

Sanitary Sewer Village of South Lebanon Contact: Jerry Haddix 10 N High Street South Lebanon, OH 45065 513-770-4871

513-287-4667

Water Main Village of South Lebanon 99 High Street South Lebanon, OH 45065 513-4942296

<u>Storm</u> Village of South Lebanon 99 High Street South Lebanon, OH 45065 513-4942296

<u>∗</u> — LA/RW -

SHEET INDEX

C1.0	TITLE SHEET
C2.0	DEMOLITION PLAN
C3.0	SITE PLAN
C3.1	SITE DETAILS
C3.2	SITE DETAILS
C3.3	DRIVE THRU DETAILS
C4.0	UTILITY PLAN
C4.1	UTILITY DETAILS
C4.2	UTILITY DETAILS
C5.0	GRADING PLAN
C5.1	EROSION DETAILS
L1.0	PLANTING PLAN
L2.0	PLANTING NOTES & DETAILS

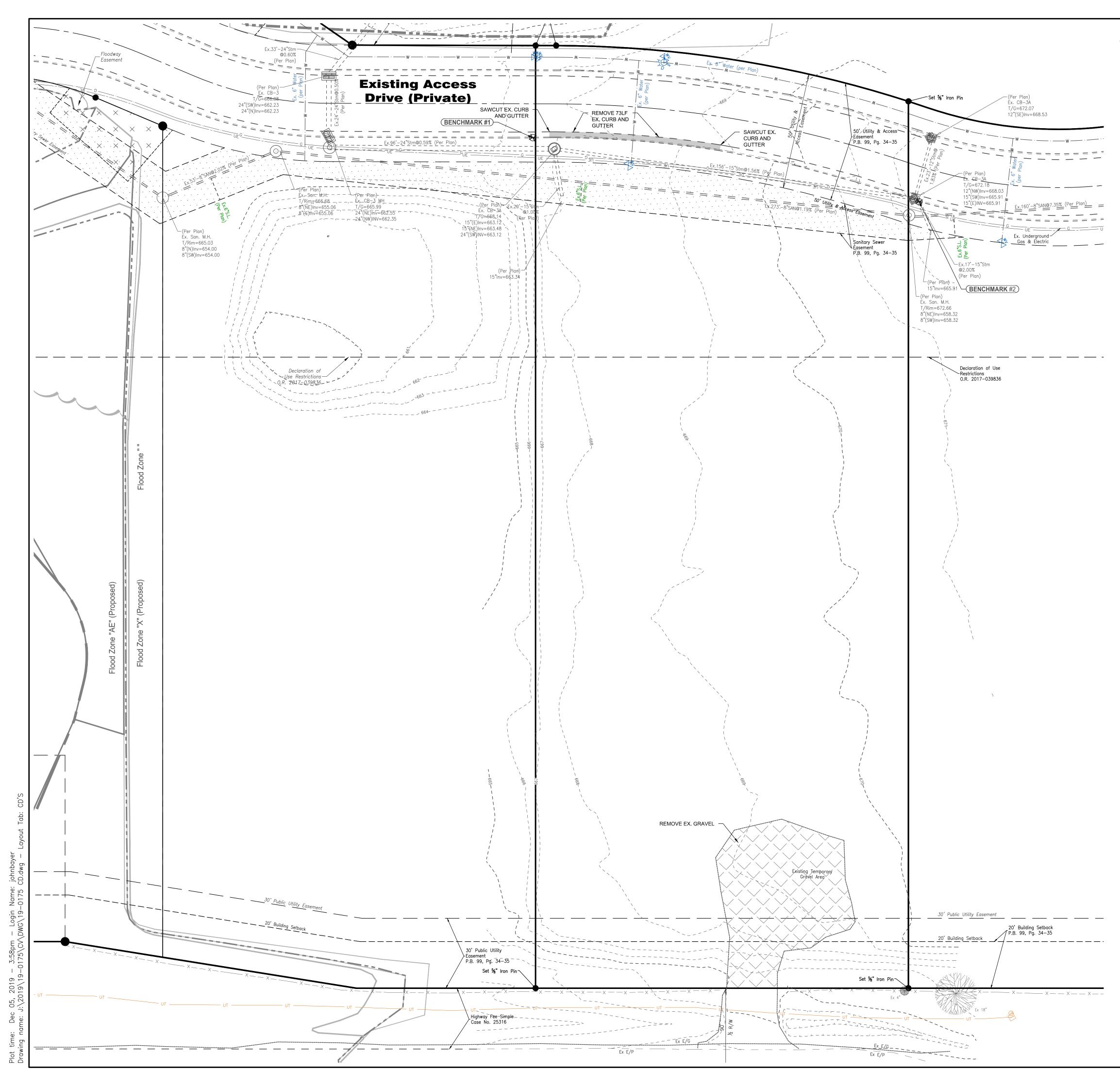
Cincinnati, OH 45247 513-287-1104

Telephone AT&T 3233 Woodman Drive Dayton, OH 45420 937-296-7066

Cable TV Time Warner Cable 11254 Cornell Park Drive Cincinnati, OH 45242 513-489-5957

	6900 Tylersvil Mason, OH 450
L/C# 34-2068	
THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF MEDINALD'S CORPORATION AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.	PROPOSED McDONALD'S RESTAURANT AT: RIVERS CROSSING WEST VILLAGE OF SOUTH LEBANON, WARREN COUNTY, OH
JOB NO. 19-0	175
DATE: 12/5/19	9
SCALE: 1"=40'	
IIILES	SHEET

SHEET: C1.0



DEMOLITION LEGEND



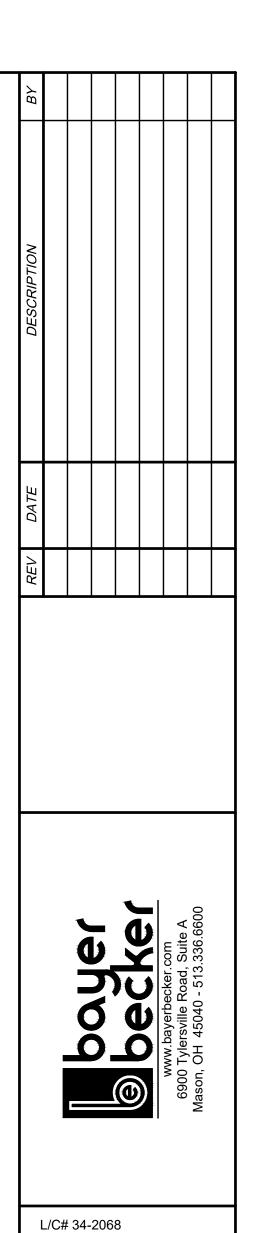
EXISTING CONCRETE CURB, CONCRETE WALK, CONCRETE PAVEMENT, AND ASPHALT PAVEMENT TO BE REMOVED

\sim \sim	
\setminus / \setminus / \setminus	
/ $/$ $/$ $/$	

EXISTING GRAVEL TO BE REMOVED

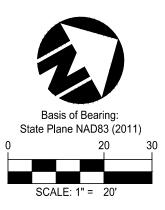
\bigcirc	-Ex Sanitary M.H.	Ŧ	-Ex Tele. Box
	-Ex Sanitary Clean Out	G	—Ex Gas Box
\bigcirc	-Ex Storm M.H.	G	—Ex Gas Meter
	-Ex Storm Catch Basin	1	-Ex Sign
\oslash	—Ex Storm Floor Drain	Ō	-Ex Post
	-Ex Storm Clean Out	$\overline{\cdot}$	-Ex Bollard
Ø	-Ex Storm Down Spout	Þ	—Ex Flag Pole
↓ ⊅¥vo	-Ex Fire Hydrant	S	—Ex Signal Pole
ŴV	-Ex Water Valve	E	-Ex Elec. Box
\bigotimes	-Ex Water Meter	е	-Ex Elec. Meter
Æ	-Ex Fire Connection	${\not\sim}$	-Ex Light Pole
ଡ଼	-Ex Spigot	<u> </u>) –Ex Utility Pole
	-Ex Deciduous Tree	\downarrow	—Ex Guy Wire
	-Ex Evergreen Tree	\odot	-Ex Deciduous Bush
	Found Iron Pin	\times I	Found Cross Notch
_ `	(size & cap as noted) ⁻ ound Spike	•	Set MAG Nail
⊖ F		Set 5	Set MAG Nail 5/8"x30" Iron Pin ^{ed "Bayer} Becker")
⊖ F	Found Spike	Set 5 (Cappe	5/8"x30" Iron Pin
⊖ F	Found Spike	Set 5 (Cappe y ground W	5 /8"x30" Iron Pin ed "Bayer Becker")
⊖ F	Found Spike Found MAG Nail Ex Under Ex Under	Set 5 (Cappe y ground W	5/8"x30" Iron Pin ed "Bayer Becker")
⊖ F	Found Spike Found MAG Nail Ex Under Ex Under Ex Unde Ex Ov UF	Set 5 (Cappe ground W rground M - OH - erhead L	5/8"x30" Iron Pin ed "Bayer Becker")
⊖ F	Found Spike Found MAG Nail Ex Under Ex Under Ex Under UF Ex Under	Set 5 (Cappe ground W rground M - OH - erhead L	5/8"x30" Iron Pin ed "Bayer Becker") W Water Main Gas Main Jtilities Tiber Optic UFUF
⊖ F	Found Spike Found MAG Nail Ex Under Ex Under Ex Ov UF Ex Under UF Ex Under UF Ex Under Ex Under	Set 5 (Cappe ground M rground M - OH - erfnead U ground F erground F	5/8"x30" Iron Pin ed "Bayer Becker") W Water Main Gas Main Jtilities Tiber Optic UFUF
	Found Spike Found MAG Nail	Set 5 (Cappe ground M rground M - OH - erfnead U ground F erground F	5/8"x30" Iron Pin ed "Bayer Becker") W Water Main Gas Main Gas Main Jtilities UF Electric
	Found Spike Found MAG Nail Ex Under Ex Under Ex Ov UF Ex Under UF Ex Under UF Ex Under Ex Under	Set 5 (Cappe ground M rground M - OH - ererhead U ground F erground - rground -	5/8"x30" Iron Pin ed "Bayer Becker")
	Found Spike Found MAG Nail Ex Under Ex Under Ex Under UF Ex Under Found Iron Pipe	Set 5 (Cappe ground W rground W erground F erground F erground S @	5/8"x30" Iron Pin ed "Bayer Becker")
	Found Spike Found MAG Nail	Set 5 (Cappe ground M rground M - OH - ererhead U ground F 	5/8"x30" Iron Pin ed "Bayer Becker")
	Found Spike Found MAG Nail Ex Under Ex Under Ex Under UF Ex Under UF Ex Under Ex Under Ex Under Found Iron Pipe Found MAG Spike Found P.K. Nail	Set 5 (Cappe ground M rground M - OH - erhead U ground F 	5/8"x30" Iron Pin ed "Bayer Becker") Water Main Gas Main Jtilities UF Electric Telephone -Ex Evergreen Bush Set Spike Set Cross Notch Set Conc. Mon.
	Found Spike Found MAG Nail	Set 5 (Cappe ground W rground W erground F erground F erground F erground F erground F erground F	5/8"x30" Iron Pin ed "Bayer Becker")
	Found Spike Found MAG Nail	Set 5 (Cappe ground M rground M ground F erground F rground F C C C C C C C C C C C C C C C C C C C	5/8"x30" Iron Pin ed "Bayer Becker") Water Main Gas Main Jtilities Telephone -Ex Evergreen Bush Set Spike Set Cross Notch Set Conc. Mon. Set 1" Iron Pin

LEGEND



GENERAL NOTES

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THAT ALL NECESSARY PERMITS/APPROVALS ARE IN PLACE BEFORE BEGINNING CONSTRUCTION. 2. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, THROUGHOUT ALL PHASES OF CONSTRUCTION.
- 3. SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING FROM THE SITE ALL ITEMS SHOWN TO BE DEMOLISHED UNLESS OTHERWISE INDICATED OR NOTED. ALL MATERIALS SHALL BE REMOVED FROM SITE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
- 4. ALL EXISTING ITEMS NOT SPECIFICALLY NOTED TO BE DEMOLISHED SHALL REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPLACING EXISTING ITEMS REMOVED DURING DEMOLITION THAT WERE TO REMAIN.
- 5. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT, CURBS, AND SIDEWALKS AT NEW PAVEMENT, CURB, AND SIDEWALK JUNCTURES, NO JAGGED OR IRREGULAR CUTS WILL BE ACCEPTED.
- 6. ALL NECESSARY EROSION CONTROL MEASURES ARE TO BE IN PLACE PRIOR TO CONSTRUCTION/DEMOLITION. EROSION CONTROL MEASURES ARE TO BE MAINTAINED AND IN WORKING CONDITION AT ALL TIMES.

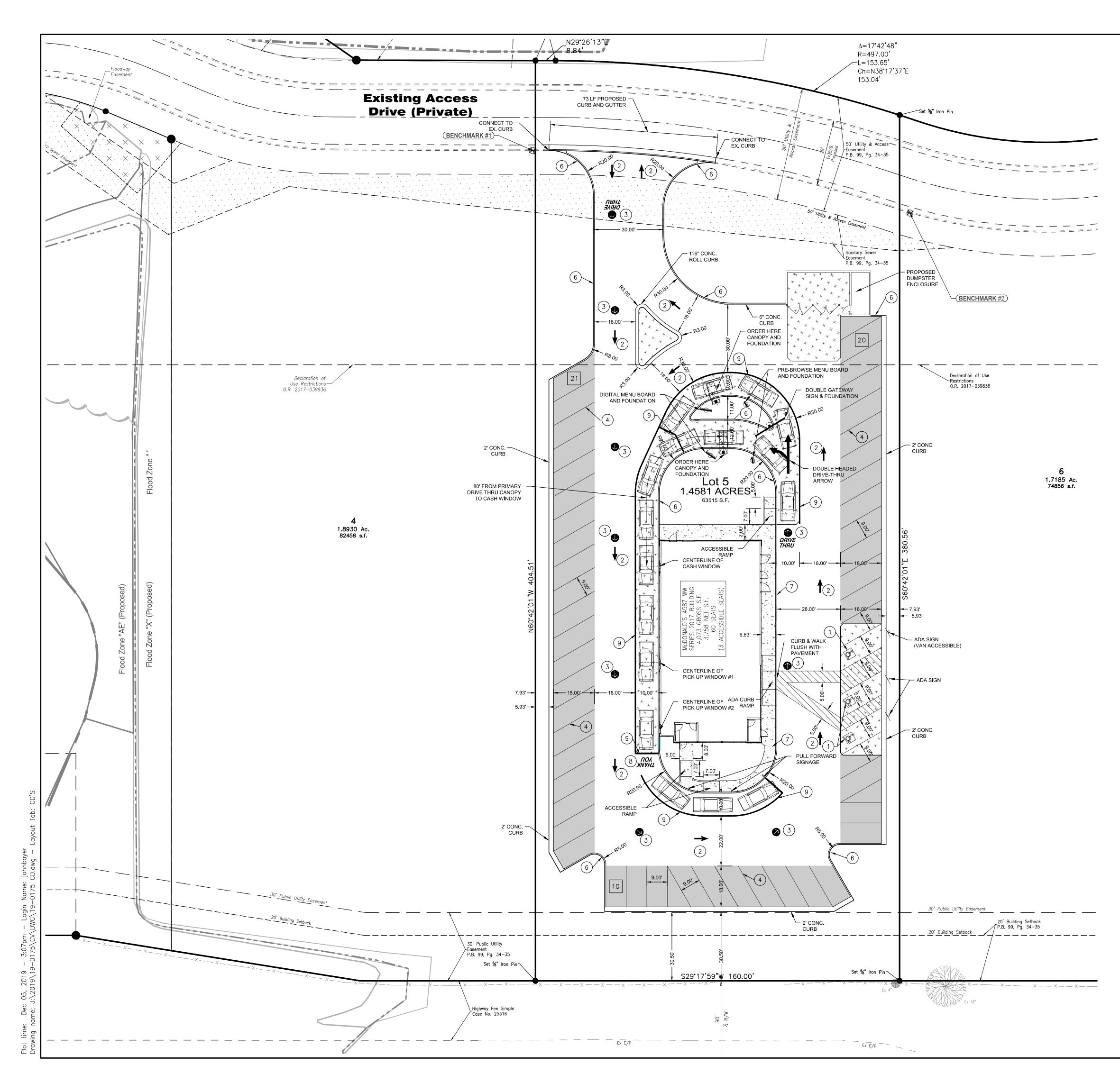


Know what's below. Call before you dig.

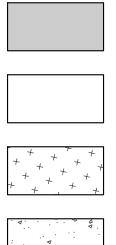
CAUTION!!!

ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF MEDONALD'S CORPORATION AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.	PROPOSED McDONALD'S RESTAURANT AT: RIVERS CROSSING WEST VILLAGE OF SOUTH LEBANON, WARREN COUNTY, OH				
JOB NO. 19-0)175				
DATE: 12/5/1	9				
SCALE: 1"=20'					
DEMOLITION PLAN					
SHEET	Г: С2.0				







PROPOSED LIGHT DUTY ASPHALT PAVEMENT

PROPOSED HEAVY DUTY ASPHALT PAVEMENT

PROPOSED CONCRETE PAVEMENT

PROPOSED CONCRETE SIDEWALK

PARKING COUNT

P

20

PROPOSED SITE LIGHTING

KEY NOTES

- PROPOSED ADA PARKING (PAINTED HANDICAP SYMBOL)
- (2)DIRECTIONAL ARROW (WHITE)
- DRIVE THRU PAVEMENT
- (3) MARKINGS (YELLOW)
- PROPOSED PARKING, 4" WIDE SOLID (4)WHITE STRIPE, TYP.
- (5)**4" PAINTED WHITE STRIPE**
- (6)PROPOSED 6" CONCRETE CURB
- (7) PROPOSED 6" CURB & SIDEWALK
- 8 "THANK YOU" (YELLOW)
- (9) 6" PAINTED YELLOW STRIPE
- (10) 12" PAINTED WHITE STRIPE

SITE LAYOUT NOTES

- 1. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED. 2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) "CONSTRUCTION AND MATERIAL SPECIFICATIONS," AND PROJECT SPECIFICATIONS. IN THE EVENT OF A CONFLICT, THE MORE STRINGENT STANDARD APPLIES.
- 3. WHERE CONNECTING TO EXISTING ASPHALT PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING EDGE OF PAVEMENT TO PROVIDE A CLEAN EDGE. ITEM 407 TACK COAT SHALL BE APPLIED TO THE ENTIRE CUT FACE OF THE EXISTING PAVEMENT PRIOR TO THE PLACEMENT
- OF THE PROPOSED PAVEMENT. 4. WHERE CONNECTING TO EXISTING CONCRETE WALK, THE CONTRACTOR SHALL SAWCUT THE EXISTING WALK (AT AN EXISTING JOINT IF POSSIBLE) TO PROVIDE A SOUND & CLEAN EDGE.
- 5. ADDITIONAL PAVEMENT/CURB WORK DUE TO EXTENTS OF DEMO OR REWORK SHALL BE INCLUDED AS PART OF THE CONTRACTORS SCOPE OF WORK.
- 6. ALL CURB RAMPS TO HAVE DETECTABLE WARNING SURFACE THAT MEETS ODOT'S APPROVED PRODUCTS LIST (APL). SURFACE APPLIED, STAMPED AND BRICK PRODUCTS ARE NOT PERMITTED.
- 7. ALL STOP SIGNS SHALL BE 30"X30". 8. ALL RADII ARE 3.00' UNLESS NOTED OTHERWISE ON THE PLANS.
- 9. SEE SHEET C3.1 FOR PAVEMENT SECTIONS.



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

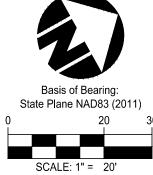
CAUTION!!!

