

SCOOTER'S COFFEE DRIVE-THRU

MO 150 Hwy & Regatta Dr
Lee's Summit, MO 64082

BUILDING & SITE DATA

APPLICABLE CODES:	
2012 INTERNATIONAL BUILDING CODE	
2012 INTERNATIONAL PLUMBING CODE	
2012 INTERNATIONAL MECHANICAL CODE	
2011 NATIONAL ELECTRICAL CODE	
2012 INTERNATIONAL FIRE CODE	
2009 ICC/ANSI A117.1 (AMENDED BY THE CITY OF LEE'S SUMMIT, MO)	
BUILDING INFORMATION	
TYPE OF CONSTRUCTION	VB
USE GROUP	B 7A
OCCUPANCY LOAD	5
FLOOR AREA	450 S.F. (30' X 15')
FIRE ALARM / SPRINKLER	NOT SPRINKLED
BUILDING HEIGHT	1-STORY (18'-0")

DIRECTORY

OWNER:
Freedom Enterprises, LLC.
4501 College Blvd. Suite 170
Leawood, KS 66211
TEL: (913) 390-8273

ARCHITECT:
(k) Warman Architecture + Design, PC
1828 Swift, Ste 101
North Kansas City, MO 64116
TEL: (816) 474-2233, FAX: (816) 474-1051
REP: Kathleen Warman

CIVIL ENGINEER:
Phelps Engineering, Inc.
1270 N Winchester
Olathe, KS 66061
TEL: (913) 393-1155 FAX: (913) 393-1166
REP: Dan Finn

STRUCTURAL ENGINEER:
Norton & Schmidt
Consulting Engineers, LLC
311 E 11th Avenue
North Kansas City, MO 64116
TEL: (816) 421-4232, FAX: (816) 421-1956
REP: Eddie Phillips

MEP ENGINEER:
BC Engineers, Inc.
5720 Reeder
Shawnee, KS 66203
TEL: (913) 262-1772, FAX: (913) 262-1773
REP: Mason Stewart / Brett Hermann

PROJECT GENERAL NOTES

- CONTRACTORS SHALL NOT SCALE THESE DRAWINGS FOR CONSTRUCTION PURPOSES. IN THE EVENT OF OMISSION OF NECESSARY DIMENSIONS OR INFORMATION, CONTRACTOR SHALL NOTIFY ARCHITECT. FIGURED AND CALCULATED DIMENSION TAKES PRECEDENCE OVER SCALED MEASUREMENTS. DETAILED DRAWINGS AND LARGER SCALE DRAWINGS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS. ALL PLAN DETAILS AND WALL SECTIONS ARE ASSUMED TO BE TYPICAL CONDITIONS UNLESS DETAILED OR NOTED OTHERWISE.
- ALL FINISHED FLOOR ELEVATIONS REFER TO ARCHITECTURAL DRAWINGS ONLY. REFER TO CIVIL DRAWINGS FOR RELATIONSHIP TO PROJECT BENCHMARK(S).
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS AND GRADES AT JOB SITE. ALL CONTRACTORS SHALL COORDINATE THEIR WORK WITH OTHERS TRADES AND REPORT DISCREPANCIES, PRIOR TO THEIR CONSTRUCTION, TO THE ARCHITECT FOR REVIEW AND CLARIFICATION OR ACTION.
- CONTRACTOR SHALL VERIFY SIZE, LOCATIONS AND CHARACTERISTICS OF ALL EQUIPMENT TO BE FURNISHED WITH MANUFACTURERS OR SUPPLIERS BEFORE BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF ALL OPENINGS FOR MECHANICAL AND ELECTRICAL EQUIPMENT AND RELATED WORK WITH CONTRACTORS INVOLVED AND EQUIPMENT TO BE FURNISHED. FOR CONSTRUCTION DETAILS NOT SHOWN, USE THE MANUFACTURER'S STANDARD DETAILS OR APPROVED SHOP DRAWINGS / DATA SHEETS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- CEILING HEIGHTS SCHEDULED ON THE ROOM FINISH SCHEDULE OR THE REFLECTED CEILING PLAN ARE TAKEN FROM THE FINISH FLOOR ELEVATION.
- ALL PLAN DIMENSIONS ARE TO CENTERLINE OF STUD WALLS, FACE OF MASONRY AND CENTERLINE OF COLUMNS, UNLESS NOTED OTHERWISE.
- VERIFY ALL ELEVATIONS AND DIMENSIONS OF STRUCTURAL ELEMENTS WITH ARCHITECTURAL DRAWINGS. IN CASE OF CONFLICT, NOTIFY THE ARCHITECT. THE CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR THEM. ALL DIMENSIONAL DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE
- CONTRACTOR SHALL ADD SUFFICIENT BLOCKING IN STUD WALLS TO SUPPORT ALL ITEMS OR EQUIPMENT SHOWN OR SPECIFIED TO BE ATTACHED TO THE WALLS. PROVIDE ADDITIONAL STRUCTURAL SUPPORT (ANGLES, CHANNELS, ETC) WITHIN WALLS WHERE WEIGHT OF ATTACHED ITEMS OR EQUIPMENT IS TOO GREAT TO BE SUPPORTED BY WALL STUDS. PROVIDE BLOCKING FOR OWNER FURNISHED OR INSTALLED ITEMS.
- PARTITIONS WHERE INDICATED BY SYMBOL ARE TO EXTEND AND SEAL AGAINST THE BOTTOM OF THE DECK ABOVE.
- USE METAL CORNER BEADS ON ALL GYPSUM BOARD EXTERIOR CORNERS.
- COORDINATE WITH MECHANICAL CONTRACTOR FOR LOCATIONS OF ALL FLOOR DRAINS.
- ALL PLUMBING WET WALLS (EXCLUDING CHASES) SHALL BE COVERED WITH WATER RESISTANT TYPE GYPSUM BOARD, UNLESS NOTED OTHERWISE.
- TRANSITION OF DIFFERENT FLOORING MATERIALS AT DOORWAYS SHALL OCCUR AT CENTERLINE OF DOORS TYPICALLY.
- PAINT ALL WALL SURFACES, DOOR FRAMES, BULKHEADS AND CEILINGS IN ROOMS WHERE INDICATED ON THE ROOM FINISH SCHEDULE. PAINT BEHIND ALL MOVEABLE ITEMS ADJACENT TO WALLS RECEIVING PAINT AND RELOCATE THEM.
- ALL WEATHER-EXPOSED SURFACES SHALL HAVE A WEATHER RESISTIVE BARRIER TO PROTECT THE INTERIOR WALL COVERING AND EXTERIOR OPENINGS SHALL BE FLASHED IN SUCH A MANNER AS TO MAKE THEM WATERPROOF.
- A PORTABLE BRACKET MOUNTED FIRE EXTINGUISHER (VERIFY TYPE AND SIZE WITH LOCAL FIRE MARSHALL) SHALL BE INSTALLED IN AN CONSPICUOUS LOCATION WHERE IT WILL BE READILY ACCESSIBLE AND SHALL BE ALONG A NORMAL PATH OF TRAVEL. THE FIRE EXTINGUISHER SHALL BE MOUNTED WITH THE TOP OF EXTINGUISHER NOT MORE THAN 5 FEET FROM THE FLOOR.

DRAWING INDEX

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DEFERRED SUBMITTALS

- ALL BRAND ID / LOGO SIGNAGE

GENERAL CONTRACTOR NOTE

ALL SUB-CONTRACTORS SHALL BE PROVIDED WITH A COMPLETE SET OF CONSTRUCTION DOCUMENTS FOR BIDDING AND CONSTRUCTION

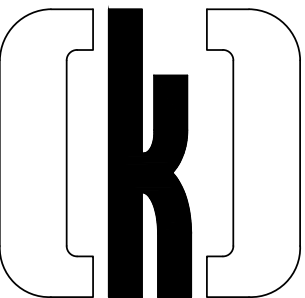
1 JDE 09.26.17 PER CITY COMMENTS
2 JDE 10.09.17 PER CITY COMMENTS

REVISED CONSTRUCTION SET

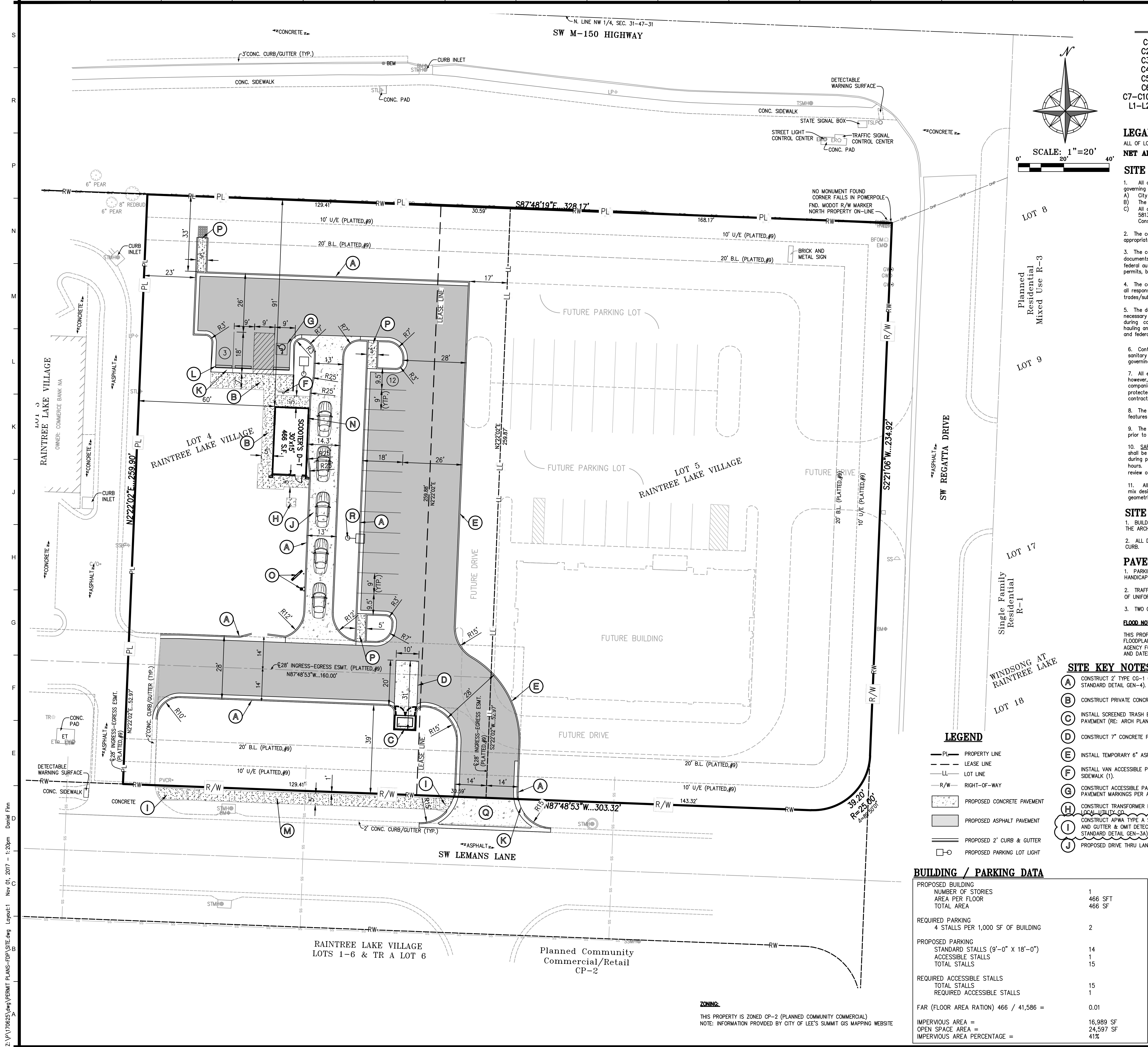
November 2, 2017

Warman Architecture + Design
1828 SWIFT SUITE 101
NORTH KANSAS CITY, MISSOURI 64116
V. 816.474.2233 F. 816.474.1051

SCOOTER'S Coffee Drive-Thru - MO 150 Hwy & Regatta Dr - Lee's Summit, MO 64082 - [k]WA+D 5233-17



WARMAN ARCHITECTURE+DESIGN
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INDEX	
C1	SITE PLAN
C2	GRADING PLAN
C3	ENLARGED GRADING PLAN
C4	UTILITY PLAN
C5	EROSION CONTROL PLAN
C6	EROSION CONTROL DETAILS
C7-C10	STANDARD DETAILS
L1-L2	LANDSCAPE PLANS

LEGAL DESCRIPTION:
ALL OF LOT 4, RAIN TREE LAKE VILLAGE, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.
NET AREA= ±0.9546 ACRES / ±41,581 SQ.FT.

SITE PLAN NOTES:

- 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.
C) All construction shall follow the City of Lee's Summit Design and Construction Manual as adopted by Ordinance 5813. Where discrepancies exist between these plans and the Design and Construction Manual, the Design and Construction Manual shall prevail.
- 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.
- The contractor will be responsible for securing all permits, bonds and insurance required by the contractor 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.
- 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.
- 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.
- 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.
- All existing utilities indicated on the drawings are according to the best information available to the Engineer; however, all utilities 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.
- 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.
- 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.
- 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.
- 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. APWA detail references are provided for all geometrical and other design information.

SITE DIMENSION NOTES:

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

PAVEMENT MARKING AND SIGNAGE NOTES:

- 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.
- TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
- TWO COATS FOR ALL PAVEMENT MARKINGS SHALL BE REQUIRED.

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. 29095C0407F, AND DATED SEPTEMBER 29, 2006.

SITE KEY NOTES:

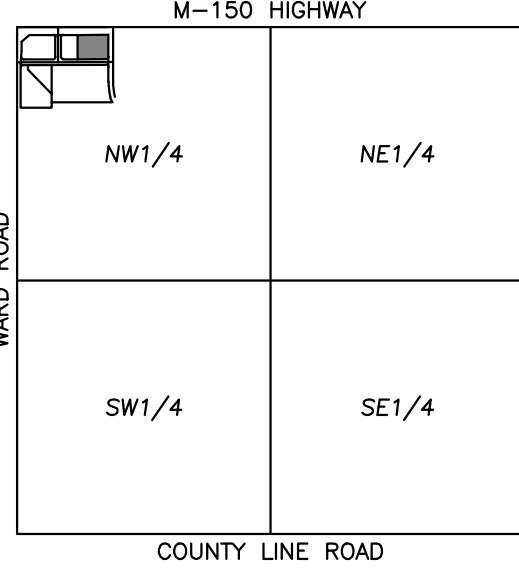
- | | | | |
|-----|---|-----|--|
| (A) | CONSTRUCT 2" TYPE C&I CURB & GUTTER (TYPICAL, RE: CITY STANDARD DETAIL GEN-4). | (K) | CONSTRUCT LAYDOWN CURB & GUTTER. |
| (B) | CONSTRUCT PRIVATE CONCRETE SIDEWALK (TYPICAL). | (L) | INSTALL CONCRETE WHEEL STOPS AT PARKING SPACES (3 LOCATIONS) (TYPICAL). |
| (C) | INSTALL SCREENED TRASH ENCLOSURE WITH CONCRETE PAVEMENT (RE: ARCH PLANS). | (M) | CONSTRUCT PUBLIC CONCRETE SIDEWALK (RE: LEE'S SUMMIT STANDARD DETAIL GEN-2). |
| (D) | CONSTRUCT 7" CONCRETE PAD IN FRONT OF TRASH ENCLOSURE. | (N) | PICK-UP WINDOW (RE: ARCH. PLANS). |
| (E) | INSTALL TEMPORARY 6" ASPHALT CURB. | (O) | MENU BOARD & INTERCOM PEDESTAL (RE: ARCH. PLANS). |
| (F) | INSTALL VAN ACCESSIBLE PARKING SIGN 1'-0" OFF BACK OF SIDEWALK (1). | (P) | CONSTRUCT CONCRETE FLOUSE. |
| (G) | CONSTRUCT ACCESSIBLE PARKING SPACE, INSTALL ACCESSIBLE PAVEMENT MARKINGS PER ADA SPECIFICATIONS. | (Q) | CONSTRUCT COMMERCIAL ENTRANCE. 8" KOMMB 4K CONCRETE (SEE SHEET C10 DETAIL). |
| (H) | CONSTRUCT TRANSFORMER PAD, COORDINATE WITH LOCAL UTILITY CO. | (R) | INSTALL PARKING LOT LIGHTS (RE: LIGHTING PLAN). |
| (I) | CONSTRUCT APWA TYPE A SIDEWALK RAMP WITH LAYDOWN CURB AND GUTTER & OMIT DETECTABLE WARNING (RE: LEE'S SUMMIT STANDARD DETAIL GEN-3A). | | |
| (J) | PROPOSED DRIVE THRU LANE W/ CONCRETE PAVEMENT. | | |

LEGEND

- | | |
|-----------|----------------------------|
| — PL — | PROPERTY LINE |
| - - - | LEASE LINE |
| - - - | LOT LINE |
| - R/W - | RIGHT-OF-WAY |
| [Pattern] | PROPOSED CONCRETE PAVEMENT |
| [Pattern] | PROPOSED ASPHALT PAVEMENT |
| [Pattern] | PROPOSED 2" CURB & GUTTER |
| [Symbol] | PROPOSED PARKING LOT LIGHT |

BUILDING / PARKING DATA

PROPOSED BUILDING	1
NUMBER OF STORIES	
AREA PER FLOOR	466 SFT
TOTAL AREA	466 SF
REQUIRED PARKING	2
4 STALLS PER 1,000 SF OF BUILDING	
PROPOSED PARKING	
STANDARD STALLS (9'-0" X 18'-0")	14
ACCESSIBLE STALLS	1
TOTAL STALLS	15
REQUIRED ACCESSIBLE STALLS	
TOTAL STALLS	15
REQUIRED ACCESSIBLE STALLS	1
FAR (FLOOR AREA RATION) 466 / 41,586 =	0.01
IMPERVIOUS AREA =	16,989 SF
OPEN SPACE AREA =	24,597 SF
IMPERVIOUS AREA PERCENTAGE =	41%



SCALE: 1"=2000'
VICINITY MAP
SEC. 31-47-31

PEI# 170625

PHILIPS ENGINEERING, INC.
2320 N. Winchester
Olathe, Kansas 66061
(781) 393-1155
Fax (781) 393-1166
www.philipsengineering.com

**PLANNING
ENGINEERING
IMPLEMENTATION**

Scooter's Kiosk Drive-Thru
MO 150 Hwy & SW Regatta Dr
Lee's Summit, MO 64082

Freedom Enterprises, LLC
4501 College Blvd, Suite 170
Leawood, KS 66211

REVISIONS

#	BY	DATE	SOURCE
1	CHL	9-26-17	REVISED PER CITY COMMENTS
2	CHL	10-9-17	REVISED PER CITY COMMENTS
3	CHL	10-31-17	REVISED PER CITY COMMENTS

DATE: 09.06.17
DESIGNED BY: DAF
DRAWN BY: JHC
APPROVED BY: JDC

SHEET NUMBER
C1

JOB NUMBER
5233-17

DESIGN CRITERIA: K₂₅ = 1.0; K₁₀₀ = 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		
N U M B E R	S T R U C T U R E	INCREMENTAL			CUMULATIVE		SYSTEM TIME OF CONCENTRATION "T _c " AT STRUCTURE (MIN)	RAINFALL INTENSITY "I ₃₀ " / 1.00" (IN/HR)	ANTECEDENT PRECIPITATION FACTOR "K ₂₅ " / K ₁₀₀ "	RUNOFF "Q ₂₅ " / Q ₁₀₀ " (CFS)	STRUCTURE				PIPE										
		RUNOFF COEFFICIENT "C"	AREA "A" (ACRES)	C x A	AREA "A" (ACRES)	C x A					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	0.90	0.76	0.68	0.76	0.68	5.00	8.53	1.10	6.4	10	11	991.25	4.00	18	80.29	987.25	986.44	0.0101	0.22	6.0	6.4	8.8	10.5	
EX. DITCH	20	0.90	0.77	0.69	0.77	0.69	5.00	10.32	1.25	8.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.5	8.9	NA	
								10.32	1.25	8.9															

SITE GRADING NOTES:

- 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.
- 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.
- 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.
- TOPSAIL 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 IFL.
- 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.
- 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.
- 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.
- EARTHWORK:
 - 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.
 - SURFACE WATER: Surface water shall be intercepted and diverted during the placement of fill.
 - 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 shall not commence until so authorized by the on-site geotechnical engineer to allow for consolidation.
 - 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.
 - 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.
 - 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.
- 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.
- 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.
- CLASSIFICATION: All excavation shall be considered unclassified. No separate or additional payments shall be made for rock excavation.
- PERMANENT RESTORATION: All areas disturbed by earthwork operations shall be sodded, unless shown otherwise by the landscaping plan or erosion control plan.
- 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.
- 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 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.

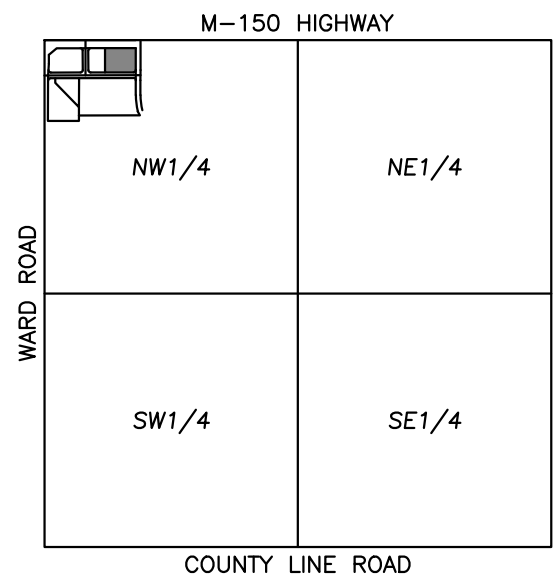
Earthwork Summary
Scooter's - Lee's Summit
7/21/2017

Raw Excavation	868 Cu. Yds.
In Place Compaction (+15%)	-82 Cu. Yds.
Pavement Adjustment	499 Cu. Yds. (assume 12" of additional excavation)
Building Adjustment	17 Cu. Yds. (assume 12" of additional excavation)
On Site Net	1,301 Cu. Yds.

LEGEND

PL	PROPERTY LINE
LL	LEASE LINE
LL	LOT LINE
RW	RIGHT-OF-WAY
PROPOSED WEST CURB & GUTTER	
PROPOSED DRY CURB & GUTTER	
EXISTING STORM SEWER	
EXISTING CONTOURS	
PROPOSED CONTOURS	
PROPOSED SANITARY SEWER LINE	
PROPOSED WATER LINE	
PROPOSED GAS LINE	
PROPOSED BURIED ELECTRICAL LINE	
PROPOSED BURIED TELEPHONE LINE	
EXISTING WATER LINE	
EXISTING GAS LINE	
EXISTING BURIED ELECTRIC LINE	
EXISTING SANITARY SEWER LINE	
EXISTING BURIED TELEPHONE LINE	
PROPOSED CONCRETE PAVEMENT	

— — — — —	DENOTES DRAINAGE AREA
XX.XX Ac.	DENOTES DRAINAGE AREA TO STRUCTURE
XX	DENOTES STRUCTURE NUMBER



SCALE: 1"=2000'
VICINITY MAP
SEC. 31-47-31

PHELPS ENGINEERING, INC.
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PLANNING
ENGINEERING
IMPLEMENTATION

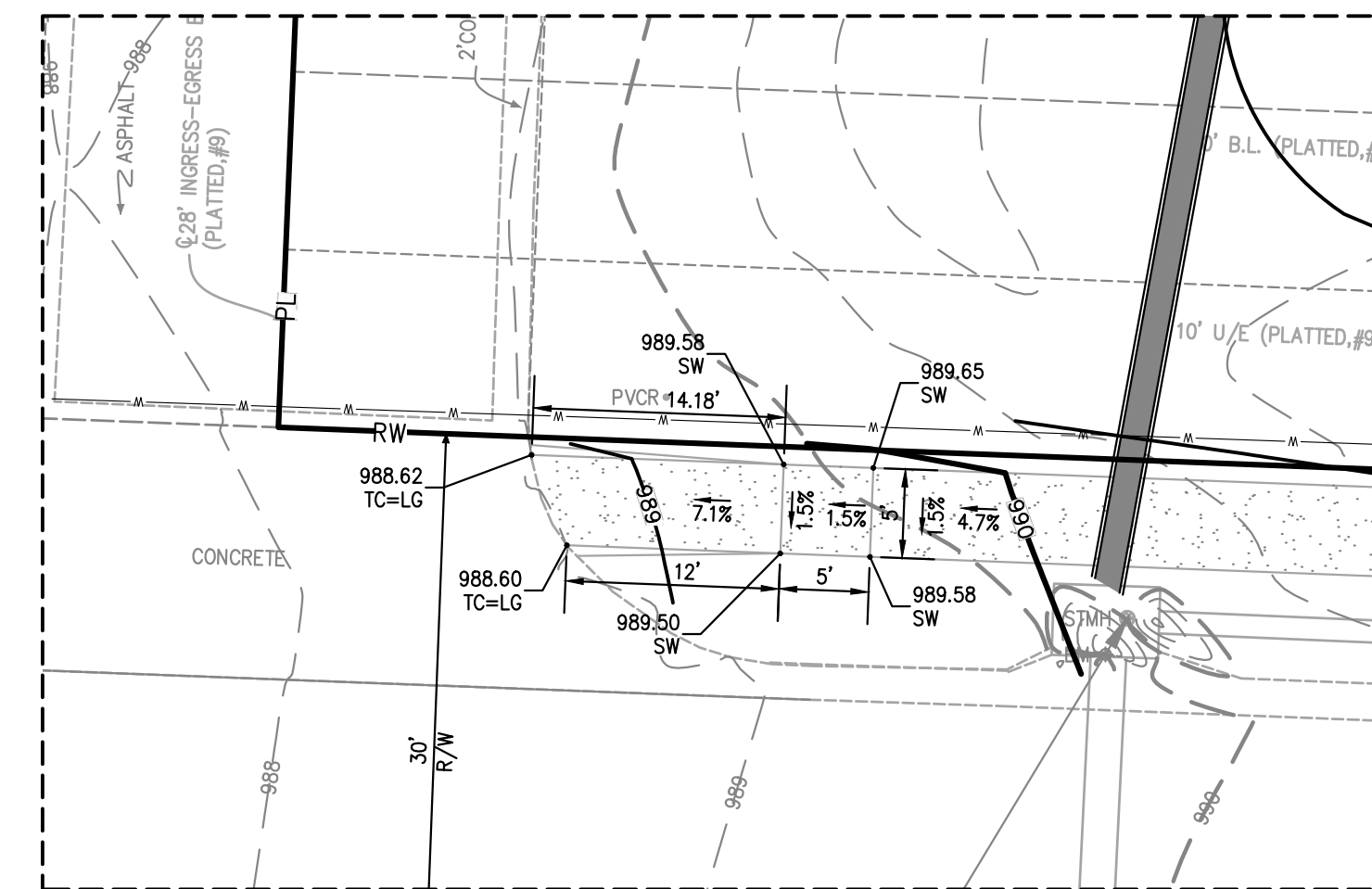
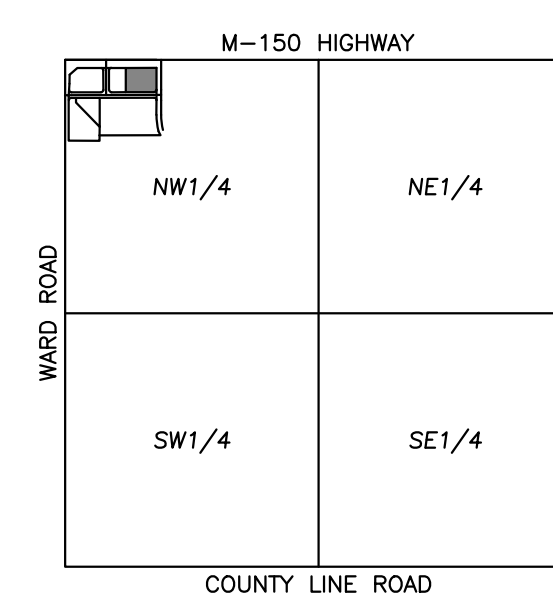
Scooter's Kiosk Drive-Thru
MO 150 Hwy & SW Regatta Dr
Lee's Summit, MO 64082

Freedom Enterprises, LLC
4501 College Blvd, Suite 170
Leawood, KS 66211

REVISIONS		DATE	SOURCE
#	BY	DATE	SOURCE
1	CHL	9-26-17	REVISED PER CITY COMMENTS
2	CHL	10-9-17	REVISED PER CITY COMMENTS
3	CHL	10-31-17	REVISED PER CITY COMMENTS
DATE: 09.06.17			
DESIGNED BY: DAF			
DRAWN BY: CHL			
APPROVED BY: JDC			
SHEET NUMBER			
C2			
JOB NUMBER			
5233-17			

GRADING PLAN

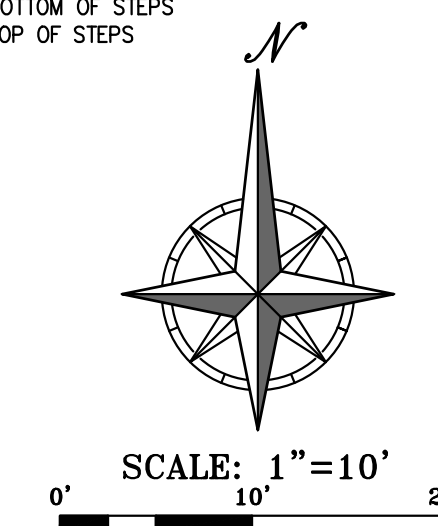
CERTIFICATE OF AUTHORIZATION KANSAS LAND SURVEYING - LS-82 ENGINEERING - E-391
CERTIFICATE OF AUTHORIZATION MISSOURI LAND SURVEYING - 200701128 ENGINEERING - 200705058



LEGEND

	PROPERTY LINE
	LEASE LINE
	LOT LINE
	RIGHT-OF-WAY
	PROPOSED WEST CURB & GUTTER
	PROPOSED DRY CURB & GUTTER
	EXISTING STORM SEWER
	EXISTING CONTOURS
	PROPOSED CONTOURS
	PROPOSED SANITARY SEWER LINE
	PROPOSED WATER LINE
	PROPOSED GAS LINE
	PROPOSED BURIED ELECTRICAL LINE
	PROPOSED BURIED TELEPHONE LINE
	EXISTING WATER LINE
	EXISTING GAS LINE
	EXISTING BURIED ELECTRIC LINE
	EXISTING SANITARY SEWER LINE
	EXISTING BURIED TELEPHONE LINE
	PROPOSED CONCRETE PAVEMENT

	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



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ENLARGED GRADING PLAN

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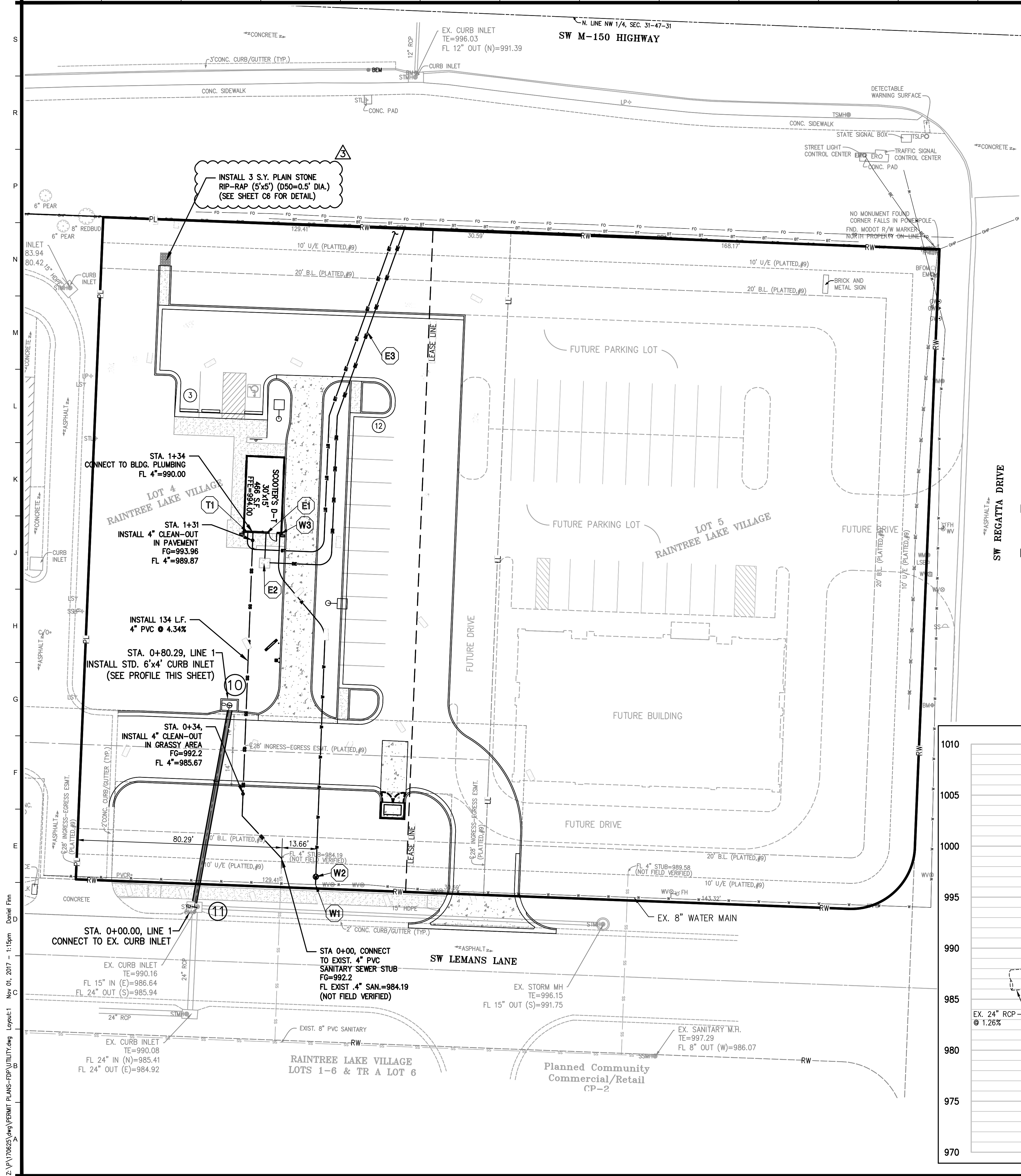
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DRAWN BY:	CHF
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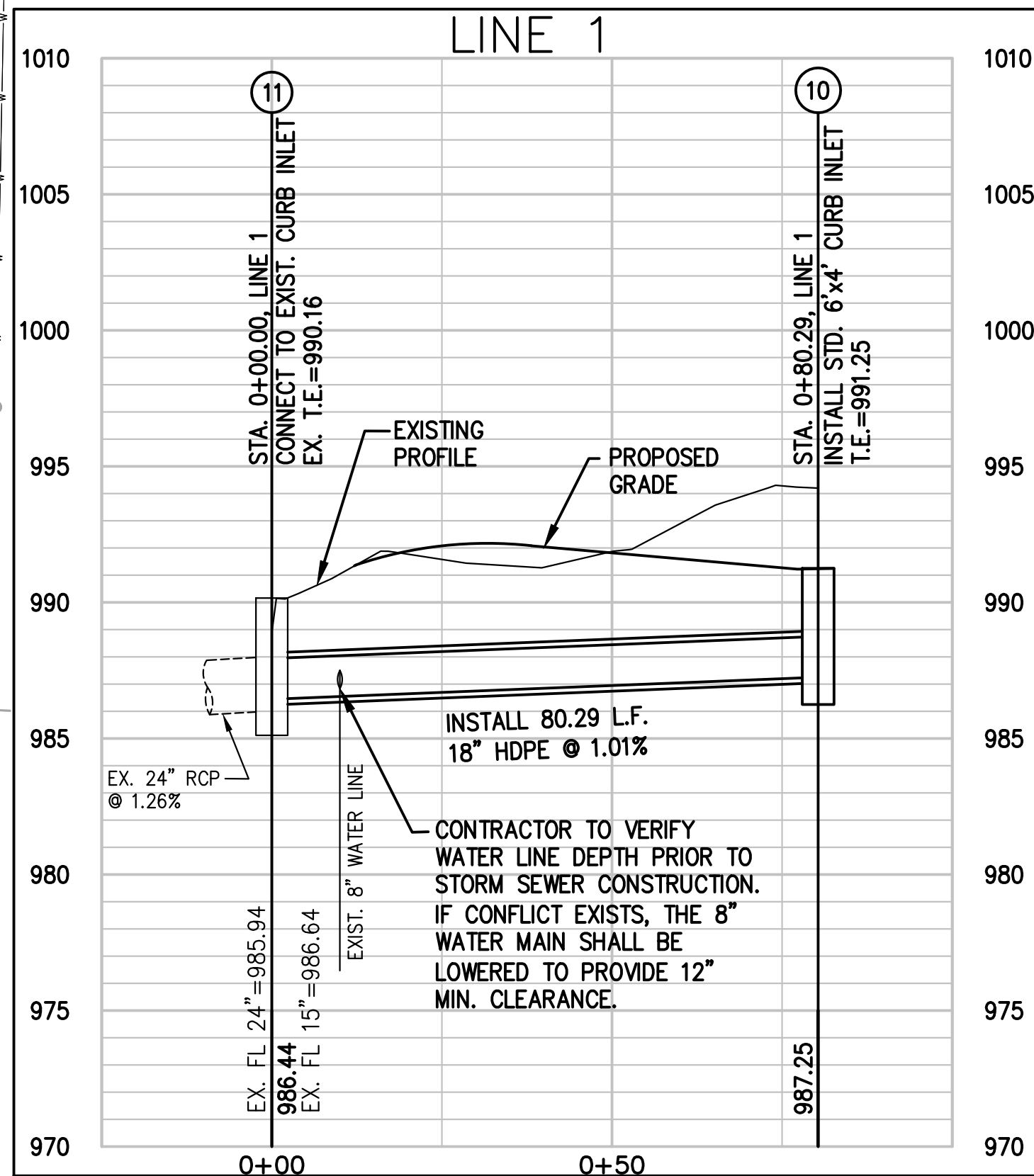
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CERTIFICATE OF AUTHORIZATION KANSAS LAND SURVEYING - LS-82 ENGINEERING - E-391



KEY NOTES:

- E1** SECONDARY ELECTRIC ENTRY INTO BUILDING.
- 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** INSTALL 4" PVC SCHEDULE 40 PRIMARY ELECTRICAL CONDUIT. FOLLOW ELECTRICAL COMPANY WORK ORDER AND SPECIFICATIONS FOR PRIMARY ELECTRICAL SERVICE.
- W1** CONTRACTOR TO PERFORM AND COORDINATE 8" X 1" TAP FOR PROPOSED BUILDING DOMESTIC SERVICE. CONTACT WATER UTILITY 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 THE WATER UTILITY.
- W2** CONTRACTOR TO PROVIDE AND INSTALL 3/4" WATER METER PIT PER WATER UTILITY REQUIREMENTS. CONTRACTOR TO COORDINATE AND PAY ALL FEES. ALL LABOR AND MATERIALS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR'S PLUMBER IN ACCORDANCE WITH THE WATER UTILITY STANDARDS.
- W3** 1" DOMESTIC WATERLINE ENTRY TO BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED. CONTRACTOR TO COORDINATE WITH WATER UTILITY.
- T1** CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE TELEPHONE COMPANY FOR THE INSTALLATION OF BURIED TELEPHONE LINES. CONTRACTOR TO PROVIDE TWO (2) - 4" PVC SCH. 40 CONDUIT WITH PULL STRING FROM BUILDING TO TELEPHONE FEED POINT. CONTRACTOR TO VERIFY EXACT ROUTING AND FEED POINT WITH TELEPHONE COMPANY.



UTILITY NOTES:

- 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.
- The construction of storm sewers on this project shall conform to the requirements of the City of Lee's Summit, Missouri Technical Specifications and Design Criteria.
- 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.
- It will be the contractor's 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.
- 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.
- The contractor shall be responsible for furnishing and installing all fire and domestic water lines, meters, backflow devices, pits, valves and all other accessories 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 of Lee's Summit, Missouri.
- The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the buildings to the public main. The contractor shall refer to the architectural plans for specific locations and elevations of the service lines of the building connection. All work shall conform to the requirements of the City of Lee's Summit, Missouri.
- 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 contractor responsibility and shall be included in the bid for the work.
- 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.
- 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.
- 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.
- Contractor shall notify the utility authorities inspectors 48 hours before connecting to any existing line.
- Water lines shall be as follows (unless otherwise shown on plans):
 - Pipe sizes less than 3-inches that are installed below grade and outside building shall comply with the following:
 - Seamless Copper Tubing: Type "K" soft copper, ASTM B88.
 - Fittings: Wrought copper (95.5 Tin Antimony solder joint), ASME B 16.22.
 - Gray Cast Iron Water Pipe or Ductile Iron Water Pipe may be used for Pipe sizes 3-inches Through 48-inches that are installed below grade and outside building shall comply with the following:
 - Gray Cast Iron Water Pipe: ANSI A21.6, thickness class 52.
 - Fittings: Either mechanical joint or push-on joint, AWWA C110 or AWWA C111.
 - Elastomeric gaskets and lubricant: ASTM F477.
 - Cement Mortar Lining, AWWA C104.
 - Ductile Iron Water Pipe: AWWA C151, thickness class 50.
 - Fittings: Either mechanical joint or push-on joint, AWWA C110 or AWWA C111.
 - Elastomeric gaskets and lubricant: ASTM F477.
 - Cement Mortar Lining, AWWA C104.
 - Polyvinyl Chloride (PVC) Water Pipe may be used for Pipe sizes 4-inches Through 12-inches that are installed below grade and outside building shall comply with the following:
 - Polyvinyl Chloride (PVC) Water Pipe: Pipe, AWWA C900, rated DR 18 (Class 150), continually marked as required.
 - Elastomeric gaskets and lubricant: ASTM F477 for smaller pipes.
 - Pipe joints: Integrally molded bell ends, ASTM D3139.
 - Trace wire: Magnetic detectable conductor, (#12 Copper) brightly colored plastic covering imprinted with "Water Service" in large letters.
- Minimum trench width shall be 2 feet.
- 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 waterline's specifications for commercial services.
- 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.
- 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 the 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).
- 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.
- 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.
- 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.
- When a building utility connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such site utility terminations.

