

PROJECT DESCRIPTION:
CONSTRUCTION OF PERSONAL COMMUNICATION SYSTEM (PCS) CONSISTING OF A MONOPOLE TOWER, EQUIPMENT CABINETS AND A UTILITY BACKBOARD WITHIN A FENCED COMPOUND. NO WATER OR SEWER IS REQUIRED.

CODE COMPLIANCE:

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

1. CT BUILDING CODE
2. UNIFORM BUILDING CODE
3. BUILDING OFFICIALS AND CODE ADMINISTRATORS (BOCA)
4. UNIFORM MECHANICAL CODE
5. ANSI/TIA/EIA-222-F
6. UNIFORM PLUMBING CODE
7. NATIONAL ELECTRIC CODE
8. LOCAL BUILDING CODE
9. CITY/COUNTY ORDINANCES



Sprint PCS

HAMDEN

PROPOSED UNMANNED WIRELESS TELECOMMUNICATION SITE

SITE NUMBER: CT54XC773

150 WILLOW STREET

HAMDEN, CT 06518



VICINITY MAP
N.T.S.



LOCATION MAP
N.T.S.



DIG ALERT:
CALL FOR UNDERGROUND UTILITIES PRIOR TO DIGGING:
1-800-922-4455
EMERGENCY:
CALL 911

NAD 83/NAVD 88
SURVEYOR CERTIFIES THAT THE COORDINATES ARE ACCURATE TO WITHIN 50' +/- HORIZONTAL AND 20' +/- VERTICAL

RAD CENTER: ±157' AGL
LATITUDE: 41° 26' 57.81"
LONGITUDE: 72° 54' 16.46"
GROUND ELEVATION: 126' AMSL

HAMDEN, CONNECTICUT

infinigy
ENGINEERING

810 MARIETTA HIGHWAY
ROSWELL, GA 30075
OFFICE #: (770) 640-9969
FAX #: (770) 640-7363
158-06

**CONSTRUCTION
DRAWINGS**



DIRECTIONS

RT# 84 EAST TO RTE 691 EAST TO EXIT 3 (RTE 10). TAKE A RIGHT (SOUTH) ON RTE 10. TAKE LEFT ONTO WILLOW STREET - ACCESS TO CLUB IS ON LEFT.

PROJECT INFORMATION

SITE NAME: HAMDEN
SITE ADDRESS: 150 WILLOW STREET
HAMDEN, CT 06518
ZONING DISTRICT: R-1
PROPERTY: MAP: 3430
LOT: 001

CONSTRUCTION AREA: ±2500 SQ. FT.
LATITUDE: 41° 26' 57.81"
LONGITUDE: 72° 54' 16.46"

PROJECT DIRECTORY

LAND OWNER: HAMDEN FISH & GAME PROTECTIVE
CONTACT: JOHN KNOTT
(203) 271-3031

APPLICANT

SPRINT
CROSSROADS CORPORATE CENTER
INTERNATIONAL BOULEVARD
SUITE 800
MAHWAH, NJ 07495
CONTACT: MAUREEN MUTI
PHONE: (201) 684-4313

POWER COMPANY: NORTHEAST UTILITIES

TELCO COMPANY: SNET

DRAWING INDEX

DRWG. #	TITLE	REV.#	DATE
T1	TITLE SHEET	1	7/17/07
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C7	DETAILS	1	7/17/07
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E6	GROUNDING DETAILS	1	7/17/07

1.1. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.

2. DO NOT CHANGE SIZE NOR SPACING OF STRUCTURAL ELEMENTS.
3. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
4. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
5. BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
6. DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.

7. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE APPROVAL.

3. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLAN SHEETS AND SPECIFICATIONS AND COORDINATE HIS WORK WITH THE WORK OF ALL OTHER CONTRACTORS TO ENSURE THAT WORK PROGRESSION IS NOT

3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A NEAT AND ORDERLY SITE, YARD AND GROUNDS. REMOVE AND DISPOSE OFF SITE ALL RUBBISH, WASTE MATERIALS, LITTER, AND ALL FOREIGN SUBSTANCES. REMOVE PETRO-CHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS. RAKE GROUNDS TO A SMOOTH EVEN-TEXTURED SURFACE. INTERRUPTED.

- THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE GROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA, EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPELINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY BE SHOWN OR MAY NOT BE SHOWN; AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK—44 HOURS BEFORE YOU DIG, DRILL OR BLAST. CALL 1-800-822-4455

2. THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE.

3. THE CONTRACTOR IS INSTRUCTED TO COOPERATE WITH ANY AND ALL OTHER CONTRACTORS PERFORMING WORK ON THIS JOB SITE DURING THE PERFORMANCE OF THIS CONTRACT.

4. THE CONTRACTOR SHALL RESTORE ALL PUBLIC OR PRIVATE PROPERTY DAMAGED OR REMOVED TO AT LEAST AS GOOD OF CONDITION AS BEFORE DISTURBED AS DETERMINED BY THE OWNER OR OWNER'S REPRESENTATIVE.

5. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, AND INCURRING THE COST OF ALL REQUIRED PERMITS, INCLUDING, BUT NOT LIMITED TO, THE BUILDING PERMIT, INSPECTIONS, CERTIFICATES, ETC.

7. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE OWNER OR OWNER'S REPRESENTATIVE, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR.

8. ALL TRENCH EXCAVATION AND ANY REQUIRED SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE OSHA REGULATIONS FOR CONSTRUCTION.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR Dewatering AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK.

- ALL UTILITY WORK INVOLVING CONNECTIONS TO EXISTING SYSTEMS SHALL BE COORDINATED WITH THE OWNER OR OWNER'S REPRESENTATIVE. AND THE UTILITY OWNER, NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE AND THE UTILITY OWNER BEFORE EACH AND EVERY CONNECTION TO EXISTING SYSTEMS IS MADE.

1. MAINTAIN FLOW FOR ALL EXISTING UTILITIES.
2. ALL SITE FILL SHALL MEET SELECTED FILL STANDARDS AS DEFINED BY THE CHIEF OF OWNER'S REPRESENTATIVE ON THE DRAWING.

3. THE OWNER OR OWNER'S REPRESENTATIVE ON THE DRAWINGS. CONTRACTOR SHALL GRADE ALL AREAS ON THE SITE TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE EQUIPMENT PAD AND THE TOWER.
4. ALL IMPROVEMENTS TO CONFORM WITH LOCAL JURISDICTION CONSTRUCTION STANDARDS AND SPECIFICATIONS, LATEST EDITION.

- DECLARATION OF INTEREST**

1.1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".

2. ALL INTERIOR STRUCTURAL STEEL SHALL BE WHEN DELIVERED, FINISHED WITH ONE COAT FABRICATOR'S NON-LEAD, RED OXIDE PRIMER. PRIMING SHALL BE PERFORMED AFTER SHOP FABRICATION TO THE GREATEST EXTENT POSSIBLE. ALL DINGS, SCRAPPES, MARKS, AND WELDS IN THE PRIMED AREAS SHALL BE REPAIRED BY FIELD TOUCH-UP PRIOR TO COMPLETION OF THE WORK.

13. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH SPECIFICATION ASTM A36 UNLESS OTHERWISE NOTED. GALVANIZING SHALL BE PERFORMED AFTER SHOP FABRICATION TO THE GREATEST EXTENT POSSIBLE. ALL DINGS, SCRAPS, WMS, AND FIBERS IN THE GALVANIZED AREAS SHALL BE REPAIRED BY FIELD TOUCH-UP PRIOR TO COMPLETION OF THE WORK.

16. DO NOT PLACE HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.

- ## 5. CONNECTIONS:

- A. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION, AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED.
- B. BOLTED CONNECTIONS SHALL USE BEARING TYPE GALVANIZED ASTM A309 BOLTS

- b. BOLTED CONNECTIONS SHALL USE GALVANIZED STEEL BOLTS (3/4" DIA) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
- c. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. GALVANIZED ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.

- D. CONNECTION DESIGN BY FABRICATOR WILL BE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER**

- ## ACKNOWLEDGMENTS

WIND LOADS: PER EIA/TIA F-222
ICE LOADS: 1/2" RADIAL ON ALL COMPONENTS & CABLE
SNOW LOAD: PER CT STATE BLDG. CODE.
SEISMIC LOADS: PER CT STATE BLDG CODE.

- | | |
|-----------------------------|-------|
| 1. DEAD LOADS | 2825# |
| BATTERY CABINET | 2825# |
| FUTURE BATTERY CABINET | 1210# |
| MODCELL 4.0 PRIMARY CABINET | 1210# |
| MODCELL 4.0 GROWTH CABINET | 270# |
| PPC FRAME | 40# |
| WREWHAY | |

1. DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING APPLICABLE CODES: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"; ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
2. MAX DESIGN SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLACING CONCRETE.

3. CONCRETE SHALL BE NORMAL WEIGHT, 6% AIR ENTRAINED ($\pm 1.5\%$) WITH A MAXIMUM 4" SLUMP, AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE NOTED.
4. MAXIMUM AGGREGATE SIZE SHALL BE 1".

5. THE FOLLOWING MATERIALS SHALL BE USED:

- PORTLAND CEMENT:
 REINFORCEMENT:
 NORMAL WEIGHT AGGREGATE:
 WATER:
 ADMIXTURES:
 ASTM C 150,
 ASTM A 185,
 ASTM C 33,
 DRINKABLE
 NON-CHLORIDE CONTAINERS

6. REINFORCING DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 315.

7. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.

8. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

- CONCRETE CAST AGAINST EARTH.....3 IN.

- | | |
|----------------------|----------------|
| #6 AND LARGER |2 IN. |
| #5 AND SMALLER & WWF |1 1/2 IN. |

- CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
SLAB AND WALL 3/4 IN

- BEAMS AND COLUMNS 1 1/2 IN.

