

**GENERAL NOTES**

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at 410-313-1880 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work being done.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs be in place prior to the placement of any asphalt.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County Monument Nos. 12CB and RAPID are shown on the vicinity map.
- The existing site is served by well and septic. No water or sewer utilities are required for the proposed improvements.
- Stormwater management ESD requirements are met by Non-Rooftop Disconnect (N-2) and Reinforced Turf (A-3). Cpv is not required for this site.
- Existing utilities in the area of the proposed improvements are based on a field survey completed by DMW.
- There is no floodplain on this site. The proposed area shown hereon is not located within a 100 year flood plain as per The National Flood Insurance Program, Flood Insurance Rate Map Community Panel Number 240044-0006-B Revised December 4, 1986.
- There are no known wetlands in the area of the proposed improvements.
- No traffic study is required for this project.
- Project background information:  
Subdivision Name: n/a  
Tax Map: 6  
Lot/Parcel: 24  
Zoning: RC-DEO  
Election District: 4th  
Total Site Area: 97.40 acres
- The subject property is zoned RC-DEO per the 2-2-04 Comprehensive Zoning Plan and per the Comp. Life Zoning Amendments Effective 7-28-06.
- This project complies with the requirements of Section 16.1200 of the Howard County Code for Forest Conservation by paying \$3,267.00 fee in lieu of planting the required 0.10 acres of reforestation. SEE NOTE 21.A.1. SIDE NOTE
- There are no slopes of 15 - 25% or greater within the area of submission.
- This Site Development Plan is consistent with and follows the site plan submitted to the Howard County Board of Appeals. A petition, case no. BA-09-0396, for a Conditional Use for a 150 foot high monopole with antenna extending to 153' AGL and fenced equipment compound in an RC-DEO (Rural Conservation - Density Exchange Option) Zoning District, filed pursuant to Section 13.11.14 of the Howard County Zoning Regulations. The petition was granted by the Board of Appeals on January 25, 2010, subject to the following conditions:
  - The Conditional Use shall be conducted in conformance with and shall apply only to the proposed 153-foot monopole/antenna and equipment compound.
  - No additional lighting is permitted other than that required by the Federal Communications Commission or the Federal Aviation Administration.
  - The monopole shall be grey or a similar color.
  - If no longer used, the communication tower shall be removed from the site within one year of the date the use ceases.
- This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual. Financial surety for the required 5 shade trees and 9 evergreen trees in the amount of \$1000 is part of the builders grading permit application.
- No burial grounds or historic structures are known to exist on the subject property.
- The proposed telecommunication pole, equipment, and appurtenant site facilities, shall be owned and maintained by T-Mobile Northeast.
- The existing topography for the proposed compound is taken from field survey with maximum 2-foot contour intervals prepared by DMW on 6-11-09.
- Design Manual and Waiver Petition Request. The following waivers are requested:
  - On August 23, 2010, the Planning Director approved Waiver Request WF-11-0008 to Section 16.1201(n) of the Subdivision and Land Development Regulations to allow the forest conservation obligation for this development to be based solely on the proposed limit of disturbance (LOD) rather than on the net tract area. Approval is subject to the following conditions:
    - The forest conservation obligation for the Proposed Unmanned Wireless Broadband Communications Facility on this site shall be limited to the 22,573 sq. ft. (0.522 acres) limit of disturbance (LOD) and the corresponding obligation (4,356 sq. ft.) 0.10 acre of afforestation shall be satisfied by the payment of a fee-in-lieu in the amount of \$3,267.00.
    - Compliance with all SRC Agency comments generated with the review of the site development plan, SDP-10-093.
  - A waiver request has been approved by Howard County requesting a Design Manual Waiver to the Howard County Design Manual, Volume III, Section 2.6.B which requires the use of a bar and chip driveway to a gravel driveway. The request was approved on October 26, 2010, based on the fact that the use of the driveway will be minimal and that there are no adverse impacts to existing or proposed County Infrastructure.
- A driveway shall be provided to ensure safe access for fire and emergency vehicles per the following minimum requirements: 12 ft width, gravel and reinforced grass surface. Said driveway shall be privately owned and maintained.
- The proposed compound shall be privately owned and maintained by T-Mobile Northeast, LLC. The driveway shall be owned by Truman and Lavinia Kelley and shall be maintained by T-Mobile Northeast, LLC.

# SITE DEVELOPMENT PLAN

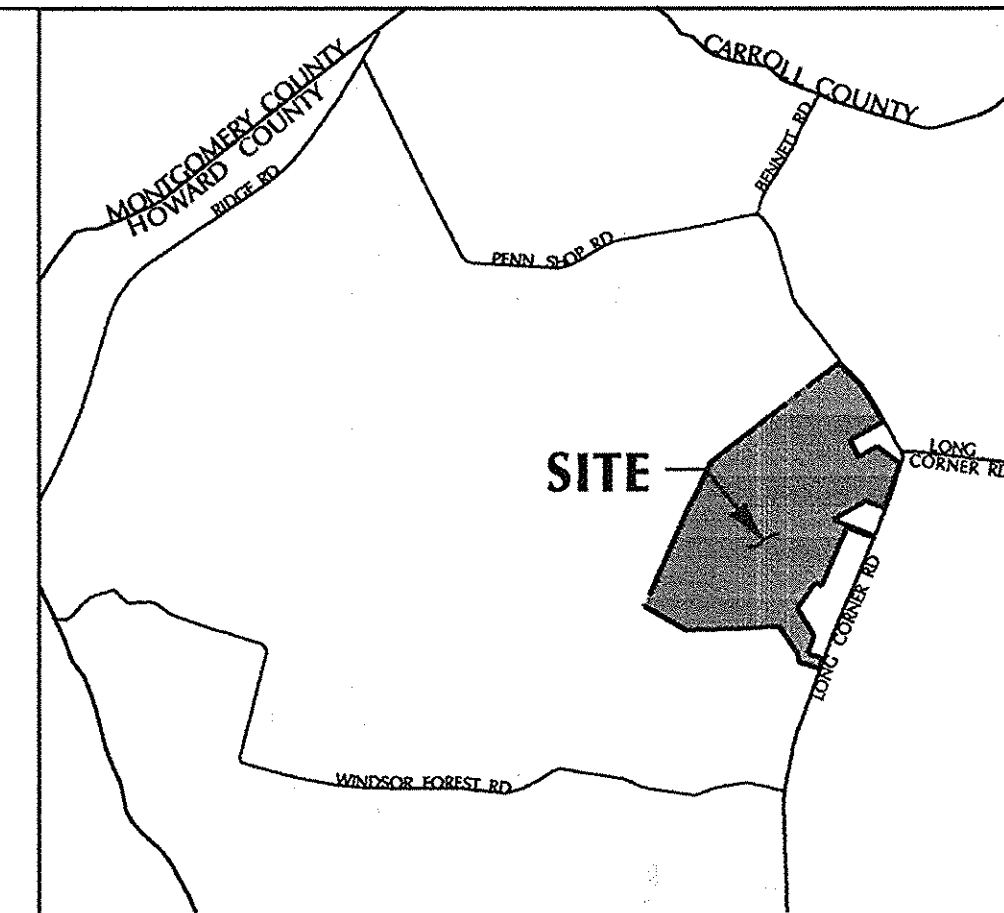
# T-Mobile® Northeast LLC

## PROPOSED UNMANNED WIRELESS BROADBAND COMMUNICATIONS FACILITY

### SITE NO. 7BAN582D

### SITE NAME: KELLEY PROPERTY

1504 LONG CORNER ROAD MT. AIRY, MD 21771



**VICINITY MAP**  
SCALE: 1"=2000'  
TAX MAP 06, GRID 10, PARCEL 24  
TAX ACCOUNT NO.: 320484  
ADC MAP NO. 4690, GRID E7

**BENCHMARKS**  
DESCRIPTIONS

RAPID	HOWARD CO. GEODETIC SURVEY CONTROL 1025
STEEL ROD IN GLEEVE	DISC SET ON CONCRETE
FLUSH WITH SURFACE	1' OR 2' BELOW SURFACE
N 61491.770'	N 597305.846'
E 1263875.301'	E 1272860.563'
ELEV. = 849.611'	ELEV. = 690.385'

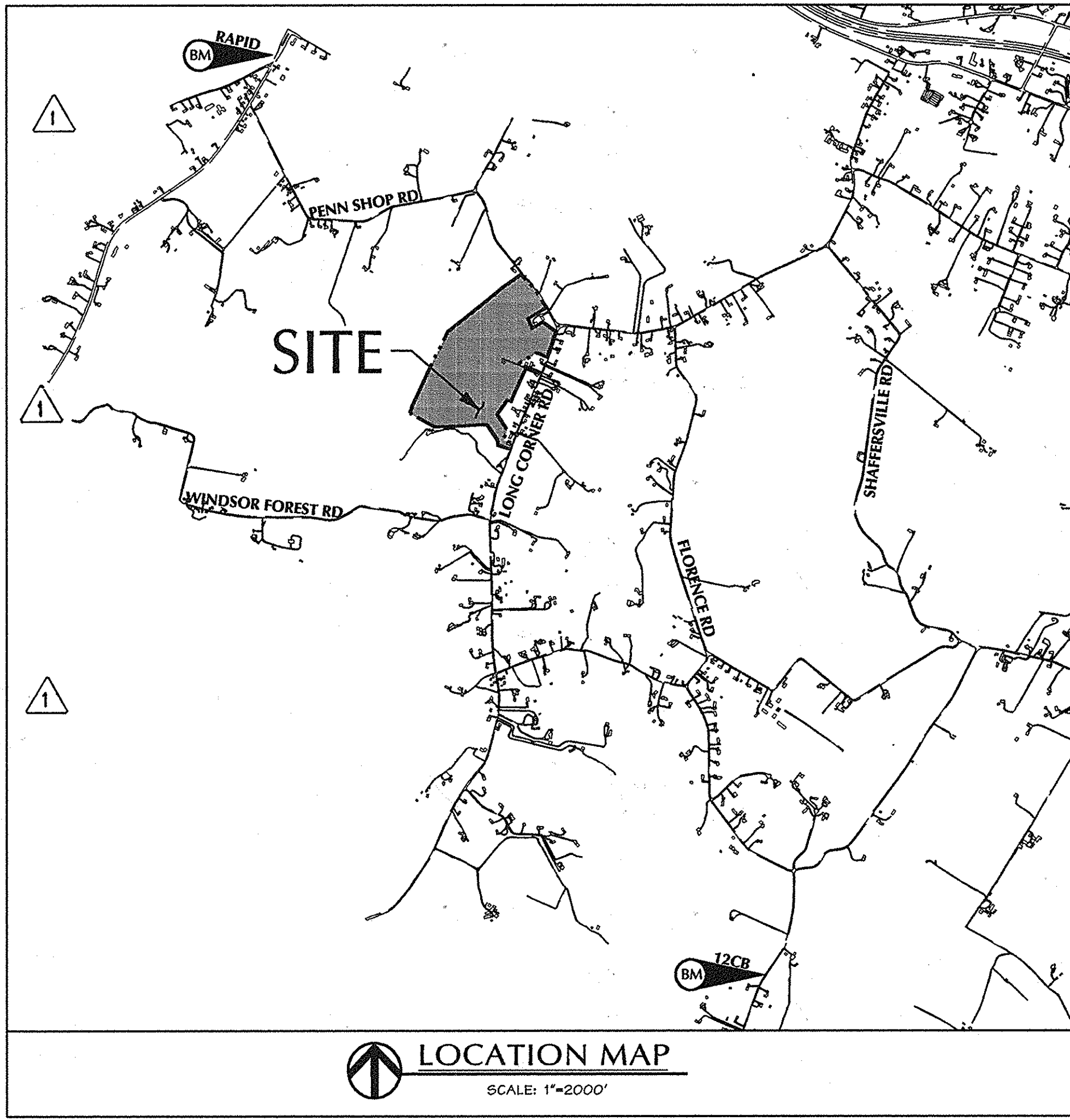
**SITE NOTES**

- CURRENT OWNER & STREET ADDRESS: TRUMAN L. KELLEY, SE. LAVINIA W. KELLEY, TIC 1400 LONG CORNER RD. MT. AIRY, MD 21771-3845 (301) 829-0794
- CONTRACT LESSEE/APPLICANT: T-MOBILE NORTHEAST LLC 12250 BALTIMORE AVENUE BELTSVILLE, MD 20705 (240) 264-8600
- LEGAL COUNCIL: SEAN HUGHES 1500 DORSEY HALL DRIVE ELLICOTT CITY, MD 21042 410-964-0300
3. SITE AREA: 97.40 ACRES
4. EXISTING USE: AGRICULTURAL
5. SITE ADDRESS: 1504 LONG CORNER RD. MT. AIRY, MD 21771-3845
6. SITE DATA: MAP 06 GRID 10 PARCEL 24 DEED REFERENCE: 475163, 40081285 TAX ACCOUNT NUMBER: 320484 ELECTION DISTRICT: 04 ZONED: RC-DEO
- PROPOSED MONOPOLE LOCATION:  
LATITUDE: N 39°20'06.47" (NAD 83)  
LONGITUDE: W 77°08'26.19" (NAD 83)  
GROUND ELEVATION: 802.8' AMSL (NAVD 88)  
PROPOSED MONOPOLE HEIGHT: 150.2' AGL  
PROPOSED MONOPOLE HEIGHT WITH ANTENNAS: 153.4' AGL  
TOTAL PROPOSED MONOPOLE ELEVATION (INCLUDING ANTENNAS): 956.0' AMSL (NAVD 88)
- THE TOPOGRAPHIC INFORMATION SHOWN HEREON IN THE AREA OF THE PROPOSED COMPOUND AND GRAVEL ACCESS ROAD IS THE RESULT OF A DMW FIELD SURVEY PERFORMED ON 06/11/2009. TOPOGRAPHY OUTSIDE OF THOSE AREAS IS PROVIDED BY HOWARD COUNTY GIS. THE PROPERTY INFORMATION AND LOCATION HAVE BEEN COMPILED FROM DEEDS, PLATS, AND OTHER SOURCES DEEMED RELIABLE. HOWEVER, THIS PLAN IS NOT THE RESULT OF A DMW BOUNDARY SURVEY AND THEREFORE IS SUBJECT TO CHANGE. THIS PLAN MAY BE SUBJECT TO EASEMENTS AND RESTRICTIONS THAT MAY BE RECORDED OR UNRECORDED AND MAY NOT BE SHOWN HEREON. BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON A DEED RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY, MD IN LIBER 479 FOLIO 63 OVERLAP ON POINTS FOUND IN THE FIELD AND ROTATED TO THE MARYLAND COORDINATE SYSTEM (NAD83(1991)) AS SHOWN.
- THERE ARE NO NEW SIGNS PROPOSED FOR THIS FACILITY.
- NO TOWER LIGHTS OR STROBOSCOPIC LIGHTS ARE PROPOSED FOR THIS FACILITY, UNLESS REQUIRED BY THE FEDERAL AVIATION ADMINISTRATION.
- EXISTING UTILITY LOCATION INFORMATION SHOWN ON THESE PLANS IS FOR THE CONTRACTORS CONVENIENCE ONLY. WHILE THE INFORMATION SHOWN HAS BEEN GATHERED FROM SURVEYS AND SOURCES DEEMED TO BE RELIABLE, THE CORRECTNESS OR COMPLETENESS OF THE INFORMATION SHOWN IS NOT WARRANTED OR GUARANTEED. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS OWN SATISFACTION.
- THE CONTRACTOR IS TO NOTIFY MISS UTILITY (800) 257-7777 A MINIMUM 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- LANDSCAPE SCREENING TO BE PROVIDED AS SHOWN.
- THE SUBJECT PROPERTY IS HOWARD COUNTY AGRICULTURAL LAND PRESERVATION EASEMENT NO. H0-92-07-E.

THE PROPOSED 24'x24' VERIZON WIRELESS COMPOUND EXPANSION IS CONSIDERED TO BE A MINOR SITE MODIFICATION AND IS IN ACCORDANCE WITH SECTION 191.01.2.C OF THE ZONING REGULATIONS. NO ADDITIONAL REVIEW BY THE HEARING EXAMINER IS REQUIRED FOR THIS RL REVISION.

A FEE OF \$1,800 WAS PREVIOUSLY PAID FOR 5 SHADE TREES AND 6 EVERGREEN TREES

THE INCREASED LOD OF 864 SQ. FT. FOR THIS RL REVISION #1 - VERIZON WIRELESS FENCED COMPOUND SITE EXPANSION IS MINIMAL AND DOES NOT REQUIRE AN ADDITIONAL PAYMENT OF A FEE-IN-LIEU FOR FOREST CONSERVATION.



**LOCATION MAP**  
SCALE: 1"=2000'

**SITE ANALYSIS DATA CHART**

1. TOTAL PROPERTY AREA:	97.40 AC. (4,242,744 SQ. FT.)
2. AREA OF PLAN SUBMISSION:	0.52 AC. (22,573 SQ. FT.)
3. LIMIT OF DISTURBED AREA:	0.52 AC. (22,573 SQ. FT.) ±
4. PRESENT ZONING DESIGNATION:	RC-DEO
5. PROPOSED USE FOR SITE:	TELECOMMUNICATIONS FACILITY
6. FLOOR SPACE ON EACH LEVEL OF BUILDING PER USE:	NA
7. TOTAL NO. OF UNITS ALLOWED FOR PROJECT AS SHOWN ON FINAL PLAT:	NA
8. TOTAL NO. OF UNITS PROPOSED ON SUBMISSION:	NONE
9. MAXIMUM NO. OF EMPLOYEES:	UNMANNED
10. NO. OF PARKING SPACES REQUIRED:	NONE
11. NO. OF PARKING SPACES PROVIDED:	ONE
12. OPEN SPACE ON SITE:	NONE
13. AREA OF RECREATION OPEN SPACE REQUIRED BY SUBDIVISION & LAND DEVELOPMENT REGULATIONS:	NONE
14. BUILDING COVERAGE OF SITE:	NA
15. APPLICABLE DPZ FILE REF.:	BA-09-0396, HO-92-07E, WP-11-008, ECP-11-011

**RL REVISION #1**  
--- 0.03 AC (864 SQ. FT.)  
--- 0.02 AC (864 SQ. FT.)

**SHEET INDEX**

SHT. NO.	DESCRIPTION
1	TITLE SHEET
2	OVERALL PLAN
3	COMPOUND DETAIL AND TOWER ELEVATION
3A	COMPOUND PLAN
4	SITE DETAILS
4A	SITE DETAILS
4B	SITE DETAILS
5	STORMWATER MANAGEMENT PLAN
6	STOPPING SITE DISTANCE ANALYSIS & PROPOSED ENTRANCE DETAILS
7	SITE PLAN, GRADING, SEDIMENT & EROSION CONTROL PLAN
8	SEDIMENT AND EROSION CONTROL NOTES
9	LANDSCAPE PLAN AND DETAILS
9A	LANDSCAPE PLAN

**PROJECT SUMMARY**

EQUIPMENT TYPE:  OUTDOOR  INDOOR  NORTEL S-8000

ANTENNA LOCATION:  RBS 2106  RBS 3106  ISM/WCS

TRANSMISSION TOWER  
 EXISTING MONOPOLE  
 EXISTING BUILDING  
 EXISTING WATER TANK  
 RAW LAND

JURISDICTION: HOWARD COUNTY, MD  
ZONING: RC-DEO

THIS PROPOSAL IS FOR AN UNMANNED TELECOMMUNICATIONS FACILITY CONSISTING OF THE MONOPOLE (2) EQUIPMENT CABINETS (4) FUTURE, A POWER CABINET, AND A BATTERY CABINET ARE TO BE INSTALLED ON A 27'x27' CONCRETE PAD INSIDE THE COMPOUND. A PROPOSED UTILITY BACKBOARD AND A MESA CABINET ARE ALSO TO BE INSTALLED INSIDE THE COMPOUND. A TRANSFORMER WITH BOLLARDS IS TO BE INSTALLED NEXT TO THE COMPOUND. (3) PROPOSED ANTENNAS (4) FUTURE ARE TO BE MOUNTED ON THE PROPOSED MONOPOLE AT AN ANTENNA CENTERLINE HEIGHT OF 150'. LANDSCAPING AROUND COMPOUND TO BE PROVIDED AS REQUIRED.

**DIRECTIONS**

FROM THE T-MOBILE OFFICE IN BELTSVILLE:

- Start out going NORTH on BALTIMORE AVENUE-1 N toward RITZ WAY. Continue to follow US-1 N. 7.5 mi
- Merge onto MD-32 W toward COLUMBIA. 18.3 mi
- Merge onto I-70 W/US-40 W toward FREDERICK. 11.9 mi
- Take the MD-27 S exit, EXIT 6B, toward MT. AIRY/DAMASCUS. 0.2 mi
- Turn LEFT onto MD-27 S/RIDGE RD. 0.9 mi
- Turn LEFT onto PENN SHOP RD. 1.6 mi
- Enter next roundabout and take 1st exit onto LONG CORNER RD. 0.2 mi
- 1400 LONG CORNER RD is on the RIGHT.

**CODE COMPLIANCE**

USE GROUP: UTILITY CONSTRUCTION TYPE: IIB

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES IN EFFECT AT THE TIME THESE DRAWINGS ARE ISSUED FOR CONSTRUCTION. NOTHING IN THESE PLANS IS TO BE CONSIDERED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

- IBC 2006\*
- INTERNATIONAL MECHANICAL CODE 2006\*
- NATIONAL ELECTRIC CODE (NEC) WITH LOCAL AMENDMENTS 2005\*
- ANSI/ISA-222-F\*
- LIFE SAFETY CODE NFPA-101-2006\*
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS (AISC)\*
- UNDERWATER LABORATORIES APPROVED ELECTRICAL PRODUCTS\*
- LOCAL BUILDING CODES\*
- COUNTY ORDINANCES

\* SEE MECHANICAL, ELECTRICAL, STRUCTURAL AND ARCHITECTURAL PLANS FOR RELATED DESIGN (IF APPLICABLE)

**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20641 EXPIRATION DATE: 8-26-11

2/10/11  
Date

Professional Engineer No.

