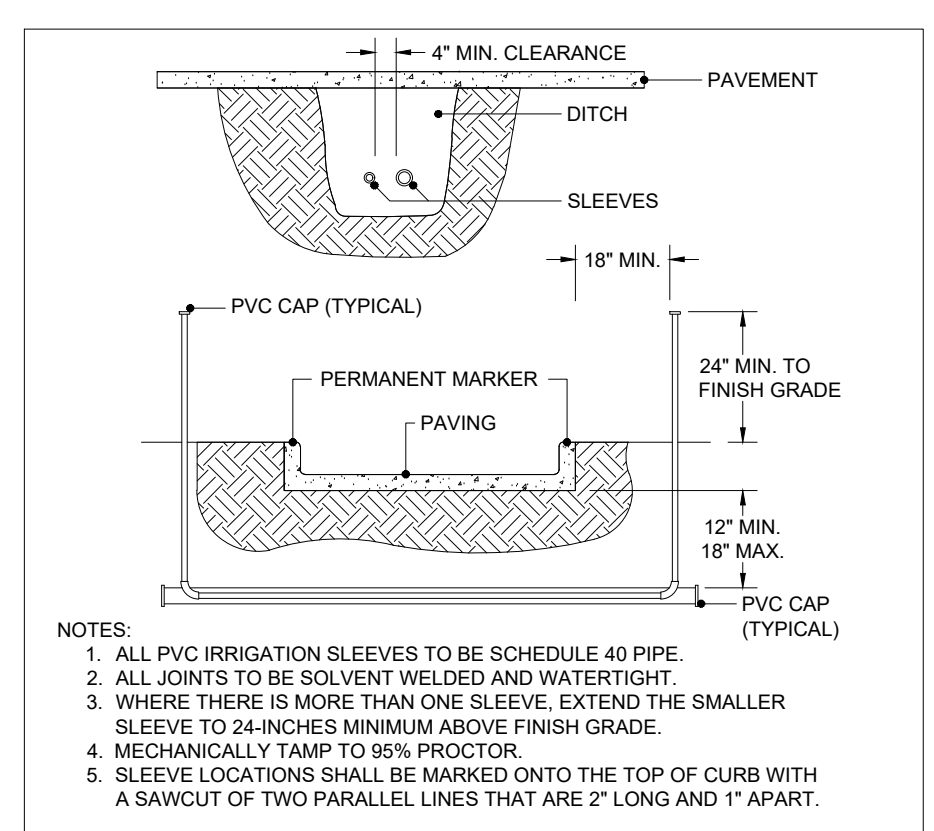
TECHLINE CV DRIPLINE N.T.S.



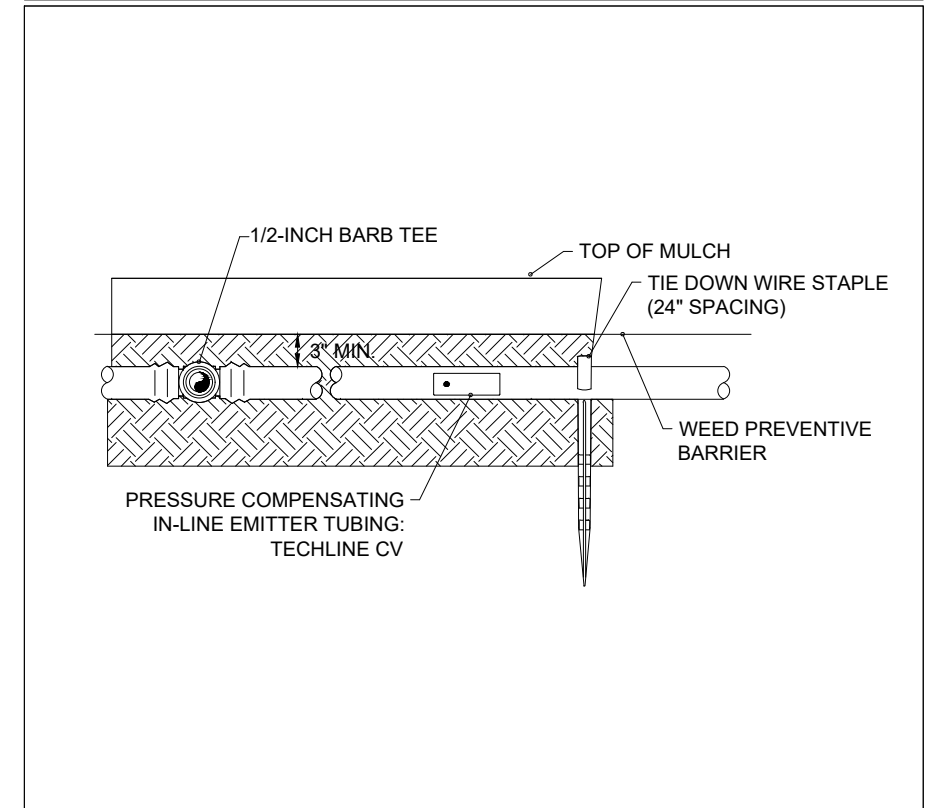
ESP-ME CONTROLLER N.T.S.



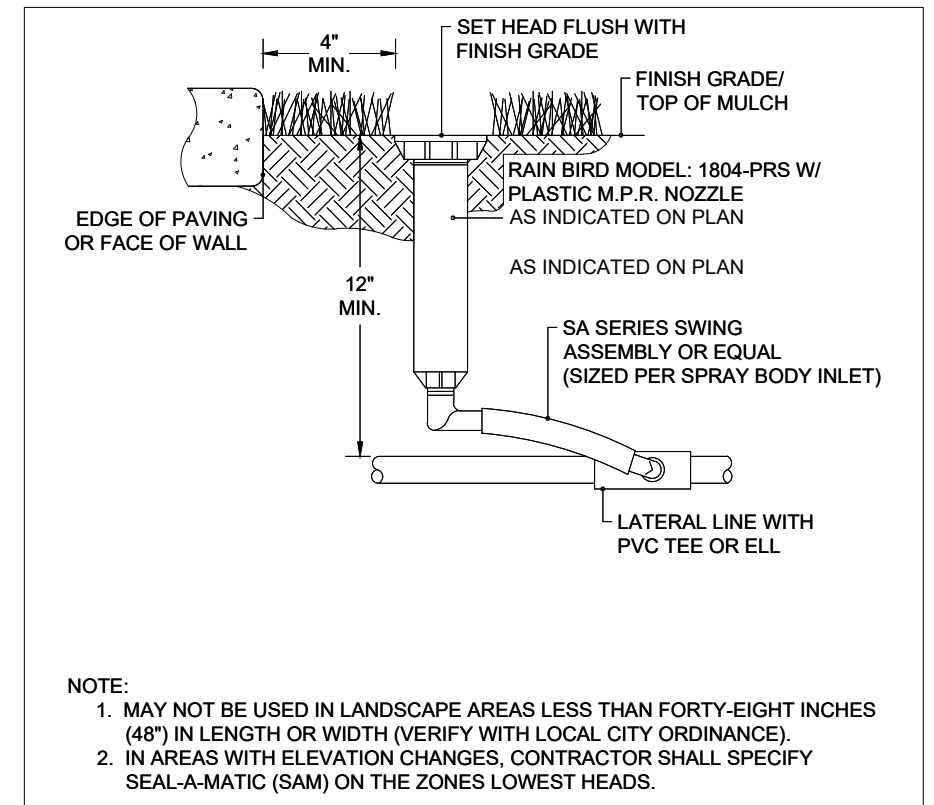
DRIPLINE CENTER FEED LAYOUT N.T.S.



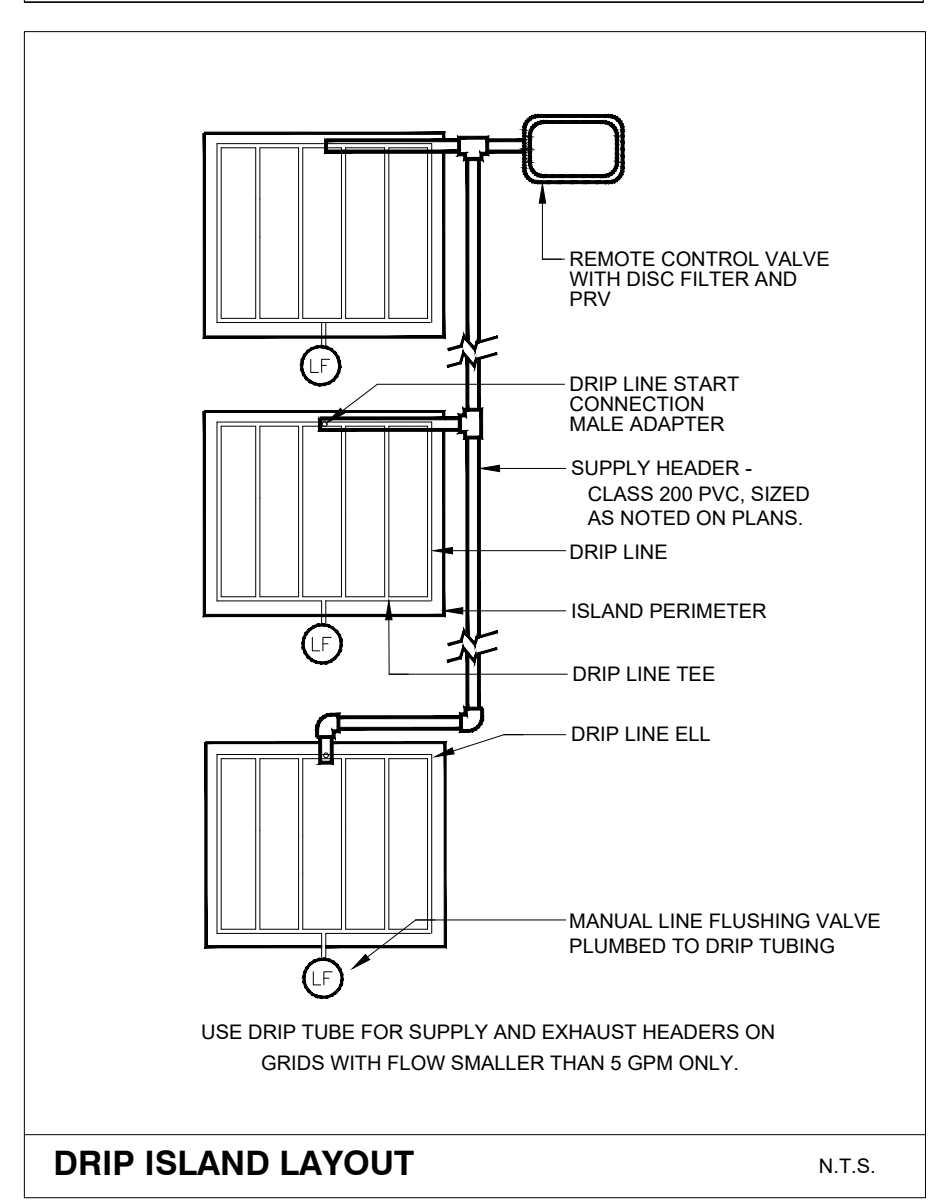
IRRIGATION PVC SLEEVES N.T.S.



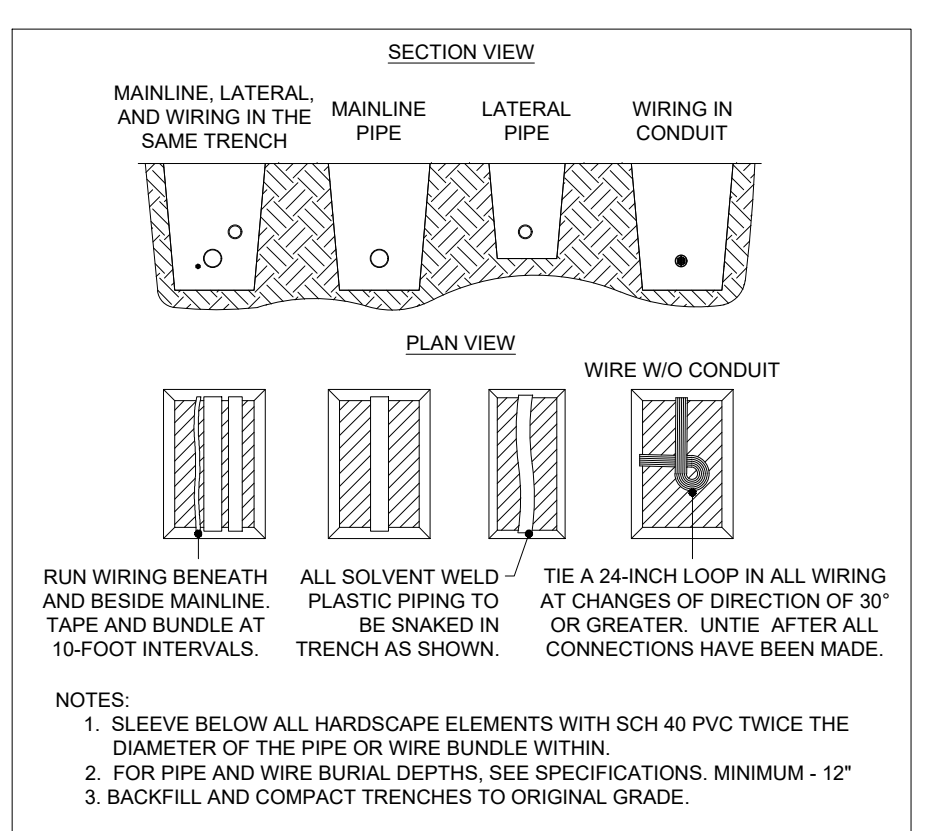
DRIPLINE TECHLINE CV N.T.S.



