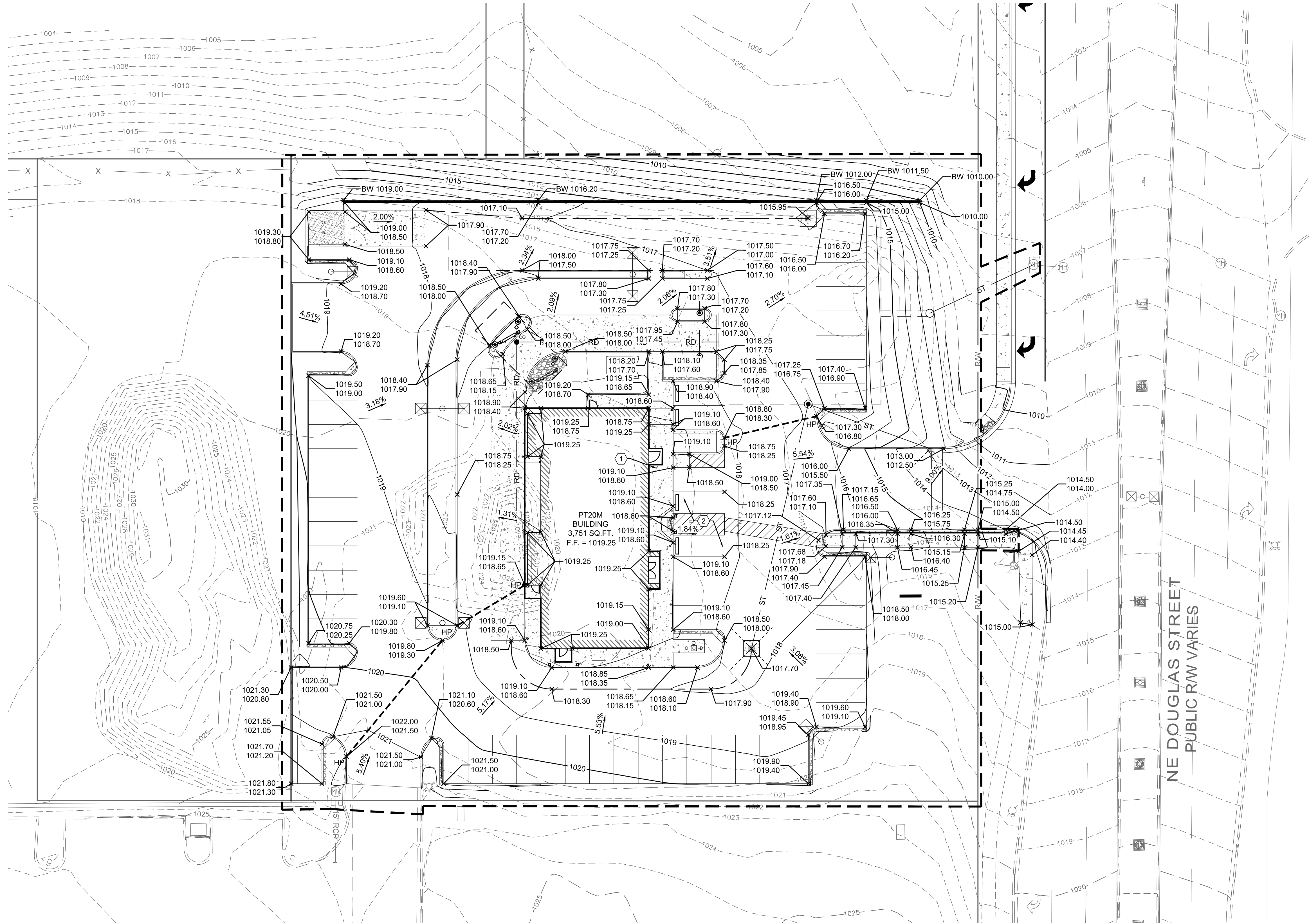


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GENERAL NOTES:

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- ALL CONSTRUCTION METHODS AND MATERIAL MUST CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL, STATE, COUNTY, CITY OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.
- ALL PROPOSED SPOT ELEVATIONS SHOWN ARE TOP OF CURB AND FINAL GRADE ELEVATIONS UNLESS OTHERWISE NOTED.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR TO VERIFY ALL EXISTING GRADES AND CONTACT ENGINEER PRIOR TO BEGINNING WORK IF DISCREPANCY IS FOUND. CONTRACTOR TO VERIFY ASSUMED FINISHED FLOOR ELEVATION PRIOR TO BEGINNING WORK.
- THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTORS AND/OR UTILITY COMPANIES SO AS TO NOT CAUSE DAMAGE.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 48 HOURS BEFORE CONSTRUCTION IS TO START. TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH) SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATION IS AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION.
- ALL WORK SHALL BE PERFORMED FROM PRIVATE PROPERTY. ALL TRAFFIC LANES MUST REMAIN OPEN AT ALL TIMES.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITIES DURING CONSTRUCTION AND ALL DAMAGE SHALL BE REPAIRED TO ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER OR CITY.
- ALL EXISTING UTILITIES ARE TAKEN FROM SURVEY AND DO NOT NECESSARILY REPRESENT ALL UNDERGROUND UTILITIES ADJACENT TO OR UPON PREMISES SHOWN ON PLAN.

KEYED NOTES:

- CONTRACTOR TO MAINTAIN 2.00% MAX CROSS SLOPE ON SIDEWALK.
- CONTRACTOR TO MAINTAIN MAX 2.00% SLOPE IN ALL DIRECTIONS IN HANDICAP ACCESSIBLE AREA.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
ST	ST	STORM LINE
HP	HP	STORM STRUCTURE
		DITCH LINE
1015	1015	CONTOUR
X 1019.00 EX.	X 1019.00	TOP OF CURB
X 1018.50 EX.	X 1018.50	TOP OF PAVEMENT
X 1019.00 EX.	X 1019.00	FINISHED GRADE SPOT ELEVATION
	1.00%	GRADE SLOPE
HP	HP	MAJOR FLOOD ROUTING
HP	HP	HIGH POINT

RELEASE FOR
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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/12/2021

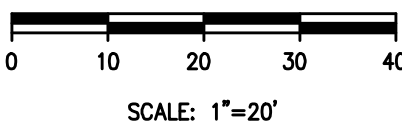


MISSOURI
ONE CALL SYSTEM

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1-800-DIG-RITE or 811

MAKE THE CALL...IT'S THE LAW

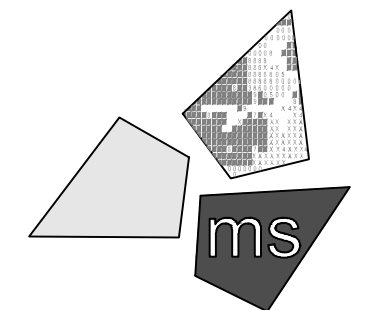


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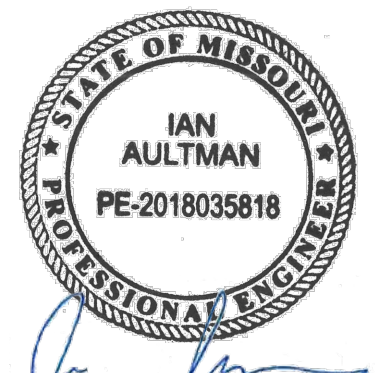
PROJECT

WHATABURGER
PT20M BUILDING

1460 NE DOUGLAS ST.
LEE'S SUMMIT, MO
64086

SHEET TITLE

SITE
GRADING
PLAN



DRAWN BY: LLK/AMA

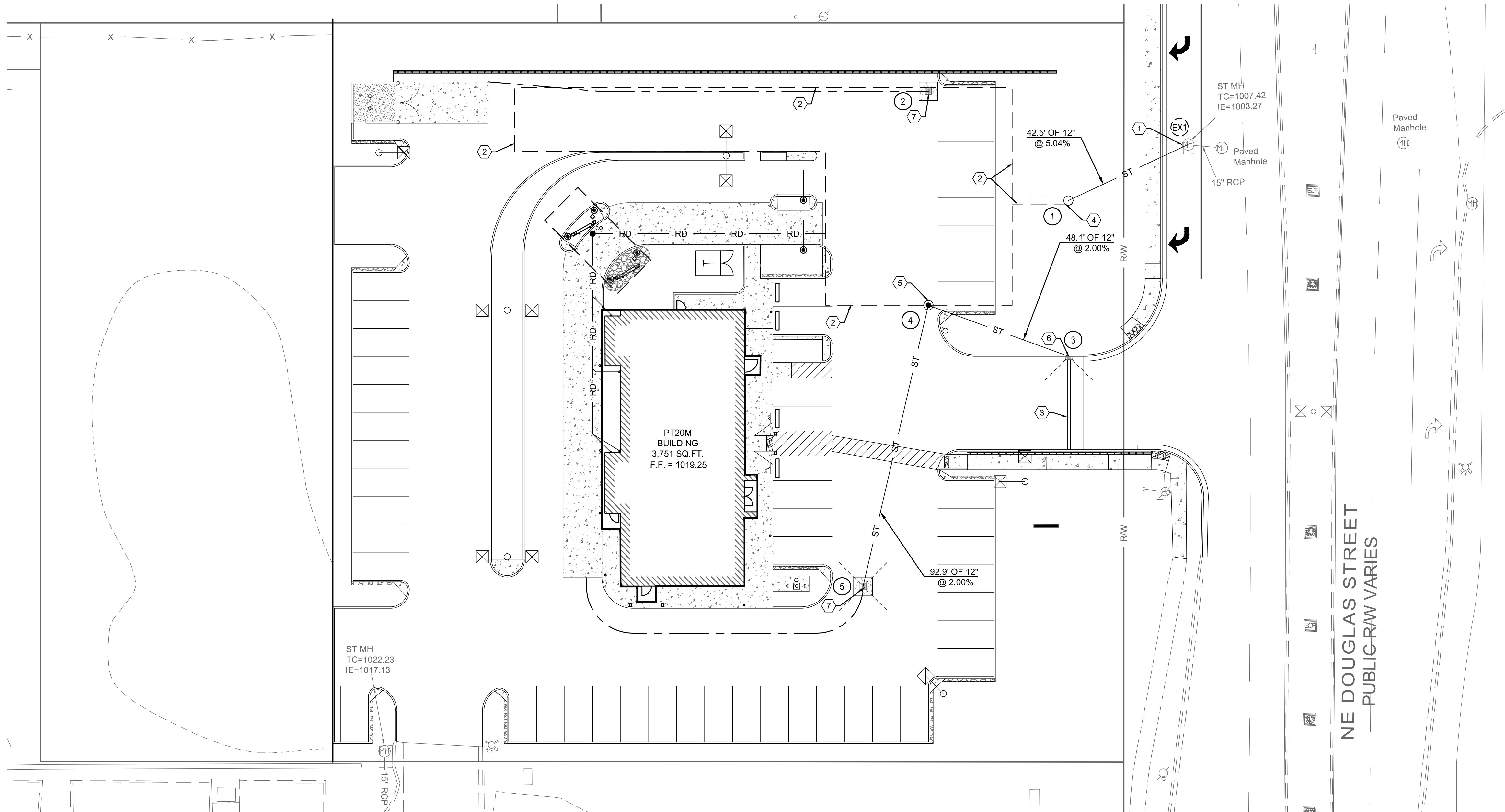
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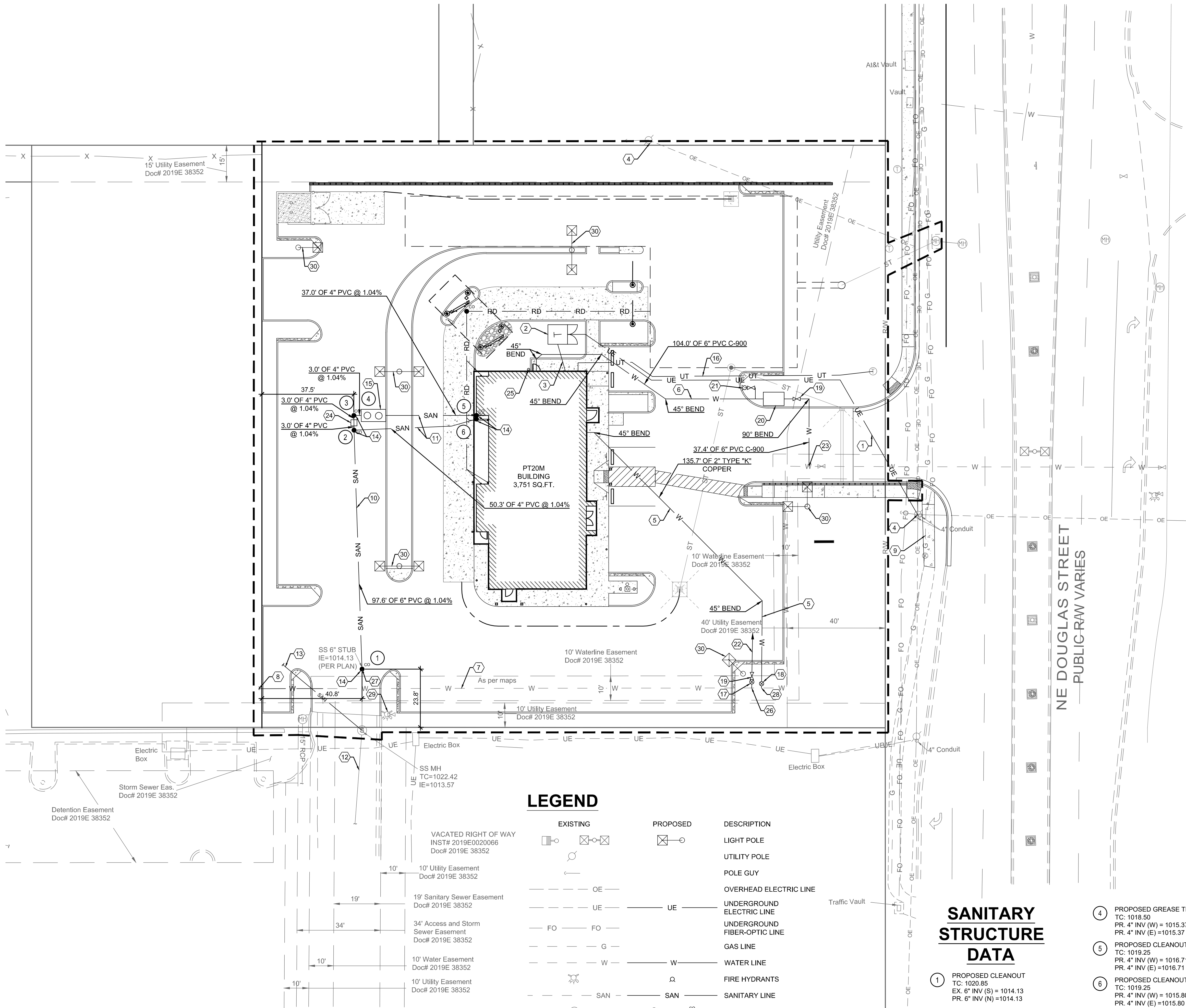
PROJECT NO: 40497-01

DRAWING

C-6

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- ALL EXISTING UTILITIES, ARE TAKEN FROM SURVEY AND DO NOT NECESSARILY REPRESENT ALL UNDERGROUND UTILITIES ADJACENT TO OR UPON PREMISES SHOWN ON PLAN.
- CONTRACTOR RESPONSIBLE FOR MAINTAINING A MIN. COVER OF 42" OVER PROPOSED WATER SERVICE.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION, AND IS RESPONSIBLE FOR ANY DAMAGE TO THEM DURING CONSTRUCTION.
- CLEANOUT LOCATIONS ARE NUMBERED ON PLAN. ALL CLEANOUTS IN PAVEMENT AREAS ARE TO BE H-20 RATED. CLEANOUTS SHALL BE INSTALLED PER DETAIL ON SHEET C-10.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING THE EXISTING UTILITY LINES. PROPOSED UTILITIES SHOULD TIE INTO EXISTING UTILITIES AT A POINT INDICATED ON PLANS.
- SEE PLUMBING PLANS FOR CONTINUATION OF UTILITY LINES INTO BUILDING.
- CONTRACTOR SHALL INSTALL AND BACKFILL ALL TRENCHES AND STRUCTURES PER DETAIL ON SHEET C-10.
- STORM SEWER SHOWN HERE FOR REFERENCE ONLY. SEE GRADING PLAN FOR DESIGN DATA.
- THERE SHALL BE A MINIMUM 18" SEPARATION BETWEEN WATER TAPS, WATER SERVICES, PRIVATE WATER SYSTEMS, AND SANITARY AND/OR STORM SEWER SYSTEMS.
- THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTORS AND/OR UTILITY COMPANIES SO AS TO NOT CAUSE DAMAGE.
- CAUTION: OVERHEAD LINES ARE PRESENT ON SITE. CONTRACTOR TO TAKE SPECIAL CARE TO PREVENT DAMAGE TO THE LINES AND COORDINATE WITH UTILITY OWNER.

