

CONSTRUCTION DOCUMENTS
FOR
McDONALD'S RESTAURANT
McDONALD'S THIRD ADDITION
LOT 1

SECTION 2, TOWNSHIP 11 SOUTH, RANGE 22 EAST
ADDRESS: TBD
BASEHOR, LEAVENWORTH COUNTY, KANSAS

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LEGAL DESCRIPTION
LOT 1, McDONALD'S THIRD ADDITION, A SUBDIVISION IN BASEHOR,
LEAVENWORTH COUNTY, KANSAS

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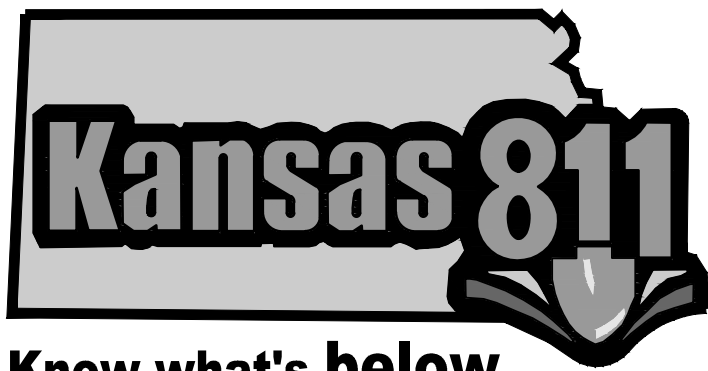
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SHEET NO.	TITLE	DRAWN BY AJK	STD ISSUE DATE	REVIEWED BY MAP	DATE ISSUED 06.01.26	SITE ADDRESS STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS
015-0412.00.0 C100	TITLE SHEET DESCRIPTION McDONALD'S RESTAURANT BASEHOR, KANSAS					



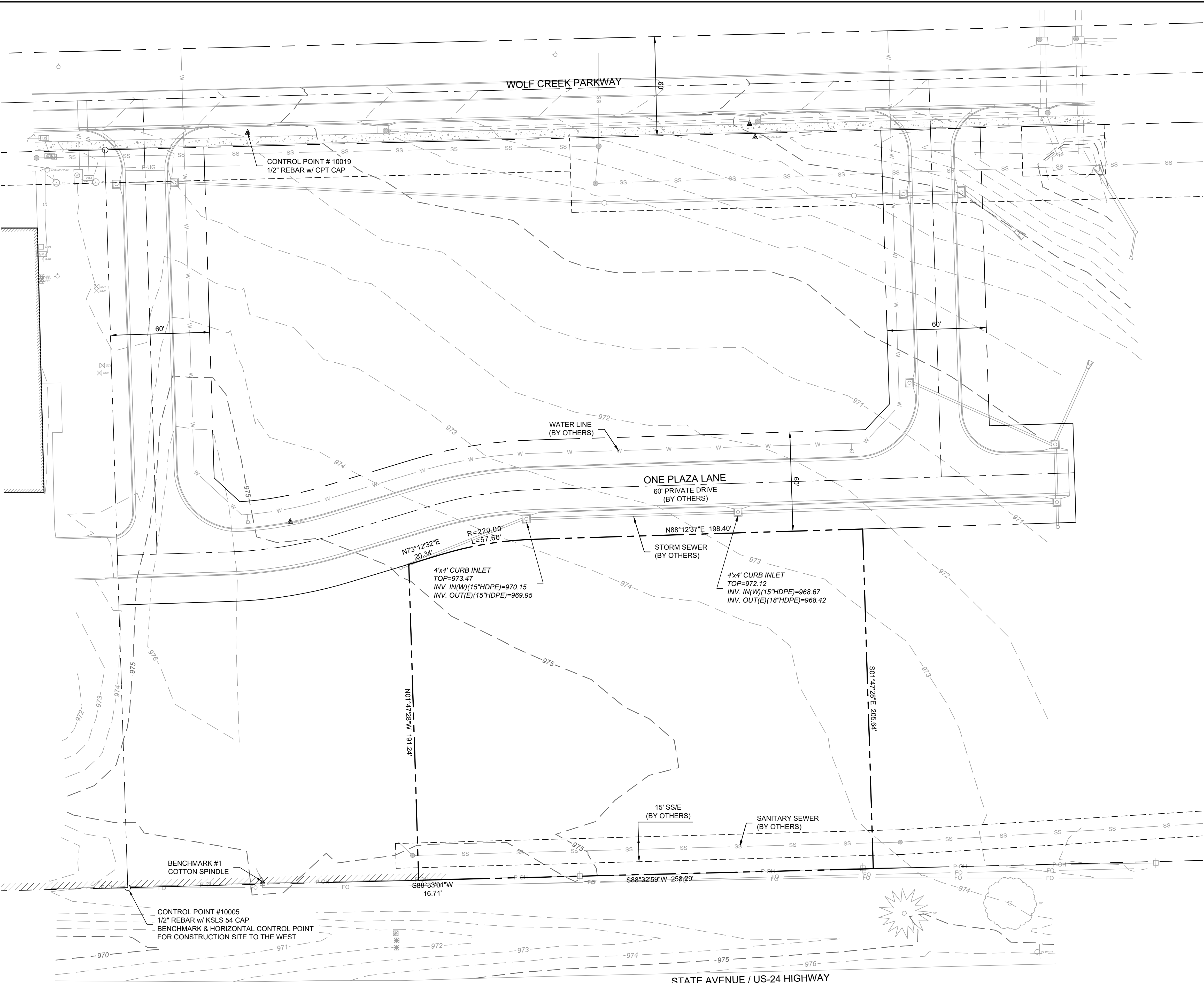
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DATE: Jun 01, 2026 4:58pm USER: akruse



Know what's below.
Call 811 before you dig.

UTILITY NOTE:
OLSSON AND THE SURVEYOR OF RECORD MAKE NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE OF ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. OLSSON AND THE SURVEYOR OF RECORD FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. OLSSON AND THE SURVEYOR OF RECORD HAVE NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. IF ANY UNDERGROUND UTILITY LOCATIONS ARE REQUIRED THEY WILL HAVE TO BE VERIFIED BY FIELD POT-HOLING THE UTILITIES. OLSSON AND THE SURVEYOR OF RECORD SHALL NOT BE LIABLE FOR THE LOCATION OF OR THE FAILURE TO NOTE THE LOCATION OF NON-VISIBLE UTILITIES.



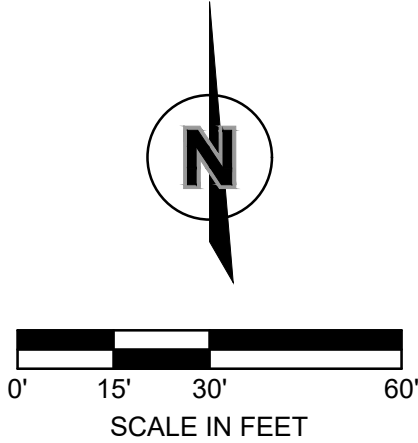
OLSSON CONTROL POINT #10005
FOUND 1/2" BAR w/ KS LS 54 CAP
COORDINATES:
N: 299690.2970
E: 2179172.2420
1) 81.1' EAST WEST FACE OF POWER POLE
2) 11.0' SOUTH TOP OF DITCH
3) 103.0' WEST EAST FACE OF POWER POLE

OLSSON CONTROL POINT #10019
SET 1/2" REBAR w/ CPT CAP
COORDINATES:
N: 300347.2030
E: 2179244.8300
1) 2.5' SOUTH EDGE OF SIDEWALK
2) 2.5' NORTH BACK OF CURB
3) 44.9' NE LIGHT POLE

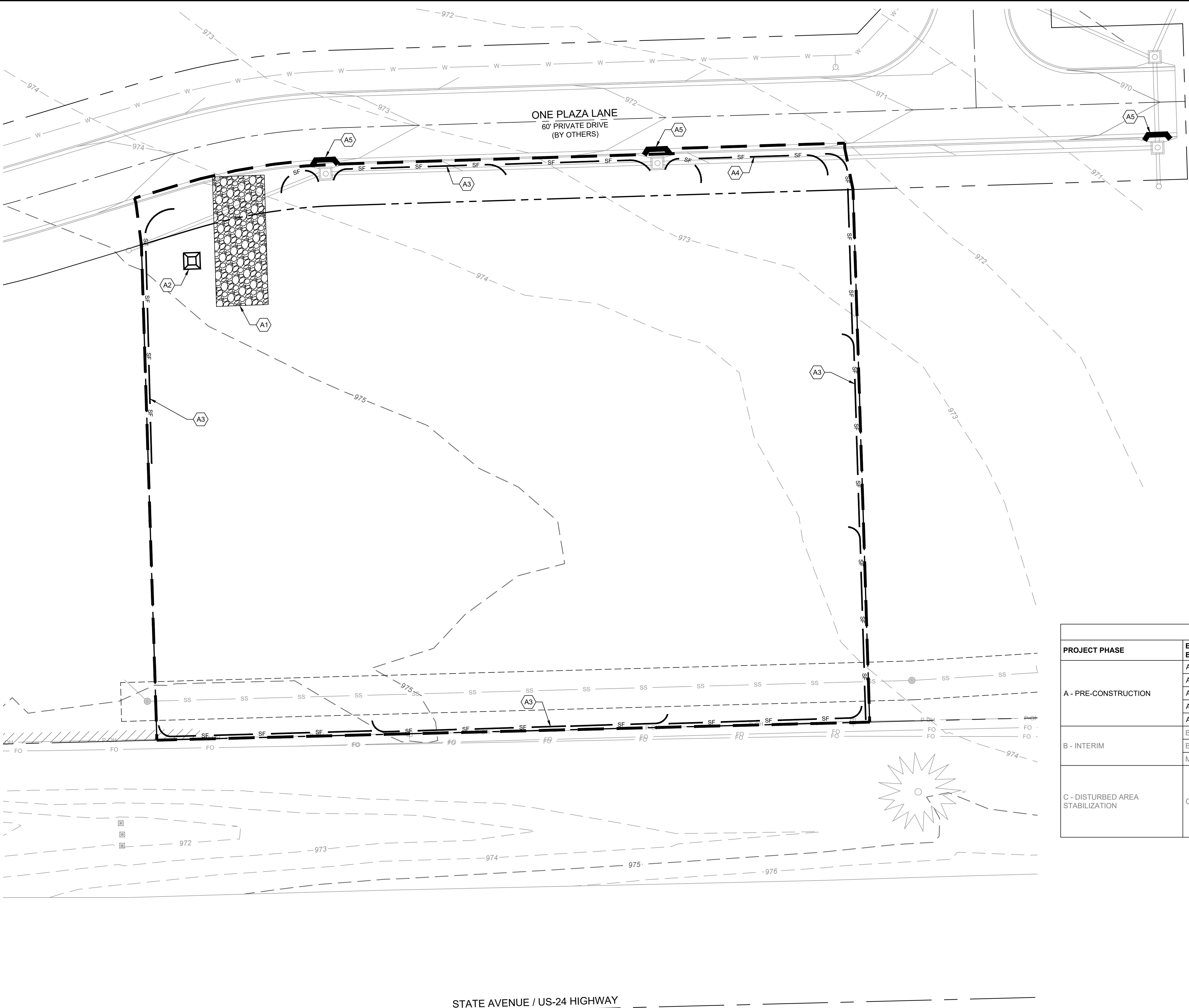
BENCHMARK #1
COTTON SPINDLE SET IN THE NORTH FACE OF A POWER POLE
ELEV.: 976.67
1) 81.7' WEST CONTROL POINT # 10005
2) 14.5' SOUTH TOP OF DITCH
3) 191.5' EAST WEST FACE OF POWER POLE

LEGEND

- | | |
|--|-------------------------|
| | BENCH MARK |
| | CONTROL POINT |
| | DECIDUOUS TREE |
| | FIRE HYDRANT |
| | FOUND MONUMENT |
| | FIBER OPTIC PEDESTAL |
| | FIBER OPTIC VAULT |
| | GAS RISER |
| | GAS MARKER |
| | GAS METER |
| | IRRIGATION VALVE |
| | POWER POLE |
| | SECTION CORNER |
| | SPRINKLER CONTROL VALVE |
| | STORM DRAIN MANHOLE |
| | SANITARY SEWER MANHOLE |
| | WOOD POST |
| | WATER METER |
| | OVERHEAD POWER |
| | UNDERGROUND POWER |
| | BURIED FIBER OPTIC |
| | MAJOR CONTOUR |
| | MINOR CONTOUR |
| | UNDERGROUND GAS |
| | UNDERGROUND WATER |
| | SANITARY SEWER |



SHEET NO.	TITLE	DRAWN BY	STD ISSUE DATE	REVIEWED BY	DATE ISSUED	SITE ADDRESS	REV	DATE	BY
C102	EXISTING CONDITIONS	AJK		MAP	06.01.26	STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS			
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PREPARED FOR: McDonald's USA, LLC									



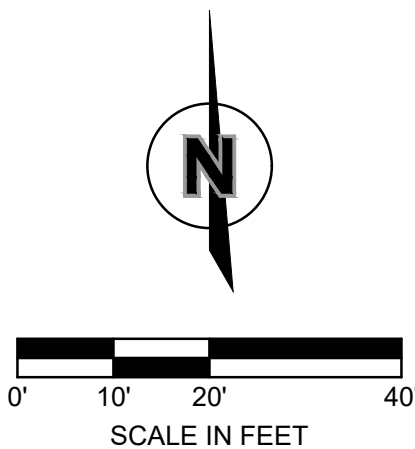
EROSION CONTROL PLAN NOTES

- CONTRACTOR SHALL CONSIDER ANY EROSION AND/OR SEDIMENT CONTROL SHOWN IN THIS PLAN SET, THE SWPPP, OR ANY RELATED PLAN SET AS A MINIMUM REQUIREMENT. CONTRACTOR IS RESPONSIBLE FOR EVALUATING SITE CONDITIONS AND INSTALLING ANY ADDITIONAL CONTROLS AS NECESSARY.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES THROUGHOUT THE PROJECT. ANY AND ALL FINES ASSOCIATED WITH EROSION CONTROL VIOLATIONS WILL BE THE CONTRACTOR'S RESPONSIBILITY.
- AT ANY TIME DURING CONSTRUCTION THE CITY MAY REQUIRE ADDITIONAL EROSION/SILTATION CONTROL MEASURES TO BE INSTALLED. WHEN REQUIRED SUCH MEASURES SHALL BE INSTALLED WITHIN 48 HOURS OF HOURS OF NOTICE (VERBAL OR WRITTEN).
- CONTRACTOR SHALL INSPECT ALL EROSION CONTROL DEVICES PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SCHEDULE. ALL COSTS ASSOCIATED WITH REPAIR OR RE-INSTALLATION, INCLUDING RELATED INCIDENTALS, WILL BE THE CONTRACTOR'S RESPONSIBILITY.
- ALL DISTURBED AREAS SHALL BE LANDSCAPED, SEEDED OR SODDED, AS SHOWN ON THE LANDSCAPE PLAN.
- THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED WITH A HEALTHY STAND OF PERMANENT VEGETATION. AREAS DISTURBED BY DEVICE REMOVAL SHALL BE IMMEDIATELY STABILIZED. SEED BLENDS OR SOD SHALL MATCH WHAT WAS USED IN AREAS SURROUNDING DISTURBANCE.
- PRIOR TO LEAVING THE SITE THE CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, FLUMES, PIPES, GUTTERS, ETC. ARE CLEANED OUT AND WORKING PROPERLY.

EROSION CONTROL PHASING CHART				
PROJECT PHASE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER PHASE	NOTES:
A - PRE-CONSTRUCTION	A1	CONSTRUCTION ENTRANCE	A	INSTALL AS INDICATED ON PLANS
	A2	CONCRETE WASHOUT	C	INSTALL AS INDICATED ON PLANS
	A3	SILT FENCE	C	INSTALL AS INDICATED ON PLANS
	A4	SILT FENCE	A	INSTALL AS INDICATED ON PLANS
	A5	STORM INLET PROTECTION	C	INSTALL AS INDICATED ON PLANS
B - INTERIM	B1	STORM INLET PROTECTION	C	INSTALL AS INDICATED ON PLANS
	B2	WATTLE	C	INSTALL AS INDICATED ON PLANS
MAINTAIN ALL INSTALLED EROSION CONTROL DEVICES				
C - DISTURBED AREA STABILIZATION	C1	FINAL SEEDING, SOD, AND PLANTINGS SHALL BE INSTALLED PER SITE LANDSCAPE PLAN. ANY AREAS OUTSIDE OF LANDSCAPE PLAN COVERAGE SHALL BE SEEDED PER THIS PLAN.		COORDINATE INSTALLATION WITH LANDSCAPE PLAN

EROSION CONTROL LEGEND

- CURB INLET PROTECTION
- SILT FENCE
- WATTLE
- CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT
- FINAL STABILIZATION REFER TO LANDSCAPE PLAN
- EXISTING GROUND CONTOUR
- FINISHED GROUND CONTOUR
- LIMITS OF DISTURBANCE = 1.39 ACRES



TITLE

EROSION CONTROL PHASE A

DESCRIPTION

MCDONALD'S RESTAURANT
BASEHOR, KANSAS

SHEET NO.

015-0412.00.0
C103

DRAWN BY

ALJ

STD ISSUE DATE

REVIEWED BY

MAP

DATE ISSUED

06.01.26

SITE ADDRESS

STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS

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Professional Engineer
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26355
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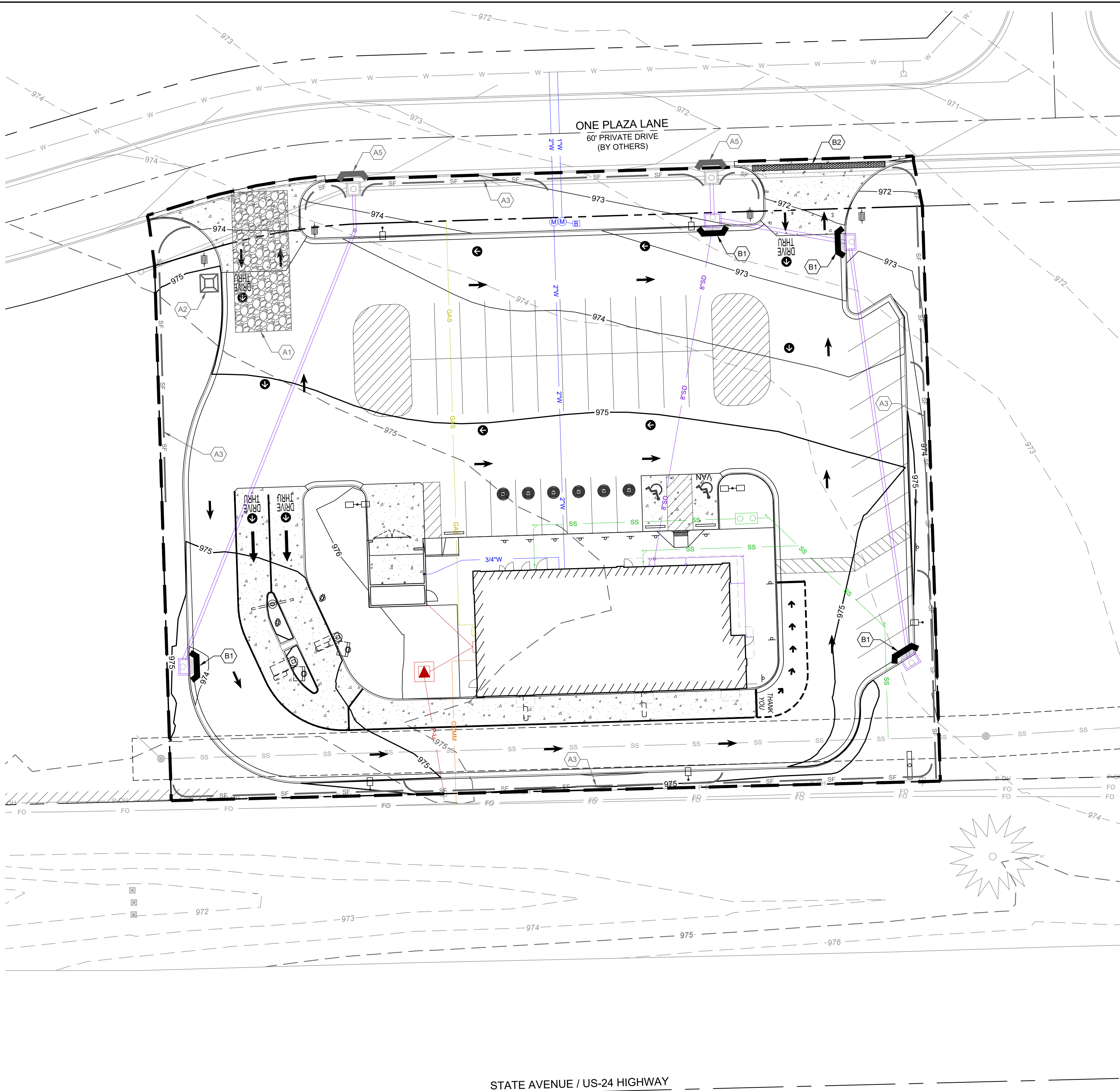
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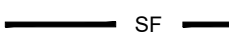
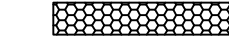
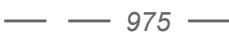
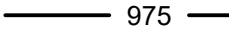
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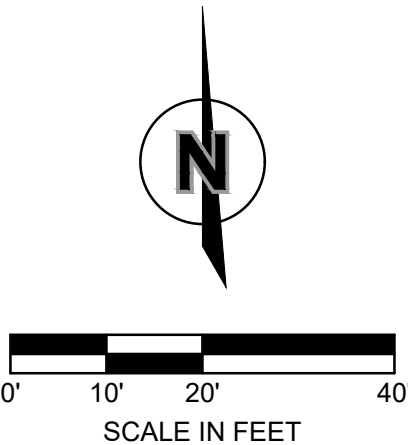
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EROSION CONTROL PHASING CHART				
PROJECT PHASE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER PHASE	NOTES:
A - PRE-CONSTRUCTION	A1	CONSTRUCTION ENTRANCE	A	INSTALL AS INDICATED ON PLANS
	A2	CONCRETE WASHOUT	C	INSTALL AS INDICATED ON PLANS
	A3	SILT FENCE	C	INSTALL AS INDICATED ON PLANS
	A4	SILT FENCE	A	INSTALL AS INDICATED ON PLANS
	A5	STORM INLET PROTECTION	C	INSTALL AS INDICATED ON PLANS
B - INTERIM	B1	STORM INLET PROTECTION	C	INSTALL AS INDICATED ON PLANS
	B2	WATTLE	C	INSTALL AS INDICATED ON PLANS
	MAINTAIN ALL INSTALLED EROSION CONTROL DEVICES			
C - DISTURBED AREA STABILIZATION	C1	FINAL SEEDING, SOD, AND PLANTINGS SHALL BE INSTALLED PER SITE LANDSCAPE PLAN. ANY AREAS OUTSIDE OF LANDSCAPE PLAN COVERAGE SHALL BE SEEDED PER THIS PLAN.		COORDINATE INSTALLATION WITH LANDSCAPE PLAN

EROSION CONTROL LEGEND

-  CURB INLET PROTECTION
-  SILT FENCE
-  WATTLE
-  CONSTRUCTION ENTRANCE
-  CONCRETE WASHOUT
-  FINAL STABILIZATION
REFER TO LANDSCAPE PLAN
-  975 — EXISTING GROUND CONTOUR
-  975 — FINISHED GROUND CONTOUR
-  LIMITS OF DISTURBANCE = 1.39 ACRES



TITLE

EROSION CONTROL PHASE B

DESCRIPTION

MCDONALD'S RESTAURANT
BASEHOR, KANSAS

SHEET NO.

015-0412.00.0
C104

DRAWN BY

AJK

STD ISSUE DATE

REVIEWED BY

MAP

DATE ISSUED

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STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS

PREPARED FOR:

McDonald's USA, LLC

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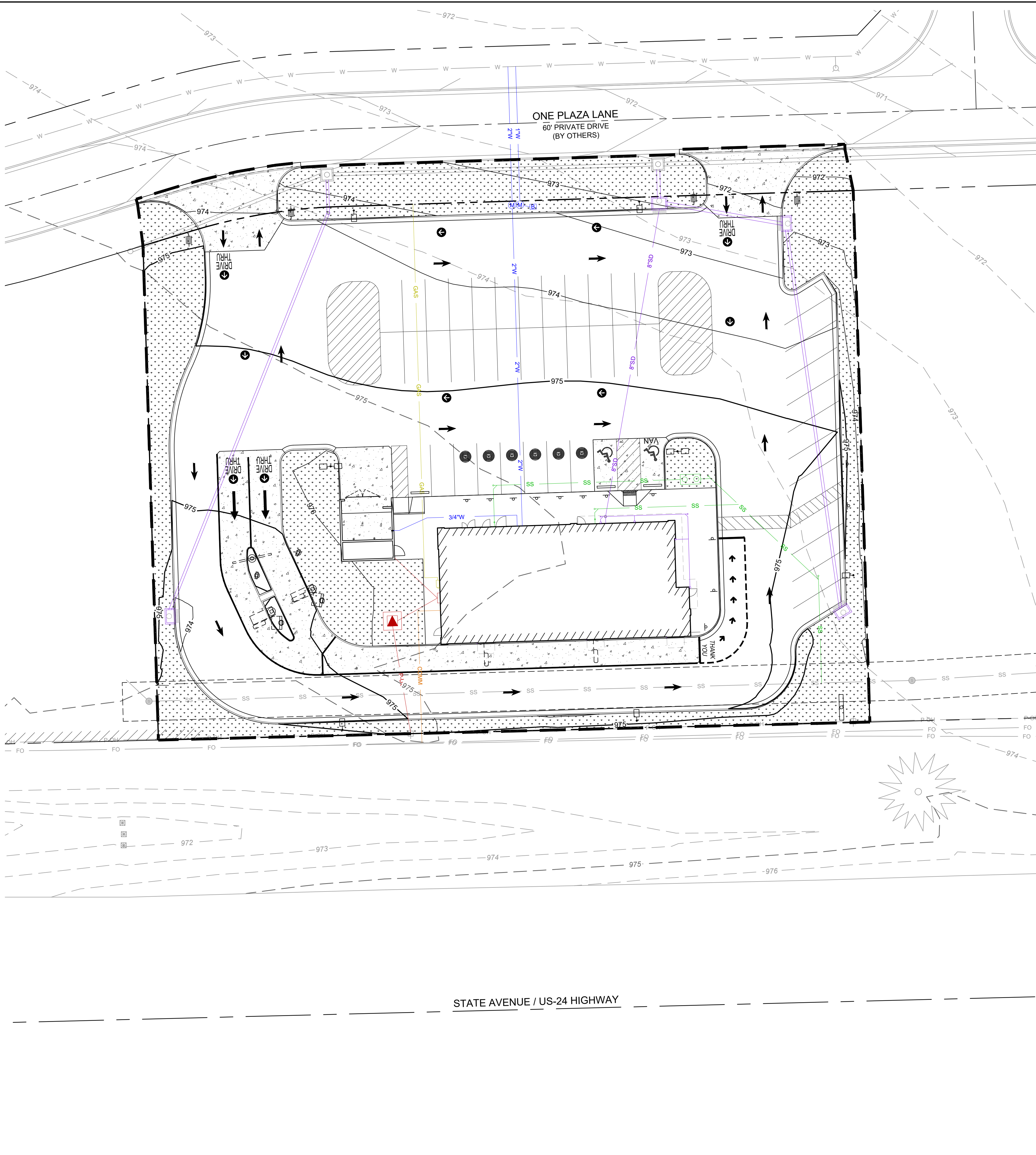
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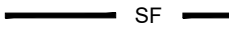
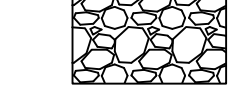
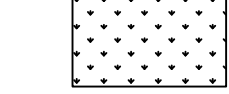
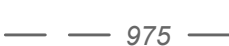
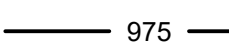
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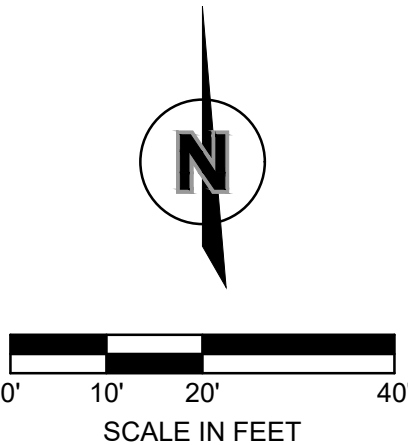
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EROSION CONTROL PHASING CHART				
PROJECT PHASE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER PHASE	NOTES:
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	A3	SILT FENCE	C	INSTALL AS INDICATED ON PLANS
	A4	SILT FENCE	A	INSTALL AS INDICATED ON PLANS
	A5	STORM INLET PROTECTION	C	INSTALL AS INDICATED ON PLANS
B - INTERIM	B1	STORM INLET PROTECTION	C	INSTALL AS INDICATED ON PLANS
	B2	WATTLE	C	INSTALL AS INDICATED ON PLANS
	MAINTAIN ALL INSTALLED EROSION CONTROL DEVICES			
C - DISTURBED AREA STABILIZATION	C1	FINAL SEEDING, SOD, AND PLANTINGS SHALL BE INSTALLED PER SITE LANDSCAPE PLAN. ANY AREAS OUTSIDE OF LANDSCAPE PLAN COVERAGE SHALL BE SEEDED PER THIS PLAN.		COORDINATE INSTALLATION WITH LANDSCAPE PLAN

EROSION CONTROL LEGEND

-  CURB INLET PROTECTION
-  SILT FENCE
-  WATTLE
-  CONSTRUCTION ENTRANCE
-  CONCRETE WASHOUT
-  FINAL STABILIZATION REFER TO LANDSCAPE PLAN
-  EXISTING GROUND CONTOUR
-  FINISHED GROUND CONTOUR
-  LIMITS OF DISTURBANCE = 1.39 ACRES



TITLE

EROSION CONTROL PHASE C

DESCRIPTION

MCDONALD'S RESTAURANT
BASEHOR, KANSAS

SHEET NO.