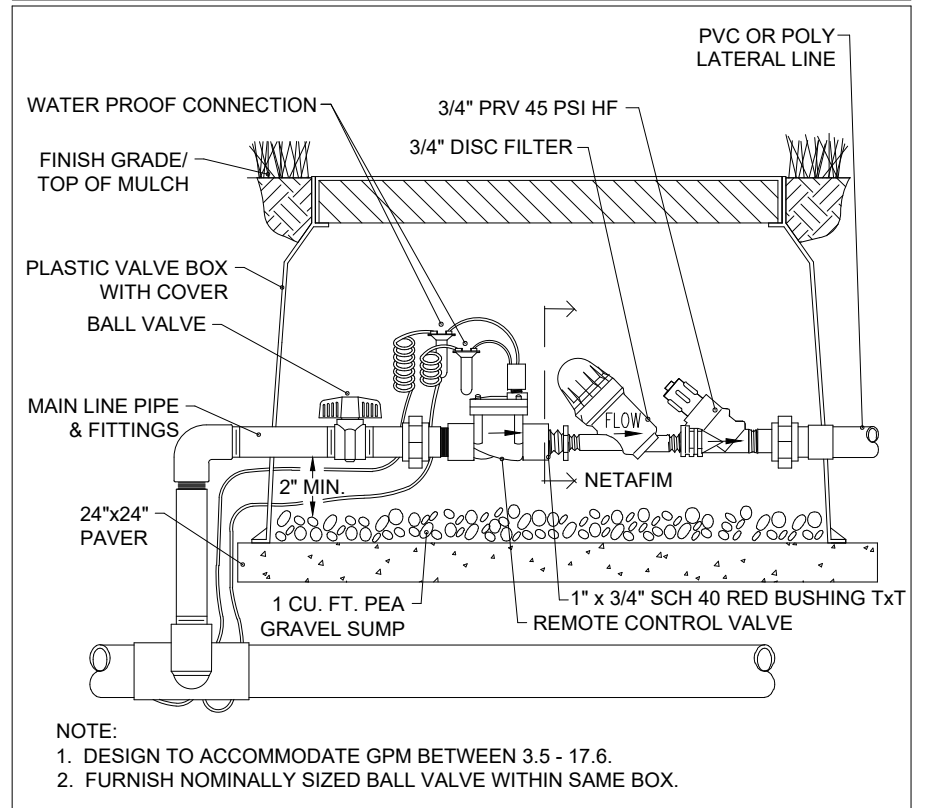
TURF POP-UP SPRAY HEAD N.T.S.



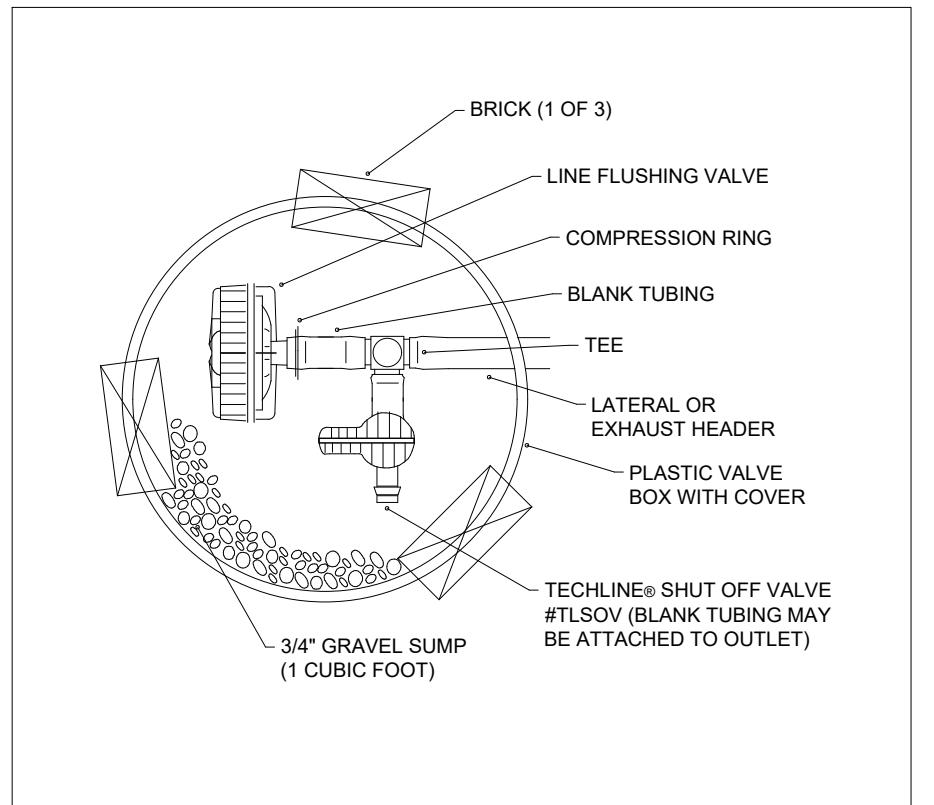
DRIPLINE ISLAND LAYOUT N.T.S.



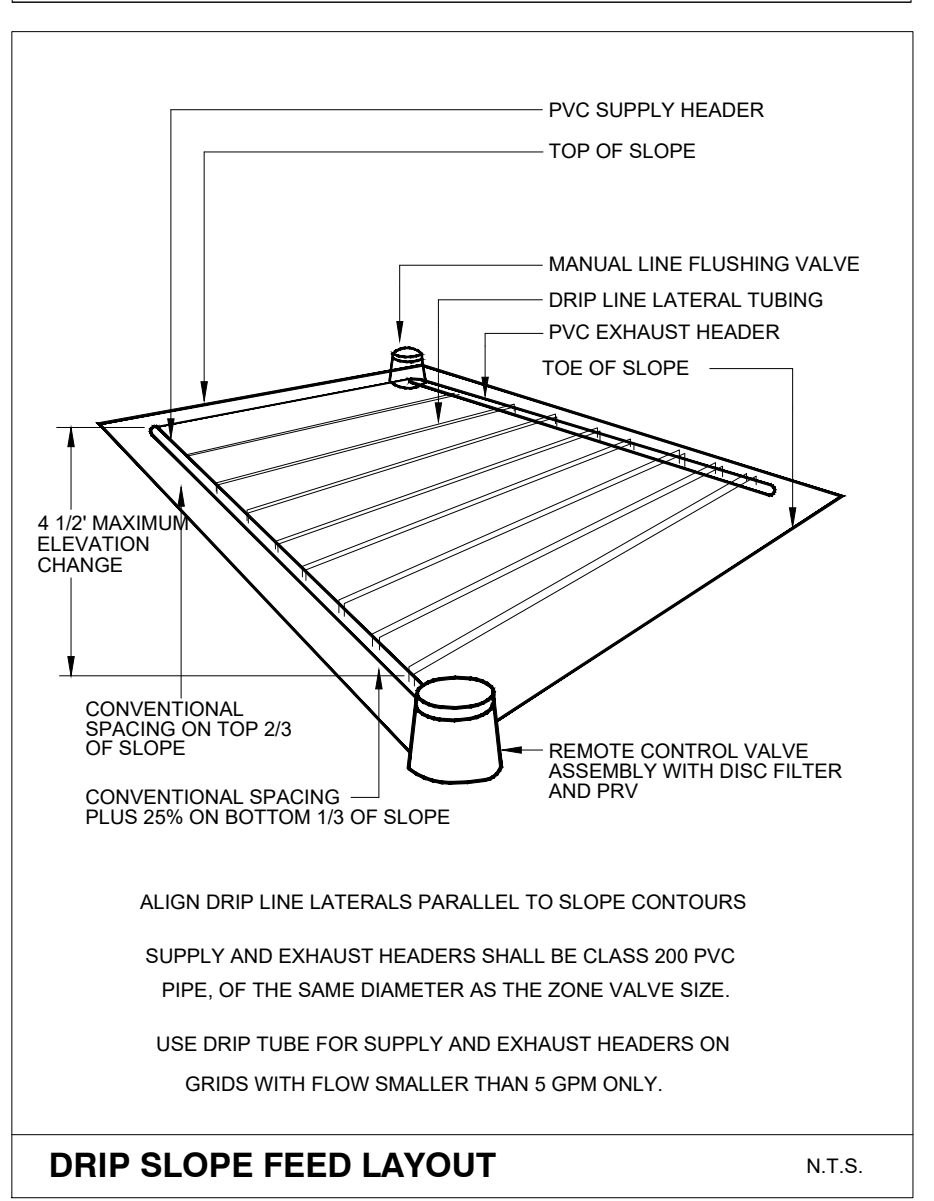
PIPE AND WIRING TRENCHING N.T.S.



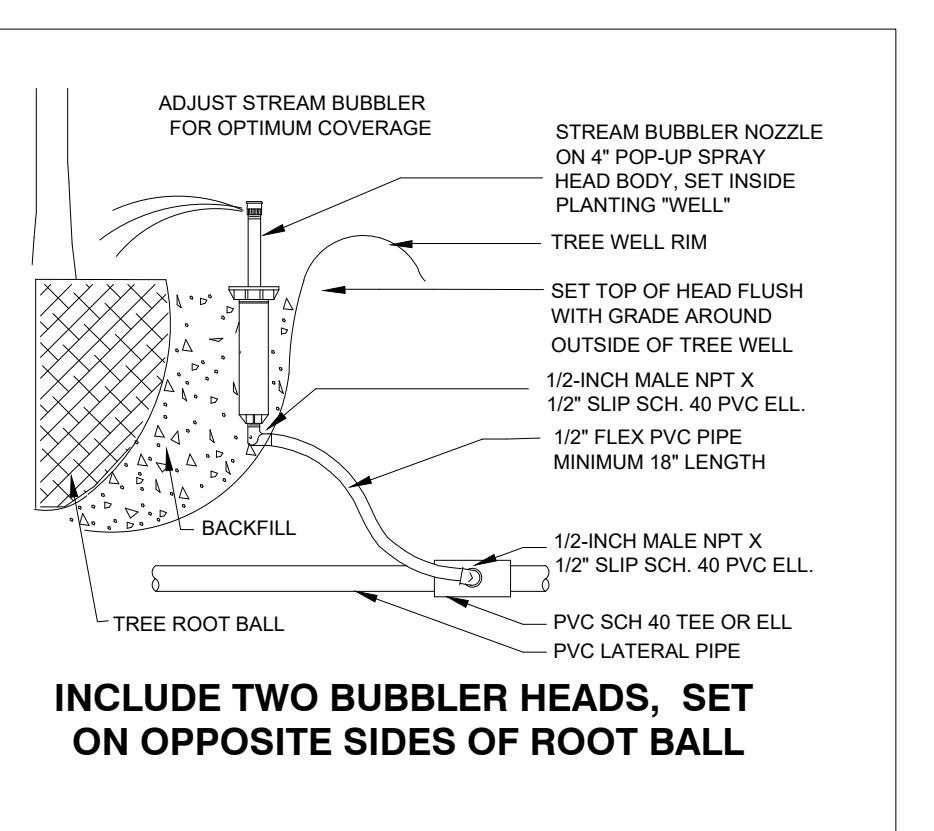
LOW VOLUME CONTROL ASSEMBLY N.T.S.



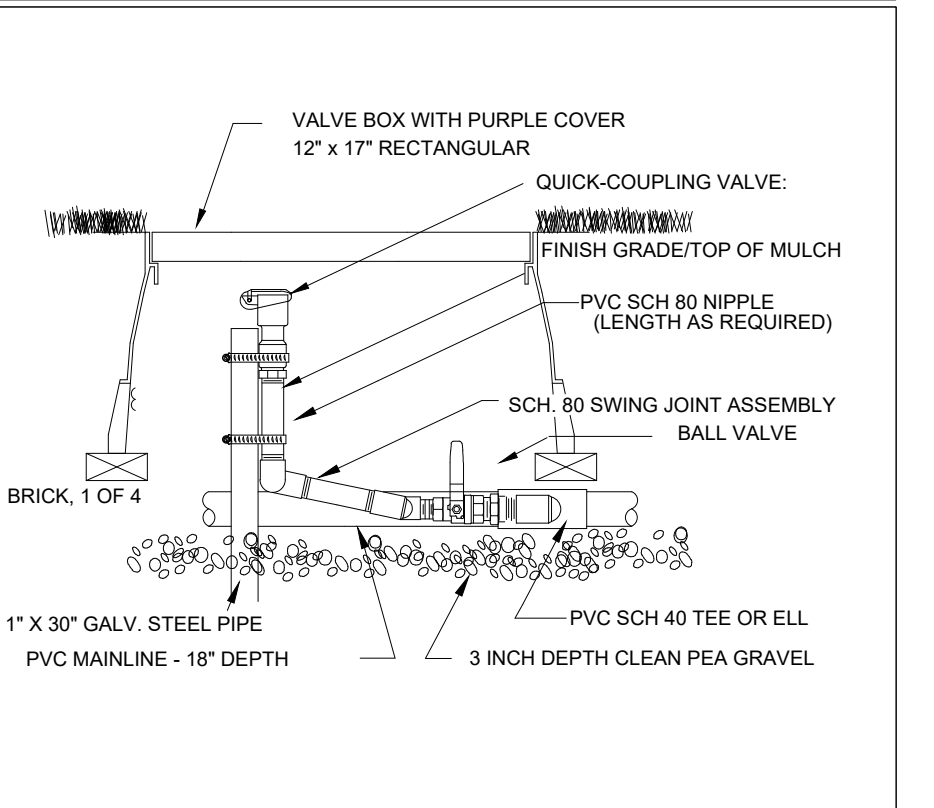
LINE FLUSH VALVE W/ SHUT OFF N.T.S.



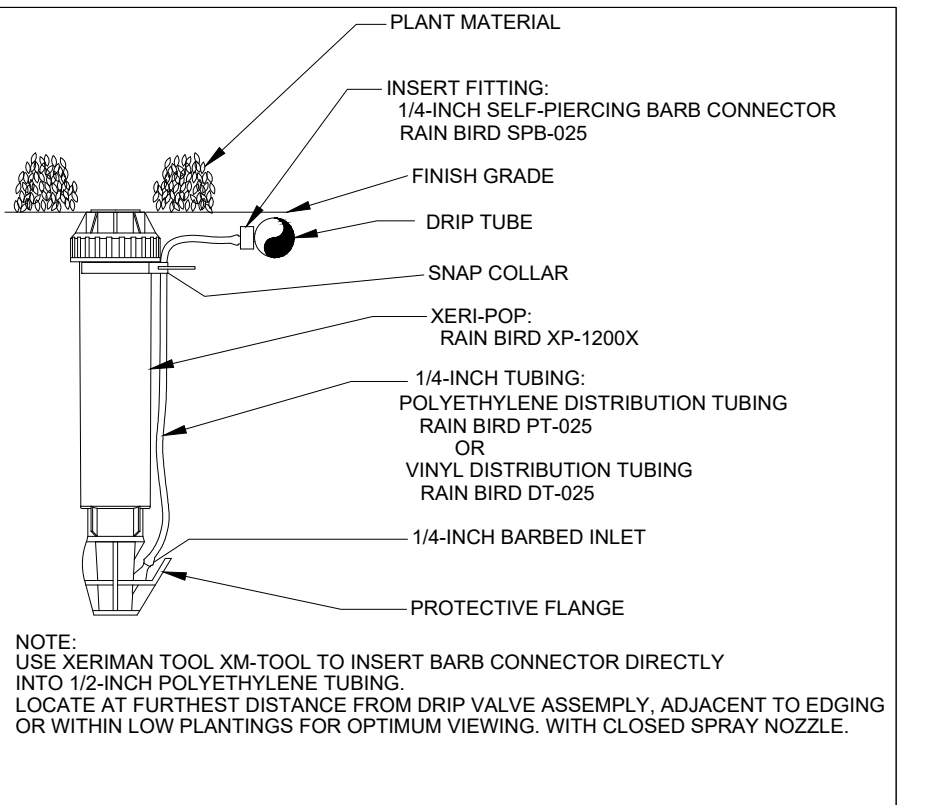
DRIPLINE SLOPE FEED LAYOUT N.T.S.



