SITE DEVELOPMENT PLANS
FOR
ANDY'S FROZEN CUSTARD
ADDRESS: 700 N.W. WARD ROAD
IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

INDEX

FIRE ACCESS ROAD NOTE:
ALL FIRE ACCESS LANES SHALL BE HEAVY DUTY ASPHALT CAPABLE OF SUPPORTING 75,000–POUNDS.

OIL–GAS WELLS:
ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES STATE OIL & GAS COUNCIL WELLS, LOCATED AT www.dnr.mo.gov/geology/geosrv/oilandgas.htm, THERE ARE NO OIL OR GAS WELLS ON THE PROPERTY SHOWN HEREON.

PRE–CONSTRUCTION MEETING NOTE:
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.

UTILITY COMPANIES:

MISSOURI GAS ENERGY — (816) 969–2218
LUCAS WALLS (LUCAS.WALLS@SUG.COM)
3025 SOUTHEAST CLOVER DRIVE
LEE'S SUMMIT, MO 64082

EVERGY — (816) 347–4339
PHILLIP INGRAM (PHILLIP.INGRAM@KCPL.COM)
RON DEJARNETTE (RON.DEJARNETTE@KCPL.COM) — (816) 347–4316
1300 HAMBLEN ROAD
LEE'S SUMMIT, MO 64081

STORM SEWER (PUBLIC WORKS DEPARTMENT) — (816) 969–1800
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063

SANITARY SEWER & WATER (WATER UTILITIES DEPT.) — (816)–969–1900
1200 SE HAMBLEM ROAD,
LEE'S SUMMIT, MO 64081

AT&T (913) 383–4929
MR. CLAYTON ANSPAUGH (CA4089@ATT.COM) — (913) 383–4849–FAX
9444 NALL AVENUE
OVERLAND PARK, KANSAS 66207

LEGAL DESCRIPTION:
LOT 10E, SUMMIT FAIR, LOTS 10D – 10F, A SUBDIVISION IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF.

AREA = ±0.7686 ACRES / ±33,476 SQ.FT.

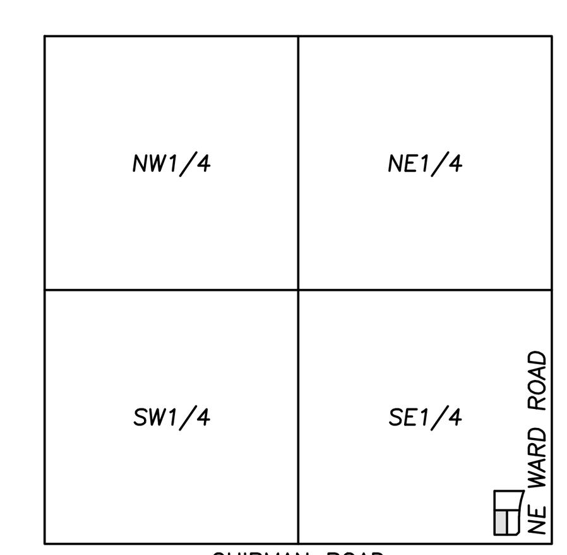
PREPARED & SUBMITTED BY:

PHELPS ENGINEERING, INC.
1270 N. WINCHESTER
OLATHE, KS 66061
913–393–1155 OFFICE
913–393–1166 FAX
CONTACT: JUDD CLAUSSEN, P.E.

DEVELOPER:
ANDY'S FROZEN CUSTARD
211 E. WATER ST.
SPRINGFIELD, MO 65806
417–986–3585
CONTACT: LIANA MOORE

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

UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN. UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.



VICINITY MAP
SEC. 36–48–32

N SCALE: 1"=2000'

SCALE: 1"=100'
0' 100' 200'

STATE OF MISSOURI — JUDD DAVID CLAUSSEN — NUMBER PE-29850 — PROFESSIONAL ENGINEER — 04/12/2024

PHELPS ENGINEERING, INC.
1270 N. Winchester
Olathe, Kansas 66061
(913) 393-1155
Fax (913) 393-1166
www.phelpsengineering.com

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COVER SHEET
ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

No.	Date	Revisions:	By	App.

PROJECT NO. 240159
DATE: 04–12–2024 | DRAWN: AEB
CHECKED: DAF | APPROVED: JDC
CERTIFICATE OF AUTHORIZATION KANSAS LAND SURVEYING – LS–82 ENGINEERING – E–391
CERTIFICATE OF AUTHORIZATION MISSOURI LAND SURVEYING–2007001128 ENGINEERING–2007005058

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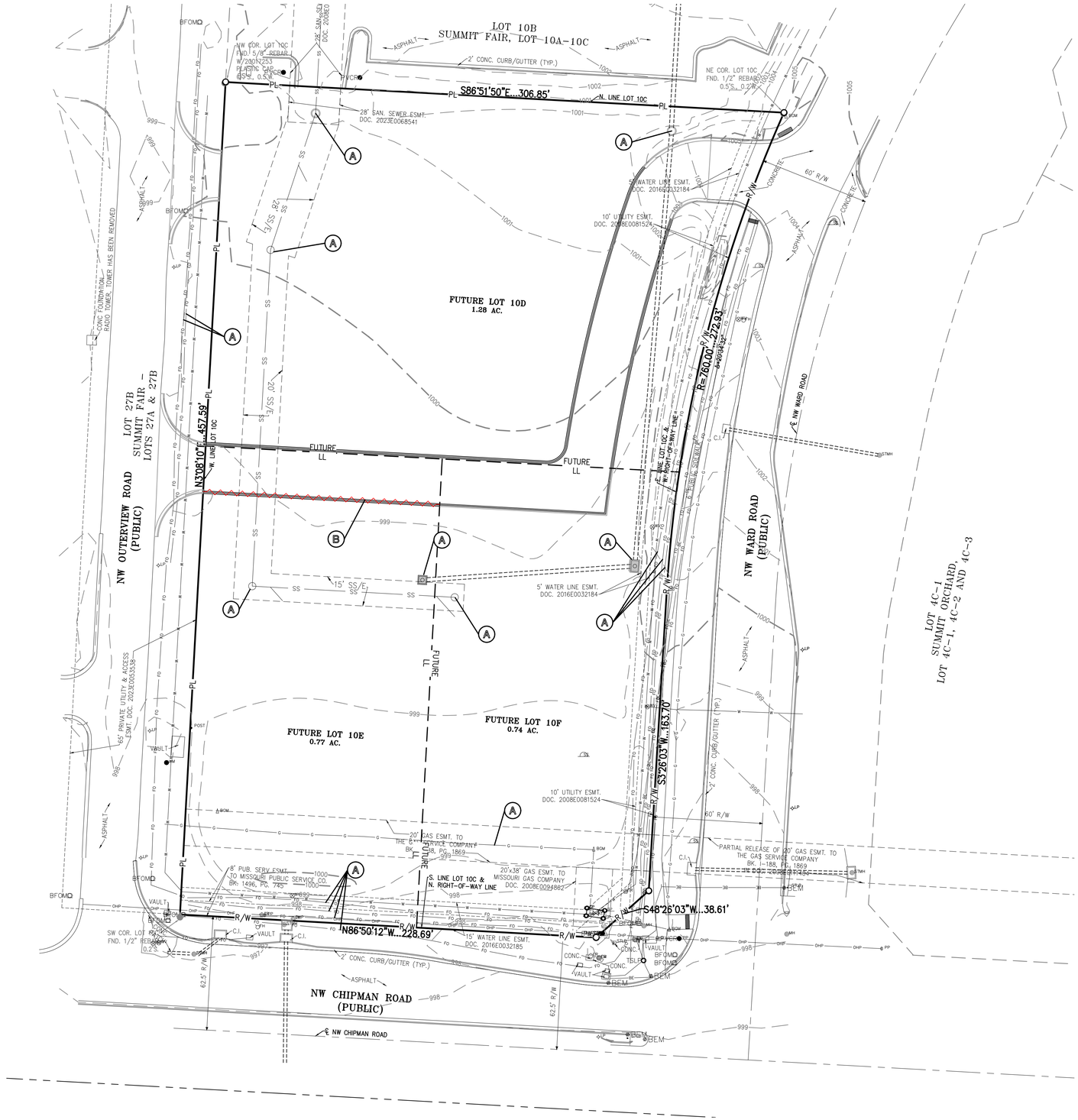


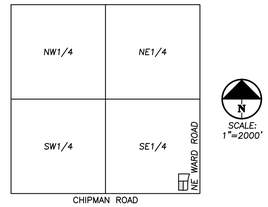
DEMOLITION KEY NOTES:

(A) ALL UTILITIES SERVING STRUCTURES IMMEDIATELY SURROUNDING THE DEMOLITION BOUNDARY SHALL REMAIN IN SERVICE THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ANY DAMAGE TO SUCH UTILITIES. TYPICAL LOCATION.

(B) CONTRACTOR TO PERFORM CLEAN SAW CUT ADJACENT TO INSIDE EDGE OF EXISTING TEMPORARY ASPHALT CURB. REMOVE EXISTING TEMPORARY ASPHALT CURB AND ASPHALT PAVEMENT FROM SAWCUT LINE TO EXISTING EDGE OF PAVEMENT TO PROVIDE CLEAN JOINT LINE WITH NEW PAVEMENT.

LEGEND

- PL — PROPERTY LINE
- LL — LOT LINE
- R/W — RIGHT-OF-WAY
- REMOVE EXISTING TEMPORARY ASPHALT CURB
- BT — EXISTING BURIED TELEPHONE
- CATV — EXISTING CABLE TELEVISION LINE
- FO — EXISTING FIBER OPTIC LINE
- W — EXISTING WATER LINE
- G — EXISTING GAS LINE
- BE — EXISTING BURIED ELECTRIC
- OHP — EXISTING OVERHEAD POWER LINE
- SS — EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING FIRE HYDRANT
- LP — EXISTING LIGHT POLE
- EXISTING CHAIN LINK FENCE



VICINITY MAP
SEC. 36-48-32

N
SCALE: 1"=2000'

DEMOLITION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) ALL CURBS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL.

2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.

3. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.

4. CONTRACTOR MUST COORDINATE WITH OWNER PRIOR TO ANY CONSTRUCTION TO ESTABLISH CUSTOMER ACCESS AND TRAFFIC FLOW DURING ALL PHASES.

Know what's **below.**
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DEMOLITION PLAN
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LAND SURVEYING-2007001128
ENGINEERING-2007005938

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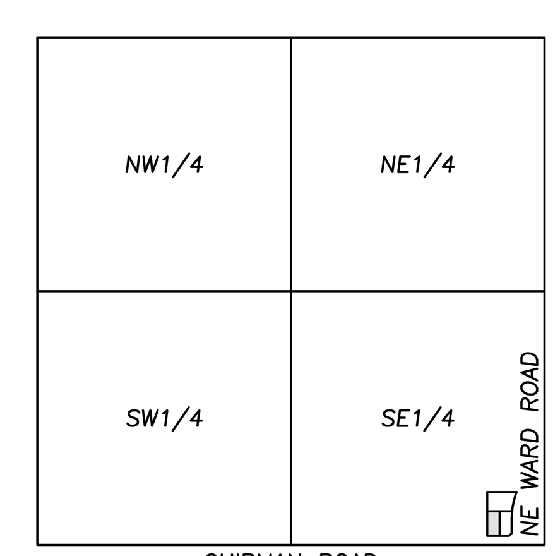

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LEGAL DESCRIPTION:

LOT 10E, SUMMIT FAIR, LOTS 10D – 10F, A SUBDIVISION IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF.

AREA = ±0.7686 ACRES / ±33,476 SQ.FT.

SITE PLAN NOTES:

1. All construction materials and procedures on this project shall conform to the latest revision of the following governing requirements, incorporated herein by reference:
A) City ordinances & O.S.H.A. Regulations.
B) The City of Lee's Summit Technical Specifications and Municipal Code.

2. The contractor shall have one (1) signed copy of the plans (approved by the City) and one (1) copy of the appropriate Design and Construction Standards and Specifications at the job site at all times.

3. The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City of Lee's Summit, Missouri, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits, bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.

4. The contractor is responsible for coordination of his and his sub–contractor's work. The contractor shall assume all responsibility for protecting and maintaining his work during the construction period and between the various trades/sub–contractors constructing the work.

5. The demolition and removal(or relocation) of existing pavement, curbs, structures, utilities, and all other features necessary to construct the proposed improvements, shall be performed by the contractor. All waste material removed during construction shall be disposed off the project site. The contractor shall be responsible for all permits for hauling and disposing of waste material. The disposal of waste material shall be in accordance with all local, state and federal regulations.

6. Contractor shall be responsible for all relocations, including but not limited to, all utilities, storm drainage, sanitary sewer services, signs, traffic signals & poles, etc. as required. All work shall be in accordance with governing authorities specifications and shall be approved by such. All cost shall be included in base bid.

7. All existing utilities indicated on the drawings are according to the best information available to the Engineer; however, all utilities actually existing may not be shown. The contractor shall be responsible for contacting all utility companies for an exact field location of each utility prior to any construction. All underground utilities shall be protected at the contractor's expense. All utilities, shown and unshown, damaged through the negligence of the contractor shall be repaired or replaced by the contractor at his expense.

8. The contractor will be responsible for all damage to existing utilities, pavement, fences, structures and other features not designated for removal. The contractor shall repair all damages at his expense.

9. The contractor shall verify the flow lines of all existing storm or sanitary sewer connections and utility crossings prior to the start of construction. Notify the engineer of any discrepancies.

10. SAFETY NOTICE TO CONTRACTOR: In accordance with generally accepted construction practices, the contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. Any construction observation by the engineer of the contractor's performance is not intended to include review of the adequacy of the contractor's safety measures, in, on or near the construction site.

11. Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

SITE DIMENSION NOTES:

1. BUILDING TIES SHOWN ARE TO THE OUTSIDE FACE OF PROPOSED WALLS. THE SUBCONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR SPECIFIC DIMENSIONS AND LAYOUT INFORMATION FOR THE BUILDINGS.

2. ALL DIMENSIONS SHOWN FOR THE PARKING LOT AND CURBS ARE MEASURED FORM BACK OF CURB TO BACK OF CURB.

PAVEMENT MARKING AND SIGNAGE NOTES:

1. PARKING STALL MARKING STRIPES SHALL BE FOUR INCH (4") WIDE WHITE STRIPES. DIRECTIONAL ARROW AND HANDICAP STALL MARKINGS SHALL BE FURNISHED AT LOCATIONS SHOWN ON PLANS.

2. HANDICAP PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO ALL FEDERAL (AMERICANS WITH DISABILITIES ACT) AND STATE LAWS AND REGULATIONS.

3. TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".

4. STOP SIGNS SHALL BE PROVIDED AT ALL LOCATIONS AS SHOWN ON PLANS AND SHALL CONFORM TO THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". SIGNS SHALL BE 18" X 12", 18 GAUGE STEEL AND SHALL BE ENGINEER GRADE REFLECTIVE.

5. TRAFFIC CONTROL AND PAVEMENT MARKINGS SHALL BE PAINTED WITH A WHITE SHERWIN WILLIAMS S–W TRAFFIC MARKING SERIES B–29Y2 OR APPROVED EQUAL. THE PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. APPLY ON A CLEAN, DRY SURFACE AND AT A SURFACE TEMPERATURE OF NOT LESS THAN 70°F AND THE AMBIENT AIR TEMPERATURE SHALL NOT BE LESS THAN 60°F AND RISING. TWO COATS SHALL BE APPLIED.

ZONING:

THIS PROPERTY IS ZONED PMIX, DEFINED AS PLANNED MIXED USE.

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PRE–CONSTRUCTION MEETING NOTE:

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FIRE ACCESS ROAD NOTE:

ALL FIRE ACCESS LANES SHALL BE HEAVY DUTY ASPHALT CAPABLE OF SUPPORTING 75,000–POUNDS.

BUILDING & LOT DATA

Lot 10E	
Zoning	PMIX
Site Area	33,476 S.F. (0.77 Ac.)
Building Area	1,980 S.F.
FAR	0.0591 Ac.
Impervious Area	22,228 S.F. (66%)
Open Space	11,248 S.F. (34%)

PARKING SUMMARY

Lot 10E	
Building SF – 1,980 S.F.	
Use – Carry out, drive up, or drive thru only	
# of employees (max shift) – 8	
Required Parking – 2 + 1 per employee (max shift)	10 Spaces
Parking Provided	21 Spaces

LEGEND

PL — PROPERTY LINE
LL — LOT LINE
R/W — RIGHT–OF–WAY
6" CONCRETE CURB
PROPOSED BUILDING
CONCRETE PAVEMENT
CONCRETE SIDEWALK

SCALE: 1"=30'
0' 30' 60'

STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-29850
PROFESSIONAL ENGINEER
04/12/2024

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OVERALL SITE PLAN
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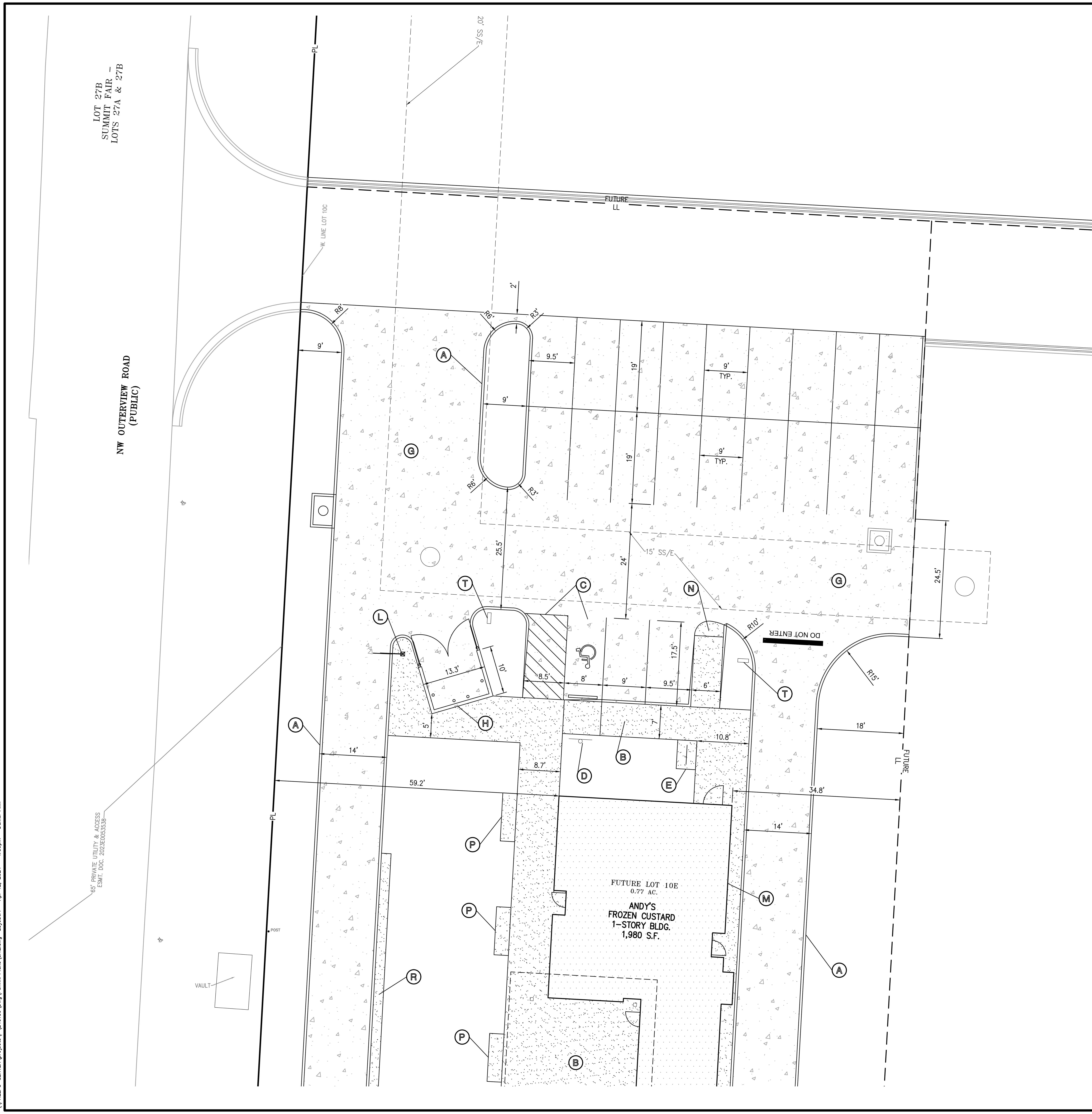
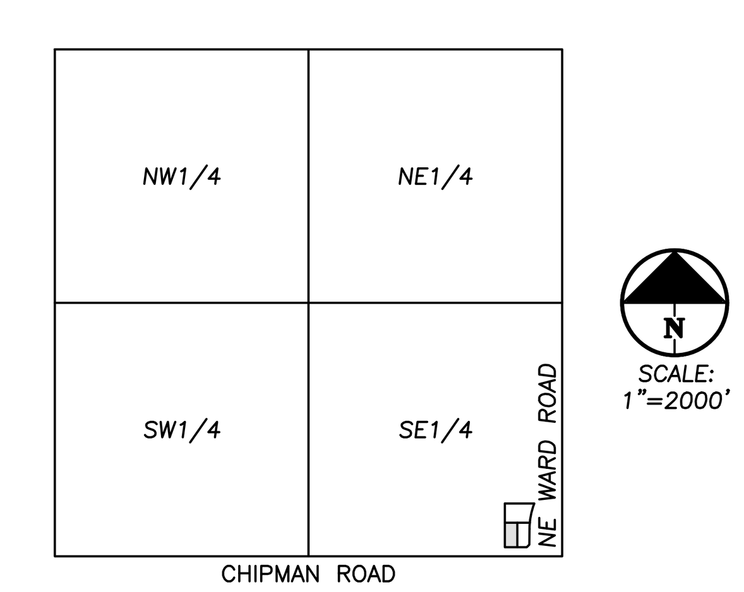


SITE KEY NOTES:

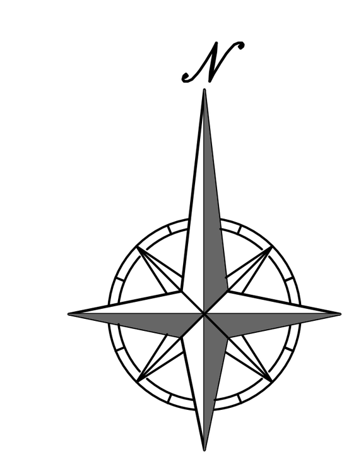
- (A) CONSTRUCT PRIVATE 6" MONOLITHIC CONCRETE CURB.
- (B) CONSTRUCT PRIVATE CONCRETE SIDEWALK (TYPICAL). SEE "PRIVATE CONCRETE SIDEWALKS (NON–REINFORCED)" DETAIL ON SHEET 7.1.
- (C) INSTALL ACCESSIBLE PAVEMENT MARKINGS PER ADA SPECIFICATIONS. SEE "ACCESSIBLE PARKING SPACE DETAIL" DETAIL ON SHEET C7.2.
- (D) INSTALL VAN ACCESSIBLE PARKING SIGN. SEE "ACCESSIBLE SIGN" DETAILS ON SHEET C7.2.
- (E) INSTALL ONE BIKE RACK FOR 2 SPACES.
- (F) INSTALL SPEED TABLE W/ SCORED CONCRETED CROSSWALK. SEE "CROSSWALK DETAIL" ON SHEET C7.1.
- (G) INSTALL CONCRETE PAVEMENT. SEE "CONCRETE PAVING" DETAIL ON SHEET C7.
- (H) INSTALL TRASH ENCLOSURE (RE: ARCHITECT PLANS).
- (I) CONSTRUCT ELECTRICAL UTILITY PAD (RE: EVERGY WORKORDER).
- (J) INSTALL MONUMENT SIGN (RE: SITE SIGNAGE PLANS).
- (K) INSTALL PRE–ORDER MENU BOARD (RE: SITE SIGNAGE PLANS.)
- (L) INSTALL CLEARANCE BAR (RE: SITE SIGNAGE PLANS).
- (M) PICK–UP WINDOW (RE: ARCHITECT PLANS).
- (N) CONSTRUCT PRIVATE ACCESSIBLE SIDEWALK CURB RAMP (OMIT DETECTABLE WARNING). SEE "PRIVATE SIDEWALK RAMP DETAIL" ON SHEET C7.1..
- (O) INSTALL 25 FT TALL FLAG POLE (RE: SITE SIGNAGE PLANS).
- (P) INSTALL PEDESTRIAN BENCH (SEE SHEET C7.4 FOR DETAILS).
- (Q) INSTALL FENCE (SEE SHEET C7.4 FOR DETAILS).
- (R) CONSTRUCT 24" WIDE PRIVATE CONCRETE SIDEWALK "RUNNER" STRIP ALONG DRIVE THRU.
- (S) CONSTRUCT CONCRETE STAIRS W/ HANDRAIL ON BOTH SIDES. SEE "CONCRETE STAIRS DETAIL" ON SHEET C7.6.
- (T) INSTALL DIRECTIONAL SIGNAGE (RE: SITE SIGNAGE PLANS).
- (U) INSTALL PUBLIC CONCRETE SIDEWALK RAMP. SEE "ADA RAMP" DETAIL ON SHEET C7.6.
- (V) INSTALL PUBLIC CONCRETE SIDEWALK RAMP. SEE "ADA RAMP" DETAIL ON SHEET C7.6.

