



**REVIEW BY FORT BEND COUNTY
COMMISSIONERS COURT**

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

- ☒ Right of Way Permit
☐ Commercial Driveway Permit

Permit No: 2017-12461

Applicant: Crown Castle NG Central LLC/Shift Companies

Job Location Site: Westheimer Parkway and Cinco Ranch Boulevard, Katy, TX 77494

Bond No. **Date of Bond:** 5/12/2014 **Amount:** \$50,000.00

The above applicant came to make use of certain Fort Bend County property subject to, "The Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas, of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Chapter 181, Vernon's Texas Statutes and Codes Annotated.

Notes:

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
 - a. 48 hours in advance of construction start up, and
 - b. When construction is completed and ready for final inspection, submit notification to Permit Administrator thru MyGovernmentOnline.org portal.
3. This permit expires one (1) year from date of permit if construction has not commenced.

On this 4th day of April, 2017, Upon Motion of Commissioner Meyers, seconded by Commissioner Morales, duly put and carried, it is ORDERED, ADJUDGED AND DECREED that said notice of said above purpose is hereby acknowledged by the Commissioners Court of Fort Bend County, Texas, and that said notice be placed on record according to the regulation order thereof.

Signature

Presented to Commissioners Court and approved.

By: Charles O. Ay

Date Recorded 4-10-17 Comm. Court No. 12K

for County Engineer

Clerk of Commissioners Court

N/A

By: _____

By: Ronda Wilho

Drainage District Engineer/Manager

Deputy



**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: 2017-12461

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:

- | | |
|-------------------------------------|--|
| ☒ | 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: <u> </u> | Amount: \$50,000.00 |
| ☐ | Performance bond submitted. | Bond No: <u> </u> | Amount: <u> </u> |
| ☐ | Cashier's Check | Check No: <u> </u> | Amount: <u> </u> |

(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):

Drainage District Approval

Date

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

Charles O. Al

Permit Administrator

3/20/17
Date

SHIFT

November 28, 2016

Carmen Escobar, CFM
Permit Administrator
Fort Bend County Engineering
301 Jackson St, Richmond, TX 77469

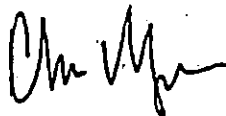
**RE: Cinco Ranch Traffic Control Plan
- Shift Project #160614**

Carmen,

Per our conversation on the phone, the work we are doing in the ROW will not require any road closures. There is no TCP required, the contractor will take adequate measure to ensure they are not impeding the public way.

Please let me know if you need anything else.

Thank you,



Chris Myers
Principal
SHIFT Companies



PROJECT NAME: CINCO RANCH EXPANSION
PROJECT ADDRESS: WESTHEIMER PKWY. AND CINCO RANCH BLVD.
PROJECT TYPE: METAL SLIMLINE POLE
HUB AREA: CINCO RANCH - HGCW
NODE #(s): **CCR-42M1**
COORDINATES: LAT: 29.738699, LONG: -95.781976

PROJECT TEAM	
ARCHITECT	OWNER INFO
Company: SHIFT CONSULTING	Company: CROWN CASTLE
Address: 7330 E. MONTE VISTA RD. SCOTTSDALE, AZ 85257	Address: 1220 AUGUSTA DR HOUSTON, TX 77057
Phone Number: 480.264.0826	Phone #: 817.449.3113
Fax Number: 480.264.0163	Email: BARRY.CAMPALU@CROWNCASTLE.COM
Contact: CHRIS MYERS	Contact: BARRY CAMPALU
STRUCTURAL	RF ENGINEER
Company: T.B.D.	Company: CROWN CASTLE
Address:	Address: 1220 AUGUSTA DR HOUSTON, TX 77057
Phone Number:	Phone Number:
Fax Number:	Fax Number:
Contact:	Contact:
FIBER ENGINEERING	
Company: TDC2	
Address: 710 EAST PARK BLVD SUITE 110 PLANO, TX 75074	
Phone: 972.423.9060	
Email: shum@tdc2.com	
Contact: SCOTT CRUM	

PROJECT SUMMARY	
PROJECT NAME: CINCO RANCH EXPANSION	APPLICANT: CROWN CASTLE 1220 AUGUSTA DR HOUSTON, TX 77057 CONTACT: BARRY CAMPALU
PROJECT AREA: CINCO RANCH - HGCW	CODES: 2009 INTERNATIONAL BUILDING CODE (IBC) 2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2008 NATIONAL ELECTRICAL CODE (NEC) 2008 NATIONAL ELECTRICAL SAFETY CODE (NESC)
JURISDICTION: FORT BEND COUNTY ENGINEERING DEPT 1124 BLUME RD. ROSENBERG, TX 77471 PH: 281.633.7500 CONTACT: JOHNNY ORTEGA	PLUMBING REQUIREMENTS: FACILITY HAS NO PLUMBING.
HANDICAPPED REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED	POWER COMPANY: CENTERPOINT ENERGY 9431 HIGHWAY BLVD KATY, TX 77494 PH: 281.520.6275 CONTACT: KEN CORTEZ

PROJECT DESCRIPTION

CROWN CASTLE PROPOSES TO PROVIDE AN ENHANCED RESIDENTIAL WIRELESS COMMUNICATIONS SYSTEM FOR THE KATY, TEXAS AREA. THE SYSTEM WILL IMPROVE CELLULAR COMMUNICATIONS AND INCREASE CALL CAPACITY. THE NETWORK AND ASSOCIATED EQUIPMENT HAVE BEEN DESIGNED TO MINIMIZE VISUAL IMPACTS IN URBAN SETTINGS. THE PROPOSED SYSTEM WILL PROVIDE A CELLULAR NETWORK THAT CAN BE UTILIZED SIMULTANEOUSLY BY DIFFERENT LICENSED TELECOMMUNICATIONS COMPANIES.

A SUBJECT NODE WILL CONSIST OF NEW METAL SLIMLINE POLE. THEY WILL HAVE GROUND MOUNTED RADIO EQUIPMENT INSIDE A CABINET WITH A METER AND DISCONNECT ATTACHED. THERE WILL ALSO BE POLE TOP ANTENNAS CONCEALED IN SHROUDS.

