- 2. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ALL FEDERAL, STATE, AND
- 3. ANY WORK ADJACENT TO OR CROSSING EXISTING STREETS REQUIRES PROPER TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL DEVICES SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
- 4. THE CONTRACTOR SHALL NOT DISRUPT ANY OPERATIONS OF ADJACENT PROPERTIES DURING CONSTRUCTION. IF DISRUPTION IS NECESSARY TO FACILITATE CONSTRUCTION, CONTRACTOR IS TO CONTACT ENGINEER FOR
- 5. ANY UNFORESEEN CONDITIONS, SITE DISCOVERIES, OR INTERACTION WITH ADJACENT PROPERTY OWNERS OR THE CITY SHALL BE BROUGHT UP WITH THE ENGINEER IMMEDIATELY FOR REMEDY AND DOCUMENTATION. ANY MODIFICATION
- OF ALL EXISTING STRUCTURES, PAVEMENTS, AND FEATURES NECESSARY TO CONSTRUCT THE IMPROVEMENTS SHOWN HEREON. ANY WASTE MATERIALS GENERATED DURING CONSTRUCTION SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS GOVERNING SUCH DISPOSAL
- 7. THE CONTRACTOR SHALL PREVENT ANY TRASH, DEBRIS, OR LIQUID WASTES FROM BEING DISPOSED OF IN SANITARY SEWERS, STORM SEWERS, OR OPEN DRAINAGE SYSTEMS.
- 8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DAMAGE CAUSED TO OTHER PROPERTIES DURING CONSTRUCTION. IN THE EVENT OF DAMAGE TO ADJACENT PROPERTY, STRUCTURES, OR IMPROVEMENTS, THE CONTRACTOR SHALL REPAIR OR REPLACE SUCH DAMAGE TO THE PRECONSTRUCTION CONDITION AT THE CONTRACTOR'S EXPENSE.
- CONTRACTORS AT THE SITE SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY FOR ALL ASPECTS OF WORK SHOWN HEREON.
- 10. ALL WORK AND MATERIALS USED IN THE CONSTRUCTION OF THE IMPROVEMENTS SHOWN HEREON SHALL COMPLY WITH ALL REFERENCED STANDARDS, SPECIFICATIONS. AND PLAN NOTES.
- 11. ALL BUILDINGS ARE SHOWN AS A REFERENCE ONLY. ALL BUILDINGS SHALL BE LOCATED AND CONSTRUCTED PER THE ARCHITECTURAL DRAWINGS PREPARED BY
- 12. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATIONS OF UNDERGROUND UTILITIES AFFECTED BY THE CONTRACT. ALL EXISTING UTILITIES INDICATED ON THESE PLANS ARE ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER; HOWEVER, ALL UTILITIES ACTUALLY EXISTING MAY NOT BE SHOWN. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR.
- 13. ANY AND ALL HAZARDS SHALL BE PROPERLY IDENTIFIED AND BARRICADED FROM ACCESS DURING ALL NON-CONSTRUCTION PERIODS. ALL EXCAVATIONS AND HAZARDOUS AREAS SHALL BE FENCED OFF OR OTHERWISE SECURED AS TO NOT PRESENT A HAZARD TO THE GENERAL PUBLIC, AT A MINIMUM AT THE END OF EACH WORKING DAY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOBSITE SAFETY.
- 14. UNLESS SPECIFIED OTHERWISE, ALL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED BY THESE PLANS.
- 15. PRIVATE EROSION & SEDIMENT CONTROL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH NPDES SCHEDULE AND REQUIREMENTS. AFTER INSPECTIONS, PROVIDE THE CITY OF LEE'S SUMMIT WITH REPORTS AND DOCUMENTATION.
- 16. A RIGHT-OF-WAY PERMIT IS REQUIRED FROM THE CITY OF LEE'S SUMMIT PUBLIC WORKS DEPARTMENT FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- 17. WORKING HOURS SHALL BE FROM 7AM TO 7PM MONDAY THROUGH SATURDAY, WITH NO WORK ON SUNDAY WITHOUT PRIOR WRITTEN PERMISSION FROM THE CITY OF LEE'S SUMMIT.
- 18. CONTRACTOR SHALL PROVIDE ONE CHEMICALLY—TREATED PORTABLE TOILET FOR EVERY 20 EMPLOYEES ON THE JOB SITE.
- 19. FOLLOWING SUBSTANTIAL COMPLETION OF SITE/BUILDING IMPROVEMENTS, THE CONTRACTOR SHALL CONTACT THE ENGINEER TO PERFORM A CHECKLIST OF SITE IMPROVEMENTS PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

## **FEMA INFORMATION:**

THE SITE IS NOT LOCATED WITHIN ANY SPECIAL FLOOD HAZARD AREAS (SFHA) PER FEMA FIRM MAP 29095C0417G; EFFECTIVE DATE OF JANUARY 20, 2017. NO LETTERS OF MAP AMENDMENT OR REVISIONS ARE BEING PROPOSED.

## **LEGAL DESCRIPTION:**

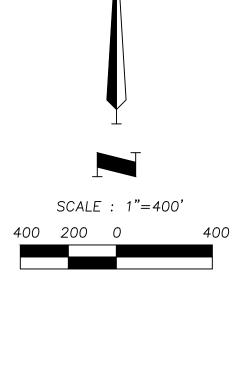
Lot 4C-1. Minor Plat Lot 4C. Corrected Summit Orchard, Lots 4A-4E Instrument #2021E0082033, Book 194 Page 60 Jackson County Recorder of Deeds Lot size 110,777 SF/2.54 Acres

# **COOPER'S HAWK - TOWNSEND**

## NW CHIPMAN RD & NW WARD RD LEE'S SUMMIT, MISSOURI 64086

SECTION 31, TOWNSHIP 48 NORTH, RANGE 31 WEST







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

## **UTILITIES**

#### SANITARY & WATER CITY OF LEE'S SUMMIT JEFF THORN

1200 SE HAMBLEN STREET LEE'S SUMMIT, MO 64081 PHONE (816) 969-1900

#### **STREETS** CITY OF LEE'S SUMMIT MICHAEL PARK

220 SE GREEN STREET LEE'S SUMMIT, MO 64063 PHONE (816) 969-1900

## **EVERGY** RON DEJARNETTE

1300 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081 PHONE (816) 347-4316

LAND USE DATA

Floor Ārea Ratio: 0.15

Impervious Area: 74989 SF

Number of Dwelling Units: 0

Total Lot Area: 10,777 SF (2.54 Ac)

Building Total Floor Area: 11,326 SF

## STORM WATER CITY OF LEE'S SUMMIT

220 SE GREEN STREET LEE'S SUMMIT, MO 64063 PHONE (816) 969-1900

### RONALD GIPFERT 500 E 8TH STREET KANSAS CITY, MO 64106 PHONE (816) 275-1550

#### MISSOURI GAS ENERGY RICHARD FROCK 3025 SW CLOVER DRIVE LEE'S SUMMIT, MO 64082 PHONE (816) 472-3489

## **CONTROL POINT INFORMATION:**

HC	RIZONT	AL	CON	<u>NTRO</u>
CO	NTROL	PC	DINT	100
N:	10059	78.	.168	3
E:	28220	61.	803	5

CONTROL POINT 101 N: 1005804.1974 E: 2822351.8453

CONTROL POINT 102 N: 1005615.8818 E: 2821953.2256

CONTROL POINT 105 N: 1005797.4641 E: 2821770.2589

### BENCHMARKS BM-103 ELEV.=1010.03'

CHISELED SQUARE ON CURB. CORNER OF SIDEWALK RAMP, NORTH SIDE OF ACCESS DRIVE.

BM-104 ELEV.=1001.43' CHISELED SQUARE ON REAR CORNER OF CURB INLET, NORTH SIDE OF NW CHIPMAN ROAD.

\*COORDINATES SHOWN ARE GRID VALUES BASED ON MGRS JA-43

## **DEVELOPER**

TOWNSEND SUMMIT, LLC. 230 SHILLING CIRCLE, SUITE 120 HUNT VALLEY, MARYLAND 21031 (303)-947-2044 CONTACT: STEVE RICH

### **PARKING CALCULATIONS**

Total Building Area: 11,326 SF

Building Area Excluding Walk-in Cooler Areas: 10,772 SF Required Parking Including Cooler Areas: (11,326/1000)\*14 = 158.56Required Parking Excluding Cooler Areas: (10,772/1000)\*14 = 150.81

151 Stalls Required 157 Stalls Provided: 151 Standard Stalls

6 Accessible Stalls Including 2 Van Accessible



#### **SHEET INDEX**

<u>SITE CIVIL</u>	
C001	COVER SHEET
C051	EROSION CONTROL PLAN
C101	SITE PLAN
C102	GRADING PLAN
C103	UTILITY PLAN
C201	STORM PLAN & PROFILE
C202	STORM PLAN & PROFILE
C301	DRAINAGE MAP
C302	STORMWATER CALCULATIONS
C501	DETAILS
C502	DETAILS
C503	DETAILS
C504	DETAILS
C505	DETAILS
C506	DETAILS

4.D.O.L.UTEO	T
<u>ARCHITEC</u>	<u>IURE</u>
DD1-T1	TITLE SHEET
DD1-A2	FLOOR PLAN
DD1-A3	EXTERIOR ELEVATIONS
DD 1 -A3	EXIETION ELEVATIONS
DD1-A4	EXTERIOR ELEVATIONS
DD1-A5	FINISH SCHEDULE
DD1 46	MATERIAL PREAKROW
DD1-A6	MATERIAL BREAKDOWI
	SIGNAGE COVER SHE
	LS – SITE PLAN
	LS - MONUMENT
	LS — MAIN SOUTH
	LS — MAIN SOUTH
	LS — MAIN WEST
	LS - MAIN WEST
	LS - WAIN WEST

LS - MAIN EAST LS - MAIN EAST LS - TEMP LOCATION

**LANDSCAPING** LANDSCAPE PLAN BUILDING LANDSCAPE PLAN L101 L102 LANDSCAPE DETAILS & NOTES IRRIGATION LIMITS PLAN

SITE ELECTRICAL

ELECTRICAL SPECIFICATIONS & LEGEND SITE LIGHTING PLAN AND DETAILS SITE LIGHTING POINT BY POINT AND SCHEDULES

### PREPARED & SUBMITTED BY:

ANDERSON ENGINEERING, INC. 4240 PHILLIPS FARM ROAD, SUITE 101 COLUMBIA, MO 65201 (579) 397-5476 P. WOOTEN 08-02-21 E-2000150081 THOMAS P. WOOTEN, P.E. DATE MISSOURI P.E. NO. 200015008

### **APPROVED BY:**

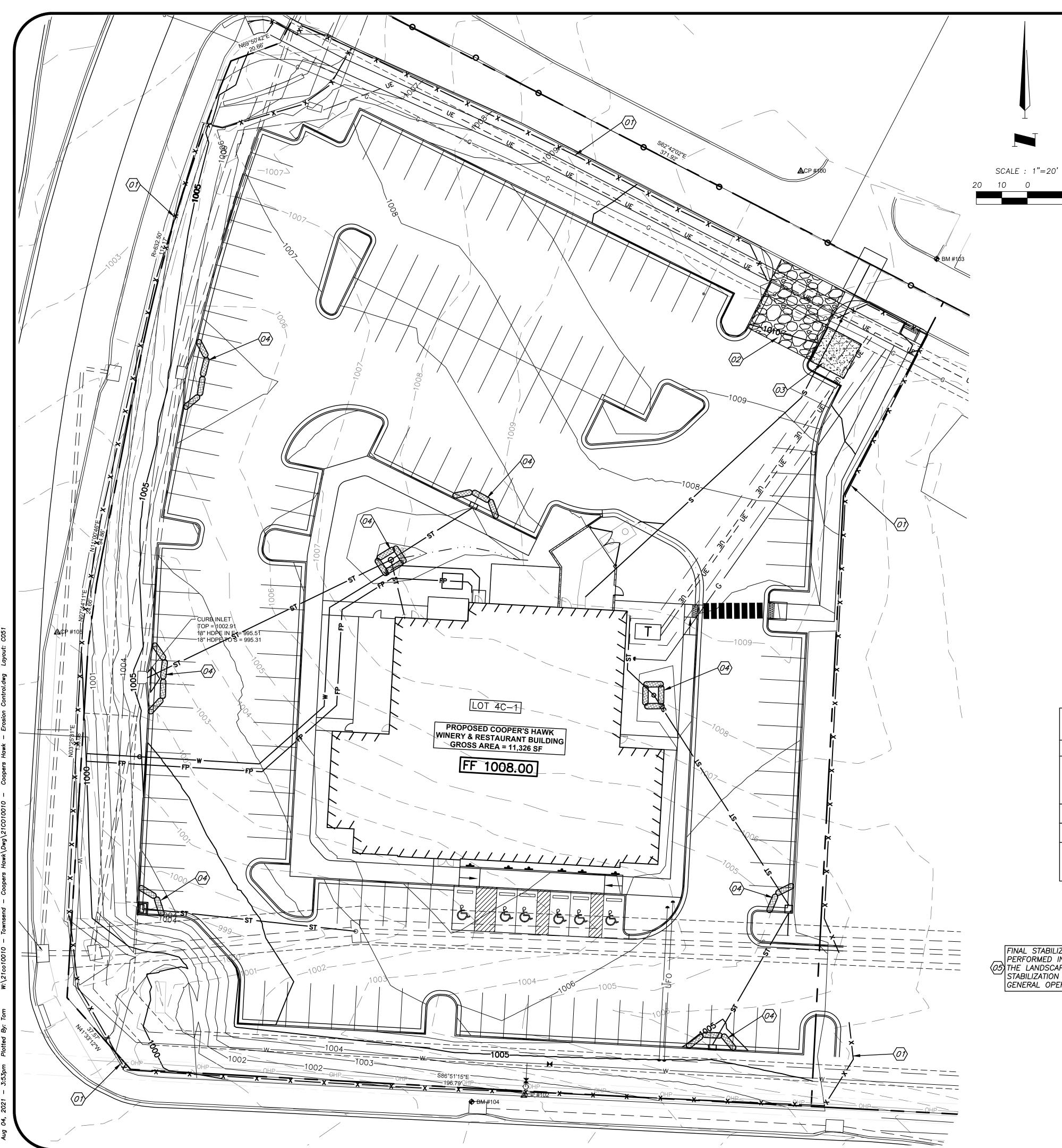
CITY OF LEE'S SUMMIT, MISSOURI

**AUTHORIZING POSITION** DATE

SHEET y ရ COOPER'S OVER

SHEET NUMBER

of 16



#### EROSION AND SEDIMENT CONTROL GENERAL NOTES

- PRIOR TO LAND DISTURBANCE ACTIVITIES, THE CONTRACTOR SHALL:
   DELINEATE THE OUTER LIMITS OF ANY NATURAL STREAM CORRIDOR DESIGNATED WITH CONSTRUCTION FENCING.
   CONSTRUCT A STABILIZED ENTRANCE/PARKING/DELIVERY AREA.
  - INSTALL PERIMETER CONTROLS AND REQUEST THE INSPECTION OF THE PRE—CONSTRUCTION EROSION AND SEDIMENT CONTROL MEASURES DESIGNATED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN. LAND DISTURBANCE WORK SHALL NOT PROCEED UNTIL THERE IS A SATISFACTORY INSPECTION.
  - •IDENTIFY THE LIMITS OF CONSTRUCTION ON THE GROUND WITH EASILY RECOGNIZABLE INDICATIONS SUCH AS CONSTRUCTION STAKING, CONSTRUCTION FENCING, AND PLACEMENT OF PHYSICAL BARRIERS OR OTHER MEANS ACCEPTABLE TO THE CITY INSPECTOR AND IN CONFORMANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN.
- 2. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE KC-APWA SPECIFICATIONS SECTION 2150, INCLUDING BUT NOT LIMITED TO:
  - •THE CONTRACTOR SHALL SEED, MULCH, OR OTHERWISE STABILIZE ANY DISTURBED AREA WHERE THE LAND DISTURBANCE ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS.
  - THE CONTRACTOR SHALL PERFORM INSPECTIONS OF EROSION AND SEDIMENT CONTROL MEASURES AT THE FOLLOWING MINIMUM INTERVALS:
  - O DURING ACTIVE CONSTRUCTION PHASES AT LEAST ONCE PER WEEK
  - O DURING PERIODS OF INACTIVITY AT LEAST ONCE PER 14 DAYS
    O AFTER EACH RAINFALL EVENT OF ½ INCH OR MORE WITHIN 24 HOURS OF THE RAIN EVENT
    •THE CONTRACTOR SHALL MAINTAIN AN INSPECTION LOG INCLUDING THE INSPECTOR'S NAME, DATE OF INSPECTION, OBSERVATIONS AS TO THE EFFECTIVENESS OF THE EROSION AND SEDIMENT CONTROL MEASURES, ACTIONS NECESSARY TO CORRECT DEFICIENCIES, WHEN THE DEFICIENCIES WERE CORRECTED, AND THE SIGNATURE OF THE

PERSON PERFORMING THE INSPECTION. THE INSPECTION LOG SHALL BE AVAILABLE FOR REVIEW BY THE

- THE CONTRACTOR SHALL HAVE THE EROSION AND SEDIMENT CONTROL PLAN ROUTINELY UPDATED TO SHOW ALL CHANGES AND AMENDMENTS TO THE PLAN. A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE KEPT ON SITE AND MADE AVAILABLE FOR REVIEW BY THE REGULATORY AUTHORITY.
- 3. UNLESS OTHERWISE NOTED IN THE PLANS, ALL SEEDING MUST CONFORM TO DIVISION II—CONSTRUCTION AND MATERIALS SPECIFICATION—SECTION 2150 PUBLISHED BY THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION DATED MAY 21, 2008. PERMANENT SEEDING SHALL BE INSTALLED AFTER COMPLETION OF FINAL GRADING EXCEPT WHEN SEEDING WILL OCCUR OUTSIDE OF THE ACCEPTABLE SEEDING SEASON AS SPECIFIED IN SECTION 2150. WHEN TEMPORARY SEEDING IS INSTALLED, PERMANENT SEEDING SHALL BE INSTALLED AT THE NEXT SEEDING SEASON. TEMPORARY SEEDING SHALL NOT BE USED AS A STABILIZATION MEASURE FOR A PERIOD EXCEEDING 12 MONTHS. THE PERMIT WILL NOT BE CLOSED UNTIL PERMANENT SEEDING HAS BEEN ESTABLISHED TO A MINIMUM OF 70% DENSITY OVER THE ENTIRE DISTURBED AREA.
- 4. THE CONTRACTOR SHALL MAINTAIN INSTALLED EROSION AND SEDIMENT CONTROL DEVICES IN A MANNER THAT PRESERVES THEIR EFFECTIVENESS FOR PREVENTING SEDIMENT FROM LEAVING THE SITE OR ENTERING A SENSITIVE AREA SUCH AS A NATURAL STREAM CORRIDOR, AREAS OF THE SITE INTENDED TO BE LEFT UNDISTURBED, A STORM SEWER, OR AN ON—SITE DRAINAGE CHANNEL.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING EROSION AND SEDIMENT CONTROL FOR THE DURATION OF A PROJECT. IF THE CITY DETERMINES THAT THE BMPS IN PLACE DO NOT PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROL AT ANY TIME DURING THE PROJECT, THE CONTRACTOR SHALL INSTALL ADDITIONAL OR ALTERNATE MEASURES THAT PROVIDE EFFECTIVE CONTROL.
- 6. CONCRETE WASH OR RINSE WATER FROM CONCRETE MIXING EQUIPMENT, TOOLS AND/OR READY—MIX TRUCKS, TOOLS, ETC. MAY NOT BE DISCHARGED INTO OR BE ALLOWED TO RUN DIRECTLY INTO ANY EXISTING WATER BODY OR STORM INLET. ONE OR MORE LOCATIONS FOR CONCRETE WASH OUT WILL BE DESIGNATED ON SITE, SUCH THAT DISCHARGES DURING CONCRETE WASHOUT WILL BE CONTAINED IN A SMALL AREA WHERE WASTE CONCRETE CAN SOLIDIFY IN PLACE.
- 7. CHEMICALS OR MATERIALS CAPABLE OF CAUSING POLLUTION MAY ONLY BE STORED ONSITE IN THEIR ORIGINAL CONTAINER. MATERIALS STORED OUTSIDE MUST BE IN CLOSED AND SEALED WATER—PROOF CONTAINERS AND LOCATED OUTSIDE OF DRAINAGE WAYS OR AREAS SUBJECT TO FLOODING. LOCKS AND OTHER MEANS TO PREVENT OR REDUCE VANDALISM SHALL BE USED. SPILLS WILL BE REPORTED AS REQUIRED BY LAW AND IMMEDIATE ACTIONS TAKEN TO CONTAIN THEM.
- 8. SILT FENCES AND EROSION CONTROL BMPS WHICH ARE SHOWN ALONG THE BACK OF CURB MUST BE INSTALLED WITHIN TWO WEEKS OF CURB BACKFILL AND PRIOR TO PLACEMENT OF BASE ASPHALT. EXACT LOCATIONS OF THESE EROSION CONTROL METHODS MAY BE FIELD ADJUSTED TO MINIMIZE CONFLICTS WITH UTILITY CONSTRUCTION; HOWEVER, ANTICIPATED DISTURBANCE BY UTILITY CONSTRUCTION SHALL NOT DELAY INSTALLATION.
- 9. INTERIOR SILT FENCE AS NECESSARY DURING CONSTRUCTION. PORTIONS MAY BE LIMITED AS VEGETATION IS ESTABLISHED AND HARDSCAPE IS INSTALLED. ENTIRE LENGTH MAY BE INSTALLED AT THE CONTRACTOR'S OPTION TO AID IN STABILIZING SLOPES.
- 10. PRIVATE EROSION & SEDIMENT CONTROL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH NPDES SCHEDULE AND REQUIREMENTS. AFTER INSPECTIONS, PROVIDE THE CITY OF LEE'S SUMMIT WITH REPORTS AND DOCUMENTATION IF REQUESTED.

	EROS	ION/SEDIMENT CONTROL	. STAGING	CHART							
SEE SHEET C505 FOR EROSION CONTROL DETAILS											
PROJECT STAGE	BMP PLAN REF NO.	BMP DESCRIPTION	REMOVE AFTER STAGE:	NOTES:							
A — PLACE BMP'S PRIOR TO PAVING/UTILITY	(O1)	PERIMETER SILT FENCE	В	PLACE AS SHOWN ON PLAN.							
INSTALLATION.	(02)	CONSTRUCTION ENTRANCE & STAGING AREA	С	PLACE AS SHOWN ON PLAN.							
	<i>(03</i> )	CONCRETE WASH-OUT	С	PLACE AS SHOWN ON PLAN.							
B — AFTER UTILITY STORM SEWER CONSTRUCTION	<i>(</i> 04 <i>)</i>	STORM INLET PROTECTION	С	PLACE AS SHOWN ON PLAN.							
PAVING A LANDING L (1/2) L		FINAL SEEDING, SOD AND LANDSCAPING	N/A	SILT FENCING & INLET PROTECT MAY BE REMOVED ONCE SEED & SODDED AREAS ARE ESTABLISHED ON 80% OF SITE.							

FINAL STABILIZATION SHALL BE
PERFORMED IN COORDINATION WITH
THE LANDSCAPE PLAN. TEMPORARY
STABILIZATION SHALL BE PER
GENERAL OPERATING PERMIT.