015-0412.00.0
C105

DRAWN BY

AJK

STD ISSUE DATE

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MAP

DATE ISSUED

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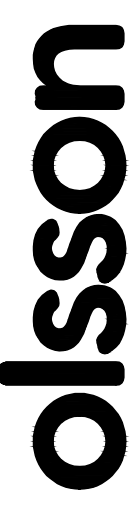
 McDonald's USA, LLC

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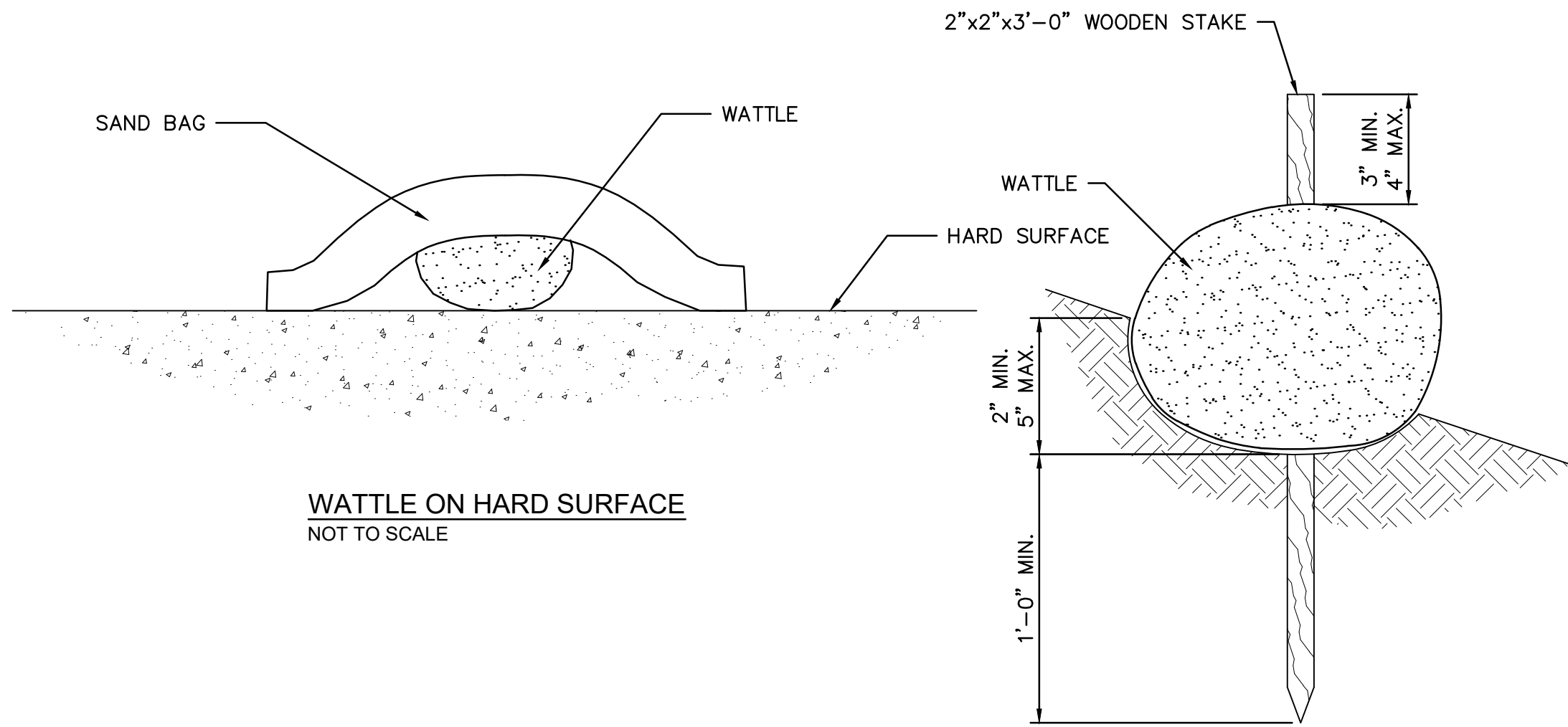
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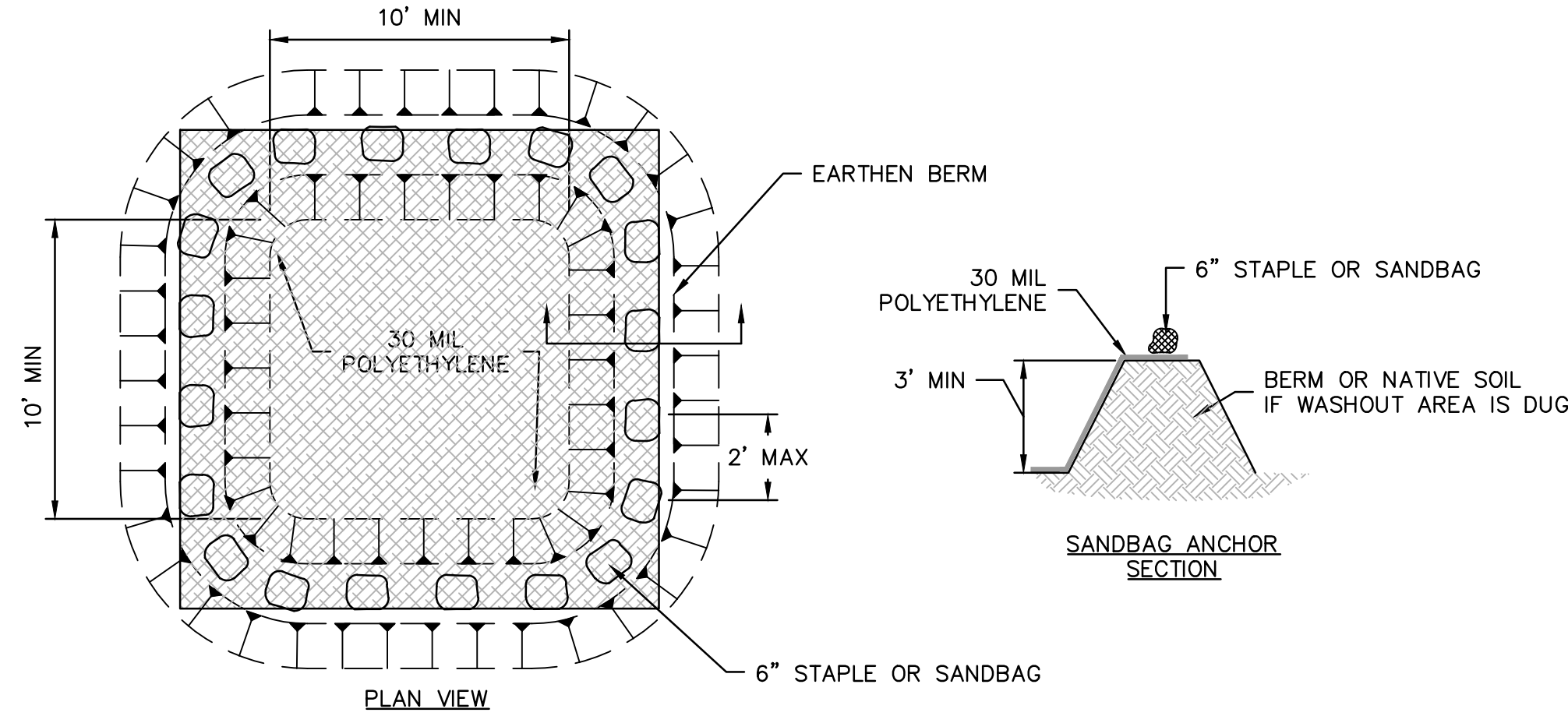
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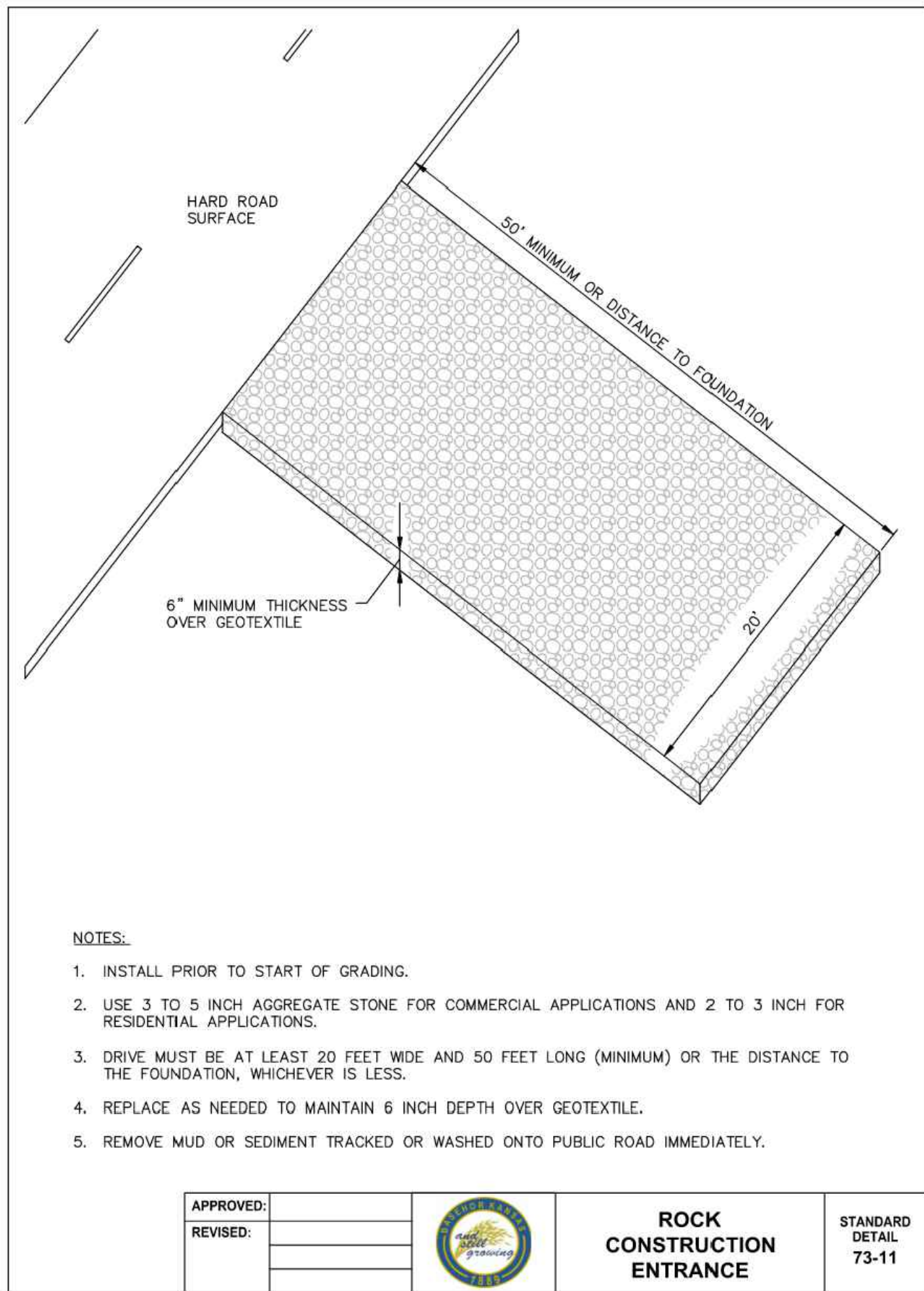


WATTLE ON EARTH SURFACE
NOT TO SCALE



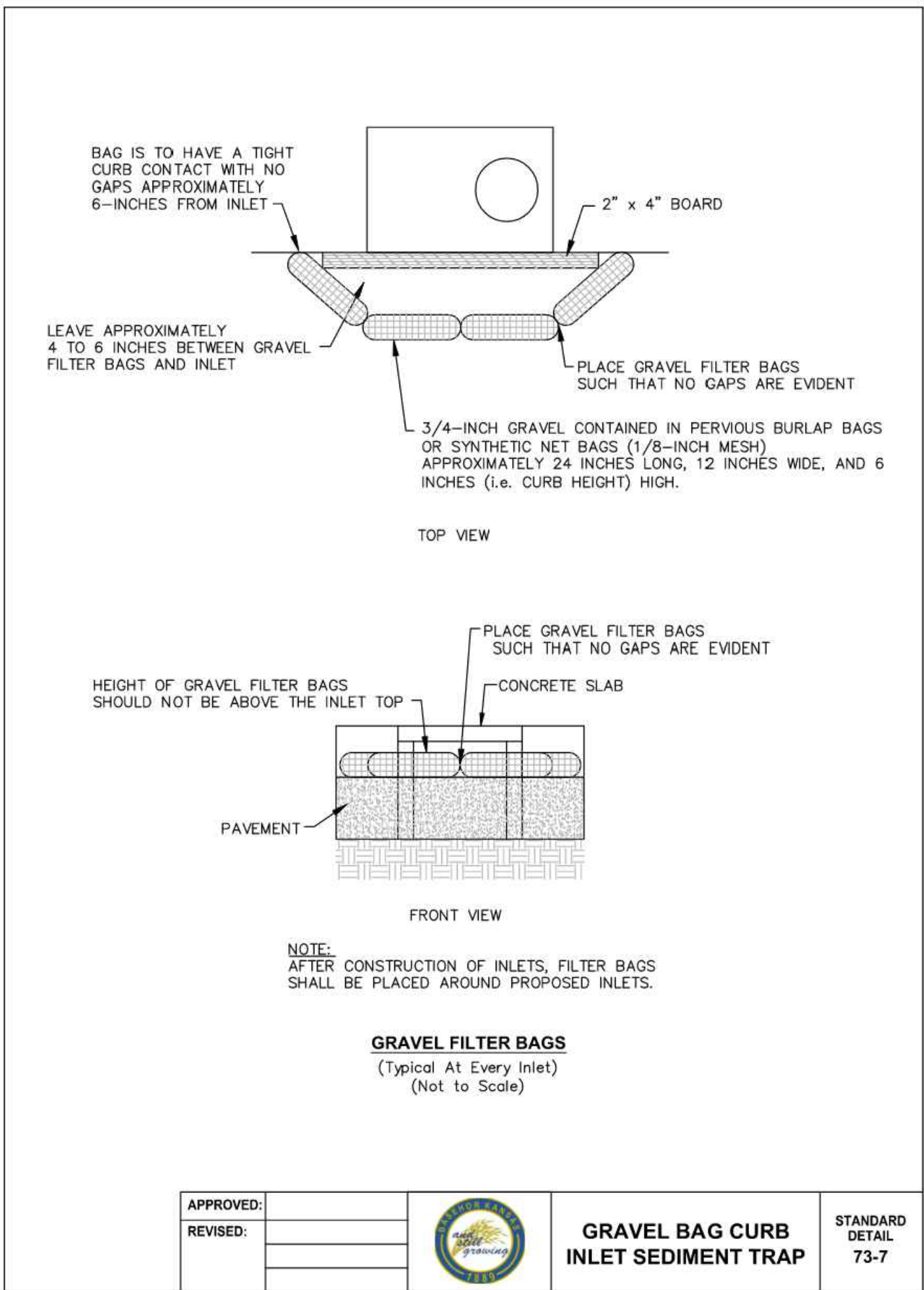
NOTES:
FACILITY SHALL BE CLEANED OR RECONSTRUCTED WITH THE
HARDENED CONCRETE AND/OR SLURRY IS 1'-6" IN DEPTH.

CONCRETE WASHOUT
NOT TO SCALE

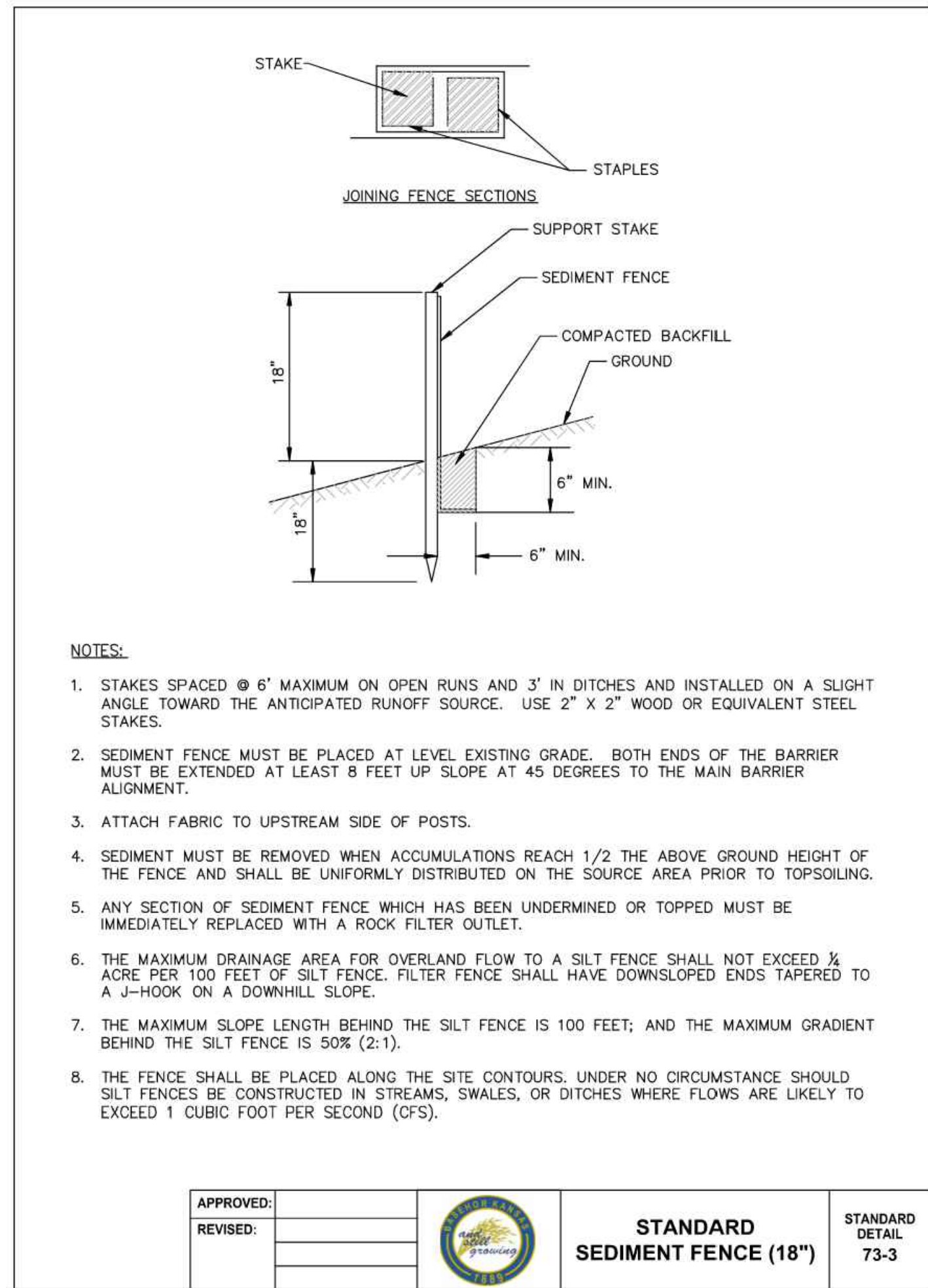


- NOTES:
1. INSTALL PRIOR TO START OF GRADING.
 2. USE 3 TO 5 INCH AGGREGATE STONE FOR COMMERCIAL APPLICATIONS AND 2 TO 3 INCH FOR RESIDENTIAL APPLICATIONS.
 3. DRIVE MUST BE AT LEAST 20 FEET WIDE AND 50 FEET LONG (MINIMUM) OR THE DISTANCE TO THE FOUNDATION, WHICHEVER IS LESS.
 4. REPLACE AS NEEDED TO MAINTAIN 6 INCH DEPTH OVER GEOTEXTILE.
 5. REMOVE MUD OR SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROAD IMMEDIATELY.

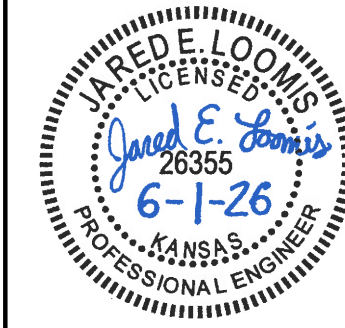
APPROVED:			ROCK CONSTRUCTION ENTRANCE	STANDARD DETAIL 73-11
REVISED:				



APPROVED:			GRAVEL BAG CURB INLET SEDIMENT TRAP	STANDARD DETAIL 73-7
REVISED:				



APPROVED:			STANDARD SEDIMENT FENCE (18")	STANDARD DETAIL 73-3
REVISED:				



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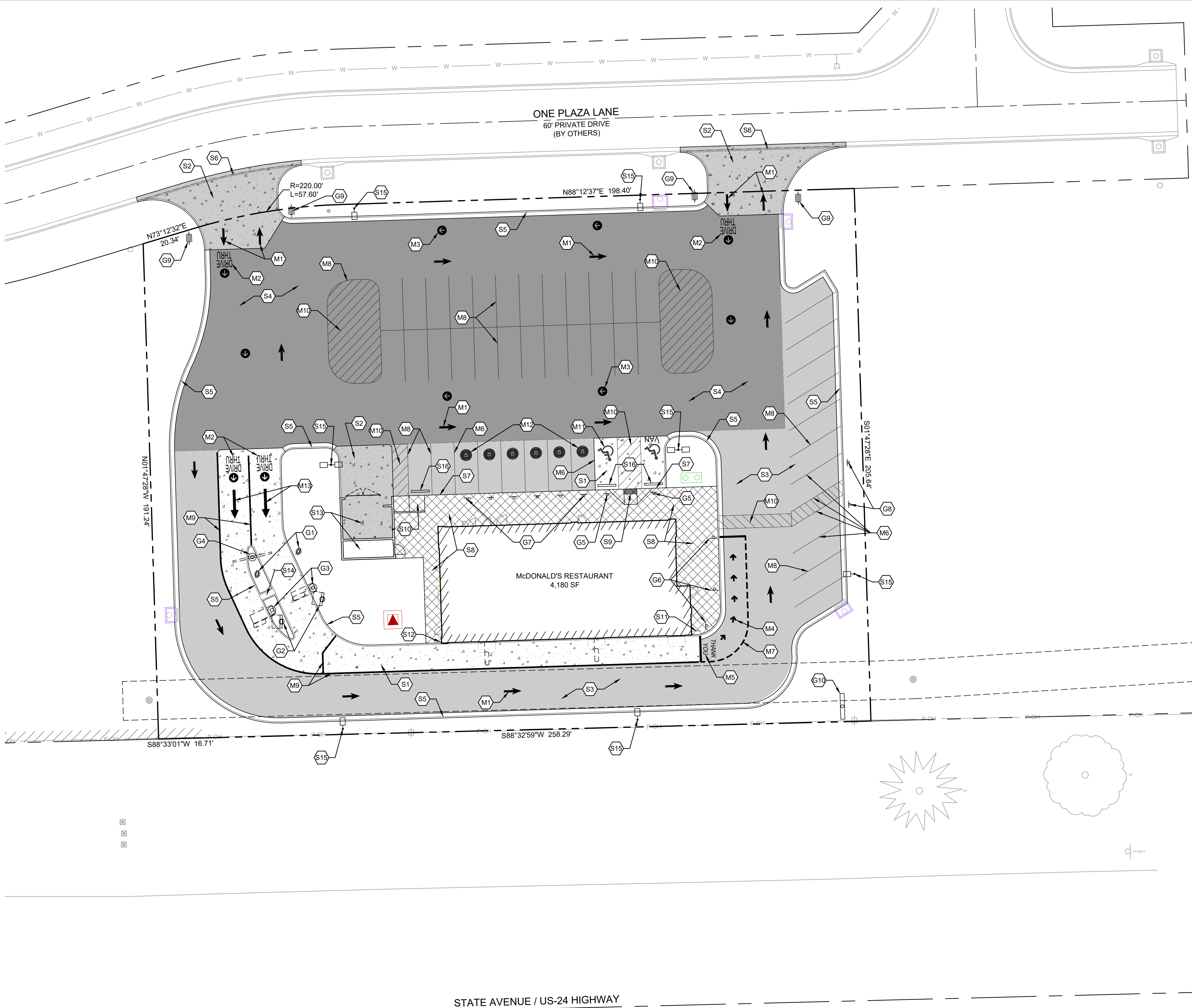
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TITLE		DRAWN BY AJK		REVIEWED BY MAP	DATE ISSUED 06.01.26	SITE ADDRESS
EROSION CONTROL DETAILS		STD ISSUE DATE				
DESCRIPTION		McDONALD'S RESTAURANT BASEHOR, KANSAS				

SHEET NO.
015-0412.00.0
C106

ISSUED FOR PERMIT	AJK	DATE	REV	DESCRIPTION	BY

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DATE: Jun 01, 2026 5:00pm USER: akruse



PAVING LEGEND

- HEAVY DUTY CONCRETE PAVEMENT
- LIGHT DUTY CONCRETE PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE SIDEWALK

SITE KEYNOTE LEGEND

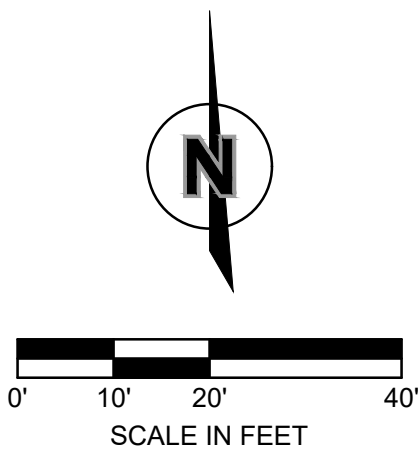
- S1 CONSTRUCT LIGHT DUTY CONCRETE PAVEMENT
- S2 CONSTRUCT HEAVY DUTY CONCRETE PAVEMENT
- S3 CONSTRUCT LIGHT DUTY ASPHALT PAVEMENT
- S4 CONSTRUCT HEAVY DUTY ASPHALT PAVEMENT
- S5 CONSTRUCT CONCRETE CURB & GUTTER
- S6 CONSTRUCT CONCRETE VALLEY GUTTER CURB
- S7 CONSTRUCT 5" CONCRETE TURN DOWN CURB
- S8 CONSTRUCT CONCRETE SIDEWALK
- S9 CONSTRUCT CONCRETE SIDEWALK RAMP w/ DETECTABLE WARNING
- S10 CONSTRUCT CONCRETE SIDEWALK RAMP
- S11 INSTALL 3'-4" OF METAL GUARDRAIL (RE: ARCH)
- S12 INSTALL BOLLARD
- S13 TRASH ENCLOSURE/STORAGE SHED (RE: ARCH)
- S14 CONSTRUCT 2'-0" CONCRETE CURB FLUME
- S15 INSTALL LIGHT POLE, SEE PHOTOMETRIC PLAN
- S16 INSTALL WHEEL STOP

SIGN KEYNOTE LEGEND

- G1 INSTALL PRE-BROWSE BOARD PER MANUFACTURER'S SPECIFICATIONS
- G2 INSTALL OUTDOOR DIGITAL MENU BOARD PER MANUFACTURER'S SPECIFICATIONS
- G3 INSTALL "ORDER HERE" CANOPY PER MANUFACTURER'S SPECIFICATIONS
- G4 INSTALL DOUBLE ARM GATEWAY PER MANUFACTURER'S SPECIFICATIONS
- G5 INSTALL ADA ACCESSIBLE AND VAN ACCESSIBLE PARKING SIGN
- G6 INSTALL McDonald's "ROLL FORWARD" SIGN, 3 TOTAL
- G7 INSTALL McDonald's MOBILE ORDER SIGN, 6 TOTAL
- G8 INSTALL McDonald's "McDELIVERY" PARKING SIGN, 2 TOTAL
- G9 INSTALL McDonald's DIRECTIONAL SIGN
- G10 POLE SIGN, SHOWN FOR LOCATION ONLY DESIGN AND PERMITTING BY OTHERS

PAVEMENT MARKING KEYNOTE LEGEND

- M1 INSTALL PARKING LOT ARROW, TYPICAL
- M2 INSTALL "DRIVE THRU" WITH DIRECTIONAL ARROW, TYPICAL
- M3 INSTALL DIRECTIONAL ARROW, TYPICAL
- M4 INSTALL ROLL FORWARD DIRECTIONAL ARROW, TYPICAL
- M5 INSTALL "THANK YOU" WITH 8" YELLOW STRIPE
- M6 INSTALL 4" SINGLE SOLID YELLOW STRIPE FOR MOBILE ORDER, AND McDELIVERY STALLS, 8 TOTAL STALLS
- M7 INSTALL 8" SINGLE DASHED YELLOW STRIPE FOR ROLL FORWARD LANE
- M8 INSTALL 4" SINGLE SOLID WHITE STRIPE, TYPICAL
- M9 INSTALL 6" SINGLE SOLID YELLOW DRIVE THRU STRIPE
- M10 INSTALL 4" SINGLE SOLID WHITE STRIPE @ 45°, 2' O.C., TYPICAL
- M11 INSTALL ADA ACCESSIBLE SYMBOL, TYPICAL
- M12 INSTALL McDonald's MOBILE ORDER PARKING SYMBOL, 6 TOTAL
- M13 INSTALL DRIVE THRU ARROW



SHEET NO.	TITLE	DRAWN BY AJK	STD ISSUE DATE	REVIEWED BY MAP	DATE ISSUED 06.01.26	REV	DATE	BY
C200	SITE PLAN	AJK		MAP	06.01.26			
015-0412.00.0	McDONALD'S RESTAURANT BASEHOR, KANSAS	AJK		MAP	06.01.26			
015-0412	STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS	AJK		MAP	06.01.26			

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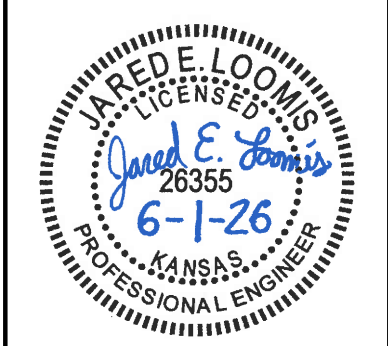
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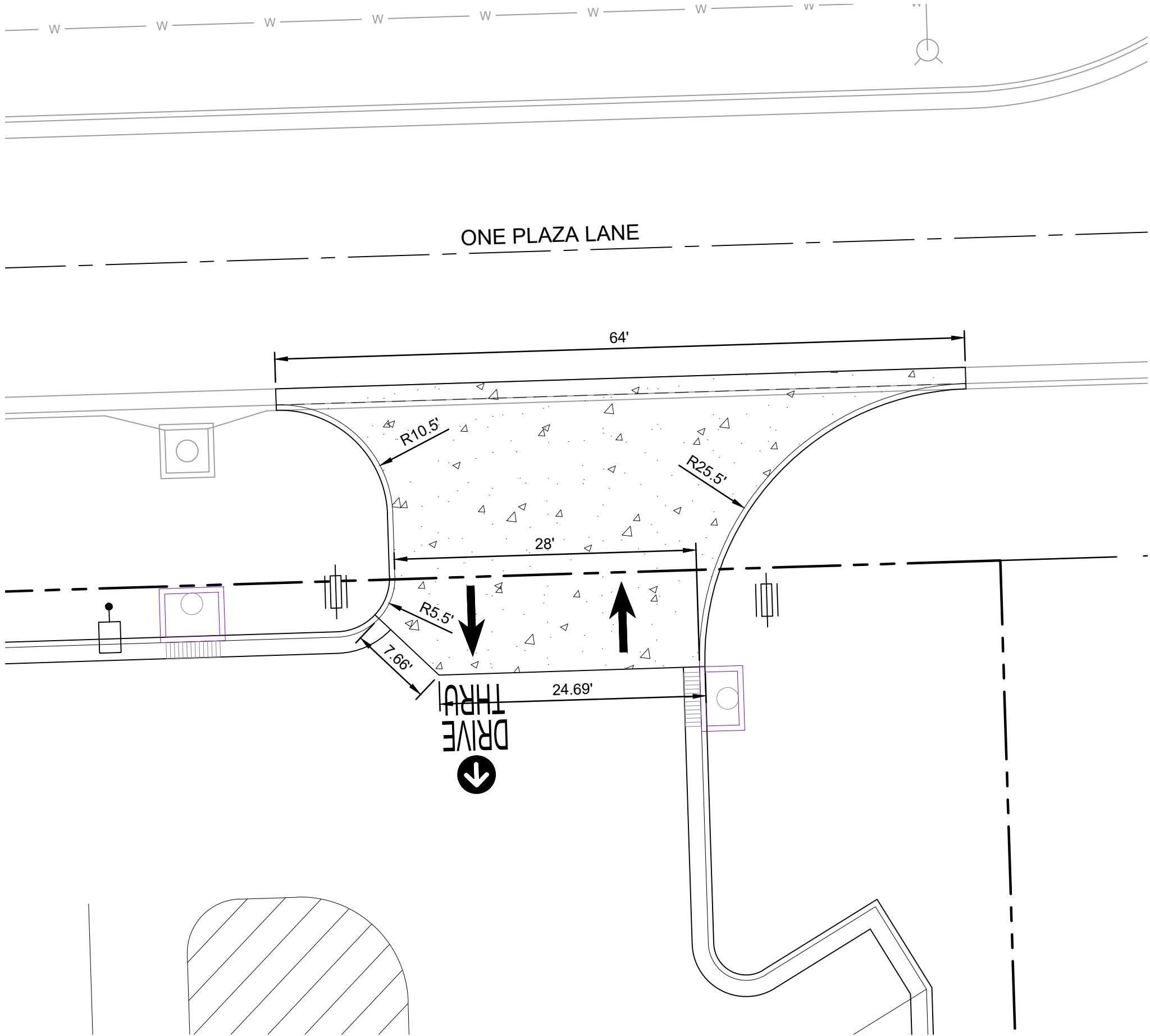
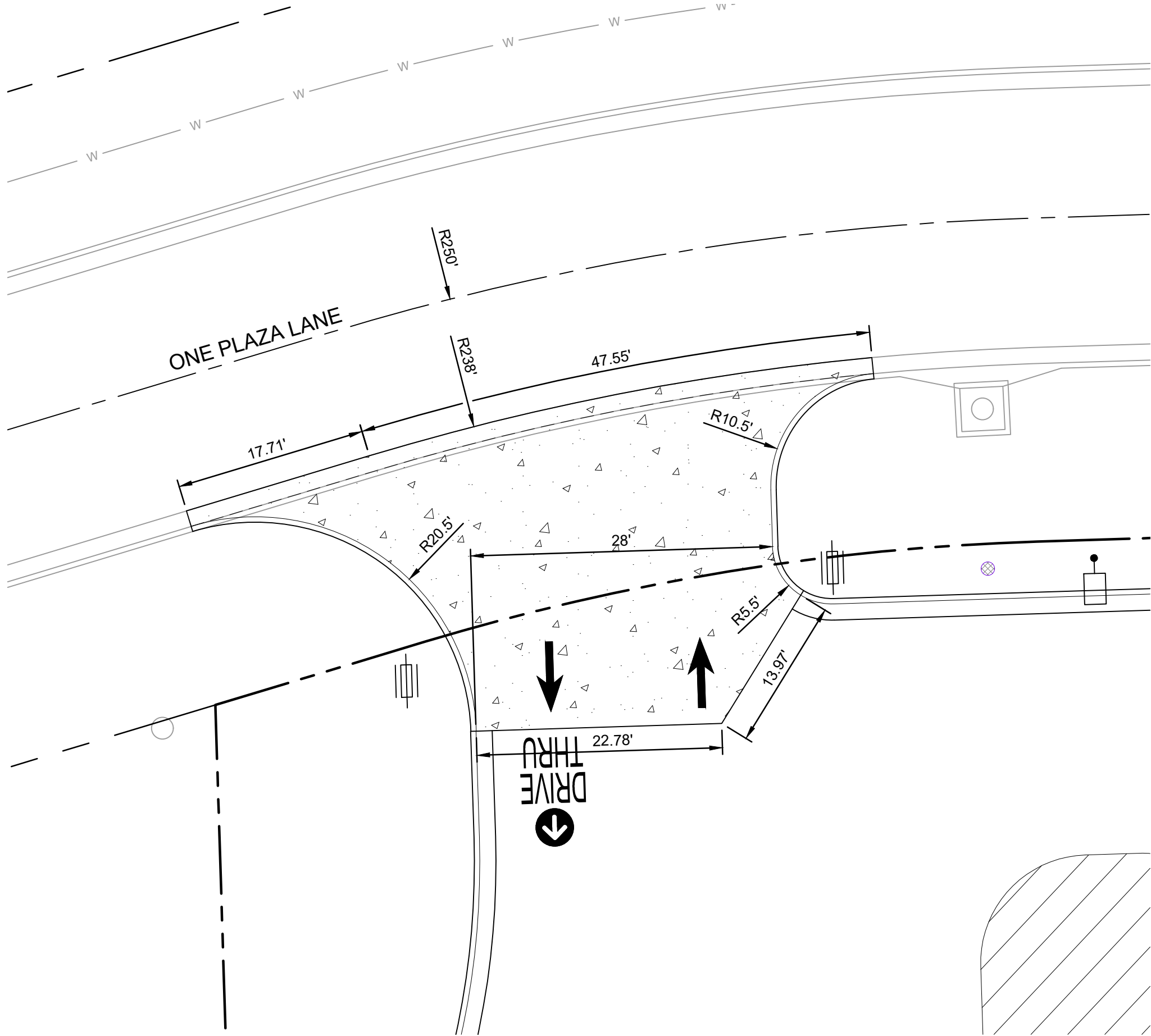
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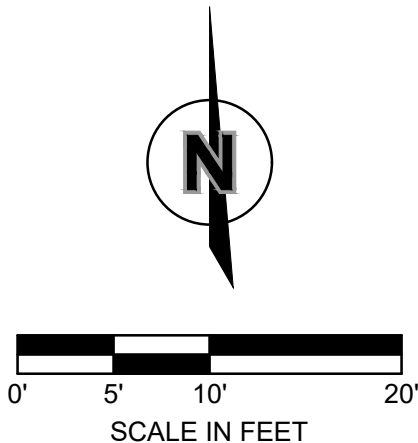
olsson
Olsson - Engineering
Kansas CO# #E-516
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
TEL 785.539.6900
FAX 785.539.6901
www.olsson.com

