TACO BELL
FINAL DEVELOPMENT PLAN

851 NE WOODS CHAPEL ROAD

LOT 7B-1, CHAPEL RIDGE, LEE'S SUMMIT, MISSOURI

UTILITY CONTACTS

CITY OF LEE'S SUMMIT, MO

DEVELOPMENT SERVICES
CITY HALL
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1200
FAX: (816) 969-1201
Contact: Mike Wisenborn

PUBLIC WORKS
CITY HALL
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1800
FAX: (816) 969-1809

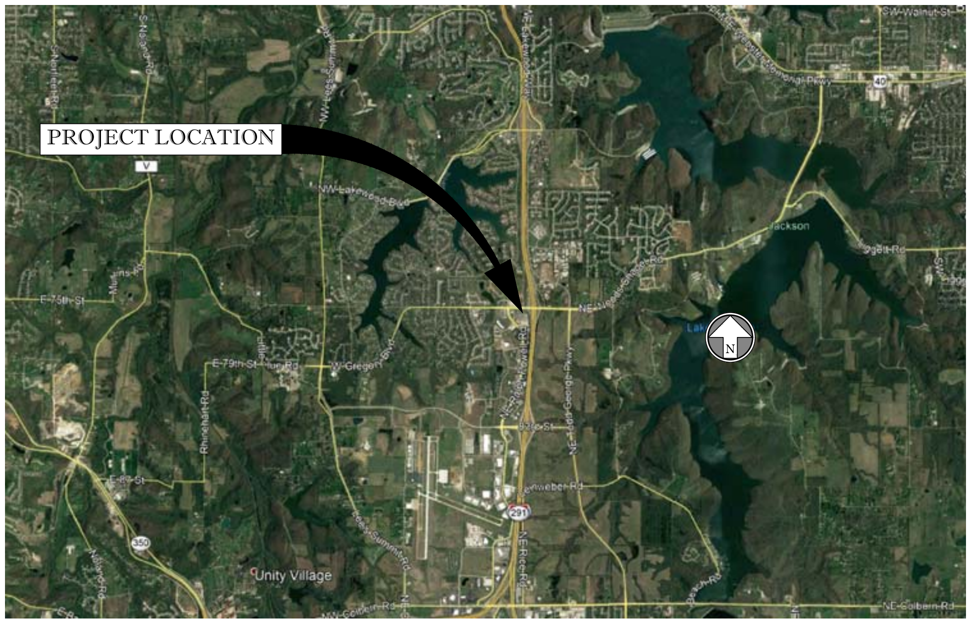
LEE'S SUMMIT FIRE DEPARTMENT
207 SE DOUGLAS ROAD
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1300

TELEPHONE COMPANY
AT&T
TEL: (800) 464-7928

WATER UTILITIES
CITY HALL
1200 SE HAMBLEN RD
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1900
FAX: (816) 969-1935

ELECTRIC COMPANY
KANSAS CITY POWER & LIGHT
TEL: (888) 471-5275
Contact: Nathan Michael

GAS COMPANY
SPIRE ENERGY
TEL: (816) 756-5252
Contact: Bobbie Saulsberry



All existing utility locations shown are approximate only and are not guaranteed to be accurate or all inclusive. Contractor shall be responsible for contacting all utility companies and verifying the actual field locations of all utilities prior to any construction activity. Contractor shall keep all utility locations current. Utilities damaged through the negligence of the contractor to obtain the proper field locations shall be the responsibility of the contractor to repair or replace at their expense and at the direction of the utility company. The contractor shall pothole and survey all utility crossings prior to construction of any portion of storm sewer, sanitary sewer laterals, underdrains, conduit and any other subsurface element of the project. The survey information shall be forwarded to the project engineer for review. The contractor shall not begin construction on any subsurface element on the project without the approval of the project engineer. Utility coordination, potholing/surveying shall be subsidiary to other bid items.

Dig Safely. 811
Missouri One-Call
1-800-344-7483

OIL AND GAS NOTE

BASED ON REVIEW OF THE PLAT, ALTA SURVEY'S PERFORMED, AND FIELD OBSERVATION THERE ARE NOT OIL OR GAS WELLS PRESENT ON THE PROPERTY.

BENCHMARKS

MILITARY GRID REFERENCE SYSTEM (MGRS) BENCHMARK
BENCHMARK NUMBER: JA-134
ELEVATION= 969.81
DATUM: NAVD88

CIVIL ENGINEER

BHC RHODES
7101 COLLEGE BOULEVARD, SUITE 400
OVERLAND PARK, KANSAS 66210
P (913) 663-1900
F (913) 663-1633
CONTACT: MARK SHERFY, P.E.
EMAIL: MARK.SHERFY@IBHC.COM

DEVELOPER

FIRST STREET DEVELOPMENT
2929 E CAMELBACK ROAD, SUITE 116
PHOENIX, AZ 85016
PH: (602) 714-3099
CONTACT: CHRIS CZYZ

SURVEYOR OF RECORD

MCLAUGHLIN MUELLER, INC.
218 WEST MILL STREET
LIBERTY, MO 64068
CORP. L.S.: 1999141096
P (816) 407-0002
F (816) 407-0003
CONTACT: MARTIN MUELLER, PLS 2487

Sheet List Table

Sheet Number	Sheet Title
--	COVER SHEET
A1.0	TACO FLOOR PLAN
~~A2.0~~	~~SCOOTERS FLOOR PLAN~~
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A4.0	TACO EXTERIOR ELEVATIONS
A4.0	TACO EXTERIOR ELEVATIONS COLORED
A4.1	TACO EXTERIOR ELEVATIONS
A4.1	TACO EXTERIOR ELEVATIONS COLORED
~~A5.0~~	~~SCOOTERS EXTERIOR ELEVATIONS~~
A9.0	ARCHITECTURAL DETAILS
A10.0	PHOTOMETRIC
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C11.0	OFFSITE RESTORATION PLAN
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L2.2	IRRIGATION SPEC 2

APPROVED BY:

Administrator, Engineering Services Division Date

SUBMITTED BY:

BHC RHODES
OVERLAND PARK, KANSAS

08/21/2019

Mark S. Sherfy, P.E. Date
MO PE-2017010253

Rev.	Date	Description	By	App.
2	8/21/19	FDP Comments/Site VE Items	MGG	MSS

STATE OF MISSOURI
MARK S. SHERFY
NUMBER PE-2017010253
PROFESSIONAL ENGINEER
08/21/2019
Mark S. Sherfy
MO# PE-2017010253

BHC RHODES
Civil Engineering • Surveying • Utilities
7101 College Blvd., Suite 400
Overland Park, Kansas 66210
p. (913) 663-1900 f. (913) 663-1633
BHC RHODES is a trademark of Brungardt Honomichl & Company, P.A.
Certificate of Authority Number: MO# E-1355-F

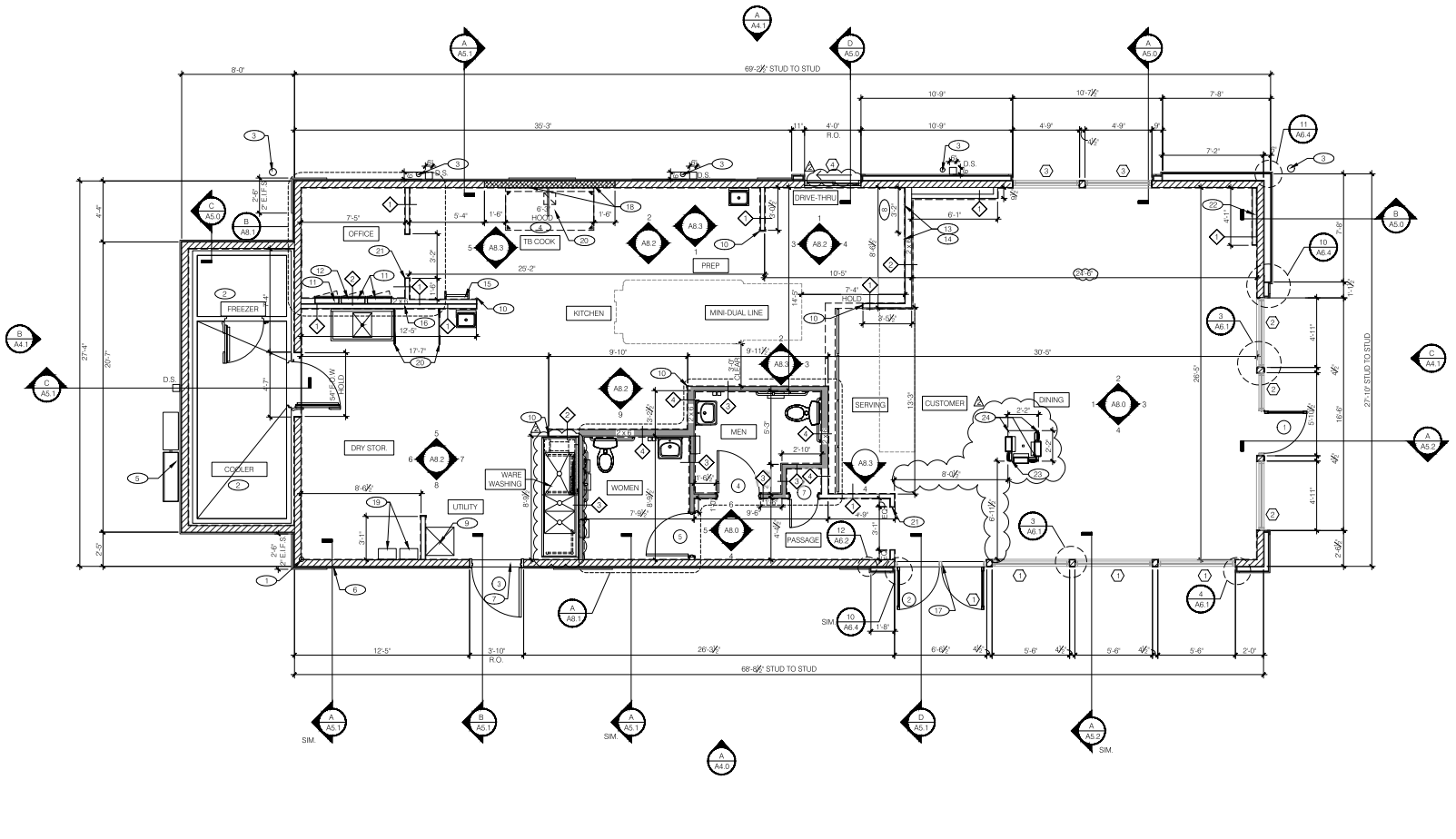
Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN

COVER SHEET

Design: MGG Drawn: MGG
Checked: MSS
Issue Date:
Project Number: 026040.08

Aug 21, 2019 – 9:59am Plotted By: matt.gibbs V:\026040-First Street Development – Master\026040.08-Woods Chapel\04-DWG\Eng\Sheet\FDP Set\026040.08-SHTS-FDP-COVR.dwg Layout: Cover Sheet



FLOOR PLAN 1/4"=1'-0" | A

WALL LEGEND

TYPICAL EXTERIOR WALL:
2x6 WD STUDS AT 16" O.C. W/ SHEATHING AS SCHEDULED (SEE STRUCT. DWGS.) AND R-19 KRAFT-FACED FIBERGLASS BATT INSULATION U.O.N. GC SHALL PROVIDE 2 LAYERS OF GRADE 'D' 60 lb BUILDING PAPER.

TYPICAL INTERIOR WALL:
WD STUDS AT 16" O.C. AS INDICATED
2X4 WOOD STUDS
2X6 WOOD STUDS

INTERIOR SOUND-RATED WALL:
TYPICAL INTERIOR WALL W/ 3-1/2" UNFACED FIBERGLASS BATT INSULATION.
2X4 WOOD STUDS
2X6 WOOD STUDS

HOODWALL:
EXTERIOR WALL WITH 20 GA. S.S. PANEL BEHIND HOOD. EXTEND MIN. 18" BEYOND END OF HOOD. REFER TO DETAIL 2/M3.0 FOR EXTENT OF S.S. PANEL.

DASHED LINE INDICATES INTERIOR SUBSTRATE LOCATION.

WALL HEIGHTS:
ALL INTERIOR NON-BEARING WALLS GO TO BOTTOM OF TRUSS, U.O.N. REFER TO STRUCTURE.

WALL ASSEMBLIES:
- DINING ROOM:
1/2" GYPSUM WALLBOARD FROM FLOOR SLAB TO 6" ABOVE CEILING HEIGHT U.O.N.
- KITCHEN WALLS AND DINING ROOM CLOSET:
1/2" CEMENT WALLBOARD FROM T.O. SLAB TO 12" AFF. AT 12" AFF, USE 1/2" CDX PLYWOOD W/FRP SURFACE FINISH TO 6" ABOVE CEILING HEIGHT U.O.N. IF DOUBLE SIDED SHEAR WALL PLYWD IS SPECIFIED THE PLYWOOD SHALL SHALL BE CONTINUOUS FROM SILL PLATE TO TOP PLATE.
- RESTROOM WALLS:
5/8" CEMENT WALLBOARD FROM T.O. SLAB OR T.O. CONCRETE CURB TO 48" A.F.F. WITH 5/8" HI-IMPACT BRAND XP WALLBOARD, TYPE X CORE FROM T.O. CEMENT BOARD TO 6" ABOVE CEILING HEIGHT U.O.N.. NO SUBSTITUTIONS ALLOWED. FINISH AS SCHEDULED.
- ALL OTHER FRAME WALL CONDITIONS:
1/2" CEMENT WALLBOARD FROM T.O. SLAB OR T.O. CONCRETE CURB TO 48" A.F.F., WITH 1/2" GYPSUM WALLBOARD FROM T.O. CEMENT BOARD TO 6" ABOVE CEILING HEIGHT U.O.N. FINISH AS SCHEDULED.

FLOOR PLAN NOTES

DIMENSIONS:
A. ALL DIMENSIONS ARE TO FACE OF STUD U.O.N. REFER TO FOUNDATION PLAN FOR FACE OF CONC. DIMENSIONS.
B. DIMENSIONS NOTED AS "CLEAR' OR 'HOLD' ARE MIN. REQ'D. NET CLEARANCE FROM FACE OF WALL / WAINSCOT FINISH. VERIFY FINAL EQUIPMENT SIZES W/ VENDOR PRIOR TO INT. WALL FRAMING.

WINDOWS / DOORS:
A. SEE SHT. A1.1 FOR WINDOW TYPES AND DOOR SCHEDULE.
B. ALL DOOR AND WINDOW OPENING DIMENSIONS ARE TO ROUGH OPENING.

FINISH SUBSTRATES:
A. PROVIDE 1/2" THICK CEMENTITIOUS BD. FROM FLOOR SLAB TO 12" A.F.F. MIN. IN LIEU OF GYP. BD. AT ALL WALLS EXCEPT SHEARWALL SURFACES, U.O.N.
B. ALL JOINTS, GAPS OR SPACES LEADING TO ALL HOLLOW OR INACCESSIBLE SPACES SHALL BE SEALED WITH "NSF INTERNATIONAL" APPROVED SEALANTS.
C. ALL BACK OF HOUSE AND OFFICE WALLS SHALL HAVE 1/2" CDX PLYWOOD SUBSTRATE, U.O.N.

DECOR:
A. SEE A2.0 FOR SEATING PLAN AND DETAILS.
B. SEE A7.0 FOR FLOOR FINISHES.
C. SEE A8.0 - A8.3 FOR WALL FINISHES.
D. SEE A7.1 FOR CEILING FINISHES.

GENERAL:
A. PROVIDE THREE FIRE EXTINGUISHERS - (2) 10 lb. BC and (1) 10 lb. ABC - TO COMPLY WITH LOCAL FIRE CODE. LOCATE PER DIRECTION OF FIRE MARSHALL OR LOCAL AUTHORIZING AGENT.
B. DRAWINGS ARE BASED UPON WOOD FRAMING. UTILIZATION OF METAL STUDS ON NON-BEARING INTERIOR PARTITIONS, BULKHEADS AND SOFFITS IS ACCEPTABLE.
C. ALL ATTACHMENTS MADE THROUGH E.I.F.S. SHALL BE BUSHED TO PREVENT DAMAGE TO THE FINISH, PER 9/A6.2.
D. ALL PENETRATIONS THROUGH E.I.F.S. SHALL BE SEALED USING MFRS. APPROVED METHOD.

KEY NOTES

1. STARTING POINT. ALL SUB-TRADES SHALL USE THIS POINT AS A BEGINNING LAY-OUT (INSIDE FACE OF EXT. WALL STUDS.
2. NO FRP BEHIND W-052 WALK-IN COOLER/FREEZER.
3. PIPE BOLLARD. SEE DETAIL 7/A10.0.
4. HOOD WALL, SEE WALL LEGEND.
5. ELECTRICAL MAIN SWITCH BOARD. REFER TO ELECT. DWGS.
6. CO2 FILL BOX LOCATION.
7. METAL THRESHOLD.
8. KEEP CLEAR FOR UTILITIES & SYRUP LINES. SEE DETAIL 14 & 19/A6.4 FOR STUD LAYOUT REQUIREMENTS.
9. MOP SINK. REFER TO SHEET A2.0 & A2.1.
10. S.S. CORNER GUARD / WALL CAP [TM-2], TYP. ALL CORNERS IN BACK-OF-HOUSE FROM REAR WALL TO THE KITCHEN SIDE OF THE SERVICE COUNTER. SEE DETAIL 13/A6.3.
11. ELECT. PANELS RECESSED IN 2x6 WALL.
12. LIGHTING CONTROL PANEL SURFACE MOUNTED. REFER TO ELECT. DWGS.
13. SYRUP LINE CHASE (ABOVE). SEE DETAIL 9/A6.4.
14. 14"x14" HORIZONTAL OPENING FOR SYRUP TUBES. COORDINATE WALL PENETRATION WITH COUNTER INSTALLER. SEAL CHASE TO COUNTER. SEE 6/A6.4.
15. ROOF LADDER SEE 2/A6.0
16. ADD SECOND 2X4 WALL ON KITCHEN SIDE.
17. REMOVABLE ASTRAGAL FROM INSIDE ONLY.
18. METAL STUDS REQUIRED PER LOCAL CODES.
19. INDICATES TANKLESS WATER HEATER LOCATION.
20. SPLASH GUARD. SEE DETAIL.
21. CASED OPENING, REFER TO DETAIL 3/A6.4.
22. FUR OUT WALL AS INDICATED WITH 2X4 WOOD STUDS AT 16" O.C.
23. KIOSK POWER STUB LOCATION TO RUN WITHIN LEG OF KIOSK
24. KIOSK DATA LOCATION TO RUN WITHIN LEG OF KIOSK

GLMV ARCHITECTURE
1525 E. Douglas, Wichita, KS 67211
Tel. (316) 265-5367
www.glmv.com

GLMV ARCHITECTURE
MISSOURI STATE OF AUTHORITY
#F00364807

MARK D. McCLUGGAGE
ARCHITECT
LIC. NO.A-7139

08-22-19

18048.19003

1	VE ITEMS	08.21.19

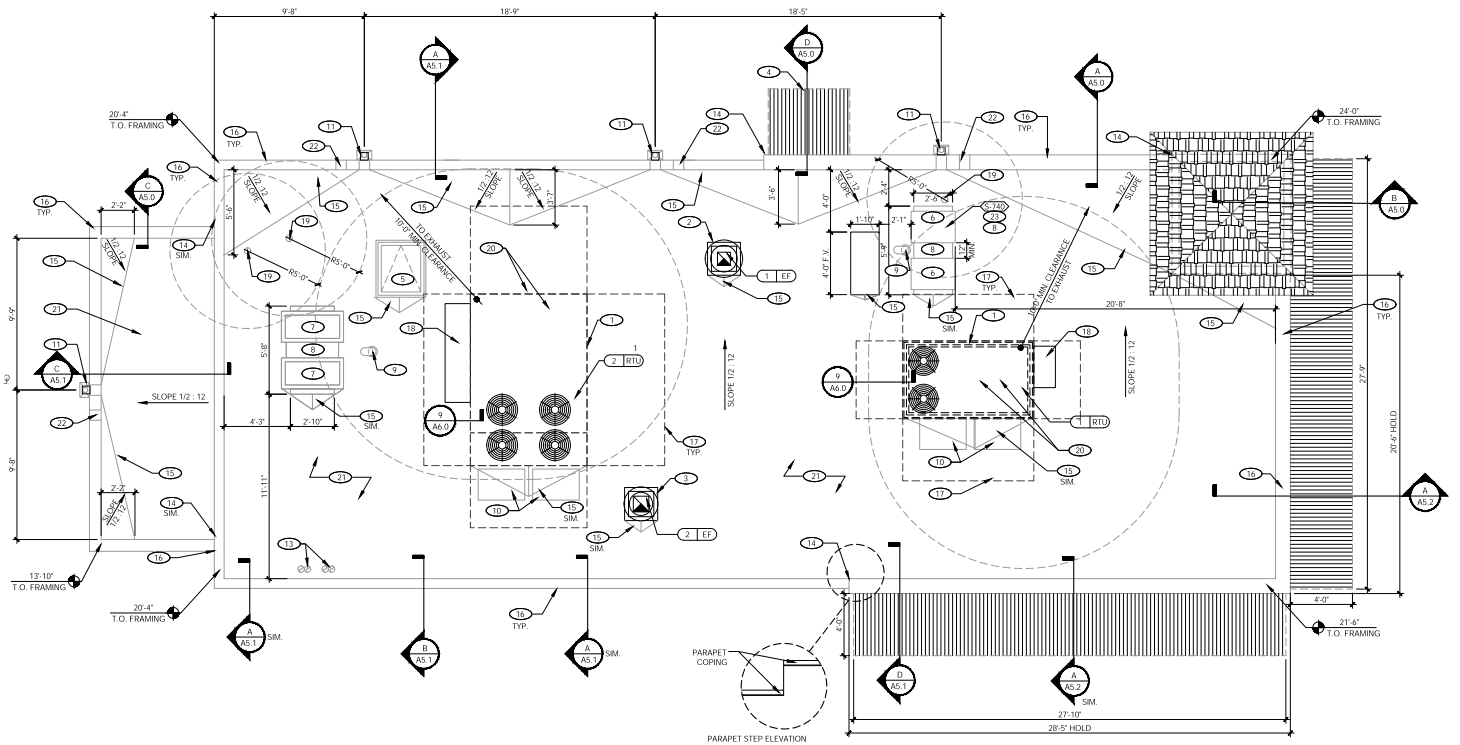
CONTRACT DATE: 05.20.19
BUILDING TYPE: TE40M
PLAN VERSION:
SITE NUMBER:
STORE NUMBER:

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MO

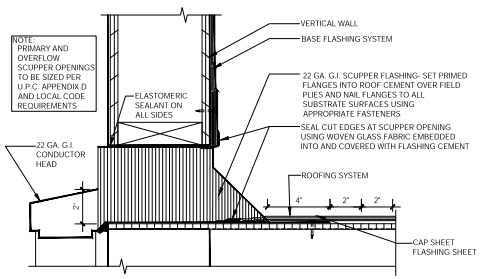
EXPLORER
MEDIUM40

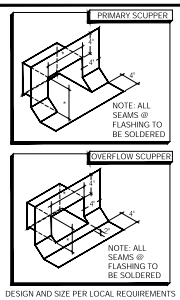
FLOOR PLAN

A1.0



ROOF PLAN 1/4"=1'-0" | A





* DESIGN AND SIZE PER LOCAL REQUIREMENTS

TAN109

SCUPPER FLASHING | D

WATERPROOFING:
A. PAINT UNDERSIDE OF PARAPET CAP FLASHING WITH FACTORY BONDED PAINT GRIP OR PRIMER.
B. TOP NAILING AT PARAPET CAP FLASHING WILL NOT BE ACCEPTED.
C. PENETRATIONS IN ROOFING MEMBRANE AND FLASHING SHALL ONLY BE MADE AS INDICATED ON THE DRAWINGS OR SPECS.
D. SEE SPECIFICATIONS FOR SEALANT SPECS.
E. ALL SHEET MTL FLASHING SHALL BE 22 GA MIN.

MISCELLANEOUS:
A. ROOF PENETRATIONS CLOSER THAN 12" FROM ANOTHER WILL NOT BE ALLOWED.
B. EXHAUST FANS MIN. 10'-0" AWAY FROM ALL AIR INTAKE / SUPPLY.
C. LOCATE WALK-IN CONDENSERS ON ROOF ONLY IF REQUIRED BY CODE.

ROOF PLAN NOTES | C

1. ROOFTOP UNIT. INSTALL PLUMB AND LEVEL.
2. KITCHEN HOOD EXHAUST FAN. SEE SHEETS M3.0 & DETAIL 14/A6.0.
3. RESTROOM EXHAUST FAN. SEE 13/A6.0.
4. CANOPY INSTALL PER MFR RECOMMENDATIONS.
5. ROOF HATCH: SEE 4/A6.0.
6. ICE MACHINE CONDENSERS.
7. WALK-IN COOLER / FREEZER CONDENSERS. SEE SCOPE OF WORK SHEET.
8. EQUIPMENT PLATFORM. SEE DETAIL 10/A6.0.
9. PIPE HOOD FOR UTILITIES. SEE DETAIL 6/A6.0.
10. 24x36 WALK MATS. SEE ROOF SPECS.
11. SCUPPER AND DOWNSPOUT. SEE DETAIL D/A3.0.
12. NOT USED
13. WATER HEATER INTAKE AND FLUE VENT TERMINATION. RE:MEP
14. CHANGE IN PARAPET ELEVATION SEE DETAIL 11/A6.2.
15. ROOF CRICKET. SEE DETAIL 11/A6.0.
16. METAL PARAPET CAP. SEE DETAIL 1 & 3/A6.0
17. MAINTAIN MFR'S ROOFTOP UNIT MAINTENANCE CLEARANCE.
18. OUTSIDE AIR INTAKE FOR ROOFTOP UNIT. MAINTAIN MIN 10'-0" SEPARATION FROM PLUMBING VENTS, FLUES AND BUILDING EXHAUST.
19. WASTE VENT THROUGH ROOF. THE TOP OF WASTE VENTS SHALL BE 12" HIGHER THAN THE CLOSEST PARAPET CAP U.N.O. OR NOT ALLOWED BY LOCAL JURISDICTION. SEE 12/A6.0 FOR FLASHING ASSEMBLY.
20. POWER / GAS / CONDENSATE ENTRY UNDER HVAC UNIT (PER HVAC MFR. SPECS.) REFER TO MECH. AND PLUMB DWGS. UTILITY ACCESS FROM WITHIN CURB - NO ROOF PENETRATIONS. DO NOT RUN ON ROOF SURFACE. SEE 13/P6.0.
21. "DURO-LAST" SINGLE PLY ROOF MEMBRANE OVER MINIMUM R-20 RIGID INSULATION BOARD OVER 5/8" APA RATED EXTERIOR GRADE PLYWOOD OVER TRUSSES. INSTALL PER MANUFACTURERS SPECIFICATIONS.
22. OVERFLOW SCUPPER. SEE DETAIL F/A3.0.
23. DUAL REMOTE CONDENSER. REFER ELECTRICAL AND PLUMBING.

KEY NOTES | B

GLMV ARCHITECTURE
1525 E. Douglas, Wichita, KS 67211
Tel. (316) 265-8367
www.glmv.com

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MISSOURI STATE OF AUTHORITY
#FR0364807

MARK D. McCLUGGAGE
ARCHITECT
LIC. NO.A-7139

07.03.19

18048.19003

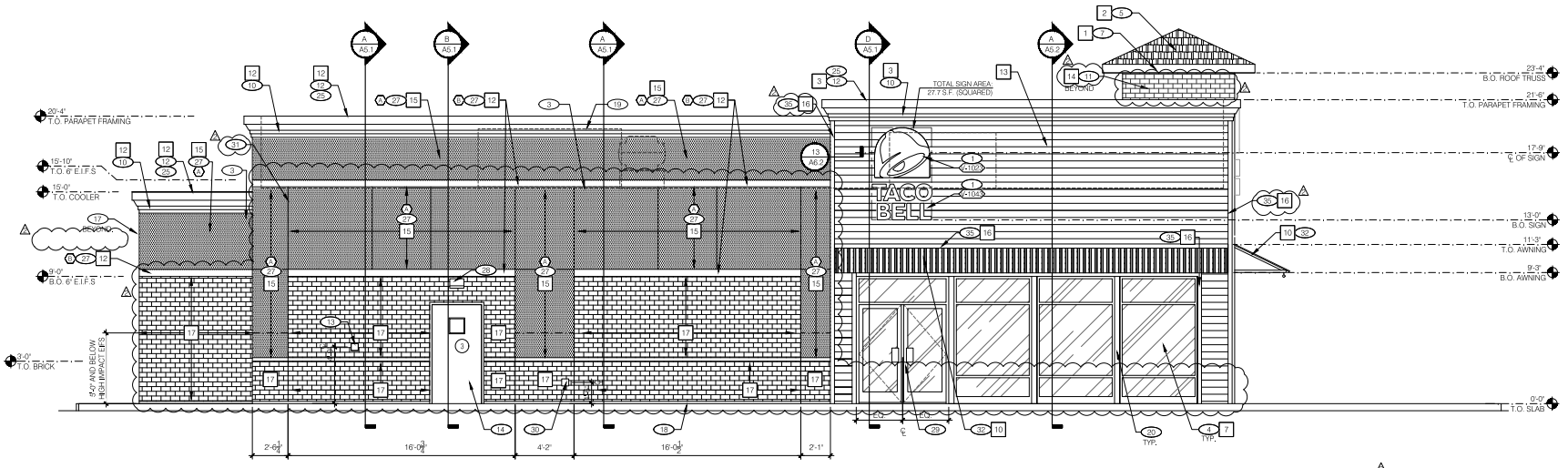
CONTRACT DATE: 07.03.19
BUILDING TYPE: TE40M
PLAN VERSION:
SITE NUMBER:
STORE NUMBER:

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MO

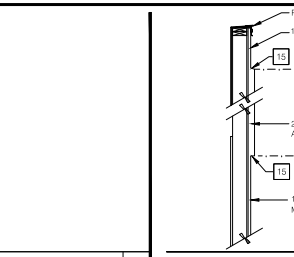
EXPLORER
MEDIUM40

ROOF PLAN

A3.0



EAST SIDE ELEVATION 1/4" = 1'-0" A



EIFS THICKNESS COLOR TRANSITION N.T.S. G

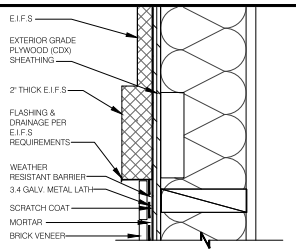
MISCELLANEOUS
A. SEE SHT A1.1 "WINDOW TYPES" FOR WINDOW ELEVATIONS.

SEALERS (REFER TO SPECS):
A. SEALANT AT ALL WALL AND ROOF PENETRATIONS.
B. SEALANT AT ALL WINDOW AND DOOR FRAMES AT HEAD AND JAMB. DO NOT SEAL SILL @ WINDOWS.
C. APPLY NEOPRENE GASKET (CONT.) BETWEEN BUILDING & CANOPY.

"CRITICAL" DIMENSIONS:
A. REQUIRED CLEAR OPENING WIDTH TO ENSURE COORDINATION WITH STANDARD SIGNAGE/ BUILDING ELEMENTS DIMENSIONS.

NOTE: NO EXTERIOR SIGNS ARE WITHIN THE SCOPE OF WORK COVERED BY THE BUILDING PERMIT APPLICATION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL EXTERIOR SIGNS AND INSTALLATION OF REQUIRED BLOCKING AND ELECTRICAL CONNECTIONS FOR FINAL APPROVED SIGNS.

GENERAL NOTES F



EIFS/BRICK TRANSITION DETAIL E

A BASE THICKNESS - 1" THICK E.I.F.S.
B BASE THICKNESS - 2" THICK E.I.F.S.

E.I.F.S. THICKNESS N.T.S. B

NOTE: SIGNAGE UNDER SEPARATE PERMIT

V-XXX	QTY	ITEM DESCRIPTION	ELEC
V-1023	3	TB 3'-6" x 4'-0" LOGO BELL - FACE LIT	X
V-1043	3	TB 14" CHANNEL LETTER WHITE	X

SIGN SCHEDULE N.T.S. C

NOT USED N.T.S. H

SYMBOL	AREA	MANUFACTURER	COLOR	ALTERNATE MFR.	ALTERNATE COLOR	CONTACT INFORMATION
1	HARDIETRIM BOARD	JAMES HARDIE	TO BE PAINTED SW 6098 "PACER WHITE"			
2	CONCRETE ROOF TILE	EAGLE ROOFING PRODUCTS	TAPERED SLATE			
3	PARAPET CAP (TOWER)	DUROLAST (25)	MEDIUM BRONZE (FACTORY FINISH)	SHERWIN WILLIAMS	SW 7069 "IRON ORE"	DURO-LAST: LEE COBB, 800-434-3876 (PHONE)
4	NOT USED	---	---			
5	PARAPET CAP (SIDES)	DUROLAST (25)	REGAL WHITE (FACTORY FINISH)			
6	PARAPET CAP (COOLER)	DUROLAST (25)	GALVALUME PLUS (FACTORY FINISH)			
7	STOREFRONT WINDOWS	TBD	CLEAR ANODIZED			
8	PIPE BOLLARDS	STREET SMART	YELLOW - 1/4" THICK PLASTIC COVER (US.POSTMAN.COM) OR EQUAL			
9	PARAPET BACK ROOFING	DUROLAST	THE COLOR SHALL BE FACTORY COLORED "TAN." EQUAL ALTERNATE ALLOWED.			DURO-LAST: LEE COBB, 800-434-3876 (PHONE)
10	AWNING, COOLER WALL	BERRIDGE	S-DECK PREWEATHERED GALVALUME			
11	NOT USED	---	---			NICHIHA: CHRIS TATE, 404-538-1261 (PHONE), ctate@nichiha.com (EMAIL)
12	MAIN BUILDING COLOR	SHERWIN WILLIAMS	SW 7067 "CITYSCAPE"			
13	FIBER CEMENT PANELS	NICHIHA - ROUGH SAWN	"SMOKE"			NICHIHA: CHRIS TATE, 404-538-1261 (PHONE), ctate@nichiha.com (EMAIL)
14	BRICK VENEER	CORONADO STONE PRODUCTS	SPECIAL USED BRICK: BEAR CREEK			½" DEEP RAKED GROUT JOINT
15	ACCENT COLOR	SHERWIN WILLIAMS	SW 6098 "PACER WHITE"			
16	FIBER CEMENT BOARD TRIM	JAMES HARDIE	HARDIETRIM - 5/4" X 3 1/2" SMOOTH			
17	BRICK VENEER	CORONADO STONE PRODUCTS	SPECIAL USED BRICK: 70% WOLF GREY - 30%BEAR CREEK			½" DEEP RAKED GROUT JOINT

EXTERIOR FINISH SCHEDULE H

1. BUILDING SIGN, BY VENDOR. SEE STRUCTURAL BLOCKING ELEVATIONS, SHEET SS.0 FOR MORE INFORMATION. SEE ELECTRICAL PLANS FOR POWER REQUIREMENTS.
2. DRIVE THRU WINDOW. SEE SHEET A1.0 AND A1.1.
3. DASHED LINE INDICATES ROOF BEYOND.
4. STOREFRONT, TYPICAL.
5. CONCRETE ROOF TILES.
6. SWITCH GEAR. PAINT TO MATCH WALL.
7. HARDIETRIM BOARD TO BE PAINTED
8. EXTERIOR LIGHT FIXTURE. RE:ELEC
9. ASSUME D/T LANE SURFACE IS 6" BELOW THE FINISH FLOOR. REFER TO GRADING & SITE PLAN.
10. EPS CORNICE WITH EIFS FINISH
11. TOWER WITH BRICK VENEER FINISH
12. PARAPET COPING. IF DURO-LAST EDGE TRIM IS USED. USE THE DURO-LAST PRE-FINISHED EDGE TRIM. SEE DETAIL 2/A6.0.
13. CO2 FILLER VALVE & COVER. SEE DETAIL 5/A6.2 SIM.
14. PAINT DOOR TO MATCH ADJACENT WALL FINISH
15. GAS SERVICE.
16. WALL SHALL BE FINISHED PRIOR TO INSTALLATION OF SWITCHGEAR.
17. SCUPPER, COLLECTOR, AND VERTICAL DOWNSPOUT 6" MIN. PAINT TO MATCH ADJACENT WALL UNLESS SPECIFIED OTHERWISE.
18. CONCRETE CURB.
19. RTU BEYOND.
20. BREAK METAL COVER OVER WOOD STUDS TO MATCH STOREFRONT. SEE 3/A6.1
21. OVERFLOW SCUPPER
22. NOT USED.
23. BOLLARD - SEE CIVIL
24. DUROLAST SINGLE MEMBRANE ROOFING OR EQUAL.
25. IF THE DURO LAST PARAPET CAP TRIM IS USED IT SHALL NOT BE PAINTED.
26. NOT USED.
27. EIFS (TYP)
28. WALL PACK LIGHT FIXTURE.
29. STOREFRONT DOOR. REFER TO DOOR SCHEDULE.
30. HOSE BIBB LOCATION. REFER TO PLUMBING AND DETAIL 8/A6.2
31. EIFS REVEAL PER DETAIL 13/A6.2
32. METAL AWNING - BY OTHERS, INSTALLATION AND BLOCKING BY GC.
33. 4" Ø BOLLARDS AT ALL DOWNSPOUTS.
34. PRE-FAB CORNER TO MATCH FIBER CEMENT PANEL.
35. 3 1/2" FIBER CEMENT BOARD TRIM - PAINT TO MATCH ADJACENT FIBER CEMENT BOARD PANEL.

