

M E M O R A N D U M

DATE: February 3, 2017
TO: Keith Coppins – North Atlantic Towers, LLC
FROM: Doug Drost – Centek Engineering
CC: Carlo F. Centore – Centek Engineering
PROJECT: CT1155C Bethel – Wireless Communications Facility
CEN TEK PROJ. NUMBER: 15231.000

On January 26, 2017, Centek was contacted by the referenced communications site owner representative, Keith Coppins, who advised us of some concerns the Town of Bethel has regarding erosion/sedimentation related to the on-going site construction activities.

Centek was provided a copy of a Town issued letter (dated 01/26/17) on January 27, 2017. On January 30, 2017, Centek personnel visited the above referenced site to address said concerns. This is a summary of our findings and recommendations.

The site work contractor indicated that there was approximately 250 linear feet of open utility conduit trench along/adjacent to the east side of the site access drive. The utility conduits were installed and awaiting inspection from the Town's inspection personnel. A stone dam was constructed on the down gradient end of the trench as a temporary means of erosion/sedimentation control until the inspection was completed. Prior to the inspection, a rain event occurred during which the constructed dam failed. As a result, sedimentation made it's way down the open trench along the access drive and into the Codfish Hill Road right of way.

At the time of our visit, the aforementioned utility trench had been backfilled with the exception of the portion at the utility pull box located approximately at mid length of the access drive.

Siltation filter fabric was observed at the existing catch basin located in the Codfish Hill Road right of way just west of the access drive entrance.

Siltation fencing was observed along the southwest (down gradient) side of the communications compound as well as the west side of the access drive along the northernmost portion of the access drive as existing grades sloped down gradient toward the west.

A stockpile of excavated material from the compound area was identified at the northernmost access drive area

The contractor intends to construct the access drive from the southernmost location closest to Codfish Hill Road and continue northerly to the compound.

Our recommendations are as follows:

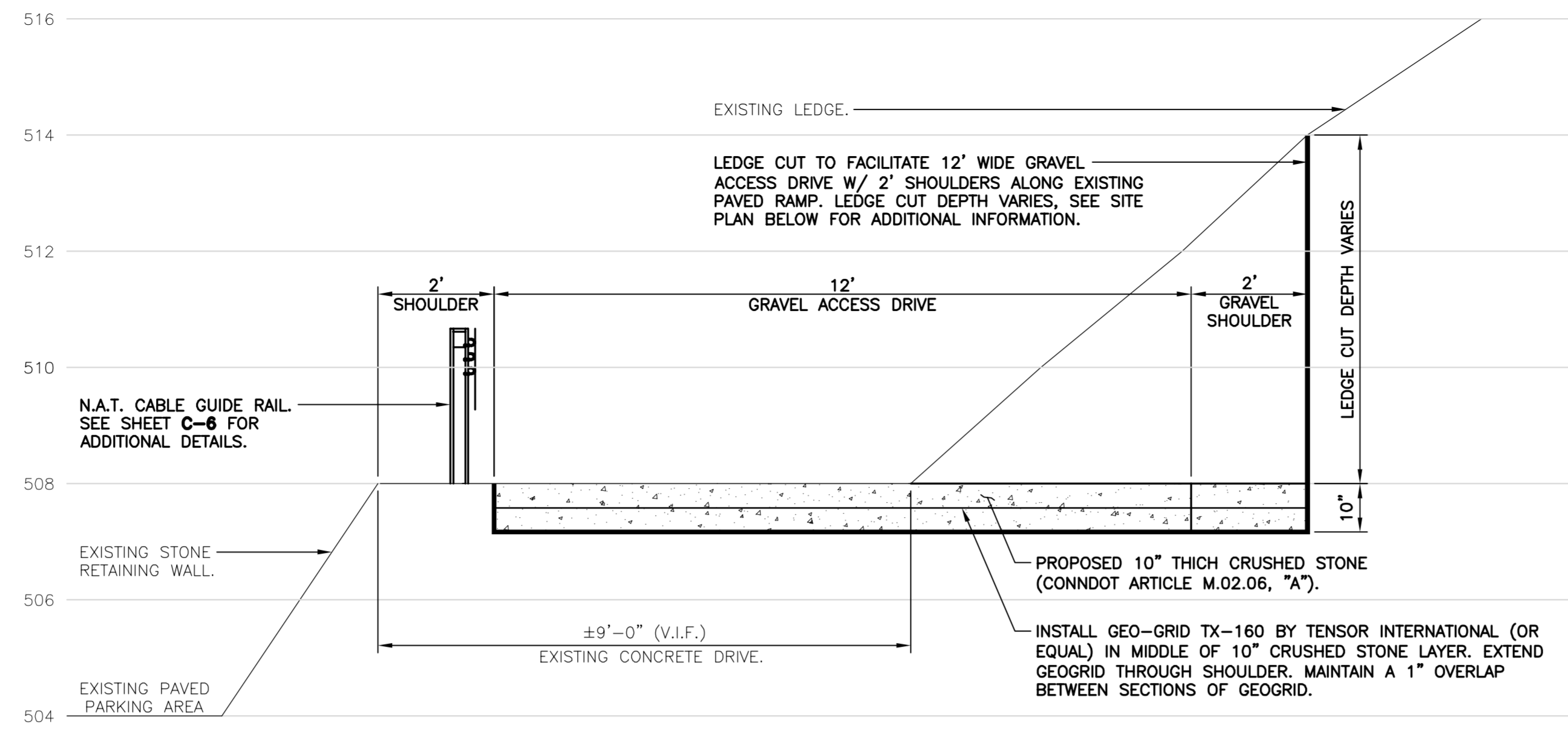
1. Siltation Fence/Strawbale Siltation Fence "Sandwich" Erosion Control shall be installed at the base of the existing earth stockpile area (on down gradient sides) until stockpile is removal