PREPARED FOR:
McDonald's USA, LLC
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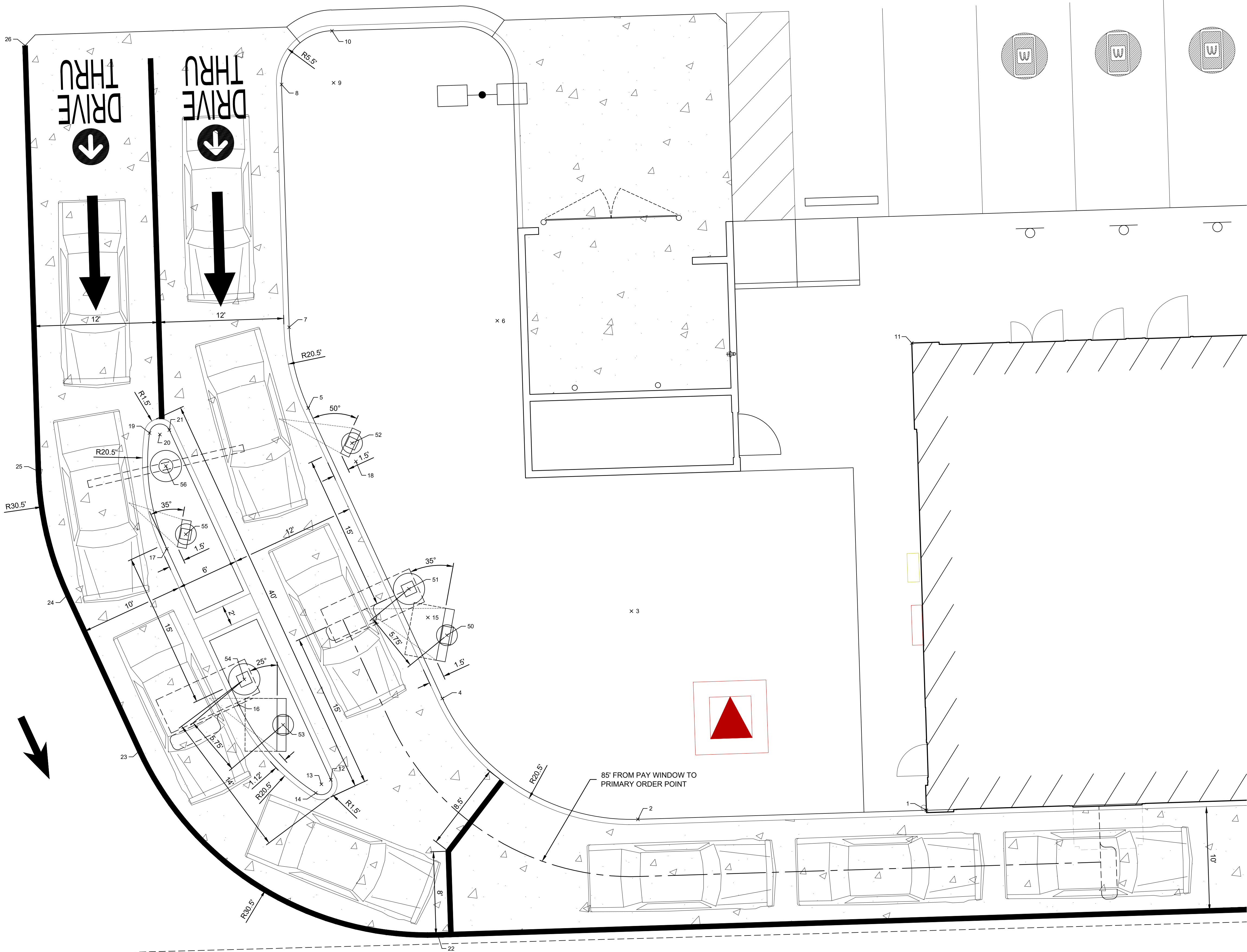
SHEET NO.	TITLE	DRAWN BY	PREPARED FOR	 McDonald's USA, LLC	© 2026 McDonald's USA, LLC		Olsson - Engineering Kansas CON #E-516 26355 302 S. 4th Street, Suite 110 Manhattan, Kansas 66602 www.olson.com																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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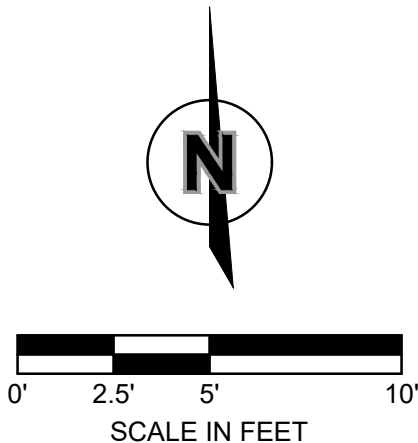
Olsson - Engineering
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POINT TABLE			
POINT #	NORTHING	EASTING	RAW DESCRIPTION
50	299948.79	2179411.38	CF
51	299953.24	2179407.74	CF
52	299967.24	2179402.27	CF
53	299940.18	2179395.65	CF
54	299944.56	2179391.92	CF
55	299958.49	2179386.31	CF
56	299965.04	2179384.39	CF

LAYOUT NOTES:

- COORDINATES PROVIDED ON CURBS ARE GIVEN AT THE BACK OF CURB.
 - DIMENSIONS PROVIDED ON CURBS ARE GIVEN AT THE FACE OF CURB.
- BLD - BUILDING CORNER
ER - END RADIUS
RP - RADIUS POINT
ES - END OF STRIPE
CF - CENTER OF FOUNDATION

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2	299931.12	2179429.73	ER
3	299951.11	2179429.10	RP
4	299942.72	2179410.95	ER
5	299970.61	2179398.06	ER
6	299979.00	2179416.22	RP
7	299978.37	2179396.23	ER
8	300001.69	2179395.50	ER
9	300001.85	2179400.50	RP
10	300006.84	2179400.34	ER
11	299976.86	2179456.03	BLD
12	299934.91	2179400.24	ER
13	299934.49	2179399.33	RP
14	299933.64	2179398.79	ER
15	299950.50	2179409.56	RP
16	299942.11	2179391.40	ER
17	299957.10	2179384.48	ER
18	299965.48	2179402.64	RP
19	299968.21	2179382.82	ER
20	299968.08	2179383.81	RP
21	299968.50	2179384.72	ER
22	299920.01	2179410.51	ES
23	299937.71	2179381.87	ES
24	299952.69	2179374.95	ES
25	299964.53	2179372.15	ES
26	300005.42	2179370.87	ES

TITLE
DRIVE THRU LAYOUT PLAN

DESCRIPTION
MCDONALD'S RESTAURANT
BASEHOR, KANSAS

SHEET NO.
015-0412.00.0
C203

DRAWN BY
AJK

STD ISSUE DATE

REVIEWED BY
MAP

DATE ISSUED
06.01.26

SITE ADDRESS
STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS

PREPARED FOR:
McDonald's USA, LLC

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015-0412.00.0

06.01.26

ISSUED FOR PERMIT

DESCRIPTION

REV

DATE

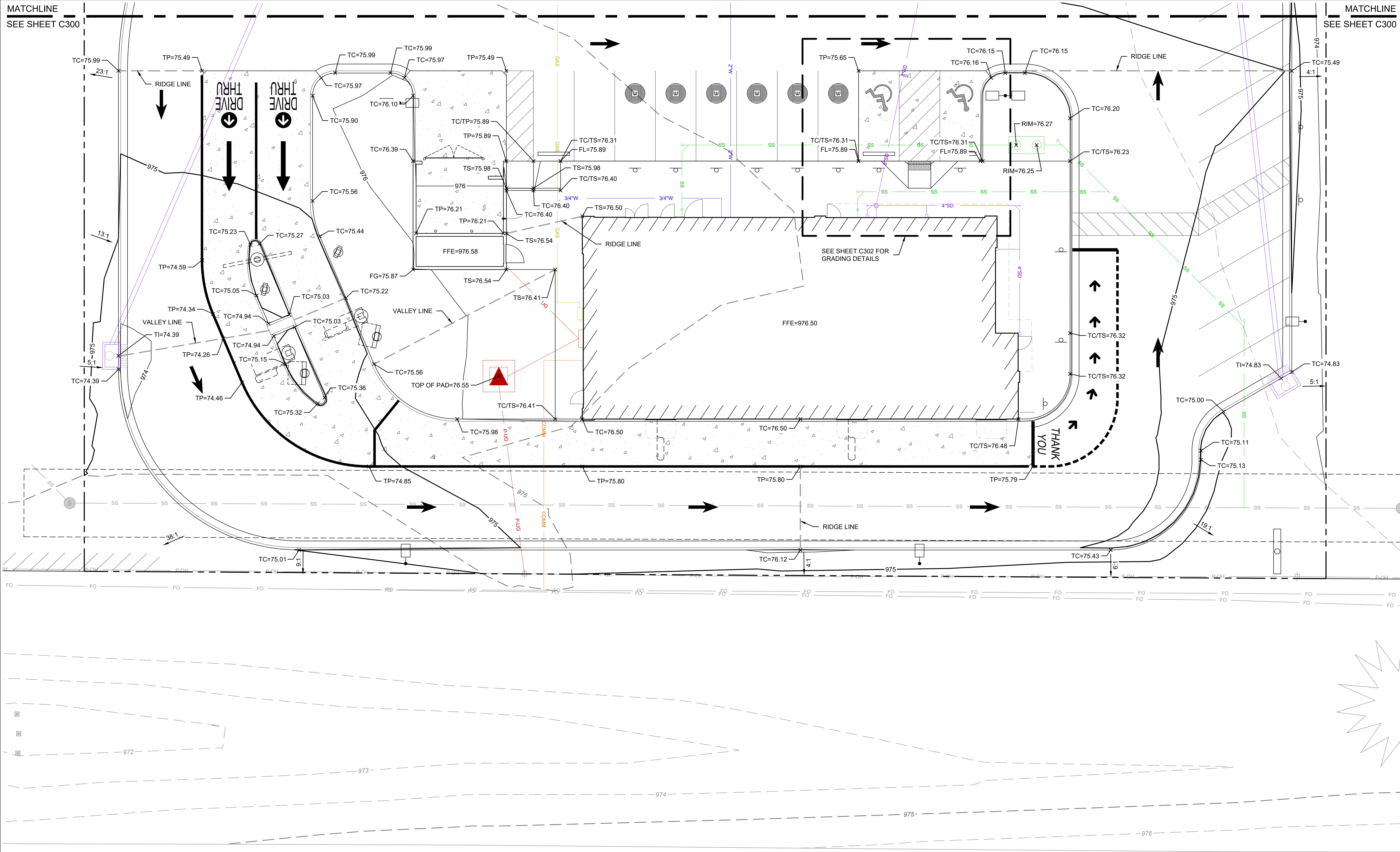
BY

olsson

Olsson - Engineering
Kansas CO# #E-516
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
TEL 785.539.6900
FAX 785.539.6901
www.olsson.com

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PROFESSIONAL ENGINEER

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DATE: Jun 01, 2026 5:01pm USER: akruse



NOTE:

- MAXIMUM SLOPES ALLOWED FOR ADA ACCESSIBLE ROUTES ARE AS FOLLOWS:
1. PARKING STALLS & ACCESS AISLES: 2.0% MAX. SLOPE IN ANY DIRECTION
 2. SIDEWALK RAMPS: 8.33% MAX. RUNNING SLOPE, 2.0% MAX. CROSS SLOPE
 3. RAMP LANDINGS: 2.0% MAX. SLOPE IN ANY DIRECTION
 4. SIDEWALKS/CROSSWALKS: 5.0% MAX. RUNNING SLOPE, 2.0% MAX. CROSS SLOPE
 5. STOOPS: 2.0% MAX.

SPOT ELEVATION LEGEND

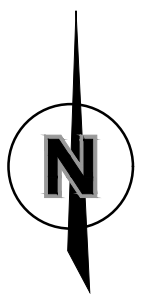
TC TOP OF CURB
FL FLOWLINE OF CURB
TP TOP OF PAVEMENT
TS TOP OF SIDEWALK
TI TOP OF INLET/STRUCTURE
ME MATCH EXISTING
FG FINISHED GRADE

T TRANSITION
R RAMP
L LANDING

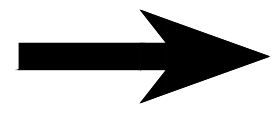
NOTE: SPOT ELEVATIONS ARE TRUNCATED.
ADD 900.00 TO ALL SPOT ELEVATIONS.

CONTOUR LEGEND

--- 975 --- EXISTING GROUND CONTOUR
--- 975 --- FINISHED GROUND CONTOUR



SHEET NO.	TITLE	DRAWN BY AJK	STD ISSUE DATE	REVIEWED BY MAP	DATE ISSUED 06.01.26	REV	DATE	ISSUED FOR PERMIT	DESCRIPTION	BY
015-0412.00.0	GRADING PLAN	PREPARED FOR: McDonald's USA, LLC © 2026 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 require the services of properly licensed architects and engineers. Reproduction of the contract documents for reuse on another project is not authorized.								
		DESCRIPTION MCDONALD'S RESTAURANT BASEHOR, KANSAS	SITE ADDRESS STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS							
C301										
 Olsson - Engineering Kansas CO# #E-516 302 S. 4th Street, Suite 110 Manhattan, Kansas 66502 TEL 785.539.6900 FAX 785.539.6901 www.olsson.com										



1. PARKING STALLS & ACCESS AISLES: 2.0% MAX. SLOPE IN ANY DIRECTION
2. SIDEWALK RAMPS: 8.33% MAX. RUNNING SLOPE, 2.0% MAX. CROSS SLOPE
3. RAMP LANDINGS: 2.0% MAX. SLOPE IN ANY DIRECTION
4. SIDEWALKS/CROSSWALKS: 5.0% MAX. RUNNING SLOPE, 2.0% MAX. CROSS SLOPE
5. STOOPS: 2.0% MAX.

TC	TOP OF CURB
FL	FLOWLINE OF CURB
TP	TOP OF PAVEMENT
TS	TOP OF SIDEWALK
TI	TOP OF INLET/STRUCTURE
ME	MATCH EXISTING
FG	FINISHED GRADE

— — — 975 — — — EXISTING GROUND CONTOUR

————— 975 ————— FINISHED GROUND CONTOUR



SHEET NO.	C302
TITLE	GRADING DETAILS
DESCRIPTION	MCDONALD'S RESTAURANT BASEHOR, KANSAS
DATE ISSUED	06.01.26
REVIEWED BY	MAP
STD ISSUE DATE	AUK

ALL INSTALLATIONS SHALL CONFORM WITH EVERY SPECIFICATIONS AND GUIDELINES.

- 

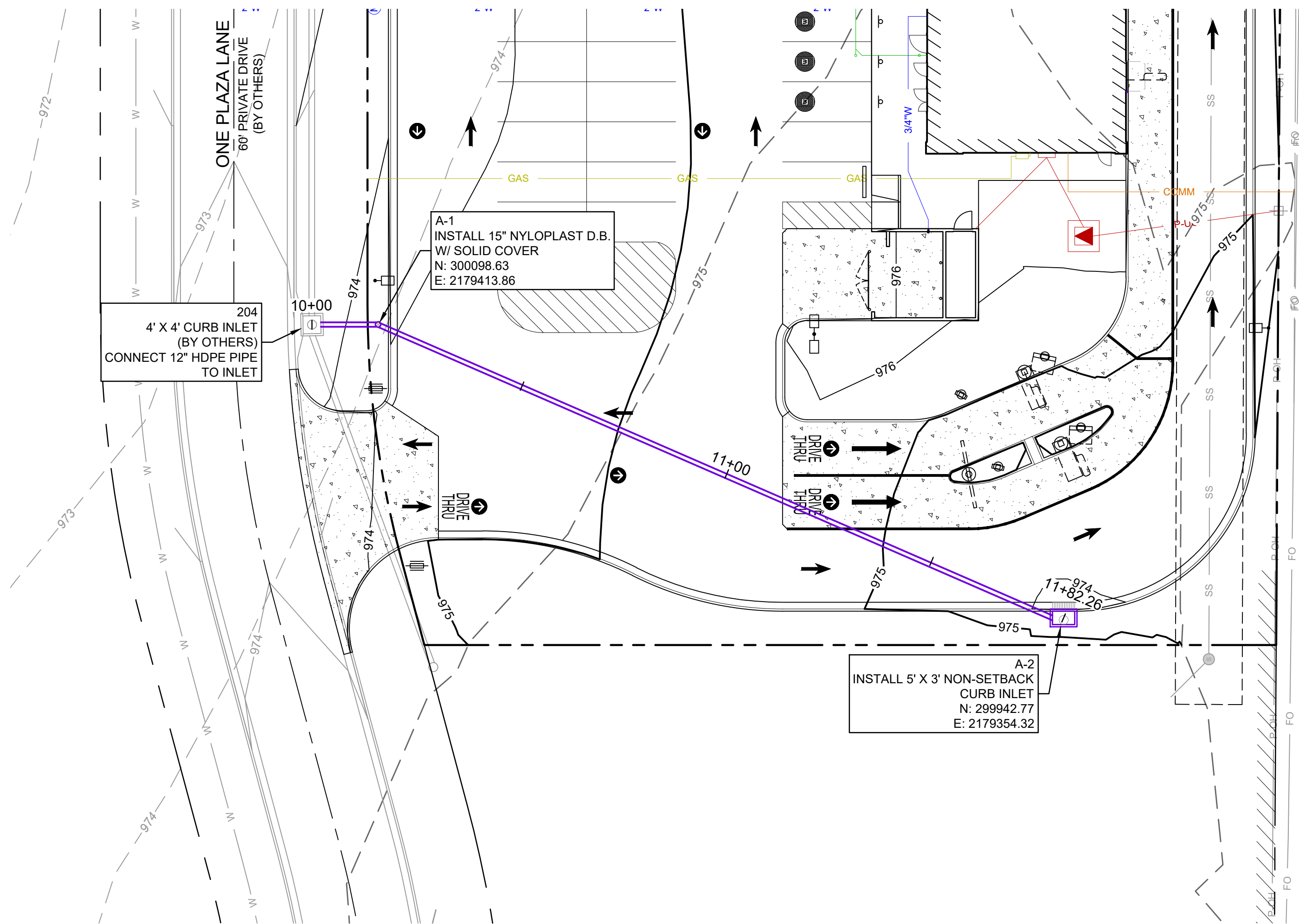
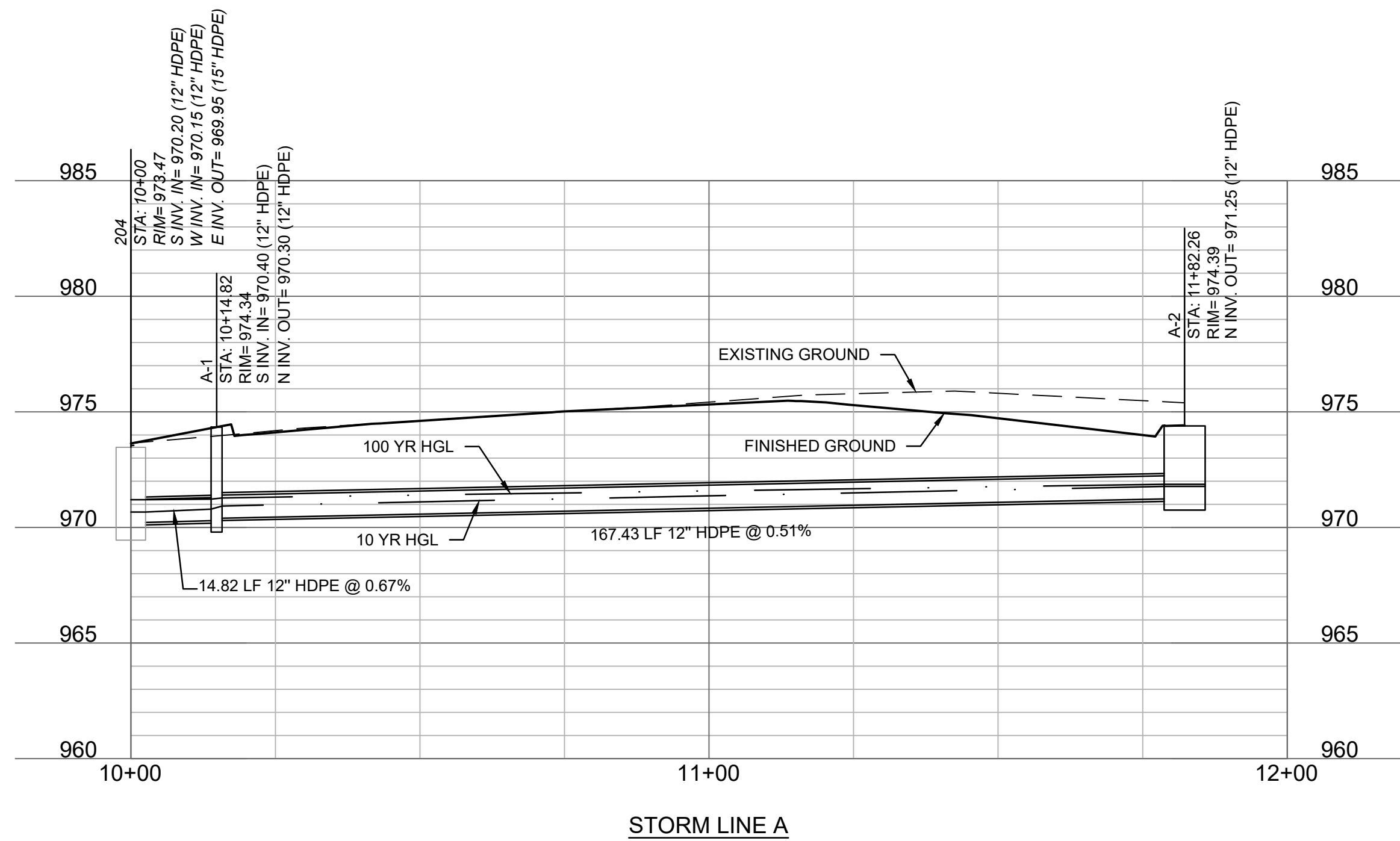


- 



-
- A north arrow pointing upwards, consisting of a circle with an 'N' inside and a vertical line with arrowheads at both ends. Below the north arrow is a graphic scale bar divided into four equal segments, labeled 0', 10', 20', and 40'.

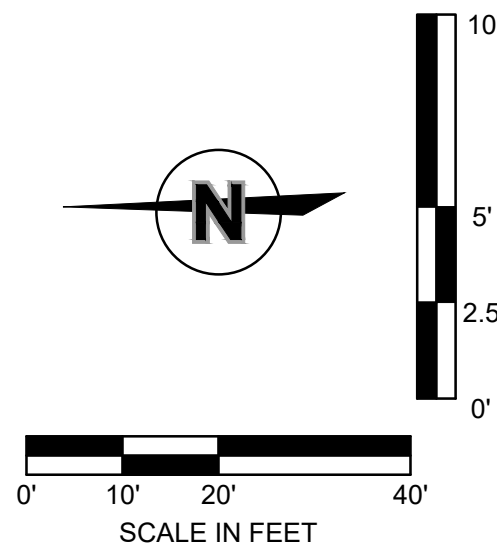
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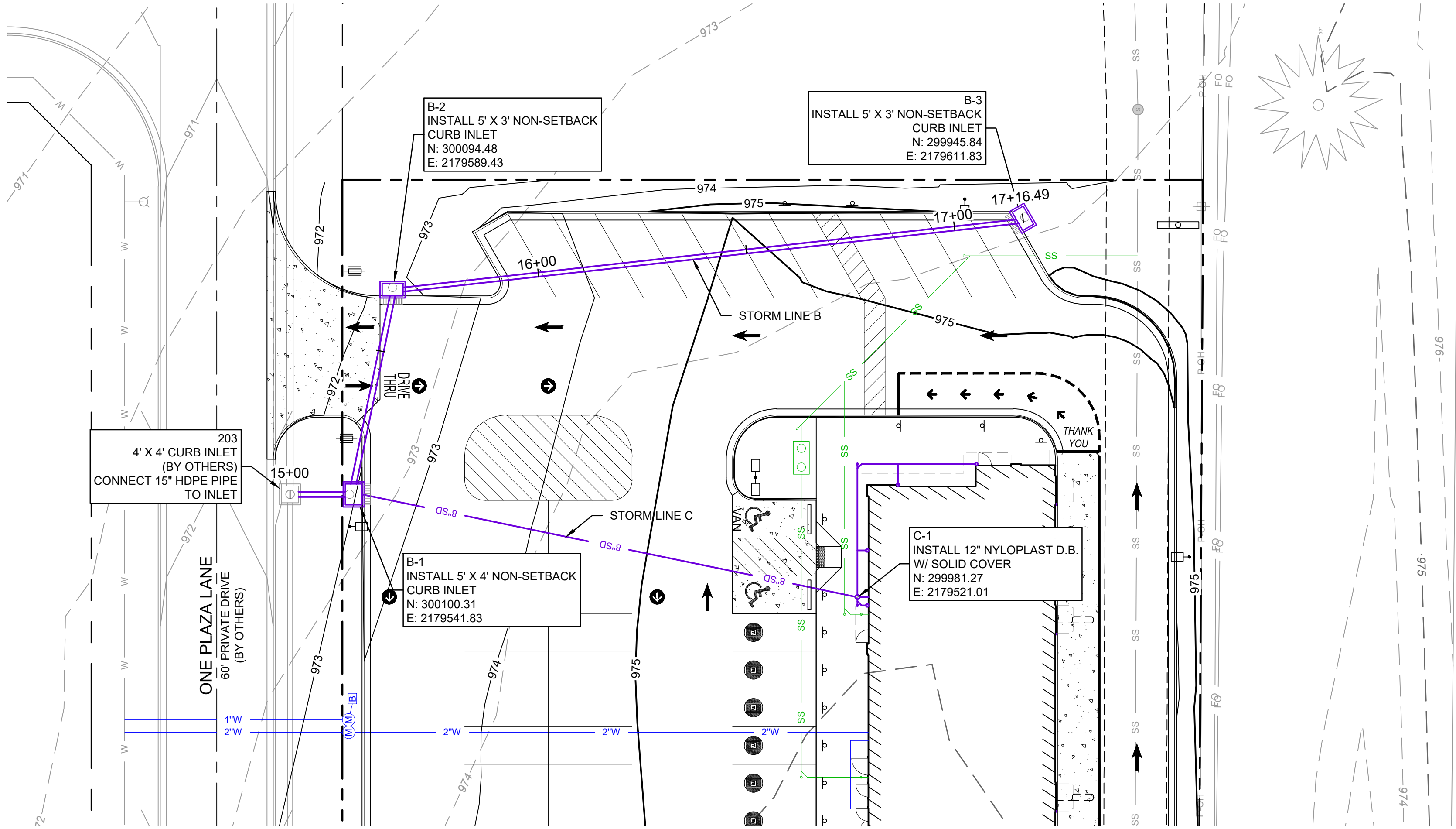
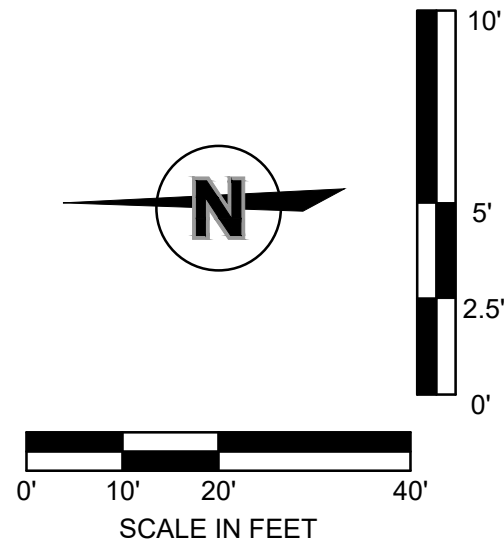
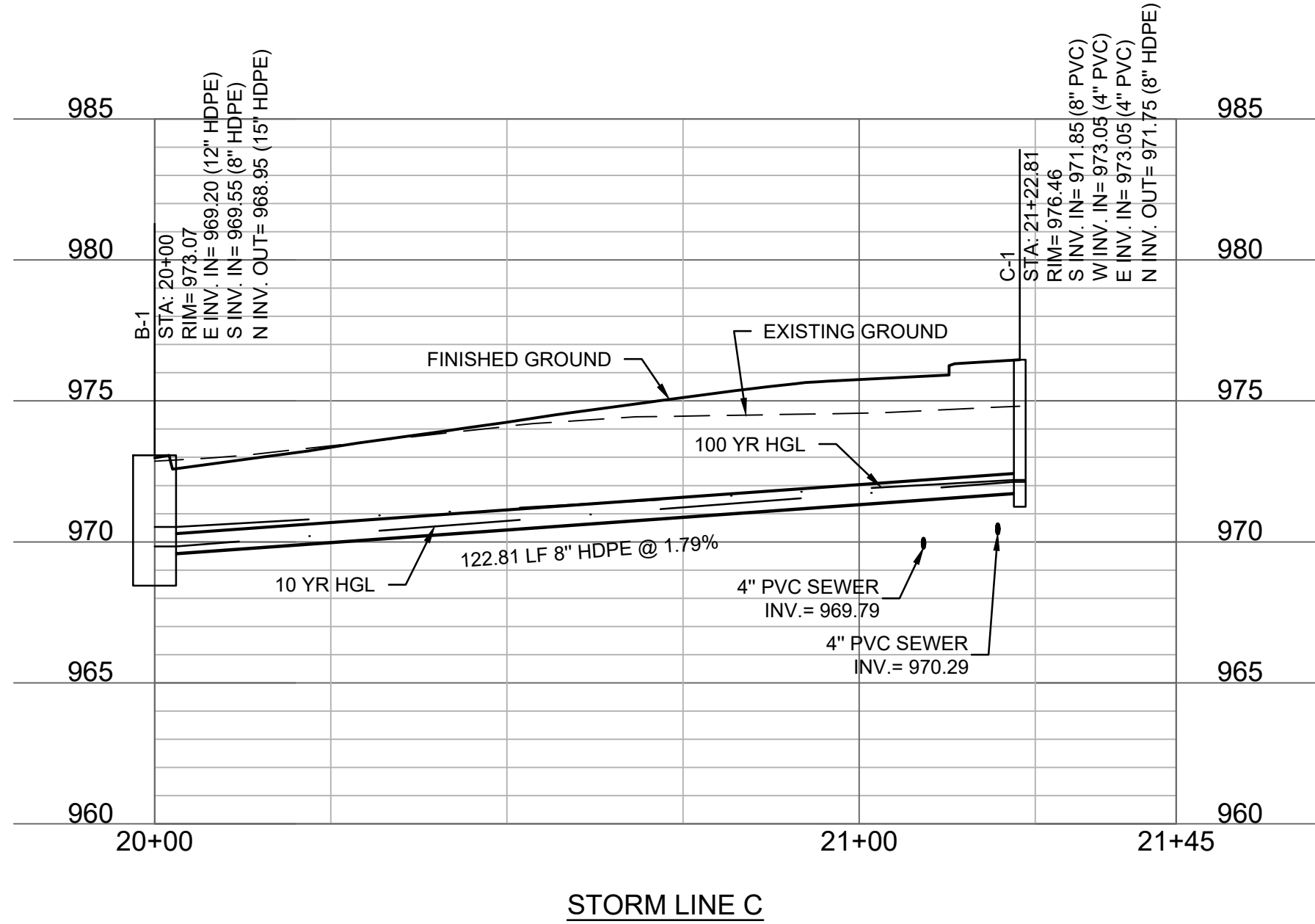
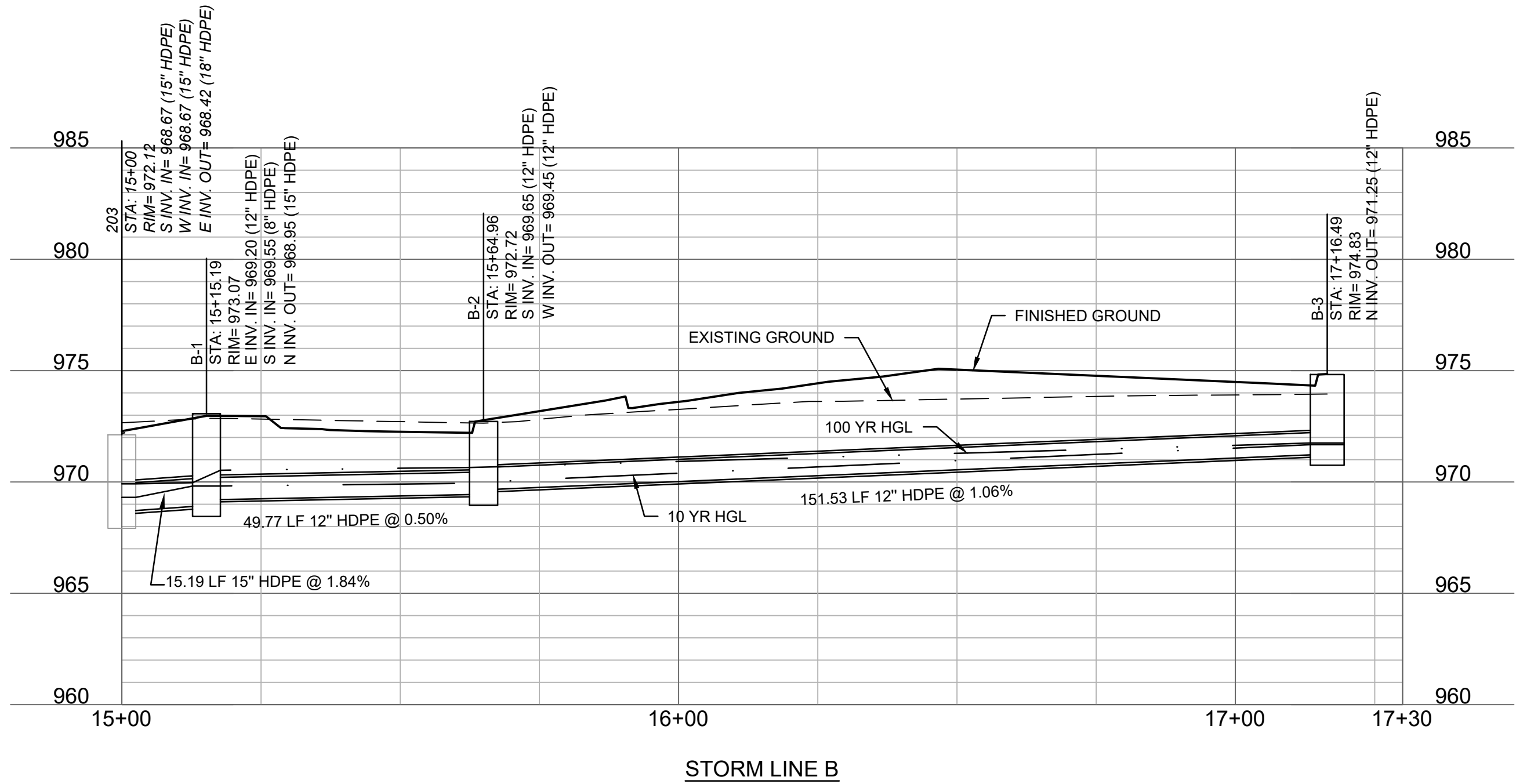