EXISTING

UNDERGROUND ELECTRIC
UNDERGROUND TELEPHONE

OVERHEAD WIRES

250
200
120.5 OR X

PROPOSED

UNDERGROUND ELECTRIC
UNDERGROUND TELEPHONE

OVERHEAD TELEPHONE
OVERHEAD ELECTRIC

5' OR 10' CONTOUR LINE
1' OR 2' CONTOUR LINE
SPOT ELEVATION
PRIMARY PROPERTY OR R.O.W.
LEASE LINE
EASEMENT

UTILITY POLE
TELEPHONE PEDESTAL
CURB
ASPHALT PAVEMENT

BUILDING

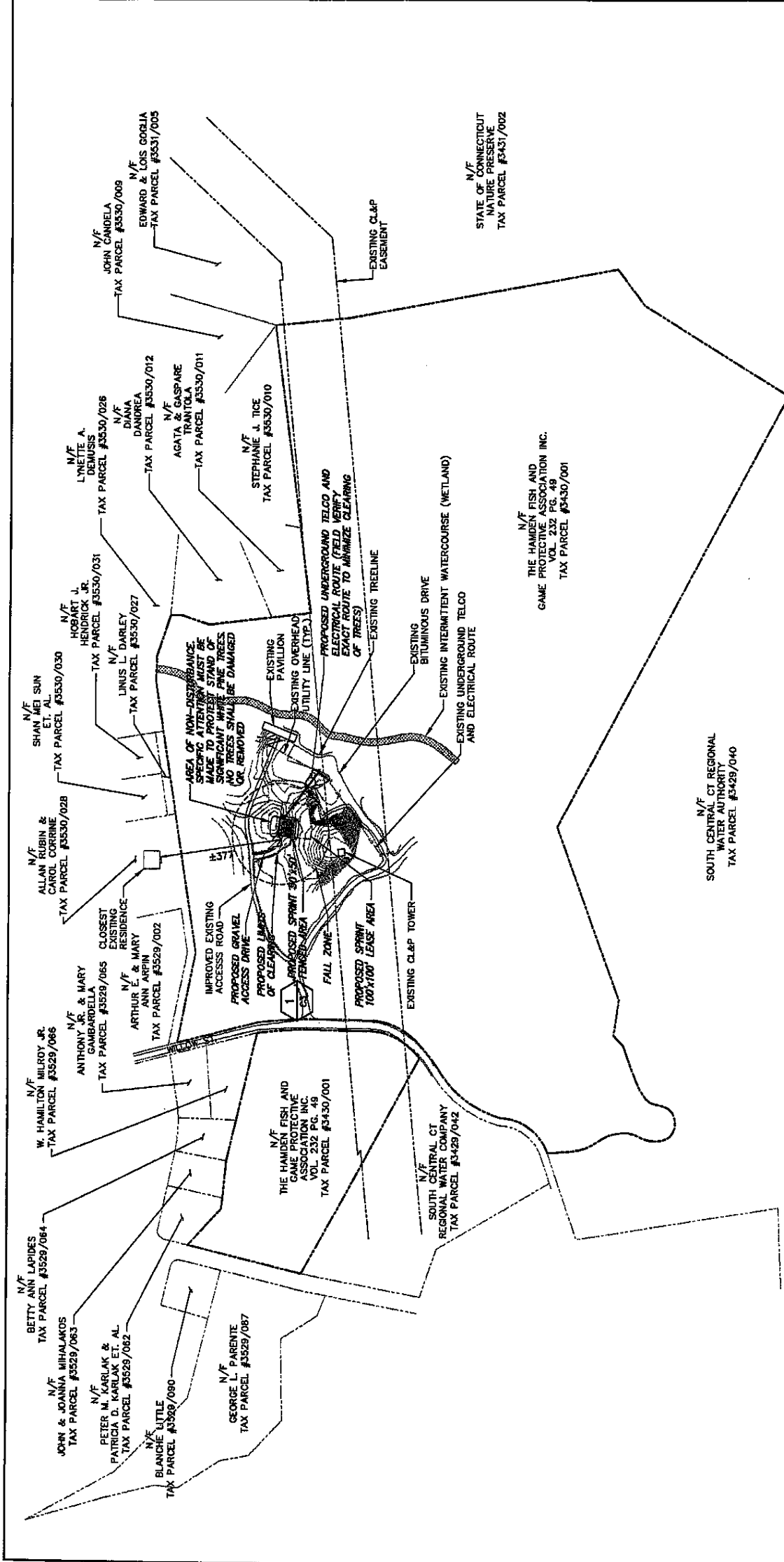
TREES, SHRUBS, BUSHES

REPRESENTS DETAIL NUMBER
REF. DRAWING NUMBER



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[illegible]



GRAPHIC SCALES



NOTE:
AVERAGE TIMBER DIAMETER
TO BE CLEARED = ± 1'



1 OVERALL SITE LAYOUT
TYP

BASEMAPING PREPARED FROM A
SURVEY COMPLETED BY BL COMPANIES,
INC. 10/13/05 AND A SITE VISIT BY
INFINITY ENGINEERING.

NO.	DATE	REVISIONS	BY	CHK	APP
0	11/17/05	REVIEW FOR CLIENT COMMENT	DAN	SUB	CWP
0	11/29/05	ISSUED FOR REVIEW	DAN	SUB	CWP

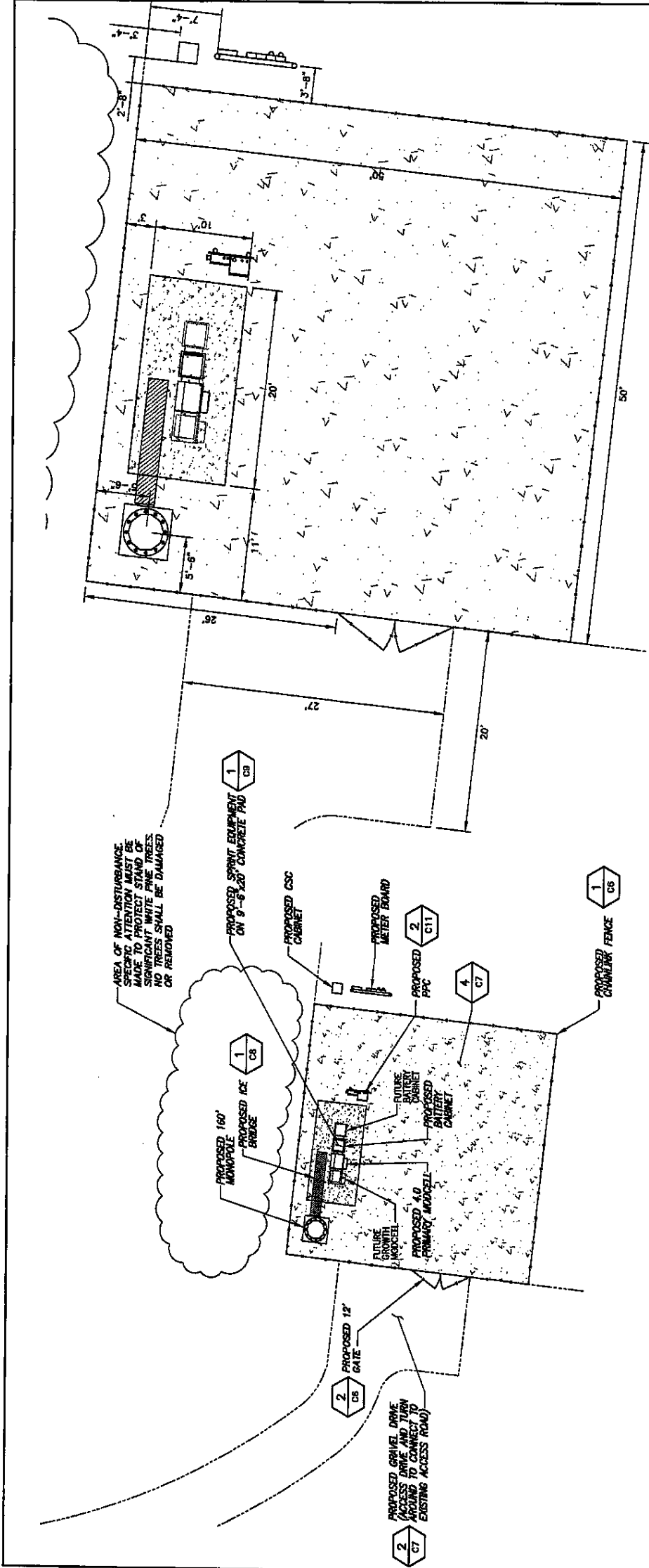
infinity
engineering
110 MILLER HIGHWAY
NORWELL, MA 02061
158-06

Sprint
CROSSROADS CORPORATE CENTER
INTERNATIONAL BOULEVARD
SUITE 500
MAHWAH, NJ 07485

HAMDEN
150 WILLOW STREET
HAMDEN, CT 06516

OVERALL SITE LAYOUT	C2
CT54XC773	
DATE: 03/29/07	REV 1

STATE OF CONNECTICUT
CHRISTOPHER J. WATERS
No. 2344
Professional Engineer
I am a holder of law for any person
has a valid license and is the author
of a licensed professional engineer, to alter
this document.

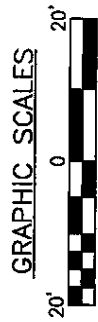


1 SITE LAYOUT

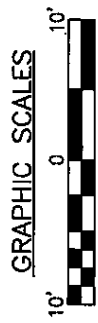


2 STAKING PLAN

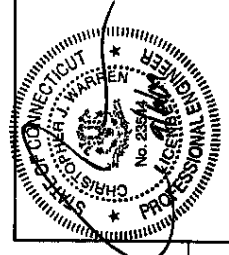
BASEMAPING PREPARED FROM A SURVEY COMPLETED BY BL COMPANIES, DATED 10/13/05, AND A SITE VISIT BY INFINITY ENGINEERING.



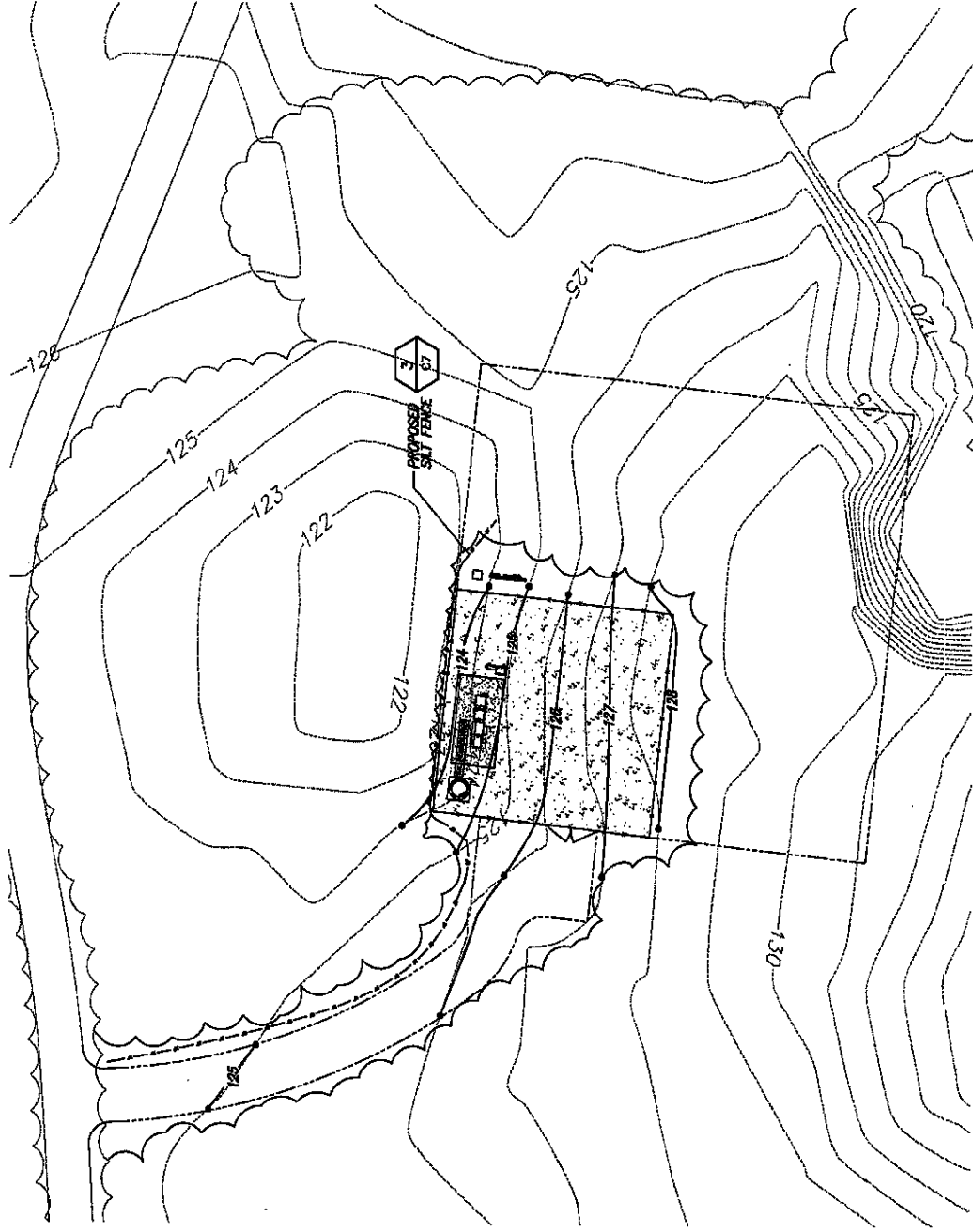
- GENERAL SITE NOTES:
1. THE SURGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
 2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES AND WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING ENGINEER.
 3. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF AN ENGINEER.
 4. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW



5. GARBAGE, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
6. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE BUILDING OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, AND SEED.
7. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND STIPULATED IN THE SPECIFICATION SUMMARY.
8. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND, FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
9. CONTRACTOR IS TO SUPPLY B-COMBINATION LOCKS (MASTER LOCK 175H, PART NUMBER 71643 39585).
10. TREE CLEARING WILL BE LIMITED TO TOWER COMPOUND AND ACCESS DRIVE.



infinig engineering		Sprint		HAMDEN		ENLARGED SITE LAYOUT & STAKING PLAN		C3	
910 MANHATTAN HIGHWAY HARTFORD, CT 06183		CROSSROADS CORPORATE CENTER INTERNATIONAL BOULEVARD MAHWAH, NJ 07485		150 WILLOW STREET HAMDEN, CT 06518		CT54XC773			
158-06								REV	
								DATE: 03/29/07	
								1	



BASEMAPPING PREPARED FROM A SURVEY COMPLETED BY BL COMPANIES, DATED 10/13/05, AND A SITE VISIT BY INFINGY ENGINEERING.



