



**CITY OF YPSILANTI
REGULAR COUNCIL MEETING
Tuesday, June 2, 2020 @ 6:00 PM
Council Chambers
One South Huron, Ypsilanti, MI 48197**

Revised June 2, 2020

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I. CALL TO ORDER

II. ROLL CALL

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V. PRESENTATIONS

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- 46 - 51** G. Resolution No. 2020-122, approving Ordinance 1361, an ordinance entitled to adopt budget appropriations by department and major organizational unit for 2020-2021 and 2021-2022 fiscal years. **(Second Reading)**
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- 52 - 305** H. Resolution No. 2020-123, approving the Capital Improvements Plan for Fiscal Years 20-21 through 26-27.
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- 306 - 362** I. Resolution No. 2020-124, approving contract for installation of playground equipment for Candy Cane Park.
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- 363 - 370** J. Resolution No. 2020-125, authorizing the Department of Public Services to enter into a sales agreement with Element XS for Asset Management Software.
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- 371 - 373** K. Resolution No. 2020-126, approving street closure policy to assist in social distancing for Central Business District Bars and Restaurants.
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- 374 - 384** L. Resolution No. 2020-127, approving small cell wireless application 2020-001.
(added)
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- 385 - 651** M. Resolution No. 2020-128, approving small cell wireless application 2020-002.**(added)**
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VIII. COUNCIL PROPOSED BUSINESS

IX. COMMUNICATIONS FROM THE MAYOR

X. COMMUNICATIONS FROM THE CITY MANAGER

XI. COMMUNICATIONS

XII. REMARKS FROM THE MAYOR

XIII. ADJOURNMENT

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- A. Resolution No. 2020-129, adjourning the City Council Meeting.
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- B. Please click [here](#) to access the City Council Contact Form. This form can be used to submit any comments/concerns you might have about this agenda.



Resolution No. 2020-115A

June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

WHEREAS, the City Council of the City of Ypsilanti is outraged and appalled by the recent murders of George Floyd, Ahmaud Arbery, Breonna Taylor, Tony McDade and countless other African Americans that have lost their lives to racial violence; and

WHEREAS, the City of Ypsilanti grieves with the families and communities across this nation and calls for accountability of those who perpetuate violence under the badge of law; and

WHEREAS, historic, systemic and pervasive racism and traumas of colonization and slavery make people of color, particularly African Americans and Indigenous communities in our country, fear for their families' health, safety, and lives every single day; and

WHEREAS, racism is a social system with multiple dimensions: individual racism that is internalized or interpersonal; systemic racism that is institutional or structural, and is a system of structuring opportunity and assigning value based on the social interpretation of how one looks; and

WHEREAS, racism unfairly disadvantages specific individuals and communities, while unfairly giving advantages to other individuals and communities, and saps the strength of the whole society through the waste of human resources, and the City of Ypsilanti's collective prosperity depends upon the equitable access to opportunity for every resident regardless of the color of their skin; and

WHEREAS, racism causes persistent discrimination and disparate outcomes in many areas of life, including housing, education, employment and criminal justice; and an emerging body of research demonstrates that racism itself is a social determinant of health; and

WHEREAS, based on population percentages African Americans experience systemic inequity per capita nationally; and

WHEREAS, communities of color, working class residents, and those that suffer from disabilities, are more likely to experience poor health outcomes as a consequence of their social determinants of health — health inequities stemming from economic stability, education, physical environment, food and access to health care systems; and

WHEREAS, a contemporary example of such disparity is highlighted by the coronavirus data in Washtenaw County, 27% of the county population are African American, yet account for 34% of the diagnosis; and

#Resolution No. 2020-115A

WHEREAS, more than 100 studies have linked racism to worse health outcomes; and

WHEREAS, no change will be realized until white citizens of this country stand besides those exclaiming for justice; and

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF YPSILANTI:

- 1. Assert that racism is a public health crisis affecting our entire country.**
- 2. Work to progress as an equity and justice-oriented organization, with the City Council and its staff leadership continuing to identify specific activities to further enhance diversity and to ensure antiracism principles across City Council leadership, staffing and contracting.**
- 3. Promote equity through all policies approved by the City Council and enhance educational efforts aimed at understanding, addressing and dismantling racism and how it affects the delivery of human and social services, economic development and public safety.**
- 4. Continue to advocate locally for relevant policies that improve health in communities of color, and supports local, state, regional, and federal initiatives that advance efforts to dismantle systemic racism.**
- 5. Further work to solidify alliances and partnerships with other organizations that are confronting racism and encourage other local, state, regional and national entities to recognize racism as a public health crisis.**
- 6. Support community efforts to amplify issues of racism and engage actively and authentically with communities of color wherever they live.**
- 7. To always promote and support policies that prioritize the health of all people, especially people of color by mitigating exposure to adverse childhood experiences.**
- 8. Continue on-going racial equity training with the goal of reaching all City of Ypsilanti leadership and staff.**
- 9. Encourage racial equity training among all community partners, grantees, vendors and contractors.**
- 10. Identify clear goals and objectives, including periodic reports to the City Council, to assess progress and capitalize on opportunities to further advance racial equity; and**

Be it Further resolved, that City Council supports all additional efforts in the City of Ypsilanti, State of Michigan, and nationwide to address racism and public health disparities due to racial inequities; and

Be it Further resolved, that the City Council of the City of Ypsilanti declares there will be zero tolerance for police brutality by the City of Ypsilanti Police Department; and

#Resolution No. 2020-115A

Be it Further resolved, that the City Council of the City of Ypsilanti call upon the Governor, the Speaker of the Michigan House, and the Michigan Senate Majority Leader to join with us to declare racism as a public health crisis and to enact equity in all policies of the state of Michigan.

OFFERED BY: _____

SECONDED BY: _____

YES:

NO:

ABSENT:

VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-115A

2020 PROCLAMATION
DECLARING THE FIRST FRIDAY IN JUNE TO BE
NATIONAL GUN VIOLENCE AWARENESS DAY

This proclamation declares the first Friday in June to be National Gun Violence Awareness Day in the City of Ypsilanti to honor and remember all victims and survivors of gun violence and to declare that we as a country must do more to reduce gun violence.

WHEREAS, every day, more than 100 Americans are killed by gun violence and on average there are more than 13,000 gun homicides every year; and

WHEREAS, Americans are 25 times more likely to die by gun homicide than people in other high-income countries; and

WHEREAS, in Michigan has almost 1200 gun deaths every year, with a rate of 11.8 deaths per 100,000 people. Michigan has the 30th highest rate of gun deaths in the US; and

WHEREAS, gun homicides predominantly occur in cities, with more than half of all firearm related gun deaths in the nation occurring in 127 cities; and

WHEREAS, cities across the nation, including in Ypsilanti, are working to end the senseless violence with evidence-based solutions; and

WHEREAS, protecting public safety in the communities they serve is mayors' highest responsibility; and

WHEREAS, support for the Second Amendment rights of law-abiding citizens goes hand-in-hand with keeping guns away from people with dangerous histories; and

WHEREAS, mayors and law enforcement officers know their communities best, are the most familiar with local criminal activity and how to address it, and are best positioned to understand how to keep their citizens safe; and

WHEREAS, the pandemic facing America has drastically impacted communities and individuals sheltering in place which may result in situations where access to firearms results in increased risk in intimate partner violence gun deaths, suicide by gun and unintentional shootings;

WHEREAS, in January 2013, Hadiya Pendleton, a teenager who marched in the presidential inaugural parade and was tragically shot and killed just weeks later, should be now celebrating her 23rd birthday; and

WHEREAS, to help honor Hadiya – and the more than 100 Americans whose lives are cut short every day and the countless survivors who are injured by shootings every day – a national coalition of organizations has designated June 5, 2020, the first Friday in June, as the 6th National Gun Violence Awareness Day; and

WHEREAS, the idea was inspired by a group of Hadiya's friends, who asked their classmates to commemorate her life by wearing orange; they chose this color because hunters wear orange to announce themselves to other hunters when out in the woods and orange is a color that symbolizes the value of human life; and

WHEREAS, anyone can join this campaign by pledging to Wear Orange on June 5th, the first Friday in June in 2020, to help raise awareness about gun violence; and

WHEREAS, by wearing orange on June 5, 2020 Americans will raise awareness about gun violence and honor the lives of gun violence victims and survivors; and

WHEREAS, we renew our commitment to reduce gun violence and pledge to do all we can to keep firearms out of the wrong hands, and encourage responsible gun ownership to help keep our children safe.

NOW, THEREFORE BE IT RESOLVED, that Mayor Bashert of the city of Ypsilanti declares the first Friday in June, June 5, 2020, to be National Gun Violence Awareness Day. I encourage all citizens to support their local communities' efforts to prevent the tragic effects of gun violence and to honor and value human lives.

Given under my hand and seal of the
City of Ypsilanti, June 2, 2020.

Beth Bashert, Mayor



NRTF Grant Application

CITY OF YPSILANTI, MI
MAY 2020

Background

- **I-94 does not have a safe pedestrian/bike crossing at or near Huron Street**
 - A barrier between the communities of Ypsilanti and Ypsilanti Township
 - Prevents Ypsi City residents from accessing North Bay park, shopping, employment
 - Prevents Ypsi Township residents from walking/biking to Downtown/Depot Town/EMU; blocks access to east B2B from south of Ford Lake
- **Called out in Master Plan, Nonmotorized Plan, and recently adopted Parks & Recreation Master plan as a priority to establish this link**



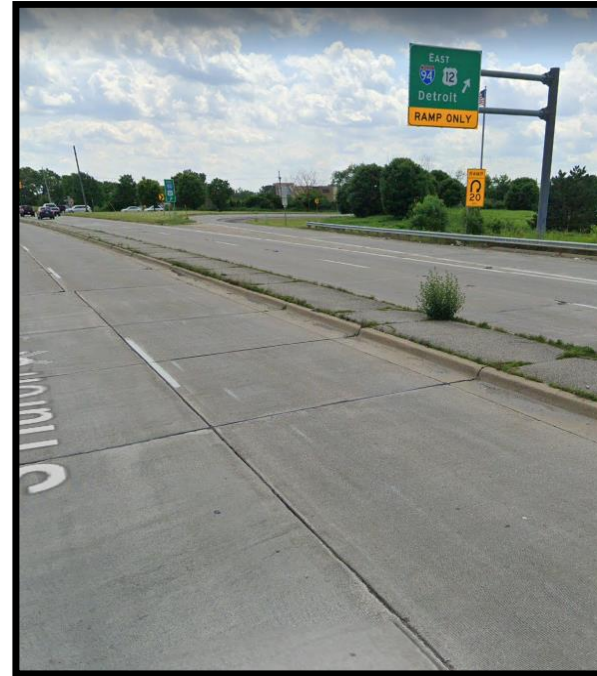
Transportation Alternatives Program Grant

- **In 2019, a TAP grant for design was approved by the state, and a subsequent grant for construction was conditionally approved.**

- Grant submitted by Washtenaw County Road Commission (WCRC) with partnership from Charter Township of Ypsilanti, MDOT, WATS, and WCPRC
- 20% match for each phase required
- Match for design phase covered by WCPRC
- Construction phase expected to cost \$3.3 million; match would be \$660,000

- **DNR NRTF grant would cover almost half the required construction match**

- Still working with other partners to cover; anticipate working with WCPRC and private donors to cover the balance
- Anticipated \$30,000 eventually (FY21-22) to be due from City



Questions?

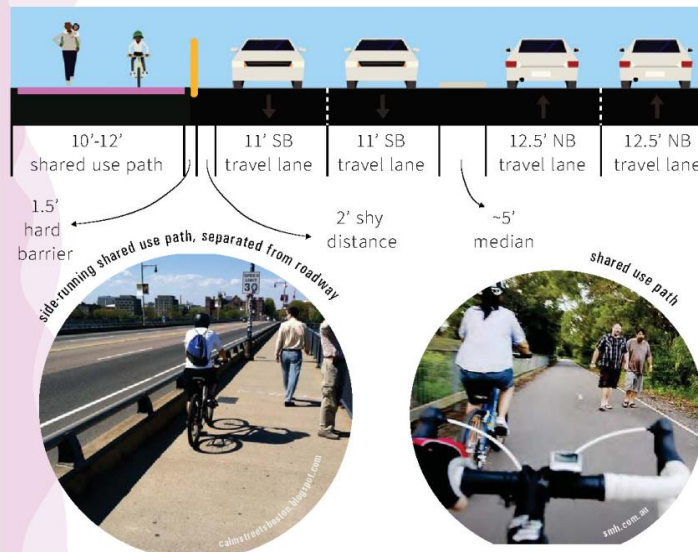
Preferred Alternative

Shared Use Path on West Side

Key Improvements

- * 10'-12' shared use path
- * Hard barrier on outside of path
- * Pedestrian signals
- * Reconfigured southwest on-ramp
- * Better sidewalk connections

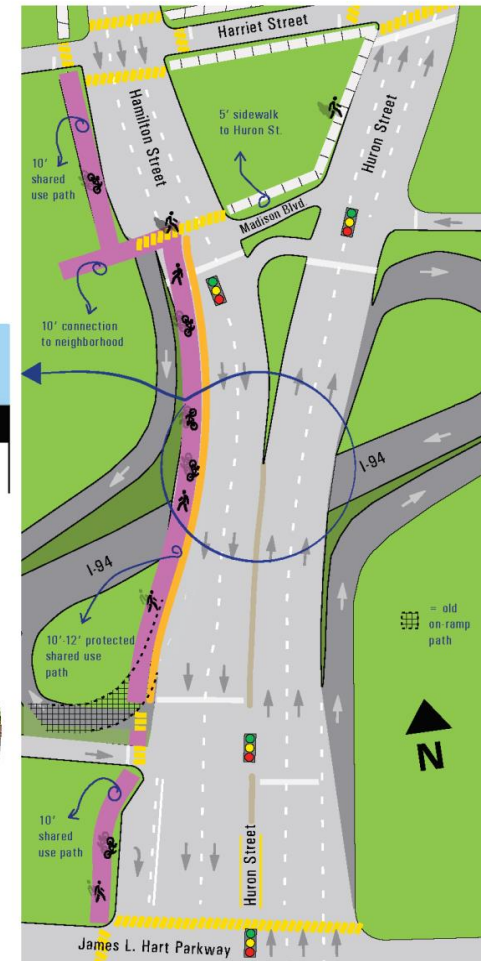
Cross section at center of bridge



Washtenaw Area
Transportation Study
miwats.org



OFFICE OF COMMUNITY &
ECONOMIC DEVELOPMENT





Resolution No. 2020-115
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

That the public hearing regarding the submission of a development application to the Michigan Department of Natural Resources for the Huron Pathway Project be officially closed.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-115



REQUEST FOR LEGISLATION

TO: Mayor and City Council
FROM: Bonnie Wessler
DATE: June 2, 2020
SUBJECT: Huron Pathway (I-94 Pedestrian Crossing) NRTF Grant Application

DESCRIPTION:

Huron Pathway (I-94 Pedestrian Crossing) NRTF Grant Application

SUMMARY:

Council has seen this presentation and resolution at their 17 March 2020 meeting. However, due to decreased attendance and public participation due to the emerging response to the covid-19 pandemic at the time, the DNR has expressed that they would need to see this item brought up as a standalone public hearing, with additional opportunity for public involvement, again. The application and presentation are otherwise unchanged.