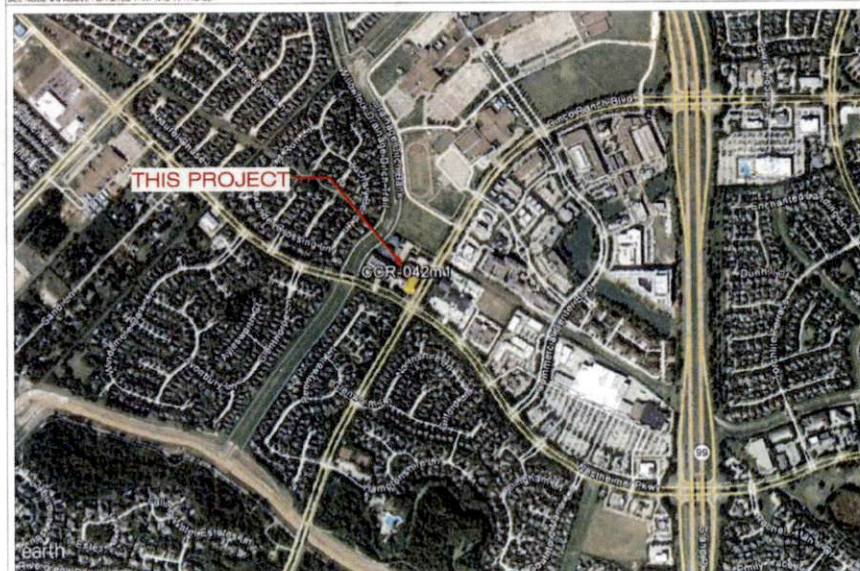
T1.1 - SHEET INDEX		
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T1.2	GENERAL NOTES, ABBREVIATIONS AND SYMBOLS	2
T1.3	EQUIPMENT SPECIFICATIONS	3
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A1.1	WIRE PLANK EQUIPMENT AND ANTENNA PLAN	5
A1.2	POLE ELEVATION, PROPOSED	6
T01.1	CONSTRUCTION DETAILS	7
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E1.0	ELECTRICAL PLANS	9
E1.1	ELECTRICAL DETAILS	10
PE1.12A.1(1)	PEDESTRIAN FACILITIES CURB RAMP	11
PE1.12A.2(1)	PEDESTRIAN FACILITIES CURB RAMP	12
PE1.12A.3(1)	PEDESTRIAN FACILITIES CURB RAMP	13
PE1.12A.4(1)	PEDESTRIAN FACILITIES CURB RAMP	14

FORT BEND COUNTY ENGINEER

ENGINEER: *Richard W. Stollers, P.E.*
 Richard W. Stollers, P.E.
 DATE: 2/23/17
 THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN (1) YEAR FROM DATE OF APPROVAL.
 APPROVED: *Casandra K. Stollers*
 Development Coordinator
 DATE: 2-23-17

TEAM MEMBERS REVIEW	REVIEWED/DATE
R.F. ENGINEERING	
PRODUCT MANAGEMENT	
NETWORK/REAL ESTATE TEAM	
UTILITY TEAM	
IMPLEMENTATION	
OPERATIONS	

OVERALL NODE LOCATION MAP



CROWN CASTLE
 800 E. JOHN CARPENTER FWY.
 SUITE 300
 IRVING, TX 75060

RECORD DRAWING NUMBER: 01.23.17

RECORD DRAWING DRAFTING ONLY

SHIFT

Shift Companies, LLC
 7511 NORTH VISTA ROAD
 SCOTTSDALE, ARIZONA 85257
 PH: 480.264.0826
 FAX: 480.264.0163

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RELEASE	
DATE	SUBMITTAL
8/28/16	1ST CITY SUBMITTAL
10/18/16	2ND CITY SUBMITTAL
01/23/17	REVISION TO PERMIT

REVISIONS	
NO.	DATE
10/18/16	CITY COMMENTS
01/23/17	SITE NOTE

PROJECT NAME
CINCO RANCH EXPANSION

NODE ADDRESS
NODE #CCR-42M1

**WESTHEIMER PKWY.
 AND CINCO RANCH
 BLVD**

HUB AREA
CINCO RANCH - HGCW

SHIFT JOB NUMBER
150602

SHEET TITLE
TITLE SHEET

SHEET NUMBER
1 OF 14

PLOT SCALE: 1" = 24'-0" 1/2" = 11'-0"

PLAN CHECK #

CASE #

ACJ	ACRYLATIONIS
ADJ	ADJUSTABLE
AFT	AFTERS FINISH FLOOR
AK	ABOUT NEW BAY LEVEL
APPROX	APPROXIMATELY
AWG	AMERICAN WIRE GAUGE
BOW	BARRE CORNER WIRE
BL DO	BLOCK
BLK	BLOCK
BOS	SET TIGHT OF BLOCK
BS	BUILDING (BAYWARD)
CLD	CELLING
CLB	CLIMB
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
COMP	COMPANY
DO	DOUBLE
DIA	DIAMETER
DM	DOWN
DN	DOWN
DN DETL	DETAIL
DWG	DRAWING
E	EAST
EA	EACH
EL ELEV	ELEVATION
ELECT	ELECTRICAL
EPBS	ELECTRICAL PULL BOX
EQ	EQUAL
EQUP	EQUIPMENT
EW	EAST WAY
EX	EXITING
EXT	EXTENSION
FIN	FINISH
FLUOR	FLUORESCENT
FLH	FLOOR
FT	FOOT, FEET
GA	GAUGE
GALV	GALVANIZED
GE	GENERAL CONTRACTOR
GLB	GLASS LAMINATED (GLASS)

B	BOTTOM
BCHEDULE	SCHEDULE
BS	BEARING FRAME
BWT	BWET
SM	SIMILAR
SPC	SPECIFICATION
SS	SQUARE
SC	SANITARY SEWER
ST	STEEL
STRUCT	STRUCTURAL
BUSP	BUSPENDED
BY	SQUARE YARD
THRU	THROUGH
THRD	THREADED
T.G.	TOP OF
TOB	TOP OF BENCH
TOP	TOP OF CONCRETE
TOA	TOP OF MASONRY
TS	TURN STEEL
T	TRANSMIT SIGNAL
TK	TYPICAL
UG	UNDERGROUND
UL	UNDERWATER LAB
URH	UNIVERSAL RADIO HEAD
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VF	VERTY IN FIELD
VF	VERTY, FILE
W	WEET
W	WITH
WCON	WINDOW
WCO	WORKING
WP	WORKING POINT
WTR	WATER

GENERAL PROJECT NOTES	SCALE: 1"=10'	15
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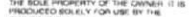
[illegible]

CHRYSLER MUST HAVE ONE ALU CERTIFIED PERSONNEL	
WORKING/MOUNTING THE DOOR CABINET MUST HAVE THE ALU MTRIO CELL CERTIFICATION + ONLY CERTIFIED PERSONNEL MAY INSTALL ALU METRIC CELLS I.E. NO TRAINING THE TRAINER OPTIONS PERMITTED + A CERTIFIED INSTALLER MAY SUPERVISE ONE OR MORE NON-CERTIFIED "HELPERS" AS LONG AS THE CERTIFIED INSTALLER IS ON THE SAME SITE 100% OF THE TIME & NO FORMING SUPERVISOR) + A CERTIFIED INSTALLER MAY NOT ACT AS A FORMALLY QUALIFIED AUDITOR UNLESS THE ORIGINAL INSTALLATION IS COMPLETED BY A CERTIFIED INSTALLER AND THE QUALITY AUDIT IS ONLY PORTFOLIED AS AN ADJUTANT AUDIT - NO WAY WILL THIS AUDIT BE USED TO ENSURE TECHNICAL QUALITY - NO WAY WILL THIS AUDIT BE USED TO PORTFOLIED AS AN ADJUTANT AUDIT + CERTIFIED PERSONNEL HAVE ACCESS TO REMOTE TECHNICAL SUPPORT FOR ISSUES RELATED TO METRIC CELL INSTALLATION AND HAS RECEIVED THE FOLLOWING PRODUCTS ARE COVERED: MTRIO MTRIO CELL INDOOR, SUMMIT MTRIO CELL OUTDOOR, SUMMIT MTRIO CELL INDOOR, MTRIO CELL OUTDOOR, WIRE MTRIO PANELS OUTDOOR V1.6, AND THE 2310 CABINET.	
ALU CERTIFIED TECH NOTE	SCALE INTB 11