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

infinigy
engineering
810 MARSHALL STREET
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Sprint
CROSSROADS CORPORATE CENTER
INTERNATIONAL BOULEVARD
SUITE 200
MAYTOWN, NJ 07495

HAMDEN
150 WILLOW STREET
HAMDEN, CT 06518

GRADING PLAN
CT154XC773
C3A

DATE: 03/29/07
REV 1

NO.	DATE	REVISIONS	BY	CHK	APP
0	3/29/07	ISSUED FOR REVIEW	DAW	DAW	DAW
0	3/29/07	REVIEWED PER CLIENT COMMENT	DAW	DAW	DAW

158-06

1. ALL EXCAVATIONS ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIALLY HORIZONTAL ON UNDISTURBED AND UNFROZEN SOIL AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUNDWATER. DOWATERING FOR EXCESS GROUNDWATER SHALL BE PROVIDED IF REQUIRED.

1. ALL EXCAVATIONS ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIALLY HORIZONTAL ON UNDISTURBED AND UNFROZEN SOIL AND SHALL BE FREE FROM LOOSE MATERIAL AND EXCESS GROUNDWATER. DEWATERING FOR EXCESS GROUNDWATER SHALL BE PROVIDED IF REQUIRED.
2. CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC MATERIAL. IF SOUND SOIL IS NOT REACHED AT THE DESIGNATED EXCAVATION DEPTH, THE EXCAVATION SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRAVEL SURFACING OR THE EXCAVATION BE FILLED WITH CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION.
3. ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH EITHER MECHANICALLY COMPACTED GRAVEL SURFACING MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL NOT BE USED AS COMPILING CONCRETE THICKNESS.
4. AFTER COMPLETION OF THE FOUNDATION AND OTHER CONSTRUCTION BELOW GRADE, AND BEFORE BACKFILLING, ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH.
5. -USE APPROVED MATERIALS CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND BE FREE FROM CLODS OR STONES OVER 2-1/2" MAXIMUM DIMENSIONS
-BE PLACED IN 6" LAYERS AND COMPACTED TO 98% STANDARD PROCTOR EXCEPT IN GRASSED/LANDSCAPED AREAS, WHERE 90% STANDARD PROCTOR
6. REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE PRIOR TO BACKFILLING. ALL BACKFILLING SHALL BE PLACED IN 6" LAYERS AND COMPACTED TO 98% STANDARD PROCTOR. BACKFILLING SHALL BE HORIZONTAL STRIKES OF 10' TO 15' MAXIMUM. WHEN SUBGRADE OR EXISTING GROUND SURFACE TO EXCEED A SLOPE LESS THAN THAT REQUIRED FOR FILL, BREAK UP GROUND SURFACE TO DEPTH REQUIRED, PULVERIZE, MOISTURE-CONDITION OR AERATE SOIL AND RECOMPACT TO REQUIRED DENSITY.
7. PROTECT EXISTING GRAVEL SURFACING AND SUBGRADE IN AREAS WHERE EQUIPMENT U WILL OPERATE. USE PLANKING OR OTHER SUITABLE MATERIALS DESIGNED TO SPREAD LOADS. REPAIR DAMAGE TO EXISTING GRAVEL SURFACING OR SUBGRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTOR'S OPERATIONS. DAMAGED GRAVEL SURFACING SHALL BE RESTORED TO MATCH THE ADJACENT UNDAUNAGED GRAVEL SURFACING AND SHALL BE OF THE SAME THICKNESS.
8. REPLACE EXISTING GRAVEL SURFACING ON AREAS FROM WHICH GRAVEL SURFACING IS REMOVED DURING CONSTRUCTION OPERATIONS. GRAVEL SURFACING SHALL BE REPLACED TO MATCH EXISTING ADJACENT GRAVEL SURFACING AND SHALL BE OF THE SAME THICKNESS. SURFACES OF GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS A DAMAGED GRAVEL SURFACING MAY BE EXCAVATED SEPARATELY AND REUSED IF MINOR AMOUNTS OF FILL SURFACING ARE REQUIRED. EXCESS DELETERIOUS MATERIALS AS REQUIRED PRIOR TO REUSE. FURNISH AN ADDITIONAL 6" OF GRAVEL SURFACING MATERIAL BEFORE GRAVEL SURFACING IS REPLACED. SUBGRADE SHALL BE REPAIRED TO REQUIRED SUBGRADE ELEVATIONS, AND LOOSE OR DISTURBED MATERIALS SHALL BE COMPACTED, DEPRESSIONS IN THE SUBGRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL MAY BE USED FOR FILLING DEPRESSIONS IN THE SUBGRADE, SUBJECT TO ENGINEER'S APPROVAL.
9. DAMAGE TO EXISTING STRUCTURES AND UTILITIES RESULTING FROM CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED/REPLACED TO OWNER'S SATISFACTION AT CONTRACTOR'S EXPENSES.
10. CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH PROPERTY OWNER TO AVOID INTERRUPTIONS TO PROPERTY OWNER'S OPERATIONS.
11. ENSURE POSITIVE DRAINAGE DURING AND AFTER COMPLETION OF CONSTRUCTION.
12. ALL CUT AND FILL SLOPES SHALL BE MAXIMUM 2 HORIZONTAL TO 1 VERTICAL.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING SITE VEHICLE TRAFFIC AS TO WHEN TRUCKS ARE ALLOWED INTO THE SITE TO TRACK MUD ONTO PUBLIC STREETS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING PUBLIC STREETS DUE TO MUDDY VEHICLES LEAVING THE SITE.

1. THE SOIL EROSION AND SEDIMENT CONTROL MEASURES AND DETAILS AS SHOWN HEREIN AND STIPULATED WITHIN STATE STANDARDS SHALL BE FOLLOWED AND INSTALLED IN A MANNER SO AS TO MINIMIZE SEDIMENT LEAVING THE SITE.

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

[illegible]

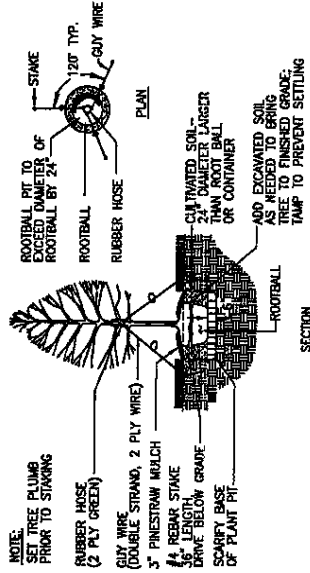
TALL FESCUE GRASS		1.0#	APRIL 1 - OCTOBER 15	
SERPENA LESFONDEZA SEED BEARING HAY WITH OVERSEEDING WEEPING LOVEGRASS		140# 6.3#	OCTOBER 1 - MARCH 15 MARCH 15 - MAY 1	
FERTILIZER MIX				
APPLICATION	N, #/ACRE	P ₂ O ₅ , #/ACRE	K ₂ O, #/ACRE	N, TOP DRESSING
1st	80 - 90	120 - 180	120 - 180	50
2nd	80	120	120	-

NOTE:
- GRASS AND MULCH ALL DISTURBED AREAS
HYDRAULIC SEEDING EQUIPMENT

When hydraulic seeding and fertilizing equipment is used, no grading and shaping or prescribed preparation of the seed and wood cellulose fiber mulch will be given. The fertilizer, seed and wood cellulose fiber mulch will be mixed with water and applied in a slurry. The slurry will be combined to form a homogeneous mixture and spread uniformly within one hour after mixture is made. Straw or hay mulch and asphalt emulsion will be applied with blower-type mulch spreading equipment within 24 hours after seeding. The mulch will be spread uniformly over the area, leaving about 25 percent of the ground surface exposed.

CONVENTIONAL SEEDING EQUIPMENT

SPRADE, SHAPE AND SMOOTH WERE NEEDED TO PROVIDE FOR SAFE EQUIPMENT OPERATION AT THE SPREADING TIME AND FOR MAINTENANCE PURPOSES. THE LIME AND FERTILIZER IN DRY FORM WILL BE SPREAD UNIFORMLY OVER THE AREA IMMEDIATELY BEFORE SEEDBED PREPARATION. A PREPARED SEEDBED WILL BE PREPARED BY SCARPING TO A DEPTH OF 1 TO 4 INCHES AS DETERMINED BY SOIL ANALYSIS. THE SEEDBED WILL BE PREPARED BY OTHER MEANS WHEN SOIL ANALYSIS INDICATES THAT THE SEEDBED WILL BE DONE WITH CULTIVATOR-SEEDER, DRILL, ROTARY SEEDER OR OTHER MEANS. SEED WILL BE DISTRIBUTED UNIFORMLY OVER A FRESHLY PREPARED SEEDBED AND LIGHTLY, WITHIN 24 HOURS AFTER SEEDING, STRAW OR ANY MULCH WILL BE SPREAD OVER THE AREA, LEAVING ABOUT 25 PERCENT OF THE GROUND SURFACE EXPOSED. MULCHING WILL BE DONE WITHIN 24 HOURS OF SEEDING. THE MULCH WILL BE SET BACK AND ANCHORED IMMEDIATELY AFTER IT IS SPREAD, A DISK HARROW WILL BE USED TO SET STRAW OR A SPECIAL HARROW DISK MAY BE USED TO PRESS THE MULCH INTO THE SOIL.