KEYED NOTES:

- PROPOSED PRIMARY ELECTRICAL SERVICE. CONTRACTOR TO COORDINATE CONDUIT SIZE, NUMBER OF CONDUITS, CONNECTIONS, AND BEND RADI WITH UTILITY OWNER AND MEP PLANS. CONTRACTOR TO COORDINATE CONNECTION WITH UTILITY OWNER.
- PROPOSED ELECTRIC TRANSFORMER. COORDINATE LOCATION WITH UTILITY OWNER AND ELECTRICAL PLANS.
- PROPOSED SECONDARY ELECTRICAL SERVICE. CONTRACTOR TO COORDINATE CONDUIT SIZE, NUMBER OF CONDUITS, CONNECTIONS, AND BEND RADI WITH UTILITY OWNER AND MEP PLANS. CONTRACTOR TO COORDINATE CONNECTION WITH UTILITY OWNER.
- EXISTING POWER POLE TO REMAIN. CONTRACTOR TO TAKE CARE NOT TO DISTURB EXISTING POLE AND GUY WIRES.
- PROPOSED SOFT TYPE "K" COPPER 2.0" DOMESTIC WATER SERVICE. INCLUDE IN BASE BID ALL VALVES, PIPING, STRUCTURES, ETC. THAT WILL BE REQUIRED. SEE MEP PLANS FOR CONTINUATION INTO BUILDING.
- PROPOSED PVC C900 6" FIRE SERVICE. INCLUDE IN BASE BID ALL VALVES, PIPING, STRUCTURES, ETC. THAT WILL BE REQUIRED. SEE MEP PLANS FOR CONTINUATION INTO BUILDING.
- EXISTING PRIVATE WATER MAIN.
- PROPOSED PRIVATE WATER MAIN EXTENSION BY DEVELOPER.
- EXISTING GAS MAIN. CONTRACTOR TO TAKE CARE EXCAVATING NEAR MAIN AND CONTACT ENGINEER IF ELEVATION OF GAS LINE INTERFERES WITH UTILITY CONNECTIONS.
- PROPOSED 6" SANITARY SEWER. ASTM D3034, SDR-26. SEWER TO HAVE MINIMUM SLOPE OF 1.04%. CONTRACTOR TO MAINTAIN A MINIMUM OF 36" OF COVER OVER SEWER LINES.
- PROPOSED 4" SANITARY SEWER. ASTM D3034, SDR-26. SEWER TO HAVE MINIMUM SLOPE OF 1.04%. CONTRACTOR TO MAINTAIN A MINIMUM OF 36" OF COVER OVER SEWER LINES.
- EXISTING SANITARY SEWER MAIN.
- PROPOSED SANITARY SEWER MAIN EXTENSION BY DEVELOPER.
- PROPOSED SANITARY CLEANOUT (TYP.). SEE DETAIL ON SHEET C-10.
- GREASE TRAP REQUIRED. SEE PLUMBING SHEETS FOR DETAILS.
- 2" PVC CONDUIT FOR UNDERGROUND TELEPHONE SERVICE. CONTRACTOR TO COORDINATE WITH UTILITY OWNER.
- PROPOSED IRRIGATION 1" WATER METER PER CITY OF LEE'S SUMMIT STANDARD DRAWING WAT-11, SEE SHEET C-11.
- PROPOSED DOMESTIC 1.5" WATER METER PER CITY OF LEE'S SUMMIT STANDARD DRAWING WAT-11, SEE SHEET C-11.
- PROPOSED GATE VALVE PER CITY OF LEE'S SUMMIT STANDARD DRAWING WAT-9, SEE SHEET C-11.
- PROPOSED BACKFLOW PREVENTER VAULT PER CITY OF LEE'S SUMMIT STANDARD DRAWING WAT-12, SEE SHEET C-11.
- PROPOSED FIRE HYDRANT RELOCATION. HYDRANT TO BE INSTALLED PER CITY OF LEE'S SUMMIT STANDARD DRAWING WAT-8, SEE SHEET C-11.
- PROPOSED 1" IRRIGATION LINE, SEE IRRIGATION PLAN FOR MORE INFORMATION.
- FIRE SERVICE TAP CONNECTION PER CITY OF LEE'S SUMMIT STANDARD ITEM 6901.
- MONITORING WELL. SEE PLUMBING PLANS FOR DETAILS.
- FIRE DEPARTMENT CONNECTION PER LOCAL REGULATIONS.
- DOMESTIC WATER TAP WITH SADDLE, COPORATION STOP, AND 1" METER PER CITY OF LEE'S SUMMIT STANDARD DRAWING WAT-11, SEE SHEET C-11.
- PROPOSED SANITARY CONNECTION PER CITY OF LEE'S SUMMIT STANDARD SPECIFICATION 3502.
- PROPOSED WATER CONNECTION PER CITY OF LEE'S SUMMIT STANDARD SPECIFICATION SECTION 6900.
- EXISTING FIRE HYDRANT TO REMAIN.
- SITE LIGHT, SEE PHOTOMETRIC LIGHTING PLAN.

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/12/2021



**MISSOURI
ONE CALL SYSTEM**

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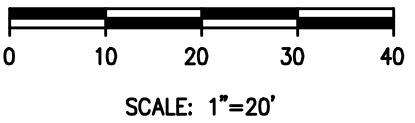
1-800-DIG-RITE or 811

MAKE THE CALL...IT'S THE LAW

SANITARY STRUCTURE DATA

- PROPOSED CLEANOUT
TC: 1020.85
EX. 6" INV (S) = 1014.13
PR. 6" INV (N) = 1014.13
- PROPOSED CLEANOUT
TC: 1018.80
PR. 6" INV (S) = 1015.15
PR. 4" INV (N) = 1015.28
PR. 4" INV (E) = 1015.28
- PROPOSED CLEANOUT
TC: 1018.70
PR. 4" INV (S) = 1015.34
PR. 4" INV (E) = 1015.34

- PROPOSED GREASE TRAP
TC: 1018.50
PR. 4" INV (W) = 1015.37
PR. 4" INV (E) = 1015.37
- PROPOSED CLEANOUT
TC: 1019.25
PR. 4" INV (W) = 1016.71
PR. 4" INV (E) = 1016.71
- PROPOSED CLEANOUT
TC: 1019.25
PR. 4" INV (W) = 1016.71
PR. 4" INV (E) = 1016.71
- PROPOSED MONITORING WELL
TC: 1018.75
PR. 4" INV (S) = 1015.31
PR. 4" INV (N) = 1015.31



LEGEND

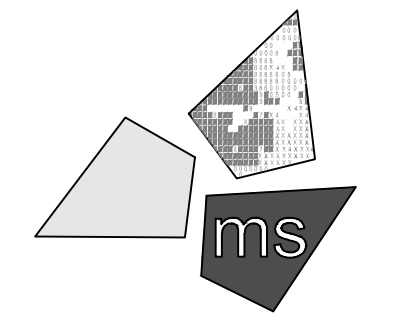
EXISTING	PROPOSED	DESCRIPTION
		LIGHT POLE
		UTILITY POLE
		POLE GUY
		OVERHEAD ELECTRIC LINE
		UNDERGROUND ELECTRIC LINE
		UNDERGROUND FIBER-OPTIC LINE
		GAS LINE
		WATER LINE
		FIRE HYDRANTS
		SANITARY LINE
		SANITARY STRUCTURE
		STORM LINE
		STORM STRUCTURE

REVISION/DATE/DESCRIPTION

60% Plan Set	10/20/20
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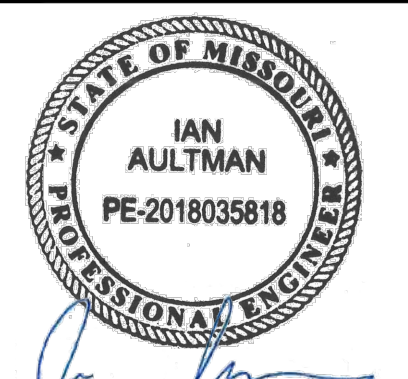
PROJECT

**WHATABURGER
PT20M BUILDING**

**1460 NE DOUGLAS ST.
LEE'S SUMMIT, MO
64086**

SHEET TITLE

**SITE UTILITY
PLAN**



DRAWN BY: LLK/JAMA

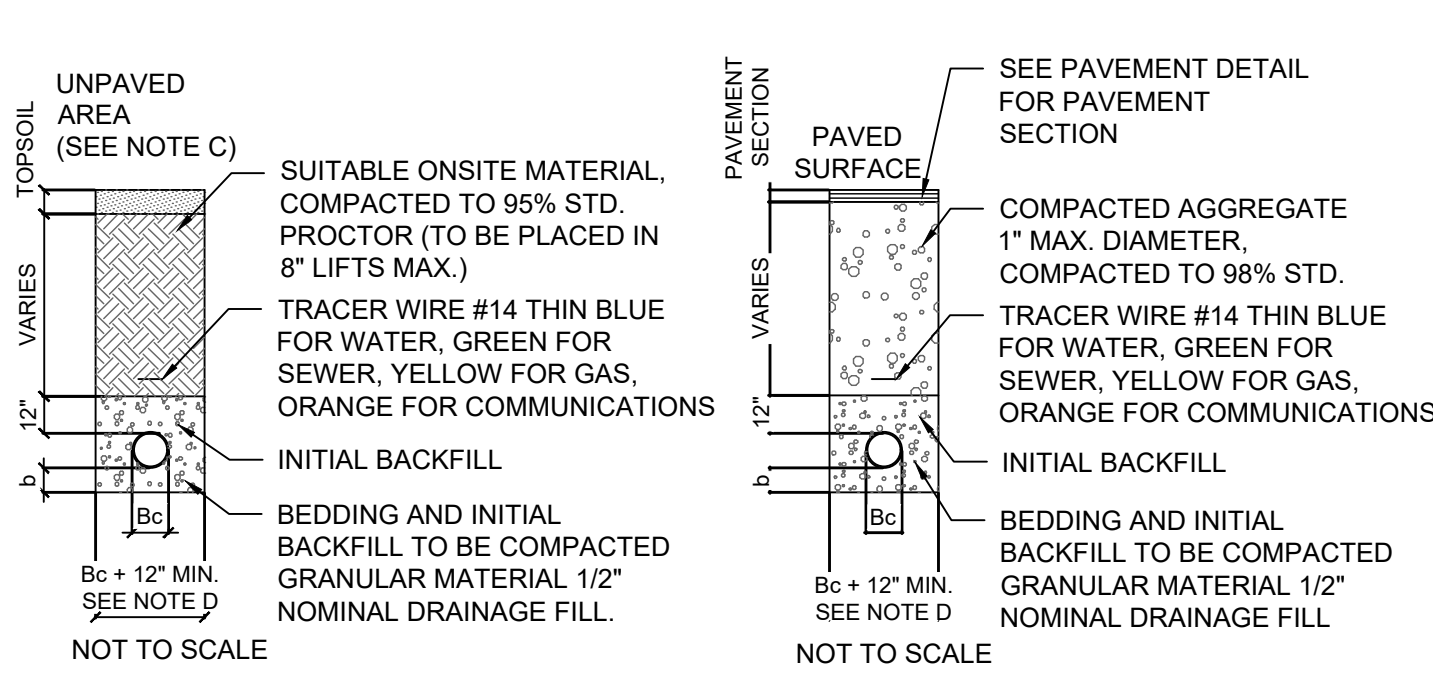
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PROJECT NO: 40497-01

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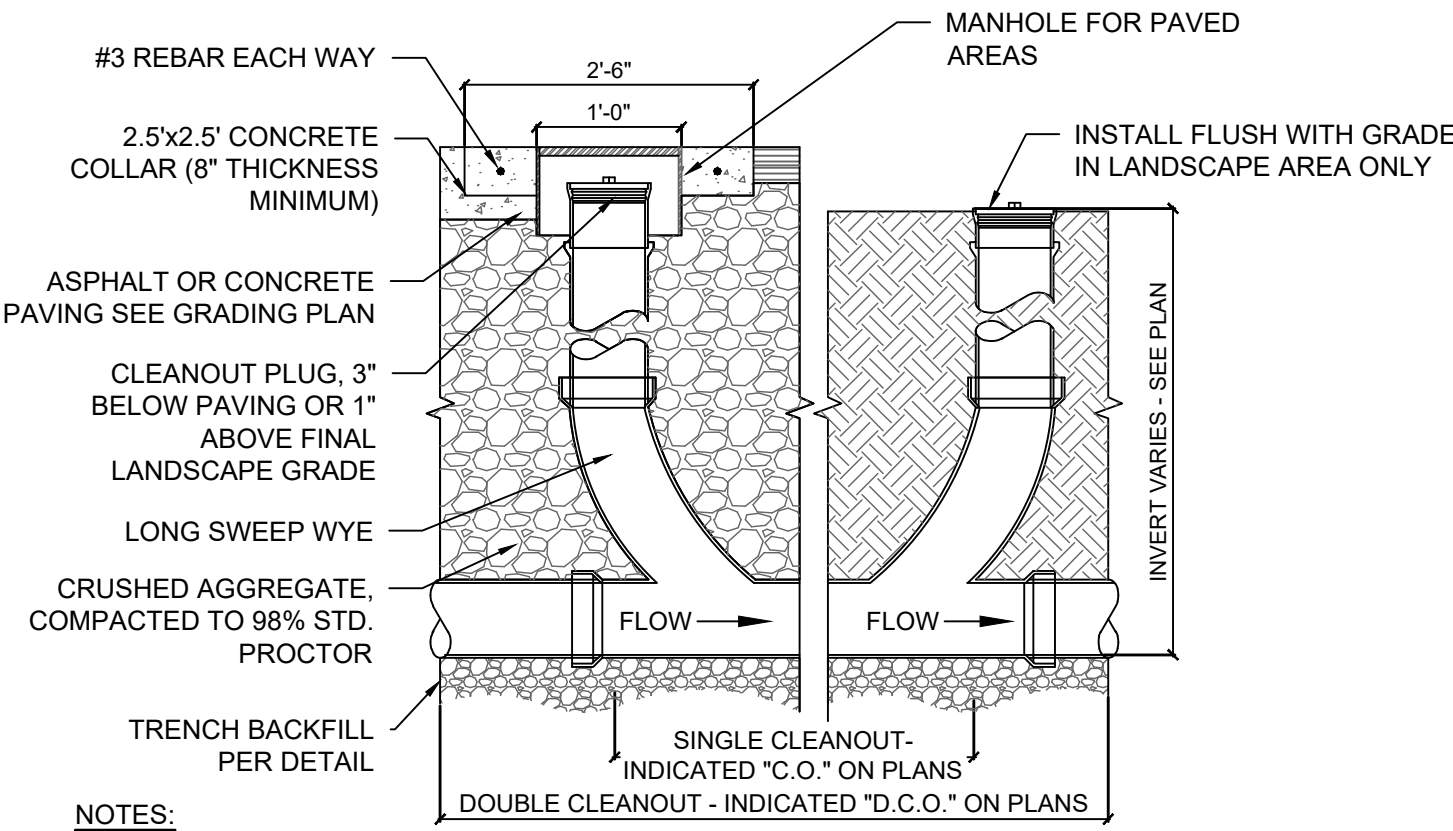
C-7