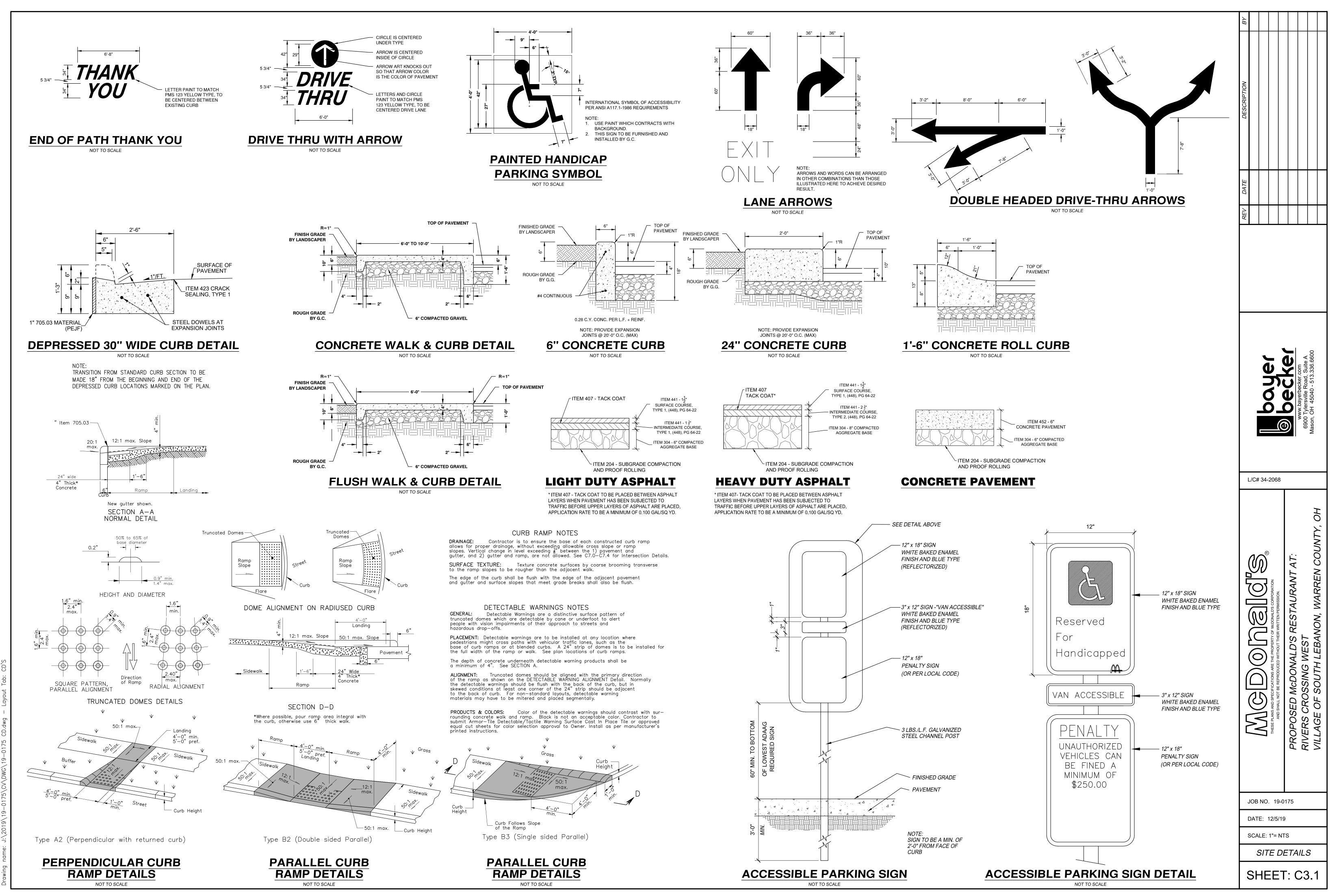
ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.



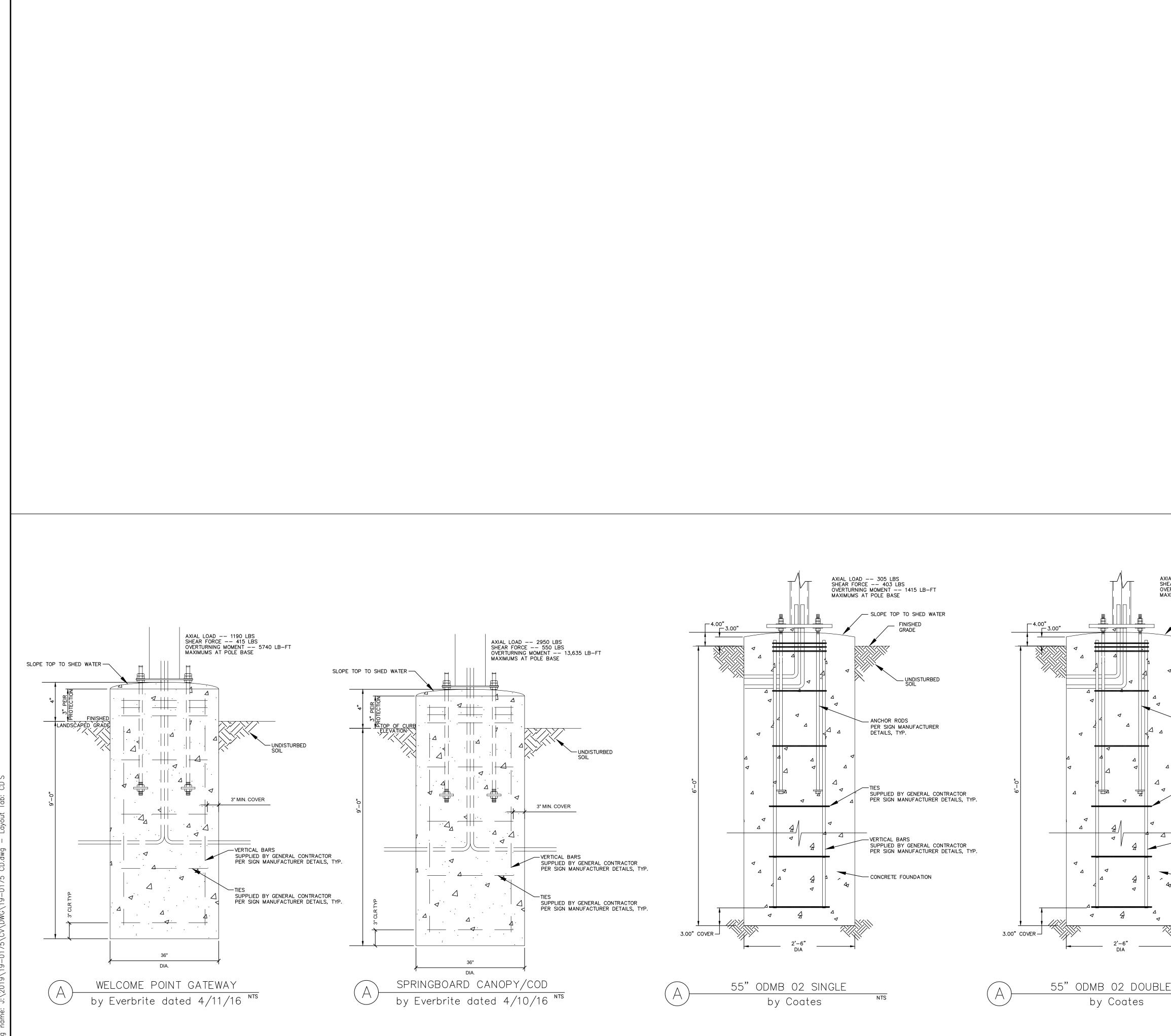
L/C# 34-2068

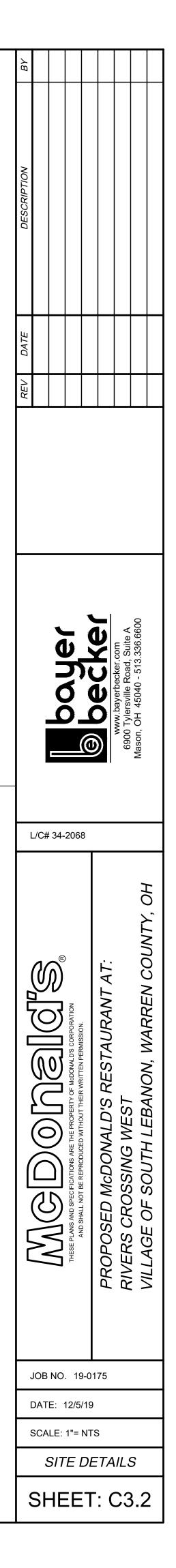
THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF MEDONALD'S CORPORATION AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.	PROPOSED McDONALD'S RESTAURANT AT: RIVERS CROSSING WEST VILLAGE OF SOUTH LEBANON, WARREN COUNTY, OH
JOB NO. 19-0	175
DATE: 12/5/19)
SCALE: 1"=20'	
SITE	PLAN
SHEET	T: C3.0





Dec 05, 2019 — 3:08pm — Login Name: johnbayer 1me: J:\2019\19-0175\CV\DWG\19-0175 CD.dwg — Lo



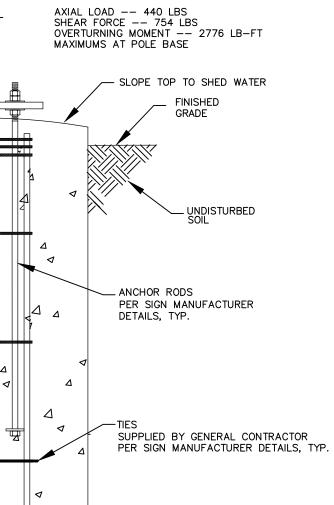


ENGINEER'S NOTE: SEE SIGN MANUFACTURE'S PLANS FOR

STRUCTURAL COMPONENTS SHOWN ON THIS PLAN. THE ENGINEER'S STAMP AFFIXED FOR CONCRETE FOUNDATION DIMENSIONS ONLY.

GENERAL NOTES

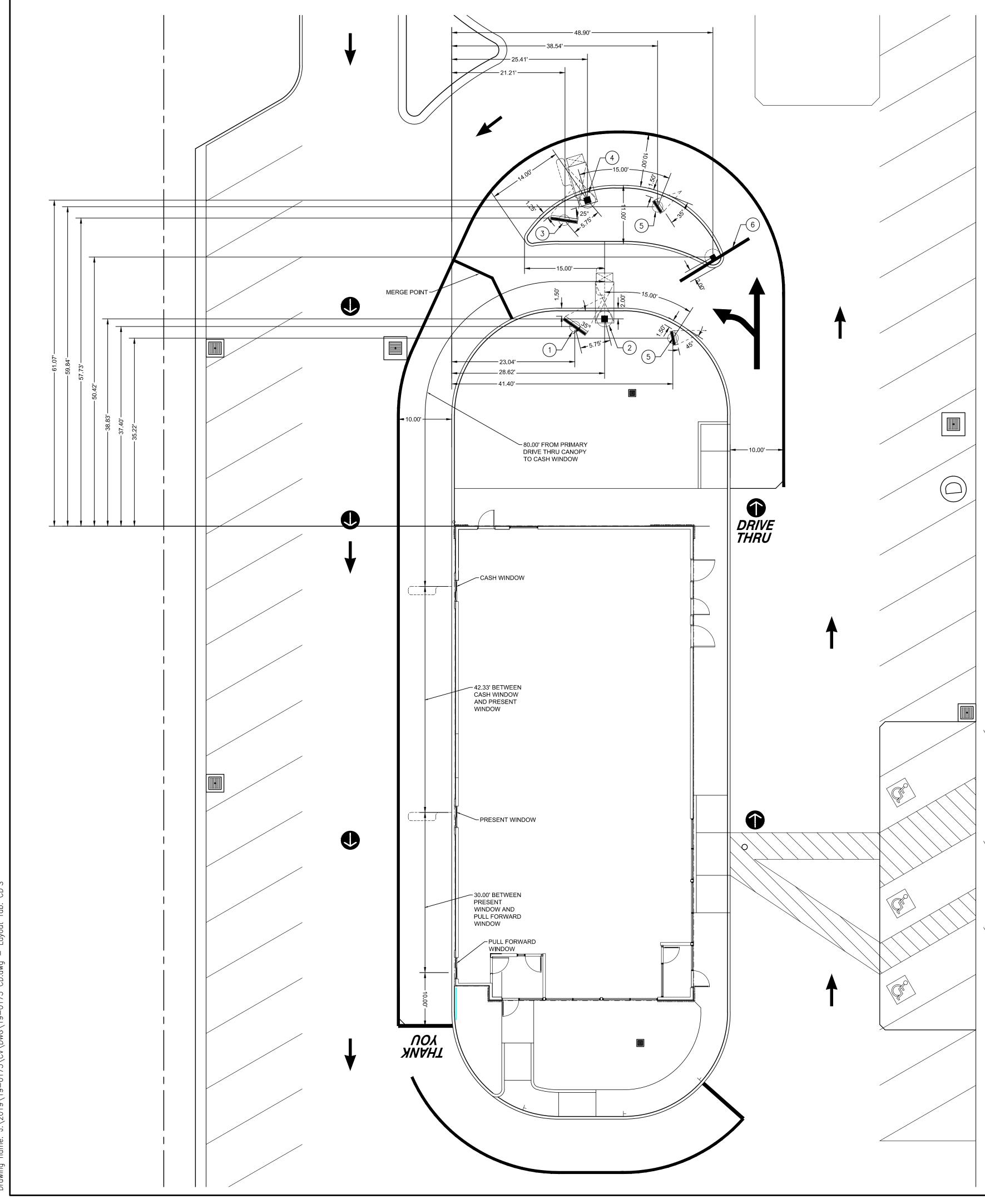
- -THE FOLLOWING CODES WERE USED IN DESIGN: -OBC 2017 -ASCE 7-05 -ACI 318-08 -ACI 318-08
- -AISC 13th EDITION -AWS D1.1 -WIND SPEED 115 MPH (MPH 3-SEC GUST) -ALL FOOTING EXCAVATIONS ARE TO BE CLEAR OF WATER AND FOREIGN MATTER BEFORE PLACING CONCRETE
- MATTER BEFORE PLACING CONCRETE -MINIMUM ALLOWABLE LATERAL SOIL BEARING PRESSURE OF 100PSF/FT (×2) -SITE SOIL CONDITIONS TO BE CONFIRMED BY GEOTECHNICAL ENGINEER. IF ASSUMED CLAY SOIL CONDITIONS ARE NOT PRESENT, FOUNDATION SHALL BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER TAKING INTO ACCOUNT ACTUAL SITE SOIL CONDITIONS. -ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS. -ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE SIGN/LIGHTING MANUFACTURER -SEE SIGN MANUFACTURER DETAILS FOR ANCHOR BOLT PATTERNS -ALL REINFORCING STEEL TO BE PROVIDED BY GENERAL CONTRACTOR, PER SIGN MANUFACTURER DETAILS
- CONCRETE:
- -ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED RESIDUAL SOIL AND/OR ENGINEERED EARTH FILL COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D 698-70 (STANDARD PROCTOR) UNLESS NOTED
- ALL PIERS TO EXTEND TO FROST DEPTH AS DETERMINED BY LOCAL JURISDICTION OR AS SHOWN WHICHEVER IS GREATER.
 TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
 MINIMA CONCRETE STRENCTH (\$2-3,000, DSI) SHALL CONFORM WITH - HOP OF PIERS STALL BE SLOPED SUCH THAT MOISTORE CANNOT ACCUMULATE.
 -MINIMUM CONCRETE STRENGTH (f'c=3,000 PSI) SHALL CONFORM WITH MCDONALDS CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A
 - USE OF ADMIXTURES SHALL CONFORM TO MCDONALDS CAST-IN-PLACE CONCRETE SPECIFICATION SECTION 2.6
 - AIR ENTRAINMENT SHALL CONFORM WITH MCDONALDS CAST-IN-PLACE CONCRETE SPECIFICATION SECTIONS 2.6-A & 2.13-A
 - WATER CONTENT RATIO SHALL CONFORM TO MCDONALDS CAST-IN-PLACE CONCRETE SPECIFICATION SECTION 2.13-A
 - FOUNDATION CONCRETE TO BE TESTED PER MCDONALDS CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 3.14
 - PROVIDE A MINIMUM 3" OF CONCRETE COVER OVER ALL EMBEDDED STEEL.
 - REINFORCEMENT PLACEMENT SHALL CONFORM TO MCDONALDS CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTIONS 3.2 & 3.5. PERFORMED BY GENERAL CONTRACTOR.
 - ANCHOR RODS TO BE SET IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE
 - DO NOT PLACE POLES ON CONCRETE UNTIL CONCRETE HAS CURED PER MCDONALDS CAST-IN-PLACE CONCRETE SPECIFICATION, SECTION 3.11-E.
- STEEL:
- STEEL PIPE SECTION: ASTM A53 OR A252 TYPE E GRADE B (Fy=35ksi)
 HSS ROUND SECTION: ASTM A500 GRADE B (Fy=42ksi)
 HSS SQUARE/RECTANGULAR SECTIONS: ASTM A500 GRADE B (Fy=46ksi)
 HEADED ANCHOR RODS ASTM F1554 GR 55, AN ACCEPTABLE ALTERNATIVE IS ASTM F1554 GR 55, S1 WHEN THE EMBEDDED END OF THE ROD IS THREADED AND THE NUT TACK WELDED PRIOR TO GALVANIZATION.
 STEEL ANGLES, CHANNELS, STRUCTURAL SHAPES AND PLATES: ASTM A36
 REINFORCEMENT: ASTM A615 GRADE 60 BY GENERAL CONTRACTOR
 NUTS: ASTM A563A, HEAVY HEX
 WASHERS: ASTM F844 A36
 USE ASTM A153 CLASS C HOT DIPPED GALVANIZED BOLTS AND FASTENERS
 ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE SIGN/LIGHTING MANUFACTURER
 NO FIELD HEATING TO BEND STEEL SHALL BE ALLOWED WITHOUT ENGINEER'S APPROVAL.
- -NO FIELD HEATING IU BENU STEEL STALL DE OLLOWED WITTEN ENGINEER'S APPROVAL.
 -DO NOT CUT ANCHOR RODS AFTER INSTALLATION OF POLE
 -AFTER INSTALLATION, ALL EXPOSED STEEL SHALL BE PAINTED WITH AN ENAMEL PAINT TO INHIBIT CORROSION.
 -ANY FIELD WELDING SHALL FIRST BE VERIFIED BY ENGINEER AND PERFORMED IN ACCORDANCE WITH AWS D1.1.
 -REFER TO SIGN MANUFACTURER DRAWINGS AND INSTRUCTIONS FOR ADDITIONAL INFORMATION.
- ADDITIONAL INFORMATION. -CONTRACTOR (INSTALLER) IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION IN REGARDS TO JOBSITE SAFETY. -DETAILS AND STRUCTURAL MEMBERS NOT SHOWN DESIGNED BY OTHERS -ANY MODIFICATIONS ARE TO BE VERIFIED BY AN ENGINEER



— VERTICAL BARS SUPPLIED BY GENERAL CONTRACTOR PER SIGN MANUFACTURER DETAILS, TYP.

- CONCRETE FOUNDATION

NTS



ot time: Dec 05, 2019 — 3:09pm — Login Name: johnbayer awing name: J:\2019\19-0175\CV\DWG\19-0175 CD.dwg — Layout Tab: CD'S

GENERAL NOTES

<u>CURBING:</u> DRIVE-THRU LANES BOUND BY CURB ON BOTH SIDES AR TO BE A MIN. OF 10'-0".

THE MIN. RADIUS FOR ALL INSIDE/DRIVER'S SIDE DRIVE-PRIMARY LANE CURBING SHOULD BE AS STRAIGHT AS P

THE OVERALL LENGTH OF THE CURBED ISLAND SHOULD E LANE, TWO IN THE PRIMARY LANE AND ONE AT THE COMM

THE ISLAND WIDTH SHOULD BE 9.50' AT THE WIDEST POIN ENTRANCE LANE ENTERING THE SIDE BY SIDE DRIVE-THE

PAVEMENT MARKINGS: 6" WIDE YELLOW PAINT STRIPE TO SPAN OUTER EDGE OF

ARROW PAVEMENT MARKING. STANDARD STRIPING MAI LOCATED AT CENTER OF EACH LANE.

MERGE POINT IS LOCATED WHERE TWO VEHICLES LEAV OFFSETTING THE INNER PRIMARY LANE BACK OF CURB YELLOW STRIPE IS TO BE MARKED PERPENDICULAR TO

EQUIPMENT POSITIONING FOR PRIMARY LANE: MIN. 60'(+/-5') LINEAR DISTANCE BETWEEN THE CENTER MEASURED ALONG THE CENTER LINE OF THE LANE. THIS THE PRIMARY MENU BOARD SHOULD BE AT AN ANGLE B

AUGER "McDONALD'S ORDER HERE CANOPY" COD/CANO DETAILS. AUGER "McDONALD'S GATEWAY" FOUNDATION TIGHT AC

EQUIPMENT POSITIONING FOR SECONDARY LANE: AUGER "McDONALD'S ORDER HERE CANOPY" COD/CANO DETAILS.

THE SECONDARY MENU BOARD SHOULD BE AT AN ANGL

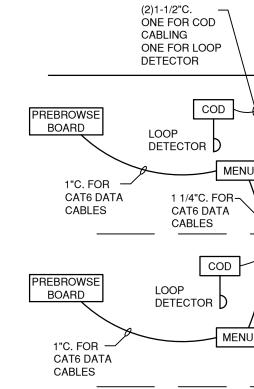
NOTES

- THE REGIONAL CONSTRUCTION MANAGER IS TO REV LAYOUTS. A DRIVE-THRU IS FINAL, AND CONSIDERED ARE TO BE MADE AFTER THIS POINT.
- 2. DUE TO THE EXACT GEOMETRY REQUIRED FOR THE E DRIVE-THRU LAYOUT, IT IS RECOMMENDED THAT ALL PAVEMENT IMPROVEMENTS TO BE FIELD LOCATED B¹
- 3. THE PLACEMENT OF THE CODS AND ANY ADDITIONAL PREVENTS, OR MINIMIZES, BLOCKING THE CUSTOME ORDERING.
- 4. ALL DRIVE THRU EQUIPMENT SUPPLIED BY MCDONAI
- SEE ADDITIONAL SHEETS FOR FOUNDATION DETAILS
 ALL DIMENSIONS SHOWN ARE TO THE CENTER OF THE

ALL DIMENSIONS SHOWN ARE TO THE CENTER OF TI UNLESS OTHERWISE NOTED.