## LEGEND



INLET FILTER SOCKS

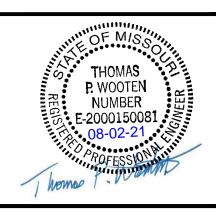


CONSTRUCTION ENTRANCE

ENGINEERS • SURVEYORS • LABORATORIES • DRILLING
A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION
MISSOURI CERTIFICATE OF AUTHORITY #000062 EXPIRES 12/31/2021

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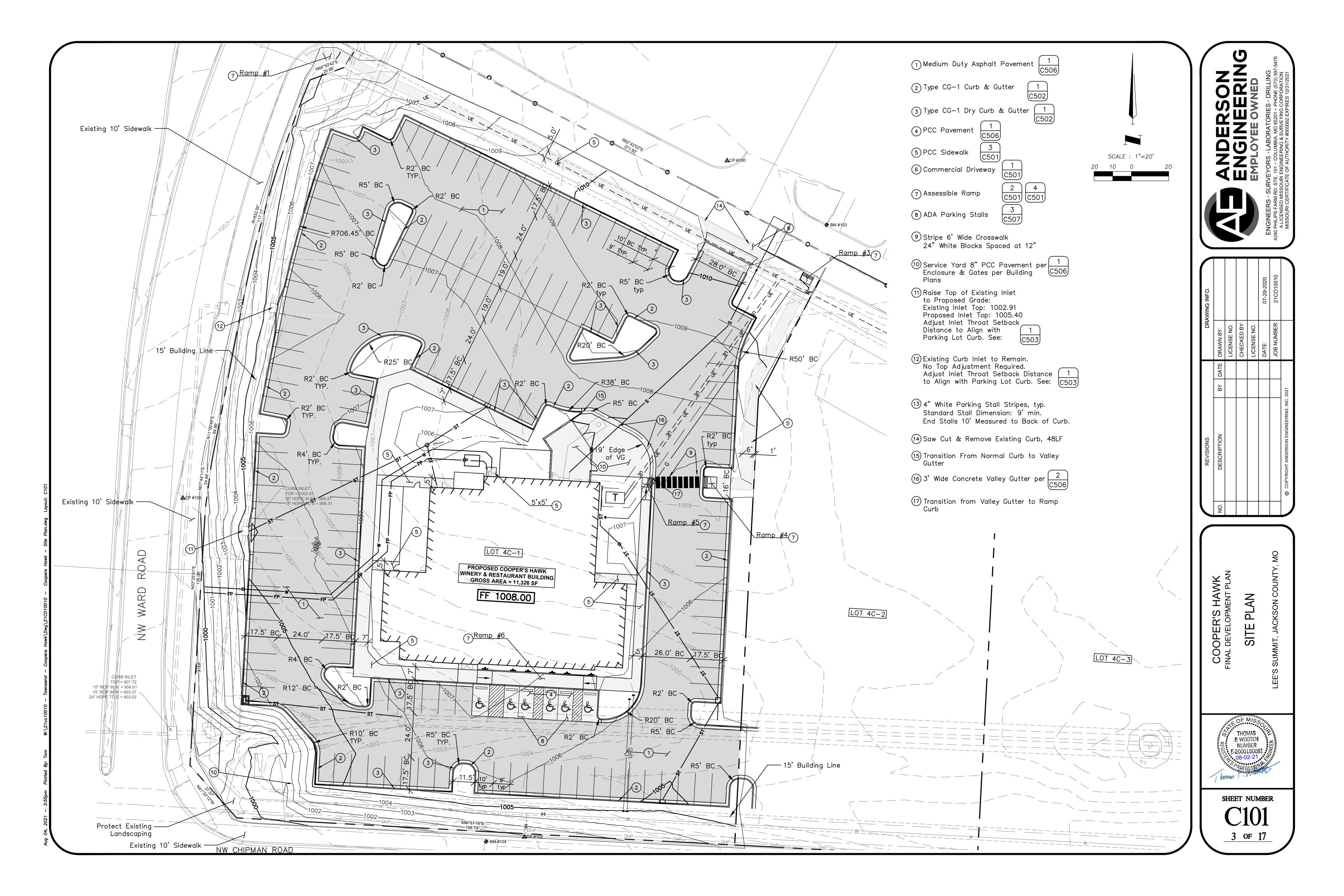
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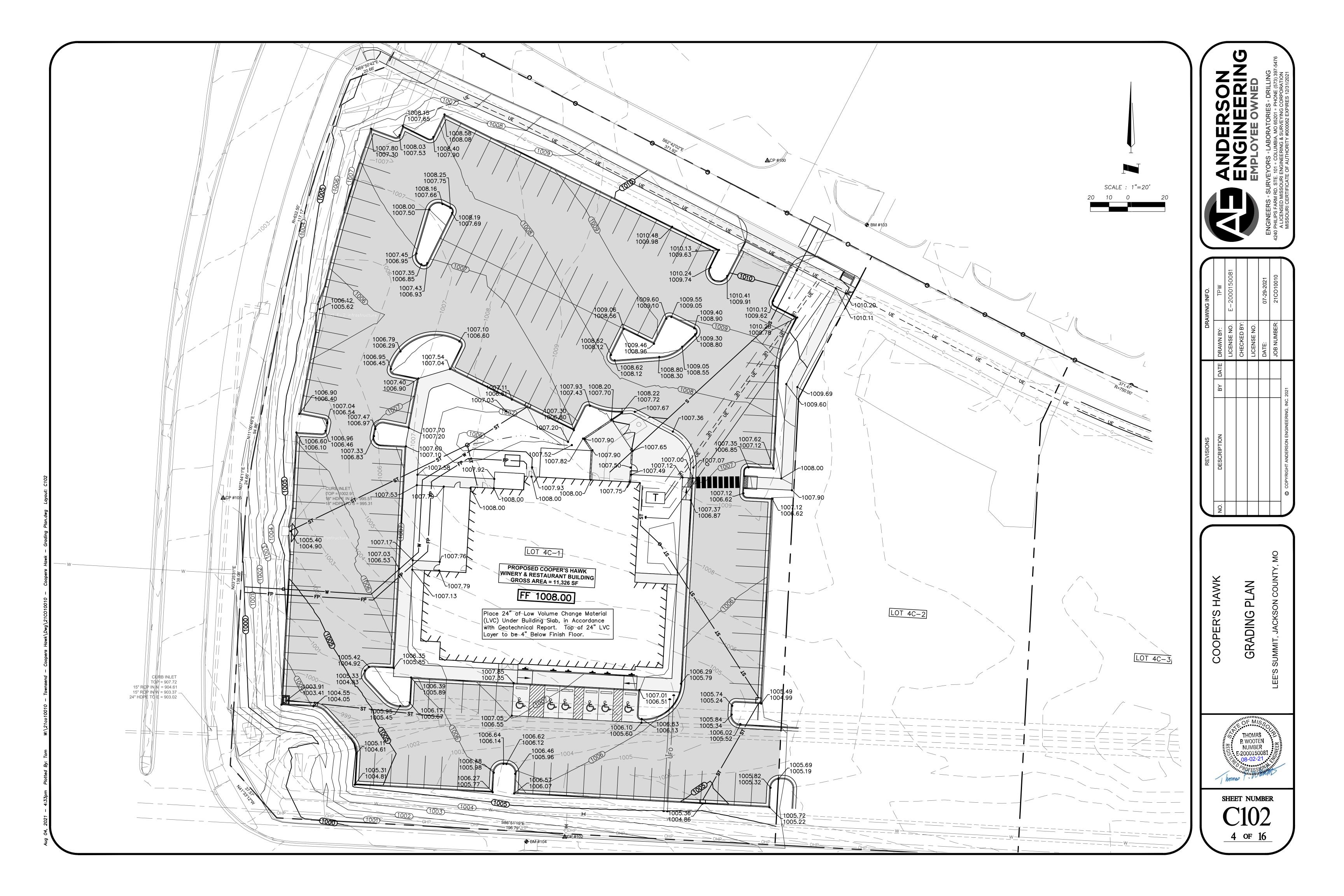


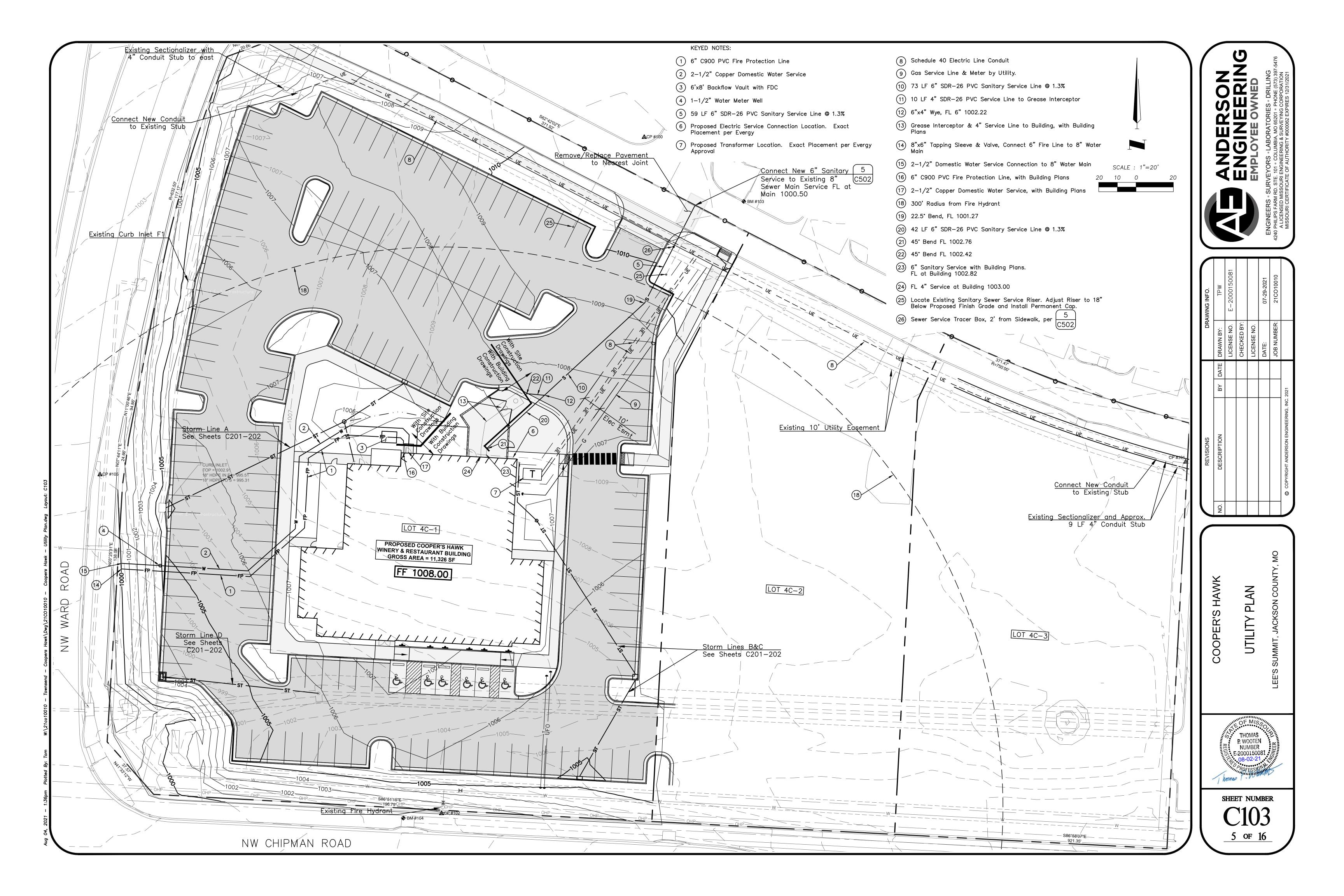
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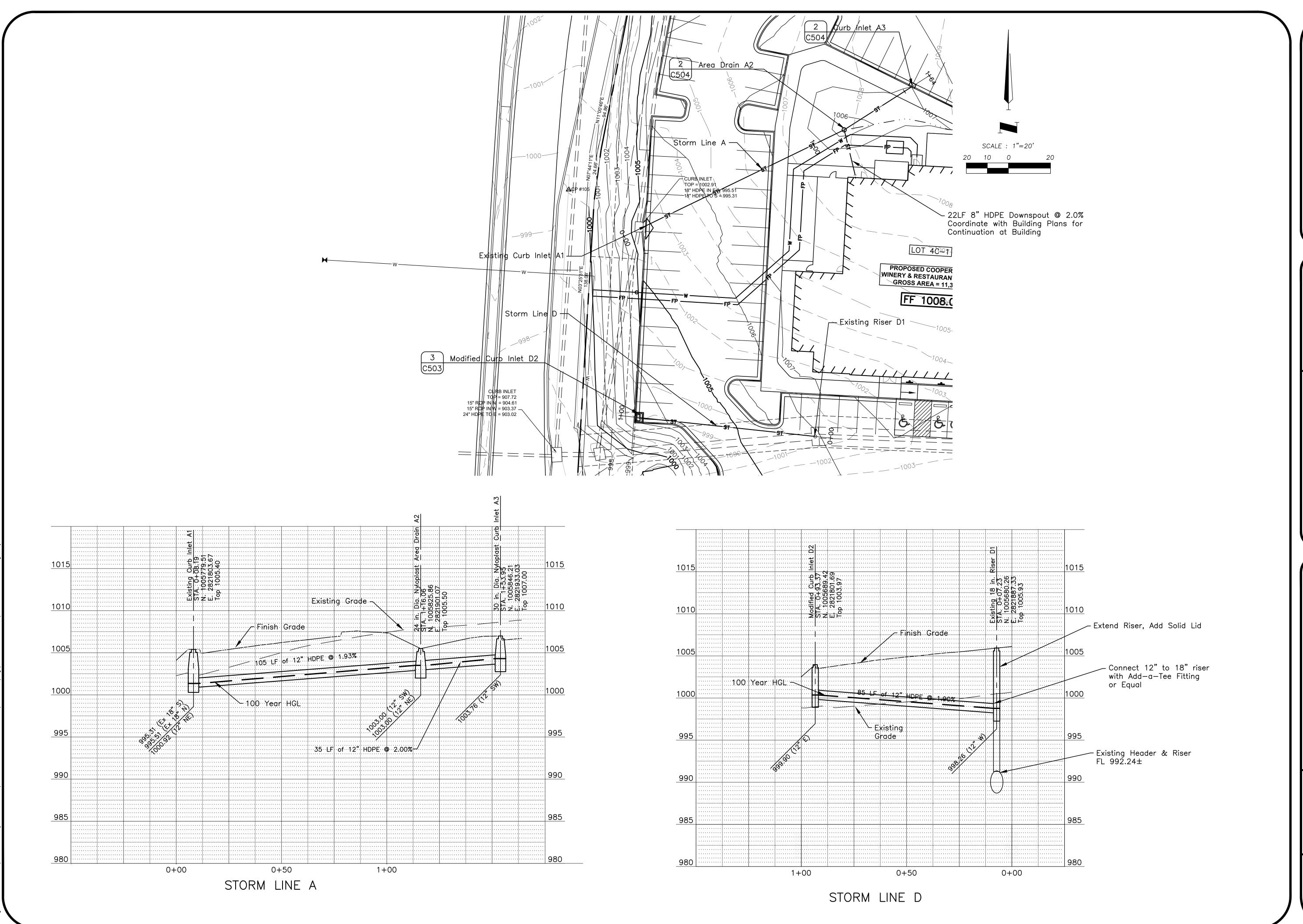
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A 1 CENSED MISSOLIR ENGINEERING & SURVEYING CORPORATION

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REVISIONS	DESCRIPTION						© COPYRIGHT ANDERSON ENGINEERING, INC. 2021
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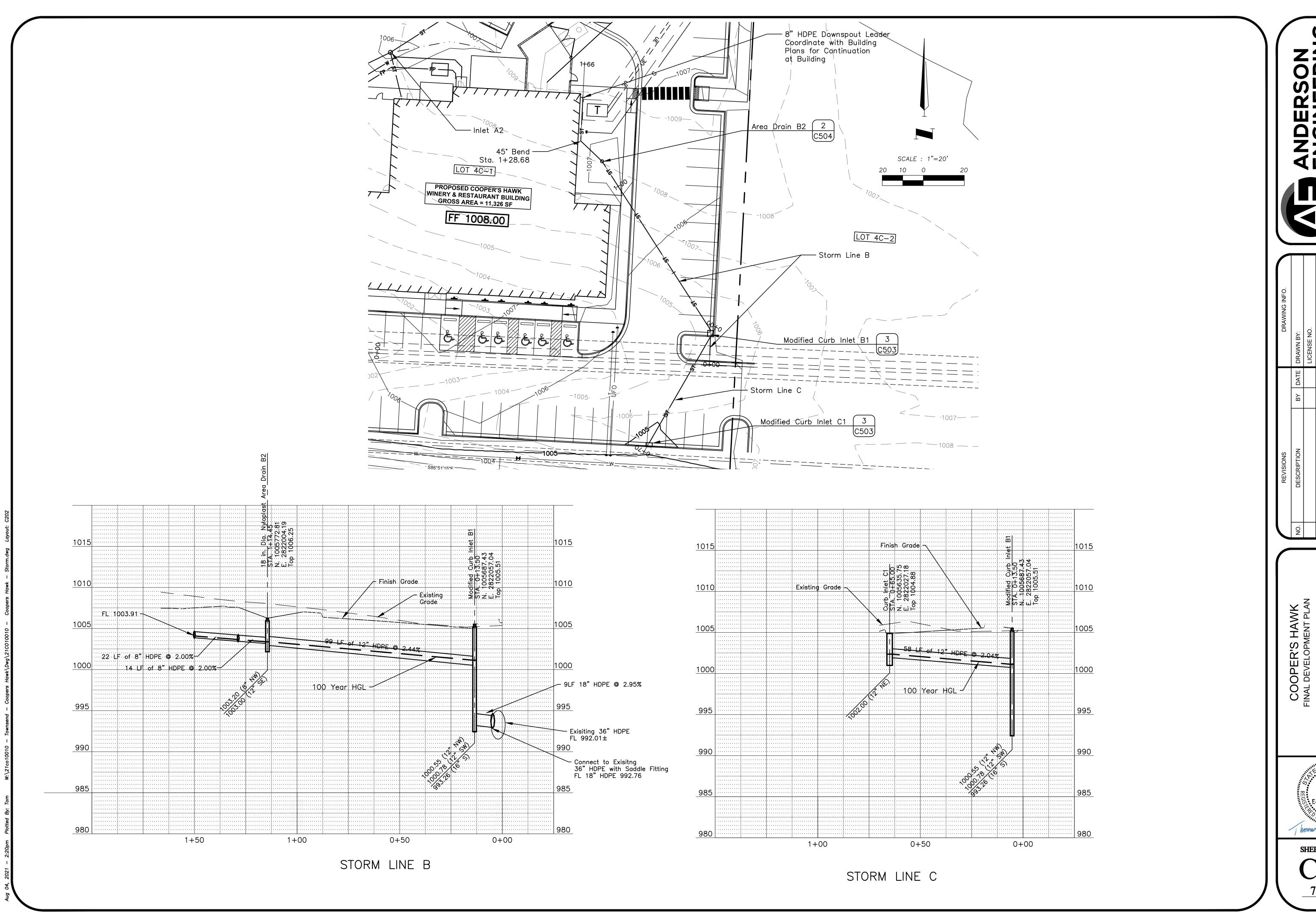
COOPER'S HAWK
FINAL DEVELOPMENT PLAN
STORM PLAN & PROFILE

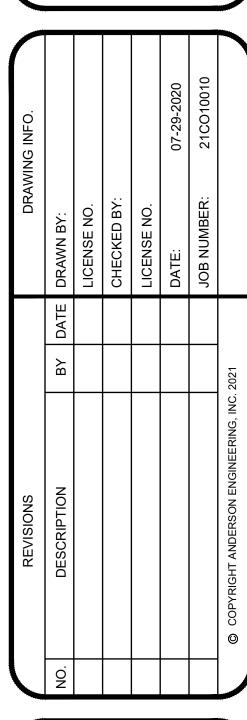
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NUMBER
E-2000150081
08-02-21

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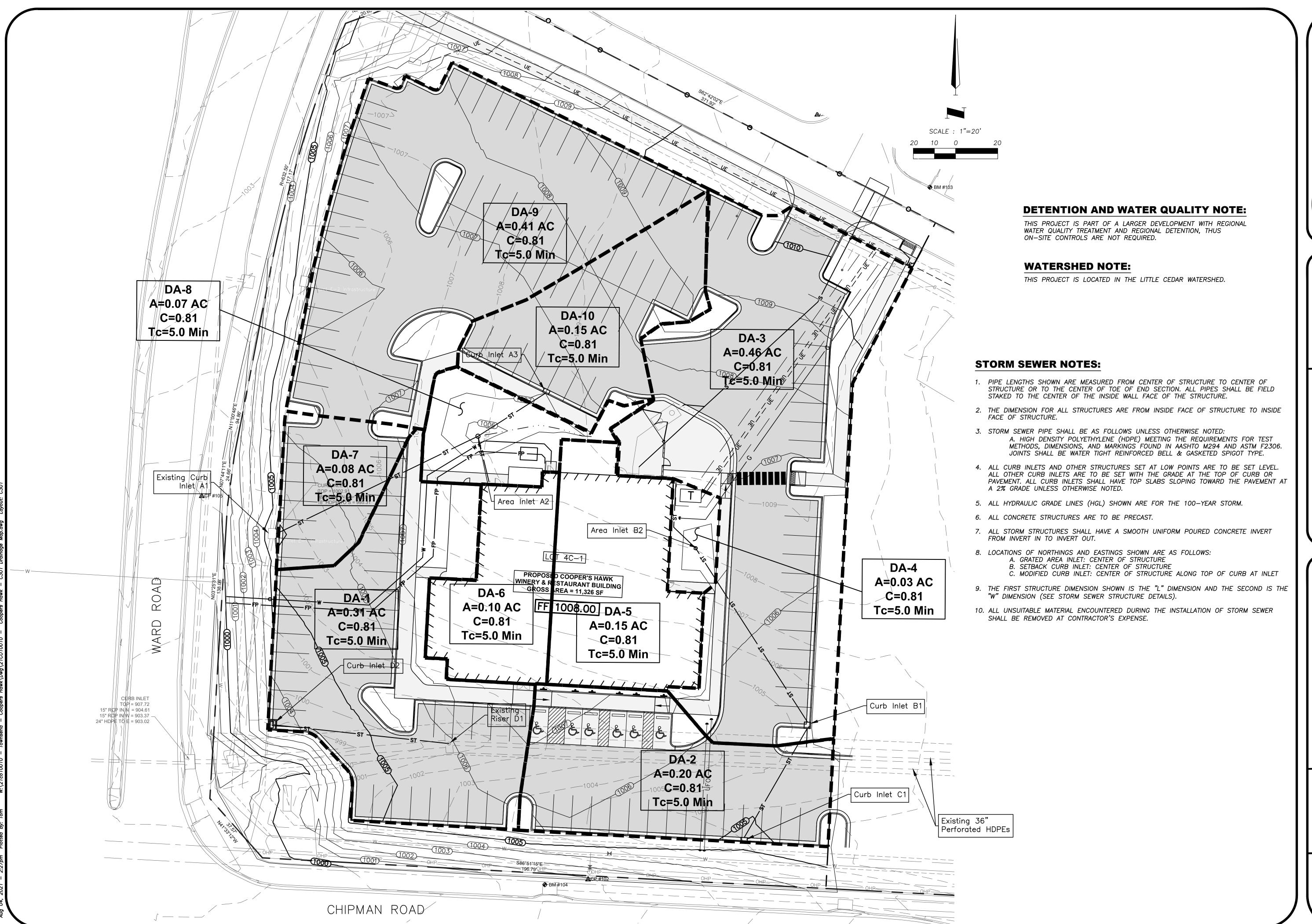
6 OF 16





PROFILE STORM PLAN &

THOMAS
P. WOOTEN
NUMBER



ENGINEE OWNED

FARM RD. STE. 101 • COLUMBIA, MO 65201 • PHONE (573) 397-5476

ENGINEERS • SUI 4240 PHILIPS FARM RD. 8 A LICENSED MISSO

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	ВУ						2021
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DRAINAGE MAP

THOMAS
P. WOOTEN
NUMBER
E-2000150081
08-02-21

C301

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## Inlets - 10 Year

	Inlet	Peak Flow	Intercepted	Bypass	Inlet
Structure	Location	(cfs)	Flow (cfs)	Flow (cfs)	Efficiency %
Curb Inlet A3	Sag	0.89	0.89	N/A	100
Exst Inlet F1	Sag	2.44	2.44	N/A	100
Inlet-A1	Sag	0.48	0.48	N/A	100
Inlet-A2	Sag	0.21	0.21	N/A	100
Inlet-B1	Sag	2.74	2.74	N/A	100
Inlet-B2	Sag	0.09	0.09	N/A	100
Inlet-C1	Sag	1.19	1.19	N/A	100
Inlet-D2	Sag	1.85	1.85	N/A	100

## Inlets - 100 Year

	Inlet	Peak Flow	Intercepted	Bypass	Inlet
Structure	Location	(cfs)	Flow (cfs)	Flow (cfs)	Efficiency %
CurbInletA3	On Sag	1.25	1.25	N/A	100
Exst-Inlet-F1	On Sag	3.43	3.43	N/A	100
Inlet-A1	On Sag	0.67	0.67	N/A	100
Inlet-A2	On Sag	0.29	0.29	N/A	100
Inlet-B1	On Sag	3.85	3.85	N/A	100
Inlet-B2	On Sag	0.12	0.12	N/A	100
Inlet-C1	On Sag	1.67	1.67	N/A	100
Inlet-D2	On Sag	2.59	2.59	N/A	100

## Pipes - 10 Year

Upstream	Downstream	Length	Upstream	Downstream	Slope	Diameter	Manning's n	<b>Total Flow</b>	Velocity	Capacity	Flow Depth	Upstream	Upstream
Structure	Structure	(ft)	Invert	Invert	(%)	(in)		(cfs)	(ft/sec)	(cfs)	(ft)	Structure HGL	Top Elevation
Curb Inlet A3	Inlet-A2	38	1004.00	1003.20	2.11	12.000	0.011	0.88	5.55	6.11	0.26	1004.26	1007
Inlet-A2	Inlet-A1	104	1003.00	1000.92	2.00	12.000	0.011	1.66	6.56	5.95	0.36	1003.46	1005.5
West-Roof-Drain	Inlet-A2	23	1003.70	1003.20	2.17	8.040	0.011	0.59	5.31	2.11	0.24	1003.94	1007.75
East-Roof-Drain	Inlet-B2	35	1003.70	1003.00	2.00	8.040	0.011	0.89	6.27	2.02	0.31	1004.01	1007.75
Inlet-B2	Inlet-B1	98	1003.00	1000.55	2.50	12.000	0.011	0.97	6.09	6.66	0.26	1003.31	1006.25
Inlet-B1	Exst 36" HDPE	9	993.26	992.76	5.56	18.000	0.011	4.82	12.23	29.26	0.41	1001.08	1005.49
Inlet-C1	Inlet-B1	60	1002.00	1000.78	2.03	12.000	0.011	1.18	6.71	6.00	0.30	1002.30	1005.36
Inlet-D2	Exst-Riser-D1	82	999.90	998.26	2.00	12.000	0.011	1.82	7.79	5.95	0.38	1000.28	1003.91

