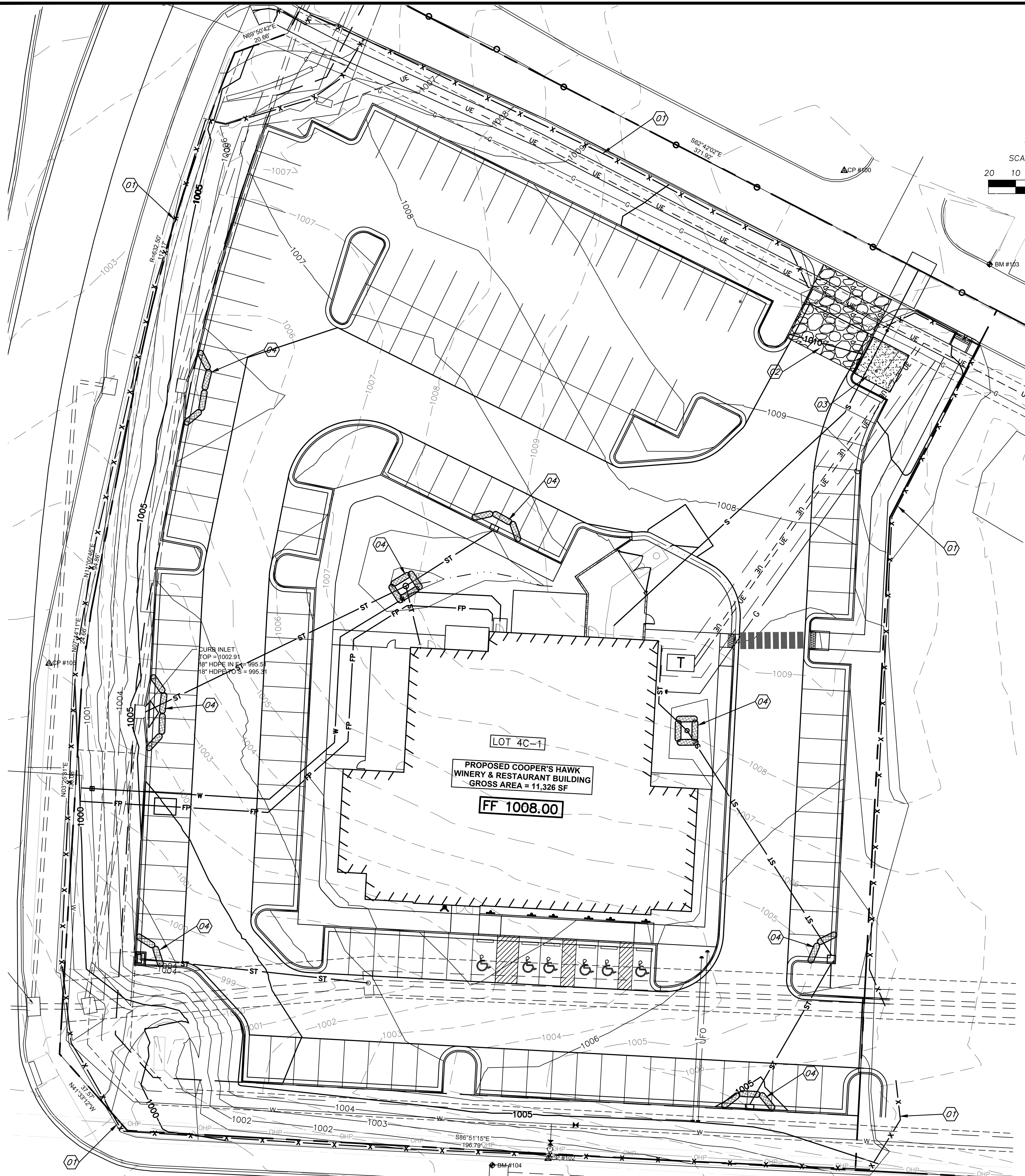


1. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.
2. ALL WORK IN PUBLIC EASEMENT AND RIGHT-OF-WAY SHALL BE INSTALLED PER THE REQUIREMENTS AND SPECIFICATIONS OF THE CITY OF LEE'S SUMMIT.
3. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ALL FEDERAL, STATE, AND LOCAL PERMITS REQUIRED FOR THIS PROJECT PRIOR TO COMMENCING CONSTRUCTION.
4. ANY WORK ADJACENT TO OR CROSSING EXISTING STREETS REQUIRES PROPER TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL DEVICES SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
5. THE CONTRACTOR SHALL NOT DISRUPT ANY OPERATIONS OF ADJACENT PROPERTIES DURING CONSTRUCTION. IF DISRUPTION IS NECESSARY TO FACILITATE CONSTRUCTION, CONTRACTOR IS TO CONTACT ENGINEER FOR COORDINATION.
6. 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 TO THE PLANS MUST BE AUTHORIZED BY THE ENGINEER WHERE APPLICABLE.
7. THE CONTRACTOR SHALL BE REQUIRED TO DEMOLISH, REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, PAVEMENTS, AND FEATURES NECESSARY TO CONSTRUCT THE IMPROVEMENTS SHOWN HEREON. ANY WASTE MATERIALS GENERATED DURING CONSTRUCTION SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS GOVERNING SUCH DISPOSAL.
8. THE CONTRACTOR SHALL PREVENT ANY TRASH, DEBRIS, OR LIQUID WASTES FROM BEING DISPOSED OF IN SANITARY SEWERS, STORM SEWERS, OR OPEN DRAINAGE SYSTEMS.
9. 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.
10. CONTRACTORS AT THE SITE SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY FOR ALL ASPECTS OF WORK SHOWN HEREON.
11. ALL WORK AND MATERIALS USED IN THE CONSTRUCTION OF THE IMPROVEMENTS SHOWN HEREON SHALL COMPLY WITH ALL REFERENCED STANDARDS, SPECIFICATIONS, AND PLAN NOTES.
12. ALL BUILDINGS ARE SHOWN AS A REFERENCE ONLY. ALL BUILDINGS SHALL BE LOCATED AND CONSTRUCTED PER THE ARCHITECTURAL DRAWINGS PREPARED BY OTHERS.
13. 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.
14. 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.
15. UNLESS SPECIFIED OTHERWISE, ALL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT STANDARD SPECIFICATIONS EXCEPT AS MODIFIED BY THESE PLANS.
16. 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.
17. 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.
18. 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.
19. CONTRACTOR SHALL PROVIDE ONE CHEMICALLY-TREATED PORTABLE TOILET FOR EVERY 20 EMPLOYEES ON THE JOB SITE.
20. 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.

LEE'S SUMMIT, JACKSON COUNTY, MO

Aug 27, 2021 - 3:44pm Plotted By: Tom W:\210010010 - Townsends - Coopers Hawk - Erosion Control.dwg Layout: C051



EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. PRIOR TO LAND DISTURBANCE ACTIVITIES, THE CONTRACTOR SHALL:
 - DELINEATE THE OUTER LIMITS OF ANY NATURAL STREAM CORRIDOR DESIGNATED WITH CONSTRUCTION FENCING.
 - 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:
 - DURING ACTIVE CONSTRUCTION PHASES - AT LEAST ONCE PER WEEK
 - DURING PERIODS OF INACTIVITY - AT LEAST ONCE PER 14 DAYS
 - AFTER EACH RAINFALL EVENT OF 1/2 INCH OR MORE - WITHIN 24 HOURS OF THE RAIN EVENT
 - THE CONTRACTOR SHALL MAINTAIN AN INSPECTION LOG INCLUDING THE INSPECTOR'S NAME, DATE OF INSPECTION, OBSERVATIONS AS TO THE EFFECTIVENESS OF THE EROSION AND SEDIMENT CONTROL MEASURES, ACTIONS NECESSARY TO CORRECT DEFICIENCIES, WHEN THE DEFICIENCIES WERE CORRECTED, AND THE SIGNATURE OF THE PERSON PERFORMING THE INSPECTION. THE INSPECTION LOG SHALL BE AVAILABLE FOR REVIEW BY THE REGULATORY AUTHORITY.
 - THE CONTRACTOR SHALL HAVE THE EROSION AND SEDIMENT CONTROL PLAN ROUTINELY UPDATED TO SHOW ALL CHANGES AND AMENDMENTS TO THE PLAN. A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE KEPT ON SITE AND MADE AVAILABLE FOR REVIEW BY THE REGULATORY AUTHORITY.
3. UNLESS OTHERWISE NOTED IN THE PLANS, ALL SEEDING MUST CONFORM TO DIVISION II-CONSTRUCTION AND MATERIALS SPECIFICATION-SECTION 2150 PUBLISHED BY THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION DATED MAY 21, 2008. PERMANENT SEEDING SHALL BE INSTALLED AFTER COMPLETION OF FINAL GRADING EXCEPT WHEN SEEDING WILL OCCUR OUTSIDE OF THE ACCEPTABLE SEEDING SEASON AS SPECIFIED IN SECTION 2150. WHEN TEMPORARY SEEDING IS INSTALLED, PERMANENT SEEDING SHALL BE INSTALLED AT THE NEXT SEEDING SEASON. TEMPORARY SEEDING SHALL NOT BE USED AS A STABILIZATION MEASURE FOR A PERIOD EXCEEDING 12 MONTHS. THE PERMIT WILL NOT BE CLOSED UNTIL PERMANENT SEEDING HAS BEEN ESTABLISHED TO A MINIMUM OF 70% DENSITY OVER THE ENTIRE DISTURBED AREA.
4. THE CONTRACTOR SHALL MAINTAIN INSTALLED EROSION AND SEDIMENT CONTROL DEVICES IN A MANNER THAT PRESERVES THEIR EFFECTIVENESS FOR PREVENTING SEDIMENT FROM LEAVING THE SITE OR ENTERING A SENSITIVE AREA SUCH AS A NATURAL STREAM CORRIDOR, AREAS OF THE SITE INTENDED TO BE LEFT UNDISTURBED, A STORM SEWER, OR AN ON-SITE DRAINAGE CHANNEL.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING EROSION AND SEDIMENT CONTROL FOR THE DURATION OF A PROJECT. IF THE CITY DETERMINES THAT THE BMPs IN PLACE DO NOT PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROL AT ANY TIME DURING THE PROJECT, THE CONTRACTOR SHALL INSTALL ADDITIONAL OR ALTERNATE MEASURES THAT PROVIDE EFFECTIVE CONTROL.
6. CONCRETE WASH OR RINSE WATER FROM CONCRETE MIXING EQUIPMENT, TOOLS AND/OR READY-MIX TRUCKS, TOOLS, ETC. MAY NOT BE DISCHARGED INTO OR BE ALLOWED TO RUN DIRECTLY INTO ANY EXISTING WATER BODY OR STORM INLET. ONE OR MORE LOCATIONS FOR CONCRETE WASH OUT WILL BE DESIGNATED ON SITE, SUCH THAT DISCHARGES DURING CONCRETE WASHOUT WILL BE CONTAINED IN A SMALL AREA WHERE WASTE CONCRETE CAN SOLIDIFY IN PLACE.
7. CHEMICALS OR MATERIALS CAPABLE OF CAUSING POLLUTION MAY ONLY BE STORED ONSITE IN THEIR ORIGINAL CONTAINER. MATERIALS STORED OUTSIDE MUST BE IN CLOSED AND SEALED WATER-PROOF CONTAINERS AND LOCATED OUTSIDE OF DRAINAGE WAYS OR AREAS SUBJECT TO FLOODING. LOCKS AND OTHER MEANS TO PREVENT OR REDUCE VANDALISM SHALL BE USED. SPILLS WILL BE REPORTED AS REQUIRED BY LAW AND IMMEDIATE ACTIONS TAKEN TO CONTAIN THEM.
8. SILT FENCES AND EROSION CONTROL BMPs WHICH ARE SHOWN ALONG THE BACK OF CURB MUST BE INSTALLED WITHIN TWO WEEKS OF CURB BACKFILL AND PRIOR TO PLACEMENT OF BASE ASPHALT. EXACT LOCATIONS OF THESE EROSION CONTROL METHODS MAY BE FIELD ADJUSTED TO MINIMIZE CONFLICTS WITH UTILITY CONSTRUCTION; HOWEVER, ANTICIPATED DISTURBANCE BY UTILITY CONSTRUCTION SHALL NOT DELAY INSTALLATION.
9. INTERIOR SILT FENCE AS NECESSARY DURING CONSTRUCTION. PORTIONS MAY BE LIMITED AS VEGETATION IS ESTABLISHED AND HARDSCAPE IS INSTALLED. ENTIRE LENGTH MAY BE INSTALLED AT THE CONTRACTOR'S OPTION TO AID IN STABILIZING SLOPES.
10. PRIVATE EROSION & SEDIMENT CONTROL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH NPDES SCHEDULE AND REQUIREMENTS. AFTER INSPECTIONS, PROVIDE THE CITY OF LEE'S SUMMIT WITH REPORTS AND DOCUMENTATION IF REQUESTED.

EROSION/SEDIMENT CONTROL STAGING CHART

SEE SHEET C505 FOR EROSION CONTROL DETAILS

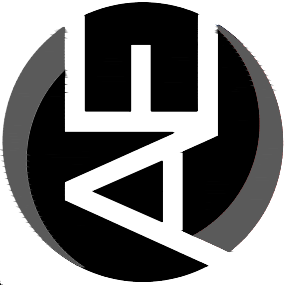
PROJECT STAGE	BMP PLAN REF. NO.	BMP DESCRIPTION	REMOVE AFTER STAGE:	NOTES:
A - PLACE BMP'S PRIOR TO PAVING/UTILITY INSTALLATION.	01	PERIMETER SILT FENCE	C	PLACE AS SHOWN ON PLAN.
	02	CONSTRUCTION ENTRANCE & STAGING AREA	C	PLACE AS SHOWN ON PLAN.
	03	CONCRETE WASH-OUT	C	PLACE AS SHOWN ON PLAN.
B - AFTER UTILITY STORM SEWER CONSTRUCTION	04	STORM INLET PROTECTION	C	PLACE AS SHOWN ON PLAN.
C - FINAL GRADING, PAVING & LANDSCAPING	05	FINAL SEEDING, SOD AND LANDSCAPING	N/A	SILT FENCING & INLET PROTECT MAY BE REMOVED ONCE SEED & SODDED AREAS ARE ESTABLISHED ON 80% OF SITE.

LEGEND

- FINAL STABILIZATION SHALL BE PERFORMED IN COORDINATION WITH THE LANDSCAPE PLAN. TEMPORARY STABILIZATION SHALL BE PER GENERAL OPERATING PERMIT.
- 934 PROPOSED CONTOUR
- 934 EXISTING CONTOUR
- X X SILT FENCE
- INLET FILTER SOCKS
- CONSTRUCTION ENTRANCE

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 09/08/2021

ANDERSON ENGINEERING
EMPLOYEE OWNED



ENGINEERS - SURVEYORS - LABORATORIES - DRILLING
4240 PHILIPS FARM RD. STE. 101 • COLUMBIA, MO 65201 • PHONE (633) 397-5476
A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION
MISSOURI CERTIFICATE OF AUTHORITY #00366 EXPIRES 12/31/2021

REVISIONS

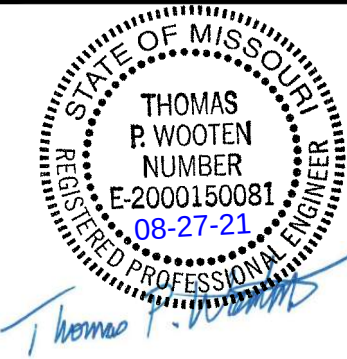
NO.	DESCRIPTION	BY	DATE	DRAWN BY:	LICENSE NO.	CHECKED BY:	LICENSE NO.	DATE:	JOB NUMBER:
1	City Review Comments	TPW	8-28-21		8-28-21			08-25-2021	21CO 00010

© COPYRIGHT ANDERSON ENGINEERING, INC. 2021

COOPER'S HAWK
FINAL DEVELOPMENT PLAN

EROSION CONTROL PLAN

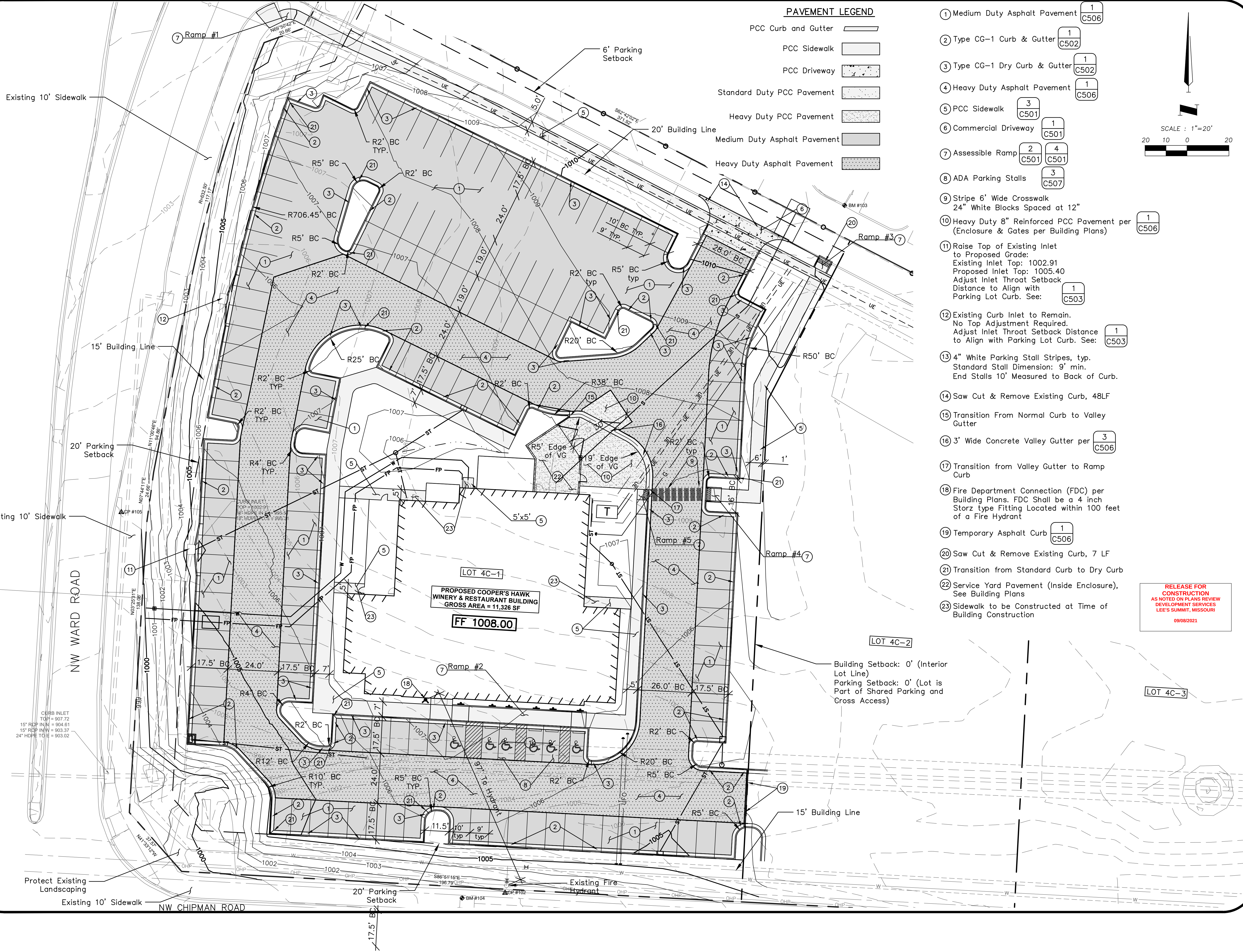
LEE'S SUMMIT, JACKSON COUNTY, MO



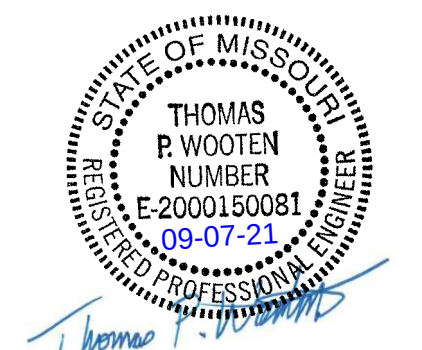
SHEET NUMBER

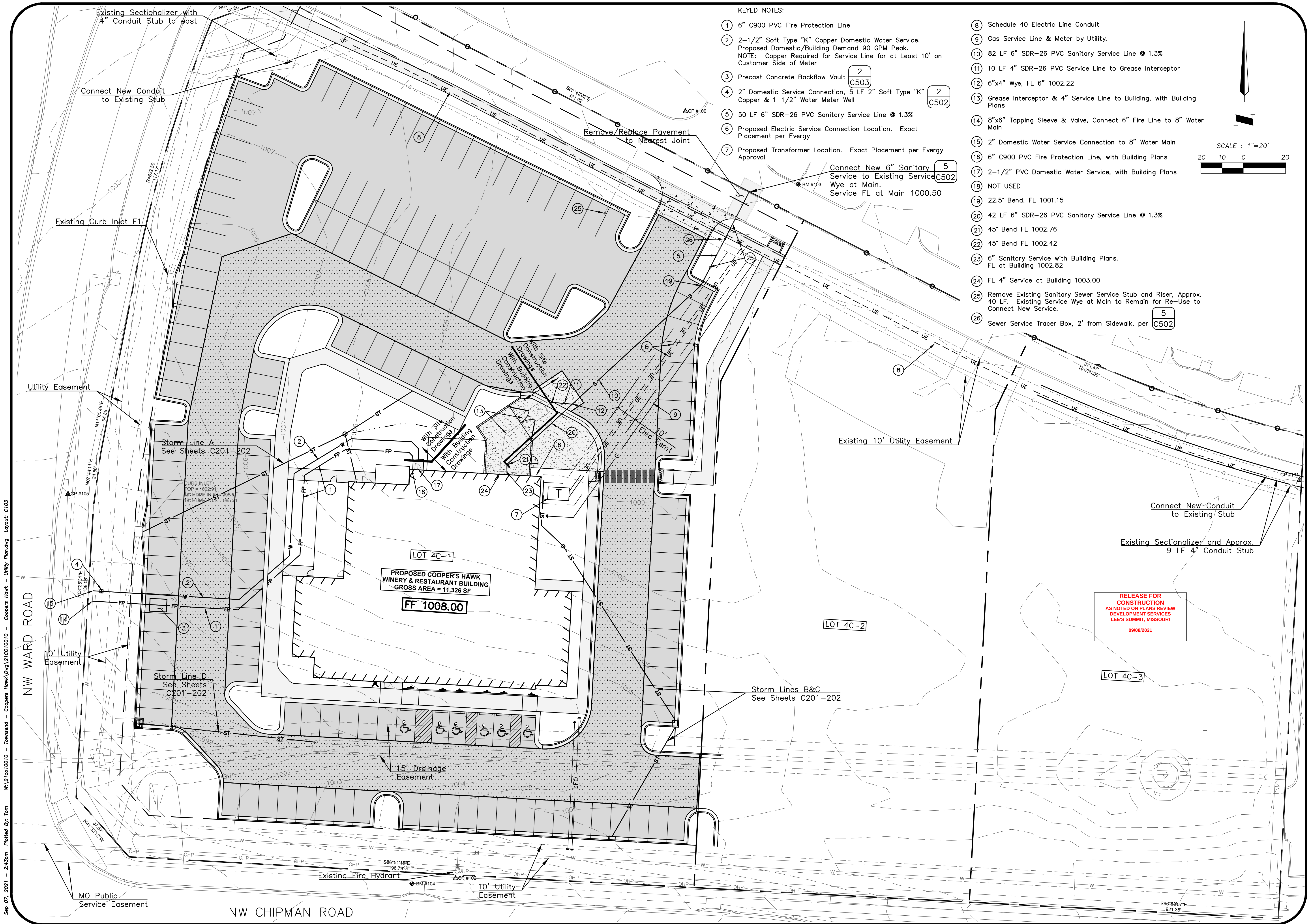
C051

2 OF 16



REVISIONS		DRAWING INFO.	
NO.	DESCRIPTION	BY	DATE
1	City Review Comments	TPW	8-28-21
2	City Review Comments	TPW	9-7-21
		LICENSE NO.	09-07-2021
		DATE	2100 0010
		JOB NUMBER	





