PROJECT CHANGE NOTICE

To:		
Lexington-Fayette Urban County Government 200 E. Main St., Room 313 Lexington, KY 40507 **ATTN: Robert Stack, Director, Division of E911**	**CR Date:**	October 26, 2015
	CR #	LXP-001
	Project Name:	Lexington PSOC
	Purchase Order #:	LF00131163
	Originator:	Robert Stack
	Project Manager:	Greg Senter

DESCRIPTION OF CHANGE

Modify the PSOC tower and tower foundation to accommodate additional antenna loadings as specified by Mission Critical Partners

NEED & NECESSITY

The PSOC tower included in the contracted proposal was designed to accommodate 5 antennas (3 800 MHz omni antennas for P25 and 2 Microwave dishes) with 20% additional capacity. Mission Critical Partners has requested to install 6 additional antennas on the tower which reduces most of the remaining capacity of the tower. The proposed change will accommodate the additional antennas specified by Mission Critical Partners and provide the additional capacity still required for future needs.

IMPACTS

Technical Impact to Specifications, Performance or Operational Requirements:

Proposed designs for the original tower and redesigned tower are included as part of the attached file **LXP_Tower_Comparison_2015OCT17.pdf**

Impact on Project Schedule and Potential Mitigation Steps:

Delays associated with finalizing the tower and tower foundation design are impacting the project construction schedule by a day-for-day slip. The project team is working to maintain existing 2Q2016 project completion dates.

Impact on Project Cost and Potential Mitigation Steps:

$17,688 cost impact to the LFUCG

Customer Acceptance Signature Approval:

Authorized by:_____

Printed name: _____

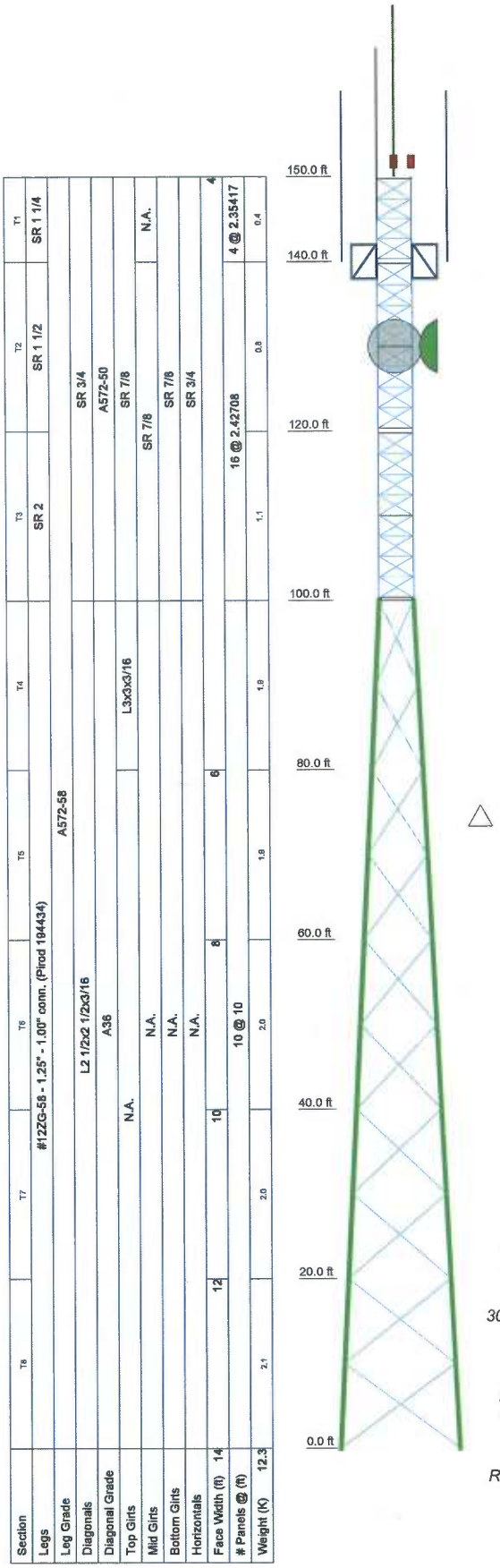
Date:_____

Airbus DS Communications Signature Approval:

Authorized by: Derek R Gamble

Printed name: Derek R Gamble

Date: 11/2/15



Section	T1	T2	T3	T4	T5	T6	T7	T8
Legs	SR 1 1/4	SR 1 1/2	SR 2	A572-58		#12ZG-58 - 1.25" - 1.00" conn. (Pirod 194434)		
Leg Grade								
Diagonals		SR 3/4				L2 1/2x2 1/2x3/16		
Diagonal Grade		A572-50				A36		
Top Girts		SR 7/8		L3x3x3/16		N.A.		
Mid Girts	N.A.	SR 7/8				N.A.		
Bottom Girts		SR 7/8				N.A.		
Horizontals		SR 3/4			6	N.A.	10	12
# Panels @ (ft)	4 @ 2.35417	16 @ 2.42708			8	10 @ 10		
Weight (K)	0.4	0.8	1.1	1.8	1.8	2.0	2.0	2.1
Face Width (ft)					14		12.3	

