

**Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET**

Meeting Date: September 3, 2013
Presenter: Chairman Barry Swindell
Attachment: No

ITEM TITLE: OPENING

SUMMARY: Call to Order
Opening Prayer
Pledge of Allegiance

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: September 3, 2013
Presenter: Chairman Barry Swindell
Attachment: Yes

ITEM TITLE: CONSIDERATION OF AGENDA

SUMMARY: Attached is the proposed Agenda for the September 3, 2013, Regular Meeting of the Hyde County Board of Commissioners.

RECOMMEND: Review, Amend and Approve.

Motion Made By: Barry Swindell
 Dick Tunnell
 Anson Byrd
 John Fletcher
 Earl Pugh, Jr.

Motion Seconded By: Barry Swindell
 Dick Tunnell
 Anson Byrd
 John Fletcher
 Earl Pugh, Jr.

Vote: Barry Swindell
 Dick Tunnell
 Anson Byrd
 John Fletcher
 Earl Pugh, Jr.

AGENDA

HYDE COUNTY BOARD OF COMMISSIONERS' MEETING

TUESDAY, SEPTEMBER 3, 2013 - 6 PM

CALL TO ORDER OPENING

CONSIDERATION OF AGENDA

CONSIDERATION OF MINUTES

- 1) August 5, 2013 – Regular Meeting Minutes

PUBLIC HEARINGS

- 1) Hyde County Transit – NC-DOT ROAP Grant.....Beverly Paul

PUBLIC COMMENTS

Public Comments are a time for the public to make comments to the County Commissioners. Comments should be kept to three (3) minutes or less and comments should be directed to the entire Board and not to individual members, the staff or to other members of the public. Comments requesting assistance will typically be referred to the County Manager for follow-up or for Board action at a future meeting.

ITEMS OF CONSIDERATION

1) Resolutions

- a) Supporting of FWS Plan to Address Lake Mattamuskeet Water Issues.....Mgr. Rich

2) Appointments

- a) Southern Albemarle Association Delegates.....Mgr. Rich
- b) Mainland Occupancy Tax Board.....Mgr. Rich

3) Presentation

- a) Swan Quarter & West Quarter Dike Assessments.....Daniel Brinn

- 4) AT&T Collocation of Existing Tower Proposal.....Doug Ruwe

- 5) AT&T New Tower Construction Proposals.....Tom Johnson

- 6) Silver Lake Mooring Field Update.....Jane Hodges

- 7) CDBG Contingency – Sewer Force Main Construction Contract Award.....Kris Noble

- 8) 185 Landing Road – Engineering Contract Award.....Kris Noble

- 9) Lakeview Road - Request for Paving.....Clint Berry
- 10) Outstanding Checks Update.....Corrinne Gibbs
- 11) Request to Waive Building Permit Fees for Ocracoke Community Park.....Mgr. Rich

BUDGET MATTERS

- 1) **Board Approval Required**
 - a) Board of Education Appropriations
- 2) **Administrative Transfer**
 - a) Home Health
 - b) Solid Waste

CLOSED SESSION (in accordance with NCGS 143A-318.11 (a) (1-9) if required)

MANAGEMENT REPORTS

The County Manager will give update on various projects on-going in Hyde County and present his monthly meeting calendar.

The Commissioners will share with the public their various activities and ideas for continuous improvement of government services to the citizens.

MANAGER’S UPDATE

- 1) ECB Building – Survey, Furniture Removal, Closing Status
- 2) ECB Financing
- 3) FEMA Update
- 4) ABC Board Member Terms
- 5) Public Safety Center & Government Center Repairs
- 6) Scenic Byways Grant Request
- 7) Albemarle RPO / Ferry Tolls

PUBLIC COMMENTS

The public is invited to use this time to make comments to the County Commissioners on items discussed during this meeting and/or matters not discussed earlier in the meeting.

ADJOURN

SUPPLEMENTAL INFORMATION

Department Reports

- 1) Tax Department (signature required)
- 2) Health Department / Animal Control\
- 3) Code Enforcement / Inspections

Informational Items

- 1) News Articles – Carteret County BOC Opposition of Loggerhead Habitat Designation
- 2) Letter from NC Dept. of Commerce Division of Community Assistance – 2012 Audit Review Regarding Missing Revenues and Expenditures for CDBG-SBEA 09-C-2036

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: September 3, 2013
Presenter: Averil Simmons, Deputy Clerk
Attachment: Yes

ITEM TITLE: CONSIDERATION OF MINUTES

SUMMARY: Attached are the August 5, 2013 Regular Meeting Minutes of the Hyde County Board of Commissioners.

RECOMMEND: Review, Amend and Approve.

Motion Made By: Barry Swindell
 Dick Tunnell
 Anson Byrd
 John Fletcher
 Earl Pugh, Jr.

Motion Seconded By: Barry Swindell
 Dick Tunnell
 Anson Byrd
 John Fletcher
 Earl Pugh, Jr.

Vote: Barry Swindell
 Dick Tunnell
 Anson Byrd
 John Fletcher
 Earl Pugh, Jr.

1 **Meeting Minutes**

2 **Board of County Commissioners**
3 **Hyde County**

4
5 **Monday, August 5, 2013**
6

7 Chairman Barry Swindell called the Regular Meeting of the Hyde County Board of Commissioners
8 to order on Monday, August 5, 2013, in the Hyde County Government Center, Multi-Use Room,
9 and the Ocracoke School Commons Room using electronic conferencing equipment.

10 The following members were present on the mainland: Commissioners Anson Byrd, Earl Pugh, Jr.
11 and Barry Swindell; Attorney Fred Holscher; County Manager Bill Rich; Clerk to the Board Lois
12 Stotesberry; and, members of the public.

13 The following members were present on Ocracoke: Commissioners John Fletcher and Dick
14 Tunnell; Public Information Officer Sarah Johnson and members of the public.

15 Following opening prayer by Commissioner Earl Pugh, Jr. and pledge of allegiance, the meeting
16 was called to order.

17 **Agenda:**

18 Chairman Swindell asked for any changes to the August 5, 2013 meeting Agenda. Commissioner
19 Byrd moved to approve the agenda as presented by the Clerk, with addition of Item 2 (c) –
20 Appointment to the Swan Quarter Sanitary District Board. Mr. Pugh seconded the motion. The
21 motion passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays –
22 None; Absent or not voting – None.

23 **Consideration of Minutes:**

24 Commissioner Tunnell moved to approve the July 1, 2013 Regular Meeting Minutes of the Hyde
25 County Board of Commissioners as presented by the Clerk. Mr. Fletcher seconded the motion. The
26 motion passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays –
27 None; Absent or not voting – None.

28 **Public Hearing:**

29 **CDBG-SS Closeout**

30 Commissioner Pugh moved to open public hearing on close-out of FY2010 Community
31 Development Block Grant (CDBG) Scattered Site (SS) grant. Mr. Byrd seconded the motion. The

1 motion passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays –
2 None; Absent or not voting – None.

3 Chris Hilbert, Program Administrator, Holland Consulting Planners, reviewed the budget and
4 activities that have been accomplished through the County’s FY10 CDBG-SS grant. Mr. Hilbert
5 reported program activities are complete and the county is in the process of closing out the program.

6 Commissioner Byrd moved to close public hearing on close-out of FY2010 Community
7 Development Block Grant (CDBG) Scattered Site (SS) grant. Mr. Fletcher seconded the motion.
8 The motion passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell;
9 Nays – None; Absent or not voting – None.

10 **Public Comments:**

11 Chairman Swindell called for comments from the public.

12 1. Mark Carawan, Fairfield – Flew over Mattamuskeet Lake in a helicopter on Saturday – said
13 there is very little aquatic vegetation left.

14 2. Sherry Carawan, Swan Quarter – Vice President of the Chamber of Commerce – With a new
15 system in place now with new manager, Pete Campbell, she urged the Commissioners to hear all
16 sides before addressing the resolution.

17 3. Bill Hendrix, Ponzer – Said he fishes the lake and it is the most pristine lake in the world. He
18 does not understand why it is being drained. Asked to please put some water back in the lake.

19 4. Pete Campbell, Refuge Manager – Submitted three letters to the Commissioners and said the
20 claims that Lake Mattamuskeet has been mismanaged are unfounded. He also made the
21 following statements:

- 22 • Resolution being presented at meeting has no founding documentation
- 23 • Water levels fluctuate on a seasonal cycle
- 24 • Never opened tide gates to make habitat for shore birds, and the salinity levels are normal
- 25 • 2011 Surveys show a preponderance of vegetation
- 26 • Has created a new investigation process to test lake water

27 He has met with NCWRC fisheries staff – working to develop water management plan to
28 balance water levels. He wants to form a group to classify issues and to share information with
29 citizens. He asked that the Board table their resolution until his documents are read and there
30 has been a stakeholder meeting.

31 5. Blythe Davis, Swan Quarter – Said the drainage on the south side of the lake is farm run-off, not
32 forced drainage. The farmers on the west side use pumps, and some organic matter flows

1 through them into the lake. This organic matter brings phosphate and nitrogen. He feels that
2 raising lake levels will flood yards and cause crop loss for the south lake farms.

3 6. Dale Morgan, Angier, NC – He fishes the lake and said in the last few years, water levels in the
4 lake have been unusually low. He can't get his boat in now.

5 There being no further comments from the public, Chairman Swindell continued the meeting.

6 **Items of Consideration:**

7 **Employee Recognition**

8 Justin Gibbs, Hyde County Emergency Services Director, graduated from the Community
9 Preparedness and Disaster Management Certificate Program offered by the University of North
10 Carolina at Chapel Hill – Gillings School of Global Public Health. Developed 10 years ago by one
11 of the top departments of Health Policy and Management in the country, the CPDM certificate
12 program has admitted over 300 students and has received high praise from professionals in the field.

13 The Community Preparedness and Disaster Management Certificate Program within the
14 Department of Health Policy and Management in the Gillings School of Global Public Health at
15 UNC-Chapel Hill is a professional certificate program to provide leaders in the public and private
16 sector who deal with emergency management and disaster preparedness, response, recovery or
17 mitigation. This program enhances the knowledge of professionals who must prepare and oversee
18 systems used to keep America safe. The program's all-hazards approach includes natural and
19 technological hazards; and terrorism.

20 The curriculum for the Community Preparedness and Disaster Management Certificate Program
21 consisted of four courses, each taking 12 weeks to complete and comprising a total of 9 credit
22 hours. The four academic courses cover a multitude of topics dealing with local, state and federal
23 activities in planning for and analyzing disasters. The courses examine both the strengths and
24 weaknesses of systems and engage students' creative processes to facilitate the development and/or
25 refinement of systems that will work in the community. The program also strives to create a
26 common conceptual understanding of the issues facing disaster management in order to produce a
27 more coordinated and synergistic regional response to events.

28 It is an honor to have Justin's qualifications behind our Emergency Management program.

29 Manager Rich also commended Jerry Hardison and Jane Hodges for their exemplary work. He
30 received a letter from Jerry Harris, thanking Jerry Hardison for his diligent work during the
31 construction of the new Hyde County Transit Facility

32 **Resolutions:**

33 **Resolution In Opposition To Reclassifying NC Inland Coastal Waters**

1 Manager Rich reported that at its regularly scheduled meeting on July 1, 2013 the Hyde County
2 Board of Commissioners was informed that the North Carolina Division of Marine Fisheries
3 (NCDMF) had received a petition for rule making that requests NCDMF to make all Pamlico Sound
4 waters a secondary nursery. The NCDMF's data does not support that designation but if passed it
5 would effectively make it illegal to shrimp trawl any inside NC waters.

6 Commissioner Byrd moved to adopt "Resolution In Opposition To Reclassifying North Carolina
7 Coastal Waters As Secondary Nursery Areas". Mr. Fletcher seconded the motion. The motion
8 passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays – None;
9 Absent or not voting – None.

10 *Clerk's Note: A copy of "Resolution In Opposition To Reclassifying North Carolina Coastal Waters As
11 Secondary Nursery Areas" is attached herewith as Exhibit A and incorporated herein by reference.*

12 **Resolution Concerning Mattamuskeet Lake**

13 Manager Rich reported that it has been brought to his and some of the Commissioners attention that
14 the current water level being maintained at Lake Mattamuskeet may be causing significant
15 degradation of wetlands and aquatic grass beds affecting wildfowl habitats and causing
16 displacement of numerous wildfowl species including Osprey and Bald Eagle.

17 Commissioner Byrd has talked with Malory Martin with the WRC and said a couple of things need
18 to be looked at. It seems that fishing is not close to what fishing used to be on the Lake. He
19 supports maintaing lake water level and agrees there needs to be a committee to discuss the
20 situation with Mr. Campbell.

21 Commissioner Fletcher said that Mr. Campbell is working on this and the issue needs to be tabled.
22 Everyone needs to work together and re-write the resolution to benefit both sides.

23 Commissioner Pugh agreed with Mr. Fletcher that the we need to rethink the resolution and let
24 Manager Rich meet with Mr. Campbell. Chairman Swindell agrees that we need to do something.
25 Mr. Tunnell stated that we need to listen to both sides of the issue.

26 Commissioner Fletcher moved to table any decision being made for one month and directed
27 Manager Rich to work with the Refuge Manager, Mr. Campbell, to find an agreeable solution for
28 all. Commissioner Tunnell seconded the motion. The motion passed on the following vote: Ayes –
29 Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays – None; Absent or not voting – None.

30 **Appointment – Mainland Occupancy Tax Board**

31 Commissioner Swindell said he has not had enough time to make a decision on who should serve on
32 the Mainland Occupancy Tax Board. No action was taken.

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Appointment – Swan Quarter Sanitary District Board

Manager Rich moved to appoint Seldon Taylor to serve on the Swan Quarter Sanitary District Board. Mr. Fletcher seconded the motion. The motion passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays – None; Absent or not voting – None.

Appointment – Hyde County ABC Board

Commissioner Fletcher moved to appoint Jim Piland to serve on the Hyde County ABC Board. Mr. Pugh seconded the motion. The motion passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays – None; Absent or not voting – None.

ABC Board Report

Meredith Nicholson, ABC Board Member, presented report on the progress of the ABC Board and the FY2012-2013 ABC Board Audit. She also reported that they were still trying to resolve the pension fund with the State and the Accounts Payable discrepancies. Ms. Nicholson also announced that the ABC Board meetings will be held at 5:00 p.m. prior to each Hyde Board of Commissioners’ meeting beginning in September.

Chairman Swindell directed the ABC Board to elect a Chairman and set terms. It was brought to his attention that the Commissioners were to appoint a Chairman and set the terms. He then moved to appoint Meredith Nicholson as Chairman of the ABC Board. Mr. Tunnell seconded the motion. The motion passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays – None; Absent or not voting – None.

Chairman Swindell directed that the term limits can be set by the Manager or Clerk by drawing names for terms. No motion was needed for this action.

Lakeview Road Request For Paving

Deloris Midgett-Gibbs reported that residents of the Lakeview Road community are requesting assistance from the Hyde County Board of Commissioners to have Lakeview Road paved.

Mr. Jerry Jennings, PE, NCDOT Division Engineer reported (in a letter dated July 29, 2013) responding to Ms. Gibbs’ petition to NCDOT requesting that Lakeview Road in Hyde County be paved. Mr. Jennings explained the road is not currently part of the State System and therefore the Department cannot perform any work on the road. In order to add the road to the State System, NC law and NCDOT policy requirements must be met. Lakeview Road is unpaved and does not meet minimum State requirements and therefore is not qualified for addition to the State System at this time.

The residents currently pay an annual road maintenance in which they want to give the \$2,500 back to the County for paving the road.

1 Commissioner Fletcher said the owners have to pay certain amount of the improvements to the
2 road. Attorney Holscher will look into this.

3 Chairman Swindell said to reference the Jackson Circle road improvement project. Attorney
4 Holscher inquired about the cost.

5 Chairman Swindell moved to table any recommendations and the costs of assessment and paving be
6 reported at the September meeting. Mr. Byrd seconded the motion. The motion passed on the
7 following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays – None; Absent or not
8 voting – None.

9 **Speed Limit Reduction on Newlands Road**

10 Manager Rich reported that after two meetings with NCDOT (Anthony Roper), several phone calls
11 with Malcolm Fearing, from Manteo, and a neighborhood drive through with Christian Gibbs and
12 Anthony Roper it has been agreed that the speed limit on Seth Road from the first residence to
13 Newlands Road will be reduced to 45 MPH. Newlands Road will be reduced to 45 MPH in its
14 entirety except from Piney Woods Road to the first house on Newlands Road. There also was a
15 letter asking the NCDOT to further reduce the speed limit to 35 MPH. The NCDOT can only place
16 children playing signs in subdivisions. No action was required.

17 **Update on Public Safety Center**

18 Manager Rich reported a temporary Dispatcher's Unit has been secured for use at the Public Safety
19 Center, environmental tests have been done and the building has been water tested. The tests show
20 that the mold levels are at an acceptable level and they are looking for other possible causes of
21 concern. The 9-1-1 funds will pay for a majority of the upfit of the trailers; one for Barbara Deese
22 and one for the dispatchers. Both the Public Safety Center and Government Center have been water
23 tested. The Public Safety Center is in good shape.

24 Robert Griffin, Dean Burbage and Clint Berry met with Manager Rich on Monday, June 10th to
25 discuss Government Center roof repairs. Mr. Griffin, Dean Burbage, Kevin Burch from R.E.I., and
26 Manager Rich also met on July 8, 2013 to discuss the roof repair project.

27 **Architects Report – ECB, PSC and GC Buildings**

28 Robert Griffin, Architect, AIA with Griffin Architecture out of Greenville, NC presented renderings
29 for the East Carolina Bank Building; and an update on necessary repairs to the Public Safety Center
30 and Government Center. Mr. Griffin presented the new DSS plans and said the building is in very
31 good shape. He has looked at the functionality for DSS and is proceeding in the most cost effective
32 manner while addressing privacy issues for clients. The Deputy Sheriff will have a satellite office
33 on the first floor. There is approximately 5,600 sq. ft. on each floor. Paul Lassiter had approved the
34 plans doing minimal construction. The cost has not been determined at this time.

1 The Government Center was water tested on Thursday, August 1. They have isolated/identified
2 some of the problems including internal gutters and a couple of window sills. A while back, there
3 was some caulking of windows and weep holes. He saw some dampness but no evidence of mold.

4 The Public Service Center appears that the leaks on the roof have been controlled. There is some
5 ponding at the back of the building. All-in-all, it's in pretty good shape. The air handling unit leaks
6 are repaired.

7 Manager Rich stated that Clint Berry, Utilities Director, was involved and is aware of what has
8 transpired.

9 **Hazard Mitigation Grant Program (HMGP) Grant Agreement**

10 Chris Hilbert, Program Administrator, Holland Consulting Planners, reported that the scope of work
11 for the current hazard mitigation project (4019 – HMGP) is the elevation of five residential
12 structures which were damaged by Hurricane Irene. Many of the homes that Hyde County is
13 proposing to elevate were built prior to the enforcement of the base flood levels as described in
14 NFIP flood maps that were created in 1978.

15 Hyde County is seeking to assist these families by helping them eliminate the damages now caused
16 by flooding events through elevation funded by the Hazard Mitigation Grant Program. This
17 program will fund the project at 100% with no local match or homeowner contribution (no cost to
18 the County). Hyde County is expecting to receive the HMGP Grant Agreement from the NC
19 Division of Emergency management during the month of August 2013.

20 Commissioner Fletcher moved to authorize the Designated Agent, Kris Noble, Hyde County
21 Planning and Economic Development Director, to execute the 4019 HMGP Grant Agreement upon
22 receipt from the NC Division of Emergency Management. Mr. Tunnell seconded the motion. The
23 motion passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays –
24 None; Absent or not voting – None.

25 **2012 County and DMV Tax Settlements**

26 Linda Basnight, Tax Administrator, submitted a report of settlement of the 2012 tax books
27 recapitulated and the 2012 DMV taxes recapitulated. This report showed 95.81% of the real
28 property taxes had been collected and 73% of DMV.

29 Commissioner Fletcher moved to approve the 2012 County Tax Settlement and the 2012 DMV Tax
30 Settlement as presented by Tax Administrator Linda Basnight. Mr. Tunnell seconded the motion.
31 The motion passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell;
32 Nays – None; Absent or not voting – None.

33 **Official Depository – Vantage South Bank**

1 Manager Rich reported since East Carolina Bank was sold to Vantage South Bank, the Hyde
2 County Board of Commissioners must declare the Central Depository for the County. Under
3 recommendation from UNC School of Government, this approval should be made retroactive to
4 May 1, 2013.

5 Commissioner Fletcher moved to declare Vantage South Bank the Central Depository for Hyde
6 County and to make the approval retroactive to May 1, 2013. Mr. Pugh seconded the motion. The
7 motion passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays –
8 None; Absent or not voting – None.

9 **Hyde County FY2011-2012 Audit Response**

10 Manager Rich reported that commissioners have received copy of the bound FY2011-2012 Hyde
11 County Audit. This has only changed to reflect the addition of the ABC Audit and is now complete.
12 Mr. Rich also presented a letter of comment from Sharon G. Edmundson, CPA, LGC, Director of
13 Fiscal Management Section, concerning the audit along with his response. Mr. Fletcher questioned
14 outstanding checks on the books that have not been cashed. Manager Rich will handle this. No
15 action was taken

16 **Hyde County FY2012-2013 Audit Contract Award**

17 County Manager Rich presented a review of Board action concerning award of FY2012-2013 Hyde
18 County Audit Contract:

19 **June 3, 2013** – Manager Rich requested Board approval to award the FY2012-2013 Hyde County
20 Audit Contract to Andrew Harris, CPA. Commissioner Byrd requested another RFP for the audit
21 contract be sent out in order to solicit competitive pricing. Commissioner Fletcher moved to
22 authorize contract award to the auditor of the manager’s choice, and to put RFP for the audit
23 contract out for bid in January, 2014. Mr. Tunnell seconded the motion. The motion passed on the
24 following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays – None; Absent or not
25 voting – None.

26 **July 1, 2013** – Manager Rich reported that although not mandatory per Board motion on June 3,
27 2013, he authorized a Request for Proposal (RFP) sent out for the FY2012-2013 Hyde County
28 Audit. Four responses were sent out for the RFP and two submittals received. Manager Rich
29 recommended award of the Audit Contract to CPA Andrew Harris. Commissioner Byrd moved to
30 award the FY12-13 Hyde County Audit Contract to Thompson, Price, Scott, Adams & Co., PA.
31 The motion died for lack of a second.

32 Commissioner Byrd moved to re-open bidding for the FY12-13 Hyde County Audit Contract and to
33 re-send the RFP. Mr. Fletcher seconded the motion. The motion passed on the following vote:
34 Ayes – Byrd, Fletcher and Swindell; Nays – Tunnell; Absent or not voting – Pugh.

35 Commissioner Fletcher moved to award the FY12-13 Hyde County Audit Contract to Andrew
36 Harris, CPA. The motion died for lack of a second.

1 **August 5, 2013** – Deadline for RFP for FY2012-2013 Hyde County Audit Contract was August 2,
2 2013.

3 Manager Rich reported that three RFP's were received and requested award of the Audit Contract to
4 Andrew Harris, CPA, in Greenville, NC.

5 Commissioner Pugh moved to award the FY2012-2013 Hyde County Audit Contract to Andrew
6 Harris, CPA. Mr. Tunnell seconded the motion. The motion passed on the following vote: Ayes –
7 Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays – None; Absent or not voting – None.

8 **NCDOT Utility Relocation Agreement**

9 Clint Berry, Utilities Director, received an e-mail from NCDOT stating that the original relocation
10 agreement that was approved by the Hyde County Board of Commissioners for the Creekside Road
11 project was incorrect. Mr. Berry presented the correct Utility Relocation Agreement (NC State
12 Highway Project No. 1C.048032) for Board approval. He reported that NCDOT will still cover all
13 expenses for the utility relocation.

14 Commissioner Pugh moved to approve Utility Relocation Agreement (NC State Highway Project
15 No. 1C.048032). Mr. Fletcher seconded the motion. The motion passed on the following vote:
16 Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays – None; Absent or not voting – None.

17 **Rules of Procedure For The Hyde County Board Of Commissioners**

18 Manager Rich reported that at its regularly scheduled meeting on March 4, 2013 it was noted that
19 Rule No. 7 of the “Rules of Procedure for the Hyde County Board of Commissioners” was deleted
20 by approval of amended “Rules of Procedure for Meetings Utilizing Simultaneous Communication”
21 on December 6, 2010. Attorney Fred Holscher and Clerk to the Board Lois Stotesberry
22 communicated their concern that Rule No. 7 should be re-instated per correspondence with
23 Flemming Bell, Professor of Public Law and Government, UNC-School of Government. Professor
24 Bell agrees that language found in Rule No. 7 is legally necessary in order for the Hyde County
25 Board of Commissioners to comply with the statutory requirements of NCGS 143-318.13(a)(5) and
26 (a1)(3) and (a1)(4) as found in Session Law 2008-111 (S1631).

27 Commissioner Fletcher moved to re-instate Rule No. 7 of the “Rules of Procedure for the Hyde
28 County Board of Commissioners”. Mr. Byrd seconded the motion. The motion passed on the
29 following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays – None; Absent or not
30 voting – None.

31 **Flood Gates for Ocracoke Culverts**

32 Commissioner Fletcher presented the need for flood gates for some of the culverts on Ocracoke
33 Island. There needs to be drainage improvements to flood adjoining properties. He will bring back
34 a report and the details after discussing with the DOT or Mosquito Control Board.

1 **Use of County Owned Vehicles**

2 Commissioner Fletcher reported he has received complaints that County employees are driving
3 county owned vehicles for personal use. Manager Rich will meet with the Department Heads and
4 discuss this situation. There are four Utilities Dept. vehicles that are authorized by the Board since
5 they are on call after normal working hours and he will research the other departments.

6 *Hyde County Personnel Policy – Article V. Conditions of Employment, Section 8 – Use of County Time,
Equipment, Supplies and Vehicles states:*

7 *County supplies and equipment are to be used exclusively for the County’s business. During working hours, an
8 employee shall only conduct County business. Use of County time, supplies, or equipment for personal or other
9 purposes not related to the employee’s County duties and responsibilities is prohibits and subjects the employee to
disciplinary action up to and including dismissal.*

10 *All employees, who use County vehicles, are required to follow applicable motor vehicle and safety requirements.
11 Violation or misuse of County vehicles also subjects the employee to disciplinary action, up to and including
dismissal. Reasonable incidental stops while in route on county business subject to department head approval is
allowed based on job requirements and demands.*

12 Manager Rich reported that NCDOT has requested Board approval of an easement agreement in
13 Fairfield Township which includes a permanent drainage easement, permanent utility easement and
14 a temporary construction easement for the construction of State Highway Project 17BP.1.R.50. This
15 will not hurt us since they will only be using .110 acres. Manager Rich negotiated reimbursement
16 from \$1,000 to \$2,500. Attorney Holscher has reviewed the documents and approves.

17 Commissioner Fletcher moved to approve “Agreement for Entry” for the construction of State
18 Highway Project 17BP.1.R.50. Mr. Byrd seconded the motion. The motion passed on the
19 following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays – None; Absent or not
20 voting – None.

21 **Budget Revisions**

22 Manager Rich approved revisions based on Manager’s authority given on June 3, 2013. The Hyde
23 County Board of Commissioners adopted “Resolution Authorizing the County Manager to
24 Reconcile Departmental Budgets” for year-end closeout.

25 One departmental budget revision required Board approval in which it was granted.

26 Commissioner Byrd moved to approve FY2012-13 Year End Budget Revisions No. 86-2013
27 through 90-2013 and Health Department Budget Transfer No. 01-14 – Community Transformation
28 Grant Project (funds received) in the amount of \$4,000.00. Mr. Pugh seconded the motion. The
29 motion passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Tunnell and Swindell; Nays –
30 None; Absent or not voting – None.

31 **Projects Update**

32 Manager Rich presented update on various projects on-going in Hyde County.

- 1 • FEMA Update – Four outstanding issues have not been resolved. Of the \$1,000,000 that is
2 in question, the two \$50,000 reimbursements have been won on appeals and the \$500,000
3 reimbursement has been moved into the second appeal process. The \$400,000
4 reimbursement is still pending its first appeal.
- 5 • PILT Program – Payment in lieu of taxes was budgeted at \$65,000 and we received
6 \$211,841.
- 7 • Medicaid Payment – Reported we have received an EMS Medicaid payment check in the
8 amount of \$153,614. These funds are not budgeted revenues because they are not guaranteed
9 yearly allocations.
- 10 • Continuing Education for County Manager – Manager Rich has registered to attend a North
11 Carolina Municipal and County Administration Course and has applied for an NC Alumni
12 Association Scholarship. The Commissioners all support his attending if he is accepted into
13 the program.
- 14 • Monthly Report of Fire Inspections – For the period of July 16 – 25, 2013, Inspector Dean
15 Burbage has performed 31 fire inspections on Ocracoke Island. These inspections have
16 been at a net cost to the County of \$51.00 each (after reimbursement from each business).
17 This cost per inspection should decline over time due to less complexity of future
18 inspections.
- 19 • ECB Update – VantageSouth Bank (formerly ECB) employees have vacated the ECB
20 building.

21 **Management Reports:**

22 **Commissioner Byrd** – reported that at the DSS Board meeting they adopted a new passenger code
23 of ethics for the DSS van. Bear management (part of NC Resources Omnibus Bill) passed in the
24 House and Senate.

25 **Commissioner Tunnell** – Had no report.

26 **Commissioner Fletcher** – NPS Meeting – wrote a letter to Congressman Jones about plans for
27 Ocracoke Island.

28 **Commissioner Pugh** – Reported that at the Albemarle Commission meeting, Jerry Jennings with
29 the NC DOT, gave a report for the NC DOT Funding. He gave a brief update on the Rural Center.
30 He has also met in Ocracoke with Earl O’Neal, Phil Lanier of NC DOT-Aviation, the County
31 Manager and Chairman Swindell to discuss plans to improve the airports.

32 **Chairman Swindell** – Reported that he had met with NC DOT-Aviation also. He said that we need
33 additional Hyde Transit and Hyde Occupancy Tax Board members. He also asked Manager Rich
34 about purchases by departments capped at \$100 before the budget ended and if the cap can be put

1 back to \$1,000. He said he thinks that would be ok, but the Manager would still have to approve it.
2 Corrinne Gibbs, Finance Officer, stated that they must get a Purchase Order and if it is set at
3 \$1,000, the department heads will not know if they have the money at the end of the year. The
4 Manager likes the process as it is now.

5 **County Manager Rich** – presented his July 1st – 31st meetings calendar.

6 **Public Comments:**

7 Chairman Swindell called for comments from the public.

8 Commissioner Fletcher commented that we should move the Sheriff's Department to the Peay
9 Building, close the PSC building and turn it into a storage building or animal shelter.

10 There being no further comments from the public, Chairman Swindell continued the meeting.

11 **Closed Session (none)**

12 **Adjourn**

13 Commissioner Fletcher moved to adjourn the meeting. Mr. Byrd seconded the motion. The motion
14 passed on the following vote: Ayes – Byrd, Fletcher, Pugh, Swindell and Tunnell; Nays – None;
15 Absent or not voting – None.

16 The meeting adjourned at 7:34 p.m.

17 Respectfully submitted:

18
19
20 Minutes approved on the 3rd day of September, 2013.

21
22
23 _____
24 **Averi Simmons, Deputy Clerk**
Hyde County Board of Commissioners

23 _____
24 **Barry Swindell**
Chair, Hyde County Board of Commissioners

25 Attachments:

26 Exhibit A: *“Resolution In Opposition To Reclassifying North Carolina Coastal Waters As*
27 *Secondary Nursery Areas”*

FY14 ROAP Public Hearing Notice

This is to inform the public of the opportunity to attend a public hearing on the proposed Rural Operating Assistance Program (ROAP) application to be submitted to the North Carolina Department of Transportation no later than September 16, 2013 by the County of Hyde. The public hearing will be held on September 3, 2013 at 7:30pm or as soon thereafter as the agenda permits at the Hyde County Board of Commissioners meeting in the Hyde County Government Complex located at 30 Oyster Creek Road, Swan Quarter, North Carolina. The County of Hyde will provide auxiliary aids and services under the ADA for disabled persons who wish to participate in the hearing. Anyone requiring special services should contact Beverly Paul, Director of Hyde County Transit, at (252) 926-1637 as soon as possible so that arrangements can be made.

The programs included in the Rural Operating Assistance Program application are:

1. Elderly & Disabled Transportation Assistance (EDTAP) Program provides operating assistance for the public transportation of elderly and disabled citizens.
2. Employment Transportation Assistance Program provides operating assistance for the public transportation of persons with employment related transportation needs.
3. Rural General Public (RGP) Program provides operating assistance for the public transportation of persons living in non-urban areas of the county.

The period of performance for Rural Operating Assistance Program funds is July 1, 2013 through June 30, 2014. The FY2014 individual program totals are:

PROGRAM	TOTAL
EDTAP	\$46,067
EMPL	\$4,394
RGP	\$50,654
TOTAL	\$101,115

This application may be inspected at the Hyde County Transit office located at 20968 US Hwy 264, Swan Quarter, NC 27885 from 8:00am through 5:00pm Monday through Friday. Written comments should be directed to Beverly Paul, P.O. Box 205, Swan Quarter, N.C. 27885, before September 3, 2013.

Note: The public hearing notices must be published at least once, not less than seven (7) days and not more than fourteen (14) days before the scheduled public hearing. This notice must be published in Spanish if the county has 1000 or more persons that speak Spanish at home, and have limited English proficiency. A list is provided in Appendix B of the ROAP State Management Plan. An original copy of the published Public Hearing Notice must be attached to a signed Affidavit of Publication. Both the Public Hearing Notice and the Affidavit of Publication must be submitted with the Rural Operating Assistance Program application.

FY12-13 Rural Operating Assistance Program Summary

The Rural Operating Assistance Program is a public transportation funding grant that Hyde County has been a recipient of since the inception of Hyde County Transit in the late 80's. The grantor is the North Carolina Public Transportation Division. The grant has three funding components: Elderly & Disabled Transportation Assistance Program, Employment Transportation Program, Rural General Public Program. Each program serves a different need in our local transportation program.

The Elderly and Disabled Assistance Transportation Program (\$46,067) serves the needs of county residents that are over the age of 60 or more, and residents who have a physical or mental impairment that substantially limits a major life activity. The EDTAP program requires no local match. This funding program was utilized in FY12-13 to provide the following transportation:

Mattamuskeet Senior Center (\$19,086.00) In FY12-13, Mattamuskeet Senior Center utilized their sub-allocation to provide public transportation for their participants to and from the Senior Center via Hyde County Transit. From the period of July 2012 through June 2013, Hyde County Transit provided 2,242 passenger trips to the Senior Center from this particular funding source. (Ridership increase of 16% from FY11-12)

Ocracoke Program- (\$8,221.00) In FY12-13, Hyde County Transit sent a vehicle to Ocracoke Island to provide 2 trips each month to Avon and the Outer Banks so elderly residents could obtain their shopping needs. This is particularly beneficial for the residents during the tourist season when traffic can reach a dangerous level. From the period of July 1, 2012 through June 2013, Hyde County Transit provided 716 passenger trips. (Ridership decrease of 2% from FY11-12). This ridership decrease was contributed to the Hatteras-Ocracoke Ferry Inlet closures. During that extended period, Hyde County Transit offered services to Belhaven and Washington for the Ocracoke residents; however, many elderly riders could not physically tolerate the amount of time required to ride the Swan Quarter ferry twice in one day.

