



**PERMIT APPLICATION REVIEW FORM FOR
CABLE, CONDUIT, AND POLE LINE ACTIVITY
IN FORT BEND COUNTY**

**Fort Bend County
Engineering Department**
301 Jackson Suite 401
Richmond, Texas 77469
281.633.7500
Permits@fortbendcountytx.gov

☐

Right of Way Permit

☒

Commercial Driveway Permit

Permit No: 2018-21214

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

(1) COMPLETE APPLICATION FORM:

X
X
X

a. Name of road, street, and/or drainage ditch affected.

b. Vicinity map showing course of directions

c. Plans and specifications

(2) BOND:

☐

County Attorney, approval when applicable.

☐

Perpetual bond currently posted.

Bond No: _____

Amount: _____

☐

Performance bond submitted.

Bond No: _____

Amount: _____

☒

Cashier's Check

Check No: _____

Amount: \$5,000.00

(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):

Drainage District Approval

Date

We have reviewed this project and agree it meets minimum requirements.

Permit Administrator

6/18/2018

Date

T-Mobile®

verticalbridge

T-MOBILE: A3C0203B

VERTICAL BRIDGE: TX-5460 - GOLDFARB REVOCABLE TRUST

918 TALISMAN ROAD #A [E911]

ROSHARON, TX 77583

100'-0" MONOPOLE TOWER

RAW LAND CONSTRUCTION DRAWINGS

FORT BEND COUNTY ENGINEER

ENGINEER: Richard W. Stolleis, P.E., P.T.O.E.
for Richard W. Stolleis, P.E.

DATE: 5/30/18

THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN (1) YEAR FROM DATE OF APPROVAL.

APPROVED: Cassandra S.
for Development Coordinator

DATE: 5-30-18

SCOPE OF WORK

THESE PLANS HAVE BEEN DEVELOPED FOR THE PLACEMENT OF THE TELECOMMUNICATION AND PUBLIC UTILITY FACILITY, CONSISTING OF A 100' MONOPOLE TOWER, SPACE FOR CARRIER EQUIPMENT AND A UTILITY RACK WITHIN A FENCED COMPOUND (NO WATER OR SEWER REQUIRED), IN ACCORDANCE WITH THE SCOPE OF WORK IN THE PLANS. THESE PLANS ARE FOR CONSTRUCTION DRAWINGS UNLESS ACCOMPANIED BY A PASSING STRUCTURAL STABILITY ANALYSIS PREPARED BY LICENSED STRUCTURAL ENGINEER. STRUCTURAL ANALYSIS MUST INCLUDED BOTH TOWER AND MOUNT.

SITE INFORMATION

TOWER OWNER: VERTICAL BRIDGE HOLDINGS, LLC
750 PARK OF COMMERCE DRIVE
BOCA RATON, FL 33487

SITE ADDRESS: 918 TALISMAN ROAD #A [E911]
ROSHARON, TX 77583

COUNTY: FORT BEND COUNTY

LATITUDE (NAD 83): 29° 30' 10.28" (29.502856°) N
LONGITUDE (NAD 83): -95° 26' 55.15" (-95.448653°) W

GROUND ELEVATION: 59' AMSL

OCCUPANCY TYPE: UNMANNED

ZONING JURISDICTION: CITY OF ROSHARON

ZONING CODE: COMMERCIAL

PARCEL NUMBER: 0170-00-000-1700-907

POWER PROVIDER: CENTERPOINT ENERGY
800-427-7142

TELCO PROVIDER: COMCAST
855-372-1980

CONTACT INFORMATION

PROPERTY OWNER: JERROLD HASKELL
GOLDFARB REVOCABLE TRUST
903180 HOLMES RUN RD
FALLS CHURCH, VA 22042-4308

APPLICANT: VERTICAL BRIDGE HOLDINGS, LLC
750 PARK OF COMMERCE DRIVE
BOCA RATON, FL 33487

ENGINEER: ALLPRO CONSULTING GROUP, INC.
9221 LYNDON B. JOHNSON FREEWAY
SUITE 204
DALLAS, TX 75243
CONTACT: JOJI GEORGE, P.E.
OFFICE: 972-231-8893
FAX: 866-364-8375

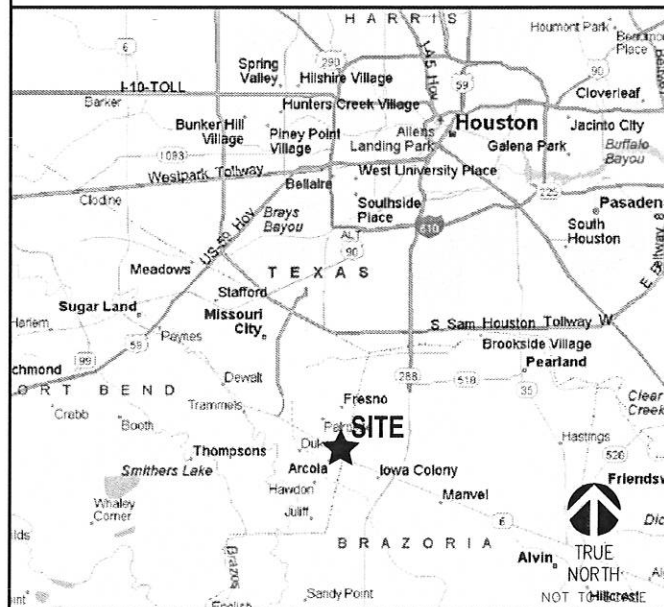
APPLICABLE CODES

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALL IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES

1. INTERNATIONAL BUILDING CODE (2006 IBC)
2. TIA-EIA-222-G OR LATEST EDITION
3. NFPA 780 - LIGHTNING PROTECTION CODE
4. 2017 NATIONAL ELECTRICAL CODE OR LATEST EDITION
5. ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES MOST RECENT EDITIONS
6. TX BUILDING CODE
7. LOCAL BUILDING CODE
8. CITY/COUNTY ORDINANCES.



VICINITY MAP



ENLARGED VICINITY MAP



DRIVING DIRECTIONS

FROM 4660 NORTH SAM HOUSTON PKWY E, HOUSTON, TX 77032, GET ON HWY 59 S/I-69 FROM TEXAS 8 BELTWAY FRONTAGE RD AND 4TH ST/EASTEX FREEWAY SERVICE RD, HEAD EAST ON TEXAS 8 BELTWAY FRONTAGE RD TOWARD VICKERY DR, SLIGHT RIGHT ONTO TEXAS 8 BELTWAY FRONTAGE RD E, SLIGHT RIGHT ONTO 4TH ST/EASTEX FREEWAY SERVICE RD, USE THE LEFT LANE TO TAKE THE S INTERSTATE 69/S 59 RAMP, FOLLOW HWY 59 S/I-69, I-610 E AND STATE HWY 288 S/TX-288 S TO MANVEL. TAKE THE TX-6 EXIT FROM STATE HWY 288 S/TX-288 S, MERGE ONTO HWY 59 S/I-69, USE THE RIGHT 2 LANES TO TAKE THE INTERSTATE 610 E EXIT, MERGE ONTO I-610 E, USE THE RIGHT 2 LANES TO MERGE ONTO STATE HWY 288 S/TX-288 S, TAKE THE TX-6 EXIT TOWARD ALVIN SUGARLAND, KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR ARCOLA/SUGARLAND AND MERGE ONTO HWY 6 N/TX-6 N/ALVIN SUGARLAND RD, FOLLOW HWY 6 N/TX-6 N TO TALISMAN DR IN FORT BEND COUNTY, MERGE ONTO HWY 6 N/TX-6 N/ALVIN SUGARLAND RD, TURN RIGHT ONTO LINDA DR, TURN RIGHT ONTO TALISMAN DR, 918 TALISMAN DR, ROSHARON, TX 77583

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME

DRAWING INDEX

SHEET NO.	DESCRIPTION	REV
T-1	TITLE SHEET	0
S.1	SURVEY	0
C-1 & C-1A	OVERALL SITE PLAN	0
C-2	ENLARGED SITE PLAN	0
C-3	DIMENSION PLAN	0
C-4	EQUIPMENT PLAN & PLATFORM DETAILS	0
C-5	ELEVATION & ANTENNA PLAN	0
C-6	RFDS	OMITTED 0
C-7	RFDS PLUMBING DIAGRAM	OMITTED 0
C-8	COLOR CODING CONVENTION	OMITTED 0
C-9	EQUIPMENT DETAILS	OMITTED 0
C-10	EQUIPMENT DETAILS	0
C-11	SITE DETAILS	0
C-12	SITE DETAILS	0
C-13	DELTA SSC CABINET & MODULES	OMITTED 0
C-13A & B	DELTA SSC CABINET (CONTINUOUS)	OMITTED 0
C-14	PLATFORM SPECIFICATIONS	OMITTED 0
C-15	SUPPORT RAIL SPECIFICATIONS	OMITTED 0
EC-1	EROSION & GRADING CONTROL PLAN	0
EC-2	DRAINAGE CONTROL PLAN	0
EC-3	EROSION, GRADING, & DRAINAGE CONTROL PLAN NOTES & DETAILS	0
E-1	UTILITY ROUTING PLAN	0
E-2	ELECTRICAL DETAILS	0
E-3	ELECTRICAL DETAILS	OMITTED 0
G-1	GROUNDING PLAN	0
G-2	GROUNDING PLANS	0
G-3	GROUNDING DETAILS	OMITTED 0
GN-1	GENERAL NOTES	0
GN-2	GENERAL NOTES	0
T1.0	COVER SHEET (10'x8') STEEL PLATFORM WITH CANOPY	OMITTED 0
S1.0	PLATFORM FRAMING PLAN & SECTIONS	0
S1.1	PLATFORM DETAILS	OMITTED 0
S2.0	CANOPY FRAMING PLAN	0
S2.1	CANOPY FRAMING DETAILS	OMITTED 0
S3.0	DRAWING NOTES	0
S3.1	STRUCTURAL CONCRETE & STEEL NOTES	0

T-Mobile®
2 GREENWAY PLAZA
HOUSTON, TX 77046

verticalbridge
750 PARK OF COMMERCE DRIVE
BOCA RATON, FL 33487

ALLPRO
CONSULTING GROUP, INC.
9221 Lyndon B Johnson Fwy
Suite 204, Dallas, TX 75243
Phone: 972-231-8893
Fax: 866-364-8375
www.allprocgi.com
Registration No. 8242

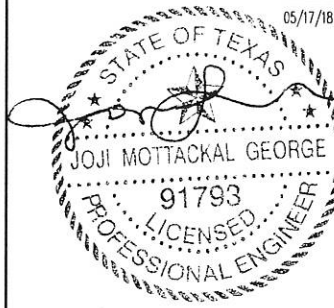
ACGI NO: 17-7142, 18-2191

DRAWN BY: RM

CHECKED BY: JG

REVISIONS

REV	DATE	DESCRIPTION	BY
2	05/17/18	REV. FOR DRAINAGE DISTRICT	RM
1	04/17/18	REV. FOR ZONING SUBMITTAL	RM
0	03/05/18	FINAL CD	RM
C	02/15/18	REV. FOR T-MOBILE REDLINES	RM
B	01/29/18	REV. FOR T-MOBILE REDLINES	HR
A	11/22/17	PRELIMINARY CD	RM



NOT VALID WITHOUT
P.E. STAMP & SIGNATURE

SITE INFORMATION
T-MOBILE SITE #:
A3C0203B

VERTICAL BRIDGE SITE #:
TX-5460

918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

VERTICAL BRIDGE SITE #:

VERTICAL BRIDGE SITE NAME:

T-MOBILE SITE #:

SITE ADDRESS:

TX-5460

GOLDFARB REVOCABLE TRUST

A3C0203B

918 TALISMAN ROAD #A [E911]

ROSHARON, TX 77583

APPROVAL SIGNATURE BLOCK

THE FOLLOWING PARTIES HAVE REVIEWED THESE DOCUMENTS.

ALL DOCUMENTS ARE SUBJECT TO REVISION BY THE LOCAL ZONING BUILDING DEPARTMENTS
AND MAY IMPOSE CHANGES OR MODIFICATIONS.

☐ APPROVED

☐ REJECTED

VERTICAL BRIDGE PROJECT MANAGER

☐ APPROVED

☐ REJECTED

VERTICAL BRIDGE RF ENGINEER

☐ APPROVED

☐ REJECTED

VERTICAL BRIDGE SITE ACQUISITION

☐ APPROVED

☐ REJECTED

VERTICAL BRIDGE QUALITY ASSURANCE

☐ APPROVED

☐ REJECTED

T-MOBILE PROJECT MANAGER

DATE

☐ APPROVED

☐ REJECTED

T-MOBILE RF ENGINEER

DATE

☐ APPROVED

☐ REJECTED

T-MOBILE SITE ACQUISITION

DATE

☐ APPROVED

☐ REJECTED

T-MOBILE QUALITY ASSURANCE

DATE

H:\2017 Download\17-1665\DWG\17-1665_A300238_T54560_GOLFARB REVOCABLE TRUST 03-30-2018.dwg

PARENT TRACT DESCRIPTION PER DEED RECORDED UNDER C.F. 2015093188 O.P.R. F.B.C.T.

7.4639 acres of land, in the Manuel Escalera League, Abstract No. 170, Fort Bend County, Texas, being that portion of Lot 2 of Fetterly's Subdivision, according to the plat thereof recorded in Volume 42, Page 83, Deed Records of Fort Bend County, Texas lying North of the North Right-of-way line of State Highway 6, also being the same tract described as being 9.74 acres, as recorded in Volume 952, Page 211 of the Deed Records of Fort Bend County, Texas, sold 7.4639 acre tract being described by metes and bounds as follows:

BEGINNING at a 3/4 inch iron pipe found on the East Right-of-way line of Linda Street (60.00 feet wide) for the Northeast Corner of said Lot 2, same being the Southwest Corner of Rosedale Addition, according to the plat thereof recorded in Volume 393, Page 86 of the Map Records of Fort Bend County, Texas;

THENCE North 50° 00' 00" East, along the North line of said Lot 2, same being the East line of said Rosedale Addition, a distance of 797.48 feet (called 796.76 feet) to a 3/4 inch iron pipe found for the Northeast corner of said and the Southeast Corner of said Rosedale Addition;

THENCE South 14° 56' 10" West along the East line of said Lot 2, same being the East Line of said Manuel Escalera League and the West line of the A.B. Langermann Survey, Abstract 456, a distance of 571.30 feet to a 3/4 inch iron pipe found for the Southeast Corner of said Lot 2;

THENCE South 90° 00' 00", along the South line of said Lot 2, same being the North line of Lot 4 of said Fetterly's Subdivision, a distance of 145.92 feet to a 1/2 inch iron rod set on the Northeast Right-of-way line of State Highway 6 (100.00 feet wide);

THENCE North 57° 41' 57" West, along said Right-of-way line, a distance of 633.51 feet to an iron rod with cap found for Cut-Back Corner of that triangular tract taken said State Highway 6 Right-of-way as recorded in File Number (96)35373, Official Records of Fort Bend County, Texas;

THENCE North 22° 20' 56" West (called North 24° 24' 52" West), along said Cut-Back Corner, a distance of 42.18 feet to a 1/2 inch iron rod set for corner of the East Right-of-way line of Linda Street (60.00 feet wide);

THENCE North 15° 05' 00" East, along said East Right-of-way line, a distance of 180.75 feet to the POINT OF BEGINNING and containing a computed 7.4639 acres of land.

SAVE AND EXCEPT THE FOLLOWING:

1.0000 acre of land in the Manuel Escalera League, Abstract No. 170, Fort Bend County, Texas, out of a 7.4639 acre tract, originally called a 9.74 acre tract, recorded on Volume 952, Page 211 of the Deed Records of Fort Bend County, Texas, sold 1.0000 acre tract being described by metes and bounds as follows:

BEGINNING at a 3/4 inch iron pipe found on the East Right-of-way line of Linda Street (60.00 feet wide) for the Northeast Corner of said 7.4639 acre tract, same being the Northwest corner of Lot 2 of the Fetterly's Subdivision, according to the plat thereof recorded in Volume 42, Page 83, Deed Records of Fort Bend County, and the Southwest corner of Rosedale Addition, according to the plat thereof recorded in Volume 393, Page 86 of the Map Records of Fort Bend County, Texas, and Slide No. 99999A;

THENCE North 90° 00' 00" East, along the North line of said Lot 2, same being the South line of said Rosedale Addition, a distance of 177.58 feet to a 1/2 inch iron rod set for corner;

THENCE South 15° 05' 00" West a distance of 305.63 feet to a 1/2 inch iron rod set for corner on the Northeast right-of-way line of State Highway 6 (100 feet wide);

THENCE North 57° 41' 57" West, along said right-of-way line a distance of 152.68 feet to an iron rod with cap found for cut back corner of that triangular tract taken for said State Highway 6 right-of-way as recorded in File Number (96) 35373 Deed Records of Fort Bend County, Texas;

THENCE North 22° 20' 56" West (called North 24° 34' 52" West) along said Cut Back Corner, a distance of 42.16 feet to a 1/2 inch iron rod set for corner of the East right-of-way line of Linda Street (60.00 feet wide);

THENCE North 15° 05' 00" East, along said East right-of-way line, a distance of 180.75 feet to the POINT OF BEGINNING and containing 1.0000 acre of land.

ACCESS & UTILITY EASEMENT (A.U.E.) DESCRIPTION (AS SURVEYED):

Being 0.04 acres (1,684 square feet) tract of land situated in the Manuel Escalera Survey, A-170 of Fort Bend, County, being a portion of a called 6.4639 acre tract of land as described in an instrument to Jerrold Haskell Goldfarb, recorded under Clerk's File Number (C.F.) 2015093188 of the Official Public Records of Real Property Fort Bend County, Texas (O.P.R.R.P.F.B.C.T.), said 0.04 acre tract of land being more particularly described by metes and bounds as follows:

COMMENCING at a 1/2 inch iron pipe found for the Northeast corner of said 6.4639 acre tract, same being the Southeast corner of Linda Drive (60' right-of-way) as shown on the plat of ROSEDALE ADDITION, a subdivision per plat recorded under Volume 393, Page 84 of the Map Records of Fort Bend County, Texas;

THENCE South 86°44'36" West, along with the North line of said 6.4639 acre tract and the South line of said ROSEDALE ADDITION, a distance of 20.57 feet to a point for the Northeast corner and POINT OF BEGINNING of the herein described tract;

THENCE, over and across said 6.4639 acre, tract the following five (5) courses and distances:

South 11°42'25" West, a distance of 47.85 feet to a point for the Southeast corner of the herein described tract;

South 86°44'36" West, a distance of 57.07 feet to a point for the Southwest corner of the herein described tract, lying on the East line of a lease site;

North 11°42'46" East, along and with the East line of said lease site, a distance of 20.70 feet to a point for the Westerly Northwest corner of the herein described tract;

North 86°44'36" East, a distance of 36.36 feet to a point for an interior corner of the herein described tract;

North 11°42'25" East, a distance of 27.15 feet to a point for the Northwest corner of the herein described tract;

THENCE North 86°44'36" East, along and with the North line of said 6.4639 acre tract and the South line of said ROSEDALE ADDITION, a distance of 75.00 feet to the POINT OF BEGINNING and containing a computed 0.04 acres (1,684 square feet) of land.

LEASE SITE DESCRIPTION (AS SURVEYED):

Being 0.12 acres (5,434 square feet) tract of land situated in the Manuel Escalera Survey, A-170 of Fort Bend, County, being a portion of a called 6.4639 acre tract of land as described in an instrument to Jerrold Haskell Goldfarb, recorded under Clerk's File Number (C.F.) 2015093188 of the Official Public Records of Real Property Fort Bend County, Texas (O.P.R.R.P.F.B.C.T.), said 0.12 acre tract of land being more particularly described by metes and bounds as follows:

COMMENCING at a 1/2 inch iron pipe found for the Northeast corner of said 6.4639 acre tract, same being the Southeast corner of Linda Drive (60' right-of-way) as shown on the plat of ROSEDALE ADDITION, a subdivision per plat recorded under Volume 393, Page 84 of the Map Record of Fort Bend County, Texas;

THENCE, South 86°44'36" West, along and with the North line of said 6.4639 acre tract and the South line of said ROSEDALE ADDITION, passing at a distance of 62.11 a 1/2 inch iron pipe found for the Southeast corner of Lot 10, Block 7 of said ROSEDALE ADDITION, continuing for a total distance of 77.63 feet to a 5/8 inch iron rod with cap stamped 'Landpoint 10194172' set for the Northeast corner and POINT OF BEGINNING of the herein described tract;

THENCE, over and across said 6.4639 acre tract the following three (3) courses and distances:

South 11°42'46" West, a distance of 75.00 feet to a 5/8 inch iron rod with cap stamped 'Landpoint 10194172' set for the Southeast corner of the herein described tract;

South 86°44'36" West, a distance of 75.00 feet to a 5/8 inch iron rod with cap stamped 'Landpoint 10194172' set for the Southwest corner of the herein described tract;

North 11°42'46" East, a distance of 75.00 feet to a 5/8 inch iron rod with cap stamped 'Landpoint 10194172' set for the Northwest corner of the herein described tract;

THENCE North 86°44'36" East, along and with the North line of said 6.4639 acre tract and the South line of said ROSEDALE ADDITION, a distance of 75.00 feet to the POINT OF BEGINNING and containing a computed 0.12 acres (5,434 square feet) of land.

CALLLED 1.0 ACRES
SAVE AND EXCEPT TRACT
OUT OF 7.4639 ACRES

CALLLED 6.4639 ACRES
GOLDFARB, JERROLD HASKELL
C.F. 2015093188 O.P.R.R.P. F.B.C.T.
(TAX PARCEL: 0170-00-000-1700-907)

STATE HIGHWAY 6
(R.O.W. VARIES)

TALISMAN DRIVE
(60' PUBLIC R.O.W.)

ROSEDALE ADDITION SUBDIVISION
VOLUME 393, PAGE 84 M.R.F.B.C.T.

CALLLED 89.243 ACRES
CHARLESTON C.M.I. LTD.
C.F. 2010055798
O.P.R.R.P. F.B.C.T.

LINE TABLE		
NO.	BEARING	LENGTH
L1	S 11°42'25" W	47.85
L2	S 86°44'36" W	57.07
L3	N 11°42'46" E	20.70
L4	N 86°44'36" E	36.36
L5	N 11°42'25" E	27.15
L6	N 86°44'36" E	20.70
L7	S 11°42'46" W	75.00
L8	S 86°44'36" W	75.00
L9	N 11°42'46" E	75.00
L10	N 86°44'36" E	75.00
L11	S 86°44'36" W	20.57
L12	S 86°44'36" W	77.63

LEGEND / ABBREVIATIONS

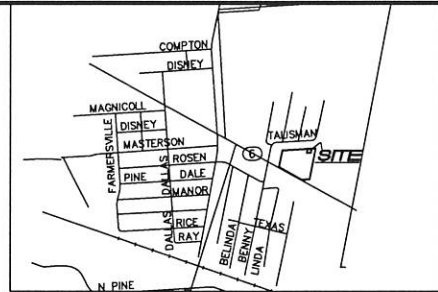
A.	ABSTRACT
C.F.	CLERK'S FILE
FND.	FOUND
I.R.	IRON ROD
L.P.	LEASE SITE
M.R. F.B.C.T.	MAP RECORDS OF FORT BEND COUNTY, TEXAS
O.P.R.R.P. F.B.C.T.	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY, FORT BEND COUNTY, TEXAS
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCING
ROP	REINFORCED CONCRETE PIPE
BARBED WIRE	X
POWER POLE	(CD)
OVERHEAD LINE	—o—
PROPERTY MARKER	o

SITE BENCHMARK

800-NAIL ELEV.: 59.18 (GEOID 12)

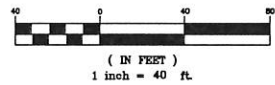
SET 800-NAIL LOCATED SOUTH 89°46'35" EAST, A DISTANCE OF 46.94 FEET, FROM THE SOUTHEAST CORNER OF LEASE SITE.

ELEVATIONS AS MEASURED WITH TRIMBLE R6 USING AREA VRS NETWORK.



VICINITY MAP
N.T.S.

GRAPHIC SCALE



I hereby certify to: Vertical Bridge REIT, LLC, a Delaware limited liability company, its subsidiaries, and their respective successors and/or assigns; Toronto Dominion (Texas) LLC, as Administrative Agent, for itself and on behalf of the lenders parties from time to time to that certain Second Amended and Restated Loan Agreement dated June 17, 2016 with Vertical Bridge Holdco, LLC, as borrower, and Vertical Bridge Holdco Parent, LLC, as parent, as may be amended, restated, modified or renewed; their successors and assigns as their interests may appear; and Fidelity National Title Insurance Company

Joy Dean Canine
Registered Professional Land Surveyor
Texas Registration No. 4345
Date: November 16, 2017
Date: January 28, 2018 (Added Parent tract description)
Date: March 8, 2018 (Added Title Commitment)
Date: March 28, 2018 (Client Comments)
Date: March 30, 2018 (Client Comments)



SURVEY OF
A LEASE SITE
0.12 ACRES (5,434 SQ. FT.)
AND ACCESS & UTILITY EASEMENT
0.04 ACRES (1,684 SQ. FT.)
IN THE
MANUEL ESCALERA SURVEY, A-170
FORT BEND COUNTY, TEXAS

FLOOD NOTE

This site is situated in Zone "X" in Fort Bend County, Texas according to FEMA map number 4815700315L, dated April 02, 2014. Warning: This statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage. This determination has been made by scaling the property on the referenced map and is not the result of an elevation survey. This flood statement shall not create liability on the part of the surveyor.

PROJECT INFORMATION

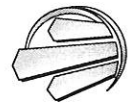
SITE NAME: GOLDFARB
SITE NUMBER: US-TX-5460
OWNERS NAME: JERROLD HASKELL GOLDFARB
SITE ADDRESS: 918 TALISMAN ROAD #4, ROSHARON, TX 77583

NAD 27 NAD 83 ELEV.
LATITUDE: 29°30'09.43" N 29°30'10.28" N 59'
LONGITUDE: 95°26'54.36" W 95°26'55.15" W

NOTES

- Elevations based on GEOID12 using area VRS network.
- Bearings based on Texas State Plane Coordinate System, South Central Zone, North American Datum 1983 (NAD83).
- This survey was prepared with the benefit of a title commitment from Fidelity National Title Insurance Company, effective date: January 7, 2018, issued: January 19, 2018, Commitment No. 26522104.
- There are no Schedule "B" items that affect the Lease Area or Access and Utility Easement per title commitment from Fidelity National Title Insurance Company, effective date: January 7, 2018, issued: January 19, 2018, Commitment No. 26522104.
- There were no visible encroachments affecting the Lease Area or any of the easements, at the time the survey was completed.
- The Lease Area and all easements lie entirely within the parent parcel.
- The access and utility easements go to a confirmed public right-of-way of Linda Drive.
- This survey was prepared for Vertical Bridge Development, LLC.