**ADDRESS CHART**

LOT / PARCEL #	STREET ADDRESS
PARCEL 24 TOWER SITE	1504 LONG CORNER ROAD, MT. AIRY, MD 21771-3845

**APPROVED FOR CONSTRUCTION**

COUNTY ENGINEER/DEVELOPER: [Signature] DATE: 3/23/11

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
HOWARD SOIL CONSERVATION DISTRICT DATE: 3/23/11

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
[Signature] DATE: 3/23/11  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] DATE: 4/13/11  
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] DATE: 4/13/11  
DIRECTOR

**KELLEY PROPERTY**  
PROPOSED UNMANNED WIRELESS BROADBAND COMMUNICATIONS FACILITY

OWNER: TRUMAN & LAVINIA KELLEY 1400 LONG CORNER ROAD MT. AIRY, MD 21771 (301) 829-0794

DEVELOPER: T-MOBILE NORTHEAST LLC 12050 BALTIMORE AVENUE BELTSVILLE, MD 20705 (240) 264-8600 FAX: (240) 264-8610

**DMW**  
DAFT MCCUNE WALKER INC

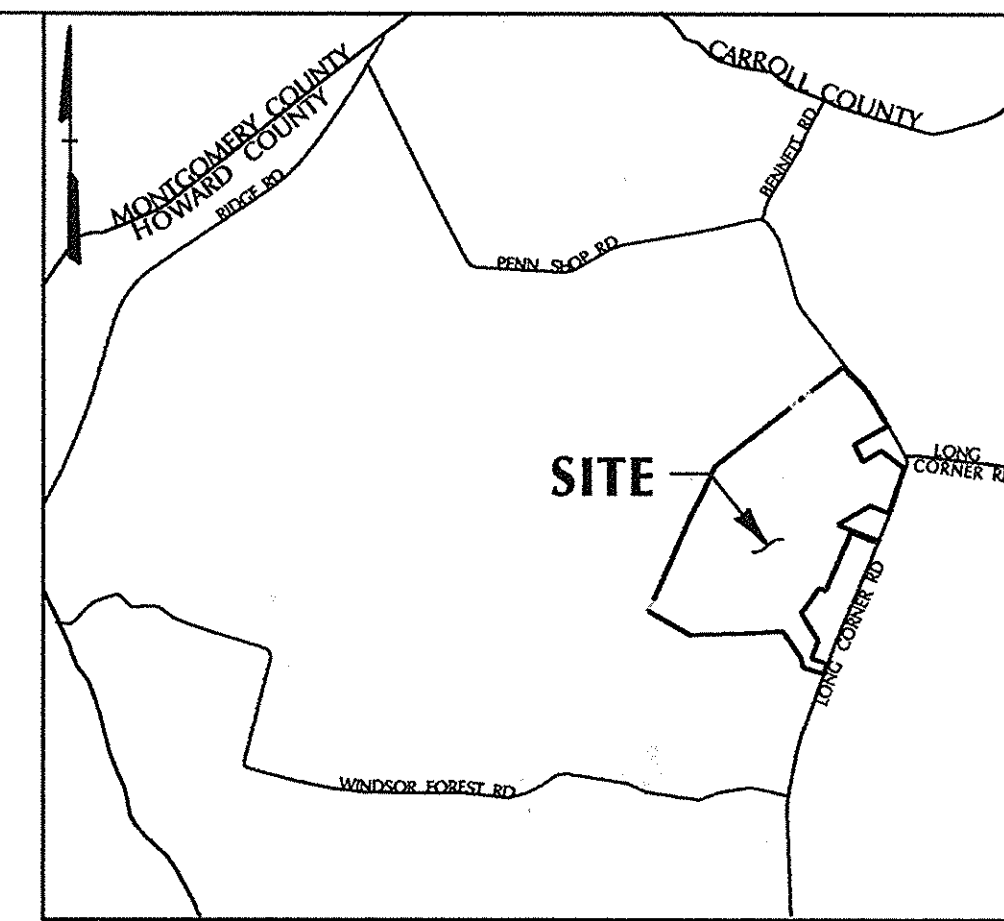
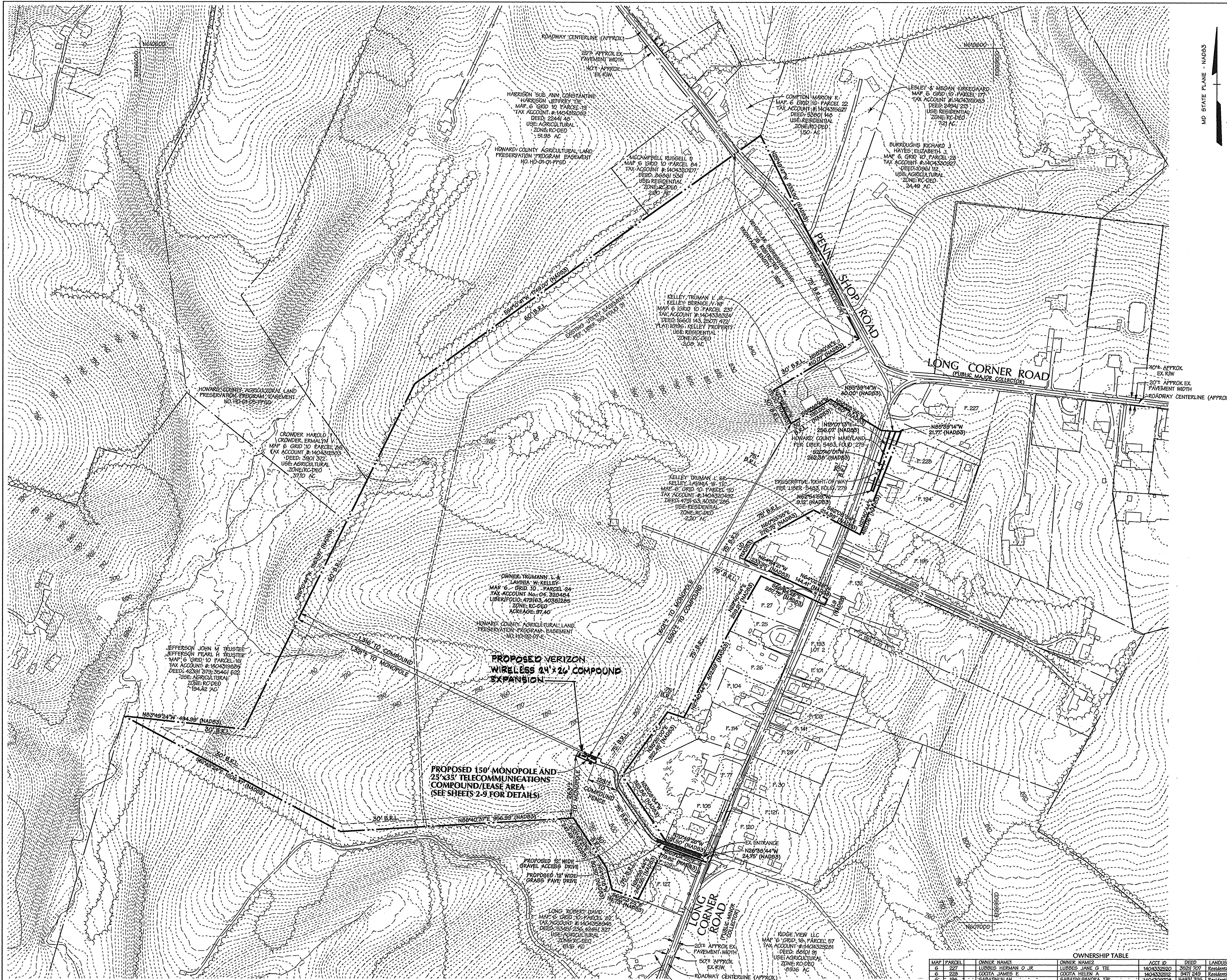
200 EAST PENNSYLVANIA AVENUE • TOWSON, MD 21286  
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS, ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS

**TITLE SHEET**

Des. By	RJD	Scale	A5 SHOWN	Proj. No.	09056
Dwn. By	GMO	Date	4/15/10	1 of 13	
Chk. By	MDM	Approved			





**VICINITY MAP**  
 SCALE: 1"=2000'  
 TAX MAP 06, GRID 10, PARCEL 24  
 TAX ACCOUNT No. 320484  
 ADC MAP No. 4690

**AGRICULTURAL LAND PRESERVATION NOTES**  
 1. THE RELEASE OF 3,600 SF FROM THE EASEMENT (PER SECTION 15.516 OF THE CODE) FOR THE PROPOSED MONOPOLE AND ACCESSORY GROUND EQUIPMENT WAS APPROVED BY THE AGRICULTURAL LAND PRESERVATION BOARD (ALPB) ON 9-12-05.  
 2. THE RELEASE OF 3,600 SF FROM THE EASEMENT (PER SECTION 15.516 OF THE CODE) FOR THE PROPOSED MONOPOLE AND ACCESSORY GROUND EQUIPMENT WAS APPROVED BY THE COUNTY COUNCIL ON 7-3-06.

APPROVED FOR CONSTRUCTION

COUNTY ENGINEER/DEVELOPER \_\_\_\_\_ DATE \_\_\_\_\_

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED: DEPARTMENT OF PLANNING AND ZONING

\_\_\_\_\_  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 3/25/11  
 DATE

\_\_\_\_\_  
 CHIEF, DIVISION OF LAND DEVELOPMENT/PLANNING 4/13/11  
 DATE

\_\_\_\_\_  
 DIRECTOR 4/13/11  
 DATE

Date	No.	Revision Description
03-26-14	1	RL REVISION VZW COMPOUND EXPANSION

**KELLEY PROPERTY**  
 PROPOSED UNMANNED WIRELESS  
 BROADBAND COMMUNICATIONS FACILITY

OWNER: TRUMAN & LAVINIA KELLEY  
 1400 LONG CORNER ROAD  
 MT. AIRY, MD 21771  
 (301) 829-0794

DEVELOPER: T-MOBILE NORTHEAST LLC  
 12050 BALTIMORE AVENUE  
 BELTSVILLE, MD 20705  
 (240) 264-8600  
 FAX: (240) 264-8610

**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 38863 EXPIRATION DATE: 5-14-12

2/10/14  
 Date

**STATE OF MARYLAND**  
**JAMES M. KELLEY**  
 PROFESSIONAL ENGINEER

Professional Engineer No. \_\_\_\_\_

**OWNERSHIP TABLE**

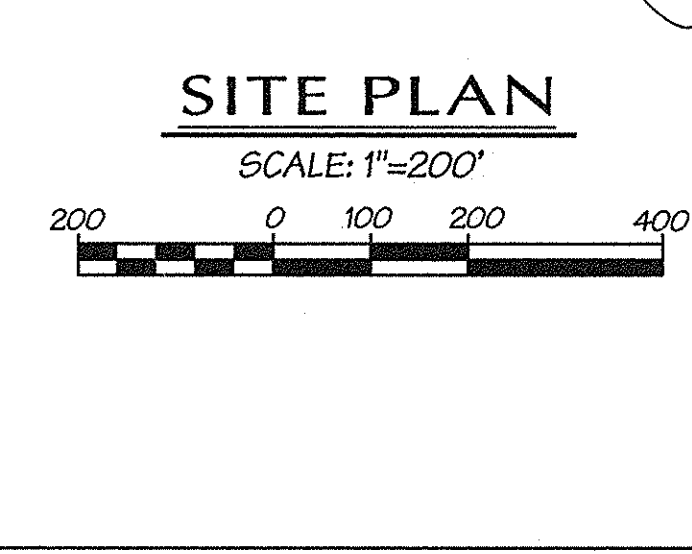
MAP/PARCEL	OWNER NAME	ADDT. ID.	DEED	LANDUSE	ZONING	ACRES
0-227	LURIE, HERMAN O JR	1404320920	3529 E 077	Residential	RCD10	2.40
0-228	GOOTA, JAMES E	1404320921	3477 249	Residential	RCD10	1.64
0-194	SHAW, THOMAS W	1404320922	4433 305	Residential	RCD10	1.92
0-195	HARRINGTON, DENNIS L	1404320923	1377 692	Residential	RCD10	3.50
0-229	MORGAN, MARY E	1404320924	3164 447	Residential	RCD10	3.50
0-230	DAVY, WALTER C JR	1404320925	707 078	Residential	RCD10	3.50
0-132	DAVIS, VICTOR C JR	1404320926	3207 119	Residential	RCD10	3.50
0-22	LARKIN, THEODORE A	1404320927	1701 727	Residential	RCD10	1.00
0-193	KNOTT, CRAIG S	1404320928	1527 772	Residential	RCD10	3.00
0-193	MURPHY, FRANCES A	1404320929	4492 98	Residential	RCD10	3.68
0-231	ALEXANDER, CHARLES F	1404320930	1277 87	Residential	RCD10	0.69
0-101	SMITH, JOHN S AND WF	1404320931	3501 244	Residential	RCD10	0.50
0-26	NEGON, KAREN J AND WF	1404320932	6391 229	Residential	RCD10	1.19
0-102	LITZ, ROBERT A AND WF	1404320933	491 804	Residential	RCD10	0.79
0-104	REED, GLORIA V	1404320934	1077 820	Residential	RCD10	1.10
0-103	DAVID, TERRY L	1404320935	6453 511	Residential	RCD10	0.50
1-6	BEARD, CAROLAN ROLAND & WF	1404320936	1551 240	Residential	RCD10	0.45
1-7	KIRBY, DEBORAH R	1404320937	5945 222	Residential	RCD10	1.40
1-8	FRANKLIN, SCOTT D	1404320938	1751 837	Residential	RCD10	0.78
1-9	SKAHL, ROY A JR	1404320939	2261 547	Residential	RCD10	3.11
1-10	DAVID, TERRY L	1404320940	2071 519	Residential	RCD10	0.61
1-11	GOSWORTHY, HEWAL	1404320941	8334 619	Residential	RCD10	0.61
1-12	MULLINX, DAVID VINCENT	1404320942	1021 434	Residential	RCD10	1.00
1-13	MULLINX, DAVID VINCENT	1404320943	3651 212	Residential	RCD10	0.11
1-14	STILLWELL, JANE W	1404320944	114 0	Residential	RCD10	1.83
1-15	SCHULTZ, JEFFREY A	1404320945	1404320945	Residential	RCD10	0.50

**LEGEND**

- PROPERTY LINE
- EXISTING CONTOURS
- EXISTING ROAD
- BUILDING RESTRICTION LINE
- EXISTING STREAM
- EXISTING TREELINE
- EXISTING CHAIN LINK FENCE
- PROPOSED CHAIN LINK FENCE
- EXISTING UTILITY POLE

**ZONING SETBACKS**

SETBACK	MONOPOLE SETBACKS		COMPOUND SETBACKS	
	REQUIRED	PROVIDED	REQUIRED	PROVIDED
FRONT	153'	153'±	75'	123'±
REAR	153'	132'±	60'	131'±
SIDE	153'	160'±	30'	159'0"±
SIDE	153'	263'±	30'	233'±



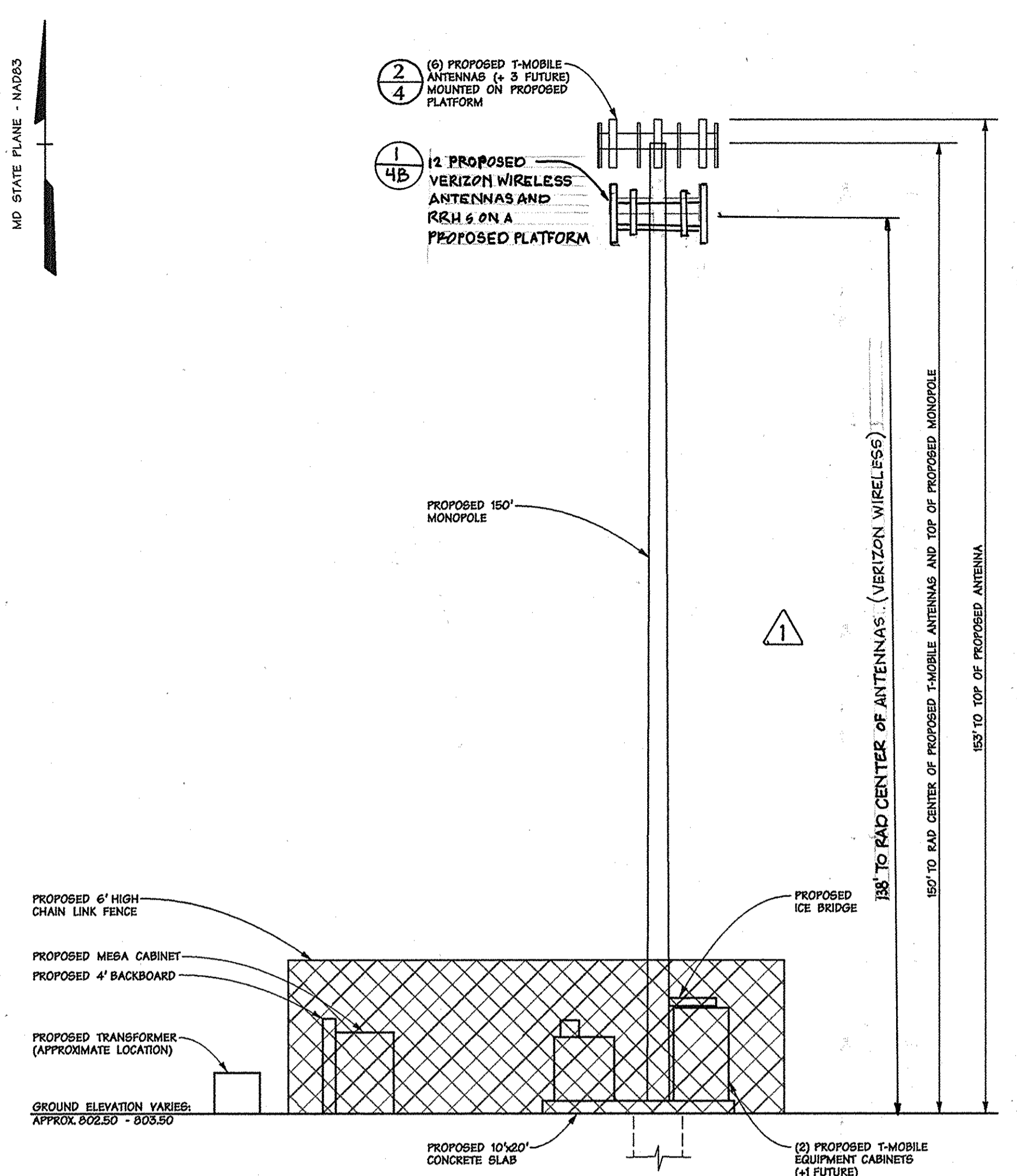
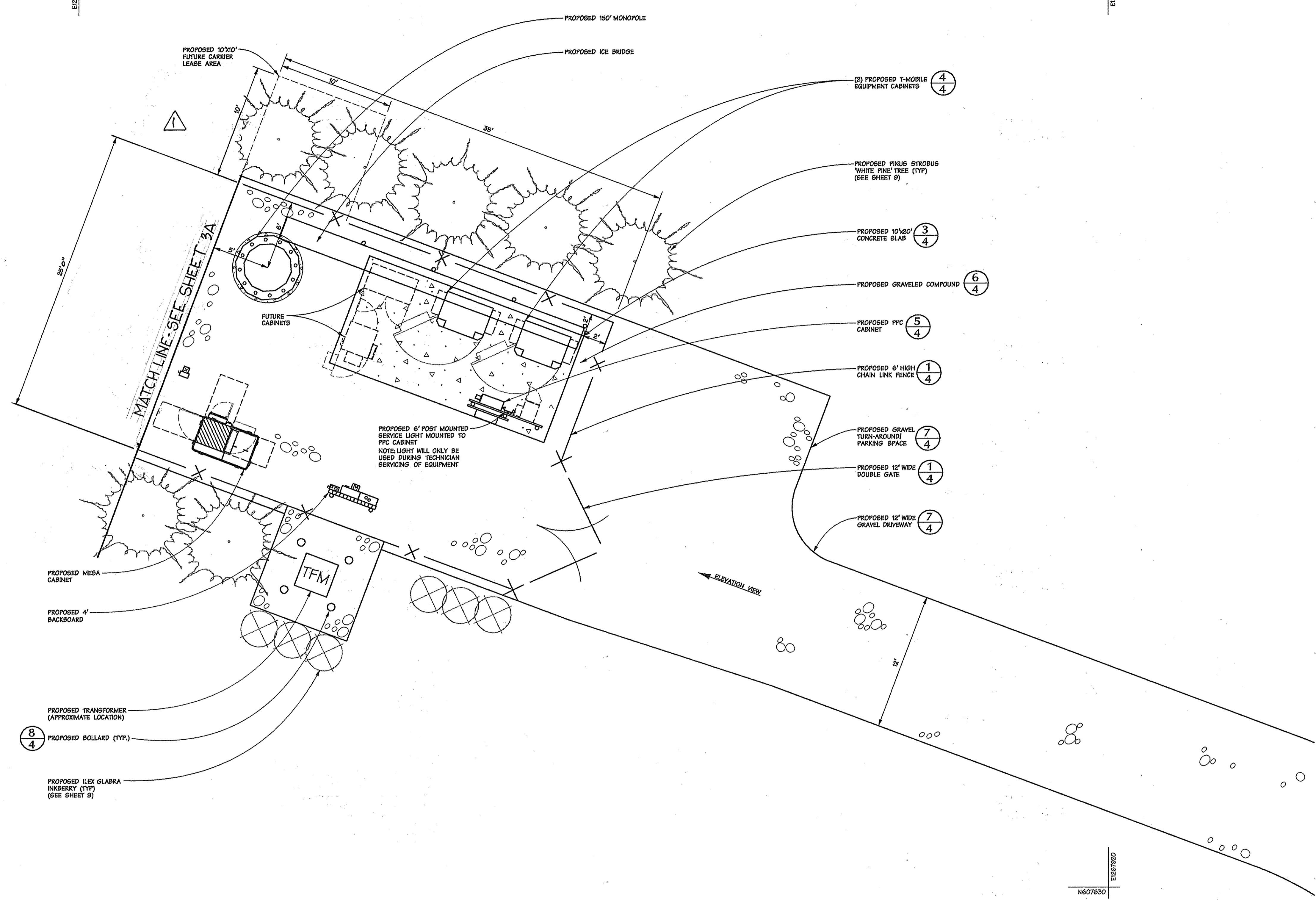
**LINE DATA**

LINE NO.	BEARING	DISTANCE
1.1	N 22°48'20" E	148.99'
1.2	S 58°24'21" W	130.00'
1.3	N 13°29'51" W	249.50'
1.4	N 85°32'14" W	40.00'
1.5	N 82°20'14" W	27.7'
1.6	S 69°20'14" E	24.99'
1.7	S 69°20'25" E	144.72'
1.8	N 64°24'21" W	233.89'
1.9	N 64°24'21" W	144.41'
1.10	S 14°31'41" E	301.50'
1.11	N 22°32'41" W	191.90'
1.12	S 69°20'25" E	24.99'
1.13	S 69°20'25" E	144.72'
1.14	S 69°20'25" E	144.72'
1.15	N 14°31'41" W	301.50'

Wed Feb 09 15:16:17 2014 (99055) E:\CADD\99055.2.DWG

Wed Feb 09 15:16:17 2014 (99055) E:\CADD\99055.2.DWG

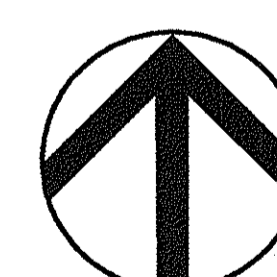




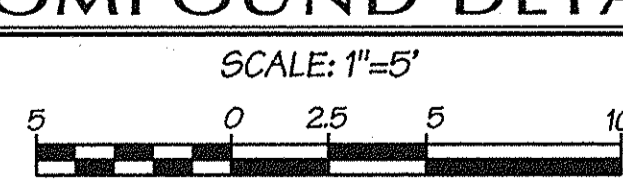
**TOWER ELEVATION**

NOT TO SCALE

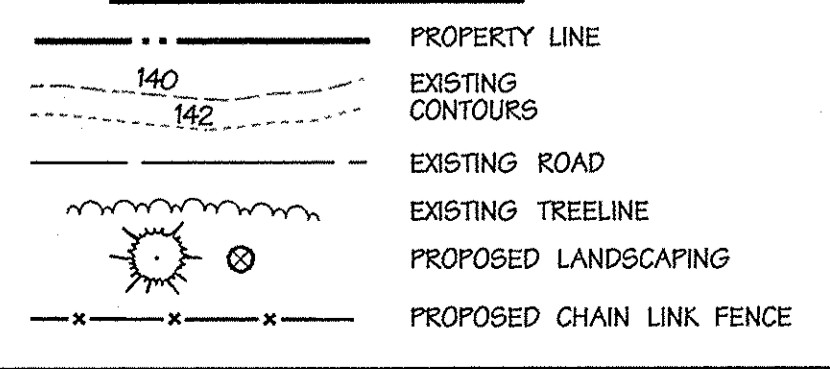
NOTE:  
SECTION 12B.E.4.4 OR THE ZONING REGULATIONS AND THE CONDITIONS OF APPROVAL OF BA-09-039C  
REQUIRES THAT THE PROPOSED MONOPOLE BE PAINTED GRAY OR A COLOR THAT MINIMIZES VISIBILITY.  
NO ADDITIONAL LIGHTING IS PERMITTED OTHER THAN THAT WHICH MAY BE REQUIRED BY THE FCC OR  
F.A.A.