from site. The detail for this Erosion Control can be found on sheet C-3 of the construction drawings (detail 1).

2. The scheduled cross swale level spreader shown on the construction drawing within proximity of the gravel access drive entrance shall be installed at the same time the first 50 feet of access drive construction is completed.
3. As the contractor continues construction of the access drive working northerly, Siltation Fence/Strawbale Siltation Fence "Sandwich" Erosion Control shall be installed full width of the access drive and to the edges of the access easement to the extent possible. The aforementioned protection shall be restored at the end of each workday north of the completed access drive construction.
4. The scheduled cross-swale level spreader and associated Siltation Fence/Strawbale erosion control located approximately $\frac{3}{4}$ of the way up the access drive shall be installed upon completion of the immediate adjacent access drive construction.
5. The scheduled 55 foot long level spreader located adjacent to the last $\frac{1}{4}$ length of access drive shall be installed in concert with the remaining access drive construction and scheduled grading on both sides of access drive. Erosion control matting is also required in graded areas as indicated on the construction drawings site plan. This will require the removal and/or redistribution of the existing soil stockpile in this area.
6. The scheduled drainage swales on the SE and NE sides of the compound are designed to direct drainage toward the aforementioned 55 foot long level spreader and shall be installed during the compound grading/surfacing activities.

The above recommendations shall not alleviate the contractor's responsibilities as it pertains to the site design and facility construction as per the construction drawings. Centek shall be notified immediately of any concerns or field condition that may result in drainage or erosion control issues.

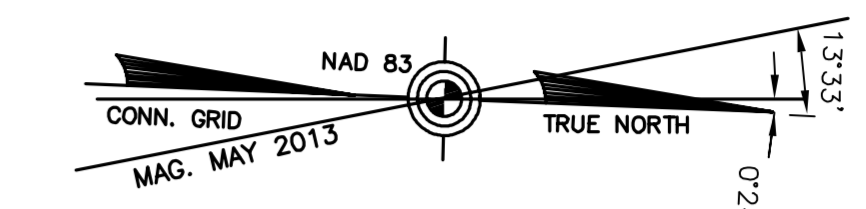
The attached construction site plan has been marked up (in red) to highlight conditions and recommendations discussed above and is provided as an additional visual reference to accompany this memorandum.



