

PROJECT SUMMARY

SITE NAME: TONAWANDA CREEK
 SITE ADDRESS: 7340 CAMPBELL BLVD
 NORTH TONAWANDA, NY 14120
 JURISDICTION: TOWN OF PENDLETON,
 COUNTY: NIAGRA COUNTY
 ZONING: R-2 RESIDENTIAL
 PROPERTY OWNER: WENDELVILLE FIRE COMPANY
 PHONE: (716)-725-5286
 APPLICANT: HORVATH COMMUNICATIONS
 312 WEST COLFAX AVENUE
 SOUTH BEND, IN 46601
 CO-APPLICANT: BELL ATLANTIC MOBILE
 SYSTEMS, LLC D/B/A
 VERIZON WIRELESS
 JACKIE HORVATH (574) 621-0055
 SITE COORDINATES: 1A
 LATITUDE: N. 43° 4' 18.1" (GPS)
 LONGITUDE: W. 78° 46' 23.9" (GPS)
 ELEVATION: 576' (GPS)
 OCCUPANCY: UNMANNED
 CONSTRUCTION TYPE: RAW LAND
 100-YR BASE FLOOD ELEV: 577.8'

APPROVALS

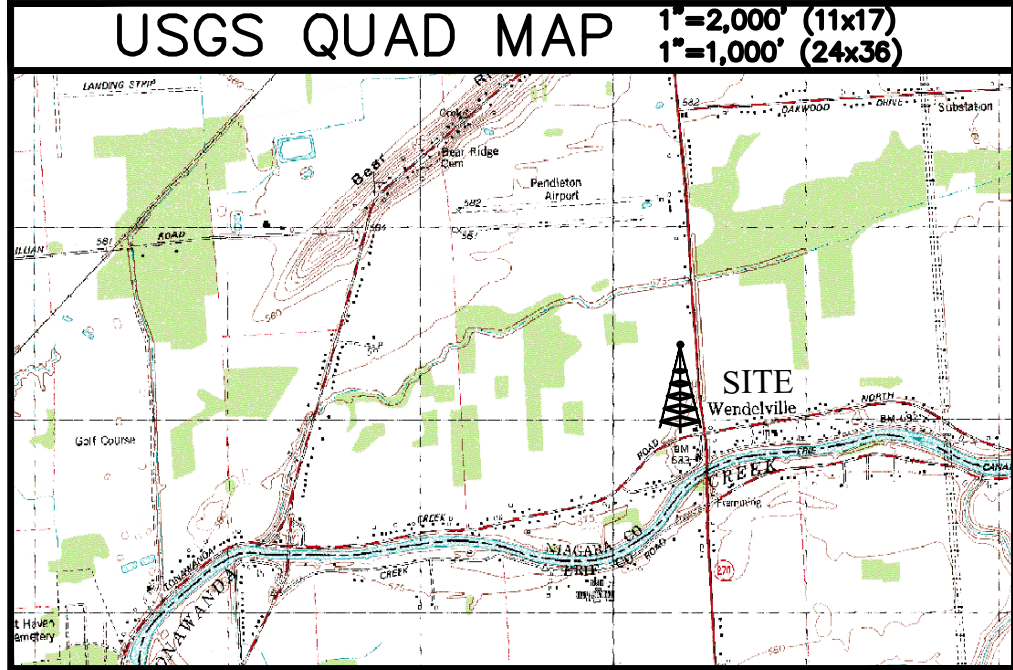
LANDLORD	DATE
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CONSULTING TEAM

ENGINEERING FIRM:
 THE CROSSROADS GROUP, LLC
 16590 POTTSVILLE PIKE, SUITE A
 HAMBURG, PA 19526
 CONTACT: JEREMIAH D. HOAGLAND
 PHONE: (484) 660-3055 FAX: (484) 660-3742
 SURVEYING FIRM:
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 16590 POTTSVILLE PIKE, SUITE A
 HAMBURG, PA 19526
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 PHONE: (484) 660-3055 FAX: (484) 660-3742
 TELEPHONE COMPANY:
 TELEPHONE COMPANY: TBD
 ADDRESS
 CITY, STATE, ZIP
 CONTACT: TBD
 PHONE: TBD FAX: TBD
 POWER COMPANY:
 ELECTRIC COMPANY: TBD
 ADDRESS
 CITY, STATE, ZIP
 CONTACT: TBD
 PHONE: (###) ###-#### FAX: (###) ###-####



SITE NAME
 TONAWANDA CREEK
SITE I.D.
 HV1173
E911 ADDRESS
 7340 CAMPBELL BLVD
 NORTH TONAWANDA, NY 14120
PROJECT TYPE
 140' MONOPOLE TOWER
PLAN ORIGATION DATE
 8-1-17



DRIVING DIRECTIONS

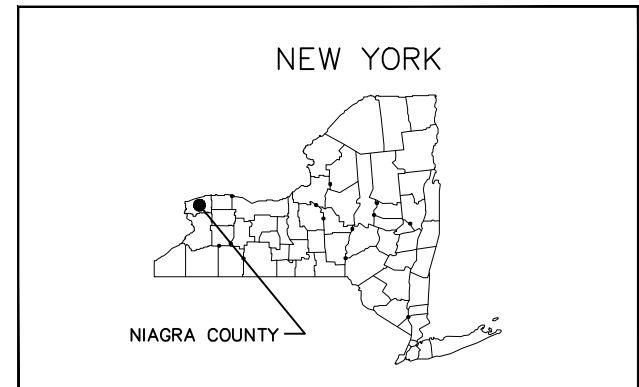
FROM THE TOWN OF PENDLETON:
 DIRECTIONS: HEAD WEST ON TONAWANDA CREEK ROAD TOWARD IRISH ROAD, TURN LEFT TO STAY ON TONAWANDA CREEK ROAD AND CONTINUE FOR 2.6 MILES, TURN RIGHT ONTO NY-270 NORTH. THE SITE WILL BE ON THE LEFT. (APPROX. N41°04'19.03", W78°46'15.91")

Call 811 before you dig
 1 (800) 962-7962
 www.digsafelynewyork.com
 CONTRACTOR TO CALL NEW YORK ONE-CALL SYSTEMS AT LEAST (2) WORKING DAYS PRIOR TO CONSTRUCTION

SHEET INDEX

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C-2	ENLARGED SITE PLAN
C-3	TOWER ELEVATION PLAN
C-4	CONSTRUCTION DETAILS - SITE
C-5	CONSTRUCTION DETAILS - FENCE (1)
C-6	CONSTRUCTION DETAILS - FENCE (2)
ES-1	EROSION & SEDIMENTATION CONTROL PLAN
ES-2	EROSION & SEDIMENTATION CONTROL NOTES
ES-3	E&S - CONSTRUCTION DETAILS

STATE COUNTY MAP



Horvath Communications, Inc.
 312 West Colfax Ave
 South Bend, IN 46601
HORVATH COMMUNICATIONS
 TEL: (574) 621-0055

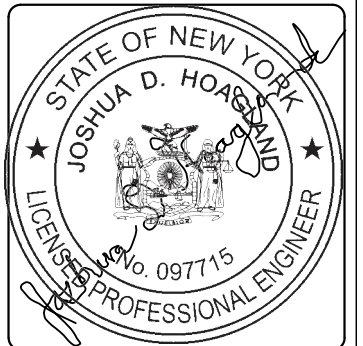
THE CROSSROADS GROUP, LLC
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 Paxinos, PA 17860
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THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT IS STRICTLY PROHIBITED.

SCALE: AS SHOWN
 DRAWN BY: JH
 PLAN ORIG. DATE: 8-1-17

REVISIONS

NO.	DATE	DESCRIPTION
D	08/27/20	PER SWITCH TO MONOPOLE
C	06/29/20	PER TOWER ROTATION
B	02/07/20	PER CLIENT COMMENTS
A	02/03/20	PER TOWN ZONING REV



PROJECT No. 2168
 SITE NAME: TONAWANDA CREEK
 SITE NUMBER: HV1173
 SITE ADDRESS: 7340 CAMPBELL BLVD
 NORTH TONAWANDA, NY 14120
 FILE NAME: TITLE-LEGEND.DWG

SHEET TITLE: TITLE SHEET

DRAWING NO. T-1 REVISION: D

DIVISION GENERAL REQUIREMENTS

PART 1 GENERAL

1.1 INTENT
A. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.
B. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED IN BOTH.
C. THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
D. THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
E. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT PRIOR APPROVAL.
1.2 CONFLICTS
A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK, NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
B. THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING WHICH SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.
C. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.
1.3 CONTRACTS AND WARRANTIES
A. CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.
B. SEE MASTER CONSTRUCTION SERVICES AGREEMENT FOR ADD'L DETAILS.
1.4 CHANGE ORDER PROCEDURE
A. CHANGE ORDERS MAY BE INITIATED BY THE OWNER AND/OR THE CONTRACTOR INVOLVED. THE CONTRACTOR, UPON VERBAL REQUEST FROM THE OWNER SHALL PREPARE A WRITTEN PROPOSAL DESCRIBING THE CHANGE IN WORK OR MATERIALS AND ANY CHANGES IN THE CONTRACT AMOUNT AND PRESENT TO THE OWNER WITHIN 72 HRS FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN THE FORM AND IN ACCORDANCE WITH PROCEDURES REQUIRED FOR CHANGE ORDER PROPOSALS. ANY CHANGES IN SCOPE OF WORK OR MATERIALS WHICH ARE PERFORMED BY THE CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER AS DESCRIBED AND APPROVED BY THE OWNER SHALL PLACE FULL RESPONSIBILITY OF THESE ACTIONS ON THE CONTRACTOR.
1.5 STORAGE
ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK. ANY STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.
1.5 CLEAN UP
A. THE CONTRACTORS SHALL AT ALL TIMES KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK AND AT THE COMPLETION OF THE WORK, THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY FOR USE.
1.7 RELATED DOCUMENTS AND COORDINATION
A. GENERAL CARPENTRY, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE

WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
1.8 SHOP DRAWINGS
A. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO THE OWNER FOR APPROVAL.
B. ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.
1.9 PRODUCTS AND SUBSTITUTIONS
A. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
B. SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.
1.10 CODES AND STANDARDS
A. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE BUT NOT BE LIMITED TO THE LATEST VERSION OF THE FOLLOWING:
ANSI/EIA - 222 - G STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.
INTERNATIONAL BUILDING CODE IBC-2012
NATIONAL ELECTRICAL CODE (NEC) 2011 WITH AMENDMENTS.
UNDERWRITER LABORATORIES APPROVED ELECTRICAL PRODUCTS
AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS (AISC)
LIFE SAFETY CODE NFPA - 101- 2012
1.11 ADMINISTRATION
A. BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL DEVELOP A MASTER SCHEDULE FOR THE PROJECT WHICH WILL BE SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.
B. PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE (THOUGH NOT LIMITED TO) THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF SUBCONTRACTED).
C. CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.
D. DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL SAFETY REQUIREMENTS IN THEIR AGREEMENT.
E. PROVIDE WRITTEN DAILY UPDATES ON SITE PROGRESS TO THE OWNER.
F. COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.
G. NOTIFY THE OWNER / PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.
1.12 INSURANCE AND BONDS
A. CONTRACTOR SHALL AT THEIR OWN EXPENSE CARRY AND MAINTAIN FOR THE DURATION OF THE PROJECT ALL INSURANCE AS REQUIRED AND LISTED AND SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.
B. THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.
C. CONTRACTOR MUST PROVIDE PROOF OF INSURANCE.
DIVISION 2 SITE WORK AND DRAINAGE
02000 EARTHWORK EXCAVATION AND GRADING
PART 1 GENERAL
1,1 WORK INCLUDED: REFER TO THE SURVEY AND SITE PLAN FOR WORK INCLUDED.

1.2 RELATED WORK
A. CONSTRUCTION FOR SHELTER FOUNDATION
B. INSTALLATION OF ANTENNA SUPPORT SYSTEM
C. ERECTION OF FENCE
1.3 DESCRIPTIONS
A. ACCESS ROAD, TURNAROUND AREAS, AND SITES ARE CONSTRUCTED TO PROVIDE A WELL DRAINED, EASILY MAINTAINED, EVEN SURFACE FOR MATERIAL AND EQUIPMENT DELIVERIES AND MAINTENANCE PERSONNEL ACCESS.
1.4 QUALITY ASSURANCE
A. VEGETATION LANDSCAPING, IF INCLUDED WITHIN THE CONTRACT, WILL BE PLACED AND MAINTAINED AS RECOMMENDED BY NURSERY INDUSTRY STANDARDS.
1.5 SEQUENCING
A. CONTRACTOR SHALL NOTIFY UTILITY LOCATING SERVICE MIN. OF 72 HRS. PRIOR TO START OF CONSTRUCTION.
B. CONTRACTOR SHALL INSTALL SOIL EROSION CONTROL MEASURES AS REQUIRED PER PLANS AND AUTHORITIES HAVING JURISDICTION.
C. CONFIRM SURVEY STAKES AND SET ELEVATION STAKES PRIOR TO ANY CONSTRUCTION.
D. GRUB THE COMPLETE ROAD AND SITE AREA PRIOR TO FOUNDATION CONSTRUCTION OR PLACEMENT OF BACKFILL OR SUB-BASE MATERIAL.
E. CONSTRUCT TEMPORARY CONSTRUCTION ZONE ALONG ACCESS DRIVE, IN ACCORDANCE WITH ALL LOCAL, STATE FEDERAL RULES.
F. THE SITE AREA WILL BE BROUGHT TO SUB-BASE COURSE ELEVATION AND THE ACCESS ROAD TO BASE COURSE ELEVATION PRIOR TO FORMING FOUNDATIONS.
G. IF REQUIRED, GRADE, SEED, FERTILIZE AND MULCH DISTURBED AREAS IMMEDIATELY AFTER BRINGING THE SITE AND ACCESS ROAD TO BASE COURSE ELEVATION. WATER TO ENSURE GROWTH.
1.6 SUBMITTALS
A. BEFORE CONSTRUCTION
1. FOR LANDSCAPING REFER TO THE SITE PLAN AND DETAILS AND PROVIDE A LANDSCAPING PLAN WITH COST ESTIMATE.
2. SUBMIT FOR APPROVAL THE SPECIFICATIONS OF THE PROPOSED SURFACE COURSE MATERIAL.
B. AFTER CONSTRUCTION
1. LANDSCAPING WARRANTY STATEMENT, IF REQUIRED.
1.7 WARRANTY
A. IN ADDITION TO THE WARRANTY ON ALL CONSTRUCTION COVERED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPAIR ALL DAMAGE OF SURROUNDING PROPERTY CAUSED BY CONSTRUCTION.
B. DISTURBED AREAS WILL REFLECT GROWTH OF NEW GRASS COVER PRIOR TO FINAL INSPECTION.
C. LANDSCAPING, IF INCLUDED WITHIN THE SCOPE OF THE CONTRACT, WILL BE GUARANTEED FOR ONE YEAR FROM DATE OF FINAL INSPECTION.
PART 2 PRODUCTS
2.1 MATERIALS
A. ROAD AND SITE MATERIALS: FILL MATERIAL - ACCEPTABLE SELECT FILL SHALL BE IN ACCORDANCE WITH LOCAL DEPARTMENT OF HIGHWAY AND PUBLIC TRANSPORTATION STANDARD SPECIFICATION.
B. SOIL STABILIZER FABRIC SHALL BE MIRAFI - 500X.
C. NON-STRUCTURAL SITE CONCRETE SHALL BE 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. COMPLY WITH GENERAL PROVISIONS OF DIVISION 3 CONCRETE SPECIFICATIONS.
2.2 EQUIPMENT
A. COMPACTING SHALL BE ACCOMPLISHED BY MECHANICAL LARGER AREAS SHALL BE COMPACTED BY SHEEPS FOOT, VIBRATORY OR RUBBER Tired ROLLERS WEIGHING AT LEAST FIVE TONS. WATER TREATMENT MAY BE REQUIRED TO OBTAIN COMPACTION. SMALLER AREAS SHALL BE COMPACTED BY POWER-DRIVEN, HAND HELD TAMPERS.
PART 3 EXECUTION
3.1 INSPECTIONS: LOCAL BUILDING INSPECTION SHALL BE NOTIFIED NO LESS THAN 48 HRS. IN ADVANCE OF CONCRETE POURS.
3.2 PREPARATION
A. CLEAR TREES, BRUSH AND DEBRIS FROM SITE AREA AND ACCESS ROAD RIGHT OF WAY AS REQUIRED.
B. PRIOR TO OTHER EXCAVATION AND CONSTRUCTION EFFORTS GRUB ORGANIC MATERIAL TO A MINIMUM OF SIX INCHES BELOW ORIGINAL GROUND LEVEL.
C. UNLESS OTHERWISE INSTRUCTED BY THE OWNER, REMOVE TREES, BRUSH AND DEBRIS FROM THE PROPERTY TO AN AUTHORIZED LANDFILL.
D. PRIOR TO PLACEMENT OF FILL OR BASE MATERIALS, REMOVE SOFT SPOTS AND COMPACT TO 95% STANDARD