Hyde County Transit (\$14,901) utilized their sub-allocation to provide transportation services to Belhaven, Washington, and Greenville as well as in-county employment and general transportation. From the period of July 1, 2012 June 2013, Hyde County Transit provided 2,319 passenger trips. (Ridership decrease of 24% from FY11-12 for this program). HCT's funding level also decreased for this program by 28% from FY11-12. In FY12-13, HCT's original allocation was \$18,907. Due to the increase in demand for Mattamuskeet Senior Center, HCT chose to transfer some of the allocation to meet those demands.

Rural General Public Program (\$42,833)- The Rural General Public Program serves the general public's transportation needs in-county and out-of-county. Hyde County Transit provided service in-county 5 days/week. The general public utilizes this transportation service for many different purposes such as: to obtain service for their

children to attend 4-H activities, to visit the local government complexes, to perform banking activities, shopping, to access local medical services, to attend local community meetings, to access employment, as well as other social activities and events. Residents utilize this program to access services out-of-county such as medical, shopping, recreation, educational, and other service related appointments. The RGP program requires a 10% local match. Hyde County Transit obtains the match through passenger fares. In FY12-13, the passenger fare for in-county transportation was \$2.10-round trip, Belhaven-\$3.20 round-trip, Washington-\$4.00 round trip, Greenville-\$5.00 round trip. In FY12-13, Hyde County Transit provided 5,828 passenger trips (Increase of 8% from FY11-12).

Employment Transportation Assistance Program (\$5,083) is intended to help transitional DSS Work First clients, WorkForce Development Program, and disadvantaged general public passengers to travel to work and/or employment training. In FY12-13, Hyde County Transit provided 534 passenger trips for the general public to job sites, and employment security commission services. (Decrease of 28%) HCT's funding level also decreased for this program by 15% from FY11-12). These funds were depleted by October 2012. Riders were transferred onto the RGP Program at that point.

FY13-14 ROAP Needs Assessment

Transportation Needs Surveys

Agencies that Completed Surveys for FY13-14

Mattamuskeet Senior Center

HCT – Ocracoke Program/General Transportation Program

Veterans Administration

Engelhard Medical Center

Mattamuskeet Village- Independent Living Facility

Hyde County DSS- Did not Complete

Eligible Services Requested in FY13-14

Engelhard Medical Center- Continuation of Demand Response Medical Transportation for patients that need referral immediately to other medical facilities.

These services have been provided since July 2012 through NCDOT/PTD FY12-14 5310 Grant that the Health Department applied for in partnership with Hyde County Transit.

Mattamuskeet Senior Center- Requested additional funds to continue the expanded service demand from the Ponzer area. The sub-allocation request was based on the amount of funding required to perform the same service last fiscal year.

Mattamuskeet Village-Independent Living Facility- Did not have any requests for new services.

Veterans Administration – Did not request additional services. However, Hyde County Transit is currently pursuing a project concerning the new Veteran's Facility opening in Greenville.

HCT Ocracoke Program- While an increase in EDTAP funding has not been requested for this program, HCT is utilizing RGP funding for the general public to participate in the current transportation program on the island to increase passenger trips. HCT is also utilizing the NCDOT/PTD grant funding that was awarded to the Health Department to provide medical express service to the Pitt County and Dare County area for the elderly and disabled population.

Public Forum – February 11, 2013 at the Mattamuskeet Senior Center to discuss current ROAP Services and to determine unmet transportation needs. There were 8 Attendees that consisted of elderly, low-income, and minority residents.

FY13-14 ROAP Projected Services

EDTAP Sub-Allocations -\$46,067 Increased \$3,860 from FY12-13 Allocation

Mattamuskeet Senior Center - \$19,000 –Reflects an allocation increase of \$4,500 from the original FY12-13 EDTAP allocation.

Proposed service changes may include setting certain days of the week for the outlying area participants until the number of participants in that area increase. This should not impact the number of trips provided to the center.

Hyde County Transit – \$18,267 Decreased \$640 from FY12-13 Allocation

Sub-Allocation was based on FY12-13 Ridership and Service Needs of other programs. Riders can be transferred to the RGP program if necessary. No service changes projected for this program.

Ocracoke Program – \$8,800 Same as original FY12-13 Allocation

EDTAP Program Ridership decreased in FY12-13 by 2%. This was contributed to Hatteras Inlet problems that severely affected services. However, Ocracoke experienced an increase Rural General Public Program riders for FY12-13. Anticipating ridership increases to continue for FY13-14. From this funding source, services will remain unchanged for the year.

Rural General Public Program - \$ 50,654 FY12-13 Allocation \$42,833

Provides in-county and out-of-county transportation for residents. In-county transportation will be provided Monday through Friday and on some weekend days set on the Hyde County Transit Schedule as needed. Fares will provide the 10% local match required.

- HCT has applied for a Job Access Grant for FY13-14 and FY14-15. The Grant requests that Hyde County Transit utilize a portion of RGP funding and all of the Employment Transportation funding as match for extended services to include evenings and weekends for in-county employment transportation services. HCT will also begin providing seasonal employment transportation to the Manteo/Nagshead area on the weekends to give high school students as well as adults the opportunity to seek employment. The FY13-14 grant has been approved.

Employment Transportation Program – \$ 5,083.00 FY12-13 Allocation \$5,976

- HCT utilized these funds in past years for in-county employment transportation. That program will continue but the current service has been leveraged in the grant opportunity described above to extend service to include evenings and weekends as well as provide a new weekend service to Dare County that will be seasonal.

CERTIFIED STATEMENT
FY2014
RURAL OPERATING ASSISTANCE PROGRAM
County of Hyde

WHEREAS, the state-funded, formula-based Rural Operating Assistance Program (ROAP) administered by the North Carolina Department of Transportation, Public Transportation Division provides funding for the operating cost of passenger trips for counties within the state;

WHEREAS, the county uses the most recent transportation plans (i.e. CTSP, CTIP, LCP) available and other public involvement strategies to learn about the transportation needs of agencies and individuals in the county before determining the sub-allocation of these ROAP funds;

WHEREAS, the county government or regional public transportation authorities created pursuant to Article 25 or Article 26 of Chapter 160A of the General Statutes (upon written agreement with the municipalities or counties served) are the only eligible recipients of Rural Operating Assistance Program funds which are allocated to the counties based on a formula as described in the Program Guidelines included in the ROAP State Management Plan. NCDOT will disburse the ROAP funds only to counties and eligible transportation authorities and not to any sub-recipients selected by the county;

WHEREAS, the county finance officer will be considered the county official accountable for the administration of the Rural Operating Assistance Program in the county, unless otherwise designated by the Board of County Commissioners;

WHEREAS, the passenger trips provided with ROAP funds must be accessible to individuals with disabilities and be provided without discrimination on the basis of national origin, creed, age, race or gender (FTA C 4702.1A, FTA C 4704.1, Americans with Disabilities Act 1990); and

WHEREAS, the period of performance for these funds will be July 1, 2013 to June 30, 2014 regardless of the date on which ROAP funds are disbursed to the county.

NOW, THEREFORE, by signing below, the duly authorized representatives of the County of Hyde North Carolina certify that the following statements are true and accurate:

- The county employed a documented methodology for sub-allocating ROAP funds that involved the participation of eligible agencies and citizens. Outreach efforts to include the participation of the elderly and individuals with disabilities, persons with limited English proficiency, minorities and low income persons in the county's sub-allocation decision have been documented.
- The county will advise any sub-recipients about the source of the ROAP funds, specific program requirements and restrictions, eligible program expenses and reporting requirements. The county will be responsible for invoicing any sub-recipients for unexpended ROAP funds as needed.
- The county will monitor ROAP funded services routinely to verify that ROAP funds are being spent on allowable activities and that the eligibility of service recipients is being properly documented. The county will maintain records of trips and services for five years that prove that an eligible citizen was provided an eligible transportation service on the billed date, by whatever conveyance at the specified cost.
- The county will be responsible for monitoring the safety, quality and cost of ROAP funded services and assures that any procurements by subrecipients for contracted services will follow state guidelines.
- The county will conduct regular evaluations of ROAP funded passenger trips provided throughout the period of performance.

- The county will only use the ROAP funds to provide trips when other funding sources are not available for the same purpose or the other funding sources for the same purpose have been completely exhausted.
- The county assures that the required matching funds for the FY2014 ROAP can be generated from fares and/or provided from local funds.
- The county will notify the Mobility Development Specialist assigned to the county if any ROAP funded services are discontinued before the end of the period of performance due to the lack of funding. No additional ROAP funds will be available.
- The county will provide an accounting of trips and expenditures in a semi-annual report and a final year-end report to NCDOT – Public Transportation Division or its designee.
- Any interest earned on the ROAP funds will be expended for eligible program uses as specified in the ROAP application. The County will include ROAP funds received and expended in its annual independent audit on the schedule of federal and state financial assistance. Funds passed through to other agencies will be identified as such.
- The county is applying for the following amounts of FY2014 Rural Operating Assistance Program funds:

State-Funded Rural Operating Assistance Program	Allocated	Requested
Elderly & Disabled Transportation Assistance Program (EDTAP)	46,067	46,067
Employment Transportation Assistance Program (EMPL)	4,394	4,394
Rural General Public Program (RGP)	50,654	50,654
TOTAL	101,115	101,115

WITNESS my hand and county seal, this ____ day of ____, 20____.

Signature of Board of County Manager/Administrator

Signature of Board of County Commissioners Chairperson

Printed Name of County Manager/Administrator

Printed Name of Chairperson

State of North Carolina County of

County Seal Here

Signature of County Finance Officer

Printed Name of County Finance Officer

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: September 3, 2013
Presenter: Citizens
Attachment: No

ITEM TITLE: PUBLIC COMMENTS

SUMMARY: Citizens are afforded an opportunity at this time to comment on issues they feel may be of importance to the Commissioners and to their fellow citizens.

Comments should be kept to (3) minutes and directed to the entire Board, not just one individual Commissioner, staff member or to a member of the audience.

Time for one person cannot be used by another person.

Comments that reflect the need for additional assistance will be directed to the County Manager or referred to a future meeting agenda.

RECOMMEND: Receive comments.

**Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET**

Meeting Date: September 3, 2013
Presenter: Manager Bill Rich
Attachment: Yes - Resolution

ITEM TITLE: RESOLUTION IN SUPPORT FOR THE U.S. FISH AND WILDLIFE SERVICE'S (FWS) PROPOSED PLAN TO COOPERATIVELY ADDRESS LAKE MATTAMUSKEET WATER ISSUES

SUMMARY: At the August 5, 2013 Regular meeting of the Board of Commissioners, discussion and adoption of a resolution opposing the manipulation of Lake Mattamuskeet's water level was tabled in order to allow time for a meeting between Manager Rich and Pete Campbell, Mattamuskeet National Wildlife Refuge Manager to discuss the current conditions of the Lake.

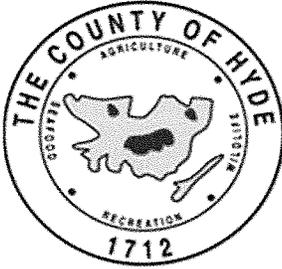
A resolution is attached for Board consideration.

RECOMMEND: Discussion and adoption.

Motion Made By: ___ Barry Swindell
___ Dick Tunnell
___ Anson Byrd
___ John Fletcher
___ Earl Pugh, Jr.

Motion Seconded By: ___ Barry Swindell
___ Dick Tunnell
___ Anson Byrd
___ John Fletcher
___ Earl Pugh, Jr.

Vote: ___ Barry Swindell
___ Dick Tunnell
___ Anson Byrd
___ John Fletcher
___ Earl Pugh, Jr.



**BOARD OF COMMISSIONERS
OF THE COUNTY OF HYDE
NORTH CAROLINA**

RESOLUTION

**RESOLUTION EXPRESSING SUPPORT FOR THE US FISH AND WILDLIFE SERVICE'S (FWS)
PROPOSED PLAN TO COOPERATIVELY ADDRESS LAKE MATTAMUSKEET WATER ISSUES**

WHEREAS, the Hyde County Board of Commissioners acknowledge that the Mattamuskeet National Wildlife Refuge, including Lake Mattamuskeet, is one of the premier waterfowl wintering areas in the Eastern Flyway and an important natural, cultural and economic asset for the County and its residents; and,

WHEREAS, the Hyde County Board of Commissioners acknowledge that the natural resources of Mattamuskeet National Wildlife Refuge and Lake Mattamuskeet attract thousands of people from North Carolina and surrounding states each year to enjoy outdoor recreational activities such as hunting, fishing, crabbing and waterfowl observation; and,

WHEREAS, the Hyde County Board of Commissioners acknowledge that over time the water quality in Lake Mattamuskeet has been significantly degraded causing a significant loss of vegetation which is the foundation of the aquatic community supporting both waterfowl and the lake's recreational fisheries; and,

WHEREAS, the Hyde County Board of Commissioners acknowledge that if the water quality in Lake Mattamuskeet continues to degrade it will result in additional losses of the remaining aquatic vegetation sufficient in scope to cause waterfowl to seek other wintering grounds and the recreational fisheries to further decline resulting in a negative impact to the economy of the County and the recreational enjoyment of its residents; and,

WHEREAS, the FWS has met with representatives from the Hyde County Board of Commissioners and the North Carolina Wildlife Resources Commission to discuss a cooperative undertaking that seeks to identify the causes of the lake's degraded water quality, which is impacting the extent of both waterfowl and fishery habitat in the lake, and to develop adaptive management strategies, based on sound science, to improve water quality and water management in the lake in concert with the mission of the Refuge for the benefit of the resource and the general public,

NOW THEREFORE, BE IT RESOLVED THAT the Hyde County Board of Commissioners endorse the FWS proposal to partner with Hyde County, appropriate federal and state agencies and other contributing entities in a cooperative venture to improve conditions in Lake Mattamuskeet and further agrees to support, through appropriate avocation, the FWS in securing the necessary resources required to fund appropriate scientific investigations and the development and implementation of a Comprehensive Water Management Plan designed to restore the health and integrity of Lake Mattamuskeet over time.

Duly adopted this the 3rd day of September, 2013. Attested by:

Barry Swindell, Chairman
Hyde County Board of Commissioners

Averi Simmons, Deputy Clerk to the Board
Hyde County Board of Commissioners

**Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET**

Meeting Date: September 3, 2013
Presenter: Manager Bill Rich
Attachment: Yes – List of Delegates

ITEM TITLE: APPOINTMENT –
SOUTHERN ALBEMARLE ASSOCIATION DELEGATES LIST

SUMMARY:

The Southern Albemarle Association is a unique organization that remains a strong advocate for transportation improvements in Beaufort, Dare, Hyde, Martin, Tyrrell, and Washington Counties. The 2013 Annual Meeting will be held October 17, 2013 at the Vernon James Center in Roper, NC. The attached list of delegates for this year's meeting needs to be approved by the Hyde Board of Commissioners prior to this meeting.

RECOMMEND: Approve Delegates Appointed.

Motion Made By: ___ Barry Swindell	Motion Seconded By: ___ Barry Swindell	Vote: ___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Anson Byrd	___ Anson Byrd	___ Anson Byrd
___ John Fletcher	___ John Fletcher	___ John Fletcher
___ Earl Pugh, Jr.	___ Earl Pugh, Jr.	___ Earl Pugh, Jr.

Name	Address	City, State, Zip
Mrs. Thomasina Baynor	28 Riverside Campground Road	Belhaven, NC 27810
Mr. and Mrs. Barry Swindell	7119 Sladesville Credle Road	Scranton, NC 27875
Mr. David Fletcher	30252 US Hwy 264	Engelhard, NC 27824
Mr. John Fletcher	Post Office Box 1479	Ocracoke, NC 27960
Mrs. Marlis Smith	8281 Piney Woods Road	Fairfield, NC 27826
Mr. and Mrs. William Griffin	Post Office Box 613	Ocracoke, NC 27960
Mr. John Shaffer	Post Office Box 324	Engelhard, NC 27824
Mr. Douglas A. Gibbs	739 Swamp Road	Engelhard, NC 27824
Mrs. Doris Weston	Post Office Box 396	Engelhard, NC 27824
Mrs. Lenora Bright	975 Main Street	Swan Quarter, NC 27885
Mr. and Mrs. Dick Tunnell	809 Main Street	Swan Quarter, NC 27885
Mrs. Jane Gibbs	8366 North Lake Road	Fairfield, NC 27826
Mrs. Gloria C. Spencer	Post Office Box 220	Swan Quarter, NC 27885
Mrs. Linda Basnight	Post Office Box 279	Swan Quarter, NC 27885
Ms. Eugenia Esham	Post Office Box 310	Ocracoke, NC 27960
Mr. Albert O'Neal	Post Office Box 244	Ocracoke, NC 27960
Mr. William Rich	Post Office Box 188	Swan Quarter, NC 27885
Mr. and Mrs. Earl Pugh	32 Nebraska Road	Engelhard, NC 27824
Mr. and Mrs. Anson Byrd	218 North Lake Road	Fairfield, NC 27826
Mrs. Janet Russ	9010 Piney Woods Road	Fairfield, NC 27826
Mrs. Isabelle Homes	279 White Plains Road	Engelhard, NC 27824
Mr. Michael Adams	Post Office Box 7	Engelhard, NC 27824
Mrs. Glenda B. Williams	4466 Loop Road	Scranton, NC 27875
Mr. and Mrs. Art Keeney	Post Office Box 157	Engelhard, NC 27824
Mrs. Carolyn Williford	12491 North Lake Road	Engelhard, NC 27824
Mr. Steve Bryan	119 Main Street	Swan Quarter, NC 27885
Mrs. Meredith Nicholson	275 North Lake Road	Fairfield, NC 27826
Mr. Edward Torres	119 Main Street	Swan Quarter, NC 27885
Ms. Kris C. Noble	Post Office Box 188	Swan Quarter, NC 27885
Leslie Lanier	Post Office Box 523	Ocracoke, NC 27960
Mr. Rudy Austin	Post Office Box 375	Ocracoke, NC 27960
Mrs. Jamie T. Carter	Post Office Box 693	Ocracoke, NC 27960
Mr. David Mason	Post Office Box 189	Swan Quarter, NC 27885
Mrs. Merita Lewis-Spencer	Post Office Box 294	Swan Quarter, NC 27885
Mr. Clark Mooney	220 Canal Street	Fairfield, NC 27826
Mrs. Joyce Jones	1695 North Lake Road	Fairfield, NC 27826
Mrs. Mary Armstrong	22 Canal Street	Fairfield, NC 27826
Mrs. Alice Armstrong	1325 Seth Road	Fairfield, NC 27826
Ms. Rita Franklin	1695 North Lake Road	Fairfield, NC 27826

**Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET**

Meeting Date: September 3, 2013
Presenter: Manager Bill Rich
Attachment: Yes

ITEM TITLE: APPOINTMENT – MAINLAND OCCUPANCY TAX BOARD

SUMMARY: At its regularly scheduled meeting on July 1, 2013 the Board of Commissioners received notification of Mr. Bill Lawrence’s resignation from the Hyde County Mainland Occupancy Tax Board.

Mainland Occupancy Tax Board Chair Donna Spencer is aware of the resignation and will notify Commissioners of a nominee for appointment.

At the regular meeting on August 5, 2013, the Board of Commissioners did not yet have a nominee for appointment.

RECOMMEND: Appointment.

Motion Made By: ___ Barry Swindell
 ___ Dick Tunnell
 ___ Anson Byrd
 ___ John Fletcher
 ___ Earl Pugh, Jr.

Motion Seconded By: ___ Barry Swindell
 ___ Dick Tunnell
 ___ Anson Byrd
 ___ John Fletcher
 ___ Earl Pugh, Jr.

Vote: ___ Barry Swindell
 ___ Dick Tunnell
 ___ Anson Byrd
 ___ John Fletcher
 ___ Earl Pugh, Jr.

Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET

Meeting Date: September 3, 2013
Presenter: Hyde Soil & Water Conservation District – Daniel Brinn
Attachment: Yes

ITEM TITLE: WEST QUARTER/SWAN QUARTER WATERSHED ASSESSMENT

SUMMARY: The Assessment for the West Quarter SSD is based on proximity to the dike and is \$1.00, \$0.66, and \$0.33 per acre respectively. This assessment amount has remained unchanged since its adoption in August 1987. (Minute Docket Book 16, page 268) The income from this assessment for 2012 was \$3907.31. The assessment for 2013 was \$3,950.56.

The Assessment for Swan Quarter is \$0.06 per \$100 property value as adopted in June, 2010. The income for this assessment for 2012 was \$16,066.66. The income for this assessment for 2013 was \$15,640.50.

A portion of the money collected goes towards annual general maintenance with the remainder being put in a fund for larger expenses and repairs.

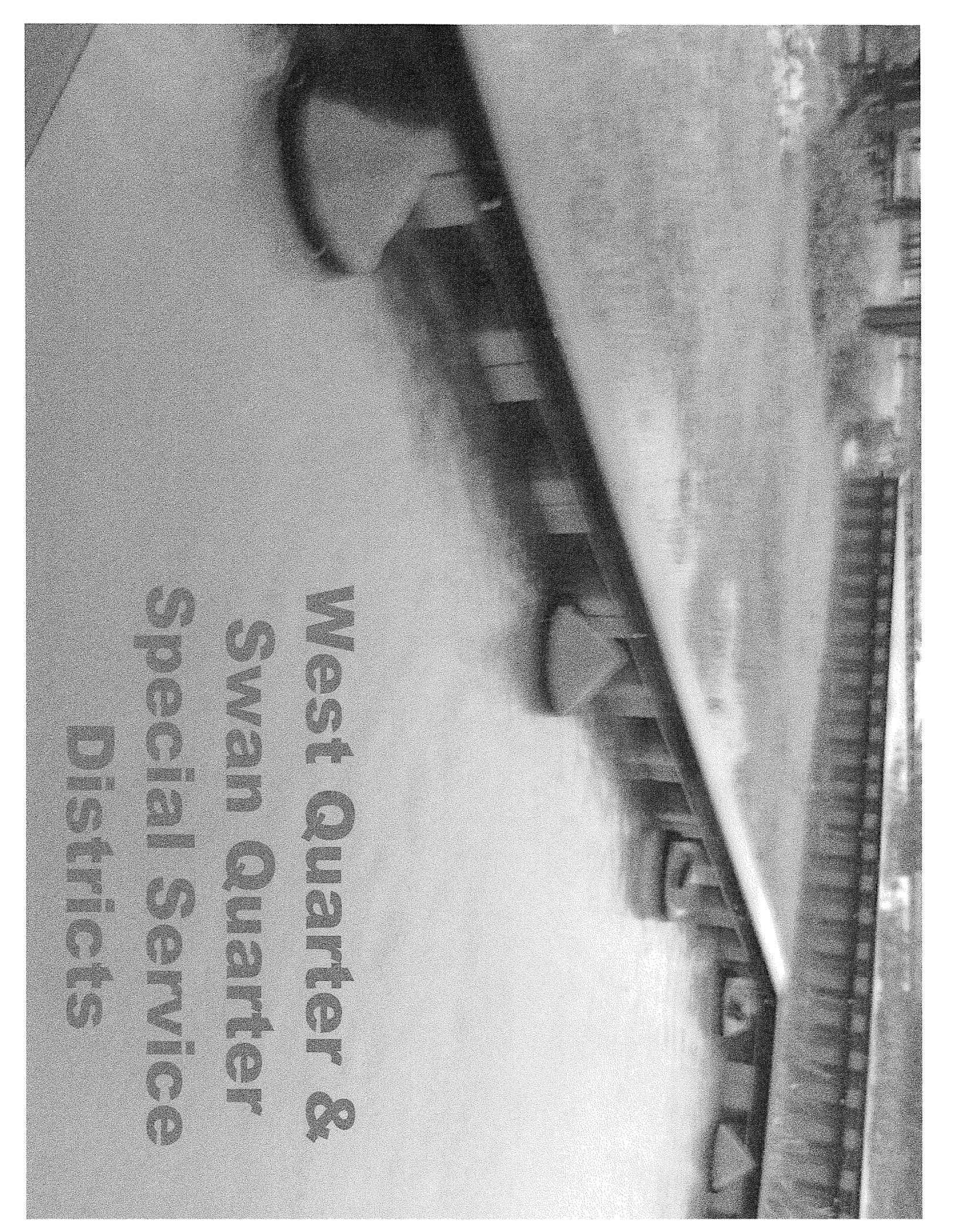
Of the \$3,950.56 collected for West Quarter in 2013 \$4,010.25 was spent on general maintenance leaving (-\$59.69) to be pulled from West Quarter reserves.

Of the \$16,066.66 collected for Swan Quarter in 2012 \$4,950.26 was spent on general maintenance leaving \$11,116.40 to be rolled forward in reserves.

Of \$15,640.50 collected for Swan Quarter in 2013, \$9,522.50 was spent on general maintenance and CAMA & NRCS required treatment of the Coastal Mitigation Site, leaving \$6,118.00 to be rolled forward in reserves. The Swan Quarter Watershed Steering Committee met on Tuesday, June 4, 2013 @ 8:00 am for the purpose of discussing Swan Quarter and West Quarter Dike. The committee reviewed yearly budget, operation and maintenance issues on tidegates and current assessment rates.

RECOMMEND: The recommendation to the County Commissioners is as follows:
Change the West Quarter assessment to a per \$100 tax value basis with the rate being set at \$0.35 per \$100 value
Raise the Swan Quarter assessment from \$0.06 per \$100 to \$0.10 per \$100 tax value.

Motion Made By: ___ Barry Swindell	Motion Seconded By: ___ Barry Swindell	Vote: ___ Barry Swindell
___ Dick Tunnell	___ Dick Tunnell	___ Dick Tunnell
___ Anson Byrd	___ Anson Byrd	___ Anson Byrd
___ John Fletcher	___ John Fletcher	___ John Fletcher



**West Quarter &
Swan Quarter
Special Service
Districts**



History of the West Quarter & Swan Quarter SSDs

The idea of protecting the greater Swan Quarter Area with a dike was conceived in the 1940s and the original work plan was developed in 1965.

The West Quarter special service district was completed in 1995 after 8 years and 7 phases. It consists of 6 major tide gate structures and 6 miles of earthen dike.

The Swan Quarter Special Service District began in 2003 and was completed in 2011. It has a total of 75 tide gates, 4500ft of vinyl sheet piling and 11 miles of earthen dike.

Combined these Service Districts protect 11069 Acres of land and approximately \$62,000,000 in property value.



Current Assessments

The Assessment for the West Quarter SSD is based on proximity to the dike and is \$1.00, \$0.66, and \$0.33 per acre respectively. This assessment amount has remained unchanged since its adoption in August 1987. (Minute Docket Book 16, page 268) The income from this assessment for 2012 was \$3907.31. The assessment for 2013 was \$3,950.56

The Assessment for Swan Quarter is \$0.06 per \$100 property value as adopted in June, 2010. The income for this assessment for 2012 was \$16,066.66. The income for this assessment for 2013 was \$15,640.50



Assessment Usage

- A portion of the money collected goes towards annual general maintenance with the remainder being put in a fund for larger expenses and repairs.
- Of the \$3,907.31 collected for West Quarter in 2012 \$3,587.00 was spent on general maintenance leaving \$319.81 to be rolled forward in reserves.
- Of the \$3,950.56 collected for West Quarter in 2013 \$4,010.25 was spent on general maintenance leaving (-\$59.69)to be pulled from West Quarter reserves.
- Of the \$16,066.66 collected for Swan Quarter in 2012 \$4,950.26 was spent on general maintenance leaving \$11,116.40 to be rolled forward in reserves.
- Of \$15,640.50 collected for Swan Quarter in 2013 \$9,522.50 was spent on general maintenance and CAMA & NRCS required treatment of the Coastal Mitigation Site leaving \$6,118.00 to be rolled forward in reserves.

Leaking Tide Gate Structures

Over the last three years several non routine issues have been identified regarding tide gates including gasket failure, design and manufacturing defects, and electrolysis.

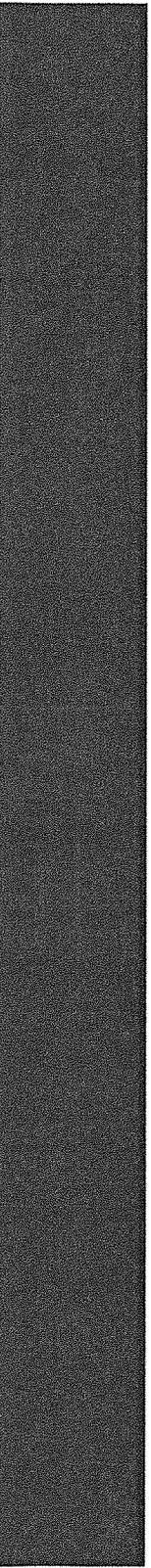
Replacing Gaskets and mitigating rodent damage on the majority of the 75 Aluminum gates on Swan Quarter SSD is Expensive since these gates must be removed to be worked on. Some of these gates have only been submerged for a few years and are already showing signs of severe electrolysis.

The 17 large tide gates on West Quarter have severe electrolysis damage that has already caused 2 gates to leak.

Bay Structures gate leaked so severely that it was pulled for inspection and it was so badly damaged that replacement was considered.

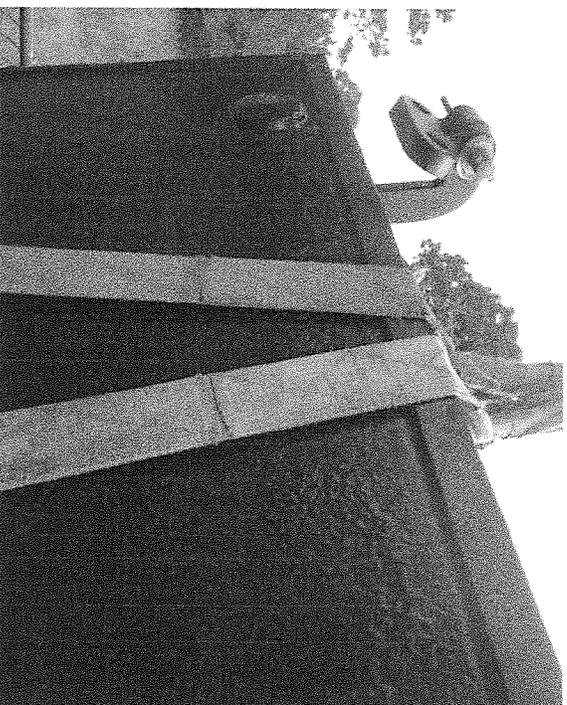
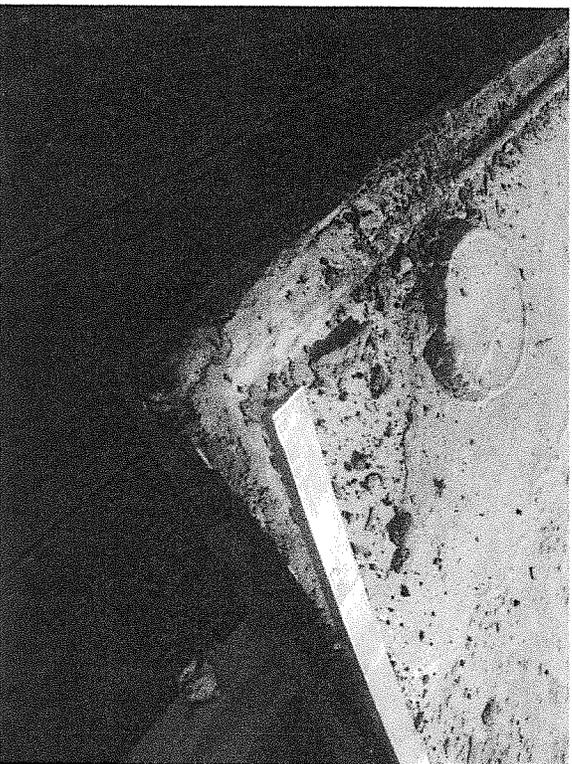
Cost Estimates for Tide Gate Replacements

- Since these gates are made using a proprietary cast iron and monell alloy it is not possible to replace the metal lost due to electrolyses by welding or casting.
- Waterman Industries, the manufacturer of the gates now in place provided an estimate for a new gate. The estimate was \$65,920.00 and did not include a new flange. (Estimated lifespan 25 years)
- Two Local Machine shops were contacted for estimates fabricating new gates using 100% stainless steel construction. Although formal quotes were not received the fabrication cost was estimated to be \$20,000.00 to \$25,000.00 for the gate and flange. (Estimated life 50 to 75 years)
- Because the fund balance was only \$21,406.51 for the entire West Quarter Service District other options for refurbishing the gate were explored.



Actual Cost of Bay Structure Tide Gate Repair

- Electrolysis had eaten away the portion of the gate that held the stainless gasket in place.
- It was determined the only way to fix the gate was to machine away the perimeter leaving a flat surface where the stainless gasket had been
- Total Cost of removing, transporting, machining, cleaning painting and re-installing the gate=\$3150.00
- This can only be done once to each gate and the cost of refurbishing the remaining gates using this method would be approximately \$50,400.00 assuming no greater damage is discovered.





Operation & Maintenance of Special Service District

- On August 5, 2002 the Hyde County Commissioners entered into an Operation and Maintenance Agreement with the Natural Resources Conservation Service. This agreement is referenced to in Minute Docket Book 17 Page 763. The practice covered in this agreement is identified as the Swan Quarter Watershed – Dike.
- This agreement outlines specific requirements in maintaining the Swan Quarter Watershed – Dike to function as it was originally designed.
- Failure to maintain the functionality of the Dike properly would result in the county being required to reimburse the federal government for the financial assistance provided by the Natural Resource Conservation Service.
- Total Project Cost- \$13,236,469



Recommendation from Swan Quarter Watershed Steering Committee

- The Swan Quarter Watershed Steering Committee met on Tuesday, June 4, 2013 @ 8:00 am for the purpose of discussing Swan Quarter and West Quarter Dike. The committee reviewed yearly budget, operation and maintenance issues on tidegates and current assessment rates.
- The recommendation to the County Commissioners is as follows,
- Change the West Quarter assessment to a per \$100 tax value basis with the rate being set at \$0.35 per \$100 value
- Raise the Swan Quarter assessment from \$0.06 per \$100 to \$0.10 per \$100 tax value.