LEGEND

PL	PROPERTY LINE
LL	LEASE LINE
LOT	LOT LINE
RW	RIGHT-OF-WAY
PROPOSED WEST CURB & GUTTER	
PROPOSED DRY CURB & GUTTER	
EXISTING STORM SEWER	
PROPOSED STORM SEWER	
PROPOSED ROOF DRAIN / UNDERDRAIN	
PROPOSED SANITARY SEWER LINE	
PROPOSED WATER LINE	
PROPOSED GAS LINE	
PROPOSED BURIED ELECTRICAL LINE	
PROPOSED BURIED TELEPHONE LINE	
EXISTING WATER LINE	
EXISTING GAS LINE	
EXISTING BURIED ELECTRIC LINE	
EXISTING SANITARY SEWER LINE	
EXISTING BURIED TELEPHONE LINE	
PROPOSED CONCRETE PAVEMENT	

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Scooter's Kiosk Drive-Thru

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Leawood, KS 66211

REVISIONS

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DAF

DRAWN BY:

CHL

APPROVED BY:

JDC

SHEET NUMBER

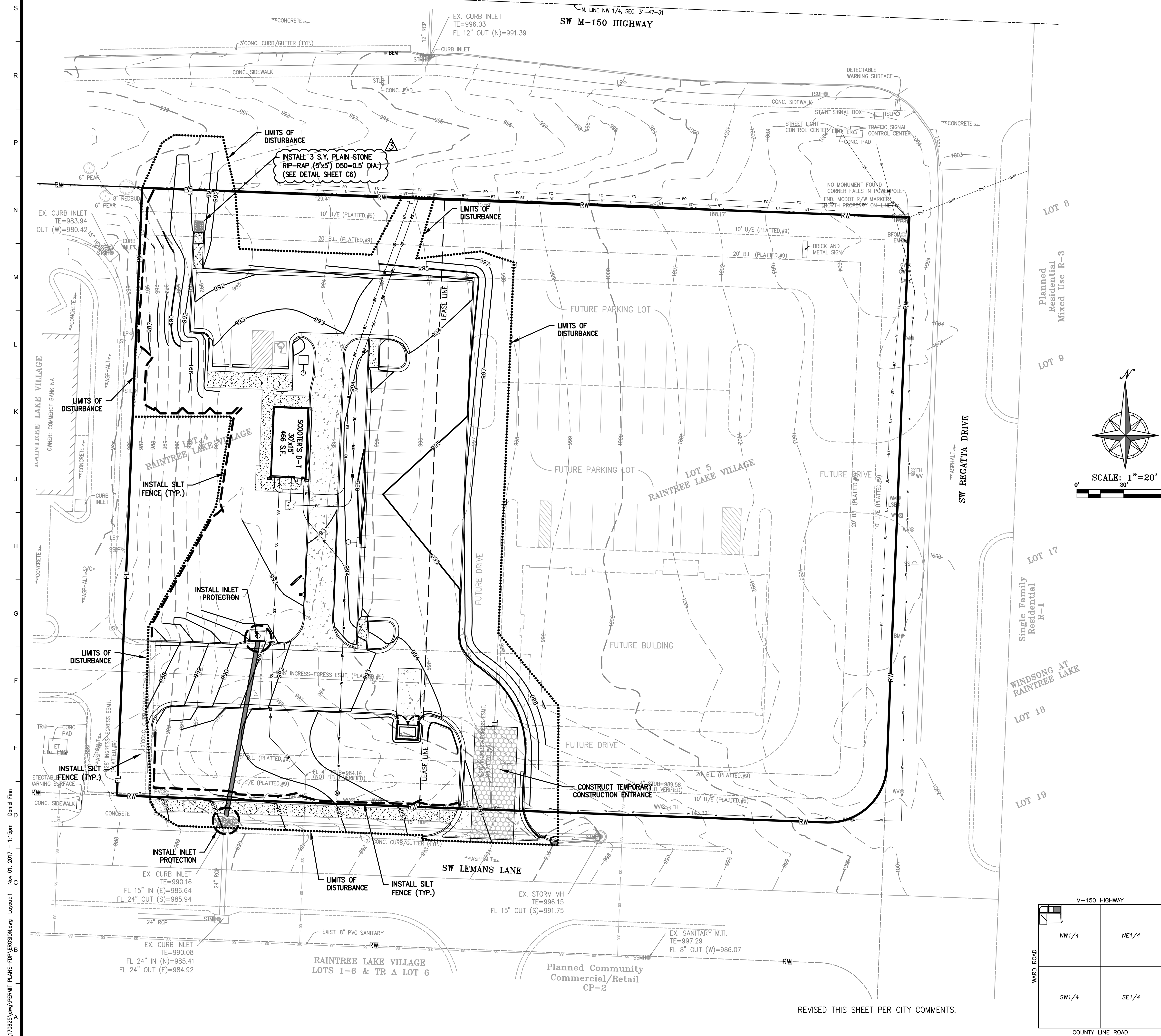
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JOB NUMBER

5233-17

PEI# 170625

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EROSION AND SEDIMENT CONTROL GENERAL NOTES:

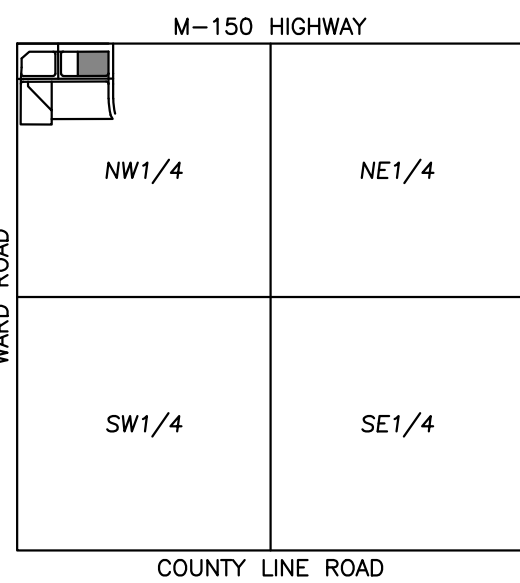
- Prior to Land Disturbance activities, the contractor shall:
 - Delineate the outer limits of any tree or stream preservation designated to remain with construction fencing.
 - Construct a stabilized entrance/parking/delivery area and install all perimeter sediment controls on the site.
 - Install and 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 there 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.
- 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.
- 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 every 14 days and within 24 hours following each rainfall event of 1/4" 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.
- Unless otherwise noted in the plans, all seeding must conform to the Missouri Department of Transportation (MODOT) Standard Specifications for State Road and Bridge Construction, current edition, as amended by the most current Special Provisions.
- 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.
- 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.
- Concrete wash or rinsewater from concrete mixing equipment, tools and/or ready-mix trucks, tools, etc., may not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place and excess water evaporated or infiltrated into the ground.
- 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 drainways 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 PLAN, 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:

- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
- ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEED AS NEEDED.
- 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.
- 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.
- 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.

LEGEND

- SILT FENCE
- DISTURBED AREA = 0.92 ACRES
- CONSTRUCTION ENTRANCE
- INLET PROTECTION



SCALE: 1"=2000'
VICINITY MAP
SEC. 31-47-31

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PEI# 170625

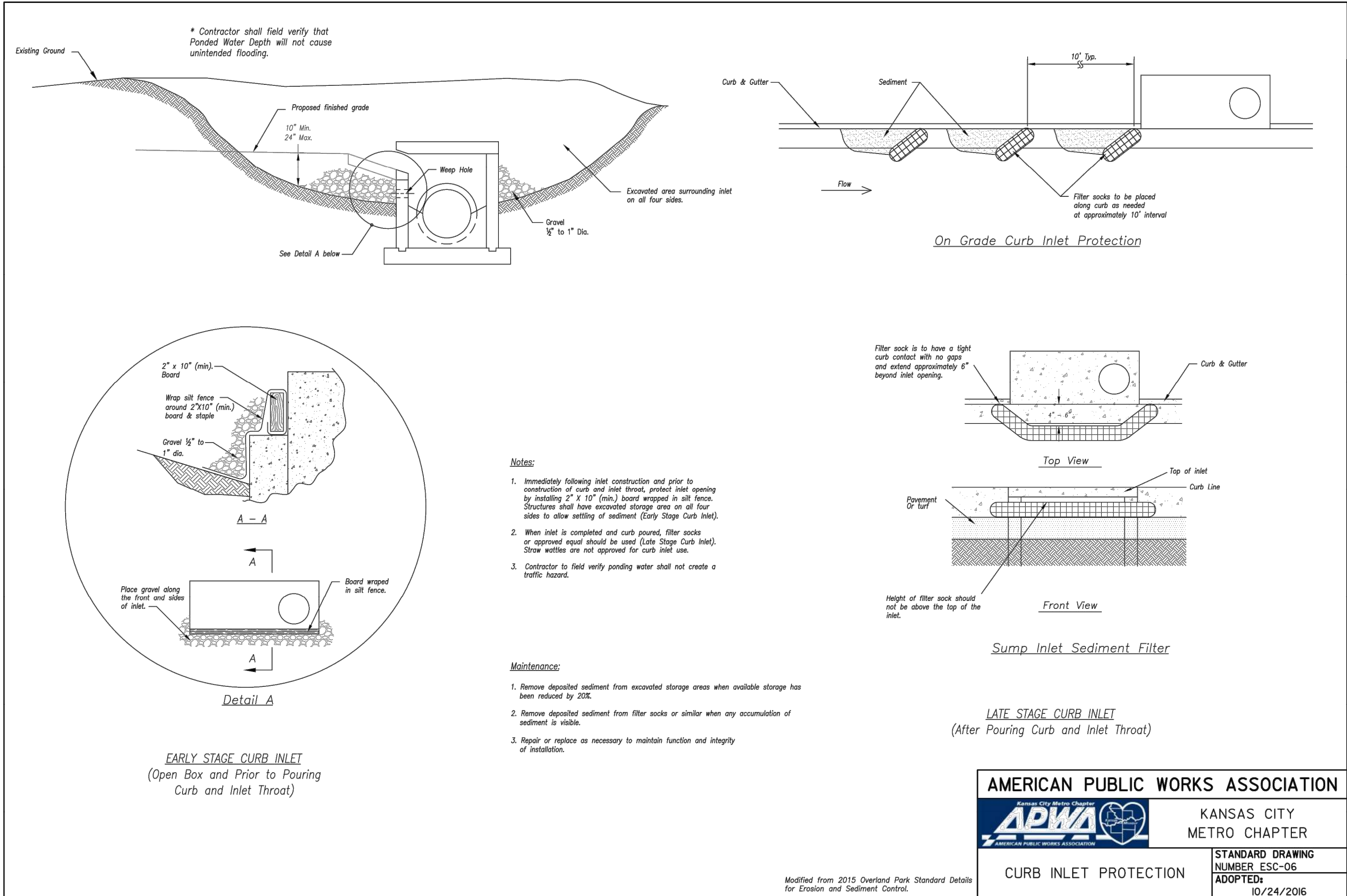
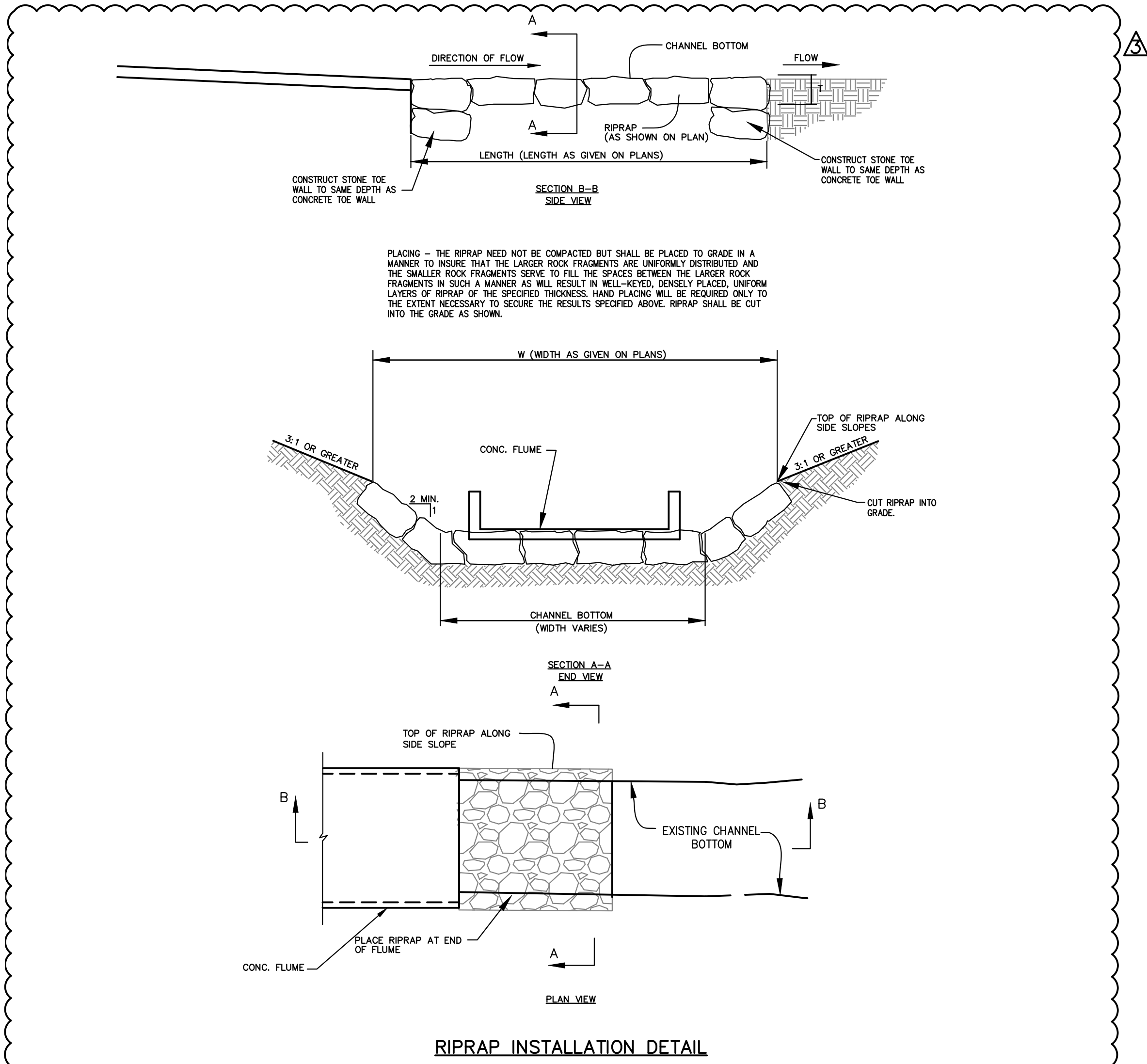
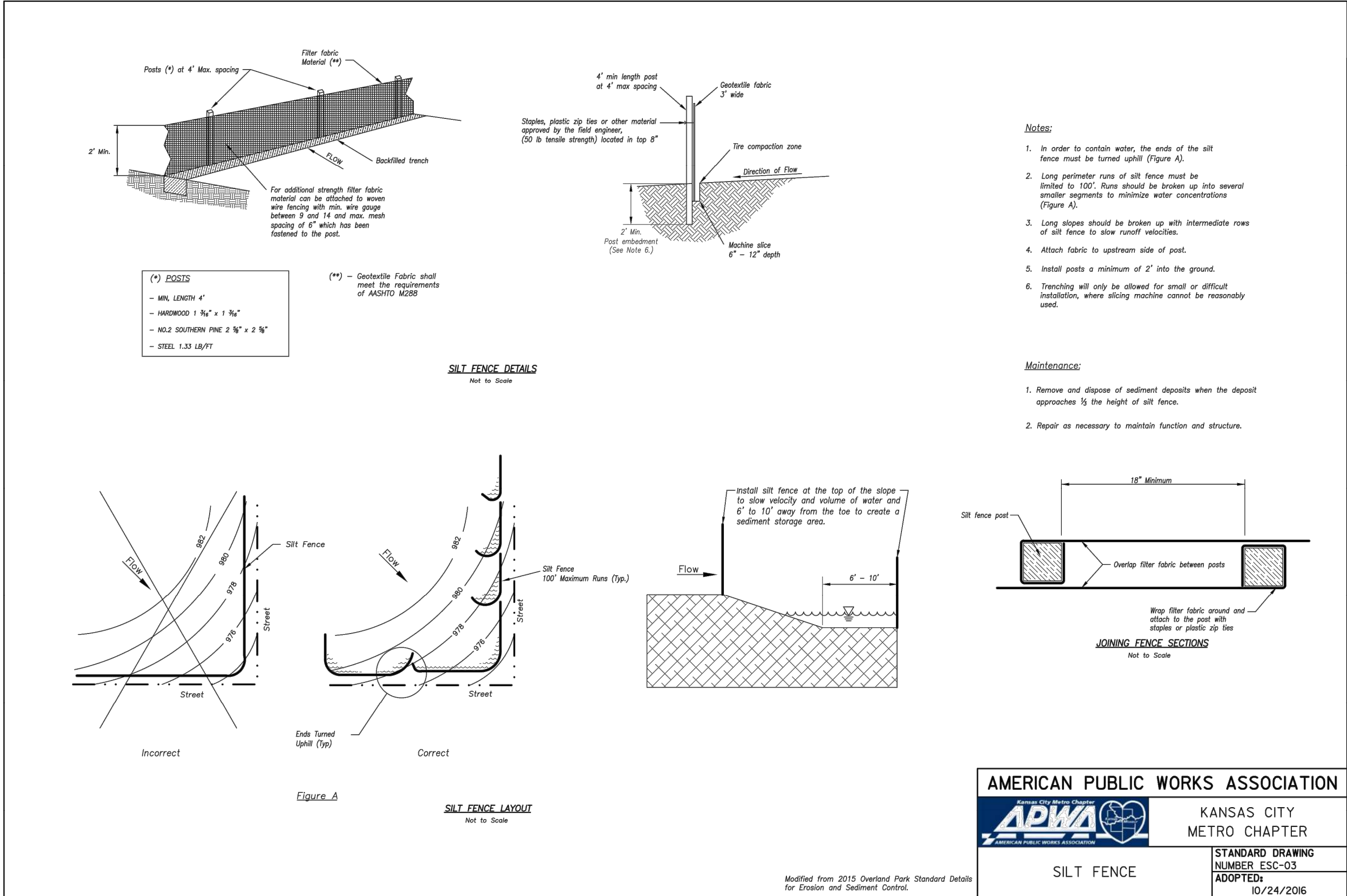
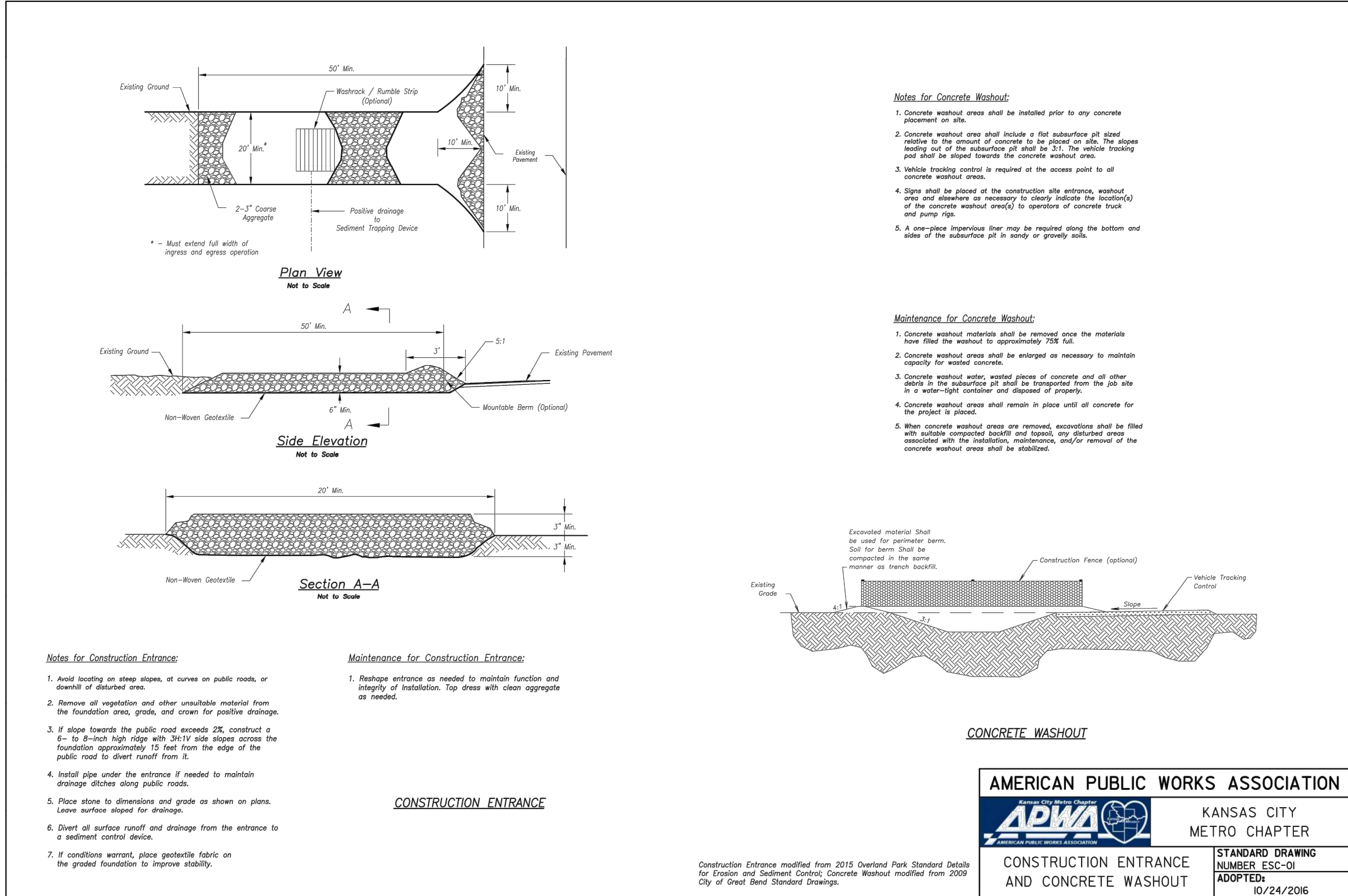
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DRAWN BY:		CHL	
APPROVED BY:		JDC	
SHEET NUMBER		C5	
JOB NUMBER		5233-17	

CERTIFICATE OF AUTHORIZATION KANSAS LAND SURVEYING - LS-82 ENGINEERING - E-391
CERTIFICATE OF AUTHORIZATION MISSOURI LAND SURVEYING - 200700128 ENGINEERING - 200700568

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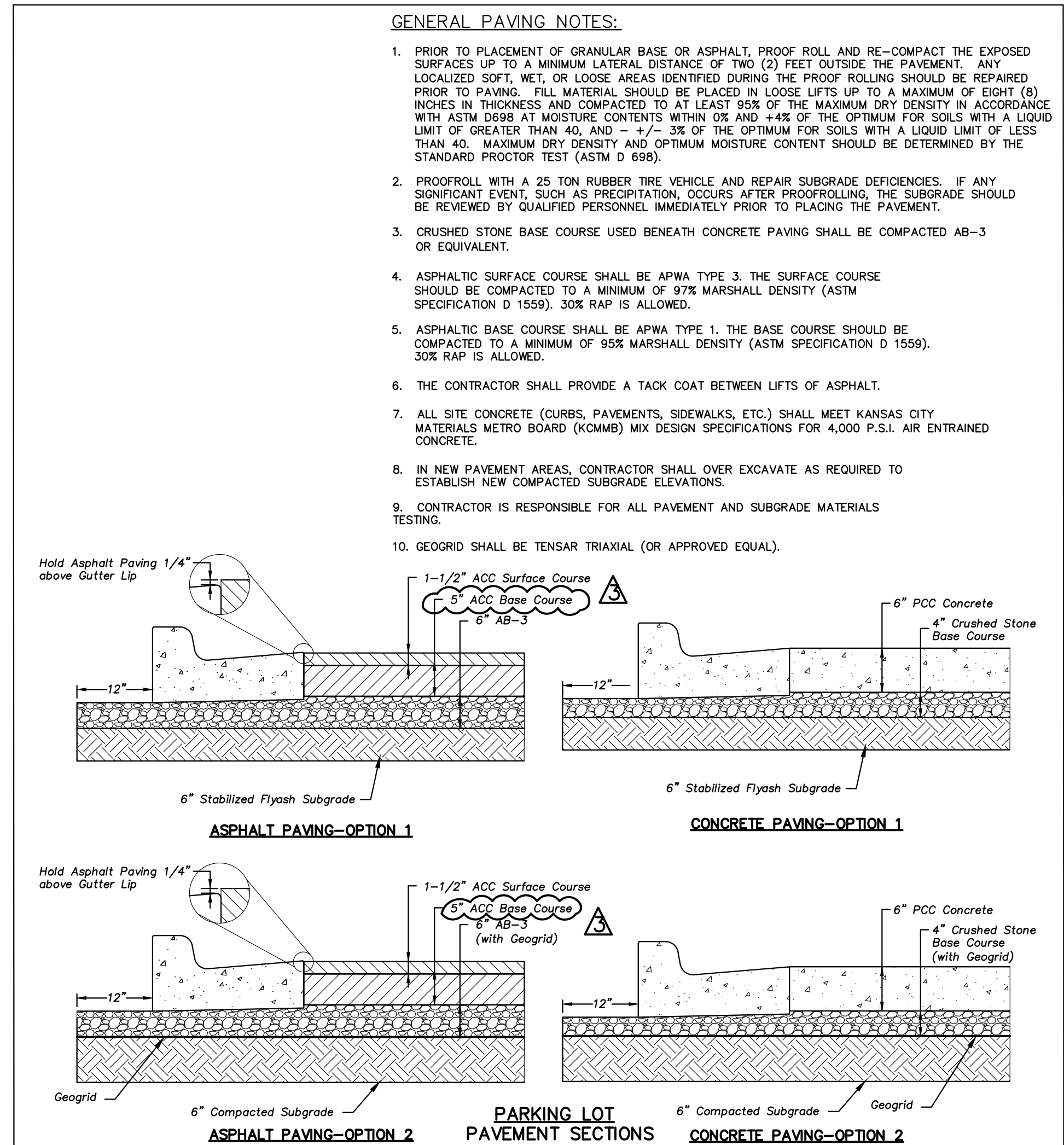
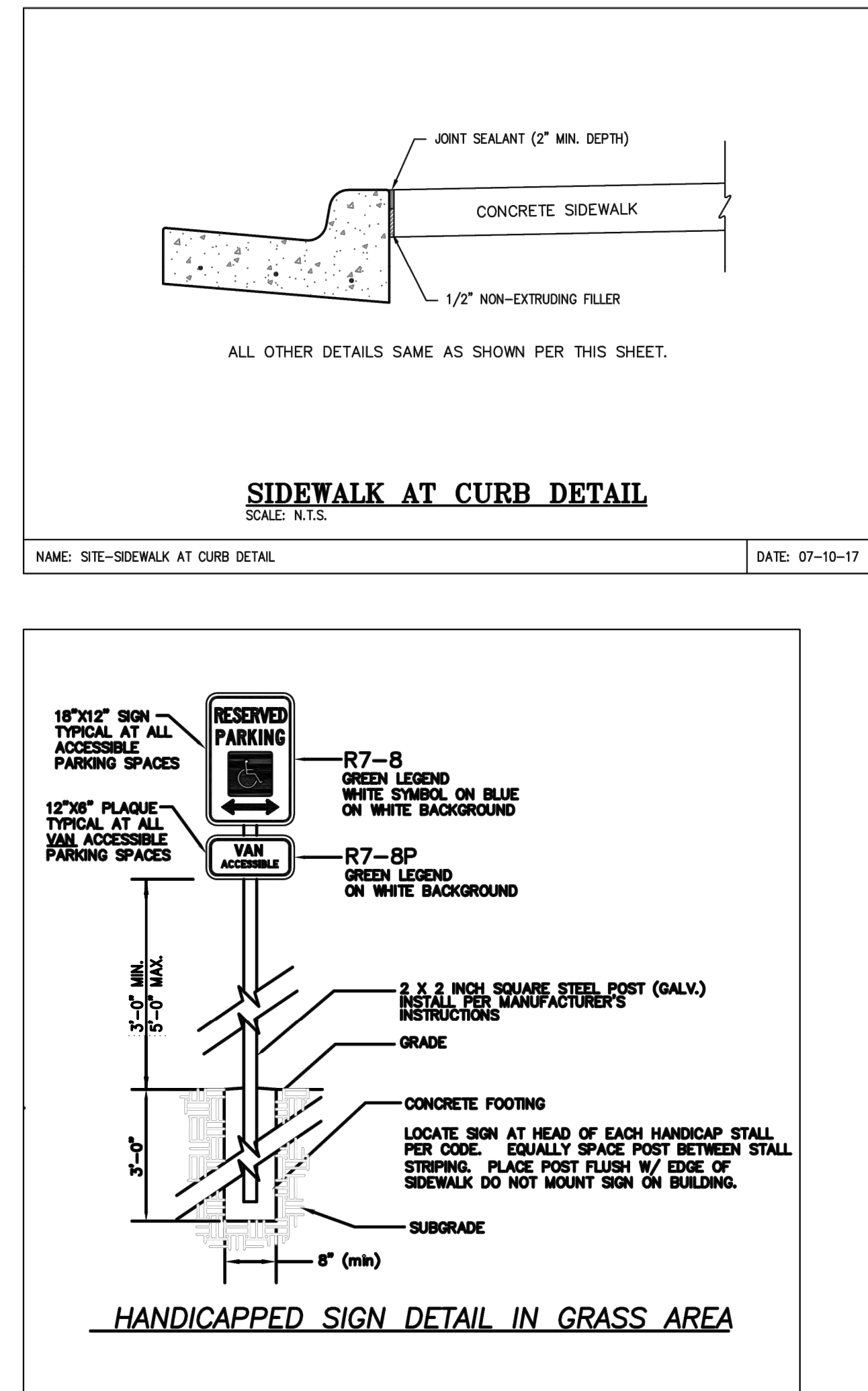
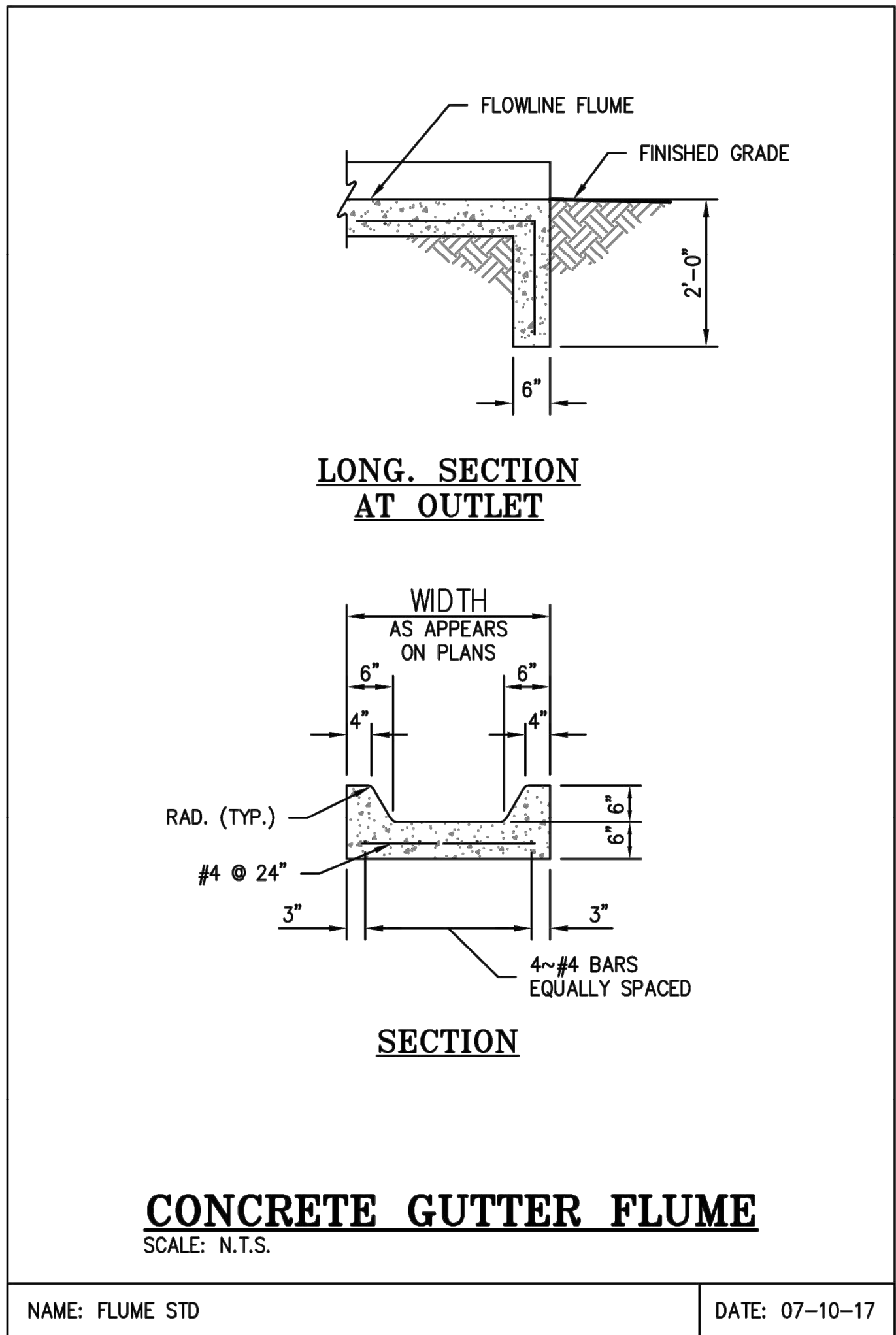
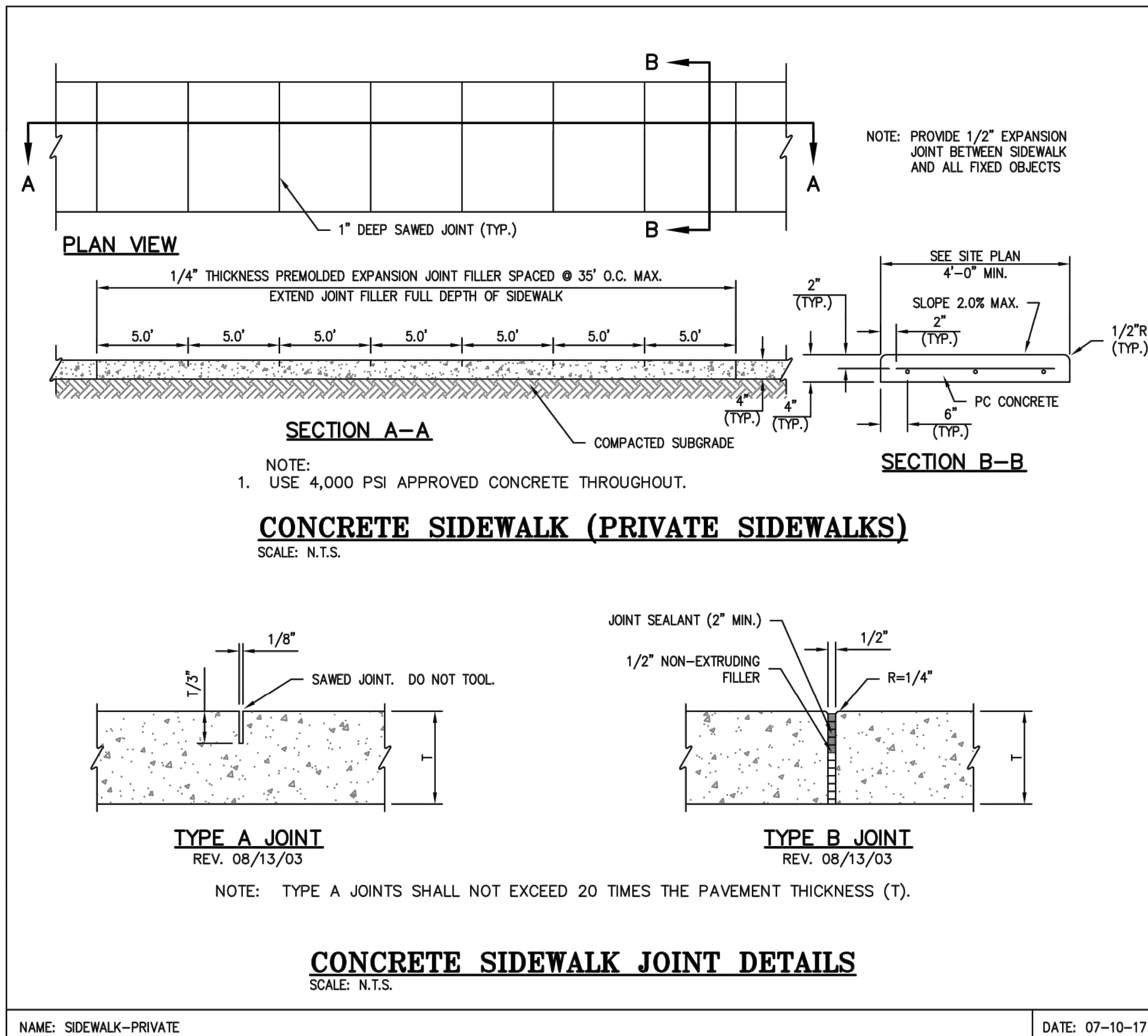
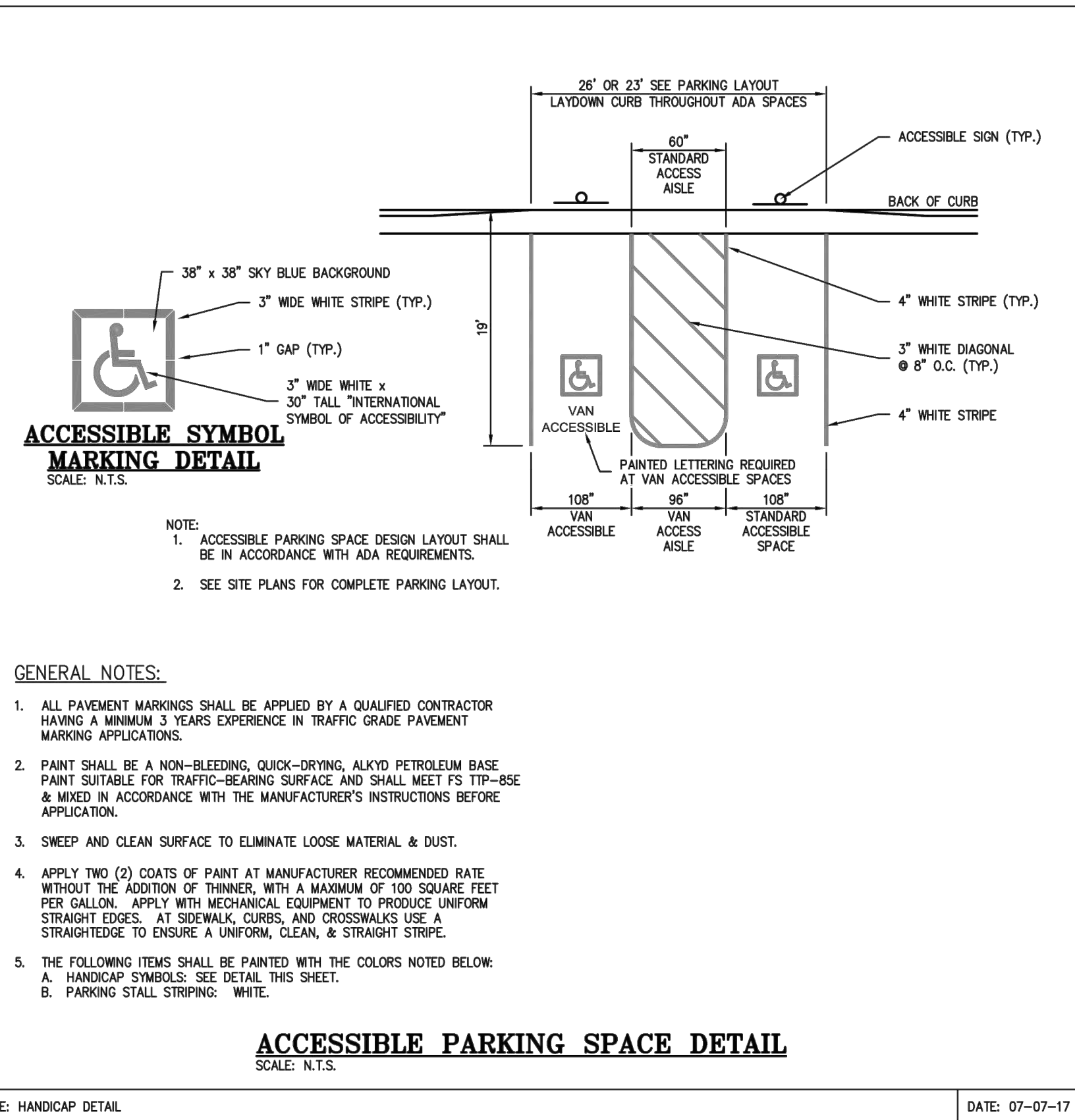
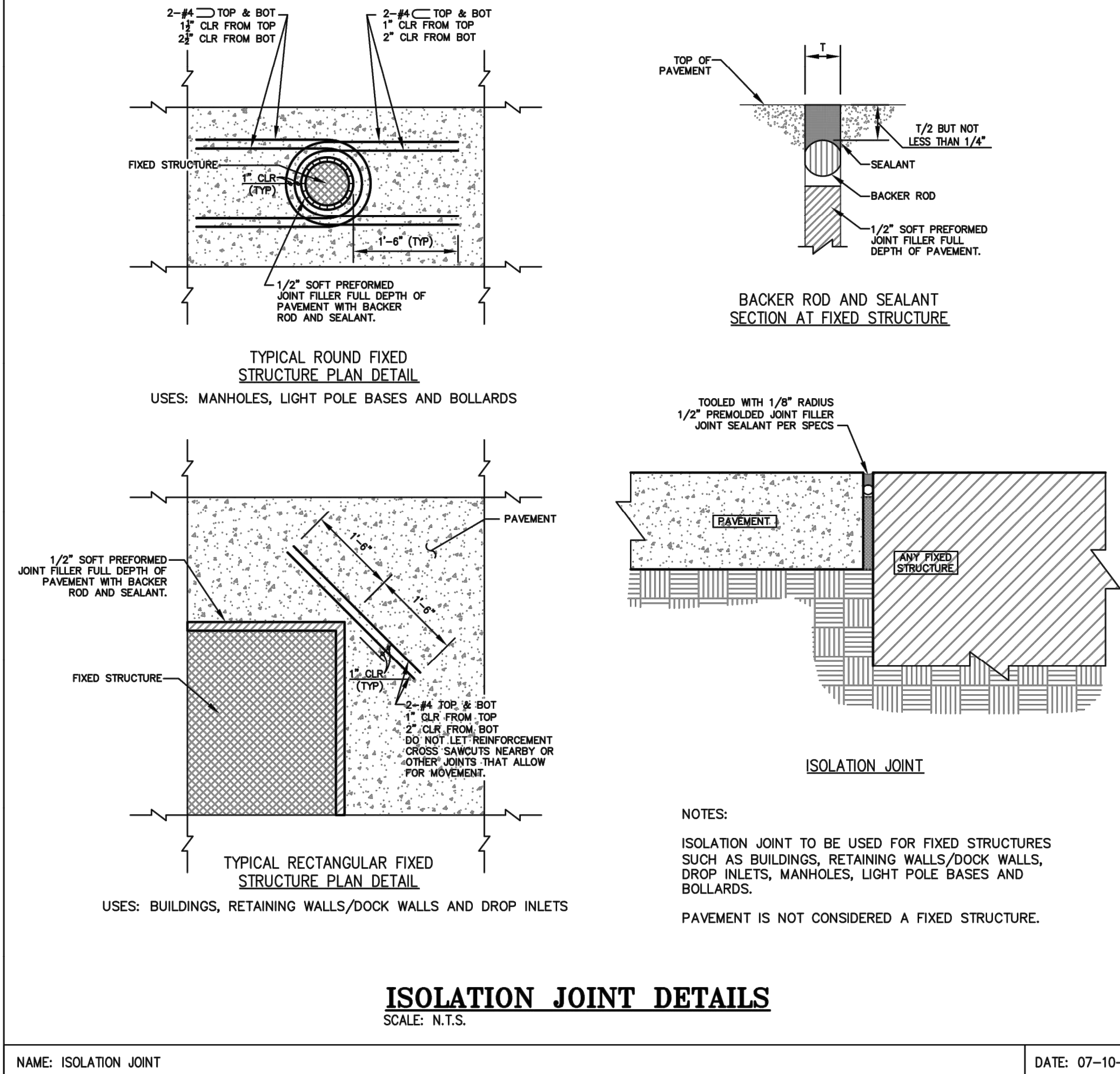
EROSION CONTROL DETAILS

