



624 Water Street
Prairie du Sac, WI 53578

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August 30, 2019

Wisconsin Historical Society
Division of Historic Preservation, Office of Preservation Planning
Attn: Leslie Eisenberg
816 State Street
Madison, WI 53706

CC:
Madison Planning and Development
Attn.: Ms. Heather Bailey, Preservation Planner
215 Martin Luther King Boulevard
P.O. Box 2985
Madison, WI 53710

**RE: Additional Information for WHS Case #19-0386/DA
Proposed Telecommunications Antennas Collocation
Modernization (antenna upgrades)
U.S. Cellular / Irish Pub (782440)**

Dear SHPO Review Staff:

We previously submitted an FCC 621 form to your office in April of this year to initiate review of the above described proposed telecommunications tower in the City of Madison (Dane County). On May 2, you requested additional information including "...photo simulations of the east, west and south sides of the building showing the placement of all proposed antennas on the existing building located at 317 State Street..."

On May 24, Heather Baily of the City planning division also replied with comment and a request for additional information (correspondence enclosed). The planning division similarly requested more detailed renderings of what the proposed collocation will look like from State Street. They also have a concern with the potential for cumulative visual impact, and another non-NHPA related concern regarding property boundaries and zoning/building code concerns. We cannot address the latter concern in the framework of NHPA/Section 106 review, but can provide detailed simulations to help in assessment of potential cumulative effects. (We anticipate the zoning/building code concern will be addressed directly with the applicant during the local permitting process.)

The requested photo simulations are enclosed. These simulations were designed to represent a "worst-case scenario" of visibility, with photos taken during the leaf-off season (early this spring). There are a number of deciduous trees along this portion of State Street that in the growing season could assist in blocking partial visibility of the proposed (and existing) antennas on the subject structure.

Before describing the results of the photo simulations, we have also enclosed updated construction drawings that have recently become available for review. The latest version provides more detail that should be useful in addressing the city planning division's concerns regarding potential cumulative effects. The available scope of work (summarized on the drawings title page) includes site upgrades in the form of removal of six (6) existing panel antennas (includes 3 CDMA antennas and 3 LTE antennas) to be replaced/swapped with six (6) new LTE modernization antennas and the addition of three (3) new LAA radio antennas. All new antennas are proposed to be located generally in the same locations as existing antennas, although they would be wider (about 2ft wide by 8ft tall vs 1ft wide by 8ft tall for original antennas). The proposed LAA radio antennas will each measure less than 1ft square, but will require their own mounting brackets that will also be visible. The addition of the LAA antennas results in an overall net gain of three antennas on the building, one per each of the three directional sectors. Associated ancillary equipment including rooftop sleds for Raycaps, RRUs, and cabling are proposed to be upgraded at the same time as the antennas. None of the rooftop equipment is anticipated to be visible from the ground along State Street (as none currently is visible).

Regarding the requested photo simulations, when standing directly in front of the subject building (317 State Street) and viewing the primary façade of the structure from State Street, no antennas or telecommunications equipment is currently visible, nor is it projected to be visible as a result of the proposed collocation/upgrades (see enclosed photos, no simulation necessary from this perspective). We have also included unaltered "original" prints of the photos selected for simulation to show the current views from these locations.

Photo simulations T-901, T-902, T-903, and T-904 show the various perspectives surrounding the subject building that are projected to have visibility of the antenna collocation. Of these views, T-901 is the most obvious, with a full view of the proposed antennas visible along the west wall of the subject building. Simulations T-902 and T-903 show visibility of the antenna located on the east wall of the subject building. Visibility of antennas on this wall is relatively less than the west wall due to the taller height of the abutting building. Simulation T-902 is a closer perspective from the east that projects only the top portion of one upgrade antenna would be visible from this perspective. Simulation T-903 is located further away from the subject building and projects visibility of both proposed LTE antennas and LAA antenna. Simulation T-904 shows projected visibility of the south side of the subject building. The antennas currently on this side (proposed for removal/replacement) are located on the chimney above the roofline. The proposed collocation structurally requires that the antennas be removed from the chimney and placed down onto the rear wall of the building. This change in location is detailed in the enclosed construction drawings.

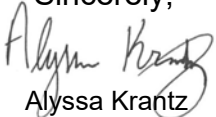
To help minimize antenna visibility from all visible perspectives, the applicant is proposing to paint all portion(s) of the antennas, mounts, and cabling visible from State Street to match the color (cream) of the secondary brick walls. The majority of cabling for the antennas will be located behind the proposed antennas and will be only minimally visible from State Street. Also, the applicant proposes to place/drill all additional mounding holes (if required) into grout lines to avoid any impacts to structural brick. The applicant also proposes to place all antennas as far "back" (toward the south) as possible along the side walls to reduce visibility from the primary façade and State Street, as has been done in the original antenna collocation. The largest antennas location change currently proposed is the removal of existing antennas from the chimney in the rear of the building and dropping them down to the southern wall face. The result of this change, although required from a structural perspective, is also projected to reduce visibility of those antennas along the skyline from the south, as the proposed antennas would no longer extend above the parapet. Overall, no

antennas are projected to be visible above the parapet “roofline” anywhere on the subject building, further helping to minimize the visual impact of the proposed antennas.

