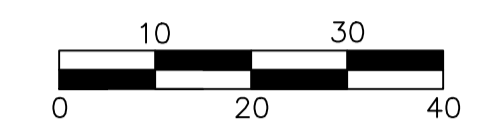


REVIEWED FOR COMPLIANCE WITH THE CITY CODE, APPLICABLE BUILDING CODES, ZONING ORDINANCE AND DESIGN STANDARDS. THIS REVIEW AND APPROVAL DOES NOT RELIEVE THE DEVELOPER OR HIS AGENTS OF ANY RESPONSIBILITY FOR COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS, OR ADDRESS OR OVERRULE THE REQUIREMENTS OF OTHER JURISDICTIONS OR AGENCIES, UNLESS SPECIFICALLY NOTED OTHERWISE.

Kevin R. ...
SIGNATURE DATE 04/21/23

PRJ202300932



SCALE: 1" = 20'

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: LI.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.

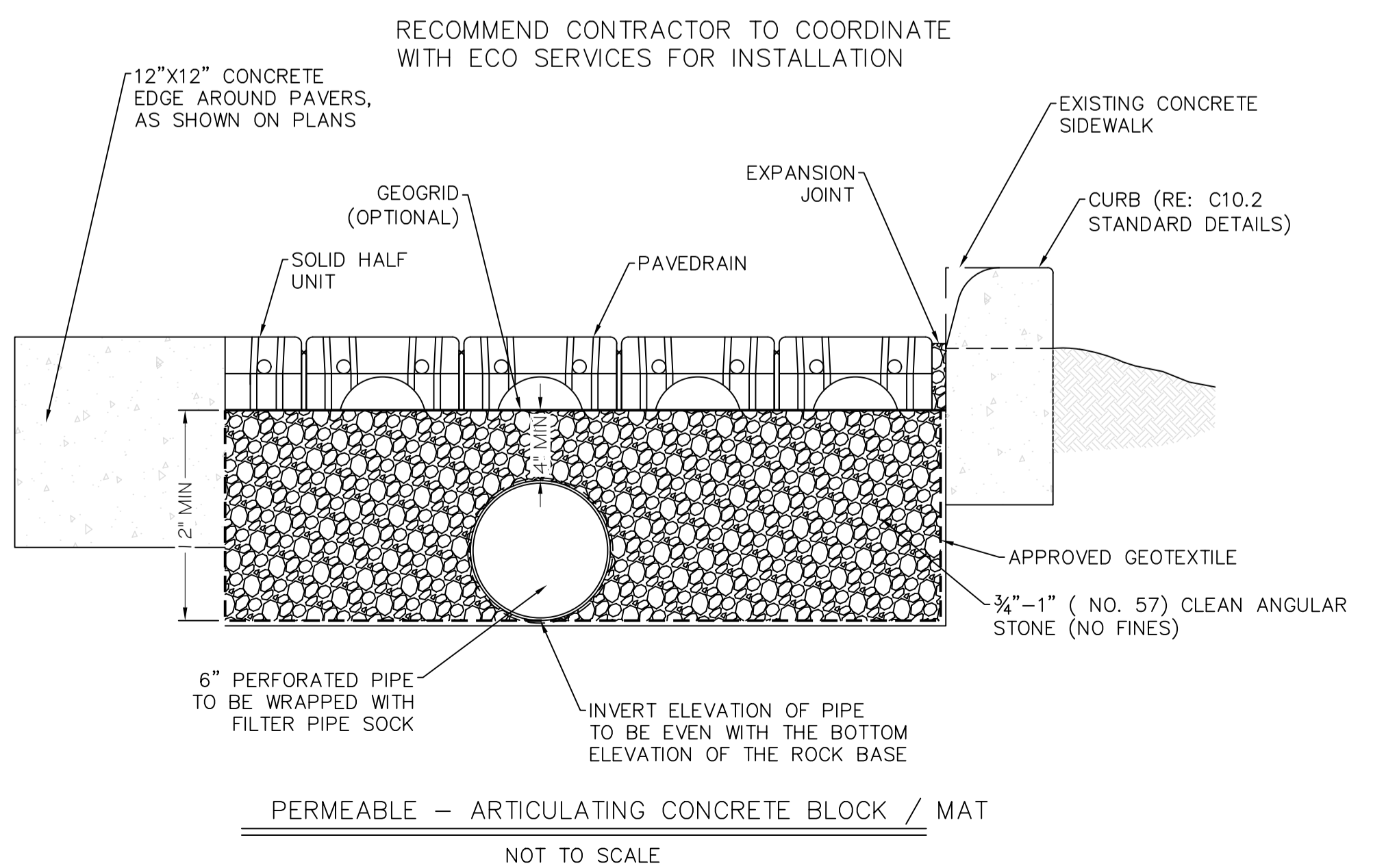
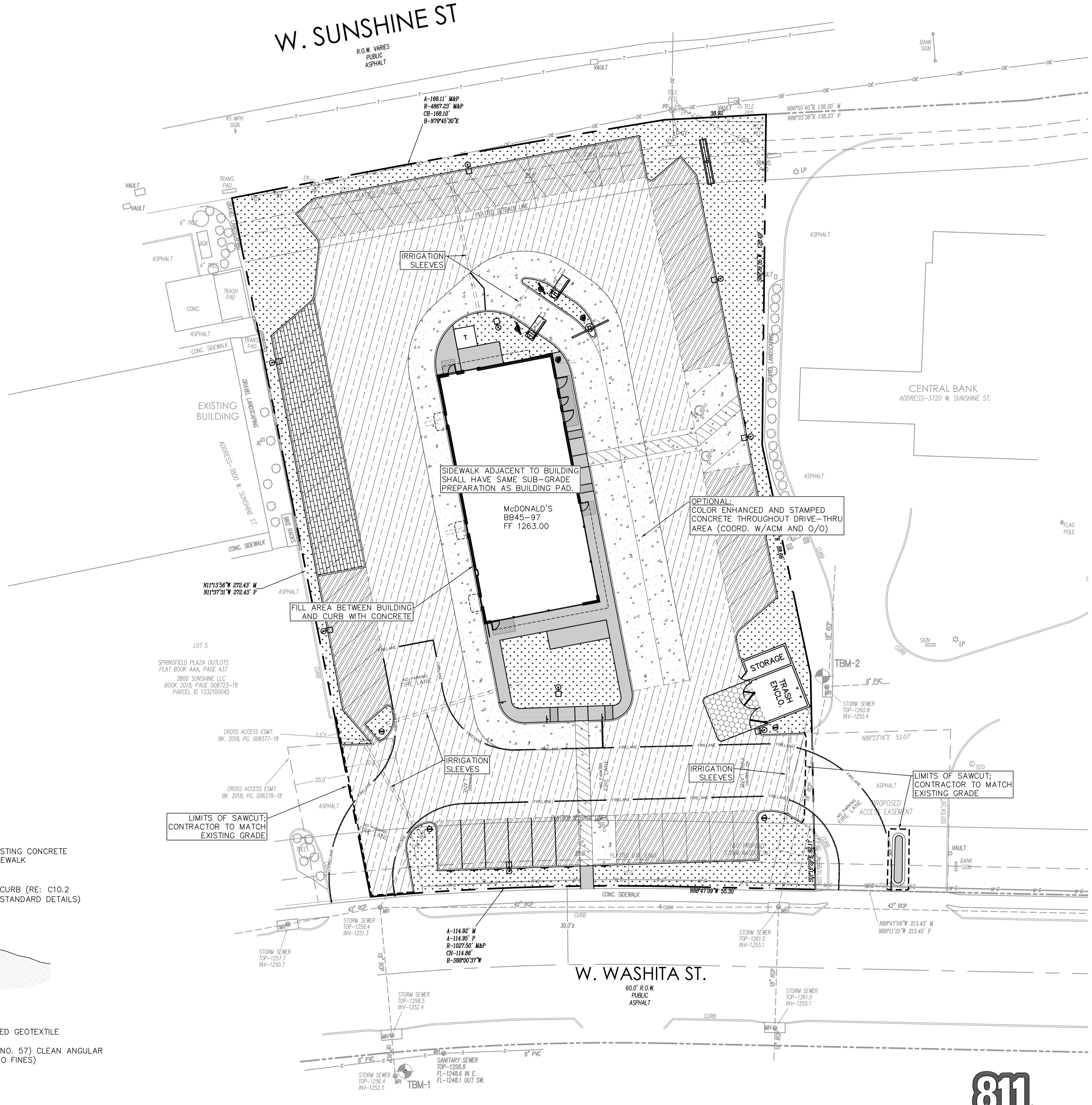
PAVING SPECIFICATION