TOWN AND COUNTRY SURVEYORS
A LANDPOINT COMPANY
2219 SAWDUST ROAD, STE. 2003
THE WOODLANDS, TX 77380
(281)465-8730
www.landpoint.net



FIELD BOOK	44/323
FIELD WORK	T.W.
DATE	11/08/2017
DRAFTING	J.S.
DATE	11/18/2017
CHECKED	R.S.
DATE	11/18/2017
MISC. CO.	PROPERTY RECORDS
TITLE CO.	FIDELITY NATIONAL
G.F. NO.	FTN-90-FAH18900007
SCALE	1"=40'
KEY MAP	
JOB. NO.	17-1665

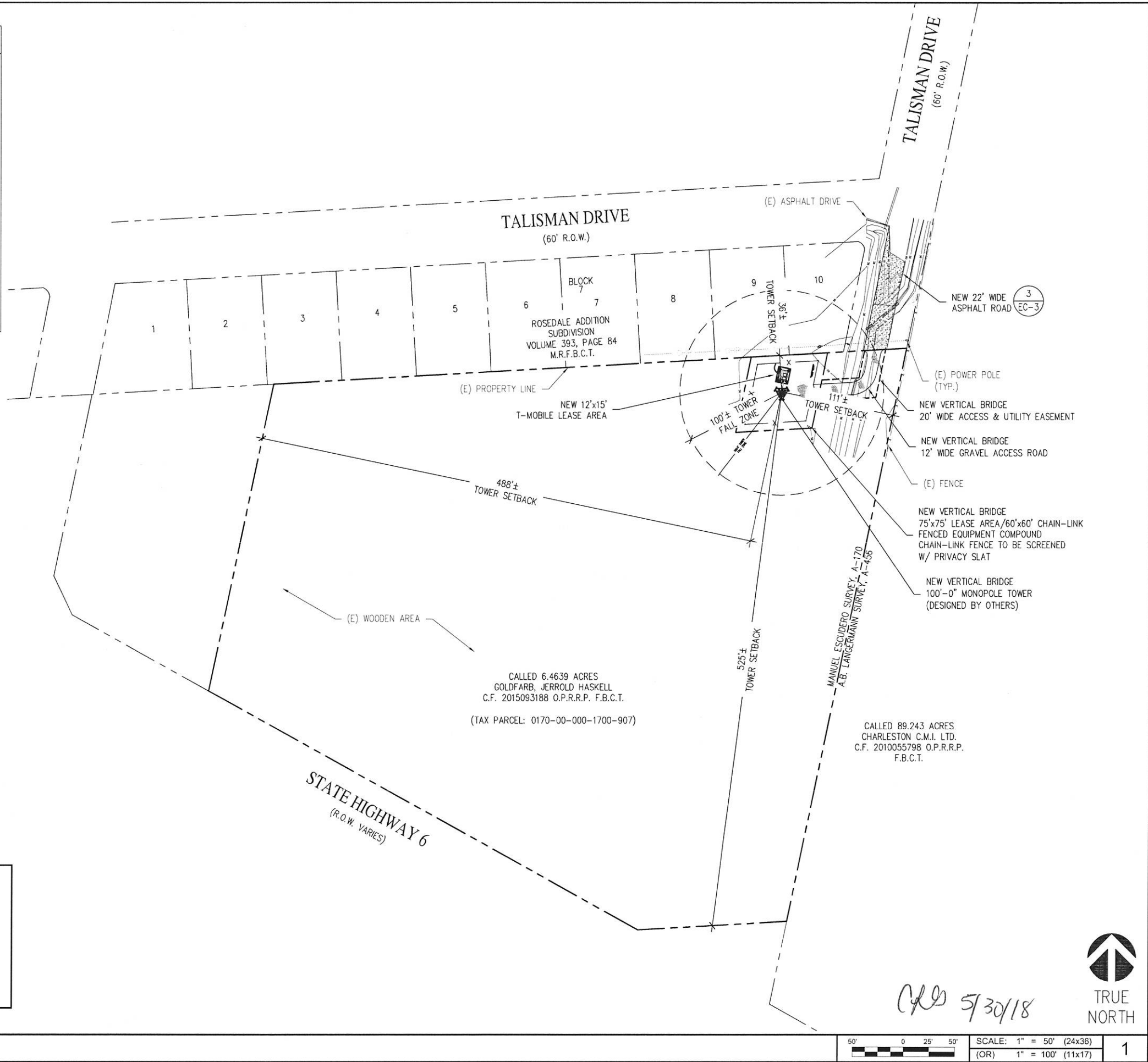
S.1

SHEET 1 OF 1

Handwritten note: 5/30/18

LEGEND	
NEW	PROPOSED
(E)	EXISTING
---	CENTER LINE
---	PROPERTY LINE
-X-	FENCE LINE
- - -	EASEMENT LINE
— OHP —	OVERHEAD POWER
— OHT —	OVERHEAD TELCO
— OHF —	OVERHEAD FIBER
— P —	UNDERGROUND POWER CONDUIT
— T —	UNDERGROUND TELCO CONDUIT
— F —	UNDERGROUND FIBER CONDUIT
— HYBRID —	HYBRID CABLE
— COAX —	COAX CABLE
— SF —	SILT FENCE

NOTE:
INFORMATION CONTAINED WITHIN DRAWINGS IS BASED
ON PROVIDED INFORMATION AND A DESIGN WALK BY
ALLPRO CONSULTING GROUP, INC. DATED 09/28/17,
AND TOPOGRAPHIC SURVEY BY LANDPOINT
COMPANY DATED 11/16/17.



FORT BEND COUNTY ENGINEER

APPROVED: Development Coordinator
DATE: 5-30-18

OVERALL SITE PLAN

T-Mobile®
2 GREENWAY PLAZA
HOUSTON, TX 77046

verticalbridge
750 PARK OF COMMERCE DRIVE
BOCA RATON, FL 33487

ALLPRO
CONSULTING GROUP, INC.
9221 Lyndon B Johnson Fwy
Suite 204, Dallas, TX 75243
Phone: 972-231-8893
Fax: 866-364-8375
www.allprocg.com
Registration No. 8242

ACGI NO:		17-7142, 18-2191	
DRAWN BY:		RM	
CHECKED BY:		JG	
REVISIONS			
REV	DATE	DESCRIPTION	BY
2	05/17/18	REV. FOR DRAINAGE DISTRICT	RM
1	04/17/18	REV. FOR ZONING SUBMITTAL	RM
0	03/05/18	FINAL CD	RM
C	02/15/18	REV. FOR T-MOBILE REDLINES	RM
B	01/29/18	REV. FOR T-MOBILE REDLINES	HR
A	11/22/17	PRELIMINARY CD	RM

05/17/18
STATE OF TEXAS
JOJI MOTTACKAL GEORGE
91793
LICENSED PROFESSIONAL ENGINEER
NOT VALID WITHOUT
P.E. STAMP & SIGNATURE

SITE INFORMATION
T-MOBILE SITE #:
A3C0203B
VERTICAL BRIDGE SITE #:
TX-5460
918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY

SHEET TITLE:
OVERALL
SITE PLAN

SHEET NUMBER:
C-1

LEGEND	
NEW	PROPOSED
(E)	EXISTING
---	CENTER LINE
---	PROPERTY LINE
-X-	FENCE LINE
---	EASEMENT LINE
—OHP—	OVERHEAD POWER
—OHT—	OVERHEAD TELCO
—OHF—	OVERHEAD FIBER
—P—	UNDERGROUND POWER CONDUIT
—T—	UNDERGROUND TELCO CONDUIT
—F—	UNDERGROUND FIBER CONDUIT
—HYBRID—	HYBRID CABLE
—COAX—	COAX CABLE
—SF—	SILT FENCE

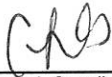
NOTE:
NEW BURIED OR OVERHEAD UTILITIES MUST BE CONTAINED WITHIN A DEDICATED UTILITY EASEMENT. ALL EXISTING AND NEW UTILITY EASEMENTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. NO DIGGING OR TRENCHING SHALL BE ALLOWED WITHOUT PRIOR VERIFICATION OF EXISTING BURIED UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND PROTECT SAID UTILITIES FROM ANY DAMAGE CAUSED BY CONTRACTOR'S ACTIVITIES.

NOTE:
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NOTE:
VERTICAL BRIDGE WILL UTILIZE EXISTING ASPHALT DRIVEWAY, WITHIN THE RIGHT-OF-WAY. THEN CONTINUE WITH NEW 12' WIDE GRAVEL ROAD TO THE TELECOMMUNICATION SITE.

FORT BEND COUNTY ENGINEER

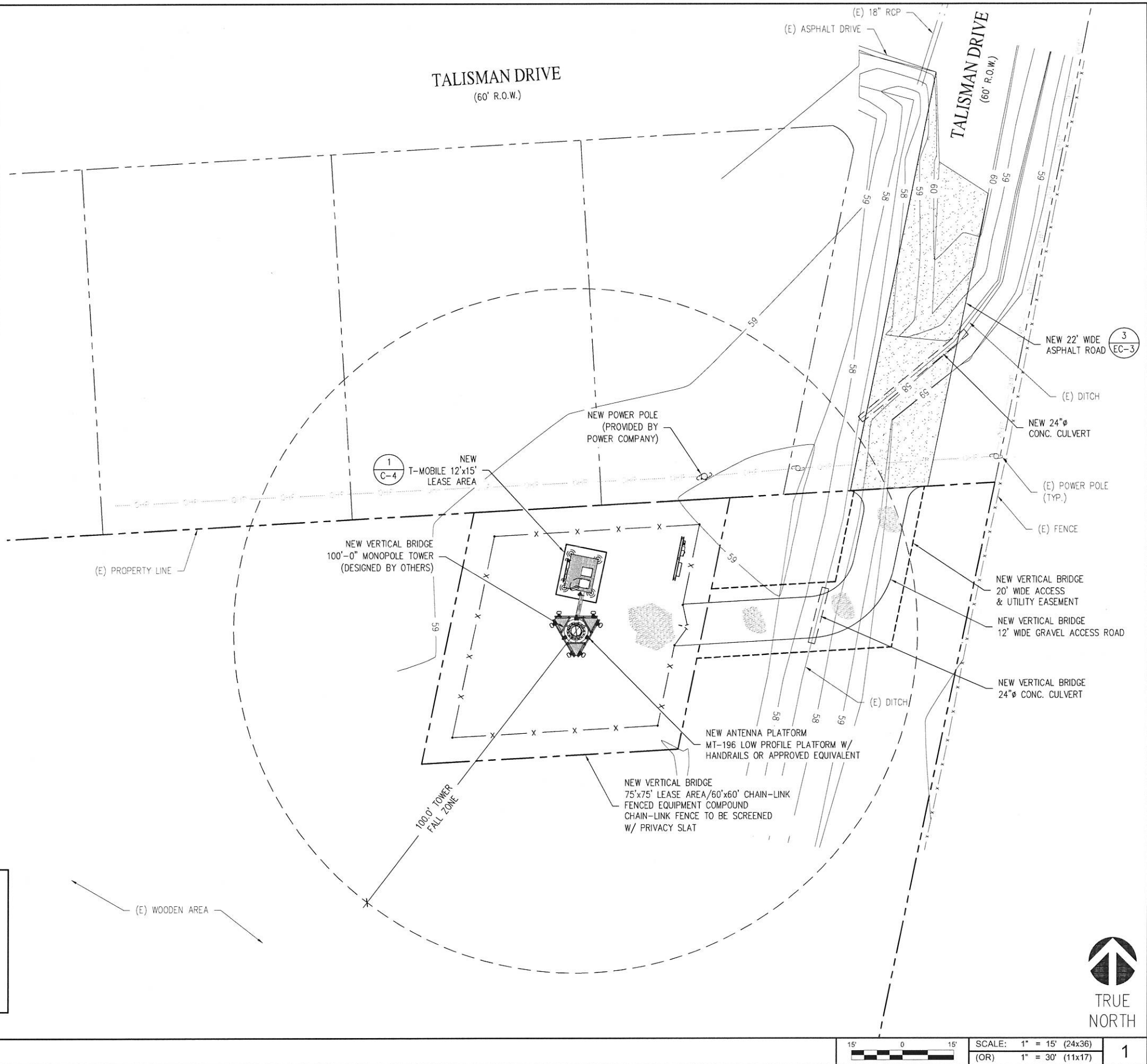
APPROVED:



DATE:

5-30-18

Development Coordinator



T-Mobile®

2 GREENWAY PLAZA
HOUSTON, TX 77046

verticalbridge

750 PARK OF COMMERCE DRIVE
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17-7142, 18-2191

DRAWN BY:

RM

CHECKED BY:

JG

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05/17/18

STATE OF TEXAS

JOJI MOTTACKAL GEORGE

91793

PROFESSIONAL ENGINEER

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SITE INFORMATION

T-MOBILE SITE #:
A3C0203B

VERTICAL BRIDGE SITE #:
TX-5460

918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY

SHEET TITLE:
OVERALL SITE PLAN
(CONTINUOUS)

SHEET NUMBER:
C-1A

LEGEND

NEW	PROPOSED
(E)	EXISTING
---	CENTER LINE
---	PROPERTY LINE
-X-	FENCE LINE
---	EASEMENT LINE
—OHP—	OVERHEAD POWER
—OHT—	OVERHEAD TELCO
—OHF—	OVERHEAD FIBER
—P—	UNDERGROUND POWER CONDUIT
—T—	UNDERGROUND TELCO CONDUIT
—F—	UNDERGROUND FIBER CONDUIT
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—COAX—	COAX CABLE
—SF—	SILT FENCE

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NOTE:
HYBRID CABLE INSTALLED IN 2 1/2" RIGID GALVANIZED CONDUIT TO EXTEND 2 FEET ABOVE TOP OF PORTHOLE AND TERMINATE INTO SSC CABINET, GROUND RIGID CONDUIT AT SSC AND AT TRANSITION AT TOWER PORTAL.

NOTE:
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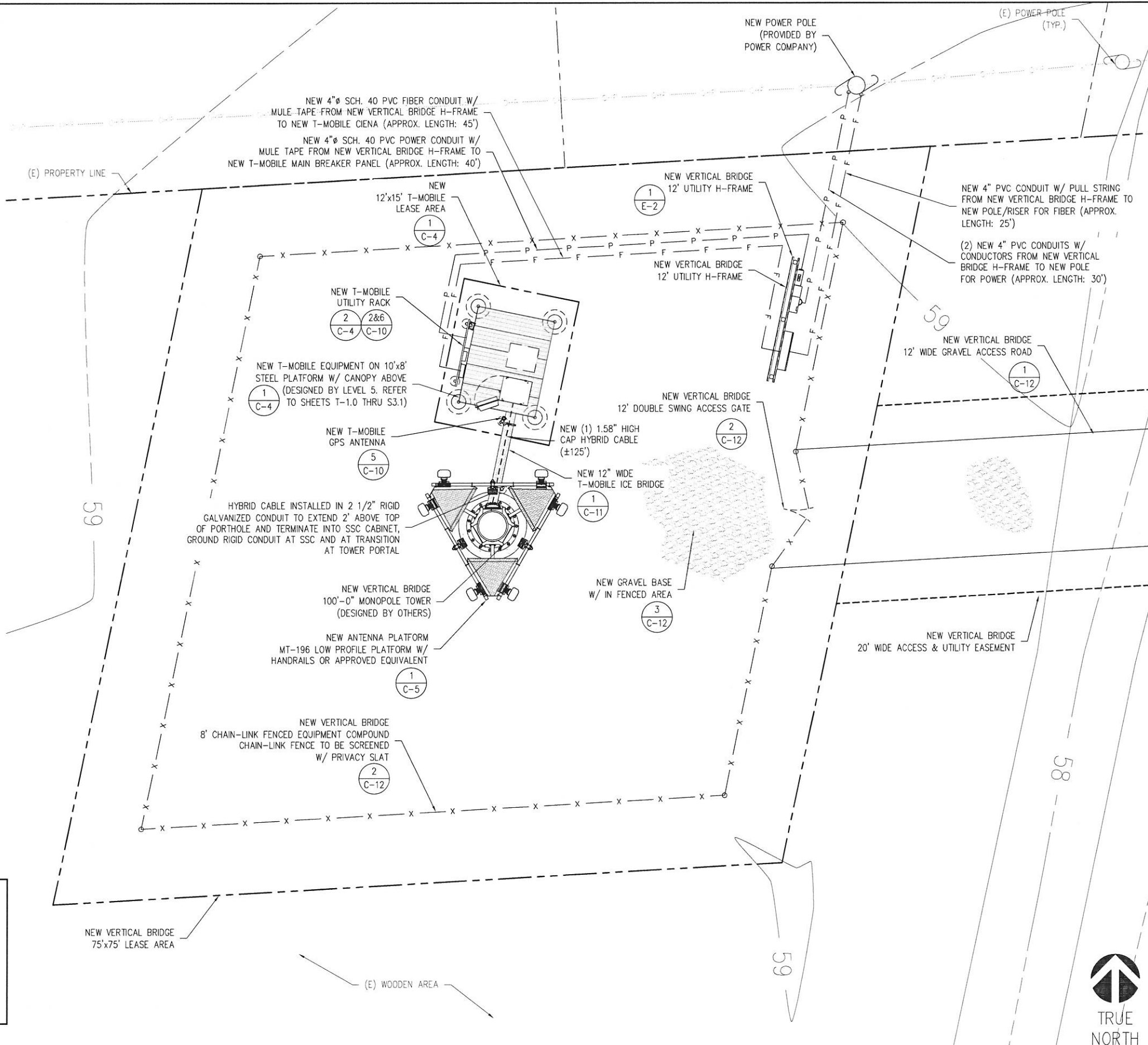
NOTE:
NEW PLATFORM DESIGNED IS BY LEVEL 5. REFER TO SHEETS T-1.0 THRU S3.1 FOR DETAILS. FOUNDATION DESIGN IS PENDING.

NOTE:
VERTICAL BRIDGE WILL UTILIZE EXISTING ASPHALT DRIVEWAY, WITHIN THE RIGHT-OF-WAY. THEN CONTINUE WITH NEW 12' WIDE GRAVEL ROAD TO THE TELECOMMUNICATION SITE.

FORT BEND COUNTY ENGINEER

APPROVED: 
Development Coordinator

DATE: 5-30-18



T-Mobile

2 GREENWAY PLAZA
HOUSTON, TX 77046

verticalbridge

750 PARK OF COMMERCE DRIVE
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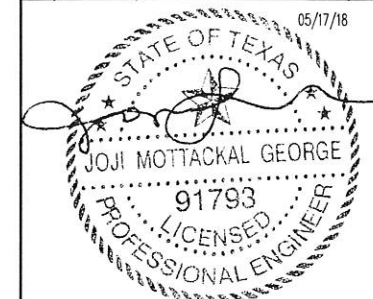
Registration No. 8242

ACGI NO: 17-7142, 18-2191

DRAWN BY: RM

CHECKED BY: JG

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A3C0203B

VERTICAL BRIDGE SITE #:
TX-5460

918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY

SHEET TITLE:
ENLARGED
SITE PLAN

SHEET NUMBER:

C-2


ENLARGED SITE PLAN

SCALE: 3/16" = 1'-0" (24x36)
(OR) 3/32" = 1'-0" (11x17)

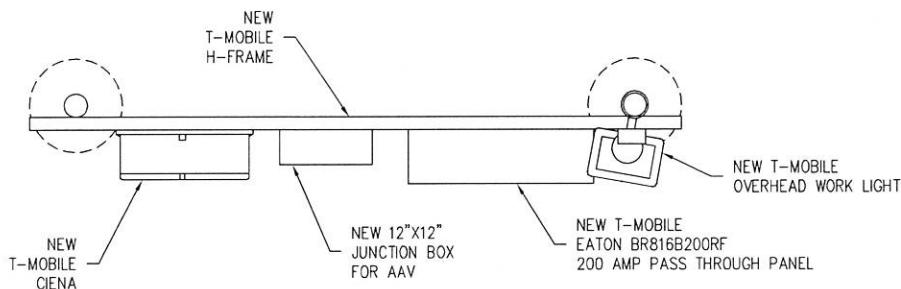
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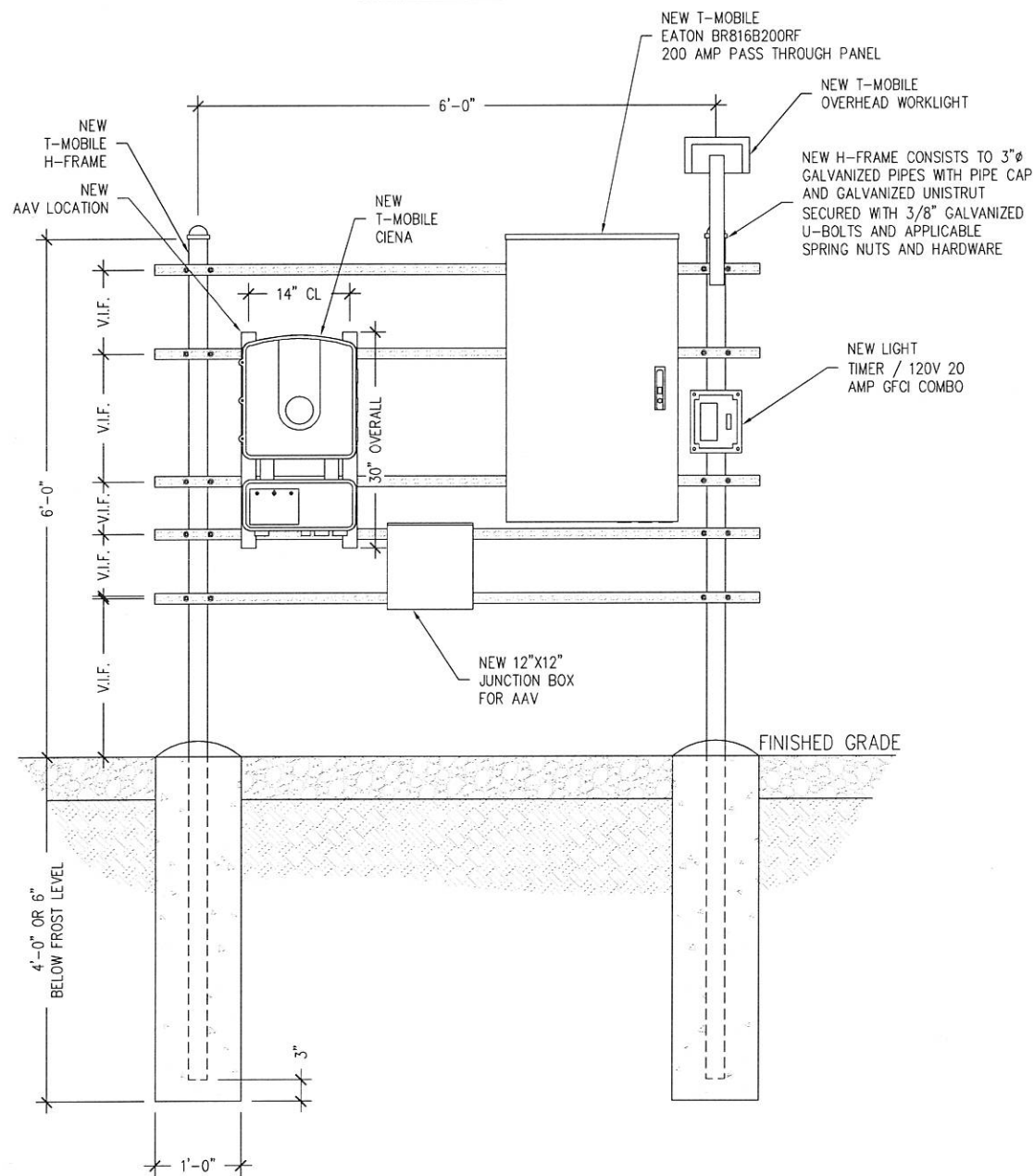
DATE: 5-30-18

6'	0	3'	6'	SCALE: $\frac{3}{16}" = 1'-0"$ (24x36)
				(OR) $\frac{3}{32}" = 1'-0"$ (11x17)

C-3



PLAN VIEW



FRONT VIEW

T-MOBILE H-FRAME DETAIL



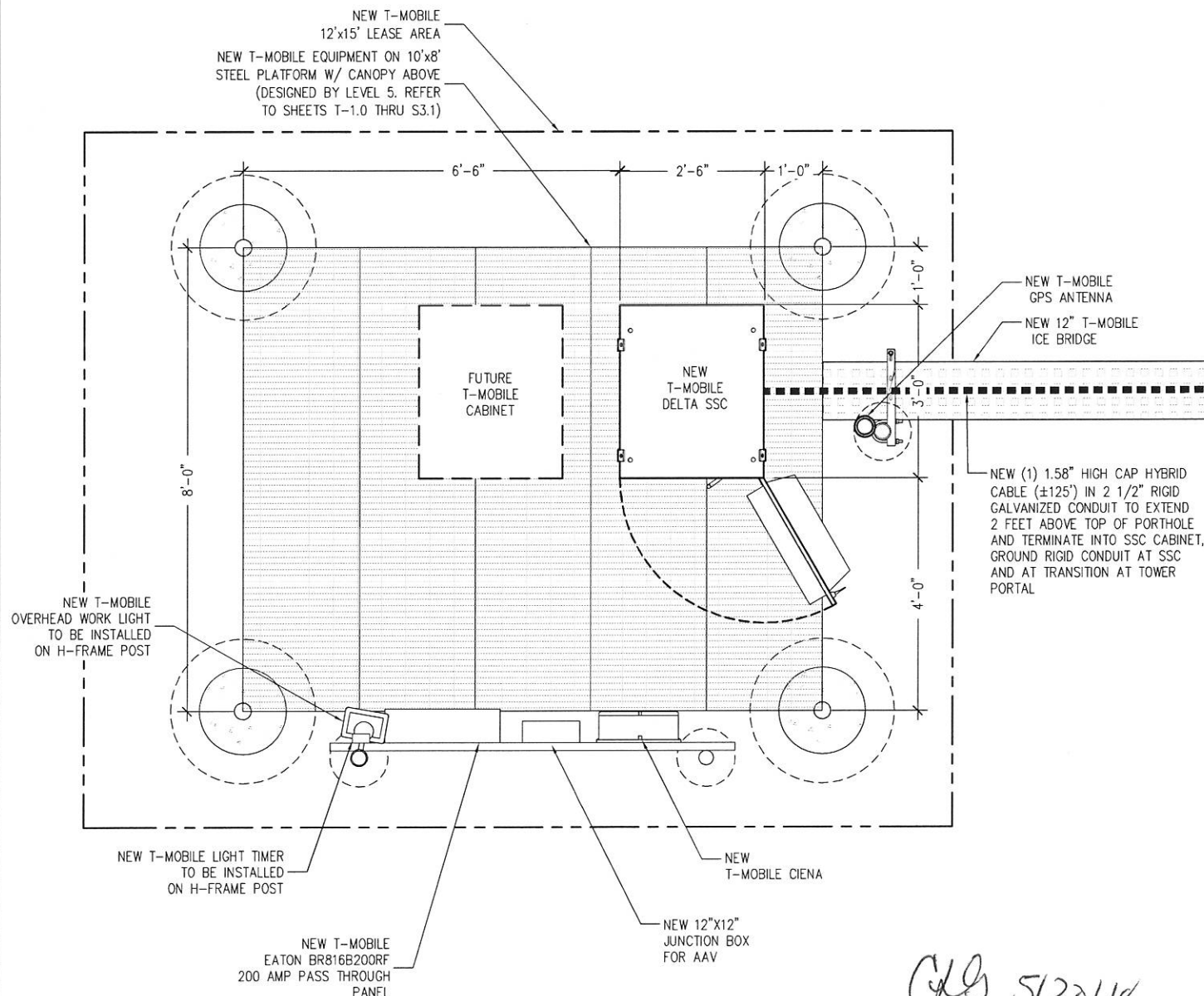
SCALE: 1" = 1'-0" (24x36)
(OR) 1/2" = 1'-0" (11x17)

2

- EQUIPMENT PLATFORM CONDUIT NOTES:
- SUPPLY AND INSTALL (N) 2" RIGID CONDUIT WITH (2) #4 STRANDED AND (1) #6 GREEN STRANDED FROM (N) BREAKER PANEL TO TERMINATION BLOCK IN NEW SSC CABINET PER PLANS AND SPECS.
 - SUPPLY AND INSTALL (1) (N) 12' X 12' J BOX FOR TELCO CONDUITS ON 'H' FRAME FOR AAV INSTALLATION.
 - SUPPLY AND INSTALL (N) 2" RIGID CONDUIT FROM 12' X 12' J BOX TO SSC CAB SEAL WITH RAIN TIGHT CONNECTORS.
 - SUPPLY AND INSTALL (2) (N) 2' X 8' RIGID CONDUIT BETWEEN (N) SSC AND (N) FCOA FOR POWER AND TELCO USING RAIN TIGHT CONNECTORS.
 - SUPPLY AND INSTALL (1) 1 1/4" FLEX CONDUIT FROM SSC TO AT&T CIENA LOCATION ON 'H' FRAME WITH (1) PAIR #12 STRANDED CONDUCTOR FROM 10 AMP 1P BREAKER AT ALPHA RACK FOR -DC POWER. LEAVE MALE ADAPTOR ON END OF ALL FLEX CONDUITS FOR TERMINATION PURPOSES.
 - SUPPLY AND INSTALL (1) 1 1/4" FLEX FROM 12' X 12' J BOX TO CIENA LOCATION, RUN (4) CAT5 CABLES FROM SSC THROUGH 2" CONDUIT TO J BOX THEN THROUGH 1 1/4" FLEX TO CIENA LOCATION, TERMINATE WITH RJ-45 CONNECTORS BOTH ENDS USING TIA 568B.
 - SUPPLY AND INSTALL (1) 1 1/4" FLEX FROM (N) 12 X 12 'J' BOX FOR TO CIENA LOCATION FOR FIBER JUMPER.
 - SUPPLY AND INSTALL (1) 1/2" FLEX CONDUIT FROM CIENA LOCATION WITH #6 GREEN STRANDED COPPER GROUND CAD WELD TO GROUND RING.