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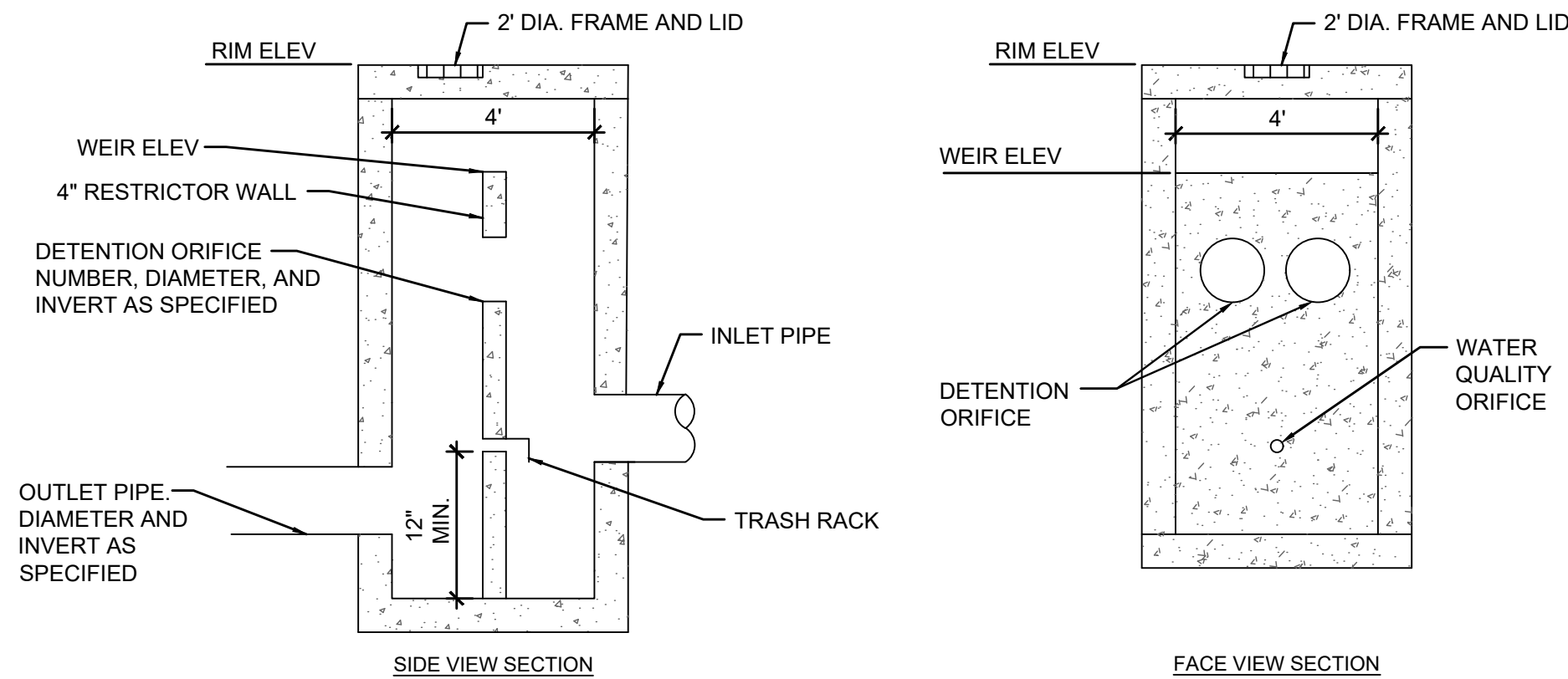
- TRENCH / BACKFILL NOTES**
- A. BEDDING THICKNESS UNDER PIPE BARREL b, SHALL BE 1/8 OF Bc; 6\"/>

A
C10 / N.T.S. TRENCH BACKFILL DETAIL



- NOTES:**
- A. CLEANOUT LOCATIONS INDICATED ON GRADING AND UTILITY PLANS AS \"CO\" FOR SINGLE CLEANOUT AND \"DCO\" FOR DOUBLE CLEAN OUT.
- B. PROVIDE CLEANOUTS AS SPECIFIED:
1. ZURN Z-1400 CLEANOUTS IN NON-TRAFFIC AREAS AND SIDEWALKS
 2. ZURN-1449 CLEANOUTS IN LANDSCAPED AREAS
 3. ZURN Z-1400 HD CLEANOUTS IN TRAFFIC AREAS WITH A \"SERVICE STATION\" TYPE MANHOLE, OPW #104 A12 - DOVER CORP./OPW DIV.

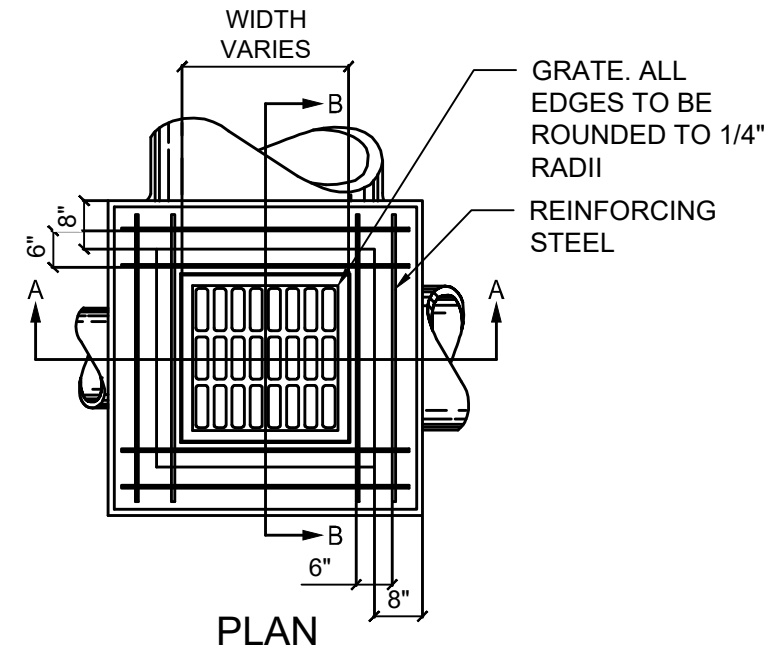
B
C10 / N.T.S. PIPE CLEANOUT DETAIL



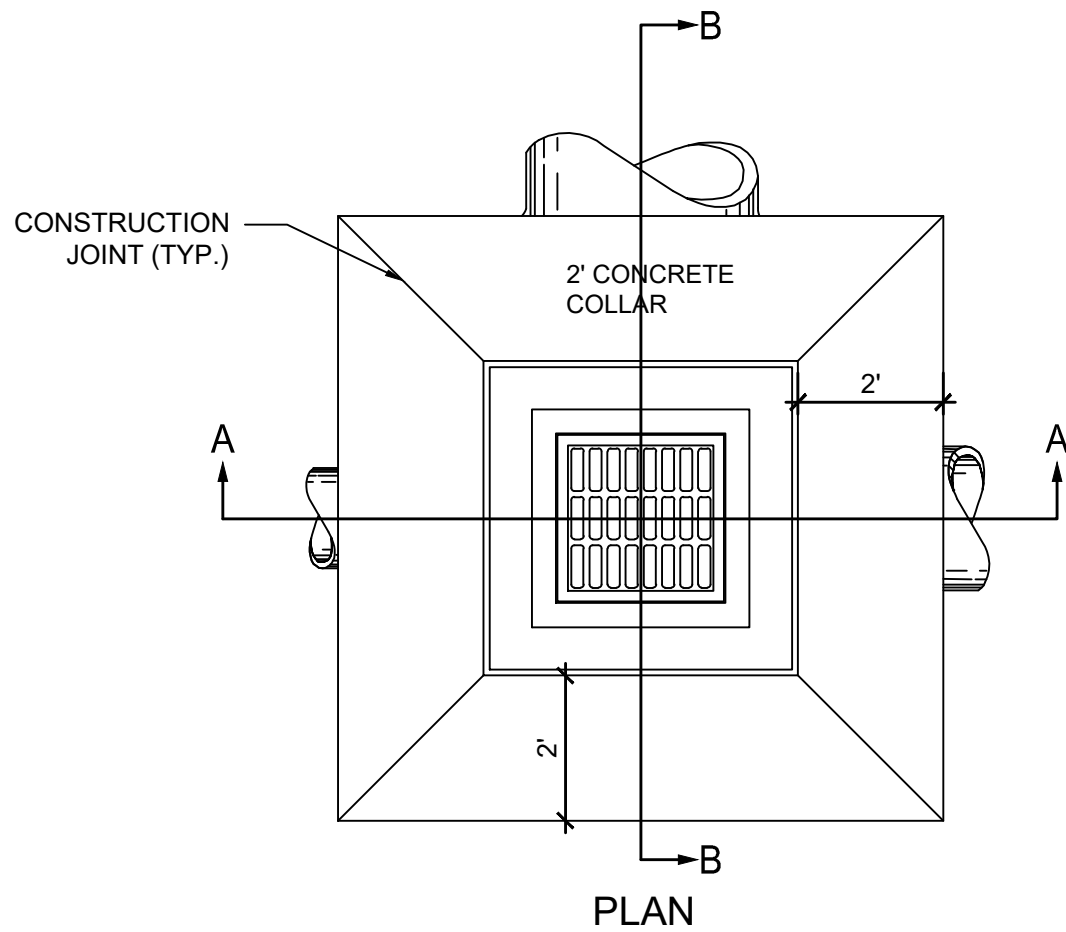
- NOTES:**
1. CONTROL STRUCTURE SHALL BE A STANDARD MODOT MANHOLE PER STANDARD DRAWING 731.00U, MODIFIED AS SHOWN.
 2. PROVIDE MANHOLE STEPS ON ACCESS SIDE OF WEIR WALL.

				OUTLET PIPE		WATER QUALITY ORIFICE		DETENTION ORIFICE(S)			WEIR		
STRUCTURE	TC/RIM ELEVATION	UGS	WATER QUALITY VOL. ELEV	DIA.	INV.	DIA.	INV.	NO.	DIA.	INV.	WIDTH	ELEV	100-YR WSE
6	1014.50	1	1008.14	12"	1005.75	1.4"	1006.75	2	10"	1009.00	4'	1013.00	1012.97

C
C10 / N.T.S. OUTLET CONTROL STRUCTURE

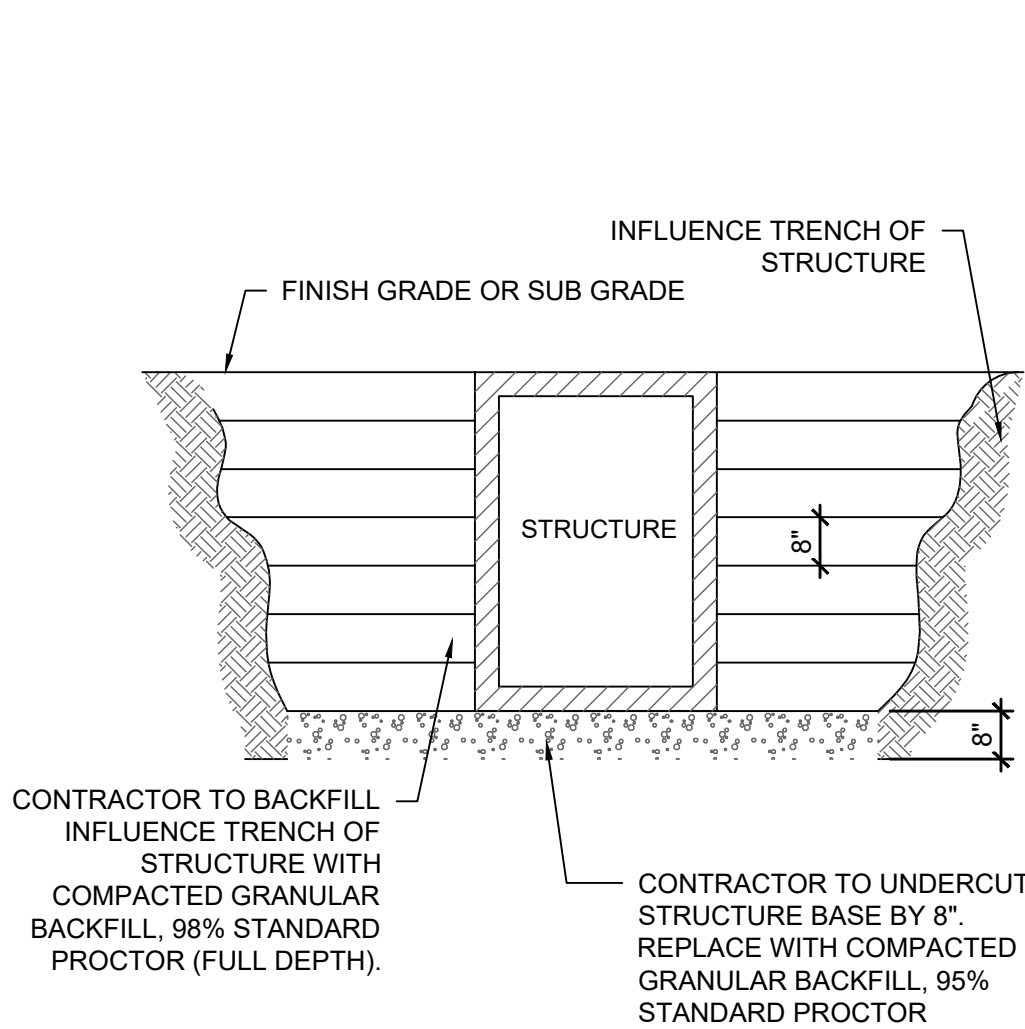
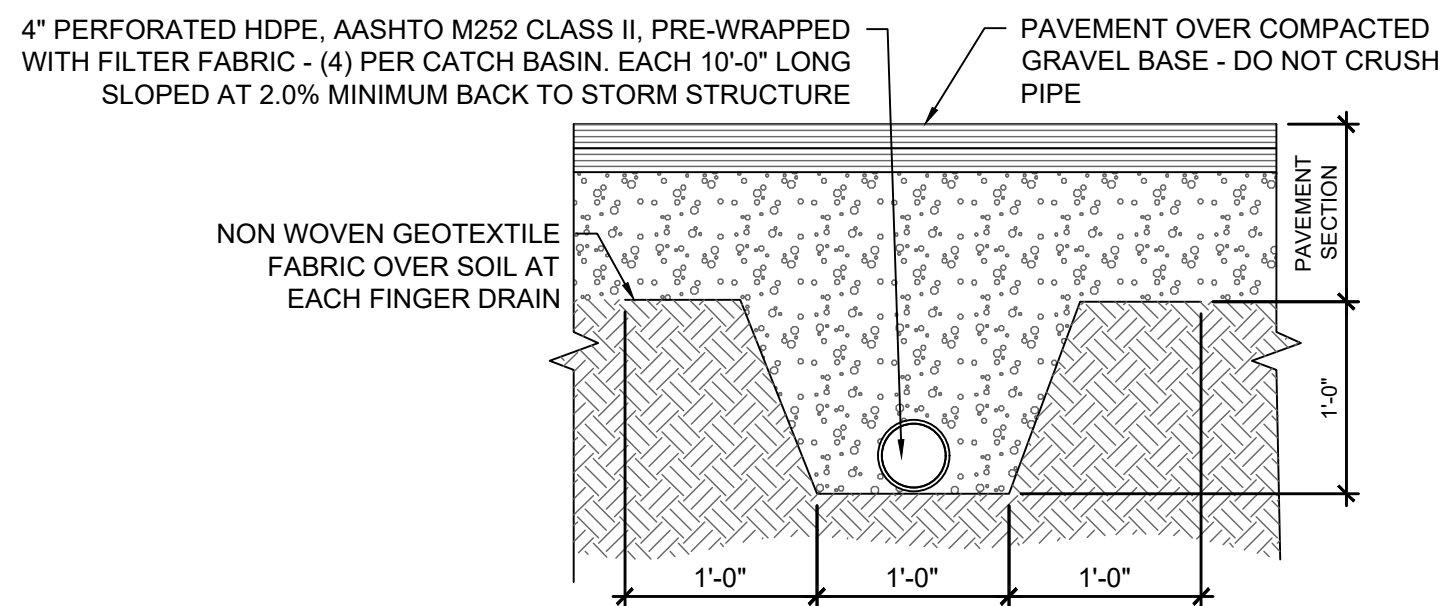
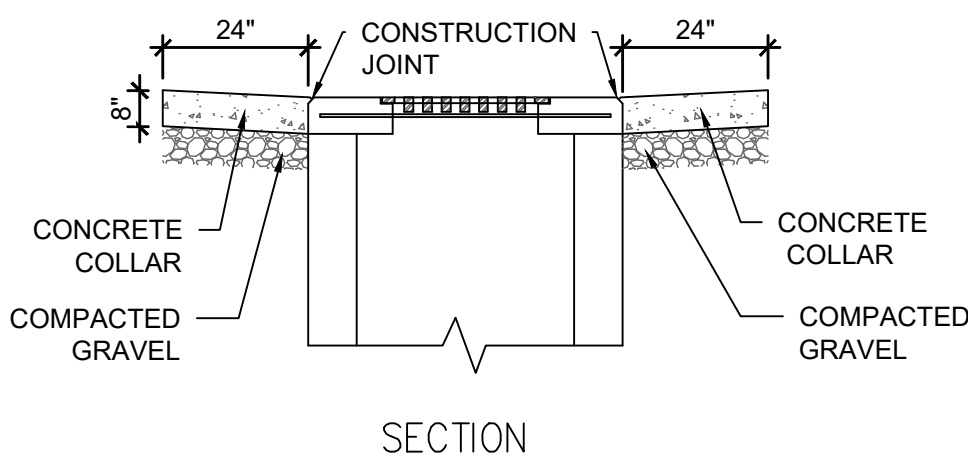


BASIN SIZING		
INSIDE DIMENSION	PIPE SIZE	TOP SLAB REINFORCING AT 6" O.C.
3'-0" x 3'-0"	12" TO 33"	(8) #4 BARS
4'-0" x 4'-0"	36" TO 42"	(12) #4 BARS



- NOTES**
- A. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI
- B. CONCRETE COLLAR SHALL SLOPE TO GRATE AT 5.0%

E
C10 / N.T.S. CATCH BASIN CONCRETE COLLAR



- STRUCTURE BACKFILL NOTES**
- A. BACKFILL TO BE PLACED IN 8\"/>

G
C10 / N.T.S. STRUCTURE BACKFILL

F
C10 / N.T.S. FINGER DRAIN

- NOTES**
- A. THE INTENTION OF THE FINGER DRAIN SYSTEM IS TO PREVENT EXCESS WATER ACCUMULATION AT THE LOW POINTS IN THE GRAVEL BASE AT DRAINAGE STRUCTURES. SYSTEM TO BE INSTALLED TO ASSURE ADEQUATE DRAINAGE OF PAVEMENT BASE.