KEY NOTES D

GLMV ARCHITECTURE
1525 E. Douglas, Wichita, KS 67211
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MISSOURI STATE OF
AUTHORITY
#FC0364807

MARK D. McCLUGGAGE
ARCHITECT
LIC. NO.A-7139

08-23-19

18048.19003

2	VE ITEMS	08.21.19
1	REV 3	08.23.19

CONTRACT DATE: 05.20.19
BUILDING TYPE: TE40M
PLAN VERSION:
SITE NUMBER:
STORE NUMBER:

TACO BELL

851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MO

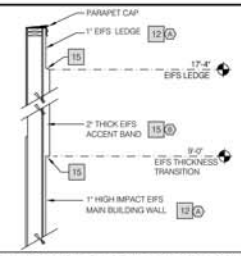
EXPLORER
MEDIUM40

EXTERIOR ELEVATIONS

A4.0

SOUTH SIDE ELEVATION 1/8" = 1'-0" A

NOT USED N.T.S. H



EIFS THICKNESS COLOR TRANSITION N.T.S. G

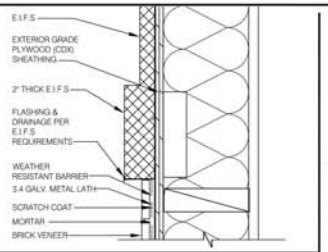
MISCELLANEOUS
A. SEE SHT A1.1 'WINDOW TYPES' FOR WINDOW ELEVATIONS.

SEALERS (REFER TO SPECS).
A. SEALANT AT ALL WALL AND ROOF PENETRATIONS.
B. SEALANT AT ALL WINDOW AND DOOR FRAMES AT HEAD AND JAMS. DO NOT SEAL SILL @ WINDOWS.
C. APPLY NEOPRENE GASKET (CONT.) BETWEEN BUILDING & CANOPY.

'CRITICAL' DIMENSIONS.
A. REQUIRED CLEAR OPENING WIDTH TO ENSURE COORDINATION WITH STANDARD SIGNAGE/ BUILDING ELEMENTS DIMENSIONS.

NOTE: NO EXTERIOR SIGNS ARE WITHIN THE SCOPE OF WORK COVERED BY THE BUILDING PERMIT APPLICATION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL EXTERIOR SIGNS AND INSTALLATION OF REQUIRED BLOCKING AND ELECTRICAL CONNECTIONS FOR FINAL APPROVED SIGNS.

GENERAL NOTES F



EIFS/BRICK TRANSITION DETAIL E

(A) BASE THICKNESS - 1" THICK E.I.F.S.
(B) BASE THICKNESS - 2" THICK E.I.F.S.

E.I.F.S. THICKNESS N.T.S. B

NOTE: SIGNAGE UNDER SEPARATE PERMIT

V-XXXX	QTY	ITEM DESCRIPTION	ELEC
V-1023	3	TB 3'-6" x 4'-0" LOGO BELL - FACE LIT	X
V-1043	3	TB 14" CHANNEL LETTER WHITE	X

SIGN SCHEDULE N.T.S. C

SYMBOL	AREA	MANUFACTURER	COLOR	ALTERNATE MFR.	ALTERNATE COLOR	CONTACT INFORMATION
1	HARDIETRIM BOARD	JAMES HARDIE	TO BE PAINTED SW 6098 "PACER WHITE"			
2	CONCRETE ROOF TILE	EAGLE ROOFING PRODUCTS	TAPERED SLATE			
3	PARAPET CAP (TOWER)	DUROLAST (25)	MEDIUM BRONZE (FACTORY FINISH)	SHERWIN WILLIAMS	SW 7069 "IRON ORE"	DURO-LAST, LEE COBB, 800-434-3876 (PHONE)
4	NOT USED	—	—			
5	PARAPET CAP (SIDES)	DUROLAST (25)	REGAL WHITE (FACTORY FINISH)			
6	PARAPET CAP (COOLER)	DUROLAST (25)	GALVALUME PLUS (FACTORY FINISH)			
7	STOREFRONT WINDOWS	TBD	CLEAR ANODIZED			
8	PIPE BOLLARDS	STREET SMART	YELLOW - 1/4" THICK PLASTIC COVER (US.POSTMAN.COM) OR EQUAL			
9	PARAPET BACK ROOFING	DUROLAST	THE COLOR SHALL BE FACTORY COLORED "TAN." EQUAL ALTERNATE ALLOWED.			DURO-LAST, LEE COBB, 800-434-3876 (PHONE)
10	AWNING, COOLER WALL	BERRIDGE	S-DECK PREWEATHERED GALVALUME			
11	NOT USED	—	—			NICHIHA, CHRIS TATE, 404-538-1261 (PHONE), ctate@nichiha.com (EMAIL)
12	MAIN BUILDING COLOR	SHERWIN WILLIAMS	SW 7067 "CITYSCAPE"			
13	FIBER CEMENT PANELS	NICHIHA - ROUGH SAWN	"SMOKE"			NICHIHA, CHRIS TATE, 404-538-1261 (PHONE), ctate@nichiha.com (EMAIL)
14	NOT USED	—	—			
15	ACCENT COLOR	SHERWIN WILLIAMS	SW 6098 "PACER WHITE"			
16	FIBER CEMENT BOARD TRIM	JAMES HARDIE	HARDIETRIM - 5/4" X 3 1/2". SMOOTH			
17	BRICK VENEER	CORONADO STONE PRODUCTS	SPECIAL USED BRICK, EAGLE BLUFF			X" DEEP RAKED GROUT JOINT

EXTERIOR FINISH SCHEDULE H

1. BUILDING SIGN, BY VENDOR. SEE STRUCTURAL BLOCKING ELEVATIONS, SHEET SS.0 FOR MORE INFORMATION. SEE ELECTRICAL PLANS FOR POWER REQUIREMENTS.
2. DRIVE THRU WINDOW. SEE SHEET A1.0 AND A1.1.
3. DASHED LINE INDICATES ROOF BEYOND.
4. STOREFRONT, TYPICAL.
5. CONCRETE ROOF TILES.
6. SWITCH GEAR. PAINT TO MATCH WALL.
7. HARDIETRIM BOARD TO BE PAINTED.
8. EXTERIOR LIGHT FIXTURE, RE.ELEC.
9. ASSUME D/T LANE SURFACE IS 6" BELOW THE FINISH FLOOR. REFER TO GRADING & SITE PLAN.
10. EPS CORNICE WITH EIFS FINISH.
11. TOWER WITH BRICK VENEER FINISH.
12. PARAPET COPING. IF DURO-LAST EDGE TRIM IS USED. USE THE DURO-LAST PRE-FINISHED EDGE TRIM. SEE DETAIL 2/A6.0.
13. ~~CGE FILLER VALVE & COVER~~. SEE DETAIL 5/A6.2 SIM.
14. PAINT DOOR TO MATCH ADJACENT WALL FINISH
15. GAS SERVICE.
16. WALL SHALL BE FINISHED PRIOR TO INSTALLATION OF SWITCHGEAR.
17. SCUPPER, COLLECTOR, AND VERTICAL DOWNSPOUT 6" MIN. PAINT TO MATCH ADJACENT WALL, UNLESS SPECIFIED OTHERWISE.
18. CONCRETE CURB.
19. RTU BEYOND.
20. BREAK METAL COVER OVER WOOD STUDS TO MATCH STOREFRONT. SEE 3/A6.1
21. OVERFLOW SCUPPER
22. NOT USED.
23. BOLLARD - SEE CIVIL.
24. DUROLAST SINGLE MEMBRANE ROOFING OR EQUAL.
25. IF THE DURO LAST PARAPET CAP TRIM IS USED IT SHALL NOT BE PAINTED.
26. NOT USED.
27. EIFS (TYP).
28. WALL PACK LIGHT FIXTURE.
29. STOREFRONT DOOR. REFER TO DOOR SCHEDULE.
30. HOSE BIBB LOCATION. REFER TO PLUMBING AND DETAIL 8/A6.2
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KEY NOTES D

GLMV ARCHITECTURE
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MISSOURI STATE OF AUTHORITY
#F10364807

MARK D. McCLUGGAGE
ARCHITECT
LIC. NO.A-7139

18048.19003

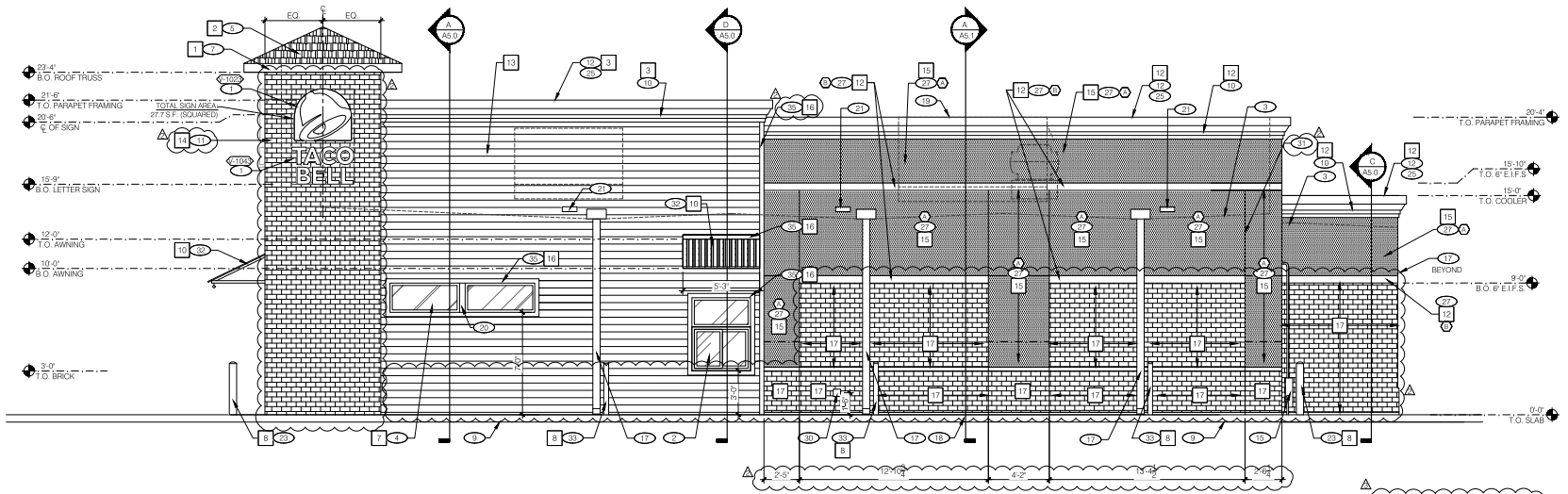
CONTRACT DATE: 05.20.19
BUILDING TYPE: TE40M
PLAN VERSION:
SITE NUMBER:
STORE NUMBER:

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MO

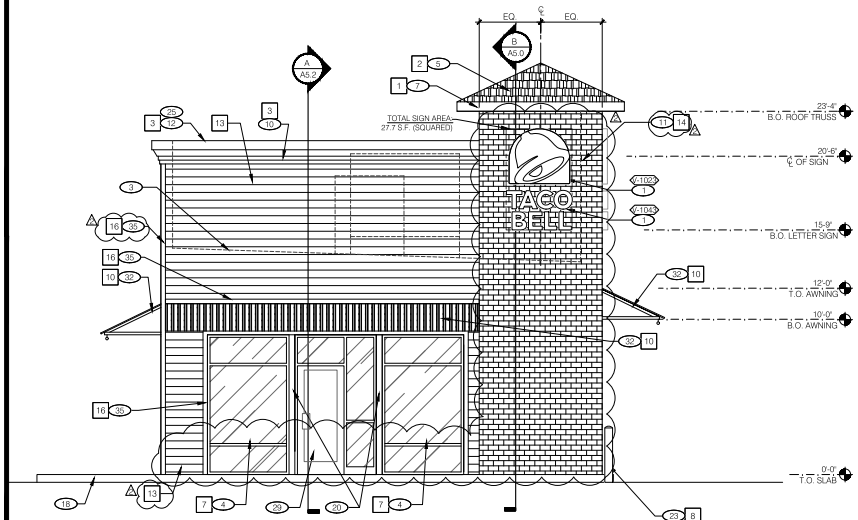
EXPLORER
MEDIUM40

EXTERIOR ELEVATIONS

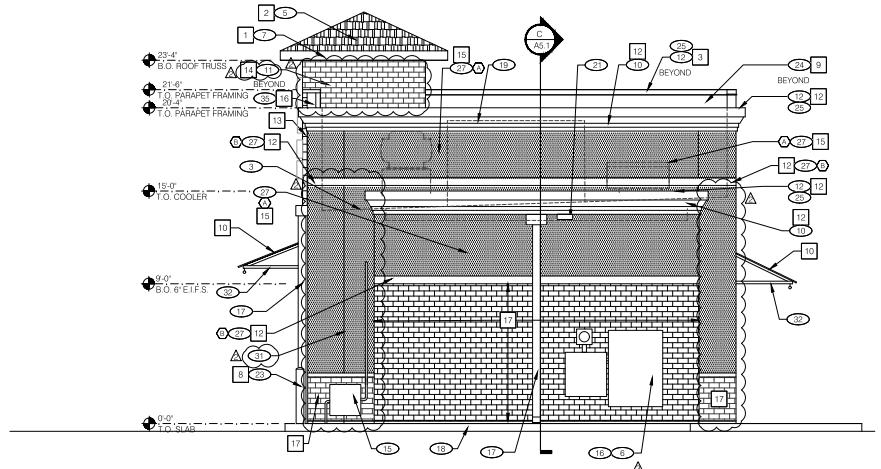
A4.0



WEST SIDE ELEVATION 1/4" = 1'-0" A



SOUTH ELEVATION 1/4" = 1'-0" C



NORTH ELEVATION 1/4" = 1'-0" B

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#FC0364807

MARK D. McCLUGGAGE
ARCHITECT
LIC. NO.A-7139

STATE OF MISSOURI
MARK D. McCLUGGAGE
A-7139
REGISTERED ARCHITECT

08-23-19

18048.19003

VE ITEMS	
REV 3	08.23.19

CONTRACT DATE: 05.20.19
BUILDING TYPE: TE40M
PLAN VERSION:
SITE NUMBER:
STORE NUMBER:

TACO BELL

851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MO

EXPLORER
MEDIUM40

EXTERIOR ELEVATIONS

A4.1

NORTH SIDE ELEVATION 1/4" = 1'-0" | **A**

WEST ELEVATION 1/4" = 1'-0" | **C**

EAST ELEVATION 1/4" = 1'-0" | **B**

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MISSOURI STATE OF
AUTHORITY
#F10C964807

MARK D. McCLUGGAGE
ARCHITECT
LIC. NO.A-7139

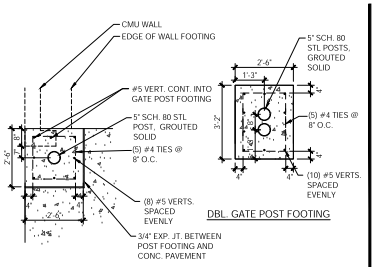
18048.19003

CONTRACT DATE:	05.20.19
BUILDING TYPE:	TE40M
PLAN VERSION:	
SITE NUMBER:	
STORE NUMBER:	

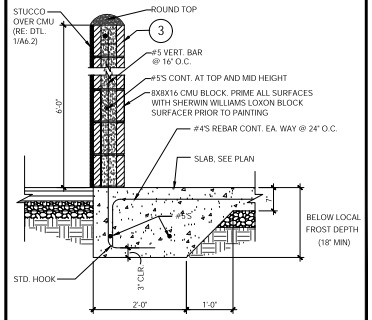
TACO BELL

851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MO

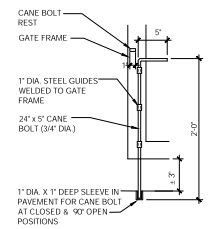
EXPLORER
MEDIUM40



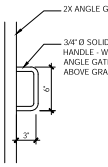
GATE POST FOOTINGS N.T.S. | F



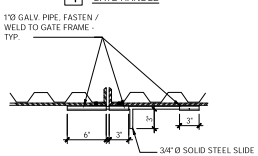
CMU WALL SECTION N.T.S. | D



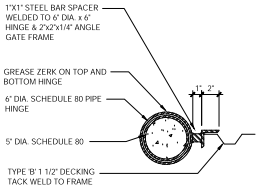
5 CANE BOLT (1 PER GATE)



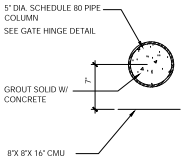
4 GATE HANDLE



3 GATE LATCH



2 GATE HINGE DETAIL



1 JAMB DETAIL

GATE DETAILS VARIES | C

GATE HARDWARE: ALL HARDWARE AND ACCESSORIES SHALL BE HEAVY GALVANIZED.

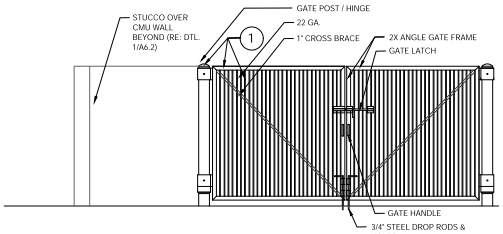
GATE STOP: MUSHROOM TYPE OR FLUSH PLATE WITH ANCHORS SET IN CONCRETE TO ENGAGE THE CENTER DROP ROD OR PLUNGER BAR.

GATE NOTES: (4) EQUAL WIDE X 6-0" HIGH MTL. GATES, TYPE 'B' 1 1/2" DECKING, 22GA. W/ T.S. 1 X .1875 BAR CROSS BRACING WELD AND GRIND SMOOTH ALL CONNECTIONS, TYP. PRIME AND PAINT ALL STEEL COMPONENTS.

ENCLOSURE NOTES N.T.S. | I

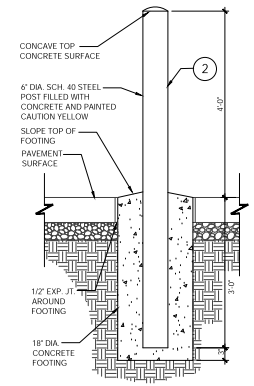
SYMBOL	AREA	MANUFACTURER	COLOR
1	GATE COLOR	SHERWIN WILLIAMS	IRON ORE SW 7069
2	PIPE BOLLARDS	SHERWIN WILLIAMS	SAFETY YELLOW
3	CMU/STUCCO	SHERWIN WILLIAMS	PACER WHITE SW 6098
VERIFY ALL COLORS WITH ARCHITECT PRIOR TO CONSTRUCTION			

SCHEDULE N.T.S. | G



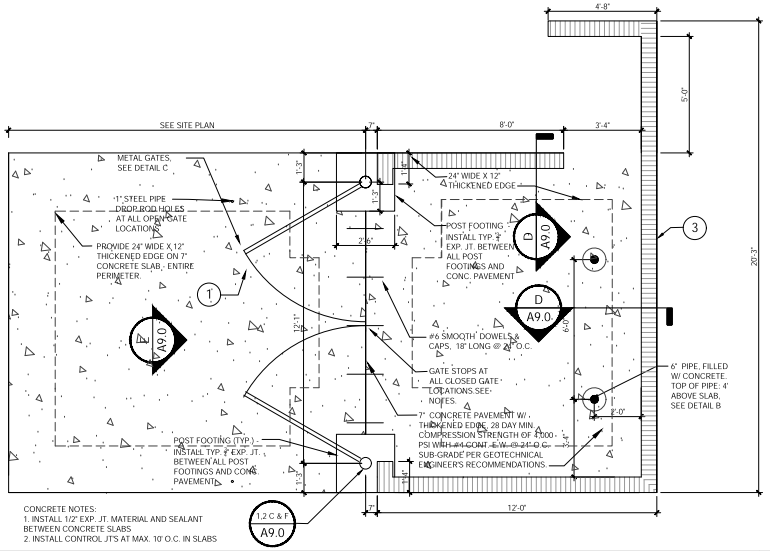
FRONT ELEVATION N.T.S. | E

NOT USED N.T.S. | 1



1 GUARDPOST BOLLARD DETAIL

BOLLARD DETAILS 1/4" = 1'-0" | B



DUMPSTER PLAN N.T.S. | A

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LIC. NO. A-7139

07.03.19

18048.19003

CONTRACT DATE: 07.03.19
BUILDING TYPE: TE40M
PLAN VERSION:
SITE NUMBER:
STORE NUMBER:

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MO

EXPLORER
MEDIUM40

SMALL CMU DUMP. ENCLOSURE PLAN & DETAILS

A9.0

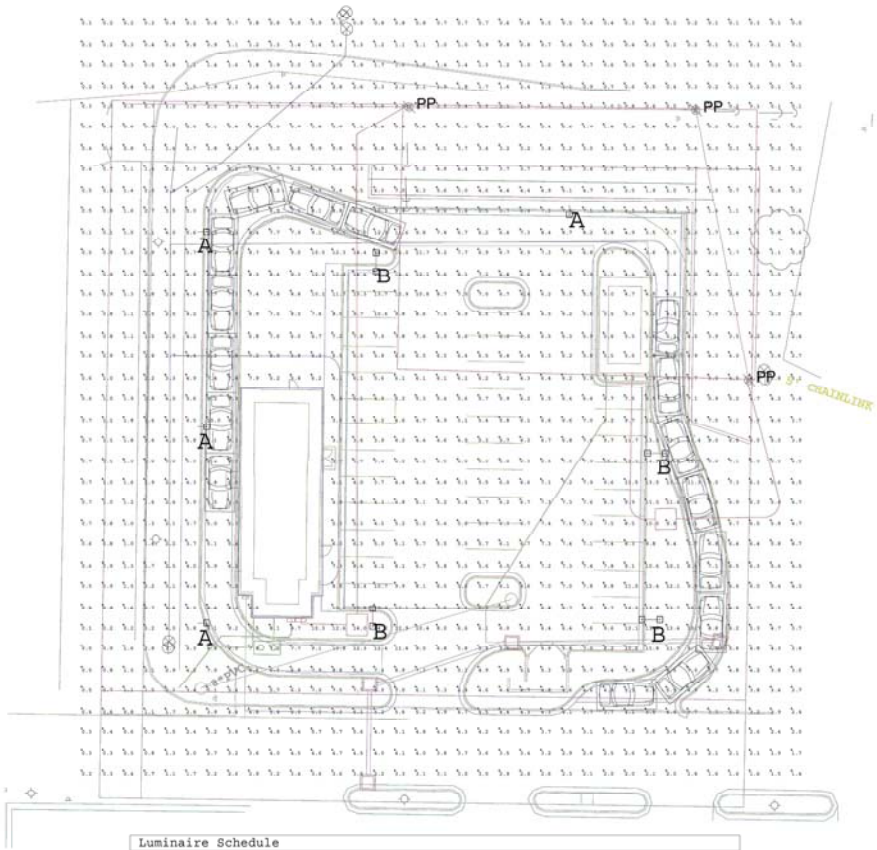
CAPITOL LIGHT
www.capitollight.com

PHOTOMETRICS COMPLETED BY CAPITOL LIGHT

LOCATION WOODS CHAPEL

Please contact Amanda Soaft if you would like a quote or to place an order
860-520-2331
amanda.soaft@capitollight.com

TACO BELL



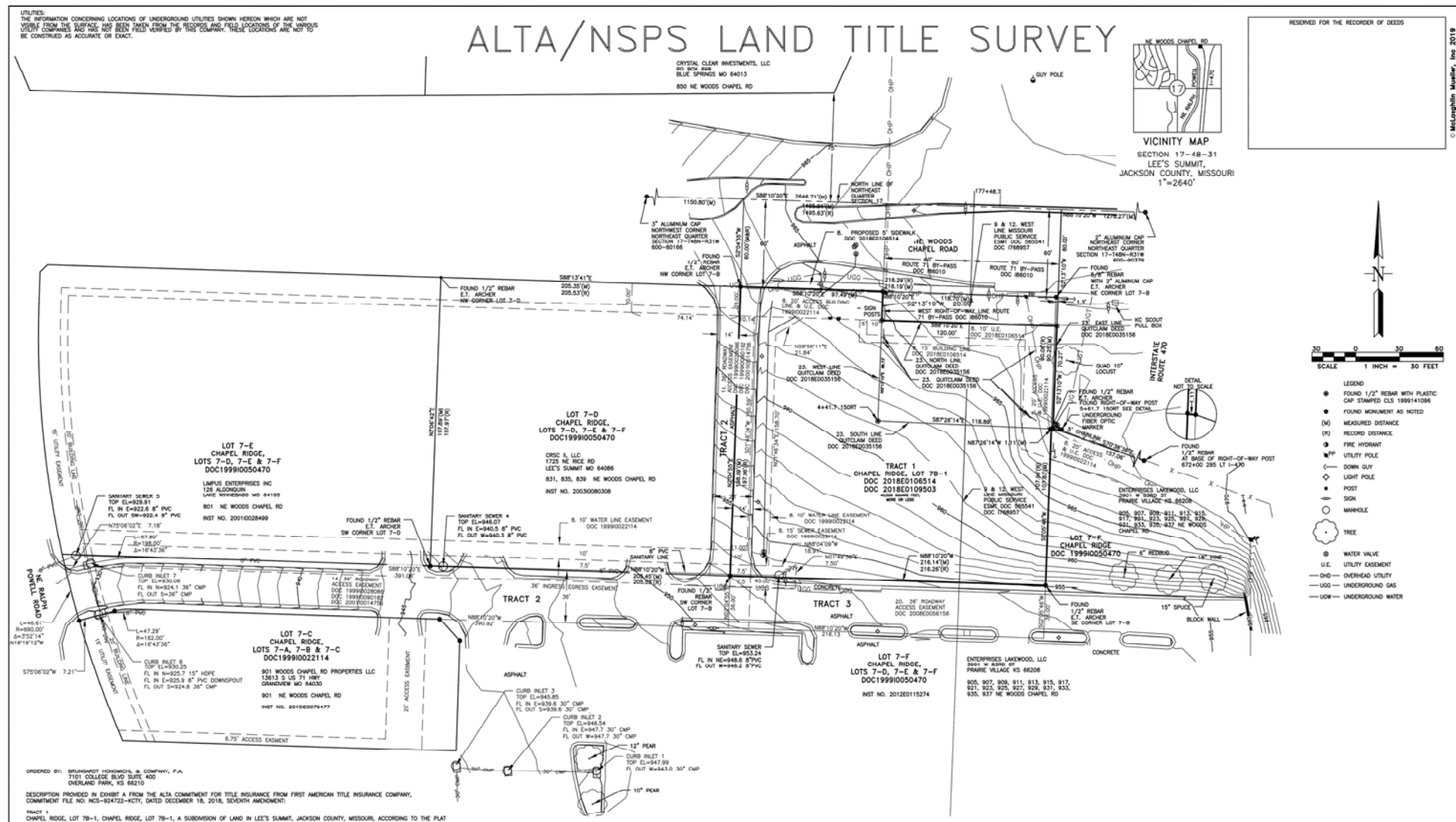
Luminaire Schedule			
Symbol	Qty	Label	Description
	4	A	MRM-LED-30L-SIL-FT-40-70CRI MOUNTED AT 25'
	4	B	MRM-LED-30L-SIL-FT-40-70CRI MOUNTED AT 25'

Calculation Summary					
Label	Avg	Max	Min	Avg/Min	Max/Min
-	N.A.	N.A.	N.A.	N.A.	N.A.
DRIVE THRU SURFACE	7.68	13.3	2.7	2.84	4.93
PARKING LOT SURFACE	6.89	13.7	3.4	2.03	4.03

UTILITIES:
THE INFORMATION CONCERNING LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON WHICH ARE NOT VISIBLE FROM THE SURFACE, HAS BEEN TAKEN FROM THE RECORDS AND FIELD LOCATIONS OF THE VARIOUS UTILITY COMPANIES AND HAS NOT BEEN FIELD VERIFIED BY THIS COMPANY. THESE LOCATIONS ARE NOT TO BE CONSTRUED AS ACCURATE OR EXACT.

ALTA/NSPS LAND TITLE SURVEY

RESERVED FOR THE RECORDER OF DEEDS



SCALE 1 INCH = 30 FEET

LEGEND
- FOUND 1/2" REBAR WITH PLASTIC CAP STAMPED CLS 1999141096
- FOUND MONUMENT AS NOTED
- (M) MEASURED DISTANCE
- (R) RECORD DISTANCE
- FIRE HYDRANT
- UTILITY POLE
- DOWN GUY
- LIGHT POLE
- POST
- SIGN
- MANHOLE
- TREE
- WATER VALVE
- U.E. UTILITY EASEMENT
- OHD OVERHEAD UTILITY
- UGG UNDERGROUND GAS
- UGW UNDERGROUND WATER

ORDERED BY: BRUNGARDT HONOMICHL & COMPANY, P.A.
7101 COLLEGE BLVD SUITE 400
OVERLAND PARK, KS 66210

DESCRIPTION PROVIDED IN EXHIBIT A FROM THE ALTA COMMITMENT FOR TITLE INSURANCE FROM FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT FILE NO: NCS-924722-KCTY, DATED DECEMBER 18, 2018, SEVENTH AMENDMENT:

TRACT 1
CHAPEL RIDGE, LOT 7B-1, CHAPEL RIDGE, LOT 7B-1, A SUBDIVISION OF LAND IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE PLAT RECORDED IN BOOK 180, PAGE 49, AS DOCUMENT NO. 2018E0106514, AS AMENDED BY AFFIDAVIT RECORDED AS DOCUMENT NO. 2018E0109503.

TRACT 2
NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS AS SET FORTH IN DEDICATION OF ROADWAY/ACCESS EASEMENT FILED APRIL 16, 1999 AS DOCUMENT NO. 1999I0028086 AMENDED BY DOCUMENT NO. 1999I0090182 AND RE-RECORDED AS DOCUMENT NO. 2001I0014756.

TRACT 3
NON-EXCLUSIVE ACCESS EASEMENT FOR VEHICULAR AND PEDESTRIAN INGRESS AND EGRESS AS SET FORTH IN ACCESS EASEMENT FILED MAY 22, 2008 AS DOCUMENT NO. 2008E0056156.

ITEMS 8, 9, 12, 13, 14, 15, 18, 19 AND 23 FROM THE SCHEDULE B, PART II EXCEPTIONS FROM THE ALTA COMMITMENT FOR TITLE INSURANCE FROM FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT FILE NO: NCS-924722-KCTY, DATED DECEMBER 18, 2018, SEVENTH AMENDMENT:

8. EASEMENTS, RESTRICTIONS AND SETBACK LINES, AS PER PLAT, RECORDED AS DOCUMENT NO. 1999I0022114. SHOWN HEREON.

EASEMENTS, RESTRICTIONS AND SETBACK LINES, AS SET FORTH ON THE RECORDED PLAT FILED DECEMBER 14, 2018 AS DOCUMENT NO. 2018E0106514 IN BOOK 180, PAGES 49-50. SHOWN HEREON.

AS AMENDED BY AFFIDAVIT RECORDED DECEMBER 27, 2018 AS DOCUMENT NO. 2018E0109503. SHOWN HEREON.

9. EASEMENT GRANTED TO MISSOURI PUBLIC SERVICE CORPORATION, A DELAWARE CORPORATION, BY THE INSTRUMENT RECORDED AS DOCUMENT NO. 560341 IN BOOK 862, PAGE 453, SHOWN HEREON.

12. EASEMENT GRANTED TO MISSOURI PUBLIC SERVICE CORPORATION, A DELAWARE CORPORATION, BY THE INSTRUMENT RECORDED AS DOCUMENT NO. 1768957 IN BOOK 11673, PAGE 1422, SHOWN HEREON.

13. TERMS AND PROVISIONS OF THE RESTRICTIONS CONTAINED IN THE INSTRUMENT RECORDED AS DOCUMENT NO. 98-I-44075 IN BOOK I3213, PAGE 914 CORRECTED BY DOCUMENT NO. 2002I0057160. LIES WITHIN THE BOUNDARY DESCRIBED.

14. DEDICATION OF ROADWAY/ACCESS EASEMENT FILED APRIL 16, 1999 AS DOCUMENT NO. 1999I0028086 AMENDED BY DOCUMENT NO. 1999I0090182 AND RE-RECORDED AS DOCUMENT NO. 2001I0014756. SHOWN HEREON.

18. RESTRICTIONS AS SET FORTH IN THE RESTRICTIVE COVENANT AGREEMENT RECORDED AS DOCUMENT NO. 1999I0018764. LIES WITHIN THE BOUNDARY DESCRIBED.