**ANDERSON
ENGINEERING**
EMPLOYEE OWNED

ENGINEERS - SURVEYORS - LABORATORIES - DRILLING
4240 PHILIPS FARM RD. STE. 101 • COLUMBIA, MO 65201 • PHONE (573) 397-5476
A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION
MISSOURI CERTIFICATE OF AUTHORITY #00866 EXPIRES 12/31/2021

REVISIONS		DRAWING INFO.	
NO.	DESCRIPTION	BY	DATE
1	City Review Comments	TPW	8-28-21
2	City Review Comments	TPW	9-7-21

TPW	TPW
E-2000150081	E-2000150081
9-7-21	9-7-21
09-07-2021	21CO 0010

COOPER'S HAWK

UTILITY PLAN

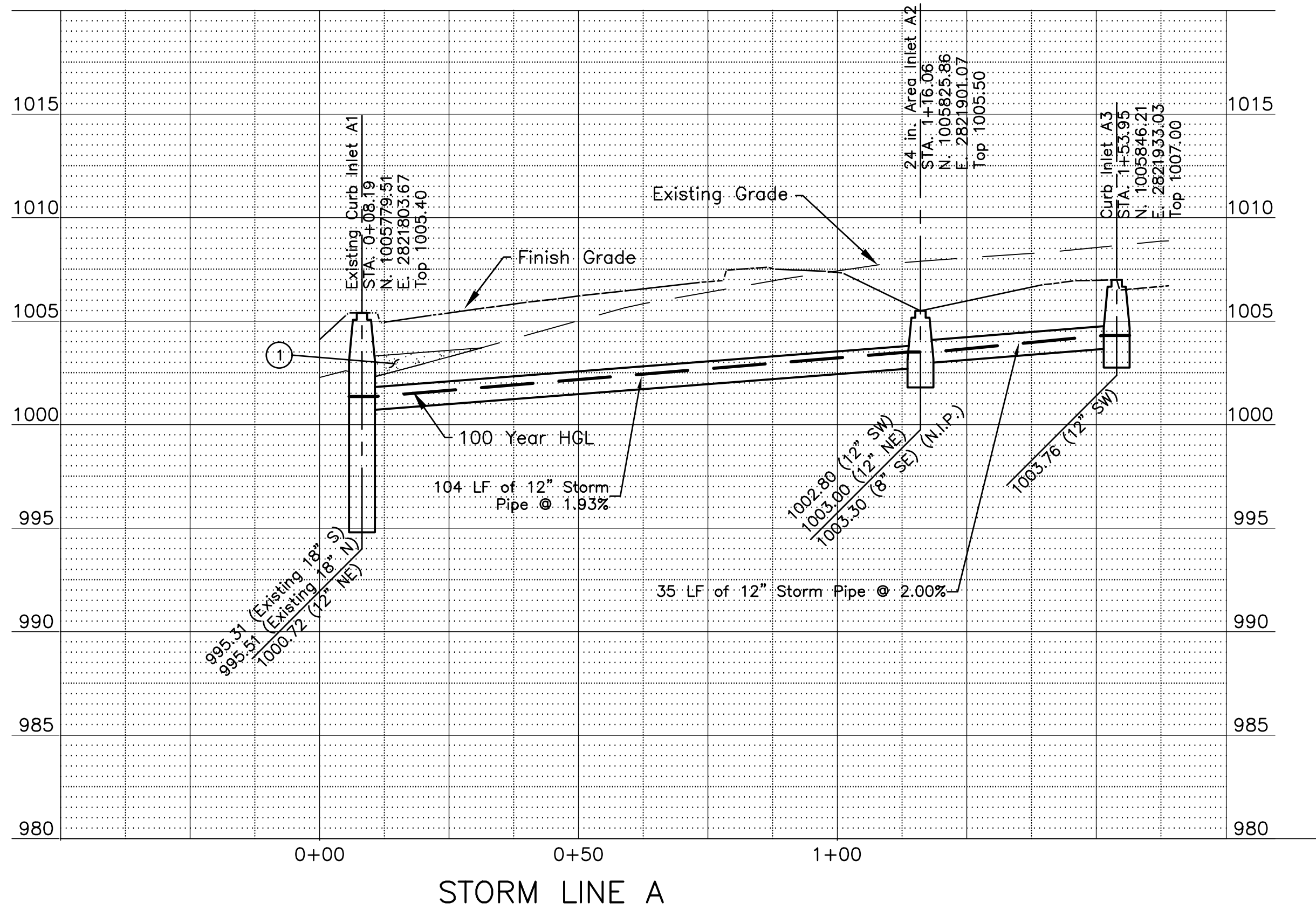
LEE'S SUMMIT, JACKSON COUNTY, MO

THOMAS P. WOOLEN
REGISTERED PROFESSIONAL ENGINEER
NUMBER E-2000150081
09-07-21

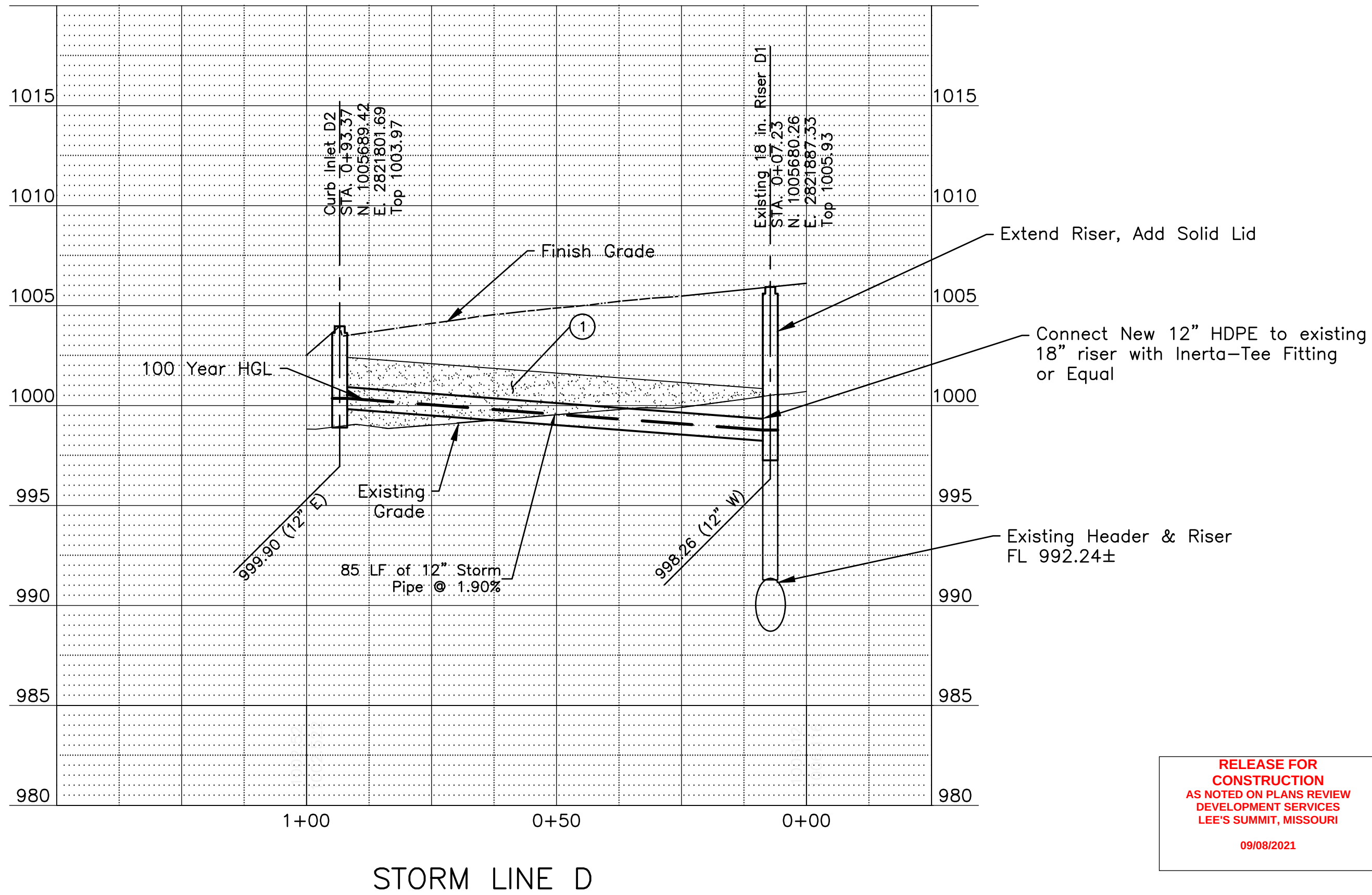
SHEET NUMBER
C103
5 OF 16

Aug 27, 2021 - 3:11pm Plotted By: Tom W:\210000010 - Townsend - Coopers Hawk\DWG\210010010 - Coopers Hawk - Storm.dwg Layout: C201

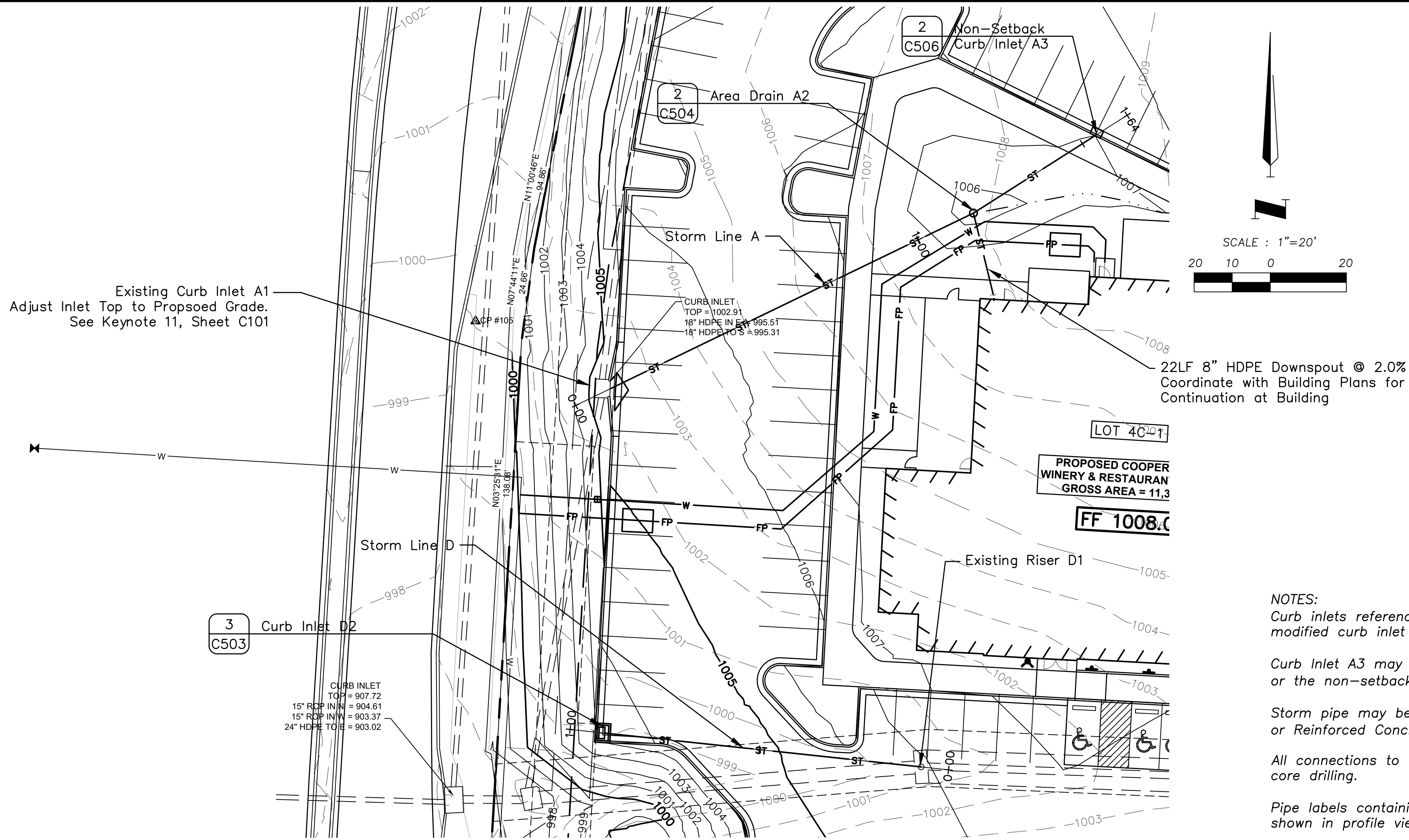
- KEYNOTES
- ① Compacted fill shall be placed to a minimum 18" above top the top of the pipe prior to installation.



PROFILE SCALES:
H: 1"=20'
V: 1"=5'



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/08/2021



NOTES:
Curb inlets referenced by detail 1/Sheet C503 may be the modified curb inlet or standard curb inlet

Curb Inlet A3 may be a 30" diameter Nyloplast curb inlet or the non-setback curb inlet, per detail 2/Sheet C506.

Storm pipe may be High Density Polyethylene Pipe (HDPE) or Reinforced Concrete Pipe (RCP).

All connections to existing structures shall be made by core drilling.

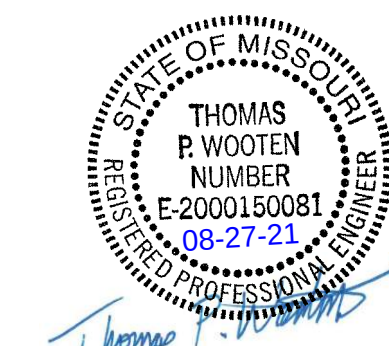
Pipe labels containing "N.I.P." indicate the pipe is not shown in profile view.



REVISIONS		DRAWING INFO.	
NO.	DESCRIPTION	DATE	DRAWN BY:
1	City Review Comments	8-28-21	TPW
			CHECKED BY:
			LICENSE NO.
			DATE:
			JOB NUMBER:

© COPYRIGHT ANDERSON ENGINEERING, INC. 2021

COOPER'S HAWK
FINAL DEVELOPMENT PLAN
STORM PLAN & PROFILE
LEE'S SUMMIT, JACKSON COUNTY, MO



SHEET NUMBER
C201
6 OF 16

SCALE : 1"=20'

10 0 2



THIS PROJECT IS PART OF A LARGER DEVELOPMENT WITH REGIONAL WATER QUALITY TREATMENT AND REGIONAL DETENTION, THUS ON-SITE CONTROLS ARE NOT REQUIRED.

THIS PROJECT IS LOCATED IN THE LITTLE CEDAR WATERSHED.

1. PIPE LENGTHS SHOWN ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE OR TO THE CENTER OF TOE OF END SECTION. ALL PIPES SHALL BE FIELD STAKED TO THE CENTER OF THE INSIDE WALL FACE OF THE STRUCTURE.
2. THE DIMENSION FOR ALL STRUCTURES ARE FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE.
3. STORM SEWER PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
 - A. HIGH DENSITY POLYETHYLENE (HDPE) MEETING THE REQUIREMENTS FOR TEST METHODS, DIMENSIONS, AND MARKINGS FOUND IN AASHTO M294 AND ASTM F2306.
 - JOINTS SHALL BE WATER TIGHT REINFORCED BELL & GASKETED SPIGOT TYPE.
4. ALL CURB INLETS AND OTHER STRUCTURES SET AT LOW POINTS ARE TO BE SET LEVEL. ALL OTHER CURB INLETS ARE TO BE SET WITH THE GRADE AT THE TOP OF CURB OR PAVEMENT. ALL CURB INLETS SHALL HAVE TOP SLABS SLOPING TOWARD THE PAVEMENT AT A 2% GRADE UNLESS OTHERWISE NOTED.
5. ALL HYDRAULIC GRADE LINES (HGL) SHOWN ARE FOR THE 100-YEAR STORM.
6. ALL CONCRETE STRUCTURES ARE TO BE PRECAST.
7. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED CONCRETE INVERT FROM INVERT IN TO INVERT OUT.
8. LOCATIONS OF NORTHINGS AND EASTINGS SHOWN ARE AS FOLLOWS:
 - A. GRATED AREA INLET: CENTER OF STRUCTURE
 - B. SETBACK CURB INLET: CENTER OF STRUCTURE
 - C. MODIFIED CURB INLET: CENTER OF STRUCTURE ALONG TOP OF CURB AT INLET
9. THE FIRST STRUCTURE DIMENSION SHOWN IS THE "L" DIMENSION AND THE SECOND IS THE "W" DIMENSION (SEE STORM SEWER STRUCTURE DETAILS).
10. ALL UNSUITABLE MATERIAL ENCOUNTERED DURING THE INSTALLATION OF STORM SEWER SHALL BE REMOVED AT CONTRACTOR'S EXPENSE.