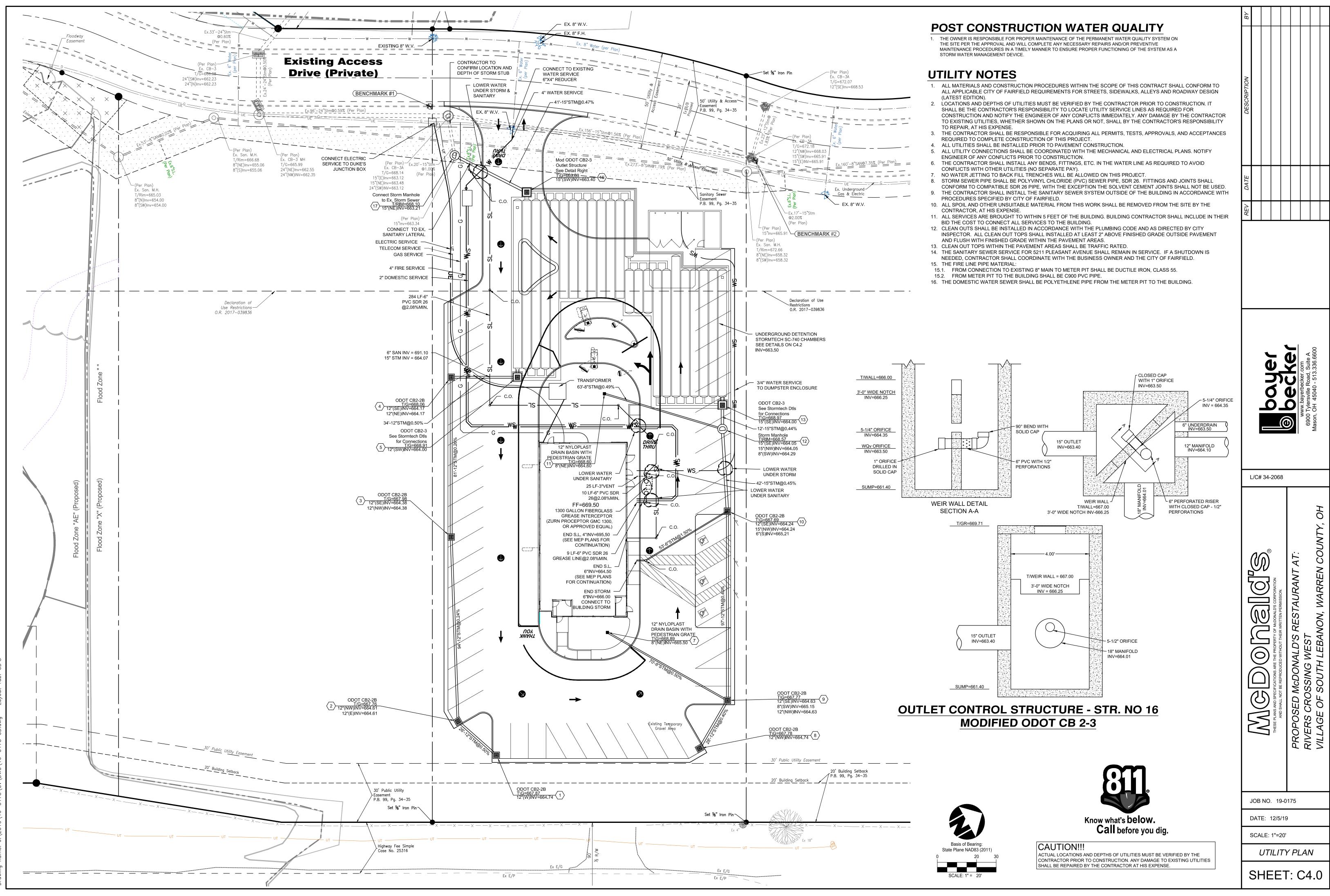
LEGEND

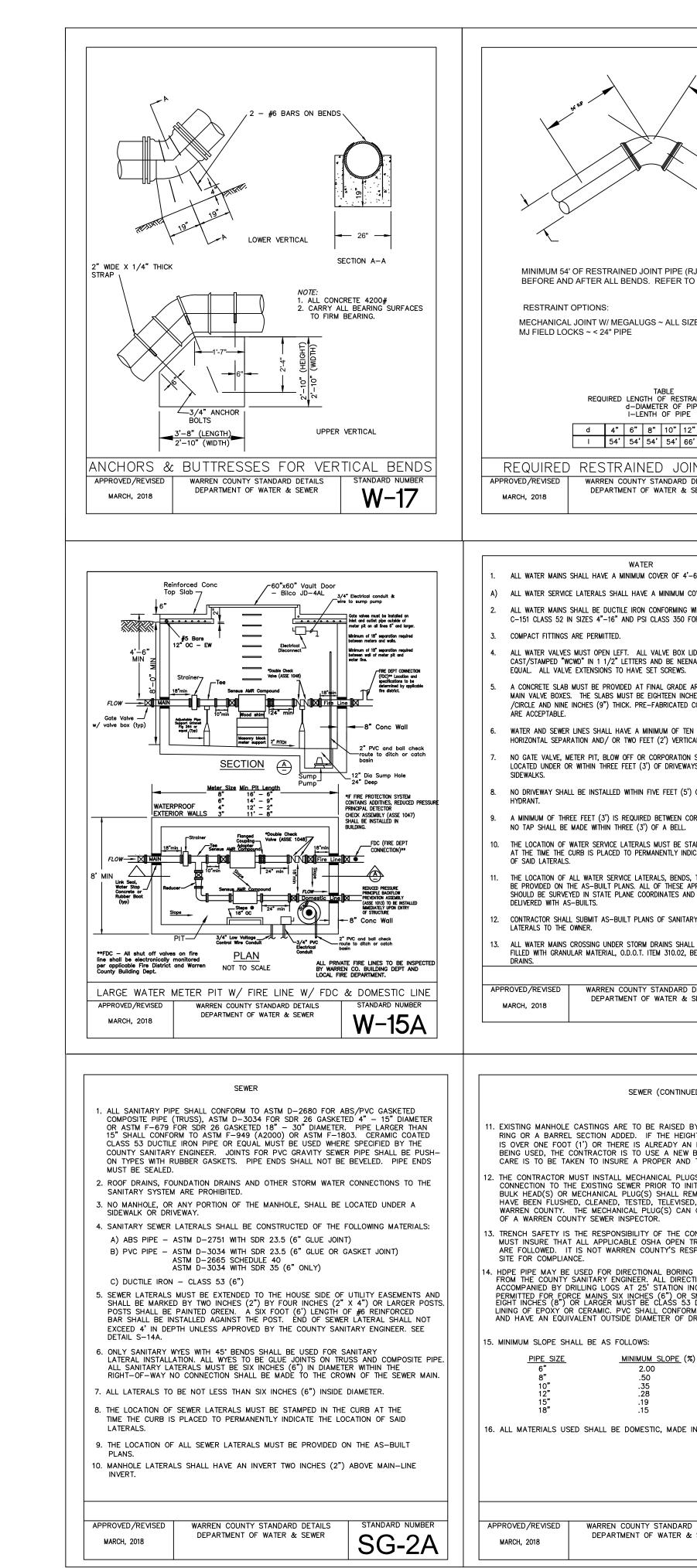
- 1 2 PANEL OUTDOOR DIGITAL MENU BOARD (PRIMAR)
- 2 "ORDER HERE" CANOPY/ CANOPY FOUNDATION (PR
- 3 2 PANEL OUTDOOR DIGITAL MENU BOARD (SECOND
- (4) "ORDER HERE" CANOPY/ CANOPY FOUNDATION (S
- 5 PRE-BROWSE BOARD
- 6 WELCOME POINT GATEWAY PYLON



DRIVE THRU LOW VOLTAG

				BY	
		DE AND PAINTED STRIPING ON THE OTHER SIDE ARE			
	IVE-THRU CURBING IS 20'-0". AS POSSIBLE. (LESS CURVING, THE BETTER).				
	OULD BE 50'-55'. THE LENGTH OF THE ISLAND FROM THE COMMITMENT POINT.	COD ALLOWS FOR TWO CARS IN THE SECONDARY		NOL	
	POINT (FACE OF CURB TO FACE OF CURB).			CRIP1	
	E-THRU IS TO BE 24' MIN.			DES	
	IRB 9.0' AND OFFSETTING THE OUTER LANE STRIPING 8	0.0'. AT THE INTERSECTION OF THESE OFFSETS, A 6"			
			i.	DAT	
	ANOPY FOUNDATION TIGHT AGAINST BACK OF CURB.	SEE MANUFACTURER/LOCAL SPECIFICATIONS FOR			
<page-header></page-header>				RE	
<page-header></page-header>					
<text></text>					
	NGLE OF APPROXIMATELY 25° FROM A VEHICLE POSITI	ONED AT THE COD AND WITH 100% VISIBILITY.			
	REVIEW AND APPROVE ALL DRIVE-THRU RED "RED", ONCE APPROVED. NO CHANGES				
	THE EFFICIENT OPERATION OF THIS ALL DRIVE-THRU EQUIPMENT AND ED BY A LICENSED SURVEYOR.				
	ONAL EQUIPMENT SHOULD BE SUCH THAT IT OMER'S VIEW OF THE MENU BOARD WHILE	OPO CONTROLLER	LP	.	
	DNALDS APPROVED SUPPLIERS.				16600
					ar.com d, Suit 13.336
	F THE FOUNDATION AND THE FACE OF CURB			ר	
NUMERY Import of the second of the seco	IARY)		OARD #1		900 Ty ion, OI
	(PRIMARY)	oŧ			
	ONDARY)	\	PRIMARY DT LANE		
Intervent of the control of the			T		
Instruction Instructin Instructin Instructin Instructin Instructin			T	L/C# 34-2068	
PULLIONAT INDEE			BOARD #2		
PULLEON AT Marked MP 2 CHOLONGER Marked MP 2 CHOLONGER			SECONDARY DT LANE		Ĭ
PULLBOX AT CASHEES WINDOW CASHEES WINDOW CA					
PULLBOX AT CASHEES WINDOW CASHEES WINDOW CA		ISOLATED GND., TO CP FOR	QUANTITIES OF CIRCUITS WITH PANEL SCHEDULES AND MANUFACTURERS		
PULLBOX AT CASHEES WINDOW CONTROL CASHEES WINDOW CASHEES WINDOW CONTROL CASHEES WINDOW CASHEES WINDOW CONTROL CASHEES WINDOW CONTROL CASHEES WINDOW CONTROL CASHEES WINDOW CONTROL CASHEES WINDOW CASHEES WINDOW CONTROL CASHEES WINDOW CASHEES WINDOW CASHEES WINDOW CASHEES WINDOW CASHEES WINDOW CASHEES WINDOW CASHEES WINDOW		TO MENUBOARDS AND	FOR EXISTING LOCATIONS:		.T. JOU
INTEGE OUTSIDE OU			* VERIFY EXISTING CP PANEL HAS AMPACITY AND SUFFICIENT		
INTEGE INTEGE OUTSIDE OUT		ISOLATED GROUND POWER TO COD'S. EACH COD SHALL	CIRCUITS. UPGRADE CP PANEL TO		RE RE
In the control of the contrel of the control of the control of the control of the control o		CIRCUIT.	SIZED FOR NEW CONDUIT ROUTING.		AUF VAF
ENU BOARD #2 SECONDARY DT LANE GE CONDUIT DIAGRAM LE State Plane NADS3 (2011) 1 15 State Plane NADS (2011) 1 15 State Plane NADS (2011) 1 15 State Plane NADS (2011) 1 15 State Plane NADS (2011) 1 15 1	PB INSIDE	U ISOLATED GND., TO CP FOR ISOLATED GROUND POWER			
ENU BOARD #2 SECONDARY DT LANE GE CONDUIT DIAGRAM LE State Jone NADS3 (2011) 10 10 15 State Jone NADS3 (2011) 10 15 State Jone NADS3 (2011) 10 15 State Plane NADS3 (2011) 10 15 State Plane NADS3 (2011) 10 15 State Locations and Depths of Utilities Must be verified by THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPARED BY THE CONTRACTOR AT HIS EXPENSE.					NO NO
ENU BOARD #2 SECONDARY DT LANE GE CONDUIT DIAGRAM LE	(2)1-1/2"C. ONE FOR COD CABLING	U ISOLATED GND., TO CP FOR		ROPERT	ES] EBA
ENU BOARD #2 SECONDARY DT LANE GE CONDUIT DIAGRAM LE		TO FOR PRESELL BOARDS			NAL 9 W.E
ENU BOARD #2 SECONDARY DT LANE GE CONDUIT DIAGRAM LE			ER DIAGRAM		
ENU BOARD #2 SECONDARY DT LANE GE CONDUIT DIAGRAM LE State Jone NADS3 (2011) 10 10 15 State Jone NADS3 (2011) 10 15 State Jone NADS3 (2011) 10 15 State Plane NADS3 (2011) 10 15 State Plane NADS3 (2011) 10 15 State Locations and Depths of Utilities Must be verified by THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPARED BY THE CONTRACTOR AT HIS EXPENSE.		NOT TO SCALE) Mc SSC
ENU BOARD #2 SECONDARY DT LANE GE CONDUIT DIAGRAM LE	/				SEC CR
GE CONDUIT DIAGRAM Le State Plane NAD83 (2011) 10 15 CAUTION!!! ACTUAL LOCATION SAND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR AT HIS EXPENSE. DRIVE THRU DETAILS	IENU BOARD #2				PO(RS 1GE
GE CONDUIT DIAGRAM Le State Plane NAD83 (2011) 0 10 10 15 CAUTION!!! ACTUAL LOCATION SAND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR AT HIS EXPENSE. DRIVE THRU DETAILS	SECONDARY DT LANE				NRO ILL
LE State Plane NAD83 (2011) 0 10 15 CAUTION !!! ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. JOB NO. 19-0175 DATE: 12/5/19 SCALE: 1"=10' DRIVE THRU DETAILS	GE CONDUIT DIAGRA	AM			ת מ א
Basis of Bearing: State Plane NAD83 (2011) DATE: 12/5/19 0 10 15 0 10 15 0 10 15 0 10 15 0 10 15 0 10 15 0 15 CAUTION SIND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.					
Basis of Bearing: State Plane NAD83 (2011) DATE: 12/5/19 0 10 15 0 10 15 0 10 15 0 10 15 0 10 15 0 10 15 0 15 CAUTION SIND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.					
Image: Notice of Bearing: State Plane NAD83 (2011) CAUTION!!! Scale before you dig. Scale : 1"=10' 0 10 15 10 15 DRIVE THRU DETAILS 0 10 15 Shall be repaired by the contractor at his expense. DRIVE THRU DETAILS			@	JOB NO. 19-0	• 0175
Call before you dig. Basis of Bearing: State Plane NAD83 (2011) Scale State Plane NAD83 (2011) 0 10 10 15 Shall be repaired by the contractor at his expense.					
Basis of Bearing: State Plane NAD83 (2011) 0 10 15 CAUTION!!! ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.	71	_			
ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.					
		ACTUAL LOCATIONS AND DEPTHS OF UTILITIES CONTRACTOR PRIOR TO CONSTRUCTION. ANY D	DAMAGE TO EXISTING UTILITIES	DRIVE THR	RU DETAILS
	SCALE: 1" = 10'	SHALL BE REPAIRED BY THE CONTRACTOR AT H	IIS EXPENSE.	SHFF	T C3 3





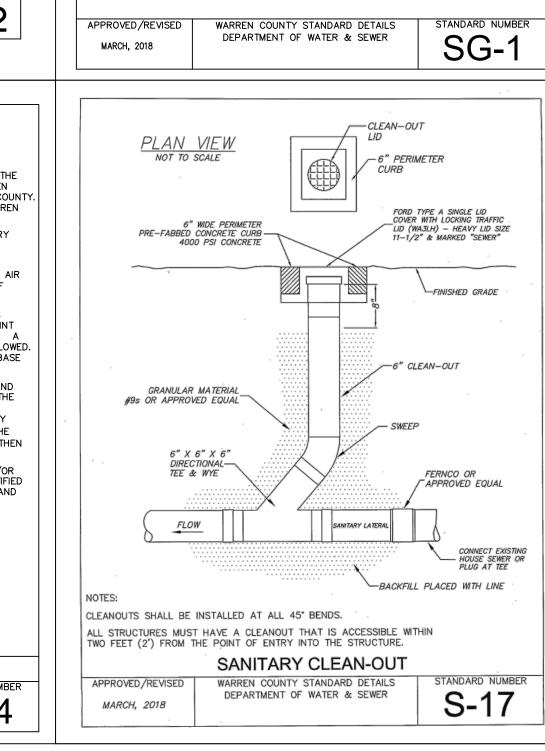
Plot time: Dec 05, 2019 — 3:14pm — Login Name: johnbayer Drawing name: J:\2019\19—0175\CV\DWG\19—0175 CD.dwg — Layout Tab: CD'S

