



20 ALEXANDER DRIVE, 2nd FLOOR, WALLINGFORD, CT 06492

STERLING 4 MA

56 KENDALL HILL ROAD
STERLING, MA 01564

PROJECT TYPE: NEW RAW LAND WIRELESS
TELECOMMUNICATIONS INSTALLATION WITH 125' MONOPOLE

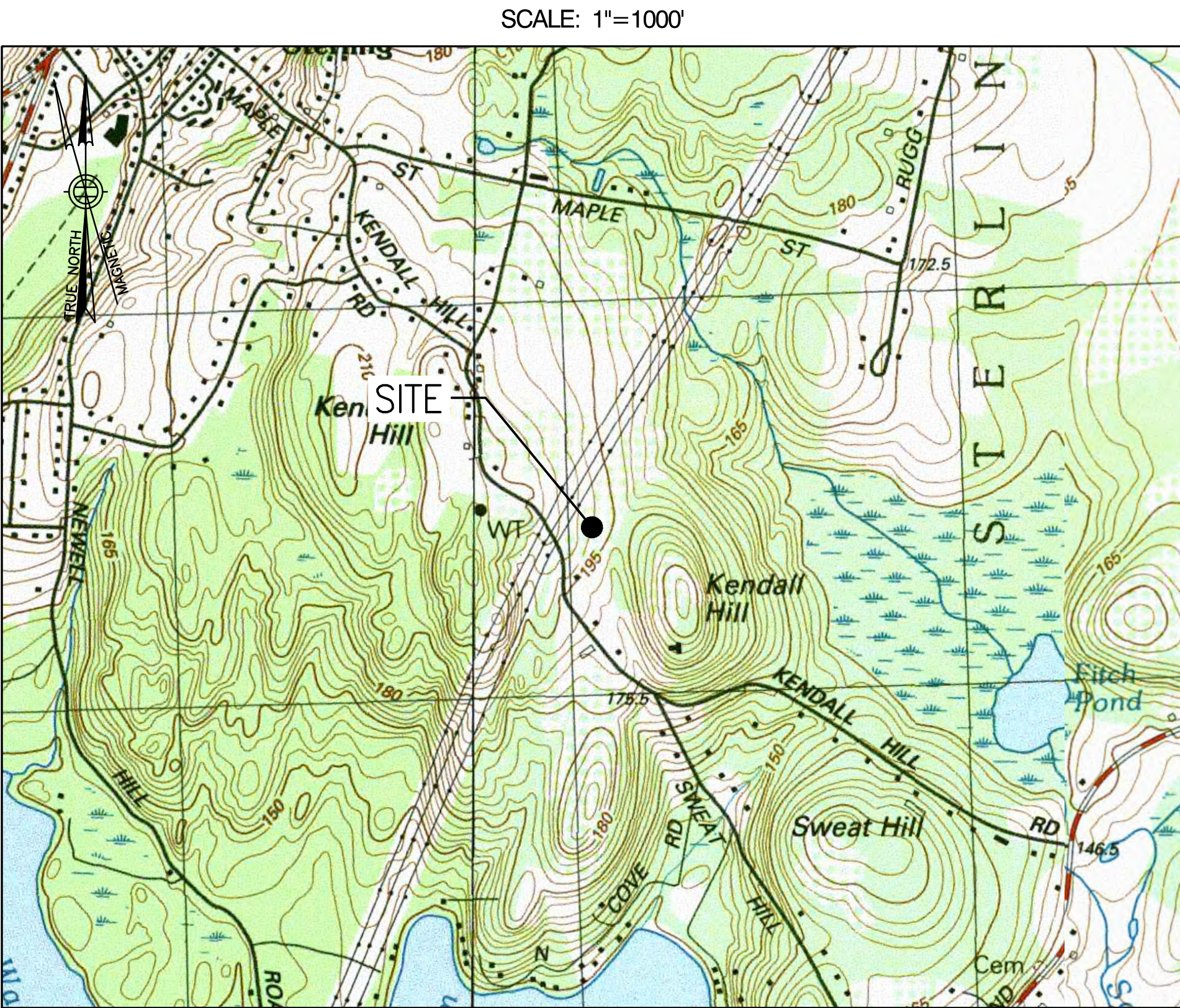
SITE INFORMATION:

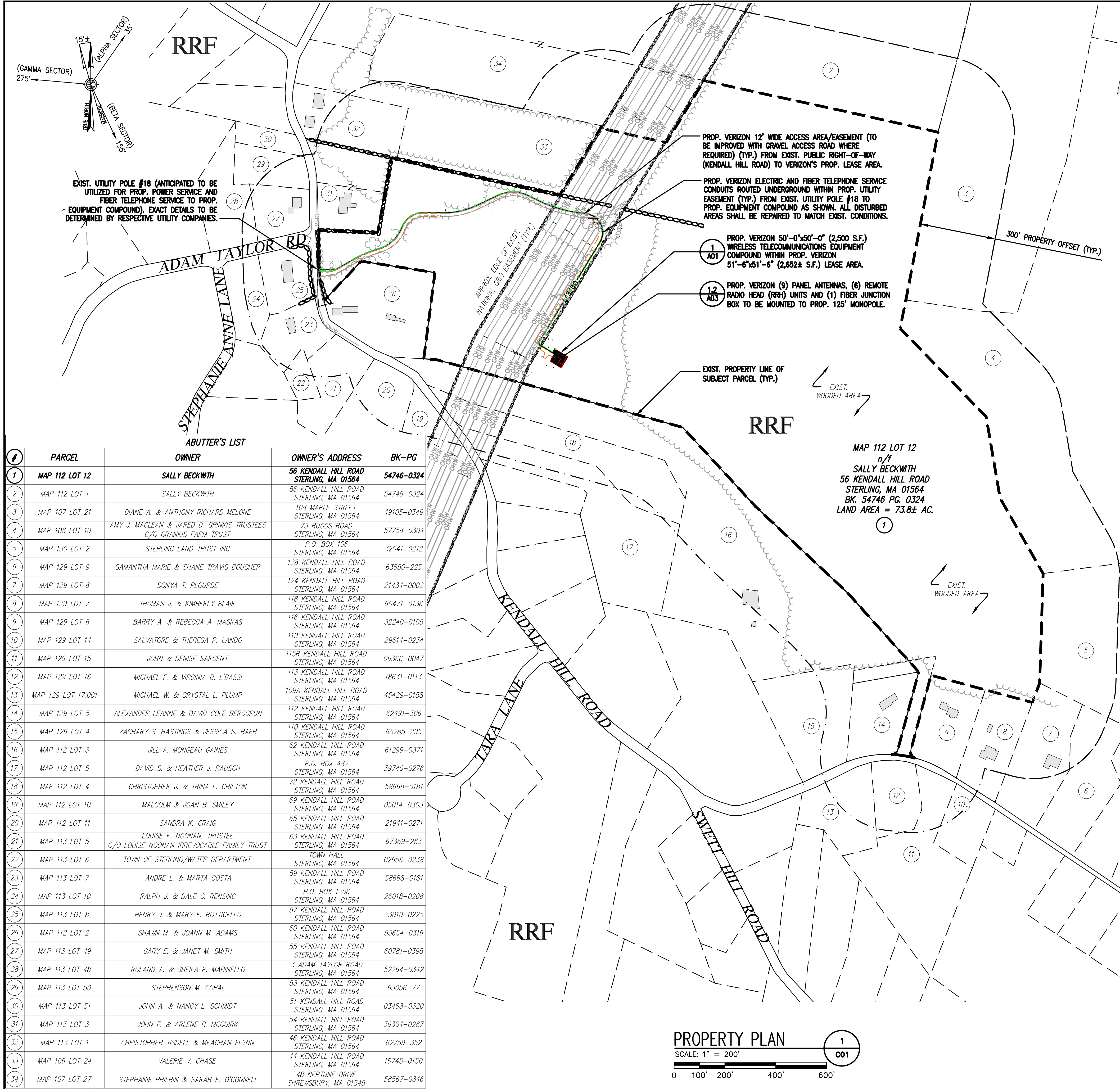
PROPERTY OWNER:	SALLY BECKWITH 56 KENDALL HILL ROAD STERLING, MA 01564
APPLICANT:	CELLCO PARTNERSHIP (dba VERIZON WIRELESS) 20 ALEXANDER DRIVE, 2nd FLOOR WALLINGFORD, CT 06492
SITE ADDRESS:	56 KENDALL HILL ROAD STERLING, MA 01564
COUNTY:	WORCESTER COUNTY, MA
SITE CONTROL POINT:	CENTER OF PROPOSED MONOPOLE N 42°-25'-33.87" (42.426075°) (NAD '83) W 71°-44'-44.86" (71.745794°) (NAD '83)
ZONING CLASSIFICATION:	RRF (RURAL RESIDENTIAL & FARMING)
ZONING JURISDICTION:	TOWN OF STERLING, MA
TAX ID PARCEL NUMBER:	MAP 112 LOT 12
ARCHITECT / ENGINEER:	CHAPPELL ENGINEERING ASSOCIATES, LLC 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752
PRESIDING POWER COMPANY:	STERLING MUNICIPAL LIGHT DEPARTMENT 50 MAIN STREET STERLING, MA 01564 (978) 422-8267
TELEPHONE COMPANY:	VERIZON 185 FRANKLIN STREET BOSTON, MA 02107 (800) 941-9900

ZONING DRAWINGS

(NOT FOR CONSTRUCTION)

VICINITY MAP





GENERAL NOTES:

- 1A. INITIAL LIMITED DESIGN VISIT DATE: 5/20/22
- 1B. FIELD SURVEY DATE: 11/15/22, 11/16/22 & 11/18/22
2. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88)
3. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD '83)
4. SITE CONTROL POINT: CENTER OF PROPOSED MONOPOLE
LATITUDE: N. 42°-25'-33.87" (42.426075°) (NAD '83)
LONGITUDE: W. 71°-44'-44.86" (71.745794°) (NAD '83)
5. LAND OWNER: SALLY BECKWITH
56 KENDALL HILL ROAD
STERLING, MA 01564
6. SITE ADDRESS: 56 KENDALL HILL ROAD
STERLING, MA 01564
7. APPLICANT: CELCO PARTNERSHIP
(dba VERIZON WIRELESS)
20 ALEXANDER DRIVE, 2nd FLOOR
WALLINGFORD, CT 06492
8. ZONING JURISDICTION: TOWN OF STERLING, MA
9. TAX ID: MAP 112 LOT 12
10. DEED REFERENCE: BK. 54746 PG. 0324
11. PLAN REFERENCES: TOWN OF STERLING ASSESSOR/GIS MAPS
12. ZONING CLASSIFICATION: RRF (RURAL RESIDENTIAL & FARMING)
13. ALL UNDERGROUND UTILITY INFORMATION PRESENTED HEREON WAS DETERMINED FROM SURFACE EVIDENCE AND PLANS OF RECORD. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO THE COMMENCEMENT OF ANY SITE WORK. CALL DIGSAFE 1-888-344-7233 A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.
14. THE PROPERTY LINES SHOWN WERE COMPILED UTILIZING TOWN OF STERLING ASSESSOR'S PLANS, GIS, RECORDED DEEDS AND PLANS OF REFERENCE AS INDICATED. A COMPLETE BOUNDARY SURVEY WAS NOT UTILIZED IN THE PREPARATION OF THESE PLANS.
15. THE SITE IS LOCATED IN FLOOD HAZARD ZONE C (AREA OF MINIMAL FLOODING) AS SHOWN ON FLOOD INSURANCE RATE MAP FOR THE TOWN OF STERLING, (MAP NUMBER 2503360005B) EFFECTIVE 6/15/1982.
16. BEARING SYSTEM OF THIS PLAN IS BASED ON GRID NORTH. TRUE NORTH WAS ESTABLISHED FROM GPS OBSERVATIONS. IT IS NOT INTENDED TO BE AN EXACT REPRESENTATION OF TRUE NORTH.

LEGEND

- OR --- STREET
- PROPERTY LINE
- ABUTTING PROPERTY LINE
- PROPERTY OFFSET/RADIUS
- EXIST. EASEMENT
- EXIST. CHAIN LINK FENCE
- EXIST. STOCKADE FENCE
- EXIST. EDGE OF PAVEMENT
- EXIST. OVERHEAD UTILITIES
- APPROXIMATE ZONING BOUNDARY
- APPROXIMATE TOWN LINE

ZONING DISTRICT
LEGEND

RRF

RURAL RESIDENTIAL &
FARMING

PROPERTY PLAN

SCALE: 1" = 200'

0 100' 200' 400' 600'

CLIENT:

verizon

ARCHITECT/ENGINEER:

CHAPPELL
ENGINEERING
ASSOCIATES, LLC
Civil · Structural · Land Surveying

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:

THESE DRAWINGS HAVE BEEN PREPARED IN ARCH D (24"x36") FORMAT. AS SUCH, THE WRITTEN SCALES SHOWN ON ANY REPRODUCTIONS OF A CONTRACTORY SIZE SHALL BE RENDERED INVALID. ALL BAR SCALES MAY BE USED REGARDLESS OF REPRODUCTION SIZE. WHERE IN CONFLICT, BAR SCALES SHALL SUPERSEDE WRITTEN SCALES.

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.

REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	12/5/22
1	REVISED PER TOWN'S PEER REVIEWER	4/24/24

PROJECT NAME:

STERLING 4 MA

PROJECT ADDRESS:

56 KENDALL HILL ROAD
STERLING, MA 01564

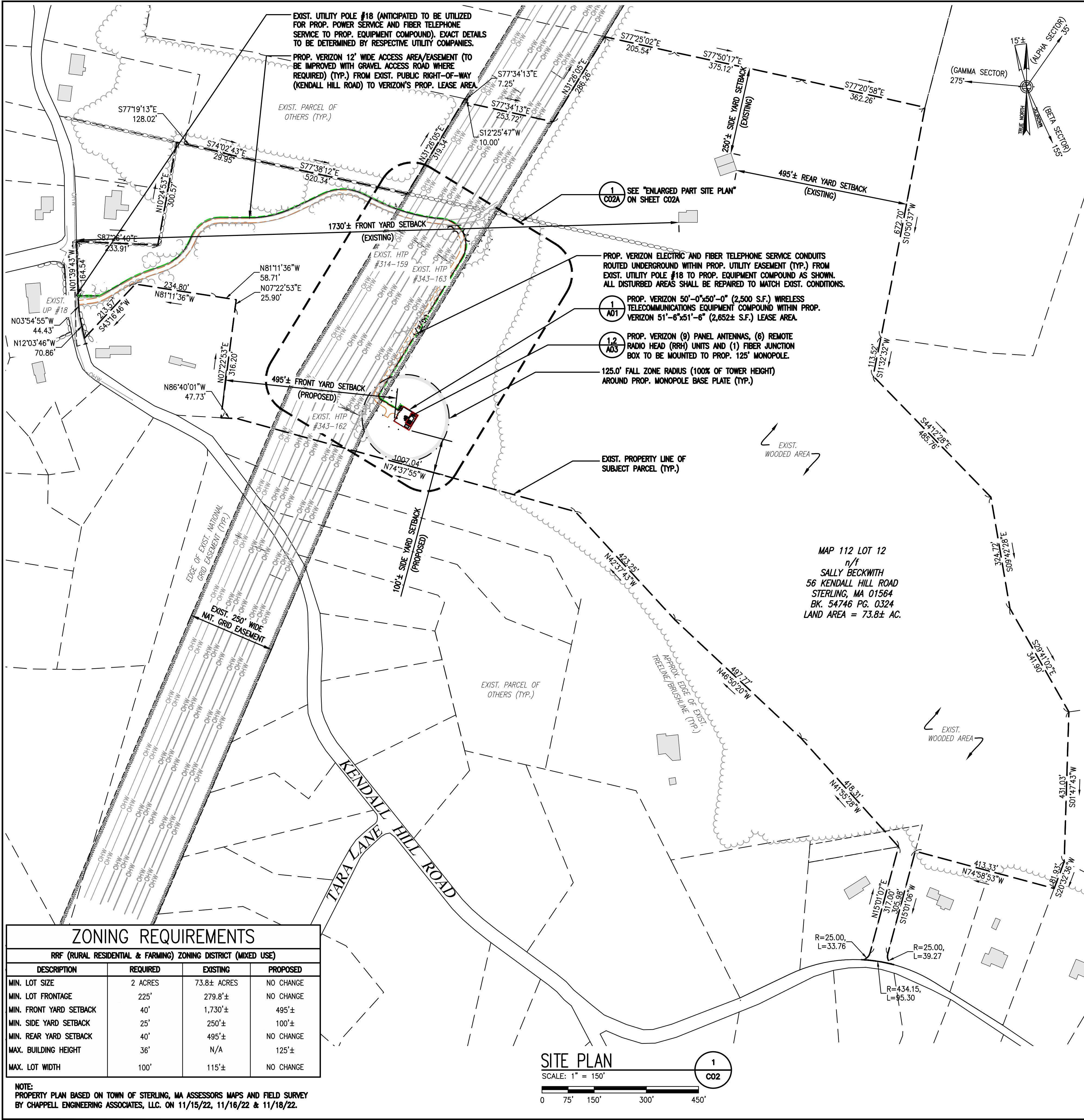
DRAWING TITLE:

PROPERTY PLAN

DRAWING NO:

C01

SCALE: 1" = 200'	DESIGNED BY: NWC DRAWN BY: NWC CHECKED BY: GRS	VZW PROJECT NO.: 2245166 MDG LOCATION ID: 5000173476 VZW LOCATION CODE: 289269
CEA PROJECT NO.: 96210.406	ORIGINAL ISSUE DATE: 12/5/22	



NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS SHOWN HEREIN.
- ALL DIMENSIONS SHOWN THUS ± ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS WHICH EFFECT THE CONTRACTORS WORK. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH PROJECT OWNER PRIOR TO CONSTRUCTION.
- NORTH ARROW SHOWN ON PLANS REFERS TO APPROXIMATE TRUE NORTH. PRIOR TO THE START OF CONSTRUCTION, ORDERING OR FABRICATING OF ANTENNA MOUNTS, CONTRACTOR SHALL CONSULT WITH PROJECT OWNER'S RF ENGINEER AND FIELD VERIFY ALL ANTENNA SECTOR LOCATIONS AND ANTENNA AZIMUTHS.
- THE CONTRACTOR AND OR HIS SUB CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
- ANTENNA INSTALLATION SHALL BE CONDUCTED BY FIELD CREWS EXPERIENCED IN THE ASSEMBLY AND ERECTION OF RADIO ANTENNAS, TRANSMISSION LINES AND SUPPORT STRUCTURES.
- COAXIAL CABLE CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE PROVIDED BY THE PROJECT OWNER AND IS NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS. A SCHEDULE OF PROJECT OWNER SUPPLIED MATERIALS IS ATTACHED TO THE BID DOCUMENTS (SEE EXHIBIT 3). ALL OTHER HARDWARE TO BE PROVIDED BY THE CONTRACTOR. CONNECTION HARDWARE SHALL BE STAINLESS STEEL.
- WHEN "PAINT TO MATCH" IS SPECIFIED FOR ANTENNA CONCEALMENT, PAINT PRODUCT FOR ANTENNA RADOME SHALL BE SHERWIN WILLIAMS COROTHANE II. SURFACE PREPARATION AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND PROJECT OWNER'S GUIDELINE'S.
- COORDINATION, LAYOUT, AND FURNISHING OF CONDUIT, CABLE AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
- ALL (E)ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES 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 CREW.
- ALL (E)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 UTILITY COMPANY ENGINEERING.
- THE AREAS OF THE PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE EQUIPMENT, DRIVEWAY OR GRAVEL, SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, SEEDED AND COVERED WITH MULCH UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN SOIL EROSION AND SEDIMENTATION CONTROLS AT ALL TIMES DURING CONSTRUCTION.
- PER FCC MANDATE, ENHANCED EMERGENCY (E911) SERVICE IS REQUIRED TO MEET NATIONWIDE STANDARDS FOR WIRELESS COMMUNICATIONS SYSTEMS. PROJECT OWNER'S IMPLEMENTATION REQUIRES DEPLOYMENT OF EQUIPMENT AND ANTENNAS GENERALLY DEPICTED ON THIS PLAN, ATTACHED TO OR MOUNTED IN CLOSE PROX. TO THE BTS RADIO CABINETS. PROJECT OWNER RESERVES THE RIGHT TO MAKE REASONABLE MODIFICATIONS TO E911 EQUIPMENT AND LOCATION AS TECHNOLOGY EVOLVES TO MEET REQUIRED SPECIFICATIONS.
- THE TOTAL IMPACT AREA OF THE DISTURBED CONSTRUCTION SITE IS BOUNDED BY THE LIMIT OF WORK AS SHOWN HEREON. THE MAXIMUM AREA OF DISTURBANCE WITHIN THE LIMIT OF WORK IS APPROXIMATELY 43,608 SQUARE FEET. THE PROJECT IMPACT AREA IS BELOW THE EXEMPTION THRESHOLD OF 43,560 SQUARE FEET IN 40 CFR PARTS 9, 122-124 AND THEREFORE IS NOT SUBJECT TO REGULATION UNDER THE EPA OR STATE-MANAGED NPDES GENERAL CONSTRUCTION PERMIT PROGRAM. THE PROJECT OWNER'S GENERAL CONTRACTOR SHALL CONDUCT ALL SITE DEVELOPMENT WORK IN A MANNER THAT DOES NOT EXCEED THE LIMITS OF WORK SHOWN ON THE PLANS. ADDITIONALLY, THE PROJECT OWNER'S GENERAL CONTRACTOR SHALL CONDUCT ALL CONSTRUCTION ACTIVITIES IN A MANNER THAT DOES NOT RESULT IN STORM WATER DISCHARGES WITH AN ADVERSE IMPACT ON ANY STORM WATER COLLECTION/CONVEYANCE SYSTEM, WETLAND, WATER BODY, OR OTHER WATER RESOURCE AREAS.
- ANY FILL UTILIZED FOR THIS PROJECT SHALL BE FREE OF HAZARDOUS MATERIALS AS REQUIRED BY BYLAW.
- THE LIMITS OF CONSTRUCTION ACTIVITY SHALL BE MARKED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.

LEGEND

---	EXIST. ROW/EASEMENT
---	PROPERTY LINE
---	ABUTTING PROPERTY LINE
---	EXIST. EASEMENT
---	PROPERTY OFFSET/RADIUS
---	EXIST. CHAIN LINK FENCE
---	EXIST. STOCKADE FENCE
---	EXIST. TREELINE
---	PROP. TREELINE
---	EXIST. EDGE OF PAVEMENT
---	EXIST. OVERHEAD UTILITIES
---	PROP. OVERHEAD UTILITIES
---	PROP. UTILITIES
---	EXIST. STONE WALL
---	LIMIT OF EXIST. WETLANDS
---	LIMITS OF WETLAND BUFFER ZONES
---	EXIST. UTILITY POLE
---	HYDRANT
---	DRILL HOLE
---	STONE/CONC. BOUND
---	TELCO MANHOLE
---	SEWER MANHOLE
---	WATER MANHOLE
---	DRAINAGE MANHOLE
---	CATCH BASIN
---	GAS VALVE
---	WATER VALVE

CLIENT:

verizon

ARCHITECT/ENGINEER:

CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil · Structural · Land Surveying

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR

DATE

DRAWING SCALE NOTE:

THESE DRAWINGS HAVE BEEN PREPARED IN ARCH D (24"x36") FORMAT. AS SUCH, THE WRITTEN SCALES SHOWN ON ANY REPRODUCTIONS OF A CONTRACTORY SIZE SHALL BE RENDERED INVALID. ALL BAR SCALES MAY BE USED REGARDLESS OF REPRODUCTION SIZE. WHERE IN CONFLICT, BAR SCALES SHALL SUPERSEDE WRITTEN SCALES.

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.

REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	12/5/22
1	REVISED PER TOWN'S PEER REVIEWER	4/24/24

PROJECT NAME:

STERLING 4 MA

PROJECT ADDRESS:

56 KENDALL HILL ROAD
STERLING, MA 01564

DRAWING TITLE:

SITE PLAN

DRAWING NO.:

C02

SCALE:

1" = 150'

DESIGNED BY: NWC

DRAWN BY: NWC

CHECKED BY: GRS

CEA PROJECT NO.:

96210.406

ORIGINAL ISSUE DATE:

12/5/22

VZW PROJECT NO.:

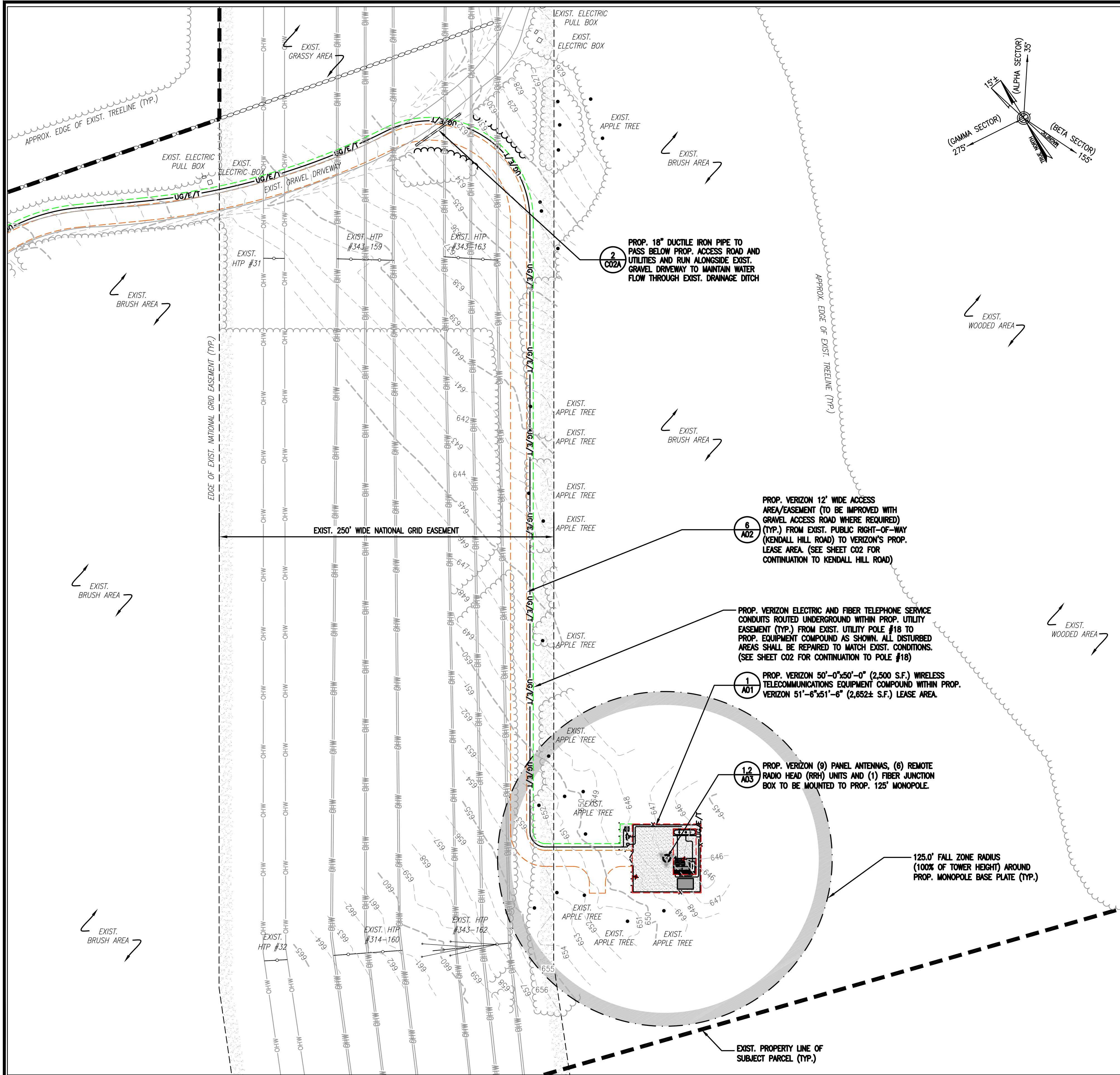
2245166

MDG LOCATION ID:

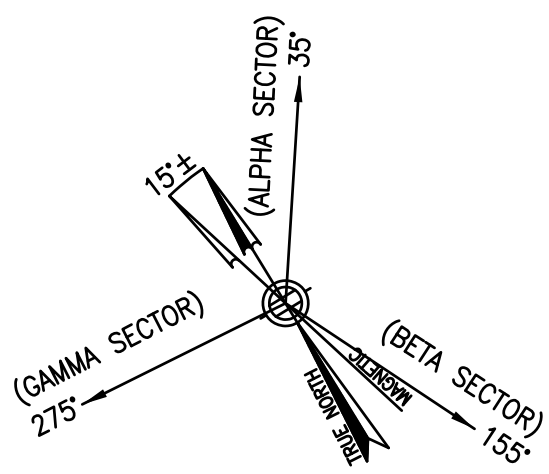
5000173476

VZW LOCATION CODE:

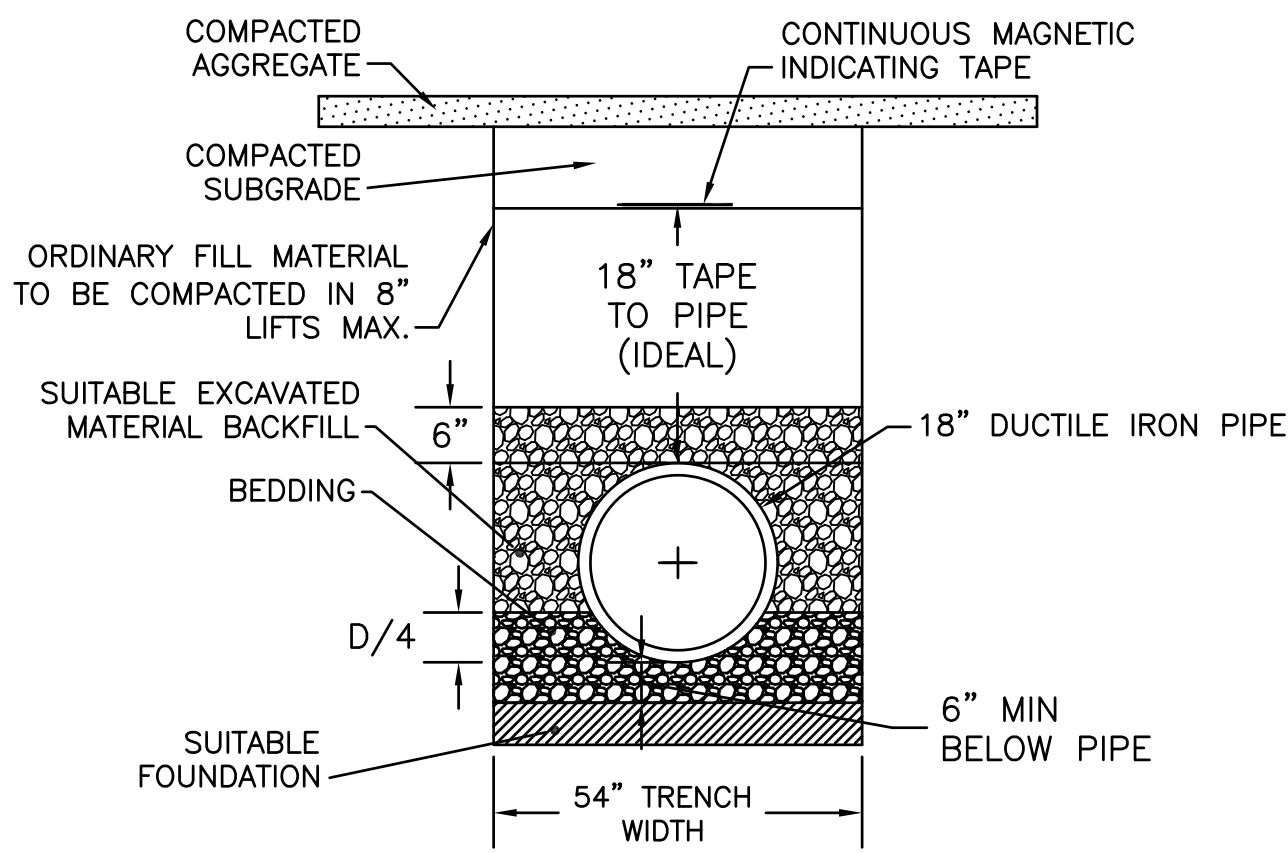
289269



ENLARGED PART SITE PLAN 1 C02A
SCALE: 1" = 40'