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

09/08/2021

**ANDERSON
ENGINEERING**
EMPLOYEE OWNED

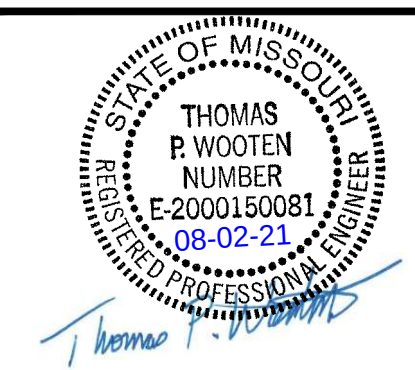
ENGINEERS, SURVEYORS, LABORATORIES, DRILLING
4241 WILSON ROAD, STE. 101, COVINGTON, MISSOURI 65438
ALICENED MISSOURI ENGINEERING & SURVEYING CORPORATION
MISSOURI CERTIFICATE OF AUTHORITY #0000682 EXPIRES 12/31/2021

REVISIONS			DRAWING INFO.		
NO.	DESCRIPTION	BY	DATE	DRAWN BY:	TP#
				LICENSE NO.	E-2000150081
				CHECKED BY:	
				LICENSE NO.	
				DATE:	07-28-2021
				JOB NUMBER:	21CO10010
© COPYRIGHT ANDERSON ENGINEERING, INC. 2021					

COOPER'S HAWK

DRAINAGE MAP

LEE'S SUMMIT, JACKSON COUNTY, MO



SHEET NUMBER
C301
8 OF 16

Aug 04, 2021 -- 2:54pm Plotted By: Tom W:\210010010 -- Townsend -- Coopers Hawk\DWG\210010010 -- C301 Drainage Map.dwg Layout: C302

Inlets - 10 Year

Structure	Inlet Location	Peak Flow (cfs)	Intercepted Flow (cfs)	Bypass Flow (cfs)	Inlet 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

Structure	Inlet Location	Peak Flow (cfs)	Intercepted Flow (cfs)	Bypass Flow (cfs)	Inlet 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 Structure	Downstream Structure	Length (ft)	Upstream Invert	Downstream Invert	Slope (%)	Diameter (in)	Manning's n	Total Flow (cfs)	Velocity (ft/sec)	Capacity (cfs)	Flow Depth (ft)	Upstream Structure HGL	Upstream 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 Structure	Downstream Structure	Length (ft)	Upstream Invert	Downstream Invert	Slope (%)	Diameter (in)	Manning's n	Total Flow (cfs)	Velocity (ft/sec)	Capacity (cfs)	Flow Depth (ft)	Upstream Structure HGL	Upstream Top Elevation
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

Drainage Area	Area (acres)	C	Tc (min)	I10 (in/hr)	Q10 (cfs)	I100 (in/hr)	Q100 (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

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/08/2021

ANDERSON
ENGINEERING
EMPLOYEE OWNED



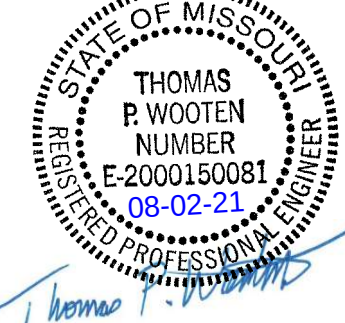
ENGINEERS - SURVEYORS - LABORATORIES - DRILLING
4240 PHILIPS FARM RD. STE. 101 • COLUMBIA, MO 65201 • PHONE (673) 397-5476
A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION
MISSOURI CERTIFICATE OF AUTHORITY #00866 EXPIRES 12/31/2021

REVISIONS		DRAWING INFO.	
		DRAWN BY:	TPW
NO.	DESCRIPTION	LICENSE NO.	E-2000150081
		CHECKED BY:	
		LICENSE NO.	
		DATE:	07-29-2021
		JOB NUMBER:	21CO 0010
© COPYRIGHT ANDERSON ENGINEERING, INC. 2021			

COOPER'S HAWK

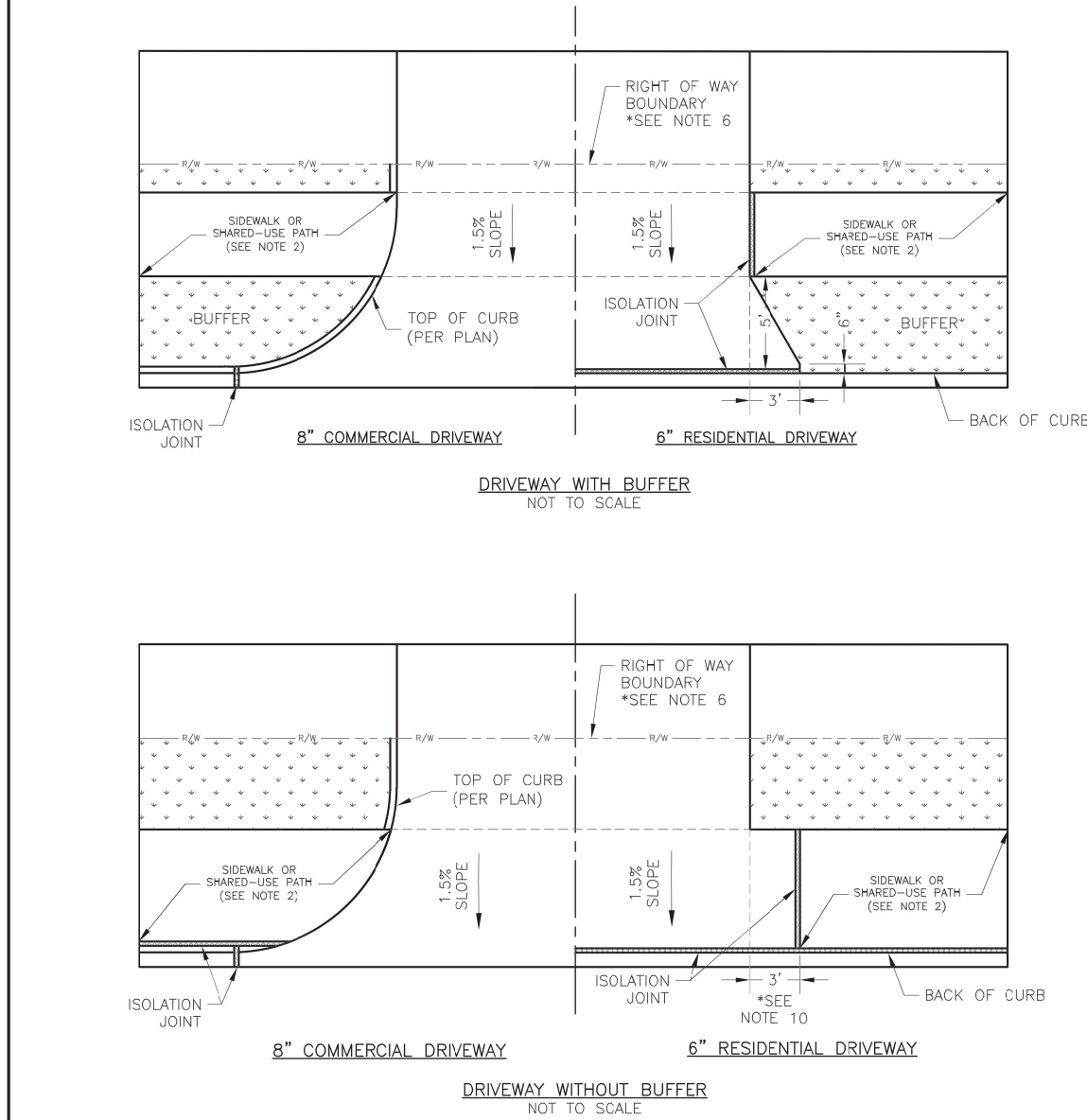
DRAINAGE CALCULATIONS

LEE'S SUMMIT, JACKSON COUNTY, MO

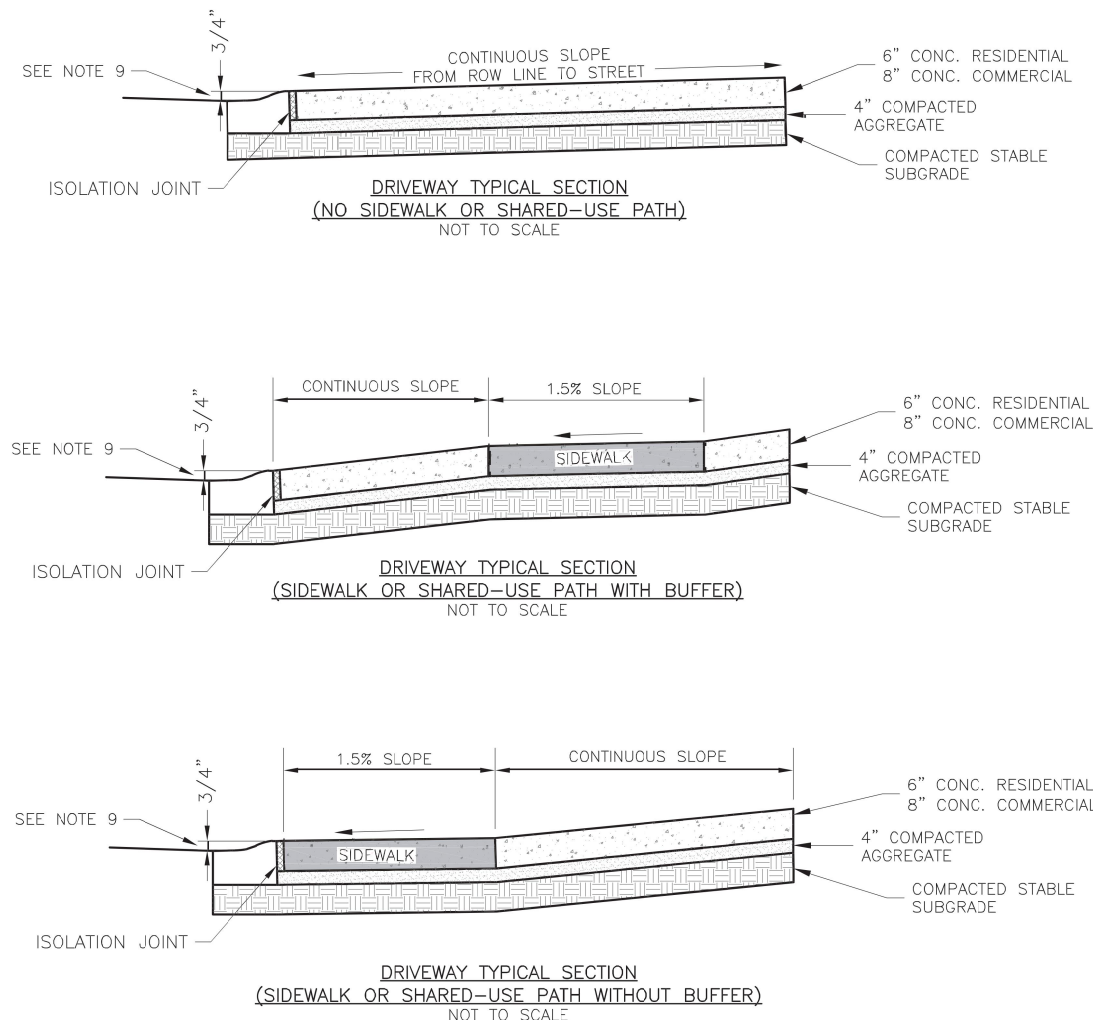


THOMAS P. WOOTEN
REGISTERED PROFESSIONAL ENGINEER
E-2000150081
08-02-21

SHEET NUMBER
C302
9 OF 16



- GENERAL NOTES
- SUBGRADE SHALL BE STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
 - ALL DRIVE APPROACHES SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAD) FOR SLOPE REQUIREMENTS WHEN SIDEWALK IS REQUIRED (SEE ADA RAMP RETROFIT DETAIL GEN-3B, SIDEWALK/SHARED-USE PATH RAMP AT DRIVEWAY DETAIL).
 - JOINT AT BACK OF CURB LINE SHALL BE AN ISOLATION JOINT FOR RESIDENTIAL DRIVEWAYS.
 - KOMM-B 4K CONCRETE MIX IS REQUIRED FOR ALL CURBS.
 - COMMERCIAL DRIVEWAYS, IN THE PUBLIC RIGHT OF WAY, SHALL BE KOMM-B 4K CONCRETE MIX.
 - RESIDENTIAL DRIVEWAYS, IN THE PUBLIC RIGHT OF WAY, KOMM-B 4K CONCRETE MIX IS RECOMMENDED. OTHER CONCRETE MIXES NEED TO BE APPROVED BY CITY INSPECTOR.
 - A JOINT MUST BE INSTALLED AT THE RIGHT OF WAY BOUNDARY FOR PROPERTY DELINEATION.
 - WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
 - 3/4" FROM TOP OF CURB TO FLOWLINE AT DRIVEWAY TYPES CO-1 CURB ONLY. MUST MAINTAIN ORIGINAL FLOWLINE OF CURB.
 - SIDEWALK ADJOINING CURB SHALL BE 6" THICK, EXTENDING 3' FROM THE DRIVEWAY.
 - THE MAXIMUM WIDTH OF A RESIDENTIAL DRIVEWAY IS 36 FEET WITHIN THE RIGHT OF WAY.



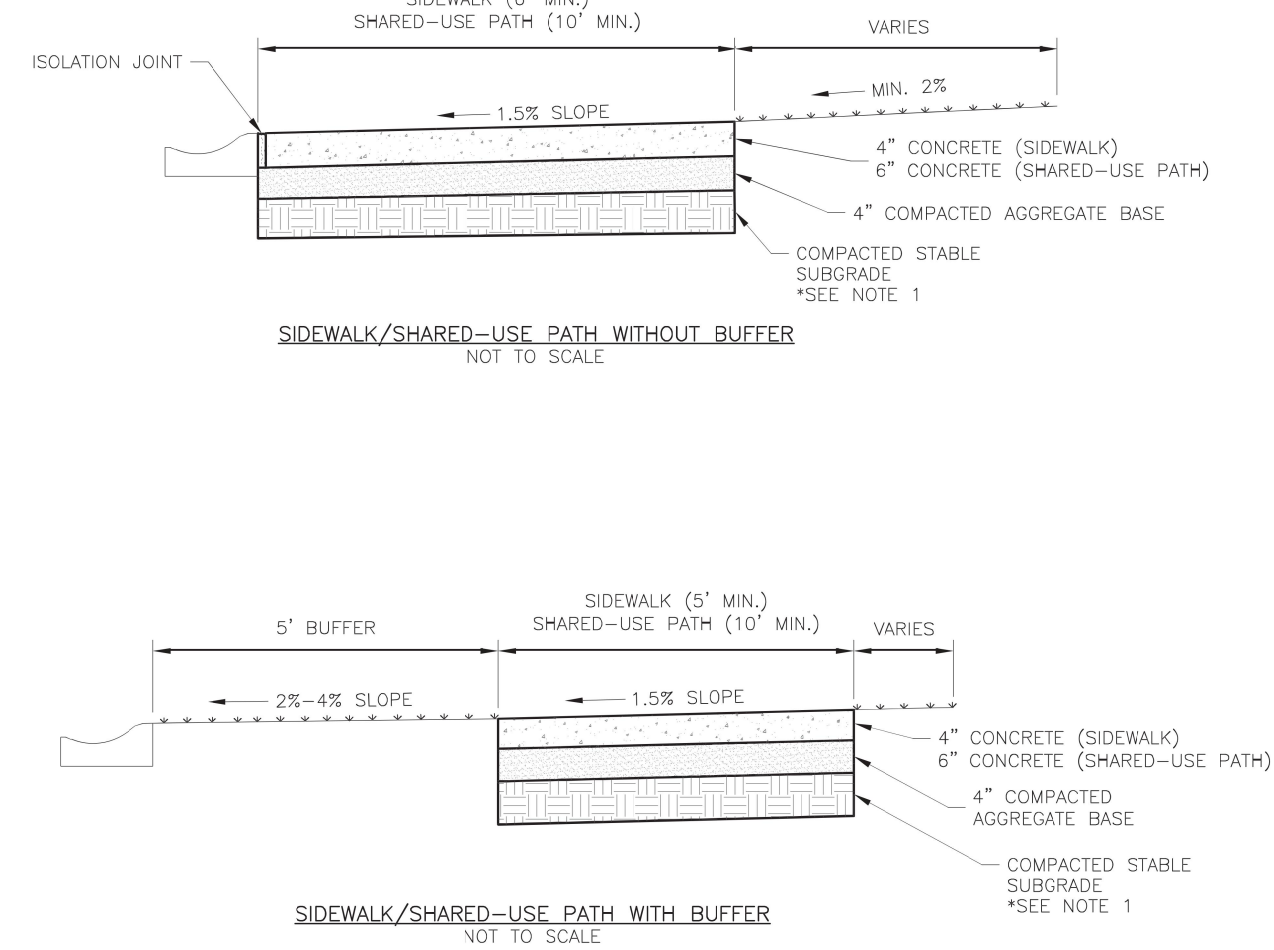
LEE'S SUMMIT
MISSOURI

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
ADA RAMP RETROFIT DETAIL

GEN-1

1
C501 DRIVEWAY DETAIL
N.T.S.

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/08/2021



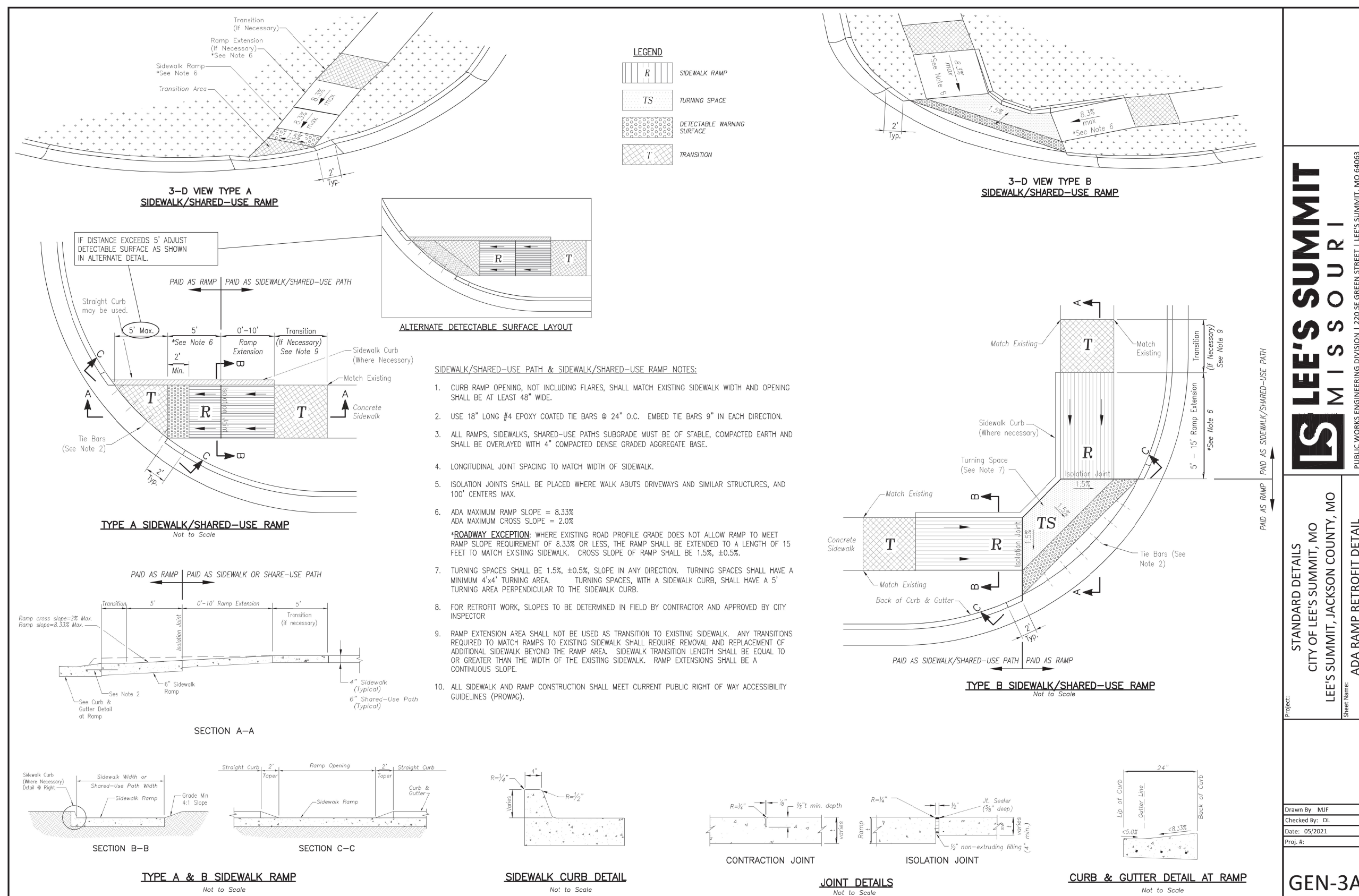
- GENERAL NOTES:
- SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
 - 1.5% CROSS SLOPE MUST BE MAINTAINED "THROUGH" DRIVEWAYS.
 - KOMM-B 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS/SHARED-USE PATHS.
 - ALL SIDEWALK/SHARED-USE PATHS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAD).
 - AN ISOLATION JOINT SHALL BE PLACED AT A MAXIMUM OF 100 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK/SHARED-USE PATHS, BUT NO GREATER THAN 10 FT.
 - AN ISOLATION JOINT SHALL BE PLACED WHERE THE SIDEWALK/SHARED-USE PATHS MEETS A RESIDENTIAL DRIVEWAY.
 - SHARED-USE PATHS WIDTH SHALL BE 10 FT. WIDE.
 - SIDEWALK/SHARED-USE PATHS FINISHING SHALL BE FULL BROOM FINISH OR AS DIRECTED BY CITY INSPECTOR.
 - WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

LEE'S SUMMIT
MISSOURI

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
SIDEWALK/SHARED-USE PATH DETAIL

GEN-2

3
C501 SIDEWALK/SHARED-USE PATH DETAIL
N.T.S.

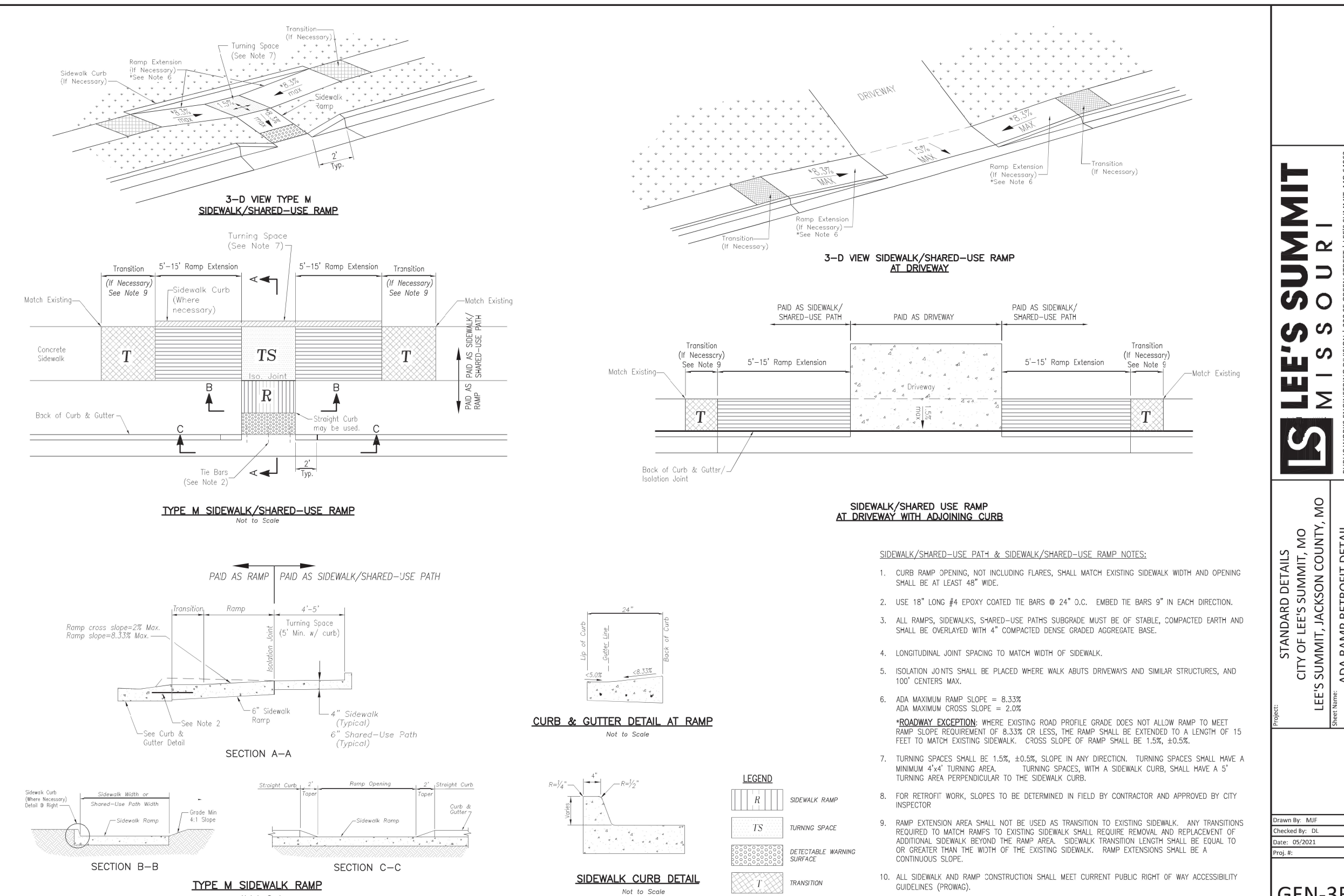


LEE'S SUMMIT
MISSOURI

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
ADA RAMP RETROFIT DETAIL

GEN-3A

2
C501 ADA RAMP RETROFIT DETAIL
N.T.S.



LEE'S SUMMIT
MISSOURI

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
ADA RAMP RETROFIT DETAIL

GEN-3B

4
C501 ADA RAMP RETROFIT DETAIL
N.T.S.

COOPER'S HAWK
FINAL DEVELOPMENT PLAN
DETAILS

LEE'S SUMMIT, JACKSON COUNTY, MO

ANDERSON
ENGINEERING
EMPLOYEE OWNED

ENGINEERS - SURVEYORS - LABORATORIES - DRILLING
4240 PHILIPS FARM RD. STE. 101 • COLUMBIA, MO 65201 • PHONE (673) 397-5476
A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION
MISSOURI CERTIFICATE OF AUTHORITY #00868 EXPIRES 12/31/2021

DRAWING INFO.