Stree RJP) IS REQUIRED O TABLE BELOW. ZES OF PIPE RAINED JOINTS 22 16" 20" 16" 20" 24" 6' 98'	TRENCH SIDES SH CONFORMANCE W REQU	H FROM THE PAVEMENT SHALL BE A APPLICAE 10' MEASURED ENGINEEF HE SANITARY SPECIFIC, ALL BE IN WITH OSHA JIREMENTS 6" OR 1/2 D EXCAVATE TO CCOMMODATE BELL OF PIPE TRENCH BOTTOM BE SUP	MON FILL WITHIN WAY, SELF COMPACTING FILL IN ROCK, AND D DENSITY FILL WITHIN : OF PAVEMENT DOT #703 ZES 6-8 RANULAR MATERIAL : IN ROCK OR WITHIN FROM EDGE OF AVEMENT) SHALL HAVE FLAT SO THAT PIPE WILL PORTED UNIFORMLY THE BARREL. NO T BY BLOCKING		BEARING AREA TO BE THRUST BLOCKS TO B	MASONRY (TYP) <u>45° BEND</u> 12 12 12 12 12 12 12 12 12 12	CEL OR AT USE OAK OR PREC. AT BACK	E OAK, MENT MASONRY PRECAST BLOCKS END TO BE PLUGGED (P) , CEMENT MASONRY AST BLOCKS OF BEND (TYP)
INTS FOR BENDS DETAILS SEWER STANDARD NUMBER W-18	APPROVED/REVISED JUNE, 2012	ATERMAIN TRENCH DET. warren county standard details department of water & sewer	AIL standard number W-2		ROVED/REVISED	THRUST BLOCK D WARREN COUNTY STANDARD D DEPARTMENT OF WATER & SI	ETAILS	STANDARD NUMBER
-6". 20VER OF 42". WITH AWWA SPEC. FOR 20" AND ABOVE. LIDS MUST BE NAH NF-19130002 OR AROUND ALL HES (18") SQUARE CONCRETE RINGS N FEET (10') CAL SEPARATION. I STOP SHALL BE YYS, ROADWAYS OR) OF A FIRE ORPORATION STOPS. TAMPED IN THE CURB DICATE THE LOCATION G, TEES, ETC. MUST APPURTEMANCES ID ELECTRONICALLY RY AND WATER L BE BACK- BETWEEN MAINS AND DETAILS SEWER STANDARD NUMBER WGG-1A	 STOP TO THE METER BE USED FOR 3/4" MAY BE USED FOR - POLY AND SDR 21. 15. SERVICE LINES 1" AI (ASTM D-2737) OR EVENLY EVERY 3' OI BEING SERVED (A 3' 16. 1 1/2" AND 2" SER' TYPE K COPPER OR 17. FIRE HYDRANTS MUS ALL STREET INTERSE 18. AN APPROVED BACK SERVICE LATERALS E CONNECTION OR US/ A) <u>RESIDENTIAL I</u> B) ENTRY OF STT C) LANDSCAPE IF D) PREVENTION A E) FIRE PROTECT PRESSURE PR LOCATED IN V F) <u>NON-RESIDEN</u> A.S.S.E. 1013, 19. SWAB PIPE WITH 50 20. ALL NEW WATER MAI WHICHEVER IS GREAT C-600. 21. DEDUCT METERS SH/ 22. NO IRRIGATION CONN 23. BACK FLOW PREVENT AHEAD OF ANY SPR 	FLOW PREVENTION ASSEMBLY SHALL BE INSTALLED ON AL BY THE PROPERTY OWNER PRIOR TO ANY POINT OF AGE. THE FOLLOWING DEVICES AND LOCATIONS ARE REQUIR DWELLING UNITS (3 FAMILY OR LESS): LOCATED IMMEDIA' RUCTURE. DUEL CHECK VALVE A.S.S.E. 1024. RIGATION SYSTEMS: REDUCED PRESSURE PRINCIPLE BACKI SSEMBLY A.S.S.E. 1013. LOCATED IMMEDIATELY UPON ENTI ION SYSTEMS: DOUBLE CHECK DETECTOR CHECK ASSEMBL INCIPLE DETECTOR CHECK A.S.S.E. 1047 IF SYSTEM CONTA AULT AND A.S.S.E. 1047 LOCATED IN BUILDING. TAL SERVICES: REDUCED PRESSURE PRINCIPLE BACKFLOW LOCATED IMMEDIATELY UPON ENTRY OF STRUCTURE. PPM CHLORINE SOLUTION BEFORE INSTALLATION. INS SHALL BE PRESSURE TESTED FOR 2 HOURS AT 200 F TER. ALLOWABLE LEAKAGE SHALL BE PER TABLE 6A OF J	SHALL E SIZE) ITH PSI E TAPED JCTURE IT BE RE. SEE W-10B. AND AT L WATER YED. IELY UPON FLOW RY OF STRUCTURE. Y AS.S.E. 1048 OR REDUCED INS ADDITIVES; A.S.S.E. 1048 PREVENTION ASSEMBLY SI, AWWA	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 11. 12. 13.	MUST NOTIFY WARR ADVANCE OF ANY NOTIFICATION AND/ IF DETERMINED NEC EXPOSE EXISTING M BE MADE WITHIN TH COUNTY PERSONNEL INSTALL PROPER T/ AND VALVE SHALL MINUTES. THE PIPE PERSONNEL. IF THE TAPPING SLI BURIED VALVE MUS FIELD CUT EXISTING COUPLED VALVES A' GET DIRT IN EXISTIN THOROUGHLY CLEAN INSTALL TEE AND V NECESSARY. PROP MAIN IS THEN TO E CONSTRUCTION OF E CONSTRUCTION OF E CONSTRUCTION TO TEI ENTIRE LINE IS TO STANDARDS. ENTIRE LENGTH OF PRIOR TO INSTALLA DISIFECTION. DOSA PIPE MATERIAL. NEW MAIN IS TO BE TAPPING SLEEVES/S (MUELLER H615).	DR CONNECTION TO EXISTIN EN COUNTY WATER DEPARTMENT THREE (: SHUT DOWN. WARREN COUNTY WILL ISSU (OR BOIL ADVISORY TO AFFECTED CUSTOM JESSARY BY WARREN COUNTY. AIN AT PROPOSED CONNECTION POINT. N IREE (3) FEET OF A BELL OR PIPE CONNE . TO OPERATE CLOSING OF APPROPRIATE APPING SLEEVE AND TAPPING VALVE. THE BE TESTED AT 200 PSI FOR A PERIOD OF SLUG MUST BE REMOVED AND INSPECTED TO DEPATE CLOSING OF APPROPRIATE MAIN AS NECESSARY TO ACCOMMODATE I EACH END OF TEE. CARE IS TO BE TAI G MAIN. I AND DISINFECT PIPE AND APPURTENANC ALVES – DRESSER COUPLINGS CAN BE UT OSED MAIN VALVE IS TO BE COMPLETED WIT E AND VALVES INSTALLED ABOVE. BE PRESSURE TESTED AND DISINFECTED T PROPOSED MAIN IS TO BE COMPLETED WIT E AND VALVES INSTALLED ABOVE. BE PRESSURE TESTED AND DISINFECTED T PIPE IS TO BE THOROUGHLY CLEANED AN TON. PERMATEX CHLORINE TABLETS TO IN GG SHALL BE PER MANUFACTURER'S SPECE FUT INTO SERVICE BY COUNTY PERSONN GADDLES TO BE TWO-PIECE CAST IRON OF JCM412 OR FORD FTSS TAPPING SLEEVES ING SLEEVES ARE NOT PERMITTED. WARREN COUNTY STANDARD IN DEPARTMENT OF WATER & S	3) DAYS IN E THE SHUT DOW ERS PER OHIO EF IO WET TAP SHAL CTION. VALVES TO ISOLA E TAPPING SLEEVE AT LEAST 5 BY COUNTY PAVEMENT, THE OUT OF PAVEMEN TEE AND CLOSE KEN SO AS NOT ES TO BE SED IF SHUT OFF. EXIST SONNEL. THIN A JOINT OF IO COUNTY D DISINFECTED BE USED FOR CIFICATIONS BASEI IEL. R DUCTILE IRON PERMITTED ON C	N PA REQUIREMENTS LL ATE LINE TO BE TAPPED. E IT. TO TING
IVED) BY EITHER A MANHOLE ADJUSTING WHT OF NECESSARY ADJUSTMENT A EXISTING ADJUSTMENT RING BARREL SECTION ONLY. EXTRA TIGHT SEAL AT ALL NEW JOINTS. GS(S) AT THE POINT(S) OF WITATING ANY CONSTRUCTION. THE EMAIN IN PLACE UNTIL THE NEW MAINS D, AND APPROVED FOR USE BY A ONLY BE REMOVED IN THE PRESENCE ONTRACTOR. THE CONTRACTOR TRENCH SAFETY REQUIREMENTS SPONSIBILITY TO INSPECT EACH CONFORCE MAINS WITH APPROVAL DIAMETER. FORCE MAINS O DUCTLE IRON WITH AN INTERIOR MATO AWWA C900 REQUIREMENTS DR 14.	FLEXIBLE AND SECTION PIPE REQUIREMENTS FOLLOWING TY 1. RUBBER S A) KOR- INC. B) LOCK INTEF C) OR E 2. RUBBER G A) PRES CORF B) DURA C) OR E RESILIENT CON MANHOLE SEC MECHANICAL M ANY CONNECTI MANHOLE. AN	LEEVE WITH STAINLESS STEEL BANDING -N-SEAL AS MANUFACTURED BY POLLUTION JOINT FLEXIBLE MANHOLE SLEEVE AS MANU RSPACE CORPORATION QUAL SASKET COMPRESSION IS WEDGE II AS MANUFACTURED BY PRESS-S PORATION A-SEAL MANUFACTURED BY DURA TECH, INC.	D IN THE MANHOLE ETING THE ANY OF THE CONTROL SYSTEMS, FACTURED BY EAL GASKET HE WALL OF THE JE INSTALLED BY L PER ASTM C923. E BY CORING THE IN THE BARREL	2. 3. 4. 5. 6. 7.	CONNECTION TO MECHANICAL PLI FLUSHED, CLEAN THE MECHANICAL PLI COUNTY SEWER ALL NEW MANHO SHALL BE DRAWI MANHOLE SHALL ALL SANITARY S PRESSURE TEST 1.0 PSI LOSS. ALL NON-TRUSS COMPLETED (30 MANDREL WILL B VERTICAL RING I THIS DEFLECTION OR AVERAGE INS AT THE TIME THI TELEVISED WITH VDEO MUST INCI MANHOLE, FLOW SUSPECT PROBLI CONTRACTOR. THE BE RE-CLEANED. A SECOND VIDEO PRIOR TO THE R DURING THIS TEL REPAIRED TO TH THE DEVELOPER	LES SHALL BE VACUUM TESTED. N ON THE MANHOLE. FOR A 4' HOLD 9" OF MERCURY FOR AT EWER MAINS MUST BE AIR TESTE OF 5.0 PSI FOR A FIVE (5) MIN PIPE SHALL BE TESTED FOR DE DAY MINIMUM REQUIRED). A DE E REQUIRED. NO MECHANICAL F DEFLECTION GREATER THAN FIVE IS DEFINED AS A FIVE PERCEN	INITIATING AN JNTIL THE NE PPROVED FOR ED IN THE PF A VACUUM MANHOLE LEI LEAST 1 MINU ED. THE STA UTE PERIOD N EFLECTION AF FLECTION AF FLECTION TES PULLING DEVIC PERCENT (57 T REDUCTION THE SEWER MI ROVIDED TO M PIPE SPANS F LL LATERALS LEMS MUST E E MADE AND S. YEAR AFTER I SEWER PIPE Y SANITARY E L COSTS ASS	AY CONSTRUCTION. THE W MAINS HAVE BEEN USE BY WARREN COUL RESENCE OF A WARREN OF 10" OF MERCURY SS THAN 20' DEEP, JTE. NDARD TEST IS AN AIF MITH A MAXIMUM OF TER BACKFILLING IS ST WITH A NINE POINT CE SHALL BE USED. A WITH A NINE POINT CE SHALL BE USED. A DIT A NINE POINT CE SHALL BE USED. A NINE VERTICAL BASI UST BE CLEANED AND VARREN COUNTY. THE ROM MANHOLE TO AND CALL OUT ANY SE IDENTIFIED BY THE THE SEWER MUST THE INSTALLATION AND/OR DEFICIENCY IS IDENTIFIE MUST BE TESTED AND INGINEER. SOCIATED WITH THE
sewer standard number SG-2B	APPROVED/REVISED MARCH, 2008	WARREN COUNTY STANDARD DETAILS DEPARTMENT OF WATER & SEWER	standard number		ROVED/REVISED ARCH, 2018	WARREN COUNTY STANDARE DEPARTMENT OF WATER &		standard numbe

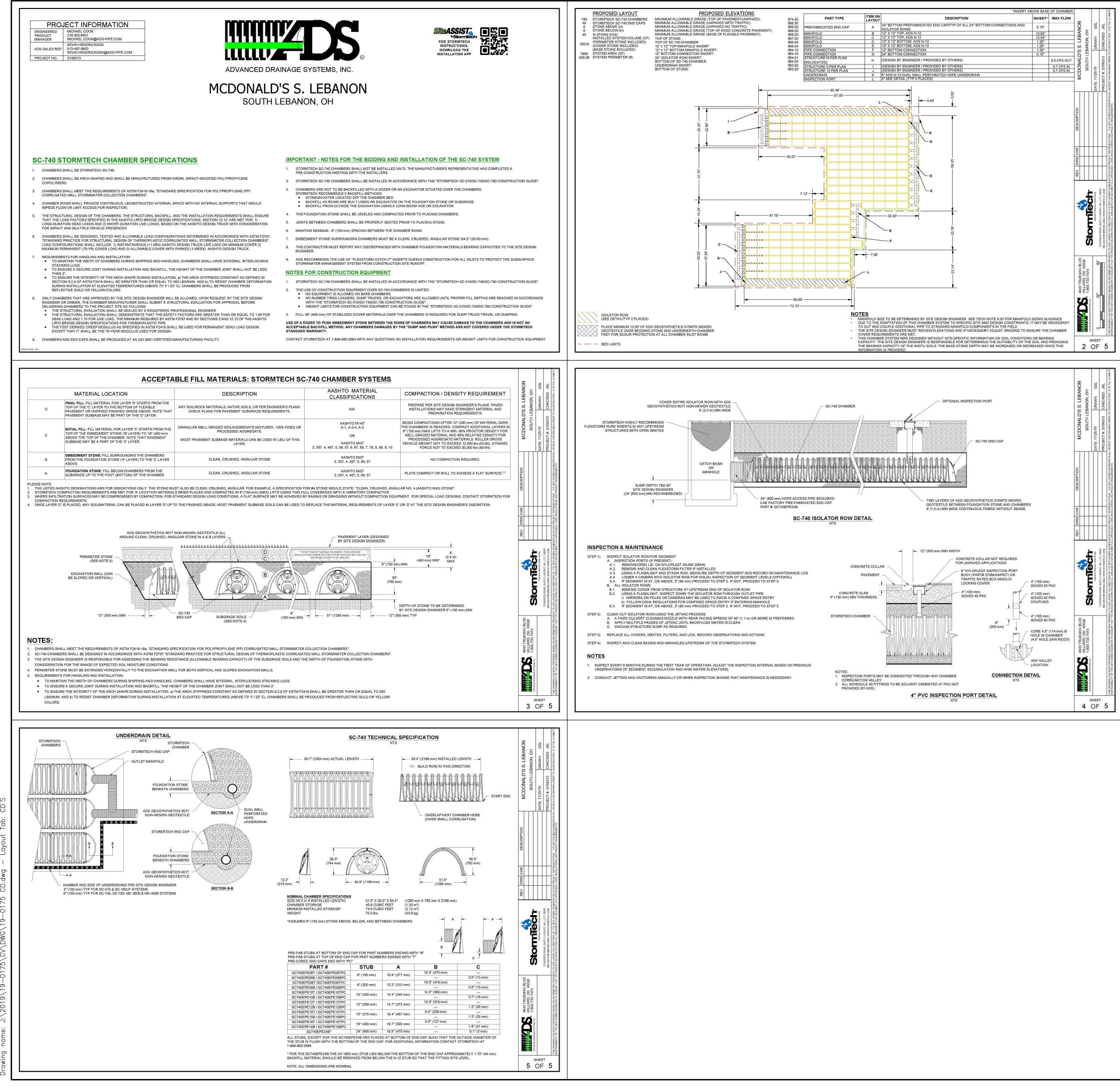
<u>Gate Valves</u> -	AWWA Resilient Seated with cast iron body, bronze mounted, flanged connections, nonrising stem, fusion epoxy coating, 400 PSI hydrostatic rated. Valve shall be Metro Seal 250 by US Pipe or equal.	
Flanged Coupling		
<u>Adaptors</u> -	Flanged adaptor connections for plain end pipe at fittings and valves shall be Dresser Style 127 or 128, or equal.	
<u>Vault Door</u> -	60" x 60" double leaf aluminum diamond plate with hold open arm locks. Green space area hatches rated for 300 PSF. Traffic areas shall be AASHTO H-20. Doors shall be JD-4AL or JD-4AL H20 by Bilco or equal.	
<u>Strainer</u> -	Strainers 6" or smaller must be Badger Bronze Plate Strainers or equal. Screens must be made of non-corrosive 316 stainless steel with 3/16" or 1/4" perforations. Strainers 8" or larger must be Badger Model ML-MS Plate Strainers or equal. Screens must be made of non-corrosive stainless steel.	
<u>Sump Pump</u> -	Submersible pump with automatic level control, 115V single phase, discharge 25 - 30 gpm at 10 ft TDH. Sump pump operation and maintenance is the responsibility of the owner.	
<u>Piping</u> -	All piping 3" and larger shall be Class 52 ductile iron with flanged fittings. Piping smaller than 3" shall be threaded steel. Domestic and sprinkler lines shall be Type K Copper through the vault.	
Backflow Preventer -	FIRE: ASSE 1048 Double Check Detector or ASSE 1047 Reduced Pressure Principle Detector if additives in system. ASSE 1047 to be installed in the building.	
	DOMESTIC: ASSE 1013 Reduced Pressure Principle Backflow Prevention Assembly installed immediately upon entry of structure.	
	IRRIGATION: ASSE 1013 Reduced Pressure Principle Backflow Prevention Assembly installed immediately upon entry of structure and before any sprinklers.	
	The operation and maintenance of all backflow preventers is the responsibility of the property owner.	

DETAILED PROCEDURES FOR SANITARY SEWER

- PROCEDURE FOR MAKING SEWER LATERAL CONNECTIONS TO EXISTING SEWER:
 A. IF ABS COMPOSITE EXCAVATE TO POINT OF LATERAL ON MAIN; CLEAN EXISTING PIPE; ALIGN SADDLE TO PROPER POSITION AND MARK AREA TO BE CUT; CUT HOLE IN PIPE AS REQUIRED MAKING SURE THE CUT OUT DOESN'T ENTER THE MAIN; ATTACH AND SEAL SADDLE WITH STAINLESS STEEL STRAPS AND MASTIC SEALER BETWEEN SADDLE AND PIPE. INSERTA TEES ARE NOT PERMITTED.
- B. IF CLAY OR CONCRETE EXCAVATE TO POINT OF LATERAL ON MAIN; PLUG OUTLET PIPE AT UPSTREAM MANHOLE – PUMP TO DOWNSTREAM MANHOLE IF NECESSARY; REMOVE CLOSEST LENGTH OF PIPE AND REPLACE WITH TEE LATERAL SECTION OF PIPE OR CORE EXISTING PIPE IN PLACE.
- 2. PROCEDURE FOR MAKING SEWER EXTENSIONS FROM EXISTING MANHOLES: CONSTRUCT LINE TO WITHIN ONE JOINT OF EXISTING MANHOLE; AFTER LINE PASSES LEAKAGE TEST AND WARREN COUNTY SANITARY ENGINEER GIVES GO AHEAD – CONNECTION IS TO BE MADE; PLUG OUTLET PIPE AT UPSTREAM MANHOLE – PUMP TO DOWNSTREAM MANHOLE IF NECESSARY; A HOLE IS CUT AT THE PROPOSED INLET POINT AND THE LAST JOINT IS LAID; EXISTING BENCH AND CHANNEL OF MANHOLE IS REBUILT AND SHAPED AS REQUIRED; NEW CONNECTION IS TO BE SEALED AS REQUIRED.
- 3. PROCEDURE FOR MAKING NEW MANHOLES ON EXISTING SEWER MAINS: EXCAVATE AND EXPOSE EXISTING SEWER AT POINT OF NEW MANHOLE; BUILD MANHOLE OVER EXISTING LINE WHILE NOT DISTURBING EXISTING LINE; BUILD NEW LINE(S) FROM NEW MANHOLE; AFTER NEW LINE(S) PASS(ES) LEAKAGE TEST AND WARREN COUNTY SANITARY ENGINEER GIVES GO AHEAD – PLUG OUTLET PIPE AT EXISTING UPSTREAM MANHOLE (PUMP TO EXISTING DOWNSTREAM MANHOLE IF NECESSARY); BREAKOUT TOP OF EXISTING SEWER AS REQUIRED AND FORM A BENCH AND CHANNEL AS REQUIRED.
- 4. STORM WATER AND EXTRANEOUS FLOWS ARE PROHIBITED FROM ENTERING THE EXISTING SYSTEM DURING CONSTRUCTION. NO OPEN CUT TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT. STORM DRAINS, DIVERSION DITCHES, PUMPS ETC., SHALL BE USED AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE SYSTEM AT ALL TIMES.
- 5. ALL SANITARY SEWER PIPE MUST BE BEDDED WITH NUMBER 57 STONE EXTENDING FROM A POINT NOT LESS THAN 6" BELOW THE BOTTOM OF THE PIPE TO THE SPRINGLINE OF THE PIPE. BACKFILL WITH NUMBER 9 GRITS FROM THE SPRINGLINE TO A POINT NOT LESS THAN 12" ABOVE THE CROWN OF THE PIPE. BEDDING SHALL PROVIDE A UNIFORM SUPPORT ALONG THE ENTIRE PIPE BARREL, WITHOUT LOAD CONCENTRATION AT JOINT COLLARS OR BELLS. BEDDING DISTURBED BY PIPE MOVEMENT OR BY REMOVAL OF SHORING OR MOVEMENT OF THE TRENCH SHIELD OR BOX SHALL BE RECONSOLIDATED PRIOR TO BACKFILL. BEDDING TO BE COMPACTED TO 95% PROCTOR.

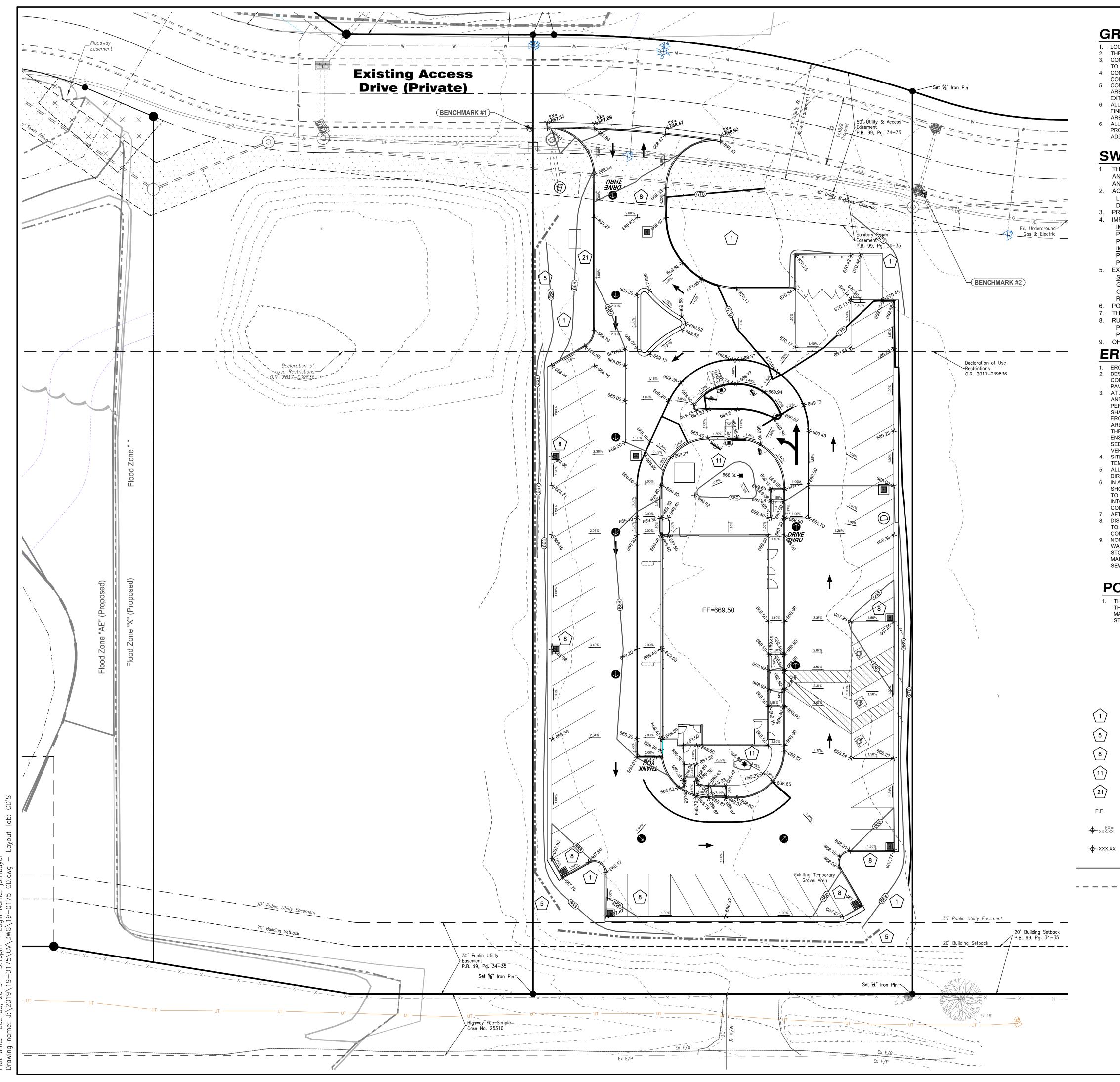


BΥ								
DESCRIPTION								
DATE								
REV								
					してつしつ	www.bayerbecker.com 6900 Tvlersville Road. Suite A	Mason, OH 45040 - 513.336.6600	
L	_/C#	34-	206	8				
			THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF M¢DONALD'S CORPORATION		PROPOSED McDONALD'S RESTAURANT AT:	RIVERS CROSSING WEST		VIELAGE OF 300 IN LEBAINON, WANNEN COUNTY, UN
J	ЮВ	NO	. 19	9-01	75			
		E: ´						
) E7	ΓΑΙ.	LS	_
	SF	HE	Ē	Т	: (C4	1.1	



me: Dec 05, 2019 — 3:24pm — Login Name: johnbayer g name: J:\2019\19—0175\CV\DWG\19—0175 CD.dwg — Layout Tc

