


# LEASE AGREEMENT

38874

This Agreement ("Lease" or "Agreement"), made this 18<sup>th</sup> day of July, 2001, between the CITY OF MILWAUKEE, a Wisconsin municipal corporation, hereinafter referred to as "Lessor," and PrimeCo Personal Communications, Limited Partnership, d/b/a Verizon Wireless, hereinafter referred to as "Lessee."

Verizon Wireless Personal Communications LP 

## RECITALS

A. Lessor is the owner of a building located on the Property at 5600 W. Oklahoma Avenue, City of Milwaukee, County of Milwaukee, State of Wisconsin, as legally described on Exhibit "A" attached hereto and incorporated herein ("Property").

B. Lessee desires to lease certain space on the Property, hereinafter referred to as "the Leased Space" and as described on Exhibit "B" and attached hereto and incorporated herein, and requires certain non-exclusive easement rights of access for the term of this Lease, for: (1) utility lines and cables; and (2) vehicular ingress and egress across and over Lessor's Property for access to the Leased Space and Lessee's equipment, including shelter; antennas and appurtenances as described on Exhibit "C" attached hereto and incorporated herein ("Equipment") and certain temporary construction rights of entry to the Property.

C. Lessor is willing to rent to the Lessee the Leased Space and certain non-exclusive easement rights of access for the term of this Lease, for (1) utility lines and cables; and (2) vehicular ingress and egress across and over Lessor's Property for access to the Leased Space and Lessee's Equipment under the following terms and conditions.

## AGREEMENT

### 1. Term.

a. Initial Term. This Agreement shall be for an initial term of five (5) Years ("Initial Term"), commencing upon Lessee's commencement of construction ("Commencement Date"). Lessee shall advise Lessor in writing of the date it commences construction of its Equipment on the leased space no later than five business days after the commencement of construction.

b. Option to Extend. Lessee shall have the option to extend the term of this Lease for four (4) additional periods of five (5) years (each additional five year period being an "Option Term"), upon the same terms and conditions of this Agreement, except for the payment of rent as set forth below, upon written notice to

Lessor of Lessee's intention to exercise its option, at least one hundred and twenty (120) days before the expiration of the Initial Term, or each succeeding Option Term.

At least ninety (90) days before the expiration of the Initial Term and each Option Term thereafter, Lessor and Lessee shall in good faith commence negotiations toward extending the term of the Lease for an additional Option Term of five (5) years, including renegotiations of the rental amount. If, at the end of the Initial Term and each Option Term thereafter, Lessor and Lessee have not executed an amendment to this Lease modifying the Term herein described, this Lease shall be deemed to have been extended by the parties for an additional Option Term at current rental amounts increased by five percent (5%) annually, unless either Lessee or Lessor notifies the other in writing at least sixty (60) days before the expiration of such Option Term, that it chooses to terminate this Lease rather than have it extended.

2. Termination by Lessor for Special Purpose. If, during the final year of the Initial Term or during any year of an Option Term of this Lease, the Common Council of the City of Milwaukee determines that the Leased Space is needed for a special purpose by Lessor or any of its bureaus or departments, this Lease, and any extension thereof, shall be subject to cancellation by Lessor upon one (1) years' prior written notice to Lessee. In the event of such termination, Lessee shall pay a prorated rent amount hereunder during the period between the date of Lessor's notice of termination and Lessee's vacation of the Leased Space. During such period, Lessee shall be entitled to remove from the Lease Space all of Lessee's Equipment and Improvements, including all supporting apparatus. This Termination by Lessor for Special Purpose may not be exercised in the first nine years of this Lease.

3. Rent. Annual rent shall be Seventeen Thousand and No/100 Dollars (17,000.000) the first year of the Initial Term, increased every year of the Initial Term by five percent (5%). Rent shall be paid in advance and delivered on the commencement date and every year thereafter to the address set forth in this Lease for giving notices.

The annual rent for each year for the Initial Term shall be as follows:

INITIAL TERM

YEAR 1	\$17,000.00
YEAR 2	\$17,850.00
YEAR 3	\$18,743.00
YEAR 4	\$19,680.00
YEAR 5	\$20,664.00

Rental amount shall be renegotiated before the end of the Initial Term, and before the end of each succeeding Option Term.

4. Use. Lessee shall use the Leased Space for the purpose of installing, maintaining, and operating a nine-antenna array plus related cabling for wireless communications and uses incidental thereto. Copies of Lessee's FCC filing papers and any issued licenses must be provided to Lessor. Lessee shall not use the Leased Space for the provision of "cable services" or as a "cable television system" as those terms are defined in state and federal law nor shall Lessee use the Leased Space as a

"cable communications system" as defined in sec. 99-3-5, Milwaukee Code of Ordinances.

a. The Equipment shall be specified and provided by Lessee along with plans and specifications for their installation. Said plans and specifications are subject to Lessor's approval not to be unreasonably withheld, delayed or conditioned. These items shall be installed by Lessee at Lessee's cost. Subsequent maintenance and replacement of the Equipment shall be responsibility and at the discretion of Lessee. All improvements shall be installed according to the plans approved by Lessor. Lessee shall follow EIA and NEC guidelines in regards to antenna system grounding.

b. This Agreement shall not be construed so as to preclude additions, deletions, or modifications by Lessor to Lessor's own facilities at this location. Lessor agrees, however, not to make or allow to be made, during the term of this Agreement or any Option Term, any such additions, deletions, or modifications to its own facilities at this location which would interfere with Lessee's intended use. Likewise, no such additions, deletions, or modifications to Lessee's facilities at this location shall be made which, within Lessor's reasonable discretion, would interfere with Lessor's use of its facilities.

c. Lessee shall bear all responsibility and expense of obtaining all necessary permits and licenses from the Federal Communications Commission ("FCC") and shall be fully responsible for installing and operating its antenna and equipment in compliance with Federal Communications Commission rules and regulations. Any radio interference to other radio systems using Lessor's Property, within 30 days of commencement of Lessee's operations, caused by Equipment of Lessee shall be corrected immediately by Lessee, at Lessee's expense. Lessor shall notify Lessee if such interference affects Lessor's critical public service communications and Lessee agrees to correct the problem immediately, or to temporarily cease operation until the problem is corrected. Failure to immediately correct the problem, or to temporarily cease operation for interference with Lessor's critical public service communications systems shall, at the option of Lessor, constitute for Lease termination.

d. Lessor will be responsible for necessary repair and maintenance of the Property. Lessee shall have the right to replace or upgrade its Equipment at any time during the term of the Lease without receiving prior approval from the Lessor provided that Lessee's Equipment replacement or upgrade does not violate any other provision of this Lease.

e. Lessee will be responsible for installation and payment of all utilities required by its use of the Leased Space. Lessee shall pay any real estate taxes and personal property taxes levied against Leased Space and the improvements constructed thereon by Lessee, if any, and any increase in real estate taxes directly attributable to the improvements therein constructed by Lessee.

f. Lessee and its authorized representatives have a right to ingress and egress to and from the Leased Space for the purposes set forth herein twenty-four (24) hours per day, seven days per week. Lessee will notify the proper agents or authorities informing Lessor of their intentions and actions.

g. Lessor must be supplied with the name, title, telephone number and pager of current technical representatives of Lessee, to which radio-related issues will be referred. At all times, these persons must have the authority to resolve radio interference issues.

6. Termination.

a. By Lessee: It is understood and agreed that Lessee's ability to use the Leased Space is contingent upon its obtaining and maintaining, after the execution of this Agreement, all the certificates, permits, and other approvals that may be required by any federal, state, or local authorities. Lessor shall cooperate with Lessee in its efforts to obtain such approvals and shall take no action which would adversely affect the status of the Leased Space with respect to the proposed use thereof by Lessee. In the event that any of such applications should be finally rejected or any certificate, permit, license, or approval issued to Lessee is canceled, expires, lapses, or is otherwise withdrawn or terminated by governmental authority so that Lessee, in its sole discretion, will be unable to use the Leased Space for its intended purposes, Lessee shall have the right to terminate this Agreement upon 30-days written notice to Lessor.

Said termination right shall also apply in the event that Lessee is otherwise, within its sole discretion, precluded from using the Leased Space for its intended purpose. Notice of Lessee's exercise of this right to terminate shall be given to Lessor in writing six (6) months in advance of intended termination date as provided under paragraph 17 below. All rentals paid for the lease of the Leased Space to said termination date shall be retained by Lessor. Upon such termination, this Agreement shall become null and void and all parties shall have no further obligations, including the payment of money, to each other.

Lessee upon termination of this Agreement, shall, within a reasonable period, remove its personal property and fixtures and restore the Leased Space to its original condition, reasonable wear and tear and damage not caused by Lessee excepted.

b. Default. Except as expressly limited herein, Lessor and Lessee shall each have such remedies for the default of the other party hereto as may be provided at law or equity following written notice of such default and failure to cure the same within thirty (30) days, nevertheless, this agreement may not be terminated if the defaulting party commences action to cure the default within 30 days and proceeds with due diligence to fully cure the default. With respect to Lessee's default, the cure period shall not exceed 90 days unless both parties agree in writing to extend the cure period.

7. Indemnification. Lessee shall indemnify and hold Lessor harmless against any claim of liability or loss from personal injury or property damage resulting from or arising out of the use and occupancy of the Leased Space by Lessee, its servants or agents, excepting, however, such claims or damages as may be due to or caused by negligence or intentional acts of Lessor, its employees, invites, agents or contractors.

8. Insurance.

a. Liability. Lessee shall maintain, at its sole cost and expense, Public liability insurance with an initial coverage limit of at least One Million Dollars (\$1,000,000) against any claims for personal injury or property damage relating to or arising from the installation, existence, use, repair, maintenance, replacement or removal of the antenna or Equipment by a single Person or for the aggregate of claims by any number arising out of a single occurrence.

b. Property Damage. Lessor shall maintain, at its sole cost and expense, all perils insurance with extended coverage and replacement cost endorsements insuring the Property at its full insurable value. Lessee shall be responsible for obtaining its own coverages for its Equipment.

c. Additional Insured/Certificate of Insurance. The Lessor shall be named as an additional insured on all insurance policies described in this Section and shall be given thirty (30) days prior written notice of any cancellation, non-renewal, or material change in any insurance coverage. A certificate of insurance showing that such coverage is in effect shall be provided to the Lessor within fifteen (15) days of the date first above written and annually thereafter during the term of this Lease.

9. [Reserved]

10. Casualty. In the event the Leased Space is destroyed or damaged in whole or in part by casualty during the term of this Lease, and to the extent that the Leased Space is not useful for Lessee's option (exercised by notice to Lessor) this Lease may be terminated as of the date of the notice. In the event the Lease is not terminated by Lessee, the rent shall abate while and to the extent that the Leased Space is not useful for Lessee's purposes. Nothing herein shall require the Lessor to rebuild following destruction or damage.

11. Environmental Pollutants. Lessee shall not, either with or without negligence, cause or permit the escape, unlawful disposal or release beyond lawful limits of any Hazardous Materials as hereinafter defined. Lessee shall not bring onto the Leased Space and/or Property or knowingly allow the storage or use of Hazardous Materials in any manner if prohibited by law or if not sanctioned by the highest standards prevailing in the industry for the storage and use of such substances or materials. For the purposes of this paragraph, the term "Hazardous Materials" shall mean, (i) any substances defined as "hazardous substances," "pollutants," "contaminants," "hazardous materials," "hazardous wastes," or "hazardous or toxic substances" as now or hereafter defined in any applicable federal, state or local law, regulation, ordinances, or directive, including, but not limited to, the Resource Conservation and Recovery Act of 1976 (42 U.S.C. Sec. 6901 et. Seq.); the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as any such acts may be amended by SARA, 42 U.S.C. Sec. 9601, et. Seq.; the Hazardous Materials Transportation Act, 49 U.S.C. Sec. 1801, et. Seq.; the Toxic Substance Control Act, 15 U.S.C. Sec. 2601, et. Seq.; the Resource Conservation and Recovery Act, as amended (42 U.S.C. Sec. 9601, et. Seq.); the Clean Water Act, 33 U.S.C. Sec. 1251 et. Seq.; the Clean Air Act, 42 U.S.C. Sec. 7412, et. Seq.; as any such acts may be amended, modified or supplemented; (ii) those substances listed or otherwise identified in the regulations adopted and publications issued, as may be amended, modified or supplemented, pursuant to any of the above-

referenced statutes; (iii) any friable asbestos, airborne asbestos, or any substance or material containing asbestos; (iv) any substance, the presence of which on the Leased Space and/or Property is prohibited by any legal requirement of any governmental authority or which may give rise to an assessment of a governmental authority; and (v) any other substance which by legal requirement of any governmental authority requires special handling in its collection, storage, treatment, or disposal.

a. If, either during the term hereof or within two years of its expiration, a federal or state agency shall, in its reasonable discretion, require testing to ascertain whether or not there has been any release of Hazardous Materials by Lessee, then the reasonable costs thereof shall be reimbursed by Lessee to Lessor upon demand as additional Rent if such requirement applies to the Leased Space and/or Property. If testing conducted by Lessor pursuant to this subparagraph identifies the presence of any release of Hazardous Materials by Lessee, Lessee shall have the right and opportunity to perform, at Lessee's costs, a retest to confirm or refute the results of Lessor's testing. Lessee shall execute affidavits, representations and the like from time to time during the term hereof or within two years of its expiration, at Lessor's request concerning Lessee's best knowledge and belief regarding the presence of Hazardous Materials on the Leased Space and/or Property.

b. Lessee Indemnification of Lessor. Lessee shall indemnify and hold harmless Lessor, its officers, employees, agents, successors and assigns from and against any and all losses, claims, damages, penalties, liabilities, costs and expenses (including reasonable attorney's fees and court costs), fines, injuries, penalties, response costs (including the cost of any required or necessary investigation, testing, monitoring, repair cleanup detoxification, preparation of any closure or other required plans, or other removal, response or remedial action at or relating to the Property) (collectively, the "Claims and Costs"), with respect to, as a direct or indirect result of, or arising out of any of the following: (i) any legal requirements, lawsuit (brought or threatened), reasonable settlement, or requirement of any insurer of the Leased Space and/or Property or any portion thereof, relating to the generation, presence, management, disposal, release (or threatened release), escape, seepage, leakage or cleanup of any Hazardous Materials at, on, from or under all or a portion of the Leased Space and/or Property for which Lessee, its agents, contractors, or invitees are responsible, or (ii) the migration of Hazardous Materials caused by Lessee from the Leased Space and/or Property to any other Property to any other property or onto the Leased Space and/or Property; or (iii) the treatment, disposal or storage of Hazardous Materials or the transportation of Hazardous Materials from the Leased Space and/or Property by Lessee, its agents, contractors or invitees; or (iv) the incorporation by Lessee of any Hazardous Materials in the Leased Space.

c. Lessor Indemnification of Lessee. Lessor agrees to indemnify, defend and hold Lessee and its officers, partners, employees and agents harmless from any claims, judgments, damages, penalties, fines, costs, liabilities (including sums paid in settlements of claims) or loss including attorneys' fees, consultant fees and expert fees which arise during or after the term of this Lease from or in connection with the presence in the soil, groundwater or soil vapor on or under the Property of Hazardous Materials, unless the Hazardous Materials are present solely as a result of the negligence or willful misconduct of Lessee, its officers, employees or agents. Without limiting the generality of the foregoing, the indemnification provided by this paragraph 11 c. shall specially cover costs incurred in connection with any investigation of site

conditions. or any cleanup, remediation, removal or restoration work required by any federal, state or local governmental agency or political subdivision because of the presence of Hazardous Materials in the soil, groundwater or soil vapor on or under the Property, unless the Hazardous Materials are present solely as a result to the negligence or willful misconduct of Lessee, its officers, employees or agents. Without limiting the generality of any of the foregoing, the indemnification provided by paragraph 11.c. shall also specifically cover costs incurred in connection with:

1. Hazardous Materials present in the soil, groundwater or soil vapor on or under the Property before the term of this Lease commenced;
2. Hazardous Material that migrate, flow, percolate, diffuse or in any way move onto or under the Property after the term of this Lease commenced, except if caused by Lessee; or
3. Hazardous Materials present on or under the Property as a result of any discharge, dumping or spilling (accidental or otherwise) onto the Property, prior to, during or after the term of this Lease by any person, corporation, partnership or entity other than Lessee.

d. Condition of Property. Compliance with Law. Lessor represents that Lessor's Property (including without limitation, the location for the Leased Space) and all improvements thereto, are in compliance with all building, life/safety, disability and other laws, codes and regulations of any governmental or quasi-governmental authority. Lessee agrees that subject to Lessor's compliance with the terms of this paragraph, any improvements constructed by Lessee on the Property Lessee's equipment and all of the operations of Lessee within the Property shall be in compliance with all applicable laws, codes and regulations.