CREW MUST HAVE ONE ALL CERTIFIED PERSON - PERSONNEL
WHEN INSTALLING THE RUCK CABINET MUST HAVE THE ALL METRO CELL
CERTIFICATION. * ONLY CERTIFIED PERSONNEL MAY INSTALL ALL METRO
CELLS. I.E. NO OTHER THE TRAINER OFFICER PERMITTED. A CERTIFIED
INSTALLER MAY SUPERVISE ONE OR MORE NON-CERTIFIED TECHS AS
LONG THE CERTIFIED INSTALLER IS ON THE SAME SITE 100% OF THE TIME. (A
NO TRAINING SUPERVISOR) * A CERTIFIED INSTALLER MAY NOT ACT AS A
QUALITY AUDITOR UNLESS THE ORIGINAL INSTALLATION IS
COMPLETED BY A CERTIFIED INSTALLER AND THE QUALITY AUDIT IS ONLY
USED TO ENSURE INTERNAL QUALITY. IN NO WAY WILL THIS AUDIT BE
PORTFOLIOED AS AN ALGATE/LUCENT AUDIT. * CERTIFIED PERSONNEL HAVE
ACCESS TO REMOTE TECHNICAL SUPPORT FOR ISSUES RELATED TO METRO
CELL INSTALLATION. (888) 582-3686. (888) LUCENT * THE FOLLOWING
PROCEDURE ARE COVERED: 3800 METRO CELL INDOOR, 3800 METRO CELL
OUTDOOR, 3800 METRO CELL INDOOR WITH METRO CELL OUTDOOR, 3800
METRO INDOOR OUTDOOR V1.0, AND THE 7310 CABINET

ALL CERTIFIED TECH NOTE	SCALE: 1/16"	11
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REVISION
KEY NOTE
DETAIL REFERENCE
ELEVATION REFERENCE
SECTION REFERENCE
ELEVATION MARKER
PHOTOGRAPH REFERENCE
ANTENNA AZIMUTH
DER
ABER
OUR
EXISTING TREE
EXISTING BUSH / SHRUB
D. Casandro *DC*
Development Coordinator
2-23-17



T1.2 2 OF 14

PLOT SCALE: 1"=24'x36" 1.25"=11'x17"

SCALE IN T S	12
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2C2UT360K12H-wg0

^a Data are means ± SD.

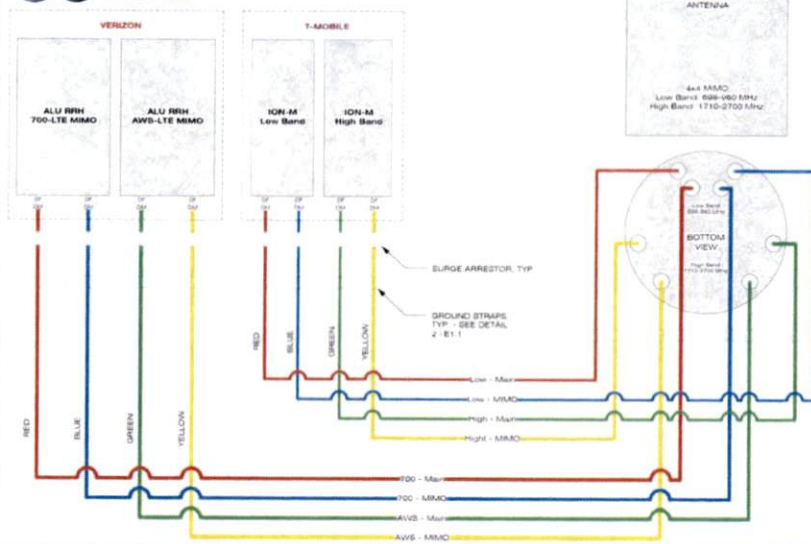
Features

Connector Description

[illegible]

Electrical Characteristics

Mechanical Characteristics



WIRING DIAGRAM

SCALE FACTOR	1
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RELEASE	
DATE	SUBMITTAL
6 02 16	1ST CITY SUBMITTAL
10 18 16	2ND CITY SUBMITTAL
01 28 17	REVISION TO PERMIT

REVISIONS

NO	DATE	COMMENT
	10.18.16	CITY COMMENTS
	01.29.17	SITE MOW

PROJECT NAME

CINCO RANCH EXPANSION

HUB AREA

CINCO RANCH - HGCW

SHIFT JOB NUMBER

150602 DRAWN BY

SHEET TITLE

EQUIPMENT

EQUIPMENT SPECIFICATIONS

GARY F. POLSARSKI

11/11/2011

T1.3 3 OF 14

(5) (3) $\text{MgSO}_4 \cdot x\text{H}_2\text{O}$: $96 + 18x = 200$, $x = 7.8 \approx 8$.



CROWN CASTLE
600 E. JOHN CARPENTERS FWY
SUITE 300
IRVING, TX 75062

RECORD DRAWING ISSUE DATE: 01/23/17

SHIFT

Shift Companies, LLC
7333 E. MONTE VISTA ROAD
SCOTTSDALE, ARIZONA 85257
ph: 480.264.0879
fax: 480.264.0163

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APPROVED: Asand
for Development Coordin
DATE: 2-23-17

26.1-19.1 NW 1/4



NODE AERIAL PLAN

SUBJECT POLE: CCR-42M1	
GPS COORDINATES:	
LAT: 29.70859	
LONG: -95.781976	
POLE TYPE: W-AL-SUM-NS-HLS	
POLE ID #	
UPPER ANTENNA RAD CENTER: 32' - 17' A.F.G.	
LOWER ANTENNA RAD CENTER: 30' - 0' A.F.G.	
APPROVED: <i>Cassandra H</i> Development Coordinator	
DATE: <i>2-23-17</i>	



CROWN CASTLE
800 E. JOHN CARPENTER HWY
SUITE 500
IRVING, TX 75060

RECORD DRAWINGS ISSUE DATE: 01-23-17



Shift Companies, LLC
7801 E. HOUSTON VISTA ROAD
HOUSTON, TEXAS 77061
PH: 281-241-8888
FX: 281-241-2332

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RELEASE	
DATE	SUBMITTAL
8-03-16	1ST CITY SUBMITTAL
12-16-16	2ND CITY SUBMITTAL
01-23-17	REVISION TO PERMIT

REVISIONS		
NO.	DATE	COMMENT
1	10-18-16	CITY COMMENTS
2	01-23-17	SITE MOVE

PROJECT NAME
CINCO RANCH EXPANSION

HUB ADDRESS
NODE # CCR-42M1

**WESTHEIMER PKWY.
AND CINCO RANCH
BLVD.**

HUB AREA
CINCO RANCH - HGCW

SHIFT JOB NUMBER
150602

SHEET TITLE
AERIAL

SHEET NUMBER
A1.0

PAGE
4 OF 14

PLOT SCALE: 1" = 24'x30'; 1/2" = 11'x17'



SITE PHOTO (EXISTING)

N.T.S.