18. TERMS AND PROVISIONS OF AN ACCESS EASEMENT FILED MAY 22, 2008 AS DOCUMENT NO. 2008E0056156. SHOWN HEREON.

19. RESERVATION IN AND TO THE OIL, GAS AND OTHER MINERALS OF EVERY NATURE ON, IN AND UNDER OR THAT BE PRODUCED FROM THE LAND AND THE TERMS AND PROVISIONS RELATED THERETO, ALL AS SET FORTH IN A SPECIAL WARRANTY DEED FROM N3 DEVELOPMENT, LTD., A TEXAS LIMITED PARTNERSHIP TO Miki MARSHALL & ILSLEY BANK, A WISCONSIN STATE CHARTERED BANK, FILED MAY 22, 2008, AS DOCUMENT NO. 2008E0056157. LIES WITHIN THE BOUNDARY DESCRIBED.

23. ABUTTER'S RIGHT OF ACCESS RESERVED IN QUITCLAIM DEED BY THE STATE OF MISSOURI, ACTING BY AND THROUGH THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION RECORDED APRIL 24, 2018 AS DOCUMENT NO. 2018E0035156. SHOWN HEREON. SEE NOTE.

TABLE A:
1. MONUMENTS HAVE BEEN PLACED OR FOUND AT ALL MAJOR CORNERS OF THE BOUNDARY OF THE PROPERTY.
2. ADDRESSES SHOWN HEREON HAVE BEEN TAKEN FROM THE JACKSON COUNTY ASSESSOR.
3. THIS PROPERTY IS DESIGNATED AS ZONE X, ACCORDING TO THE FLOOD INSURANCE RATE MAP, COMMUNITY-PANEL NUMBER 29095C0430G, DATE JANUARY 20, 2017.
4. THE GROSS LAND AREA OF CHAPEL RIDGE, LOT 7B-1 CONTAINS 0.83 ACRES, MORE OR LESS.
5. VERTICAL RELIEF BASED ON MGRS STATION JA-134, EL=969.81 NAVD 1988.
7A. NO BUILDINGS OBSERVED.
8. SUBSTANTIAL FEATURES ARE SHOWN HEREON.
9. NO PARKING SPACES WERE OBSERVED.
11. OBSERVED EVIDENCE OF UTILITIES TOGETHER WITH EVIDENCE FROM PLANS FROM APPROPRIATE SOURCES HAS BEEN SHOWN HEREON. MISSOURI ONE-CALL WAS CONTACTED, TICKET NUMBER 190092705 INDICATING THAT SPIRE MO WEST, THE CITY OF LEE'S SUMMIT AND CENTURYLINK FIBER WERE MARKED, ALL OTHERS NOTED AS CLEAR.
13. NAMES OF ADJOINING OWNERS OF PLATTED LANDS SHOWN HEREON HAVE BEEN TAKEN FROM THE JACKSON COUNTY ASSESSOR.
16. NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS WERE OBSERVED DURING THE PROCESS OF CONDUCTING THE FIELDWORK.

NOTES:

ITEM NUMBER 23 IN THE SCHEDULE B, PART II EXCEPTIONS DISCLOSED DOCUMENT 2018E0035156 A QUITCLAIM DEED, WHICH RESERVES ABUTTER'S RIGHT OF NO ACCESS TO ROUTE I-470 AND WOODS CHAPEL ROAD AND FOR KNOWN OR UNKNOWN UTILITY FACILITIES CURRENTLY LOCATED WITHIN THE AREA OF THE QUITCLAIM DEED.

THE EASEMENT THAT DESCRIBES TRACT 2 PURPORTS TO DEDICATE AN EASEMENT TO FUTURE OWNERS FROM THE OWNER.

BEARINGS SHOWN HEREON ARE BASED ON MISSOURI STATE PLANE COORDINATES 1983 FROM MGRS STATION JA-134. N=312470.096M E=862368.275M GRID FACTOR=0.9999018 DATE OF ADJUSTMENT=2003

THIS ALTA/NSPS LAND TITLE SURVEY WAS MADE FOR THE EXCLUSIVE USE OF BRUNGARDT HONOMICHL & COMPANY, P.A. AND FIRST AMERICAN TITLE INSURANCE COMPANY.

THIS CERTIFICATION DOES NOT EXTEND TO ANY UNNAMED PERSONS OR LEGAL ENTITIES WITHOUT WRITTEN CERTIFICATION EXPRESSLY NAMING THOSE PERSONS OR LEGAL ENTITIES.

THIS SURVEY WAS BASED ON THE COMMITMENT FOR TITLE INSURANCE FROM FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT FILE NO: NCS-924722-KCTY, DATED DECEMBER 18, 2018, SEVENTH AMENDMENT.

TO: BRUNGARDT HONOMICHL & COMPANY, P.A. AND FIRST AMERICAN TITLE INSURANCE COMPANY,
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7A, 8, 9, 11, 13 AND 16 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MARCH 20, 2019. THIS SURVEY WAS EXECUTED IN ACCORDANCE WITH THE CURRENT MISSOURI STANDARDS FOR PROPERTY BOUNDARY SURVEYS. TYPE URBAN. DIGITAL MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT. ONLY A SIGNED AND SEALED DRAWING IS TO BE CONSIDERED THE ORIGINAL DOCUMENT.

Project No. 19017
Sht. No. 1

No.	Revision	By	Date

MCLAUGHLIN MUELLER, INC.
Professional Land Surveyors
213 West Mill Street
Liberty, MO 64068
PH 816-407-0002 FX 816-407-0003
Corporation LS 1999141096

Designed By: MAM
Drawn By: MTW
Checked By: MAM
Approved By: MAM
Date: APRIL 4, 2019

ALTA/NSPS, CHAPEL RIDGE, LOT 7B-1, 851 N.E. WOODS CHAPEL ROAD, SECTION 17, T48R, R31W, LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

BY MCLAUGHLIN MUELLER, INC.

PRELIMINARY
THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

MARTIN MUELLER, PLS 2487

19017.dwg

LEGEND

Proposed Line Types and Symbols shown. Existing Line Types and Symbols shall be the same, but screened, unless designated otherwise by the inclusion of a survey by others.

- Set Survey Monument
- Set Survey Monument (in concrete)
- Found Survey Monument
- Found Survey Monument in Box
- (O.U.) Origin Unknown
- Found Right-of-Way Marker
- Control Point
- Benchmark
- Set Hub
- OHC Overhead Utility Line(s)
- Underground Electric Line Marker
- UGE Underground Electric Line
- KCP&L Underground KCP&L Line (e.g.)
- Utility Pole
- Utility Pole with Transformer
- Guy Anchor
- Utility Pole w/Light & arm
- Street Light Pole w/ arm
- Street Light Pole (14')
- Electric Pedestal (above ground)
- Electric Meter
- Electric Access Vault (underground)
- Electric Access Box (mounted)
- Electric Manhole
- Electric Pull Box (underground)
- Transformer (pad mounted)
- Yard Light
- Air Conditioner Unit
- W Water Line
- WS Water Service Line
- Underground Water Line Marker
- Water Valve
- Fire Hydrant
- Fire Hydrant Assembly
- Water Meter
- Water Manhole
- WV Water Vault (underground)
- Sprinkler Control Box
- Sprinkler Head
- Yard Hydrant
- BFV Backflow Valve (BFV)
- BFP Backflow Preventer (BFP)
- Blow-Off Assembly
- GAS Gas Line
- GS Gas Service Line
- SPIRE Underground Spire Line (e.g.)
- Underground Gas Line Marker
- Gas Manhole or Access Lid
- Gas Valve
- RG Regulator Unit
- GM Gas Meter
- Casing Vent
- Underground Pipe Line (High Capacity)
- Underground Pipe Line Marker
- UGT Underground Telephone Line
- ATT Underground AT&T Line (e.g)
- Underground Telephone Line Marker
- Telephone Pedestal (above ground)
- Telephone Manhole
- TA Telephone Access Vault (underground)
- TB Telephone Access Box (mounted)
- FO Underground Fiber Optic Line
- Underground Fiber Optic Line Marker
- Fiber Optic Pedestal
- Fiber Optic Manhole
- FV Fiber Optic Vault (underground)
- FA Fiber Optic Pedestal on top of Vault
- [36"] Traffic Signal Post w/ Mast Arm
- Pedestrian Signal Pole
- Traffic Control Manhole
- TC Traffic Control Cabinet
- TV Traffic Control Vault (underground)
- UGV Underground Cable TV Line
- SPC Underground Spectrum Line (e.g.)
- Underground Cable TV Marker
- Cable TV Pedestal (above ground)
- Manhole-Unknown Purpose
- GT Grease Trap Access Lid
- MW Monitoring Well
- BH Bore Hole
- Fill Lid (for Underground Tank)
- SAN Sanitary Sewer Line
- SS Sanitary Sewer Service Line
- S Sanitary Sewer Manhole
- Clean-out
- VCP Vitrified Clay Pipe
- DIP Ductile Iron Pipe
- PVC Polyvinyl Chloride Pipe
- CIP Cast Iron Pipe
- Underground Utility Line Marker
- Metal Guard Rail or Handrail
- Flag Pole
- Satellite Dish
- Mailbox
- Concrete or Metal Bollard
- Wood Bollard or Wood Post
- STM Storm Sewer Line
- Storm Sewer Manhole
- Curb Inlet
- Field Inlet
- Junction Box
- Grate Inlet
- Grate Inlet (Round/Domed)
- End Section
- Headwall
- DS Down Spout
- RD Roof Drain
- CMP Corrugated Metal Pipe
- CMAP Corrugated Metal Arch Pipe
- CPP Corrugated Plastic Pipe
- HDPE High Density Polyethylene Pipe
- RCP Reinforced Concrete Pipe
- RCAP Reinforced Concrete Arch Pipe
- RCB Reinforced Concrete Box
- FES Flared End Section
- Pipe Continues-Outlet or Source Not Found or Not Surveyed
- Wood Fence
- Chain Link Fence
- Wire Fence (with or without barb)
- Barbed Wire Fence
- Plastic Fence
- Iron or Metal Fence
- Gate Post
- Retaining Wall
- Single Pole Sign
- Single Pole Sign
- Double Pole Sign
- Railroad Crossing Gate
- Railroad Switch Machine
- Railroad Tracks
- Wheel Stop
- ADA Parking Stall
- ADA Detection Warning Pad
- Bush
- Deciduous Tree and Size (Scaled for Size)
- Coniferous Tree and Size (Scaled for Size)
- Tree Stump
- Foliage Drip Line/Edge of Timber
- Hedge
- Center Line
- PL Property Line
- R/W Right-of-Way Line
- R= Radius
- L= Arc Length
- CB Chord Bearing
- CD Chord Distance
- Δ Interior Angle (Delta)
- I.T.B. Initial Tangent Bearing
- R/W Right-of-Way
- (M) Monumented
- (m) Measured
- (D) Deeded
- (P) Platted
- (C) Calculated
- (CR) Calculated from Record Dimensions
- (CM) Calculated from Found Monuments
- (PR) Proportioned
- BK. Book
- PG. Page
- DOC. Document Number
- INS. Instrument Number
- VOL. Volume
- ESMT. Easement
- B/L Building Setback Line
- U/E Utility Easement
- D/E Drainage Easement
- ST/E Storm Sewer Easement
- S/E Sanitary Sewer Easement
- I/E/E Ingress/Egress Easement
- TC/E Temporary Construction Easement
- SQ. FT. Square Feet
- AC Acres
- CY Cubic Yard
- LF Linear Feet
- CO. Company
- L/S Landscaping (Bushes, Trees, Flowers, Border, Mulch, any or all of them)
- ASPH Asphalt
- CONC Concrete
- COR Corner
- R.WALL Retaining Wall
- STA. Station
- Lt Left
- Rt Right
- PI Point of Intersection
- P/C Point of Curve
- PT Point of Tangent
- Not To Scale
- NTS Not To Scale

LEGAL DESCRIPTION

CHAPEL RIDGE LOT 7B-1

SURVEY NOTES

1. Bearings shown hereon are based on Missouri State Plane Coordinates 1983 from MGRS station JA-134. N=312470.096m E=862368.275m grid factor=0.9999018 date of adjustment=2003
2. This Tract contains 40,528 square feet or 0.93 acres.
3. Contours are shown at 1 foot intervals.
4. Based on record research and field exploration, there were no oil or gas wells located on site.

UTILITY NOTES

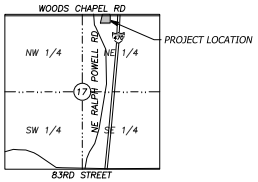
The information concerning locations of underground utilities shown hereon which are not visible from the surface, has been taken from the records and field locations of the various utility companies and has not been field verified by this company. These locations are not to be construed as accurate or exact.

FLOOD STATEMENT

The subject property lies within Flood Zone X, as shown on the JACKSON COUNTY, MISSOURI Flood Insurance Rate Map (F.I.R.M.).

Map Number: 29095C0430G
Effective Date: 01/20/2017

NOTE: This statement is provided for informational purposes only and shall in no way constitute a basis for a flood certificate. No field work was performed to establish the boundaries of this zone. The information was derived by scaling the subject property on the above referenced map.



SECTION MAP

SCALE: 1" = 2000'
SECTION 18-T14S-R25E
JOHNSON COUNTY, KANSAS

GENERAL NOTES

1. All work in public easement and Right-of-Way shall be installed per the requirements and specifications of the City of Lee's Summit, Missouri.
2. All existing topographic, survey, and utility information shown was provided to BHC Rhodes in the form of an Topographic Survey prepared by McLaughlin Mueller, Inc. and dated April 4, 2019. BHC Rhodes makes no guaranties as to the accuracy of the existing information shown hereon. Contractors shall satisfy themselves as to the existing conditions of the site and have all utilities located prior to commencing construction.
3. The Contractor shall be required to obtain all Federal, State, and Local permits required for this project prior to commencing construction.
4. Any work adjacent to or crossing existing streets requires proper traffic control devices. Traffic control devices shall be placed in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).
5. The contractor shall be required to demolish, remove and dispose of all existing structures, pavements, and features necessary to construct the improvements shown hereon. Any waste materials generated during construction shall be removed from the site by the Contractor and disposed of in accordance with all local, State, and Federal regulations governing such disposal.
6. The contractor shall prevent any trash, debris, or liquid wastes from being disposed of in sanitary sewers, storm sewers, or open drainage systems.
7. The Contractor shall be solely responsible to protect adjacent property, structures, and other improvements from damage during construction. In the event of damage to adjacent property, structures, or improvements, the contractor shall repair or replace such damage to the Owners's satisfaction at the Contractor's expense.
8. Contractors at the site shall be solely responsible for jobsite safety for all aspects of work shown hereon.
9. All work and materials used in the construction of the improvements shown hereon shall comply with all referenced standards, specifications, and plan notes.
10. All buildings are shown as a reference only. All buildings shall be located and constructed per the Architectural drawings prepared by others.
11. Contractor shall be responsible for contacting all utility companies for field locations of underground utilities affected by the contract. All existing utilities indicated on these plans are according to the best information available to the engineer; however, all utilities actually existing may not be shown. Utilities damaged through the negligence of the contractor to obtain the location of same shall be repaired or replaced at the expense of the contractor.
12. Coordinate with facility representative as to when construction activities may be performed to work with the operations of the facility.
13. Any and all hazards shall be properly identified and barricaded from access during all non-construction periods.
14. Unless specified otherwise, all construction shall meet the requirements of the City of Lee's Summit's Design and Construction Manual, except as modified by these plans.

Rev.	Date	Description	By	App.
2	8/21/19	Sheet Re-issued		

STATE OF MISSOURI — MARK S. SHERFY — NUMBER PE-2010120253 — 8/21/2019 — PROFESSIONAL ENGINEER

Mark S. Sherfy
MO# PE-2010120253

BHC RHODES
A Professional Limited Liability Company
7101 College Blvd., Suite 400
Overland Park, Kansas 66210
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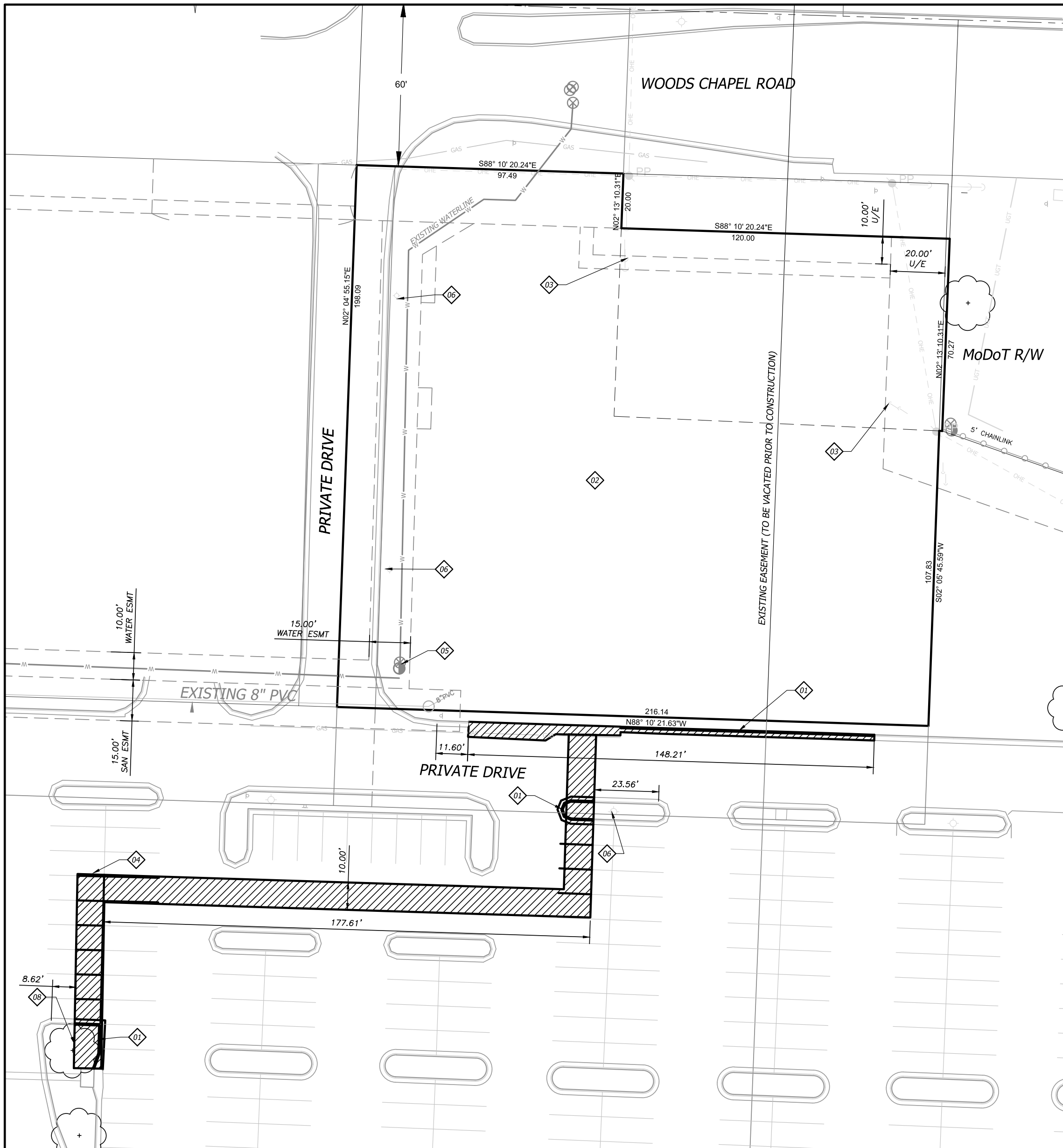
BHC RHODES is a trademark of Burgett Rosswood & Company, P.A.
Certificate of Authority Number: MO# E-1305-F

Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 245
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
GENERAL INFORMATION

Design: MGG | Drawn: MGG
Checked: MSS
Issue Date:
Project Number: 026040.08

C0.0



GENERAL NOTES

1. All materials shall be removed and disposed of off-site. It is the contractors responsibility to meet all applicable laws and regulations pertaining to the disposal of construction/demolition material.
2. All protection fencing shall be installed prior to demolition/construction activity.
3. Contractor shall verify location of all utilities prior to any excavation or construction activity.
4. Ensure demolition and construction activity has minimal impact on the operations of adjacent property owners.
5. All offsite disturbed areas shall be restored to pre-construction condition or as directed and agreed upon by property owner and First Street Development

00 DEMOLITION NOTES

01 SAW CUT AND REMOVE EXISTING CURB FOR LIMITS SHOWN

02 CLEAR, GRUB AND PREPARE SITE PER RECOMMENDATIONS OF GEOTECHNICAL REPORT

03 CONTRACTOR TO COORDINATE REMOVAL/REALIGNMENT OF GUY WIRES WITH KCP&L PRIOR TO GRADING OPERATIONS NEAR UTILITY EASEMENT

04 LIMITS OF OFFSITE DEMOLITION FOR STORM SEWER SHOWN FOR REFERENCE ONLY. SEE DETAIL ON SHEET C11.0 FOR PAVEMENT PATCH/TRENCH DETAIL AND SPECIFICATIONS. SEE GENERAL NOTE 5 ON THIS SHEET FOR MORE INFORMATION.

05 DO NOT DISTURB EXISTING HYDRANT

06 DO NOT DISTURB EXISTING LIGHT POLES OR ELECTRICAL CONDUIT/WIRING

07 NOT USED

08 EXISTING TREE TO BE REMOVED FOR STORM CONSTRUCTION

GRAPHIC SCALE 20 0 20

Rev.	Date	Description	By	App.
2	8/21/19	FDP Comments/Site VE Items	MGG	MSS

STATE OF MISSOURI — MARK S. SHERFY — NUMBER PE-2017010253 — PROFESSIONAL ENGINEER — 08/21/2019

Mark S. Sherfy
MO# PE-2017010253

BHC RHODES
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Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

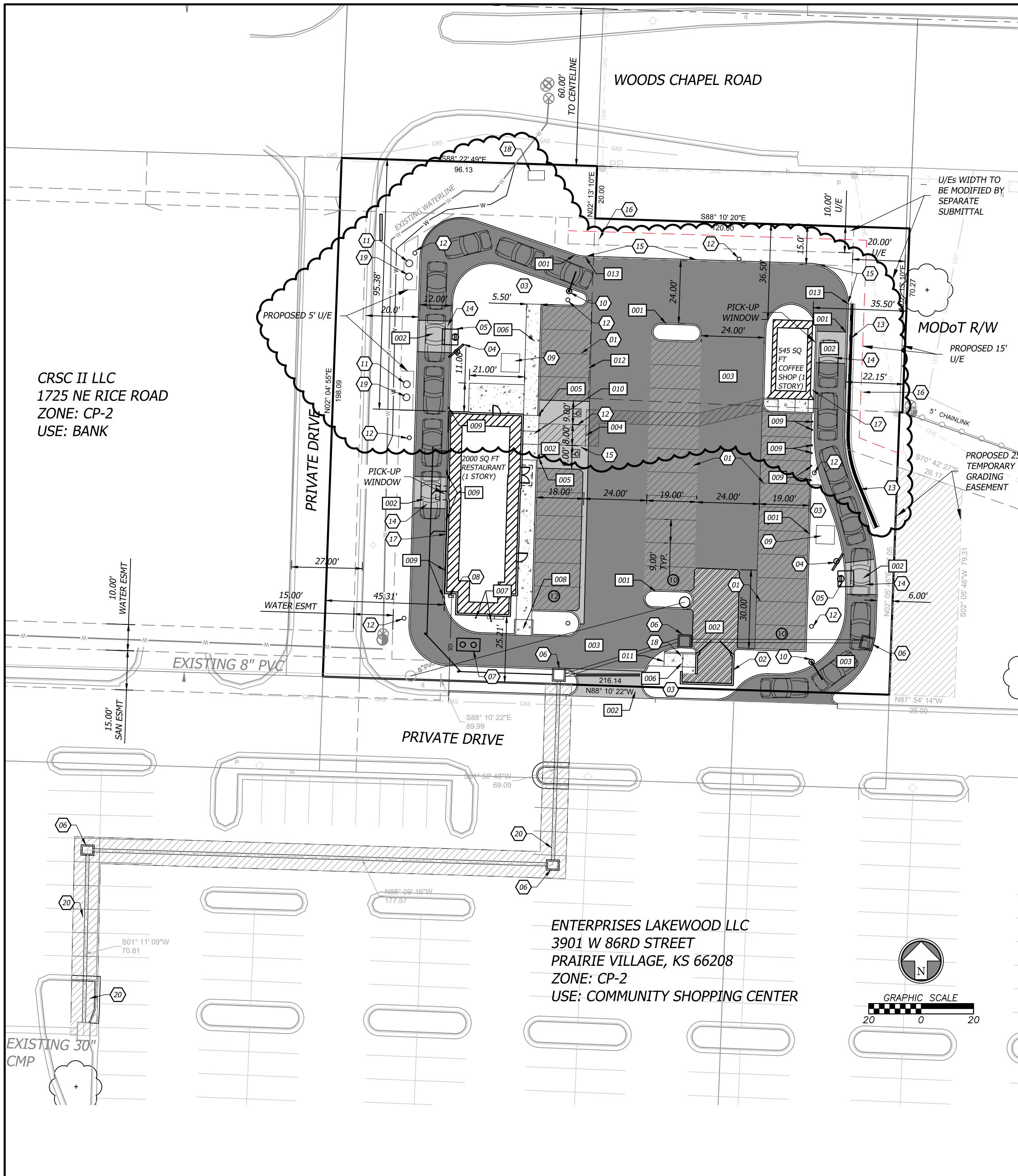
TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN

DEMOLITION PLAN

Design: MGG Drawn: MGG
Checked: MSS
Issue Date:
Project Number: 026040.08

C1.0

Aug 21, 2019 – 10:00am Plotted By: matt.gibbs V:\026040–First Street Development – Master\026040.08–Woods Chapel\04–DWG\Eng\Sheet\FDP Set\026040.08–SHTS–FDP–DEMO.dwg Layout: Demo Plan



SITE DATA

TOTAL FLOOR AREA:	2,545 SQ FT
TACO BELL	2,000 SQ FT
DRIVE-THRU COFFEE (NO SIT-DOWN)	545 SQ FT
SITE AREA:	40,528 SQ FT (± 0.93 ACRES)
DISTURBED AREA:	44,361 SQ FT (± 1.02 ACRES)
PARKING DATA	
CITY REQUIREMENTS-	
RESTAURANT (FAST FOOD AND SIT-DOWN)	28 STALLS
14 SPACES REQUIRED FOR EACH 1000 SF OF GROSS FLOOR AREA	
COFFEE SHOP	4 STALLS
2 SPACES PER BUILDING, 1 PER EACH EMPLOYEE MAX SHIFT (2 MAX SHIFT)	
STALLS REQUIRED	32
TOTAL STALLS PROVIDED	32
STANDARD STALLS PROVIDED	
ADA ACCESSIBLE STALLS REQUIRED	2 (1 VAN)
STACKING REQUIRED	4 CARS FROM MENU BOARD
STACKING PROVIDED	4 CARS FROM MENU BOARD
IMPERVIOUS AREA:	26,788 SQ FT
FLOOR AREA RATIO:	0.063
ZONING:	CP-2
WATERSHED (HUC12):	MAY BROOK-LITTLE BLUE RIVER

DEVELOPER

FIRST STREET DEVELOPMENT
2929 E CAMELBACK ROAD, SUITE 116
PHOENIX, AZ 85016
PH: (602) 714-3099
CONTACT: CHRIS CZYZ

PROPERTY OWNER

FSD WOODS CHAPEL LLC
851 NE WOODS CHAPEL ROAD
LEE'S SUMMIT, MO 64064

(00) CONSTRUCTION NOTES

01 LEAD FREE, WATER-BORNE EMULSION BASED WHITE TRAFFIC PAINT FOR PARKING LOT STRIPING. COORDINATE WITH ARCHITECT AND DEVELOPER PRIOR TO CONSTRUCTION.
02 DUMPSTER ENCLOSURE. SEE SHEET A9.0
03 LANDSCAPING AREA. SEE SHEET L1.0
04 MENU BOARD
05 SPEAKER BOX
06 PROPOSED STORM STRUCTURES. SEE SHEET C6.0 & C7.0
07 1000 GALLON TRAFFIC RATED GREASE INTERCEPTOR. SEE SHEET C5.0 & C5.1 FOR MORE INFORMATION.
08 GAS METER
09 TRANSFORMER PAD. SEE SHEET C5.0
10 CLEARANCE BAR
11 WATER METER. SEE SHEET C5.0
12 LIGHT POLE
13 PROPOSED VERSA-LOK RETAINING WALL. MAXIMUM 30" EXPOSED HEIGHT.
14 CURB AND GUTTER ADJACENT TO CONCRETE PARKING PAVEMENT SHALL BE POURED INTEGRAL.
15 CONCRETE CURB WALL. SEE DETAIL ON SHEET C9.3
16 EXISTING GUY WIRES TO BE RELOCATED.
17 BACK OF CURB ALONG DRIVE-THRU, ADJACENT TO BUILDING SHALL EXTEND BACK TO FOOTING
18 KCP&L SECTIONALIZER
19 IRRIGATION METER
20 OFFSITE STORM SEWER EXTENSION. SEE SHEET C11.0

(000) DETAILS

SEE CONSTRUCTION DETAILS - SHEETS C9.0-C9.3

001 CONCRETE CURB (CITY STANDARD)
002 P.C.C. PAVEMENT SECTION
003 ASPHALT PAVEMENT SECTION
004 (ADA) ACCESSIBLE PARKING STRIPING
005 (ADA) ACCESSIBLE PARKING SIGNAGE
006 CONCRETE SIDEWALK SECTION
007 SANITARY SEWER CLEANOUT
008 TYPE "A" SIDEWALK RAMP
009 STEEL/CONCRETE BOLLARD
010 TYPE "B" SIDEWALK RAMP
011 TYPE "C" SIDEWALK RAMP
012 VALLEY GUTTER
013 CONCRETE CURB WALL

SITE LEGEND

PROPOSED BUILDING
MEDIUM ASPHALT PAVEMENT
HEAVY DUTY ASPHALT PAVEMENT
MEDIUM DUTY PCC PAVEMENT
HEAVY DUTY PCC PAVEMENT
CONCRETE SIDEWALK
PARKING STALL COUNT
STANDARD CURB & GUTTER
RETAINING WALL

Rev.	Date	Description	By	App.
2	8/21/19	FDP Comments/Site VE Items	MGG	MSS

STATE OF MISSOURI
MARK S. SHERFY
NUMBER PE-2017010253
PROFESSIONAL ENGINEER
08/21/2019
Mark S. Sherfy
MO# PE-2017010253

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Certificate of Authority Number: MO# E-1355-F

Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
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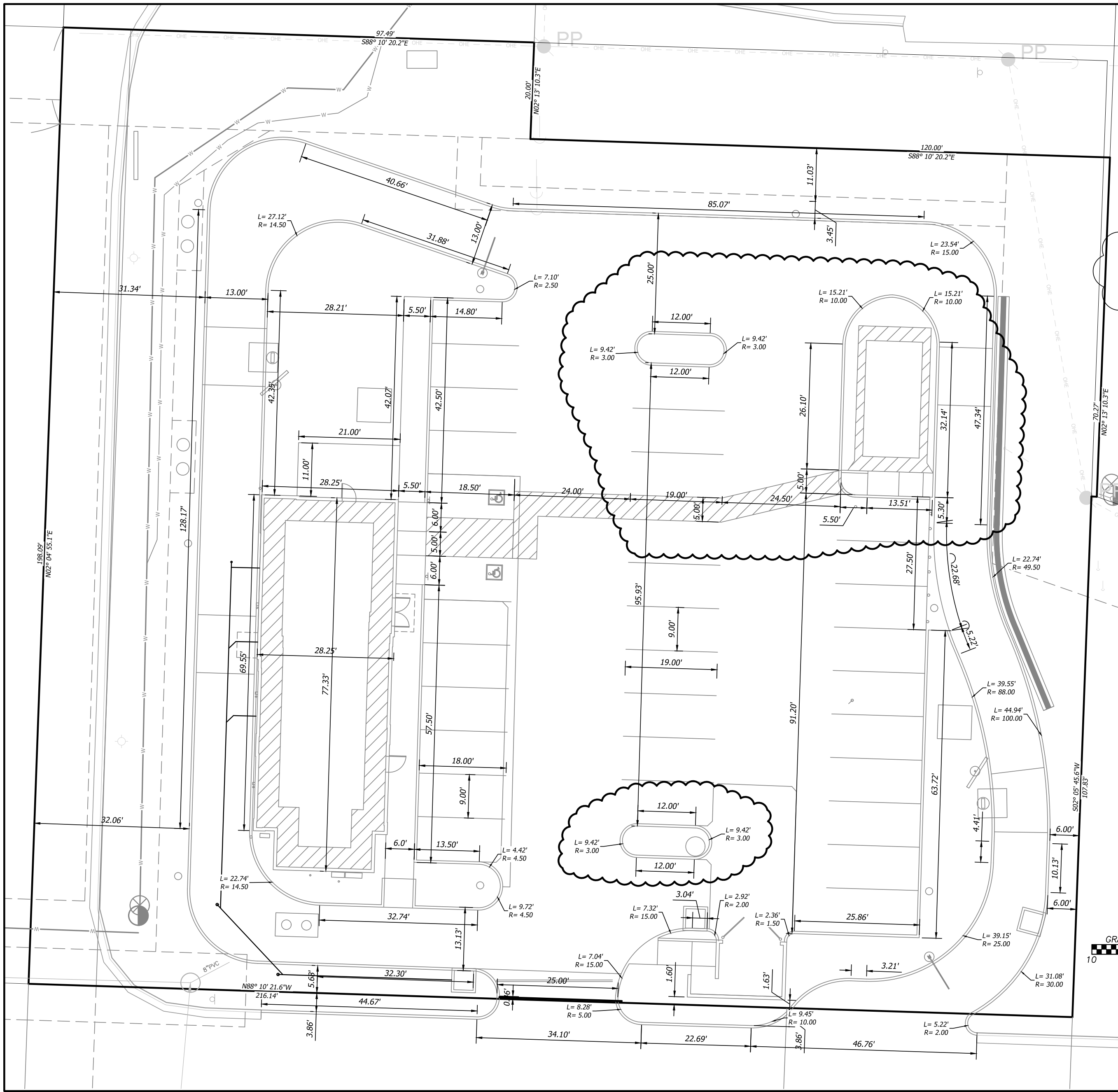
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN

SITE PLAN

Design: MGG Drawn: MGG
Checked: MSS
Issue Date:
Project Number: 026040.08

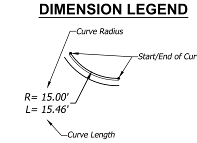
C2.0



DIMENSION NOTES

1. ALL DIMENSIONS ARE TO/ALONG BACK OF CURB UNLESS OTHERWISE NOTED
2. ALL DIMENSIONS ARE TO BOTTOM OF WALL UNLESS OTHERWISE NOTED