## Pipes - 100 Year

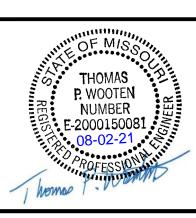
Upstream	Downstream	Length	Upstream	Downstream	Slope	Diameter	Manning's n	<b>Total Flow</b>	Velocity	Capacity	Flow Depth	Upstream	Upstream
Structure	Structure	(ft)	Invert	Invert	(%)	(in)		(cfs)	(ft/sec)	(cfs)	(ft)	Structure HGL	<b>Top Elevation</b>
CurbInletA3	Inlet-A2	38.00	1004.00	1003.20	2.1100	12.000	0.0110	1.25	6.14	6.11	0.31	1004.31	1007
Inlet-A2	Inlet-A1	104.00	1003.00	1000.92	2.0000	12.000	0.0110	2.34	7.19	5.95	0.44	1003.51	1005.5
West-Roof-Drain	Inlet-A2	23.00	1003.70	1003.20	2.1700	8.040	0.0110	0.83	5.72	2.11	0.29	1003.99	1007.75
East-Roof-Drain-JB	Inlet-B2	35.00	1003.70	1003.00	2.0000	8.040	0.0110	1.25	6.74	2.02	0.38	1004.08	1007.75
Inlet-B2	Inlet-B1	98.00	1003.00	1000.55	2.5000	12.000	0.0110	1.36	6.71	6.66	0.31	1003.38	1006.25
Inlet-B1	Exst 36" HDPE	9.00	993.26	992.76	5.5600	18.000	0.0110	6.78	13.47	29.26	0.49	1001.14	1005.49
Inlet-C1	Inlet-B1	60.00	1002.00	1000.78	2.0300	12.000	0.0110	1.66	7.12	6.00	0.36	1002.36	1005.36
Inlet-D2	Exst-Riser-D1	82.00	999.90	998.26	2.0000	12.000	0.0110	2.56	8.29	5.95	0.46	1000.36	1003.91

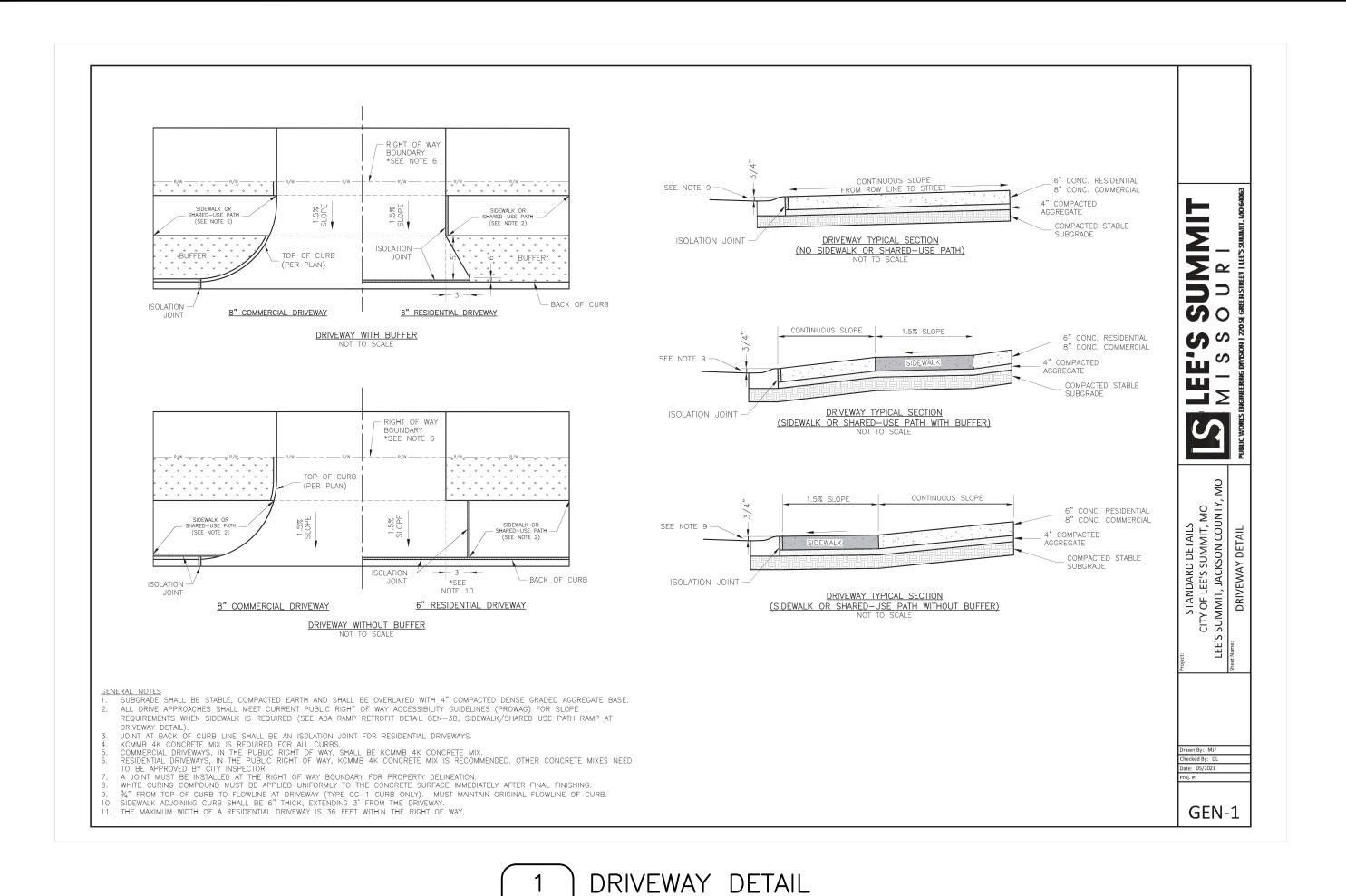
## **Basin Hydrology**

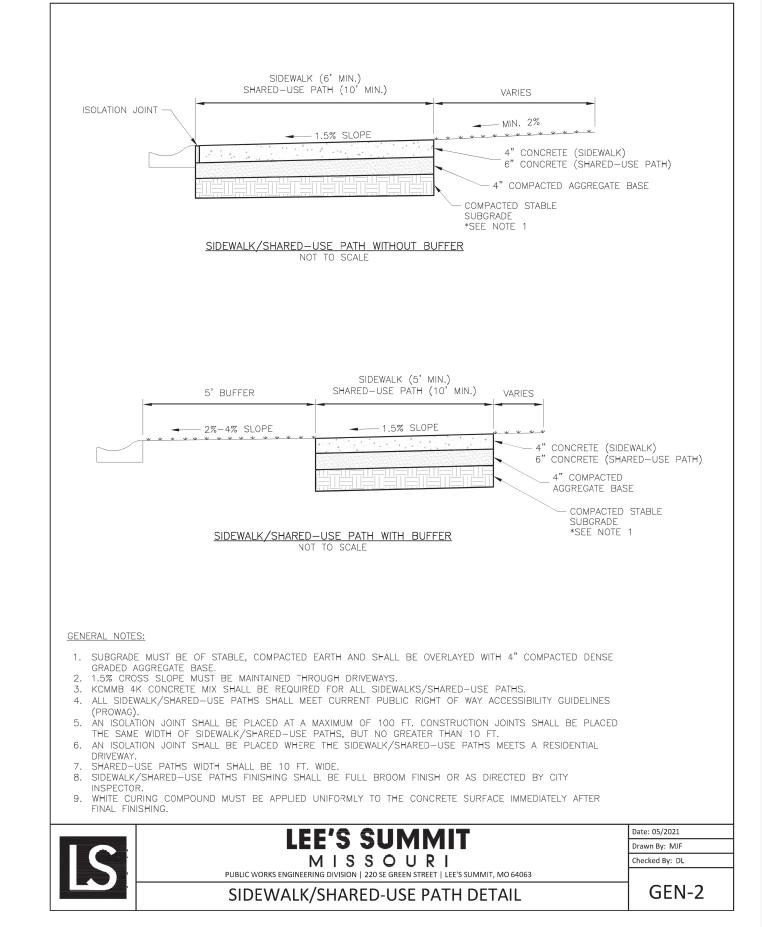
Drain	age	Area		Тс	I10	Q10	I100	Q100
Are	a	(acres)	С	(min)	(in/hr)	(cfs)	(in/hr)	(cfs)
DA-	·1	0.31	0.8100	5	7.35	1.85	10.32	2.59
DA-	-2	0.20	0.8100	5	7.35	1.19	10.32	1.67
DA-	-3	0.46	0.8100	5	7.35	2.74	10.32	3.85
DA-	-4	0.03	0.4000	5	7.35	0.09	10.32	0.12
DA-	·5	0.15	0.8100	5	7.35	0.89	10.32	1.25
DA-	-6	0.10	0.8100	5	7.35	0.60	10.32	0.84
DA-	·7	0.08	0.8100	5	7.35	0.48	10.32	0.67
DA-	-8	0.07	0.4000	5	7.35	0.21	10.32	0.29
DA-	.9	0.41	0.8100	5	7.35	2.44	10.32	3.43
DA-:	10	0.15	0.8100	5	7.35	0.89	10.32	1.25

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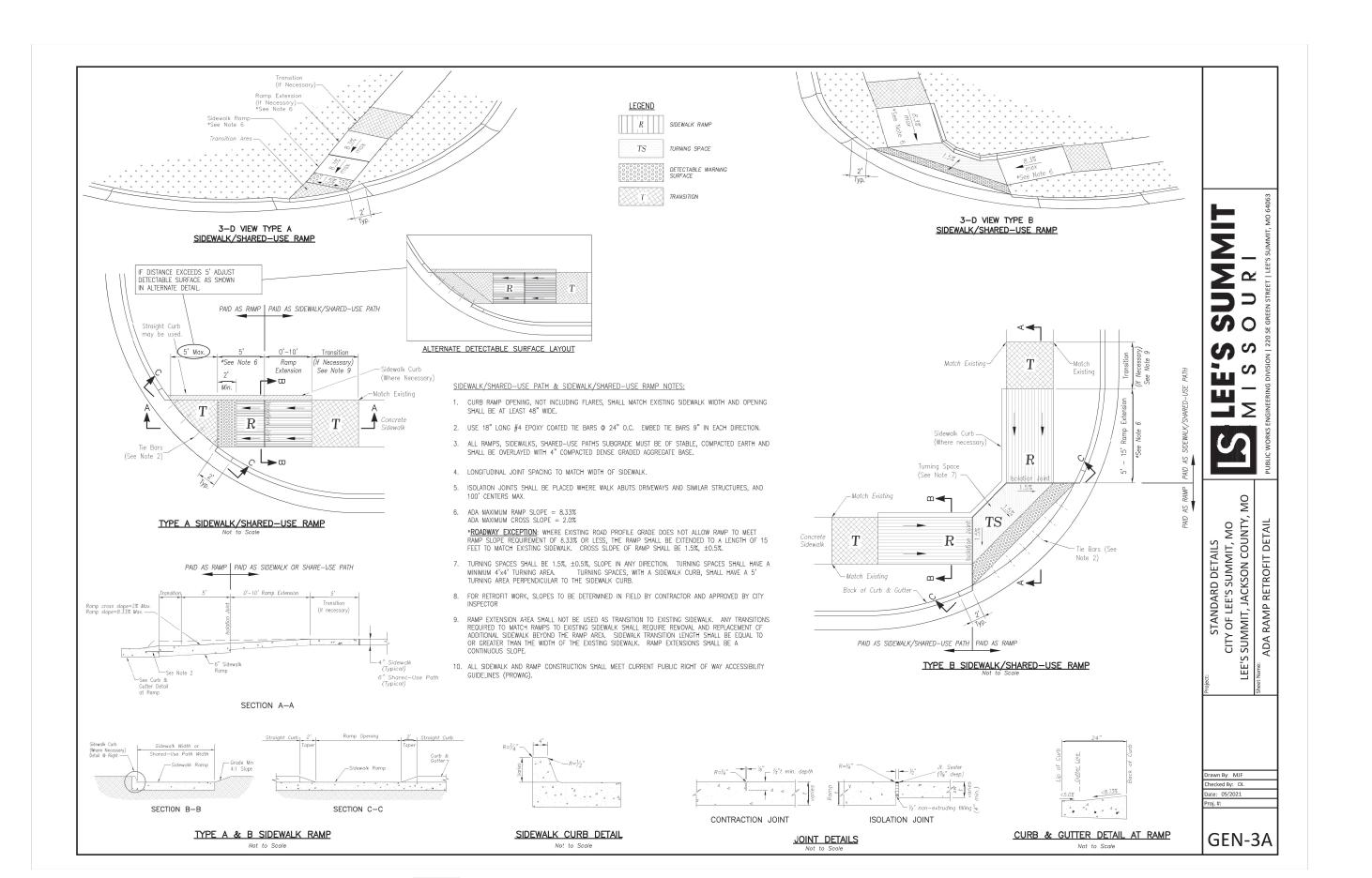
DRAINAGE CALCULATIONS





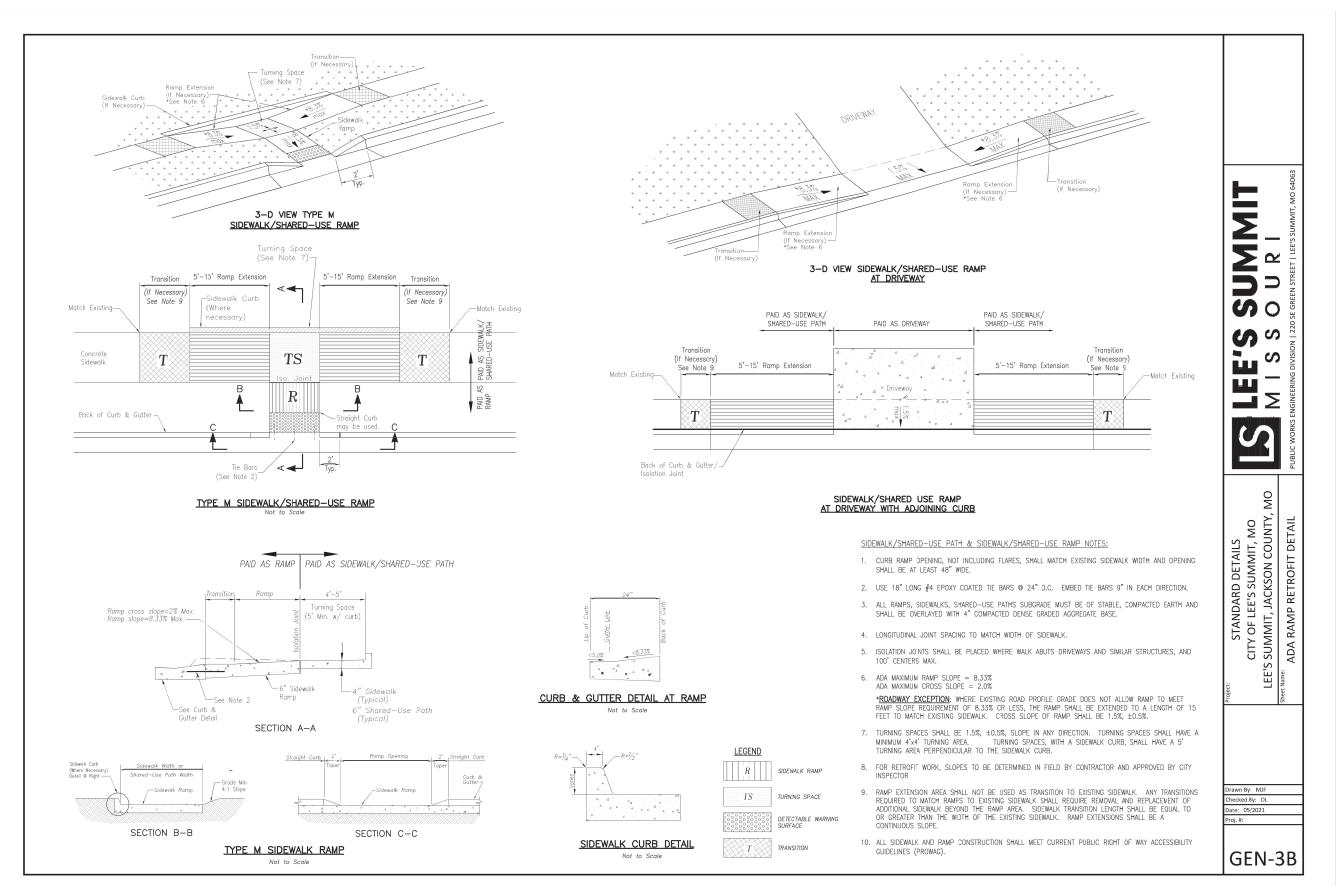


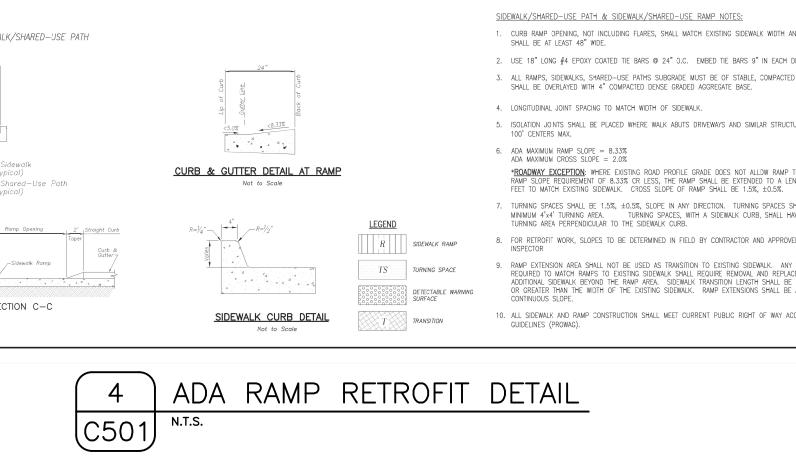
SIDEWALK/SHARED-USE PATH DETAIL



ADA RAMP RETROFIT DETAIL

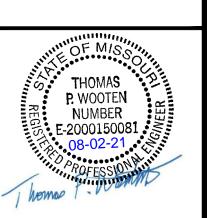
,C501



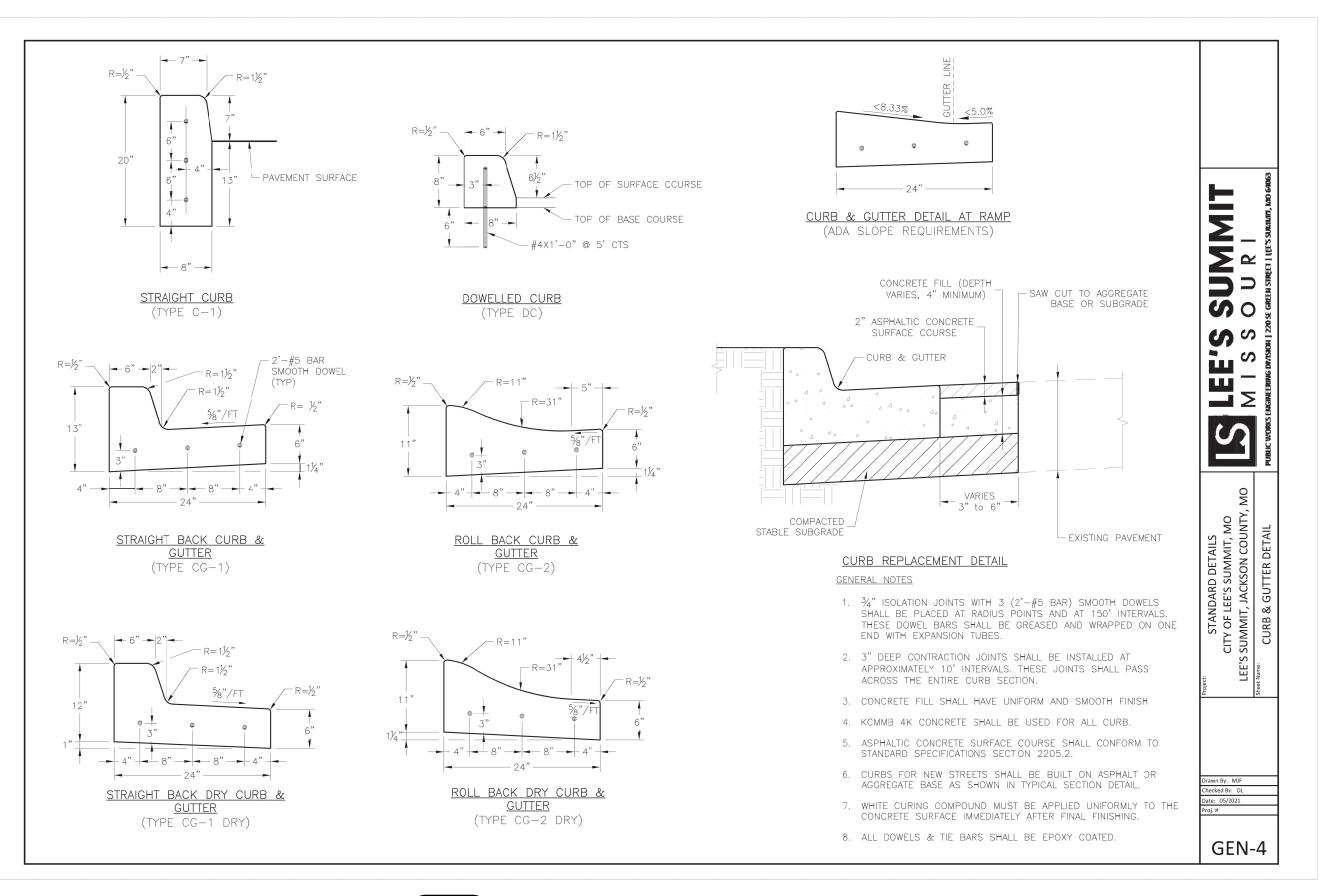


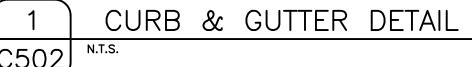
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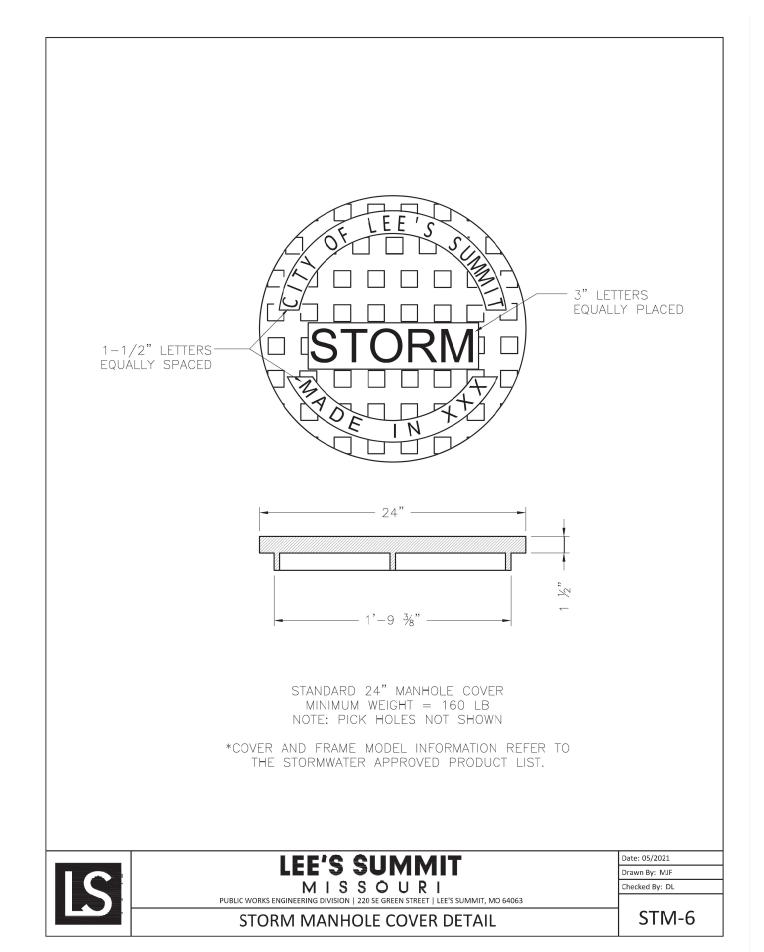
COOPER'S HAWK ETAIL 