The City has been working with MDOT, Ypsilanti Township, Washtenaw Area Transportation Study (WATS), Washtenaw County Road Commission (WCRC), and Representative Ronnie Peterson for more than a decade to develop a safe pedestrian pathway over I-94 at Huron Street. Such a pathway would not only provide a safe path for people to get to and from places of employment or to shopping, but also to recreational resources, such as North Bay Park and the anticipated bike lanes on Hamilton/Huron that in turn connect to the Border to Border Trail.

In 2014, a coalition led by WATS examined the feasibility of crossing I-94, looking both at a separate crossing and at scenarios using the existing bridge, and drawing from studies that had come before it. With public input and input from MDOT, one of the alternatives using the existing bridge was chosen. In late 2019, with WCRC as the lead applicant, this project was awarded a TAP grant for both design and construction of the crossing. As this is a complex, multijurisdictional project involving the bridge and offramps, MDOT has taken the lead on the design engineering and will be taking the lead on construction. The other parties- Ypsilanti City, Ypsilanti Township, WATS, and WCRC have agreed to cooperate on funding the match needed for the work. The City, via a Washtenaw County Parks and Recreation Connecting Communities grant award, has already funded the design phase match.

The construction match is anticipated to be 20% of approximately \$3.3 million dollars, or about \$660,000. We are applying for \$300,000, the maximum award, from the Michigan Natural Resources Trust Fund to help provide that match towards construction. The construction is anticipated to begin in 2022, subject of course to changes based on design, funding, and construction scheduling.

RECOMMENDED ACTION: Approval

ATTACHMENTS: None.

CITY MANAGER APPROVAL: _____ COUNCIL AGENDA DATE: _____

CITY MANAGER COMMENTS: _____

FISCAL SERVICES DIRECTOR APPROVAL: _____



Resolution No. 2020-116
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

WHEREAS, the City strongly supports safe nonmotorized transportation and safe access to recreation opportunities for people of all abilities and incomes; and

WHEREAS, the need for a safe crossing of I-94 at Huron Street for pedestrians and bicyclists is incorporated in the City's Master Plan, Nonmotorized Plan, and 5-year approved Parks and Recreation Master Plan; and

WHEREAS, a TAP grant has been awarded for the design and construction of such a crossing, administered by Washtenaw County Road Commission and MDOT, for an anticipated amount of \$3.3 million dollars for the construction, for which any NRTF award would be used as match; and

WHEREAS, the need for a safe crossing is incorporated in the City's Master Plan and Nonmotorized Plan; and

NOW THEREFORE BE IT RESOLVED, THAT the City Council hereby authorizes the submission of a development application to the Michigan Department of Natural Resources Natural Resources Trust Fund in the amount of \$300,000 for the Huron Pathway Project, matched by the conditional TAP award for State of Michigan fiscal year 2022, City fiscal year 2021-22.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-116



Resolution No. 2020-117
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

THAT the minutes of May 19, 2020 be approved.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-117



MINUTES VIRTUAL COUNCIL Meeting

6:00 PM - Tuesday, May 19, 2020
Council Chambers

The REGULAR COUNCIL of the City of Ypsilanti was called to order on Tuesday, May 19, 2020, at 6:00 PM, with the following members present:

PRESENT: Mayor Beth Bashert (6:17 p.m.), Council Member Jennifer Symanns, Council Member Steven Wilcoxon, Council Member Nicole Brown, Mayor Pro-Tem Lois Richardson, Council Member Anthony Morgan, and Council Member Annie Somerville

I. CALL TO ORDER

The meeting was called to order at 6:10 p.m.

II. ROLL CALL

III. AGENDA APPROVAL

Mayor Pro-Tem Richardson moved, seconded by Council Member Wilcoxon, to add discussion regarding murders of black men to the agenda.

The agenda was approved as amended.

IV. PUBLIC COMMENT (3 MINUTES)

Two people spoke.

V. PUBLIC HEARINGS

- a) Public hearing for Ordinance 1359, An Ordinance entitled, "2020-2021 Tax Levy Ordinance"
1. Resolution No. 2020-106, closing the public hearing

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

That the public hearing on the proposed ordinance entitled "2019-2020 Tax Levy Ordinance", be officially closed.

Mayor Pro-Tem Lois Richardson moved, seconded by Council Member Anthony Morgan, to approve Resolution No. 2020-106.

RESULT:	CARRIED.
MOVER:	Mayor Pro-Tem Lois Richardson
SECONDER:	Council Member Anthony Morgan
AYES:	Beth Bashert, Jennifer Symanns, Steven Wilcoxon, Nicole Brown, Lois Richardson, Anthony Morgan, and Annie Somerville

- b) Public Hearing for Ordinance 1360, An Ordinance entitled, "An Ordinance to Amend Budget Appropriations by Department and major Organizational Unit for FY 2019-2020"
1. Resolution No. 2020-107, closing the public hearing

Council Member Anthony Morgan moved, seconded by Mayor Pro-Tem Lois Richardson, to approve Resolution No. 2020-107.

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

The Public Hearing for "An Ordinance to Amend Budget Appropriations by Department and Major Organizational Unit for the Fiscal Year 2019-2020, be officially closed.

RESULT:	CARRIED.
MOVER:	Council Member Anthony Morgan
SECONDER:	Mayor Pro-Tem Lois Richardson
AYES:	Beth Bashert, Jennifer Symanns, Steven Wilcoxon, Nicole Brown, Lois Richardson, Anthony Morgan, and Annie Somerville

- c) Public hearing for Ordinance 1361, an ordinance entitled to adopt budget appropriations by department and major organizational unit for 2020-2021 and 2021-2022 fiscal years.
1. Resolution No. 2020-108, closing the public hearing

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

That the Public Hearing to consider an ordinance entitled, "An Ordinance to Adopt Budget Appropriations by Department and Major Organizational Unit for the Fiscal Years "2020 – 2021 and 2021 - 2022", be officially closed.

Council Member Steven Wilcoxon moved, seconded by Council Member Jennifer Symanns, to approve Resolution No. 2020-108.

RESULT:	CARRIED.
MOVER:	Council Member Steven Wilcoxon
SECONDER:	Council Member Jennifer Symanns
AYES:	Beth Bashert, Jennifer Symanns, Steven Wilcoxon, Nicole Brown, Lois Richardson, Anthony Morgan, and Annie Somerville

VI. CONSENT AGENDA

- a) Resolution No. 2020-109, approving the Consent Agenda.

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

That the following items be approved:

1. Resolution No. 2020-110, approving the minutes of May 5, 2020.
2. Resolution No. 2020-111, approving amendment to the application for the Local Bridge Improvement Program for Forest Avenue.

Council Member Steven Wilcoxon moved, seconded by Council Member Anthony Morgan, to approve Resolution No. 2020-109.

RESULT:	CARRIED.
MOVER:	Council Member Steven Wilcoxon
SECONDER:	Council Member Anthony Morgan
AYES:	Beth Bashert, Jennifer Symanns, Steven Wilcoxon, Nicole Brown, Lois Richardson, Anthony Morgan, and Annie Somerville

- b) Resolution No. 2020-110, approving the minutes for May 5, 2020.

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

THAT the minutes of May 19, 2020 be approved.

- c) Resolution No. 2020-111, approving an amendment to application to Local Bridge Program for Forest Ave.

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

Whereas, the bridge on Forest Avenue over the Huron River in the City of Ypsilanti has deteriorated over time and rehabilitation work is necessary to extend the life of the bridge; and,

Whereas, OHM, consulting engineers for the City of Ypsilanti, completed the inspection of the bridges in the City and prepared inspection reports and other information on the above-mentioned bridges; and,

Whereas, based on the findings and recommendations of OHM, the Director of Public Services recommends that the City Council authorize the Director of Public Services and OHM to make application to the Michigan Department of Transportation's Local Bridge Program for bridge rehabilitation; and,

Whereas, the City of Ypsilanti has available 10% portion of the project financing available;

Now therefore be it resolved that that the City Council of the City of Ypsilanti authorizes the Director of Public Services and OHM to apply to the Michigan Department of Transportation's Local Bridge Program seeking financial assistance to perform rehabilitation work on the Forest Avenue bridge.

VII. RESOLUTIONS/MOTIONS/DISCUSSIONS

- a) Resolution No. 2020-112, allocating \$75,000 to Barrier Busters for the purpose of providing emergency funds for rent, mortgage, and utilities to Ypsilanti residents.

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

WHEREAS, the coronavirus outbreak has caused unprecedented unemployment and placed many at risk of being unable to pay for housing and other basic needs; and

WHEREAS, on May 5, 2020 Ypsilanti City Council approved Resolution No 2020-099 allocating \$75,000 from the Housing Fund (102-7-6900-695-00) for emergency funding for rent, mortgages and utilities for city residents within the 48197 and 48198 zip codes, and directed the City Manager to develop a process for distribution; and

WHEREAS, from research Barriers Busters, a program run by the Office of Community and Economic Development (OCED) of Washtenaw County was discovered; and

WHEREAS, Barrier Busters is a network where households can receive emergency assistance for housing, utilities, transportation and health emergency needs; and

WHEREAS, before final approval to award funds, Barrier Busters conducts an assessment, connects applicants via an online secured case management system to appropriate agencies based on needs, reviews household demographic information and

explanation of the crisis, and develops a follow up action plan. Review time is typically 1-2 business days, and vendor payment by mailed check occurs within 5-8 business days.

THEREFORE BE IT RESOLVED that City Council approves the contract and allocation of \$75,000 to Washtenaw County Barrier Busters Unmet Needs Fund for distribution to Ypsilanti residents for rent, mortgages, utilities, and other emergency funding in response to COVID-19 as discussed at the May 5, and May 19, 2020 Council meetings.

FURTHER RESOLVED that the City of Ypsilanti will receive a quarterly report of activities conducted through their contribution to the Barrier Busters Unmet Needs Fund.

Council Member Nicole Brown moved, seconded by Council Member Annie Somerville, to approve Resolution No. 2020-112.

RESULT:	CARRIED.
MOVER:	Council Member Nicole Brown
SECONDER:	Council Member Annie Somerville
AYES:	Beth Bashert, Jennifer Symanns, Steven Wilcoxon, Nicole Brown, Lois Richardson, Anthony Morgan, and Annie Somerville

- b) Resolution No. 2020-113A, approving policy on how flags are to be displayed on city property. (added) - Council Members Symanns & Wilcoxon

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

Whereas, the City Council desires to update its policy regarding: (1) the display of the United States Flag, the Michigan State Flag, and the City of Ypsilanti Flag at City facilities; and (2) the display of commemorative flags on city property; and

Whereas, in adopting this policy, the City Council declares that the City's flagpoles are not intended to serve as a forum for free expression of the public, but rather for the display of Federal, State, and City Flags, and any commemorative flag as may be authorized by resolution of the City Council as an expression of the City's official sentiments; and

Whereas, the United States Flag, the Michigan State Flag, and the City of Ypsilanti Flag shall be displayed as required by law and in accordance with this policy; and

Whereas, no other flag shall be placed above the United States Flag; and

Whereas, commemorative flags may be displayed only as authorized by resolution of the City Council and as an expression of the City's official sentiments and as such commemorative flags shall be displayed for a period of time that is reasonable or customary for the subject that is to be commemorated, but no longer than thirty (30) continuous days; and

Whereas, the City will not display a commemorative flag based on a request from a third party, nor will the City use its flagpoles to sponsor the expression of a third party; and

Whereas, flags shall be displayed as follows: The United States Flag shall be displayed in the first position of honor, the Michigan State Flag shall be placed in the second position of honor, the City of Ypsilanti Flag shall be placed in the third position of honor, and commemorative flags shall be displayed in the fourth position of honor; and

Whereas, if all flags are displayed on one flagpole, the order from top to bottom shall be: the United States Flag, the Michigan State Flag, the City of Ypsilanti Flag, and then commemorative flags.

Now therefore, be it resolved that the City of Ypsilanti adopt this as its policy on the display of flags on city property.

Council Member Jennifer Symanns moved, seconded by Council Member Steven Wilcoxon, to approve Resolution No. 2020-113A.

RESULT:	CARRIED.
MOVER:	Council Member Jennifer Symanns
SECONDER:	Council Member Steven Wilcoxon
AYES:	Beth Bashert, Jennifer Symanns, Steven Wilcoxon, Nicole Brown, and Annie Somerville
NAYS:	Lois Richardson and Anthony Morgan

- c) Resolution No. 2020-113, declaring June as Pride Month in the City of Ypsilanti.

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

Whereas, President Bill Clinton declared June “Gay and Lesbian Pride Month” in June of 2000 to commemorate the June 1969 Stonewall riots in Lower Manhattan; and

Whereas, President Barack Obama expanded the commemoration further by declaring June Lesbian, Gay, Bisexual, and Transgender Pride Month; and

Whereas, Pride Month is not only a time of celebration, it is also an opportunity to peacefully protest and raise political awareness of current issues facing the LGBTQ+ community, and

WHEREAS, much ground has been gained since the 1969 Stonewall Riots, however, injustice and negative attitudes remain that threaten the LGBTQ+ community; and

WHEREAS, The City of Ypsilanti has a proud place in the history of LGBTQ+ equality in the successful passing of our Inclusive Non-Discrimination Ordinance in 1998, a historic victory that received national attention and acclaim; and

WHEREAS, while the City of Ypsilanti has a long and proud tradition of being an inclusive community, it recognizes as long as injustice exists it threatens all that has been accomplished.

Now therefore be it resolved that the Ypsilanti City Council of the City of Ypsilanti declare June as “Pride Month” and direct staff to fly the Pride Flag through the duration of the month.

Council Member Wilcoxon made a friendly amendment to add 2020 to the resolution.

Council Member Somerville accepted the friendly amendment.

Council Member Annie Somerville moved, seconded by Council Member Steven Wilcoxon, to approve Resolution No. 2020-113 as amended.

RESULT:	CARRIED.
MOVER:	Council Member Annie Somerville
SECONDER:	Council Member Steven Wilcoxon
AYES:	Beth Bashert, Jennifer Symanns, Steven Wilcoxon, Nicole Brown, and Annie Somerville

NAYS:	Lois Richardson and Anthony Morgan
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- d) Discussion/Amendments to Fiscal Year 19-20 Budget & Fiscal Years 20-21 & 21-22 Budgets.

Council Member Steven Wilcoxon moved, seconded by Council Member Jennifer Symanns, to require the budget to be balanced for FY 20-21 and 21-22.

RESULT:	CARRIED.
MOVER:	Council Member Steven Wilcoxon
SECONDER:	Council Member Jennifer Symanns
AYES:	Beth Bashert, Jennifer Symanns, Steven Wilcoxon, Nicole Brown, Lois Richardson, Anthony Morgan, and Annie Somerville

Council Member Steven Wilcoxon moved, seconded by Council Member Annie Somerville, to Call the Question on the amendment.