STATE AVENUE / US-24 HIGHWAY

STORM SEWER PLAN NOTES

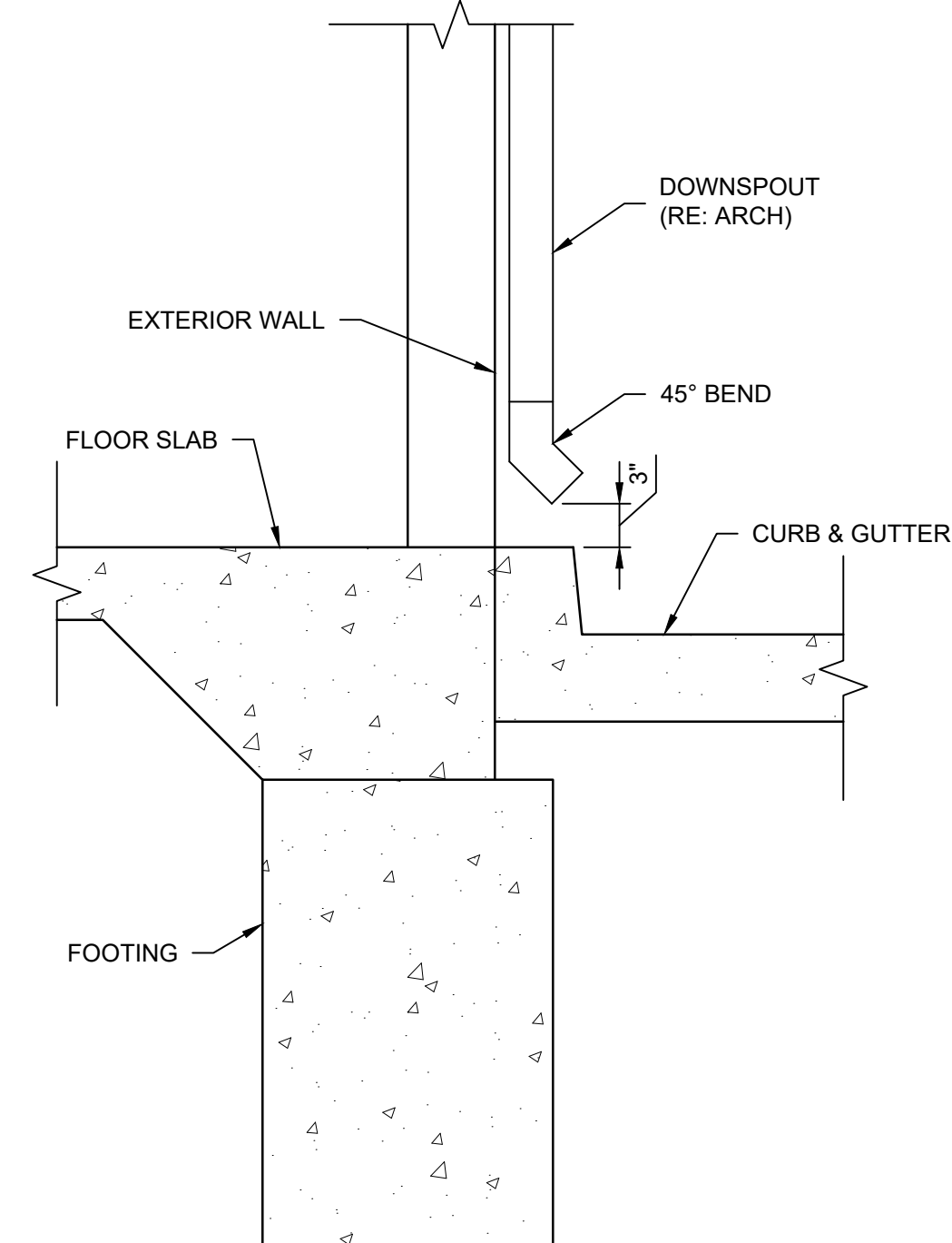
1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH CITY OF BASEHOR, KANSAS.
2. ALL PIPE LENGTHS AND ELEVATIONS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
3. COORDINATES PROVIDED ARE AT THE CENTER OF THE STRUCTURES ON JUNCTION BOXES AND THE BACK OF CURB AT THE CENTER OF STRUCTURE AT CURB INLETS. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE BOX DURING INSTALLATION.
4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF STORM SEWER.
5. STORM SEWER TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.
6. STRUCTURE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO ½ THE ADJACENT PIPE SECTION (INVERT TO CENTER). CHANGES IN DIRECTION OF FLOW SHALL BE MADE USING 90° TURN CURVE AND MAINTAIN SHAPE THROUGHOUT. CHANGES IN GRADE OF ADJACENT PIPES SHALL BE TRANSITIONED SMOOTHLY AND EVENLY THROUGH THE STRUCTURE.
7. PIPE PENETRATIONS SHALL BE GROUTED TO ENSURE WATERTIGHT SEALS.
8. REINFORCED CONCRETE PIPE (R.C.P.) SHALL BE MANUFACTURED IN ACCORDANCE WITH THE PROVISIONS OF A.S.T.M. C-76 AND SHALL BE CLASS III, UNLESS OTHERWISE NOTED. MASTIC JOINTS ARE REQUIRED ON ALL PIPE SHAPES.
9. ALL PIPE LESS THAN 8" SHALL BE SCHEDULE 40.

[illegible]

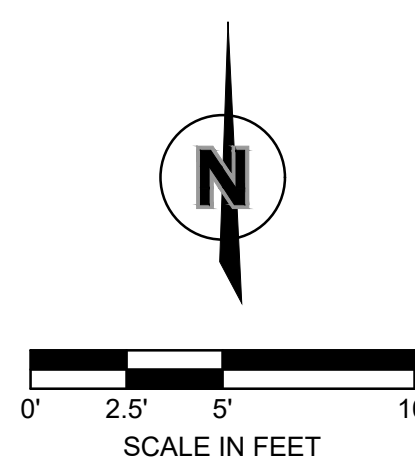


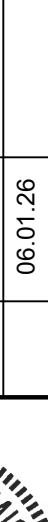
STATE AVENUE / US-24 HIGHWAY

SHEET NO.	TITLE		DRAWN BY	PREPARED FOR:	olsson Olsson - Engineering Kansas CO# #E-516 302 S. 4th Street, Suite 110 Manhattan, Kansas 66502 TEL 785.539.6900 FAX 785.539.6901 www.olsson.com	Professional Engineer Kansas 6-1-26 26355 David C. Jones	REV	DATE	ISSUED FOR PERMIT	BY
	015-0412	STORM SEWER PLAN & PROFILE	AJK	McDonald's USA, LLC						
DESCRIPTION		REVIEWED BY								
McDONALD'S RESTAURANT BASEHOR, KANSAS		MAP								
SITE ADDRESS		DATE ISSUED								
015-0412		06.01.26								
SITE ADDRESS		STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS								
015-0412.00.0										
C402										

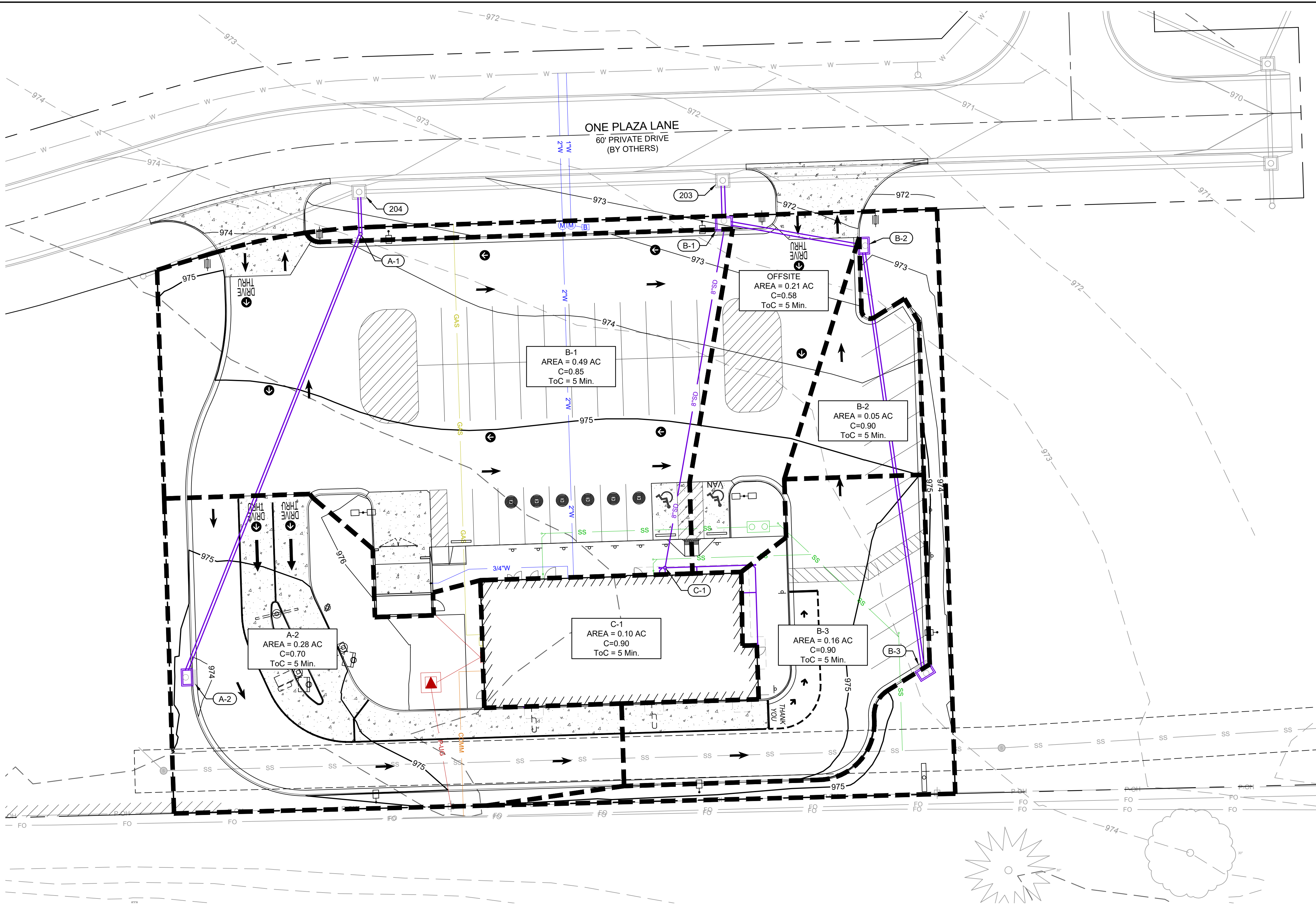
DRIVE THRU LOCATION

DOWNSPOUT DETAILS
NOT TO SCALE



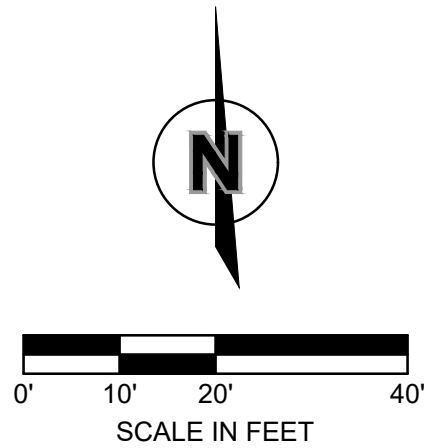
SHEET NO.	C403	015-0412.00.0	TITLE	CANOPY DRAIN PLAN	DESCRIPTION	McDONALD'S RESTAURANT BASEHOR, KANSAS	DRAWN BY	PREPARED FOR	 McDonald's USA, LLC © 2025 McDonald's USA, LLC	 Olsson - Engineering Kansas COA #E-516 302 S. 4th Street, Suite 110 Manhattan, Kansas 66502 TEL: 785-539-6900 FAX: 785-539-6901 www.olsson.com		REV	DATE	06.01.26	ISSUED FOR PERMIT	AJK	BY
							AJK										

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DATE: Jun 01, 2026 5:01pm USER: akruse



10-YEAR HYDRAULIC RESULTS																											
LineNo.	LineID	DrainageArea	TotalArea	RunoffCoeff	Tc	Inlet	Sys	IncrQ	TotalRunoff	LineType	LineSize	n-value	Pipe	InvertDn	InvertUp	LineLength	LineSlope	CapacityFull	VelAve	J-LossCoeff	MinorLoss	EnergyLoss	HGLDn	HGLUp	HGLJct	Grnd/RimElev Up	Rim-Hw
		(ac)	(ac)	{C}	{min}	(in/hr)	(in/hr)	{cfs}	{cfs}		(in)			(ft)	(ft)	(ft)	{%}	{cfs}	{ft/s}		{ft}	{ft}	{ft}	{ft}	{ft}	{ft}	
1	B1 - 203	0.49	0.80	0.85	7.4	7.24	6.61	3.01	4.59	Cr	15	0.013	968.67	968.95	15.193	1.84	8.77	6.14	1.00 z	0.40	0.000	969.31	969.82	969.82	973.07	3.25	
2	C1 - B1	0.10	0.10	0.90	5.0	7.24	7.24	0.65	0.65	Cr	8	0.013	969.55	971.75	122.808	1.79	1.62	3.78	1.00 z	n/a	0.000	969.84	972.13	972.13	976.46	4.33	
3	B2 - B1	0.05	0.21	0.90	6.9	7.24	6.73	0.33	1.27	Cr	12	0.013	969.20	969.45	49.771	0.50	2.52	2.89	0.50	0.08	0.197	969.82	969.94	970.03	972.72	2.69	
4	B3 - B2	0.16	0.16	0.90	5.0	7.24	7.24	1.04	1.04	Cr	12	0.013	969.65	971.25	151.530	1.06	3.66	3.54	1.00 z	n/a	0.000	970.03	971.68	971.68	974.83	3.15	
5	A1 - 204	0.00	0.28	0.00	6.5	0.00	6.82	0.00	1.34	Cr	12	0.013	970.20	970.30	14.824	0.67	2.92	3.57	0.50 z	0.10	0.000	970.67	970.79	970.79	974.34	3.55	
6	A2 - A1	0.28	0.28	0.70	5.0	7.24	7.24	1.42	1.42	Cr	12	0.013	970.40	971.25	167.432	0.51	2.54	3.32	1.00	0.17	0.852	970.93	971.78	971.96	974.39	2.43	
Notes: z=Zero Junction Loss																											

100-YEAR HYDRAULIC RESULTS																											
LineNo.	LineID	DrainageArea	TotalArea	RunoffCoeff	Tc	Inlet	Sys	IncrQ	TotalRunoff	LineType	LineSize	n-value	Pipe	InvertDn	InvertUp	LineLength	LineSlope	CapacityFull	VelAve	J-LossCoeff	MinorLoss	EnergyLoss	HGLDn	HGLUp	HGLJct	Grnd/RimElev Up	Rim-Hw
		(ac)	(ac)	{C}	{min}	(in/hr)	(in/hr)	{cfs}	{cfs}		(in)			(ft)	(ft)	(ft)	{%}	{cfs}	{ft/s}		{ft}	{ft}	{ft}	{ft}	{ft}	{ft}	
1	B1 - 203	0.49	0.80	0.85	6.8	9.83	9.25	4.10	6.43	Cr	15	0.013	968.67	968.95	15.193	1.84	8.77	5.61	1.00	n/a	0.151	969.92	969.97	970.53	973.07	2.54	
2	C1 - B1	0.10	0.10	0.90	5.0	9.83	9.83	0.88	0.88	Cr	8	0.013	969.55	971.75	122.808	1.79	1.62	3.05	1.00 z	n/a	0.863	970.53	972.20	972.20	976.46	4.26	
3	B2 - B1	0.05	0.21	0.90	6.4	9.83	9.36	0.44	1.77	Cr	12	0.013	969.20	969.45	49.771	0.50	2.52	2.25	0.50	0.04	0.123	970.53	970.65	970.69	972.72	2.03	
4	B3 - B2	0.16	0.16	0.90	5.0	9.83	9.83	1.42	1.42	Cr	12	0.013	969.65	971.25	151.530	1.06	3.66	2.69	1.00 z	n/a	0.588	970.69	971.75	971.75	974.83	3.08	
5	A1 - 204	0.00	0.28	0.00	6.1	0.00	9.45	0.00	1.85	Cr	12	0.013	970.20	970.30	14.824	0.67	2.92	2.39	0.50	0.05	0.037	971.20	971.23	971.28	974.34	3.06	
6	A2 - A1	0.28	0.28	0.70	5.0	9.83	9.83	1.93	1.93	Cr	12	0.013	970.40	971.25	167.432	0.51	2.54	3.19	1.00	0.22	0.706	971.26	971.87	972.09	974.39	2.30	
Notes: z=Zero Junction Loss																											



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DRAWN BY
AJK

STD ISSUE DATE

REVIEWED BY
MAP

DATE ISSUED
06.01.26

TITLE
DRAINAGE AREA MAP & HYDRAULICS TABLE

DESCRIPTION
MCDONALD'S RESTAURANT BASEHOR, KANSAS

SITE ID
015-0412

STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS

SHEET NO.
C404

015-0412.00.0

ISSUED FOR PERMIT
DATE
06.01.26

REV

BY

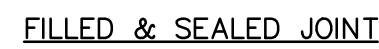
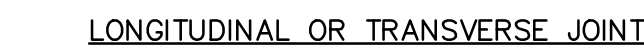
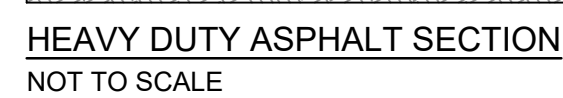


CONCRETE TURN DOWN CURB
NOT TO SCALE

1. THE RECOMMENDATIONS AS OUTLINED IN THE GEOTECHNICAL REPORT, INCLUDING ADDENDUMS, SHALL TAKE PRECEDENCE OVER ANY DESIGN SHOWN IN THESE PLANS. CONTRACTOR SHALL CONTACT ENGINEER WITH ANY DISCREPANCIES OR CONCERNS.
2. WHERE LOCAL CODES AND ORDINANCES REQUIRE A DESIGN IN EXCESS OF THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT, THOSE CODES AND ORDINANCES SHALL TAKE PRECEDENCE OVER ANY DESIGN SHOWN IN THESE PLANS.
3. PCC PAVEMENT MIX SHALL CONFORM WITH ALL LOCAL CODES AND ORDINANCES.
4. AGGREGATE BASE COURSES SHALL CONFORM WITH ALL LOCAL CODES AND ORDINANCES.
5. PREPARED SUBGRADE SHALL BE COMPACTED TO 95% MAX. DENSITY AS PER ASTM-D698 (STANDARD PROCTOR COMPACTION)

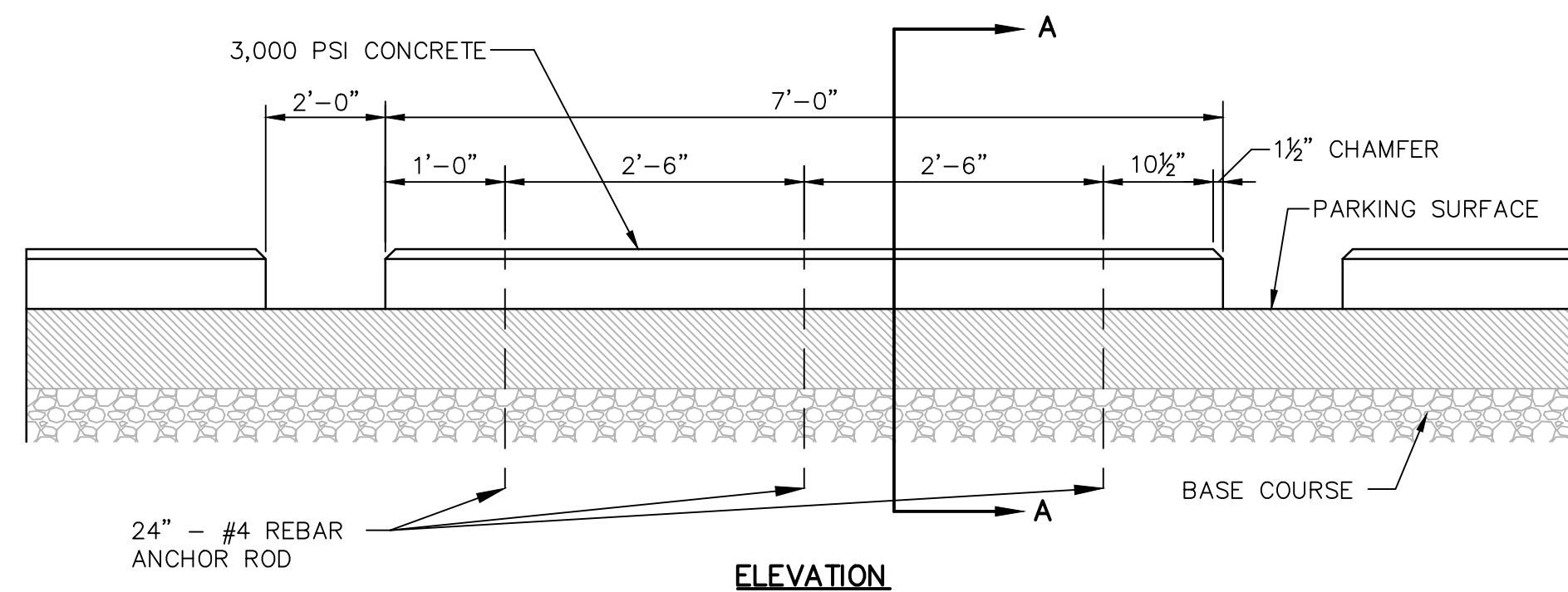


1. THE RECOMMENDATIONS AS OUTLINED IN THE GEOTECHNICAL REPORT, INCLUDING ADDENDUMS, SHALL TAKE PRECEDENCE OVER ANY DESIGN SHOWN IN THESE PLANS. CONTRACTOR SHALL CONTACT ENGINEER WITH ANY DISCREPANCIES OR CONCERNS.
2. WHERE LOCAL CODES AND ORDINANCES REQUIRE A DESIGN IN EXCESS OF THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT, THOSE CODES AND ORDINANCES SHALL TAKE PRECEDENCE OVER ANY DESIGN SHOWN IN THESE PLANS.
3. ASPHALT PAVEMENT MIX SHALL CONFORM WITH ALL LOCAL CODES AND ORDINANCES.
4. 2" BITUMINOUS SURFACE COURSE: ASPHALTIC CONCRETE COMMERCIAL GRADE SM-9.5A OR SR-9.5A
5. 4" BITUMINOUS BASE COURSE: ASPHALTIC CONCRETE COMMERCIAL GRADE SM-12.5A OR SR-12.5A
6. PREPARED SUBGRADE SHALL BE COMPACTED TO 95% MAX. DENSITY AS PER ASTM-D698 (STANDARD PROCTOR COMPACTION)

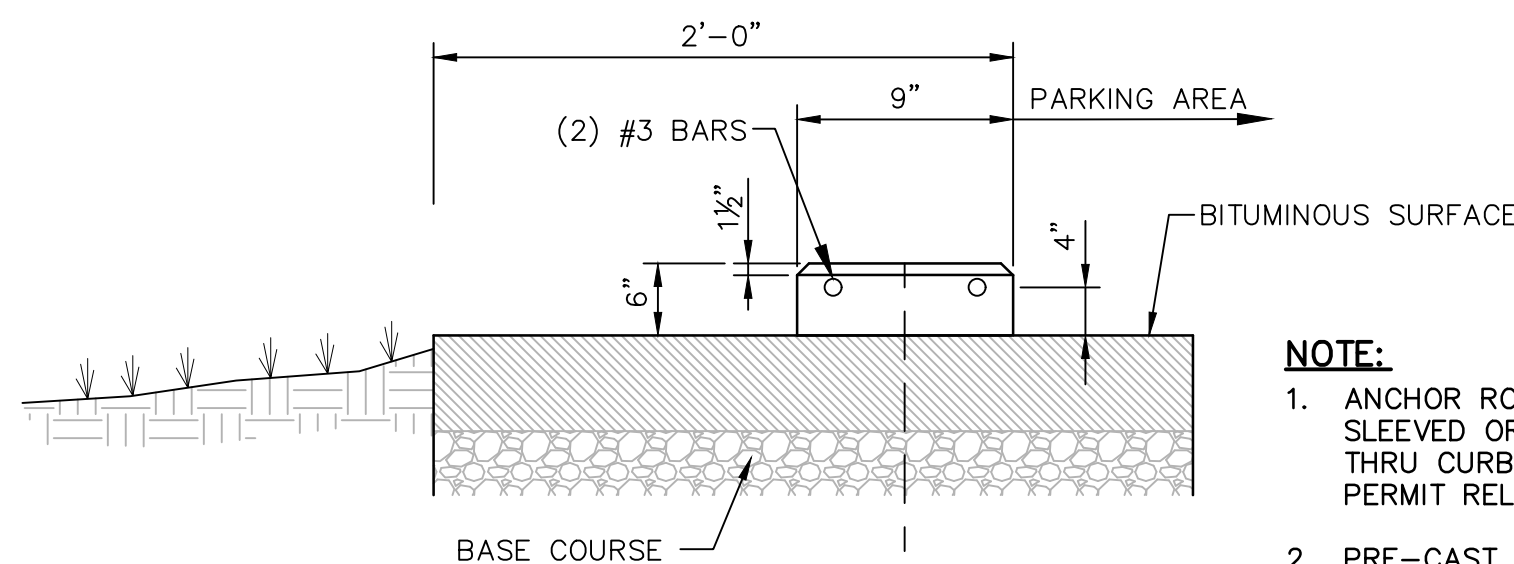


RETOOL JOINTS AFTER
BROOMING TO PROVIDE
UNIFORM WIDTH FROM
CENTER OF JOINT, ON BOTH
SIDES, AND IN A SMOOTH
BAND AT EDGES OF EACH
PANEL.