NOTE:

INSTALL OVP RBMDC-6777-BDU-48 INSIDE SSC. INSTALL FIBER TRAY (DIABLO CABLE-1U FIXED RACKMOUNT FIBER ENCLOSURE 24-CORE WHITE, SKU #: 18614) & 12 (LC/LC FEMALE TO FEMALE SINGLE MODE DUPLEX FIBER COUPLER, SKU #: 11406) FOR HYBRID CABLE TO JUMPER TRANSITION WITHIN SSC.



NEW EQUIPMENT PLAN



SCALE: 3/4" = 1'-0" (24x36)
(OR) 3/8" = 1'-0" (11x17)

1

T-Mobile
2 GREENWAY PLAZA
HOUSTON, TX 77046

verticalbridge
750 PARK OF COMMERCE DRIVE
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www.allprocgi.com
Registration No. 8242

ACGI NO: 17-7142, 18-2191
DRAWN BY: RM
CHECKED BY: JG

REVISIONS			
REV	DATE	DESCRIPTION	BY
2	05/17/18	REV. FOR DRAINAGE DISTRICT	RM
1	04/17/18	REV. FOR ZONING SUBMITTAL	RM
0	03/05/18	FINAL CD	RM
C	02/15/18	REV. FOR T-MOBILE REDLINES	RM
B	01/29/18	REV. FOR T-MOBILE REDLINES	HR
A	11/22/17	PRELIMINARY CD	RM

05/17/18
JOJI MOTTACKAL GEORGE
91793
PROFESSIONAL ENGINEER
NOT VALID WITHOUT
P.E. STAMP & SIGNATURE

SITE INFORMATION
T-MOBILE SITE #:
A3C0203B
VERTICAL BRIDGE SITE #:
TX-5460
918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY

SHEET TITLE:
EQUIPMENT PLAN

SHEET NUMBER:
C-4

5/30/18

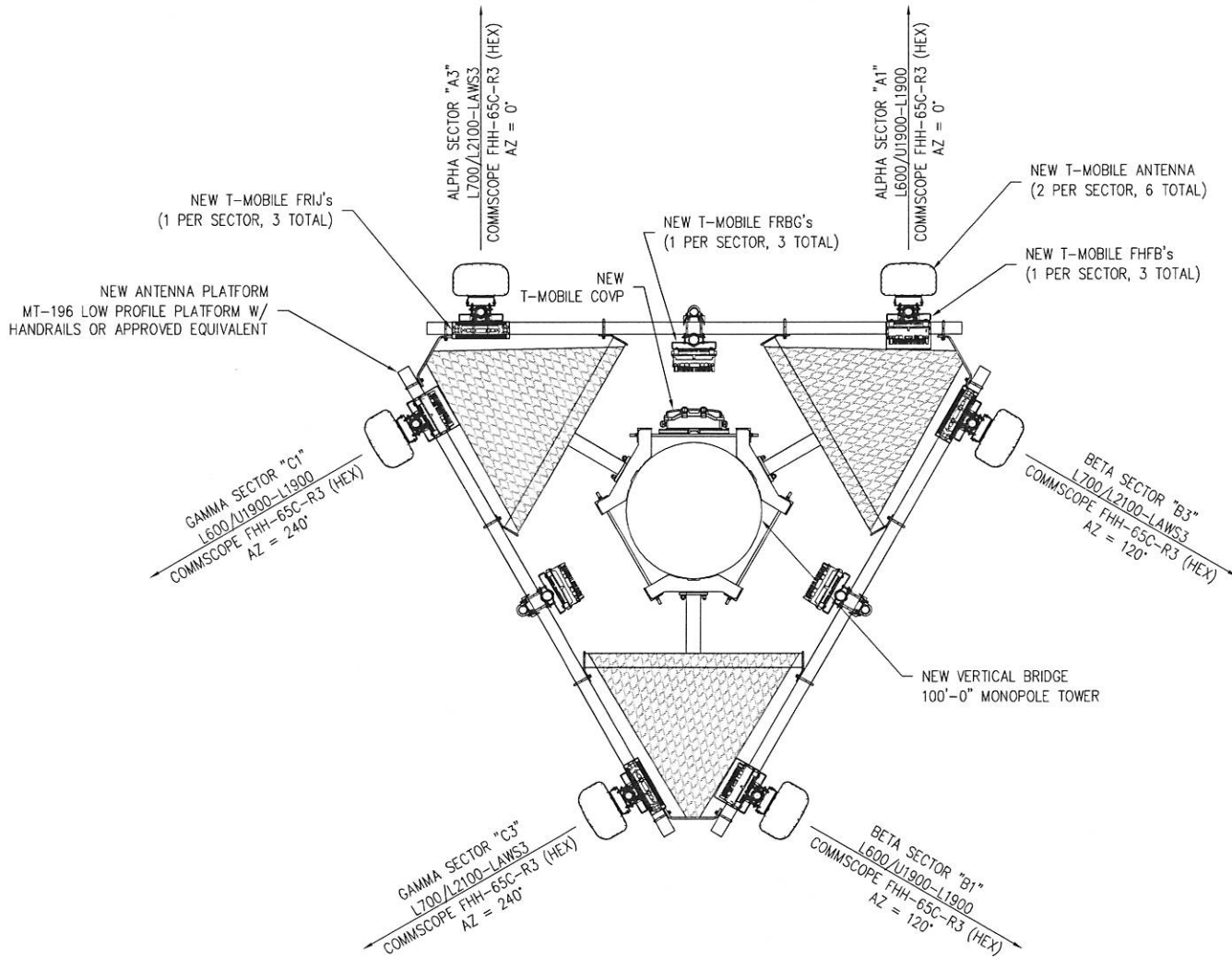
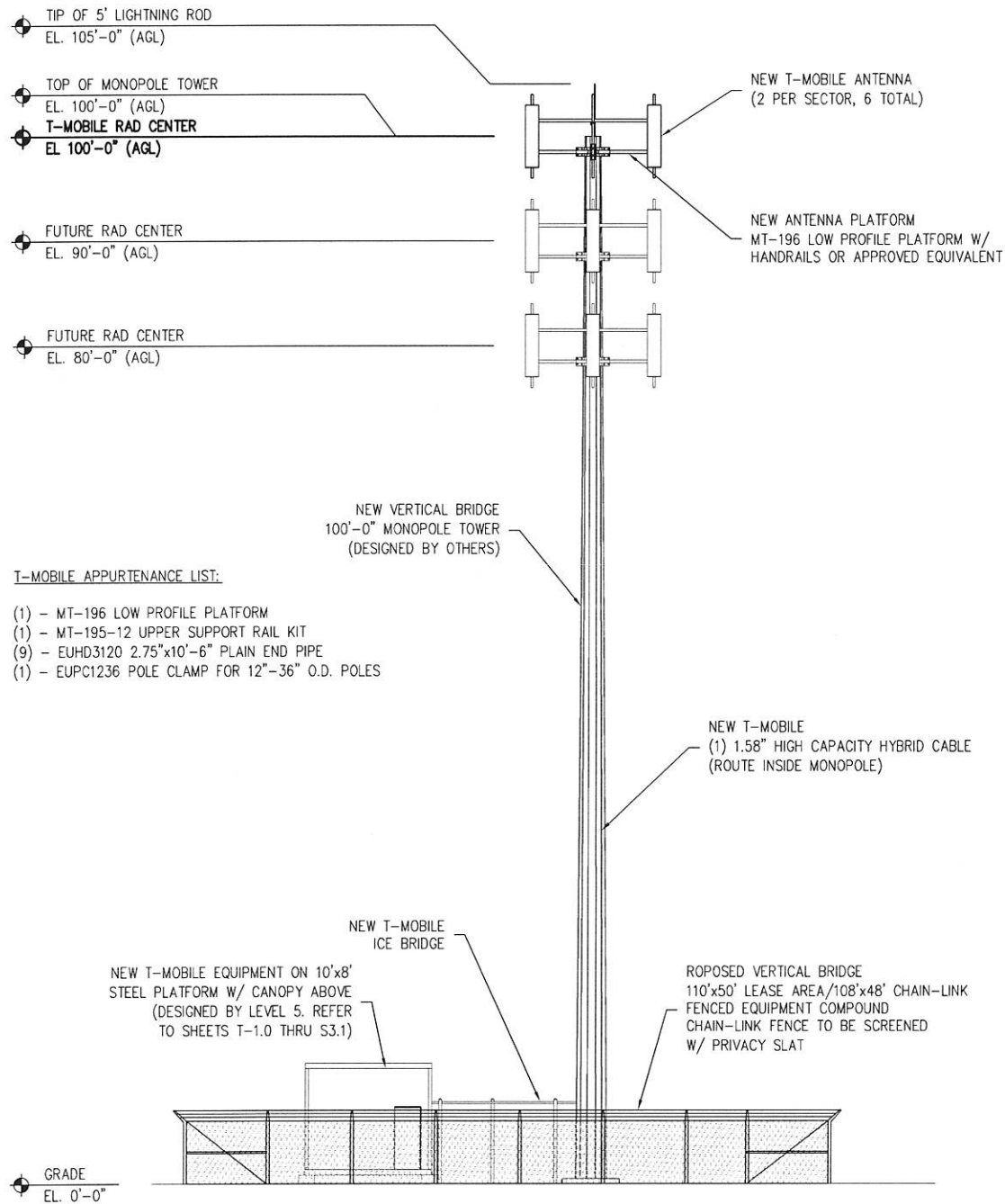
NOTE:
PRIOR TO ATTACHING ANTENNAS AND MOUNTING SECTIONS, TOWER
AND TOWER FOUNDATION MUST BE ANALYZED BY A LICENSED
STRUCTURAL ENGINEER TO VERIFY TOWER IS CAPABLE OF SUPPORTING
THE NEW LOADS. REFER TO STRUCTURAL ANALYSIS BY OTHERS.

NOTE:
NEW ANTENNA SEPARATION
5' MAX CENTER TO CENTER.

NOTE:
MOUNT COMPLIANCE MUST BE ANALYZED BY A
LICENSED STRUCTURAL ENGINEER. NO NEW ANTENNA,
MOUNTS AND/OR EQUIPMENT SHALL BE INSTALLED
WITHOUT THE APPROVAL OF A STRUCTURE ENGINEER.

NOTE:
NEW ANTENNA PLACEMENT LOCATION TO BE FIELD VERIFIED BY GENERAL CONTRACTOR
PRIOR TO CONSTRUCTION TO AVOID ANY INTERFERENCE OR SHADOWING OF EXISTING
ANTENNAS. IF INTERFERENCE OR SHADOWING OF EXISTING ANTENNAS IS DISCOVERED
DURING FIELD VERIFICATION, PLEASE CONTACT ALLPRO CONSULTING GROUP INC. FOR
DESIGN REVISION PRIOR TO ANY NEW ANTENNA INSTALLATION.

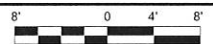
NOTE:
ALL INSTALLATIONS SHOULD BE IN COMPLIANCE WITH
ANSI/ASSE A10.48 AND ANY OTHER SAFETY STANDARDS.



CHS 5/30/18



TOWER ELEVATION (NEW)



SCALE: 1/8" = 1'-0" (24x36)
(OR) 1/16" = 1'-0" (11x17)

2

ANTENNA PLAN (NEW)

SCALE:
NTS

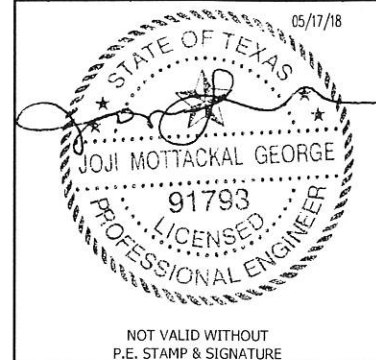
1

T-Mobile
2 GREENWAY PLAZA
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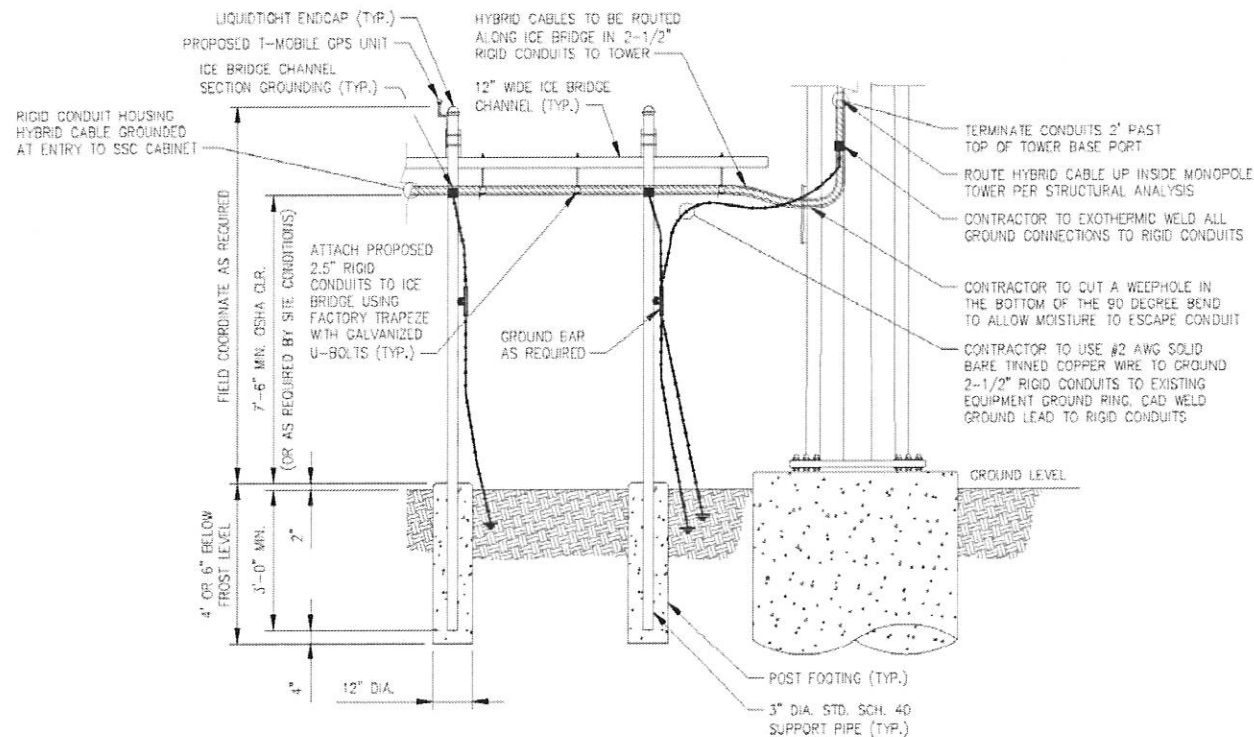
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DRAWN BY:	RM		
CHECKED BY:	JG		
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REV	DATE	DESCRIPTION	BY
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918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY
SHEET TITLE:
ANTENNA PLAN
& ELEVATION
SHEET NUMBER:
C-5

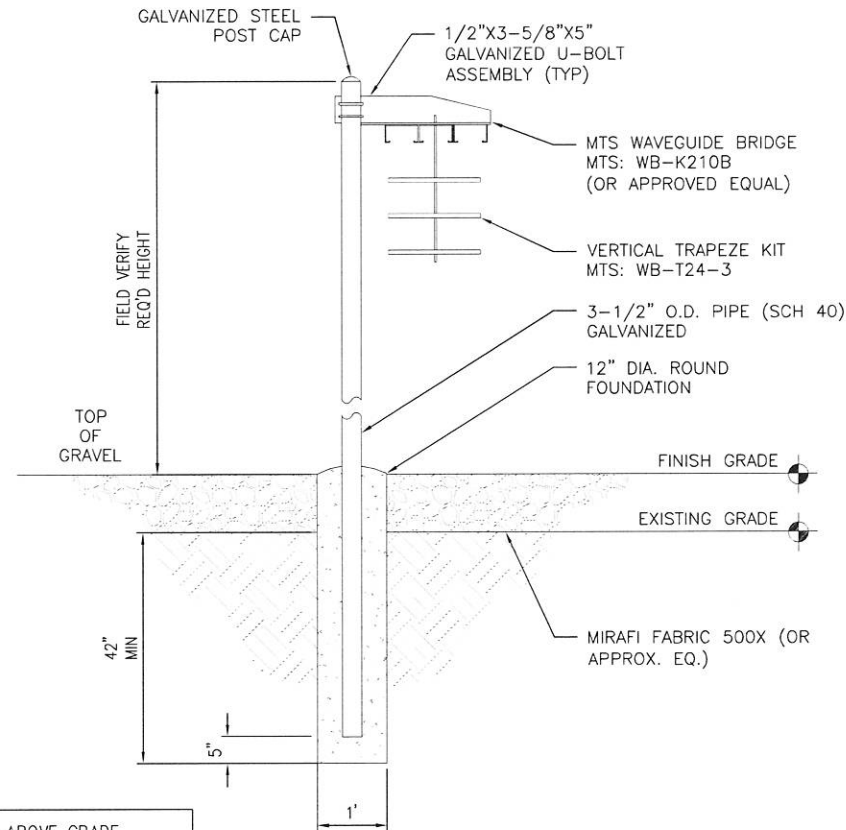
NOT USED

SCALE:
NTS 2

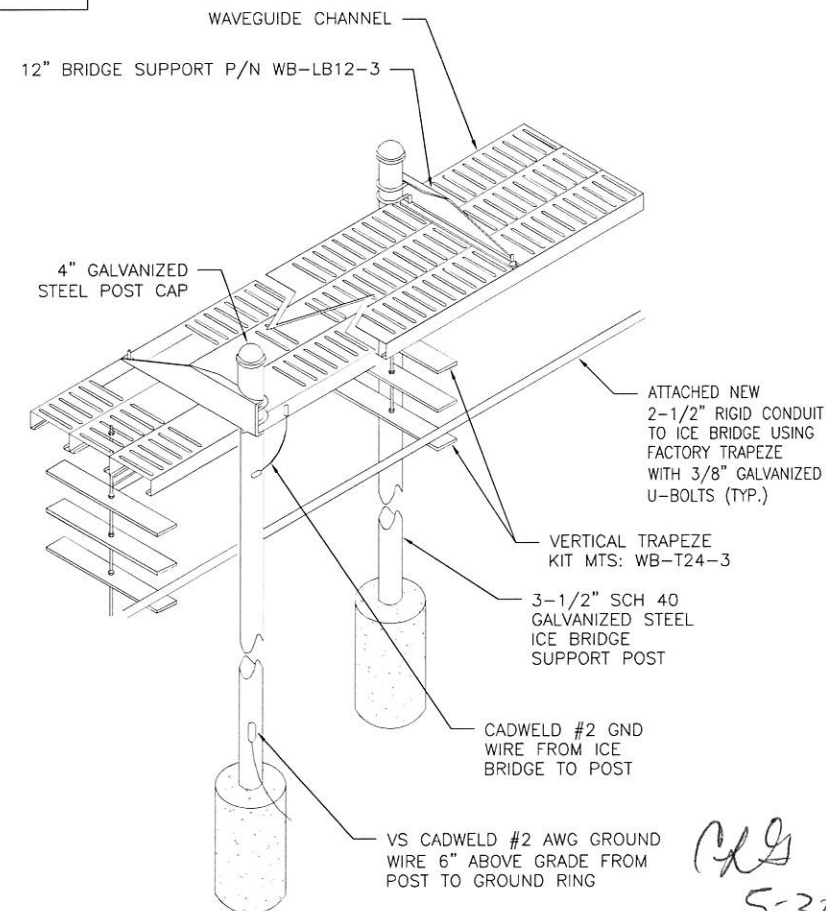


ICE BRIDGE DETAILS

SCALE:
NTS 1



NOTE: ALL RISERS AND ABOVE GRADE CONDUITS TO BE GALVANIZED RIGID CONDUIT UNLESS OTHERWISE SPECIFIED



T-Mobile
2 GREENWAY PLAZA
HOUSTON, TX 77046

verticalbridge
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BOCA RATON, FL 33487

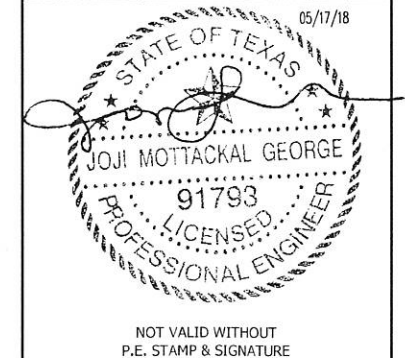
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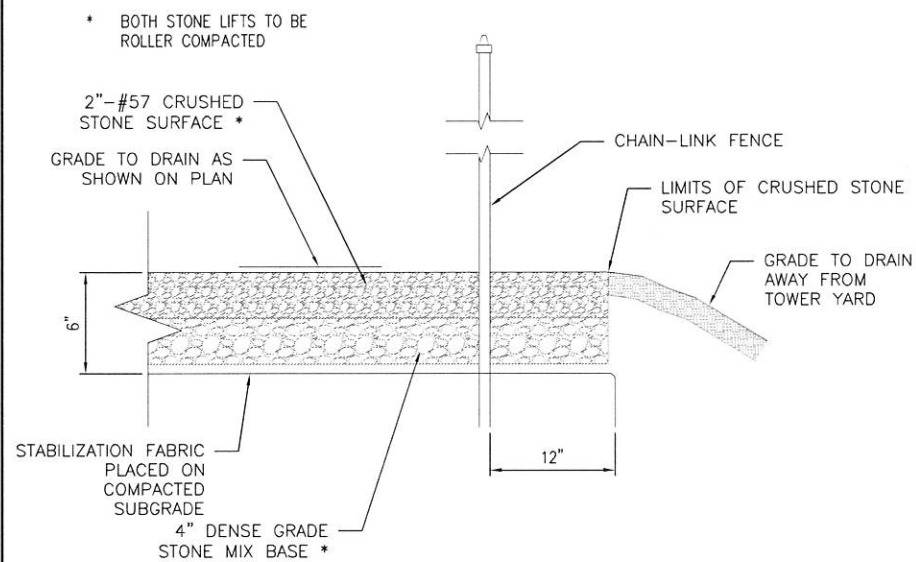
CHECKED BY: JG

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918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY

SHEET TITLE:
SITE
DETAILS
SHEET NUMBER:
C-11



NOTES:

1. WHERE REWORKING OR EXTENDING EXISTING ROAD, MATCH EXISTING CONSTRUCTION OR AS DETAILED ABOVE AS A MINIMUM ACCEPTABLE STANDARD.
2. TO BE USED FOR GRADES 0-4%
3. IF DETERMINED NECESSARY DURING GRADING AND CONSTRUCTION OF THE ACCESS ROAD BY THE ECO-SITE PROJECT MANAGER, THE CONTRACTOR SHALL INSTALL 5" BASE OF SURGE STONE OR RAILROAD BALLAST (2" TO 4" STONE TYP)



SCALE:
NTS

SCALE
NTS

[illegible]

SCALE:
NTS

2

SHEET TITLE: SITE DETAILS
SHEET NUMBER: C-12

1. Fort Bend County must be invited to the Pre-Construction Meeting.
2. Contractor shall notify Fort Bend County Engineering Department 48 hours prior to commencing construction and 48 hour notice to any construction activity within the limits of the paving at Construction@fortbendcountytexas.gov.
3. Contractor is responsible for obtaining all permits required from Fort Bend County prior to commencing construction of any improvements within County road right of ways.
4. All Paving Improvements shall be constructed in accordance with Fort Bend County "Rules, Regulations and Requirements" relating to the Approval and Acceptance of Improvements in Subdivisions as currently amended.
5. All road widths, curb radii and curb alignment shown indicates back of curb
6. A continuous longitudinal reinforcing bar shall be used in the curbs.
7. All concrete pavement shall be 5 1/2 sack cement with a minimum compressive strength of 3500 psi at 28 days. Transverse expansion joints shall be installed at each curb return and at a maximum spacing of 60 feet.
8. All weather access to all existing streets and driveways shall be maintained at all times.
9. 4"x 12" reinforced concrete curb shall be placed in front of single family lots only. All other areas shall be 6" reinforced concrete curb.
10. At all intersection locations, Type 7 ramps shall be placed in accordance with TxDOT Ped-12a standard detail sheet. A.D.A. - Handicap Ramps shall be installed with street paving at all intersections and comply with current A.D.A. regulations.
11. Curb headers are required at curb connections to Handicap Ramps, with no construction joint within 5' of ramps.
12. All intersections utilizing Traffic Control measures shall have A.D.A. wheel chair ramps installed.
13. Guidelines are set forth in the Texas "Manual on Uniform Traffic Control Devices", as currently amended, shall be observed. The Contractor shall be responsible for providing adequate flagmen, signing, striping and warning devices, etc., during construction - both day and night.
14. All R1-1 stop signs shall be 30"x30" with diamond grade sheeting per Texas manual on uniform traffic control devices.
15. Street name signage shall be on a 9" high sign flat blade w/reflective green background. Street names shall be upper and lowercase lettering with uppercase letters of 6" minimum and lowercase letters of 4.5" minimum. The letters shall be reflective white. Street name signs shall be mounted on stop sign post.
16. A Blue Double Reflectorized button shall be placed at all Fire Hydrant locations. The Button shall be placed 12 inches off of the centerline of the street on the same side as the hydrant.
17. The project and all parts thereof shall be subject to inspection from time to time by inspectors designated by Fort Bend County. No such inspections shall relieve the Contractor of any of its obligations hereunder. Neither failure to inspect nor failure to discover or reject any of the work as not in accordance with the drawings and specifications, requirements and specifications of Fort Bend County or any provision of this project shall be construed to imply an acceptance of such work or to relieve the Contractor of any of its obligations hereunder.