The foregoing conditions and indemnifications in subparagraphs 11.a, 11.b and 11.c shall survive the expiration or earlier termination of this Lease.

12. Quiet Enjoyment: Cooperation: Estoppel Letters. Lessor covenants and agrees that upon payment by Lessee of the rental under this Lease and upon the observance and performance of all the covenants, terms and conditions on Lessee's part to be observed and performed, Lessee shall peaceably and quietly hold and enjoy the Leased Space, rights, and privileges granted hereunder for the term hereby demised without hindrance or interference by Lessor or any other person. However, Lessor may lease space on the Property to third parties if such use does not hinder or interfere with lessee's use of the Leased Space as provided hereunder.

Both parties agree to strive to maintain an amiable long-term relationship and to use best efforts to fulfill the terms and conditions of this Lease. Lessor agrees to cooperate with Lessee in any efforts by Lessee to secure, maintain, or renew any governmental permits or license necessary to use the Leased Space as contemplated in this Lease, and to join in any application or other document reasonably requested by Lessee.

Lessor and Lessee agree to furnish to each other upon request, letters confirming whether this Lease is in full force and effect free or known defaults and such other matters concerning the status of this Lease which may be reasonably requested.

13. Lessor Representations. Lessor represents that it is seized of good and sufficient title and interest in the Property and has full authority to enter into, execute and perform its obligations under this Agreement. Lessor further covenants that there are no liens, judgments, or impediments of title on the Property.

14. Paragraph Headings: Entire Agreement: Oral Modifications. The section or paragraph headings contained herein are for convenience only and shall not be deemed a part of this Lease. This Lease contains the entire understanding between the parties with reference to the matters contained herein, there being no terms, conditions, warranties, or representations other than those contained herein, and no amendment hereto shall be valid unless made in writing and signed by both of the parties hereto.

15. Construction of Lease. This Lease shall be construed in accordance with the laws of the State of Wisconsin. In the event that any provisions hereof shall be legally unenforceable, the remaining provisions shall nevertheless be carried into effect. The parties agree that time is of the essence of this Lease.

16. Assignment. This Agreement may not be sold, assigned, or transferred at any time by Lessee without the prior written consent of the Lessor, except to Lessee's partners, affiliates or subsidiaries, or affiliates, or subsidiaries of Lessee's partners. Requests for Lessor's consent on assignment shall be joined in by the proposed assignee and shall provide that assignee agrees to assume all of the obligations and liabilities of the lessee, unless release or the Lessee is not requested.

17. Notices. All notices hereunder must be in writing and shall be deemed validly given when mailed by first class mail with proper postage addressed as follows (or any other address that the party to be notified may have designated to the sender by like notice.)

**LESSEE:**

Verizon Wireless  
180 Washington Road  
Bedminster, NJ 07921  
ATTN: Network Real Estate Dept.  
(908) 306-7735

With a copy to:

**LESSOR:**

City of Milwaukee  
Department of Administration  
Room 606  
200 E. Wells Street  
Milwaukee, WI 53202  
(414) 286-8689

With a copy to:

Office of the City Attorney  
City Hall, Room 800  
200 East Wells Street  
Milwaukee, WI 53202  
(414) 286-2601

18. Successors. This Agreement shall extend to and bind the heirs, personal representatives, successors and assigns of the parties hereto.

19. Lease Memorandum. The parties agree to execute a Memorandum of Lease in recordable form intended for notification and recording to give notice to the public of the existence of this Lease.

20. [Reserved]

21. Personal Property. The Lessee's Equipment shall remain the personal property of Lessee, shall not be deemed to be permanently attached to the Leased Space, and shall be maintained and repaired solely by Lessee.

22. Waiver of Landlord's Lien. To the extent permitted by law, Lessor hereby waives any and all lien rights it has or may have, statutory or otherwise, concerning the Lessee's Equipment, and all related equipment and antennas, which shall be deemed personal property for the purposes of this agreement, regardless of whether or not the same is deemed real or personal property under applicable law.

23. Condemnation. In the event that all or substantially all of Lessor's Property is condemned by an authorized governmental or quasi-governmental authority, this Agreement shall terminate upon the date of the taking and each party shall have the right to maintain their own respective actions against the condemning authority for their respective damages and neither party shall have any interest in any award granted to the other. In the event of such a taking, any excess prepaid rent shall be promptly repaid to Lessee.

**LESSOR:**

**CITY OF MILWAUKEE**

BY: 

John O. Norquist, Mayor

BY: 

Ronald D. Leonhardt  
City Clerk

**CONTERSIGNED:**

BY: 

W. Martin Morics  
City Comptroller

**DEPUTY**

BZ

**SIGNATURES CONTINUED ON NEXT PAGE**

LESSEE: *Verizon Wireless Personal Communications LP f/k/a*

**PRIMECO PERSONAL COMMUNICATIONS, LIMITED PARTNERSHIP D/B/A VERIZON WIRELESS**

*Kay Schlecht*  
\_\_\_\_\_  
Witness

BY: *[Signature]*  
\_\_\_\_\_  
Michael S. Irizarry

ITS: *Area VP of Network, Midwest*  
*Great Lakes Area*

Date: *02-01-02*  
\_\_\_\_\_

EXHIBIT "A"  
LEGAL DESCRIPTION OF THE PROPERTY

All that part of the West 1/2 of the Southwest 1/4 of Section 11, in Town 6 North, Range 21 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin, bounded and described as follows:

Commencing at a point on the South line of said 1/4 Section 332 feet West of the Southeast corner of said West 1/2 of said 1/4 Section; thence North on a line parallel to the East line of said West 1/2 of said 1/4 Section 328 feet to a point; thence West on a line parallel to the South line of said 1/4 Section 232.42 feet to a point; thence South on a line parallel to the East line of said said West 1/2 of said 1/4 Section 154.40 feet to a point; thence East on a line parallel to the South line of said 1/4 Section 52 feet to a point; thence South on a line parallel to the East line of said West 1/2 of said 1/4 Section 173.60 feet to a point in the South line of said 1/4 Section; thence East on the South line of said 1/4 Section 180.42 feet to the place of commencement.

EXCEPTING THEREFROM the South 60 feet thereof and that part thereof described in Warranty Deed recorded as Document No. 4229677.

EXHIBIT "B"  
DESCRIPTION OF THE LEASED SPACE

LEASE PARCEL

A part of the West Half (W $\frac{1}{2}$ ) of the Southwest Quarter (SW $\frac{1}{4}$ ) of Section Eleven (11), Township Six (6) North, Range Twenty-One (21) East, City of Milwaukee, Milwaukee County, Wisconsin containing 440 square feet (0.010 acres) of land and being described by:

Commencing at the Southwest (SW) Corner of said Section 11; thence N88°-33'-45"E 967.43 feet along the South line of the SW $\frac{1}{4}$  of said Section 11 to the South extension of the West line of South 56th Street; thence N00°-27'-13"W 60.01 feet along said West line to the North line of West Oklahoma Avenue; thence S88°-33'-45"W 150.40 feet along said North line; thence N00°-27'-13"W 130.21 feet; thence N89°-32'-47"E 9.41 feet to the point of beginning; thence N88°-53'-16"E 22.00 feet; thence S01°-06'-44"E 20.00 feet; thence S88°-53'-16"W 22.00 feet; thence N01°-06'-44"W 20.00 feet to the point of beginning; being subject to any and all easements and restrictions of record.

20 FOOT WIDE INGRESS/EGRESS EASEMENT

A 20 foot wide Ingress/Egress Easement being a part of the West Half (W $\frac{1}{2}$ ) of the Southwest Quarter (SW $\frac{1}{4}$ ) of Section Eleven (11), Township Six (6) North, Range Twenty-One (21) East, City of Milwaukee, Milwaukee County, Wisconsin containing 2,262 square feet (0.052 acres) of land and being 10 feet either side of and parallel to the following described line:

Commencing at the Southwest (SW) Corner of said Section 11; thence N88°-33'-45"E 967.43 feet along the South line of the SW $\frac{1}{4}$  of said Section 11 to the South extension of the West line of South 56th Street; thence N00°-27'-13"W 60.01 feet along said West line to the North line of West Oklahoma Avenue; thence S88°-33'-45"W 114.34 feet along said North line to the point of beginning; thence N01°-06'-44"W 75.00 feet; thence N28°-59'-13"W 28.12 feet; thence N01°-06'-44"W 10.00 feet to a point in the South line of afore described LEASE PARCEL and the point of termination.

8 FOOT WIDE UTILITY EASEMENT

An 8 foot wide Utility Easement being a part of the West Half (W $\frac{1}{2}$ ) of the Southwest Quarter (SW $\frac{1}{4}$ ) of Section Eleven (11), Township Six (6) North, Range Twenty-One (21) East, City of Milwaukee, Milwaukee County, Wisconsin containing 1,521 square feet (0.035 acres) of land and being 4 feet either side of and parallel to the following described line:

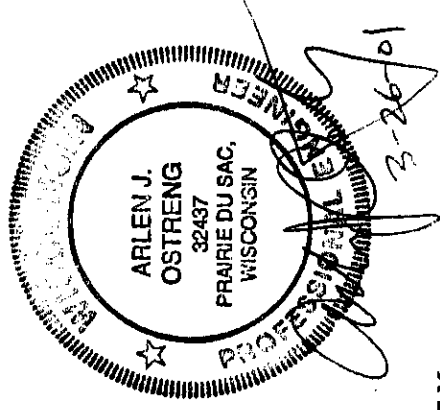
Commencing at the Southwest (SW) Corner of said Section 11; thence N88°-33'-45"E 967.43 feet along the South line of the SW $\frac{1}{4}$  of said Section 11 to the South extension of the West line of South 56th Street; thence N00°-27'-13"W 60.01 feet along said West line to a point on the North line of West Oklahoma Avenue; thence S88°-33'-45"W 150.40 feet along said North line; thence N00°-27'-13"W 130.21 feet; thence N89°-32'-47"E 9.41 feet; thence S01°-06'-44"E 16.00 feet to the point of beginning; thence S88°-53'-16"W 4.00 feet; thence N01°-06'-44"W 40.00 feet; thence N88°-53'-16"E 79.50 feet; thence S76°-41'-13"E 31.18 feet; thence N88°-53'-16"E 35.47 feet to a point on the West line of South 56th Street and the point of termination.

EXHIBIT "C"  
DESCRIPTION OF LESSEE'S EQUIPMENT

**See attached construction drawings.**

# verizonwireless

## 56TH ST FIREHOUSE #140405 MILWAUKEE, WISCONSIN



**SHEET INDEX:**  
NO.: PAGE TITLE:

T-1	TITLE SHEET
C-1	SITE SURVEY
C-2	SITE PLAN
C-3	ELEVATION
C-4	DETAILS
C-5	SHELTER LAYOUT
E-1	UTILITY PLAN
G-1	GROUNDING DETAILS
G-2	GROUNDING DETAILS
S-1	STRUCTURAL DETAILS
N-1	GENERAL NOTES
N-2	GENERAL NOTES

**PROJECT INFORMATION:**

SITE NAME: 56TH FIREHOUSE  
 SITE #: 140405  
 SITE ADDRESS: 5600 W. OKLAHOMA AVE MILWAUKEE, WI 53219  
 OWNER: CITY OF MILWAUKEE 809 NORTH BROADWAY MILWAUKEE, WI 53202  
 SECTION, TOWNSHIP, RANGE: SEC II T6N R2E  
 ZONING: R040  
 TAX ID.: 513-9951-200-3  
 POWER: WEPCO 1-800-242-9137  
 TELEPHONE: AMERITECH 1-800-660-5806

**CONSULTANTS:**

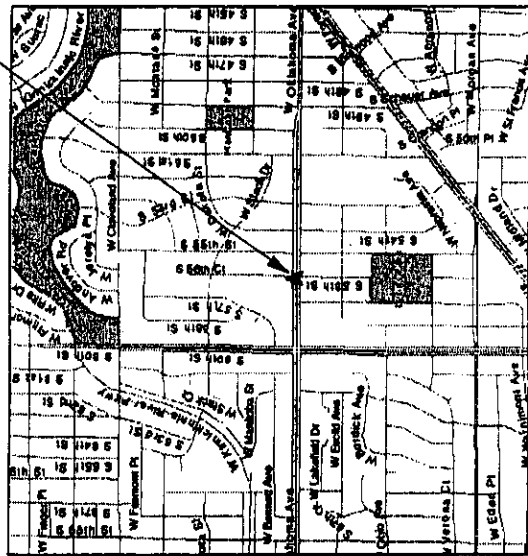
**ENGINEER:**  
 RAMAKER & ASSOCIATES, INC.  
 1120 DALLAS STREET  
 SAUK CITY, WI 53583  
 CONTACT: KEN BAUMGARDT  
 PHONE: (608) 643-4100  
 FAX: (608) 643-7999

**SURVEYOR:**  
 RAMAKER & ASSOCIATES, INC.  
 1120 DALLAS STREET  
 SAUK CITY, WI 53583  
 CONTACT: MATT REICEL  
 PHONE: (608) 643-4100  
 FAX: (608) 643-7999