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Olathe, Kansas 66061
(913) 393-1155
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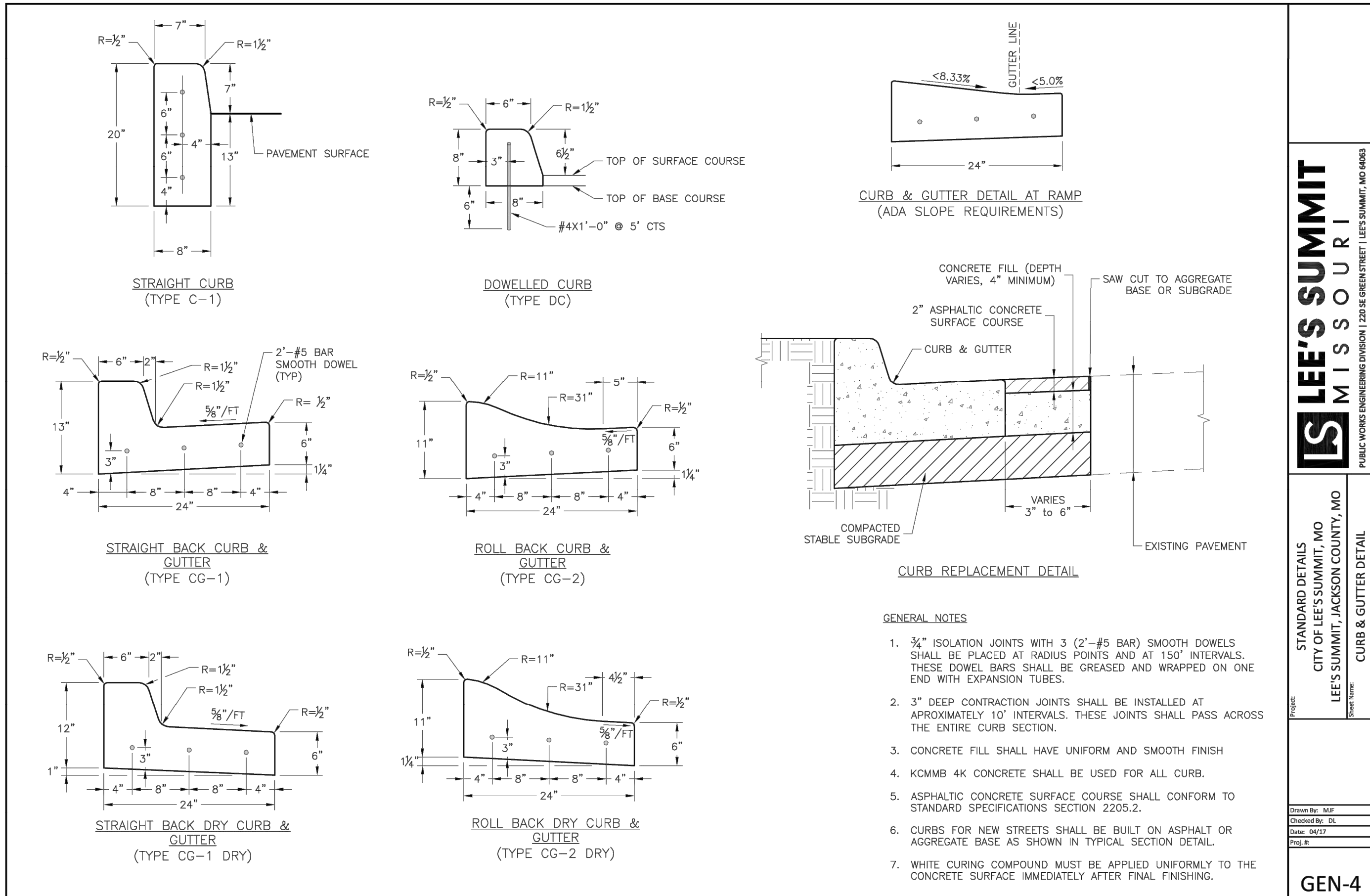
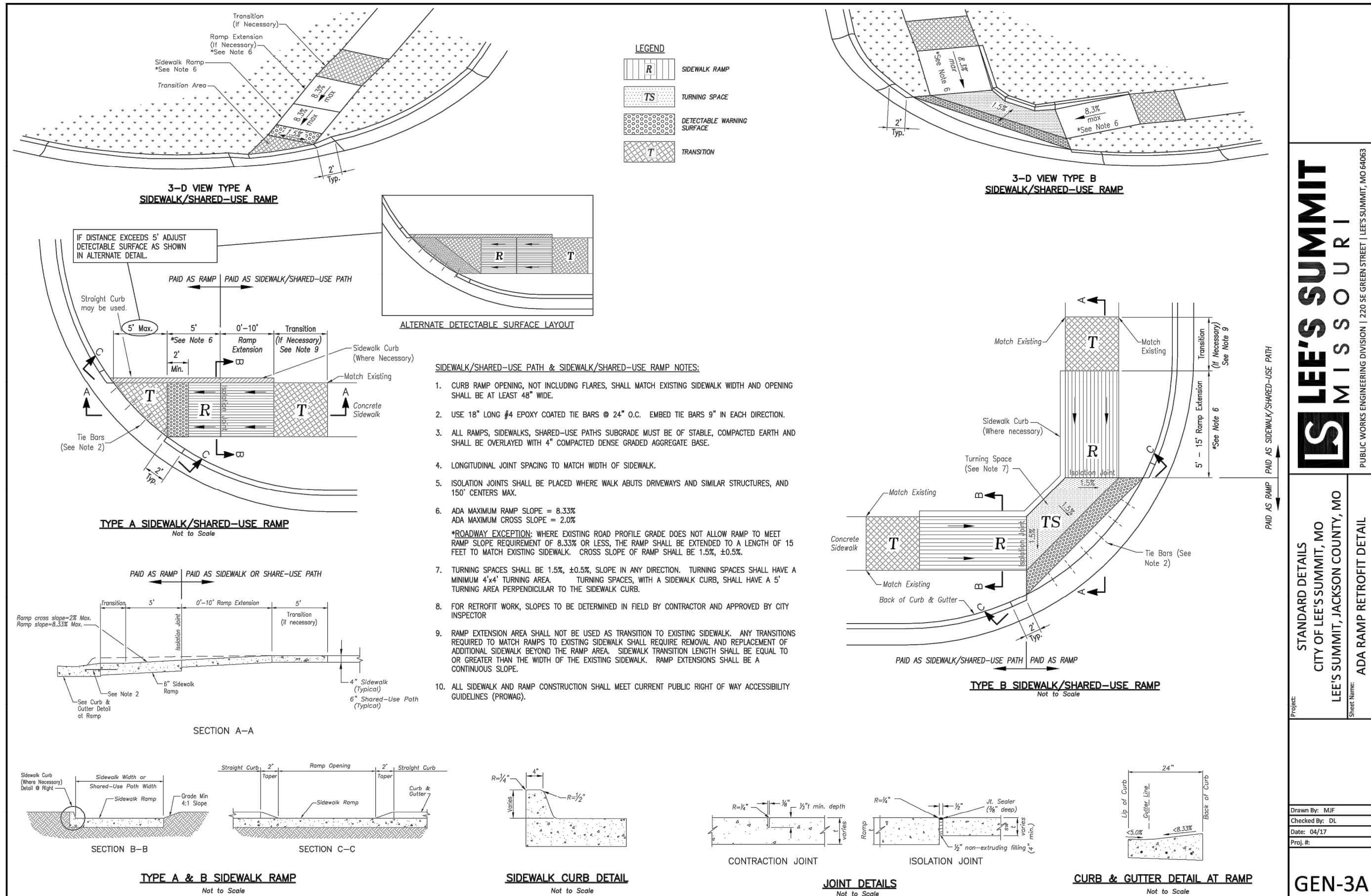
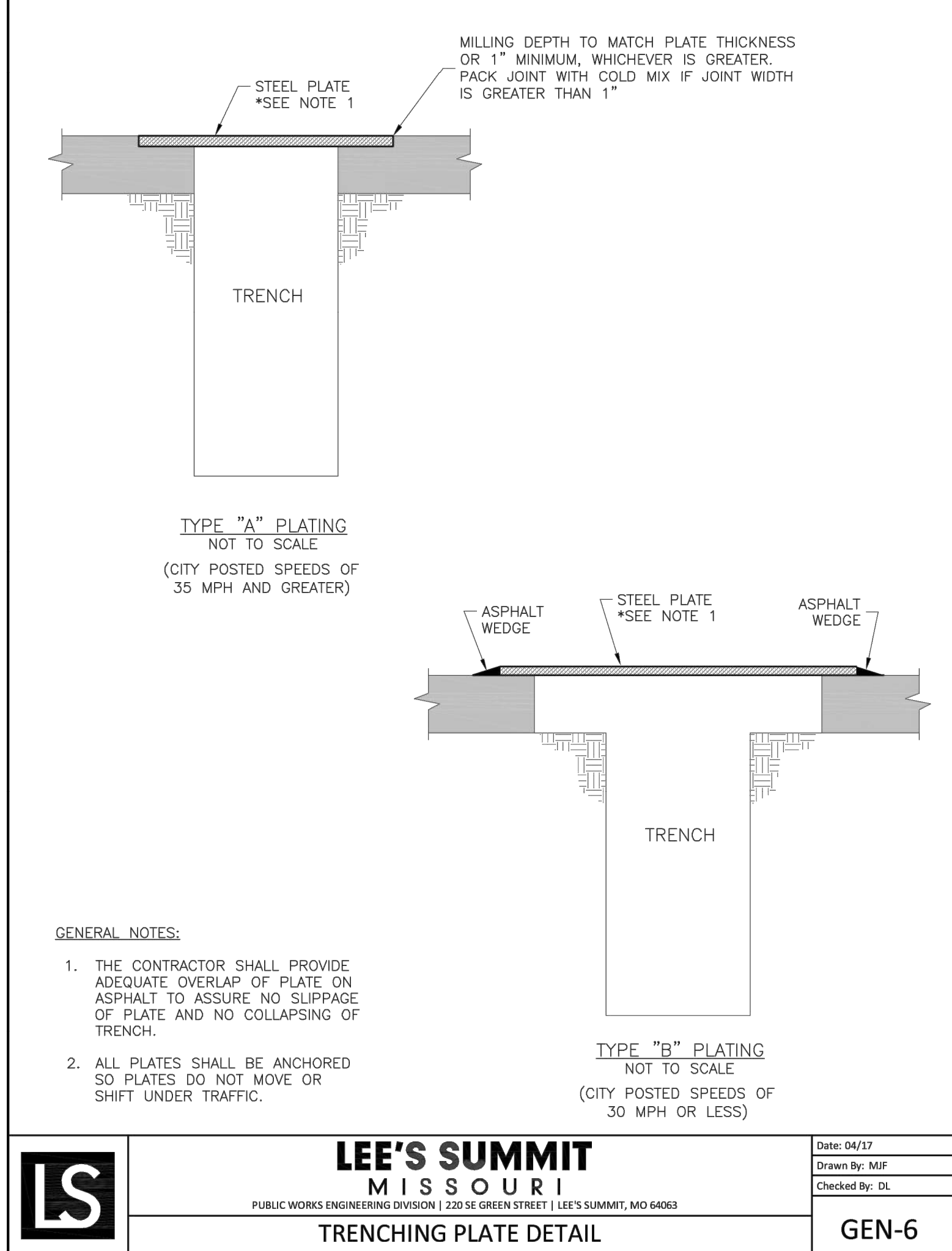
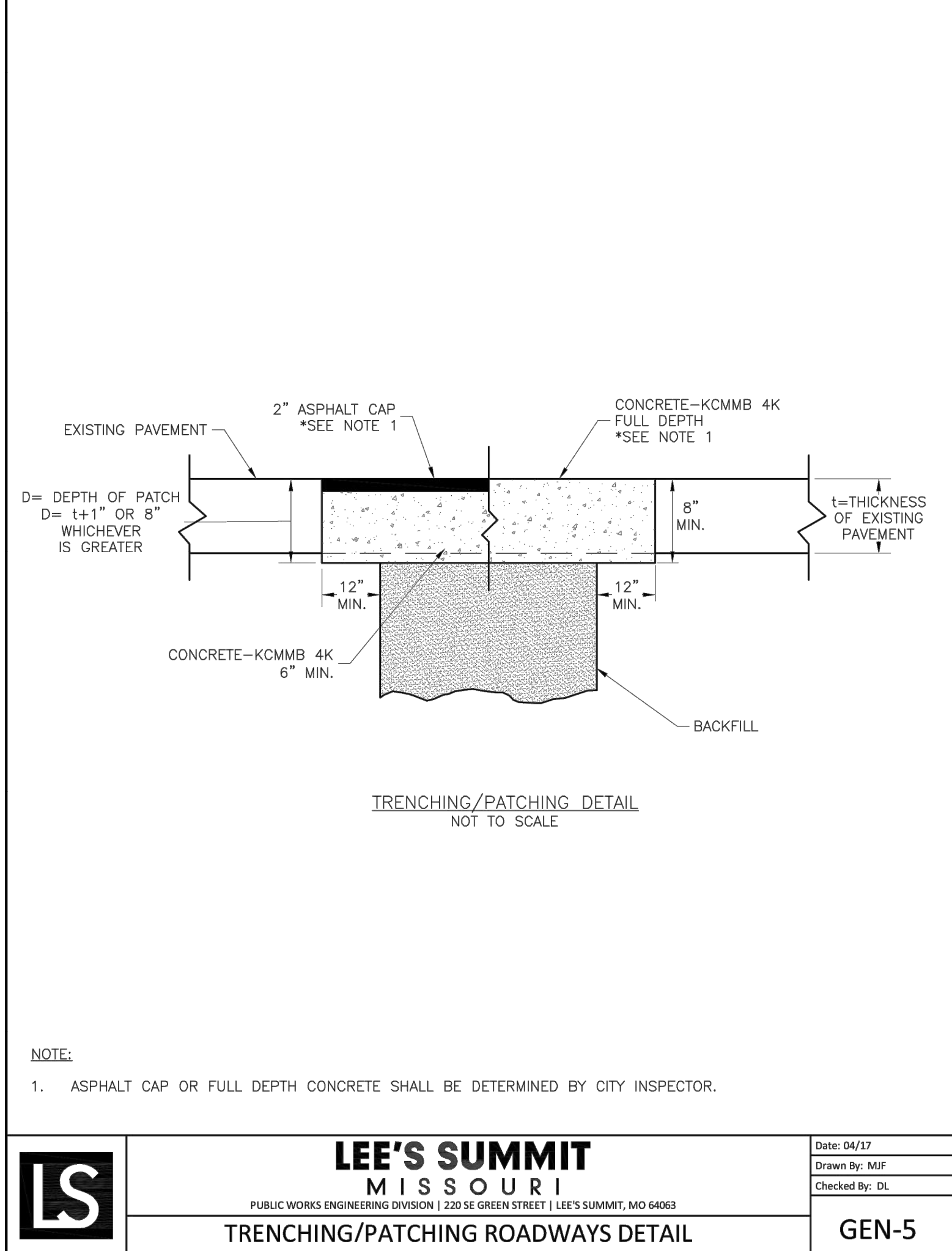
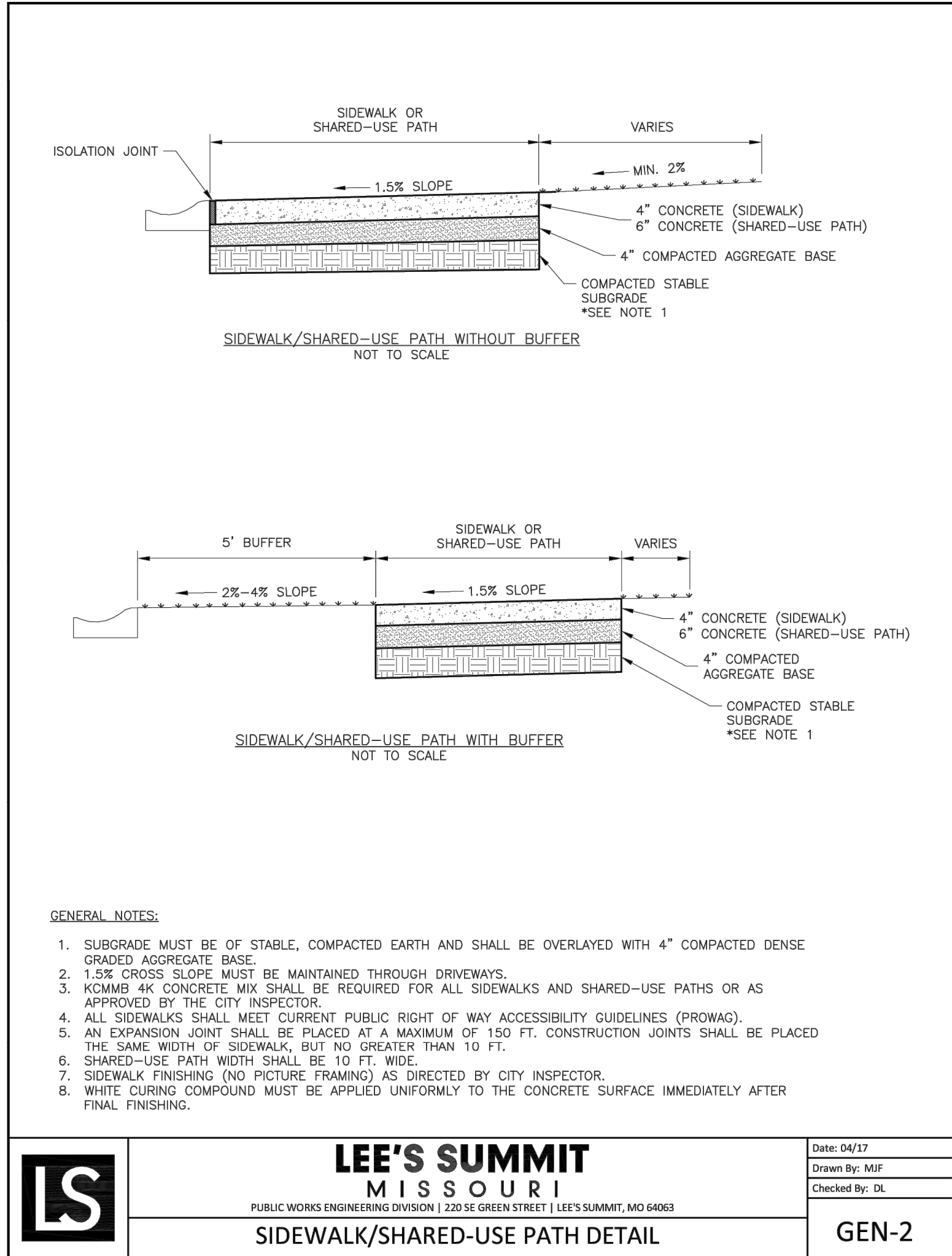
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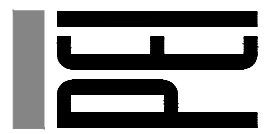
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DATE: 09.06.17
DESIGNED BY: DAF
DRAWN BY: CHL
APPROVED BY: JDC

SHEET NUMBER
C8

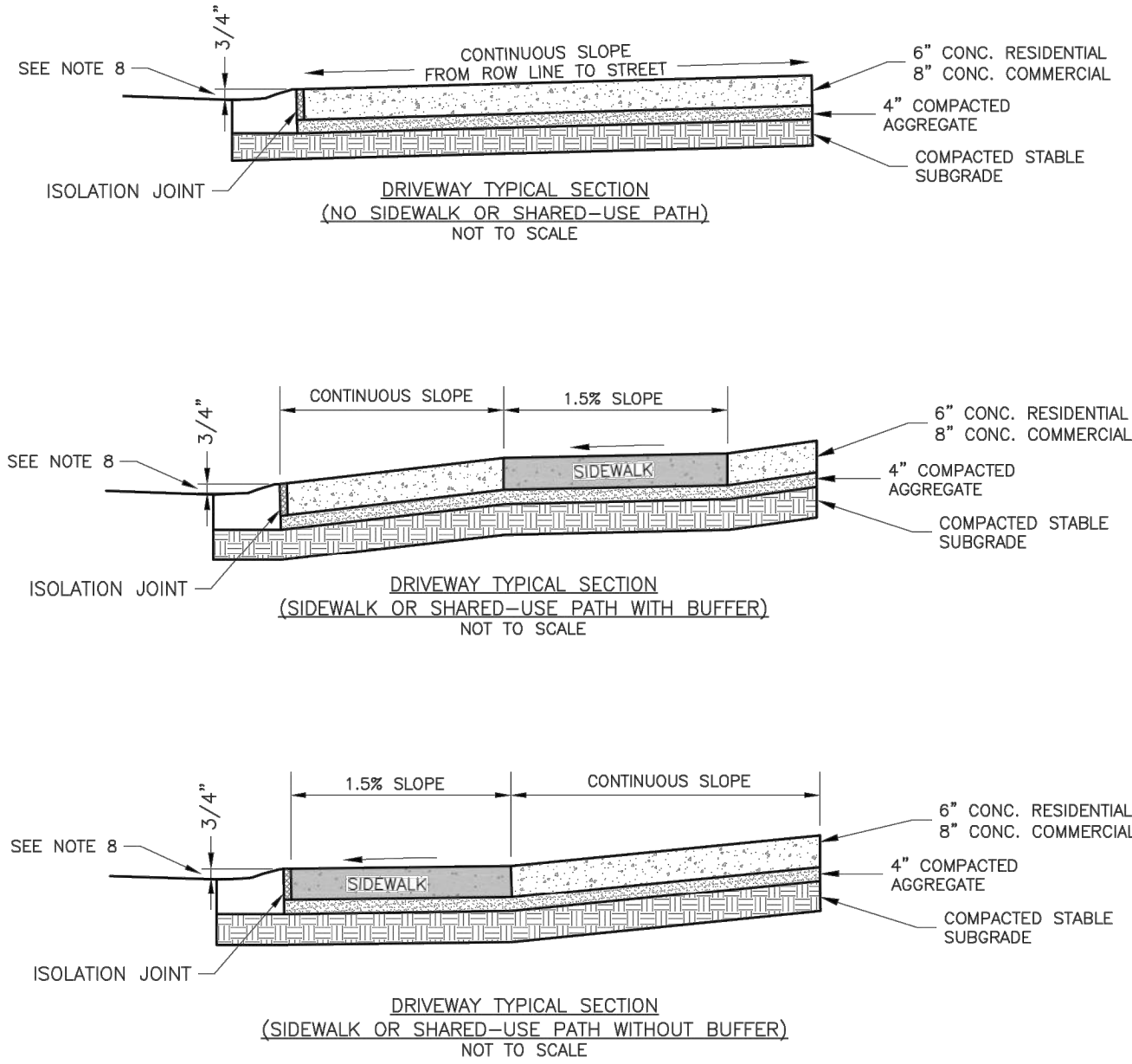
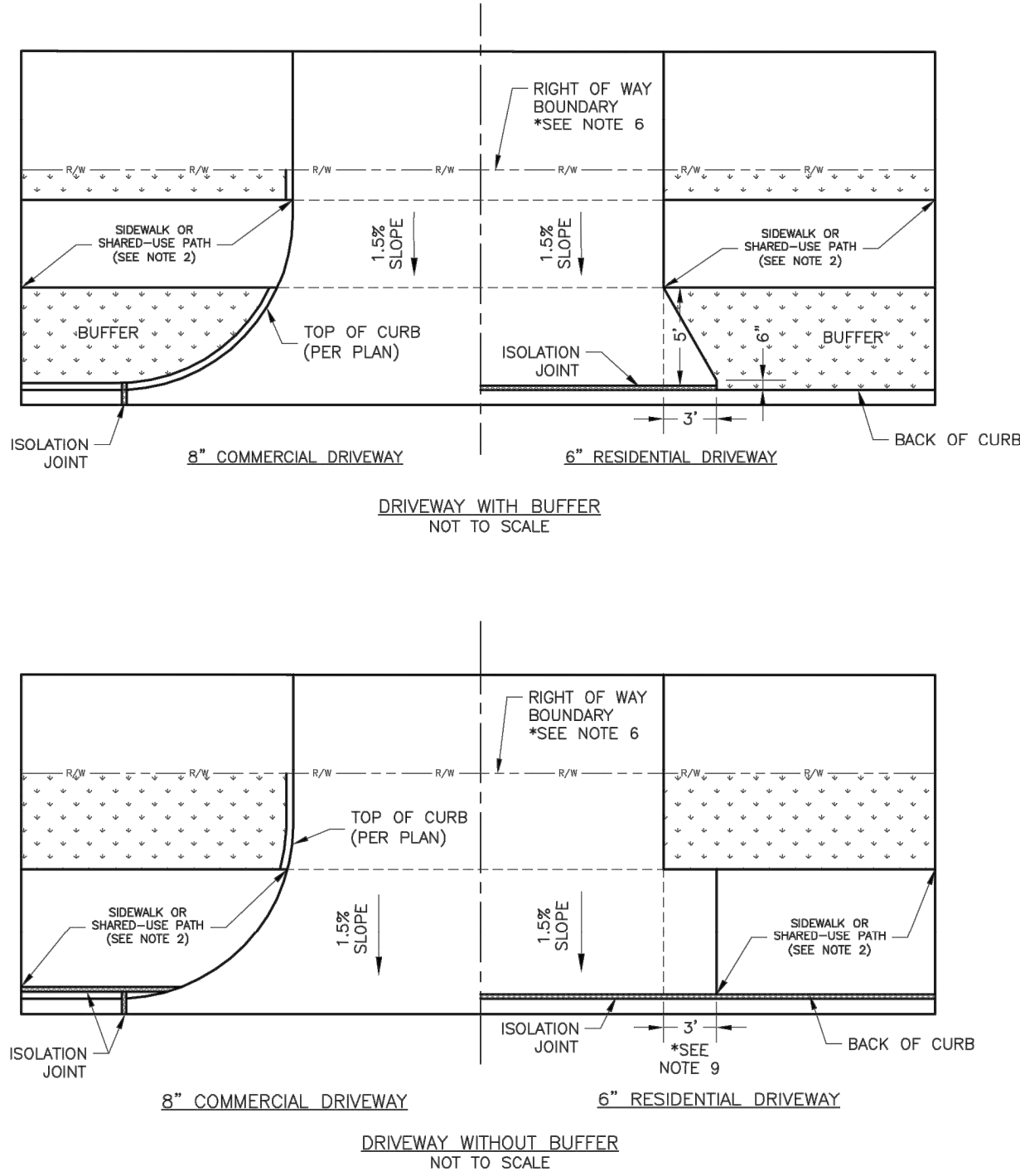
JOB NUMBER

5233-17

PEI# 170625

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- GENERAL NOTES
1. SUBGRADE SHALL BE STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
 2. ALL DRIVE APPROACHES SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG) FOR SLOPE REQUIREMENTS WHEN SIDEWALK IS REQUIRED (SEE ADA RAMP RETROFIT DETAIL).
 3. JOINT AT BACK OF CURB LINE SHALL BE AN ISOLATION JOINT FOR RESIDENTIAL DRIVEWAYS.
 4. KCMMB 4K CONCRETE MIX IS REQUIRED FOR ALL CURBS.
 5. COMMERCIAL DRIVEWAYS AND DRIVEWAY APPROACHES, IN THE PUBLIC RIGHT OF WAY, SHALL BE KCMMB 4K CONCRETE MIX.
 6. A JOINT MUST BE INSTALLED AT THE RIGHT OF WAY BOUNDARY FOR PROPERTY DELINEATION.
 7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
 8. 3/4" FROM TOP OF CURB TO FLOWLINE AT DRIVEWAY (TYPE CG-1 CURB ONLY). MUST MAINTAIN ORIGINAL FLOWLINE OF CURB.
 9. SIDEWALK ADJOINING CURB SHALL BE 6" THICK, EXTENDING 3' FROM THE DRIVEWAY.
 10. THE MAXIMUM WIDTH OF A RESIDENTIAL DRIVEWAY IS 36 FEET WITHIN THE RIGHT OF WAY.



LEE'S SUMMIT
MISSOURI

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

GEN-1

Freedom Enterprises, LLC
4501 College Blvd, Suite 170
Leawood, KS 66211

Scooter's Kiosk Drive-Thru
MO 150 Hwy & SW Regatta Dr
Lee's Summit, MO 64082

STANDARD DETAILS

PHILIPS ENGINEERING, INC.
4320 N. Winchester
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PLANNING
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IMPLEMENTATION

PHILIPS ENGINEERING, INC.

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Fax (913) 393-1166

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CERTIFICATE OF AUTHORIZATION KANSAS LAND SURVEYING - LS-82 ENGINEERING - E-381
CERTIFICATE OF AUTHORIZATION MISSOURI LAND SURVEYING-200701128 ENGINEERING-200700068

REVISIONS

#	BY	DATE	SOURCE
1	CHL	9-26-17	REVISED PER CITY COMMENTS
2	CHL	10-9-17	REVISED PER CITY COMMENTS
3	CHL	10-31-17	REVISED PER CITY COMMENTS

DATE: 09.06.17
DESIGNED BY: DAF
DRAWN BY: CHL
APPROVED BY: JDC

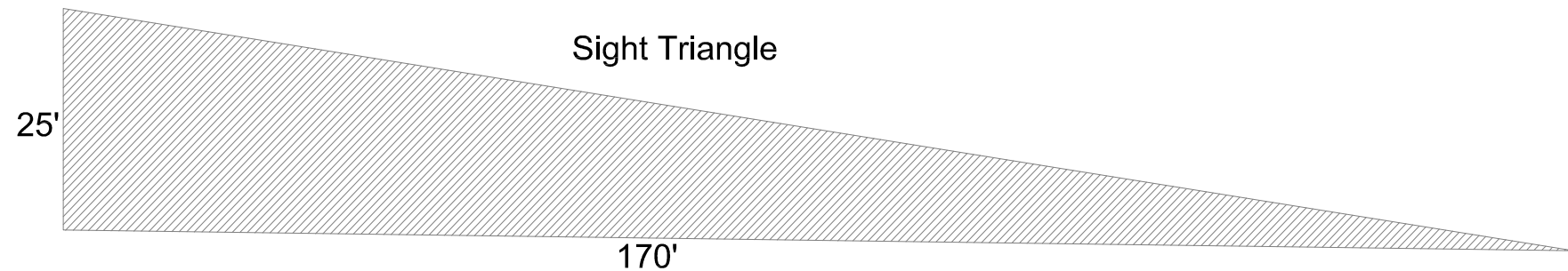
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JOB NUMBER

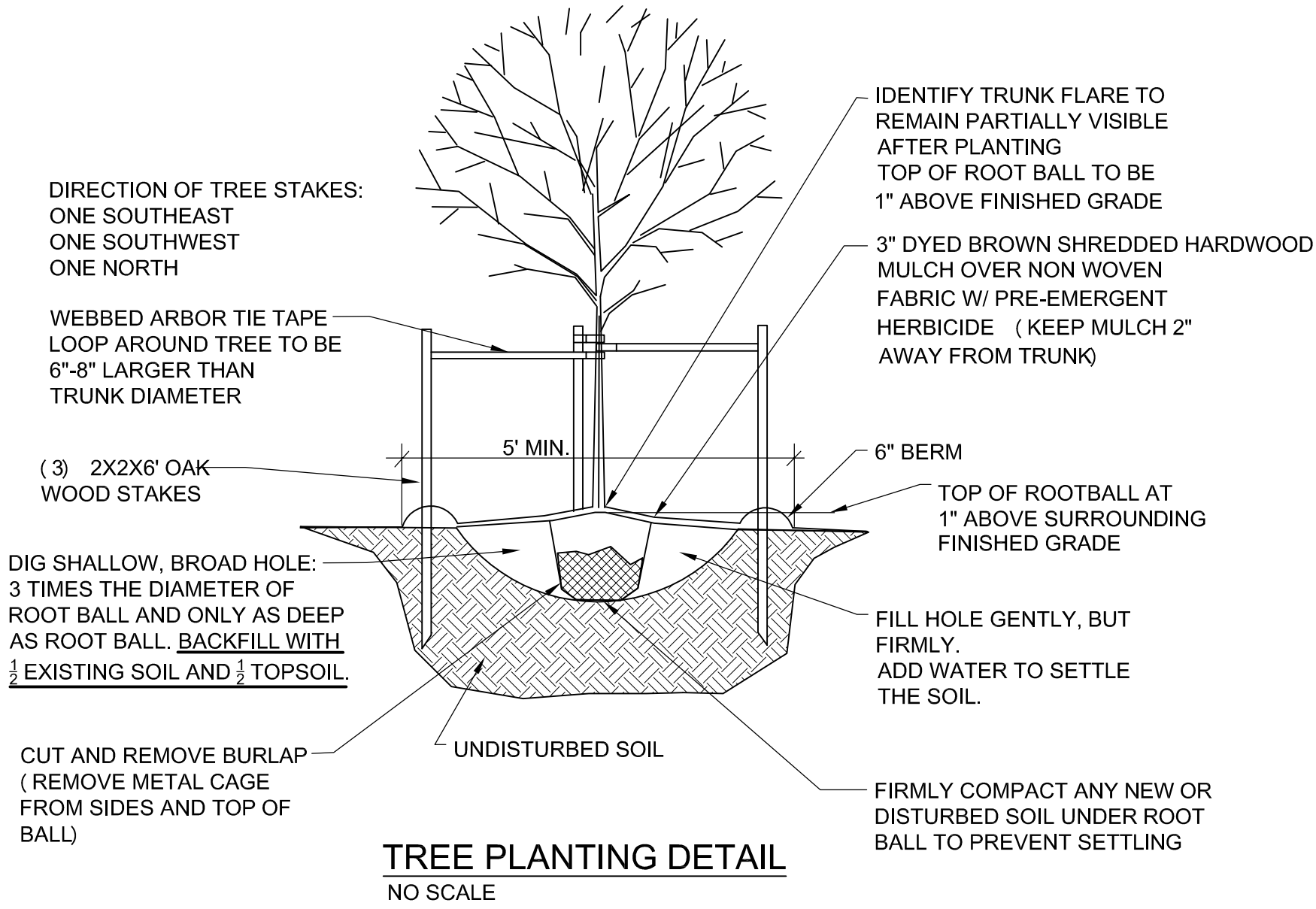
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PEI# 170625



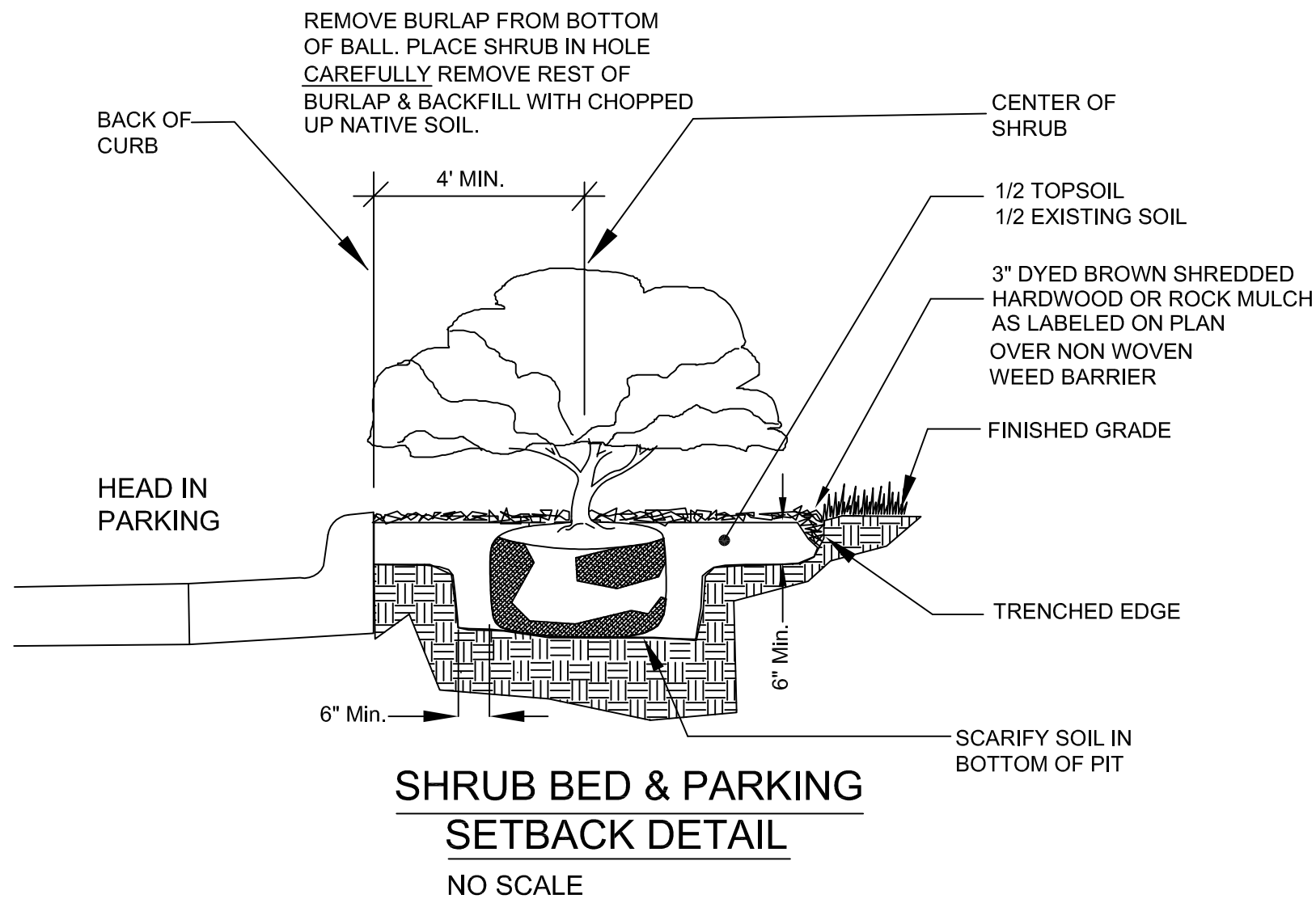
Transplant Additives:

1. Apply a commercial transplant additive (approved by the Landscape Architect) to all trees, shrubs and groundcover at rates recommended by the manufacturer during the planting. This item shall be subsidiary to other planting items.
2. Transplant additive shall be Plant Health Care Inc., "Mycor Tree Saver" mycorrhizal fungal transplant inoculant or equivalent equal containing the appropriate species of mycorrhizal fungi and bacteria, fungi stimulant, water retaining agents, mineral & organic nutrients and inert ingredients.
3. Demonstrate installation of all transplant additives for this project to the Landscape Architect. Provide actual additive product as evidence of sufficient quantity of product. (Empty product bags to be stockpiled for inspection by the Landscape Architect prior to disposal).
4. Number of transplant additive packets per tree, shrub or grouncover shall be applied according to the manufacturer's recommended rates and instructions. For all plants the packet mix shall be evenly distributed into the upper approximately 8" of backfill soil next to the rootball. Do not place mix in the bottom of the planting pit.
5. Furnishing and application of transplant additive shall be subsidiary to the planting operations.



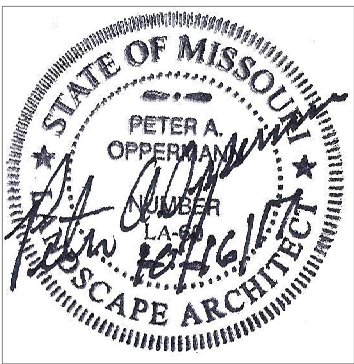
General Landscape Notes:

1. Contractor shall verify the existence and location of all utilities before starting any work.
2. Contractor shall verify all landscape material quantities and shall report any discrepancies to the Landscape Architect prior to installation.
3. Contractor shall make no substitutions without the approval of the Landscape Architect.
4. Contractor shall stake layout plan in the field and shall have the layout approved by the Landscape Architect before proceeding with the installation.
5. All shrub beds within lawn areas shall receive a trenched edge.
6. Typical tree mulch beds shall be mulched with 3" of dyed brown mulch over a felt type soil separator fabric. (See note 21.)
7. All shrub beds shall be treated with the pre-emergent herbicide Pre M 60 DG (granular) or an approved equal in accordance with the manufacturer's instructions.
8. All disturbed areas shall be fertilized, sodded with a Turf-Type Tall Fescue grass seed blend including public ROW as noted on plan.
9. Fertilizer for lawn, trees and container stock areas shall be a balanced fertilizer applied at rates per manufacturers recommendations and soil test results.
10. Contractor shall warranty all landscape work and plant material for a period of one year from date of acceptance of the work by the Owner.
11. Any plant material which dies during the one year warranty period shall be replaced by the Contractor during normal planting seasons.
12. Contractor shall be responsible for maintenance of the plants until completion of the job and acceptance by the Owner. After initial acceptance, maintenance shall be by the owner.
13. All plant names on the plant list conform to the Standardized Plant Names prepared by the American Joint Committee on Horticultural Nomenclature or to names generally accepted in the nursery trade.
14. All plant material shall be specimen quality stock as determined in the "American Standards For Nursery Stock" published by The American Association of Nurseryman, free of plant diseases and pest, of typical growth of the species and having a healthy, normal root system.
15. Sizes indicated on the plant list are the minimum, acceptable size. In no case will sizes less than the specified sizes be accepted.
16. Plants shall not be pruned prior to delivery to the site or after installation except for those branches that have been damaged in some way.
17. Plants shall not have name tags removed prior to final inspection.
18. Contractor shall be responsible for weed control on the project during and after construction until the project is turned over to the owner.
19. All plantings shall receive a commercial transplant additive per manufacturers recommended rates and instructions for application.
20. Successful landscape bidder shall be responsible for the design of an irrigation system to be approved by the Owner prior to construction.
21. Kansas Washed River Gravel 3" deep shall be placed where labeled on plan as Rock Mulch.



Utility Note:

Utilities shown on plan are diagrammatic 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.



Landscape Plan
Scooter's

Lee's Summit, Missouri

L2 of 2



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Land Planning Landscape Architecture
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913.894.9407

10/16/2017

ABBREVIATIONS AND SYMBOLS

JB	Joist Bearing Elevation		
○	Foundation, Mezzanine, or Roof Framing Plan Sheet Notes		
⬢	Lintel or Beam Designation, Re: Lintel ‡ Beam Schedule Note: where no T.O.S. or T.O.D. elev. is given re: Architectural Drawings for information.		
—	Provide horizontal bridging where shown thus.		
—/—	Provide "X" Bridging where shown thus between joists.	F5	Footing Step
TOS	Top of Steel.	TOF	Top of Footing
TAO	Top of Opening	FU	Future
UNO	Unless Noted Otherwise.	P/C	Precast Concrete
FV	Field Verify	MS	Metal Studs
EJ	Expansion Joint	VLD	Vertical Leg Down
CJ	Control Joint	VLJ	Vertical Leg Up
		EE	Extended Ends (on Steel Bar Joists)
		LLH	Long Leg Horizontal
		LLV	Long Leg Vertical

FOUNDATIONS

- FOUNDATIONS FOR THIS PROJECT HAVE BEEN DESIGNED FOR AN ASSUMED ALLOWABLE SOIL BEARING VALUE OF 1500 psf FOR CONTINUOUS FOOTINGS. THE CONTRACTOR SHALL RETAIN A QUALIFIED TESTING LABORATORY (DESIGNATED BY THE OWNER) TO VERIFY THE ASSUMED SOIL BEARING CAPACITY PRIOR TO PLACEMENT OF THE FOUNDATION. COORDINATION & SCHEDULING OF THE TESTING LAB FOR SOIL CAPACITY VERIFICATION AS WELL AS OTHER TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE TESTING LAB FIELD REPRESENTATIVE SHALL NOT LEAVE THE SITE AFTER INSPECTIONS UNTIL THE SUPERINTENDENT FOR THE CONTRACTOR HAS BEEN VERBALLY NOTIFIED OF THE RESULTS OF THE INSPECTION. REPORTS SHALL BE SENT TO THE ARCHITECT/ENGINEER FOR REVIEW. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER.
- DUE TO THE LACK OF SPECIFIC GEOTECHNICAL INFORMATION, THIS SLAB HAS BEEN DESIGNED USING A SUBGRADE MODULUS OF k=150 pci AND DESIGN LOADING OF 100 psf. THE DESIGNER IS NOT RESPONSIBLE FOR DIFFERENTIAL SETTLEMENT, SLAB CRACKING, OR OTHER FUTURE DEFECTS RESULTING FROM UNREPORTED CONDITIONS MITIGATING THE ABOVE ASSUMPTIONS.
- IF REQUIRED, ALL FILL SHALL BE ENGINEERED AND PLACED IN ACCORDANCE WITH THE SOILS ENGINEER'S RECOMMENDATIONS.
- ANCHOR BOLTS SHALL BE LOCATED BY MEANS OF A TEMPLATE TO ASSURE PROPER ALIGNMENT.
- REFER TO SECTION 2 OF THE SPECIFICATIONS FOR EXCAVATION, BACKFILL, GRADING, AND ADDITIONAL INFORMATION.