ΒY					
DESCRIPTION					
DATE					
REV					
			www.bayerbecker.com 6900 Tylersville Road, Suite A	Mason, OH 45040 - 513.336.6600	
L/C# 34-2	2068				
S.DIZU00SW	THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF M¢DONALD'S CORPORATION AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.	PROPOSED McDONALD'S RESTAURANT AT:	RIVERS CROSSING WEST		VILLAGE OF 300 IN LEDAINOIN, WANNEN COUNTY, ON
JOB NO.	19-0	175			
DATE: 1					
DATE: 1 SCALE: 7 UTIL	1"= NT	S	- Al	LS	



<form></form>		BΥ
<form></form>	RADING NOTES	
<form></form>	THE GRADING PLAN IS TO BE USED FOR GRADING PURPOSES ONLY. CONTRACTOR SHALL OBTAIN A COPY OF THE COMPLETE GEOTECHNICAL REPORT AND ALL ADDENDUMS PRIOR TO BIDDING THE PROJECT.	
<form></form>	CONTRACTORS SHALL SET UP AN ONSITE PRE-CONSTRUCTION MEETING WITH THE OWNER, EARTHWORK CONTRACTOR, AND SITE CIVIL ENGINEER PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL EARTHWORK QUANTITIES PRIOR TO AWARD OF CONTRACT. PAY QUANTITIES	
<form></form>	ARE FINAL EXCEPT FOR DOCUMENTED UNDERCUT APPROVED BY DEVELOPER PRIOR TO COMPLETION OF THE EXTRA WORK. UPON REQUEST, CONTRACTORS MAY HAVE ACCESS TO THE SITE TO FIELD CHECK TOPOGRAPHY. ALL PROPOSED CONTOURS & SPOT ELEVATIONS ARE INTENDED TO BE FINAL GRADES AND REFLECT PAVEMENT,	NOIL
<form></form>	INISH FLOOR OR TOP SOIL PLACEMENT UNLESS OTHERWISE SPECIFIED. ALL SPOT ELEVATIONS IN PAVEMENT AREAS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED. ALL EARTHWORK AND CONSTRUCTION ACTIVITY SHALL BE PERFORMED PER THE RECOMMENDATIONS OF THE	SCRIP
<form></form>	PROJECT GEOTECHNICAL ENGINEER AS DESCRIBED IN THE GEOTECHNICAL EXPLORATION REPORT AND ALL ADDENDUMS.	DES
<form></form>	NPPP NOTES	
<form></form>	THE CONSTRUCTION ACTIVITY WILL CONSIST OF DEMOLITION OF EXISTING BUILDING, CURB, WALK AND PAVEMENT; MASS EARTHWORK; UTILITY INSTALLATION; CURB AND PAVEMENT CONSTRUCTION;	
<form></form>	ACREAGE: LOT 1.57 ACRES	
<form></form>	PRIOR LAND USE: McDONALD'S RESTAURANT	
<form></form>	IMPERVIOUS AREA PRE-DEVELOPED 0.11 ACRES	DA
<form></form>	IMPERVIOUS PERCENTAGE	ZEV
<form></form>	EXISTING SOIL DATA:	
<text><text><text><text><text><text></text></text></text></text></text></text>	Gn GENESEE LOAM B OcA OCKLEY SILT LOAM, SOUTHERN OHIO TILL PLAIN, 0 TO 2 PERCENT SLOPES B	
<text><text><text><text><text></text></text></text></text></text>	POSSIBLE PREVIOUS CONTAMINATIONS: FERTILIZER AND CHEMICALS TO CONTROL WEEDS.	
<text></text>	RUNOFF COEFFICIENT: PRE-CONSTRUCTION 0.45	
<text></text>	OHIO EPA NPDES PERMIT NUMBER: XXXX	
<text></text>	EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO CONSTRUCTION AND MAINTAINED DURING CONSTRUCTION.	
<text></text>	BEST MANAGEMENT PRACTICES (BMPs) SHOWN ON PLANS SHALL BE REVISED OR IMPLEMENTED AS REQUIRED. CONTRACTOR SHALL MONITOR CONSTRUCTION BMPs AND PROVIDE ADDITIONAL BMPs AS REQUIRED TO PREVENT SEDIMENT RUNOFF FROM CONSTRUCTION SITE ONTO PAVEMENT AND NON-WORK AREAS.	
<text></text>	AT A MINIMUM, ALL EROSION AND SEDIMENT CONTROLS ON THE SITE SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24 HOUR PERIOD. QUALIFIED INSPECTION PERSONNEL (THOSE WITH KNOWLEDGE AND EXPERIENCE IN THE INSTALLATION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROLS)	
<form></form>	SHALL CONDUCT THESE INSPECTIONS TO ENSURE THAT THE CONTROL PRACTICES ARE FUNCTIONAL AND TO EVALUATE WHETHER THE EROSION CONTROL IS ADEQUATE AND PROPERLY IMPLEMENTED OR WHETHER ADDITIONAL CONTROL MEASURES ARE REQUIRED. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR	
<form></form>	THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE	
	/EHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING. SITE STABILIZATION SHALL BEGIN WITHIN 7 DAYS ON AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY OR	
<text></text>	ALL MUD OR DEBRIS TRACKED ON EXISTING STREETS AND PARKING LOT PAVEMENT SHALL BE CLEANED AT THE END OF EACH DAY OR AS DIRECTED BY THE OWNER. PERIODIC STREET SWEEPING MAY BE REQUIRED.	
<form></form>	SHOULD PLACE TEMPORARY OR PERMANENT SEEDING, MULCHING AND/OR MULCH NETTING OR ANY OTHER GENERALLY ACCEPTED METHODS TO PREVENT EROSION, MUD, AND DEBRIS FROM BEING DEPOSITED ON OTHER PROPERTY, ON NEWLY CONSTRUCTED OR EXISTING ROADS, OR	
<text></text>	NTO EXISTING SEWERS OR NEW SEWERS WITHIN THE DEVELOPMENT. THE CONTRACTOR SHOULD CONTINUALLY MONITOR THE CONSTRUCTION PROGRESS AND MAKE ANY NECESSARY TEMPORARY ADJUSTMENTS TO MAINTAIN THIS CONTROL. AFTER THE VEGETATION HAS BECOME WELL ESTABLISHED, TEMPORARY EROSION AND SEDIMENT CONTROLS CAN BE REMOVED.	6900 v Aason,
<form></form>	DISCHARGE FROM DEWATERING OF FLOODED FOOTER OR FOUNDATION AND UTILITY TRENCHES CONTAINING SEDIMENT MUST BE DIRECTED TO A SEDIMENT CONTROL PRACTICE PRIOR TO DISCHARGE FROM THE SITE. A DE-WATERING PLAN SHALL BE DEVELOPED PRIOR TO THE COMMENCEMENT OF ANY PUMPING ACTIVITIES.	2
<form></form>	NON-SEDIMENT POLLUTANT SOURCES, WHICH MAY BE PRESENT ON A CONSTRUCTION SITE, INCLUDE PAVING OPERATIONS, CONCRETE NASHOUT, STRUCTURE PAINTING, STRUCTURE CLEANING, DEMOLITION DEBRIS DISPOSAL, DRILLING AND BLASTING OPERATIONS, MATERIAL STORAGE, SLAG, SOLID WASTE, HAZARDOUS WASTE, CONTAMINATED SOILS, SANITARY AND SEPTIC WASTES, VEHICLE FUELING AND	
STATE CONSTRUCTION WATER QUALITY NOTES The Construction Ruberbauk Construction Representation Representatio Representation Representation Representatio	MAINTENANCE ACTIVITIES, AND LANDSCAPING OPERATIONS. NON-SEDIMENT POLLUTANT SOURCES SHALL NOT BE DISCHARGED TO STORM SEWERS OR NATURAL STREAM/DRAINAGE WAYS. SEE PLAN FOR CONCRETE WASHOUT LOCATION.	
THE CONSERVOIDUEL TO PROPER UNATIONAL OF THE PERFORMENT WATER OUTURING THE OPERATION IN EACH ONE OF THE PERFORMENCE OF THE PERFORMENT WATER OUTURING THE OPERATION IN EACH ONE OF THE PERFORMENCE OF THE PERFORMENT WATER OUTURING THE OPERATION IN EACH ONE OF THE PERFORMENCE OF THE PERFORMENT WATER OUTURING OF THE SYSTEM AGA IN EACH ONE OF THE PERFORMENCE OF THE PERFORMENT WATER OUTURING OF THE SYSTEM AGA INTERCENCE	OST CONSTRUCTION WATER QUALITY NOTES	L/C# 34-2068
EXEGRENC BEDING & MULCHBERM DARMY BAG (OR APPROVED EQUALS INTER PROTECTION ONSTRUCTION ENTRANCE PROPOSED TOP OF PAYEMENT PROPOSED CONTOURS EXISTING SPOT GRADE EXISTING CONTOURS DEMONSERUCTION ENTRANCE PROPOSED CONTOURS EXISTING CONTOURS DEMONSERUCTION ENTRANCE PROPOSED CONTOURS DISTING CONTOR PROTOF TO CONTRINCT OF CONTRUCTION ANY MANDATE TO CONSTINUE OF CONTRUPUTS	THE OWNER IS RESPONSIBLE FOR PROPER MAINTENANCE OF THE PERMANENT WATER QUALITY SYSTEM ON THE SITE PER THE APPROVAL AND WILL COMPLETE ANY NECESSARY REPAIRS AND/OR PREVENTIVE	
LEGENDE SEEUNO & MULCHING SLIT FENCE OR MULCH BERM DANDY BAG (OR APPROVED EQUAL). INLET PROTECTION CONSTRUCTION ENTRANCE FINISHED FLOOR ELEVATION EXISTING SPOT GRADE PROPOSED TOP OF PAVEMENT PROPOSED CONTOURS EXISTING CONTOURS EXISTING CONTOURS Data of the MULCHING INTERCENTION CONSTRUCTION ENTRANCE PROPOSED TOP OF PAVEMENT PROPOSED CONTOURS EXISTING CONTOURS Data of the MULCHING INTERCENTION CONTOURS Controuted INTERCENTION INTERCENTION CONTOURS INTERCENTION INTERCENTION CONTOURS INTERCENTION INTERCENTION<	MAINTENANCE PROCEDURES IN A TIMELY MANNER TO ENSURE PROPER FUNCTIONING OF THE SYSTEM AS A STORM WATER MANAGEMENT DEVICE.	HO
LEGENDE SEEUNO & MULCHING SLIT FENCE OR MULCH BERM DANDY BAG (OR APPROVED EQUAL). INLET PROTECTION CONSTRUCTION ENTRANCE FINISHED FLOOR ELEVATION EXISTING SPOT GRADE PROPOSED TOP OF PAVEMENT PROPOSED CONTOURS EXISTING CONTOURS EXISTING CONTOURS Data of the MULCHING INTERCENTION CONSTRUCTION ENTRANCE PROPOSED TOP OF PAVEMENT PROPOSED CONTOURS EXISTING CONTOURS Data of the MULCHING INTERCENTION CONTOURS Controuted INTERCENTION INTERCENTION CONTOURS INTERCENTION INTERCENTION CONTOURS INTERCENTION INTERCENTION<		۲. ۲
LEGENDE SEEUNO & MULCHING SLIT FENCE OR MULCH BERM DANDY BAG (OR APPROVED EQUAL). INLET PROTECTION CONSTRUCTION ENTRANCE FINISHED FLOOR ELEVATION EXISTING SPOT GRADE PROPOSED TOP OF PAVEMENT PROPOSED CONTOURS EXISTING CONTOURS EXISTING CONTOURS Data of the MULCHING INTERCENTION CONSTRUCTION ENTRANCE PROPOSED TOP OF PAVEMENT PROPOSED CONTOURS EXISTING CONTOURS Data of the MULCHING INTERCENTION CONTOURS Controuted INTERCENTION INTERCENTION CONTOURS INTERCENTION INTERCENTION CONTOURS INTERCENTION INTERCENTION<		
LEGEND SEEDING & MULCHING SLIT FENCE OR MULCH BERM DAMOY EAG (OR APPROVED EQUAL) INLET PROTECTION CONSTRUCTION ENTRANCE FINSHED FLOOR ELEVATION EXISTING SPOT GRADE PROPOSED CONTOURS EXISTING CONTOURS DAMOY WHAT'S DELOW. DAMOY WHAT'S DELOW. CONSTRUCTION ENTRANCE FINSHED FLOOR ELEVATION EXISTING CONTOURS DOB NO. 19-0175 DATE: 12:25/19 SCALE: 1'=20' GRADING TO TONOR DUE THERE OF UTULITIES MUST EN VERTIENDE DY THE CONTRACTOR HINGT TO CONSTRUCTION ANY DAMAGE TO EXPRINE OF UTILITIES MUST EN VERTIENDE DY THE CONTRACTOR HINGT TO CONSTRUCTION ANY DAMAGE TO EXPRINE OF UTILITIES MUST EN VERTIENDE DY THE CONTRACTOR HINGT TO CONSTRUCTION ANY DAMAGE TO EXPRINE OF UTILITIES MUST EN VERTIENDE DY THE CONTRACTOR HINGT TO CONSTRUCTION ANY DAMAGE TO EXPRINE OF UTILITIES MUST EN VERTIENDE DY THE CONTRACTOR HINGT TO CONSTRUCTION ANY DAMAGE TO EXPRINE OF UTILITIES MUST EN VERTIENDE DY THE		
SILT FERCE OR AQUICH BERNAL DANDY BAG (OR APPROVED EQUAL) INLET PROTECTION CONSTRUCTION ENTRANCE FINISHED FLOOR ELEVATION EXISTING SPOT GRADE C PROPOSED CONTOURS PROPOSED CONTOURS Billic of Bading: Stable Place MADDS 2011 D 20 20 20 20 20 20 20 20 20 20	LEGEND	
SILT FERCE OR AQUICH BERNAL DANDY BAG (OR APPROVED EQUAL) INLET PROTECTION CONSTRUCTION ENTRANCE FINISHED FLOOR ELEVATION EXISTING SPOT GRADE C PROPOSED CONTOURS PROPOSED CONTOURS Billic of Bading: Stable Place MADDS 2011 D 20 20 20 20 20 20 20 20 20 20		ARA IRA
INLET PROTECTION CONSTRUCTION ENTRANCE FINISHED FLOOR ELEVATION EXISTING SPOT GRADE C PROPOSED TOP OF PAVEMENT PROPOSED CONTOURS 		
INLET PROTECTION CONSTRUCTION ENTRANCE FINISHED FLOOR ELEVATION EXISTING SPOT GRADE C PROPOSED TOP OF PAVEMENT PROPOSED CONTOURS 	DANDY BAG (OR APPROVED EQUAL)	
CONSTRUCTION ENTRANCE FINISHED FLOOR ELEVATION EXISTING SPOT GRADE PROPOSED TOP OF PAVEMENT PROPOSED CONTOURS EXISTING CON		
PROPOSED CONTOURS EXISTING CONTOURS		
Image: State Plane NADB3 (2011) 0 30 0 20 30		
Image: State Plane NADB3 (2011) 0 30 0 20 30		
Basis of Bearing: State Plane NAD83 (2011) DATE: 12/5/19 0 20 30 CAUTION!!! Actual Locations and Depths of Utilities MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. DATE: 12/5/19		PR RIV VILI
Basis of Bearing: State Plane NAD83 (2011) DATE: 12/5/19 0 20 30 CAUTION!!! Actual Locations and Depths of Utilities MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. DATE: 12/5/19		
Basis of Bearing: State Plane NAD83 (2011) DATE: 12/5/19 0 20 30 CAUTION!!! Actual Locations and Depths of Utilities MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. DATE: 12/5/19	$\mathbf{O}1$	
Basis of Bearing: State Plane NAD83 (2011) DATE: 12/5/19 0 20 30 CAUTION!!! Actual Locations and Depths of Utilities MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. DATE: 12/5/19		
Call before you dig. Scale Plane NAD83 (2011) 0 20 30 0 20 30 0 20 30 0 20 30		JOB NO. 19-0175
Basis of Bearing: State Plane NAD83 (2011) 0 20 30 CAUTION!!! ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.		DATE: 12/5/19
State Plane NAD83 (2011) CAUTION!!! 0 20 30 CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES GRADING PLAN Shall be Repaired by THE CONTRACTOR AT HIS EXPENSE. GRADING PLAN		SCALE: 1"=20'
CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.	State Plane NAD83 (2011)	GRADING PLAN
SCALE: 1" = 20' SHEET: C5.0	CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES	
	SCALE: 1" = 20'	SHEE1: C5.0

PERMANENT SEEDING (1)

Permanent seeding includes the seedbed preparation, seeding, and the establishment of perennial vegetation
used to permanently stabilize soil, prevent sediment pollution, reduce runoff by promoting infiltration, and provide
storm water quality benefits offered by dense vegetation.
CONDITIONS WHERE PRACTICE APPLIES

- Permanent seeding should be applied to:
 - Areas or portions of construction-sites which can be brought to final grade. Applications of permanent seeding should not be delayed while construction on limited portions of the site being completed
- Areas on that will be regraded, but will be dormant for a year or more.
- PLANNING CONSIDERATIONS

Healthy dense turf will have a dramatic long lasting effect on stormwater quality as well as promoting infiltration and reducing the amount of runoff. To establish quality vegetation, careful preparation of the seedbed, soil, even subsoil is highly encouraged.

- <u>Soil Compaction</u>--Stormwater quality and the amount of runoff both vary significantly with soil compaction. Non-compacted soils improve stormwater by promoting: dense vegetation.
- high infiltration & lower runoff rates. pollutant filtration, deposition & absorption, and beneficial biologic activity in the soil.
- Construction activity can cause highly compacted soils but also offers the opportunity to improve soil condition. The best time for improving soil condition is during the establishment of permanent vegetation. It is highly recommended that subsoilers, plows or others implements be specified as part of final seedbed preparation. Use discretion in slip-prone areas.
- Minimum Soil Conditions--Vegetation cannot be expected to stabilize soil that is unstable due to its texture, structure, water movement or excessively steep slope. The following minimum soil conditions are needed for the establishment and maintenance of a long-lived vegetation cover. If these conditions cannot be met,
- see the Standards and Specifications for Resoiling. Soils must include enough fine-grained material to hold at least a moderate amount of available moisture. The soil must be free from material that is toxic or otherwise harmful to plant growth

Perman	ent Seeding			
Seedin	g Rate		Notes:	
lb./ac.	lb./1,000 ft.	2	Notes.	
Gene	ral Use			
20-40 10-20 10-20	1/2-1 1/4-1/2 1/4-1/2			
40	1			
40	1			
Steep Banks	or Cut Slopes	\$		
40	1			
10 20	1/4 1/2		Do not seed later than August	
20 20	1/2 1/2		Do not seed later than August	
Road Ditc	hes and Swale	es		
40	1			
90 5	2 1/4			
L	awns			
60 60	1 1/2 1 1/2			
60 60	1 1/2 1 1/2		For shaded areas	
	Seedin Ib./ac. Gene 20-40 10-20 10-20 40 40 20 Constant 60 60 60 60	General Use 20-40 1/2-1 10-20 1/4-1/2 40 1 40 1 40 1 5 Cut Slopes 40 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 Co 1 90 2 5 2 1/2 60 1 1/2 60 1 1/2 60	Seeding Rate Ib./ac. Ib./1,000 ft. 2 General Use 20-40 1/2-1 1/2-1 1/2-1 1/2-1 1/2-1 1/2-1 1/2-1 1/2-1 1/2-1 1/2-1 1/2-1 1/2-1 1/2 40 1 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 20 1/2 2 1/2 2 1/2 2 1/2 2 1/2 2 1/2 <th 2"2"2"2"2"2"2"2"2"2"2"2"2"2"2"2"2"2<="" colspa="2" td=""></th>	

ertilization and Mowi	-		lb./1,000	Time	Mowing
Mixture	Formula	lb./ac.	sq. ft.	Time	Mowing
Creeping Red Fescue Ryegrass Kentucky Bluegrass	10-10-10	500	12		Not closer than 3"
Tall Fescue	10-10-10	500	12	Fall, yearly or as needed	Not closer than 4"
Dwarf Fescue	10-10-10	500	12		Not closer than 2"
Crown Vetch Fescue	0-20-20	400	10	Spring, yearly following establishment	Do not mow
Flat Pea Fescue	0-20-20	400	10	and every 4-7 yrs. thereafter	Do not mow

Note: Following soil test recommendations is preferred to fertilizer rates shown above.