PROCTOR.
E. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, LINE THE GRUBBED AREAS WITH STABILIZER MAT PRIOR TO PLACEMENT OF FILL OR BASE MATERIAL.
3.4 FIELD QUALITY CONTROL
A. COMPACTION SHALL BE 90% MAXIMUM DENSITY IN ACCORDANCE WITH ASTM 0-1557 FOR SITE WORK AND 95% UNDER SLA.B AREAS. AREAS OF SETTLEMENT WILL BE EXCAVATED AND REFILLED AT CONTRACTOR'S EXPENSE.
3.5 PROTECTION
A. PROTECT SEEDED AREAS FROM EROSION BY SPREADING STRAW TO A UNIFORM LOOSE DEPTH OF 1-2 INCHES, STAKE AND TIE DOWN AS REQUIRED. USE OF EROSION CONTROL MESH OR MULCH NET WILL BE AN ACCEPTABLE ALTERNATE.
B. ALL TREES PLACED IN CONJUNCTION WITH A LANDSCAPE CONTRACT WILL BE WRAPPED, TIED WITH HOSE PROTECTED WIRE AND SECURED TO 2 INCH X 2 INCH X 4 FOOT STEEL ANGLE EXTENDING TWO FEET INTO THE GROUND ON FOUR SIDES OF THE TREE.
C. ALL EXPOSED AREAS SHALL BE PROTECTED AGAINST WASHOUTS AND SOIL EROSION.
3.6 FENCE
A. EQUIPMENT: EXCAVATE POST HOLES WITH MECHANICAL AUGER EQUIPMENT.
B. INSPECTION: EXCAVATE POST HOLES PER CONSTRUCTION DOCUMENTS. CONFIRM PROPER DEPTH AND DIAMETER OF POST HOLE EXCAVATIONS.
C. INSTALLATION
1. POST FOUNDATIONS SHALL HAVE A MINIMUM SIX-INCH CONCRETE COVER UNDER POST
2. ALL FENCE POSTS SHALL BE VERTICALLY PLUMB WITHIN ONE INCH IN EIGHT FEET.
3. AT CORNER POSTS, GATE POST AND SIDES OF GATE FRAME, FABRIC SHALL BE ATTACHED WITH STRETCHER AND TENSION BAND-CLIPS AT 15 INCH INTERVALS.
4. AT LINE POSTS, FABRIC SHALL BE ATTACHED WITH BAND-CLIPS AT 15 INCH INTERVALS.
5. ATTACH FABRIC TO BRACE RAILS, TENSION WIRE AND TRUSS RODS WITH TIE CLIPS AT TWO FOOT INTERVALS.
6. A MAXIMUM GAP OF TWO INCHES WILL BE PERMITTED BETWEEN THE CHAIN LINK FABRIC AND THE FINAL GRADE.
7. GATES SHALL BE INSTALLED SO LOCKS ARE ACCESSIBLE FROM BOTH SIDES.
8. GATES SHALL BE INSTALLED SO LOCKS ARE ACCESSIBLE FROM BOTH SIDES.
D. PROTECTION: UPON COMPLETION OF ERECTION, INSPECT FENCE MATERIAL AND PAINT FIELD CUTS OR GALVANIZING BREAKS WITH ZINC-BASED PAINT COLOR TO MATCH THE GALVANIZING PROCESS.
DIVISION 13 SPECIAL CONSTRUCTION
13100 ANTENNA INSTALLATION

Horvath Communications, Inc.
312 West Colfax Ave
South Bend, IN 46601
HORVATH COMMUNICATIONS
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Table with 2 columns: Field, Value. SCALE: NTS, DRAWN BY: JH, PLAN ORIG. DATE: 8-1-17

Table with 2 columns: No., Description. REVISIONS table with 4 rows of revision data.



PROJECT No. 2168
SITE NAME: TONAWANDA CREEK
SITE NUMBER: HV1173
SITE ADDRESS: 7340 CAMPBELL BLVD NORTH TONAWANDA, NY 14120
FILE NAME: TITLE-LEGEND.DWG

SHEET TITLE: GENERAL NOTES (1)

Table with 2 columns: DRAWING NO., REVISION. T-2, D

GENERAL NOTES
ANY SITE THAT IS PROPOSED TO BE 5,000 SF. OR MORE OF DISTURBANCE MUST HAVE EROSION AND SEDIMENTATION PLAN ON SITE AT ALL TIMES.

PART I GENERAL

1.1 WORK INCLUDED

A. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND OWNER SPECIFICATIONS.

B. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.

C. INSTALL FURNISHED GALVANIZED STEEL WAVEGUIDE LADDER.

D. INSTALL WAVEGUIDE BRIDGE AS INDICATED ON DRAWING.

E. SUPPLY AND INSTALL ONE INSULATED GROUND BAR AT EQUIPMENT CABINET.

F. SUPPLY AND INSTALL GROUNDING STRAP KITS WITH LONG BARREL COMPRESSION LUGS (SIM. TO ANDREW-2237DOTBD OR APPROVED EQUAL) ATOP TOWER BASE BEFORE ENTERING THE EQUIPMENT. GROUNDING STRAPS TO BE CONNECTED TO INSULATED GROUND BAR.

G. ASSIST OWNER TECHNICIANS IN PERFORMING SWEEP TEST OF INSTALLED COAX.

1.2 RELATED WORK

1.3 REQUIREMENTS OF REGULATORY AGENCIES

A. FURNISH U.L. LISTED EQUIPMENT WHERE SUCH LP.BEL IS AVAILABLE, INSTALL IN CONFORMANCE WITH U.L. STANDARDS WHERE APPLICABLE.

B. INSTALL ANTENNA, ANTENNA CABLES, GROUNDING SYSTEM IN ACCORDANCE WITH DRAWINGS AND SPECIFICATION IN EFFECT AT PROJECT LOCATION AND RECOMMENDATIONS OF STATE AND LOCAL BUILDING CODES, SPECIAL CODES HAVING JURISDICTION OVER SPECIFIC PORTIONS OF WORK. THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

1. EIA - ELECTRONIC INDUSTRIES ASSOCIATION EIA-222-G. STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.

2. FAA - FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR AC 70/7460-IH, OBSTRUCTION MARKING AND LIGHTING.

3. FCC - FEDERAL COMMUNICATIONS COMMISSION RULES AND REGULATIONS FORM 715, OBSTRUCTION MARKING AND LIGHTING SPECIFICATIONS FOR ANTENNA STRUCTURES AND FORM 715A, HIGH INTENSITY OBSTRUCTION LIGHTING SPECIFICATIONS FOR ANTENNA STRUCTURES.

4. AISC- AMERICAN INSTITUTE OF STEEL CONSTRUCTION

5. NEC- NATIONAL ELECTRICAL CODE - ON TOWER LIGHTING KITS.

6. UL- UNDERWRITER'S LP.BORATORIES APPROVED ELECTRICAL PRODUCTS.

7. IN ALL CASES, PART 77 OF THE FAA RULES AND PARTS 17 AND 22 OF THE FCC RULES ARE APPLICABLE AND IN THE EVENT OF CONFLICT, SUPERSEDE ANY OTHER STANDARDS OR SPECIFICATIONS.

8. LIFE SAFETY CODE NFPA - 101- 2012

ELECTRICAL NOTES

1. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL ELECTRICAL WORK INDICATED. CONSTRUCTION SHALL BE IN ACCORDANCE W/ DRAWINGS AND APPLICABLE SPECIFICATIONS. IF ANY PROBLEMS ARE ENCOUNTERED BY COMPLYING WITH THESE REQUIREMENTS, CONTRACTOR SHALL NOTIFY 'CONSTRUCTION MANAGER' AS SOON AS POSSIBLE, AFTER THE DISCOVERY OF THE PROBLEMS, AND SHALL NOT PROCEED WITH THAT PORTION OF WORK, UNTIL 'CONSTRUCTION MANAGER' HAS DIRECTED THE CORRECTIVE ACTIONS TO BE TAKEN.

2. ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATION INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. ALL EXISTING CONDITIONS OF ELECTRICAL EQUIP., LIGHT FIXTURES, ETC., THAT ARE PART OF THE FINAL SYSTEM, SHALL BE VERIFIED BY THE CONTRACTOR, PRIOR TO THE SUBMITTAL OF HIS BID. FAILURE TO COMPLY WITH THIS PARAGRAPH WILL IN NO WAY RELIEVE CONTRACTOR OF PERFORMING ALL WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM.

3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LP. TEST EDITION OF THE NEC AND ALL CODES AND LOCAL ORDINANCES OF THE LOCAL POWER & TELEPHONE COMPANIES HAVING JURISDICTION AND SHALL INCLUDE BUT NOT BE LIMITED TO:

A. UL - UNDERWRITERS LP.BORATORIES

B. NEC - NATIONAL ELECTRICAL CODE

C. NEMA - NATIONAL ELECTRICAL MANUFACTURERS ASSOC.

D. OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT

E. SBC - STANDARD BUILDING CODE

F. NFPA - NATIONAL FIRE CODES

4. DO NOT SCALE ELECTRICAL DRAWINGS, REFER TO SITE PLP.NS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, AND CONFIRM WITH 'CONSTRUCTION MANAGER' ANY SIZES AND LOCATIONS WHEN NEEDED.

5. CONTRACTOR SHALL NOT INTERRUPT EXISTING SERVICES WITHOUT WRITTEN PERMISSION OF THE OWNER.

6. CONTRACTOR SHALL PAY FOR PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR IS TO OBTAIN PERMITS AND APPROVED SUBMITTALS PRIOR TO THE WORK BEGINNING OR ORDERING EQUIPMENT.

7. THE TERM "PROVIDE" USED IN CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, INDICATED THAT THE CONTRACTOR SHALL FURNISH AND INSTALL.

8. CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ABOUT REQUIREMENTS SUCH AS: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, SIZE OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNERS' CONFIRMATION, ETC. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER, PRIOR TO START OF WORK.

9. MINIMUM WIRE SIZE SHALL BE #12 AWG, NOT INCLUDING CONTROL WIRING, UNLESS NOTED OTHERWISE. ALL CONDUCTORS SHALL BE COPPER WITH THWN INSULATION.

10. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET/DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.

11. IT IS NOT THE INTENT OF THESE PLP.NS TO SHOW EVERY MINOR DETAIL OF THE CONSTRUCTION. CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL MATERIAL AND LABOR FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.

12. ELECTRICAL SYSTEM SHALL BE AS COMPLETELY AND EFFECTIVELY GROUNDED, AS REQUIRED BY SPECIFICATIONS, SET FORTH BY HORVATH.

13. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRE CLASS, WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND SUBJECT TO REGULATORY INSPECTION AND APPROVAL BY CONSTRUCTION MANAGER.

14. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.

15. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORK ARE FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.

16. THE CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ANY ADDITIONAL CHARGE AND SHALL INCLUDE THE REPLACEMENT OR THE REPAIR OF ANY OTHER PHASE OF THE INSTALLATION, WHICH MAY HAVE BEEN DAMAGED THEREIN.

17. PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES AND DEVICES FOR ALL OUTLETS AS INDICATED.

18. TRENCHING AND BACK FILL: CONTRACTOR SHALL PROVIDE TRENCHING FOR ALL UNDERGROUND INSTALLED CONDUIT AND/OR CABLES INCLUDING BACKFILLING AND COMPACTION. REFER TO NOTES AND REQUIREMENTS FOR EXCAVATION, AND BACKFILLING.

19. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SHALL APPEAR ON THE LIST OF U.L. APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF THE NEC, NEMA AND IEEE.

20. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR MANUFACTURERS CATALOG INFORMATION FOR LIGHTING FIXTURES, SWITCHES AND ALL OTHER ELECTRICAL ITEMS FOR APPROVAL BY THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION.

21. ANY CUTTING OR PATCHING DEEMED NECESSARY FOR ELECTRICAL WORK IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY AND SHALL BE INCLUDED IN THE COST FOR WORK AND PERFORMED TO THE SATISFACTION OF THE 'CONSTRUCTION MANAGER' UPON FINAL ACCEPTANCE.

22. THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS WITH ONLY TYPEWRITTEN DIRECTIONS. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

23. DISCONNECT SWITCHES SHALL BE H.P. RATED HEAVY-DUTY, QUICK-MAKE AND QUICK-BREAK ENCLOSURES, AS REQUIRED BY EXPOSURE TYPE.

24. ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND SUCH AS "NO-OXIDE A" BY DEARBORN CHEMICAL CO. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED - NO SUBSTITUTIONS.

25. RACEWAYS: CONDUIT SHALL BE SCHEDULE 40 PVC MEETING OR EXCEEDING NEMA TC2 - 1990. CONTRACTOR SHALL PLUG AND CAP EACH END OF SPACE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS -

200 LBS TEST POLYETHYLENE CORD. ALL CONDUIT BENDS SHALL BE A MINIMUM OF 2 FT. RADIUS. RGS CONDUITS WHEN SPECIFIED, SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAL ALL THREADS WITH 'BRITE ZINC' OR 'GOLD GALV'.

26. SUPPORT OF ALL ELECTRICAL WORK SHALL BE AS REQUIRED BY NEC.

27. CONDUCTORS: CONTRACTOR SHALL USE 98% CONDUCTIVITY COPPER WITH TYPE THWN INSULATION, 600 VOLT, COLOR CODED. USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING NO. 8 AWG. USE STRANDED CONDUCTORS FOR WIRE ABOVE NO. 8 AWG.

28. CONNECTORS FOR POWER CONDUCTORS: CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDER LESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.

29. SERVICE: 240/120V, SINGLE PHASE, 3 WIRE CONNECTION AVAILABLE FROM UTILITY COMPANY. OWNER OR OWNERS AGENT WILL APPLY FOR POWER.

30. TELEPHONE/FIBER SERVICE: CONTRACTOR SHALL PROVIDE EMPTY CONDUITS WITH PULL STRINGS AS INDICATED ON DRAWINGS.

31. ELECTRICAL AND TELCO RACEWAYS TO BE BURIED A MINIMUM OF 2' DEPTH.

32. CONTRACTOR SHALL PLACE TWO LENGTHS OF WARNING TAPE AT A DEPTH OF 12" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL AND TELCO SERVICE CONDUITS. CAUTION TAPE TO READ "CAUTION BURIED ELECTRIC" OR "BURIED TELECOM".

33. ALL BOLTS SHALL BE STAINLESS STEEL

ACT 121 NOTIFICATION

THE UNDERGROUND UTILITY LINE PROTECTION LAW
(ACT 121 AMENDS ACT 287 OF 1974)
SITE SERIAL NO. #####

LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT 121 OF 2008, AS AMENDED BY ACT 181 OF 2008, ACT 189 OF 2004, ACT 187 OF 1996, ACT 172 OF 1996 AND ACT 287 OF 1974. CONTRACTORS MUST VERIFY LOCATIONS OF UNDERGROUND UTILITIES BY NOTIFYING FACILITY OWNERS THROUGH THE ONE-CALL SYSTEM, 1-800-242-1776, NO LESS THAN 3, NOR MORE THAN 10 DAYS PRIOR TO EXCAVATION OR DEMOLITION WORK.

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SCALE:	NTS
DRAWN BY:	JH
PLAN ORIG. DATE:	8-1-17

REVISIONS		
NO.	DATE	DESCRIPTION
D	08/27/20	PER SWITCH TO MONOPOLE
C	06/29/20	PER TOWER ROTATION
B	02/07/20	PER CLIENT COMMENTS
A	02/03/20	PER TOWN ZONING REV

STATE OF NEW YORK

JOSHUA D. HORVATH

LICENSED PROFESSIONAL ENGINEER

No. 097715

PROJECT No.	2168
SITE NAME:	TONAWANDA CREEK
SITE NUMBER:	HV1173
SITE ADDRESS:	7340 CAMPBELL BLVD NORTH TONAWANDA, NY 14120
FILE NAME:	TITLE-LEGEND.DWG

SHEET TITLE:
GENERAL NOTES (2)

DRAWING NO.	REVISION:
T-3	D

CONSTRUCTION NOTES

STORM SEWER

1. UNLESS OTHERWISE NOTED, ALL STORM SEWER INLETS SHALL CONFORM TO DEPARTMENT OF TRANSPORTATION STANDARDS.
2. UNLESS OTHERWISE NOTED, ALL STORM SEWER PIPING SHALL BE REINFORCED CONCRETE PIPE AND SHALL CONFORM TO DEPARTMENT OF TRANSPORTATION STANDARDS.
3. UNLESS OTHERWISE NOTED, ALL CONCRETE ENDWALLS SHALL CONFORM TO DEPARTMENT OF TRANSPORTATION STANDARDS. THE TOP OF WALL ELEVATION FOR ALL ENDWALLS SHALL CONFORM TO THESE STANDARDS FOR THE ASSOCIATED PIPE SIZE. IN THE EVENT THAT A HIGHER TOP OF WALL ELEVATION IS NECESSARY FOR GRADING, THE "SPECIAL" TOP OF WALL ELEVATION SHALL BE NOTED ON THE PLANS.
4. THE TOP OF GRATE ELEVATION FOR ALL CURBSIDE STORM SEWER INLETS IS FOR THE CENTER OF THE INLET AT THE FACE OF CURB. THE CONTRACTOR SHALL PROJECT THE ROADWAY GRADE ALONG THE LENGTH OF THE INLET.
5. ALL STORM SEWER LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE. PIPE SLOPES ARE CALCULATED BASED ON THIS LENGTH.

GENERAL CONSTRUCTION:

1. THIS PLAN CONTAINS PRELIMINARY INFORMATION PERTAINING TO UNDERGROUND UTILITIES WHICH IS FOR GENERAL INFORMATION ONLY, AND MAY NOT BE BASED ON AN ACTUAL SUBSURFACE LOCATION SURVEY. ALL SUBSURFACE INFORMATION SHOWN ON THESE PLANS NEEDS TO BE VERIFIED BY THE PLAN USER. THE PREPARER OF THIS PLAN ASSUMES NO RESPONSIBILITY FOR AND MAKES NO REPRESENTATION OR WARRANTIES AS TO THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES OR OTHER UNDERGROUND FEATURES. THE PLAN USER SHALL EXECUTE A PA ONE CALL PRIOR TO ANY EXCAVATION ON THE SITE.
2. ALL CONSTRUCTION SHALL CONFORM TO COUNTY STANDARDS AND SPECIFICATIONS OR DEPARTMENT OF TRANSPORTATION STANDARDS, WHICHEVER IS APPLICABLE.
3. TOPSOIL SHOULD BE REMOVED FROM ALL AREAS OF CONSTRUCTION AND STORED SEPARATELY, PRIOR TO BULK EXCAVATION. UPON COMPLETION OF CONSTRUCTION, THE TOPSOIL SHOULD BE REDISTRIBUTED ON THE SITE UNIFORMLY.
4. ALL CONTRACTORS SHALL BE RESPONSIBLE TO INSURE THAT ALL TRENCH EXCAVATIONS BE ADEQUATELY STABILIZED AND ACCESSED IN ACCORDANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REQUIREMENTS, INCLUDING ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS / CODES OF SAFE PRACTICE AND PROCEDURES.
5. CONTRACTOR SHALL PRE-TEST DESIGN DEPTHS FOR ALL BMP'S PRIOR TO INSTALLING RELATED STRUCTURES OR PERFORMING BULK EXCAVATION (REFER TO THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN FOR ALL BMP AND ASSOCIATED STRUCTURE LOCATIONS). MINOR ADJUSTMENTS MAY BE NECESSARY DURING CONSTRUCTION DUE TO UNKNOWN SITE CONDITIONS. IF NECESSARY, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY FOR FURTHER EVALUATION. ALL FIELD CHANGES MUST BE REVIEWED AND APPROVED BY THE MUNICIPALITY AND/OR AGENCY HAVING JURISDICTION.

EXISTING LEGEND

	TRACT BOUNDARY
	EXISTING PARCEL LINE TO BE ABOLISHED
	EXISTING RIGHT-OF-WAY
	EXISTING EASEMENT
	ADJOINING PROPERTY LINE
	EXISTING ZONING/TOWNSHIP BOUNDARY
	EXISTING WATER LINE/SERVICE
	EXISTING STORM SEWER LINE/INLET
	EXISTING GAS LINE
	EXISTING ELECTRIC LINE (UNDERGROUND)
	EXISTING ELECTRIC LINE (OVERHEAD)
	EXISTING SANITARY SEWER LINE/MANHOLE
	EXISTING SANITARY LATERAL
	EXISTING CURB
	EXISTING EDGE OF ROAD (PAVED)
	EXISTING SHOULDER (ROAD)
	EXISTING EDGE OF ROAD (UNPAVED)
	EXISTING DRIVEWAY
	EXISTING ROAD CENTERLINE
	EXISTING FENCE
	EXISTING CONTOUR
	EXISTING INDEX CONTOUR
	SOILS DELINEATION LINE
	STREAM CHANNEL
	FEMA DELINEATED FLOODPLAIN
	EXISTING GUIDERAIL
	EXISTING WOODLINE
	EXISTING BRUSHLINE
	EXISTING BUILDINGS
	EXISTING WETLANDS
	EXIST-DECIDUOUS
	EXIST-EVERGREEN
	EXIST-HEADWALL
	LIGHT POST
	SIGN
	STREET SIGN
	UTILITY-POLE
	WELL
	IP
	BOUND

PROPOSED LEGEND

	PROPOSED BUILDING
	PROPOSED BUILDING - SETBACK LINE
	PROPOSED LOT - PARCEL LINE
	PROPOSED EASEMENT - LINE
	PROPOSED RIGHT-OF-WAY
	PROPOSED ROAD CENTERLINE
	PROPOSED ROAD EDGE (PAVED/NO CURB)
	PROPOSED STORM SEWER - PIPING
	PROPOSED FENCE LINE
	PROPOSED CURBLINE
	CLEAR SIGHT TRIANGLE
	PROPOSED PHASE LINE
	PROPOSED CONCRETE
	PROPOSED RIP-RAP
	PROPOSED CONCRETE MONUMENT
	PROPOSED LIGHT POST
	PROPOSED TRAFFIC SIGN
	PROPOSED UTILITY POLE
	PROPOSED HEADWALL/ENDWALL
	PROPOSED INLET
	PROPOSED STORM MANHOLE
	PROPOSED STORM SEWER LABEL
	PROPOSED CONTOUR
	PROPOSED CONTOUR INDEX
	PROPOSED SPOT ELEVATION
	PROPOSED ALTERED TREE LINE
	PROPOSED HIGH WATER ELEVATION
	PROPOSED SPILLWAY
	PROPOSED SPILLWAY - HATCH
	PROPOSED BERM - TEXT
	PROPOSED BERM - SHADE
	PROPOSED BERM - OUTLINE

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SCALE:	NTS
DRAWN BY:	JH
PLAN ORIG. DATE:	8-1-17

REVISIONS		
NO.	DATE	DESCRIPTION
D	08/27/20	PER SWITCH TO MONOPOLE
C	06/29/20	PER TOWER ROTATION
B	02/07/20	PER CLIENT COMMENTS
A	02/03/20	PER TOWN ZONING REV

PROJECT No.	2168
SITE NAME:	TONAWANDA CREEK
SITE NUMBER:	HV1173
SITE ADDRESS:	7340 CAMPBELL BLVD NORTH TONAWANDA, NY 14120
FILE NAME:	TITLE-LEGEND.DWG

SHEET TITLE:
TCG - LEGEND

DRAWING NO.	REVISION:
T-4	D

NOTE:
FEMA 100-YEAR FLOOD
ELEVATION: 577.8'

ZONING DATA

OBTAINED FROM THE PENDLETON ZONING ORDINANCE, ORDINANCE 247

ZONING DISTRICT:	R-2 RESIDENTIAL	
PROPOSED USE:	TELECOMMUNICATIONS TOWER	
MINIMUM REQUIREMENTS	PERMITTED	ACTUAL
MINIMUM FRONT YARD:	144'	221'
MINIMUM SIDE YARD:	144'	752'
MINIMUM REAR YARD:	144'	418'
MAXIMUM TOWER HEIGHT:	160'	140'

SOILS DATA

SOILS DATA OBTAINED FROM A SOIL SURVEY OF NIAGRA COUNTY, NEW YORK,
ISSUED SEPTEMBER 16, 2019.

RhA - RHINEBECK SILTY CLAY LOAM, SANDY SUBSTRATUM, 0 TO 2 PERCENT SLOPES
LIMITATIONS - CORROSION OF STEEL, DEPTH TO SATURATED ZONE

RhB - RHINEBECK SILTY CLAY LOAM, SANDY SUBSTRATUM, 2 TO 6 PERCENT SLOPES
LIMITATIONS - CORROSION OF STEEL, DEPTH TO SATURATED ZONE

RESOLUTIONS

CORROSION OF CONCRETE/STEEL - CONCRETE OR STEEL MAY NEED TO BE WRAPPED IN CORROSION
RESISTANT LINING.

DEPTH TO SATURATED ZONE - U-DRAIN MAY BE REQUIRED FOR ANY SPRINGS ENCOUNTERED. PIMPED
WATER FILTER BAG MAY BE NEEDED DURING EXCAVATIONS.