CONCRETE

- ALL CONCRETE AND REINFORCING WORK SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE'S "STANDARD BUILDING CODE REQUIREMENTS OF REINFORCED CONCRETE" (ACI 318), "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301), AND "GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION" (ACI 302).
- PROPOSED CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. CONCRETE MIX DESIGNS SHALL MEET THE FOLLOWING REQUIREMENTS:

	MINIMUM 28-DAY STRENGTH	MAXIMUM WATER/CEMENT RATIO	MAXIMUM SLUMP	AIR ENTRAINMENT
FOOTINGS	3000 psi	.48	4"	NONE
INTERIOR SLABS	3500 psi	.43	4"	NONE
EXTERIOR CONCRETE	4000 psi	.40	4"	6% ±1%
- ALL ADMIXTURES SHALL BE APPROVED BY THE ENGINEER. NO WATER SHALL BE ADDED AT THE SITE WITHOUT THE ENGINEER'S PERMISSION.
- FLY ASH SHALL NOT BE USED UNLESS APPROVED IN WRITING BY THE ENGINEER.
- ABSOLUTELY NO CALCIUM CHLORIDE SHALL BE ADDED TO ANY CONCRETE ON THIS PROJECT.
- NO ALUMINUM SHALL BE PLACED IN CONCRETE.
- ALL CONCRETE IS REINFORCED UNLESS SPECIFICALLY NOTED AS UNREINFORCED. REINFORCE ALL CONCRETE NOT OTHERWISE SHOWN WITH THE SAME REINFORCING AS IN SIMILAR SECTIONS OR AREAS.
- CONSTRUCTION JOINTS AND CONTROL JOINTS IN EARTH FORMED SLABS TO BE AS SHOWN ON PLANS. CONTROL JOINTS SHALL BE EITHER TOoled OR SAW CUT (1 1/2" DEEP OR 1/3 OF THE SLAB THICKNESS, WHICHEVER IS GREATER) WITHIN 8 HOURS OF PLACING CONCRETE. VERIFICATION OF COMPLIANCE IS REQUIRED AND TO BE PERFORMED BY THE TESTING LAB. WHERE NOT SHOWN, LIMIT CONTROLLED AREAS TO BE NOT MORE THAN 144 SQ. FEET OR NO GREATER THAN 12 FEET ON ANY SIDE. CONTROLLED AREAS ARE TO BE APPROXIMATELY SQUARE. THICKENED SLAB AT CONSTRUCTION JOINTS SHALL BE 9" DEEP X 1'-0" WIDE EACH SIDE OF JOINT. PROVIDE 1/2"Ø X 2'-0" LONG SMOOTH DOWELS @ 18" O.C. CENTERED IN THE THICKENED SLAB, WITH 1'-0" LENGTH OF DOWEL ON EACH SIDE OF JOINT.
- DURING HOT WEATHER (80°F AND ABOVE), THE CONTRACTOR SHALL COMPLY WITH THE RECOMMENDATIONS ACI-305 "HOT WEATHER CONCRETE". DURING COLD WEATHER (40°F AND BELOW), THE CONTRACTOR SHALL COMPLY WITH THE RECOMMENDATIONS OF ACI-306 "COLD WEATHER CONCRETE".
- RE: REINFORCING STEEL NOTES, NOTE 8 FOR SLAB-ON-GRADE WWF REINFORCING AND WWF CHAIR SUPPORT REQUIREMENTS.
- ALL ANCHOR BOLTS EMBEDDED IN CONCRETE SHALL HAVE A MINIMUM YIELD STRENGTH OF 36 KSI.
- UNLESS NOTED OTHERWISE, ALL ANCHORS AND DOWELS SHALL BE POSITIONED AND IN PLACE PRIOR TO CONCRETE PLACEMENT. "WET SETTING" OF ANCHORS AND DOWELS IS NOT PERMITTED.
- REFER TO SECTION 3 OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

REINFORCING STEEL:

- MATERIALS SHALL COMPLY WITH THE FOLLOWING:
 - REINFORCING STEEL, #4 BARS AND LARGER, SHALL BE ASTM A615, GRADE 60.
 - REINFORCING STEEL, #3 SHALL BE ASTM A615, GRADE 40.
 - WELDED WIRE MESH REINFORCING SHALL BE ASTM A185 COLD DRAWN WIRE.
 - NOTE: IF REINFORCING STEEL IS TO BE WELDED THAT REINFORCING STEEL SHALL BE ASTM A706, LOW ALLOY, ALL SIZES.
- DETAIL BARS IN ACCORDANCE WITH THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED STRUCTURES" (ACI 315), "BUILDING CODE REINFORCED CONCRETE" (ACI 302).
- ACCESSORIES SHALL BE AS SPECIFIED IN THE LATEST EDITION OF "CONCRETE REINFORCING STEEL INSTITUTE HANDBOOK". "CHAIRS" OR OTHER ACCEPTABLE MEANS TO SUPPORT REINFORCING STEEL & WWF ARE REQUIRED. "PULLING-UP" THE WWF IN SLABS ON GRADE, TOPPING SLABS OR SUPPORTED SLABS IS NOT ACCEPTABLE. MAXIMUM SPACING OF ACCESSORIES TO INCLUDE "CHAIRS" OR OTHER REINFORCING SUPPORT DEVICES SHALL BE 2'-0" O.C. MAXIMUM. ALL ACCESSORIES TO HAVE GALVANIZED OR PLASTIC COATED FEET.
- REINFORCING SHALL BE CONTINUOUS AND LAPPED A MINIMUM OF 48 BAR DIAMETERS. WELDED WIRE FABRIC SHALL BE LAPPED A MINIMUM OF SIX INCHES.
- STANDARD CONCRETE COVER OF BARS UNLESS OTHERWISE NOTED SHALL BE:
(ALL COVERAGE NOMINAL BAR DIAMETER MINIMUM)

WHERE EARTH FORMED	3 INCHES
WALLS AND SLABS (NOT EXPOSED TO EARTH OR WEATHER)	3/4 INCHES
WALLS AND SLABS (EXPOSED TO EARTH OR WEATHER):	
#5 AND SMALLER:	1 1/2 INCHES
#6 AND LARGER:	2 INCHES
OTHER	2 INCHES
- AT CORNERS OF ALL WALLS AND FOOTINGS, SUPPLY CORNER BARS 4'-0" LONG (2'-0" EACH DIRECTION) IN WALL AND/OR FOOTING, MATCHING SIZE AND SPACING OF HORIZONTAL BARS. WHERE THERE ARE NO VERTICAL BARS IN FACE OF WALL, SUPPLY THREE (3) #4 SUPPORT BARS FOR CORNER BARS.
- AT ALL HOLES IN CONCRETE WALLS AND SLABS, ADD ONE #4 BAR (OPENING DIMENSION PLUS 60 BAR DIAMETERS LONG) AT EACH OF FOUR SIDES AND ADD ONE #4 BAR X 5'-0" DIAGONALLY AT EACH OF THE CORNERS OF THE HOLE.
- ALL SLABS-ON-GRADE SHALL BE REINFORCED WITH 6x6/1/2.9X2.9 WELDED WIRE FABRIC UNLESS OTHERWISE NOTED. PLACE WWF IN CENTER OF SLAB. WWF SHALL BE SUPPORTED ON CHAIRS OR OTHER ACCEPTABLE MEANS SPACED NO FURTHER THAN 2'-0" O.C. EACH WAY. "PULLING UP" THE WWF DURING CONCRETE PLACEMENT IS NOT AN ACCEPTABLE PROCEDURE FOR PLACEMENT. VERIFICATION REPORTS FROM THE TESTING LAB OF WWF PLACEMENT ARE REQUIRED.
- AT ALL SLAB CORNERS, UNLESS SUCH CORNER IS RELIEVED BY A CONSTRUCTION JOINT, (3) - #4 X 3'-0" @ 2' O.C. SHALL BE PLACED DIAGONALLY AT THE MID-DEPTH OF THE SLAB.
- REFER TO SECTION 3 OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

DIMENSION LUMBER & PLYWOOD

- ALL SAWN LUMBER FRAMING MEMBERS INCLUDING STUDS, JOIST HEADERS, BLOCKING AND OTHER MEMBERS SHOWN SHALL BE DOUGLAS FIR LARCH #2 OR BETTER MEETING THE FOLLOWING STRESSES: Fb = 900 psi; Ft = 575 psi; Fv = 160 psi; Fc (parallel) = 565 psi; Fc = 1500 psi; E = 1,600,000.
- ALL WOOD FRAMING MEMBERS REFERENCED AS NOMINAL SIZES, DRESSED S4S. PROVIDE ACTUAL SIZES AS REQUIRED BY PS20. PROVIDE SEASONED LUMBER WITH 19% MAXIMUM MOISTURE CONTENT AT TIME OF DRESSING.
- ALL SAWN LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.
- ALL PLYWOOD PANELS SHALL BE IDENTIFIED WITH THE APPROPRIATE GRADE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION (APA) AND SHALL MEET THE REQUIREMENTS OF PRODUCT STANDARD PS-1.
- PLYWOOD PANELS SHALL BE SET WITH FACE GRAIN PERPENDICULAR TO SUPPORTING MEMBERS AND STAGGER END JOINTS 4'-0".
- 1/8" SPACING SHALL BE PROVIDED AT ALL PLYWOOD EDGE AND END JOINTS UNLESS SPECIFICALLY NOTED OTHERWISE BY THE PANEL MANUFACTURER.
- WOOD TRUSSES AND THEIR CONNECTIONS SHALL BE DESIGNED BY THE MANUFACTURER FOR THE LOADS STIPULATED ON THE DRAWINGS. FRAMING PLAN DRAWINGS, PIECE SHOP DRAWINGS AND CALCULATIONS WITH A PROFESSIONAL ENGINEER'S SEAL FOR THE STATE WHERE THE BUILDING IS BEING CONSTRUCTED SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION. CONNECTION PLATES SHALL MEET THE REQUIREMENTS OF THE UNIFORM BUILDING CODE.
- TEMPORARY STABILITY OF WOOD TRUSSES AND GLUE LAMINATED MEMBERS DURING ERECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IN CONJUNCTION WITH ALL RECOMMENDATIONS OF THE MANUFACTURER.
- LAMINATED VENEER LUMBER (LVL) SHALL BE OF DIMENSIONS NOTED ON THE DRAWINGS, AND HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2600 psi, Fc (PARALLEL) = 2310 psi, Fc (PERPENDICULAR) = 750 psi, Fv = 285 psi, AND E = 1.9 X E6 psi.
- ALL MULTIPLE LVL MEMBERS SHALL BE NAILED TOGETHER WITH TWO (2) ROWS (1-TOP & 1-BOTT.) 16D NAILS AT 12" O.C. OVER THE FULL LENGTH OF THE MEMBERS.
- WOOD TRUSSES SHALL NOT BE FIELD CUT.
- ALL NAILING NOT INDICATED ON THE DRAWINGS SHALL CONFORM TO THE NAILING SCHEDULE OF THE GOVERNING BUILDING CODE. SPACING, END DISTANCES AND EDGE DISTANCES OF NAILS AND SPIKES SHALL BE SUCH AS TO AVOID THE UNUSUAL SPLITTING OF THE WOOD.
- ALL NAILS SHALL BE COMMON WIRE NAILS, UNLESS NOTED OTHERWISE.
- ALL LIGHT GAGE METAL FRAMING ACCESSORIES NOTED SHALL BE AS MANUFACTURED BY "SIMPSON STRONG TIE" OR APPROVED EQUAL, ATTACH FRAMING ACCESSORIES TO WOOD FRAMING ACCESSORIES TO WOOD FRAMING IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. FOR ACP TREATED LUMBER CONNECTIONS THE SIMPSON FRAMING ACCESSORIES SHALL BE "EXTRA HEAVY GALVANIZED".
- REFER TO SECTION 3 OF THE SPECIFICATION FOR ADDITIONAL REQUIREMENTS.

GENERAL STRUCTURAL NOTES

GOVERNING BUILDING CODE: 2012 INTERNATIONAL BUILDING CODE (IBC) AND ITS APPROPRIATE SUPPLEMENTS.

DESIGN LOADS:
GRAVITY:

ROOF LIVE LOAD	20 PSF
GROUND SNOW LOAD; Pg	20 PSF
FLAT-ROOF SNOW LOAD; Pf (INCLUDES RAIN ON SNOW)	20 PSF
SNOW EXPOSURE FACTOR; Ce	1.0
SNOW IMPORTANCE FACTOR; Is	1.0
THERMAL FACTOR; Ct	1.0
(SNOW DRIFT LOADING IN ACCORDANCE WITH 2012 IBC)	

WIND:

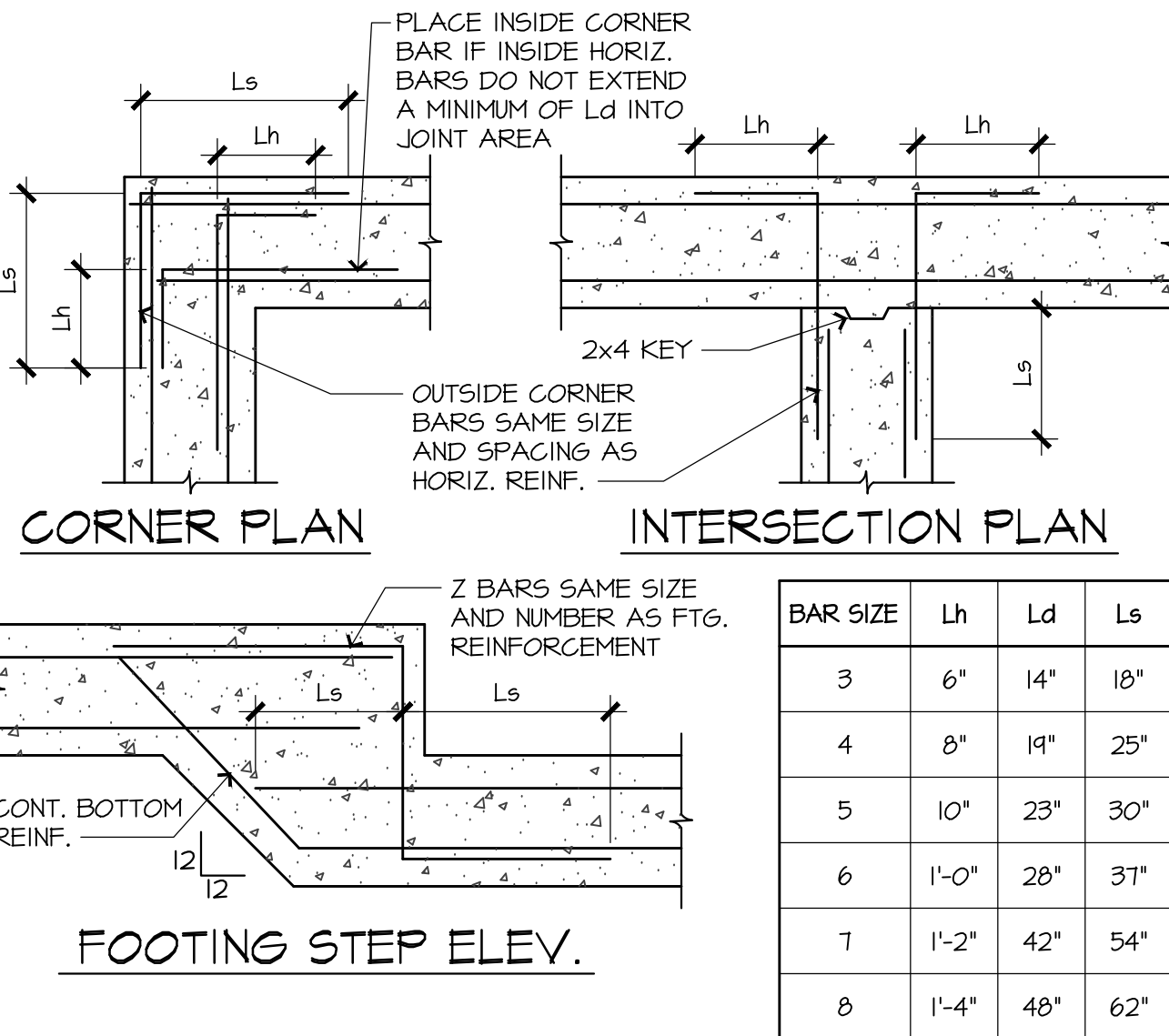
BASIC WIND SPEED	115 MPH
WIND IMPORTANCE FACTOR; Iw	1.0
BUILDING CATEGORY	II
EXPOSURE CATEGORY	B
INTERNAL PRESSURE COEFFICIENT	±0.18

SEISMIC:

SEISMIC IMPORTANCE FACTOR; Ie	1.0
SITE CLASS	D
SPECTRAL RESPONSE COEFFICIENT; Sds	0.120
SPECTRAL RESPONSE COEFFICIENT; Sd1	0.105
SEISMIC DESIGN CATEGORY	3
BASIC SEISMIC FORCE RESISTING SYSTEM	LIGHT FRAMED SHEAR WALLS
DESIGN BASE SHEAR (WORKING STRESS)	0.0185W
RESPONSE MODIFICATION COEFFICIENT; R	6.5
SEISMIC USE GROUP	II
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE

GENERAL:

- THESE NOTES SUPPLEMENT THE SPECIFICATIONS WHICH SHOULD BE REFERRED TO FOR ADDITIONAL INFORMATION. ANY CONFLICT AND/OR CONTRADICTION OF TERMS OR REQUIREMENTS WITH THESE GENERAL NOTES WILL BE RESOLVED BY THE ARCHITECT/ENGINEER IN FAVOR OF THE MORE STRINGENT OR SUPERIOR QUALITY REQUIREMENT.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE PLANS AND FOR COORDINATING ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS WITH THOSE SHOWN ON THE ARCHITECTURAL AND MECHANICAL DRAWINGS. IF ERRORS OR DISCREPANCIES IN THE DIMENSIONS OCCUR, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BRING ALL DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL VERIFY ALL ARCHITECTURAL, MECHANICAL AND ELECTRICAL OPENINGS, SIZES, AND LOCATIONS, WITH THE STRUCTURAL DRAWINGS.
- THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING AND SHORING AS REQUIRED DURING CONSTRUCTION TO ENSURE THE SAFETY OF ALL INDIVIDUALS INVOLVED.
- FURNISH ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO COMPLETE THE WORK SHOWN OR INFERRED BY THESE DRAWINGS.



3 TYPICAL CONCRETE DETAILS

SCALE: 3/4" = 1'-0"

S-FN-SD01

2 STANDARD 4" SLAB DETAILS

SCALE: 3/4" = 1'-0"

S-FN-SD04

SPECIAL INSPECTIONS

SCOPE OF WORK	INSPECTION TASK	FREQUENCY OF INSP.		BUILDING CODE REFERENCE
		CONTINUOUS	PERIODIC	
SOILS	FOOTING DEPTH & DESIGN BEARING CAPACITY		X	1705.6
	FILL PLACEMENT	X		1705.6
	SUBGRADE & SITE PREPARATION		X	1705.6
	CLASSIFICATION & TESTING OF FILL MATERIALS		X	1705.6
CONCRETE	REINFORCING STEEL & PLACEMENT		X	ACI 318: 3.5, 7.1 - 7.7 & IBC 1910.4
	BOLTS INSTALLED IN CONCRETE		X	ACI 318: 8.1.3, 21.2.8 & IBC 1908.5, 1909.1
	VERIFICATION OF REQ'D MIX		X	ACI 318: CH. 4, 5.2-5.4 & IBC 1904.2, 1910.2 & 1910.3
	CONCRETE SAMPLING	X		ASTM C 172, C 31; ACI 318: 5.6, 5.8 & IBC 1910.10
	CONCRETE PLACEMENT	X		ACI 318: 5.9, 5.10 & IBC 1910.6, 1910.7, 1910.8
	CURING TEMPERATURE & TECHNIQUES		X	ACI 318: 5.11 - 5.13 & IBC 1910.9

A QUALIFIED SPECIAL INSPECTOR WILL BE RETAINED BY THE OWNER TO COMPLETE SPECIAL INSPECTIONS PRIOR TO AND DURING CONSTRUCTION TO CONFORM WITH THE REQUIREMENTS OF THE BUILDING CODE AND THE LOCAL CODE AUTHORITIES. ITEMS REQUIRING SPECIAL INSPECTIONS ARE TABULATED BELOW. REFER TO CODE CHAPTER 17 FOR SPECIFIC REQUIREMENTS FOR EACH INSPECTION TASK.

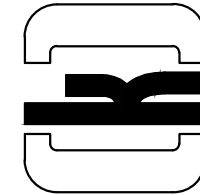
Norton & Schmidt
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N&S JOB NUMBER: 2017-1777
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WARMAN ARCHITECTURE + DESIGN

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V. 816.474.2233 F. 816.474.1051



Missouri State Certificate of Authority #ARC 000745

Scooter's Kiosk Drive-Thru

MO 150 Hwy & SW Regatta Dr
Lee's Summit, MO 64082

GENERAL STRUCTURAL NOTES
AND SECTIONS

Freedom Enterprises, LLC

444 Regency Parkway Dr
Suite 102
Omaha, NE, 68114

REVISIONS						
#	BY	DATE	SOURCE	PER CLIENT COMMENTS		
1	EP2	9/27/2017				

DATE: 08.18.17
DESIGNED BY: EHP
DRAWN BY: e2
APPROVED BY: EHP

SHEET NUMBER

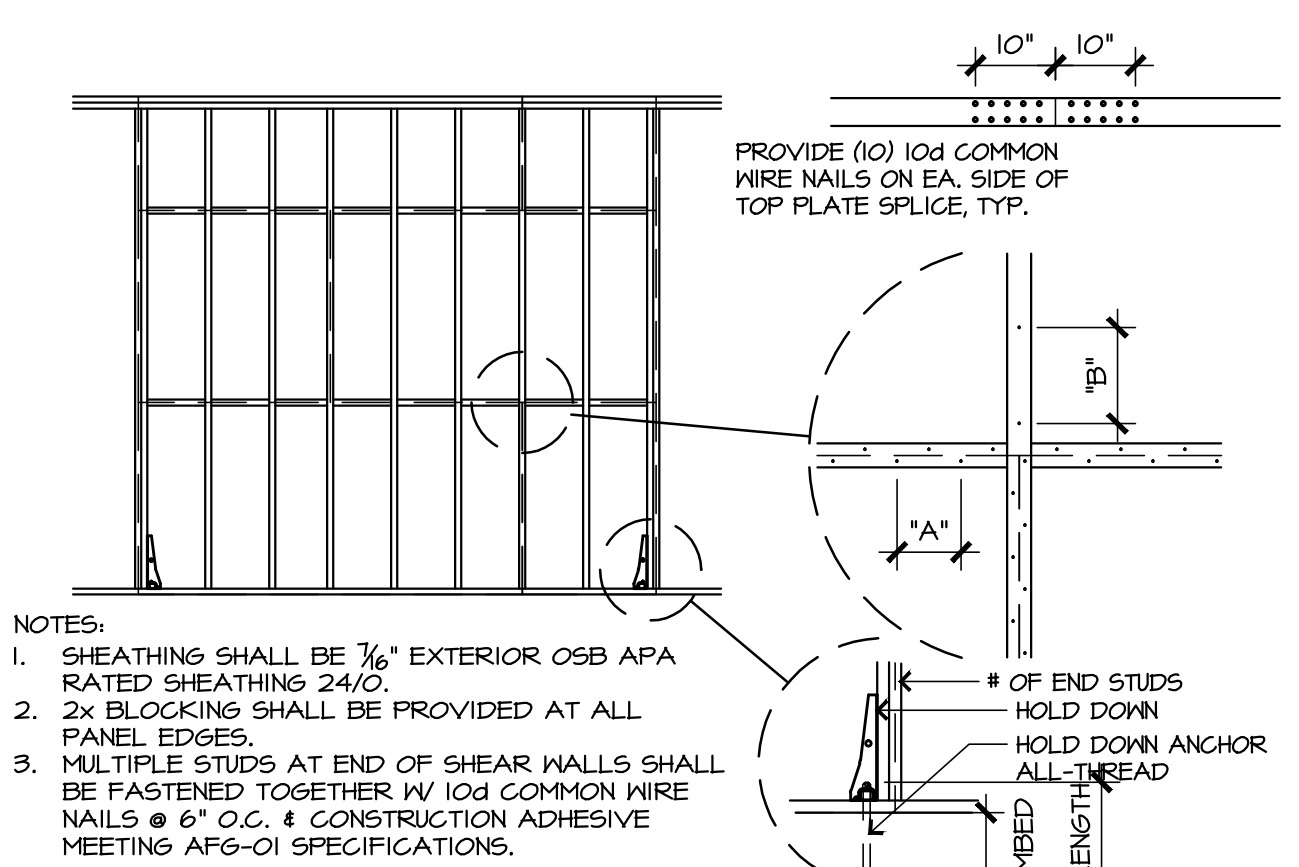
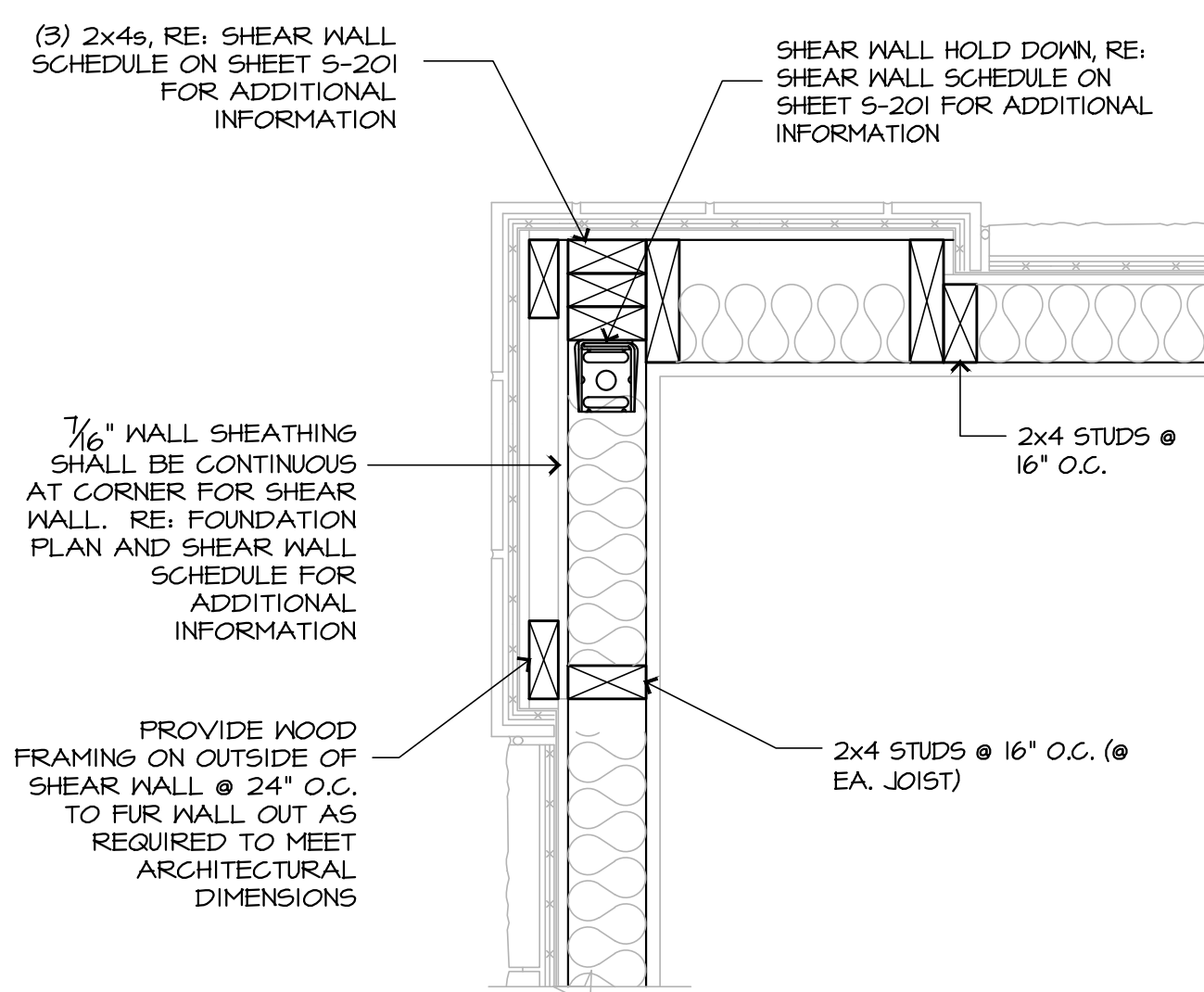
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JOB NUMBER

5233-17

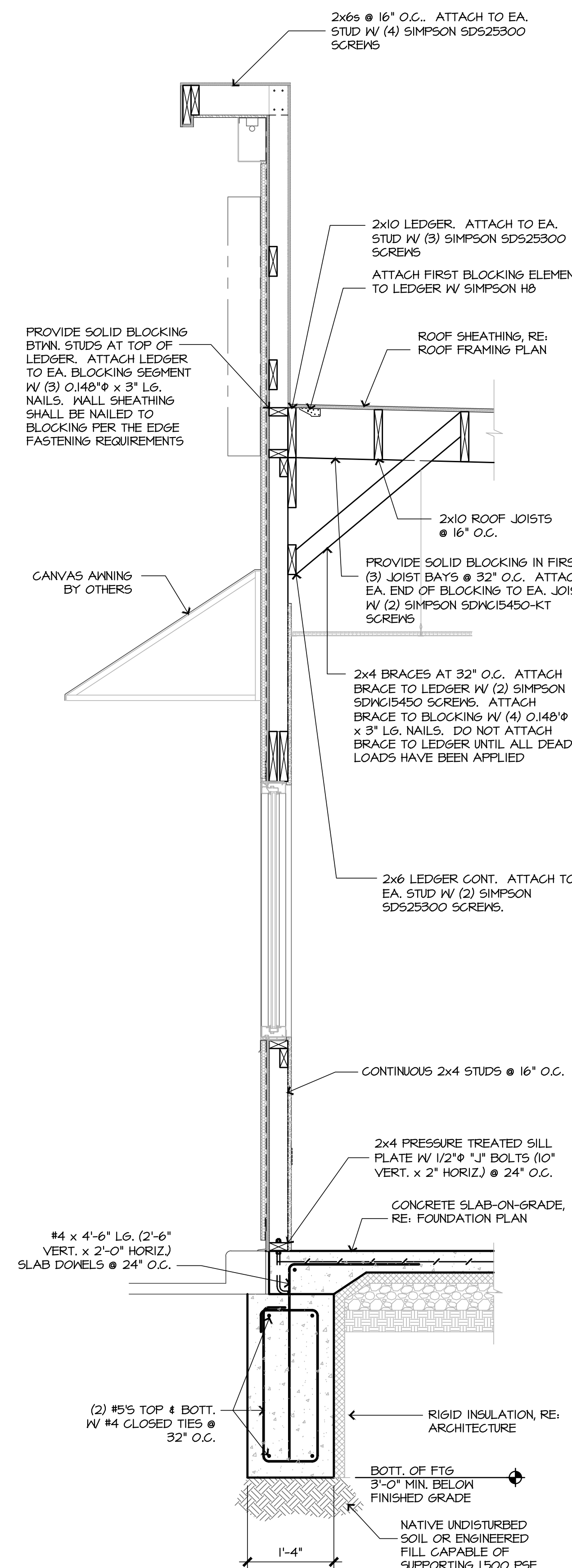


3 SHEAR WALL AT CORNER



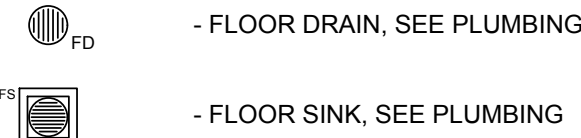
4 SHEAR WALL SCHEDULE

4 SHEAR WALL SCHEDULE



1 BUILDING SECTION

[illegible]

[illegible]

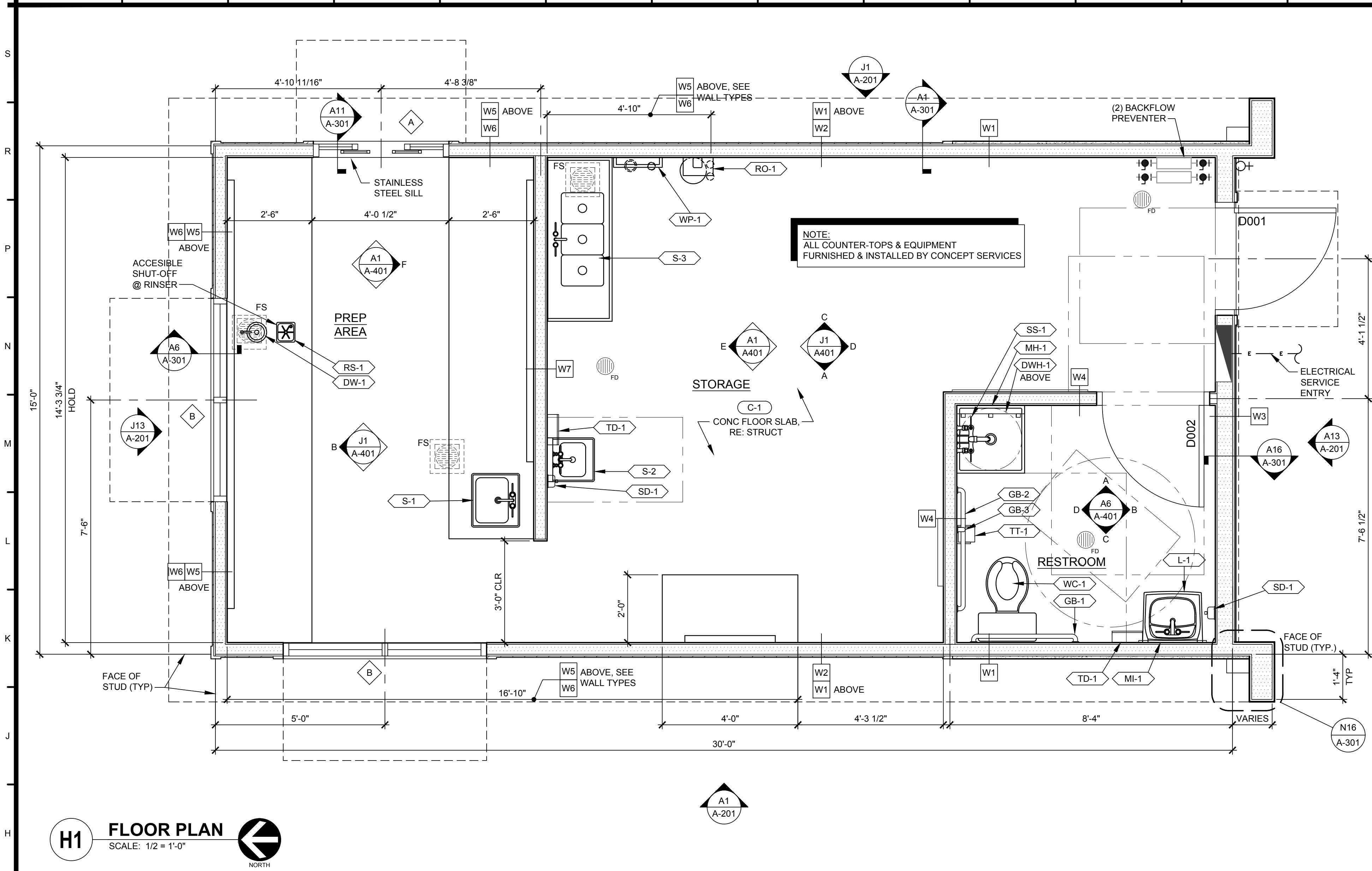
DATE:	06.13.17
DESIGNED BY:	KAW
DRAWN BY:	JDE
APPROVED BY:	KAW

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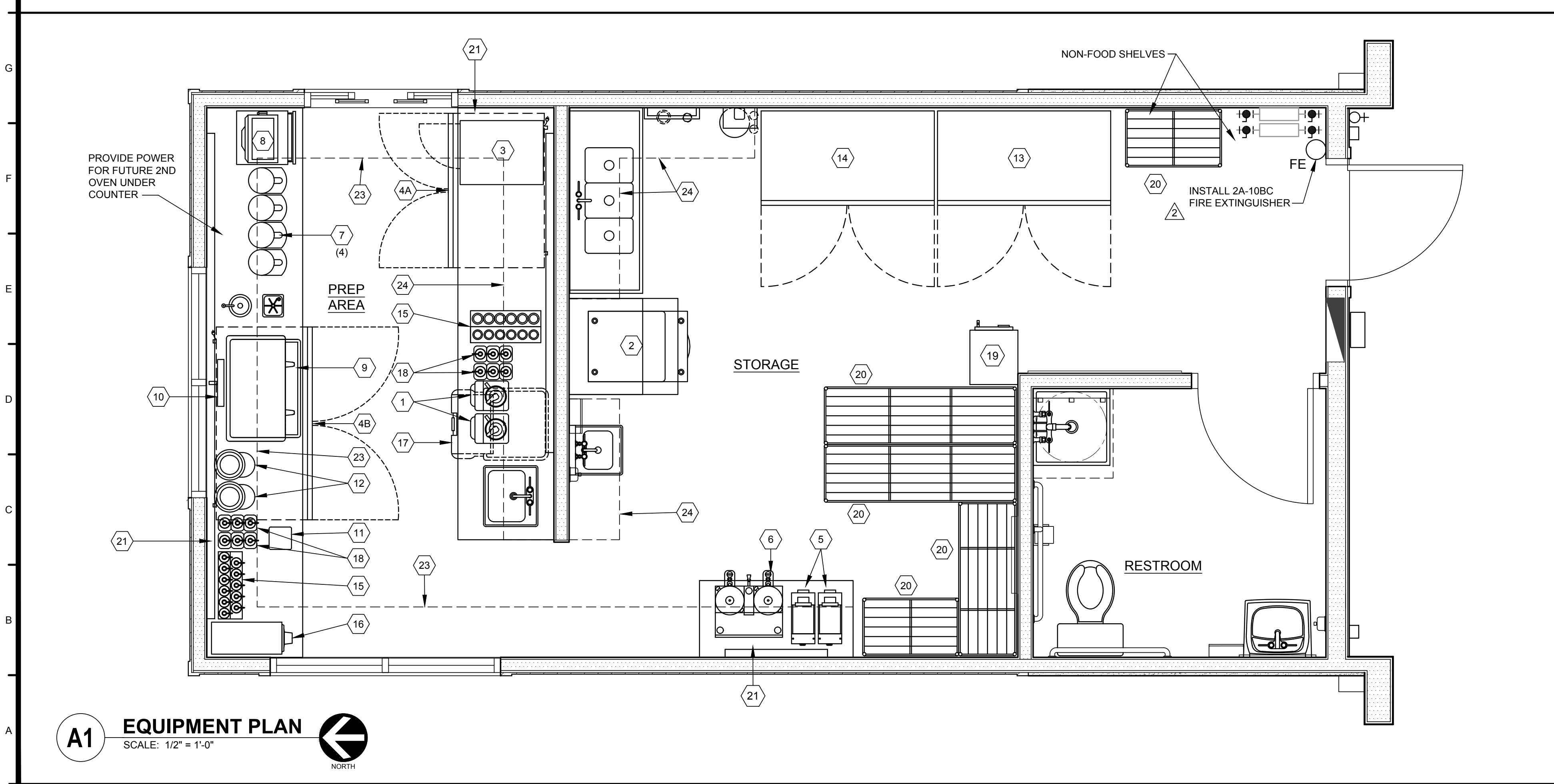
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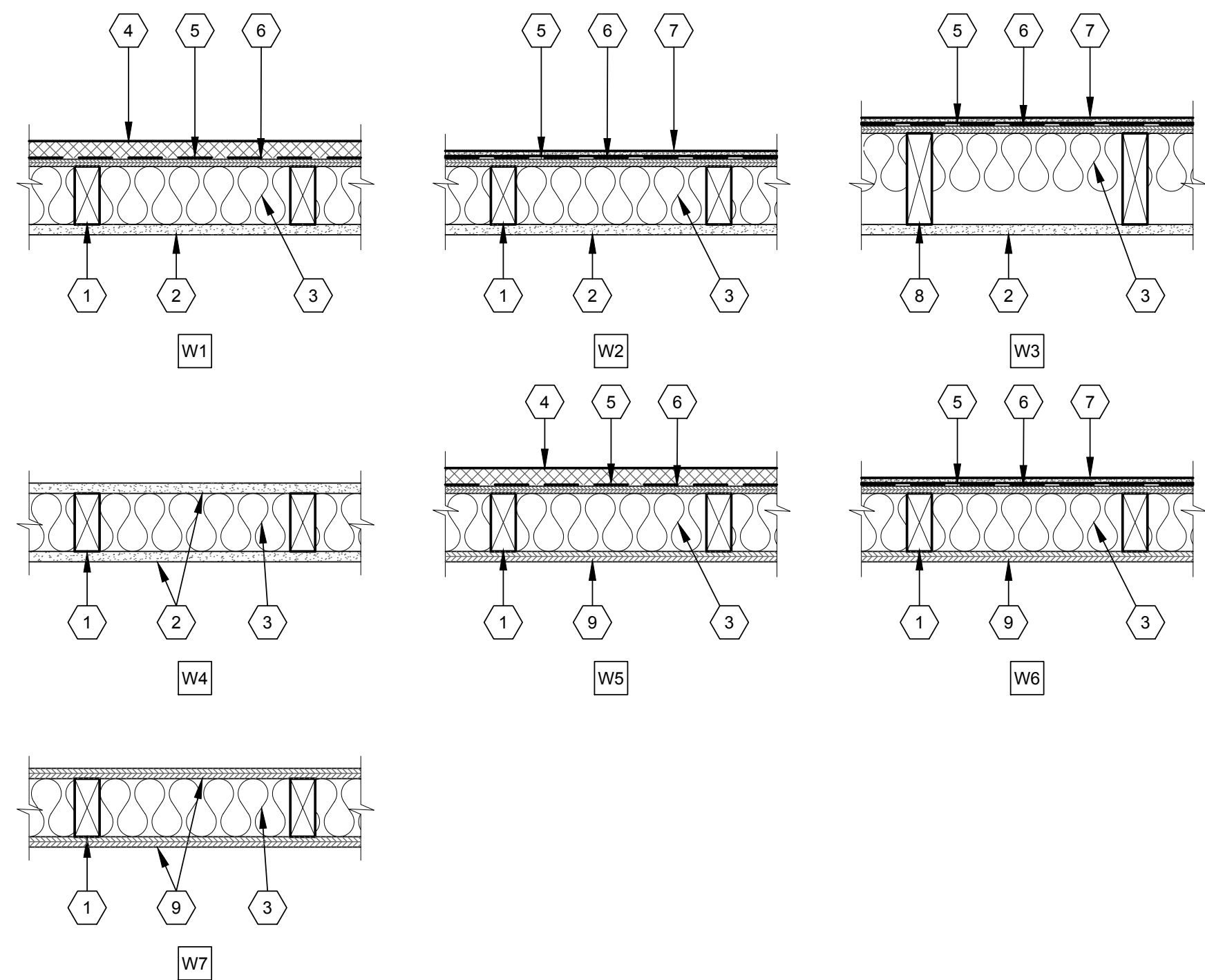
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H1 FLOOR PLAN
SCALE: 1/2" = 1'-0"



A1 EQUIPMENT PLAN
SCALE: 1/2" = 1'-0"



- KEYNOTES:**
- 1 - 2x4 STUDS, RE: STRUCT FOR SPACING
 - 2 - 5/8" TYPE "X" GYPSUM BOARD
 - 3 - R15 BATT INSULATION
 - 4 - EIFS W/ 1" RIGID INSULATION
 - 5 - WEATHER BARRIER
 - 6 - SHEATHING PER STRUCT
 - 7 - FIBER CEMENT LAP SIDING
 - 8 - 2x6 STUDS, RE: STRUCT FOR SPACING
 - 9 - 5/8" PLYWOOD @ OVERHEAD SHELVING
- NOTE:** ALL PLUMBING WALLS TO RECEIVE WATER RESISTANT TYPE GYPSUM BOARD

K14 WALL TYPES
SCALE: 1 1/2" = 1'-0"

EQUIPMENT SCHEDULE			
SYMBOL	GENERAL DESCRIPTION	SUGGESTED MAKE & MODEL #	QTY
1	SMOOTHIE BLENDER	VITA-MIX #36019	
2	ICE CUBE MACHINE W/ BIN	SCOTSMAN C0330SA-1/B530P	
3	COUNTERTOP COMBO OVEN	MENUMASTER JET 19	
4A	UNDER COUNTER REFRIGERATOR	TURBO AIR MUR-48-ADA	
4B	UNDER COUNTER REFRIGERATOR	TURBO AIR MUR-60-ADA	
5	COFFEE GRINDER	BUNN #G2 HD	
6	COFFEE BREWER	FETCO #CBS-2132XTS (1 GAL)	
7	BREW POTS	LUXUS L3D-20	
8	POS REGISTER / SMARTCARD	CLOVER	
9	ESPRESSO / CAPPUCCINO MAKER	ASTORIA #GLORIA SAE/2	
10	ORDER SCREEN		
11	KNOCK BOX	OPEN BOTTOM W/ TRASH CAN BELOW	
12	ESPRESSO GRINDER	MAHLKONIG #K 30 ES	
13	REFRIGERATOR	TURBO AIR TSR-49SD	
14	FREEZER	TURBO AIR TSF-49SD	
15	SYRUPS		
16	CUP RACKS		
17	MOBILE ICE BIN	CAMBRO - # ICS100L110	
18	SAUCES		
19	SAFE	BOLTED TO FLOOR	
20	DRY STORAGE WIRE RACK		
21	STAINLESS STEEL COUNTERS		
22	DRIVE-THRU TIMING SCREEN	HME	
23	WALL HUNG WIRE SHELVING	SEE NOTE 1	
24	2 TIER WALL HUNG WIRE SHELVING	SEE NOTE 1	