NO.	REVISIONS	DESCRIPTION	BY	DATE	DRAWN BY:	LICENSE NO.	CHECKED BY:	LICENSE NO.	DATE:	JOB NUMBER:
									07-29-2021	21CO0010

© COPYRIGHT ANDERSON ENGINEERING, INC. 2021

STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
THOMAS P. WOOTEN
NUMBER E-2000150081
08-02-21

SHEET NUMBER
C501
10 OF 16



C502	N.T.S.
------	--------



C502



C502

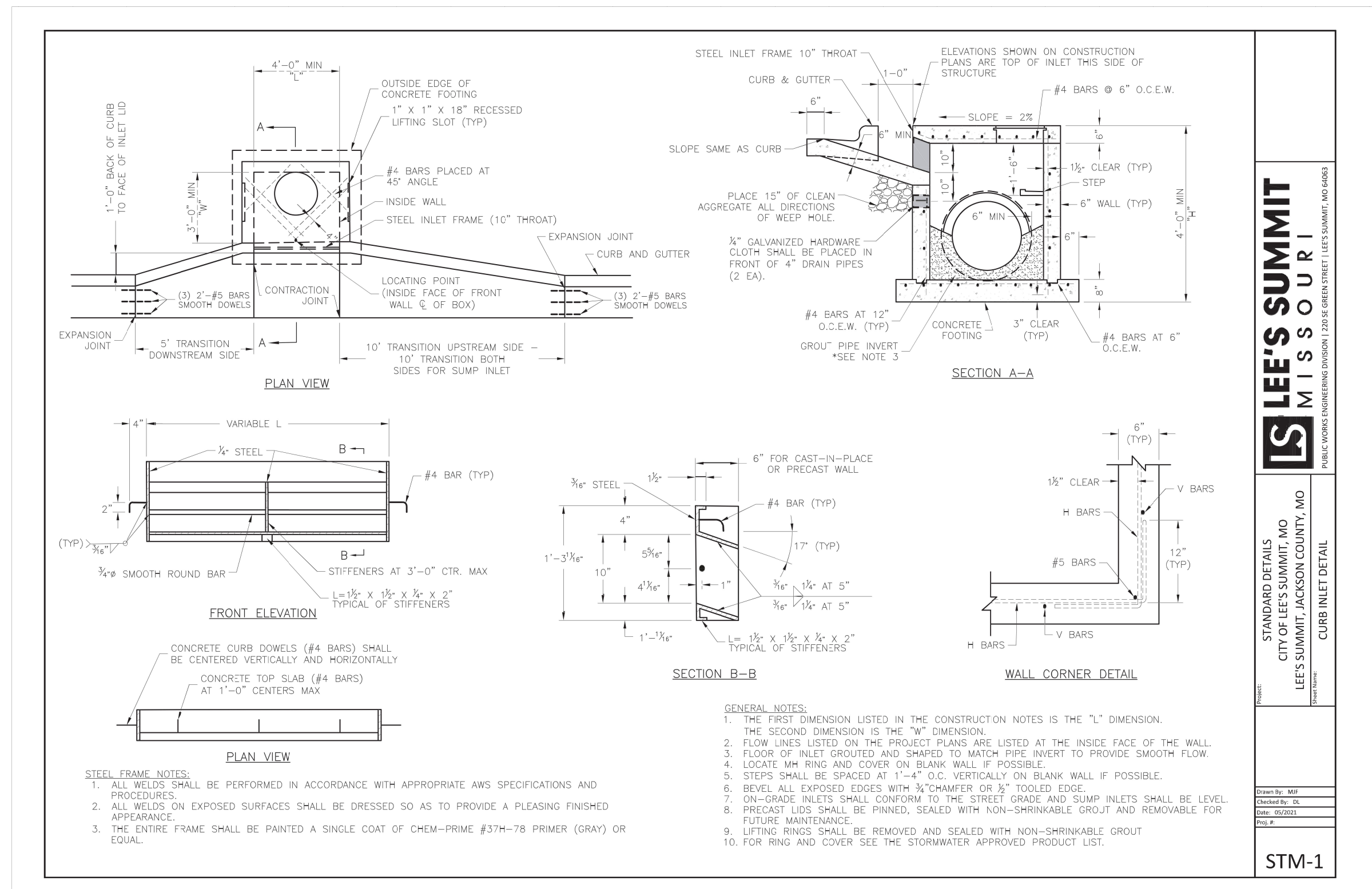


C502

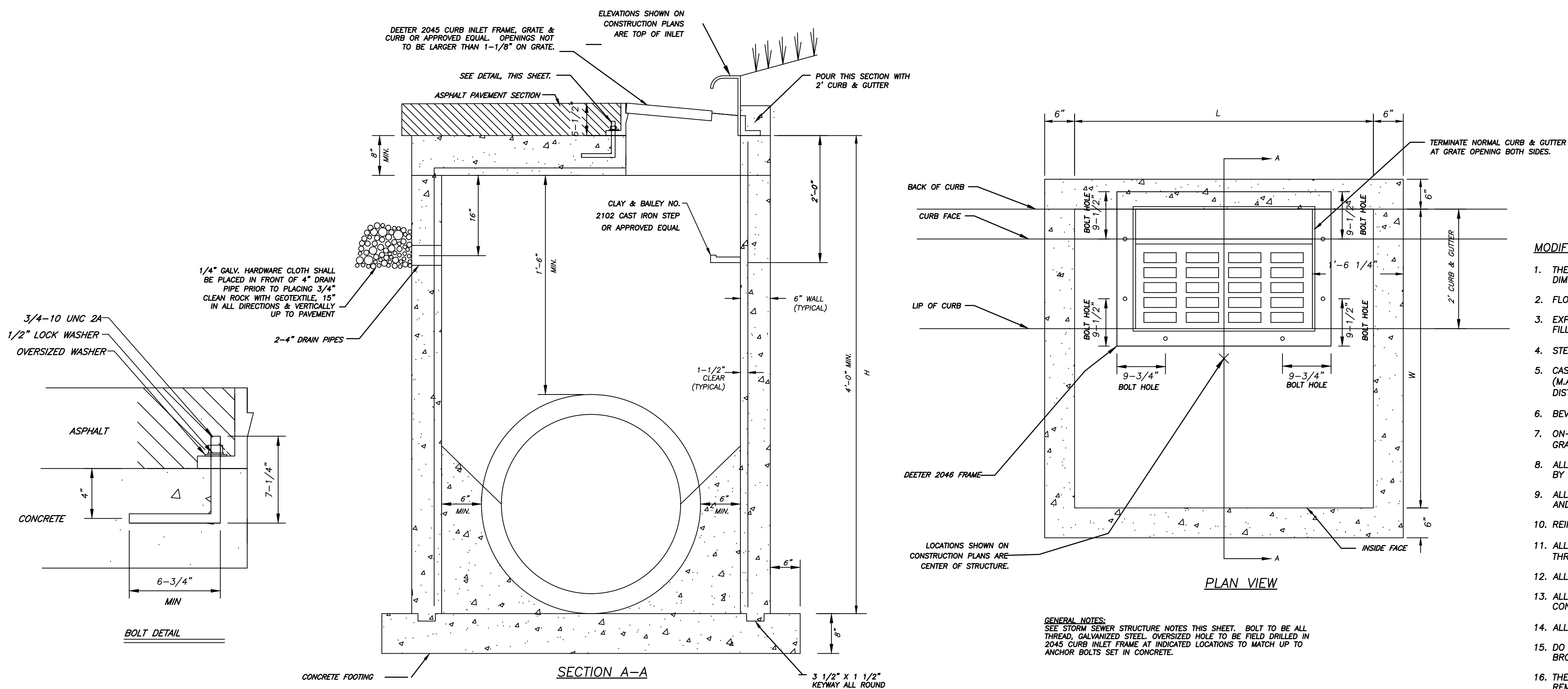


C502



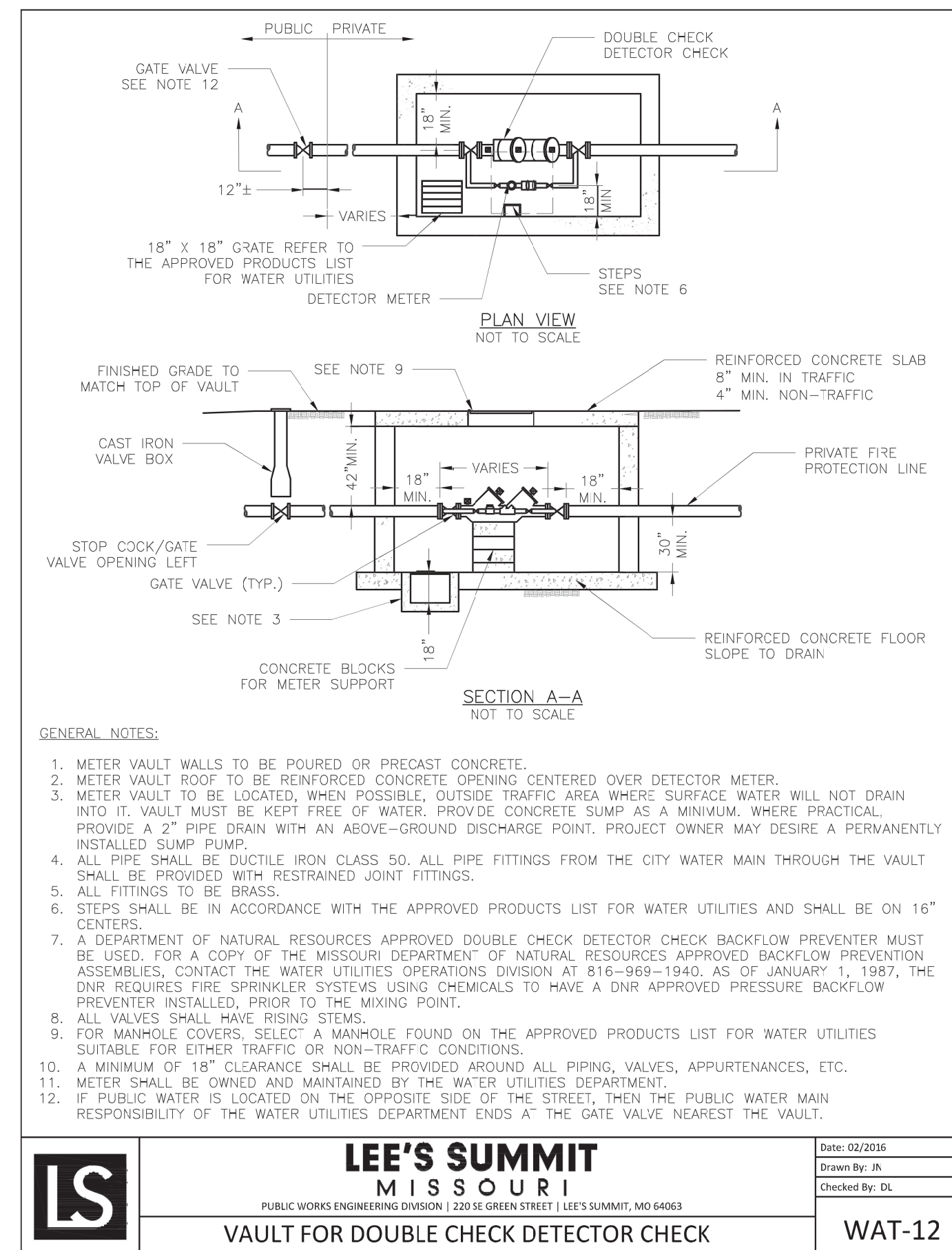


STANDARD CURB INLET



MODIFIED CURB INLET

1	CURB INLET DETAILS
C503	N.T.S.



2	Vault for Double Check Detector Check
C503	N.T.S. NOTE: Vault shall have Traffic Rated Top Slab

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 REMOVED 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 SPECIAL PROVISIONS.
10. REINFORCING STEEL SHALL BE NON 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 ACCEPTABLE.
14. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM SPACING.
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 SIDEWALK CONCRETE. ALL SIDEWALK FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALKS 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. GEOTECHNICAL 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.

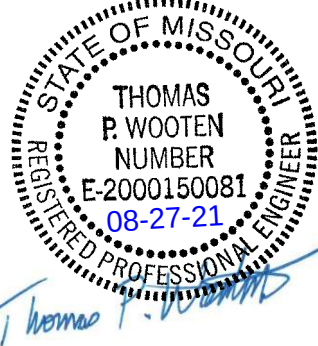
**RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI**

09/08/2021

REVISIONS			DRAWING INFO.		
NO.	DESCRIPTION	BY	DATE	DRAWN BY:	
1	City Review Comments	TPW	8-26-21	LICENSE NO.	
				CHECKED BY:	
				LICENSE NO.	
				DATE:	08-25-2021
				JOB NUMBER:	21CO10010
© COPYRIGHT ANDERSON ENGINEERING, INC. 2021					

COOPER'S HAWK

DETAILS



SHEET NUMBER

C503

12 OF 16

Aug 27, 2021 - 3:22pm Plotted By: Tom Wk:21cso0010 - Townsend - Coopers Hawk\Drawg\21cso0010 - Coopers Hawk - Details.dwg Layout: C504

BEDDING

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

OR

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

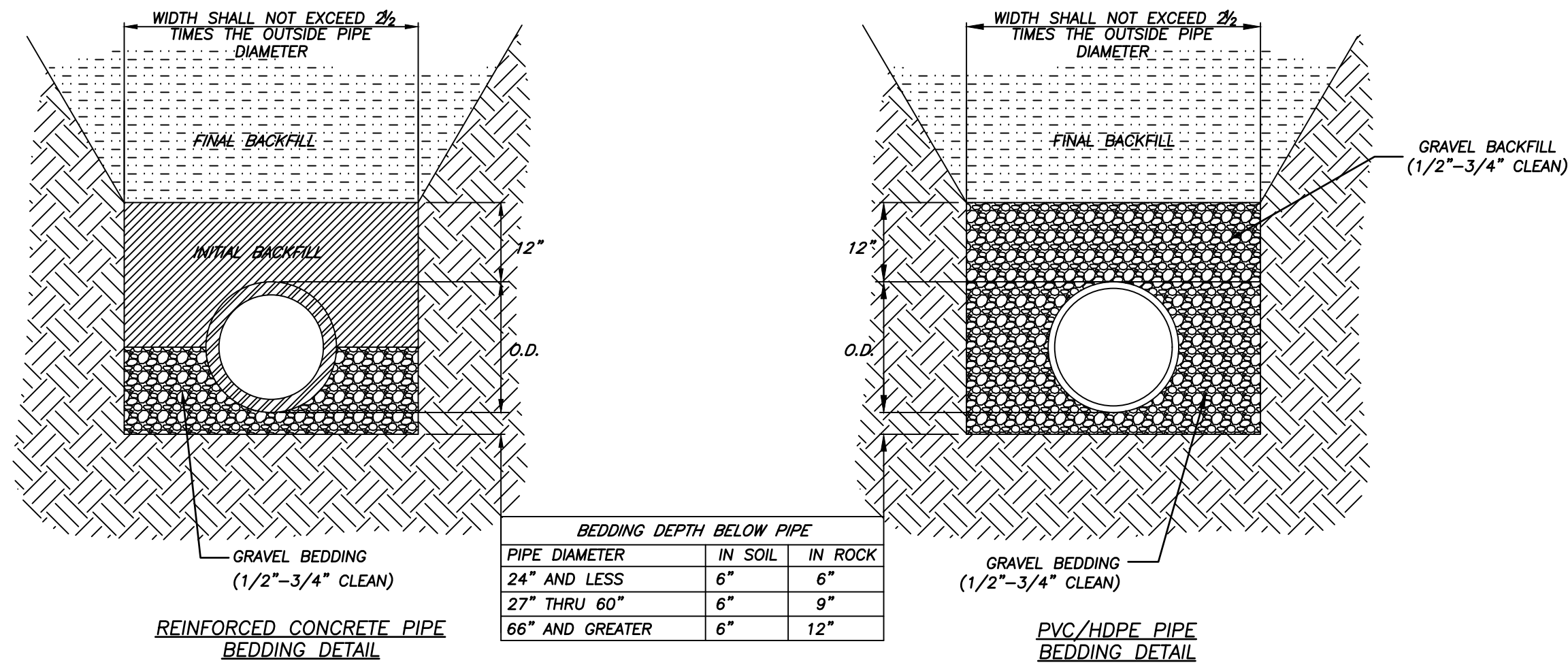
FINAL BACKFILL

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

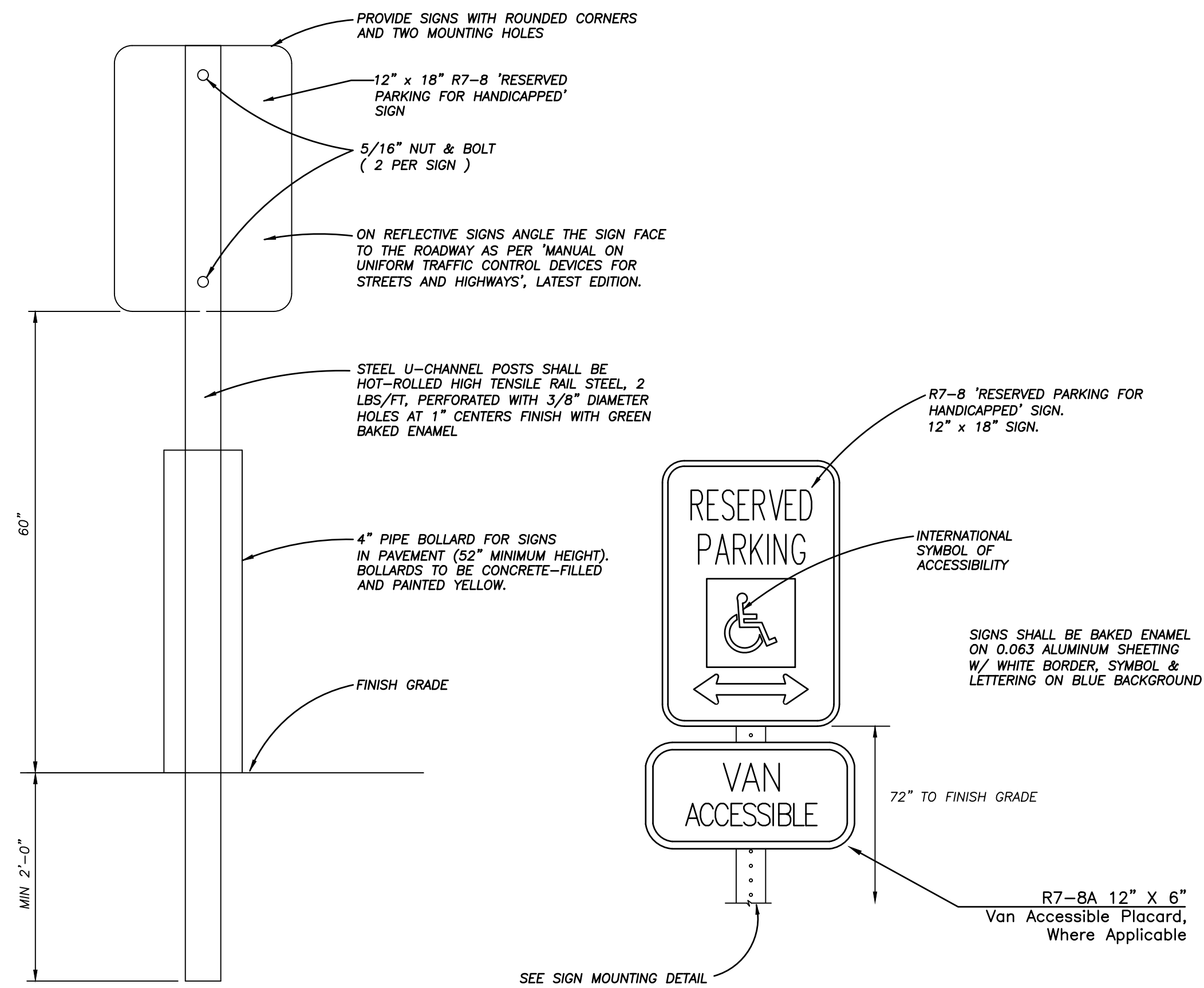
ON-SITE OR IMPORTED MATERIAL FREE OF MUCK, FROZEN MATERIAL, EXCESS MOISTURE, ORGANICS, TOPSOIL, RUBBISH, CONSTRUCTION DEBRIS, ROCK OR BRICK LARGER THAN 8", COMPACTED TO 95% OF STANDARD DENSITY PER ASTM D-698