DIMENSION LEGEND



GRAPHIC SCALE

10 0 10

Rev.	Date	Description	By	App.
2	8/21/19	FDP Comments/Site VE Items	MGG	MSS

Mark S. Sherfy
MO# PE-2017010253
08/21/2019

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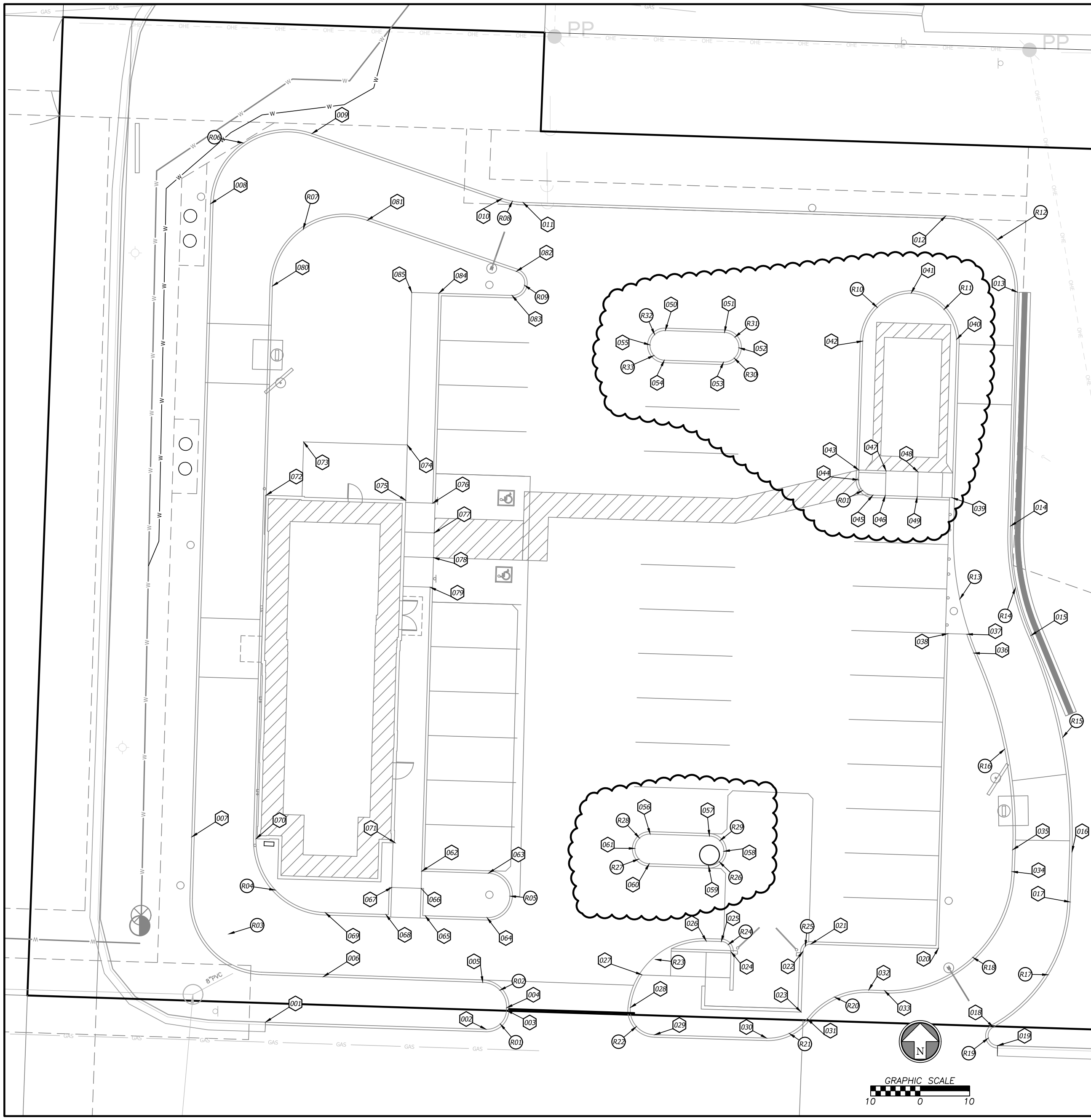
TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN

DIMENSION PLAN

Design: MGG Drawn: MGG
Checked: MSS
Issue Date:
Project Number: 026040.08

C3.0

Aug 21, 2019 – 10:00am Plotted By: matt.gibbs V:\026040-First Street Development – Master\026040.08-Woods Chapel\04-DWG\Eng\Sheet\FDP Set\026040.08-SHTS-FDP-DIM.dwg Layout: Dims Plan



POINTS

PNT#	EASTING	NORTHING
001	2829249.8736	1025169.5206
002	2829294.5163	1025168.0878
003	2829298.6416	1025171.9585
004	2829298.6561	1025172.4147
005	2829293.8338	1025177.5708
006	2829261.5567	1025178.7020
007	2829234.9595	1025207.0065
008	2829238.7765	1025335.1224
009	2829259.2867	1025349.3263
010	2829297.7580	1025336.1654
011	2829301.9889	1025335.3922
012	2829387.5244	1025332.6664
013	2829402.0351	1025317.2227
014	2829400.6171	1025269.9016
015	2829404.7210	1025247.7387
016	2829413.0533	1025203.9654
017	2829412.6835	1025193.8377
018	2829397.1150	1025168.5353
019	2829398.0113	1025164.7823
020	2829386.0322	1025184.4565
021	2829360.1900	1025185.3096
022	2829358.6413	1025183.8599
023	2829358.2644	1025171.5650
024	2829344.0517	1025183.7847
025	2829342.1116	1025185.8428
026	2829339.0719	1025185.9325
027	2829326.0451	1025179.1213
028	2829323.7094	1025172.4835
029	2829328.5947	1025166.9694
030	2829351.2785	1025166.2940
031	2829359.5006	1025170.1913
032	2829371.9215	1025176.0345
033	2829375.1267	1025175.9205
034	2829400.9003	1025199.9960
035	2829401.0613	1025204.4032
036	2829393.1532	1025244.2113
037	2829391.7582	1025248.0320
038	2829387.9450	1025248.1432
039	2829388.7838	1025275.6447
040	2829389.7226	1025307.6771
041	2829380.5129	1025317.0352
042	2829370.7145	1025307.3350
043	2829369.9373	1025281.2492
044	2829369.8776	1025279.2442
045	2829372.7792	1025276.1565
046	2829375.2860	1025276.0886
047	2829375.4349	1025281.0865
048	2829381.9138	1025280.8670
049	2829381.7543	1025275.8696
050	2829330.7675	1025309.4611
051	2829342.7614	1025309.0784
052	2829345.6642	1025305.9843
053	2829342.5700	1025303.0814
054	2829330.5761	1025303.4641
055	2829327.6733	1025306.5582
056	2829327.7157	1025207.5778
057	2829339.7095	1025207.1897
058	2829342.6109	1025204.0943
059	2829339.5154	1025201.1929
060	2829327.5216	1025201.5809
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062	2829281.4805	1025200.0676
063	2829294.9745	1025199.6656
064	2829294.7006	1025190.6764
065	2829282.2007	1025191.0656
066	2829281.3722	1025196.5907
067	2829275.4116	1025196.7763
068	2829274.2411	1025191.3134
069	2829261.9778	1025191.6952
070	2829247.9538	1025206.6194
071	2829276.1485	1025205.7888
072	2829250.0250	1025276.1398
073	2829257.5883	1025286.9267
074	2829278.5797	1025286.3227
075	2829278.2576	1025275.1318
076	2829283.6991	1025274.5346
077	2829284.0202	1025268.5223
078	2829283.8713	1025263.5245
079	2829283.1928	1025257.5421
080	2829251.2862	1025318.4722
081	2829270.4732	1025331.7598
082	2829300.6415	1025321.4393
083	2829299.7578	1025316.5750
084	2829284.9648	1025317.0157
085	2829279.4672	1025317.1795

RADIUS POINTS

R#	NORTHING	EASTING	RADIUS
R01	1025279.1549	2829372.8762	3.00
R01	1025172.0858	2829294.6436	4.00
R02	1025172.5739	2829293.6587	5.00
R03	1025206.1876	2829262.4473	27.50
R04	1025206.1876	2829262.4473	14.50
R05	1025195.1708	2829294.8439	4.50
R06	1025334.6608	2829254.2697	15.50
R07	1025318.0404	2829265.7798	14.50
R08	1025349.8848	2829302.4514	14.50
R09	1025319.0739	2829299.8323	2.50
R10	1025307.0372	2829380.7101	10.00
R11	1025307.0667	2829379.7209	10.00
R12	1025317.6741	2829387.0419	14.88
R13	1025267.5963	2829450.0633	61.00
R14	1025267.5963	2829450.0633	49.50
R15	1025207.6228	2829313.1202	100.00
R16	1025207.6224	2829313.1179	88.00
R17	1025194.8454	2829382.7004	30.00
R18	1025200.9080	2829375.9170	25.00
R19	1025166.7813	2829398.0760	2.00
R20	1025161.0439	2829371.3886	15.00
R21	1025176.2896	2829351.5752	10.00
R22	1025171.9686	2829328.6828	5.00
R23	1025170.9390	2829338.6296	15.00
R24	1025183.8437	2829342.0526	2.00
R25	1025183.8104	2829360.1405	1.50
R26	1025204.1913	2829339.6124	3.00
R27	1025204.5793	2829327.6187	3.00
R28	1025204.5793	2829327.6187	3.00
R29	1025204.1913	2829339.6124	3.00
R30	1025306.0799	2829342.6657	3.00
R31	1025306.0799	2829342.6657	3.00
R32	1025306.4626	2829330.6718	3.00
R33	1025306.4626	2829330.6718	3.00

Rev.	Date	Description	By	App.
2	8/21/19	FDP Comments/Site VE Items	MGG	MSS

Mark S. Sherfy
MO# PE-2017010253
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08/21/2019

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Certificate of Authority Number: MO# E-1355-F

Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

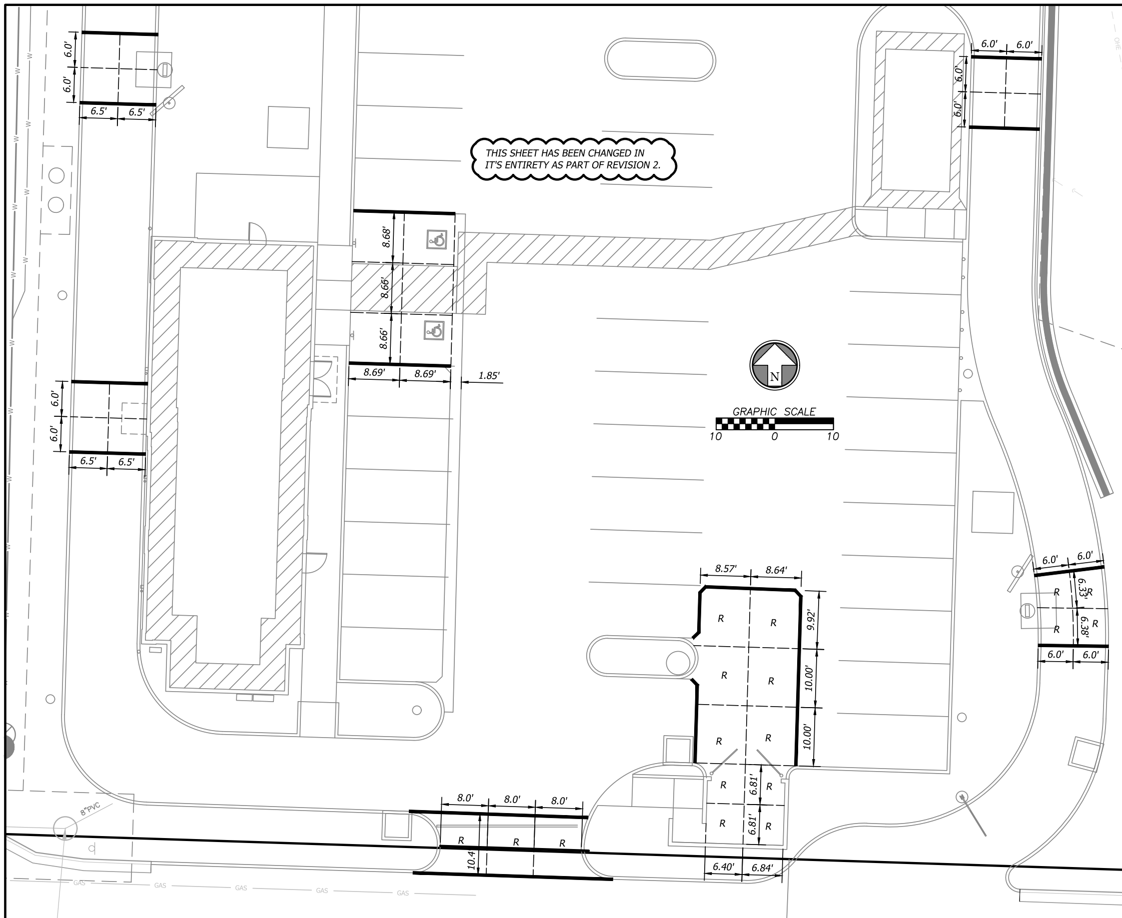
TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN

COORDINATE PLAN

Design: MGG Drawn: MGG
Checked: MSS
Issue Date: 04/23/2019
Project Number: 026040.08

C3.1

Aug 21, 2019 – 10:00am Plotted By: matt.gibbs V:\026040-First Street Development – Master\026040.08-Woods Chapel\04-DWG\Eng\Sheet\FDP Set\026040.08-SHTS-FDP-DM.dwg Layout: Coord Plan

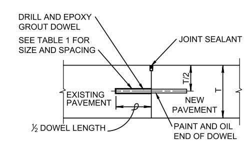


JOINTING AND DOWEL NOTES

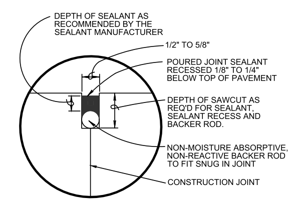
1. CONSTRUCTION JOINTS SHOWN ARE RECOMMENDATIONS. CONTRACTOR TO DETERMINE IF ALTERATIONS ARE NEEDED PER CONSTRUCTION SCHEDULE AND METHODS.
2. WIDTH TO LENGTH RATIO TO NOT EXCEED 1.25 TIMES
3. SLABS MARKED "R" SHALL BE REINFORCED WITH STEEL WELDED WIRE FABRIC OF THE SIZES SHOWN IN TABLE 2. OTHER WWF SIZES MAY BE USED PROVIDED THE STEEL AREA (SQ INCHES/FOOT) IN THE LONGITUDINAL AND TRANSVERSE DIRECTIONS IS EQUAL TO OR EXCEEDS THAT SHOWN IN TABLE 2.
4. EPOXY COATED DOWEL BARS SHALL BE DRILLED 9" DEEP (9" IN EXISTING PAVEMENT AND 9" INTO PROPOSED PAVEMENT), 12" ON CENTER OF THE VERTICAL FACE OF EXISTING PAVEMENT BY USE OF A MECHANICAL RIG, CLEAN HOLES THROUGH OUT
5. DRILLING BY HAND OR PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE
6. DRILLING, CLEANING, AND GROUTING SHALL BE PERFORMED PER THE EPOXY MANUFACTURERS'S REQUIREMENTS FOR THIS SPECIFIC APPLICATION
7. ASSURE SAW JOINTS ARE CLEAN AND DRY PRIOR TO THE APPLICATION OF THE JOINT SEALANT
9. FOR EPOXY GROUT, THE HOLE DIAMETER SHALL BE NOT MORE THAN $\frac{1}{8}$" LARGER THAN DOWEL DIAMETER OR AS DIRECTED BY THE EPOXY MANUFACTURER
10. INSTALL CLOSED CELL BACKER RODS AFTER JOINTS HAVE BEEN CLEANED AND DRIED IN ACCORDANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS
11. AREA'S WHERE SIDEWALK ABUTS CURB, EITHER ISOLATION JOINTS WITH FELT EXPANSION MATERIAL SHALL BE USED OR SAWCUTS IN CURB SHALL BE IN LINE WITH CURB CUTS OF SIDEWALK
12. INSTALL BACKER ROD AT CONSISTENT AND UNIFORM DEPTH
13. JOINT SEALANT APPLICATION SHALL BE IN STRICT COMPLIANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS.

LEGEND

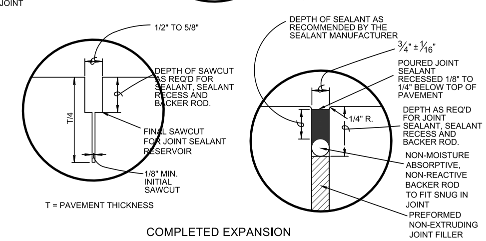
- PROPERTY LINE
- EXISTING SANITARY SEWER MAIN
- EXISTING STORM SEWER MAIN
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING UNDERGROUND ELECTRIC
- CONCRETE CURB AND GUTTER
- ISOLATION JOINT
- CONTRACTION JOINT
- THICKENED EDGE



DOWELED JOINT BETWEEN NEW & EXISTING PAVEMENT



COMPLETED CONSTRUCTION JOINT SEALANT DETAIL

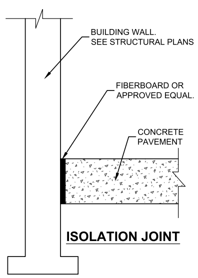


COMPLETED EXPANSION JOINT SEALANT DETAIL

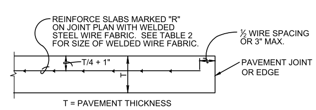
TABLE 1			
PAVEMENT THICKNESS	MAXIMUM DOWEL SPACING	MINIMUM DOWEL LENGTH	MINIMUM DOWEL DIAMETER
LESS THAN 8"	12"	16"	3/4"
8" TO 11"	12"	16"	1"
12" TO 15"	15"	20"	1-1/4"

TABLE 2		
PAVEMENT THICKNESS	MINIMUM REQUIRED AREA OF STEEL (SQ. IN. / FT)	WELDED WIRE FABRIC
6"	0.036	4 x 4 - W1.4 x W1.4 6 x 6 - W2.0 x W2.0
8"	0.048	4 x 4 - W2.0 x W2.0 6 x 6 - W2.9 x W2.9

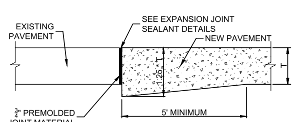
TABLE 3			
PAVEMENT THICKNESS	MAXIMUM TIE BAR SPACING	MINIMUM TIE BAR LENGTH	MINIMUM TIE BAR SIZE
LESS THAN 8"	12"	16"	NO. 6
8" TO 11"	12"	16"	NO. 8



ISOLATION JOINT



SLAB REINFORCING DETAIL



THICKENED EDGE EXPANSION JOINT

Rev.	Date	Description	By	App.
2	8/21/19	FDP Comments/Site VE Items	MGG	MSS

STATE OF MISSOURI
MARK S. SHERFY
NUMBER PE-2017010253
PROFESSIONAL ENGINEER
08/21/2019
Mark S. Sherfy
MO# PE-2017010253

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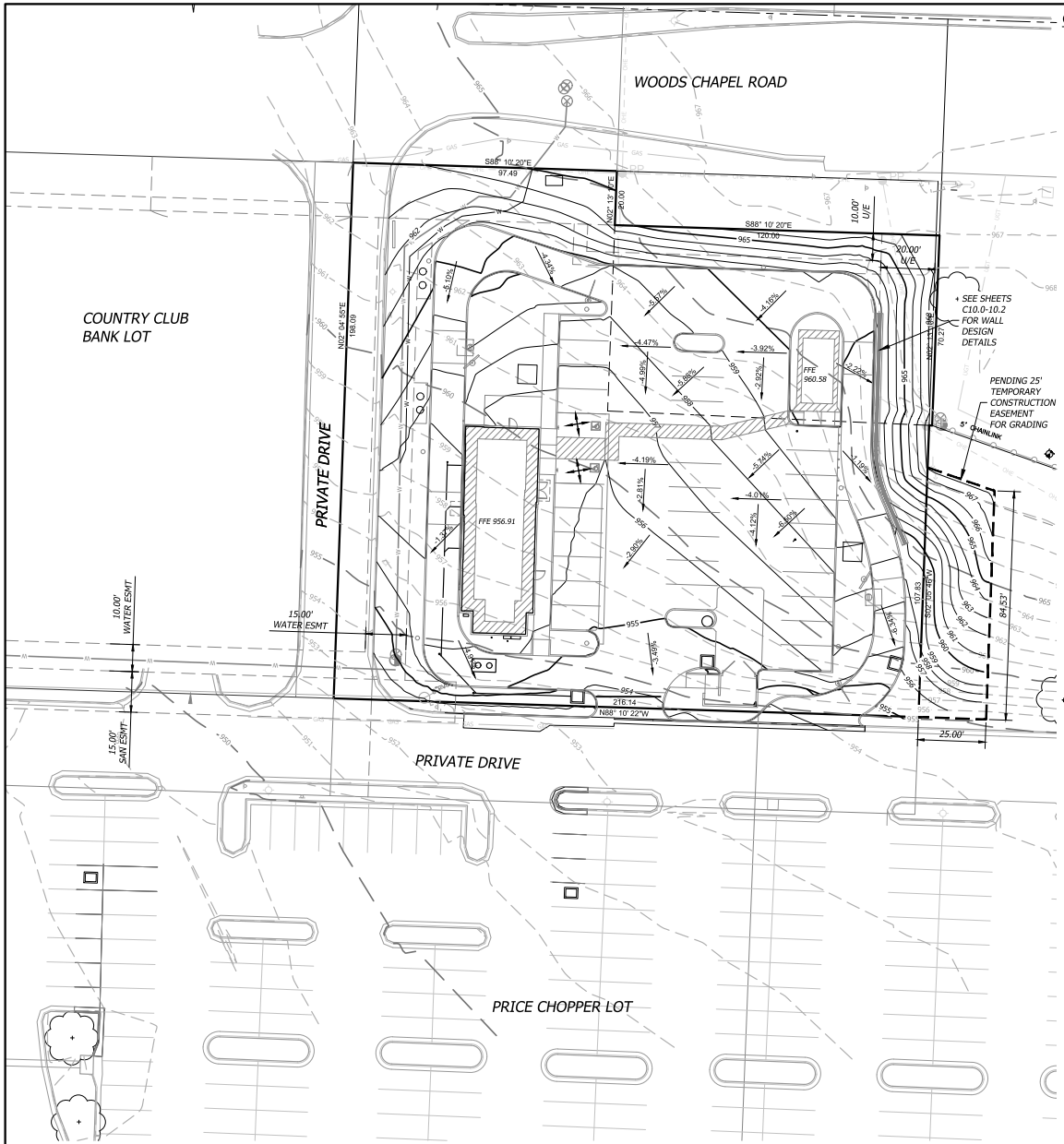
Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
JOINT LAYOUT PLAN

Design: MGG Drawn: MGG
Checked: MSS
Issue Date:
Project Number: 026040.08

C3.2



GRADING NOTES

1. GRADING MATERIALS AND PROCEDURES SHALL BE IN ACCORDANCE WITH CITY OF LEE'S SUMMIT SPECIFICATIONS, LATEST EDITIONS AND THE GEOTECHNICAL REPORT. IN CASE OF CONFLICT, NOTIFY ENGINEER FOR DIRECTION
2. EXISTING GRADES ARE FROM AN ALTA/TOPOGRAPHIC SURVEY PROVIDED BY MCLAUGHLIN MUELLER, INC. DATED APRIL 2019. BHC RHODES MAKES NO GUARANTEES AS TO THE ACCURACY OF THE DATA PRESENTED. THE CONTRACTOR SHALL FIELD VERIFY ALL GRADES TYING INTO ROAD GRADES PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS.
3. ALL DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS SHALL BE HAULED OFF SITE AND DISPOSED OF PROPERLY AND LEGALLY.
4. CONTRACTOR SHALL OBTAIN SOILS SUITABLE AS STRUCTURAL FILL FROM OFF-SITE SOURCES, AS NEEDED. ALL BORROW MATERIALS MUST BE TESTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO IMPORTING THE SOILS TO THE PROJECT SITE.
5. FILL MATERIALS REQUIRED FOR THIS PROJECT AND PLACEMENT OF THOSE MATERIALS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. FILL MATERIALS SHALL NOT BE PLACED ON FROZEN SOIL, ORGANIC MATERIALS, OR SOFT SUBGRADE.
6. SUBGRADE IN EXCAVATED AREAS UNDER PROPOSED PAVEMENT SHALL BE SCARIFIED AND PROPERLY COMPACTED AND MOISTURE CONDITIONED. IMMEDIATELY PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.
7. ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF FILL MATERIALS. TOPSOIL SHALL BE STOCKPILED FOR RE-DISTRIBUTION DURING LANDSCAPING OPERATIONS. FAILURE TO PROPERLY STOCKPILE TOPSOIL WILL RESULT IN THE CONTRACTOR HAULING IN TOPSOIL AT NO ADDITIONAL COST TO THE OWNER.
8. CONTRACTOR SHALL OBTAIN THE ACCEPTANCE OF THE ON-SITE GEOTECHNICAL REPRESENTATIVE FOR THE EXISTING GROUND SURFACE MATERIALS AND THE PROPOSED FILL MATERIAL PRIOR TO THE PLACEMENT OF FILL.
9. ALL EXISTING AND PROPOSED CONTOURS ARE SHOWN AT 1 FOOT INTERVALS.
10. ALL PROPOSED CONTOUR LINES AND SPOT ELEVATIONS SHOWN ARE FINISH GROUND ELEVATIONS. CONTRACTOR SHALL ACCOUNT FOR PAVEMENT DEPTHS, ROCK SUBGRADE, BUILDING PADS, TOPSOIL, ETC WHEN GRADING THE SITE.
11. ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED (GREEN SPACES) SHALL BE FINISH GRADED WITH A MINIMUM OF SIX (6) INCHES OF TOPSOIL.
12. PRIOR TO PLACING ANY CONCRETE OR ASPHALT PAVEMENT THE CONTRACTOR SHALL PERFORM A PROOF ROLL OF THE PAVEMENT SUB-GRADE WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK. THE PROOF ROLL SHALL BE CONDUCTED IN THE PRESENCE OF THE ENGINEER AND/OR THE ON-SITE GEOTECHNICAL REPRESENTATIVE. AREAS THAT DISPLAY RUTTING OR PUMPING ARE CONSIDERED UNSATISFACTORY TO THE ENGINEER AND SHALL BE RE-WORKED AND A FOLLOW-UP PROOF ROLL SHALL BE CONDUCTED PRIOR TO ACCEPTANCE OF THE SUB-GRADE FOR PAVING.
13. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
14. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. CONTRACTOR SHALL BACKFILL ALL PROPOSED PAVEMENT.
15. ALL AREAS ALONG ACCESSIBLE ROUTE SHOWN ON THIS PAGE SHALL COMPLY WITH CURRENT ADA STANDARDS.
16. PAVEMENT ELEVATIONS TO BE 6" (.5') BELOW TOP OF CURB ELEVATION (TC) UNLESS OTHERWISE NOTED
17. CONTRACTOR RESPONSIBLE FOR FIELD VERIFYING ALL PROPOSED GRADES ENSURE POSITIVE DRAINAGE BOTH WITH PROPOSED IMPROVEMENTS AND SURROUNDING EXISTING CONDITIONS. NOTIFY THE ENGINEER IN CASE OF CONFLICT.
18. CONTRACTOR SHALL NOT PLACE, SPREAD, OR COMPACT ANY FILL DURING UNFAVORABLE WEATHER CONDITIONS. THE CONTRACTOR SHALL REMOVE AND REPLACE OR OTHERWISE CORRECT ALL WORK WHICH IS DAMAGED AS A RESULT OF WEATHER OR WATER RELATED FACTORS OR DOES NOT MEET THE SPECIFICATIONS AT NO EXPENSE TO THE OWNER.
19. THE CONTRACTOR SHALL PROVIDE SUITABLE BERMS AND CHANNELS TO CONTROL OR DIRECT WATER TO SEDIMENT CONTROL DEVICES AND AS MAY BE NECESSARY TO PREVENT EROSION, FLOODING, OR OTHER DAMAGE TO THE SITE, ADJACENT PROPERTY, AND THE WORK.
20. WHEN THE MOISTURE CONTENT OF SOIL PROPOSED FOR USE AS COMPACTED FILL MATERIAL IS MORE THAN THE LIMIT SPECIFIED, IT SHALL NOT BE USED UNLESS AND UNTIL THE MOISTURE CONTENT HAS BEEN REDUCED TO THE ACCEPTABLE AMOUNT. WHEN THE MOISTURE CONTENT IS BELOW THE LIMIT SPECIFIED, APPROPRIATE AMOUNTS OF WATER SHALL BE ADDED AND BLENDED UNIFORMLY THROUGHOUT THE MATERIAL. SOILS HAVING MOISTURE CONTENTS ABOVE OR BELOW THE SPECIFIED LIMITS SHALL NOT BE INCORPORATED INTO THE WORK.
21. THE CONTRACTOR SHALL CLEAN AND REPAIR SILT FENCES, INLET FILTERS AND ALL OTHER BMPS INSTALLED DURING CONSTRUCTION AND LEAVE ENTIRE JOB SITE CLEAN AND SMOOTH WITH NO AREAS THAT WILL POND WATER.

THIS SHEET HAS BEEN CHANGED IN IT'S ENTIRETY AS PART OF REVISION 2.

BENCHMARKS (DATUM: NAVD88)

MILITARY GRID REFERENCE SYSTEM (MGRS) BENCHMARK
BENCHMARK NUMBER: JA-134
N:1025262.99
E: 2829564.44
ELEVATION= 969.81
DATUM: NAVD88

GRADING LEGEND

- CURB WITH NO GUTTER
- STANDARD CURB & GUTTER
- 980 FINISH GRADE MAJOR CONTOURS
- 982 FINISH GRADE MINOR CONTOURS
- 980 EXISTING GRADE MAJOR CONTOURS
- 982 EXISTING GRADE MINOR CONTOURS
- PROPERTY LINE
- 2% MAX SLOPE IN ANY DIRECTION
- PROPOSED SWALE
- LIMITS OF DISTURBANCE

GRAPHIC SCALE
20 0 20

No.	Date	Description	By	App.
2	8/21/19	FDP Comments/Site UE Items	MGG	MSS

STATE OF MISSOURI — MARK S. SHERFY — NUMBER PE-2010120283 — 08/21/2019 — PROFESSIONAL ENGINEER

Mark S. Sherfy
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4455 E CAMELBACK ROAD
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602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
GRADING PLAN

Design: MGG	Drawn: MGG
Checked:	MSS
Issue Date:	08/06/2019
Project Number:	026040.08

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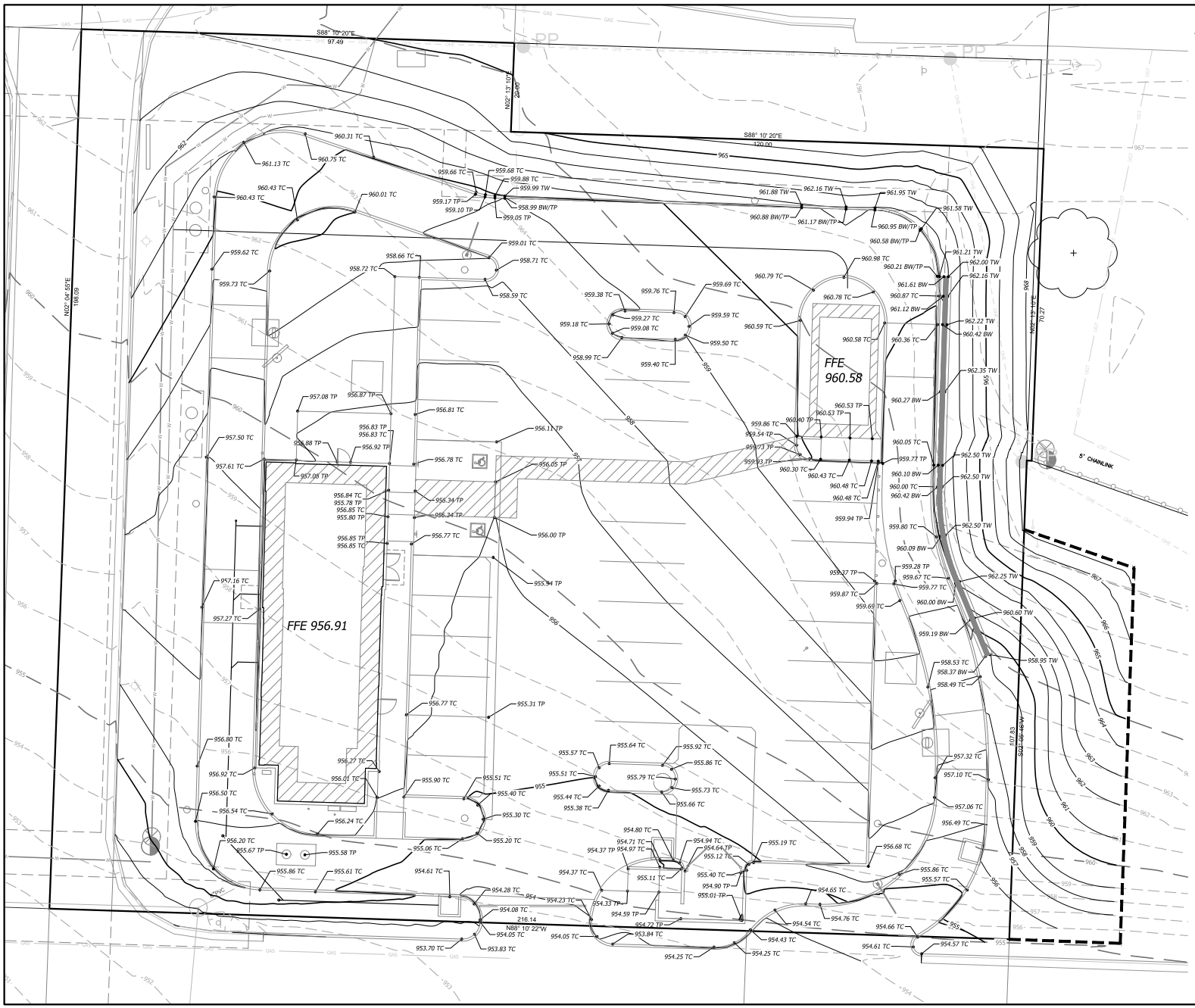

DETAILED GRADING LEGEND

0000.00 FG	FINISHED GRADE ELEVATION
0000.00 TC	TOP OF CURB ELEVATION
0000.00 TP	TOP OF PAVEMENT ELEVATION
0000.00 TW	FG @ TOP OF RETAINING WALL
0000.00 BW	FG @ BOTTOM OF RETAINING WALL
0000.00 ME	MATCH EXISTING GRADE
0000.00 TE	TOP ELEVATION OF STRUCTURE
0000.00 XX HIGH POINT	HIGH POINT AT SPECIFIC CALLOUT
0000.00 XX LOW POINT	LOW POINT AT SPECIFIC CALLOUT
1.00%	SLOPE INDICATOR

GRAPHIC SCALE
10 0 10

THIS SHEET HAS BEEN CHANGED IN IT'S ENTIRETY AS PART OF REVISION 2.