**SITE ACQUISITION:**  
 WFI  
 207 EAST BUFFALO ST. SUITE 610  
 MILWAUKEE, WI 53202  
 CONTACT: TIM KLINGMAN  
 PHONE: (414) 224-5100  
 MOBILE: (414) 254-1940  
 FAX: (414) 224-6382

**CONSTRUCTION MANAGER:**  
 WFI  
 207 EAST BUFFALO ST. SUITE 610  
 MILWAUKEE, WI 53202  
 CONTACT: DAVE NELSON  
 PHONE: (414) 224-5100  
 FAX: (414) 224-6382  
 MOBILE: (608) 239-6311

**SITE LOCATION**



**SITE LOCATION MAP**

SCALE: NTS

**Approved  
For Construction**

JOB NAME: 56TH STREET FIRE HOUSE		DRAFTED: RPD		REVISIONS		SHEET NUMBER	
FILE NAME: 5172_1-LOOP		CHECKED: DCL		DATE: 03/26/01		T-1	
JOB NUMBER: 5172						TITLE SHEET	
PROJECT DESCRIPTION: 56TH STREET FIRE HOUSE		SITE NUMBER: 140405		SITE ADDRESS: 5600 W. OKLAHOMA AVE MILWAUKEE, WI 53219		OWNER: CITY OF MILWAUKEE 809 NORTH BROADWAY MILWAUKEE, WI 53202	
PREPARED FOR: verizonwireless		15725 WEST ATTERSON ROAD NEW BERLIN, WI 53151		PHONE: (414) 390-5541		FAX: (414) 390-5543	
RAMAKER & ASSOCIATES, INC. Consulting Engineers		100 DALLAS STREET SAUK CITY, WISCONSIN 53583		PHONE: (608) 643-4100		FAX: (608) 643-7999	
R							

VERIZON PROJECT: 55TH STREET FIREHOUSE CDB 140405  
 DRAWN FOR: VERIZON WIRELESS  
 700 WEST WISCONSIN STREET  
 MILWAUKEE, WI 53204  
 011-380-5300

AND  
 DRAWN FOR:  
 WIRELESS FACILITIES INCORPORATED  
 300 EAST BUFFALO STREET  
 MILWAUKEE, WI 53204  
 011-380-5300

CITY OF MILWAUKEE  
 500 NORTH WISCONSIN STREET  
 MILWAUKEE, WI 53202-3617

PROPERTY ADDRESS:  
 FIREHOUSE NO. 10  
 WEST OKLAHOMA AVENUE  
 MILWAUKEE, WI 53204

TAX KEY NO.  
 513-9951-200-3

ZONED: RD 40

NOTED FOR: 55TH STREET FIREHOUSE CDB 140405  
 PROJECT NO. 200914  
 DRAWN BY J.O.D. CHECKED BY T.P.L.  
 DWG. FILE: WFI-5551, DATE: 09-14-00  
 NOTEBOOK: P-208 PAGE: 78-79

AERO-METRICS  
 AERO-METRICS, INCORPORATED  
 Land Planning & Design Division  
 520 NORTH WISCONSIN STREET, CHILTON, WISCONSIN 53014  
 920-444-1700  
 800-478-8800  
 800-478-8800 FAX

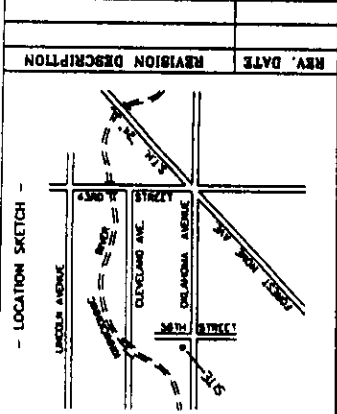
VERIZON WIRELESS  
 A PART OF THE W 1/2 OF THE SW 1/4  
 SECTION 11, T.6N., R.21E.  
 MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN



SHEET NO.  
 1 OF 1

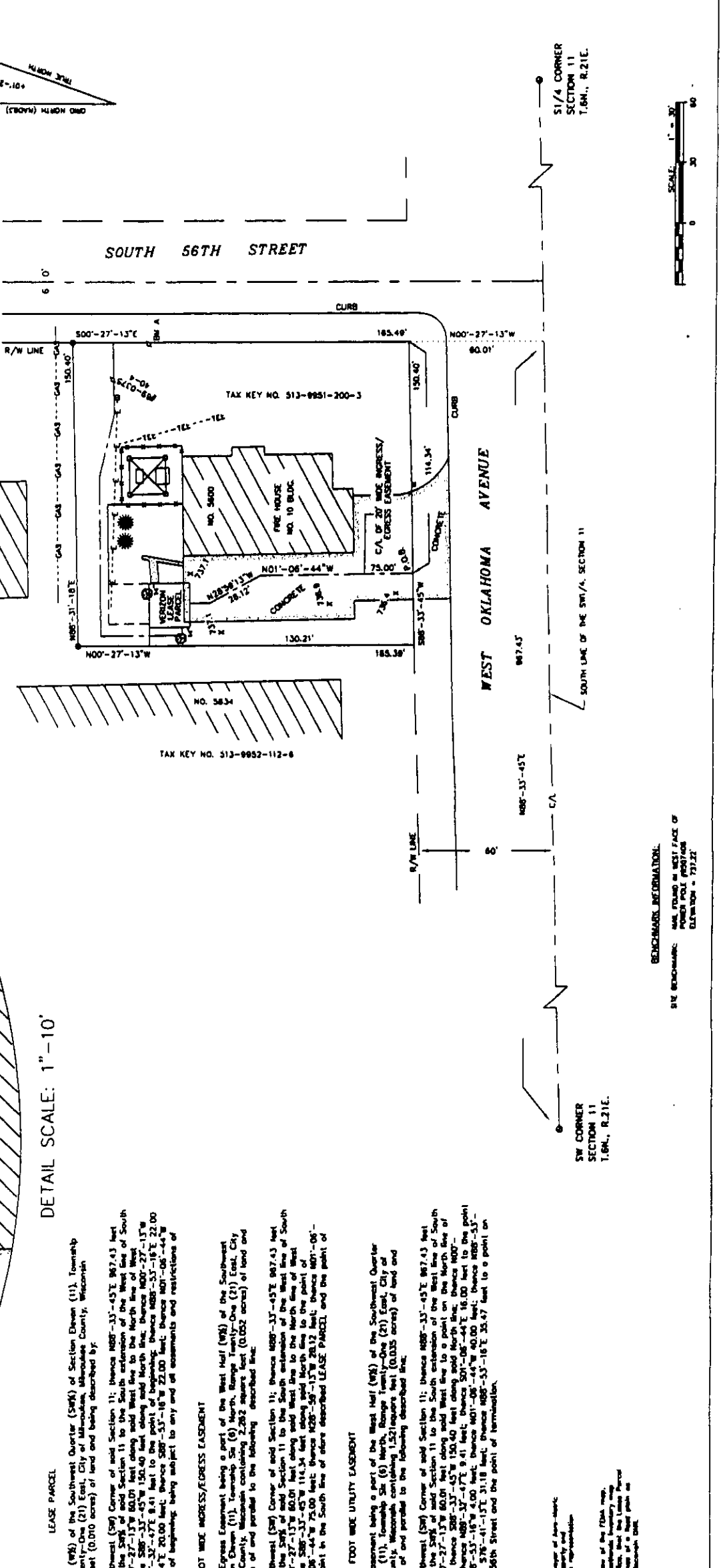
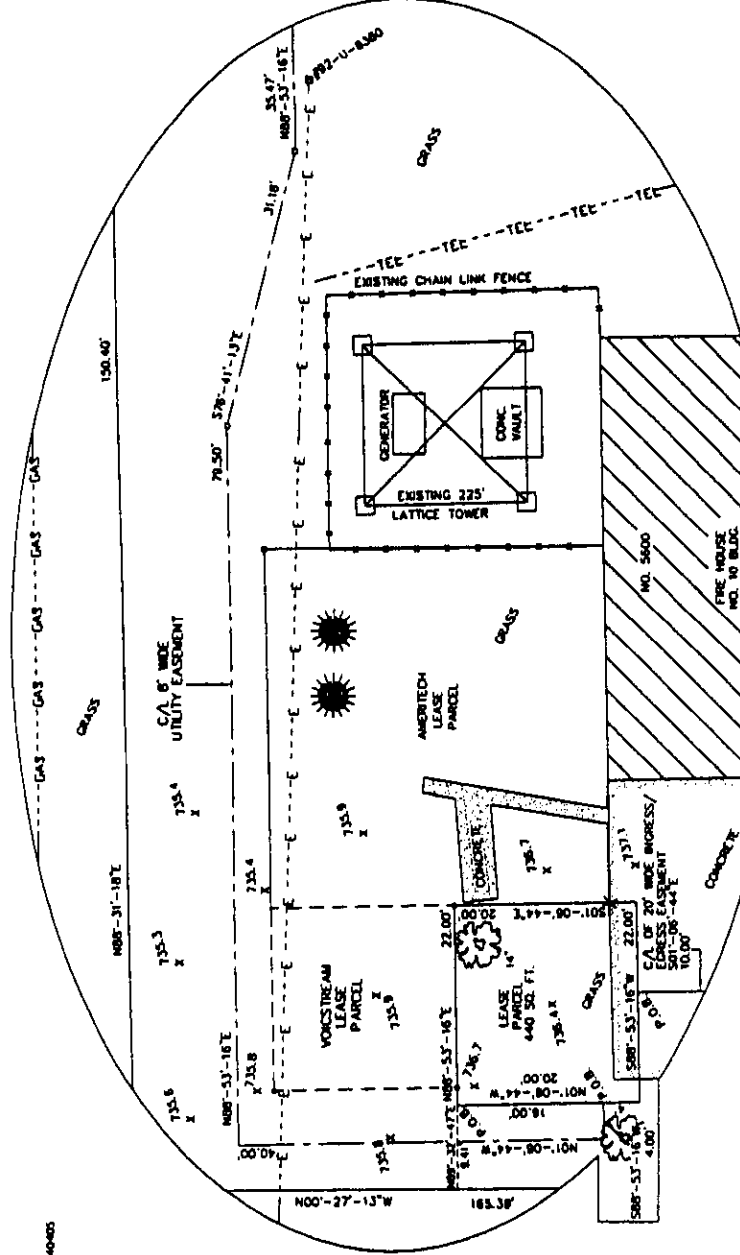
FILE NO.  
 K-27402

PROJECT  
 55TH STREET  
 FIREHOUSE  
 CDB 140405



REV. DATE REVISION DESCRIPTION

- EXISTING TOWER BASE -  
 Location: 47°-59'-20.25"  
 Longitude: 87°-56'-04.18"  
 (Per North American Datum of 1983)  
 Elevation: 736.1'  
 (Per National Geodetic Vertical Datum of 1929)  
 HIGHEST POINT ON TOWER: 885.0'



VERIZON PROJECT: 55TH STREET FIREHOUSE CDB 140405  
 DRAWN FOR: VERIZON WIRELESS  
 700 WEST WISCONSIN STREET  
 MILWAUKEE, WI 53204  
 011-380-5300

AND  
 DRAWN FOR:  
 WIRELESS FACILITIES INCORPORATED  
 300 EAST BUFFALO STREET  
 MILWAUKEE, WI 53204  
 011-380-5300

CITY OF MILWAUKEE  
 500 NORTH WISCONSIN STREET  
 MILWAUKEE, WI 53202-3617

PROPERTY ADDRESS:  
 FIREHOUSE NO. 10  
 WEST OKLAHOMA AVENUE  
 MILWAUKEE, WI 53204

TAX KEY NO.  
 513-9951-200-3

ZONED: RD 40

A part of the West Half (WH) of the Southwest Quarter (SWQ) of Section Eleven (11), Township Six (6) North, Range Twenty-One (21) East, City of Milwaukee, Milwaukee County, Wisconsin containing 440 square feet (0.010 acres) of land and being described by:

Connecting at the Southwest (SW) Corner of said Section 11; thence N88°-33'-45"E 867.43 feet along the South line of the SWQ of said Section 11 to the South extension of the West line of South 56th Street; thence N07°-27'-15"W 60.01 feet along said West line to the North line of West Oklahoma Avenue; thence S88°-33'-45"W 150.40 feet along said North line; thence N07°-27'-15"W 130.21 feet; thence S88°-33'-45"W 47.81 feet to the point of beginning; thence N88°-55'-16"E 22.00 feet; thence S01°-06'-44"E 20.00 feet; thence S88°-55'-16"W 22.00 feet; thence N07°-08'-44"W 20.00 feet to the point of beginning; being subject to any and all easements and restrictions of record.

20 FOOT WIDE EGRESS/EGRESS EASEMENT

A 20 foot wide Egress/Egress Easement being a part of the West Half (WH) of the Southwest Quarter (SWQ) of Section Eleven (11), Township Six (6) North, Range Twenty-One (21) East, City of Milwaukee, Milwaukee County, Wisconsin containing 2,282 square feet (0.052 acres) of land and being 10 feet either side of and parallel to the following described line:

Connecting at the Southwest (SW) Corner of said Section 11; thence N88°-33'-45"E 867.43 feet along the South line of the SWQ of said Section 11 to the South extension of the West line of South 56th Street; thence N07°-27'-15"W 60.01 feet along said West line to the North line of West Oklahoma Avenue; thence S88°-33'-45"W 150.40 feet along said North line; thence N07°-27'-15"W 130.21 feet; thence S88°-33'-45"W 47.81 feet to the point of beginning; thence N88°-55'-16"E 22.00 feet; thence S01°-06'-44"E 20.00 feet; thence S88°-55'-16"W 22.00 feet; thence N07°-08'-44"W 20.00 feet to the point of beginning; being subject to any and all easements and restrictions of record.