VERIFY W/MCDONALD'S: ASPHALT CONCRETE
CONTRACTOR TO BID: ASPHALT CONCRETE

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		

McDonald's USA, LLC

These drawings and specifications are the confidential and proprietary property of McDonald's USA, LLC and shall not be copied or reproduced without written authorization. The contract documents were prepared for use on this specific site in conjunction with its issue date and are not suitable for use on a different site or at a later time. Use of these drawings for reference or example on another project requires the services of properly licensed architects and engineers. Reproduction of the contract documents for reuse on another project is not authorized.



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
3740 WEST SUNSHINE STREET
SPRINGFIELD

GREENE COUNTY MISSOURI
Drawing Title

PAVING PLAN

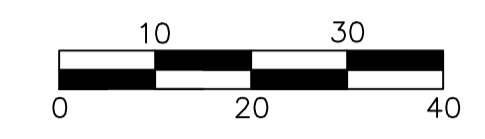
Project No. 520054201	Drawing No. C6.0
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	
Sheet 11 of 30	



REVIEWED FOR COMPLIANCE WITH THE CITY CODE, APPLICABLE BUILDING CODES, ZONING ORDINANCE AND DESIGN STANDARDS. THIS REVIEW AND APPROVAL DOES NOT RELIEVE THE DEVELOPER OR HIS AGENTS OF ANY RESPONSIBILITY FOR COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS, OR ADDRESS OR OVERRULE THE REQUIREMENTS OF OTHER JURISDICTIONS OR AGENCIES, UNLESS SPECIFICALLY NOTED OTHERWISE.

Kevin R. ...
SIGNATURE DATE 01/27/23

PRJ202300932



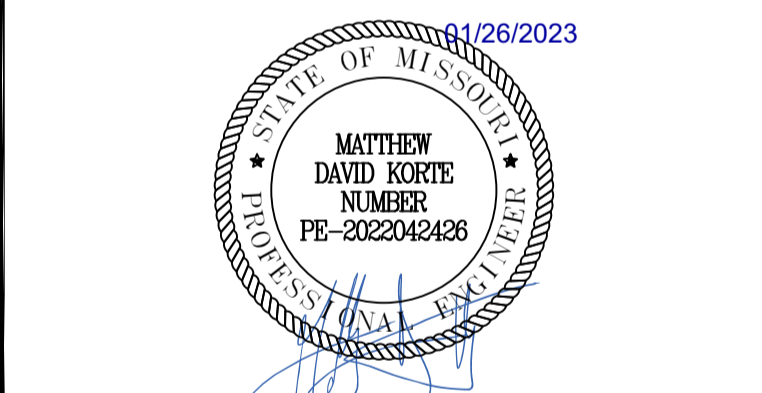
SCALE: 1" = 20'

Project No. 520054201

Date	Description	No.
Revisions		

M. McDonald's USA, LLC

These drawings and specifications are the confidential and proprietary property of McDonald's USA, LLC and shall not be copied or reproduced without written authorization. The contract documents were prepared for use on this specific site in conjunction with its issue date and are not suitable for use on a different site or at a later time. Use of these drawings for reference or example on another project requires the services of properly licensed architects and engineers. Reproduction of the contract documents for reuse on another project is not authorized.



LANGAN

Langan Engineering and Environmental Services, Inc.

8951 Cypress Waters Blvd, Suite 150
Dallas, TX 75019

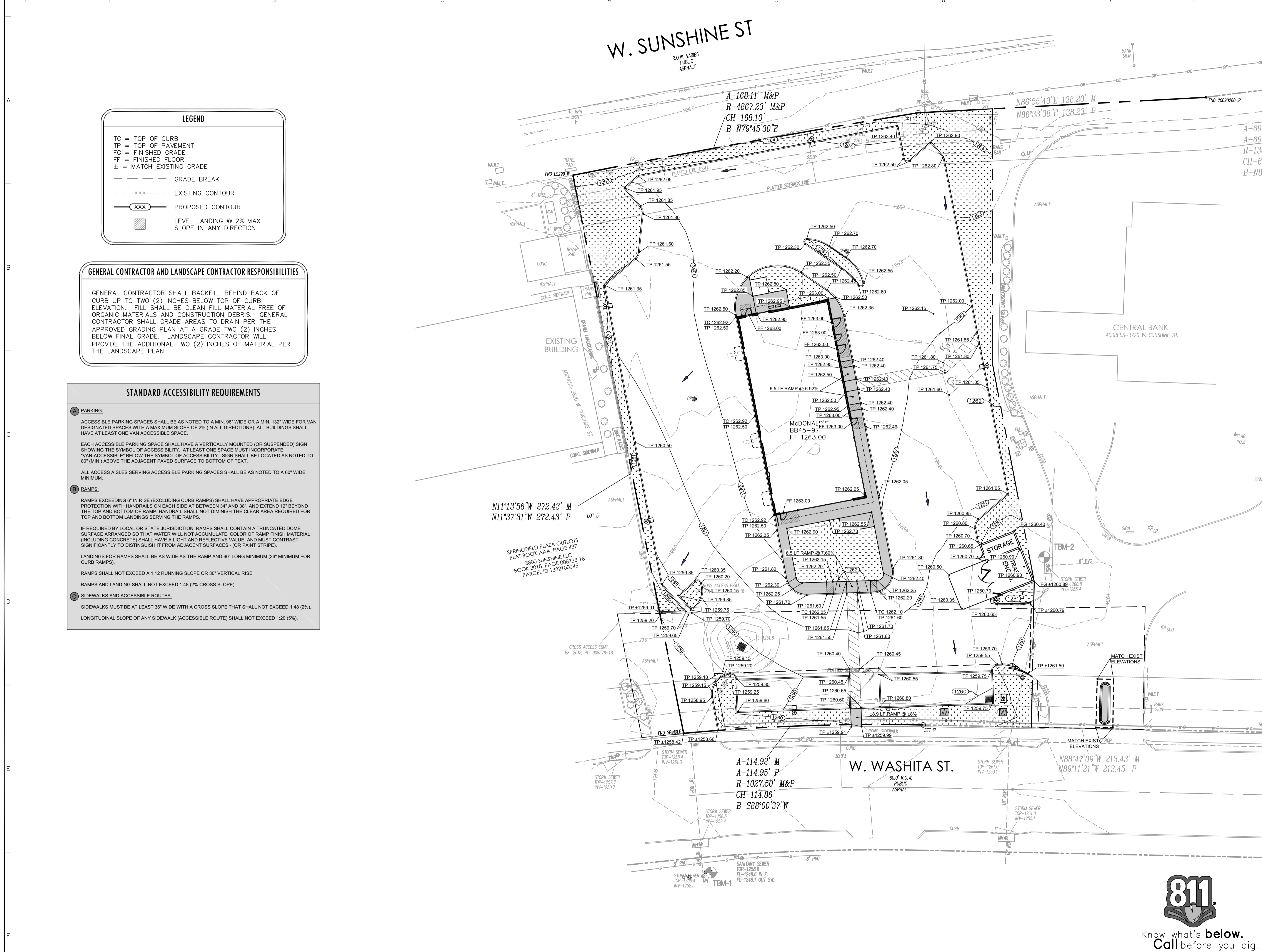
T: 817.328.3200 www.langan.com
MO Certificate of Authorization No. F001330220