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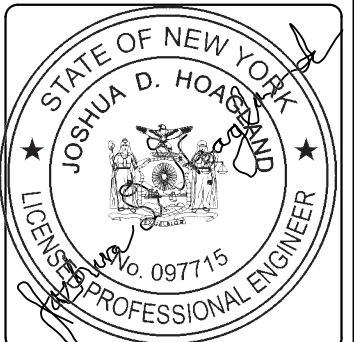
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SCALE:	1" = 100'
DRAWN BY:	JH
PLAN ORIG. DATE:	8-1-17

REVISIONS

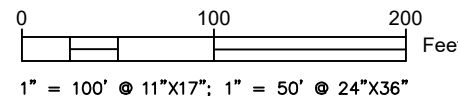
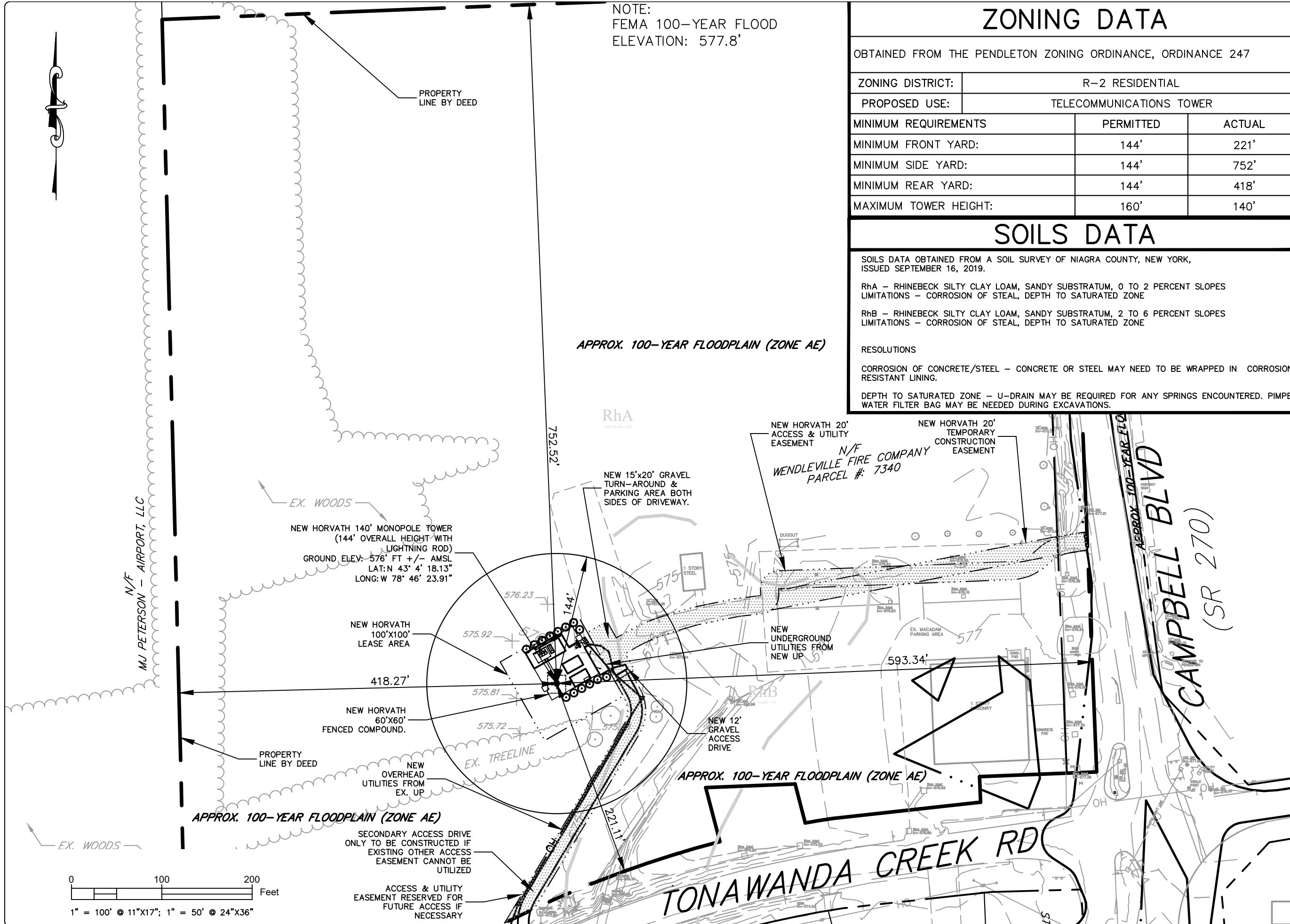
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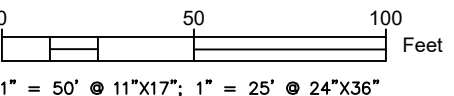
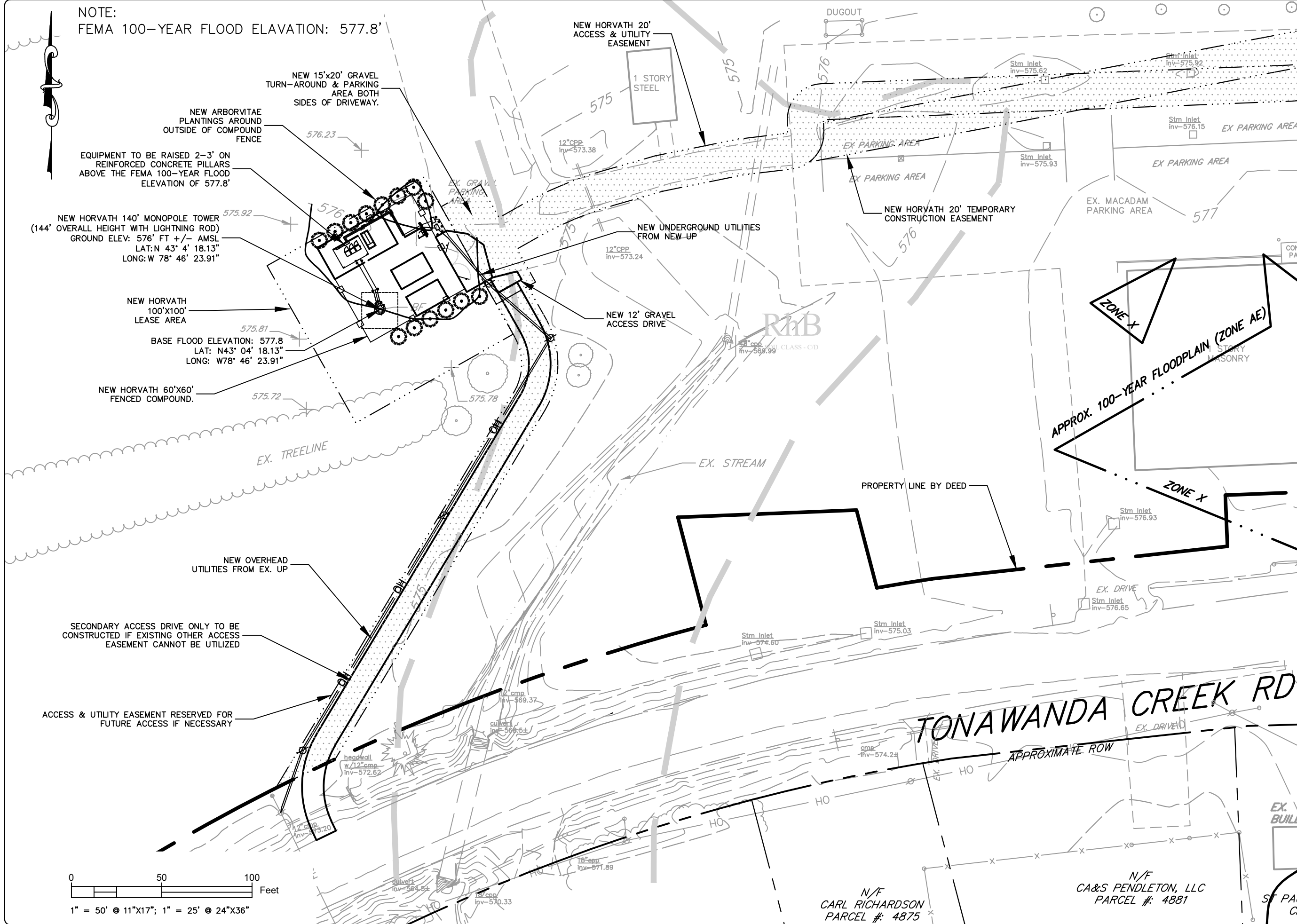
PROJECT No. 2168
SITE NAME: TONAWANDA CREEK
SITE NUMBER: HV1173
SITE ADDRESS: 7340 CAMPBELL BLVD
NORTH TONAWANDA, NY 14120
FILE NAME: ZONING-PLAN.DWG

SHEET TITLE:
OVERALL ZONING PLAN

DRAWING NO. Z-1	REVISION: D
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NOTE:
FEMA 100-YEAR FLOOD ELAVATION: 577.8'



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SCALE: 1" = 50'
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PROJECT No. 2168
SITE NAME: TONAWANDA CREEK
SITE NUMBER: HV1173
SITE ADDRESS: 7340 CAMPBELL BLVD
NORTH TONAWANDA, NY 14120
FILE NAME: ZONING-PLAN.DWG
SHEET TITLE: ZONING PLAN

DRAWING NO. Z-2
REVISION: D

N/F
CARL RICHARDSON
PARCEL #: 4875
N/F
CA&S PENDLETON, LLC
PARCEL #: 4881

NOTE:
FEMA 100-YEAR FLOOD ELEVATION: 577.8'

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SCALE: 1" = 15'
DRAWN BY: RMR
PLAN ORIG. DATE: 8-1-17

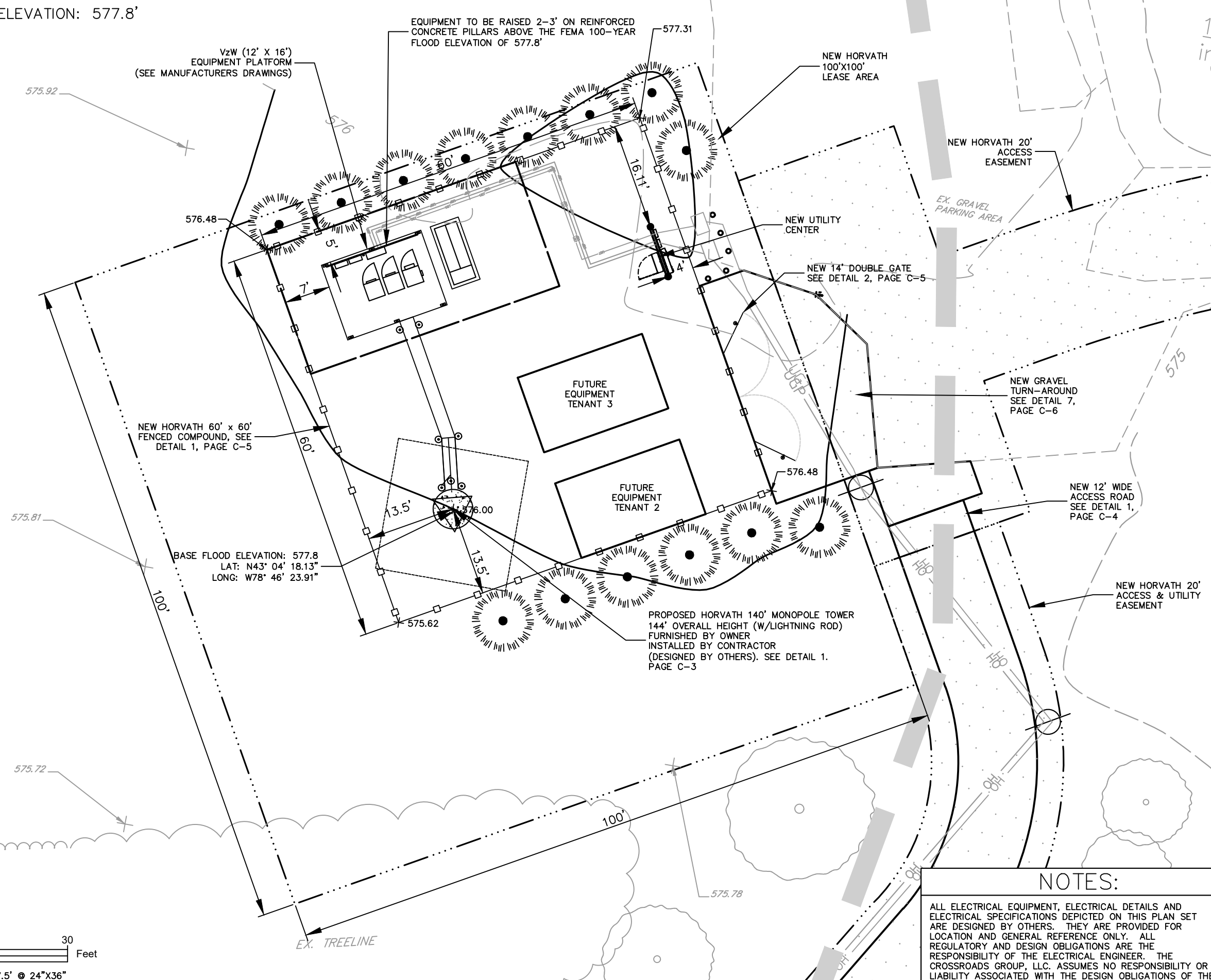
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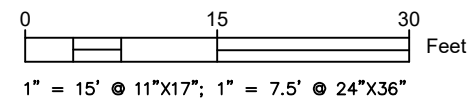
PROJECT No. 2168
SITE NAME: TONAWANDA CREEK
SITE NUMBER: HV1173
SITE ADDRESS: 7340 CAMPBELL BLVD
NORTH TONAWANDA, NY 14120
FILE NAME: CONSTRUCTION-SHEETS.DWG