(E) PROPERTY LINE

(E) ASPHALT DRIVE

TALISMAN DRIVE
(60' ROW)

NEW 22' WIDE ASPHALT ROAD

(E) DITCH

NEW 24" ϕ
CONC. CULVERT

(E) POWER POLE
(TYP.)

(E) FENCE

NEW STABILIZED
CONSTRUCTION ENTRANCE

NEW VERTICAL BRIDGE
- 20' WIDE ACCESS
& UTILITY EASEMENT

NEW VERTICAL BRIDGE
12' WIDE GRAVEL ACCESS ROAD

NEW VERTICAL BRIDGE
24"Ø CONC. CULVERT

NEW VERTICAL BRIDGE
75'x75' LEASE AREA/60'x60' CHAIN-LINK
FENCED EQUIPMENT COMPOUND
CHAIN-LINK FENCE TO BE SCREENED
W/ PRIVACY SLAT

CONTRACTOR TO GRADE OUTSIDE OF
COMPOUND AS NEEDED TO AVOID EROSION.
SEED AREA WITH LOW MAINTENANCE NATIVE
GRASS AND COVER WITH APPROVED STRAW.

(E) WOODEN AREA



A graphic scale bar with markings for 15' and 0. The bar is divided into alternating black and white segments, with a total length of 30 feet.

SCALE:	1" = 15' (24x36)
(OR)	1" = 30' (11x17)

1



750 PARK OF COMMERCE DRIVE
BOCA RATON, FL 33487

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C	02/15/18	REV. FOR T-MOBILE REDLINES	RM
B	01/29/18	REV. FOR T-MOBILE REDLINES	HR
A	11/22/17	PRELIMINARY CD	RM

NOT VALID WITHOUT
P.E. STAMP & SIGNATURE

SITE INFORMATION
T-MOBILE SITE #:
A3C0203B

VERTICAL BRIDGE SITE #:
TX-5460

918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY

SHEET TITLE:
EROSION & GRADING
CONTROL PLAN

SHEET NUMBER:

EC-1

APPROVED: _____
Development Coordinator

DATE: 5-30-78

RUNOFF CALCULATION

Existing (Prior)

period	2yrs	10yrs	25yrs	100yrs	
I=	3.68	4.78	5.47	6.14	in/hr.
Q ₁ =	16.47	21.39	24.48	27.48	ft ³ /sec

Proposed (After)

period	2yrs	10yrs	25yrs	100yrs	
I=	3.68	4.78	5.47	6.14	
A ₁ =	0.46	0.60	0.68	0.77	ft ³ /sec
A ₂ =	16.12	20.93	23.96	26.89	ft ³ /sec

A _{total}	16.58	21.53	24.64	27.65	ft ³ /sec
--------------------	-------	-------	-------	-------	----------------------

period	2yrs	10yrs	25yrs	100yrs	
Q _{INCREASED} =	0.11	0.14	0.16	0.18	ft ³ /sec

% disturbed	0.643	0.643	0.643	0.643	ft ³ /sec
-------------	-------	-------	-------	-------	----------------------

A1=	0.160 acres	COMPOUND Compact Gravel and Asphalt
A2=	7.3039 acres	UNDISTURBED - Dense Vegetation

LEGEND:

XXX.XX	NEW CONTOUR	INT.	INTERPOLATION
XXX.XX	NEW ELEVATION	LF	LINEAR FEET
T/F=XXX.XX	TOP OF FOUNDATION	→	FLOW DIRECTION
T/G=XXX.XX	TOP OF GRADE	---	EXISTING CONTOURS
		---	NEW CONTOURS
		-CC-	NEW CULVERT

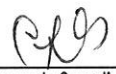
AREA NO.

A1

0.3 4.20

C-VALUE AREA (ACRE)

FORT BEND COUNTY ENGINEER

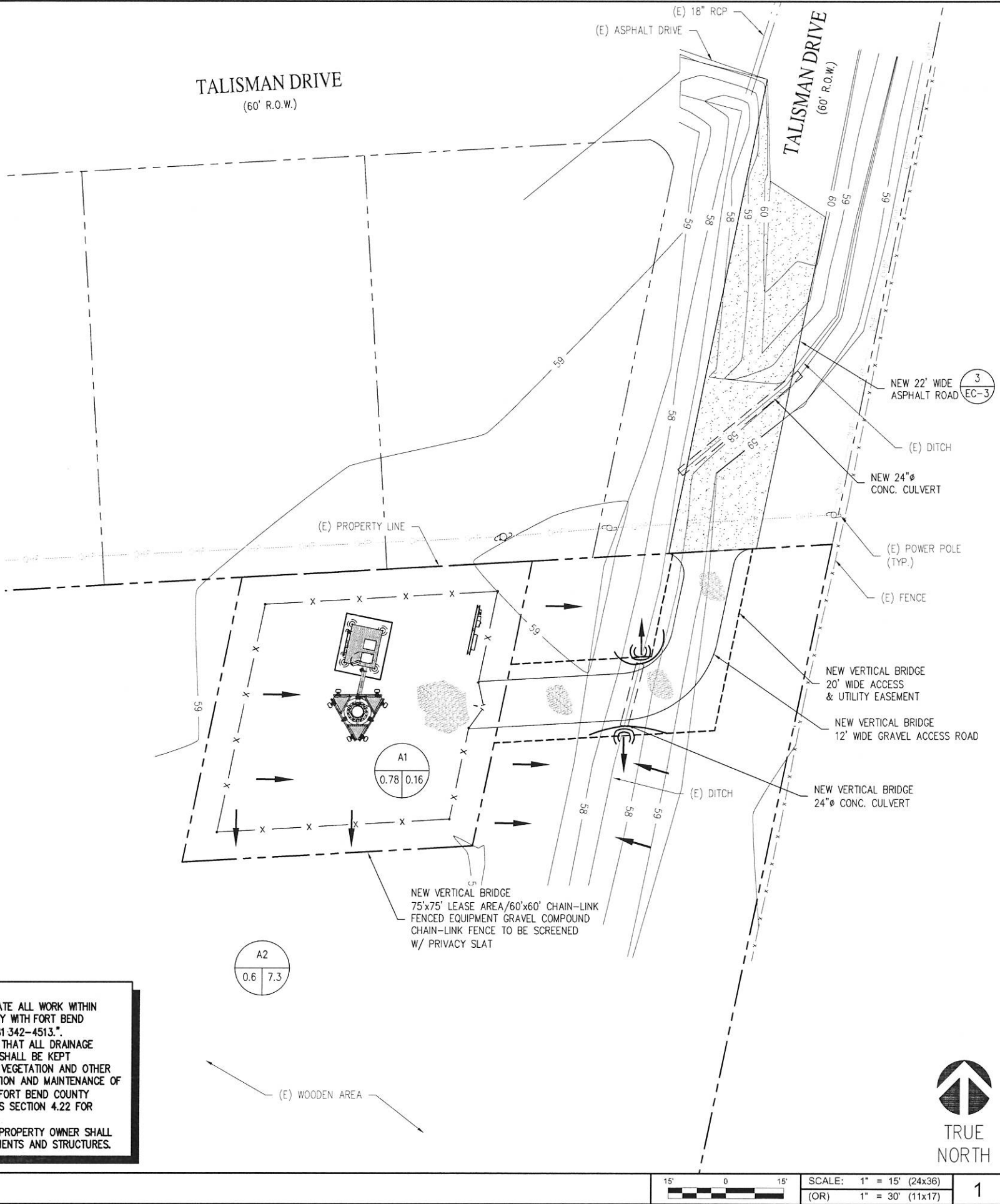
APPROVED: 
Development Coordinator
DATE: 5-30-18

NOTE:

A. *CONTRACTOR SHALL COORDINATE ALL WORK WITHIN TALISMAN DRIVE RIGHT-OF-WAY WITH FORT BEND COUNTY ROAD AND BRIDGE. 281.342-4513.*

B. ADD NOTE ON PLANS STATING THAT ALL DRAINAGE EASEMENTS AND STRUCTURES SHALL BE KEPT CLEAR OF FENCES, BUILDINGS, VEGETATION AND OTHER OBSTRUCTIONS TO THE OPERATION AND MAINTENANCE OF THE DRAINAGE FACILITY. (SEE FORT BEND COUNTY REGULATIONS AND SUBDIVISIONS SECTION 4.22 FOR FURTHER DETAIL)

C. ADD NOTE STATING THAT THE PROPERTY OWNER SHALL MAINTAIN ALL DRAINAGE EASEMENTS AND STRUCTURES.



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Registration No. 8242

ACGI NO:	17-7142, 18-2191		
DRAWN BY:	RM		
CHECKED BY:	JG		
REVISIONS			
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05/17/18
STATE OF TEXAS
JOJI MOTTACKAL GEORGE
91793
LICENSED PROFESSIONAL ENGINEER
NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE INFORMATION
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A3C0203B

VERTICAL BRIDGE SITE #:
TX-5460

918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY

SHEET TITLE:
DRAINAGE
CONTROL PLAN

SHEET NUMBER:
EC-2

GRADING & EXCAVATING NOTES:

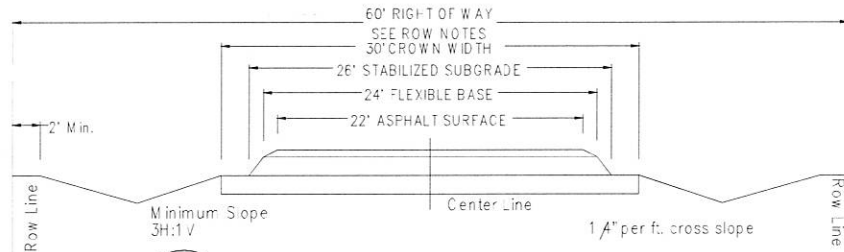
- ALL EXCAVATIONS ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIALLY HORIZONTAL ON UNDISTURBED AND UNFROZEN SOIL AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUNDWATER. DEWATERING FOR EXCESS GROUNDWATER SHALL BE PROVIDED IF REQUIRED.
- CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC MATERIAL. IF SOUND SOIL IS NOT REACHED AT THE DESIGNATED EXCAVATION DEPTH, THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION BE FILLED WITH CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION.
- ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH EITHER MECHANICALLY COMPACTED GRANULAR MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL NOT BE USED AS COMPILING CONCRETE THICKNESS.
- AFTER COMPLETION OF THE FOUNDATION AND OTHER CONSTRUCTION BELOW GRADE, AND BEFORE BACKFILLING, ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH.
- USE APPROVED MATERIALS CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND
-BE FREE FROM CLODS OR STONES OVER 2-1/2" MAXIMUM DIMENSIONS
-BE PLACED IN 6" LAYERS AND COMPACTED TO 95% STANDARD PROCTOR EXCEPT IN GRASSED/LANDSCAPED AREAS, WHERE 90% STANDARD PROCTOR
- REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE PRIOR TO PLACING FILLS. PLOW, STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING SURFACE. WHEN SUBGRADE OR EXISTING GROUND SURFACE TO RECEIVE FILL HAS A DENSITY LESS THAN THAT REQUIRED FOR FILL, BREAK UP GROUND SURFACE TO DEPTH REQUIRED, PULVERIZE, MOSTURE-CONDITION OR AERATE SOIL AND RECOMPACT TO REQUIRED DENSITY.
- PROTECT EXISTING GRAVEL SURFACING AND SUBGRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING OR OTHER SUITABLE MATERIALS DESIGNED TO SPREAD EQUIPMENT LOADS. REPAIR DAMAGE TO EXISTING GRAVEL SURFACING OR SUBGRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTOR'S OPERATIONS. DAMAGED GRAVEL SURFACING SHALL BE RESTORED TO MATCH THE ADJACENT UNDAMAGED GRAVEL SURFACING AND SHALL BE OF THE SAME THICKNESS.
- REPLACE EXISTING GRAVEL SURFACING ON AREAS FROM WHICH GRAVEL SURFACING IS REMOVED DURING CONSTRUCTION OPERATIONS. GRAVEL SURFACING SHALL BE REPLACED TO MATCH EXISTING ADJACENT GRAVEL SURFACING AND SHALL BE OF THE SAME THICKNESS. SURFACES OF GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS AND WAVES. EXISTING GRAVEL SURFACING MAY BE EXCAVATED SEPARATELY AND REUSED IF INJURIOUS AMOUNTS OF EARTH, ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS ARE REMOVED PRIOR TO REUSE. FURNISH ALL ADDITIONAL GRAVEL RESURFACING MATERIAL AS REQUIRED. BEFORE GRAVEL SURFACING IS REPLACED, SUBGRADE SHALL BE GRADED TO CONFORM TO REQUIRED SUBGRADE ELEVATIONS, AND LOOSE OR DISTURBED MATERIALS SHALL BE THOROUGHLY COMPACTED. DEPRESSIONS IN THE SUBGRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL MAY BE USED FOR FILLING DEPRESSIONS IN THE SUBGRADE, SUBJECT TO ENGINEER'S APPROVAL.
- DAMAGE TO EXISTING STRUCTURES AND UTILITIES RESULTING FROM CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED/REPLACED TO OWNER'S SATISFACTION AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH PROPERTY OWNER SO AS TO AVOID INTERRUPTIONS TO PROPERTY OWNER'S OPERATIONS.
- ENSURE POSITIVE DRAINAGE DURING AND AFTER COMPLETION OF CONSTRUCTION.
- ALL CUT AND FILL SLOPES SHALL BE MAXIMUM 2 HORIZONTAL TO 1 VERTICAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING SITE VEHICLE TRAFFIC AS TO NOT ALLOW VEHICLES LEAVING THE SITE TO TRACK MUD ONTO PUBLIC STREETS. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING PUBLIC STREETS DUE TO MUDDY VEHICLES LEAVING THE SITE.

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

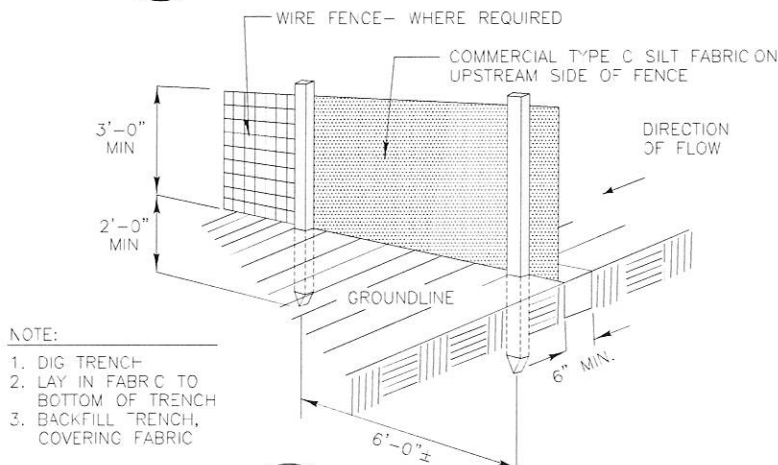
- WOVEN WIRE FENCE TO BE FASTENED SECURELY POSTS: STEEL EITHER T OR U TYPE. TO FENCE POSTS WITH WIRE TIES OR STAPLES.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
FILTER CLOTH: FILTER X, MIRAFI 100X' STABILINKA T140N OR APPROVED EQUAL.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
PREFABRICATED UNIT: GEOFAB, ENVROFENCE OR APPROVED EQUAL.
- ALL SILT FENCE MATERIALS MUST BE LISTED ON THE CURRENT STATES, D.O.T. QUALIFIED PRODUCTS LIST.

GENERAL EROSION & SEDIMENT CONTROL NOTES:

- THE SOIL EROSION AND SEDIMENT CONTROL MEASURES AND DETAILS AS SHOWN HEREIN AND STIPULATED WITHIN STATE STANDARDS SHALL BE FOLLOWED AND INSTALLED IN A MANNER SO AS TO MINIMIZE SEDIMENT LEAVING THE SITE.
- PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS.
- EROSION CONTROL DEVICES SHALL BE INSTALLED BEFORE GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. CONTRACTOR SHALL CLEAN OUT ALL SEDIMENT PONDS WHEN REQUIRED BY THE ENGINEER OR THE LOCAL JURISDICTION INSPECTOR. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT WHEN THE SILT IS WITHIN 12" OF THE TOP OF THE SILT FENCE.
- FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED.
- SILT BARRIERS TO BE PLACED AT DOWNSTREAM TOE OF ALL CUT AND FILL SLOPES.
- ALL CUT AND FILL SLOPES MUST BE SURFACED ROUGHENED AND VEGETATED WITHIN SEVEN (7) DAYS OF THEIR CONSTRUCTION.
- CONTRACTOR SHALL REMOVE ALL EROSION & SEDIMENT CONTROL MEASURES AFTER COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER.
- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.



3 TYPICAL ROADWAY SECTION (FBC-077)
EC-3 NOT TO SCALE



NOTE:

- DIG TRENCH
- LAY IN FABRIC TO BOTTOM OF TRENCH
- BACKFILL TRENCH, COVERING FABRIC

2 SILT FENCE DETAIL
EC-3 NOT TO SCALE

SEEDING GUIDELINES:

FINAL STABILIZATION OF ALL DISTURBED AREAS, UNLESS OTHERWISE NOTED, SHALL BE LOAMED AND SEEDED. LOAM SHALL BE PLACED AT A MINIMUM COMPACTED DEPTH OF 4". RECOMMENDED SEEDING DATES FOR PERMANENT VEGETATION SHALL BE BETWEEN JUNE 15 THROUGH AUGUST 1 AND SEPTEMBER 15 THROUGH OCTOBER 15. TEMPORARY VEGETATIVE MEASURES SHALL CONSIST OF AN ANNUAL OR PERENNIAL RYE GRASS WITH RECOMMENDED SEEDING DATES BEING FROM JUNE 1 THROUGH AUGUST 15 AND SEPTEMBER 30 THROUGH NOVEMBER 30.

EVALUATE PROPOSED COVER MATERIAL

BEFORE SPREADING COVER MATERIAL OVER THE DESIGNATED AREA, OBTAIN A REPRESENTATIVE SOIL SAMPLE AND SUBMIT TO A REPUTABLE SOIL TESTING LABORATORY FOR CHEMICAL AND PHYSICAL ANALYSIS. THE PRELIMINARY TEST IS NECESSARY TO DETERMINE THE REQUIRED INORGANIC AND/OR ORGANIC AMENDMENTS THAT ARE NEEDED TO ASSIST IN ESTABLISHING THE SEED MIXTURE IN AN ENVIRONMENTALLY AND ECONOMICALLY SOUND MANNER. THE RESULTS WILL GIVE THE COVER MATERIAL CHARACTERISTICS SUCH AS pH AND FERTILIZATION NEEDS. THESE RESULTS SHALL BE KEPT ON-SITE BY THE CONTRACTOR AND AVAILABLE FOR REVIEW BY THE COUNTY.

SEED BED PREPARATION

PROPOSED COVER MATERIAL SHOULD BE SPREAD EVENLY OVER THE SITE AREA IN A MINIMUM 4" LIFT VIA BULLDOZER/BUCKET LOADER. USING THE INFORMATION FROM THE SOIL ANALYSIS, CAREFULLY CALCULATE THE QUANTITIES OF LIMESTONE AND PRE-PLANT FERTILIZER NEEDED PRIOR TO APPLYING. PRE-PLANT AMENDMENTS CAN BE APPLIED WITH A BROADCAST AND/OR DROP SEEDER AND INCORPORATED WITH AN OFFSET DISK, YORK RAKE, AND/OR HAND RAKE. AFTER INCORPORATION THE PRE-PLANT SOIL AMENDMENTS, THE SEED BED SHOULD BE SMOOTH AND FIRM PRIOR TO SEEDING. THE FOLLOWING SEED MIXTURES SHALL BE USED AS NOTED:

SEED MIXTURE

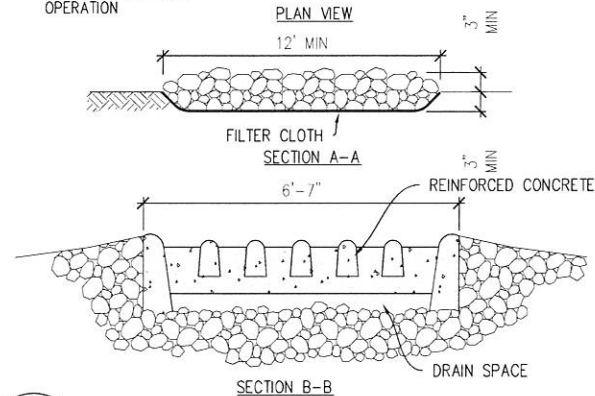
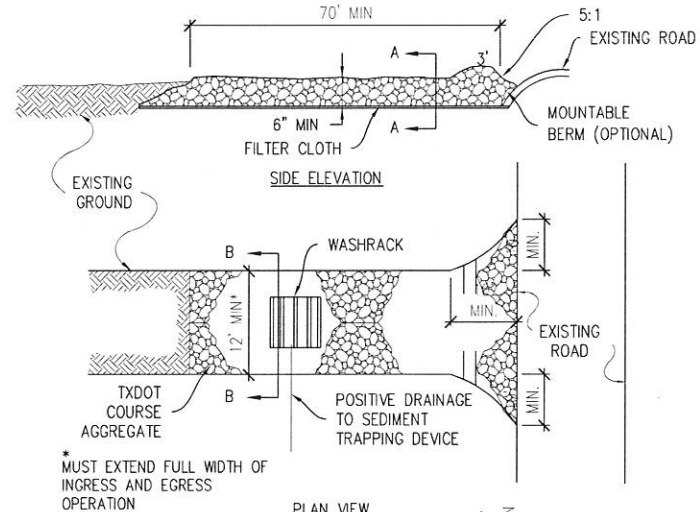
SPECIES/VARIETY	LB/ACRE
CREeping RED FESCUE	20
KENTUCKY BLUEGRASS	20
PERENNIAL RYEGRASS	5

SEED TIME AND METHOD

THE PREFERRED TIME FOR SEEDING THE COOL SEASON MIXTURE IS LATE SUMMER. SOIL AND AIR TEMPERATURES ARE IDEAL FOR SEED GERMINATION AND SEEDING GROWTH. WEED COMPETITION IS REDUCED BECAUSE SEEDS OF MANY WEED SPECIES GERMINATE EARLIER IN THE GROWING SEASON. ADDITIONALLY, HERBICIDE USE IS GREATLY REDUCED. HOWEVER, SEEDING MAY BE DONE AT ANY OF THE ABOVE NOTED TIMES.

MULCHING

NEWLY SEEDED AREAS SHOULD BE MULCHED TO INSURE ADEQUATE MOISTURE FOR SUCCESSFUL TURF ESTABLISHMENT AND TO PROTECT AGAINST SURFACE MOVEMENT OF SEDIMENT-BOUND AGROCHEMICALS AND SOIL EROSION. IF MULCHING PROCEDURES ARE NOT SPECIFIED ON PLANS, APPLY GOOD QUALITY STRAW OR HAY AT A RATE OF 2 BALES/1000 SQ. FT. OTHER COMMERCIALY AVAILABLE MULCHES CAN BE USED.