PLAN CHECK #

CASE #

811
CALL TWO WORKING DAYS
BEFORE YOU DIG.
UNDERGROUND SERVICE
ALERT OF TEXAS
1-800-645-6005

NOTES:

1. ANY DAMAGE TO EXISTING GUTTER, CURB, SIDEWALK AND ROADWAY DURING CONSTRUCTION TO BE REPAIRED OR REPLACED
2. EXISTING VEGETATION DAMAGED IN CONSTRUCTION TO BE REPLACED BY SAME SPECIES



SUBJECT POLE: CCR-42M1

GPS COORDINATES:

LAT: 28 0359N

LONG: 90 72'58W

POLE TYPE: METAL GALUMINE POLE

POLE ID #

UPPER ANTENNA RAD CENTER: 32 - U A F G

LOWER ANTENNA RAD CENTER: 30 - A F G

SUBJECT POLE IS LOCATED IN: FORT BEND COUNTY S.O.D.

APPROVED: *Casandra E*

for Development Coordinator

DATE: 2-23-17



RECORD DRAWINGS ISSUE DATE: 01/29/17

Shift Companies, LLC
7333 E. MONTE VISTA BLVD
SCOTTSDALE, ARIZONA 85257
PH: 480.294.0870
FAX: 480.294.0162

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RELEASE	
DATE	SUBMITTAL
6 00 16	1ST CITY SUBMITTAL
10 18 16	2ND CITY SUBMITTAL
01 20 17	REVISION TO PERMIT

REVISIONS		
NO.	DATE	COMMENT
	12-18-16	CITY COMMENTS
	01-23-17	SITE MOVE

PROJECT NAME
CINCO RANCH EXPANSION

NODE ADDRESS
NODE #:CCR-42M1

WESTHEIMER PKWY.
AND CINCO RANCH
BLVD.

HUB AREA

CINCO RANCH - HGCW

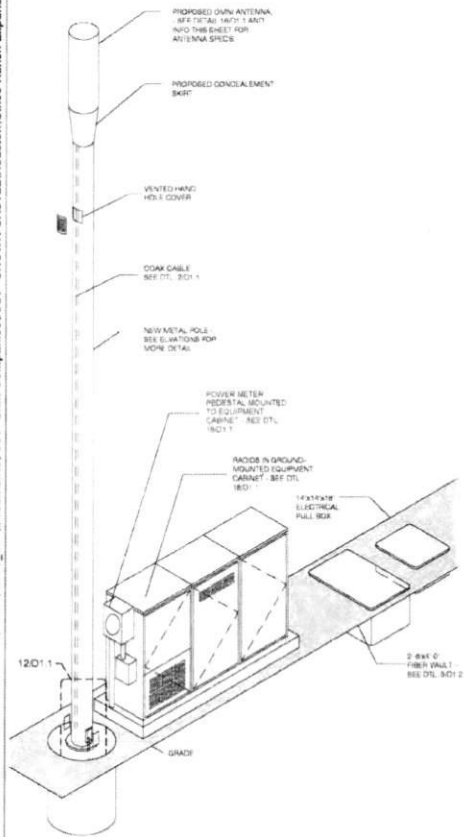
SHIFT JOB NUMBER
150602

SITE PLAN, EQUIPMENT AND ANTENNA PLAN

SHEET NUMBER PAGE
A1.1 5 OF 14

PLOT SCALE: 1.1 @ 24"x36", 1.2 @ 11"x17"

NOTE
ISO IS SCHEMATIC IN NATURE. FIBER VAULT, POWER METER PEDESTAL
AND GROUND-MOUNTED RADIO EQUIPMENT PEDESTAL CAN BE
RECONFIGURED TO SUIT PROJECT LOCATION



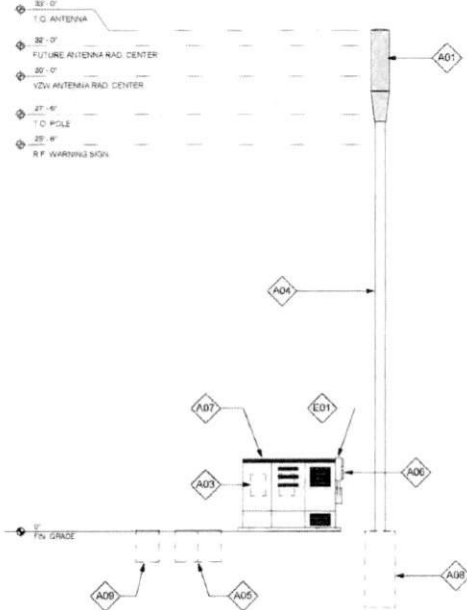
METAL POLE ISOMETRIC

SCALE: SCALE: N.T.S. 4

KEYNOTE LEGEND		
KEYNOTE	DESCRIPTION	DETAIL NUMBER
A01	PROPOSED CROWN CASTLE DOWN ANTENNA	180" 1
A02	PROPOSED CROWN CASTLE F.U.B. CONDUIT (APPROXIMATE LOCATION, P.V.)	201.1
A03	PROPOSED CROWN CASTLE REMOTE RADIO UNITS RADIO EQUIPMENT CABINET	180" 1
A04	PROPOSED NEW METAL SLIMLINE POLE	201.1
A05	PROPOSED CROWN CASTLE UNDERGROUND CONCL. FIBER VAULT	201.2
A06	PROPOSED CROWN CASTLE NON-IDENTIFICATION SIGNAGE	201.2
A07	PROPOSED CROWN CASTLE EQUIPMENT CABINET	180" 1
A08	PROPOSED CROWN CASTLE POLE FOUNDATION	120" 1
A09	PROPOSED ELECTRICAL HAND-HOLE	
E01	PROPOSED POWER METER MOUNTED TO EQUIPMENT CABINET (DISTRIBUTED PANEL AND DISCONNECT)	180" 1

MODEL: ABB/ENG: 2017/000127.rvt
LENGTH: 48"
WIDTH: 148" DIA
DEPTH: NA
WEIGHT: 381 LBS
PROPOSED PANEL ANTENNA SPECS
PROPOSED POLE HEIGHT: 18' 0"
PROPOSED POLE HEIGHT: 27' 0"
1.4' 0" ANTENNA AND 1.5' 0" ANTENNA MOUNT
POLE INFO

APPROVED: *Cassandra H*
Development Coordinator
DATE: 2-23-17



POLE ELEVATION (PROPOSED)

SCALE: 1/4" = 1'-0" 20



CROWN CASTLE
800 E. JOHN CARPENTER HWY
SUITE 300
IRVING, TX 75060

RECORD DRAWING ISSUE DATE: 01.23.17

SHIFT

Shift Companies, LLC
1331 F. MOUNT VISTA ROAD
SUITE 100, AUSTIN, TEXAS 78704
P.O. BOX 100
TX 78704-0100

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RELEASE	
DATE	SUBMITTAL
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10/18/16	2ND CITY SUBMITTAL
01/23/17	REVISION TO PERMIT

REVISIONS		
NO.	DATE	COMMENT
1	10/18/16	CITY COMMENTS
2	01/23/17	SITE WORK

PROJECT NAME
CINCO RANCH EXPANSION

NODE ADDRESS
NODE #CCR-42M1

WESTHEIMER PKWY.
AND CINCO RANCH
BLVD.