**COMPOUND DETAIL**



**LEGEND**



**APPROVED FOR CONSTRUCTION**

COUNTY ENGINEER/DEVELOPER \_\_\_\_\_ DATE \_\_\_\_\_

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED: DEPARTMENT OF PLANNING AND ZONING

\_\_\_\_\_  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 2/25/11

\_\_\_\_\_  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE 4/13/11

\_\_\_\_\_  
DIRECTOR DATE 4/13/11

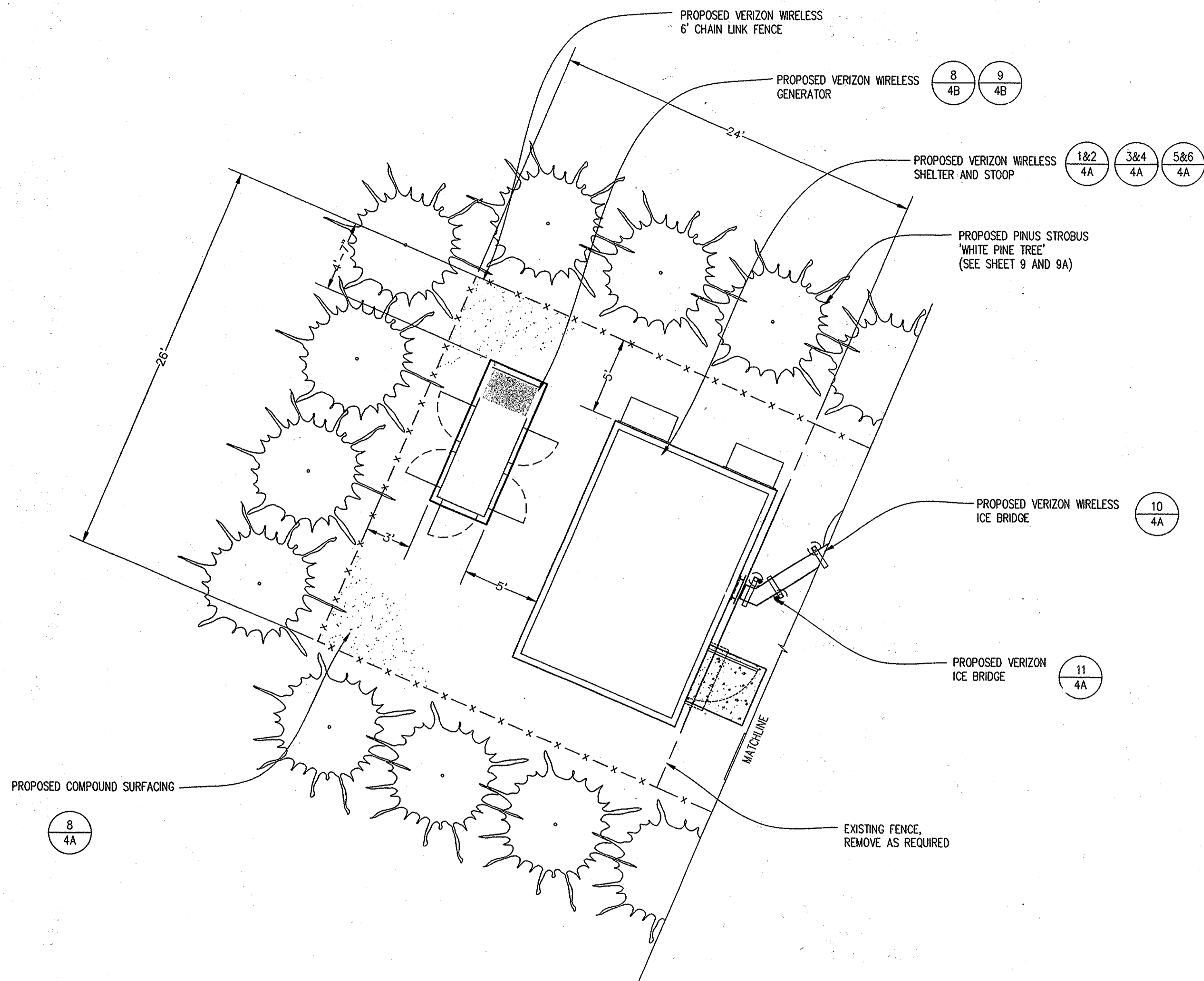
**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38633 EXPIRATION DATE: 5-14-12

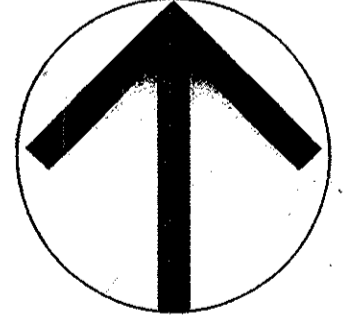
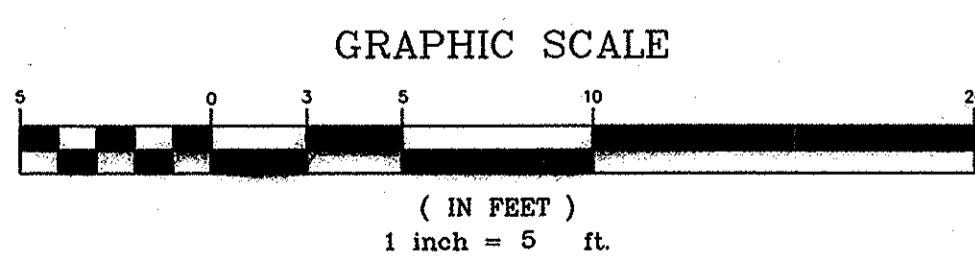
2/10/11  
Date

Professional Engineer No. \_\_\_\_\_

03-26-11		1		RL REVISION VZW COMPOUND EXPANSION	
Date	No.	Revision Description			
<b>KELLEY PROPERTY</b>					
PROPOSED UNMANNED WIRELESS BROADBAND COMMUNICATIONS FACILITY					
OWNER: TRUMAN & LAVINIA KELLEY 1400 LONG CORNER ROAD MT. AIRY, MD 21771 (301) 829-0794			DEVELOPER: T-MOBILE NORTHEAST LLC 12050 BALTIMORE AVENUE BELTSVILLE, MD 20705 (240) 264-8600 FAX: (240) 264-8610		
<b>DMW</b>					
DAFT MCCUNE WALKER INC					
200 EAST PENNSYLVANIA AVENUE • TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM					
A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS, ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS					
SUBDIVISION NAME		SECTION/AREA		LOT/PARCEL #	
LIBER 479		FOLIO 63		PARCEL 24	
WATER CODE		SEWER CODE		TAX/USE MAP	
				6	
				04	
				604001	
<b>TITLE</b>					
<b>COMPOUND DETAIL AND TOWER ELEVATION</b>					
Des. By	TJC	Scale	1" = 10'	Proj. No.	09056
Drn. By	GMO	Date	4/15/10		
Chk. By	MDM	Approved			
				<b>3 of 13</b>	



**COMPOUND PLAN**  
SCALE: 1" = 5'



APPROVALS	
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>Chad Eddle</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	9/19/14 DATE
<i>Kristen Leach</i> CHIEF, DIVISION OF LAND DEVELOPMENT	9/23/14 DATE
<i>David P. Long</i> DIRECTOR	9/23/14 DATE

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 12913, Expiration Date: 04/03/2019 210

03/26/14  
Date

12913  
Professional Engineer No.

03-26-14	1	RL REVISION VZW COMPOUND EXPANSION
Date:	No.	Revision Description

**KELLEY PROPERTY**  
PROPOSED UNMANNED WIRELESS BROADBAND COMMUNICATIONS FACILITY

OWNER: TRUMAN & LAVINA KELLEY  
1400 LONG CORNER ROAD  
MT. AIRY, MD 21771  
(301) 829-0794

DEVELOPER: T-MOBILE NORTHEAST LLC  
12050 BALTIMORE AVENUE  
PRAIRIEVILLE, MD 20705  
(240) 264-8600  
FAX: (240) 264-8610

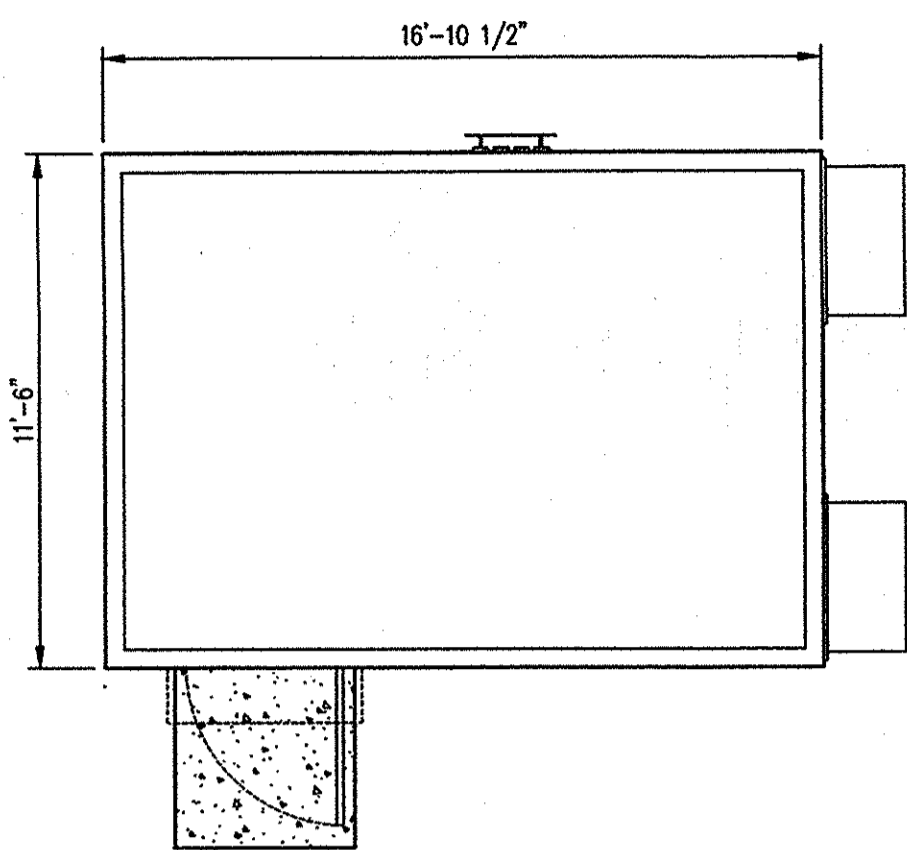
entrex  
communication services, inc.  
6600 Rockledge Drive, Suite 650  
Bethesda, MD 20817  
PHONE: (202) 408-0960  
FAX: (202) 408-0961

Subdivision Name	Section/Area	Lot/Parcel #
LIBER: 479 FOLI: 63	GRID: 10 Zone: RC-DEO Tax/zone map: 6	Parcel: 24 Elect. Dis: 04 Census Tract: 604001

TITLE: <b>COMPOUND PLAN</b>			
Des. By	M.A.	Scale: 1" = 5'	Proj. Number: 09056
Drn. By	M.A.	Date: 03-26-14	3A of 13
crk. by	H.M.	Approved: M.M.	

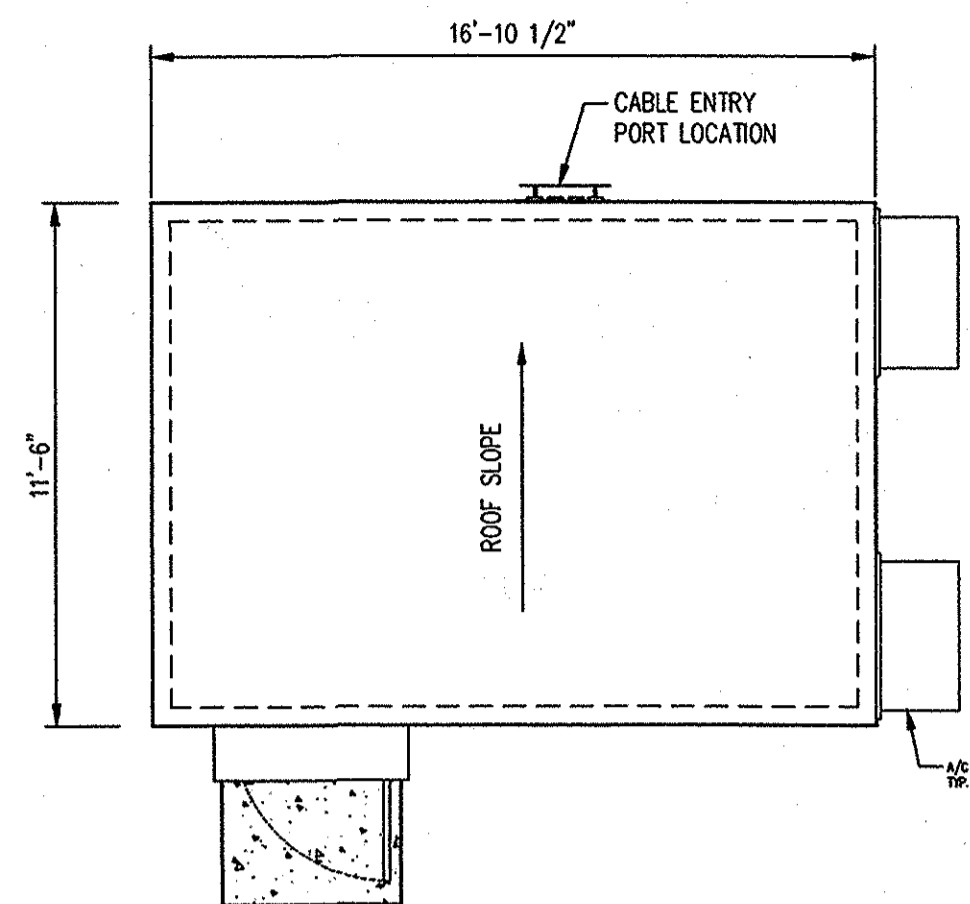






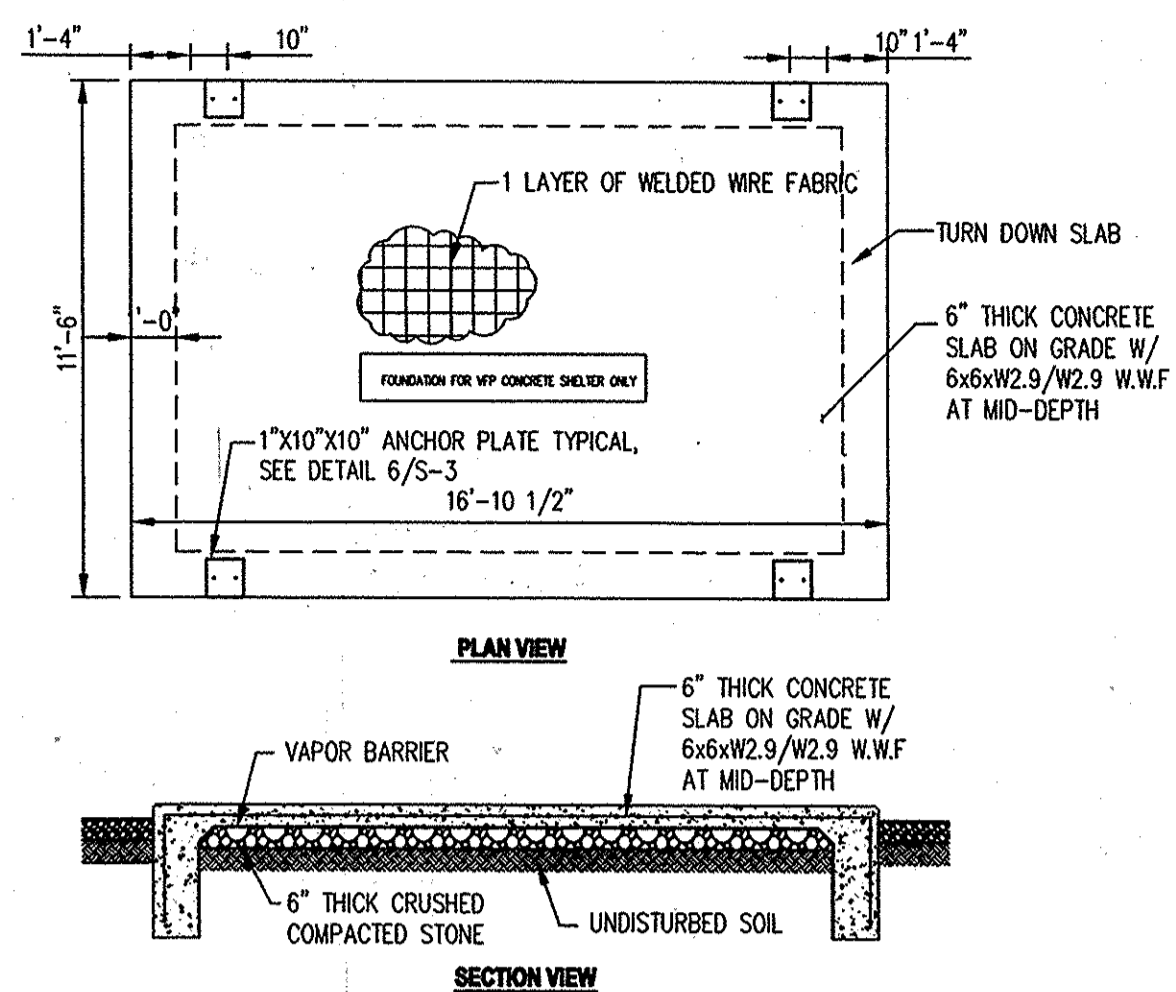
**EQUIPMENT SHELTER FLOOR PLAN**  
SCALE: 3/8"=1'-0"

①



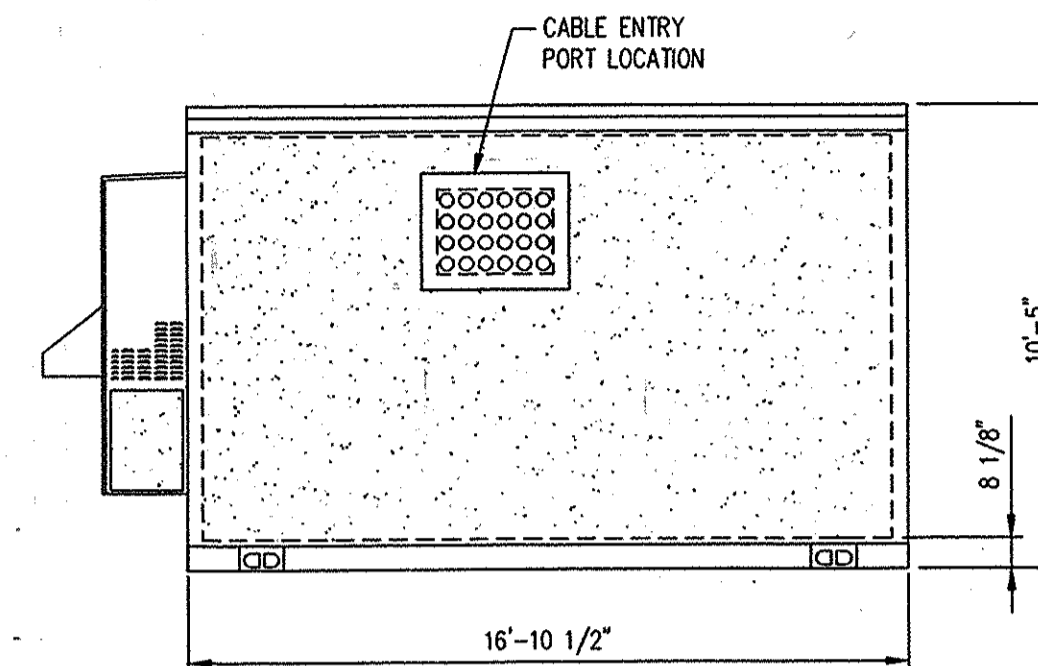
**EQUIPMENT SHELTER ROOF PLAN**  
SCALE: 3/8"=1'-0"

②



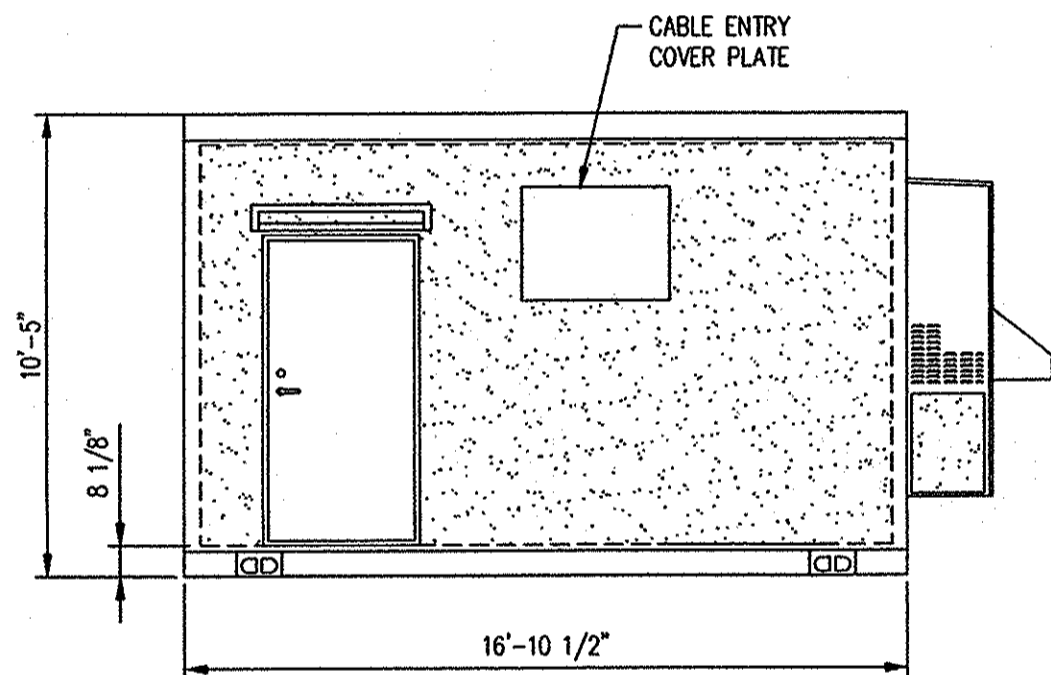
**SHELTER SLAB ON GRADE DETAIL**  
SCALE: 1/2"=1'-0"

③



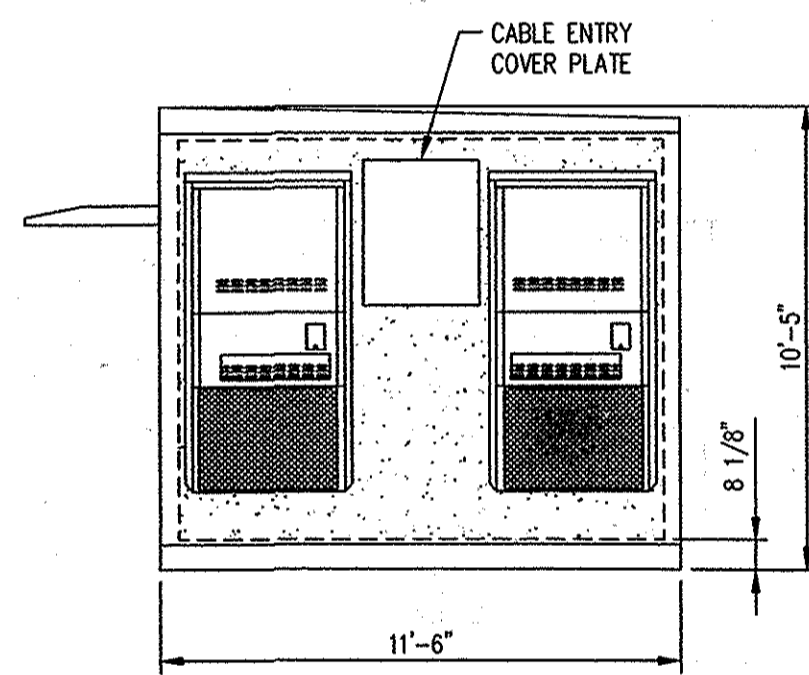
**SHELTER ELEVATION**  
SCALE: 1/2"=1'-0"

④



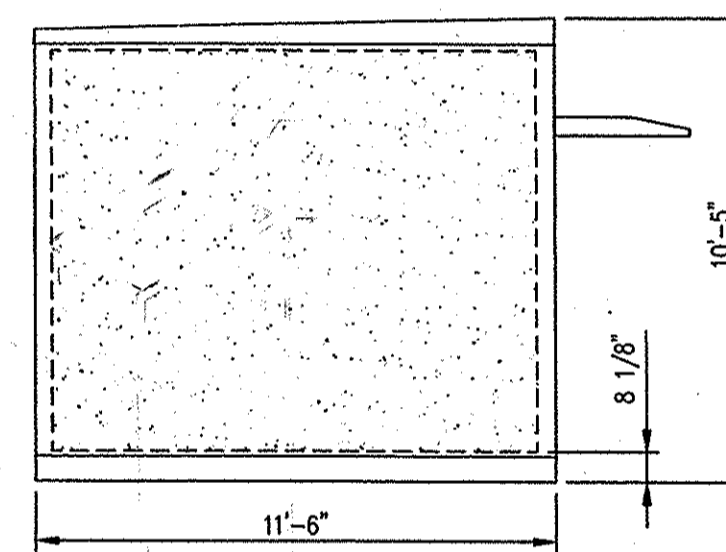
**SHELTER ELEVATION**  
SCALE: 1/2"=1'-0"