	SITE	PREPARATION
	1.	A subsoiler, plow or other implement shall be used to reduce soil compaction and allow maximum infiltration. (Maximizing infiltration will help control both runoff rate and water quality.) Subsoiling should be done when the soil moisture is low enough to allow the soil to crack or fracture. Subsoiling shall not be done on slip-prone areas where soil preparation should be limited to what is necessary for establishing vegetation.
	2.	The site shall be graded as needed to permit the use of conventional equipment for seedbed preparation and seeding.
	3.	Resoil shall be applied where needed to establish vegetation.
	SEE	DBED PREPARATION
、	1.	LimeAgricultural group limestone shall be applied to acid soil as recommended by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 lb./1,000 sq. ft. or 2 tons/ac.
	2.	<u>Fertilizer</u> Fertilizer shall be applied as recommended by a soil test. In lieu of a soil test, fertilizer shall be applied at a rate of 12 lb./1,000 sq. ft. or 500 lb./ac. of 10-10-10- or 12-12-12 analysis.
) ,	3.	The lime and fertilizer shall be worked into the soil with a disk harrow, spring-tooth harrow, or other suitable field implement to a depth of 3 in. On sloping land the soil shall be worked on the contour.
,	SEE	DING DATES AND SOIL CONDITIONS
		Seeding should be done March 1 to May 31 or August 1 to September 30. These seeding dates are ideal but, with the use of additional mulch and irrigation, seedings may be made any time throughout the growing season. Tillage/seedbed preparation should be done when the soil is dry enough to crumble and not form ribbons when compressed by hand. For winter seeding, see the following section on dormant seeding.
	MUL	CHING
	1.	Mulch material shall be applied immediately after seeding. Seedings made during optimum seeding dates and with favorable soil conditions and on very flat areas may not need mulch to achieve adequate stabilization. Dormant seeding shall be mulched.
	2.	Materials
	*	StrawIf straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons/ac. or 90 lb./1,000 sq. (two to three bales). The mulch shall be spread uniformly by hand or mechanically so the soil surface is covere. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 sq. ft. sections and spread two 45-lb. bales of straw in each section.
-	*	HydroseedersIf wood cellulose fiber is used, it shall be used at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
	*	OtherOther acceptable mulches include mulch mattings applied according to manufacturer's recommendation or wood chips applied at 6 tons/ac.
	3.	Straw Mulch Anchoring Methods
, ,		Straw mulch shall be anchored immediately to minimize loss by wind or water.
	*	MechanicalA disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into

the soil. Straw mechanically anchored shall not be finely chopped by, generally, be left longer than 6 in.

PERMANENT SEEDING { 1 }

MAINTENANCE

- Permanent seeding shall not be considered established for at least 1 full yr. from the time of planting. Seeded areas shall be inspected for failure and vegetation conditions, it may be necessary to irrigate, fertilize, overseed, or reestablish plantings in order to provider permanent vegetation for adequate erosion control.
- 2. Maintenance fertilization rates shall be established by soil test recommendations or by using the rates shown in the following table.
- DORMANT SEEDINGS
- 1. Seeding shall not be planted from October 1 through November 20. During this period the seeds are likely to germinate but probably will not be able to survive the winter.
- 2. The following methods may be used for "Dormant Seeding":
- * From October 1 through November 20, prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After November 20, and before March 15, broadcast the selected seed mixture. Increase the seeding rates by 50% for this type of seeding.
- * From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilize, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding
- Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder, or hydro-seeder (slurry may include seed and fertilizer) on a firm, moist seedbed.
- * Where feasible, except when a cultipacker type seeder is used, the seedbed should be firmed following seeding operations with a cultipacker, roller, or light drag. On sloping land, seeding operations should be on the contour where feasible
- Mulch Nettings--Nettings shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of
- concentrated runoff and on critical slopes. Asphalt Emulsion--Asphalt shall be applied as recommended by the manufacturer or at the rate of 160 gal./ac
- Synthetic Binders--Synthetic binders such as Acrylic DLR (Agri-Tac), DAC-70. Petroset, Terra Tack or equal may be used at rates recommended by the manufacture
- * Wood Cellulose Fiber--Wood cellulose fiber binder shall be applied at a net dry weight of 750 lb./ac. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal. of wood cellulose fiber.
- IRRIGATION
- 1. Permanent seeding shall include irrigation to establish vegetation during dry or hot weather or on adverse site conditions as needed for adequate moisture for seed permination and plant growth
- 2. Excessive irrigation rates shall be avoided and irrigation monitored to prevent erosion and damage from runoff.

TEMPORARY SEEDING	$\left\{ 1 \right\}$

Temporary seeding provides erosion control on areas in between construction operations. Grasses which are quick growing are seeded and usually mulched to provide prompt, temporary soil stabilization. It effectively minimizes the area of a construction-site prone to erosion and should be used everywhere the sequence of construction operations allows vegetation to be established.

CONDITIONS WHERE PRACTICE APPLIES

Temporary seeding should be applied on exposed soil where additional work (grading,etc.) is not scheduled for more than 21 days. Permanent seeding should be applied if the areas will be idle for more than a year.

PLANNING CONSIDERATIONS

This practice has the potential to drastically reduce the amount of sediment eroded from a construction-site. Control efficiencies greater than 90% will be achieved with proper applications of temporary seeding. Because practices used to trap sediment are usually much less effective, temporary seeding is to be used even on areas where runoff is treated by sediment trapping practices. Because temporary seeding is highly effective and practical on construction-sites, its liberal use is highly recommended

Seeding Dates	Species	Lb./1,000 ft. ²	Per Acre
March 1 to August 15	Oats	3	4 bushel
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
	Perennial Ryegrass	1	40 lb.
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
August 16 to November 1	Rye	3	2 bushel
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
	Wheat	3	2 bushel
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
	Perennial Ryegrass	1	40 lb.
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
November 1 to Spring Seeding	Use mulch only, sodd	ing practices or dormant	seeding.

Note: Other approved seed species may be substituted.

- Structural erosion- and sediment-control practices such as diversions and sediment traps shall be installed and stabilized with temporary seeding prior to grading the rest of the construction-site.
- Temporary seed shall be applied between construction operations on soil that will not be graded or reworked for 21 days or more. These idle areas should be seeded as soon as possible after grading or shall be seeded within 7 days. Several applications of temporary seeing are necessary on typical construction projects.
- The seedbed should be pulverized and loose to ensure the success of establishing vegetation However, temporary seeding shall not be postponed if ideal seedbed preparation is not possible
- Soil Amendments--Applications of temporary vegetation shall establish adequate stands of vegetation which may require the use of soil amendments. Soil tests should be taken on the site to predict the need for lime and fertilizer.
- Seeding Method--Seed shall be applied uniformly with a cyclone seeder, drill cultipacker seeder, or hydroseeder. When feasible, seed that has been broadcast shall be covered by raking or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used, the seed and fertilizer will be mixed on-site and the seeding shall be done immediately and without interruption.

MULCHING TEMPORARY SEEDING

Applications of temporary seeding shall include mulch which shall be applied during or immediately after seeding. Seedings made during optimum seeding dates and with favorable soil conditions and on very flat areas may not need mulch to achieve adequate stabilization. 2. Materials

- * Straw--If straw is used, it shall be unrotted small-grain straw applied at the rate of 2 tons/ac. or 90 lb./1,000 sq. ft. (two to three bales). The mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000-sq.-ft. sections and spread two 45-lb. bales of straw in each section
- *Hydroseeders--If wood cellulose fiber is used, it shall be used at 2,000 lb/ac. or 46 lb./1.000 sa. ft.
- * Other--Other acceptance mulches include mulch mattings applied according to manufacturer's recommendations or wood chips applied at 6 tons/ac
- 3. Straw mulch shall be anchored immediately to minimize loss by wind or water. Anchoring Methods:
 - *Mechanical--A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 in.
 - *Mulch Nettings--Nettings shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentration runoff and on critical slopes.
 - * Asphalt Emulsion--Asphalt shall be applied as recommended by the manufacturer or at the rate of 160 gal./ac.
 - * Synthetic Binders--Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equal may be used at rates recommended by the manufacturer
 - * Wood-Cellulose Fiber--Wood-cellulose fiber binder shall be applied at a net dry weight of 750 lb./ac. The wood-cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal.

INSTALLATION

(5) SILT FENCE

2. INSTALL ON DOWNSLOPE SIDE(S) OF SITE WITH ENDS EXTENDED UP SIDESLOPES A SHORT DISTANCE.

- 3. PLACE PARALLEL TO THE CONTOUR OF THE LAND AND AT THE FLATTEST AREA AVAILABLE TO ALLOW
- WATER TO POND BEHIND FENCE.
- 4. STAKE TO BE A MINIMUM OF 32 INCHES LONG

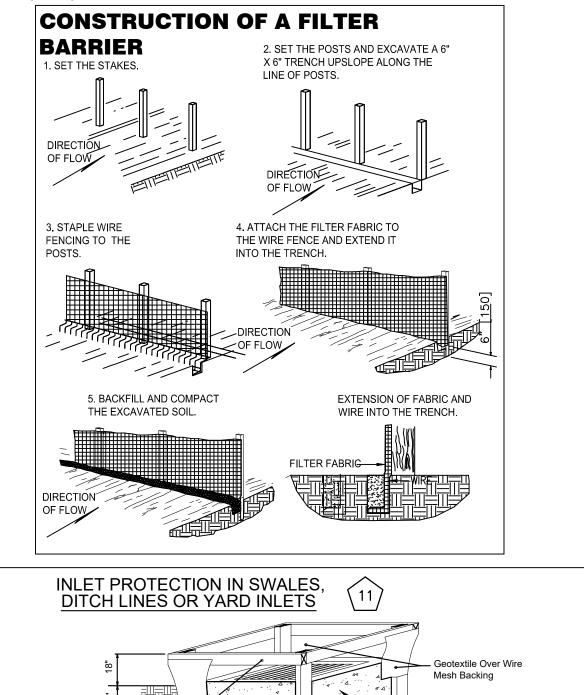
1. PUT UP BEFORE ANY OTHER WORK IS DONE.

- 5. MINIMUM HEIGHT SILT FENCE 16 INCHES ABOVE ORIGINAL GROUND SURFACE
- 6. LEAVE NO GAPS BETWEEN SECTIONS OF SILT FENCE INSPECT AND REPAIR ONCE A WEEK AND AFTER EVERY 1/2 INCH RAIN. REMOVE SEDIMENT IF DEPOSITS REACH HALF THE FENCE HEIGHT.
- 7. MAXIMUM DISTANCE FROM TOE OF THE SLOPE, LEAVING AT LEAST 5' DISTANCE.
- 8. STAKE ON DOWNHILL SIDE OF GEOTEXTILE WITH 8" OF CLOTH CLOTH BELOW THE GROUND SURFACE; EXCESS MATERIAL TO LAY ON THE BOTTOM OF 6" TRENCH
- 9. ODOT TYPE "C" GEOTEXTILE FABRIC OR EQUAL
- 10. MAINTAIN UNTIL A LAWN IS ESTABLISHED.

MATERIALS: FILTER FABRIC SHALL MEET THE REQUIREMENTS OF CMS 712.09, TYPE C. SUPPORT STAKES SHALL BE A MINIMUM OF 1.5"X1.5" [38X38], NOMINAL, AND SHALL BE HARDWOOD OF SOUND QUALITY. THE STAKES SHALL BE DRIVEN A MINIMUM OF 6" [150] BELOW THE BOTTOM OF THE FILTER FABRIC. THE MAXIMUM SPACING BETWEEN SUPPORT STAKES SHALL BE 10' [3 M].

CONSTRUCTION: THE BOTTOM OF THE FABRIC SHALL BE BURIED 6" [150] BELOW THE GROUND. THE ENDS OF ADJACENT SECTIONS OF FENCE SHALL BE OVERLAPPED WITH THE END STAKE OF EACH SECTION WRAPPED TOGETHER PRIOR TO INSTALLATION. THE GROUND ELEVATION OF THE FENCE SHALL BE HELD CONSTANT EXCEPT THAT THE END ELEVATIONS SHALL BE RAISED UPSLOPE TO PREVENT FLOW AROUND THE END OF THE FENCE. MAINTENANCE: THE FILTER FABRIC FENCE SHALL BE MAINTAINED TO BE FUNCTIONAL. THIS SHALL INCLUDE REMOVAL OF TRAPPED SEDIMENT AND REQUIRED CLEANING, REPAIR, AND REPLACEMENT OF THE FILTER FABRIC. THE MAINTENANCE OR REPLACEMENT COST WILL BE PAID FOR BY THE DEPARTMENT UNDER UNIT BID PRICES, AGREED UNIT PRICES, OR CMS 109.04.

PAYMENT: THE COST OF ALL MATERIALS, CONSTRUCTION AND REMOVAL SHALL BE PAID FOR UNDER ITEM 207 -TEMPORARY PERIMETER FILTER FABRIC FENCE OR TEMPORARY DITCH CHECK FILTER FABRIC FENCE, LINEAR FOOT [METER].



- Inlet protection shall be constructed either before upslope land disturbance begins or before the storm drain becomes
- operationa
- The earth around the inlet shall be excavated completely to the depth at least 18in.
- The wooden frame shall be constructed of 2-by-4-in, construction grade lumber. The 2-by-4-in, posts shall be driven 1 ft, into the ground at four corners of the inlet and the top portion of 2-by-4-in. frame assembled using the overlap joint shown. The top of the frame shall be at least 6 in. below adjacent roads if ponded water would pose a safety hazard to traffic.

ompact Backfil

- Wire mesh shall be of sufficient strength to support fabric with water fully impounded against it. It shall be stretched tightly around the frame and fastened securely to the frame.
- Geotextile shall have an equivalent opening size of 20-40 sieve and be resistant to sunlight. It shall be stretched tightly around the frame and fastened securely. It shall extend from the top of the frame to 18 in, below the inlet notch elevation. The geotextile shall overlap across one side of the inlet so the ends of the cloth are not fastened to the same post.
- Backfill shall be placed around the inlet in compacted 6-in. layers until the earth is even with notch elevation on ends and top elevation on sides
- A compacted earth dike or a check dam shall be constructed in the ditch line below the inlet if the inlet is not in a depression and if runoff bypassing the inlet will not flow to a setting pond. The top of earth dikes shall be at least 6 in. higher than the top

Erosion Prevention and Sediment Control Site Ir

Introduction: By using some simple Best Management Practices (BMP' contractors can do their share to protect water resources from the harmful e

The topography of the site and the extent of the construction activities will de these practices are applicable to any given site, but the BMP's listed here are construction sites. For details on the installation and maintenance of these the approved plans and or the Rainwater and Land Development, Ohio's Water Management, Land Development and Urban Stream Protection (OD

Temporary Stabilization is the most effective BMP. All disturbed areas dormant for 14 days or more must be stabilized within 7 days of the date the inactive. The goal of temporary stabilization is to provide cover quickly. Area stream must be stabilized within 2 days of reaching final grade. This is account with fast-growing grasses, then covering with straw mulch. See the Rainwar Development Manual for seasonally adjusted seeding specifications. To min temporary stabilization, leave natural cover in place for as long as possible areas worked within the next 14 days.

Construction Entrances are installed to minimize off-site tracking of se stone access drive underlain with woven geotextile shall be installed at ever vehicles enter or exit the site. Every individual lot should also have its own construction on the lot begins. Maintenance is performed by top dressing with sweeping.

Sediment Basins/Traps are the sediment control of choice for areas, w design capacity of silt fence (see page 119 of the Rainwater manual) or to o flows or runoff. There are two types: sediment basins and sediment traps. where the contributing drainage area is 10 acres or less. The outlet is an ea with a simple stone spillway underlain with woven geotextile. A sediment bas drainage areas larger than 10 acres. The outlet is an engineered riser pipe. storm water management pond, such as a retention or detention basin, car as a sediment basin during construction. All sediment ponds, regardless of trap or a basin, or whether they will become a permanent storm water pond, minimum storage of 67 cubic yards per acre of total contributing drainage an must be installed prior to mass clearing and grading. Maintenance must be basin loses 40% of capacity, and 30% for storm water basins retrofitted as

Silt Fence or Mulch Berms are typically used at the perimeter of a distu only for small drainage areas on relatively flat slopes or around small soil st suitable where runoff is concentrated in a ditch, pipes or though streams. F areas where flow is concentrated, collect runoff in diversion berms or channel through a sediment pond prior to discharging it from the site. Combination b silt fence supported by welded wire fencing, mulch berms supported by rock fence embedded within rock check dams may be effective within small chan sediment controls, silt fence or mulch berms must be capable of ponding ru can settle out of suspension. These must be installed within 7 days of first g controls. Whenever practical they should be installed before clearing or grub controls.

Inlet Protection must be installed on all yard drains and curb drains wh not drain to a sediment trap or basin. Even if there is a sediment trap or bas still recommended, as it will reduce the amount of sediment entering the bas overall sediment removal efficiency. Best used on roads with little or no traffi properly, inlet protection will cause water to pond. If used on curb inlets, stre temporarily during heavy storms, (overflow should be built-in.) Check with the jurisdiction over the roads before installing. They may prefer an alternate BN taken when placing inlet protection so that the runoff is not diverted to public where it could cause a hazard.

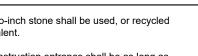
Permanent Stabilization must occur on areas at final grade within 7 day grade. This is usually accomplished by using seed and mulch, but special r sometimes required. This is particularly true in drainage ditches or on steep measures include the addition of topsoil, erosion control matting, rock ripra See the Rainwater and Land Development Manual for seasonally adjusted specifications. At all times of the year, the area should be temporarily stabil permanent seeding can be applied.

Inspections shall be performed at least once a week and within 24 hours after a storm event greater than 1/2 inch of rainfall within a 24-hour duration using the enclosed Inspection Form. Inspections can be tracked using the enclosed Inspection Log. These shall be maintained throughout the development process and kept on file for three years per OEPA requirements. Erosion prevention and sediment control (EP&SC) measures shall be observed to ensure correct operation. Discharge locations shall be inspected to determine effectiveness of EP&SC measures in preventing significant impacts to the receiving waters. Where practices require repair or maintenance, it must be accomplished within three days of the inspection or as soon as site conditions allow. Repairs to sediment ponds shall be completed within 10 days or as soon as site conditions allow. Most of these BMP's are easy to implement with a little bit of planning and go a long way toward keeping your site clean and organized if they are properly installed and maintained. Please be sure to inform all parties on site how these BMPs affect their operations on the site, particularly those that will be working near a stream.

of the frame. DANDY BAGS DETAIL	8	
DANDY BAG® STORM SEWER GRATE LIFT STRAPS USED FOR EASY MOVEMENT AND INSPECTION OF UNIT STORM SEWER GRATE DANDY BAG® DANDY BAG® DANDY BAG® DANDY BAG®	DANDY BAG® SPECIFICATIONS NOTE: THE DANDY BAG® WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS: HI-FLOW DANDY BAG® (SAFETY ORANGE) Mechanical Properties Test Method Units MARV Grab Tensile Strength ASTM D 4632 N. (Ibs) One Strength ASTM D 4632 Mark ASTM D 4632 Puncture Strength ASTM D 4632 Multen Burst Strength ASTM D 4533 Mr (US Std Sieve) O.425 (40) Flow Rate ASTM D 4491 Sec ⁻¹ *Note: All Dandy Bags® can be ordered with our optional oil absorbent pillows	 Stone SizeTwo-inch stone shall be used, or recycled concrete equivalent. LengthThe construction entrance shall be as long as required to stabilize high traffic areas but not less than 50 ft. (except on single residence lot where a 30-ft. minimum length applies). ThicknessThe stone layer shall be at least 6 in. thick. WidthThe entrance shall be at least 10 ft. wide, but not less than the full width at points where ingress or egress occurs. BeddingA geotextile shall be placed over the entire area prior to placing stone. It shall have a Grab Tensile Streng of at least 200 lb. and a Mullen Burst Strength of at least 190 lb. CulvertA pipe or culvert shall be constructed under the entrance if needed to prevent surface water flowing across the entrance from being directed out onto paved surfaces
DETAIL OF INLET SEDIMENT CONTROL DEVICE PROJECT: CITY/STATE: DATE: DR. BY: DR. NO:	Detail Provided By: Site Supply Inc. 33 Glendale-Milford Road Loveland, OH 45140 Phone: (513) 248-1498 Fax: (513) 248-4584 cbrowning@sitefabric.com http://www.sitefabric.com	 Water BarA water bar shall be constructed as part of the construction entrance if needed to prevent surface runoff from flowing the length of the construction entrance and out onto paved surfaces. MaintenanceTop dressing of additional stone shall be applied as conditions demand. Mud spilled, dropped, washed or tracked onto public roads, or any surfaces where runoff is not checked by sediment controls, shall b removed immediately. Removal shall be accomplished b scraping or sweeping. Construction entrances shall not be relied upon to remove mud fro vehicles and prevent off-site tracking. Vehicles that enter and leave the construction-site shall be restrict from muddy areas.