1 TREE STAKING AND GUYING
--- NOT TO SCALE



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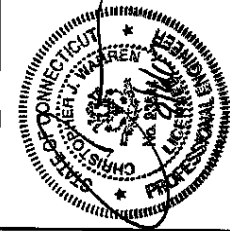
150 WILLOW STREET

GRADING & EROSION CONTROL NOTES

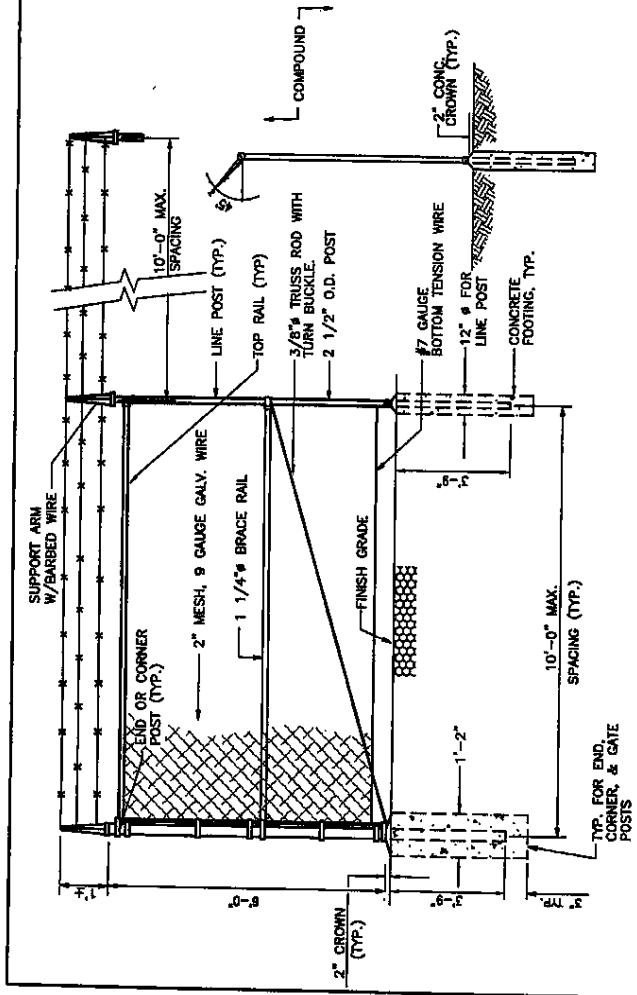
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DATE: 03/29/07

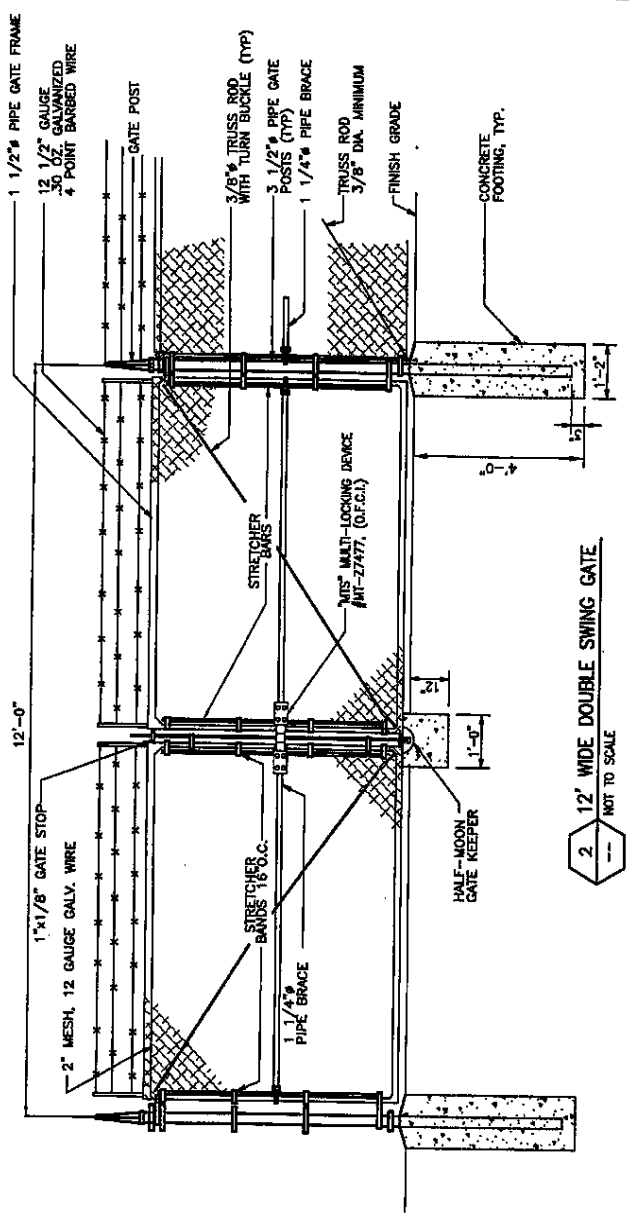
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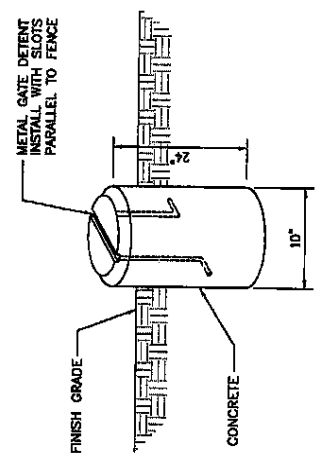
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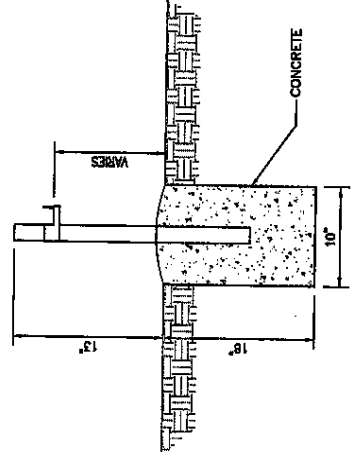
1 CHAIN LINK FENCE DETAIL (ELEVATION)
NOT TO SCALE



2 12' WIDE DOUBLE SWING GATE
NOT TO SCALE



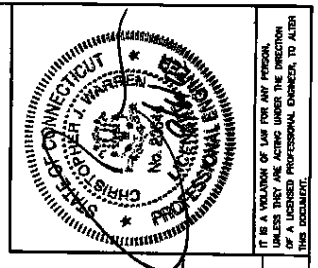
3 GATE DETENT DETAIL
NOT TO SCALE



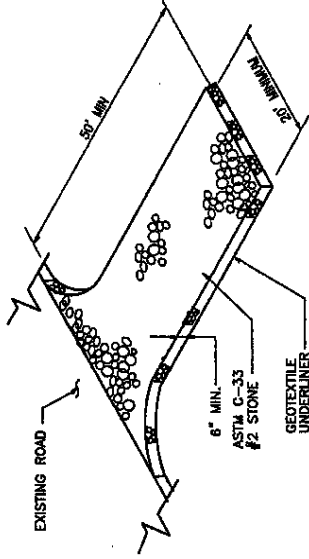
4 GATE/STOPPER DETAIL
NOT TO SCALE

FENCE NOTES:

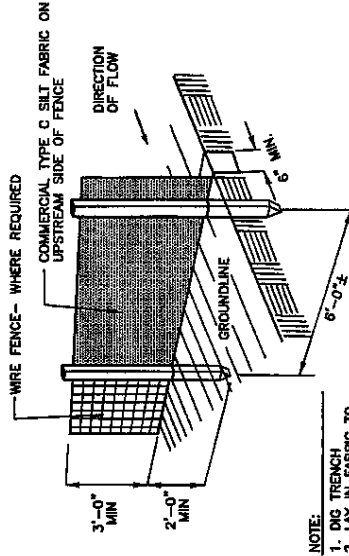
1. FENCING MATERIALS SHALL BE OF GALVANIZED STEEL.
2. POST, BRACES AND GATE FRAMES SHALL BE SCHEDULE 40 (STANDARD WEIGHT) PIPE. SIZES SPECIFIED ARE NOMINAL DIAMETER.
3. DOUBLE SWING GATE SHALL BE PROVIDED WITH TUBULAR PLUNGER BAR, 1 LOCK KEEPER, 1 LOCK KEEPER GUIDE, 2 LATCH FORKS, 2 FORK CATCHES, 1 CATCH FOR PLUNGER BAR, AND 2 GATE STOPS LOCATED AS DIRECTED BY THE OWNER.
4. POSTS, CAPS AND OTHER NECESSARY FENCE FITTINGS SHALL BE AS MANUFACTURED BY THE FENCE MANUFACTURER OR EQUAL. HINGES SHALL BE OF GALVANIZED STEEL.
5. POSTS SHALL BE SPACED EQUIDISTANT BUT NOT MORE THAN 10' O.C.
6. BOTTOM OF FENCE SHALL BE NO MORE THAN 3" ABOVE GRADE AT ANY SECTION.



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NO. DATE		REVISIONS		DATE: 03/29/07		DATE: 03/29/07		REV	
DESIGNED PER CLIENT COMMENT		DWL SUB DWG							
ISSUED FOR REVIEW		DWL SUB DWG							
BY: CLK/MPZ									



1 CONSTRUCTION EXIT DETAIL
NOT TO SCALE



- NOTE:
1. DIG TRENCH
 2. LAY IN FABRIC TO BOTTOM OF TRENCH
 3. BACKFILL TRENCH, COVERING FABRIC

3 SILT FENCE DETAIL
NOT TO SCALE

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS: STEEL EITHER T OR U TYPE.
 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
 5. ALL SILT FENCE MATERIALS MUST BE LISTED ON THE CURRENT STATES, D.O.T. QUALIFIED PRODUCTS LIST.
- PREFABRICATED UNIT: GEOTAB, ENVIROFENCE OR APPROVED EQUAL
- FILTER CLOTH: FILTER X, MIRAFI 100X STABILANKA T140N OR APPROVED EQUAL
- POSTS: STEEL EITHER T OR U TYPE
- FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING.

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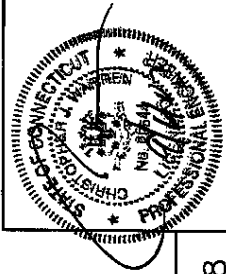
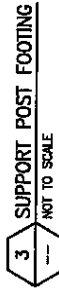
MINIMUM CABLE SIZE	NOMINAL CABLE SIZE	CABLE PART NO.	MINIMUM BEND RADIUS	NON-INSULATED JAMMER KIT	SNAP-IN HARDER KIT
1/2"	1 810918-001	LC712-50	5"	920081-010	915859
1 1/4"	1 810921-001	LC778-50	7 7/8"	920081-007	915660
1 1/4"	1 810915-001	LC711-50	15"	920081-004	915504
1 5/8"	1 810920-001	LC7158-50	20"	920081-012	915681
1 1/2" JAMPER	920082-001 5' 920082-006 6' 920082-010 8' 920082-018 10'	SC712-50	6"	920081-010	915659

1. WHEN USING PIROD COMPONENTS AS SHOWN IN STANDARD DETAILS, MAXIMUM ALLOWABLE SPAN BETWEEN SUPPORTS ON A CONTINUOUS SINGLE SECTION OF BRIDGE CHANNEL SHALL BE 19 FEET FOR 20 FEET BRIDGE CHANNEL, OR 9 FEET FOR 10 FEET BRIDGE CHANNEL.
2. WHEN USING PIROD COMPONENTS FOR SPLICING BRIDGE CHANNEL SECTIONS, THE SPLICE SUPPORT BE PROVIDED AT THE SUPPORT, IF POSSIBLE, OR AT A MAXIMUM OF 2 FEET FROM THE SUPPORT.
3. WHEN USING PIROD COMPONENTS, SUPPORT SHOULD BE PROVIDED AS CLOSE AS POSSIBLE TO THE ENDS OF ICE BRIDGES, WITH A MAXIMUM CANTILEVER DISTANCE OF 2 FEET FROM THE SUPPORT TO THE FREE END OF THE ICE BRIDGE.
4. CUT BRIDGE CHANNEL SECTIONS SHOULD HAVE RAW EDGES TREATED WITH A MATERIAL TO RESTORE THE EDGES TO THE ORIGINAL CHANNEL, OR EQUIVALENT, FINISH.
5. ICE BRIDGES MAY BE CONSTRUCTED WITH COMPONENTS FROM MANUFACTURERS OTHER THAN PIROD, PROVIDED THE MANUFACTURER'S INSTALLATION GUIDELINES ARE FOLLOWED.
6. DEVIATIONS FROM STANDARDS FOR COMPONENT INSTALLATIONS ARE PERMITTED WITH THE RESPECTIVE MANUFACTURER'S APPROVAL.
7. ATTACH FLANGED END OF SUPPORT POST TO CONCRETE PAD USING 4 - 3/8" DIA. HILT-HY 150 ADHESIVE ANCHORS. PROVIDE MINIMUM OF 1/2" EMBEDMENT.
8. DEVIATIONS FROM ICE BRIDGE FOUNDATIONS SHOWN ON SITE SPECIFIC DRAWINGS OR STANDARD DETAILS REQUIRE ENGINEERING APPROVAL.