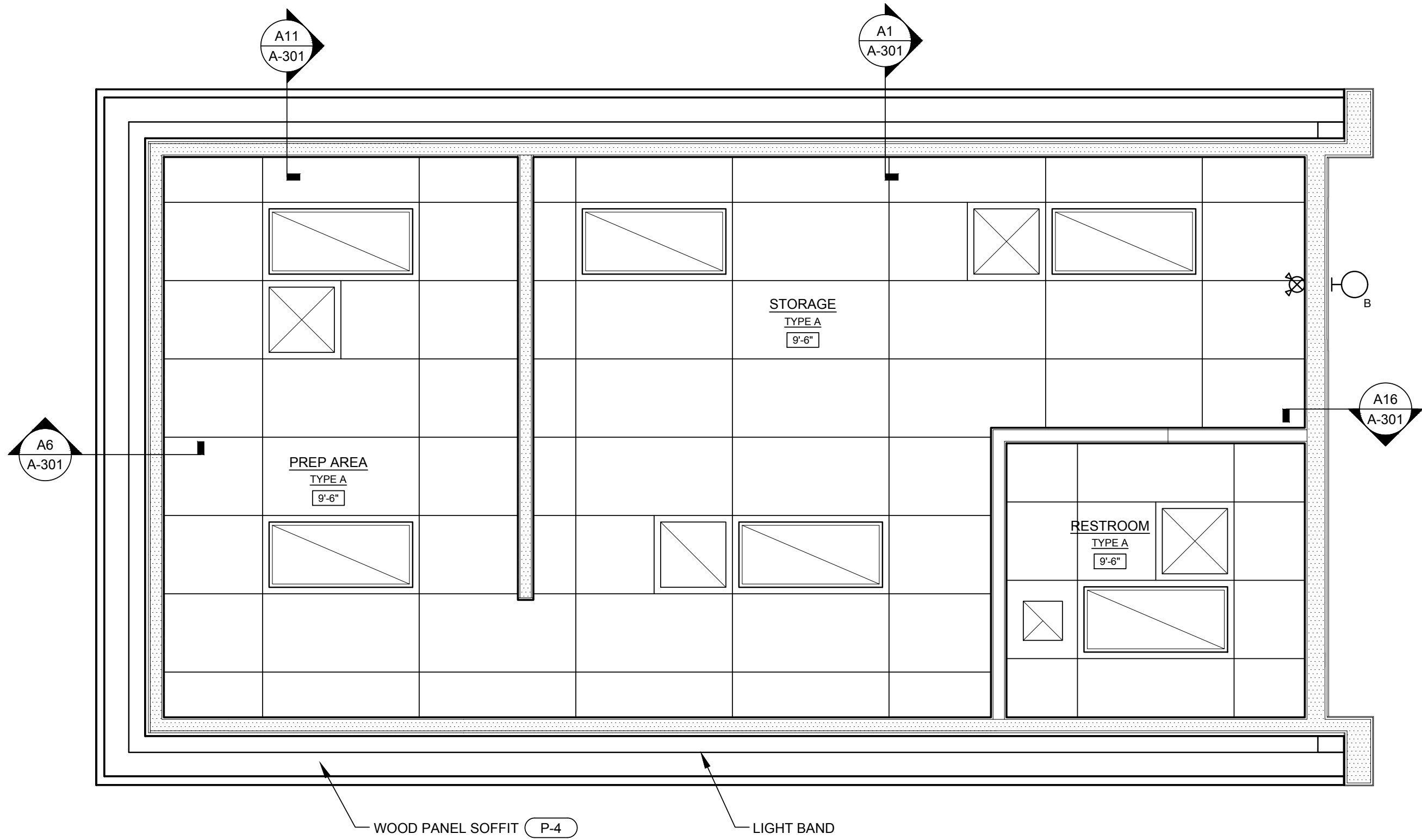
NOTES:
1. SEE A-401 FOR SHELVING MOUNTING HEIGHTS

DOOR SCHEDULE	
TAG	DESCRIPTION
D001	3'-0" x 7'-0" x 1 3/4" HM INSUL STEEL DOOR, 1 1/2 PAIR 4 1/2" X 4 1/2" BB BUTT HINGES (NRP), LEVER COMM ENTR LOCK (HEAVY DUTY), PUSH SIDE MOUNT CLOSER, LOCK GUARD W/ BRUSHED SATIN CHROMIUM FINISH (OR EQUAL), DOOR SWEEP @ BOTTOM, PAINT "P-1", NO SMOKING SIGN ON EXIT SIDE
D002	3'-0" x 6'-8" x 1 3/4" HM DOOR, 1 1/2 PAIR 4 1/2" X 4 1/2" BB BUTT HINGES (NRP), LEVER COMM PRIVACY LOCK (MEDIUM DUTY), PUSH SIDE MOUNT CLOSER, PAINT BLACK FOX (P-5), OCCUPIED/UNOCCUPIED SIGN, SIGN LABELED 'UNISEX RESTROOM' IN LETTERS NOT LESS THAN 2" IN HEIGHT

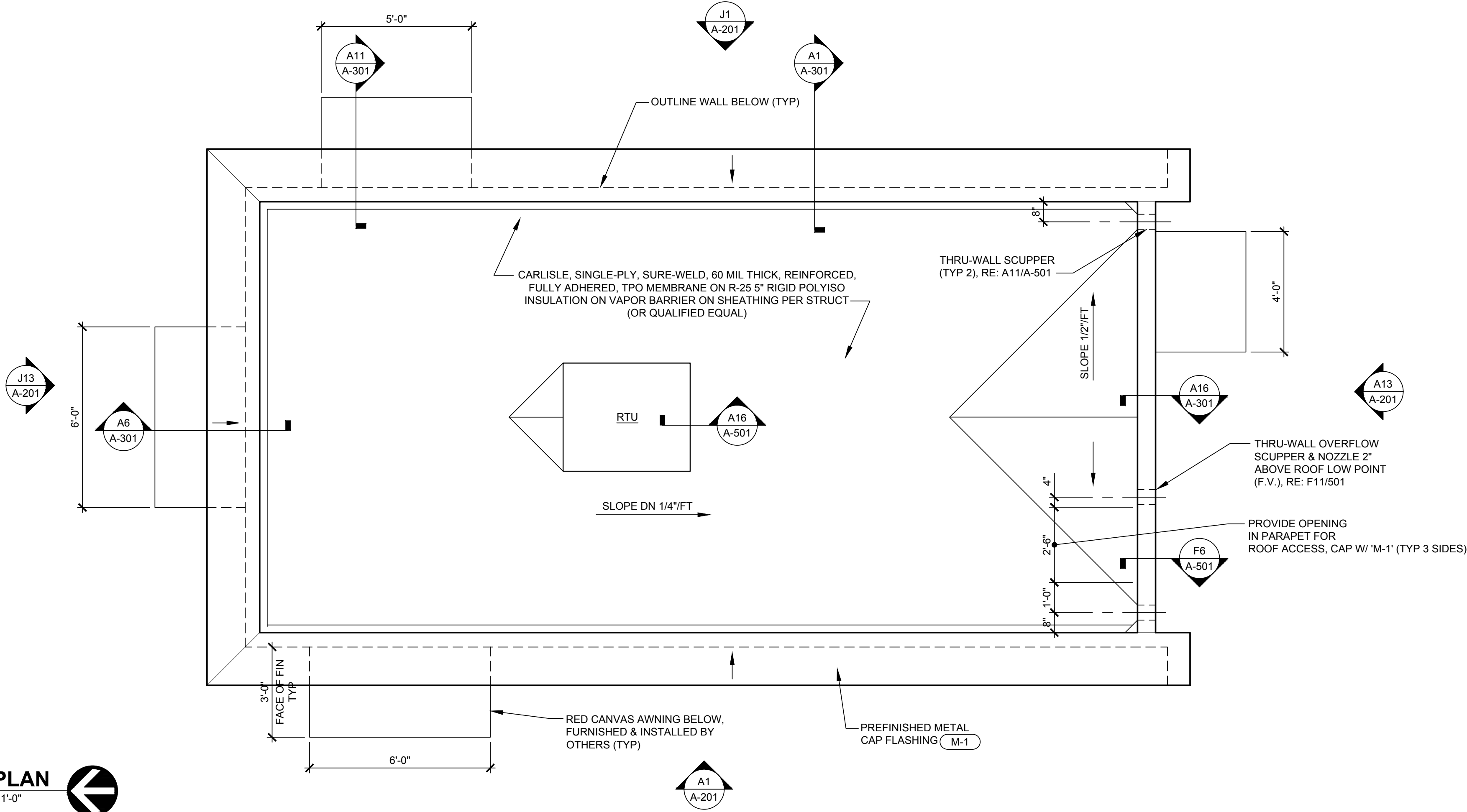
WINDOW SCHEDULE					
TAG	MFR	TYPE	MODEL #	SIZE	COLOR
A	QUIKSERV CORP	DRIVE-THRU	BPSC-4848	48"W x 48"H	DRK BRNZ
B	GERKIN	2 LITE FIXED	RHINO 7242	72"W x 42"H	DRK BRNZ

- LEGEND**
- XXX - DOOR NUMBER, SEE THIS SHEET
 - X - WINDOW TYPE, SEE THIS SHEET
 - X - WALL TYPE, SEE THIS SHEET
 - XXXX - FINISH / MATERIAL IDENTIFIER
 - XXXX - FIXTURE IDENTIFIER, SEE SHEET A-401
 - X - EQUIPMENT IDENTIFIER, SEE THIS SHEET
 - SECTION
 - # - SECTION NUMBER
 - XXXX - SHEET SECTION SHOWN ON SIM = SIMILAR, OH = OPPOSITE HAND
 - EXTERIOR ELEVATION
 - # - ELEVATION NUMBER
 - XXXX - SHEET ELEVATION SHOWN ON
 - INTERIOR ELEVATION
 - XXXX - GRID LOCATION
 - XXXX - ELEVATION NUMBER
 - XXXX - SHEET ELEVATION SHOWN ON
 - DETAIL
 - XXX - DETAIL NUMBER
 - XXXX - SHEET DETAIL SHOWN ON SIM = SIMILAR, OH = OPPOSITE HAND

S
R
P
N
M
L
K
J
H
G
F
E
D
C
B
A



J1 REFLECTED CEILING PLAN
SCALE: 3/8" = 1'-0"
NORTH



A1 ROOF PLAN
SCALE: 3/8" = 1'-0"
NORTH

LEGEND

XX'-XX" - CEILING HEIGHT ABOVE FINISH FLOOR

REFLECTED CEILING PLAN LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	LED 2x4 RECESSED		SUPPLY DIFFUSER
	LED TAPE LIGHT		RETURN AIR GRILLE
	LED WALL MOUNTED		EXHAUST FAN
	EXIT/EMERGENCY LIGHT		

CEILING MATERIAL LEGEND

ITEM	MFR (OR EQUAL)	MODEL NUMBER
	USG	SMOOTH, CLIMAPLUS, WHITE, VINYL-FACED GYPSUM, SQUARE LAY-IN 24"x48"x1/2" W/ WHITE, DXL 15/16" EXPOSED TEE GRID SYSTEM

NOTES:





- A. WHERE LIGHT FIXTURES ARE MOUNTED IN A LAY-IN CEILING, PROVIDE A MINIMUM OF 2 SUPPORT WIRES ATTACHED DIRECTLY BETWEEN EACH LIGHT FIXTURE AND THE BUILDING STRUCTURE. SUPPORT WIRES SHALL BE A MINIMUM OF 12 GAUGE GALVANIZED STEEL WIRE, SOFT ANNEALED.
- B. FIXTURES ARE REQUIRED AT ALL LIGHTING OUTLETS SHOWN ON THE DRAWINGS. APPROVED LIGHTING FIXTURE WIRE IS REQUIRED IN ALL FIXTURES AND FIXTURE RACEWAYS. WEATHERPROOF WIRING IS REQUIRED FOR EXTERIOR FIXTURES. ALL PARTS OF FIXTURES AND WIRING SHALL BE IN ACCORDANCE WITH NECESSARY REQUIREMENTS.
- C. ALL FIXTURES SHALL CARRY UL AND ETL LABELS. ALL FLUORESCENT FIXTURE BALLASTS SHALL BE HIGH FREQUENCY ELECTRONIC BALLASTS WITH A "TOTAL HARMONIC DISTORTION: OF LESS THAN 20%, REGARDLESS OF THE NUMBER OF LAMPS CONNECTED TO EACH BALLAST AND SHALL HAVE CBM LABEL. ALL FLUORESCENT FIXTURES INSTALLED SHALL INCORPORATE BALLAST PROTECTION. ALL FLUORESCENT BALLASTS SHALL HAVE AN AUDIBLE NOISE RATING OF "CLASS A" OR BETTER. ALL FLUORESCENT BALLASTS SHALL HAVE A POWER FACTOR GREATER THAN 98% WHEN USED WITH PRIMARY LAMP.

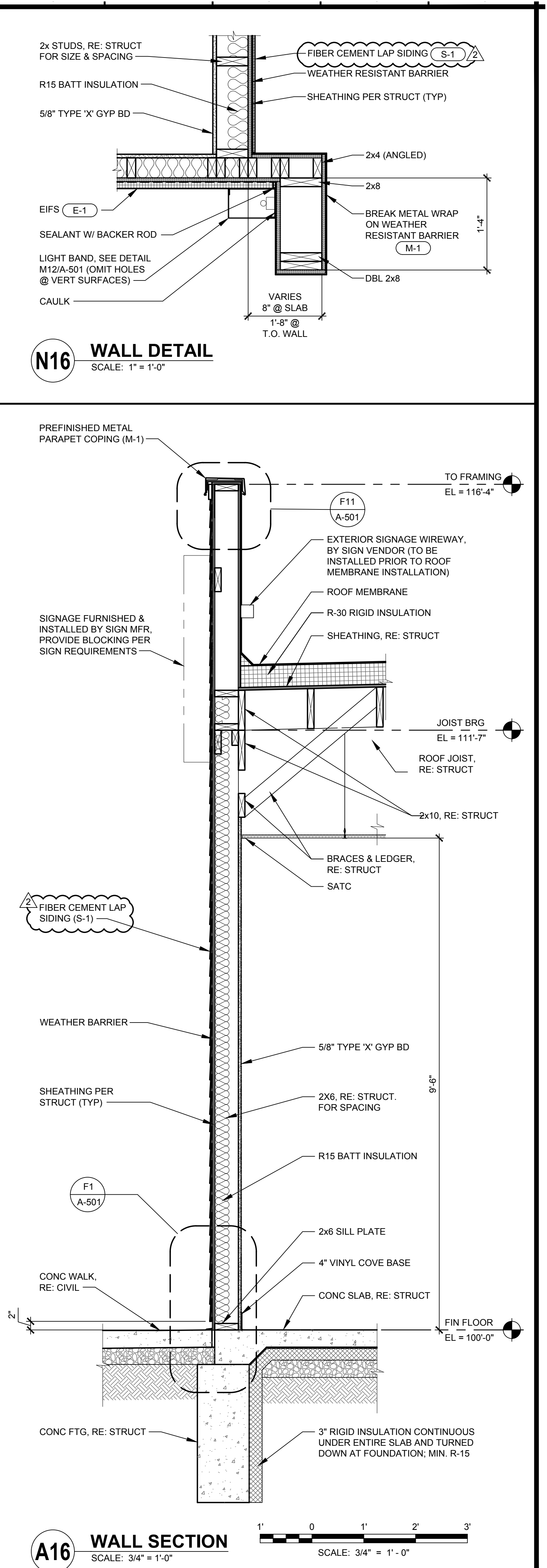
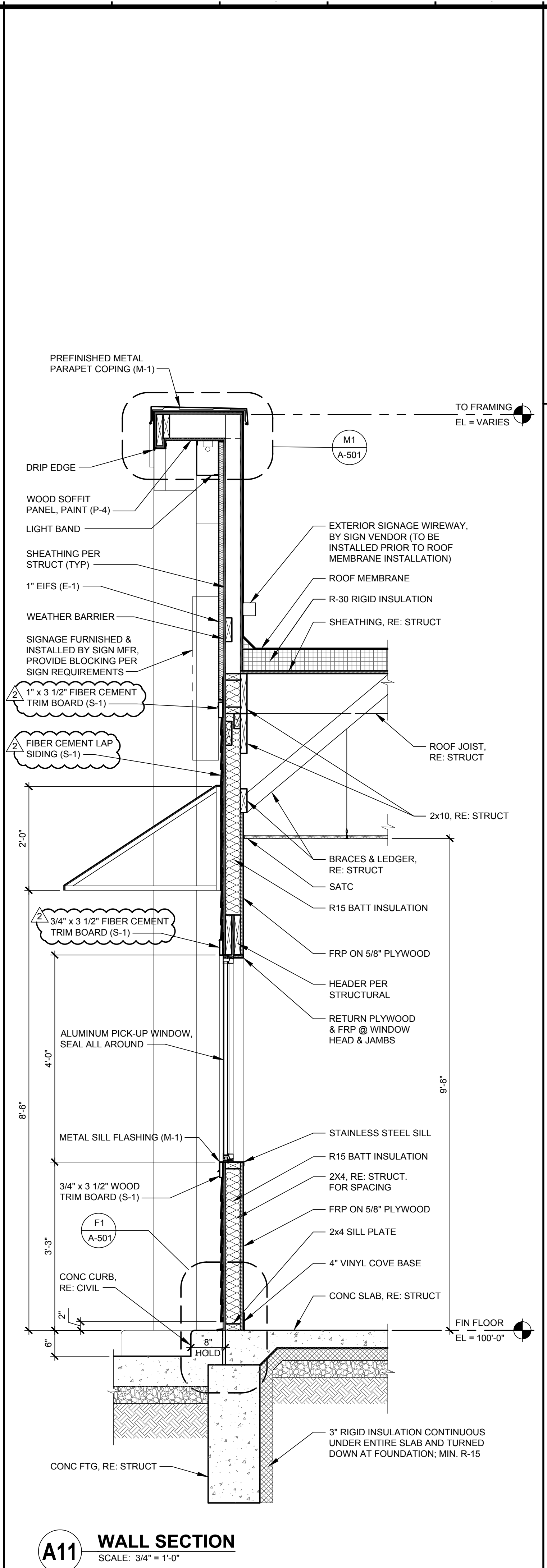
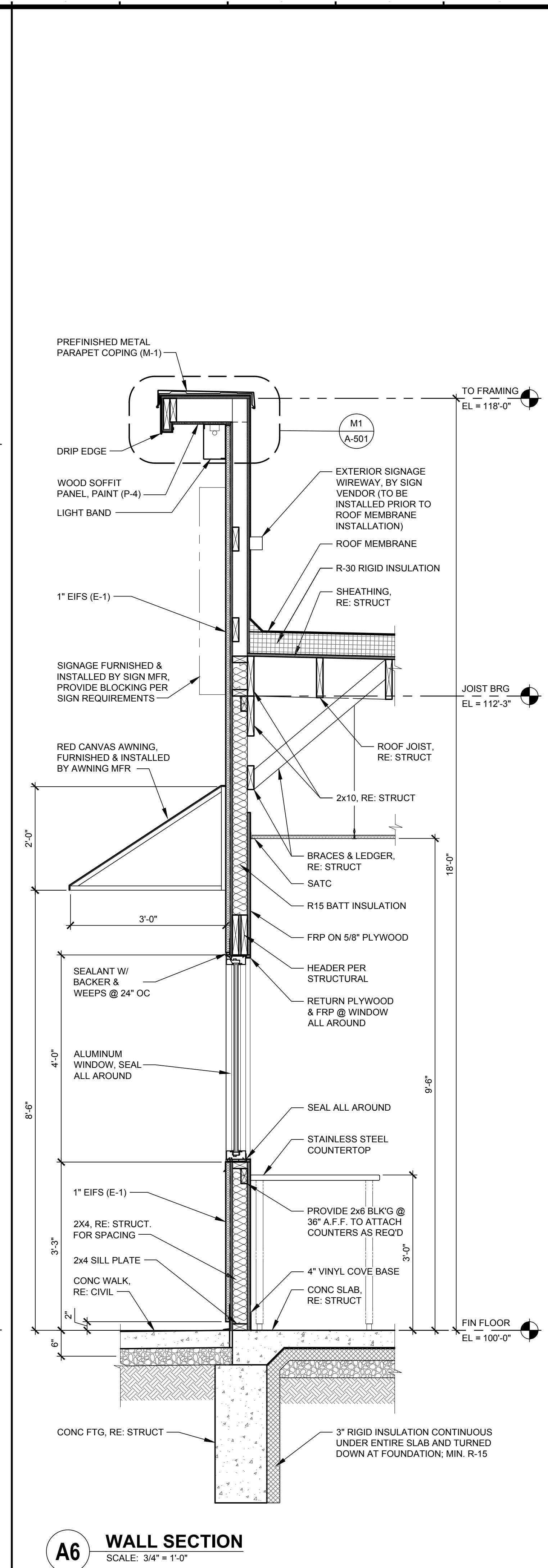
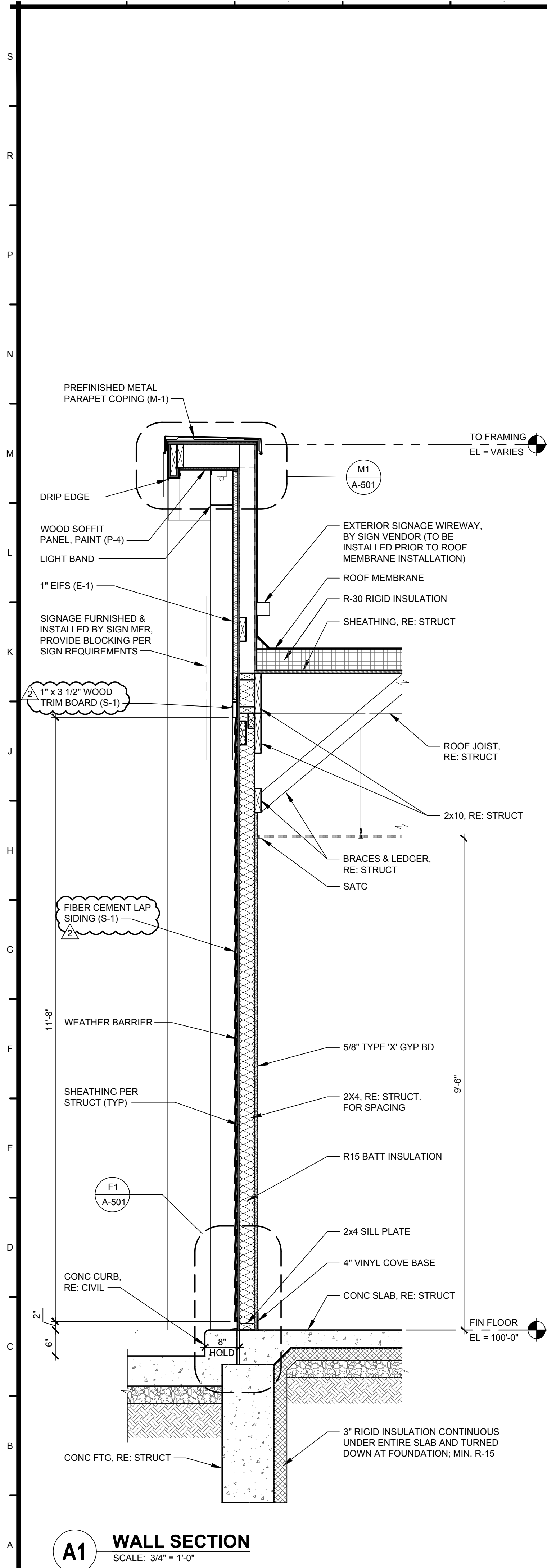
LEGEND

- SECTION
- SECTION NUMBER
- SHEET SECTION SHOWN ON
SIM = SIMILAR, OH = OPPOSITE HAND
- EXTERIOR ELEVATION
- ELEVATION NUMBER
- SHEET ELEVATION SHOWN ON



LEGEND

	- DOOR NUMBER
	- WINDOW TYPE
	- FINISH / MATERIAL IDENTIFIER
	- SECTION
	- SECTION NUMBER
	- SHEET SECTION SHOWN ON SIM = SIMILAR, OP = OPPOSITE HAND



WARMAN ARCHITECTURE+DESIGN
1828 SWIFT SUITE 101
NORTH KANSAS CITY, MISSOURI 64116
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K

Missouri State Certificate of Authority #ARC 000745

KATHLEEN ANN WARMAN - ARCHITECT
MO # A-5819

Scooter's Kiosk Drive-Thru
MO 150 Hwy & SW Regatta Dr
Lee's Summit, MO 64082

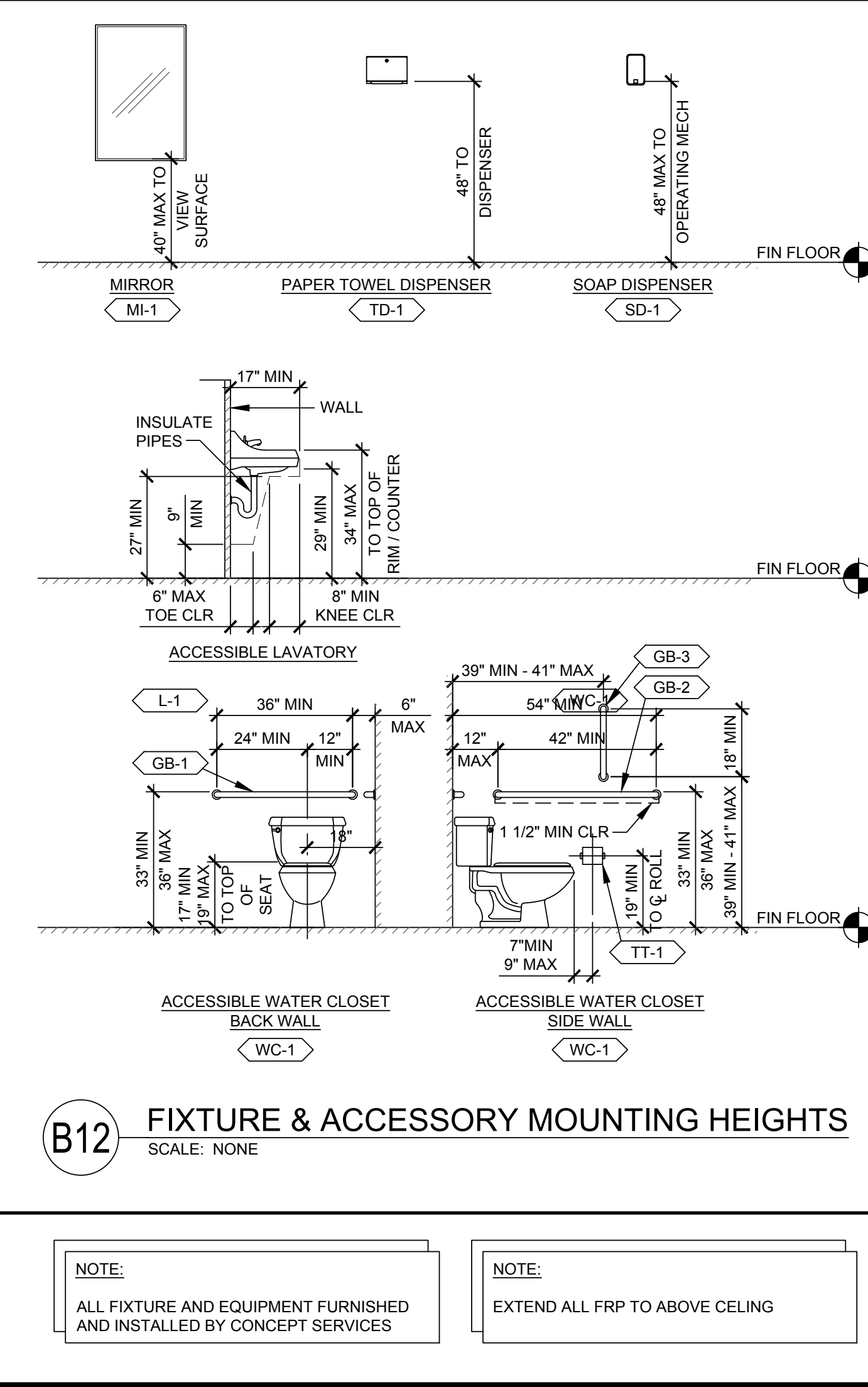
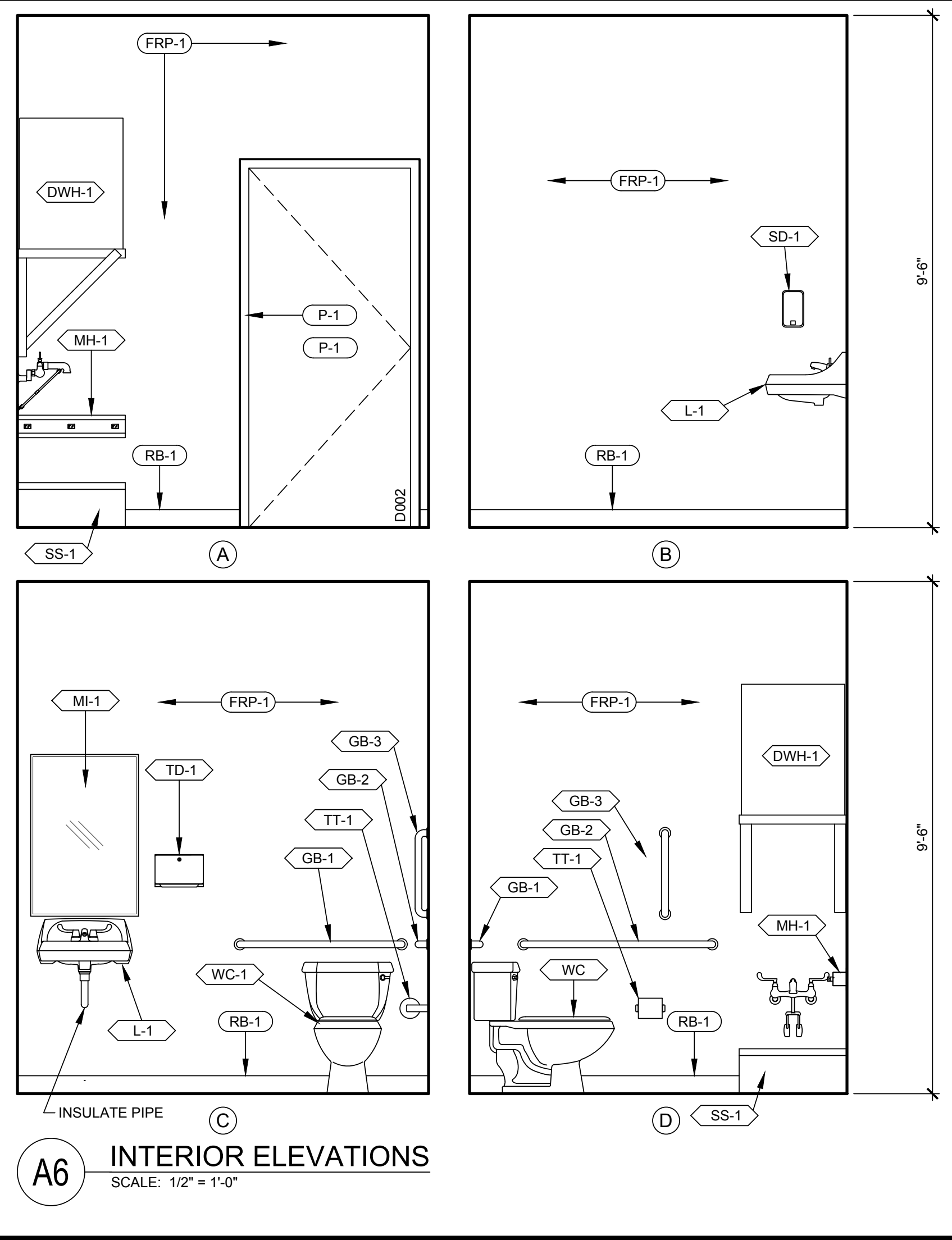
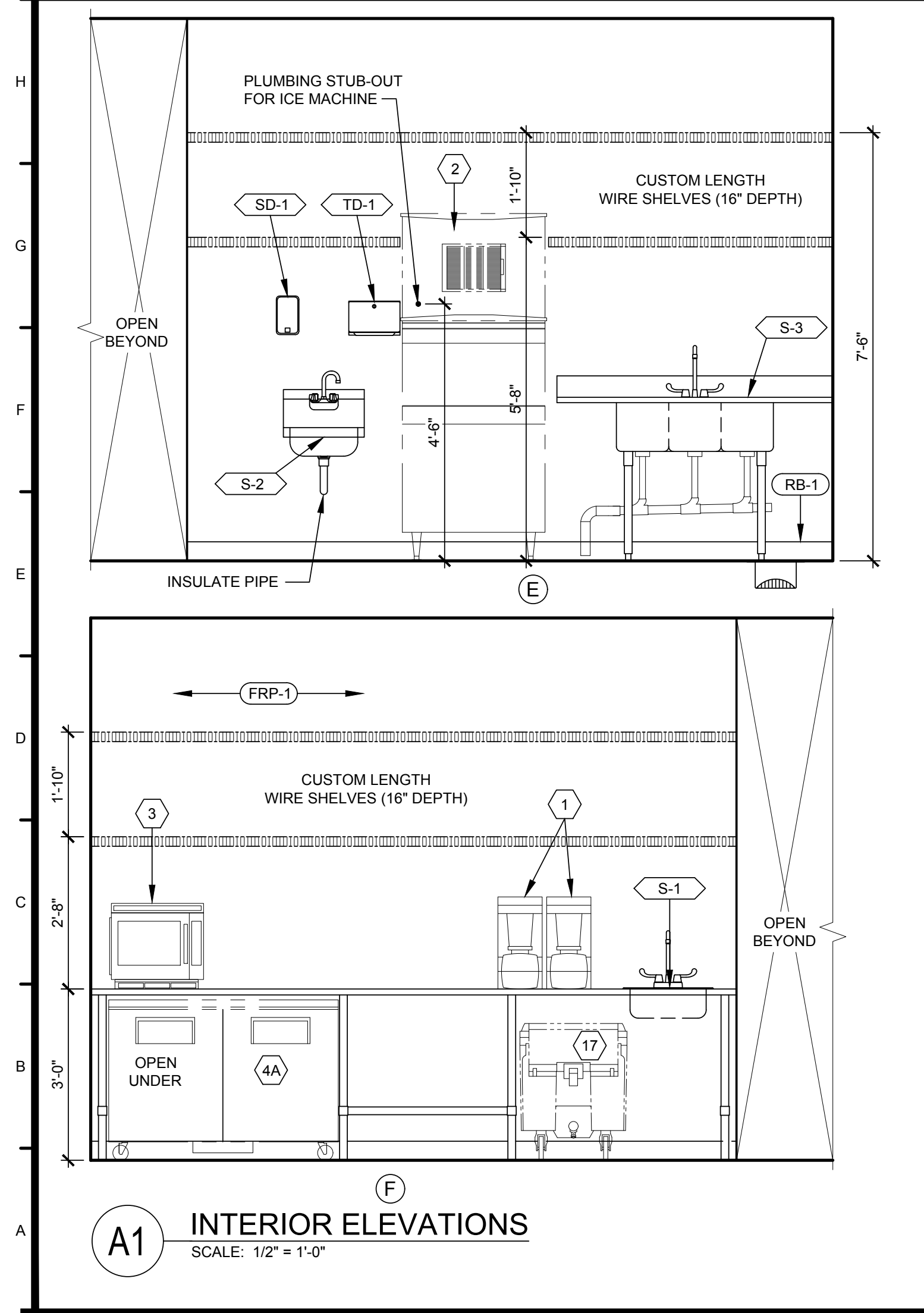
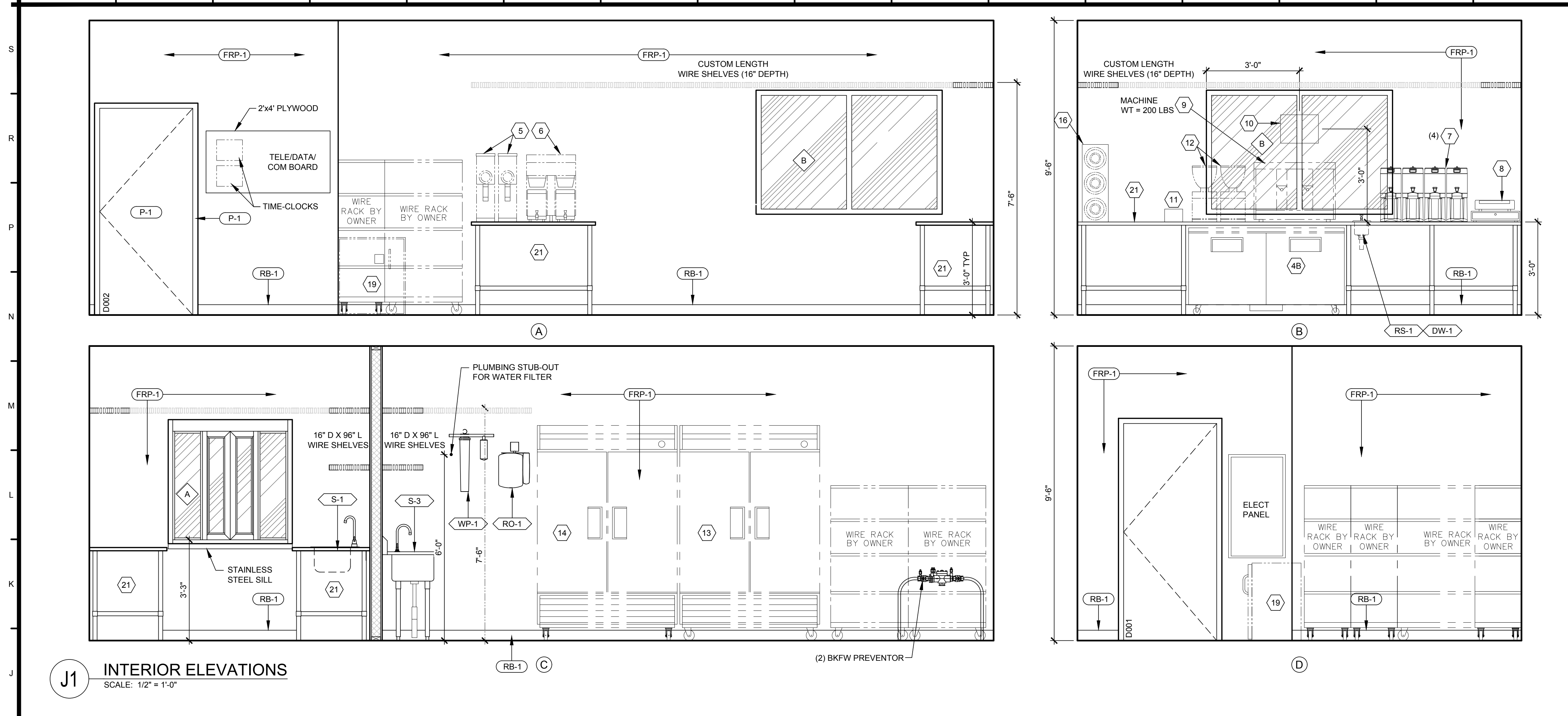
Freedom Enterprises, LLC
4501 College Blvd, Suite 170
Leawood, KS 66211

#	BY	DATE	SOURCE	PER CLIENT COMMENTS	PER CITY COMMENTS
1	JDE	09.21.17			
2	JDE	11.02.17			

DATE: 06.13.17
DESIGNED BY: KAW
DRAWN BY: jde
APPROVED BY: KAW

SHEET NUMBER
A-301
JOB NUMBER
5233-17

WALL SECTIONS & DETAILS



SHEET NOTES

ADA NOTES:

FLUSH CONTROLS:

- CONTROLS SHALL BE 44" MAXIMUM ABOVE FINISHED FLOOR.
- CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF THE TOILET AREAS.
- CONTROLS SHALL BE HAND OPERATED.
- CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS.

DISPENSERS:

- DISPENSERS THAT CONTROL DELIVERY, OR DO NOT PERMIT CONTINUOUS PAPER FLOW SHALL NOT BE USED.
- EXPOSED PIPES AND SURFACES:
 - HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECTED AGAINST CONTACT.
 - THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.

CLEARANCES:

- LAVATORIES
 - A CLEARANCE OF 29" MIN. SHALL BE PROVIDED FROM FINISH FLOOR TO BOTTOM OF APRON.
 - KNEE CLEARANCE OF 27" MIN. SHALL EXTEND 8" MIN. UNDER EDGE OF LAVATORY.
 - TOE CLEARANCE OF 9" MIN. SHALL BE PROVIDED FOR THE FULL DEPTH OF THE LAVATORY.

FAUCETS:

- CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST.
- THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS.
- LEVER-OPERATED, PUSH-TYPE, AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS.
- IF SELF-CLOSING VALVES ARE USED, THE FAUCET SHALL REMAIN OPEN FOR AT LEAST 10 SECONDS.

GRAB BARS:

- DIAMETER OR WIDTH OF GRIPPING SURFACE SHALL BE 1 1/4" TO 1 1/2" OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE.
- THE SPACE BETWEEN GRAB BARS AND ADJACENT WALLS SHALL BE 1 1/2".
- GRAB BARS AND ADJACENT WALL SURFACES SHALL BE FREE OF SHARP OR ABRASIVE SURFACES.
- EDGES SHALL HAVE A MINIMUM RADIUS OF 1/8".

MISCELLANEOUS:

- ALL TOILET FIXTURES TO BE INSTALLED TO MEET ALL LOCAL, STATE & FEDERAL BUILDING CODES.
- CONTRACTOR SHALL PROVIDE WALL BLOCKING TO WITHSTAND A FORCE OF 300 POUNDS IN ANY DIRECTION AT ANY POINT.

DOOR CLOSERS:

IF A DOOR HAS A CLOSER, THEN THE SWEEP PERIOD OF THE CLOSER SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 70°, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED TO THE LEADING EDGE OF THE DOOR.

DOOR OPENING FORCE:

THE MAXIMUM FORCE FOR PUSHING OR PULLING OPEN A DOOR SHALL BE AS FOLLOWS:

- FIRE DOORS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY.
- OTHER DOORS
 - A. EXTERIOR HINGED DOORS: (NO REQUIREMENT)
 - B. INTERIOR HINGED DOORS: 5 lbf
 - C. SLIDING OR FOLDING DOORS: 5 lbf

* THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT MAY HOLD THE DOOR IN A CLOSED POSITION.