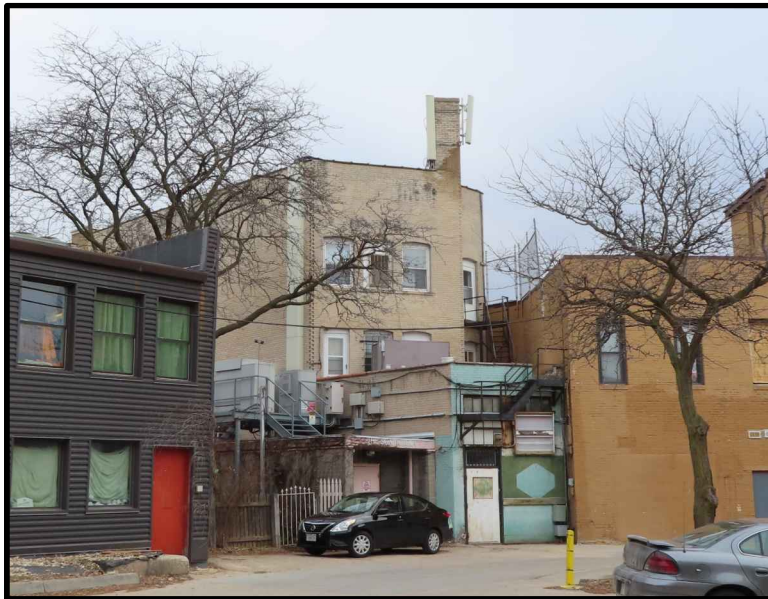
In closing, although the scope of work for the proposed collocation increases the overall number and visible size of antennas, the proposed mitigating measures, including camouflage painting and antenna placement, would help to minimize cumulative impacts to Historic properties located in the APE. Therefore, the applicant considers it reasonable to maintain the previously agreed upon Determination(s) of Effect for this collocation. In conclusion, the applicant proposes to maintain their original determination of “*No Adverse Effect to Historic Properties*” in the APE for Direct Effects, and “*No Effect*” to Historic Properties in the APE for Visual Effects.

Please direct your comment and/or questions to me at the address provided below in my signature block.