LEGEND

- PL — PROPERTY LINE
- LL — LOT LINE
- R/W — RIGHT–OF–WAY
- 6" CONCRETE CURB
- PROPOSED BUILDING
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK



VICINITY MAP
SEC. 36–48–32



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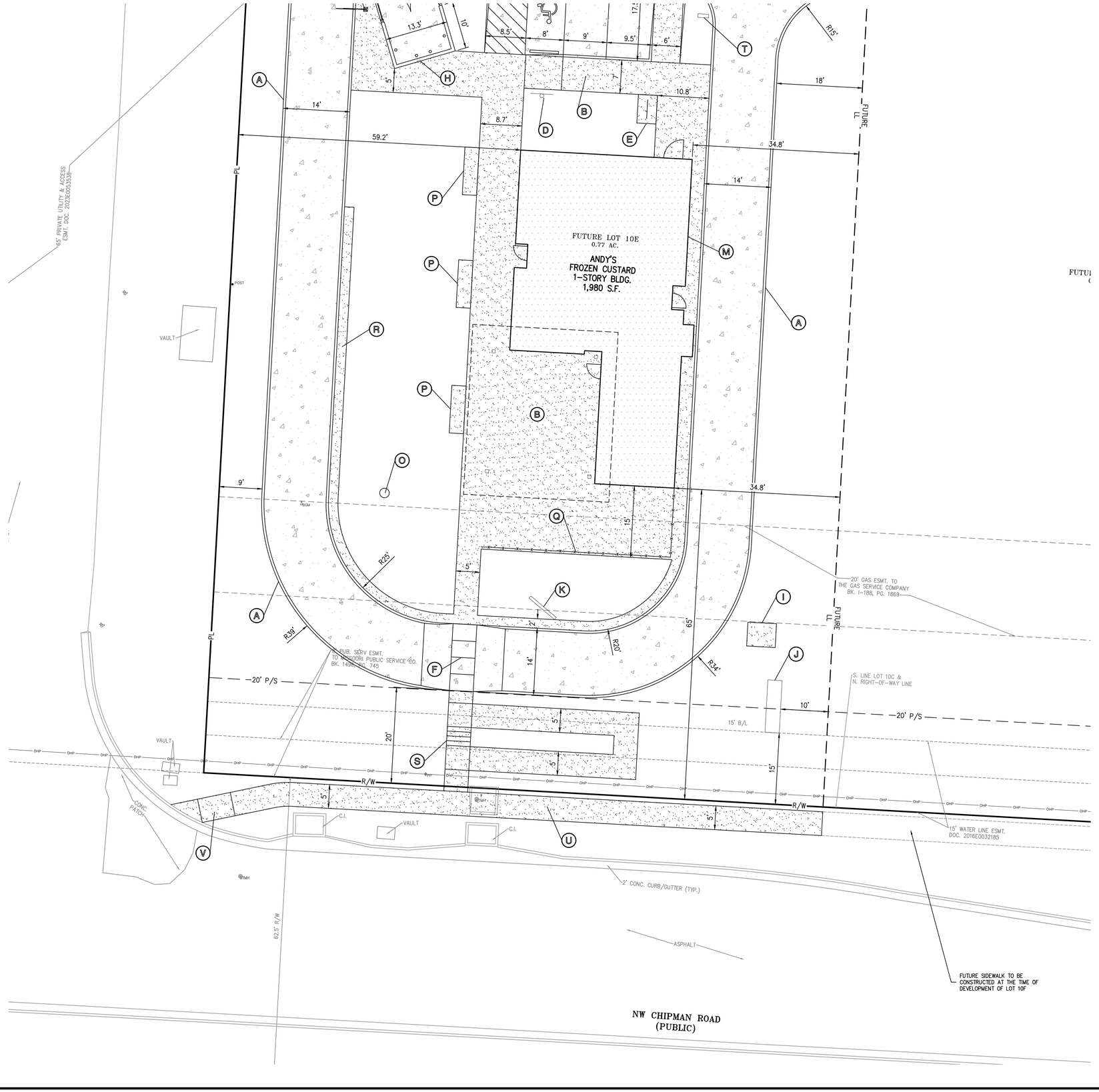

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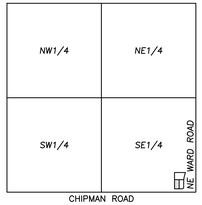

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C1.2

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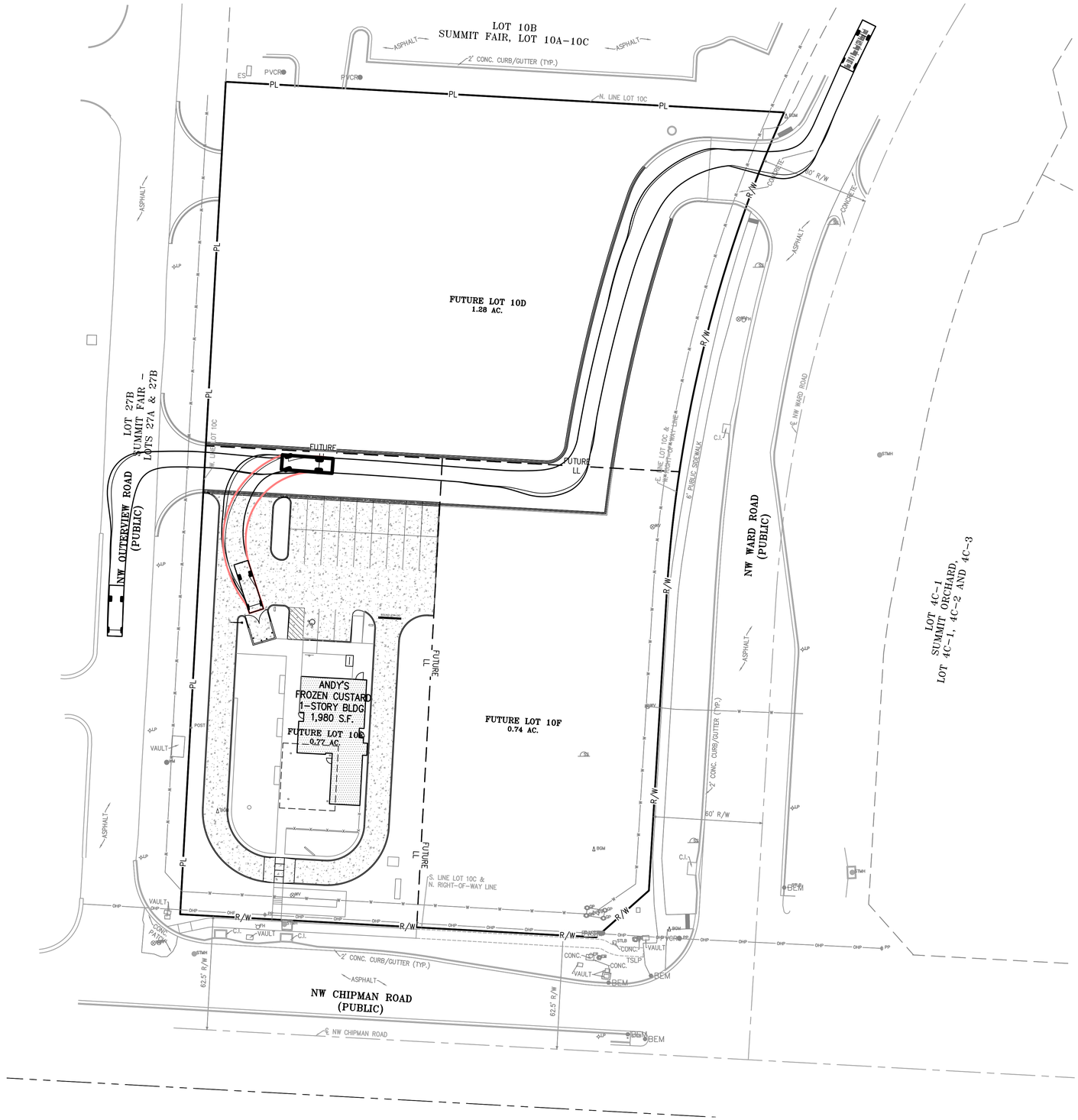
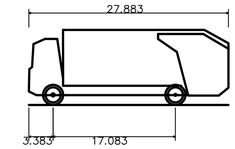
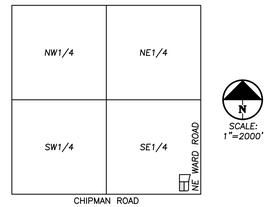
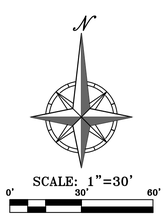




Hino 338 M + Wayne Royal GT14 Refuse Truck	
Overall Length	27.883ft
Overall Width	8.042ft
Overall Body Height	10.488ft
Min Body Ground Clearance	1.318ft
Track Width	8.042ft
Lock–to–lock time	6.00s
Curb to Curb Turning Radius	27.400ft



VICINITY MAP
SEC. 36–48–32



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PLANNING
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TRUCK TURN PLAN

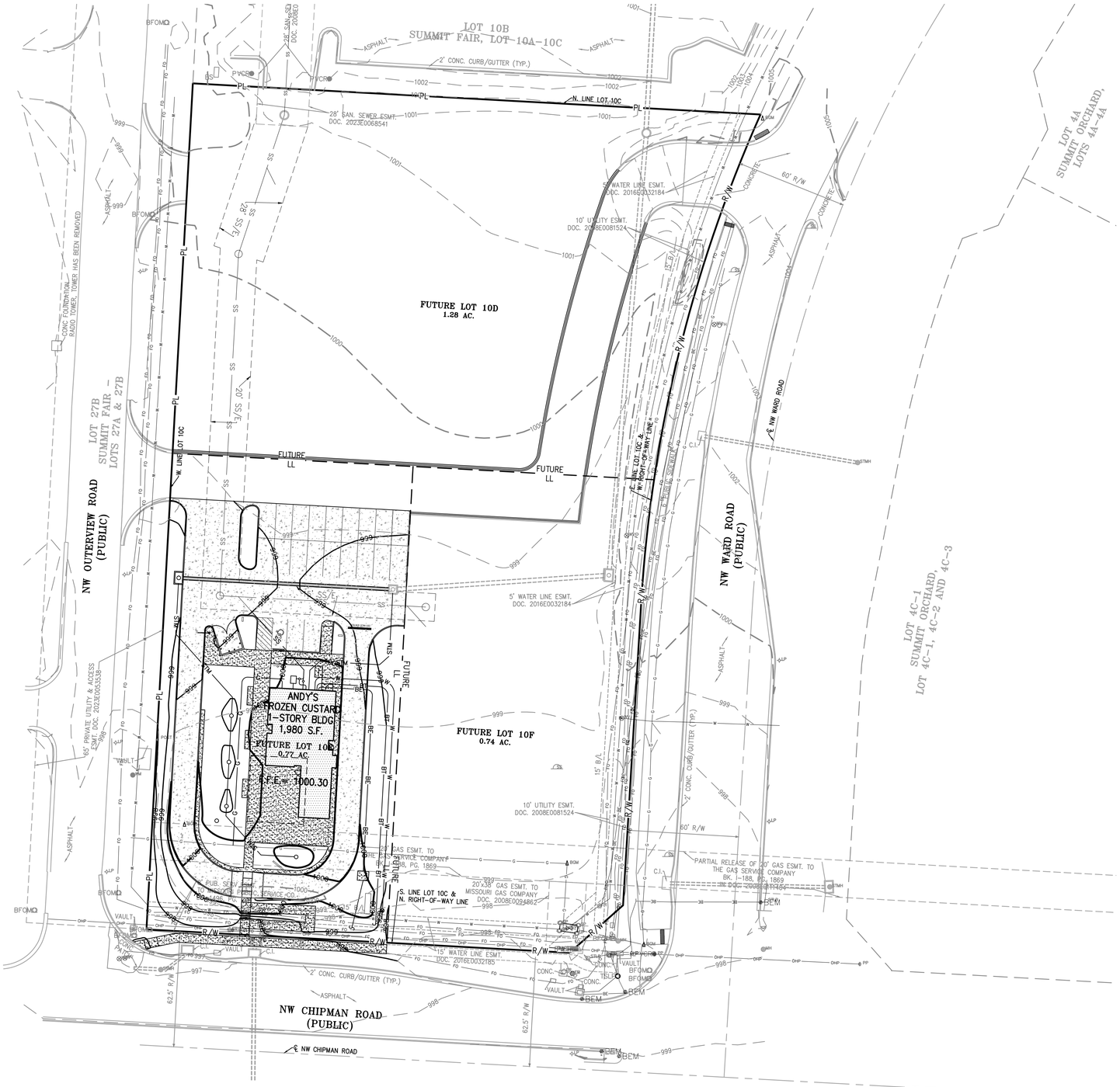
ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

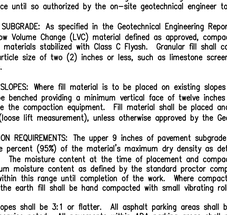
No.	Date	Revisions:	By	App.

PROJECT NO. 240159
DATE 04-12-2024 | DRAWN: AEB
CHECKED: DAF | APPROVED: DJC
CERTIFICATE OF AUTHORIZATION
KANSAS ENGINEERING – LS–82
MISSOURI ENGINEERING – E–361
CERTIFICATE OF AUTHORIZATION
LAND SURVEYING–2007001128
ENGINEERING–2007002093

SHEET
C1.3

STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-2010450
04/12/2024
PROFESSIONAL ENGINEER





VICINITY MAP
SEC. 36-48-32

SCALE: 1"=2000'

SITE GRADING NOTES:

1. CONTOURS AND ELEVATIONS: Existing and proposed contours are shown on plans at one foot (1') contour intervals, unless otherwise noted, proposed contours and elevations shown represent approximate finish grade. Contractor shall hold down subgrades to allow for pavement and sub-base thicknesses.
2. If the contractor does not accept existing topography as shown on the plans, without exception, he shall have made at his expense, a topographic survey by a registered land surveyor and submit it to the owner for review.
3. CLEARING AND GRUBBING: Prior to beginning preparation of subgrade, all areas under pavements or building shall be stripped of all topsoil, vegetation, large rock fragments (greater than 6 inches in any dimension) and any other deleterious material. The actual stripping depth should be based on visual examination during construction and the results of proof-rolling operations. The root systems of all trees (not designated to remain) shall be removed in their entirety. Stripping materials shall not be incorporated into structural fills.
4. TOPSOIL STRIPPING: Prior to the start of site grading, the contractor shall strip all topsoil from areas to be graded, and stockpiled at a location on or adjacent to the site as directed by the owner. At completion of grading operations and related construction, the contractor will be responsible for redistribution of topsoil over all areas disturbed by the construction activities. Topsoil shall be placed to a minimum depth of six inches (6") and in accordance with specifications for landscaping. At that time, and prior to the installation of landscaping or irrigation, all topsoil graded areas shall be visually inspected and accepted by the owner and ITL.
5. Contractor shall adjust and/or cut existing pavement as necessary to assure a smooth fit and continuous grade. Contractor shall assure positive drainage away from buildings for all natural and paved areas.
6. SUBGRADE PREPARATION: Prior to placement of new fill material, the existing subgrade shall be proofrolled and approved under the direction of the Geotechnical Engineer or his representative.
7. PROOFROLLING: Subsequent to completion of stripping and over-excavation, all building and pavement areas to receive engineered fill should be systematically proof-rolled using a tandem axle dump truck loaded to approximately 20,000 pounds per axle. Also, any finished subgrade areas to receive paving shall be proof-rolled within 48 hours of paving. Unsuitable soils that are detected and that can not be recompacted should be over-excavated and replaced with controlled structural fill.
8. EARTHWORK:

   A) GEOTECHNICAL: All earthwork shall conform to the recommendations of the Geotechnical report. Said report and its recommendations are herein incorporated into the project requirements by reference. Prior to beginning construction, the contractor shall obtain a copy of and become familiar with the geotechnical report. Unless specifically noted on the plans, the recommendations in the geotechnical report are hereby incorporated into the project requirements and specifications.

   B) SURFACE WATER: Surface water shall be intercepted and diverted during the placement of fill.

   C) FILLS: All fills shall be considered controlled or structural fill and shall be free of vegetation, organic matter, topsoil and debris. In areas where the thickness of the engineered fill is greater than five, feet building and pavement construction should not commence until so authorized by the on-site geotechnical engineer to allow for consolidation.

   D) BUILDING SUBGRADE: As specified in the Geotechnical Engineering Report, the upper section of building subgrade shall consist of Low Volume Change (LVC) material defined as approved, compacted granular fill or low to moderate plasticity cohesive soil materials stabilized with Class C Flyash. Granular fill shall consist of compacted granular materials with a maximum particle size of two (2) inches or less, such as limestone screenings. Refer to geotechnical report for complete requirements.

   E) EXISTING SLOPES: Where fill material is to be placed on existing slopes greater than 5:1 (horizontal to vertical), existing slope shall be benched providing a minimum vertical face of twelve inches (12"). The benches should be cut wide enough to accommodate the compaction equipment. Fill material shall be placed and compacted in horizontal lifts not exceeding nine inches (9") (loose lift measurement), unless otherwise approved by the Geotechnical Engineer.

   F) COMPACTION REQUIREMENTS: The upper 9 inches of pavement subgrade areas shall be compacted to a minimum density of ninety five percent (95%) of the material's maximum dry density as determined by ASTM D698 (standard proctor compaction). The moisture content at the time of placement and compaction shall within a range of 0% below to 4% above optimum moisture content as defined by the standard proctor compaction procedure. The moisture contents shall be maintained within this range until completion of the work. Where compaction of earth fill by a large roller is impractical or undesirable, the earth fill shall be hand compacted with small vibrating rollers or mechanical tampers.
9. All cut or fill slopes shall be 3:1 or flatter. All asphalt parking areas shall be a minimum of 1% slope but not more than 5% slope unless otherwise noted. All pavements within ADA parking areas shall not exceed 2% total slope. All grades around building shall be held down 6" from finish floor and slope away another 6" in 10 feet. Contractor shall notify engineer prior to final subgrade construction of any areas not within this slope requirement.
10. TESTING AND INSPECTION: Owner's Independent Testing Laboratory (ITL) shall make tests of earthwork during construction and observe the placement of fills and other work performed on this project to verify that work has been completed in accordance with Geotechnical Engineering Report, Project Specifications and within industry standards. The ITL will be selected by the owner and the cost of testing will be the owner's responsibility.
11. CLASSIFICATION: All excavation shall be considered unclassified. No separate or additional payments shall be made for rock excavation.
12. PERMANENT RESTORATION: All areas disturbed by earthwork operations shall be sodded, unless shown otherwise by the landscaping plan or erosion control plan.
13. UTILITIES: The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plans.
14. LAND DISTURBANCE: The contractor shall adhere to all terms & conditions as outlined in the EPA or applicable state N.P.D.E.S. permit for storm water discharge associated with construction activities. Refer to project S.W.P.P.P. requirements.

Earthwork Summary
SUMMIT FAIR LOT 10-E
4/12/2024

Raw Excavation	10 Cu. Yds.	
In Place Compaction (+15%)	-586 Cu. Yds.	
Pavement Adjustment	62 Cu. Yds.	(assume 10" of additional excavation)
Building Adjustment	147 Cu. Yds.	(assume 24" of additional excavation)
On Site Net	-368 Cu. Yds.	

* EARTHWORK COMPUTATIONS BY PHELPS ENGINEERING, INC. ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND SHALL BE VERIFIED BY CONTRACTORS BY THEIR CHOSEN METHOD PRIOR TO PLACING BID. ALL EARTHWORK SHALL BE CONSIDERED UNCLASSIFIED. 15% WAS ADDED INTO RAW FILL QUANTITY TO ACCOUNT FOR SHRINKAGE.

LEGEND

PL	PROPERTY LINE
LL	LOT LINE
R/W	RIGHT-OF-WAY
	2' CURB & GUTTER
920	EXISTING CONTOURS
918	
920	PROPOSED CONTOURS
918	
XXX.XX TW	PROPOSED SPOT ELEVATION
LG	LIP OF GUTTER
TC	TOP OF CURB
SW	SIDEWALK
ME	MATCH EXISTING
HP	HIGH POINT
LP	LOW POINT
P	TOP OF PAVEMENT
TE	TOP OF STRUCTURE
GR	GROUND ELEVATION
BS	BOTTOM OF STEPS
TS	TOP OF STEPS
BW	BOTTOM OF WALL
TW	TOP OF WALL
	EXISTING STORM SEWER
	PROPOSED STORM PIPE
	PROPOSED WET CURB & GUTTER
	PROPOSED DRY CURB & GUTTER

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

UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN. UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0417G, AND DATED JANUARY 20, 2017.

STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-29850
04/12/2024

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Olathe, Kansas 66061
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PLANNING
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OVERALL GRADING PLAN

ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

No.	Revisions:	Date	By	App.
	CERTIFICATE OF AUTHORIZATION LAND SURVEYING - LS-82 ENGINEERING - E-391			
	CERTIFICATE OF AUTHORIZATION LAND SURVEYING-2007020128 ENGINEERING-2007025038			

PROJECT NO. 240159
DATE 04-12-2024 | DRAWN: AEB
CHECKED: DAF | APPROVED: JDC

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C2

\\PHELPS-SERVER\projects\P\240159\Dwg\Permit Plans\GRADING.dwg Layout:1 Apr 12, 2024 - 4:46pm Daniel Finn

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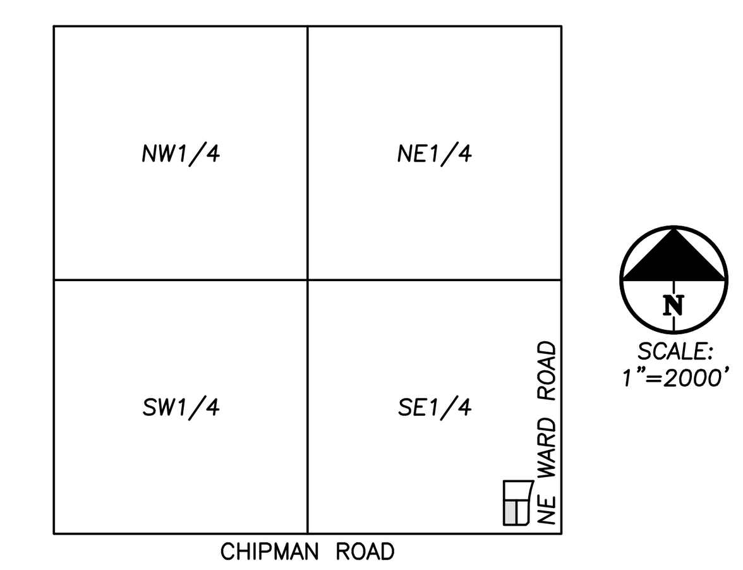

VICINITY MAP
SEC. 36-48-32

LEGEND

- PL — PROPERTY LINE
- LL — LOT LINE
- R/W — RIGHT-OF-WAY
- 2' CURB & GUTTER
- 920 / 918 — EXISTING CONTOURS
- 920 / 918 — PROPOSED CONTOURS
- XXX.XX TW — PROPOSED SPOT ELEVATION
  - LG — LIP OF GUTTER
  - TC — TOP OF CURB
  - SW — SIDEWALK
  - ME — MATCH EXISTING
  - HP — HIGH POINT
  - LP — LOW POINT
  - P — TOP OF PAVEMENT
  - TE — TOP OF STRUCTURE
  - GR — GROUND ELEVATION
  - BS — BOTTOM OF STEPS
  - TS — TOP OF STEPS
  - BW — BOTTOM OF WALL
  - TW — TOP OF WALL
- EXISTING STORM SEWER
- PROPOSED STORM PIPE
- PROPOSED WET CURB & GUTTER
- PROPOSED DRY CURB & GUTTER

SCALE: 1"=10'
0' 10' 20'

JUDD DAVID CLAUSSEN
NUMBER PE-29850
04/12/2024
STATE OF MISSOURI PROFESSIONAL ENGINEER

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PLANNING ENGINEERING IMPLEMENTATION

ENLARGED GRADING PLAN

ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

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ENGINEERING - E-391

CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005058

SHEET
C2.1

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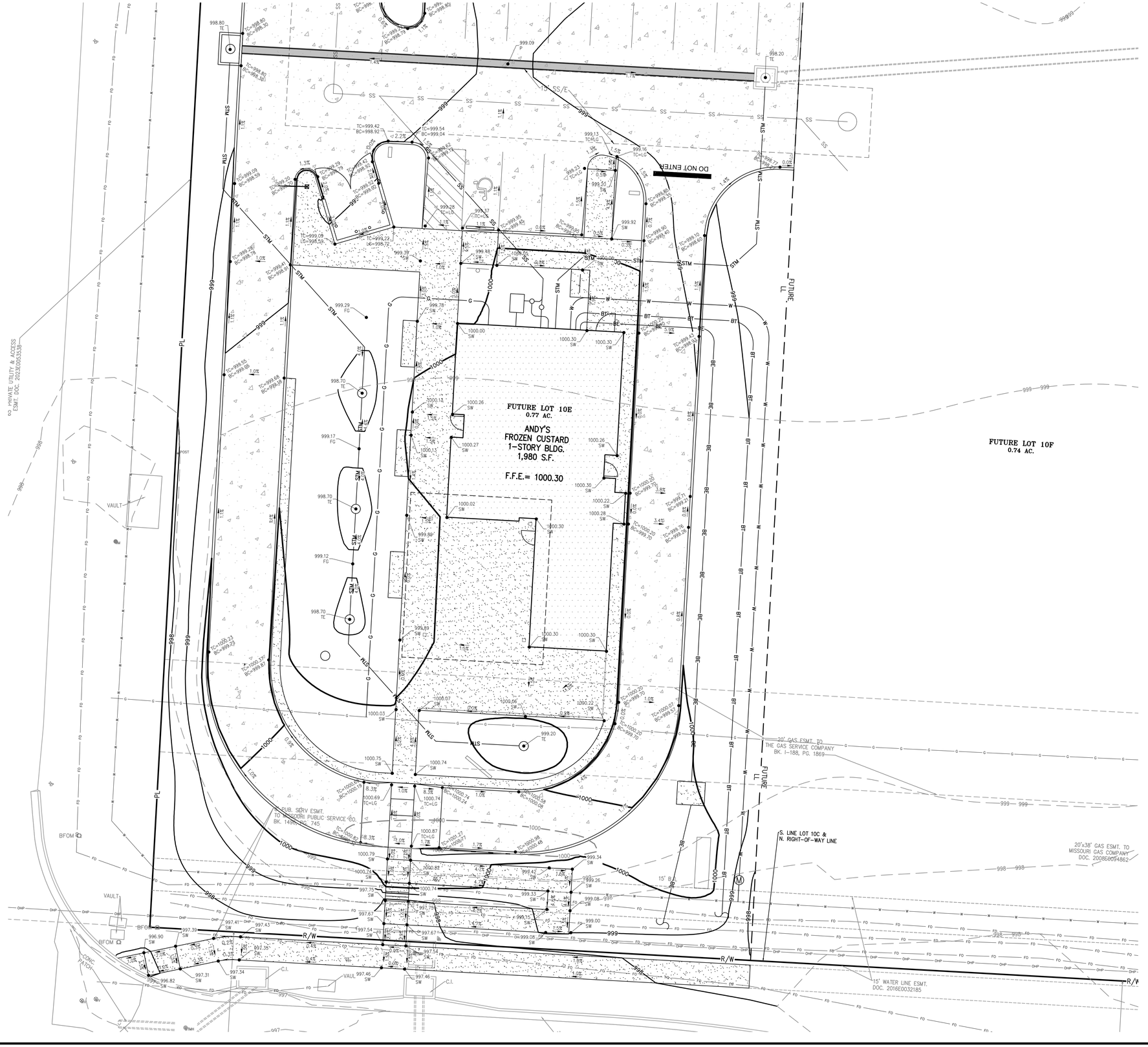

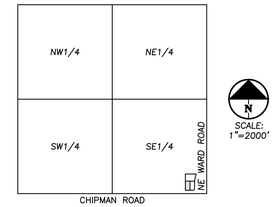

VICINITY MAP
SEC. 36-48-32

SCALE: 1"=2000'

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LEGEND

- PL — PROPERTY LINE
- LL — LOT LINE
- R/W — RIGHT-OF-WAY
- 2' CURB & GUTTER
- 920 — EXISTING CONTOURS
- 918 — EXISTING CONTOURS
- 920 — PROPOSED CONTOURS
- 918 — PROPOSED CONTOURS

PROPOSED SPOT ELEVATION

XXX.XX
TW

LG	LIP OF GUTTER
TC	TOP OF CURB
SW	SIDEWALK
ME	MATCH EXISTING
HP	HIGH POINT
LP	LOW POINT
P	TOP OF PAVEMENT
TE	TOP OF STRUCTURE
GR	GROUND ELEVATION
BS	BOTTOM OF STEPS
TS	TOP OF STEPS
BW	BOTTOM OF WALL
TW	TOP OF WALL

- EXISTING STORM SEWER
- PROPOSED STORM PIPE
- PROPOSED WET CURB & GUTTER
- PROPOSED DRY CURB & GUTTER

N

SCALE: 1"=10'
0' 10' 20'

STATE OF MISSOURI
JUDD DAVID CLAUSSEN
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04/12/2024
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ENLARGED GRADING PLAN

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700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

No.	Date	Revisions:	By	App.