CONCRETE JOINT DETAILS
NOT TO SCALE



SECTION A-A

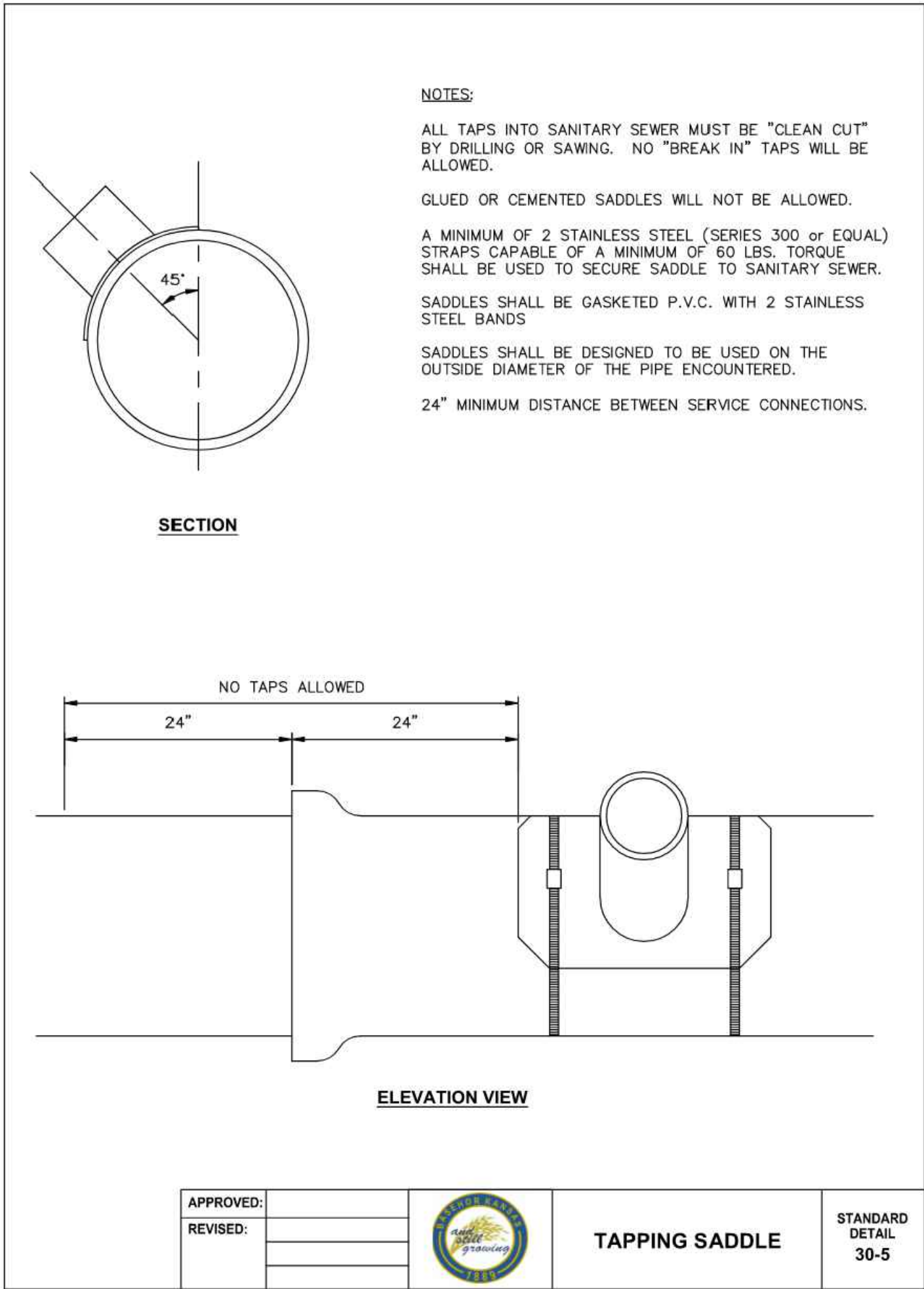


WHEEL STOP DETAIL
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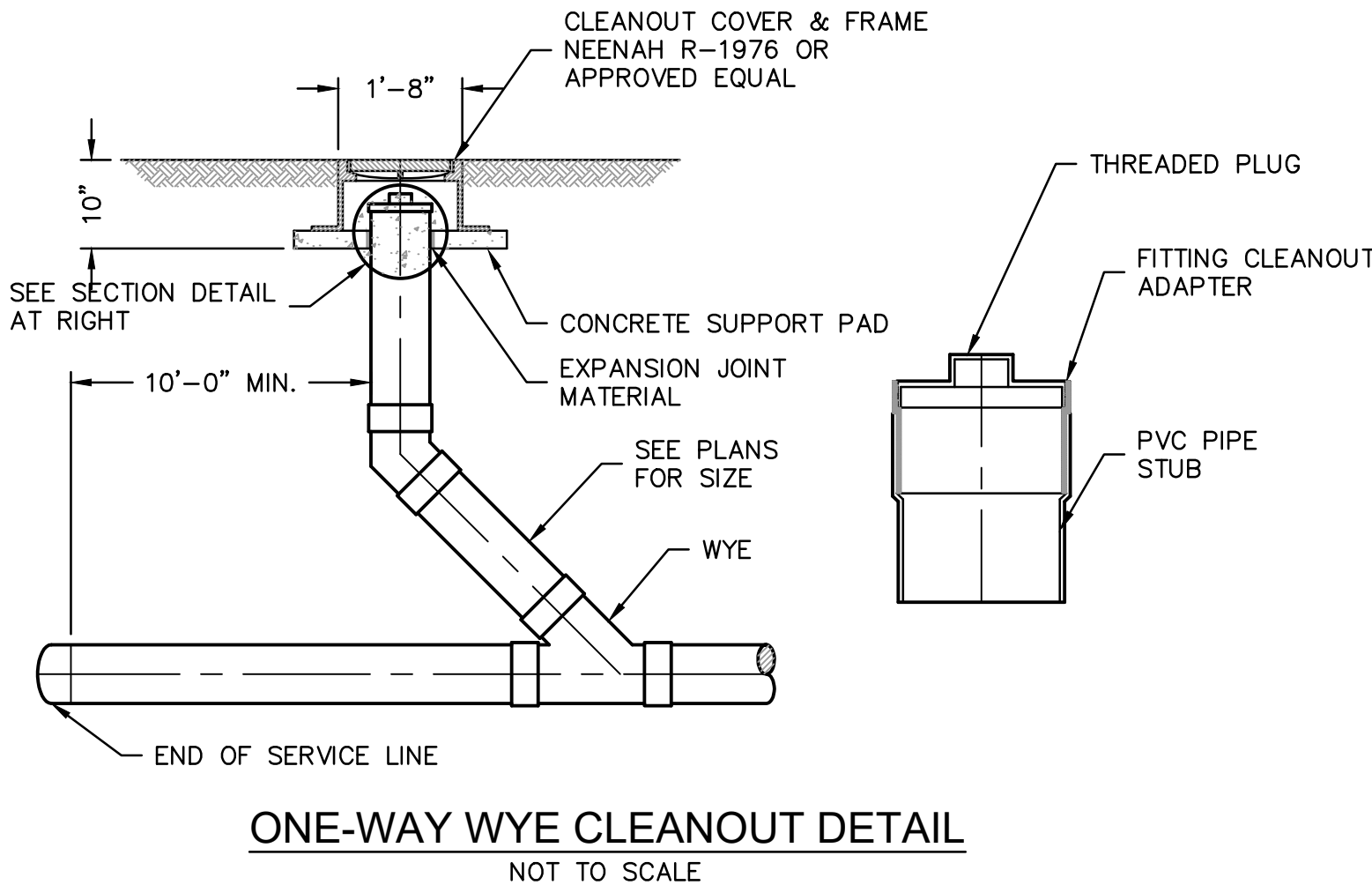
- NOTE:**
1. ANCHOR RODS TO BE SLEEVED OR GREASED THRU CURB STOP TO PERMIT RELOCATION.
 2. PRE-CAST CURB STOP IS ACCEPTABLE. DIMENSIONS OF PRE-CAST CURB STOP MAY VARY.

SHEET NO.	TITLE	DRAWN BY	DATE	A/J/K	PREPARED FOR	© 2020 McDonald's USA, LLC	 McDonald's USA, LLC	These drawings and specifications are the confidential and proprietary property of McDonald's USA, LLC and shall be used only for the project and site specifically authorized. 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 for any other project. Any reuse of these drawings and specifications without the written consent of McDonald's USA, LLC requires the services of properly licensed architects and engineers. Reproduction of the contract documents for reuse on another project is not authorized.		REV	DATE	A/J/K	BY
C501	015-0412.00.0	DETAILS					olsson Olsson - Engineering Kansas COA #E-516 302 S. 4th Street, Suite 110 Manhattan, Kansas 66502 TEL 785 538 6900 FAX 785 539 6901 www.olson.com	06.01.26	ISSUED FOR PERMIT				
	015-0412	SITE ID	STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS										
			SITE ADDRESS										
			McDONALD'S RESTAURANT										
			BASEHOR, KANSAS										
			MAP										
			REVIEWED BY										
			STD ISSUE DATE										

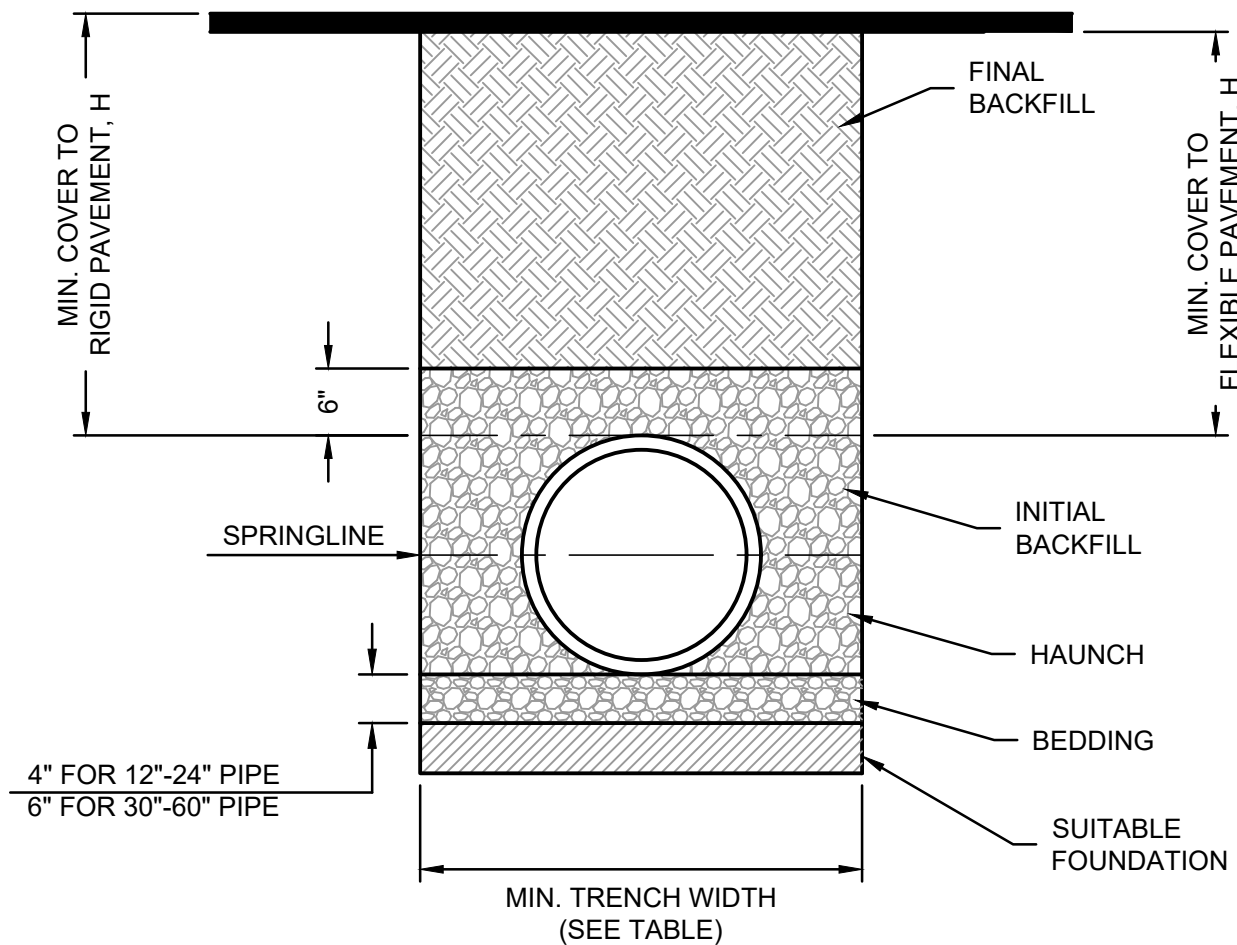
F:\2026\01501-02000\026-01964\40-Design\AutoCAD\Final Plans\Sheets\SDNC_DTL01_02601964.dwg
DATE: Jun 01, 2026 5:00pm USER: akruse



SANITARY SEWER TAP DETAIL
NOT TO SCALE



- NOTES:**
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION
 - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 - FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 - BEDDING:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100MM) FOR 4"-24" (100MM-600MM); 6" (150MM) FOR 30"-60" (750MM-900MM).
 - INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 - MINIMUM COVER:** MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.



RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

MINIMUM RECOMMENDED COVER BASED ON
VEHICLE LOADING CONDITIONS

PIPE DIAM.	SURFACE LIVE LOADING CONDITION	
	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

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AJK

STD ISSUE DATE

REVIEWED BY:
MAP

DATE ISSUED:
06.01.26

TITLE:
DETAILS

DESCRIPTION:
**McDONALD'S RESTAURANT
BASEHOR, KANSAS**

SHEET NO.:
C502

SITE ADDRESS:
015-0412

STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS

ISSUED FOR PERMIT

DATE:
06.01.26

REVISIONS

BY

015-0412.00.0

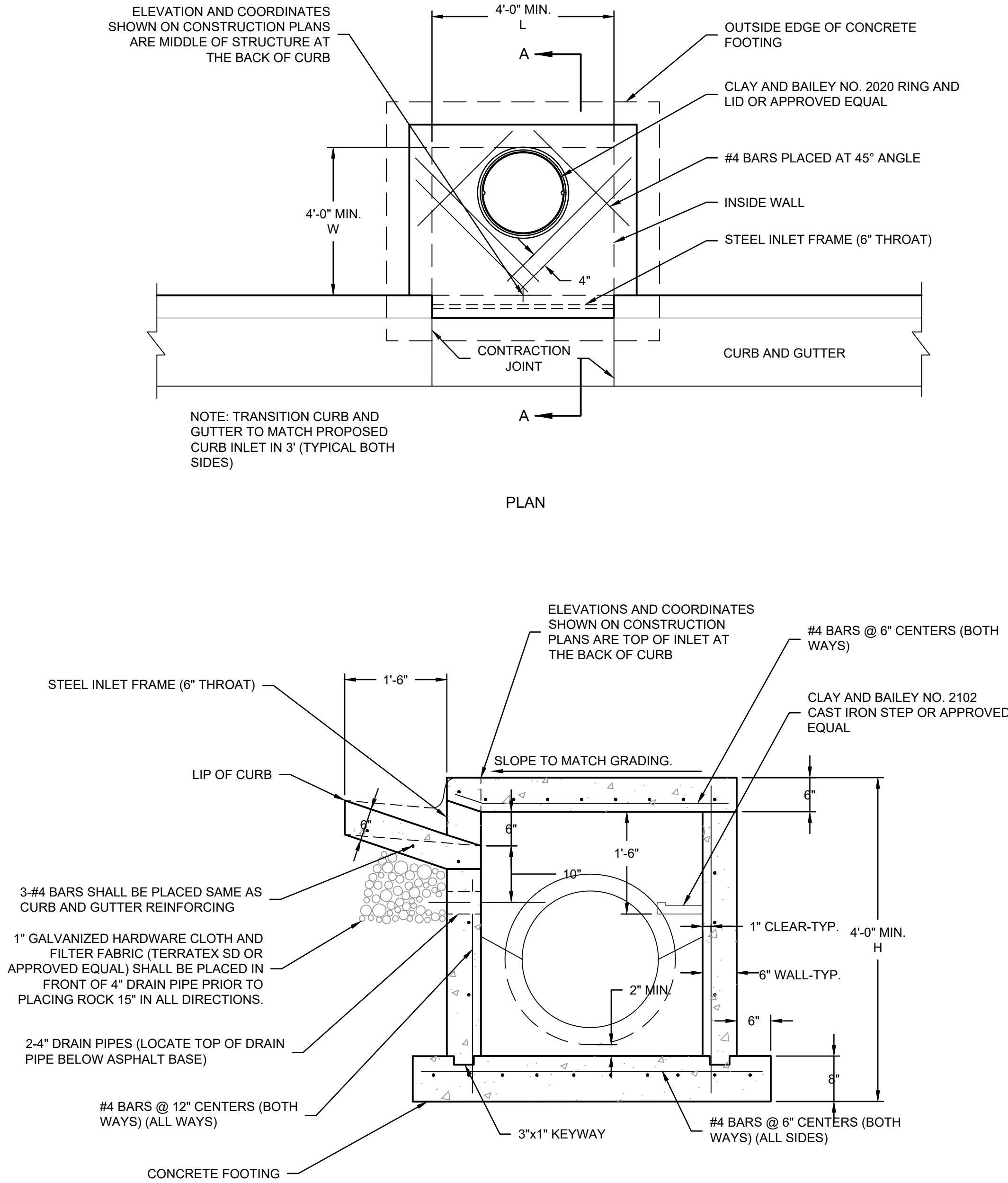
C502

olsson

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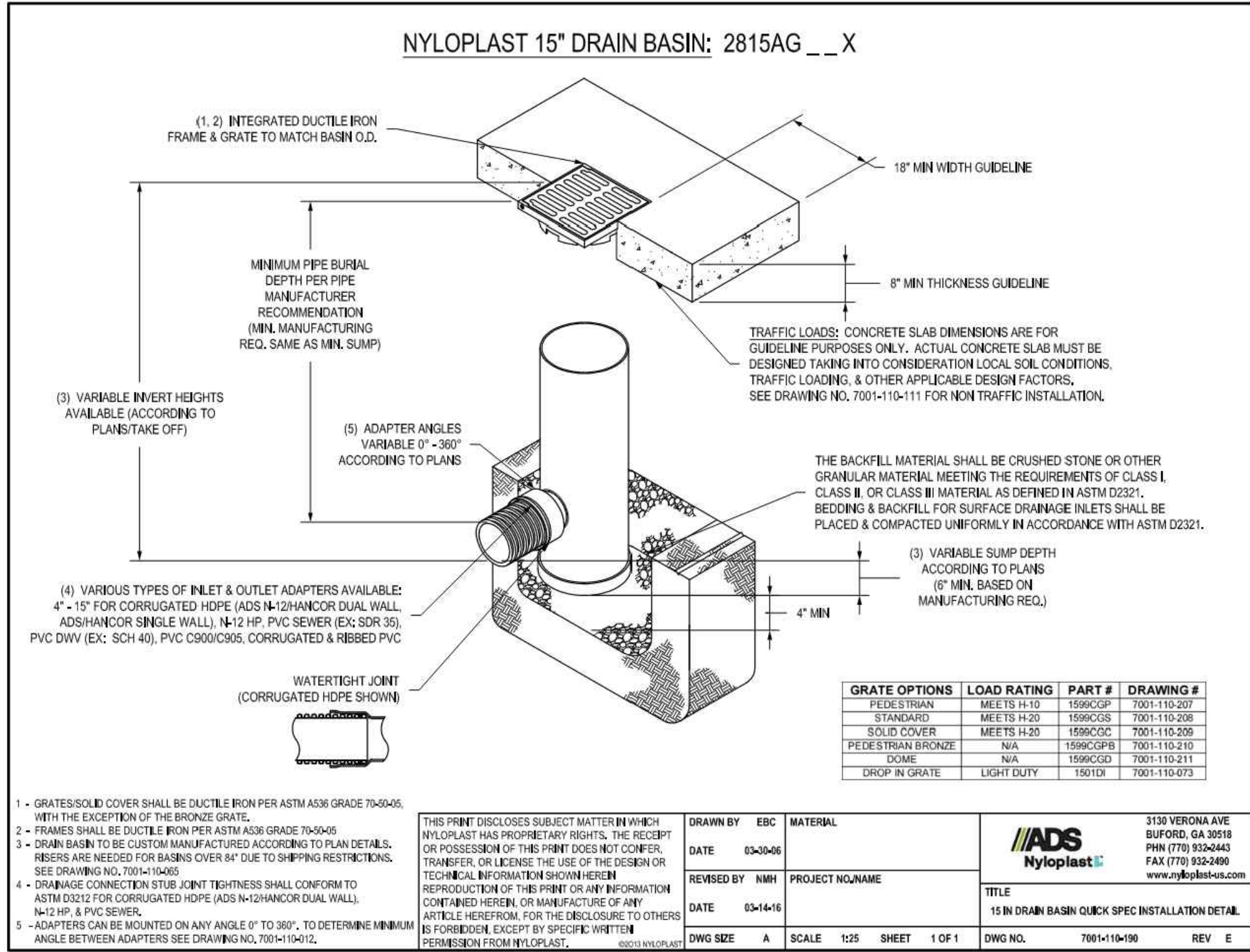
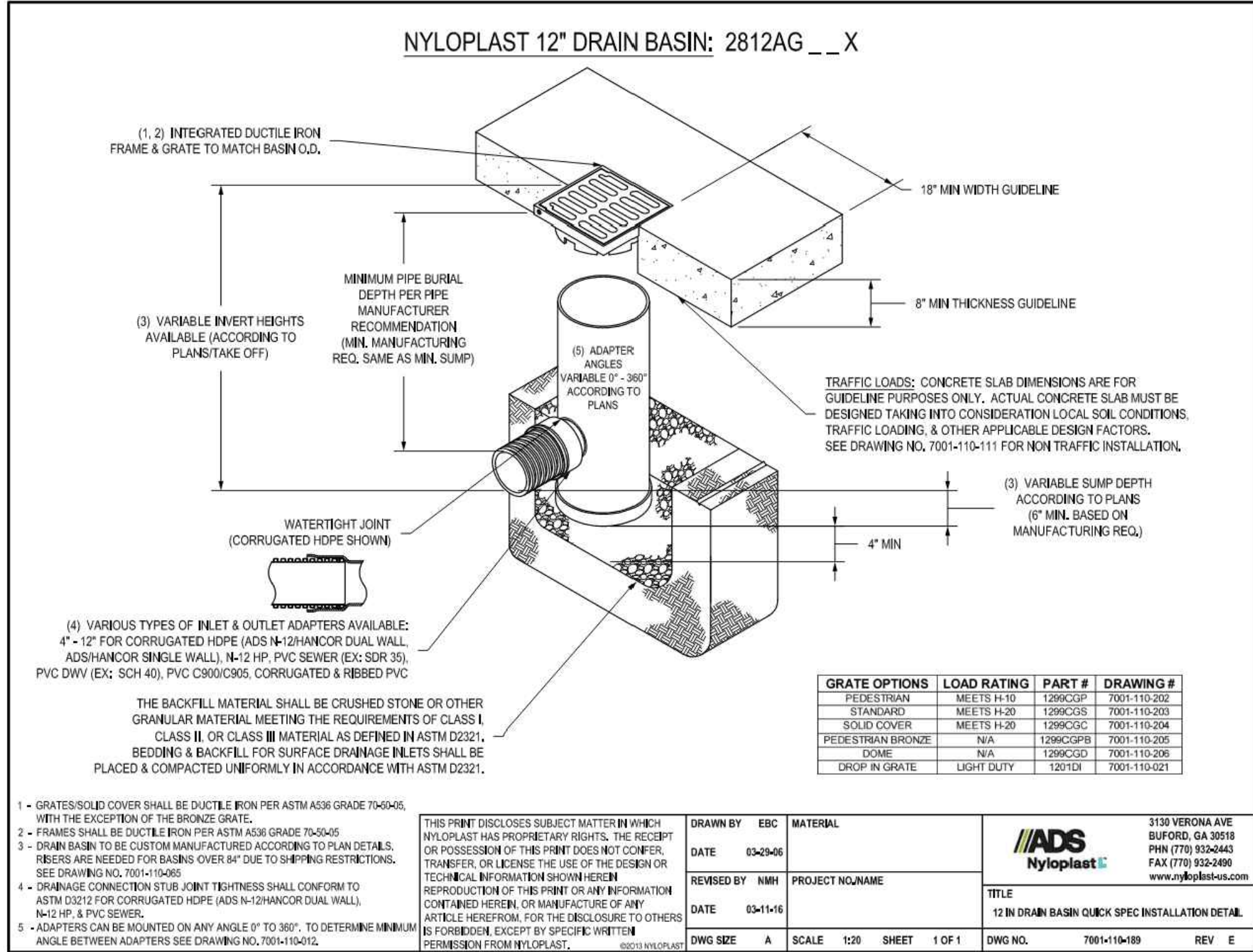
SEAL OF ENGINEER

David E. Loomis
26355
6-1-26
KANSAS
PROFESSIONAL ENGINEER



NON-SETBACK CURB INLET
NOT TO SCALE

- NON-SETBACK CURB INLET NOTES**
1. USE CITY APPROVED CONCRETE THROUGHOUT.
 2. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION; THE SECOND DIMENSION IS THE "W" DIMENSION.
 3. FLOOR OF INLET SHALL BE SHAPED TO PROVIDE SMOOTH FLOW.
 4. EXPANSION JOINTS SHALL BE EITHER HOT OR COLD POURED JOINT SEALING COMPOUND, OR PREMOLDED EXPANSION JOINT FILLER.
 5. STEEL INLET FRAME SPACERS SHALL BE PLACED AT EQUAL SPACINGS NOT TO EXCEED 4'-0".
 6. CAST IRON STEPS TO BE CLAY & BAILEY 2102 OR APPROVED EQUAL. STEEL CORE, PLASTIC COATED STEPS MAY BE USED (M.A. IND., INC. NO. PS1-PF, PS2-PF, OR APPROVED EQUAL). CAST IRON STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY. BEVEL ALL EXPOSED EDGES WITH TRIANGULAR MOLDING.
 7. ALL STORM SEWER STRUCTURES SHALL BE PRECAST. PRECAST SHOP DRAWINGS SHALL BE APPROVED BY THE DESIGN ENGINEER.
 8. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD.
 9. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF ±1/8" SHALL BE PERMITTED.
 11. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
 12. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
 13. RCP CONNECTIONS TO PRECAST STRUCTURE SHALL MEET ALL CITY STANDARDS.
 14. BACKFILL AROUND STRUCTURES SHALL BE COMPACTED AND SHALL BE OF THE MATERIAL SPECIFIED PER CITY STANDARDS.



TITLE	DETAILS	DESCRIPTION	McDONALD'S RESTAURANT BASEHOR, KANSAS	SHEET NO.	015-0412.00.0 C503
DRAWN BY	ALJ	STD ISSUE DATE		ISSUED FOR PERMIT	ALJ
REVIEWED BY	MAP	DATE ISSUED	06.01.26	REV	06.01.26
SITE ADDRESS			015-0412	STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS	BY