2 TYP. LEDGE CUT SECTION
C-1 SCALE: 1/2"=1'

SYMBOLS LEGEND	
---	PROPERTY LINE
- - - -	EASEMENT LINE (PROPOSED)
---	DRIVE (PROPOSED)
---	LEASE AREA
---650---	CONTOUR LINE
—○—	FENCE LINE (PROPOSED)
○	UTILITY POLE
X	SPOT ELEVATION
	STRAWBALES/ SILT FENCE
□	SIGN
○	IRON PIN
—	GUY ANCHOR
□	CATCH BASIN
○	DECIDUOUS TREE
⊗	DECIDUOUS TREE TO BE REMOVED
○○○○	STONE WALL
---	DRIVE (EXISTING)
-x-	FENCE LINE (EXISTING)
	SILTATION FENCE
532	GRADING (PROPOSED)
---	WETLAND BOUNDARY
TLC	TOP LEDGE CUT
BLC	BOTTOM LEDGE CUT
---	LEDGE

ESTIMATED TREE REMOVAL SUMMARY	
TREES TO BE REMOVED IN LOCATION ALONG N.A.T. ACCESS OR UTILITY EASEMENT	= 54
TREES TO BE REMOVED WITHIN AND AROUND THE N.A.T. LEASE AREA	= 12
TOTAL TREES TO BE REMOVED	= 66



2. Install Cross Swale Level Spreader during construction of the 1st 50 ft of Access Drive.

8 LIMITS OF 12' WIDE CRUSHED STONE ACCESS DRIVE W/ GEOGRID REINFORCEMENT, TYP.
C-5

2&3 CONTRACTOR TO FIELD VERIFY LOCATION OF CROSS SWALE LEVEL SPREADER PRIOR TO INSTALLATION TO ENSURE THAT RUNOFF WILL NOT BE DIRECTED TO EXIST. STRUCTURE
C-4

3. Install Siltation Fence/Strawbale "Sandwich" erosion control at end of each workday as access drive construction commences to the north, (typ).

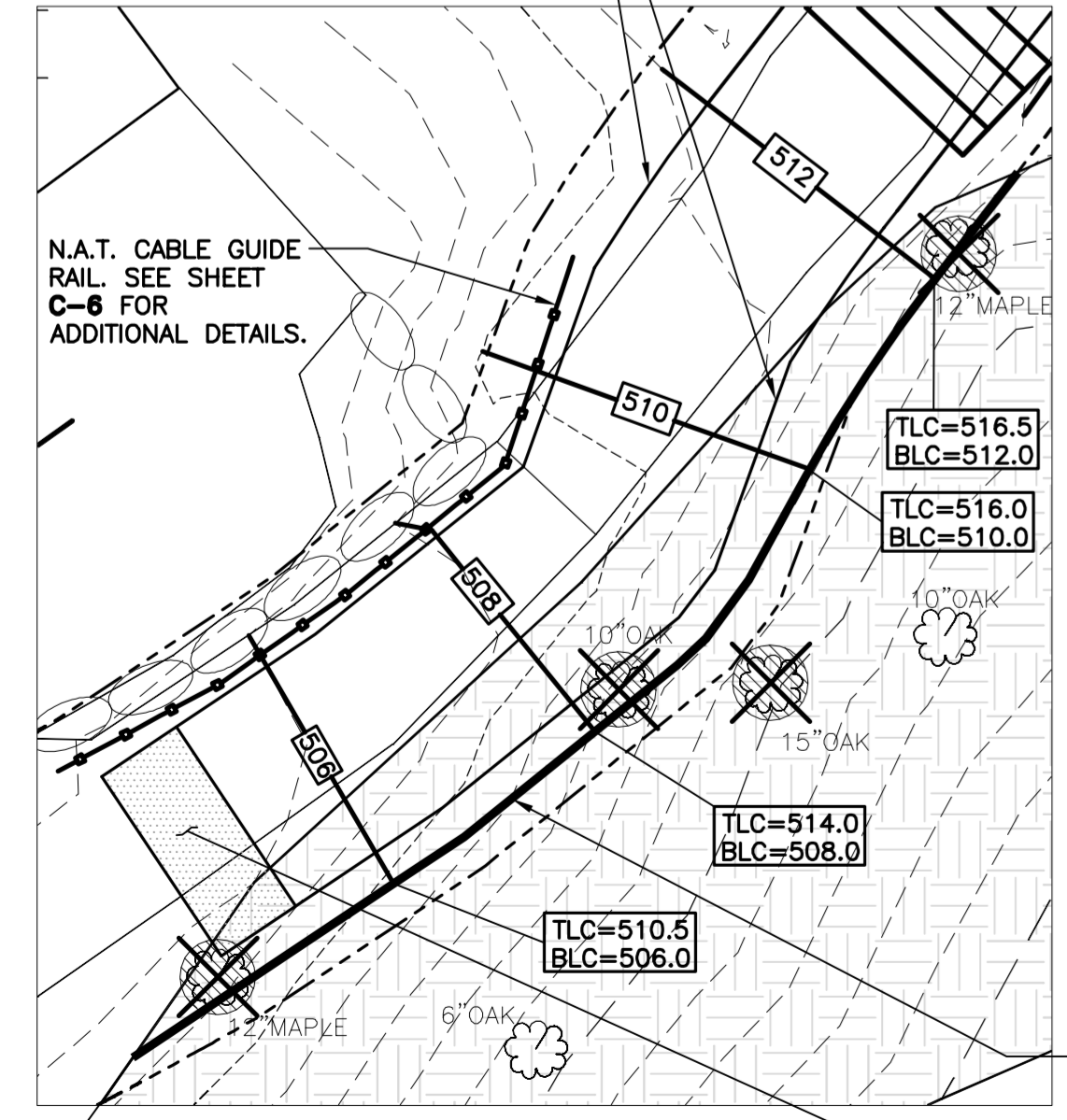
4. Install Cross Swale Level Spreader as adjacent access drive construction progresses northerly.