PROJECT NO. 240159
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CHECKED: DJC | APPROVED: DJC
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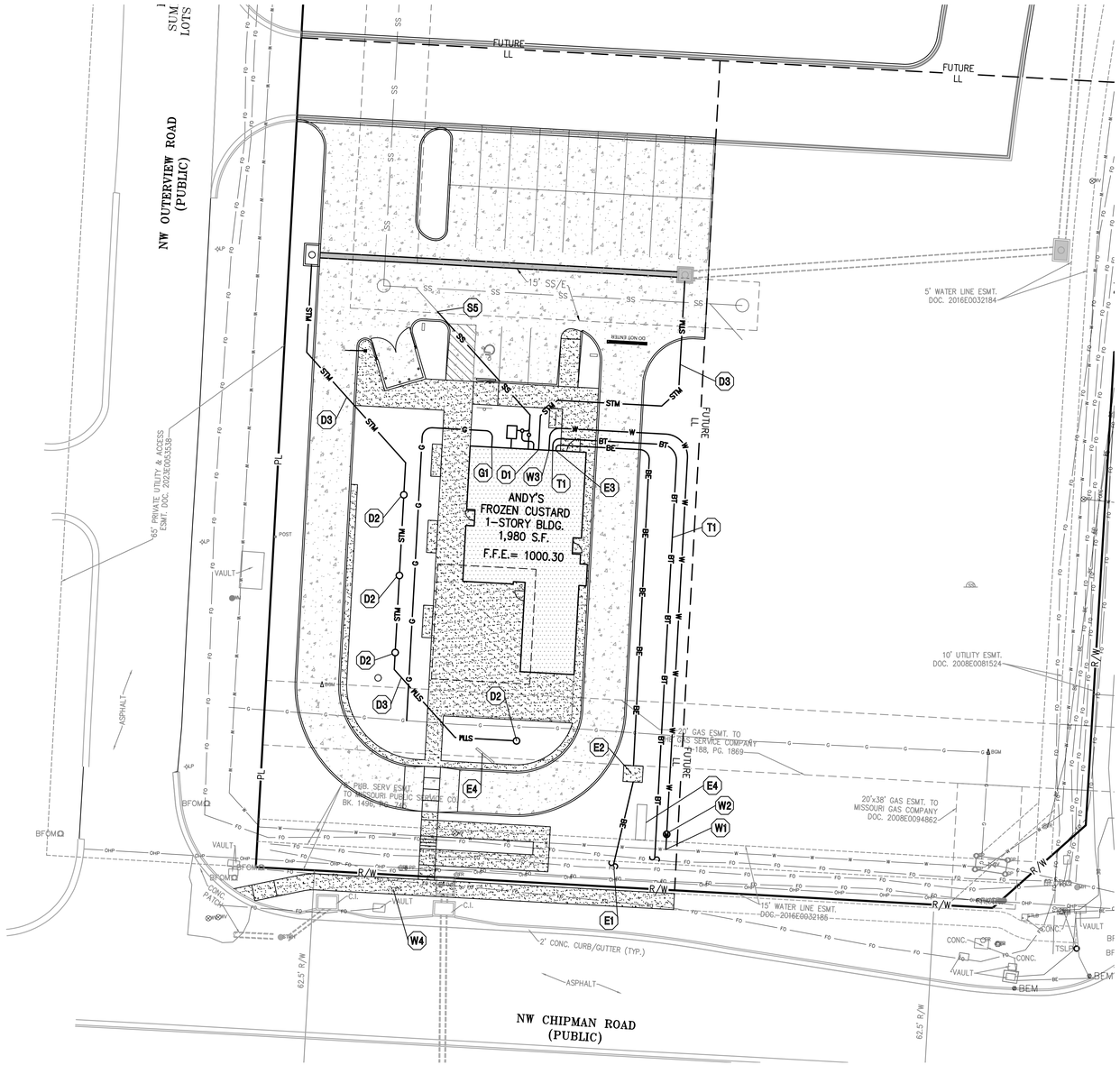
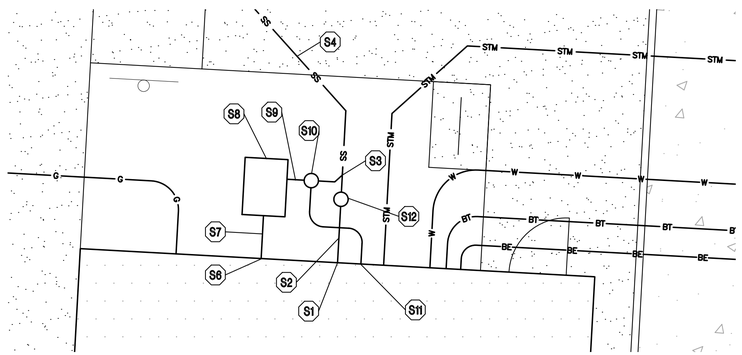
KANSAS LANDSCAPING - LS-82
ENGINEERING - E-391
CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007002538

SHEET
C2.2

\\PHELPS-SERVER\projects\P\240159\Dwg\Permit Plans\GRADING.dwg Layout:3 Apr 12, 2024 - 4:46pm Daniel Finn





STRUCTURE BACKFILL NOTES:

1. CLSM SHALL BE USED TO BACKFILL AROUND STRUCTURES, SUCH AS MANHOLES, INLETS, JUNCTION BOXES, VAULTS, ETC. CLSM SHALL BE PLACE THE FULL DEPTH OF THE TRENCH BACKFILL ZONE, BUT SHALL BE AT LEAST 6 INCHES BELOW THE BOTTOM OF PREPARED SUBGRADE UNDER PAVEMENTS OR 12 INCHES BELOW THE GROUND SURFACE IN LANDSCAPED AREAS. THE EXTERNAL OPENING SURFACES OF WEEP HOLES SHALL BE COVERED WITH HARDWARE CLOTH AND SURROUNDED WITH A MINIMUM OF THREE CUBIC FEET OF CONSOLIDATED GRANULAR BEDDING MATERIAL.

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UTILITY KEY NOTES:

(D1) PROPOSED 6" INTERNAL ROOF DRAIN CONNECTION. (RE: MEP PLANS). CONNECT TO INTERNAL ROOF DRAIN AND INSTALL UNDERGROUND SECONDARY STORM LINE.

(D2) INSTALL PRIVATE 18" NYOPLAST INLET DRAIN W/ STANDARD GRATE (SEE SHEET C7.3 FOR DETAIL).

(D3) INSTALL HDPE SECONDARY STORM LINE AT 1.0% MINIMUM SLOPE MAINTAINING 12" MINIMUM COVER (TYP). SEE SHEET C5.1 FOR TOP ELEVATIONS AND FLOWLINES.

(E1) FOLLOW ELECTRIC COMPANY WORK ORDER AND SPECIFICATIONS FOR PRIMARY ELECTRICAL SERVICE ROUTING AND CONNECTION TO EXISTING.

(E2) INSTALL CONCRETE TRANSFORMER PAD. CONTRACTOR TO VERIFY EXACT LOCATION AND SIZE WITH ELECTRIC COMPANY PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF CONCRETE PAD AND CONDUIT AS REQUIRED BY THE ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH THE ELECTRIC COMPANY.

(E3) ELECTRIC ENTRY INTO BUILDING. FOLLOW ELECTRIC COMPANY REQUIREMENTS (RE: BUILDING ELECTRIC PLAN.)

(E4) CONTRACTOR TO INSTALL CONDUITS TO MENU BOARD & MONUMENT SIGN (RE: BUILDING ELECTRICAL PLANS FOR POWER REQUIREMENTS)

(G1) GAS ENTRY WITH GAS METER. CONTRACTOR SHALL COORDINATE WITH GAS COMPANY FOR TYING OF INDIVIDUAL METER. SIZE OF GAS MAIN SHALL BE AS DETERMINED BY UTILITY OR AS SHOWN ON BUILDING PLANS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH GAS COMPANY REGARDING THE SIZE & INSTALLATION OF GAS SERVICE LINE.

(W1) CONTRACTOR TO COORDINATE 1-1/2" TAP ON EXISTING MAIN FOR DOMESTIC SERVICE LINE WITH CITY. THE CITY SHALL PERFORM THE TAP OF THE EXISTING MAIN. CONTACT CITY FOR TAPPING REQUIREMENTS. CONTRACTOR TO PAY ALL FEES FOR WATER MAIN TAP. OWNER WILL REIMBURSE CONTRACTOR FOR ACTUAL METER AND SYSTEM DEVELOPMENT FEES ASSESSED BY CITY.

(W2) INSTALL 1-1/2" DOMESTIC WATER METER PIT PER CITY REQUIREMENTS. THE CITY SHALL PROVIDE THE METER, THE PIT, AND ALL OTHER MATERIALS NECESSARY FOR THE INSTALLATION. CONTRACTOR TO COORDINATE AND PAY ALL FEES. INSTALLATION BY THE CONTRACTOR'S PLUMBER SHALL BE IN ACCORDANCE WITH CITY STANDARDS.

(W3) 1-1/2" DOMESTIC WATER LINE ENTRY TO BUILDING. DOMESTIC WATER LINE SHALL BE 1-1/2" SOFT TYPE K COPPER. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BUSHINGS, TEES, ETC., WHICH MAY BE REQUIRED. CONTRACTOR TO COORDINATE WITH THE DEVELOPMENT SERVICES INSPECTOR.

(W4) CONTRACTOR TO RELOCATE EX. PUBLIC FIRE HYDRANT OUTSIDE OF NEW SIDEWALK. ALL WORK TO BE COORDINATED WITH CITY OF LEE'S SUMMIT PUBLIC WORKS DEPARTMENT.

(T1) CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE TELEPHONE COMPANY FOR THE INSTALLATION OF BURIED TELEPHONE LINES. CONTRACTOR TO PROVIDE ONE (1) - 4" PVC SCH. 40 CONDUITS FROM BUILDING TO R/W. CONTRACTOR TO TERMINATE IN QUAZITE BOX WITH PULL STRING FROM BUILDING TO TELEPHONE FEED POINT. CONTRACTOR TO VERIFY EXACT ROUTING AND FEED POINT WITH TELEPHONE COMPANY.

(S1) CONNECT TO BLDG. INTERIOR PLUMBING SANITARY SEWER LINE. TRANSITION FROM 4" (INTERIOR) TO 6" (EXTERIOR) AT FOUNDATION WALL. (RE: MEP PLANS)
FG=1000.30
FL 6"=996.30

(S2) INSTALL 6 L.F. 6" PVC (SDR-26) SANITARY SEWER SERVICE LINE @ 3.3% SLOPE.

(S3) INSTALL 6"X6"X4" WYE CONNECTION.
FG=1001.20
FL=996.10

(S4) INSTALL 47 L.F. 6" PVC (SDR-26) SANITARY SEWER SERVICE LINE @ 5.2% SLOPE.

(S5) CONNECT TO EXISTING 6" PVC (SDR-26) SANTIARY SEWER STUB.
FG AT EOS=998.95
FL 6" AT EOS=993.65

(S6) CONNECT TO BLDG. INTERIOR PLUMBING GREASE LINE (RE: MEP PLANS)
FG=1000.30
FL 4"=996.30

(S7) INSTALL 3 L.F. 4" PVC (SDR-26) GREASE LINE @ 3.3% SLOPE.

(S8) INSTALL GB-75 SCHIER GREASE INTERCEPTOR (SEE SHEET C7.3 FOR DETAIL).
TE=1000.20
FL 4" IN = 996.20
FL 4" OUT= 996.20

(S9) INSTALL 4 L.F. 4" PVC (SDR-26) GREASE LINE @ 2.5% SLOPE.

(S10) INSTALL SANITARY SEWER SAMPLING PORT (RE: MEP PLANS).

(S11) ROUTE 3" VENT LINE FROM SAMPLING PORT TO BUILDING. (RE: MEP PLANS).

(S12) INSTALL SANITARY SEWER CLEAN OUT IN NON-PAVED AREA (SEE SHEET C7.2 FOR DETAIL)

UTILITY NOTES:

1. The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to coordinate with and relocate &/or remove all existing utilities which conflict with the proposed improvements shown on the plans.
2. The construction of storm sewers on this project shall conform to the requirements of the City's Technical Specifications and Design Criteria.
3. The contractor shall field verify the exact location and elevation of the existing storm sewer lines and the existing elevation at locations where the proposed storm sewer collects or releases to existing ground. If discrepancies are encountered from the information shown on the plans, the contractor shall contact the design engineer. No pipes shall be laid until direction is received from the design engineer.
4. It will be the contractors responsibility to field adjust the top of all manholes and boxes as necessary to match the grade of the adjacent area. Tops of existing manholes shall be raised as necessary to be flush with proposed pavement elevations, and to be 6-inches above finished ground elevations in non-paved areas. No separate or additional compensation will be made to the contractor for making final adjustments to the manholes and boxes.
5. Inlet locations, horizontal pipe information and vertical pipe information is shown to the center of the structure. Deflection angles shown for storm sewer pipes are measured from the center of curb inlets and manholes. The contractor shall adjust the horizontal location of the pipes to go to the face of the boxes. All roof drains shall be connected to storm sewer structures. Provide cleanouts on roof drain lines at 100' max. Spacing and at all bend points. Do not connect roof drains directly to storm sewer pipe.
6. The contractor shall be responsible for furnishing and installing all fire and domestic water lines, meters, backflow devices, pits, valves and all other incidentals required for a complete operable fire protection and domestic water system. All costs associated with the complete water system for the buildings shall be the responsibility of the contractor. All work shall conform to the requirements of City.
7. The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the buildings to the public line. All work shall conform to the requirements of the City.
8. The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
9. By the use of these construction documents the contractor hereby agrees that he/she shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses or damages related to the project.
10. The Contractor shall be responsible for furnishing all materials, tools and equipment and installation of electrical power, telephone and gas service from a point of connection from the public utility lines to the building structures. This will include all conduits, service lines, meters, concrete pads and all other incidentals required for a complete and operational system as required by the owner and the public utilities. Refer to building plans for exact tie-in locations of all utilities. Contractor shall verify connection points prior to installation of utility line.
11. All fill material is to be in place, compacted, and consolidated before installation of proposed utilities. On-site geotechnical engineer shall provide written confirmation that this requirement has been met and that utilities may proceed in the fill areas. All utilities are to be placed in trench conditions.
12. Contractor shall notify the utility authorities inspectors 48 hours before connecting to any existing line.
13. Water lines shall be as follows (unless otherwise shown on plans):

    A. Pipe sizes less than 3-inches that are installed below grade and outside building shall comply with the following:
    1. Seamless Copper Tubing: Type "K" soft copper, ASTM B88.
    2. Fittings: Wrought copper (95_5 Tin Antimony solder joint), ASME B 16.22.

    B. Pipe sizes 3-inches Through 48-inches that are installed below grade and outside building shall comply with one of the following:
    1. Gray Cast Iron Water Pipe: ANSI A21.6, thickness class 52.
       a. Fittings: Either mechanical joint or push_on joint, AWWA C110 or AWWA C111.
       b. Elastomeric gaskets and lubricant: ASTM F477.
       c. Cement Mortar Lining, AWWA C104
    2. Ductile Iron Water Pipe: AWWA C151, thickness class 50.
       a. Fittings: Either mechanical joint or push_on joint, AWWA C110 or AWWA C111.
       b. Elastomeric gaskets and lubricant: ASTM F477.
       c. Cement Mortar Lining, AWWA C104
    3. Polyvinyl Chloride (PVC) Water Pipe: Pipe, AWWA C900, rated DR 18 (Class 150), continually marked as required.
       a. Elastomeric gaskets and lubricant: ASTM F477 for smaller pipes.
       b. Pipe joints: Integrally molded bell ends, ASTM D3139.
       c. Trace wire: Magnetic detectable conductor, (#12 Copper) brightly colored plastic covering imprinted with "Water Service" in large letters
14. Minimum trench width shall be 2 feet.
15. Contractor shall maintain a minimum of 42" cover on all waterlines. All water line joints are to be mechanical joints with thrust blocking as called out in specifications and construction plans. Water mains and service lines shall be constructed in accordance to waterone's specifications for commercial services.
16. All waterlines shall be kept min. ten (10') apart (parallel) from sanitary sewer lines or manholes. Or when crossing, an 24" vertical clearance (outside edge of pipe to outside edge of pipe) of the water line above the sewer line is required.
17. Sanitary conflicts will be resolved prior to permit issuance.
18. In the event of a vertical conflict between waterlines, sanitary lines, storm lines and gas lines (existing and proposed), the sanitary line shall be ductile iron pipe with mechanical joints at least 10 feet on both sides of crossing (or encased in concrete this same distance), the waterline shall have mechanical joints with appropriate thrust blocking as required to provide a minimum of 24" clearance. Meeting requirements of ANSI A21.10 or ANSI 21.11 (AWWA C-151) (CLASS 50).
19. All underground storm, sanitary, water and other utility lines shall be installed, inspected and approved before backfilling. Failure to have inspection approval prior to backfill will constitute rejection of work.
20. All necessary inspections and/or certifications required by codes and/or utility service companies shall be performed prior to announced building possession and the final connection of service. Contractor shall coordinate with all utility companies for installation requirements and specifications.
21. Refer to building plans for site lighting electrical plan, irrigation, parking lot security system and associated conduit requirements. Coordinate with Owner that all required conduits are in place & tested prior to paving.
22. When a building utility connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such site utility terminations.
23. Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

UTILITY COMPANIES:

MISSOURI GAS ENERGY (816) 969-2218
LUCAS WALLS (LUCAS.WALLS@SUG.COM)
3025 SOUTHEAST CLOVER DRIVE
LEE'S SUMMIT, MO 64082

EVERGY (816) 347-4339
PHILLIP INGRAM (PHILLIP.INGRAM@KCPL.COM)
RON DEJARNETTE (RON.DEJARNETTE@KCPL.COM) (816) 347-4316
1300 HAMBLEN ROAD
LEE'S SUMMIT, MO 64081

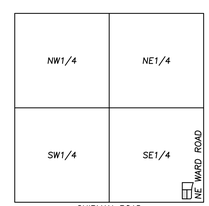
STORM SEWER (PUBLIC WORKS DEPARTMENT) (816) 969-1800
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063

SANITARY SEWER & WATER (WATER UTILITIES DEPT.) (816)-969-1900
1200 SE HAMBLEM ROAD,
LEE'S SUMMIT, MO 64081

AT&T (913) 383-4929
MR. CLAYTON ANSPAUGH (CA4089@ATT.COM) (913) 383-4849-FAX
9444 NALL AVENUE
OVERLAND PARK, KANSAS 66207

LEGEND

PL	PROPERTY LINE
LL	LOT LINE
R/W	RIGHT-OF-WAY
CATV	EXISTING CABLE TELEVISION LINE
FO	EXISTING FIBER OPTIC LINE
G	EXISTING GAS LINE
BE	EXISTING BURIED ELECTRIC LINE
OHP	EXISTING OVERHEAD POWER LINE
OHT	EXISTING OVERHEAD TELEPHONE LINE
SS	EXISTING SANITARY SEWER LINE
24"HDPE	EXISTING STORM SEWER LINE (& SIZE)
BT	EXISTING BURIED TELEPHONE LINE
W 6"	EXISTING WATER LINE (& SIZE)
SS	PROPOSED SANITARY SEWER LINE
24"HDPE	PROPOSED STORM SEWER LINE (& SIZE)



VICINITY MAP
SEC. 36-48-32

N
SCALE: 1"=2000'

N
SCALE: 1"=30'
0' 30' 60'

STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-29850
PROFESSIONAL ENGINEER
04/12/2024

PHELPS ENGINEERING, INC.
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Olathe, Kansas 66061
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PLANNING
ENGINEERING
IMPLEMENTATION

UTILITY PLAN
ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

No.	Date	Revisions:	By	App.

PROJECT NO. 240159
DATE: 04-12-2024 | DRAWN: AEB
CHECKED: DAF | APPROVED: JDC
CERTIFICATE OF AUTHORIZATION
KANSAS ENGINEERING - LS-82
KANSAS SURVEYING - LS-391
ENGINEERING
CERTIFICATE OF AUTHORIZATION
MISSOURI ENGINEERING
LAND SURVEYING-2007001128
ENGINEERING-2007005209

SHEET
C3

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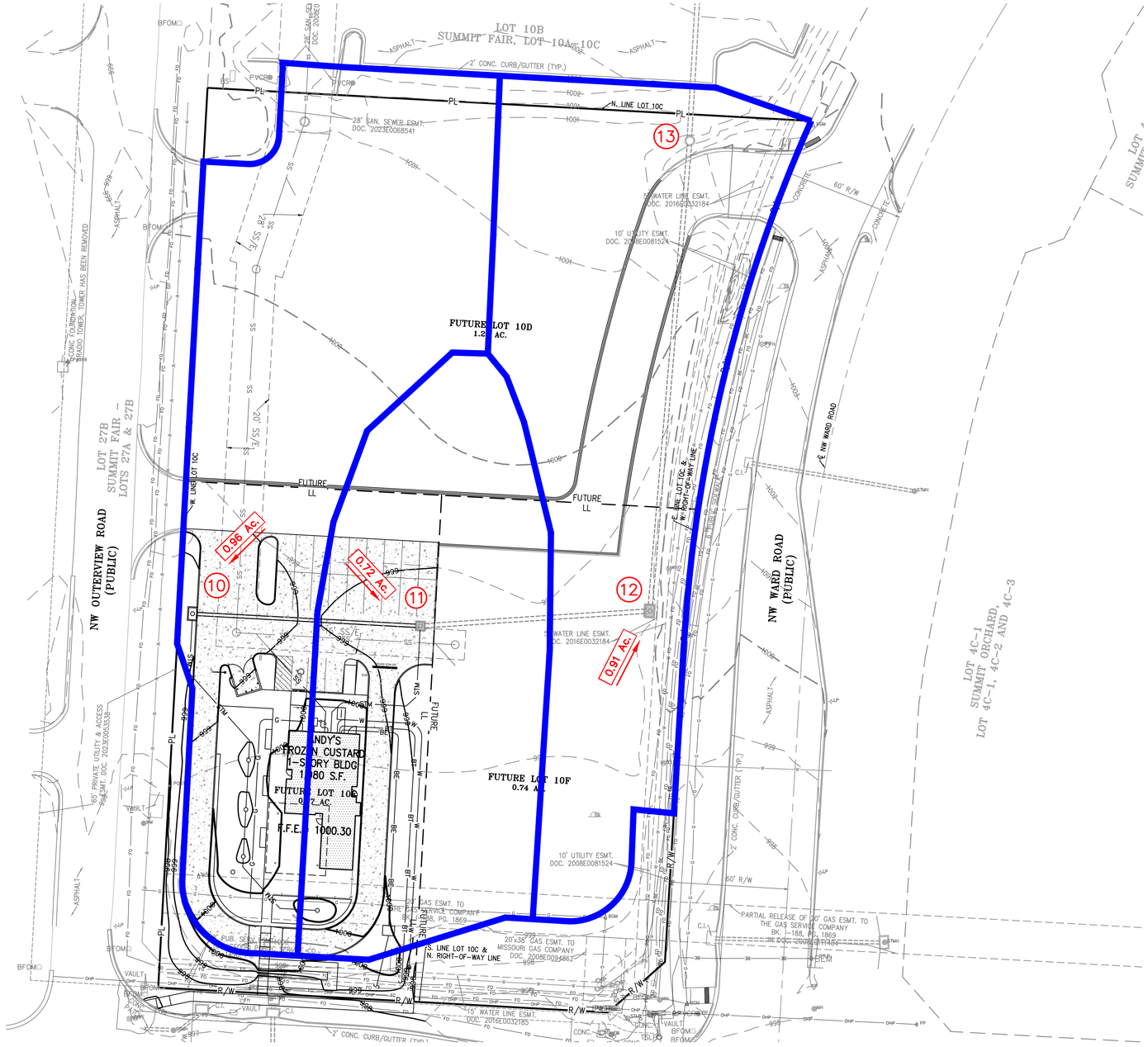

LEGEND

- XXX / XXX — EXISTING CONTOURS
- XXX / XXX — PROPOSED CONTOURS
- DENOTES DRAINAGE AREA
- DENOTES FLOW DIRECTION
- X.XX Ac. — DENOTES DRAINAGE AREA TO STRUCTURE
- (XX) — DENOTES STRUCTURE NUMBER

STORM DRAINAGE CALCULATIONS

DESIGN CRITERIA: $K_{25} = 1.1$; $K_{100} = 1.25$; n = 0.013 (RCP); STORM FREQUENCY = 25 YEAR; A.I. = AREA INLET; J.B. = JUNCTION BOX C.I. = CURB INLET; C.C. = CURB CUT; G.I. = GRATE INLET; HEIGHT OF STRUCTURE = RIM ELEV MINUS FLOWLINE OUT.

I. RUNOFF											III. PIPE DESIGN												REMARKS
		INCREMENTAL			CUMULATIVE						STRUCTURE				PIPE								
LINE NUMBER	STRUCTURE	RUNOFF COEFFICIENT "C"	AREA "A" (ACRES)	C x A	AREA "A" (ACRES)	C x A	SYSTEM TIME OF CONCENTRATION "T_c" AT STRUCTURE (MIN)	RAINFALL INTENSITY "I_{25} / I_{100}" (IN/HR)	ANTECEDENT PRECIPITATION FACTOR "K_{25} / K_{100}"	RUNOFF "Q_{25} / Q_{100}" (CFS)	Upstream Structure Number	Downstream Structure Number	Upstream Structure Rim Elevation	Height of Structure (FT)	Diameter "D" (IN)	Length "L" (FT)	Upstream Invert Elevation	Downstream Invert Elevation	Slope "S" (FT/FT)	Travel Time in Pipe "TT" (min)	Velocity Full V_f (FPS)	Runoff Q_{25} (CFS)	Runoff Q_{100} (CFS)	Full Flow Q_f (CFS)	
1	10	0.76	0.96	0.73	0.96	0.73	5.00	8.53	1.10	6.8	10	11	998.80	3.50	18	115.79	995.30	994.72	0.0050	0.46	4.2	6.8	9.4	7.4	FUTURE (BY OTHERS)
								10.32	1.25	9.4														
	11	0.76	0.72	0.55	1.68	1.28	5.00	8.53	1.10	12.0	11	12	998.20	4.92	24	116.80	993.28	992.70	0.0050	0.38	5.1	12.0	16.5	16.0	
								10.32	1.25	16.5														
	12	0.76	0.91	0.69	2.59	1.97	5.00	8.53	1.10	18.5	12	13	998.50	5.90	24	236.69	992.60	990.92	0.0070	0.65	6.1	18.5	25.4	18.9	
								10.32	1.25	25.4														
	13	0.76	0.00	0.00	2.59	1.97	5.00	8.53	1.10	18.5	13	EX	1002.77	11.95	24	94.13	990.82	989.79	0.0109	0.21	7.6	18.5	25.4	23.6	EXISTING
								10.32	1.25	25.4														

SCALE: 1"=30'
0' 30' 60'

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PLANNING ENGINEERING IMPLEMENTATION

STATE OF MISSOURI — JUDD DAVID CLAUSSEN — NUMBER PE-29850 — 04/12/2024 — PROFESSIONAL ENGINEER

DRAINAGE MAP

ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

No.	Revisions:	Date	By	App.

PROJECT NO. 240159
DATE: 04-12-2024 | DRAWN: AEB
CHECKED, DAF | APPROVED: JDC
CERTIFICATE OF AUTHORIZATION KANSAS SURVEYING – LS-82 KANSAS ENGINEERING – E-391
CERTIFICATE OF AUTHORIZATION LAND SURVEYING-2007001128 ENGINEERING-2007005028

SHEET
C4

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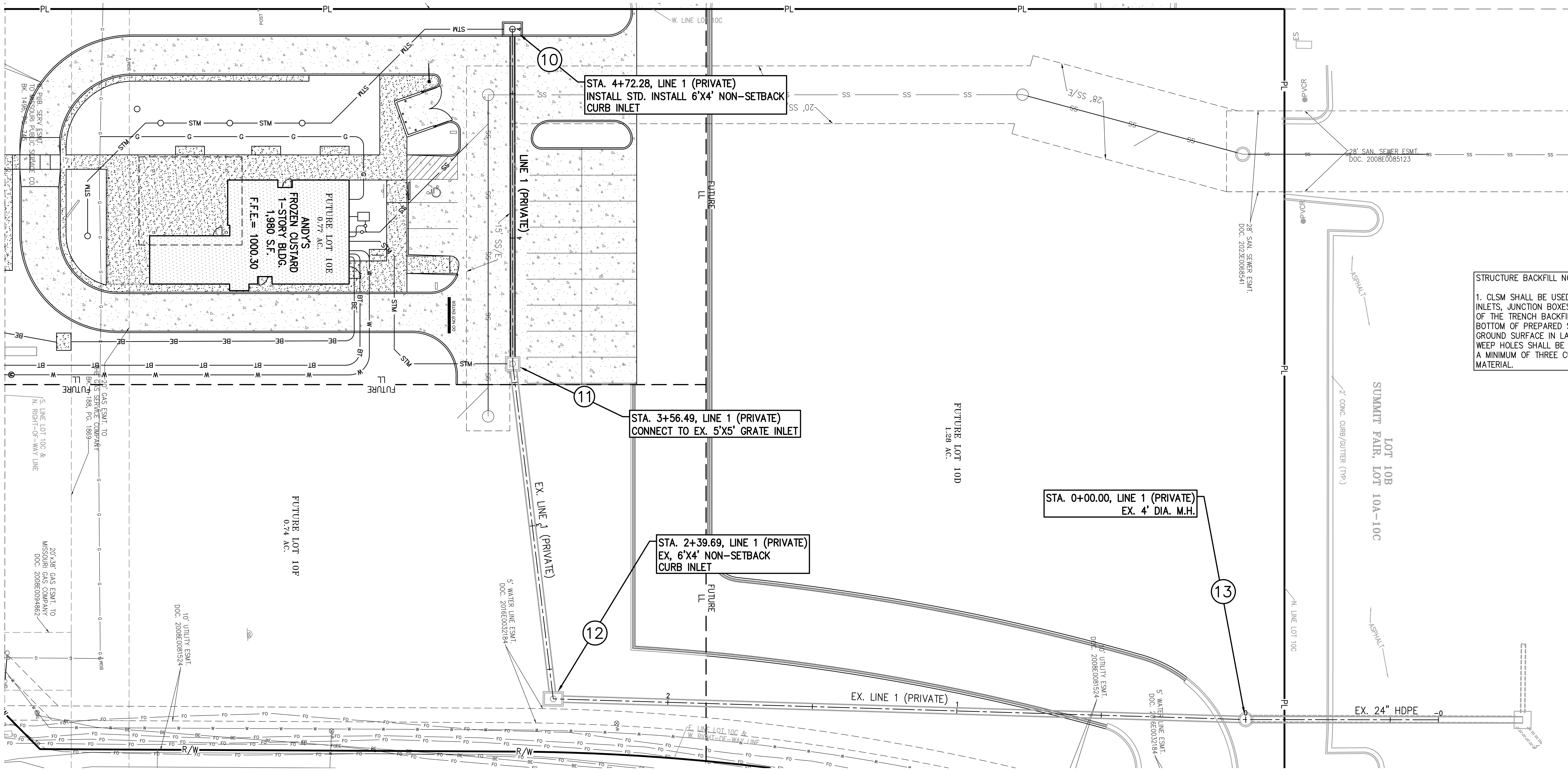
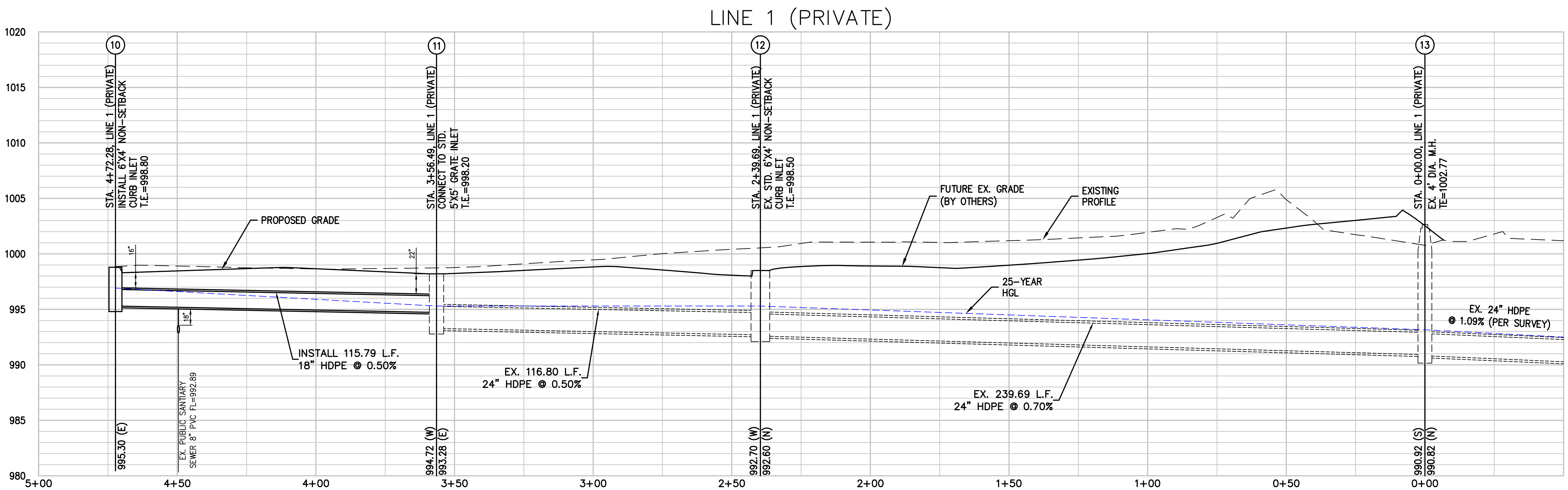


STA. 4+72.28, LINE 1 (PRIVATE)
INSTALL STD. INSTALL 6'X4' NON-SETBACK CURB INLET
STA. 3+56.49, LINE 1 (PRIVATE)
CONNECT TO EX. 5'X5' GRATE INLET
STA. 2+39.69, LINE 1 (PRIVATE)
EX. 6'X4' NON-SETBACK CURB INLET
STA. 0+00.00, LINE 1 (PRIVATE)
EX. 4' DIA. M.H.
10
11
12
13
LINE 1 (PRIVATE)
EX. LINE 1 (PRIVATE)
EX. 24" HDPE
FUTURE LOT 10E
0.77 AC.
ANDY'S FROZEN CUSTARD
1-STORY BLDG.
1,980 S.F.
F.F.E.= 1000.30
FUTURE LOT 10D
1.28 AC.
FUTURE LOT 10F
0.74 AC.
LOT 10B
SUMMIT FAIR, LOT 10A-10C
FUTURE LL
28' SAN. SEWER ESMT.
DOC. 2008E0085123
SCALE: 1"=20'
LINE 1
SCALE: 1"=20' HORIZ.
1"= 5' VERT.