App.	By	Description	Date	Rev.
NSS	MGG	FDP Comments/Site UE Items	8/21/19	2

STATE OF MISSOURI — MARK S. SHERFY — NUMBER PE-2007010263 — 08/21/2019 — PROFESSIONAL ENGINEER

Mark S. Sherfy
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Certificate of Authority Number: MO# E-1305-F

Prepared For:
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BUILDING C 241
PHOENIX, ARIZONA 85018
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TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
DETAILED GRADING PLAN

Design: MGG Drawn: MGG
Checked: NSS
Issue Date: 08/06/2019
Project Number: 026040.08

C4.1

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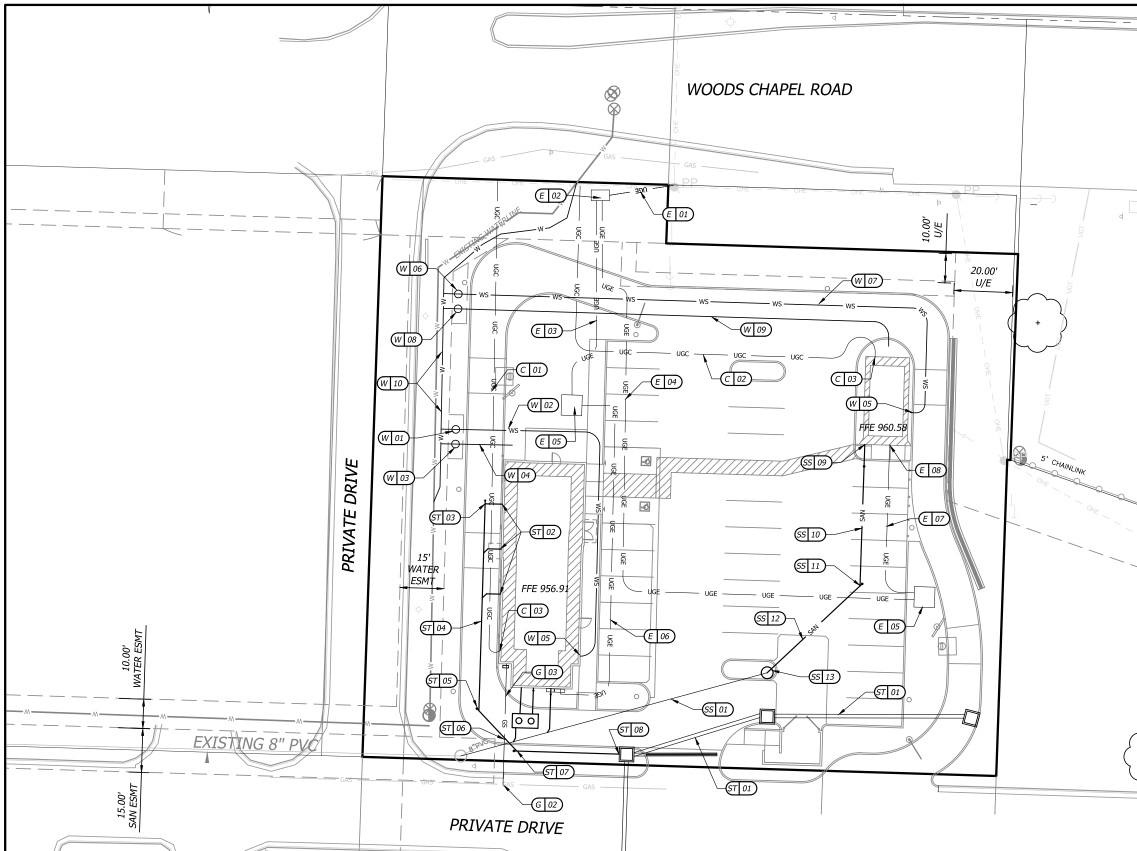


CONSTRUCTION NOTES

W - WATER SERVICE INFORMATION - LEES SUMMIT WATER
- 01 INSTALL 1" DOMESTIC WATER METER FOR TACO BELL SERVICE
- 02 INSTALL 133 LF OF 1 ½" TYPE K COPPER TO TACO BELL BUILDING
- 03 INSTALL 1" IRRIGATION METER FOR TACO BELL IRRIGATION SERVICE.
- 04 INSTALL 25 LF OF 1" PVC IRRIGATION LINE FOR TACO BELL.
- 05 CONNECT TO BUILDING SERVICE LINES. REFER TO PLUMBING PLANS
- 06 INSTALL 1" DOMESTIC WATER METER FOR COFFEE SHOP SERVICE
- 07 INSTALL 202 LF OF 1" TYPE K COPPER TO COFFEE SHOP BUILDING
- 08 INSTALL 1" IRRIGATION METER FOR COFFEE SHOP IRRIGATION SERVICE.
- 09 INSTALL 158 LF OF 1" PVC IRRIGATION LINE FOR COFFEE SHOP
- 10 SEE PUBLIC IMPROVEMENT PLANS FOR WATER MAIN IMPROVEMENTS

E - ELECTRIC SERVICE INFORMATION - KANSAS CITY POWER & LIGHT (KCP&L)
- 01 INSTALL 22 L.F. OF 4" CONDUIT FROM POLE TO SECTIONALIZER PAD .
- 02 CONSTRUCT SECTIONALIZER PAD. COORDINATE WITH KCP&L FOR EXACT LOCATION.
- 03 INSTALL 71 L.F. OF 4" CONDUIT FOR UNDERGROUND ELECTRIC SERVICE FROM SECTIONALIZER TO TRANSFORMER PAD FOR PROPOSED TACO BELL.
- 04 INSTALL 236 L.F. OF P 4" CONDUIT FOR UNDERGROUND ELECTRIC SERVICE FROM SECTIONALIZER TO TRANSFORMER PAD FOR PROPOSED COFFEE SHOP.
- 05 INSTALL 3 PHASE PAD TRANSFORMER WITH BOLLARDS.
- 06 INSTALL 125 L.F. 3" CONDUIT AND CONDUCTOR FOR SECONDARY UNDERGROUND ELECTRIC SERVICE LINE FROM PROPOSED TRANSFORMER TO BUILDING FOR PROPOSED TACO BELL.
- 07 CONTRACTOR TO INSTALL 58 L.F. 3" CONDUIT AND CONDUCTOR SECONDARY UNDERGROUND ELECTRIC SERVICE LINE FROM PROPOSED TRANSFORMER TO BUILDING FOR PROPOSED COFFEE SHOP.
- 08 CONNECT TO PROPOSED BUILDING SERVICE. SEE ELECTRICAL PLANS FOR CONTINUATION INTO BUILDING.

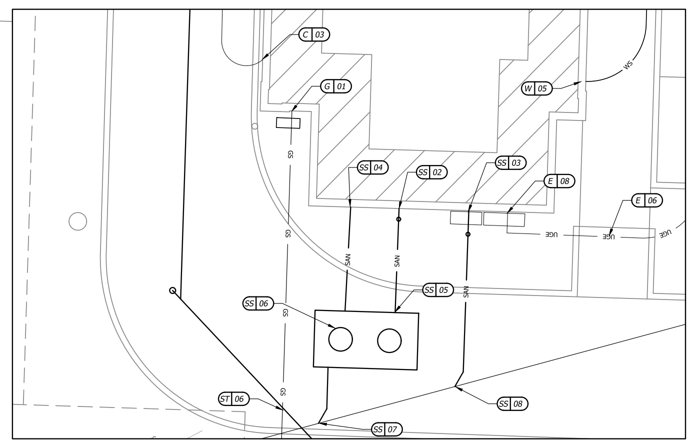
C - COMMUNICATION SERVICE INFORMATION
- 01 CONTRACTOR TO INSTALL 164 L.F. COMMUNICATION CONDUIT FOR PROPOSED TACO BELL. COORDINATE W/ COMMUNICATION UTILITY PROVIDER.
- 02 CONTRACTOR TO INSTALL 164 L.F. COMMUNICATION CONDUIT FOR PROPOSED COFFEE SHOP. COORDINATE W/ COMMUNICATION UTILITY PROVIDER.
- 03 CONNECT COMMUNICATIONS CONDUITS TO BUILDING. SEE ELECTRICAL PLANS FOR CONTINUATION INTO BUILDING.

G - GAS SERVICE INFORMATION - SPIRE ENERGY
- 01 CONNECT 2" PVC CONDUIT TO BUILDING FOR GAS SERVICE TO TACO BELL
- 02 SPIRE ENERGY TO INSTALL CONDUIT AND MAKE TAP
- 03 PROPOSED GAS METER LOCATION

ST - STORM SEWER INFORMATION
- 01 PRIVATE STORM SEWER LINE. SEE SHEET C7.0
- 02 CONNECT TO 4" ROOF DRAIN. FLOW LINE AT BUILDING 952.91
- 03 INSTALL 4"X 6" WYE WITH CLEANOUT. FL 952.78
- 04 INSTALL TOTAL OF 71 LF OF 6" HDPE AT 1% FOR ROOF DRAIN CONNECTION.
- 05 INSTALL 45 DEGREE BEND WITH CLEANOUT, FL 952.07
- 06 UTILITY CROSSING. TOP OF SANITARY 949.98, BOT OF STORM 951.68, TOP OF STORM 952.53, BOT OF GAS 953.43
- 07 INSTALL 19 LF OF 6" HDPE AT 1% WITH 45 DEGREE BEND WITH CLEANOUT, FL 951.88
- 08 INSTALL 35 LF OF 6" HDPE AND CONNECT TO STORM INLET 103. FL IN 951.63

SS - SANITARY SEWER INFORMATION
- 01 PRIVATE 8" SEWER EXTENSION. SEE SHEET C5.1
- 02 CONNECT 6" SDR-26 PVC TO TACO BELL BUILDING FOR GREASE SERVICE. FL @ BUILDING = 952.91
- 03 CONNECT 6" SDR-26 PVC TO TACO BELL BUILDING FOR SANITARY SEWER SERVICE. FL @ BUILDING = 952.91
- 04 INSTALL 8.9 LF 2" VENT PIPE
- 05 INSTALL 8.9 LF 6" SDR-26 PVC FROM BUILDING TO GREASE INTERCEPTOR @ 10.0% SLOPE. FL = 952.01
- 06 1000 GALLON GREASE INTERCEPTOR. FL IN 952.01 FL OUT 951.75
- 07 INSTALL 5.0 LF OF 6" SDR-26 PVC FROM GREASE INTERCEPTOR @ 53.6% SLOPE. FL 949.07
- 08 INSTALL 15.3 LF OF 6" SDR-26 PVC FOR NON-GREASE WASTE @ 15.6% SLOPE. FL 949.37
- 09 NON-GREASE WASTE CONNECTION TO COFFEE SHOP BUILDING. FL 956.58.
- 10 INSTALL 48.3 LF OF 6" SDR-26 PVC @ 6.31% SLOPE.
- 11 INSTALL 45° BEND WITH CLEANOUT. FL 953.83
- 12 INSTALL 43.4 LF OF 6" SDR-26 PVC @ 3.98% SLOPE
- 13 CONNECT TO PROPOSED PRIVATE SANITARY MANHOLE. FL 951.81

THIS SHEET HAS BEEN CHANGED IN IT'S ENTIRETY AS PART OF REVISION 2.



BUILDING CONNECTION DETAIL

UTILITY NOTES

1. Contractor shall refer to all specifications, guidelines, and installation drawings from Lees Summit, Spire Energy, and KCP&L for the installation of all service lines.
2. Contractor to ensure 12" minimum vertical separation between utilities at crossings. Contractor to call civil if any conflicts between utilities are found.
3. All utilities shall be installed in separate trenches unless otherwise specified

Rev.	Date	Description	By	App.
2	8/21/19	FDP Comments/Site VE Items	MGG	MSS

Mark S. Sherfy
MO# PE-2017010253
08/21/2019

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Certificate of Authority Number: MO# E-1355-F

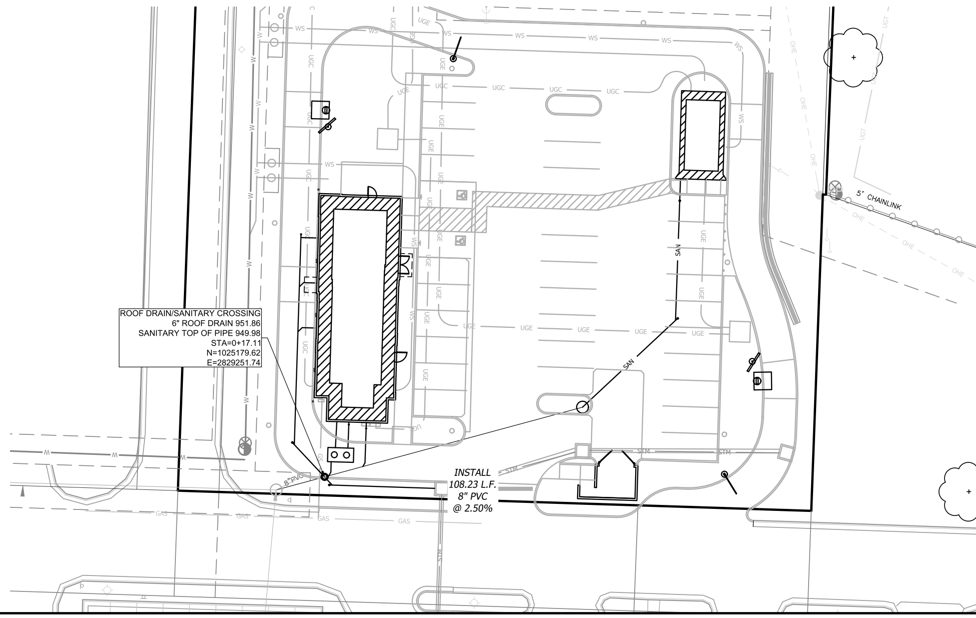
Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
UTILITY PLAN

Design: MGG Drawn: MGG
Checked: MSS
Issue Date:
Project Number: 026040.08

C5.0

Aug 21, 2019 – 10:01am Plotted By: matt.gibbs V:\026040–First Street Development – Master\026040.08–Woods Chapel\04–DWG\Eng\Sheet\FDP Set\026040.08–SHTS–FDP–UTIL.dwg Layout: Util Plan

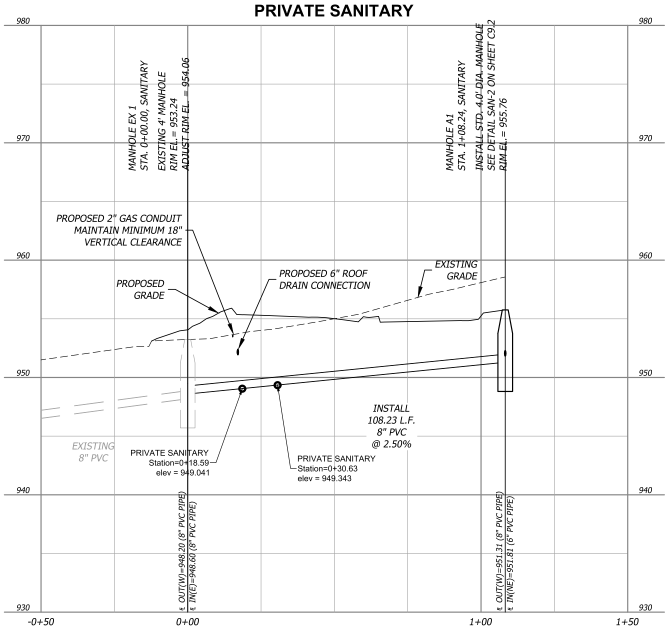


SANITARY NOTES

1. ALL NORTHINGS, EASTINGS, AND ALIGNMENT STATIONING FOR STORM STRUCTURES ARE TO CENTER OF STRUCTURE UNLESS STATED OTHERWISE.
2. ALL CONSTRUCTION SHALL BE ACCORDING TO THE CITY OF LEE'S SUMMIT'S SANITARY SEWER MAIN CONSTRUCTION STANDARDS
3. SEE SHEET C9.2 FOR SANITARY MANHOLE DETAILS

GRAPHIC SCALE
20 0 20

PRIVATE SANITARY



PROFILE
GRAPHIC SCALE
20 0 20
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Rev.	Date	Description	By	App.
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Mark S. Sherfy
MO# PE-2017010253

STATE OF MISSOURI
MARK S. SHERFY
NUMBER PE-2017010253
PROFESSIONAL ENGINEER
08/21/2019

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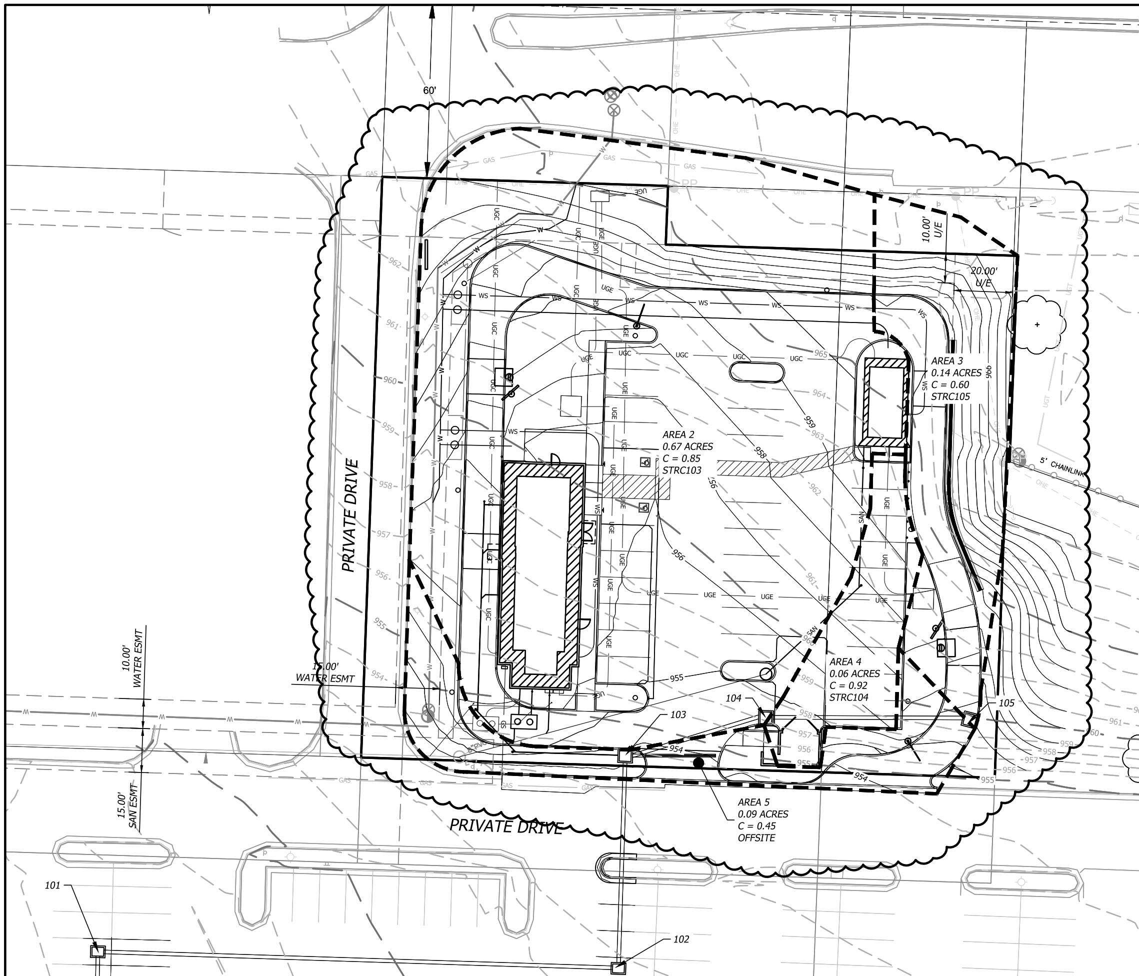
TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
SANITARY PLAN AND PROFILE

Design: MGG Drawn: MGG
Checked: MSS
Issue Date:
Project Number: 026040.08

C5.1



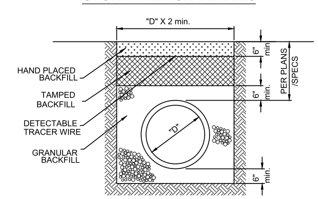
N

GRAPHIC SCALE
20 0 20

STORM NOTES

1. UNDERGROUND STORM PIPE SYSTEM DESIGNED TO CARRY MINIMUM 10 YEAR 24 HOUR STORM EVENT USING INTENSITY VALUE GIVEN BY NOAA ATLAS 14 (i=3.40 for Tc = 5 min).
2. ALL STORM CONSTRUCTION TO BE DONE IN ACCORDANCE WITH CITY OF LEE'S SUMMIT SPECIFICATIONS.
3. PIPE LENGTHS SHOWN ARE MEASURED FROM CENTER TO CENTER OF STRUCTURE OR TO THE END OF FLARED END SECTION OR TO THE END OF PIPE (WHERE APPLICABLE). ALL PIPES SHALL BE FIELD STAKED TO THE INSIDE WALL FACE OF THE STRUCTURE.
4. ALL PIPE SHALL BE PLACED IN TRENCH CONDITIONS. PLACE A MINIMUM OF 6 INCHES OF FILL OVER PROPOSED PIPE BEFORE TRENCHING AND PIPE INSTALLATION. PROPOSED BACKFILL SHALL BE PLACED IN ACCORDANCE WITH PROJECT REQUIREMENTS.
5. UTILITY LINES AND STRUCTURES IN FILL AREAS BELOW PIPE GRADE SHALL NOT BE CONSTRUCTED UNTIL ALL CONSOLIDATION OF THE FILL IS COMPLETE AND SO APPROVED BY THE ON-SITE GEOTECHNICAL ENGINEER.
6. ALL CURB INLETS AND OTHER STRUCTURE SET AT LOW POINTS ARE TO BE SET LEVEL. ALL OTHER CURB INLETS ARE TO BE SET WITH THE GRADE OF THE TOP OF CURB OR PAVEMENT.
7. PRECAST STRUCTURES MAY BE USED AT CONTRACTOR'S OPTION. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED CONCRETE INVERT FROM INVERT IN TO INVERT OUT.
8. THE LIDS OF ALL PRECAST STRUCTURES SHALL BE GROUTED TO THE TOP OF THE WALLS
9. NORTHING AND EASTINGS SHOWN ARE CENTER OF STRUCTURE OR TO END OF FLARED END SECTION.
10. ALL HDPE PIPE SHALL BE ADS N-12, OR APPROVED EQUAL, MEETING AASHTO M294, TYPE S OR ASTM F2306. THE PIPE SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS. PIPE JOINTS SHALL BE JOINTED USING A BELL & SPIGOT JOINT MEETING AASHTO M252, AASHTO M294 OR ASTM F2306. THE JOINT SHALL BE WATERTIGHT ACCORDING THE THE REQUIREMENTS OF ASTM D3212 AND GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477. GASKETS SHALL BE INSTALLED BY THE PIPE MANUFACTURER AND COVERED WITH A REMOVABLE WRAP TO ENSURE THE GASKET IS FREE FROM DEBRIS. A JOINT LUBRICANT SUPPLIED BY THE MANUFACTURER SHALL BE USED ON THE GASKET AND BELL DURING ASSEMBLY.
11. FITTINGS FOR PLASTIC PIPE SHALL CONFORM TO AASHTO M252, AASHTO M294, OR ASTM F2306 ALL WYES SHALL BE DUAL WALL WYES CONSISTENT WITH THE ADS N-12 PIPE WATERTIGHT CONNECTIONS.

STORM TRENCH DETAILS



CLASS B
(FLEXIBLE OR SEMI-FLEXIBLE PIPE)

NOTES:

1. SEE SPECIFICATIONS FOR MATERIAL AND COMPACTION REQUIREMENTS.
2. TAMPED FILL SHALL BE FINELY DIVIDED, JOB EXCAVATED MATERIAL FREE OF DEBRIS, ORGANIC MATERIAL, AND STONES, COMPACTED PER SPECIFICATIONS.
3. HAND PLACED FILL SHALL BE FINELY DIVIDED MATERIAL, FREE OF DEBRIS AND STONES, COMPACTED PER SPECIFICATIONS. ALL PIPE SHALL BE INSPECTED PRIOR TO BACKFILL.
4. ALL PIPE COVERED PRIOR TO INSPECTION SHALL BE UNCOVERED AT THE CONTRACTORS EXPENSE.

LEGEND

- 980 — FINISH GRADE 5' CONTOURS
- 980 — FINISH GRADE 1' CONTOURS
- 980 — EXISTING GRADE 10' CONTOURS
- 980 — EXISTING GRADE 1' CONTOURS
- PROPERTY LINE
- SECTION LINE
- PROPOSED STORM SEWER MAIN
- (101) PROPOSED STORM STRUCTURE NUMBER
- PROPOSED DRAINAGE LIMITS
- EXISTING CREEK CENTERLINE
- BUILDING SETBACK LINE
- PARKING SETBACK LINE

Design Storm: 10
"K" Value: 1.00
"F" Factor: 1.00

Inlet #	Area (acres)	"C" Value	Cumul. Area (acres)	Cumul. CxA	Tc	Intensity	Runoff To Inlet	Cumul. Runoff	Pipe Cap.	Pipe Vel.	Up Piped Inlets	Up Piped Inlets	Up Area (acres)	Up CxA	Up Inlet	Down Inlet	Pipe Type	"n" Value	Pipe Size	Length	Slope %	Drop In Inlet	FL Up	FL Down	Inlet Top
LINE 100																									DS TAILWATER @ STR #EX
EX1	3.27	0.78	4.16	3.26	6.1	8.14	20.64	26.50	40.05	8.16			0.00	0.00	EX1	EX	CMP	0.017	30	60.98	1.63	1.25	943.00	942.01	947.99
101	0.00	0.78	0.89	0.72	5.9	8.21	0.00	5.92	9.86	5.58			0.00	0.00	101	EX1	PEP	0.012	18	69.25	0.75	0.33	944.77	944.25	948.36
102	0.00	0.78	0.89	0.72	5.5	8.35	0.00	6.02	12.67	7.17			0.00	0.00	102	101	PEP	0.012	18	177.55	1.24	0.50	947.30	945.10	951.86
103	0.67	0.85	0.89	0.72	5.3	8.41	4.79	6.06	12.52	7.08			0.00	0.00	103	102	PEP	0.012	18	72.67	1.21	0.50	948.68	947.80	954.12
104	0.06	0.92	0.22	0.15	5.2	8.46	0.47	1.28	7.00	5.70			0.00	0.00	104	103	PEP	0.012	15	49.70	1.00	0.50	949.68	949.18	954.61
105	0.16	0.60	0.16	0.10	5.0	8.53	0.82	0.82	7.00	5.70			0.00	0.00	105	104	PEP	0.012	15	69.56	1.00	N/A	950.88	950.18	955.13

Design Storm: 100
"K" Value: 1.25
"F" Factor: 1.00

Inlet #	Area (acres)	"C" Value	Cumul. Area (acres)	Cumul. CxA	Tc	Intensity	Runoff To Inlet	Cumul. Runoff	Pipe Cap.	Pipe Vel.	Up Piped Inlets	Up Piped Inlets	Up Area (acres)	Up CxA	Up Inlet	Down Inlet	Pipe Type	"n" Value	Pipe Size	Length	Slope %	Drop In Inlet	FL Up	FL Down	Inlet Top
LINE 100																									DS TAILWATER @ STR #EX
EX1	3.27	0.78	4.16	3.26	6.1	9.87	31.28	40.17	40.05	8.16			0.00	0.00	EX1	EX	CMP	0.017	30	60.98	1.63	1.25	943.00	942.01	947.99
101	0.00	0.78	0.89	0.72	5.9	9.95	0.00	8.96	9.86	5.58			0.00	0.00	101	EX1	PEP	0.012	18	69.25	0.75	0.34	944.77	944.25	948.36
102	0.00	0.78	0.89	0.72	5.5	10.11	0.00	9.11	12.67	7.17			0.00	0.00	102	101	PEP	0.012	18	177.55	1.24	0.50	947.31	945.11	951.86
103	0.67	0.85	0.89	0.72	5.3	10.18	7.25	9.17	12.52	7.08			0.00	0.00	103	102	PEP	0.012	18	72.67	1.21	0.75	948.69	947.81	954.12
104	0.06	0.92	0.22	0.15	5.2	10.24	0.71	1.94	7.00	5.70			0.00	0.00	104	103	PEP	0.012	15	49.70	1.00	0.50	949.94	949.44	954.61
105	0.16	0.60	0.16	0.10	5.0	10.32	1.24	1.24	7.00	5.70			0.00	0.00	105	104	PEP	0.012	15	69.56	1.00	N/A	951.14	950.44	955.13

Rev.	Date	Description	By	App.
2	8/21/19	FDP Comments/Site VE Items	MGG	MSS

STATE OF MISSOURI
MARK S. SHERFY
NUMBER PE-2017010253
PROFESSIONAL ENGINEER
08/21/2019
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Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
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602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
DRAINAGE MAP

Design: MGG Drawn: MGG
Checked: MSS
Issue Date: 04/23/2019
Project Number: 026040.08

C6.0

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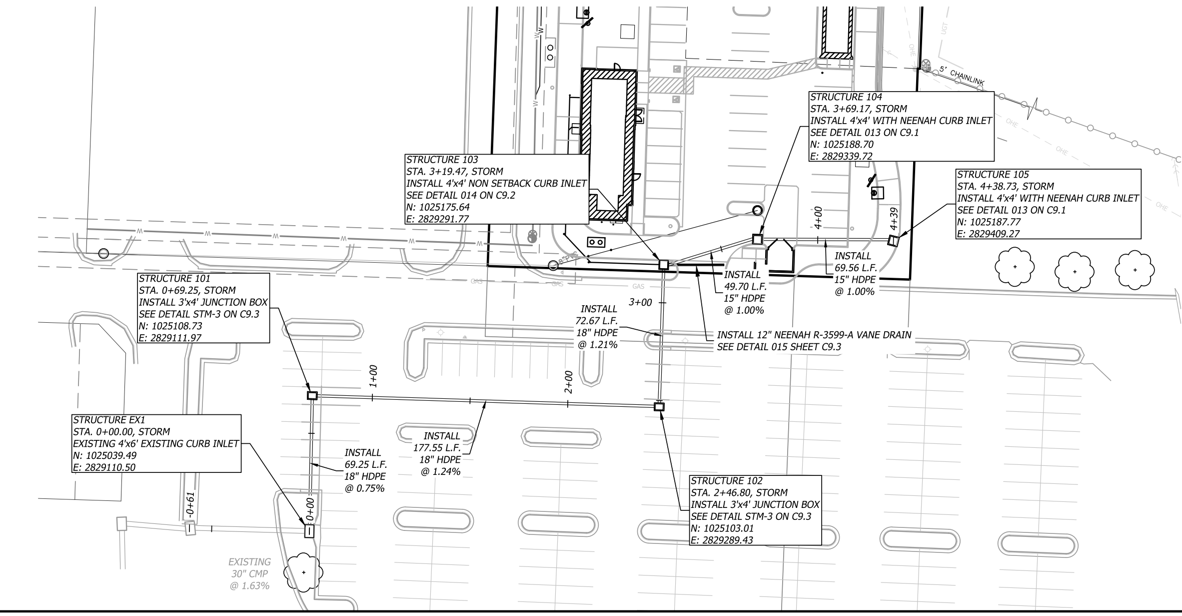
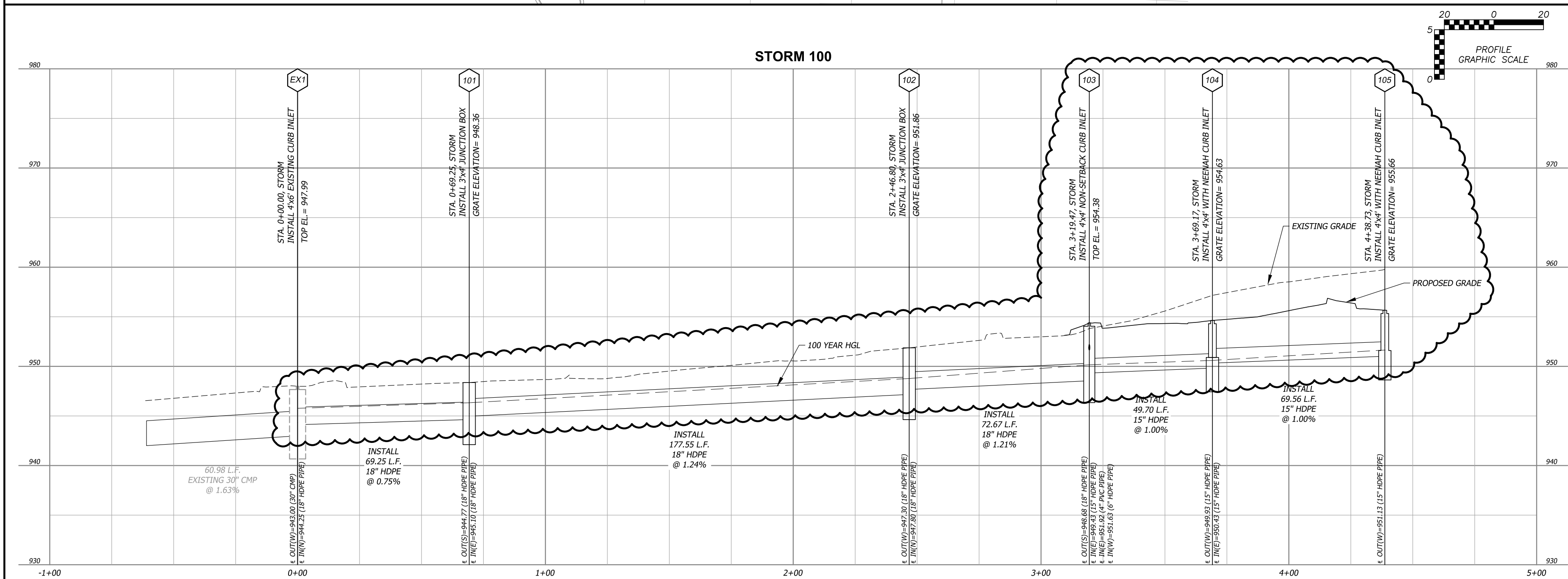
STORM NOTE

ALL NORTHINGS, EASTINGS, AND ALIGNMENT STATIONING FOR STORM STRUCTURES ARE TO CENTER OF STRUCTURE UNLESS STATED OTHERWISE.