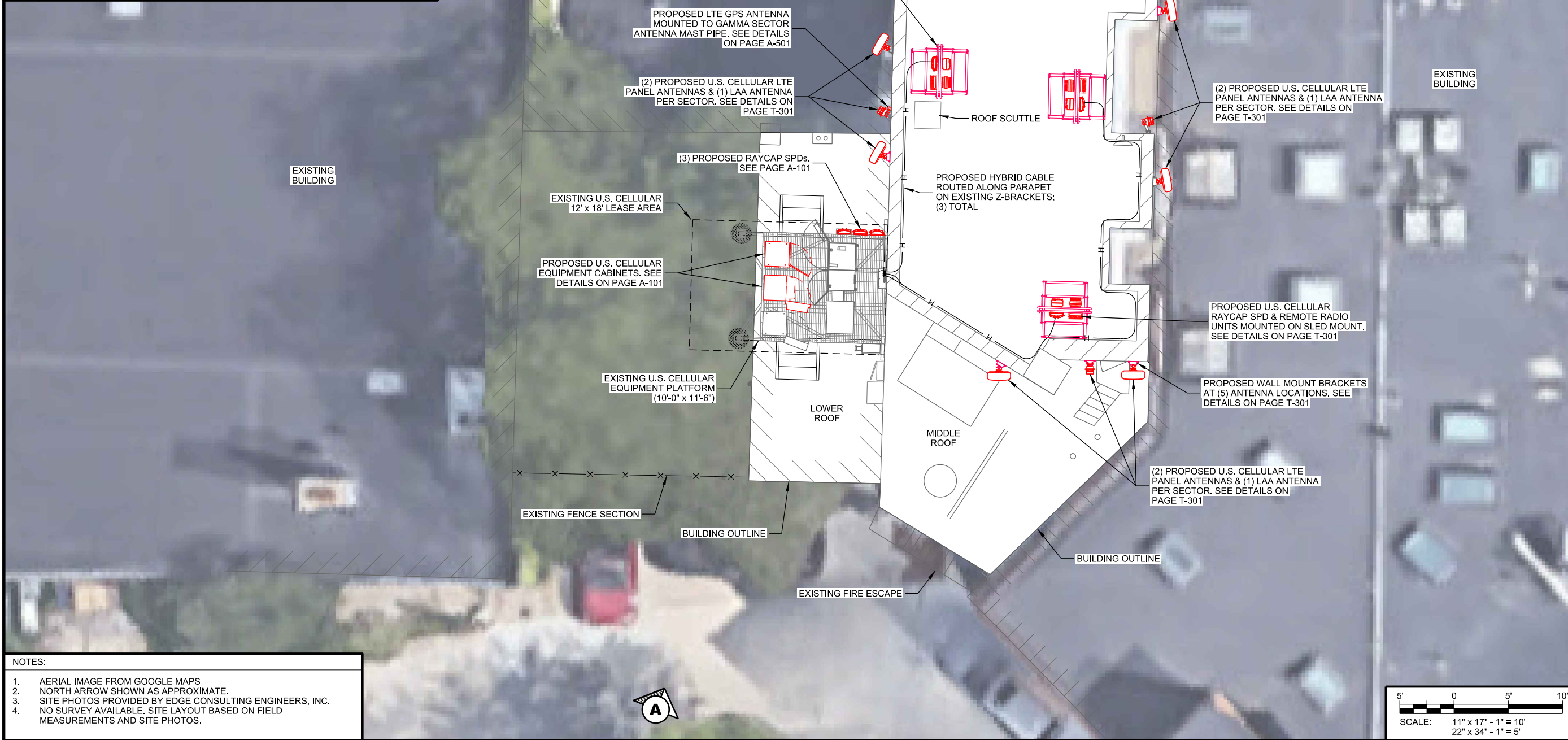
Sincerely,



Alyssa Krantz
Edge Consulting Engineers, Inc.
624 Water Street
Prairie du Sac, WI 53578
akrantz@edgeconsult.com



A **SITE OVERVIEW**



NOTES:

1. AERIAL IMAGE FROM GOOGLE MAPS
2. NORTH ARROW SHOWN AS APPROXIMATE.
3. SITE PHOTOS PROVIDED BY EDGE CONSULTING ENGINEERS, INC.
4. NO SURVEY AVAILABLE. SITE LAYOUT BASED ON FIELD MEASUREMENTS AND SITE PHOTOS.

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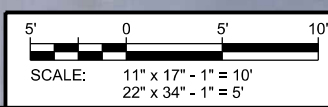
CLIENT:
U.S. Cellular
 U.S. CELLULAR
 8410 W. BRYN MAWR AVE.
 SUITE 700
 CHICAGO, IL 60631