-UNDER OPEN 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 90% OF STANDARD DENSITY PER ASTM D-698

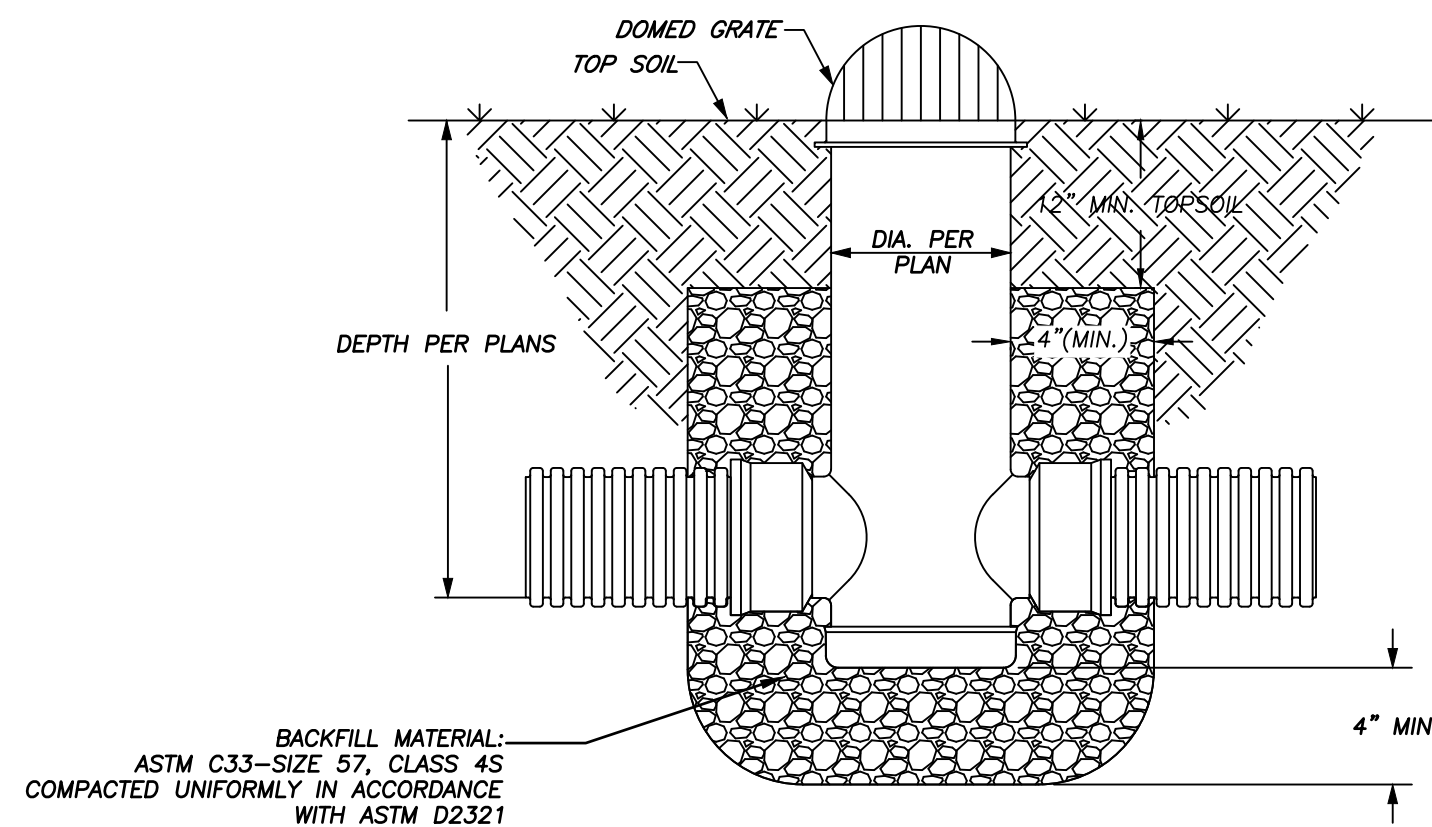


1 STORM SEWER PIPE BEDDING
C504 N.T.S.

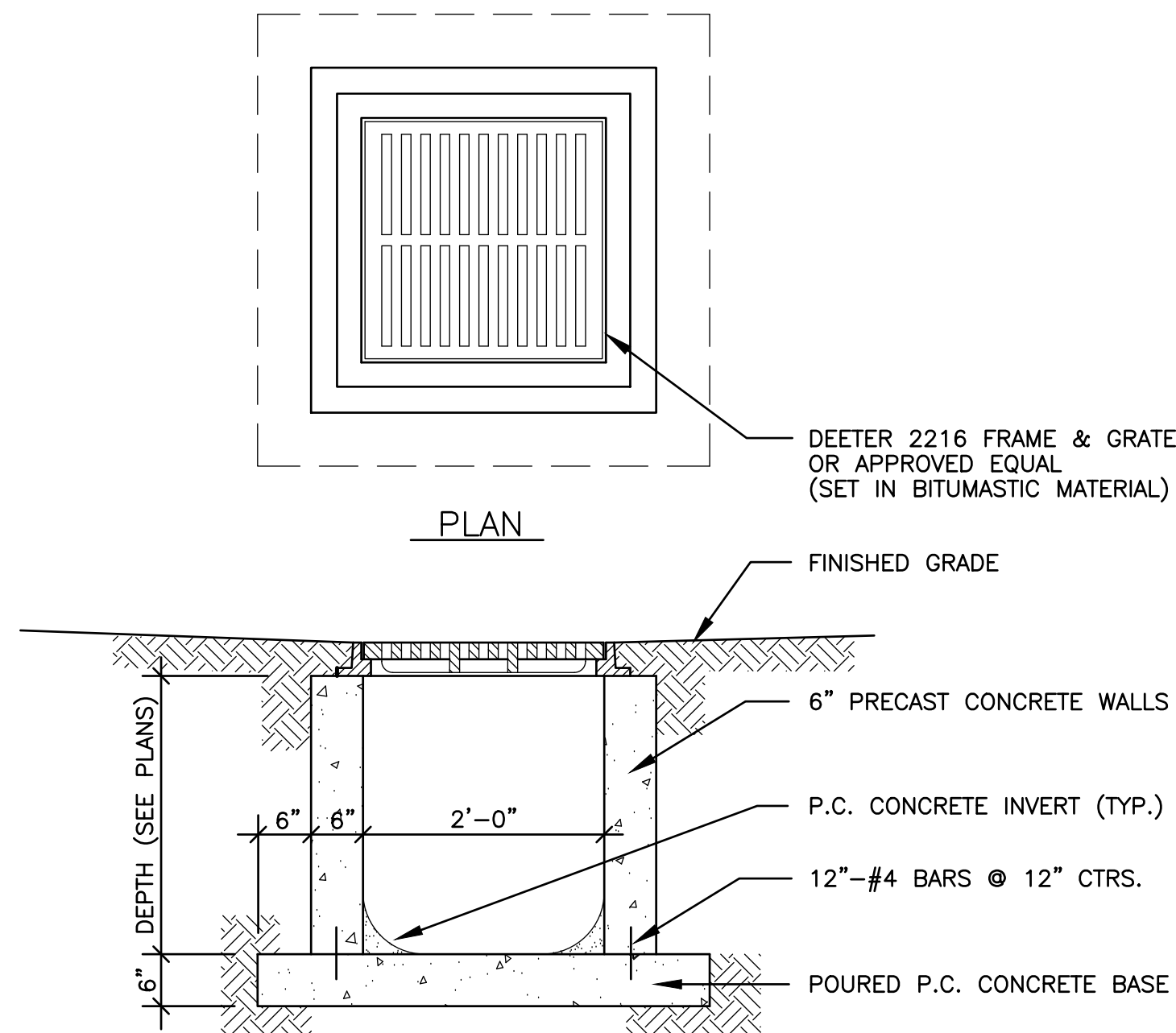


SIGN MOUNTING ACCESSIBLE SIGNAGE

3 ACCESSIBLE PARKING/SIGNAGE
C504 N.T.S.



NYLOPLAST AREA DRAIN



PRECAST AREA INLET

2 AREA INLET DETAILS
C504 N.T.S.

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 09/08/2021

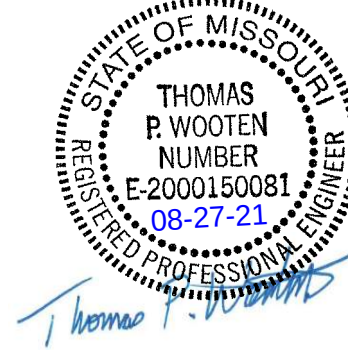
ANDERSON ENGINEERING
EMPLOYEE OWNED

ENGINEERS - SURVEYORS - LABORATORIES - DRILLING
4240 PHILIPS FARM RD. STE. 101 • COLUMBIA, MO 65201 • PHONE (673) 397-5476
A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION
MISSOURI CERTIFICATE OF AUTHORITY #00866 EXPIRES 12/31/2021

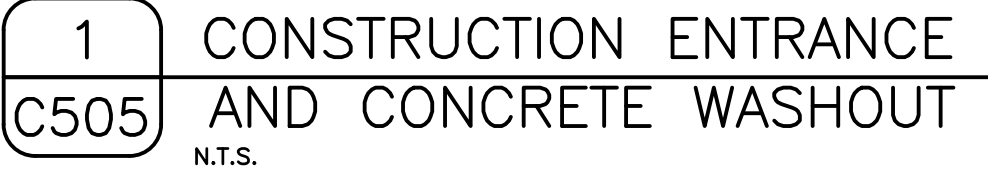
REVISIONS		DRAWING INFO.	
NO.	DESCRIPTION	DATE	DRAWN BY:
1	City Review Comments	8-28-21	
		TPW	LICENSE NO.
			CHECKED BY:
			LICENSE NO.
			DATE:
			08-25-2021
			JOB NUMBER:
			21CO 0010

© COPYRIGHT ANDERSON ENGINEERING, INC. 2021

COOPER'S HAWK
FINAL DEVELOPMENT PLAN
DETAILS
LEE'S SUMMIT, JACKSON COUNTY, MO

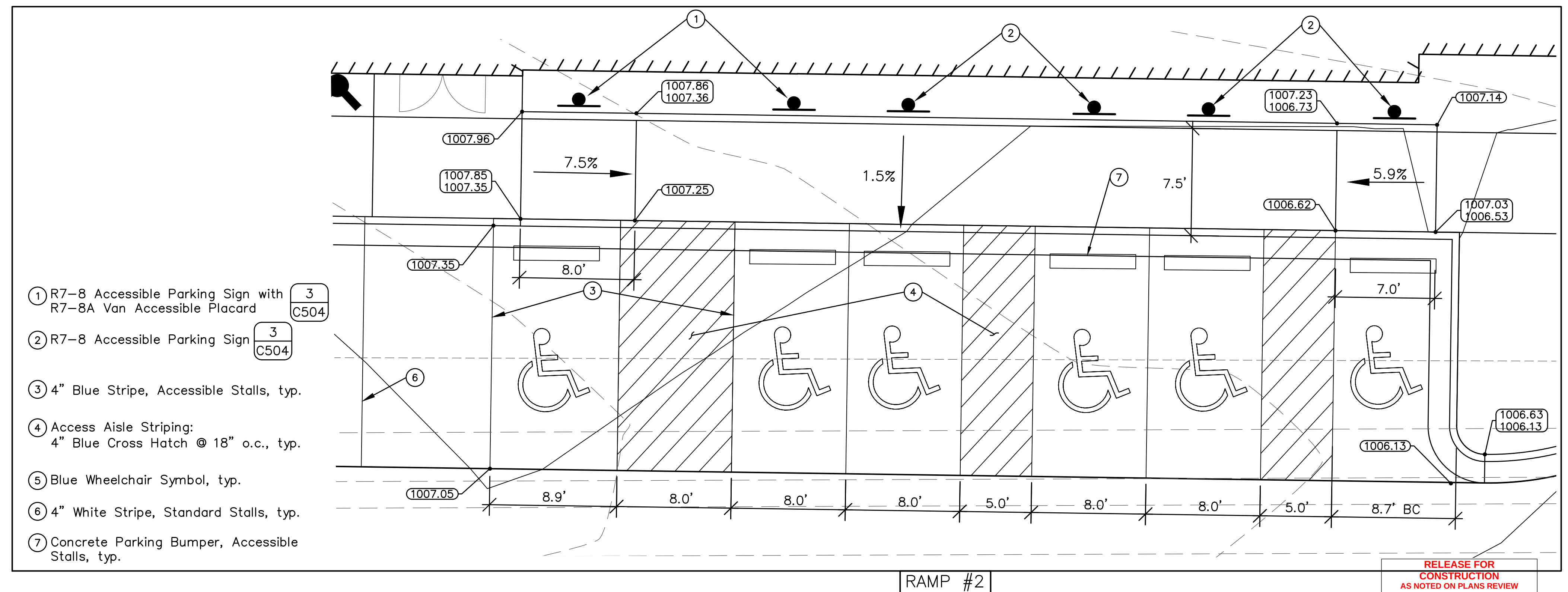
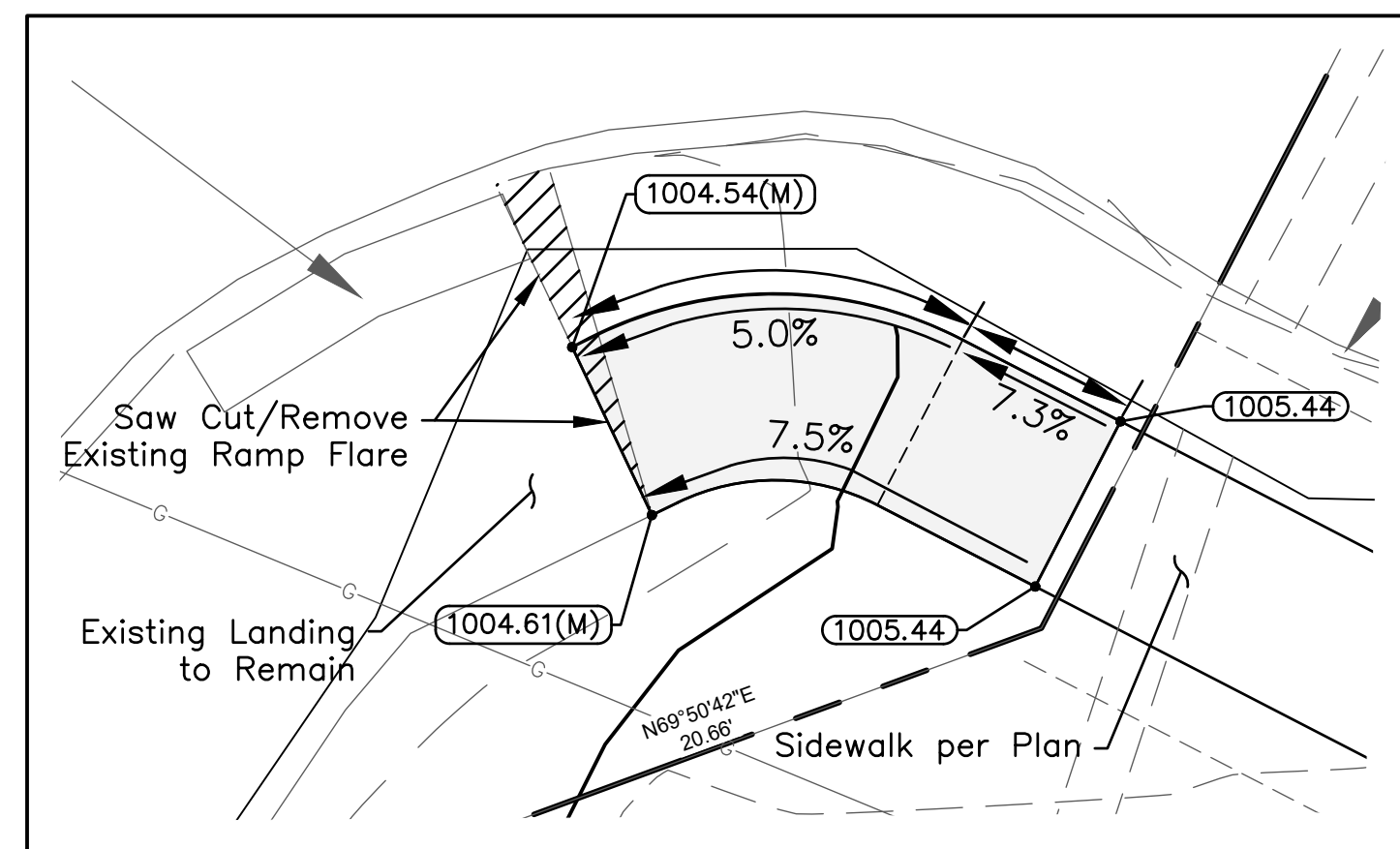
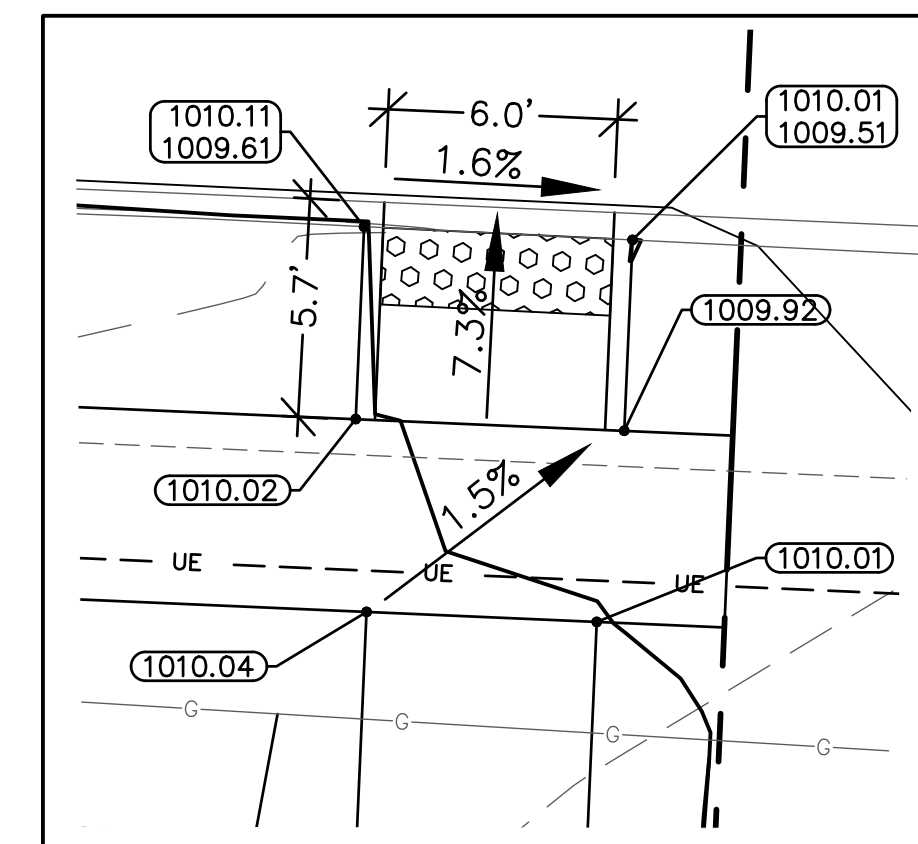
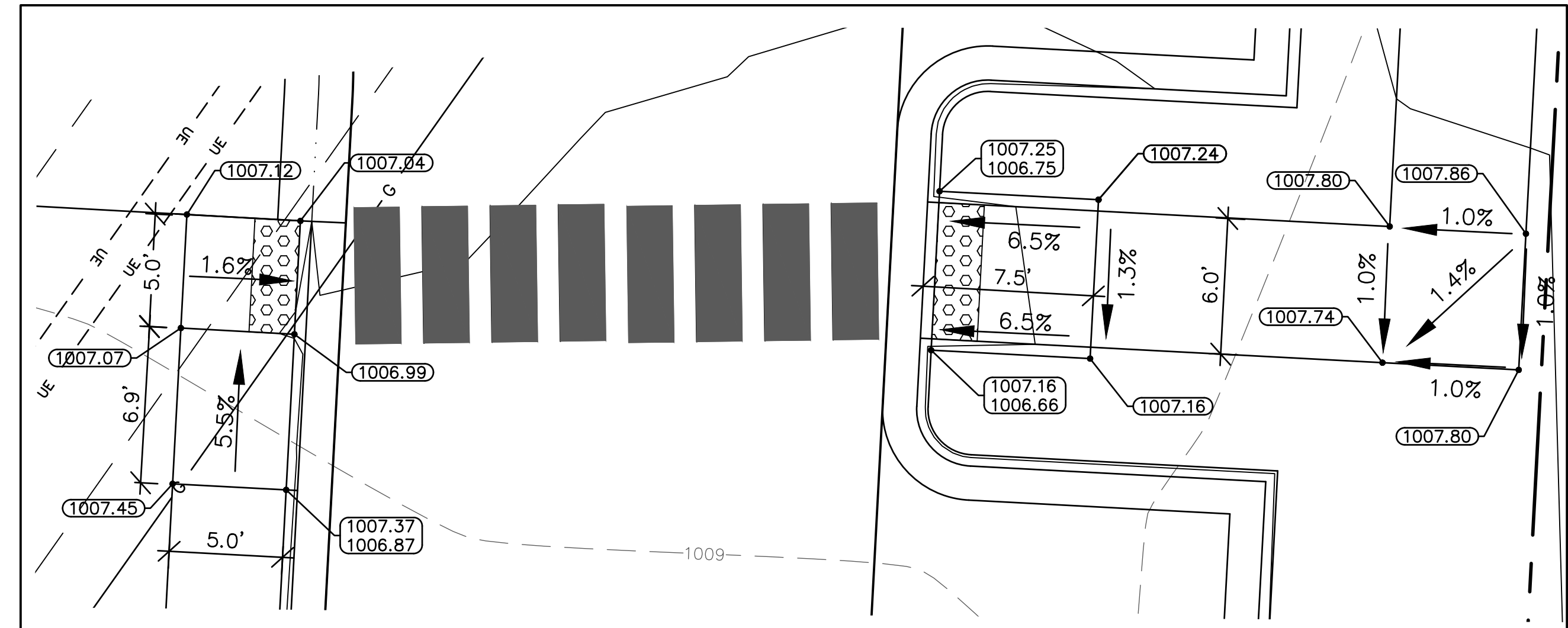
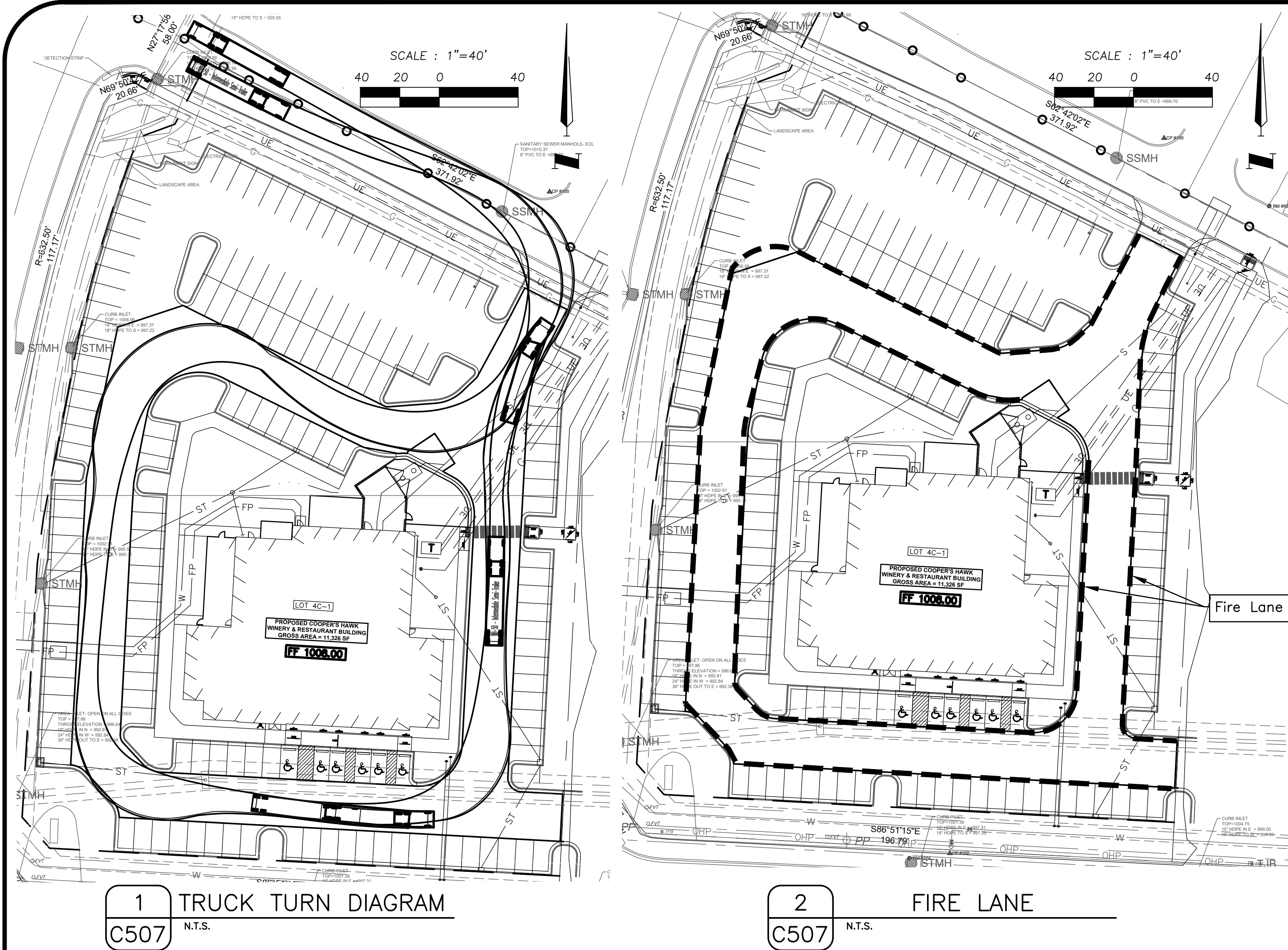