LEGEND	
	STREET
	EXIST. ROW/EASEMENT
	PROPERTY LINE
	ABUTTING PROPERTY LINE
	EXIST. EASEMENT
	PROPERTY OFFSET/RADIUS
	EXIST. CHAIN LINK FENCE
	EXIST. STOCKADE FENCE
	EXIST. TREELINE
	PROP. TREELINE
	EXIST. EDGE OF PAVEMENT
	EXIST. OVERHEAD UTILITIES
	PROP. OVERHEAD UTILITIES
	PROP. UTILITIES
	EXIST. STONE WALL
	LIMIT OF EXIST. WETLANDS
	LIMITS OF WETLAND BUFFER ZONES
	EXIST. UTILITY POLE
	HYDRANT
	DRILL HOLE
	STONE/CONC. BOUND
	TELCO MANHOLE
	SEWER MANHOLE
	WATER MANHOLE
	DRAINAGE MANHOLE
	CATCH BASIN
	GAS VALVE
	WATER VALVE



- PIPE TRENCH NOTES:
- MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 - FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE FABRIC FOR STABILIZATION.
 - BEDDING FOR ALL OTHER PIPES: USE GRAVEL BORROW TYPE b, MASSDOT M1.03.0. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER.
 - INITIAL BACKFILL: USE SUITABLE EXCAVATED BACKFILL MATERIAL WHEN POSSIBLE. IF EXCAVATED BACKFILL IS DEEMED UNSUITABLE BY THE ENGINEER, USE MASSDOT GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 - MINIMUM COVER: NON-WATER OR GRAVITY: UNLESS OTHERWISE SHOWN OR SPECIFIED, MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 24" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, UNLESS OTHERWISE SHOWN OR SPECIFIED, MINIMUM COVER, H, IS 36" MEASURED FROM TOP OF PIPE TO TOP OF PAVEMENT. WHERE TRENCH TRAVERSES A MILL & PAVE AREA, BACKFILL TO BOTTOM OF GRANULAR SUBBASE. COMPACTION: BACKFILL SHALL BE COMPACTED IN LAYERS NOT TO EXCEED 6". BACKFILL SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY (AASHTO TEST T-180 METHOD D).

PIPE TRENCH DETAIL 2 C02A
SCALE: NONE

CLIENT:
verizon

ARCHITECT/ENGINEER:
CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil - Structural - Land Surveying
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:
THESE DRAWINGS HAVE BEEN PREPARED IN ARCH D (24"x36") FORMAT. AS SUCH, THE WRITTEN SCALES SHOWN ON ANY REPRODUCTIONS OF A CONTRADICTORY SIZE SHALL BE RENDERED INVALID. ALL BAR SCALES MAY BE USED REGARDLESS OF REPRODUCTION SIZE. WHERE IN CONFLICT, BAR SCALES SHALL SUPERSEDE WRITTEN SCALES.
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.

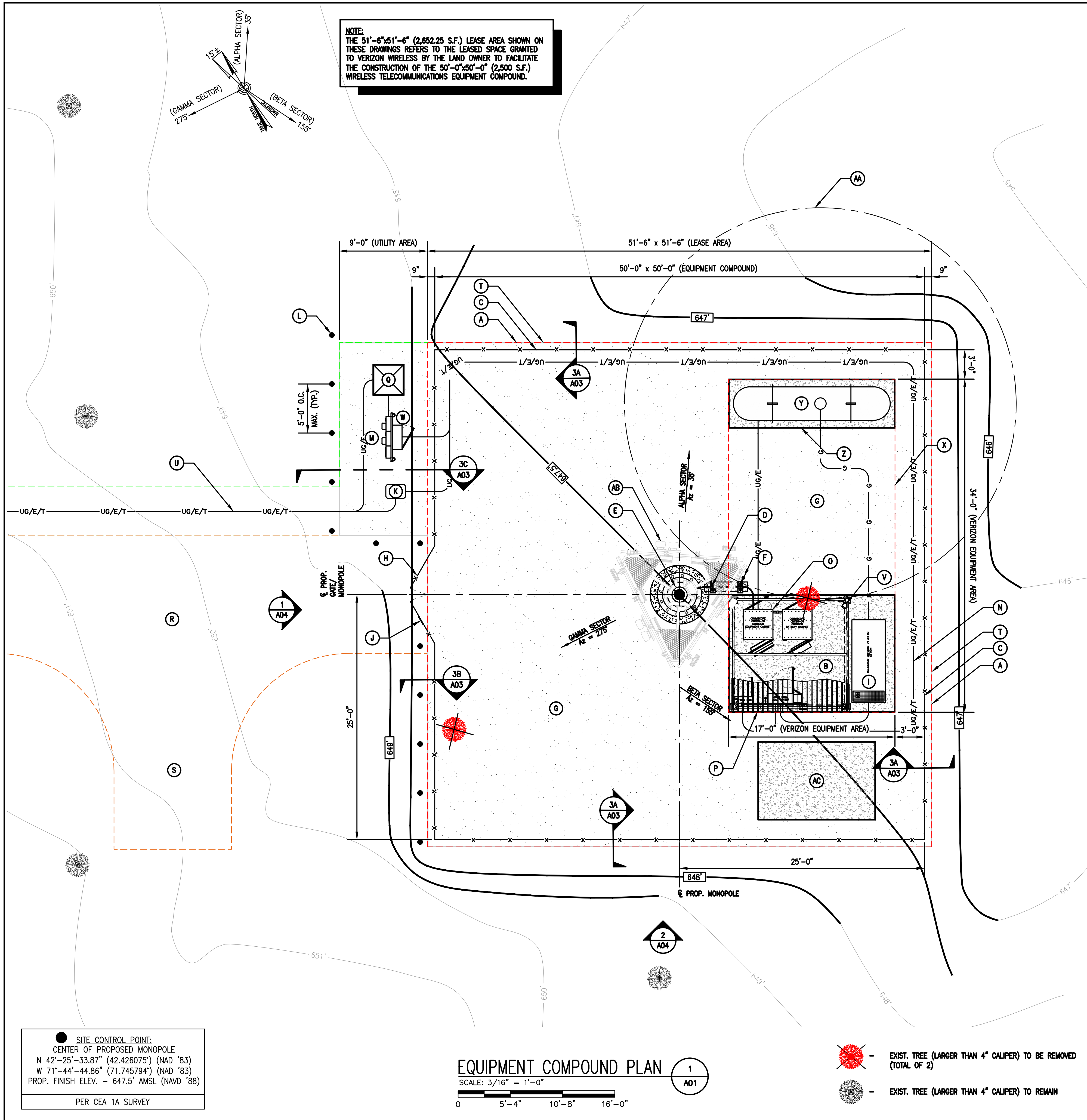
REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	12/5/22
1	REVISED PER TOWN'S PEER REVIEWER	4/24/24

PROJECT NAME:
STERLING 4 MA
PROJECT ADDRESS:
**56 KENDALL HILL ROAD
STERLING, MA 01564**

DRAWING TITLE:
**ENLARGED PART
SITE PLAN**

DRAWING NO:
C02A


SCALE: 1" = 40'	DESIGNED BY: NWC DRAWN BY: NWC CHECKED BY: GRS	VZW PROJECT NO.: 2245166 MDG LOCATION ID: 5000173476 VZW LOCATION CODE: 289269
CEA PROJECT NO.: 96210.406	ORIGINAL ISSUE DATE: 12/5/22	



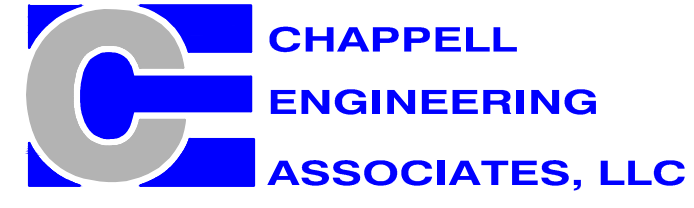
LEGEND	
ITEM	DESCRIPTION
(A)	LIMITS OF VERIZON'S 51'-6"x51'-6" (2,652± S.F.) LEASE AREA WITH PROPERTY OWNER (TYP.)
(B)	PROP. VERIZON 17'-0"x12'-0" (204 S.F.) REINFORCED CONCRETE EQUIPMENT PAD
(C)	PROP. VERIZON 8' CHAIN-LINK FENCE SURROUNDING VERIZON'S PROP. 50'-0"x50'-0" (2,500 S.F.) EQUIPMENT COMPOUND (TYP.)
(D)	PROP. VERIZON (2)-6x12 HYBRID SIGNAL CABLES ROUTED ALONG PROP. OVERHEAD CABLE ICE BRIDGE (TYP.) FROM VERIZON'S PROP. EQUIPMENT TO PROP. MONOPOLE AS SHOWN.
(E)	PROP. 125' MONOPOLE (PROPOSED BY THIS APPLICANT AND TO BE DESIGNED AND SUPPLIED BY OTHERS)
(F)	PROP. VERIZON GPS ANTENNA MOUNTED TO PROP. ICE BRIDGE. TOP OF GPS ANTENNA SHALL BE MOUNTED 2'-0" ABOVE TOP OF ICE BRIDGE.
(G)	PROP. GRAVEL COVER WITHIN ENTIRE LIMITS OF PROP. EQUIPMENT COMPOUND AND UTILITY AREA AS SHOWN
(H)	PROP. 10' WIDE DOUBLE SWING GATE
(I)	PROP. VERIZON 50 KW BACK-UP PROPANE GENERATOR MOUNTED TO PROP. 17'-0"x12'-0" (204 S.F.) REINFORCED CONCRETE PAD
(J)	PROP. RF WARNING SIGNAGE TO BE ATTACHED TO PROP. GATE
(K)	PROP. TELCO HANDHOLE (EXACT DETAILS TO BE DETERMINED BY TELEPHONE COMPANY)
(L)	PROP. 6" CONCRETE FILLED STEEL BOLLARD (TYP. OF 12)
(M)	PROP. 6-GANG METER BANK SIZED APPROPRIATELY TO ACCOMMODATE PROP. 800A ELECTRIC SERVICE TO PROP. EQUIPMENT COMPOUND (EXACT DETAILS AND DESIGN TO BE DETERMINED BY ELECTRIC UTILITY COMPANY)
(N)	PROP. VERIZON ELECTRIC SERVICE CONDUIT AND FIBER TELEPHONE SERVICE CONDUIT ROUTED UNDERGROUND (TYP.) FROM VERIZON'S PROP. EQUIPMENT TO PROP. METER BANK AND TELCO HANDHOLE
(O)	PROP. VERIZON EQUIPMENT CABINETS MOUNTED TO PROP. 17'-0"x12'-0" (204 S.F.) REINFORCED CONCRETE PAD
(P)	PROP. VERIZON 12'-0"x11'-10" (142 S.F.) METAL DECK ICE SHIELD (SHOWN TRANSPARENT FOR CLARITY) ABOVE PROP. EQUIPMENT
(Q)	PROP. ELECTRIC TRANSFORMER (EXACT DETAILS AND DESIGN TO BE DETERMINED BY ELECTRIC UTILITY COMPANY)
(R)	PROP. VERIZON 12' WIDE ACCESS AREA/EASEMENT (TO BE IMPROVED WITH GRAVEL ACCESS ROAD WHERE REQUIRED) (TYP.) FROM EXIST. PUBLIC RIGHT-OF-WAY (KENDALL HILL ROAD) TO PROP. EQUIPMENT COMPOUND. SEE SHEET C02 FOR CONTINUATION TO KENDALL HILL ROAD.
(S)	PROP. 12'x20' PARKING SPACE/TURN-AROUND AREA
(T)	PROP. 2x10 PRESERVATIVE PRESSURE-TREATED WOOD EDGING (TYP.) ALL AROUND PERIMETER OF LEASE AREA AND UTILITY AREA
(U)	(WITHIN PROP. UTILITY EASEMENT) PROP. VERIZON ELECTRIC AND FIBER TELEPHONE SERVICE CONDUITS ROUTED UNDERGROUND (TYP.) FROM PROP. CONNECTIONS TO EXIST. UTILITY SERVICES. SEE SHEET C02 FOR CONTINUATION TO PROP. CONNECTION TO EXIST. MUNICIPAL UTILITY SERVICES (EXIST. UTILITY POLE #18).
(V)	PROP. VERIZON LED DUAL FLOOD LIGHT FIXTURE (TYP. OF 2)
(W)	PROP. FIBER TELEPHONE SERVICE HANDOFF CABINET MOUNTED TO PROP. UNISTRUT RACK. EXACT DETAILS TO BE DETERMINED BY TELEPHONE COMPANY.
(X)	LIMITS OF VERIZON'S PROP. 17'-0"x34'-0" (578 S.F.) EQUIPMENT AREA WITHIN PROP. 50'-0"x50'-0" (2,500 S.F.) EQUIPMENT COMPOUND (TYP.)
(Y)	PROP. VERIZON 1,000 GALLON WATER CAPACITY (800 GALLON OPERATING CAPACITY) PROPANE TANK ON PROP. 17'-0"x5'-0" (85 S.F.) REINFORCED CONCRETE PAD
(Z)	PROP. 17'-0"x5'-0" (85 S.F.) REINFORCED CONCRETE PAD
(AA)	EXTENT OF 20' CLEARANCE RADIUS FROM PROP. PROPANE TANK SOURCE OF IGNITION (TYP.)
(AB)	PROP. VERIZON (9) PANEL ANTENNAS, (6) REMOTE RADIO HEAD (RRH) UNITS AND (1) FIBER JUNCTION BOX TO BE MOUNTED TO PROP. 125' MONOPOLE.
(AC)	PROP. 12'-0"x8'-0" (96 S.F.) REINFORCED CONCRETE EQUIPMENT PAD FOR MUNICIPALITY USE

CONTOUR LEGEND (1 FOOT INTERVALS)	
---	PROP. CONTOUR
---	EXIST. CONTOUR (TO REMAIN UNDISTURBED)
---	EXIST. CONTOUR (TO BE ALTERED AS SHOWN)

CLIENT:



ARCHITECT/ENGINEER:



Civil · Structural · Land Surveying

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR	DATE
------------------------	------

DRAWING SCALE NOTE:

THESE DRAWINGS HAVE BEEN PREPARED IN ARCH D (24"x36") FORMAT. AS SUCH, THE WRITTEN SCALES SHOWN ON ANY REPRODUCTIONS OF A CONTRACTORY SIZE SHALL BE RENDERED INVALID. ALL BAR SCALES MAY BE USED REGARDLESS OF REPRODUCTION SIZE. WHERE IN CONFLICT, BAR SCALES SHALL SUPERSEDE WRITTEN SCALES.