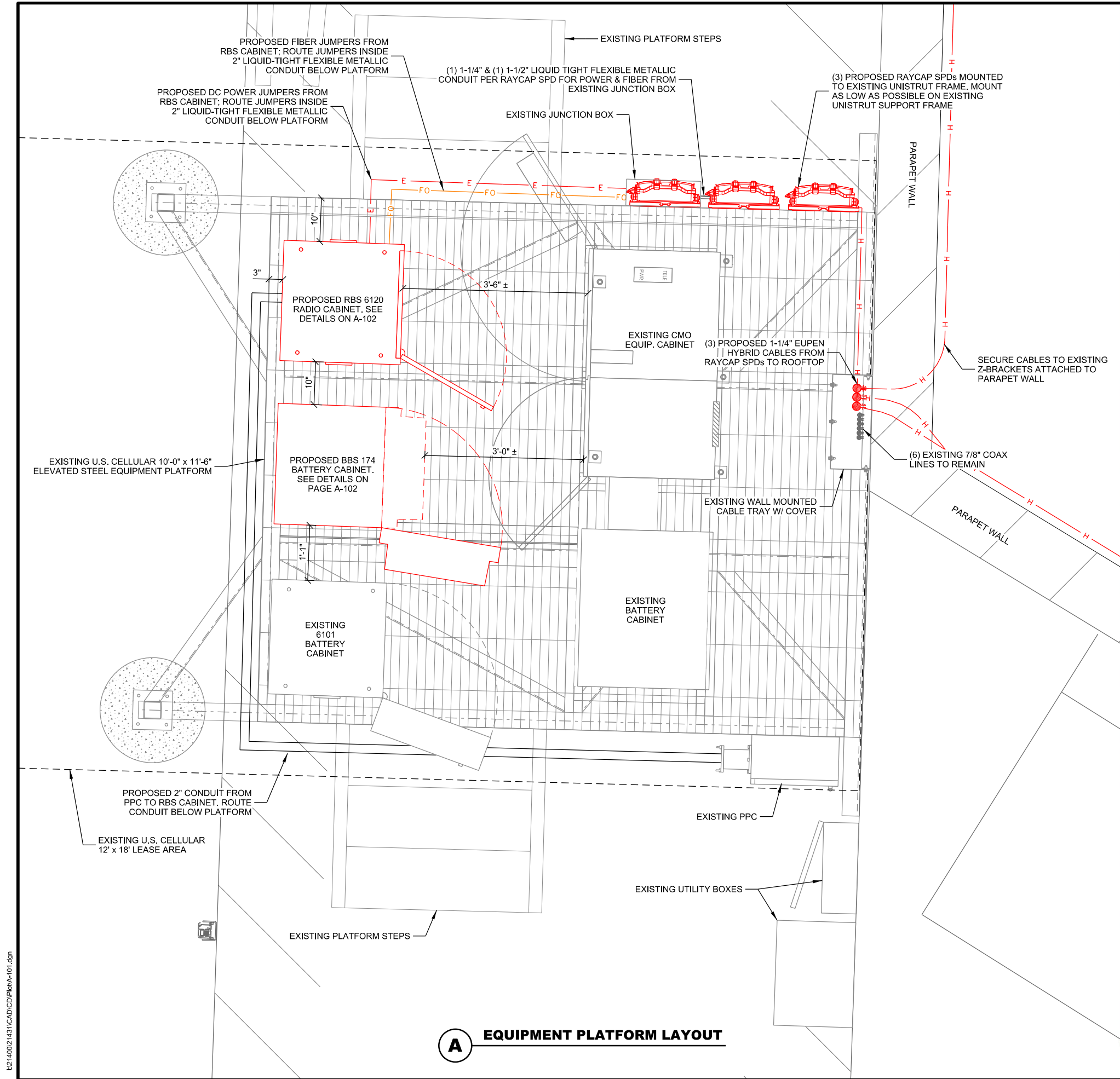
SITE PLAN
IRISH PUB (782440)
MADISON, WISCONSIN

SUBMITTAL:

INT.	DATE	DESCRIPTION:
CV	7/25/19	REV. A
CV	8/2/19	REV. B

CHECKED BY	KCB
PLOT DATE	8/28/2019
PROJECT NUMBER	21431
SET TYPE	DRAFT
SHEET NUMBER	C-101





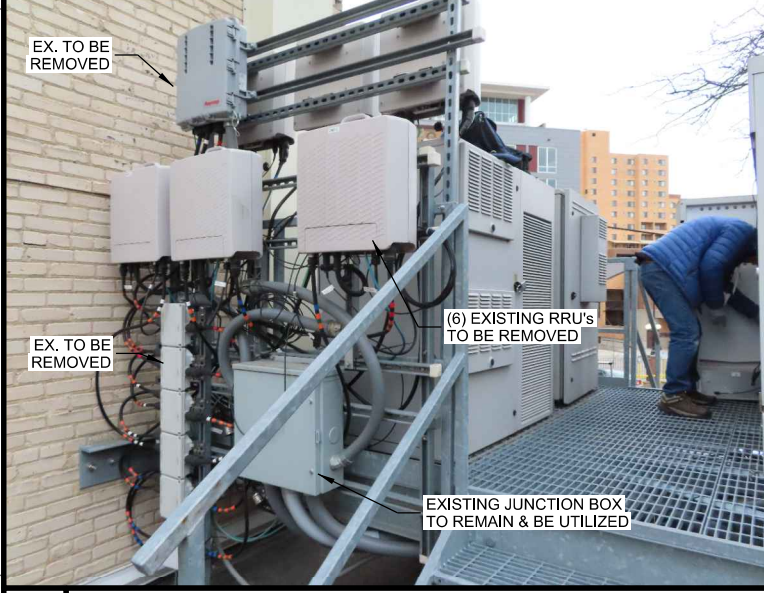
A EQUIPMENT PLATFORM LAYOUT



B EXISTING EQUIPMENT PLATFORM



C EXISTING EQUIPMENT PLATFORM



D EXISTING EQUIPMENT PLATFORM

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EQUIPMENT PLATFORM PLAN
 IRISH PUB (782440)
 MADISON, WISCONSIN

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CV	8/2/19	REV. B

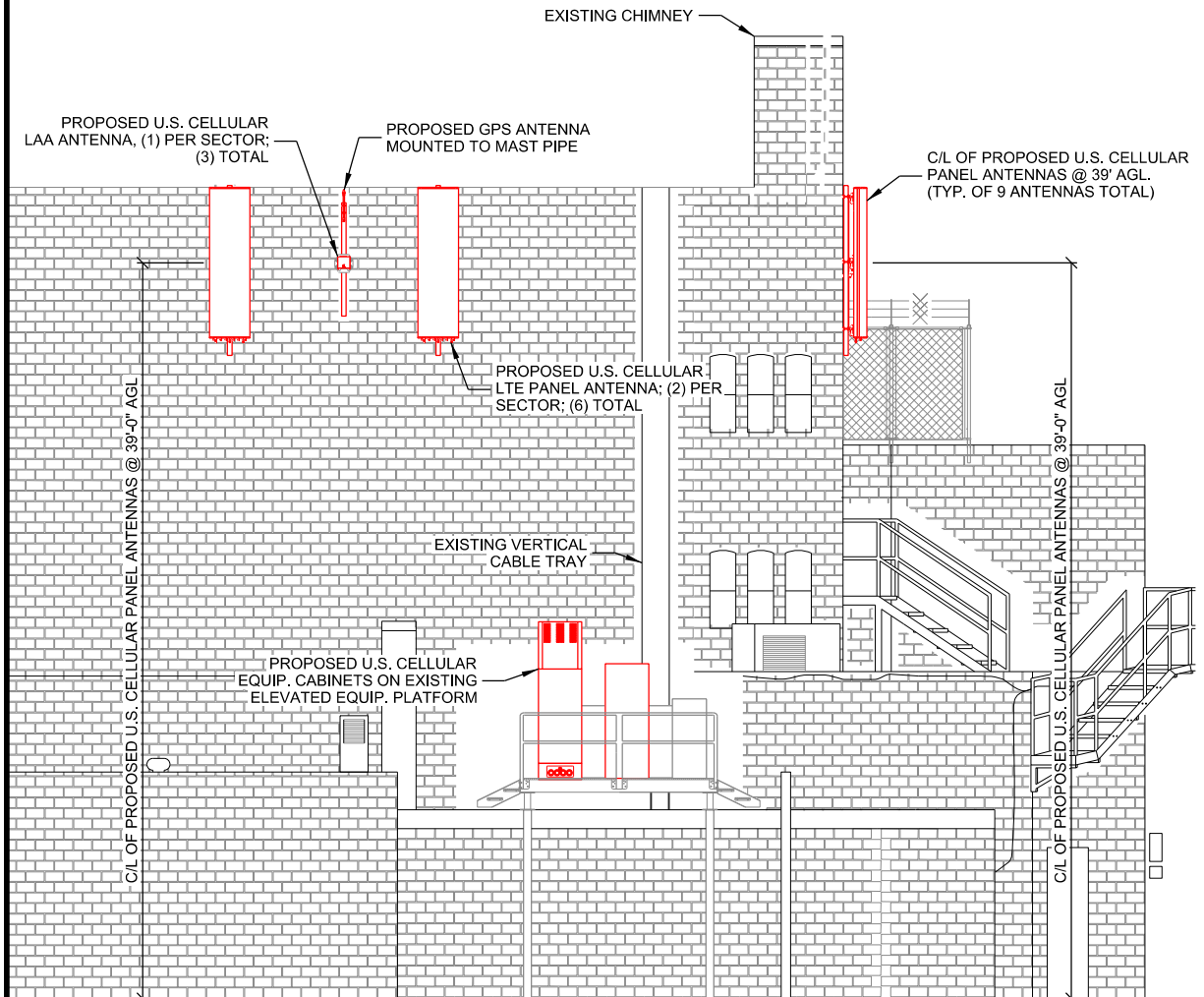
CHECKED BY	KCB
PLOT DATE	8/28/2019
PROJECT NUMBER	21431
SET TYPE	DRAFT

SHEET NUMBER **A-101**

R2140021431\CAD\CDD\Plan\A-101.dgn

NOTE:

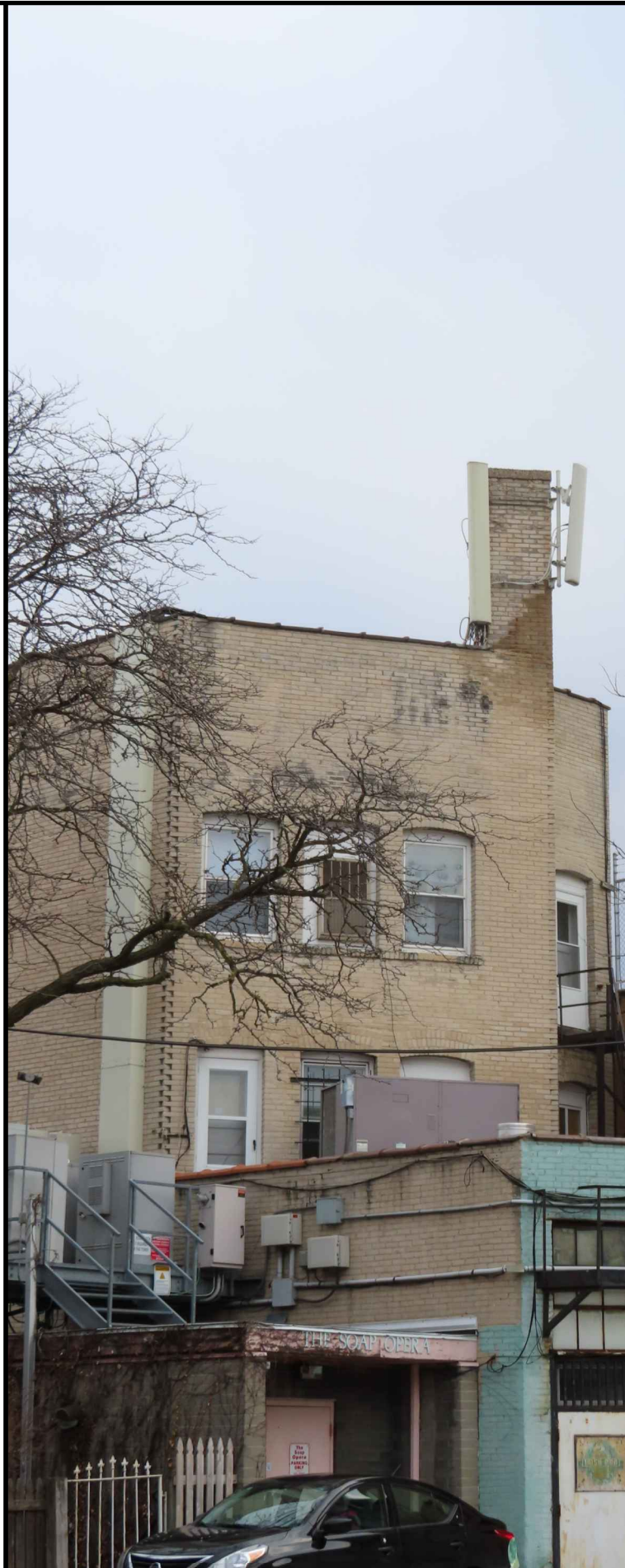
- ROUTE JUMPERS AND CABLES IN A NEAT MANNER, TUCKED BEHIND ANTENNA. CABLES SHOULD NOT BE VISIBLE FROM GROUND LEVEL, OTHER THAN WHERE CABLES EXTEND OUT AND ATTACH TO THE BASE OF ANTENNA
- PAINT ANY VISIBLE CABLING TO MATCH WALL/ANTENNA COLOR