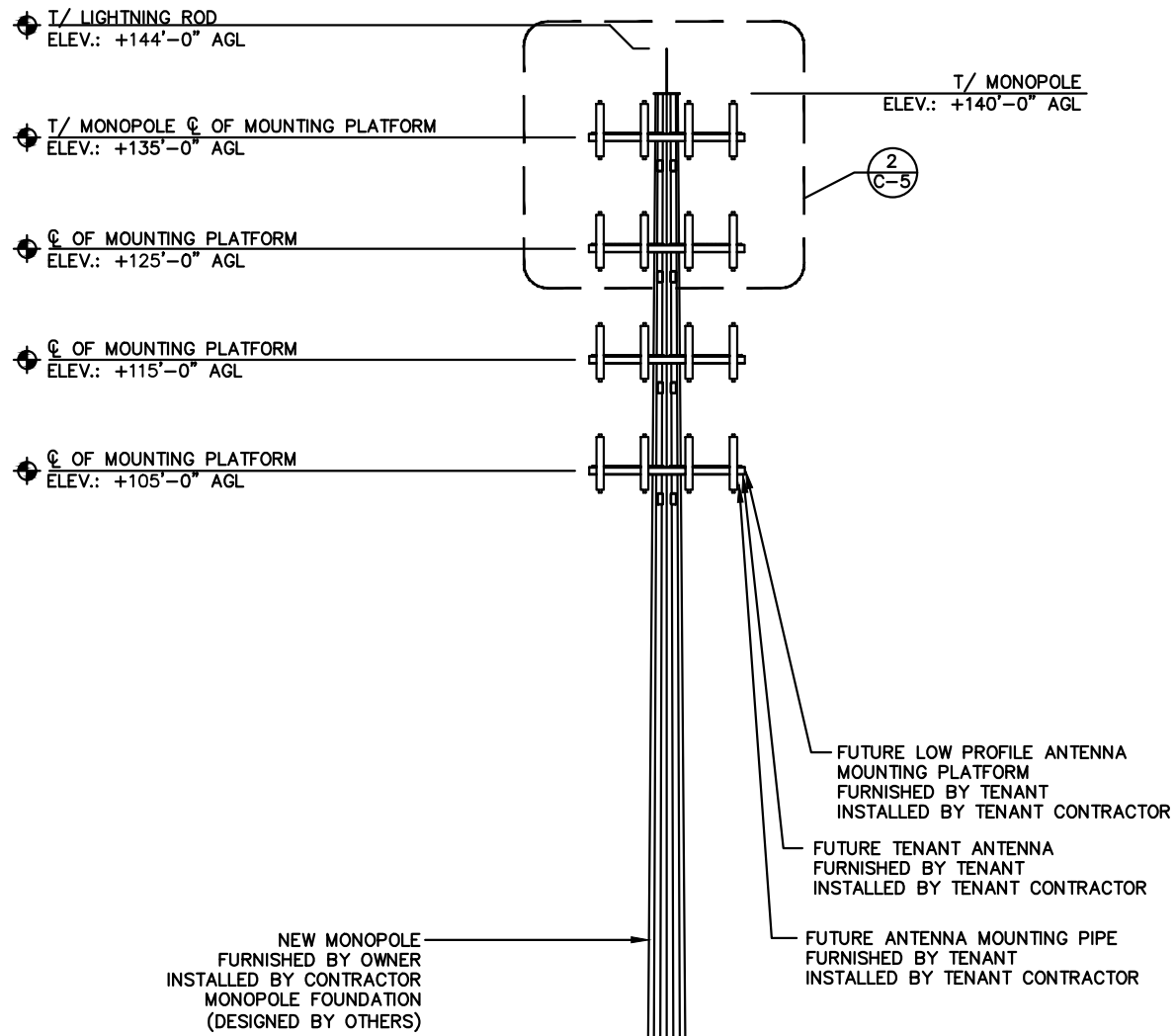
SHEET TITLE: ENLARGED SITE PLAN

DRAWING NO. C-2
REVISION: D



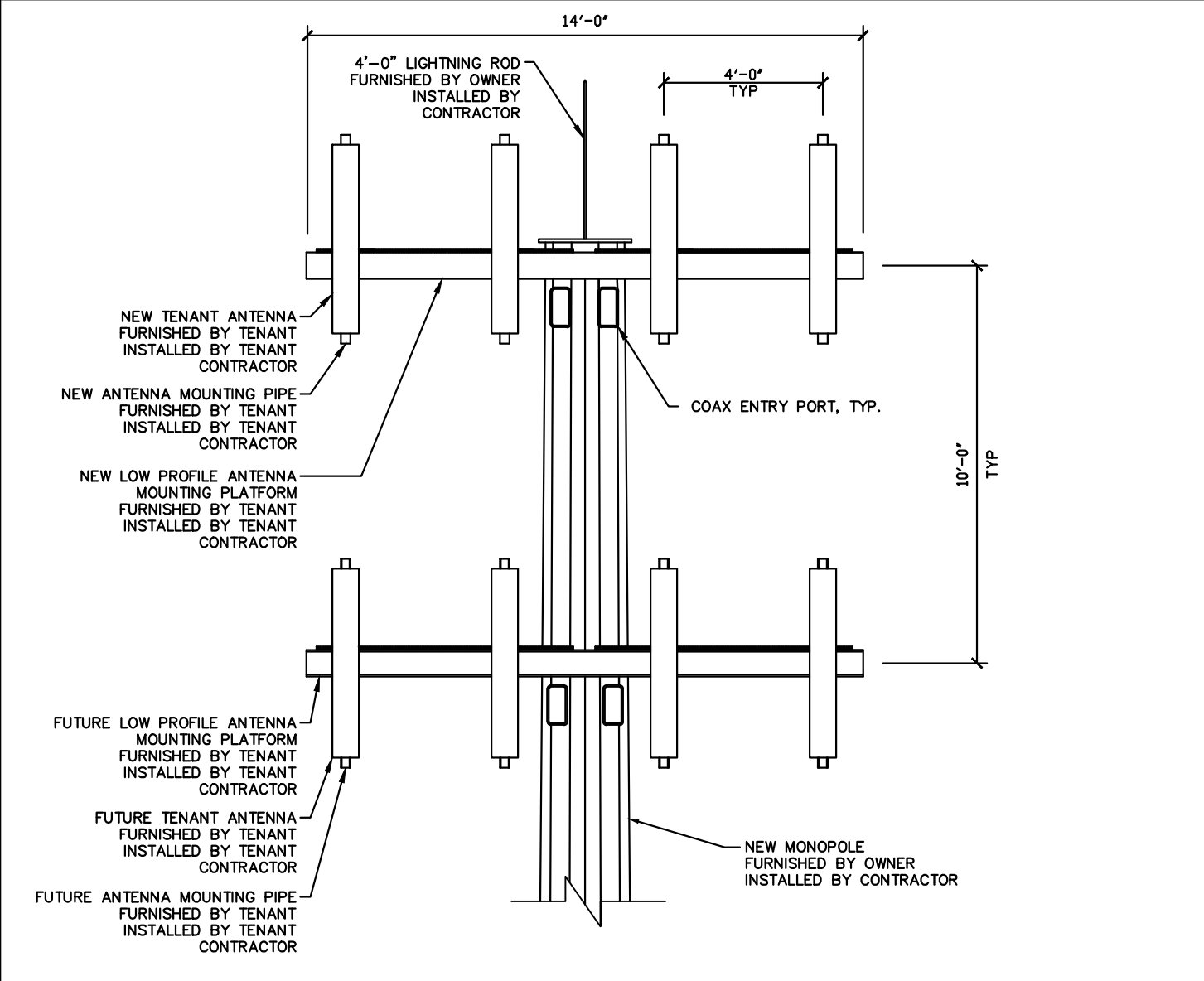
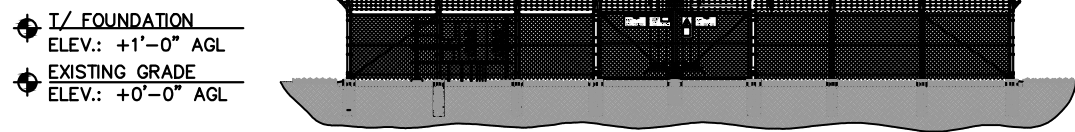
NOTES:
ALL ELECTRICAL EQUIPMENT, ELECTRICAL DETAILS AND ELECTRICAL SPECIFICATIONS DEPICTED ON THIS PLAN SET ARE DESIGNED BY OTHERS. THEY ARE PROVIDED FOR LOCATION AND GENERAL REFERENCE ONLY. ALL REGULATORY AND DESIGN OBLIGATIONS ARE THE RESPONSIBILITY OF THE ELECTRICAL ENGINEER. THE CROSSROADS GROUP, LLC. ASSUMES NO RESPONSIBILITY OR LIABILITY ASSOCIATED WITH THE DESIGN OBLIGATIONS OF THE ELECTRICAL ENGINEER.



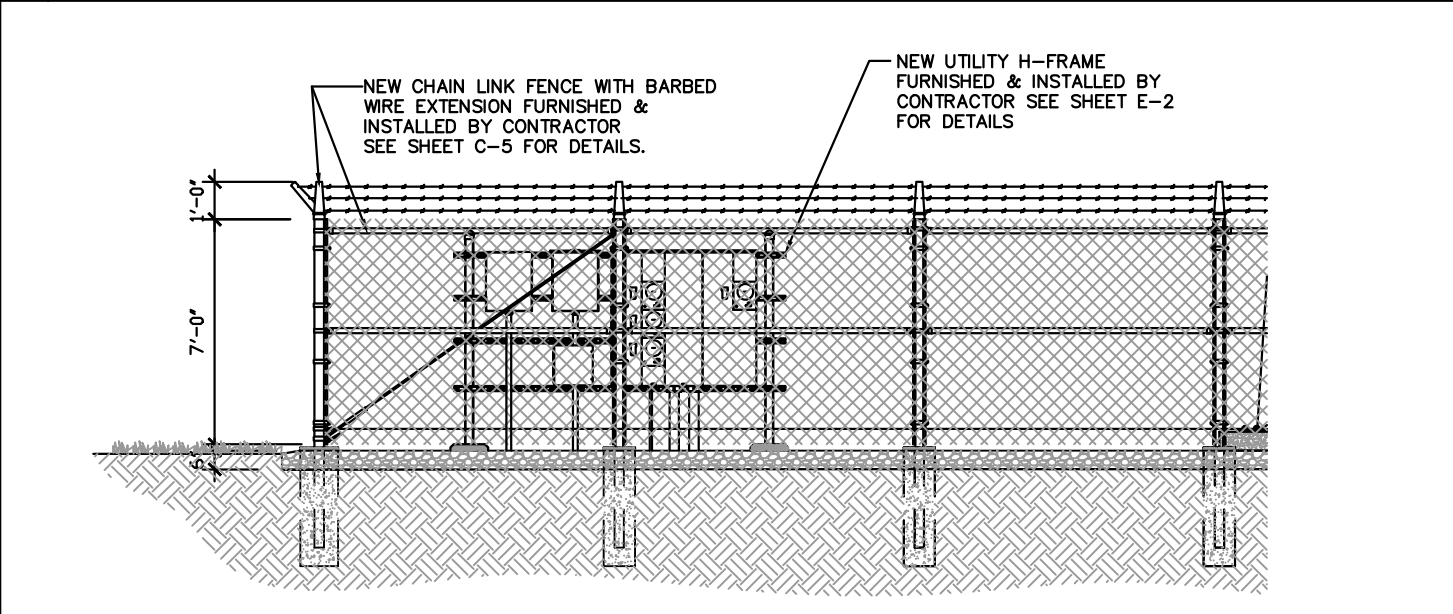


STRUCTURAL NOTES:

1. STRUCTURAL CALCULATION PREPARED BY OTHERS. CONTRACTOR TO COORDINATE WITH ANB REPRESENTATIVE TO OBTAIN A COPY.
2. CONTRACTOR TO REFER TO TOWER STRUCTURAL CALCULATIONS FOR ADDITIONAL LOADS. NO ERECTION OR MODIFICATION OF TOWER SHALL BE MADE WITHOUT APPROVAL OF STRUCTURAL ENGINEER.



2 ELEVATION VIEW @ TOP OF TOWER SCALE: N.T.S.



3 ELEVATION VIEW @ UTILITY H-FRAME SCALE: N.T.S.

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PROJECT No. 2168
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SITE NUMBER: HV1173
SITE ADDRESS: 7340 CAMPBELL BLVD NORTH TONAWANDA, NY 14120
FILE NAME: CONSTRUCTION-SHEETS.DWG

SHEET TITLE: TOWER ELEVATION PLAN

DRAWING NO. C-3 REVISION: D

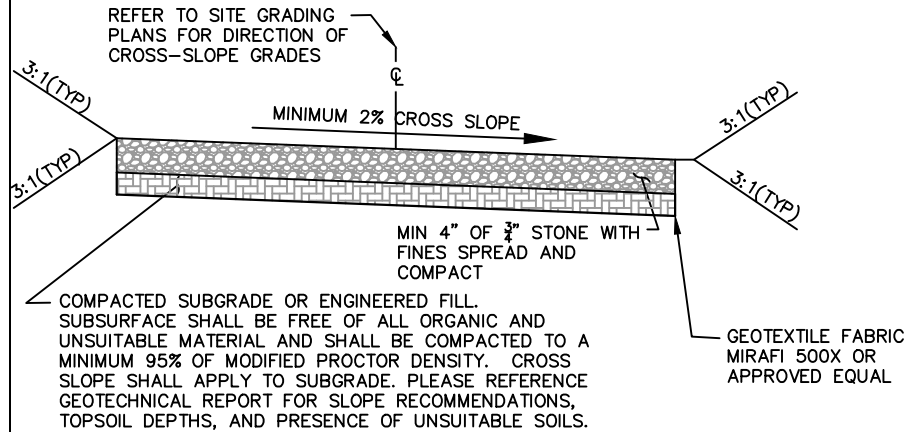
1 ELEVATION VIEW

SCALE: N.T.S.

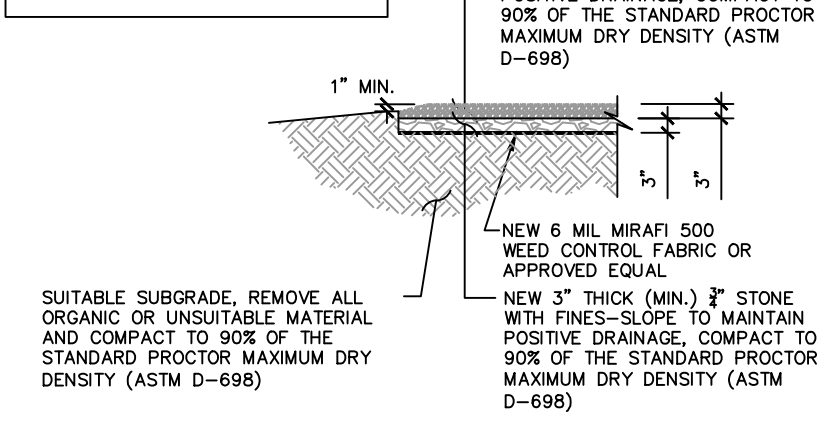
3 ELEVATION VIEW @ UTILITY H-FRAME

SCALE: N.T.S.

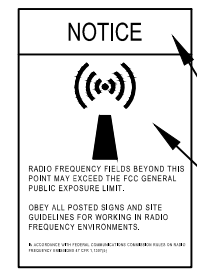
NOTE:
WEED CONTROL FABRIC SHALL BE USED UNDER ACCESS DRIVE WITH A 36" MINIMUM OVERLAP. CONTRACTOR SHALL INSTALL FABRIC PER MFG. RECOMMENDATIONS.



NOTE:
WEED CONTROL FABRIC SHALL BE USED UNDER ENTIRE PROPOSED GRAVELED AREA WITH A 36" MINIMUM OVERLAP. CONTRACTOR SHALL INSTALL FABRIC PER MFG. RECOMMENDATIONS.



WHITE BACKGROUND W/BLACK LETTERING



IDENTIFICATION SIGN
24" WIDE x 18" HIGH (1.A)

BLUE BACKGROUND W/WHITE LETTERING

WHITE BACKGROUND W/BLACK LETTERING AND BLACK SYMBOL

RED BACKGROUND W/BLACK LETTERING

WHITE BACKGROUND W/BLACK LETTERING AND RED SYMBOL



REF NOTICE SIGN
12" WIDE x 18" HIGH (2.A)

REF WARNING SIGN
12" WIDE x 18" HIGH (3.A)

SEE PAGE C-5 DETAIL 2 FOR SIGN LOCATIONS

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HORVATH
COMMUNICATIONS

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Fax: 484-660-3742

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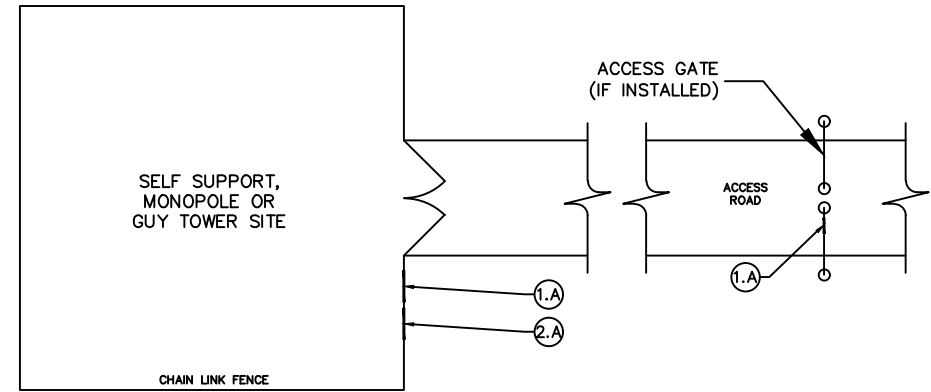
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1 ACCESS DRIVE DETAIL SCALE: N.T.S.