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
21' LRE with 7'-6" lightning rod (arm=11.5')	150	6' Bogner Mount Standard Duty	140
		BMR12	140
Beacon	150	BMR12 (20% additional loading)	140
Beacon	150	6' Bogner Mount Standard Duty (20% additional loading)	140
BMR12	150		
6' Bogner Mount Standard Duty	150	BMR12 (20% additional loading)	140
TMA (12"x12"x8")	150	6' Bogner Mount Standard Duty (20% additional loading)	140
BMR12 (20% additional loading)	150		
6' Bogner Mount Standard Duty (20% additional loading)	150	PAR6-59 w/o Radome	130
		PAR6-59 w/o Radome	130
TMA (12"x12"x8") (20% additional loading)	150	PAR6-59 w/o Radome (20% additional loading)	130
6' Bogner Mount Standard Duty	140	PAR6-59 w/o Radome (20% additional loading)	130
BMR12	140		

MATERIAL STRENGTH

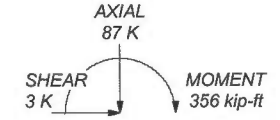
GRADE	Fy	Fu	GRADE	Fy	Fu
A572-58	58 ksi	75 ksi	A36	36 ksi	58 ksi
A572-50	50 ksi	65 ksi			

TOWER DESIGN NOTES

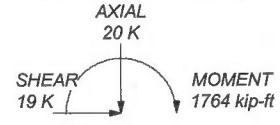
1. Tower is located in Fayette County, Kentucky.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 90 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 30 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class III.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 88.7%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 151 K
UPLIFT: -137 K
SHEAR: 14 K



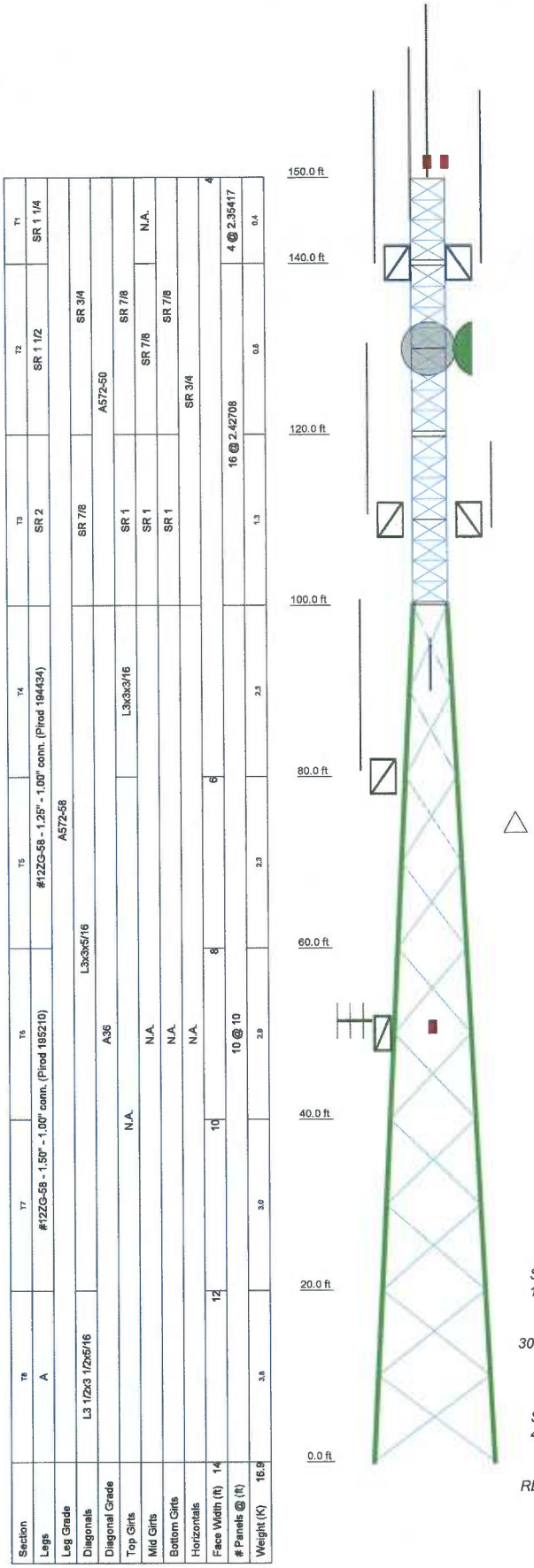
TORQUE 1 kip-ft
30 mph WIND - 0.7500 in ICE



TORQUE 7 kip-ft
REACTIONS - 90 mph WIND

valmont STRUCTURES
Valmont Structures, Inc. - Specialty Structures Group
1545 Pidco Drive
Plymouth, IN 46563
Phone: (574) 936-4221
FAX: (574) -936-6458