NOTES:

1. CONTRACTOR TO VERIFY HEIGHT AND DIRECTION OF ANTENNAS WITH PROJECT MANAGER.
2. CONTRACTOR TO VERIFY LIGHTNING ROD EXTENDS 2' MIN. ABOVE ALL ANTENNAS & EQUIPMENT.

A SITE ELEVATION
SCALE: 11" x 17" - 1" = 10'-0"
22" x 34" - 1" = 5'-0"



B EXISTING SITE ELEVATION



C U.S. CELLULAR ALPHA SECTOR ANTENNAS



D U.S. CELLULAR BETA SECTOR ANTENNAS



E U.S. CELLULAR GAMMA SECTOR ANTENNAS

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SITE ELEVATION
IRISH PUB (782440)
MADISON, WISCONSIN

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CHECKED BY	KCB
PLOT DATE	8/28/2019
PROJECT NUMBER	21431
SET TYPE	DRAFT
SHEET NUMBER	T-201

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A EXISTING EQUIPMENT PLATFORM



B EXISTING CABLE ROUTING UP BUILDING EXTERIOR



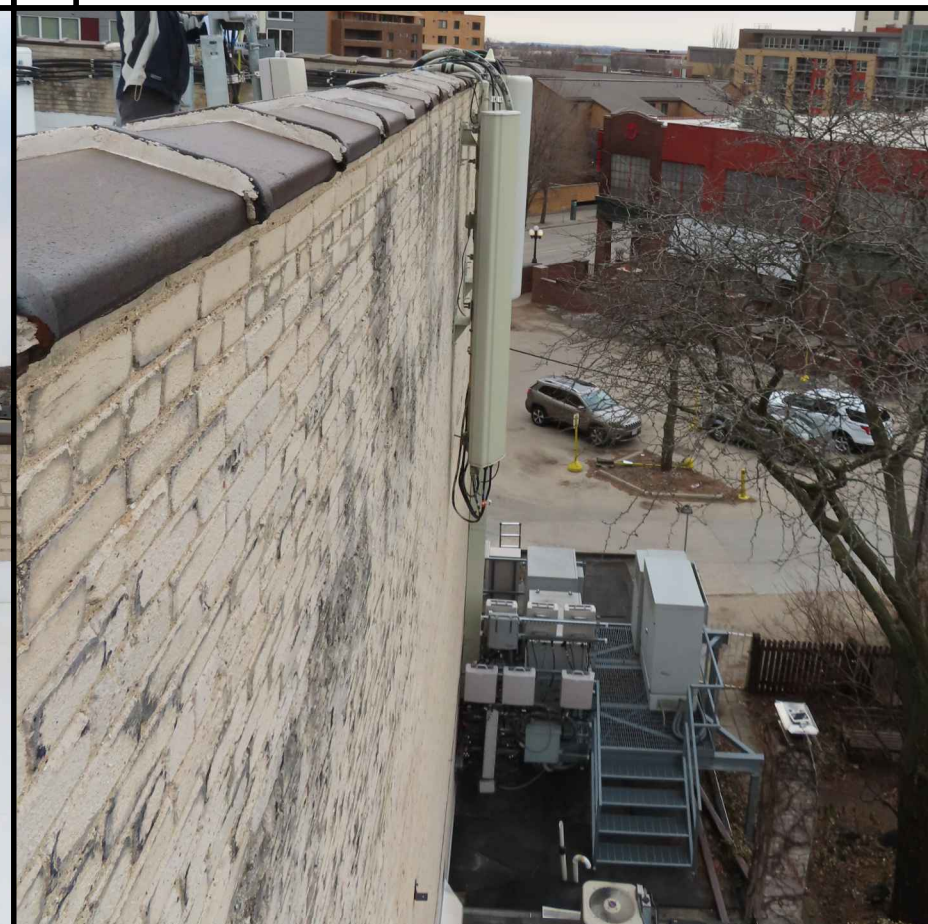
C EXISTING CABLE ROUTING ALONG PARAPET



D EXISTING ROOFTOP OVERVIEW



E EXISTING EQUIPMENT SLED MOUNT



F EXISTING WALL MOUNTED PANEL ANTENNAS

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SITE PHOTOS
IRISH PUB (782440)
MADISON, WISCONSIN

SUBMITTAL:

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CV	7/25/19	REV. A
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PLOT DATE:	8/28/2019
PROJECT NUMBER:	21431
SET TYPE:	DRAFT

SHEET NUMBER **T-901**

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Mackesey's
Irish Pub

HARP

Irish Pubs

GUINNESS

AVAILABLE
608 238 2600



THE SOAP OPERA

Irish PUB

300 BLOCK

HARI

Irish Pub

WINE

WINE

Handwritten sign on a chalkboard in front of the Soap Opera store.