STORM 100



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MO# PE-2017010253
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TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
PLAN AND PROFILE

Design: MGG Drawn: MGG
Checked: MSS
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C7.0

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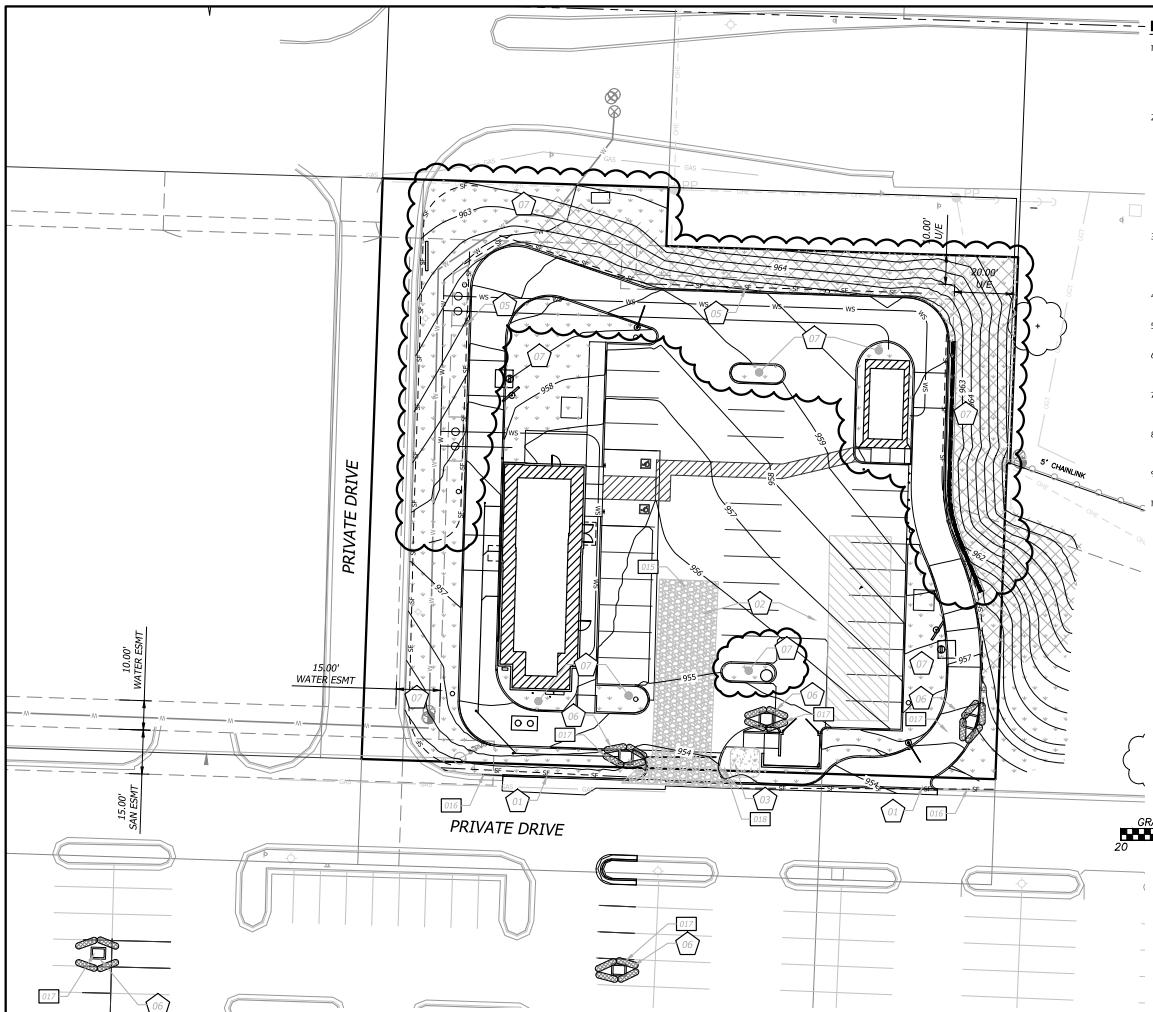

EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. Prior to Land Disturbance activities, the contractor shall:
   - Delineate the outer limits of any natural stream corridor designated with construction fencing.
   - Install perimeter controls and request the inspection of the pre-construction erosion and sediment control measures designated on the approved erosion and sediment control plan. Land disturbance work shall not proceed until there is a satisfactory inspection.
   - Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing, and placement of physical barriers or other means acceptable to the City inspector and in conformance with the erosion and sediment control plan.

2. The contractor shall comply with all requirements of the Storm Water Pollution Prevention Plan, including but not limited to:
   - The contractor shall seed, mulch, or otherwise stabilize any disturbed area where the land disturbance activity has ceased for more than 14 days.
   - The contractor shall perform inspections of erosion and sediment control measures at the following minimum intervals:
     - o During active construction phases - at least once per week
     - o During periods of inactivity - at least once per 14 days
     - o After each rainfall event of ½ inch or more - within 24 hours of the rain event
   - The contractor shall maintain an inspection log including the inspector's name, date of inspection, observations as to the effectiveness of the erosion and sediment control measures, actions necessary to correct deficiencies, when the deficiencies were corrected, and the signature of the person performing the inspection. The inspection log shall be available for review by the regulatory authority.
   - The contractor shall have the erosion and sediment control plan routinely updated to show all changes and amendments to the plan. A copy of the erosion and sediment control plan shall be kept on site and made available for review by the regulatory authority.

3. Unless otherwise noted in the plans, all seeding must conform to Division II-Construction and Materials Specification-Section 2150 published by the Kansas City Metropolitan Chapter of the American Public Works Association dated May 21, 2008. Permanent seeding shall be installed after completion of final grading except when seeding will occur outside of the acceptable seeding season as specified in Section 2150. When temporary seeding is installed, permanent seeding shall be installed at the next seeding season. Temporary seeding shall not be used as a stabilization measure for a period exceeding 12 months. The Permit will not be closed until permanent seeding has been established to a minimum of 70% density over the entire disturbed area.

4. The contractor shall maintain installed erosion and sediment control devices in a manner that preserves their effectiveness for preventing sediment from leaving the site or entering a sensitive area such as a natural stream corridor, areas of the site intended to be left undisturbed, a storm sewer, or an on-site drainage channel.

5. The contractor is responsible for providing erosion and sediment control for the duration of a project. If the City determines that the BMPs in place do not provide adequate erosion and sediment control at any time during the project, the contractor shall install additional or alternate measures that provide effective control.

6. Concrete wash or rinse water from concrete mixing equipment, tools and/or ready-mix trucks, tools, etc. may not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place.

7. Chemicals or materials capable of causing pollution may only be stored onsite in their original container. Materials stored outside must be in closed and sealed water-proof containers and located outside of drainage ways or areas subject to flooding. Locks and other means to prevent or reduce vandalism shall be used. Spills will be reported as required by law and immediate actions taken to contain them.

8. Silt fences and erosion control BMPs which are shown along the back of curb must be installed within two weeks of curb backfill and prior to placement of base asphalt. Exact locations of these erosion control methods may be field adjusted to minimize conflicts with utility construction; however, anticipated disturbance by utility construction shall not delay installation.

9. Interior Silt Fence as necessary during construction. Portions may be limited as vegetation is established and hardscape is installed. Entire length may be installed at the contractor's option to aid in stabilizing slopes.

10. Private Erosion & Sediment Control inspections are required in accordance with NPDES schedule and requirements. After inspections, provide the City of Lee's Summit with reports and documentation.

EROSION & SEDIMENT CONTROL STAGING CHART

Phase	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage:	Notes:
Phase I (PRE–CON)	A – Place BMP's Prior to Land Disturbance	01	Perimeter Silt Fence	E	Place as shown on plan
		02	Concrete Entrance & Staging Area	E	Place as shown on plan
		03	Concrete Wash–Out	E	Place as shown on plan
		04	Existing Inlet Protection	E	Place as shown on plan
Phase II (MID–CON)	B – After Stripping, Grubbing, & Mass Grading	05	Interior Silt Fence (See Note 9)	E	Place as shown on plan
	C – After Utility Storm Sewer Construction	06	Storm Inlet Protection	E	Place as shown on plan
Phase III (POST–CON)	E – Final Grading, Paving & Landscaping	07	Final Seeding, Sod, and Landscaping	N/A	Silt fencing & inlet protect may be removed once seed & sodded areas are established on 80% of site. (RE: L1.1 Landscape Plan for the stormwater treatment facility)

EROSION CONTROL LEGEND

- DISTURBED AREA (0.00 AC)
- SILT/SEDIMENT FENCE
- INLET PROTECTION FILTER BAGS
- CONSTRUCTION ENTRANCE
- STAGING AREA
- CONCRETE CLEANOUT
- STEEP SLOPE PROTECTION
- FINAL SEEDING (SOD &/OR LANDSCAPING)

DETAILS

- SEE EROSION CONTROL DETAIL SHEETS FOR THE FOLLOWING

015 CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT (SHEET C8.1)
016 EROSION CONTROL BLANKETS AND TURF REINFORCEMENT MATS (SHEET C8.2)
017 CURB INLET PROTECTION (SHEET C8.3)
018 FILTER FABRIC SILT FENCE (SHEET C9.1)

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2	8/21/2019	Sheet Re-issued	MGG	MSS
1	8/1/19	Land Disturbance Comments		

STATE OF MISSOURI — MARK S. SHERFY — NUMBER PE-2010010263 — 08/21/2019 — PROFESSIONAL ENGINEER

Mark S. Sherfy
MO# PE-2010010263

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Prepared For:
FIRST STREET DEVELOPMENT
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TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
EROSION CONTROL PLAN

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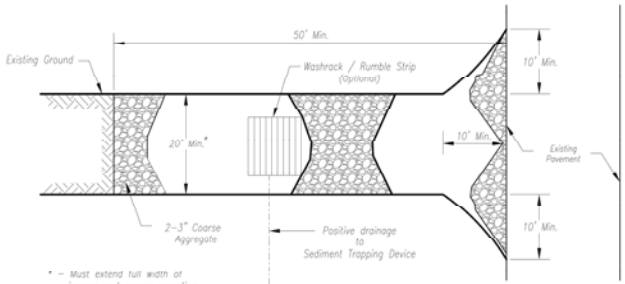
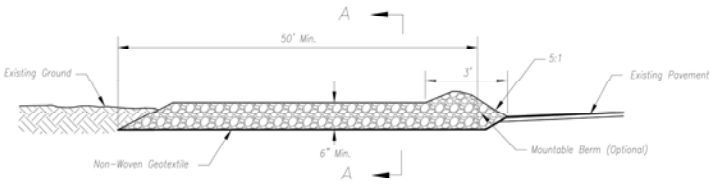
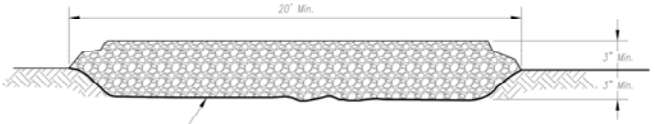


Plan View
Not to Scale



Side Elevation
Not to Scale



Section A-A
Not to Scale

Notes for Construction Entrance:

1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

1. Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.

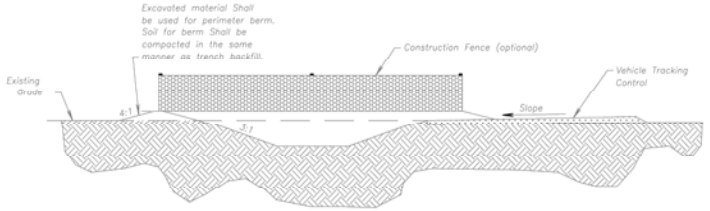
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all concrete washout areas.
4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

Maintenance for Concrete Washout:

1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.



CONCRETE WASHOUT

Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control. Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER

CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT

STANDARD DRAWING NUMBER ESC-01
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STATE OF MISSOURI
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Prepared For:
FIRST STREET DEVELOPMENT
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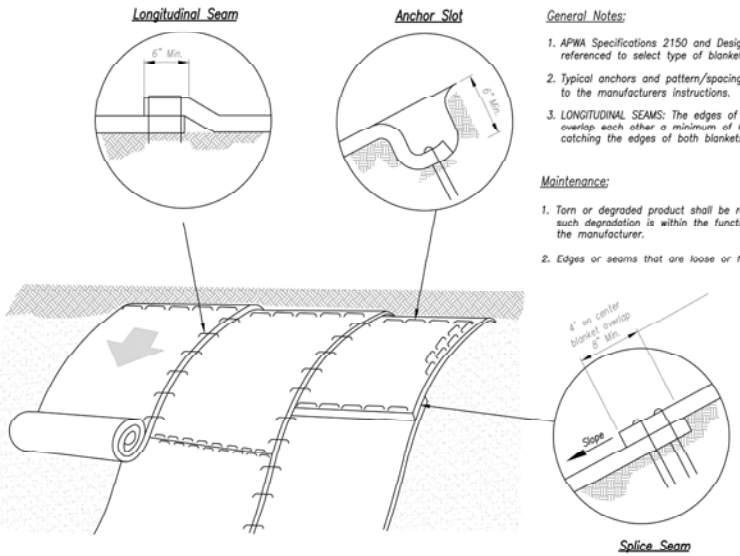
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
EROSION CONTROL DETAILS

Design: MGG | Drawn: MGG
Checked: MSS
Issue Date:
Project Number: 026040.08

C8.1

Aug 21, 2019 - 10:03am Plotted By: matt.gibbs V:\026040-First Street Development - Master\026040.08-Woods Chapel\04-CIVIL\Eng\Sheet\PDP Set\026040.08-SHTS-TDP-EROS-ZTLS.dwg Layout: Construction Entrance



Splice Seam

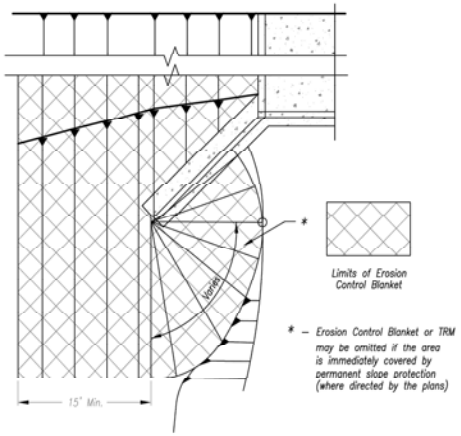
Installation on Slopes

General Notes:

1. APWA Specifications 2150 and Design Guidance 5100 shall be referenced to select type of blanket or mat to be used.
2. Typical anchors and pattern/spacing shall be installed according to the manufacturers instructions.
3. LONGITUDINAL SEAMS: The edges of the blanket or mat should overlap each other a minimum of 6 inches, with anchors catching the edges of both blankets.

Maintenance:

1. Torn or degraded product shall be repaired or replaced, unless such degradation is within the functional longevity specified by the manufacturer.
2. Edges or seams that are loose or frayed shall be secured.



* – Erosion Control Blanket or TRM may be omitted if the area is immediately covered by permanent slope protection (where directed by the plans)

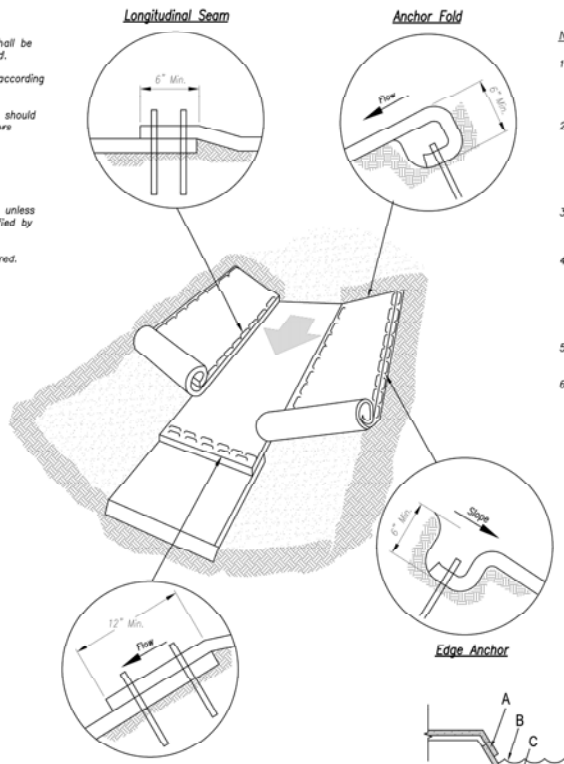
Partial Box Culvert Plan

Not to Scale

Installation Around Culvert Slope

Notes for Installation on Slopes:

1. Erosion Control Blankets and TRMs shall be laid in the direction of the slope. In order for blanket to be in contact with the soil, lay blanket loosely, avoiding stretching.
2. ANCHOR SLOTS: The top of the blanket should be "slotted in" at the top of the slope and anchored in place with anchors 6 inches apart. The slots should be 6 inches wide x 6 inches deep with the blanket anchored in the bottom of the slot, then backfilled, tamped and seeded.
3. SPLICE SEAM: When splices are necessary, overlap end a minimum of 8 inches in direction of water flow. Stagger splice seams.
4. TERMINAL FOLD: The bottom edge of the blanket shall be turned under a minimum of 4 inches, then anchored in place with anchors 9 inches apart.

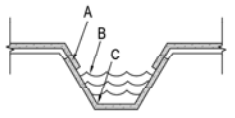


Splice Seam

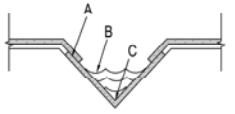
Edge Anchor

Notes for Installation in Channels:

1. Erosion Control Blankets and TRMs shall be laid in the direction of the flow, with the first course at the centerline of channel, where applicable. In order for the mat to be in contact with the soil, lay the mat loosely, avoiding stretching.
2. ANCHOR FOLD: The top of the mat should be folded under, buried and secured with wood or other approved anchors placed 6 inches apart. The top edge of the mat should be buried in a slot 6 inches wide x 6 inches deep, anchored in the bottom of the slot, backfilled, and the mat folded over the top as shown in detail.
3. SPLICE SEAM: When splices are necessary, overlap end a minimum of 12 inches in direction of water flow. Stagger splice seams.
4. CHECK SLOTS: Establish check slots transverse to slope every 30 feet. The slots should be 6 inches wide x 6 inches deep. The mat shall be cut to a lenath 12 inches beyond the slot. The top of the downstream mat shall be slotted in, secured and buried similar to the edge anchor fold. The upstream mat shall then cover the slot and be anchored as shown.
5. EDGE ANCHORS: Lay outside edge of mat into trench at top of the slope and anchor.
6. TERMINUS: The bottom edge of the mat shall be anchored.



Trapezoidal Channel



V Channel

Critical Points:

A – Overlaps and seams;

B – Projected water line;

C – Channel bottom / side slope vertices;

Installation in Channels

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION

KANSAS CITY METRO CHAPTER

EROSION CONTROL BLANKETS AND TURF REINFORMENT MATS

STANDARD DRAWING NUMBER ESC-02

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TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN

EROSION CONTROL DETAILS

Design: MGG Drawn: MGG
Checked: MSS
Issue Date: 04/23/2019
Project Number: 026040.08

C8.2

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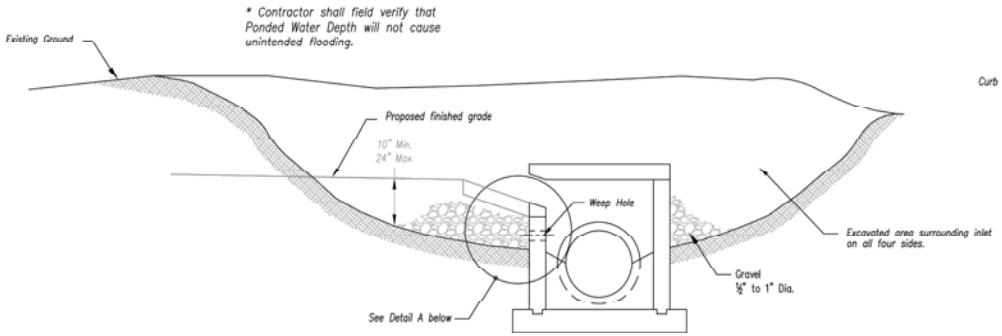
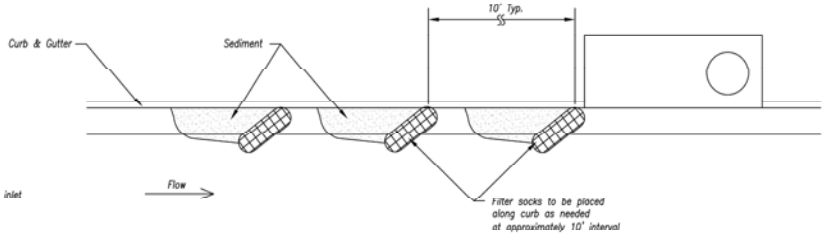
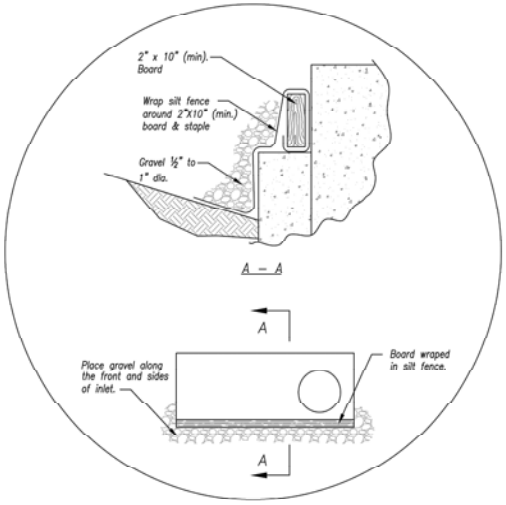




On Grade Curb Inlet Protection



Detail A

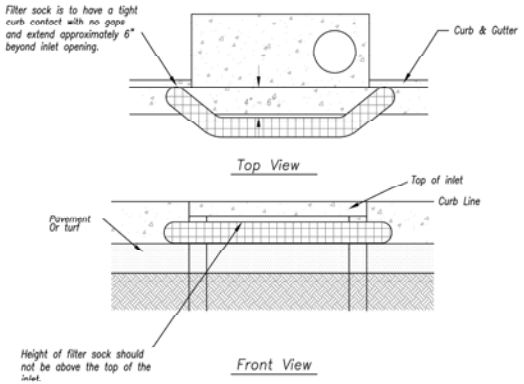
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.



Sump Inlet Sediment Filter

LATE STAGE CURB INLET
(After Pouring Curb and Inlet Throat)

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER

CURB INLET PROTECTION

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ADOPTED: 10/24/2016

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TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN

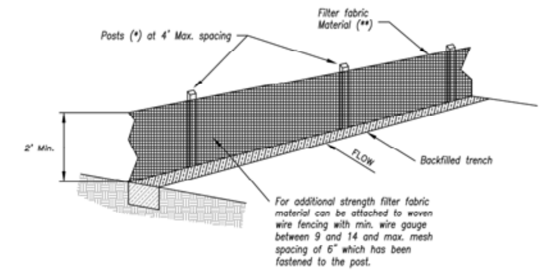
EROSION CONTROL DETAILS

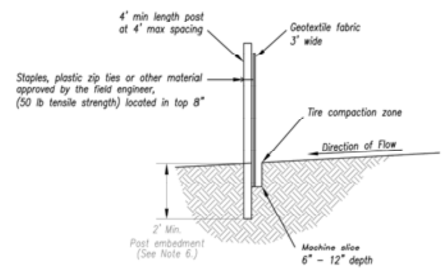
Design: MGG | Drawn: MGG
Checked: MSS
Issue Date: 04/23/2019
Project Number: 026040.08

C8.3

Aug 21, 2019 - 10:03am Plotted By: matt.gibbs V:\026040-First Street Development - Master\026040.08-Woods Chapel\04-CIVIL\Eng\Sheet\PDP Set\026040.08-SHTS-FDP-EROSN-DTLS.dwg Layout: Area Inlet Protection

THIS SHEET WAS ADDED AS PART OF REVISION 1





(*) POSTS

- MIN. LENGTH 4'
- HARDWOOD 1 3/16" x 1 3/16"
- NO.2 SOUTHERN PINE 2 5/8" x 2 5/8"
- STEEL 1.33 LB/FT

(**) - Geotextile Fabric shall meet the requirements of AASHTO M288

SILT FENCE DETAILS

Not to Scale

Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of silt fence.
2. Repair as necessary to maintain function and structure.

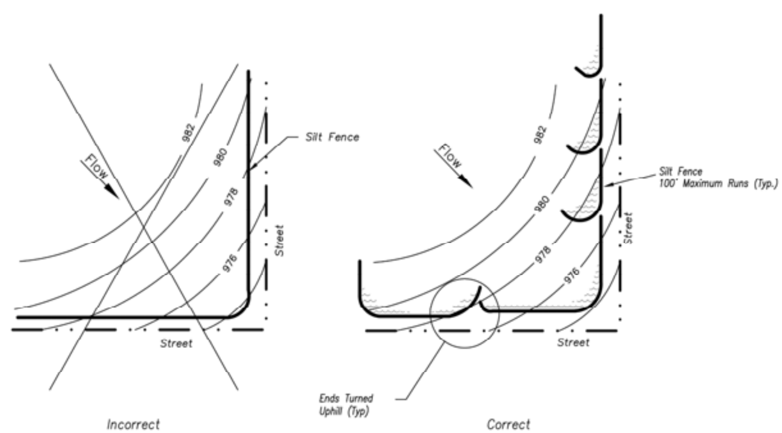
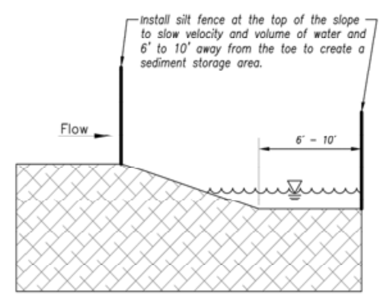
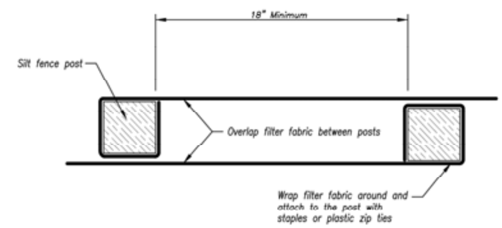


Figure A

SILT FENCE LAYOUT

Not to Scale





JOINING FENCE SECTIONS

Not to Scale

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION

KANSAS CITY METRO CHAPTER

SILT FENCE

STANDARD DRAWING NUMBER ESC-03

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TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
EROSION CONTROL DETAILS

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Checked: MSS
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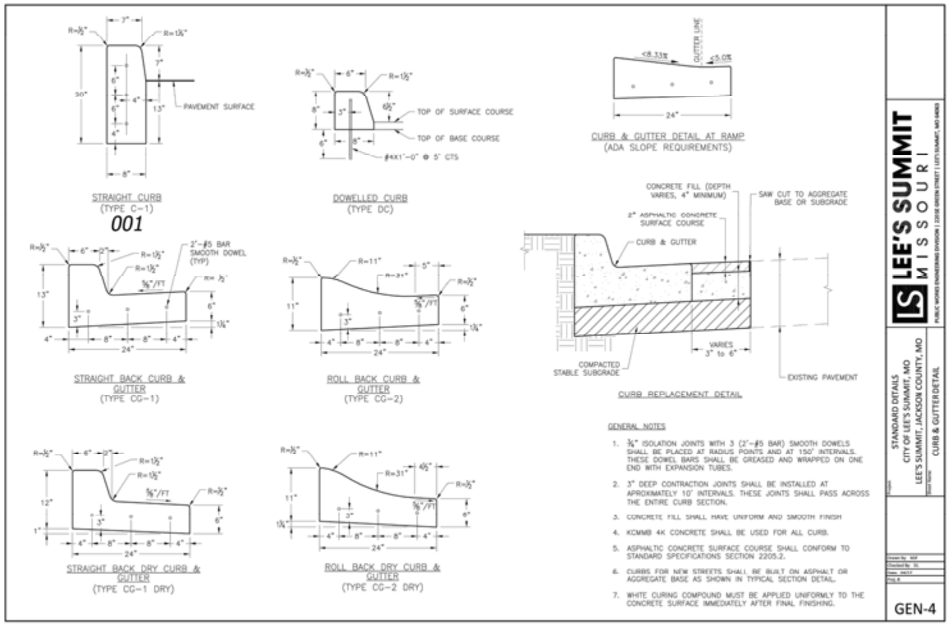
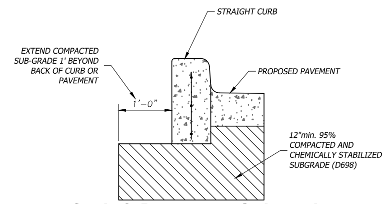
C8.4

Aug 21, 2019 – 10:03am Plotted By: matt.gibbs V:\026040-First Street Development – Master\026040.08-Woods Chapel\04-DWG\Eng\Sheet\FDP Set\026040.08-SHTS-FDP-ERSN-DTLS.dwg Layout: Silt Fence

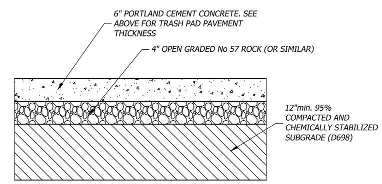




Curb & Pavement Subgrade

Not to Scale

NOTES:
1. CONTROL JOINT SPACING SHALL MATCH WIDTH OF SIDEWALK/DRIVE.
2. ISOLATION JOINTS SHALL BE PLACED @ 250' CENTERS OR WHERE WALKS ABUT CURBS, BUILDINGS, ETC....
3. ALL EXTERIOR CONCRETE SHALL HAVE A BROOM FINISH.
4. TRASH PAD TO HAVE 7" THICK PCC.
5. MoDOT 3500 PSI AT 28 DAYS, 4-INCH MAXIMUM SLUMP AND 5%-7% AIR ENTRAINED, MIX.

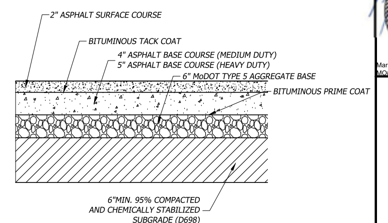


Not to Scale

PORTLAND CEMENT CONCRETE SECTION

002

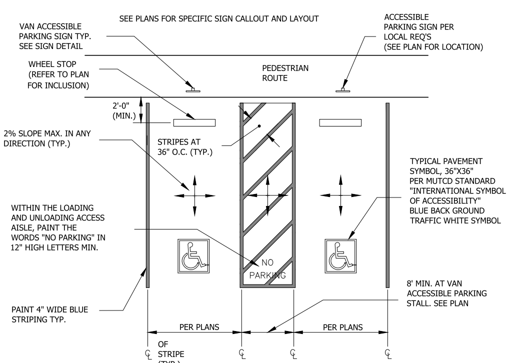
NOTES:
1. SHOP DRAWINGS FOR ASPHALT SHALL BE SUBMITTED PRIOR TO BATCHING. DENSITY TESTING FOR ASPHALT SHALL BE AT A MINIMUM OF 3 PER LIFT PER DAY DURING THE ASPHALT LAYING OPERATION. FINAL THICKNESS OF ASPHALT SHALL BE MEASURED AT 3 RANDOM LOCATIONS WITHIN THE SITE BY CORING THE PAVEMENT. THE AVERAGE OF THESE 3 CORES MUST BE GREATER THAN THE MINIMUM THICKNESS SPECIFIED IN THE PLANS.
2. ASPHALT PAVEMENT CONSTRUCTION SHALL ONLY COMMENCE WHEN AMBIENT TEMPERATURE IS 32 DEGREES FAHRENHEIT AND RISING.
3. THICKNESS SHOWN AS MINIMUM. SEE SHEET C2.0 FOR LOCATIONS OF MEDIUM AND HEAVY DUTY SECTIONS



ASPHALT SECTION

Not to Scale

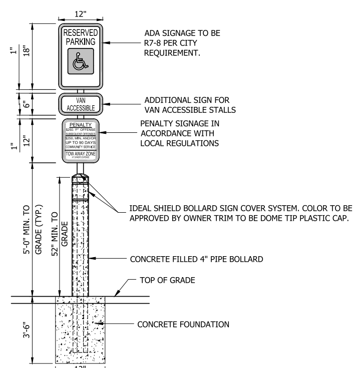
003



(ADA) Accessible Parking Striping

Not to Scale

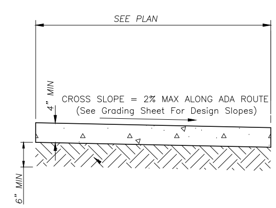
004



(ADA) Accessible Parking Signage

Not to Scale

005



NOTE:
1. CONCRETE TO BE AIR ENTRAINED, 4000 PSI CONCRETE
2. SUBGRADE TO BE MOISTURE CONDITIONED AND COMPACTED TO 95% MAX DENSITY PER ASTM D698
3. CONTRACTION JOINTS TO BE INSTALLED AT A LONGITUDINAL SPACING EQUAL TO THE SIDEWALK WIDTH, BUT NOT TO EXCEED 6'. CONTRACTION JOINTS SHALL BE TO A DEPTH EQUAL TO ¼ OF THE SIDEWALK THICKNESS
4. EXPANSION JOINTS SHALL BE INSTALLED WHEN SIDEWALK ABUTS OR CONNECTS TO EXISTING STRUCTURES, SIDEWALKS, CURB & GUTTER AND AT LONGITUDINAL SPACING NOT TO EXCEED 100'
5. ALL JOINTS ALONG THE ACCESSIBLE ROUTE SHALL BE OF A WIDTH NOT TO EXCEED ½"

Concrete Sidewalk Section

Not to Scale

006

Rev.	Date	Description	By	App.
2	8/21/19	FDP Comments/Site VE Items	MGG	MSS

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08/21/2019

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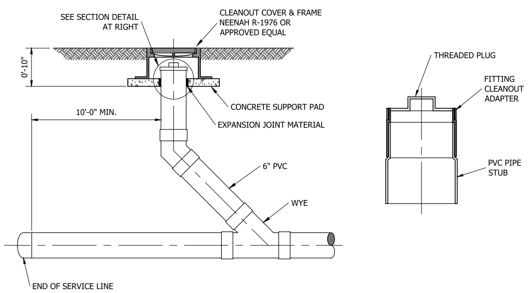
TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
CIVIL DETAILS

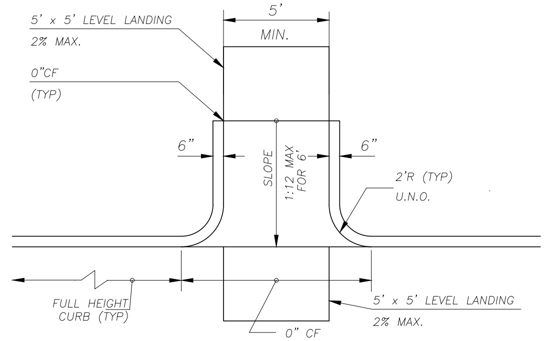
Design: MGG Drawn: MGG
Checked: MSS
Issue Date:
Project Number: 026040.08

C9.0



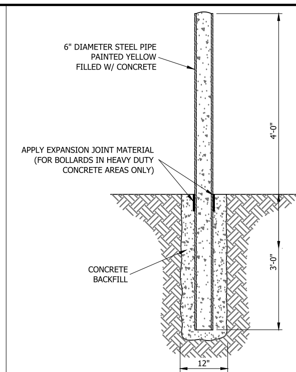
Sanitary Sewer Cleanout
Not to Scale

007



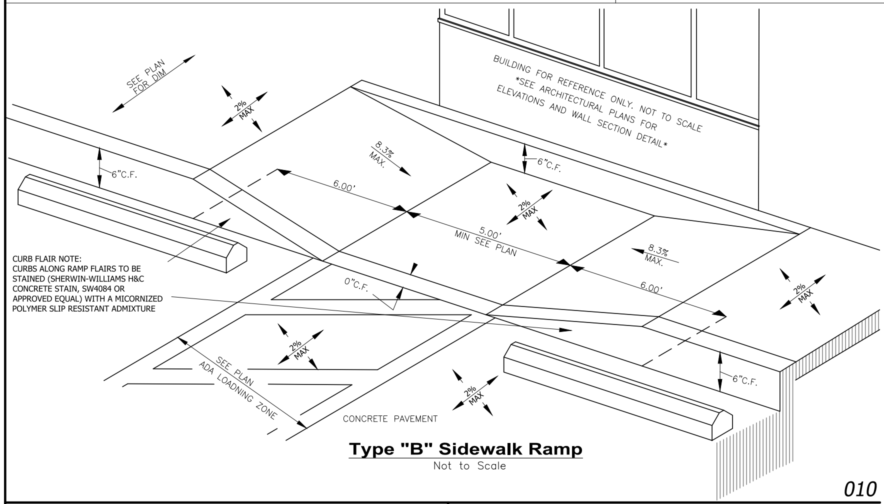
Type "A" Sidewalk Ramp
Not to Scale

008



Steel/Concrete Bollard
Not to Scale

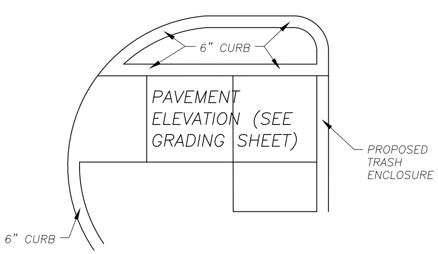
009



CURB FLAIR NOTE:
CURBS ALONG RAMP FLAIRS TO BE STAINED (SHERWIN-WILLIAMS H&C CONCRETE STAIN, SW4084 OR APPROVED EQUAL) WITH A MICORNIZED POLYMER SLIP RESISTANT ADMIXTURE

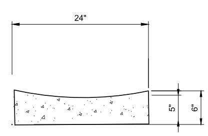
Type "B" Sidewalk Ramp
Not to Scale

010



Trash Access Detail
Not to Scale

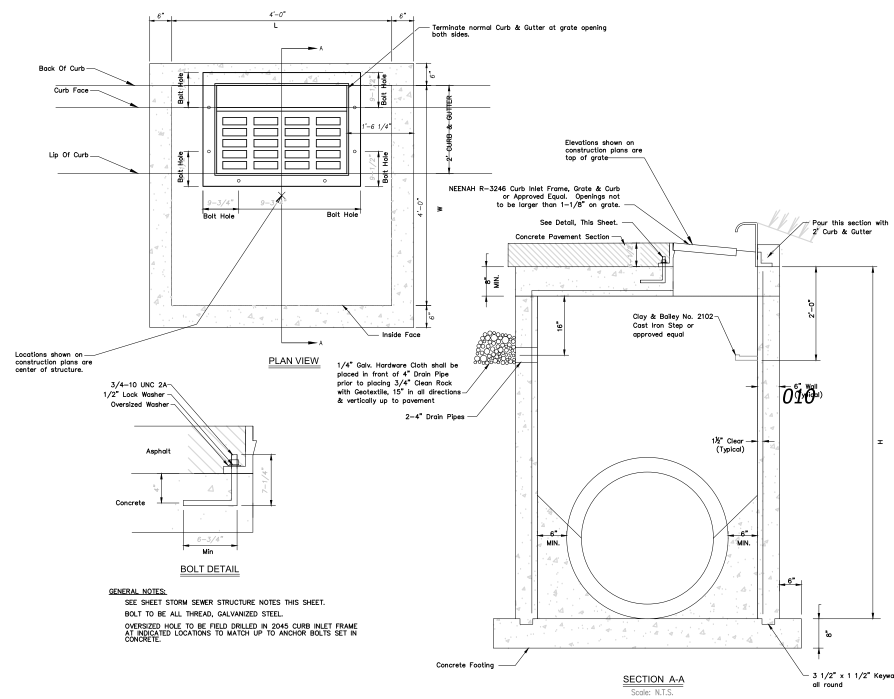
011



NOTES:
1. ALL JOINTS WITH EXISTING CURB SHALL BE TYPE #2 JOINTS.
2. A TYPE #2 JOINT SHALL BE PLACED AT ALL CURB RETURNS.
3. A TYPE #1 JOINT SHALL BE PLACED AT 15'OC.
4. AB-3 MAY BE USED AS A LEVELING COURSE TO BRING SUBGRADE TO PROPER ELEVATION (6"max.).
5. DURING DRY CURB TRANSITIONS, WATER SHALL FLOW FROM THE GUTTER TO THE LIP @ 0.5%min. SLOPE.