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www.nyloplast-usa.com

ADS
Nyloplast

TITLE
12 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-109 REV E

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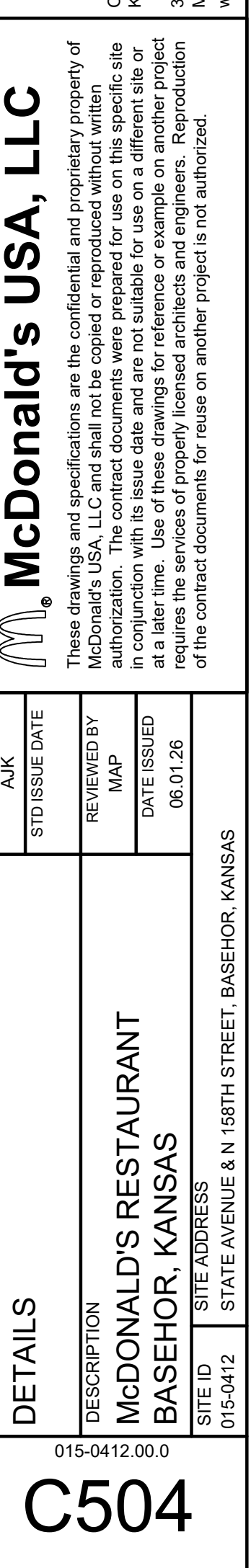
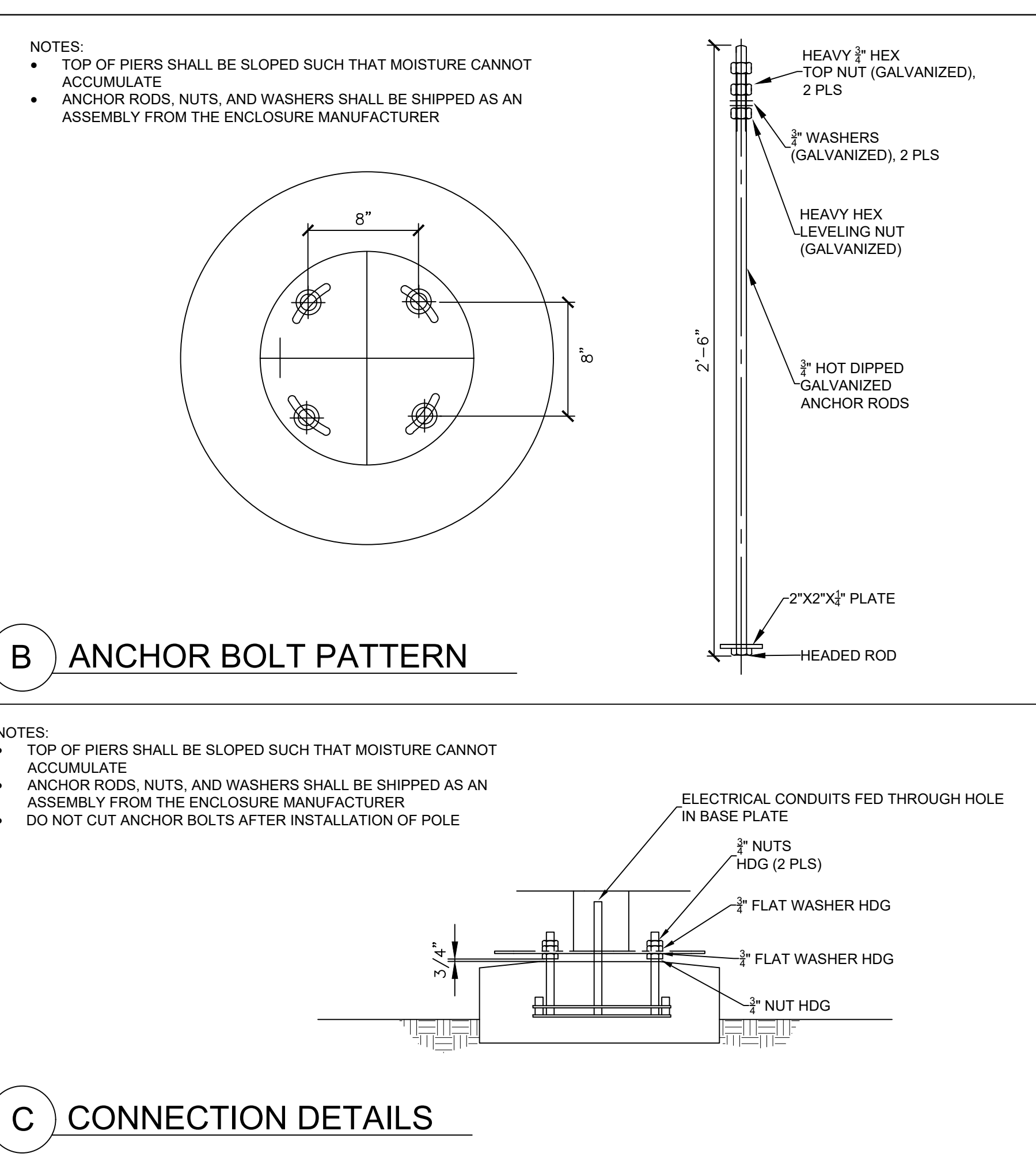
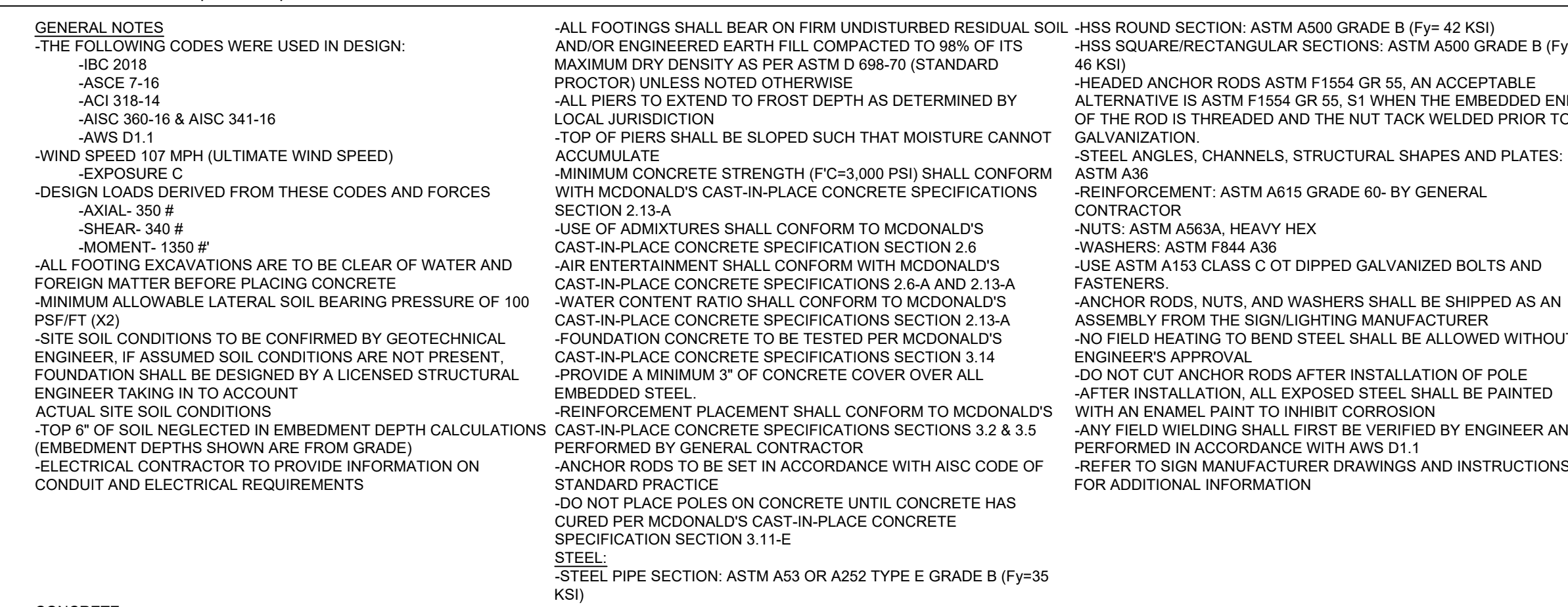
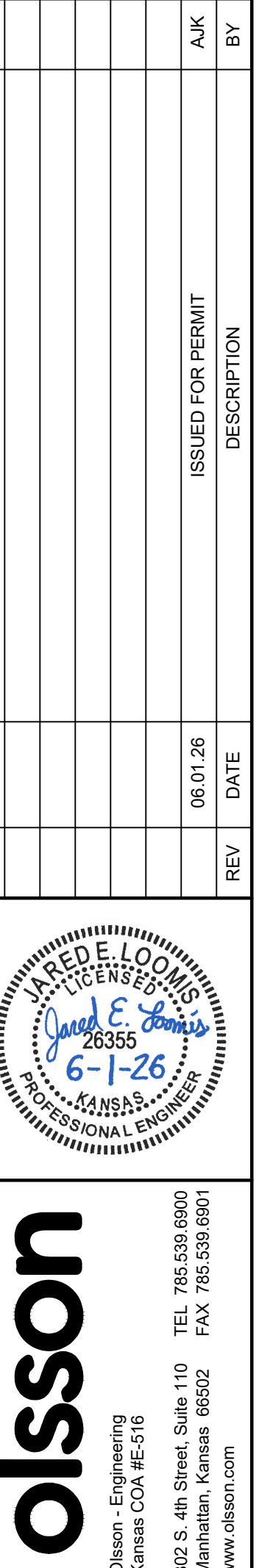
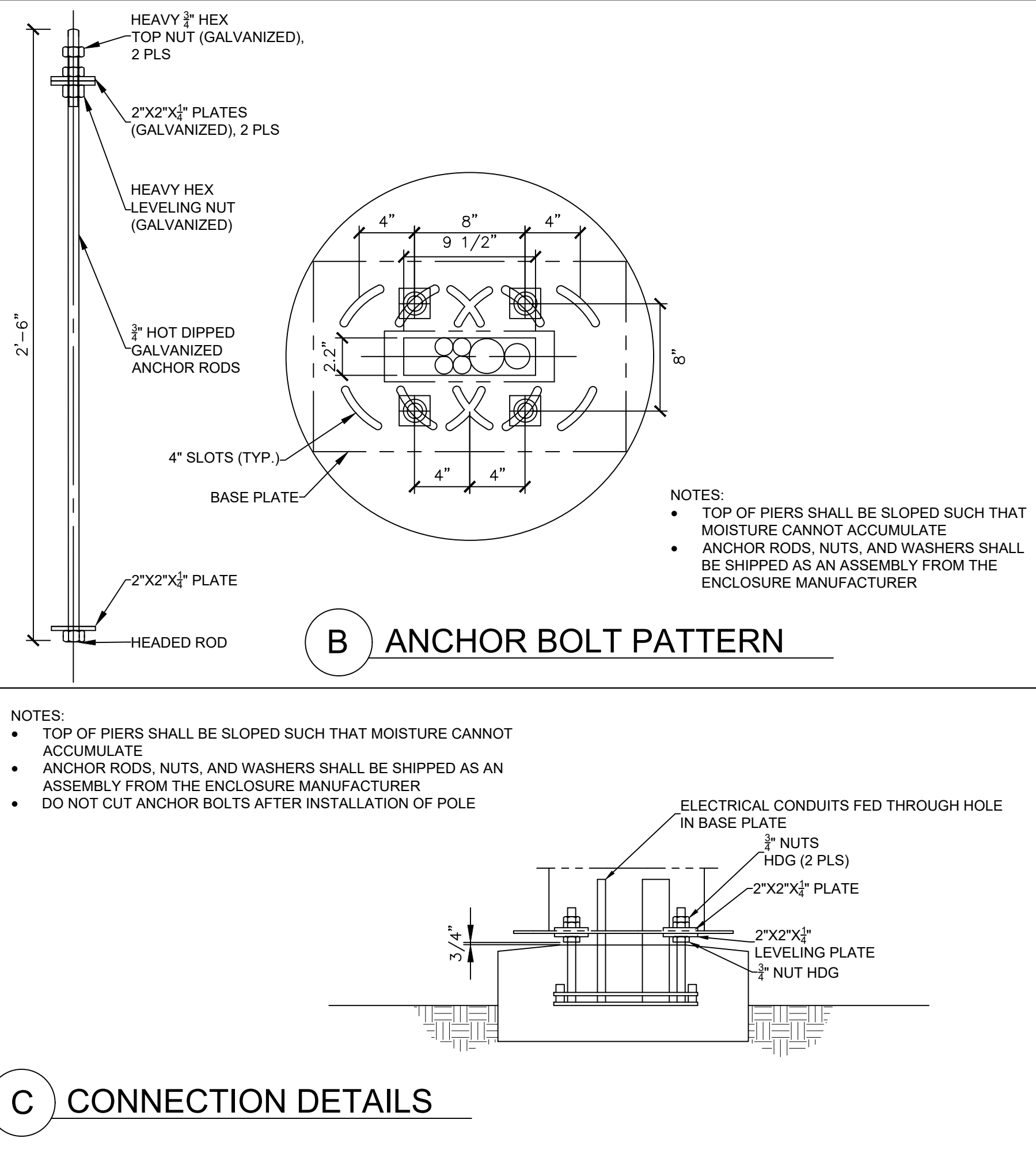
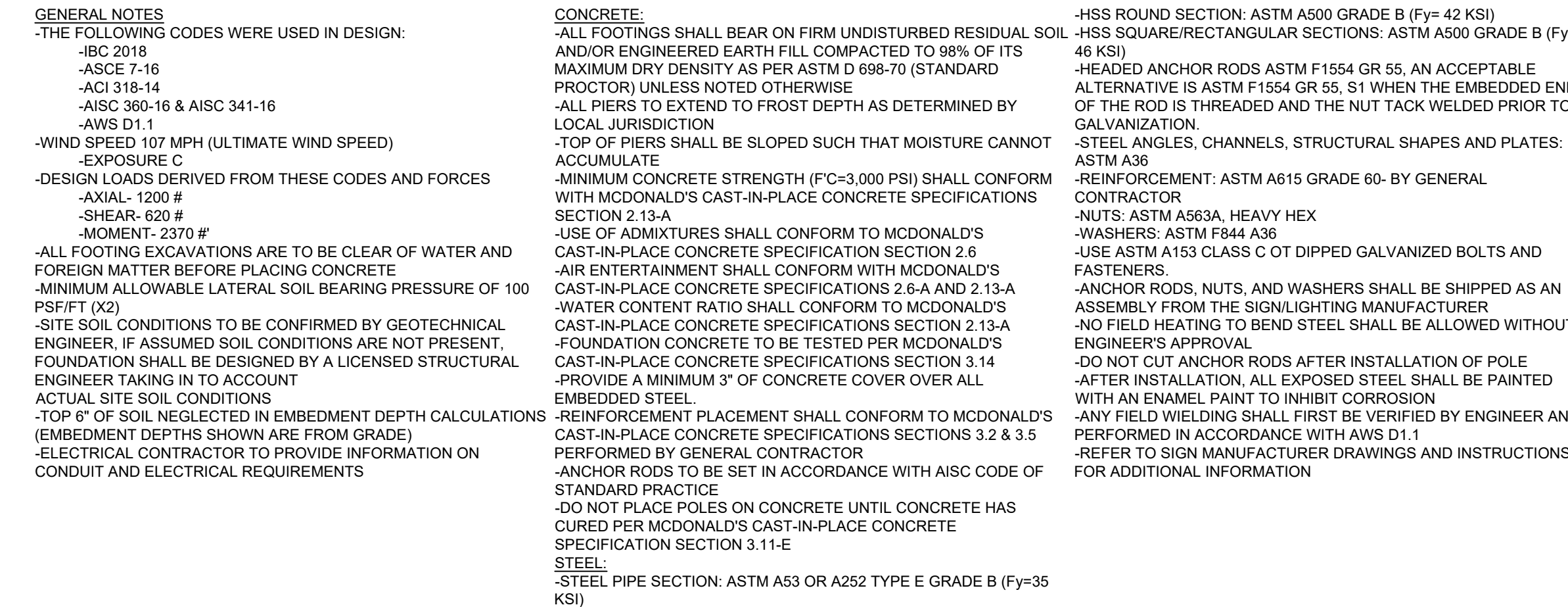
TITLE
15 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-110 REV E

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REGISTERED PROFESSIONAL ENGINEER
Kansas
No. 26355
6-1-26





NOTE:

- DESIGN CODES: IRC, 2018, ASCE 7-16, ACI 318-14, AISI 900.16, AISC 341-16, AWS D1.1
- WIND SPEED, 114 MPH, 3 SEC GUST.
- EXPOSURE C.
- DESIGN LOADS DERIVED FROM THESE CODES AND FORCES.

**AXIAL LOAD: 960 LBS
SHEAR FORCE: 725 LBS
OVERTURNING MOMENT: 5840 LB-FT**

USE 300 PSI CONCRETE COMPRESSIVE STRENGTH (F_C)

*PIER DEPTHS REQUIRED ARE MINIMUMS. ALL PIERS TO EXTEND TO FROST DEPTH AS DETERMINED BY LOCAL JURISDICTION.

-TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.

ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS.

MINIMUM ALLOWABLE LATERAL SOIL BEARING PRESSURE: 100 PSF @ FT OF DEPTH x 2

-TOP 9" OF SOIL NEGLECTED IN EMBEDMENT DEPTH CALCULATIONS (EMBEDMENT DEPTHS SHOWN ARE FROM GRADE).

*3" MIN. CONCRETE COVER FOR REINFORCEMENT

**AXIAL LOAD: 960 LBS
SHEAR FORCE: 725 LBS
OVERTURNING MOMENT: 5840 LB-FT**

MAXIMUM AT POLE BASE

SLOPE TOP TO SHED WATER

FINISHED LANDSCAPED GRADE

3" PIER PROJECTION

6' 0"

34"

3" MIN. COVER

(12) #4" #6 VERTICALS SUPPLIED BY GENERAL CONTRACTOR

#3 TIES AT 12" O.C W/ (B)

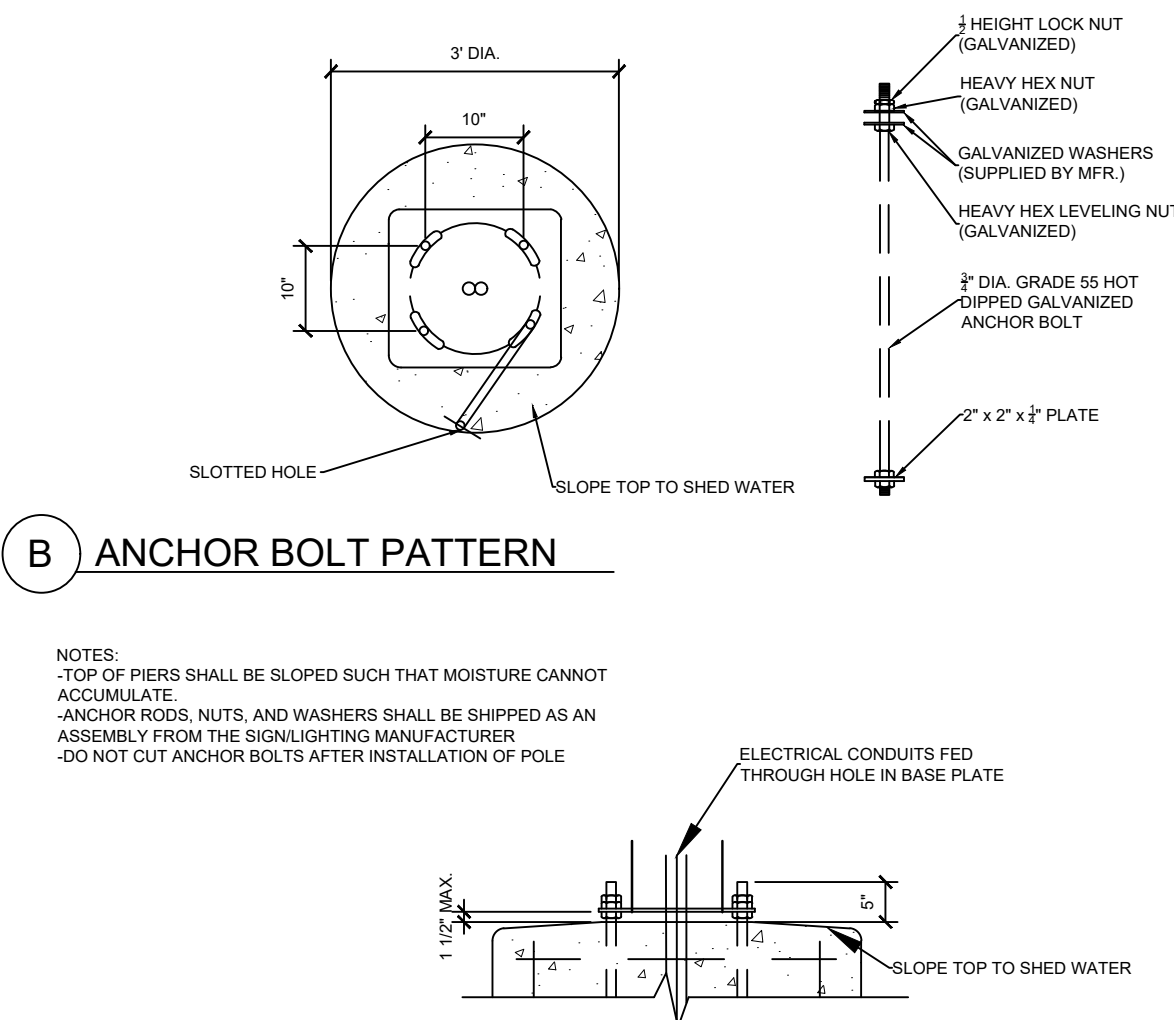
#3 TIES AT TOP 5' SUPPLIED BY GENERAL CONTRACTOR

3" COVER

3' DIA.

A SINGLE GATEWAY

B ANCHOR BOLT PATTERN



C CONNECTION DETAILS



NOTE:
DESIGN CODES: IBC 2018 ASCE 7-16, ACI 318-14, AISC 360-16, ASCE 341-16, AWS D1.1
WIND SPEED: 114 MPH, 3 SEC GUST EXPOSURE C
DESIGN LOADS DERIVED FROM THESE CODES AND WINDS

AXIAL LOAD: 2900 LBS
SHEAR FORCE: 800 LBS
OVERTURNING MOMENT: 6250 LB-FT
USE 3000 PSI CONCRETE COMPRESSIVE STRENGTH (%)
PIER DEPTHS REQUIRED ARE MINIMUMS. ALL PIERS TO
EXTEND TO FROST DEPTH AS DETERMINED BY LOCAL
JURISDICTION.

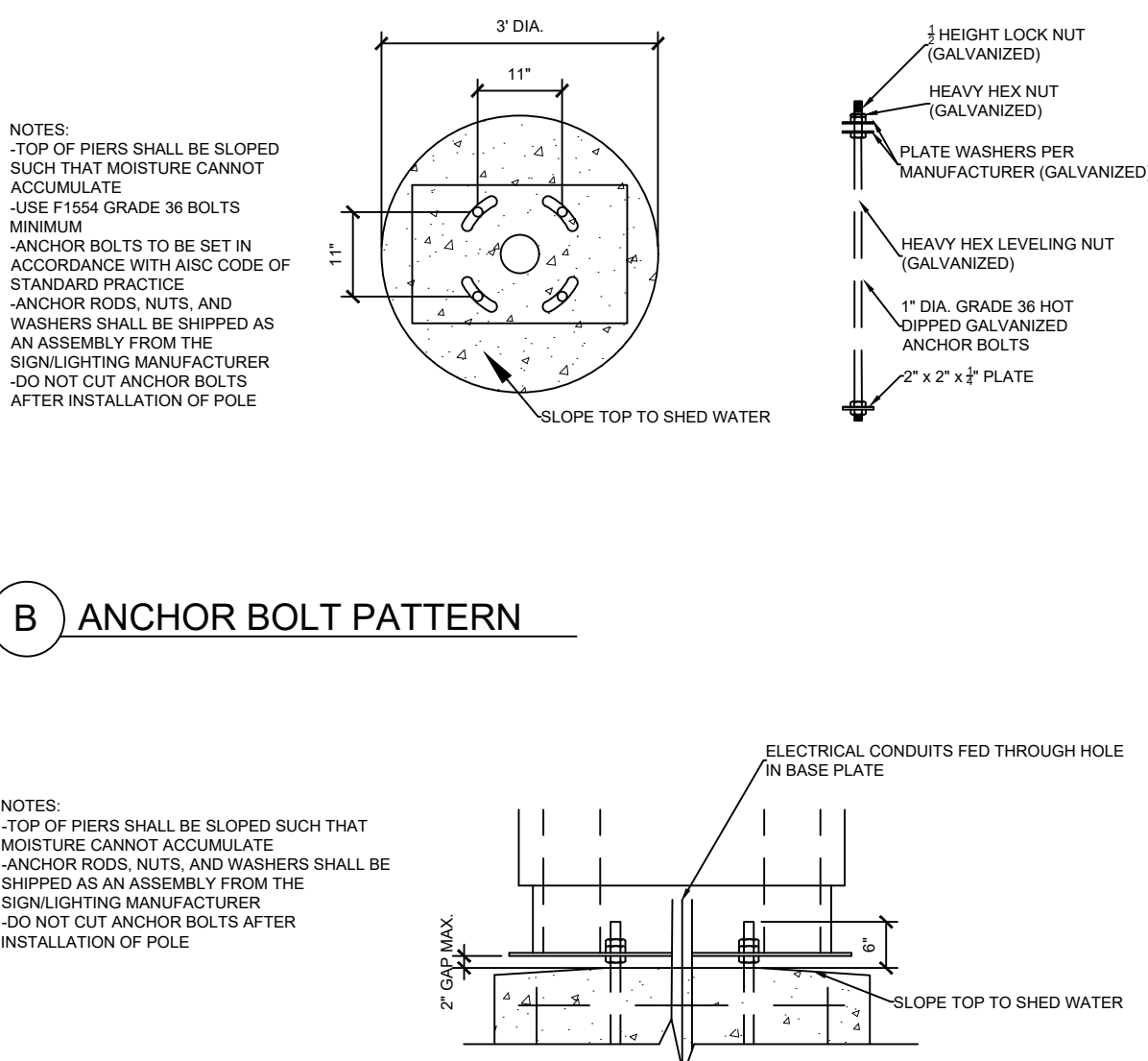
CANNOT ACCUMULATE.
ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION FOR
CONDUIT AND ELECTRICAL REQUIREMENTS
MINIMUM ALLOWABLE LATERAL SOIL BEARING PRESSURE:
100 PSF FT OF DEPTH < 2
TOP 6" OF SOIL NEGLECTED IN EMBEDMENT DEPTH
CALCULATIONS (EMBEDMENT DEPTHS SHOWN ARE FROM
GRADE).
3" MIN. CONCRETE COVER FOR ALL EMBEDDED STEEL
FOUNDATION IS DESIGNED FOR SINGLE OR DOUBLE POLE
COLUMNS
ALL REINFORCING STEEL BY GENERAL CONTRACTOR

AXIAL LOAD: 2900 LBS
SHEAR FORCE: 800 LBS
OVERTURNING MOMENT: 6250 LB-FT
MAXIMUMS AT POLE BASE

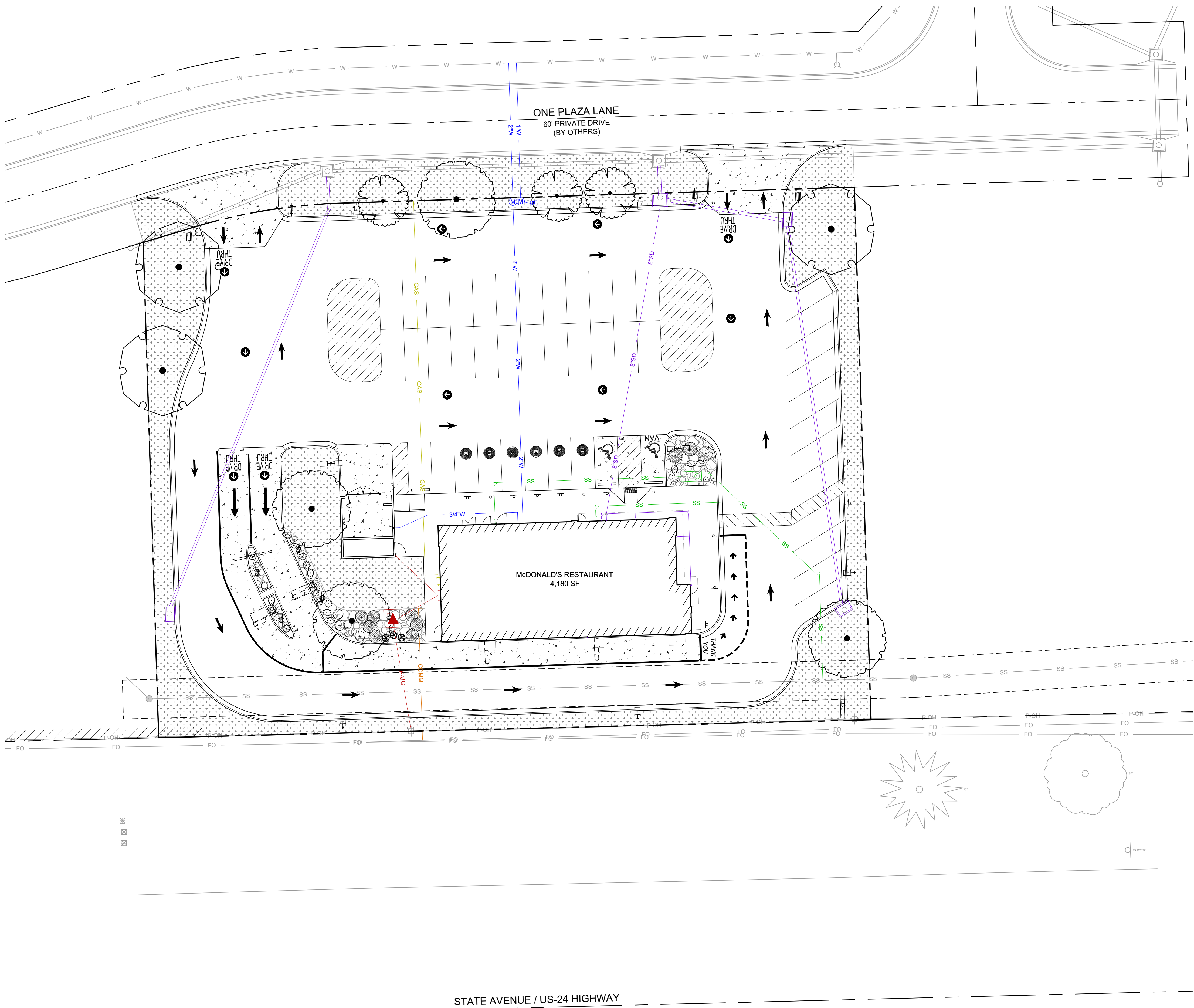
3" PIER
PROJECTION
7'-0"
TOP OF CURB
ELEVATION
4'-2"
EMBEDMENT
3" MIN. COVER
7'-10" #6 VERTICALS
SUPPLIED BY GENERAL
CONTRACTOR
#3 TIES @ 12" O.C. W/3"
#0 TIES @ TOP 9"
SUPPLIED BY GENERAL
CONTRACTOR
3" COVER
3" DIA.

A ORDER HERE CANOPY

B ANCHOR BOLT PATTERN



C CONNECTION DETAILS



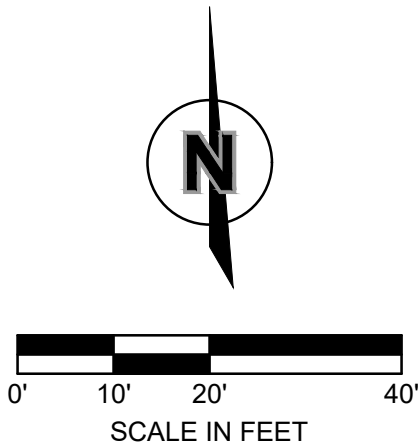
PLANT SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME	SIZE	CONT.
DECIDUOUS TREES			
	BETULA NIGRA 'CULLY'	12' MIN HT	
	HERITAGE RIVER BIRCH MULTI-TRUNK		
	GINKGO BILOBA 'PNI 2720'	2" CAL	B&B
	PRINCETON SENTRY® MAIDENHAIR TREE		
	QUERCUS MACROCARPA BURR OAK	2" CAL	B&B
	TILIA CORDATA LITTLELEAF LINDEN	2" CAL	B&B
EVERGREEN TREES			
	JUNIPERUS VIRGINIANA 'TAYLOR'	5-6' HT	
	TAYLOR EASTERN REDCEDAR		
DECIDUOUS SHRUBS			
	ITEA VIRGINICA 'HENRY'S GARNET'	3 GAL	
	HENRY'S GARNET SWEETSPIRE		
EVERGREEN SHRUBS			
	JUNIPERUS CHINENSIS 'SAYBROOK GOLD'	3 GAL	
	SAYBROOK GOLD JUNIPER		
	JUNIPERUS SABINA 'BUFFALO'	3 GAL	
	BUFFALO JUNIPER		
GRASSES			
	PANICUM VIRGATUM 'SHENANDOAH'	1 GAL	
	SHENANDOAH SWITCH GRASS		
PERENNIALS			
	NEPETA X 'WALKER'S LOW'	1 GAL	
	WALKER'S LOW CATMINT		
GROUND COVERS			
	TURF SOD		
	DROUGHT TOLERANT FESCUE BLEND		

GENERAL NOTES:

- QUANTITIES LISTED IN THE PLANT LIST SCHEDULE ARE ESTIMATES ONLY. TREES, SHRUBS, AND GROUND COVER OF CONTRACT QUANTITIES SHALL BE THE NUMBER OF ITEMS SHOWN ON THE DRAWINGS.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK. ANY DIFFERENCE IN QUANTITIES SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION.
- ALL DISTURBED AREAS NOT OTHERWISE SPECIFIED WITH GROUND COVER ARE TO BE PLANTED WITH TALL FESCUE TURF SEED.
- TREES, SHRUBS, AND PLANTING BEDS SHALL BE SURFACED WITH 2"-4" WASHED RIVER ROCK (ROCK MULCH).
- ROCK MULCH PLANTING BEDS SHALL RECEIVE METAL EDGING WHERE ADJACENT TO TURF.
- THE LANDSCAPE CONTRACTOR SHALL REFER TO ENGINEERING DRAWINGS FOR ANY AND ALL EXISTING AND/OR PROPOSED UTILITIES. IF THERE ARE ANY DISCREPANCIES, CONFLICTS, AND/OR DEVIATIONS BETWEEN THE LANDSCAPE DRAWINGS AND THE EXISTING OR PROPOSED CONDITIONS, THE LANDSCAPE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY.
- FIELD VERIFY ALL UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF WORK.
- PLANTING BEDS SHALL BE DRIP IRRIGATED. TURF AREAS SHALL BE IRRIGATED WITH POP-UP SPRAYERS. REFER TO IRRIGATION SPECIFICATIONS.
- IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH TIMERS AND SCHEDULED TO OPERATE DURING EVENING OR EARLY MORNING HOURS TO MINIMIZE EVAPORATION RATES.
- SPRINKLER SYSTEMS SHALL BE CONFIGURED TO PREVENT OVER-SPRAY OF WATER ONTO STREETS AND SIDEWALKS.
- CITY OF BASEHOR REQUIRES SEPARATE METERS FOR IRRIGATION PURPOSES.