**Hyde County Board of Commissioners
AGENDA ITEM SUMMARY SHEET**

Meeting Date: September 3, 3013
Presenter: Doug Ruwe
Attachment: Yes – Proposal, Structural Analysis & Construction Drawings

ITEM TITLE: PROPOSAL FOR AMERICAN TOWER, LLC COLLOCATION OF EXISTING WIRELESS TELECOMMUNICATIONS TOWER FOR AT&T MOBILITY

SUMMARY: AT&T Mobility intends to extend its mobile coverage to Hyde County. Currently, American Tower, LLC owns one tower in Swan Quarter, and wants to upgrade it for AT&T service. Doug Ruwe of American Tower, LLC will provide a project overview and answer any questions.

RECOMMEND: Discussion and approval.

Motion Made By: <input type="checkbox"/> Barry Swindell	Motion Seconded By: <input type="checkbox"/> Barry Swindell	Vote: <input type="checkbox"/> Barry Swindell
<input type="checkbox"/> Dick Tunnell	<input type="checkbox"/> Dick Tunnell	<input type="checkbox"/> Dick Tunnell
<input type="checkbox"/> Anson Byrd	<input type="checkbox"/> Anson Byrd	<input type="checkbox"/> Anson Byrd
<input type="checkbox"/> John Fletcher	<input type="checkbox"/> John Fletcher	<input type="checkbox"/> John Fletcher
<input type="checkbox"/> Earl Pugh, Jr.	<input type="checkbox"/> Earl Pugh, Jr.	<input type="checkbox"/> Earl Pugh, Jr.



August 22, 2013

Hyde County Office of Planning and Economic Development
Averi Simmons, Director's Assistant
30 Oyster Rd. PO Box 188
Swan Quarter, NC 27885

RE: AT&T 176-068 – Site Collocation
American Tower Corporation (ATC) Site Code: (97785)
220 Sadie Weston Rd/SR 1137

Dear Averi:

As discussed, enclosed please find two completed Hyde County Building Permit Applications, two sets of construction drawings, and two copies of the structure analysis for the propose collocation of AT&T 176-068. One set for submittal for the Board of Commissioners September 3rd meeting. The second set, please forward to Building Inspections for permit review. The total job cost is expected to be less than \$50,000.00.

The purpose of this Application is for AT&T Mobility to collocation on the existing tower site within the existing compound to provide enhanced 4G communication services in Hyde County. Upon zoning approval, we will complete the permitting. We have the base elevation certificate on order and will submit upon receipt. Please let me know if you need any additional information for the hearing. If you have any questions, please contact me at (704) 975-6161 or by e-mail.

American Tower greatly appreciates your assistance with this permit request.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Doug Ruwe'.

Doug Ruwe
Project Manager Site Development
(704) 975-6161
doug.ruwe@americantower.com

Enclosures

HYDE COUNTY CODE ENFORCEMENT DEPARTMENT
30 Oyster Creek Road, PO Box 95 Swan Quarter, NC 27885
Phone 252-926-4372 Fax 252-926-3701

Building Permit# _____

Hyde County Building Permit Application

Business and/or Owner AT&T Mobility Phone _____ AT&T 168-068

Mailing Address 2002 Pisgah Church Rd, Greensboro, NC 27455
City _____ State _____ Zip _____

Physical Address 220 Sadie Weston (E911)
SR 1137 Estimated Retail Value \$50,000
PIN 7691-39-3164

Describe Proposed Development: Telecommunication Collocation

Type of Development: (check those that are applicable: Demolition () Elevation () Single Family Residence () Two Family Residence () Commercial New () Addition Relocate ()
Excavation () Fill () Alteration () Repair () Grading () Accessory Structure () Temporary Structure ()
Single Wide () Double Wide () Modular Home ()
Number of House Keeping Units _____

Flood Zone AE Panel# _____ Base Flood Elevation _____ Firm Date: May 15, 2003

INCLUDE ONE SETS OF DRAWINGS SHOWING the floor plan, Structural, and Foundation
COMPLETE BUILDING APPLICATION AND FOLDER, GENERAL CONTRACTORS FORMS, E 911
ADDRESS APPLIATION, SOLID WASTE FORM, WORKER'S COMPENSATION AFFIDAVIT

Environmental and Health Safeguards:

- () Attach a copy of septic tank approval letter from the Hyde Co. Health Department
- () Approved water supply from the Health Department or Water Department
- () Obtain a CAMA permit if development is located within 75 feet of any shoreline, canal, waters, or marshes

I understand that a FLOOD ELEVATION CERTIFICATE must be obtained and submitted to the Inspection Department WITHIN TWENTY-ONE CALENDAR DAYS for NEW OR SUBSTANTIALLY IMPROVED STRUCTURES or for MOBILE HOMES AT or PRIOR TO THE TIME OF INSPECTION. I agree to comply with the NC State Building Codes and all other Local, State, and Federal Regulations. Please call (252) 926-4372 for inspections. Allow 3 to 4 days, may be made sooner if possible.

Owner/Agent  Date 8/22/13
Doug Ruwe, Agent

Application Approved by _____ Date _____

Receipt# _____ Total _____

Anyone occupying building before Certificate of Occupancy is issued will be in violation of NCGS 153A-372. Occupancy of a building prior to receiving Certificate of Occupancy of a building prior to receiving Certificate of Occupancy will result in termination of all utility connections. THERE WILL BE NO EXCEPTIONS.

Building permit must be posted in plain view and protected from the elements. Failure to post permit on job site will be considered cause for automatic failure of the inspection and a \$35 re-inspection fee will be assessed to the permit holder.

SOME JOBS WILL BE REQUIRED TO HAVE PORTABLE TOILETS ON SITE

Applicant MASTEC Network Solutions LLC HD # _____ BP # _____

DATE 8/22/13 Phone # _____

Mailing Address 3800 GATEWAY CENTRE DRIVE MORRISVILLE, NC 27560

Physical Address (SAME)

Contractor Name and Address MASTEC Network Solutions LLC 3800 GATEWAY CENTRE DR MORRISVILLE, NC 27560

License # 70037

Project Location and Address 3957 QUARTER RD SWANQUARTER NC 27885

Project Type _____ Construction Type _____ Classification _____

<input type="checkbox"/> New Construction	<input type="checkbox"/> Wood Frame	<input type="checkbox"/> Residential
<input checked="" type="checkbox"/> Addition	<input type="checkbox"/> Brick Veneer	<input checked="" type="checkbox"/> Commercial
<input type="checkbox"/> Alterations	<input type="checkbox"/> Masonry	<input type="checkbox"/> Industrial
<input type="checkbox"/> Repair	<input type="checkbox"/> Steel	<input type="checkbox"/> Subdivision
<input type="checkbox"/> Moving	<input type="checkbox"/> Heavy Timber	
<input type="checkbox"/> SW/DW (SIZE <input checked="" type="checkbox"/>)	Size of Lot _____	Square Ft in Building _____

Heated Square ft _____ Unheated square ft _____

Poured concrete foundation is min. 2500 P.S.I. _____ inches deep _____ inches wide

_____ Rebar Retail Value of Completed Structure \$ 50,000.

SUBCONTRACTORS	ADDRESS	STATE LICENSE #
Electrician <u>MASTEC Network Solutions</u>	<u>3800 GATEWAY CENTRE DRIVE MORRISVILLE, NC 27560</u>	<u>29905</u>
Plumber _____	_____	_____
Heating & A/C _____	_____	_____
Insulation _____	_____	_____

It will contain _____ Stories _____ Rooms _____ Baths _____

REQUIRED INSPECTIONS:

<input checked="" type="checkbox"/> Building	<input type="checkbox"/> Insulation	<input checked="" type="checkbox"/> Electrical	<input type="checkbox"/> Plumbing	<input type="checkbox"/> Mechanical
<input checked="" type="checkbox"/> Footing	<input type="checkbox"/> Slab	<input type="checkbox"/> Temp Svc.	<input type="checkbox"/> Slab	<input type="checkbox"/> Rough-In
<input type="checkbox"/> Framing	<input type="checkbox"/> Walls	<input checked="" type="checkbox"/> Rough In	<input type="checkbox"/> Rough-In	<input type="checkbox"/> Final
<input checked="" type="checkbox"/> Final	<input type="checkbox"/> Ceiling	<input checked="" type="checkbox"/> Final	<input type="checkbox"/> Final	

Permit Fee \$ _____

Receipt # _____



Hyde County Emergency Services
Division of Code Enforcement
30 Oyster Creek Road
Post Office Box 95
Swan Quarter, N. C. 27885
Office—252-926-4372 Fax—252-926-3701

AFFIDAVIT OF WORKERS' COMPENSATION COVERAGE N.C.G.S. 87-14

The undersigned applicant for Building Permit # _____ Being the

Contractor
Owner
Don Gogaley Office/Agent of the Contractor or Owner

do hereby waiver under penalties of perjury that the person, firm, or corporation performing the work set forth in the permit:

_____ has/have three (3) or more employees and have obtained workers' compensation insurance to cover them,

_____ has/have one or more subcontractors and have obtained workers' compensation insurance covering them,

_____ has/have one or more subcontractors who has/have their own policy of workers' compensation covering themselves,

_____ has/have not more than two (2) employees and no subcontractors,

While working on the project for which this permit is sought. It is understood that the Inspection Department issuing the permit may require certificate of coverage of the workers' compensation insurance prior to issuance of the permit and at any time during the permitted work from any person, firm, or corporation carry out the work.

Firm name: MASTEC NETWORK SOLUTIONS LLC

Signature: Don Gogaley

Title: CONSTRUCTION MANAGER

Date: 8/22/13



Hyde County Emergency Services Department
 Department of Code Enforcement
 30 Oyster Creek Road
 Post Office Box 95
 Swan Quarter, N. C. 27885
 Office-252-926-4372 Fax-252-926-3701

AN ACT TO REGULATE THE PRACTICE OF
 GENERAL CONTRACTING

G.S.87.1 "General Contractor" defined; exemptions. For the purpose of this Article any person or firm or corporation who for a fixed price, commission, fee, or wage, undertake to bid upon or manage, on his won behalf or for any person, firm or corporation that is not licensed as a general contractor pursuant to this Article, the construction of any building, highway, public utilities, grading, or improvement or structure where the cost of the undertaking is thirty thousand dollars (\$30,000) or more, shall be deemed to be a "General Contractor" engaged in the business of general contracting in the State of North Carolina.

This section shall not apply to any person, firm, or corporation who constructs a building on land owned by that person, firm, or corporation when such building is intended for use by that person, firm or corporation after completion; and provided further that, if such building is not occupied solely by such person and his family, firm or corporation for at least 12 months following completion, it shall be presumed that the family, person, firm or corporation did not intend such building solely for occupancy by that person and his family, firm or corporation. This building must be occupied solely by such person and his family, firm, or corporation for at least 12 months following completion.

I, the undersigned, have read and understand the above General Statute. As the owner of the land upon which building permit was applied for, or other person assuming all responsibility for this job, I hereby affirm that I qualify under the exemption to assume all responsibility and liability of a general contractor upon this project.

Signature Omar Gozalez
 Date 8/22/13

Wake North Carolina
 Hyde County

I, Valma Wood, a Notary Public for said County and State do hereby certify

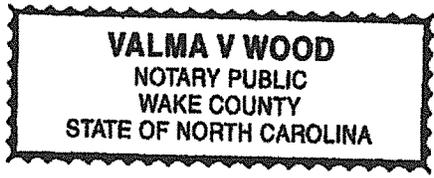
that Omar Gozalez personally appeared before me this day and acknowledged

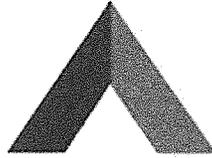
the due execution of the foregoing instrument.

Witness my hand and official seal, this the 22 day of August, 2013

Valma Wood
 NOTARY PUBLIC

My Commission Expires: 3-26-17





AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 340 ft Guyed Tower
ATC Site Name : Swanquarter , NC
ATC Site Number : 97785
Engineering Number : 53824322
Proposed Carrier : AT&T Mobility
Carrier Site Name : 176-068
Carrier Site Number : 176-068/FA#10583816
Site Location : SR 1137
Swanquarter, NC 27885-9801
35.420278,-76.342833
County : Hyde
Date : July 16, 2013
Max Usage : 99%
Result : Pass

Uma S. Atluri, MS, E.I.
Project Engineer

Uma S. Atluri



7/16/13

NC COA P-1177



AMERICAN TOWER®
CORPORATION

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Project Engineer



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Calculations	Attached



Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 340 ft guyed tower to reflect the change in loading by AT&T Mobility.

Supporting Documents

Tower Drawings	Rohn DWG #D960979, dated August 12, 1996
Foundation Drawing	Rohn DWG #A962498-1&2, dated August 12, 1996
Geotechnical Report	GeoTechnologies, Inc., Project #1-96-0409-EA, dated May 14, 1996

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	120 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	30 mph (3-Second Gust) w/ 1/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2009 IBC / 2012 North Carolina Building Code
Structure Class:	II
Exposure Category:	C
Topographic Category:	1

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact me via email at uma.atluri@americantower.com or call 972-999-8905.



Existing and Reserved Equipment

Mount Elev. ¹ (ft)	Qty.	Antenna	Mount Type	Lines	Carrier
337.0	1	DB810K-YP	Sector Frames	(12) 1 5/8" Coax	Alltel
	4	Decibel DB846H80E-SX			
	2	Antel LPA-80080/8CF-EDIN-2			
	3	Antel BXA-70063-8CF-EDIN-2			

Proposed Equipment

Elevation ¹ (ft)		Qty.	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
300.0	300.0	3	Ericsson KRC 118 1601/3	Sector Frames	(12) 1 5/8" Coax (2) 0.78" 8 AWG 6 (1) 0.39" Fiber	AT&T Mobility
		3	Ericsson KRC 118 048/1			
		1	Raycap DC6-48-60-18-8F			
		6	Ericsson RRUS-11			
		6	14" x 9" TTA			
		6	77" x 14" Panels			

¹Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Double stack proposed coax ((12) 1 5/8) on the empty tower face. The rest of the proposed coax can be installed alongside proposed coax.



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	90%	Pass
Diagonals	84%	Pass
Horizontals	48%	Pass
Guys	99%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Base Axial (kips)	269.2	363.4	254.4	70%
Anchor 1 Uplift (kips)	32.3	43.6	39.2	90%
Anchor 1 Shear (kips)	34.4	46.4	42.6	92%
Anchor 2 Uplift (kips)	90.4	122.0	84.4	69%
Anchor 2 Shear (kips)	93.1	125.7	85.4	68%

* The design reactions are factored by 1.35 per ANSI/TIA-222-G, Sec. 15.5.1

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
300.0	0.149	0.015	0.031

*Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G



Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Services, PLLC and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

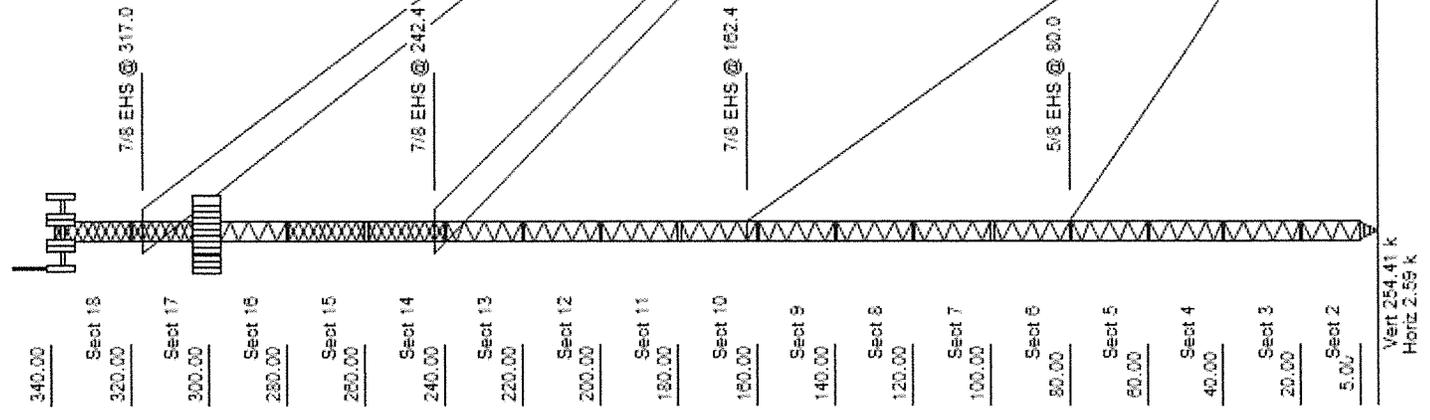
All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Services, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

Job Information

Tower : 97785 Location : Swanquarter , NC Base Width : 3.42 ft
 Code: ANSI/TIA-222 Rev G Shape : Triangle
 Client : AT&T Mobility

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Loads: 120 mph no ice
 30 mph w / 1/4" radial ice
 60 mph Serviceability



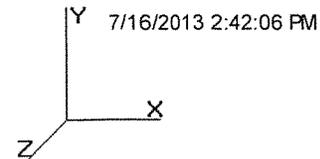
Section	Leg Members	Diagonal Members	Horizontal Members
1	PSP 50 ksi	ROHN 3.0 EHH	SAE 36 ksi 4X4X0.25
2 - 4	PSP 50 ksi	ROHN 3.0 EHH	PSP 42 ksi ROHN 1 1/2X16GA
5 - 6	PSP 50 ksi	ROHN 3.0 EHH	PSP 42 ksi ROHN 1 1/2X11GA
7 - 8	PSP 50 ksi	ROHN 3.0 EHH	PSP 42 ksi ROHN 1 1/2X16GA
9 - 10	PX 50 ksi	3" DIA PIPE	PSP 42 ksi ROHN 1 1/2X11GA
11 - 12	PX 50 ksi	3" DIA PIPE	PSP 42 ksi ROHN 1 1/2X16GA
13	PSP 50 ksi	ROHN 3.0 EHH	PSP 42 ksi ROHN 1 1/2X11GA
14	PSP 50 ksi	ROHN 3.0 EHH	SAE 36 ksi 2X2X0.25
15	PX 50 ksi	3" DIA PIPE	PSP 42 ksi ROHN 1 1/2X11GA
16	PX 50 ksi	3" DIA PIPE	PSP 42 ksi ROHN 1.5X16GA
17	PX 50 ksi	2-1/2" DIA PIPE	SAE 36 ksi 2X2X0.25
18	PX 50 ksi	2-1/2" DIA PIPE	PSP 42 ksi ROHN 1 1/2X16GA

Discrete Appurtenance		
Elev (ft)	Type	Qty Description
340.00	Other	1 Lightning Rod
340.00	Other	1 Beacon
337.00	Whip	1 DB810K-YP
337.00	Panel	4 Decibel DB846H80E-SX
337.00	Panel	2 Antel LPA-80080/8CF-EDIN-2
337.00	Panel	3 Antel BXA-70063-8CF-EDIN-2
337.00	Mounting Frame	3 Sector Frames
337.00	Other	1 Torque Arms
300.00	Other	3 Lights
300.00	Panel	3 Ericsson KRC 118 1601/3
300.00	Panel	3 Ericsson KRC 118 048/1
300.00	Panel	1 Raycap DC6-48-60-18-8F
300.00	Panel	6 Ericsson RRUS-11
300.00	Panel	6 14" x 9" TTA
300.00	Panel	6 77" x 14" Panels
300.00	Mounting Frame	3 Sector Frames
243.00	Other	1 Torque Arms
200.00	Other	3 Lights
100.00	Other	3 Lights

Linear Appurtenance		
Elev (ft)	From	To Qty Description
6,000	340.00	1 3/8" Safety Climb
6,000	340.00	1 1/2" Coax
6,000	337.00	6 1 5/8" Coax
6,000	337.00	6 1 5/8" Coax
6,000	300.00	1 1/2" Coax
6,000	300.00	12 1 5/8" Coax
6,000	300.00	2 0.78" 8 AWG 6
6,000	300.00	1 0.39" Fiber
6,000	200.00	1 1/2" Coax
6,000	100.00	1 1/2" Coax

Site Number: 97785
 Location: Swanquarter, NC
 Code: ANSI/TIA-222 Rev G
 Struct Class: II
 Exposure: C
 Topo: 1

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Section Forces

LoadCase 1.2D + 1.6W Normal

120.00 mph Normal to Face with No Ice

Gust Response Factor : 0.85
 Dead Load Factor : 1.20
 Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Seq	Wind Sect	Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
18	330.0	50.99	0.00	18.28	0.00	0.25	2.44	1.00	1.00	0.00	9.96	35.44	0.00	1,022.8	0.0	1,684.38	1,769.6	3,454.05	
17	310.0	50.32	11.58	9.58	0.00	0.29	2.33	1.00	1.00	0.00	16.38	41.38	0.00	1,641.9	0.0	2,607.24	2,039.2	4,646.47	
16	290.0	49.62	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	8.26	65.48	0.00	1,383.2	0.0	1,409.69	3,422.3	4,832.01	
15	270.0	48.88	0.00	20.25	0.00	0.27	2.37	1.00	1.00	0.00	11.18	65.48	0.00	1,720.4	0.0	1,762.06	3,371.2	5,133.28	
14	250.0	48.10	11.44	11.67	0.00	0.31	2.27	1.00	1.00	0.00	17.46	65.48	0.00	2,389.8	0.0	2,588.62	3,317.0	5,905.66	
13	230.0	47.26	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	8.26	65.48	0.00	1,798.3	0.0	1,342.54	3,259.3	4,601.87	
12	210.0	46.36	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	8.26	65.48	0.00	1,394.2	0.0	1,317.06	3,197.4	4,514.55	
11	190.0	45.40	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	8.26	66.53	0.00	1,397.8	0.0	1,289.56	3,177.5	4,467.06	
10	170.0	44.34	0.57	16.35	0.00	0.23	2.51	1.00	1.00	0.00	8.89	66.53	0.00	1,588.8	0.0	1,342.98	3,103.9	4,446.94	
9	150.0	43.19	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	8.26	66.53	0.00	1,510.2	0.0	1,226.88	3,023.2	4,250.12	
8	130.0	41.91	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	8.26	66.53	0.00	1,689.4	0.0	1,190.44	2,933.5	4,123.95	
7	110.0	40.46	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	8.26	66.53	0.00	1,689.3	0.0	1,149.26	2,832.1	3,981.40	
6	90.00	38.79	0.00	15.96	0.00	0.22	2.55	1.00	1.00	0.00	7.97	67.58	0.00	1,783.6	0.0	1,070.34	2,754.8	3,825.20	
5	70.00	36.79	0.57	16.35	0.00	0.23	2.51	1.00	1.00	0.00	8.89	67.58	0.00	1,883.9	0.0	1,113.96	2,612.9	3,726.86	
4	50.00	34.27	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	8.26	67.58	0.00	1,692.9	0.0	973.40	2,434.2	3,407.61	
3	30.00	30.78	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	8.26	67.58	0.00	1,692.9	0.0	874.13	2,186.0	3,060.14	
2	12.50	26.63	0.00	12.05	0.00	0.22	2.54	1.00	1.00	0.00	6.04	47.31	0.00	1,237.3	0.0	556.01	1,324.1	1,880.19	
1	2.50	26.63	2.46	3.14	0.00	0.56	1.83	1.00	1.00	0.00	4.65	0.00	0.00	479.7	0.0	308.98	0.00	308.98	
															27,996.3	0.0			70,566.34

LoadCase 1.2D + 1.6W 60 deg

120.00 mph 60 deg with No Ice

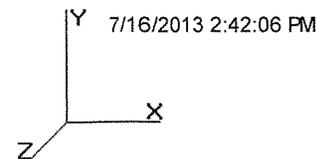
Gust Response Factor : 0.85
 Dead Load Factor : 1.20
 Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Seq	Wind Sect	Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
18	330.0	50.99	0.00	18.28	0.00	0.25	2.44	0.80	1.00	0.00	9.96	35.44	0.00	1,022.8	0.0	1,684.38	1,769.6	3,454.05	
17	310.0	50.32	11.58	9.58	0.00	0.29	2.33	0.80	1.00	0.00	14.07	41.38	0.00	1,641.9	0.0	2,238.62	2,039.2	4,277.85	
16	290.0	49.62	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	8.26	65.48	0.00	1,383.2	0.0	1,409.69	3,422.3	4,832.01	
15	270.0	48.88	0.00	20.25	0.00	0.27	2.37	0.80	1.00	0.00	11.18	65.48	0.00	1,720.4	0.0	1,762.06	3,371.2	5,133.28	
14	250.0	48.10	11.44	11.67	0.00	0.31	2.27	0.80	1.00	0.00	15.17	65.48	0.00	2,389.8	0.0	2,249.36	3,317.0	5,566.40	
13	230.0	47.26	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	8.26	65.48	0.00	1,798.3	0.0	1,342.54	3,259.3	4,601.87	
12	210.0	46.36	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	8.26	65.48	0.00	1,394.2	0.0	1,317.06	3,197.4	4,514.55	
11	190.0	45.40	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	8.26	66.53	0.00	1,397.8	0.0	1,289.56	3,177.5	4,467.06	
10	170.0	44.34	0.57	16.35	0.00	0.23	2.51	0.80	1.00	0.00	8.77	66.53	0.00	1,588.8	0.0	1,325.76	3,103.9	4,429.72	
9	150.0	43.19	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	8.26	66.53	0.00	1,510.2	0.0	1,226.88	3,023.2	4,250.12	
8	130.0	41.91	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	8.26	66.53	0.00	1,689.4	0.0	1,190.44	2,933.5	4,123.95	
7	110.0	40.46	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	8.26	66.53	0.00	1,689.3	0.0	1,149.26	2,832.1	3,981.40	
6	90.00	38.79	0.00	15.96	0.00	0.22	2.55	0.80	1.00	0.00	7.97	67.58	0.00	1,783.6	0.0	1,070.34	2,754.8	3,825.20	
5	70.00	36.79	0.57	16.35	0.00	0.23	2.51	0.80	1.00	0.00	8.77	67.58	0.00	1,883.9	0.0	1,099.68	2,612.9	3,712.58	
4	50.00	34.27	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	8.26	67.58	0.00	1,692.9	0.0	973.40	2,434.2	3,407.61	
3	30.00	30.78	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	8.26	67.58	0.00	1,692.9	0.0	874.13	2,186.0	3,060.14	
2	12.50	26.63	0.00	12.05	0.00	0.22	2.54	0.80	1.00	0.00	6.04	47.31	0.00	1,237.3	0.0	556.01	1,324.1	1,880.19	

Site Number: 97785
 Location: Swanquarter, NC
 Code: ANSI/TIA-222 Rev G
 Struct Class: II
 Exposure: C
 Topo: 1

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Section Forces

1 2.50 26.63 2.46 3.14 0.00 0.56 1.83 0.80 1.00 0.00 4.16 0.00 0.00 479.7 0.0 276.30 0.00 276.30
 27,996.3 0.0 69,794.28

LoadCase 1.2D + 1.6W 90 deg

120.00 mph 90 deg with No Ice

Gust Response Factor : 0.85

Dead Load Factor : 1.20

Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
18	330.0	50.99	0.00	18.28	0.00	0.25	2.44	0.85	1.00	0.00	9.96	35.44	0.00	1,022.8	0.0	1,684.38	1,769.6	3,454.05
17	310.0	50.32	11.58	9.58	0.00	0.29	2.33	0.85	1.00	0.00	14.65	41.38	0.00	1,641.9	0.0	2,330.78	2,039.2	4,370.00
16	290.0	49.62	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	8.26	65.48	0.00	1,383.2	0.0	1,409.69	3,422.3	4,832.01
15	270.0	48.88	0.00	20.25	0.00	0.27	2.37	0.85	1.00	0.00	11.18	65.48	0.00	1,720.4	0.0	1,762.06	3,371.2	5,133.28
14	250.0	48.10	11.44	11.67	0.00	0.31	2.27	0.85	1.00	0.00	15.75	65.48	0.00	2,389.8	0.0	2,334.17	3,317.0	5,651.21
13	230.0	47.26	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	8.26	65.48	0.00	1,798.3	0.0	1,342.54	3,259.3	4,601.87
12	210.0	46.36	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	8.26	65.48	0.00	1,394.2	0.0	1,317.06	3,197.4	4,514.55
11	190.0	45.40	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	8.26	66.53	0.00	1,397.8	0.0	1,289.56	3,177.5	4,467.06
10	170.0	44.34	0.57	16.35	0.00	0.23	2.51	0.85	1.00	0.00	8.80	66.53	0.00	1,588.8	0.0	1,330.07	3,103.9	4,434.03
9	150.0	43.19	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	8.26	66.53	0.00	1,510.2	0.0	1,226.88	3,023.2	4,250.12
8	130.0	41.91	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	8.26	66.53	0.00	1,689.4	0.0	1,190.44	2,933.5	4,123.95
7	110.0	40.46	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	8.26	66.53	0.00	1,689.3	0.0	1,149.26	2,832.1	3,981.40
6	90.00	38.79	0.00	15.96	0.00	0.22	2.55	0.85	1.00	0.00	7.97	67.58	0.00	1,783.6	0.0	1,070.34	2,754.8	3,825.20
5	70.00	36.79	0.57	16.35	0.00	0.23	2.51	0.85	1.00	0.00	8.80	67.58	0.00	1,883.9	0.0	1,103.25	2,612.9	3,716.15
4	50.00	34.27	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	8.26	67.58	0.00	1,692.9	0.0	973.40	2,434.2	3,407.61
3	30.00	30.78	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	8.26	67.58	0.00	1,692.9	0.0	874.13	2,186.0	3,060.14
2	12.50	26.63	0.00	12.05	0.00	0.22	2.54	0.85	1.00	0.00	6.04	47.31	0.00	1,237.3	0.0	556.01	1,324.1	1,880.19
1	2.50	26.63	2.46	3.14	0.00	0.56	1.83	0.85	1.00	0.00	4.28	0.00	0.00	479.7	0.0	284.47	0.00	284.47
															27,996.3	0.0	69,987.30	

LoadCase 1.2D + 1.0Di + 1.0Wi Normal

30.00 mph Normal with 0.25 in Radial Ice

Gust Response Factor : 0.85

Dead Load Factor : 1.20

Wind Load Factor : 1.00

Ice Dead Load Factor : 1.00

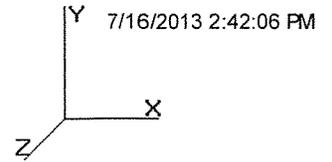
Wind Importance Factor : 1.00

Ice Importance Factor : 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
18	330.0	3.19	0.00	30.23	11.95	0.40	2.06	1.00	1.00	0.63	19.60	35.44	25.60	1,992.8	970.0	109.42	118.75	228.17
17	310.0	3.15	11.58	21.46	11.88	0.44	1.99	1.00	1.00	0.63	25.61	41.38	29.19	2,814.8	1,172.9	136.42	127.04	263.46
16	290.0	3.10	0.00	24.67	8.32	0.32	2.24	1.00	1.00	0.62	15.19	67.55	37.28	2,595.6	1,212.4	89.50	229.49	318.99
15	270.0	3.06	0.00	31.96	11.71	0.42	2.03	1.00	1.00	0.62	21.03	67.54	37.02	3,083.4	1,363.0	110.72	199.22	309.94
14	250.0	3.01	11.44	23.29	11.62	0.46	1.96	1.00	1.00	0.61	26.86	67.52	36.73	3,877.2	1,487.4	134.84	183.23	318.06
13	230.0	2.95	0.00	24.48	8.13	0.32	2.24	1.00	1.00	0.61	15.05	67.51	36.43	2,978.8	1,180.5	84.70	217.28	301.98
12	210.0	2.90	0.00	24.41	8.06	0.32	2.24	1.00	1.00	0.60	15.00	67.49	36.10	2,562.4	1,168.2	82.89	212.67	295.55
11	190.0	2.84	0.00	24.33	7.98	0.32	2.25	1.00	1.00	0.60	14.94	68.52	37.72	2,570.5	1,172.7	80.94	213.69	294.62
10	170.0	2.77	0.57	24.57	8.23	0.33	2.22	1.00	1.00	0.59	15.75	68.50	37.31	2,780.3	1,191.5	82.36	205.31	287.67
9	150.0	2.70	0.00	24.14	7.79	0.32	2.25	1.00	1.00	0.58	14.81	68.47	36.84	2,651.5	1,141.3	76.52	202.07	278.59
8	130.0	2.62	0.00	24.03	7.68	0.32	2.26	1.00	1.00	0.57	14.73	68.44	36.32	2,812.1	1,122.8	73.97	195.36	269.33
7	110.0	2.53	0.00	23.90	7.55	0.31	2.26	1.00	1.00	0.56	14.64	68.41	35.72	2,791.0	1,101.6	71.10	187.81	258.91
6	90.00	2.42	0.00	23.04	7.09	0.30	2.29	1.00	1.00	0.55	14.02	69.43	36.85	2,862.2	1,078.6	66.10	185.99	252.09

Site Number: 97785
 Location: Swanquarter , NC
 Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure : C
 Topo : 1

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Section Forces

5	70.00	2.30	0.57	23.87	7.53	0.32	2.24	1.00	1.00	0.54	15.26	69.38	35.94	2,976.5	1,092.6	66.79	171.18	237.96
4	50.00	2.14	0.00	23.33	6.98	0.31	2.28	1.00	1.00	0.52	14.24	69.32	34.75	2,715.6	1,022.7	59.05	160.21	219.26
3	30.00	1.92	0.00	22.98	6.63	0.30	2.29	1.00	1.00	0.50	14.00	69.23	33.02	2,659.1	966.2	52.38	142.06	194.45
2	12.50	1.66	0.00	16.47	4.42	0.29	2.32	1.00	1.00	0.45	9.97	48.37	21.17	1,859.0	621.8	32.76	84.83	117.59
1	2.50	1.66	2.46	4.38	1.24	0.66	1.78	1.00	1.00	0.39	5.89	0.00	0.00	573.8	94.1	14.83	0.00	14.83
														47,156.6	19,160.3	4,461.45		

LoadCase 1.2D + 1.0Di + 1.0Wi 60 deg

30.00 mph 60 deg with 0.25 in Radial Ice

Gust Response Factor : 0.85
 Dead Load Factor : 1.20
 Wind Load Factor : 1.00

Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00
 Ice Importance Factor : 1.00