2 COMPOUND FINISH DETAIL SCALE: N.T.S.

3 SIGN DETAIL SCALE: N.T.S.

NOTE: REFER TO SHEET ES-3 FOR EROSION CONTROL DETAILS



SCALE:	N.T.S.
DRAWN BY:	RMR
PLAN ORIG. DATE:	8-1-17

REVISIONS		
NO.	DATE	DESCRIPTION
D	08/27/20	PER SWITCH TO MONOPOLE
C	06/29/20	PER TOWER ROTATION
B	02/07/20	PER CLIENT COMMENTS
A	02/03/20	PER TOWN ZONING REV



4 EROSION CONTROL DETAIL SCALE: N.T.S.

5 TYPICAL SITE FENCE SIGNAGE PLAN SCALE: N.T.S.

NOTE: NOT UTILIZED

PROJECT No. 2168

SITE NAME: TONAWANDA CREEK

SITE NUMBER: HV1173

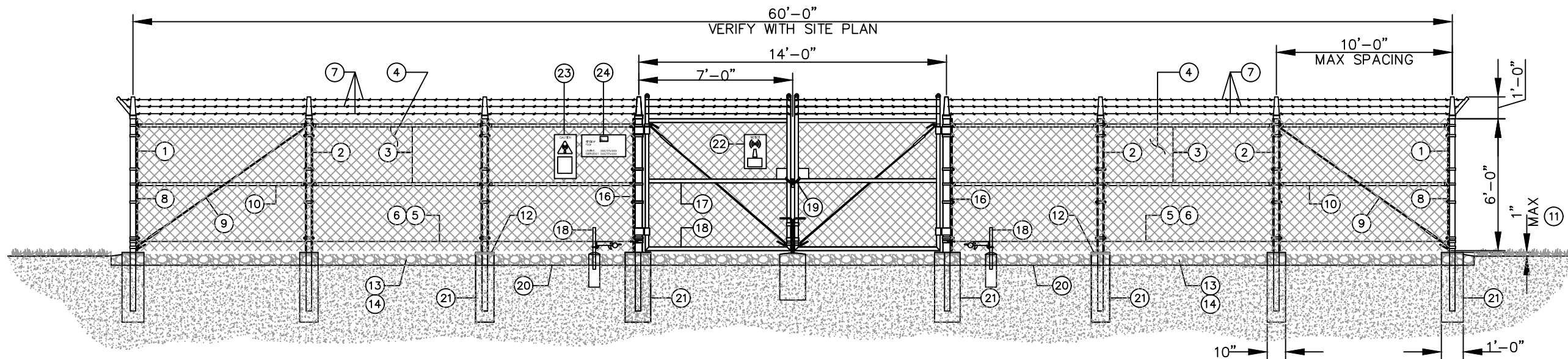
SITE ADDRESS: 7340 CAMPBELL BLVD
NORTH TONAWANDA, NY 14120

FILE NAME: ZDET.DWG

SHEET TITLE:
CONSTRUCTION DETAILS - SITE

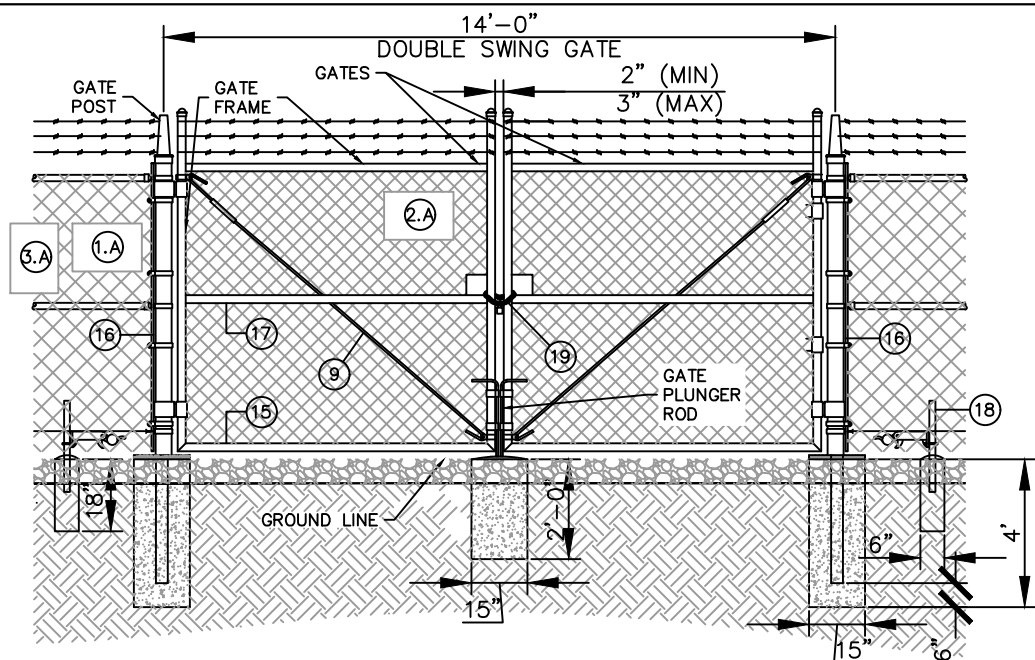
DRAWING NO. C-4	REVISION: D
--------------------	----------------

6 CULVERT/RIP-RAP DETAIL SCALE: N.T.S.



1 TYPICAL FENCING DETAIL

SCALE: N.T.S.



2 DOUBLE-SWING GATE/SIGN LOCATION DETAIL

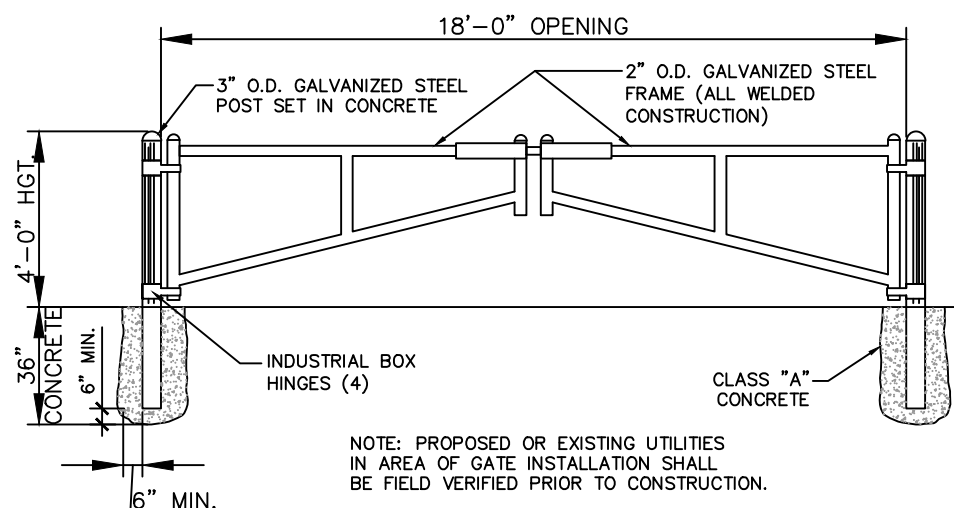
SCALE: 1/4"=1'-0"

GENERAL NOTES:

1. INSTALL FENCING PER ASTM F-567
2. INSTALL SWING GATES PER ASTM F- 900
3. LOCAL ORDINANCE OF BARBED WIRE PERMIT REQUIREMENT SHALL BE COMPLIED IF REQUIRED.
4. POST & GATE PIPE SIZES ARE INDUSTRY STANDARDS. ALL PIPE TO BE GALVANIZED (HOT DIP, ASTM A120 GRADE "A" STEEL). ALL GATE FRAMES SHALL BE WELDED. ALL WELDING SHALL BE COATED WITH (3) COATS OF COLD GALV. (OR EQUAL).
5. ALL OPEN POSTS SHALL HAVE END-CAPS.
6. USE GALVANIZED HOG-RING WIRE TO MOUNT ALL SIGNS.
7. ALL SIGNS MUST BE MOUNTED ON OUTSIDE.
8. MUSHROOM ANCHOR & PLUNGER REQUIRED FOR GATE.
9. LINE POST AND CORNER POST CONNECTIONS TO BE MECHANICAL.
10. CAUTION - RFE SIGN (BLACK, YELLOW, WHITE) TO BE MOUNTED NEAR TOWER LEG W/CLIMBING CABLE. DO NOT RESTRICT CLIMBING ACCESS.
11. VERIZON WIRELESS SITE ID SIGN, RFE SIGNS, NOC INFORMATION SIGN AND ALL OTHER SIGNAGE NOT REFERENCED IN THIS DRAWING WILL BE FURNISHED AND INSTALLED BY VERIZON WIRELESS PERSONNEL PER VERIZON WIRELESS RFC SIGNAGE & DEMARCATION POLICY.

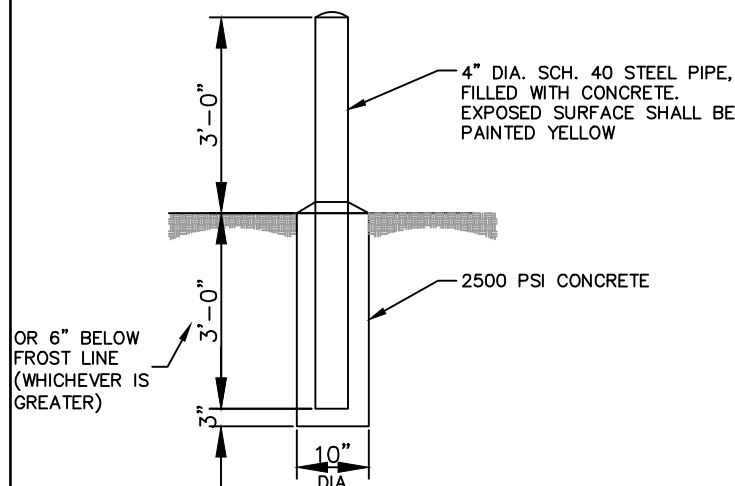
BALLOON REFERENCE NOTES:

- 1 CORNER, END OR PULL POST: 3" O.D. SCHEDULE 40 PIPE.
- 2 LINE POST: 2 1/2" NOMINAL SCHEDULE 40 PIPE, PER ASTM-F1083. LINE POSTS SHALL BE EQUALLY SPACED AT MAXIMUM 10'-0" O.C.
- 3 TOP RAIL & BRACE RAIL: 1-5/8" O.D. STANDARD ROUND PIPE, PER ASTM-F1083.
- 4 FABRIC: 9 GA CORE WIRE SIZE 2" MESH, CONFORMING TO ASTM-A392.
- 5 TIE WIRE: 9 GA ALUMINUM. A SINGLE WRAP OF FABRIC TIE AND AT TENSION WIRE BY HOG RINGS SPACED 12" O.C. POSTS/GATES AND 24" RAILS/WIRE.
- 6 TENSION WIRE: 9 GA ALUMINUM
- 7 BARBED WIRE: DOUBLE STRAND 12-1/2" O.D. TWISTED WIRE TO MATCH WITH FABRIC. 14 GA, 4 PT. BARBS SPACED ON APPROXIMATELY 5" CENTERS.
- 8 3/16" X 3/4" (MIN) FULL HEIGHT STRETCHER BAR.
- 9 3/8" DIAGONAL ROD WITH GALVANIZED STEEL TURNBUCKLE OR DIAGONAL THREADED ROD.
- 10 FENCE CORNER POST BRACE: 1 5/8" NOMINAL PIPE.
- 11 COMPOUND STONE TO MAINTAIN 1" MAXIMUM CLEARANCE FROM ADJACENT FINISH GRADE.
- 12 FENCE POST FOUNDATION TO BE 1" FINISH ABOVE FINISHED GRADE
- 13 6" COMPACTED BASE MATERIAL
- 14 FINISH GRADE SHALL BE UNIFORM AND LEVEL.
- 15 WELDED GATE FRAME: 2" O.D., SCHEDULE 40 PIPE, PER ASTM-F1083.
- 16 GATE POST 4" O.D., SCHEDULE 40 PIPE, PER ASTM-F1083.
- 17 GATE FRAME BRACE RAIL: 1 1/2" NOMINAL PIPE, PER ASTM-F1083.
- 18 DUCK BILL OPEN GATE HOLDER. VERIFY LOCATION ON PLAN PRIOR TO INSTALLATION.
- 19 LOCKING DEVICE
- 20 GEOTEXTILE FABRIC
- 21 CONCRETE FOUNDATION (MIN 3000 PSI). MINIMUM DEPTH: 6" BELOW FROST LINE
- 22 12" x 18" RFE NOTICE SIGN.
- 23 12" x 18" RFE WARNING SIGN.
- 24 18" x 24" IDENTIFICATION SIGN.



3 A-FRAME BARRIER GATE DETAIL

SCALE: N.T.S.



4 BOLLARD DETAIL

SCALE: N.T.S.