Valley Gutter
Not to Scale

012



GENERAL NOTES:
SEE SHEET STORM SEWER STRUCTURE NOTES THIS SHEET.
BOLT TO BE ALL THREAD, GALVANIZED STEEL.
OVERSIZED HOLE TO BE FIELD DRILLED IN 2045 CURB INLET FRAME AT INDICATED LOCATIONS TO MATCH UP TO ANCHOR BOLTS SET IN CONCRETE.

NEENAH CURB INLET
Not to Scale

013

Rev.	Date	Description	By	App.
2	8/21/19	Sheet Re-issued		

STATE OF MISSOURI — MARK S. SHERFY — NUMBER PE-2017010253 — PROFESSIONAL ENGINEER — 08/21/2019
Mark S. Sherfy
MO# PE-2017010253

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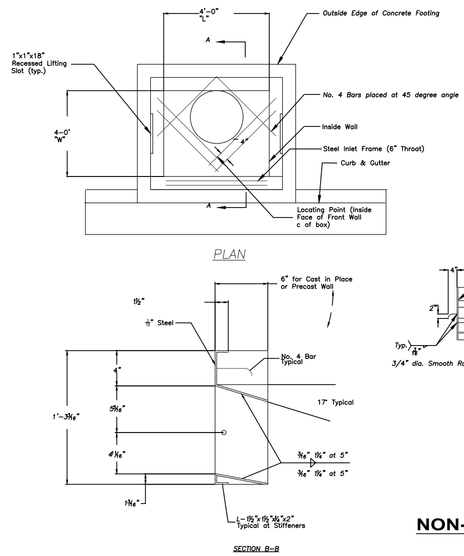
BHC RHODES is a trademark of Brungardt Honomichl & Company, P.A.
Certificate of Authority Number: MO# E-1355-F

Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
CIVIL DETAILS

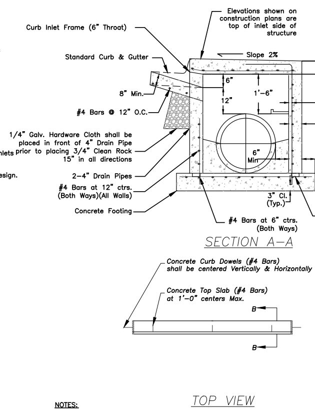
Design: MGG	Drawn: MGG
Checked:	MSS
Issue Date:	04/23/2019
Project Number:	026040.08

C9.1



GENERAL NOTES:

1. The first dimension listed in the Construction Notes is the "L" dimension. The second dimension is the "W" dimension. f's listed on the project plans are listed at the inside face of the wall.
2. Floor of inlet shall be shaped with invert to provide smooth flow.
3. Locate MH ring and cover over outlet.
4. Steps shall be spaced at 1'-4" O.C. vertically.
5. Bevel all exposed edges with 3/4" chamfer or 1/2" tooled edge.
6. On-grade inlets shall conform to the street grade and sump inlets shall be level.
7. The sums of "L" & "W" shall not exceed 14' without special design. (See project plans for details.)
8. Ring & Cover to be Neenah R-1537, Clay & Bailey #2020, Deeter #2016, or approved equal. (Casting may vary by municipality, refer to plans & contract documents.)



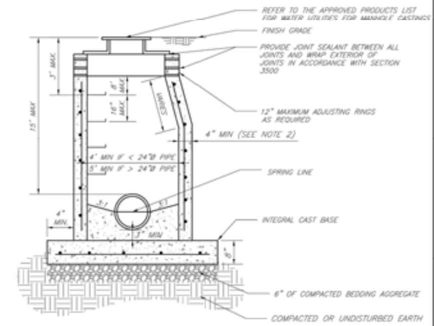
NOTES:

1. All welds shall be performed in accordance with appropriate AWS Specifications & Procedures.
2. All welds on exposed surfaces shall be dressed so as to provide a pleasing finished appearance.
3. The entire frame shall be painted a single coat of CHEM-PRIME #37-77 primer (Red) or equal.

NON-SETBACK CURB INLET

Not to Scale

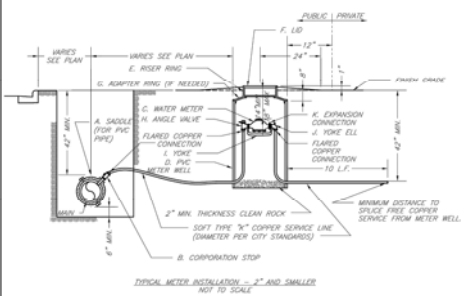
014



NOTES:

1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS.
2. A WALL THICKNESS NOT LESS THAN ONE-TWELFTH (1/12) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS GREATER, SHALL BE USED WHEN THE MANHOLE DEPTH IS LESS THEN 15'.
3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 14 MILS OF BITUMINOUS COATING.
4. ONLY ECCENTRIC MANHOLE CONES WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
5. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION INTO THE FLOW LINE.
6. REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR APPROVED MANHOLE GASKET MODELS.
7. REFER TO THE APPROVED PRODUCTS LIST FOR APPROVED STEPS.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
STANDARD PRECAST MANHOLE – SANITARY SEWER
Date: 02/13 · Drawn By: JN · Checked By: DL · FILE: SAN-2 · Rev: 1/14

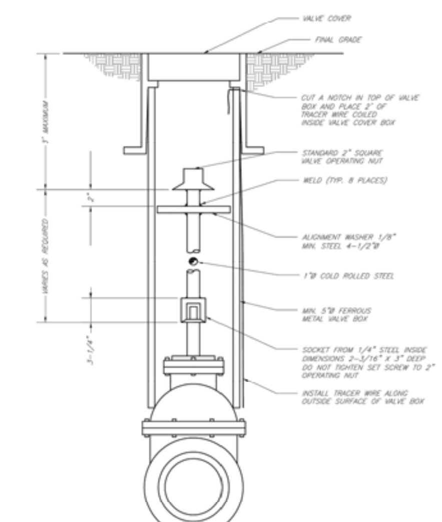


TYPICAL METER INSTALLATION – 2" AND SMALLER
NOT TO SCALE

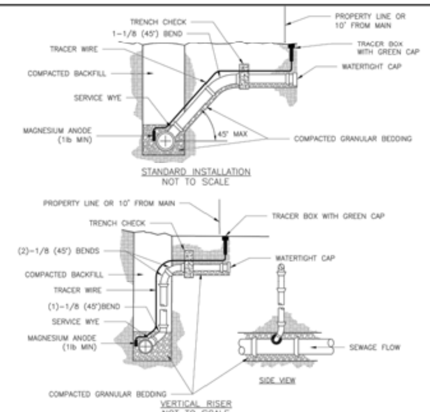
NOTES:

1. METER INSTALLATION SHALL NOT BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC OR IN CONCRETE PAVEMENT WITHOUT CITY APPROVAL.
2. IF METER IS TO BE LOCATED OTHER THAN IN FRONT OF PROPERTY LINE, CITY APPROVAL SHALL BE OBTAINED.
3. CITY TO FURNISH ITEMS A-K.
4. NO OTHER EQUIPMENT SHALL BE INSTALLED IN THIS PIT.
5. 42" MINIMUM BURY DEPTH FOR ALL SERVICE LINES.
6. EXCAVATION FOR TAP TO EXPOSE 4 LINEAR FEET OF MAIN.
7. NO SPLICES ALLOWED BETWEEN METER AND MAIN.
8. SERVICE CONNECTION TAP AT APPROXIMATELY 45 DEGREES.
9. LID AND RISER RING SHALL BE SET SO THAT GROUND WATER WILL DRAIN AWAY FROM THE WELL.
10. CONTACT WATER UTILITIES, 816-969-1900, FOR REQUIREMENTS OF A METER LARGER THAN 2"

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
SERVICE CONNECTION/METER WELL
Date: 02/13 · Drawn By: JN · Checked By: DL · FILE: WAT-11 · Rev: 1/14



LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
VALVE STEM EXTENSION AND VALVE BOX
Date: 02/13 · Drawn By: JN · Checked By: DL · FILE: WAT-9 · Rev: 1/14



NOTES:

1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN. WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
2. ALL NEW CONSTRUCTION OFF SEWER STUBS SHALL BE TEMPORARILY MARKED WITH A MARKING STAKE, 36" ABOVE GROUND AND PAINTED GREEN.
3. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
4. TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE TRENCH.
5. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
6. #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER SERVICE OR AS DETERMINED BY THE ENGINEER.
7. FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
8. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
9. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
BUILDING SEWER STUB AND RISER
Date: 04/17 · Drawn By: MJF · Checked By: DL
SAN-1

Rev.	Date	Description	By	App.
2	8/21/19	Sheet Re-issued		

Mark S. Sherfy
MO# PE-2017010253
STATE OF MISSOURI · MARK S. SHERFY · NUMBER PE-2017010253 · 08/21/2019 · PROFESSIONAL ENGINEER

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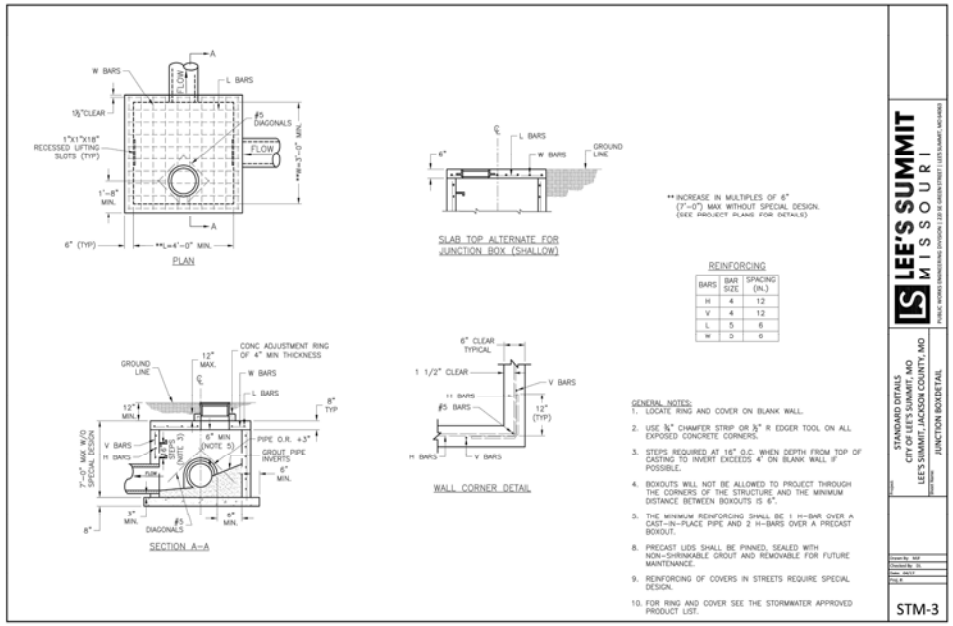
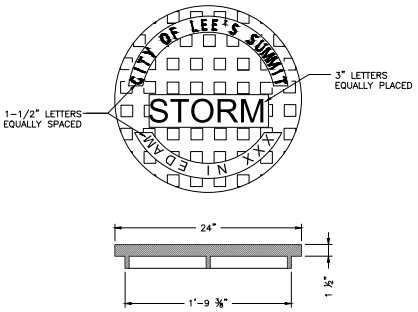
Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
CIVIL DETAILS

Design: MGG · Drawn: MGG · Checked: MSS · Issue Date: 04/23/2019 · Project Number: 026040.08

C9.2

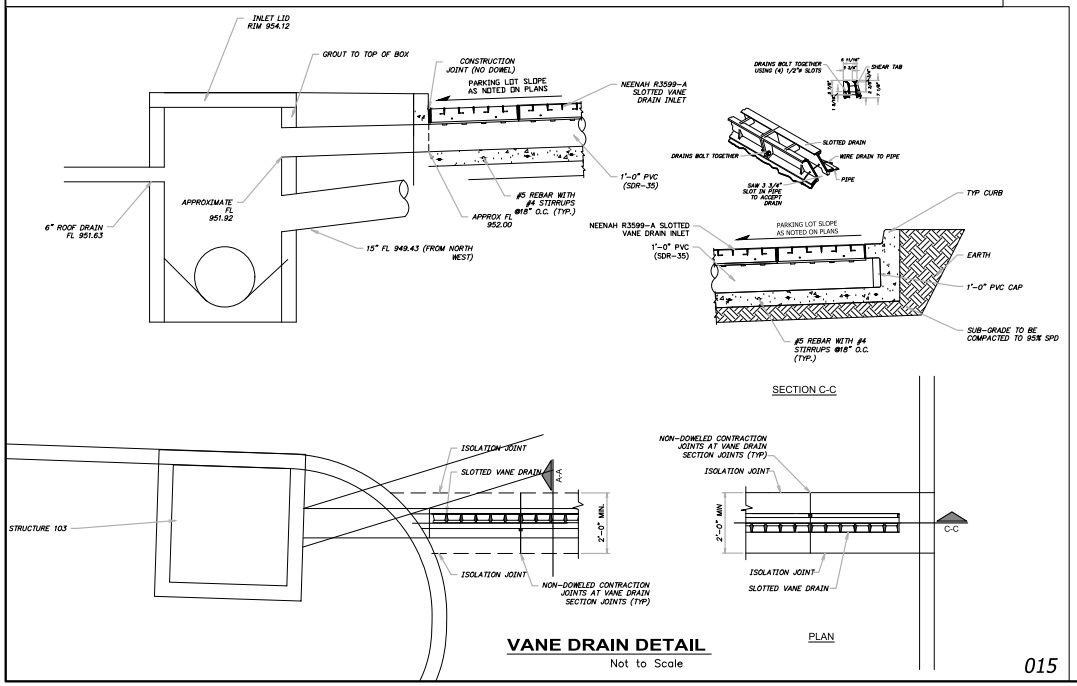




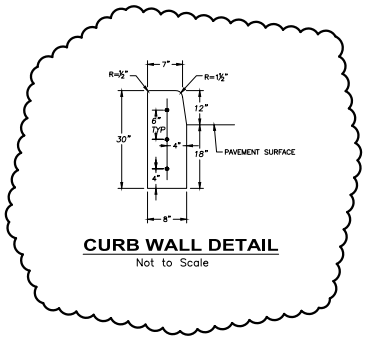
STANDARD 24" MANHOLE COVER
MINIMUM WEIGHT = 160 LB
NOTE: PICK HOLES NOT SHOWN

*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCT LIST.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
STORM MANHOLE COVER DETAIL
Date: 04/17
Drawn By: MJF
Checked By: DL
STM-6



VANE DRAIN DETAIL
Not to Scale



CURB WALL DETAIL
Not to Scale

015

2	8/21/19	FDP Comments/Site UE Items	MGG	MSS
Rev.	Date	Description	By	App.

MARK S. SHIRLEY NUMBER PE-2007120253 08/21/2019 PROFESSIONAL ENGINEER
Mark S. Shirly
MO# PE-2007120253

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Certificate of Authority Number: MO# E-1305-F

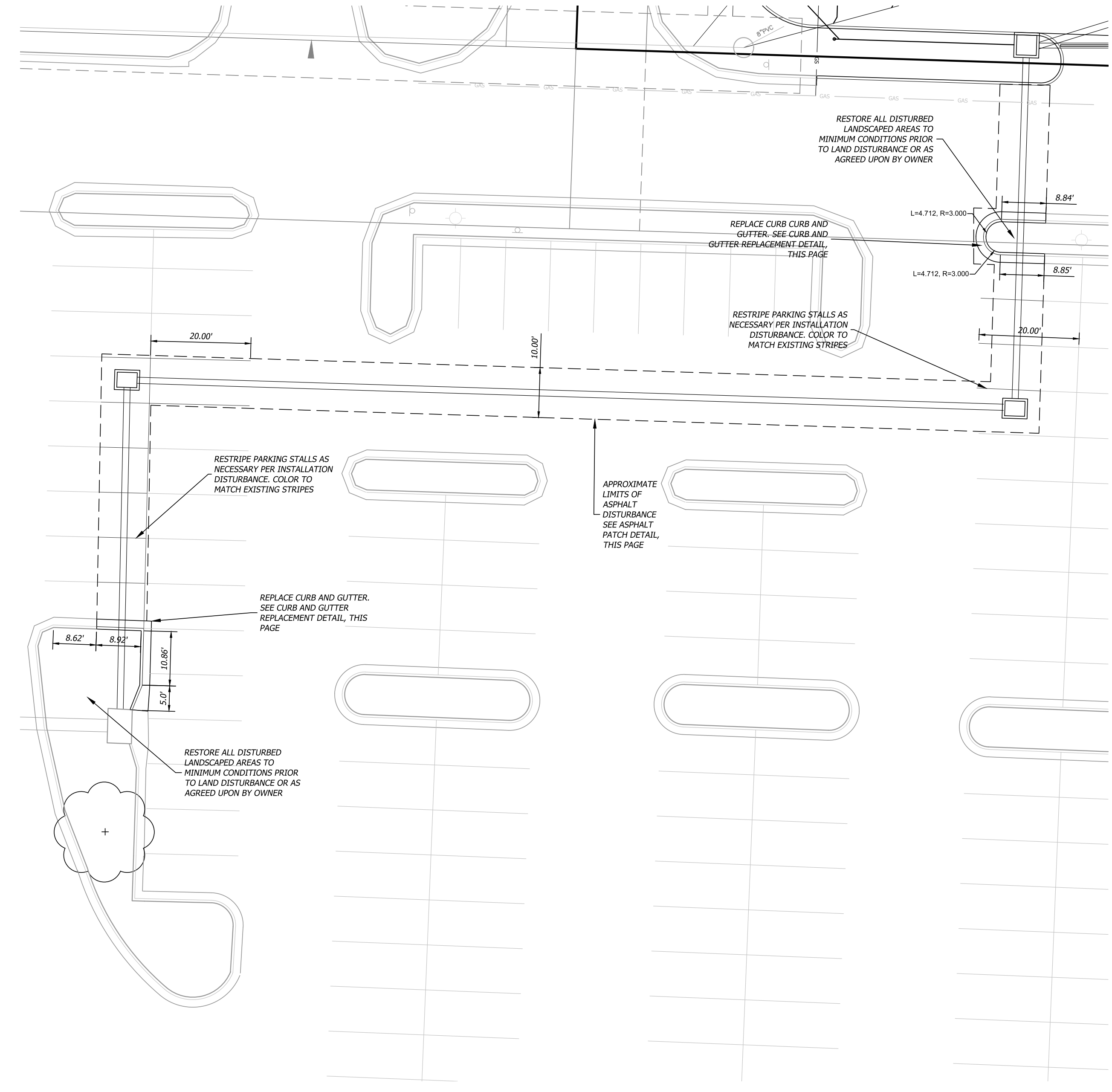
Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

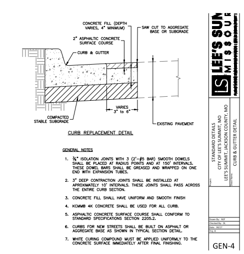
TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
CIVIL DETAILS

Design: MGG Drawn: MGG
Checked: MSS
Issue Date: 04/23/2019
Project Number: 026040.08

C9.3

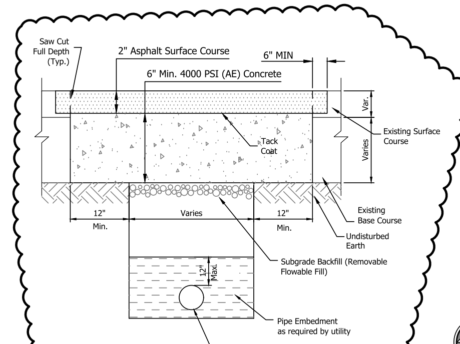
Aug 21, 2019 - 10:07am Plotted By: matt.gibbs V:\026040-First Street Development - Master\026040.08-Woods Chapel\04-CIVIL\Eng\Sheet\PDP Set\026040.08-SHTS-FDP-DTLS.dwg LayoutL Details4





CITY STANDARD CURB REPLACEMENT DETAIL

Not to Scale



Asphaltic Concrete Street Repair

Not to Scale

GRAPHIC SCALE
10 0 10

Rev.	Date	Description	By	App.
2	8/21/19	FDP Comments/Site VE Items	MGG	MSS

Mark S. Sherfy
MO# PE-2017010253
08/21/2019

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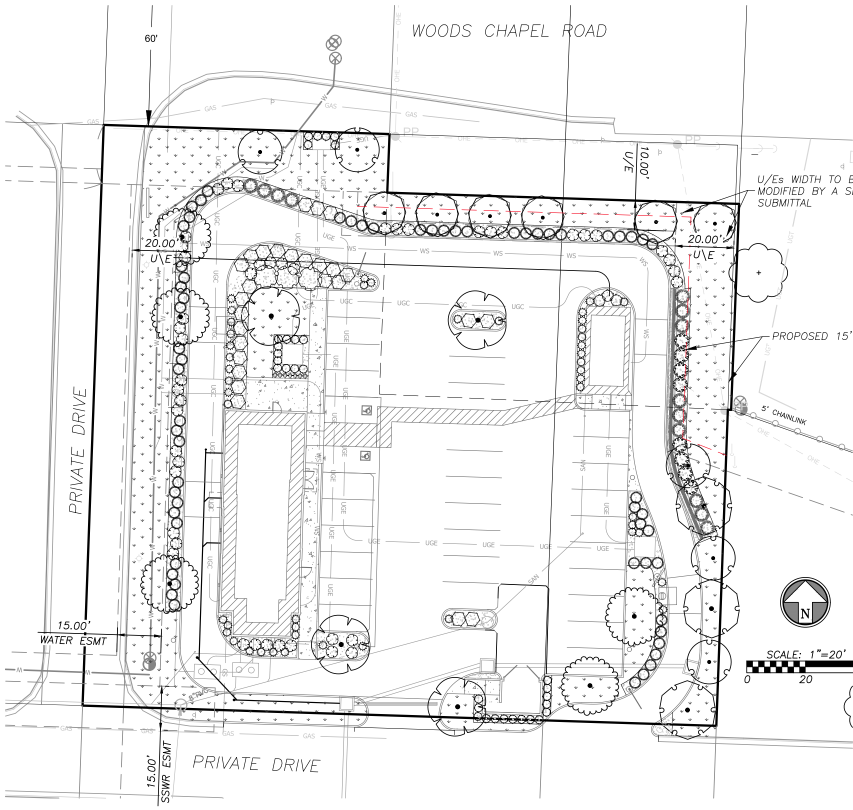
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
OFFSITE RESTORATION PLAN

Design: MGG Drawn: MGG
Checked: MSS
Issue Date: 04/23/2019
Project Number: 026040.08

C11.0



PLANT SCHEDULE

TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL
	3	Acer x freemanii `Celebration` / Celebration Maple FOR PLANTING DETAILS SEE DETAIL 801 & 802, SHEET L2.0	B & B	3"Cal
	6	Amelanchier x grandiflora `Autumn Brilliance` / `Autumn Brilliance` Serviceberry FOR PLANTING DETAILS SEE DETAIL 801 & 802, SHEET L2.0	B & B	3"Cal
	4	Prunus cerasifera `Thundercloud` / Thundercloud Plum FOR PLANTING DETAILS SEE DETAIL 801 & 802, SHEET L2.0	B & B	3"Cal
	5	Syringa pekinensis `China Snow` / China Snow Tree Lilac FOR PLANTING DETAILS SEE DETAIL 801 & 802, SHEET L2.0	B & B	3"Cal
	5	Zelkova serrata `Musashino` / Sawleaf Zelkova FOR PLANTING DETAILS SEE DETAIL 801 & 802, SHEET L2.0	B & B	3"Cal
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT.	HEIGHT
	3	Euonymus alatus / Burning Bush FOR PLANTING DETAILS SEE 803 & 804, SHEET L2.0	5 gal	4` Ht.
	46	Itea virginica `Henry`s Garnet` / Henry`s Garnet Sweetspire FOR PLANTING DETAILS SEE 803 & 804, SHEET L2.0	5 gal	2` height
	3	Physocarpus opulifolius `Ruby Spice` / Ruby Spice Ninebark FOR PLANTING DETAILS SEE 803 & 804, SHEET L2.0	5 gal	2` height
	27	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac FOR PLANTING DETAILS SEE 803 & 804, SHEET L2.0	5 gal	2` height
	8	Viburnum rhytidophyllum `Alleghany` / Leatherleaf Viburnum FOR PLANTING DETAILS SEE DETAIL 803 & 804, SHEET L2.0	5 gal	3` Ht.
	7	Vinca minor / Common Periwinkle FOR PLANTING DETAILS SEE 803 & 804, SHEET L2.0	1 gal	
EVERGREEN SHRUB	QTY	BOTANICAL / COMMON NAME	CONT.	HEIGHT
	60	Ilex glabra `Shamrock` / Inkberry FOR PLANTING DETAILS SEE 803 & 804, SHEET L2.0	5 gal	2` Ht.
	13	Juniperus chinensis `Sea Green` / Sea Green Juniper FOR PLANTING DETAILS SEE 803 & 804, SHEET L2.0	5 gal	2` Ht.
	47	Juniperus squamata `Blue Star` / Blue Star Juniper FOR PLANTING DETAILS SEE 803 & 804, SHEET L2.0	5 gal	2` Ht.
	32	Juniperus virginiana `Skyrocket` / Skyrocket Juniper FOR PLANTING DETAILS SEE 803 & 804, SHEET L2.0	B & B	8`
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT	
	9,132 sf	Festuca arundinacea `Watersaver Blend` / Watersaving Blend of Tall Fescue PLACE LANDSCAPE EDGING WHERE GRASS ADJOINS PLANTING BEDS, SEE DETAIL 805 SHEET L2.0	sod	

MULCH SCHEDULE

	MULCH Double Ground Hardwood Mulch. 3" depth. -	4,211 sf

SITE DATA

	Quantity	Required	Provided
Site Area	40,619		
Open Space Req			
1 tree / 5000 SF of total lot area		8.12	9
2 shrubs / 5000 SF of total lot area		16.25	207
Street Tree			
NE Woods Chapel Rd	217.49		
20' landsacpe buffer			
1 tree / 30 LF of street		7.25	8
1 shrub/ 20 LF of street		10.87	43
HWY 470	178.1		
20' landsacpe buffer			
1 tree / 30 LF of street		5.94	6
1 shrub/ 20 LF of street		8.91	15
Perimeter Parking Landscape	178.09		
Continuous screen of 2.5' shrubs		Y	Y
12 shrubs/40 LF		53.43	85
Island/Interior Landscape	17,361.03		
5% of the entire parking area		868.05	991.96
1 tree/island		Y	Y
Utility Screening			
Above ground cabinets should be screened w/landscaping		Y	Y

GENERAL LANDSCAPE NOTES

1. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL FINAL GRADE WITH THE LANDSCAPE ARCHITECT AND OR DESIGN TEAM PRIOR TO COMPLETION.
2. LOCATION AND PLACEMENT OF ALL PLANT MATERIAL SHALL BE COORDINATE WITH THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
3. LOCATION OF ALL UTILITIES ARE APPROXIMATE, THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION OPERATIONS.
4. REFER TO CIVIL DRAWINGS FOR ALL GRADING AND BERMING, EROSION CONTROL, STORM DRAINAGE, UTILITIES AND SITE LAYOUT.
5. PLANT QUANTITIES ARE FOR INFORMATION ONLY DRAWING SHALL PREVAIL IF CONFLICT OCCURS. CONTRACTOR IS RESPONSIBLE FOR CALCULATING OWN QUANTITIES AND BID ACCORDINGLY.
6. TREE LOCATIONS IN AREAS ADJACENT TO DRIVES, WALKS, WALLS AND LIGHT FIXTURES MAY BE FIELD ADJUSTED AS APPROVED BY LANDSCAPE ARCHITECT.
7. THE CONTRACTOR SHALL REPORT SUBSURFACE SOIL OR DRAINAGE PROBLEMS TO THE LANDSCAPE ARCHITECT.
8. THE PLAN IS SUBJECT TO CHANGES BASED ON PLANT SIZE AND MATERIAL AVAILABILITY. ALL CHANGES OR SUBSTITUTIONS MUST BE APPROVED BY THE CITY OF LEES SUMMIT, MISSOURI AND THE LANDSCAPE ARCHITECT.
9. ALUMINUM LANDSCAPE EDGING TO BE USED ON ALL LANDSCAPE BEDS ABUTTING TURF AREAS AS NOTED ON LANDSCAPE PLANS.
10. LANDSCAPE CONTRACTOR IS TO BE RESPONSIBLE FOR WATERING ALL PLANT MATERIAL UNTIL THE TIME THAT A PERMANENT WATER SOURCE IS READY.
11. THE CONTRACTOR SHALL SHOW PROOF OF PROCUREMENT, SOURCES, QUANTITIES AND VARIETIES FOR ALL SHRUBS, PERENNIALS ORNAMENTAL GRASSES AND ANNUALS WITHIN 21 DAYS FOLLOWING THE AWARD OF THE CONTRACT.
12. CONTRACTOR SHALL PROVIDE FULL MAINTENANCE FOR NEWLY LANDSCAPED AREAS FOR A PERIOD OF 30 DAYS AFTER THE DATE OF FINAL ACCEPTANCE. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, WELL-ROOTED, EVE-COLORED, VIABLE TURF AND LANDSCAPED AREA MUST BE ESTABLISHED. THE LANDSCAPED AREAS SHALL BE FREE OF WEEDS, OPEN JOINTS, BARE AREAS AND SURFACE IRREGULARITIES.
13. LANDSCAPE CONTRACTOR SHALL PROVIDE MULCH SAMPLE TO OWNER FOR APPROVAL.