Seq	Wind Sect	Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
18	330.0	3.19	0.00	30.23	11.95	0.40	2.06	0.80	1.00	0.63	19.60	35.44	25.60	1,992.8	970.0	109.42	118.75	228.17	
17	310.0	3.15	11.58	21.46	11.88	0.44	1.99	0.80	1.00	0.63	23.30	41.38	29.19	2,814.8	1,172.9	124.08	127.04	251.12	
16	290.0	3.10	0.00	24.67	8.32	0.32	2.24	0.80	1.00	0.62	15.19	67.55	37.28	2,595.6	1,212.4	89.50	229.49	318.99	
15	270.0	3.06	0.00	31.96	11.71	0.42	2.03	0.80	1.00	0.62	21.03	67.54	37.02	3,083.4	1,363.0	110.72	199.22	309.94	
14	250.0	3.01	11.44	23.29	11.62	0.46	1.96	0.80	1.00	0.61	24.57	67.52	36.73	3,877.2	1,487.4	123.35	183.23	306.57	
13	230.0	2.95	0.00	24.48	8.13	0.32	2.24	0.80	1.00	0.61	15.05	67.51	36.43	2,978.8	1,180.5	84.70	217.28	301.98	
12	210.0	2.90	0.00	24.41	8.06	0.32	2.24	0.80	1.00	0.60	15.00	67.49	36.10	2,562.4	1,168.2	82.89	212.67	295.55	
11	190.0	2.84	0.00	24.33	7.98	0.32	2.25	0.80	1.00	0.60	14.94	68.52	37.72	2,570.5	1,172.7	80.94	213.69	294.62	
10	170.0	2.77	0.57	24.57	8.23	0.33	2.22	0.80	1.00	0.59	15.64	68.50	37.31	2,780.3	1,191.5	81.76	205.31	287.08	
9	150.0	2.70	0.00	24.14	7.79	0.32	2.25	0.80	1.00	0.58	14.81	68.47	36.84	2,651.5	1,141.3	76.52	202.07	278.59	
8	130.0	2.62	0.00	24.03	7.68	0.32	2.26	0.80	1.00	0.57	14.73	68.44	36.32	2,812.1	1,122.8	73.97	195.36	269.33	
7	110.0	2.53	0.00	23.90	7.55	0.31	2.26	0.80	1.00	0.56	14.64	68.41	35.72	2,791.0	1,101.6	71.10	187.81	258.91	
6	90.00	2.42	0.00	23.04	7.09	0.30	2.29	0.80	1.00	0.55	14.02	69.43	36.85	2,862.2	1,078.6	66.10	185.99	252.09	
5	70.00	2.30	0.57	23.87	7.53	0.32	2.24	0.80	1.00	0.54	15.14	69.38	35.94	2,976.5	1,092.6	66.29	171.18	237.47	
4	50.00	2.14	0.00	23.33	6.98	0.31	2.28	0.80	1.00	0.52	14.24	69.32	34.75	2,715.6	1,022.7	59.05	160.21	219.26	
3	30.00	1.92	0.00	22.98	6.63	0.30	2.29	0.80	1.00	0.50	14.00	69.23	33.02	2,659.1	966.2	52.38	142.06	194.45	
2	12.50	1.66	0.00	16.47	4.42	0.29	2.32	0.80	1.00	0.45	9.97	48.37	21.17	1,859.0	621.8	32.76	84.83	117.59	
1	2.50	1.66	2.46	4.38	1.24	0.66	1.78	0.80	1.00	0.39	5.40	0.00	0.00	573.8	94.1	13.59	0.00	13.59	
														47,156.6	19,160.3	4,435.29			

LoadCase 1.2D + 1.0Di + 1.0Wi 90 deg

30.00 mph 90 deg with 0.25 in Radial Ice

Gust Response Factor : 0.85
 Dead Load Factor : 1.20
 Wind Load Factor : 1.00

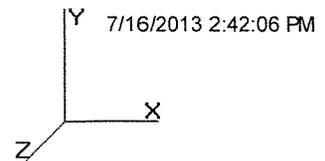
Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00
 Ice Importance Factor : 1.00

Seq	Wind Sect	Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
18	330.0	3.19	0.00	30.23	11.95	0.40	2.06	0.85	1.00	0.63	19.60	35.44	25.60	1,992.8	970.0	109.42	118.75	228.17	
17	310.0	3.15	11.58	21.46	11.88	0.44	1.99	0.85	1.00	0.63	23.88	41.38	29.19	2,814.8	1,172.9	127.16	127.04	254.21	
16	290.0	3.10	0.00	24.67	8.32	0.32	2.24	0.85	1.00	0.62	15.19	67.55	37.28	2,595.6	1,212.4	89.50	229.49	318.99	
15	270.0	3.06	0.00	31.96	11.71	0.42	2.03	0.85	1.00	0.62	21.03	67.54	37.02	3,083.4	1,363.0	110.72	199.22	309.94	
14	250.0	3.01	11.44	23.29	11.62	0.46	1.96	0.85	1.00	0.61	25.14	67.52	36.73	3,877.2	1,487.4	126.22	183.23	309.45	
13	230.0	2.95	0.00	24.48	8.13	0.32	2.24	0.85	1.00	0.61	15.05	67.51	36.43	2,978.8	1,180.5	84.70	217.28	301.98	
12	210.0	2.90	0.00	24.41	8.06	0.32	2.24	0.85	1.00	0.60	15.00	67.49	36.10	2,562.4	1,168.2	82.89	212.67	295.55	
11	190.0	2.84	0.00	24.33	7.98	0.32	2.25	0.85	1.00	0.60	14.94	68.52	37.72	2,570.5	1,172.7	80.94	213.69	294.62	
10	170.0	2.77	0.57	24.57	8.23	0.33	2.22	0.85	1.00	0.59	15.67	68.50	37.31	2,780.3	1,191.5	81.91	205.31	287.23	

Site Number: 97785
 Location: Swanquarter , NC
 Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure : C
 Topo : 1

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Section Forces

9	150.0	2.70	0.00	24.14	7.79	0.32	2.25	0.85	1.00	0.58	14.81	68.47	36.84	2,651.5	1,141.3	76.52	202.07	278.59
8	130.0	2.62	0.00	24.03	7.68	0.32	2.26	0.85	1.00	0.57	14.73	68.44	36.32	2,812.1	1,122.8	73.97	195.36	269.33
7	110.0	2.53	0.00	23.90	7.55	0.31	2.26	0.85	1.00	0.56	14.64	68.41	35.72	2,791.0	1,101.6	71.10	187.81	258.91
6	90.00	2.42	0.00	23.04	7.09	0.30	2.29	0.85	1.00	0.55	14.02	69.43	36.85	2,862.2	1,078.6	66.10	185.99	252.09
5	70.00	2.30	0.57	23.87	7.53	0.32	2.24	0.85	1.00	0.54	15.17	69.38	35.94	2,976.5	1,092.6	66.41	171.18	237.59
4	50.00	2.14	0.00	23.33	6.98	0.31	2.28	0.85	1.00	0.52	14.24	69.32	34.75	2,715.6	1,022.7	59.05	160.21	219.26
3	30.00	1.92	0.00	22.98	6.63	0.30	2.29	0.85	1.00	0.50	14.00	69.23	33.02	2,659.1	966.2	52.38	142.06	194.45
2	12.50	1.66	0.00	16.47	4.42	0.29	2.32	0.85	1.00	0.45	9.97	48.37	21.17	1,859.0	621.8	32.76	84.83	117.59
1	2.50	1.66	2.46	4.38	1.24	0.66	1.78	0.85	1.00	0.39	5.52	0.00	0.00	573.8	94.1	13.90	0.00	13.90
														47,156.6	19,160.3	4,441.83		

LoadCase 1.0D + 1.0W Service Normal

Serviceability - 60.00 Wind Normal

Gust Response Factor : 0.85
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Wind Sect Seq	Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
18	330.0	12.75	0.00	18.28	0.00	0.25	2.44	1.00	1.00	0.00	11.01	35.44	0.00	852.3	0.0	290.86	276.51	567.37
17	310.0	12.58	11.58	9.58	0.00	0.29	2.33	1.00	1.00	0.00	17.29	41.38	0.00	1,368.3	0.0	429.92	318.63	748.55
16	290.0	12.41	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	9.67	65.48	0.00	1,152.6	0.0	257.84	534.74	792.58
15	270.0	12.22	0.00	20.25	0.00	0.27	2.37	1.00	1.00	0.00	12.35	65.48	0.00	1,433.6	0.0	304.24	526.75	830.99
14	250.0	12.02	11.44	11.67	0.00	0.31	2.27	1.00	1.00	0.00	18.47	65.48	0.00	1,991.5	0.0	427.87	518.29	946.16
13	230.0	11.81	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	9.67	65.48	0.00	1,498.6	0.0	245.56	509.27	754.83
12	210.0	11.59	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	9.67	65.48	0.00	1,161.8	0.0	240.90	499.61	740.51
11	190.0	11.35	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	9.67	66.53	0.00	1,164.8	0.0	235.87	496.48	732.35
10	170.0	11.09	0.57	16.35	0.00	0.23	2.51	1.00	1.00	0.00	10.26	66.53	0.00	1,324.0	0.0	242.27	484.99	727.26
9	150.0	10.80	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	9.67	66.53	0.00	1,258.5	0.0	224.40	472.38	696.78
8	130.0	10.48	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	9.66	66.53	0.00	1,407.8	0.0	217.73	458.36	676.10
7	110.0	10.12	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	9.66	66.53	0.00	1,407.8	0.0	210.20	442.52	652.72
6	90.00	9.70	0.00	15.96	0.00	0.22	2.55	1.00	1.00	0.00	9.40	67.58	0.00	1,486.3	0.0	197.30	430.45	627.75
5	70.00	9.20	0.57	16.35	0.00	0.23	2.51	1.00	1.00	0.00	10.26	67.58	0.00	1,569.9	0.0	200.95	408.27	609.21
4	50.00	8.57	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	9.66	67.58	0.00	1,410.8	0.0	178.03	380.35	558.38
3	30.00	7.69	0.00	16.35	0.00	0.22	2.53	1.00	1.00	0.00	9.66	67.58	0.00	1,410.8	0.0	159.88	341.57	501.44
2	12.50	6.66	0.00	12.05	0.00	0.22	2.54	1.00	1.00	0.00	7.11	47.31	0.00	1,031.1	0.0	102.25	206.90	309.15
1	2.50	6.66	2.46	3.14	0.00	0.56	1.83	1.00	1.00	0.00	4.71	0.00	0.00	399.7	0.0	48.93	0.00	48.93
														23,330.2	0.0	11,521.06		

LoadCase 1.0D + 1.0W Service 60 deg

Serviceability - 60.00 Wind 60 deg

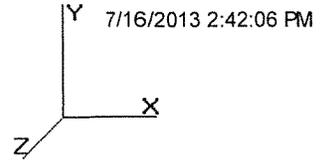
Gust Response Factor : 0.85
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Wind Sect Seq	Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
18	330.0	12.75	0.00	18.28	0.00	0.25	2.44	0.80	1.00	0.00	11.01	35.44	0.00	852.3	0.0	290.86	276.51	567.37
17	310.0	12.58	11.58	9.58	0.00	0.29	2.33	0.80	1.00	0.00	14.97	41.38	0.00	1,368.3	0.0	372.32	318.63	690.95
16	290.0	12.41	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	9.67	65.48	0.00	1,152.6	0.0	257.84	534.74	792.58
15	270.0	12.22	0.00	20.25	0.00	0.27	2.37	0.80	1.00	0.00	12.35	65.48	0.00	1,433.6	0.0	304.24	526.75	830.99
14	250.0	12.02	11.44	11.67	0.00	0.31	2.27	0.80	1.00	0.00	16.18	65.48	0.00	1,991.5	0.0	374.86	518.29	893.15

Site Number: 97785
 Location: Swanquarter, NC
 Code: ANSI/TIA-222 Rev G
 Struct Class: II
 Exposure: C
 Topo: 1

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Section Forces

13	230.0	11.81	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	9.67	65.48	0.00	1,498.6	0.0	245.56	509.27	754.83
12	210.0	11.59	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	9.67	65.48	0.00	1,161.8	0.0	240.90	499.61	740.51
11	190.0	11.35	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	9.67	66.53	0.00	1,164.8	0.0	235.87	496.48	732.35
10	170.0	11.09	0.57	16.35	0.00	0.23	2.51	0.80	1.00	0.00	10.15	66.53	0.00	1,324.0	0.0	239.58	484.99	724.57
9	150.0	10.80	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	9.67	66.53	0.00	1,258.5	0.0	224.40	472.38	696.78
8	130.0	10.48	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	9.66	66.53	0.00	1,407.8	0.0	217.73	458.36	676.10
7	110.0	10.12	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	9.66	66.53	0.00	1,407.8	0.0	210.20	442.52	652.72
6	90.00	9.70	0.00	15.96	0.00	0.22	2.55	0.80	1.00	0.00	9.40	67.58	0.00	1,486.3	0.0	197.30	430.45	627.75
5	70.00	9.20	0.57	16.35	0.00	0.23	2.51	0.80	1.00	0.00	10.15	67.58	0.00	1,569.9	0.0	198.72	408.27	606.98
4	50.00	8.57	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	9.66	67.58	0.00	1,410.8	0.0	178.03	380.35	558.38
3	30.00	7.69	0.00	16.35	0.00	0.22	2.53	0.80	1.00	0.00	9.66	67.58	0.00	1,410.8	0.0	159.88	341.57	501.44
2	12.50	6.66	0.00	12.05	0.00	0.22	2.54	0.80	1.00	0.00	7.11	47.31	0.00	1,031.1	0.0	102.25	206.90	309.15
1	2.50	6.66	2.46	3.14	0.00	0.56	1.83	0.80	1.00	0.00	4.22	0.00	0.00	399.7	0.0	43.83	0.00	43.83
														23,330.2	0.0	11,400.42		

LoadCase 1.0D + 1.0W Service 90 deg

Serviceability - 60.00 Wind 90 deg

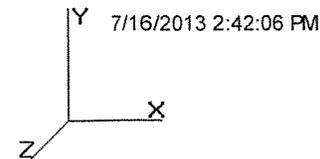
Gust Response Factor : 0.85
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Wind Sect Seq	Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
18	330.0	12.75	0.00	18.28	0.00	0.25	2.44	0.85	1.00	0.00	11.01	35.44	0.00	852.3	0.0	290.86	276.51	567.37
17	310.0	12.58	11.58	9.58	0.00	0.29	2.33	0.85	1.00	0.00	15.55	41.38	0.00	1,368.3	0.0	386.72	318.63	705.35
16	290.0	12.41	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	9.67	65.48	0.00	1,152.6	0.0	257.84	534.74	792.58
15	270.0	12.22	0.00	20.25	0.00	0.27	2.37	0.85	1.00	0.00	12.35	65.48	0.00	1,433.6	0.0	304.24	526.75	830.99
14	250.0	12.02	11.44	11.67	0.00	0.31	2.27	0.85	1.00	0.00	16.76	65.48	0.00	1,991.5	0.0	388.11	518.29	906.40
13	230.0	11.81	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	9.67	65.48	0.00	1,498.6	0.0	245.56	509.27	754.83
12	210.0	11.59	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	9.67	65.48	0.00	1,161.8	0.0	240.90	499.61	740.51
11	190.0	11.35	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	9.67	66.53	0.00	1,164.8	0.0	235.87	496.48	732.35
10	170.0	11.09	0.57	16.35	0.00	0.23	2.51	0.85	1.00	0.00	10.18	66.53	0.00	1,324.0	0.0	240.25	484.99	725.24
9	150.0	10.80	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	9.67	66.53	0.00	1,258.5	0.0	224.40	472.38	696.78
8	130.0	10.48	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	9.66	66.53	0.00	1,407.8	0.0	217.73	458.36	676.10
7	110.0	10.12	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	9.66	66.53	0.00	1,407.8	0.0	210.20	442.52	652.72
6	90.00	9.70	0.00	15.96	0.00	0.22	2.55	0.85	1.00	0.00	9.40	67.58	0.00	1,486.3	0.0	197.30	430.45	627.75
5	70.00	9.20	0.57	16.35	0.00	0.23	2.51	0.85	1.00	0.00	10.18	67.58	0.00	1,569.9	0.0	199.28	408.27	607.54
4	50.00	8.57	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	9.66	67.58	0.00	1,410.8	0.0	178.03	380.35	558.38
3	30.00	7.69	0.00	16.35	0.00	0.22	2.53	0.85	1.00	0.00	9.66	67.58	0.00	1,410.8	0.0	159.88	341.57	501.44
2	12.50	6.66	0.00	12.05	0.00	0.22	2.54	0.85	1.00	0.00	7.11	47.31	0.00	1,031.1	0.0	102.25	206.90	309.15
1	2.50	6.66	2.46	3.14	0.00	0.56	1.83	0.85	1.00	0.00	4.34	0.00	0.00	399.7	0.0	45.10	0.00	45.10
														23,330.2	0.0	11,430.58		

Site Number: 97785
 Location: Swanquarter , NC
 Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure : C
 Topo : 1

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Tower Loading

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice		Ice		Len (ft)	Width (in)	Depth (in)	Ka	Orientation Factor	Vert Ecc (ft)
			Weight (lb)	CaAa (sf)	Weight (lb)	CaAa (sf)						
340.0	Lightning Rod	1	10.00	1.000	12.52	1.126	4.000	3.000	3.000	1.00	1.00	2.000
340.0	Beacon	1	70.00	4.500	87.63	5.066	3.000	18.00	18.00	1.00	1.00	1.500
337.0	DB810K-YP	1	35.00	3.870	82.54	5.654	13.17	3.000	3.000	1.00	1.00	6.585
337.0	Decibel DB846H80E-SX	4	16.00	5.870	65.22	6.304	6.000	8.000	6.500	0.80	0.67	0.000
337.0	Antel LPA-80080/8CF-EDIN-2	2	24.00	12.170	104.94	12.736	7.875	13.20	5.500	0.80	0.76	0.000
337.0	Antel BXA-70063-8CF-EDIN-2	3	24.00	10.670	94.62	11.245	7.890	11.20	5.000	0.80	0.78	0.000
337.0	Sector Frames	3	300.00	14.400	432.94	20.382	0.000	0.000	0.000	0.75	0.75	0.000
317.0	Torque Arms	1	500.00	15.000	625.11	18.753	0.000	0.000	0.000	1.00	1.00	0.000
300.0	Lights	3	45.00	2.000	56.18	2.249	1.000	8.000	8.000	1.00	1.00	0.500
300.0	Ericsson KRC 118 1601/3	3	121.00	11.540	210.05	12.693	8.000	12.10	8.700	0.80	0.89	0.000
300.0	Ericsson KRC 118 048/1	3	121.00	11.550	210.05	12.704	8.000	12.10	8.700	0.80	0.89	0.000
300.0	Raycap DC6-48-60-18-8F	1	20.00	1.260	44.36	2.107	1.958	9.700	9.700	0.80	0.67	0.000
300.0	Ericsson RRUS-11	6	55.00	4.420	87.54	4.059	2.083	18.20	6.700	0.80	0.67	0.000
300.0	14" x 9" TTA	6	10.00	1.230	20.19	1.196	1.167	9.000	4.000	0.80	0.67	0.000
300.0	77" x 14" Panels	6	35.00	10.480	109.07	10.470	6.420	14.00	7.000	0.80	0.80	0.000
300.0	Sector Frames	3	300.00	14.400	431.24	20.306	0.000	0.000	0.000	0.75	0.75	0.000
243.0	Torque Arms	1	500.00	15.000	622.45	18.673	0.000	0.000	0.000	1.00	1.00	0.000
200.0	Lights	3	45.00	2.000	55.72	2.238	1.000	8.000	8.000	1.00	1.00	0.500
100.0	Lights	3	45.00	2.000	54.95	2.221	1.000	8.000	8.000	1.00	1.00	0.500
Totals		54	4850.00		7883.47							

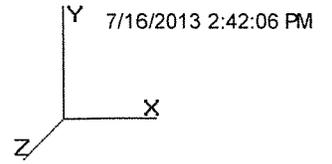
Number of Appurtenances : 19

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
6.00	340.0	1/2" Coax	1	0.63	0.15	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
6.00	340.0	3/8" Safety Climb	1	0.44	0.08	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
6.00	337.0	1 5/8" Coax	6	1.98	0.82	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
6.00	337.0	1 5/8" Coax	6	1.98	0.82	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
6.00	300.0	0.39" Fiber	1	0.39	0.07	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
6.00	300.0	0.78" 8 AWG 6	2	0.78	0.59	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
6.00	300.0	1 5/8" Coax	12	1.98	0.82	50	Lin App	Block	0.00	N	0.00	1.00	0.00
6.00	300.0	1/2" Coax	1	0.63	0.15	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
6.00	200.0	1/2" Coax	1	0.63	0.15	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
6.00	100.0	1/2" Coax	1	0.63	0.15	0	Lin App	Individual	0.00	N	1.00	1.00	0.00

Site Number: 97785
 Location: Swanquarter, NC
 Code: ANSI/TIA-222 Rev G
 Struct Class: II
 Exposure: C
 Topo: 1

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Force/Stress Summary

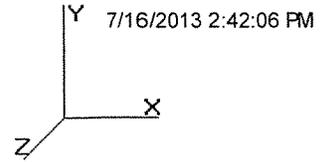
Section: 1		85HTB3		Bot Elev (ft): 0.00				Height (ft): 5.000							
		Force (kip)		Len (ft)	Bracing %			Fy (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
		Load Case			X	Y	Z	KL/R							
Max Compression Member															
LEG	PSP - ROHN 3.0 EHH	-97.08	1.2D + 1.6W	1.34	100	100	100	14.7	50.0	186.50	0	0	0.00	0.00	52 Member X
HORIZ	SAE - 4X4X0.25	-0.37	1.2D + 1.6W	0.854	100	100	100	12.9	35.7	61.81	0	0	0.00	0.00	0 Member Z
DIAG		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	
Max Tension Member															
		Force (kip)		Fy (ksi)	Fu (ksi)	phi	Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls		
		Load Case				(kip)									
LEG		0.00		0	0	0.00	0	0	0	0.00	0.00	0			
HORIZ	SAE - 4X4X0.25	19.73	1.2D + 1.6W	36	58	62.86	0	0	0	0.00	0.00	31	Member		
DIAG		0.00		0	0	0.00	0	0	0	0.00	0.00	0			

Section: 2		85HHCS		Bot Elev (ft): 5.00				Height (ft): 15.000							
		Force (kip)		Len (ft)	Bracing %			Fy (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
		Load Case			X	Y	Z	KL/R							
Max Compression Member															
LEG	PSP - ROHN 3.0 EHH	-107.77	1.2D + 1.6W 90	2.40	200	200	200	52.3	50.0	155.10	0	0	0.00	0.00	69 Member X
HORIZ	PSP - ROHN 1 1/2X16G	-0.44	1.2D + 1.6W	3.417	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	6 User Input
DIAG	PSP - ROHN 1 1/2X16G	-4.18	1.2D + 1.6W 90	4.174	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	64 User Input
Max Tension Member															
		Force (kip)		Fy (ksi)	Fu (ksi)	phi	Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls		
		Load Case				(kip)									
LEG		0.00		0	0	0.00	0	0	0	0.00	0.00	0			
HORIZ	PSP - ROHN 1 1/2X16G	0.77	1.2D + 1.6W 60	42	58	5.47	2	2	2	0.00	11.58	14	User Input		
DIAG	PSP - ROHN 1 1/2X16G	4.54	1.2D + 1.6W 90	42	58	5.47	2	2	2	0.00	11.58	82	User Input		

Section: 3		85HHS		Bot Elev (ft): 20.00				Height (ft): 20.000							
		Force (kip)		Len (ft)	Bracing %			Fy (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
		Load Case			X	Y	Z	KL/R							
Max Compression Member															
LEG	PSP - ROHN 3.0 EHH	-116.01	1.2D + 1.6W 90	2.42	200	200	200	52.9	50.0	154.43	0	0	0.00	0.00	75 Member X
HORIZ	PSP - ROHN 1 1/2X16G	-0.18	1.2D + 1.6W	3.417	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	2 User Input
DIAG	PSP - ROHN 1 1/2X16G	-3.36	1.2D + 1.6W 90	4.189	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	51 User Input
Max Tension Member															
		Force (kip)		Fy (ksi)	Fu (ksi)	phi	Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls		
		Load Case				(kip)									
LEG		0.00		0	0	0.00	0	0	0	0.00	0.00	0			
HORIZ	PSP - ROHN 1 1/2X16G	0.67	1.2D + 1.6W	42	58	5.47	2	2	2	0.00	11.58	12	User Input		
DIAG	PSP - ROHN 1 1/2X16G	2.59	1.2D + 1.6W	42	58	5.47	2	2	2	0.00	11.58	47	User Input		

Site Number: 97785
 Location: Swanquarter, NC
 Code: ANSI/TIA-222 Rev G
 Struct Class: II
 Exposure: C
 Topo: 1

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Force/Stress Summary

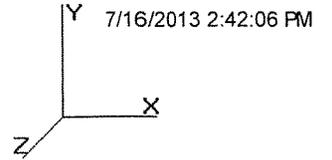
Section: 4		85HHS		Bot Elev (ft): 40.00				Height (ft): 20.000								
		Force		Len		Bracing %		Fy		phi		Shear		Bear		
		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Num Bolts	Num Holes	phiRnv (kip)	phiRn (kip)	Use %	Controls
Max Compression Member																
LEG	PSP - ROHN 3.0 EHH	-116.73	1.2D + 1.6W 90	2.42	200	200	200	52.9	50.0	154.43	0	0	0.00	0.00	75	Member X
HORIZ	PSP - ROHN 1 1/2X16G	-0.42	1.2D + 1.6W 60	3.418	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	6	User Input
DIAG	PSP - ROHN 1 1/2X16G	-3.96	1.2D + 1.6W 90	4.189	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	60	User Input
Max Tension Member																
		(kip)	Load Case		Fy (ksi)	Fu (ksi)	phi	Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls		
LEG		0.00			0	0	0.00	0	0	0	0.00	0.00	0			
HORIZ	PSP - ROHN 1 1/2X16G	0.76	1.2D + 1.6W		42	58	5.47	2	2	2	0.00	11.58	13	User Input		
DIAG	PSP - ROHN 1 1/2X16G	3.21	1.2D + 1.6W 90		42	58	5.47	2	2	2	0.00	11.58	58	User Input		

Section: 5		85HH11S		Bot Elev (ft): 60.00				Height (ft): 20.000								
		Force		Len		Bracing %		Fy		phi		Shear		Bear		
		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Num Bolts	Num Holes	phiRnv (kip)	phiRn (kip)	Use %	Controls
Max Compression Member																
LEG	PSP - ROHN 3.0 EHH	-100.46	1.2D + 1.6W	2.42	200	200	200	52.9	50.0	154.43	0	0	0.00	0.00	65	Member X
HORIZ	PSP - ROHN 1 1/2X11G	-1.50	1.2D + 1.6W 60	3.418	100	100	100	0.0	0.0	9.72	2	2	0.00	13.98	15	User Input
DIAG	PSP - ROHN 1 1/2X11G	-6.89	1.2D + 1.6W 90	4.190	100	100	100	0.0	0.0	9.72	2	2	0.00	13.98	70	User Input
Max Tension Member																
		(kip)	Load Case		Fy (ksi)	Fu (ksi)	phi	Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls		
LEG		0.00			0	0	0.00	0	0	0	0.00	0.00	0			
HORIZ	PSP - ROHN 1 1/2X11G	2.97	1.2D + 1.6W 90		42	58	9.72	2	2	2	0.00	13.98	30	User Input		
DIAG	PSP - ROHN 1 1/2X11G	6.38	1.2D + 1.6W 90		42	58	9.72	2	2	2	0.00	13.98	65	User Input		

Section: 6		85HH11S		Bot Elev (ft): 80.00				Height (ft): 20.000								
		Force		Len		Bracing %		Fy		phi		Shear		Bear		
		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Num Bolts	Num Holes	phiRnv (kip)	phiRn (kip)	Use %	Controls
Max Compression Member																
LEG	PSP - ROHN 3.0 EHH	-91.32	1.2D + 1.6W	2.42	200	200	200	52.9	50.0	154.43	0	0	0.00	0.00	59	Member X
HORIZ	PSP - ROHN 1 1/2X11G	-1.04	1.2D + 1.6W	3.418	100	100	100	0.0	0.0	9.72	2	2	0.00	13.98	10	User Input
DIAG	PSP - ROHN 1 1/2X11G	-7.09	1.2D + 1.6W 90	4.190	100	100	100	0.0	0.0	9.72	2	2	0.00	13.98	72	User Input
Max Tension Member																
		(kip)	Load Case		Fy (ksi)	Fu (ksi)	phi	Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls		
LEG		0.00			0	0	0.00	0	0	0	0.00	0.00	0			
HORIZ	PSP - ROHN 1 1/2X11G	1.53	1.2D + 1.6W 60		42	58	9.72	2	2	2	0.00	13.98	15	User Input		
DIAG	PSP - ROHN 1 1/2X11G	7.00	1.2D + 1.6W 90		42	58	9.72	2	2	2	0.00	13.98	72	User Input		

Site Number: 97785
 Location: Swanquarter , NC
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 Struct Class : II
 Exposure : C
 Topo : 1

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Force/Stress Summary

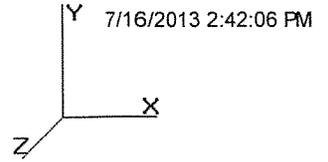
Section: 7		85HHS		Bot Elev (ft): 100.0				Height (ft): 20.000							
		Force	Len	Bracing %			Fy	phi	Shear		Bear		Use		
Max Compression Member		(kip)	(ft)	X	Y	Z	KL/R	(ksi)	Pn	Num	Num	phiRnv	phiRn	%	Controls
LEG	PSP - ROHN 3.0 EHH	-107.43	2.42	200	200	200	52.9	50.0	154.43	0	0	0.00	0.00	69	Member X
HORIZ	PSP - ROHN 1 1/2X16G	-0.50	3.418	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	7	User Input
DIAG	PSP - ROHN 1 1/2X16G	-4.63	4.190	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	71	User Input
Max Tension Member		Force	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use				
		(kip)	(ksi)	(ksi)	(kip)	Bolts	Holes	Cap	Cap	%	Controls				
LEG		0.00	0	0	0.00	0	0	0.00	0.00	0					
HORIZ	PSP - ROHN 1 1/2X16G	0.88	42	58	5.47	2	2	0.00	11.58	16	User Input				
DIAG	PSP - ROHN 1 1/2X16G	3.89	42	58	5.47	2	2	0.00	11.58	71	User Input				

Section: 8		85HHS		Bot Elev (ft): 120.0				Height (ft): 20.000							
		Force	Len	Bracing %			Fy	phi	Shear		Bear		Use		
Max Compression Member		(kip)	(ft)	X	Y	Z	KL/R	(ksi)	Pn	Num	Num	phiRnv	phiRn	%	Controls
LEG	PSP - ROHN 3.0 EHH	-107.61	2.42	200	200	200	52.9	50.0	154.43	0	0	0.00	0.00	69	Member X
HORIZ	PSP - ROHN 1 1/2X16G	-0.35	3.419	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	5	User Input
DIAG	PSP - ROHN 1 1/2X16G	-3.72	4.191	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	57	User Input
Max Tension Member		Force	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use				
		(kip)	(ksi)	(ksi)	(kip)	Bolts	Holes	Cap	Cap	%	Controls				
LEG		0.00	0	0	0.00	0	0	0.00	0.00	0					
HORIZ	PSP - ROHN 1 1/2X16G	0.76	42	58	5.47	2	2	0.00	11.58	13	User Input				
DIAG	PSP - ROHN 1 1/2X16G	2.92	42	58	5.47	2	2	0.00	11.58	53	User Input				

Section: 9		85H113S		Bot Elev (ft): 140.0				Height (ft): 20.000							
		Force	Len	Bracing %			Fy	phi	Shear		Bear		Use		
Max Compression Member		(kip)	(ft)	X	Y	Z	KL/R	(ksi)	Pn	Num	Num	phiRnv	phiRn	%	Controls
LEG	PX - 3" DIA PIPE	-94.85	2.42	200	200	200	51.0	50.0	112.35	0	0	0.00	0.00	84	Member X
HORIZ	PSP - ROHN 1 1/2X11G	-1.30	3.419	100	100	100	0.0	0.0	9.72	2	2	0.00	13.98	13	User Input
DIAG	PSP - ROHN 1 1/2X11G	-8.21	4.191	100	100	100	0.0	0.0	9.72	2	2	0.00	13.98	84	User Input
Max Tension Member		Force	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use				
		(kip)	(ksi)	(ksi)	(kip)	Bolts	Holes	Cap	Cap	%	Controls				
LEG		0.00	0	0	0.00	0	0	0.00	0.00	0					
HORIZ	PSP - ROHN 1 1/2X11G	2.51	42	58	9.72	2	2	0.00	13.98	25	User Input				
DIAG	PSP - ROHN 1 1/2X11G	7.01	42	58	9.72	2	2	0.00	13.98	72	User Input				

Site Number: 97785
 Location: Swanquarter, NC
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 Exposure: C
 Topo: 1

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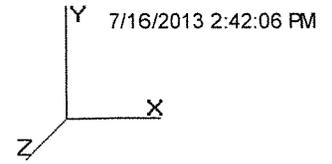


Force/Stress Summary

Section: 10		85H11GAS		Bot Elev (ft): 160.0				Height (ft): 20.000								
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fy (ksi)	Fu (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 3" DIA PIPE	-83.74	1.2D + 1.6W	2.42	200	200	200	51.0	50.0	112.35	0	0	0.00	0.00	74	Member X
HORIZ	PSP - ROHN 1 1/2X11G	-1.79	1.2D + 1.6W	3.419	100	100	100	0.0	0.0	9.72	2	2	0.00	13.98	18	User Input
DIAG	PSP - ROHN 1 1/2X11G	-8.21	1.2D + 1.6W	4.191	100	100	100	0.0	0.0	9.72	2	2	0.00	13.98	84	User Input
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG		0.00		0	0	0.00	0	0	0.00	0.00	0					
HORIZ	PSP - ROHN 1 1/2X11G	1.78	1.2D + 1.6W 60	42	58	9.72	2	2	0.00	13.98	18	User Input				
DIAG	PSP - ROHN 1 1/2X11G	7.40	1.2D + 1.6W 90	42	58	9.72	2	2	0.00	13.98	76	User Input				
Section: 11		85H2S		Bot Elev (ft): 180.0				Height (ft): 20.000								
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fy (ksi)	Fu (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 3" DIA PIPE	-58.83	1.2D + 1.6W	2.42	200	200	200	51.0	50.0	112.35	0	0	0.00	0.00	52	Member X
HORIZ	PSP - ROHN 1 1/2X16G	-0.47	1.2D + 1.6W 60	3.420	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	7	User Input
DIAG	PSP - ROHN 1 1/2X16G	-3.01	1.2D + 1.6W 60	4.191	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	46	User Input
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG		0.00		0	0	0.00	0	0	0.00	0.00	0					
HORIZ	PSP - ROHN 1 1/2X16G	0.65	1.2D + 1.6W 60	42	58	5.47	2	2	0.00	11.58	11	User Input				
DIAG	PSP - ROHN 1 1/2X16G	2.53	1.2D + 1.6W 60	42	58	5.47	2	2	0.00	11.58	46	User Input				
Section: 12		85H2S		Bot Elev (ft): 200.0				Height (ft): 20.000								
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fy (ksi)	Fu (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 3" DIA PIPE	-84.31	1.2D + 1.6W	2.42	200	200	200	51.0	50.0	112.35	0	0	0.00	0.00	75	Member X
HORIZ	PSP - ROHN 1 1/2X16G	-0.61	1.2D + 1.6W 60	3.420	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	9	User Input
DIAG	PSP - ROHN 1 1/2X16G	-5.16	1.2D + 1.6W 90	4.192	100	100	100	0.0	0.0	6.49	2	2	0.00	11.58	79	User Input
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG		0.00		0	0	0.00	0	0	0.00	0.00	0					
HORIZ	PSP - ROHN 1 1/2X16G	1.22	1.2D + 1.6W	42	58	5.47	2	2	0.00	11.58	22	User Input				
DIAG	PSP - ROHN 1 1/2X16G	4.48	1.2D + 1.6W 90	42	58	5.47	2	2	0.00	11.58	81	User Input				