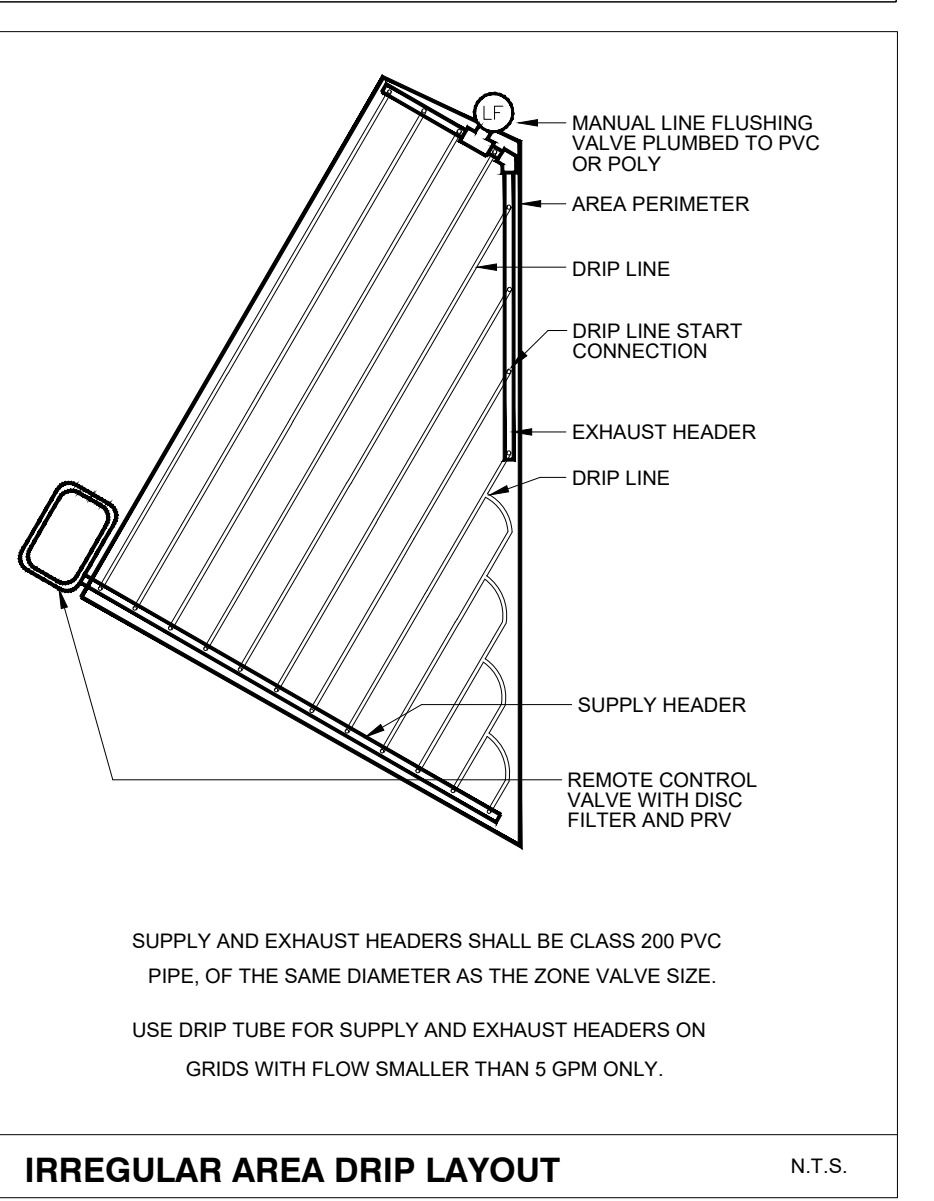
TREE BUBBLER N.T.S.



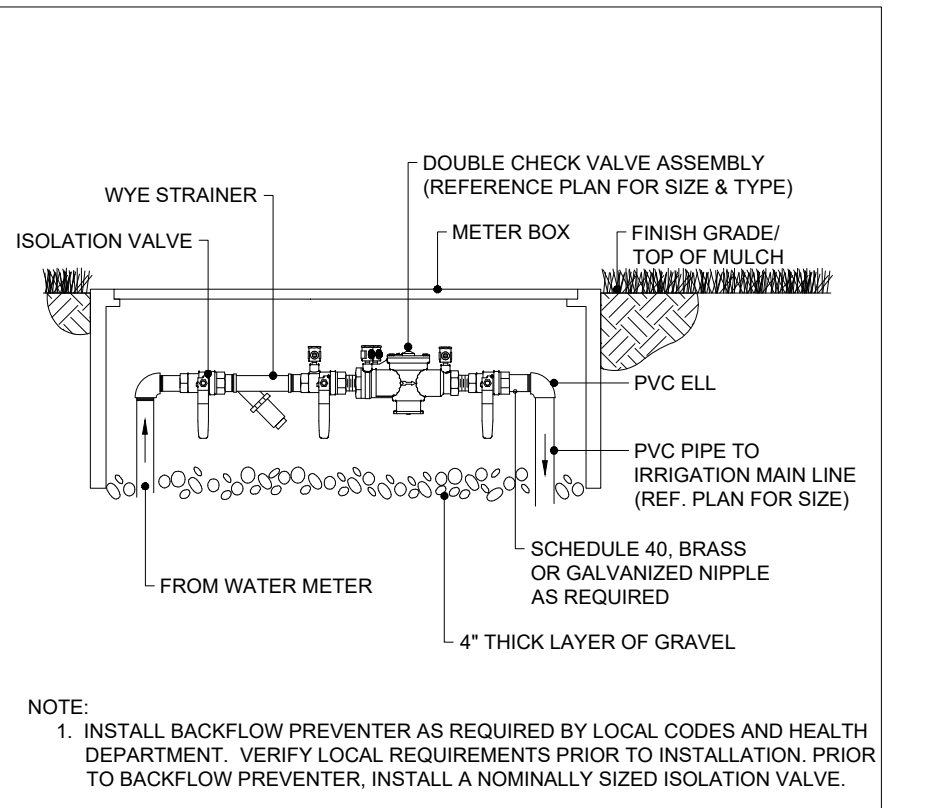
QUICK COUPLER VALVE W/ PVC BALL VALVE N.T.S.



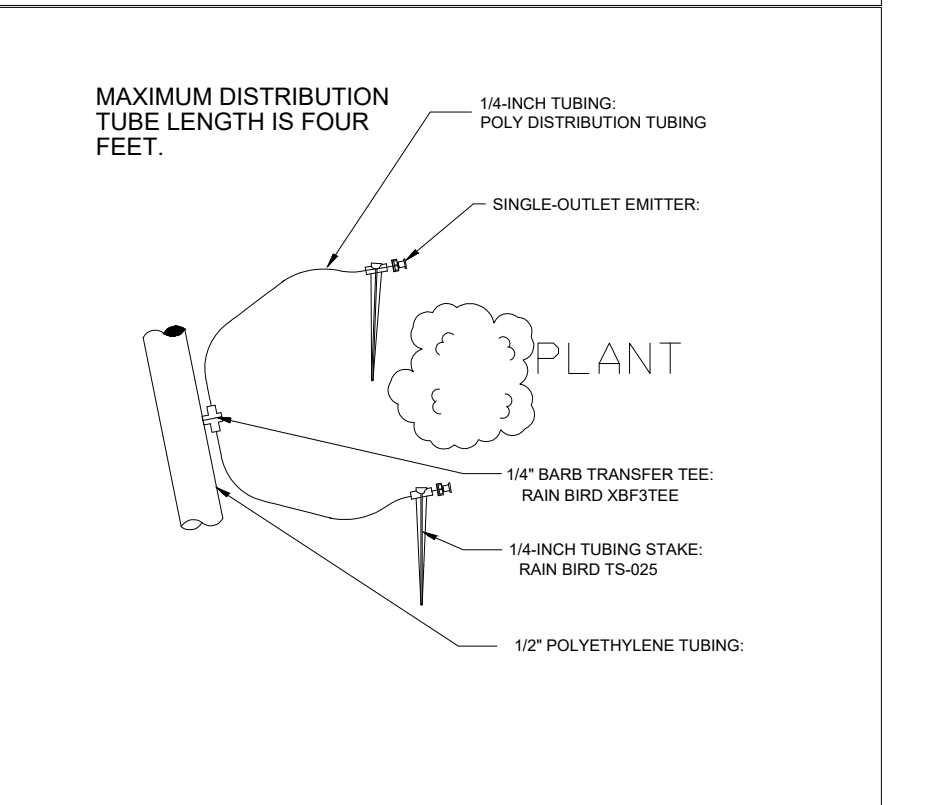
DRIPLINE ZONE INDICATOR N.T.S.



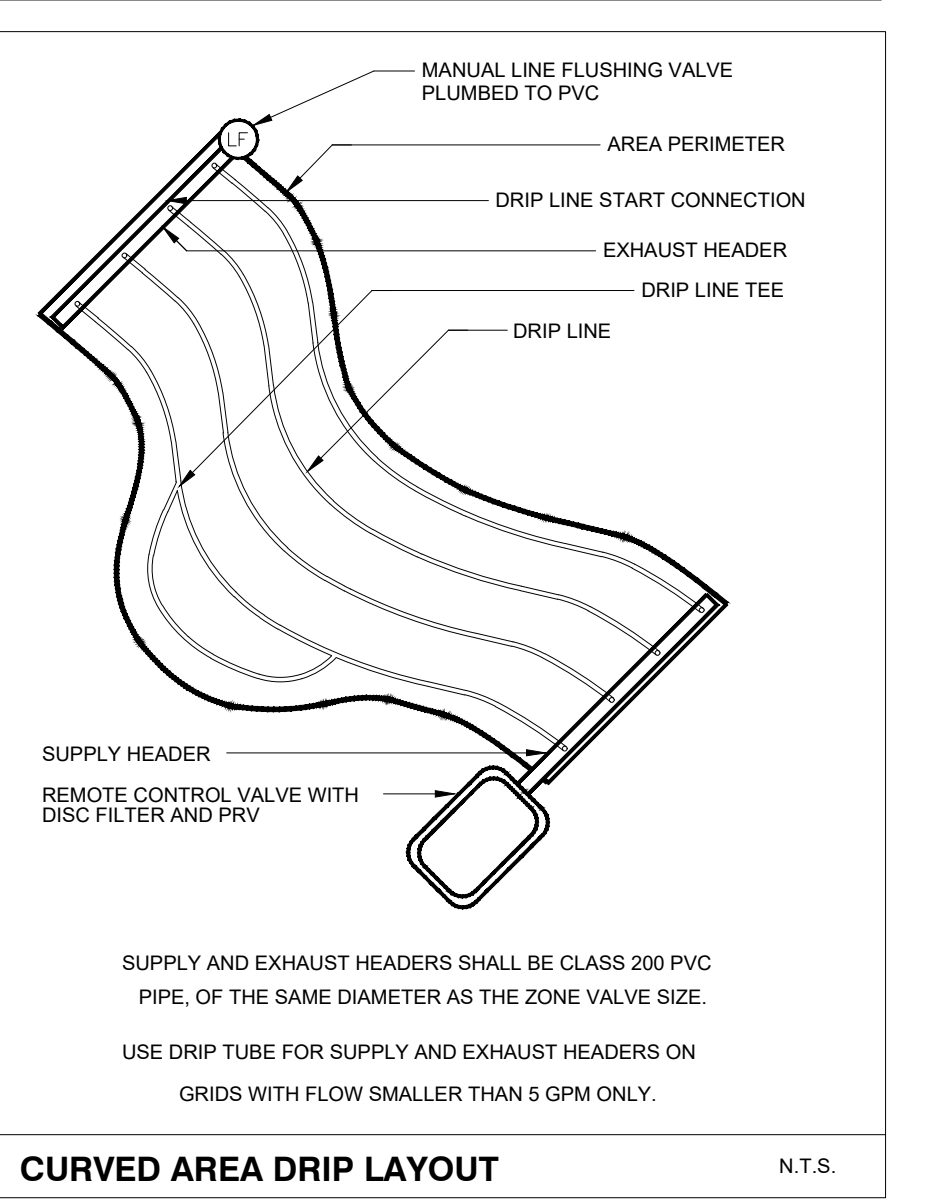
IRRIGATOR AREA DRIPLINE LAYOUT N.T.S.



DOUBLE CHECK ASSEMBLY N.T.S.