NOW LEASING

SKYLINE
608-270-XXXX

PIZZA DI ROMA
NEW YORK
PIZZA & SALADES



All





Tutto Pasta
State Street
Authentic Italian Food

Triangle Market

PEPSI

DO NOT ENTER

SPEED LIMIT 15

ONE WAY

2852

CLASSY



RED ROCK
PATRON
PARKING
ONLY

NO
PARKING



PHOTO SIMULATION LOCATION DESCRIPTION:

PHOTO SIMULATION 1 (T-901)
 TAKEN FROM THE NORTH SIDE OF STATE STREET IN FRONT OF THE SOAP OPERA
 DISTANCE TO PROPOSED TOWER: 94'
 GROUND ELEVATION: 863'

PHOTO SIMULATION 2 (T-902)
 TAKEN FROM THE NORTH SIDE OF STATE STREET IN FRONT OF KAREN & CO.
 DISTANCE TO PROPOSED TOWER: 115'
 GROUND ELEVATION: 861'

PHOTO SIMULATION 3 (T-903)
 TAKEN FROM THE INTERSECTION OF STATE STREET AND N. HENRY STREET
 DISTANCE TO PROPOSED TOWER: 254'
 GROUND ELEVATION: 860'

PHOTO SIMULATION 4 (T-904)
 TAKEN FROM THE PARKING LOT TO THE SOUTH OF IRISH PUB, 35' OFF OF W. JOHNSON STREET
 DISTANCE TO PROPOSED TOWER: 110'
 GROUND ELEVATION: 861'

- PHOTO SIMULATION NOTES:**
1. THESE PHOTO SIMULATIONS ARE AN INTERPRETATION OF THE GENERAL APPEARANCE OF THE PROPOSED INSTALLATION. EACH PHOTO SIMULATION IS BASED ON THE SCALING CRITERIA OR ASSUMPTIONS IDENTIFIED
 2. AN OBJECT OF KNOWN HEIGHT WAS NOT AVAILABLE FOR REFERENCE IN THE DIRECT VICINITY OF THE ANTENNA LOCATION, LIMITING RELIABILITY OF THE HEIGHT INTERPRETATION
 3. PHOTO SIMULATIONS GENERATED USING A SIMILAR ANTENNA OF SIMILAR HEIGHT AT A SIMILAR DISTANCE; ARTISTIC INTERPRETATIONS USED TO ESTIMATE THE APPROXIMATE ANTENNA SIZE AND APPEARANCE
 4. THE DIFFERENCE IN ELEVATION BETWEEN THE PHOTOGRAPH LOCATION AND ANTENNA LOCATION HAS BEEN TAKEN INTO CONSIDERATION
 5. THE TOPOGRAPHICAL FEATURES BETWEEN THE PHOTOGRAPH LOCATION INTERPRETED AS BEST AS POSSIBLE. THE VISIBILITY OF THE ANTENNAS WILL BE DRASTICALLY REDUCED WITHIN AREAS OF MATURE VEGETATION AND VALLEYS AND INCREASED WITHIN LARGE OPEN FIELDS AND AT HIGHER ELEVATIONS
 6. A STRUCTURAL ANALYSIS WAS NOT INCLUDED IN THE SCOPE OF WORK FOR THE INCLUDED PHOTO SIMULATIONS. EQUIPMENT AND MOUNTING DEPICTED IS FOR AESTHETIC AND LOCATION APPROVAL ONLY
 7. BUILDING PARAPET HEIGHT IS NOT KNOWN AND IS INTERPRETED AS BEST AS POSSIBLE. THE VISIBILITY OF THE ANTENNAS WILL BE DRASTICALLY INCREASED IN AREAS WITH A LOWER PARAPET WALL

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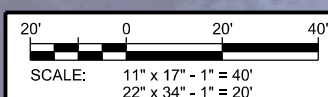
CLIENT:
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TITLE SHEET
IRISH PUB (782440)
MADISON, WISCONSIN