Site Number: 97785
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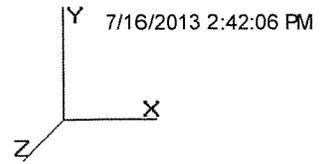


Force/Stress Summary

Section: 13		85HH11S		Bot Elev (ft): 220.0				Height (ft): 20.000							
		Force		Len		Bracing %		Fy		phi		Shear		Bear	
		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Num	Num	phiRnv	phiRn	Use
Max Compression Member											Bolts	Holes	(kip)	(kip)	% Controls
LEG	PSP - ROHN 3.0 EHH	-139.87	1.2D + 1.6W	2.42	200	200	200	52.9	50.0	154.43	0	0	0.00	0.00	90 Member X
HORIZ	PSP - ROHN 1 1/2X11G	-1.29	1.2D + 1.6W	3.420	100	100	100	0.0	0.0	9.72	2	2	0.00	13.98	13 User Input
DIAG	PSP - ROHN 1 1/2X11G	-7.93	1.2D + 1.6W 90	4.192	100	100	100	0.0	0.0	9.72	2	2	0.00	13.98	81 User Input
Max Tension Member		Force	Load Case	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use	Controls		
		(kip)		(ksi)	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%				
LEG	PSP - ROHN 3.0 EHH	13.36	1.2D + 1.6W 60	50	65	189.45	0	0	0.00	0.00	7	Member			
HORIZ	PSP - ROHN 1 1/2X11G	4.76	1.2D + 1.6W	42	58	9.72	2	2	0.00	13.98	48	User Input			
DIAG	PSP - ROHN 1 1/2X11G	7.75	1.2D + 1.6W 90	42	58	9.72	2	2	0.00	13.98	79	User Input			
Section: 14		85HHXET2S		Bot Elev (ft): 240.0				Height (ft): 20.000							
		Force		Len		Bracing %		Fy		phi		Shear		Bear	
		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Num	Num	phiRnv	phiRn	Use
Max Compression Member											Bolts	Holes	(kip)	(kip)	% Controls
LEG	PSP - ROHN 3.0 EHH	-148.13	1.2D + 1.6W	2.42	100	100	100	26.4	50.0	180.01	0	0	0.00	0.00	82 Member X
HORIZ	SAE - 2X2X0.25	-2.79	1.2D + 1.6W	3.420	100	100	100	112.5	36.0	15.65	2	1	24.86	34.80	17 Member Z
DIAG	SAE - 2X2X0.25	-11.66	1.2D + 1.6W	4.192	50	50	50	92.2	36.0	19.48	2	1	24.86	34.80	59 Member Z
Max Tension Member		Force	Load Case	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use	Controls		
		(kip)		(ksi)	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%				
LEG	PSP - ROHN 3.0 EHH	53.95	1.2D + 1.6W 60	50	65	189.45	0	0	0.00	0.00	28	Member			
HORIZ	SAE - 2X2X0.25	0.95	1.2D + 1.6W	36	58	24.55	2	1	0.00	34.80	3	Member			
DIAG	SAE - 2X2X0.25	6.65	1.2D + 1.6W 90	36	58	24.55	2	1	0.00	34.80	27	Member			
Section: 15		85HX112S		Bot Elev (ft): 260.0				Height (ft): 20.000							
		Force		Len		Bracing %		Fy		phi		Shear		Bear	
		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Num	Num	phiRnv	phiRn	Use
Max Compression Member											Bolts	Holes	(kip)	(kip)	% Controls
LEG	PX - 3" DIA PIPE	-70.83	1.2D + 1.6W	2.42	100	100	100	25.5	50.0	129.59	0	0	0.00	0.00	54 Member X
HORIZ	PSP - ROHN 1 1/2X11G	-0.56	1.2D + 1.6W	3.420	100	100	100	0.0	0.0	9.72	2	2	0.00	13.98	5 User Input
DIAG	PSP - ROHN 1 1/2X11G	-5.09	1.2D + 1.6W 90	4.192	100	100	100	0.0	0.0	9.72	2	2	0.00	13.98	52 User Input
Max Tension Member		Force	Load Case	Fy	Fu	phi	Pn	Num	Num	Shear	Bear	Use	Controls		
		(kip)		(ksi)	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%				
LEG		0.00		0	0	0.00	0	0	0.00	0.00	0				
HORIZ	PSP - ROHN 1 1/2X11G	1.18	1.2D + 1.6W 60	42	58	9.72	2	2	0.00	13.98	12	User Input			
DIAG	PSP - ROHN 1 1/2X11G	4.11	1.2D + 1.6W 90	42	58	9.72	2	2	0.00	13.98	42	User Input			

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Force/Stress Summary

Section: 16 85H2S Bot Elev (ft): 280.0 Height (ft): 20.000

		Force	Len	Bracing %			Fy	phi	Shear	Bear	Use			
		(kip)	(ft)	X	Y	Z	(ksi)	Pn	Cap	Cap	%	Controls		
Max Compression Member	Load Case							(kip)	Num Bolts	Num Holes	phiRnv	phiRn	%	
LEG PX - 3" DIA PIPE	1.2D + 1.6W 60	-67.70	2.42	200	200	200	51.0	50.0	112.35	0	0	0.00	0.00	60 Member X
HORIZ PSP - ROHN 1.5x16GA	1.2D + 1.6W	-0.80	3.420	100	100	100	0.0	0.0	6.49	2	1	0.00	14.48	12 User Input
DIAG PSP - ROHN 1.5x16GA	1.2D + 1.6W 90	-4.11	4.192	100	100	100	0.0	0.0	6.49	2	1	0.00	14.48	63 User Input

Max Tension Member	Load Case	Force (kip)	Fy (ksi)	Fu (ksi)	phi	Pn	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 3" DIA PIPE	1.2D + 1.6W	0.07	50	65	135.90	0	0	0	0.00	0.00	0	Member
HORIZ PSP - ROHN 1.5x16GA	1.2D + 1.6W 90	1.18	42	58	5.47	2	1	1	0.00	14.48	21	User Input
DIAG PSP - ROHN 1.5x16GA	1.2D + 1.6W 90	3.58	42	58	5.47	2	1	1	0.00	14.48	65	User Input

Section: 17 84HXET17S Bot Elev (ft): 300.0 Height (ft): 20.000

		Force	Len	Bracing %			Fy	phi	Shear	Bear	Use			
		(kip)	(ft)	X	Y	Z	(ksi)	Pn	Cap	Cap	%	Controls		
Max Compression Member	Load Case							(kip)	Num Bolts	Num Holes	phiRnv	phiRn	%	
LEG PX - 2-1/2" DIA PIPE	1.2D + 1.6W 60	-62.30	2.42	100	100	100	31.5	50.0	94.18	0	0	0.00	0.00	66 Member X
HORIZ SAE - 2X2X0.25	1.2D + 1.6W 60	-1.52	3.420	100	100	100	112.5	36.0	15.65	2	1	24.86	34.80	9 Member Z
DIAG SAE - 2X2X0.25	1.2D + 1.6W 90	-8.59	4.192	50	50	50	92.2	36.0	19.48	2	1	24.86	34.80	44 Member Z

Max Tension Member	Load Case	Force (kip)	Fy (ksi)	Fu (ksi)	phi	Pn	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 2-1/2" DIA PIPE	1.2D + 1.6W 60	47.79	50	65	101.25	0	0	0	0.00	0.00	47	Member
HORIZ SAE - 2X2X0.25	1.2D + 1.6W 60	3.86	36	58	24.55	2	1	1	0.00	34.80	15	Member
DIAG SAE - 2X2X0.25	1.2D + 1.6W 60	5.95	36	58	24.55	2	1	1	0.00	34.80	24	Member

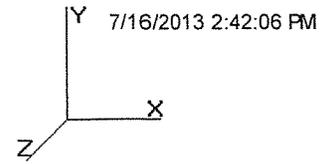
Section: 18 84HXS Bot Elev (ft): 320.0 Height (ft): 20.000

		Force	Len	Bracing %			Fy	phi	Shear	Bear	Use			
		(kip)	(ft)	X	Y	Z	(ksi)	Pn	Cap	Cap	%	Controls		
Max Compression Member	Load Case							(kip)	Num Bolts	Num Holes	phiRnv	phiRn	%	
LEG PX - 2-1/2" DIA PIPE	1.2D + 1.6W	-44.50	2.42	100	100	100	31.5	50.0	94.18	0	0	0.00	0.00	47 Member X
HORIZ PSP - ROHN 1 1/2X16G	1.2D + 1.6W	-2.63	3.420	100	100	100	0.0	0.0	6.49	2	1	0.00	14.48	40 User Input
DIAG PSP - ROHN 1 1/2X16G	1.2D + 1.6W 90	-4.60	4.192	100	100	100	0.0	0.0	6.49	2	1	0.00	14.48	70 User Input

Max Tension Member	Load Case	Force (kip)	Fy (ksi)	Fu (ksi)	phi	Pn	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG PX - 2-1/2" DIA PIPE	1.2D + 1.6W 60	42.25	50	65	101.25	0	0	0	0.00	0.00	41	Member
HORIZ PSP - ROHN 1 1/2X16G	1.2D + 1.6W 60	0.14	42	58	5.47	2	1	1	0.00	14.48	2	User Input
DIAG PSP - ROHN 1 1/2X16G	1.2D + 1.6W 90	4.08	42	58	5.47	2	1	1	0.00	14.48	74	User Input

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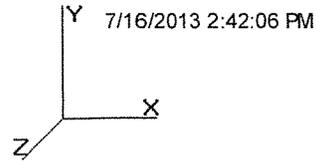


Support Forces Summary

Load Case	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
1.0D + 1.0W Service 90 deg	A3b	-21.41	-23.76	-12.06	
	A3a	11.26	-12.79	-6.81	
	A3	-0.67	-18.28	18.86	
	A1b	3.22	-3.56	-1.91	
	A1a	-9.04	-9.73	-5.17	
	A1	-0.12	-6.64	7.08	
	1	-0.60	111.63	0.01	
1.0D + 1.0W Service 60 deg	A3b	-22.07	-24.71	-12.74	
	A3a	13.26	-15.23	-8.28	
	A3	-0.54	-15.23	15.62	
	A1b	4.42	-4.88	-2.66	
	A1a	-9.46	-10.22	-5.46	
	A1	-0.10	-4.88	5.16	
	1	-0.51	111.85	-0.30	
1.0D + 1.0W Service Normal	A3b	-18.92	-21.39	-11.55	
	A3a	18.92	-21.39	-11.55	
	A3	0.00	-11.81	12.22	
	A1b	7.77	-8.43	-4.60	
	A1a	-7.77	-8.43	-4.60	
	A1	0.00	-3.05	3.23	
	1	0.00	111.53	-0.61	
1.2D + 1.0Di + 1.0Wi 90 deg	A3b	-22.12	-24.00	-12.59	
	A3a	18.12	-19.93	-10.64	
	A3	-0.38	-21.97	23.23	
	A1b	5.85	-6.13	-3.41	
	A1a	-8.26	-8.66	-4.74	
	A1	-0.07	-7.40	8.15	
	1	-0.21	158.44	0.00	
1.2D + 1.0Di + 1.0Wi 60 deg	A3b	-22.22	-24.21	-12.83	
	A3a	18.74	-20.69	-11.18	
	A3	-0.31	-20.69	21.82	
	A1b	6.32	-6.66	-3.72	
	A1a	-8.42	-8.84	-4.86	
	A1	-0.06	-6.66	7.33	
	1	-0.18	158.00	-0.10	
1.2D + 1.0Di + 1.0Wi Normal	A3b	-21.19	-23.25	-12.59	
	A3a	21.19	-23.25	-12.59	
	A3	0.00	-19.71	20.79	
	A1b	7.73	-8.14	-4.53	
	A1a	-7.73	-8.14	-4.53	
	A1	0.00	-5.94	6.57	
	1	0.00	158.87	-0.21	
1.2D + 1.6W 90 deg	A3b	-72.03	-80.99	-39.27	
	A3a	7.46	-12.04	-6.28	
	A3	-4.52	-46.72	46.08	
	A1b	1.02	-1.82	-0.92	
	A1a	-37.19	-39.21	-20.84	
	A1	-0.91	-20.09	21.75	
	1	-1.84	243.38	-0.56	
1.2D + 1.6W 60 deg	A3b	-73.94	-84.38	-42.69	

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A3a	18.22	-24.97	-14.61
A3	-3.54	-24.95	23.08
A1b	3.48	-4.67	-2.72
A1a	-34.78	-37.33	-20.08
A1	-0.61	-4.68	4.37
1	-2.24	222.43	-1.29

1.2D + 1.6W Normal

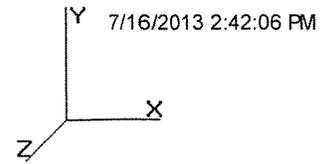
A3b	-57.31	-67.91	-37.52
A3a	57.31	-67.91	-37.52
A3	0.00	-7.42	4.99
A1b	30.94	-33.23	-18.89
A1a	-30.94	-33.22	-18.89
A1	0.00	-1.13	0.63
1	0.00	254.41	-1.36

Max Reactions (kip)

	<u>Base</u>	<u>Anch1</u>	<u>Anch2</u>
Vertical	254.41	-39.21	-84.38
Horizontal	2.59	42.63	85.38

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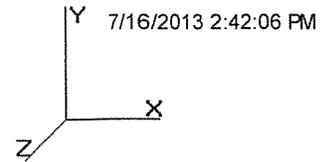


Cable Forces Summary

Load Case	Elevation (ft)	Cable	Node 1	Node 2	Allow Tension (kip)	Applied Tension (kip)	Use %
1.2D + 1.6W Normal	80.00	5/8 EHS	A1	39	25.44	0.11	0
		5/8 EHS	A1b	39a	25.44	21.88	85
		5/8 EHS	A1a	39b	25.44	21.88	86
	162.42	7/8 EHS	A1	76	47.82	1.51	3
		7/8 EHS	A1b	76a	47.82	28.32	59
		7/8 EHS	A1a	76b	47.82	28.31	59
	242.42	7/8 EHS	A3	T3	47.82	1.93	4
		7/8 EHS	A3b	T3b	47.82	22.81	47
		7/8 EHS	A3a	T3a	47.82	22.57	47
		7/8 EHS	A3a	T3	47.82	22.81	47
		7/8 EHS	A3b	T3a	47.82	22.57	47
		7/8 EHS	A3	T3b	47.82	1.93	4
	316.96	7/8 EHS	A3	T4	47.82	3.44	7
		7/8 EHS	A3b	T4b	47.82	26.57	55
		7/8 EHS	A3a	T4a	47.82	26.48	55
		7/8 EHS	A3a	T4	47.82	26.58	55
		7/8 EHS	A3b	T4a	47.82	26.48	55
		7/8 EHS	A3	T4b	47.82	3.44	7
1.2D + 1.6W 60 deg	80.00	5/8 EHS	A1	39	25.44	1.95	7
		5/8 EHS	A1b	39a	25.44	1.95	7
		5/8 EHS	A1a	39b	25.44	23.01	90
	162.42	7/8 EHS	A1	76	47.82	4.90	10
		7/8 EHS	A1b	76a	47.82	4.89	10
		7/8 EHS	A1a	76b	47.82	32.90	68
	242.42	7/8 EHS	A3	T3	47.82	8.56	17
		7/8 EHS	A3b	T3b	47.82	28.08	58
		7/8 EHS	A3a	T3a	47.82	8.36	17
		7/8 EHS	A3a	T3	47.82	8.54	17
		7/8 EHS	A3b	T3a	47.82	28.07	58
		7/8 EHS	A3	T3b	47.82	8.37	17
	316.96	7/8 EHS	A3	T4	47.82	9.68	20
		7/8 EHS	A3b	T4b	47.82	32.94	68
		7/8 EHS	A3a	T4a	47.82	9.45	19
		7/8 EHS	A3a	T4	47.82	9.70	20
		7/8 EHS	A3b	T4a	47.82	32.96	68
		7/8 EHS	A3	T4b	47.82	9.42	19
1.2D + 1.6W 90 deg	80.00	5/8 EHS	A1	39	25.44	13.22	51
		5/8 EHS	A1b	39a	25.44	0.50	1
		5/8 EHS	A1a	39b	25.44	25.28	99
	162.42	7/8 EHS	A1	76	47.82	17.15	35
		7/8 EHS	A1b	76a	47.82	2.12	4
		7/8 EHS	A1a	76b	47.82	33.77	70
	242.42	7/8 EHS	A3	T3	47.82	16.17	33
		7/8 EHS	A3b	T3b	47.82	27.05	56
		7/8 EHS	A3a	T3a	47.82	3.64	7
		7/8 EHS	A3a	T3	47.82	3.76	7
		7/8 EHS	A3b	T3a	47.82	27.07	56
		7/8 EHS	A3	T3b	47.82	15.78	32
	316.96	7/8 EHS	A3	T4	47.82	18.05	37
		7/8 EHS	A3b	T4b	47.82	31.64	66

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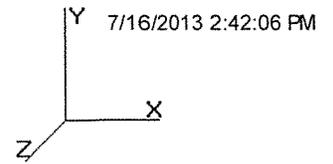
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		7/8 EHS	A3a	T4a	47.82	4.88	10
		7/8 EHS	A3a	T4	47.82	5.02	10
		7/8 EHS	A3b	T4a	47.82	31.52	65
		7/8 EHS	A3	T4b	47.82	17.69	36
1.2D + 1.0Di + 1.0Wi Normal	80.00	5/8 EHS	A1	39	25.44	3.86	15
		5/8 EHS	A1b	39a	25.44	5.21	20
		5/8 EHS	A1a	39b	25.44	5.21	20
	162.42	7/8 EHS	A1	76	47.82	5.66	11
		7/8 EHS	A1b	76a	47.82	7.59	15
		7/8 EHS	A1a	76b	47.82	7.59	15
	242.42	7/8 EHS	A3	T3	47.82	8.07	16
		7/8 EHS	A3b	T3b	47.82	9.32	19
		7/8 EHS	A3a	T3a	47.82	9.27	19
		7/8 EHS	A3a	T3	47.82	9.32	19
		7/8 EHS	A3b	T3a	47.82	9.27	19
		7/8 EHS	A3	T3b	47.82	8.07	16
	316.96	7/8 EHS	A3	T4	47.82	7.74	16
		7/8 EHS	A3b	T4b	47.82	9.17	19
		7/8 EHS	A3a	T4a	47.82	9.11	19
		7/8 EHS	A3a	T4	47.82	9.17	19
		7/8 EHS	A3b	T4a	47.82	9.11	19
		7/8 EHS	A3	T4b	47.82	7.74	16
1.2D + 1.0Di + 1.0Wi 60 deg	80.00	5/8 EHS	A1	39	25.44	4.29	16
		5/8 EHS	A1b	39a	25.44	4.29	16
		5/8 EHS	A1a	39b	25.44	5.64	22
	162.42	7/8 EHS	A1	76	47.82	6.29	13
		7/8 EHS	A1b	76a	47.82	6.29	13
		7/8 EHS	A1a	76b	47.82	8.21	17
	242.42	7/8 EHS	A3	T3	47.82	8.42	17
		7/8 EHS	A3b	T3b	47.82	9.62	20
		7/8 EHS	A3a	T3a	47.82	8.37	17
		7/8 EHS	A3a	T3	47.82	8.42	17
		7/8 EHS	A3b	T3a	47.82	9.62	20
		7/8 EHS	A3	T3b	47.82	8.37	17
	316.96	7/8 EHS	A3	T4	47.82	8.17	17
		7/8 EHS	A3b	T4b	47.82	9.52	19
		7/8 EHS	A3a	T4a	47.82	8.10	16
		7/8 EHS	A3a	T4	47.82	8.17	17
		7/8 EHS	A3b	T4a	47.82	9.52	19
		7/8 EHS	A3	T4b	47.82	8.10	16
1.2D + 1.0Di + 1.0Wi 90 deg	80.00	5/8 EHS	A1	39	25.44	4.75	18
		5/8 EHS	A1b	39a	25.44	3.97	15
		5/8 EHS	A1a	39b	25.44	5.53	21
	162.42	7/8 EHS	A1	76	47.82	6.94	14
		7/8 EHS	A1b	76a	47.82	5.83	12
		7/8 EHS	A1a	76b	47.82	8.05	16
	242.42	7/8 EHS	A3	T3	47.82	8.88	18
		7/8 EHS	A3b	T3b	47.82	9.54	19
		7/8 EHS	A3a	T3a	47.82	8.13	17
		7/8 EHS	A3a	T3	47.82	8.15	17
		7/8 EHS	A3b	T3a	47.82	9.56	19
		7/8 EHS	A3	T3b	47.82	8.81	18
	316.96	7/8 EHS	A3	T4	47.82	8.68	18
		7/8 EHS	A3b	T4b	47.82	9.42	19
		7/8 EHS	A3a	T4a	47.82	7.82	16
		7/8 EHS	A3a	T4	47.82	7.85	16

Site Number: 97785
 Location: Swanquarter , NC
 Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure : C
 Topo : 1

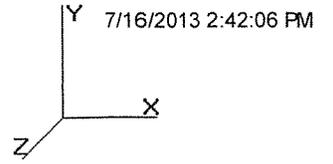
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		7/8 EHS	A3b	T4a	47.82	9.45	19
		7/8 EHS	A3	T4b	47.82	8.59	17
1.0D + 1.0W Service Normal	80.00	5/8 EHS	A1	39	25.44	1.72	6
		5/8 EHS	A1b	39a	25.44	5.04	19
		5/8 EHS	A1a	39b	25.44	5.04	19
	162.42	7/8 EHS	A1	76	47.82	3.11	6
		7/8 EHS	A1b	76a	47.82	7.80	16
		7/8 EHS	A1a	76b	47.82	7.80	16
	242.42	7/8 EHS	A3	T3	47.82	4.97	10
		7/8 EHS	A3b	T3b	47.82	8.14	17
		7/8 EHS	A3a	T3a	47.82	8.06	16
		7/8 EHS	A3a	T3	47.82	8.14	17
		7/8 EHS	A3b	T3a	47.82	8.06	16
		7/8 EHS	A3	T3b	47.82	4.97	10
	316.96	7/8 EHS	A3	T4	47.82	4.43	9
		7/8 EHS	A3b	T4b	47.82	8.29	17
		7/8 EHS	A3a	T4a	47.82	8.15	17
		7/8 EHS	A3a	T4	47.82	8.29	17
		7/8 EHS	A3b	T4a	47.82	8.15	17
		7/8 EHS	A3	T4b	47.82	4.43	9
1.0D + 1.0W Service 60 deg	80.00	5/8 EHS	A1	39	25.44	2.77	10
		5/8 EHS	A1b	39a	25.44	2.77	10
		5/8 EHS	A1a	39b	25.44	6.10	23
	162.42	7/8 EHS	A1	76	47.82	4.76	9
		7/8 EHS	A1b	76a	47.82	4.76	9
		7/8 EHS	A1a	76b	47.82	9.39	19
	242.42	7/8 EHS	A3	T3	47.82	6.03	12
		7/8 EHS	A3b	T3b	47.82	9.12	19
		7/8 EHS	A3a	T3a	47.82	5.94	12
		7/8 EHS	A3a	T3	47.82	6.02	12
		7/8 EHS	A3b	T3a	47.82	9.12	19
		7/8 EHS	A3	T3b	47.82	5.95	12
	316.96	7/8 EHS	A3	T4	47.82	5.91	12
		7/8 EHS	A3b	T4b	47.82	9.56	19
		7/8 EHS	A3a	T4a	47.82	5.77	12
		7/8 EHS	A3a	T4	47.82	5.91	12
		7/8 EHS	A3b	T4a	47.82	9.56	19
		7/8 EHS	A3	T4b	47.82	5.76	12
1.0D + 1.0W Service 90 deg	80.00	5/8 EHS	A1	39	25.44	3.90	15
		5/8 EHS	A1b	39a	25.44	1.97	7
		5/8 EHS	A1a	39b	25.44	5.82	22
	162.42	7/8 EHS	A1	76	47.82	6.26	13
		7/8 EHS	A1b	76a	47.82	3.59	7
		7/8 EHS	A1a	76b	47.82	8.95	18
	242.42	7/8 EHS	A3	T3	47.82	7.09	14
		7/8 EHS	A3b	T3b	47.82	8.83	18
		7/8 EHS	A3a	T3a	47.82	5.22	10
		7/8 EHS	A3a	T3	47.82	5.23	10
		7/8 EHS	A3b	T3a	47.82	8.86	18
		7/8 EHS	A3	T3b	47.82	6.98	14
	316.96	7/8 EHS	A3	T4	47.82	7.10	14
		7/8 EHS	A3b	T4b	47.82	9.14	19
		7/8 EHS	A3a	T4a	47.82	4.82	10
		7/8 EHS	A3a	T4	47.82	4.89	10
		7/8 EHS	A3b	T4a	47.82	9.20	19
		7/8 EHS	A3	T4b	47.82	6.93	14

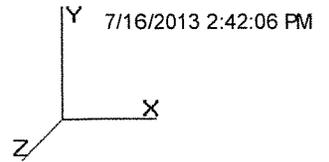
Site Number: 97785
Location: Swanquarter , NC
Code: ANSI/TIA-222 Rev G
Struct Class : II
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Site Number: 97785
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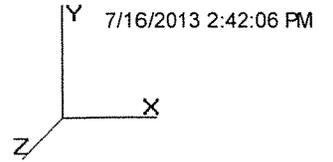


Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
Serviceability - 60.00 Wind 60 deg	100.00	0.0859	-0.0033	0.0567
	200.00	0.0998	0.0063	0.0054
	242.42	0.0979	0.0001	0.1820
	300.00	0.1493	0.0001	0.0135
	316.96	0.1491	0.0001	0.2505
	336.96	0.1627	0.0005	0.0450
	340.00	0.1650	0.0005	0.0472
Serviceability - 60.00 Wind 90 deg	100.00	0.0863	0.0124	0.0566
	200.00	0.0906	0.0192	0.0179
	242.42	0.0818	0.0116	0.1896
	300.00	0.1199	0.0146	0.0236
	316.96	0.1162	0.0174	0.2576
	336.96	0.1247	0.0172	0.0281
	340.00	0.1262	0.0172	0.0306
Serviceability - 60.00 Wind Normal	100.00	0.0883	-0.0032	0.0528
	200.00	0.0826	0.0062	0.0191
	242.42	0.0632	0.0000	0.1806
	300.00	0.0810	0.0000	0.0311
	316.96	0.0695	0.0002	0.2642
	336.96	0.0702	-0.0001	0.0158
	340.00	0.0707	-0.0001	0.0168
120.00 mph 60 deg with No Ice	100.00	0.7077	-0.0032	0.4340
	200.00	0.8936	0.0172	0.0980
	242.42	0.9745	0.0032	0.5442
	300.00	1.5076	0.0079	0.3081
	316.96	1.5747	0.0079	0.6583
	336.96	1.7406	0.0318	0.5134
	340.00	1.7674	0.0328	0.5262
120.00 mph 90 deg with No Ice	100.00	1.1380	0.1351	0.5384
	200.00	1.2169	0.1286	0.1384
	242.42	1.2346	0.0910	0.6161
	300.00	1.8612	0.0616	0.4962
	316.96	1.9831	0.0410	0.9408
	336.96	2.2138	0.0287	0.6795
	340.00	2.2495	0.0281	0.6897
120.00 mph Normal to Face with No Ice	100.00	1.2936	-0.0046	0.5891
	200.00	1.3542	0.0140	0.1069
	242.42	1.3734	0.0012	0.6802
	300.00	2.1043	0.0017	0.6407
	316.96	2.2702	0.0025	1.0920
	336.96	2.5584	0.0001	0.9135
	340.00	2.6045	-0.0002	0.9199
30.00 mph 60 deg with 0.25 in Radial Ice	100.00	0.0360	-0.0045	0.0245
	200.00	0.0376	0.0089	0.0099
	242.42	0.0291	0.0000	0.2262
	300.00	0.0336	0.0000	0.0157
	316.96	0.0293	0.0001	0.3094
	336.96	0.0286	-0.0001	0.0028
	340.00	0.0286	-0.0001	0.0028

Site Number: 97785
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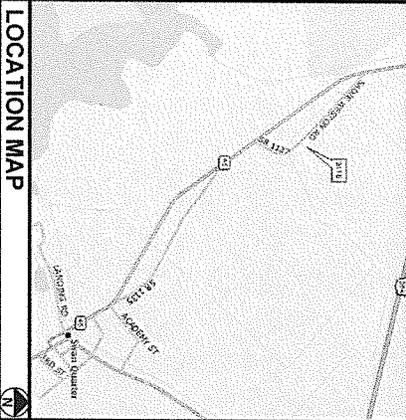
30.00 mph 90 deg with 0.25 in Radial Ice	340.00	0.0286	-0.0001	0.0022
	100.00	0.0361	0.0031	0.0258
	200.00	0.0356	0.0143	0.0133
	242.42	0.0253	0.0042	0.2275
	300.00	0.0272	0.0046	0.0210
	316.96	0.0227	0.0053	0.3102
30.00 mph Normal with 0.25 in Radial Ice	336.96	0.0216	0.0050	0.0083
	340.00	0.0216	0.0050	0.0076
	100.00	0.0365	-0.0045	0.0254
	200.00	0.0341	0.0089	0.0142
	242.42	0.0216	0.0000	0.2282
	300.00	0.0189	0.0000	0.0244
	316.96	0.0123	0.0001	0.3072
	336.96	0.0090	-0.0001	0.0055
340.00	0.0086	-0.0001	0.0059	
340.00	0.0000	0.0000	0.0000	

AT&T SITE NUMBER : 176-068
 PROJECT DESCRIPTION: CO-LOCATION ON AN EXISTING GUY TOWER
 TOWER TYPE: 340' GUY TOWER (350' OVERALL HEIGHT)
 SITE ADDRESS: S.R. 1137 SWANQUARTER, NC 27885 (HYDE COUNTY)
 JURISDICTION: HYDE COUNTY
 AREA OF CONSTRUCTION: 385 ± SQ. FT.
 PRESENT OCCUPANCY TYPE: TELECOMMUNICATIONS FACILITY
 CURRENT ZONING: RESIDENTIAL
 PIN NUMBER: 7891-39-3164

PROJECT INFORMATION

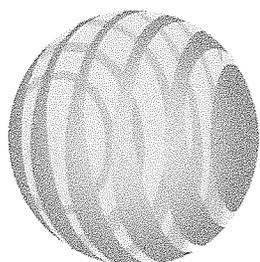
LATITUDE N 35° 28' 13.00"
 LONGITUDE W 78° 20' 34.00"
 GROUND ELEV. (AMSL) = 3633'

TOWER COORDINATES



FROM RALEIGH, NC: TAKE US-54 EAST FOR 8.8 MILES. KEEP LEFT TO CONTINUE ONTO TURN RIGHT ONTO NC-34 SOUTH AND DRIVE 4.7 MILES. TURN LEFT ONTO NC-45 SOUTH AND DRIVE 1.1 MILES. TAKE THE FIRST RIGHT TO STAY ON NC-45 AND DRIVE 9.3 MILES. TURN LEFT ONTO NC-43 SOUTH AND DRIVE 1.1 MILES. TAKE A RIGHT TO STAY ON NC-43 MILES. SITE WILL BE ON THE LEFT.

DRIVING DIRECTIONS



S.R. 1137
 SWANQUARTER, NC 27885
 (HYDE COUNTY)

AT&T SITE #: 176-068

PROJECT INFORMATION:

TOWER OWNER:
 AMERICAN TOWER CORPORATION
 10 PRESIDENTIAL WAY
 WOBURN, MA 01801
 PHONE: (781) 924-4443
 SITE NO: 97785

APPLICANT/LESSEE:
 NAME: AT&T MOBILITY
 ADDRESS: 2022 HENSHO CHURCH ROAD, STE 300
 CITY, STATE, ZIP: MORRISVILLE, NC 27560
 CONTACT: KEN CLARK
 PHONE: (336) 545-2137

SITE PROJECT MANAGER:
 NAME: MASTEC NETWORK SOLUTIONS
 ADDRESS: 3703 JUNCTION BOULEVARD
 CITY, STATE, ZIP: MORRISVILLE, NC 27560
 CONTACT: VALMA WOOD
 PHONE: (919) 674-5881

CIVIL ENGINEER:
 NAME: TOWER ENGINEERING PROFESSIONALS
 ADDRESS: 3703 JUNCTION BOULEVARD
 CITY, STATE, ZIP: RALEIGH, NC 27603
 CONTACT: KIMBERLY S. MARTIN, P.E.
 PHONE: (919) 861-4351

ELECTRICAL ENGINEER:
 NAME: TOWER ENGINEERING PROFESSIONALS
 ADDRESS: 3703 JUNCTION BOULEVARD
 CITY, STATE, ZIP: RALEIGH, NC 27603
 CONTACT: FREDERICK T. HERB, P.E.
 PHONE: (919) 861-4351

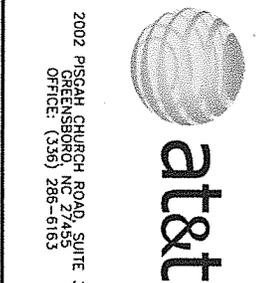
CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE 2002 INTERNATIONAL BUILDING CODE AS ADOPTED BY THE LOCAL GOVERNMENT. THE FOLLOWING CODES SHALL BE USED FOR THE PROJECT. THE FOLLOWING CODES SHALL BE USED FOR THE PROJECT. THE FOLLOWING CODES SHALL BE USED FOR THE PROJECT.