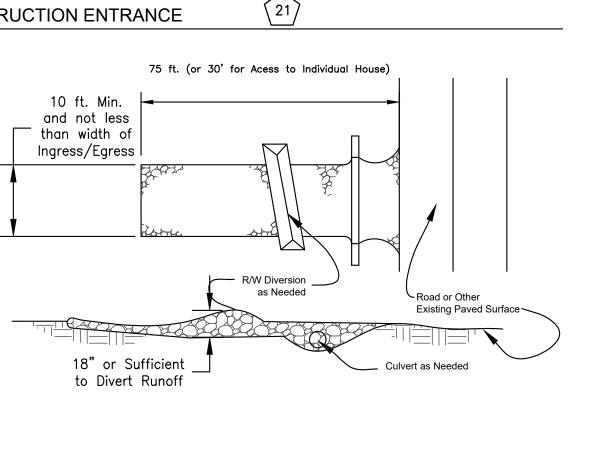
nspection Form	Eros	ion Preven	tion and Sediment Control Site Inspection Form	BΥ		
IP's) developers and I effects of sediment. I determine which of are applicable to most e BMP's, please refer to s Standards for Storm <i>ODNR, 1996</i>). Pas that will lie the area becomes reas within 50 feet of a complished by seeding	Overall Constr Is the e (Check Action I Sedime	al: t of rainfall since site conditions: uction Entrance ntrance installed for mud in stone Needed: 	l correctly according to the approved plan? YES NO N/A es/street, runoff diverted from street, etc)	DESCRIPTION		
vater and Land minimize your costs of e by only disturbing	(Check fence/fi	for runoff directe	ed to basin, down slope areas stabilized, riser pipe wrapped with wire gency overflow, accumulated sediment more than 40% of volume, etc)	-		
sediments. A rough very point where n drive once with stone and/or street	Are all YES N accumu	IO N/A (Check ⁺ ulated, broken st		DATE		
which exceed the o control concentrated s. A trap is appropriate earthen embankment	Are all Check t	for runoff pondin	installed correctly according to the approved plan? YES NO N/A g, in good shape, silt accumulated, etc)	REV		
basin is appropriate for be. Often a permanent can be retrofitted to act of whether they are a nd, must provide a area. Sediment ponds be performed once the s sediment basins. sturbed area. They are	Tempo Are all mulch? Are all Perma	orary Stabilizatio disturbed areas (stockpiles, hills areas stabilized nent Stabilizatio	on: that will lie dormant for 14 days or more stabilized with seed/straw or sides, etc) YES NO N/A still in good condition and not eroding? YES NO N/A	-		
storage piles; not For large drainage nnels and pass it barriers constructed of ock check dams, or silt annels. As with all runoff so that sediment t grubbing the area it rubbing the area it	Do all s Stream Are the (Check	torm water outflo Crossing: Stream Crossin for stabilized ed	by areas have riprap or concrete to prevent scouring? YES NO N/A gs installed correctly according to the approved plan? YES NO N/A ges, runoff diverted from stream, mud over stones, end of useful life, etc)	_	er	336.6600
when these inlets do basin, inlet protection is basin and increase the affic. If working treets will flood the authority that has BMP. Care should be blic roads or other areas days of reaching final measures are	The s	If you answered above, ar site shall be insp ual precipitation,	ntion and Sediment Control Site Inspection Form "no" to any of the above questions, note any corrective action needed and note on the Inspection Log when the action was completed. Inspection Log ected before and after storm events with 0.5 inches or greater predicted or and documented on the Construction Site Inspection Form. Incidents of the reported to the Engineer. A log of all inspections, as shown below, shall be kept current.	-		baon, OH 45040 - 513. Mason, OH 45040 - 513.
ep slopes. These ap or retaining walls. d seeding	Date:	Inspector:	Actions Performed/Date:		_/C# 34-2068	
bilized until a						НО

CONSTRUCTION ENTRANCE

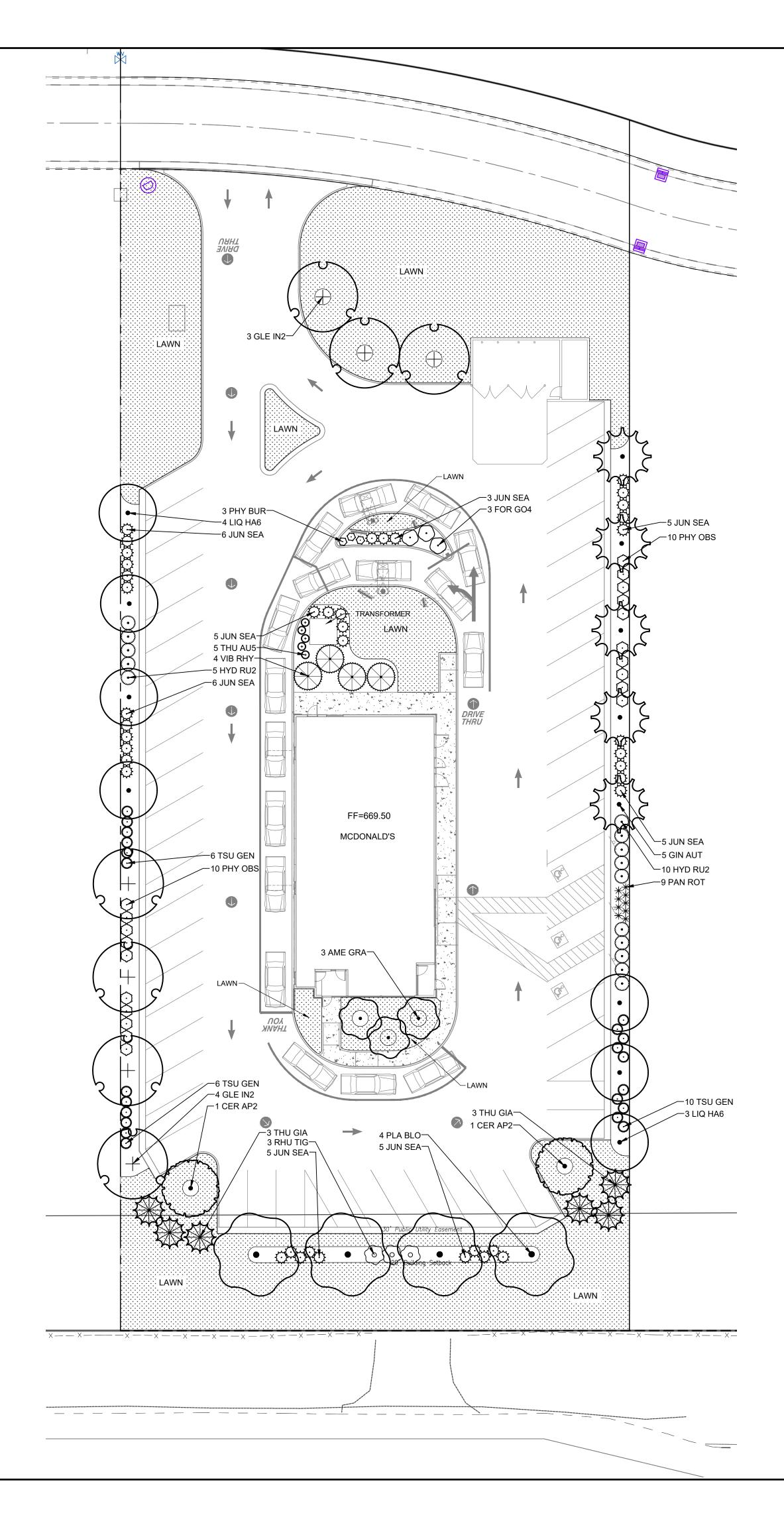


or culvert shall be constructed under the led to prevent surface water flowing across m being directed out onto paved surfaces. ater bar shall be constructed as part of the rance if needed to prevent surface runoff length of the construction entrance and

trances shall not be relied upon to remove and prevent off-site tracking. Vehicles eave the construction-site shall be restricted



L/C# 34-2068	
THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF MEDINALIDATION AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.	PROPOSED McDONALD'S RESTAURANT AT: RIVERS CROSSING WEST VILLAGE OF SOUTH LEBANON, WARREN COUNTY, OH
JOB NO. 19-0	175
DATE: 12/5/19)
SCALE: 1"=20'	
EROSION	DETAILS
SHEET	Г: C5.1



ZONING CALCULATIONS

REQUIRED PARKING LOT SCREENING (SECTION 15.17.5) ALL PARKING LOTS WITH FIVE (5) OR MORE PARKING SPACES, INCLUDING VEHICULAR SALES LOTS,

- THAT FACE ANY PROPERTY IN ANY ZONE OR ANY PUBLIC OR PRIVATE STREET RIGHT-OF-WAY OR ACCESS ROAD OR SERVICE ROAD SHALL PROVIDE A LANDSCAPE SCREEN AS FOLLOWS:
 - 1. THE BUFFER WIDTH SHALL BE A MINIMUM OF 10' WIDE
 - 2. A 30" HIGH CONTINUOUS SCREEN CONSISTING OF AN EARTH MOUND, PLANTING, HEDGE OR DECORATIVE WALL OR ANY COMBINATION THEREOF, SHALL BE PROVIDED. 3. ONE DECIDUOUS TREE SHALL BE REQUIRED FOR EVERY 30 LF OF THE REQUIRED
 - BUFFER ZONE 4. THE PLANNING COMMISSION MAY MODIFY OR WAIVE THE PARKING LOT PERIMETER LANDSCAPING REQUIREMENTS IF THE PROVIDED BUFFER STRIP LANDSCAPING ADJACENT TO RIGHTS-OF-WAY AND BETWEEN LAND USES ADEQUATELY SCREENS THE PARKING LOT FROM VIEW FROM ADJACENT PROPERTIES AND ROADS

SOUTH BUFFER 109.5 LF / 30 = 4 DECIDUOUS TREES

EAST BUFFER

232.62 LF / 30 = 8 DECIDUOUS TREES

WEST BUFFER 216.5 LF / 30 = 8 DECIDUOUS TREES

ON-SITE LANDSCAPING (SECTION 15.17.9)

FOR EVERY NEW NON-RESIDENTIAL DEVELOPMENT, THERE SHALL BE INTERIOR LANDSCAPING AREAS EXCLUSIVE OF ANY OTHER REQUIRED LANDSCAPING CONSISTING OF AT LEAST 5% OF THE TOTAL LOT AREA. THIS LANDSCAPED AREA SHOULD BE GROUPED NEAR BUILDING ENTRANCES, ALONG BUILDING FOUNDATIONS, ALONG PEDESTRIAN WALKWAYS, AND ALONG SERVICE AREAS. ALL INTERIOR LANDSCAPING SHALL CONFORM TO THE FOLLOWING:

- 1. ONE DECIDUOUS TREE OR ORNAMENTAL TREE OR EVERGREEN TREE SHALL BE
- PROVIDED FOR EVERY 400 SF OF REQUIRED INTERIOR LANDSCAPING AREA 2. ONE SHRUB SHALL BE PROVIDED FOR EVERY 250 SF OF REQUIRED LANDSCAPING
- AREA 3. THE INTERIOR LANDSCAPING AREA SHALL CONTAIN GRASS, GROUND COVER, 4" DEEP SHREDDED BARK MULCH, AND SHALL BE CURVED OR EDGED AS NECESSARY

TOTAL LOT AREA = 63,515 SF

63,515 SF / 5% = 3,175.75 SF OF REQUIRED LANDSCAPING AREA

3,175.75 / 400 SF = 8 REQUIRED TREES 3,175.75 / 250 SF = 13 REQUIRED SHRUBS

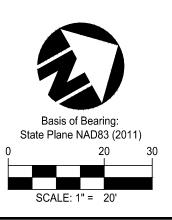
INTERIOR PARKING LOT LANDSCAPING (SECTION 15.17.10) WITHIN EVERY PARKING AREA CONTAINING AT LEAST 5 PARKING SPACES, AT LEAST 5% OF THE TOTAL PARKING LOT AREA SHALL BE LANDSCAPED, IN ADDITION TO ANY OTHER LANDSCAPING REQUIREMENTS. THIS LANDSCAPING SHALL MEET THE FOLLOWING STANDARDS:

- 1. ONE DECIDUOUS TREE SHALL BE PLANTED FOR EVERY 300 SF OF REQUIRED INTERIOR PARKING LOT LANDSCAPING AREA
- 2. LANDSCAPING SHALL BE DISPERSED THROUGHOUT THE PARKING LOT IN ORDER TO BREAK UP LARGE EXPANSES OF PAVEMENT AND HELP DIRECT SMOOTH TRAFFIC FLOW WITHIN THE LIGHT. A MINIMUM OF 1 TREE SHALL BE PLANTED AND INCLUDED IN EACH LANDSCAPING ISLAND OR REQUIRED LANDSCAPING AREA PURSUANT TO THE CALCULATIONS OF THIS SECTION.
- 3. LANDSCAPING SHALL BE INSTALLED SUCH THAT WHEN MATURE, IT DOES NOT OBSCURE TRAFFIC SIGNS OR LIGHT, OBSTRUCT ACCESS TO FIRE HYDRANTS NOR INTERFERE WITH ADEQUATE MOTORIST SIGHT DISTANCE.
- 4. ALL LANDSCAPE ISLANDS SHALL BE CURBED. DIMENSIONS OF ISLANDS SHALL BE SHOWN ON THE SITE PLAN. MINIMUM ISLAND WIDTH SHALL BE 10'; MINIMUM RADII SHALL BE 10' AT ENDS FACING MAIN AISLES AND A MINIMUM 1' FOR RADII NOT ADJACENT TO MAIN CIRCULATION AISLES. THE LENGTH OF THE ISLANDS SHALL BE 2' SHORTER THAN ADJACENT PARKING SPACE TO IMPROVE MANEUVERING

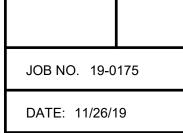
VUA = 31,618 SF 31,618 SF / 5% = 1,580.9 SF OF REQUIRED LANDSCAPING AREA

1,580.9 / 300 SF = 6 REQUIRED TREES

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	TYPE	MIN. SIZE
GIN AUT	5	Ginkgo biloba `Autumn Gold` TM	Maidenhair Tree	B&B	2.0" Cal
GLE IN2	7	Gleditsia triacanthos inermis `Sunburst`	Sunburst Common Honeylocust	B&B	2.0" Cal
_IQ HA6	7	Liquidambar styraciflua `Happdell`	Happidaze Sweet Gum	B&B	2.0" Cal
PLA BLO	4	Platanus x acerifolia `Bloodgood`	London Plane Tree	B & B	2.0" Cal
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	TYPE	MIN. SIZE
THU GIA	6	Thuja plicata `Green Giant`	Western Red Cedar	B&B	6` Ht.
			1		
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	TYPE	MIN. SIZE
AME GRA	3	Amelanchier x grandiflora `Autumn Brilliance`	Autumn Brilliance Serviceberry Tree Form	B & B	2.0" Cal
CER AP2	2	Cercis canadensis `Appalachian Red`	Appalachian Red Eastern Redbud	B & B	2.0" Cal
DECIDUOUS SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT
FOR GO4	3	Forsythia x `Gold Tides`	Golden Tide Forsythia	3 gal	15" Ht.
HYD RU2	15	Hydrangea quercifolia `Ruby Slippers`	Ruby Slippers Hydrangea	5 gal	24" Ht.
PHY BUR	3	Physocarpus opulifolius `Burgundy Candy`	Burgundy Candy Ninebark	3 gal	15" Ht.
PHY OBS	20	Physocarpus opulifolius `Obsidian`	Obsidian Ninebark	3 gal	24" Ht.
RHU TIG	3	Rhus typhina `Tiger Eyes`	Tiger Eyes Sumac	B & B	36" Ht.
EVERGREEN SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT
JUN SEA	40	Juniperus chinensis `Sea Green`	Sea Green Juniper	B&B	30" Ht.
THU AU5	5	Thuja occidentalis `Aurea`	Golden Globe Arborvitae	B&B	18" Ht.
TSU GEN	22	Tsuga canadensis `Gentsh White`	Gentsh White Hemlock	B & B	18" Ht.
VIB RHY	4	Viburnum x rhytidophylloides `Alleghany`	Alleghany Viburnum	B & B	36" Ht.
ORNAMENTAL GRASSES	QTY	BOTANICAL NAME		SIZE	HEIGHT







SCALE: 1"=20'



SHEET: L1.0

CAUTION!!!

ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.





 \cap

C C

WARREN

NON

PR RIV VIL

 \checkmark

S Ш

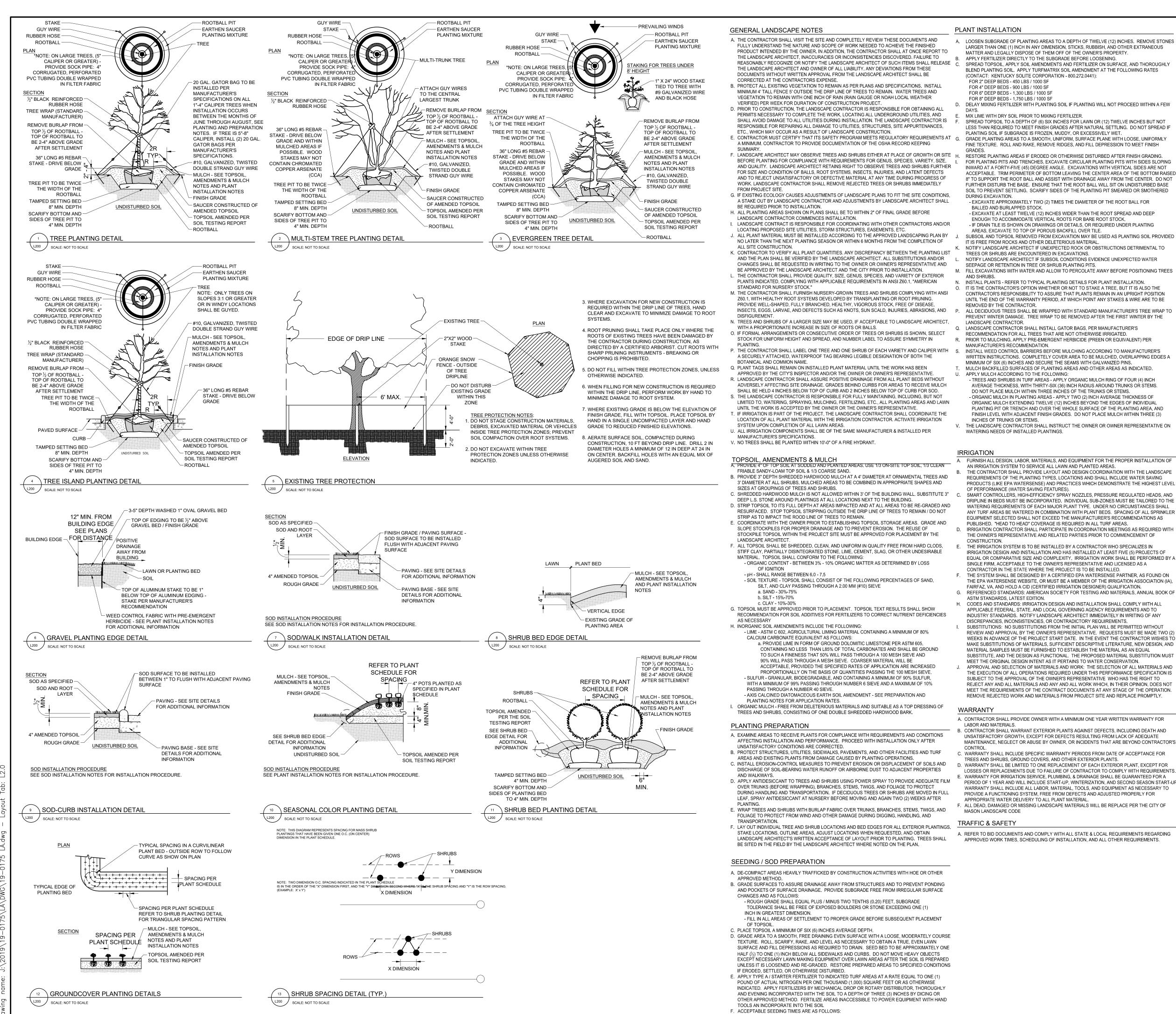
Ŕ

L/C# 34-2068

 \neg

 $\overline{\bigcirc}$

N/



- SPRING SEED PLANTING APRIL 1 TO JUNE 1 FALL SEED PLANTING - AUGUST 15 TO OCTOBER

LOOSEN SUBGRADE OF PLANTING AREAS TO A DEPTH OF TWELVE (12) INCHES. REMOVE STONES

SPREAD TOPSOIL, APPLY SOIL AMENDMENTS AND FERTILIZER ON SURFACE, AND THOROUGHLY BI FND PI ANTING SOIL. APPLY TURFMATRIX SOIL AMENDMENT AT THE FOLLOWING RATES

DELAY MIXING FERTILIZER WITH PLANTING SOIL IF PLANTING WILL NOT PROCEED WITHIN A FEW

SPREAD TOPSOIL TO A DEPTH OF (6) SIX INCHES FOR LAWN OR (12) TWELVE INCHES BUT NOT LESS THAN REQUIRED TO MEET FINISH GRADES AFTER NATURAL SETTLING. DO NOT SPREAD IF GRADE PLANTING AREAS TO A SMOOTH, UNIFORM, SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSION TO MEET FINISH

RESTORE PLANTING AREAS IF FRODED OR OTHERWISE DISTURBED AFTER FINISH GRADING. FOR PLANTING PITS AND TRENCHES. EXCAVATE CIRCULAR PLANTING PITS WITH SIDES SLOPING INWARD AT A FORTY-FIVE (45) DEGREE ANGLE. EXCAVATIONS WITH VERTICAL SIDES ARE NOT ACCEPTABLE. TRIM PERIMETER OF BOTTOM LEAVING THE CENTER AREA OF THE BOTTOM RAISED 8" TO SUPPORT THE ROOT BALL AND ASSIST WITH DRAINAGE AWAY FROM THE CENTER. DO NOT FURTHER DISTURB THE BASE. ENSURE THAT THE ROOT BALL WILL SIT ON UNDISTURBED BASE

- EXCAVATE APPROXIMATELY TWO (2) TIMES THE DIAMETER OF THE ROOT BALL FOR - EXCAVATE AT LEAST TWELVE (12) INCHES WIDER THAN THE ROOT SPREAD AND DEEP

ENOUGH TO ACCOMMODATE VERTICAL ROOTS FOR BARE ROOT STOCK. - IF DRAIN TILE IS SHOWN ON DRAWINGS OR DETAILS. OR REQUIRED UNDER PLANTING SUBSOIL AND TOPSOIL REMOVED FROM EXCAVATION MAY BE USED AS PLANTING SOIL PROVIDED NOTIFY LANDSCAPE ARCHITECT IF UNEXPECTED ROCK OR OBSTRUCTIONS DETRIMENTAL TO NOTIFY LANDSCAPE ARCHITECT IF SUBSOIL CONDITIONS EVIDENCE UNEXPECTED WATER

INSTALL PLANTS - REFER TO TYPICAL PLANTING DETAILS FOR PLANT INSTALLATION. IT IS THE CONTRACTOR'S OPTION WHETHER OR NOT TO STAKE A TREE, BUT IT IS ALSO THE