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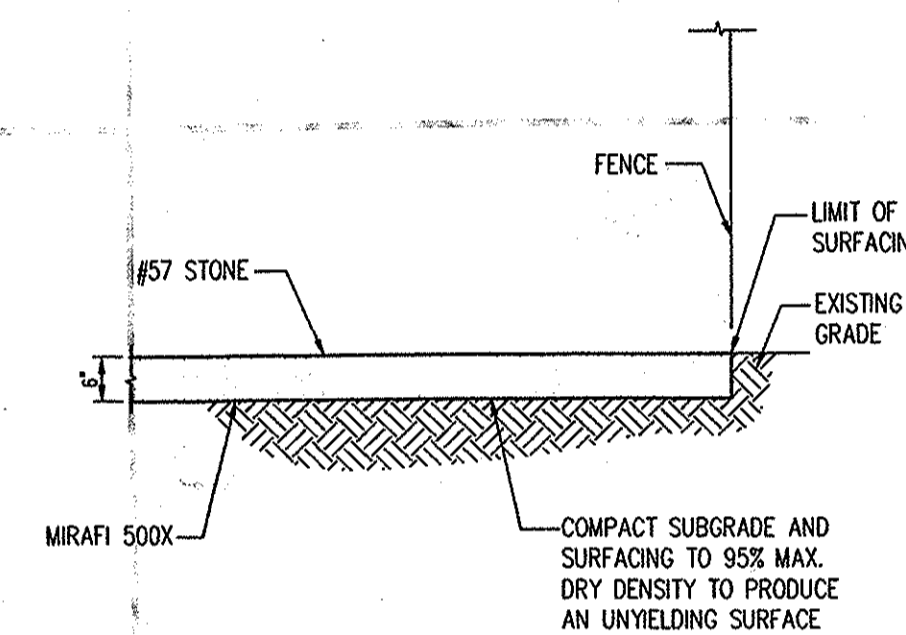
**SHELTER ELEVATION**  
SCALE: 1/2"=1'-0"

⑥



**SHELTER ELEVATION**  
SCALE: 1/2"=1'-0"

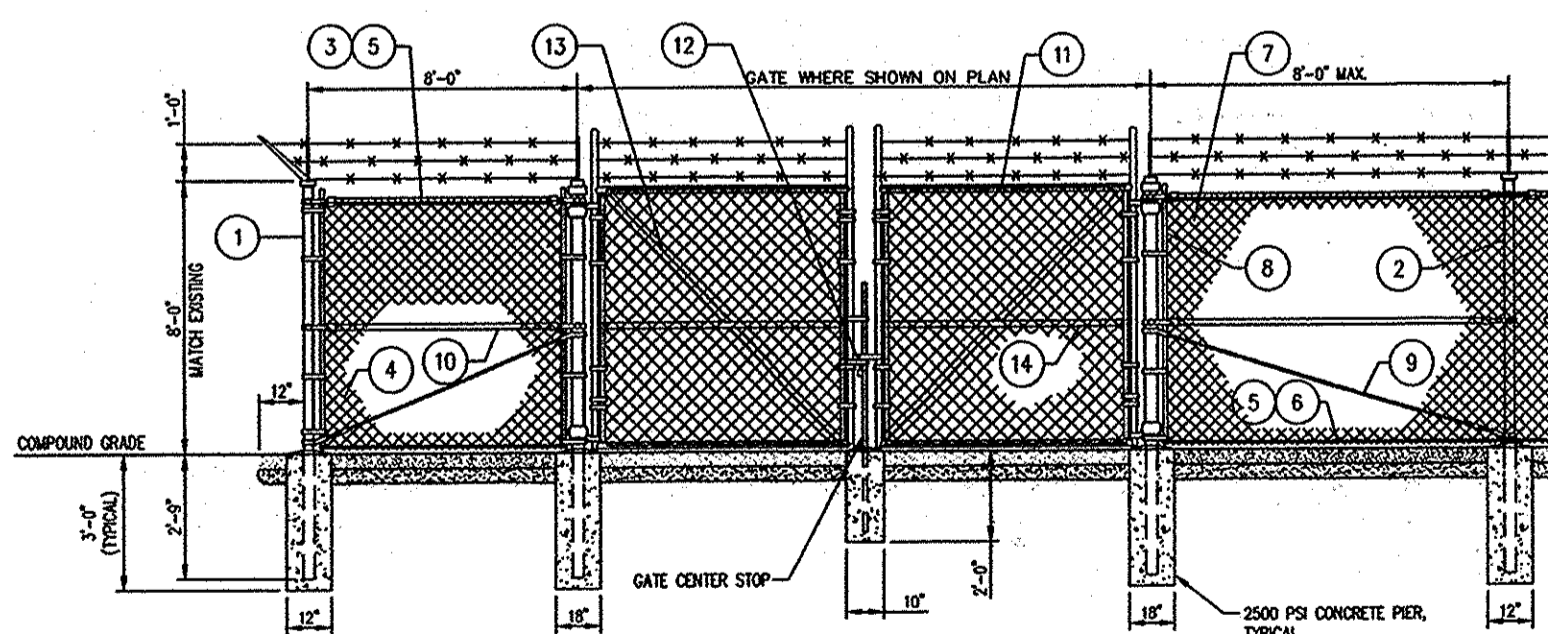
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NOTE:  
LEASE AREA SHALL BE CLEARED AND GRUBBED. REMOVE UNSUITABLE LOOSE OR SOFT SOIL, ORGANIC MATERIAL OR RUBBLE TO FIRM GRADE. FILL UNCUT AND COMPACT UP TO 6" BELOW FINISH GRADE. PLACE A MIRAFI 500X SOIL STABILIZATION FABRIC ON SUBGRADE. FILL WITH 6" OF ASHTO 57 STONE TO FINISH GRADE.

**SITE COMPOUND SURFACING DETAIL**  
SCALE: 1"=1'-0"

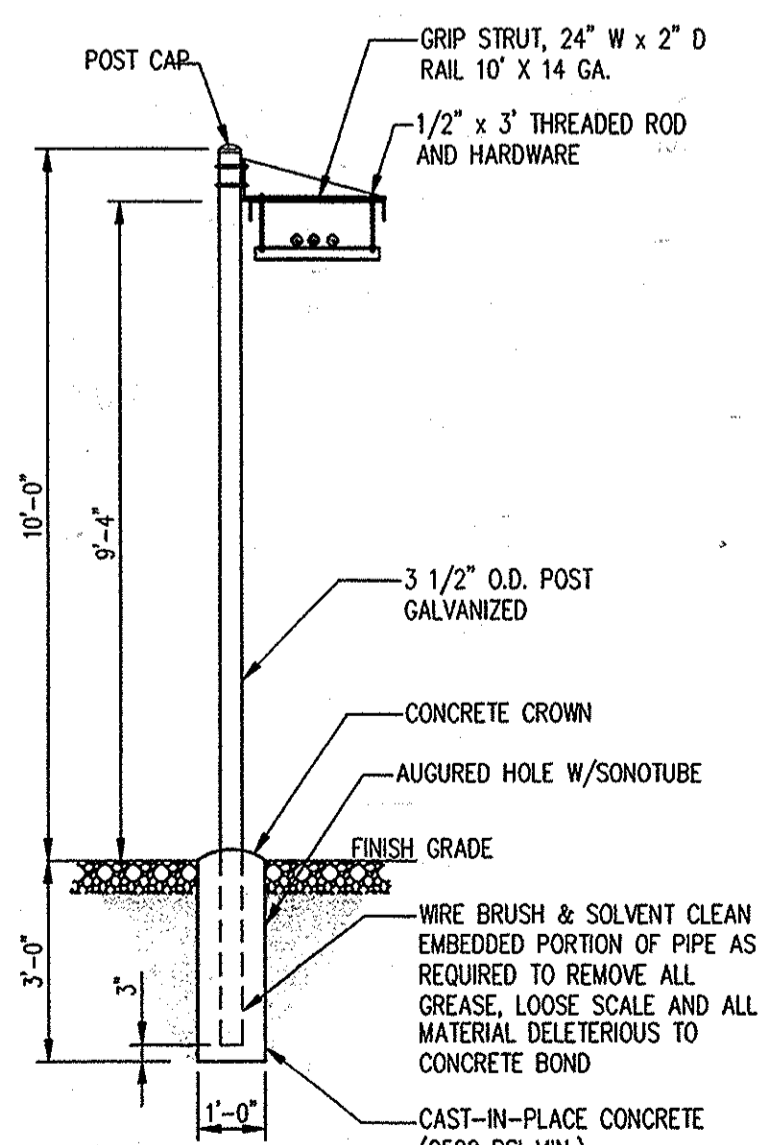
⑧



- REFERENCE NOTES:**
- CORNER END OR END POST: 4" NOMINAL SCHEDULE 40 PIPE.
  - LINE POST: 3" SCHEDULE 40 PIPE PER ASTM-F1553. LINE POSTS SHALL BE EQUALLY SPACED AT MAXIMUM 8'-0" O.C.
  - TOP RAIL & BRACE RAIL: 1 1/2" PIPE PER ASTM-F1553.
  - FABRIC: 9 GA CORE WIRE SIZE 2" MESH, CONFORMING TO ASTM-A392.
  - THE WIRE MESH SHALL BE GALVANIZED STEEL AT POSTS AND RAILS & SINGLE WRAP OF FABRIC TO END AT TENSION WIRE BY HOOD RINGS SPACED MAX. 24" INTERVALS.
  - TENSION WIRE: 9 GA. GALVANIZED STEEL.
  - SLATS-SIZE AND COLOR TO MATCH EXISTING.
  - STRETCHER BAR.
  - 3/8" DIAGONAL ROD WITH GALVANIZED STEEL TUBEROCK OR DIAGONAL THREADED ROD.
  - FENCE CORNER POST BRACE: 1 5/8" DIA. EACH CORNER EACH WAY.
  - GATE FRAME: 1 1/2" PIPE PER ASTM-F1553.
  - MULTI-LOCKING DEVICE.
  - GATE DIAGONAL GALVANIZED STEEL 1 1/2" PIPE.
  - GATE FRAME BRACE: 1 5/8" DIAMETER.
- GENERAL NOTES:**
- INSTALL FENCING PER ASTM F-567.
  - INSTALL SLING GATES PER ASTM F- 900.
  - LOCAL ORGANIC OF BARBED WIRE PERMIT REQUIREMENT SHALL BE COMPLIED IF REQUIRED.
  - POST & GATE PIPE SIZES ARE INDUSTRY STANDARDS. ALL PIPE TO BE 1 1/2" GALV. (NOT SP. ASTM A392 2" STEEL). ALL GATE FRAMES SHALL BE WELDED.
  - ALL OPEN POSTS SHALL HAVE END-CAPS.
  - ALL WELDING SHALL BE COATED WITH (3) COATS OF COLD GALV. (OR EQUAL).

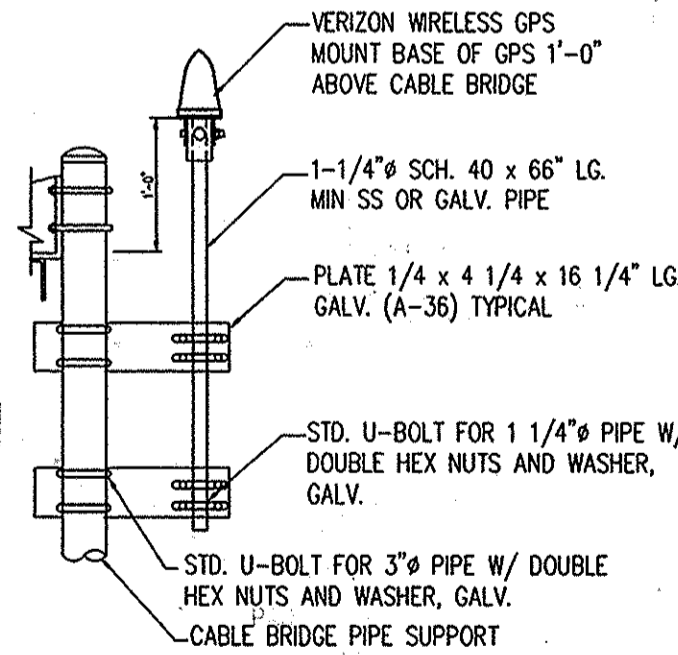
**CHAIN LINK FENCE DETAIL**  
SCALE: 3/8"=1'-0"

⑨



**ICE BRIDGE DETAIL**  
SCALE: 3/4"=1'-0"

⑩



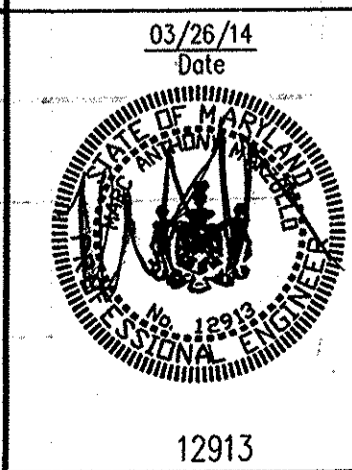
**GPS MOUNTING DETAIL**  
SCALE: 1-1/2"=1'-0"

⑪

**APPROVALS**

APPROVED:	DEPARTMENT OF PLANNING AND ZONING	DATE	9.19.14
<i>[Signature]</i>		DATE	9.23.14
<i>[Signature]</i>		DATE	9/23/14
<i>[Signature]</i>		DATE	