1. NORTH CAROLINA BUILDING CODE
2. NORTH CAROLINA CODE COUNCIL
3. AMERICAN NATIONAL STANDARDS
4. NEC 2011 (AMENDED)
5. LOCAL BUILDING CODE
6. INTERNATIONAL ORDINANCES

UTILITIES:
 POWER COMPANY: TIDELAND ENRG
 PHONE: (800) 637-0179
 METER # NEAR SITE: UNKNOWN
 TELEPHONE COMPANY: CENTURY LINK
 PHONE: (825) 928-5861
 PEDESTAL # NEAR SITE: UNKNOWN

CONTACT INFORMATION



2002 PISGAH CHURCH ROAD, SUITE 300
 MORRISVILLE, NC 27560
 OFFICE: (336) 286-6163

3800 GATEWAY CENTRE BOULEVARD, SUITE 311
 MORRISVILLE, NC 27560
 OFFICE: (919) 674-5851

PLANS PREPARED FOR:

SHEET	DESCRIPTION	REV
T1	TITLE SHEET	2
N1	GENERAL NOTES	1
C1	SITE PLAN	1
C2	COMPOUND DETAIL	1
C3	TOWER ELEVATION	1
C4	SHELTER ELEVATIONS	1
C5	GENERATOR & FUEL TANK ELEVATIONS	1
C6	ICE BRIDGE DETAILS I	1
C7	ICE BRIDGE DETAILS II	2
C8	ANTENNA MOUNTING DETAILS	1
C9	FENCE DETAILS	1
C10	ELECTRICAL DETAILS	1
E1	SERVICE ROUTING PLAN & ONE-LINE DIAGRAM	1
E2	TOWER & SHELTER GROUNDING PLAN	2
E3	PANELBOARD SCHEDULE	1
E4	SERVICE GASK DETAILS	1
E5	GROUNDING DETAILS I	1
E6	GROUNDING DETAILS II	1
E7		1

INDEX OF SHEETS

PLANS PREPARED BY:
 TOWER ENGINEERING PROFESSIONALS
 3703 JUNCTION BOULEVARD
 RALEIGH, NC 27603-5263
 OFFICE: (919) 861-4351
 www.teggroup.net
 N.C. LICENSE # C-1794

REV	DATE	ISSUED FOR:
2	08/01/13	CONSTRUCTION
1	07-26-13	CONSTRUCTION
0	07/19/13	PRELIMINARY

DRAWN BY: LAMM CHECKED BY: KSM
 SEAL: [Professional Engineer Seal]

SEAL: [Professional Engineer Seal - Kimberly S. Martin, Engineer, No. 037920, North Carolina]

SEAL: [Professional Engineer Seal - Frederick T. Herb, Engineer, No. 037920, North Carolina]

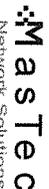
August 1, 2013

SHEET NUMBER: T-1
 REVISION: 2
 TEP # 47616-G-103

1. ALL REFERENCES MADE TO OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED AT&T OR IT'S DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE HAS SUFFICIENT EXPERIENCE AND ABILITY THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF NORTH CAROLINA.
3. THE STRUCTURE SHALL BE DESIGNED IN ACCORDANCE WITH ANSI/TIA--222-G 2009. THIS CONFORMS TO THE REQUIREMENTS OF THE NORTH CAROLINA BUILDING CODE 2012 EDITION.
4. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE NORTH CAROLINA BUILDING CODE, 2012 EDITION. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES, THE USED ON THIS PROJECT.
5. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO BE USED FOR THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND FOR FIELD MODIFICATIONS. THE CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LEU OF FIELD VERIFICATION. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, APPROVALS, AND ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SOLUTIONS, AND PROCEDURES OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
7. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM DEFECTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS, ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THIS PROJECT AND RELATED WORK COMPLES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
9. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED AND MATERIALS ACCESS, WITH THE AT&T PROJECT MANAGER.
10. BILL OF MATERIALS AND PART NUMBERS LISTED ON CONSTRUCTION DRAWINGS ARE INTENDED TO AID CONTRACTOR/OWNER, CONTRACTOR/OWNER SHALL VERIFY PARTS AND QUANTITIES WITH MANUFACTURER PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
11. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
12. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
13. THE CONTRACTOR SHALL REWORK (OR, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SURGRADE IN ITS PRESENT STATE, AFTER REWORKING, IF THE MATERIAL REMAINS UNSUITABLE. THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE WITH APPROVED MATERIAL. ALL SURGRADES SHALL BE PROFFERED WITH A FULLY LOADED TANDEN AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFT MATERIAL SHALL BE REMOVED OR REPLACED.
14. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PIPES, DITCHES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
15. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
16. ALL BUILDING DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. THE OWNER SHALL BE RESPONSIBLE FOR A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.

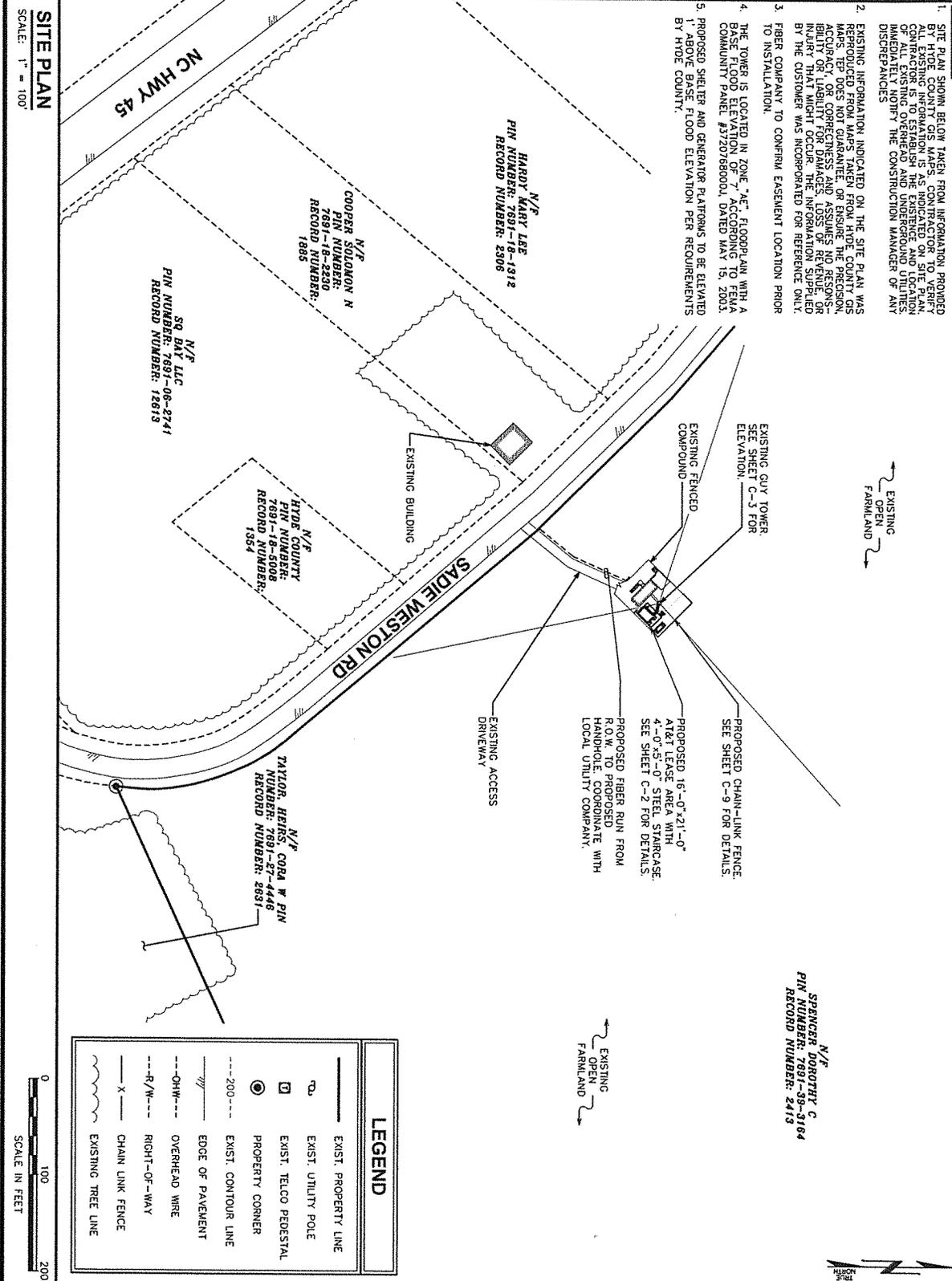
17. ANY BUILDINGS ON THIS SITE ARE INTENDED TO SHELTER EQUIPMENT WHICH WILL ONLY BE PERIODICALLY MAINTAINED AND ARE NOT INTENDED FOR HUMAN OCCUPANCY.
18. TEMPORARY FACILITIES FOR PROTECTION OF TOOLS AND EQUIPMENT SHALL CONFORM TO LOCAL REGULATIONS AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
19. RENTAL CHARGES, SAFETY, PROTECTION AND MAINTENANCE OF RENTED EQUIPMENT SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
20. THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL CARRY LIABILITY INSURANCE IN THE AMOUNTS AND FORM IN ACCORDANCE WITH AT&T SPECIFICATIONS OF THE WORK ON THE PROJECT.
21. THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY, SAFETY CARE OF ADJACENT PROPERTIES, AND COMPLIANCE WITH STATE AND FEDERAL REGULATIONS REGARDING SAFETY. SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
22. THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITY SERVICES TO VERIFY LOCATIONS OF EXISTING UTILITIES AND REQUIREMENTS FOR NEW UTILITY CONNECTIONS PRIOR TO EXCAVATING.
23. THE CONTRACTOR SHALL MAINTAIN THE JOB CLEAR OF TRASH AND DEBRIS. ALL WASTE MATERIALS SHALL BE REMOVED FROM THE SITE PRIOR TO SUBSTANTIAL COMPLETION AND PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR SHALL MAINTAIN A 30' CLEARANCE AROUND ALL EXISTING UTILITY BARRIERS, AND SHALL REMOVE TRASH, DEBRIS, ETC. ON A DAILY BASIS.
24. COSTS FOR BUILDING PERMITS, LANDFILL TAXES, SALES TAXES AND OTHER CHARGES RELATIVE TO CONSTRUCTION OF THIS PROJECT SHALL BE INCLUDED IN THE CONTRACT PRICE.
25. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE AT&T PROJECT ENGINEER FOR FACILITIES/CONSTRUCTION.
26. THE CONTRACTOR SHALL GUARANTEE THE WORK PERFORMED ON THE PROJECT BY THE CONTRACTOR AND ANY OR ALL OF THE SUBCONTRACTORS WHO PERFORMED WORK FOR THE CONTRACTOR ON THIS PROJECT. THE GUARANTEE SHALL BE FOR A FULL YEAR FOLLOWING ISSUANCE OF THE FINAL PAYMENT OF RETAINAGE.

GENERAL NOTES

<p>PLANS PREPARED FOR:</p> <p style="text-align: center;"></p> <p>2002 PISGAH CHURCH ROAD, SUITE 300 GREENSBORO, NC 27459</p> <p>PLANS PREPARED FOR:</p> <p style="text-align: center;"></p> <p>Network Solutions 3800 GATEWAY CENTRE BLVD, SUITE 311 MORRISVILLE, NC 27560</p> <p>PROJECT INFORMATION:</p> <p style="text-align: center;">AT&T # 176-068</p> <p>S.R. 1137 SWANQUARTER, NC 27885 (HIDE COUNTY)</p> <p>PLANS PREPARED BY:</p> <p style="text-align: center;"></p> <p>TOMER ENGINEERING PROFESSIONALS 3703 JUNCTION BOULEVARD RALEIGH, NC 27603-5253 OFFICE: (919) 661-5351 www.tegroup.net N.C. LICENSE # C-1794</p>	<p>SEAL:</p> <p style="text-align: center;"></p> <p style="text-align: center;">JULY 26, 2013</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">1 07-26-13 CONSTRUCTION</td> </tr> <tr> <td>0 07-19-13 PRELIMINARY</td> </tr> <tr> <td>REV DATE ISSUED FOR:</td> </tr> <tr> <td>DRAWN BY: UAM CHECKED BY: GMA</td> </tr> </table> <p style="text-align: center;">GENERAL NOTES</p>	1 07-26-13 CONSTRUCTION	0 07-19-13 PRELIMINARY	REV DATE ISSUED FOR:	DRAWN BY: UAM CHECKED BY: GMA	<p>SHEET NUMBER: N-1</p> <p>REVISION: 1</p> <p style="text-align: right;">TEP # 47616-G103</p>
1 07-26-13 CONSTRUCTION						
0 07-19-13 PRELIMINARY						
REV DATE ISSUED FOR:						
DRAWN BY: UAM CHECKED BY: GMA						

NOTES:

1. SITE PLAN SHOWN BELOW TAKEN FROM INFORMATION PROVIDED BY THE CUSTOMER. ALL EXISTING INFORMATION IS AS INDICATED ON SITE PLAN. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES. DISCREPANCIES WILL BE THE CONSTRUCTION MANAGER'S OR ANY DISCREPANCIES.
2. EXISTING INFORMATION INDICATED ON THE SITE PLAN WAS REPRODUCED FROM MAPS TAKEN FROM HYDE COUNTY GIS MAPS. THE USER ASSUMES ALL RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION. THE USER ASSUMES ALL LIABILITY FOR DAMAGES, LOSS OF REVENUE OR INJURY THAT MIGHT OCCUR. THE INFORMATION SUPPLIED BY THE CUSTOMER WAS INCORPORATED FOR REFERENCE ONLY.
3. FIBER COMPANY TO CONFIRM EASEMENT LOCATION PRIOR TO INSTALLATION.
4. THE TOWER IS LOCATED IN ZONE "AE", FLOODPLAIN WITH A BASE FLOOD ELEVATION OF 7' ACCORDING TO FEMA COMMUNITY PANEL #3720768000, DATED MAY 15, 2001.
5. PROPOSED SHUTTER AND GENERATOR PLATFORMS TO BE ELEVATED 1' ABOVE BASE FLOOD ELEVATION PER REQUIREMENTS BY HYDE COUNTY.



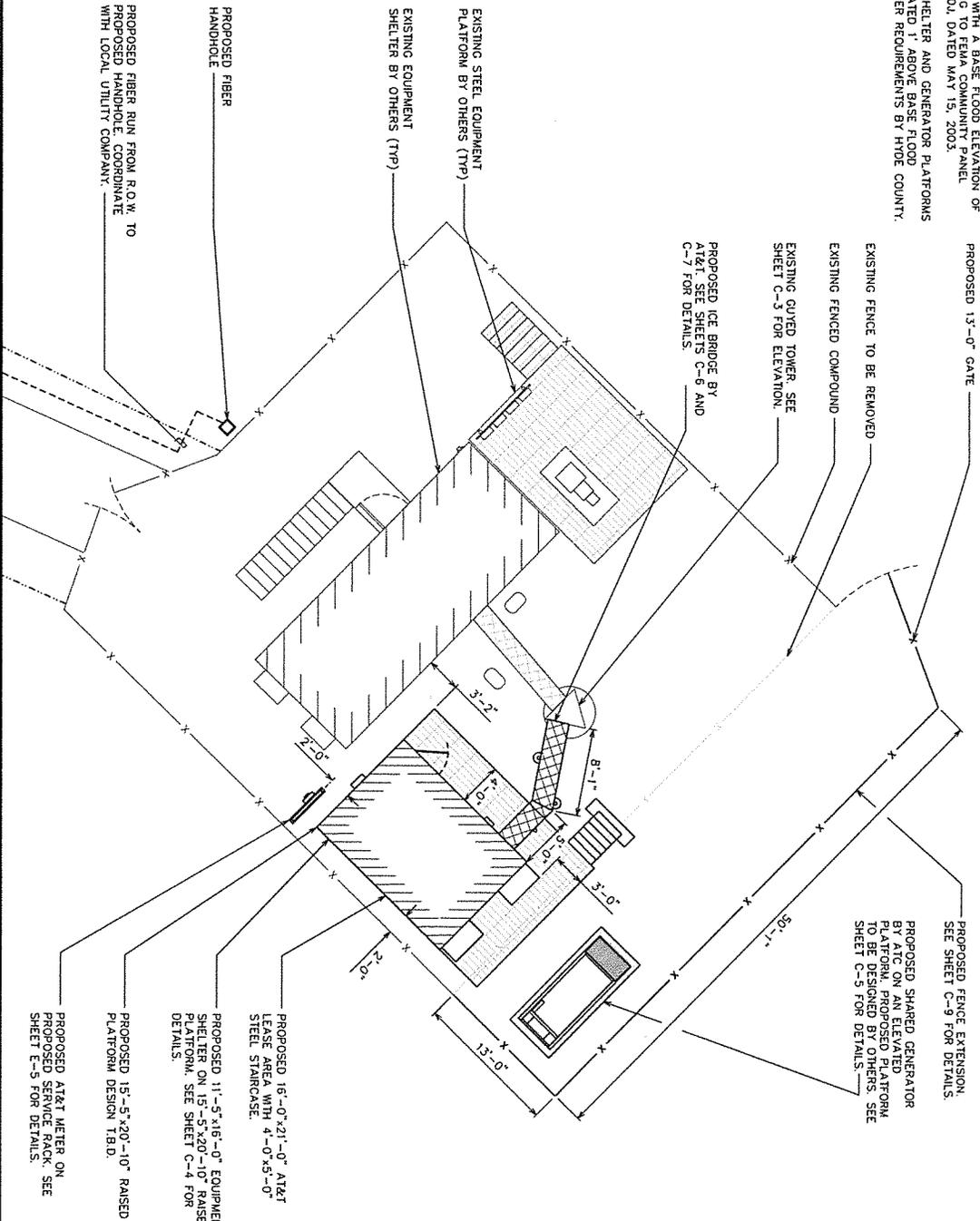
SITE PLAN
SCALE: 1" = 100'

LEGEND	
	EXIST. PROPERTY LINE
	EXIST. UTILITY POLE
	EXIST. TELCO PEDESTAL
	PROPERTY CORNER
	EXIST. CONTOUR LINE
	EDGE OF PAVEMENT
	OVERHEAD WIRE
	RIGHT-OF-WAY
	CHAIN LINK FENCE
	EXISTING TREE LINE

<p>PLANS PREPARED FOR:</p> <p>2002 PISCATAWAY CHURCH ROAD, SUITE 300 GREENSBORO, NC 27435</p>										
<p>PLANS PREPARED FOR:</p> <p>Network Solutions 1800 GATEWAY CENTRE BLVD, SUITE 311 MORRISVILLE, NC 27560</p>										
<p>PROJECT INFORMATION:</p> <p>AT&T #: 176-068</p> <p>S.R. 1137 SWANQUARTER, NC 27885 (HYDE COUNTY)</p>										
<p>PLANS PREPARED BY:</p> <p>TOWER ENGINEERING PROFESSIONALS 3703 LUNCION BOULEVARD RALEIGH, NC 27603-5263 OFFICE: (919) 661-6351 www.teppgroup.net N.C. LICENSE # C-1794</p>										
<p>SEAL:</p>										
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2	06-01-13	CONSTRUCTION								
1	07-26-13	CONSTRUCTION								
REV	DATE	ISSUED FOR:								
<p>DRAWN BY: <u> </u> CHECKED BY: <u> </u></p>										
<p>SHEET TITLE:</p> <p>SITE PLAN</p>										
<p>SHEET NUMBER:</p> <p>C-1</p>	<p>REVISION:</p> <p>2</p>									
<p>TPP #: 47616.G103</p>										

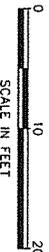
NOTES:

1. THE TOWER IS LOCATED IN ZONE "AE" FLOODPLAIN WITH A BASE FLOOD ELEVATION OF 7' ACCORDING TO FEMA COMMUNITY PANEL #3720768000, DATED MAY 15, 2003.
2. PROPOSED SHELTER AND GENERATOR PLATFORMS TO BE ELEVATED ABOVE BASE FLOOD ELEVATION PER REQUIREMENTS BY HIDE COUNTY.



COMPOUND DETAIL

SCALE: 1" = 10'



SHEET NUMBER:	REVISION:
C-2	2
TP #4761G-103	

COMPOUND DETAIL

2	09-01-13	CONSTRUCTION
1	07-26-13	CONSTRUCTION
REV	DATE	ISSUED FOR:
DRAWN BY: GAIA CHECKED BY: GAIA		
SHEET TITLE:		

SEAL:

KIMBERLY S. MARTIN
 ENGINEER
 N.C. LICENSE # C-1794

TOWER ENGINEERING PROFESSIONALS
 3703 JUNCTION BOULEVARD
 RALEIGH, NC 27603-5283
 OFFICE: (919) 861-6351
 www.towereng.com
 N.C. LICENSE # C-1794

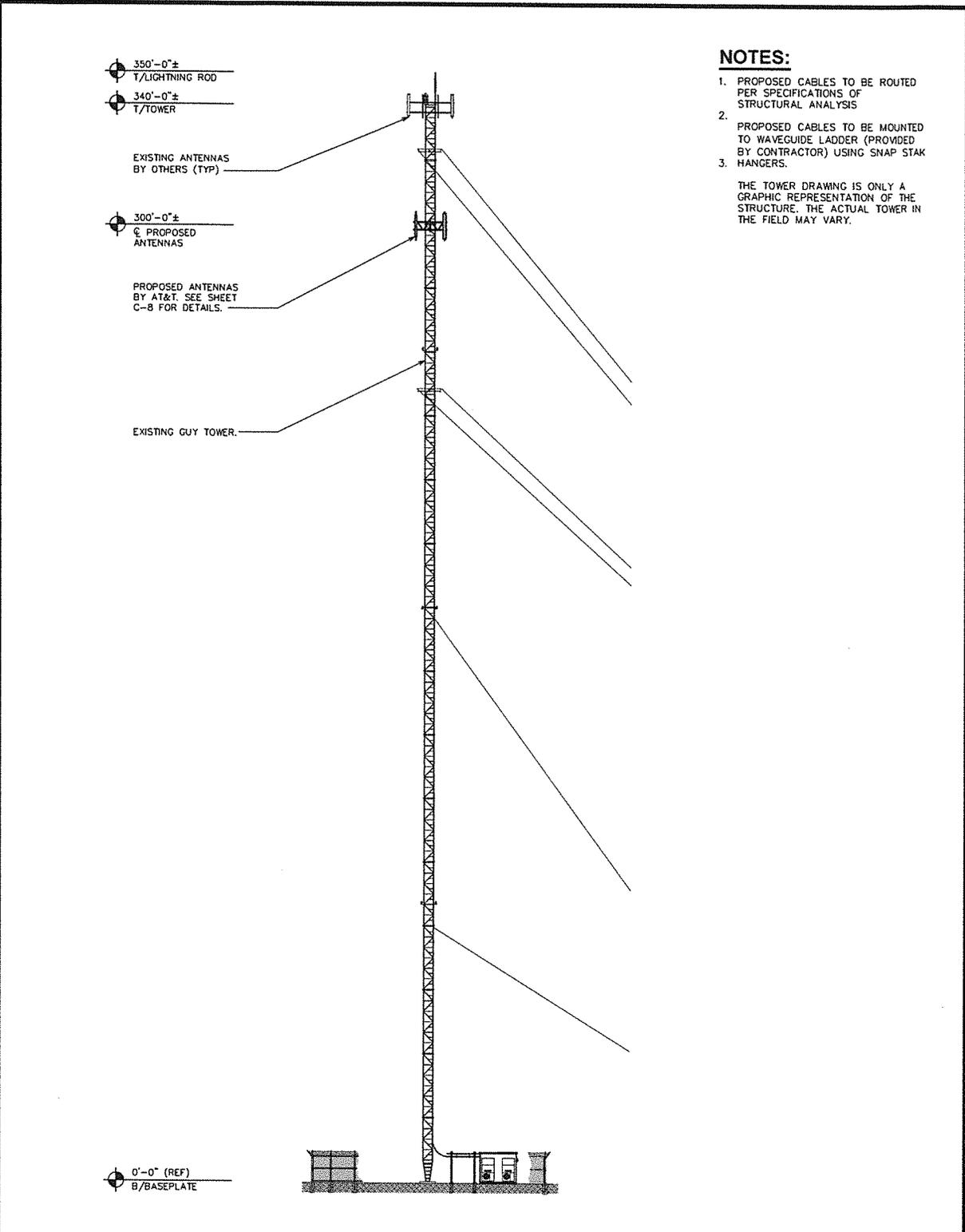
PLANS PREPARED BY:
 S.R. 1137
 SWANQUARTER, NC 27885
 (HIDE COUNTY)

AT&T #: 176-068

at&t
 2002 PISCATAWAY CHURCH ROAD, SUITE 300
 GREENSBORO, NC 27455

PLANS PREPARED FOR:
mas tec
 Network Solutions
 3800 GATEWAY CENTRE BLVD., SUITE 311
 MORRISVILLE, NC 27560

PLANS PREPARED FOR:

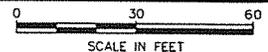


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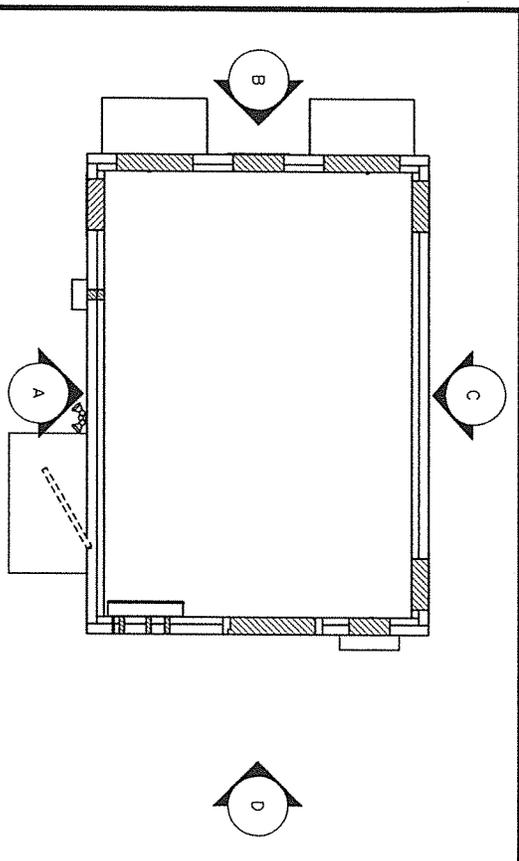
1. PROPOSED CABLES TO BE ROUTED PER SPECIFICATIONS OF STRUCTURAL ANALYSIS
2. PROPOSED CABLES TO BE MOUNTED TO WAVEGUIDE LADDER (PROVIDED BY CONTRACTOR) USING SNAP STAK HANGERS.
3. THE TOWER DRAWING IS ONLY A GRAPHIC REPRESENTATION OF THE STRUCTURE. THE ACTUAL TOWER IN THE FIELD MAY VARY.

TOWER ELEVATION

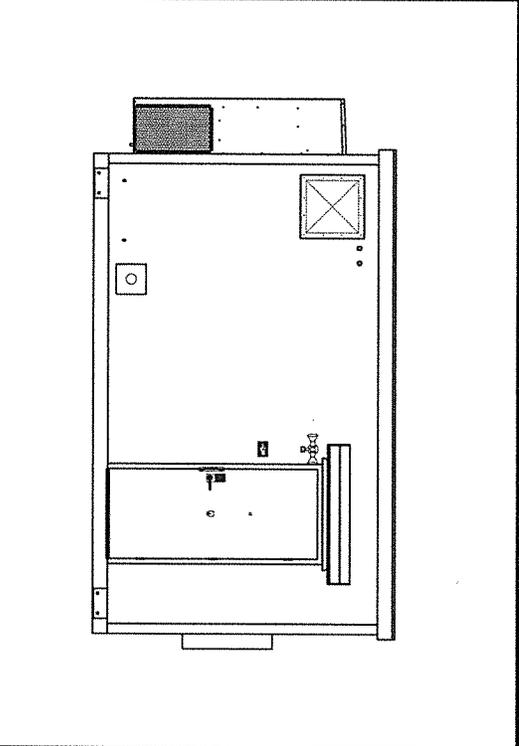
SCALE: 1" = 30'



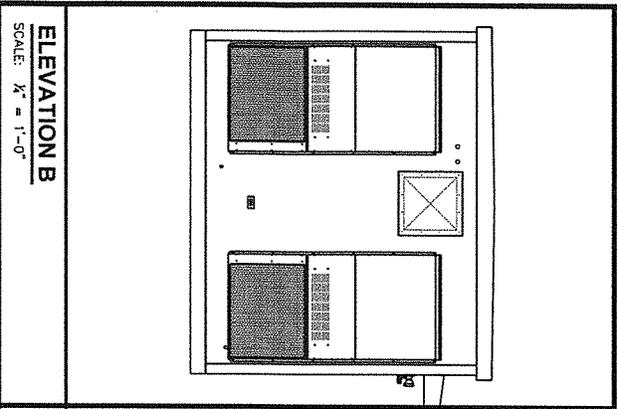
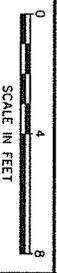
<p>SHEET NUMBER: C-3</p> <p>REVISION: 1</p> <p>TP # 47616-G-103</p>	<p>SHEET TITLE: TOWER ELEVATION</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">REV</td> <td style="width: 30%;">DATE</td> <td style="width: 40%;">ISSUED FOR</td> </tr> <tr> <td>1</td> <td>07-26-13</td> <td>CONSTRUCTION</td> </tr> <tr> <td>0</td> <td>07-19-13</td> <td>PRELIMINARY</td> </tr> </table> </td> <td style="width: 50%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">DRAWN BY: JMM</td> <td style="width: 50%;">CHECKED BY: GMA</td> </tr> </table> </td> </tr> </table>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">REV</td> <td style="width: 30%;">DATE</td> <td style="width: 40%;">ISSUED FOR</td> </tr> <tr> <td>1</td> <td>07-26-13</td> <td>CONSTRUCTION</td> </tr> <tr> <td>0</td> <td>07-19-13</td> <td>PRELIMINARY</td> </tr> </table>	REV	DATE	ISSUED FOR	1	07-26-13	CONSTRUCTION	0	07-19-13	PRELIMINARY	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">DRAWN BY: JMM</td> <td style="width: 50%;">CHECKED BY: GMA</td> </tr> </table>	DRAWN BY: JMM	CHECKED BY: GMA	<p style="text-align: center;"> KIMBERLY S. MARTIN ENGINEER SEAL 037920 NORTH CAROLINA JULY 26, 2013 </p>	<p style="text-align: center;"> TOWER ENGINEERING PROFESSIONALS 3703 JUNCTION BOULEVARD RALEIGH, NC 27603-5283 OFFICE: (919) 881-6351 www.teppro.com N.C. LICENSE # C-1794 </p>	<p>PLANS PREPARED BY:</p> <p style="text-align: center;">AT&T # 176-068</p> <p>S.R. 1137 SHANQUARTER, NC 27885 (HOLE COUNTY)</p>	<p>PROJECT INFORMATION:</p> <p style="text-align: center;">AT&T # 176-068</p> <p>S.R. 1137 SHANQUARTER, NC 27885 (HOLE COUNTY)</p>	<p>PLANS PREPARED FOR:</p> <p style="text-align: center;">at&t</p> <p>2002 PISCATAWAY CHURCH ROAD, SUITE 300 GREENSBORO, NC 27455</p> <p>PLANS PREPARED FOR:</p> <p style="text-align: center;">masstec</p> <p>Network Solutions 3800 GATEWAY CENTRE BLVD, SUITE 311 MORRISVILLE, NC 27560</p>
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">REV</td> <td style="width: 30%;">DATE</td> <td style="width: 40%;">ISSUED FOR</td> </tr> <tr> <td>1</td> <td>07-26-13</td> <td>CONSTRUCTION</td> </tr> <tr> <td>0</td> <td>07-19-13</td> <td>PRELIMINARY</td> </tr> </table>	REV	DATE	ISSUED FOR	1	07-26-13	CONSTRUCTION	0	07-19-13	PRELIMINARY	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">DRAWN BY: JMM</td> <td style="width: 50%;">CHECKED BY: GMA</td> </tr> </table>	DRAWN BY: JMM	CHECKED BY: GMA								
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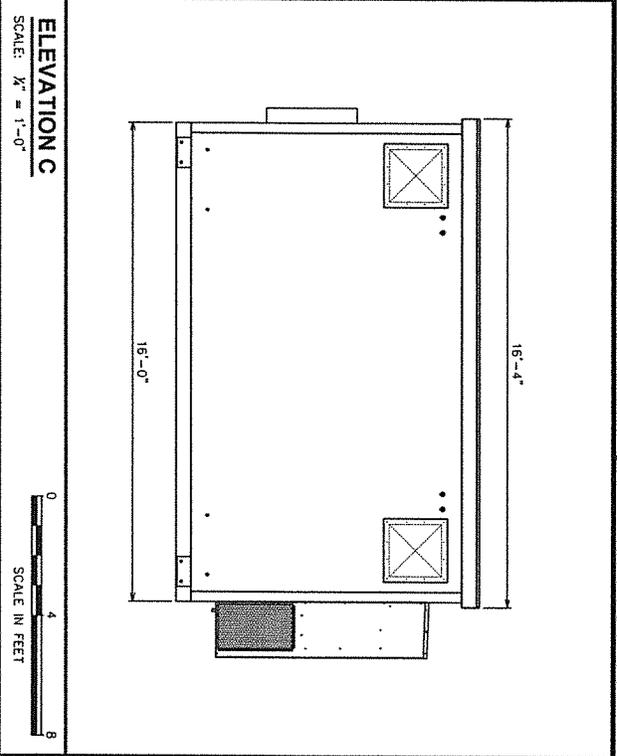
EQUIPMENT LAYOUT
SCALE: 1/2" = 1'-0"



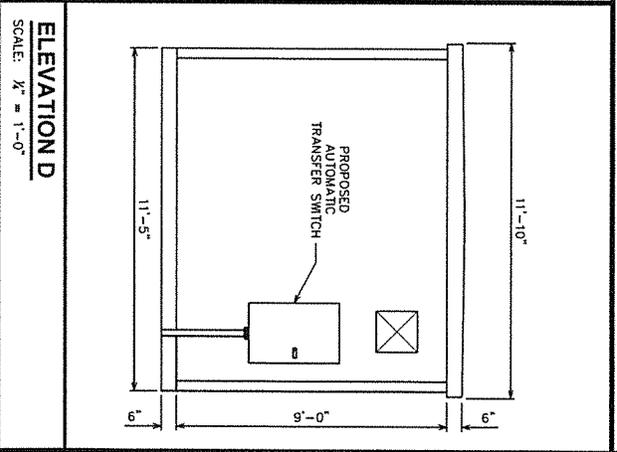
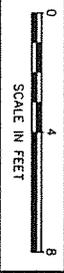
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SCALE: 1/2" = 1'-0"



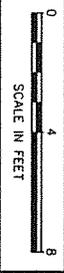
ELEVATION B
SCALE: 1/2" = 1'-0"



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



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

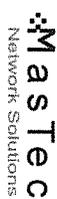


PLANS PREPARED FOR:



2002 PISCATAWAY CHURCH ROAD, SUITE 300
GREENSBORO, NC 27455

PLANS PREPARED FOR:



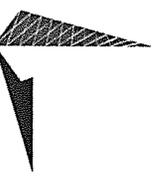
3800 GATEWAY CENTRE BLVD, SUITE 311
MORRISVILLE, NC 27560

PROJECT INFORMATION:

AT&T #: 176-068

S.R. 1137
SHANQUARTER, NC 27885
(HIDE COUNTY)

PLANS PREPARED BY:



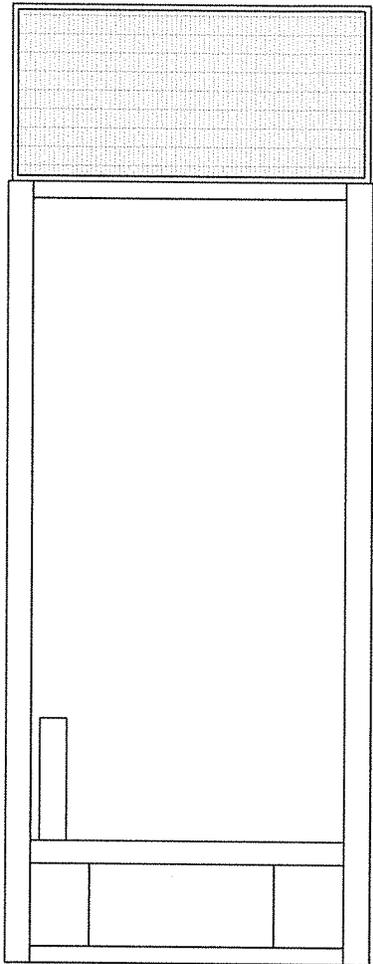
SEAL:
TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27803-6283
OFFICE: (919) 861-6331
www.tepgrp.com
N.C. LICENSE # C-1794

1	07-26-13	CONSTRUCTION
0	07-19-13	PRELIMINARY
REV	DATE	ISSUED FOR:
DRAWN BY: LMM CHECKED BY: GMA		

SHEET TITLE:
SHELTER ELEVATIONS

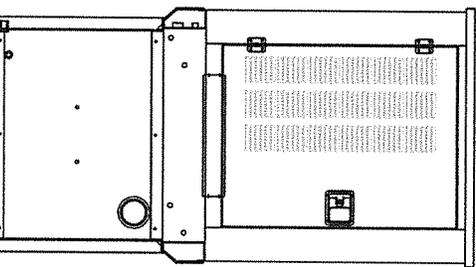
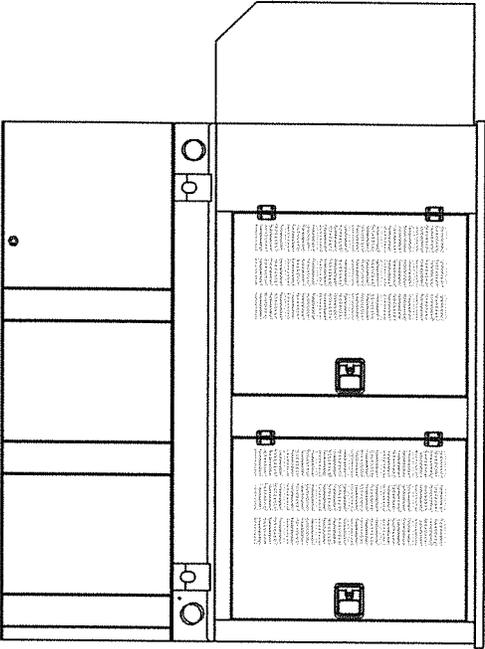
SHEET NUMBER: C-4	REVISION: 1
TEP #AT&T-G103	

- GENERATOR NOTES:**
1. BOKW INDUSTRIAL DIESEL GENERATOR
 2. PROPOSED GENERATOR PLATFORM TO BE DESIGNED BY OTHERS.