1 STABILIZED CONSTRUCTION ENTRANCE
EC-3 NOT TO SCALE

QAD 5/30/18

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2 GREENWAY PLAZA
HOUSTON, TX 77046

verticalbridge
750 PARK OF COMMERCE DRIVE
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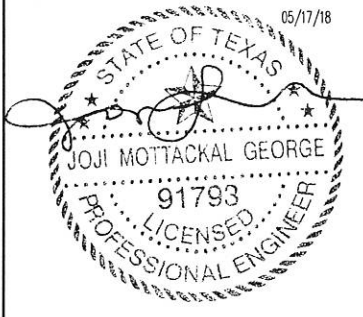
ACGI NO: 17-7142, 18-2191

DRAWN BY: RM

CHECKED BY: JG

REVISIONS

REV	DATE	DESCRIPTION	BY
2	05/17/18	REV. FOR DRAINAGE DISTRICT	RM
1	04/17/18	REV. FOR ZONING SUBMITTAL	RM
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918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY

SHEET TITLE:
EROSION, GRADING, &
DRAINAGE CONTROL
PLAN NOTES & DETAILS

SHEET NUMBER:

EC-3

NOTE:
SUPPLY AND INSTALL (N) "H" FRAME ON SIDE OF PLATFORM FOR CIENA INSTALLATION. POST TO BE MIN 10 FOOT TALL.
(1) 20 AMP 1P BREAKERS FOR (N) GFCI AND (1) 20 AMP 1P BREAKER FOR (N) LED SITE LIGHT. INSTALL IN 1/2" RAIN TIGHT CONDUIT ON "H" FRAME POST.
(2) (N) 2" X 8" RIGID CONDUIT BETWEEN (N) SSC AND (N) FCOA FOR POWER AND TELCO USING RAIN TIGHT CONNECTORS.
(1) (N) 12" X 12" J BOX FOR TELCO CONDUITS ON "H" FRAME FOR AAV INSTALLATION.
(1) 1 1/4" FLEX CONDUIT FROM SSC TO AT&T CIENA LOCATION ON "H" FRAME WITH
(1) PAIR #12 STRANDED CONDUCTOR FROM 10 AMP 1P BREAKER AT ALPHA RACK FOR -DC POWER.
(1) 1 1/4" FLEX FROM 12" X 12" J BOX TO AT&T CIENA LOCATION, RUN (4) CAT5 CABLES FROM SSC THROUGH 2" CONDUIT TO J BOX THEN THROUGH 1 1/4" FLEX TO CIENA LOCATION, TERMINATE WITH RJ-45 CONNECTORS BOTH ENDS USING TIA 568B.
(1) 1 1/4" FLEX FROM (N) 12 X 12 J BOX FOR TO AT&T CIENA LOCATION FOR FIBER JUMPER.
(1) 1/2" FLEX CONDUIT FROM AT&T CIENA LOCATION WITH #2 TINNED SOLID GROUND CAD WELD TO GROUND RING.
(1) 2" GALVANIZED RIGID CONDUIT FROM 12 X 12 J BOX TO SSC FOR CAT5, SEAL WITH RAIN TIGHT CONNECTORS.
(1) 2" CONDUIT FROM AAV MMP TO 12 X 12 J BOX WITH GALVANIZED RIGID RISER.
(1) 2" GALVANIZED RIGID CONDUIT FROM (N) BREAKER PANEL TO (N) SSC, INSTALLED WITH RAIN TIGHT CONNECTORS WITH (2) 2/0 STRANDED COPPER AND (1) #6 GREEN STRANDED GROUND. LEAVE MALE ADAPTOR ON END OF ALL FLEX CONDUITS FOR TERMINATION PURPOSES. ALL RISERS AND ABOVE GRADE CONDUITS TO BE GALVANIZED RIGID CONDUIT UNLESS OTHERWISE SPECIFIED

EQUIPMENT PLATFORM CONDUIT NOTES:
1. SUPPLY AND INSTALL (N) 2" RIGID CONDUIT WITH (2) #4 STRANDED AND (1) #6 GREEN STRANDED FROM (N) BREAKER PANEL TO TERMINATION BLOCK IN NEW SSC CABINET PER PLANS AND SPECS.
2. SUPPLY AND INSTALL (1) (N) 12" X 12" J BOX FOR TELCO CONDUITS ON "H" FRAME FOR AAV INSTALLATION.
3. SUPPLY AND INSTALL (N) 2" RIGID CONDUIT FROM 12" X 12" J BOX TO SSC CAB SEAL WITH RAIN TIGHT CONNECTORS.
4. SUPPLY AND INSTALL (2) (N) 2" X 8" RIGID CONDUIT BETWEEN (N) SSC AND (N) FCOA FOR POWER AND TELCO USING RAIN TIGHT CONNECTORS.
5. SUPPLY AND INSTALL (1) 1 1/4" FLEX CONDUIT FROM SSC TO AT&T CIENA LOCATION ON "H" FRAME WITH (1) PAIR #12 STRANDED CONDUCTOR FROM 10 AMP 1P BREAKER AT ALPHA RACK FOR -DC POWER. LEAVE MALE ADAPTOR ON END OF ALL FLEX CONDUITS FOR TERMINATION PURPOSES.
6. SUPPLY AND INSTALL (1) 1 1/4" FLEX FROM 12" X 12" J BOX TO CIENA LOCATION, RUN (4) CAT5 CABLES FROM SSC THROUGH 2" CONDUIT TO J BOX THEN THROUGH 1 1/4" FLEX TO CIENA LOCATION, TERMINATE WITH RJ-45 CONNECTORS BOTH ENDS USING TIA 568B.
7. SUPPLY AND INSTALL (1) 1 1/4" FLEX FROM (N) 12 X 12 J BOX FOR TO CIENA LOCATION FOR FIBER JUMPER.
8. SUPPLY AND INSTALL (1) 1/2" FLEX CONDUIT FROM CIENA LOCATION WITH #6 GREEN STRANDED COPPER GROUND CAD WELD TO GROUND RING.

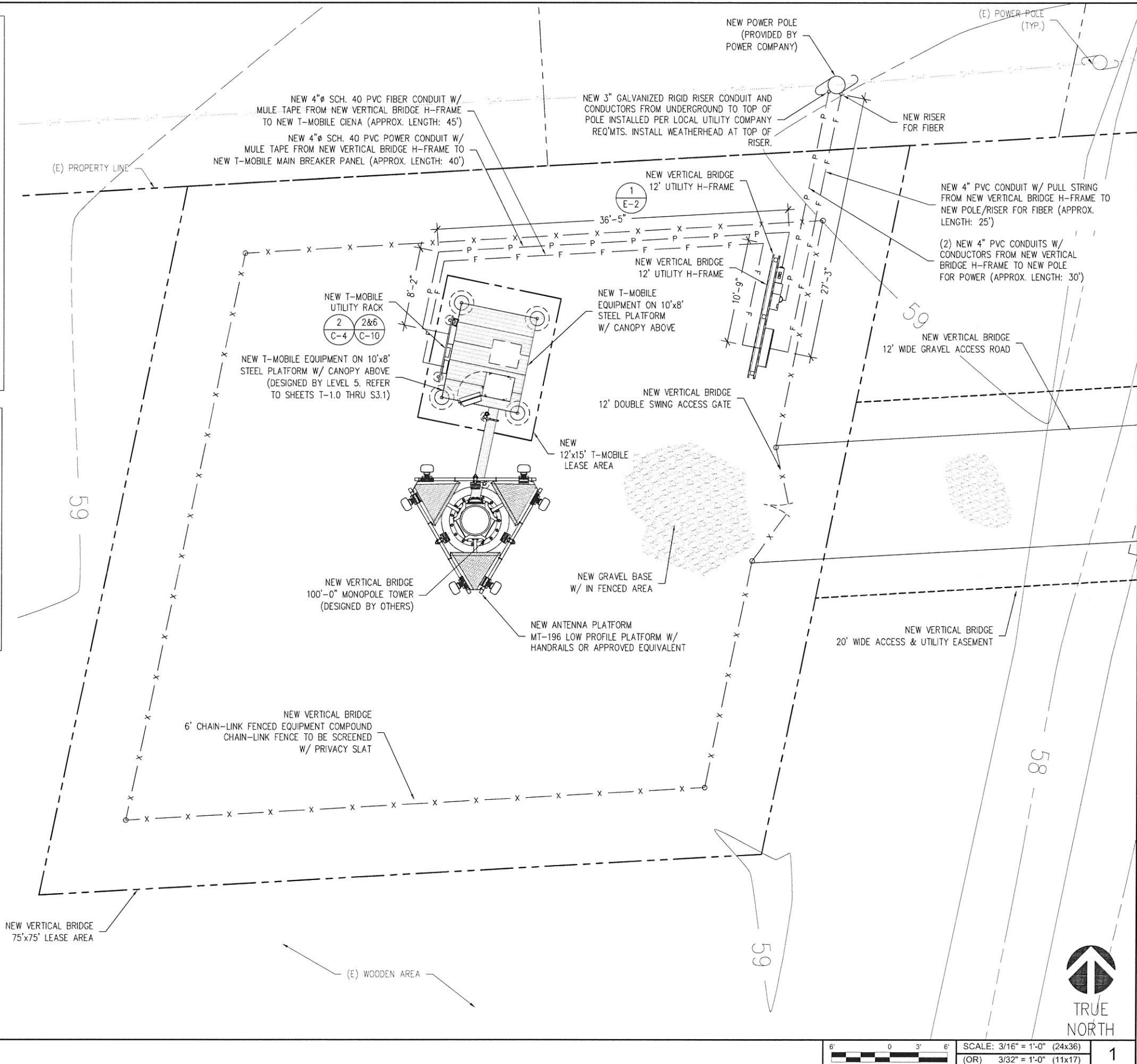
NOTE:
NEW BURIED OR OVERHEAD UTILITIES MUST BE CONTAINED WITHIN A DEDICATED UTILITY EASEMENT. ALL EXISTING AND NEW UTILITY EASEMENTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. NO DIGGING OR TRENCHING SHALL BE ALLOWED WITHOUT PRIOR VERIFICATION OF EXISTING BURIED UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND PROTECT SAID UTILITIES FROM ANY DAMAGE CAUSED BY CONTRACTOR'S ACTIVITIES.

NOTE:
ALL RISERS AND ELBOWS TO BE GALVANIZED RIGID CONDUIT UNLESS OTHERWISE SPECIFIED

FORT BEND COUNTY ENGINEER

APPROVED: 
Development Coordinator

DATE: 5/30/18



T-Mobile
2 GREENWAY PLAZA
HOUSTON, TX 77046

verticalbridge
750 PARK OF COMMERCE DRIVE
BOCA RATON, FL 33487

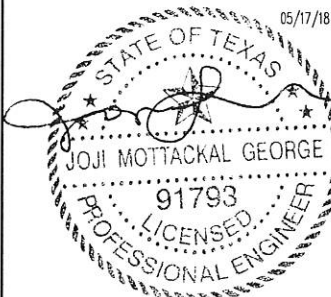
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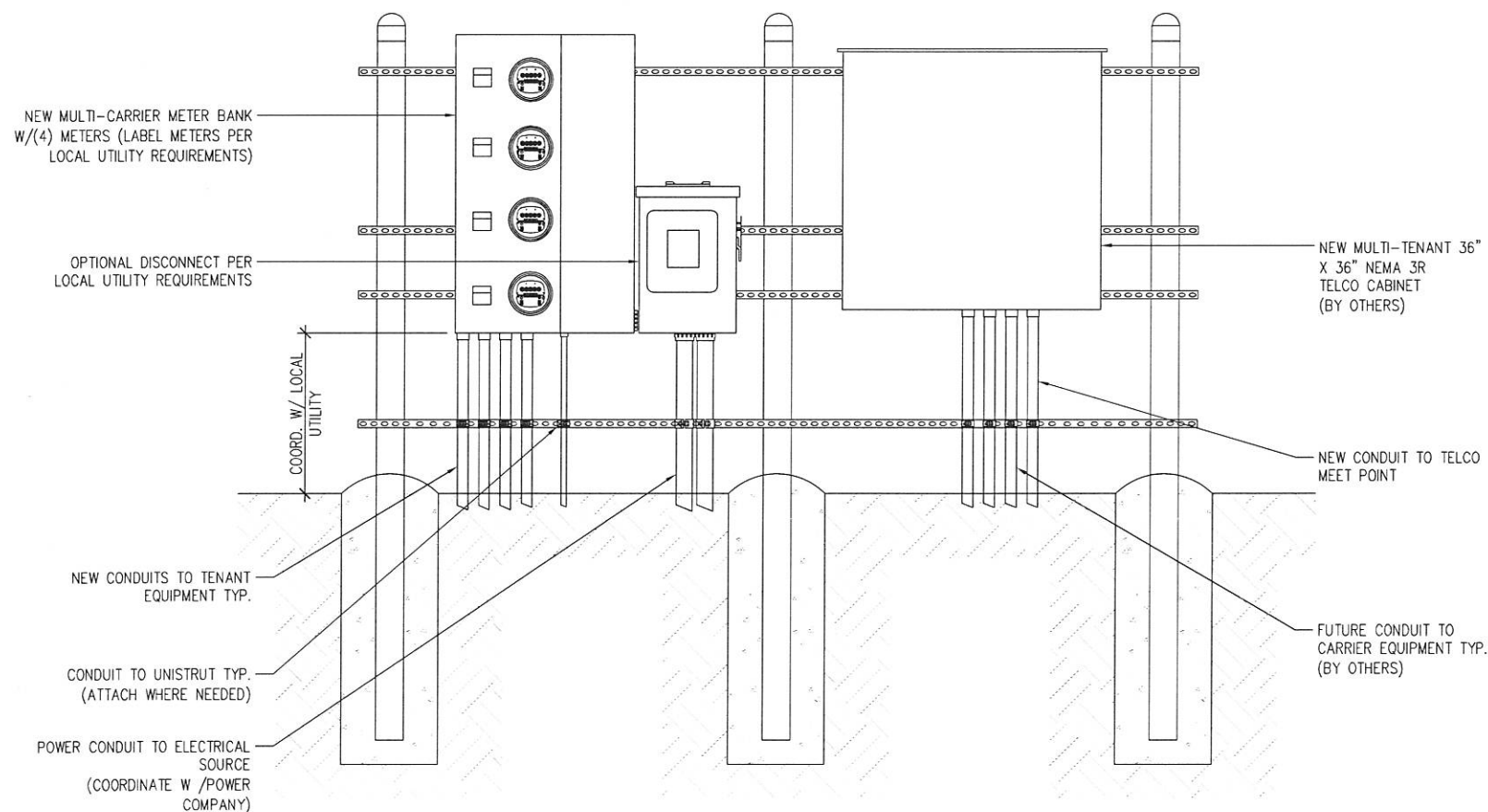
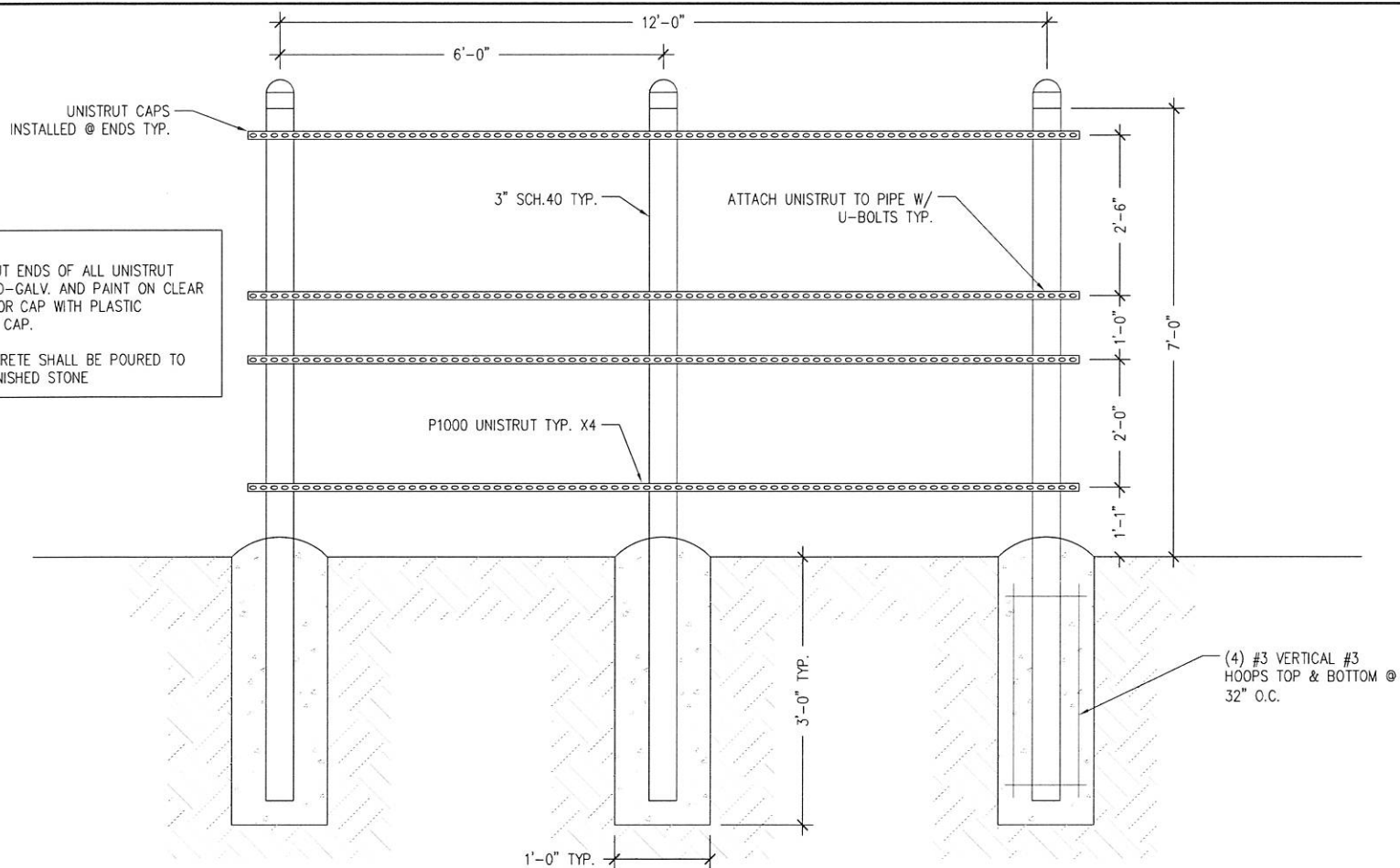
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TX-5460

918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY

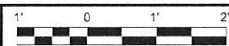
SHEET TITLE:
**UTILITY
ROUTING PLAN**

SHEET NUMBER:

E-1

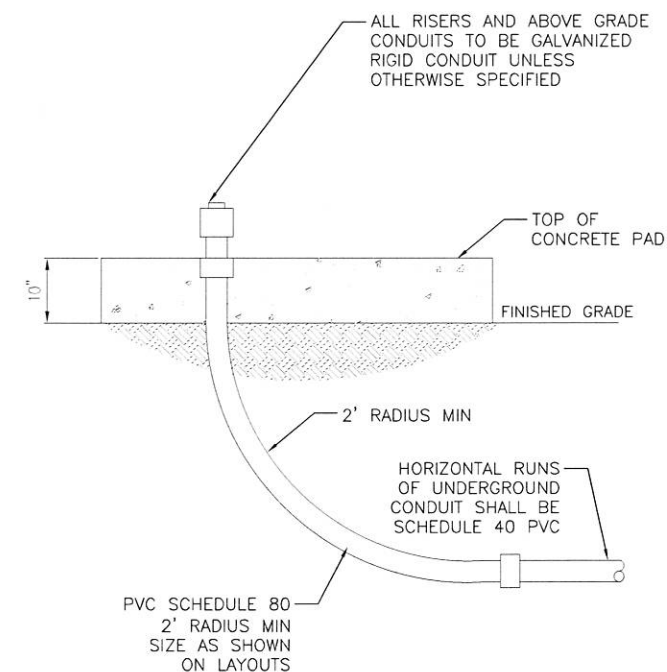


NEW H-FRAME



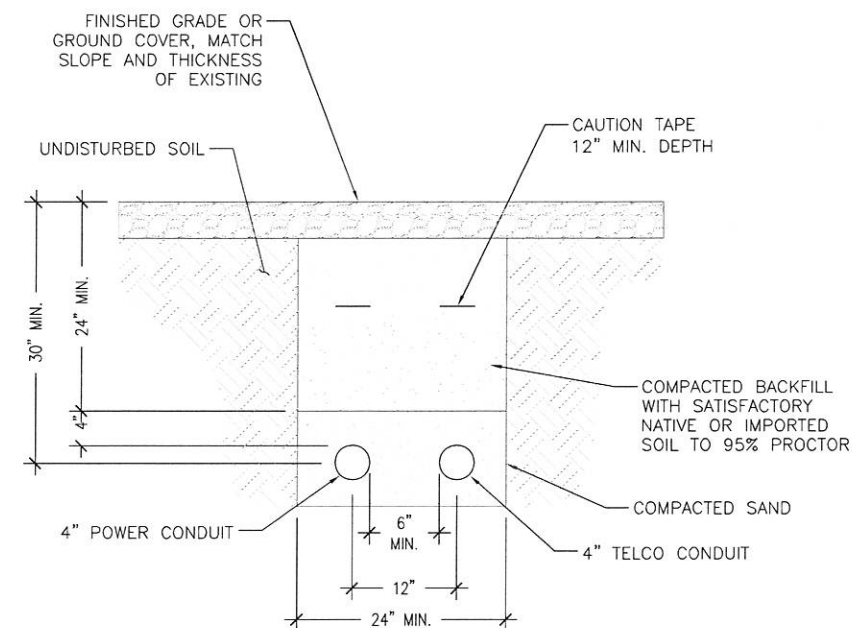
SCALE: 3/4" = 1'-0" (24x36)
(OR) 3/8" = 1'-0" (11x17)

1



UNDERGROUND CONDUIT STUB-UP

SCALE:
NTS 3



NOTES:

- LEAN CONCRETE, RED-COLORED TOP, MAY BE USED
IN PLACE OF COMPACTED SAND.
- IF POWER AND TELCO ARE PLACED IN THE SAME TRENCH,
PER NEC CODE, A MINIMUM OF 12" SEPARATION IS
REQUIRED BETWEEN THE POWER AND FIBER CONDUIT.

CONDUIT TRENCH DETAIL

SCALE:
NTS 2

T-Mobile®

2 GREENWAY PLAZA
HOUSTON, TX 77046

verticalbridge

750 PARK OF COMMERCE DRIVE
BOCA RATON, FL 33487

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CONSULTING GROUP, INC.

9221 Lyndon B Johnson Fwy

Suite 204, Dallas, TX 75243

Phone: 972-231-8893

Fax: 866-364-8375

www.allprocgi.com

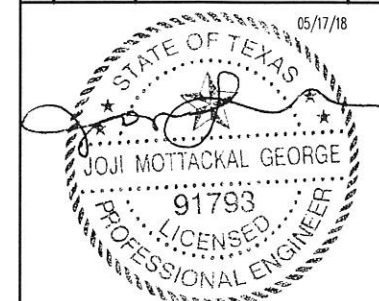
Registration No. 8242

ACGI NO: 17-7142, 18-2191

DRAWN BY: RM

CHECKED BY: JG

REVISIONS			
REV	DATE	DESCRIPTION	BY
2	05/17/18	REV. FOR DRAINAGE DISTRICT	RM
1	04/17/18	REV. FOR ZONING SUBMITTAL	RM
0	03/05/18	FINAL CD	RM
C	02/15/18	REV. FOR T-MOBILE REDLINES	RM
B	01/29/18	REV. FOR T-MOBILE REDLINES	HR
A	11/22/17	PRELIMINARY CD	RM



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P.E. STAMP & SIGNATURE

SITE INFORMATION

T-MOBILE SITE #:

A3C0203B

VERTICAL BRIDGE SITE #:

TX-5460

918 TALISMAN ROAD #A[E911]

ROSHARON, TX 77583

FORT BEND COUNTY

SHEET TITLE:

ELECTRICAL

DETAILS

SHEET NUMBER:

E-2

5-3078

LEGEND:

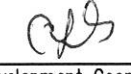
- EXISTING GROUND RING
- ▲ CADWELD CONNECTION (EXOTHERMIC WELD)
- MECHANICAL CONNECTION
- ⊙ GROUND ROD
- ⊙ GROUND ROD TEST WELL

GENERAL GROUNDING NOTES:

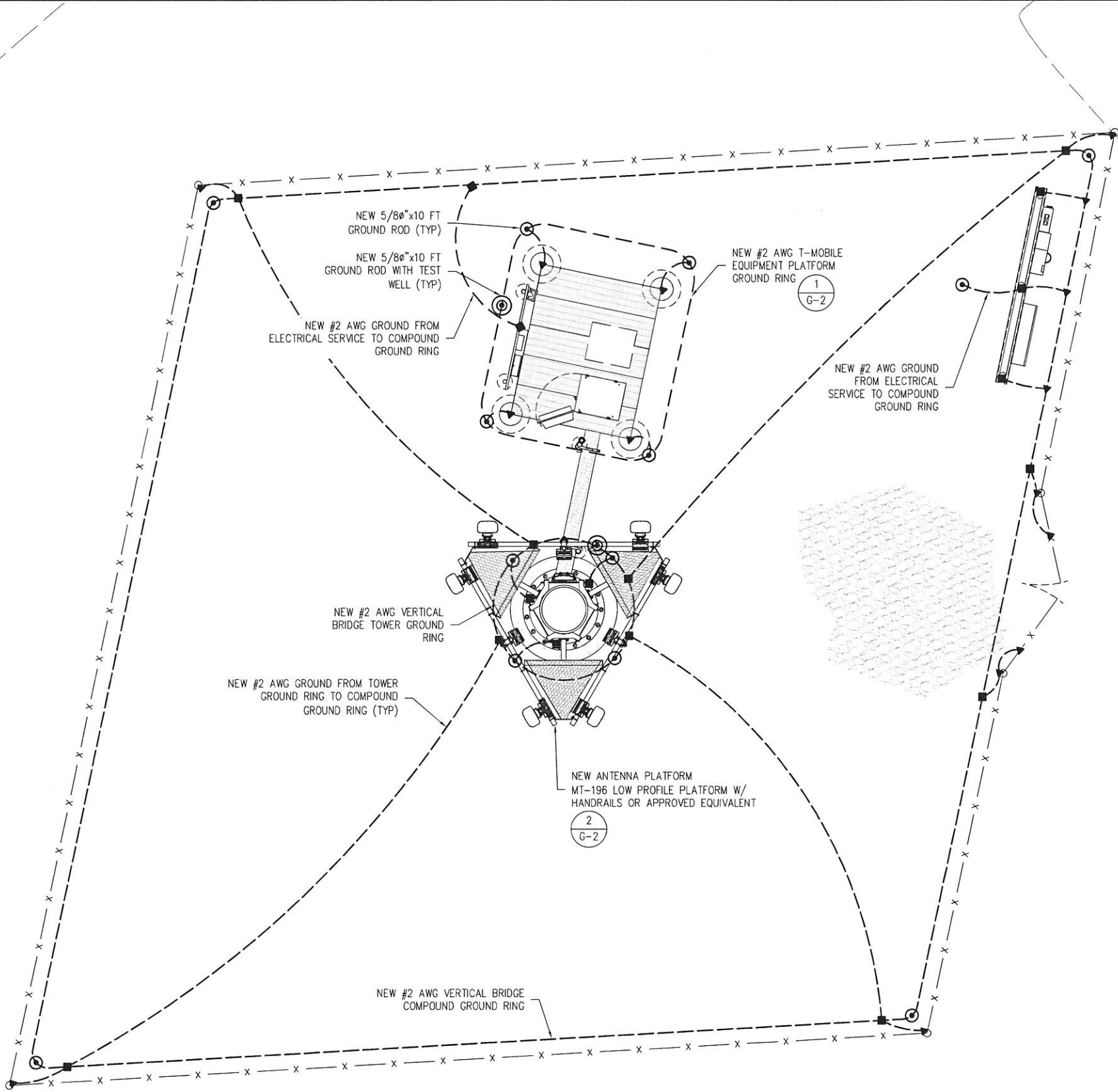
1. GROUNDING SHALL COMPLY WITH NEC, T-MOBILE AND NSN STANDARDS. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
2. GROUND ALL ANTENNA BASED, FRAMES, CABLE RUNS AND OTHER METALLIC COMPONENTS USING GROUND WIRES AND CONNECT TO SURFACE MOUNTED BUS BARS. FOLLOW ANTENNA AND BTS MANUFACTURE PRACTICES FOR GROUNDING REQUIREMENTS. GROUND COAX SHIELD AT BOTH ENDS AND EXIT FROM TOWER OR POLES USING MFR'S PRACTICES.
3. ALL GROUND CONNECTIONS SHALL BE CADWELD. ALL WIRES SHALL BE COPPER THHN/THWN/ ALL GROUND WIRE SHALL BE GREEN INSULATED WIRE ABOVE GROUND.
4. CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE GROUNDING AND OTHER OPERATIONAL TESTING WILL BE WITNESSED BY CARRIER REPRESENTATIVE.
5. REFER TO DIVISION 16 GENERAL ELECTRIC; GENERAL ELECTRICAL PROVISION AND COMPLY WITH ALL REQUIREMENTS OF GROUNDING STANDARDS.
6. ELECTRICAL CONTRACTOR TO PROVIDE DETAILED DESIGN OF GROUNDING SYSTEM, AND RECEIVE APPROVAL OF DESIGN BY AUTHORIZED CARRIER REPRESENTATIVE, PRIOR TO INSTALLATION OF GROUNDING SYSTEM. PHOTO DOCUMENT ALL CADWELDS AND GROUND RING.
7. NOTIFY CONSTRUCTION MANAGER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
8. TO AVOID TOWER FOUNDATION, GROUND RODS MAY BE INSTALLED AT AN ANGLE OR TOWER GROUND RING MAY BE EXTENDED AS NEEDED.
9. COORDINATE WITH LANDOWNER FOR REQUIRED RESISTANCE IN OHMS TO REMOTE EARTH.