CONCRETE TABLE					
AGGREGATE	DRY AGGREGATES (LB/C.Y.)			CEMENT CONTENT (LB/C.Y.)	WATER-CEMENT RATIO (MAX)
	FINE	COARSE	TOTAL		
GRAVEL	1160	1735	2895	600	0.5
LIMESTONE	1285	1630	2915	600	0.5
SLAG	1350	1360	2710	600	0.5

NOTES

- A. GRATE: EJ NO. 5115M2, 5115Z OR APPROVED EQUAL. NEENAH NO. 4852, 1893-0018 OR APPROVED EQUAL. WALLS: CAST-IN-PLACE WALLS SHALL HAVE A NOMINAL THICKNESS OF 8\"/>

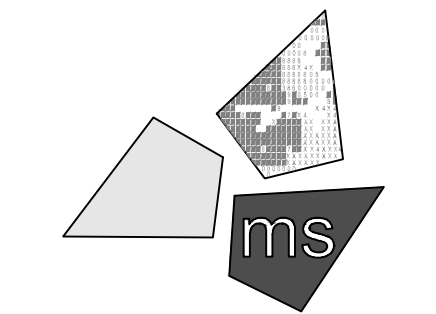
D
C10 / N.T.S. SQUARE CATCH BASIN DETAIL

REVISION/DATE/DESCRIPTION

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PROJECT

WHATABURGER
PT20M BUILDING

1460 NE DOUGLAS ST.
LEE'S SUMMIT, MO
64086

SHEET TITLE

**SITE
DETAILS**



DRAWN BY: LLK/JAM

CHECKED BY: KEA

PROJECT NO: 40497-01

DRAWING

C-10



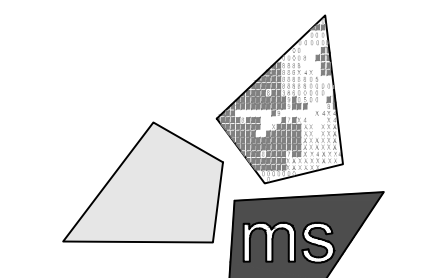
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI**

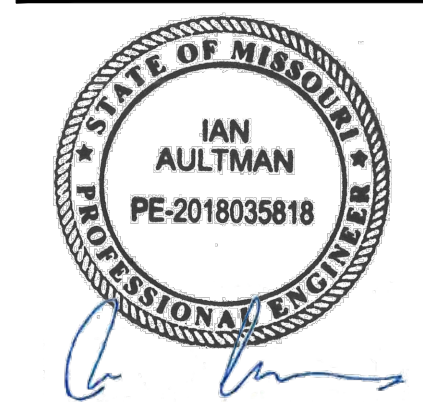
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WHATABURGER
PT20M BUILDING

DETENTION SYSTEM DETAILS



DRAWING

C-12

ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (B LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER, NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 ¹ A-1, A-2.4, A-3 OR AASHTO M33 ² 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 88, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL, AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 ³ 3.4	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 ³ 3.4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAMPING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
- MC-4500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL, FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION:
 - THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LB/IN²IN.
 - AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

MC-4500 ISOLATOR ROW PLUS DETAIL
NTS

COVER PIPE CONNECTION TO END CAP WITH ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE

STORMTECH HIGHLY RECOMMENDS FLEXFORM INSERTS IN ANY UPSTREAM STRUCTURES WITH OPEN GRATES

ELEVATED BYPASS MANIFOLD

24" (600 mm) HOPE ACCESS PIPE REQUIRED
USE FACTORY PARTIAL CUT END CAP PART #:
MC4500REPE24BC OR MC4500REPE24BW

OPTIONAL INSPECTION PORT

MC-4500 END CAP

ONE LAYER OF ADS PLUS 70 WOVEN GEOTEXTILE BETWEEN FOUNDATION STONE AND CHAMBER
10.3' (3.1 m) MIN WIDE CONTINUOUS FABRIC WITHOUT SEAMS

SUMP DEPTH TBD BY SITE DESIGN ENGINEER
(24" (600 mm) MIN RECOMMENDED)

CATCH BASIN OR MANHOLE

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT

- A. INSPECTION PORTS (IF PRESENT)
 - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - A.2. REMOVE AND CLEAN FLEXFORM FILTER IF INSTALLED
 - A.3. USING A FLASHLIGHT AND STADIUM ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- B. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2; IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS**
 - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
 - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2; IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JET/VAC PROCESS

- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JET/VAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

4" PVC INSPECTION PORT DETAIL
(MC SERICS CHAMBER)
NTS

CONCRETE COLLAR NOT REQUIRED FOR UNPAVED APPLICATIONS

8" NYLOPLAST INSPECTION PORT BODY (PART# 270SAG4PKIT) OR TRAFFIC RATED BOX W/ SOLID LOCKING COVER

CONCRETE COLLAR

PAVEMENT

CONCRETE SLAB
6" (150 mm) MIN THICKNESS

4" (100 mm) SDR 35 PIPE

4" (100 mm) INSERTA TEE TO BE CENTERED ON CORRUGATION VALLEY

STORMTECH CHAMBER

12" (300 mm) MIN WIDTH

NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.

**4441 TRUHAN ROAD
HILLIARD, OH 43038**

SDS

4 SHEET
OF
5

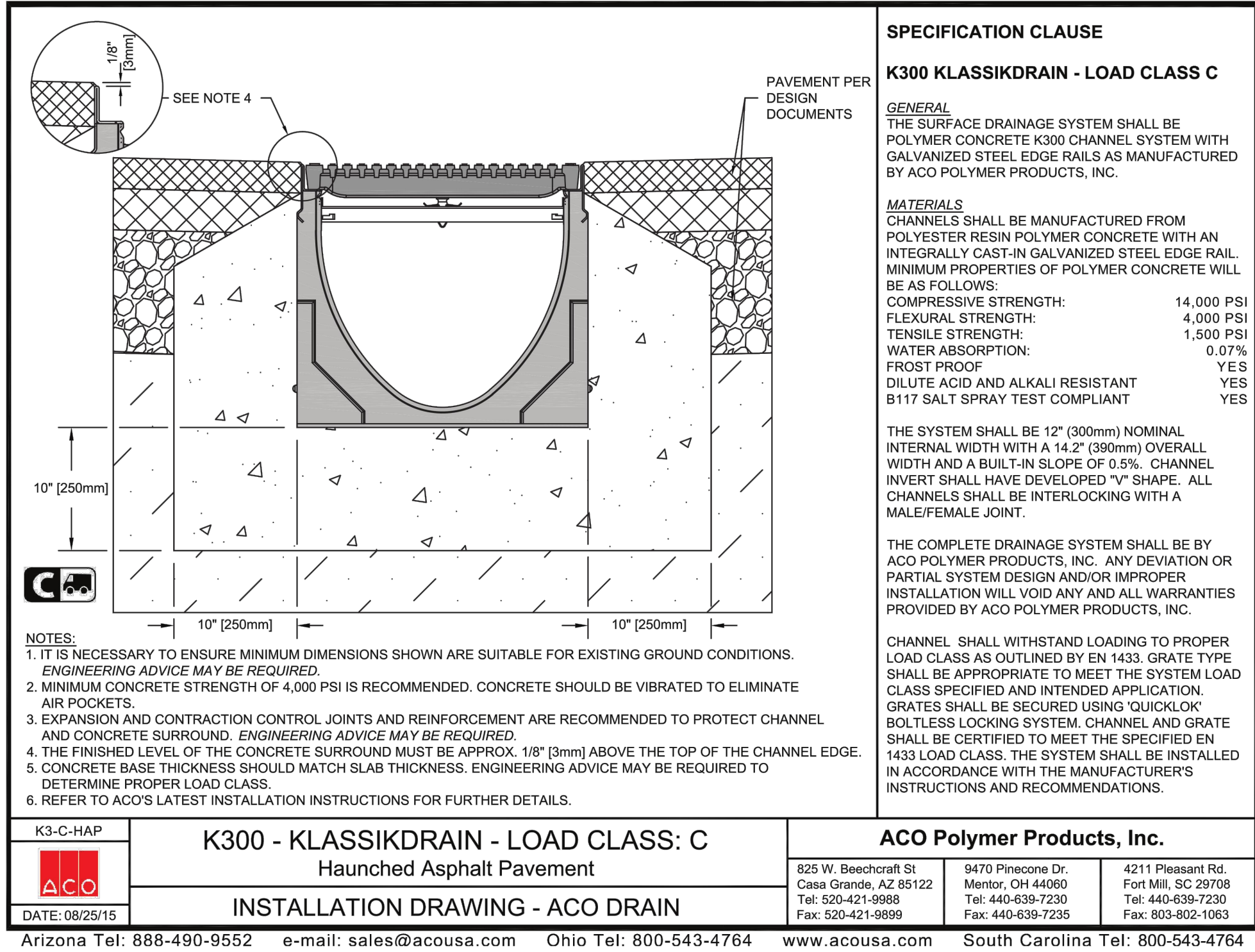
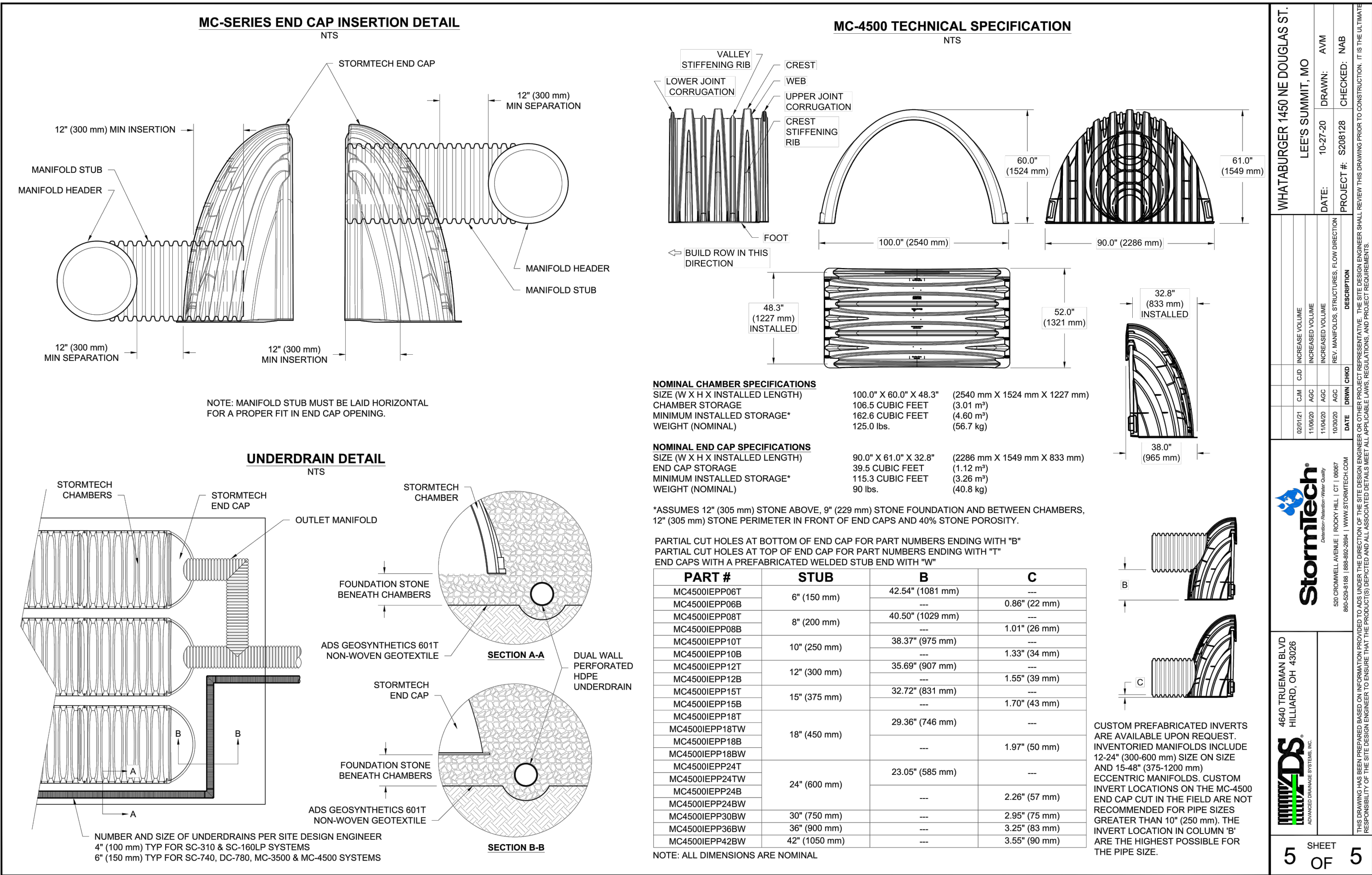
Stormtech
Stormwater Management Systems
NOT FOR CONSTRUCTION PERMITS
800-288-2828 • 614-892-2828 • WWW.STORMTECH.COM

**WHATBURGER 450 NE DOUGLAS ST.
LEES SUMMIT, MO**

DATE: 10/27/20 | DRAWN: AMM
PROJECT #: 5200128 | CHECKED: MAB

**RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/12/2021**

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RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

04/12/2021



**MISSOURI
ONE CALL SYSTEM**

The Missouri One Call System is a communications system which was established to help prevent damage to underground facilities and to promote safety. Missouri One Call operators are on duty 24 hours a day, seven days a week.

Missouri One Call provides a telephone number for contractors and the general public to call for notification of their intent to use equipment for excavation, grading, blasting, boring, demolition or other types of similar work.