PROPOSED ATC GENERATOR LAYOUT

SCALE: N.T.S.



NOTE:
ANCHOR GENERATOR FUEL TANK TO CONCRETE PAD PER GENERAC DESIGN DRAWINGS.

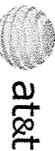
ELEVATION A

SCALE: N.T.S.

ELEVATION B

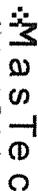
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PLANS PREPARED FOR:



2002 PISGAH CHURCH ROAD, SUITE 300
GREENSBORO, NC 27435

PLANS PREPARED FOR:



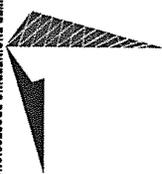
Network Solutions
3800 GATEWAY CENTRE BLVD, SUITE 311
MORRISVILLE, NC 27560

PROJECT INFORMATION:

AT&T #: 176-068

S.R. 1137
SWANQUARTER, NC 27885
(HYDE COUNTY)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
3703 LINCOTN BOULEVARD
RALEIGH, NC 27603-5253
OFFICE: (919) 661-6351
www.teppro.com
N.C. LICENSE #C-1794

SEAL:



1	07-26-13	CONSTRUCTION
0	07-19-13	PRELIMINARY
REV	DATE	ISSUED FOR:
DRAWN BY: LMM CHECKED BY: GMA		

SHEET TITLE:

GENERATOR & FUEL TANK ELEVATIONS

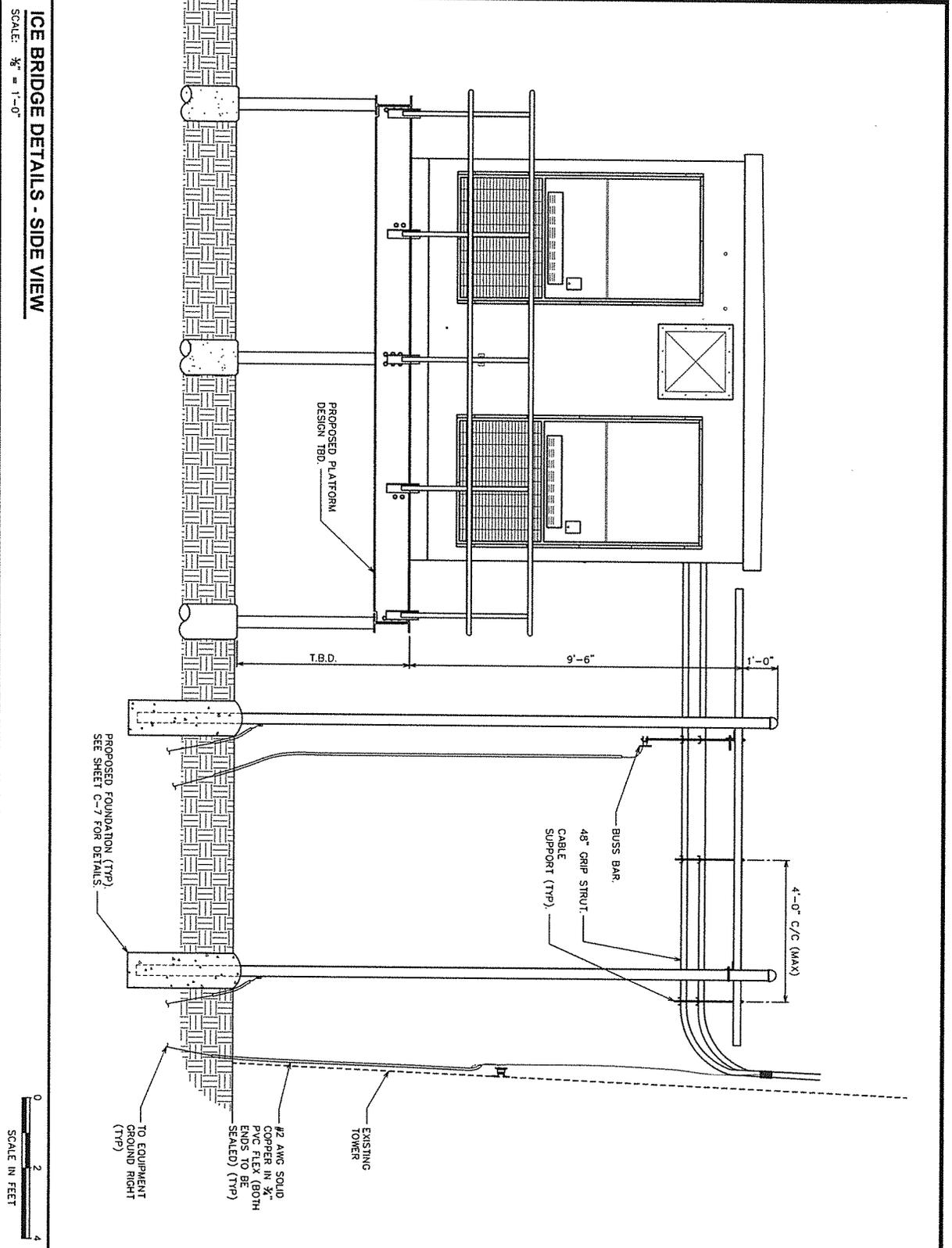
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C-5

REVISION:

1

TP # 4761 G-6103

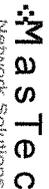
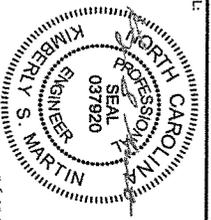


ICE BRIDGE DETAILS - SIDE VIEW

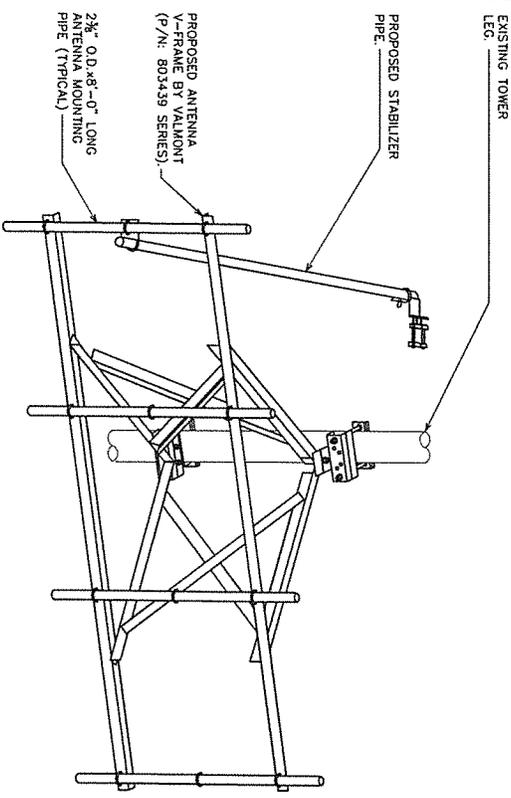
SCALE: 3/8" = 1'-0"



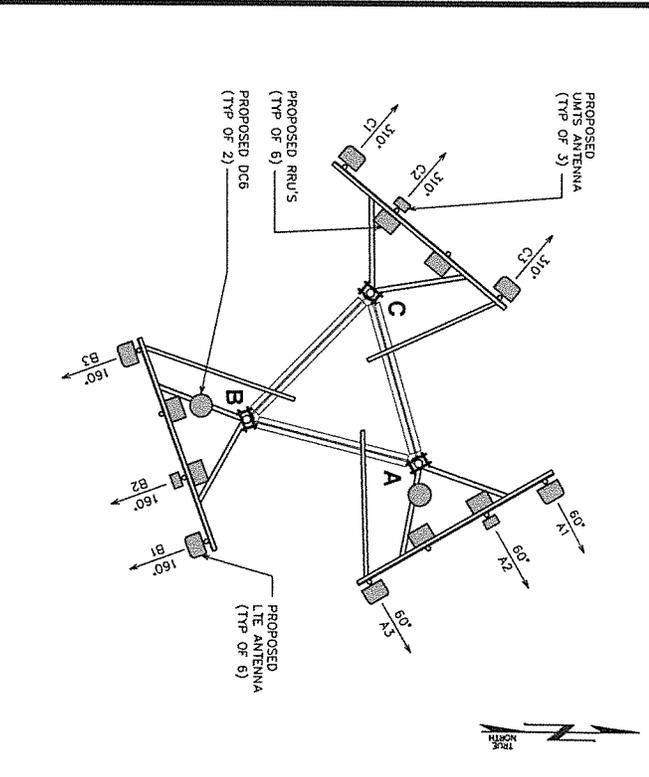
SCALE IN FEET

<p>PLANS PREPARED FOR:</p>  <p>2002 PISGAH CHURCH ROAD, SUITE 300 GREENSBORO, NC 27433</p>														
<p>PLANS PREPARED FOR:</p>  <p>Network Solutions 3800 GATEWAY CENTRE BLVD, SUITE 311 MORRISVILLE, NC 27560</p>														
<p>PROJECT INFORMATION:</p> <p>AT&T #: 176-068</p> <p>S.R. 1137 SWANQUARTER, NC 27885 (HYDE COUNTY)</p>														
<p>PLANS PREPARED BY:</p> <p>TOWER ENGINEERING PROFESSIONALS 3703 LUNCION BOULEVARD RALEIGH, NC 27603-5253 OFFICE: (919) 661-6351 www.teppro.com N.C. LICENSE # C-1794</p>														
<p>SEAL:</p>  <p>Kimberly S. Martin Professional Engineer Seal 037920 July 26, 2013</p>														
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DRAWN BY:	UAM	CHECKED BY:	GMA											
<p>SHEET TITLE:</p> <p>ICE BRIDGE DETAILS I</p>														
<p>SHEET NUMBER:</p> <p>C-6</p>	<p>REVISION:</p> <p>1</p> <p>TEP # 47616-G-103</p>													

- NOTE:**
1. AN APPROVED EQUIVALENT ANTENNA MOUNT IS ACCEPTABLE WITH APPROVAL FROM THE AT&T PROJECT MANAGER.
 2. LEG SIZE (CONTRACTOR TO VERIFY WITH TOWER MANUFACTURER) UNKNOWN.
 3. LEG DID NOT PERFORM A STRUCTURAL ANALYSIS ON THE MOUNT SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT THE MOUNT PURCHASED WILL SATISFY THE ANTENNA LOADING REQUIREMENTS AS DETERMINED BY THE CARRIER.



ANTENNA MOUNT DETAILS
SCALE: N.T.S.



MOUNT ORIENTATION
SCALE: N.T.S.

PROPOSED ANTENNA/CABLE SCHEDULE

ANT. SECTOR	TECH.	MANUFACTURER (MODEL #)	AZIMUTH*	MOUNTING HEIGHT	ELEC. D-TILT	MECH. D-TILT	RRU MODEL	JUMPER SIZE	JUMPER LENGTH (FROM RRU)	DCS MODEL	CABLE RUN	CABLE LENGTH
A1	ALPHA	ERICSSON KRC11804B-1	60°	€ Ø 300'-0"	3'	0'		5mm JUMPER	5.2'			
A2	ALPHA	CELLMAX CMA-B-6521-EO-6	60°	€ Ø 300'-0"	2'	0'		5mm JUMPER	5.2'			
A3	ALPHA	ERICSSON KRC1181601-3	60°	€ Ø 300'-0"	2'	0'		5mm JUMPER	5.2'			
B1	BETA	ERICSSON KRC11804B-1	160°	€ Ø 300'-0"	3'	0'		5mm JUMPER	5.2'			
B2	BETA	CELLMAX CMA-B-6521-EO-6	160°	€ Ø 300'-0"	2'	0'		5mm JUMPER	5.2'			
B3	BETA	ERICSSON KRC1181601-3	160°	€ Ø 300'-0"	2'	0'		5mm JUMPER	5.2'			
C1	GAMMA	ERICSSON KRC11804B-1	310°	€ Ø 300'-0"	3'	0'		5mm JUMPER	5.2'			
C2	GAMMA	CELLMAX CMA-B-6521-EO-6	310°	€ Ø 300'-0"	2'	0'		5mm JUMPER	5.2'			
C3	GAMMA	ERICSSON KRC1181601-3	310°	€ Ø 300'-0"	2'	0'		5mm JUMPER	5.2'			

* - AZIMUTHS BASED ON TRUE NORTH

RF CONFIGURATION
SCALE: N.T.S.

PLANS PREPARED FOR:
at&t
2002 PISCATAWAY CHURCH ROAD, SUITE 300
GREENSBORO, NC 27455

PLANS PREPARED FOR:
Masterc
Network Solutions
3800 GATEWAY CENTRE BLVD, SUITE 311
MORRISVILLE, NC 27560

PROJECT INFORMATION:
AT&T #: 176-068
S.R. 1137
SWANQUAMEREN, NC 27895
(HIDE COUNTY)

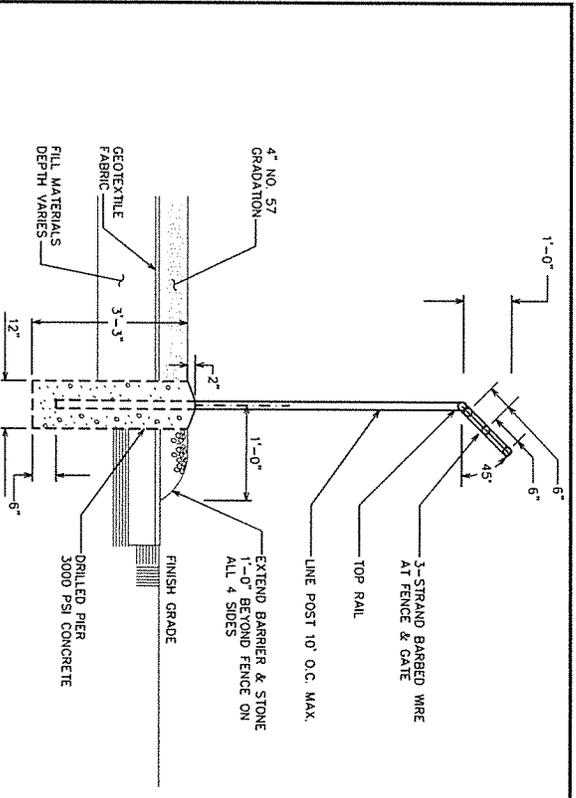
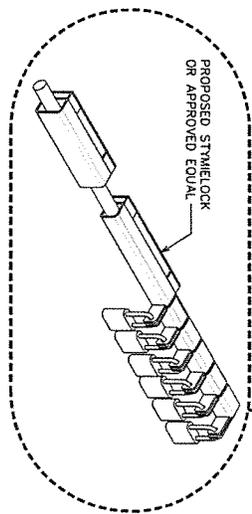
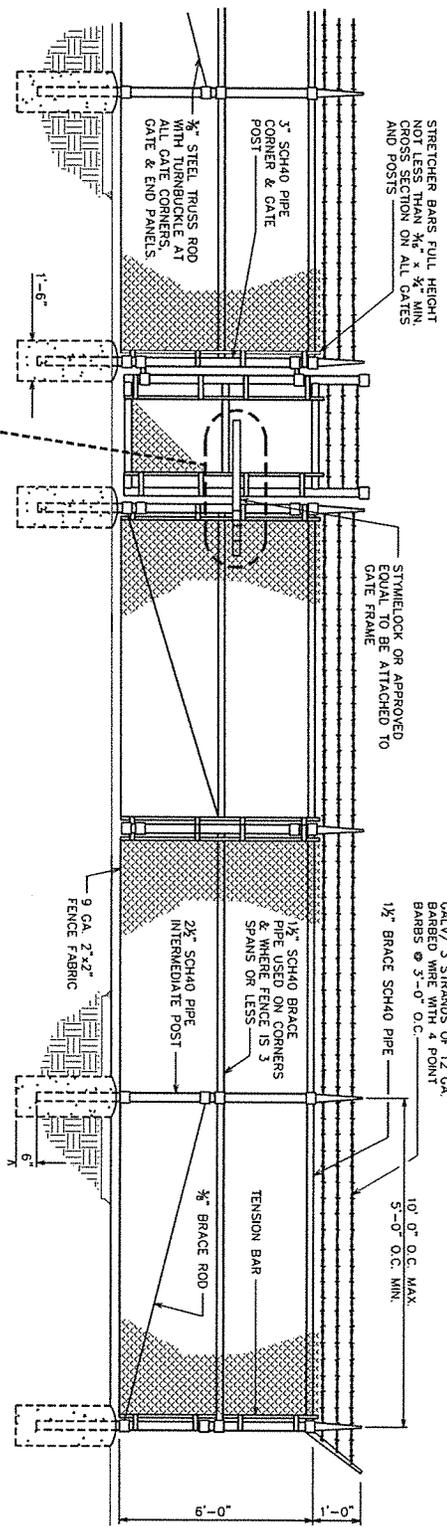
PLANS PREPARED BY:
TORRES ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-5263
OFFICE: (919) 861-6351
www.torreseng.com
N.C. LICENSE # C-1794

SEAL:
NORTH CAROLINA PROFESSIONAL ENGINEER
KIMBERLY S. MARTIN
SEAL 037920
August 1, 2013

2 02-01-13 CONSTRUCTION
1 07-26-13 CONSTRUCTION
REV DATE ISSUED FOR:
DRAWN BY: LMM CHECKED BY: GMA

SHEET TITLE:
ANTENNA MOUNTING DETAILS

SHEET NUMBER: **C-8**
REVISION: **2**
REP #: 47616-G-103



FENCE DETAILS
SCALE: N.T.S.

FENCE / BARBED WIRE ARM DETAIL
SCALE: N.T.S.

PLANS PREPARED FOR:
at&t
2002 PISGAY CHURCH ROAD, SUITE 300
GREENSBORO, NC 27455

PLANS PREPARED FOR:
Masterc
Network Solutions
3800 GATEWAY CENTRE BLVD, SUITE 311
MORRISVILLE, NC 27560

PROJECT INFORMATION:
AT&T #: 176-068
S.R. 1137
SWANQUARTER, NC 27885
(HIDE COUNTY)

PLANS PREPARED BY:
TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-5283
OFFICE: (919) 861-6331
www.tepp.com
N.C. LICENSE # C-1794

SEAL:
NORTH CAROLINA PROFESSIONAL ENGINEER
KIMBERLY S. MARTIN
ENGINEER
SEAL
037920
July 26, 2013

1	07-26-13	CONSTRUCTION
0	07-19-13	PRELIMINARY
REV	DATE	ISSUED FOR:
DRAWN BY: JMM CHECKED BY: KSM		

SHEET TITLE:
FENCE DETAILS

SHEET NUMBER:
C-9
REVISION:
1
TP #47616-G103

Property of



at&t

AUTHORIZED PERSONNEL ONLY!

In case of emergency or prior to performing maintenance on this site, call 1-800-636-2822 and reference call site number:

① WHITE/BLUE BACKGROUND W/ BLACK LETTERING
 QUANTITY: (1)
 SIZE: 9'x12'
 (TO BE MOUNTED ON EQUIPMENT SHELTER (TO BE ADJACENT TO COMPOUND ENTRY - SEE NOTE 5))

DO NOT CLIMB TOWER WITHOUT OWNER'S WRITTEN PERMISSION

③ WHITE BACKGROUND W/ RED LETTERING
 QUANTITY: (1)
 (TO BE MOUNTED AT EYE LEVEL ON TOWER NEAR SAFETY CLIMB)

NOTICE



Radio frequency fields beyond this point may exceed the FCC general public exposure limit. **SEE AT&T 2010 SDS AND 210 OVERSIGHT DOCUMENTS FOR MORE INFORMATION.**

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② WHITE/BLUE BACKGROUND W/ BLACK LETTERING
 QUANTITY: (1)
 (TO BE MOUNTED AT EYE LEVEL ON TOWER NEAR SAFETY CLIMB)

000

④ WHITE BACKGROUND W/ BLACK LETTERING
 E911 STREET #
 QUANTITY: (1 TYP)
 LETTERS MUST BE A MINIMUM 6" TALL
 (TO BE MOUNTED ON THE GATE OF COMPOUND)

- ① SITE IDENTIFICATION SIGN
- ② FCC/RF EXPOSURE SIGN
- ③ TOWER CLIMBING SIGN
- ④ STREET ADDRESS SIGN
- ⑤ BUILDING IDENTIFICATION PLATE



FIBREBOND CORPORATION
 1500 Davenport Drive
 Minden, Louisiana 71055
 318/977-1000

BLDG. NO.

MADE IN THE USA

⑤ BUILDING IDENTIFICATION PLATE:
 WHITE/BLUE BACKGROUND W/BLACK LETTERING
 QUANTITY: (1)
 SIZE: 4"x6"
 (TO BE MOUNTED ON SHELTER 3" TO THE RIGHT OF THE DOOR AND 60" FROM THE GROUND)

NOTES:

1. SIGNS SHALL MEASURE 8"x12". BE FABRICATED FROM CORROSION RESISTANT PRESSED METAL, AND PAINTED WITH LONG LASTING UV RESISTANT COATINGS.
2. SIGNS (EXCEPT WHERE NOTED OTHERWISE) SHALL BE MOUNTED TO THE TOWER, GATE AND FENCE USING A MINIMUM OF 9 GAUGE ALUMINUM WIRE. HOG RINGS AND UTILITY FENCE INSTALLATIONS OR BRACKETS WHERE NECESSARY. BRACKETS SHALL BE OF SIMILAR METAL AS THE STRUCTURE TO AVOID GALVANIC CORROSION.
3. AT&T SITE # AND EMERGENCY CONTACT # SHALL BE MOUNTED ON THE EQUIPMENT SHELTER DOOR ADJACENT TO THE COMPOUND ENTRY WITH PERMANENT TO ADHESIVE. NON-SLIP PAPER SHALL BE UTILIZED AT EACH CORNER ON THE BACKSIDE TO AID PLACEMENT UNTIL ADHESIVE SETS.
4. ADDITIONAL E911 ADDRESS SIGNS ARE REQUIRED AT EACH ACCESS ROAD GATE LEADING TO THE COMPOUND AS WELL AS ON THE COMPOUND GATE ITSELF. LETTERING ON 911 ADDRESS SIGNS MUST BE A MINIMUM OF 8" TALL.
5. ADDITIONAL FCC REGISTRATION # SIGNS ARE REQUIRED AT EACH ACCESS ROAD GATE LEADING TO THE COMPOUND AS WELL AS ON THE COMPOUND GATE ITSELF.
6. RECOMMENDED SOURCE FOR OBTAINING SIGNAGE:

<p>ST. CLAIR SIGNS 3184 WADE HAMPTON BLVD. TAYLORS, SC 28687 (864) 244-0040</p>	<p>RF EXPOSURE SIGNS RICHARD TELL ASSOCIATES 3433 RINGSTAR ROAD, SUITE 3 MORNINGSIDE, NY 11758 (702) 645-3358</p>
--	---

TYPICAL SIGNS AND SPECIFICATIONS

SCALE: N.T.S.

PLANS PREPARED FOR:



at&t

2002 PISGAH CHURCH ROAD, SUITE 300
 GREENSBORO, NC 27455

PLANS PREPARED FOR:



Mastec
 Network Solutions
 3800 GATEWAY CENTRE BLVD, SUITE 311
 MORNINGSIDE, NC 27560

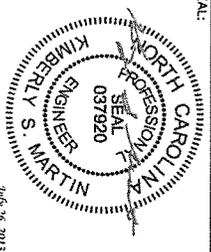
PROJECT INFORMATION:

AT&T #: 176-068
 S.R. 1137
 SWANQUATTER, NC 27885
 (HYDE COUNTY)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
 3703 JUNCTION BOULEVARD
 RALEIGH, NC 27603-4283
 OFFICE: (919) 661-6351
 www.towereng.com
 N.C. LICENSE # C-1794



SEAL:
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL
 037920
 KIMBERLY S. MARTIN
 July 26, 2013

1	07-26-13	CONSTRUCTION
0	07-19-13	PRELIMINARY
REV	DATE	ISSUED FOR:
DRAWN BY: DMM CHECKED BY: GMA		

SHEET TITLE:

SIGNAGE DETAILS

SHEET NUMBER:	REVISION:
C-10	1
REF # AT&T 6-G-103	

ELECTRICAL NOTES:

SCOPE:

- SHALL INCLUDE ALL LABOR, MATERIALS AND APPLIANCES REQUIRED FOR THE FURNISHING, INSTALLING AND TESTING, COMPLETE AND READY FOR OPERATION OF ALL WORK SHOWN ON THE DRAWING AS SPECIFIED HEREIN:
 - ELECTRIC SERVICE
 - CONDUIT AND RACEWAY
 - CONDUCTORS
 - MISCELLANEOUS MATERIALS
 - TELEPHONE CONDUITS
 - LIGHTNING ARRESTING SYSTEM

CODES

- THE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE LANS AND CODES. THESE INCLUDE BUT ARE NOT LIMITED TO THE LATEST EDITIONS OF:
 - THE NATIONAL ELECTRICAL SAFETY CODE
 - THE NATIONAL ELECTRICAL CODE - NFPA-70
 - THE INTERNATIONAL ELECTRICAL CODE - IEC
 - LOCAL AND STATE AMENDMENTS
 - REGULATIONS OF THE SERVING UTILITY COMPANY
 - NEC
- ALL PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR.
- AFTER COMPLETION AND FINAL INSPECTION OF THE WORK, THE OWNER SHALL BE FURNISHED A CERTIFICATE OF COMPLETION AND APPROVAL.

TESTING

- UPON COMPLETION OF THE INSTALLATION, OPERATE AND ADJUST ALL EQUIPMENT AND SYSTEMS TO MEET SPECIFIED PERFORMANCE REQUIREMENTS. ALL TESTING SHALL BE DONE BY QUALIFIED PERSONNEL.

GUARANTEE

- IN ADDITION TO THE GUARANTEE OF THE EQUIPMENT BY THE MANUFACTURER, EACH PIECE OF EQUIPMENT SPECIFIED HEREIN SHALL ALSO BE GUARANTEED FOR DEFECTS OF MATERIAL OR WORKMANSHIP OCCURRING DURING A PERIOD OF ONE (1) YEAR AFTER FINAL ACCEPTANCE OF THE WORK BY THE OWNER. WITHOUT LIMITING THE REMEDY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS AND REPLACEMENTS OF DEFECTIVE MATERIALS AND WORKMANSHIP. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND WORKING SYSTEMS OR SYSTEMS.

CO-ORDINATION:

- CONTRACTOR SHALL COORDINATE ALL WORK WITH THE POWER AND TELEPHONE COMPANIES AND SHALL COMPLY WITH ALL SERVICE REQUIREMENTS OF EACH UTILITY COMPANY.

EXAMINATION OF SITE

- PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL VISIT THE SITE OF THE JOB AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED ELECTRICAL INSTALLATION AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. FAILURE TO COMPLY WITH THE INTENT OF THIS PARAGRAPH WILL IN NO WAY RELIEVE THE CONTRACTOR OF PERFORMING ALL WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM OR SYSTEMS.

CUTTING, PATCHING AND EXCAVATION:

- COORDINATION OF ALL STEVES, CHASES, ETC. WILL BE REQUIRED PRIOR TO THE CONSTRUCTION OF ANY CONDUIT RUNS. ALL CUTTING AND PATCHING OF WALLS, PARTITIONS, FLOORS, AND CHASES IN CONCRETE, WOOD, STEEL OR MASONRY SHALL BE DONE AS PROVIDED ON THE DRAWINGS.
- ALL NECESSARY EXCAVATIONS AND BACKFILLING INCIDENTAL TO THE WORK UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWING SHALL BE PROVIDED BY THIS CONTRACTOR.
- SEAL ALL PENETRATION THROUGH WALL AND FLOORS WITH APPROVED GROUT.

EXTERIOR CONDUIT:

- ALL EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS, SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL.

RACEWAYS

- ALL CONDUCTORS SHALL BE INSTALLED IN CONDUIT. ALL CONDUIT SHALL BE RIGID STEEL, EMT OR SCH40 P.V.C. AS INDICATED ON THE DRAWINGS.
- WHERE INSTALLED ON EXTERIORS AND EXPOSED TO DAMAGE, ALL CONDUIT SHALL BE RIGID STEEL. ALUMINUM CONDUIT SHALL NOT BE ALLOWED.
- CONCEALED CONDUIT IN WALLS OR INTERIOR SPACES ABOVE GRADE MAY BE EMT.
- UNDERGROUND CONDUITS SHALL BE RIGID STEEL OR SCHEDULE 40 P.V.C. AS INDICATED ON THE DRAWINGS.
- ALL CONDUIT RUNS SHALL USE APPROVED COUPLINGS AND CONNECTORS, PROVIDE INSULATED BUSHING FOR ALL CONDUIT TERMINATIONS. ALL CONDUIT RUNS IN A WET LOCATION SHALL HAVE WATERPROOF FITTINGS.
- PROVIDE SUPPORTS FOR ALL CONDUITS IN ACCORDANCE WITH NEC REQUIREMENTS. ALL CONDUITS SHALL BE SIZED AS REQUIRED BY NEC.
- BURIAL DEPTH OF ALL CONDUITS SHALL BE AS REQUIRED BY CODE FOR EACH SPECIFIC CONDUIT TYPE AND APPLICATION.
- CONDUIT ROUTES ARE SCHEMATIC. CONTRACTOR SHALL FIELD VERIFY BEFORE BID. COORDINATE ROUTE WITH WIRELESS CARRIER AND BUILDING OWNER.

EQUIPMENT:

- ALL DISCONNECT SWITCHES SHALL BE SERVICE ENTRANCE RATED, HEAVY DUTY TYPE.
- NEW CIRCUIT BREAKERS SHALL BE RATED TO WITHSTAND THE MAXIMUM AVAILABLE FAULT CURRENT AS NOTED ON THE DRAWINGS. THE CIRCUIT BREAKER SHALL BE INSTALLED UPSTREAM OF THE AVAILABLE FAULT CURRENT AND COORDINATE INSTALLATION WITH THE LOCAL UTILITY BEFORE STARTING WORK.

CONDUCTORS

- FURNISH AND INSTALL CONDUCTORS CALLED FOR IN THE DRAWINGS. ALL CONDUCTORS SHALL HAVE TYPE THWN (MIN) (75°C) INSULATION, RATED FOR 600 VOLTS.
- ALL CONDUCTORS SHALL BE COPPER. THE USE OF ALUMINUM CONDUCTORS SHALL NOT BE ALLOWED. ALL CONDUCTORS SHALL BE UL LISTED AND SHALL BE PROVIDED AND INSTALLED AS FOLLOWS:
 - MINIMUM WIRE SIZE SHALL BE #12 AWG.
 - ALL CONDUCTORS SIZE #8 AND LARGER SHALL BE STRANDED. CONDUCTORS SIZED #10 AND SMALLER MAY BE SOLID OR STRANDED.
 - CONNECTION FOR #10 AWG AND SMALLER SHALL BE BY TWISTING TIGHT AND INSTALLING INSULATED PRESSURE OR WIRE NUT CONNECTORS.
 - CONNECTION FOR #8 AWG AND LARGER SHALL BE BY USE OF STEEL CRIMP-ON SLEEVES WITH NYLON INSULATOR.
- ALL CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH NEC STANDARDS.
- THE RACEWAY SYSTEM SHALL BE COMPLETE BEFORE INSTALLING CONDUCTORS.

PENETRATIONS:

- CONTRACTOR SHALL COMPLY WITH UL PENETRATION DETAILS FOR PENETRATIONS OF ALL RATED WALLS, ROOF, ETC.