Job: *Quotation 295734-01*			
Project: *U-14 x 150' - Fayette County, KY*			
Client: Tower Systems, Inc.	Drawn by: CRF1	App'd:	
Code: TIA-222-G	Date: 06/17/15	Scale: NTS	
Path:		Dwg No. E-1	



Section	T8	T7	T6	T5	T4	T3	T2	T1
Legs	A	#12ZG-58 - 1.50" - 1.00" conn. (Pirod 195210)		#12ZG-58 - 1.25" - 1.00" conn. (Pirod 194434)		SR 2	SR 1 1/2	SR 1 1/4
Leg Grade		A572-58						
Diagonals	L3 1/2x3 1/2x5/16			L3x3x5/16		SR 7/8	SR 3/4	
Diagonal Grade		A36			A572-50			
Top Girts		N.A.			L3x3x3/16	SR 1	SR 7/8	SR 7/8
Mid Girts		N.A.				SR 1	SR 7/8	N.A.
Bottom Girts		N.A.				SR 1	SR 7/8	N.A.
Horizontals		N.A.			SR 3/4			
Face Width (ft)	14	12	10	8	6	4		
# Panels @ (ft)		10 @ 10				16 @ 2.42708		4 @ 2.35417
Weight (K)	16.9	3.8	3.0	2.8	2.3	2.3	1.3	0.8	0.4

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
21' LRE with 7'-6" lightning rod (arm=11.5')	150	6' Pivot Side Arm (50" pipe)	110
Beacon	150	Diamond X200A (20% Additional Load)	110
Beacon	150	6' Pivot Side Arm (50" pipe) (20% Additional Load)	110
BMR12	150	ANT135F2	90
6' Bogner Mount Standard Duty	150	6' Pivot Side Arm (50" pipe)	90
TMA (12"x12"x8")	150	ANT135F2 (20% Additional Load)	90
BMR12 (20% additional loading)	150	6' Pivot Side Arm (50" pipe) (20% Additional Load)	90
6' Bogner Mount Standard Duty (20% additional loading)	150	ANT150F6 -138-151 MHZ	80
TMA (12"x12"x8") (20% additional loading)	150	6' Pivot Side Arm (50" pipe)	80
6' Bogner Mount Standard Duty	140	ANT150F6 -138-151 MHZ (20% Additional Load)	80
BMR12	140	6' Pivot Side Arm (50" pipe) (20% Additional Load)	80
6' Bogner Mount Standard Duty	140	Buckmaster Center Insulator	50
BMR12	140	10' Standoff	50
BMR12 (20% additional loading)	140	Rope	50
6' Bogner Mount Standard Duty (20% additional loading)	140	Rope	50
BMR12 (20% additional loading)	140	Buckmaster Center Insulator (20% Additional Load)	50
6' Bogner Mount Standard Duty (20% additional loading)	140	10' Standoff (20% Additional Load)	50
PAR6-59 w/o Radome	130	Rope (20% Additional Load)	50
PAR6-59 w/o Radome	130	Rope (20% Additional Load)	50
PAR6-59 w/o Radome (20% additional loading)	130	101108-1	50
PAR6-59 w/o Radome (20% additional loading)	130	3' Pivot Side Arm (50" pipe)	50
ANT150F6 -138-151 MHZ	110	101108-1 (20% Additional Load)	50
6' Pivot Side Arm (50" pipe)	110	3' Pivot Side Arm (50" pipe) (20% Additional Load)	50
ANT150F6 -138-151 MHZ (20% Additional Load)	110	1/2 of V Antenna	50
6' Pivot Side Arm (50" pipe) (20% Additional Load)	110	1/2 of V Antenna	50
Diamond X200A	110	1/2 of V Antenna (20% Additional Load)	50
		1/2 of V Antenna (20% Additional Load)	50

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	#12ZG-58 - 1.75" - 1.00" conn.-TR1-(Pirod 195214)		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-58	58 ksi	75 ksi	A36	36 ksi	58 ksi
A572-50	50 ksi	65 ksi			

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4. Tower is also designed for a 30 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class III.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 91.5%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 250 K
UPLIFT: -222 K
SHEAR: 28 K

AXIAL 117 K
SHEAR 10 K
MOMENT 636 kip-ft
TORQUE 19 kip-ft
30 mph WIND - 0.7500 in ICE

AXIAL 33 K
SHEAR 40 K
MOMENT 2918 kip-ft
TORQUE 139 kip-ft
REACTIONS - 90 mph WIND

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Plymouth, IN
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FAX: (574) 936-6458

Job: *Quotation 295734-02*			
Project: *U-14 x 150' - Fayette County, KY*			
Client: Tower Systems, Inc.	Drawn by: JAK	App'd:	
Code: TIA-222-G	Date: 10/12/15	Scale: NTS	
Path:		Dwg No. E-1	