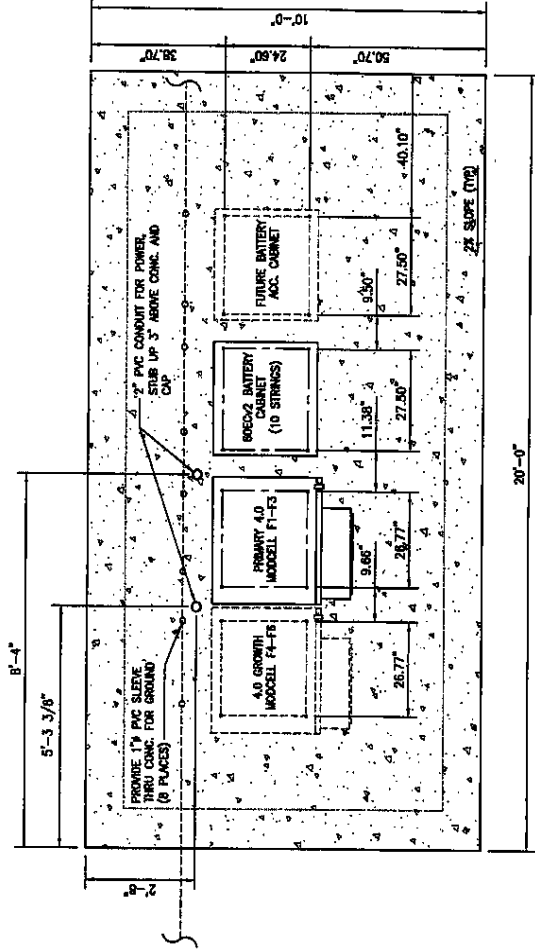
1. THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORTS.
2. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1-1/4" DIAMETER, SCHEDULE 40 GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 18 INCHES) USING A CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR SURFACE. A HACK SAW SHALL NOT BE USED. THE PIPE SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.

2 GPS ANTENNA
-- NOT TO SCALE

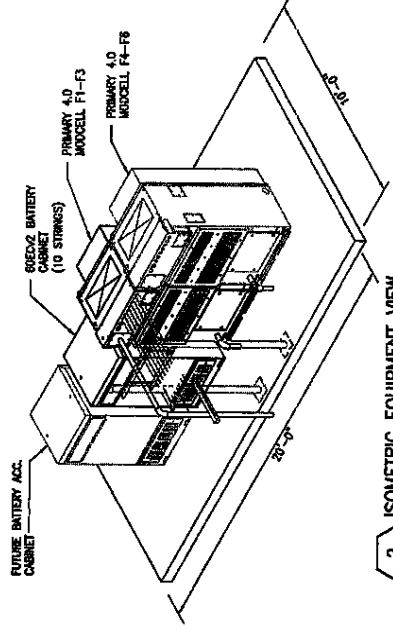


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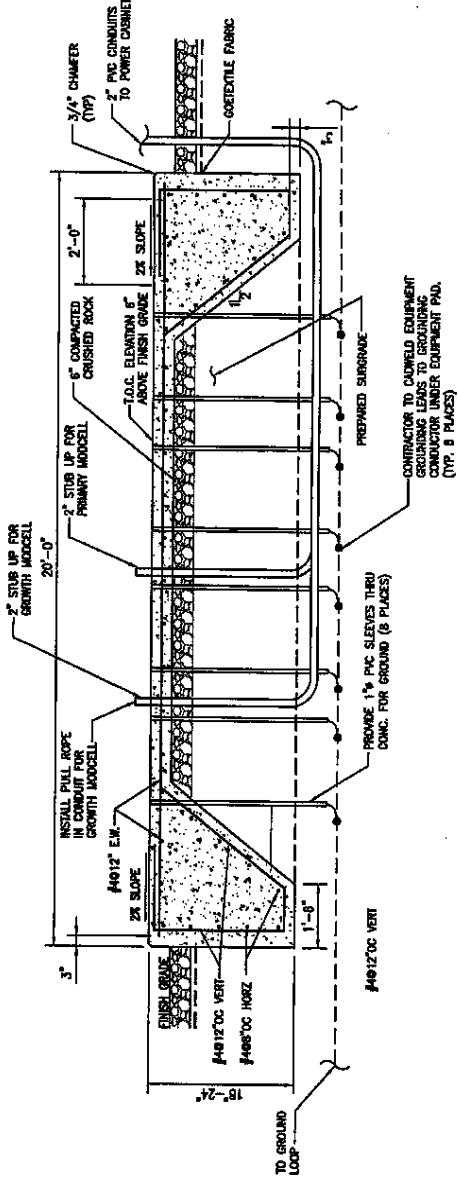
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1 EQUIPMENT CABINET LAYOUT AND ANCHORING
NOT TO SCALE



2 ISOMETRIC EQUIPMENT VIEW
NOT TO SCALE



3 EQUIPMENT CABINET FOUNDATION
NOT TO SCALE



NO.	DATE	REVISIONS	BY	CHK	APP
0	07/17/06	REVISED PER CLIENT COMMENT	EDM	SM	CMW
0	04/28/07	ISSUED FOR REVIEW	EDM	SM	CMW

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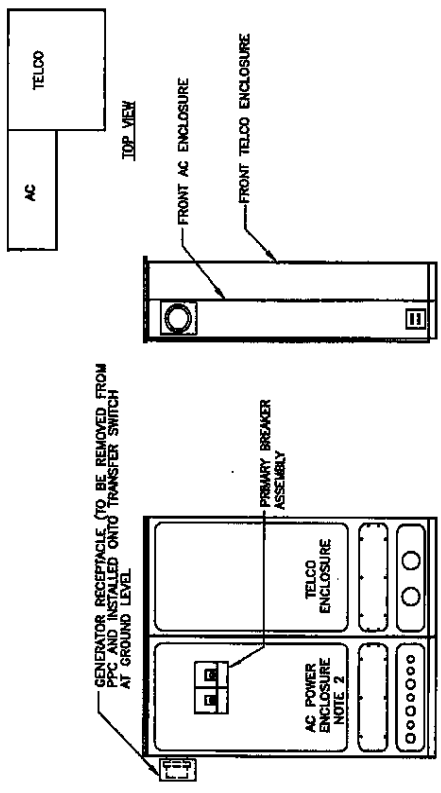
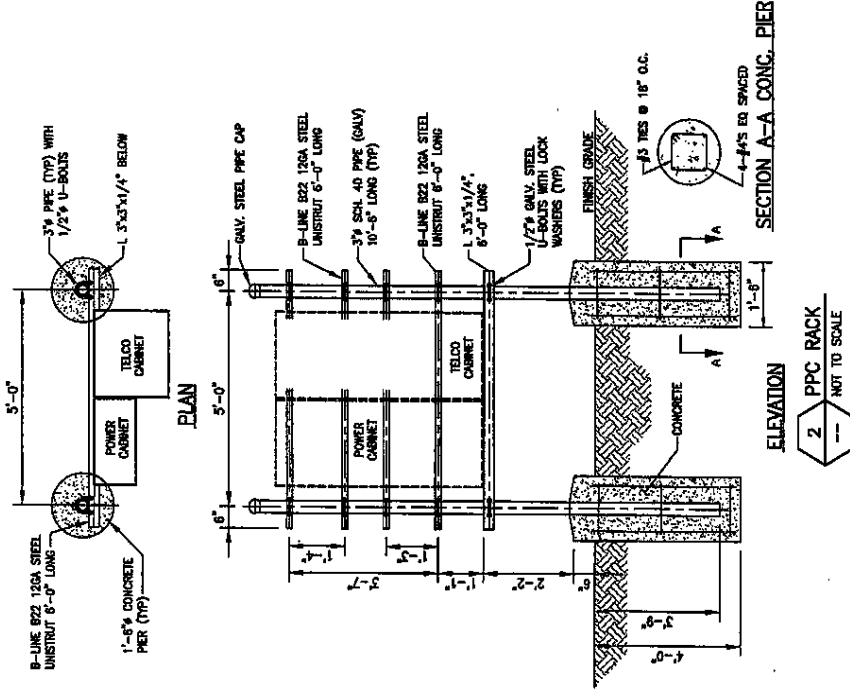
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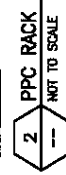
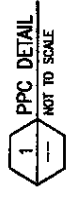
DETAILS
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DATE: 03/29/07
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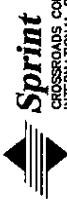
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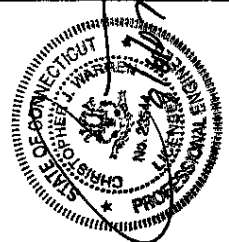
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- NOTES**
1. METER SOCKET BY THIS CONTRACT. METER TO BE SUPPLIED BY LOCAL UTILITY COMPANY.
 2. AC POWER ENCLOSURE: 200 AMP, 240/120V, 1P, 3W W/ GROUND, 200A/2P MAIN CIRCUIT BREAKER.
 3. ALL EQUIPMENT SHALL BE GROUNDED PER LATEST EDITION OF NEC AND AS INDICATED.
 4. ELECTRICAL EQUIPMENT SHALL BE MIN. 3'-0" FROM ANY STRUCTURE AND AS REQUIRED BY LOCAL UTILITY COMPANIES AND AHI.
 5. CONTRACTOR MUST LABEL ALIKE BREAKERS IN POWER CABINET.
 6. REFER TO ACTUAL EQUIPMENT DRAWINGS



				HAMDEN 150 WILLOW STREET HAMDEN, CT 06518		PPC DETAILS CT54XC773		C11
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1	08/07/07							



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GROUNDING SYMBOLS

- TO EXISTING SNET POLE
- 3 SETS (600 A SERVICE) (1)4" C
200 AMP 1-PHASE
- GROUND ROD
ACCESS WELL
GROUND ROD WITH ACCESS
#2 BOW GROUNDING WIRE U.L.O.
INDICATES CODED NOTE



- | ABBREVIATIONS | |
|---------------|-----------------------------------|
| CIGRE | COAX ISOLATED GROUND BAR EXTERNAL |
| MGB | MASTER ISOLATED GROUND BAR |
| SST | SELF SUPPORTING TOWER |
| GPS | GLOBAL POSITIONING SYSTEM |
| TP. | TYPICAL |
| DWG | DRAWING |
| BCW | BARE COPPER WIRE |
| BFG | BELOW FINISH GRADE |
| W/ | WITH |
| PVC | POLYVINYL CHLORIDE |
| CAB | CABINET |
| C | CONDUIT |
| SS | STAINLESS STEEL |
| G | GROUND |
| AWG | AMERICAN WIRE GAUGE |
| RGS | RIGID GALVANIZED STEEL |

CONTRACTOR TO PULL BOTH PRIMARY & GROWTH CABINET CIRCUITS. CIRCUIT 2 (GROWTH) CONDUCTORS ARE TO BE PIT-TAILED INSIDE THE PPC WITH LENGTH IN EXCESS OF THAT REQUIRED TO TERMINATE ON THE FUTURE CIRCUIT 2 CIRCUIT BREAKER. THE ENDS ARE TO BE INSULATED WITH TWIST-TYPE INSULATED SPRING CONNECTORS, AND THE CONDUCTORS ARE TO BE TAPED BACK IN THE WIREWAY, AND TAGGED "RF CABINET C-SPARE". AT THE PRIMARY RF CABINET CIRCUIT 2 (GROWTH) IS TERMINATED ON THE PDA.

NOTE:

1. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT FOR PPC, REFER TO VENDOR WINING DIAGRAM PROVIDED BY MANUFACTURER & REFERENCED INSIDE PPC CABINET.
2. EACH ELECTRICAL SERVICE SHALL BE RATED 200A, 240/120, 1Ø 3W.
3. PROVIDE (2) 80 AMP, SINGLE PHASE BREAKERS IN LOAD CENTER FOR MOD CELL 4.0.