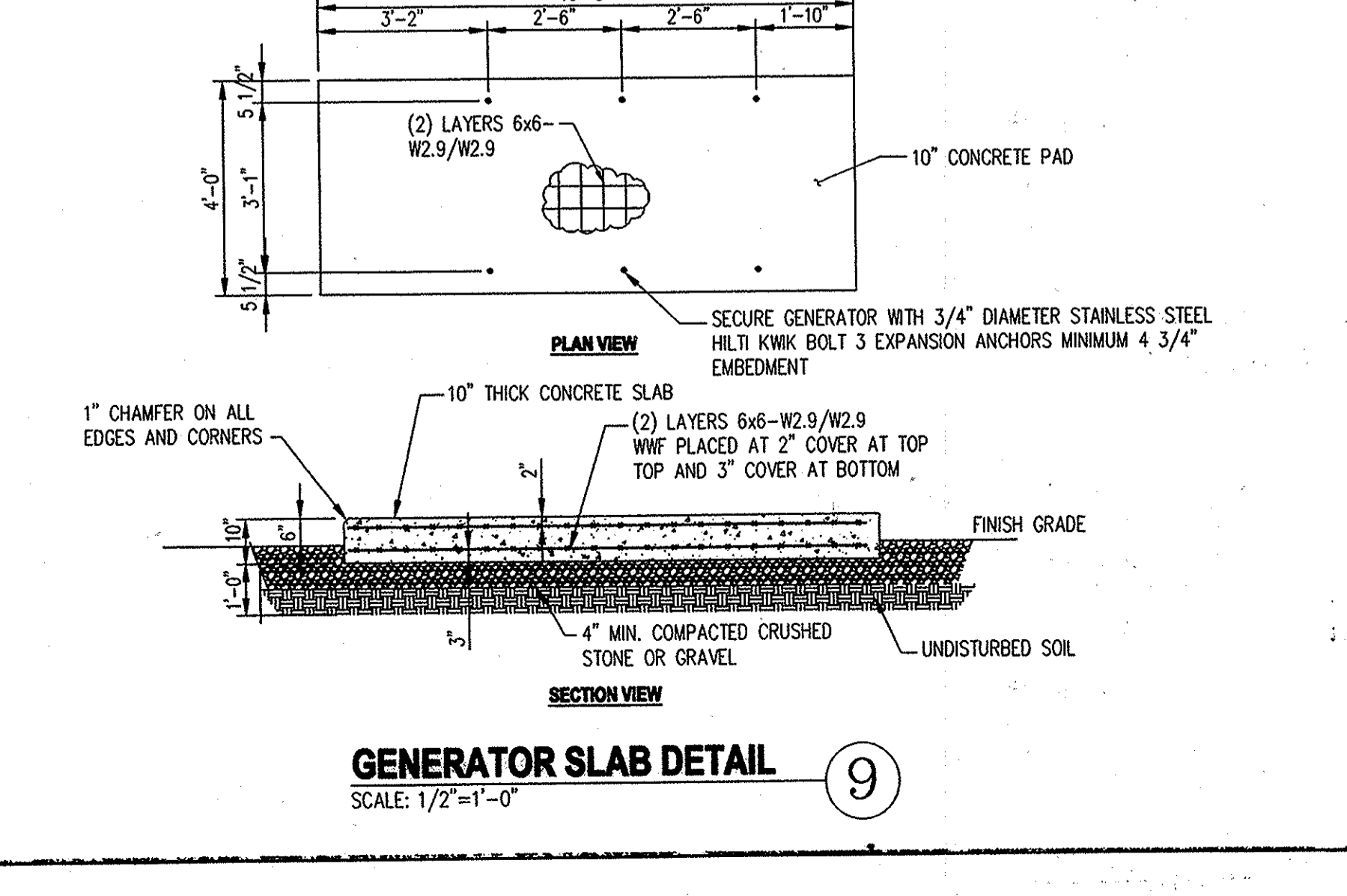
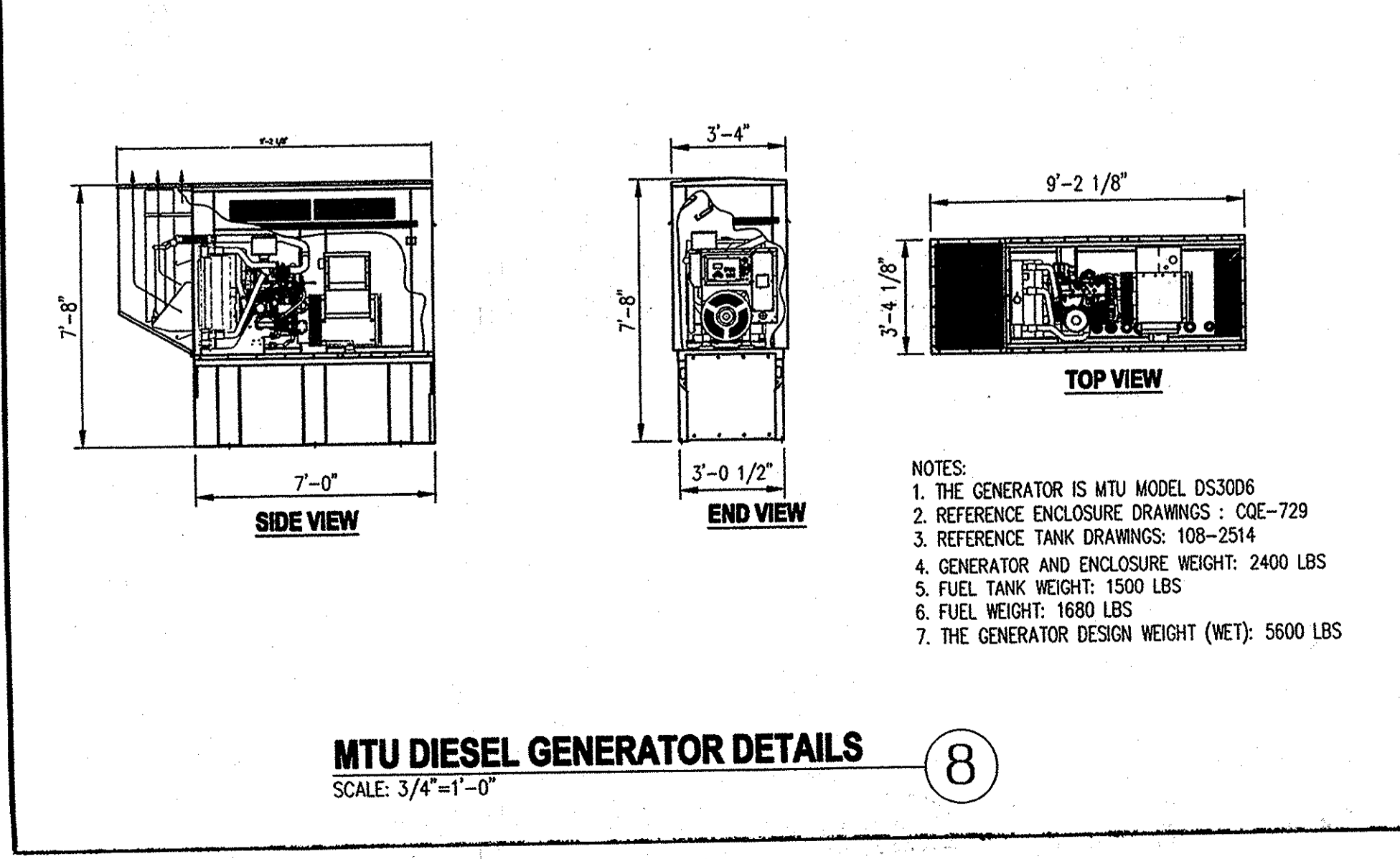
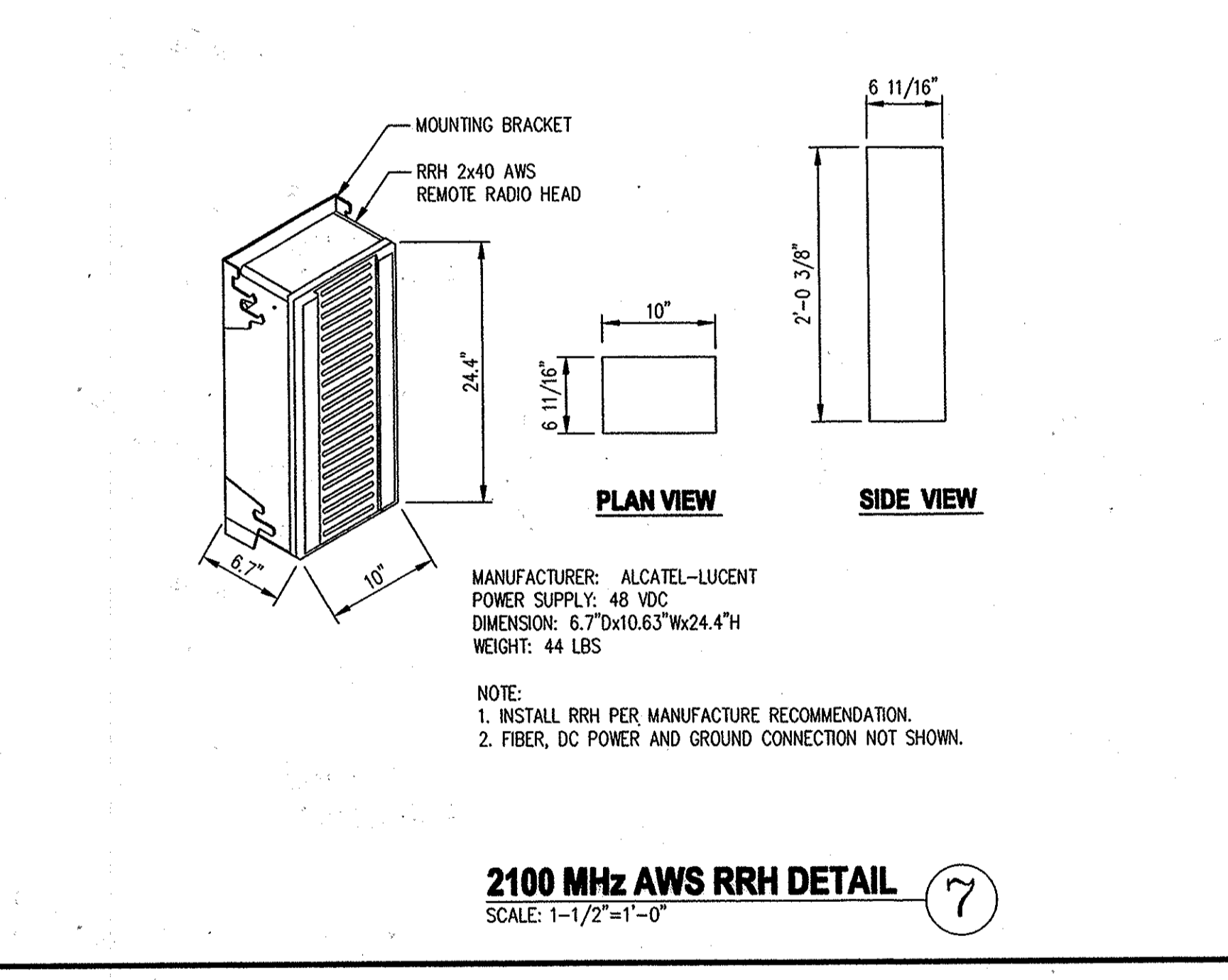
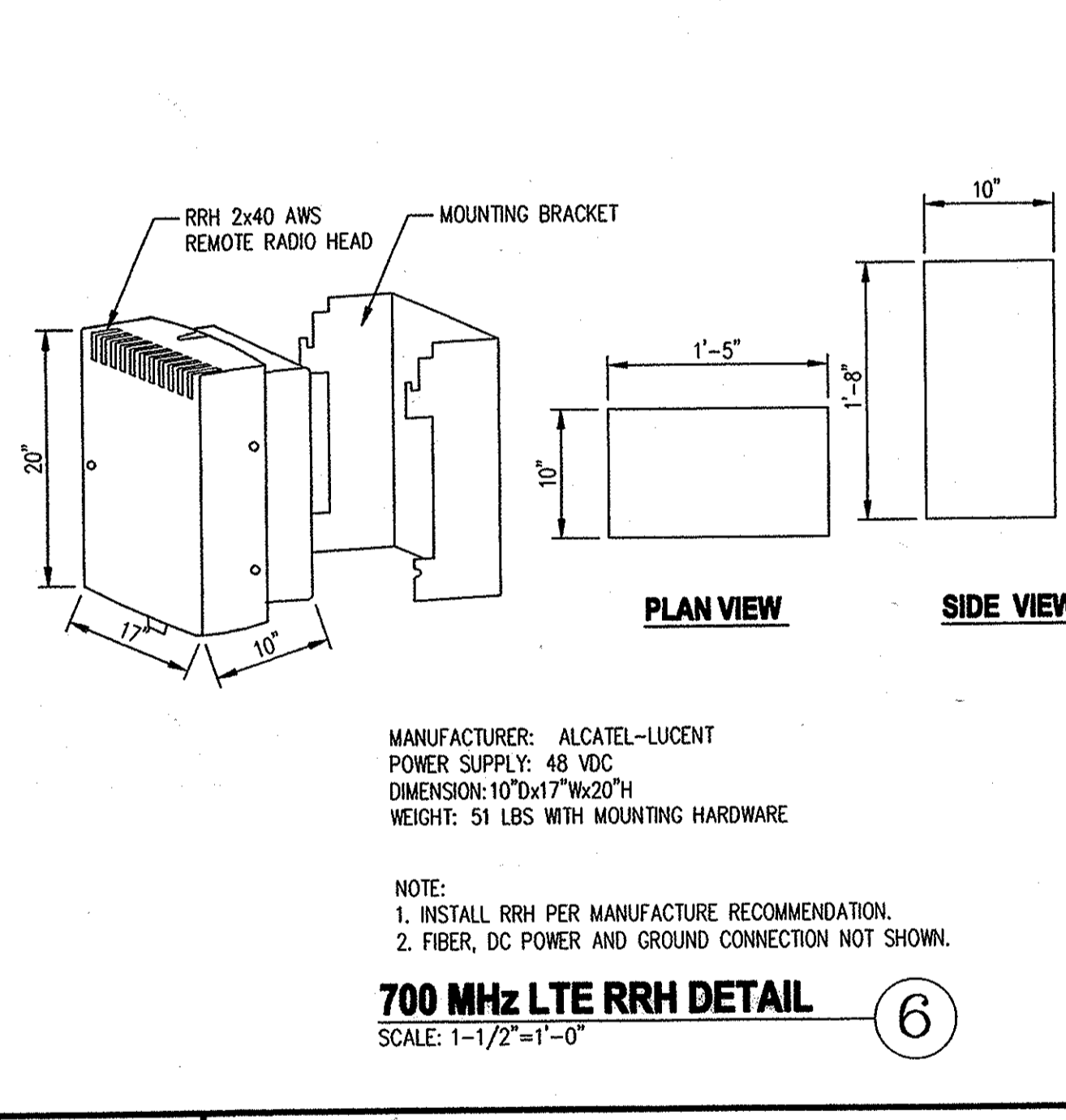
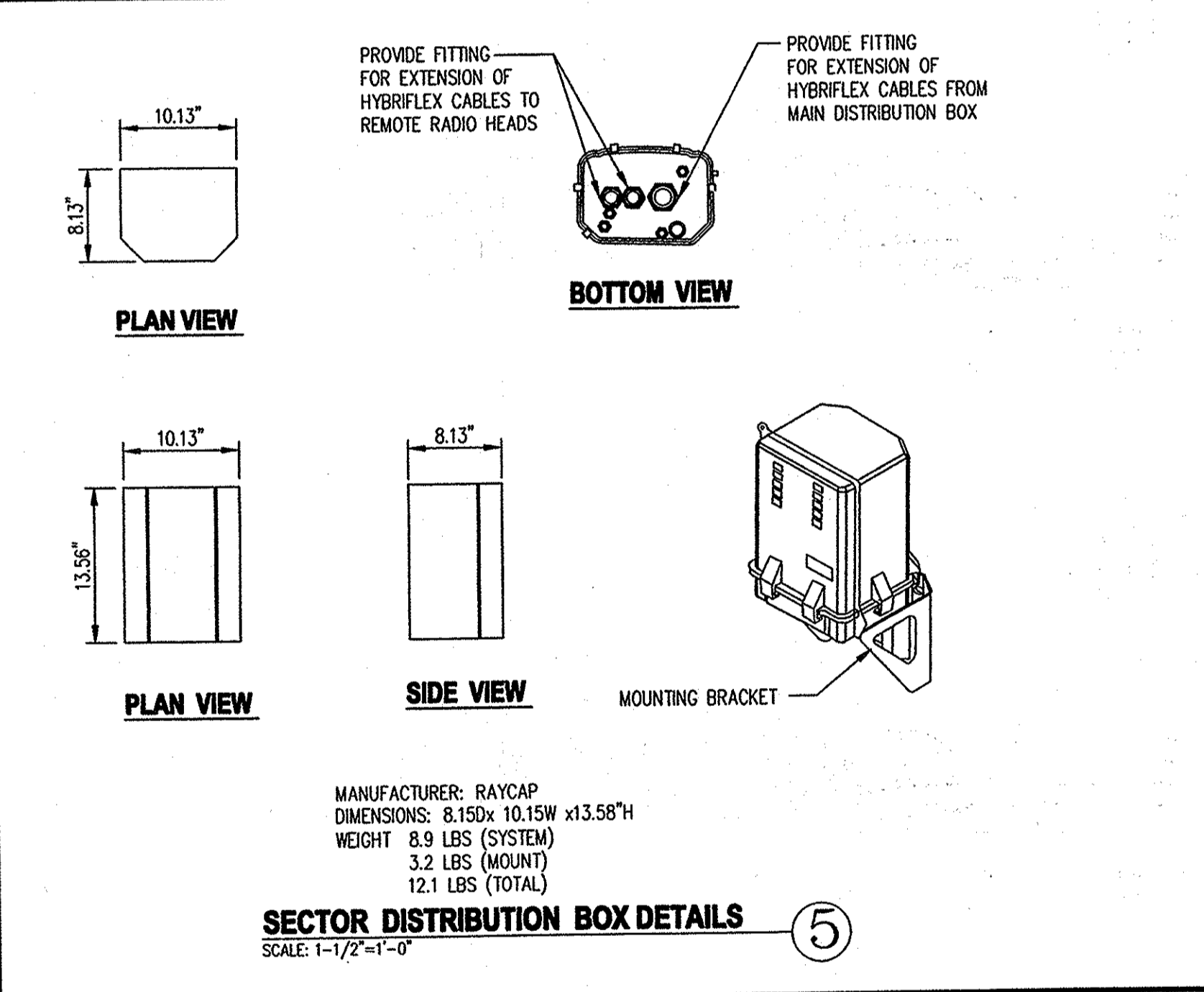
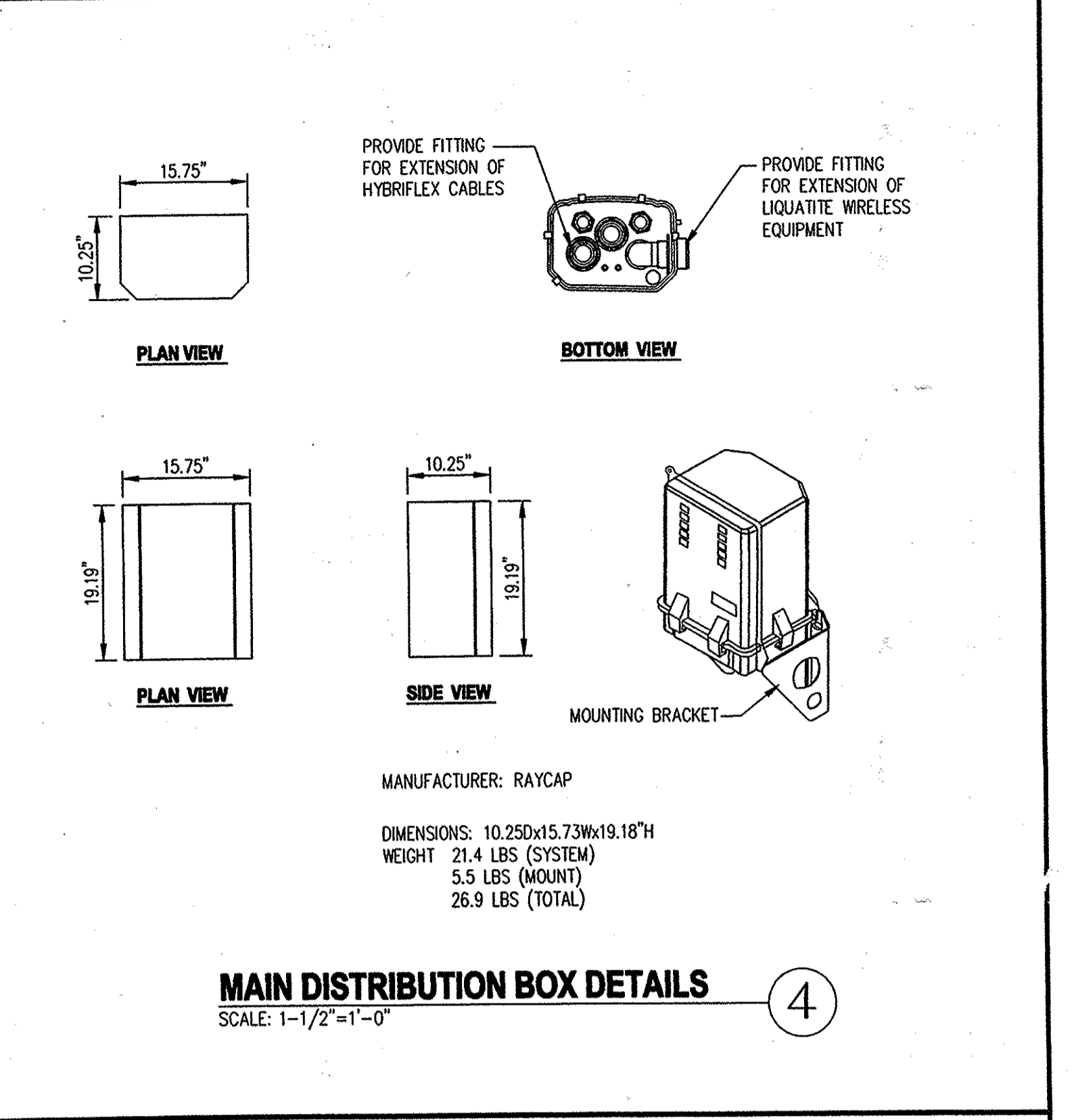
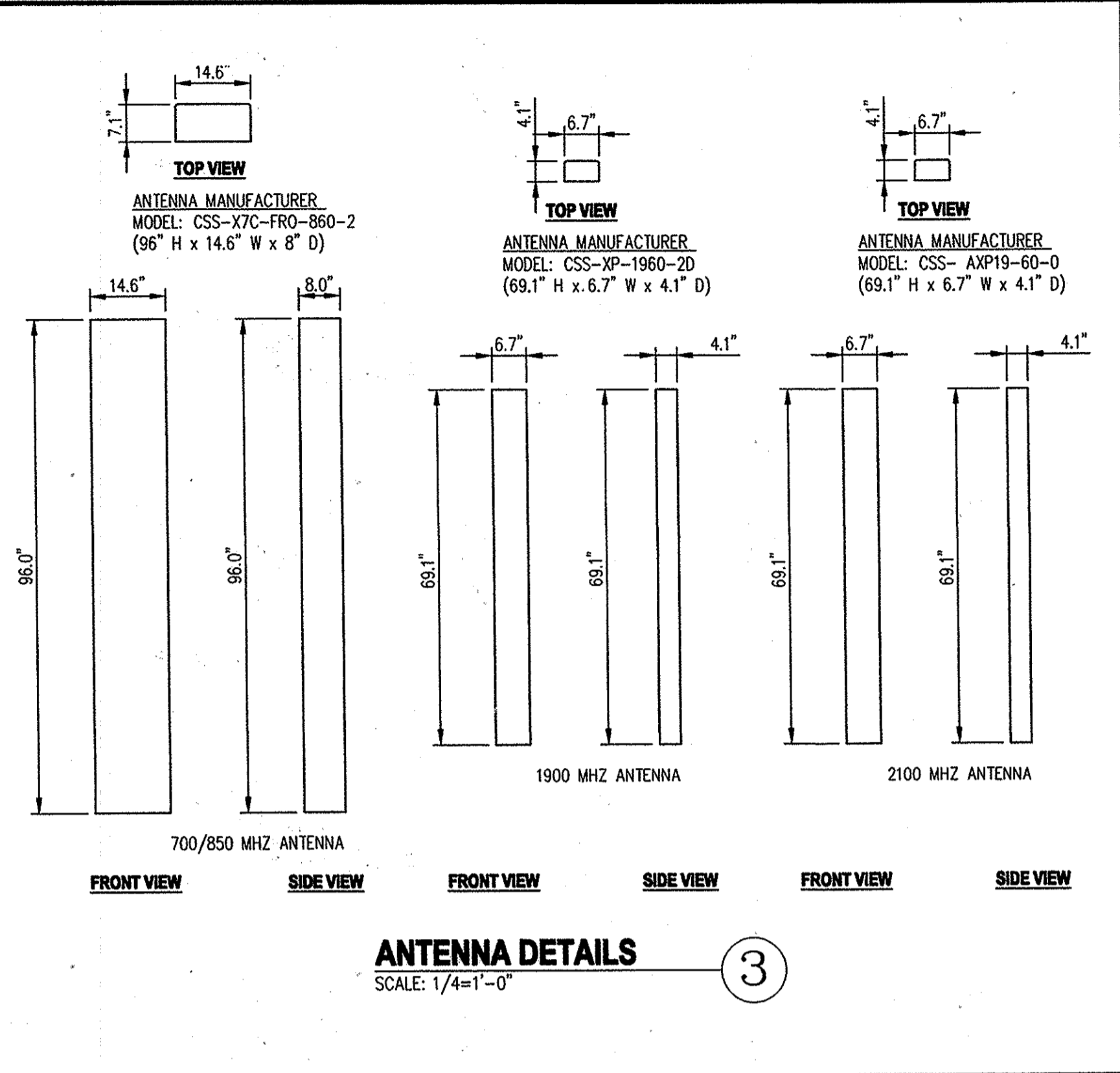
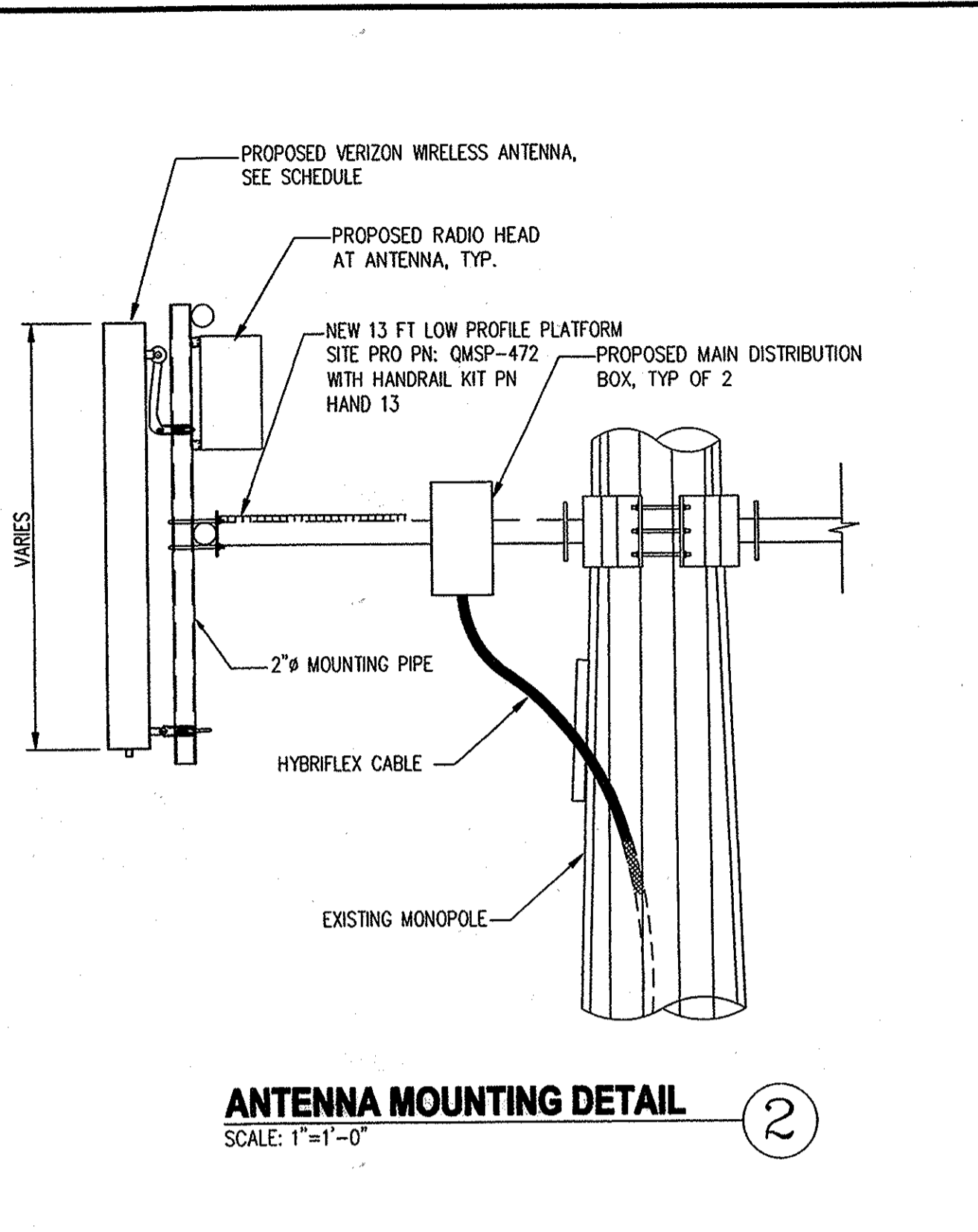
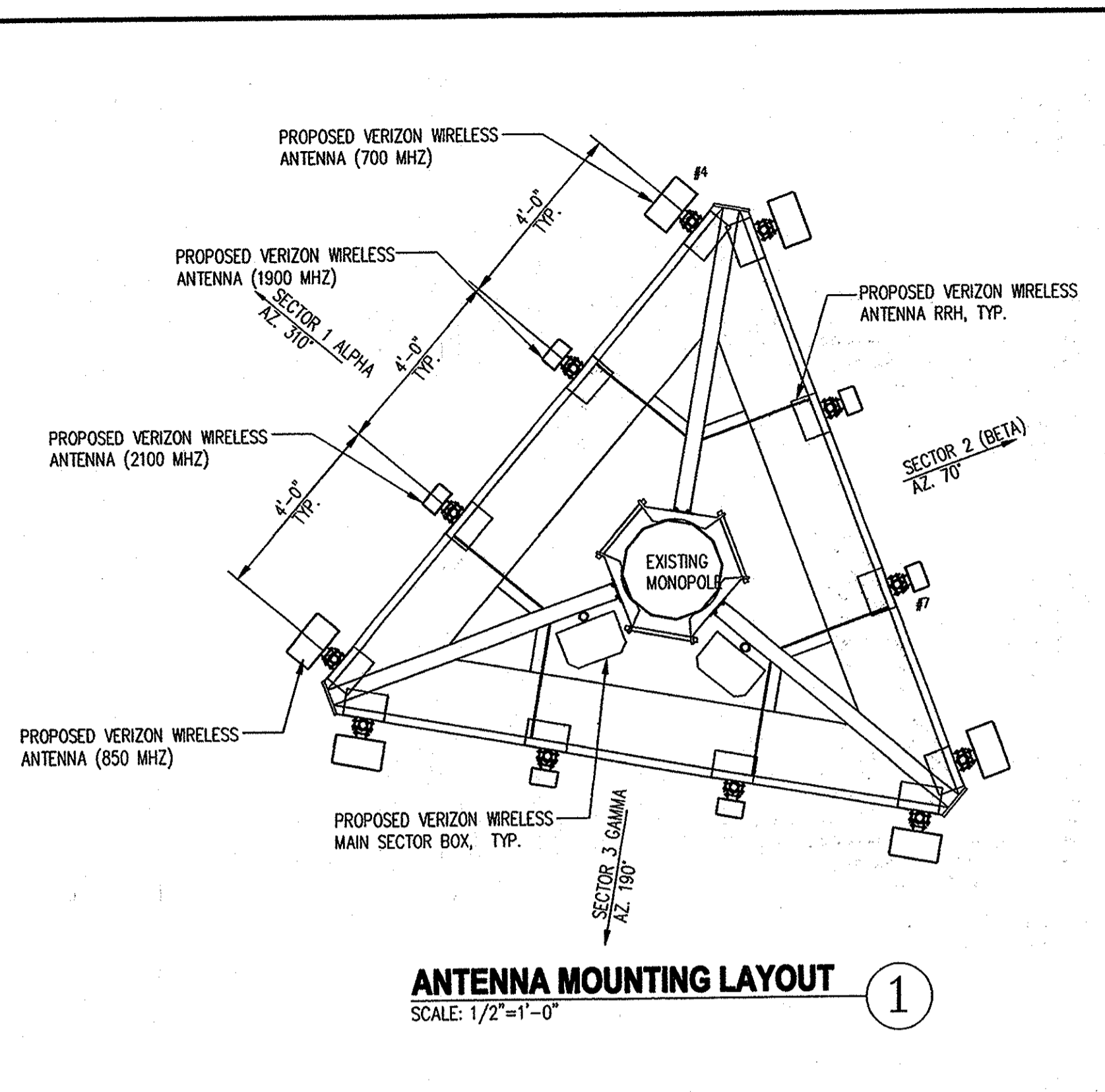
Professional Certification, I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 12913, Expiration Date: 04/02/2018.



03-26-14	1	RL REVISION V2W COMPOUND EXPANSION
Date:	No.	Revision Description
<b>KELLEY PROPERTY</b>		
PROPOSED UNMANNED WIRELESS BROADBAND COMMUNICATIONS FACILITY		
OWNER:	DEVELOPER:	
TRAVAN & LAVINA KELLEY	1-MOBILE NORTHEAST LLC	
1400 LONG CORNER ROAD	12050 BALTIMORE AVENUE	
MT. AIRY, MD 21771	BELTSVILLE, MD 20705	
(301) 829-0194	(240) 264-8600	
	FAK: (240) 264-8610	

<b>entrex</b> communication services, inc.			
6800 Rockledge Drive, Suite 650 Bethesda, MD 20817 PHONE: (202)408-0900 FAX: (202)408-0901			
Subsion Name	Section/Area	Lot/Parcel #:	Parcel 24
LIBER: 479	GRID: 10	Zone: RC-DEO	10x/zone map: 6
FOLIO: 63		Elect. Dis: 04	Census Tract: 604001
WATER CODE			
<b>SITE DETAILS</b>			
Des. By: M.A.	Scale: Varies	Proj. Number: 09056	
Drn. By: M.A.	Date: 03-26-14	4A of 13	
Chk. By: M.M.	Approved: M.M.		