SHEET TITLE

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
BJN	08/28/19	REV. 0

CHECKED BY	KCB
PLOT DATE	8/28/2019
PROJECT NUMBER	21431
SET TYPE	PHOTO SIMS.
SHEET NUMBER	G-001



R2140021431\Photo_Sims-C-001.dgn



K:\214002\1431\Photo_Sims\T-901.dgn

A ACTUAL PHOTO BEFORE SIMULATION

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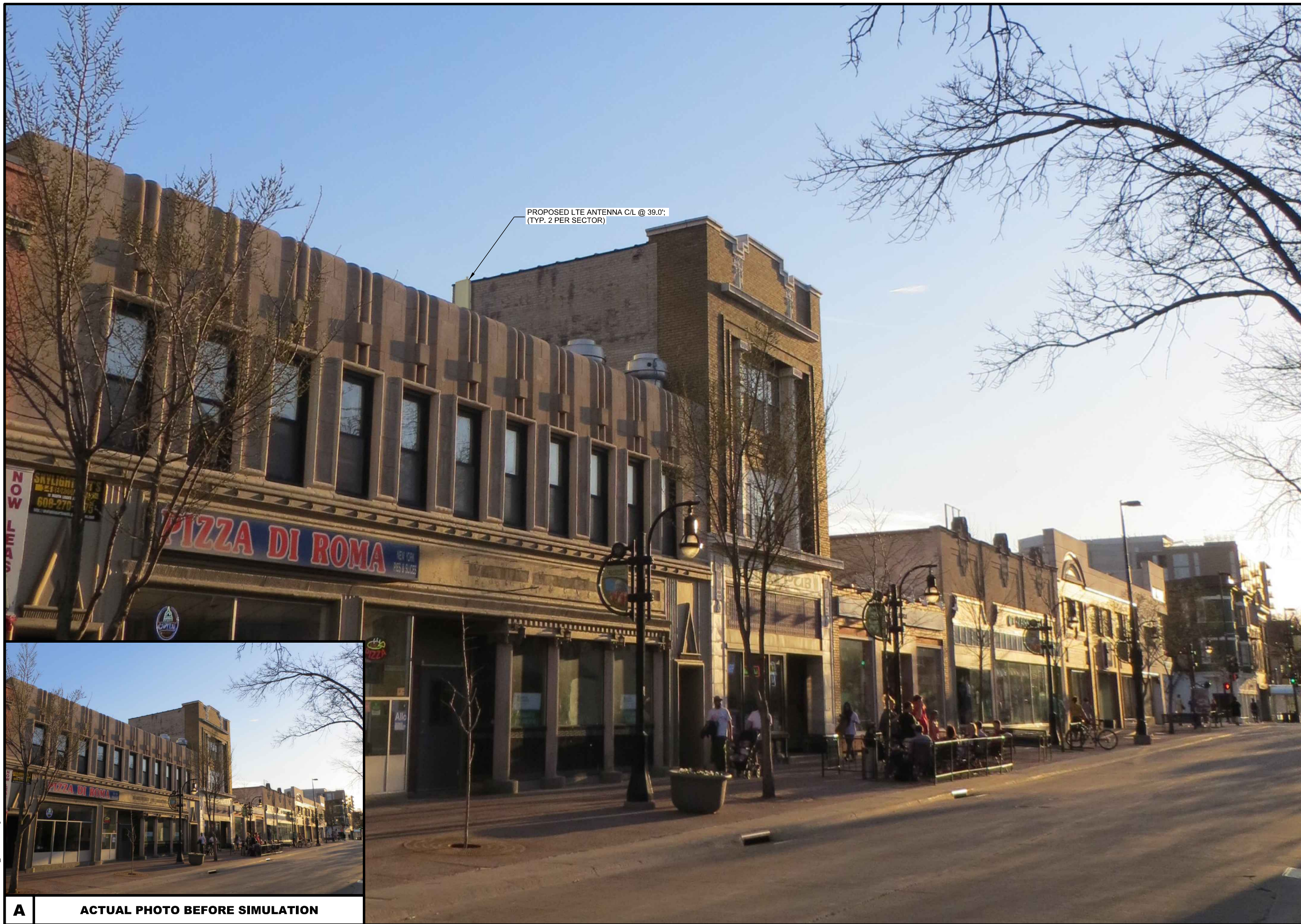
CLIENT:
U.S. Cellular
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PHOTO SIMULATION 1
 IRISH PUB (782440)
 MADISON, WISCONSIN

SHEET TITLE

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
BJN	08/28/19	REV. 0

CHECKED BY	KCB
PLOT DATE	8/28/2019
PROJECT NUMBER	21431
SET TYPE	PHOTO SIMS.
SHEET NUMBER	T-901



A

ACTUAL PHOTO BEFORE SIMULATION

PROPOSED LTE ANTENNA C/L @ 39.0';
(TYP. 2 PER SECTOR)

CONSULTANT:

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PHOTO SIMULATION 2
IRISH PUB (782440)
MADISON, WISCONSIN

SHEET TITLE

SUBMITTAL:

INT.	DATE	DESCRIPTION
BJN	08/28/19	REV. 0

CHECKED BY: KCB

PLOT DATE: 8/28/2019

PROJECT NUMBER: 21431

SET TYPE: PHOTO SIMS.

SHEET NUMBER: **T-902**

CONSULTANT:

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PHOTO SIMULATION 4
IRISH PUB (782440)
MADISON, WISCONSIN

SHEET TITLE

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
BJN	08/28/19	REV. 0

CHECKED BY: KCB

PLOT DATE: 8/28/2019

PROJECT NUMBER: 21431

SET TYPE: PHOTO SIMS.

SHEET NUMBER: **T-904**

PROPOSED LTE ANTENNA C/L @ 39.0';
 (TYP. 2 PER SECTOR)

PROPOSED LAA ANTENNA C/L @ 39.0';
 (TYP. 1 PER SECTOR)



A ACTUAL PHOTO BEFORE SIMULATION

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