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CODED DRAWING NOTES:

- 1 2" PVC W/(3) #5/0 + #66 TO POWER/TELCO FRAME.
- 2 (1) 2" WITH (2) PULL STRINGS AND 12-PAR (EACH PAR INDIVIDUALLY SHIELDED) #24 AWG ISIP TELEPHONE CABLE. INSTALL CABLE WITHOUT SPLICE (FROM DEMARCATION TO PPC). LEAVE 15'-0" OF SLACK CABLE AT EACH END. LABEL AS "1-1" AT EACH END AND AT ALL PULL BOXES.
- 3 PPC FURNISHED BY SPRINT. COORDINATE STUB-UP LOCATIONS WITH EQUIPMENT LAYOUT.
- 4 T1 CABLEING SHALL BE SUPERIOR ESSEX TYPE SEALED-EST (PVC PE-80) DRAWING AS PAR. CABLE OR EQUIPMENT CABLE SHALL BE NON-TWISTED WITH SOLID ANNEALED COPPER AND INSULATING INNER LAYER OF FOAMED POLYOLEFIN FRAM COVERED BY AN OUTER LAYER OF SOLID, COLORED POLYOLEFIN. CONDUCTOR SHALL BE COLOR CODED TO INDUSTRY STANDARDS WITH A WRAP OF DIELECTRIC TAPE APPLIED OVER THE CORE ASSEMBLY. SHIELDING SHALL BE COPOLYMER COATED 8-MIL ALUMINUM TAPE. OVERWALL JACKET SHALL BE BLACK POLYETHYLENE MARKED WITH MANUFACTURER'S IDENTIFICATION, PAR COUNT, AND CONDUCTOR IDENTIFICATION AT REGULAR INTERVALS. MAXIMUM CONDUCTOR LENGTH SHALL NOT EXCEED 100 FEET. CABLES SHALL NOT EXCEED THE EQUIVALENT OF 115/1000 S-S-A-M-E-C-O-R TELECOMMUNICATIONS CABLE - FILLED POLYOLEFIN INSULATED COPPER CONDUCTOR, AND RURAL UTILITIES SERVICE 7 CTR 1755-BRG SPECIFICATION FOR FILLED TELECOMMUNICATIONS CABLES WITH EXPANDED INSULATION.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL CABLE IN THE T1 CONDUIT FROM THE NETWORK INTERFACE UNIT (NIU) AT THE POWER PROTECTION CABINET (PPC) TO THE BASE TRANSFORMER STATION (BTS). IN THE EVENT THAT THE NIU IS REMOTE FROM THE PPC, THE CABLE SHALL BE ROUTED FROM THE NIU, THROUGH THE PPC WITHOUT TERMINATION EXCEPT AS OTHERWISE INDICATED, AND THEN TO THE BTS. WHEN THE NIU IS REMOTE FROM THE PPC, 48" OF SLACK CABLE SHALL BE LEFT AT THE PPC TO ENABLE TERMINATION IN A PULL-JOIN BLOCK AT A FUTURE TIME AND UNDER A SEPARATE CONTRACT.
- AT THE NIU AND AT THE BTS, CONTRACTOR SHALL TERMINATE SUITABLE PAIRS TO PROVIDE THE T1 CIRCUITS REQUIRED. ADDITIONAL CABLE SHALL BE TAKEN BY THE CONTRACTOR TO ENSURE THAT SUITABLE LENGTHS OF THE REMAINING SPARE CONDUCTOR PAIRS ARE PROVIDED FOR TERMINATION AT FUTURE EQUIPMENT. THESE SPARE CONDUCTORS WILL BE UTILIZED AS NEW T1'S ARE ADDED DURING FUTURE PROJECTS REQUIRING ADDITIONAL T1'S. THE LENGTHS OF SPARE PAIRS SHALL BE COILED AND THE COILS SHALL BE IDENTIFIED AT THE BTS AND THE END-POINT OF SPRINT'S RESPONSIBILITY WITH THE LEC (TELCO BOX, NIU, NIU ETC.). PROVIDE MINIMUM 36" COILED CONDUCTOR AT EACH LOCATION.
- 5 200A COMBINATION METER/CIRCUIT BREAKER FOR SPRINT. METER BY UTILITIES.
- 6 (1) 1/4" CONDUIT W/PULLSTRING FOR POWER FROM EXISTING UTILITY POLE TO POWER/TELCO FRAME. (800 AMP SERVICE)
- 7 (2) 1/4" CONDUITS W/PULLSTRINGS FROM EXISTING UTILITY POLE TO CSC CABINET FOR TELCO.
- 8 STRAIGHT RUNS SHALL HAVE 18"x18"x18" PULLBOX EVERY 75'
- 9 (1) 1/2" MC (INTERMEDIATE METAL CONDUIT) W/2 #12 THIN WIRES & (1) #126 FOR CELL SITE LIGHT
- 10 2" PVC CONDUIT W/(4) #2 AWG, (1) #6 AWG & (1) #6 GND.
- 11 2" PVC CONDUIT W/12-PAR (EACH PAR INDIVIDUALLY SHIELDED) #24 AWG ISIP TELEPHONE CABLE.

ELECTRICAL SYMBOLS

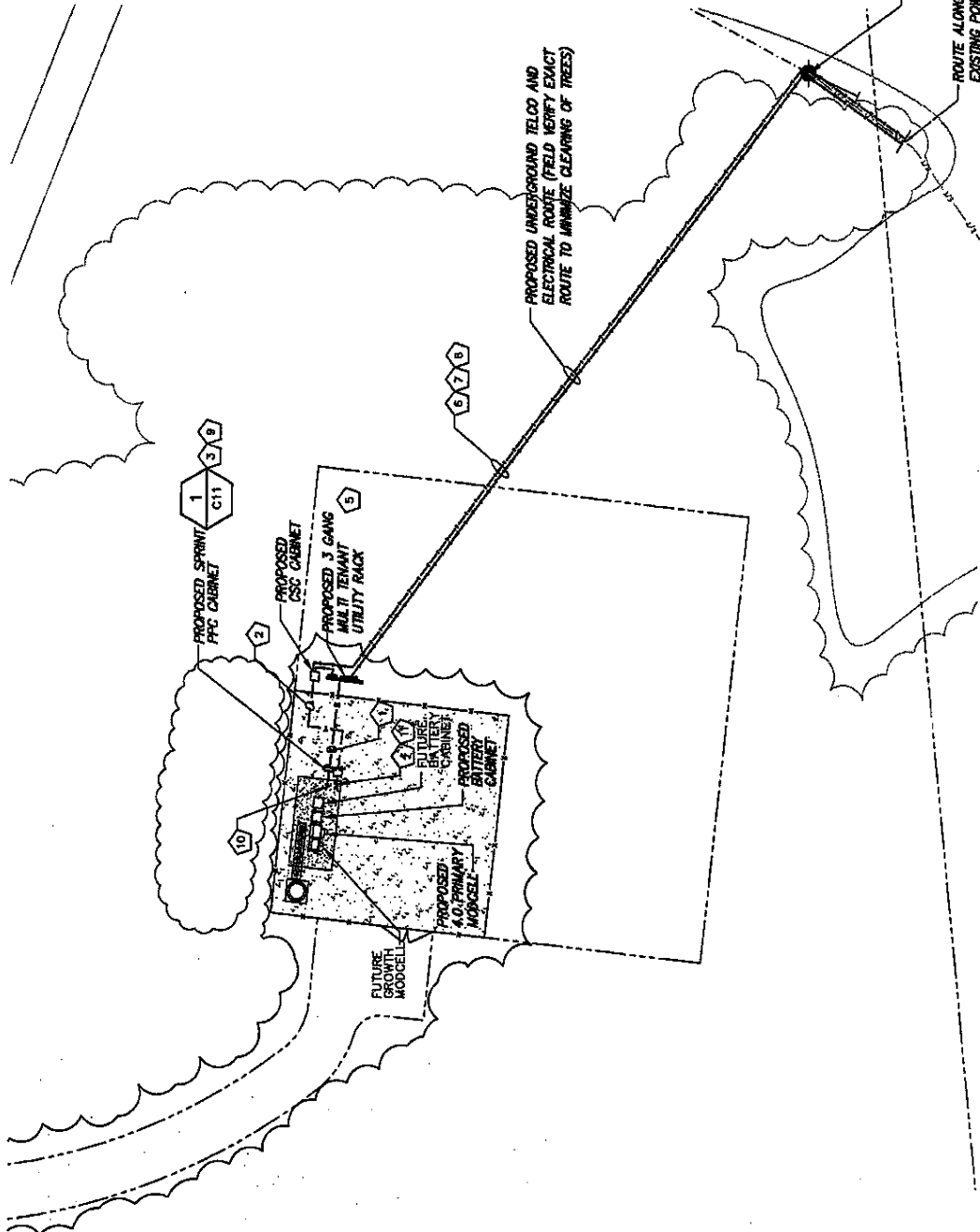
- BURIED RACEWAY
- INDICATES CODED NUMBER

ABBREVIATIONS

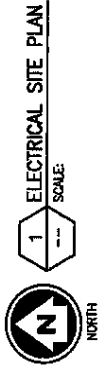
- CGBE COAX ISOLATED GROUND BAR EXTERNAL
SST SELF SUPPORTING TOWER
GPS GLOBAL POSITIONING SYSTEM
TYP. TYPICAL
DWG. DRAWING
BCW BARE COPPER WIRE
BFG BELOW FINISH GRADE
W/ WITH
PVC POLYVINYL CHLORIDE
CAB CABINET
C CONDUIT
SS STAINLESS STEEL
G GROUND
AWG AMERICAN WIRE GAUGE
RGS RIGID GALVANIZED STEEL

GENERAL ELECTRICAL NOTES:

1. ALL MATERIALS SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC) AND THE SPRINT TECHNICAL SPECIFICATIONS (NO. 6-001, TECHNICAL SPECIFICATIONS FOR CONSTRUCTION) AND NO. 6-002, "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF ELECTRICAL AND NETWORK SYSTEM" IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATIONS AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN. IN CASE OF A CONFLICT BETWEEN SISP STANDARD PRACTICES AND EITHER THE CONSTRUCTION SPECIFICATIONS OR THE DRAWINGS, THE SPRINT PCS STANDARD PRACTICES SHALL GOVERN.
2. COORDINATE ALL CONDUIT STUB-UP LOCATIONS WITH UTILITY COMPANY.
3. PROVIDE WEATHERPROOF SEALS FOR ALL CONDUIT STUB-UPS.
4. ALL ABOVE GROUND CONDUITS TO BE RGS.
5. ALL CONDUCTORS SHALL BE COPPER, ALUMINUM CONDUCTORS SHALL NOT BE USED.
6. ALL CONDUCTORS SHALL BE PREPARED FOR TERMINATION, COILED, BAGGED AND SECURED FOR FUTURE CONNECTION OF OTHERS.
7. ALL CONDUCTORS TERMINATION IN THE COMMUNICATION EQUIPMENT SHALL HAVE A MINIMUM OF 8'-0" OF SLACK FOR INSTALLATION INTO EQUIPMENT.