NOTE:
ALL RISERS AND ABOVE GRADE CONDUITS TO BE GALVANIZED RIGID CONDUIT UNLESS OTHERWISE SPECIFIED.

FORT BEND COUNTY ENGINEER

APPROVED: 
Development Coordinator

DATE: 5-30-18



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05/17/18

STATE OF TEXAS
JOJI MOTTACKAL GEORGE
91793
LICENSED PROFESSIONAL ENGINEER

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A3C0203B

VERTICAL BRIDGE SITE #:
TX-5460

918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY

SHEET TITLE:
GROUNDING
PLAN

SHEET NUMBER:
G-1

LEGEND:

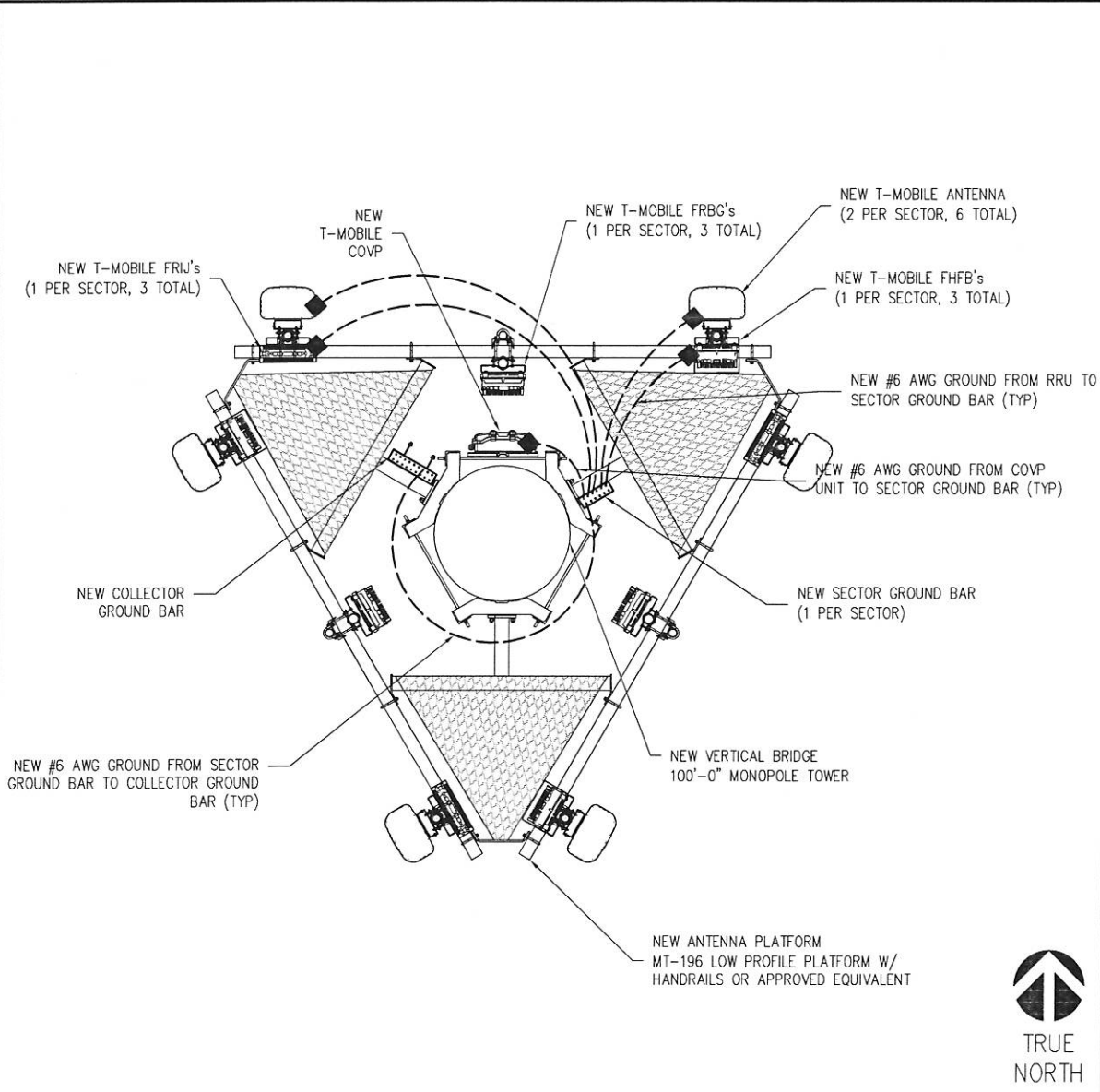
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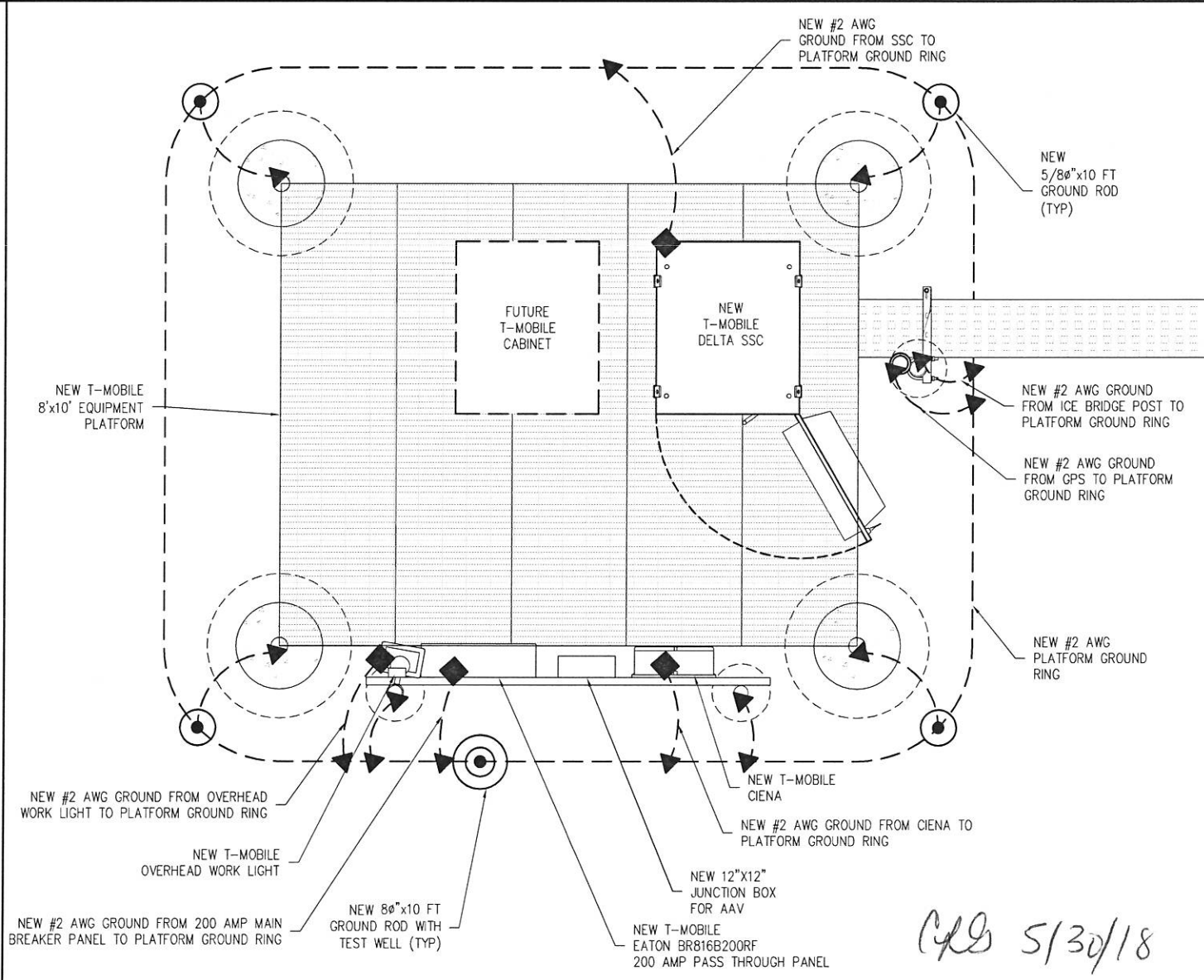
NOTES

SCALE: 2
NTS



NEW ANTENNA GROUNDING PLAN

SCALE: 2
NTS



NEW EQUIPMENT GROUNDING PLAN

SCALE: 3/4" = 1'-0" (24x36)
(OR) 3/8" = 1'-0" (11x17) 1

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STATE OF TEXAS

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ROSHARON, TX 77583
FORT BEND COUNTY

SHEET TITLE:
**GROUNDING
PLANS**

SHEET NUMBER:
G-2

GENERAL NOTES

1. THE CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE ALL ITEMS DEFINED IN THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: THE CONTRACT, SPECIFICATIONS AND CONSTRUCTION DRAWINGS.

2. ALL EQUIPMENT SUPPLIED BY THE OWNER SHALL BE PICKED UP BY THE CONTRACTOR AT THE APPROPRIATE WAREHOUSE.

3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL WORK.

4. THE CONTRACTOR SHALL PROVIDE ON-SITE SUPERVISION AT ALL TIMES WHILE THE WORK IS BEING PERFORMED AND SHALL DIRECT ALL WORK, USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES AND SEQUENCES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

5. THE CONTRACTOR SHALL VISIT THE JOB SITE TO REVIEW THE SCOPE OF WORK AND EXISTING JOB SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL SERVICE AND OVERALL COORDINATION. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES, CONFLICTS OR OMISSIONS, ETC., SHALL BE REPORTED TO THE T-MOBILE CONSTRUCTION SUPERVISOR BEFORE PROCEEDING WITH THE WORK.

6. THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW AND EXISTING CONSTRUCTION, STRUCTURE, LANDSCAPING OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE TENANT, BUILDING OWNER OR OWNER'S REPRESENTATIVE AT THE EXPENSE OF THE CONTRACTOR.

7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED IN CONJUNCTION WITH THE EXECUTION OF WORK.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE JOB IS IN PROGRESS AND UNTIL THE JOB IS COMPLETED.

9. THE CONTRACTOR SHALL PROVIDE TEMPORARY WATER, POWER AND TOILET FACILITIES AS REQUIRED BY THE CITY OR GOVERNING AGENCY.

10. THE CONTRACTOR AND ALL SUBORDINATE CONTRACTORS SHALL COMPLY WITH ALL LOCAL AND STATE REGULATIONS.

11. THE CONTRACTOR SHALL OBTAIN AND PAY FOR PERMITS, LICENSES AND INSPECTIONS NECESSARY FOR PERFORMANCE OF THE WORK AND INCLUDE THOSE IN THE COST OF THE WORK TO T-MOBILE. 12. FIGURED DIMENSIONS HAVE PRECEDENCE OVER DRAWING SCALE, AND DETAIL DRAWINGS HAVE PRECEDENCE OVER SMALL DRAWINGS. CHECK ACCURACY OF ALL DIMENSIONS IN THE FIELD. UNLESS SPECIFICALLY NOTED, DO NOT FABRICATE ANY MATERIALS OFF SITE, NOR DO ANY CONSTRUCTION UNTIL THE ACCURACY OF DRAWING DIMENSIONS HAVE BEEN VERIFIED AGAINST ACTUAL FIELD DIMENSIONS.

13. THE CONTRACTOR SHALL NOTIFY THE T-MOBILE CONSTRUCTION SUPERVISOR OF ANY CONFLICTS OR DISCREPANCIES IN THE CONTRACT DOCUMENTS OR FIELD CONDITIONS PRIOR TO EXECUTING THE WORK IN QUESTION.

14. THE CONTRACTOR SHALL NOTIFY THE T-MOBILE CONSTRUCTION SUPERVISOR IF DETAILS ARE CONSIDERED UNSOUND, UNSAFE, NOT WATERPROOF, OR NOT WITHIN CUSTOMARY TRADE PRACTICE. IF WORK IS PERFORMED, IT WILL BE ASSUMED THAT THERE IS NO OBJECTION TO THE DETAIL. DETAILS ARE INTENDED TO SHOW THE END RESULT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS, AND SHALL BE INCLUDED AS PART OF THE WORK.

15. EXISTING ELEVATIONS AND LOCATIONS TO BE JOINED SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION. IF THEY DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE T-MOBILE CONSTRUCTION SUPERVISOR SO THAT MODIFICATIONS CAN BE MADE BEFORE PROCEEDING WITH THE WORK.

16. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING THEIR EXACT MEANING, THE T-MOBILE CONSTRUCTION SUPERVISOR SHALL BE NOTIFIED FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.

17. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR OTHER SUPPORT FOR ALL OTHER ITEMS REQUIRING THE SAME.

18. CITY APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT SAME INFORMATION. AT ALL TIMES THESE ARE TO BE UNDER THE CARE OF THE JOB SUPERINTENDENT.

19. DESIGN DRAWINGS ARE DIAGRAMMATIC ONLY AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION CONDITIONS WILL PERMIT. ANY ERROR, OMISSION, OR DESIGN DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE T-MOBILE CONSTRUCTION SUPERVISOR FOR CLARIFICATION OR CORRECTION BEFORE CONSTRUCTION.

20. AS-BUILTS REQUIREMENTS: DO NOT USE RECORD DOCUMENTS FOR CONSTRUCTION PURPOSES. PROTECT RECORD DOCUMENTS FROM DETERIORATION AND LOSS IN A SECURE, FIRE-RESISTANT LOCATION. PROVIDE ACCESS TO RECORD DOCUMENTS FOR THE T-MOBILE CONSTRUCTION SUPERVISOR'S REFERENCE DURING NORMAL WORKING HOURS. MAINTAIN A CLEAN, UNDAMAGED SET OF BLUE OR BLACK LINE PRINTS OF CONTRACT DRAWINGS AND SHOP DRAWINGS. MARK THE SET TO SHOW THE ACTUAL INSTALLATION WHERE THE INSTALLATION VARIES SUBSTANTIALLY FROM THE WORK AS ORIGINALLY SHOWN. MARK WHICH DRAWINGS IS MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY. WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE CONTRACT DRAWINGS. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE. MARK RECORD SETS WITH RED ERASABLE PENCIL. USE OTHER COLORS TO DISTINGUISH BETWEEN VARIATIONS IN SEPARATE CATEGORIES OF THE WORK. MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER BUT WAS NOT SHOWN ON THE CONTRACT DRAWINGS, DETAILS OR SHOP DRAWINGS. NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE. NOTE RELATED RECORD DRAWING INFORMATION AND PRODUCT DATA. UPON COMPLETION OF THE WORK, SUBMIT ONE (1) COMPLETE SET OF RECORD DOCUMENTS TO THE T-MOBILE CONSTRUCTION SUPERVISOR FOR THE OWNER'S RECORDS.

PART 1: GENERAL

1.1 SCOPE: CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUB GRADE PREPARATION, FINISH GRADING AND SECURITY FENCE, AS REQUIRED BY CONSTRUCTION DRAWINGS AND DETAIL DRAWINGS.

1.2 REFERENCES

A. DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR THE STATE IN WHICH THE PROJECT IS LOCATED.

B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)

C. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION) D. AASHTO (AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS)

1.3 INSPECTION AND TESTING

A. FIELD TESTING OF EARTHWORK, AGGREGATE BASE COURSE, COMPACTION, AND CONCRETE TESTING SHALL BE PERFORMED BY THE CONTRACTOR'S INDEPENDENT TESTING LAB.

B. ALL WORK SHALL BE INSPECTED AND RELEASED BY THE T-MOBILE CONSTRUCTION SUPERVISOR WHO SHALL CARRY OUT THE GENERAL INSPECTION OF THE WORK WITH SPECIFIC CONCERN TO PROPER PERFORMANCE OF THE WORK AS SPECIFIED AND/OR CALLED FOR ON THE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS OF THE WORK INACCESSIBLE OR DIFFICULT TO INSPECT.

1.4 SITE MAINTENANCE AND PROTECTION

A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF THE WORK UNTIL COMPLETION OF THE CONTRACT.

B. CONTACT THE ONE-CALL UTILITY LOCATION SERVICE PRIOR TO ANY EXCAVATING ACTIVITIES TO HAVE LOCATIONS OF UNDERGROUND UTILITIES VERIFIED.

C. AVOID DAMAGE TO THE SITE INCLUDING EXISTING FACILITIES, STRUCTURES, TREES AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACSIMILES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.

D. KEEP SITE FREE OF ALL PONDING WATER.

E. PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR THE STATE IN WHICH THE PROJECT IS LOCATED.

F. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT LIFE AND PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.

PART II: PRODUCTS

2.1 SUITABLE BACK FILL: EXCAVATED INORGANIC MATERIAL, COHESIVE AND NON-COHESIVE MATERIALS, INCLUDING GRAVEL, SAND, INORGANIC LEAN CLAY, GRAVEL SILT, GRAVEL CLAY, SAND CLAY, SAND SILT OR SILT CLAY MATERIAL FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3-INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL OR FILL MATERIAL AS DETERMINED BY THE T-MOBILE CONSTRUCTION SUPERVISOR AND GEOTECHNICAL ENGINEER.

2.2 UNSUITABLE MATERIALS: TOP SOIL, HIGH AND MODERATELY PLASTIC SILTS AND CLAY, MATERIAL CONTAINING REFUSE, FROZEN LUMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3-INCHES IN ANY DIMENSION AND DEBRIS AS DETERMINED BY THE CONSTRUCTION SUPERVISOR AND T-MOBILE GEOTECHNICAL ENGINEER. TYPICALLY, THESE WILL BE SOILS CLASSIFIED AS PT, MH, CH, OH, ML OR OL.

2.3 GEOTEXTILE FABRIC: MIRAFI 500X OR APPROVED EQUIVALENT

2.4 PLASTIC MARKING TAPE: SHALL BE ACID- AND ALKALI-RESISTANT POLYETHYLENE FILM, SPECIFICALLY MANUFACTURED FOR MARKING AND LOCATING UNDERGROUND UTILITIES, 6-INCHES WIDE WITH A MINIMUM THICKNESS OF 0.004-INCH. TAPE SHALL HAVE MINIMUM STRENGTH OF 1500 PSI IN BOTH DIRECTIONS AND MANUFACTURED WITH INTEGRAL WIRES, FOIL BACKING OR OTHER MEANS TO ENABLE DETECTION BY A METAL DETECTOR WHEN BURIED UP TO 3 FEET DEEP. THE METALLIC CORE OF THE TAPE SHALL BE ENCASED IN A PROTECTIVE JACKET OR PROVIDED WITH OTHER MEANS TO PROTECT IT FROM CORROSION. TAPE COLOR SHALL BE RED FOR ELECTRIC UTILITIES AND ORANGE FOR TELECOMMUNICATION UTILITIES.

2.5 SECURITY FENCE

A. PROVIDE AND INSTALL THE GALVANIZED FENCE WITH ASSOCIATED POSTS, RAILS, BRACES, FABRIC, TERMINAL POST, GATES, DROP BAR AND BARBED WIRE. USE APPLICABLE PROVISIONS OF ASTM FOR MATERIALS.

B. FABRIC SHALL BE HEAVY GALVANIZED CHAIN LINK FENCE, CONFORMING TO ASTM A392 2-INCH MESH 9 GAUGE WIRE (0.148 INCHES IN DIAMETER) WITH THE TOP AND BOTTOM SELVAGES TWISTED AND BARBED.

C. POSTS

1. LINE POST FOR FABRIC UP TO 8 FEET HIGH SHALL BE 2-3/8 INCH O.D.

2. END CORNER, PULL POST AND GATE POST SHALL BE 2-7/8 INCH O.D. ALL POSTS SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE IN ACCORDANCE WITH ASTM. I A 120, A570 AND A525. FOR FENCE OVER 8 FEET HIGH, SIZE POST ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

D. TOP RAILS SHALL CONFORM TO 1-1/4 INCH (1.66 INCH O.D.), SCHEDULE 40 GALVANIZED STEEL PIPE IN ACCORDANCE WITH ASTM A120.

E. TENSION WIRE SHALL BE 7 GAUGE U.S. STEEL WIRE GALVANIZED IN ACCORDANCE WITH ASTM A116, COATING CLASS III.

F. BRACE BANDS, TENSION BANDS AND TENSION BARS SHALL BE FABRICATED OF 1/8 INCH BY 7/8 INCH GALVANIZED STEEL WITH GALVANIZED STEEL CARRIAGE BOLTS AND NUTS IN ACCORDANCE WITH ASTM A123. TENSION BARS SHALL BE 1/4 INCH BY 3/4 INCH GALVANIZED STEEL BAR IN ACCORDANCE WITH ASTM A153.

G. FABRIC TIES SHALL BE CLASS I GALVANIZED STEEL WIRE NO LESS THAN 9 GAUGE.

H. POST TOPS SHALL BE PRESSED STEEL OR MALLEABLE IRON AND SHALL BE GALVANIZED PER ASTM A151. I. BARBED WIRE SHALL CONSIST OF DOUBLE STRANDED 12 1/2 GAUGE WIRE ASTM A121, CLASS 3 WITH 4-POINT BARBS SPACED 5 INCHES APART. THE TOP 1 FOOT OF THE FENCE SHALL CONSIST OF 3 STRANDS OF BARBED WIRE ATTACHED TO 45 DEGREE ANGLE, HEAVY-PRESSED ARMS CAPABLE OF WITHSTANDING WITHOUT FAILURE 250 POUNDS DOWNWARD PULL AT THE OUTERMOST END OF THE ARM

J. GATE MATERIALS, SUCH AS FABRIC, BOLTS, NUTS, TENSION BARS AND BARBED WIRE SHALL BE CONSISTENT WITH FENCE MATERIALS.

PART III: EXECUTION

3.1 GENERAL

A. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE WELL DRAINED AT ALL TIMES.

B. PERFORM ALL SURVEY, LAYOUT, STAKING AND MARKING TO ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.

C. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE AND ONLY THE IMMEDIATE SURROUNDINGS NECESSARY TO COMPLETE THE WORK. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED AND GRUBBED.

1. REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12-INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS AND OTHER DEBRIS, BRUSH AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE. RAKE, DISK OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6-INCHES, AND REMOVE UP TO A DEPTH OF 12-INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.

2. REMOVE TOPSOIL MATERIALS COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER EXCAVATED MATERIALS. TOPSOIL SHALL BE STOCKPILED SEPARATELY FOR REUSE, AS DIRECTED BY THE CONSTRUCTION SUPERVISOR.

3. EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED, FILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION COMPLETELY WITH SUITABLE FILL.

D. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING IS NOT PERMITTED.

E. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS, AND ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, CULVERT, STREAM CROSSING OR OTHER ITEM NOT SHOWN THAT MIGHT AFFECT OR INTERFERE WITH THE NEW CONSTRUCTION. NOTIFY THE T-MOBILE CONSTRUCTION SUPERVISOR OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.

F. SEPARATE AND STOCKPILE ALL EXCAVATED MATERIALS SUITABLE FOR BACK FILL. ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF IN AN AREA DESIGNATED BY THE T-MOBILE CONSTRUCTION SUPERVISOR. (UNSUITABLE MATERIAL MAY BE REQUIRED TO BE REMOVED FROM THE SITE.)

3.2 STRUCTURAL EXCAVATION

A. FOUNDATION EXCAVATIONS SHALL BE CUT TO FIRM MATERIAL HAVING A SAFE BEARING VALUE OF 3000 PSF AND SHALL BE FREE OF ALL LOOSE AND WET MATERIALS. IF THE BOTTOM OF THE EXCAVATION IS NOT FIRM AND STABLE, OVER-EXCAVATE AN ADDITIONAL 12 INCHES, COMPACT SUB-GRADE AND FILL WITH 12 INCHES OF SELECT STRUCTURAL FILL.

B. AFTER EXCAVATION, THE EXPOSED SOILS SHALL BE INSPECTED AND TESTED AND ANY UNSUITABLE DEPOSITS REMOVED AS DIRECTED TO REACH SUITABLE BEARING SOIL ALL OVER-EXCAVATED AREAS SHALL BE BACK FILLED WITH SELECT STRUCTURAL FILL OR WITH LEAN CONCRETE FILL TO THE ELEVATION OF THE BOTTOM OF FOOTING OR FOUNDATION AS INDICATED ON THE DRAWINGS.

C. PRIOR TO PLACEMENT OF CONC. FOUNDATIONS, THE SURFACE ON WHICH THE CONCRETE IS TO BE PLACED SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MODIFIED PROCTOR DENSITY BY THE MODIFIED PROCTOR TEST, ASTM D 1557.