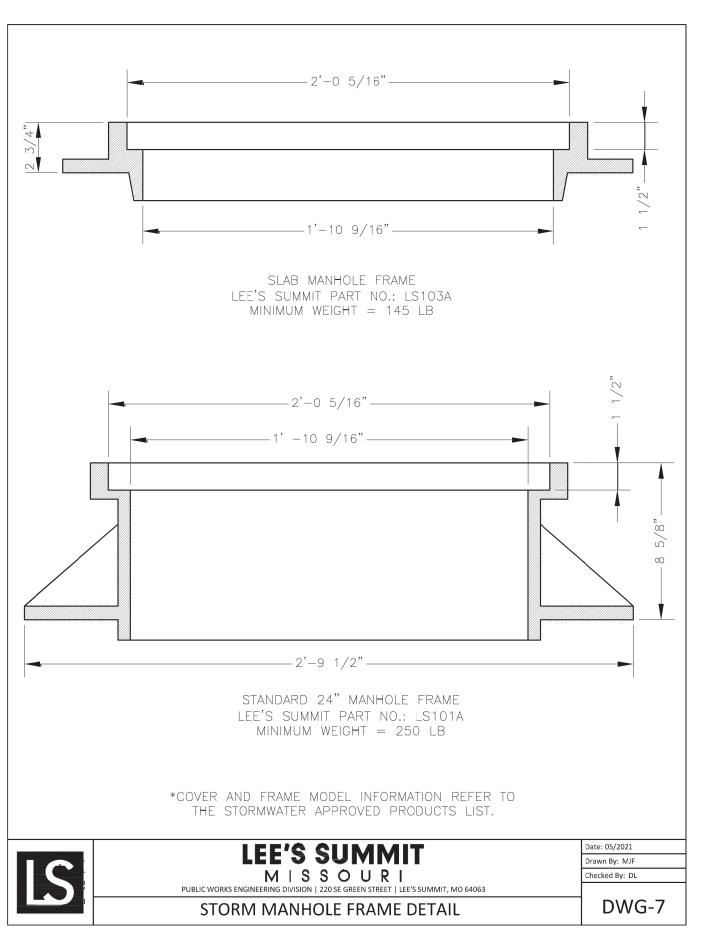
SHEET NUMBER 10 of 16



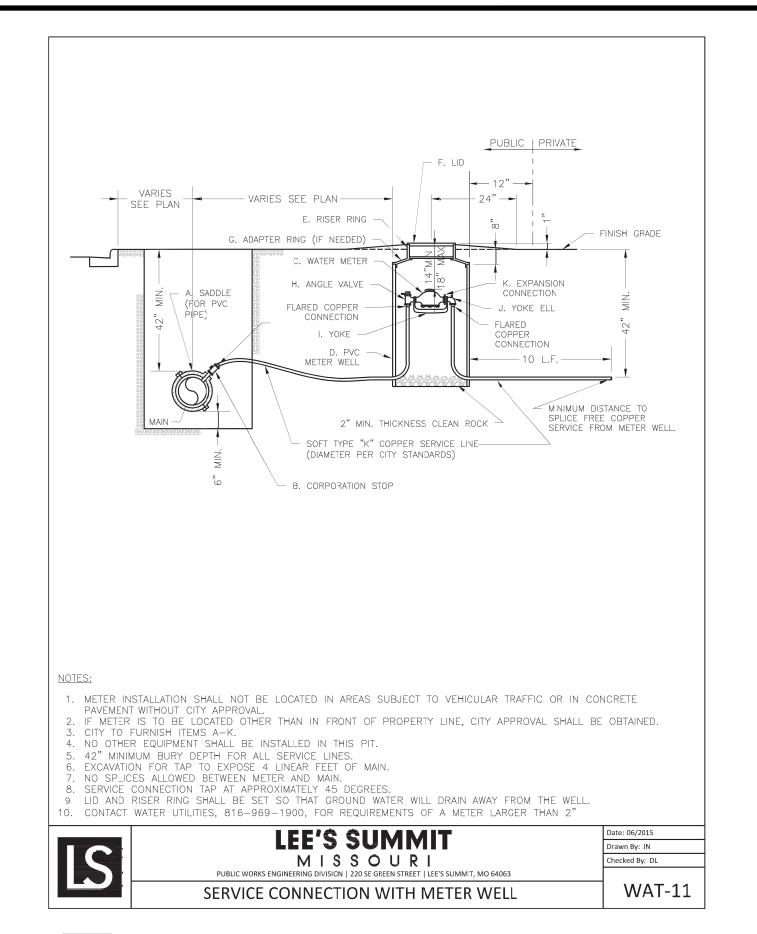




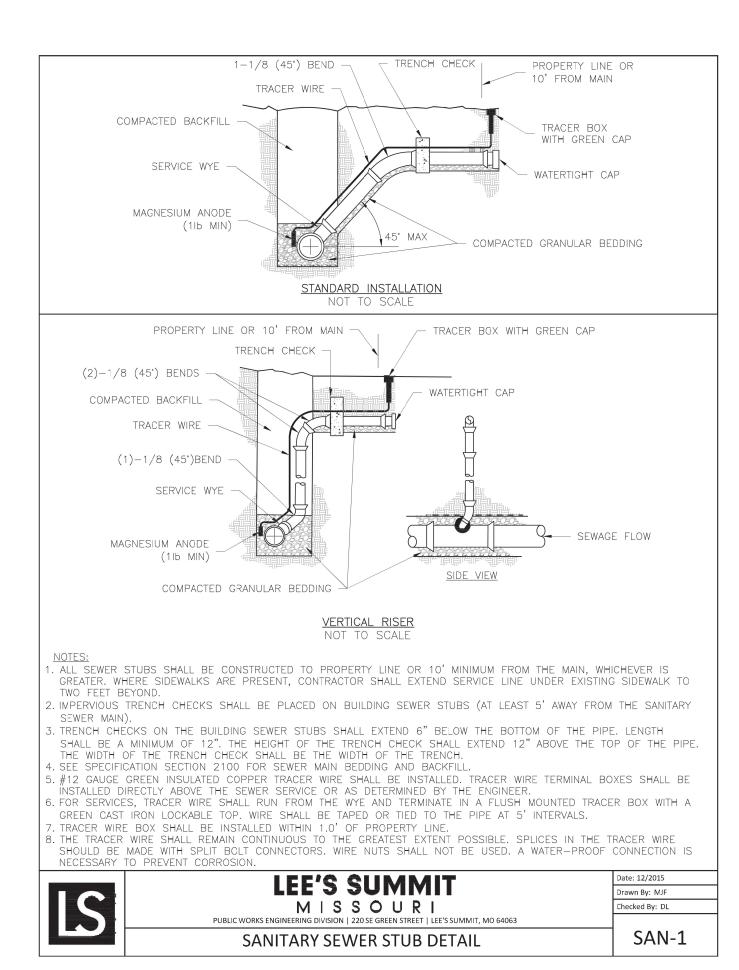




4 STORM MANHOLE FRAME C502 N.T.S.



2 SERVICE CONNECTION/ METER WELL C502 N.T.S.



5 SANITARY SEWER SERVICE CONNECTION C502 N.T.S.

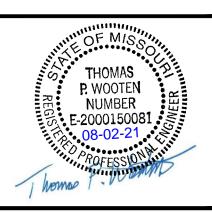
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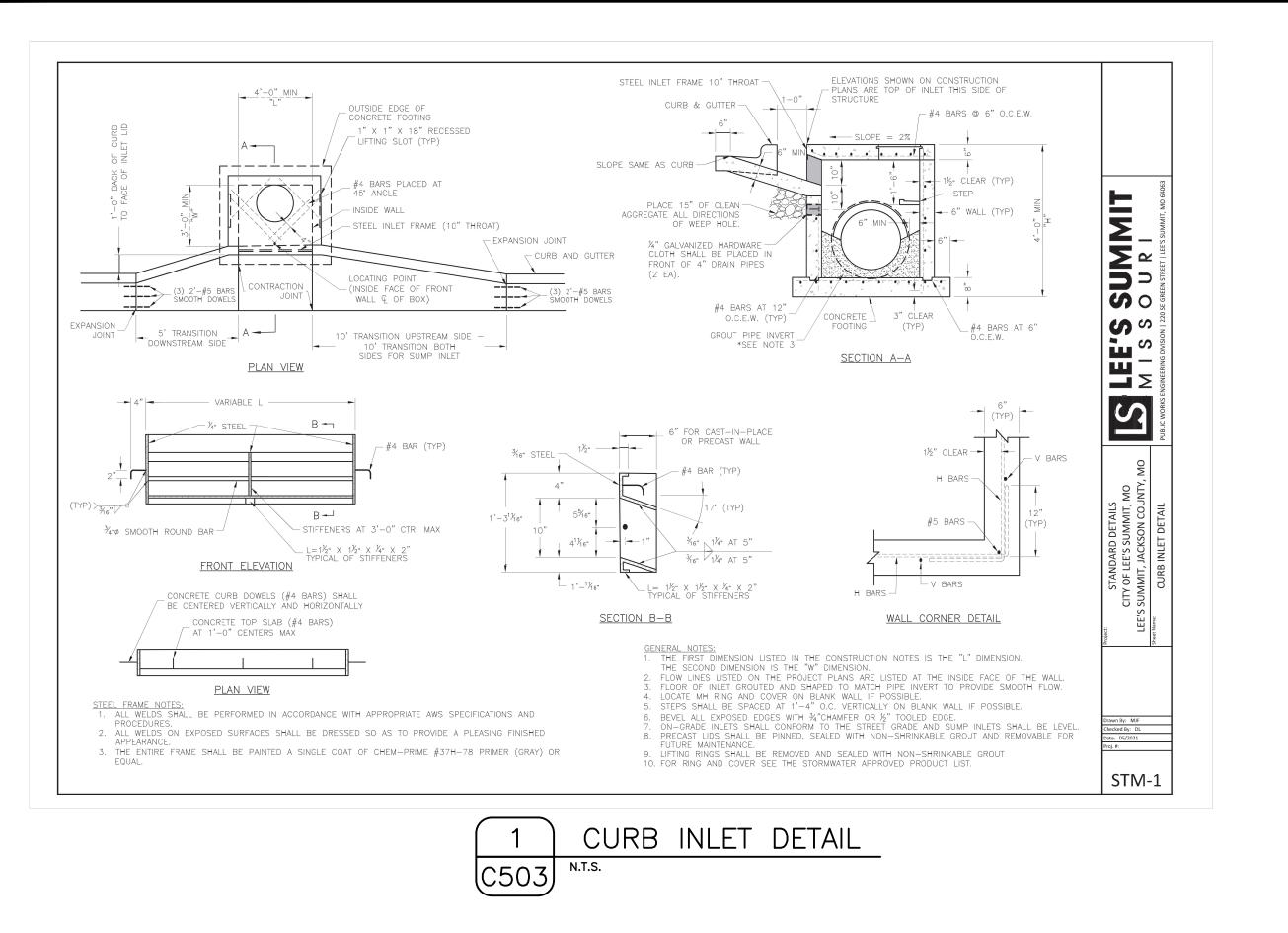
FINAL DEVELOPMENT PLAN

DETAILS



C502

11 of 16

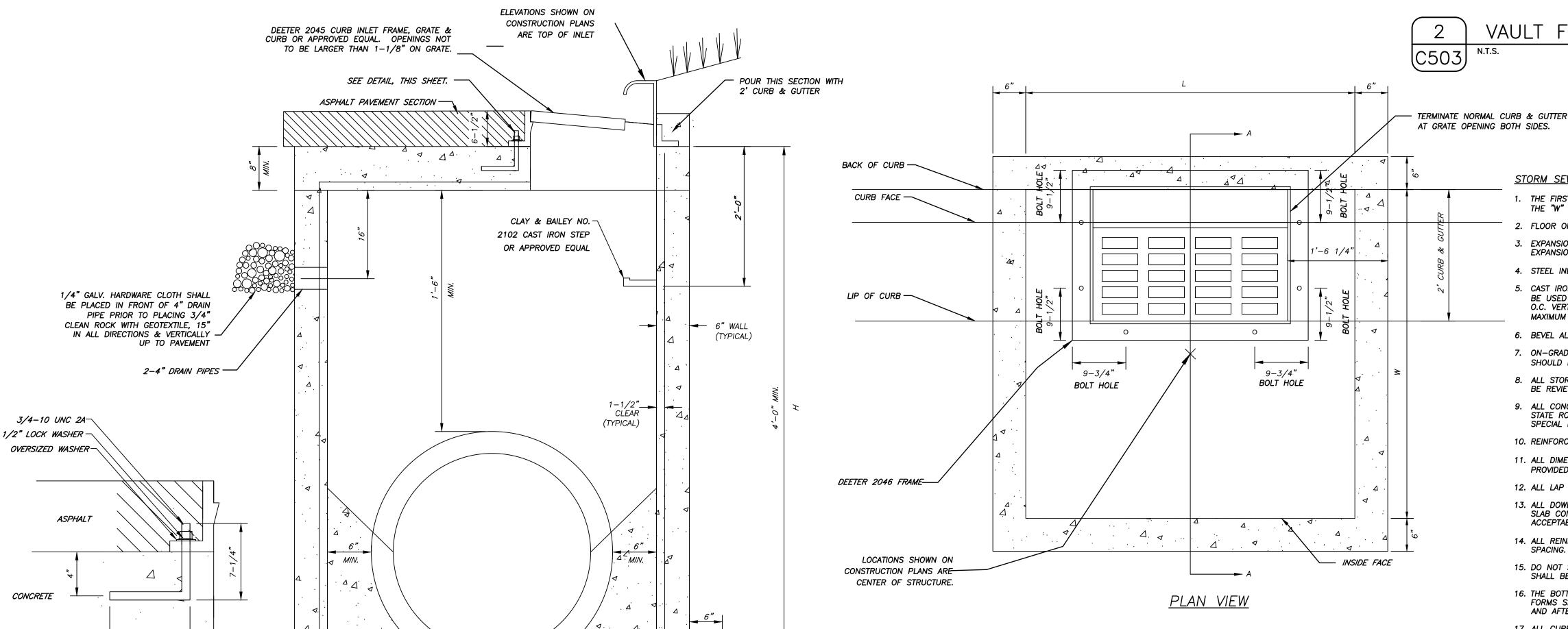


SECTION A-A

6-3/4"

CONCRETE FOOTING

BOLT DETAIL



3 1/2" X 1 1/2"

KEYWAY ALL ROUND

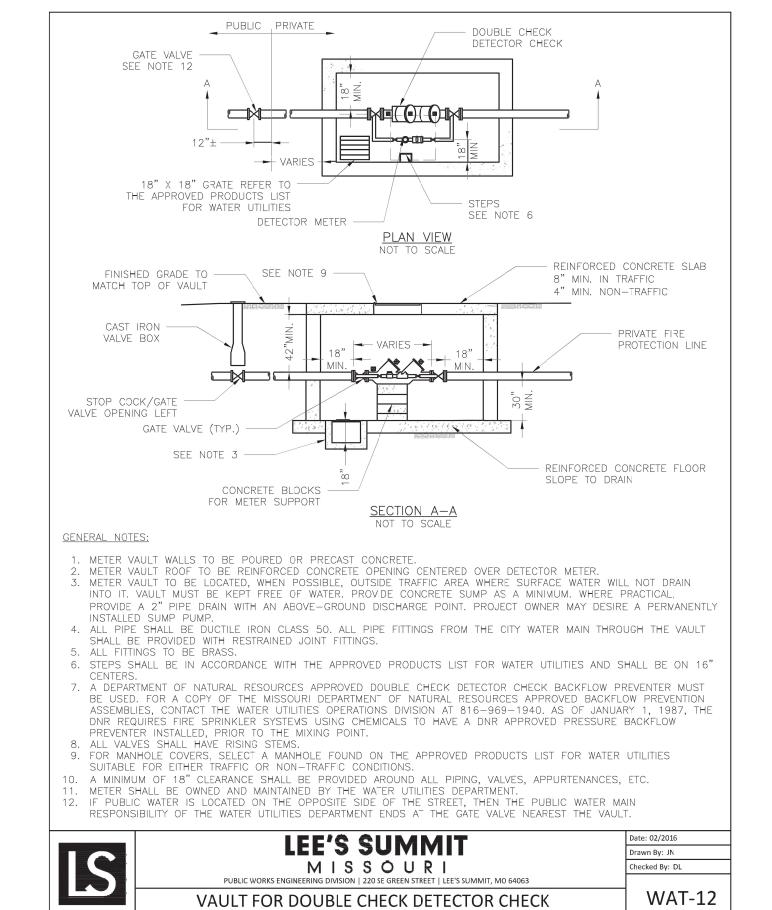
<u>GENERAL NOTES:</u> SEE SHEET STORM SEWER STRUCTURE NOTES THIS SHEET. BOLT TO BE

ALL THREAD, GALVANIZED STEEL. OVERSIZED HOLE TO BE FIELD DRILLED

IN 2045 CURB INLET FRAME AT INDICATED LOCATIONS TO MATCH UP TO

MODIFIED CURB INLET

ANCHOR BOLTS SET IN CONCRETE.



VAULT FOR DOUBLE CHECK DETECTOR CHECK

STORM SEWER NOTES:

- 1. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
- 2. FLOOR OF INLET SHALL BE SHAPED WITH NON-REINFORCED CONCRETE INVERT TO PROVIDE SMOOTH FLOW.
- 3. EXPANSION JOINTS SHALL BE EITHER HOT OR COLD POURED JOINT SEALING COMPOUND, OR PREMOLDED EXPANSION JOINT FILLER.
- 4. STEEL INLET FRAME SPACERS SHALL BE PLACED AT EQUAL SPACINGS NOT TO EXCEED 4'-0".
- 5. CAST IRON STEPS TO BE CLAY & BAILEY 2102 OR APPROVED EQUAL. STEEL CORE, PLASTIC COATED STEPS MAY BE USED (M.A. IND.,INC. NO. PS1-PF, PS2-PF, OR APPROVED EQUAL). STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY. THE DISTANCE FROM THE LAST STEP TO THE TOP OF CONCRETE INVERT SHOULD BE A MAXIMUM OF 24".
- 6. BEVEL ALL EXPOSED EDGES WITH 3/4" TRIANGULAR MOLDING.
- 7. ON-GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL. FIELD INLETS SHOULD BE GRADED TO IMPOUND WATER TO A MINIMUM DEPTH OF 6" ABOVE INLET TOP.
- 8. ALL STORM SEWER STRUCTURES SHALL BE PRECAST OR POURED IN PLACE. PRECAST SHOP DRAWINGS ARE TO BE REVIEWED BY THE ENGINEER PRIOR TO FABRICATION.
- 9. ALL CONCRETE CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION, MISSOURI DEPARTMENT OF TRANSPORTATION, LATEST EDITION, AND
- 10. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 60 AS PER ASTM A615, AND SHALL BE BENT COLD.
- 11. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF +/- 1/8" SHALL BE PERMITTED.
- 12. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
- 13. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE
- 14. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM
- 15. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE PRIOR TO CONSTRUCTION.
- 16. THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE. ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.
- 17. ALL CURB INLET TOPS ARE TO BE CONSTRUCTED AFTER FINAL CURB STRING LINE HAS BEEN APPROVED BY THE OWNER'S REPRESENTATIVE AND PRIOR TO CURB CONSTRUCTION.
- 18. RCP CONNECTIONS TO PRECAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2' OF THE STRUCTURE.
- 19. ALL STRUCTURES SHALL BE DESIGNED TO MEET AASHTO HS20 LOADING.
- 20. GEOTEXTILE FABRIC AROUND WEEPS SHALL BE AASHTO M288 CLASS A OR AN APPROVED EQUAL.
- 21. PRIOR TO SETTING OF STRUCTURES OR LAYING OF PIPE, ANY UTILITY CROSSING SHALL BE EXPOSED TO CONFIRM NO CONFLICTS EXIST WITH PROPOSED INSTALLATION.

THOMAS P. WOOTEN NUMBER E-2000150081

SHEET NUMBER 12 of 16

1/2"-3/4" CLEAN AGGREGATE, HAND TAMPED OR MECHANICALLY COMPACTED IN MAX. 4" LIFTS

#### INITIAL BACKFILL

-UNDER PAVED AREAS OR WITHIN 4' HORIZONTAL OF PAVED AREAS

1/2"-3/4" CLEAN AGGREGATE, HAND TAMPED OR MECHANICALLY COMPACTED IN MAX. 4" LIFTS

#### -UNDER OPEN AREAS

1/2"-3/4" CLEAN AGGREGATE, HAND TAMPED OR MECHANICALLY COMPACTED IN MAX. 4" LIFTS

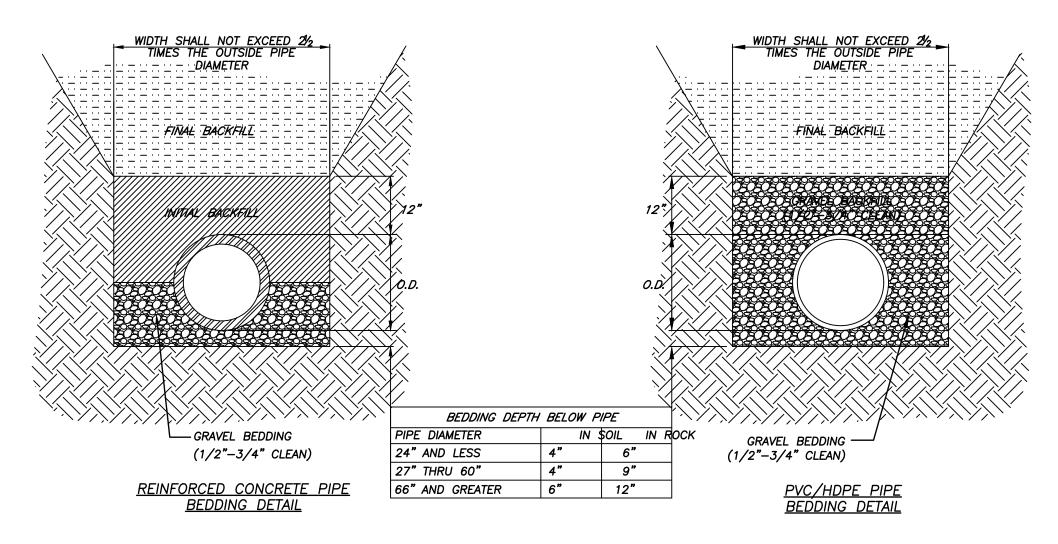
SELECT FILL CONSISTING OF SITE EXCAVATED OR IMPORTED NON-COHESIVE MATERIAL FREE OF CLAY, ORGANICS, TRASH, FROZEN MATERIAL, OR ROCKS LARGER THAN 3" COMPACTED TO 95% OF STANDARD

DENSITY PER ASTM D-698

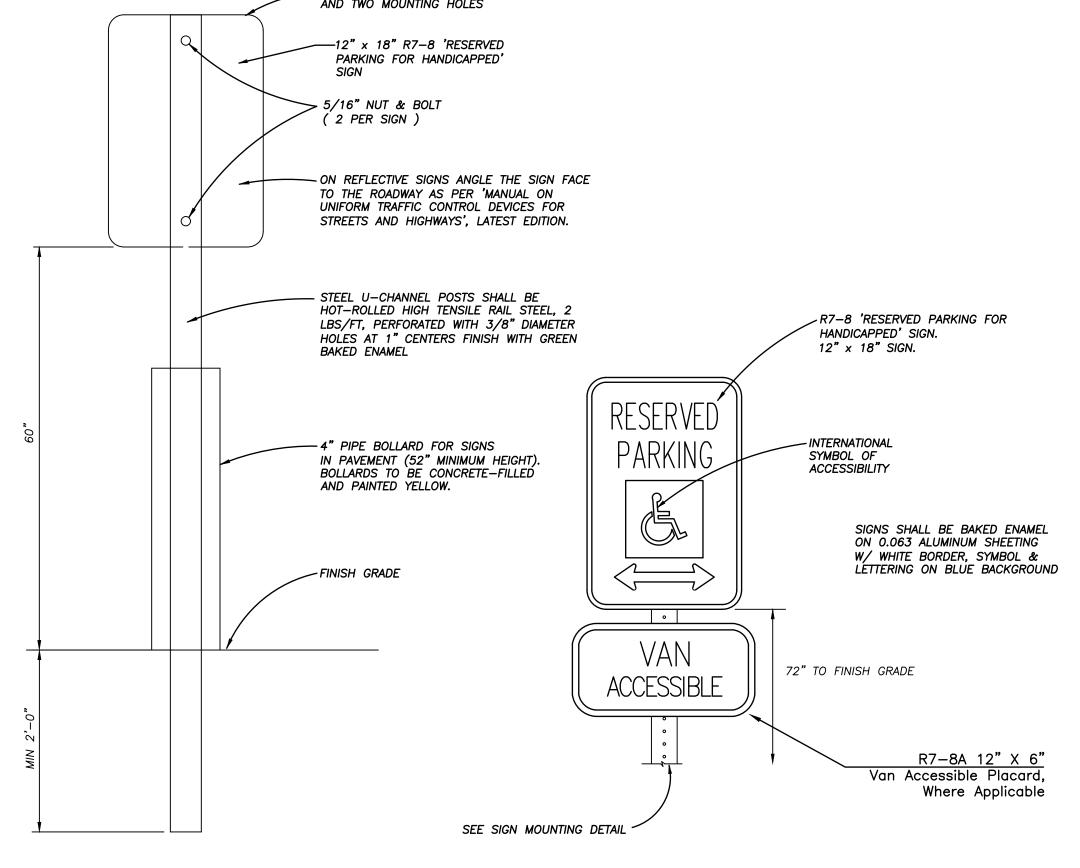
#### FINAL BACKFILL

-UNDER PAVED AREAS OR WITHIN 4' HORIZONTAL OF PAVED AREAS ON-SITE OR IMPORTED MATERIAL FREE OF MUCK, FROZEN MATERIAL, EXCESS MOISTURE, ORGANICS, TOPSOIL, RUBBISH, CONSTRUCTION DEBRIS, ROCK OR BRICK LARGER THAN 8", COMPACTED TO 95% OF STANDARD DENSITY PER ASTM D-698

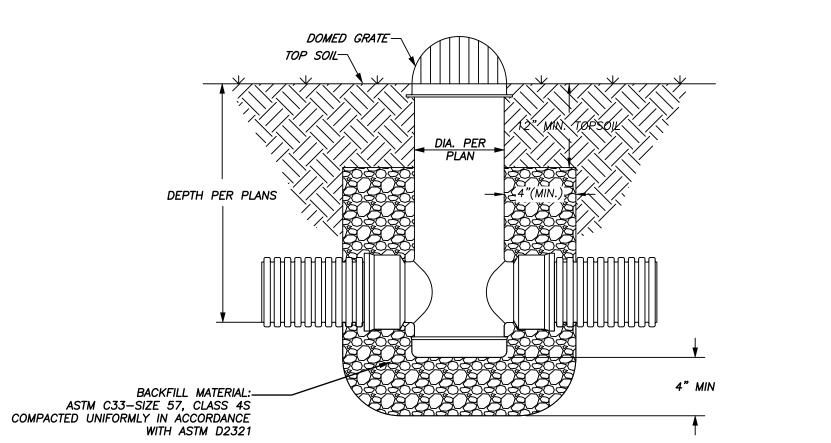
ON-SITE OR IMPORTED MATERIAL FREE OF MUCK, FROZEN MATERIAL, EXCESS MOISTURE, ORGANICS, TOPSOIL, RUBBISH, CONSTRUCTION DEBRIS, ROCK OR BRICK LARGER THAN 8", COMPACTED TO 90% OF STANDARD DENSITY PER ASTM D-698



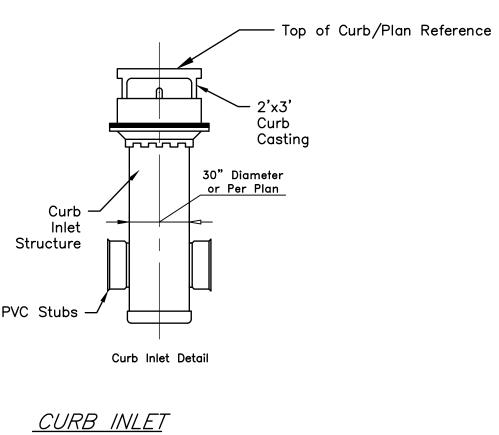
STORM SEWER PIPE BEDDING C504) N.T.S.