**APPROVALS**

APPROVED: <i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE: 9-19-14
APPROVED: <i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	DATE: 9-23-14
APPROVED: <i>[Signature]</i> DIRECTOR	DATE: 9/23/14

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 12913, Expiration Date: 04/01/2016 2 of 1 6

03/26/14  
Date

12913  
Professional Engineer No.

03-26-14	1	RL REVISION V2W COMPOUND EXPANSION
Date:	No.	Revision Description

**KELLEY PROPERTY**  
PROPOSED UNMANNED WIRELESS BROADBAND COMMUNICATIONS FACILITY

OWNER: TRUMAN & LAVINIA KELLEY  
1400 LONG CORNER ROAD  
MT. AIRY, MD 21771  
(301) 829-0194

DEVELOPER: 1-MOBILE NORTHEAST LLC  
12050 BALTIMORE AVENUE  
BELTSVILLE, MD 20705  
(240) 264-8600  
FAX: (240) 264-8610

**entrex**  
communication services, Inc.  
6600 Rockledge Drive, Suite 550  
Bethesda, MD 20817  
PHONE: (202)408-0960  
FAX: (202)408-0961

Subsidiary Name	Section/Area	Lot/Parcel #:
LIBER: 479	GRID: 10	Zone: RC-DEO
FOLIO: 63	Zone: RC-DEO	Tax/zone map: 6
WATER CODE	Elect. Dis: 04	Census Tract: 604001

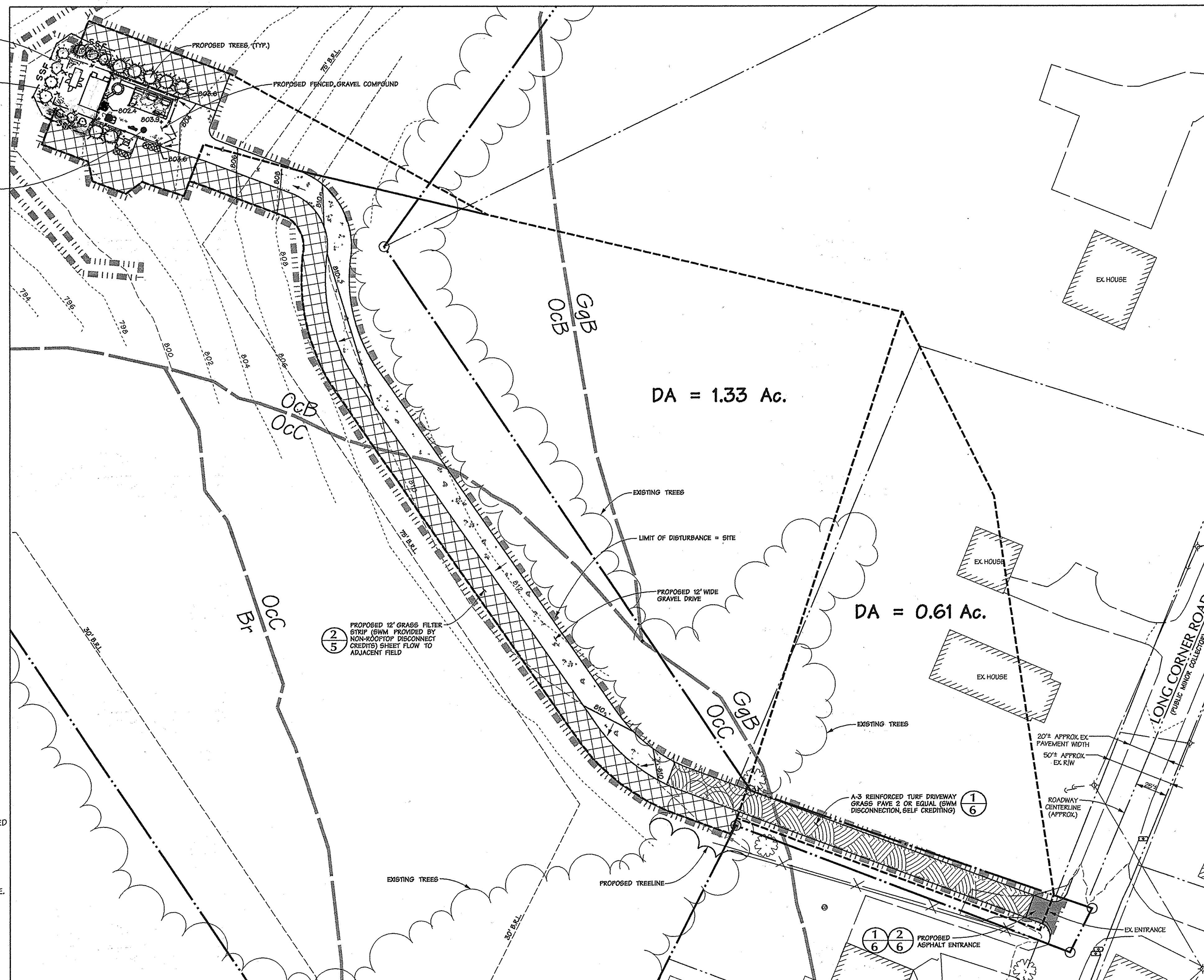
**SITE DETAILS**

Des. By	M.A.	Scale: Varies	Proj. Number: 09056
Drn. By	M.A.	Date: 03-26-14	
Chk. By	M.M.	Approved: M.M.	4B of 13

SDP-10-093



MAP SYMBOL	SOIL NAME	HYDROLOGIC GROUP
OcB	OCCOQUAN LOAM, 3 TO 8 PERCENT SLOPES	B
OcC	OCCOQUAN LOAM, 8 TO 15 PERCENT SLOPES	B
GqB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B



### SITE CHARACTERISTICS

SUBJECT PROPERTY 97.40 AC; SITE = 0.50 AC.  
 DEVELOPABLE AREA: 22,573 SF (0.52 AC)  
 LIMIT OF DISTURBANCE: 22,573± SF, 0.52± AC.  
 PROPOSED IMPERVIOUS AREA: 6,318 SF (0.15 AC)  
 PERCENT IMPERVIOUS AREA: 6,318 SF | 22,573 SF = 28%  
 ONSITE SOILS: 100% "B"  
 TARGET RCN: 55  
 CALCULATED RCN: 72  
 REQUIRED P<sub>e</sub>: 1.6'

### ENVIRONMENTAL SITE DESIGN REQUIREMENTS

TARGET RCN = 55  
 CALCULATED RCN = 71.4 (ROUND UP TO 72)  
 TARGET P<sub>e</sub> = 1.6'  
 ESD<sub>v</sub> REQUIRED = 903 CF

### PROPOSED ESD FACILITIES

1. NON-ROOFTOP DISCONNECT (N-2) FOR GRAVEL DRIVEWAY FOR ACCESS ROAD (12' WIDE) PROVIDE 12' WIDE GRASS FILTER STRIP. FROM TABLE 5.7, RATIO=1:1, PE=1.0" 1.6" REQUIRED - 1.0" PROVIDED = 0.6" REMAINING ESD<sub>v</sub> PROVIDED = 385 CF
  2. NON-ROOFTOP DISCONNECT (N-2) FOR GRAVEL COMPOUND AREA & PARKING FOR EQUIPMENT LOT: 1458 SF. FROM TABLE 5.7, RATIO=0.2:1, PE=0.8" 0.6" REMAINING - 0.8" PROVIDED = 0, REQUIREMENT SATISFIED ESD<sub>v</sub> PROVIDED = 92 CF
  3. A-3 ALTERNATIVE SURFACE - REINFORCED TURF FOR FIRST 2,280 SF OF DRIVEWAY PROVIDE GRASSPAVE2 (A-3 REINFORCED TURF) OR EQUAL SYSTEM AS STABILIZED ACCESS DRIVEWAY PER CHAPTER 5 ESD, A-3 REINFORCED TURF IS CONSIDERED PERVIOUS AND THEREFORE A SELF-CREDITING DISCONNECTED SURFACE. ESD<sub>v</sub> PROVIDED = 447 CF
- TOTAL ESD<sub>v</sub> PROVIDED = 924 CF

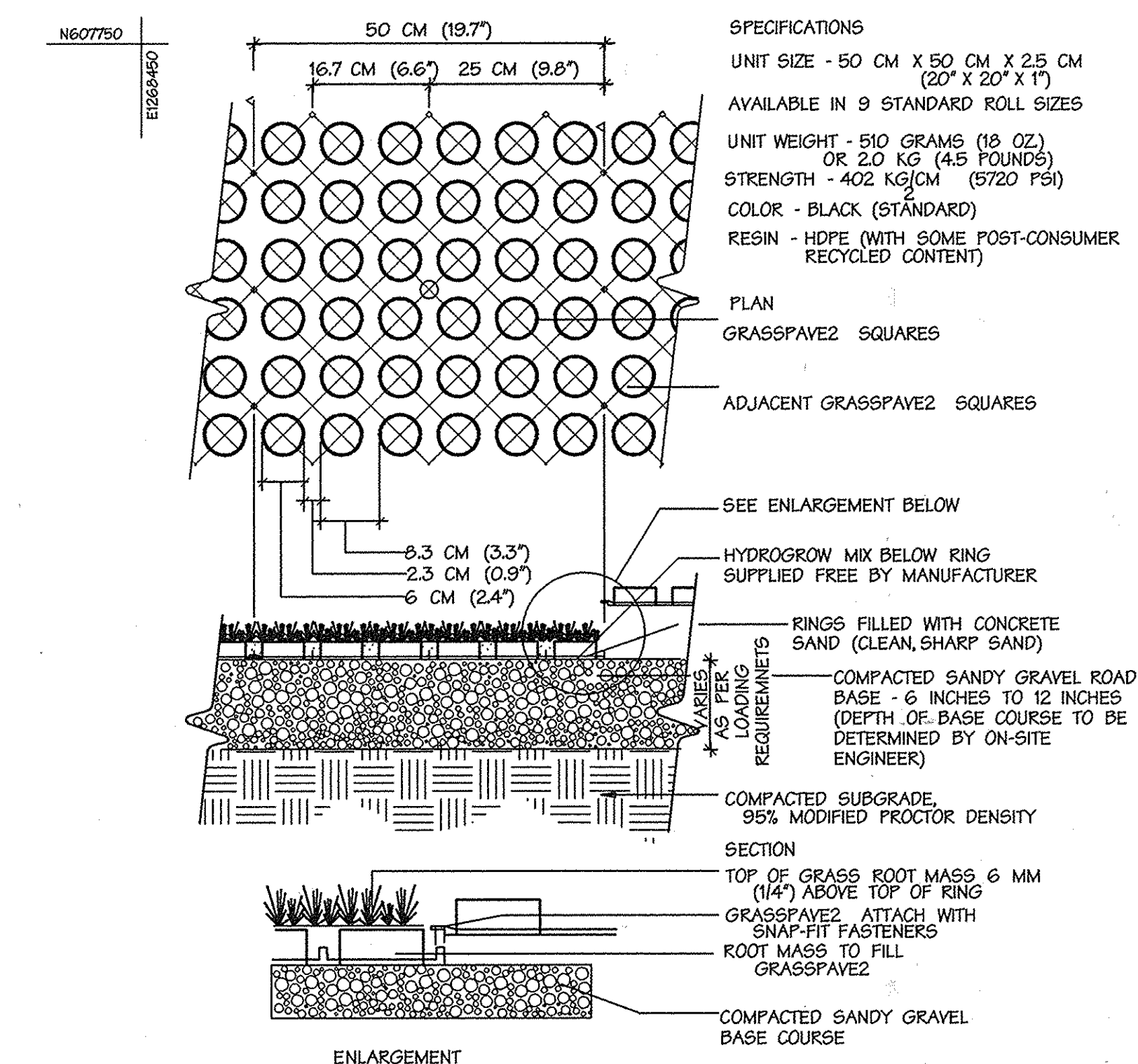
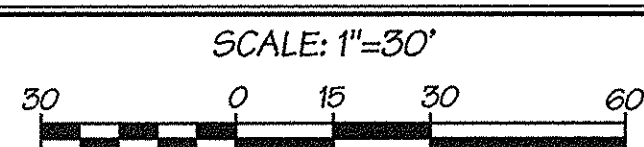
### LEGEND

- PROPERTY LINE
- 140 --- EXISTING CONTOURS
- 142 --- PROPOSED CONTOURS
- 30' B.R.L. --- BUILDING RESTRICTION LINE
- SOILS LINE
- PROPOSED DEVELOPABLE AREA
- PROPOSED GRASS BUFFER
- EXISTING ROAD
- EXISTING TREELINE
- EXISTING CHAIN LINK FENCE
- PROPOSED CHAIN LINK FENCE
- EXISTING UTILITY POLE

### GRASS FILTER STRIP PLANTING NOTES

1. TILL AREA TO BE SEEDED TO A DEPTH OF 3 INCHES.
2. SPREAD SEED PER MANUFACTURER'S SPECIFICATIONS AND MULCH WITH STRAW.
3. MOW GRASS PERIODICALLY.

### STORMWATER MANAGEMENT PLAN



1. **TYPICAL GRASSPAVE<sup>2</sup> DETAIL**  
 SOURCE: INVISIBLE STRUCTURES, INC. NOT TO SCALE

INVISIBLE STRUCTURES, INC.  
 WEB: WWW.INVISIBLESTRUCTURES.COM  
 PHONE: 1-800-233-1522

APPROVED FOR CONSTRUCTION	
COUNTY ENGINEER/DEVELOPER	DATE
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.	
HOWARD SOIL CONSERVATION DISTRICT	DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
Chief, Development Engineering Division	3/25/11
Chief, Division of Land Development	4/13/11
Director	4/13/11
03-26-14	RL REVISION VIEW COMPOUND EXPANSION
Date	No. Revision Description
<b>KELLEY PROPERTY</b> PROPOSED UNMANNED WIRELESS BROADBAND COMMUNICATIONS FACILITY OWNER: TRUMAN & LAVINIA KELLEY 1400 LONG CORNER ROAD MT. AIRY, MD 21771 (301) 829-0794 DEVELOPER: T-MOBILE NORTHEAST LLC 12050 BALTIMORE AVENUE BELTSVILLE, MD 20705 (240) 264-8600 FAX: (240) 264-8610	

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38633  
 EXPIRATION DATE: 5-14-12  
 2/10/11

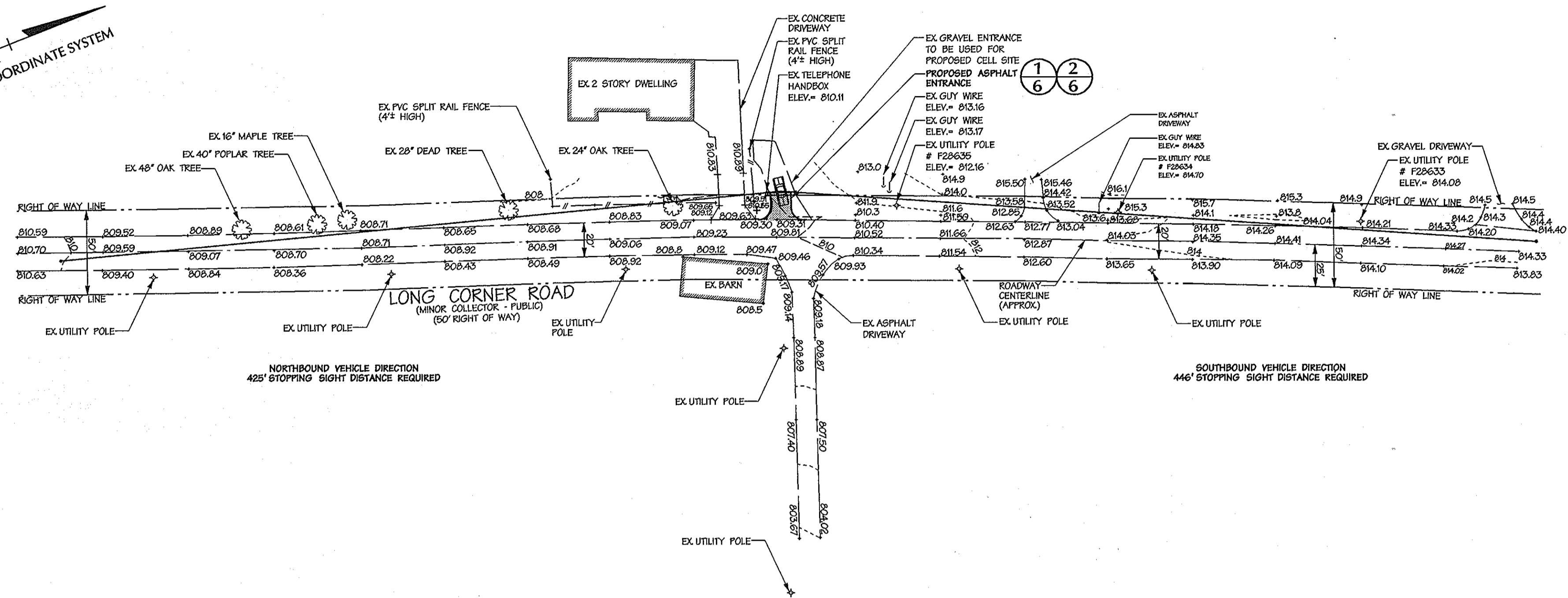
<b>DMW</b> DAFT MCCUNE WALKER INC 200 EAST PENNSYLVANIA AVENUE • TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS, ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS			
SUPERVISOR NAME T.J.C.	SECTION/AREA 10	LOT/PARCEL # PARCEL 24	SHEET NO. 5 OF 13
TITLE <b>STORMWATER MANAGEMENT PLAN</b>	Des. By TJC	Scale 1" = 30'	Proj. No. 09056
Dm. By GMO	Date 4/15/10	Chk. By MDM	Approved <b>5 of 13</b>
Professional Engineer No. <b>SDP-10-093</b>			

Wed Feb 09 16:15:20 2011 (P:\09056\FACD\09056.SMT)

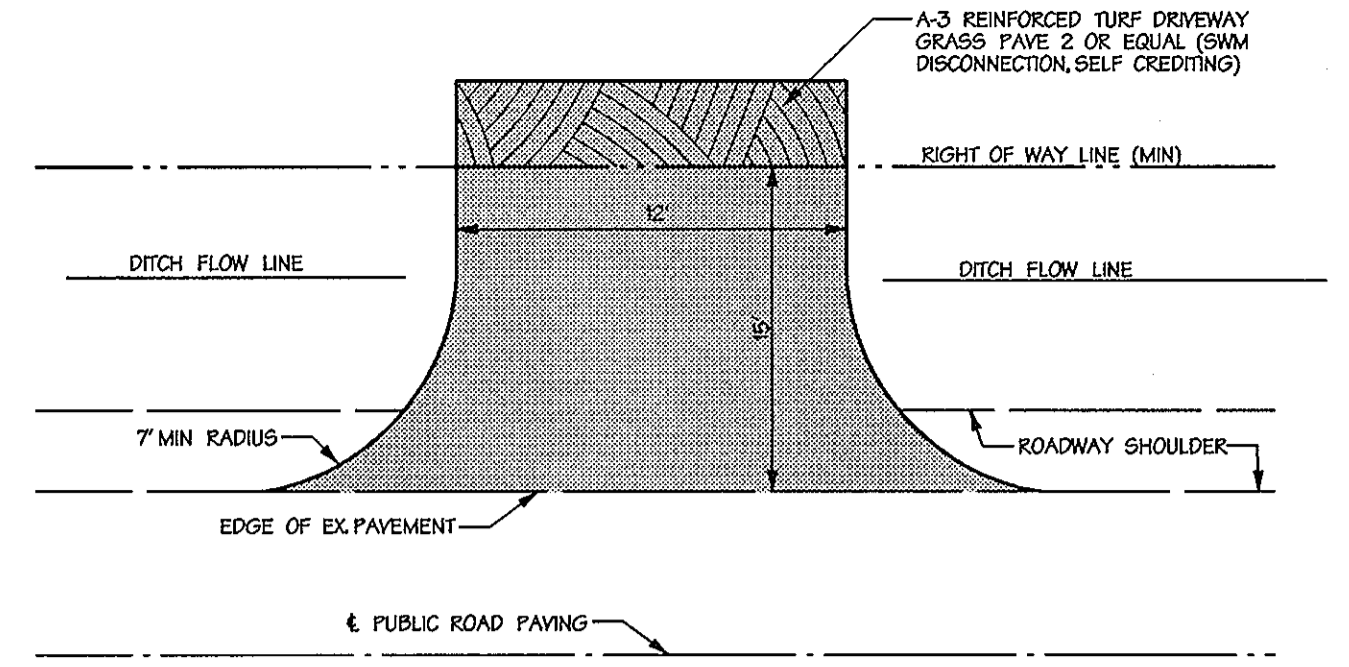
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MARYLAND COORDINATE SYSTEM  
E266100  
N266100

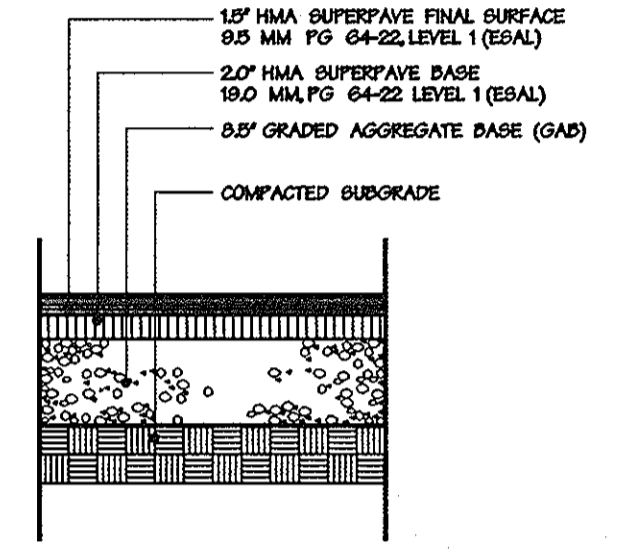


**PLAN VIEW**  
SCALE: 1"=50'

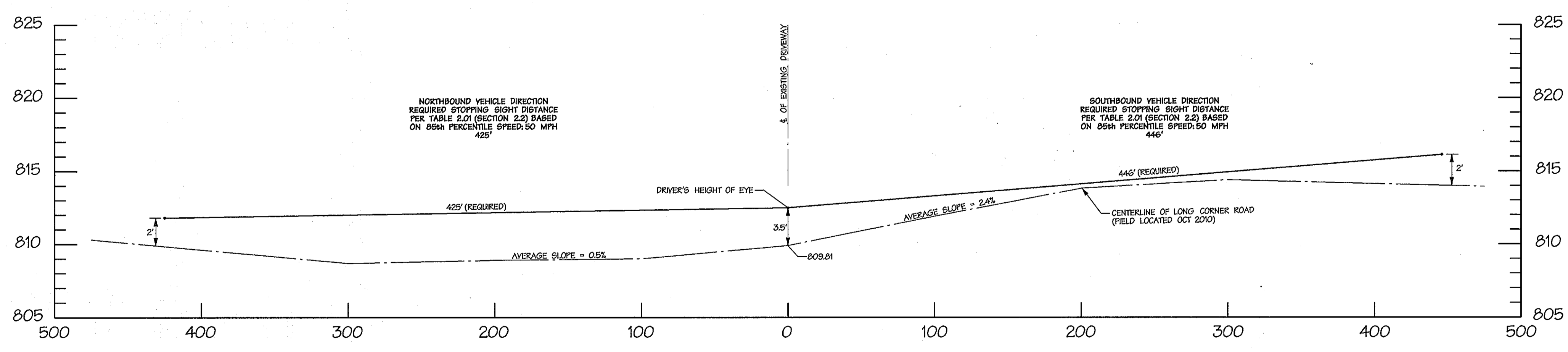


**1 ENTRANCE DETAIL**  
Not To Scale

NOTE: ENTRANCE TO BE GRADED TO MATCH EX. EDGE OF PAVEMENT AND GROUND ELEVATION



**2 PI PAVING DETAIL**  
Not To Scale



**PROFILE**  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'

- LEGEND**
- 140 --- EXISTING CONTOURS
  - 142 --- EXISTING ROAD
  - EXISTING ROAD CENTERLINE
  - EXISTING WOOD FENCE
  - EXISTING TREES
  - ◇ EXISTING UTILITY POLE
  - ◇ EXISTING GUY WIRE
  - EXISTING HANDHOLE

APPROVED FOR CONSTRUCTION

COUNTY ENGINEER/DEVELOPER \_\_\_\_\_ DATE \_\_\_\_\_

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 3/25/11  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 4/13/11  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 4/13/11  
DIRECTOR DATE

Date	No.	Revision Description

**KELLEY PROPERTY**  
PROPOSED UNMANNED WIRELESS BROADBAND COMMUNICATIONS FACILITY

OWNER: TRUMAN & LAVINIA KELLEY 1400 LONG CORNER ROAD MT. AIRY, MD 21771 (301) 829-0794

DEVELOPER: T-MOBILE NORTHEAST LLC 12050 BALTIMORE AVENUE BELTSVILLE, MD 20705 (240) 264-8600 FAX: (240) 264-8610

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38933 EXPIRATION DATE: 5-14-12

2/10/11  
Date

Professional Engineer No. \_\_\_\_\_

**DMW**  
DAFT MCCUNE WALKER INC

200 EAST PENNSYLVANIA AVENUE • TOWSON, MD 21286  
P: 410 296 3338 F: 410 296 4705 WWW.DMW.COM

A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS, ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
LIBER 479 FOLIO 63	RC-DEO	PARCEL 24
WATER CODE	SEWER CODE	UNITS: 604001

TITLE: **STOPPING SITE DISTANCE ANALYSIS & PROPOSED ENTRANCE DETAILS**

Des. By	MDM	Scale	1" = 50'	Proj. No.	09056
Dm. By	GMO	Date	4/15/10		
Chk. By	MDM	Approved			

6 of 9

**LONG CORNER ROAD - (MINOR COLLECTOR)**  
EXISTING POSTED SPEED: 30 MPH  
STOPPING SIGHT DISTANCE REQUIRED:  
NORTHBOUND VEHICLE DIRECTION: 425'  
SOUTHBOUND VEHICLE DIRECTION: 446'  
\*BASED ON 85th PERCENTILE SPEED



**STANDARD SEDIMENT CONTROL NOTES**

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections and Permits, Sediment Control Division prior to the start of any construction (410-313-1825).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current Maryland Standards and Specifications for Soil Erosion and Sediment Control and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within:
  - Seven (7) calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1.
  - Fourteen (14) days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12 of the "Howard County Design Manual", Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the "2004 Maryland Standards and Specifications for Soil Erosion and Sediment Control" for permanent seeding (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50), and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
 

Total Area of Site	0.52 Acres
Area Disturbed	0.52 Acres
Area to be roofed or paved	0.15 Acres
Area to be vegetatively stabilized	0.37 Acres
Total Cut	220 Cu. Yds.
Total Fill	50 Cu. Yds.