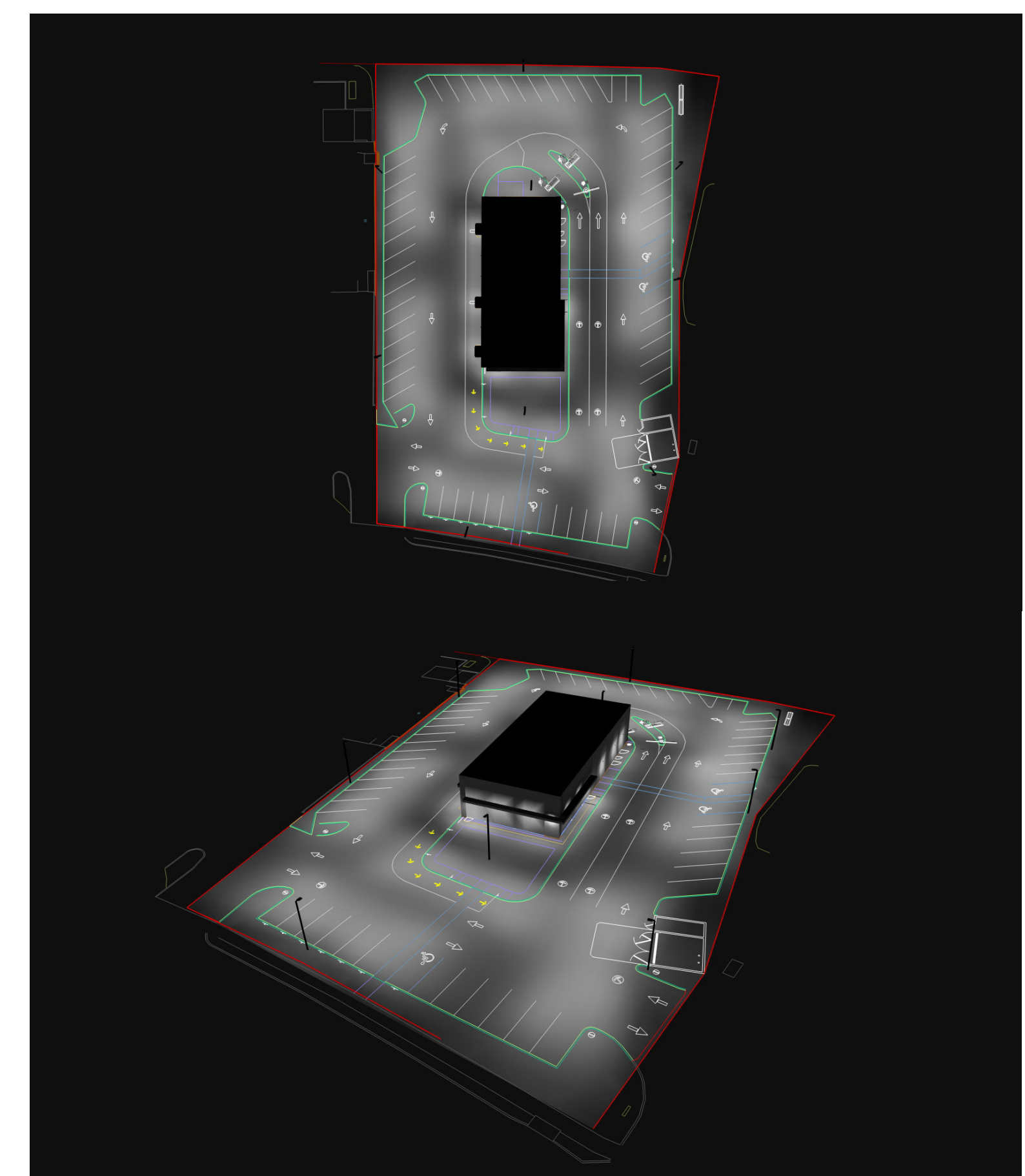
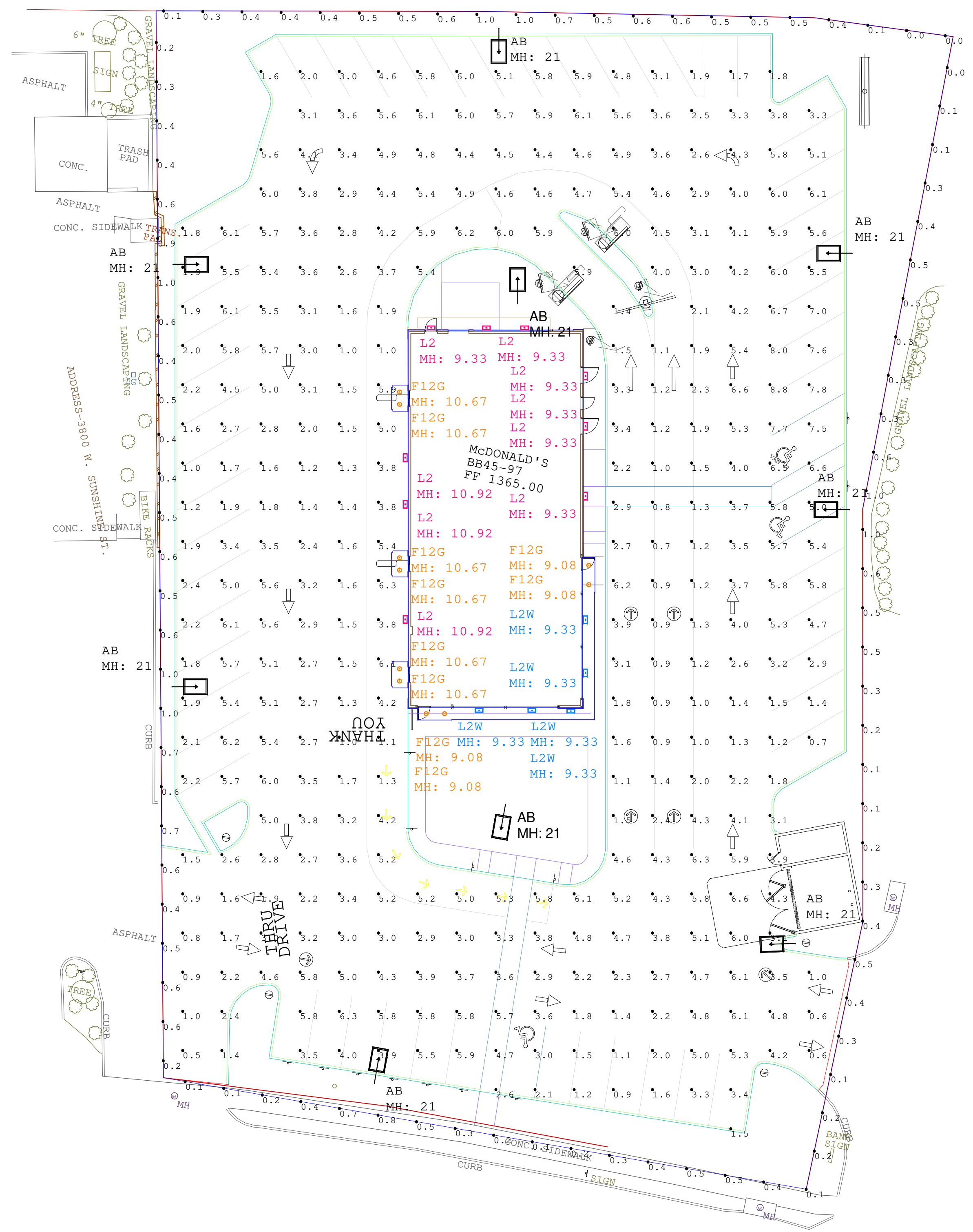


XERI-BUG EMITTER N.T.S.



CURVED AREA DRIPLINE LAYOUT N.T.S.

NOTES:
 1. THE FOOTCANDLE LEVELS AS SHOWN ARE BASED ON THE FOLLOWING CRITERIA. ANY SUBSTITUTIONS IN SPECIFIED FIXTURES OR CHANGES TO LAYOUT WILL AFFECT LIGHTING LEVELS SHOWN AND WILL NOT BE THE RESPONSIBILITY OF SECURITY LIGHTING.
 2. DISTANCE BETWEEN READINGS _____ 10'



Pole Fixtures Are Full Cutoff
 Tilt=0
 Calculation Grids Are At Grade
 Pole Light Mounting Height=21ft
 (18' Pole + 3' Base)

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PAVED SURFACE READINGS	Illuminance	Fc	3.63	8.8	0.5	7.26	17.60
PROPERTY LINE READINGS	Illuminance	Fc	0.44	1.0	0.0	N.A.	N.A.

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	EPA	Mtg Height	Pole Type
AB	9	AB	SINGLE	0.900	RAR-2-480L-240-5K7-4-BC	226.9	0.607	21	SES-18-40-1-TA-GL-xx (4")
F12G	10	F12G	SINGLE	0.900	LB6-10LDM-50K9GD	11.9		9.08 & 10.67	
L2	9	L2	SINGLE	0.900	RWSC-36L-5K-DO-U-PS	14.4		9.33 & 10.92	
L2W	5	L2W	SINGLE	0.900	RWSC-36L-5K-DO-U-WH	14.4		9.33	

PROJECT WIND LOAD CRITERIA BASED ON:
 ASCE 7-10 WIND SPEEDS (3-SEC PEAK GUST MPH)
 50 YEAR MEAN RECURRENCE INTERVAL
 ALLOWED EPA 13.6 @ WIND LOAD 90 MPH

Regional Drawing
 # 24-1290

SECURITY LIGHTING™
 2100 Golf Road, Suite 400, Rolling Meadows, IL 60008
 1-800-544-6448

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES
 SCALE 1"=20' 0"
 DRAWN BY VH

POINT-BY-POINT FOOTCANDLE PLOT FOR
 MCDONALD'S
 3800 W SUNSHINE ST
 SPRINGFIELD, MO

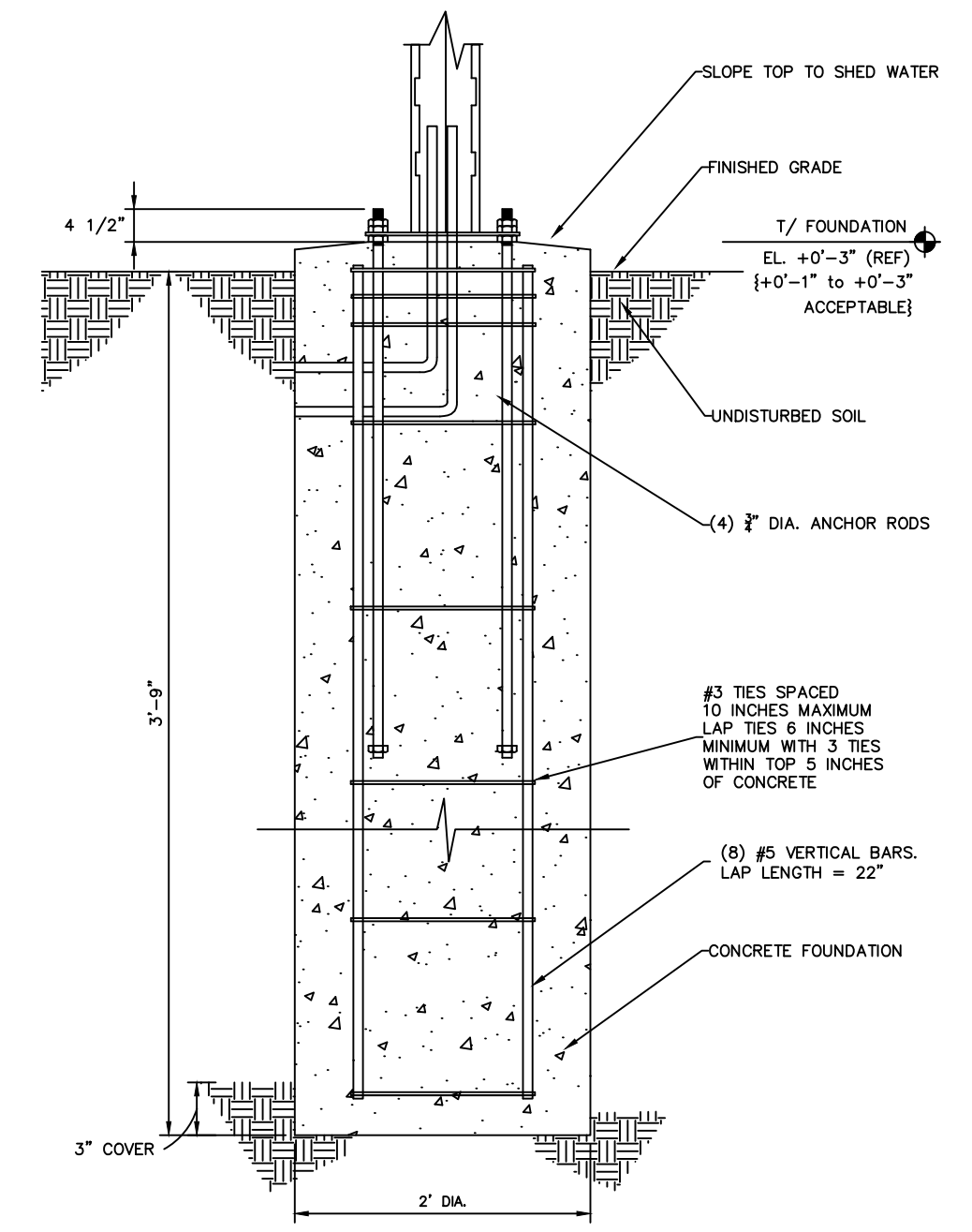
NATIONAL STORE NUMBER
40762

DATE 2/21/2023 DRAWING NUMBER
 EX50417-Rev1.AGI

THIS DRAWING MEETS OR EXCEEDS MCDONALD'S CURRENT ILLUMINATION SPECIFICATIONS OF A 3-4 FOOTCANDLE AVERAGE, UNLESS SUPERSEDED BY OTHER REQUIREMENTS.

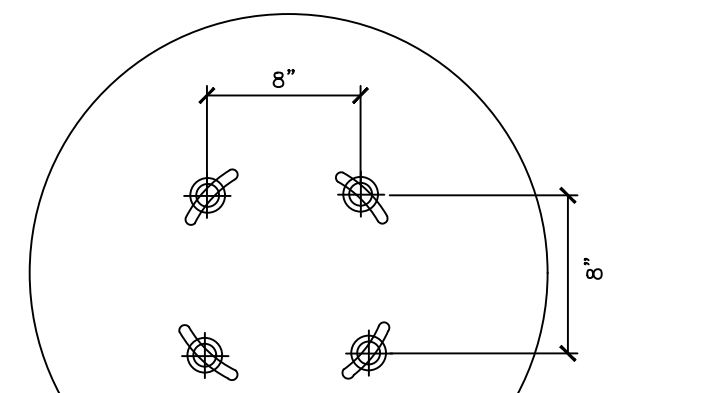
1. THIS LIGHTING DESIGN IS BASED ON INFORMATION SUPPLIED BY OTHERS TO SECURITY LIGHTING SYSTEMS. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.
 2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.
 3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.
 4. THIS LAYOUT MAY NOT MEET TITLE 24 OR LOCAL ENERGY REQUIREMENTS. IF THIS LAYOUT NEEDS TO BE COMPLIANT WITH TITLE 24 OR OTHER ENERGY REQUIREMENTS, PLEASE CONSULT FACTORY WITH SPECIFIC DETAILS REGARDING PROJECT REQUIREMENTS SO THAT REVISIONS MAY BE MADE TO THE DRAWING.

- NOTES:
- PIER DEPTHS REQUIRED ARE MINIMUMS.
 - TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
 - ALL REINFORCING STEEL BY GENERAL CONTRACTOR.



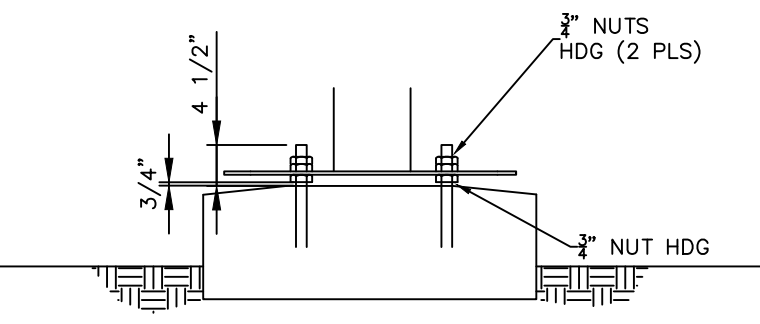
A FOUNDATION

- NOTES:
- TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
 - ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE ENCLOSURE MANUFACTURER.



B ANCHOR BOLT PATTERN

- NOTES:
- TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
 - ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE ENCLOSURE MANUFACTURER.
 - DO NOT CUT ANCHOR BOLTS AFTER INSTALLATION OF POLE.