GROUNDING

- ALL ELECTRICAL NEUTRALS, RACEWAYS AND NON-CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT AND ASSOCIATED ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC ARTICLE 250. THIS SHALL INCLUDE ALL METAL ENCLOSURES, METAL RACEWAYS, METAL BOXES, GROUND BUSSES, ETC. THE NEUTRAL CONDUCTOR FOR EACH SYSTEM SHALL BE GROUNDED BY ONE POINT ONLY.
- PROVIDE GROUND CONDUCTOR IN ALL RACEWAYS.
- PROVIDE BONDING AND GROUND TO MEET NFPA 780 - LIGHTNING PROTECTION AS A MINIMUM.
- PROVIDE GROUNDING SYSTEM AS INDICATED ON THE DRAWINGS, AS REQUIRED BY THE NATIONAL ELECTRICAL CODE AND RADIO EQUIPMENT MANUFACTURER.

ABBREVIATIONS AND LEGEND

A	AMPERE	PVC	SCH40 RIGID NON-METALLIC CONDUIT
AFG	ABOVE FINISHED GRADE	RSS	RIGID GALVANIZED STEEL CONDUIT
ATS	AUTOMATIC TRANSFER SWITCH	SW	SWITCH
AWG	AMERICAN WIRE GAUGE	TGB	TOWER GROUND BAR
BCW	BARE COPPER WIRE	UL	UNDERWRITERS LABORATORIES
BFG	BELOW FINISHED GRADE	V	VOLTAGE
BKR	BREAKER	W	WATTS
C	CONDUIT	XFR	TRANSFORMER
CKT	CIRCUIT	XMT	TRANSMITTER
DISC	DISCONNECT		
EMT	EXTERNAL GROUND RING		
EGR	ELECTRIC METALLIC TUBING		
FSC	FLEXIBLE STEEL CONDUIT		
GEN	GENERATOR		
GPS	GLOBAL POSITIONING SYSTEM		
GRO	GROUND		
IGB	ISOLATED GROUND BAR		
ISR	INTERIOR GROUND RING (HALO)		
KV	KILOVOLTS		
NEC	NATIONAL ELECTRICAL CODE		
NCS	PERSONAL COMMUNICATION SYSTEM		
PH	PHASE		
PNL	PANEL		
PANLBD	PANLBOARD		

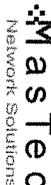
---	UNDERGROUND ELECTRICAL CONDUIT
---	UNDERGROUND TELEPHONE CONDUIT
---	UNDERGROUND ELECTRICAL CONDUIT
---	UNDERGROUND TELEPHONE CONDUIT
---	KILOWATT-HOUR METER
---	UNDERGROUND BONDING AND GROUNDING CONDUCTOR.
---	GROUND ROD
---	CADWELD
---	GROUND ROD WITH INSPECTION WELL

PLANS PREPARED FOR:



2002 PISCATAWAY CHURCH ROAD, SUITE 300
GREENSBORO, NC 27455

PLANS PREPARED FOR:



3800 GATEWAY CENTRE BLVD, SUITE 311
MORRISVILLE, NC 27560

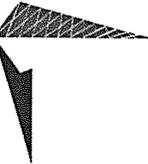
PROJECT INFORMATION:

AT&T #: 176-068

S.R. 1137

SWANQUARTER, NC 27885
(HOLE COUNTY)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27803-5283
OFFICE: (919) 861-6531
www.towereng.com
N.C. LICENSE # C-1794

SEAL:



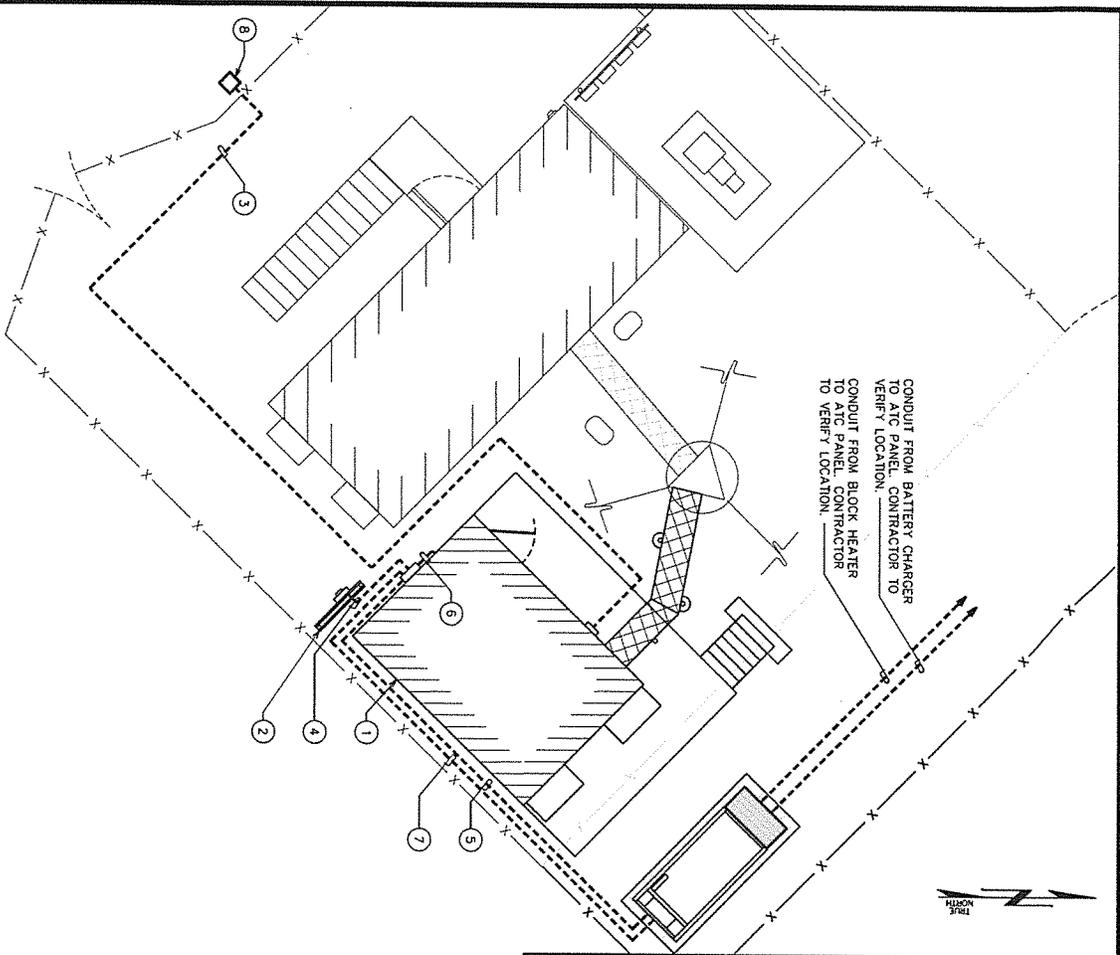
1	07-26-13	CONSTRUCTION
0	07-19-13	PRELIMINARY
REV	DATE	ISSUED FOR:
	DRAWN BY: LHM	CHECKED BY: ETR

SHEET TITLE:

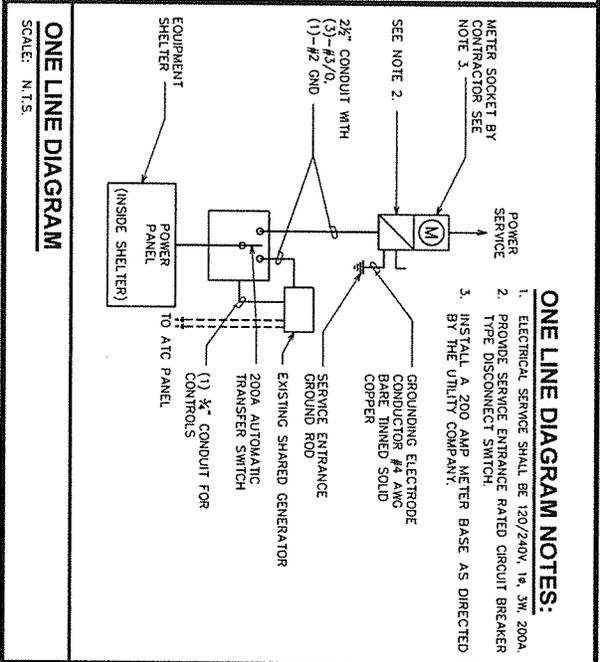
ELECTRICAL NOTES

SHEET NUMBER: 1

REVISION: 1
REV # 47616-G103



SERVICE ROUTING PLAN
SCALE: 1/8" = 1'-0"



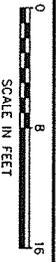
ONE LINE DIAGRAM
SCALE: N.T.S.

- ONE LINE DIAGRAM NOTES:**
1. ELECTRICAL SERVICE SHALL BE 120/240V, 1ϕ, 3W, 200A.
 2. PROVIDE SERVICE ENTRANCE RATED CIRCUIT BREAKER TYPE DISCONNECT SWITCH.
 3. INSTALL A 200 AMP METER BASE AS DIRECTED BY THE UTILITY COMPANY.

PLAN NOTES:

1. PROPOSED AT&T EQUIPMENT SHELTER.
2. PROPOSED SERVICE RACK.
3. (1) 4" TELCO CONDUIT W/ (3) 1 1/2" FLEX INTERDUCT & PULL STRING FOR FIBER LEADS STUBBED UP IN FIBER HANDHOLE. CONTRACTOR TO COORDINATE SERVICE WITH LOCAL TELEPHONE COMPANY.
4. (1) 2 1/2" POWER CONDUIT FROM METER TO 200A AUTOMATIC TRANSFER SWITCH.
5. (1) 2 1/2" POWER CONDUIT FROM THE PROPOSED GENERATOR TO THE AUTOMATIC TRANSFER SWITCH.
6. (1) 2 1/2" POWER CONDUIT FROM THE PROPOSED TRANSFER SWITCH TO THE PANEL INSIDE SHELTER.
7. (1) 3/4" CONDUIT FOR CONTROLS.
8. PROPOSED FIBER HANDHOLE.

TRENCHING NOTE:
PRIOR TO ANY DIGGING, THE CONTRACTOR SHALL IDENTIFY ALL EXISTING UTILITIES ON SITE.



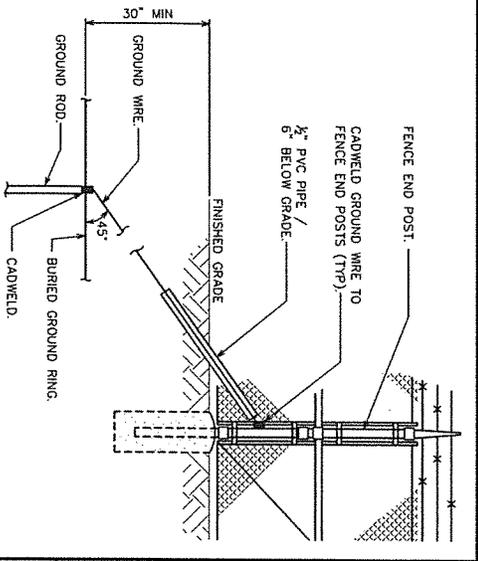
PLANS PREPARED FOR: 	
2002 PISGAH CHURCH ROAD, SUITE 300 GREENSBORO, NC 27439	
PLANS PREPARED FOR: 	
Network Solutions 3800 GATEWAY CENTRE BLVD, SUITE 311 MORRISVILLE, NC 27560	
PROJECT INFORMATION: AT&T #: 176-068 S.R. 1137 SWANQUARTER, NC 27885 (HYDE COUNTY)	
PLANS PREPARED BY: 	
TOWER ENGINEERING PROFESSIONALS 3703 JUNCTION BOULEVARD RALEIGH, NC 27603-3233 OFFICE: (919) 681-6351 www.tpegroup.net N.C. LICENSE # C-1794	
SEAL: 	
SHEET NUMBER: E-2	REVISIONS: 2
SHEET TITLE: SERVICE ROUTING PLAN & ONE-LINE DIAGRAM	
2 09-01-13 CONSTRUCTION 1 07-26-13 CONSTRUCTION REV DATE ISSUED FOR:	DRAWN BY: JMM CHECKED BY: FTH

DRAWING NOTES:

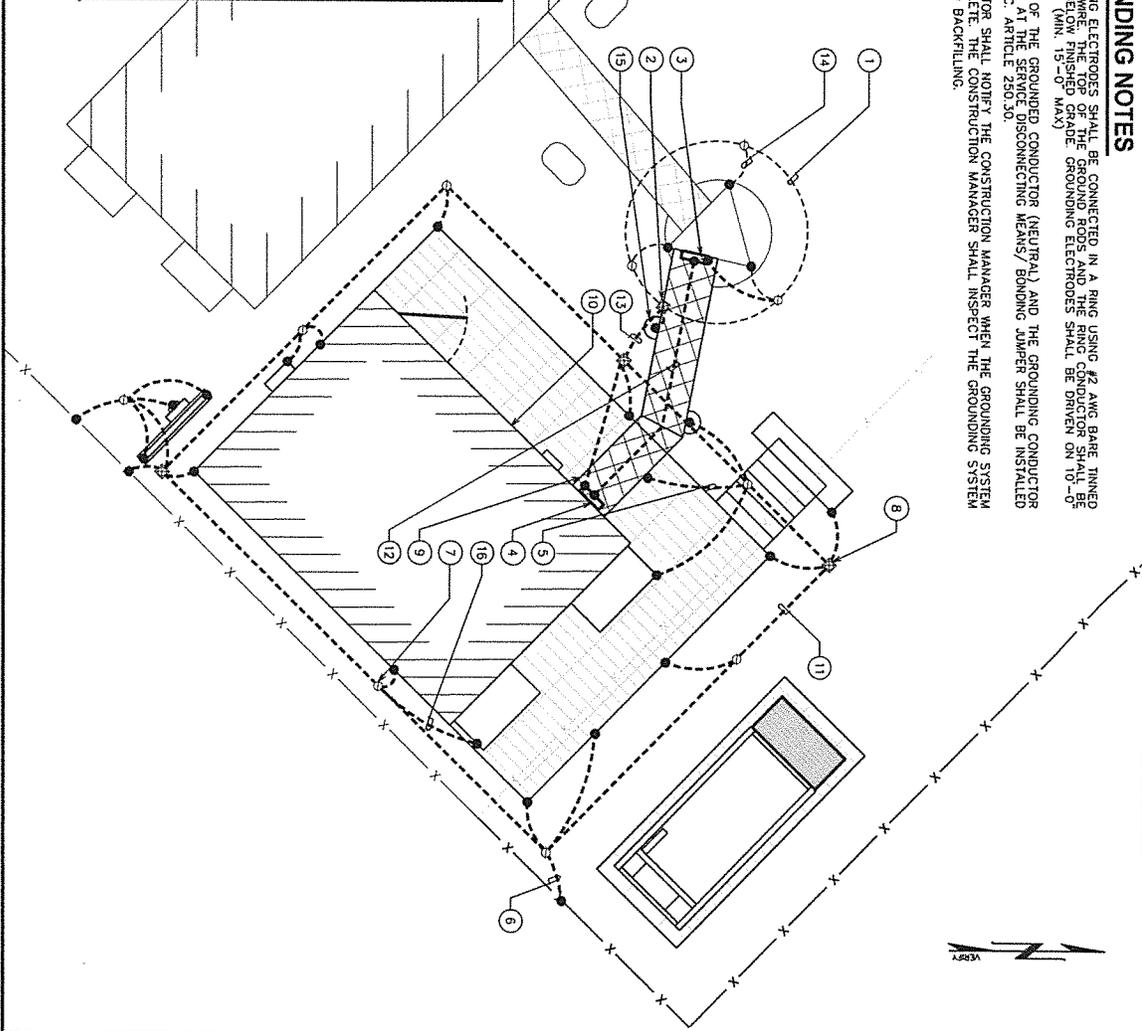
- 1 EXISTING TOWER GROUND RING
- 2 INSPECTION WELL AT CONNECTION TO EXISTING TOWER GROUND RING
- 3 TOWER BUS BAR
- 4 ICE BRIDGE BUS BAR
- 5 #2 AWG ICE BRIDGE BOND BURIED 30" BFG (TYP)
- 6 #2 AWG BOND TO PROPOSED GROUND RING
- 7 3/8" x 10" COPPER GROUND ROD (TYP)
- 8 GROUND ROD W/ INSPECTION WELL. SEE SHEET E-6 FOR DETAIL.
- 9 ICE BRIDGE
- 10 EQUIPMENT SHELTER
- 11 #2 AWG GROUND RING BURIED 30" BFG
- 12 #2 AWG BARE SOLID TINNED COPPER WIRE BETWEEN BUS BARS
- 13 TOWER GROUND RING BONDING TO SHELTER GROUND RING
- 14 EXISTING TOWER BONDING TO TOWER GROUND RING (TYP OF 3)
- 15 ICE BRIDGE POST
- 16 HVAC GROUNDING. MECHANICAL CONNECTIONS AT HVAC UNITS ABOVE GRADE AS ALLOWED BY CODE.

GROUNDING NOTES

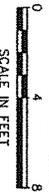
1. GROUNDING ELECTRODES SHALL BE CONNECTED IN A RING USING #2 AWG BARE TINNED COPPER WIRE. THE TOP OF THE GROUND RODS AND THE RING CONDUCTOR SHALL BE CENTERED WITH THE FINISHED GRADE. GROUNDING ELECTRODES SHALL BE DRIVEN ON 10'-0" CENTERS (MIN. 15'-0" MAX).
2. BONDING OF THE GROUNDING CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS/ BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250.30.
3. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING SYSTEM IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING.



FENCE GROUNDING
SCALE: N.1'S.



TOWER GROUNDING PLAN
SCALE: 3/8" = 1'-0"

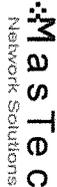


PLANS PREPARED FOR:



2002 PISCATAH CHURCH ROAD, SUITE 300
GREENSBORO, NC 27455

PLANS PREPARED FOR:



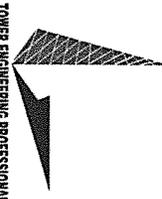
3800 GATEWAY CENTRE BLVD, SUITE 311
MORRISVILLE, NC 27560

PROJECT INFORMATION:

AT&T #: 176-068

S.R. 1137
SHANQUARTER, NC 27885
(HIDE COUNTY)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
3705 JUNCTION BOULEVARD
RALEIGH, NC 27603-5283
OFFICE: (919) 861-6351
www.tepgroup.net
N.C. LICENSE # C-1794

SEAL:



2	06-01-13	CONSTRUCTION
1	07-26-13	ISSUED FOR:
REV	DATE	ISSUED FOR:
DRAWN BY: LMM		CHECKED BY: FTH

SHEET TITLE:

**TOWER & SHELTER
GROUNDING PLAN**

SHEET NUMBER: REVISIONS:

E-3

2

TRP # 17616-G-103

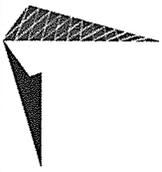


PLANS PREPARED FOR:
2002 PISCATAH CHURCH ROAD, SUITE 300
GREENSBORO, NC 27455

PLANS PREPARED FOR:
mas tec
Network Solutions
3800 GATEWAY CENTRE BLVD, SUITE 311
MORRISVILLE, NC 27560

PROJECT INFORMATION:
AT&T #: 176-068
S.R. 1137
SHANQUARTER, NC 27885
(HIDE COUNTY)

PLANS PREPARED BY:
Tower Engineering Professionals
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-6283
OFFICE: (919) 861-6331
www.tegroup.net
N.C. LICENSE # C-1794



SEAL:
NORTH CAROLINA PROFESSIONAL ENGINEER
FREDERICK T. HERR
July 26, 2013

REV	DATE	ISSUED FOR
1	07-26-13	CONSTRUCTION
0	07-19-13	PRELIMINARY
DRAWN BY: JMM / CHECKED BY: JTH		
SHEET TITLE: PANELBOARD SCHEDULE		

SHEET NUMBER: **E-4** REVISION: **1**
TP # 47616-G103

AT&T POWER PANEL SCHEDULE

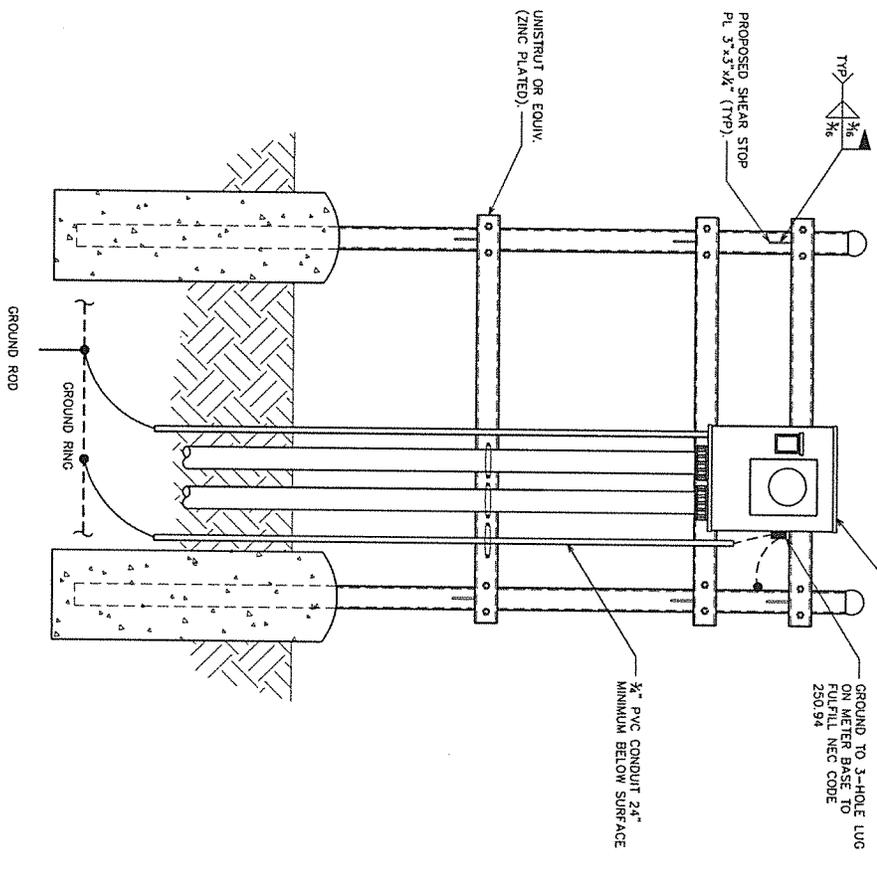
LOAD SERVED	VOLT AMPERES (WATTS)		WIRE	BREAKER	TRIP	CKT #	PHASE	CKT #	BREAKER	TRIP	WIRE	VOLT AMPERES (WATTS)		LOAD SERVED	
	L1	L2										L1	L2		
3 TON HVAC #1	3400	3400	8	2	50	1	A	2	2	8	3400		3 TON HVAC #2		
INTERIOR LIGHTS	335	3400	12	1	15	3	B	4	2	8	3400		RECTIFIER #2		
INTERIOR RECEPTACLES			12	1	20	5	A	6	2	12	800	800	RECTIFIER #3		
EXTERIOR RECEPTACLES	360	1080	12	1	20	7	B	8	2	12	800	800	RECTIFIER #4		
EXTERIOR LIGHTS			12	1	15	9	A	10	2	12	800	800			
RECTIFIER #1	800	150	12	1	15	11	B	12	2	12	800	800			
			12	2	30	13	A	14	2	12	800	800			
						15	B	16							
						17	A	18							
						19	B	20							
						21	A	22							
						23	B	24							
						25	A	26							
						27	B	28							
						29	A	30							
L1 VOLT AMPERES												10695	11230	L2 VOLT AMPERES	
TOTAL VOLT AMPERES												21925		TOTAL VOLT AMPERES	
TOTAL AMPS												91.35		TOTAL AMPS	
AMPS x 125%												114.19		AMPS x 125%	
X 110% FOR MAIN												125.61		X 110% FOR MAIN	
VOLT AMPS												4895	5430	VOLT AMPS	
VOLT AMPS												5800	5800	VOLT AMPS	

PANELBOARD SCHEDULE

SCALE: N.T.S.

NOTES:

1. ELECTRIC SERVICE, 240/120V, 1ø, 3W, 200A UNDERGROUND SERVICE TO POLE RISER OR PAD-MOUNTED TRANSFORMER.
2. UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC (MEET UL STANDARDS G91 AND NEMA TC2-1990). EXPOSED CONDUITS SHALL BE PVC UV RESISTANT OR RIGID GALVANIZED STEEL. ALL CONDUIT BENDS SHALL BE A MINIMUM OF 35° RADIUS.
3. GROUNDING CONDUCTOR SHALL BE 2 AWG SOLID BARE TINNED COPPER UNLESS OTHERWISE NOTED.
4. 4" PVC CONDUIT INSTALLED 30" (MINIMUM) BELOW GRADE FOR INCOMING SERVICE BY TELEPHONE COMPANY. PROVIDE PULL STRING - 200 LB. TEST POLYETHYLENE CORD.



FRONT VIEW

SERVICE RACK DETAILS

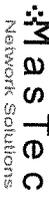
SCALE: N.T.S.

PLANS PREPARED FOR:



2002 PISCAGH CHURCH ROAD, SUITE 300
GREENSBORO, NC 27455

PLANS PREPARED FOR:



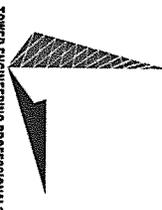
3800 GATEWAY CENTRE BLDG, SUITE 311
MORRISVILLE, NC 27560

PROJECT INFORMATION:

AT&T #: 176-068

S.R. 1137
SWANQUARTER, NC 27885
(HYDE COUNTY)

PLANS PREPARED BY:



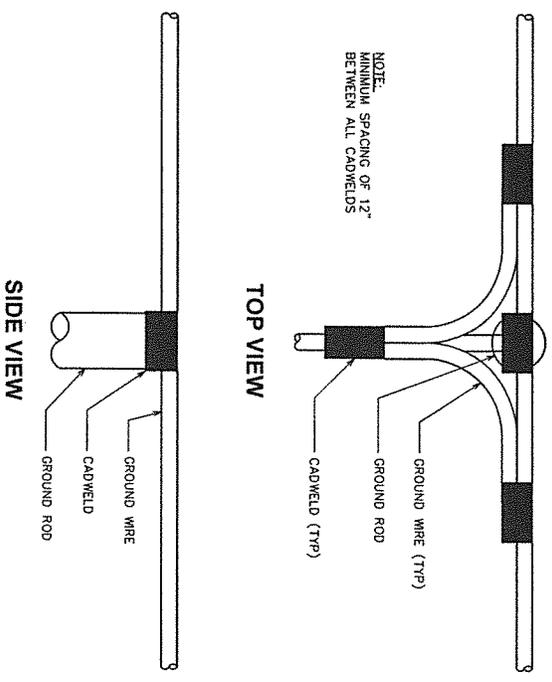
TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-5283
OFFICE: (919) 661-6351
www.towereng.com
N.C. LICENSE # C-1794

SEAL:

1	07-26-13	CONSTRUCTION
0	07-19-13	PRELIMINARY
REV	DATE	ISSUED FOR:
DRAWN BY: LMAJ		CHECKED BY: FTH

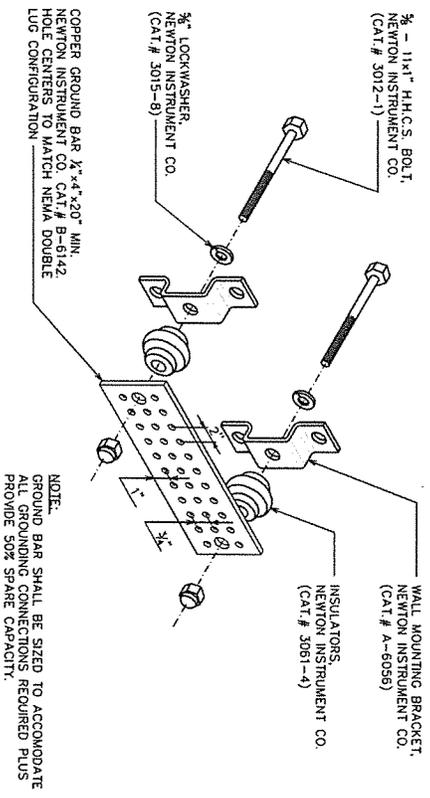
SHEET TITLE:
**SERVICE RACK
DETAILS**

SHEET NUMBER: **E-5**
REVISION: 1
TWP # 476166103



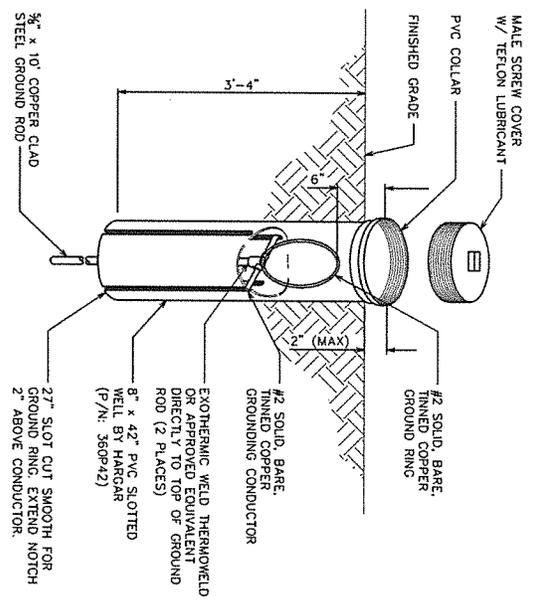
CADWELD GROUNDING DETAIL

SCALE: N.T.S.



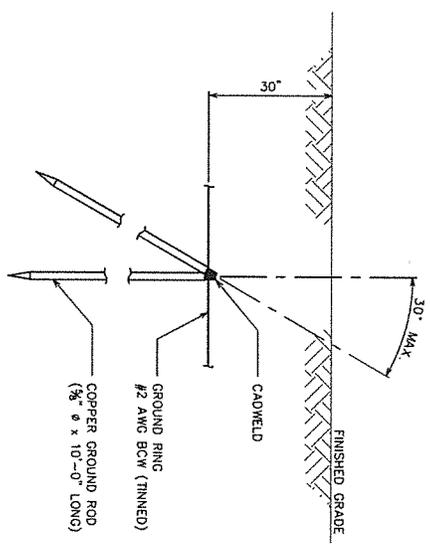
STANDARD GROUND BAR DETAIL

SCALE: N.T.S.



GROUND ROD WITH INSPECTION WELL

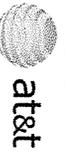
SCALE: N.T.S.



COPPER-CLAD STEEL GROUND ROD

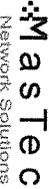
SCALE: N.T.S.

PLANS PREPARED FOR:



2002 PISGAH CHURCH ROAD, SUITE 300
GREENSBORO, NC 27455

PLANS PREPARED FOR:



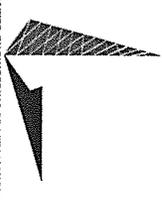
3800 GATEWAY CENTRE BLVD, SUITE 311
MORRISVILLE, NC 27560

PROJECT INFORMATION:

AT&T #: 176-068

S.R. 1137
SWANQUARTER, NC 27885
(TRIE COUNTY)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-5283
OFFICE: (919) 861-6351
www.towereng.com
N.C. LICENSE # C-1794

SCALE:

1	07-26-13	CONSTRUCTION
0	07-19-13	PRELIMINARY
REV	DATE	ISSUED FOR:
DRAWN BY:	LMW	CHECKED BY:
		TH

GROUNDING DETAILS I

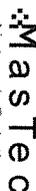
SHEET NUMBER:	REVISION:
E-6	1
TP # 4761-G-103	

PLANS PREPARED FOR:



2002 PISCATAWAY CHURCH ROAD, SUITE 300
GREENSBORO, NC 27409

PLANS PREPARED FOR:



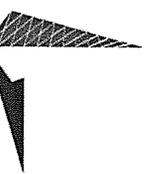
Network Solutions
3800 GATEWAY CENTRE BLVD, SUITE 311
MORRISVILLE, NC 27560

PROJECT INFORMATION:

AT&T #: 176-068

S.R. 1137
SWANQUARTER, NC 27885
(HIDE COUNTY)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-5283
OFFICE: (919) 681-6351
www.tepground.net
N.C. LICENSE # C-1794

SCALE:

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0	07-19-13	PRELIMINARY
REV	DATE	ISSUED FOR
DRAWN BY:	LWA	CHECKED BY:
TTH		

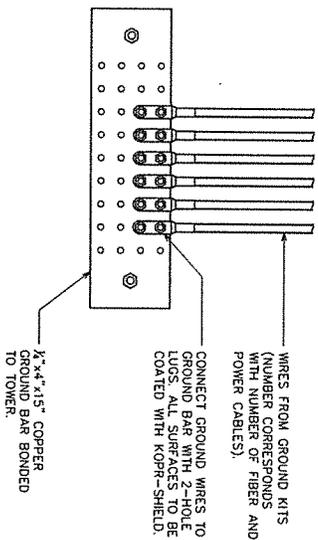
**GROUNDING
DETAILS II**

SHEET NUMBER: **E-7**

REVISION: **1**

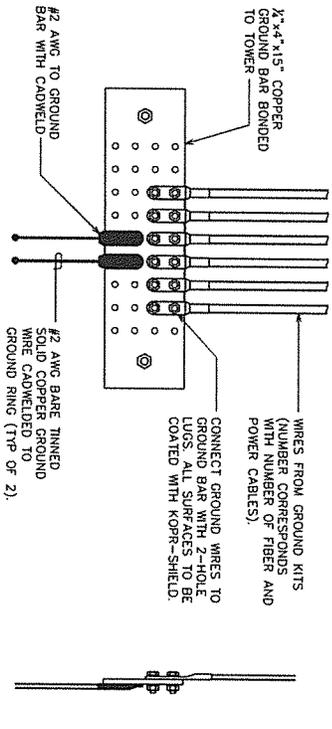
TEP #47616-G103

NOTE:
THE CONTRACTOR SHALL UTILIZE AN INTERMEDIATE
GROUND BAR FOR ANTENNA RAD CENTERS OVER 200'.



UPPER / INTERMEDIATE GROUND BAR

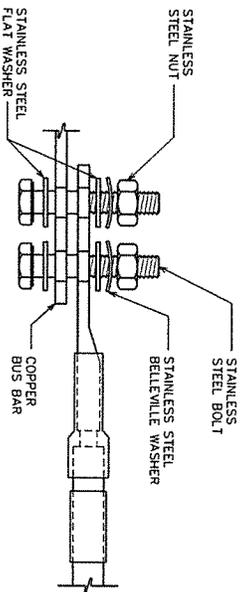
SCALE: N.T.S.



LOWER GROUND BAR

SCALE: N.T.S.

- NOTES:**
1. ALL HARDWARE SHALL BE 18-8 STAINLESS STEEL, INCLUDING THE BELLEVILLE WASHERS. COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING.
 2. FOR GROUND BOND TO STEEL, ONLY, INSERT A DRAGON TOOTH WASHER BETWEEN THE LUG AND STEEL. COAT ALL SURFACES WITH KOPR-SHIELD.



LUG DETAIL

SCALE: N.T.S.

GROUND BAR IN TELCO CABINET

SCALE: N.T.S.