STRUCTURE BACKFILL NOTES:

1. CLSM SHALL BE USED TO BACKFILL AROUND STRUCTURES, SUCH AS MANHOLES, INLETS, JUNCTION BOXES, VAULTS, ETC. CLSM SHALL BE PLACE THE FULL DEPTH OF THE TRENCH BACKFILL ZONE, BUT SHALL BE AT LEAST 6 INCHES BELOW THE BOTTOM OF PREPARED SUBGRADE UNDER PAVEMENTS OR 12 INCHES BELOW THE GROUND SURFACE IN LANDSCAPED AREAS. THE EXTERNAL OPENING SURFACES OF WEEP HOLES SHALL BE COVERED WITH HARDWARE CLOTH AND SURROUNDED WITH A MINIMUM OF THREE CUBIC FEET OF CONSOLIDATED GRANULAR BEDDING MATERIAL.

LINE 1 (PRIVATE)



STA. 4+72.28, LINE 1 (PRIVATE)
INSTALL 6'X4' NON-SETBACK CURB INLET
T.E.=998.80
STA. 3+56.49, LINE 1 (PRIVATE)
CONNECT TO STD. 5'X5' GRATE INLET
T.E.=998.20
STA. 2+39.69, LINE 1 (PRIVATE)
EX. STD. 6'X4' NON-SETBACK CURB INLET
T.E.=998.50
STA. 0+00.00, LINE 1 (PRIVATE)
EX. 4' DIA. M.H.
TE=1002.77
PROPOSED GRADE
FUTURE EX. GRADE (BY OTHERS)
EXISTING PROFILE
25-YEAR HGL
INSTALL 115.79 L.F.
18" HDPE @ 0.50%
EX. 116.80 L.F.
24" HDPE @ 0.50%
EX. 239.69 L.F.
24" HDPE @ 0.70%
EX. 24" HDPE
@ 1.09% (PER SURVEY)
EX. PUBLIC SANITARY SEWER 8" PVC FL=992.89
995.30 (E)
994.72 (W)
993.28 (E)
992.70 (W)
992.60 (N)
990.92 (S)
990.82 (N)
1020
1015
1010
1005
1000
995
990
985
980
5+00
4+50
4+00
3+50
3+00
2+50
2+00
1+50
1+00
0+50
0+00

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JUDD DAVID CLAUSSEN
NUMBER PE-29850
04/12/2024

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PLANNING
ENGINEERING
IMPLEMENTATION

STORM SEWER PLAN & PROFILE

ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

No.	Date	Revisions	By	App.

PROJECT NO. 240159
DATE: 04-12-2024 | DRAWN: AEB
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SHEET
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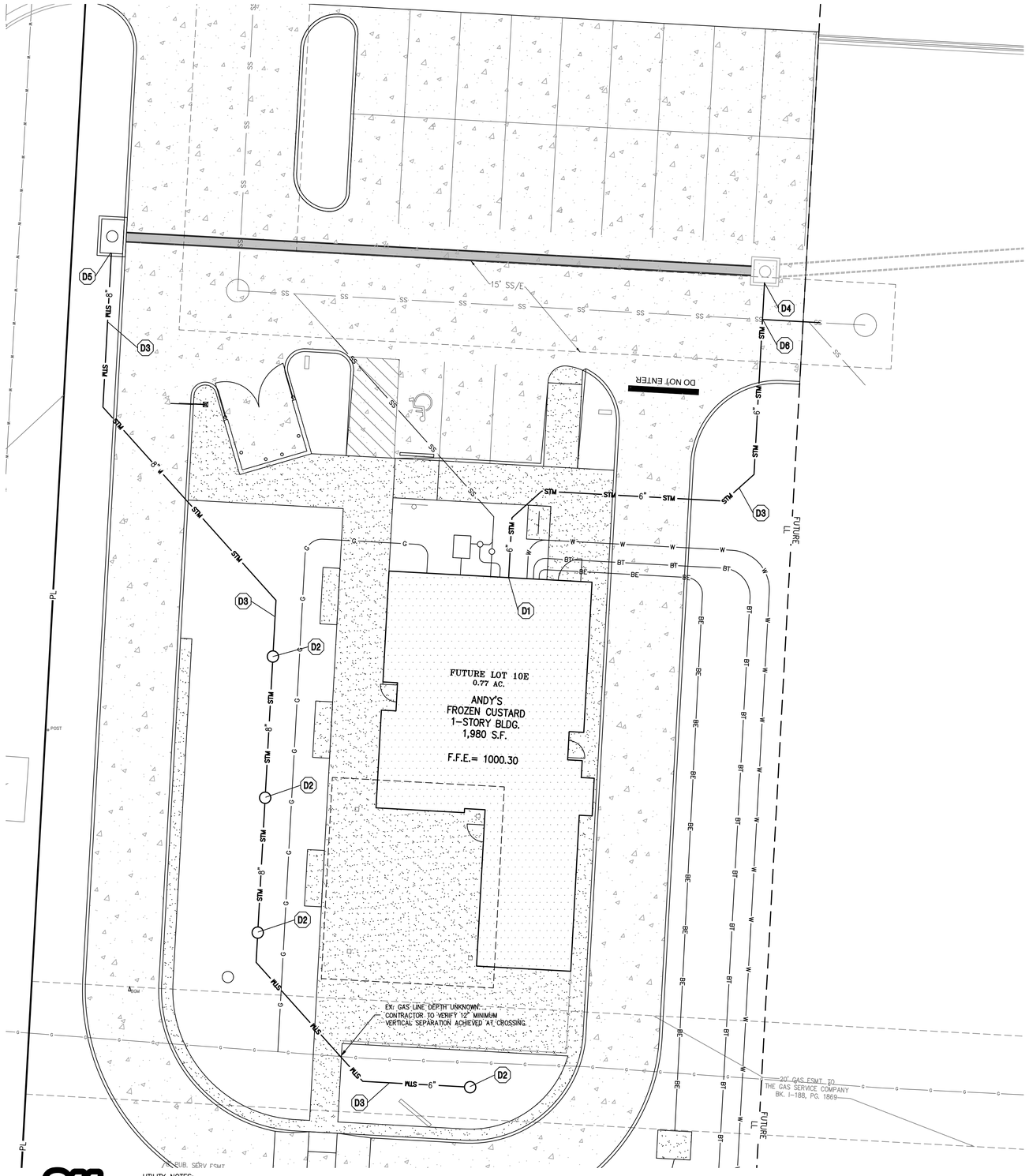


UTILITY KEY NOTES:

D1 PROPOSED 6" INTERNAL ROOF DRAIN CONNECTION. (RE: MEP PLANS). CONNECT TO INTERNAL ROOF DRAIN AND INSTALL UNDERGROUND SECONDARY STORM LINE.

D2 INSTALL PRIVATE 18" NYOPLAST INLET DRAIN W/ STANDARD GRATE (SEE SHEET C7.3 FOR DETAIL).

D3 INSTALL HDPE SECONDARY STORM LINE AT 1.0% MINIMUM SLOPE MAINTAINING 12" MINIMUM COVER (TYP).

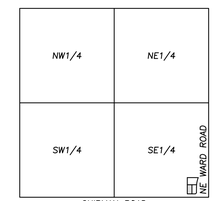
D4 CORE DRILL AND CONNECT TO EXISTING GRATE INLET.
TE=998.20
PROP 6" FL (S)=996.00
EX. 24" FL (E)=993.28

D5 CORE DRILL AND CONNECT TO EXISTING GRATE INLET.
TE=998.70
PROP 8" FL (S)=996.00
EX. 24" FL (E)=995.30

D6 UTILITY CROSSING
FG = 998.30
EX. 8" SANITARY FL=994.4±
PROP. 6" STORM FL=996.1±
VERTICAL SEP. = 12"

LEGEND

PL	PROPERTY LINE
LL	LOT LINE
R/W	RIGHT-OF-WAY
CATV	EXISTING CABLE TELEVISION LINE
FO	EXISTING FIBER OPTIC LINE
G	EXISTING GAS LINE
BE	EXISTING BURIED ELECTRIC LINE
OHP	EXISTING OVERHEAD POWER LINE
OHT	EXISTING OVERHEAD TELEPHONE LINE
SS	EXISTING SANITARY SEWER LINE
24"HDPE	EXISTING STORM SEWER LINE (& SIZE)
BT	EXISTING BURIED TELEPHONE LINE
W 6"	EXISTING WATER LINE (& SIZE)
SS	PROPOSED SANITARY SEWER LINE
24"HDPE	PROPOSED STORM SEWER LINE (& SIZE)



VICINITY MAP
SEC. 36-48-32

SCALE: 1"=2000'

SCALE: 1"=10'
0' 10' 20'

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

UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN. UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-2009050
04/12/2024

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PLANNING
ENGINEERING
IMPLEMENTATION

SECONDARY STORM PLAN

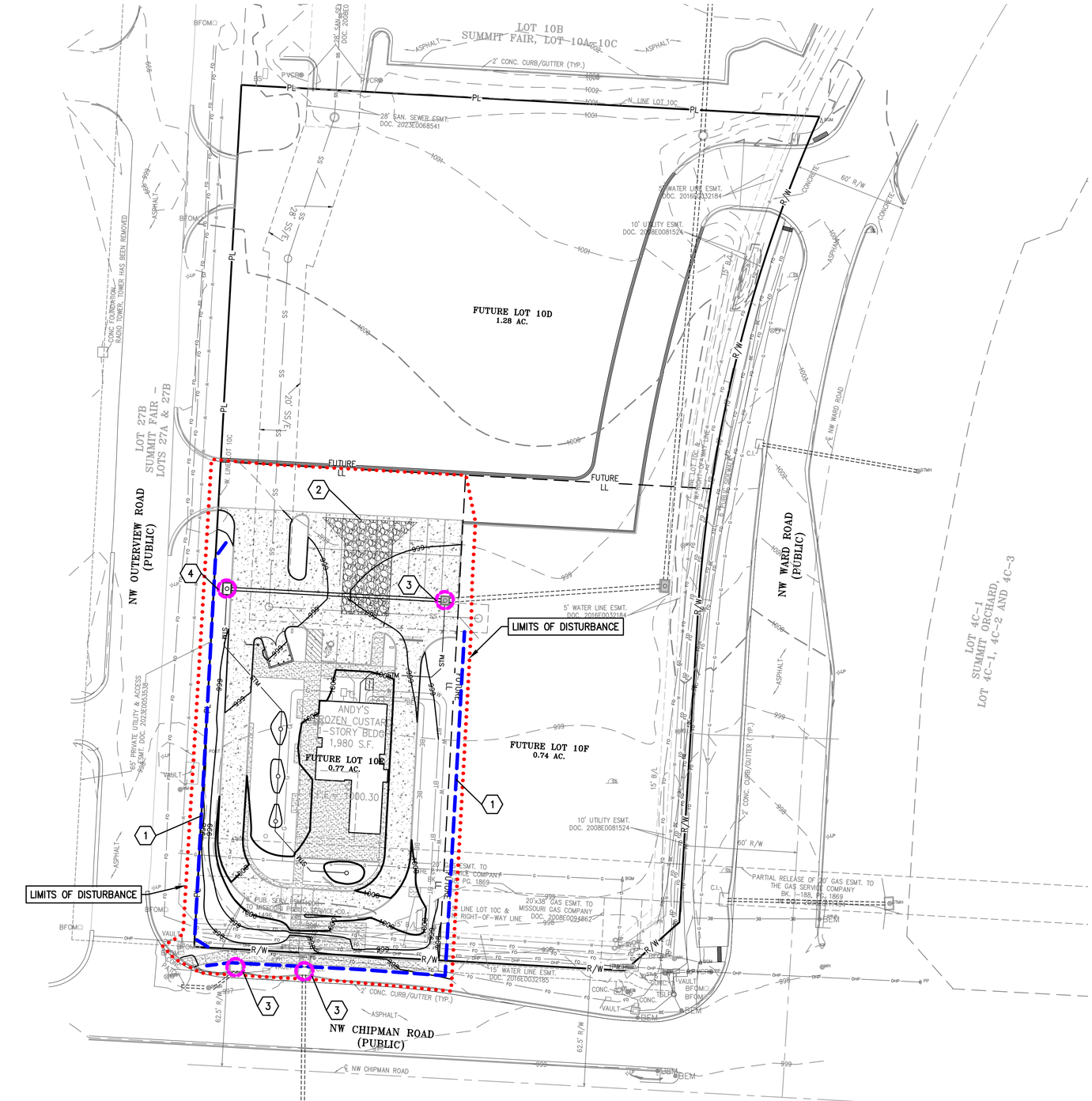
ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

No.	Date	Revisions:	By	App.

PROJECT NO. 240159
DATE 04-12-2024 DRAWN: AEB
CHECKED: DAF APPROVED: JDC
CERTIFICATE OF AUTHORIZATION KANSAS SURVEYING - LS-82
ENGINEERING - E-391
CERTIFICATE OF AUTHORIZATION LAND SURVEYING-2007001128
ENGINEERING-2007005038

SHEET
C5.1

\\PHELPS-SERVER\projects\P\240159\Dwg\Permit Plans\SECONDARY STORM.dwg Layout:1 Apr 12, 2024 - 4:59pm Daniel Finn



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

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

1. Prior to Land Disturbance activities, the contractor shall:
   –Delineate the outer limits of any tree or stream preservation designated to remain with construction fencing.
   –Construct a stabilized entrance/parking/delivery area and install all perimeter sediment controls on the site.
   –Install and request the inspection of the preconstruction erosion and sediment control measures designated on the approved erosion and sediment control plan. Land disturbance work shall not proceed until t here is a satisfactory inspection.
   –Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing, placement of physical barriers or other means acceptable to the contractor and the City inspector.
2. Erosion and sediment control devices protecting the public right–of–way shall be installed as soon as the right–of–way has been backfilled and graded.
3. The contractor shall comply with all requirements of City Ordinances or State permit requirements, such as:
   –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 least once a every 14 days and within 24 hours following each rainfall event of ½" or more within any 24–hour period
   –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 log shall be available for review by the City, the State of Missouri, or other authorities having jurisdiction.
4. The contractor shall maintain installed erosion and sediment control devices on a manner that preserves their effectiveness for preventing sediment from leaving the site or entering a sensitive area such as a natural stream corridor, tree preservation areas of the site intended to be left undisturbed, a storm sewer, or an on–site drainage channel. Failure to do so is a violation of the provisions of City Ordinances and State permit requirements.
5. The contractor is responsible for providing erosion and sediment control for the duration of a project. If the City determines that the BMP's 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 rinsewater from concrete mixing equipment, tools and/or ready–mix trucks, toals, 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 and excess water evaporated or infiltrated into the ground.
7. Chemicals or materials capable of causing pollution may only be stored onsite in their original container. Materials store outside must be in closed and sealed water–proof containers and located outside of drainageways 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.

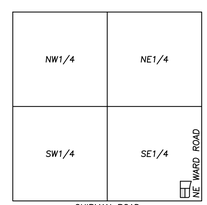
MAINTENANCE: ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLANATION, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE–THIRD THE HEIGHT OF THE SILT FENCE.
4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

STAGING CHART

		Project Stage	Order	BMP Description	Remove after Stage:	Notes:
Phase I	A.	Prior to Land Disturbance and During Construction.	1	Sediment Fence	D	Place downstream project site perimeter. (APWA ESC–10)
			2	Constr Entrance & Staging Area	D	Maintain during all construction. Include concrete washout. (APWA ESC–01)
			3	Inlet Protection at Existing Inlets	D	Install inlet protection. (APWA Details ESC–06 & ESC–07)
Phase II	B.	Mass Grading & Utility Installation	4	Inlet Protection at Proposed Inlets	D	Install inlet protection. (APWA Details ESC–06 & ESC–07)
Phase III	C.	Final Stabilization Prior to closure of Land Disturbance Permit		Final Stabilization	N/A	Seed all disturbed areas to establish final stabilization.

DISTURBED AREA = 0.8± ACRES



VICINITY MAP
SEC. 36–48–32

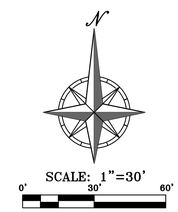
LEGEND

STABILIZED ROCK ENTRANCE

LIMITS OF DISTURBED AREA

PROPOSED SILT FENCE

INLET PROTECTION
–PRIOR TO PAVING USE SILT FENCE INLET PROTECTION WITH WIRE SUPPORT
–AFTER TO PAVING USE GRAVEL FILTER BAGS



STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-29850
04/12/2024

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PLANNING
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IMPLEMENTATION

EROSION CONTROL PLAN

ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

No.	Revisions:	Date	By	App.

PROJECT NO. 240159
DATE: 04-12-2024 | DRAWN: AEB
CHECKED: DAF | APPROVED: JDC
CERTIFICATE OF AUTHORIZATION KANSAS SURVEYING – LS–82 KANSAS ENGINEERING – E–387

CERTIFICATE OF AUTHORIZATION MISSOURI LAND SURVEYING–2007001128 ENGINEERING–2007035038

SHEET
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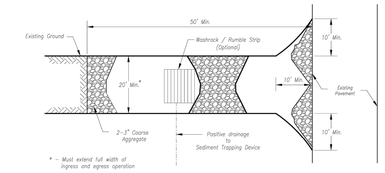
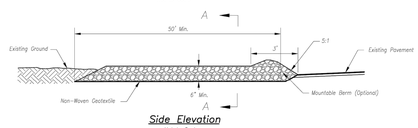
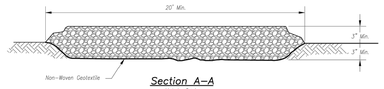
\\PHELPS-SERVER\projects\P\240159\Dwg\Permit Plans\EROSION.dwg Layout:1 Apr 12, 2024 - 4:41pm Daniel Fine



Plan View
Not to Scale



Side Elevation
Not to Scale



Section A-A
Not to Scale

Notes for Construction Entrance:

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

Maintenance for Construction Entrance:

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

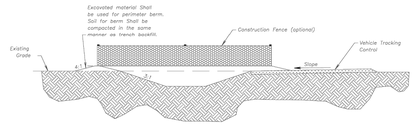
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

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

Maintenance for Concrete Washout:

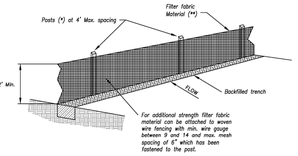
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface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



CONCRETE WASHOUT

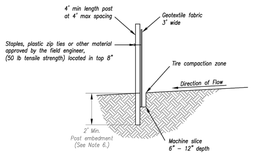
Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METRO CHAPTER
CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT	STANDARD DRAWING NUMBER ESC-01 ADOPTED: 10/24/2016



(*) POSTS
- MIN. LENGTH 4'
- HARDWOOD 1 ½" x 1 ½"
- NO.2 SOUTHERN PINE 2 ½" x 2 ½"
- STEEL 1.33 LB/FT

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



SILT FENCE DETAILS
Not to Scale

Notes:

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

Maintenance:

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

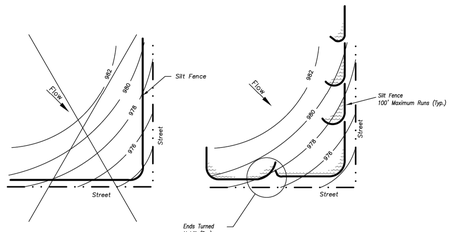
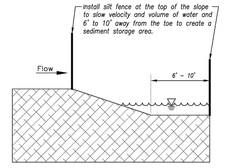
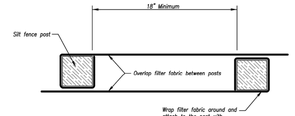


Figure A

SILT FENCE LAYOUT
Not to Scale

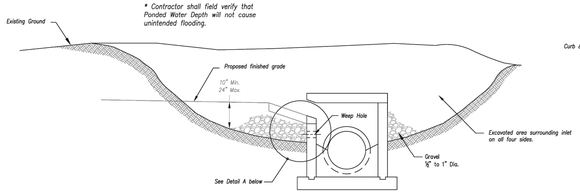


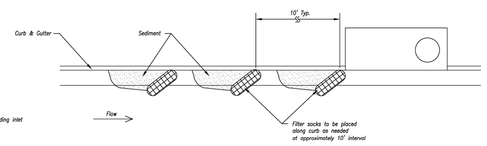


JOINING FENCE SECTIONS
Not to Scale

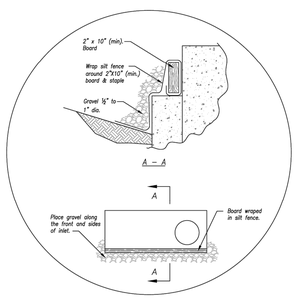
Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METRO CHAPTER
SILT FENCE	STANDARD DRAWING NUMBER ESC-03 ADOPTED: 10/24/2016





On Grade Curb Inlet Protection



Detail A

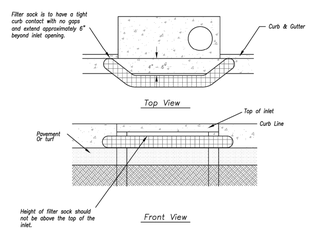
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

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

Maintenance:

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

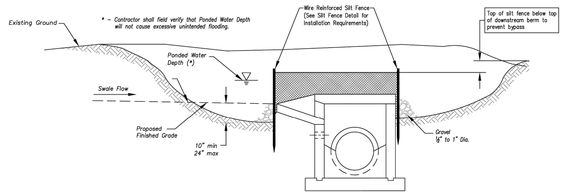


Sump Inlet Sediment Filter

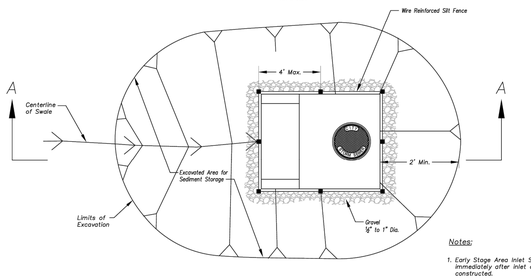
LATE STAGE CURB INLET
(After Pouring Curb and Inlet Throat)

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

AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METRO CHAPTER
CURB INLET PROTECTION	STANDARD DRAWING NUMBER ESC-06 ADOPTED: 10/24/2016



Section A–A
Not to Scale

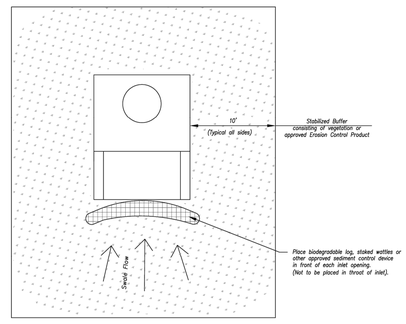


Plan
Not to Scale

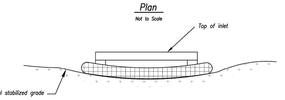
EARLY STAGE AREA INLET
(All open boxes and inlets not at final grade)

Notes:

1. Early Stage Area Inlet Sediment Barrier to be installed immediately after inlet or junction box is constructed.
2. Silt fence shall remain in place until excavated area is removed and Late Stage Area Inlet is being installed.
3. Backfill excavated area ONLY after final grading of the site. Stabilization of the site is to immediately follow.
4. Wire reinforced silt fence may be used in place of silt fence attached to wood frame.



Plan
Not to Scale



Front View

LATE STAGE AREA INLET
(Area inlets at final grade and existing inlets)

Maintenance:

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

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

AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METRO CHAPTER
AREA INLET AND JUNCTION BOX PROTECTION	STANDARD DRAWING NUMBER ESC-07 ADOPTED: 10/24/2016

STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-29850
04/12/2024
PROFESSIONAL ENGINEER

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PLANNING
ENGINEERING
IMPLEMENTATION

EROSION CONTROL DETAILS

ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

No.	Date	Revisions:	By	App.