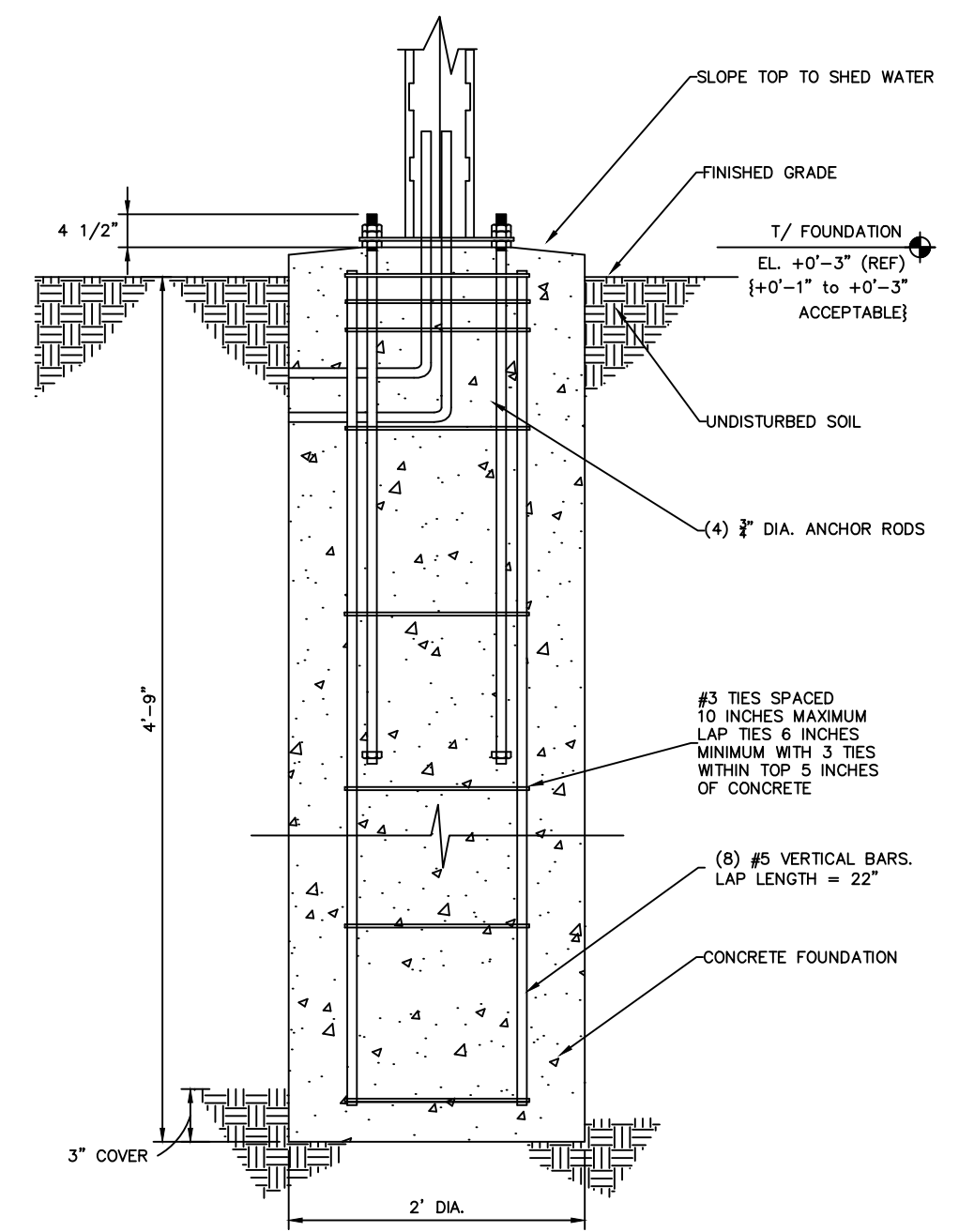


C CONNECTION DETAILS

1 DIGITAL SINGLE FACE MENU BOARD
SD-01 SCALE: NONE

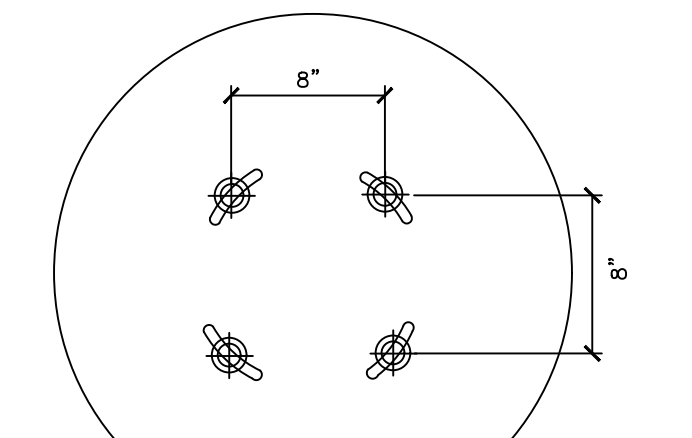
- GENERAL NOTES:
- THE FOLLOWING CODES WERE USED IN DESIGN:
 - IBC 2018
 - ASCE 7-16
 - AISC 318-19
 - AISC 360-16
 - AWS D1.1
 - WIND SPEED 120 MPH
 - RISK CATEGORY II
 - DESIGN LOADS DERIVED FROM THESE CODES AND FORCES
 - SHEAR 362 LBS
 - MOMENT 1,250 FT-LBS
 - ALL FOOTING EXCAVATIONS ARE TO BE CLEAR OF WATER AND FOREIGN MATTER BEFORE PLACING CONCRETE.
 - PRESUMPTIVE MAX LATERAL SOIL BEARING PRESSURE OF 100 PSF/FT (X2)
 - PRESUMPTIVE MAX VERTICAL FOUNDATION PRESSURE OF 1500 PSF
 - CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING SUBGRADE TO MEET MINIMUM SOIL BEARING VALUES.
 - ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS.
- CONCRETE:
- ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED RESIDUAL SOIL AND/OR ENGINEERED EARTH FILL COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D 698-70 (STANDARD PROCTOR) UNLESS NOTED OTHERWISE.
 - TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
 - MINIMUM CONCRETE STRENGTH (f_c=3,000 PSI) SHALL CONFORM WITH MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A.
 - USE OF ADMIXTURES SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.6.
 - AIR ENTRAINMENT SHALL CONFORM WITH MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.6-A AND 2.13-A.
 - WATER CONTENT RATIO SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A.
 - FOUNDATION CONCRETE TO BE TESTED PER MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 3.14.
 - PROVIDE A MINIMUM 3" OF CONCRETE COVER OVER ALL EMBEDDED STEEL.
 - REINFORCEMENT PLACEMENT SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTIONS 3.2 & 3.5 PERFORMED BY GENERAL CONTRACTOR.
 - ANCHOR RODS TO BE SET IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE.
 - DO NOT PLACE POLES ON CONCRETE UNTIL CONCRETE HAS CURED PER MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATION SECTION 3.11-E.
- STEEL:
- HEADED ANCHOR RODS ASTM F1554 OR 55, AN ACCEPTABLE ALTERNATIVE IS ASTM F1554 OR 55, S1 WHEN THE EMBEDDED END OF THE ROD IS THREADED AND THE NUT TACK WELDED PRIOR TO GALVANIZATION.
 - REINFORCEMENT: ASTM A615 GRADE 60- BY GENERAL CONTRACTOR.
 - NUTS: ASTM A615A, HEAVY HEX
 - WASHERS: ASTM F844 A36
 - USE ASTM A153 CLASS HOT DIPPED GALVANIZED BOLTS AND FASTENERS.
 - ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE SIGN/LIGHTING MANUFACTURER.
 - NO FIELD HEATING TO BEND STEEL SHALL BE ALLOWED WITHOUT ENGINEER'S APPROVAL.
 - DO NOT CUT ANCHOR RODS AFTER INSTALLATION OF POLE.
 - ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE SIGN/LIGHTING MANUFACTURER.
 - ANY FIELD WELDING SHALL FIRST BE VERIFIED BY ENGINEER AND PERFORMED IN ACCORDANCE WITH AWS D1.1.
 - REFER TO SIGN MANUFACTURER DRAWINGS AND INSTRUCTIONS FOR ADDITIONAL INFORMATION.

- NOTES:
- PIER DEPTHS REQUIRED ARE MINIMUMS.
 - TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
 - ALL REINFORCING STEEL BY GENERAL CONTRACTOR.



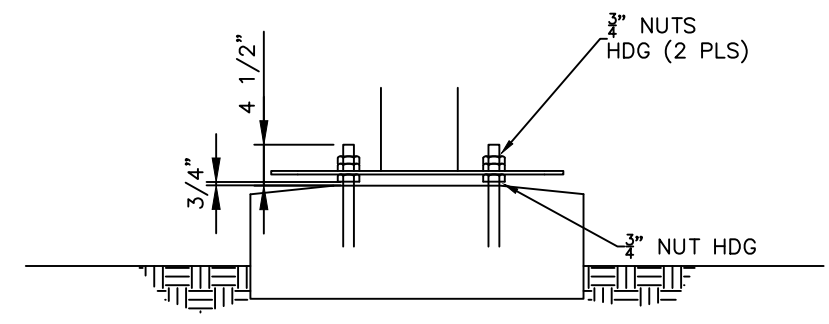
A FOUNDATION

- NOTES:
- TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
 - ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE ENCLOSURE MANUFACTURER.



B ANCHOR BOLT PATTERN

- NOTES:
- TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
 - ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE ENCLOSURE MANUFACTURER.
 - DO NOT CUT ANCHOR BOLTS AFTER INSTALLATION OF POLE.



C CONNECTION DETAILS

2 DIGITAL DOUBLE FACE MENU BOARD
SD-01 SCALE: NONE

- GENERAL NOTES:
- THE FOLLOWING CODES WERE USED IN DESIGN:
 - IBC 2018
 - ASCE 7-16
 - AISC 318-19
 - AISC 360-16
 - AWS D1.1
 - WIND SPEED 120 MPH
 - RISK CATEGORY II
 - DESIGN LOADS DERIVED FROM THESE CODES AND FORCES
 - SHEAR 362 LBS
 - MOMENT 2,250 FT-LBS
 - ALL FOOTING EXCAVATIONS ARE TO BE CLEAR OF WATER AND FOREIGN MATTER BEFORE PLACING CONCRETE.
 - PRESUMPTIVE MAX LATERAL SOIL BEARING PRESSURE OF 100 PSF/FT (X2)
 - PRESUMPTIVE MAX VERTICAL FOUNDATION PRESSURE OF 1500 PSF
 - CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING SUBGRADE TO MEET MINIMUM SOIL BEARING VALUES.
 - ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS.
- CONCRETE:
- ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED RESIDUAL SOIL AND/OR ENGINEERED EARTH FILL COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D 698-70 (STANDARD PROCTOR) UNLESS NOTED OTHERWISE.
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 - MINIMUM CONCRETE STRENGTH (f_c=3,000 PSI) SHALL CONFORM WITH MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A.
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 - ANCHOR RODS TO BE SET IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE.
 - DO NOT PLACE POLES ON CONCRETE UNTIL CONCRETE HAS CURED PER MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATION SECTION 3.11-E.
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 - USE ASTM A153 CLASS HOT DIPPED GALVANIZED BOLTS AND FASTENERS.
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 - DO NOT CUT ANCHOR RODS AFTER INSTALLATION OF POLE.
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 - REFER TO SIGN MANUFACTURER DRAWINGS AND INSTRUCTIONS FOR ADDITIONAL INFORMATION.

Date	Description	No.
Revisions		

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MO Certificate of Authorization No. F001330220