PLUMBING FIXTURE ACCESSORY SCHEDULE

DW-1	- DIPPERWELL SINK PER PLUMB
DWH-1	- WATER HEATER PER PLUMB
GB-1	- 36" STAINLESS STEEL GRAB BAR - BOBRICK #B-5806x42
GB-2	- 42" STAINLESS STEEL GRAB BAR - BOBRICK #B-5806x36
GB-3	- 18" STAINLESS STEEL GRAB BAR - BOBRICK #B-5806x18
L-1	- WALL HUNG LAVATORY PER PLUMB
MI-1	- 24"W x 36"H STAINLESS STEEL CHANNEL FRAME MIRROR - BOBRICK #B-165 2436
MH-1	- MOP HOLDER - BOBRICK #B-223X24
RO-1	- REVERSE OSMOSIS FILTRATION SYSTEM - 3M #SGLP RO *
RS-1	- 6" x 6" x 2" PAN SIZE RINSER SINK PER PLUMB
S-1	- COUNTER MOUNTED SINK PER PLUMB (DUMP SINK)
S-2	- WALL MOUNTED SINK PER PLUMB (HAND SINK)
S-3	- 3 COMPARTMENT SINK PER PLUMB
SD-1	- SURFACE MOUNTED VERTICAL SOAP DISPENSER - BOBRICK #B-132
SS-1	- FLOOR MOUNTED JANITOR'S SINK PER PLUMB
TD-1	- SURFACE MOUNTED PAPER TOWEL DISPENSER - BOBRICK #B-2621
TT-1	- SURFACE MOUNTED TOILET TISSUE DISPENSER - BOBRICK #B-273
WC-1	- WATER CLOSET PER PLUMB
WP-1	- WATER FILTRATION SYSTEM - 3M #DP190 *

* = OWNER FURNISHED, GC INSTALLED

NOTE:
CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING & MOUNT PER MANUFACTURER'S INSTRUCTIONS

LEGEND

xxx	- DOOR NUMBER, SEE SHEET A-101
x	- WINDOW TYPE, SEE SHEET A-101
xxxx	- FINISH / MATERIAL IDENTIFIER
xxxx	- FIXTURE IDENTIFIER, SEE THIS SHEET
x	- EQUIPMENT IDENTIFIER, SEE SHEET A-101

DATE: 06.13.17
DESIGNED BY: KAW
DRAWN BY: cdt
APPROVED BY: KAW

SHEET NUMBER
A-401
JOB NUMBER
5233-17

WARMAN ARCHITECTURE+DESIGN
1828 SWIFT SUITE 101
NORTH KANSAS CITY, MISSOURI 64116
V. 816.474.2233 F. 816.474.1051

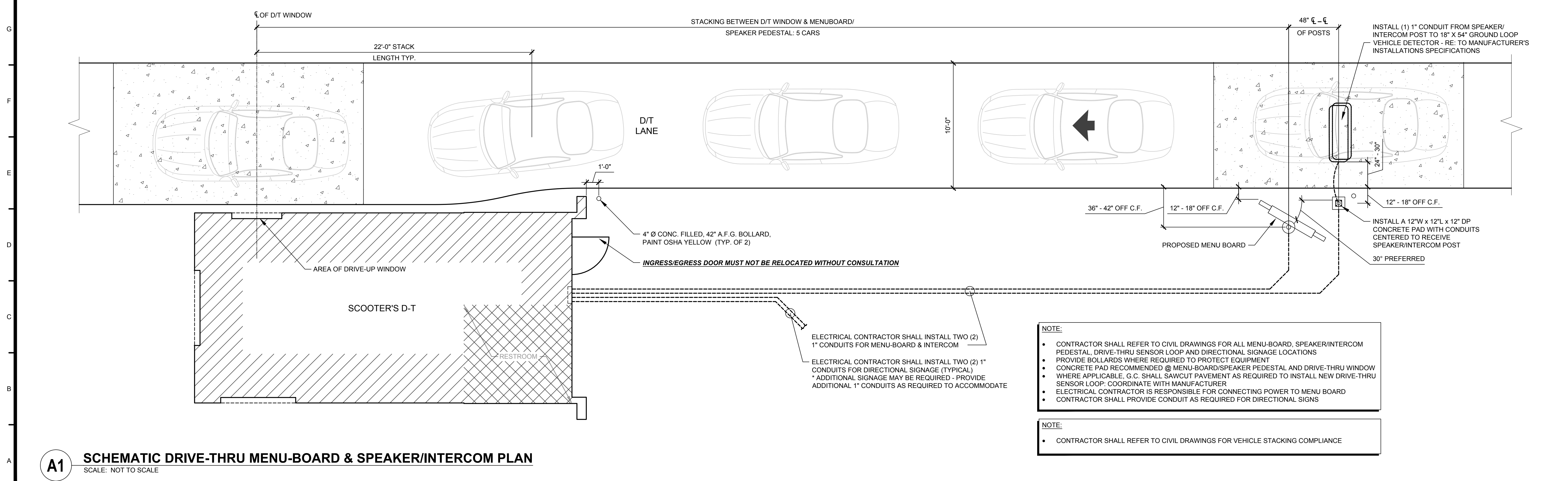
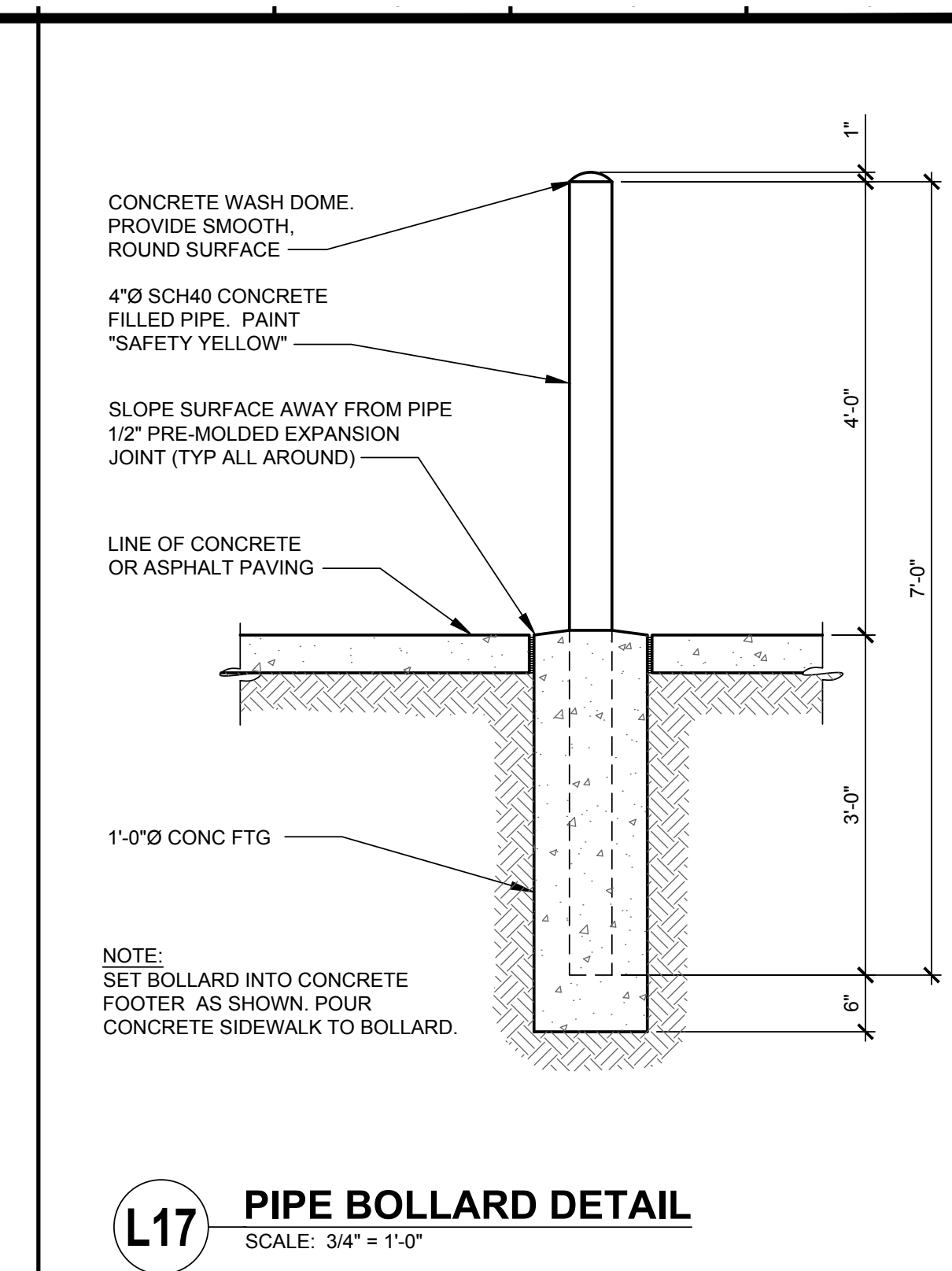
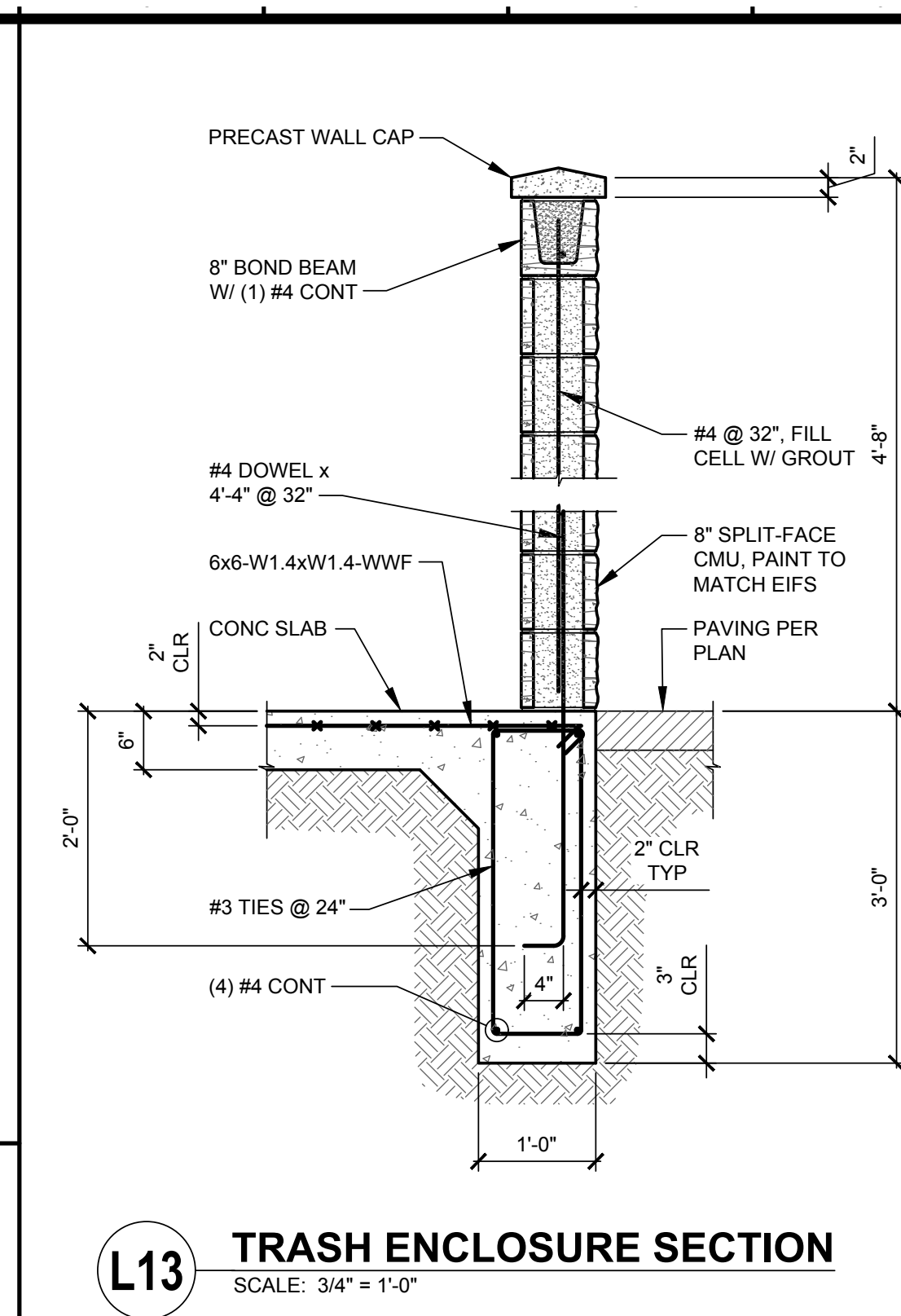
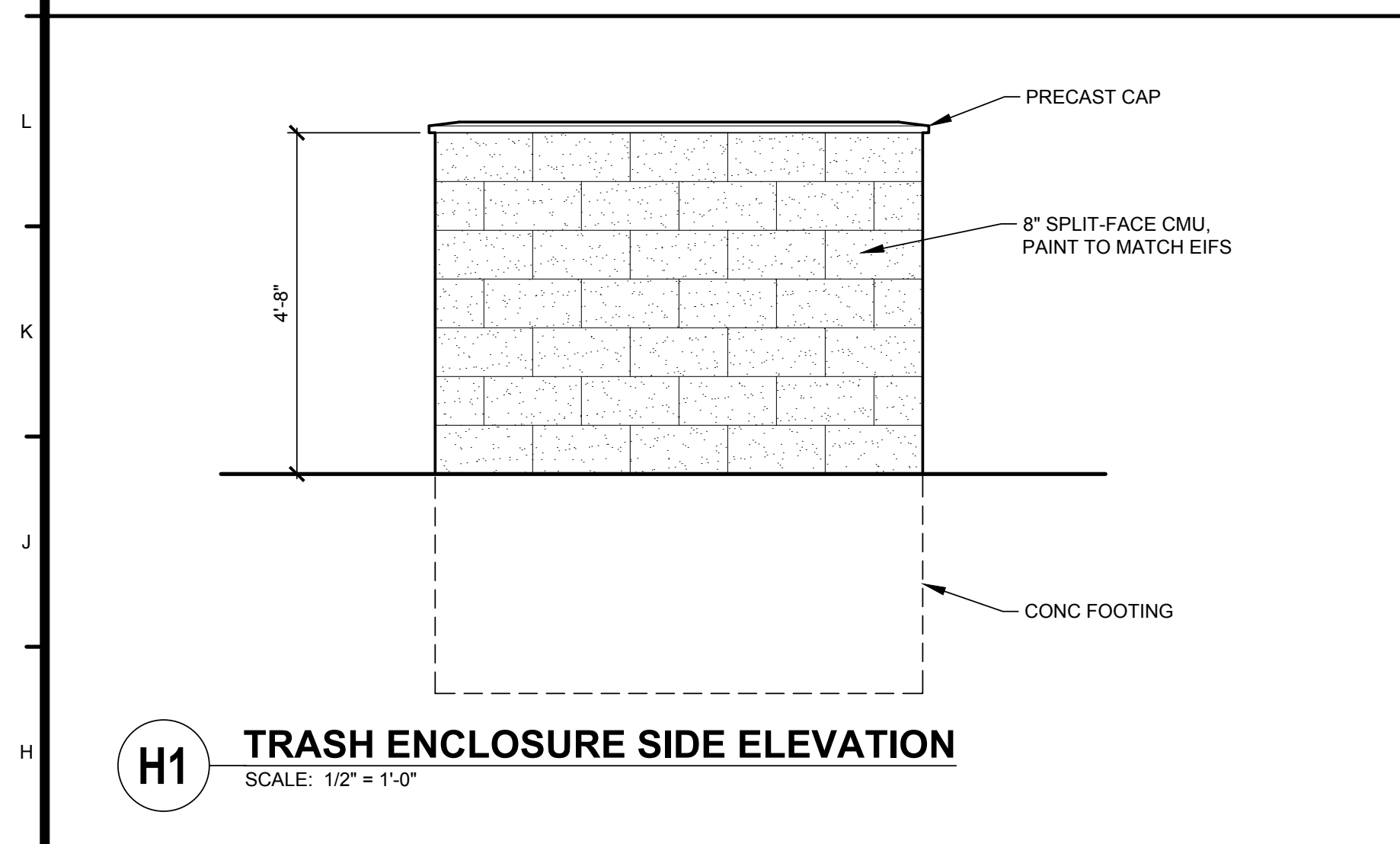
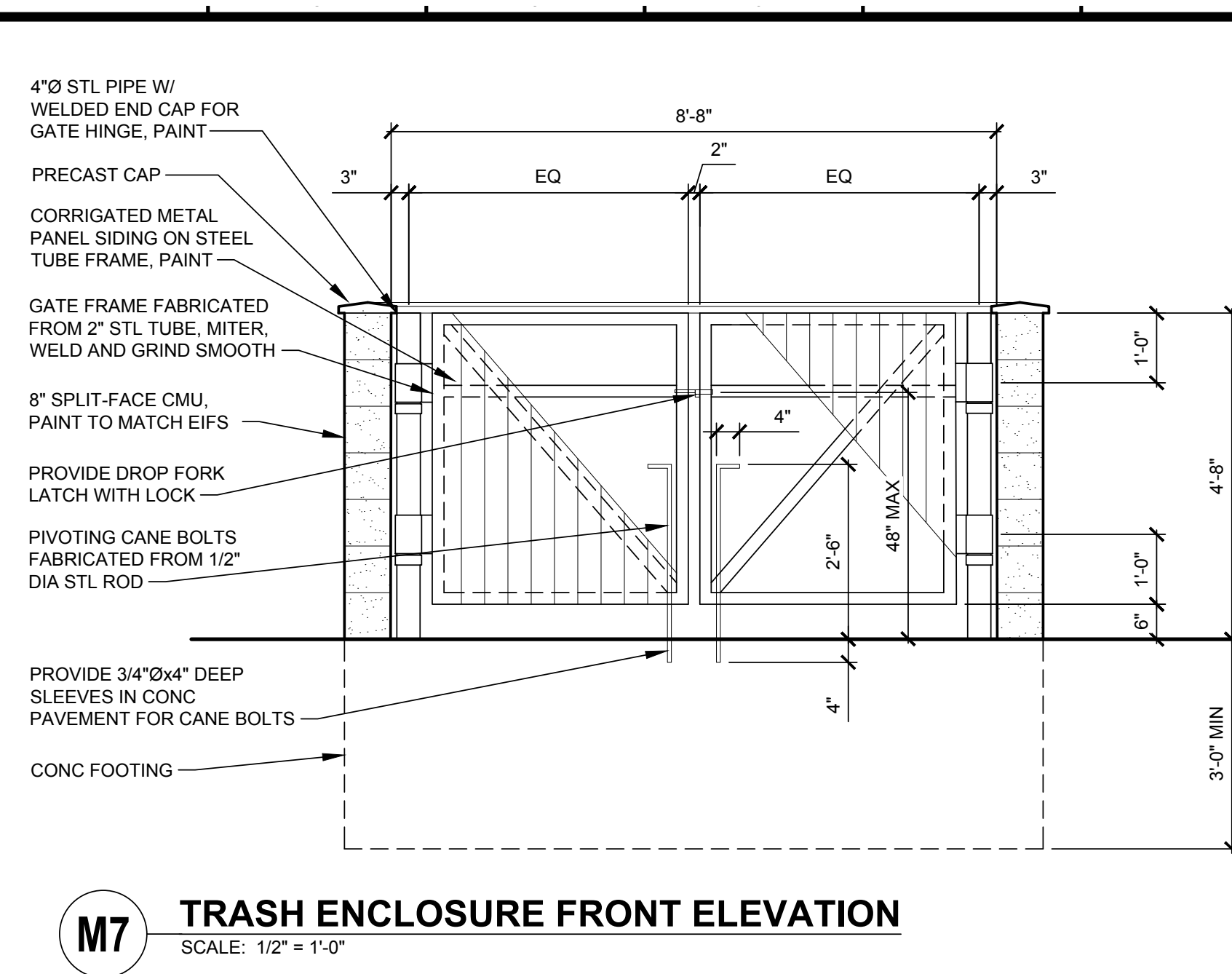
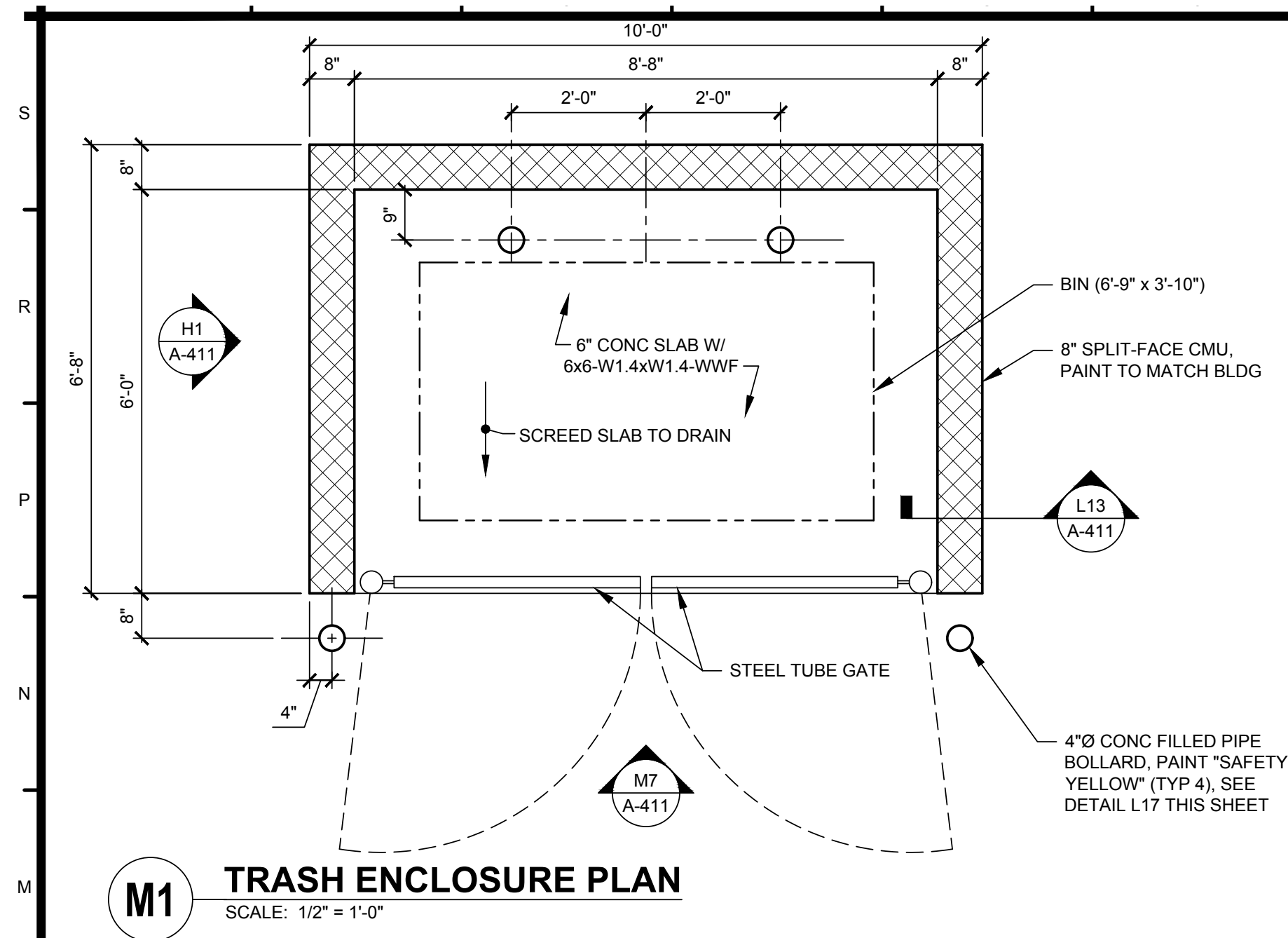
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MO # A-5819

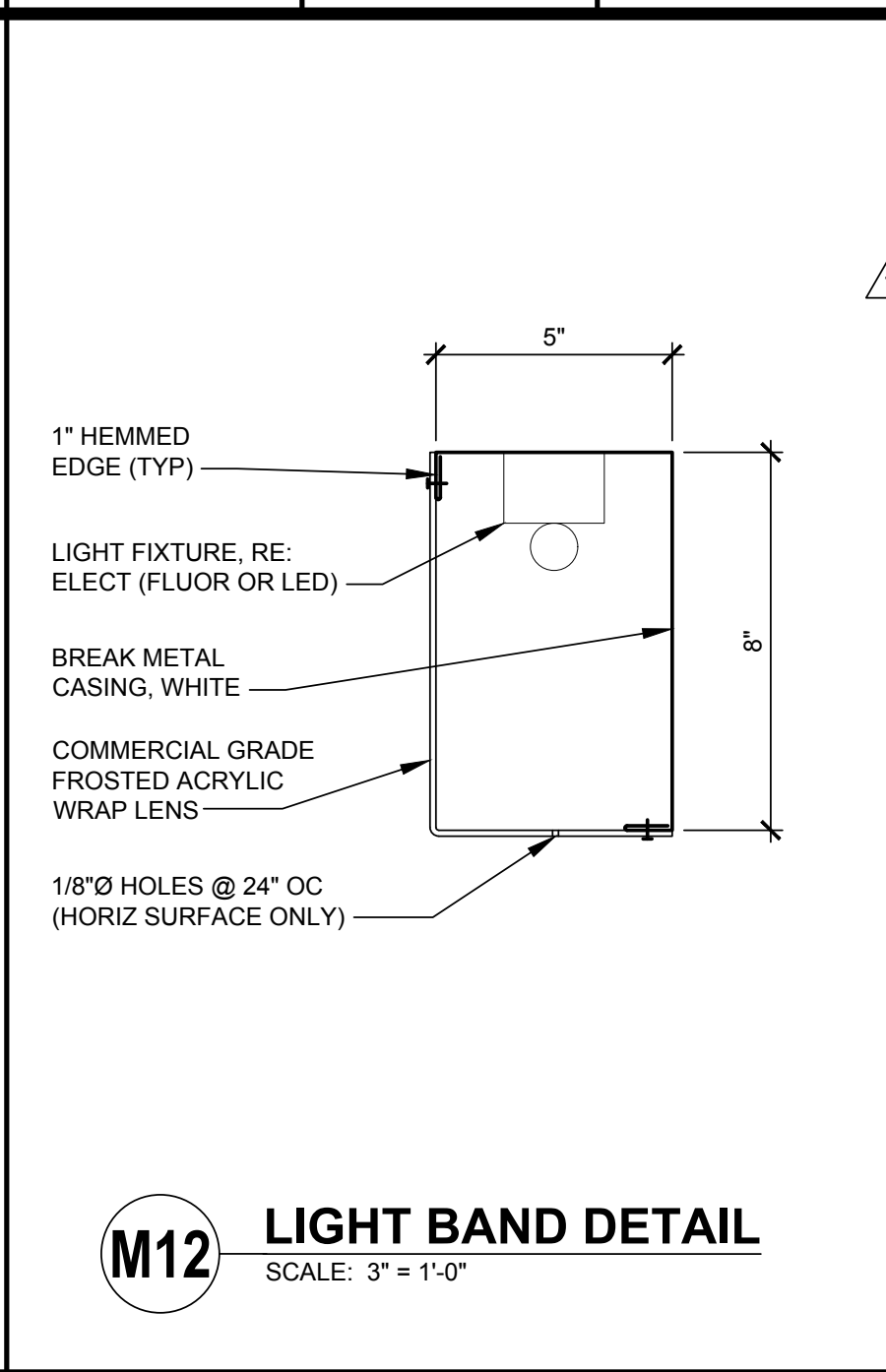
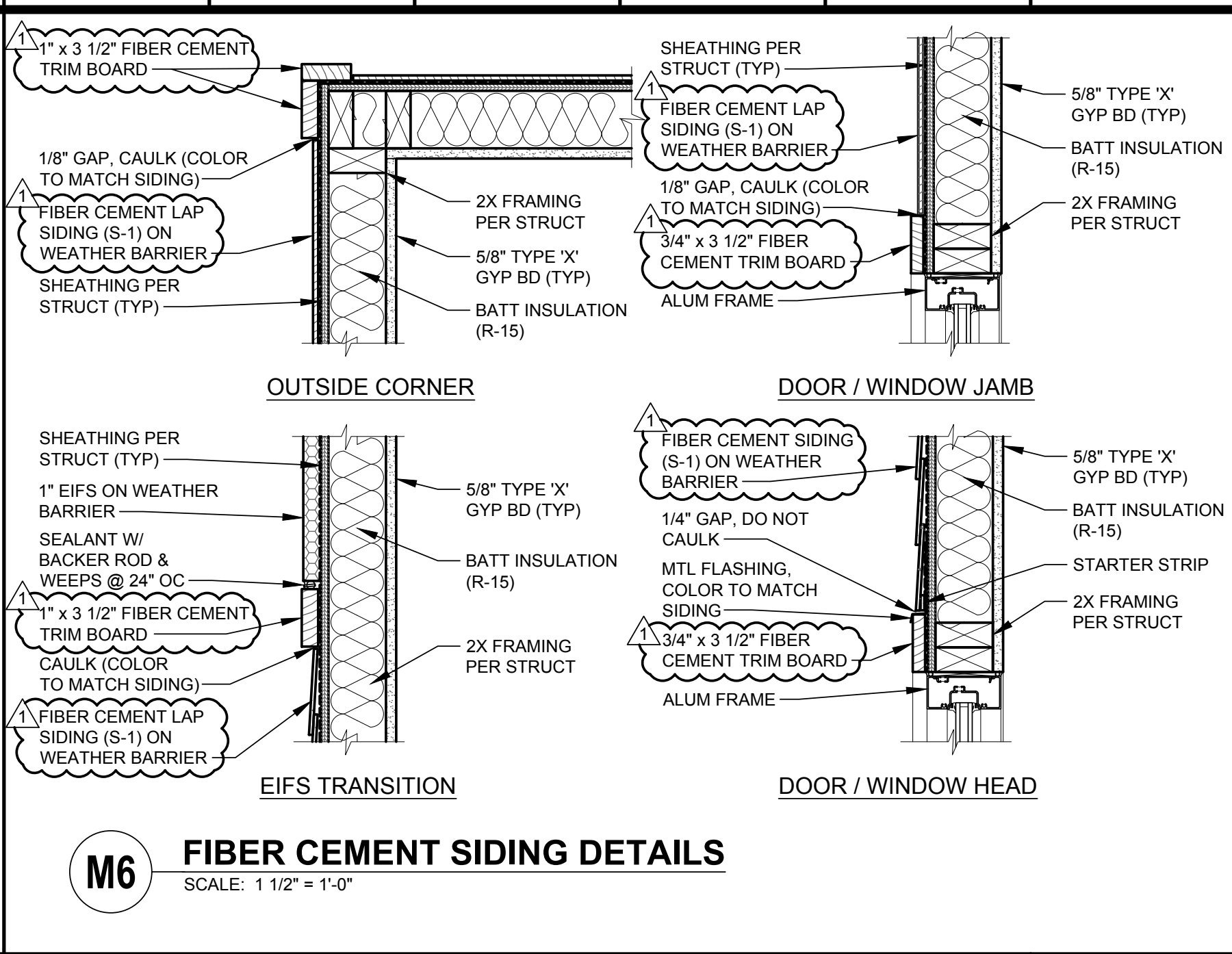
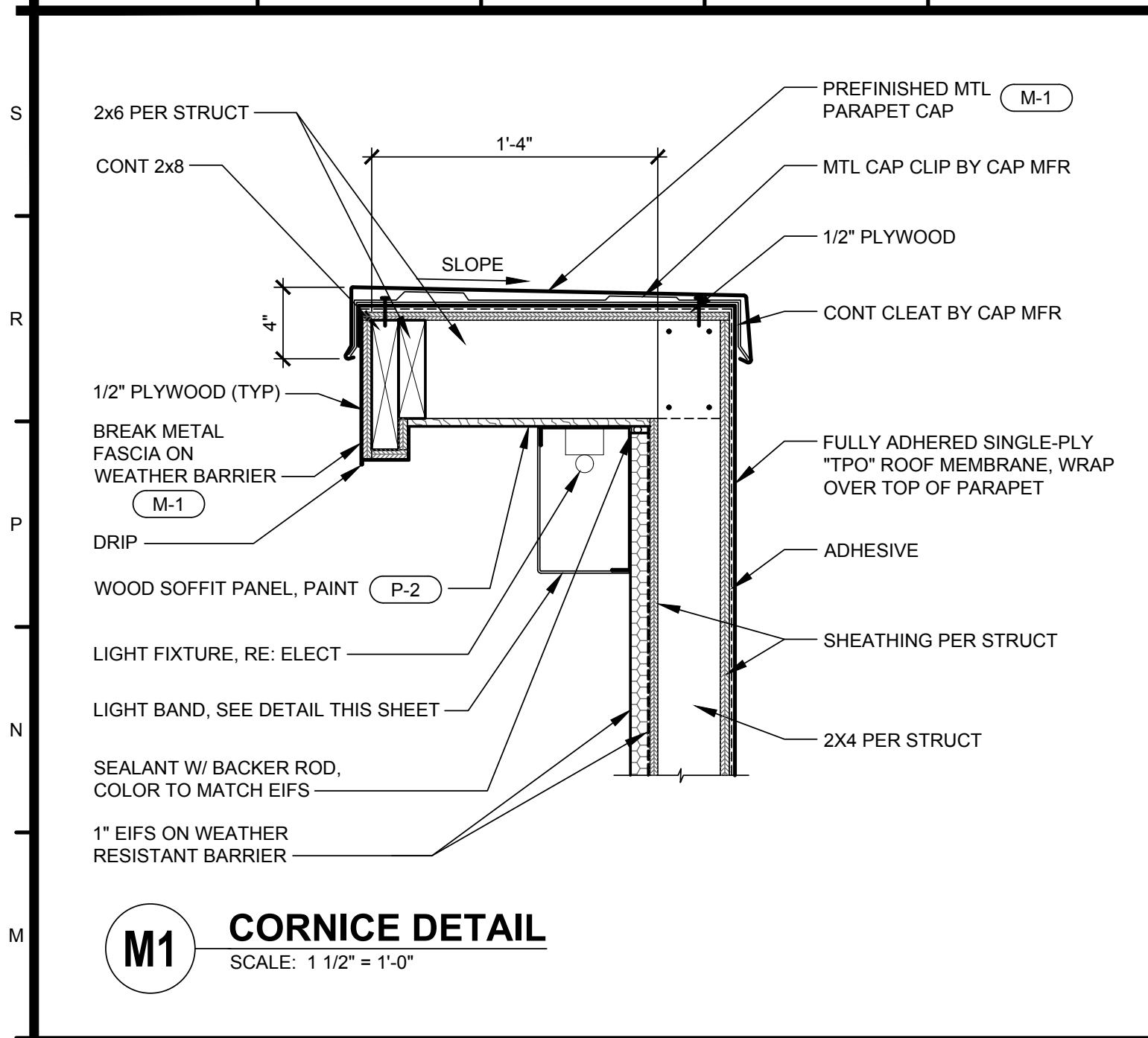
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MO 150 Hwy & SW Regatta Dr
Lee's Summit, MO 64082