SHEET NUMBER
C504
13 OF 16



REVISIONS			DRAWINGS INFO.		
NO.	DESCRIPTION	BY	DATE	DRAWN BY:	
1	City Review Comments	TPW	8-2-21	LICENSE NO.	
				CHECKED BY:	
				LICENSE NO.	
				DATE:	08-25-2021
				JOB NUMBER:	21CO10010

© COPYRIGHT ANDERSON ENGINEERING, INC. 2021



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

09/08/2021



**ANDERSON
ENGINEERING**
EMPLOYEE OWNED

ENGINEERS • SURVEYORS • LABORATORIES • DRILLING
4240 PHILIPS FARM RD. STE. 101 • COLUMBIA, MO 65201 • PHONE (314) 397-5476
LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION
MISSOURI CERTIFICATE OF AUTHORITY #000062 EXPIRES 12/31/2021

REVISIONS			DRAWING INFO.		
NO.	DESCRIPTION	BY	DATE	DRAWN BY:	
1	City Review Comments	TPW	8-28-21	LICENSE NO.	
				CHECKED BY:	
				LICENSE NO.	
				DATE:	08-25-2021
				JOB NUMBER:	21CO10010
© COPYRIGHT ANDERSON ENGINEERING, INC. 2021					

COOPER'S HAWK
FINAL DEVELOPMENT PLAN

DETAILS



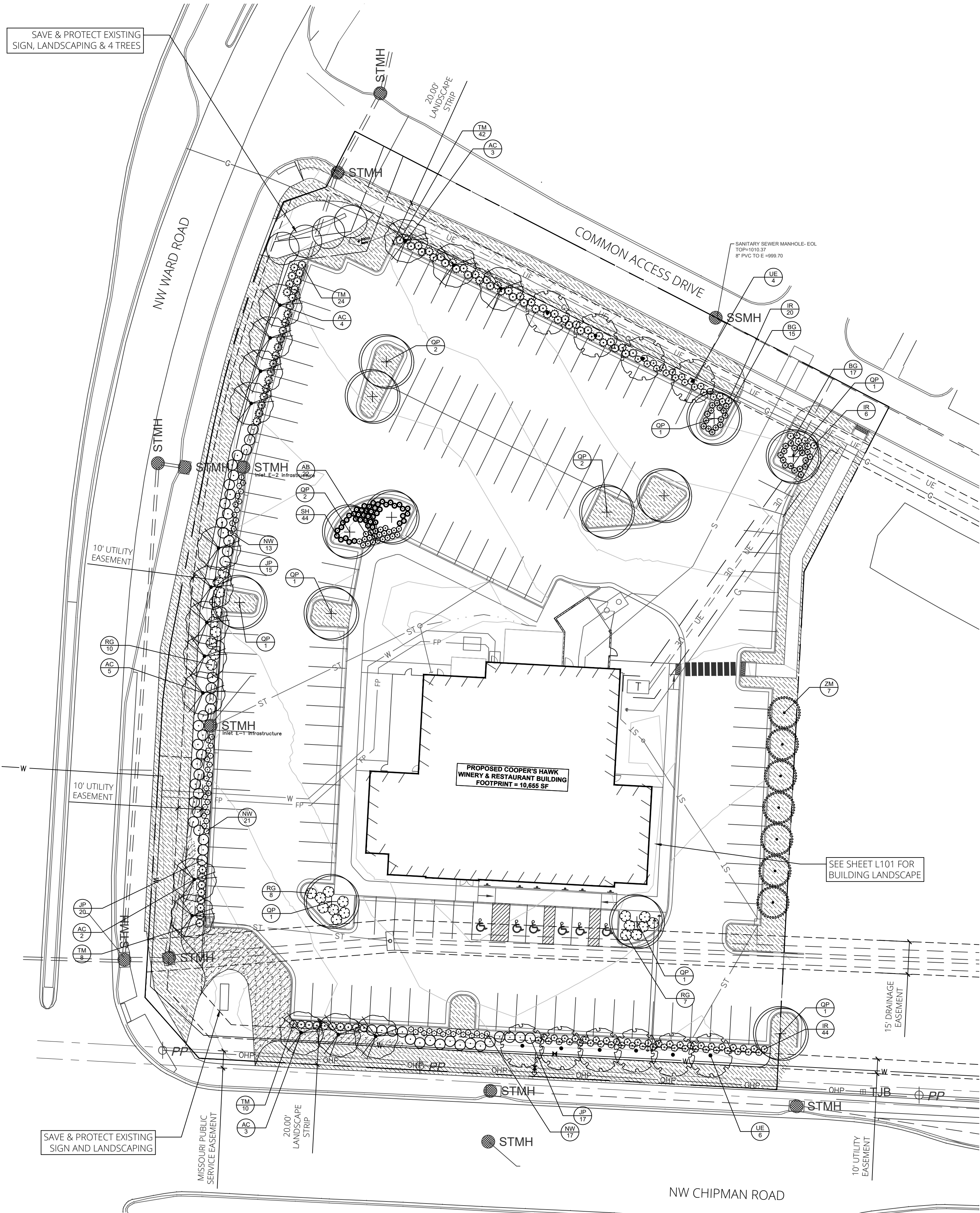
LEE'S SUMMIT, JACKSON COUNTY, MO

SHEET NUMBER

C507

16 OF 16

Aug 27, 2021 - 3:50pm Plotted By: Tom W:\21co10010 - Townsend - Coopers Hawk\21CO10010 - Coopers Hawk - Truck Plan.dwg Layout: C507



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

REQUIRED:
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

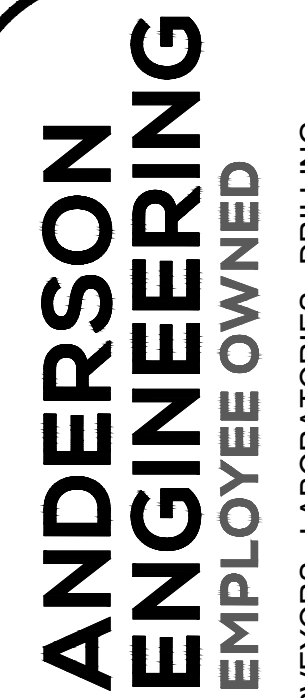
REQUIRED:
PARKING LOTS AND LOADING AREAS VISIBLE FROM ROW SHALL BE SCREENED TO A HEIGHT OF 2 1/2' WITH A HEDGE CONSISTING OF AT LEAST 12 SHRUBS PER 40 LF:
NW WARD ROAD = (300 LF / 40) X 12 = 90 SHRUBS
NW CHIPMAN ROAD = (211 LF / 40) X 12 = 63 SHRUBS
COMMON ACCESS DRIVE = (180' LF / 40) X 12 = 54 SHRUBS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

PLANT SCHEDULE

DECIDUOUS TREES					
DECIDUOUS TREES	CODE	QTY	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
	UE	10	ALLEE LACEBARK ELM / ULMUS PARVIFOLIA 'EMER II' TM	B & B	3" CAL
	ZM	7	MUSASHINO SAWLEAF ZELKOVA / ZELKOVA SERRATA 'MUSASHINO'	B & B	3" CAL
DECIDUOUS SHRUBS					
DECIDUOUS SHRUBS	CODE	QTY	COMMON / BOTANICAL NAME	CONT	
	AB	22	LOW SCAPE HEDGER BLACK CHOKEBERRY / ARONIA MELANOCARPA 'UCONNAM166' TM	2 GAL	
	IR	70	RED SPRITE WINTERBERRY / ILEX VERTICILLATA 'RED SPRITE'	5 GAL	
	JP	52	SEA GREEN JUNIPER / JUNIPERUS X PFITZERIANA 'SEA GREEN'	5 GAL	
	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					
GRASSES & PERENNIALS	CODE	QTY	COMMON / BOTANICAL NAME	CONT	
	BG	32	BLONDE AMBITION BLUE GRAMA / BOUTELOUA GRACILIS 'BLONDE AMBITION'	2 GAL	
	NW	51	WALKER'S LOW CATMINT / NEPETA X 'WALKER'S LOW'	2 GAL	
	SH	44	PRAIRIE DROPSEED / SPOROBOLUS HETEROLEPIS	2 GAL	
GROUND COVERS					
GROUND COVERS	CODE	QTY	COMMON / BOTANICAL NAME	CONT	
	TF	12,920 SF	TURF TYPE TALL FESCUE / DROUGHT TOLERANT FESCUE BLEND	SOD	
	EC	1,930	COLORATUS PURPLE WINTERCREEPER / EUONYMUS FORTUNEI 'COLORATUS'	2 1/2" PEAT POT	

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/08/2021

DRAWING INFO.		REVISIONS	
EMF	LA-2010000196	DESCRIPTION	DATE
LICENSE NO.		CHECKED BY:	
LICENSE NO.		LICENSE NO.	
DATE:	06-30-2021	JOB NUMBER:	21CO10010
© COPYRIGHT ANDERSON ENGINEERING, INC. 2021			



ENGINEERS • SURVEYORS • LABORATORIES • DRILLING
4240 PHILLIPS FARM RD. STE. 101 • COLUMBIA, MO 65201 • PHONE (573) 397-5476
A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION
MISSOURI CERTIFICATE OF AUTHORITY #000062 EXPIRES 12/31/2021

REVISIONS			DRAWING INFO.		
NO.	DESCRIPTION	BY	DATE	DRAWN BY:	EMF
				LICENSE NO.	LA-20100000196
				CHECKED BY:	
				LICENSE NO.	
				DATE:	06-30-2021
				JOB NUMBER:	21CO10010
© COPYRIGHT ANDERSON ENGINEERING, INC. 2021					

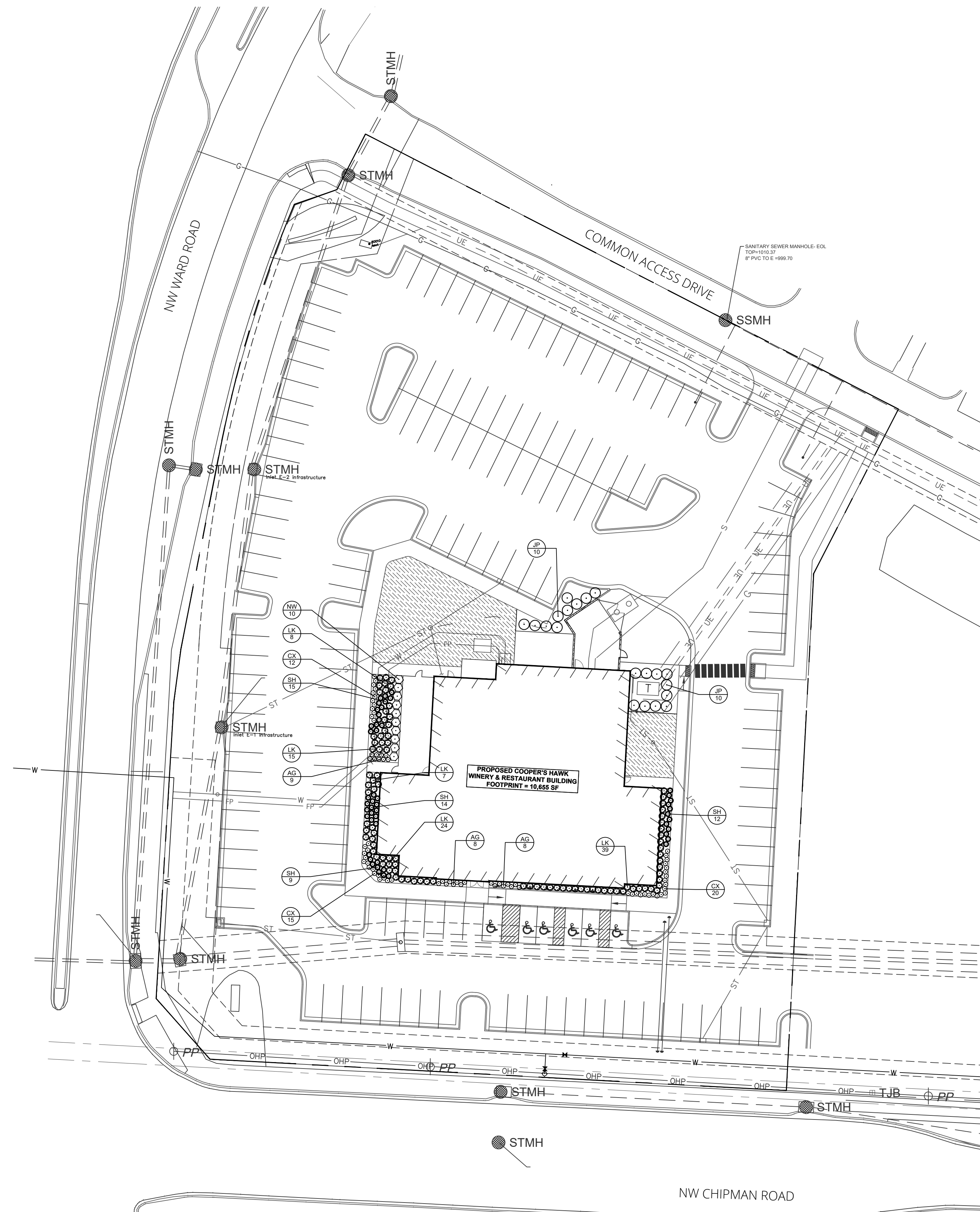
COOPER'S HAWK
FINAL DEVELOPMENT PLAN

BUILDING LANDSCAPE PLAN

LEE'S SUMMIT, JACKSON COUNTY, MO



SHEET NUMBER
L101
1 OF 1



PLANT SCHEDULE

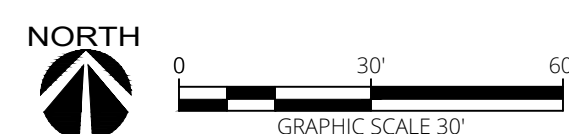
DECIDUOUS SHRUBS	CODE	QTY	COMMON / BOTANICAL NAME	CONT
	JP	20	SEA GREEN JUNIPER / JUNIPERUS X PFITZERIANA 'SEA GREEN'	5 GAL
GRASSES & PERENNIALS	CODE	QTY	COMMON / BOTANICAL NAME	CONT
	AG	25	GAY BUTTERFLIES BUTTERFLY MILKWEED / ASCLEPIAS TUBEROSA 'GAY BUTTERFLIES'	1 GAL
	CX	47	UPTICK GOLD AND BRONZE TICKSEED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