<u>SIGN MOUNTING</u>

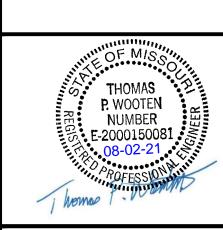


<u>DRAIN BASIN</u>

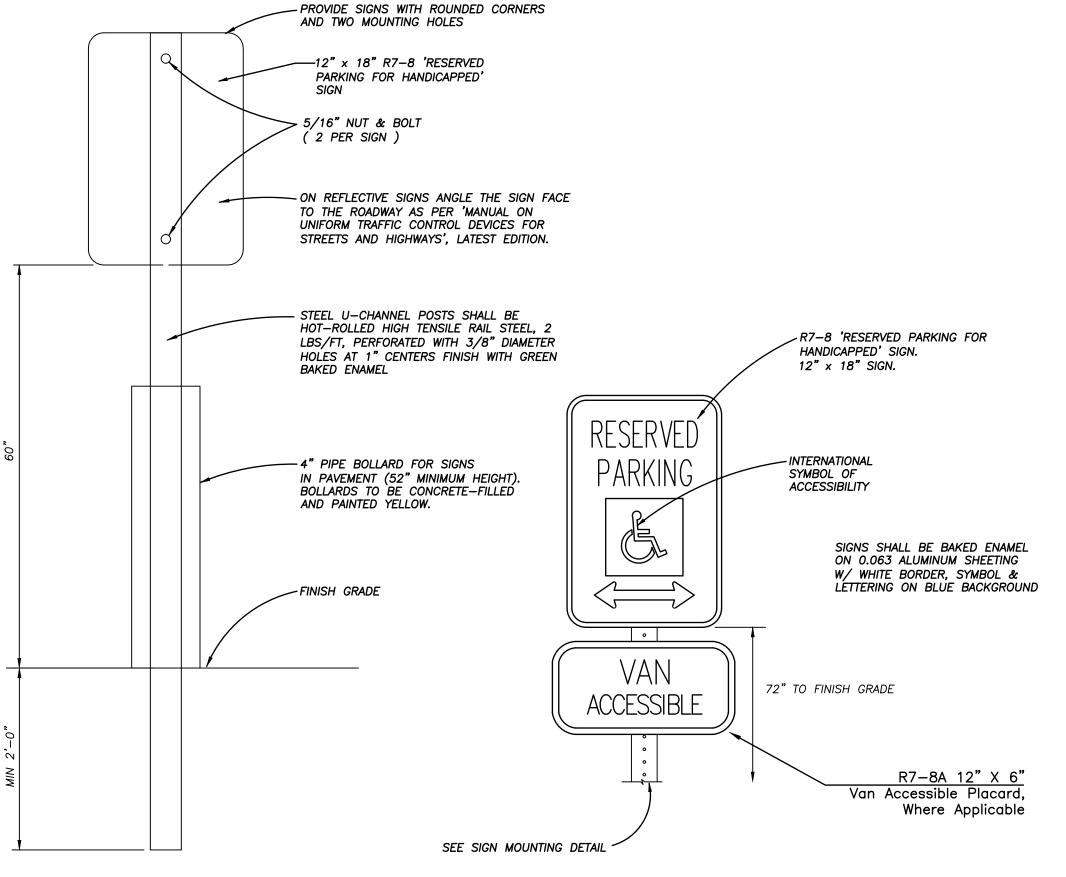


NYLOPLAST STRUCTURES

**DETAILS** 

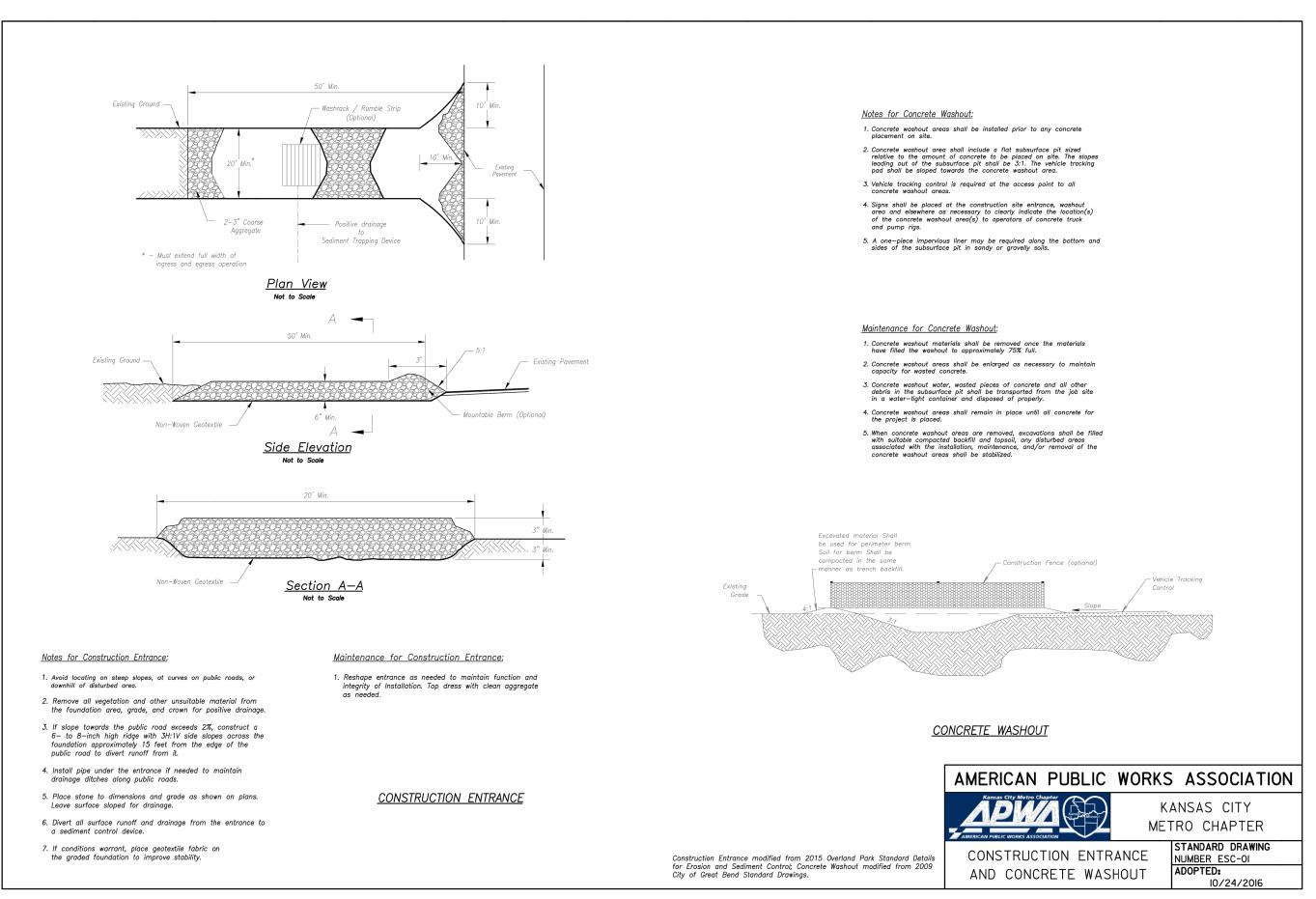


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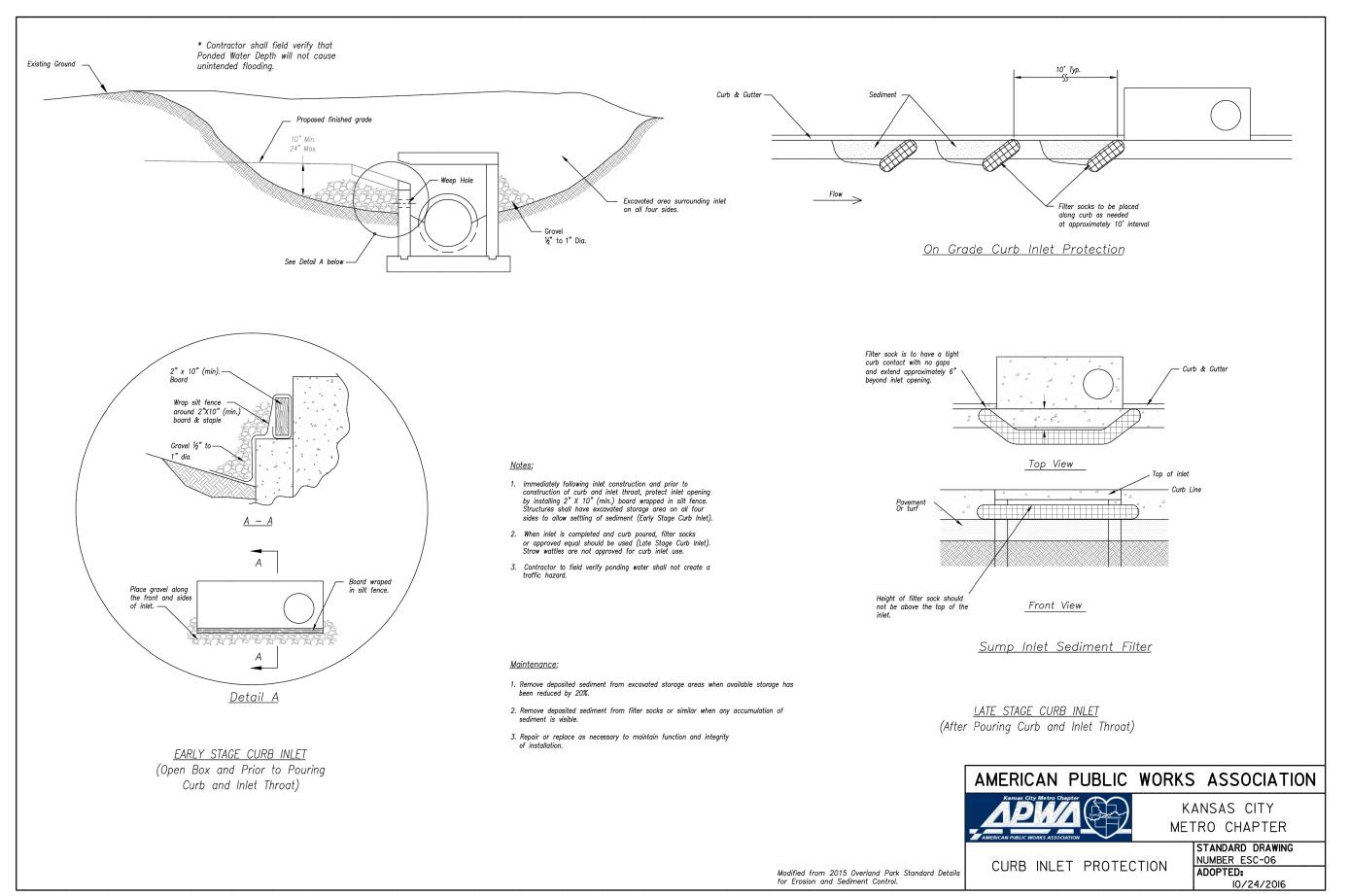


ACCESSIBLE PARKING/SIGNAGE

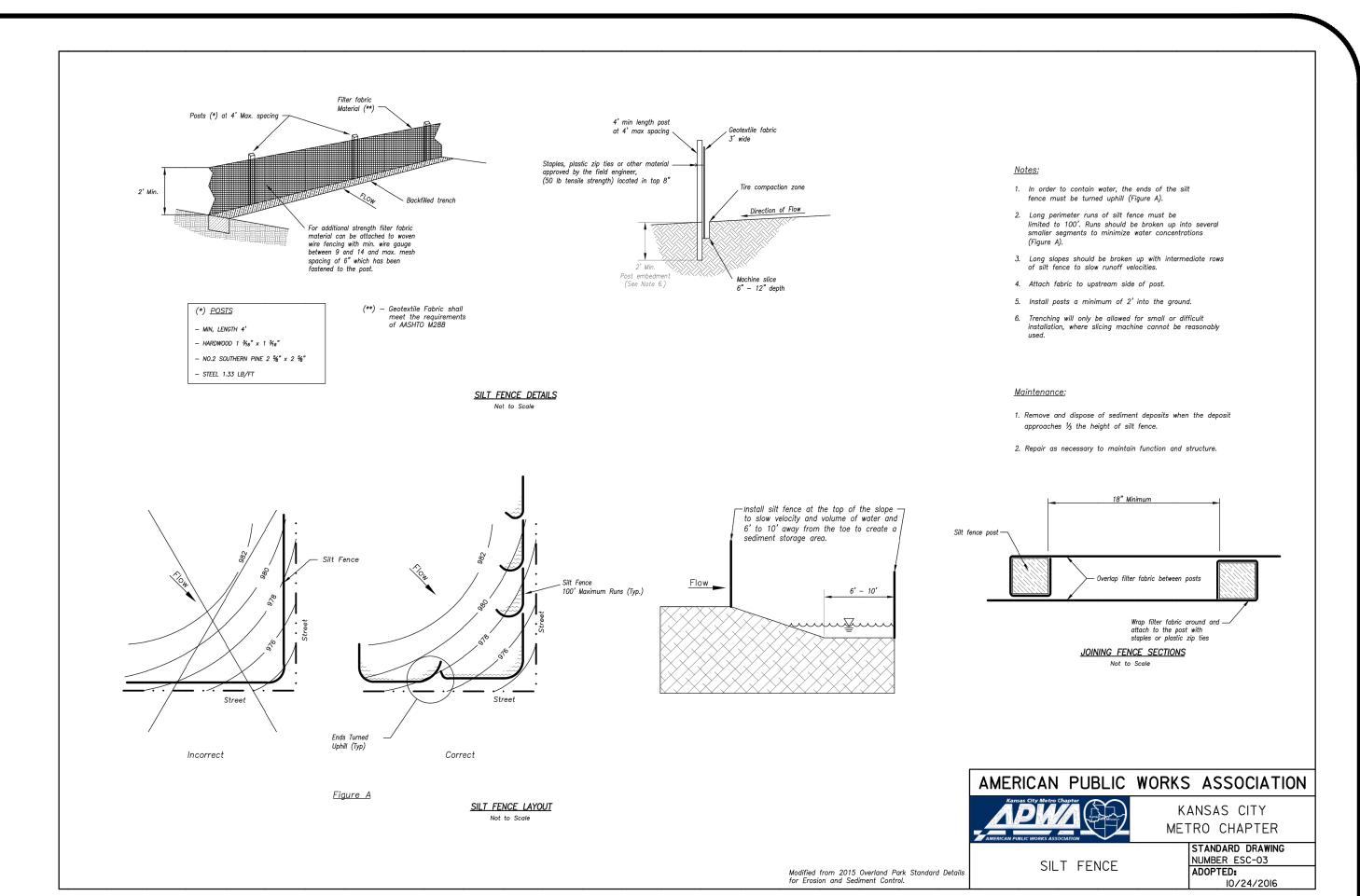
ACCESSIBLE SIGNAGE



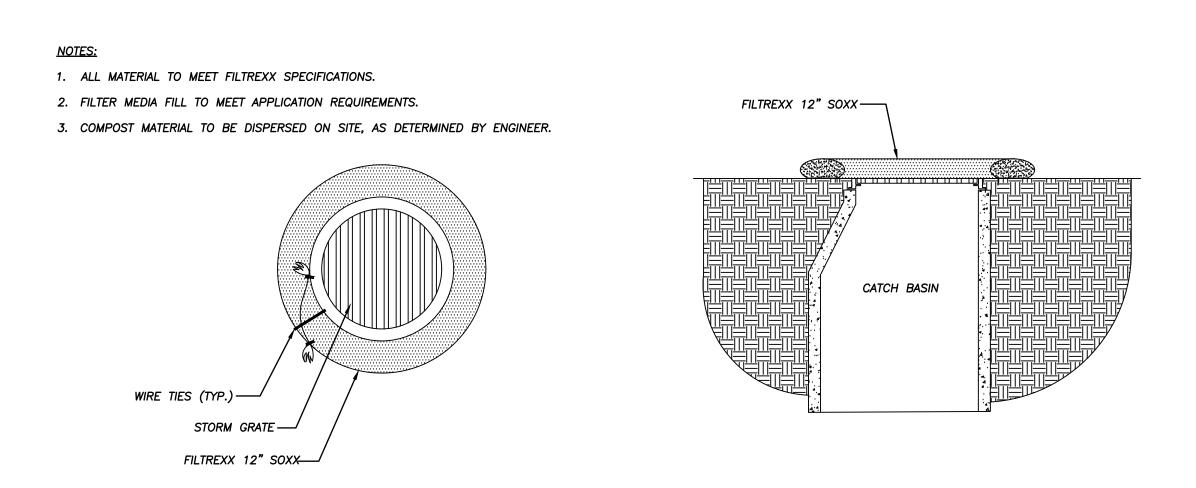
1 CONSTRUCTION ENTRANCE
C505 AND CONCRETE WASHOUT



2 CURB INLET PROTECTION C505 N.T.S.



3 SILT FENCE C505 N.T.S.



4 GRATED AREA INLET PROTECTION C505 N.T.S.

ENGINEERS SURVEYORS - LABORATORIES - DRILLING

ENGINEERS - SURVEYORS - LABORATORIES -

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 BY
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COOPER'S HAWK
FINAL DEVELOPMENT PLAN
DETAILS

THOMAS
P. WOOTEN
NUMBER
E-2000150081
08-02-21

ROFESSION

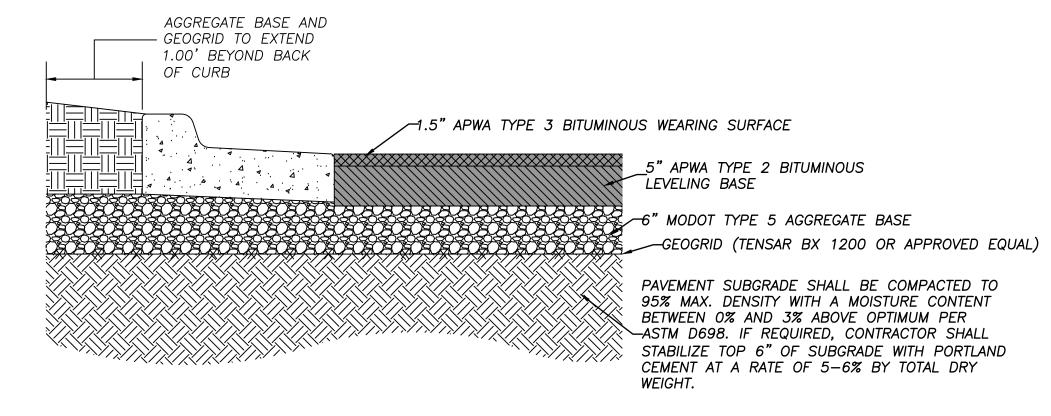
SHEET NUMBER

C505

14 OF 16

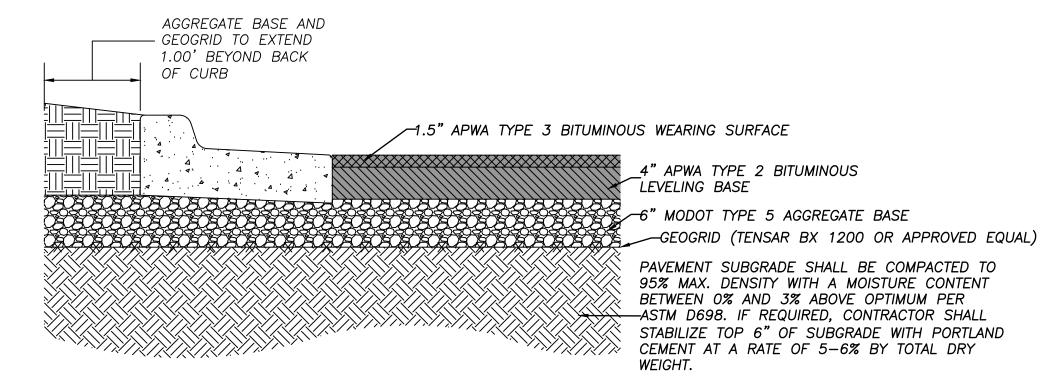
## PORTLAND CEMENT CONCRETE (PCC) **PAVEMENT SECTION**

SCALE: N.T.S.



## **HEAVY-DUTY ASPHALTIC CONCRETE PAVEMENT SECTION**

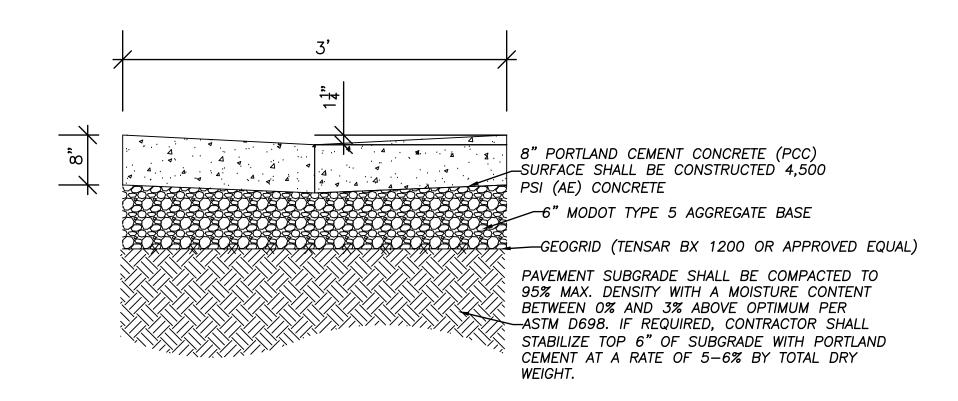
SCALE: N.T.S.



## **MEDIUM-DUTY ASPHALTIC CONCRETE PAVEMENT SECTION**

SCALE: N.T.S.

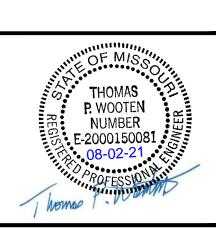
PAVEMENT SECTION DETAILS



VALLEY GUTTER DETAIL



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102 S. Cherry St.