1-800-DIG-RITE or 811

MAKE THE CALL...IT'S THE LAW

REVISION/DATE/DESCRIPTION

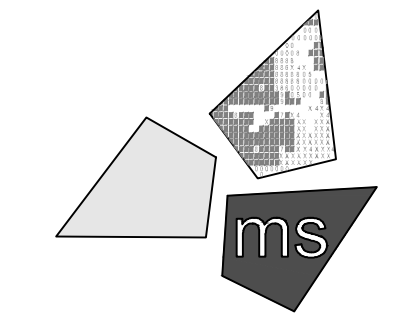
60% Plan Set 10/20/20

90% Plan Set 11/17/20

100% Plan Set/Bid Set 12/16/20

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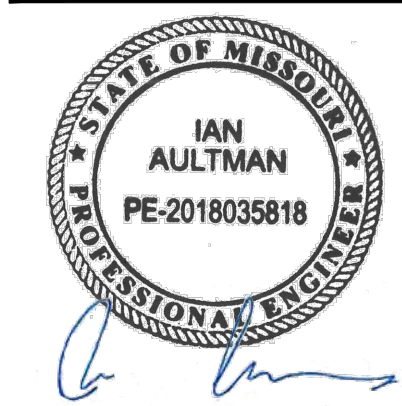
PROJECT

**WHATABURGER
PT20M BUILDING**

1460 NE DOUGLAS ST.
LEE'S SUMMIT, MO
64086

SHEET TITLE

**DETENTION
SYSTEM
DETAILS**



DRAWN BY: LLK/AMA

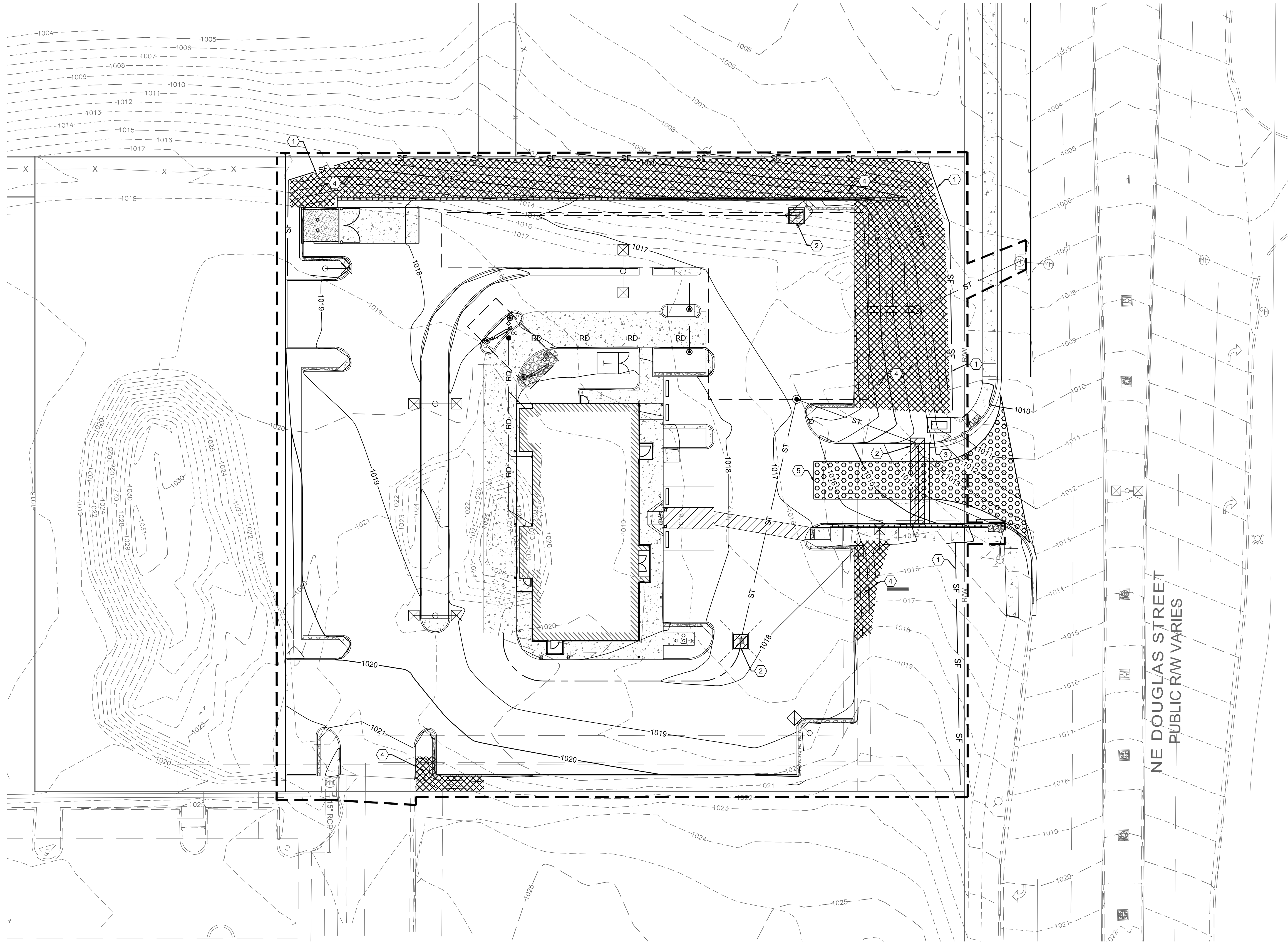
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PROJECT NO: 40497-01

DRAWING

C-13

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RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/12/2021

KEYED NOTES:

- 1 TEMPORARY SILT FENCE, SEE DETAIL ON SHEET C-16.1.
- 2 INLET PROTECTION, SEE DETAILS ON SHEET C-16.2.
- 3 CONCRETE WASHOUT, SEE DETAIL ON SHEET C-16.1.
- 4 SLOPE PROTECTION, SEE DETAIL ON SHEET C-16.1.
- 5 CONSTRUCTION ENTRANCE, SEE DETAIL ON SHEET C-16.1.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
1015	1015	CONTOUR
	SF	SILT FENCE
		INLET PROTECTION
		CONCRETE WASHOUT
		SLOPE PROTECTION
		CONSTRUCTION ENTRANCE

CONSTRUCTION SEQUENCE

1. INSTALL ALL PERIMETER EROSION AND SEDIMENT CONTROL BMPs AT THE LOCATIONS INDICATED ON THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PRIOR TO ANY EARTH DISTURBANCE.
2. CONSTRUCT THE STABILIZED CONSTRUCTION ENTRANCE.
3. CLEAR AND GRUB AS NEEDED.
4. FULL SITE GRADING.
5. PILE TOPSOIL WITHIN SILT FENCE PERIMETER.
6. STABILIZE DENUDED AREAS AND STOCKPILES WITHIN 14 DAYS OF LAST CONSTRUCTION ACTIVITY IN THAT AREA AND INSTALL SLOPE PROTECTION AND TEMPORARY SEEDING AS NEEDED.
7. INSTALL CONCRETE WASHOUT.
8. INSTALL PROPOSED UTILITIES INCLUDING INLET PROTECTION AS STORM INLETS ARE INSTALLED.
9. BUILDING CONSTRUCTION AND SITE PAVING.
10. REMOVE CONCRETE WASHOUT.
11. FINAL GRADING AND INSTALL PERMANENT SEEDING ON NON-PAVED AREAS OF SITE.
12. RESEED ANY DISTURBED AREAS AND LANDSCAPE SITE.
13. ONCE 70% VEGETATIVE COVERAGE IS ACHIEVED, REMOVE TEMPORARY EROSION PROTECTION.



MISSOURI
ONE CALL SYSTEM

The Missouri One Call System is a communications system which was established to help prevent damage to underground facilities and to promote safety. Missouri One Call operators are on duty 24 hours a day, seven days a week. Missouri One Call provides a telephone number for contractors and the general public to call for notification of their intent to use equipment for excavation, grading, blasting, boring, demolition or other types of similar work.

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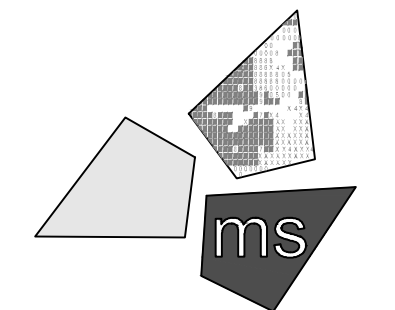
MAKE THE CALL...IT'S THE LAW

REVISION/DATE/DESCRIPTION

60% Plan Set	10/20/20
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100% Plan Set/Bid Set	12/16/20

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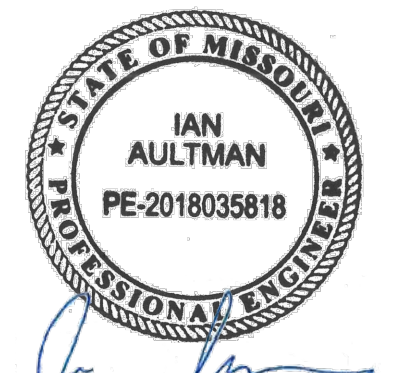
PROJECT

WHATABURGER
PT20M BUILDING

1460 NE DOUGLAS ST.
LEE'S SUMMIT, MO
64086

SHEET TITLE

STORMWATER
POLLUTION
PREVENTION
PLAN



DRAWN BY: LLK/AMA

CHECKED BY: KEA

PROJECT NO: 40497-01

DRAWING

C-14

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PROJECT NAME AND LOCATION
WHATABURGER
1460 NE DOUGLAS ST.
LEE'S SUMMIT, MO 64086

OWNER NAME AND ADDRESS
WHATABURGER
300 CONCORD PLAZA DR.
SAN ANTONIO, TX 78216
PHONE: (210) 476-6000
CONTACT: CLINT SAAVEDRA
EMAIL: csaavedra@wbhq.com

SITE CONTACT
ms consultants, inc.
2221 SCHROCK ROAD
COLUMBUS, OHIO 43229
PHONE: (614) 898-7100
CONTACT: KAILEN AKERS
EMAIL: kakers@msconsultants.com

GENERAL SCOPE OF PROJECT
THIS PROJECT WILL CONSIST OF A RESTAURANT AND THE CONSTRUCTION OF ASSOCIATED DRAINAGE FACILITIES AND OTHER MISCELLANEOUS SITE WORK.

NATURE OF CONSTRUCTION ACTIVITY (CHECK ALL THAT APPLY)
SUBDIVISION
COMMERCIAL X
INDUSTRIAL
P.U.D.
OTHER

SOIL TYPES
10024 - GREENTON-URBAN LAND COMPLEX, 5 TO 9 PERCENT SLOPES
10082 - ARISBURG-URBAN LAND COMPLEX, 1 TO 5 PERCENT SLOPES

CONSTRUCTION SITE ESTIMATES	
TOTAL SITE AREA:	1.40 AC.
CONSTRUCTION SITE AREA TO BE DISTURBED:	1.40 AC.
PERCENTAGE IMPERVIOUS AREA BEFORE CONSTRUCTION:	0.0%
RUNOFF COEFFICIENT BEFORE CONSTRUCTION:	0.30
PERCENTAGE IMPERVIOUS AREA AFTER CONSTRUCTION:	74.7%
RUNOFF COEFFICIENT AFTER CONSTRUCTION:	0.75

RECEIVING WATERS
THE SITE IS TRIBUTARY TO LITTLE CEDAR CREEK BY AN EXISTING STORM SEWER.

CONSTRUCTION SEQUENCE
THE ORDER OF MAJOR ACTIVITIES WILL BE AS FOLLOWS:

- PRE-CONSTRUCTION MEETING
- BEFORE AND SITE GRADING ACTIVITIES BEGIN
 - INSTALL PERIMETER SILT FENCES
 - INSTALL INLET PROTECTION ON EXISTING INLETS
 - CONSTRUCT TEMPORARY CONSTRUCTION ENTRANCE
- BEGIN SITE GRADING AND TOPSOIL STRIPPING
 - ESTABLISH TOPSOIL STOCKPILE WITHIN SILT FENCE PERIMETER
 - STABILIZE DENUDED AREAS AND STOCKPILES WITHIN 14 DAYS OF LAST CONSTRUCTION ACTIVITY IN THAT AREA
 - INSTALL EROSION CONTROL MATTING AT LOCATIONS INDICATED ON PLAN
- INSTALL UTILITIES, SANITARY SEWERS, WATER SERVICES AND STORM SEWERS
- BEFORE INSTALLING UNDERGROUND DETENTION.
 - PROJECT ENGINEER IS REQUIRED TO BE ONSITE DURING INSTALLATION OF UNDERGROUND DETENTION. NOTIFY ENGINEER 5 DAYS PRIOR TO INSTALLATION
 - INSTALL GEOTEXTILE BOX INLET PROTECTION AND DANDY BAG OR APPROVED EQUAL ON ALL SITE INLETS
 - INSTALL SILT FENCE AROUND PERIMETER OF UNDERGROUND DETENTION EXCAVATION TO PREVENT ANY SEDIMENT LADEN CONSTRUCTION RUNOFF FROM ENTERING THE SYSTEM DURING CONSTRUCTION
- INSTALL UNDERGROUND DETENTION
- BEGIN CONSTRUCTION OF BUILDING FOUNDATION AND STRUCTURE
- INSTALL CURBS, PREPARE PAVEMENT SUBGRADE AND PROVIDE GOOD AGGREGATE BASE TO AREAS TO BE PAVED.
- PAVE AREAS AND EXTERIOR BUILDING CONSTRUCTED
- FINAL GRADING AND PERMANENT SEEDING OF THE NON-PAVED AREAS OF THE SITE WITHIN 7 DAYS OF FINISHING FINAL GRADE
- ONCE 70% VEGETATIVE COVERAGE IS ACHIEVED, REMOVE EROSION PROTECTION.

POTENTIAL SOURCES OF POLLUTION
CONCRETE
DETERGENTS
WOOD
FERTILIZERS
PAINTS (ENAMEL AND LATEX)
CLEANING SOLVENTS
PETROLEUM BASED PRODUCTS

EROSION AND SEDIMENT CONTROLS

BMP DESCRIPTION: CLEARING AND GRUBBING
MAINTENANCE AND INSPECTION: AS NEEDED
REFERENCE: TECHNICAL SPECIFICATION

BMP DESCRIPTION: DUST CONTROL
MAINTENANCE AND INSPECTION: AS NEEDED
REFERENCE: E&S DETAILS

BMP DESCRIPTION: TEMPORARY SEEDING AND MULCHING
MAINTENANCE AND INSPECTION: WEEKLY AND AFTER HEAVY RAIN
REFERENCE: E&S DETAILS

BMP DESCRIPTION: PERMANENT SEEDING AND MULCHING
MAINTENANCE AND INSPECTION: WEEKLY AND AFTER HEAVY RAIN
REFERENCE: E&S DETAILS

BMP DESCRIPTION: CONSTRUCTION ENTRANCE
MAINTENANCE AND INSPECTION: AS NEEDED
REFERENCE: E&S DETAILS

BMP DESCRIPTION: ADS - ISOLATOR ROW
MAINTENANCE AND INSPECTION: AS NEEDED
REFERENCE: O&M MANUAL

POST CONSTRUCTION BMP'S

- UNDERGROUND DETENTION
- 12' SUMPS AT CATCH BASINS
- ADS - ISOLATOR ROW
- GOTHER SEDIMENT AND EROSION CONTROL NOTES
- TEMPORARY EROSION CONTROLS WILL BE APPLIED PRIOR TO ONSET OF WINTER WEATHER FOR DISTURBED AREAS THAT WILL BE LEFT IDLE OVER WINTER.
- PERMANENT EROSION CONTROLS WILL BE APPLIED WITHIN 7 DAYS FOR DISTURBED AREAS REMAINING DORMANT FOR OVER 1 YEAR OR AT FINAL GRADE.
- SEDIMENT CONTROL DEVICES WILL BE IMPLEMENTED FOR ALL AREAS REMAINING DISTURBED OVER 7 DAYS.

ADDITIONAL BMP'S

OPEN BURNING: NO MATERIALS MAY BE BURNED WHICH CONTAIN RUBBER, GREASE, ASPHALT, OR PETROLEUM PRODUCTS SUCH AS TIRES, CARS, AUTO PARTS, PLASTICS OR PLASTIC COATED WIRE. OPEN BURNING IS NOT ALLOWED IN RESTRICTED AREAS. RESTRICTED AREAS ARE DEFINED AS:

- WITHIN CORPORATION LIMITS
- WITHIN 1,000 FEET OF A MUNICIPAL CORPORATION
- WITHIN A ONE MILE ZONE OUTSIDE OF A CORPORATION OF 10,000 OR MORE

OUTSIDE THE RESTRICTED AREA, NO OPEN BURNING CAN TAKE PLACE WITHIN 1,000 FEET OF AN INHABITED BUILDING LOCATED OFF THE PROPERTY WHERE THE FIRE IS SET. OPEN BURNING IS PERMISSIBLE IN A RESTRICTED AREA FOR THE FOLLOWING ACTIVITIES: HEATING TAR, WELDING AND ACETYLENE TORCHES, SMUDGE POTS AND SIMILAR OCCUPATIONAL NEEDS, AND HEATING OR WARMTH FOR OUTDOOR BARBEQUES. OUTSIDE OF RESTRICTED AREAS, OPEN BURNING IS PERMISSIBLE FOR LANDSCAPE WASTES (PLANT MATERIAL), LAND-CLEARING WASTES (PLANT MATERIAL, WITH PRIOR WRITTEN PERMISSION FROM EPA), AND AGRICULTURAL WASTES (MATERIAL GENERATED BY CROP, HORTICULTURAL, OR LIVESTOCK PRODUCTION PRACTICES.