ALL DECIDUOUS TREES SHALL BE WRAPPED WITH STANDARD MANUFACTURER'S TREE WRAP TO PREVENT WINTER DAMAGE. TREE WRAP TO BE REMOVED AFTER THE FIRST WINTER BY THE

LANDSCAPE CONTRACTOR SHALL INSTALL GATOR BAGS, PER MANUFACTURER'S

INSTALL WEED CONTROL BARRIERS BEFORE MULCHING ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. COMPLETELY COVER AREA TO BE MULCHED. OVERLAPPING EDGES A

- TREES AND SHRUBS IN TURF AREAS - APPLY ORGANIC MULCH RING OF FOUR (4) INCH AVFRAGE THICKNESS. WITH THIRTY-SIX (36) INCH RADIUS AROUND TRUNKS OR STEMS. DO NOT PLACE MULCH WITHIN THREE INCHES OF THE TRUNKS OR STEMS. ORGANIC MULCH IN PLANTING AREAS - APPLY TWO (2) INCH AVERAGE THICKNESS OF ORGANIC MULCH EXTENDING TWELVE (12) INCHES BEYOND THE EDGES OF INDIVIDUAL PLANTING PIT OR TRENCH AND OVER THE WHOLE SURFACE OF THE PLANTING AREA, AND

FINISH LEVEL WITH ADJACENT FINISH GRADES. DO NOT PLACE MULCH WITHIN THREE (3) THE LANDSCAPE CONTRACTOR SHALL INSTRUCT THE OWNER OR OWNER REPRESENTATIVE ON

FURNISH ALL DESIGN. LABOR. MATERIALS, AND EQUIPMENT FOR THE PROPER INSTALLATION OF THE CONTRACTOR SHALL PROVIDE LAYOUT AND DESIGN COORDINATION WITH THE LANDSCAPE REQUIREMENTS OF THE PLANTING TYPES, LOCATIONS AND SHALL INCLUDE WATER SAVING PRODUCTS (LIKE EPA WATERSENSE) AND PRACTICES WHICH DEMONSTRATE THE HIGHEST LEVEL

SMART CONTROLLERS, HIGH-EFFICIENCY SPRAY NOZZLES, PRESSURE REGULATED HEADS, AND DRIPLINE IN BEDS MUST BE INCORPORATED. INDIVIDUAL SUB-ZONES MUST BE TAILORED TO THE WATERING REQUIREMENTS OF EACH MAJOR PLANT TYPE. UNDER NO CIRCUMSTANCES SHALL ANY TURF AREAS BE WATERED IN COMBINATION WITH PLANT BEDS. SPACING OF ALL SPRINKLER EQUIPMENT SELECTED SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATIONS AS IRRIGATION CONTRACTOR SHALL PARTICIPATE IN COORDINATION MEETINGS AS REQUIRED WITH

THE IRRIGATION SYSTEM IS TO BE INSTALLED BY A CONTRACTOR WHO SPECIALIZES IN IRRIGATION DESIGN AND INSTALLATION AND HAS INSTALLED AT LEAST FIVE (5) PROJECTS OF EQUAL OR COMPARATIVE SIZE AND COMPLEXITY. IRRIGATION WORK SHALL BE PERFORMED BY A INGLE FIRM. ACCEPTABLE TO THE OWNER'S REPRESENTATIVE AND LICENSED AS A

THE SYSTEM SHALL BE DESIGNED BY A CERTIFIED EPA WATERSENSE PARTNER, AS FOUND ON THE EPA WATERSENSE WEBSITE, OR MUST BE A MEMBER OF THE IRRIGATION ASSOCIATION (IA), FAIRFAZ, VA, AND HOLD A CID (CERTIFIED IRRIGATION DESIGNER) QUALIFICATION.

APPLICABLE FEDERAL, STATE, AND LOCAL GOVERNING AGENCY REQUIREMENTS AND TO INDUSTRY STANDARDS. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IN WRITING OF ANY SUBSTITUTIONS: NO SUBSTITUTIONS FROM THE INITIAL PLAN WILL BE PERMITTED WITHOUT REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE. REQUESTS MUST BE MADE TWO (2) WEEKS IN ADVANCE OF THE PROJECT START DATE. IN THE EVENT THE CONTRACTOR WISHES TO MAKE SUBSTITUTIONS OF MATERIALS, SUFFICIENT DESCRIPTIVE LITERATURE, NEW DESIGN, AND

SUBSTITUTE, AND THE DESIGN AS FUNCTIONAL. THE PROPOSED MATERIAL SUBSTITUTION MUST SODDING MEET THE ORIGINAL DESIGN INTENT AS IT PERTAINS TO WATER CONSERVATION APPROVAL AND SELECTION OF MATERIALS AND WORK: THE SELECTION OF ALL MATERIALS AND THE EXECUTION OF ALL OPERATIONS REQUIRED UNDER THIS PERFORMANCE SPECIFICATION IS $B_{\rm c}$ SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE WHO HAS THE RIGHT TO REJECT ANY AND ALL MATERIALS AND ANY AND ALL WORK WHICH. IN THEIR OPINION. DOES NOT

REMOVE REJECTED WORK AND MATERIALS FROM PROJECT SITE AND REPLACE PROMPTLY. A. CONTRACTOR SHALL PROVIDE OWNER WITH A MINIMUM ONE YEAR WRITTEN WARRANTY FOR F

MAINTENANCE, NEGLECT OR ABUSE BY OWNER, OR INCIDENTS THAT ARE BEYOND CONTRACTOR'S C. WARRANTY SHALL INCLUDE SPECIFIC WARRANTY PERIODS FROM DATE OF ACCEPTANCE FOR WARRANTY SHALL BE LIMITED TO ONE REPLACEMENT OF EACH EXTERIOR PLANT, EXCEPT FOR

WARRANTY FOR IRRIGATION SERVICE, PLUMBING, & DRAINAGE SHALL BE GUARANTEED FOR A WARRANTY SHALL INCLUDE ALL LABOR, MATERIAL, TOOLS, AND EQUIPMENT AS NECESSARY TO PROVIDE A FUNCTIONING SYSTEM, FREE FROM DEFECTS AND ADJUSTED PROPERLY FOR F. ALL DEAD, DAMAGED OR MISSING LANDSCAPE MATERIALS WILL BE REPLACE PER THE CITY OF

SEED INSTALLATION

LANDSCAPE CONTRACTOR SHALL SEED ALL DISTURBED AREAS. THE FINAL GRADE AND TOPSOIL WITHIN +/- .10 FEET WILL BE IN PLACE FOR SEEDING CONTRACTOR. B. CONTRACTOR SHALL APPLY CELLULOSE FIBER MULCH AT A MINIMUM RATE OF 1500 LBS./ACRE AND FERTILIZERS: BEST 6-20-20 OR BEST 15-15-15 OR APPROVED EQUAL APPLIED AT RATE APPROPRIATE FOR PRODUCT, ORGANIC TACKIFIER SHALL BE APPLIED AT RATE OF 70

- LBS /ACRE_HYDROSEED SEED MIX SHALL BE APPLIED AT THE 2 000 LBS /ACRE CONTRACTOR SHALL WATER ALL PLANT AREAS THOROUGHLY TO SATURATE UPPER LAYERS OF SOIL PRIOR TO THE HYDROSEEDING OPERATION. ALLOW THE PLANTING AREA SOIL SURFACE TO
- DRY OUT FOR ONE DAY ONLY PRIOR TO THE HYDROSEEDING APPLICATION. D. CONTRACTOR SHALL APPLY THE HYDROSEEDING IN THE FORM OF A SLURRY CONSISTING OF ORGANIC SOIL AMENDMENTS, COMMERCIAL FERTILIZER, AND ANY OTHER CHEMICALS THAT ARE CALLED OUT, WHEN HYDRAULICALLY SPRAYED ONTO THE SOIL, THE MULCH SHALL FORM A BLOTTER-LIKE MATERIAL. SPRAY THE AREA WITH A UNIFORM VISIBLE COAT, USING THE DARK COLOR OF THE CELLULOSE FIBER AS A VISUAL GUIDE. THE SLURRY SHALL BE APPLIED IN A DOWNWARD DRILLING MOTION VIA A FAN STREAM NOZZLE. CONTRACTOR SHALL INSURE THAT
- ALL OF THE SLURRY COMPONENTS ENTER AND MIX WITH THE SOIL. IF SLURRY COMPONENTS ARE LEFT FOR MORE THAN TWO HOURS IN THE MACHINE. ADD 50% MORE OF THE ORIGINALLY SPECIFIED SEED MIX TO ANY SLURRY MIXTURE WHICH HAS NOT BEEN APPLIED WITHIN THE TWO HOURS AFTER MIXING, ADD 75% MORE OF THE ORIGINAL SEED MIX TO ANY SI URRY MIXTURE WHICH HAS NOT BEEN APPLIED FIGHT (8) HOURS AFTER MIXING ALL MIXTURES MORE THAN EIGHT (8) HOURS OLD, SHALL BE DISPOSED, OFFSITE, AT THE
- CONTRACTOR'S EXPENSE. CONTRACTOR SHALL REMOVE ALL SLURRY SPRAYED ONTO HARDSCAPE AREAS INCLUDING CONCRETE WALKS, FENCES, WALLS, BUILDINGS, ETC. AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL SAVE ALL SEED AND FERTILIZER TAGS AND FIBER MULCH BAGS FOR THE LANDSCAPE ARCHITECT TO VERIFY COMPLIANCE WITH THE DRAWINGS AND SPECIFICATIONS

NATIVE SEED INSTALLATION NATIVE SEED INSTALLATION METHODS TO VARY ACCORDING TO THE TIME OF YEAR.

D.

- NOVEMBER 1 FEBRUARY 28. SEED MUST BE PROTECTED FROM DISPLACEMENT DUE TO WATER AND WIND EROSION. PROVIDE APPROPRIATE EROSION CONTROL BLANKETS ON SLOPES STEEPER THAN 5:1, AND WITH BLOWN AND CRIMPED STRAW MULCH AT 1-1/2 TONS PER ACRE ON LESSSER SLOPES. SEED DRILLED INTO EXISTING VEGETATION OR ON FLAT GROUND NOT SUBJECT TO EROSION MAY NEED ONLY MINIMAL EROSION PROTECTION. - MARCH 1 - JUNE 29. SEEDING DURING THIS PERIOD APPROPRIATE BUT GERMINATION OF A PORTION OF THE SEED MAY NOT OCCUR UNTIL THE FOLLOWING SEASON DUE TO A LACK OF COLD STRATIFICATION TO BREAK SEED DORMANCY. BLOWN AND CRIMPED STRAW MULCH IS RECOMMENDED AT 1-1/2 TONS PER ACRE ON BARE SOILS. MULCH MAY NOT BE REQUIRED IF SEED IS DRILLED INTO EXISTING VEGETATION OR FLAT GROUND NOT SUBJECT TO EROSION. JUNE 30 - SEPTEMBER 15. INSTALLATION OF NATIVE SEED SHOULD BE SUSPENDED UNLESS
- IRRIGATION CAN BE PROVIDED. ALSO, ANY ANNUAL FORBS PLANTED WITH MIXTURE DURING THIS TIME PERIOD MAY GERMINATE BUT NOT HAVE SUFFICIENT TIME TO FLOWER BEFORE FALL SENESCENCE. SEPTEMBER 15 - OCTOBER 31. SEEDING ON GRADED, BARE SOIL SURFACES MUST BE
- PROTECTED WITH APPROPRIATE EROSION CONTROL BLANKETS ON SLOPES STEEPER THAN 3:1 AND WITH BLOWN AND CRIMPED STRAW AT 1-1/2 TONS PER ACRE ON LESSER SLOPES. SEED DRILLED ON FLAT GROUND NOT SUBJECT TO EROSION OR INTO EXISTING VEGETATION MAY NOT REQUIRE EROSION PROTECTION PROVIDE NATIVE SEED MIX FROM SOURCES WITHIN THE SAME EPA LEVEL III ECOREGION AS THE
- PROJECT SITE. IF THE DESIRED SPECIES ARE NOT AVAILABLE FROM THE SAME ECOREGION. SEEK MATERIALS FROM AN ADJACENT REGION: PREFERABLY FROM THE WEST OR EAST SEED AMOUNTS SHOULD BE SPECIFIED AS PLS (PURE LIVE SEED). ACTUAL AMOUNTS USED ON THE PROJECT WILL VARY WITH THE ACTUAL PERCENT OF PLS OF THE SEEDLOT. SEED SUPPLIED TO THE SISTE SHOULD BE TAGGED WITH SEED SPECIES, WEIGHTS, DOCUMENTATION OF PLS TESTING AND, IF REQUIRED, ADJUSTMENTS OF THE SEET WEIGHTS TO PROVIDE THE AMOUNT OF
- PURE LIVE SEED SPECIFIED. SEED SUBSTITUTIONS SHOULD BE APPROVED BY THE LANDSCAPE ARCHITECT WITH INPUT FROM A RESTORATION ECOLOGIST IF NECESSARY. ALL NATIVE SEED MIXES SHOULD BE APPLIED WITH 10 LBS/Ac OF ANNUAL RYE AND 30 LBS/Ac SEED OATS AS A COVER CROP. PERENNIAL RYE OR WHEAT IS NOT TO BE USED AS A COVER CROP.
- SEEDED AREAS SHOULD RECEIVE THE EQUIVALENT OF ONE (1) INCH OF WATER PER WEEK IF PLANTED BETWEEN MARCH TO JUNE IN THE MIDWEST, MOST AREAS NORMALLY RECEIVE ADEQUATE RAINFALL DURING THIS PERIOD AND DO NOT REQUIRE IRRIGATION. IRRIGATION IS HIGHLY RECOMMENDED IF SEEDING IS PERFORMED DURING JULY OR AUGUST WHEN TEMPERATURES ARE HOTTER AND RAINS MORE INFREQUENT. ALL IRRIGATION SHOULD BE DONE
- IN SUCH A MANNER AS TO LIMIT RUNOFF AND NOT DISPLACE SEED OR SOIL PRE-TOPSOIL HERBICIDE APPLICATION - APPLY A BROAD SPECTRUM HERBICIDE TO THE ENTIRE NATIVE SEEDING AREA AT LEAST THREE (3) DAYS PRIOR TO TOPSOIL PLACEMENT. HERBICIDE AND APPLICATION RATES TO BE APPROVED BY THE LANDSCAPE ARCHITECT.
- POST-TOPSOIL HERBICIDE APPLICATION APPLY A BROAD SPECTRUM HERBICIDE TO THE ENTIRE NATIVE SEEDING AREA AT LEAST THREE (3) DAYS PRIOR TO INSTALLATION OF NATIVE SEED. HERBICIDE AND APPLICATION RATES TO BE APPROVED BY THE LANDSCAPE ARCHITECT. BROADCAST SEEDING IS PREFERRED OVER DRILL SEEDING ON GRADED. BARE SOIL SITES. APPL' THE SEED UNIFORMLY OVER THE SURFACE USING A COMBINATION SEEDER / CULTIPACKER UNIT SUCH AS A BRILLION OR TRUAX TRILLION SEEDER. THE TRILLION SEEDER IS PREFERRED AS IT IS DESIGNED TO HANDLE NATIVE SEEDS. A CONE SEEDER OR OTHER SIMILAR BROADCASTING EQUIPMENT MAY BE USED IF THE SEED MIX DOES NOT CONTAIN FLUFFY SEEDS IN AMOUNTS
- SUFFICIENT TO PREVENT FREE FLOWING DISTRIBUTION WITHOUT PLUGGING. SEEDING EQUIPMENT SHOULD ENSURE COMPLETE COVERAGE OF THE ENTIRE AREA TO BE SEEDED, AND SEED MUST BE PLACED NO DEEPER THAN ONE QUARTER ($\frac{1}{4}$) INCHES INTO THE SOIL. NO FERTILIZER OR SOIL CONDITIONERS WILL BE REQUIRED OR ALLOWED
- BLOWN AND CRIMPED STRAW AT A 1-1/2 TONS PER ACRE SHOULD BE APPLIED OVER THE SEEDED AREA ACCORDING TO SEASONAL CONSIDERATIONS. CONTRACTOR TO PROVIDE CONTINUING MAINTENANCE FOR UP TO THREE (3) YEARS AFTER FINAL ACCEPTANCE FOR NATIVE SEEDING ONGOING MAINTENANCE TO INCLUDE - REGULAR SITE INSPECTION AND MONITORING A MINIMUM OF THREE (3) TIMES A YEAR DURING
- THE MAINTENANCE PERIOD. IN ADDITION, FOR THE FIRST YEAR FOLLOWING CONSTRUCTION. EDED AREAS MUST BE INSPECTED AFTER STORM EVENTS THAT EXCEED ONE HALF (ℓ_2) INCH OF RAINFALL AND REPAIRED ACCORDINGLY - MOWING A MINIMUM OF TWO (2) TIMES A YEAR DURING THE FIRST GROWING SEASON AND ONE (1) TIME THE SECOND SEASON TO KEEP WEED COMPETITION AND FAST GROWING
- ANNUALS FROM RESEEDING. DEPENDING UPON THE HEIGHT AND GROWTH RATE OF VEGETATION, ADDITIONAL MOWING MY BE REQUIRED. MOWING HEIGHT SHALL BE BETWEEN HEIGHT (8) AND TEN (10) INCHES
- SELECTIVE HERBICIDE APPLICATION BY TREATING INFESTATION OF INVASIVE SPECIES WITH BROADLEAF SPECIFIC HERBICIDE CONTROL IF HAND WEEDING IS IMPRACTICAL. FURNISH AND G. REFERENCED STANDARDS: AMERICAN SOCIETY FOR TESTING AND MATERIALS, ANNUAL BOOK OF INSTALL WEED CHEMICAL CONTROL AS RECOMMENDED BY THE MANUFACTURER. HERBICIDE CONTROLS, INCLUDING RENOVATION BEFORE SEEDING OPERATIONS, SHALL BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT.
 - REPAIR, RE-WORK, OR RESEED RESPECTIVE AREAS THAT HAVE WASHED OUT, ARE ERODED, OR DID NOT CATCH. SUPPLEMENTAL PLANTING - IN PERIODS OF DROUGHT, APPLY ONE (1) INCH OF WATER UNTIL ALL NATIVE SEEDED AREAS
 - MEET THE PERFORMANCE STANDARDS - PROVIDE AND MAINTAIN EROSION CONTROL MEASURES TO SLOW WATER, IMPEDE SOIL & SEED LOSS AS REQUIRED BY THE LOCAL JURISDICTION. SEE CIVIL DETAILS.
 - TURFGRASS SOD SHALL BE OF GOOD QUALITY, FREE OF WEEDS, DISEASE AND INSECTS AND OF GOOD COLOR AND DENSITY INDIVIDUAL PIECES OF TURFGRASS SOD SHALL BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND LENGTH. MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL
 - BE 5 PERCENT STANDARD SIZE SECTIONS OF TURFGRASS SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY FROM A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
 - LANDSCAPE CONTRACTOR SHALL SOD ALL SPECIFIED AREAS. THE FINAL GRADE AND TOPSOIL WITHIN +/- .10 FEET WILL BE IN PLACE FOR SOD CONTRACTOR. TILL AREA TO BE SODDED TO A DEPTH OF 4". RAKE TILLED AREA TO REMOVE DEBRIS 1" OR ARGER IN SIZE THAT HAS BEEN BROUGHT TO THE SURFACE DURING TILLING.
 - AFTER ALL GRADING HAS BEEN COMPLETED, THE SOIL SHALL BE IRRIGATED WITHIN 12-24 H HOURS PRIOR TO LAYING THE TURFGRASS SOD. TURFGRASS SOD SHOULD NOT BE LAID ON SOIL THAT IS DRY AND POWDERY THE FIRST ROW OF TURFGRASS SOD SHALL BE LAID IN A STRAIGHT LINE, WITH SUBSEQUENT R ROWS PLACED PARALLEL TO, AND TIGHTLY AGAINST, EACH OTHER. LATERAL JOINTS SHALL BE
- STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. CARE SHALL BE EXERCISED TO INSURE THAT THE TURF IS NOT STRETCHED OR OVERLAPPED, AND ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS, WHICH WOULD CAUSE AIR-DRYING OF THE PERIOD OF 1 YEAR AND WILL INCLUDE START-UP, WINTERIZATION, AND SECOND SEASON START-UP. H. ON SLOPING ARE WHERE EROSION MAY BE A PROBLEM, TURFGRASS SOD SHALL BE LAID WITH
 - STAGGERED JOINTS AND SECURED BY PEGGING THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING TURFGRASS SOD MMEDIATELY DURING AND AFTER INSTALLATION TO PREVENT DRYING. IT SHALL THEN BE THOROUGHLY IRRIGATED TO A DEPTH SUFFICIENT THAT THE UNDERSIDE OF THE NEW TURFGRASS SOD PAD AND SOIL IMMEDIATELY BELOW THE TURFGRASS SOD ARE THOROUGHLY WET (USUALLY 1 INCH OF WATER IS NEEDED). THE GENERAL CONTRACTOR SHALL BE
 - RESPONSIBLE FOR HAVING ADEQUATE WATER AVAILABLE AT THE SITE PRIOR TO AND DURING INSTALLATION OF THE TURFGRASS SOD. LANDSCAPE CONTRACTOR IS TO SET GRADE TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE BUILDING AND TO DETENTION BASINS.
 - UNLESS OTHERWISE SPECIFIED. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE ACCEPTED SODDED TURFGRASS AREAS UNTIL THE EFFECTIVE DATE FOR TURF MAINTENANCE OPERATIONS BEGINS. THE EFFECTIVE DATE SHALL BE SPECIFIED IN WRITTEN NOTICE FROM THE GENERAL CONTRACTOR.