RESULT:	CARRIED.
MOVER:	Council Member Steven Wilcoxon
SECONDER:	Council Member Annie Somerville
AYES:	Beth Bashert, Jennifer Symanns, Steven Wilcoxon, Nicole Brown, Lois Richardson, and Annie Somerville
ABSENT:	Anthony Morgan

Council Member Jennifer Symanns moved, seconded by Council Member Steven Wilcoxon, to remove the social worker and communications officer from the budget.

RESULT:	CARRIED.
MOVER:	Council Member Jennifer Symanns
SECONDER:	Council Member Steven Wilcoxon
AYES:	Beth Bashert, Jennifer Symanns, Steven Wilcoxon, Nicole Brown, Lois Richardson, and Annie Somerville
ABSENT:	Anthony Morgan

Council Member Jennifer Symanns moved, seconded by Council Member Steven Wilcoxon, to rescind the amendment removing the social worker and communications officer.

RESULT:	CARRIED.
MOVER:	Council Member Jennifer Symanns
SECONDER:	Council Member Steven Wilcoxon
AYES:	Beth Bashert, Jennifer Symanns, Steven Wilcoxon, Nicole Brown, Lois Richardson, Anthony Morgan, and Annie Somerville

Council Member Steven Wilcoxon moved, seconded by Council Member Anthony Morgan, to extend the meeting until 11:00 p.m.

The meeting was adjourned at 9:53 p.m. and reconvened at 10 p.m. for a brief recess.

- e) Discussion regarding potential road closures for expanded bar/restaurant capacity. - Council Members Brown & Somerville
- f) Discussion regarding the murders of black men. (added)

VIII. COUNCIL PROPOSED BUSINESS

Somerville

- Residents on Maple and Oak have asked for No Through Traffic signs.

Symanns

- No WATS meeting this month.

Wilcoxon

- Rutherford pool construction resumed. Opening date is unclear.
- Penn dam funding is still on hold from the Department of Natural Resources
- Commission meeting attendance is an issue.
- Dam breach at Sanford Dam

Richardson

- Shootings at New Parkridge
- Asked Housing Commission to hire local, black attorneys.

Brown

- Resident has been having tree and rental inspection issues.

IX. COMMUNICATIONS FROM THE MAYOR

Mayor Bashert made a statement about misrepresentation.

a) **NOMINATIONS - (added 5/18/2020)**

Sustainability

Emily Drennen (Exp. 5/1/2023)

Re-appointment

309 Middle

Ypsilanti, MI 48198

Nancy Heine (Exp. 5/1/2023)

Re-appointment

214 S Washington

Ypsilanti, MI 48197

Christian Cannon (Exp. 5/1/2023)

Re-appointment

418 Burton Ct.

Ypsilanti, MI 48197

Human Relations Commission

Ka'Ron Gaines (Exp. 5/1/2023)
Re-appointment
833 Armstrong
Ypsilanti, MI 48197

Planning Commission

Heidi Jugenitz (Exp 5/1/2023)
Re-appointment
35 Photo
Ypsilanti, MI 48198

Zoning Board of Appeals

Jake Albers (Exp. 5/1/2023)
Re-appointment
1533 Collegewood
Ypsilanti, MI 48197

Council Member Somerville requested attendance records for the last one-two years.

X. COMMUNICATIONS FROM THE CITY MANAGER

- a) Discussion regarding potential cancellation of Special Events and Parades as a result of COVID-19

City Manager McMullan will send out a press release cancelling festivals and parades.

XI. COMMUNICATIONS

XII. ADJOURNMENT

- a) Resolution No. 2020-114, adjourning the City Council Meeting.

The meeting was adjourned at 10:57 p.m.

- b) Please click [here](#) to access the City Council Contact Form. This form can be used to submit any comments/concerns you might have about this agenda.



RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

THAT, the following be appointed to the City of Ypsilanti Boards and Commissions as indicated below:

<u>NAME</u>	<u>BOARD</u>	<u>EXPIRATION</u>
Emily Drennen Re-appointment 309 Middle Ypsilanti, MI 48198	Sustainability Commission	5/1/2023
Nancy Heine Re-appointment 214 S. Washington Ypsilanti, MI 48197	Sustainability Commission	5/1/2023
Christian Cannon Re-appointment 418 Burton Ct. Ypsilanti, MI 48197	Sustainability Commission	5/1/2023
Ka'Ron Gaines Re-appointment 833 Armstrong Ypsilanti, MI 48197	Human Relations Commission	5/1/2023
Heidi Jugenitz Re-appointment 35 Photo Ypsilanti, MI 48198	Planning Commission	5/1/2023
Jake Albers Re-appointments 1533 Collegewood Ypsilanti, MI 48197	Zoning Board of Appeals	5/1/2023

#Resolution No. 2020-118

OFFERED BY: _____

SECONDED BY: _____

YES:

NO:

ABSENT:

VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
day of

#Resolution No. 2020-118



REQUEST FOR LEGISLATION

TO: Mayor and City Council
FROM: Rheagan Basabica
DATE:
SUBJECT: Summer 2020 Special Assessment

DESCRIPTION:
Summer 2020 Special Assessment

SUMMARY:

Bi-annually, all bills that remained unpaid for at least 30 days after the billing date, are to be added to the July or December tax roll as special assessments. These unpaid bills include board ups, trash removal, weed removal, rental inspections, dangerous building escrow, dangerous building inspection, graffiti removal snow removal, drains, water and other miscellaneous bills.

Once these items are added to the tax roll, they become a lien on the property in accordance with the City Charter, Special Assessments, and Section 8.01 Article VIII.

Further, at tax settlement, in March the County pays the City for any unpaid items. Washtenaw County Treasurer's Office serves as the collection agent for the City.

Attachments: Summary and detail list of summer 2020 Special Assessments

Recommended Action: City Council authorizes the City Treasurer to levy and assess the Summer 2020 Special Assessments.

CITY MANAGER APPROVAL: _____ COUNCIL AGENDA DATE: _____

CITY MANAGER COMMENTS: _____

FISCAL SERVICES DIRECTOR APPROVAL: _____



Resolution No. 2020-119
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

That, the City Treasurer be authorized to levy and assess on the July 2020 tax roll the attached listing of unpaid bills totaling \$88,470.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-119



May 26, 2020

Frances McMullan
City Manager
1 South Huron
Ypsilanti, MI 48197

RE: Special Assessments

In accordance with the City Charter Chapter, Special Assessments, Chapter 8.01. Article VIII. I hereby certify that the attached is a true copy of all installments on Special Assessment Rolls, which are due and have remained unpaid as of May 31, 2020.

The City Council, at their next meeting, can authorize me to levy these unpaid bills on the July 2020 Tax Roll.

Sincerely,

Rheagan Basabica, CPA, CGFM
Finance Director/Treasurer

2020 SPECIAL ASSESSMENT

PARCEL #	ADDRESS	CODE	DESCRIPTION	AMOUNT
11-11-37-204-001	1005 JEFFERSON	230	AHB	\$410
11-11-37-204-001	1005 JEFFERSON	230	AHB	\$375
11-11-05-446-004	1021 WASHTENAW #A	230	AHB	\$410
11-11-05-466-001	1021 Washtenaw #D	230	AHB	\$910
11-11-05-466-001	1021 Washtenaw #D	230	AHB	\$910
11-11-05-466-001	1021 Washtenaw #D	230	AHB	\$910
11-11-05-466-001	1021 Washtenaw #D	230	AHB	\$910
11-11-37-204-011	1042 WATLING	230	AHB	\$375
11-11-37-204-011	1042 WATLING	230	AHB	\$410
11-11-09-170-022	106 S GROVE	230	AHB	\$410
11-11-09-170-022	106 S GROVE	230	AHB	\$510
11-11-40-415-022	110 BALLARD	230	AHB	\$410
11-11-39-177-023	111 E AINSWORTH	230	AHB	\$410
11-11-39-301-010	1116 SMALL PL	230	AHB	\$375
11-11-40-164-016	120 N SUMMIT	230	AHB	\$375
11-11-39-168-023	122 HAWKINS	230	AHB	\$910
11-11-39-168-023	122 HAWKINS	230	AHB	\$710
11-11-39-168-023	122 Hawkins	230	AHB	\$510
11-11-40-430-009	122 N NORMAL	230	AHB	\$375
11-11-40-430-009	122 N NORMAL	230	AHB	\$410
11-11-40-430-009	122 N NORMAL	230	AHB	\$410
11-11-40-430-009	122 N NORMAL	230	AHB	\$560
11-11-40-430-009	122 N NORMAL	230	AHB	\$510
11-11-40-430-009	122 N NORMAL	230	AHB	\$410
11-11-40-164-029	125 N NORMAL	230	AHB	\$410
11-11-39-145-048	128 WARNER	230	AHB	\$410
11-11-05-310-007	1315 KINGWOOD	230	AHB	\$375
11-11-05-382-010	1486 Washtenaw	230	AHB	\$335
11-11-7-105-003	15 KRAMER	230	AHB	\$410
11-11-7-105-003	15 KRAMER	230	AHB	\$510
11-11-7-105-003	15 KRAMER	230	AHB	\$460
11-11-7-105-003	15 Kramer	230	AHB	\$410
11-11-05-351-010	1645 WHITTIER	230	AHB	\$375
11-11-39-130-022	200 W AINSWORTH	230	AHB	\$460
11-11-39-130-022	200 W AINSWORTH	230	AHB	\$510
11-11-39-130-022	200 W AINSWORTH	230	AHB	\$460
11-11-40-164-013	202 N SUMMIT	230	AHB	\$375
11-11-40-164-013	202 N. Summit	230	AHB	\$560
11-11-40-164-013	202 N. Summit	230	AHB	\$435
11-11-10-335-010	203 ARNET	230	AHB	\$375
11-11-10-335-010	203 Arnet	230	AHB	\$510
11-11-10-335-010	203 Arnet	230	AHB	\$375
11-11-10-335-010	203 Arnet	230	AHB	\$385

PARCEL #	ADDRESS	CODE	DESCRIPTION	AMOUNT
11-11-10-234-005	208 N PROSPECT	230	AHB	\$410
11-11-40-164-034	213 N. Normal	230	AHB	\$385
11-11-09-112-017	219 N PROSPECT	230	AHB	\$375
11-11-09-112-017	219 N PROSPECT	230	AHB	\$375
11-11-40-164-008	222 N SUMMIT	230	AHB	\$410
11-11-39-178-015	222 S Adams	230	AHB	\$375
11-11-09-182-007	301 E MICHIGAN	230	AHB	\$410
11-11-39-175-024	302 E AINSWORTH	230	AHB	\$375
11-11-39-175-024	302 E. Ainsworth	230	AHB	\$460
11-11-39-412-005	309 S WASHINGTON	230	AHB	\$410
11-11-39-412-005	309 S Washington	230	AHB	\$410
11-11-39-175-020	310 E AINSWORTH	230	AHB	\$375
11-11-39-175-020	310 E Ainsworth	230	AHB	\$375
11-11-344-477-00	311 S. Adams	230	AHB	\$485
11-11-39-160-038	312 FIRST	230	AHB	\$375
11-11-09-496-004	319 S GROVE	230	AHB	\$410
11-11-09-190-005	324 E MICHIGAN	230	AHB	\$460
11-11-39-168-005	335 WORDEN	230	AHB	\$375
11-11-39-160-012	383 SECOND	230	AHB	\$410
11-11-39-160-013	389 SECOND	230	AHB	\$410
11-11-39-160-013	389 SECOND	230	AHB	\$410
11-11-39-160-013	389 SECOND	230	AHB	\$410
11-11-39-160-013	389 SECOND	230	AHB	\$375
11-11-39-160-027	396 FIRST	230	AHB	\$410
11-11-39-160-027	396 FIRST	230	AHB	\$375
11-11-04-413-010	401 E FOREST	230	AHB	\$610
11-11-04-413-010	401 E FOREST	230	AHB	\$510
11-11-04-413-010	401 E FOREST	230	AHB	\$460
11-11-04-413-010	401 E FOREST	230	AHB	\$510
11-11-04-413-010	401 E FOREST	230	AHB	\$460
11-11-04-413-010	401 E FOREST	230	AHB	\$375
11-11-04-413-010	401 E FOREST	230	AHB	\$460
11-11-40-480-007	402 MICHIGAN	230	AHB	\$385
11-11-40-480-007	402 W MICHIGAN	230	AHB	\$535
11-11-40-480-007	402 W MICHIGAN	230	AHB	\$410
11-11-40-480-007	402 W MICHIGAN	230	AHB	\$410
11-11-39-426-037	414 AINSWORTH	230	AHB	\$375
11-11-40-480-011	418 W MICHIGAN	230	AHB	\$375
11-11-40-111-016	423 N HAMILTON	230	AHB	\$510
11-11-40-480-012	424 W MICHIGAN	230	AHB	\$560
11-11-40-480-012	424 W MICHIGAN	230	AHB	\$535
11-11-40-480-012	424 W. Michigan	230	AHB	\$560
11-11-40-480-012	424 W. Michigan	230	AHB	\$410
11-11-40-480-012	424 W. Michigan	230	AHB	\$460
11-11-40-480-012	424 W. Michigan	230	AHB	\$410
11-11-40-480-012	424 W. Michigan	230	AHB	\$385

PARCEL #	ADDRESS	CODE	DESCRIPTION	AMOUNT
11-11-40-480-012	424 W. Michigan	230	AHB	\$735
11-11-39-480-024	426 S. Washington	230	AHB	\$375
11-11-39-480-024	426 S. Washington	230	AHB	\$375
11-11-39-426-006	429 BURTON	230	AHB	\$375
11-11-39-480-011	429 S ADAMS	230	AHB	\$375
11-11-40-462-014	43 S SUMMIT	230	AHB	\$460
11-11-40-462-014	43 S SUMMIT	230	AHB	\$410
11-11-40-462-014	43 S SUMMIT	230	AHB	\$460
11-11-40-462-014	43 S SUMMIT	230	AHB	\$375
11-11-40-462-014	43 S. Summit	230	AHB	\$375
11-11-40-462-014	43 S. Summit	230	AHB	\$410
11-11-39-481-012	430 S HURON	230	AHB	\$375
11-11-39-480-023	430 S WASHINGTON	230	AHB	\$410
11-11-39-480-023	430 S. Washington	230	AHB	\$375
11-11-39-285-011	450 SECOND	230	AHB	\$410
11-11-39-285-011	450 SECOND	230	AHB	\$460
11-11-39-285-011	450 SECOND	230	AHB	\$375
11-11-39-285-011	450 SECOND	230	AHB	\$410
11-11-39-440-020	463 FIRST	230	AHB	\$410
11-11-39-440-020	463 FIRST	230	AHB	\$375
11-11-37-126-015	466 MADISON	230	AHB	\$375
11-11-39-440-020	483 FIRST	230	AHB	\$410
11-11-39-440-020	483 FIRST	230	AHB	\$375
11-11-37-151-020	484 JEFFERSON	230	AHB	\$375
11-11-37-151-020	484 JEFFERSON	230	AHB	\$375
11-11-37-151-003	485 MADISON	230	AHB	\$375
11-11-10-262-007	501 E MICHIGAN	230	AHB	\$460
11-11-10-262-007	501 E. Michigan	230	AHB	\$410
11-11-10-262-007	501 E. Michigan	230	AHB	\$410
11-11-37-156-005	505 JEFFERSON	230	AHB	\$375
11-11-39-301-001	507 HART PL	230	AHB	\$375
11-11-37-151-005	507 MADISON	230	AHB	\$375
11-11-40-182-011	512 WASHTENAW	230	AHB	\$510
11-11-40-464-006	513 PEARL	230	AHB	\$410
11-11-37-151-007	525 MADISON	230	AHB	\$375
11-11-39-465-011	525 SECOND	230	AHB	\$375
11-11-10-360-020	525 Tyler	230	AHB	\$460
11-11-37-151-015	534 JEFFERSON	230	AHB	\$375
11-11-10-355-018	540 DAVIS	230	AHB	\$410
11-11-37-126-020	565 MONROE	230	AHB	\$375
11-11-10-355-013	598 DAVIS	230	AHB	\$375
11-11-10-262-005	601 E MICHIGAN	230	AHB	\$460
11-11-40-464-034	602 Congress	230	AHB	\$410
11-11-39-427-010	634 HARRIET	230	AHB	\$375
11-11-40-480-005	7 N HAMILTON	230	AHB	\$410
11-11-40-480-005	7 N. Hamilton	230	AHB	\$460