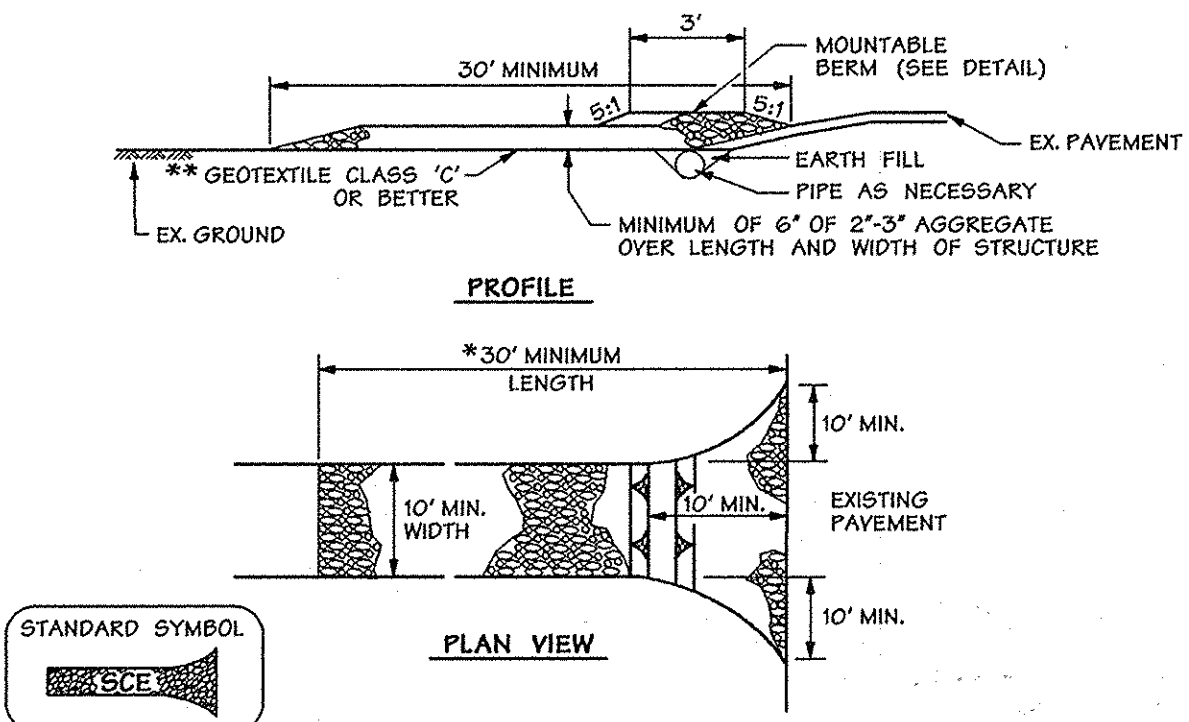
 Off-site wasteborrow area location to be determined by contractor.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this total approval by the inspection agency is made.
- Trenching for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.

**DRIVEWAY GRADING NOTE**

THE PROPOSED DRIVEWAY SHALL BE BUILT AT THE EX GRADES OF THE FIELD TO A SMOOTH, EVEN SURFACE.

**NOTES**

- SEE SHEET 6 FOR DRIVEWAY ENTRANCE DETAIL AND ASPHALT PAVING SECTION DETAIL.
- SEE SHEET, NOTE 21 FOR DRIVEWAY SURFACE APPROVALS.
- SEE SHEET 5, STORMWATER MANAGEMENT PLAN, FOR LOCATION OF REINFORCED TURF DRIVEWAY SURFACING AND DETAILS.



**CONSTRUCTION SPECIFICATIONS**

- LENGTH - MINIMUM OF 50' (30' FOR SINGLE RESIDENCE LOT).
- WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- GEOTEXTILE FABRIC CLASS C (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
- STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
- SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.
- LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRUCKS ENTER OR LEAVE A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

U.S. DEPARTMENT OF AGRICULTURE F-17-B MARYLAND DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES WATER MANAGEMENT ADMINISTRATION

**1 STABILIZED CONSTRUCTION ENTRANCE**

NOT TO SCALE

**LEGEND**

- 140 --- EXISTING CONTOURS
- 142 --- PROPOSED CONTOURS
- x-x-x- EXISTING TREELINE
- x-x-x- EXISTING CHAIN LINK FENCE
- x-x-x- PROPOSED CHAIN LINK FENCE
- EXISTING UTILITY POLE
- BUILDING RESTRICTION LINE
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE

**SITE PLAN**

SCALE: 1"=30'



LIMIT OF DISTURBANCE: 22,573 SF

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Signature of Engineer: Thomas S. Cranney, P.E. Date: 2/10/11

"I/WE VERIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

Signature of Developer: William O'Brien Date: 3/14/2011

**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 36563 EXPIRATION DATE: 5-14-12

Date: 2/10/11  
Professional Engineer No. [Blank]

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
John R. Roberts, Director Date: 3/23/11

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Chief, Development Engineering Division: [Signature] Date: 3/25/11  
Chief, Division of Land Development: [Signature] Date: 4/13/11  
Director: [Signature] Date: 4/13/11

03-26-14 | RL REVISION VZW COMPOUND EXPANSION  
Date No. Revision Description

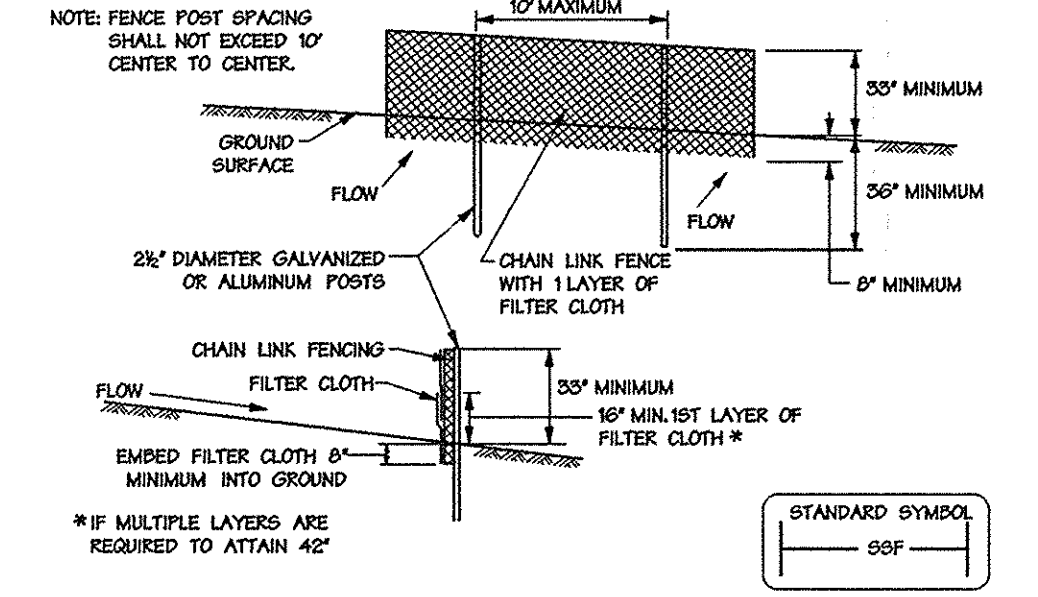
**KELLEY PROPERTY**  
PROPOSED UNMANNED WIRELESS BROADBAND COMMUNICATIONS FACILITY  
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PROJECT NAME	SECTION/AREA	DATE	PARCEL #
WATER CODE	FOLIO G3	NO. 10	14000000000000000000
DATE	DATE	DATE	DATE
DATE	DATE	DATE	DATE

**TITLE**  
SITE PLAN, GRADING, SEDIMENT & EROSION CONTROL PLAN

Des. By	TJC	Scale	1" = 30'	Proj. No.	09056
Dm. By	GMO	Date	4/15/10		
Chk. By	MDM	Approved			7 of 13



- CONSTRUCTION SPECIFICATIONS**
- FENCING SHALL BE 42 INCHES IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY (SHA) DETAILS FOR CHAIN LINK FENCING. THE SPECIFICATION FOR A 6" FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6" LENGTH POSTS.
  - THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
  - CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES. THE LOWER TENSION WIRE, DRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE. THE CHAIN LINK FENCING SHALL BE SIX (6) GAUGE OR HEAVIER.
  - FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
  - FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 6" INTO THE GROUND.
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
  - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE OR WHEN SILT REACHES 50% OF FENCE HEIGHT.
- U.S. DEPARTMENT OF AGRICULTURE F-17-B MARYLAND DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES WATER MANAGEMENT ADMINISTRATION

**2 SUPER SILT FENCE**

NOT TO SCALE

DESIGN CRITERIA			
SLOPE	SLOPE STEEPNESS	SLOPE LENGTH (MAXIMUM)	SILT FENCE LENGTH (MAXIMUM)
0 - 10%	0 - 12%	UNLIMITED	UNLIMITED
10 - 20%	10% - 15%	200 FEET	1500 FEET
20 - 35%	15% - 21%	100 FEET	1000 FEET
35 - 50%	21% - 24%	100 FEET	600 FEET
50% +	24% +	50 FEET	250 FEET

U.S. DEPARTMENT OF AGRICULTURE F-17-B MARYLAND DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES WATER MANAGEMENT ADMINISTRATION

**2A SUPER SILT FENCE DESIGN CRITERIA**

**SEQUENCE OF OPERATION**

- Obtain Grading Permits.
- Notify Howard County Department of Permits and Licenses 48 hours prior to beginning work. (1 day)
- Install Stabilized Construction Entrance and Super Silt Fence as shown on the Plan. (1 day)
- With permission from the Sediment Control Inspector, begin clearing and grading for the 12 ft. wide access drive and pad area for the T-Mobile facilities. (3 days)
- Begin grading operations. Maintain positive drainage to all sediment control measures and devices at all times. (7 days)
- As work progresses stabilize disturbed areas. (30 days)
- Finish grade all areas and stabilize with seed and mulch. Proceed with landscaping. (7 days)
- After all areas that drain to the sediment control devices are stabilized, and with permission from the Sediment Control Inspector, remove all remaining sediment control measures. (1 day)







STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS

A. SITE PREPARATION

- I. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
- II. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
- III. Schedule required soil test to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

B. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

- I. Soil test must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
- II. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer.
- III. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98 - 100% will pass through a #20 mesh sieve.
- IV. Incorporate lime and fertilizer into the top 3 - 5 inches of soil by disking or other suitable means.

C. SEEDBED PREPARATION

I. TEMPORARY SEEDING

- A. Seedbed preparation shall consist of loosening soil to a depth of 3 inches to 5 inches by means of suitable agricultural or construction equipment, such as a disc harrow or chisel plow or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3%) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
- B. Apply fertilizer and lime as prescribed on the plans.
- C. Incorporate lime and fertilizer into the top 3 - 5 inches of soil by disking or other suitable means.

II. PERMANENT SEEDING

- A. Minimum soil conditions required for permanent vegetative establishment:
  1. Soil pH shall be between 6.0 and 7.0.
  2. Soluble salts shall be less than 500 parts per million (PPM).
  3. The soil shall contain less than 40% clay but enough fine grained material (> 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if Lovegrass or *Serecia Lepepidea* is to be planted. Then a sandy soil (< 30% silt plus clay) would be acceptable.
  4. Soil shall contain 1.5% minimum organic matter by weight.
  5. Soil must contain sufficient pore space to permit adequate root penetration.
  6. If these conditions cannot be met by the soils on site, adding topsoil is required in accordance with Section 21 - Standard and Specification for Topsoil.
- B. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3 - 5 inches to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
- C. Apply soil amendments as per soil test or as included on the plans.
- D. Mix soil amendments into the top 3 - 5 inches of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3%) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1 - 3 inches of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

D. SEED SPECIFICATIONS

- I. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.
- Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.
- II. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75-80 F. can weaken bacteria and make the inoculant less effective.

E. METHODS OF SEEDING

- I. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeder, or cultipacker seeder.
  - A. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following:
    - Nitrogen: maximum of 100 pounds per acre total of soluble
    - Nitrogen: P2O5 (phosphorus): 200 pounds per acre; K2O (potassium): 200 pounds per acre.
  - B. Lime: Use only ground agricultural limestone, (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
  - C. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
- II. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
  - A. Seed spread dry shall be incorporated into the subsol at the depths prescribed on the temporary or permanent seeding summaries or tables 25 or 26. The seeded area shall then be rolled with a weighed roller to provide good seed soil contact.
  - B. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

III. Drill or cultipacker seeding: Mechanized seeders that apply and cover seed with soil.

- A. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering.
  - Seedbed must be firm after planting.
- B. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

F. MULCH SPECIFICATIONS (IN ORDER OF PREFERENCE)

- I. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weeds seeds as specified in the Maryland Seed Law.
  - II. Wood cellulose fiber mulch (WCFM)
    - A. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
    - B. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
    - C. WCFM, including dye shall contain no germination or growth inhibiting factors.
    - D. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
    - E. WCFM material shall contain no elements or compounds at concentration levels that will be phyto-toxic.
    - F. WCFM must conform to the following physical requirements: Fiber length to approximately 10 mm., diameter approximately 1mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 30% minimum.
- Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

G. MULCHING SEEDED AREAS - Mulch shall be applied to all seeded areas immediately after seeding.

- I. If grading is completed outside of the seeding season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
- II. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons per acre. Mulch shall be applied in a uniform loose depth of between 1 1/2 inches and 2 inches. Mulch applied shall achieve a uniform distribution and depth so that the surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons per acre.
- III. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 pounds per acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

H. SECURING STRAW MULCH - Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:

- I. A mulch anchoring tool is a tractor drawn implement design to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.
- II. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds per acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
- III. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys or on crest of banks. The remainder of area should appear uniform after binder application. Synthetic binders - such as Acrylic DLR (agro-tack), DCA-70, Petrosol, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
- IV. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

SECTION II - TEMPORARY SEEDING

VEGETATION - Annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, permanent seeding is required.

Seed Mixture (Hardiness Zone 7A)					Fertilizer Rate (10-10-10)	Lime Rate
No.	Species	Application Rate (Lb./Ac.)	Seeding Dates	Seeding Depths		
1	Annual Ryegrass	50	2/1 - 4/30 8/15 - 11/30	1/4" - 1/2"	600 Lbs./Ac. (15 Lbs./1000 SF)	2 Tons/Ac. (100 Lbs./1000 SF)
2	Weeping Lovegrass	4	5/1 - 8/14	1/4" - 1/2"		

SECTION III - PERMANENT SEEDING

Seeding grass and legumes to establish ground cover for a minimum of one year on disturbed areas generally receiving low maintenance.

Seed Mixture No. 3 (Hardiness Zone 7A)					** Fertilizer Rate (10-20-20)			** Lime Rate
%	Species	Application Rate (Lb./Ac.)	Seeding Dates	Seeding Depths	N	P2O5	K2O	
85	Rebel II Tall Fescue	125	3/1 - 5/15 8/15 - 11/15	1/4" - 1/2"	90 Lb./Ac. (2 Lb./1000 Sq.Ft.)	175 Lb./Ac. (4 Lb./1000 Sq.Ft.)	175 Lb./Ac. (4 Lb./1000 Sq.Ft.)	2 Tons/Ac. (100 Lb./1000 Sq.Ft.)
10	Perennial Ryegrass	15						
5	Kentucky Bluegrass	10						

\* For 5-16 through 8-14 add two (2) pounds of Weeping Lovegrass per acre or ten (10) pounds of Millet per acre to seed mixture (Lb. mix #3 shown).

\*\* At time of fine grading, fertilizer and lime rates will be based on soil test results; (see section 1.B.1). Copy of recommended rates to be supplied to the Sediment Control Inspector.

SECTION IV - SOD

To provide quick cover on disturbed areas (2:1 grade or flatter)

A. GENERAL SPECIFICATIONS

- I. Class of turfgrass sod shall be Maryland or Virginia State certified or approved. Sod labels shall be made available to the job foreman and inspector.
- II. Sod shall be machine cut at a uniform soil thickness of 1/4", plus or minus 1/8", at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.
- III. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
- IV. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
- V. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period shall be approved by an agronomist or soil scientist prior to its installation.

B. SOD INSTALLATION

- I. During periods of excessively high temperature or in areas having dry subsol, the subsol shall be lightly irrigated immediately prior to laying the sod.
- II. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which air drying of the roots.
- III. Wherever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solid contact between sod roots and the underlying soil surface.
- IV. Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

C. SOD MAINTENANCE

- I. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4 inches. Watering should be done during the heat of the day to prevent wilting.
- II. After the first week, sod watering is required as necessary to maintain adequate moisture content.
- III. The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2 inches and 3 inches unless otherwise specified.

SECTION V - TURFGRASS ESTABLISHMENT

Areas where turfgrass may be desired may include lawns, parks, playgrounds, and commercial sites which will receive a medium high level of maintenance. Areas to receive seed shall be tilled by disking or other approved methods to a depth of 2 to 4 inches, leveled and raked to prepare a proper seedbed. Stones and debris over 1/2 inches in diameter shall be removed. The resulting seedbed shall be in such condition that future mowing of grasses will pose no difficulty.

Note: Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

A. TURFGRASS MIXTURES

- I. Kentucky Bluegrass - Full sun mixture - For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended certified Kentucky Bluegrass cultivars seeding rate: 1.5 to 2.0 pounds per 1000 square feet. A minimum of three Bluegrass cultivars should be chosen ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.
- II. Kentucky Bluegrass/Perennial Ryegrass - Full sun mixture - For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass cultivars/certified Kentucky Bluegrass seeding rate: 2 pounds mixture per 1000 square feet. A minimum of 3 Kentucky Bluegrass cultivars must be chosen, with each cultivar ranging from 10% to 35% of the mixture by weight.
- III. Tall Fescue/Kentucky Bluegrass - Full sun mixture - For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: certified Tall Fescue cultivars 95-100%, certified Kentucky Bluegrass cultivars 0 - 5%, seeding rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
- IV. Kentucky Bluegrass/Fine Fescue - Shade mixture - For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes: certified Kentucky Bluegrass cultivars 30-40% and certified Fine Fescue and 60-70%. Seeding rate: 1.5 - 3 pounds per 1000 square feet. A minimum of 3 Kentucky Bluegrass cultivars must be chosen. With each cultivar ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

Note: Turfgrass varieties should be selected from those listed in the most current University of Maryland publication, agronomy mimeo number 77, "Turfgrass Cultivar Recommendations for Maryland".

B. IDEAL TIMES OF SEEDING

- Western Maryland: March 15 - June 1, August 1 - October 1 (hardiness zones - 5B, 6A).
- Central Maryland: March 1 - May 15, August 15 - October 15 (hardiness zone - 6B).
- Southern Maryland, Eastern Shore: March 1 - May 15, August 15 - October 15 (hardiness zones - 7A , 7B).

C. IRRIGATION

If soil moisture is different, supply new seedlings with adequate water for plant growth (1/2" - 1" every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

D. REPAIRS AND MAINTENANCE

- I. Once the vegetation is established, the site shall have 95% groundcover to be considered adequately stabilized.
- II. If the stand provides less than 40% ground coverage, re-establish following original lime, fertilizer, seedbed preparation and seeding recommendations.
- III. If the stand provides between 40% and 94% ground coverage, overseeding and fertilizing using half of the rates originally applied may be necessary.
- IV. Maintenance fertilizer rates for permanent seedlings are shown in Table 24, for lawns and other medium high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care in Maryland" bulletin number 171.

TABLE 26 STONE SIZE

	Size Range	D <sub>50</sub>	D <sub>100</sub>	AASHTO	Weight
Number 57 *	3/8" - 1 1/2"	1/2"	1 1/2"	M-43	N/A
Number 1	2" - 3"	2 1/2"	3"	M-43	N/A
Rip-Rap **	4" - 7"	5 1/2"	7"	N/A	N/A
Class I	N/A	9.5"	15"	N/A	150 Lb. max.
Class II	N/A	16"	24"	N/A	700 Lb. max.
Class III	N/A	23"	34"	N/A	2000 Lb. max.

\* This classification is to be used on the inside face of stone outlets and check dams.  
\*\* This classification is to be used when ever small rip-rap is required. The State Highway Administration designation for this stone is stone for gabions (905.01.04).

STONE FOR GABION BASKETS

Basket Thickness		Size of Individual Stones	
Inches	MM	Inches	MM
6	150	3 - 5	75 - 125
9	225	4 - 7	100 - 175
12	300	4 - 7	100 - 175
18	460	4 - 7	100 - 175
36	910	4 - 12	100 - 300

Note: Recycled concrete equivalent may be substituted for all stone classifications. Recycled concrete equivalent shall be concrete broken into the sizes meeting the appropriate classification, shall contain no steel reinforcement, and shall have a density of 150 pounds per cubic foot.

TABLE 27 GEOTEXTILE FABRICS

Class	Apparent Opening Size MM. Max.	Grab Tensile Strength Lb. Min.	Burst Strength PSI. Min.
A	0.30 **	250	500
B	0.60	200	320
C	0.30	200	320
D	0.60	90	145
E	0.30	90	145
F (silt fence)	0.40-0.80 *	90	190

\* US Standard sieve CW-02215 \*\* .50 MM max. for super silt fence

The properties shall be determined in accordance with the following procedures:

- Apparent opening size msmt 323
- Grab tensile strength ASTM 1682: 4 x 8" specimen, 1 x 2" clamps, 12" min. strain rate in both principal directions of geotextile fabric.
- Burst strength: ASTM D 3786.

The fabric shall be inert to commonly encountered chemicals and hydrocarbons, and will be rot and mildew resistant. It shall be manufactured from fibers consisting of long chain synthetic polymers, and composed of a minimum of 85% by weight of polyolefins, polyesters, or polyamides. The geotextile fabric shall resist deterioration from ultraviolet exposure

In addition, classes A through E shall have a 0.01 cm./sec. minimum permeability when tested in accordance with msmt 507, and an apparent minimum elongation of 20 percent (20%) when tested in accordance with the grab tensile strength requirements listed above.