STREET TREES (21.6.D)		
STREET	REQUIRED	1 TREE/50 LF
PRIVATE	PROVIDED	6.7
U.S. HWY 24	PROVIDED	6
	REQUIRED	EXISTING OVERHEAD POWER LINES LIMIT STREET TREES ALONG SOUTH PROPERTY LINE
	PROVIDED	



TITLELANDSCAPE PLAN

DESCRIPTIONMcDONALD'S RESTAURANT
BASEHOR, KANSAS

SHEET NO.015-0412.00.0
L100

DRAWN BYALJK

STD ISSUE DATE

REVIEWED BYMAP

DATE ISSUED06.01.26

SITE ADDRESSSTATE AVENUE & N 158TH STREET, BASEHOR, KANSAS

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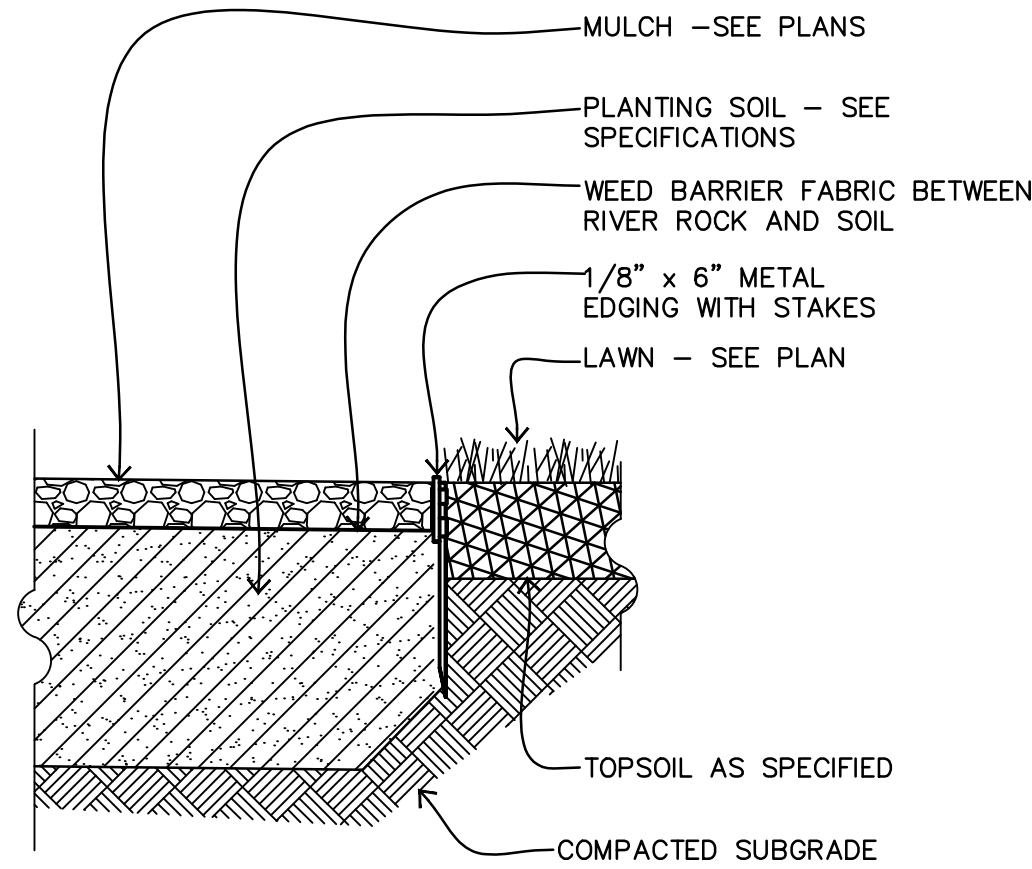
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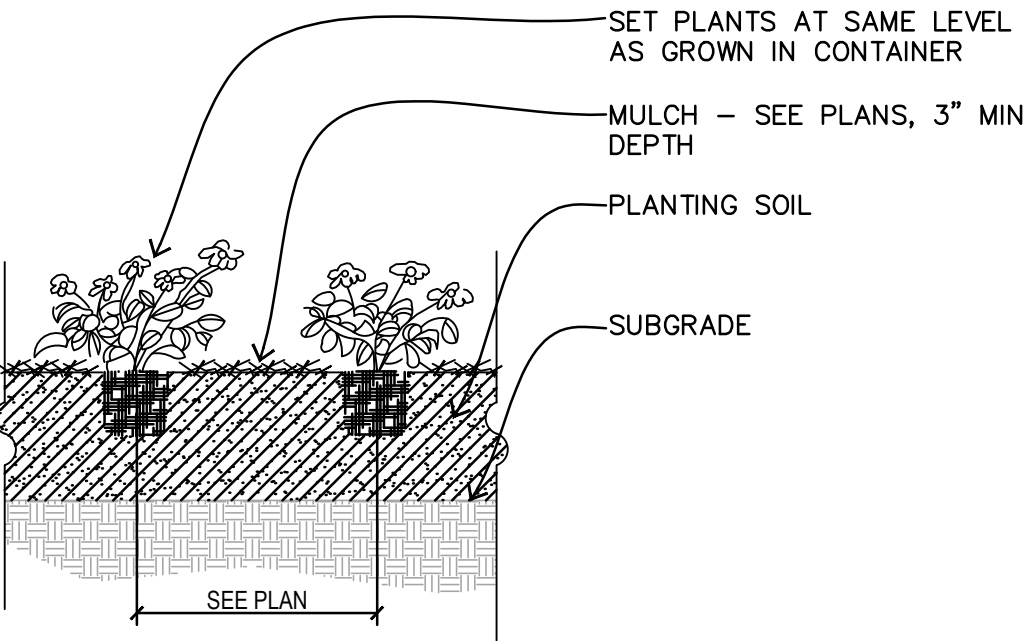
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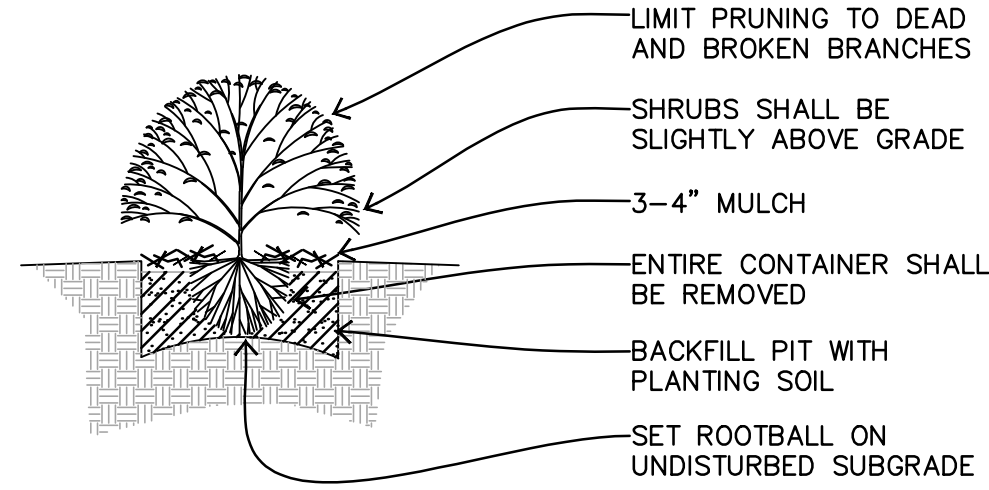
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Manhattan, Kansas 66502
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5 LANDSCAPE EDGER
N.T.S.

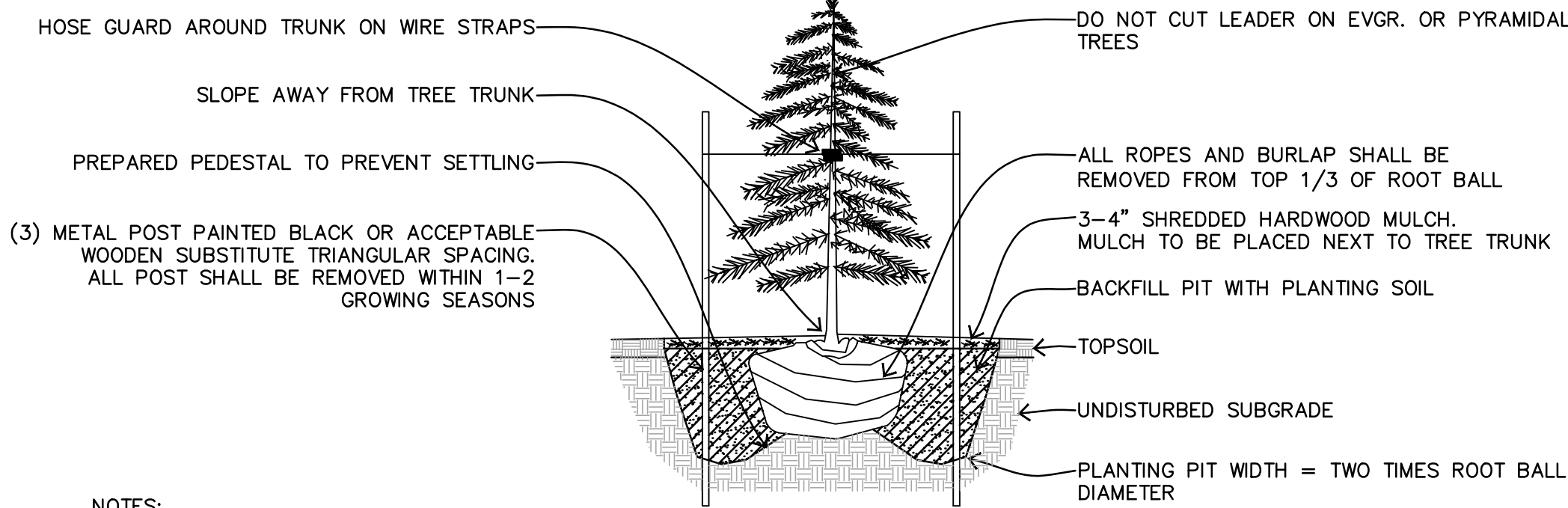


3 PERENNIAL & GROUNDCOVER PLANTING
N.T.S.



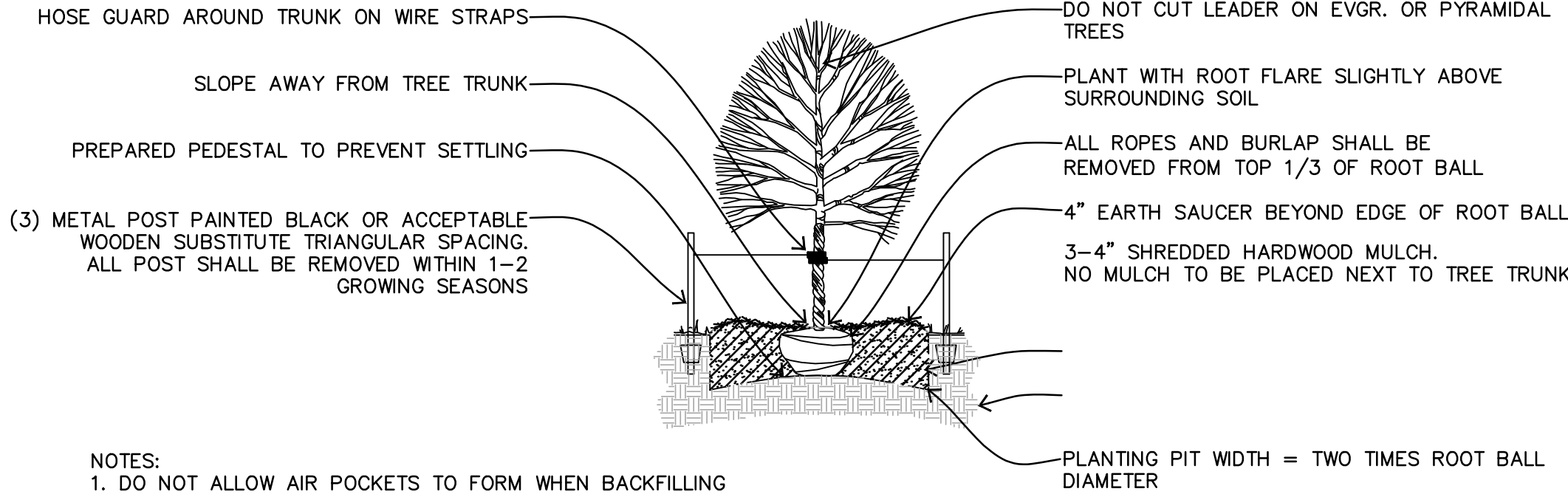
- NOTES:
1. MINIMUM ROOT SPREAD TO BE IN ACCORDANCE WITH ANLA STANDARDS
 2. PRUNE DAMAGED LIMBS OR ROOTS AFTER INSTALLATION
 3. MAKE SURE ROOTS DO NOT DRY OUT DURING INSTALLATION
 4. SOAK GENEROUSLY TO COMPACT AND SETTLE

1 SHRUB PLANTING
N.T.S.



- NOTES:
1. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING
 2. IN AREAS OF TURF, SURROUND BED WITH 6' DIAMETER OF MULCH

4 EVERGREEN TREE PLANTING
N.T.S.



- NOTES:
1. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING
 2. IN AREAS OF TURF, SURROUND BED WITH 6' DIAMETER OF MULCH

2 DECIDUOUS TREE PLANTING
N.T.S.

PLANTING NOTES:

1. PROVIDE PLANTS TRUE TO SPECIES AND VARIETY AND OTHER FEATURES INDICATED IN THE PLANT SCHEDULE AND COMPLYING WITH ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK." NOMENCLATURE TO COMPLY WITH "NATIONAL LIST OF SCIENTIFIC PLANT NAMES."
2. ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT OR ENGINEER DURING AND AFTER INSTALLATION. ALL REJECTED PLANT MATERIAL TO BE PROMPTLY REMOVED FROM THE SITE.
3. CONTRACTOR RESPONSIBLE TO TOTAL AND CONFIRM ALL PLANT MATERIAL QUANTITIES. NUMERICAL QUANTITIES ON PLAN GOVERN OVER PLANT LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.
4. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OF COMPLETE.
5. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. CONTRACTOR IS RESPONSIBLE FOR RELOCATION OF EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
6. PROVIDE PLANT SIZES, GRADES, AND BALL OR CONTAINER SIZES COMPLYING WITH ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK" FOR TYPES AND FORM OF PLANTS REQUIRED.
7. LANDSCAPE CONTRACTOR RESPONSIBLE FOR REPAIRING OR REPLACING ACCESSORIES THAT FAIL IN MATERIALS AND, OR WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
8. LANDSCAPE CONTRACTOR TO REPLACE PLANTINGS THAT DIE, TURN BROWN, OR DEFOLIATES WITHIN ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. REMOVE REJECTED MATERIAL FROM THE SITE PROMPTLY AND REPLACE WITH MATERIAL OF THE SAME QUANTITY, SPECIES, AND SIZE IN ACCORDANCE WITH THE PLANT LIST SPECIFICATIONS.
9. THE LANDSCAPE CONTRACTOR TO COMPLETELY WARRANTY ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF SUBSTANTIAL COMPLETION. THE LANDSCAPE CONTRACTOR TO PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE WARRANTY PERIOD AS DIRECTED BY THE LANDSCAPE ARCHITECT OR ENGINEER.
10. UNLESS OTHERWISE NOTED, ALL STAKING AND GUYING MATERIALS ARE TO BE REMOVED FROM THE SITE BY THE LANDSCAPE CONTRACTOR WITHIN 120 DAYS AFTER THE DATE OF PLANTING COMPLETION.
11. CONTRACTOR SHALL NOT LOCATE IRRIGATION EQUIPMENT WITHIN ROADWAY R.O.W. UNDER ANY CIRCUMSTANCE. CONTRACTOR TO INSPECT EXISTING IRRIGATION SYSTEM AND MAKE ALL NECESSARY MODIFICATIONS TO THE SYSTEM TO PROVIDE WATER FOR NEW AND EXISTING PLANTS.
12. GENERAL CONTRACTOR IS RESPONSIBLE FOR BACKFILLING TO WITHIN 0.2 FEET OF THE GRADE SHOWN ON THE GRADING PLAN. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR FINAL DISTRIBUTION OF TOPSOIL & PREPARATION FOR PLANTING WITH FRIABLE, NATURAL TOPSOIL TYPICAL OF THE REGION. TOPSOIL TO BE FREE OF WEEDS AND FOREIGN MATERIAL. DO

SOIL SPECIFICATIONS:

ORGANIC COMPOST: WELL DECOMPOSED, STABLE, WEED FREE ORGANIC MATTER SOURCE. IT SHALL BE DERIVED FROM: AGRICULTURE, FOOD, OR INDUSTRIAL RESIDUALS, BIOSOLIDS (TREATED SEWAGE SLUDGE), YARD TRIMMINGS AND LEAF RAKINGS. SOURCE-SEPARATED OR MIXED SOLID WASTE MEETING THE FOLLOWING CRITERIA:

1. 100 PERCENT SHALL PASS THROUGH A 3/8 INCH SCREEN.
2. PH OF 6.0 TO 8.5.
3. MOISTURE CONTENT OF 30% TO 60% BY WEIGHT.
4. NO SUBSTANCES TOXIC TO PLANTS.
5. 1% OR LESS BY WEIGHT MANUFACTURED FOREIGN MATTER.
6. NO OBJECTIONABLE ODOR.
7. SHALL NOT RESEMBLE THE RAW MATERIAL FROM WHICH IT DERIVED.

PLANTING SOIL: A UNIFORM MIX OF, FREE OF PLANT RESIDUE, STONES, STUMPS ROOTS OR SIMILAR OBJECTS LARGER THAN 1 INCH. MIXTURE OF TOPSOIL, ORGANIC COMPOST AND SAND CONSISTING OF THE FOLLOWING:

1. 33% BY VOLUME ORGANIC COMPOST
2. 33% BY VOLUME SAND
3. 33% BY VOLUME TOPSOIL

TOPSOIL: SOIL CLASSIFICATION OF SANDY LOAM OR LOAMY SAND MEETING THE FOLLOWING CRITERIA:

1. 50 TO 85 PERCENT BY WEIGHT SAND (2.0 TO 0.050MM) ACCORDING TO AASHTO T88.
2. 5 TO 50 PERCENT BY WEIGHT SILT (0.050 TO 0.002MM) ACCORDING TO AASHTO T88.
3. 2 TO 5 PERCENT BY WEIGHT CLAY (LESS THAN 0.002MM) ACCORDING TO AASHTO T88.
4. 3 TO 10 PERCENT BY WEIGHT ORGANIC MATTER ACCORDING TO AASHTO T194.
5. TEXTURAL ANALYSIS:
 - A. MINIMUM 100% BY WEIGHT PASSING THE 2" SIEVE PER ASTM E11.
 - B. MINIMUM 90% BY WEIGHT PASSING THE NO. 4 PER ASTM E11.
 - C. MINIMUM 80% BY WEIGHT PASSING THE NO. 10 SIEVE PER ASTM E11.

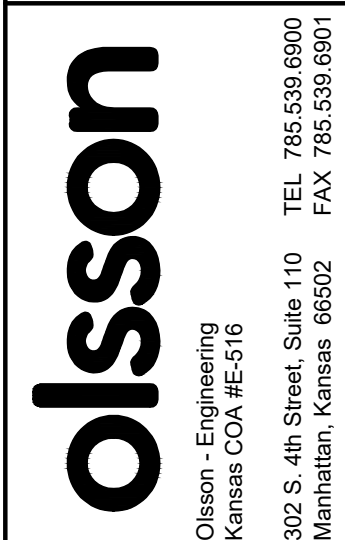
SOD NOTES:

1. ALL DISTURBED AREAS SHALL BE SODDED WITH TURFGRASS SOD: NUMBER 1 QUALITY/PREMIUM, INCLUDING LIMITATIONS ON THATCH, WEEDS, DISEASES, NEMATODES, AND INSECTS, COMPLYING WITH TPI'S "SPECIFICATIONS FOR TURFGRASS SOD MATERIALS" IN ITS "GUIDELINE SPECIFICATIONS TO TURFGRASS SODDING." FURNISH VIABLE SOD OF UNIFORM DENSITY, COLOR, AND TEXTURE, STRONGLY ROOTED, AND CAPABLE OF VIGOROUS GROWTH AND DEVELOPMENT WHEN PLANTED.

TURFGRASS SPECIES: SEE PLANT SCHEDULE.
2. ALL LAWN AREAS SHALL RECEIVE A MINIMUM 6-INCH DEPTH OF TOPSOIL COMPACTED TO 85% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.
3. THE ENTIRE SURFACE TO BE SODDED SHALL BE REASONABLY SMOOTH AND FREE FROM STONES, ROOTS, OR OTHER DEBRIS.
4. SOD SHALL BE MACHINE STRIPPED AT A UNIFORM SOIL THICKNESS OF APPROXIMATELY ONE INCH (PLUS OR MINUS 1/4-INCH). THE MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH, AND SHALL BE DETERMINED AT THE TIME OF CUTTING IN THE FIELD. PRECAUTIONS SHALL BE TAKEN TO PREVENT DRYING AND HEATING. SOD DAMAGED BY HEAT AND DRY CONDITIONS, AND SOD CUT MORE THAN 18 HOURS BEFORE BEING INCORPORATED INTO THE WORK SHALL NOT BE USED.
5. HANDLING OF SOD SHALL BE DONE IN A MANNER THAT WILL PREVENT TEARING, BREAKING, DRYING AND OTHER DAMAGE. PROTECT EXPOSED ROOTS FROM DEHYDRATION. DO NOT DELIVER MORE SOD THAN CAN BE LAID WITH 24 HOURS.
6. MOISTEN PREPARED SURFACE IMMEDIATELY PRIOR TO LAYING SOD. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE INSTALLING SOD. FERTILIZE, HARROW OR RAKE FERTILIZER IN THE TOP 1-1/2-INCHES OF TOPSOIL, AT A UNIFORM RATE OF ONE POUND OF NITROGEN PER 100 S.F.
7. SOD SHALL BE CAREFULLY PLACED IN THE DIRECTION PARALLEL WITH THE SLOPE OF THE AREA TO BE SODDED. SOD STRIPS SHALL BE BUTTED TOGETHER BUT NOT OVERLAPPED WITH THE SEAMS STAGGERED ON EACH ROW.
8. FERTILIZER SHALL BE 20-10-5 COMMERCIAL FERTILIZER OF THE GRADE, TYPE, AND FORM SPECIFIED AND SHALL COMPLY WITH THE RULES OF THE STATE OF IOWA DEPARTMENT OF AGRICULTURE. FERTILIZER SHALL BE IDENTIFIED ACCORDING TO THE PERCENT N, P, K, IN THAT ORDER.
9. ALL SOD ON SLOPES GREATER THAN 5:1 AND WITHIN DETENTION AREAS SHALL BE STAKED.
10. SATURATE SOD WITH FINE WATER SPRAY WITHIN TWO HOURS OF PLANTING. DURING FIRST WEEK AFTER PLANTING, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A MINIMUM DEPTH OF FOUR INCHES BELOW SOD.

NOT HANDLE TOPSOIL IN MUDDY OR FROZEN CONDITIONS.

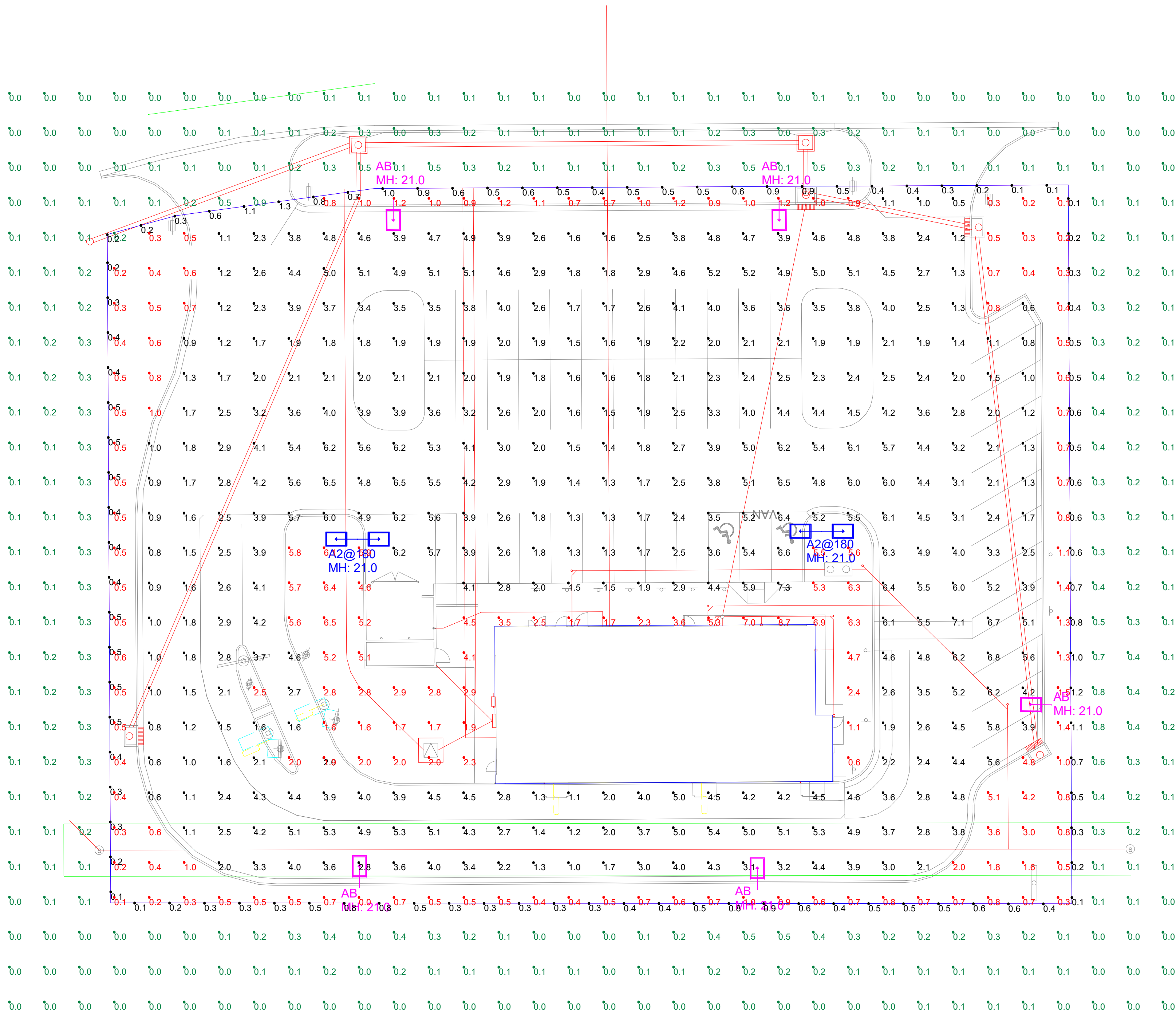
13. LANDSCAPE CONTRACTOR TO RAKE AND SMOOTH TOPSOIL IN ALL AREAS TO BE PLANTED, INCLUDING LAWNS TO PROVIDE A SMOOTH SURFACE WHICH WILL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND WALKS. NO SEDIMENT CHARGED RUNOFF SHALL GO INTO TRAVEL LANES OF STATE ROUTE.
14. ALL PLANT BEDS TO RECEIVE 3" DEPTH OF MULCH.
15. UPRIGHT SHRUBS TO BE AT LEAST 24" HT. SPREADING SHRUBS TO HAVE MINIMUM SPREAD OF 18". ALL SHRUBS TO BE SURROUNDED BY MULCH.
16. PLANTING BEDS FOR PERENNIALS, ANNUALS AND GROUNDCOVER ARE TO BE MOUNDED WITH SIDE SLOPES OF 1" VERTICAL PER 1 FOOT HORIZONTAL AND TO BE SURROUNDED BY MULCH.
17. SEE PLANTING SOIL REQUIREMENTS BELOW.
18. CAREFULLY CUT AND REMOVE WEBBING, BURLAP, ROPE AND WIRE BASKETS FROM TOPS AND FROM ALL SIDES OF ROOTBALLS BUT DO NOT REMOVE FROM UNDER ROOTBALLS.
19. REMOVE SURPLUS SOIL AND WASTE MATERIAL INCLUDING EXCESS SOIL, UNSUITABLE SOIL, TRASH AND DEBRIS AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
20. DO NOT MAKE SUBSTITUTIONS; IF SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY TO THE LANDSCAPE ARCHITECT OR ENGINEER WITH WRITTEN STATEMENTS FROM A MINIMUM OF TWELVE NURSERY (AMERICAN NURSERYMAN'S ASSOCIATION MEMBERS) SOURCES THAT THE PLANT IN QUESTION IS NOT OBTAINABLE IN THE SURROUNDING GEOGRAPHIC REGION.
21. A CONDITION OF APPROVAL IS IF ANY OF THE EXISTING TREES DIE, THEY SHALL BE REPLACED WITH A TREE THAT COMPLIES WITH THE MINIMUM REQUIREMENTS OF THE ORDINANCE.
22. ALL PLANT BEDS SHALL RECEIVE RIVER ROCK MULCH (2" TO 3" NOMINAL SIZE) PLACED TO A DEPTH OF 3" ON TOP OF GEOSYNTHETIC WEED BARRIER.



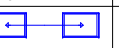
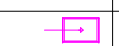
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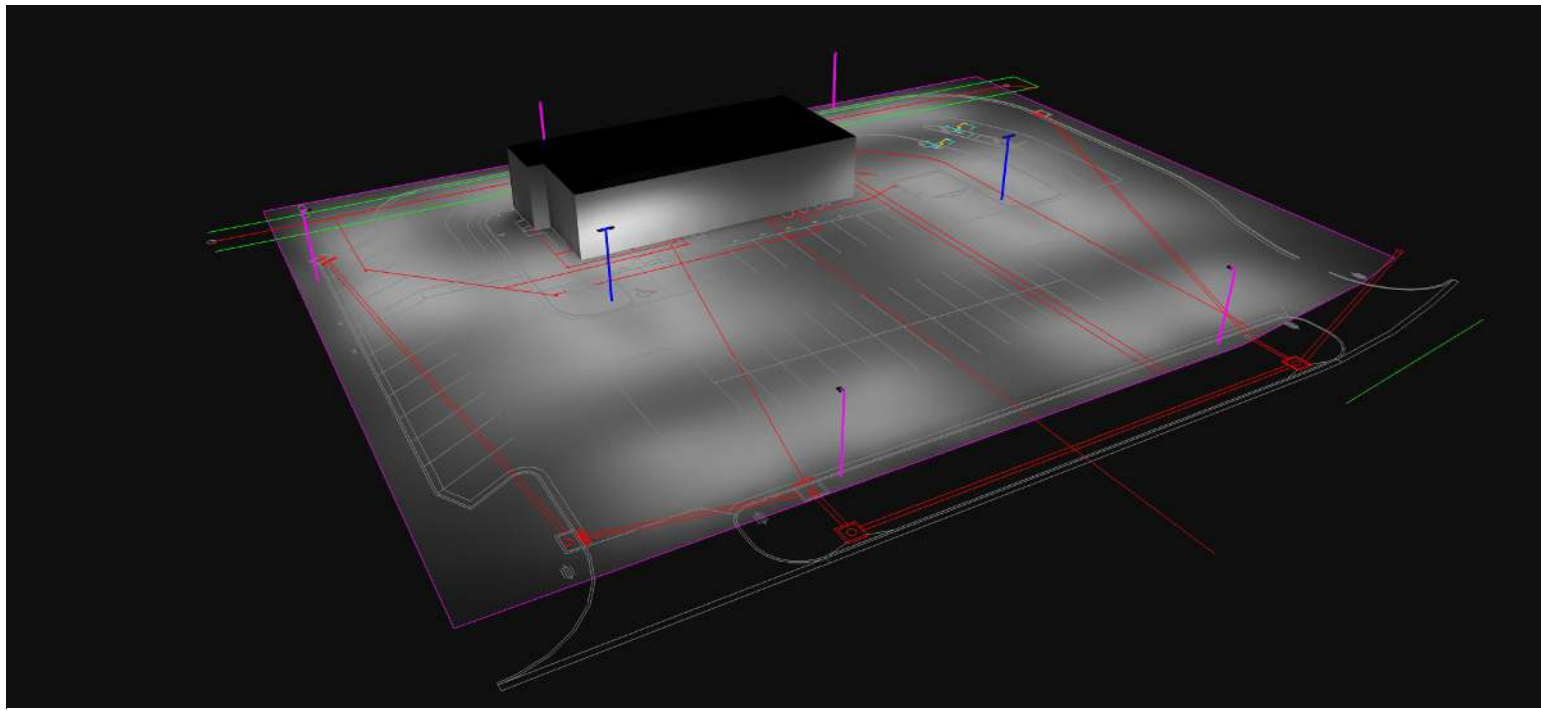
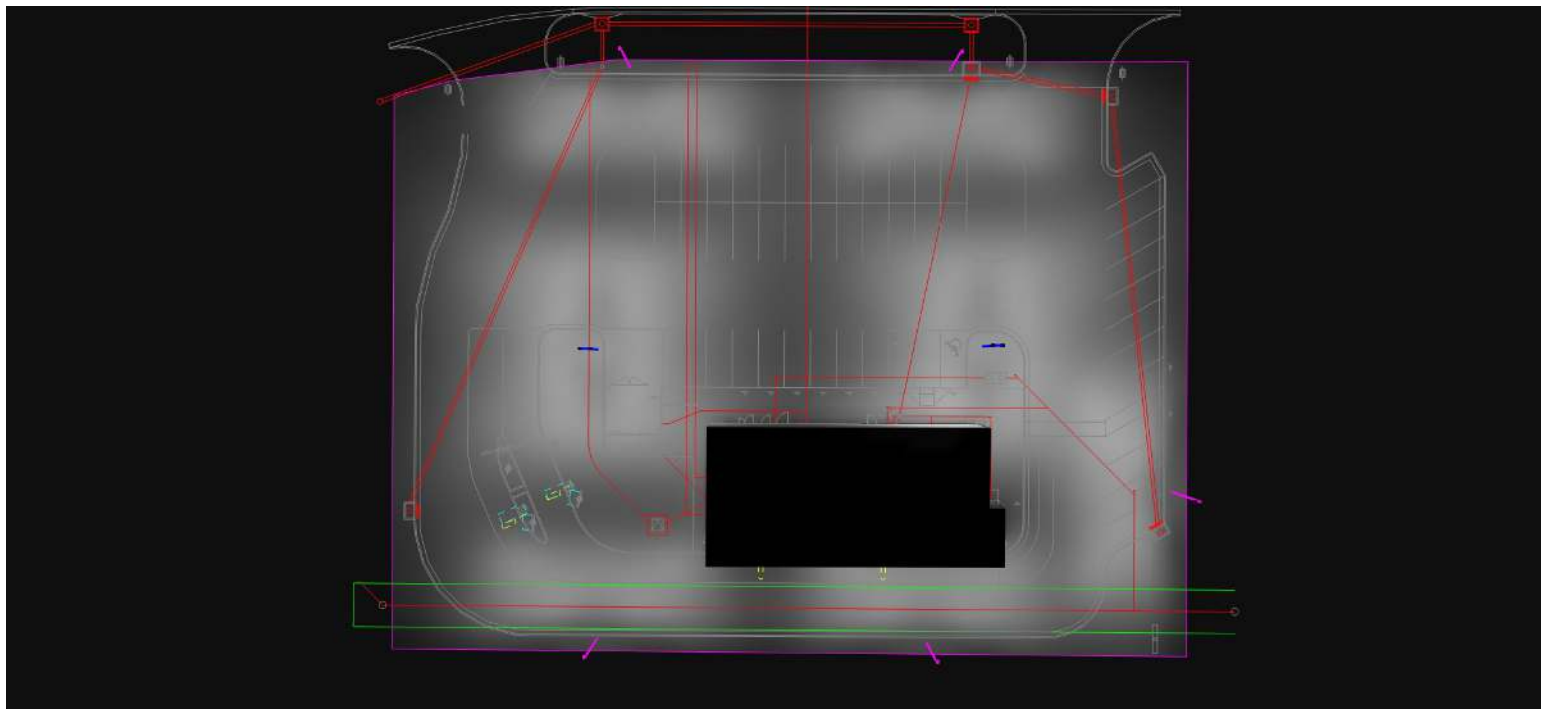
TITLE	LANDSCAPE DETAILS	DESCRIPTION	McDONALD'S RESTAURANT BASEHOR, KANSAS	SITE ADDRESS	015-0412	STATE AVENUE & N 158TH STREET, BASEHOR, KANSAS
SHEET NO.	015-0412.00.0	L102				