PROJECT NO. 240159
DATE: 04-12-2024 | DRAWN: AEB
CHECKED: DAF | APPROVED: JDC
CERTIFICATE OF AUTHORIZATION KANSAS ENGINEERING – LS-82 MISSOURI ENGINEERING – E-391
CERTIFICATE OF AUTHORIZATION LAND SURVEYING–2007001128

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\\PHELPS-SERVER\projects\P\240159\Dwg\Permit Plans\DETAILS – EROSION.dwg Layout:1 Apr 12, 2024 - 4:41pm Daniel Finn

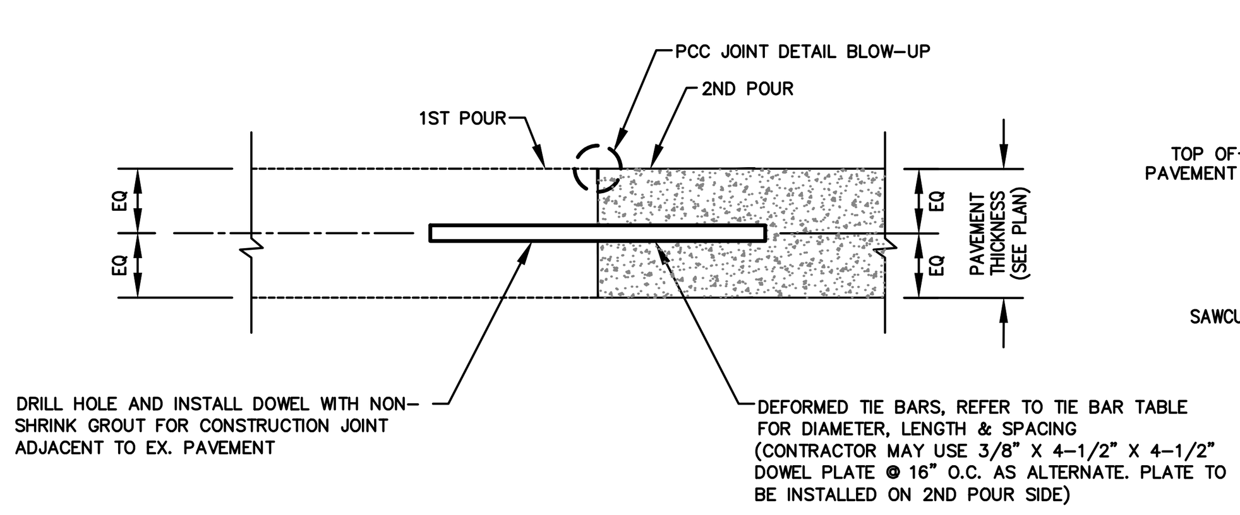
Dowel size*

Slab depth, in. (mm)	Dowel diameter, in. (mm)	Dowel embedment, in. (mm)†	Total dowel length, in. (mm)‡
5 (125)	5/8 (16)	5 (125)	12 (300)
6 (150)	3/4 (19)	6 (150)	14 (360)
7 (180)	7/8 (22)	6 (150)	14 (360)
8 (200)	1 (25)	6 (150)	14 (360)
9 (230)	1-1/8 (29)	7 (180)	16 (400)

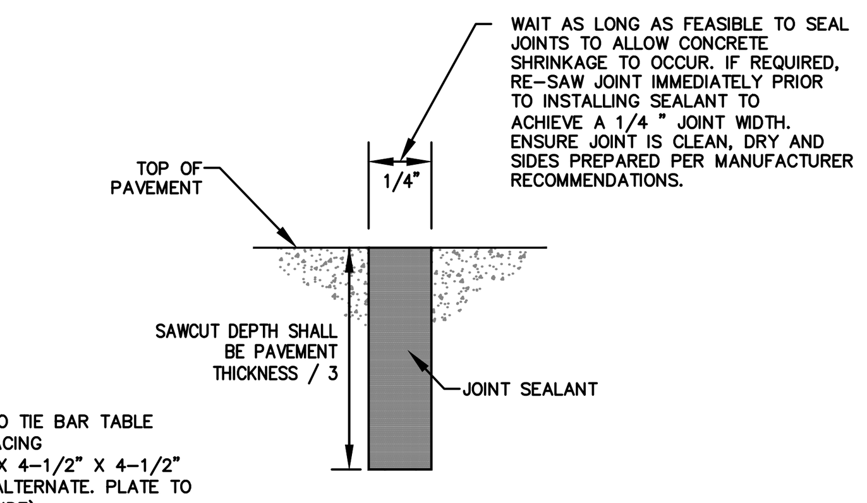
*All dowels spaced at 12 in. (300 mm) centers.
†On each side of joint.
‡Allowance made for joint openings and for minor errors in positioning dowels.

Tie bar dimensions

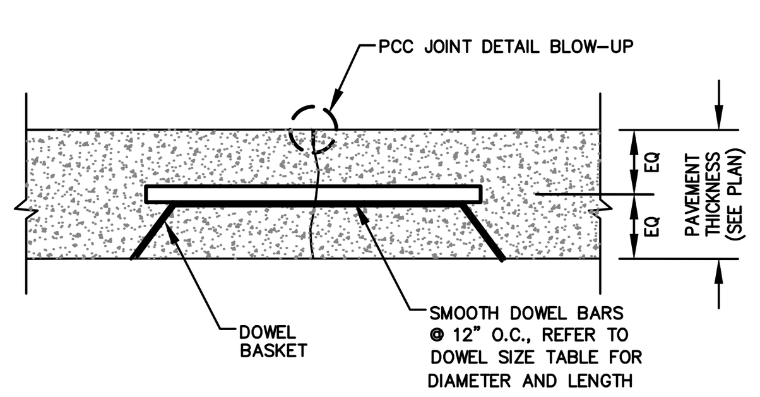
Slab depth, in. (mm)	Tiebar size, in. (mm)	Tiebar spacing			
		Distance to nearest free edge or to nearest joint where movement can occur			
		10 ft, in. (mm)	12 ft, in. (mm)	14 ft., in. (mm)	24 ft, in. (mm)
5 (125)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	28 (710)
5-1/2 (140)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	25 (630)
6 (150)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	23 (580)
6-1/2 (165)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	21 (530)
7 (180)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	20 (510)
7-1/2 (190)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	18 (460)
8 (200)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	28 (710)	17 (430)
8-1/2 (215)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	36 (910)	16 (410)
9 (230)	1/2 x 30 (13 x 760)	36 (910)	36 (910)	—	24 (610)



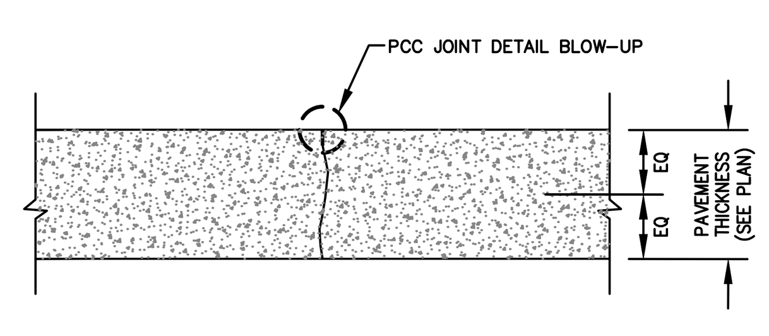
CONSTRUCTION JOINT



PCC JOINT DETAIL BLOW-UP (TYP.)



CONTRACTION JOINT (DOWELED)



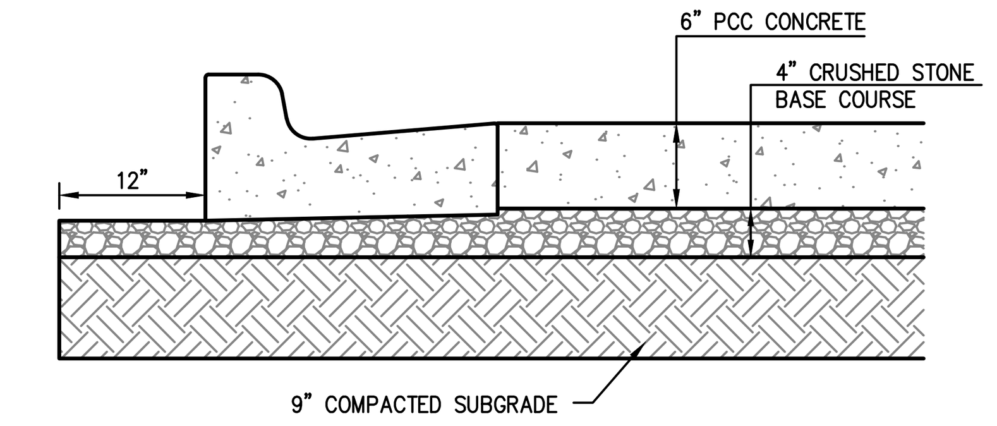
CONTRACTION JOINT (UNDOWELED)

CONCRETE JOINT DETAILS

SCALE: N.T.S.

GENERAL PAVING NOTES:

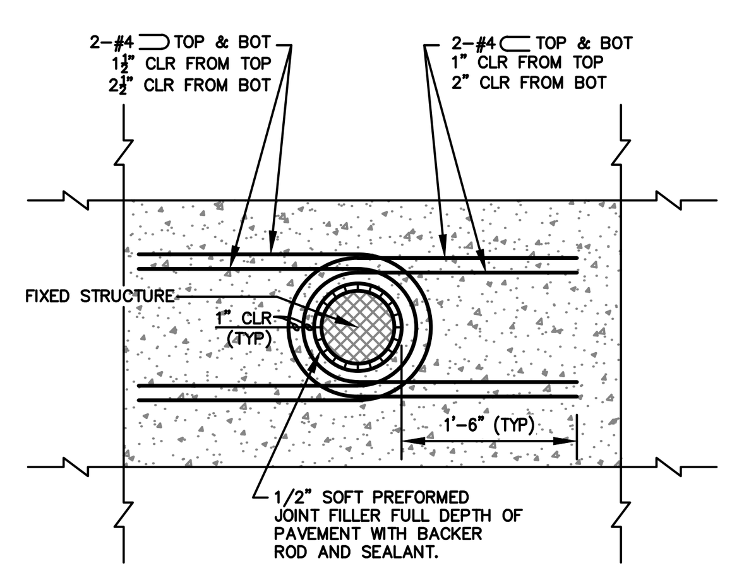
1. PRIOR TO PLACEMENT OF GRANULAR BASE OR ASPHALT, PROOF ROLL AND RE-COMPACT THE EXPOSED SURFACES UP TO A MINIMUM LATERAL DISTANCE OF TWO (2) FEET OUTSIDE THE PAVEMENT. ANY LOCALIZED SOFT, WET, OR LOOSE AREAS IDENTIFIED DURING THE PROOF ROLLING SHOULD BE REPAIRED PRIOR TO PAVING. FILL MATERIAL SHOULD BE PLACED IN LOOSE LIFTS UP TO A MAXIMUM OF EIGHT (8) INCHES IN THICKNESS AND COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698 AT MOISTURE CONTENTS WITHIN 0% AND +4% OF THE OPTIMUM FOR SOILS WITH A LIQUID LIMIT OF GREATER THAN 40, AND – +/– 3% OF THE OPTIMUM FOR SOILS WITH A LIQUID LIMIT OF LESS THAN 40. MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT SHOULD BE DETERMINED BY THE STANDARD PROCTOR TEST (ASTM D 698).
2. PROOFROLL WITH A 25 TON RUBBER TIRE VEHICLE AND REPAIR SUBGRADE DEFICIENCIES. IF ANY SIGNIFICANT EVENT, SUCH AS PRECIPITATION, OCCURS AFTER PROOFROLLING, THE SUBGRADE SHOULD BE REVIEWED BY QUALIFIED PERSONNEL IMMEDIATELY PRIOR TO PLACING THE PAVEMENT.
3. CRUSHED STONE BASE COURSE USED BENEATH CONCRETE PAVING SHALL BE COMPACTED AB-3 OR EQUIVALENT.
4. ALL SITE CONCRETE (CURBS, PAVEMENTS, SIDEWALKS, ETC.) SHALL MEET KANSAS CITY MATERIALS METRO BOARD (KCMMB) MIX DESIGN SPECIFICATIONS FOR 4,000 P.S.I. AIR ENTRAINED CONCRETE.
5. IN NEW PAVEMENT AREAS, CONTRACTOR SHALL OVER EXCAVATE AS REQUIRED TO ESTABLISH NEW COMPACTED SUBGRADE ELEVATIONS.
6. CONTRACTOR IS RESPONSIBLE FOR ALL PAVEMENT AND SUBGRADE MATERIALS TESTING
7. FIBER REINFORCEMENT SHALL BE USED IN ALL CONCRETE CURB AND CONCRETE FLATWORK (SIDEWALKS, PAVEMENTS, ETC). ALL FIBERS SHALL BE ALKALI-RESISTANT, NATURAL CELLULOSE FIBERS AS MANUFACTURED BY "SOLOMON ULTRAFIBER 500", OR POLY PROPYLENE FIBRILLATED FIBERS AS MANUFACTURED BY "SIKA FIBERMESH-300", OR AN APPROVED EQUAL IN ADVANCE BY THE ENGINEER.



CONCRETE PAVING

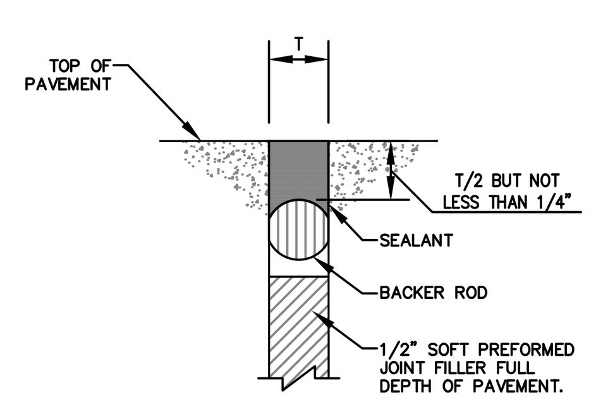
PAVING SECTIONS

SCALE: N.T.S.

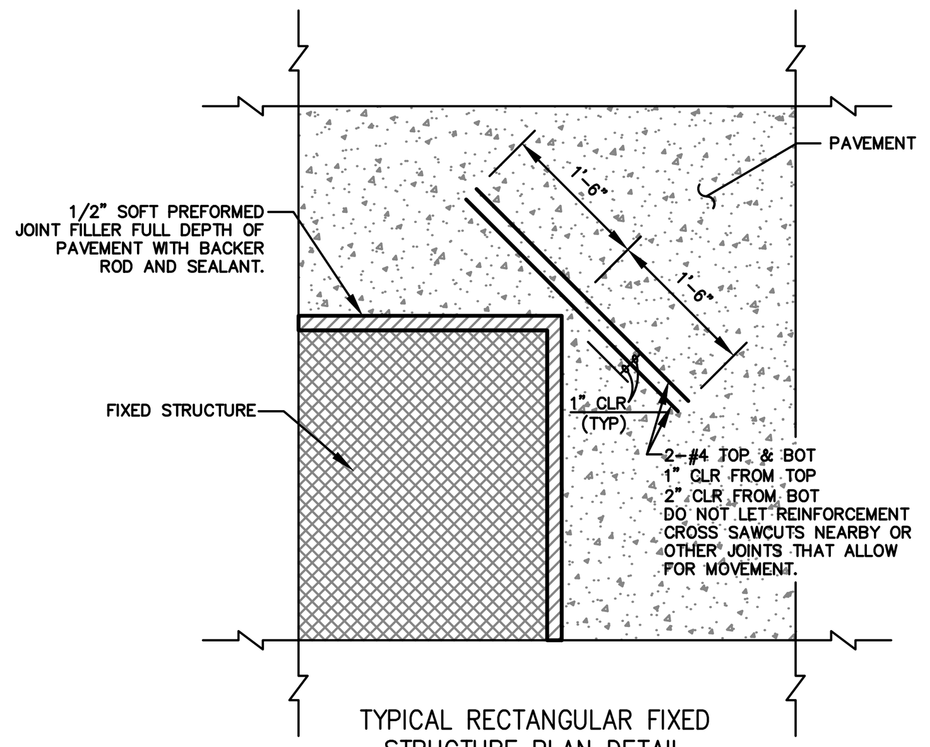


TYPICAL ROUND FIXED
STRUCTURE PLAN DETAIL

USES: MANHOLES, LIGHT POLE BASES AND BOLLARDS

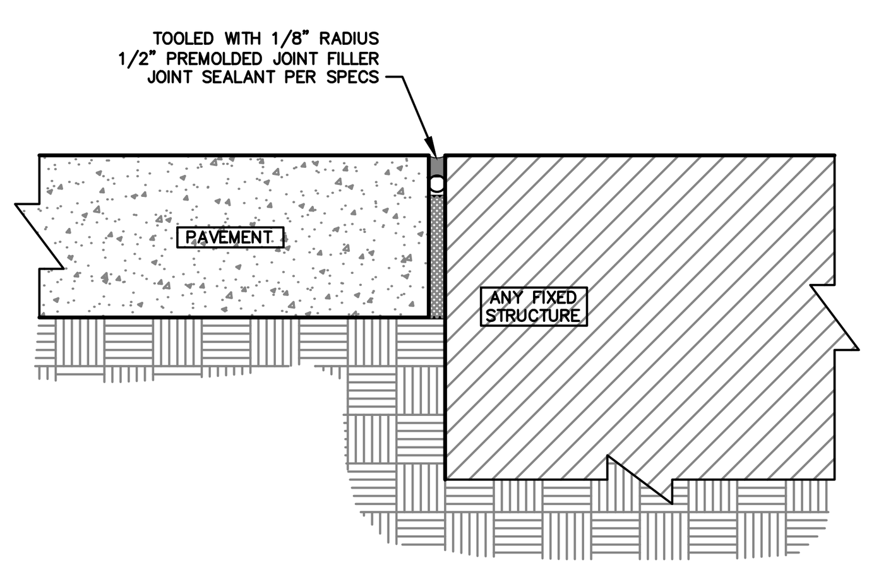


BACKER ROD AND SEALANT
SECTION AT FIXED STRUCTURE



TYPICAL RECTANGULAR FIXED
STRUCTURE PLAN DETAIL

USES: BUILDINGS, RETAINING WALLS/DOCK WALLS AND DROP INLETS



ISOLATION JOINT

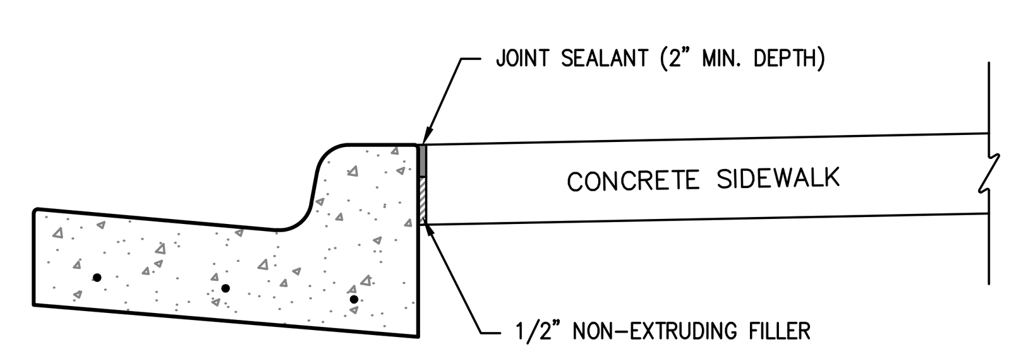
NOTES:

ISOLATION JOINT TO BE USED FOR FIXED STRUCTURES SUCH AS BUILDINGS, RETAINING WALLS/DOCK WALLS, DROP INLETS, MANHOLES, LIGHT POLE BASES AND BOLLARDS.

PAVEMENT IS NOT CONSIDERED A FIXED STRUCTURE.

ISOLATION JOINT DETAILS

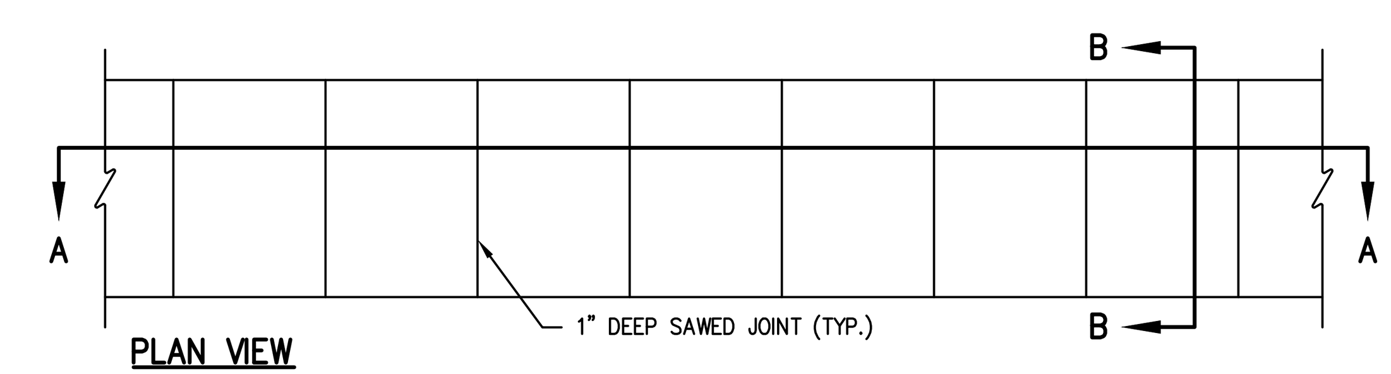
SCALE: N.T.S.



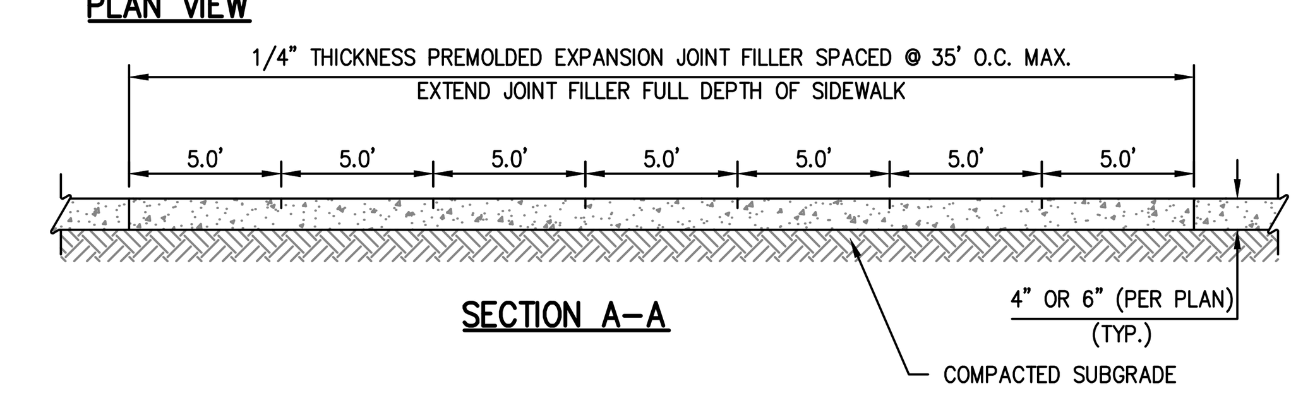
ALL OTHER DETAILS SAME AS SHOWN PER THIS SHEET.

SIDEWALK AT CURB DETAIL

SCALE: N.T.S.

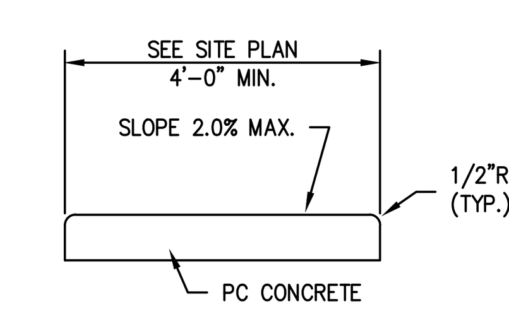


PLAN VIEW



SECTION A-A

NOTE: PROVIDE 1/2" EXPANSION JOINT BETWEEN SIDEWALK AND ALL FIXED OBJECTS

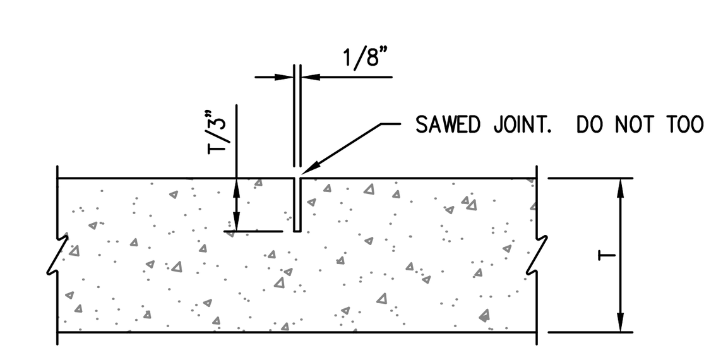


SECTION B-B

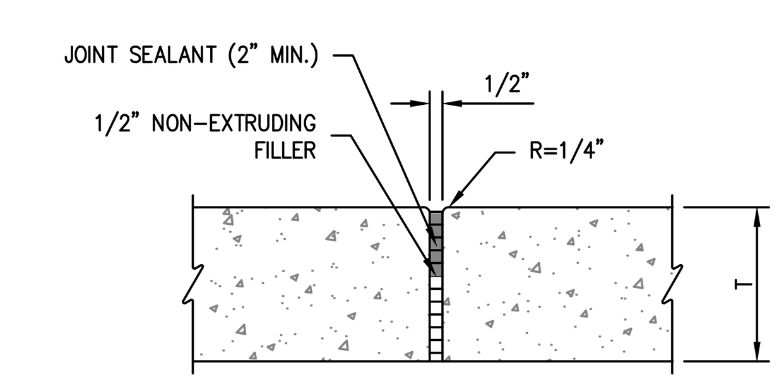
NOTE:
1. USE KANSAS CITY MATERIALS METRO BOARD (KCMMB) MIX DESIGN SPECIFICATIONS FOR 4,000 P.S.I. AIR ENTRAINED CONCRETE FOR ALL PRIVATE SIDEWALKS.

PRIVATE CONCRETE SIDEWALKS (NON REINFORCED)

SCALE: N.T.S.



TYPE A JOINT



TYPE B JOINT

NOTE: TYPE A JOINTS SHALL NOT EXCEED 20 TIMES THE PAVEMENT THICKNESS (T).

CONCRETE SIDEWALK JOINT DETAILS

SCALE: N.T.S.

PHELPS ENGINEERING, INC.
1270 N. Winchester
Olathe, Kansas 66061
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www.phelpsengineering.com

PLANNING
ENGINEERING
IMPLEMENTATION

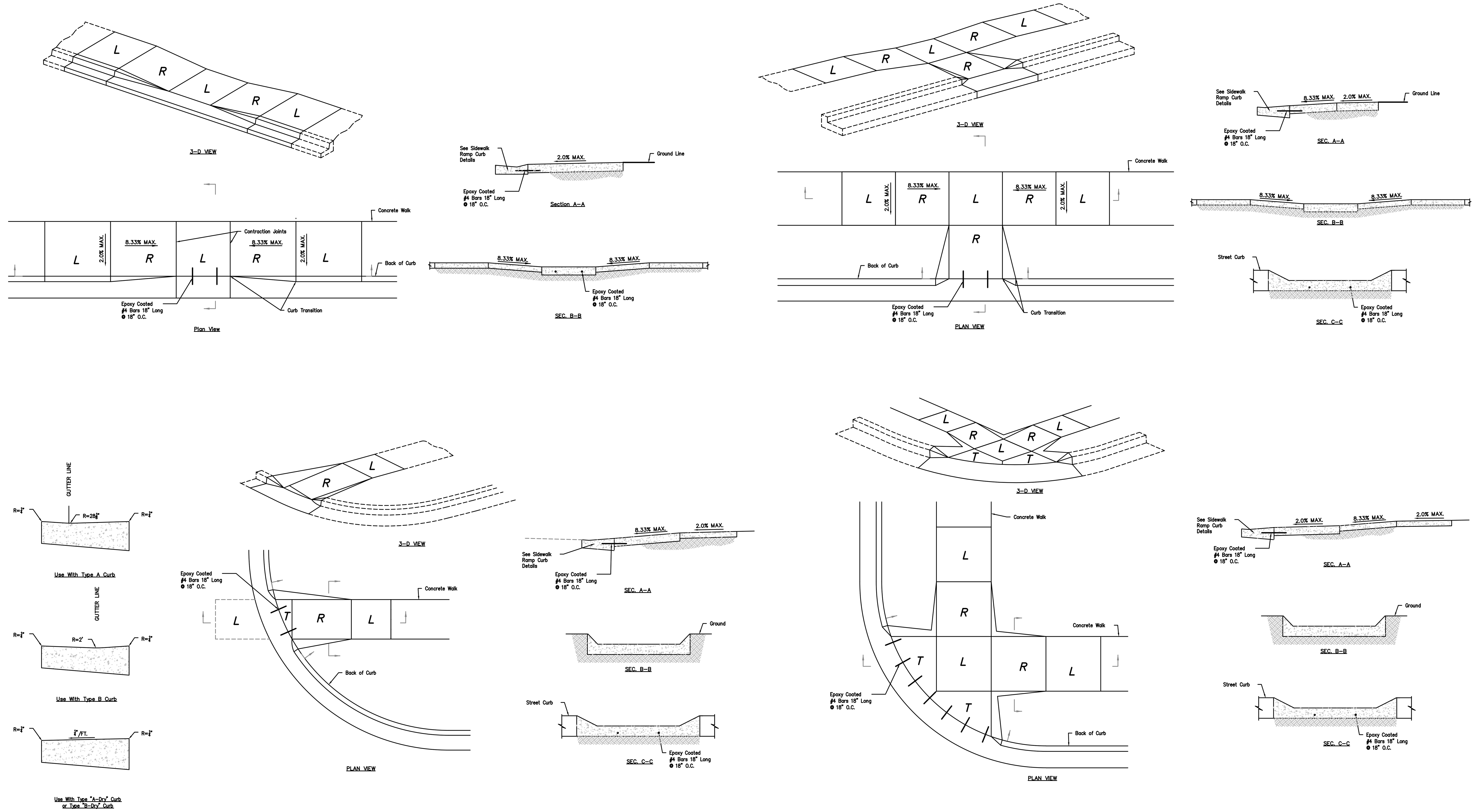
STANDARD DETAILS
ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

No.	Date	Revisions:	By	App.