Silt fence  
Class F geotextile fabric for silt fence shall have a 50 lb./in. minimum tensile strength and a 20 lb./in. minimum tensile modulus when tested in accordance with msmt 509. The material shall also have a 0.3 gal./ft./min. flow rate and seventy-five percent (75%) minimum filtering efficiency when tested in accordance with msmt 322. Geotextile fabrics used in the construction of silt fence shall resist deterioration from ultraviolet exposure. The fabric shall contain sufficient amount of ultraviolet ray inhibitors and stabilizers to provide a minimum of 12 months of expected useful construction life at a temperature range of 0 to 120 degrees Fahrenheit.

H - 24 - I

MATERIALS SPECIFICATIONS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*John J. ...* 3/25/11  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Keith ...* 4/13/11  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Thomas J. ...* 4/13/11  
DIRECTOR DATE

03-26-W-1 RL REVISION VZW COMPOUND EXPANSION

Date No. Revision Description

KELLEY PROPERTY

PROPOSED UNMANNED WIRELESS BROADBAND COMMUNICATIONS FACILITY

OWNER: TRUMAN & LAVINIA KELLEY T-MOBILE NORTHEAST LLC  
1400 LONG CORNER ROAD  
MT. AIRY, MD 21771  
(301) 829-0794

DEVELOPER: 12050 BALTIMORE AVENUE  
BELTSVILLE, MD 20705  
(240) 264-8600  
FAX: (240) 264-8610

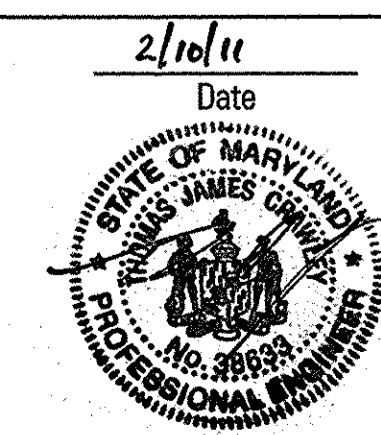
DMW

DAFT MCCUNE WALKER INC

200 EAST PENNSYLVANIA AVENUE, TOWSON, MD 21286  
P: 410 286 3333 F: 410 286 4705 WWW.DMW.COM

A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS, ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 30633 EXPIRATION DATE: 04-14-12



Date: 2/10/11  
Professional Engineer No.

SEDIMENT & EROSION CONTROL NOTES

Des. By TJC Scale 1" = 30' Proj. No. 09056  
Dm. By GMD Date 4/15/10  
Chk. By MDM Approved 8 of 13

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

G - 20 - 1A

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Vegetative Stabilization

"I HAVE VERIFIED THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

*William O'Brien* 2/14/2011  
SIGNATURE OF DEVELOPER DATE  
(PRINT NAME BELOW SIGNATURE)

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

*Thomas J. Crowley* 2/10/11  
SIGNATURE OF ENGINEER DATE  
(PRINT NAME BELOW SIGNATURE)

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*Thomas J. Crowley* 3/23/11  
HOWARD SOIL CONSERVATION DISTRICT DATE



CATEGORY	169 PERIMETER P1	169 PERIMETER P1 LF - LANDSCAPE TYPE 'C' HEAVY BUFFER
NUMBER OF PLANTS REQUIRED		
SHADE TREES @ 140	5	
EVERGREEN TREES @ 120	9	
SHRUBS	0	
TOTAL REQUIRED	14	
NUMBER OF PLANTS PROVIDED		
8 EVERGREEN SUBSTITUTED FOR SHADE TREES @ 21 (0.3) = 4	4	
9 EVERGREEN TREES	9	
6 SHRUBS SUBSTITUTED FOR SHADE TREES @ 101 (0.3) = 0.6	0.6	
TOTAL PROVIDED	13.6	

- General Planting Notes
- All plant material to meet A.A.N. Standards.
  - Landscape Contractor to follow landscape specification guidelines for Baltimore Washington Metro area approved by LCAAMW.
  - No substitutions to be made without consent of Landscape Architect or Owner.
  - All beds to be topped with three inches of hardwood mulch.
  - Landscape Contractor to verify location of utilities with Owner before planting.
  - Landscape Architect/Owner shall select, verify and/or approve all plant material. At Owner's discretion, specimen and other plant material will be selected.
  - Landscape Contractor shall coordinate plant bed filling operations and plant material installation with General Contractor and Utilities Contractor. As the time of final inspection with acceptance, all electric, water, drainage, and fountain utilities, as well as all plant materials, shall remain undamaged. Likewise, Landscape Contractor and Utilities Contractor shall coordinate efforts to ensure that surface utilities are at the proper elevation relative to final grades.
  - Contractor shall notify Miss Utility 72 hours prior to construction.
  - The owner, tenant, and/or their agents shall be responsible for maintenance of the required landscaping, including both plant materials and forms, fences and walls. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.
  - This plan has been prepared in accordance with the provisions of Section 16.124 of the Ho. Co. code. Financial surety for the required landscaping in the amount of \$1,800.00 must be posted as part of the developer agreement (3 shade trees and 6 evergreen trees required).
  - At the time of installation, all shrubs and other plantings herewith listed and approved for this site, shall be of proper height requirements in accordance with the Howard County Landscape Manual. In addition, no substitutions or relocation of required plantings as shown on this plan may be made without prior approval from the Department of Planning and Zoning. Any deviation from this approved Landscape Plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to applicable plans and certificates.
  - Developer's/Builder's Certificate

I/we certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County code and the Howard County Landscape Manual. I/we further certify that upon completion, a certification of landscape installation, accompanied by an executed one-year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

W. O. Bain 3/14/2011  
NAME DATE

APPROVED FOR CONSTRUCTION

COUNTY ENGINEER/DEVELOPER

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

3/25/11  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

4/13/11  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

4/13/11  
DIRECTOR DATE

03-26-14 1 RL REVISION VZW COMPOUND EXPANSION  
Date No. Revision Description

**KELLEY PROPERTY**  
PROPOSED UNMANNED WIRELESS BROADBAND COMMUNICATIONS FACILITY

OWNER: TRUMAN & LAVINIA KELLEY 1400 LONG CORNER ROAD MT. AIRY, MD 21771 (301) 829-0794

DEVELOPER: T-MOBILE NORTHEAST LLC 12050 BALTIMORE AVENUE BELTSVILLE, MD 20705 (240) 264-8600 FAX: (240) 264-8610

**DMW**  
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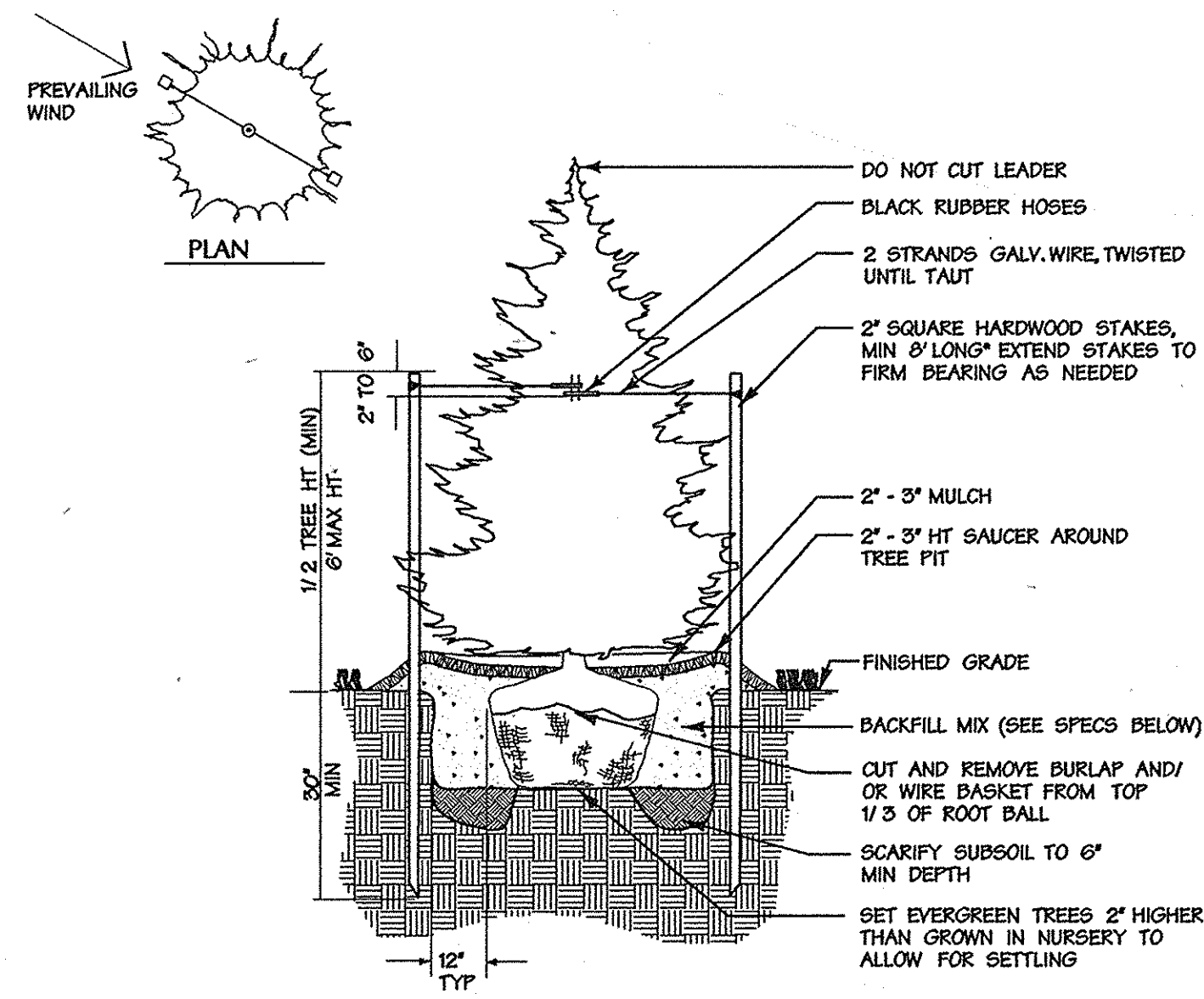
2-10-11  
Date

STATE OF MARYLAND  
EDWARD V. TOM  
NO. 412  
LANDSCAPE ARCHITECT

TITLE: **LANDSCAPE PLAN AND DETAILS**

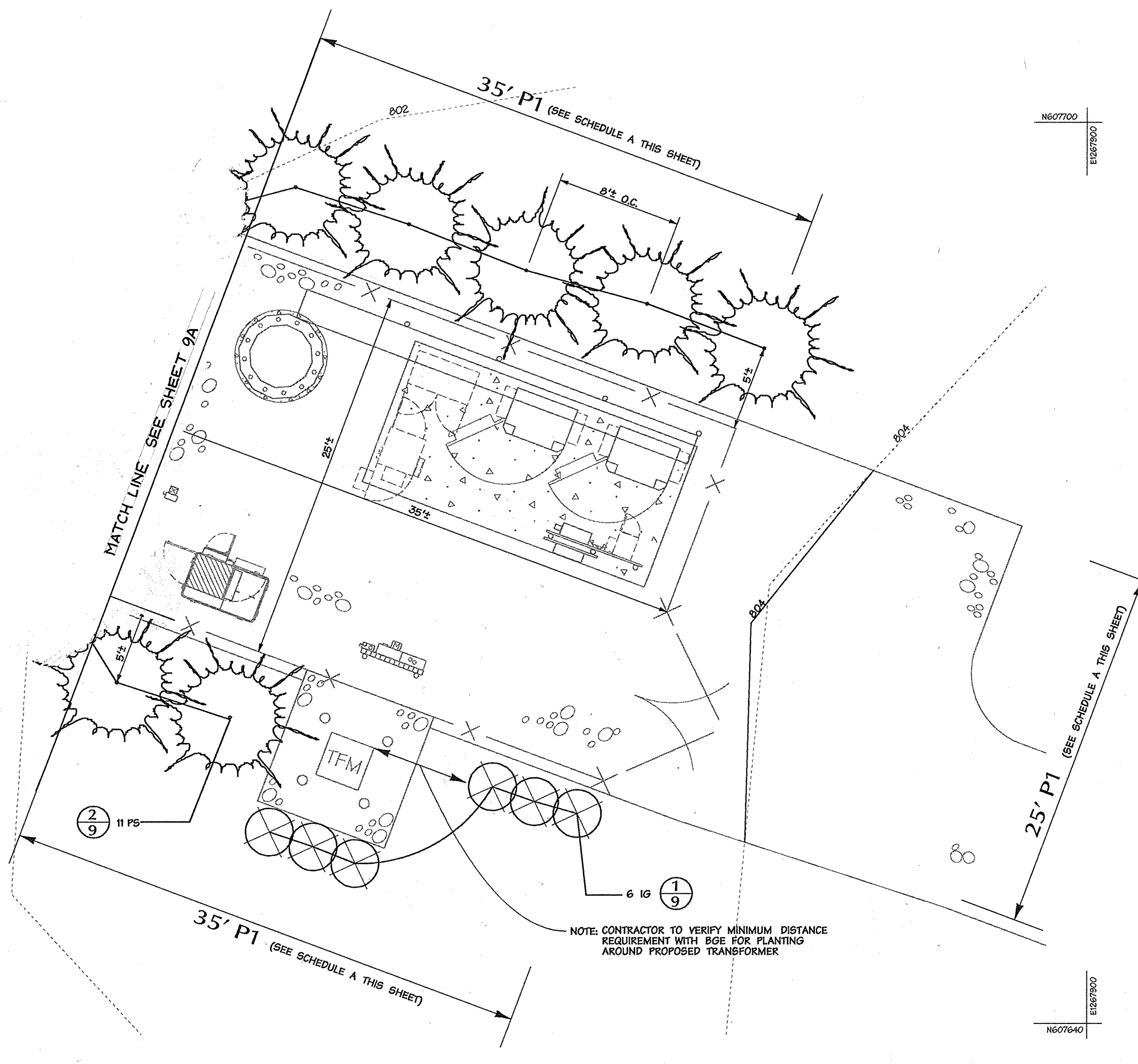
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Dm. By: GWO Date: 4/15/10  
Chk. By: THR Approved

9 of 13

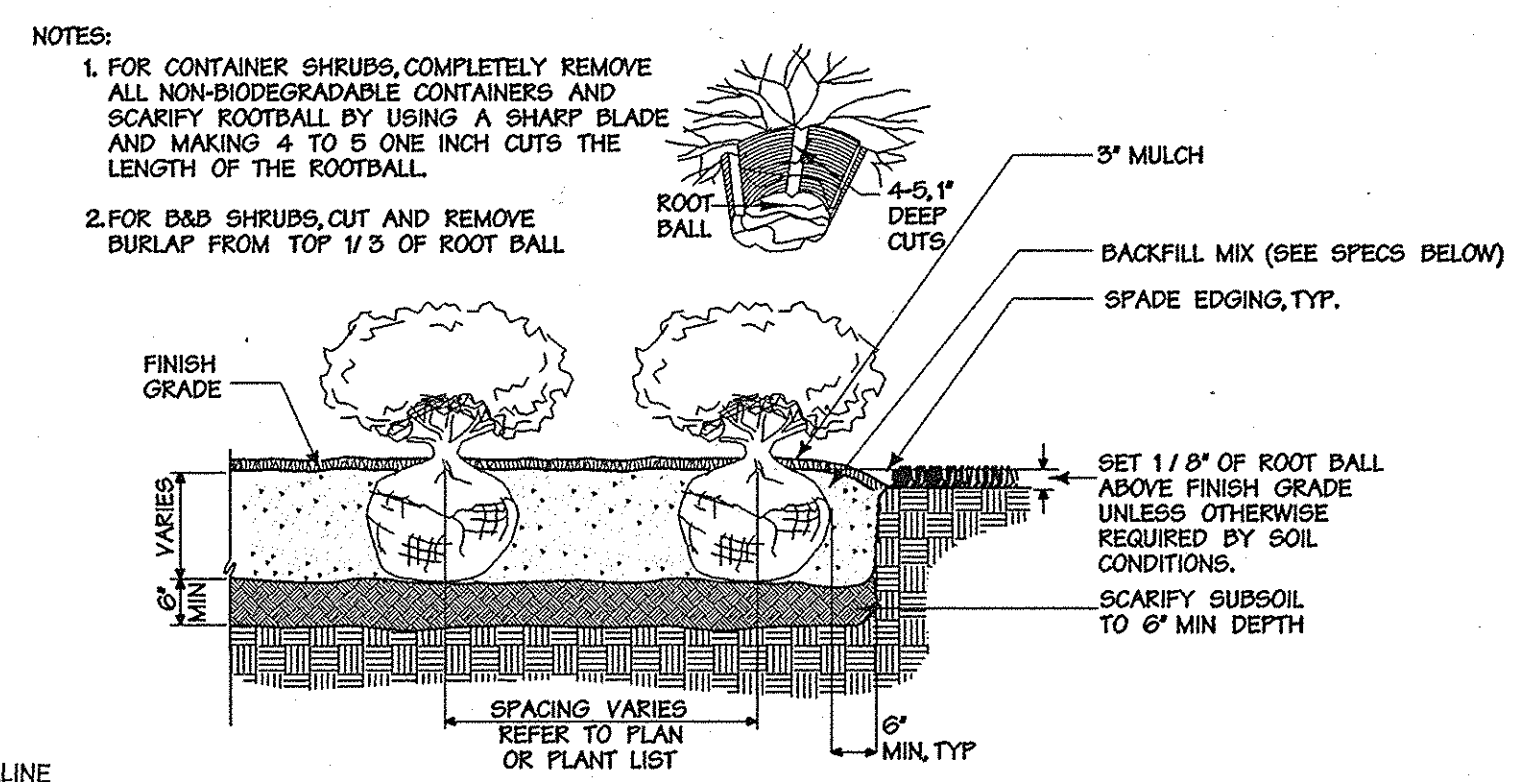
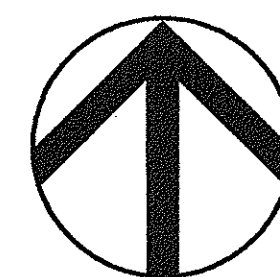
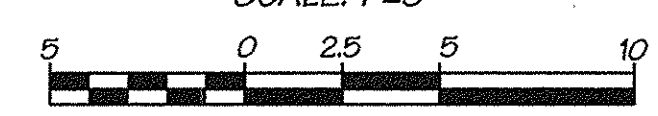


**EVERGREEN TREE PLANTING**  
NOT TO SCALE

- Notes: Thoroughly mixed in the following proportions for tree and shrub planting mix:
- 5 cy existing soil
  - 2 cy sharp sand
  - 3 cy wood residuals
  - 4.5 lbs treble superphosphate
  - 5 lbs dolomite limestone (eliminate for acid loving plants)



**LANDSCAPE PLAN**  
SCALE: 1"=5'



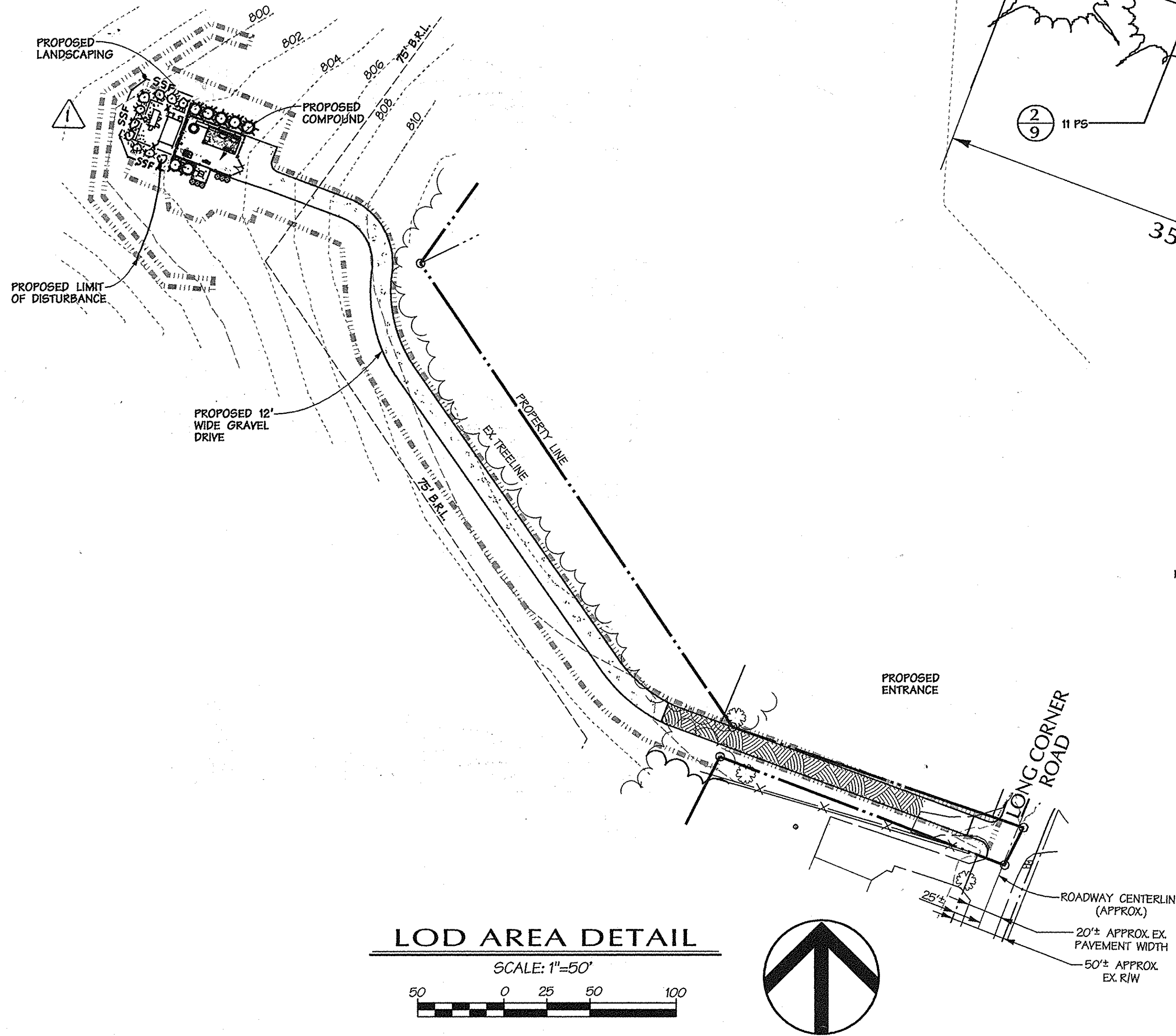
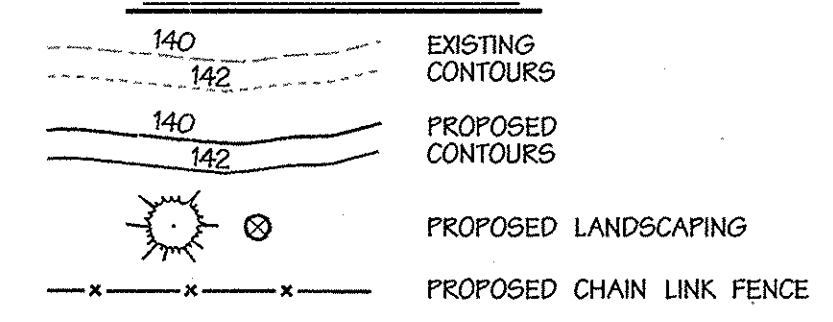
**SHRUB BED PLANTING**  
Not To Scale

- Notes: Thoroughly mixed in the following proportions for tree and shrub planting mix:
- 5 cy existing soil
  - 2 cy sharp sand
  - 3 cy wood residuals
  - 4.5 lbs treble superphosphate
  - 5 lbs dolomite limestone (eliminate for acid loving plants)

**PLANT LIST**

QTY	SYM	BOTANICAL NAME/ COMMON NAME	SIZE	REMARKS
<b>EVERGREEN TREES</b>				
11	PS	PINUS STROBUS Eastern White Pine	6' - 8' HT.	B & B
<b>SHRUBS</b>				
6	IG	ILEX GLABRA Inkberry Holly	24" - 36" HT.	B & B/Cont.

**LEGEND**



**LOD AREA DETAIL**  
SCALE: 1"=50'