PARCEL #	ADDRESS	CODE	DESCRIPTION	AMOUNT
11-11-39-125-014	7 W AINSWORTH	230	AHB	\$410
11-11-39-125-014	7 W AINSWORTH	230	AHB	\$410
11-11-40-463-010	701 CONGRESS	230	AHB	\$375
11-11-03-371-011	703 E CROSS	230	AHB	\$610
11-11-03-371-011	703 E CROSS	230	AHB	\$635
11-11-03-371-011	703 E CROSS	230	AHB	\$510
11-11-03-371-011	703 E CROSS	230	AHB	\$460
11-11-39-440-031	782 Harriet	230	AHB	\$385
11-11-37-120-001	802 MONROE	230	AHB	\$410
11-11-37-120-001	802 MONROE	230	AHB	\$375
11-11-37-120-001	802 Monroe	230	AHB	\$375
11-11-04-403-016	807 HEMPHILL	230	AHB	\$375
11-11-04-403-016	807 HEMPHILL	230	AHB	\$560
11-11-04-403-016	807 HEMPHILL	230	AHB	\$410
11-11-04-403-016	807 HEMPHILL	230	AHB	\$460
11-11-04-403-016	829 HILL	230	AHB	\$375
11-11-39-166-009	832 FRANKLIN	230	AHB	\$910
11-11-39-166-009	832 FRANKLIN	230	AHB	\$510
11-11-39-166-009	832 FRANKLIN	230	AHB	\$510
11-11-39-440-024	832 HARRIET	230	AHB	\$460
11-11-39-431-009	850 FREDERICK	230	AHB	\$460
11-11-37-131-009	869 MONROE	230	AHB	\$410
11-11-37-131-009	869 MONROE	230	AHB	\$410
11-11-37-131-010	875 MONROE	230	AHB	\$410
11-11-37-131-010	875 MONROE	230	AHB	\$375
11-11-37-131-010	875 MONROE	230	AHB	\$375
11-11-37-131-016	880 MADISON	230	AHB	\$375
11-11-37-131-016	880 MADISON	230	AHB	\$560
11-11-37-131-016	880 Madison	230	AHB	\$460
11-11-37-131-016	880 Madison	230	AHB	\$410
11-11-37-131-016	880 Madison	230	AHB	\$410
11-11-39-145-036	902 W MICHIGAN	230	AHB	\$410
11-11-37-154-028	904 WATLING	230	AHB	\$375
11-11-37-154-001	909 JEFFERSON	230	AHB	\$375
11-11-39-165-001	913 W MICHIGAN	230	AHB	\$375
11-11-39-145-018	937 PLEASANT DR	230	AHB	\$410
11-11-37-130-008	955 MONROE	230	AHB	\$375
11-11-37-153-016	966 JEFFERSON	230	AHB	\$375
11-11-37-153-010	975 MADISON	230	AHB	\$375
11-11-37-154-016	978 WATLING	230	AHB	\$375
11-11-37-154-013	979 JEFFERSON	230	AHB	\$375
11-11-37-203-009	1026 JEFFERSON	230	AHB	\$410
11-11-40-284-004	1215 PEARL	230	AHB	\$410
11-11-40-430-009	122 N NORMAL	230	AHB	\$460
11-11-40-430-009	122 N NORMAL	230	AHB	\$410
11-11-40-430-009	122 N NORMAL	230	AHB	\$410

PARCEL #	ADDRESS	CODE	DESCRIPTION	AMOUNT
11-11-39-130-022	200 W AINSWORTH	230	AHB	\$410
11-11-39-130-022	200 W AINSWORTH	230	AHB	\$460
11-11-40-163-024	203 N SUMMIT	230	AHB	\$460
11-11-40-164-034	213 N NORMAL	230	AHB	\$410
11-11-09-192-011	30 S GROVE	230	AHB	\$410
11-11-40-185-010	301 N ADAMS	230	AHB	\$410
11-11-09-496-004	319 S GROVE	230	AHB	\$460
11-11-04-413-010	401 E FOREST	230	AHB	\$410
11-11-40-480-010	410 W MICHIGAN	230	AHB	\$460
11-11-40-111-016	423 N HAMILTON	230	AHB	\$710
11-11-39-480-023	430 S WASHINGTON	230	AHB	\$410
11-11-10-262-007	501 E MICHIGAN	230	AHB	\$410
11-11-03-355-001	518 E FOREST	230	AHB	\$460
11-11-39-465-011	525 SECOND	230	AHB	\$410
11-11-03-354-006	612 VOUGHT	230	AHB	\$460
11-11-40-463-010	701 CONGRESS	230	AHB	\$410
11-11-39-168-001	829 HILL	230	AHB	\$410
11-11-39-440-023	838 HARRIET	230	AHB	\$410
11-11-37-154-001	909 JEFFERSON	230	AHB	\$410
11-11-37-130-003	925 MONROE	230	AHB	\$375
Total				\$88,470

CITY OF YPSILANTI

To: City Council
From: Frances McMullan, City Manager
Rheagan Basabica, Finance Director/Treasurer
Date: June 2, 2020
Re: Budget Amendments and Adjustments

After the May 19, 2020, we have made changes to our Amended Budget FY 19-20 and Original Budgets FY 20-21 & 21-22 per instruction by City Council and other recommendations by Management.

General Fund (101)

The General Fund budget presented is a "Balanced Budget" with the use of our Unassigned Fund Balance in the amount of \$14,200 for FY 2019-2020, \$284,095 for FY 2020-2021 and \$36,131 for FY 21-22 or a total of \$334,426 for three years.

Use of Unassigned Fund Balance is recommended by the Management due to projected decreases in City Revenues due to closures, limited service and state shared revenue affected by the pandemic. The next two years is a very lean budget with very limited capital improvement and most of the budget allocated only for our normal operating expenditures.

Please see attached General Fund (101) Adjustment

Housing Fund (102)

The Housing Fund Balance beginning as of July 1, 2019 is \$75,000 and will be used for rent, mortgage and utility relief in FY 19-20. An additional, \$75,000 is proposed in FY 20-21 that will be funded by the sale of 206-210 N. Washington. Please note that the sale of this property is still pending.

Please see attached Housing Fund (102) Adjustment

**BUDGET ADJUSTMENTS 6.2.2020
GENERAL FUND(101)ADJUSTMENT**

Adjustments:
XX,XXX=Savings to the City
(XX,XXX)=Additional Expenditure

NO.	ACCOUNT NUMBER	ACCOUNT NAME	Date	From	19-20	20-21	21-22	REASON	
Management Approved General Fund Budget					(10,000)	(269,494)	(14,170)	Beginning Shortfall	
May 5th Amendment									
1.	101-7-7510-706-!!	SALARIES	5/5/2020	Council	(10,000)			Support for Senior Center Operations	
2.	101-4-7510-!!!-!!	GRANTS	5/5/2020	Council	10,000			Support for Senior Center Operations DOJ GRANT	
Adjustments									
1.	101-7-!!!!-799-99	IT	4/27/2020	City Wide		(150,000)	(60,000)	IT Migration from County(1st year will have 6 mo overlap)	
2.	101-7-2530-!!!-!!	TREASURY	9/1/2021	Finance		11,600	13,920	FT to PT Treasury/Clerk Technician	
	101-7-2150-!!!-!!	CLERK	9/1/2021	Clerk		11,600	13,920	FT to PT Treasury/Clerk Technician	
3.	101-7-7551-818-00	FREIGHTHOUSE	4/22/2020	Planning	(1,200)			Freighthouse Committee Transition	
4.	101-7-7210-818-00	PLANNING	4/22/2020	Planning	(6,000)	(54,000)		Communications Officer funded upto 20-21	
		PLANNING	4/22/2020	Planning	6,000			NEZ Account funds Communication Officer	
		PLANNING	4/22/2020	Planning		54,000		County Contribution Communication Officer	
5.	101-7-9670-!!!-!!	TRANSFER TO 414	5/19/2020	Police		10,000.00		In Car System Pushed Back to 21-22	
6.	101-7-9670-!!!-!!	TRANSFER TO 414	5/19/2020	DPS		60,000.00		DPS Propane Filling Station Pushed Back 22-23	
7.	101-7-9670-!!!-!!	TRANSFER TO 202	5/19/2020	DPS		60,000.00		DPS Paved Parking+ADA Space Pushed Back 22-23	
8.	101-7-1720-943-00	MOTORPOOL RENTAL	5/19/2020	Building		5,600.00	5,600.00	Building Department Vehicle Removed(1/5)	
9.	101-7-3390-943-00	MOTORPOOL RENTAL	5/19/2020	Fire		4,600.00	4,600.00	Fire Department Vehicle-Non Hybrid Savings(55000-32000)/5	
10.	101-7-1720-943-00	MOTORPOOL RENTAL	5/19/2020	City Manager				City Manager Vehicle will be purchased in FY 20-21.	
11.	101-7-2621-757-00	SUPPLIES	5/20/2020	Clerk	(3,000.00)			Absentee Voters Envelopes	
12.	101-4-4420-!!!-!!	SPECIAL EVENTS	5/20/2020	City Wide		(28,000.00)		Suspend all Special Events	
Budget Surplus/(Shortfall)					(334,426)	(14,200)	(284,095)	(36,131)	Use of Fund Balance
Genral Fund Balance,Beginning					7,358,960	7,344,760	7,060,665		
General Fund Balance, End					7,344,760	7,060,665	7,024,534		

HOUSING FUND(102)ADJUSTMENT

NO.	ACCOUNT NUMBER	ACCOUNT NAME	Date	From	19-20	20-21	21-22	REASON
Housing Fund(102)								
1.	102-7-6900-695-00	CONTRIBUTION	5/5/2020			(75,000)		Budget Amendment
2.	102-7-6900-695-00	CONTRIBUTION	5/5/2020		(75,000)			Resolution
3.	102-4-6900-!!!-!!	SALE OF PROPERTY				105,000		Sale of 206-210 N Washington
Budget Surplus/Deficit					(75,000)	30,000	0	
Beginning Fund Balance					75,000	0	30,000	
Ending Fund Balance					0	30,000	30,000	



Resolution No. 2020-120
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

That the proposed ordinance entitled "2020-2021 Tax Levy Ordinance", be approved on Second Reading.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-120



Ordinance No. 1359

2020-2021 TAX LEVY ORDINANCE

THE CITY OF YPSILANTI ORDAINS THAT:

A general operating millage rate of 18.0298 mills (.0180298 cents per \$1) of the Taxable Value, according to the assessment roll of the last preceding year is approved and authorized; and

The City Clerk is authorized to certify to the City Treasurer and City Assessor the total amount to be levied and restriction for the City of Ypsilanti is:

MILLAGE DESCRIPTION	MILLAGE FY 20-21
GENERAL OPERATING	18.0298
POLICE & FIRE PENSION(PA 345)	6.5679
POLICE & FIRE OPEB(PA 345)	5.2471
SANITATION(PA 279)	2.6362
WATER STREET LTGO RFDG BONDS 2016A (VOTED IN AUGUST 8, 2017)	2.0043
PUBLIC TRANSIT (VOTED IN NOVEMBER 2010)	0.9277
TOTAL – CITY OF YPSILANTI	35.4130
DEPOT TOWN OPERATING (R84150)	1.7460
W. CROSS OPERATING(R01114)	1.7460
DOWNTOWN OPERATING(PA 197	1.7460
1983 MICHIGAN AVENUE OPERATING (R8135)	1.7460
2003 MICHIGAN AVENUE OPERATING(R03196)	1.7460
WATER STREET OPERATING(R155)	1.7460

Made, passed and adopted by the Ypsilanti City Council this ____ day of ____, 2020

Beth Bashert, Mayor

Andrew Hellenga, City Clerk

ATTEST

I do hereby confirm that the above Ordinance NO. ____ was published on the City of Ypsilanti website on May ____, 2020 and published in Washtenaw Legal News on the ____ of May, 2020 edition.

Andrew Hellenga, City Clerk

CERTIFICATE OF ADOPTING

I hereby certify that the foregoing is a true copy of the ordinance passed at the regular meeting of the City Council held on the ____ of ____, 2020.

Andrew Hellenga, City Clerk

Public Hearing Notice

Published on the City of Ypsilanti website on May __, 2020 and published in Washtenaw Legal News on the ____ of May, 2020 edition.



Resolution No. 2020-121
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

That an ordinance entitled, "An Ordinance to Amend Budget Appropriations by Department and Major Organizational Unit for the Fiscal Year 2019-2020, be approved on Second Reading.