8 FOOT WIDE UTILITY EASEMENT

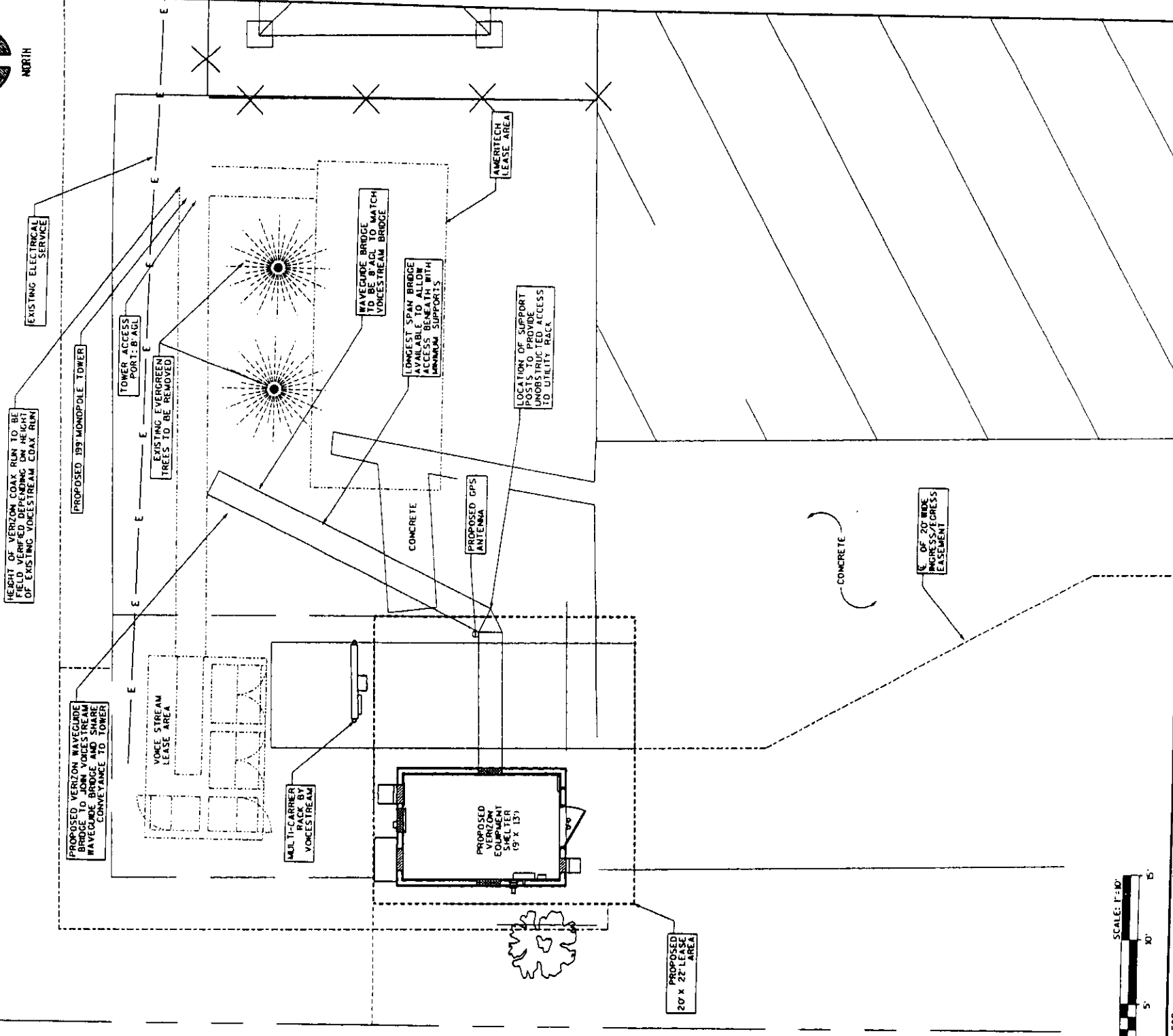
An 8 foot wide Utility Easement being a part of the West Half (WH) of the Southwest Quarter (SWQ) of Section Eleven (11), Township Six (6) North, Range Twenty-One (21) East, City of Milwaukee, Milwaukee County, Wisconsin containing 1,521 square feet (0.035 acres) of land and being 4 feet either side of and parallel to the following described line:

Connecting at the Southwest (SW) Corner of said Section 11; thence N88°-33'-45"E 867.43 feet along the South line of the SWQ of said Section 11 to the South extension of the West line of South 56th Street; thence N07°-27'-15"W 60.01 feet along said West line to a point on the North line of West Oklahoma Avenue; thence S88°-33'-45"W 150.40 feet along said North line; thence N07°-27'-15"W 130.21 feet; thence S88°-33'-45"W 47.81 feet to the point of beginning; thence N88°-55'-16"E 22.00 feet; thence S01°-06'-44"E 20.00 feet; thence S88°-55'-16"W 22.00 feet; thence N07°-08'-44"W 20.00 feet to the point of beginning; being subject to any and all easements and restrictions of record.

BENCHMARK INFORMATION:  
 SW CORNER SECTION 11 T.6N., R.21E.  
 S1/4 CORNER SECTION 11 T.6N., R.21E.

SEE BENCHMARK: WAS FOUND IN WEST FACE OF POWER POLE POSITION ELEVATION = 737.2'

BENCHMARK INFORMATION:  
 WAS FOUND IN WEST FACE OF POWER POLE POSITION ELEVATION = 737.2'



**SITE PLAN**

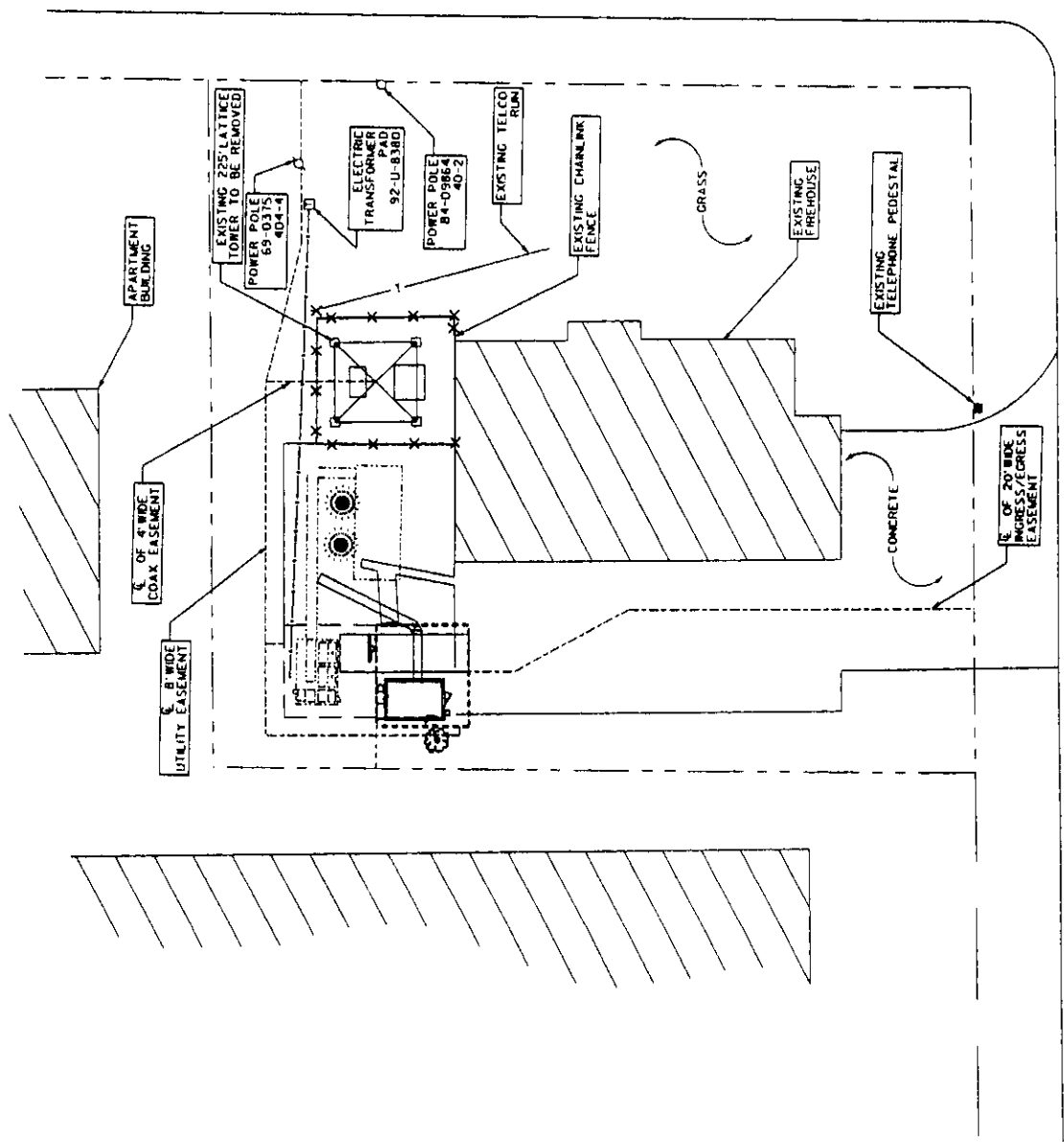
SHEET NUMBER **C-2**

PROJECT DESCRIPTION:  
 SITE NAME: 56TH STREET FIRE HOUSE  
 SITE ADDRESS: 1640 S. OKLAHOMA AVE.  
 CITY: MILWAUKEE, WI 53233  
 OWNER: CITY OF MILWAUKEE  
 405 NORTH BROADWAY  
 MILWAUKEE, WI 53202

PREPARED FOR:  
  
 1575 WEST INTERIOR ROAD  
 BIRMINGHAM, AL 35201  
 PHONE: (414) 433-5151  
 FAX: (414) 350-5543



**SOUTH 56TH STREET**



**WEST OKLAHOMA AVENUE**



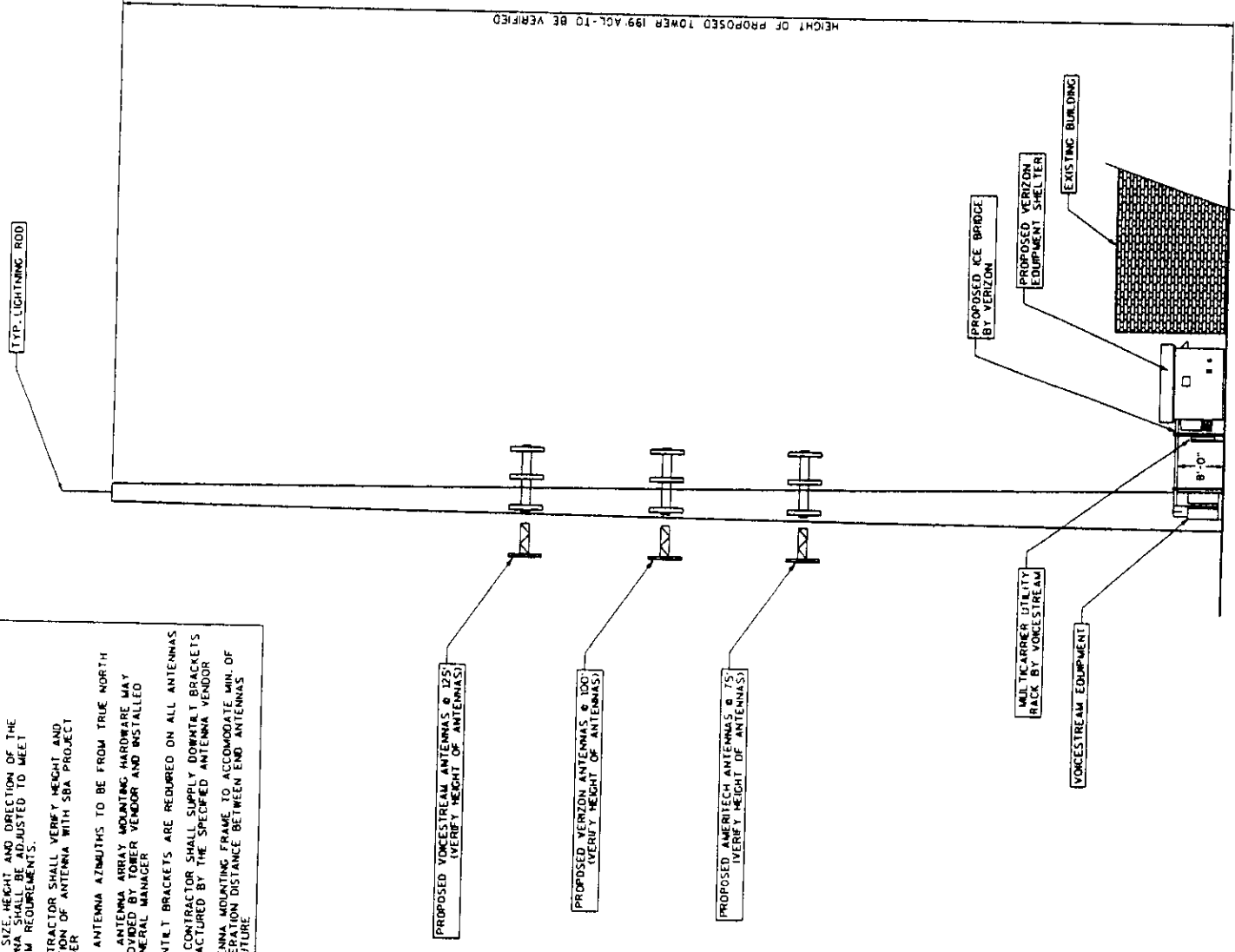
**RAMAKER & ASSOCIATES, INC.**  
 Consulting Engineers  
 512 WEST STREET  
 SAUK CREEK, WI 53183  
 PHONE: 608-643-4200  
 FAX: 608-643-1999  
 WWW: WWW.RAMAKER.COM

NO.	DATE	REVISIONS	REMARKS
1	3/26/01		REV. FENCE BY OTHERS

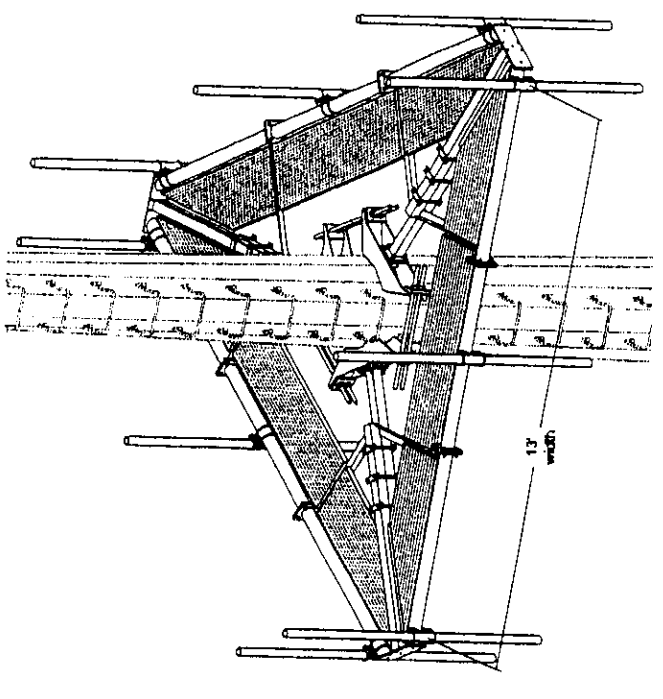
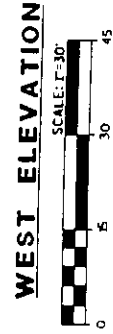
JOB NAME: 56TH STREET FIRE HOUSE RPD  
 DRAFTED: [blank]  
 FILE NAME: ...S172-C-2.dgn  
 CHECKED: DCL  
 JOB NUMBER: 5172  
 DATE: 03/26/01

NOTE:

- THE SIZE, HEIGHT AND DIRECTION OF THE ANTENNA SHALL BE ADJUSTED TO MEET SYSTEM REQUIREMENTS.
- CONTRACTOR SHALL VERIFY HEIGHT AND DIRECTION OF ANTENNA WITH SBA PROJECT MANAGER
- ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH
- NEW ANTENNA ARRAY MOUNTING HARDWARE MAY BE PROVIDED BY TOWER VENDOR AND INSTALLED BY GENERAL MANAGER
- DOWN TILT BRACKETS ARE REQUIRED ON ALL ANTENNAS
- THE CONTRACTOR SHALL SUPPLY DOWN TILT BRACKETS MANUFACTURED BY THE SPECIFIED ANTENNA VENDOR
- ANTENNA MOUNTING FRAME TO ACCOMMODATE MIN. OF 12" ANTENNA SEPARATION DISTANCE BETWEEN ANTENNAS FOR FUTURE



NOTE: MUNICIPALITY TO VERIFY HEIGHT REQUIREMENTS OF EXISTING TOWERS



NOTES:

- CONTACT PIRID FOR CAPACITY DATA AND PRODUCT NUMBERS BEFORE ORDERING.
- ANTENNA MOUNTING PIPES ARE AVAILABLE IN 2 1/2" AND 3 1/2" O.D. X 8" TALL
- LOW PROFILE TOP FOR INSTALLATION ON TYP. PIRID TOWER
- PRODUCT AVAILABLE AS LOW PROFILE TOP OR CLAMP - ON LOW PROFILE PLATFORM
- VERIFY PLATFORM WIDTH TO ACCOMMODATE NECESSARY ANTENNA SEPARATION DISTANCES

PIROD PCS ANTENNA FRAME  
SCALE: NONE

ANTENNA AND COAX CABLE SCHEDULE

SECTOR	ANTENNA	AZIMUTH	DOWN-TILT	ANTENNA HGT.	COAX CABLE
1	ALLGDM 1200.07	60	0	100	1/4"
2	ALLGDM 1200.07	180	0	100	1/4"
3	ALLGDM 1200.07	300	0	100	1/4"

ALL ANTENNAS TO BE VERIFIED W/RF ENGINEER PRIOR TO INSTALLATION

NOTES

1. ALL ANTENNAS TO BE FURNISHED W/DOWNTILT BRACKETS. CONTRACTOR TO COORDINATE AND ORDER MECHANICAL DOWNTILT FOR EACH ANTENNA W/RF ENGINEER.
2. ANTENNA CENTERLINE HEIGHT IS IN REFERENCE TO EL. O.D. ANTENNA HEIGHTS ARE SHOWN ON TOWER ELEVATION.
3. CHECK W/RF ENGINEER FOR LATEST ANTENNA TYPE & AZIMUTH.
4. CONTRACTOR SHALL VERIFY ANTENNA TYPE AND AZIMUTH W/CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.

RE CONFIGURATION

JOB NAME: 56TH STREET FIRE HOUSE	DRAFTED: RPD	REVISIONS
FILE NAME: ...5172.C-3.00*	CHECKED: DCL	REMARKS
JOB NUMBER: 5172	DATE: 03/26/01	

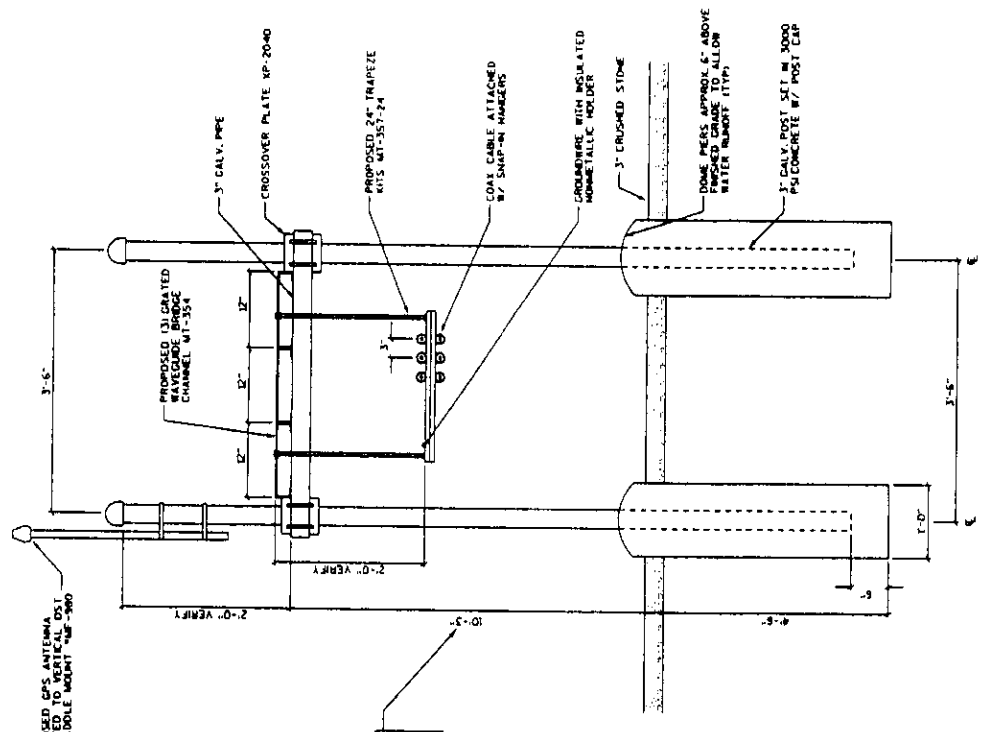
**RAMAKER & ASSOCIATES, INC.**  
Consulting Engineers  
100 DALLAS STREET  
SARASOTA, FLORIDA 34233  
PHONE: 888-488-5583  
FAX: 888-643-1939  
WWW.RAMAKER.COM



PREPARED FOR:  
**verizon wireless**  
15725 WEST RIVERSON ROAD  
MILWAUKEE, WI 53151  
PHONE: 414.390.5541  
FAX: 414.390.5545

PROJECT DESCRIPTION:  
SITE NAME: 56TH STREET FIRE HOUSE  
SITE NUMBER: 14005  
SITE ADDRESS: 5600 N. DALLAS AVE.  
MILWAUKEE, WI 53219  
OWNER: CITY OF MILWAUKEE  
809 NORTH BROADWAY  
MILWAUKEE, WI 53202

ELEVATION



**ICE BRIDGE DETAIL**  
SCALE: NONE

FIELD ADJUST TO ACCOMMODATE  
EXISTING BRIDGE. PROVIDE  
HEADROOM AND SHELTER TO  
RACK AND TO ENSURE LEVEL  
MATING AT EXISTING BRIDGE.

SHEET NUMBER  
**C-4**

**DETAILS**

PROJECT DESCRIPTION:  
SITE NAME: 56TH STREET FIRE HOUSE  
SITE NUMBER: 14040S  
SITE ADDRESS: 5600 W. OCLAWA AVE.  
MILWAUKEE, WI 53215  
OWNER: CITY OF MILWAUKEE  
809 NORTH BROADWAY  
MILWAUKEE, WI 53202

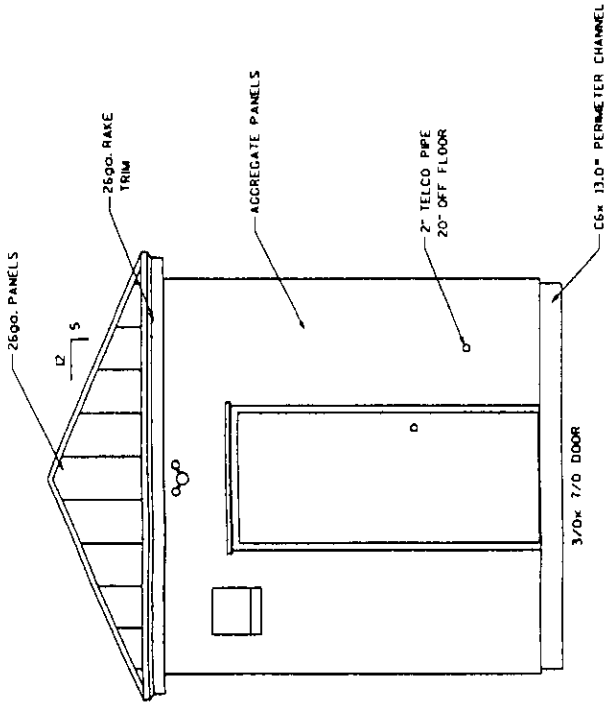
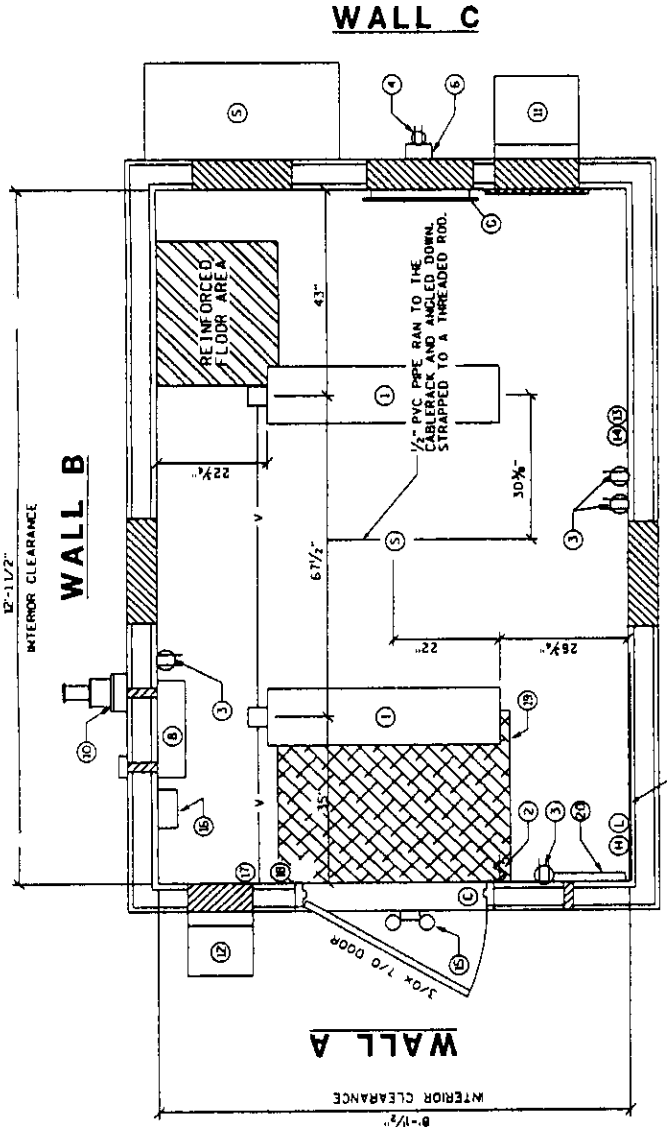
**verizon**wireless  
15125 WEST RIVERSON ROAD  
NEW BERLIN, WI 53151  
PHONE: (414) 390-5541  
FAX: (414) 390-5543

PREPARED FOR:

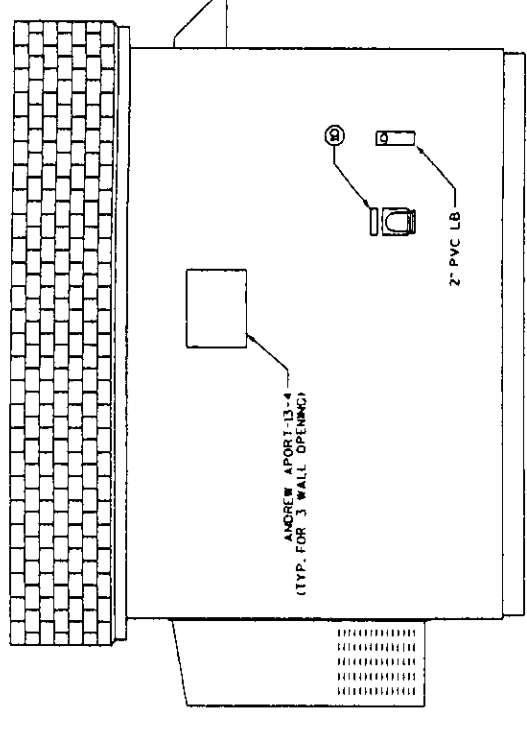
**RAMAKER & ASSOCIATES, INC.**  
Consulting Engineers  
100 DALLAS STREET  
SAUK CITY, WISCONSIN 53183  
VOICE: 608-643-1800  
FAX: 608-643-1939  
Web: <http://www.ramaker.com>



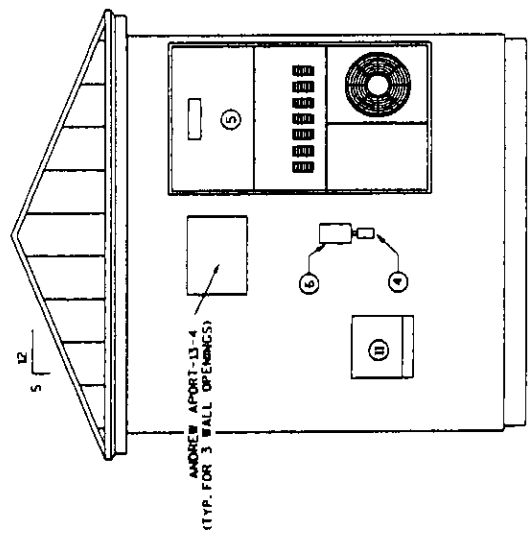
JOB NAME:	DRAFTED:	REVISIONS	
		NO.	DATE
56TH STREET FIRE HOUSE	RPD		
FILE NAME:	CHECKED:		
15172-C-4-000	DCL		
JOB NUMBER:	DATE:		



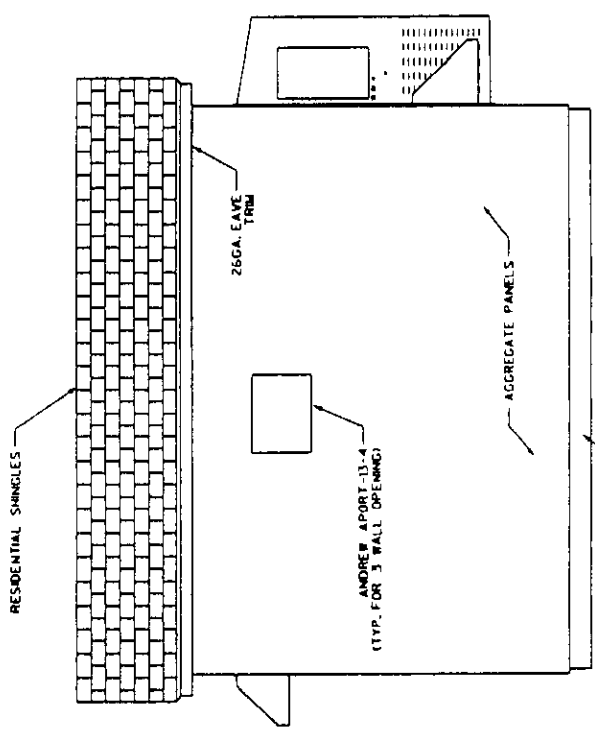
**WALL A**



**WALL B**



**WALL C**



**WALL D**

**EQUIPMENT SCHEDULE**

ITEM #	DESCRIPTION-SIZE	MFG. NAME	MFG. #	QTY.
1	INTERIOR LIGHT - 4\"/>			

BUILDING PLANS PROVIDED BY:  
 TRACHTE, INC.  
 15125 WEST RIVERSON ROAD  
 NEW BERLIN, CT 06351  
 PHONE: (860) 835-5707  
 FAX: (860) 835-7279