DUST CONTROL/SUPPRESSANTS: DUST CONTROL IS REQUIRED TO PREVENT NUISANCE CONDITIONS. DUST CONTROLS MUST BE USED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION AND NOT BE APPLIED IN A MANNER, WHICH WOULD RESULT IN A DISCHARGE TO WATERS OF THE STATE. ISOLATION DISTANCES FROM BRIDGES, CATCH BASINS, AND OTHER DRAINAGE WAYS MUST BE OBSERVED. APPLICATION (EXCLUDING WATER) MAY NOT OCCUR WHEN PRECIPITATION IS IMMINENT AS NOTED IN THE SHORT TERM FORECAST. USED OIL MAY NOT BE APPLIED FOR DUST CONTROL.

AIR PERMITTING REQUIREMENTS: ALL CONTRACTORS AND SUB CONTRACTORS MUST BE MADE AWARE THAT CERTAIN ACTIVITIES ASSOCIATED WITH CONSTRUCTION WILL REQUIRE AIR PERMITS. ACTIVITIES INCLUDING BUT NOT LIMITED TO MOBILE CONCRETE BATCH PLANTS, MOBILE ASPHALT PLANTS, CONCRETE CRUSHERS, LARGE GENERATORS, ETC., WILL REQUIRE SPECIFIC MISSOURI EPA AIR PERMITS FOR INSTALLATION AND OPERATION. THESE ACTIVITIES MUST SEE AUTHORIZATION FROM THE CORRESPONDING OF MISSOURI EPA. NOTIFICATION FOR RESTORATION AND DEMOLITION MUST BE SUBMITTED TO MISSOURI EPA FOR ALL COMMERCIAL SITES TO DETERMINE IF ASBESTOS CORRECTIVE ACTIONS ARE REQUIRED.

WASTE DISPOSAL: THE CONTRACTOR SHALL PROVIDE LITTER CONTROL AND COLLECTION OF MATERIALS WITHIN THE PROJECT BOUNDARIES DURING CONSTRUCTION. ALL FERTILIZER, HYDROCARBON, OR OTHER CHEMICAL CONTAINERS SHALL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH THE EPA'S STANDARD PRACTICES. NO SOLID MATERIAL INCLUDING BUILDING AND CONSTRUCTION MATERIAL SHALL BE DISPOSED OF, DISCHARGED OR BURIED ONSITE.

OFFSITE VEHICLE TRACKING: LOADED HAUL TRUCKS SHALL BE COVERED WITH A TARPULIN. EXCESS DIRT MATERIAL ON THE ROADS SHALL BE REMOVED IMMEDIATELY. HAULING ON UNPAVED SURFACES SHALL BE MONITORED TO MINIMIZE DUST AND CONTROL EROSION. HAUL ROADS SHALL BE WATERED OR OTHER CONTROLS PROVIDED AS NECESSARY TO REDUCE DUST AND CONTROL SEDIMENTS.

SANITARY WASTE: THE CONTRACTOR SHALL PROVIDE PORTABLE SANITARY WASTE FACILITIES. THESE FACILITIES SHALL BE COLLECTED OR EMPTIED BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY STATE REGULATIONS.

FERTILIZERS AND PESTICIDES: FERTILIZER SHALL BE APPLIED AT A RATE SPECIFIED BY THE SPECIFICATIONS OR THE MANUFACTURER. THE APPLICATION OF FERTILIZERS SHALL BE ACCOMPLISHED IN A MANNER AS DESCRIBED BY THE SPECIFICATION OR MANUFACTURER TO ENSURE THE PROPER INSTALLATION AND TO AVOID OVER FERTILIZING. PESTICIDES ARE NOT ANTICIPATED FOR THIS PROJECT.

MAINTENANCE
THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE AND REPAIRS OF EROSION AND SEDIMENT CONTROL DEVICES AND THE REMOVAL OF THE EROSION AND SEDIMENT CONTROL DEVICES AFTER THE NOTICE OF TERMINATION IS EXECUTED.

THE CONTRACTOR SHALL REVIEW THE PROJECT AND ALL EROSION AND SEDIMENT CONTROLS ON A DAILY BASIS AND DURING AND FOLLOWING RAINFALL EVENTS. AN INSPECTION FORM HAS BEEN PROVIDED IN THE SPECIFICATIONS. THE CONTRACTOR SHALL BE REQUIRED TO KEEP A LOG OF ALL THE DAILY INSPECTION REPORTS, GRADING AND STABILIZATION ACTIVITIES, AND SWPPP AMENDMENTS AT THE SITE. THE FOLLOWING PRACTICES WILL BE IMPLEMENTED TO MAINTAIN AND MONITOR EROSION AND SEDIMENT CONTROLS.

- PROJECT REVIEW ON A DAILY BASIS.
- PROVIDE AND MAINTAIN RAIN GAUGES ONSITE (IF NOT AVAILABLE IN THE AREA) TO RECORD RAINFALL DATA DAILY.
- REVIEW STABILIZATION PRACTICES AND CONTROLS ON A DAILY BASIS AND MAINTAIN AND REPAIR THESE MEASURES AND CONTROLS AS NECESSARY. TEMPORARY AND/OR PERMANENT SEEDING, MULCHING AND SODDING SHALL BE REPAIRED IN BARE SPOTS AND WASHOUTS, AND HEALTHY GROWTH ESTABLISHED.
- ONCE HEALTHY GROWTH OF TURF IS ESTABLISHED, THE CONTRACTOR SHALL MAINTAIN THESE AREAS TO INSURE THE HEIGHT OF THE GRASS DOES NOT REACH MORE THAN 6 INCHES ABOVE THE ESTABLISHED GRADE.
- REVIEW STRUCTURAL PRACTICES ON A DAILY BASIS AND MAINTAIN AND REPAIR THESE MEASURES AND CONTROLS AS NECESSARY. BUILT UP SEDIMENTS SHALL BE REMOVED FROM SILT FENCES AND FILTER CLOTH SHALL BE REPLACED AS NECESSARY AND WHEN THEY HAVE SERVED THEIR USEFULNESS.
- AN INSPECTION AND MAINTENANCE REPORT SHALL BE COMPLETED WEEKLY AND WITHIN 24 HOURS OF A RAINFALL EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR SHALL CREATE AN INSPECTION AND MAINTENANCE REPORT LOG AND NOTE ANY AMENDMENTS TO THE SWPPP THAT OCCUR DURING CONSTRUCTION.
- IF THE CONTRACTOR ELECTS TO APPLY FOR PERMITS FOR DISCHARGE OF STORMWATER FROM THE SITE DURING CONSTRUCTION, ALL POINTS OF DISCHARGE OF STORMWATER RUNOFF FROM THE SITE SHALL BE INSPECTED ON A DAILY BASIS AND CONTROLS AND MEASURES REPAIRED AS NECESSARY TO MAINTAIN ACCEPTABLE WATER QUALITY AND DISCHARGE VOLUMES IN ACCORDANCE WITH THE PERMIT.

INSPECTIONS
QUALIFIED PERSONNEL SHALL INSPECT ALL POINTS OF DISCHARGE, AS APPLICABLE, FROM THE PROJECT SITE AND ALL DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN STABILIZED. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR POTENTIAL FOR POLLUTANTS ENTERING THE STORMWATER MANAGEMENT SYSTEM. THE STORMWATER MANAGEMENT SYSTEM AND EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. INSPECTION AND MAINTENANCE REPORTS SHALL BE COMPLETED AT LEAST EVERY WEEK AND FOLLOWING A RAINFALL EVENT OF 0.5 INCHES OF WATER OR GREATER (SEE ATTACHED FORM). THESE FORMS SHALL BE RETAINED FOR A PERIOD OF AT LEAST 3 YEARS FOLLOWING THE DATE THE SITE IS FINALLY STABILIZED.

ALLOWABLE NON-STORMWATER DISCHARGE MANAGEMENT

ALLOWABLE NON-STORMWATER DISCHARGES AND THE MEASURES USED TO ELIMINATE OR REDUCE THEM AND TO PREVENT THEM FROM BECOMING CONTAMINATED MAY INCLUDE DEPENDING ON THE PERMIT:

- WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED
- WATER USED TO CONTROL DUST
- POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHINGS
- ROUTINE EXTERNAL BUILDING WASH DOWN THAT DOES NOT USE DETERGENTS
- PAVEMENT WASH WATER WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED (UNLESS ALL SPILLED MATERIAL HAS BEEN REMOVED) AND WHERE DETERGENTS ARE NOT USED
- UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE
- UNCONTAMINATED GROUND WATER OR SPRING WATER
- FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS
- UNCONTAMINATED EXCAVATION DEWATERING
- LANDSCAPE IRRIGATION

ESTABLISH PROPER EQUIPMENT/VEHICLE FUELING AND MAINTENANCE PRACTICES

EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES, OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS. SECONDARY CONTAINMENT SHALL BE PROVIDED FOR ALL FUEL OIL STORAGE TANKS. THESE AREAS MUST BE INSPECTED EVERY SEVEN DAYS AND WITHIN 24 HOURS OF A 0.5 INCH OR GREATER RAIN EVENT TO ENSURE THERE ARE NO EXPOSED MATERIALS WHICH WOULD CONTAMINATE STORM WATER.

SPILL PREVENTION CONTROL PLAN

SITE OPERATORS MUST BE AWARE THAT SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) REQUIREMENTS APPLY. AN SPCC PLAN IS REQUIRED FOR SITES WITH ONE SINGLE ABOVEGROUND STORAGE OF 1,320 GALLONS OR MORE, OR 42,000 GALLONS OF UNDERGROUND STORAGE. SOILS THAT HAVE BEEN CONTAMINATED MUST BE DISPOSED OF IN ACCORDANCE WITH SECTION "CONTAMINATED SOILS" FOUND BELOW.

SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST, CAT LITTER OR OTHER ABSORBENT MATERIAL AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS, AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. SPILLS SHALL BE REPORTED TO THE EPA (1-913-281-0991). SPILLS OF 25 GALLONS OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO EPA (1-913-281-0991), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MINUTES OF THE DISCOVERY OF THE RELEASE. ALL SPILLS, WHICH RESULT IN CONTACT WITH WATER OF THE STATE, MUST BE REPORTED TO THE EPA'S HOTLINE.

CONTAMINATED SOILS

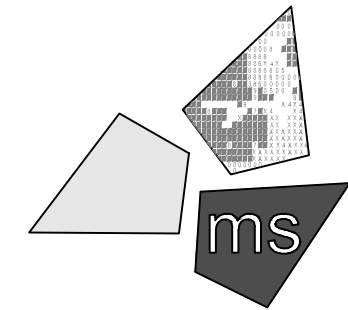
IF SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC., ARE SPILLED, LEAKED, OR RELEASED ONTO THE SOIL, THE SOIL SHOULD BE DUG UP AND DISPOSED OF AT A LICENSED SANITARY LANDFILL OR OTHER APPROVED PETROLEUM CONTAMINATED SOIL REMEDIATION FACILITY (NOT A CONSTRUCTION/DEMOLITION DEBRIS LANDFILL). PLEASE BE AWARE THAT STORM WATER RUN OFF ASSOCIATED WITH CONTAMINATED SOILS ARE NOT BEING AUTHORIZED UNDER THE EPA'S GENERAL STORMWATER PERMIT ASSOCIATED WITH CONSTRUCTION ACTIVITIES. IN THE EVENT THERE ARE LARGE EXTENSIVE AREAS OF CONTAMINATED SOILS ADDITIONAL MEASURES ABOVE AND BEYOND THE CONDITIONS OF THE EPA'S GENERAL CONSTRUCTION STORMWATER PERMIT WILL BE REQUIRED. DEPENDING ON THE EXTENT OF CONTAMINATION, ADDITIONAL TREATMENT AND/OR COLLECTION AND DISPOSAL MAY BE REQUIRED. ALL STORMWATER DISCHARGES ASSOCIATED WITH CONTAMINATED SOILS MUST BE AUTHORIZED UNDER AN ALTERNATE NPDES PERMIT.

REVISION/DATE/DESCRIPTION

60% Plan Set	10/20/20
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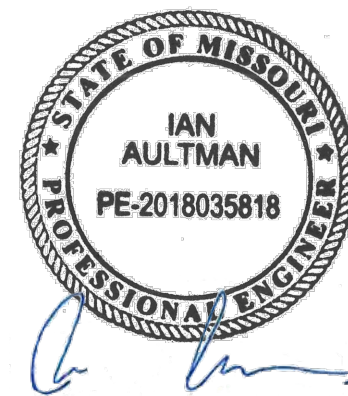
PROJECT

WHATABURGER
PT20M BUILDING

1460 NE DOUGLAS ST.
LEE'S SUMMIT, MO
64086

SHEET TITLE

SWPPP
NOTES



DRAWN BY: LLK/AMA

CHECKED BY: KEA

PROJECT NO: 40497-01

DRAWING

C-15

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

04/12/2021

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TEMPORARY SEEDING

DESCRIPTION

TEMPORARY SEEDINGS ESTABLISH TEMPORARY COVER ON DISTURBED AREAS BY PLANTING APPROPRIATE RAPIDLY GROWING ANNUAL GRASSES OR SMALL GRAINS. 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.

SPECIFICATIONS FOR TEMPORARY SEEDING

TEMPORARY SEEDING SPECIES SELECTION			
SEEDING DATES	SPECIES	LB/1000 SF	LB/ACREA
MAR 1 TO AUG 15	OATS	3	128-4 BUSHEL
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYGRASS	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	ANNUAL RYEGRASS	1.25	55
	PERENNIAL RYEGRASS	3.25	142
	CREEPING RED FESCUE	0.40	17
	KENTUCKY BLUEGRASS	0.40	17
	OATS	3	128-3 BUSHEL
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
AUG 16 TO NOV	RYE	3	112-3 BUSHEL
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	WHEAT	3	120-2 BUSHEL
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYE	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	ANNUAL RYEGRASS	1.25	40
	PERENNIAL RYEGRASS	3.25	40
	CREEPING RED FESCUE	0.40	40
	KENTUCKY BLUEGRASS	0.40	
NOV 1 TO FEB 29	USE MULCH ONLY OR DORMANT SEEDING		

- 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 14 DAYS OR GREATER. THESE IDLE AREAS SHALL BE SEEDED WITHIN 7 DAYS AFTER GRADING.
- THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. TEMPORARY SEEDING SHOULD NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.
- SOIL AMENDMENTS TEMPORARY VEGETATION SEEDING RATES SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION, WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. BASE RATES FOR LIME AND FERTILIZER SHALL BE USED.
- SEEDING METHOD SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SPREADER, 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 ON FAVORABLE, VERY FLAT SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.
- MATERIALS:
 - STRAW IF STRAW IS USED, IT SHALL BE UNROTTED SMALL-GRAIN STRAW APPLIED AT A RATE OF 2 TONS PER ACRE OR 90 LBS./ 1,000 SQ. FT. (2-3 BALES)
 - HYDROSEEDERS IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2000 LBS./ AC. OR 46 LB./ 1,000-SQ.-FT.
 - OTHER OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TON/ AC.
- 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 LEFT TO A LENGTH OF APPROXIMATELY 6 INCHES.
 - MULCH NETTING NETTING SHALL BE USED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES.
 - SYNTHETIC BINDERS SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TRACK OR EQUIVALENT MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.
 - WOOD-CELLULOSE FIBER WOOD-CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WT. 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.

DUST CONTROL

DESCRIPTION

DUST CONTROL INVOLVES PREVENTING OR REDUCING DUST FROM EXPOSED SOILS OR OTHER SOURCES DURING LAND DISTURBING, DEMOLITION AND CONSTRUCTION ACTIVITIES TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE.