AMENDED BUDGET 19-20				
Fund #	Fund Name	Revenue		Expenditure
101	General Fund	15,485,296		(15,495,298)
102	Housing Fund	75,000		(75,000)
202	Major Street	1,753,821		(1,725,321)
203	Local Street	560,573		(559,573)
205	Public Safety	390,000		(390,000)
226	Garbage and Rubbish Collection	936,631		(940,431)
265	Police Special Revenue	13,044		(13,044)
275	Depot Town Development	232,077		(214,079)
304	2016 GOLT Bonds	869,516		(869,516)
364	2002B W&S Debt	31,875		(31,875)
413	Down Town Authority	318,016		(304,826)
414	Capital Improvement	1,263,623		(1,458,970)
415	Economic Development Authority	37,250		(37,250)
469	2003D W&S	335,750		(335,750)
471	2003C W&S	50,313		(50,313)
473	2004A Ser DDA	87,773		(87,773)

#Resolution No. 2020-121

474	2004B W&S	387,872		(387,872)
479	2007 W&W Rev	18,001		(18,001)
480	2008 W&S Disp	25,731		(25,731)
481	2008 W&S Disp	7,288		(7,288)
482	2012 W&S Factory Pump	191,331		(191,331)
483	2013 Rev Refunding Bond	760,880		(760,880)
485	2013 Rev Refunding Bond	27,616		(27,616)
486	2016 W&S Rev Ref Bond	838,100		(838,100)
495	Sidewalk Improvement	176,503		(174,231)
514	Parking Fund	0		0
588	Public Transit	295,774		(295,774)
641	Motorpool	999,187		(1,014,187)
677	Worker's Compensation Fund	219,213		(219,213)
732	Fire and Police Pension	5,097,386		(4,649,269)
736	Retiree Benefits	1,639,331		(1,595,860)
Grand Total		33,124,771		(32,794,372)

Further, that in accordance with Section 19(2) of Public Act 621 of 1978, also known as the Uniform Budgeting and Accounting Act, parameters are hereby given to allow the City Managers' authority to approve budget transfers between programs within the same fund, and only Council may authorize transfers between funds. Department Heads may transfer funds between accounts within a specific program under their direction with the exception of personnel and capital expenditures, which must be approved by the City Manager.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this 2 day of June 2020

#Resolution No. 2020-121



Ordinance No. 1360

AN ORDINANCE TO AMEND BUDGET APPROPRIATIONS BY DEPARTMENT
AND MAJOR ORGANIZATIONAL UNIT FOR THE FISCAL YEAR
2019-2020

THE CITY OF YPSILANTI ORDAINS:

1. Pursuant to the City Charter Section 5.06 (a), budget appropriations by department and major organizational unit are hereby approved as recommended by the Administration, as approved by City Council, and as shown below by fund and summary of amendments for the General Fund and other funds.

AMENDED BUDGET 19-20			
Fund #	Fund Name	Revenue	Expenditure
101	General Fund	15,485,296	(15,495,298)
102	Housing Fund	75,000	(75,000)
202	Major Street	1,753,821	(1,725,321)
203	Local Street	560,573	(559,573)
205	Public Safety	390,000	(390,000)
226	Garbage and Rubbish Collection	936,631	(940,431)
265	Police Special Revenue	13,044	(13,044)
275	Depot Town Development	232,077	(214,079)
304	2016 GOLT Bonds	869,516	(869,516)
364	2002B W&S Debt	31,875	(31,875)
413	Down Town Authority	318,016	(304,826)
414	Capital Improvement	1,263,623	(1,458,970)
415	Economic Development Authority	37,250	(37,250)
469	2003D W&S	335,750	(335,750)
471	2003C W&S	50,313	(50,313)
473	2004A Ser DDA	87,773	(87,773)
474	2004B W&S	387,872	(387,872)
479	2007 W&W Rev	18,001	(18,001)
480	2008 W&S Disp	25,731	(25,731)

481	2008 W&S Disp	7,288	(7,288)
482	2012 W&S Factory Pump	191,331	(191,331)
483	2013 Rev Refunding Bond	760,880	(760,880)
485	2013 Rev Refunding Bond	27,616	(27,616)
486	2016 W&S Rev Ref Bond	838,100	(838,100)
495	Sidewalk Improvement	176,503	(174,231)
514	Parking Fund	0	0
588	Public Transit	295,774	(295,774)
641	Motorpool	999,187	(1,014,187)
677	Worker's Compensation Fund	219,213	(219,213)
732	Fire and Police Pension	5,097,386	(4,649,269)
736	Retiree Benefits	1,639,331	(1,595,860)
Grand Total		33,124,771	(32,794,372)

Further, that in accordance with Section 19(2) of Public Act 621 of 1978, also known as the Uniform Budgeting and Accounting Act, parameters are hereby given to allow the City Managers' authority to approve budget transfers between programs within the same fund, and only Council may authorize transfers between funds. Department Heads may transfer funds between accounts within a specific program under their direction with the exception of personnel and capital expenditures, which must be approved by the City Manager.

2. Copies to be available. Copies of the ordinance are available at the office of the City Clerk for inspection by, and distribution to, the public during normal business hours.
3. Publication and effective date: The City Clerk shall cause this Ordinance, or a summary of this Ordinance, to be published by printing the same in the Ypsilanti Courier. This Ordinance shall become effective after publication at the expiration of 30 days after adoption.

Made, passed and adopted by the Ypsilanti City Council this ____ day of ____, 2020.

Andrew Hellenga, City Clerk

ATTEST

I do hereby confirm that the above Ordinance No. 1311 was published on the City of Ypsilanti website in May 21, 2018 and published in Washtenaw Legal News on the 24th day of May, 2018 edition.

Andrew Hellenga, City Clerk

CERTIFICATE OF ADOPTING

I hereby certify that the foregoing is a true copy of the ordinance passed at the regular meeting of the City Council held on the _____ day of _____, 2020.

Andrew Hellenga, City Clerk



Resolution No. 2020-122
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

		Original Budget 20-21		Orinal Budget 20-22	
Fund #	Fund Name	Revenue	Expenditure	Revenue	Expenditure
101	General Fund	15,330,943	(15,330,943)	15,475,641	(15,475,641)
102	Housing Fund	75,000	(75,000)	0	0
202	Major Street	3,110,634	(3,110,634)	1,082,367	(1,082,367)
203	Local Street	518,078	(518,078)	539,907	(524,983)
205	Public Safety	375,000	(375,000)	375,000	(375,000)
226	Garbage and Rubbish Collection	1,095,124	(1,095,124)	1,117,865	(1,117,865)
265	Police Special Revenue	574	(444)	641	(452)
275	Depot Town Development	252,181	(224,211)	257,394	(224,079)
304	2016 GOLT Bonds	883,098	(883,098)	889,137	(889,137)
364	2002B W&S Debt	31,125	(31,125)	30,375	(30,375)
413	Down Town Authority	344,394	(301,631)	292,861	(292,861)
414	Capital Improvement	472,608	(472,608)	234,608	(234,608)
415	Economic Development Authority	2,497	(550)	2,422	(567)
469	2003D W&S	338,125	(338,125)	335,313	(335,313)
471	2003C W&S	49,188	(49,188)	48,063	(48,063)
473	2004A Ser DDA	84,728	(84,728)	86,613	(86,613)
474	2004B W&S	390,434	(390,434)	387,838	(387,838)
479	2007 W&W	17,682	(17,682)	17,363	(17,363)

#Resolution No. 2020-122

	Rev				
480	2008 W&S Disp	25,231	(25,231)	29,669	(29,669)
481	2008 W&S Disp	12,101	(12,101)	11,851	(11,851)
482	2012 W&S Factory Pump	185,228	(182,750)	186,174	(184,438)
483	2013 Rev Refunding Bond	758,660	(753,200)	749,988	(746,400)
485	2013 Rev Refunding Bond	27,116	(27,116)	26,616	(26,616)
486	2016 W&S Rev Ref Bond	835,800	(835,800)	839,250	(839,250)
495	Sidewalk Improvement	134,725	(131,001)	134,939	(131,306)
514	Parking Fund2	455,427	(396,426)	486,617	(427,590)
588	Public Transit	307,468	(307,468)	313,606	(313,606)
641	Motorpool	1,110,575	(1,063,143)	1,107,041	(1,086,211)
677	Worker's Compensation Fund	175,757	(175,757)	175,832	(175,832)
732	Fire and Police Pension	4,581,968	(4,581,968)	4,654,428	(4,654,428)
736	Retiree Benefits	1,780,803	(1,446,695)	1,820,322	(1,475,532)
Grand Total		33,762,272	(33,237,259)	31,709,741	(31,225,854)

Further, that in accordance with Section 19(2) of Public Act 621 of 1978, also known as the Uniform Budgeting and Accounting Act, parameters are hereby given to allow the City Managers' authority to approve budget transfers between programs within the same fund, and only Council may authorize transfers between funds. Department Heads may transfer funds between accounts within a specific program under their direction with the exception of personnel and capital expenditures, which must be approved by the City Manager.

OFFERED BY: _____

SECONDED BY: _____

YES:

NO:

ABSENT:

VOTE:

#Resolution No. 2020-122

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-122



Ordinance No. 1361

AN ORDINANCE TO ADOPT BUDGET APPROPRIATIONS BY DEPARTMENT AND MAJOR ORGANIZATIONAL UNIT FOR THE FISCAL YEARS 2020 – 2021 AND 2021 – 2022

THE CITY OF YPSILANTI ORDAINS:

1. Pursuant to the City Charter Section 5.06 (a), budget appropriations by department and major organizational unit are hereby approved as recommended by the Administration, as approved by City Council, and as shown below by fund and summary of amendments for the General Fund and other funds.

Fund #	Fund Name	Original Budget 20-21		Orinal Budget 20-22	
		Revenue	Expenditure	Revenue	Expenditure
101	General Fund	15,330,943	(15,330,943)	15,475,641	(15,475,641)
102	Housing Fund	75,000	(75,000)	0	0
202	Major Street	3,110,634	(3,110,634)	1,082,367	(1,082,367)
203	Local Street	518,078	(518,078)	539,907	(524,983)
205	Public Safety	375,000	(375,000)	375,000	(375,000)
226	Garbage and Rubbish Collection	1,095,124	(1,095,124)	1,117,865	(1,117,865)
265	Police Special Revenue	574	(444)	641	(452)
275	Depot Town Development	252,181	(224,211)	257,394	(224,079)
304	2016 GOLT Bonds	883,098	(883,098)	889,137	(889,137)
364	2002B W&S Debt	31,125	(31,125)	30,375	(30,375)
413	Down Town Authority	344,394	(301,631)	292,861	(292,861)
414	Capital Improvement	472,608	(472,608)	234,608	(234,608)
415	Economic Development Authority	2,497	(550)	2,422	(567)
469	2003D W&S	338,125	(338,125)	335,313	(335,313)
471	2003C W&S	49,188	(49,188)	48,063	(48,063)
473	2004A Ser DDA	84,728	(84,728)	86,613	(86,613)
474	2004B W&S	390,434	(390,434)	387,838	(387,838)
479	2007 W&W Rev	17,682	(17,682)	17,363	(17,363)

480	2008 W&S Disp	25,231	(25,231)	29,669	(29,669)
481	2008 W&S Disp	12,101	(12,101)	11,851	(11,851)
482	2012 W&S Factory Pump	185,228	(182,750)	186,174	(184,438)
483	2013 Rev Refunding Bond	758,660	(753,200)	749,988	(746,400)
485	2013 Rev Refunding Bond	27,116	(27,116)	26,616	(26,616)
486	2016 W&S Rev Ref Bond	835,800	(835,800)	839,250	(839,250)
495	Sidewalk Improvement	134,725	(131,001)	134,939	(131,306)
514	Parking Fund2	455,427	(396,426)	486,617	(427,590)
588	Public Transit	307,468	(307,468)	313,606	(313,606)
641	Motorpool	1,110,575	(1,063,143)	1,107,041	(1,086,211)
677	Worker's Compensation Fund	175,757	(175,757)	175,832	(175,832)
732	Fire and Police Pension	4,581,968	(4,581,968)	4,654,428	(4,654,428)
736	Retiree Benefits	1,780,803	(1,446,695)	1,820,322	(1,475,532)
Grand Total		33,762,272	(33,237,259)	31,709,741	(31,225,854)

Further, that in accordance with Section 19(2) of Public Act 621 of 1978, also known as the Uniform Budgeting and Accounting Act, parameters are hereby given to allow the City Managers' authority to approve budget transfers between programs within the same fund, and only Council may authorize transfers between funds. Department Heads may transfer funds between accounts within a specific program under their direction with the exception of personnel and capital expenditures, which must be approved by the City Manager.

2. Copies to be available. Copies of the ordinance are available at the office of the City Clerk for inspection by, and distribution to, the public during normal business hours.
3. Publication and effective date: The City Clerk shall cause this Ordinance, or a summary of this Ordinance, to be published by printing the same in the Ypsilanti Courier. This Ordinance shall become effective after publication at the expiration of 30 days after adoption.

Made, passed and adopted by the Ypsilanti City Council this _____ day of _____, 2020.

Andrew Hellenga, City Clerk

ATTEST

I do hereby confirm that the above Ordinance No. 1312 was published ON THE City of Ypsilanti website in May 21, 2020 and published in Washtenaw Legal News on the 24th day of May, 2020 edition.

Andrew Hellenga, City Clerk

CERTIFICATE OF ADOPTING

I hereby certify that the foregoing is a true copy of the ordinance passed at the regular meeting of the City Council held on the ____ day of _____, 2020.

Andrew Hellenga, City Clerk



REQUEST FOR LEGISLATION

TO: Mayor and City Council
FROM: Bonnie Wessler
DATE: June 2, 2020
SUBJECT: Capital Improvements Plan

DESCRIPTION:
Capital Improvements Plan

SUMMARY:

This draft of the Capital Improvements Plan (20/21-26/27) has been updated with inputs from the 5/4 and 5/18 City Council meetings. The Plan was previously presented to Council for discussion at the 5/4 meeting.

Changes include:

- Downgrading the proposed new fire chief vehicle from a hybrid (\$50,000 + \$4,000 lights & sirens) to a non-hybrid (\$28,000 + \$4,000 lights & sirens) (current fire chief vehicle will become Fire Marshal vehicle)
- Push City Manager vehicle replacement to 21/22
- Push back Building Department vehicle replacement indefinitely
- Push back Police in-car system to 21/22
- Push back DPS propane filling station to 22/23
- Push back DPS paved parking & ADA space to 22/23
- Corrected total cost of YFD source capture exhaust program to \$75,000; our share constant at \$10,000

Note that capital improvements listed in the plan may be funded from other sources than 414/Capital Improvements, such as the public safety millage fund (205), parking fund (514), roads funds (201 and 202), and motorpool (641), and as such each will be affected differently. 205/Public Safety is funded from the countywide public safety millage, based on property assessments. 514/Parking will be funded from parking revenues. 201/Local Roads and 202/Major Roads are funded from the statewide gas tax. 641/Motorpool is funded internally via departmental "rental" of vehicles, and those departments are funded via a mix of the General Fund and other sources, depending on the vehicle's use.