IRRIGATION SPECIFICATIONS:		SECTION 32 84 00		IRRIGATION SYSTEM	
PART 1 - GENERAL		1.01 SCOPE OF WORK		A. FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT FOR THE PROPER INSTALLATION OF AN IRRIGATION SYSTEM TO SERVICE ALL LAWN AND PLANTED AREAS.	
B. THE CONTRACTOR SHALL FOLLOW PLAN LAYOUT AND INSTALLATION DESIGN DETAIL PROVIDED AND COORDINATED WITH THE LANDSCAPE REQUIREMENTS OF THE PLANTING TYPES, LOCATIONS AND SHALL INCLUDE ALL WATER SAVING PRODUCTS AND PRACTICES WHICH DEMONSTRATE THE HIGHEST LEVEL OF PERFORMANCE.		C. SMART CONTROLLERS, HIGH-EFFICIENCY SPRAY NOZZLES, PRESSURE REGULATED HEADS, & DRIPLINE MUST BE INCORPORATED. INDIVIDUAL SUB-ZONES MUST BE TAILORED TO THE WATERING REQUIREMENTS OF EACH MAJOR PLANT TYPE, UNDER NO CIRCUMSTANCES SHALL ANY TURF AREAS BE WATERED IN COMBINATION WITH PLANT BEDS. SPACING OF ALL SPRINKLER EQUIPMENT SELECTED SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATIONS AS PUBLISHED. "HEAD TO HEAD" COVERAGE IS REQUIRED IN ALL TURF AREAS.		D. IRRIGATION CONTRACTOR SHALL PARTICIPATE IN COORDINATION MEETINGS AS REQUIRED WITH THE OWNER'S REPRESENTATIVE AND RELATED PARTIES PRIOR TO COMMENCEMENT OF CONSTRUCTION	
1.02 QUALITY ASSURANCE		A. THE IRRIGATION SYSTEM IS TO BE INSTALLED BY A CONTRACTOR WHO SPECIALIZES IN IRRIGATION DESIGN AND INSTALLATION AND HAS INSTALLED AT LEAST 5 PROJECTS OF EQUAL OR COMPARABLE SIZE AND COMPLEXITY. IRRIGATION WORK SHALL BE PERFORMED BY A SINGLE FIRM, ACCEPTABLE TO THE OWNER'S REPRESENTATIVE AND LICENSED AS A CONTRACTOR IN THE STATE WHERE THE PROJECT IS TO BE INSTALLED.		B. REFERENCED STANDARDS: AMERICAN SOCIETY FOR TESTING AND MATERIALS, ANNUAL BOOK OF ASTM STANDARDS, LATEST EDITION.	
C. CODES AND STANDARDS: IRRIGATION DESIGN AND INSTALLATION SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL GOVERNING AGENCY REQUIREMENTS AND TO INDUSTRY STANDARDS. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IN WRITING OF ANY DISCREPANCIES, INCONSISTENCIES, OR CONFLICTS.		D. SUBSTITUTIONS: NO SUBSTITUTIONS FROM THE INITIAL PLAN WILL BE PERMITTED WITHOUT REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE. REQUESTS MUST BE MADE AT LEAST 2 WEEKS IN ADVANCE OF THE PROJECT START DATE. IN THE EVENT THE CONTRACTOR DESIRES TO MAKE SUBSTITUTIONS OF MATERIALS, SUFFICIENT DESCRIPTIVE LITERATURE, NEW DESIGN, AND MATERIAL SAMPLES MUST BE FURNISHED TO ESTABLISH THE MATERIAL AS AN EQUAL SUBSTITUTE, AND THE DESIGN AS FUNCTIONAL. THE PROPOSED MATERIAL SUBSTITUTION MUST MEET THE ORIGINAL DESIGN INTENT AS IT PERTAINS TO WATER CONSERVATION.		E. APPROVAL AND SELECTION OF MATERIALS AND WORK: THE SELECTION OF ALL MATERIALS AND THE EXECUTION OF ALL OPERATIONS REQUIRED UNDER THIS PERFORMANCE SPECIFICATION IS SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE WHO HAS THE RIGHT TO REJECT ANY AND ALL MATERIALS AND ANY AND ALL WORK WHICH, IN THEIR OPINION, DOES NOT MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AT ANY STAGE OF THE OPERATIONS. REMOVE REJECTED WORK AND OR MATERIALS FROM PROJECT SITE AND REPLACE PROMPTLY.	
F. ALL MATERIALS SHALL COME FROM A REGIONALLY AUTHORIZED IRRIGATION DISTRIBUTOR FOR THE PRODUCT AS SPECIFIED FOR WARRANTY PURPOSES.		G. WORKSMANSHIP: INSTALL MATERIALS AND EQUIPMENT IN A NEAT AND PROFESSIONAL MANNER FOLLOWING MANUFACTURER'S RECOMMENDATIONS.		1.03 SUBMITTALS	
A. IRRIGATION DESIGN DRAWING		1. THE IRRIGATION DESIGN DRAWING REFERENCED IN THE PLAN SHALL BE SUBMITTED IN AN ELECTRONIC FORMAT. ANY DESIGN CHANGES SHOULD BE SUBMITTED AS DRAWINGS FOR APPROVAL NO LESS THAN 2 WEEKS PRIOR TO THE COMMENCEMENT OF ANY WORK.		2. THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT MAY ACCEPT THE IRRIGATION DESIGN DRAWING AS SUBMITTED, MAY MARK-UP MINOR CORRECTIONS, AND ACCEPT THE IRRIGATION DESIGN DRAWING AS MARKED-UP, OR MAY REJECT THE IRRIGATION DESIGN DRAWING, AND REQUIRE THAT IT BE RESUBMITTED.	
3. ALL COMPONENTS OF THE IRRIGATION SYSTEM SHALL BE SHOWN. SHOW SPRINKLER PIPING, INCLUDING PLAN LAYOUT AND LOCATIONS, TYPES, SIZES, CAPACITIES, AND FLOW CHARACTERISTICS OF SPRINKLER PIPING COMPONENTS, INCLUDE WATER METERS, BACKFLOW PREVENTERS, BOOSTER PUMPS, VALVES, PIPING, SPRINKLERS AND DEVICES, DRAINS, ACCESSORIES, CONTROLS, AND WIRING AS NECESSARY. ALL COMPONENTS SHALL BE LABELED WITH THE COMPONENT TYPE, MANUFACTURER, AND MODEL, OR SHALL BE SYMBOLS REFERENCED TO A LEGEND OR KEY. ALL COMPONENTS SHALL BE SHOWN WITH DIMENSIONS TO REFERENCE POINTS. SHOW AREAS OF SPRINKLER SPRAY AND OVERSPRAY. DRAWING SHALL BE SCALED NO SMALLER THAN 1" = 30'-0". IN AREAS WHERE CLARITY OF THE DESIGN IS IN QUESTION, AN ENLARGEMENT OF THE DESIGN SHALL BE PROVIDED THAT AREA SHALL BE SHOWN SO AS TO PROVIDE CLARITY OF THE DESIGN. APPROVAL OF IRRIGATION DESIGN DRAWING SHALL PRECEDE COMMENCEMENT OF ANY WORK.		B. PRODUCT DATA		1. IRRIGATION CONTRACTOR SHALL SUBMIT THREE (3) SETS OF MANUFACTURER'S TECHNICAL DATA TO THE OWNER'S REPRESENTATIVE INCLUDING, BUT NOT LIMITED TO VALVES, CONTROLLER, QUICK COUPLERS, SPRINKLER HEADS, ETC.	
C. AS-BUILT DRAWING		1. IRRIGATION CONTRACTOR SHALL RECORD AND SUBMIT AN "AS-BUILT DRAWING" WHICH RECORDS ACTUAL INSTALLED CONDITIONS. THE AS-BUILT DRAWING SHALL BE CLEARLY AND NEATLY DRAWN ON A REPRODUCIBLE VELLUM OR SEPA BASE OF THE ORIGINAL LANDSCAPE DESIGN. AN ELECTRONIC VERSION IS ALSO ACCEPTABLE. IRRIGATION CONTRACTOR SHALL SUBMIT THE AS-BUILT DRAWING TO THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT BEFORE WORK UNDER THIS CONTRACT WILL BE CONSIDERED FOR ACCEPTANCE.		2. ALL COMPONENTS OF THE SYSTEM SHALL BE SHOWN WITH DIMENSIONS TO REFERENCE POINTS, AS INDICATED ABOVE UNDER "IRRIGATION DESIGN DRAWING." DRAWING SHALL BE SCALED NO SMALLER THAN 1" = 30'-0". SUBMITTAL, REVIEW, AND APPROVAL BY THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT OF THE AS-BUILT DRAWING SHALL PRECEDE APPLICATION FOR FINAL PAYMENT BY THE CONTRACTOR.	
1.04 DELIVERY, STORAGE AND HANDLING		A. DELIVER MATERIALS AND EQUIPMENT IN SUCH A MANNER AS NOT TO DAMAGE THE PARTS OR DECREASE THE USEFUL LIFE OF EQUIPMENT.		B. STORE MATERIALS AWAY FROM DETRIMENTAL ELEMENTS. COORDINATE WITH OWNERS REPRESENTATIVE, GENERAL CONTRACTOR, OR LANDSCAPE CONTRACTOR, AS APPROPRIATE, TO SECURE A SAFE STAGING AREA.	
C. HANDLE LOAD, UNLOAD, STACK, AND TRANSPORT MATERIALS CAREFULLY TO AVOID DAMAGE. HANDLE PIPE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.		1.05 JOB CONDITIONS		A. PRIOR TO COMMENCING ANY WORK REQUIRED UNDER THE CONTRACT, THE CONTRACTOR SHALL LOCATE ALL UTILITIES, SUBSURFACE DRAINAGE, AND UNDERGROUND CONSTRUCTION SO THAT PROPER PRECAUTIONS MAY BE TAKEN NOT TO DISTURB OR DAMAGE ANY SUBSURFACE IMPROVEMENTS, DAMAGE TO ANY OF THE ABOVE MENTIONED ITEMS OR OTHER SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.	
B. WATER SERVICE AND ELECTRIC SERVICE WILL BE SUPPLIED BY THE GENERAL CONTRACTOR TO A DESIGNATED AREA IN LANDSCAPE PLANTING FOR THE PURPOSE OF THE AUTOMATIC IRRIGATION SYSTEM. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE THE LOCATION OF THE WATERLINE AND ELECTRIC SERVICE.		C. IRRIGATION SYSTEM IS TO OPERATE UNDER THE WATER PRESSURE AND FLOW RATES PREVAILING AT THE PROJECT SITE. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THESE PARAMETERS, AND SHALL DESIGN THE IRRIGATION SYSTEM IN ACCORDANCE WITH THE EXISTING OR ANTICIPATED CONDITIONS.		D. INSURANCE ON IRRIGATION MATERIALS OR EQUIPMENT STORED OR INSTALLED IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR. SUCH INSURANCE SHALL COVER FIRE, THEFT, AND VANDALISM. SHOULD THE IRRIGATION CONTRACTOR ELECT NOT TO PROVIDE SUCH INSURANCE, THE OWNER SHALL BE RESPONSIBLE FOR ANY LOSSES INCURRED BY THE AFORESAIDED ACTS. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCURRED IN REPLACING DAMAGED OR STOLEN MATERIALS OR EQUIPMENT PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK.	
E. OBTAIN ALL REQUIRED PERMITS AND PAY ALL REQUIRED FEES AT NO ADDITIONAL COST TO THE OWNER. ANY PENALTIES IMPOSED DUE TO FAILURE TO OBTAIN PERMITS OR PAY FEES ARE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.		F. PROVIDE AND MAINTAIN ALL PASSAGEWAYS, GUARD FENCES, WARNING LIGHTS, AND OTHER PROTECTION DEVICES REQUIRED BY LOCAL AUTHORITIES OR OTHERS HAVING JURISDICTION.		G. IRRIGATION CONTRACTOR SHALL ADEQUATELY PROTECT ADJACENT PROPERTY AS PROVIDED BY LAW AND THE CONTRACT DOCUMENTS.	
H. EXISTING SITE IMPROVEMENTS: PERFORM WORK IN A MANNER THAT AVOIDS DAMAGE TO EXISTING SITE IMPROVEMENTS. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE OF MECHANICAL NATURE AS WELL AS DAMAGE RESULTING FROM LEAKS IN THE IRRIGATION SYSTEM WHETHER DUE TO NEGLIGENCE OR OTHERWISE.		I. TEST WATER CONDITIONS: IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO MEASURE OR ANALYZE THE EXISTING OR ANTICIPATED WATER PRESSURE AT THE TAP AND DESIGN THE IRRIGATION SYSTEM ACCORDINGLY.		J. IN THE EVENT WATER PRESSURE IS INSUFFICIENT TO OPERATE THE SYSTEM AT AN ADEQUATE DESIGN PRESSURE AND FLOW, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING, SPECIFYING, SUPPLYING, AND INSTALLING A BOOSTER PUMP CAPABLE OF INCREASING THE PRESSURE AND FLOW AS REQUIRED. BOOSTER PUMP SHALL BE OPERATED BY A MAGNETIC STARTER, FLOW, OR PRESSURE SWITCH. IF A BOOSTER PUMP IS REQUIRED, COORDINATE PROVISION OF ADEQUATE ELECTRICAL SERVICE FOR THE PUMP WITH GENERAL CONTRACTOR. BOOSTER PUMP (IF REQUIRED) SHOULD BE PROVIDED IN A LOCKABLE ENCLOSURE ON A W/IF REINFORCED CONCRETE PAD 5" THICK, OVER 6" C&B BASE IF IT IS TO BE INSTALLED OUTDOORS. INDOOR INSTALLATION OF BOOSTER PUMPS IS ALSO ACCEPTABLE PROVIDED THE PROPER APPROVAL AND SPACE REQUIREMENTS EXIST.	
K. IN THE EVENT THE WATER PRESSURE SIGNIFICANTLY EXCEEDS AN APPROPRIATE		1.06 WARRANTY		A. WARRANTY ALL WORK FOR A PERIOD OF ONE (1) YEARS, STARTING ON THE DATE OF SUBSTANTIAL COMPLETION, AGAINST DEFECTS IN MATERIALS, EQUIPMENT, WORKMANSHIP, AND ANY REPAIRS REQUIRED RESULTING FROM LEAKS OR OTHER DEFECTS OF WORKMANSHIP, MATERIAL, OR EQUIPMENT.	
PART 2 - PRODUCTS		2.01 GENERAL		A. SPECIFIC REQUIREMENTS CONCERNING THE VARIOUS MATERIALS AND THE ARRANGEMENTS IN WHICH THEY ARE TO BE INSTALLED ARE OUTLINED IN THIS SPECIFICATION.	
B. QUALITY AND SIZE		1. MATERIAL SPECIFIED BY NAME AND / OR MODEL NUMBER IN THE SPECIFICATIONS, ON THE SITE, OR DETAILED DRAWINGS ARE USED FOR THE PURPOSE OF IDENTIFICATION OF MATERIALS AND TO ENSURE SPECIFIC USE OF THAT MATERIAL. IN THE CONSTRUCTION OF THE SYSTEM, NO SUBSTITUTIONS WILL BE PERMITTED WITHOUT APPROVAL. (SEE SUBSTITUTIONS).		2. ALL MATERIALS USED IN THE SYSTEM MUST BE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE AND BE THE BEST QUALITY AVAILABLE. ALL SPRAYS, ROTORS AND VALVES SHALL HAVE A MINIMUM THREE (3) YEAR WARRANTY AGAINST MATERIAL DEFECTS OR DEFECTIVE WORKMANSHIP.	
2.02 PIPE AND FITTINGS		A. ALL PVC PIPE FROM SIZES THREE (3) INCHES AND ABOVE SHALL BE CLASS 20, SDR 26, UNPLASTICIZED RIGID POLY(VINYLCHLORIDE) (PVC) PIPE WITH INTEGRAL BELL AND RUBBER RING GASKET UNLESS OTHERWISE SPECIFIED. PIPE FROM SIZES TWO AND ONE - HALF (2 1/2) TO ONE AND ONE - QUARTER (1 1/4) INCH SHALL BE CLASS 20, SOLVENT WELD PVC PIPE. PIPE SIZES ONE (1) AND THREE - QUARTERS (3/4) INCH SHALL BE CLASS 20, SOLVENT WELD PVC PIPE. ONE - HALF (1/2) INCH PIPE SHALL BE CLASS 315 SOLVENT WELD PVC PIPE. ALL PIPE SHALL BE SUPPLIED IN STANDARD TWENTY (20) FOOT LENGTHS AND SHALL BE FROM ONE OF THE FOLLOWING MANUFACTURERS: NO POLYETHYLENE PIPE WILL BE ACCEPTED UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED BY THE LANDSCAPE ARCHITECT.		B. ALL PIPE THAT IS EXPOSED OR NOT BELOW GRADE SHALL BE SCHEDULE 80 PVC OR HDPE.	
C. ALL PIPE FITTINGS SIZE FOUR (4) INCHES AND GREATER SHALL BE DUCTILE IRON. 3" FITTINGS SHALL BE BELL AND RUBBER GASKET. FITTINGS 2-1/2" AND UNDER SHALL BE SCHEDULE 40 SOLVENT WELD PVC PIPE. IF AND WHEN USED IN CONSTRUCTION OF THIS SYSTEM, SHALL BE RIGID PVC PIPE AND SHALL BE ASSEMBLED USING APPROPRIATE PVC PIPE CLEANER / PRIMER AND SOLVENT CEMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.		E. EXPANSION JOINTS SHALL BE INSTALLED EVERY THREE HUNDRED (300) FEET OF SOLVENT WELD PIPING.		F. PVC PIPE COUPLINGS LOCATED WITHIN SLEEVES: PVC PIPE COUPLINGS FOUR (4) INCHES AND SMALLER SHALL BE SOLVENT WELD. PVC PIPE COUPLINGS SIX (6) INCHES AND LARGER SHALL BE MECHANICAL JOINTS. UPON EXISTING SLEEVES, PVC SOLVENT WELD OR INTEGRAL BELL AND RUBBER GASKET, AS DESCRIBED IN SECTION 2-02-A, MUST BE ADHERED TO.	
2.03 RISERS: PROVIDE THREADED SCHEDULE 80 PVC RISERS. ALL RISERS ABOVE GRADE SHALL BE EITHER DARK GRAY OR BLACK PVC PIPE, AND SHALL BE SUPPORTED SO AS NOT TO CAUSE UNNECESSARY MOVEMENT WHILE SPRINKLER IS IN OPERATION.		2.04 ELECTRIC WIRING		A. 120 VOLT AC WIRING: 120 VOLT SERVICE TO CONTROLLER SHALL CONSIST OF THREE WIRES: ONE BLACK, ONE WHITE, AND ONE GROUND. ELECTRICAL SERVICE IS TO BE PROVIDED BY THE GENERAL CONTRACTOR UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE. IT IS THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE LOCATION OF ELECTRICAL SERVICE TO BE PROVIDED FOR CONTROLLER.	
B. SPLICES IN CONTROLLER WIRING SHALL BE WATERPROOF DIRECT BURY APPLICATION. CONNECTOR MUST UTILIZE A COMBINATION OF WIRE CAP AND SEPARATE GEL FILLED WATERPROOF CAP.		C. PROVIDE JUNCTION BOX, FLUSH-MOUNTED AND GASKETED PER CODE AS REQUIRED.		D. CONTROL WIRING SHALL BE 24 VOLT SOLID WIRE UNDERWIRERS LABORATORY (UL) APPROVED FOR DIRECT BURIAL IN GROUND. MINIMUM WIRE SIZE SHALL BE FOURTEEN (14) GAUGE. ALL CONTROL, WIRING AND WIRING CONNECTIONS FROM THE CONTROLLER TO THE VALVES IS INCLUDED IN THIS CONTRACT.	
2.05 SPRINKLER HEADS		A. SHORT RANGE: 4" 6" OR 12" POP UP SPRAY HEAD.		B. SPRINKLER SHALL BE OF THE FIXED SPRAY TYPE DESIGNED FOR IN GROUND INSTALLATION. SPRINKLER SHALL HAVE A TRIPLE BLADED WIPER SEAL FOR INCREASED DURABILITY AND PRESSURE RATING.	
C. POP-UP SPRAY SPRINKLERS SHALL INCLUDE A PRESSURE REGULATING DEVICE TO PREVENT HIGH PRESSURE FOGGING TO THE NOZZLE STREAM. THIS REGULATING DEVICE SHALL BE AN INTEGRAL PART OF THE POP-UP STEM AND SHALL REGULATE THE NOZZLE PRESSURE TO 30 PSI OR 45 PSI (NOZZLE APPROPRIATE) FOR INLET PRESSURES FROM 35 TO 70 PSI. THESE UNITS SHALL BE IDENTIFIABLE FROM THE TOP WITH "PRS" MARKINGS ON THE CAP.		D. THE ADDITION OF A CHECK VALVE FEATURE (SAM) SHALL BE INCORPORATED INTO THE SPRAY BODY AND USED IN LOCATIONS THROUGHOUT THE SYSTEM WHERE LOW HEAD DRAINAGE IS INDICATED.		E. SPRAY BODY SHALL INCORPORATE A DEVICE DESIGNED TO INDICATE WHEN A NOZZLE IS MISSING OR BROKEN, BY SENDING OUT A SMALL STREAM OF WATER 15 FEET INTO THE AIR AT 1 TO 1.5 GPM.	
F. SPRAY NOZZLES: HIGH-EFFICIENCY NOZZLES DISTRIBUTING UNIFORMITY (DU) OF 70 % OR GREATER, (AS PUBLISHED BY THE MANUFACTURER) SHALL BE USED. THE HIGHER EFFICIENCY NOZZLE SHOULD RESULT IN BETTER THAN A 1:2 RATIO, REDUCING RUNTIME ACCORDINGLY. ALL NOZZLES SHALL HAVE A MATCHED PRECIPITATION RATE WITH OTHER NOZZLES ON THE SAME ZONE.		G. DUAL ORifice NOZZLES MAY BE USED IN LOCATIONS REQUIRING SUPERIOR CLOSE-IN WATERING, WHILE MAINTAINING A DU OF 70% OR GREATER. U-SERIES SPRAY NOZZLE FOR SHRUB OR SMALL TURF AREAS (5-15 FEET) SPACING: MAXIMUM 30 PSI.		H. THE IRRIGATION CONTRACTOR SHALL SUBMIT THREE (3) SETS OF MANUFACTURER'S TECHNICAL DATA TO THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF ANY WORK. CONTROLLER, QUICK COUPLERS, SPRINKLER HEADS, ETC.	
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2.06 AUTOMATIC CONTROLLER		A. TRADITIONALLY WIRED (4 TO 48 ZONES)		B. THE IRRIGATION CONTRACTOR SHALL SUBMIT THREE (3) SETS OF MANUFACTURER'S TECHNICAL DATA TO THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF ANY WORK. CONTROLLER, QUICK COUPLERS, SPRINKLER HEADS, ETC.	
C. THE IRRIGATION CONTRACTOR SHALL SUBMIT THREE (3) SETS OF MANUFACTURER'S TECHNICAL DATA TO THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF ANY WORK. CONTROLLER, QUICK COUPLERS, SPRINKLER HEADS, ETC.		D. THE IRRIGATION CONTRACTOR SHALL SUBMIT THREE (3) SETS OF MANUFACTURER'S TECHNICAL DATA TO THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF ANY WORK. CONTROLLER, QUICK COUPLERS, SPRINKLER HEADS, ETC.		E. THE IRRIGATION CONTRACTOR SHALL SUBMIT THREE (3) SETS OF MANUFACTURER'S TECHNICAL DATA TO THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF ANY WORK. CONTROLLER, QUICK COUPLERS, SPRINKLER HEADS, ETC.	
2.07 SURGE PROTECTION EQUIPMENT		A. PROVIDE GENERAL ELECTRICAL LIGHTNING ARRESTOR NO. GL 15 C 8007 FOR CONTROLLERS NOT EQUIPPED WITH PRIMARY SURGE PROTECTION.		B. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR DETERMINING WHETHER THE ABOVE MENTIONED SURGE PROTECTION EQUIPMENT IS PROVIDED IN THE CONTROLLER AS A "BUILT IN" UNIT OR IF IT MUST BE SUPPLIED AND INSTALLED SEPARATELY.	
2.08 ISOLATION VALVES		A. PROVIDE ALL GATE VALVES FOR ISOLATION PURPOSES, ALLOWING FULL DIAMETER OPENING WHEN IN FULL OPEN POSITION.		B. THE IRRIGATION CONTRACTOR SHALL SUBMIT THREE (3) SETS OF MANUFACTURER'S TECHNICAL DATA TO THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF ANY WORK. CONTROLLER, QUICK COUPLERS, SPRINKLER HEADS, ETC.	
2.09 FLOW SENSORS: FLOW SENSORS SHALL BE AN IN LINE TYPE WITH A NONMAGNETIC, SPINNING IMPELLER (PADDLE WHEEL) AS THE ONLY MOVING PART. THE ELECTRONICS HOUSING SHALL HAVE TWO O-RINGS AND SHALL BE EASILY REMOVED FROM THE METER BODY. THE SENSOR ELECTRONICS WILL BE POTTED IN AN EPOXY COMPOUND DESIGNED FOR PROLONGED IMMERSION. ELECTRICAL CONNECTIONS SHALL BE 2 SINGLE CONDUCTOR 18 AWG LEADS 48 INCHES (1.2 METERS) LONG. INSULATION SHALL BE MADE USING SPECIAL DIRECT BURIAL "UP" TYPE. ELECTRICALLY SHIELDED CABLES TO AVOID INTERFERENCE. COLORED TAPES FOR THE POSITIVE LEAD AND BLACK FOR THE NEGATIVE LEAD. THE SENSOR SHALL BE CAPABLE OF OPERATING IN LINE PRESSURES UP TO 400 PSI (27.5 BAR) AND LIQUID TEMPERATURES UP TO 220° F. AND OPERATING IN FLOWS OF 1/4 FOOT PER SECOND TO 15 FEET PER SECOND WITH LINEARITY OF ±1% AND REPEATABILITY OF ±1%. THE METER BODY SHALL BE CAST 85-55 BRONZE, IN 1" AND 1 1/2" FEMALE IRON PIPE THREAD SIZES.		2.10 METER: SUBMIT PRODUCT DATA AS REQUIRED.		2.11 BACKFLOW PREVENTER:	
A. TO BE SUPPLIED AND INSTALLED BY THE IRRIGATION CONTRACTOR. BACKFLOW PREVENTER SHALL BE A RPZ REDUCED PRESSURE BACKFLOW ASSEMBLY TYPE, CAPABLE OF HAVING AN ADEQUATE FLOW RATE IN GALLONS PER MINUTE. THE PREVENTER SHALL BE INSTALLED IN THE LINE, AND SHALL BE SUITABLE FOR SUPPLY PRESSURE OF UP TO 150 PSI. BACKFLOW PREVENTER BODY SHALL BE BRONZE WITH CORROSION-RESISTANT INTERNAL COMPONENTS AND CHECK ASSEMBLIES SHALL BE TIGHT SEATING RUBBER. WORKING PRESSURE SHALL BE 150 PSI. MINIMUM WITH A MAXIMUM PRESSURE LOSS OF 12 PSI THROUGH MEDIUM 1/3 OF FLOW RANGE. BACKFLOW PREVENTER SHALL BE INSTALLED WITH ENCLOSURE EQUIPPED WITH A HEAT TRACE WITH SUFFICIENT CLEARANCE TO PERMIT ACCESS FOR TESTING AND MAINTENANCE. THE ENCLOSURE SHALL BE CONSTRUCTED OF BRASS WITH LIDS SHALL HAVE BEVELED EDGES TO MINIMIZE POTENTIAL DAMAGE FROM LAWN EQUIPMENT. LIDS SHALL BE CLEARLY MARKED WITH THE WORDS "IRRIGATION CONTROL VALVE" MOLDED ONTO THE TOP. LIDS SHALL HAVE A REMOVAL AREA MEASURING 6.0" BY 8.0" WITH A 2.0" DIA. REMOVAL HANDLE. IDENTIFICATION, THE LOCKING BOLT, WASHER AND CLIP SHALL BE MADE OF STAINLESS STEEL.		A. VALVE BOX BODY SHALL BE COMPOSED OF 100% RECYCLED HDPE. THERE SHALL BE NO PRE-PUNCHED HOLE IN THE VALVE BOX LID. THE STANDARD RECTANGULAR BODY SHALL HAVE 14 KNOCK-OUTS MOLDED INTO THE SIDES THAT CAN BE READILY REMOVED. THE VALVE BOX SHALL HAVE CORROSION RESISTANT LIDS. LIDS SHALL HAVE BEVELED EDGES TO MINIMIZE POTENTIAL DAMAGE FROM LAWN EQUIPMENT. LIDS SHALL BE CLEARLY MARKED WITH THE WORDS "IRRIGATION CONTROL VALVE" MOLDED ONTO THE TOP. LIDS SHALL HAVE A REMOVAL AREA MEASURING 6.0" BY 8.0" WITH A 2.0" DIA. REMOVAL HANDLE. IDENTIFICATION, THE LOCKING BOLT, WASHER AND CLIP SHALL BE MADE OF STAINLESS STEEL.		B. VALVE BOXES	
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Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Beyond Property	Illuminance	Fc	0.13	0.9	0.0	N.A.	N.A.
Non Paved Surfaces	Illuminance	Fc	1.78	8.7	0.0	N.A.	N.A.
Paved Surface Areas	Illuminance	Fc	3.26	7.3	0.5	6.52	14.60
Propertyline	Illuminance	Fc	0.49	1.3	0.1	4.90	13.00

Luminaire Schedule								
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	EPA	Mtg Height
	2	A2@180	Back-Back	0.850	VP-2-320L-210-5K7-4W-UNV-A-PSS	213.9	1.110	21
	5	AB	Single	0.850	VP-2-320L-210-5K7-4W-BC-UNV-A-PSS	213.9	0.555	21
Pole Type								
SES-18-40-1-TA-GL-xx (4")								



- 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)

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
150412

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.

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

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES	
SCALE	1"=20' 0"
DRAWN BY	CLB
POINT-BY-POINT FOOTCANDLE PLOT FOR MCDONALD'S 15790 STATE AVE BASEHOR, KS 66607	
NATIONAL STORE NUMBER	46238
DATE	5/19/2026
DRAWING NUMBER	A260862A.AGI