SPECIFICATIONS FOR DUST CONTROL

- VEGETATIVE COVER AND/MULCH APPLY TEMPORARY OR PERMANENT SEEDING AND MULCH TO AREAS THAT WILL REMAIN IDLE FOR OVER 21 DAYS. SAVING EXISTING TREES AND LARGE SHRUBS WILL ALSO REDUCE SOIL AND AIR MOVEMENT ACROSS DISTURBED AREAS. SEE TEMPORARY SEEDING; PERMANENT SEEDING; MULCHING PRACTICES; AND TREE AND NATURAL AREA PROTECTION PRACTICES.
- WATERING SPRAY SITE WITH WATER UNTIL THE SURFACE IS WET BEFORE AND DURING GRADING AND REPEAT AS NEEDED, ESPECIALLY ON HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES. WATERING SHALL BE DONE AT A RATE THAT PREVENTS DUST BUT DOES NOT CAUSE SOIL EROSION. WETTING AGENTS SHALL BE UTILIZED ACCORDING TO MANUFACTURERS INSTRUCTIONS.
- SPRAY-ON ADHESIVES APPLY ADHESIVE ACCORDING TO THE FOLLOWING TABLE OR MANUFACTURER'S INSTRUCTIONS.
- STONE GRADED ROADWAYS AND OTHER SUITABLE AREAS WILL BE STABILIZED USING CRUSHED STONE OR COARSE GRAVEL AS SOON AS PRACTICABLE AFTER REACHING AN INTERIM OR FINAL GRADE. CRUSHED STONE OR COARSE GRAVEL CAN BE USED AS A PERMANENT COVER TO PROVIDE CONTROL OF SOIL EMISSIONS.
- BARRIERS EXISTING WINDBREAK VEGETATION SHALL BE MARKED AND PRESERVED. SNOW FENCING OR OTHER SUITABLE BARRIER MAY BE PLACED PERPENDICULAR TO PREVAILING AIR CURRENTS AT INTERVALS OF ABOUT 15 TIMES THE BARRIER HEIGHT TO CONTROL AIR CURRENTS AND BLOWING SOIL.
- OPERATION AND MAINTENANCE WHEN TEMPORARY DUST CONTROL MEASURES ARE USED; REPETITIVE TREATMENT SHOULD BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL. STREET CLEANING - PAVED AREAS THAT HAVE ACCUMULATED SEDIMENT FROM CONSTRUCTION SHOULD BE CLEANED DAILY, OR AS NEEDED, UTILIZING A STREET SWEEPER OR BUCKET -TYPE END LOADER OR SCRAPER.

PERMANENT SEEDING

DESCRIPTION

PERENNIAL VEGETATION IS ESTABLISHED ON AREAS THAT WILL NOT BE RE-DISTURBED FOR PERIODS LONGER THAN 12 MONTHS. PERMANENT SEEDING INCLUDES SITE PREPARATION, SEEDBED PREPARATION, PLANTING SEED, MULCHING, IRRIGATION AND MAINTENANCE.

PERMANENT VEGETATION IS USED TO STABILIZE SOIL, REDUCE EROSION, PREVENT SEDIMENT POLLUTION, REDUCE RUNOFF BY PROMOTING INFILTRATION, AND PROVIDE STORMWATER QUALITY BENEFITS OFFERED BY DENSE GRASS COVER.

SPECIFICATION FOR PERMANENT SEEDING

SITE PREPARATION:

- 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.
- THE SITE SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.
- TOPSOIL SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION.

SEEDBED PREPARATION:

- TEST THE SOIL CONDITIONS FOR FEEDING BEFORE STARTING SEEDING AND MULCHING.
- LIME AGRICULTURAL GROUND 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 POUNDS PER 1,000-SQ. FT. OR 2 TONS PER ACRE.
- FERTILIZER FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST. CONTRACTOR SHALL PERFORM LAB TESTING ON SOIL AND PROVIDE A CERTIFIED FERTILIZER RATIO FOR THE SITE SOILS AND SPECIFIED SEED MIX.
- 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 INCHES. ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOUR.

SEEDING DATES AND SOIL CONDITIONS:

SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THE ABOVE SPECIFIED DATES, ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED TO ENSURE A MINIMUM OF 80% GERMINATION. TILLAGE FOR 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.

DORMANT SEEDINGS:

- SEEDINGS SHOULD NOT BE MADE 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.
- 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.

MULCHING:

- MULCH MATERIAL SHALL BE APPLIED IMMEDIATELY AFTER SEEDING. DORMANT SEEDING SHALL BE MULCHED. 100% OF THE GROUND SURFACE SHALL BE COVERED WITH AN APPROVED MATERIAL.
- MATERIALS:
 - STRAW IF STRAW IS USED IT SHALL BE UNROTTED SMALL-GRAIN STRAW APPLIED AT THE RATE OF 2 TONS PER ACRE OR 90 POUNDS (TWO TO THREE BALES) PER 1,000-SQ. FT. THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY APPLIED 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 APPLIED AT 2,000 LB./AC. OR 46 LB./1,000 SQ. FT.
 - OTHER OTHER ACCEPTABLE MULCHES INCLUDE ROLLED EROSION CONTROL MATTINGS OR BLANKETS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS PER ACRE.
- STRAW AND MULCH ANCHORING METHODS-STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER:
 - 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 INCHES.
 - MULCH NETTING NETTING 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 MANUFACTURE OR AT THE RATE OF 160 GALLONS PER ACRE.
 - SYNTHETIC BINDERS SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUIVALENT MAY BE USED AT RATES SPECIFIED BY THE MANUFACTURER.
 - WOOD CELLULOSE FIBER WOOD CELLULOSE FIBER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER WITH THE MIXTURE CONTAINING A MAXIMUM OF 50 POUNDS CELLULOSE PER 100 GALLONS OF WATER.

IRRIGATION:

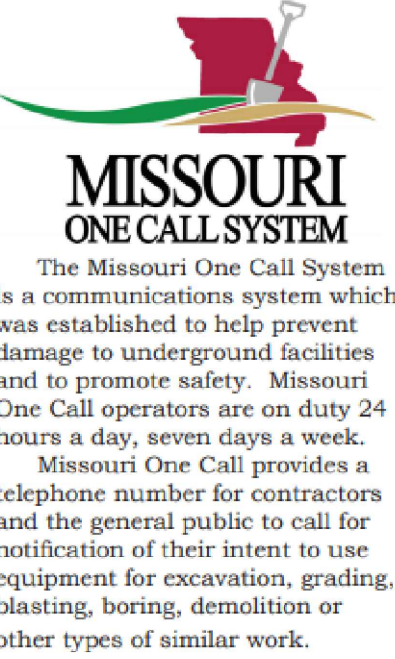
PERMANENT SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY WEATHER OR ON ADVERSE SITE CONDITIONS, WHICH REQUIRE ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH. IRRIGATION RATES SHALL BE MONITORED TO PREVENT EROSION AND DAMAGE TO SEEDED AREAS FROM EXCESSIVE RUNOFF. CONTRACTOR SHALL MAINTAIN PERMANENT SEEDING FOR UP TO ONE YEAR FROM SUBSTANTIAL COMPLETION TO FIX, REPAIR, WATER, REFERTILIZE AND/OR RESEED GRASSED AREAS.

SEED MIX	SEEDING RATE		NOTES
	LBS/ACRE	LBS/1,000 SF	
GENERAL USE			
CREEPING RED FESCUE	20-40	½-1	FOR CLOSE MOWING AND FOR WATERWAYS WITH <2.0 FT/SEC VELOCITY
DOMESTIC RYEGRASS	10-20	¼-½	
KENTUCKY BLUEGRASS	20-40	½-1	
TALL FESCUE	40-50	1-1½	
TURF-TYPE (DWARF) FESCUE	90	2½	
STEEP BANKS OR CUT SLOPES			
TALL FESCUE	40-50	1-1½	
CROWN VETCH	10-20	¼-½	DO NOT SEED LATER THAN AUGUST
TALL FESCUE	20-30	½-¾	
FLAT PEA	20-25	½-¾	DO NOT SEED LATER THAN AUGUST
TALL FESCUE	20-30	½-¾	
ROAD DITCHES AND SWALES			
TALL FESCUE	40-50	1-1½	
TURF-TYPE (DWARF) FESCUE	90	2½	
KENTUCKY BLUE GRASS	5	¾0	
LAWNS			
KENTUCKY BLUEGRASS	100-120	2	
PERENNIAL RYEGRASS		2	
KENTUCKY BLUEGRASS	100-120	2	FOR SHADED AREAS
CREEPING RED FESCUE		1-½	

PERMANENT STABILIZATION	
AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREA THAT WILL LIE DORMANT FOR ONE YEAR OR MORE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE.
ANY AREA WITHIN 50 FEET OF A STREAM OR A RIPARIAN SETBACK AREA AND AT FINAL GRADE.	WITHIN 2 DAYS OF REACHING FINAL GRADE.
ANY AREA AT FINAL GRADE.	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.

TEMPORARY STABILIZATION	
AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREA WITHIN 50 FEET OF A STREAM OR A RIPARIAN SETBACK AREA AND NOT AT FINAL GRADE.	WITHIN 2 DAYS OF THE MOST RECENT DISTURBANCE IF THAT AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS.
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREA, INCLUDING SOIL STOCKPILES THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA.
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER.	PRIOR TO NOVEMBER 1.
NOTE: WHERE VEGETATIVE STABILIZATION TECHNIQUES MAY CAUSE STRUCTURAL INSTABILITY OR ARE OTHERWISE UNOBTAINABLE, ALTERNATIVE STABILIZATION TECHNIQUES MUST BE EMPLOYED. THESE TECHNIQUES MAY INCLUDE MULCHING OR EROSION MATTING.	

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 04/12/2021



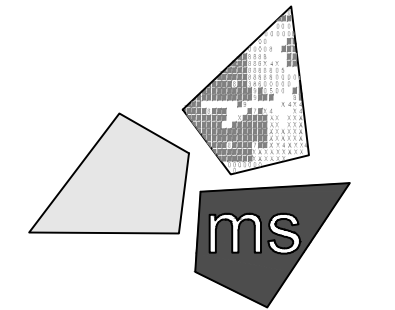
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MAKE THE CALL...IT'S THE LAW

REVISION/DATE/DESCRIPTION

60% Plan Set	10/20/20
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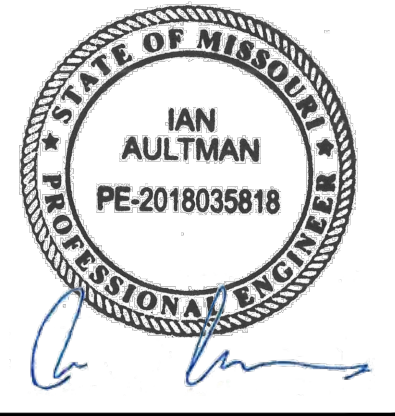
PROJECT