RECOMMENDED ACTION: Adoption

ATTACHMENTS: Draft text of plan, including spreadsheet, project sheets, and city-owned
property list/locations
Complete Spreadsheet
Resolution

CITY MANAGER APPROVAL: _____ COUNCIL AGENDA DATE: _____

CITY MANAGER COMMENTS: _____

FISCAL SERVICES DIRECTOR APPROVAL: _____



Resolution No. 2020-123
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

WHEREAS, the Charter of the City of Ypsilanti requires that Council adopt a Capital Improvements program on an annual basis; and

WHEREAS, the Planning Enabling Act requires that Council adopt a Capital Improvements program on an annual basis; and

WHEREAS, the City of Ypsilanti is pursuing renewal of its Redevelopment Ready Certification from the Michigan Economic Development Corporation, which likewise requires that a Capital Improvements Plan be adopted; and

NOW THEREFORE BE IT RESOLVED THAT the Ypsilanti City Council hereby adopt the Capital Improvement Plan for FY2020/2021 through FY2026/2027.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-123

Capital Improvements Requests 2020/21 through 2026/27															
Key	Submitting Department	Project Title	Justification	Long-Term Impact on O&M	Estimated Service Life (years)	Cost Basis	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Sources	Fund
1	Finance	Chart of Accounts Update	Mandatory	no	5	Quote		\$ 20,000						fund balance - capital	414
2	Finance	IT Hardware	Mandatory	no	10	not known	\$ 400,000							fund balance - capital	414
3	Finance	Treasury Camera	Risk avoidance	no	5			\$ -						fund balance - capital	414
4	YPD	Axon Body Cameras	Mandatory	no	5	Under contract	\$ 15,108	\$ 15,108	\$ 15,108					fund balance - capital	414
5	YPD	In Car Camera System	Mandatory	no	unk	Axon current pricing		\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	fund balance - capital	414
6	YPD	Live Scan Fingerprinting	Mandatory	no	unk	State bid contract	\$ 18,000							fund balance - capital	414
7	YPD	DSS Logger	Mandatory	no	unk	current contract	\$ 4,500	\$ 4,500	\$ 4,500					fund balance - capital	414
8	YPD	Vehicles - PD Vehicles	Risk avoidance	no	7	Current state bids	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	fund balance - motorpool	641
9	YFD	Vehicles - YFD Chief's vehicle	Mandatory	no	7	Quote	\$ 32,000							fund balance - motorpool	641
10	YFD	Emergency Notification System	Risk avoidance	no	20	comparable systems	\$ 10,000							fund balance - capital	414
11	YFD	YFD HVAC	Risk avoidance	positive	20	quote	\$ -		\$ 35,000					fund balance - capital	414
12	YFD	YFD Office/Building Maintenance	Strategic	positive	10	comparable projects	\$ -		\$ 20,000					fund balance - capital	414
13	YFD	Source Capture Exhaust System	Mandatory	positive	20	positive	\$ 10,000							if grant: 10k 414 and 50k assistance to firefighters grant	414
							\$ 75,000							if grant: 10k 414 and 50k assistance to firefighters grant	414
14	Facility Partner	Parkridge Classroom Expansion	Strategic	no	50	WAG				\$ 300,000				grant - cdbg (not secured)	414
15	Facility Partner	Senior Center Electrical & HVAC	Risk avoidance	no	20	comparable projects	\$ -		\$ 40,000					fund balance - capital	414
80	Facility Partner	Parkridge Kitchen	Strategic	no	50	WAG	\$ 10,000							grant - cdbg (not secured)	414
16	Facility Partner	Senior Center Classroom Addition	Strategic	no	50	comparable projects			\$ 100,000					fund balance - capital	414
17	Facility Partner	Senior Center Ventilation & Fire Suppression	Strategic	no	10	quotes	\$ -		\$ 40,000					fund balance - capital	414
18	DPS	Bridge - Cross Street	Mandatory	no	50	engineer estimate			\$ 600,000	\$ 7,314,000				if grant: 316700 city match, 6017300 state, 1580000 engineering	202
19	DPS	Bridge - Forest St	Mandatory	no	50	engineer estimate		\$ 445,150						If grant: Total expense by the city- match plus CE	202
20	DPS	DPS office - breakroom reno	Strategic	no	10	staff estimate	\$ -		\$ 25,000					fund balance - capital	414
21	DPS	DPS Aggregate Material Stall	Strategic	no	unk	previous CIP	\$ -		\$ 30,000					fund balance - capital	414
22	DPS	DPS North Pole Barn Concrete Barn	Risk avoidance	no	30	previous CIP	\$ -		\$ 40,000					fund balance - capital	414
23	DPS	DPS Paved Parking + ADA space	Strategic	no	unk	previous CIP		\$ -	\$ 50,000					fund balance - capital	414
24	DPS	DPS Garage Bay Exhaust Venting	Risk avoidance	no	10	previous CIP	\$ -		\$ 25,000					fund balance - capital	414
25	DPS	DPS Garage Bay Fire Suppression	Mandatory	no	unk	previous CIP	\$ -		\$ 60,000					fund balance - capital	414
26	DPS	DPS Hydraulic Hoist Installation	Strategic	positive	unk	previous CIP	\$ 115,000							fund balance - capital	414
27	DPS	DPS Propane Filling Station	Strategic	no	7	quotes	\$ -		\$ 60,000					fund balance - capital	414
28	DPS	DPS Workout area	Risk avoidance	no	10	staff estimate	\$ -		\$ 20,000					fund balance - capital	414
29	DPS	Parks - Capital Projects	Risk avoidance	varies	10	per funding available	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000		public safety mental health millage refund portion	414
30	DPS	Roads - Minor Streets Crack Sealing	Risk avoidance	positive		per funding available	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	fund balance - 202	202
31	DPS	Roads - Major Streets Cracksealing	Risk avoidance	positive		per funding available	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	fund balance - 203	203
32	DPS	Roads - Cornell (Kingwood to HRD)	Risk avoidance	positive		engineer estimate					\$ 572,000			272,000 fund balance, 1,088,000 FHWA, 300,000 engineering	202
33	DPS	Roads - Harriet (First to Hawkins)	Risk avoidance	positive		engineer estimate				\$ 403,000				219,000 fund balance 700,000 FHWA, 184,000 CE	202
34	DPS	Roads - Harriet (Hawkins to Huron)	Risk avoidance	positive		engineer estimate							\$ 346,000	158,000 fund balance, 474 fed, 127 CE	202
35	DPS	Roads - N Washington (W Cross to Emmet)	Risk avoidance	positive		engineer estimate			\$ 99,200					if county road millage	202
36	DPS	Roads - Huron River Drive (Cornell to LeForge)	Risk avoidance	positive		engineer estimate			\$ 1,810,000					1,160,000 fund balance, 2,062,000 FHWA, 650,000 CE	202
37	DPS	Roads - Oakwood (Sherman to Congress)	Risk avoidance	positive		engineer estimate		\$ 86,200						if county road millage: 86200 us, 125000 county	202
								\$ 125,000						if county road millage: 86200 us, 125000 county (CE?)	202
38	DPS	Roads - S Adams (Michigan to Catherine)	Risk avoidance	positive		engineer estimate					\$ 44,400			if county road millage: 44400 local 250000 county	202
											\$ 250,000			if county road millage: 44400 local 250000 county	202
39	DPS	Roads - W Cross (Courtland to Wallace)	Risk avoidance	positive		engineer estimate	\$ 495,000							215000 local + 285,000 engineering +1105000 state	202
40	DPS	Roads - E Cross (River to Prospect)	Risk avoidance	positive		per funding available	\$ 215,000							WC roads millage: 125,000 +86200 + engineering	202
							\$ 90,000							WC roads millage: 125,000 +86200 + engineering	202
41	DPS	Roads - ADA sidewalk ramps	Mandatory	no		per funding available	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	50 cdbg, 50 metro act, 20 misc 414 for design	495
							\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	50 cdbg, 50 metro act, 20 misc 414 for design	495
							\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	50 cdbg, 50 metro act, 20 misc 414 for design	414
42	DPS	Vehicles -Recycling/Yard Waste Rear Loader Truc	Risk avoidance	no	10	staff estimate			\$ 233,000					fund balance - motorpool	641
43	DPS	Vehicles -10 CY Rear Packer (#603)	Risk avoidance	no	10	staff estimate	\$ 80,000							fund balance - motorpool	641
44	DPS	Vehicles - Bobcat Loader w Bucket (#128)	Risk avoidance	no	10	staff estimate			\$ 66,000					fund balance - motorpool	641
45	DPS	Vehicles - Brush Chipper (#642)	Risk avoidance	no	10	staff estimate			\$ 50,000					fund balance - motorpool	641
46	DPS	Vehicles - City Hall Sedan (#22)	Risk avoidance	no	8	staff estimate	\$ 28,000							fund balance - motorpool	641
47	DPS	Vehicles - City Manager (C10)	Risk avoidance	no	8	staff estimate	\$ -	\$ 36,000						fund balance - motorpool	641
48	DPS	Vehicles - DPS Director (#102)	Risk avoidance	no	8	staff estimate				\$ 28,000				fund balance - motorpool	641
49	DPS	Vehicles - Dump Truck (#104)	Risk avoidance	no	8	staff estimate					\$ 60,000			fund balance - motorpool	641
50	DPS	Vehicles - Dump Truck Salt Truck (#108)	Risk avoidance	no	10	staff estimate			\$ 176,000					fund balance - motorpool	641
51	DPS	Vehicles - Dump Truck Salt Truck (#109)	Risk avoidance	no	10	staff estimate					\$ 176,000			fund balance - motorpool	641
52	DPS	Vehicles - Dump Truck Salt Truck (#111)	Risk avoidance	no	10	staff estimate					\$ 176,000			fund balance - motorpool	641
53	DPS	Vehicles - Dump Truck Salt Truck (#112)	Risk avoidance	no	10	staff estimate						\$ 176,000		fund balance - motorpool	641
54	DPS	Vehicles - Garden Tractor (#443)	Risk avoidance	no	10	staff estimate					\$ 15,000			fund balance - motorpool	641
55	DPS	Vehicles - Garden Tractor (#443)	Risk avoidance	no	10	staff estimate					\$ 15,000			fund balance - motorpool	641
56	DPS	Vehicles - Garden Tractor (#444)	Risk avoidance	no	10	staff estimate							\$ 15,000	fund balance - motorpool	641
57	DPS	Vehicles - Grapple Truck w Dump Body (#473)	Risk avoidance	no	10	staff estimate		\$ 225,000						fund balance - motorpool	641
58	DPS	Vehicles - Recycling/Yard Waste Rear Load Packe	Risk avoidance	no	10	staff estimate					\$ 233,000			fund balance - motorpool	641
59	DPS	Vehicles - Signal Shop Aerial Lift Truck (#122)	Risk avoidance	no	10	staff estimate							\$ 90,000	fund balance - motorpool	641

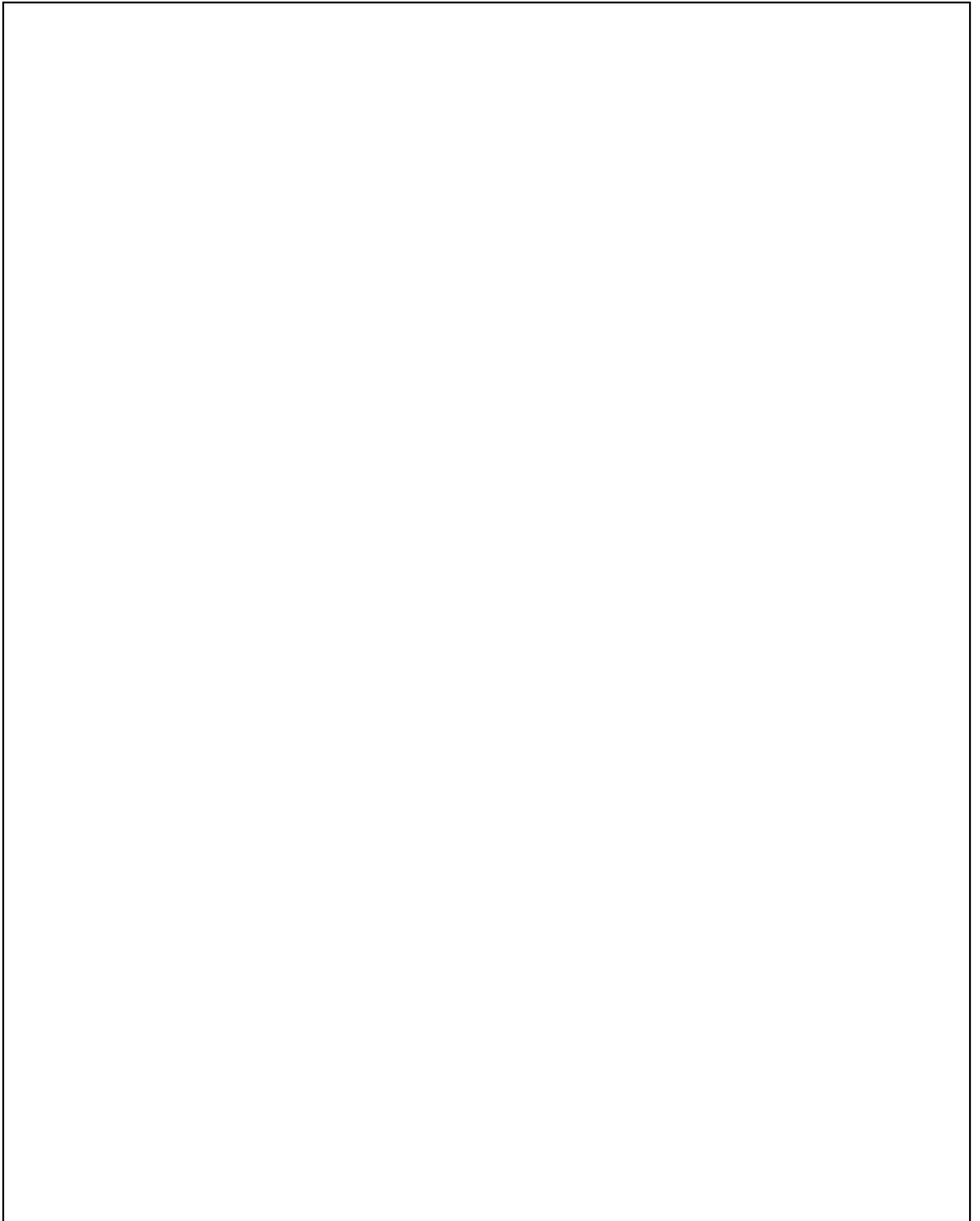
Capital Improvements Requests 2020/21 through 2026/27															
Key	Submitting Department	Project Title	Justification	Long-Term Impact on O&M	Estimated Service Life (years)	Cost Basis	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Sources	Fund
60	DPS	Vehicles - Small Loader w Bucket (#129)	Risk avoidance	no	10	staff estimate							\$ 75,000	fund balance - motorpool	641
61	DPS	Vehicles - Stake Truck (#126)	Risk avoidance	no	8	staff estimate		\$ 60,000						fund balance - motorpool	641
62	DPS	Vehicles - Stake Truck (#452)	Risk avoidance	no	8	staff estimate			\$ 60,000					fund balance - motorpool	641
63	DPS	Vehicles - Stake Truck (#131)	Risk avoidance	no	8	staff estimate				\$ 60,000				fund balance - motorpool	641
64	DPS	Vehicles - Street Sweeper (#139)	Risk avoidance	no	10	staff estimate	\$ 240,000							fund balance - motorpool	641
65	DPS	Vehicles - Street Sweeper (#142)	Risk avoidance	no	10	staff estimate				\$ 240,000				fund balance - motorpool	641
66	DPS	Vehicles - DPS Supervisor (#103)	Risk avoidance	no	8	staff estimate	\$ 33,000							fund balance - motorpool	641
67	DPS	Vehicles - DPS Enviro Foreman (#610)	Risk avoidance	no	8	staff estimate						\$ 33,000		fund balance - motorpool	641
68	DPS	Vehicles - DPS Supervisor (#101)	Risk avoidance	no	8	staff estimate						\$ 33,000		fund balance - motorpool	641
69	DPS	Vehicles - Utility Snow Removal Vehicle (#441)	Risk avoidance	no	10	staff estimate							\$ 25,000	fund balance - motorpool	641
70	DPS	Vehicles - Wide Area Mower (#448)	Risk avoidance	no	10	staff estimate	\$ 60,000							fund balance - motorpool	641
71	CED	3rd Floor Remodel	Strategic	no		per funding available	\$ -		\$ 40,000					fund balance - capital	414
72	CED	Vehicles - Ordinance Officer Vehicle	Risk avoidance	no	8	staff estimate	\$ -							fund balance - motorpool	641
73	CED	Tablets & software for Building & Code enforcement	Strategic	no	5	staff estimate	\$ -		\$ 20,000					fund balance - capital	414
74	Manager	Amtrak Train Stop	Strategic	no	30	engineer estimate			\$ 2,429,000					if grant: 1529000 fund balance capital + 3071000 grant + CE 900000	414
74	Manager	Amtrak Train Stop	Strategic	no	30	engineer estimate			\$ 3,071,000					if grant: 1529000 fund balance capital + 3071000 grant + CE 900000	414
75	Manager	Peninsular Dam Removal	Mandatory	no	30	feasibility study			\$ 500,000					if grant: 500,000 fund balance capital and 2,200,000 grant	414
75	Manager	Peninsular Dam Removal	Mandatory	no	30	feasibility study			\$ 2,200,000					if grant: 500,000 fund balance capital and 2,200,000 grant	0
76	DPS	Parking - Freighthouse lot	Risk avoidance	positive	5	per funding available	\$ 50,000							anticipated fund balance - parking	514
77	DPS	Parking - ongoing lot repairs	Risk avoidance	no	5	per funding available		\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	anticipated fund balance - parking	514
78	DPS	Recycling - Public Spaces Carts	Strategic	no	5	staff estimate	\$ 36,000							if grant: 36000 match, 180,000 grant	226
							\$ 180,000							if grant: 36000 match, 180,000 grant	0
79	DPS	Roads - Lane Reduction	Risk avoidance	no	15	MDOT estimate		\$ 200,000						fund balance	414