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

GREENE COUNTY MISSOURI
Drawing Title

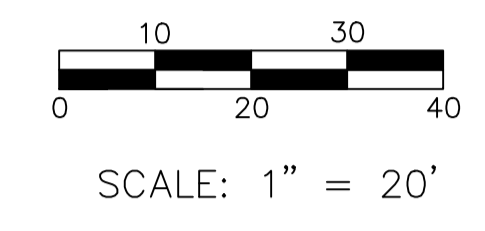
GRADING PLAN

Project No. 520054201	Drawing No. C7.0
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	
	Sheet 11 of 29



BUILDING OFFICIAL
 REVIEWED FOR COMPLIANCE WITH THE CITY CODE, ADOPTED BUILDING CODES, ZONING ORDINANCE AND DESIGN STANDARDS. THIS REVIEW AND APPROVAL DOES NOT RELIEVE THE DEVELOPER OR HIS AGENTS OF ANY RESPONSIBILITY FOR COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS, OR ADDRESS OR OVERRULE THE REQUIREMENTS OF OTHER JURISDICTIONS OR AGENCIES, UNLESS SPECIFICALLY NOTED OTHERWISE.

Kevin R. ...
 SIGNATURE DATE
PRJ202200932



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	5.55	6.56	8.18	1.44	2.12	2.51	3.13



Date	Description	No.
Revisions		

McDonald's USA, LLC
 These drawings and specifications are the confidential and proprietary property of McDonald's USA, LLC, and shall not be copied or reproduced without written authorization. The contract documents were prepared for use on this specific site in conjunction with its issue date and are not suitable for use on a different site or at a later time. Use of these drawings for reference or example on another project requires the services of properly licensed architects and engineers. Reproduction of the contract documents for reuse on another project is not authorized.



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

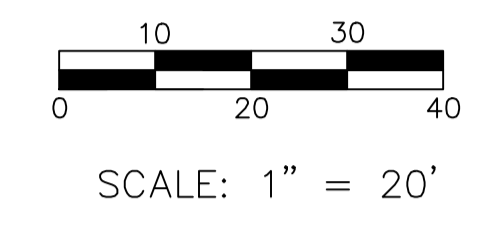
GREENE COUNTY MISSOURI
 Drawing Title

PRE-DEVELOPED DRAINAGE PLAN

Project No. 520054201	Drawing No. C8.0
Date DECEMBER 2022	
Drawn By OROD	
Checked By DWL	
Sheet 12 of 29	

APPROVED
BUILDING OFFICIAL
REVIEWED FOR COMPLIANCE WITH THE CITY CODE, APPLICABLE BUILDING CODES, ZONING ORDINANCE AND DESIGN STANDARDS. THIS REVIEW AND APPROVAL DOES NOT RELIEVE THE DEVELOPER OR HIS AGENTS OF ANY RESPONSIBILITY FOR COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS, OR ADDRESS OR OVERRULE THE REQUIREMENTS OF OTHER JURISDICTIONS OR AGENCIES, UNLESS SPECIFICALLY NOTED OTHERWISE.

Kevin R. ...
SIGNATURE DATE
04/21/23
PRJ202500932



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

Date Description No.
Revisions
M. McDonald's USA, LLC
These drawings and specifications are the confidential and proprietary property of McDonald's USA, LLC and shall not be copied or reproduced without written authorization. The contract documents were prepared for use on this specific site in conjunction with its issue date and are not suitable for use on a different site or at a later time. Use of these drawings for reference or example on another project requires the services of properly licensed architects and engineers. Reproduction of the contract documents for reuse on another project is not authorized.