5. Install Level Spreader in concert with remaining access drive construction along with grading/matting shown. Existing soil stockpile removal required.

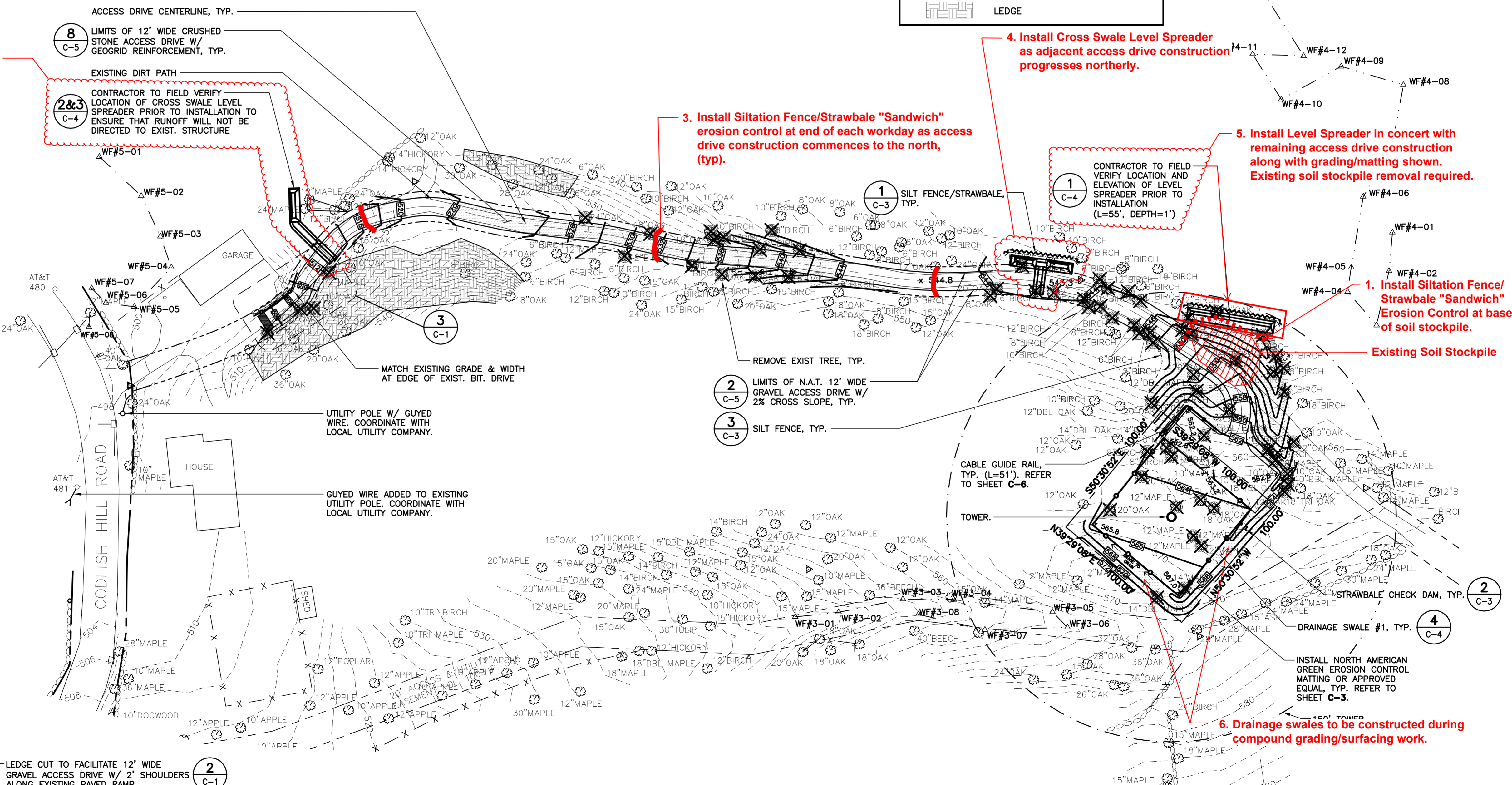
1 CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF LEVEL SPREADER PRIOR TO INSTALLATION (L=55', DEPTH=1')
C-4