## **DEVELOPMENT ORDINANCE SUMMARY**

#### SEC. 8.790.A - STREET FRONTAGE

REQUIRED:

1 TREE PER 30' STREET FRONTAGE AND 1 SHRUB PER 20' STREET FRONTAGE:

NW WARD ROAD = 395 LF = 13 TREES AND 20 SHRUBS

NW CHIPMAN ROAD = 270 LF = 9 TREES AND 14 SHRUBS

COMMON ACCESS DRIVE = 260 LF = 9 TREES AND 13 SHRUBS

PROVIDED:

NW WARD ROAD = 13 TREES AND 20 SHRUBS NW CHIPMAN ROAD = 9 TREES (INCLUDING 2 EXISTING TREES) AND 14 SHRUBS COMMON ACCESS DRIVE = 9 TREES (INCLUDING 2 EXISTING TREES) AND 13 SHRUBS

#### SEC. 8.790.B - OPEN YARD AREAS

REQUIRED:

2 SHRUBS PER 5000 SF TOTAL LOT AREA, EXCLUDING BUILDING FOOTPRINT AND 1 TREE PER 5000 SF TOTAL LOT AREA, EXCLUDING BUILDING FOOTPRINT:

110,791 SF LOT - 10,655 SF BUILDING = 100,136 SF (100,136 / 5000) X 2 = 40 SHRUBS AND 100,136 / 5000 = 20 TREES

PROVIDED:

50 SHRUBS AND 20 TREES

#### SEC. 8.810 - PARKING LOT LANDSCAPING AND TREES

LANDSCAPE ISLANDS, STRIPS OR OTHER PLANTING AREAS SHALL BE LOCATED IN THE PARKING LOT AND SHALL CONSTITUTE AT LEAST 5% OF THE PARKING AREA: 53,617 SF PARKING AREA X 5% = 2680 SF INTERIOR LANDSCAPE AREAS

PROVIDED: 3559 SF INTERIOR LANDSCAPE AREAS

#### SEC 8.820 - SCREENING, PARKING LOT

PARKING LOTS AND LOADING AREAS VISIBLE FROM ROW SHALL BE SCREENED TO A HEIGHT OF 2  $\frac{1}{2}$  WITH A HEDGE CONSISTING OF AT LEAST 12 SHRUBS PER 40 LF: NW WARD ROAD = (300 LF / 40) X 12 = 90 SHRUBS NW CHIPMAN ROAD = (211 LF / 40) X 12 = 63 SHRUBS COMMON ACCESS DRIVE = (180' LF / 40) X 12 = 54 SHRUBS

NW WARD ROAD = 90 SHRUBS NW CHIPMAN ROAD = 63 SHRUBS COMMON ACCESS DRIVE = 54 SHRUBS

## DI ANT SCHEDI II E

PLANT SCHEDU	JLE				
DECIDUOUS TREES	CODE	<u>QTY</u>	COMMON / BOTANICAL NAME	CONT	CAL
	AC	17	CADDO SUGAR MAPLE / ACER SACCHARUM `CADDO`	B & B	3"CAL
+	QP	13	AMERICAN DREAM OAK / QUERCUS BICOLOR `JFS-KW12` TM	B & B	3"CAL
3000000000	UE	10	ALLEE LACEBARK ELM / ULMUS PARVIFOLIA `EMER II` TM	B & B	3"CAL
• 000000000000000000000000000000000000	ZM	7	MUSASHINO SAWLEAF ZELKOVA / ZELKOVA SERRATA `MUSASHINO`	B & B	3"CAL
DECIDUOUS SHRUBS	CODE	<u>QTY</u>	COMMON / BOTANICAL NAME	CONT	
+	AB	22	LOW SCAPE HEDGER BLACK CHOKEBERRY / ARONIA MELANOCARPA `UCONNAM166` TM	2 GAL	
<del>(+)</del>	IR	70	RED SPRITE WINTERBERRY / ILEX VERTICILLATA 'RED SPRITE'	5 GAL	
$\odot$	JP	52	SEA GREEN JUNIPER / JUNIPERUS X PFITZERIANA `SEA GREEN`	5 GAL	
$\odot$	RG	25	GRO-LOW FRAGRANT SUMAC / RHUS AROMATICA `GRO-LOW`	5 GAL	
••	TM	84	DENSE ANGLO-JAPANESE YEW / TAXUS X MEDIA `DENSIFORMIS`	5 GAL	
GRASSES & PERENNIALS	CODE	<u>QTY</u>	COMMON / BOTANICAL NAME	CONT	
<del>{+}</del> }	BG	32	BLONDE AMBITION BLUE GRAMA / BOUTELOUA GRACILIS `BLONDE AMBITION`	2 GAL	
$\langle \cdot \rangle$	NW	51	WALKER'S LOW CATMINT / NEPETA X 'WALKER'S LOW'	2 GAL	
A CONTRACTOR OF THE PROPERTY O	SH	44	PRAIRIE DROPSEED / SPOROBOLUS HETEROLEPIS	2 GAL	
GROUND COVERS	CODE	QTY	COMMON / BOTANICAL NAME	CONT	
	TF	12,920 SF	TURF TYPE TALL FESCUE / DROUGHT TOLERANT FESCUE BLEND	SOD	
1	EC	1,930	COLORATUS PURPLE WINTERCREEPER / EUONYMUS FORTUNEI `COLORATUS`	2 1/2" PEAT POT	

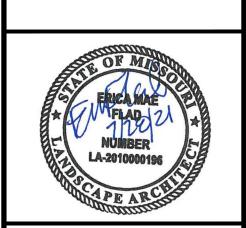


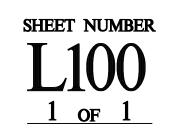
Olathe, KS 66061 Phone: 913-780-6707 www.landworksstudio.com

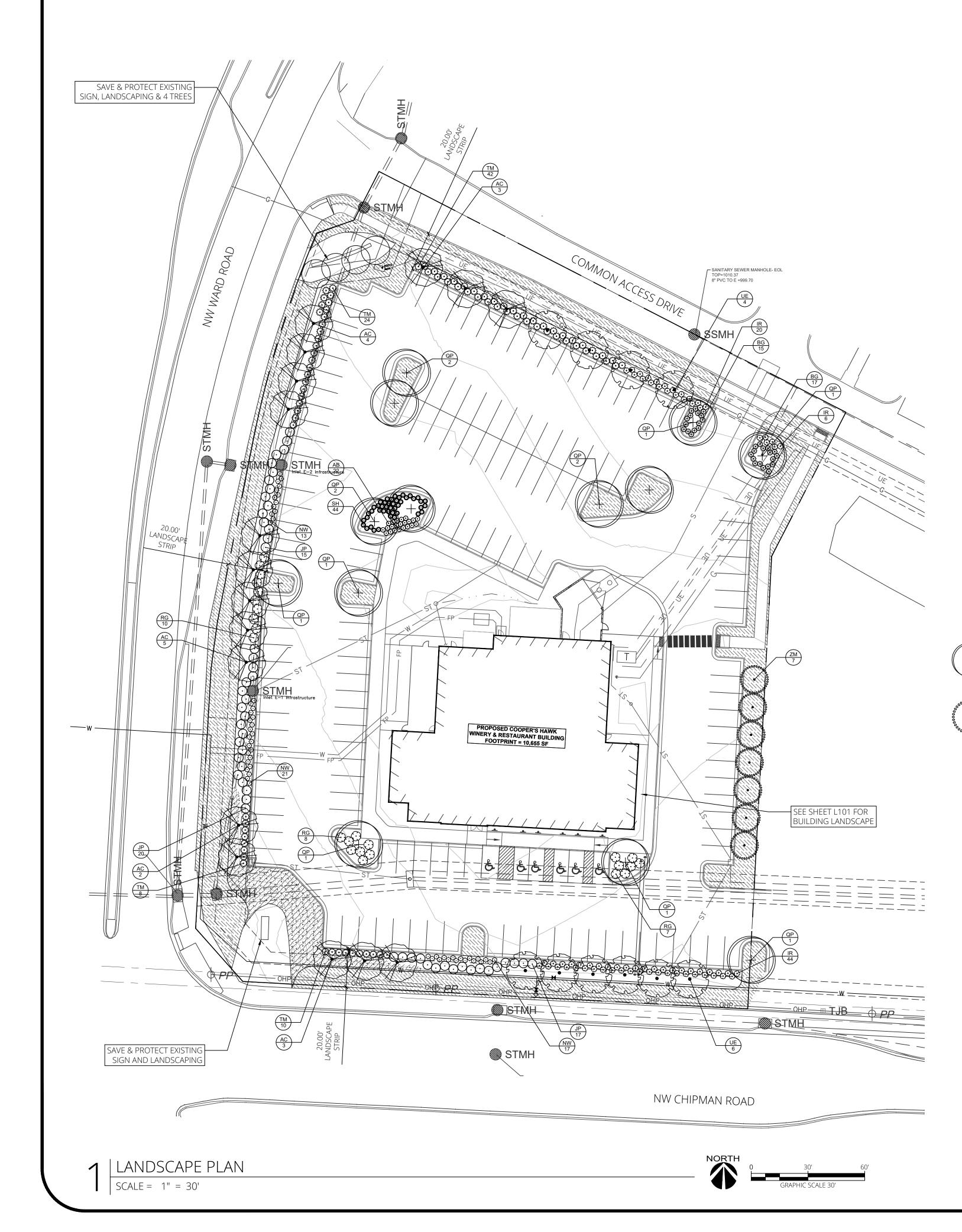
ENGINEERS • SURVEY

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COOPER'S HAWK
INAL DEVELOPMENT PLAN

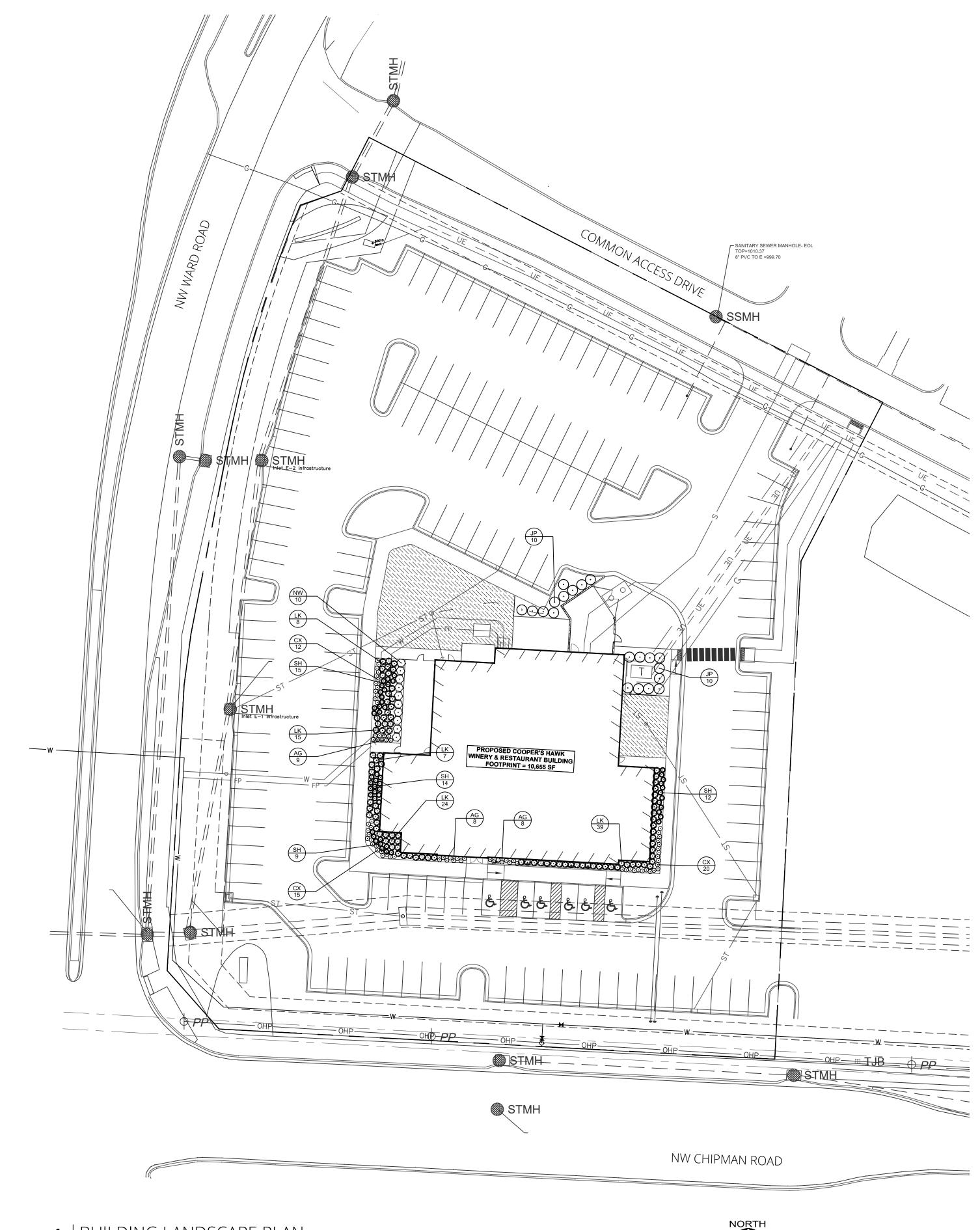








102 S. Cherry St. Olathe, KS 66061 Phone: 913-780-6707 www.landworksstudio.com



## PLANT SCHEDULE

I LI WITH OOTILD	<i>_</i>			
DECIDUOUS SHRUBS	CODE	QTY	COMMON / BOTANICAL NAME	CONT
$\odot$	JP	20	SEA GREEN JUNIPER / JUNIPERUS X PFITZERIANA `SEA GREEN`	5 GAL
GRASSES & PERENNIALS	CODE	<u>QTY</u>	COMMON / BOTANICAL NAME	CONT
$\bigcirc$	AG	25	GAY BUTTERFLIES BUTTERFLY MILKWEED / ASCLEPIAS TUBEROSA `GAY BUTTERFLIES`	1 GAL
$\odot$	CX	47	UPTICK GOLD AND BRONZE TICKSEED / COREOPSIS X `BALUPTGONZ` TM	1 GAL
6 3 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	LK	93	KOBOLD SPIKE GAYFEATHER / LIATRIS SPICATA `KOBOLD`	1 GAL
$\bigcirc$	NW	10	WALKER'S LOW CATMINT / NEPETA X 'WALKER'S LOW'	2 GAL
ANNOTATION OF THE PROPERTY OF	SH	50	PRAIRIE DROPSEED / SPOROBOLUS HETEROLEPIS	2 GAL
GROUND COVERS	CODE	<u>QTY</u>	COMMON / BOTANICAL NAME	CONT
	TF	3,150 SF	TURF TYPE TALL FESCUE / DROUGHT TOLERANT FESCUE BLEND	SOD

			EMPLOYEE OWNE	ENGINEERS • SURVEYORS • LABORATORIES • DRI	4240 PHILIPS FARM RD. STE. 101 • COLUMBIA, MO 652011 • PHONE	A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORMISSOURI CERTIFICATE OF AUTHORITY #000062 EXPIRES 12/2	
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COOPER'S HAWK INAL DEVELOPMENT PLAN



SHEET NUMBER

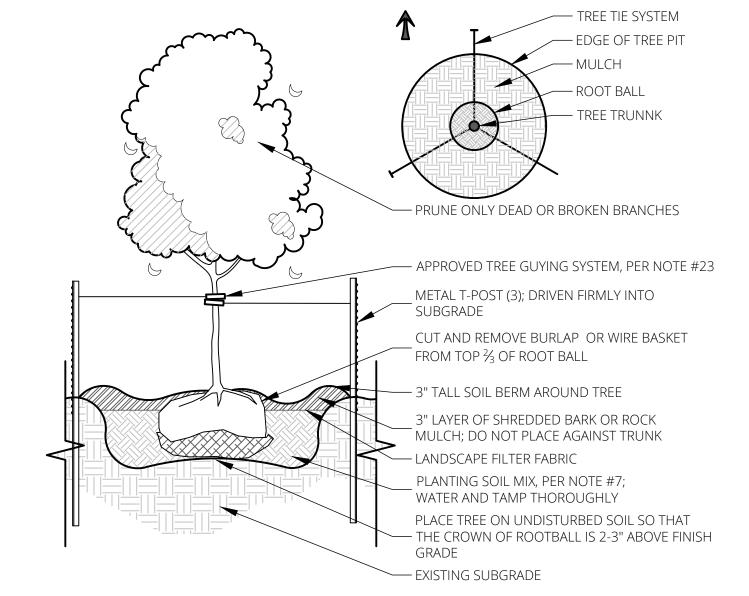
1 BUILDING LANDSCAPE PLAN

SCALE = 1" = 30'



102 S. Cherry St.

Olathe, KS 66061 Phone: 913-780-6707 www.landworksstudio.com



## DECIDUOUS TREE PLANTING

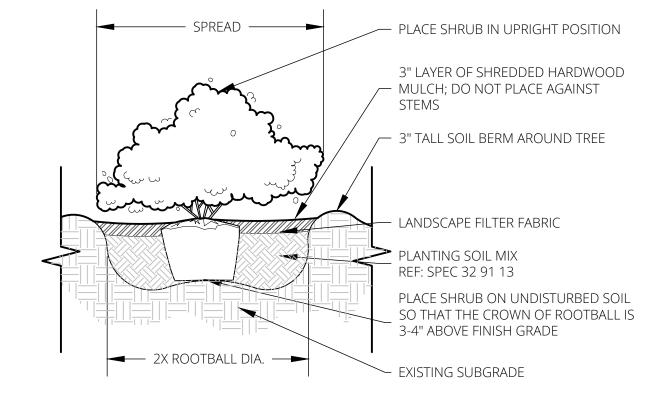
**PLAN VIEW** - TRIANGULAR SPACING

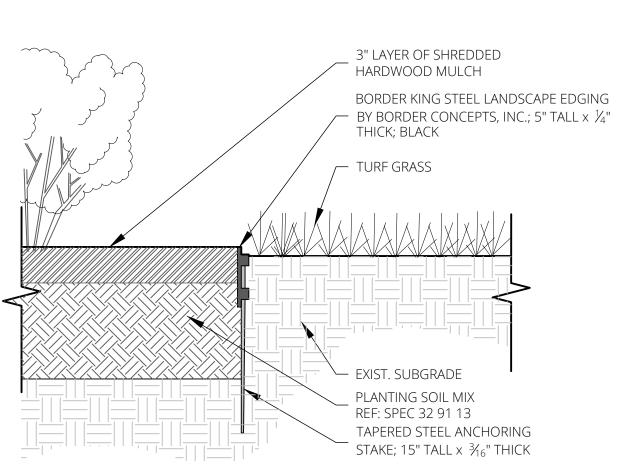
PLACE PLANT IN **VERTICAL POSITION SECTION VIEW** - TRIANGULAR SPACING 3" LAYER OF SHREDDED HARDWOOD MULCH - LANDSCAPE FILTER FABRIC PLANTING SOIL MIX, REF: SPEC 32 91 13 - GENTLY LOOSEN ROOTS FIRM SOIL AROUND **ROOT MASS** 

**EXISTING SUBGRADE** 

3 PERENNIAL PLANTING

SCALE = NITS





## **PLANTING NOTES**

- 1. CONTRACTOR SHALL LOCATE ALL UTILITIES BEFORE COMMENCING WORK. NOTIFY THE MISSOURI ONE CALL SYSTEM AT 800-344-7483, OR 811. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO UTILITIES RESULTING FROM LANDSCAPE OPERATIONS. ANY UTILITIES SHOWN ON PLAN ARE FOR REFERENCE ONLY AND MAY OR MAY NOT DEPICT THE ACTUAL LOCATION OF SERVICES.
- 2. NO MATERIAL SUBSTITUTIONS SHALL BE MADE WITHOUT LANDSCAPE ARCHITECT'S APPROVAL. ALTERNATE MATERIALS OF SIMILAR SIZE AND CHARACTER MAY BE CONSIDERED IF SPECIFIED PLANT MATERIALS CANNOT BE OBTAINED. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REVISE PLANT LIST AS DEEMED NECESSARY.
- 3. QUANTITIES OF MATERIALS SHOWN ON THE PLANTING PLAN TAKE PRECEDENCE OVER QUANTITIES SHOWN ON THE PLANT MATERIAL SCHEDULE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES ON THE PLANTING PLAN PRIOR TO BIDDING.
- 4. REPORT ANY DISCREPANCIES IN THE PLANTING PLAN TO THE LANDSCAPE ARCHITECT, PRIOR TO PURCHASING MATERIALS OR STARTING CONSTRUCTION.
- 5. ALL DISTURBED AREAS NOT COVERED BY BUILDING, PAVEMENT, OR PLANTING BED SHALL BE BROUGHT TO FINISH GRADE AND PLANTED IN TURF-TYPE TALL FESCUE OR OTHER .

#### PLANTING PREPARATION

- 6. CONTRACTOR SHALL PROVIDE OWNER'S REPRESENTATIVE WITH SOIL TEST ANALYSIS REPORTS FOR EACH SAMPLE OF EXISTING SOIL, TOPSOIL, COMPOST, AND PLANTING SOIL MIX PRIOR TO PLANTING PREPARATION. ANALYSES SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING PARAMETERS: PARTICLE SIZE ANALYSIS (% DRY WEIGHT), USDA SOIL TEXTURE, pH AND BUFFER pH, ORGANIC CONTENT (% DRY WEIGHT), MOISTURE CONTENT (% WET WEIGHT), PHYSICAL CONTAMINANTS (% DRY WEIGHT), AND NUTRIENT LEVELS (NITROGEN, PHOSPHORUS, POTASSIUM).
- 7. ALL PLANTING BEDS SHALL BE AMENDED WITH A PLANTING SOIL MIX CONSISTING OF EXISTING SOIL, TOPSOIL, AND COMPOST TO MAKE A NEW SOIL THAT MEETS THE PROJECT GOALS FOR THE INDICATED PLANTING AREAS. REFER TO SPECIFICATION SECTION 32 91 13 - SOIL PREPARATION.
- 8. PLANT PIT BACKFILL FOR TREES AND SHRUBS SHALL BE PLANTING SOIL MIX, AS DESCRIBED IN ABOVE NOTE.
- 9. MOUND ALL PLANTING BEDS NOT ADJACENT TO BUILDINGS. PROVIDE POSITIVE DRAINAGE AROUND ALL PLANTING BEDS.

#### PLANTING MATERIALS

- 10. ALL PLANT MATERIAL SHALL BE WELL-FORMED AND DEVELOPED IN GOOD CONDITION, HEALTHY AND DISEASE-FREE, AND BE TYPICAL OF THE SPECIES. PLANTS SHALL COMPLY WITH ACCEPTABLE STANDARDS AS SET FORTH IN THE AMERICAN HORT "AMERICAN STANDARD OF NURSERY STOCK."
- 11. ALL PLANT MATERIALS SHALL BE PROTECTED FROM THE DRYING ACTION OF THE SUN AND WIND AFTER BEING DUG, WHILE BEING TRANSPORTED, AND WHILE AWAITING PLANTING. BALLS OF PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY SHALL BE PROTECTED FROM DRYING ACTION BY COVERING THEM WITH MOIST MULCH. PERIODICALLY, APPLY WATER TO MULCH-COVERED BALLS TO KEEP MOIST. IF PLANTING SHOULD OCCUR DURING GROWING SEASON, APPLY ANTI-DESSICANT TO LEAVES BEFORE TRANSPORT TO REDUCE LIKELIHOOD OF WINDBURN. REAPPLY ANTI-DESSICANT AFTER PLANTING TO REDUCE TRANSPIRATION.
- 12. PLANTS DESIGNATED AS CONTAINER GROWN SHALL HAVE BEEN GROWN IN POTS, CANS OR BOXES FOR A MINIMUM OF SIX MONTHS AND A MAXIMUM OF TWO YEARS. THESE PLANTS SHALL BE REMOVED FROM CONTAINERS BEFORE PLANTING. PLANTS THAT APPEAR ROOT-BOUND SHALL BE REJECTED.
- 13. ALL PLANT LOCATIONS ARE APPROXIMATE, ADJUST AS NECESSARY TO AVOID CONFLICTS. THE FOLLOWING APPLIES FOR GENERAL PLANT LOCATIONS:
- a. CREEPING GROUNDCOVER SHALL BE LOCATED A MINIMUM OF 6 INCHES FROM EDGE OF PAVEMENT.
- b. ALL SHRUBS SHALL BE LOCATED A MINIMUM OF 2 FEET FROM EDGE OF PAVEMENT AND 4 FEET FROM BUILDINGS.
- c. ALL TREES SHALL BE LOCATED A MINIMUM OF 2.5 FEET FROM EDGE OF PAVEMENT. d. EQUALLY SPACE ALL PLANTS OF THE SAME SPECIES FOR BEST VIEWING.