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PT20M BUILDING

1460 NE DOUGLAS ST.
LEE'S SUMMIT, MO
64086

SHEET TITLE

SWPPP
NOTES



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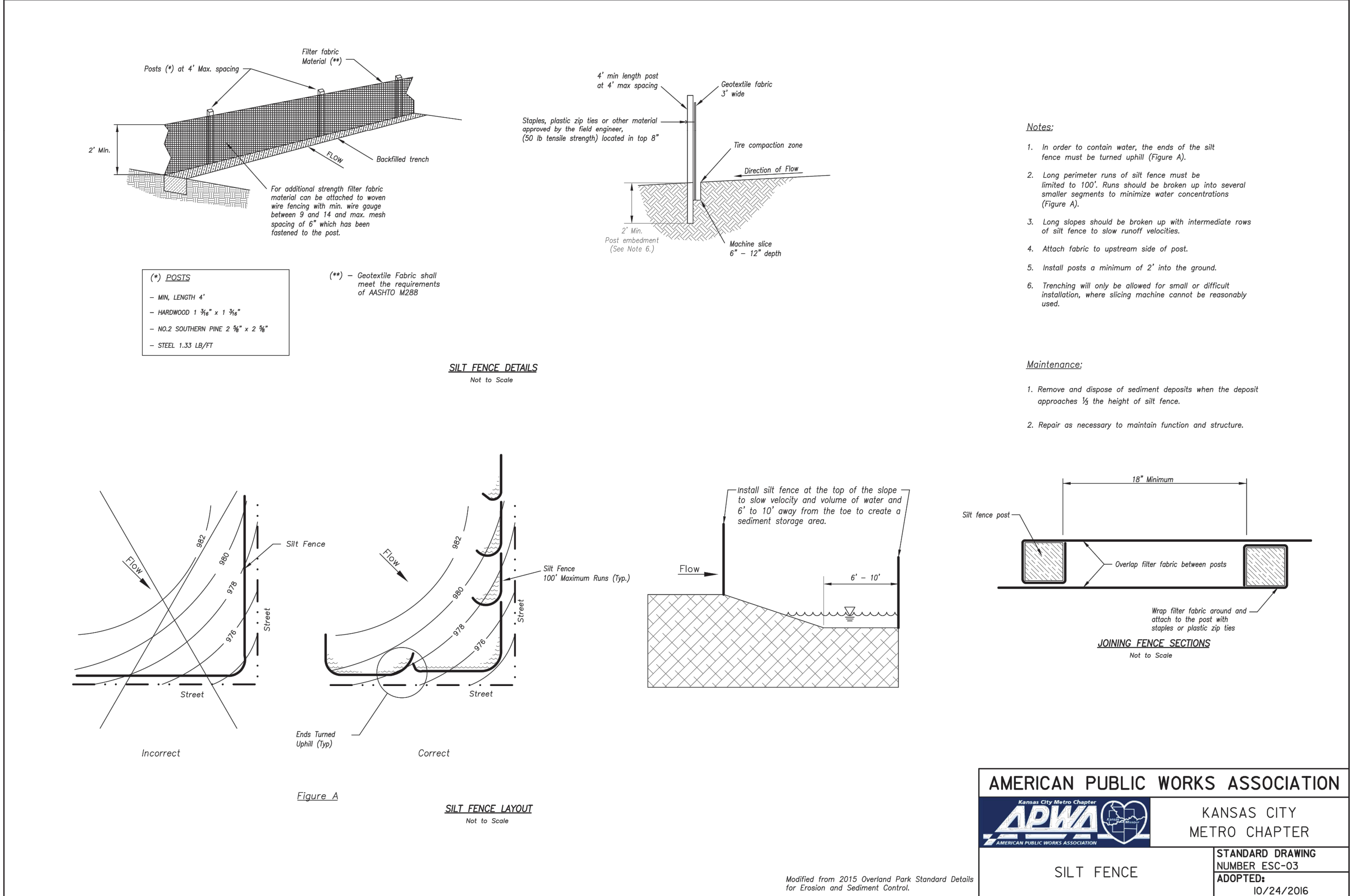
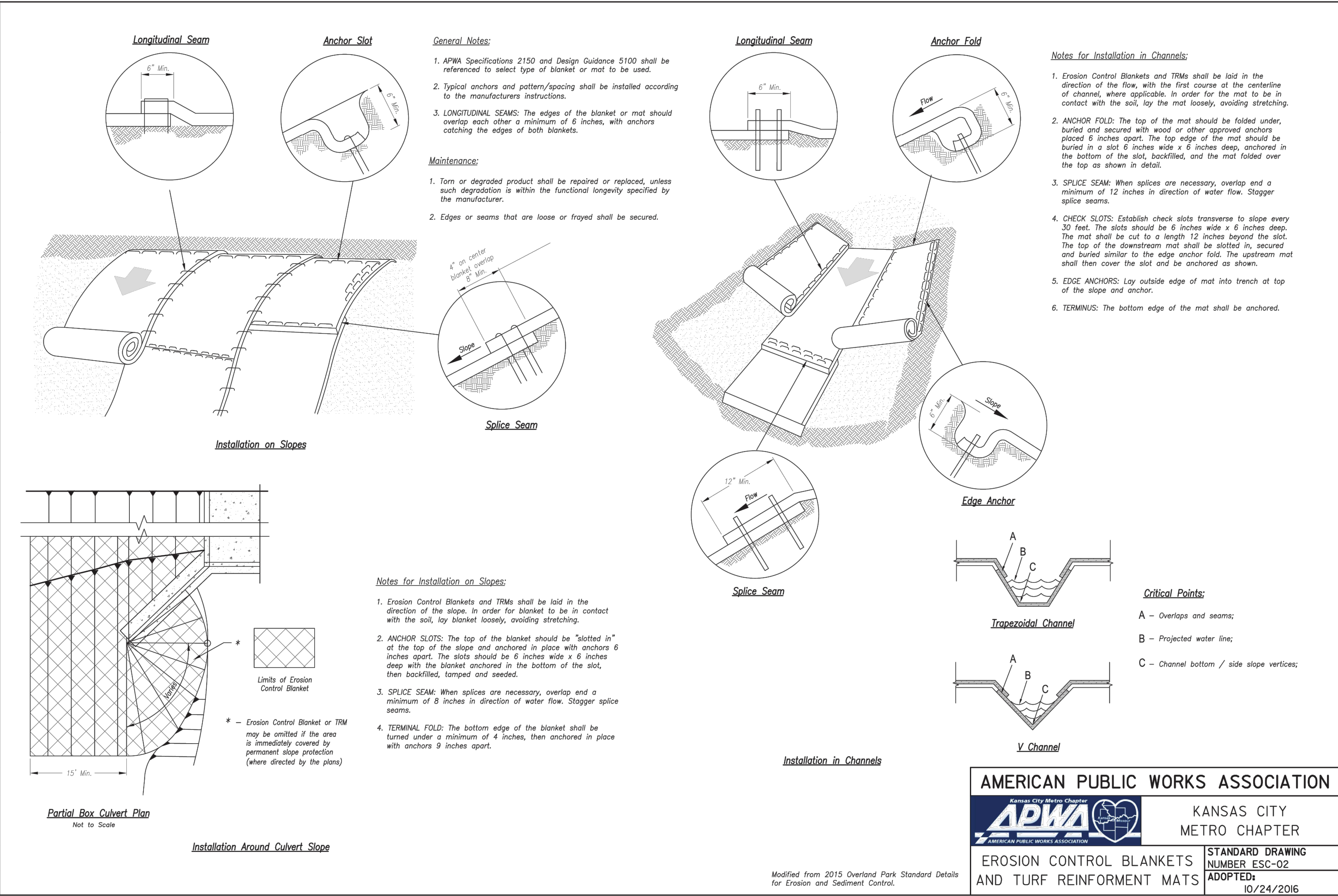
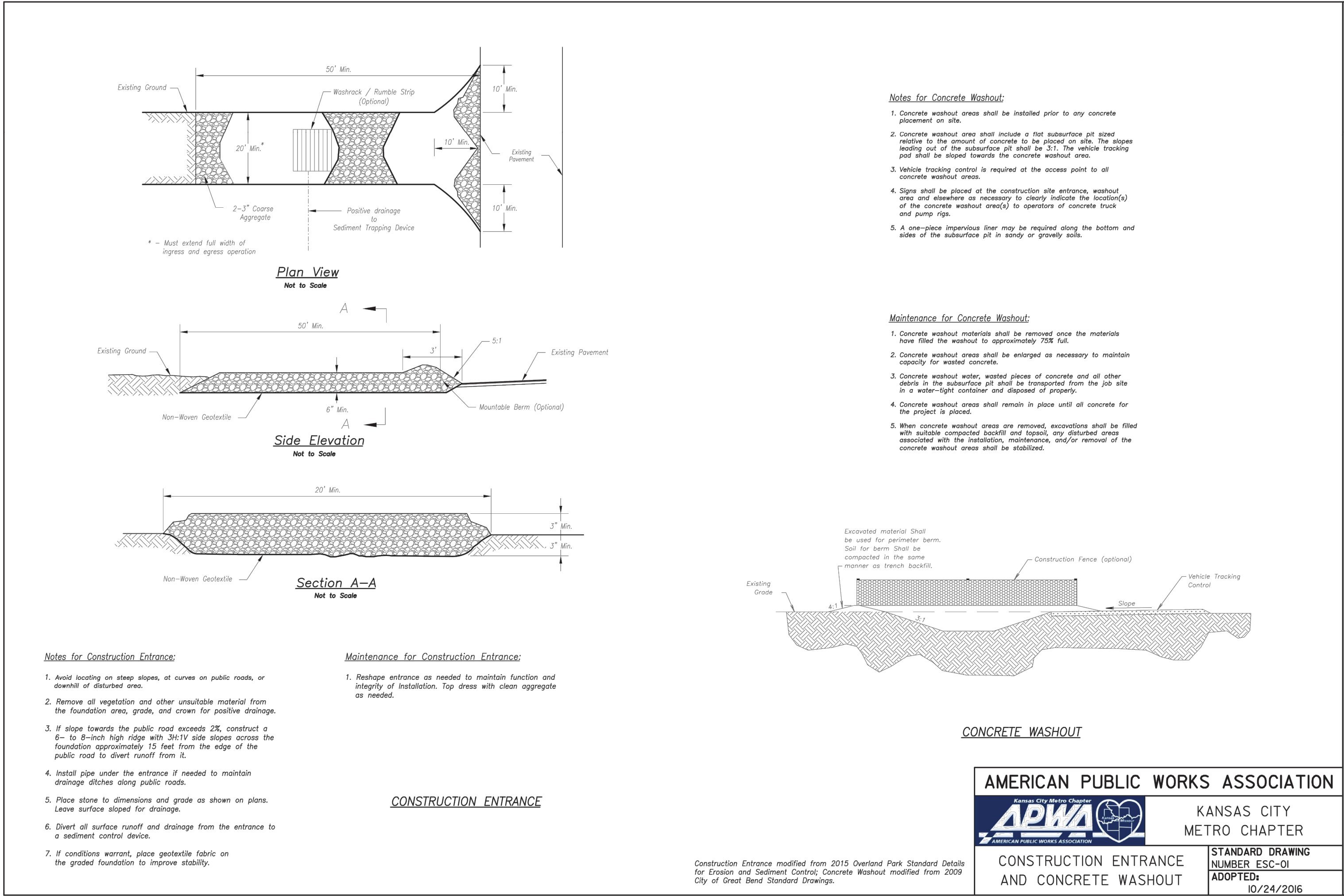
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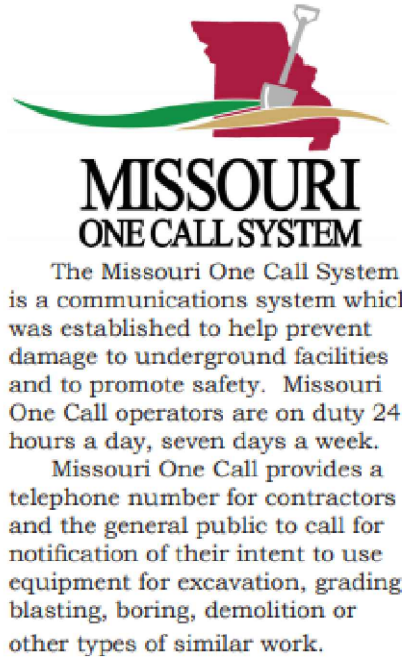
DRAWING

C-16

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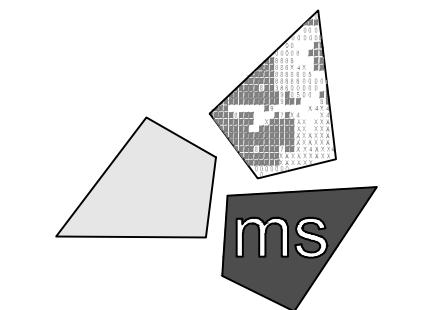
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/12/2021



1-800-DIG-RITE or 811
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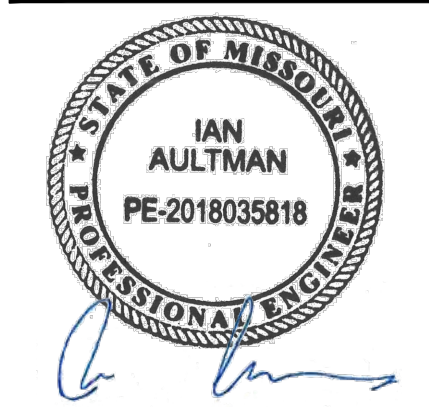


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phone 614.898.7100
fax 614.898.7570

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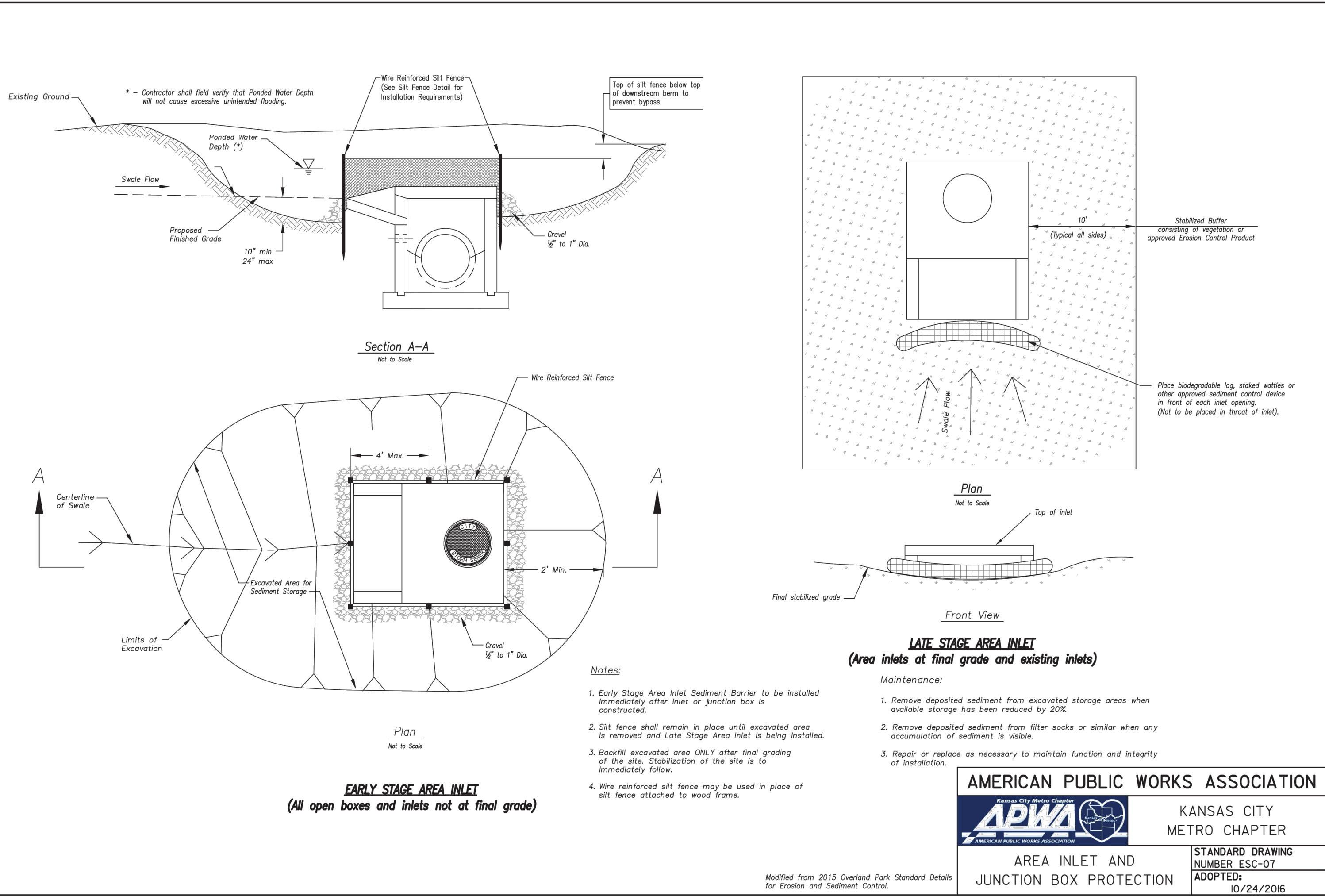
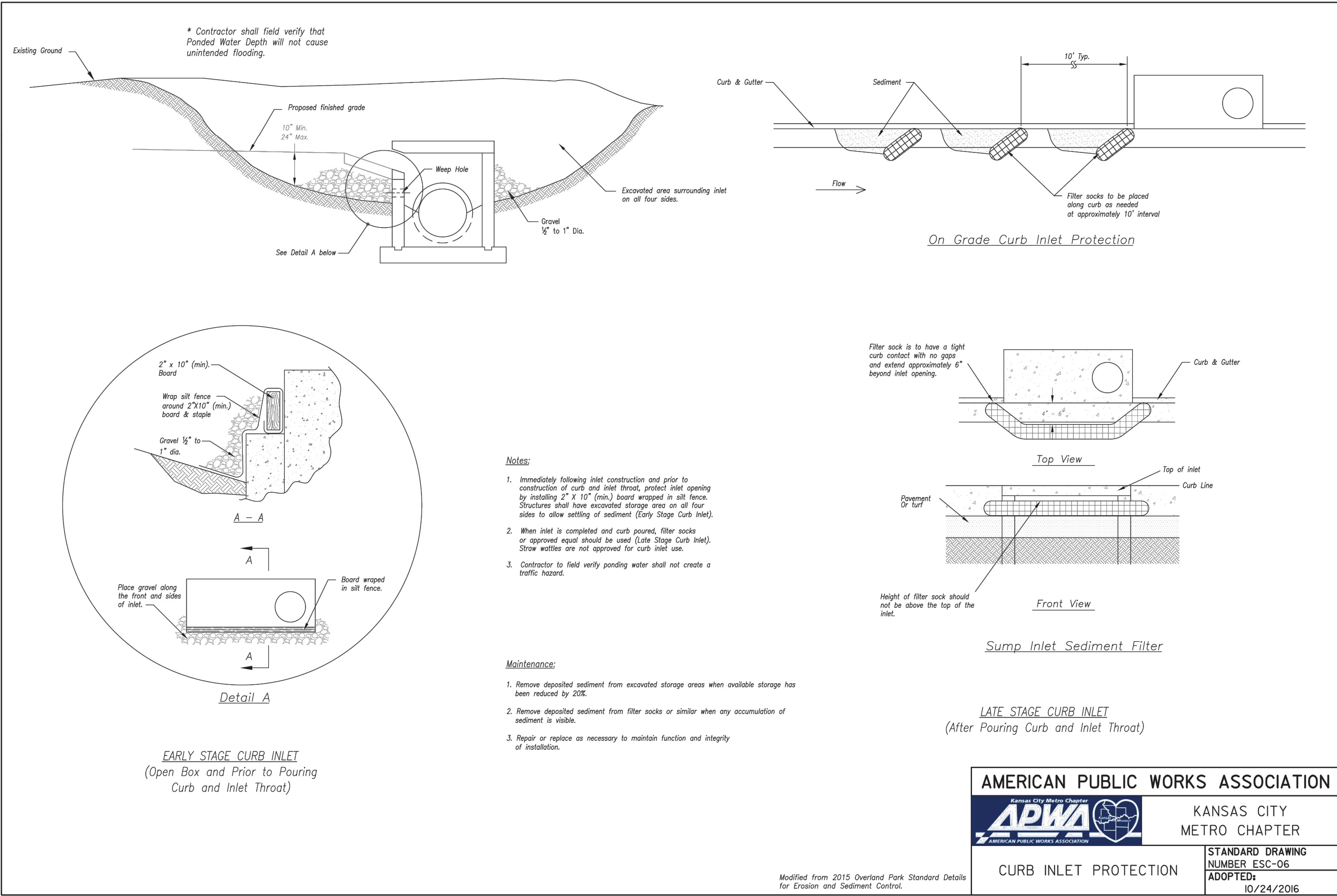
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LEE'S SUMMIT, MO
64086

SHEET TITLE
SWPPP
DETAILS



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RELEASE FOR
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DEVELOPMENT SERVICES
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04/12/2021

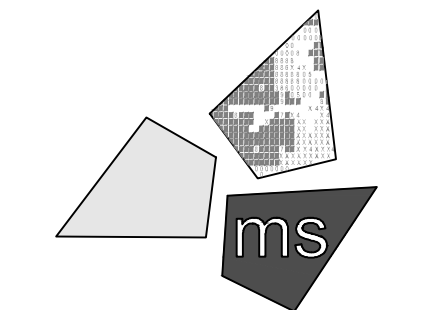


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