**RAMAKER**  
 ASSOCIATES, INC.  
 Consulting Engineers  
 500 W. WASHINGTON ST.  
 SUITE 200  
 WILMINGTON, DE 19801  
 PHONE: (302) 438-1100  
 FAX: (302) 438-1100  
 WWW: WWW.RAMAKER.COM



NO.	DATE	REVISIONS	REMARKS

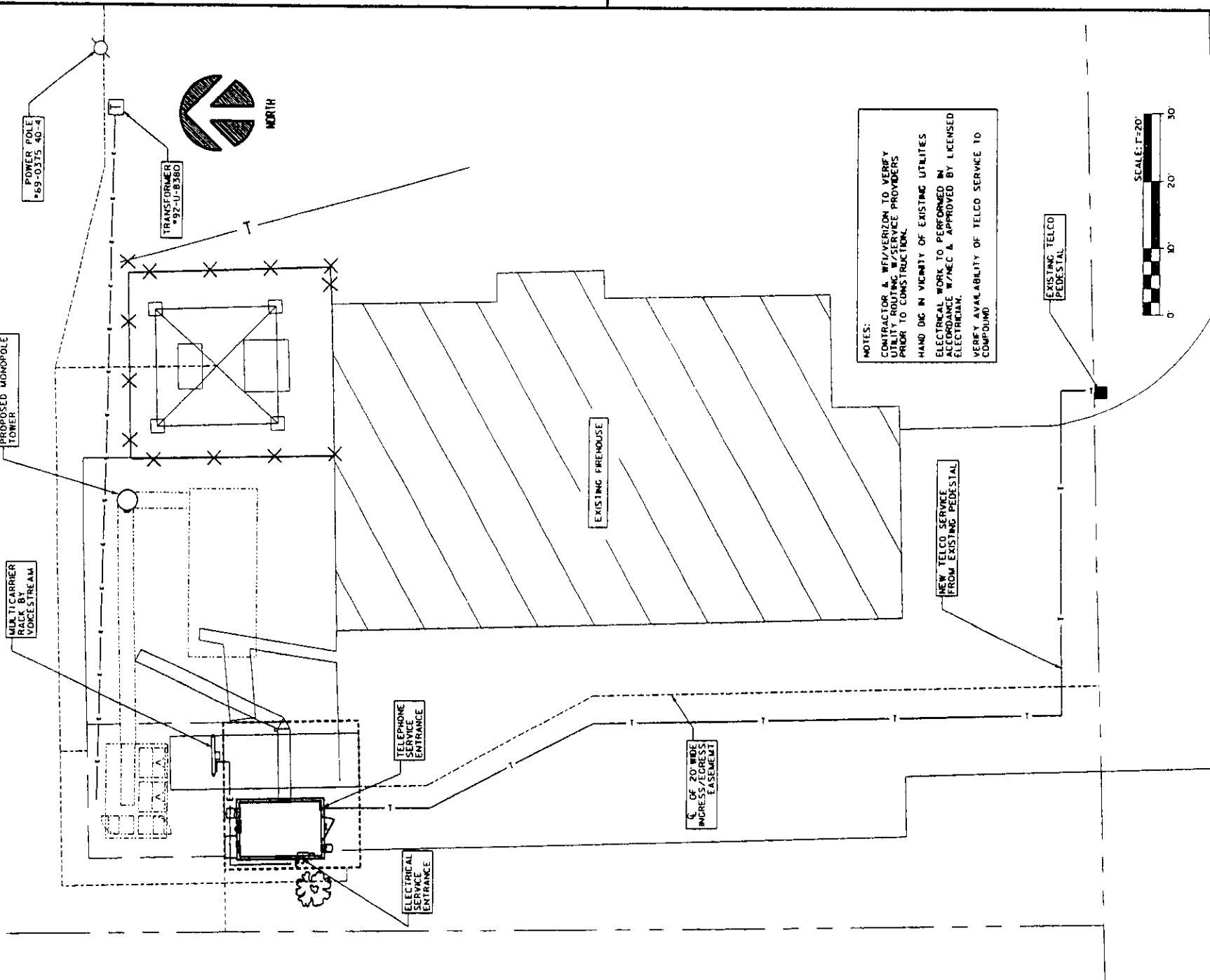
PROJECT DESCRIPTION:  
 56TH STREET FIRE HOUSE  
 SITE NAME: 56TH STREET FIRE HOUSE  
 SITE NUMBER: 1500 N. DELAWARE AVE  
 SITE ADDRESS: WILMINGTON, CT 06319  
 OWNER: CITY OF WILMINGTON  
 109 NORTH BROADWAY  
 WILMINGTON, CT 06320

PREPARED FOR:  
**verizon wireless**  
 15125 WEST RIVERSON ROAD  
 NEW BERLIN, CT 06351  
 PHONE: (860) 390-5541  
 FAX: (860) 390-5543

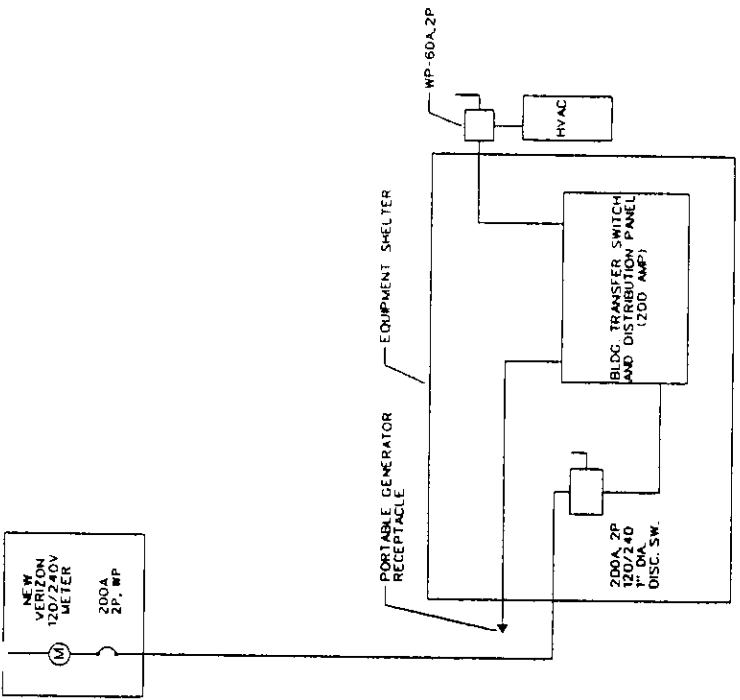
SHEET TITLE:  
**SHELTER DETAILS C-5**

SHEET NUMBER

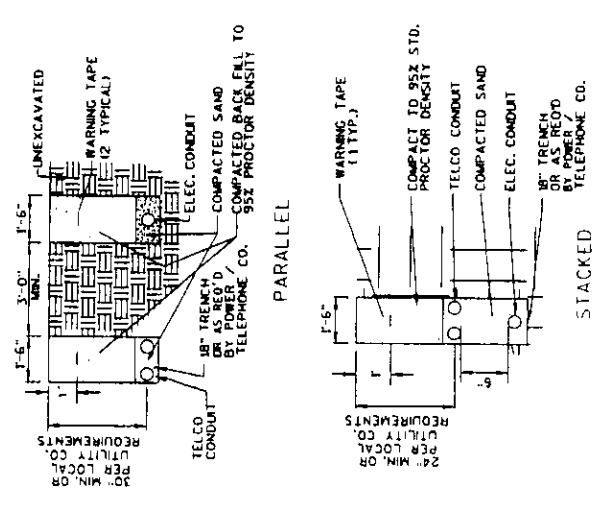
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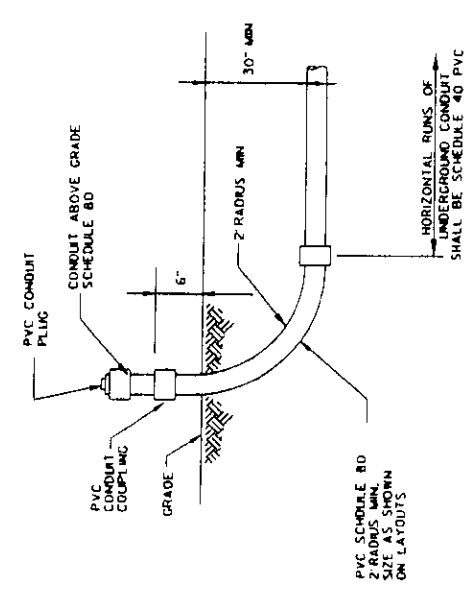
NOTES:  
 CONTRACTOR A. WEI/VERIZON TO VERIFY UTILITY ROUTING W/SERVICE PROVIDERS PRIOR TO CONSTRUCTION.  
 HAND DC IN VICINITY OF EXISTING UTILITIES  
 ELECTRICAL WORK TO BE PERFORMED IN ACCORDANCE W/NEC & APPROVED BY LICENSED ELECTRICIAN.  
 VERIFY AVAILABILITY OF TELCO SERVICE TO COMPOUND



**ELECTRICAL RISER**  
 SCALE: NONE



**(TYP) ELECTRIC/TELCO TRENCH**  
 SCALE: NONE



**TYP. UTILITY STUB-UP**  
 SCALE: NONE

**RAMAKER & ASSOCIATES, INC.**  
 Consulting Engineers  
 100 DALLAS STREET  
 SUITE 200  
 WILBAUR, WI 53219  
 PHONE: (414) 330-5541  
 FAX: (414) 330-5541  
 WWW: HTTP://WWW.RAMAKER.COM



NO.	DATE	REVISIONS	REMARKS

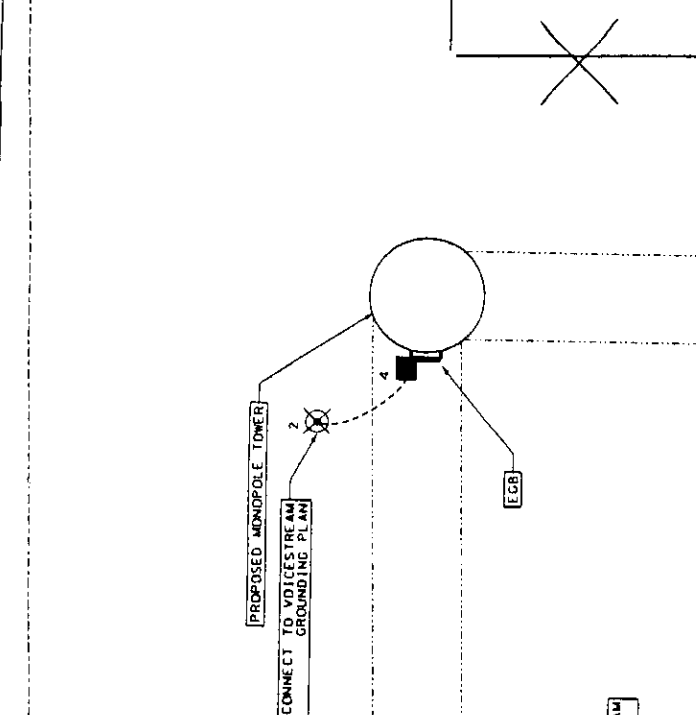
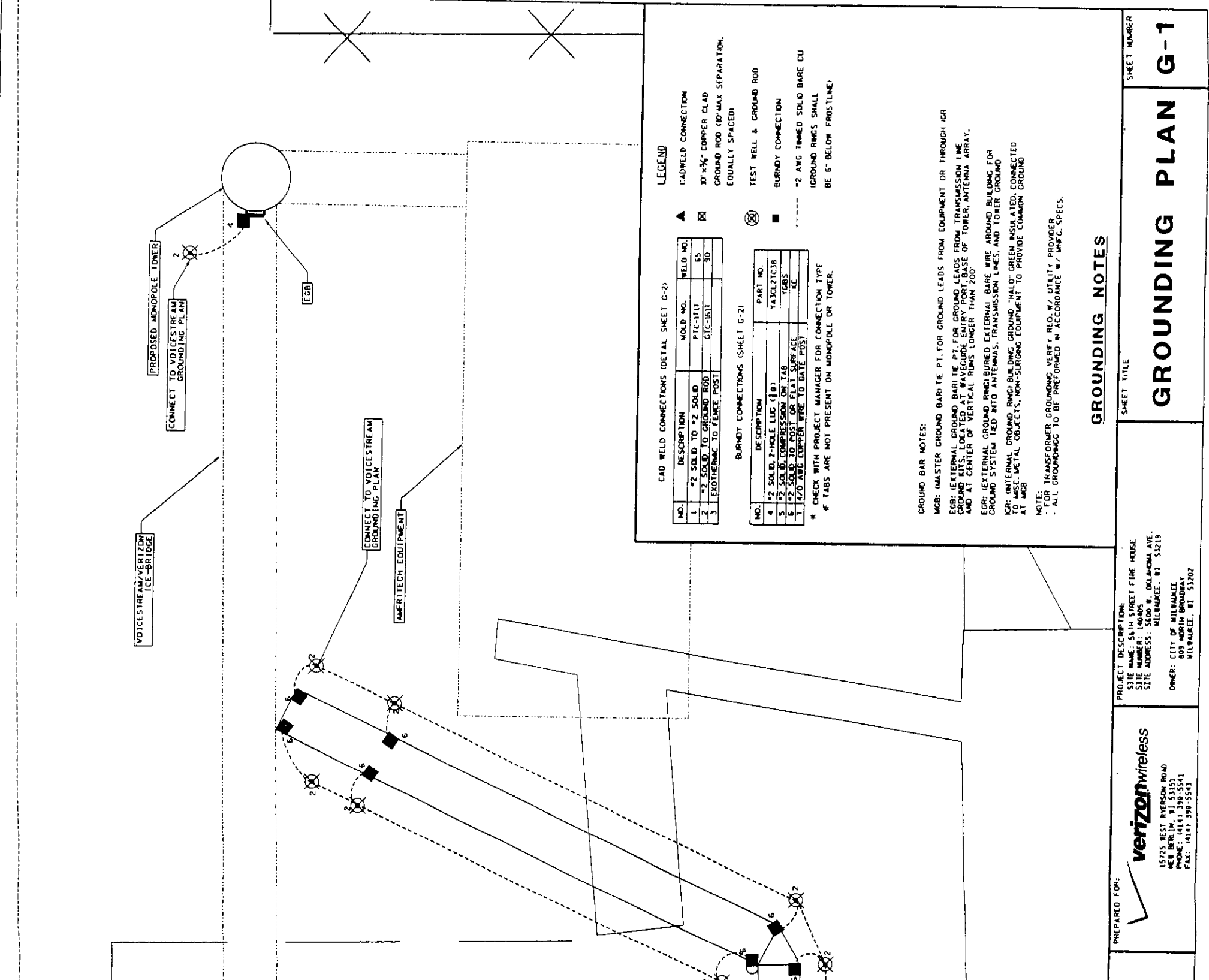
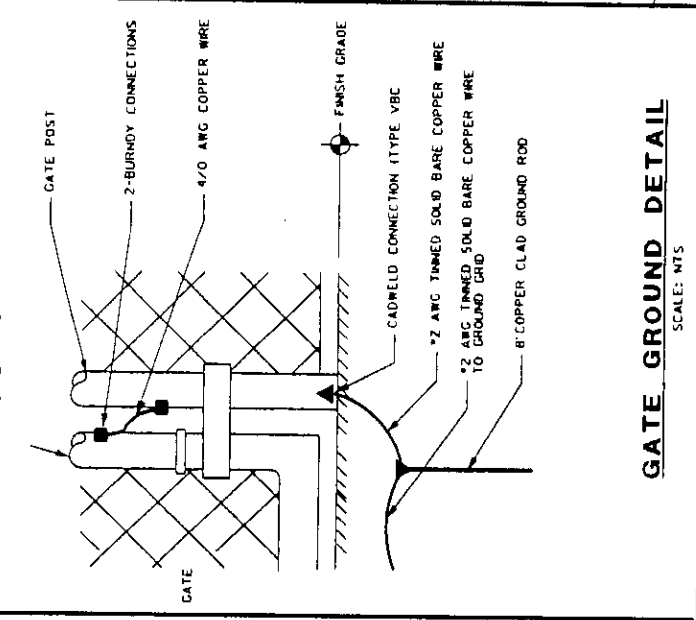
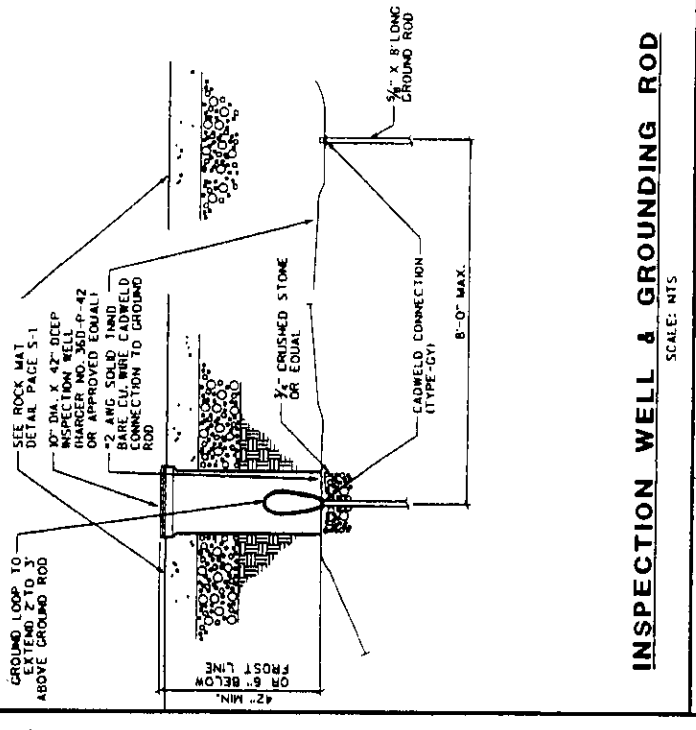
PREPARED FOR:  
**verizon wireless**  
 15725 WEST WISCONSIN ROAD  
 NEW BERLIN, WI 53151  
 PHONE: (414) 330-5541  
 FAX: (414) 330-5541