### RELATED ITEMS

- 14. MULCH: APPLY A 3" LAYER OF SHREDDED HARDWOOD BARK MULCH IN PLANTING BEDS AND AROUND TREES. MULCH SHALL CONSIST OF PURE WOOD, NON-COLOR ADDED PRODUCTS AND BE FREE OF ALL FOREIGN SUBSTANCES. PROVIDE AND INSTALL PRE-EMERGENT HERBICIDE PRIOR TO MULCH INSTALLATION PER MANUFACTURERS INSTRUCTIONS.
- 15. EDGING: ALL PLANT BEDS AND TURF AREAS MUST BE SEPARATED WITH A STEEL EDGE, AS SHOWN IN THE DETAIL ON THIS SHEET.
- 16. TREE TIES: CONTRACTOR SHALL USE AN APPROVED TREE TIE SYSTEM. TREE GUYING TO BE FLAT WOVEN POLYPROPYLENE MATERIAL, 3/4-INCH-WIDE, WITH A TENSILE STRENGTH OF 900 LBS. HOSE AND WIRE WILL NOT BE ACCEPTED. SUBJECT TO COMPLIANCE WITH THESE REQUIREMENTS, PROVIDE ONE OF THE FOLLOWING PRODUCTS, OR APPROVED EQUAL:

"ARBORTIE GREEN" MANUFACTURED BY DEEP ROOT PARTNERS, LP

"LEONARD TREE TIE WEBBING GREEN" MANUFACTURED BY A.M. LEONARD, INC.

### MAINTENANCE AND CLEAN-UP

- 17. THE CONTRACTOR SHALL PROVIDE ALL WATER, WATERING DEVICES AND LABOR NEEDED TO IRRIGATE PLANT MATERIALS UNTIL PROVISIONAL ACCEPTANCE OF THE PROIECT. THE CONTRACTOR SHALL SUPPLY ENOUGH WATER TO MAINTAIN THE PLANT'S HEALTHY CONDITION.
- 18. OWNER SHALL PROVIDE AND INSTALL A FULLY-AUTOMATED PERMANENT UNDERGROUND IRRIGATION SYSTEM DESIGNED BY A CERTIFIED IRRIGATION DESIGNER AND CAPABLE OF PROVIDING ADEQUATE WATER TO ALL TREES, SHRUBS, AND TURF SHOWN ON THESE PLANS.
- 19. REMOVE ALL RUBBISH, EQUIPMENT, AND MATERIAL AND LEAVE THE AREA IN A NEAT, CLEAN CONDITION EACH DAY. MAINTAIN PAVED AREAS UTILIZED FOR HAULING EQUIPMENT AND MATERIALS BY OTHER TRADES IN A CLEAN AND UNOBSTRUCTED CONDITION AT ALL TIMES. REMOVE SOIL OR DIRT THAT ACCUMULATES DUE TO PLANTING OPERATIONS EACH DAY.

### INSPECTION, WARRANTIES AND GUARANTEE

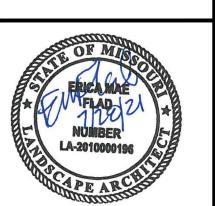
- 20. AT THE COMPLETION OF PLANTING OPERATIONS, ALL PLANTS SHALL BE INSPECTED BY A LICENSED LANDSCAPE ARCHITECT TO VERIFY THAT ALL LANDSCAPING HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLANTING PLAN AND IS IN A HEALTHY CONDITION. CONTRACTOR SHALL REPLACE IMMEDIATELY ANY PLANTS NOT IN HEALTHY AND VIGOROUS CONDITION AT THAT TIME AT NO EXPENSE TO THE OWNER. ONCE IT CAN BE VERIFIED THAT ALL PLANTINGS CONFORM TO THE APPROVED PLAN AND ARE FOUND TO BE HEALTHY, THE LANDSCAPE ARCHITECT SHALL PREPARE AN AFFIDAVIT TESTIFYING TO THESE FACTS AND THE OWNER SHALL SUBMIT IT TO CITY STAFF.
- 21. OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT AT ANY TIME OR PLACE PRIOR TO FINAL ACCEPTANCE OF WORK, ANY AND ALL PLANTS WHICH, IN THEIR OPINION, FAIL TO MEET THESE SPECIFICATION REQUIREMENTS.
- 22. CONTRACTOR SHALL GUARANTEE TREES, SHRUBS, PERENNIALS AND TURF FOR ONE CALENDAR YEAR FOLLOWING PROVISIONAL ACCEPTANCE OF THE OVERALL PROJECT. DURING THE GUARANTEE PERIOD, PLANTS THAT DIE DUE TO NATURAL CAUSES OR THAT ARE UNHEALTHY OR UNSIGHTLY IN CONDITION, SHALL BE REPLACED BY THE CONTRACTOR. PLANTS USED FOR THE REPLACEMENT SHALL BE OF THE SAME VARIETY AND SIZE AS ORIGINALLY SPECIFIED IN THE PLANT SCHEDULE. REPLACEMENTS SHALL BE MADE WITHIN ONE WEEK OF REQUEST PENDING FAVORABLE SEASONAL PLANTING CONDITIONS. GUARANTEE WILL NOT BE ENFORCED SHOULD THE PLANT MATERIAL DIE DUE TO VANDALISM, OVER OR UNDER WATERING BY THE OWNER, IMPROPER MAINTENANCE PROCEDURES CARRIED OUT BY THE OWNER INVOLVING LAWN MOWER DAMAGE, OVER FERTILIZATION, ACTS NOT RELATED TO CONTRACTUAL RESPONSIBILITIES OF CONTRACTOR OR SIMILAR CIRCUMSTANCES BEYOND THE CONTROL OF THE CONTRACTOR.

### IRRIGATION

23. ALL LANDSCAPING SHALL BE IRRIGATED.



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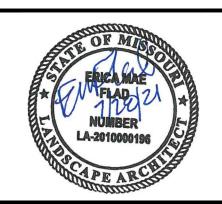
## **IRRIGATION NOTES**

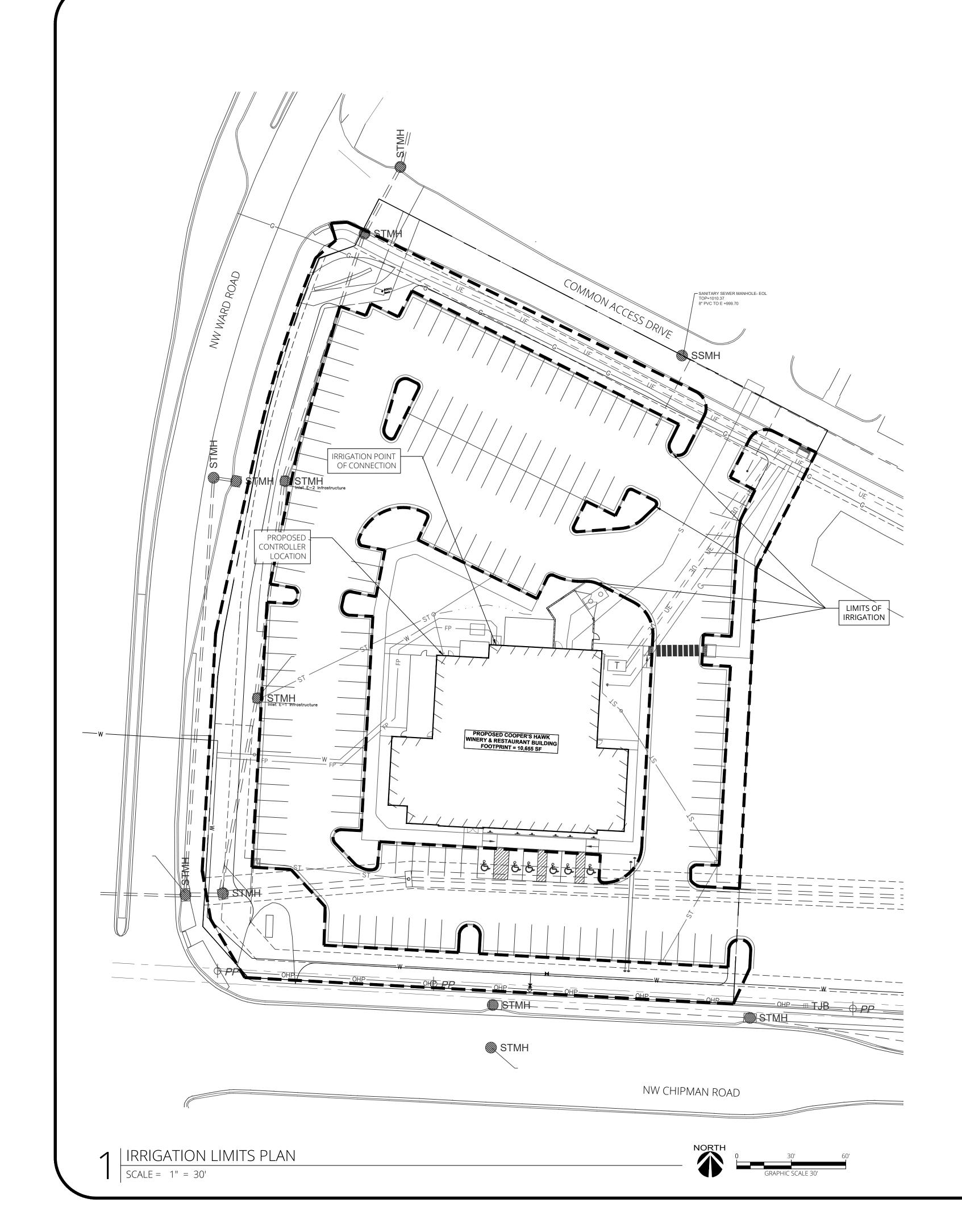
- 1. CONTRACTOR SHALL LOCATE ALL UTILITIES BEFORE COMMENCING WORK. NOTIFY THE KANSAS ONE CALL SYSTEM AT 800-344-7233, OR 811. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO UTILITIES RESULTING FROM IRRIGATION OPERATIONS. ANY UTILITIES SHOWN ON PLAN ARE FOR REFERENCE ONLY AND MAY OR MAY NOT DEPICT THE ACTUAL LOCATION OF SERVICES.
- 2. THE IRRIGATION SYSTEM SHALL BE DESIGNED AND BUILT BY A QUALIFIED IRRIGATION CONTRACTOR.
- 3. THE IRRIGATION CONTRACTOR SHALL FURNISH ALL MATERIALS, TOOLS, EQUIPMENT, AND LABOR TO DESIGN AND INSTALL A COMPLETE AND OPERABLE AUTOMATICALLY CONTROLLED LANDSCAPE IRRIGATION SYSTEM REQUIRED TO IRRIGATE THE LANDSCAPING AND VEGETATION WITHIN THE LIMITS AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS AND AS NECESSARY TO COMPLETE THE CONTRACT.
- 4. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION, SEQUENCING, AND SCHEDULING ALL WORK RELATED TO THE IRRIGATION
- 5. THE IRRIGATION CONTRACTOR SHALL PROVIDE A WRITTEN WARRANTY COVERING THE ENTIRE SYSTEM AGAINST DEFECTS IN INSTALLATION, WORKMANSHIP, AND EQUIPMENT FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE.



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COOPER'S HAWK
INAL DEVELOPMENT PLAN





#### 1.01 DESCRIPTION:

A. DIVISION 26 SHALL BE GOVERNED BY ALL APPLICABLE PROVISIONS OF THE CONTRACT DOCUMENTS. THE ELECTRICAL CONTRACTOR SHALL FURNISH, INSTALL AND CONNECT ALL MATERIALS, EQUIPMENT, APPARATUS, ELECTRICAL SYSTEMS AND INCIDENTALS REQUIRED FOR COMPLETE AND WORKING INSTALLATION. THE CONTRACTOR SHALL SUPPLY ALL NECESSARY LABOR, EQUIPMENT, TOOLS, INSURANCE, TAXES SERVICES; AND SHALL ASSUME FULL RESPONSIBILITY FOR ALL OBLIGATIONS ASSOCIATED WITH COMPLETION OF ELECTRICAL WORK AS PROVIDED BY THE CONTRACT DOCUMENTS.

#### 1.02 STANDARDS, REGULATIONS AND CODES:

- A. THE WORK SHALL COMPLY WITH THE EDITION OF THE APPLICABLE STANDARDS, REGULATIONS AND CODES CURRENTLY IN FORCE OF ALL STATE AND LOCATION AUTHORITIES HAVING JURISDICTION. WHERE QUANTITIES, SIZES, OR OTHER REQUIREMENTS INDICATED ON THE DRAWINGS OR HEREIN SPECIFIED ARE IN EXCESS OF THE STANDARD OR CODE REQUIREMENTS, THE SPECIFICATIONS AND/OR DRAWINGS SHALL GOVERN. IN THE ABSENCE OF OTHER APPLICABLE LOCAL CODES, ACCEPTABLE TO THE ARCHITECT/ENGINEER, THE NATIONAL ELECTRICAL CODE SHALL APPLY TO THIS WORK.
- B. THE CONTRACTOR SHALL COMPLY WITH RULES AND REGULATIONS OF PUBLIC UTILITIES AND MUNICIPAL DEPARTMENTS AFFECTED BY CONNECTIONS OF SERVICES. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED THERE WITH.
- C. THE ELECTRICAL CONTRACTOR SHALL BE LICENSED TO PERFORM ELECTRICAL WORK IN THE MUNICIPALITY IN WHICH THE PROJECT IS LOCATED.
- D. ALL PRODUCTS AND TYPES OF CONSTRUCTION SHALL MEET OR EXCEED THE LATEST EDITION OF APPLICABLE STANDARDS OF MANUFACTURER, TESTING, PERFORMANCE AND INSTALLATION.

#### 1.03 LOCAL CONDITIONS:

- A. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE LOCAL CONDITIONS AND EXISTING INSTALLATIONS AND SHALL BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS WHICH MAY AFFECT ASSOCIATED WORK. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES AND PROTECT THEM DURING THE EXECUTION OF THE WORK.
- B. THE CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS TO BECOME FAMILIAR WITH THE TYPE OF CONSTRUCTION, MATERIALS, AND EQUIPMENT TO BE USED FOR ALL WORK AND HOW IT WILL AFFECT THE INSTALLATION OF THIS CONTRACT.
- C. BY THE ACT OF SUBMITTING A BID, THE CONTRACTOR WILL BE DEEMED TO HAVE MADE SUCH EXAMINATION, TO HAVE ACCEPTED SUCH CONDITIONS, TO HAVE MADE ALLOWANCE THEREFOR AND INCLUDED ALL COSTS IN PROPOSAL. FAILURE TO DETERMINE EXISTING CONDITIONS WILL NOT BE CONSIDERED A BASIS FOR THE GRANTING OF ADDITIONAL COMPENSATION.

#### 1.04 WORKMANSHIP:

A. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL PROVIDE A NEAT AND "WORKMANLIKE" APPEARANCE WHEN COMPLETED, TO THE SATISFACTION OF THE ARCHITECT/ENGINEER. THE COMPLETE INSTALLATION SHALL FUNCTION AS DESIGNED AND INTENDED WITH RESPECT TO EFFICIENCY, CAPACITY, AND NOISE LEVEL, ETC.

#### 1.05 CUTTING AND PATCHING:

A. ALL NECESSARY CUTTING, DRILLING AND PATCHING SHALL BE PROVIDED BY THIS CONTRACTOR. STRUCTURAL MEMBERS SHALL NOT BE DISTURBED WITHOUT PRIOR APPROVAL OF THE ARCHITECT/ENGINEER. ALL AREAS DISTURBED BY WORK PERFORMED UNDER THIS CONTRACT SHALL BE NEATLY REPAIRED AND REFINISHED TO THE CONDITION OF ADJOINING SURFACES IN A MANNER SUITABLE TO THE ARCHITECT/ ENGINEER.

#### 1.06 OPERATION DURING CONSTRUCTION:

A. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND OPERATION, SERVICE AND MAINTENANCE OF ALL NEW EQUIPMENT DURING CONSTRUCTION AND PRIOR TO ACCEPTANCE BY THE OWNER OF THE COMPLETED PROJECT. WARRANTY PERIODS SHALL NOT COMMENCE UNTIL FINAL ACCEPTANCE BY THE OWNER.

#### 1.07 SAFETY REGULATIONS:

ALL ELECTRICAL WORK SHALL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE GOVERNING SAFETY REGULATIONS, INCLUDING OSHA REGULATIONS. PROVIDE SAFETY LIGHTS, GUARDS AND SIGNS REQUIRED.

### 1.08 HOUSEKEEPING:

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING STOCKS OF MATERIAL AND EQUIPMENT STORED ON THE PREMISES IN A NEAT AND ORDERLY MANNER.
- B. THE CONTRACTOR SHALL CLEAN AND MAINTAIN OWN PORTION OF THE WORK AS SPECIFIED IN THE GENERAL CONDITIONS.
- C. THE CONTRACTOR SHALL REMOVE FROM THE PREMISES ALL WASTE MATERIAL PRESENT AS A RESULT OF ASSOCIATED WORK.

### 1.09 CONNECTION AND ALTERATION TO EXISTING SYSTEMS:

- A. CONNECTION TO THE EXISTING BUILDING ELECTRICAL, MUST BE ACCOMPLISHED UNDER THIS CONTRACT. SYSTEM "DOWNTIME" DUE TO CONNECTION SHALL BE KEPT TO AN ABSOLUTE MINIMUM. THE OWNER'S REPRESENTATIVE SHALL JUDGE IF AT WHAT TIME. AND FOR WHAT LENGTH OF TIME A SHUT-DOWN CAN BE TOLERATED.
- B. PROVIDE ALL TEMPORARY PIPING AND WIRING SYSTEMS REQUIRED DURING CONSTRUCTION IN ORDER TO KEEP ALL EXISTING SYSTEMS FUNCTIONING.
- C. DEMOLITION, CUTTING AND PATCHING TO RESTORE SURFACES TO ORIGINAL CONDITION AS NECESSITATED FOR ACCESS TO WORK PERFORMED BY THE CONTRACTOR OR ASSOCIATED SUBCONTRACTORS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- D. WHEN ADDING BREAKER(S) TO AN EXISTING PANELBOARD, MATCH PANELBOARD MANUFACTURER, SERIES, KAIC RATING, BREAKER TYPE, ETC.

### 1.10 GRAPHIC REPRESENTATION AND JOB CONDITIONS:

- A. THE DRAWINGS SHALL SERVE AS WORKING DRAWINGS FOR THE GENERAL LAYOUT OF THE VARIOUS ITEMS OF EQUIPMENT; ARE DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED; AND DO NOT NECESSARILY INDICATE EVERY REQUIRED ITEM.
- B. THE ARCHITECTURAL DRAWINGS TAKE PRECEDENCE OVER THE ELECTRICAL DRAWINGS IN THE REPRESENTATION OF THE GENERAL CONSTRUCTION WORK.
- C. ARRANGE WORK IN A NEAT, WELL ORGANIZED MANNER. COORDINATE WORK WITH OTHER

## 1.11 GUARANTEES:

A. THE CONTRACTOR SHALL GUARANTEE ALL WORK PERFORMED AND MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT, AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S FINAL ACCEPTANCE OF THE WORK,

#### OR AS NOTED IN EACH SECTION. 1.12 SUBSTITUTIONS:

- A. THE MATERIALS, PRODUCTS AND EQUIPMENT DESCRIBED IN THE BIDDING DOCUMENTS ESTABLISHED A STANDARD OF QUALITY TO BE MET BY ANY PROPOSED SUBSTITUTION.
- B. CONTRACTOR'S BIDS SHALL BE BASED ON THE MATERIAL MENTIONED OR SPECIFIED, AND ANY PROPOSALS FOR A SUBSTITUTION SHALL BE MADE IN WRITING TO THE ARCHITECT/ ENGINEER ALLOWING ADEQUATE TIME FOR APPROPRIATE ACTION. THE PRODUCTS OF OTHER MANUFACTURERS MAY BE ACCEPTED, IF IN THE OPINION OF THE ARCHITECT/ENGINEER, THE SUBSTITUTE MATERIAL IS OF A QUALITY AS GOOD OR BETTER THAN THE MATERIAL SPECIFIED, AND WILL SERVE WITH EQUAL EFFICIENCY AND DEPENDABILITY, THE PURPOSE FOR WHICH THE ITEMS SPECIFIED WERE INTENDED. THE BURDEN OF PROOF OF EQUALITY IS UPON THE
- C. WHEREVER SUBSTITUTIONS ALTER THE DESIGN OR SPACE REQUIREMENTS, THE CONTRACTOR SHALL INCLUDE ALL ITEMS OF COST OF THE REVISED DESIGN AND CONSTRUCTION.

#### 1.13 SHOP DRAWINGS AND PRODUCT DATA:

- A. THE CHECKING OF SHOP DRAWINGS IS A GRATUITOUS ASSISTANCE AND IN NO WAY RELIEVES THE CONTRACTOR FROM RESPONSIBILITY FOR DEVIATIONS FROM THE CONTRACT DOCUMENTS.
- SHOP DRAWINGS AND CATALOG DATA ON ALL MAJOR ITEMS OF EQUIPMENT AND APPARATUS, AND SUCH OTHER ILLUSTRATIVE MATERIALS AS MAY BE CONSIDERED NECESSARY BY THE ARCHITECT/ENGINEER SHALL BE SUBMITTED BY THE CONTRACTOR IN ADEQUATE TIME TO PREVENT DELAY AND CHANGES DURING CONSTRUCTION.

#### 1.14 OPERATING AND MAINTENANCE BROCHURE:

A. AT THE COMPLETION OF THE PROJECT, EACH CONTRACTOR SHALL PROVIDE THREE (3) HARD BOUND VOLUMES OF MANUALS CONTAINING OPERATING SERVICE AND LUBRICATION INSTRUCTIONS, AND PARTS LISTS FOR ALL MAJOR EQUIPMENT AND MANUFACTURER'S GUARANTIES OR WARRANTIES.

#### 1.15 RECORD DRAWINGS:

A. ON COMPLETION OF THE PROJECT, SUBMIT TWO NEW SETS OF BLUELINES PRINTS WITH ALL FIELD CHANGES NEATLY NOTED. THE ORIGINAL ROUTING AND LAYOUT SHALL BE CLEARLY

#### END OF SECTION

**ELECTRICAL SPECIFICATIONS** 

#### 1.01 SCOPE

THE WORK INCLUDED UNDER THIS CONTRACT CONSISTS OF THE FURNISHING OF ALL LABOR, MATERIALS, TOOLS, TRANSPORTATION, SERVICES, ETC., NECESSARY TO COMPLETE THE INSTALLATION OF THE ELECTRICAL SYSTEMS AND OTHER ITEMS HEREIN LISTED, ALL AS DIRECTED BY THE ARCHITECT OR ENGINEER, WHICH WORK IS COMPRISED OF, BUT NOT LIMITED TO THE FOLLOWING PRINCIPAL ITEMS:

- 1. ELECTRICAL SYSTEM FOR LIGHT AND POWER:
- SYSTEMS OF CONDUIT, CONDUCTORS, AND BOXES.
- COMPLETE LIGHTING AND POWER SYSTEMS.

LIGHTING FIXTURES AND LAMPS.

- ALL SYSTEMS, WIRING AND CONDUIT AS REQUIRED.
- CONTROL WIRING AND ELECTRICAL INSTALLATION AND CONNECTIONS FOR ITEMS IN OTHER CONTRACTS AS MAY BE LISTED IN THE DRAWINGS.
- ROUGH-IN AND FINAL CONNECTION TO EQUIPMENT FURNISHED BY OTHERS.
- RACEWAY WIRING SYSTEMS SHALL BE CONCEALED IN ALL FINISHED PARTS OF THE BUILDING, WHERE POSSIBLE. WHERE THE RACEWAYS ARE EXPOSED, THEY SHALL BE RUN PARALLEL WITH THE BUILDING WALLS IN A NEAT AND WORKMANLIKE MANNER. SHOULD IT APPEAR NECESSARY TO EXPOSE ANY CONDUIT OR WIRING IN FINISHED SPACES, IT SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION IMMEDIATELY AND THIS CONTRACTOR SHALL REARRANGE ASSOCIATED WORK AS DIRECTED TO FACILITATE AN APPROVED INSTALLATION. CONTRACTOR TO COORDINATE WITH MECHANICAL TRADES TO AVOID DUCTWORK AND PIPING.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE LIAISON WITH ELECTRICAL AND COMMUNICATION COMPANIES. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL REQUIRED EQUIPMENT AND CONNECT AS REQUIRED TO COMPLETE AN OPERATING SERVICE TO THE BUILDING.

A. ALL ELECTRICAL EXTERIOR CONDUCTORS ARE TO BE INSTALLED IN SCHEDULE 40 PVC RACEWAYS, UNLESS SPECIFICALLY SPECIFIED OR NOTED OTHERWISE. PROVIDE PULL WIRES IN ALL EMPTY CONDUIT SYSTEMS. IDENTIFY TERMINUS OF EACH PULL WIRE.

#### 1.03 WIRES AND CABLES:

- INTERIOR ELECTRICAL CONDUCTORS: SOFT ANNEALED COPPER WITH CONDUCTIVITY 98% OF THAT OF PURE, STRANDED COPPER, 90 DEGREE - 600V INSULATION AND EQUAL TO GENERAL CABLE COMPANY. WIRE AND CABLE FOR ALL BRANCH CIRCUITS ENTERING BUILDINGS (FROM OUTDOORS) SHALL BE THHN-2/THWN-2. MINIMUM WIRE SIZE SHALL BE #10 GAUGE AWG. CONTROL WIRING MAY BE #14 GAUGE.
- B. EXTERIOR ELECTRICAL CONDUCTORS: SOFT ANNEALED COPPER WITH CONDUCTIVITY 98% OF THAT OF PURE, STRANDED COPPER, 90 DEGREE - 600V INSULATION AND EQUAL TO GENERAL CABLE COMPANY. WIRE AND CABLE FOR ALL EXTERIOR BRANCH CIRCUITS SHALL BE RHH-2/RHW-2/USE-2. MINIMUM WIRE SIZE SHALL BE #10 GAUGE AWG. CONTROL WIRING MAY BE #14 GAUGE.