DRAFT

Capital Improvement Plan

City of Ypsilanti, Michigan

FY 2020/2021– FY 2026/2027



Acknowledgements

Mayor

Beth Bashert

Mayor Pro-Tem

Lois Richardson

City Council

Nicole Brown

Jennifer Symanns

Steve Wilcoxon

Anthony Morgan

Annie Somerville

City Manager

Frances McMullan

Financial Services

Rheagan Basabica

Public Services

Ron Akers

Community & Economic Development

Joe Meyers

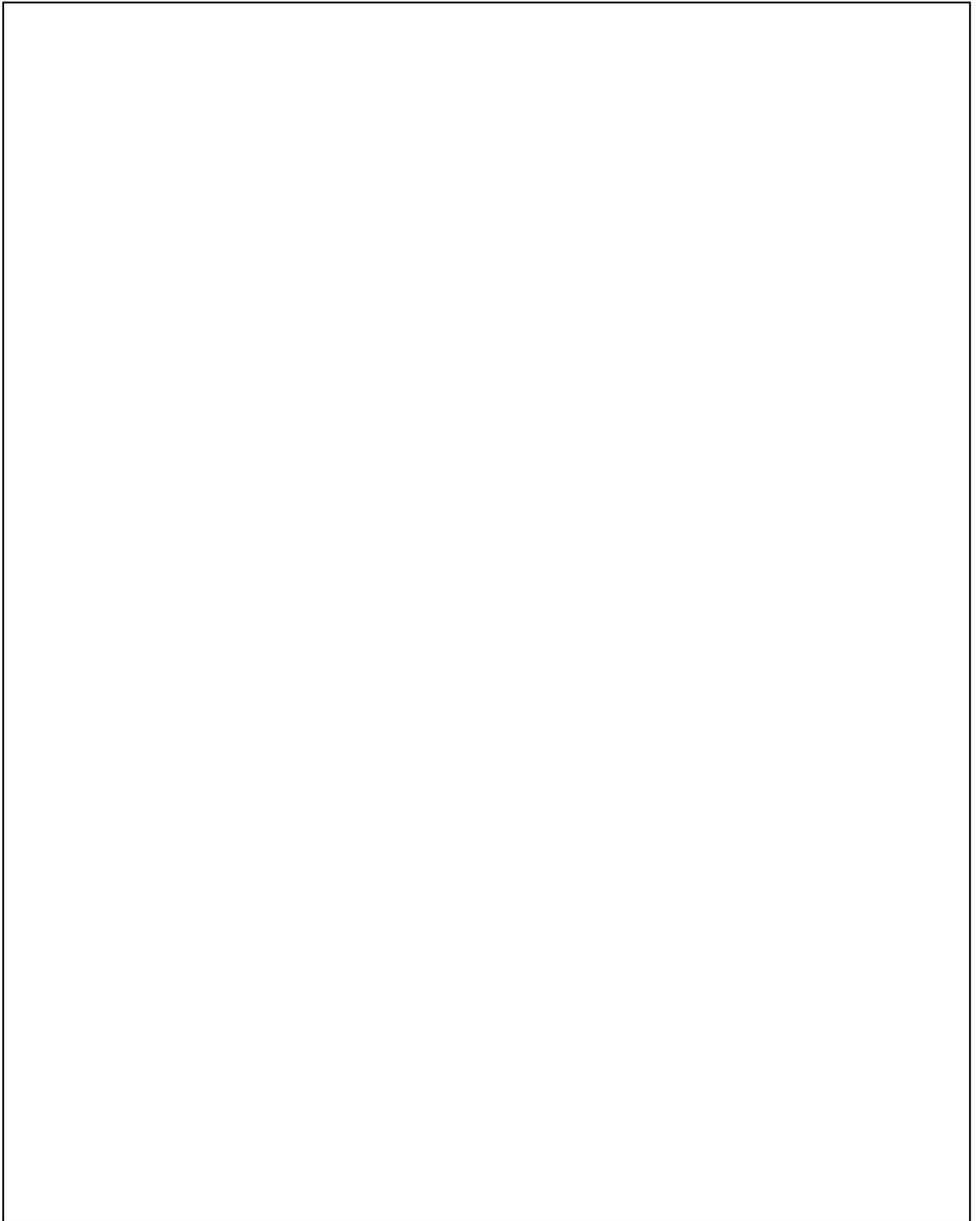


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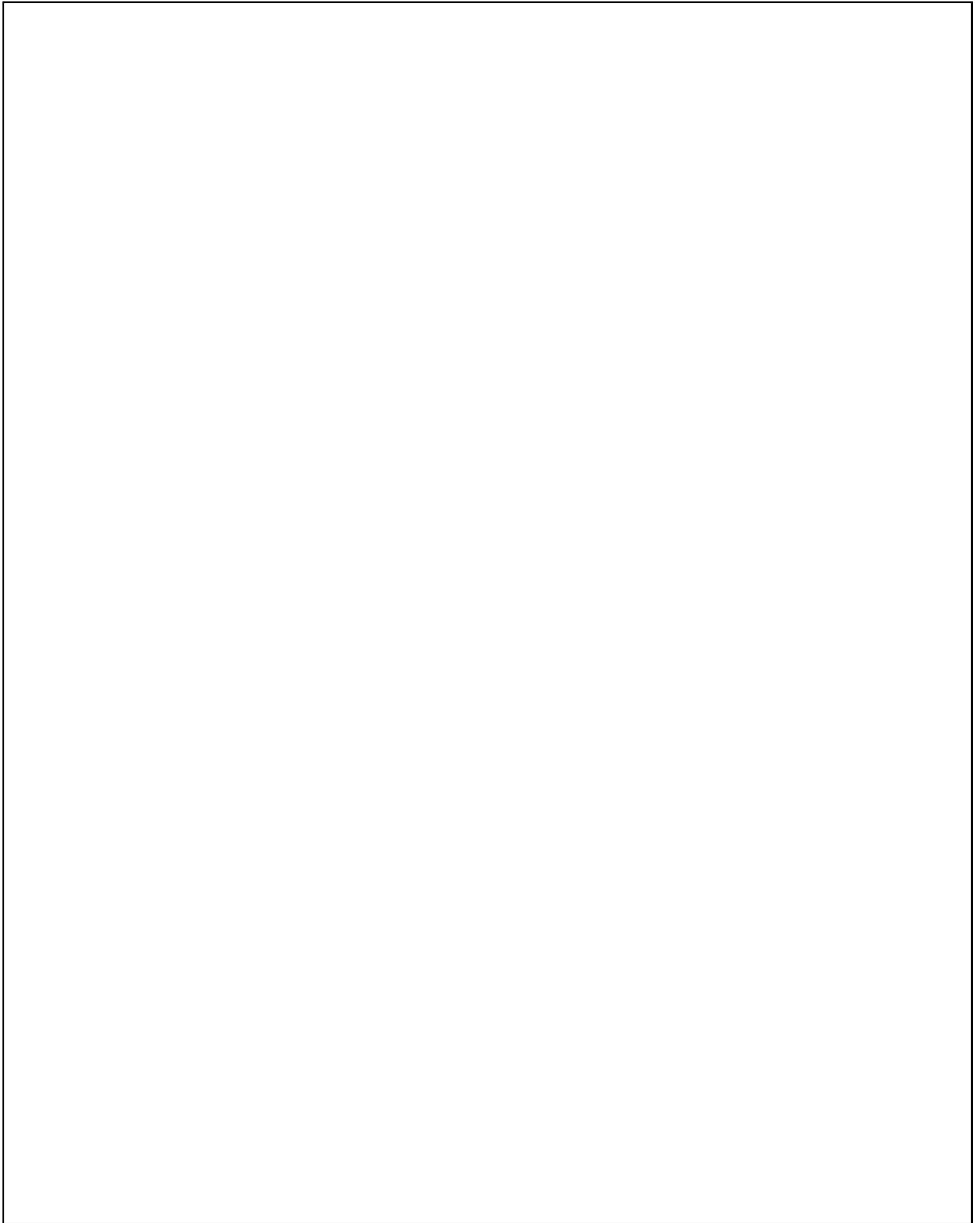
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Executive Summary

Every municipality has a portfolio of capital assets that it owns, maintains, and employs to help deliver services to its residents. These assets include equipment, vehicles, roads, bridges, buildings, storm water systems, parklands, parking facilities, and more.

Michigan municipalities are required by PA 33 of 2008 to assemble a six-year Capital Improvements Plan to maintain, improve, or remove these assets; the City of Ypsilanti's Charter similarly requires that a five-year capital program be adopted annually. This plan spans six fiscal years.

A Capital Improvement Plan (CIP) is a multi-year planning that identifies needs and financing sources for public assets. It complements the budget process, and provides valuable information to Council to aid in budget discussions. It includes information already included in the budget, but also incorporates information from other adopted plans and includes more in-depth information on individual projects.

The CIP provides the link between planning and budgeting for capital expenditures to ensure that capital improvements are both fiscally sound and consistent with City long-range priorities, goals, and objectives.

Background

Introduction and Purpose

The quality of the infrastructure and community facilities in the City directly influences the quality of life that the City can provide. As community infrastructure and facilities age, continual improvements and updates are required to stay current with changing demands and needs. Currently, the City reviews department requests on an annual basis, incorporating them into its two year Resource Allocation Plan. In the midst of shrinking resources and increased deferred maintenance costs, a CIP is more important than ever. The Plan will reflect a six year anticipated scheduling and costs for infrastructure, facilities, and equipment based on input from each City department.

A Capital Improvement Plan is a blueprint for planning a community's capital expenditures. It coordinates planning, financial capacity, and physical development, and is a management tool for the budget and planning processes. Upon adoption by the City Council, the CIP becomes a statement of city policy regarding the timing, location, character, and funding of future capital projects. The CIP represents City Council's best judgment at that time; however, future needs, financial constraints, and grant opportunities may result in programmatic changes over the six year period. Michigan municipalities are required by PA 33 of 2008 to assemble a six-year Capital Improvements Plan to maintain, improve, or remove assets; the City of Ypsilanti's Charter has a similar mandate.

Public Act 33 of 2008

"To further the desirable future development of the local unit of government under the master plan, a planning commission, after adoption of a master plan, shall annually prepare a capital improvements program of public structures and improvements, unless the planning commission is exempted from this requirement by charter or otherwise."

Article V, Section 11, Ypsilanti City Charter

"(a) Submission to City Council. The City Manager shall prepare and submit to the City Council a five-year capital program no later than the final date for submission of the budget.

(b) Contents. The capital program shall include:

- (1) A clear general summary of its contents;*
- (2) A list of all capital improvements and other capital expenditures which are proposed to be undertaken during the five fiscal years next ensuing, with appropriate supporting information as to the necessity of each;*
- (3) Cost estimates and recommended time schedules for each improvement or other capital expenditure;*
- (4) Method of financing, upon which each capital expenditure is to be reliant; and*
- (5) The estimated annual cost of operating and maintaining the facilities to be constructed or acquired.*

The above shall be revised and extended each year with regard to capital improvements still pending or in process of construction or acquisition. "

Relationship between CIP and Adopted Plans

The CIP is a tool in implementing the long-range goals of the adopted master plan, recreation plan, nonmotorized plan, climate action &/or sustainability plans, as well as the more immediate annual Council-adopted goals. Many of these goals call for physical improvements, not just policy updates; ensuring that these improvements are planned and budgeted for is a practical step towards implementation. The Master Plan (2013) goals and the 2020 adopted Council Goals are shown below; goals of the Climate Action Plan (2012), Energy Plan (2018), Parks and Recreation Master Plan (2020), and Urban Forestry Management Plan (2012) are included in Appendix A.

Council Adopted Goals 2020

1. Focus on Community Engagement
 - a. Communication and Engagement
 - i. Develop and implement comprehensive communication plan including updated website.
 - ii. Provide community entertainment – Amphitheater in Frog Island
 - iii. Utilize Freighthouse as community asset.
 - b. Public Safety
 - i. Implement Community Policing Philosophy to enhance safety of all residents, business, and visitors.
 - ii. Create Mental Health Response Team which includes the addition of a YPD social worker to provide support and crisis intervention.
2. Become a Sustainable City
 - a. Increase recycling efforts.
 - b. Elimination or reduction of Iron Mountain usage.
 - c. Digitize financial records.
 - d. Utilize alternative fuel vehicles where possible and reduce greenhouse gas emissions.
 - e. Redevelop vacant sites (i.e. Water St.) and buildings (i.e. Angstrom), etc.
 - f. Attain Carbon Neutrality status.
3. Improve Internal and External Workflow
4. Promote Diversity and Inclusion in policies, staffing and recruitment.