5 FENCING NOTES

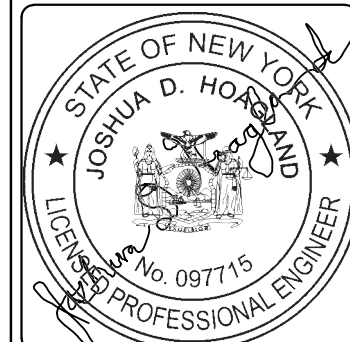
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SCALE:	N.T.S.
DRAWN BY:	RMR
PLAN ORIG. DATE:	8-1-17

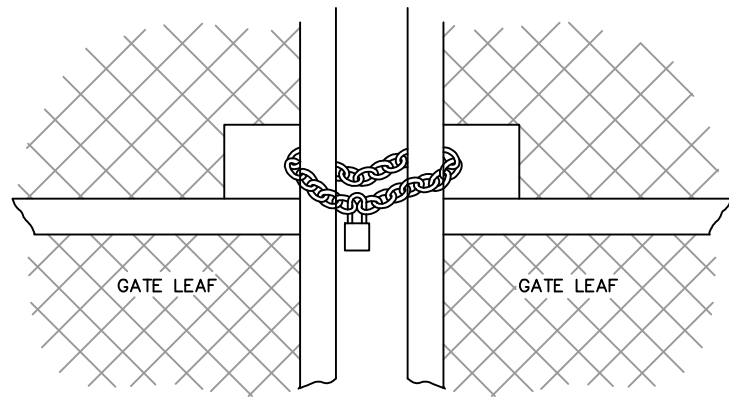
REVISIONS		
NO.	DATE	DESCRIPTION
D	08/27/20	PER SWITCH TO MONOPOLE
C	06/29/20	PER TOWER ROTATION
B	02/07/20	PER CLIENT COMMENTS
A	02/03/20	PER TOWN ZONING REV



PROJECT No.	2168
SITE NAME:	TONAWANDA CREEK
SITE NUMBER:	HV1173
SITE ADDRESS:	7340 CAMPBELL BLVD NORTH TONAWANDA, NY 14120
FILE NAME:	ZDET.DWG

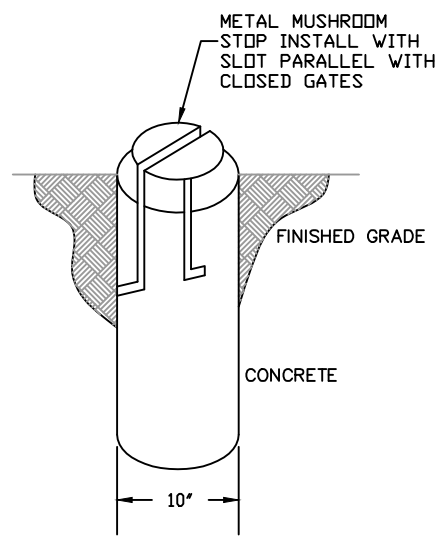
SHEET TITLE:
CONSTRUCTION DETAILS - FENCE (1)

DRAWING NO.	REVISION:
C-5	D



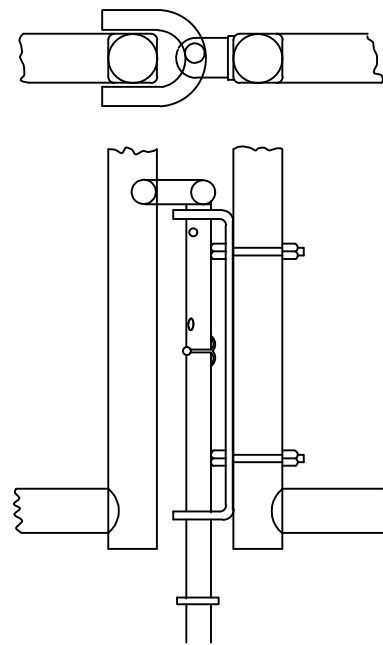
1 GATE FACE – WITH HAND HOLES

SCALE: N.T.S.



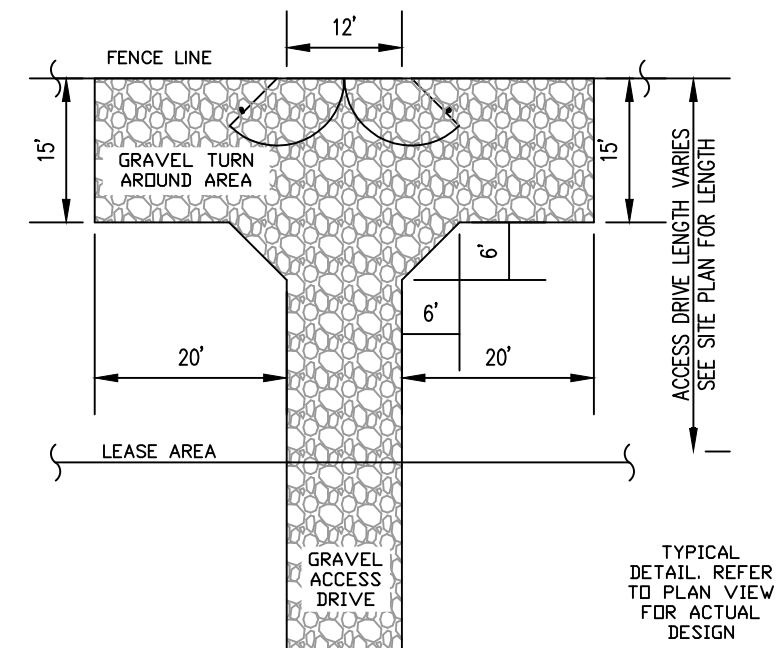
3 MUSHROOM STOP DETAIL

SCALE: N.T.S.



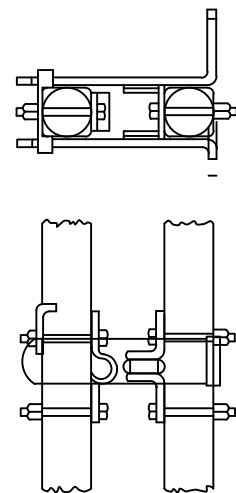
4 DROP ROD ASSEMBLY DETAIL

SCALE: N.T.S.



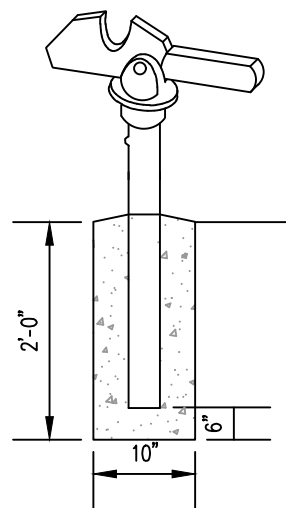
7 ACCESS DRIVE TURN-AROUND DETAIL

SCALE: N.T.S.



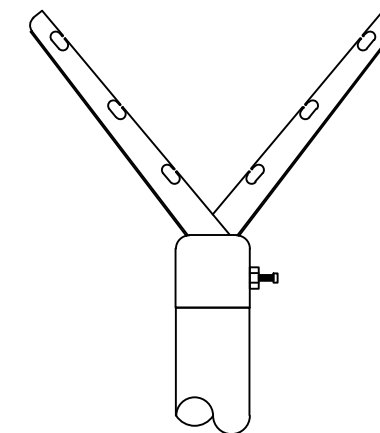
5 LATCH ASSEMBLY DETAIL

SCALE: N.T.S.



6 GATE KEEPER DETAIL

SCALE: N.T.S.



6 WIRE BRACKET DETAIL

SCALE: N.T.S.

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DRAWN BY:	RMR
PLAN ORIG. DATE:	8-1-17

REVISIONS		
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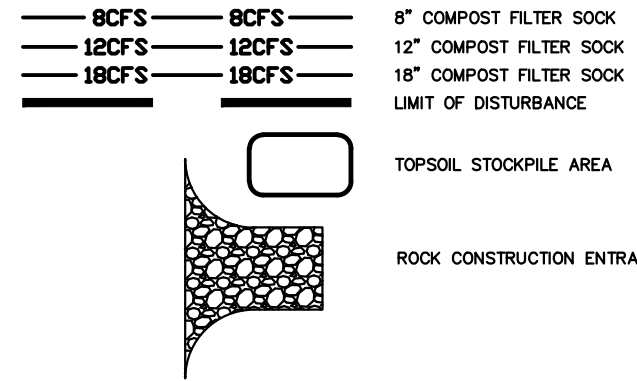


PROJECT No.	2168
SITE NAME:	TONAWANDA CREEK
SITE NUMBER:	HV1173
SITE ADDRESS:	7340 CAMPBELL BLVD NORTH TONAWANDA, NY 14120
FILE NAME:	ZDET.DWG

SHEET TITLE:
CONSTRUCTION DETAILS –
FENCE (2)

DRAWING NO.	REVISION:
C-6	D

LEGEND



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SCALE:	1" = 50'
DRAWN BY:	RMR
PLAN ORIG. DATE:	8-1-17

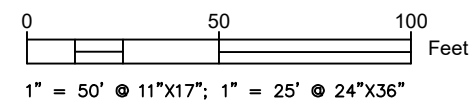
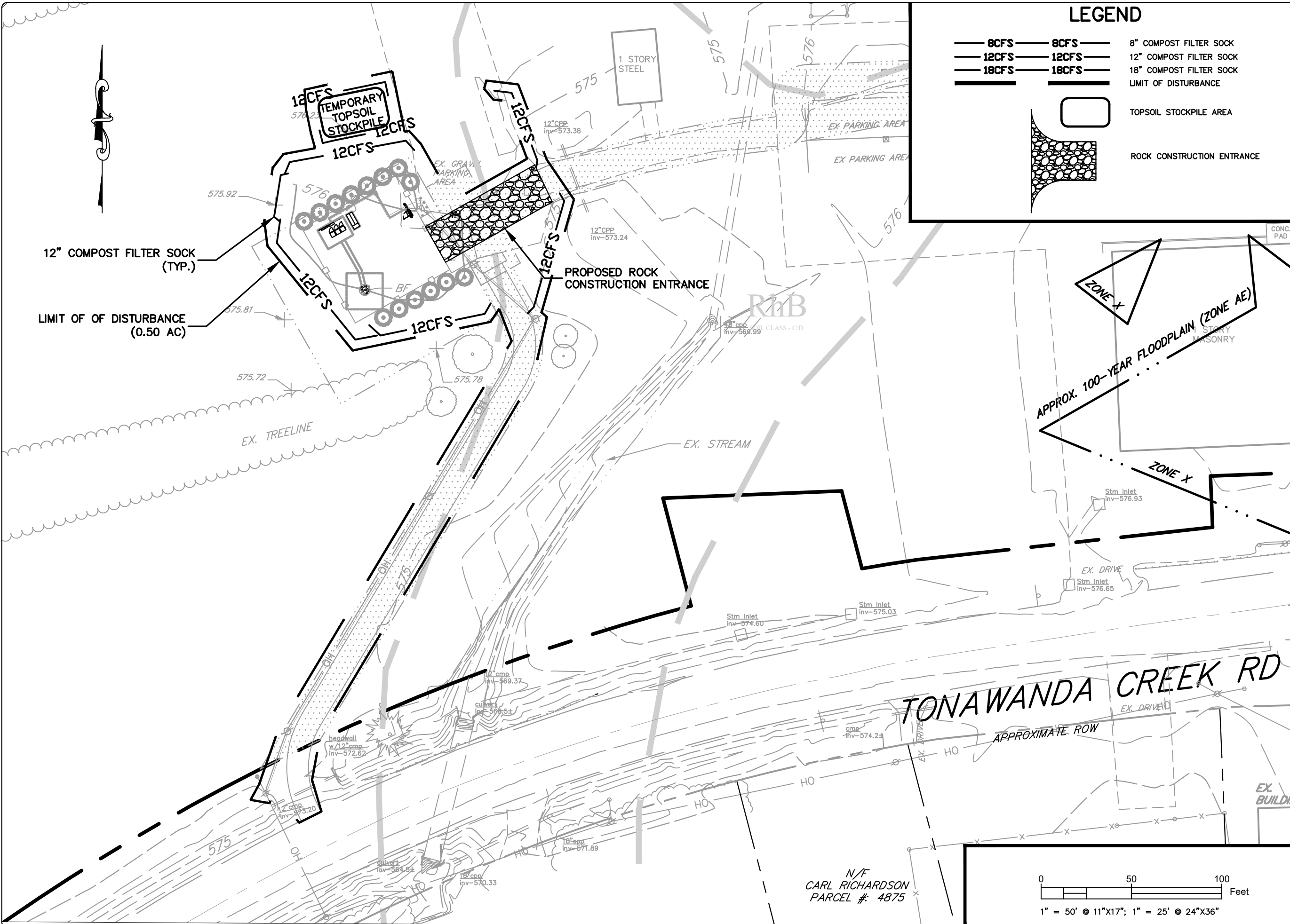
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PROJECT No.	2168
SITE NAME:	TONAWANDA CREEK
SITE NUMBER:	HV1173
SITE ADDRESS:	7340 CAMPBELL BLVD NORTH TONAWANDA, NY 14120
FILE NAME:	ZES.DWG

SHEET TITLE:
EROSION & SEDIMENTATION CONTROL PLAN

DRAWING NO.	REVISION:
ES-1	D



EROSION CTRL MAINT NOTES

TO ENSURE ADEQUATE FUNCTION OF THE TEMPORARY CONTROLS, A MAINTENANCE PROGRAM SHALL BE INITIATED WHICH INCLUDES THE FOLLOWING AT A MINIMUM. ALSO, ALL MAINTENANCE DURING CONSTRUCTION AND PRIOR TO FINAL STABILIZATION OF THE SITE SHALL BE THE RESPONSIBILITY OF THE DEVELOPER OR HIS CONTRACTOR.

1. THE OPERATOR/ RESPONSIBLE PERSON (O/RP) ON SITE SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
2. THE O/RP SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE APPROPRIATE CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/ OR ROCK SPOIL AND BORROW AREAS REGARDLESS OF THEIR LOCATIONS.
3. EROSION AND SEDIMENT BMPs MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPs.
4. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITY CEASES, THE O/RP SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS THAT ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE (1) YEAR MUST BE STABILIZED IN ACCORDANCE WITH TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS THAT ARE AT FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN ONE (1) YEAR MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
5. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH STORM EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING, MUST BE PERFORMED IMMEDIATELY BY DEVELOPER OR HIS CONTRACTOR. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED, WILL BE REQUIRED.
6. NO COMPOST FILTER SOCK SHALL OUTLET ONTO EXPOSED EARTH.
7. SEDIMENT MUST BE REMOVED FROM COMPOST FILTER SOCK WHENEVER ACCUMULATION REACHES 1/2 ABOVE GROUND-HEIGHT OF SILT FENCING. ANY COMPOST FILTER SOCK THAT HAS BEEN UNDERMINED OR TOPPED SHALL BE REPLACED WITH ROCK FILTER OUTLETS IMMEDIATELY.
8. NO SEDIMENT-LADEN WATER SHALL LEAVE THE SITE WITHOUT FIRST BEING FILTERED. ALL PUMPING OF SEDIMENT -LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER UNDISTURBED AREAS.
9. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
10. AT STREAM CROSSINGS, A 50- FOOT BUFFER SHALL BE MAINTAINED. ON BUFFERS, CLEARINGS, SOD DISTURBANCES AND EXCAVATIONS, EQUIPMENT TRAFFIC SHOULD BE MINIMIZED. ACTIVITY SUCH AS STACKING LOGS, BURNING CLEARED BRUSH, DISCHARGING RAINWATER FROM TRENCHES, WELDING PIPE SECTIONS, REFUELING AND MAINTAINING EQUIPMENT SHOULD BE AVOIDED WITHIN BUFFER ZONES.
11. SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN SOIL STOCKPILES AND STABILIZED.
12. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED.
13. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70 PERCENT VEGETATIVE OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUB-SURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
14. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/ OR SEDIMENT POLLUTION, THE O/RP SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/ OR SEDIMENT POLLUTION.
15. TEMPORARY CONSTRUCTION ENTRANCES WITH WASH RACKS SHALL BE PROVIDED AT ALL POINTS OF INGRESS/EGRESS TO DISTURBED AREAS.
16. AREAS OF DISTURBANCE TO EXISTING SLOPES GREATER THAN 15% WHERE PROPOSED GRADES ARE 3:1 OR STEEPER SHALL BE STABILIZED WITH EROSION CONTROL BLANKET WHERE NECESSARY TO CONTROL EROSION, AS DIRECTED BY THE TOWNSHIP ENGINEER OR CONSERVATION DISTRICT REPRESENTATIVE DURING FIELD INSPECTIONS OF CONSTRUCTION OPERATIONS.
17. ALL INSPECTIONS SHALL BE RECORDED AND KEPT ON FILE IN ACCORDANCE WITH THE N.P.D.E.S. PERMIT REQUIREMENTS.
18. UTILITY LINE TRENCH EXCAVATION:
 - A. LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
 - B. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
 - C. C. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.