1. Install Siltation Fence/Strawbale "Sandwich" Erosion Control at base of soil stockpile.
Existing Soil Stockpile

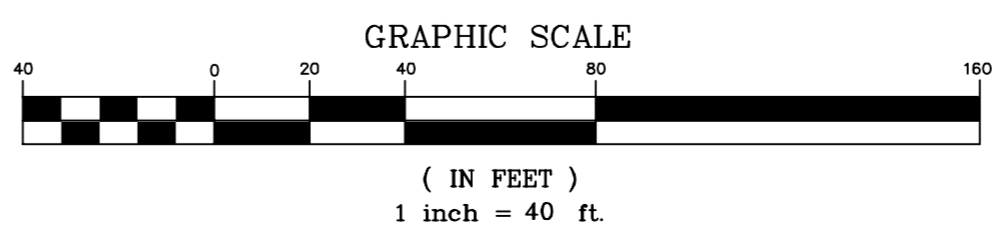
LIMITS OF 12' WIDE GRAVEL ACCESS DRIVE. REFER TO DETAIL 2/C-1, USE GEO-GRID REINFORCEMENT FROM PAVED APRON TO CROSS SWALE THEN REVERT TO ACCESS ROAD CONSTRUCTION AS SHOWN IN 1/C-1.



3 PARTIAL SITE PLAN
C-1 SCALE: 1"=10'



1 PARTIAL SITE/SURVEY PLAN
C-1 SCALE: 1"=40'



PROFESSIONAL ENGINEER SEAL

NORTH ATLANTIC TOWERS

WIRELESS COMMUNICATIONS FACILITY

SITE NUMBER: CT1155C

SITE NAME: BETHEL

62 + 64 CODFISH HILL ROAD
BETHEL, CT

DATE: 06/06/16
SCALE: AS NOTED
JOB NO. 15231.000

PARTIAL SITE/SURVEY PLAN

C-1

Sheet No. 3 of 15

ISSUED FOR CONSTRUCTION
DRAWN BY: CHK'D BY:
DATE: 06/20/16
REV.:

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