D. NO FOUNDATIONS OR STRUCTURES SHALL BE CONSTRUCTED UNTIL THE BASE MATERIALS HAVE BEEN INSPECTED BY THE T-MOBILE CONSTRUCTION SUPERVISOR.

3.3 STRUCTURAL FILL: ALL COMPACTED FILL SHALL BE PLACED IN LAYERS NOT EXCEEDING A LOOSE THICKNESS AND COMPACTED TO A MINIMUM DENSITY OF 95% OF THE MODIFIED PROCTOR DENSITY OBTAINED IN ACCORDANCE WITH ASTM D-1557.

3.4 BACK FILL AS SOON AS PRACTICAL AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST-IN-PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISH GRADE.

1. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL HAVE BEEN REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS AND UNSUITABLE MATERIALS.

2. BACK FILL BY PLACING AND COMPACTING SUITABLE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL, WHEN REQUIRED, IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAN 8-INCH LOOSE THICKNESS. WHERE HAND-OPERATED COMPACTORS ARE USED, THE FILL MATERIALS SHALL BE PLACED IN LIFTS NOT TO EXCEED FOUR INCHES IN LOOSE DEPTH.

3. WHENEVER THE DENSITY TESTS INDICATE THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DISKING AND DRYING, ADDING WATER OR INCREASING THE COMPACTIVE EFFORT. B. THOROUGHLY COMPACT EACH LAYER OF BACKFILL TO A MINIMUM OF 90% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE MODIFIED PROCTOR TEST C. DO NOT PLACE UNTIL THE CONCRETE HAS CURED FOR AT LEAST 7 DAYS OR COMPRESSIVE STRENGTH TESTS INDICATE THAT THE CONCRETE HAS ACHIEVED MORE THAN BOX OF ITS SPECIFIED 28 DAY COMPRESSIVE STRENGTH.

3.5 TRENCH EXCAVATION

A. UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE T-MOBILE CONSTRUCTION SUPERVISOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS.

B. THE TRENCH WIDTH EXTENDS A MINIMUM OF 6 INCHES BEYOND EACH OUTSIDE EDGE OF THE CONDUIT OR OUTERMOST CONDUIT, WHICHEVER IS APPLICABLE. C. WHEN SOFT, YIELDING OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED AT THE REQUIRED TRENCH BOTTOM ELEVATION, OVER-EXCAVATE THE TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION AND BACKFILL WITH GRANULAR BEDDING MATERIAL.

3.6 TRENCH BACK FILL

A. PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS, DRAWINGS AND THE UTILITY REQUIREMENTS.

B. NOTIFY THE T-MOBILE CONSTRUCTION SUPERVISOR 24 HOURS IN ADVANCE OF BACK FILLING

C. CONDUCT UTILITY CHECK TESTS BEFORE BACK FILLING BACK FILL AND COMPACT TRENCH BEFORE ACCEPTANCE TESTING.

D. PLACE GRANULAR TRENCH BACKFILL UNIFORMLY ON BOTH SIDES OF THE CONDUITS IN 6-INCH UNCOMPACTED LIFTS UNTIL 12 INCHES OVER THE CONDUITS. SOLIDLY RAM AND TAMP BACKFILL INTO SPACES AROUND THE CONDUITS.

E. PROTECT CONDUIT FROM LATERAL MOVEMENT, DAMAGE FROM IMPACT OR UNBALANCED LOADING.

F. ABOVE THE CONDUIT EMBEDMENT ZONE, PLACE AND COMPACT SATISFACTORY BACKFILL MATERIAL IN 9-INCH MAXIMUM LOOSE THICKNESS LIFTS TO RESTORE THE REQUIRED FINISHED SURFACE GRADE.

G. COMPACT FINAL TRENCH BACKFILL TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY ADJACENT TO THE TRENCH BUT NO LESS THAN A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE MODIFIED PROCTOR TEST, ASTM D1557

3.7 AGGREGATE ACCESS ROAD AND SITE

A. CLEAR, GRUB, STRIP AND EXCAVATE FOR THE ACCESS ROAD AND TOWER COMPOUND TO THE LINES AND GRADES INDICATED ON THE DRAWINGS. SCARIFY TO A DEPTH OF 6 INCHES AND PROOF-ROLL ALL HOLES, RUTS, SOFT PLACES AND OTHER DEFECTS SHALL BE CORRECTED.

B. THE ENTIRE SUB GRADE SHALL BE COMPACTED TO NOT LESS THAN 95:2 OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE MODIFIED PROCTOR TEST, ASTM D 1557.

C. AFTER PREPARATION OF THE SUB GRADE IS COMPLETED, THE GEOTEXTILE FABRIC SHALL BE INSTALLED TO THE LIMITS INDICATED ON THE DRAWINGS BY ROLLING THE FABRIC OUT LONGITUDINALLY ALONG THE ROADWAY OR SITE. THE FABRIC SHALL NOT BE DRAGGED ACROSS THE SUB GRADE PLACE THE ENTIRE ROLL IN A SINGLE OPERATION, ROLLING THE MATERIAL AS SMOOTHLY AS POSSIBLE.

1. OVERLAPS PARALLEL TO THE ROADWAY AND SITE WILL BE PERMITTED AT THE CENTERLINE AND AT LOCATIONS BEYOND THE ROADWAY OR SITE SURFACE WIDTH (I.E., WITHIN THE SHOULDER WIDTH) ONLY. NO LONGITUDINAL OVERLAPS SHALL BE LOCATED BETWEEN THE CENTERLINE AND THE SHOULDER. PARALLEL OVERLAPS SHALL BE A MINIMUM OF 3 FEET WIDE.

2. TRANSVERSE (PERPENDICULAR TO THE ROADWAY) OVERLAPS AT THE END OF A ROLL SHALL OVERLAP IN THE DIRECTION OF THE AGGREGATE PLACEMENT (PREVIOUS ROLL ON TOP) AND SHALL HAVE A MINIMUM LENGTH OF 3 FEET.

3. ALL OVERLAPS SHALL BE PINNED WITH STAPLES OR NAILS BETWEEN 10 AND 12 INCHES LONG TO INSURE STABLE POSITIONING DURING PLACEMENT OF AGGREGATE. PIN LONGITUDINAL SEAMS AT 25-FOOT CENTERS AND TRANSVERSE SEAMS EVERY 5 FEET ON CENTER.

D. THE AGGREGATE SUB BASE, BASE AND SURFACE COURSES SHALL BE CONSTRUCTED IN LAYERS NOT MORE THAN 4 INCHES (COMPACTED) THICKNESS. AGGREGATE TO BE PLACED ON GEOTEXTILE FABRIC SHALL BE END-DUMPED ON THE FABRIC FROM THE FREE END OF THE FABRIC OR OVER PREVIOUSLY PLACED AGGREGATE. AT NO TIME SHALL EQUIPMENT, EITHER DUMPING THE AGGREGATE OR GRADING THE AGGREGATE, BE PERMITTED ON THE ROADWAY OR COMPOUND WITH LESS THAN 8 INCHES OF MATERIAL COVERING THE FABRIC.

E. THE AGGREGATE SUB BASE AND BASE SHALL BE IMMEDIATELY COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE MODIFIED PROCTOR TEST, ASTM D 1557.

3.8 FINISH GRADING

A. PERFORM ALL FINISHED GRADING TO PROVIDE SMOOTH, EVEN SURFACE AND SUBSURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION. GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.

B. UTILIZE SATISFACTORY FILL MATERIALS RESULTING FROM THE EXCAVATION WORK IN THE CONSTRUCTION OF FILLS, EMBANKMENTS AND FOR THE REPLACEMENT OF REMOVED UNSUITABLE MATERIALS.

C. REPAIR ALL ACCESS ROADS AND SURROUNDING AREAS USED DURING THE COURSE OF THIS WORK TO THEIR ORIGINAL CONDITION.

3.9 SECURITY FENCE

A. THE BOTTOM OF THE FENCE SHALL BE 2 INCHES BELOW THE TOP OF THE COMPOUND GRAVEL IF THE SITE CROSSES FEATURES SUCH AS DRAINAGE DITCHES, ETC., THE FENCE SHALL SPAN THE DEPRESSION. CLOSE THE SPACE BELOW THE BOTTOM OF THE FENCE WITH EXTRA FENCE FABRIC OR BARBED WIRE AS DIRECTED BY THE T-MOBILE CONSTRUCTION SUPERVISOR. PRIOR TO PLACING COMPONENTS SUCH AS FABRIC, RAILS, TENSION WIRE AND GATES, ENSURE THAT THE CONCRETE POST FOUNDATION HAS REACHED AT LEAST 75% OF ITS DESIGN STRENGTH OR HAS CURED A MINIMUM OF 7 DAYS AFTER SETTING THE POST.

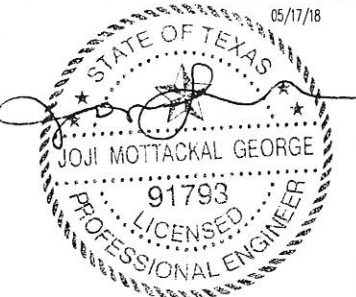
B. FURNISH GATES WITH NECESSARY FITTINGS AND HARDWARE. HINGES SHALL ALLOW SWING GATES TO SWING 180 DEGREES. PLUNGER BARS SHALL HAVE TOP, BOTTOM AND MIDDLE LOCKING POINTS WITH THE MIDDLE POINT ARRANGED FOR PADLOCKING. GATES SHALL HAVE KEYPERS ON EACH LEAF THAT ENGAGE AUTOMATICALLY WHEN THE GATE IS SWUNG OPEN. REPAIR GALVANIZED COATING DAMAGED IN THE FIELD WITH METHODS AND TECHNIQUES AS RECOMMENDED BY THE MANUFACTURER.

T-Mobile®
2 GREENWAY PLAZA
HOUSTON, TX 77046

verticalbridge
750 PARK OF COMMERCE DRIVE
BOCA RATON, FL 33487

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Registration No. 8242

ACGI NO:	17-7142, 18-2191		
DRAWN BY:	RM		
CHECKED BY:	JG		
REVISIONS			
REV	DATE	DESCRIPTION	BY
2	05/17/18	REV. FOR DRAINAGE DISTRICT	RM
1	04/17/18	REV. FOR ZONING SUBMITTAL	RM
0	03/05/18	FINAL CD	RM
C	02/15/18	REV. FOR T-MOBILE REDLINES	RM
B	01/29/18	REV. FOR T-MOBILE REDLINES	HR
A	11/22/17	PRELIMINARY CD	RM



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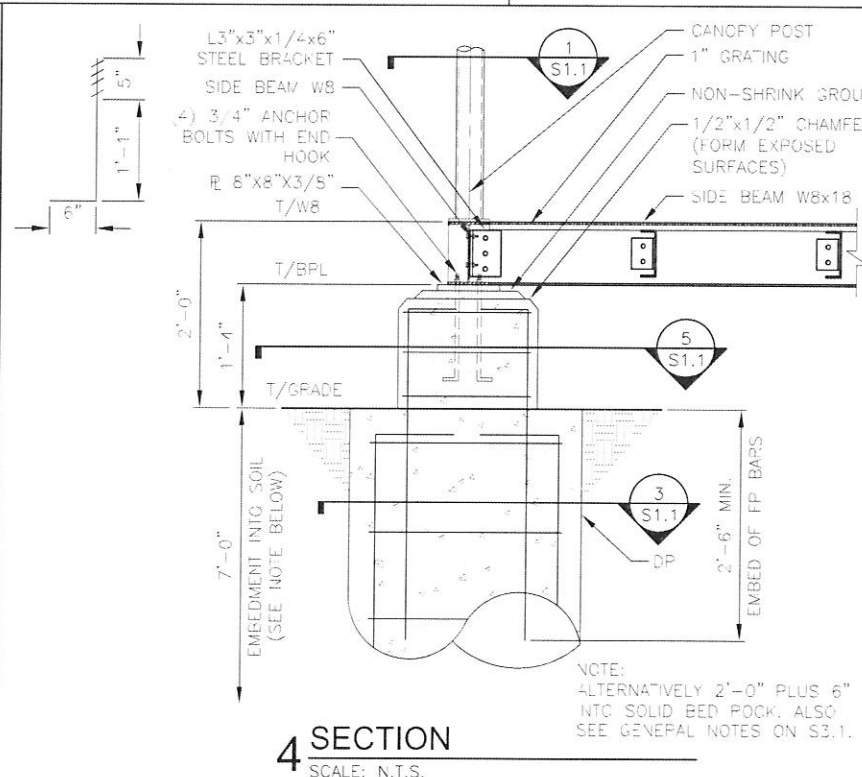
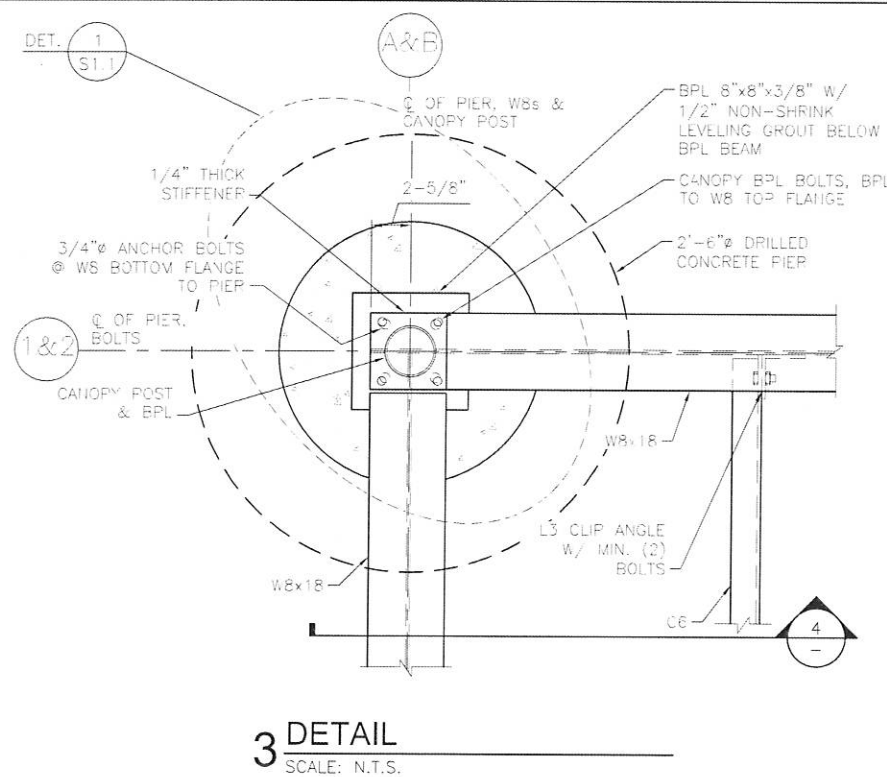
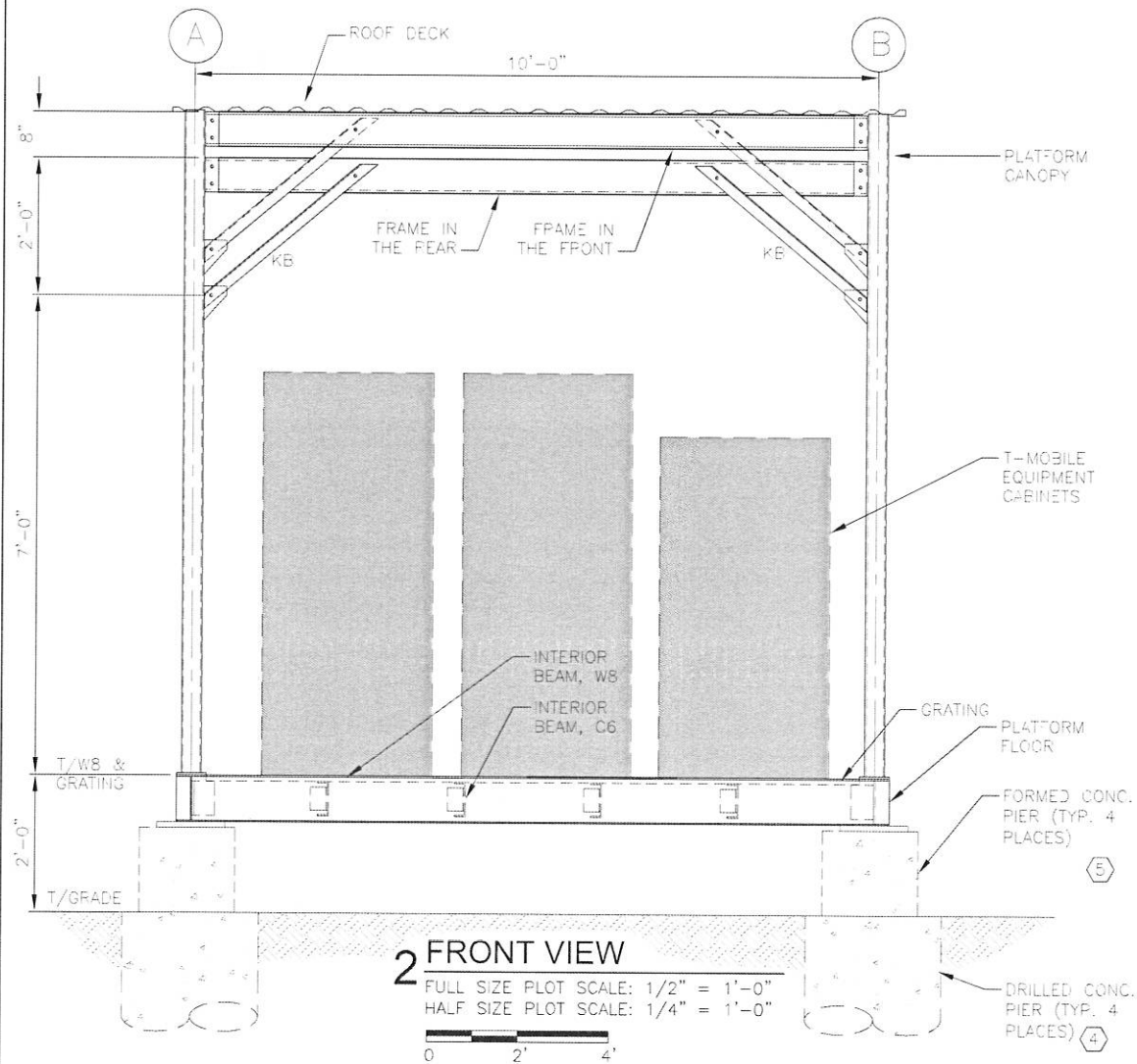
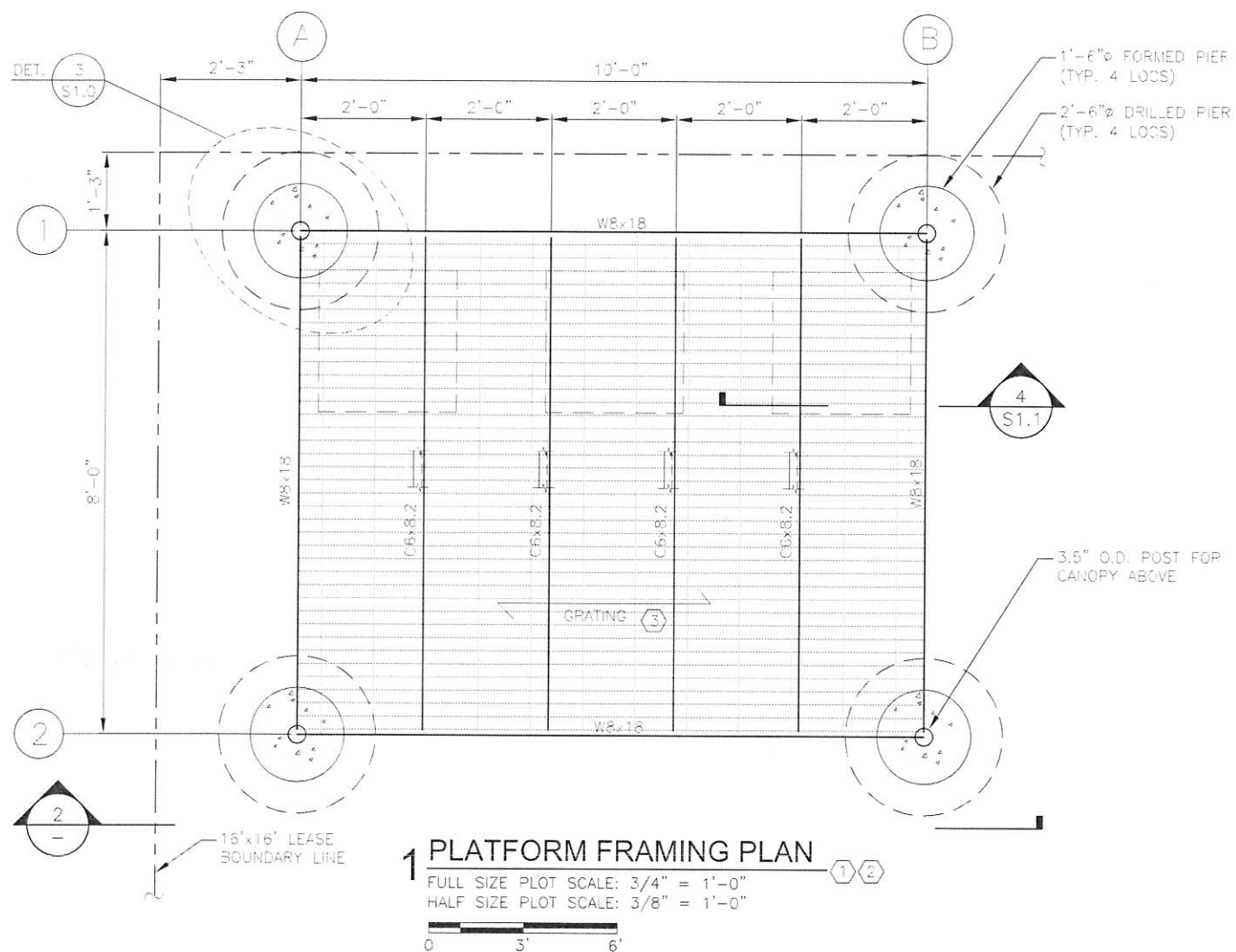
SITE INFORMATION
T-MOBILE SITE #:
A3C0203B

VERTICAL BRIDGE SITE #:
TX-5460

918 TALISMAN ROAD #A[E911]
ROSHARON, TX 77583
FORT BEND COUNTY

SHEET TITLE:
GENERAL
NOTES

SHEET NUMBER:
GN-1



LEGEND

- W8 = W8x18
- L3 = L3x3x1/4
- L2 = L2x2x1/4
- C6 = C6x8.2
- DP = DRILLED PIER
- FP = FORMED PIER
- FTG = FOOTING
- BPL = BASE PLATE
- COL = COLUMN
- BM = BEAM
- AVG = AVERAGE
- STIFF = STIFFENER
- CL = CENTERLINE
- O.C. = ON CENTERS
- BAL. = BALANCE
- EA. = EACH
- T&B = TOP AND BOTTOM
- CLR = CLEAR
- LOC = LOCATION

CRB
 53018

PREPARED FOR:

T-Mobile
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T-MOBILE USA, INC.
 2 GREENWAY PLAZA
 SUITE 1100
 HOUSTON, TX 77046

PROJECT NAME:

**T-MOBILE 10'x8'
 EQUIPMENT
 PLATFORM
 WITH CANOPY**

STAMP:



10/25/2016

LEVEL 5
 CONSULTING ENGINEERS, INC.