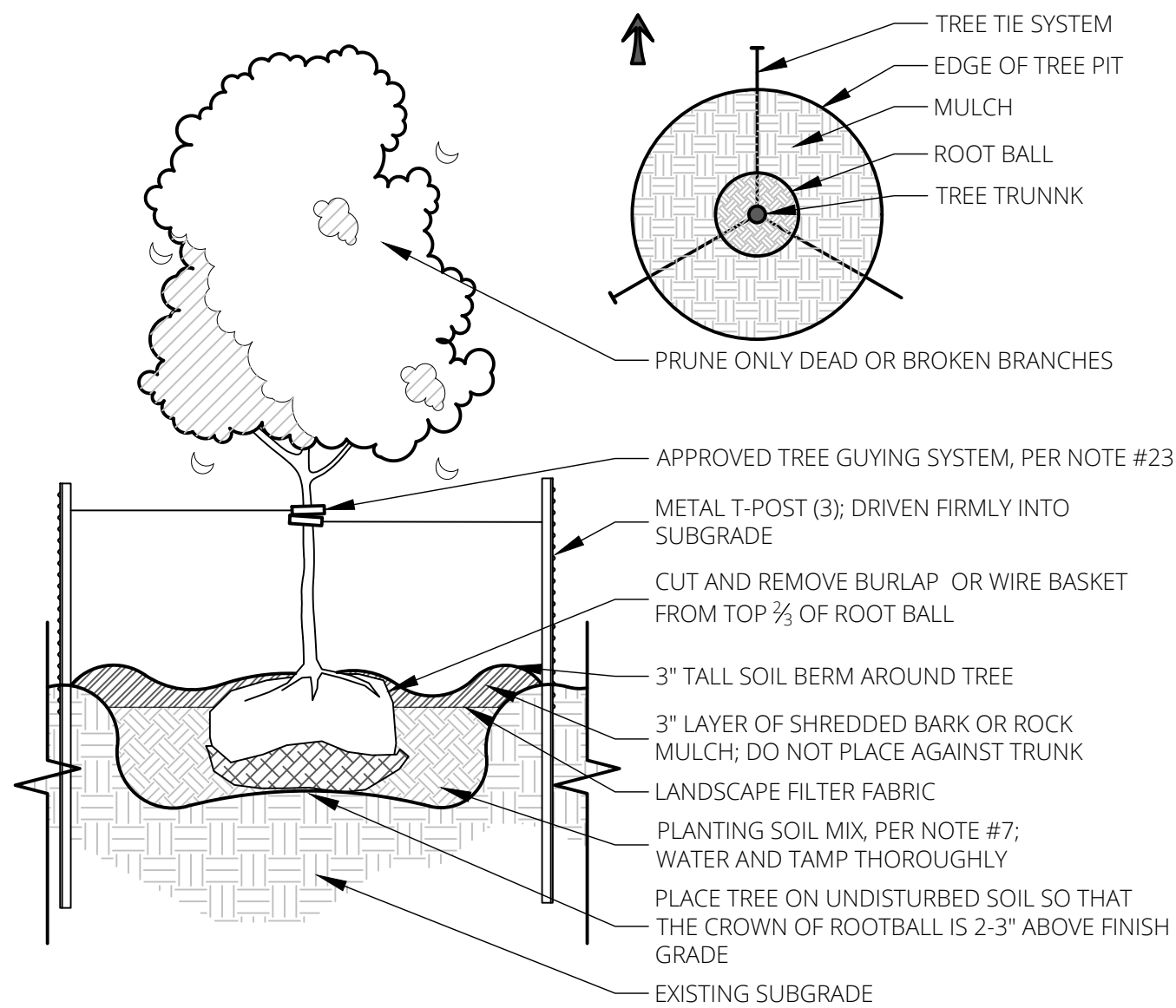
**RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI**

09/08/2021

1 | BUILDING LANDSCAPE PLAN

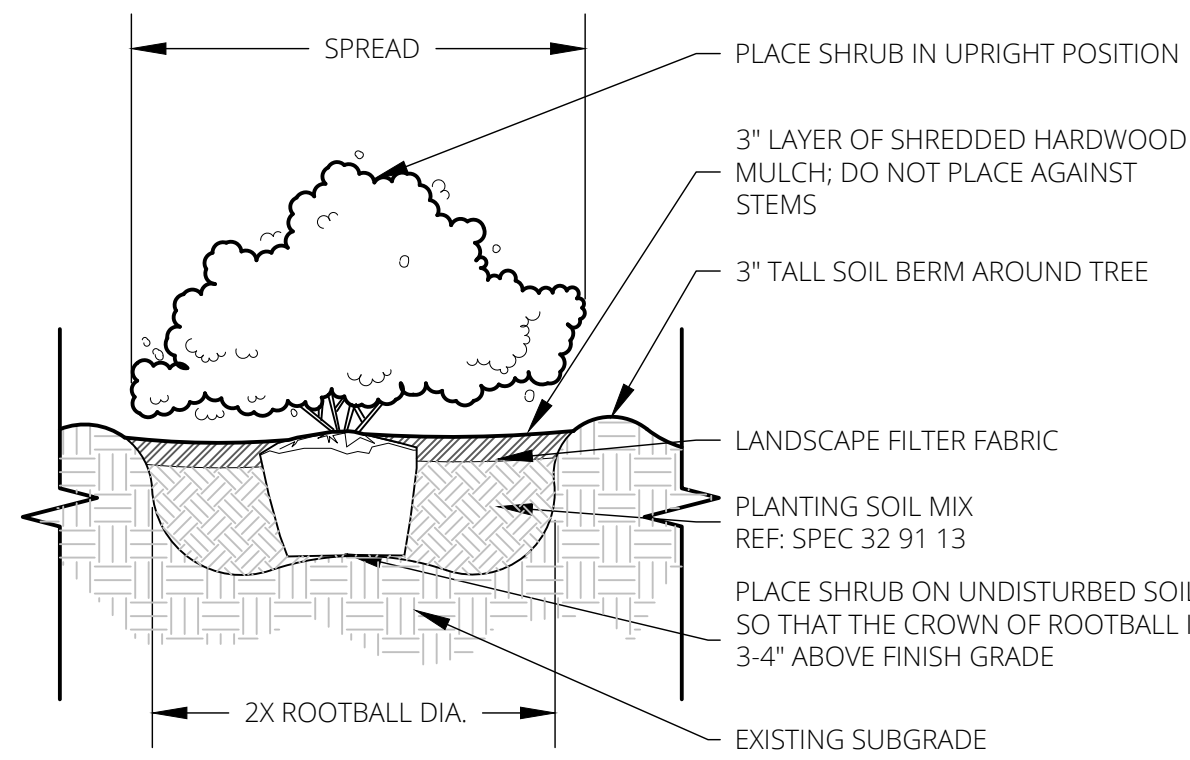
SCALE = 1" = 30'





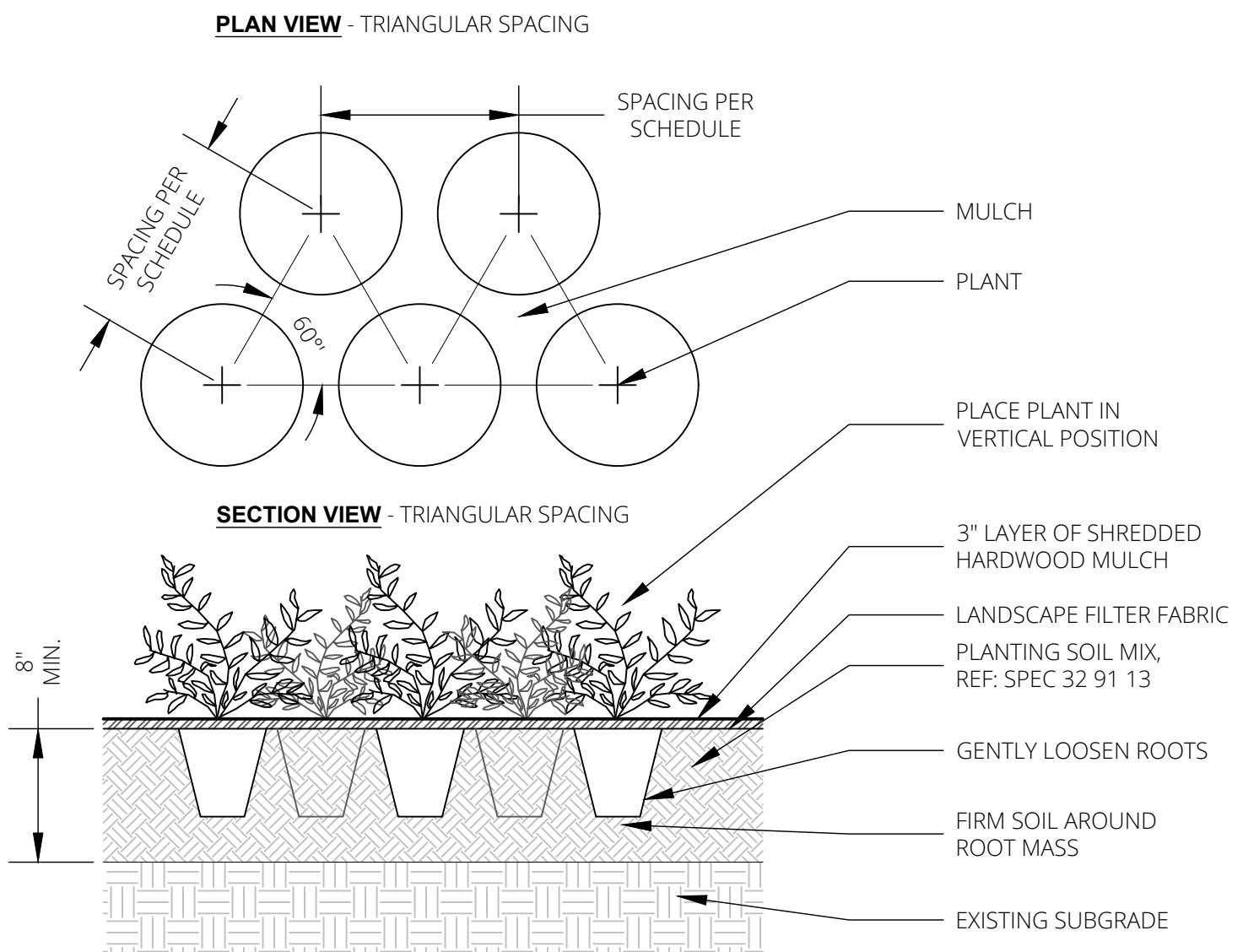
1 DECIDUOUS TREE PLANTING

SCALE = NTS



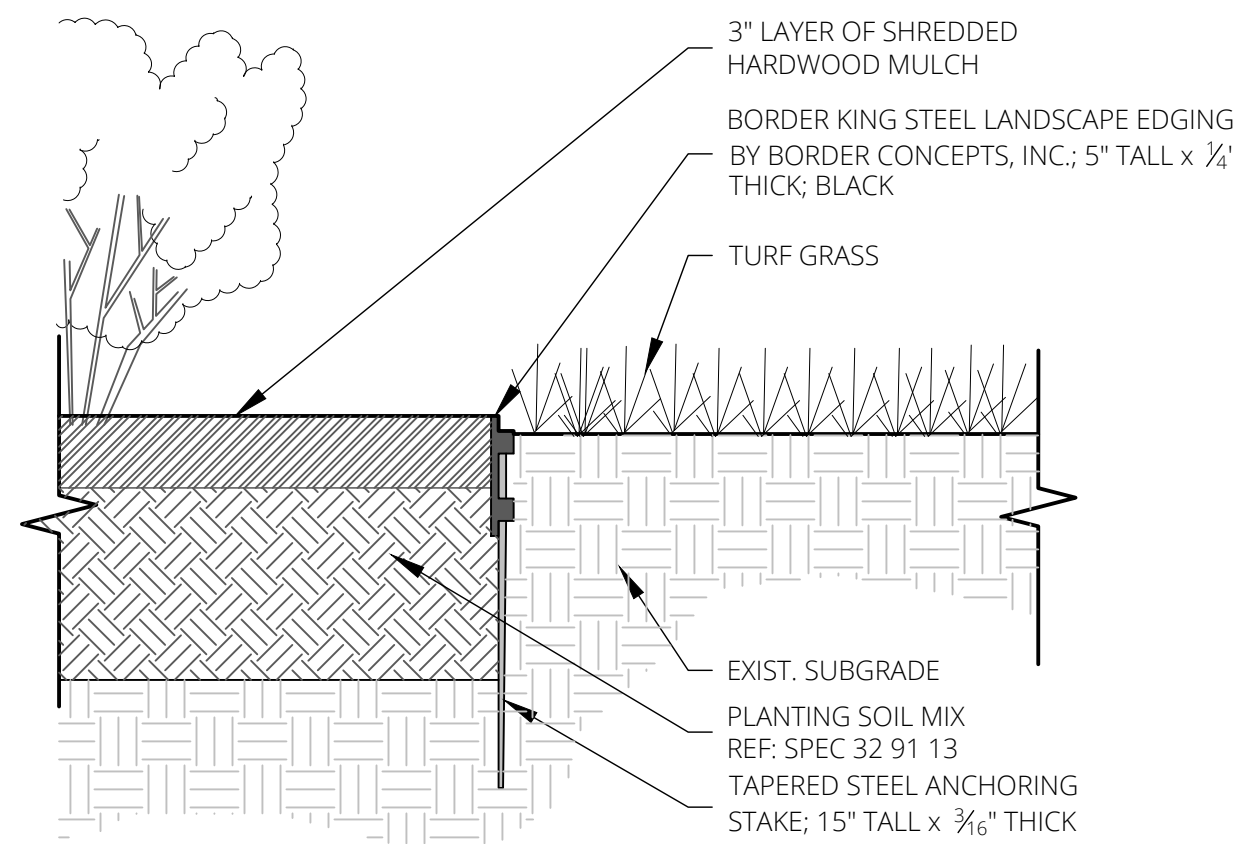
2 SHRUB PLANTING

SCALE = NTS



3 PERENNIAL PLANTING

SCALE = NTS



4 STEEL LANDSCAPE EDGING

SCALE = NTS

PLANTING NOTES

GENERAL

- 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.
- 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.
- 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.
- REPORT ANY DISCREPANCIES IN THE PLANTING PLAN TO THE LANDSCAPE ARCHITECT, PRIOR TO PURCHASING MATERIALS OR STARTING CONSTRUCTION.
- 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

- 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).
- 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.
- PLANT PIT BACKFILL FOR TREES AND SHRUBS SHALL BE PLANTING SOIL MIX, AS DESCRIBED IN ABOVE NOTE.
- MOUND ALL PLANTING BEDS NOT ADJACENT TO BUILDINGS. PROVIDE POSITIVE DRAINAGE AROUND ALL PLANTING BEDS.

PLANTING MATERIALS

- 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."
- 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.
- 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.
- ALL PLANT LOCATIONS ARE APPROXIMATE, ADJUST AS NECESSARY TO AVOID CONFLICTS. THE FOLLOWING APPLIES FOR GENERAL PLANT LOCATIONS:
 - CREeping GROUNDcover SHALL BE LOCATED A MINIMUM OF 6 INCHES FROM EDGE OF PAVEMENT.
 - ALL SHRUBS SHALL BE LOCATED A MINIMUM OF 2 FEET FROM EDGE OF PAVEMENT AND 4 FEET FROM BUILDINGS.
 - ALL TREES SHALL BE LOCATED A MINIMUM OF 2.5 FEET FROM EDGE OF PAVEMENT.
 - EQUALLY SPACE ALL PLANTS OF THE SAME SPECIES FOR BEST VIEWING.

RELATED ITEMS

- 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.
- EDGING:** ALL PLANT BEDS AND TURF AREAS MUST BE SEPARATED WITH A STEEL EDGE, AS SHOWN IN THE DETAIL ON THIS SHEET.
- 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

- THE CONTRACTOR SHALL PROVIDE ALL WATER, WATERING DEVICES AND LABOR NEEDED TO IRRIGATE PLANT MATERIALS UNTIL PROVISIONAL ACCEPTANCE OF THE PROJECT. THE CONTRACTOR SHALL SUPPLY ENOUGH WATER TO MAINTAIN THE PLANT'S HEALTHY CONDITION.
- 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.
- 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

- 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.
- 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.
- 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

- ALL LANDSCAPING SHALL BE IRRIGATED.

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/08/2021

ANDERSON
ENGINEERING
EMPLOYEE OWNED



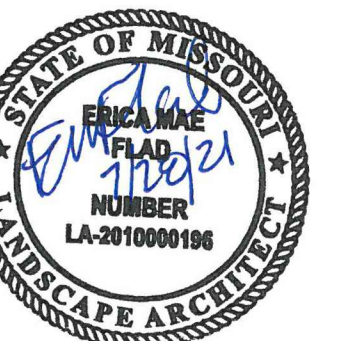
ENGINEERS • SURVEYORS • LABORATORIES • DRILLING
4240 PHILLIPS AVE. SUITE 100
JACKSON COUNTY, MISSOURI 64501
MISSOURI CERTIFICATE OF AUTHORITY #000062 EXPIRES 12/31/2021

DRAWING INFO.		REVISIONS	
DRAWN BY:	EMF	DATE	DESCRIPTION
LICENSE NO.	LA-2010000196		
CHECKED BY:			
LICENSE NO.			
DATE:	06-30-2021		
JOB NUMBER:	21CO10010		
© COPYRIGHT ANDERSON ENGINEERING, INC. 2021			

COOPER'S HAWK
FINAL DEVELOPMENT PLAN

LANDSCAPE DETAILS & NOTES

LEE'S SUMMIT, JACKSON COUNTY, MO

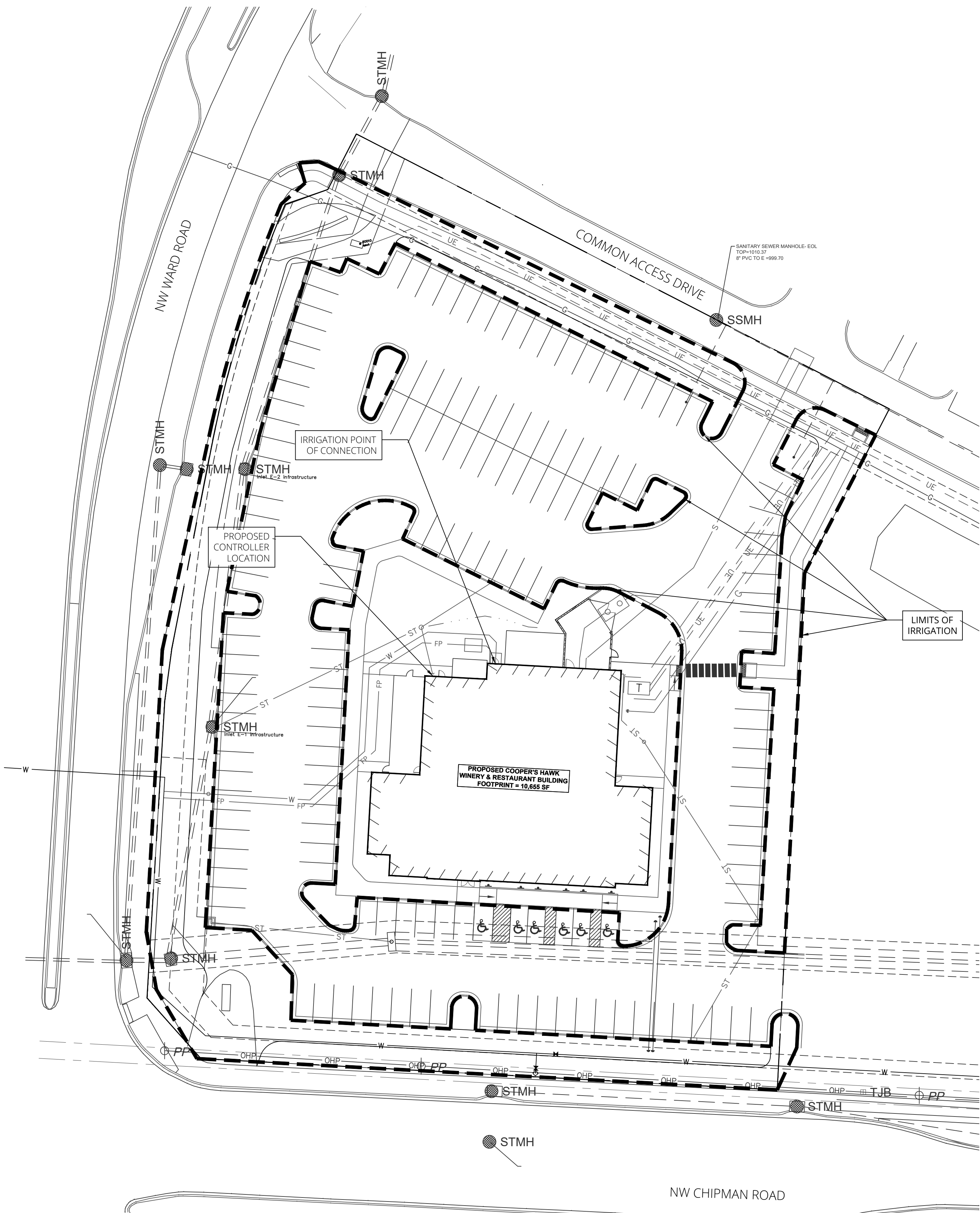


SHEET NUMBER
L102
1 OF 1

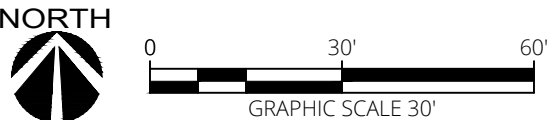
IRRIGATION NOTES

GENERAL

1. CONTRACTOR SHALL LOCATE ALL UTILITIES BEFORE COMMENCING WORK. NOTIFY MO ONE CALL SYSTEM AT 1-800-DIG-RITE, 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 SYSTEM.
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.