PROJECT NO. 240159
DATE:04-12-2024 | DRAWN: AEB
CHECKED: DAF | APPROVED: JDC
CERTIFICATE OF AUTHORIZATION KANSAS LAND SURVEYING - LS-82 ENGINEERING - E-391
CERTIFICATE OF AUTHORIZATION MISSOURI LAND SURVEYING - 2007000128 ENGINEERING - 2007005089

SHEET
C7

\\PHELPS-SERVER\projects\P\240159\Dwg\Permit Plans\DETAILS - PRIVATE.dwg Layout:PAVE 1 Apr 12, 2024 - 4:41pm Daniel Finn



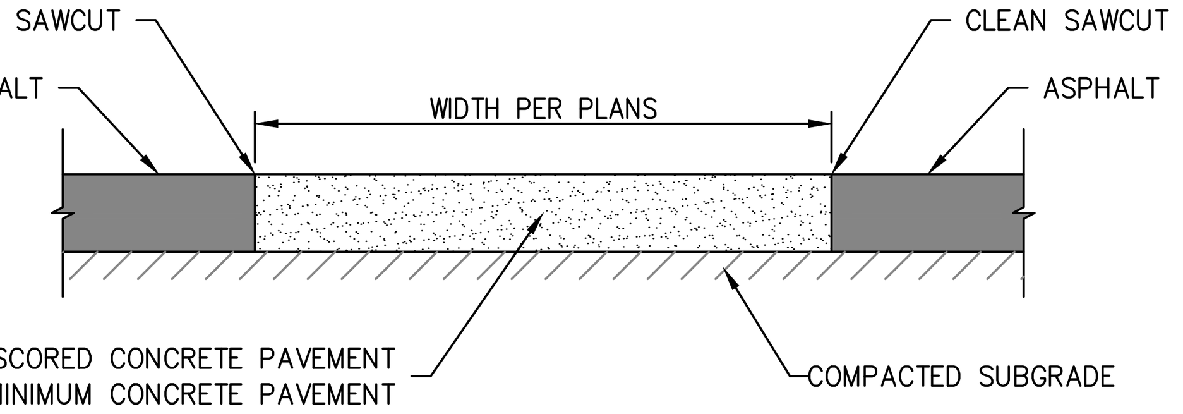
L = LANDING
R = RAMP
T = TRANSITION

RAMP (Required to transition elevation): Max. Longitudinal Slope – 8.33%
Max. Cross Slope – 2.00%
Min. Width – 5'
Min. Length – 5'

LANDING (Required to change direction of travel): Max. Longitudinal Slope – 2.00%
Max. Cross Slope – 2.00%
Min. Width – 5'

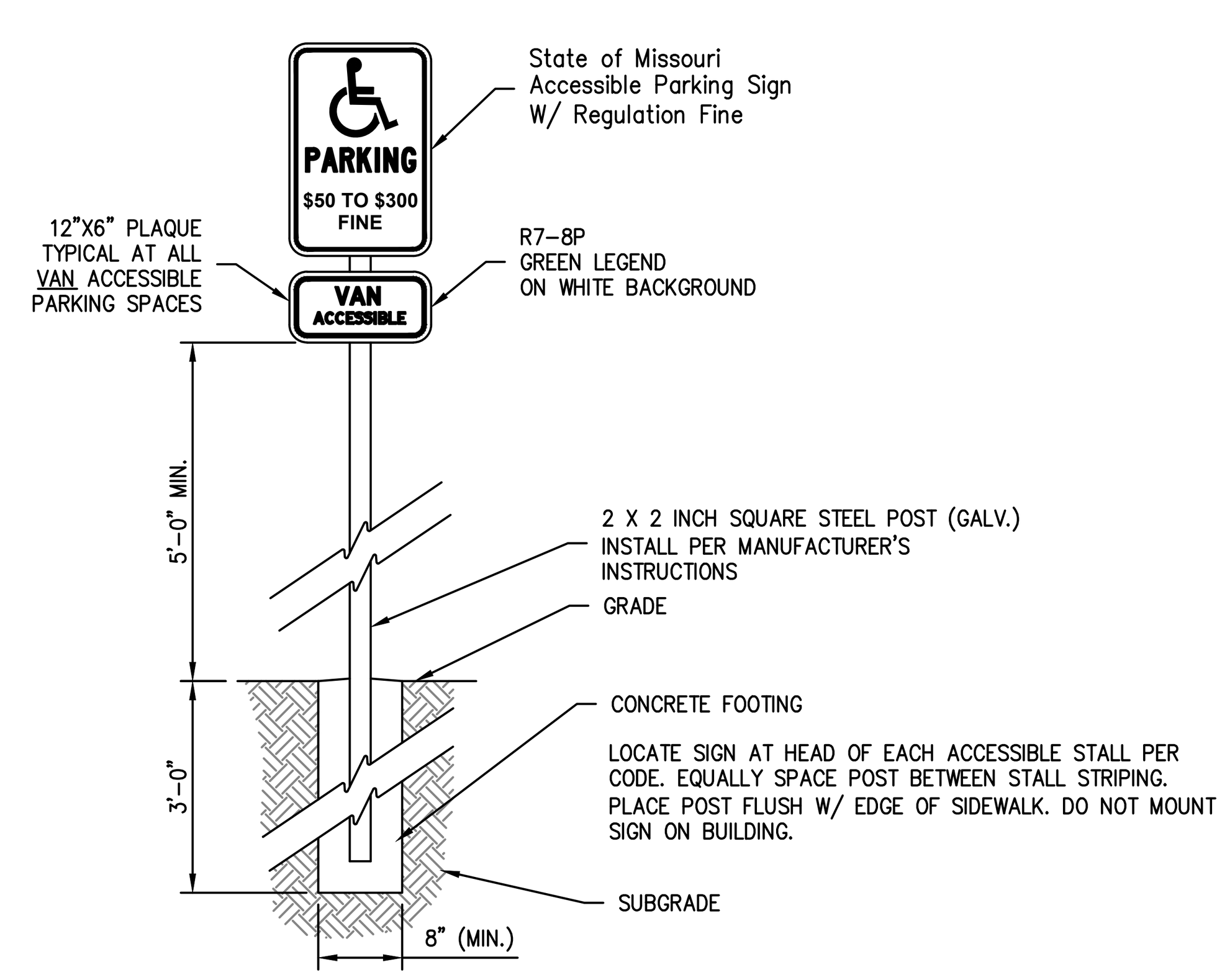
PRIVATE SIDEWALK RAMPS

SCALE: N.T.S.



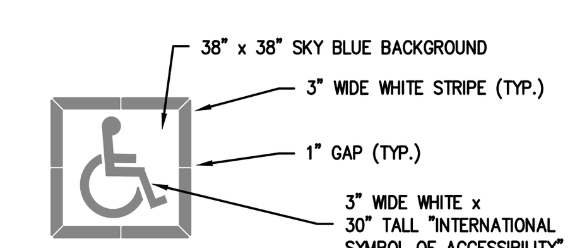
CROSSWALK DETAIL

SCALE: N.T.S.



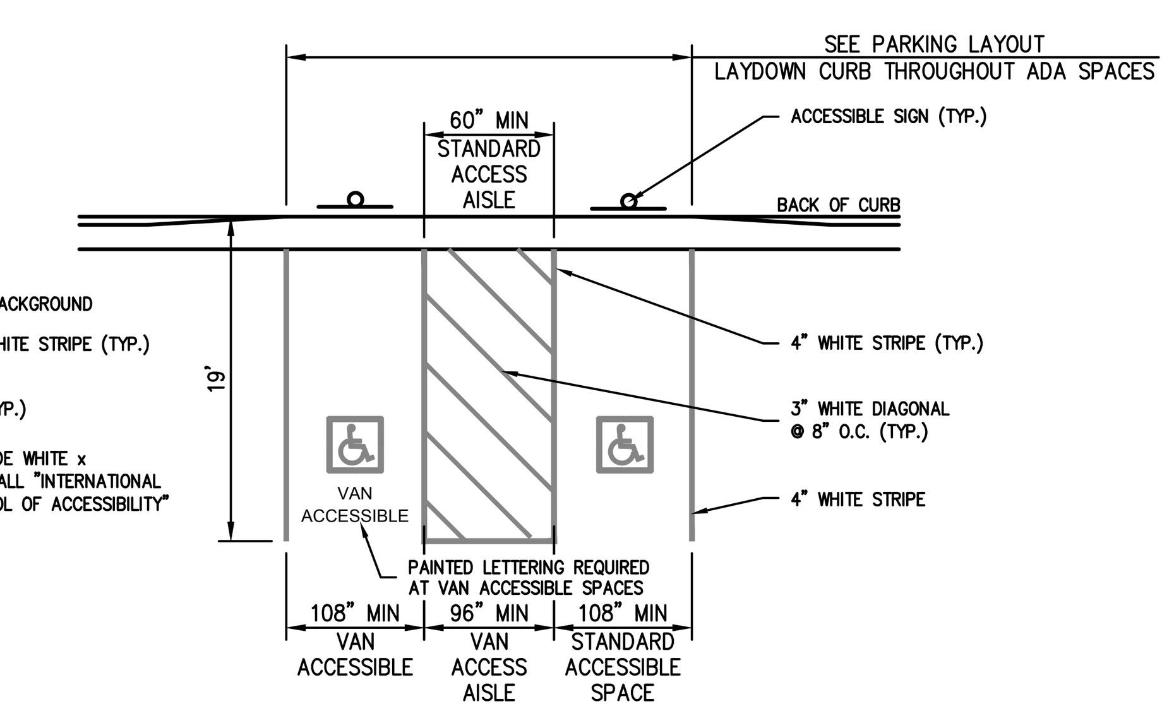
ACCESSIBLE SIGN DETAIL IN GRASS AREA

SCALE: N.T.S.



ACCESSIBLE SYMBOL MARKING DETAIL

SCALE: N.T.S.



GENERAL NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE APPLIED BY A QUALIFIED CONTRACTOR HAVING A MINIMUM 3 YEARS EXPERIENCE IN TRAFFIC GRADE PAVEMENT MARKING APPLICATIONS.
2. PAINT SHALL BE A NON-BLEEDING, QUICK-DRYING, ALKYD PETROLEUM BASE PAINT SUITABLE FOR TRAFFIC-BEARING SURFACE AND SHALL MEET FS TTP-85E & MIXED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS BEFORE APPLICATION.
3. SWEEP AND CLEAN SURFACE TO ELIMINATE LOOSE MATERIAL & DUST.
4. APPLY TWO (2) COATS OF PAINT AT MANUFACTURER RECOMMENDED RATE WITHOUT THE ADDITION OF THINNER, WITH A MAXIMUM OF 100 SQUARE FEET PER GALLON. APPLY WITH MECHANICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES. AT SIDEWALK, CURBS, AND CROSSWALKS USE A STRAIGHTEDGE TO ENSURE A UNIFORM, CLEAN, & STRAIGHT STRIPE.
5. THE FOLLOWING ITEMS SHALL BE PAINTED WITH THE COLORS NOTED BELOW:
   A. HANDICAP SYMBOLS: SEE DETAIL THIS SHEET.
   B. PARKING STALL STRIPING: WHITE.
6. ACCESSIBLE PARKING SPACE DESIGN LAYOUT SHALL BE IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
7. SEE SITE PLANS FOR COMPLETE PARKING LAYOUT.

ACCESSIBLE PARKING SPACE DETAIL

SCALE: N.T.S.

STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-29850
PROFESSIONAL ENGINEER
04/12/2024

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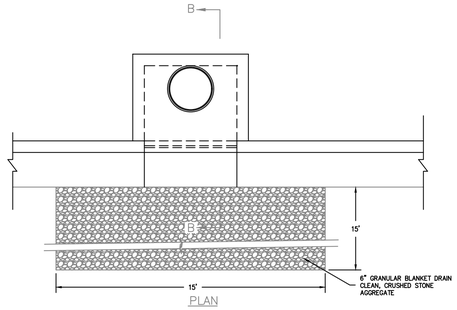
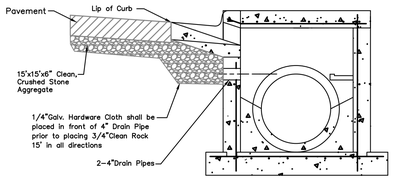
CERTIFICATE OF AUTHORIZATION MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005058

SHEET
C7.1



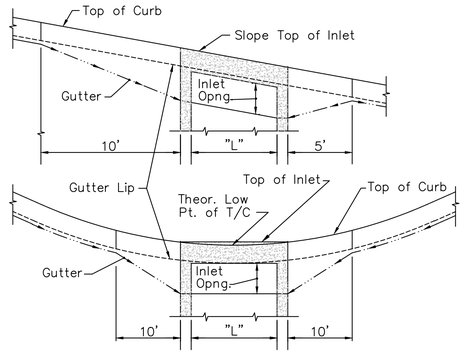
PLAN



SECTION B–B

GRANULAR BLANKET DRAIN ADJACENT TO CURB INLETS

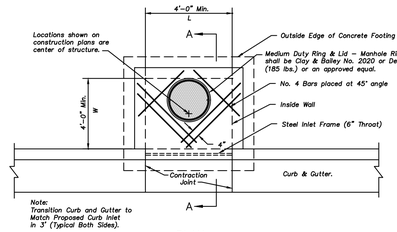
SCALE: N.T.S.



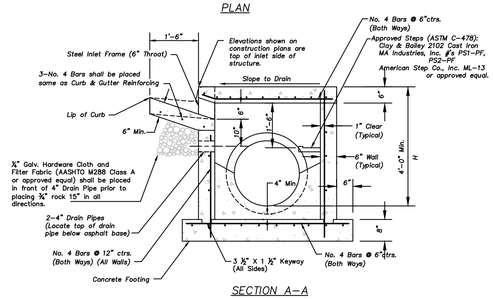
ALL CURB INLETS SHALL CONFORM TO THE GRADE OF THE ADJACENT ROAD/CURB AND BE SET PER THIS DETAIL SHOWN THUS.

INLET SETTING DIAGRAM

SCALE: N.T.S.



PLAN



SECTION A–A

SCALE: N.T.S.

Non–Setback Curb Inlet Notes

General

1. *All storm sewer structures shall be pre–cast or poured in place. If pre–cast structures are used for publicly financed, maintained or administered construction, the tops shall be poured in place and the wall steel shall be left exposed to a height 2" below the finish top elevation, or as directed by the City Engineer.*
2. *Pre–cast shop drawings are to be approved by the City Engineer for publicly financed or administered projects.*
3. *Do not scale these drawings for dimensions or clearances. Any questions regarding dimensions shall be brought to the attention of the City Engineer prior to construction.*
4. *The first dimension listed in the construction notes is the "L" dimension. The second dimension is the "W" dimension. The concrete thickness and reinforcement shown is for boxes with ("L"+"W") and ("W"+"W") less then or equal to 20. For boxes with either of these calculations greater than 20, a special design is required.*

Concrete

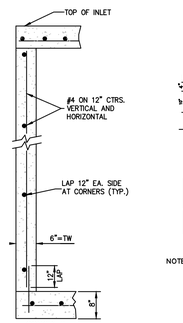
5. *Concrete used in this work shall be KCMMB4K, as approved by the Kansas City Metropolitan Materials Board, and shall meet the requirements of the City of Olathe.*
6. *Concrete construction shall meet the applicable requirements of the City of Olathe's Technical Specifications.*
7. *Inlet floors shall be shaped with non–reinforced concrete inv erts to provide smooth flow.*
8. *Bevel all exposed edges with ¾" triangular molding.*

Reinforcing Steel

9. *Reinforcing steel shall be new billet, minimum Grade 40 as per ASTM A615, and shall be bent cold.*
10. *All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of +/– ½" shall be permitted.*
11. *All lap splices not shown shall be a minimum of 40 bar diameters in length.*
12. *All reinforcing steel shall be supported on fabricated steel bar supports @ 3'–0" maximum spacing.*
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.*

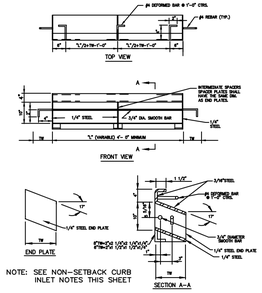
Construction

14. *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.*
15. *Pipe connections to pre–cast structures shall have a minimum of 6" of concrete around the entire pipe within 2' of the structure.*
16. *Material selection and compaction requirements for backfill around structures shall be as specified in City of Olathe's Technical Specifications.*



CONCRETE

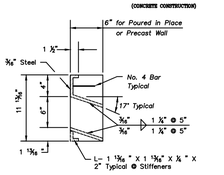
NOTE: SEE NON–SETBACK CURB INLET NOTES THIS SHEET



NOTE: SEE NON–SETBACK CURB INLET NOTES THIS SHEET

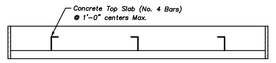
STEEL FRAME DETAIL

WALL SECTIONS



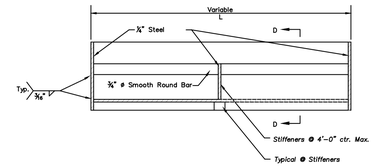
SECTION D–D (6" THROAT)

NTS



TOP VIEW

NTS



FRONT VIEW (6" THROAT)

NTS

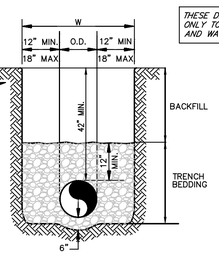
Steel Inlet Frame Notes:

1. *All welds shall be performed in accordance with appropriate AWS Specifications and Procedures.*
2. *All welds on exposed surfaces shall be dressed so as to provide a pleasing finished appearance.*
3. *The entire frame shall be hot dip zinc coated in accordance with ASTM A–123.*

NON–SETBACK CURB INLET

(6" Throat)

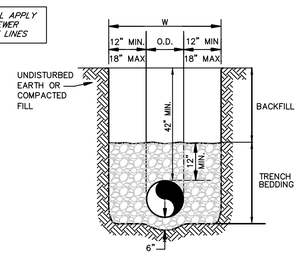
SCALE: N.T.S.



WATER LINE

SCALE: NOT TO SCALE

THESE DETAILS SHALL APPLY ONLY TO PRIVATE SEWER AND WATER SERVICE LINES



SANITARY SEWER

SCALE: NOT TO SCALE

REQUIREMENTS PER APWA 2100 AS FOLLOWS:

Sanitary Sewer Bedding Material Gradation Limits (% Passing)	
Sieve Size	3/4"
1"	100
3/4"	90 – 100
3/8"	20 – 55
No. 4	0 – 5
No. 8	0 – 2

Storm Sewer Bedding Material Gradation Limits (% Passing)			
Sieve Size	3/4"	1/2"	3/8"
1"	100		
3/4"	90 – 100	100	
1/2"		80 – 100	
3/8"	20 – 55	40 – 77	100
No. 4	0 – 10	0 – 15	30 – 40
No. 8	0 – 5	0 – 5	0 – 4

Waterline Bedding Material Gradation (% Passing)				
Sieve Size	Type 1 (1/2")	Type 2 (Buckshot)	Type 3 (Man. Sand)	Type 4 (River Sand)
3/4"	95 – 100			
3/8"	40 – 60	100	100	
1/4"			90 – 100	
No. 4		60 – 80	85 – 90	100
No. 8	0 – 5	0 – 15	35 – 75	
No. 50			10 – 25	
No. 200		0	0 – 10	0 – 10

Trench Backfill

1. Backfill shall not be placed when material contains frost, is frozen, or a blanket of snow prevents proper compaction.
2. The Contractor shall remove from the project site waste material, trees, organic material, rubbish, or other deleterious materials.
3. All trash and debris shall be removed from the pipeline excavation prior to backfilling.
4. Backfill material shall be carefully placed to avoid damage to or displacement of the pipe, other utilities or structures.
5. Unless otherwise specified, all trenches and excavations around structures shall be backfilled to the original ground surface.
6. Outside of paved areas, the backfill material shall be placed in layers not exceeding 8–inches in loose thickness and be compacted to at least 90% of maximum density. Compaction testing shall be at the discretion of the Engineer.
7. The method of compaction and the equipment used shall be appropriate for the material to be compacted and shall not transmit damaging shocks to the pipe.
8. The combination of the thickness of the layer, the method of compaction and the type of compaction equipment used shall be at the discretion of the Contractor subject to obtaining the required densities.

Pipe Embedment: All water, sanitary sewer, and storm sewer pipe shall be bedded in bedding aggregate as specified herein.

1. Bedding shall cover the entire width of trench.
2. The first layer of bedding placed on the bottom of excavation shall be in accordance with Figures 1 through 3.
3. Bedding at bottom of trench, in the middle 1/3 of trench under the pipe shall be loose.
4. After pipe is placed, bedding material shall be placed in layers in accordance with manufacturer's recommendations.
5. Second layer of bedding material shall be placed under the lower haunches of the pipe up to the springline (center of pipe). Material shall be spaded to be place under haunches and compacted at the springline elevation prior to placing additional bedding material.
6. The third layer of bedding material shall be placed to 12 inches over the top of pipe.
7. Contractor shall take measures to prevent pipe from floating during placement of bedding material so that pipe maintains proper line and grade as shown on the Plans.

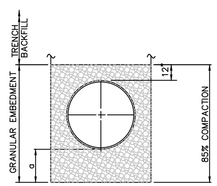


TABLE OF EMBEDMENT DEPTH BELOW PIPE		
D	a MIN. SOIL	a MIN. ROCK
LESS THAN 60"	4"	6"
60" OR LARGER	6"	12"

LEGEND

D NOMINAL PIPE SIZE
a EMBEDMENT BELOW PIPE

GRANULAR EMBEDMENT

TRENCH BEDDING

1. GRANULAR EMBEDMENT SHALL BE KDOT STD. SPEC. SECT. 1100, PB–2 COURSE AGGREGATE FOR CONCRETE, WASHED STONE OR GRAVEL, MEETING THE FOLLOWING CONDITIONS:

SIEVE SIZE	PERCENT RETAINED
1–INCH	0
½–INCH	0–20
⅜–INCH	40–70
No. 8	95–100

GRANULAR EMBEDMENT FROM THE TOP OF PIPE DOWN SHALL BE COMPACTED TO 85% MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.

GRANULAR EMBEDMENT ABOVE TOP OF PIPE SHALL BE AN UN–COMPACTED LAYER FOR ALL INSTALLATIONS.

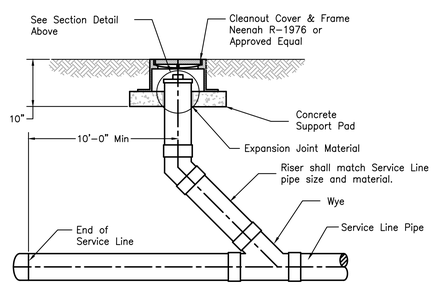
2. TRENCH OUTLINES DO NOT INDICATE ACTUAL TRENCH EXCAVATION SHAPE, SOIL CONDITIONS, OR PRESENCE OF SHEETING LEFT IN PLACE. EMBEDMENT MATERIAL SHALL EXTEND THE FULL WIDTH OF THE ACTUAL TRENCH EXCAVATION.
3. TRENCH WIDTHS SHALL BE LIMITED BELOW AN ELEVATION OF ONE (1) FOOT ABOVE THE TOP OF THE INSTALLED PIPE AS FOLLOWS: NOT LESS THAN FIFTEEN (15) INCHES NOR MORE THAN TWENTY–FOUR (24) INCHES GREATER THAN THE NOMINAL OUTSIDE DIAMETER OF THE PIPE.

BACKFILL

1. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321–89.
2. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV–A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
3. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
4. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)

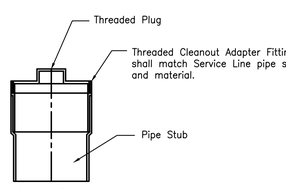
EMBEDMENTS FOR STORM SEWER PIPE

SCALE: N.T.S.



CLEANOUT DETAIL (NON–PAVED AREAS)

SCALE: N.T.S.



Section Detail

PHELPS ENGINEERING, INC.
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PLANNING
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STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-29850
04/12/2024
PROFESSIONAL ENGINEER

STANDARD DETAILS

ANDY'S FROZEN CUSTARD
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No.	Revisions:	Date	By	App.

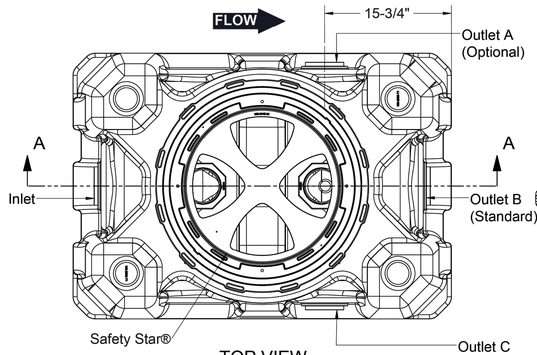
PROJECT NO. 240159
DATE 04-12-2024 DRAWN: AEB
CHECKED: DAF APPROVED: JDC
CERTIFICATE OF AUTHORIZATION KANSAS SURVEYING – LS–82 ENGINEERING – E–391
CERTIFICATE OF AUTHORIZATION LAND SURVEYING–2007020128 ENGINEERING–2007020308

SHEET
C7.2

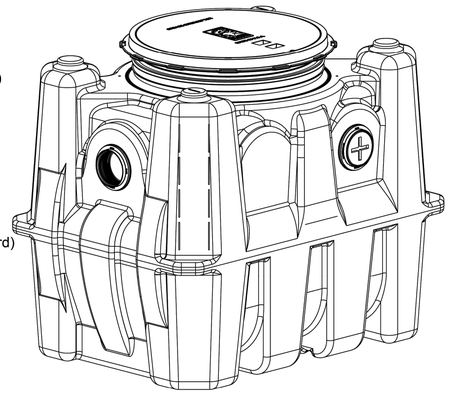
SPECIFICATIONS

Notes:

1. 4" FPT inlet/outlet with 4" plain end adapters, single inlet and triple outlet.
2. Unit weight - w/ cast iron covers: 190 lbs. (For wet weight add 1,043 lbs.)
3. Maximum operating temperature: 150º F continuous
4. Capacities - Liquid: 125 gal.
   Grease: 861 lbs. (118 gal.) @75 GPM
   Solids: 31 gal.
5. For gravity drainage applications only.
6. Do not use for pressure applications.
7. Cover placement allows full access to tank for proper maintenance.
8. Vent not required unless per local code.
9. Engineered inlet and outlet diffusers with inspection ports are removable to inspect / clean piping.
10. Integral air relief / Anti-siphon / Sampling access.
11. Adjustable cover adapter provides up to 4" of additional height.
12. Designed for below-grade, above-grade, indoor and outdoor installations.
13. Safety Star®, access restrictor built into cover adapter, prevents accidental entry to tank (450 lb rating).



TOP VIEW
(COVER REMOVED FOR CLARITY)



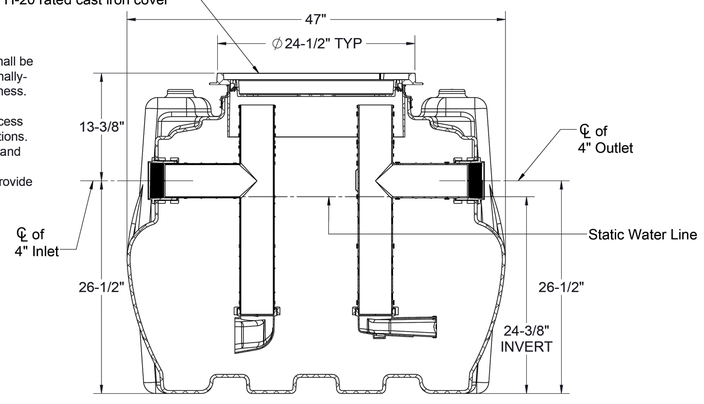
ISOMETRIC VIEW

ENGINEER SPECIFICATION GUIDE

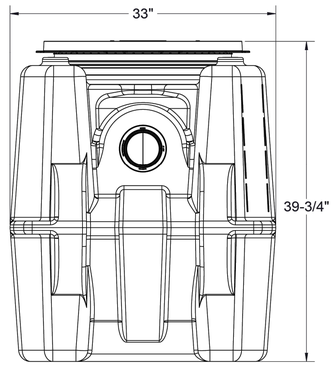
Schier Great Basin™ grease interceptor model # GB-75 shall be lifetime guaranteed and made in USA of seamless, rotationally-molded polyethylene with minimum 3/8" uniform wall thickness. Interceptor shall be furnished for above or below-grade installation with adjustable cover adapter, Safety Star® access restrictor built into each cover adapter, and three outlet options. Interceptor shall be certified to ASME A112.14.3 (Type D) and CSA B481.1. Interceptor flow rate shall be 75 GPM. Interceptor grease capacity shall be 861 lbs. Cover shall provide water/gas-tight seal and have minimum 16,000 lbs. load capacity.