PROJECT DESCRIPTION:  
 SITE NAME: 56TH STREET FIRE HOUSE  
 SITE NUMBER: 140485  
 SITE ADDRESS: 5600 W. DULANNA AVE.  
 WILBAUR, WI 53219  
 OWNER: CITY OF MILWAUKEE  
 809 NORTH BROADWAY  
 MILWAUKEE, WI 53202

SHEET TITLE  
**UTILITY PLAN E-1**  
 SHEET NUMBER

DRAFTED: RPD  
 CHECKED: DCL  
 DATE: 03/26/01

JOB NAME: 56TH STREET FIRE HOUSE  
 FILE NAME: 5172.e-1.dgn  
 JOB NUMBER: 5172



**GROUND BAR NOTES:**  
 MCB: MASTER GROUND BARRIER PT. FOR GROUND LEADS FROM EQUIPMENT OR THROUGH IGR  
 EGB: EXTERNAL GROUND BARRIER PT. FOR GROUND LEADS FROM TRANSMISSION LINE AND AT CENTER OF VERTICAL RUNS LONGER THAN 200'  
 EGR: EXTERNAL GROUND RING BURIED EXTERNAL BARE WIRE AROUND BUILDING FOR GROUND SYSTEM TIED INTO ANTENNAS, TRANSMISSION LINES, AND TOWER GROUND  
 IGR: INTERNAL GROUND RING BUILDING GROUND "HALO" GREEN INSULATED, CONNECTED AT MCB  
 MCB: METAL OBJECTS, NON-SURGING EQUIPMENT TO PROVIDE COMMON GROUND

**NOTE:**  
 - FOR TRANSFORMER GROUNDING VERIFY REQ. W/ UTILITY PROVIDER  
 - ALL GROUNDING TO BE PERFORMED IN ACCORDANCE W/ MFG. SPECS.

**GROUNDING NOTES**

PROJECT DESCRIPTION:  
 SITE NAME: 56TH STREET FIRE HOUSE  
 SITE NUMBER: 10405  
 SITE ADDRESS: MILWAUKEE, WI 53215  
 OWNER: CITY OF MILWAUKEE  
 809 NORTH BROADWAY  
 MILWAUKEE, WI 53202

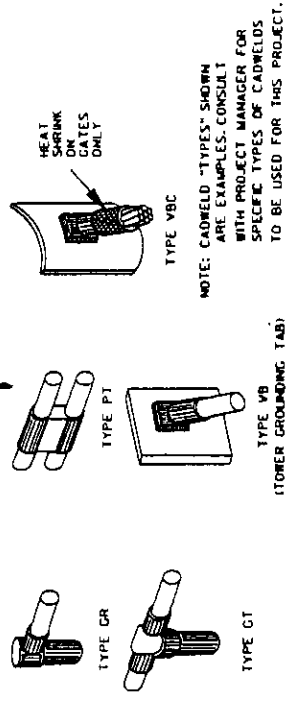
PREPARED FOR:  
**verizon wireless**  
 15725 WEST AVENUE ROAD  
 NEW BRUNSWICK, NJ 08851  
 PHONE: (609) 390-5541  
 FAX: (609) 390-5541

**RAMAKER & ASSOCIATES, INC.**  
 Consulting Engineers  
 100 DALLAS STREET  
 SAUL CITY, INDIANAPOLIS 46204  
 PHONE: (317) 434-1989  
 Web: http://www.ramaker.com

NO.	DATE	REVISIONS	REMARKS

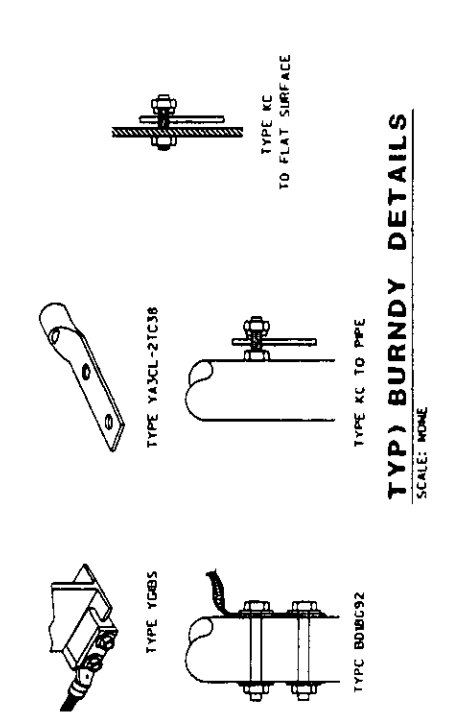
DRAFTED: RFD  
 CHECKED: DCL  
 DATE: 03/26/01

JOB NAME: 56TH STREET FIRE HOUSE  
 FILE NAME: 56STZ-9-LOGN  
 JOB NUMBER: 03/26/01  
 SHEET NUMBER: G-1



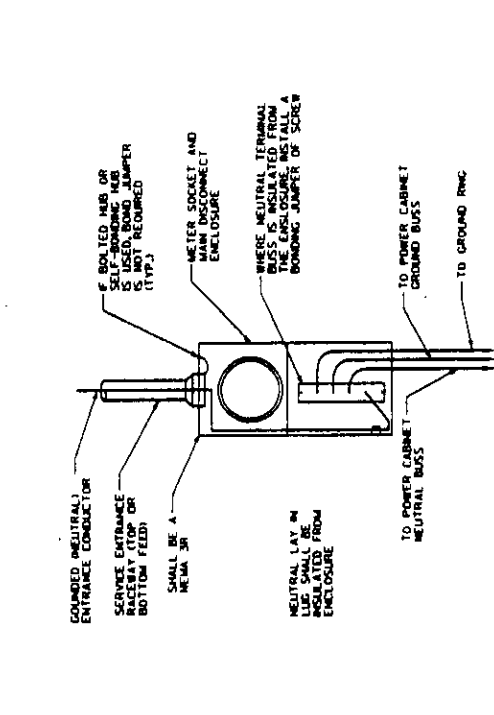
**(TYP) CADWELD DETAILS**  
SCALE: NONE

NOTE: CADWELD "TYPES" SHOWN ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR SPECIFIC TYPES OF CADWELDS TO BE USED FOR THIS PROJECT.



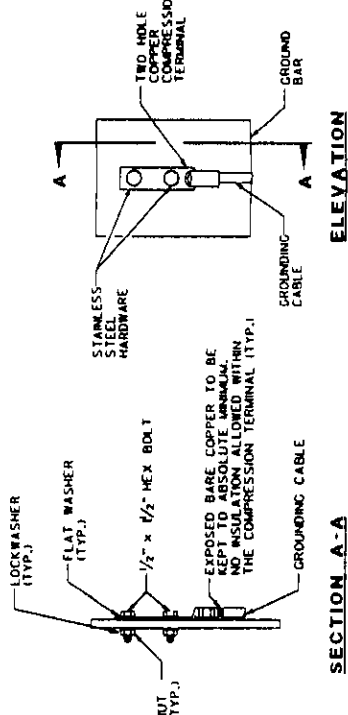
**(TYP) BURNDY DETAILS**  
SCALE: NONE

NOTE: BURNDY "TYPES" SHOWN ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR SPECIFIC TYPES OF BURNDY TO BE USED FOR THIS PROJECT.



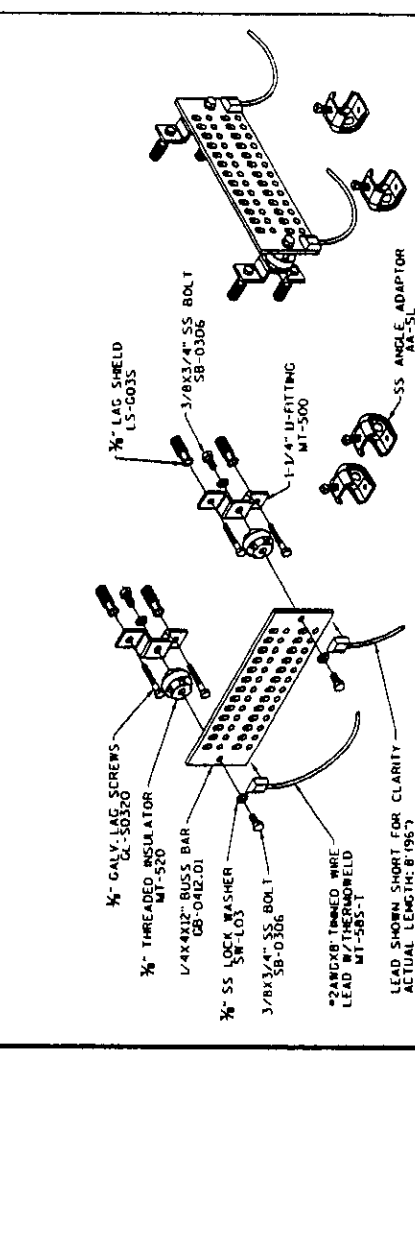
**SERVICE ENTRANCE GROUNDING**  
SCALE: 1/8" = 1'

NO.	DATE	REVISIONS	REMARKS



**TYPICAL GROUND BAR CONNECTION**  
SCALE: NTS

NOTES:  
1. DOUBLING UP OR "STACKING" OF CONNECTIONS IS NOT PERMITTED.  
2. DIME INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

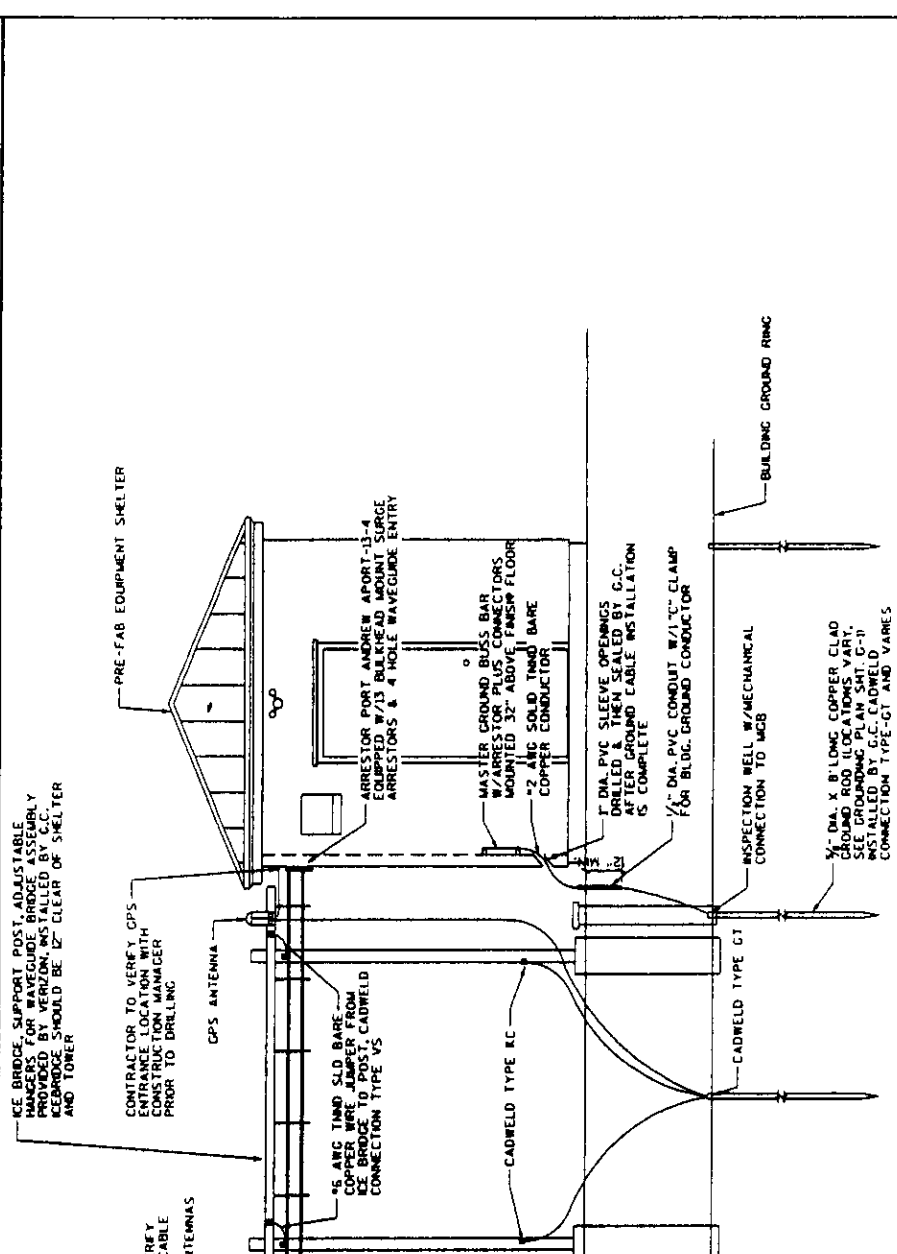


**(TYP) GROUND AND BUSS BARS**  
SCALE: NONE

CONTRACTOR TO VERIFY CPS ENTRANCE LOCATION WITH SUPPLIER AND TO DRILLING PRIOR TO DRILLING AND TOWER.