19315 FM 2252, STE. 301 PH: (210) 542-5911
 GARDEN RIDGE, TX 78266 F-13646

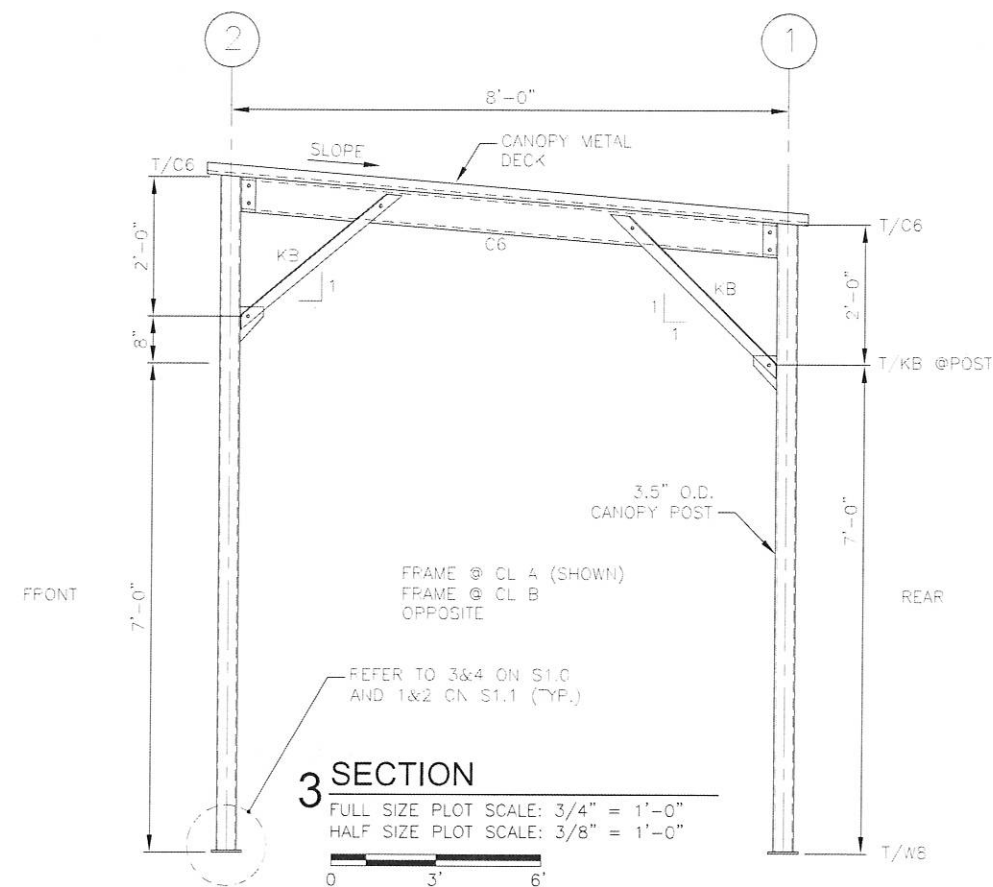
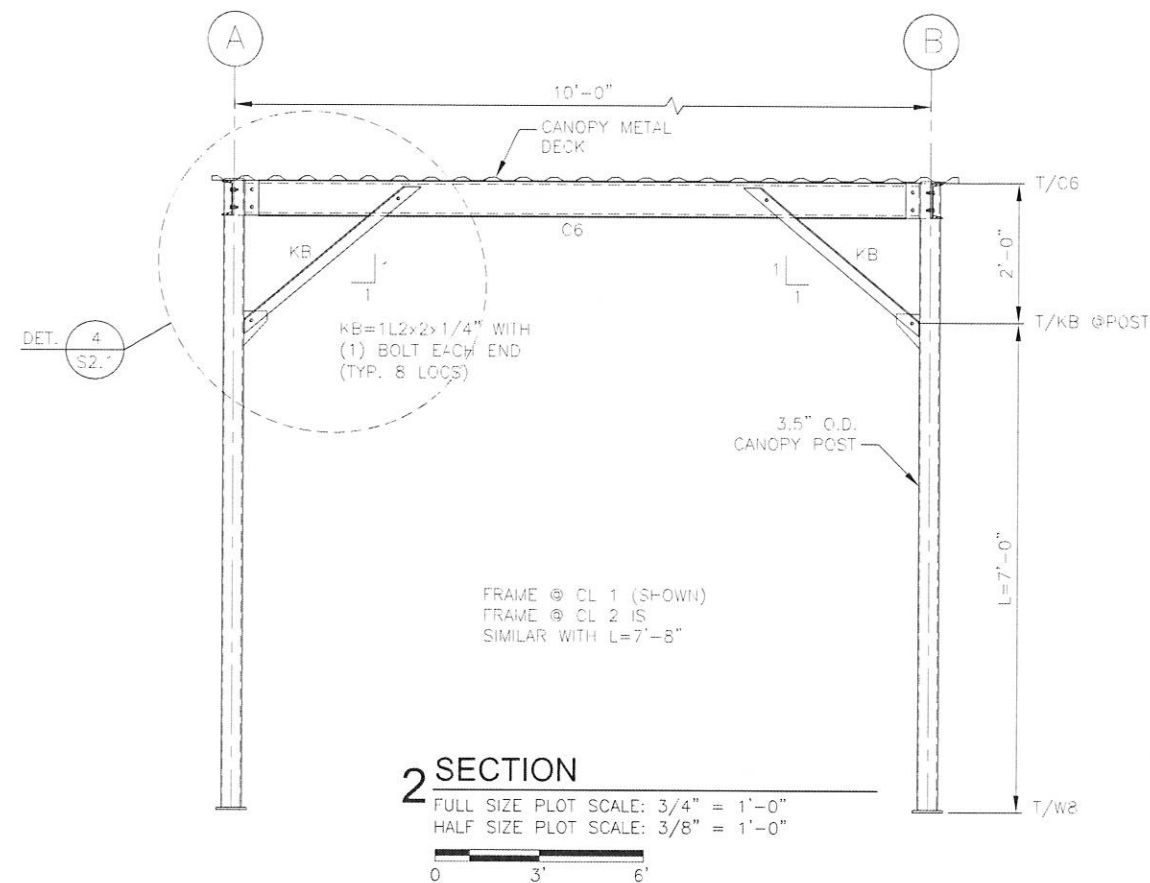
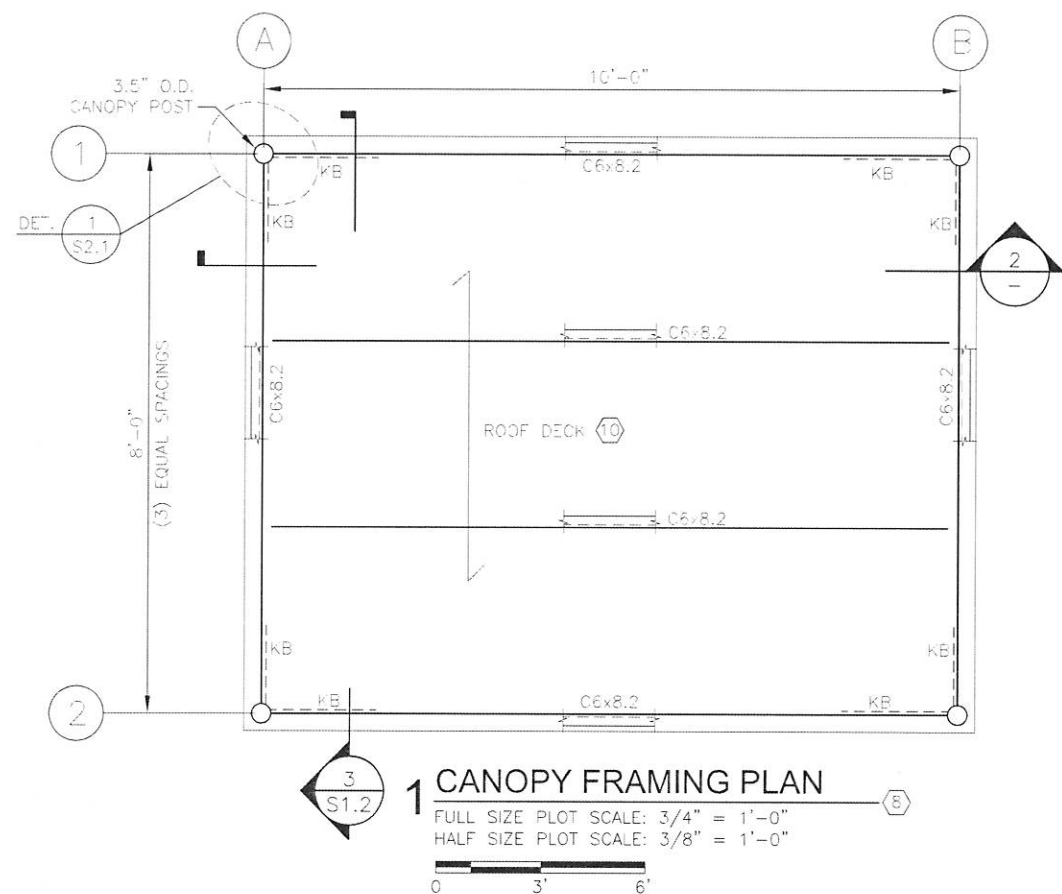
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REVISION			
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1	REVISED PER COMMENTS	RS	10/25/16

SHEET TITLE:

**PLATFORM FRAMING
 PLAN & SECTIONS**

SHEET NUMBER:

S1.0



PREPARED FOR:

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T-MOBILE USA, INC.
 22 GREENWAY PLAZA
 SUITE 1100
 HOUSTON, TX 77016

PROJECT NAME:

**T-MOBILE 10'x8'
 EQUIPMENT
 PLATFORM
 WITH CANOPY**

STAMP:



10/25/2016

LEVEL 5
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		REVISION	
NO	DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	LC	07/08/16
1	REVISED PER COMMENTS	RS	10/25/16

SHEET TITLE:
**CANOPY FRAMING
 PLAN
 & SECTIONS**

SHEET NUMBER:
S2.0

CHS 5-3078

PLATFORM FRAMING DRAWING NOTES

1. PROVIDE W8X18 BEAMS ON CENTERLINES A&B CONTINUOUS OVER THE BEAM BASE PLATE. PROVIDE W8X18 BEAMS ON CENTERLINES 1 AND 2 FRAMED INTO THE LATTER. CONNECT W8 TO W8 BEAM WITH MINIMUM (1) L3"X3"X1/4"X0'-6" AND (3) 5/8" BOLTS. THE CLIP ANGLE MAY BE WELDED TO ONE W8 AND BOLTED TO THE OTHER.
2. PROVIDE INTERIOR (C6) BEAMS 1" LOWER THAN PERIMETER BEAMS TO ELIMINATE COPING. CONNECT C6 TO W8 BEAM WEB WITH MINIMUM (1) L3"X3"X1/4"X0'-6" AND (2) 5/8" BOLTS. THE CLIP ANGLE MAY BE WELDED TO W8 AND BOLTED TO C6. ALTERNATIVELY, CONTRACTOR MAY USE C8X11.5 IN LIEU OF C6 CHANNEL BEAMS WITH GRATING PLACED ON TOP OF ALL BEAMS.
3. THE PLATFORM FLOOR WILL BE COVERED WITH STANDARD SERRATED STEEL GRATING WITH 1"X3/16" BEARING BARS AT 19/16" OC AND CROSS BARS AT 4" OC BY MCNICHOLS OR APPROVED EQUIVALENT WITH BANDED ENDS AND EDGES. MAIN BEARING BARS OF THE GRATING SHALL RUN PERPENDICULAR TO INTERIOR CHANNEL BEAMS AND WILL BE FLUSH WITH THE TOP ELEVATION OF THE W8 BEAMS. PROVIDE CONTINUOUS BARS WELDED TO END W8 BEAMS ALONG CENTERLINES A & B TO SUPPORT GRATING ENDS. IF C8 INTERIOR BEAMS ARE UTILIZED, GRATING WILL BEAR ON THE PERIMETER BEAMS AS WELL AS INTERIOR BEAMS. GRATING SHALL BE POSITIVELY ATTACHED TO THE PLATFORM STEEL AS PER MANUFACTURER RECOMMENDATIONS TO ACT AS A DIAPHRAGM.
4. DRILLED PIERS AS FOUNDATIONS OF THE PLATFORM AND CANOPY SHALL EXTEND INTO FIRM CLAYEY SOILS DESIGNATED AS "CL" AND ACHIEVE INDICATED MINIMUM ALLOWABLE END BEARING AND SIDE FRICTION STRESSES. IF FILL IS ENCOUNTERED, THE INDICATED MINIMUM DEPTH SHALL START FROM THE BOTTOM OF THE FILL MATERIAL. THE EMBEDMENT DEPTH SHALL BE INCREASED UNTIL SAID ALLOWABLES ARE OBTAINED. PROVIDE CASING DURING THE DRILLING AND POURING PROCESS AS SOFT SOILS OR FILL MATERIAL ARE ENCOUNTERED TO PROTECT DRILLED HOLE WALL.
5. FORMED PIER SHALL USE ROUND SONO-TUBE OR APPROVED EQUIVALENT CENTERED ON THE DRILLED PIER. PROVIDE SMOOTH TOP SURFACE AND CHAMFERED EXPOSED EDGES. THE ELEVATION TOP OF THE FORMED PIER TO ALLOW FOR 1/2" +/- THICK NON-SHRINK ADJUSTMENT GROUT.
6. HANDRAIL IS NOT REQUIRED PER OSHA FOR PLATFORMS WITH OVERALL HEIGHT OF 30" OR LESS ABOVE GRADE. HOWEVER, IF REQUIRED BY T-MOBILE CONSTRUCTION MANAGER, PROVIDE LADDER AND / OR HANDRAIL SYSTEM AS PER THE MOST STRINGENT REQUIREMENT OF THE OSHA OR GOVERNING BUILDING CODE.
7. IF REQUIRED BY T-MOBILE CONSTRUCTION MANAGER, PROVIDE H-FRAME CONSISTING OF (3) 3.5" ODX6'-0" SCHEDULE 40 PIPE POSTS POSITIVELY ATTACHED TO THE PLATFORM PERIMETER BEAMS. COORDINATE POST LOCATIONS WITH PM AND PLATFORM BEAM LOCATIONS. PROVIDE UNI-STRUTS ATTACHED TO POSTS TO COMPLY WITH T-MOBILE LAYOUT.
8. PROVIDE A CANOPY AS SHOWN. CANOPY POSTS SHALL BE CENTERED ON TOP OF THE PLATFORM W8 BEAMS AND PIERS. PROVIDE 1" PER FOOT SLOPE FOR THE CANOPY FRAME AND METAL DECK. FRONT ELEVATION WILL BE HIGHER AND SURFACE WATERS WILL DRAIN TO THE REAR OF THE CANOPY. PROVIDE KNEE BRACING ACCORDING TO THE INDICATED DETAILS FOR THE LATERAL STABILITY OF THE CANOPY FRAME. PROVIDE TEMPORARY LATERAL SUPPORT PRIOR TO AND DURING THE INSTALLATION OF KNEE BRACES. THE TEMPORARY SUPPORT WILL MAINTAINED UNTIL ALL BRACES ARE INSTALLED AND FUNCTIONAL.
9. NOTCH THE CANOPY POST AT THE TOP, FABRICATE CRUCIFORM, INSERT INTO THE NOTCH IN THE POST, AND WELD. PROVIDE 1" WELD ON TOP AND BOTTOM OF THE CRUCIFORM PLATES INSIDE POST. PROVIDE FULL WELDING OF THE PLATES AROUND NOTCH IN OUTSIDE OF THE POST.
10. THE METAL DECK SHALL BE VULCRAFT C.6X24 GAUGE OR APPROVED EQUIVALENT. FOLLOW STEEL DECK INSTITUTE (SDI) AND MANUFACTURER RECOMMENDATIONS FOR HANDLING, SIDE/ OVERLAP LENGTH, AND INSTALLATION OF METAL DECK SHEETS. THE METAL DECK MUST BE POSITIVELY ATTACHED TO THE SUPPORTING INTERIOR AND EXTERIOR BEAMS IN ACCORDANCE WITH THE DECK MANUFACTURER RECOMMENDATIONS. AS MINIMUM USE CONNECTIONS AT EACH BEAM LOCATION AND AT 12" OC AT SHEET ENDS. CONNECTIONS MAY BE 5/8" DIAMETER PUDDLE WELDS WITH THICK WASHERS OR #10 SCREWS WITH THICK WASHERS.
11. PROVIDE STRUCTURAL STEEL AND REINFORCED CONCRETE WORK SHOP DRAWINGS FOR ENGINEER'S REVIEW PRIOR TO FABRICATIONS OR CONSTRUCTION. FABRICATION SHALL BE IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS.
12. ALL STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED. ABRADED AND OR WELDED AREAS SHALL BE CLEANED THOROUGHLY AND COVERED WITH ZINC RICH COLD GALVANIZING MATERIAL. COLD GALVANIZING MATERIAL AND THICKNESS TO BE SUBMITTED FOR APPROVAL.

PREPARED FOR:

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T-MOBILE USA, INC.
2 GREENWAY PLAZA
SUITE 1100
HOUSTON, TX 77046

PROJECT NAME:

**T-MOBILE 10'x8'
EQUIPMENT
PLATFORM
WITH CANOPY**

STAMP:



10/25/2016



19315 FM 2252, STE. 301 PH: (210) 542-5911
GARDEN RIDGE, TX 78266 F-13646

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1	REVISED PER COMMENTS	RS	10/25/16

SHEET TITLE:

DRAWING NOTES

SHEET NUMBER:

S3.0

PLG 5-30-18

STRUCTURAL CONCRETE AND STEEL GENERAL NOTES

CODES AND SPECIFICATIONS

INTERNATIONAL BUILDING CODE, CURRENT EDITION AS ADOPTED BY THE LOCAL BUILDING CODE.
ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, LATEST EDITION.
ACI 301- LATEST EDITION, SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS.
AISC MANUAL OF THE STEEL CONSTRUCTION, LATEST EDITION.

CONCRETE AND FOUNDATIONS

- A. THE FOUNDATIONS HAVE BEEN DESIGNED FOR GRAVELLY CLAYS, INORGANIC CLAYS WITH LOW MEDIUM PLASTICITY, SANDY CLAYS, AND SILTY CLAYS DESIGNATED AS "CL" IN ACCORDANCE WITH UNIFIED SOIL CLASSIFICATION WITH ASSUMED MINIMUM NET END BEARING STRESS OF 1000 PSF ALONG WITH A SKIN FRICTION OF 250 PSF IN UNDISTURBED SOILS. ASSUMED SOIL PARAMETERS TO BE FIELD VERIFIED BY ACCEPTABLE METHODS.
- B. FOOTINGS ARE TO BE POURED WITHOUT SIDE FORM AGAINST NEAT CUT EXCAVATION, EXCEPT IF NOTED OTHERWISE.
- C. SET COLUMN DOWELS AND ANCHOR BOLTS WITH TEMPLATE, PRIOR TO CONCRETING.
- D. IF EXISTING UTILITIES ARE UNCOVERED DURING EXCAVATION, STOP WORK AND NOTIFY OWNER'S REPRESENTATIVE.
- F. BACKFILL WITH MATERIAL APPROVED BY THE GEOTECHNICAL ENGINEER. IN GENERAL, THE FILL MATERIAL SHALL BE PLACED IN UNIFORM LIFTS NO THICKER THAN 6 INCHES FOR COHESIVE, PLASTIC SOILS AND 10 INCHES FOR GRANULAR MATERIAL. COMPACT TO 100% OF STANDARD PROCTOR DENSITY PER ASTM D698.

CONCRETE

- A. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI SPECIFICATION 301- LATEST EDITION UNLESS HEREIN MODIFIED. CONCRETE WORK SHALL FURTHER FOLLOW ACI RECOMMENDED PRACTICES CONTAINED IN THE ACI FIELD REFERENCE MANUAL [PUBLICATION SP-15 (73)]. A COPY OF THE FIELD REFERENCE MANUAL SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.
- B. ALL STRUCTURAL REINFORCED CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318).
- C. PROVIDE A STEEL TROWEL FINISH FOR ALL INTERIOR CONCRETE FLATWORK. PROVIDE A NONSLIP SOFT-BROOM FINISH FOR ALL EXTERIOR EXPOSED CONCRETE FLATWORK. PROVIDE A NONSLIP ROUGH-BROOM FINISH FOR RAMPS.
- D. FINISH SURFACES TO THE FOLLOWING TOLERANCES, MEASURED WITHIN 24 HOURS ACCORDING TO ASTM E 1155/E 1155M:
SPECIFIED OVERALL VALUES OF FLATNESS, F(F) [25]; AND LEVELNESS, F(L) [20]; WITH MINIMUM LOCAL VALUES OF FLATNESS, F(F) [17]; AND LEVELNESS, F(L) [15].
- E. PROVIDE WET COVERING OR CURING COMPOUND CURING FOR ALL CONCRETE. CURING COMPOUND TO BE COMPATIBLE WITH FLOOR COVERING, SEALERS, ETC.
- F. PLACE NO OPENINGS, SLEEVES, INSERTS, ETC., IN CONCRETE WORK UNLESS CRITERIA INDICATED ON STRUCTURAL DRAWINGS IS MET.
- G. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF REINFORCEMENT.
- H. CONCRETE STRENGTHS (AT 28 DAYS):

DRILLED PIER AND FOOTING CONCRETE: 3000 PSI

REINFORCING STEEL

- A. ALL BARS, STIRRUPS AND TIES (ASTM A 615 OR A 616) 60 KSI YIELD
- B. PROVIDE COMPRESSION SPLICES FOR ALL SPLICES UNLESS OTHERWISE NOTED. CONTINUOUS REINFORCEMENT SPLICES SHALL BE STAGGERED UNLESS NOTED OTHERWISE.
- C. CLEARANCES BETWEEN REINFORCING BARS AND CONCRETE SURFACES ACI MINIMUM UNLESS OTHERWISE NOTED.
- D. NO REINFORCEMENT SHALL BE WELDED OR BENT IN THE FIELD UNLESS SPECIFICALLY SHOWN OR NOTED ON THE SHOP DRAWINGS. TACK WELDING OF REINFORCEMENT GRIDS SHALL CONFIRM TO ASTM A 184.
- E. ALL REINFORCEMENT SHALL BE HELD SECURELY IN PLACE PRIOR TO CONCRETE PLACEMENT.
- F. PROVIDE SHOP DRAWINGS FOR THE REINFORCEMENT FOR REVIEW PRIOR TO FABRICATION AND CONCRETE POUR.

COORDINATION

- A. FIELD VERIFY EXISTING DIMENSIONS AND ELEVATIONS THAT AFFECT FABRICATION LENGTHS OF MEMBERS PRIOR TO SUBMITTAL OF SHOP DRAWINGS OR FABRICATION.
- B. REFER TO MECHANICAL, PLUMBING, ELECTRICAL, AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL EMBEDDED ITEMS, SLEEVES, FLOOR PITCHES, FILLS AND DEPRESSIONS.

CONSTRUCTION

- A. PROVIDE CONCRETE WITH MAXIMUM WATER-CEMENT (W/C) RATIO AS FOLLOWS:
DRILLED PIERS AND FOOTINGS: 0.60
- B. MAXIMUM SLUMP AT POINT OF PLACEMENT IS 4"+/- 1 INCH, UNLESS OTHERWISE INDICATED IN THE SPECIFICATIONS. MAXIMUM SLUMP AT DRILLED PIERS IS 6", WITH A TOLERANCE OF 1 INCH.

STRUCTURAL STEEL NOTES

STRUCTURAL STEEL

- A. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, LATEST EDITION; AND THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, LATEST EDITION.
- B. MATERIAL: ASTM A 36 - STRUCTURAL STEEL SHAPES, RODS, AND PLATES.
ASTM A 500 (GRADE B, FY = 46 KSI) - STRUCTURAL TUBING.
ASTM A 53 (TYPE E OR S GRADE B, FY = 35 KSI) - STRUCTURAL PIPE.
ASTM A 325 HIGH-STRENGTH - ALL FIELD BOLTS. SIZE TO BE 5/8" DIAMETER UNO.
ASTM A 307 - ALL TEMPORARY ERECTION BOLTS. ALL ANCHOR BOLTS.
- C. CONNECTIONS: ALL CONNECTIONS SHALL BE AISC TYPE 2 CONNECTIONS UNLESS NOTED. DESIGN ALL CONNECTIONS NOT SHOWN ON PROJECT DRAWINGS. UNLESS SPECIFIC REACTIONS, MOMENTS, SHEARS AND AXIAL FORCES ARE INDICATED, PROVIDE CONNECTIONS FOR THE REACTION DUE TO THE MAXIMUM UNIFORM LOAD WHICH THE MEMBER CAN SUPPORT AT ITS SPAN SHOWN IN THE ALLOWABLE UNIFORM LOAD TABLES, PART 2 OF THE AISC STEEL CONSTRUCTION MANUAL, FOR THE SPECIFIED BEAM YIELD STRENGTH. MINIMUM NUMBER OF BOLT ROWS SHALL BE EQUAL TO THE BEAM DEPTH IN INCHES DIVIDED BY 4.0.
- D. ALL WELDING SHALL BE IN ACCORDANCE WITH "THE STRUCTURAL WELDING CODE", AWS D1.1, USING E70 ELECTRODES UNLESS NOTED OTHERWISE. ALL WELDERS, SHOP AND FIELD, SHALL BE AWS CERTIFIED.
- E. PROVIDE NON-SHRINK, NONMETALLIC GROUT AT ALL BASE PLATES, MINIMUM COMPRESSIVE STRENGTH IS 4000 PSI.
- F. GALVANIZING: ALL GALVANIZED STEEL, IF INDICATED ON THE DRAWINGS, SHALL BE CLEANED OF FOREIGN MATERIAL AS REQUIRED TO OBTAIN A UNIFORM (IN QUALITY) GALVANIZED FINISH. REFERENCE ASTM A123, A385 AND A386.
- G. POWER TOOL CLEAN ALL WELDS AND ADJACENT AREAS TO REMOVE FLUX AND SPLATTER PRIOR TO GALVANIZING OR TOUCH UP. AFTER INSTALLATION, ABRADED AREAS AND FIELD WELDS SHALL RECEIVE A SPOT COAT OF ZINC-RICH COLD GALVANIZING COMPOUND PER MANUFACTURER'S INSTRUCTIONS. (I.E. COLD GALVANIZING NO. 740 BY DEVOU SUPPLY CO.)
- H. SHOP DRAWINGS CONTAINING COMPLETE DETAILS SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION.
- I. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF STRUCTURAL STEEL.
- J. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS FOR ENGINEER'S REVIEW PRIOR TO FABRICATION. FABRICATION SHALL BE ACCORDING TO THE APPROVED SHOP DRAWINGS.

COORDINATION

- A. FIELD VERIFY EXISTING DIMENSIONS AND ELEVATIONS THAT AFFECT FABRICATION LENGTHS OF MEMBERS PRIOR TO SUBMITTAL OF SHOP DRAWINGS OR FABRICATION.

CONSTRUCTION

- A. BRACE ENTIRE STRUCTURE AS REQUIRED TO MAINTAIN STABILITY UNTIL COMPLETE AND FUNCTIONING AS THE DESIGNED UNIT.

SAFETY

- A. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF JOB SITE, INCLUDING COMPLIANCE WITH ALL REGULATORY AGENCIES AND SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

DESIGN LOADS (PSF)

- A. GROUND SNOW LOAD (PG) 25
EXPOSURE FACTOR (CE) 0.7
SNOW LOAD IMPORTANCE FACTOR (I) 1.0
LIVE LOAD 20
CABINET LOADING 100 PSF
- B. WIND:
TELECOMMUNICATIONS FACILITY W/ RISK CATEGORY II
SURVIVAL 3 SECOND WIND SPEED 139 MPH
EQUIVALENT 3 SECOND WIND SPEED 110 MPH
IMPORTANCE FACTOR 1
WIND EXPOSURE C

- C. SEISMIC:
SHORT PERIOD ACCELERATION COEFFICIENT 1.4
1 SECOND PERIOD ACCELERATION COEFFICIENT 2.05
SITE CLASSIFICATION AVG OF C & D
SHORT PERIOD ACCEL. 0.11
1 SECOND PERIOD ACCEL. 0.10
IMPORTANCE FACTOR 1
R FACTOR FOR BRACED FRAME 3

- D. PLATFORM TOTAL LIVE LOAD INCLUDING MAINTENANCE PERSONNEL: 4600 LBS
E. CANOPY LIVE LOAD 20 PSF

RISK CATEGORY NOTE:

THIS TELECOMMUNICATION PROJECT WITH RISK CATEGORY II DOES NOT PROVIDE SERVICE TO STRUCTURES/FACILITIES DESIGNATED IN HIGHER RISK CATEGORIES AND DOES NOT INVOLVE EMERGENCY RESPONSE EQUIPMENT ESSENTIAL TO EMERGENCY RESPONDERS TO COMPLETE THEIR TASK.

PREPARED FOR:

T-Mobile
Get More From Life

T-MOBILE USA, INC.
2 GREENWAY PLAZA
SUITE 1100
HOUSTON, TX 77046

PROJECT NAME:

**T-MOBILE 10'x8'
EQUIPMENT
PLATFORM
WITH CANOPY**

STAMP:



10/25/2016



19315 FM 2252, STE. 301 PH: (210) 542-5911
GARDEN RIDGE, TX 78266 F-13646

DRAWN BY:	LC
APPROVED BY:	RN
DATE DRAWN:	07/07/16
REVISION	
NO	DESCRIPTION
0	ISSUED FOR CONSTRUCTION
1	REVISED PER COMMENTS

SHEET TITLE:

**STRUCTURAL
CONCRETE AND
STEEL NOTES**

SHEET NUMBER:

S3.1

CLG 5-3018