CERTIFIED PERFORMANCE

Great Basin™ hydromechanical grease interceptors are third party performance-tested and listed by IAPMO to ASME #A112.14.3 and CSA B481.1 grease interceptor standards and greatly exceed requirements for grease separation and storage. They are compliant to the Uniform Plumbing Code and the International Plumbing Code.



SECTION A-A



END VIEW

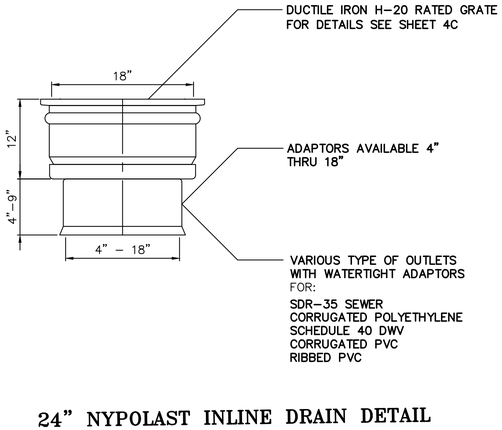
Type D certification does not require a flow control

SPECIFICATION SHEET

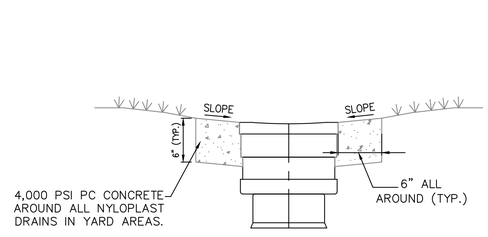
MODEL NUMBER:	PART NUMBER: 4045-007-02			
GB-75	DESCRIPTION: GB-75 GREASE INTERCEPTOR 75 GPM, 4" INLET/OUTLET, H-20 RATED CAST IRON COVER			
PROPRIETARY AND CONFIDENTIAL	DWG BY: C. BUSENITZ	DATE: 4/14/2022	REV: -	ECO: -

UPC ® UPC C ®

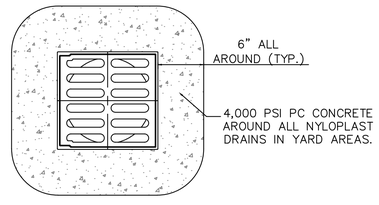
SCHIER
6455 Woodland Dr
Shawnee, KS 66218
Tel: 913-951-3300
Fax: 913-951-3399
schierproducts.com



24" NYPOLAST INLINE DRAIN DETAIL



SECTION



PLAN

NOTE:
CONTRACTOR TO USE STANDARD GRATE IN GRASS OR LANDSCAPING AREAS AND TO USE PEDESTRIAN GRATE IN SIDEWALK AREAS.

DRAIN GRATE CONCRETE BUFFER DETAIL

PHELPS ENGINEERING, INC.
1270 N. Winchester
Olathe, Kansas 66061
(913) 393-1155
Fax (913) 393-1066
www.phelpsengineering.com
PLANNING
ENGINEERING
IMPLEMENTATION

STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-2009050
04/12/2024
PROFESSIONAL ENGINEER

STANDARD DETAILS

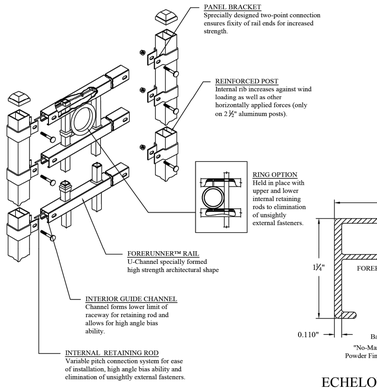
ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

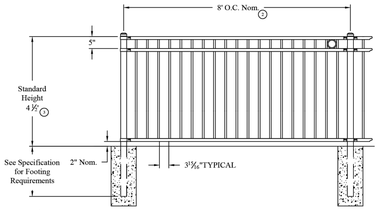
Revisions:	Date	No.	By	App.

PROJECT NO. 240159
DATE: 04-12-2024 | DRAWN: AEB
CHECKED: DAF | APPROVED: JDC
CERTIFICATE OF AUTHORIZATION
KANSAS ENGINEERING – LS-82
ENGINEERING – E-391
CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007035539

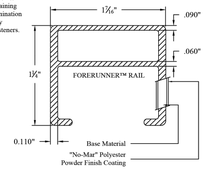
SHEET
C7.3

NOTES:
1. Post size and gauge depends on fence height and wind loads. See ECHELON PLUS™ specifications for post sizing chart.
2. Values shown are nominal and not to be used for installation purposes. See product specification for installation requirements.
3. Additional heights available by request.



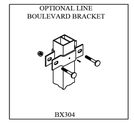


ECHELON PLUS™
PANEL



ECHELON PLUS™ RAIL

IBC COMPLIANCE:
Majestic style with 3-rail configurations shall meet IBC compliance. Panel, post and bracket assemblies shall be subjected to structural performance testing according to Chapter 17 - Structural Tests and Special Inspections - International Building Code (IBC) 2018. Physical testing to be completed by accredited third party testing facility. Completed assembly shall demonstrate loading capacity of 2.5 times prescribed design loads found in section 1607.8.1, 1607.8.1.1 and 1607.8.1.2 of IBC 2018 for Handrails and Guards.



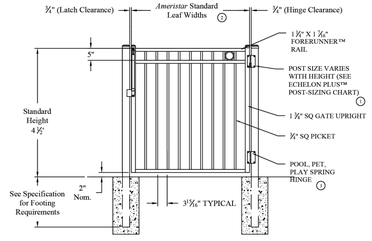
REV C 10/2021

ECHELON PLUS™ MAJESTIC 3-RAIL POOL PANEL

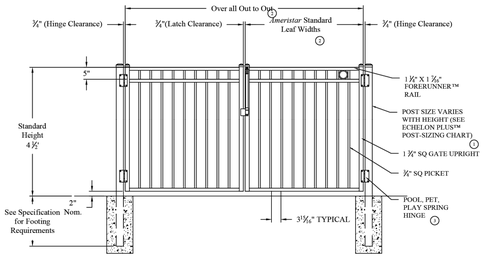
FENCE PRODUCTS
AMERISTARFENCE.COM | 800-321-8724
ASSA ABLOY; the global leader in door opening solutions

AMERISTAR
ASSA ABLOY

NOTES:
1. Post size depends on fence height, weight, and wind loads. See Echelon Plus™ post sizing chart.
2. See Ameristar Gate Table for standard out to outs. Custom gate openings available for special out to out/leaf widths.
3. Additional styles of gate hardware are available on request. This could change the Latch & Hinge Clearance.



ECHELON PLUS™
Single Gate Arrangement



ECHELON PLUS™
Double Gate Arrangement

REV C 10/2021

ECHELON PLUS™ MAJESTIC 3-RAIL POOL GATE

FENCE PRODUCTS
AMERISTARFENCE.COM | 800-321-8724
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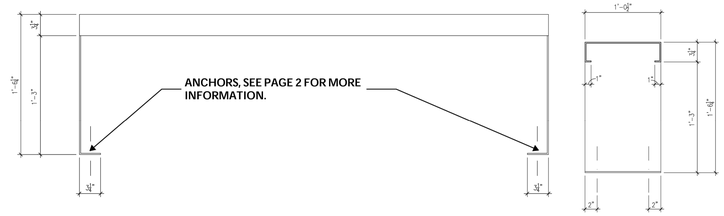
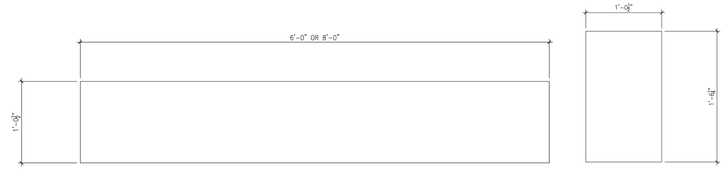


ELEVATION

SECTION



PLAN

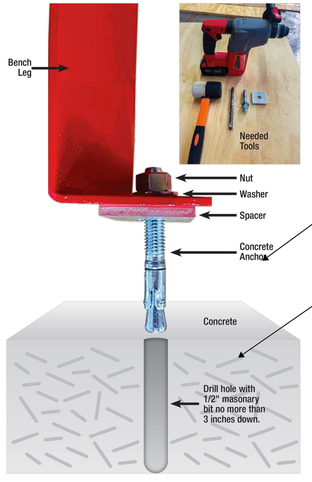
ELEVATION

REFER TO PAGE 2 FOR NOTES AND ADDITIONAL INFORMATION OF BENCH INSTALLATION AND FINISHES.

BENCH EXHIBIT

NOVEMBER 8, 2021

PAGE 1



INSTALLATION DIAGRAM

NOTES:

BENCHES TO BE CONSTRUCTED OF 12 GAUGE STEEL.

BENCHES TO BE SANDBLASTED AND THEN POWDER COATED WITH "PRISMATIC POWDERS – PASSION RED RIVER.

EACH BENCH INCLUDES 4 ALUMINUM SPACERS THAT LIFT THE BENCH OFF CEMENT TO HELP PREVENT RUSTING. SPACERS ARE ¼" THICK ALUMINUM THAT MEASURE 2"X2" AND HAS 1/2" HOLE FOR THE ANCHOR. HOLE IS POSITIONED SO THAT SPACER IS HIDDEN BENEATH THE LEG OF BENCH. SEE INSTALLATION INSTRUCTION DIAGRAM ON THIS SHEET.

BENCH EXHIBIT

NOVEMBER 8, 2021

PAGE 2

STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-29850
04/12/2024
PROFESSIONAL ENGINEER

PHELPS ENGINEERING, INC.
1270 N. Winchester
Olathe, Kansas 66061
(913) 393-1155
Fax (913) 393-1066
www.phelpsengineering.com

PLANNING
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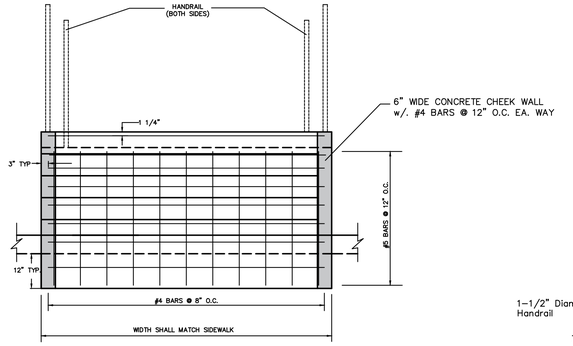
IMPLEMENTATION

STANDARD DETAILS
ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

No.	Date	Revisions:	By	App.

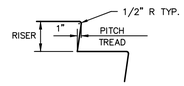
PROJECT NO. 240159
DATE: 04-12-2024 | DRAWN: AEB
CHECKED: DAF | APPROVED: JDC
CERTIFICATE OF AUTHORIZATION KANSAS ENGINEERING - LS-82
MISSOURI ENGINEERING - E-3251
CERTIFICATE OF AUTHORIZATION LAND SURVEYING-2007001128
ENGINEERING-2007005208

SHEET
C7.4

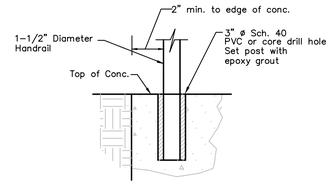


FRONT VIEW (TYP.)

SLOPE	TREAD	RISE
2:1	12"	6"

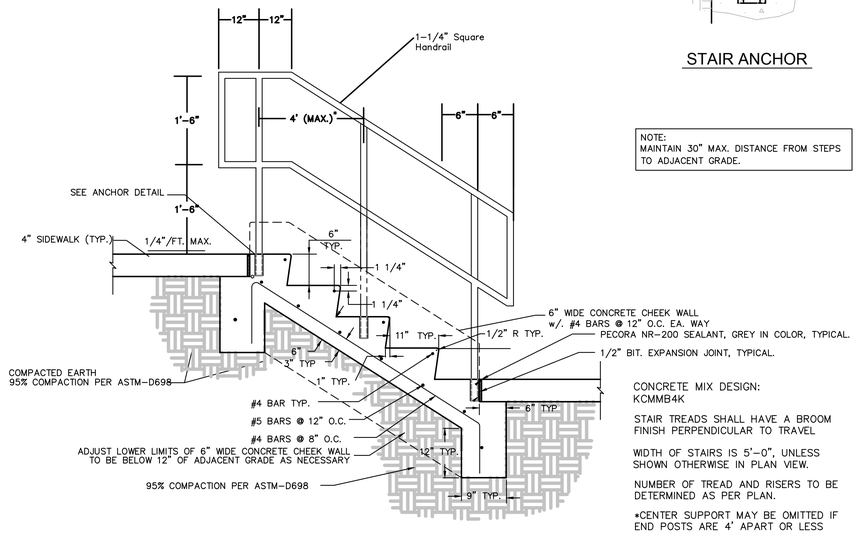


STEP DETAIL (TYP.)



STAIR ANCHOR

NOTE:
MAINTAIN 30" MAX. DISTANCE FROM STEPS TO ADJACENT GRADE.



STAIR SECTION DETAIL (TYP.)

CONCRETE MIX DESIGN:
KCMMB4K

STAIR TREADS SHALL HAVE A BROOM FINISH PERPENDICULAR TO TRAVEL

WIDTH OF STAIRS IS 5'-0", UNLESS SHOWN OTHERWISE IN PLAN VIEW.

NUMBER OF TREAD AND RISERS TO BE DETERMINED AS PER PLAN.

•CENTER SUPPORT MAY BE OMITTED IF END POSTS ARE 4' APART OR LESS

CONTRACTOR TO SUBMIT SHOP DWGS. FOR HANDRAIL FOR APPROVAL

CONCRETE STAIR WITH CHEEK WALL AND HANDRAIL DETAILS

PHELPS ENGINEERING, INC.
1270 N. Winchester
Olathe, Kansas 66061
(913) 393-1155
FAX (913) 393-1066
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IMPLEMENTATION

STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-2010029850
04/12/2024
PROFESSIONAL ENGINEER

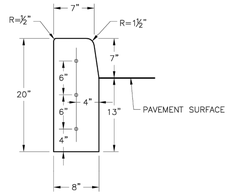
STANDARD DETAILS

ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

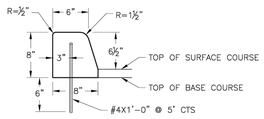
No.	Date	Revisions:	By	App.

PROJECT NO. 240159
DATE 04-12-2024 | DRAWN: AEB
CHECKED: DAF | APPROVED: JDC
CERTIFICATE OF AUTHORIZATION
KANSAS
MISSOURI SURVEYING - LS-82
ENGINEERING - E-391
CERTIFICATE OF AUTHORIZATION
LAND SURVEYING-2007001128
ENGINEERING-2007002698

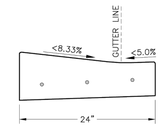
SHEET
C7.5



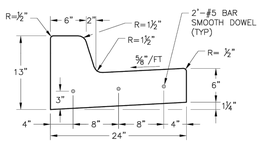
STRAIGHT CURB
(TYPE C-1)



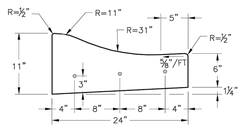
DOWELLED CURB
(TYPE DC)



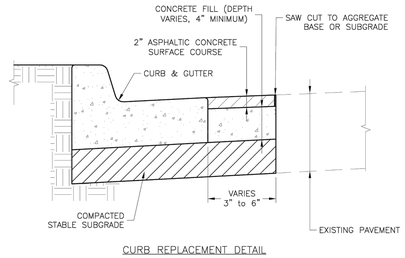
CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)



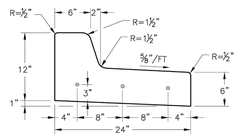
STRAIGHT BACK CURB &
GUTTER
(TYPE CG-1)



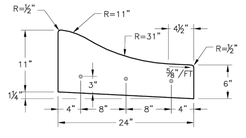
ROLL BACK CURB &
GUTTER
(TYPE CG-2)



CURB REPLACEMENT DETAIL



STRAIGHT BACK DRY CURB &
GUTTER
(TYPE CG-1 DRY)



ROLL BACK DRY CURB &
GUTTER
(TYPE CG-2 DRY)

GENERAL NOTES

1. ¾" ISOLATION JOINTS WITH 3 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

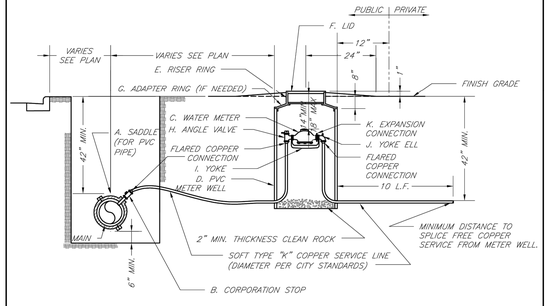
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

Sheet Name: CURB & GUTTER DETAIL

Drawn By: MJF
Checked By: DL
Date: 04/17
Proj. #:

GEN-4



TYPICAL METER INSTALLATION - 2" AND SMALLER
NOT TO SCALE

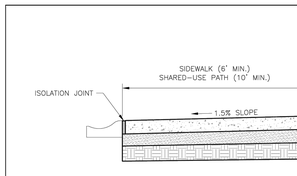
NOTES:

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

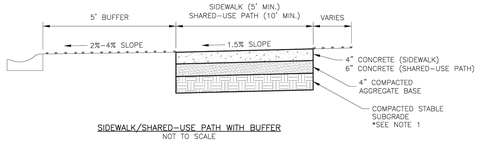
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SERVICE CONNECTION/METER WELL

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-11
Rev: 1/14
Rev.



SIDEWALK/SHARED-USE PATH WITHOUT BUFFER
NOT TO SCALE



SIDEWALK/SHARED-USE PATH WITH BUFFER
NOT TO SCALE

GENERAL NOTES:

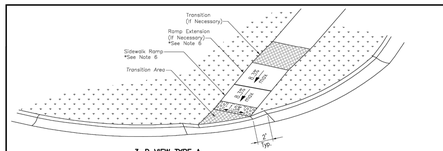
1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
3. KCMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS/SHARED-USE PATHS.
4. ALL SIDEWALK/SHARED-USE PATHS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. 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.
6. AN ISOLATION JOINT SHALL BE PLACED WHERE THE SIDEWALK/SHARED-USE PATHS MEETS A RESIDENTIAL DRIVEWAY.
7. SHARED-USE PATHS WIDTH SHALL BE 10 FT. WIDE.
8. SIDEWALK/SHARED-USE PATHS FINISHING SHALL BE FULL BROOM FINISH OR AS DIRECTED BY CITY INSPECTOR.
9. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

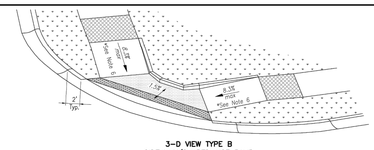
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SIDEWALK/SHARED-USE PATH DETAIL

Date: 08/2023
Drawn By: MJF
Checked By: DL

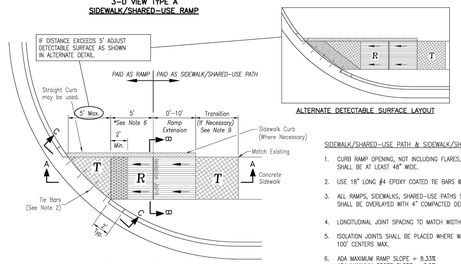
GEN-2





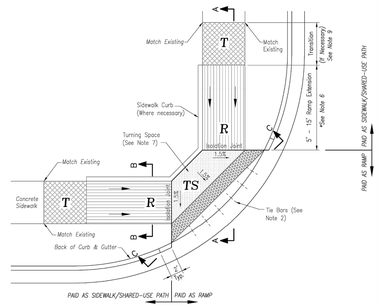
LEGEND

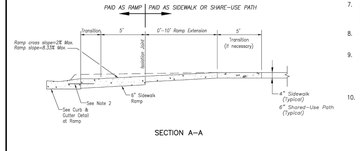
- R — SIDEWALK RAMP
- TS — TURNING SPACE
- DETECTABLE WARNING SURFACE
- T — TRANSITION

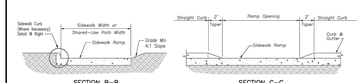


SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:

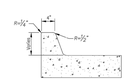
1. CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
2. USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
3. ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
4. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
5. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 100' CENTERS MAX.
6. ADA MAXIMUM RAMP SLOPE = 8.33%
   ADA MAXIMUM CROSS SLOPE = 2.0%
   *ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
7. TURNING SPACES SHALL BE 1.5%, ±0.5% SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
8. FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
9. RAMP EXTENSION AREA SHALL NOT BE USED AS TRANSITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMPS TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENDING SHALL BE A CONTINUOUS SLOPE.
10. ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).



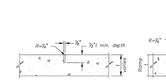


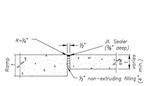


TYPE A & B SIDEWALK RAMP
Not to Scale

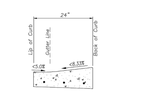


SIDEWALK CURB DETAIL
Not to Scale





JOINT DETAILS
Not to Scale



CURB & GUTTER DETAIL AT RAMP
Not to Scale

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

Sheet Name: ADA RAMP RETROFIT DETAIL

Drawn By: MJF
Checked By: DL
Date: 08/2023
Proj. #:

GEN-3A

STATE OF MISSOURI
JUDD DAVID CLAUSSEN
NUMBER PE-2010029850
04/12/2024

PHELPS ENGINEERING, INC.
1270 N. Winchester
Olathe, Kansas 66061
(913) 393-1155
Fax (913) 393-1066
www.phelpsengineering.com

PLANNING
ENGINEERING
IMPLEMENTATION

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

By	App.	No.	Date	Revisions:

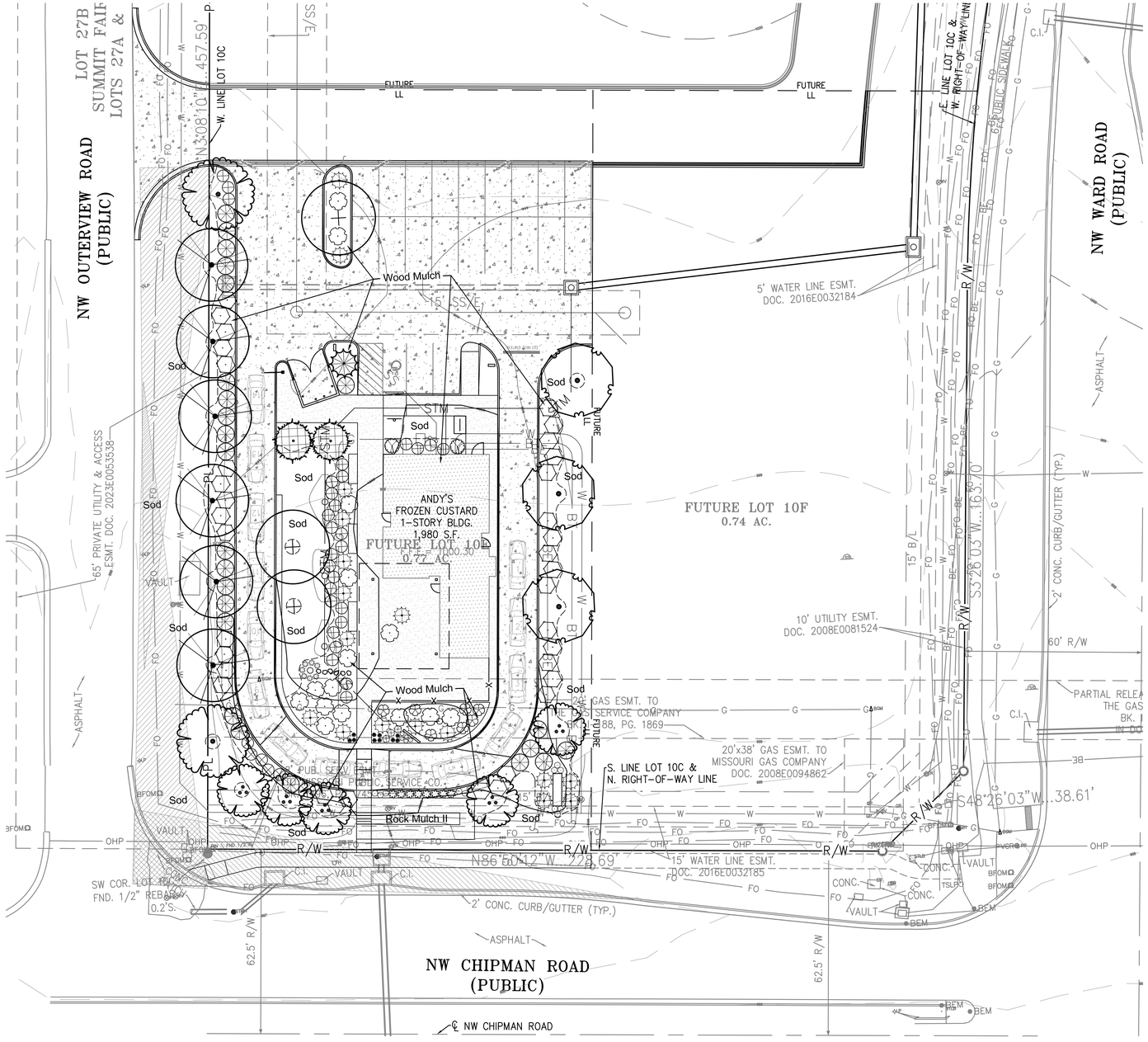
PROJECT NO. 240159
DATE 04-12-2024 | DRAWN: AEB
CHECKED: DJC | APPROVED: DJC
CERTIFICATE OF AUTHORIZATION
KANSAS ENGINEERING - LS-82
MISSOURI ENGINEERING - E-391
CERTIFICATE OF AUTHORIZATION
LAND SURVEYING-2007001128
ENGINEERING-2007005928

STANDARD DETAILS

ANDY'S FROZEN CUSTARD
700 NW WARD ROAD
LEE'S SUMMIT, MISSOURI

SHEET
C7.6

\\PHELPS-SERVER\projects\P\240159\Dwg\Permit Plans\DETAILS - PRIVATE.dwg Layout:STORM 1 Apr 12, 2024 - 4:42pm Daniel Finn



PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
TREES					
	3	Gleditsia triacanthos `Skyline` / `Skyline` Honey Locust Seedless	B & B	2.5"Cal	
	1	Juniperus virginiana `Canaertii` / Canaerti Juniper	B & B		6` hgt.
	2	Juniperus virginiana `Hillspire` / Hillspire Juniper	B & B		8` hgt.
	2	Nyssa sylvatica / Black Gum	B & B	2.5"Cal	
	5	Populus tremuloides `Prairie Gold` / Prairie Gold Aspen 3 Stem Clump w/ 1@1.5" cal.	B & B	1.5"Cal	
	6	Quercus bicolor / Swamp White Oak	B & B	2.5"Cal	
	3	Quercus shumardii / Shumard Red Oak	B & B	2.5" cal.	

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT
SHRUBS			
	25	Juniperus chinensis `Sea Green` / Sea Green Juniper 24"-30" hgt. & sp.	5 gal
	17	Juniperus virginiana `Grey Owl` / Grey Owl Juniper 24" sp.	3 gal
	3	Nepeta x faassenii `Walkers Low` / Walkers Low Catmint	1 gal
	2	Physocarpus opulifolius `Center Glow` / Center Glow Ninebark 24"-30" hgt. & sp.	3 gal
	15	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac 18"-24" sp.	3 gal
	36	Rhus typhina `Tiger Eyes` / Tiger Eyes Sumac 24"-30" hgt. & sp.	5 gal
	7	Rosa x `Novarospop` / Popcorn Drift Rose 12"-15" sp.	1 gal
	5	Sedum spectabile `Autumn Fire` / Showy Stonecrop 15"-18" hgt. & sp.	1 gal
	7	Spiraea x bumalda `Anthony Waterer` / Anthony Waterer Spiraea 18"-24" hgt.	3 gal
	33	Spiraea x bumalda `Gold Flame` / Gold Flame Spirea 18"-24" hgt.	3 gal
ANNUALS/PERENNIALS			
	10	Ceratostigma plumbaginoides `Blue Plumbago` / Blue Plumbago	1 gal
GRASSES			
	12	Calamagrostis acutiflora `Karl Foerster` / Feather Reed Grass 24" hgt.	3 gal
	8	Miscanthus sinensis `Morning Light` / Eulalia Grass	3 gal

0 20 40
SCALE 1" = 20'

NOTE:
Details and specifications to be provided in construction documents.