GRAPHIC SCALE



ELECTRICAL SITE PLAN

SCALE: 1" = 20'

infinig
engineering

158-06

Sprint
CORPORATE CENTER
INTERNATIONAL BOULEVARD
SUITE 800
MAHWAH, NJ 07485

HAMDEN
150 WILLOW STREET
HAMDEN, CT 06518

ELECTRICAL SITE PLAN
CT54XC773

E2

DATE: 03/29/07

REV 1

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CODED DRAWING NOTES

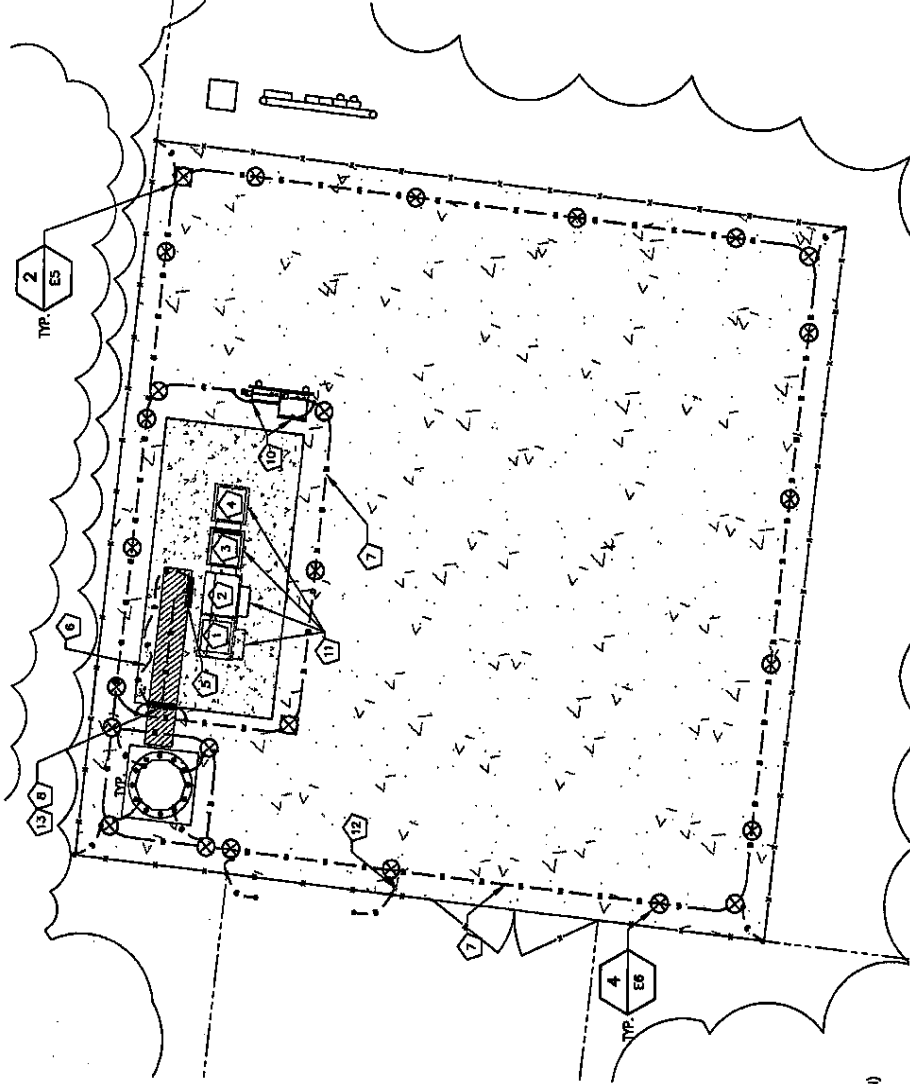
- 1 FUTURE MODEL. FURNISHED BY SLP.
2 PRIMARY MODEL. FURNISHED BY SLP.
3 BATTERY CABINET. FURNISHED BY SLP.
4 FUTURE BATTERY CABINET. FURNISHED BY SLP.
5 MCB.
6 ICE BRIDGE. BOND EACH SECTION TO GROUND RING WITH #2 AWG CONDUCTORS.
7 #2 AWG SOLID ANNEALED TINNED BCW BURIED GROUND RING.
8 CIGBE.
9 BOND PROPOSED METER WITH #2 SOLID TINNED BCW. TERMINATE AT METER PER UTILITY COMPANY SPECIFICATIONS AND PER NEC REQUIREMENTS.
10 BOND PPC TO NEW GROUND RING (TYP. OF 2 PLACES).
11 BOND EQUIPMENT TO GROUND RING (TYP. 8 PLACES).
12 BOND FENCE POST AND GATE TO GROUND RING.
13 BOND TO PROPOSED TOWER GROUND RING.

GROUNDING SYSTEM NOTES:

1. THE CONTRACTOR SHALL VERIFY THAT THE SYSTEM IS EFFECTIVELY GROUNDED, MEETS NEC ARTICLE 250 REQUIREMENTS, IS ACCEPTABLE TO THE LOCAL UTILITY AND THE LOCAL AUTHORITY HAVING JURISDICTION, AND MEETS SPRINT PCS ELECTRICAL AND GROUNDING SPECIFICATIONS.
2. ALL EXTERIOR AND UNDERGROUND CONNECTIONS SHALL BE IN ACCORDANCE WITH SPRINT PCS ELECTRICAL AND GROUNDING SPECIFICATIONS.
3. ALL INTERIOR GROUNDING AND BONDING CONNECTIONS WITHIN BUILDINGS SHALL BE IN ACCORDANCE WITH SPRINT PCS ELECTRICAL AND GROUNDING SPECIFICATIONS.
4. REFER TO DRAWINGS FOR GROUND SYSTEM REQUIREMENTS. WHERE SHOWN ON DRAWINGS, CABLE SHALL BE AS FOLLOWS:
A. LIGHTNING PROTECTION CONNECTION, WATER SERVICE CONNECTION, BUILDING STEEL CONNECTION. (ABOVE GROUND APPLICATIONS) #4/0 AWG (INSULATED GREEN)
B. ANTENNA CABLE GROUND CONNECTIONS #2 AWG BTWC
C. SOLID OUTDOOR GROUND RING, ALL EQUIPMENT ON POLES AND TOWERS, CABLE TRAY GROUNDING #2 AWG SOLID TINNED COPPER
D. ROOFTOP GROUND RING #2 AWG SOLID TINNED COPPER
E. INDOOR HALO RING #2 STRANDED (INSULATED GREEN)
F. FENCE GROUNDING CONNECTIONS #2 AWG BARE TINNED COPPER WIRE
G. FENCE GATE JUMPER #2 AWG WELDING CABLE
5. ROOFTOP GROUND RING (IF APPLICABLE) SHALL ENCLOSE STRUCTURAL MEMBERS WITH A MINIMUM RADIUS OF 24" AND ONE SINGLE PATH TO THE MAIN ISOLATED GROUND BAR (MIGB).
6. CABLE TRAY GROUNDING SHALL BE AS INDICATED ON DRAWINGS.

GENERAL GROUNDING NOTES:

1. PROVIDE A GROUND RING BURIED A MINIMUM OF 30" BELOW GRADE OR 6" BELOW FROST LINE. THE GROUND RING SHALL BE INSTALLED 2'-0" AWAY FROM PLATFORM/FOUNDATION (MINIMUM UNLESS SHOWN OTHERWISE ON DRAWING).
2. BOND FENCE POST TO GROUND RING AS SHOWN USING AN EXOTHERMIC WELD. BOND FENCE GATE TO POST WITH A #2 AWG WELDING CABLE. ENCLOSE #10024 OR BUNNY FLEXIBLE COPPER BRIDGED JUMPER TYPE OR APPROVED EQUAL. PROVIDE EXOTHERMIC WELDS AND ANY NECESSARY ACCESS TO BONDING GATE AND FENCE POST. PROVIDE LENGTH AS REQUIRED TO MAKE CONNECTION.
3. BOND PPC AND EQUIPMENT ENCLOSURES TO BURIED GROUNDING CONDUCTOR. USE A NEMA DRILLED, TWO-HOLE CONDUIT CLAMP FOR CONNECTIONS TO SERVICE CONDUITS. EXOTHERMICALLY WELD CONNECTIONS TO GROUNDING CONDUCTOR.
4. EXOTHERMICALLY WELD GROUNDING CONDUCTOR TO COMMUNICATION STRUCTURE 1'-0" ABOVE FOUNDATION AND BOND TO BURIED GROUND RING. PROVIDE A 3/4" PVC SLEEVE WITH A GRADUAL BEND IN THE CONCRETE FOUNDATION.
5. 5/8"x8'-0" LONG COPPER CLAD GROUND ROD. SPACING BETWEEN RODS AS SHOWN (NON-LINEAR). PROVIDE TEE TYPE EXOTHERMIC WELD TO BOND GROUND ROD TO BURIED GROUND RING. TYPICAL FOR ALL GROUND RODS SHOWN AROUND TOWER. SEE GROUND ROD INSPECTION SLEEVE DETAIL.
6. BOND ALL EXTERIOR CONDUITS, PIPES AND CYLINDRICAL METALLIC OBJECTS WITH A PENN-UNION GT SERIES CLAMP, BLACKBURN GUY SERIES CLAMP OR A BUNNY GNR 35008BU SERIES CLAMP ONLY. NO SUBSTITUTES ACCEPTED.
7. AFTER INSTALLATION IS COMPLETED IN CONFORMANCE WITH THESE DRAWINGS AND THE STANDARD SPECIFICATIONS, THE CONTRACTOR SHALL CONFIRM THE IMPEDANCE (GROUND RESISTANCE) TO EARTH AND BETWEEN GROUNDING CIRCUITS. THE GROUNDING SYSTEM IS EXPECTED TO PROVIDE FOR A MAXIMUM EARTH RESISTANCE OF 10 OHMS. THE CONTRACTOR SHALL NOTIFY SPRINT PRIOR TO ALL TESTING AND SHALL FURTHER NOTIFY SPRINT IN THE EVENT THE EARTH RESISTANCE IS GREATER THAN 10 OHMS.
8. GROUNDING SHALL BE IN ACCORDANCE WITH SPRINT SPECIFICATIONS.
9. ALL BENDS ON THE GROUND CONDUCTOR TO BE MADE WITH A MINIMUM 24" RADIUS.
10. GROUNDING DESIGN PENDING RESISTIVITY TEST RESULTS.



1 GROUNDING SITE PLAN
SCALE:

GRAPHIC SCALE
10' 0 10'

infinigy
engineering
910 MARKET STREET
SUITE 200
NORWALK, CT 06858

Sprint
CROSSROADS CORPORATE CENTER
SUITE 200
MAHWAH, NJ 07495

HAMDEN
150 WILLOW STREET
HAMDEN, CT 06518

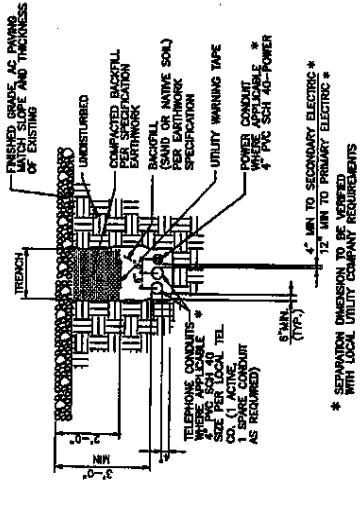
GROUNDING SITE PLAN
CT54XC773

E3

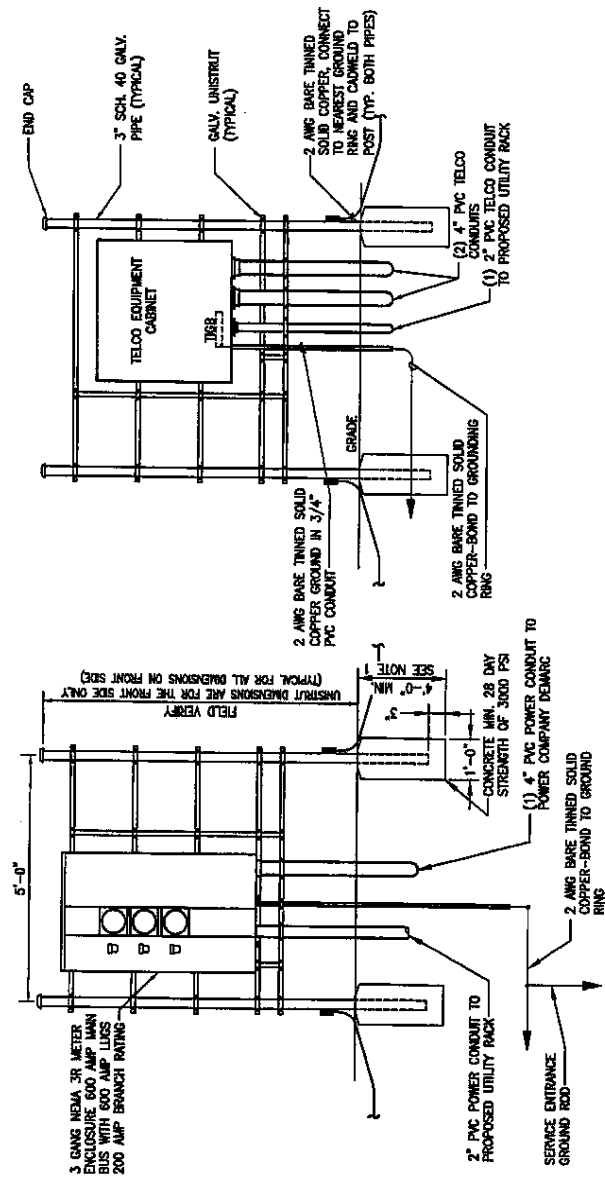
DATE: 03/29/07
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1 UNDERGROUND CONDUIT(S) ELECTRIC/TELEPHONE
NOT TO SCALE