HUB AREA
CINCO RANCH - HGCW

SHEET JOB NUMBER
150602

SHEET TITLE
POLE ELEVATION, PROPOSED

SHEET NUMBER
A1.2

PAGE
6 OF 14

PLOT SCALE: 1/16" = 1'-0" 1/2" = 1'-0"

PLAN CHECK # CASE #



RECORD DRAWINGS ISSUE DATE: 01/28/17

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APPROVED: Casano
Development Coordinator
DATE: 2-23-17

REVISIONS		
NO	DATE	COMMENT
	10/18/16	CITY COMMENTS
	01/25/17	SITE MOVE

PROJECT NAME
CINCO RANCH EXPANSION

HUB AREA

CINCO RANCH - HGCW

SHIFT JOB NUMBER 150602

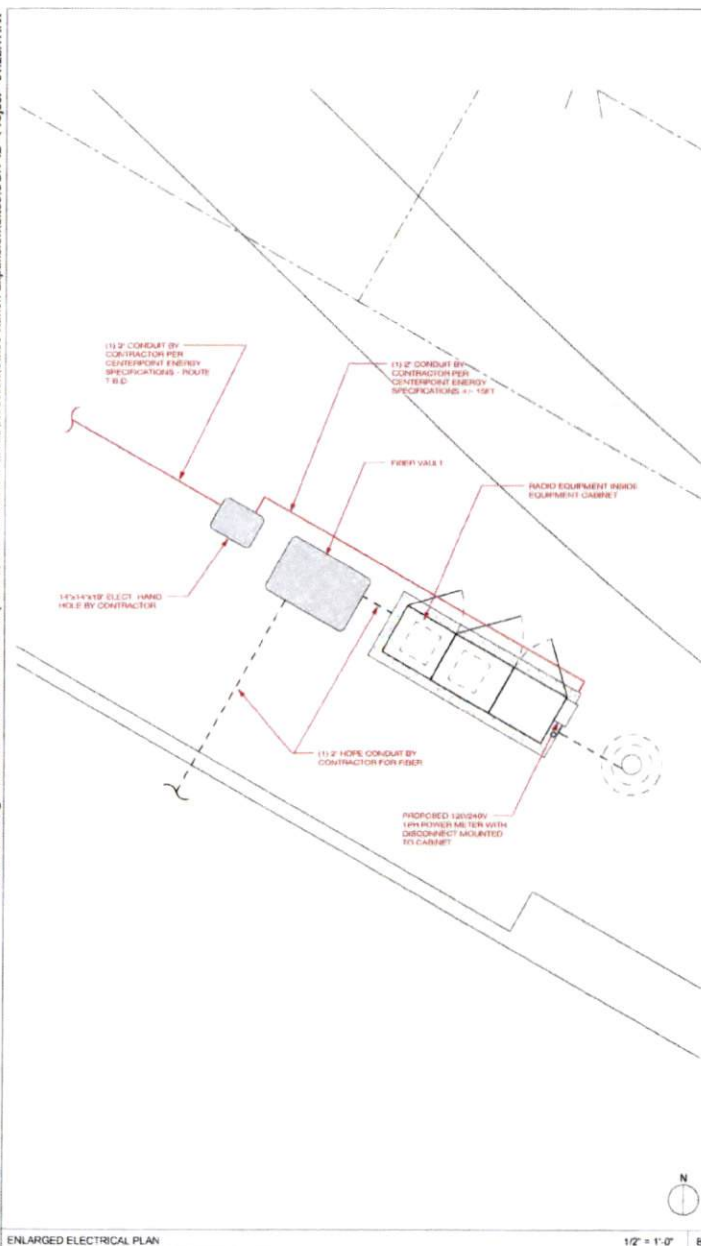
SHEET TITLE

CONSTRUCTION DETAILS

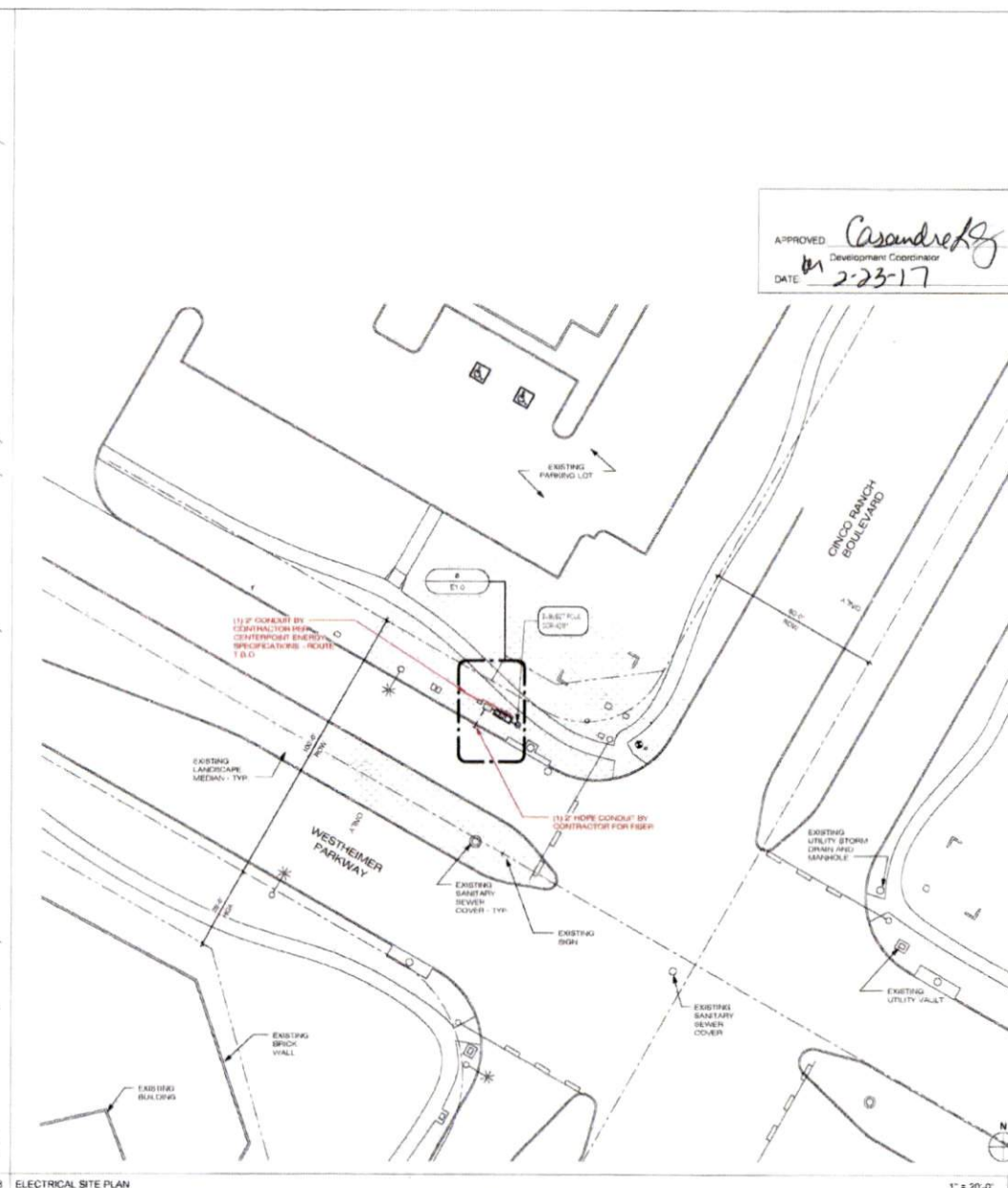
SHEET NUMBER PAGE

D1.1 7 OF 14

PLOT SCALE: 1:1 @ 24"X36" 1:2 @ 11"X17"