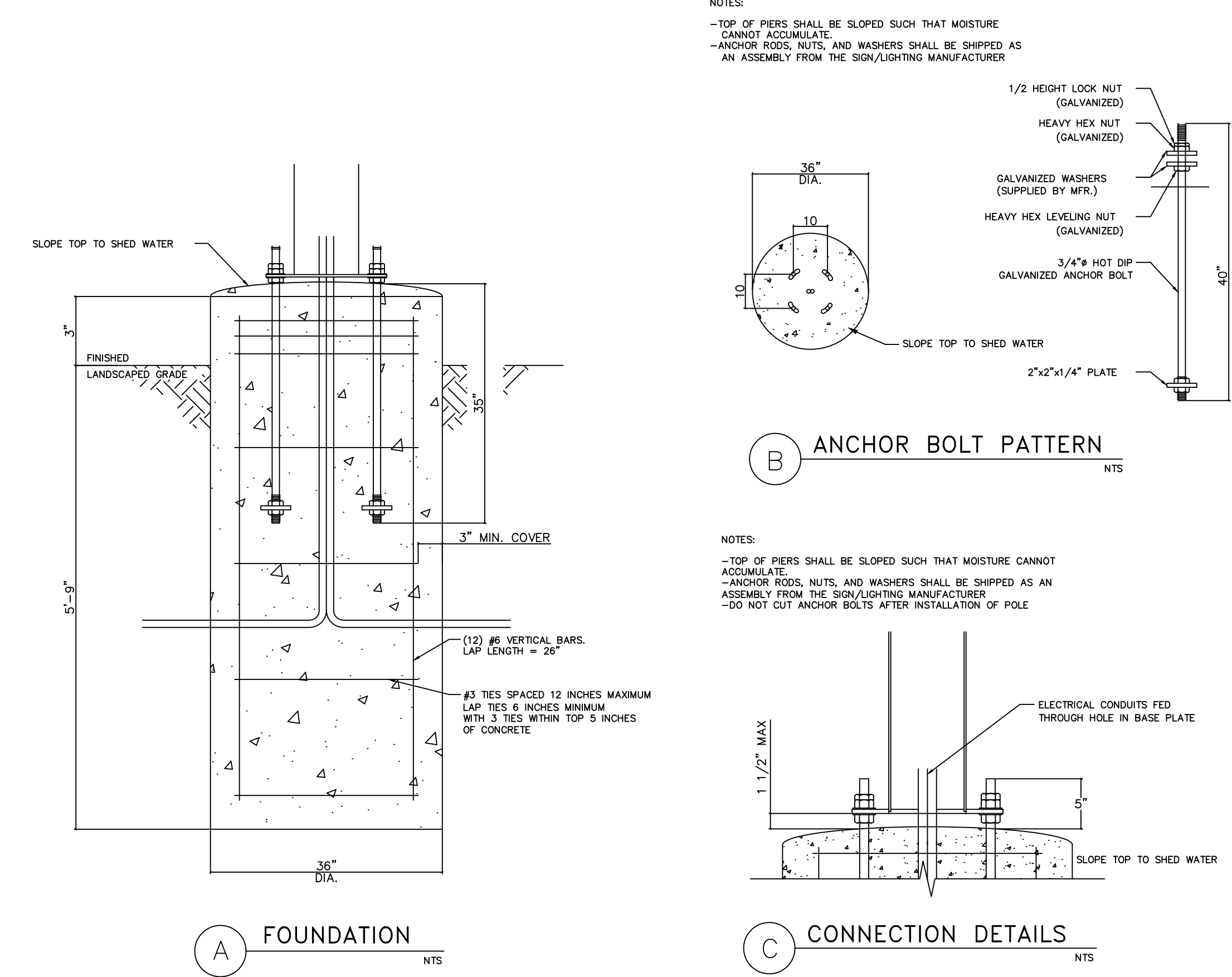
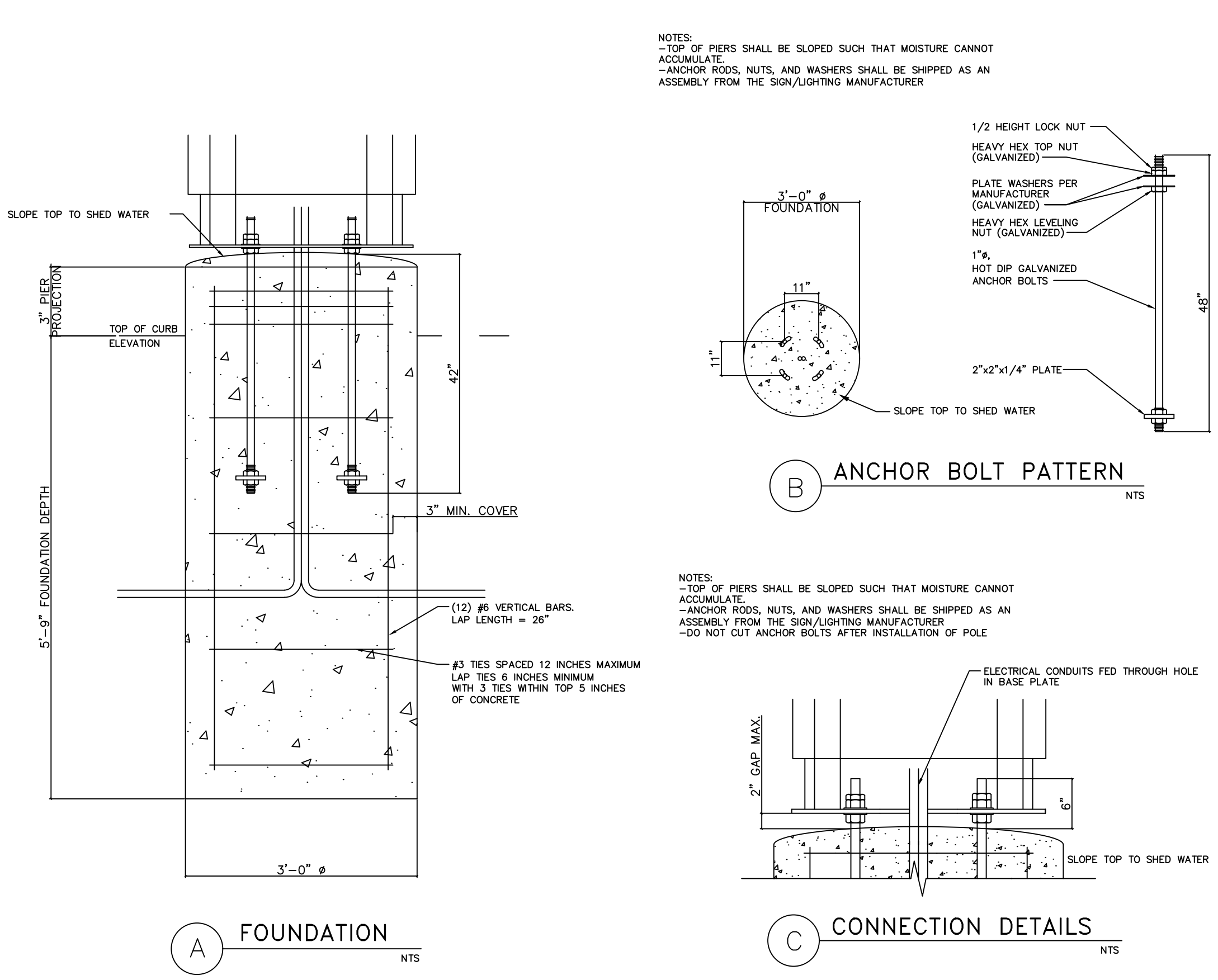
Project

McDONALD'S NEW PROJECT
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD

GREENE COUNTY MISSOURI
Drawing Title

SITE FOUNDATIONS

Project No.	520054201	Drawing No.	SD-1
Date	DECEMBER 2022		
Drawn By	OROD		
Checked By	LG	Sheet 26 of 29	



- THE FOLLOWING CODES WERE USED IN DESIGN:
-IBC 2018
-ASCE 7-16
-ACI 318-19
-ASCE 360-16
-AWS D1.1
-WIND SPEED 120 MPH
-EXPOSURE C
-RISK CATEGORY II
-DESIGN LOADS DERIVED FROM THESE CODES AND FORCES
-SHEAR 822 LBS
-MOMENT 6,800 FT-LBS
-ALL FOOTING EXCAVATIONS ARE TO BE CLEAR OF WATER AND FOREIGN MATTER BEFORE PLACING CONCRETE
-PRESUMPTIVE MAX LATERAL SOIL BEARING PRESSURE OF 100 PSF/FT (X2)
-PRESUMPTIVE MAX VERTICAL FOUNDATION PRESSURE OF 1500 PSF
-CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING SUBGRADE TO MEET MINIMUM SOIL BEARING VALUES.
-ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS.

- CONCRETE:**
-ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED RESIDUAL SOIL AND/OR ENGINEERED EARTH FILL COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D 698-70 (STANDARD PROCTOR) UNLESS NOTED OTHERWISE.
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- STEEL:**
-ANCHOR RODS ASTM F1554 GR 55, AN ACCEPTABLE ALTERNATIVE IS ASTM F1554 GR 55, S1 WHEN THE EMBEDDED END OF THE ROD IS THREADED AND THE NUT TACK WELDED PRIOR TO GALVANIZATION.
-REINFORCEMENT: ASTM A615 GRADE 60- BY GENERAL CONTRACTOR
-NUTS: ASTM A563A, HEAVY HEX
-WASHERS: ASTM F844 A36
-USE ASTM A153 CLASS HOT DIPPED GALVANIZED BOLTS AND FASTENERS.
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-NO FIELD HEATING TO BEND STEEL SHALL BE ALLOWED WITHOUT ENGINEER'S APPROVAL
-DO NOT CUT ANCHOR RODS AFTER INSTALLATION OF POLE
-AFTER INSTALLATION, ALL EXPOSED STEEL SHALL BE PAINTED WITH AN ENAMEL PAINT TO INHIBIT CORROSION
-ANY FIELD WELDING SHALL FIRST BE VERIFIED BY ENGINEER AND PERFORMED IN ACCORDANCE WITH AWS D1.1
-REFER TO SIGN MANUFACTURER DRAWINGS AND INSTRUCTIONS FOR ADDITIONAL INFORMATION

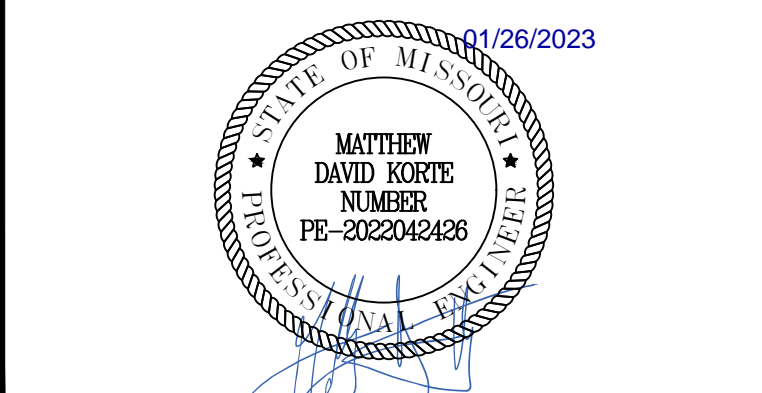
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-ASCE 7-16
-ACI 318-19
-ASCE 360-16
-AWS D1.1
-WIND SPEED 120 MPH
-EXPOSURE C
-RISK CATEGORY I
-DESIGN LOADS DERIVED FROM THESE CODES AND FORCES
-SHEAR 1,039 LBS
-MOMENT 8,570 FT-LBS
-ALL FOOTING EXCAVATIONS ARE TO BE CLEAR OF WATER AND FOREIGN MATTER BEFORE PLACING CONCRETE
-PRESUMPTIVE MAX LATERAL SOIL BEARING PRESSURE OF 100 PSF/FT (X2)
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-REFER TO SIGN MANUFACTURER DRAWINGS AND INSTRUCTIONS FOR ADDITIONAL INFORMATION

Date	Description	No.
Revisions		

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Project
McDONALD'S NEW PROJECT
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD

GREENE COUNTY MISSOURI
Drawing Title

SITE FOUNDATIONS

Project No. 520054201	Drawing No. SD-2
Date DECEMBER 2022	Sheet 27 of 29
Drawn By OROD	
Checked By LG	

NOTE:
 -DESIGN CODES
 -IBC 2019
 -ASCE 7-16
 -ACI 318-19
 -AWS D1.1
 -NAAMM 1001-07
 -DESIGN LOADS ARE BASED ON:
 A. 120MPH ACTING ON POLE AND FLAG
 B. EXPOSURE CATEGORY C
 -DESIGN LOADS DERIVED FROM THESE CODES AND FORCES
 -SHEAR 602 LBS.
 -MOMENT 13,703 FT.-LBS.
 -USE CONCRETE WITH A 3000PSI MINIMUM COMPRESSIVE STRENGTH (f'c).
 -TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
 -ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS.
 -PRESUMPTIVE ALLOWABLE LATERAL SOIL BEARING PRESSURE 100 PSF/FT OF DEPTH (x2)
 -INSTALL SAND AND POLE PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
 -SEAL SAND IN FOUNDATION WITH CAULK PER MANUFACTURERS GUIDELINES.

CONCRETE:
 -ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED RESIDUAL SOIL AND/OR ENGINEERED EARTH FILL COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D 698-70 (STANDARD PROCTOR) UNLESS NOTED OTHERWISE.
 -TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
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 -DO NOT PLACE POLES ON CONCRETE UNTIL CONCRETE HAS CURED PER MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATION, SECTION 3.11-E.

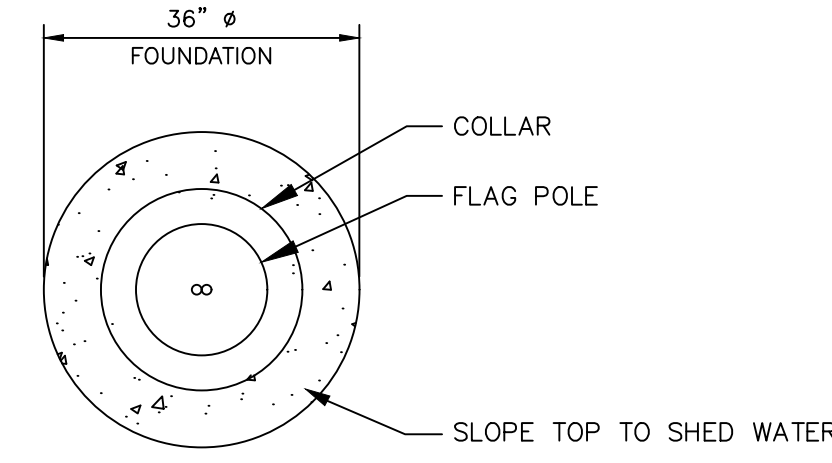
-FLAG POLE DESIGN ASSUMPTIONS:
 -POLE HEIGHT = 40'
 -POLE TOP DIAMETER = 3.5"
 -POLE BUTT DIAMETER = 8"
 -FLAG, 10FT x 6FT POLYESTER
 -DOME DIAMETER = 10'
 -REFER TO FLAG MANUFACTURER DRAWINGS AND INSTRUCTIONS FOR ADDITIONAL INFORMATION INCLUDING INSTALLATION INSTRUCTIONS.
 -CONTRACTOR (INSTALLER) IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION IN REGARDS TO JOBSITE SAFETY.
 -DETAILS AND STRUCTURAL MEMBERS NOT SHOWN DESIGNED BY OTHERS
 -ANY MODIFICATIONS ARE TO BE VERIFIED BY AN ENGINEER

GENERAL NOTES
 -THE FOLLOWING CODES WERE USED IN DESIGN:
 -IBC 2019
 -ASCE 7-16
 -ACI 318-11
 -AISC 360-16
 -AWS D1.1
 -WIND SPEED 120 MPH
 -EXPOSURE C
 -RISK CATEGORY II
 -DESIGN LOADS DERIVED FROM THESE CODES AND FORCES
 -SHEAR 340 LBS
 -MOMENT 4,140 FT-LBS