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.

REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	12/5/22
1	REVISED PER TOWN'S PEER REVIEWER	4/24/24

PROJECT NAME:

STERLING 4 MA

PROJECT ADDRESS:

56 KENDALL HILL ROAD
STERLING, MA 01564

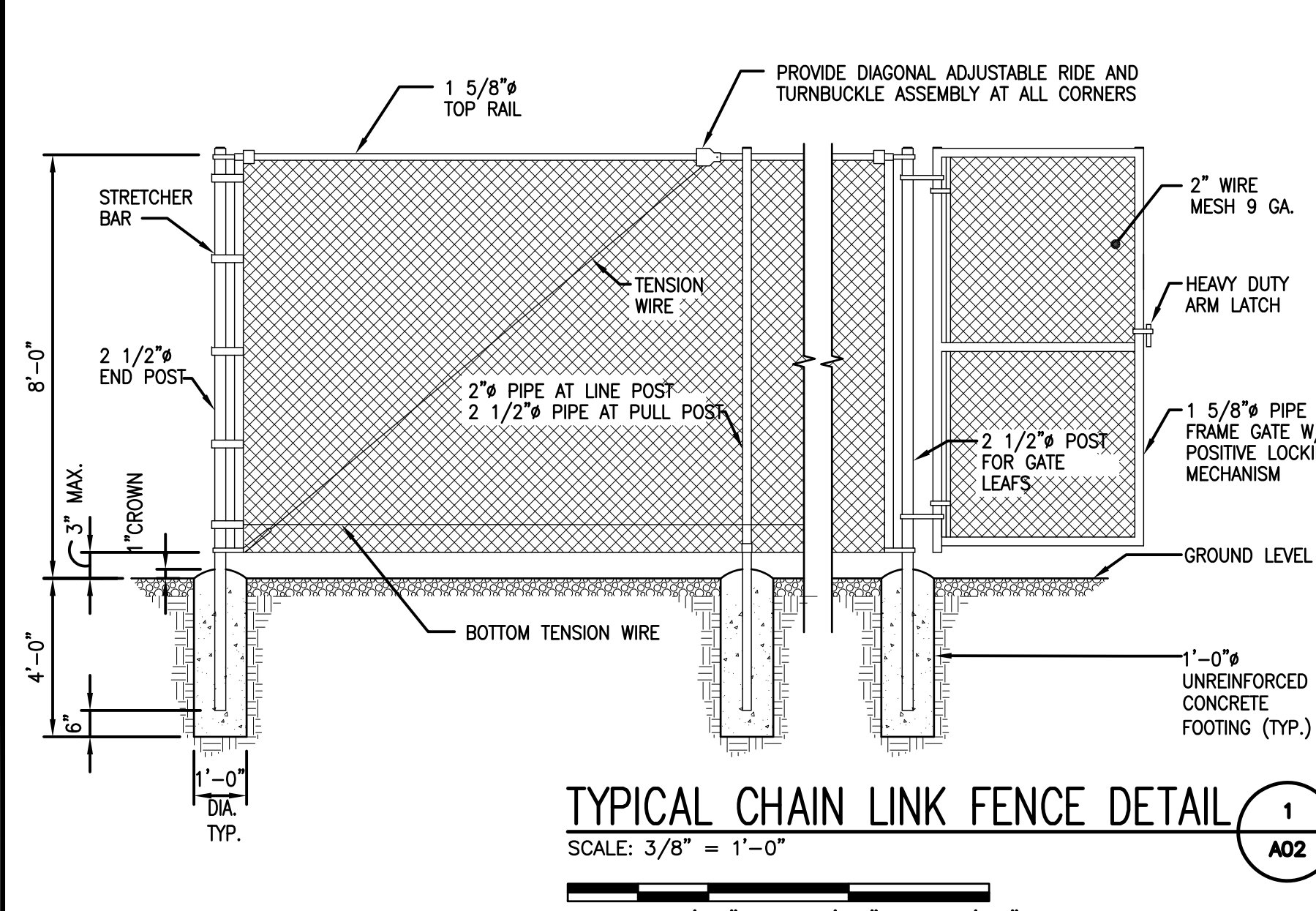
DRAWING TITLE:

EQUIPMENT
COMPOUND PLAN

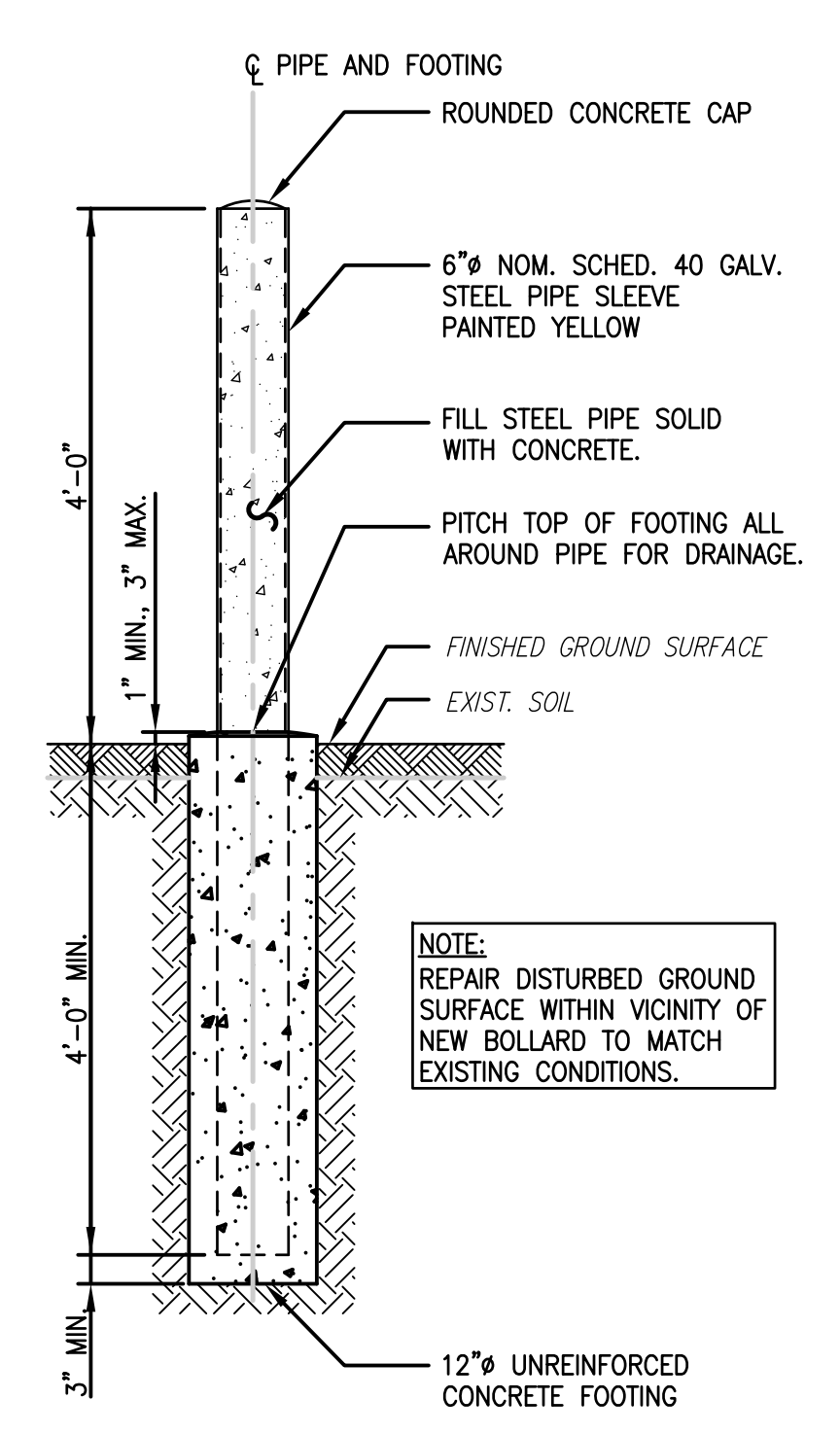
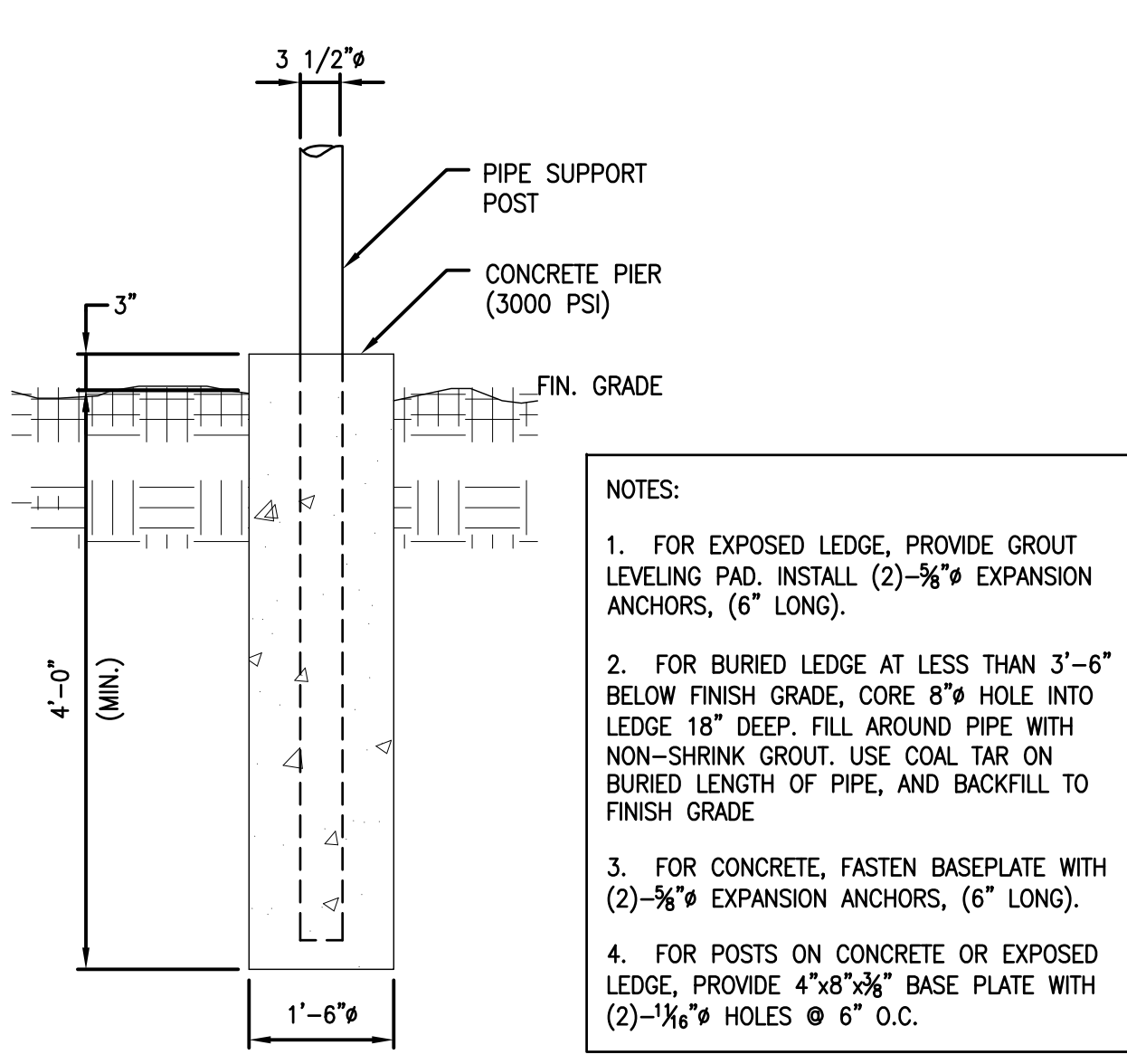
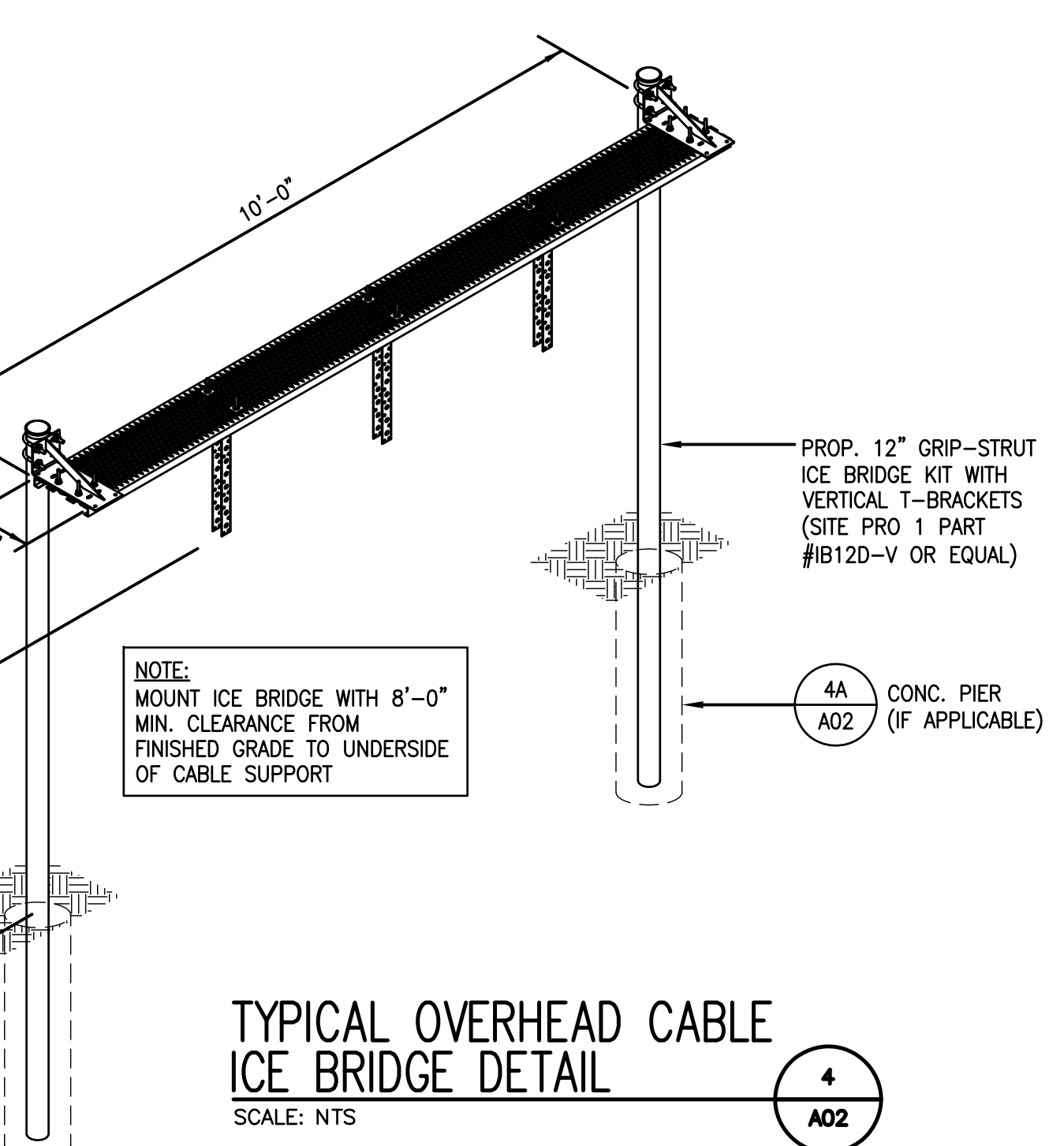
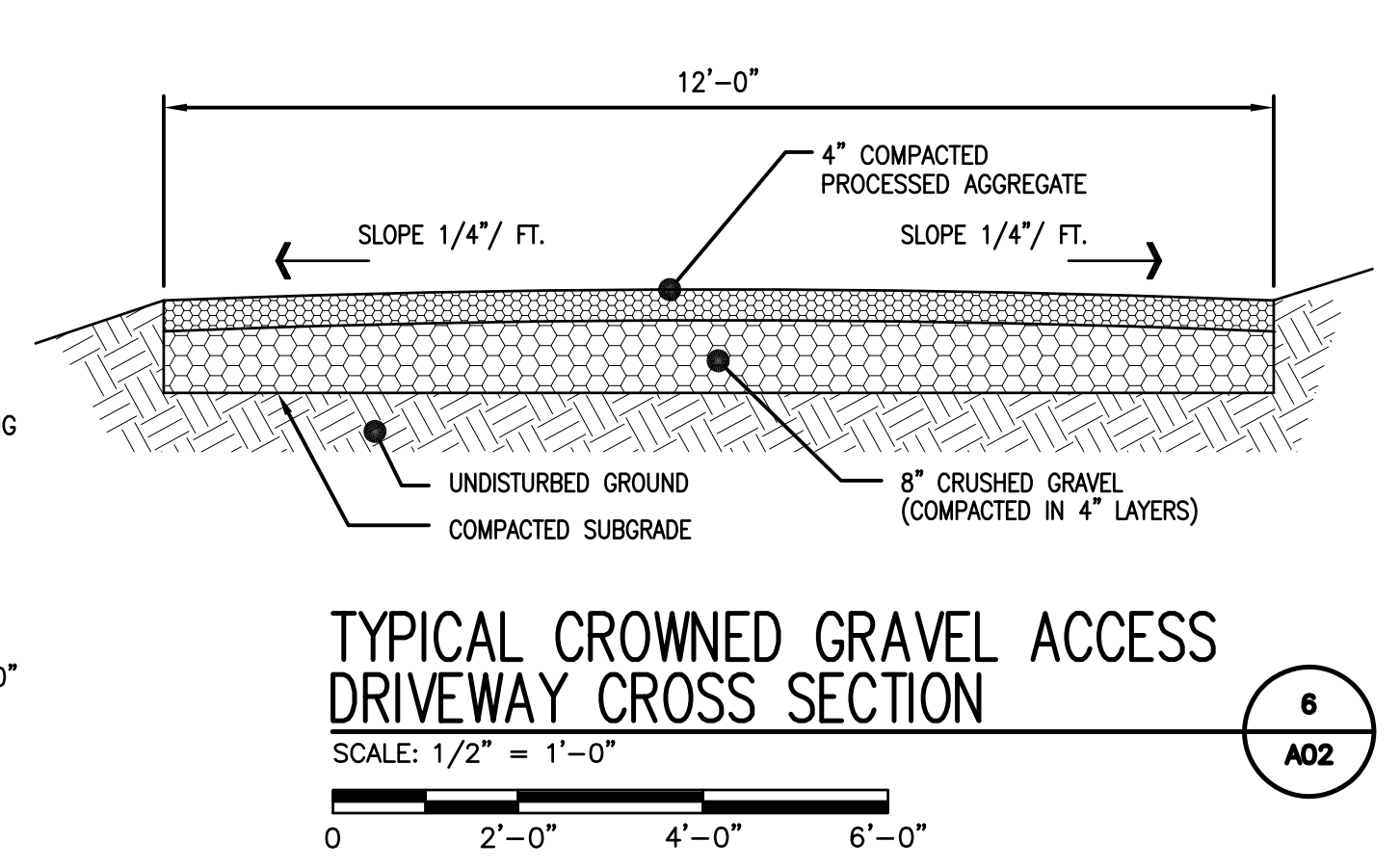
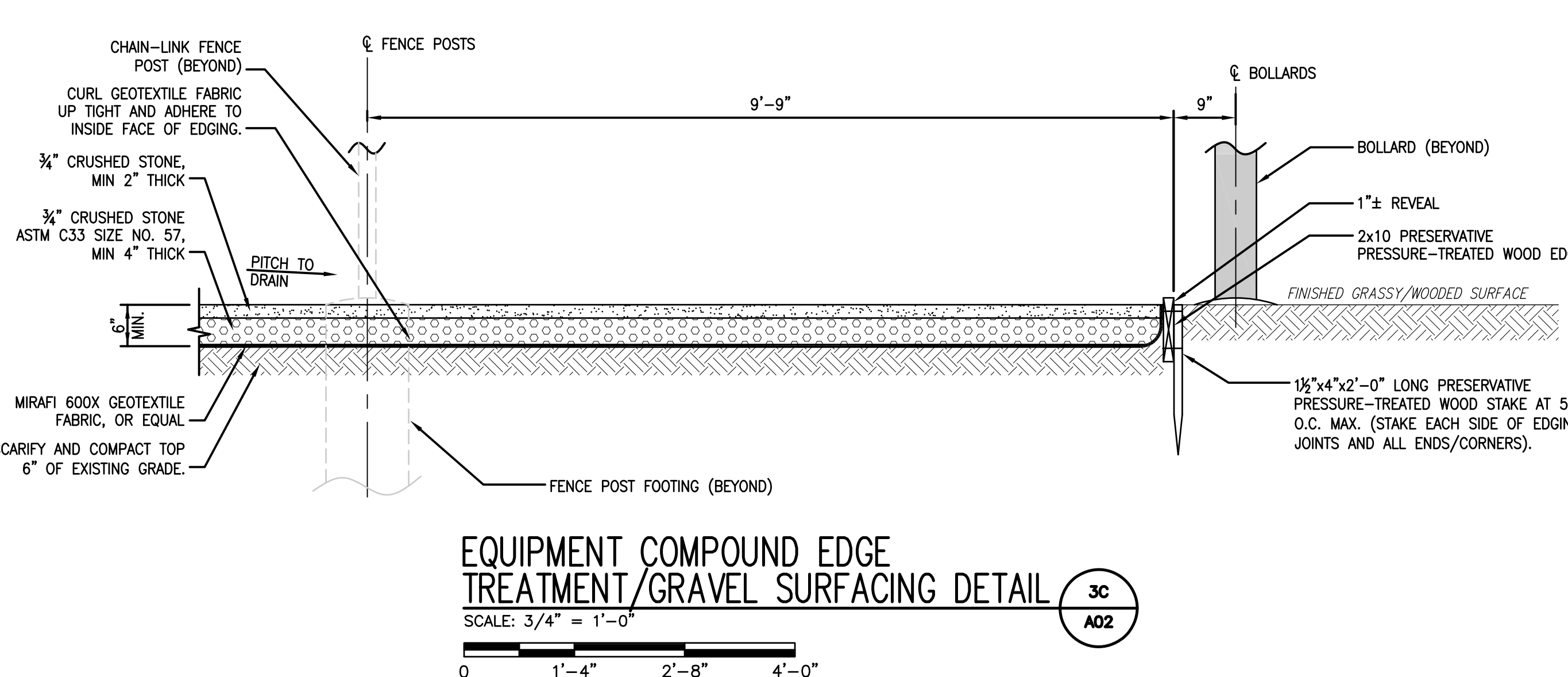
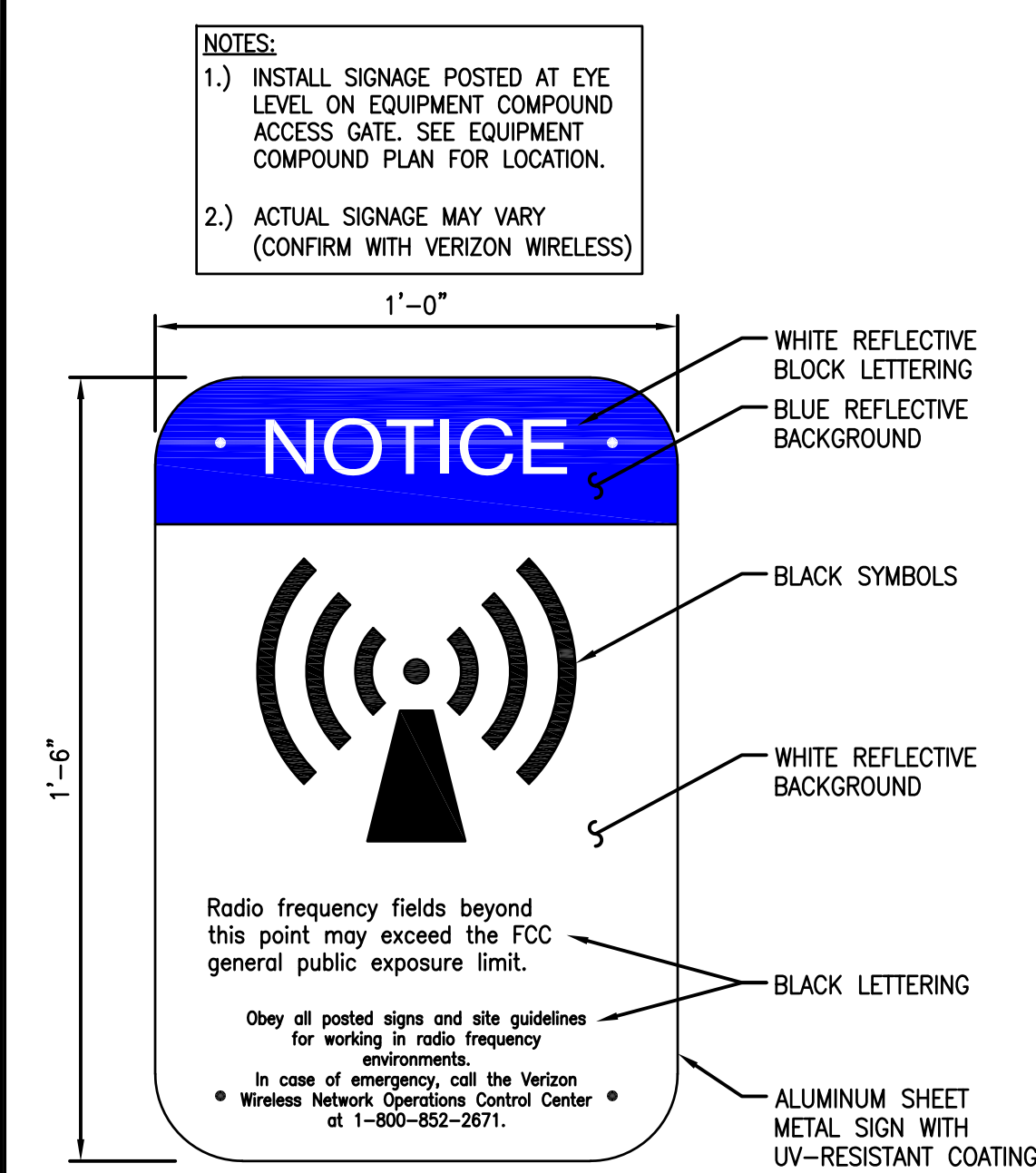
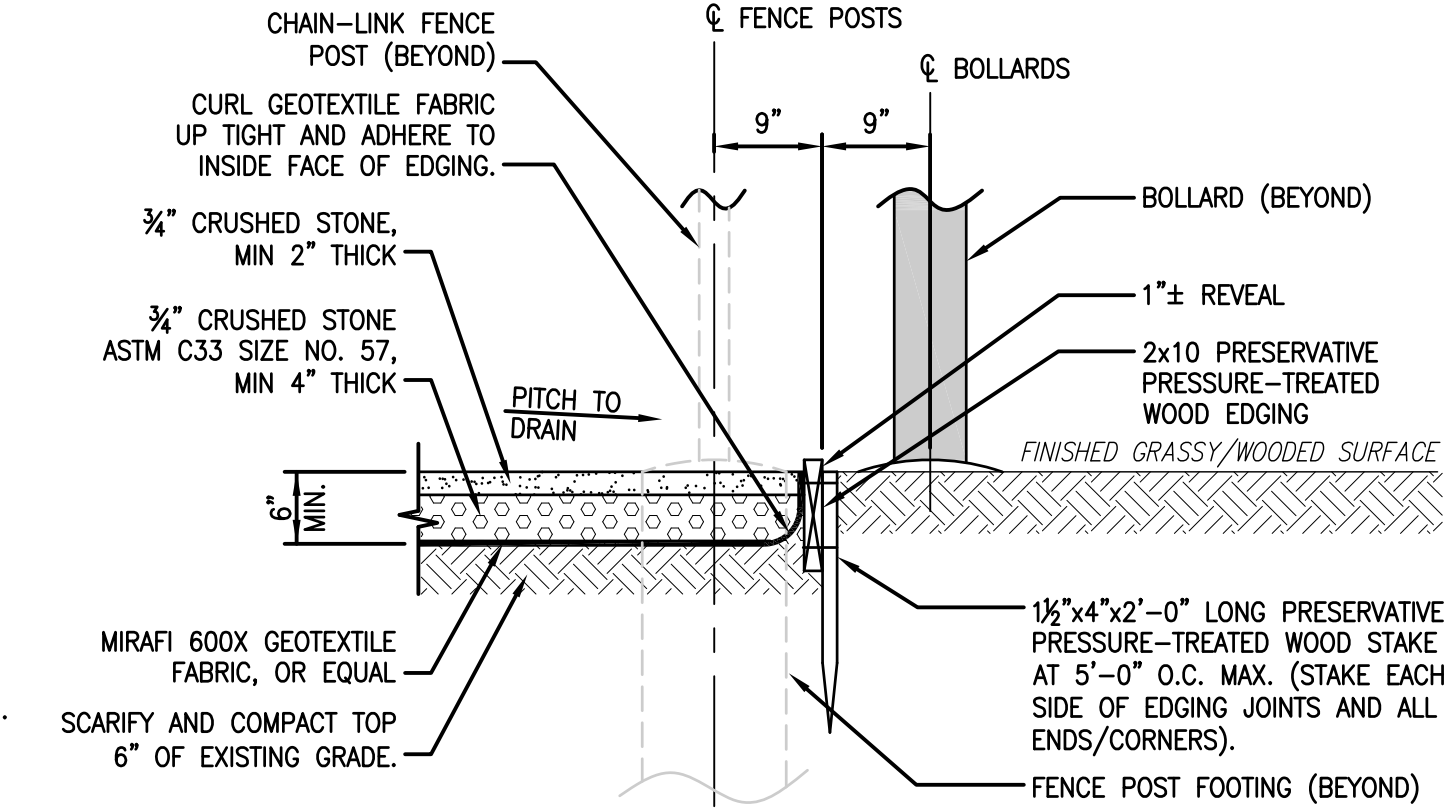
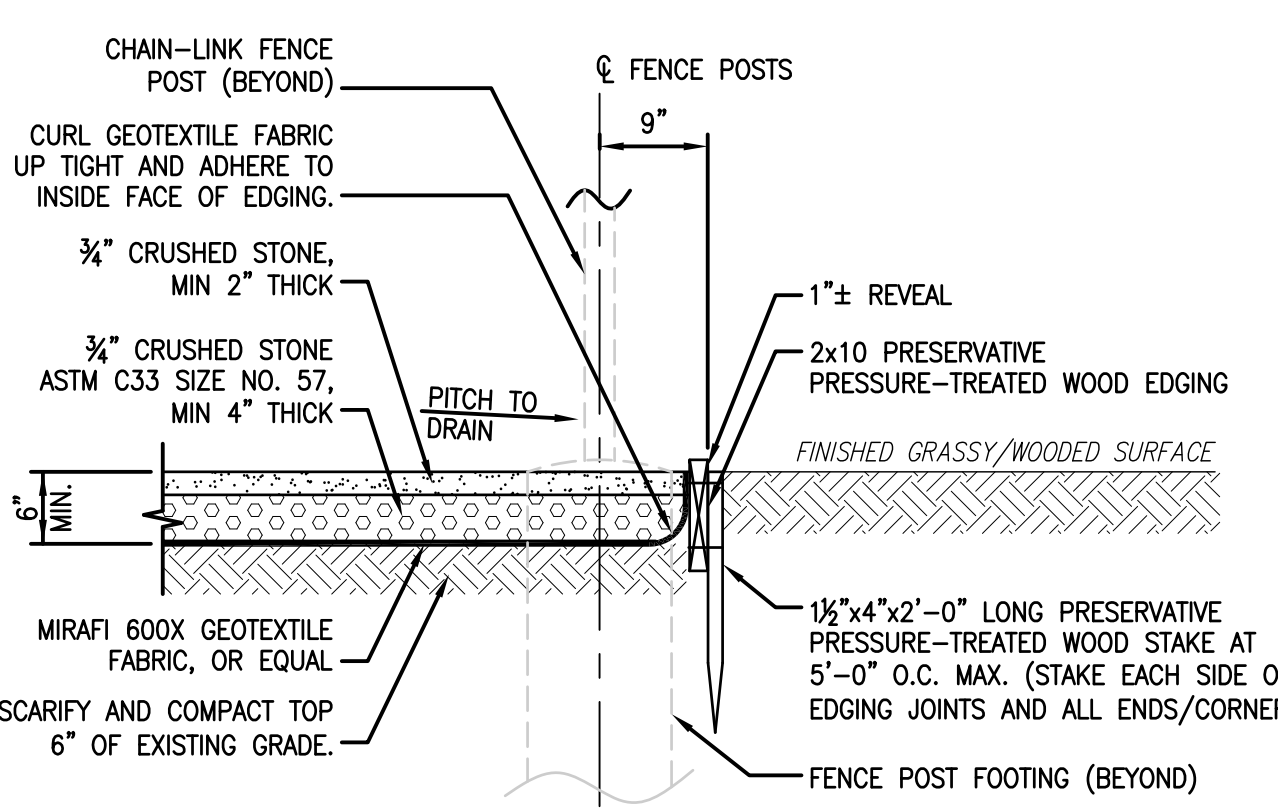
DRAWING NO:

A01

SCALE: 3/16" = 1'-0"	DESIGNED BY: NWC DRAWN BY: NWC CHECKED BY: GRS	VZW PROJECT NO.: 2245166 MDC LOCATION ID: 5000173476 VZW LOCATION CODE: 289269
CEA PROJECT NO.: 96210.406	ORIGINAL ISSUE DATE: 12/5/22	



- FENCING NOTES**
1. INSTALL FENCING PER ASTM F-567, SWING GATE PER ASTM F-900.
 2. ALL POSTS AND TOP RAILS SHALL BE SCHEDULE 40 PIPE PER ASTM F-1083.
 3. ALL FABRIC SHALL BE 12 GA. CORE WIRE SIZE 2" MESH CONFORMING TO ASTM A-392.
 4. TENSION WIRE SHALL BE 7 GA. GALV. STEEL.
 5. TIE WIRE SHALL BE 11 GA. GALV. STEEL (MIN.) AT POSTS AND RAILS. A SINGLE WRAP FABRIC TIE AT TENSION WIRE BY HOG RINGS SPACED MAX. OF 24" INTERVALS.
 6. STEEL FENCE SYSTEM SHALL INCLUDE THE POSTS, FABRIC, GATE SYSTEM AND ALL NECESSARY ERECTION ACCESSORIES, FITTINGS AND FASTENINGS. ALL FENCE SYSTEM COMPONENTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153. GATES SHALL BE SWING GATES (SEE PLAN FOR SIZE(S)).



CLIENT:

verizon

ARCHITECT/ENGINEER:

CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil - Structural - Land Surveying

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:
THESE DRAWINGS HAVE BEEN PREPARED IN ARCH D (24"x36") FORMAT. AS SUCH, THE WRITTEN SCALES SHOWN ON ANY REPRODUCTIONS OF A CONTRAFACTORY SIZE SHALL BE RENDERED INVALID. ALL BAR SCALES MAY BE USED REGARDLESS OF REPRODUCTION SIZE. WHERE IN CONFLICT, BAR SCALES SHALL SUPERSEDE WRITTEN SCALES.

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.

REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	12/5/22
1	REVISED PER TOWN'S PEER REVIEWER	4/24/24

PROJECT NAME:

STERLING 4 MA

PROJECT ADDRESS:

**56 KENDALL HILL ROAD
STERLING, MA 01564**

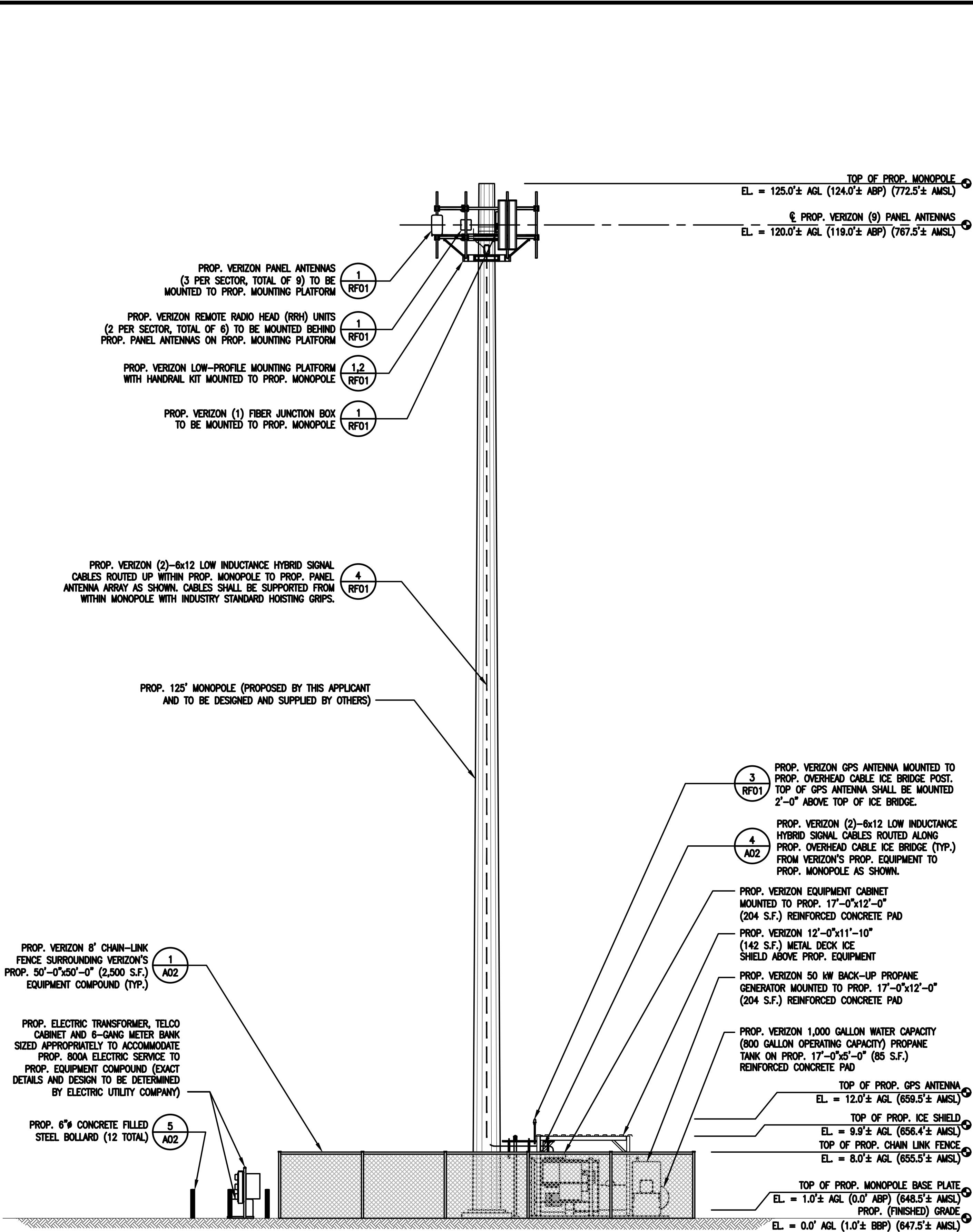
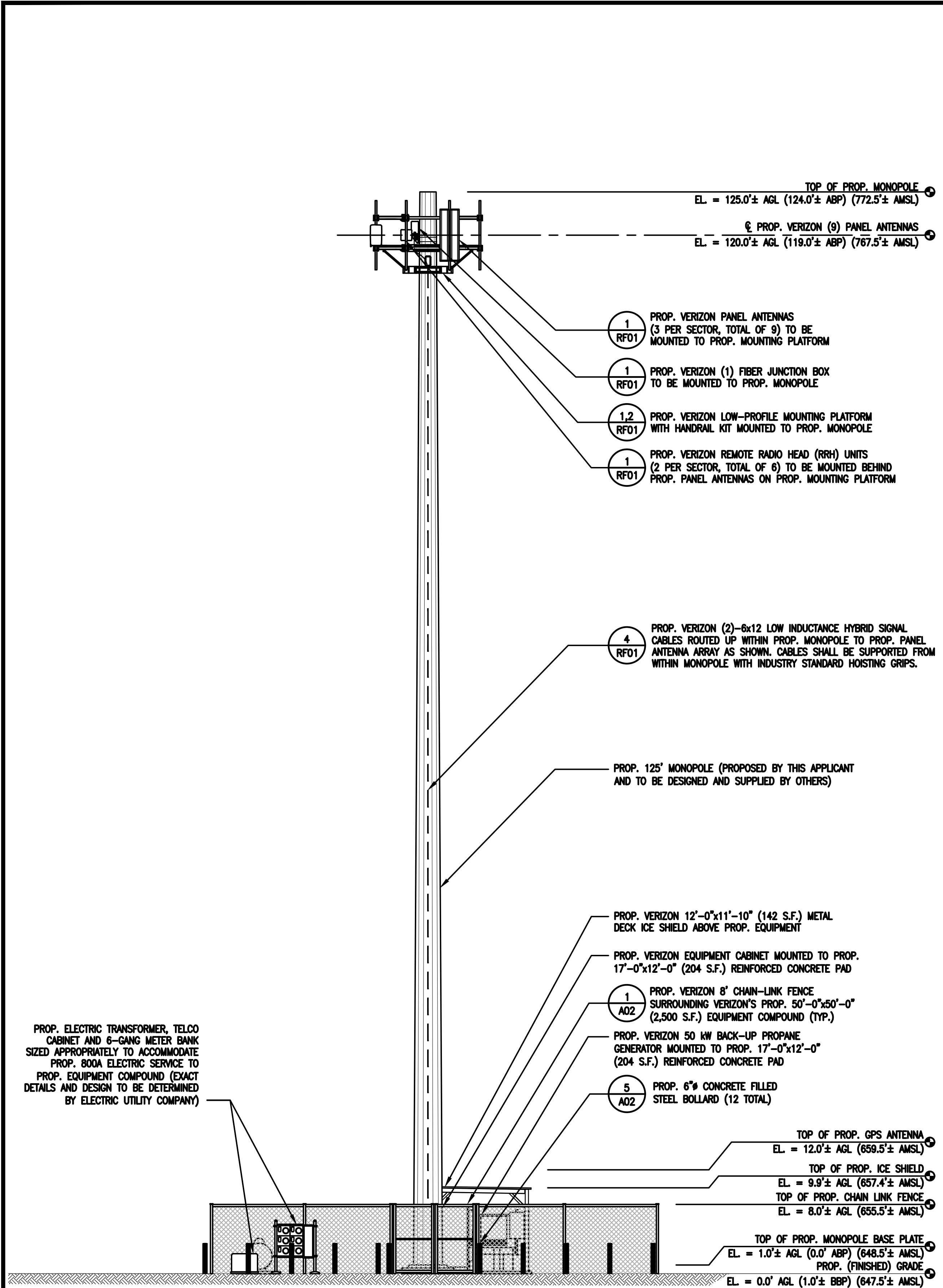
DRAWING TITLE:

SITE DETAILS

DRAWING NO:

A02

SCALE:	DESIGNED BY: NWC	VZW PROJECT NO.:
AS SHOWN	DRAWN BY: NWC	2245166
CEA PROJECT NO.:	CHECKED BY: GRS	MDG LOCATION ID:
96210.406	12/5/22	5000173476
		VZW LOCATION CODE:
		289269



LEGEND	
AGL	ABOVE GROUND LEVEL
ABP	ABOVE MONOPOLE BASE PLATE
BBP	BELOW MONOPOLE BASE PLATE
AMSL	ABOVE MEAN SEA LEVEL

NORTHWEST COMPOUND ELEVATION 1
SCALE: 1/8" = 1'-0"
0 8'-0" 16'-0" 24'-0"

SOUTHWEST COMPOUND ELEVATION 2
SCALE: 1/8" = 1'-0"
0 8'-0" 16'-0" 24'-0"

CLIENT:

verizon

ARCHITECT/ENGINEER:

CHAPPELL
ENGINEERING
ASSOCIATES, LLC
Civil - Structural - Land Surveying

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:

THESE DRAWINGS HAVE BEEN PREPARED IN ARCH D (24"x36") FORMAT. AS SUCH, THE WRITTEN SCALES SHOWN ON ANY REPRODUCTIONS OF A CONTRADICTORY SIZE SHALL BE RENDERED INVALID. ALL BAR SCALES MAY BE USED REGARDLESS OF REPRODUCTION SIZE. WHERE IN CONFLICT, BAR SCALES SHALL SUPERSEDE WRITTEN SCALES.

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.

REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	12/5/22
1	REVISED PER TOWN'S PEER REVIEWER	4/24/24

PROJECT NAME:

STERLING 4 MA

PROJECT ADDRESS:

56 KENDALL HILL ROAD
STERLING, MA 01564

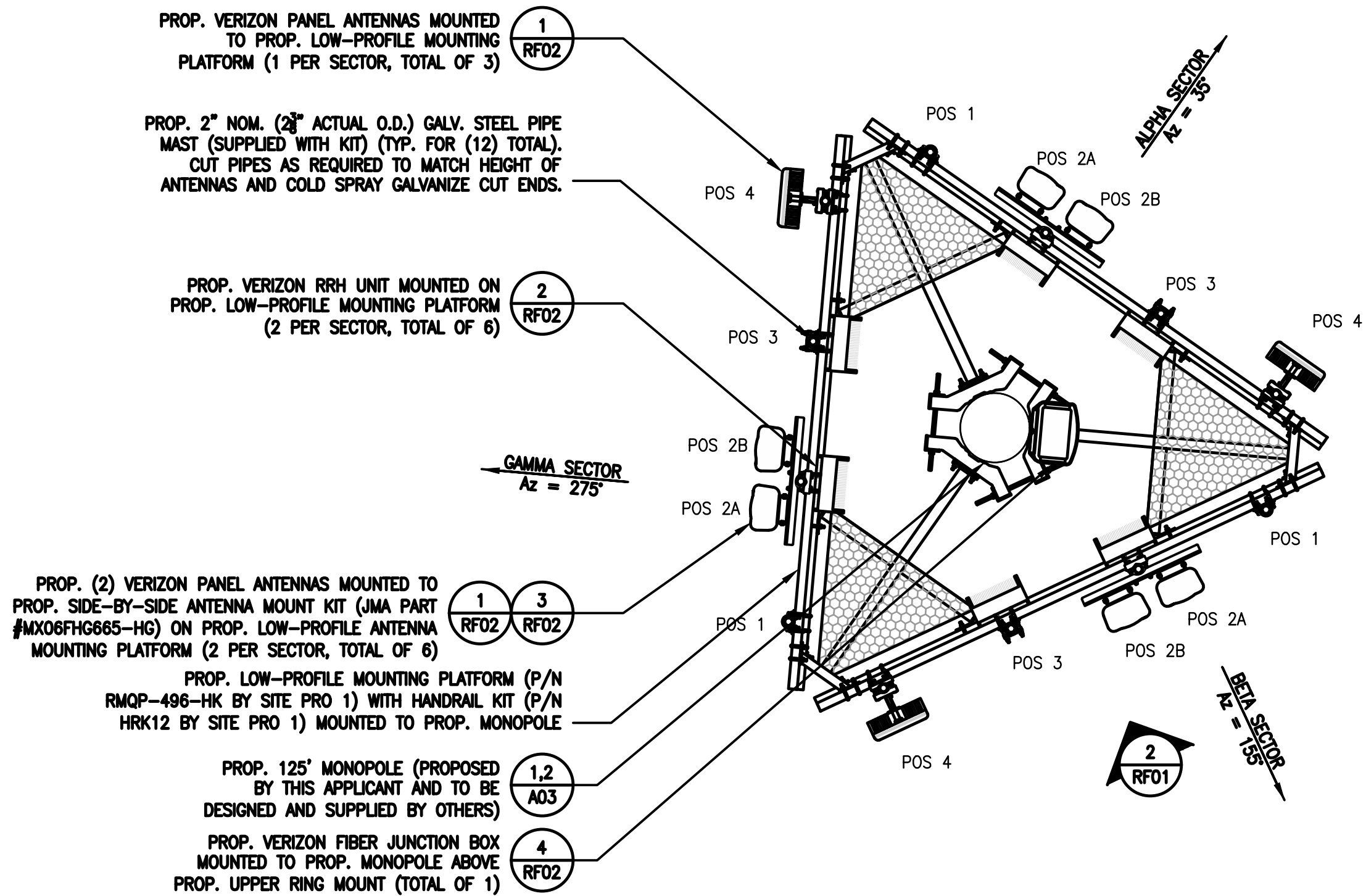
DRAWING TITLE:

NORTHWEST
COMPOUND ELEVATION
AND SOUTHWEST
COMPOUND ELEVATION

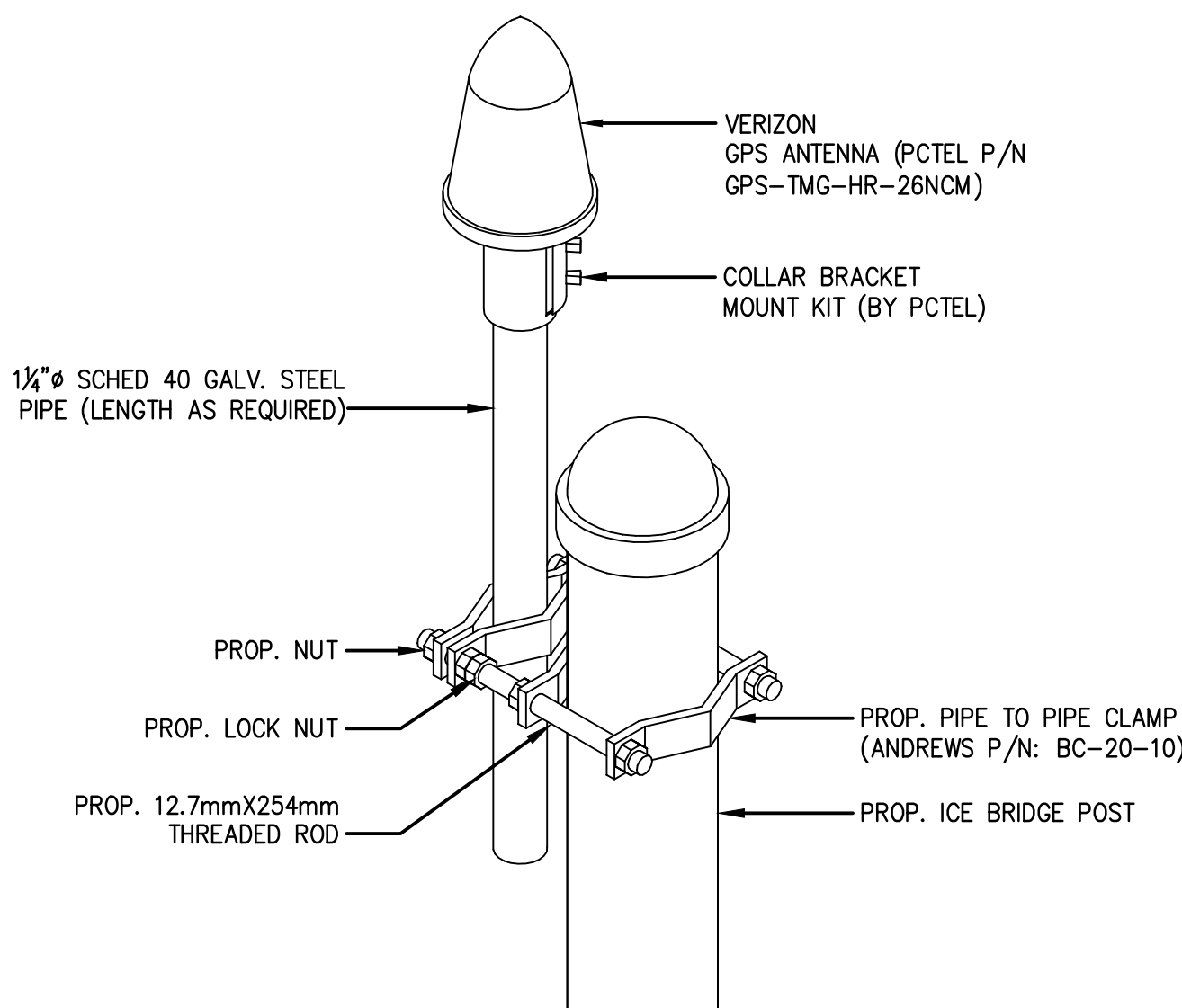
DRAWING NO:

A03

SCALE: 1/8" = 1'-0"	DESIGNED BY: NWC DRAWN BY: NWC CHECKED BY: GRS	VZW PROJECT NO.: 2245166 MDG LOCATION ID: 5000173476 VZW LOCATION CODE: 289269
CEA PROJECT NO.: 96210.406	ORIGINAL ISSUE DATE: 12/5/22	



(PROP. MONOPOLE PLAN VIEW AT ELEVATION 120.0'± AGL)

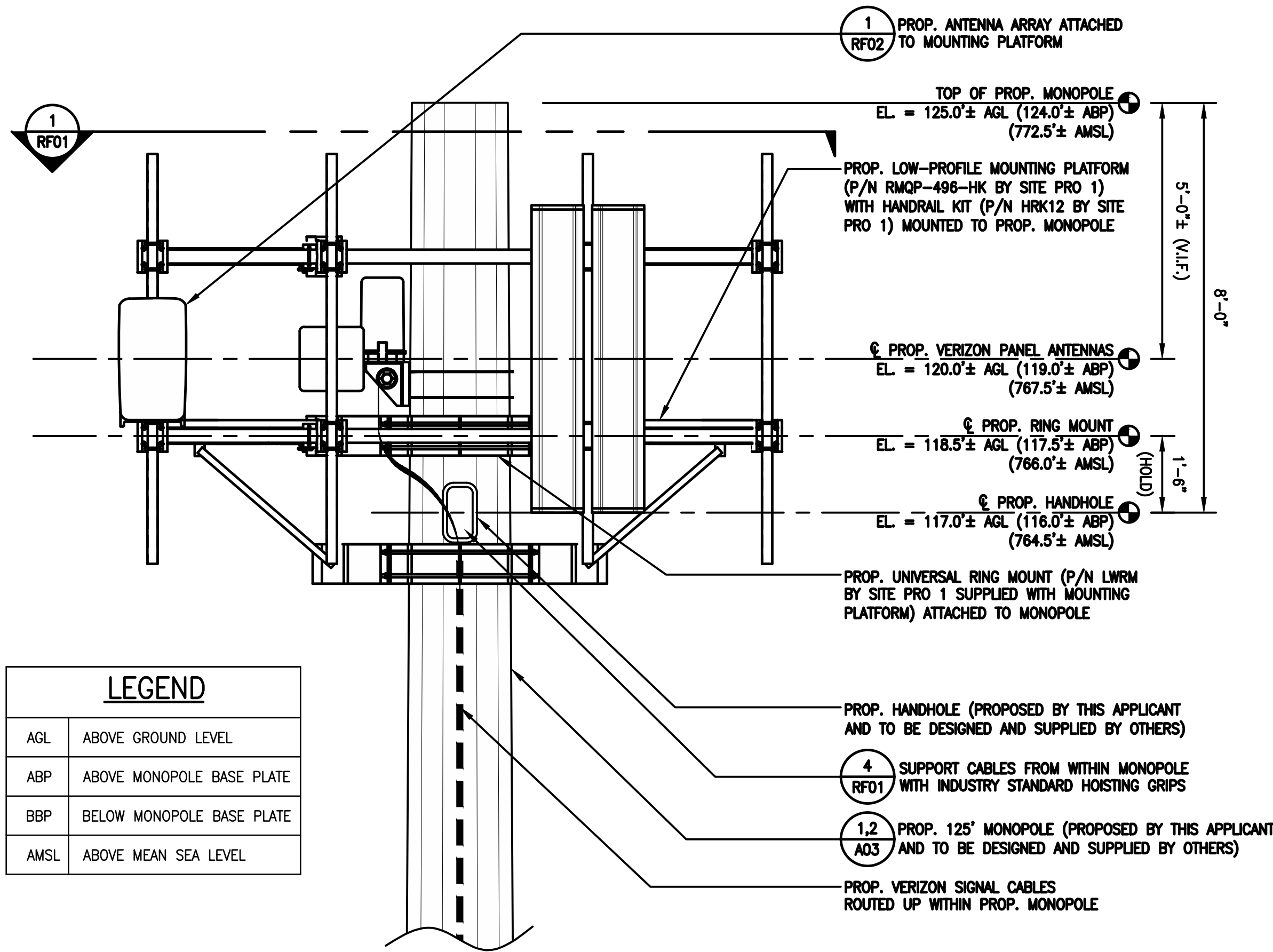


NOTE:
THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1"-1 1/2" DIAMETER GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.

GPS ANTENNA MOUNTING DETAIL

SCALE: N.T.S.

3 RF01

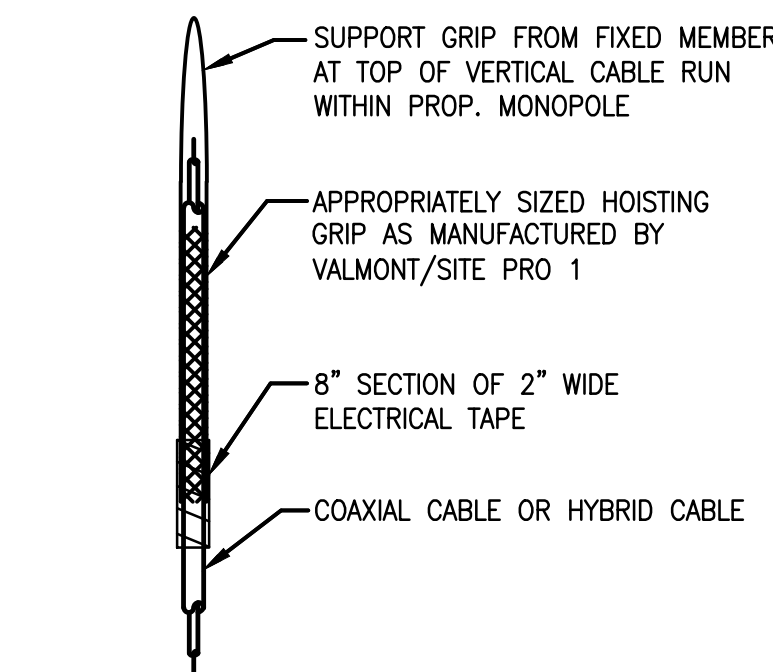


LEGEND	
AGL	ABOVE GROUND LEVEL
ABP	ABOVE MONOPOLE BASE PLATE
BBP	BELOW MONOPOLE BASE PLATE
AMSL	ABOVE MEAN SEA LEVEL

ENLARGED PART MONOPOLE ELEVATION

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

2 RF01



TYPICAL HOISTING GRIP DETAIL

SCALE: NONE

4 RF01

CLIENT:

verizon

ARCHITECT/ENGINEER:

CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil · Structural · Land Surveying

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:

THESE DRAWINGS HAVE BEEN PREPARED IN ARCH D (24"x36") FORMAT. AS SUCH, THE WRITTEN SCALES SHOWN ON ANY REPRODUCTIONS OF A CONTRACTORY SIZE SHALL BE RENDERED INVALID. ALL BAR SCALES MAY BE USED REGARDLESS OF REPRODUCTION SIZE. WHERE IN CONFLICT, BAR SCALES SHALL SUPERSEDE WRITTEN SCALES.

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.

REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	12/5/22
1	REVISED PER TOWN'S PEER REVIEWER	4/24/24

PROJECT NAME:

STERLING 4 MA

PROJECT ADDRESS:

56 KENDALL HILL ROAD
STERLING, MA 01564

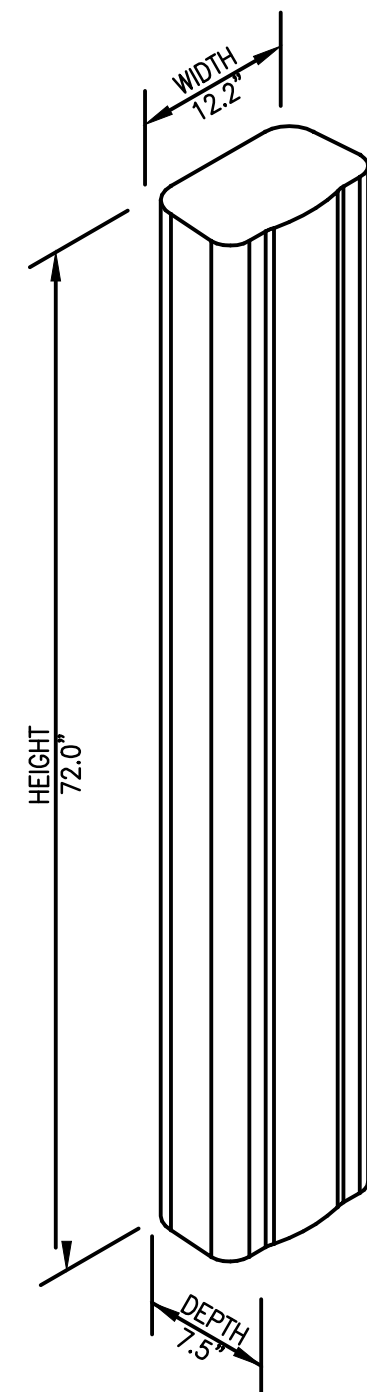
DRAWING TITLE:

**ANTENNA MOUNTING PLAN
AND DETAILS**

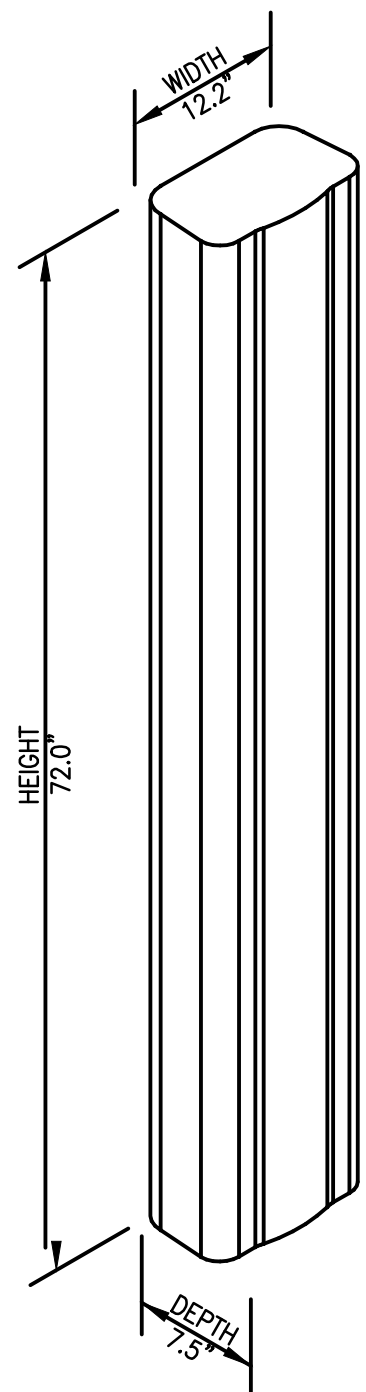
DRAWING NO:

RF01

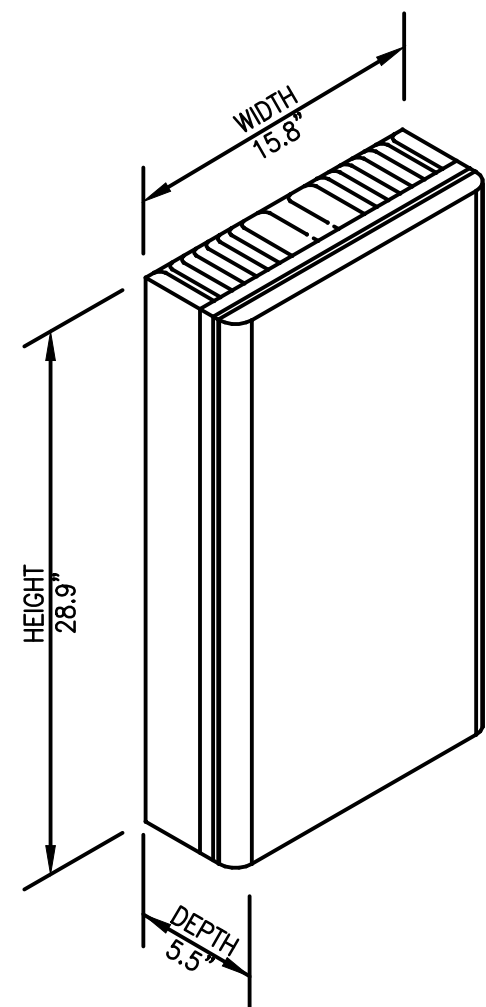
SCALE:	DESIGNED BY: NWC	VZW PROJECT NO.:
AS SHOWN	DRAWN BY: NWC	2245166
CEA PROJECT NO.:	CHECKED BY: GRS	MDG LOCATION ID:
96210.406	ORIGINAL ISSUE DATE:	5000173476
	12/5/22	VZW LOCATION CODE:
		289269



JMA WIRELESS
MX06FHG665-HG



JMA WIRELESS
MX06FHG665-HG



SAMSUNG
MT6413-77A

POSITION 1	
VACANT PIPE MAST	
QUANTITY:	1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED	

POSITION 2A	
LTE (700/850/5G/1900/2100 MHz) PANEL ANTENNA	
DIMENSIONS:	72.0"H x 12.2"W x 7.5"D
WEIGHT:	41.0 LBS EACH
QUANTITY:	1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED	

POSITION 2B	
LTE (700/850/5G/1900/2100 MHz) PANEL ANTENNA	
DIMENSIONS:	72.0"H x 12.2"W x 7.5"D
WEIGHT:	41.0 LBS EACH
QUANTITY:	1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED	

POSITION 3	
VACANT PIPE MAST	
QUANTITY:	1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED	

POSITION 4	
MT6413-77A ANTENNA	
MAX. DIMENSIONS:	28.9"H x 15.8"W x 5.5"D
MAX. WEIGHT:	57.3 LBS EACH
QUANTITY:	1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED	

TYPICAL PROP. PANEL ANTENNA SPECIFICATIONS
SCALE: N.T.S.

1
RF02



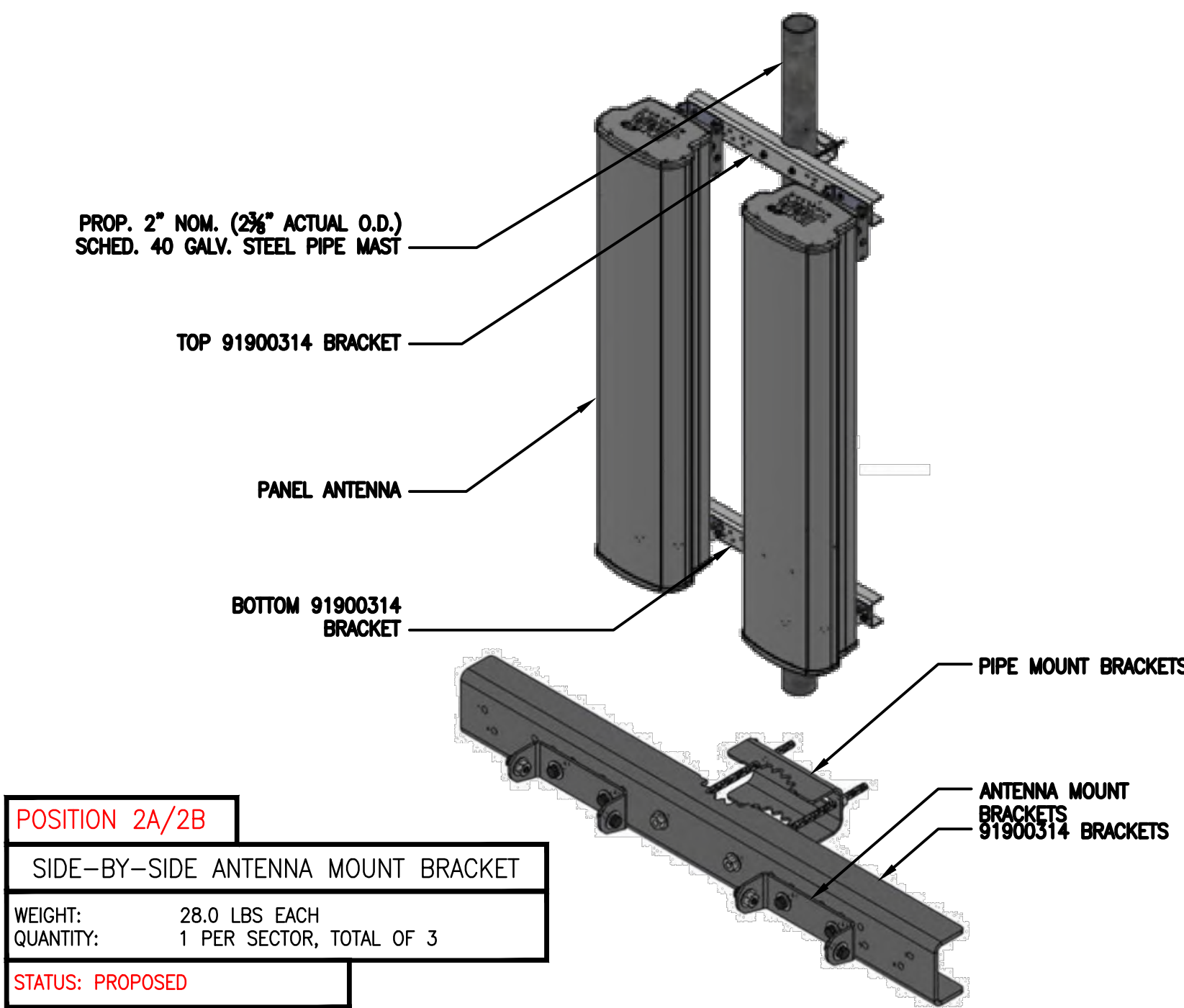
SAMSUNG
RF4461d-13A



SAMSUNG
RF4439d-25A B25/B66A

POSITION 3R	
LTE/NR (700/850/5G MHz) REMOTE RADIO HEAD UNIT	
DIMENSIONS:	15.0"H x 15.0"W x 10.2"D
WEIGHT:	79.1 LBS
QUANTITY:	1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED	

POSITION 2R	
LTE/NR (1900/2100 MHz) REMOTE RADIO HEAD UNIT	
DIMENSIONS:	15.0"H x 15.0"W x 10.0"D
WEIGHT:	74.7 LBS
QUANTITY:	1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED	



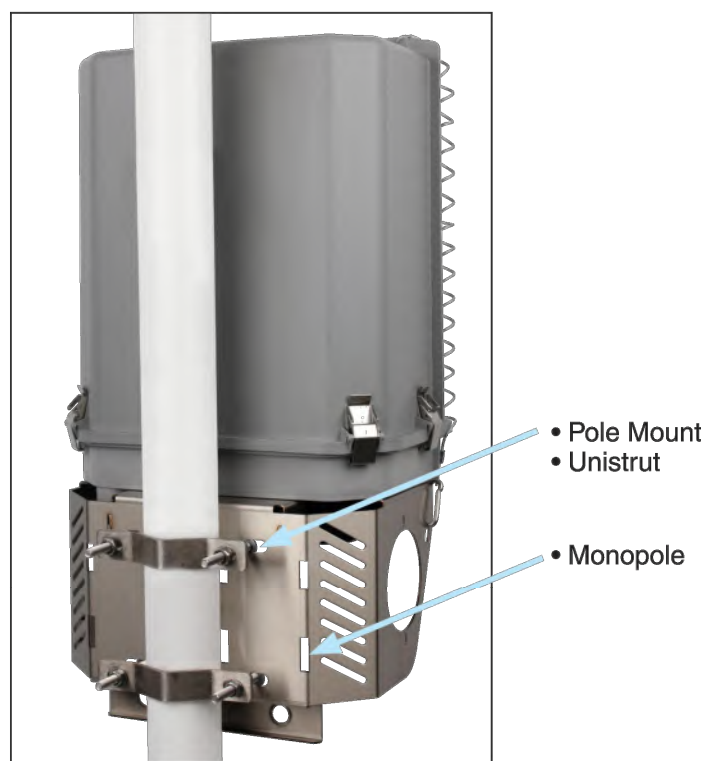
POSITION 2A/2B	
SIDE-BY-SIDE ANTENNA MOUNT BRACKET	
WEIGHT:	28.0 LBS EACH
QUANTITY:	1 PER SECTOR, TOTAL OF 3
STATUS: PROPOSED	

TYPICAL SIDE-BY-SIDE ANTENNA MOUNT KIT
(JMA PART #91900314)
SCALE: NOT TO SCALE

3
RF02

Procedure
Mounting Procedures

- 4.1 A mounting base is delivered with the unit. The base allows either wall/ladder or pole mounted installation. See picture to identify the holes for each installation method.
- 4.2 **Option 1: Pole Mount**
Using supplied hardware, mount Bracket to 2" to 4" diameter pole.
- 4.3 **Option 2: Unistrut**
- 4.4 **Option 3: Monopole**
Use 1" stainless steel bands (not supplied) through slots on bracket to mount to Monopole.



Gland/Insert Definitions

- 5.1 See picture to identify Base Gland Assembly Definitions.

Assembled in unit as shipped:

Qty	Connector Size	Pos	Insert P/N	Insert Hole	Cable Type
2	M75	A	190-0760	42mm	6x12 RL
4	M75	B	190-0738	3x 16.5mm	1x2



Included in kit shipped with unit:

Qty	Connector Size	Insert P/N	Insert Hole	Cable Type	Purpose	Pos
2	M75	190-0760	42mm	6x12 RL	2 glands fit 1 each 6/12 Hyb	B
2	M75	190-0747	2x 24.5mm	2x12 DC	2 glands fit 2 each #6 12 cond DC	B
1	M75	190-0905	2x 10.5mm	2x12 Fiber	1 gland fit 2 x 12 fiber trunk	B
1	M75	190-0912	2x 9.5mm	2 ETH	1 gland fits 2 ethernet cable	B

FIBER JUNCTION BOX	
DIMENSIONS:	29.58"H x 16.5"W x 12.6"D
WEIGHT:	32.0 LBS
QUANTITY:	TOTAL OF 1
STATUS: PROPOSED	

TYPICAL FIBER JUNCTION BOX DIMENSIONS,
SCHEMATIC AND MOUNTING PROCEDURE
SCALE: N.T.S.

4
RF02

CLIENT:

verizon

ARCHITECT/ENGINEER:

**CHAPPELL
ENGINEERING
ASSOCIATES, LLC**
Civil • Structural • Land Surveying

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST
SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

SEAL:

ENGINEER/LAND SURVEYOR DATE

DRAWING SCALE NOTE:

THESE DRAWINGS HAVE BEEN PREPARED IN ARCH D (24"x36") FORMAT. AS SUCH, THE WRITTEN SCALES SHOWN ON ANY REPRODUCTIONS OF A CONTRACTORY SIZE SHALL BE RENDERED INVALID. ALL BAR SCALES MAY BE USED REGARDLESS OF REPRODUCTION SIZE. WHERE IN CONFLICT, BAR SCALES SHALL SUPERSEDE WRITTEN SCALES.

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.

REVISIONS

NO.	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	12/5/22
1	REVISED PER TOWN'S PEER REVIEWER	4/24/24

PROJECT NAME:

STERLING 4 MA

PROJECT ADDRESS:

56 KENDALL HILL ROAD
STERLING, MA 01564

DRAWING TITLE:

ANTENNA DETAILS AND
ANCILLARY EQUIPMENT
SPECIFICATIONS

DRAWING NO:

RF02

TYPICAL REMOTE RADIO HEAD (RRH) UNIT DIMENSIONS
SCALE: N.T.S.

2
RF02

SCALE:	DESIGNED BY: NWC	VZW PROJECT NO.:
AS SHOWN	DRAWN BY: NWC	2245166
CEA PROJECT NO.:	CHECKED BY: GRS	MDG LOCATION ID:
96210.406	ORIGINAL ISSUE DATE:	5000173476
	12/5/22	VZW LOCATION CODE:
		289269