Freedom Enterprises, LLC
4501 College Blvd, Suite 170
Leawood, KS 66211

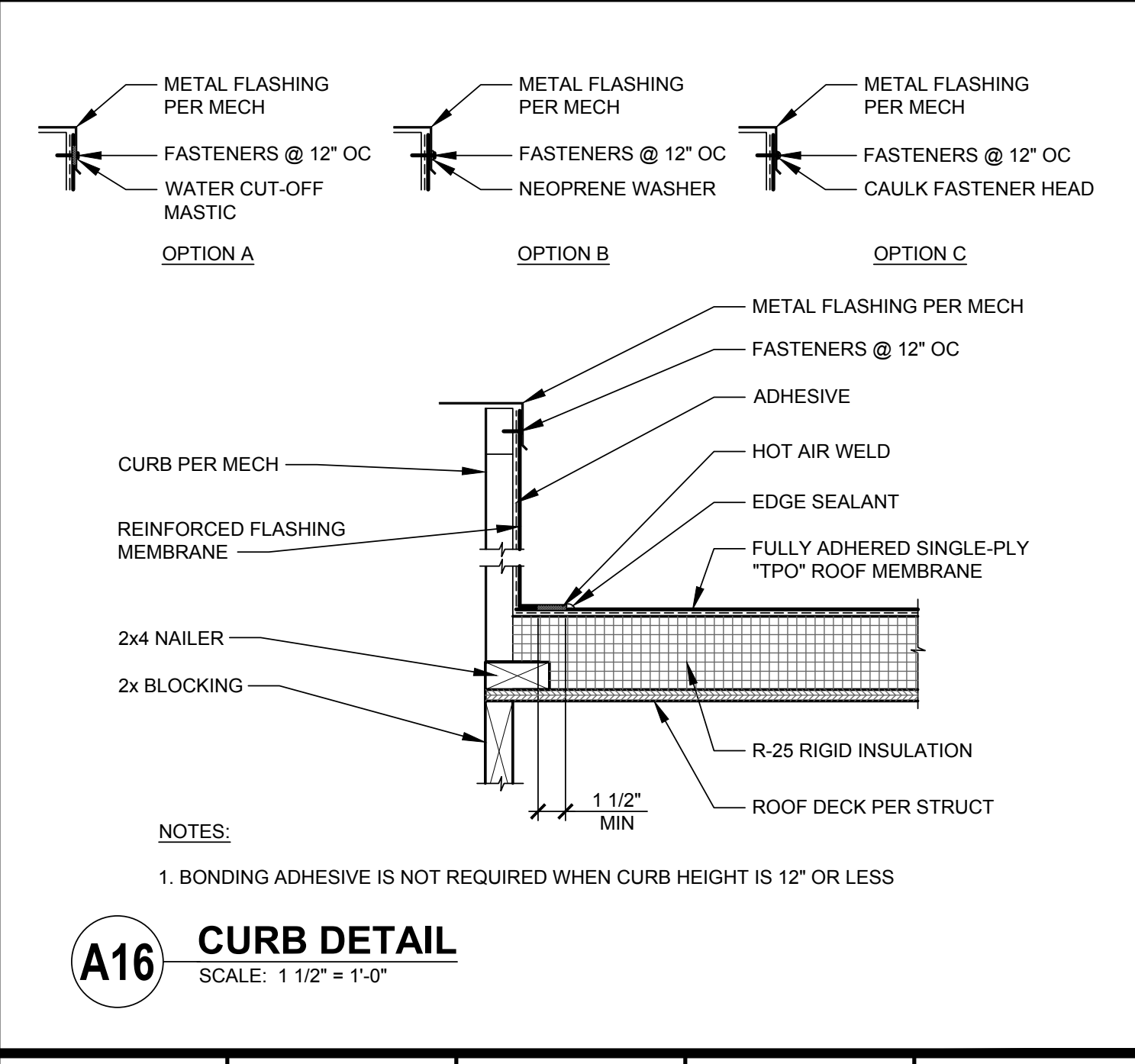
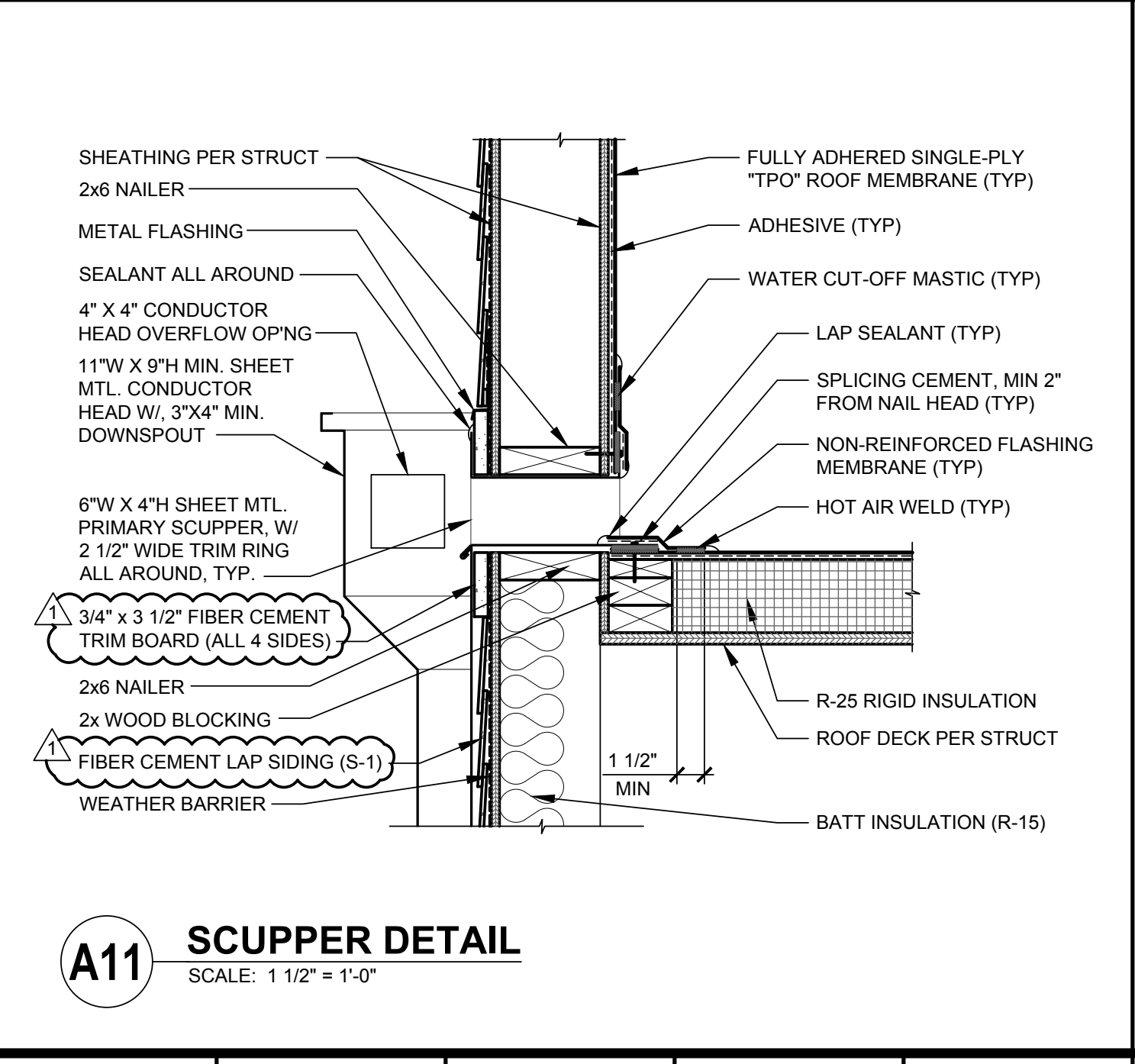
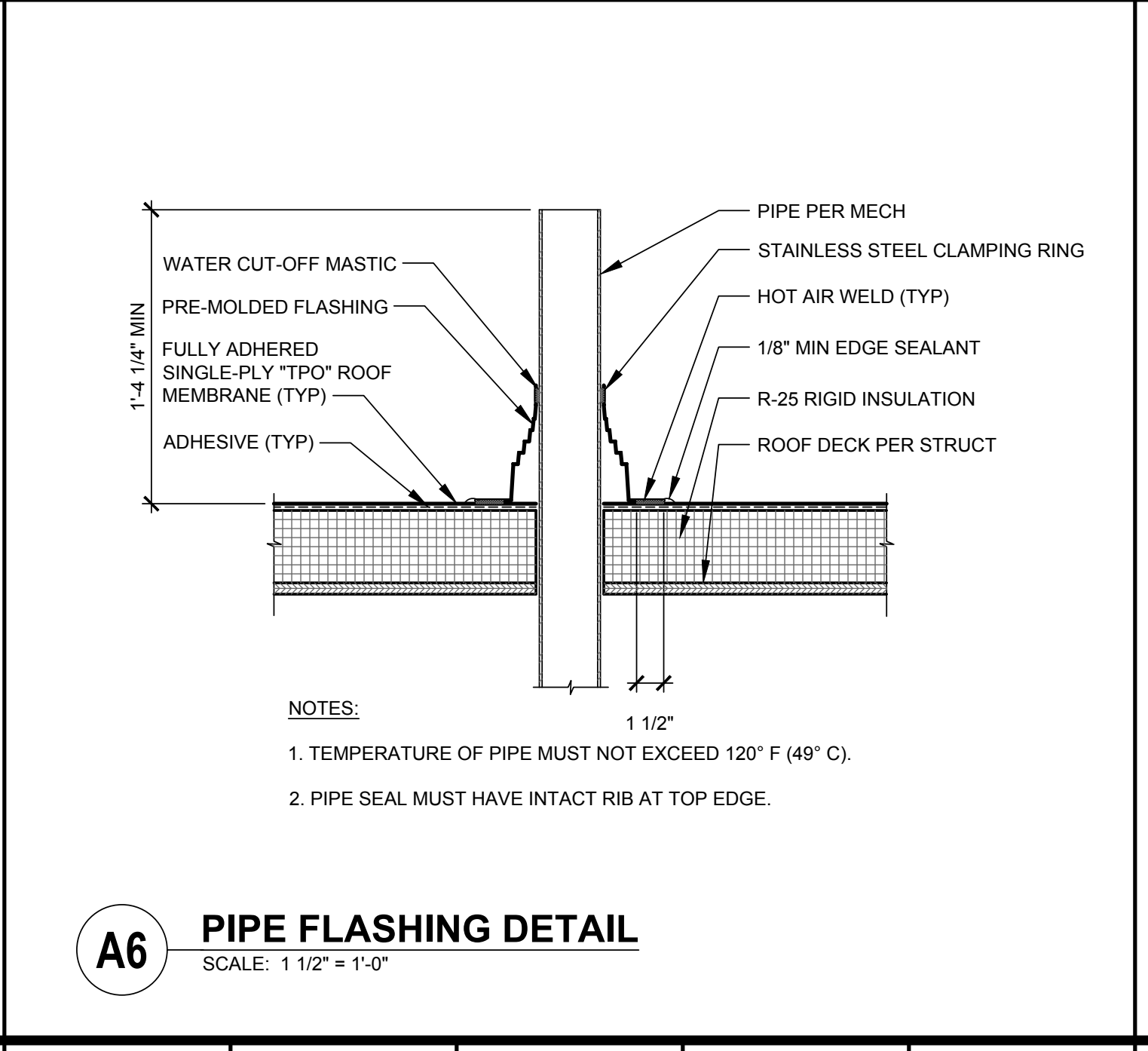
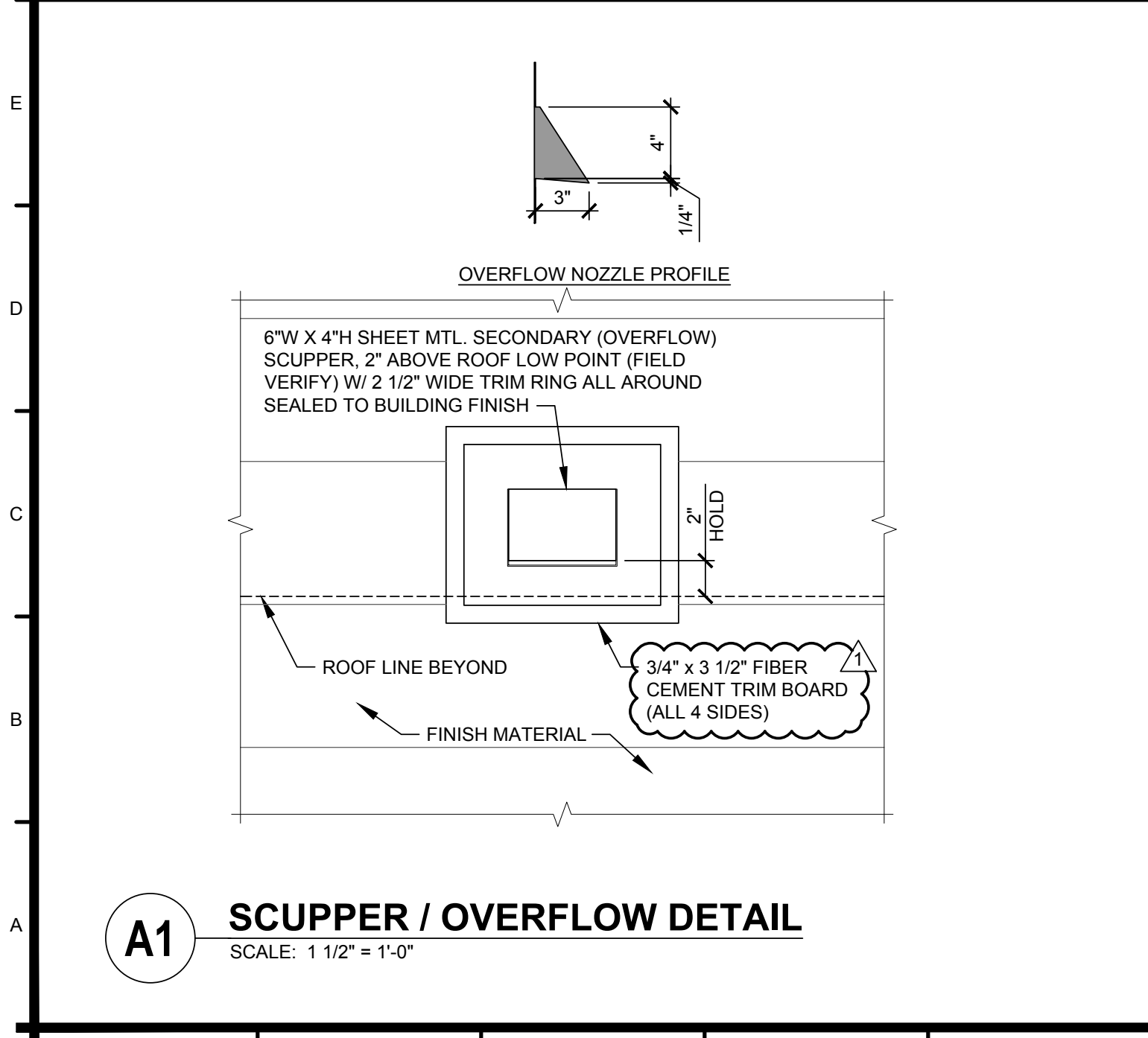
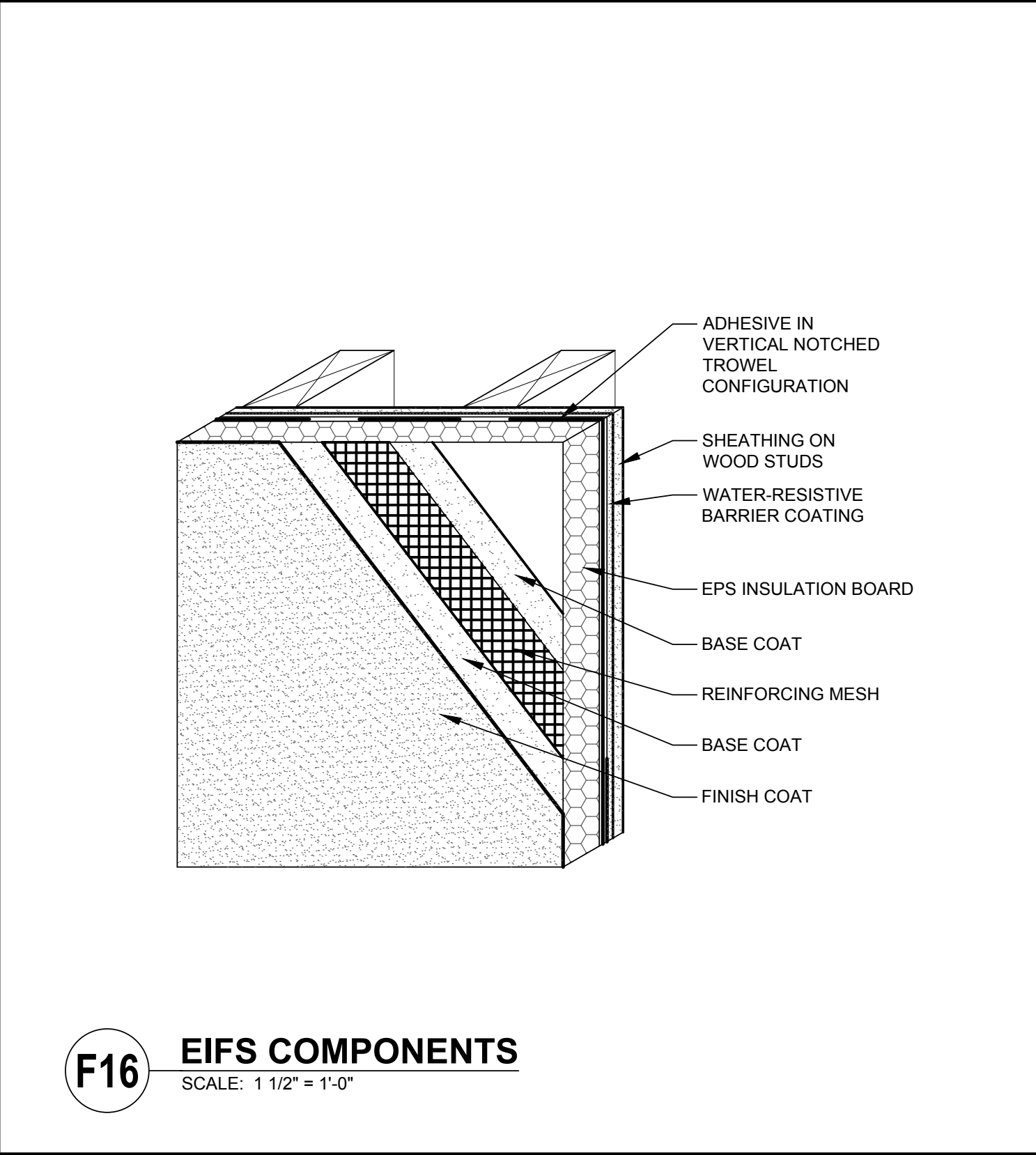
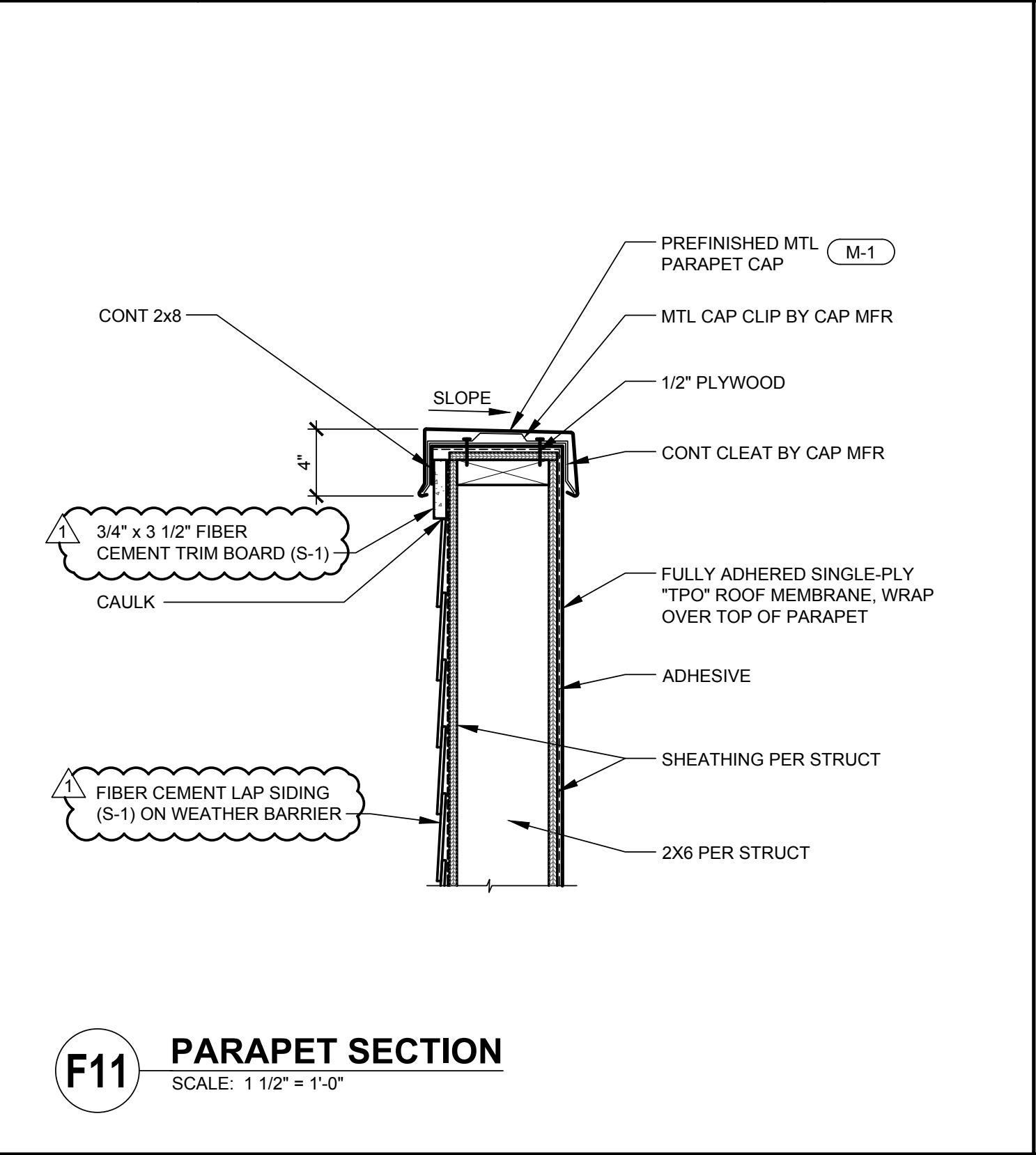
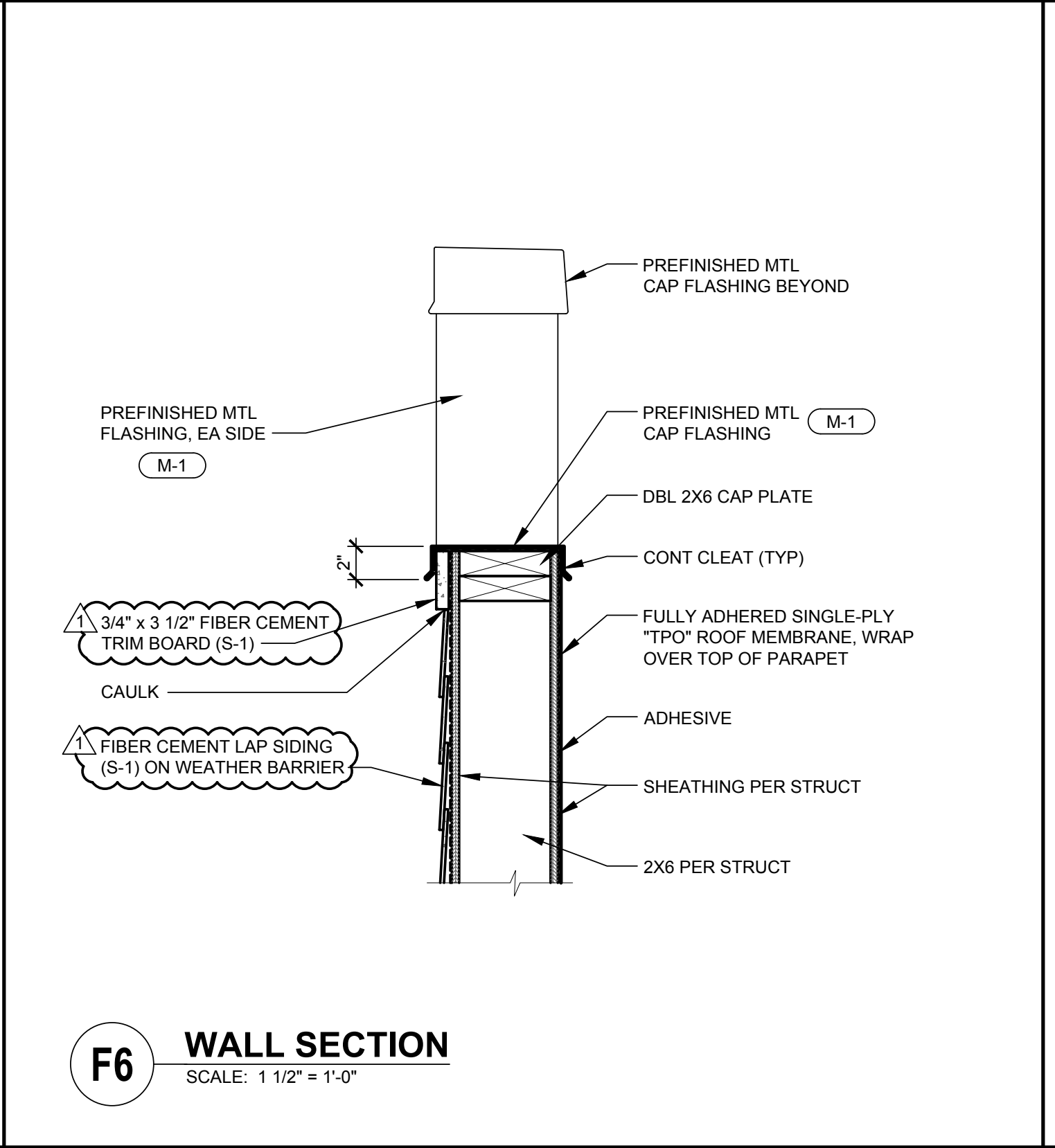
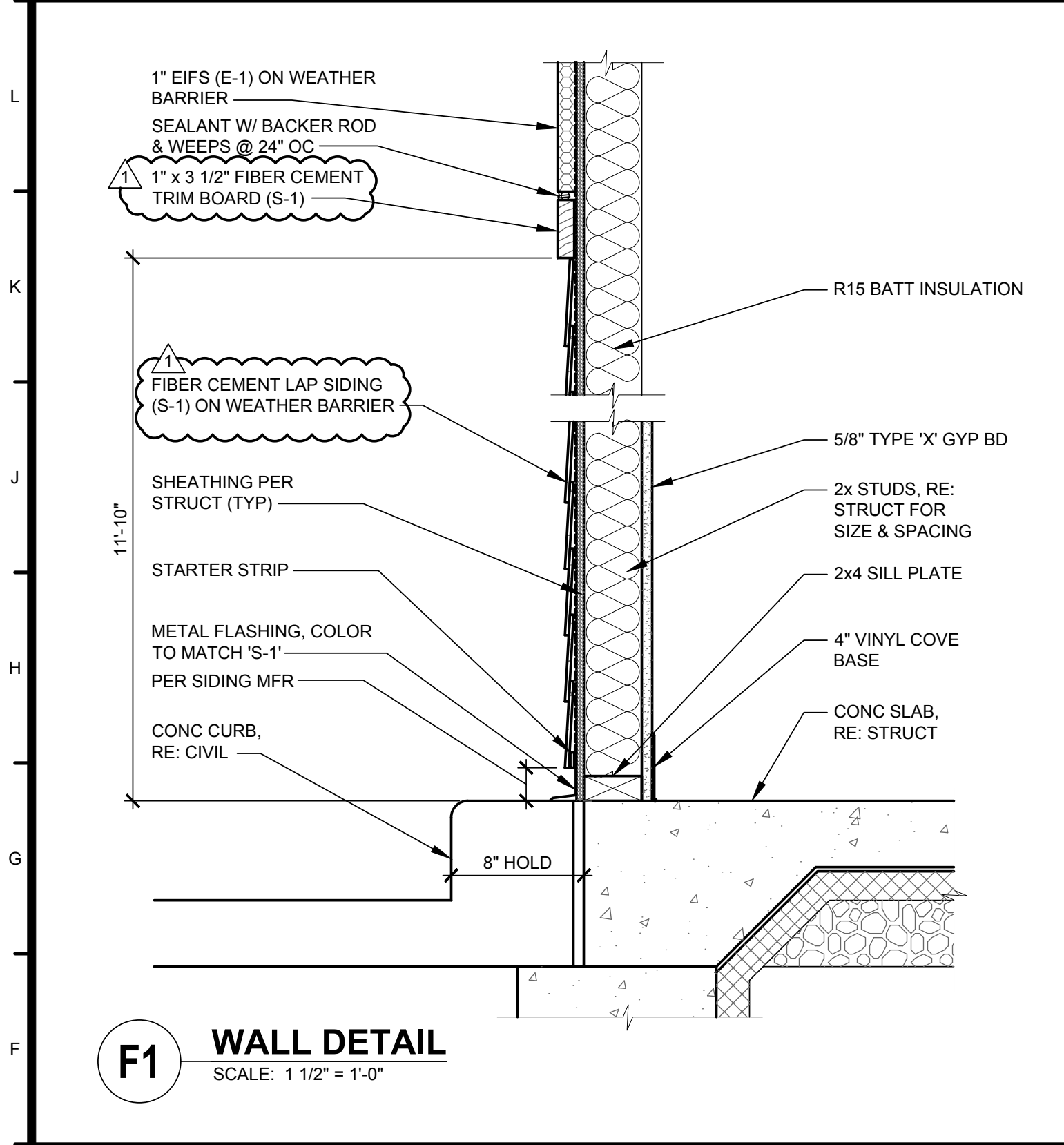
MISSOURI State Certificate of Authority #ARC 000745

INTERIOR ELEVATIONS





FINISH MATERIAL SCHEDULE					
TAG	MATERIAL / DESCRIPTION	MFR	STYLE / CAT NO	COLOR	REMARKS
EXTERIOR SIDING					
S-1	FIBER CEMENT LAP SIDING	JAMES HARDIE	HARDIEPLANK	P-1	5.25" WIDTH SMOOTH
E-1	EXT INSUL FINISH SYSTEM	SENERGY	SENERFLEX	3098 CRESCENT	FINE FINISH
METALS					
M-1	METAL PANEL FASCIA	BERRIDGE	TBD	MATCH S-1	PREFINISHED
PAINTS / SEALANTS					
C-1	CONCRETE SEALER	TBD	TBD	CLEAR	
P-1	PAINT	SHERWIN WILLIAMS	-----	SW 6902 INKWELL	SEMI-GLOSS
P-2	PAINT	SHERWIN WILLIAMS	-----	SW 7070 SITE WHITE	SEMI-GLOSS
P-3	PAINT	SHERWIN WILLIAMS	-----	SW 6607 RED TOMATO	SEMI-GLOSS
RUBBER / VINYL					
RB-1	RUBBER WALL BASE	JOHNSONITE	63	BURNT UMBER	STANDARD TOE
WALL COVERING					
FRP-1	FIBER REINFORCED PLASTIC	MARLITE	TBD	TBD	FULL HEIGHT
NOTES:					
1. GENERAL CONTRACTOR SHALL COORDINATE ALL FINISHES AND MATERIALS WITH CLIENT PRIOR TO INSTALLATION					



WARMAN ARCHITECTURE+DESIGN

1828 SWIFT SUITE 101

NORTH KANSAS CITY, MISSOURI 64116

V. 816.474.2233 F. 816.474.1051

MISSOURI STATE CERTIFICATE OF AUTHORITY #ARC 000745

SECTION & DETAILS

Freedom Enterprises, LLC

4501 College Blvd, Suite 170

Leawood, KS 66211

Scooter's Kiosk Drive-Thru

MO 150 Hwy & SW Regatta Dr

Lee's Summit, MO 64082

REVISIONS

#	BY	DATE	SOURCE	PER CITY COMMENTS
1	JDE	11.02.17		

DATE: 06.13.17

DESIGNED BY: KAW

DRAWN BY: jde

APPROVED BY: KAW

SHEET NUMBER

A-501

JOB NUMBER

5233-17

MECHANICAL GENERAL NOTES:

- 1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
- 2. THIS CONTRACTOR SHALL PERFORM ALL WORK INDICATED AND/OR AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE MECHANICAL SYSTEMS.
- 3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF DIFFUSERS.
- 4. INSTALL ALL DUCT, PIPE, ETC. AS HIGH AS POSSIBLE.
- 5. DUCT SIZES SHOWN ARE ACTUAL SHEET METAL SIZES AND INCLUDE AN ALLOWANCE FOR DUCT LINER WHERE APPLICABLE.
- 6. PROVIDE FLEXIBLE CONNECTION BETWEEN DUCTWORK AND ROOFTOP UNITS, EXHAUST FANS, AND OTHER MOTORIZED EQUIPMENT.
- 7. NO DUCT SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.

MECHANICAL PLAN NOTES:

- 1 PROVIDE WALL VENT CAP WITH BACKDRAFT DAMPER FOR EXHAUST FAN. CAULK PENETRATIONS WEATHERTIGHT.
- 2 SUPPORT FAN FROM STRUCTURE AS REQUIRED BY THE MANUFACTURER.
- 3 MAINTAIN A MINIMUM OF 10' CLEARANCE BETWEEN O.A. INTAKES AND EXHAUSTS, PLUMBING VENTS, ETC.
- 4 TRANSITION AND CONNECT SUPPLY/RETURN DUCTS TO ROOFTOP UNIT DUCT DROPS WITH FLEX CONNECTORS AS REQUIRED.

OUTDOOR AIR CALCULATIONS						
UNIT	CLASS	SQ. FT.	PEOPLE/ SQ. FT.	CFM/ SQ. FT.	CFM/ PERSON	CFM
RTU-1	KITCHEN	400	20/1000		15	120
					TOTAL	120

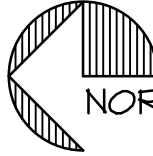
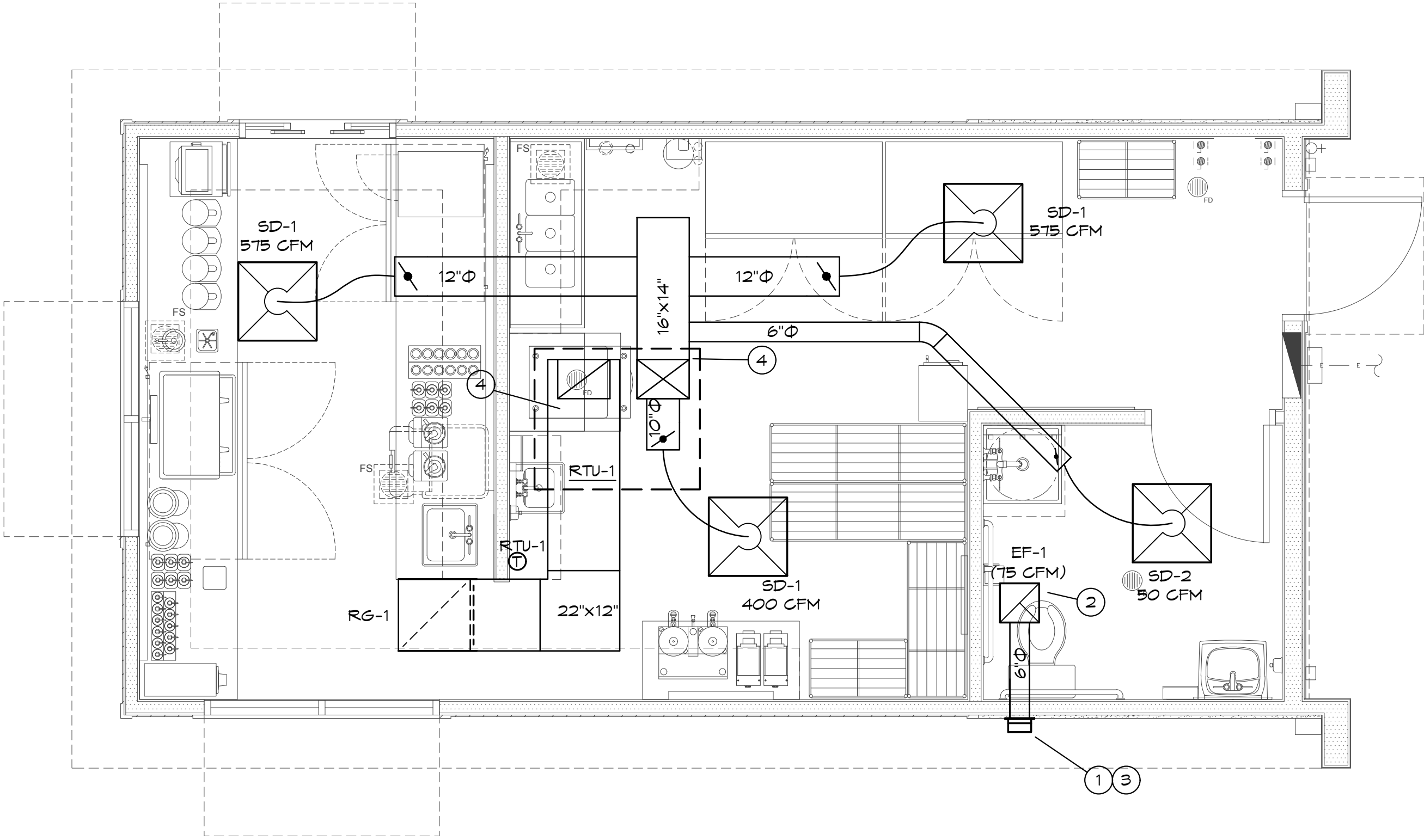
DIFFUSER SCHEDULE						
MARK	MFGR	MODEL	NECK SIZE	FACE SIZE	FINISH	REMARKS
SD-1	TITUS	TMS/3	12"Ø	24"x24"	WHITE	-
SD-2	↓	↓	6"Ø	↓	↓	-
RG-1	↓	PAR/3	22"x22"	24"x24"	↓	-

EXHAUST FAN SCHEDULE									
MARK	MFGR	MODEL	CFM	EXTERNAL STATIC P. IN. WG.	RPM	ELECTRICAL		FAN TYPE	REMARKS
						VOLT/Ø/HZ	PHASE		
EF-1	COOK	GC-128	75	0.1	750	120/1/60	29 W	CEILING EXH.	-

NOTES: 1. PROVIDE CEILING GRILLE, INTEGRAL BACK DRAFT DAMPER, VARI-SPEED CONTROLLER (NEAR FAN AND ABOVE CEILING), NON-FUSED DISCONNECT, AND WEATHER HEAD FOR ALL UNITS.

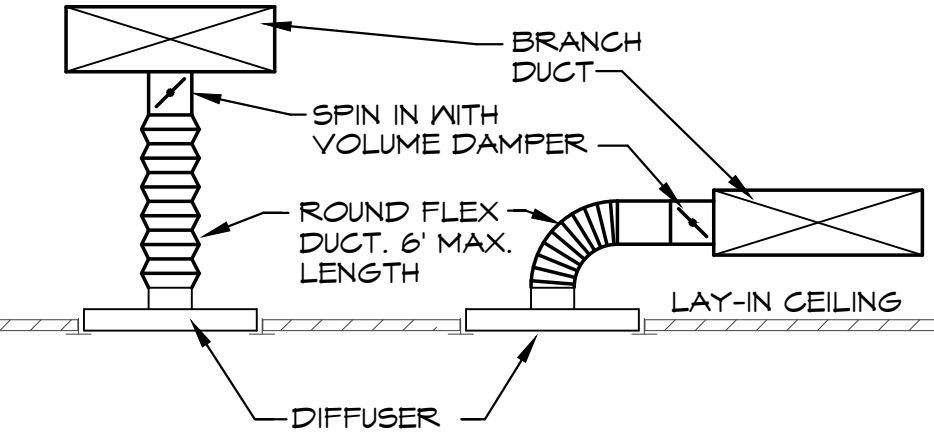
ROOFTOP UNIT SCHEDULE																			
MARK	MFGR	MODEL NO.	NOM. TONS	EVAP CFM	EXT. STATIC P. IN. WG. (NOTE 2)	COOLING			HEATING (ELEC)		ELECTRICAL			MINIMUM OUTDOOR AIR (CFM)	TOTAL HEIGHT (LBS)	SEER	FREON	REMARKS	
						TOTAL BTUH	AMB.	EVAP. EAT DB/WB	BTUH OUTPUT	KW OUTPUT	VOLT/Ø/HZ	BLOWER MOTOR	MIN. MCA (AMPS)						MIN. MOCP (AMPS)
RTU-1	TRANE	THC048E	4	1,600	0.6	45,500	95	80/67	30,725	10	240/1/60	1 HP	61.6	70	120	825	14.2	R-410a	BAYHTRV110E HEATER

- NOTES:
- 1. PROVIDE OUTDOOR AIR ECONOMIZER AND FILTER KIT, TIME DELAY ON COMPRESSOR RE-START, CRANKCASE HEATER, BAROMETRIC RELIEF DAMPER, AND COMPRESSOR LOCK-OUT WITH AMBIENT BELOW 55 °F FOR COOLING, AND SINGLE POINT POWER ENTRY KIT FOR EACH UNIT. OUTDOOR AIR DAMPER TO FULLY CLOSE w/ FAN SHUTDOWN.
 - 2. EXTERNAL STATIC PRESSURE LISTED REPRESENTS STATIC PRESSURE REQUIRED FOR DUCTWORK AND DIFFUSERS OUTSIDE THE HVAC UNIT COMPLETELY INDEPENDENT OF ANY PRESSURE DROP THROUGH THE HVAC EQUIPMENT INCLUDING BUT NOT LIMITED TO FILTERS, COILS AND ECONOMIZERS. THE FAN AND MOTOR SHALL BE SIZED APPROPRIATELY TO MEET THIS DEFINITION OF EXTERNAL STATIC PRESSURE.
 - 3. PROVIDE 7-DAY PROGRAMMABLE HEAT/COOL/AUTO CHANGEOVER THERMOSTAT, ECONOMIZER DAMPER SHALL CLOSE DURING UNOCCUPIED HOURS.
 - 4. PROVIDE 18" HIGH (AT LOWEST POINT) PRE-FABRICATED INSULATED ROOF CURB WITH SLOPE TO MATCH SLOPE OF ROOF.
 - 5. MECHANICAL CONTRACTOR SHALL COORDINATE ALL UNIT MOCP'S OF ACTUAL INSTALLED EQUIPMENT WITH ELECTRICAL CONTRACTOR.



MECHANICAL FLOOR PLAN

SCALE: 3/8" = 1'-0"



DIFFUSER DETAIL

SCALE: NONE

MECHANICAL SYMBOLS

- NEW SUPPLY DIFFUSER
- NEW RETURN AIR GRILLE
- EXHAUST GRILLE/FAN
- THERMOSTAT, MOUNTED AT 48" AFF
- NEW DUCTWORK
- 32"x14" SIZE OF RECTANGULAR DUCT
- 6"Ø SIZE OF ROUND DUCT
- FLEXIBLE DUCTWORK
- FLOOR PLAN NOTE DESIGNATION
- S.A. SUPPLY AIR
- R.A. RETURN AIR
- EXH. EXHAUST AIR
- TRANSITION IN DUCT SIZE
- MANUAL VOLUME DAMPER
- SUPPLY AIR DUCT UP/DOWN
- RETURN AIR DUCT UP/DOWN
- EXHAUST AIR DUCT UP/DOWN
- CHANGE IN ELEVATION UP (UP) DOWN (DN) IN DIRECTION OF FLOW
- RTU-1 SCHEDULED MECHANICAL EQUIPMENT

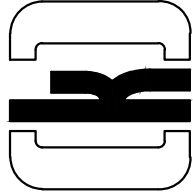
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MECHANICAL PLAN

REVISIONS		DATE	SOURCE
#	BY	DATE	PER CLIENT COMMENTS
1	MS/BH	09-25-17	

DATE: 06.13.17

DESIGNED BY: MS/BH

DRAWN BY: MS/BS

APPROVED BY: EK/DS

SHEET NUMBER

MP-001

JOB NUMBER

5233-17

PLUMBING GENERAL NOTES:

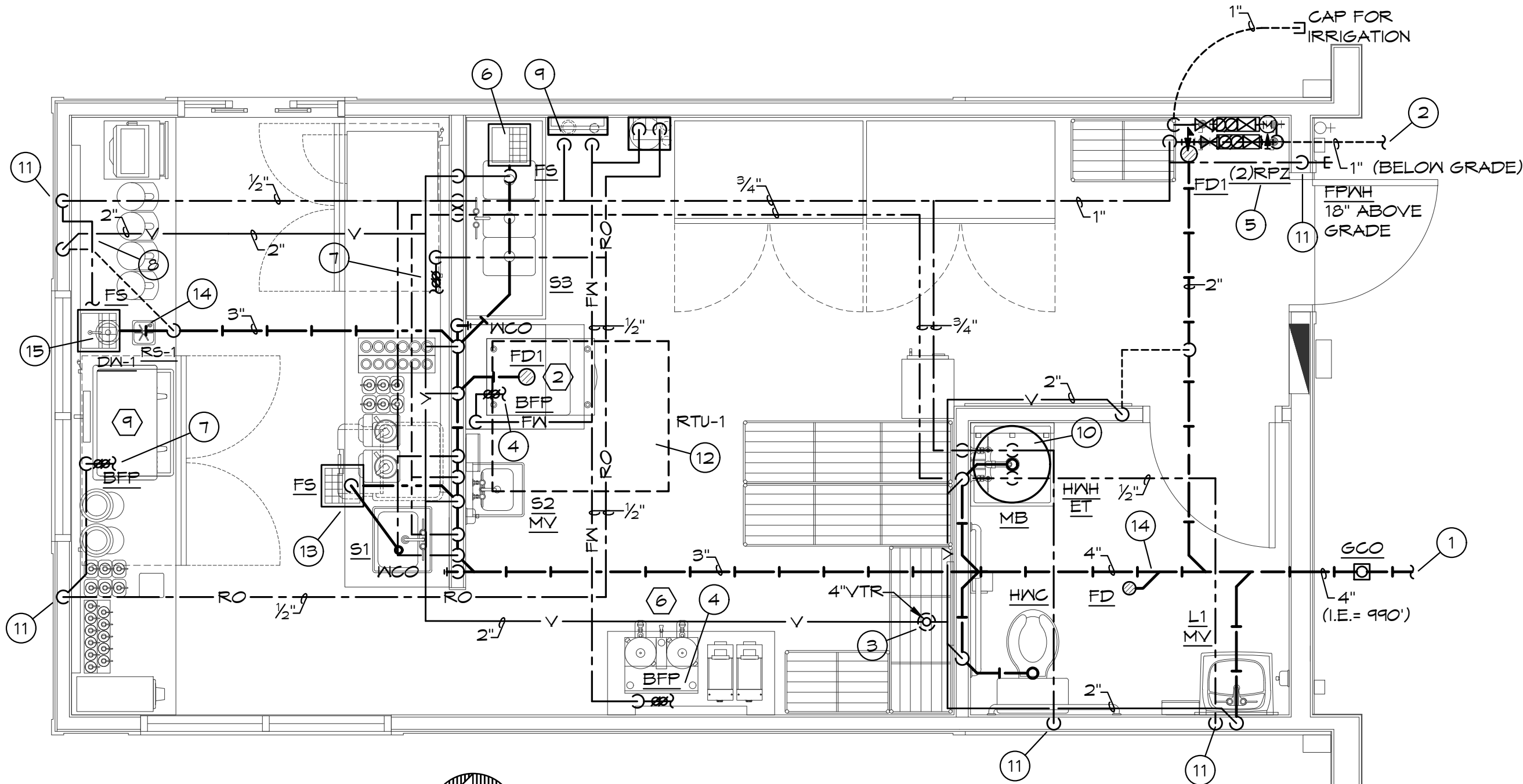
1. INSTALL ALL PIPE, ETC. AS HIGH AS POSSIBLE.
2. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF FIXTURES.
4. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR SUPPORTING PIPING, EQUIPMENT, ETC. FROM THE STRUCTURE. PROVIDE ADDITIONAL STEEL AS REQUIRED TO PROPERLY SUPPORT SYSTEMS FROM THE STRUCTURE.
5. PROVIDE 1" SCHEDULE 40 PVC CONDENSATE DRAIN PIPE FOR EACH ROOFTOP UNIT LAID DIRECTLY ON ROOF TO NEAREST ROOF DRAIN. PROVIDE WATER TRAP AND CLEAN OUTS AS DETAILED. SECURE PVC PIPE TO DRAIN WITH NYLON STRAP.
6. NO PIPING SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
7. CONTRACTOR TO TEST WATER PRESSURE ON SITE AND PROVIDE PRESSURE REDUCING VALVE ON WATER SERVICE IF PRESSURE IS OVER 80 PSI.

KITCHEN EQUIP. SCHEDULE

NO	ITEM
2	ice maker
6	coffee brewer
9	espresso/cappuccino maker

PLUMBING PLAN NOTES:

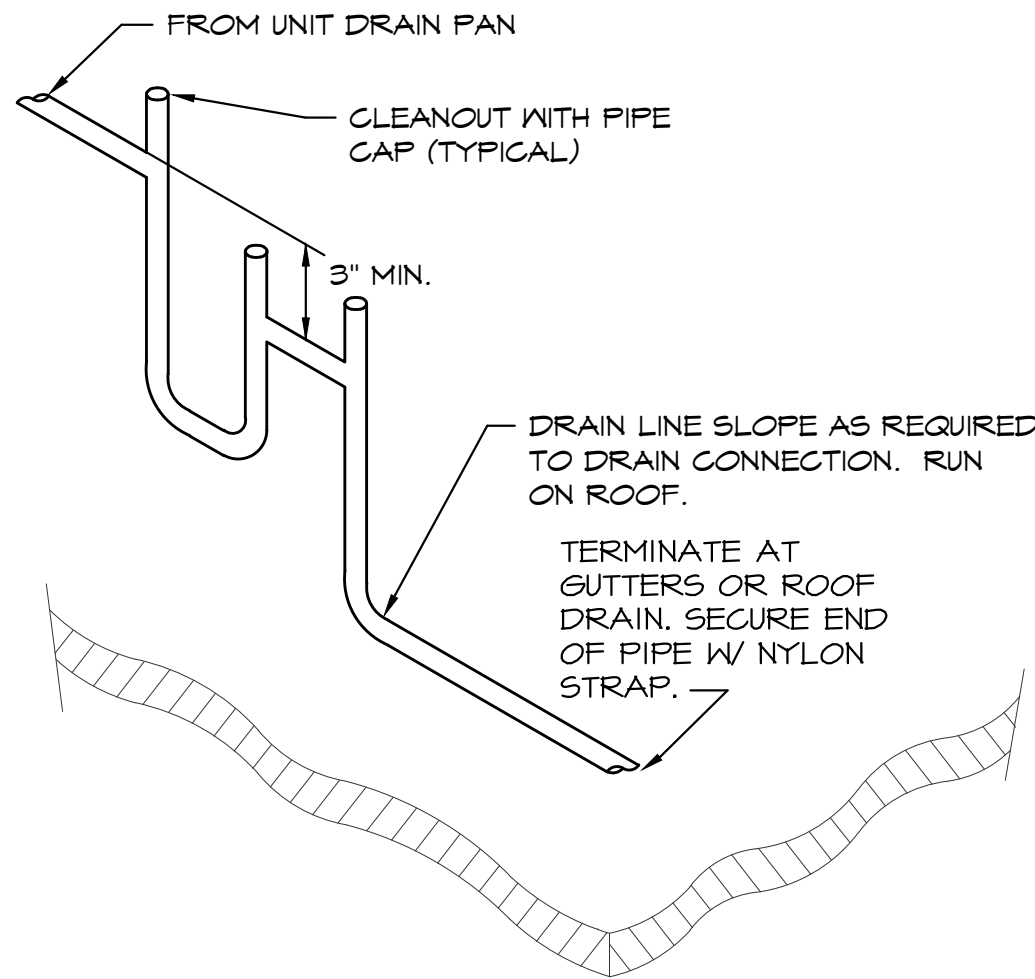
1. REFER TO CIVIL DRAWING FOR CONTINUATION OF 4" SANITARY WASTE PIPING. MAINTAIN MINIMUM 30" COVER.
2. REFER TO CIVIL DRAWING FOR CONTINUATION OF 1" DOMESTIC CW PIPING. MAINTAIN MINIMUM 48" COVER.
3. LOCATION OF 4" VTR. VERIFY 10' CLEARANCE FROM ALL OUTDOOR AIR INTAKES. SEAL PENETRATION WEATHERTIGHT.
4. PROVIDE 1/2" FILTERED WATER WITH SHUT-OFF VALVE TO ICE MAKER AND COFFEE BREWER WITH BFP AS REQUIRED BY LOCAL JURISDICTION. PROVIDE 3/4" INDIRECT DRAIN FROM ICE MAKER TO FLOOR DRAIN AS REQUIRED.
5. INSTALL SHUT-OFF VALVE AND 1" RPZ BFP AS REQUIRED. ROUTE DISCHARGE PIPING TO FLOOR DRAIN WITH AIR GAP.
6. ROUTE 1-1/2" DRAIN FROM EACH BOWL OF 3 COMP. SINK TO 2" MANIFOLD AND DISCHARGE AT FLOOR SINK WITH AIR GAP AS REQUIRED.
7. CONNECT RO PIPING TO KITCHEN EQUIPMENT WITH BFP AS REQUIRED.
8. CW PIPING TO BE ROUTED UNDER COUNTER.
9. CONNECT 1/2" CW TO WATER FILTER AS REQUIRED.
10. INSTALL WATER HEATER ON PLATFORM SECURED TO WALL ABOVE MOP BASIN AS REQUIRED.
11. ROUTE PIPING ON INTERIOR SIDE OF WALL FOR FREEZE PROTECTION.
12. ROUTE 1" CONDENSATE FROM ROOFTOP UNIT TO NEAREST SCUPPER AS REQUIRED AND AS PER DETAIL.
13. ROUTE DRAIN PIPING TO FLOOR SINK WITH AIR GAP AS REQUIRED.
14. CONNECT CW PIPING TO RINSER SINK AND ROUTE DRAIN TO FLOOR SINK WITH AIR GAP AS REQUIRED.
15. CONNECT CW PIPING TO DIPPERWELL SINK AND ROUTE DRAIN TO FLOOR SINK WITH AIR GAP AS REQUIRED.