04/14/2023
STATE OF MISSOURI
MATTHEW DAVID KORTE
NUMBER
PE-2022042426

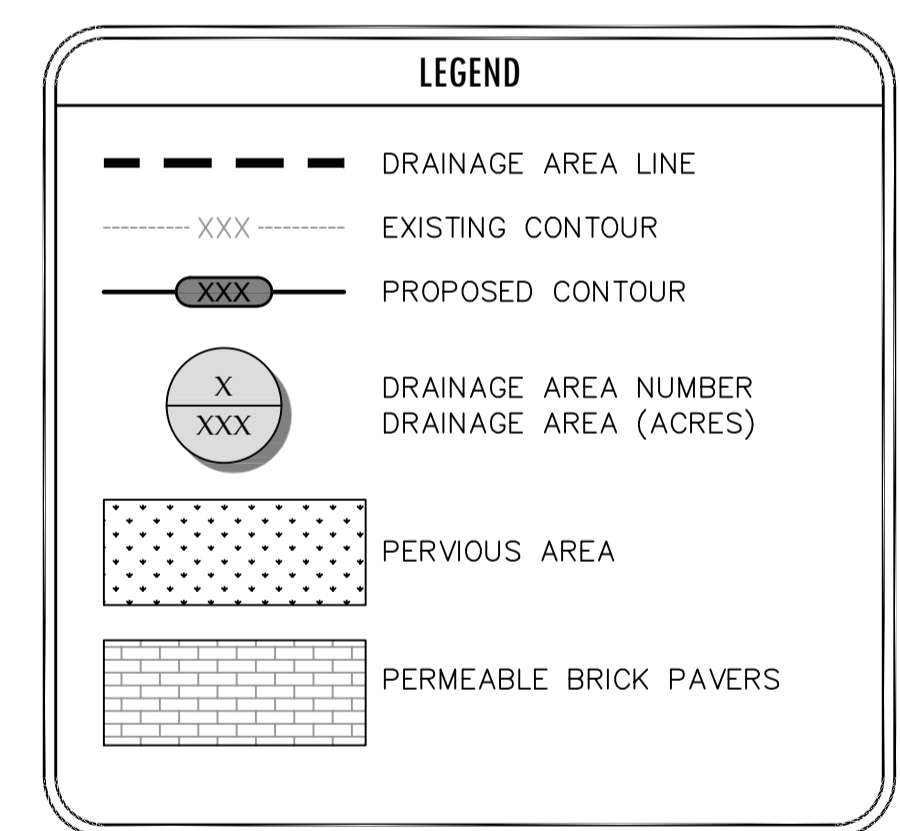
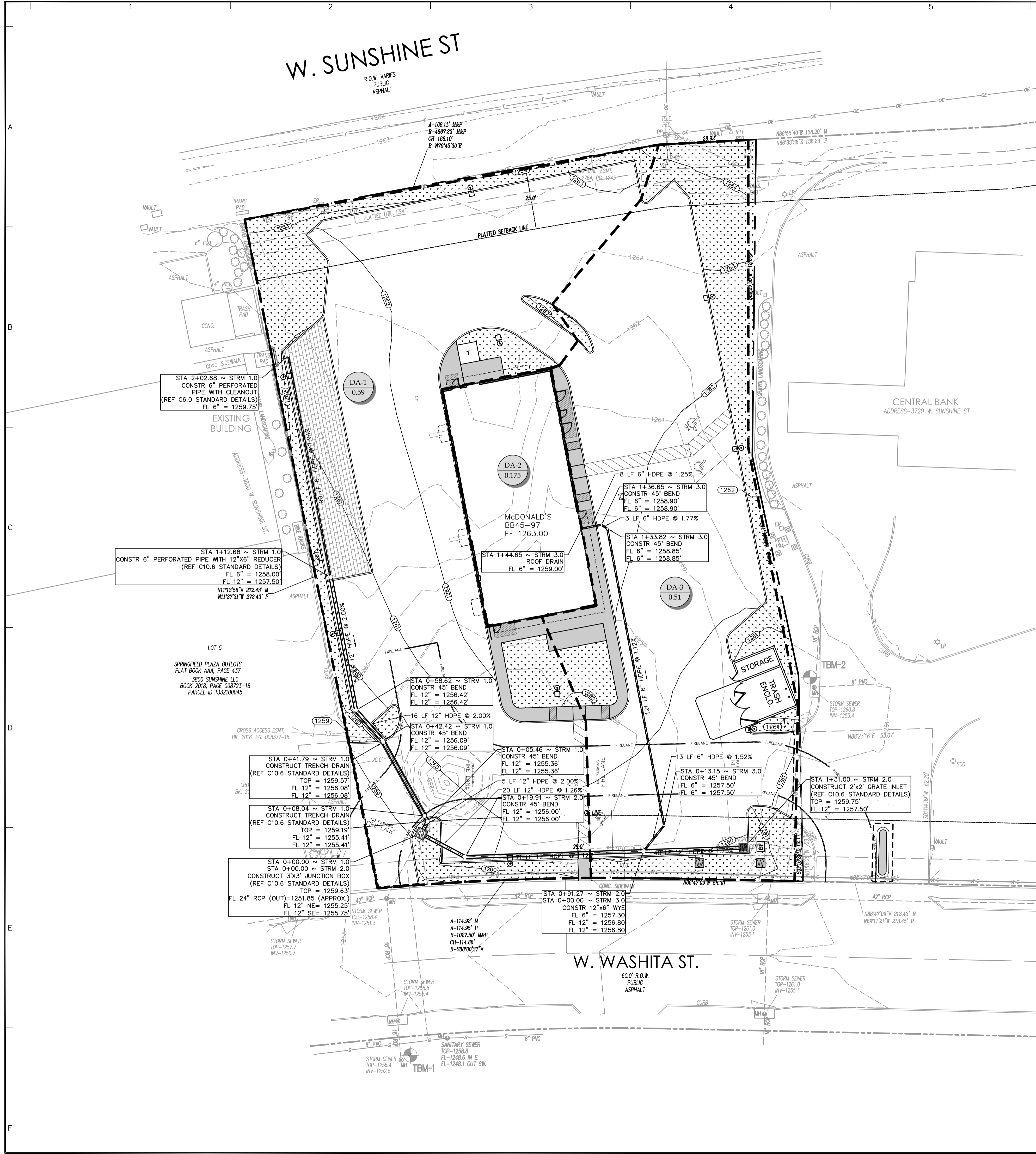
LANGAN
Langan Engineering and Environmental Services, Inc.
8951 Cypress Waters Blvd, Suite 150
Dallas, TX 75019
T: 817.328.3200 www.langan.com
MO Certificate of Authorization No. F001330220

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

GREENE COUNTY MISSOURI
Drawing Title

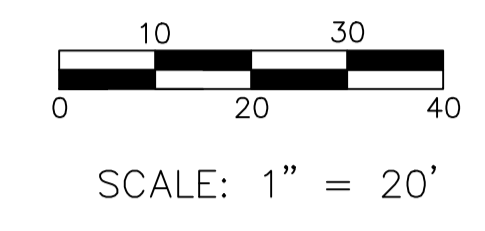
POST-DEVELOPED DRAINAGE PLAN

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



REVIEWED FOR COMPLIANCE WITH THE CITY CODE, ADOPTED BUILDING CODES, ZONING ORDINANCE AND DESIGN STANDARDS. THIS REVIEW AND APPROVAL DOES NOT RELIEVE THE DEVELOPER OR HIS AGENTS OF ANY RESPONSIBILITY FOR COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS, OR ADDRESS OR OVERRULE THE REQUIREMENTS OF OTHER JURISDICTIONS OR AGENCIES, UNLESS SPECIFICALLY NOTED OTHERWISE.