GENERAL IRRIGATION NOTES

1. IRRIGATION PLAN TO NOT INTERFERE WITH ANY PROPOSED IMPROVEMENTS SHOW WITHIN PLANS.
2. IRRIGATION SYSTEM DESIGN TO BE BASED ON AVAILABLE PSI– TO BE DETERMINED BUT NOT TO EXCEED 70 PSI.
3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ELECTRICAL POWER SERVICE TO THE CONTROLLER AND SHALL MAKE ALL HOOK-UPS FROM THE ELECTRICAL SERVICE TO THE AUTOMATIC CONTROLLER. ALL EXPOSED LOW VOLTAGE WIRE SHALL BE ENCLOSED IN A CONDUIT.
4. PLACE VALVE BOXES 12" MINIMUM FROM AND PARALLEL TO CURBS AND WALKS, GROUPED VALVES TO BE EQUALLY SPACED.
5. INSTALL ALL MAINLINES TO SLOPE AT 1% MINIMUM TO DRAIN VALVES LOCATED AT LOW POINTS OF MAIN SYSTEM.
6. GENERAL CONTRACTOR SHALL PROVIDE 110V, NON-INTERRUPTED ELECTRICAL SERVICE FOR THE IRRIGATION CONTROLLER.
7. IRRIGATION CONTROLLER AND RAIN SENSOR SHALL BE LOCATED IN OWNER APPROVED LOCATIONS.

Rev.	Date	Description	By	App.

NINA LA ... NUMBER PLA-2018034558 08/21/2019 STATE OF MISSOURI LANDSCAPE ARCHITECT

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Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
LANDSCAPE PLAN

Design: NAB Drawn: NAB
Checked: MSS
Issue Date: 04/23/2019
Project Number: 026040.08

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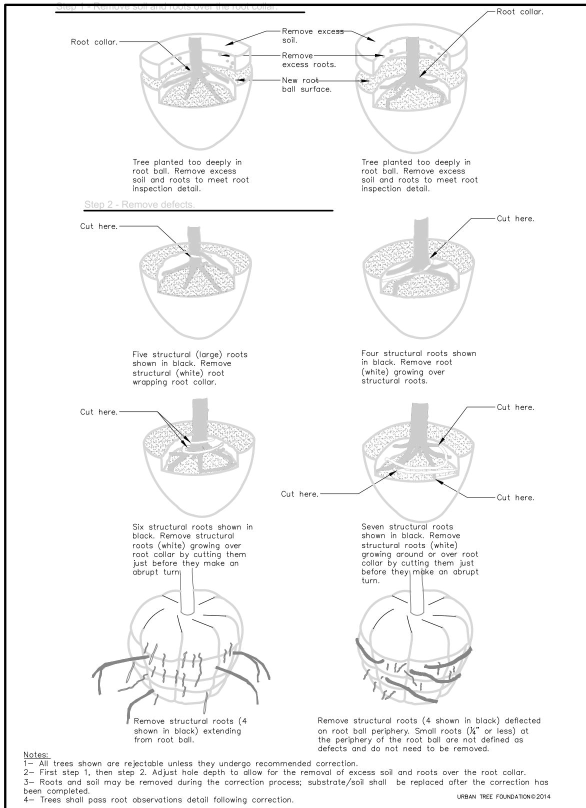

Notes:
1– All trees shown are rejectable unless they undergo recommended correction.
2– First step 1, then step 2. Adjust hole depth to allow for the removal of excess soil and roots over the root collar.
3– Roots and soil may be removed during the correction process; substrate/soil shall be replaced after the correction has been completed.
4– Trees shall pass root observations detail following correction.

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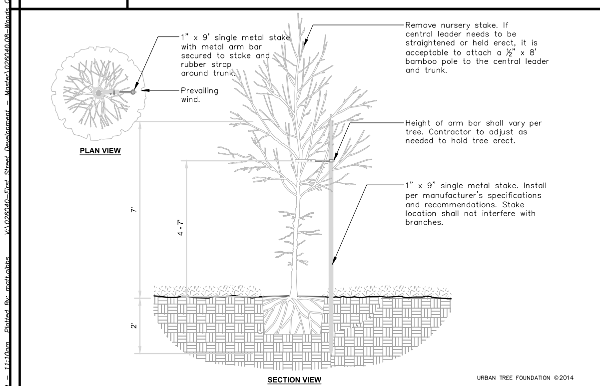
801 Not to Scale — ROOT BALL CORRECTION DETAIL - BALL & BURPLAP



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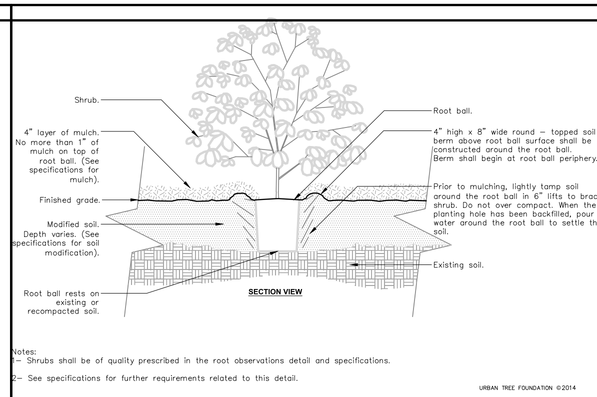
802 Not to Scale — TREE STAKING - SINGLE METAL STAKE



Notes:
1– Shrubs shall be of quality prescribed in the root observations detail and specifications.
2– See specifications for further requirements related to this detail.

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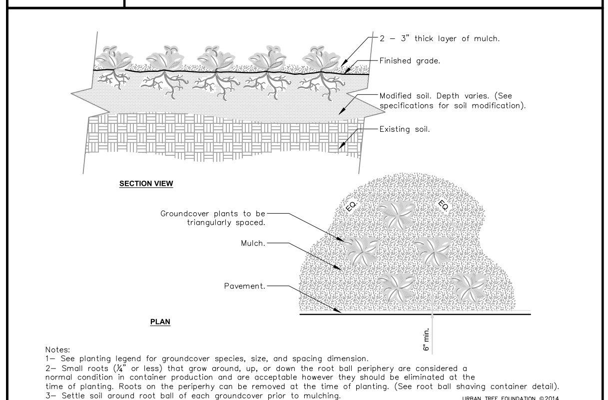
803 Not to Scale — SHRUB - MODIFIED SOIL



Notes:
1– See planting legend for groundcover species, size, and spacing dimension.
2– Small roots (¼" or less) that grow around, up, or down the root ball periphery are considered a normal condition in container production and are acceptable however they should be eliminated at the time of planting. Roots on the periphery can be removed at the time of planting. (See root ball shaving container detail).
3– Settle soil around root ball of each groundcover prior to mulching.

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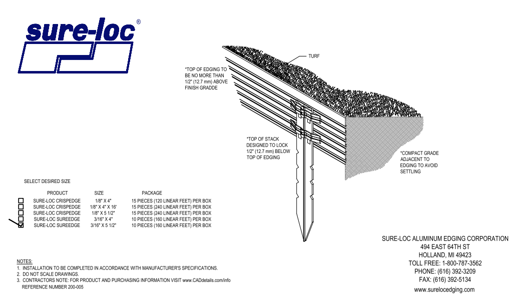
804 Not to Scale — GROUNDCOVER



805 Not to Scale — ALUMINUM LANDSCAPING EDGEING

PLANTING NOTES

1. LOCATION OF ALL EXISTING UTILITIES NEEDS TO BE DONE BEFORE COMMENCING WORK.
2. THE PLANTING PLAN GRAPHICALLY ILLUSTRATES OVERALL PLANT MASSINGS. EACH PLANT SPECIES MASSING SHALL BE PLACED IN THE FIELD TO UTILIZE THE GREATEST COVERAGE OF GROUND PLANE. THE FOLLOWING APPLIES FOR INDIVIDUAL PLANTINGS:
   A. CREEPING GROUNDCOVER SHALL BE A MINIMUM OF 6" FROM PAVING EDGE.
   B. ALL TREES SHALL BE A MINIMUM OF 3' FROM PAVING EDGE.
   C. ALL PLANTS OF THE SAME SPECIES SHALL BE EQUALLY SPACED APART AND PLACED FOR BEST AESTHETIC VIEWING.
   D. ALL SHRUBS SHALL BE A MINIMUM OF 2' FROM PAVED EDGE.
3. MULCH ALL PLANTING BED AREAS TO A MINIMUM DEPTH OF 3". MULCH INDIVIDUAL TREES TO A MINIMUM DEPTH OF 2".
4. NOTE: IF PLANTS ARE NOT LABELED – THEY ARE EXISTING AND SHALL REMAIN.
5. ALL LANDSCAPED AREAS IN RIGHT OF WAY SHALL BE SODDED AND IRRIGATED UNLESS OTHERWISE SPECIFIED.

MATERIALS:
1. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF DISEASE AND INSECTS AS PER AAN STANDARDS.
2. KIND, SIZE AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO AMERICAN STANDARD FOR NURSERY STOCK, ANSI–260–2004, OR MOST RECENT EDITION.
3. SHREDDED BARK MULCH INSTALLED AT TREES SHALL BE FINELY CHIPPED AND SHREDDED HARDWOOD CHIPS, CONSISTING OF PURE WOOD PRODUCTS AND FREE OF ALL OTHER FOREIGN SUBSTANCES. PINE BARK COMPOST MULCH INSTALLED AT PLANTING BED AREAS SHALL BE FREE OF ALL OTHER FOREIGN SUBSTANCES.

INSTALLATION:
1. PREPARE PLANTING BEDS BY INCORPORATING AN APPROVED COMPOSED ORGANIC SOIL INTO EXISTING SOIL FOR ALL SHRUB, PERENNIAL AND ANNUAL PLANTING BEDS AT A MINIMUM DEPTH OF 6". THOROUGHLY MIX ORGANIC MATERIAL INTO THE EXISTING SOIL BY ROTOTILLING OR OTHER APPROVED METHOD TO A MINIMUM DEPTH OF 12".
2. PLANTING OF TREES, SHRUBS, AND SEEDED GROUNDCOVER SHALL BE COMMENCED DURING EITHER THE SPRING (MARCH 15–JUN15) OR FALL (SEPTEMBER 1–OCTOBER 15) PLANTING SEASON AND WITH WATER AVAILABLE FOR HAND IRRIGATION PURPOSES.
3. APPLY HOLGANIX, ROOT STIMULATOR TO ALL SHRUBS AND GROUNDCOVERS AT RATES RECOMMENDED BY MANUFACTURER DURING FIRST PLANTING WATERING FOLLOWING INSTALLATION.
4. ALL PLANTING BEDS WILL BE PREPARED WITH POLYPROPYLENE LANDSCAPE FABRIC BEFORE PLANT MATERIAL IS INSTALLED. ROCK MULCH TO BE PLACED OVER POLYPROPYLENE LANDSCAPE FABRIC AT A DEPTH OF 2" – 4".
5. LANDSCAPE FABRIC SHOULD BE INSTALLED FLAT WITH ALL FOLDS EITHER PINNED DOWN WITH 4" LANDSCAPE PINS, OVERLAP ADJOINING SHEETS A MINIMUM OF 2 – 4" STEEL LANDSCAPE STAPLES TO BE USED TO PIN DOWN THE CORNERS BEFORE ROCK MULCH IS INSTALLED.
6. AFTER PLANTS HAVE BEEN INSTALLED, ALL PLANTING BEDS SHALL BE TREATED WITH DACTHAL PRE–EMERGENT HERBICIDE PRIOR TO MULCH APPLICATION.
7. PLANT PIT BACKFILL FOR TREES AND SHRUBS SHALL BE 20% PEAT OR WELL COMPOSTED MANURE AND 80% TOPSOIL.
8. TREES PLANTED IN LANDSCAPED PLANTING AREAS SHALL BE SITUATED A MINIMUM OF THREE (3) FEET FROM ANY CURB.
9. PLANT MATERIAL SHALL BE MAINTAINED AND GUARANTEED FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE OF FINISHED JOB. ALL DEAD OR DAMAGED PLANT MATERIAL SHALL BE REPLACED AT LANDSCAPE CONTRACTOR'S EXPENSE.
10. LANDSCAPE CONTRACTOR SHALL MAINTAIN ALL PLANT MATERIAL UNTIL FINAL ACCEPTANCE, AT WHICH POINT THE ONE YEAR GUARANTEE BEGINS.
5. ALL LANDSCAPE BEDS SHOULD NOT BE MOUNDED ABOVE SURROUNDING HARDSCAPE.

SOD NOTES

1. ALL DISTURBED AREAS SHALL BE SODDED OR SEEDED WITH TURF–TYPE TALL FESCUE SOD WITH A MINIMUM OF THREE CULTIVARS.
2. ALL LANDSCAPED AREAS SHALL RECEIVE A MINIMUM 6–INCH DEPTH OF TOPSOIL COMPACTED TO 85% DENSITY AT OPTIMUM MOISTURE CONTENT.
3. THE ENTIRE SURFACE TO BE LANDSCAPED SHOULD BE REASONABLE 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 WITHIN 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.
7. FERTILIZER SHALL BE 20–10–5 COMMERCIAL FERTILIZER OF THE GRADE, TYPE, AND FORM SPECIFIED AND SHALL COMPLY WITH THE RULES OF THE STATE DEPT. OF AGRICULTURE. FERTILIZER SHALL BE IDENTIFIED ACCORDING TO THE PERCENT N,P,K IN THAT ORDER.
8. SATURATE SOD WITH FINE WATER SPRAY WITHIN TWO HOURS OF PLANTING. DURING THE FIRST WEEK AFTER PLANTING, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A MINIMUM DEPTH OF FOUR INCHES.

Rev.	Date	Description	By	App.

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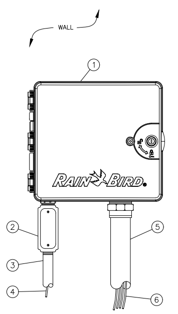
Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN
LANDSCAPE DETAILS

Design: NAB Drawn: NAB
Checked: MSS
Issue Date:
Project Number: 026040.08

L2.0

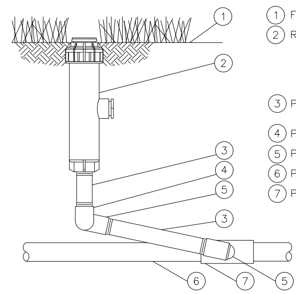


1. IRRIGATION CONTROLLER: RAIN BIRD ESP-LXME CONTROLLER IN PLASTIC CABINET WITH WALL MOUNT. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
2. JUNCTION BOX
3. 1-INCH CONDUIT AND FITTINGS TO POWER SUPPLY
4. POWER SUPPLY WIRE
5. 2-INCH CONDUIT AND FITTINGS FOR STATION WIRES
6. WIRES TO REMOTE CONTROL VALVES

NOTES:
1. ESP-LXME CONTROLLER IS AVAILABLE IN 8- OR 12-STATION BASE MODELS. ADDITIONAL MODULES IN 4-, 8- AND 12-STATION VERSIONS MAY BE ADDED TO BRING THE CONTROLLER UP TO 48 STATIONS MAXIMUM.
2. FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 STATIONS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSITION LARGER VALVE AND COMMON WIRES FROM FIELD TO 18 AWG MULTI CONDUCTOR WIRE TO BE USED IN CONTROLLER.
3. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.

901 Not to Scale

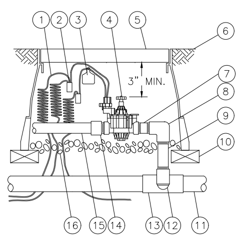
RAIN BIRD ESP-LXME CONTROLLER



1. FINISH GRADE
2. ROTOR POP-UP SPRINKLER: RAIN BIRD 5006
3. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
4. PVC SCH 40 ELL
5. PVC SCH 40 STREET ELL
6. PVC LATERAL PIPE
7. PVC SCH 40 TEE OR ELL

904 Not to Scale

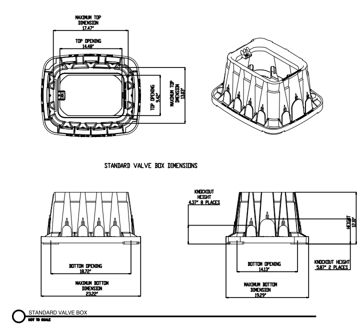
RAINBIRD ROTOR POP-UP SPRINKLER



1. 30-INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION: RAIN BIRD SPLICE-1 (1 OF 2)
3. ID TAG: RAIN BIRD VID SERIES
4. REMOTE CONTROL VALVE: RAIN BIRD PGA
5. VALVE BOX WITH COVER: RAIN BIRD VB-STD
6. FINISH GRADE/TOP OF MULCH
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. BRICK (1 OF 4)
11. PVC MAINLINE PIPE
12. SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

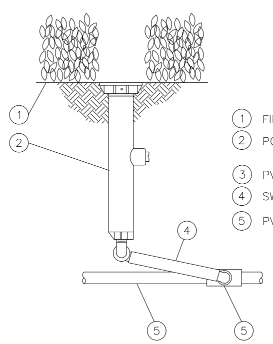
902 Not to Scale

RAINBIRD REMOTE CONTROL VALVE



905 Not to Scale

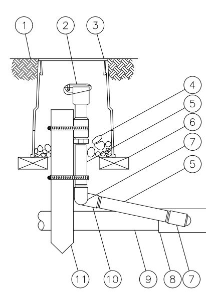
STABDARD VALVE BOX



1. FINISH GRADE/TOP OF MULCH
2. POP-UP SPRAY SPRINKLER: RAIN BIRD 1806-SAM-PRS WITH 1800 VPC WITH RAIN BIRD ROTARY NOZZLE
3. PVC LATERAL PIPE
4. SWING ASSEMBLY: RAIN BIRD MODEL SA 6050
5. PVC SCH 40 TEE OR ELL

903 Not to Scale

RAIN BIRD POP-UP SPRAY SPRINKLER



1. FINISH GRADE/TOP OF MULCH
2. QUICK-COUPLING VALVE: RAIN BIRD MODEL 5NP
3. VALVE BOX WITH COVER: RAIN BIRD VB-6RND
4. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
5. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
6. BRICK (1 OF 2)
7. PVC SCH 40 STREET ELL
8. PVC SCH 40 TEE OR ELL
9. PVC MAINLINE PIPE
10. PVC SCH 40 ELL
11. 2" x 2" REDWOOD STAKE WITH STAINLESS STEEL GEAR CLAMPS OR EQUIVALENT SUPPORT SYSTEM

NOTE:
FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

906 Not to Scale

RAIN BIRD QUICK COUPLER VALVE

IRRIGATION NOTES

1. THE SYSTEM DESIGN ASSUMES A MINIMUM AVAILABLE STATIC PRESSURE FOR THE IRRIGATION SYSTEM OF 75 PSI AT THE 1 INCH METER. CONTRACTOR TO VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION AND REPORT AND DISCREPANCIES BETWEEN THESE ASSUMPTIONS AND ACTUAL FIELD CONDITIONS IN WRITING TO THE OWNER'S REPRESENTATIVE.
2. READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
3. COORDINATE LOCATION AND MARKING OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICT WITH ANY UNDERGROUND UTILITY.
4. DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXISTING THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING, OR IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES, OR SPECIFICATIONS ARE DISCOVERED. BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE IN WRITING PRIOR TO CONSTRUCTION.
5. THESE DRAWINGS ARE DIAGRAMMATIC. THEREFORE, THE FOLLOWING SHOULD BE NOTED:
   A. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS AND ARCHITECTURAL FEATURES. INSTILL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE.
   B. USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF CROSS TYPE FITTINGS IS NOT PERMITTED.
   C. IRRIGATION PIPE AND VALVES MAY BE SHOWN OUTSIDE OF THE PLANTING AREA, IN THE HARDSCAPE OR OUTSIDE OF PROPERTY LINES FOR GRAPHIC CLARITY ONLY. INSTALL ALL IRRIGATION COMPONENTS WITHIN LANDSCAPES AREAS OR THROUGH SLEEVING AND WITHIN THE PROPERTY BOUNDARY.
6. PROVIDE THE FOLLOWING COMPONENTS TO THE OWNER'S REPRESENTATIVE PRIOR TO THE COMPLETION OF THE PROJECT.
   A. TWO OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVES.
   B. TWO OF EACH SERVICING WRENCH OR TOOL NEEDED FOR COMPLETE ACCESS, ADJUSTMENT, AND REPAIR OF ALL SPRINKLERS AND EMITTERS.
7. SELECT NOZZLES FOR SPRAY AND ROTARY SPRINKLES WITH ARCS THAT PROVIDE COMPLETE AND UNIFORM COVERAGE WITH MINIMUM OVERSPRAY FOR THE SITE CONDITIONS. TO MINIMIZE OVERSPRAY, INSTALL PRESSURE COMPENSATING NOZZLES OR CONDITIONS. TO MINIMIZE OVERSPRAY, INSTALL PRESSURE COMPENSATING NOZZLES OR PRESSURE COMPENSATING SCREENS IF UNIFORM LATERAL PRESSURE CANNOT BE ATTAINED WITH PRESSURE ADJUSTMENT AT THE REMOTE CONTROL VALVE. CAREFULLY ADJUST THE RADIUS OF THE THROW AND ARC OF COVERAGE OF EACH SPRAY AND ROTARY SPRINKLER TO PROVIDE THE BEST PERFORMANCE.
8. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE GENERAL CONTRACTOR FOR THE INSTILLATION OF IRRIGATION SLEEVING. ALL SLEEVING WILL BE SCHEDULE 40 PVC. ALL PIPE AND WIRE WILL BE INSTALLED IN SEPARATE SLEEVES AT ALL PAVED SURFACES, SIDEWALKS, DRIVEWAYS, WALLS FOOTINGS AND HARDSCAPE AREAS. ALL SLEEVES MAY NOT BE SHOWN AND/OR SIZED IN THE PLANS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE IRRIGATION CONTRACTOR FOR THE INSTALLATION OF ALL REQUIRED SLEEVING, PROPER SIZING AND COORDINATE INSTILLATION OF SLEEVING WITH OTHER TRADES. ANY PIPE OR WIRE WHICH PASSES BENEATH EXISTING HARDSCAPE WHERE SLEEVING WAS NOT INSTALLED, REQUIRES HORIZONTAL BORING BY THE IRRIGATION CONTRACTOR. SLEEVE AND CONDUIT SIZES SHALL BE A MINIMUM OF TWICE THE AGGREGATE DIAMETER OF ALL PIPE AND WIRE CONTAINED WITHIN SLEEVE OR CONDUIT PIPE. MINIMUM SLEEVE SIZE IS 2-INCH. INDICATE ALL SLEEVE LOCATIONS ON "AS-BUILT" RECORD DRAWINGS.
9. COORDINATE AND INSTALL ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.
10. GATE VALVES SHALL BE PORTED TO PROVIDE FOR FULL FLOW. LABELED AND NOMINAL SIZE OF VALVE OPENING SHALL BE THE SAME.
11. ALL MATERIALS AND WORKMANSHIP SHALL BE TRUE TO TYPE, FORM, FINISH AND OF THE HIGHEST STANDARDS OF THE TRADE. DAMAGED OR INFERIOR MATERIALS SHALL BE REMOVED FROM THE SIRE WITHOUT DELAY.
12. INSTALL PRESSURE REGULATING MODULE FOR ALL DRIP VALVE ASSEMBLIES. SET DISCHARGE PRESSURE TO 35 PSI.
13. INSTALL IRRIGATION PIPE AND COMPONENTS A MINIMUM OF 8 FEET FROM TREE ROOT BALLS. PIPE ROUTINGS SHOWN ON DRAWINGS IS DIAGRAMMATIC.
14. PROVIDE #12-1 AWG BARE COPPER TRACING WIRE ALONG THE ENTIRE MAINLINE ROUTING. PROVIDE 24 INCH COIL OF TRACING WIRE IN EACH VALVE BOX ALONG MAINLINE ROUTING.
15. CONTRACTOR SHALL FURNISH AND INSTALL MATERIAL AND EQUIPMENT PERTAINING TO THE IRRIGATION SYSTEM HEREIN SPECIFIED OR SHOWN ON THE DRAWINGS. THIS SHALL INCLUDE ALL ITEMS NECESSARY TO COMPLETE INSTILLATION.
16. IRRIGATION CONTRACTOR TO CAP ALL FLUSH ENDS HAND TIGHT PRIOR TO BACKFILL.
17. IRRIGATION CONTRACTOR SHALL COORDINATE WORK WITH PLANTING PLANS TO AVOID CONFLICTING LOCATIONS BETWEEN PIPING AND PLANT PITS.
18. ALL MATERIALS SHALL BE INSTALLED AS DETAILED IN THE PLANS. IF THE CONTRACT DRAWINGS AND/OR SPECIFICATIONS DO NOT THOROUGHLY DESCRIBE THE METHOD OR TECHNIQUES TO BE USED, THEN THE CONTRACTOR SHALL INSTALL AS PER MANUFACTURERS SPECIFICATIONS. IF THE CONTRADICTION OCCURS, NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY.
19. IRRIGATION CONTRACTOR TO USE TEFLON TAPE ON ALL THREADED JOINTS.
20. NO PIPES SHALL BE INSTALLED PARALLEL AND DIRECTLY OVER ANOTHER LINE.
21. BRAND EACH VALVE BOX WITH 1" LETTERING SHOWING ZONE NUMBER AND CONTROLLER LETTER. THIS STAMP IS TO MATCH THE ZONE AND CONTROLLER ASSOCIATES WITH THE VALVE'S OPERATION.
22. CONTRACTOR SHALL PERFORM THE FOLLOWING:
   A. VISIT SITE AND VERIFY EXISTING GRADES, CONSTRUCTION AND CONDITIONS.
   B. NOTIFY LANDSCAPE ARCHITECT OF DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS.
   C. RESTORE CONTRACTOR DAMAGED EXISTING WORK TO THE SATISFACTION OF THE ENGINEER OR LANDSCAPE ARCHITECT WITHOUT COST TO THE OWNER.
   D. BE SATISFIED THAT THE PLAN CAN BE CONSTRUCTED, FUNCTIONAL AND COMPLETE.
23. ALL EQUIPMENT SHALL BE MAINTAINED WHILE UNDER CONSTRUCTION. MAINTENANCE INCLUDES: WATER SCHEDULING, REPLACEMENT OF DEFECTIVE OR DAMAGED EQUIPMENT, ADJUSTMENT AND RE-ADJUSTMENT OF HEADS AND OTHER EQUIPMENT.
24. CONTRACTOR TO ENSURE THE FOLLOWING:
   A. LINES AND VALVES ARE TO BE PLACED WITHIN PLANTING BEDS AND PROJECT LIMITS. THESE PLANS ARE SCHEMATIC. CONTRACTOR SHALL SIZE ALL PIPE.
   B. 100% COVERAGE OF IRRIGATION SYSTEM TO ALL PLANTS REGARDLESS OF SIZE OR TYPE AND SHALL CONFIRM ALL NON-IRRIGATED AREAS PRIOR TO SUBMITTING A BID.
25. INSTALL TWO (2) SPARE #14-1 AWG CONTROL WIRES FOR EACH UNUSED STATION AND ONE SPARE #12-1 AWG COMMON WIRE FROM THE RESPECTIVE CONTROLLER TO HIS LOCATION FOR USE AS A SPARE WIRES IN EACH REMOTE CONTROL VALVE BOX ALONG THE ENTIRE WIRE ROUTING FOR THIS CONTROLLER. SEAL WIRE ENDS WATER TIGHT AND CONTAIN WITHIN VALVE BOX AT THIS LOCATION.
26. SHOULD FIELD ADJUSTMENTS BE MADE TO THE SITE PLAN, IRRIGATION CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS TO THE IRRIGATION SYSTEM TO ENSURE PROPER FUNCTIONALITY. LANDSCAPE ARCHITECT IS TO BE NOTIFIED OF ANY AND ALL CHANGES MADE TO THE IRRIGATION SYSTEM, PRIOR TO INSTALLATION OF SAID CHANGES.

Rev.	Date	Description	By	App.

STATE OF MISSOURI — NINAH A. NUTHOCK — NUMBER PLA-2019018438 — 08/21/2019 — PROFESSIONAL LANDSCAPE ARCHITECT

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Certificate of Authority Number: MO# E-1355-F

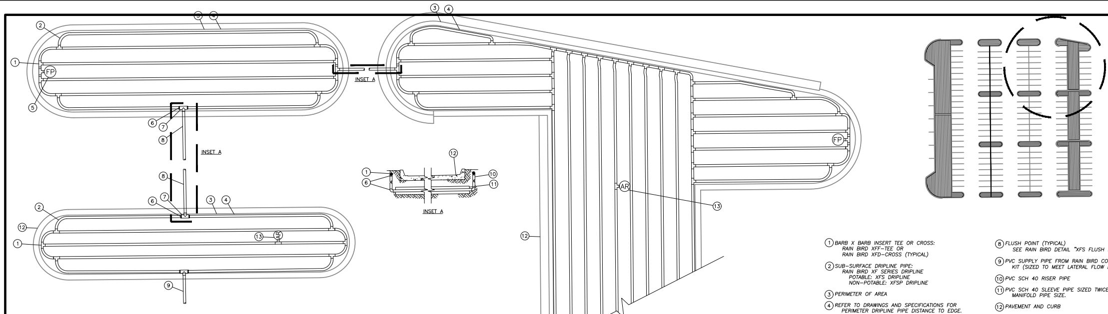
Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN

IRRIGATION SPEC 1

Design: NAB Drawn: NAB
Checked: MSS
Issue Date:
Project Number: 026040.08

L2.1



1. BARB X BARB INSERT TEE OR CROSS: RAIN BIRD XFF-TEE OR RAIN BIRD XFD-CROSS (TYPICAL)
2. SUB-SURFACE DRIPLINE PIPE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE
3. PERIMETER OF AREA
4. REFER TO DRAWINGS AND SPECIFICATIONS FOR PERIMETER DRIPLINE PIPE DISTANCE TO EDGE.
5. BARB X MALE FITTING: RAIN BIRD XFF-MA FITTING (TYPICAL)
6. PVC SCH 40 TEE OR EL (TYPICAL)
7. PVC SUPPLY MANIFOLD
8. FLUSH POINT (TYPICAL) SEE RAIN BIRD DETAIL "XFS FLUSH POINT"
9. PVC SUPPLY PIPE FROM RAIN BIRD CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
10. PVC SCH 40 RISER PIPE
11. PVC SCH 40 SLEEVE PIPE SIZED TWICE SIZE OF MANIFOLD PIPE SIZE.
12. PAVEMENT AND CURB
13. ½" AIR RELIEF VALVE: RAIN BIRD MODEL: ARV050 SEE RAIN BIRD XFS DETAILS FOR AIR RELIEF INSTALLATION

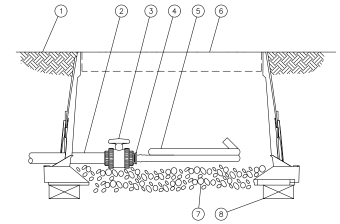
NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE RAIN BIRD XFS DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
3. AIR RELIEF VALVE TO BE INSTALLED AT ALL HIGH POINTS.
4. DISTANCE FROM CURB TO ADJACENT DRIP LINE TO BE SPECIFIED BY DESIGN CONSULTANT (SEE DRAWINGS AND SPECIFICATIONS).
5. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

XFS Dripline Maximum Lateral Lengths (Feet)

Inlet Pressure psi	12" Spacing		18" Spacing		24" Spacing	
	Nominal Flow (gph)		Nominal Flow (gph)		Nominal Flow (gph)	
	0.6	**0.9**	**0.6**	**0.9**	**0.6**	**0.9**
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	586	414
40	395	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	514

907 Not to Scale

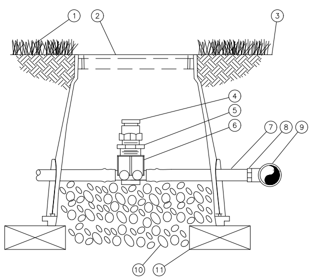
TRYPICAL ISLAND DRIPLINE LAYOUT



1. FINISH GRADE
2. PVC DRIP MANIFOLD PIPE
3. PVC 1" X ¾" TRUE UNION BALL VALVE
4. EASY FIT MALE X BARB ADAPTER: RAIN BIRD XFF-MA-075
5. SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES BLANK TUBING
6. 12-INCH VALVE BOX WITH COVER: RAIN BIRD VB-STD
7. 3-INCH MINIMUM DEPTH OF ¾" WASHED GRAVEL
8. BRICK (1 OF 2)

908 Not to Scale

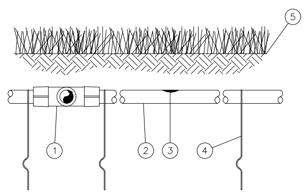
XFS DRIPLINE FLUSH POINT W/BALL VALVE



1. TURF GRASS
2. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB
3. FINISH GRADE
4. ½" AIR RELIEF VALVE: RAIN BIRD ARV050 TO BE INSTALLED AT HIGH POINTS IN DRIP ZONE
5. ½" X ¾" PVC REDUCER BUSHING
6. BARB X FEMALE THREAD CONNECTOR: RAIN BIRD XFD-TFA FITTING
7. ½" BLANK DRIPLINE TUBING: RAIN BIRD XF SERIES
8. BARB X MALE THREAD CONNECTOR: RAIN BIRD XFF-MA FITTING
9. PVC TEE CONNECTED TO PVC HEADER PIPE
10. 3" MINIMUM DEPTH OF ¾" WASHED GRAVEL
11. BRICK (1 OF 2)

909 Not to Scale

XFS DRIPLINE AIR RELIEF VALVE

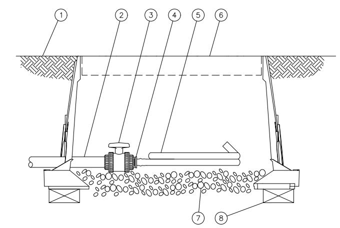


1. EASY FIT COMPRESSION TEE: RAIN BIRD MDCFTEE
2. SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE
3. INLINE DRIP EMITTER
4. TIE DOWN STAKE: RAIN BIRD TDS-050 WITH BEND (TYPICAL)
5. TURF/FINISH GRADE OR SHRUB BED WITH MULCH

NOTES:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.
3. INSERTION PLOW AND TRENCHED INSTALLATIONS DO NOT REQUIRE TIE DOWN STAKES.

910 Not to Scale

XFS SUB-SURFACE DRIPLINE BURIAL



1. FINISH GRADE
2. PVC DRIP MANIFOLD PIPE
3. PVC 1" X ¾" TRUE UNION BALL VALVE
4. EASY FIT MALE X BARB ADAPTER: RAIN BIRD XFF-MA-075
5. SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES BLANK TUBING
6. 12-INCH VALVE BOX WITH COVER: RAIN BIRD VB-STD
7. 3-INCH MINIMUM DEPTH OF ¾" WASHED GRAVEL
8. BRICK (1 OF 2)

911 Not to Scale

RAINBIRD REMOTE CONTROL VALVE

000 Not to Scale

NOT USED

000 Not to Scale

NOT USED

000 Not to Scale

NOT USED

Rev.	Date	Description	By	App.

STATE OF MISSOURI
PROFESSIONAL LANDSCAPE ARCHITECT
08/21/2019

BHC RHODES
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Prepared For:
FIRST STREET DEVELOPMENT
4455 E CAMELBACK ROAD
BUILDING C 241
PHOENIX, ARIZONA 85018
602-714-3099

TACO BELL
851 NE WOODS CHAPEL RD
LEE'S SUMMIT, MISSOURI
FINAL DEVELOPMENT PLAN

IRRIGATION SPEC 2

Design: NAB Drawn: NAB
Checked: MSS
Issue Date:
Project Number: 026040.08

L2.2