Sight Triangle
25'
170'

Utility Note:

Utilities shown on plan are diagramatic and some may be missing. Before starting any construction call appropriate locating service. In Missouri call 1-800-DIG-RITE (344-7483) to have utilities located.

STATE OF MISSOURI
PETER A. OPPERMANN
NUMBER 2324
LANDSCAPE ARCHITECT

04/12/2024

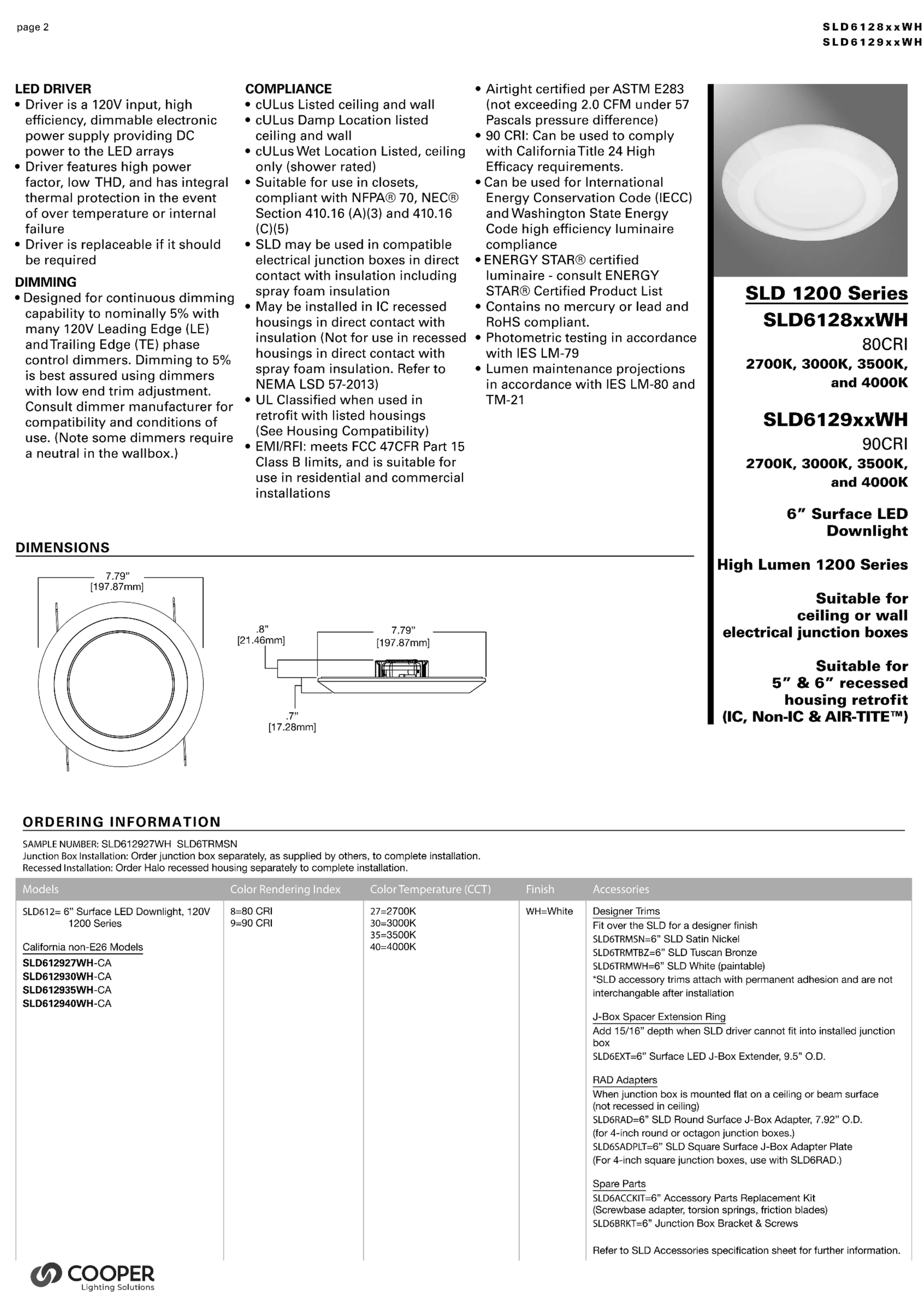
Landscape Plan
Andy's Frozen Custard

Overview Road and NW Chipman Road
Lee's Summit, Missouri

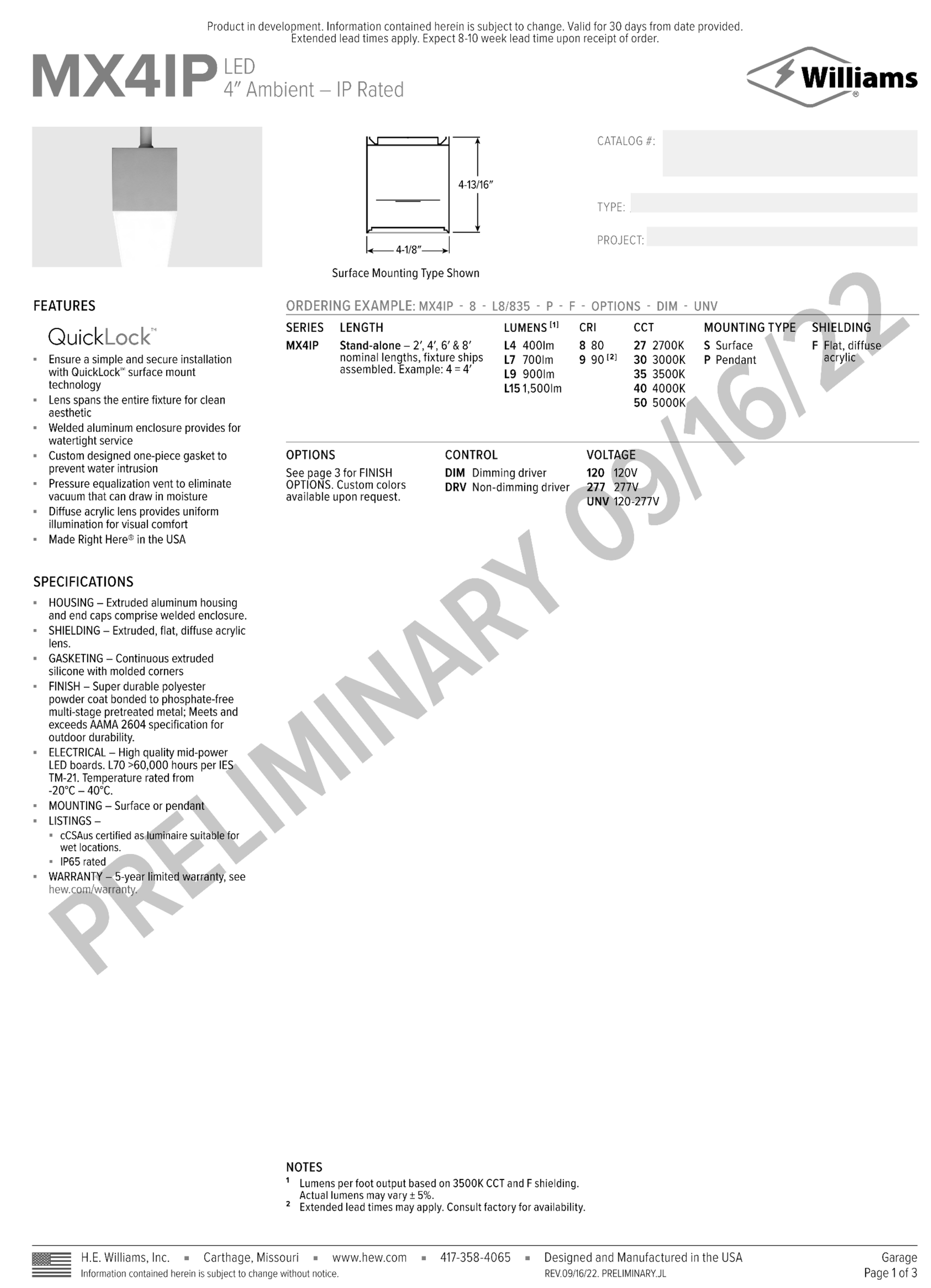
LS-1

Oppermann LandDesign, LLC
Land Planning Landscape Architecture
92 Debra Lane
New Windsor, New York 12553
peteoppermann56@gmail.com
913.522.5598

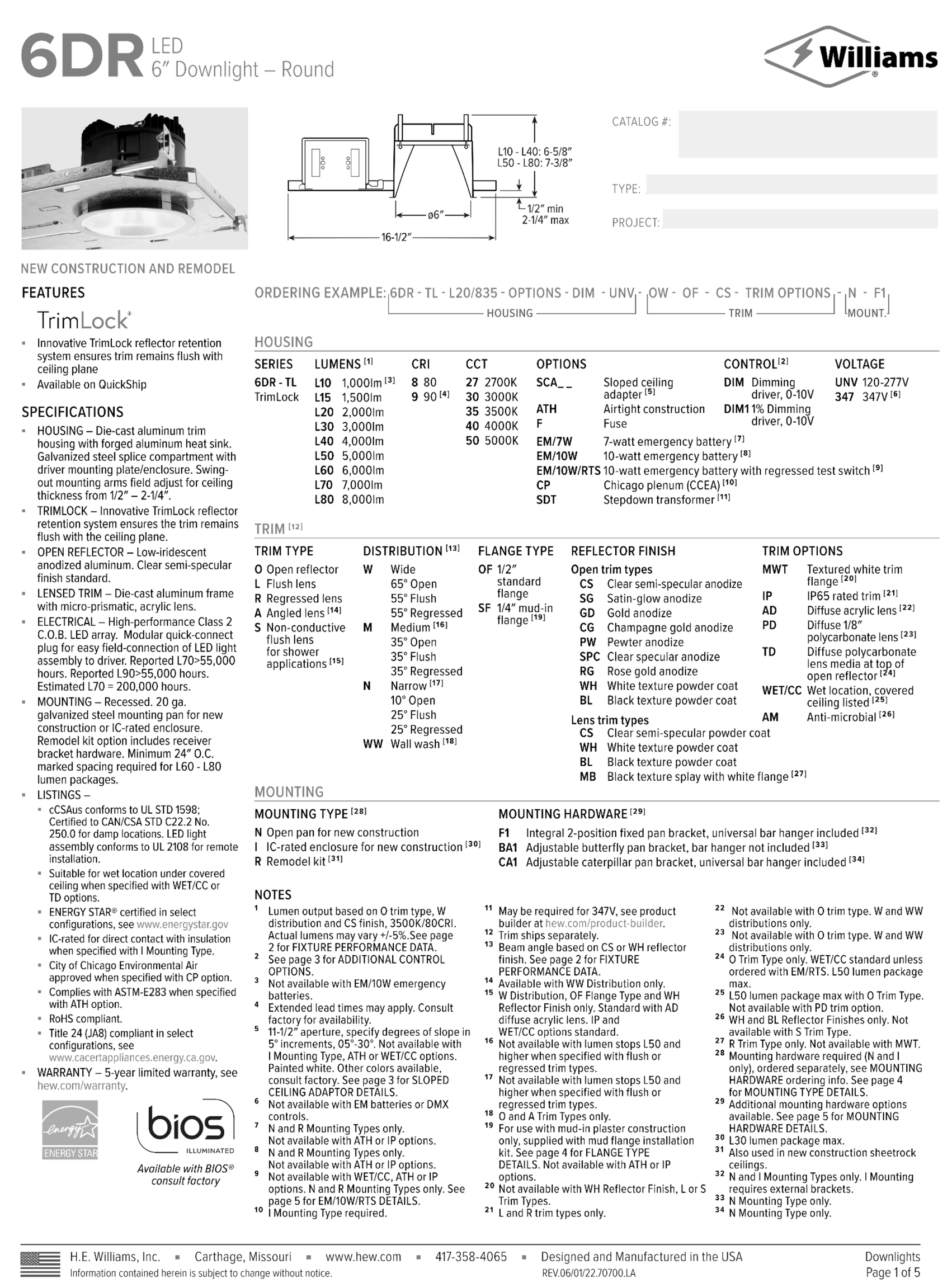
FIXTURE "RH10"



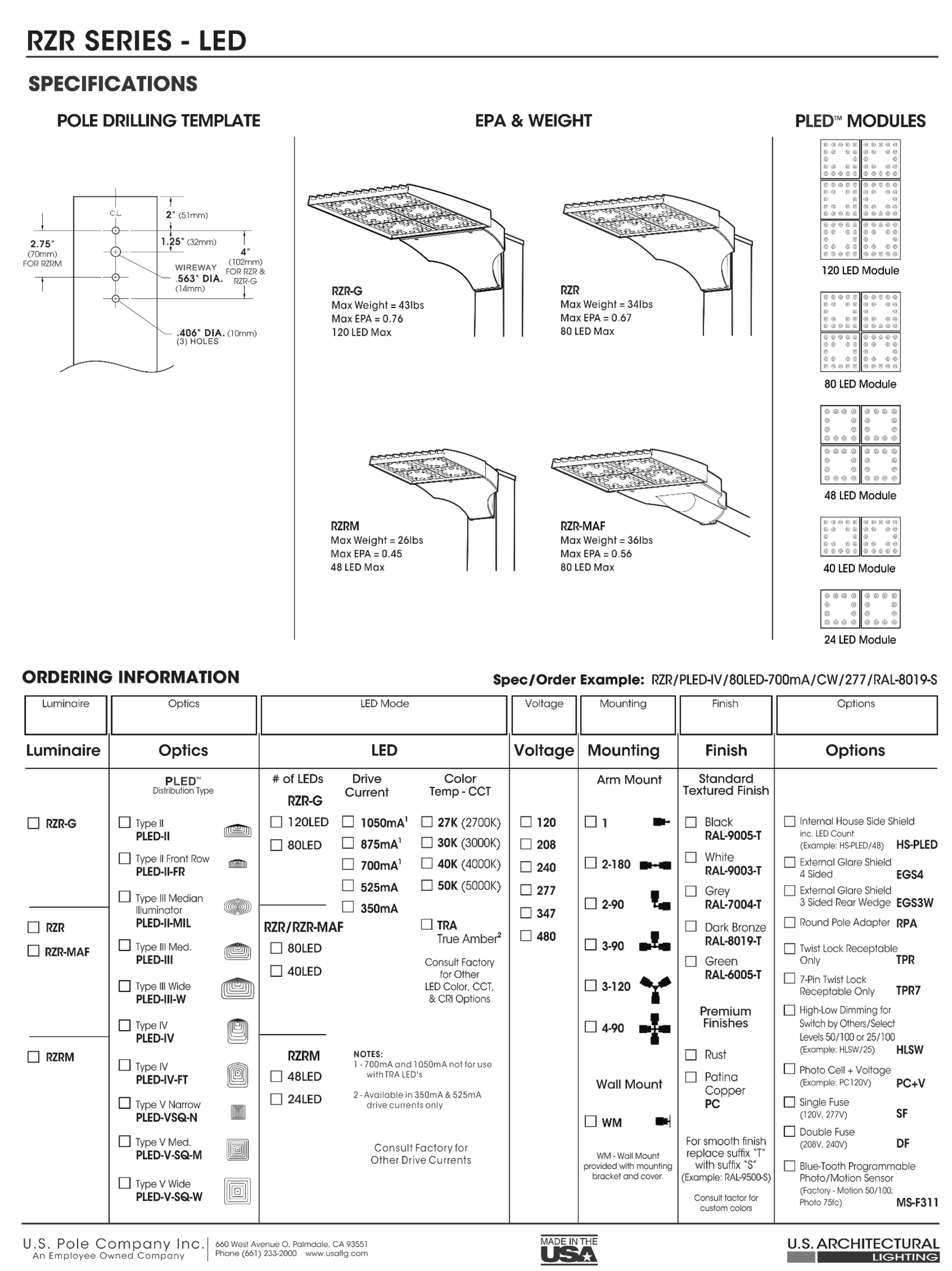
FIXTURE "L1"



FIXTURE "RH09"



FIXTURE "SP_"



1 ME1 **SITE PHOTOMETRICS PLAN**
SCALE: 1" = 20'-0"
NORTH

Hufft

PROJECT INFORMATION:
Andy's Frozen Custard #204

700 NW Ward Road
Lee's Summit, MO 64806

OWNER:
ANDY'S FROZEN CUSTARD
211 E. Water Street
Springfield, MO 65806
www.eatandys.com

ARCHITECT:
HUFFT
3612 Karnes Boulevard
Kansas City, MO 64111
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STRUCTURAL:
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Springfield, MO 65807
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CIVIL:
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Springfield, MO 65804
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LANDSCAPE ARCHITECT:
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ISSUE:
Development Plan Submittal
04-12-2024

REVISION SCHEDULE:

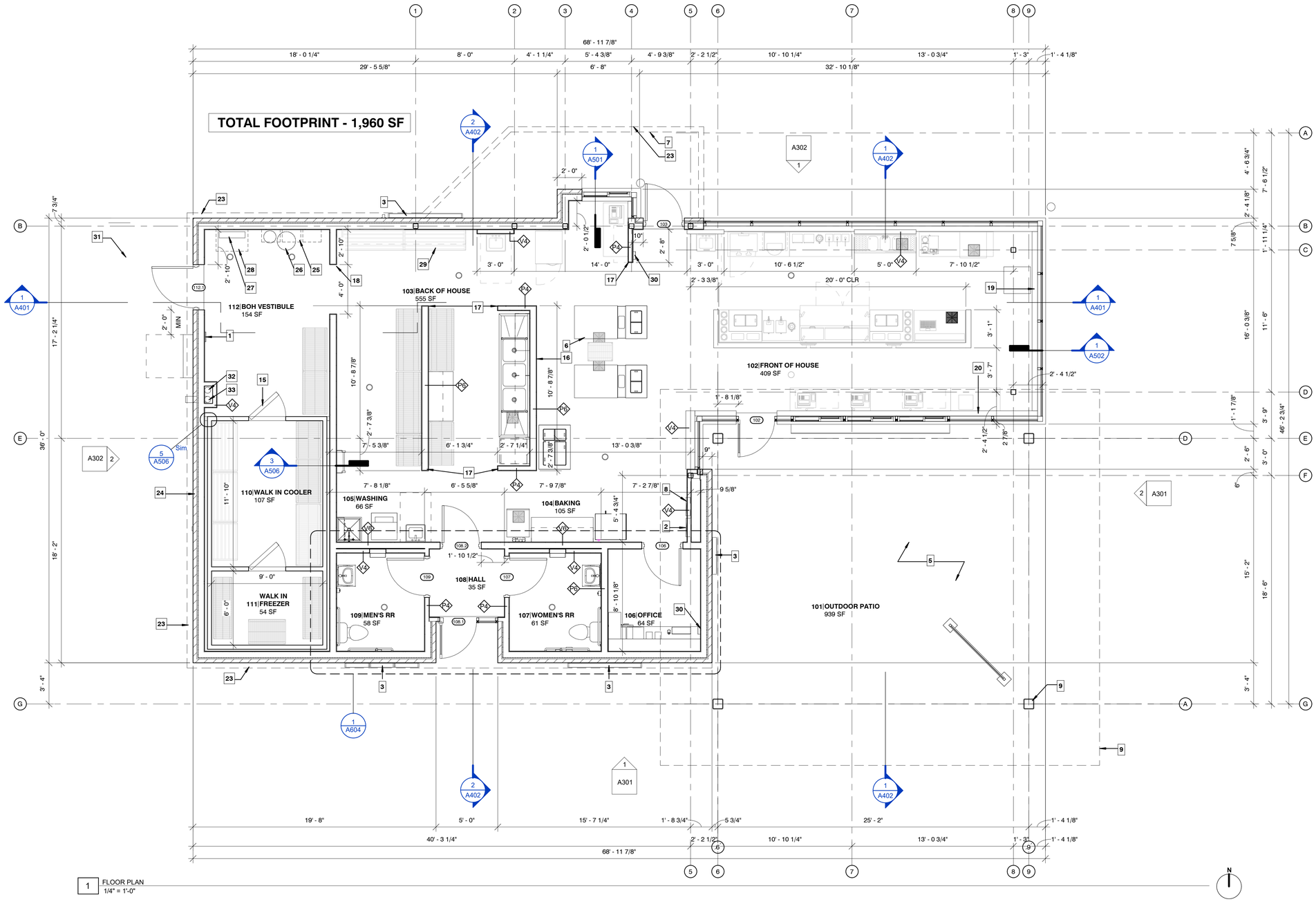
NO.	DATE	ISSUE

FOR PRELIMINARY REVIEW ONLY
DRAWINGS ARE INCOMPLETE AND NOT FOR PERMIT, BIDDING OR CONSTRUCTION.

Architect: Matthew Hufft
License Number: MO#
Drawn: Author
Project Number: 736

SITE PHOTOMETRIC PLAN

ME1



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

PLAN KEYNOTES

1 FIRE EXTINGUISHER CABINET, RE: A507
2 PANELBOARD(S), RE: ELEC. DWGS
3 BUILDING SIGNAGE, RE: ELEC. DWGS
5 OUTDOOR PATIO, CONCRETE SLAB W/ SEALER
6 PATIO CANOPY AND STRUCTURE. RE: STRUCT DWGS. STEEL COLUMNS, PTD
7 DRIVE-THRU CANOPY, RE: STRUCT DWGS
8 CUSTARD MACHINE SHUT-OFF SWITCH, RE: MEP DWGS
9 CUSTARD MACHINE TO STRADDLE FLOOR SINKS
15 WALK-IN COOLER/FREEZER, COORDINATE WITH SUPPLIER
16 PROVIDE HOT AND COLD WATER HOSE BIB ON WALL BEHIND AND ADJACENT TO CUSTARD MACHINES, RE: MEP DWGS
17 INSTALL STAINLESS STEEL CORNER GUARDS THROUGHOUT, TYP. ALL EXPOSED CORNERS RE: A507
18 CASED OPENING FOR BOH ACCESS. MAINTAIN A MIN OF 10" CLEAR OF OPENING.
19 ANDYS FROZEN CUSTARD NEON CONE SIGN - LOCATED INSIDE STORE IN FRONT OF STOREFRONT GLAZING, SUSPENDED. CONSEAL POWER SUPPLY ALONG INSIDE FACE OF MULLION.
20 ANDYS FROZEN CUSTARD "SPRECHER ROOT BEER" NEON SIGN - LOCATED INSIDE STORE IN FRONT OF STOREFRONT GLAZING, SUSPENDED. CONSEAL POWER SUPPLY ALONG INSIDE FACE OF MULLION.
23 SIGNAGE LIGHTING BAND, BY PINNACLE SIGN GROUP. RE: ELEC DWGS & SIGNAGE DWGS
24 PRE-FINISHED DOWNSPOUT, TIE INTO BELOW GRADE STORM DRAINAGE SYSTEM. RE: MEP & CIVIL DWGS
25 TANKLESS WATER HEATERS, RE: MEP DWGS
26 WATER SOFTENER, RE: MEP DWGS
27 BACK FLOW PREVENTOR, RE: MEP DWGS
28 PRESSURE WASHER, RE: MEP DWGS
29 WALL SHELVES ABOVE DUNNAGE RACKS
30 IPAD HOLDER
31 SCREENING MASONRY WALL, M-1
32 ROOF DRAIN DOWN TO BELOW GRADE, RE: PLUMB, PROVIDE CLEAN-OUT AT WALL WITH STAINLESS STEEL WALL COVER
33 OVERFLOW ROOF DRAIN, STUB-OUT AT 12" AFF WITH OVERFLOW DRAIN NOZZLE, RE: PLUMB

NOTE:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING STRUCTURE, MECHANICAL, ELECTRICAL, PLUMBING, ETC. AND NOTIFY ARCHITECT OF ANY DISCREPENCIES.

2. DIMENSIONS ARE FROM GRIDLINES TO FINISH FACE OF NEW PARTITIONS, U.O.N.

3. REFER TO A701 FOR ADDITIONAL NOTES PERTAINING TO WALL TYPE CONSTRUCTION AND DETAILING.

4. REFER TO EQUIPMENT PLAN FOR ALL EQUIPMENT.

5. REFER TO WALL SECTIONS FOR EXTERIOR WALL CONSTRUCTION.

6. REFERENCE CIVIL SITE PLAN FOR BUILDING LOCATION AND ORIENTATION ON SITE.

Hufft

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Lee's Summit, Missouri 64086

OWNER:

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www.eatandys.com

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ISSUE:

CONSTRUCTION DOCUMENTS
05/01/2024

REVISION SCHEDULE:

NO.	DATE	ISSUE

05/01/2024

Architect: ???
License Number: xxx
Drawn By: WY
Project Number: 736

FLOOR PLAN

A101

SOUTH ELEVATION

EAST ELEVATION

EXTERIOR FINISH SCHEDULE

#	DESCRIPTION
AS-1	**DRIVE-THRU CANOPY MATERIAL:** LONGBOARD 6" V-GROOVE EXTRUDED ALUM SOFFIT PANELS COLOR: CHILI PEPPER
AS-2	**PATIO CANOPY MATERIAL:** LONGBOARD 6" V-GROOVE EXTRUDED ALUM SOFFIT PANELS COLOR: BONE WHITE
C-1	**COPING/ROOF EDGE TYPE 1:** PRE-FINISHED ALUMINUM CAP AND SILL FLASHING AT MASONRY VENEER AND, TYP. COLOR: MATCH MASONRY COLOR
C-2	**COPING/ROOF EDGE TYPE 2:** ANNODIZED ALUMINUM CAP AND SILL FLASHING AT STOREFRONT, TYP. COLOR: MATCH STOREFRONT FRAMING
GL-1	**GLAZING TYPE 1:** STOREFRONT MNFR: KAWNEER 451T COLOR: CLEAR ANODIZED
M-1	**MASONRY TYPE 1:** MODULAR BRICK GLEN-GERY COLOR: EBONITE VELOUR GROUT: TO MATCH BRICK
N-1	**PERIMETER FASCIA & SHIELDED LED LIGHTING:** BY PINNACLE SIGN GROUP ANODIZED ALUM. FASCIA W/ LED LIGHTING

Hufft

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CIVIL:

MEP:

LANDSCAPE ARCHITECT:

ISSUE:

CONSTRUCTION DOCUMENTS
05/01/2024

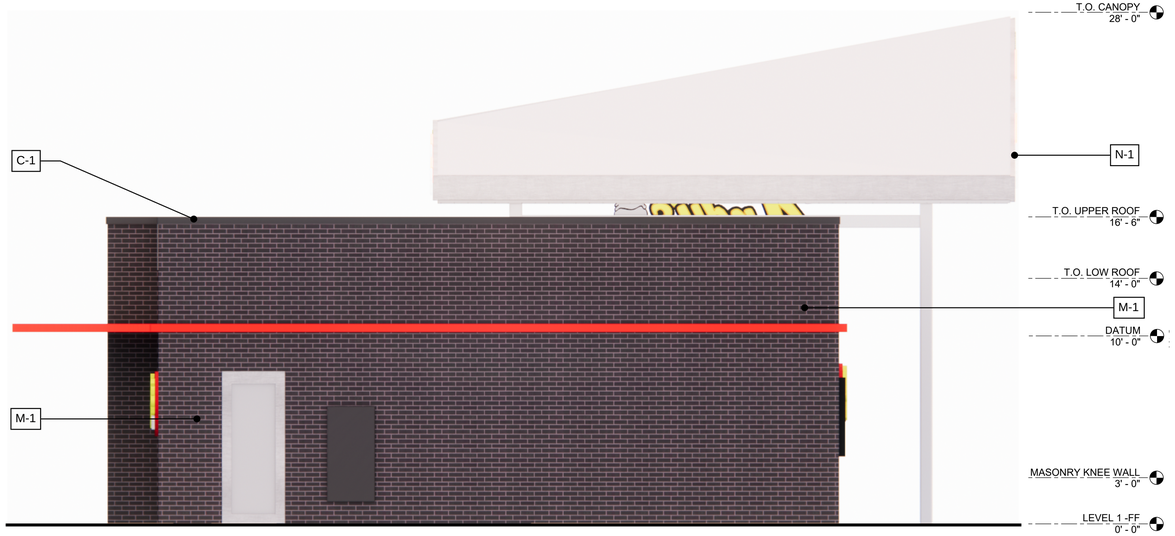
REVISION SCHEDULE:

NO.	DATE	ISSUE

Architect:
License Number:
Drawn By:
Project Number:

ELEVATIONS

A301



NORTH ELEVATION

WEST ELEVATION

EXTERIOR FINISH SCHEDULE

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Hufft

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STRUCTURAL:

CIVIL:

MEP:

LANDSCAPE ARCHITECT:

ISSUE:

PRE-APPLICATION SUBMITTAL
3/5/2024

REVISION SCHEDULE:

NO.	DATE	ISSUE

Architect:
License Number:
Drawn By:
Project Number:

ELEVATIONS

A302