APPROVED
 SIGNATURE: *Kevin R. [Signature]*
 DATE: 01/27/23
 PRJ202300932

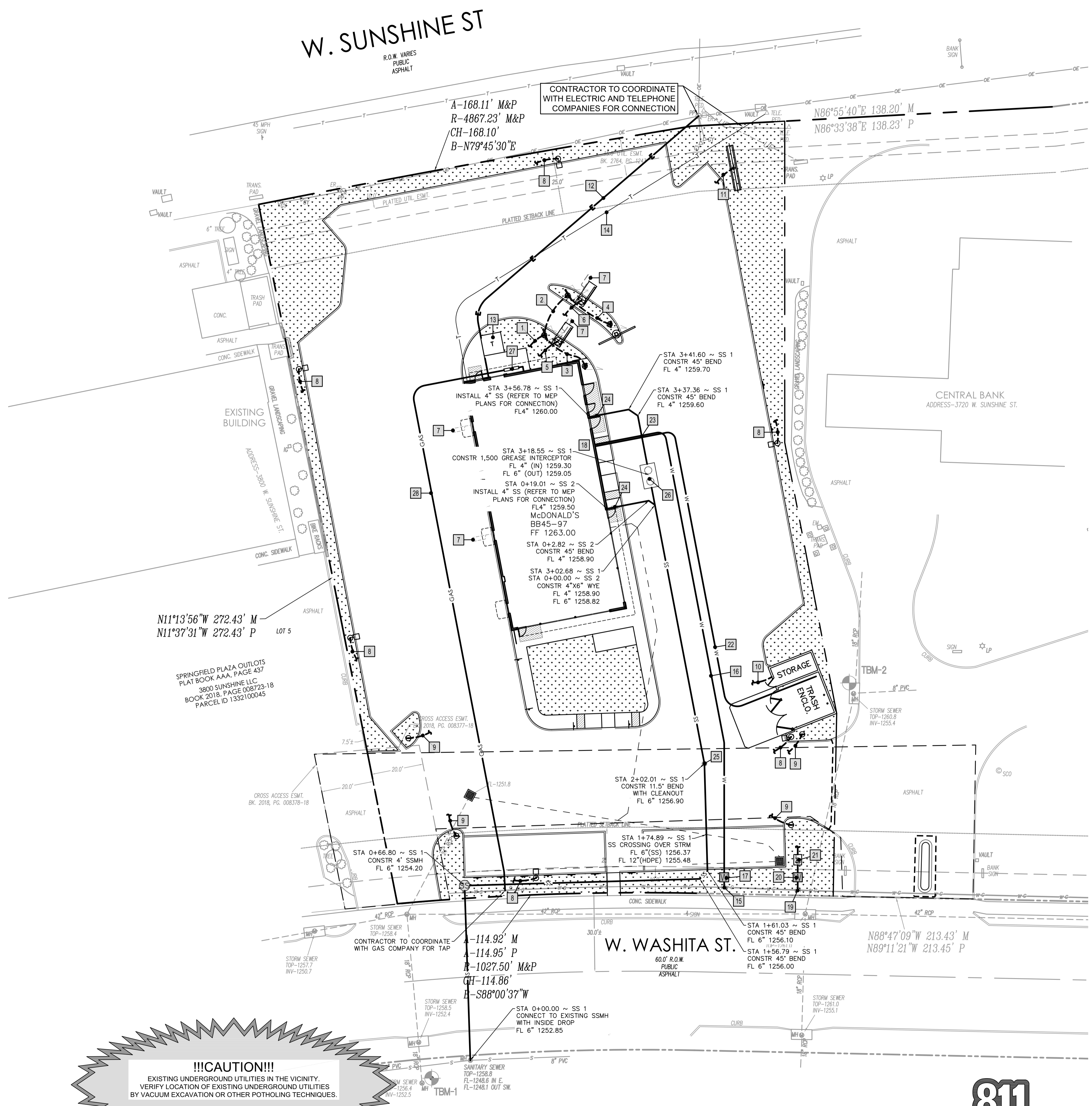


WATER PIPE MATERIAL SPECIFICATIONS
 3/4", 1.5", 2" - TYPE "K" COPPER
 6", 8" - C900 DR 18 PVC
 ALL WATER LINES MUST BE INSTALLED 48" BELOW FINISH GRADE.
 WATER LINES SHALL BE INSTALLED ABOVE SEWER LINES WHEN POSSIBLE.
 WATER LINES SHALL HAVE 2" VERTICAL CLEARANCE AT SANITARY SEWER CROSSINGS.

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 COD1 DATA AND LOOP DETECTOR), AND (1) 1/2" STEEL CONDUIT (FROM PANEL CP AND PANEL LP TO COD1)
6	(2) 1-1/2" PVC CONDUITS (ONE EACH FOR COD2 DATA AND LOOP DETECTOR), AND (1) 1/2" STEEL CONDUIT (FROM PANEL CP AND PANEL LP TO COD2)
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 BUILDING (GC TO VERIFY ROUTE, NUMBER & SIZE OF CONDUITS W/ POWER CO.)
13	PROPOSED PAD MOUNTED TRANSFORMER LOCATION
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 2" TEE WITH 2" VALVE FOR IRRIGATION SERVICE TO SITE
20	1 1/2" IRRIGATION METER (PER LOCAL CODES)
21	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)



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

Date	Description	No.
Revisions		

McDonald's USA, LLC
 These drawings and specifications are the confidential and proprietary property of McDonald's USA, LLC and shall not be copied or reproduced without written authorization. The contract documents were prepared for use on this specific site in conjunction with its issue date and are not suitable for use on a different site or at a later time. Use of these drawings for reference or example on another project requires the services of properly licensed architects and engineers. Reproduction of the contract documents for reuse on another project is not authorized.



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

UTILITY PLAN

Project No.	Drawing No.
520054201	C9.0
Date	Drawn By
DECEMBER 2022	OROD
Checked By	DWL
Sheet 14 of 29	