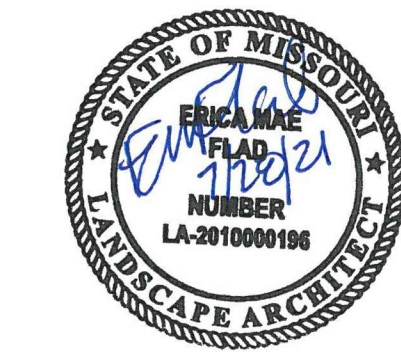


1 IRRIGATION LIMITS PLAN
SCALE = 1" = 30'



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/08/2021

COOPER'S HAWK
FINAL DEVELOPMENT PLAN
IRRIGATION LIMITS PLAN
LEE'S SUMMIT, JACKSON COUNTY, MO



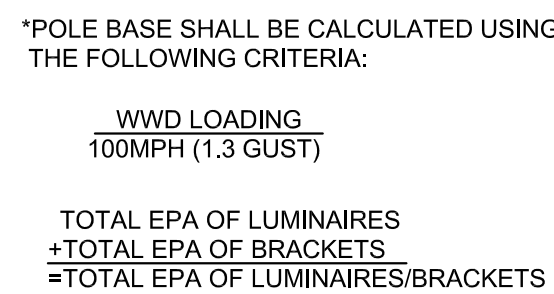
SHEET NUMBER
L200
1 OF 1

**ANDERSON
ENGINEERING**
EMPLOYEE OWNED

AE

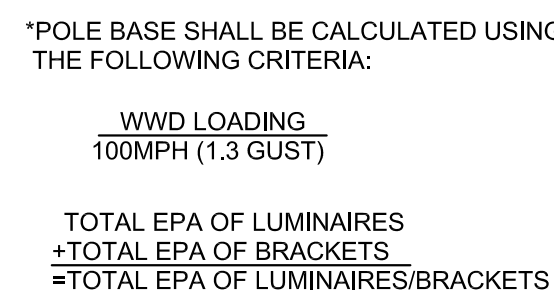
ENGINEERS • SURVEYORS • LABORATORIES • DRILLING
4240 PHILLIPS AVE. SUITE 100
LEE'S SUMMIT, MO 64063
PHONE: 913-780-6707
FAX: 913-780-6708
MISSOURI CERTIFICATE OF AUTHORITY #000062 EXPIRES 12/31/2021

DRAWING INFO.		REVISIONS	
NO.	DESCRIPTION	BY	DATE
1	EMF	LA-2010000196	
2	CHECKED BY:		
3	LICENSE NO.		
4	DATE:		
5	JOB NUMBER:		
© COPYRIGHT ANDERSON ENGINEERING, INC. 2021			



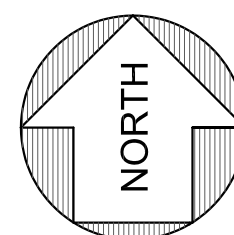
- NOTES:**
1. SELECT POLE BASED ON MAXIMUM EPA LISTED IN MANUFACTURERS CATALOG.
 2. IN ANY CASE MIN. POLE BASE DEPTH SHALL BE 72". FINAL DEPTH OF POLE BASE SHALL BE VERIFIED WITH STRUCTURAL ENGINEER PRIOR TO PLACEMENT.
 3. CONCRETE SHALL BE 3000 PSI CLASS A CONCRETE PLACED NEXT TO UNDISTURBED EARTH.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

2 NO SCALE



1. 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.
3. CONCRETE SHALL BE 3000 PSI CLASS A CONCRETE PLACED NEXT TO UNDISTURBED EARTH.
4. CONTRACTOR TO INCLUDE CONTINGENCY FOR ENCOUNTERING ROCK AS PART OF POLE BASE INSTALLATION.

NO SCALE



1"=30 FT

0 30' 60'

A horizontal scale bar with alternating black and white segments. It is marked with '0' at the left end, '30'' in the middle, and '60'' at the right end. Above the bar, the text '1"=30 FT' indicates the scale.

A.	PROVIDE 1" CONDUIT, MINIMUM, UNLESS NOTED OTHERWISE
B.	PROVIDE #10 AWG CONDUCTORS FROM HANDHOLE TO LIGHT FIXTURE, MINIMUM, UNLESS NOTED OTHERWISE.
C.	PROVIDE #8 AWG CONDUCTORS FOR SITE LIGHTING CIRCUIT, MINIMUM, UNLESS NOTED OTHERWISE. CONDUCTORS TO BE THWN-2 RATED 90 DEG MINIMUM.
D.	LIGHTING SHALL COMPLY WITH CITY OF LEE'S SUMMIT, MISSOURI UNIFIED DEVELOPMENT ORDINANCE, (ARTICLE 8 SITE STANDARDS, DIVISION 1 DESIGN STANDARDS, SUBDIVISION 5 LIGHTING STANDARDS.)

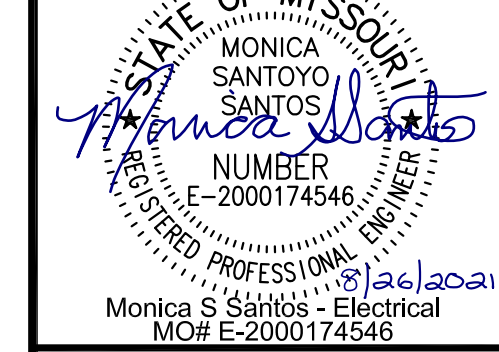
ES01	PROVIDE MINIMUM 12"X12"X12", IN GROUND, OPEN BOTTOM, POLYMER JUNCTION BOX. COVER TO BE BOLTED, GASKETED TYPE WITH "PARKING LIGHTING" LOGO. TYPICAL, UNLESS NOTED OTHERWISE. MOUNT ADJACENT TO EACH POLE BASE. (WHERE SHOWN)
ES02	PROVIDE 2 #6 AWG AND 1 #6 GROUND IN 1" CONDUIT.
ES03	PROVIDE 2 #8 AWG AND 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 BROUGHT 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.

REVIEWS			DRAWING INFO.		
NO.	DESCRIPTION	BY	DATE	DRAWN BY:	MSS
	ISSUE FOR PERMIT	MSS	8/26/21	LICENSE NO.	E-20001
				CHECKED BY:	MSS
				LICENSE NO.	E-20001
				DATE:	07-09-21
				JOB NUMBER:	21CO01

© COPYRIGHT ANDERSON ENGINEERING, INC. 2021

COOPER'S HAWK
SITE LIGHTING PLAN
AND DETAILS

LEE'S SUMMIT, JACKSON COUNTY



E101
2 OF 3

AE

**ANDERSON
ENGINEERING**
EMPLOYEE OWNED

ENGINEERS • SURVEYORS • LABORATORIES • DRILLING
4240 PHILLIPS FARM RD., STE. 101 • COLUMBIA, MO 65201 • PHONE (573) 597-5476
A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION
MISSOURI CERTIFICATE OF AUTHORITY #0000682 EXPIRES 12/31/2021

CONSULTING ENGINEERS INC.

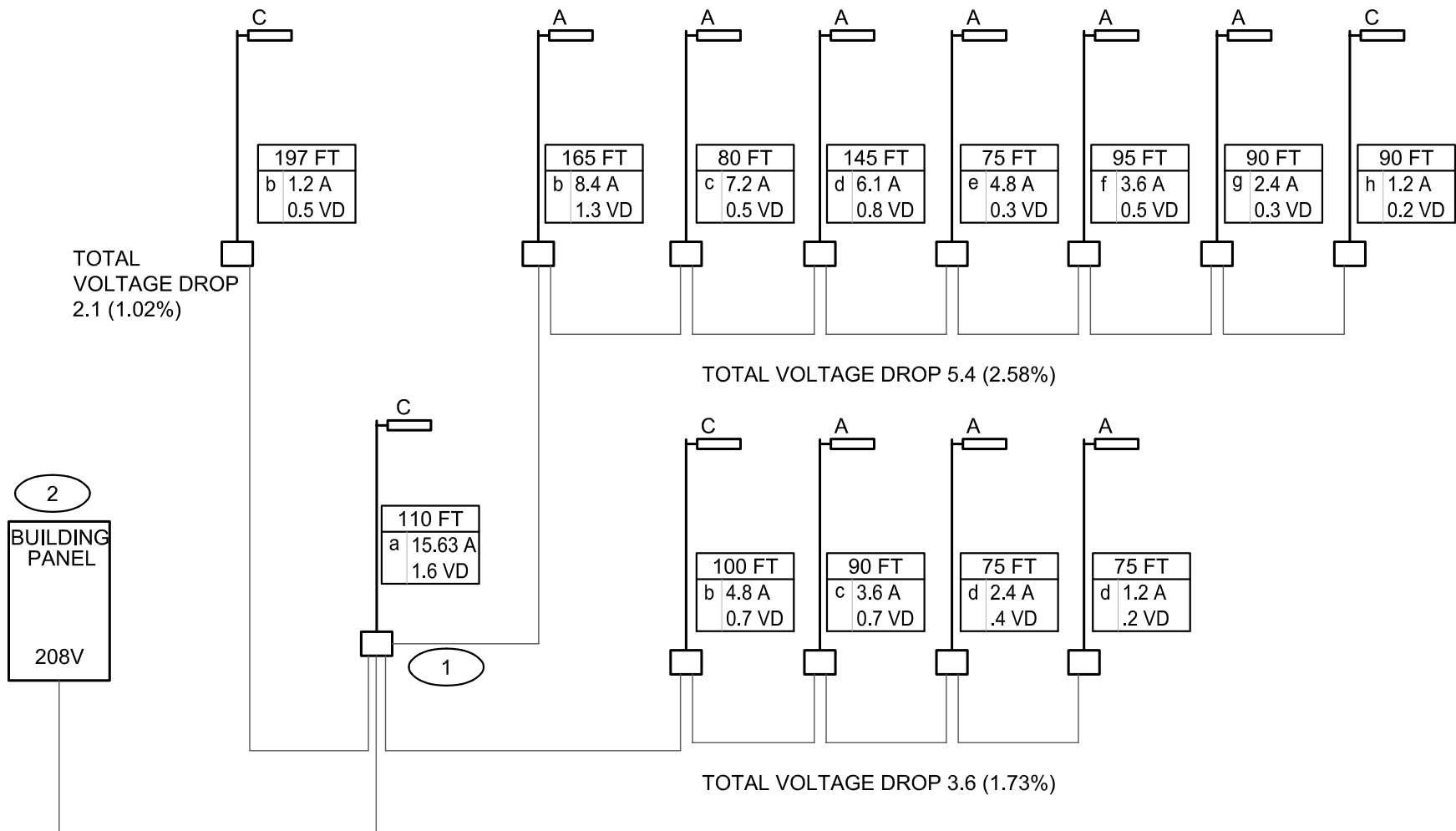
1600 Genessee, Suite 260 Tele 816-421-0950
Kansas City, Missouri 64102 Fax 816-249-2439
email: antella@antella-inc.com
www.antella.co
Missouri Certificate of Authority #2005013590

LUMINAIRE SCHEDULE										
TYPE	MOUNTING	LAMP	LUMENS	COLOR TEMPERATURE	CRI	WATT	VA	VOLTAGE	MANUFACTURER	DESCRIPTION
A	POLE	LED	25000 lm	4000 K	80	200W	250	208V	HUBELL - KIM LIGHTING ALT2-100L-200-4K8-4-UNV -A46-LGT-NXSP30F-BC-DF POLE: SEE POLE SCHEDULE	KIM ALTITUDE 2.0 LED SERIES, GRAY, 3.5" TALL, 23.44" LONG, 16" WIDE, TYPE IV DISTRIBUTION, 208V, ARM MOUNT, LIGHT GRAY, WITH 208V FUSING AND BACKLIGHT CONTROL. (BUG RATING: B1/UO/G3), REFER TO PLANS FOR CONFIGURATION AND POLE REFERENCE FOR POLE TYPE. PROVIDE NUMBER OF LUMINAIRES PER POLE AS SHOWN ON PLANS. PROVIDE WITH WIRED NX, PIR OCCUPANCY SENSOR DIMMING DAYLIGHT HARVESTING UPTO 30FT.
B	POLE	LED	25000 lm	4000 K	80	200W	250	208V	HUBELL - KIM LIGHTING ALT2-100L-200-4K8-2-UNV-A46-LG T-NXSP30F-BC-DF POLE: SEE POLE SCHEDULE	KIM ALTITUDE 2.0 LED SERIES, GRAY, 3.5" TALL, 23.44" LONG, 16" WIDE, TYPE II DISTRIBUTION, 208V, ARM MOUNT, LIGHT GRAY, WITH 208V FUSING AND BACKLIGHT CONTROL. (BUG RATING: B1/UO/G2), REFER TO PLANS FOR CONFIGURATION AND POLE REFERENCE FOR POLE TYPE. PROVIDE NUMBER OF LUMINAIRES PER POLE AS SHOWN ON PLANS. PROVIDE WITH WIRED NX, PIR OCCUPANCY SENSOR DIMMING DAYLIGHT HARVESTING UPTO 30FT.
C	POLE	LED	25000 lm	4000 K	80	200W	250	208V	HUBELL - KIM LIGHTING ALT2-100L-200-4K8-3-UNV -A46-LGT-NXSP30F-DF POLE: SEE POLE SCHEDULE	KIM ALTITUDE 2.0 LED SERIES, GRAY, 3.5" TALL, 23.44" LONG, 16" WIDE, TYPE III DISTRIBUTION, 208V, ARM MOUNT, LIGHT GRAY, WITH 208V FUSING. (BUG RATING: B1/UO/G3), REFER TO PLANS FOR CONFIGURATION AND POLE REFERENCE FOR POLE TYPE. PROVIDE NUMBER OF LUMINAIRES PER POLE AS SHOWN ON PLANS. PROVIDE WITH WIRED NX, PIR OCCUPANCY SENSOR DIMMING DAYLIGHT HARVESTING UPTO 30FT.

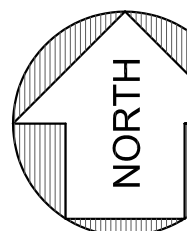
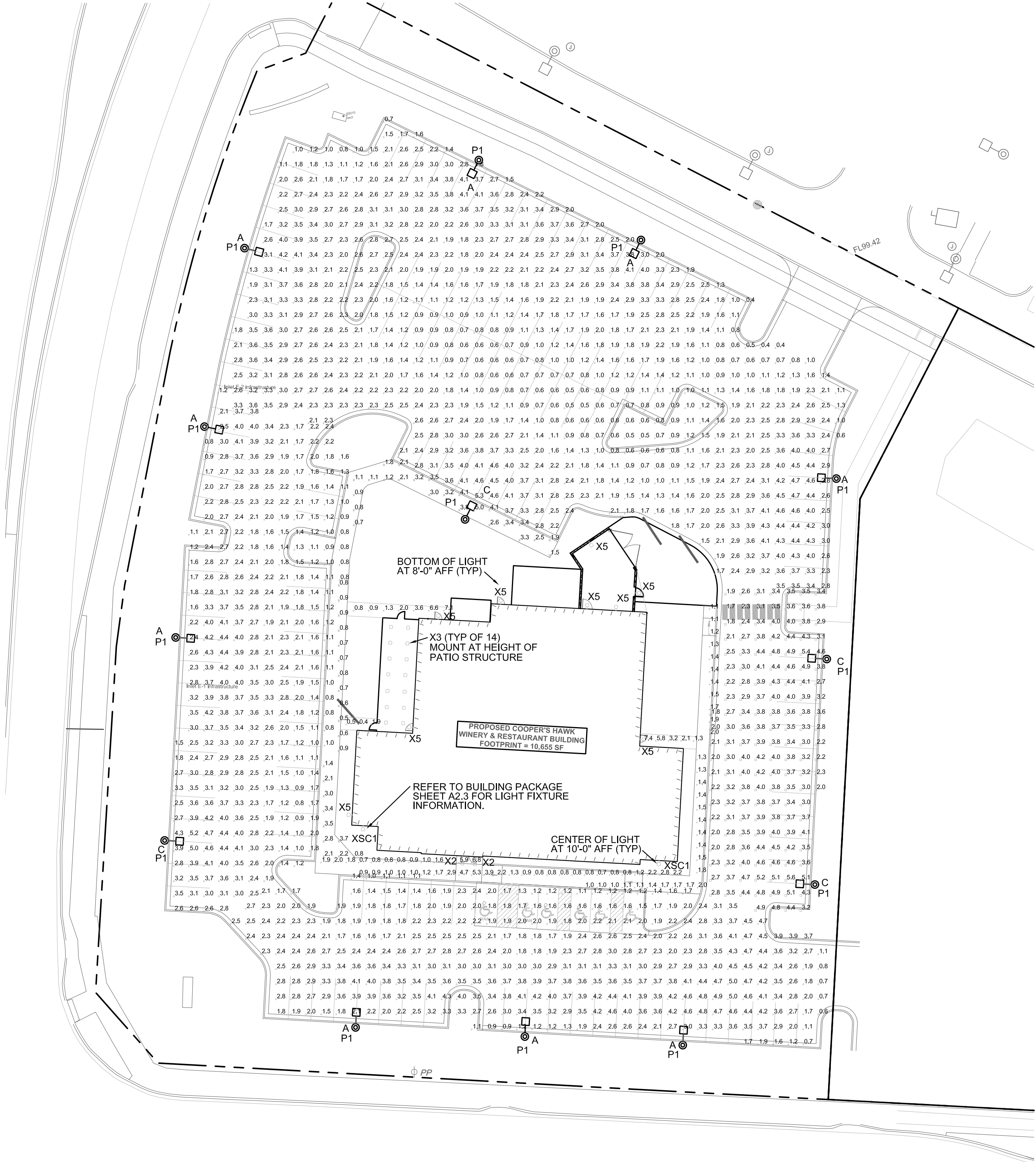
POLE SCHEDULE					
TYPE	POLE HEIGHT	BASE	POLE DIAMETER	MANUFACTURER	DESCRIPTION
P1	23'	1' CONCRETE BASE	6"X.188	HUBELL - KIM LIGHTING PRA25(MOD to 23ft)/A-LG; (SINGLE FIXTURE) PROVIDE WITH VIBRATION DAMPER 1ST MODE.	POLE TO BE 23FT TALL, 6" ROUND ALUMINUM STRAIGHT,.188 THICK. COLOR LIGHT GRAY TO BE CONFIRMED PRIOR TO ORDERING. SINGLE ARM MOUNT

SCHEDULE GENERAL NOTES:

- 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.
- CONTRACTOR SHALL SUBMIT INDIVIDUAL PRICING. LOT PRICING WILL NOT BE ACCEPTED.
- INSTALL FIXTURES PER MANUFACTURER'S RECOMMENDATIONS.



1 RISER DIAGRAM - SITE LIGHTING
NO SCALE



SITE LIGHTING - POINT BY POINT CALCULATIONS

1"=30 FT
0 30' 60'

STATISTICS

DESCRIPTION	SYMBOL	Avg	Max	Min	Max/Min	Avg/Min
EAST SIDE PARKING	■	3.5 fc	5.6 fc	1.7 fc	3.3:1	2.1:1
NORTH SIDE PARKING	+	2.2 fc	5.3 fc	0.4 fc	13.3:1*	5.5:1
SOUTH SIDE PARKING	+	2.7 fc	5.0 fc	0.6 fc	8.3:1	4.5:1
WEST SIDE PARKING	+	2.4 fc	5.2 fc	0.8 fc	6.5:1	3.0:1
WEST SIDEWALK	✕	2.0 fc	5.0 fc	0.5 fc	10.0:1	4.0:1
EAST SIDEWALK	+	1.4 fc	2.0 fc	1.1 fc	1.8:1	1.3:1
BLDG SIDEWALK - WEST	+	0.9 fc	1.9 fc	0.4 fc	4.8:1	2.3:1
BLDG SIDEWALK - EAST	+	4.0 fc	7.4 fc	1.3 fc	5.7:1	3.1:1
BLDG SIDEWALK - NORTH	+	3.2 fc	7.1 fc	0.8 fc	8.9:1	4.0:1
BLDG SIDEWALK - SOUTH	+	1.7 fc	6.8 fc	0.7 fc	9.7:1	2.4:1

*LIGHT CONTRIBUTION FROM NEARBY STREET LIGHTING WILL INCREASE MINIMUM VALUE AND REDUCE UNIFORMITY RATIO TO LESS THAN 10:1 AT ENTRANCE

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/08/2021

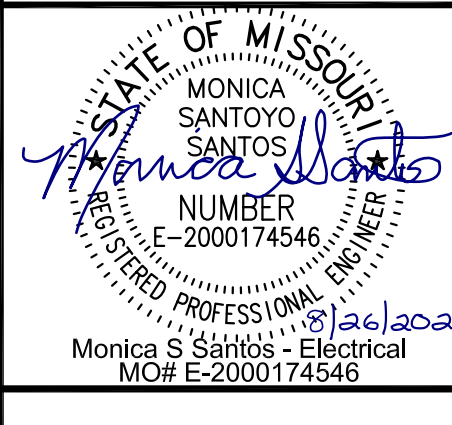
Antella
CONSULTING ENGINEERS INC.

1600 Genessee, Suite 260
Kansas City, Missouri 64102
email: antella@antella-inc.com
www.antella.co
Missouri Certificate of Authority #2005013590

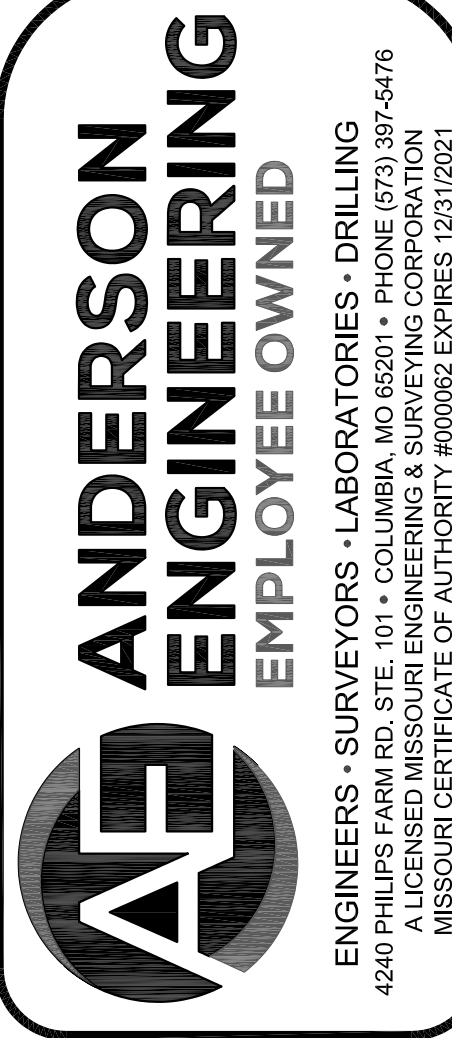
COOPER'S HAWK

SITE LIGHTING POINT BY POINT
AND SCHEDULES

LEE'S SUMMIT, JACKSON COUNTY, MO



SHEET NUMBER
E102
3 OF 3



DRAWING INFO.		REVISIONS	
DRAWN BY:	MSS	BY	DATE
LICENSE NO.	E-2000174546	DESCRIPTION	ISSUE FOR PERMIT
CHECKED BY:	MSS	NO.	
LICENSE NO.	E-2000174546		
DATE:	07-09-2021		
JOB NUMBER:	21CO1010		