ENLARGED ELECTRICAL PLAN



ELECTRICAL SITE PLAN

APPROVED *Cassandra K*
Development Coordinator
DATE *01* 2-23-17



CROWN CASTLE
600 E. JOHN CARPENTER HWY
SUITE 300
IRVING, TX 75060

RECORD DRAWINGS ISSUE DATE 01-22-77

Shift Companies, LLC
7993 E. MONTE VISTA ROAD
SCOTTSDALE, ARIZONA 85267
ph: 480.384.0829
fax: 480.384.0163

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RELEASE	
DATE	SUBMITTAL
06/05/16	1ST CITY SUBMITTAL
10/18/16	2ND CITY SUBMITTAL
01/23/17	REVISION TO PERMIT

REVISIONS		
NO	DATE	COMMENT
	10/18/10	CITY COMMENTS
	01/28/17	SITE MOVE

PROJECT NAME

CINCO RANCH EXPANSION

Node Address

NODE #:CCR-42M1

WESTHEIMER PKWY.
AND CINCO RANCH
BLVD.

HUB AREA

CINCO RANCH - HGCW

SHIFT JOB NUMBER

150602 (DRAWN BY:
CHECKED BY:

SHEET TITLE

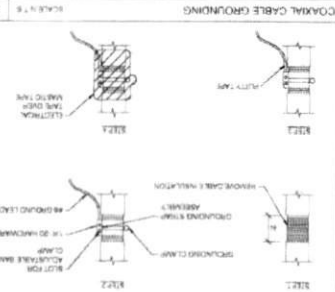
ELECTRICAL PLANS

SHEET NUMBER

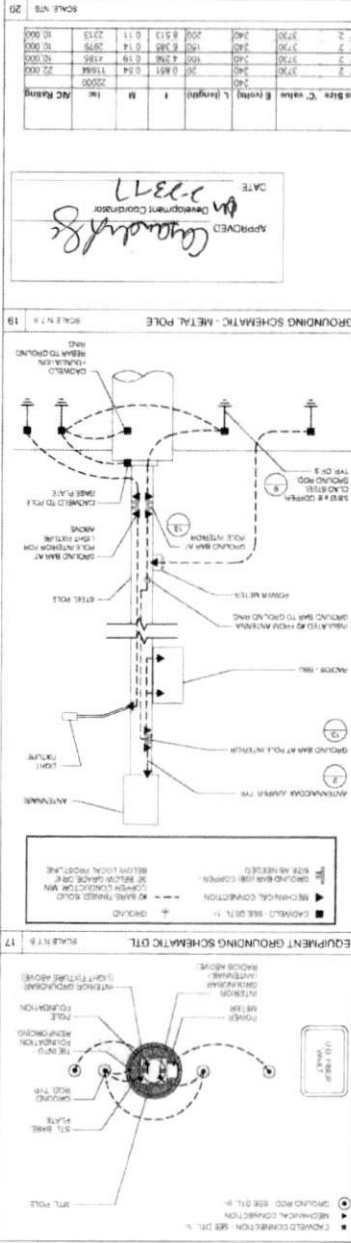
E1.0 9 OF 1

PLOT SCALE 1:1 @ 24"x36" 1:2 @ 11"x17"

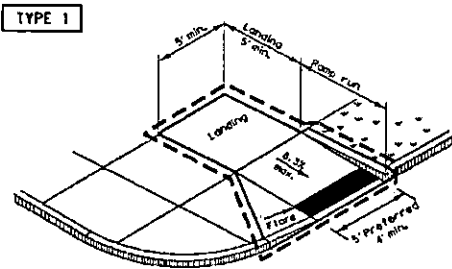
☐ ☐ **IS AN OXYGEN**



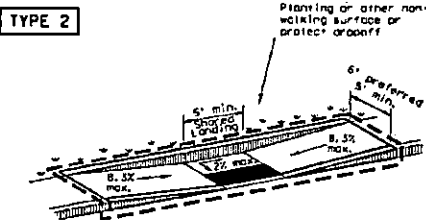
1. Verify that grounding requirements for local and remote wiring have been met.
2. Verify that panel assembly has been properly grounded to a common ground.
3. Verify that panel assembly has been properly grounded to a common ground.
4. Verify that panel assembly has been properly grounded to a common ground.
5. Verify that panel assembly has been properly grounded to a common ground.
6. Verify that panel assembly has been properly grounded to a common ground.
7. Verify that panel assembly has been properly grounded to a common ground.
8. Verify that panel assembly has been properly grounded to a common ground.
9. Verify that panel assembly has been properly grounded to a common ground.
10. Verify that panel assembly has been properly grounded to a common ground.

[illegible]

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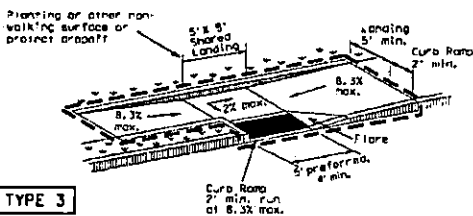


PERPENDICULAR CURB RAMP

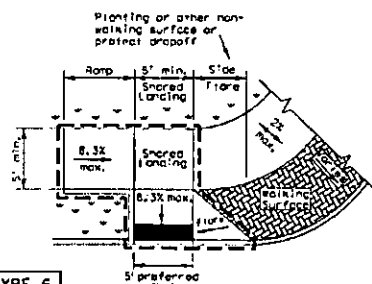


PARALLEL CURB RAMP

(Use only where water will not pond in the landing.)

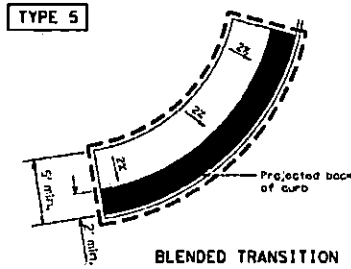


TYPE 3

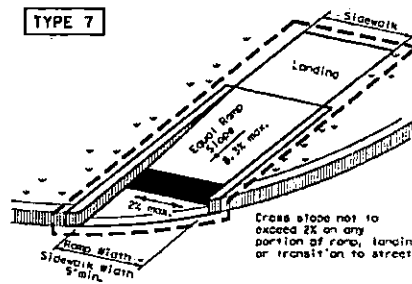


TYPE 6

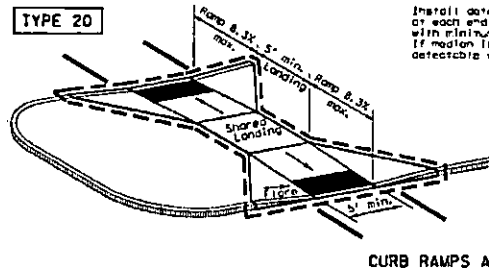
COMBINATION CURB RAMP



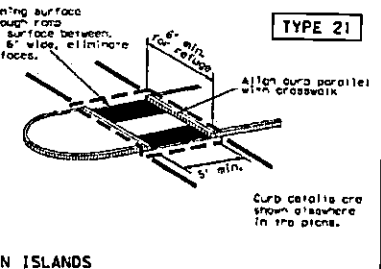
BLENDED TRANSITION



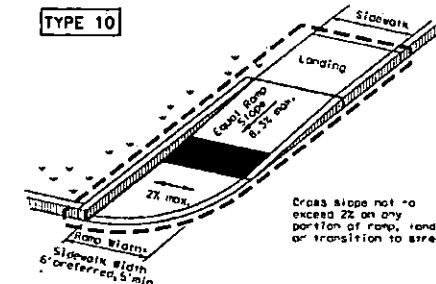
(Sidewalk set back from curb)