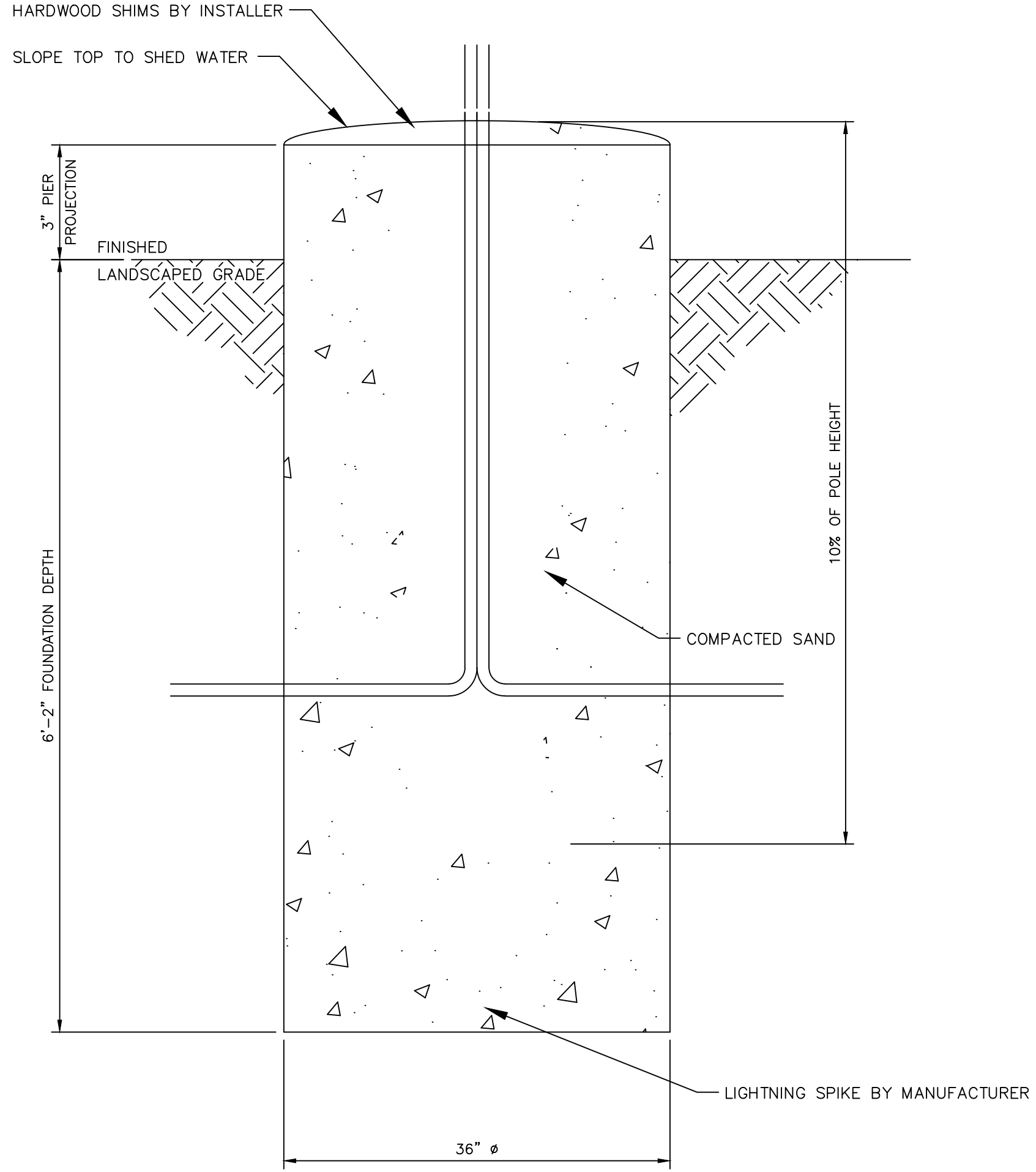
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ANCHOR BOLTS:
 -3/4"x30"x3" WITH PROJECTION, IN 8"-11" BOLT CIRCLE, BY LIGHTING MANUFACTURER

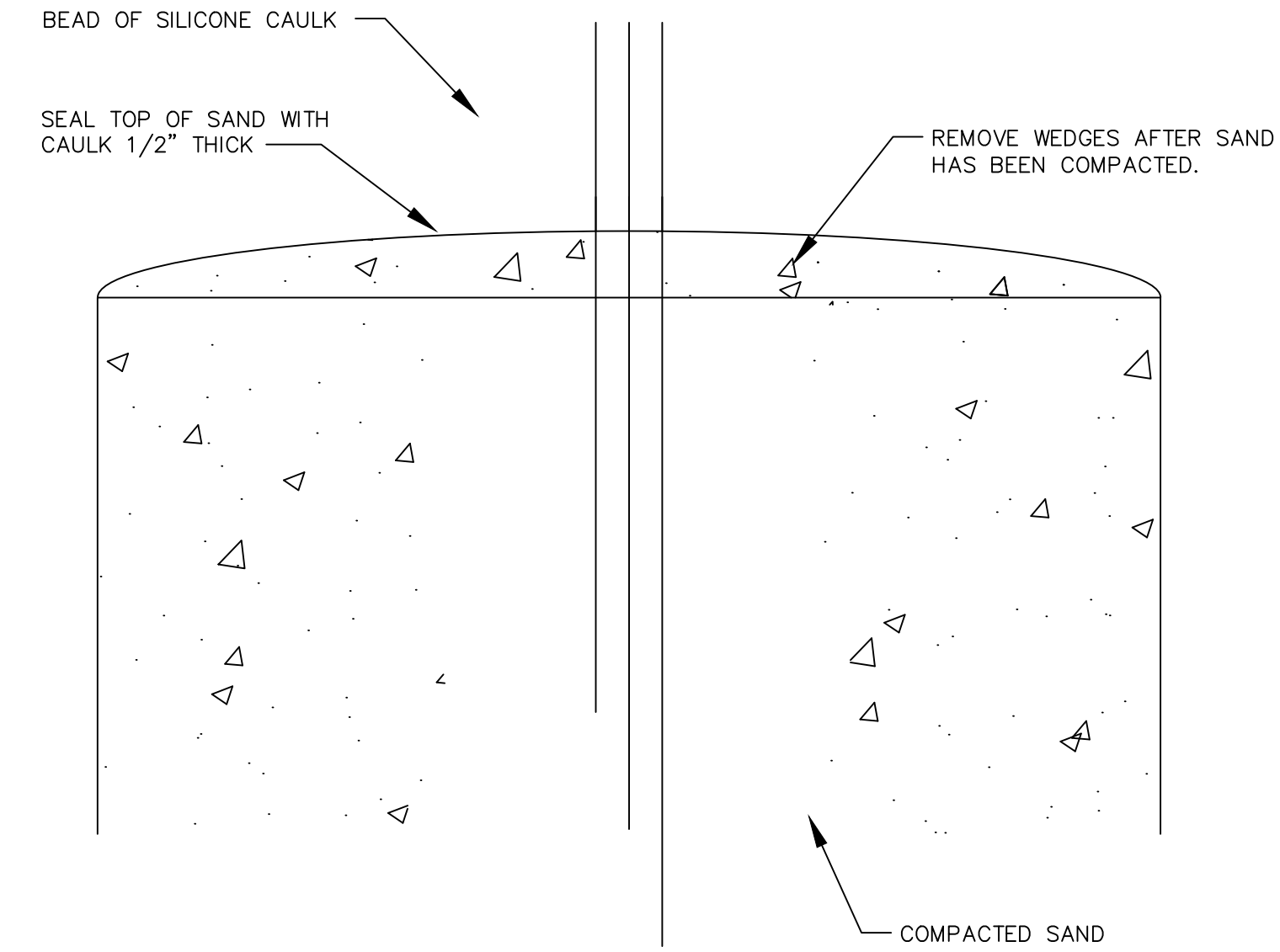


(A) DETAIL

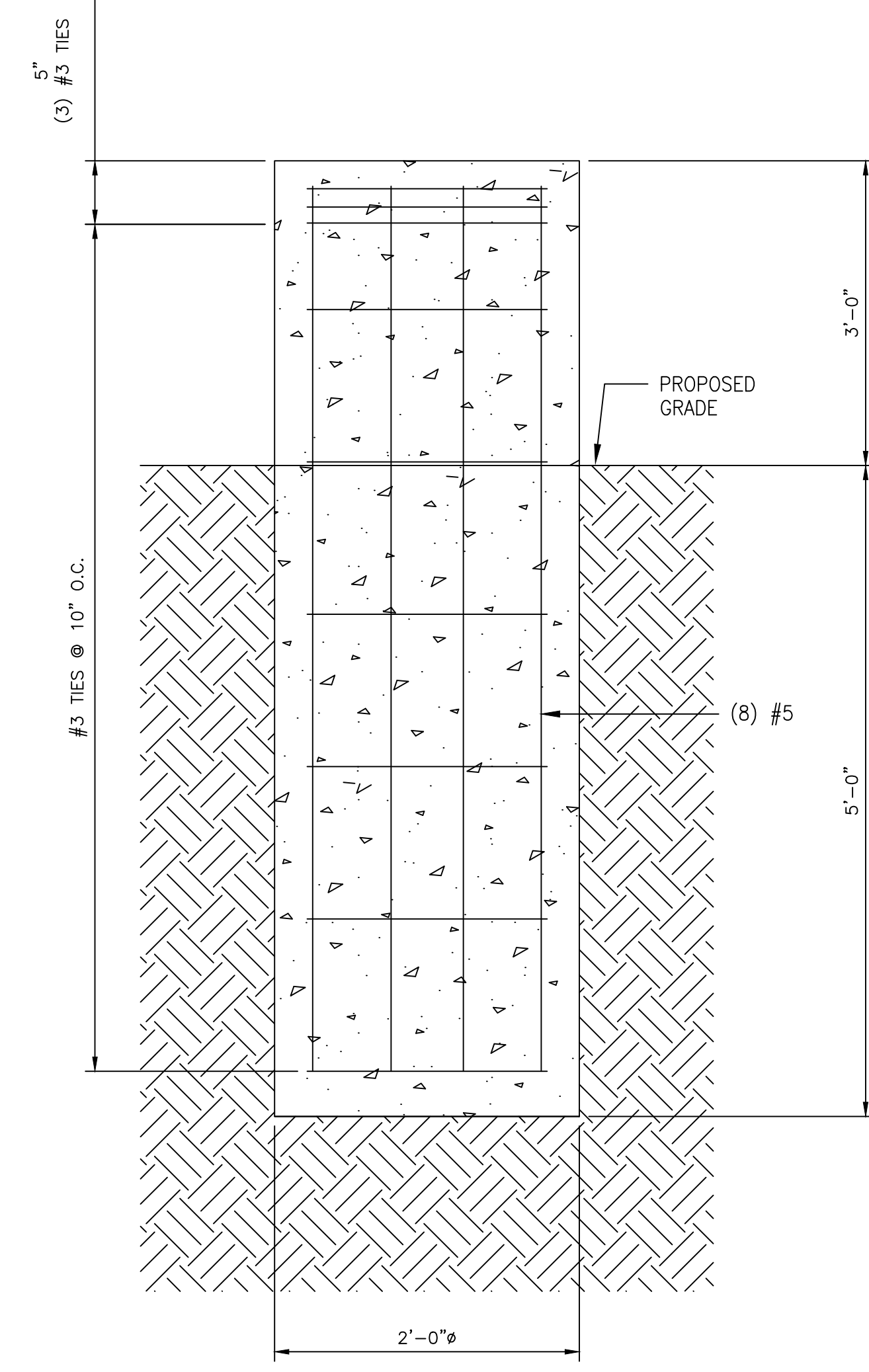
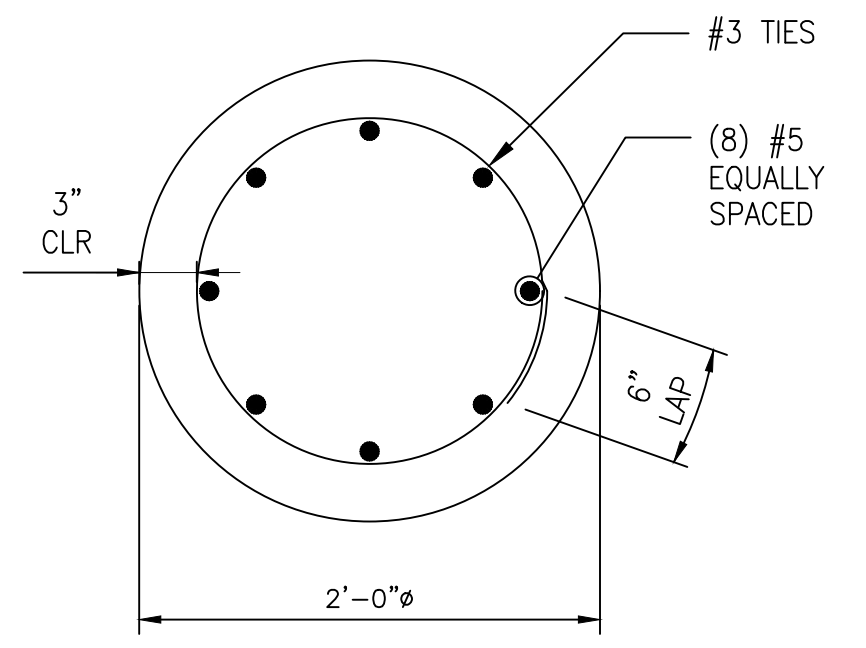