### 1.04 GROUNDING:

GROUND ALL ELECTRICAL APPARATUS IN ACCORDANCE WITH N.E.C. AND AS SPECIFIED HEREIN. PROVIDE A SEPARATE GROUNDING CONDUCTOR FOR ALL LIGHTING. RECEPTACLE AND EQUIPMENT CIRCUITS. ALL CABINETS, SWITCHBOARDS, EQUIPMENT CASES, MOTOR FRAMES, INTERIOR METAL COLD WATER PIPING SYSTEMS, AND SYSTEM NEUTRAL CONDUCTORS SHALL BE EFFECTIVELY GROUNDED. USE SOLDERLESS PRESSURE TYPE CONNECTORS, NO PERFORATED STRAP CONNECTORS WILL BE ALLOWED. INSURE CONTINUOUS BOND WHERE FLEXIBLE CONDUIT IS USED. PROVIDE BONDING JUMPER INSIDE ALL FLEXIBLE CONDUIT. GROUNDING PER N.E.C. 250, AND ANY LOCAL REQUIREMENTS.

### 1.05 SPLICE AND TAPS:

A. MAKE SPLICES AT JUNCTION BOXES, PULL BOXES, OR OUTLET BOXES ONLY.

### 1.06 CABINETS, JUNCTION AND PULL BOXES:

A. FLUSH OR SURFACE MOUNTED AS INDICATED ON DRAWINGS. PROVIDE WHERE SHOWN ON DRAWINGS AND WHERE REQUIRED BY CODE. CONSTRUCT OF CODE GAUGE STEEL FOR FLUSH SURFACE MOUNTING.

### 1.07 LIGHTING FIXTURES:

A. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS.

### 1.08 IDENTIFICATION

- CONDUCTOR IDENTIFICATION MATERIALS: COLOR-CODING CONDUCTOR TAPE: COLORED, SELF-ADHESIVE VINYL TAPE NOT LESS THAN 3 MILS BY 1 TO 2 INCHES WIDE.
- B. EQUIPMENT IDENTIFICATION LABELS: STENCILED LEGEND: IN NONFADING WATERPROOF BLACK INK OR PAINT. MINIMUM LETTER HEIGHT SHALL BE 1 INCH.

## **ELECTRICAL SYMBOLS:**

----- CONDUIT RUN UNDERGROUND OR CONCEALED

— → BRANCH CIRCUIT CONCEALED IN CEILING OR WALL. ARROWS INDICATE HOMERUNS TO PANEL. — PHASE CONDUCTORS — GROUND CONDUCTOR 1/3, 1/3/5 INDICATES X/X= 2-POLE C.B., X/X/X = 3-POLE C.B. → HOMERUN INDICATED LIKE THIS INDICATED THREE SEPARATE SINGLE PHASE CIRCUITS. EACH CIRCUIT TO HAVE DEDICATED NEUTRAL.

JUNCTION/PULL BOX.

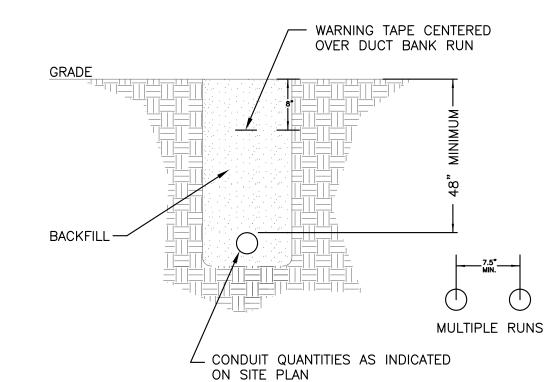
IN FLOOR SLAB.

P# LIGHT STANDARD WITH SINGLE LUMINAIRE. "P#" DENOTES POLE TYPE. REFER TO POLE SCHEDULE. LETTER DENOTES LUMINAIRE TYPE. REFER TO LUMINAIRE SCHEDULE. LIGHT STANDARD WITH TWO LUMINAIRES AT

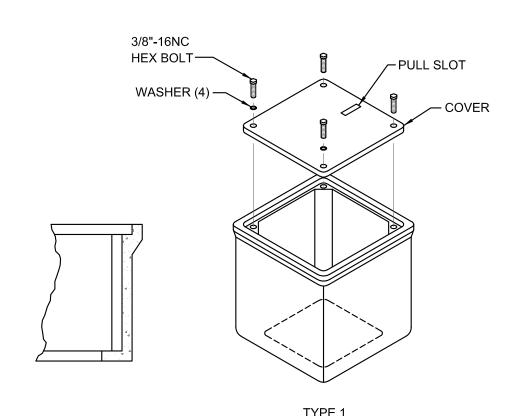
180°. "P#" DENOTES POLE TYPE. REFER TO POLE SCHEDULE. LETTER DENOTES LUMINAIRE TYPE. REFER TO LUMINAIRE SCHEDULE.

LIGHT STANDARD WITH THREE LUMINAIRES AT. 90° FROM EACH OTHER. "P#" DENOTES POLE TYPE REFER TO POLE SCHEDULE. LETTER DENOTES LUMINAIRE TYPE. REFER TO LUMINAIRE SCHEDULE.

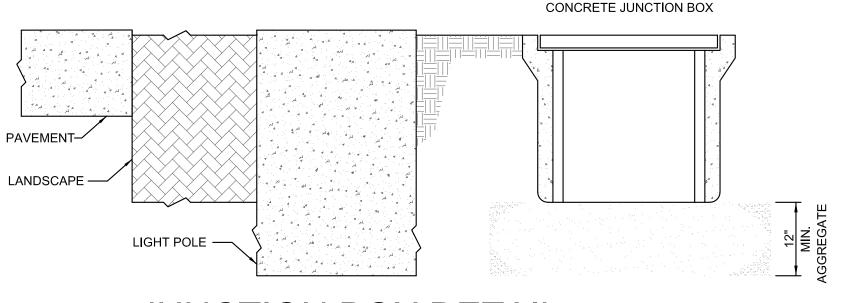
DISCONNECT SWITCH, SIZE AND TYPE AS NOTED. TOP MOUNTED NOT TO EXCEED 60"AFF.



# SINGLE CONDUIT DIRECT BURIED



FIBERGLASS REINFORCED POLYMER



JUNCTION BOX DETAIL
NO SCALE



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OF MISS `MONICA SANTOYO, A SANTOS JONES NUMBÉR ,E-2000174546ぐ PROFESSION 57/12/2021 Monica S Santos - Electrical

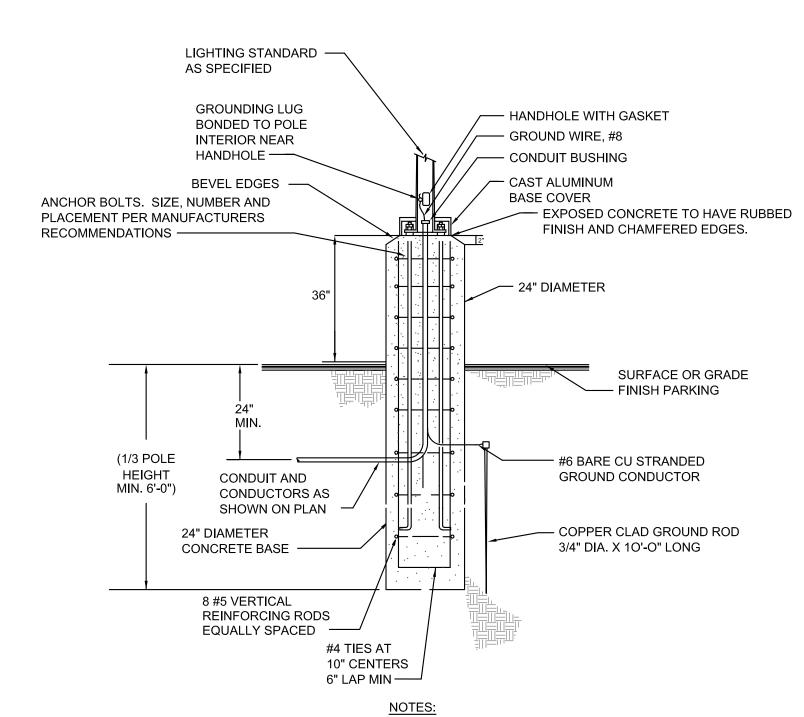
\*POLE BASE SHALL BE CALCULATED USING THE FOLLOWING CRITERIA:

TOTAL EPA OF LUMINAIRES +TOTAL EPA OF BRACKETS
=TOTAL EPA OF LUMINAIRES/BRACKETS SELECT POLE BASED ON MAXIMUM EPA LISTED IN MANUFACTURERS CATALOG.

2. IN ANY CASE MIN. POLE BASE DEPTH SHALL BE 72". FINAL DEPTH OF POLE BASE SHALL BE VERIFIED WITH STRUCTURAL ENGINEER PRIOR TO PLACEMENT. CONCRETE SHALL BE 3000 PSI CLASS A CONCRETE PLACED NEXT TO

UNDISTURBED EARTH. CONTRACTOR TO INCLUDE CONTINGENCY FOR ENCOUNTERING ROCK AS PART OF POLE BASE INSTALLATION.

# 2 LIGHTING POLE BASE DETAIL (P1) NO SCALE

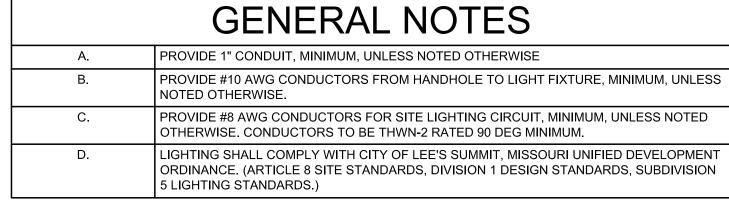


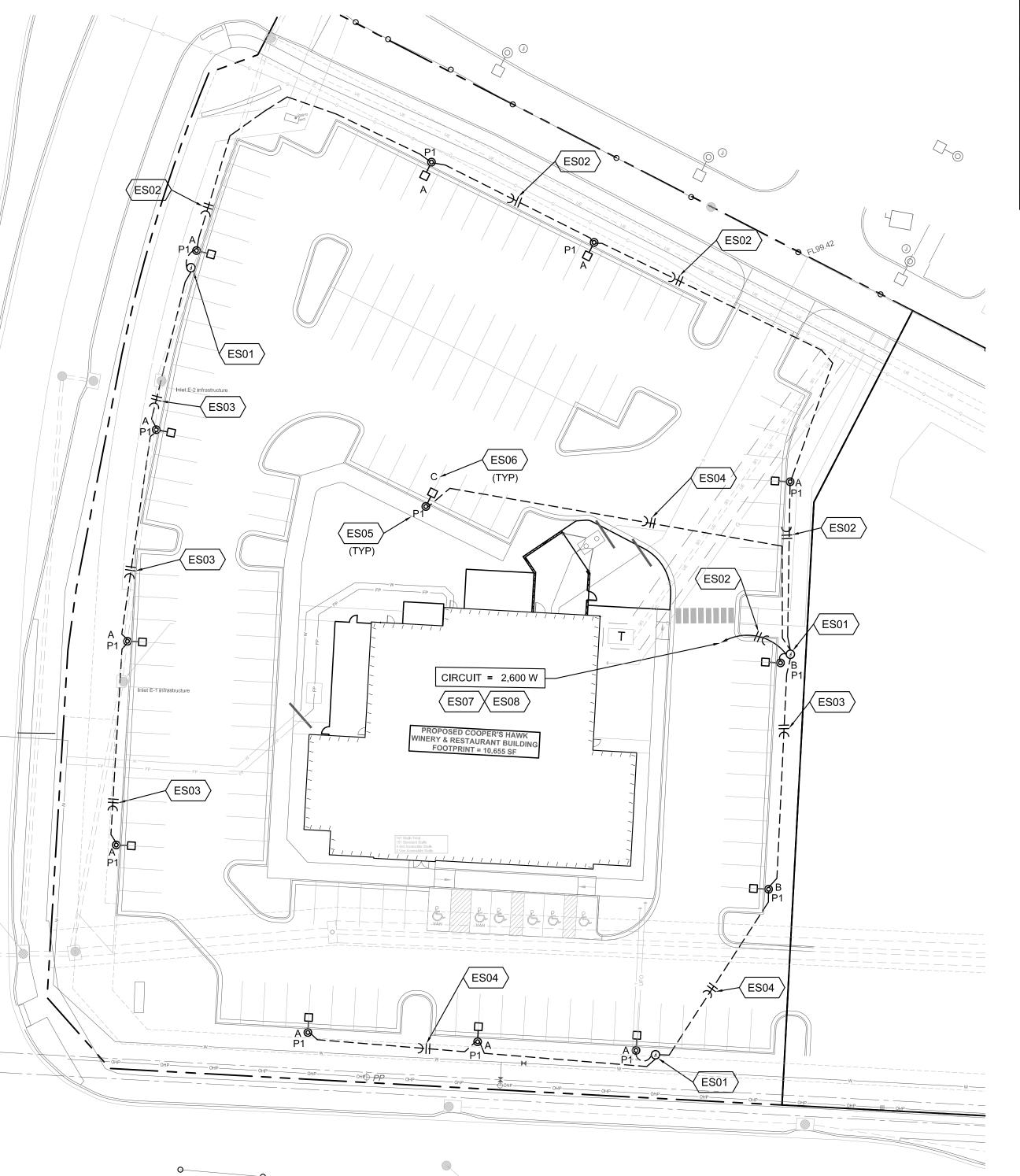
\*POLE BASE SHALL BE CALCULATED USING THE FOLLOWING CRITERIA:

TOTAL EPA OF LUMINAIRES +TOTAL EPA OF BRACKETS
=TOTAL EPA OF LUMINAIRES/BRACKETS

- SELECT POLE BASED ON MAXIMUM EPA
- LISTED IN MANUFACTURERS CATALOG. IN ANY CASE MIN. POLE BASE DEPTH SHALL BE 72". FINAL DEPTH OF POLE BASE SHALL BE VERIFIED WITH STRUCTURAL ENGINEER PRIOR TO PLACEMENT.
- CONCRETE SHALL BE 3000 PSI CLASS A CONCRETE PLACED NEXT TO UNDISTURBED EARTH. CONTRACTOR TO INCLUDE CONTINGENCY FOR ENCOUNTERING ROCK AS PART OF POLE BASE INSTALLATION.

# LIGHTING POLE BASE DETAIL (P2) NO SCALE





		PLAN NOTES
NLESS	ES01	PROVIDE MINIMUM 12"X12"X12", IN GROUND, OPEN BOTTOM, POLYMER JUNCTION BOX. COVER TO BE BOLTED, GASKETED TYPE WITH 'PARKING LIGHTING' LOGO. TYPICAL, UNLESS NOTED OTHERWISE. MOUNT ADJACENT TO EACH POLE BASE. (WHERE SHOWN)
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
PMENT ISION	ES02	PROVIDE 2 #6 AWG AND 1 #6 GROUND IN 1" CONDUIT.
	ES03	PROVIDE 2 #8 AWG AND 1 #8 GROUND IN 1" CONDUIT.
	ES04	PROVIDE 2 #10 AWG AND 1 #10 GROUND IN 1" CONDUIT.
	ES05	"P#" DENOTES POLE TYPE. REFER TO POLE SCHEDULE FOR SPECIFICATION.
	ES06	CAPITAL LETTER DENOTES LUMINAIRE TYPE. REFER TO LUMINAIRE SCHEDULE.
	ES07	EXTEND TO 120/208V TENANT PANEL LOCATED IN TENANT'S MECHANICAL MEZZANINE. COORDINATE EXACT LOCATION AND CIRCUIT WITH TENANT'S PLANS.
	ES08	LIGHTING TO BE CONTROLLED VIA TENANT'S LIGHTING RELAY CONTROL PANEL FOR ON/OFF CONTROL. INDIVIDUAL FIXTURES TO BE PROGRAMMED TO DIM DOWN TO 50% WITHIN 60 MINUTES OF CLOSING FOR 50% LIGHT REDUCTION (COORDINATE WITH BUILDING OWNER FOR SCHEDULE). UPON DETECTION OF MOTION, FIXTURES TO BE BROUGH UP TO FULL BRIGHTNESS BY INTEGRAL MOTION SENSORS AND PROGRAMMED TO DIM BACK DOWN UPON VACANCY AFTER 10 MINUTES. COORDINATE PROGRAMMING OF

"CLOSING TIME" WITH TENANT PRIOR TO ORDERING FIXTURES WITH

INTEGRAL SENSORS.

PLAN

E LIGHTING FAND DETAILS

OF M/SSON MONICA SANTOYO SANTOS SANTO

NUMBER -2000174546

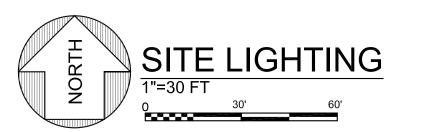
2 of 3

HAWK

COOP

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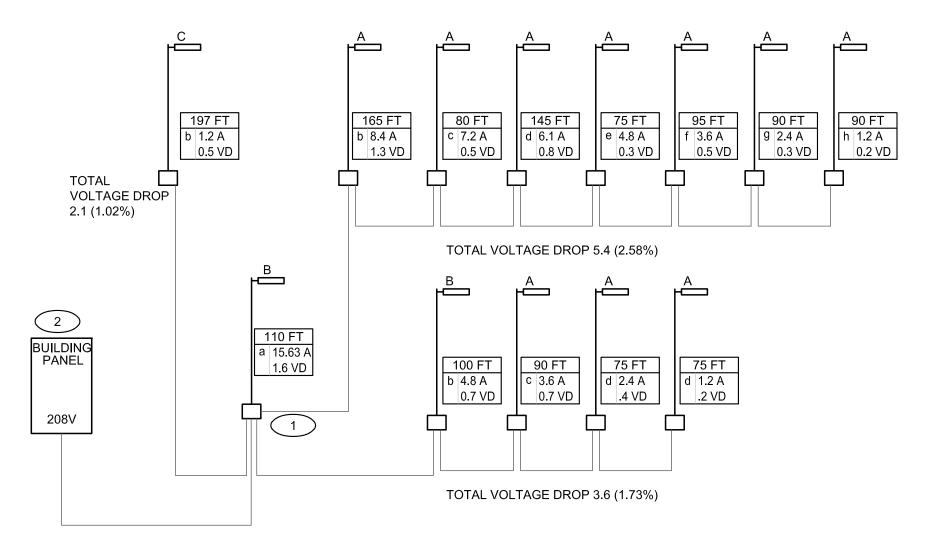
PROFESSION 07/12/2021 Monica S Santos - Electrical MO# E-2000174546 SHEET NUMBER



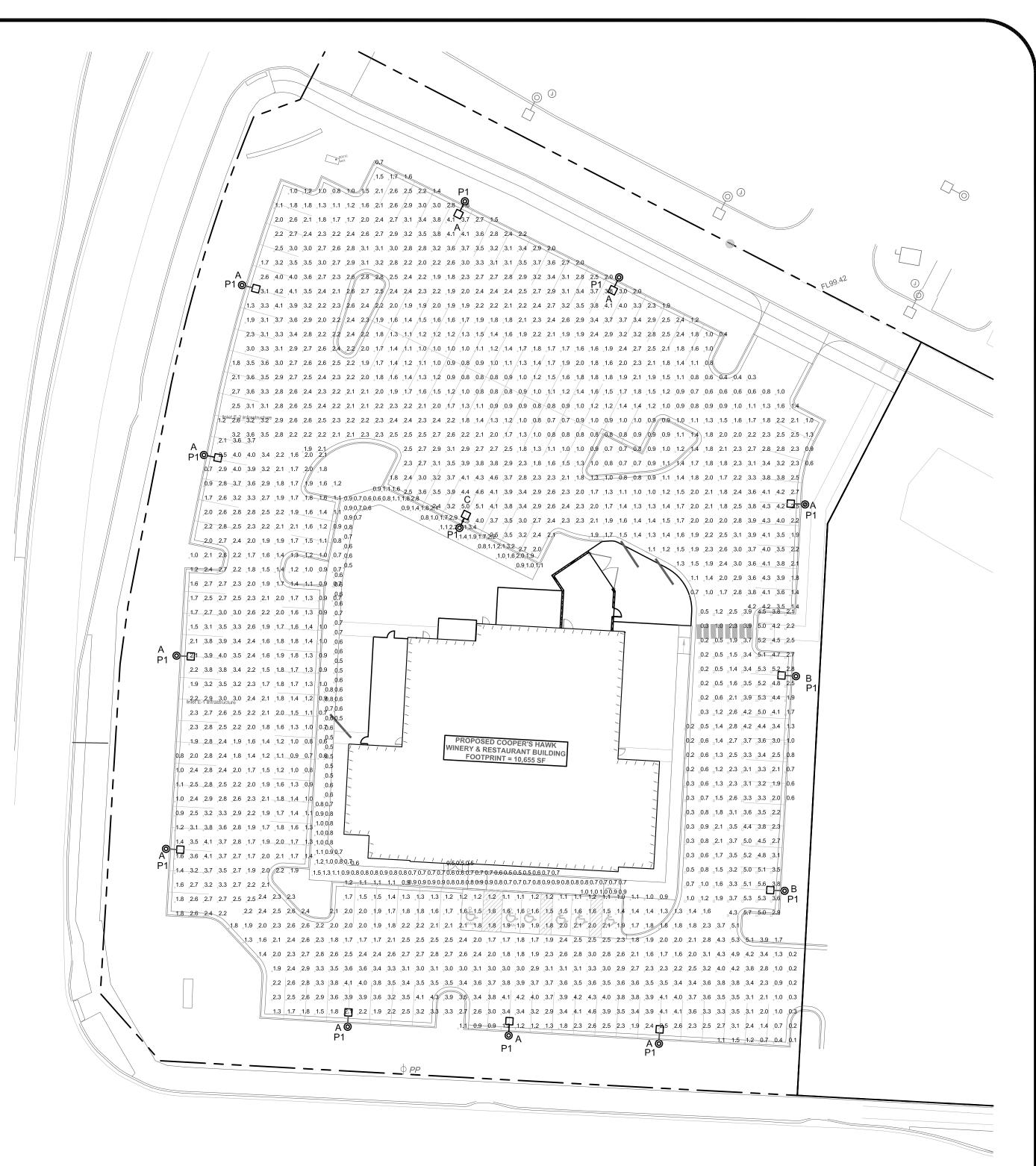
			I	POLE SCHEDUL	.E
TYPE	POLE HEIGHT	BASE	POLE DIAMETER	MANUFACTURER	DESCRIPTION
P1	23'	1' CONCRETE BASE	6"X.188	PRA25(MOD to 23ft)/A-LG;	POLE TO BE 23FT TALL, 6" ROUND ALUMINUM STRAIGHT,.188 THICK. COLOR LIGHT GRAY TO BE CONFIRMED PRIOR TO ORDERING. SINGLE ARM MOUNT

#### SCHEDULE GENERAL NOTES:

- 1) PRE-APPROVAL FOR EQUALS MUST BE SUBMITTED PRIOR TO BIDS. SUBSTITUTIONS WILL NOT BE ENTERTAINED POST BIDS. EQUALS ARE TO MEET BASIS OF DESIGN FIXTURE PERFORMANCE AND LOOK REGARDLESS OF MODEL NUMBER.
- 2) CONTRACTOR SHALL SUBMIT INDIVIDUAL PRICING. LOT PRICING WILL NOT BE ACCEPTED.3) INSTALL FIXTURES PER MANUFACTURER'S RECOMMENDATIONS.









STATISTICS						
DESCRIPTION	SYMBOL	Avg	Max	Min	Max/Min	Avg/Min
EAST SIDE PARKING		2.5 fc	5.8 fc	0.1 fc	58.0:1	25.0:1
ENTRY SIDEWALK	+	0.8 fc	1.5 fc	0.5 fc	3.0:1	1.6:1
NORTH SIDE PARKING		2.2 fc	7.1 fc	0.1 fc	71.0:1	22.0:1
SOUTH SIDE PARKING	+	2.5 fc	5.4 fc	0.1 fc	54.0:1	25.0:1
WEST SIDE PARKING	+	2.1 fc	4.1 fc	0.6 fc	6.8:1	3.5:1
WEST SIDEWALK/	Ж	0.5 fc	1.2 fc	0.1 fc	12.0:1	5.0:1



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	REVISIONS			DR	DRAWING INFO.
ON ON	DESCRIPTION	ВУ	DATE	DRAWN BY:	MSS
	ISSUE FOR PERMIT	MSS	7/12/21	MSS 7/12/21 LICENSE NO.	E-2000174546
				CHECKED BY:	MSS
				LICENSE NO.	E-2000174546
				DATE:	07-09-2021
				JOB NUMBER:	21CO10010
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TE LIGHTING POINT BY POINT AND SCHEDULES

MONICA
SANTOYO
SANTOS
NUMBER
E-2000174546

Monica S Santos - Electrical
MO# E-2000174546

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