CURB RAMP AT MEDIAN ISLANDS

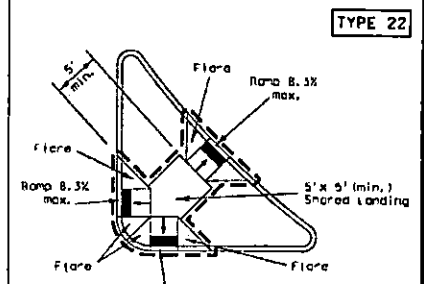


TYPE 21



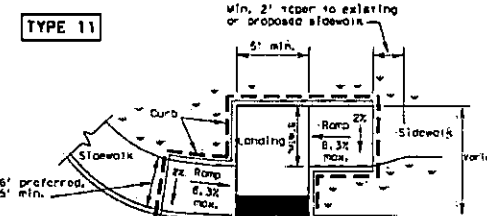
(Sidewalk adjacent to curb)

DIRECTIONAL RAMPS WITHIN RADIUS



TYPE 22

COMBINATION ISLAND RAMPS



OFFSET PARALLEL CURB RAMP

NOTES / LEGEND:

See General Notes on sheet 2 of 4 for more information.

W W Denotes planting or non-walking surface, not part of pedestrian circulation path.

— Ramp Limits of Payment

■ Detectable Warning Surface

Casandra R. 2-23-17
for development coordinator
SHEET 1 OF 4

Texas Department of Transportation		Design Division Standard	
PEDESTRIAN FACILITIES CURB RAMPS			
PED-12A			
FILE: PED12A.dgn	REV: 1/2011	DATE: 1/2011	BY: JH
© 2001 March 2002	CON: SEC	DATE: 1/2011	BY: JH
17 June 13, 2012	DATE	COUNTY	SHEET NO.

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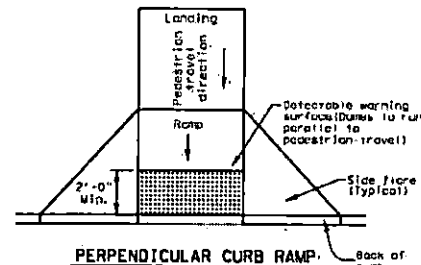
General Notes

Curb Ramps

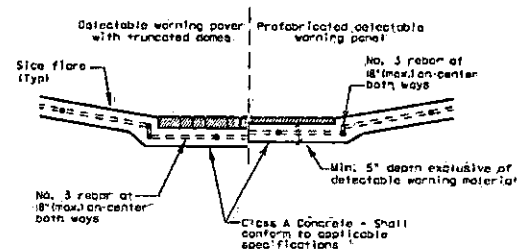
1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 5' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5' x 5' passing areas at intervals not to exceed 200' are required.
4. Landings shall be 5' x 5' minimum with a maximum 2% slope in any direction.
5. Maneuvering space at the bottom of curb ramps shall be a minimum of 4' x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
6. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102.
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5' x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Handrails are not required on curb ramps. Provide curb ramps wherever an accessible route crosses (penetrates) a curb.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Provide a smooth transition where the curb ramps connect to the street.
16. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
17. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.

Detectable Warning Material

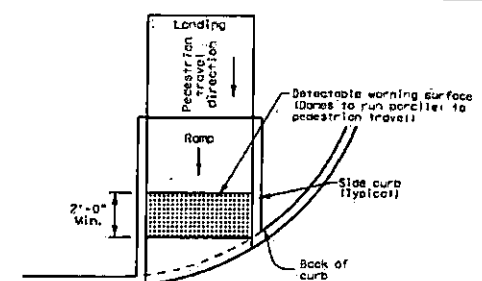
18. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with Section 705 of the TAS. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
19. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
20. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
21. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
22. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb. Align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Detectable warning surfaces may be curved along the corner radius.
23. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.



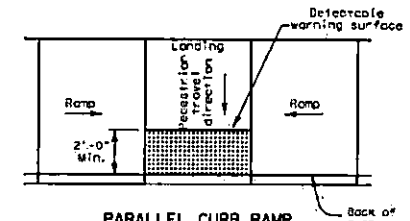
PERPENDICULAR CURB RAMP
Typical placement of detectable warning surface on sloping ramp run.



SECTION: CURB RAMP AT DETECTABLE WARNING



DIRECTIONAL CURB RAMP
Typical placement of detectable warning surface on sloping ramp run.



PARALLEL CURB RAMP
Typical placement of detectable warning surface on landing at street edge.

DETECTABLE WARNINGS

Detectable Warning Pavers

24. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
25. Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit. Cut detectable warning paver units using a power saw.

Sidewalks

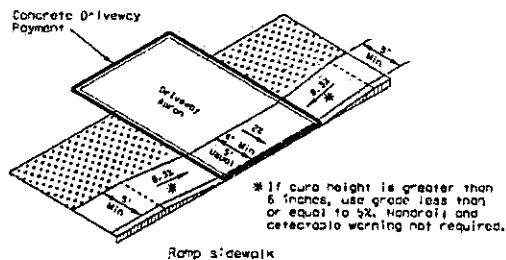
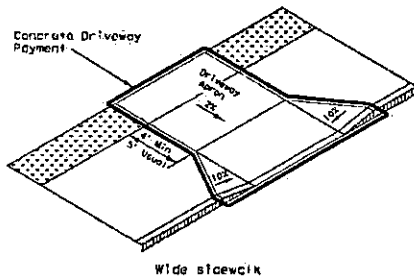
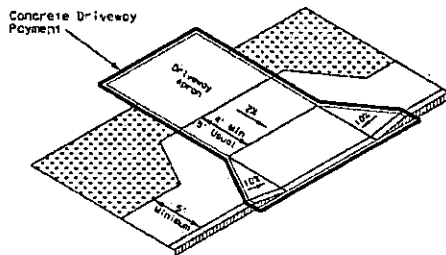
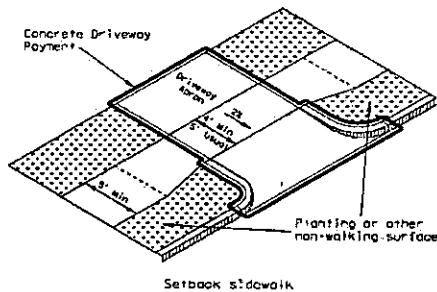
26. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges specified in TAS 308.
27. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
28. Street grades and cross slopes shall be as shown elsewhere in the plans.
29. Changes in level greater than 1/4 inch are not permitted.
30. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway, where a continuous grade greater than 5% must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with TAS 505.
31. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
32. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
33. Sidewalk details are shown elsewhere in the plans.