(B) FOUNDATION

1 FLAG POLE
SD-03 SCALE: NONE



(C) DETAIL



2 LIGHT FIXTURE
SD-03 SCALE: NONE

Date	Description	No.
Revisions		
M. McDonald's USA, LLC		
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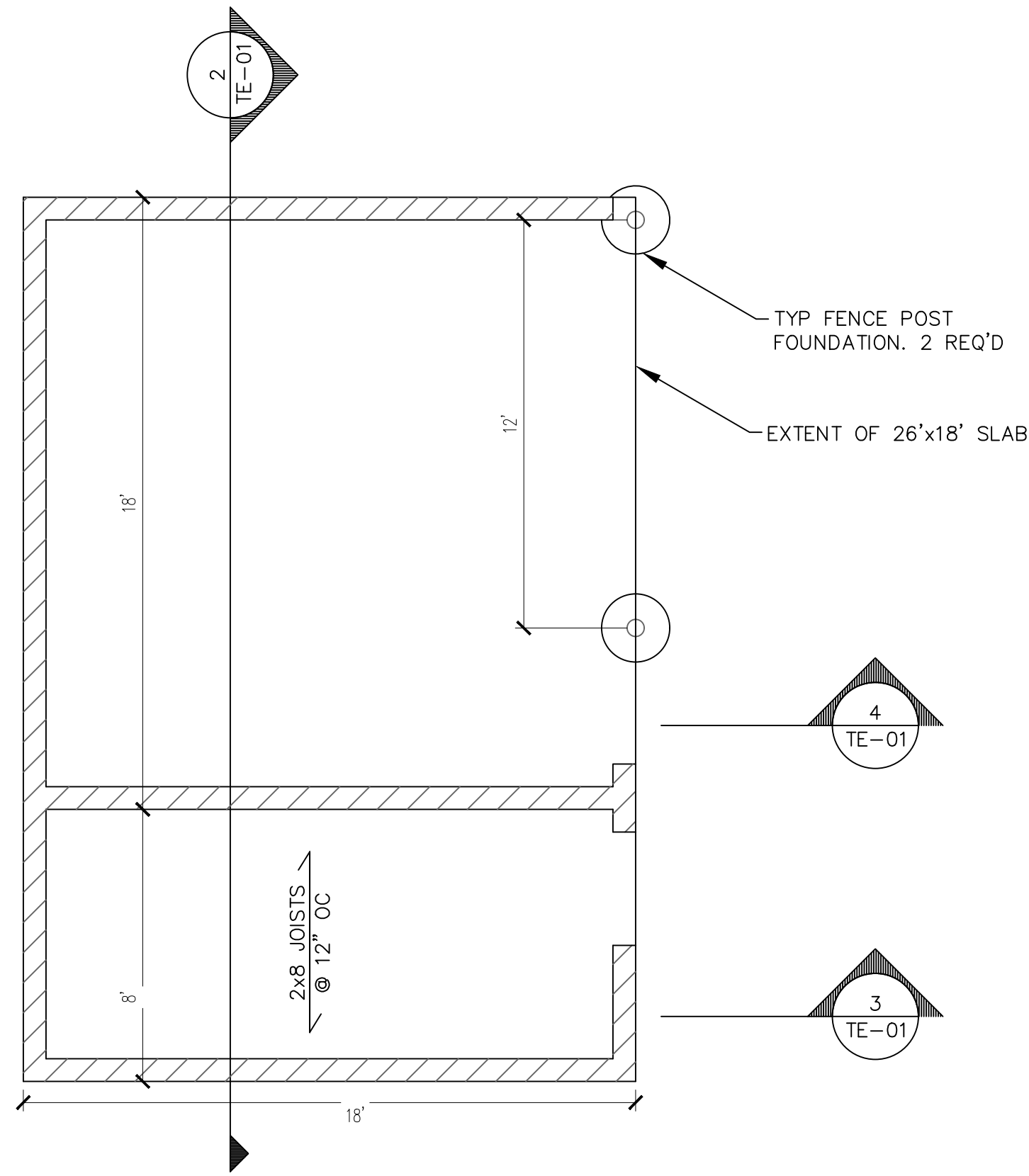
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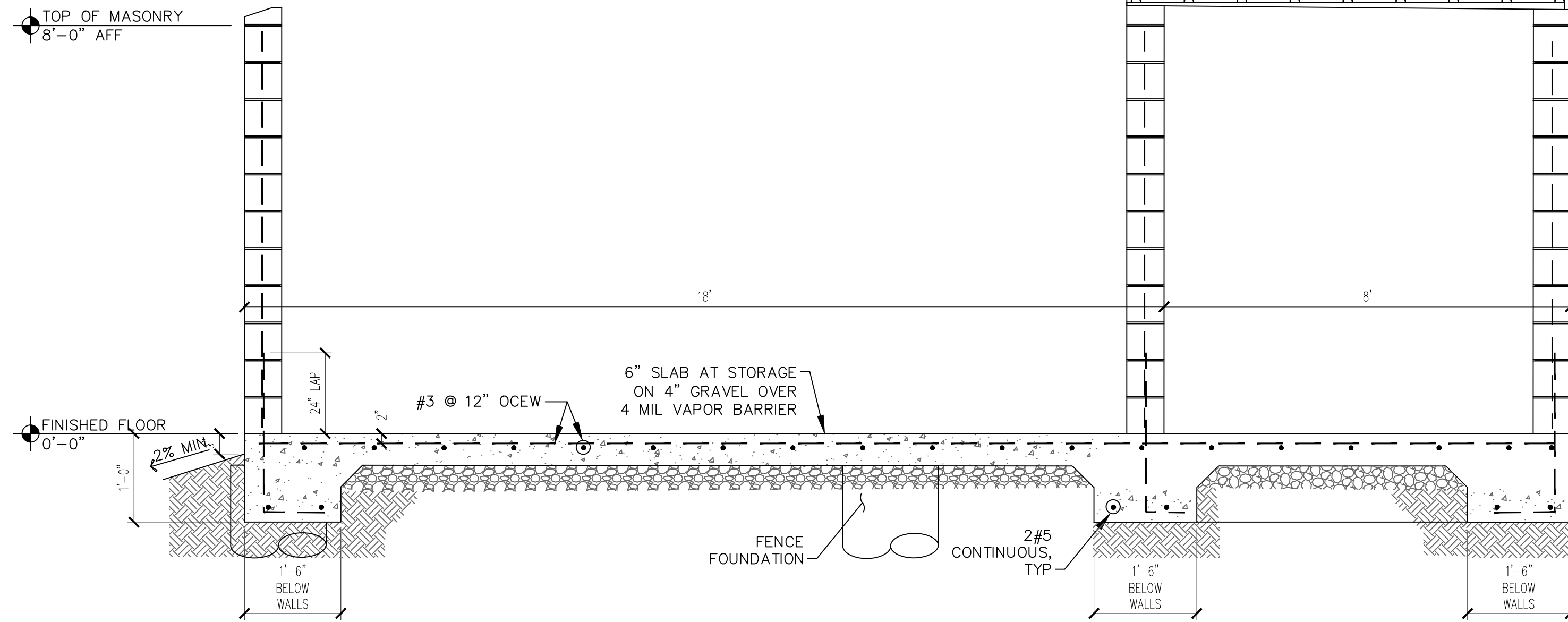
GREENE COUNTY MISSOURI
 Drawing Title

SITE FOUNDATIONS

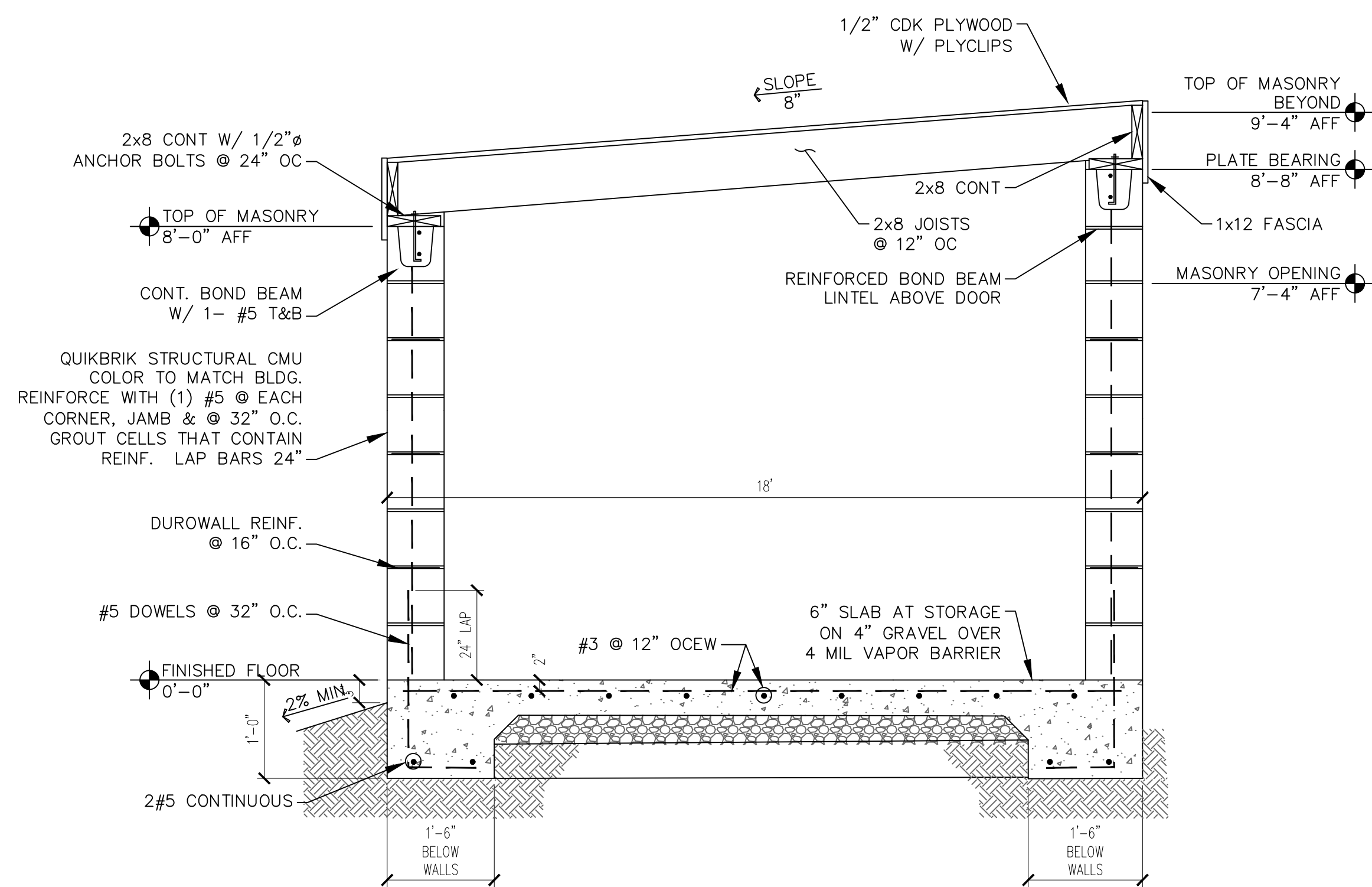
Project No. 520054201	Drawing No. SD-3
Date DECEMBER 2022	SD-3
Drawn By OROD	
Checked By LG	
Sheet 28 of 29	



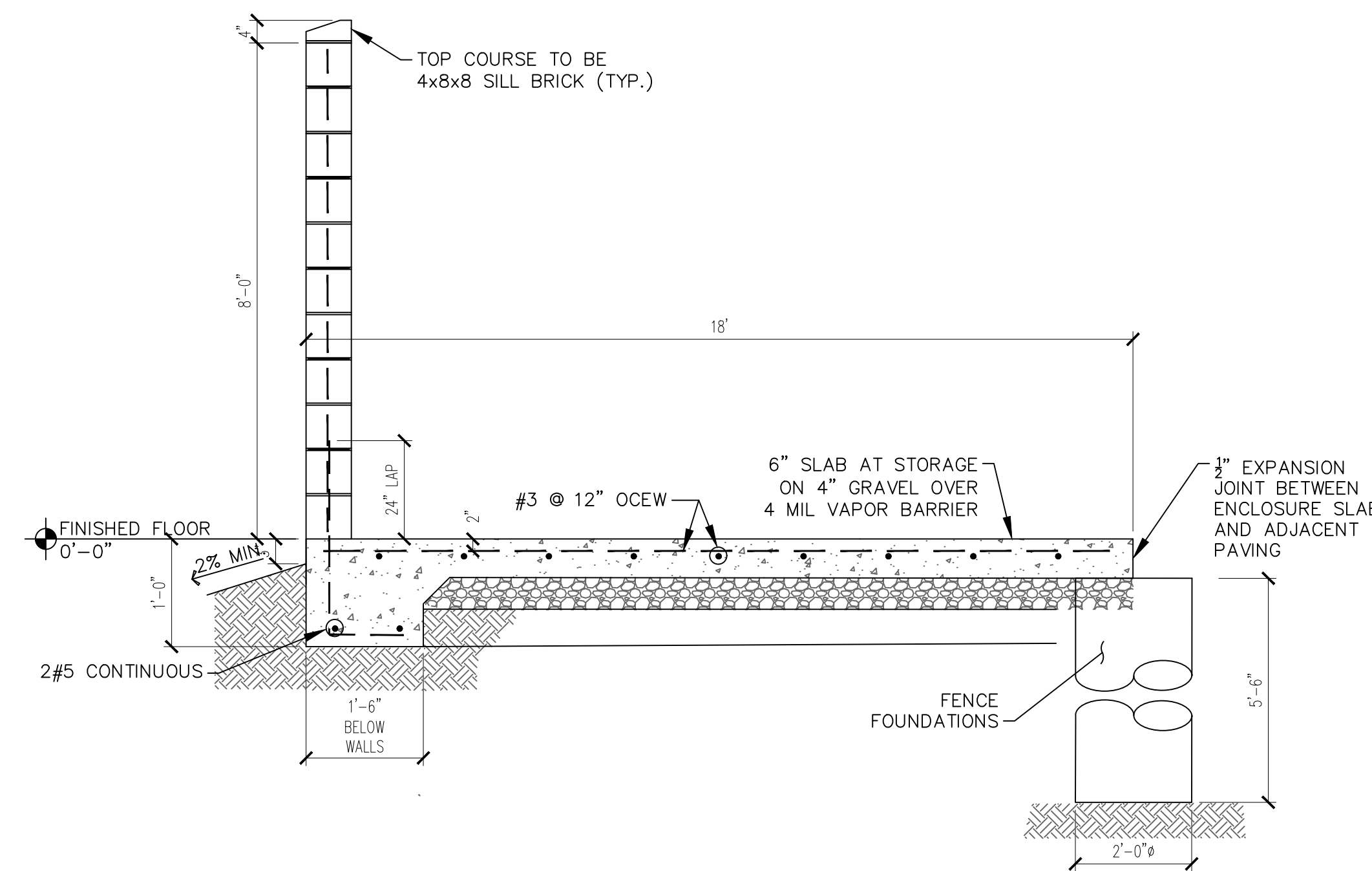
1 TRASH ENCLOSURE WITH LOCKABLE STORAGE
TE-01 NOT TO SCALE



2 TYPICAL WALL SECTION
TE-01 NOT TO SCALE



3 SECTION THRU STORAGE ROOM
TE-01 NOT TO SCALE



4 TYPICAL WALL SECTION
TE-01 NOT TO SCALE

- GENERAL NOTES**
- THE FOLLOWING CODES WERE USED IN DESIGN:
 - IBC 2018
 - ASCE 7-16
 - ACI 318-19
 - ACI 360R-10
 - TMS402-16
 - WIND SPEED 120 MPH
 - EXPOSURE C
 - RISK CATEGORY II
 - ALL FOOTING EXCAVATIONS ARE TO BE CLEAR OF WATER AND FOREIGN MATTER BEFORE PLACING CONCRETE.
 - PRESUMPTIVE MAX LATERAL SOIL BEARING PRESSURE OF 100 PSF/FT (X2)
 - PRESUMPTIVE MAX VERTICAL FOUNDATION PRESSURE OF 1500 PSF.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING SUBGRADE TO MEET MINIMUM SOIL BEARING VALUES.

- CONCRETE:**
- ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED RESIDUAL SOIL AND/OR ENGINEERED EARTH FILL COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D 698-70 (STANDARD PROCTOR) UNLESS NOTED OTHERWISE
 - TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE
 - MINIMUM CONCRETE STRENGTH ($f'c=3,000$ PSI) SHALL CONFORM WITH MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A
 - USE OF ADMIXTURES SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATION SECTION 2.6
 - AIR ENTERTAINMENT SHALL CONFORM WITH MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS 2.6-A AND 2.13-A
 - WATER CONTENT RATIO SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A
 - FOUNDATION CONCRETE TO BE TESTED PER MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 3.14
 - PROVIDE A MINIMUM 3" OF CONCRETE COVER OVER ALL EMBEDDED STEEL.
 - REINFORCEMENT PLACEMENT SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTIONS 3.2 & 3.5 PERFORMED BY GENERAL CONTRACTOR
 - ANCHOR RODS TO BE SET IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE

Date	Description	No.
Revisions		

McDonald's USA, LLC

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Project

**McDONALD'S
NEW PROJECT
L/C 024-1290
3720 WEST SUNSHINE STREET
SPRINGFIELD**

GREENE COUNTY MISSOURI

Drawing Title

**TRASH
ENCLOSURE/STORAGE
BUILDING DETAILS**

Project No. 520054201	Drawing No. TE-1
Date DECEMBER 2022	
Drawn By OROD	
Checked By LG	
Sheet 29 of 29	