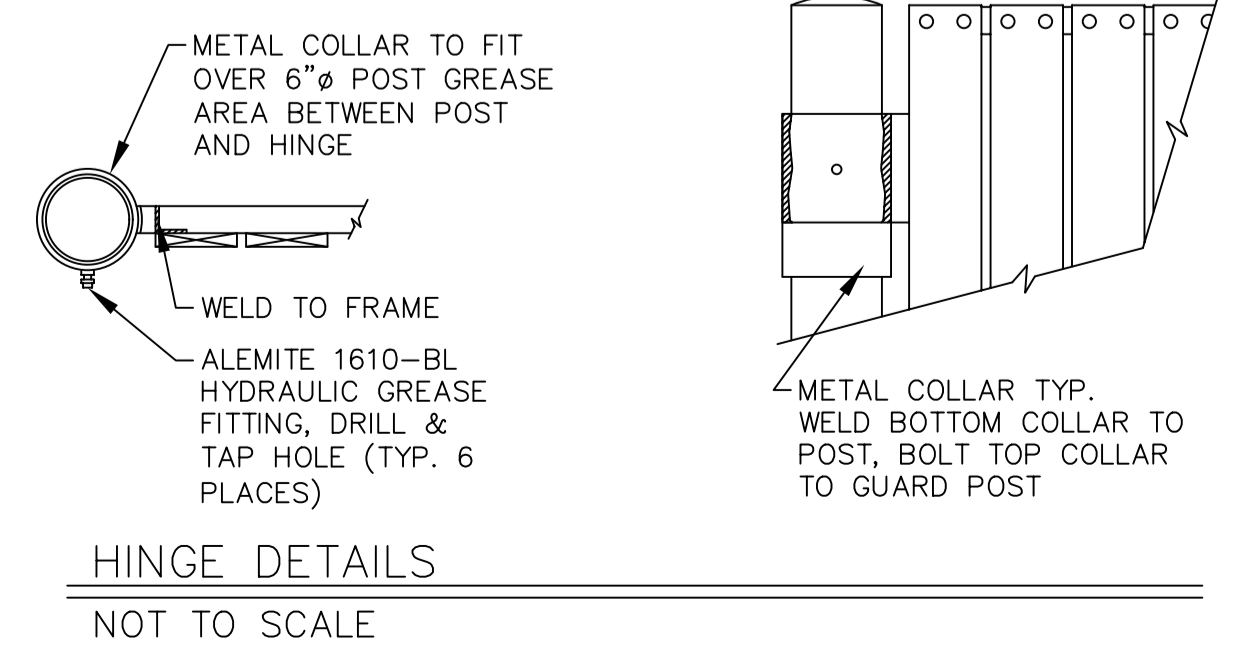
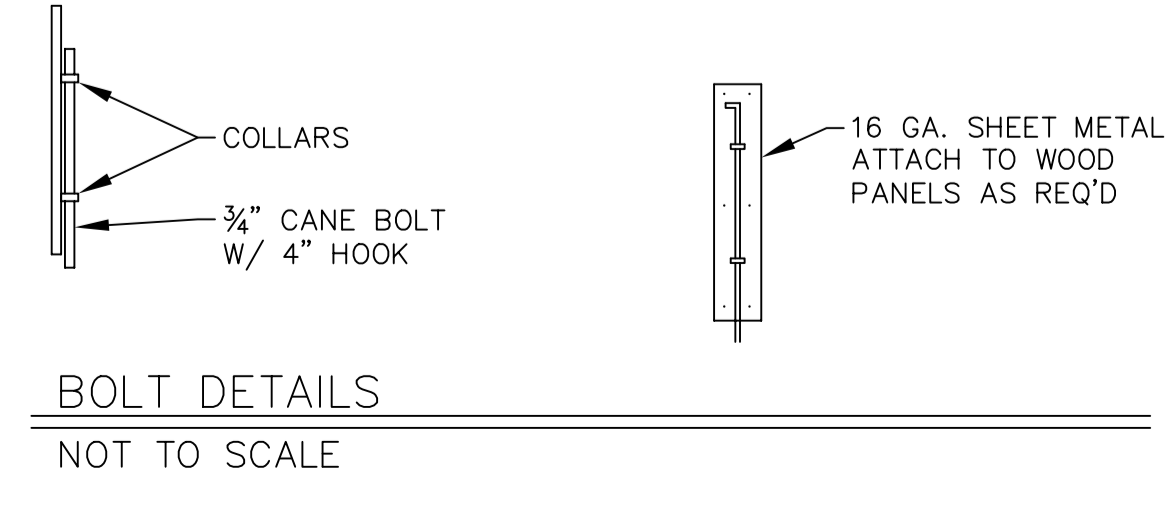
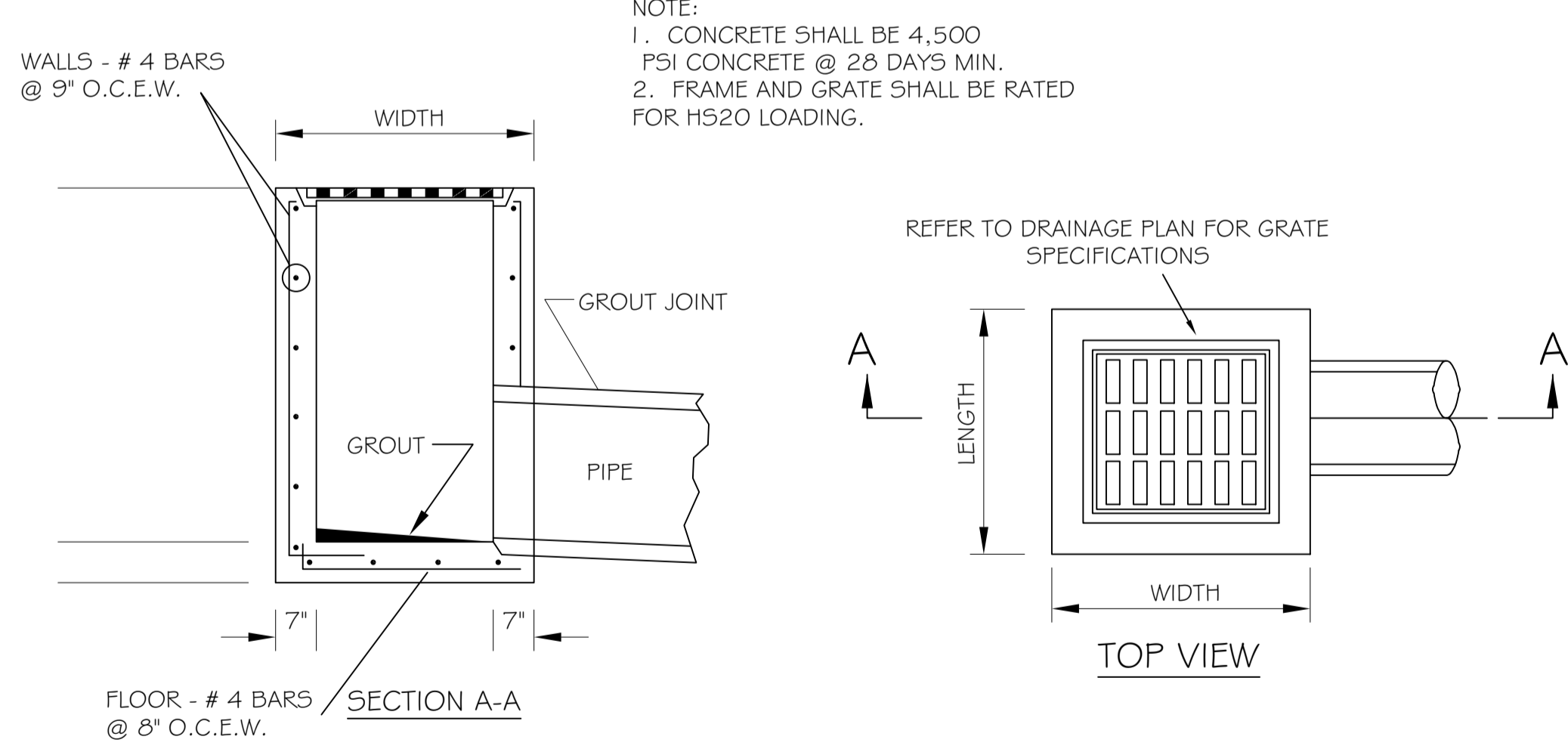
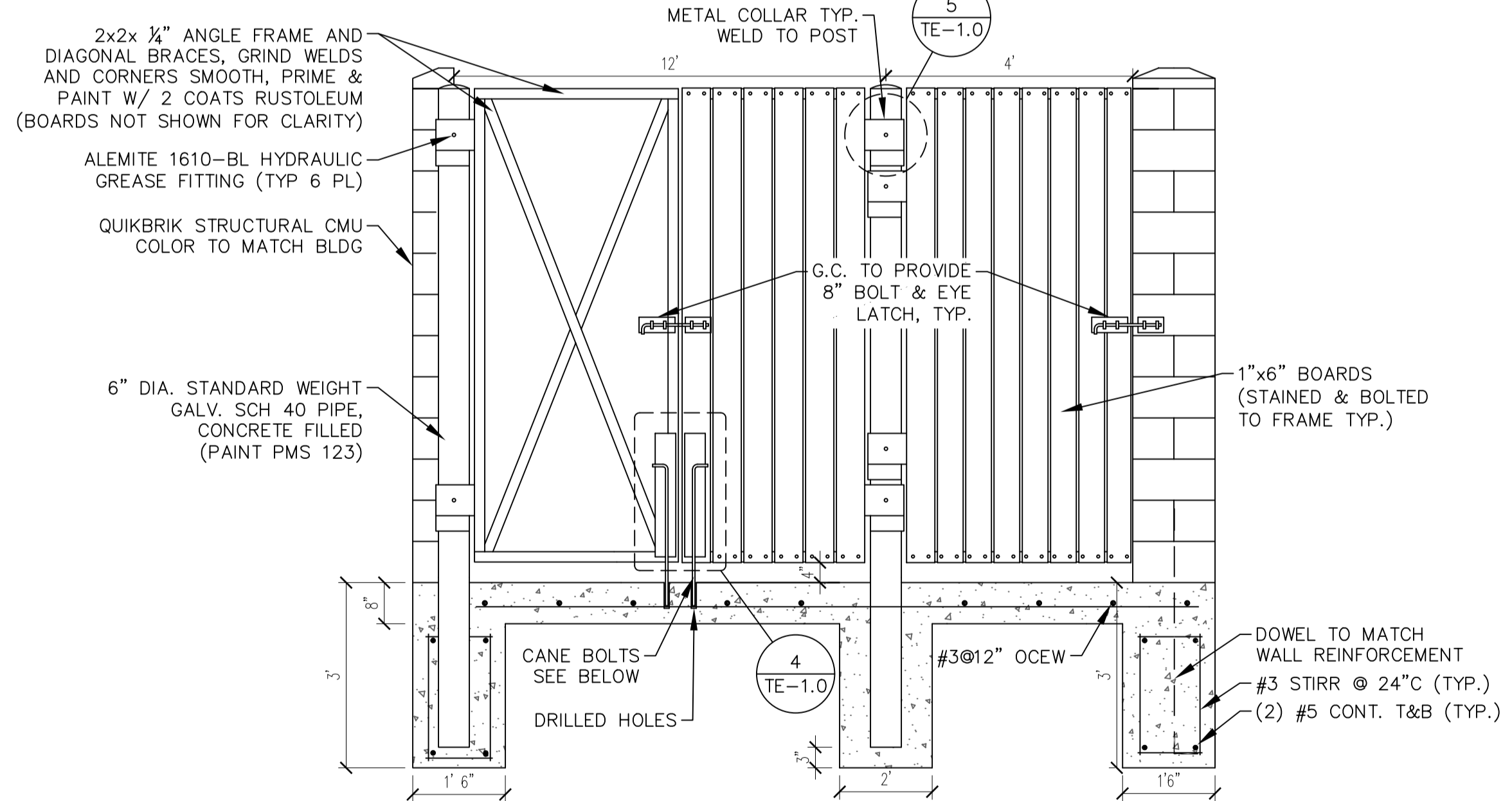
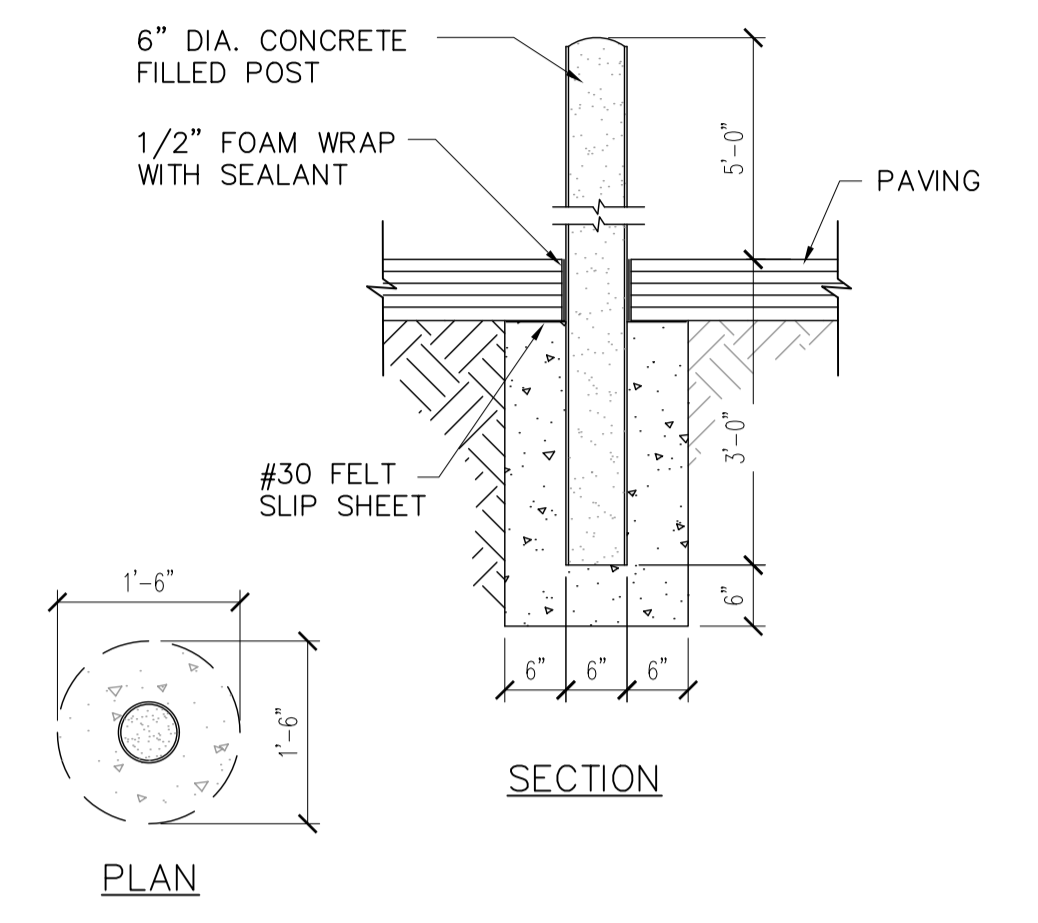
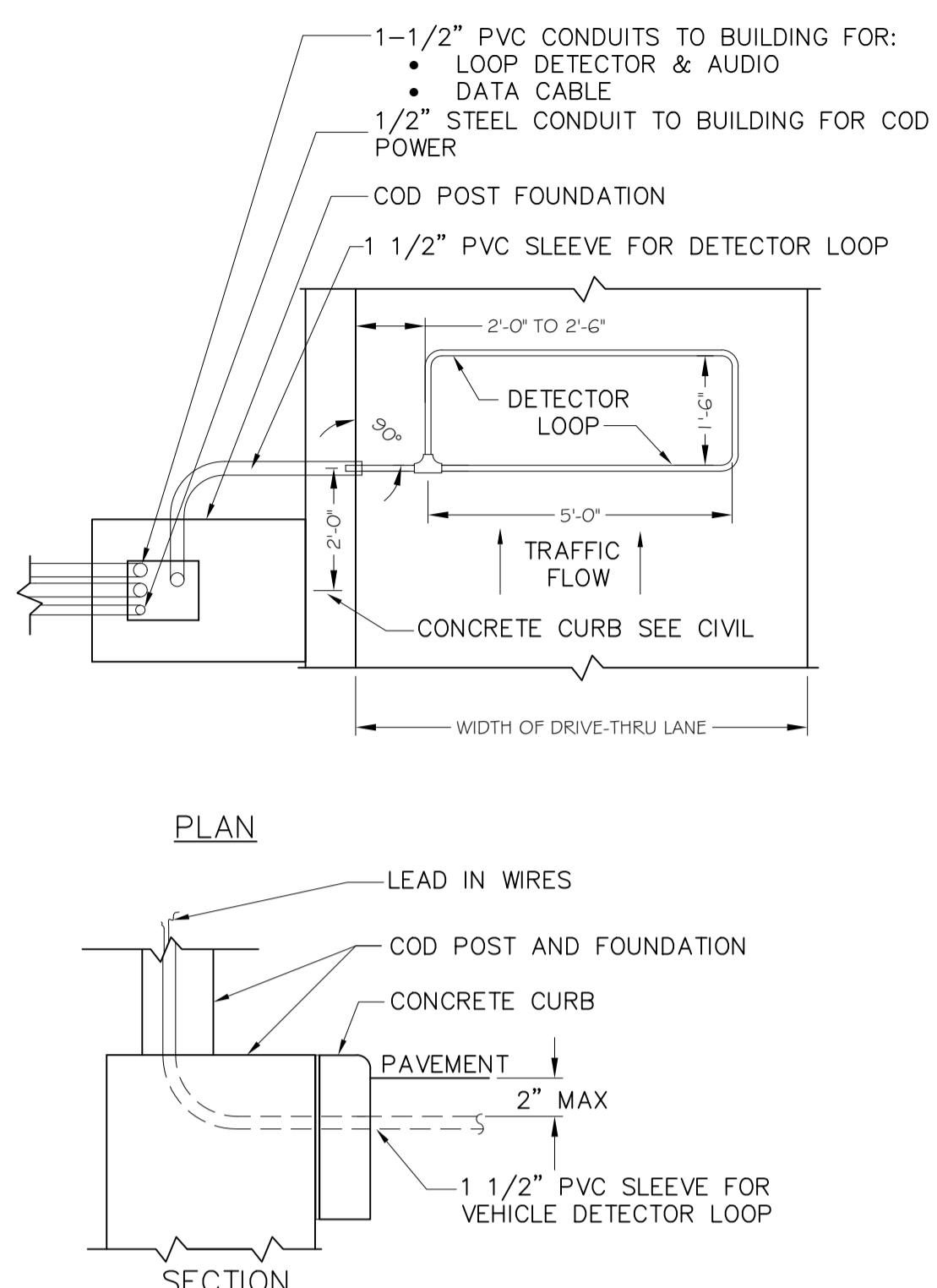
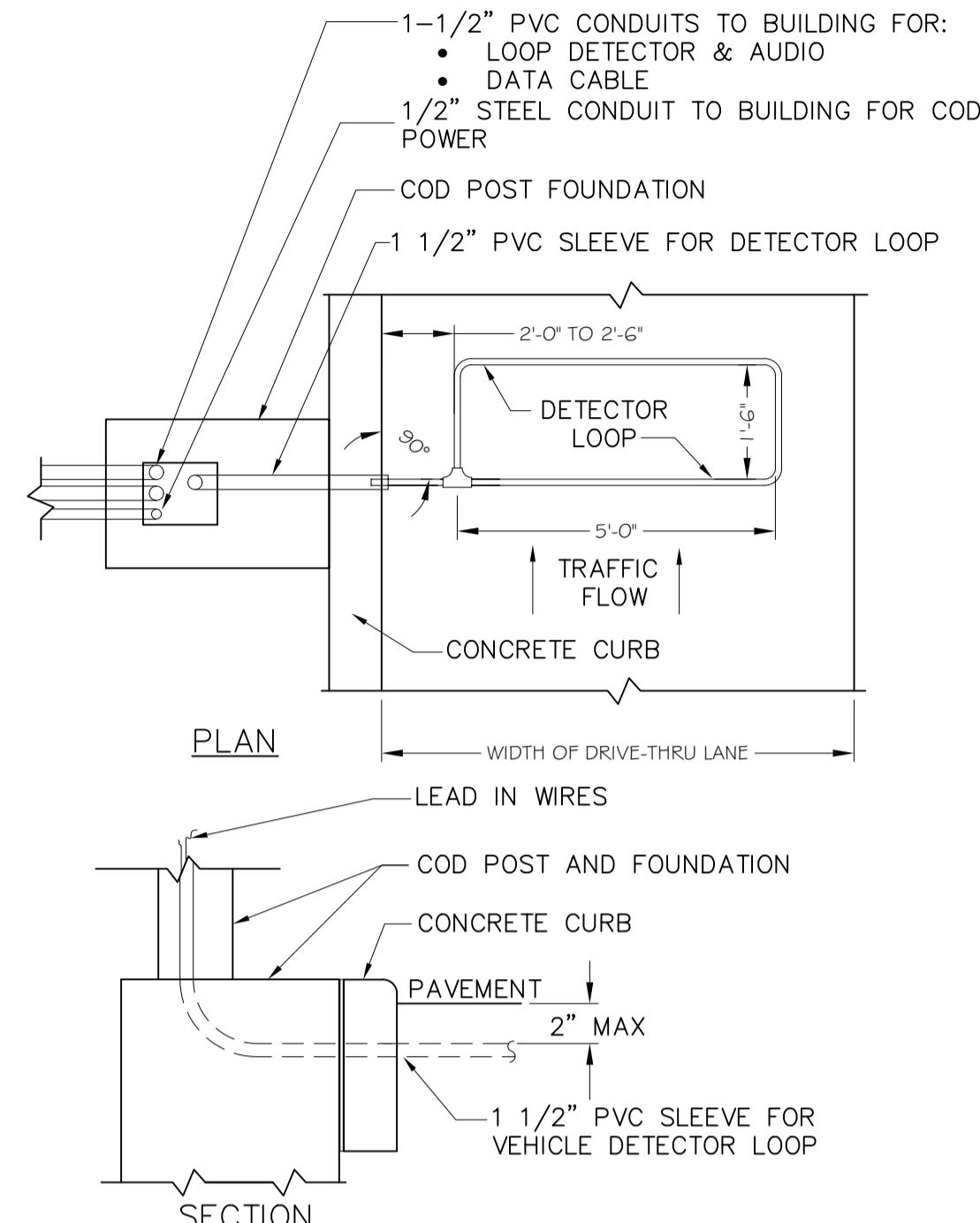
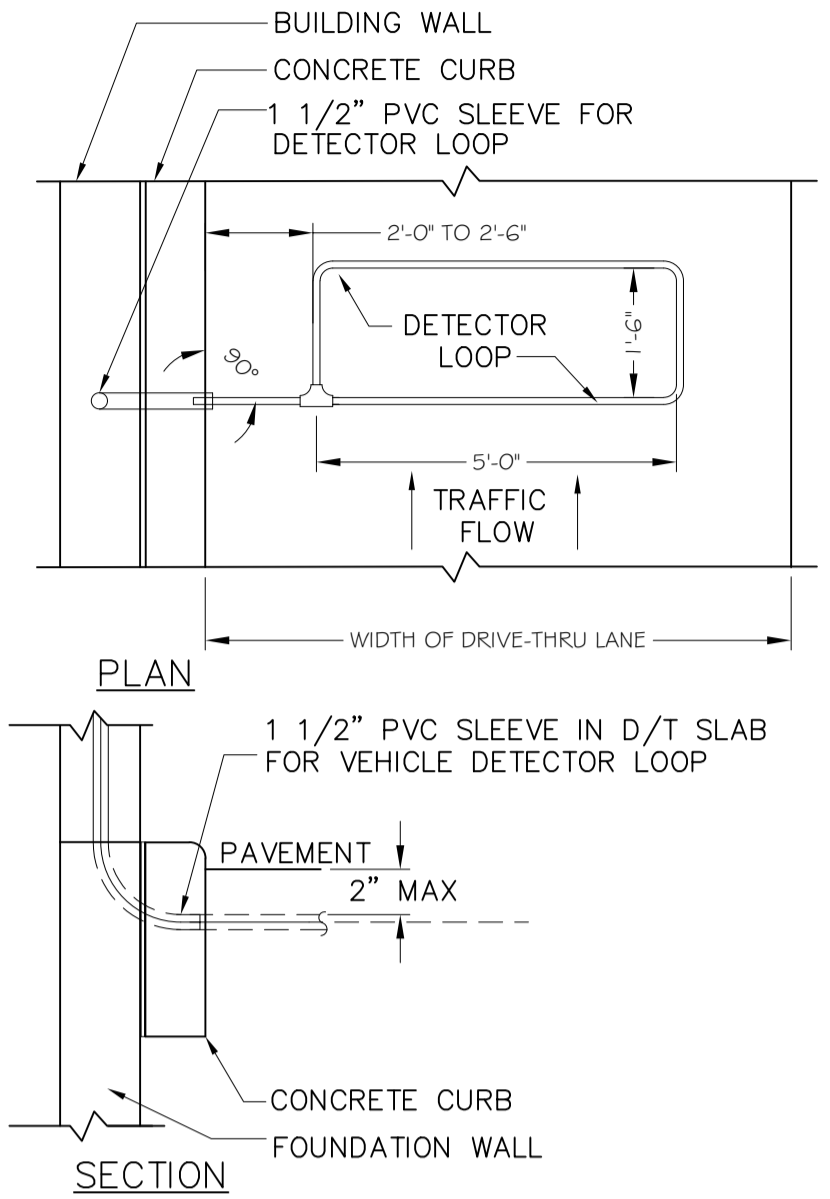


REVIEWED FOR COMPLIANCE WITH THE CITY CODE, ADOPTED BUILDING CODES, ZONING ORDINANCE AND DESIGN STANDARDS. THIS REVIEW AND APPROVAL DOES NOT RELIEVE THE DEVELOPER OR HIS AGENTS OF ANY RESPONSIBILITY FOR COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS, OR ADDRESS OR OVERRULE THE REQUIREMENTS OF OTHER JURISDICTIONS OR AGENCIES, UNLESS SPECIFICALLY NOTED OTHERWISE.

Signature: *Kevin R. Perin* DATE: 01/27/23

SIGNATURE DATE
PRJ2023-00032

- 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.



Date	Description	No.
Revisions		

McDonald's USA, LLC
These drawings and specifications are the confidential and proprietary property of McDonald's USA, LLC and shall not be copied or reproduced without written authorization. The contract documents were prepared for use on this specific site in conjunction with its issue date and are not suitable for use on a different site or at a later time. Use of these drawings for reference or example on another project requires the services of properly licensed architects and engineers. Reproduction of the contract documents for reuse on another project is not authorized.



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

STANDARD DETAILS

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