- D. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE.
- E. IMMEDIATELY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES/FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS SHALL BE COMPLETED IMMEDIATELY.
- G. ALL SOIL EXCAVATED FROM TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.
- H. SOILS EXCAVATED FROM EXISTING SURFACE LAYER SHOULD BE STOCKPILED SEPARATELY AND RETURNED AS FINAL SURFACE LAYER FOLLOWING TRENCH BACKFILLING.

CONSTRUCTION SEQUENCE

IN ORDER TO KEEP EROSION AND SEDIMENT POLLUTION DURING CONSTRUCTION TO AN ABSOLUTE MINIMUM, ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING STAGING OF EARTHMOVING ACTIVITIES. EACH STAGE SHALL BE COMPLETED BEFORE A SUBSEQUENT STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENTATION CONTROL PLAN PREPARER, AND A REPRESENTATIVE OF THE NYDEC TO AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITY, ALL CONTRACTORS INVOLVED IN THAT ACTIVITY SHALL NOTIFY THE NEW YORK ONE-CALL SYSTEM INC. TO DETERMINE ANY UNDERGROUND UTILITIES LOCATIONS.

1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE NYDEC PRIOR TO IMPLEMENTATION.
2. THE LIMIT OF DISTURBANCE AND STREAMS SHOULD BE MARKED PRIOR TO DISTURBANCE ACTIVITIES.
3. ROUGH GRADE WHERE PAVEMENT ENDS ON EXISTING DRIVE TO SIDE AND INSTALL ROCK CONSTRUCTION ENTRANCE IN ACCORDANCE WITH DETAIL TO SERVE AS ACCESS TO SITE.
4. PLACE COMPOST FILTER SOCK AS DEPICTED ON THE PLANS, AND DOWNSTREAM OF ALL EXCAVATED AREAS OR TOPSOIL STOCKPILING AREAS.
5. CLEAR AND GRUB REMAINDER OF DISTURBED AREAS ON SITE. STRIP TOPSOIL WITHIN AREAS OF PROPOSED EARTHWORK AND STOCKPILE ACCORDING TO PLANS. BEGIN BULK EXCAVATION ACTIVITIES FOR PROPOSED ROADWAY AND BUILDING AREAS AND STABILIZE.
6. BEGIN CONSTRUCTION OF PROPOSED COMPOUND AND STRUCTURES (EXCAVATION AND FOUNDATIONS ETC.) IF ROADWAY IS NOT STABILIZED, ACCESS TO THE CONSTRUCTED COMPOUND AND STRUCTURES SHALL BE STABILIZED FOR CONSTRUCTION VEHICLE ACCESS.
7. INSTALL REMAINDER OF UNDERGROUND UTILITIES. REFER TO UTILITY LINE EXCAVATION MEASURES. FINISH GRADE, SEED AND MULCH EACH AREA OF DISTURBANCE IMMEDIATELY AFTER CONSTRUCTION IS COMPLETED.
8. CONSTRUCT ALL AGGREGATE BASE COURSE AND BITUMINOUS BINDER COURSES ON INTERNAL ROADWAYS.
9. WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPs IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS. COMPLETION CERTIFICATES ARE NEEDED TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT AND THE APPROVED E&S AND PCSM PLANS.

SOILS DATA

SOILS DATA OBTAINED FROM A SOIL SURVEY OF NIAGRA COUNTY, NEW YORK, ISSUED SEPTEMBER 16, 2019.

RhA – RHINEBECK SILTY CLAY LOAM, SANDY SUBSTRATUM, 0 TO 2 PERCENT SLOPES LIMITATIONS – CORROSION OF STEEL, DEPTH TO SATURATED ZONE

RhB – RHINEBECK SILTY CLAY LOAM, SANDY SUBSTRATUM, 2 TO 6 PERCENT SLOPES LIMITATIONS – CORROSION OF STEEL, DEPTH TO SATURATED ZONE

RESOLUTIONS

CORROSION OF CONCRETE/STEEL – CONCRETE OR STEEL MAY NEED TO BE WRAPPED IN CORROSION RESISTANT LINING.

DEPTH TO SATURATED ZONE – U-DRAIN MAY BE REQUIRED FOR ANY SPRINGS ENCOUNTERED. PIMPED WATER FILTER BAG MAY BE NEEDED DURING EXCAVATIONS.

FILL MATERIAL NOTES

IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE ON-SITE CONTRACTOR.

CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE STATE UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).

ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECT TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS.

MATERIAL NOTES:

1. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
2. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
3. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
4. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

MULCH TACKING

STRAW AND HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN. A TRACTOR-DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO TO SOIL. THIS METHOD IS LIMITED TO SLOPES NO STEEPER THAN 3 TO 1 AND MACHINERY SHALL BE OPERATED ON THE CONTOUR. (NOTE: CRIMPING BY TRAVERSING WITH TRACK MACHINERY IS NOT ACCEPTABLE). EMULSIFIED ASPHALT CONTAINING NO SOLVENTS OR OTHER DILUTING AGENTS TOXIC TO PLANT OR ANIMAL LIFE, UNIFORMLY APPLIED AT THE RATE OF 31 GALLONS PER 1,000 S.Y. MAY BE USED TO TACK MULCH. SYNTHETIC OR CHEMICAL BINDERS MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED THAT SUFFICIENT DOCUMENTATION IS SUBMITTED TO AND APPROVED BY THE TOWNSHIP AND THE CONSERVATION DISTRICT TO SHOW THAT THE MATERIAL IS NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES AND OTHERWISE ACCEPTABLE. LIGHTWEIGHT PLASTIC, FIBER OR PAPER NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURERS RECOMMENDATIONS.

RECYCLING STATEMENT

INDIVIDUALS RESPONSIBLE FOR EARTH DISTURBANCE ACTIVITIES MUST ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. MEASURES SHOULD BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL.

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SCALE:	NTS
DRAWN BY:	RMR
PLAN ORIG. DATE:	8-1-17

REVISIONS		
NO.	DATE	DESCRIPTION
D	08/27/20	PER SWITCH TO MONOPOLE
C	06/29/20	PER TOWER ROTATION
B	02/07/20	PER CLIENT COMMENTS
A	02/03/20	PER TOWN ZONING REV



PROJECT No. 2168

SITE NAME: TONAWANDA CREEK

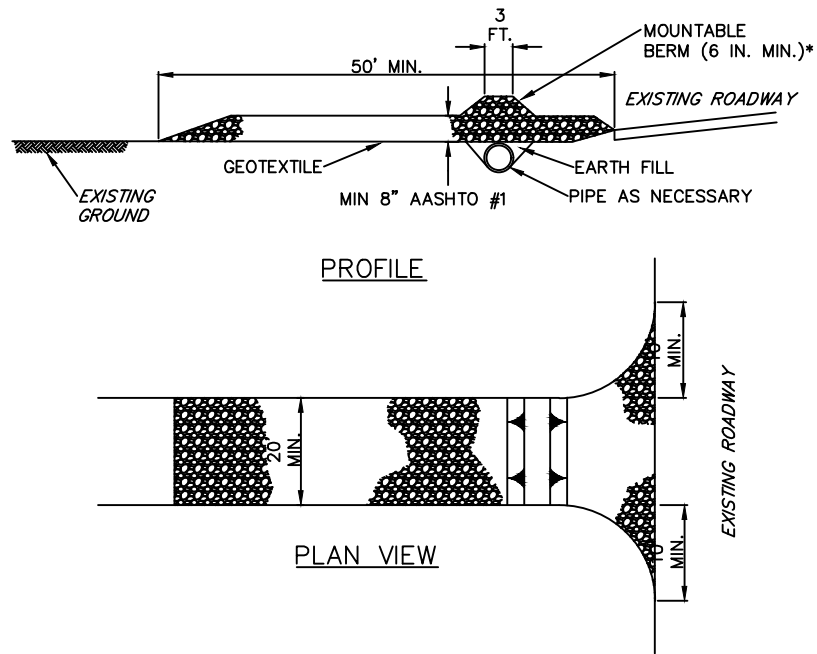
SITE NUMBER: HV1173

SITE ADDRESS: 7340 CAMPBELL BLVD
NORTH TONAWANDA, NY 14120

FILE NAME: ZES.DWG

SHEET TITLE: EROSION & SEDIMENTATION CONTROL NOTES

DRAWING NO. ES-2	REVISION: D
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* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

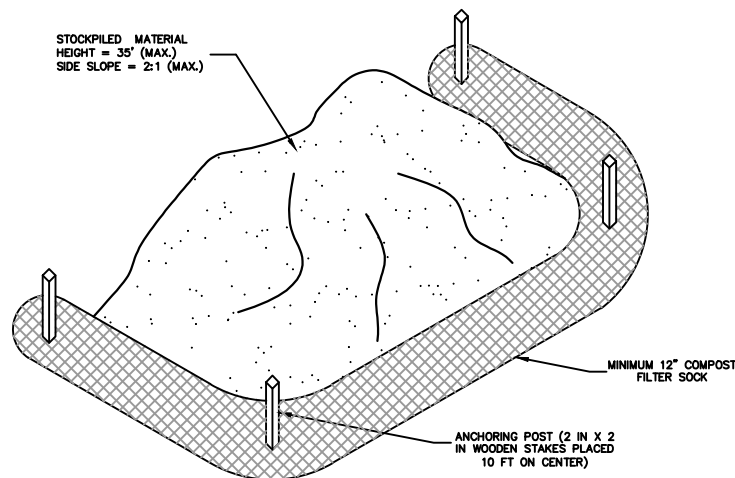
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

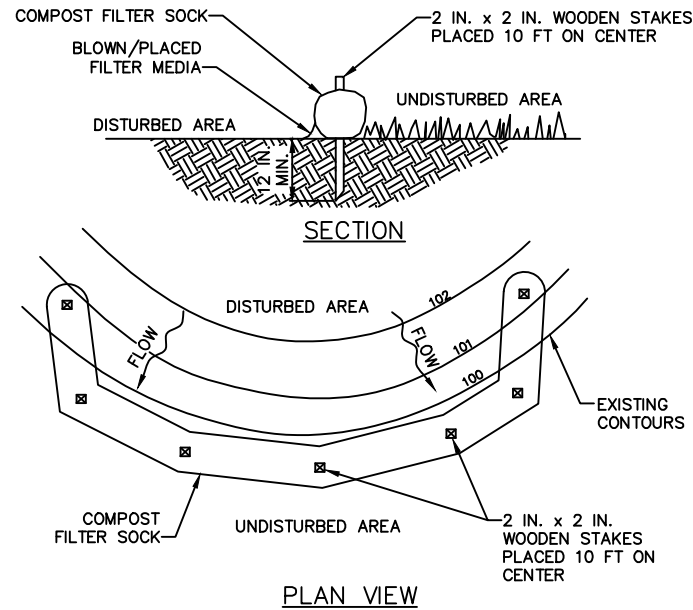
**STANDARD CONSTRUCTION DETAIL #2-1
ROCK CONSTRUCTION ENTRANCE**

NOT TO SCALE



STOCKPILE CONTROL

N.T.S.



NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 5.1 OF THE NY DEC STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. COMPOST SHALL MEET THE STANDARDS OF TABLE 5.1 OF THE NY DEC STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

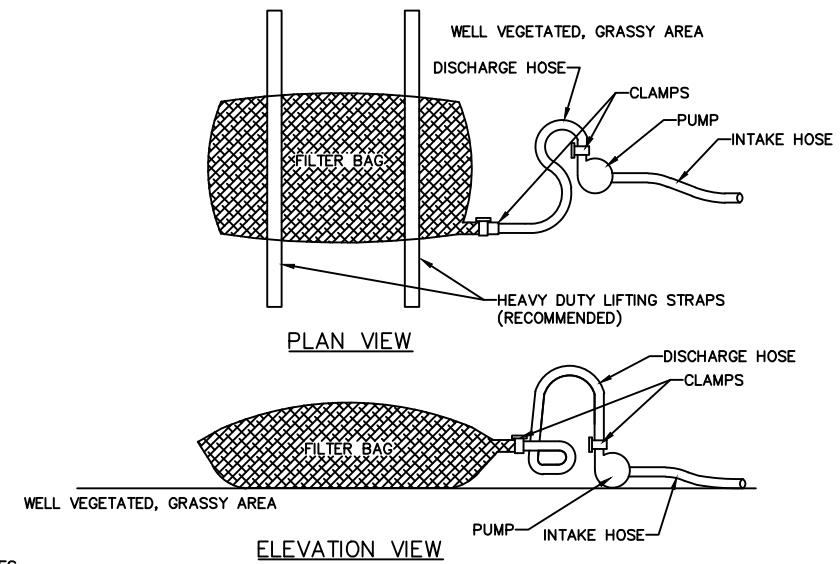
UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

**STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK**

NOT TO SCALE

LABEL	COMPOST FILTER SOCK	SIZE
A	CFS	12"

EROSION PERMITTER CONTROLS



NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5% CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

**STANDARD CONSTRUCTION DETAIL
GEOTEXTILE FILTER BAG**

NOT TO SCALE

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STATE OF NEW YORK
JOSHUA D. HORN
LICENSED PROFESSIONAL ENGINEER
No. 097715

PROJECT No.	2168
SITE NAME:	TONAWANDA CREEK
SITE NUMBER:	HV1173
SITE ADDRESS:	7340 CAMPBELL BLVD NORTH TONAWANDA, NY 14120
FILE NAME:	ZDET.DWG

SHEET TITLE:
E&S - CONSTRUCTION DETAILS

DRAWING NO.	REVISION:
ES-3	D