2 POWER / TELCO FRAME
NOT TO SCALE

NOTES

- 1. CONSTRUCT SO CONCRETE FOOTING EXTENDS 6" BELOW FROST LINE AND IN COMPLIANCE WITH ALL LOCAL AND STATE CODES.

infinig engineering

158-06

REVISIONS

NO.	DATE	REVISIONS
0	07/17/07	REVISED PER CLIENT COMMENT
0	08/28/09	REVISED FOR REVIEW

REVISIONS

NO.	DATE	REVISIONS
0	07/17/07	REVISED PER CLIENT COMMENT
0	08/28/09	REVISED FOR REVIEW

Sprint

GROSSROADS CORPORATE CENTER
100 INTERNATIONAL BOULEVARD
SUITE 100
MAHWAH, NJ 07485

Hamden

150 WELLOW STREET
HAMDEN, CT 06518

ELECTRICAL DETAILS

CT54XC773

DATE: 03/29/07

REV 1

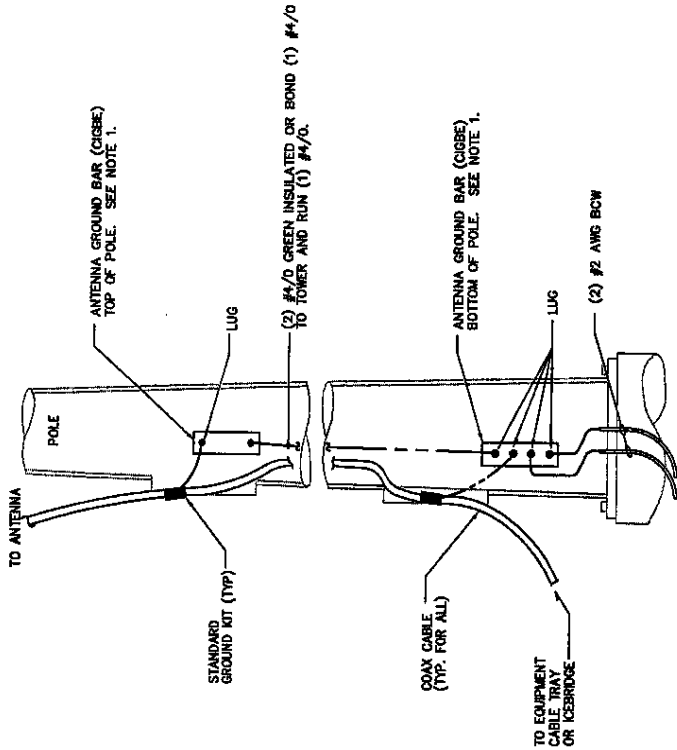
STATE OF CONNECTICUT

CHRISTOPHER L. WARREN

PROFESSIONAL ENGINEER

No. 23844

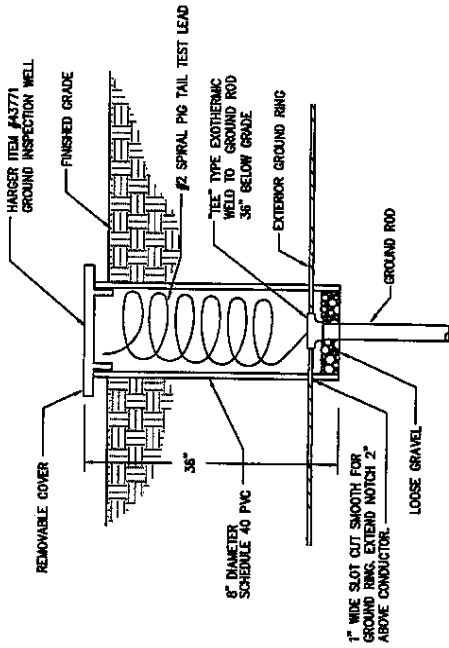
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.



NOTES

1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED.
2. PROVIDE A SEPARATE GROUND BAR FOR GPS ANTENNA.
3. CADDIED TO GROUND RING.
4. INTERMEDIATE CIGSE IS ONLY REQUIRED WHEN RAD CENTER IS GREATER THAN 200 FEET ABOVE BOTTOM CIGSE.

1 ANTENNA CABLE GROUNDING TO
GROUND BAR AND POLE



2 GROUND ROD WITH ACCESS
NOT TO SCALE

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infinigy
engineering
110 MARSHALL HIGHWAY
FARMINGTON, CT 06030
158-06

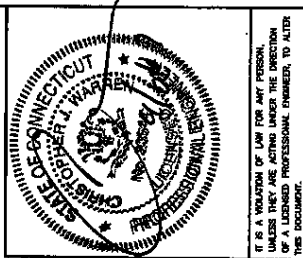
Sprint
CROSSROADS CORPORATE CENTER
1000 MARSHALL BOULEVARD
SUITE 800
MAHWAH, NJ 07485

HAMDEN
150 WILLOW STREET
HAMDEN, CT 06518

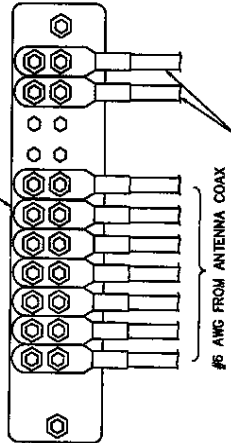
GROUNDING DETAILS
CT54XC773

E5

DATE: 03/29/07
REV 1



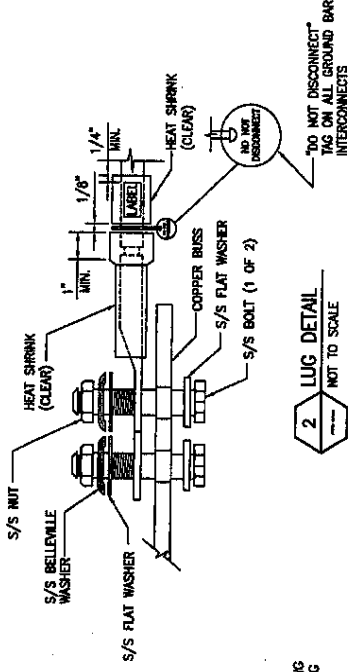
GROUND BAR ON PAD NEXT TO EQUIPMENT



TWO HOLE LUG, TO BE USED WITH #4/0 GREEN INSULATED OR #2 AWG GREEN INSULATED TO GROUND RING AS SHOWN ON GROUNDING PLAN

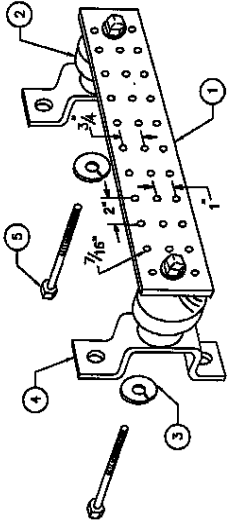
1 MASTER ISOLATED GROUND BAR
NOT TO SCALE

CONTRACTOR TO USE KOPR-SHIELD (THOMAS & BETTS) ON ALL LUG CONNECTIONS.



2 LUG DETAIL
NOT TO SCALE

1. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING BELLEWELLES. COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING.
2. FOR GROUND, BOND TO STEEL ONLY. INSERT A DRAGON TOOTH WASHER BETWEEN LUG AND STEEL. COAT ALL SURFACES WITH KOPR-SHIELD.
3. COAT ALL BARRELS WITH ANTI-OXIDATION COMPOUND BEFORE CRIMPING.

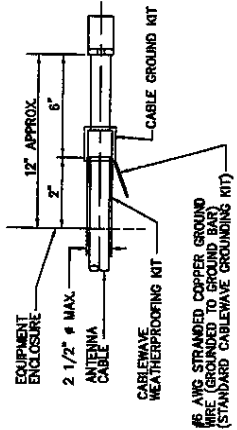


LEGEND

- 1 - SOLID TINED COPPER GROUND BAR, 1/4" x 4" x 20" MIN., NEWTON INSTRUMENT CO. CAT. NO. B-8142. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
- 2 - INSULATORS, NEWTON INSTRUMENT CO. CAT. NO. 3081-4
- 3 - 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-B
- 4 - WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-8056
- 5 - 5/8-11 X 1" H.I.C.S. BOLTS, NEWTON INSTRUMENT CO. CAT. NO. 3012-1
- 6 - GROUND BAR SHALL BE SIZED TO ACCOMMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY
- 7 - GROUND BARS SHALL NEITHER BE FIELD FABRICATED NOR NEW HOLES DRILLED
- 8 - GROUND LUGS SHALL MATCH THE HOLE SPACING ON THE BAR
- 9 - HARDWARE DIAMETER SHALL BE MINIMUM 3/8"
- 10 - APPLY COPPER NO-OX TO EXPOSED AREA OF GROUND BAR.

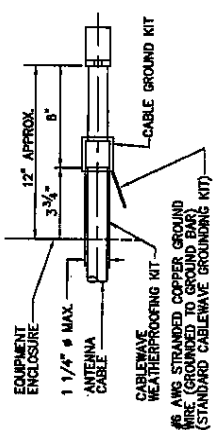
5 STANDARD GROUND BAR
NOT TO SCALE

3 CONNECTION OF GROUND WIRES TO GROUNDING BARS @ ANTENNAS
NOT TO SCALE



#6 AWG STRANDED COPPER GROUND WIRE (GROUNDED TO GROUND BAR) (STANDARD CABLEWAVE GROUNDING KIT)

TO ANTENNA CABLE



TO ANTENNA GPS CABLE

NOTE:
DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

7 CABLE GROUND KIT CONNECTION
NOT TO SCALE

infinigy engineering
110 INDEPENDENT WAY
ROSELAND, NJ 07068

Sprint
CROSSROADS CORPORATE CENTER
SUITE 200
MAHWANT, NJ 07495

HAMDEN
150 WILLOW STREET
HAMDEN, CT 06518

GROUNDING DETAILS
CT54XC773

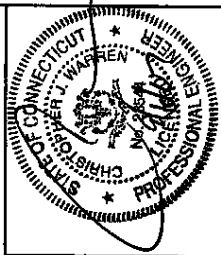
E6

158-06

REV	DATE	REVISIONS
0	12/17/07	REVIEW FOR CLIENT COMMENT
0	12/17/07	ISSUED FOR REVIEW
0	12/17/07	REVISED FOR REVIEW
0	12/17/07	REVISED FOR REVIEW

DATE: 03/29/07

REV 1



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.