Cassandra J. Se
for Development Coordination
2-23-17

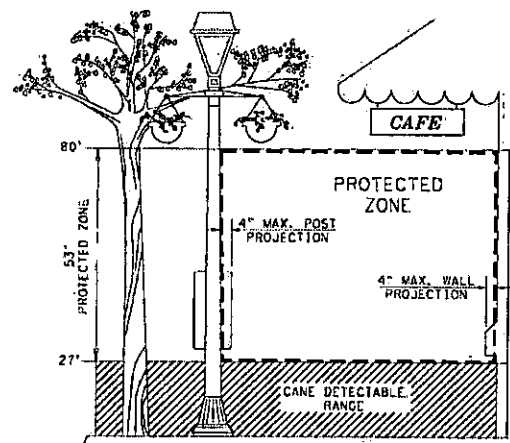
SHEET 2 OF 4

Texas Department of Transportation		Design Division Standard	
PEDESTRIAN FACILITIES CURB RAMPS			
PED-12A			
FILED: 2/23/2017	BY: TxDOT	DATE: 2/23/2017	BY: VP
2/23/2017	REVISED	DATE	BY
2/23/2017	REVISED	DATE	BY
2/23/2017	REVISED	DATE	BY
2/23/2017	REVISED	DATE	BY

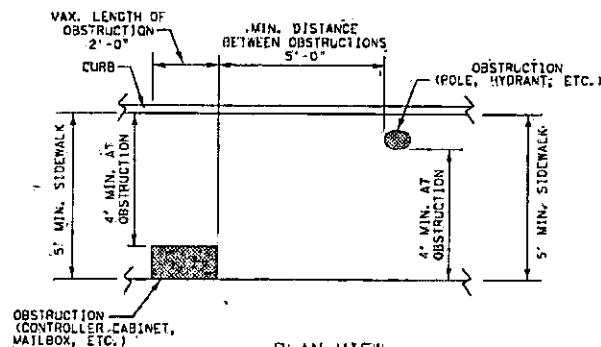
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SIDEWALK TREATMENT AT DRIVEWAYS

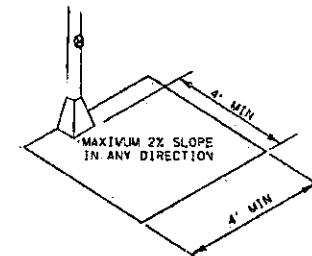


PROTECTED ZONE
in pedestrian circulation area, maximum 4" projection for post or wall mounted objects between 27" and 80" above the surface.

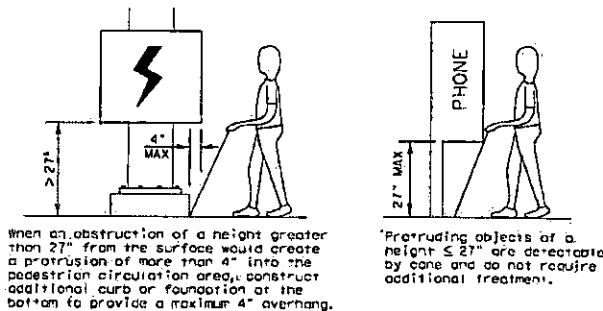


PLACEMENT OF STREET FIXTURES

(ITEMS NOT INTENDED FOR PUBLIC USE, MINIMUM 4" x 4" CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.)



CLEAR GROUND SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



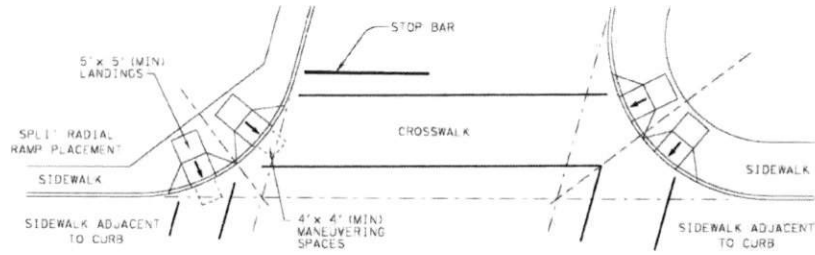
DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"

SHEET 3 OF 4

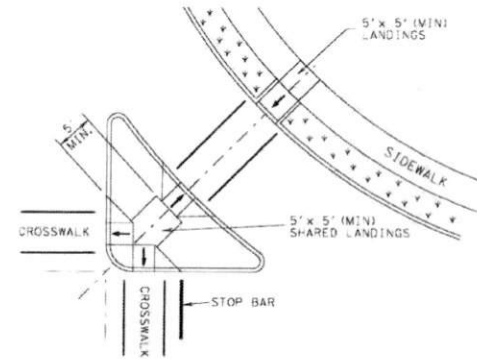
Texas Department of Transportation		Design Division Standard	
PEDESTRIAN FACILITIES			
CURB RAMPS			
PED-12A			
Project: DISTRICT 10	Sheet: 1001	City: HOUSTON	Job: 1001
Contract: 1001	Subcontract: 1001	County: 1001	Sheet No.: 1001
DATE: 10/13/2012			

Asandvold 2-23-17
for Development Coordinator

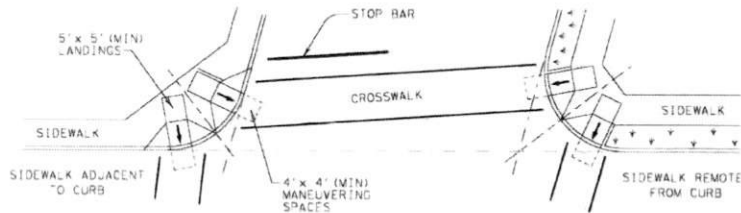
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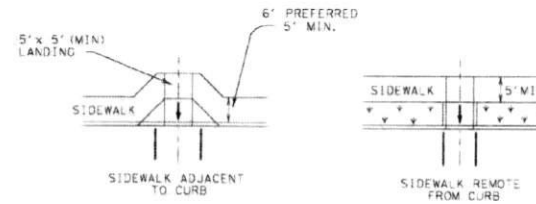
SKewed INTERSECTION WITH "LARGE" RADIUS



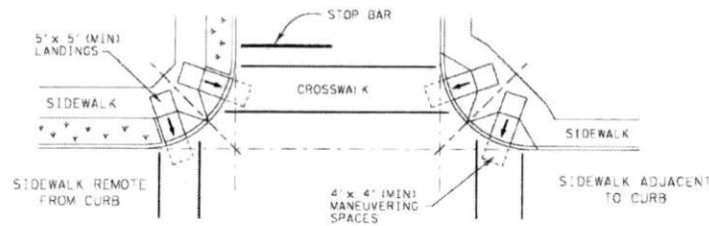
AT INTERSECTION
W/FREE RIGHT TURN & ISLAND



SKewed INTERSECTION WITH "SMALL" RADIUS



MID-BLOCK PLACEMENT
PERPENDICULAR RAMPs



NORMAL INTERSECTION WITH "SMALL" RADIUS

TYPICAL CROSSING LAYOUTS

SHEET 4 OF 4

		Design Division Standard	
PEDESTRIAN FACILITIES CURB RAMPS			
PED-12A			
FILED: ped12a.dgn	DATE: 1/20/07	DESIGNER: [blank]	CHECKED: [blank]
© 1/20/07 March 2002	CONTRACT: [blank]	SHEET: [blank]	PROJECT: [blank]
REVISED: [blank]	DATE: [blank]	BY: [blank]	FOR: [blank]
VP: JUNE 13, 2012	DISC: [blank]	QUANTITY: [blank]	SHEET NO: [blank]

Cassandra S. 22017
for Development Coordinator