PLUMBING FLOOR PLAN
SCALE: 3/8" = 1'-0" FFE=994'

PLUMBING FIXTURE SCHEDULE (OR EQUAL):

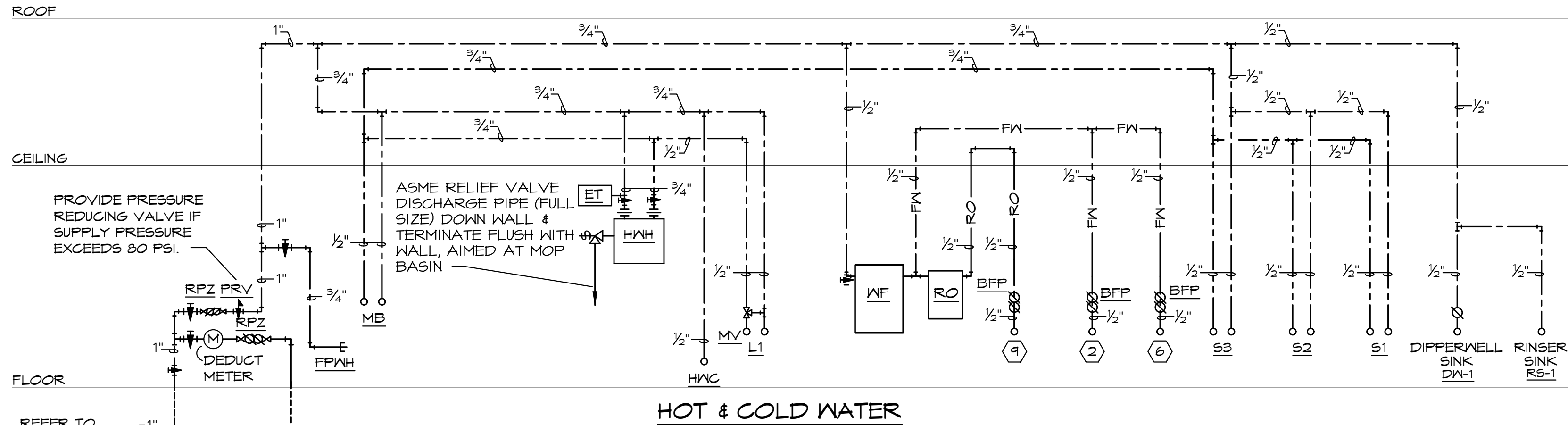
- HWC** HANDICAP WATER CLOSET: TOTO, #CST744SL, "DRAKE CLOSE COUPLED TOILET", 1.6 GALLON FLUSH, 16-1/2" HIGH ELONGATED BOWL, FLOOR MOUNTED, FLOOR OUTLET, TANK TYPE, VITREOUS CHINA, SIPHON-JET ACTION, #SC314 OPEN FRONT SEAT WITH CHECK HINGE AND LESS COVER, CHROME PLATED ANGLE STOP AND RISER. HANDLE ON WIDE SIDE OF FIXTURE.
- LI** HANDICAP LAVATORY, WALL HUNG: AMERICAN STANDARD, #0355.012, "LUCERNE", 20"X18", VITREOUS CHINA, FRONT OVERFLOW, #2305.130 VANDAL-RESISTANT FAUCET WITH SINGLE METAL LEVER HANDLE #T123.018 OFFSET GRID ELBOW DRAIN AND 1-1/4" TAILPIECE, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT (MOUNTED PARALLEL WITH WALL), CHROME PLATED ANGLE STOPS AND RISERS, INSULATE EXPOSED DRAIN, WATER SUPPLIES, AND VALVES WITH PROMRAP SEAMLESS MOLDED CLOSED CELL VINYL INSULATION.
- MB** MOP BASIN: FIAT, #MSB-2424, MOLDED STONE MOP BASIN, 2" DRAIN, 24"X24" BASIN, VINYL BUMPER GUARD, STERN WILLIAMS #T-10-VB FAUCET, SPRING CHECKS, VACUUM BREAKER, INTEGRAL STOPS, WALL BRACE & PAIL HOOK, WALL BRACKET WITH 30" HOSE.
- ET** HOT WATER EXPANSION TANK: AMTROL, #5T-5, 2 GALLON EXPANSION TANK WITH DIAPHRAGM.
- HWH** HOT WATER HEATER: AO SMITH #DEL-40, 40 GALLON STORAGE, 240 VOLT, SINGLE PHASE, 4500 WATT ELEMENT NON SIMULTANEOUS, ASME TEMPERATURE AND PRESSURE RELIEF VALVE.
- RO** REVERSE OSMOSIS WATER FILTRATION SYSTEM: PROVIDED BY OTHERS, CONNECT TO FILTERED COLD WATER AS REQUIRED. PROVIDE HOSE & PIPING AS REQUIRED TO MAKE CONNECTIONS.
- WF** WATER FILTER: PROVIDED BY OTHERS, CONNECT TO COLD WATER AS REQUIRED. PROVIDE HOSE & PIPING AS REQUIRED TO MAKE CONNECTIONS.
- FS** FLOOR SINK: JR SMITH, #3161, CAST IRON RECEPTOR, A.R.E. INTERIOR, 12"X12" NICKEL BRONZE STRAINER, SEDIMENT BUCKET.
- FD** FLOOR DRAIN: JR SMITH, #2005-A, CAST IRON FLOOR DRAIN WITH ADJUSTABLE TOP, 6" NIKALOY STRAINER.
- S1** DUMP SINK: PROVIDED BY OTHERS, INSTALLED BY CONTRACTOR. PROVIDE 1-1/2" TAILPIECE, WASTE PIPING, CHROME PLATED ANGLE STOPS AND RISERS.
- S2** HAND SINK: PROVIDED BY OTHERS, INSTALLED BY CONTRACTOR. PROVIDE 1-1/2" TAILPIECE, WASTE PIPING, CHROME PLATED ANGLE STOPS AND RISERS.
- S3** 3-COMPARTMENT SINK: PROVIDED BY OTHERS, INSTALLED BY CONTRACTOR. PROVIDE (3) 1-1/2" TAILPIECES, WASTE MANIFOLD PIPING, CHROME PLATED ANGLE STOPS AND RISERS.
- FFWH** FREEZEPROOF WALL HYDRANT: JR SMITH #5609, 3/4" SIZE, NICKEL-BRONZE FACE, KEY OPERATED, INTEGRAL VACUUM BREAKER.
- RPZ** REDUCED ZONE PRESSURE BACKFLOW PREVENTOR: WATTS #LF009, LEAD FREE BRONZE BODY CONSTRUCTION, TWO, IN-LINE INDEPENDENT CHECK VALVES, REPLACEABLE CHECK SEATS WITH AN INTERMEDIATE RELIEF VALVE, AND BALL VALVE TEST COCKS.
- BFP** BACKFLOW PREVENTOR: WATTS #SD-3, DUAL CHECK VALVE WITH ATMOSPHERIC PORT & STRAINER FOR CARBONATED BEVERAGE MACHINES.
- MV** MIXING VALVE: WATTS #LFMMV, THERMOSTATIC CONTROLLED MIXING VALVE, LEAD FREE BRONZE BODY, LOCKED TEMPERATURE ADJUSTMENT CAP (VANDAL RESISTANT), SOLID MAX HYDRAULIC PRINCIPLE THERMOSTAT, INTEGRAL FILTER, WASHERS, AND CHECK VALVES ON HOT AND COLD INLETS, (SET TO 110°F) ASSE #1011, #1064, #1070.
- DW-1** DIPPERWELL SINK: PROVIDED BY OTHERS, INSTALLED BY CONTRACTOR. PROVIDE 1-1/2" TAILPIECE, WASTE PIPING, CHROME PLATED ANGLE STOPS AND RISERS.
- RS-1** RINSER SINK: PROVIDED OTHERS, INSTALLED BY CONTRACTOR. PROVIDE 1-1/2" TAILPIECE, WASTE PIPING, CHROME PLATED ANGLE STOPS AND RISERS.
- FD1** FLOOR DRAIN: JR SMITH, #2005-A-P050, CAST IRON FLOOR DRAIN WITH ADJUSTABLE TOP, 6" NIKALOY STRAINER, AND TRAP PRIMER CONNECTION.



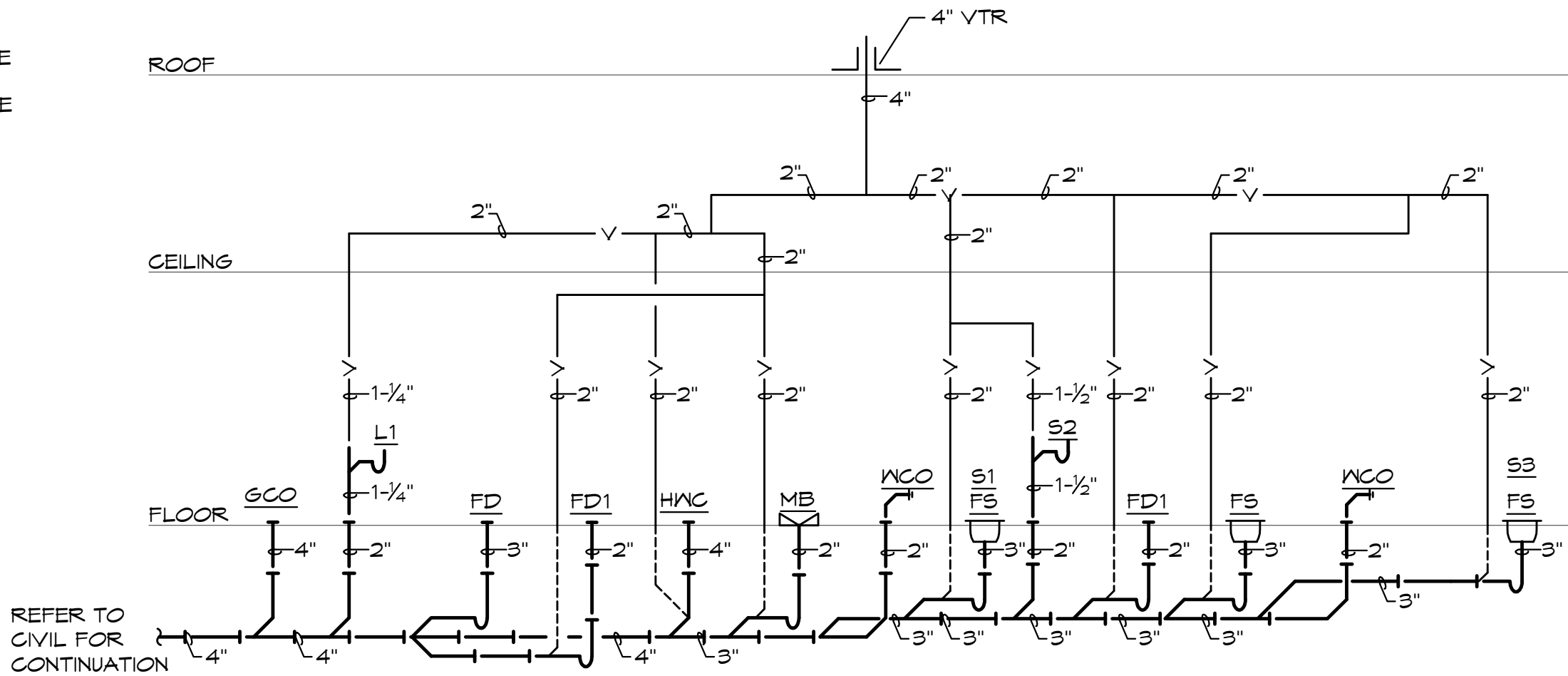
CONDENSATE DRAIN DETAIL (RTU)
SCALE: NONE

PLUMBING SYMBOLS

- SOIL AND WASTE PIPING BELOW FLOOR/GRADE
- SOIL AND WASTE PIPING ABOVE FLOOR/GRADE
- SANITARY VENT PIPING ABOVE GRADE
- SANITARY VENT PIPING BELOW GRADE
- DOMESTIC COLD WATER PIPING
- DOMESTIC HOT WATER PIPING
- PIPING TURNING DOWN
- PIPING TURNING UP
- TEE TOP CONNECTION
- UNION
- BACKFLOW PREVENTER
- FLOOR DRAIN
- FLOOR CLEAN OUT
- WALL CLEAN OUT
- VALVE
- PRESSURE REGULATOR
- CHECK VALVE
- MATCH MARKS ON PLUMBING RISER DIAGRAM
- FILTERED WATER
- RO WATER



HOT & COLD WATER



WASTE & VENT
PLUMBING RISER DIAGRAMS
SCALE: NONE

MISSOURI PE COA #2009003629
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#	BY	DATE	SOURCE	PER CLIENT COMMENTS
1	MS/BH	09-25-17		
REVISIONS				
DATE: 06.13.17				
DESIGNED BY: MS/BH				
DRAWN BY: MS/BS				
APPROVED BY: EK/DS				

SHEET NUMBER
MP-002
JOB NUMBER
5233-17

ELECTRICAL SPECIFICATIONS

1. GENERAL PROVISIONS:

A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEMS OUTLINED.

B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATES OF COMPLIANCE OR APPROVAL AS REQUIRED BY THE AUTHORITIES.

C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRIC CODE (NEC), AND ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE.

D. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.

E. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, CONDUIT, ETC. SHALL BE COVERED, PLUGGED, OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERINGS SHALL BE REMOVED BEFORE FINAL ACCEPTANCE.

F. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY WILL BE MAINTAINED.

6. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.

2. OPERATION AND MAINTENANCE MANUALS:

A. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING DIAGRAMS, CATALOG CUTS, LIBERATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS, ETC. FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.

B. ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUALS.

C. ALL LITERATURE LISTED ABOVE AND ALL PAPERS LISTING WARRANTIES, ETC. SHALL BE BOUND IN A 3-RING BINDER AND LABELED WITH THE PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER, CONTRACTORS, ETC.

3. MANUFACTURERS:

A. MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN, UNLESS NOTED OTHERWISE.

4. TESTING, AND BALANCING:

A. ALL CIRCUITS SHALL BE TESTED FOR CONTINUITY, SHORTS, AND GROUNDS BEFORE CONNECTING TO THE PROPER PHASE AS DESIGNED TO BALANCE THE LOADING BETWEEN PHASES.

B. POWER AND LIGHTING PANELS SHALL BE PROPERLY PHASED TO DISTRIBUTE THE LOAD AND SHALL BE CONNECTED AND ADJUSTED TO OPERATE AS SPECIFIED.

C. ALL MOTORS AND SIMILAR EQUIPMENT SHALL BE CHECKED FOR PROPER PHASE ROTATION AND OPERATION.

5. RACEWAYS:

A. CONDUIT INSIDE THE BUILDING SHALL BE METALLIC TUBING (EMT), BEARING THE UL LABEL, WITH COMPRESSION TYPE FITTINGS OR SCREW SET FITTINGS.

B. CONDUIT EXPOSED TO THE WEATHER, INSTALLED UNDERGROUND, IN CONCRETE, OR USED FOR SERVICE ENTRANCE SHALL BE STANDARD RIGID CONDUIT (GALVANIZED) WITH THREADED FITTINGS.

C. UNDERGROUND CONDUIT MAY BE POLYVINYL CHLORIDE WITH A DEFLECTION TEMPERATURE, UNDER LOAD AT 264 PSI, OF 18 DEGREES C, AND A TENSILE STRENGTH OF 9,200 PSI. JOINTS SHALL BE FUSH SOLVENT WELDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE EQUAL TO CARLON POWER AND COMMUNICATIONS DUCT TYPE DB (DIRECT BURIAL). CONDUIT AND FITTINGS SHALL BE PROVIDED BY THE SAME MANUFACTURER.

D. FLEXIBLE METAL CONDUIT SHALL ONLY BE USED FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND LIGHT FIXTURES. MAXIMUM LENGTH SHALL BE 6'-0".

6. CONDUCTORS:

A. WIRES SHALL BE CONTINUOUS WITHOUT SPLICES OR TAPS IN CONDUIT RUNS. ALL SPLICES SHALL BE MADE IN JUNCTION, PULL, OR OUTLET BOXES. ALL WIRE SHALL BE INSTALLED IN CONDUIT, WIREWAYS, OR OTHER PROTECTIVE COVER SANCTIONED BY CODES.

B. CONDUCTORS FOR LIGHTING AND POWER SHALL BE COPPER, MINIMUM NO. 12 AWG, 600 VOLT.

C. NO. 10 GAUGE AND SMALLER CONDUCTORS SHALL BE TYPE THWN (NET LOCATIONS) OR THHN (DRY LOCATIONS), SOLID CONDUCTOR, UNLESS OTHERWISE INDICATED.

D. NO. 8 GAUGE AND LARGER CONDUCTORS SHALL BE TYPE THWN (NET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED, UNLESS OTHERWISE INDICATED.

E. SERVICE ENTRANCE AND PANEL FEEDER CONDUCTORS, NO. 3 GAUGE AND LARGER SHALL BE TYPE XHHN-2 (NET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED COPPER, UNLESS OTHERWISE INDICATED.

7. MC CABLE:

A. MC CABLE SHALL CONSIST OF INTERLOCK ARMORED CABLE MADE OF THREE OR FOUR TYPE THHN SOLID (75 AMPS AND LARGER MAY BE STRANDED) COPPER CONDUCTORS INSULATED WITH HEAT AND MOISTURE RESISTANT POLYVINYL CHLORIDE (PVC) WITH NYLON OR EQUIVALENT UL LISTED JACKET, PER UL STANDARD 83. THE THREE CONDUCTORS SHALL BE TWISTED TOGETHER WITH THE COPPER GROUNDING CONDUCTOR, SUITABLE FILLERS, AND WRAPPED IN BINDER TAPE. THE ASSEMBLY SHALL BE ARMORED WITH SPIRALLY WRAPPED INTERLOCKED ARMOR OR ALUMINUM OR GALVANIZED STEEL.

B. CABLES SHALL BE TESTED IN ACCORDANCE WITH UL STANDARD 1564 FOR TYPE MC CABLE AND RATED AT 600 VOLTS, 90 DEG. C FOR DRY LOCATIONS AND 75 DEG. C FOR NET LOCATIONS.

8. WIRING DEVICES:

A. WALL SWITCHES SHALL BE SPECIFICATION GRADE, QUIET TYPE, FLUSH TOGGLE SWITCH, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES.

1) SINGLE POLE: HUBBELL #GSI221-X, OR EQUAL.

2) THREE WAY: HUBBELL #GSI223-X, OR EQUAL.

B. RECEPTACLES SHALL BE SPECIFICATION GRADE, DUPLEX, GROUNDING, THREE-WIRE TYPE, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES. HUBBELL #CR93952-X, OR EQUAL.

C. GROUND FAULT INTERRUPTER RECEPTACLES (GFI) SHALL BE HUBBELL #GF20-XL. DEVICE COVER PLATES SHALL BE AS HEREINAFORE SPECIFIED.

D. ISOLATED GROUND RECEPTACLES (IG) SHALL BE HUBBELL #CR93952G, ORANGE COLOR. DEVICE COVER PLATES SHALL BE AS HEREINAFORE SPECIFIED.

E. RECEPTACLES OUTSIDE BUILDINGS AND WHERE NOTED AS WEATHERPROOF, SHALL BE LISTED WEATHER-RESISTANT HUBBELL #GFTR20-X OR EQUAL AND SHALL BE INSTALLED IN A WEATHERPROOF ENCLOSURE WHICH SHALL BE INTERMATIC #WFI010MC OR #WFI010HMC DIECAST METAL WEATHERPROOF RECEPTACLE COVER. COVER SHALL BE WEATHER PROOF RATED WHILE IN USE.

F. EXTERIOR RECEPTACLES SHALL BE WEATHER RESISTANT TYPE PER NEC 200.8. DEVICES SHALL BE HUBBELL #CR200WTR, OR EQUAL.

9. VERIFY DEVICES AND DEVICE COVERPLATES COLOR WITH ARCHITECT.

6. BOXES:

A. HOT DIPPED GALVANIZED STEEL BOXES. PROVIDE TYPE TO SUIT CONDITIONS FOR INSTALLATION.

B. ALL BOXES SHALL BE FLUSH MOUNTED, UNLESS INDICATED OTHERWISE.

ELECTRICAL SPECIFICATIONS (CONTINUED)

10. PANELBOARDS:

A. FURNISH AND INSTALL CIRCUIT BREAKER PANELBOARDS AS SHOWN ON THE DRAWINGS. PANELBOARDS SHALL BE LISTED BY UL AND SO LABELED, AND SHALL BE FULLY RATED FOR THE VOLTAGE AND CURRENT CAPACITY INDICATED ON THE PANEL SCHEDULE. PANELBOARDS SHALL BE EQUAL TO GENERAL ELECTRIC TYPE AQ WITH BOLT IN TYPE BREAKERS. PANELBOARD LU95 SHALL BE RATED AT 75°C.

1) CIRCUIT BREAKER INTERRUPTING CAPACITIES SHALL MEET OR EXCEED THE AVAILABLE RMS SYMMETRICAL FAULT CURRENTS INDICATED AND AS REQUIRED TO MEET OR EXCEED THE AVAILABLE FAULT CURRENT FROM LOCAL UTILITY.

B. CIRCUIT BREAKERS SHALL MEET APPLICABLE PORTIONS OF UL STANDARD 489 AND NEMA AB-1. CIRCUIT BREAKERS SHALL BE BOLT-ON GROUP MOUNTED, AMBIENT MAGNETIC, WITH COMMON TRIP, UL RATED TO CARRY 80% OF NAMEPLATE RATING CONTINUOUSLY IN FREE AIR AT 40° C. CIRCUIT BREAKERS SHALL BE TRIP INDICATING AND FULLY INTERCHANGEABLE WITHOUT DISTURBING ADJACENT UNITS. WIRE TERMINALS SHALL BE RATED 75 DEGREES C. THE OPERATING MECHANISM SHALL BE TRIP-FREE SO THAT CONTACTS CANNOT BE HELD CLOSED AGAINST ANY ABNORMAL OVERCURRENT OR SHORT CIRCUIT CONDITION.

a) BREAKERS SHALL MEET APPLICABLE NEMA AND/OR UL SPECIFICATIONS.

C. PANELBOARD BOXES SHALL BE GALVANIZED SHEET STEEL WITH AMPLE WIRING GUTTER SPACE IN ACCORDANCE WITH NEC. FRONTS SHALL BE OF SHEET STEEL PAINTED LIGHT GREY OVER A SUITABLE RUST INHIBITOR PRIMER. PANELBOARDS SHALL BE EQUIPPED WITH ONE PIECE DOOR, CYLINDER TUMBLER TYPE LOCK, DIRECTORY CARD-HOLDER AND QUARTER-TURN ADJUSTABLE TRIM CLAMPS.

D. PANELBOARD INTERIORS SHALL CONSIST OF REINFORCED GALVANIZED SHEET STEEL FRAMES WITH ALUMINUM BUS BARS AND CIRCUIT BREAKERS, PROPERLY SUPPORTED TO PREVENT VIBRATIONS AND BREAKAGE IN HANDLING. BUS BARS SHALL BE SEQUENCE PHASED. PANELBOARD SHALL HAVE A FULL SIZE SOLID ALUMINUM NEUTRAL AND GROUND BUS.

E. BUS BAR BRACING SHALL BE UL LISTED AS INDICATED ON DRAWINGS. ADDITIONAL BRACING SHALL BE PROVIDED AS REQUIRED TO MEET OR EXCEED INDICATED AVAILABLE FAULT CURRENTS.

F. DIRECTORY CARDS SHALL BE COMPLETELY FILLED IN BY TYPEWRITER, LISTING CIRCUIT NUMBERS AND LOAD SERVED, INCLUDING EXISTING CIRCUITS. CIRCUIT BREAKERS SHALL BE IDENTIFIED BY CIRCUIT NUMBER LABELS AS HEREINAFORE SPECIFIED.

11. DISCONNECTS:

A. DISCONNECTS SHALL BE EXTERNALLY OPERATED, QUICK-MAKE, QUICK-BREAK, SAFETY, WITH PROVISIONS FOR PAD LOCKING. FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL BE PROVIDED AS INDICATED.

B. INDOOR SWITCHES SHALL BE NEMA 1 AND OUTDOOR SWITCHES SHALL BE NEMA 3R, UNLESS INDICATED OTHERWISE.

12. FUSES:

A. FUSES PROTECTING CIRCUIT BREAKER PANELS SHALL BE CURRENT LIMITING U.L. CLASS RK-1 FUSES WITH 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE SILVER FOR RATINGS ABOVE 60 AMPERES.

B. ALL OTHER FUSES SHALL BE U.L. CLASS RK-5, DUAL-ELEMENT WITH A MINIMUM TIME-DELAY OF 10 SECONDS AT 800% RATING. FUSES SHALL HAVE CURRENT-LIMITING SHORT-CIRCUIT LINKS AND 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE COPPER.

13. LIGHT FIXTURES:

A. WHERE LIGHT FIXTURES ARE MOUNTED IN A LAY-IN CEILING, PROVIDE A MINIMUM OF 2 SUPPORT WIRES ATTACHED DIRECTLY BETWEEN EACH LIGHT FIXTURE AND THE BUILDING STRUCTURE. SUPPORT WIRES SHALL BE A MINIMUM OF 12 GAUGE GALVANIZED STEEL WIRE, SOFT ANNEALED.

B. FIXTURES ARE REQUIRED AT ALL LIGHTING OUTLETS SHOWN ON THE DRAWINGS. APPROVED LIGHTING FIXTURE WIRE IS REQUIRED IN ALL FIXTURES AND FIXTURE RACEWAYS. WEATHERPROOF WIRING IS REQUIRED FOR EXTERIOR FIXTURES. ALL PARTS OF FIXTURES AND WIRING SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS.

C. ALL FIXTURES SHALL CARRY UL AND ETL LABELS. ALL FLUORESCENT FIXTURE BALLASTS SHALL BE HIGH FREQUENCY ELECTRONIC BALLASTS WITH A TOTAL HARMONIC DISTORTION OF LESS THAN 20%, REGARDLESS OF THE NUMBER OF LAMPS CONNECTED TO EACH BALLAST AND SHALL HAVE CBM LABEL. ALL FLUORESCENT FIXTURES INSTALLED SHALL INCORPORATE BALLAST PROTECTION. ALL FLUORESCENT BALLASTS SHALL HAVE AN AUDIBLE NOISE RATING OF "CLASS A" OR BETTER. ALL FLUORESCENT BALLASTS SHALL HAVE A STANDARD BALLAST FACTOR UNLESS SPECIFIED OTHERWISE.

D. ALL FLUORESCENT LAMPS SHALL BE 3500 K COLOR TEMPERATURE WITH A MINIMUM COLOR RENDERING INDEX (CRI) OF 82 OR AS INDICATED ON LIGHT FIXTURE SCHEDULE.

14. SLEEVES:

A. PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK.

B. INTERIOR PARTITIONS: 16 GAGE GALVANIZED STEEL, PACK BETWEEN CONDUIT AND SLEEVE WITH FIRE SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALANT.

C. ROOF: FROSET OR EQUAL, MANUFACTURED P.V.C. SCHEDULE 40 PIPE SLEEVE WITH WEATHERPROOF SEAL. COORDINATE WITH ROOFING CONTRACTOR AND FLASH AS REQUIRED TO MAINTAIN ROOF WARRANTY.

15. GROUNDING:

A. GROUND ALL ELECTRICAL APPARATUS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) 250, AND ANY LOCAL REQUIREMENTS. INSURE CONTINUOUS BOND WHERE FLEXIBLE CONDUIT IS USED. PROVIDE BONDING JUMPER INSIDE ALL FLEXIBLE CONDUIT.

B. BOND METAL PIPING SYSTEMS IN COMPLIANCE WITH NEC 250.4(A)(4).

ELECTRICAL GENERAL NOTES:

1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.

2. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY BALANCE ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM REGARDLESS OF CIRCUITING INDICATED.

3. ALL EXPOSED RACEWAYS SHALL BE IN EMT CONDUIT, MC CABLE IS NOT PERMITTED IN EXPOSED AREAS.

4. ELECTRICAL CONTRACTOR TO COORDINATE MANUFACTURER ELECTRICAL REQUIREMENTS FOR HVAC EQUIPMENT BEING FURNISHED WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

5. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF LIGHT FIXTURES AND DEVICES.

6. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR SUPPORTING TRANSFORMERS, EQUIPMENT, ETC. FROM THE STRUCTURE. PROVIDE ADDITIONAL STEEL AS REQUIRED TO PROPERLY SUPPORT SYSTEMS FROM THE STRUCTURE.

7. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL PER NEC 200.4.

8. KITCHEN EQUIPMENT - VERIFY ALL ELECTRICAL REQUIREMENTS AND ROUGH-IN LOCATION PRIOR TO WORK.

9. ALL BRANCH CIRCUITS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 3% VOLTAGE DROP. ALL FEEDERS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 2% VOLTAGE DROP. ELECTRICAL CONTRACTOR SHALL VERIFY WIRING INDICATED IS SUFFICIENT AND INCREASE CONDUCTOR SIZE AS REQUIRED BASED OFF ACTUAL INSTALLED LENGTH OF CONDUCTORS.

ELECTRICAL SYMBOLS LIST

CIRCUITING & NOTES

48"	SPECIAL MOUNTING HEIGHT FOR ASSOCIATED DEVICE (CENTERLINE OF DEVICE)
GFI	GROUND FAULT CIRCUIT INTERRUPTER DEVICE
WP	WEATHERPROOF ENCLOSURE ON DEVICE
WR	WEATHERPROOF RESISTANT DEVICE
IG	ISOLATED GROUND DEVICE
EM	EMERGENCY BATTERY BACKUP
	ELECTRICAL FLOOR PLAN NOTE WITH DESIGNATION
	CONDUIT CONCEALED WHERE POSSIBLE OR AS NOTED, ARROWS INDICATE HOME RUN TO PANEL. CIRCUIT NUMBERS INDICATED
	#12 WIRE IN CONDUIT, UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
	GROUNDING CONDUCTOR, #12 WIRE UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
	CONDUIT ROUTED UNDER FLOOR/GRADE

LIGHTING

	EMERGENCY TWIN HEAD LIGHT FIXTURE
	EXIT LIGHT WITH DIRECTIONAL ARROWS INDICATED
	FLUORESCENT STRIP FIXTURE WITH TYPE DESIGNATION
	FLUORESCENT FIXTURE WITH TYPE DESIGNATION
	NIGHT LIGHT, CONNECT TO UNSWITCHED CIRCUIT
	CEILING OR RECESSED FIXTURE WITH TYPE DESIGNATION
	WALL MOUNTED FIXTURE WITH TYPE DESIGNATION

POWER DEVICES

	DUPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
	FOURPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
	DEVICE MOUNTED ABOVE COUNTER AND/OR SPLASH GUARD
	HEAVY DUTY OUTLET - NEMA CONFIGURATION SIZE PER EQUIPMENT MANUFACTURER'S RECOMMENDATION
	PANEL BOARD, TOP OF BOX 6'-0" AFF
	JUNCTION BOX
	NON-FUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	MOTOR WITH DESIGNATION

CONTROLS

S	SINGLE POLE WALL SWITCH, TOP OF BOX AT 48" AFF
S ₂	TWO POLE WALL SWITCH, TOP OF BOX AT 48" AFF
S _m	MANUAL MOTOR STARTER WITH OVERLOADS

COMMUNICATIONS

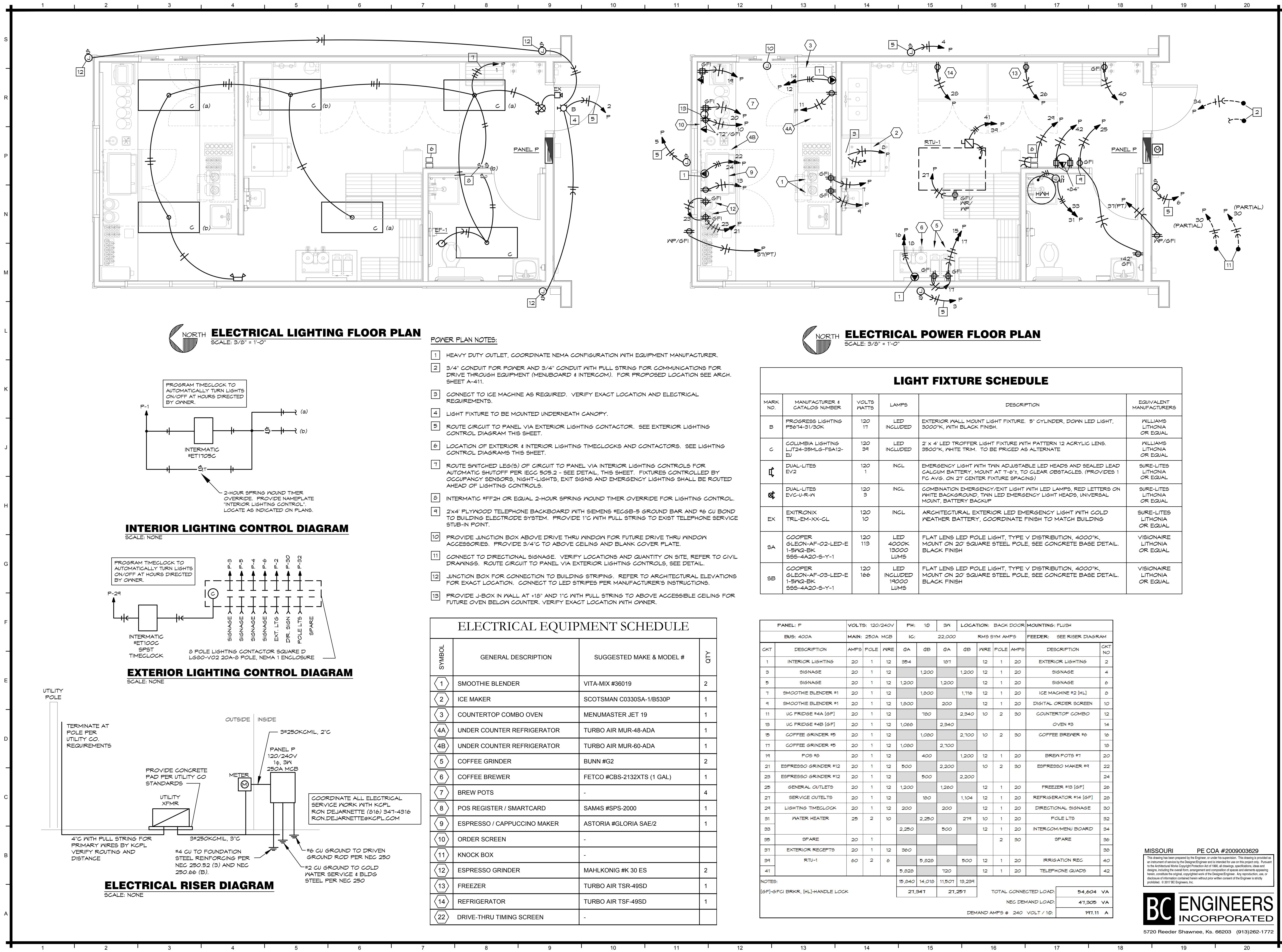
	DATA/TELEPHONE OUTLET WITH 3/4" CONDUIT STUBBED UP TO ABOVE ACCESSIBLE CEILING, BOTTOM OF BOX AT 16", UNLESS NOTED OTHERWISE. PROVIDE WITH PULL STRING
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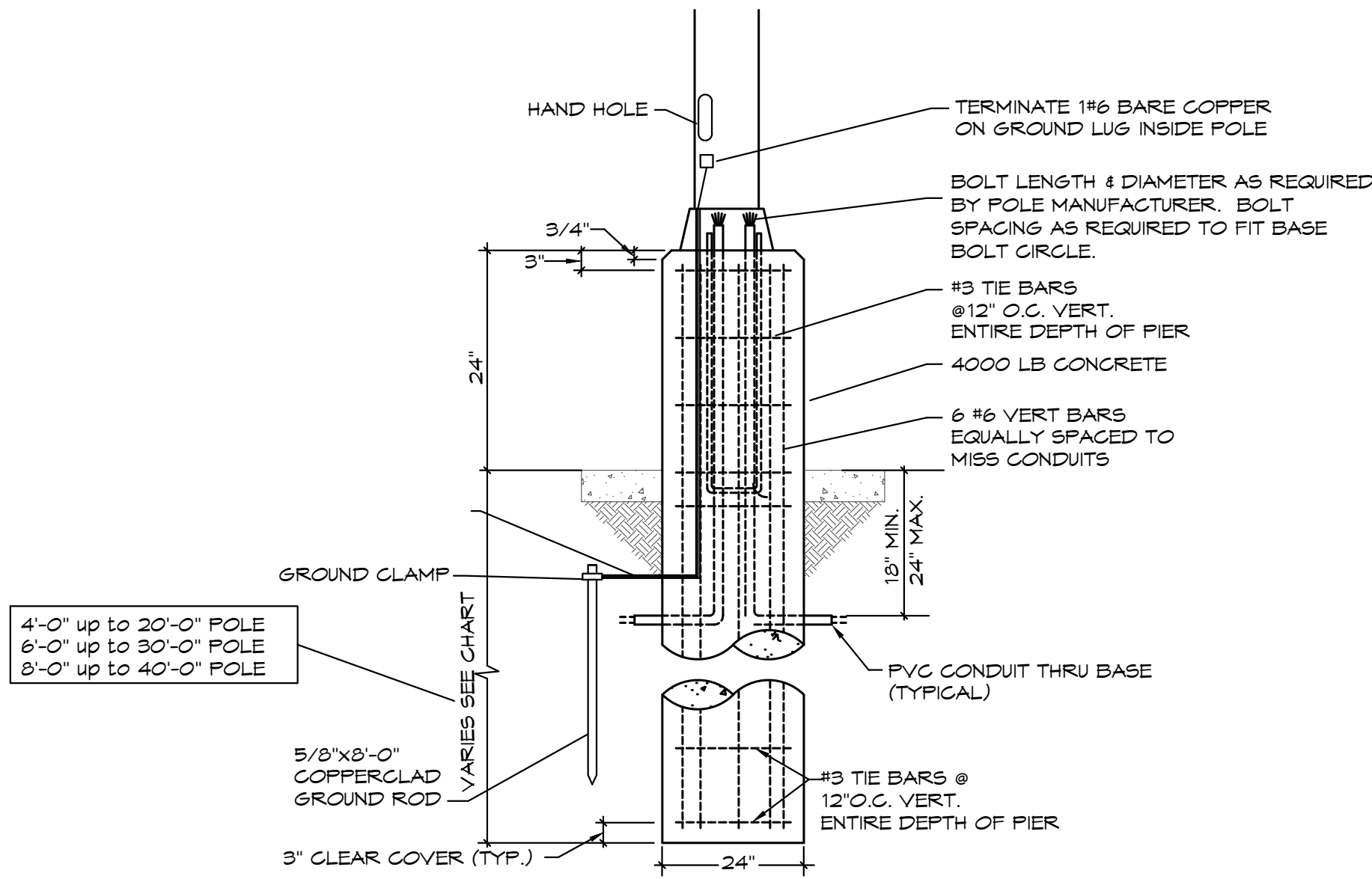


EXTERIOR LIGHT FIXTURE SCHEDULE					
MARK NO.	MANUFACTURER & CATALOG NUMBER	VOLTS WATTS	LAMPS	DESCRIPTION	EQUIVALENT MANUFACTURERS
B	PROGRESS LIGHTING P3674-S1/30K	120 17	LED INCLUDED	EXTERIOR WALL MOUNT LIGHT FIXTURE. 5" CYLINDER, DOWN LED LIGHT, 3000°K, WITH BLACK FINISH.	WILLIAMS LITHONIA OR EQUAL
SA	COOPER GLEON-AF-02-LED-E 1-5WQ-BK SSS-4A20-S-Y-1	120 113	LED 4000K 13000 LUMS	FLAT LENS LED POLE LIGHT, TYPE V DISTRIBUTION, 4000°K, MOUNT ON 20' SQUARE STEEL POLE, SEE CONCRETE BASE DETAIL. BLACK FINISH	VISIONAIRE LITHONIA OR EQUAL
SB	COOPER GLEON-AF-03-LED-E 1-5WQ-BK SSS-4A20-S-Y-1	120 166	LED INCLUDED 19000 LUMS	FLAT LENS LED POLE LIGHT, TYPE V DISTRIBUTION, 4000°K, MOUNT ON 20' SQUARE STEEL POLE, SEE CONCRETE BASE DETAIL. BLACK FINISH	VISIONAIRE LITHONIA OR EQUAL

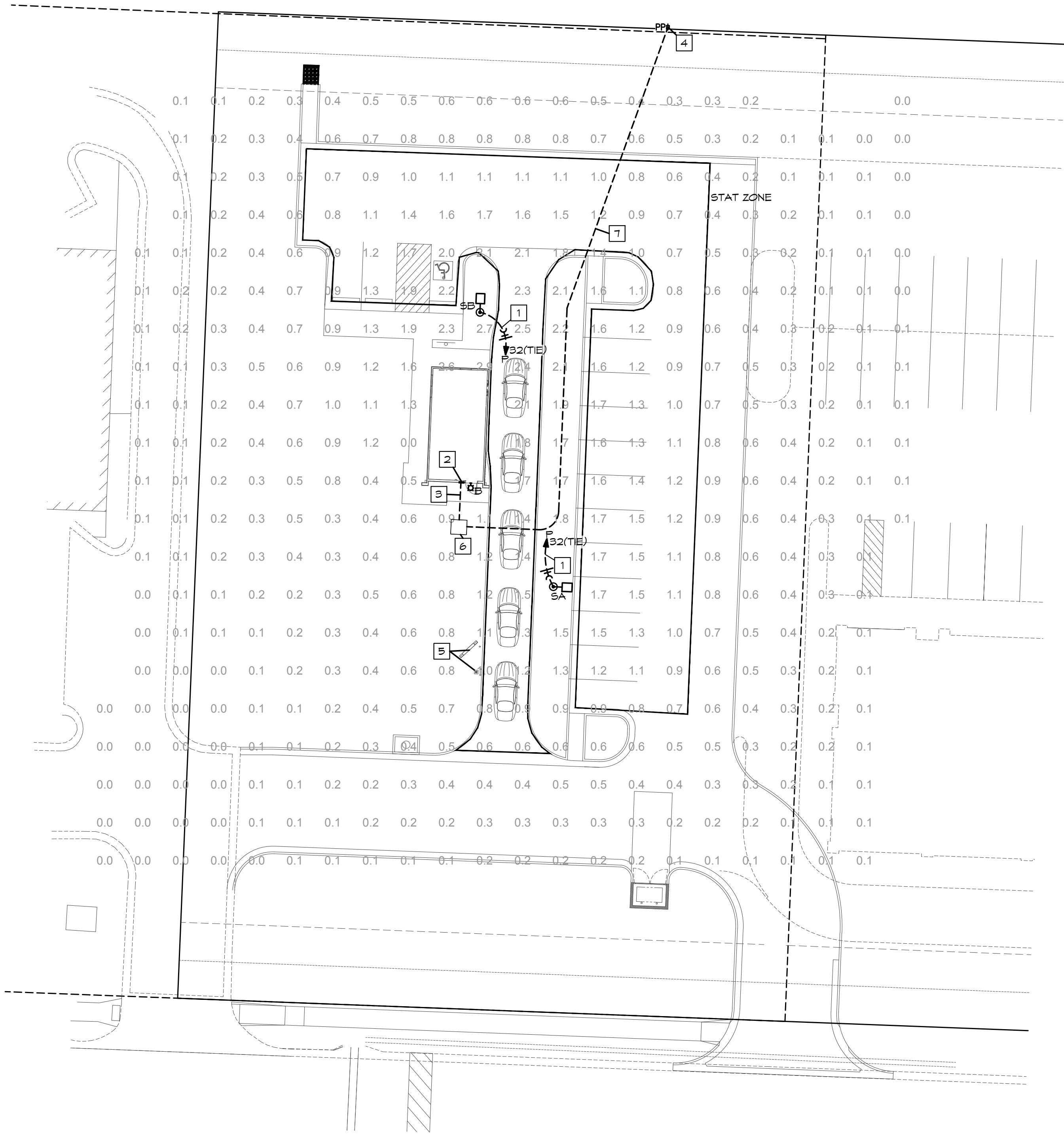
ELECTRICAL SITE PLAN NOTES:

- 1 ROUTE CIRCUIT TO PANEL INDICATED VIA TIME CLOCK, SEE DETAIL ON SHEET E101.
- 2 KCP4L METER. REFER TO RISER DIAGRAM
- 3 UNDERGROUND SECONDARY, REFER TO RISER DIAGRAM.
- 4 EXISTING UTILITY POLE.
- 5 MENUBOARD AND SPEAKER. REFER TO SHEET E101 FOR MORE DETAIL.
- 6 KCP4L TRANSFORMER, REFER TO RISER DIAGRAM
- 7 UNDERGROUND PRIMARY, REFER TO RISER DIAGRAM.

STATISTICS					
Description	Avg	Max	Min	Max/Min	Avg/Min
Parking/Drive Thru	1.3	2.6	.4	6.5/1	3.3/1



POLE FOUNDATION DETAIL
SCALE: NONE



ELECTRICAL SITE PLAN
SCALE: 1"=20'

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REVISIONS			
#	BY	DATE	SOURCE
1	MS/BH	09-25-17	PER CLIENT COMMENTS
2	BH	10-17-17	PER PLANNING COMMENTS

DATE: 06.13.17
DESIGNED BY: MS/BH
DRAWN BY: MS/BS
APPROVED BY: EK/DS

SHEET NUMBER
E-201
JOB NUMBER
5233-17

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ELECTRICAL SITE PLAN

Missouri State Certificate of Authority #ARC 000745