CONTRACTOR TO VERIFY CORRECT COAXIAL CABLE AND WIRE ROUTING RADIUS FOR ANTENNAS.

CONTRACTOR TO VERIFY CPS ENTRANCE LOCATION WITH SUPPLIER AND TO DRILLING PRIOR TO DRILLING AND TOWER.



**TYP. SHELTER - TOWER GROUNDING DETAIL**  
SCALE: NONE

NOTE: ICE BRIDGE SUPPORT POST MAY NOT BE REQUIRED DEPENDING ON DISTANCE FROM TOWER. DISTANCE FROM TOWER TO BE DETERMINED BY A HORIZONTAL SUPPORT MEMBER ON THE TOWER AND TO THE SHELTER WALL.

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**verizonwireless**

PROJECT DESCRIPTION:  
SITE NAME: 56TH STREET FIRE HOUSE  
SITE NUMBER: 10405  
SITE ADDRESS: MILWAUKEE, WI 53215  
OWNER: CITY OF MILWAUKEE  
809 NORTH BROADWAY  
MILWAUKEE, WI 53202

SHEET NUMBER  
**G-2**

PART 4 ELECTRICAL NOTES

- 4.1 ELECTRICAL CONTRACTOR TO COORDINATE WITH AND MEET UTILITY PROVIDER REQUIREMENTS. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL CODES/REGULATIONS. WORK TO BE APPROVED BY LICENSED ELECTRICIAN.
- 4.2 PROVIDE 2" PULL STRINGS SECURELY FASTENED AT EACH END OF ALL CONDUITS. ON THE END OF EACH CONDUIT AND MARK AS SHOWN ON THE ENLARGED SITE PLAN.
- 4.3 THE CONTRACTOR SHALL LOCATE AND MARK ALL EXISTING UNDERGROUND POWER, TELCO, GROUNDING CONDUCTORS, AND ALL OTHER UTILITY EASEMENTS AND/OR WIRES PRIOR TO TRENCHING. ANY DAMAGE CAUSED TO THE EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. VERIFY WITH UTILITY PROVIDER. ALL WORK SHALL BE PERFORMED FOR THESE SHALL BE NO SPARKING OF GROUND CONDUCTORS BELOW GRADE.
- 4.4 COMPLY WITH ALL MANUFACTURE SPECIFICATIONS FOR PROPOSED EQUIPMENT.
- 4.5 HAND-DIG ALL SURGRADE WORK AT INTERIOR OF COMPOUND TO AVOID EXISTING CONDUITS.
- 4.6 CONTRACTOR RESPONSIBLE FOR LOCATING ALL PUBLIC AND PRIVATE UTILITIES IN VICINITY OF WORK AREA.

PART 5 GROUNDING NOTES

- 5.1 ALL GROUNDING CABLE IN CONCRETE SHALL BE IN SEAL TIGHT, NO METALLIC CONDUIT IS TO BE USED FOR GROUNDING CONDUCTOR SLEEVES.
- 5.2 DO NOT INSTALL BURIED GROUND RING OUTSIDE OF PROPERTY LINE. NOTIFY OWNER 24 HOURS IN ADVANCE WHEN THE BURIED GROUND RING IS INSTALLED SO THAT A REPRESENTATIVE CAN INSPECT THE GROUND RING BEFORE IT IS BACK FILLED WITH SOIL.
- 5.3 ALL EXTERIOR GROUNDING CONDUCTORS INCLUDING GROUND SYSTEM SHALL BE #2 AWG SOLID BARE TINNED COPPER. MAKE ALL GROUND CONNECTIONS AS SHOWN ON DRAWINGS. AVOID SHARP BENDS. ALL BENDS SHALL BE A MINIMUM OF 90 DEGREES. ALL GROUNDING CONDUCTORS SHALL BE ROUTED DOWNWARD TOWARD BURIED GROUND SYSTEM.
- 5.4 ALL EXTERIOR GROUNDING CONDUCTORS INCLUDING GROUND SYSTEM SHALL BE #2 AWG SOLID BARE TINNED COPPER. MAKE ALL GROUND CONNECTIONS AS SHOWN ON DRAWINGS. AVOID SHARP BENDS. ALL BENDS SHALL BE A MINIMUM OF 90 DEGREES. ALL GROUNDING CONDUCTORS SHALL BE ROUTED DOWNWARD TOWARD BURIED GROUND SYSTEM.
- 5.5 WHERE MECHANICAL CONNECTORS (TWO-HOLE OR CLAMP) ARE USED, APPLY A LIBERAL PROTECTIVE COATING OF "MOX" ON ALL CONNECTORS. PROVIDE LOCK WASHERS ON ALL MECHANICAL CONNECTORS. USE GALVANIZED STEEL WASHERS ON ALL MECHANICAL CONNECTORS. CLEAN ALL SURFACES AND CLEAN ALL DRIFT FROM SURFACES BEFORE GROUNDING CONDUCTORS ARE INSTALLED. EXISTING AFTER CONNECTION IS MADE TO MAINTAIN CORROSION RESISTANCE.
- 5.6 EXOTHERMIC ALLOY WELD GROUNDING CONDUCTOR TO COMMUNICATION STRUCTURE AT POLE-BASE FLEXIBLE CONDUIT SLEEVE. VERIFY BEND IS 45 DEGREES FROM GROUND TO POLE.
- 5.7 ALL CONDUCTORS SHALL BE COPPER TYPE THIN OR THICK INSULATION UNLESS OTHERWISE NOTED.
- 5.8 GROUND RING IS TO BE CONSTRUCTED OF #2 SOLID TINNED COPPER WIRE IN ONE CONTINUOUS PIECE IF POSSIBLE.
- 5.9 EXISTING TOWER GROUND RING V.L.F. CONTRACTOR TO MAINTAIN EXISTING GROUND SYSTEM. LOCATE BY HAND AND REPAIR TO ORIGINAL CONDITION OR BETTER, IF NECESSARY.
- 5.10 G.C. TO BOND PROPOSED GROUND SYSTEM TO EXISTING RING WITH #2 AWG TINNED SOLID COPPER CONDUCTOR IN 2 LOCATIONS DIRECTLY TO GROUND ROOS.
- 5.11 PROPOSED GROUND RING SHALL BE INSTALLED A MINIMUM 2' OFF OF ANY STRUCTURE.
- 5.12 BOND ALL METAL OBJECTS WITHIN TOP OF GROUND NETWORK TO GROUND RING.
- 5.13 ALL THERMAL WELDS BELOW GRADE AT GROUND ROOS/NO WIRE TO WIRE SPLICES ALLOWED.
- 5.14 GROUND ALL CORNER POSTS WITH EXOTHERMIC WELDS (CONNECTION TO BE NO MORE THAN 12 INCHES ABOVE GROUND BUT MUST BE VISIBLE).
- 5.15 GATE GROUNDING AT ALL GATE POSTS 4/0 CABLE WITH THERMAL WELDS IS REQUIRED.
- 5.16 G.C. BRIDGE GROUND - GROUND SUPPORT POST (POST) TO GROUND ROD AND GROUND KEY BRIDGING TO THE POST.
- 5.17 JUMPER CABLE TRAY SECTIONS W/ #6 WIRE AND SPLIT-RING LOCK-WASHER. REMOVE PAINT AT CONNECTION.
- 5.18 CABLE TRAYS W/ INTERNAL GROUND ZONE (IGZ) SHALL NOT BE CONNECTED TO NON-IGZ TRAYS.
- 5.19 #2 SOLID TINNED COPPER LEAD FROM PPC CABINET TO GROUND ROD. SEE MFG. SPECIFICATIONS.
- 5.20 #2 AWG GROUND WIRE FOR TELCO/POWER RACK POSTS. (ONE LEAD FOR EACH POST).
- 5.21 SELF SUPPORT TOWER- CONNECT TOWER LEG TO GROUND RING W/ #2 AWG SOLID TINNED COPPER WIRE. VERTICAL GROUNDWIRE FROM TOWER LEG TO RING TO BE USED IN SOHD. 40 PFC PIPE FOR MIN. 12" SUBGRADE. AT LEAST 2 RADIAL WIRES PER TOWER LEG. PLACE TOWER GROUND RING. PLACE GROUND ROOS IN MIDDLE AND FAR END OF RADIAL WIRES.
- 5.22 MONOPOLE- MIN. 4 GROUND ROOS ROD. AT BACK OF MONOPOLE. TRD 20 RADIALS AT MIDDLE AND FAR END OF RADIAL WIRES.
- 5.23 GUYED- MIN. 3 GROUND ROOS ROD. CONNECTION FROM TOWER BASE TO GROUND RING. GUY WIRE AT ANCHOR PT. W/ GROUND ROD. ENLARGE WIRE IN SOHD. 40 PFC PIPE FOR MIN. 12" SUBGRADE. MECHANICAL CONNECTION W/ GALVANIZED CLAMP TO GUY WIRE.
- 5.24 MECHANICAL CONNECTION AT GROUND BAR SHALL BE TWO-HOLE LUGS W/ MIN. #2 AWG GROUND LEAD.
- 5.25 INSTALL INSULATING MATS BENEATH EA. BAY OR EQUIP. RACK AND BETWEEN RACK AND CABLE TRAY.
- 5.26 PREVENT "BACK-DROOP" SURGES FROM ENTERING BUILDING W/ GAS TUBE OR MOV PROTECTION.

- 5.27 INTERNAL GROUND RING (IGR) AND ALL ABOVE GROUND CONDUCTORS MUST BE INSULATED (CDR OR CODE GREEN)
- 5.28 ALL GROUND ROOS AND GROUNDING SYSTEM SHALL BE MINIMUM OF 42" BELOW GRADE OR 6" BELOW FROST-LINE (WHICHEVER IS DEEPER).
- 5.29 COPPER CLAD GROUND ROD. 3/4" B'DWG. 8' O.C. MAXIMUM. IF REGULAR OR TO PREVENT GALVANIC CORROSION.
- 5.30 3/4" DIAMETER 8' LONG COPPER CLAD GROUND ROD WITH INSPECTION WELL. CORNERS. OF GROUND ROD MAXIMUM 24" BELOW GRADE. TYP. OF TWO AT OPPOSITE CORNERS.
- 5.31 ANY UNDERGROUND MECHANICAL CONNECTION SHALL HAVE A TESTWELL. GRADE OR PER LOCAL JURISDICTION REQUIREMENTS. PLACE ROD ADJACENT TO BUILDING (PENDING METER LOCATION)
- 5.32 PLACE GROUND RODS AT EA. CORNER OF THE BUILDING 13' AWAY FROM FOOTING AND BENEATH THE CABLE TRAY GROUND WINDOW.
- 5.34 WHEN ALL SIDES OF BUILDING ARE NOT ACCESSIBLE, SUPPLEMENTAL CONNECTIONS AND LIFTER GROUNDINGS WILL BE NEEDED.
- 5.35 CONTRACTOR SHALL PERFORM MEG TESTS (GROUND RESISTANCE) ON THE GROUNDING SYSTEM. TESTS SHALL BE OBSERVED BY THE OWNER'S REPRESENTATIVE. GROUND RESISTANCE SHALL BE 5 OHMS MAXIMUM. OF ADDITIONAL GROUNDING METHODS APPLIED.
- 5.36 TRANSMISSION LINE GROUNDING - AT BASE OF ANTENNA TOWER ATTACH CABLE GROUND KITS. TRANSMISSION LINE CABLE TO TOWER GROUND BAR (GCB) MOUNTED TO TOWER OR ICE BRIDGE. LOCATE AND BOND GROUND BAR TO TOWER AND BOND GROUND BAR TO ADJACENT GROUND ROD WITH #2 AWG SOLID COPPER CONDUCTOR IN TWO LOCATIONS. CONTRACTOR TO PROVIDE GROUND BAR AND ALL MOUNTING HARDWARE.
- 5.37 ATTACH CABLE GROUND KITS AT ANTENNA FRAME.
- 5.38 FOR CABLE LENGTH GREATER THAN 200' THIRD GROUND KIT TO BE INSTALLED AT 140 FT.
- 5.39 RESISTIVITY TEST SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE OWNER REPRESENTATIVE. MAX. 5.0 OHMS CONFIRM.



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PROJECT DESCRIPTION:  
 SITE NAME: 56TH STREET FIRE HOUSE  
 SITE NUMBER: 140005  
 SITE ADDRESS: 5600 W. DELAWARE AVE.  
 WILBRAKEE, WI 53219  
 OWNER: CITY OF WILBRAKEE  
 809 NORTH BROADWAY  
 WILBRAKEE, WI 53202

SHEET TITLE

**NOTES**

SHEET NUMBER  
**N-2**

JOB NAME:	DRAFTED:	NO.	DATE	REVISIONS	REMARKS
56TH STREET FIRE HOUSE - RPD					
FILE NAME:	CHECKED:				
5172-0-2.dgn	DEL				
JOB NUMBER:	DATE:				
5172	03/26/01				