Shape Ypsilanti (Master Plan, 2013)

- Safety comes first
- Diversity is our strength
- Ypsilanti is sustainable
- Communication is key
- Anyone, no matter what age or income, can find a place to call home in Ypsilanti
- Anyone can easily walk, bike, drive or take transit from anywhere in Ypsilanti and to anywhere else in Ypsilanti and beyond
- Ypsilanti is a great place to do business, especially the green and creative kind
- Everyone in the region knows Ypsilanti has great things to do in great places that are in great shape!
- Ypsilanti is an asset of Eastern Michigan University, and Eastern Michigan University is an asset of Ypsilanti
- We can only achieve our vision by building a community amongst ourselves and with our neighbors

Relationship between CIP and Budget

The CIP helps to make capital spending more predictable and transparent. The CIP does not address all of the capital expenditures for the City, nor all of the significant budget items, such as debt service, but provides for physical improvements and purchases that are permanent in nature, including the basic facilities, services, and installations needed for the functioning of the community. The intent is to have the first year of the CIP align with the proposed capital budget for the current fiscal year. The remaining years of the CIP serve as a financial plan for capital investments.

Definition of Capital

Capital projects and improvements are major non-recurring tangible assets and projects including:

1. Replacements and improvements greater than or equal to \$10,000;
2. "Program" of projects whose total is greater than or equal to \$10,000; or
3. Equipment purchases greater than or equal to \$10,000 and a service life of at least 5 years.
4. Any planning, feasibility, engineering, or design study related to an individual capital improvement project or to a program that is implemented through individual capital improvements projects, provided that the cost is \$10,000 or more and will have a useful life of three years or more.
5. Any planning, feasibility, engineering, or design study costing \$25,000 or more that is not part of an individual capital improvements project or a program, that is implemented through individual capital improvements projects.
6. Any acquisition of land for a public purpose that is not part of an individual capital improvements project or a program that is implemented through individual capital improvements projects, provided that the cost is \$25,000 or more.

Examples include construction, expansion, or renovation of a public building; water line upgrades and extensions, major equipment; the acquisition of land for public use; or new storm and sanitary sewers. The adoption of a common definition assists in determining what projects are part of the capital improvement program versus those that are part of the general budget. Typically, leases are not a capital cost because the institution does not bear the cost of depreciation nor is the item an asset. Note that this does not align, nor does it need to align, with the spending authorization limits placed on staff &/or Council, nor does this definition necessarily align with what projects/items are *capitalized*.

Expenses

An *expense* is the cost for anything required to keep the City running on a daily basis. Typically these items are consumed or used either immediately or over the course of a year. In the private sector, the costs can often be deducted as business expenses each year at tax time. Usually, general repair and maintenance costs are considered expenses. For example, if a vehicle stops working, the part needed to

Private Sector vs Public

In the private sector, the Generally Accepted Accounting Principles (GAAP) and tax implications guide the delineation between what is a capital cost and what is an expense. Although public institutions do not generally concern themselves with tax implications in this regard, and have much greater leeway when designating what constitutes capital costs, following the concepts behind the GAAP helps the capital planning process be more legible to those members of the public who may be more familiar with these standards. Capital costs, per GAAP, are considered to be those that become a physical asset of your institution and are typically a large costs. For example, a vehicle or building construction/purchase is considered a capital expenditure.

repair it should be categorized as an expense, because the expenditure was necessary to return your vehicle to its previous working condition. Similarly, expenses for maintenance work that keeps equipment or facilities functioning properly during the course of its expected lifetime are considered regular business expenses.

Determining the Differences

In the private sector, two factors determine whether an expense is a repair versus capitalized expense - lifespan and value. A repair keeps equipment or buildings functioning on the same level. Work considered to be an improvement to the physical space or that significantly extends the lifespan of equipment to the point of increasing the asset's actual value is considered a capital cost. For example, if while moving furniture around in your office you smash a hole in the wall, the materials needed to repair the hole and repaint the wall would be considered a repair or maintenance expense, because you were returning the room to its previous condition. For example, if during a storm a falling tree created a hole in a pavilion roof, the materials needed to repair the hole would be considered a repair or maintenance expense, because we're returning the pavilion to its previous condition. However, if we renovated the pavilion and added restrooms, the expenditure would be categorized as a capital cost, because we would be adding to the value of the asset.

Only the projects that meet the capital project or improvement definition are included in the capital improvement program. A capital improvement project can include one or more of the following:

- **Building Maintenance:** is the repair, replacement, or upgrades of exterior and interior walls, roofs, furnishings and similar non-mechanical features that significantly extend a building's life. Examples include new roofs, windows and doors, tuck pointing and masonry repair, interior and exterior painting, carpeting and some furniture.
- **Building Equipment:** is the repair or replacement of heating, ventilation, and air conditioning (HVAC) systems.
- **Building Construction:** includes the erecting of new buildings and additions that add usable floor space for staff and patrons.
- **Interior Equipment:** includes all equipment critical to the functioning of the city such as computers, telephones, cameras and voting machines. This includes the "Computer" category of the budget and the "Equipment" category of the budget.
- **Heavy Equipment:** includes apparatus used by the fire department and department of public services. Examples are lifesaving equipment, vehicle hoists, and similar specialized mechanisms that last for several years.
- **Vehicles:** encompasses cars, trucks, and grounds maintenance equipment. Vehicles are considered part of the motor pool that is maintained by the Department of Public Services. For the purpose of the capital improvements plan, vehicles are attached to their respective departments.
- **Infrastructure:** includes below grade, at grade and above grade (non-building) improvements. Examples include stormwater, streets and sidewalks, playground equipment, bike lanes, landscape, and fences.

Assets

When planning for capital improvements, it is important to understand what the City is responsible to maintain. Even without planning for any major improvements, the City has a responsibility to maintain the level of service to the community and bring capital assets, facilities, and infrastructure into compliance with local, state, and federal laws.

Identifying all community assets, whether or not they are owned and maintained by the City of Ypsilanti, is beneficial for project coordination and long-term planning. At this time, many community assets are actually operated by a separate entity, including the Ypsilanti District Library Michigan Avenue branch, the Highland Cemetery, the City's water supply and wastewater infrastructure, and the City's electricity and natural gas. While these assets do not factor into the City's annual capital budgeting process, they often affect the City's capital improvement projects. Sometimes circumstances change and it is possible that the City may be required to support a particular asset if the current authority or agency decides they no longer have the capacity to operate these facilities; Highland Cemetery is one such asset.

Town and Gown

Eastern Michigan University (EMU) employs over 2,500 people and the campus is over 800 acres, making it the largest employer and single largest land holder in the city. As a state university EMU is exempt from local taxes and many ordinances, but remains an important partner in planning for capital improvements. This Plan gives the City and the University a foundation for increased future coordination on various capital projects. While independent from the City, EMU is an important community asset for the City of Ypsilanti.

Utilities

Ypsilanti Community Utilities Authority (YCUA) provides water and wastewater services to property owners based on user fees. Water and wastewater services are essential community assets to residents and business owners, but these utilities are not owned and operate by the City of Ypsilanti.

DTE owns and operates electricity for the City, and also is responsible for the maintenance of much of the City's public lighting. Notably, however, the City has opted for certain designs of lighting that are outside the usual DTE portfolio, including the West Cross business district lighting and the Downtown/Depot Town Granville-style green posts; the City bears the full cost for replacement of these nonstandard fixtures.

The City of Ypsilanti is responsible for the vast majority of stormwater drains in the right-of-way; however, Ypsilanti Community Schools (YCS) is responsible for its own stormwater management.

Solid waste collection is provided by the City via contract; and single-stream curb side recycling and yard waste collection are provided by City staff. The City contracts with Recycle Ann Arbor to allow City residents to use their services at a reduced rate. These services are supported by a tax millage levy of approximately 2.7 mills.

Process

2020/2021 Process

The CIP development process for FY20/21 has improved over the abbreviated process of FY19/20, but still has room to improve. The process began in December 2019, approximately two months after the ideal process laid out in the next few pages. To develop this plan, previous budgets and plans were examined; department heads were asked mid-January to submit sheets detailing planned capital projects for the coming six years; and the WATS TIP and LRP were consulted. This is a significant improvement over the timelines and processes of previous years, and we expect progress to continue.

This year's process was challenged by the disruption to normal business caused by the novel coronavirus pandemic. The City, County, and State were under a state of emergency from early March, which still continues at the time of this writing.

Adoption (2021 and beyond)

The annual adoption and update process are governed by both PA 33 of 2008 – commonly called the Planning Enabling Act- and Article V, Finance, Section 11 of the City Charter. The CIP adoption processes prescribed by each can be and have been interpreted to complement each other.

The process will include the following groups:

- **CIP Committee:** reviews Master Plan documents and annual City Council goals, organizes CIP kickoff meeting, finalizes project schedule, and prepares the CIP. Looks for opportunities to coordinate with YCUA, EMU, MDOT and other partners to maintain infrastructure serving the City of Ypsilanti. Led by City Manager.
- **Planning Commission:** reviews recommendations, provides feedback to the CIP Committee and City Manager. This year, this review will not take place due to the disruptions to normal business caused by the pandemic.
- **City Council:** reviews recommendations, receives public input, conducts public hearing(s), and adopts the CIP. Uses CIP in budget discussions.
- **Residents** are encouraged to participate in plan development by working with the various boards and commissions and City Council at public hearings, town halls, and open houses.

The quality of the infrastructure and community facilities in the City directly influences the quality of life that the City can provide. As community infrastructure and facilities age, continual improvements and updates are required to stay current with changing demands and needs. The CIP cannot simply be adopted once; it must be a living document that is updated annually. This document can be a “cheat sheet” for annual budget updates, provided that it is maintained.

CIP Committee

City Manager is responsible for supervising the administration of city government. They manage and supervise all departments, agencies, and officers, as well as provide leadership and direction in the implementation of policies and goals set by Council. Reports to City Council.

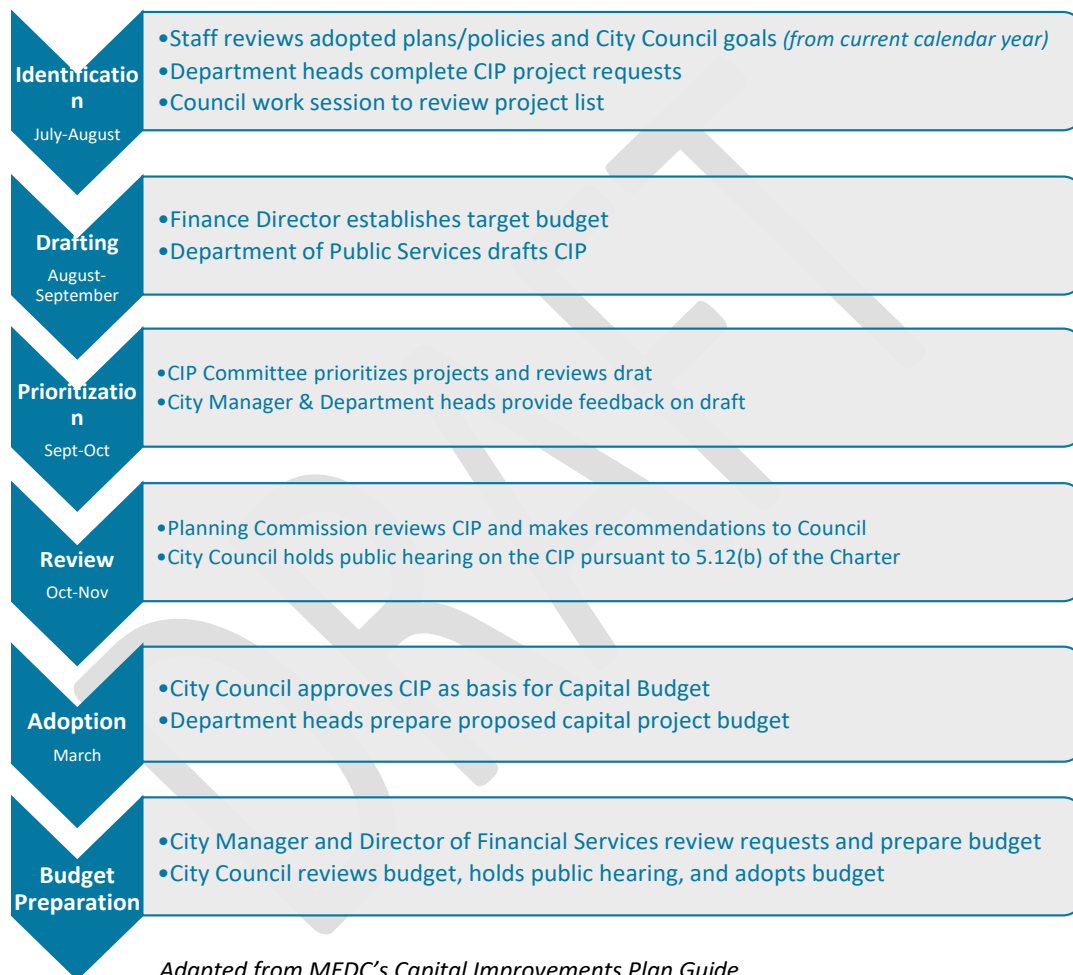
Director of Financial Services is responsible for the overall direction of the Accounting and Treasury divisions. Supervises a small work force of clerical, technical, and accounting personnel who compile the annual budget, manage the investments and accounts of the City, and coordinate/prepare the City Audit. Reports to the City Manager.

A City Council representative serves to ensure that the CIP process incorporates the policy positions of Council.

A Planning Commission representative serves to ensure the process incorporates local development trends and the future plans adopted by the City.

At the end of every calendar year, midpoint in the budget year, each department will provide the Department of Public Services with updated information regarding their assets and projects, which will be used to update the CIP. At the beginning of the calendar year, Finance will use this information to develop the draft budget for the coming fiscal year. When Council forms their annual goals, they will have a prioritized list of capital improvements that helps inform their decisions about non-policy expenditures, which in turn will drive the final adopted budget.

Figure 1. Capital Improvement Program Process



Structure

Capital planning is an ongoing process that requires long-term planning and annual budgeting. The Plan is organized by project and by fiscal year; it can be sorted by Department or Justification. Note, however, that some capital needs may require spending in multiple years. One example is large infrastructure projects, which may require engineering and design some years prior to construction. In previous years, the plan was organized by spending category, but this has not proven to be intuitive or useful, and has been eliminated this year and going forward.

Project Justification

An essential component of the Capital Improvement Program is to establish a framework for capital project selection. To aid these choices, projects are categorized into one of five categories: regulatory/mandatory, strategic, discretionary cost/risk avoidance, and discretionary. These categories provide the framework for making capital project decisions in order to ensure the City's financial viability, improve and maintain levels of service and legal compliance, provide equitable community development, and meet other strategic goals.

Mandatory

The projects in this category address legal, regulatory, or contractual requirements. This category could include such projects as the installation of sidewalk ADA ramps per the City's court settlement, or the purchase of staff personal protective equipment called for by contract or MIOSHA standards.

Risk Avoidance

This includes projects that address a safety issue for Ypsilanti's residents, workers, and visitors. This may include replacing a roof on a public facility, remediation for environmental issues in City facilities, bridge repair or replacement, or dam removal. In this category are things that may cost a significant of money now, but either have a direct return on investment (such as investment in energy efficiency), or the less-obvious avoidance of significant costs, such as replacement rather than repair, catastrophic damage, or legal settlements.

Strategic

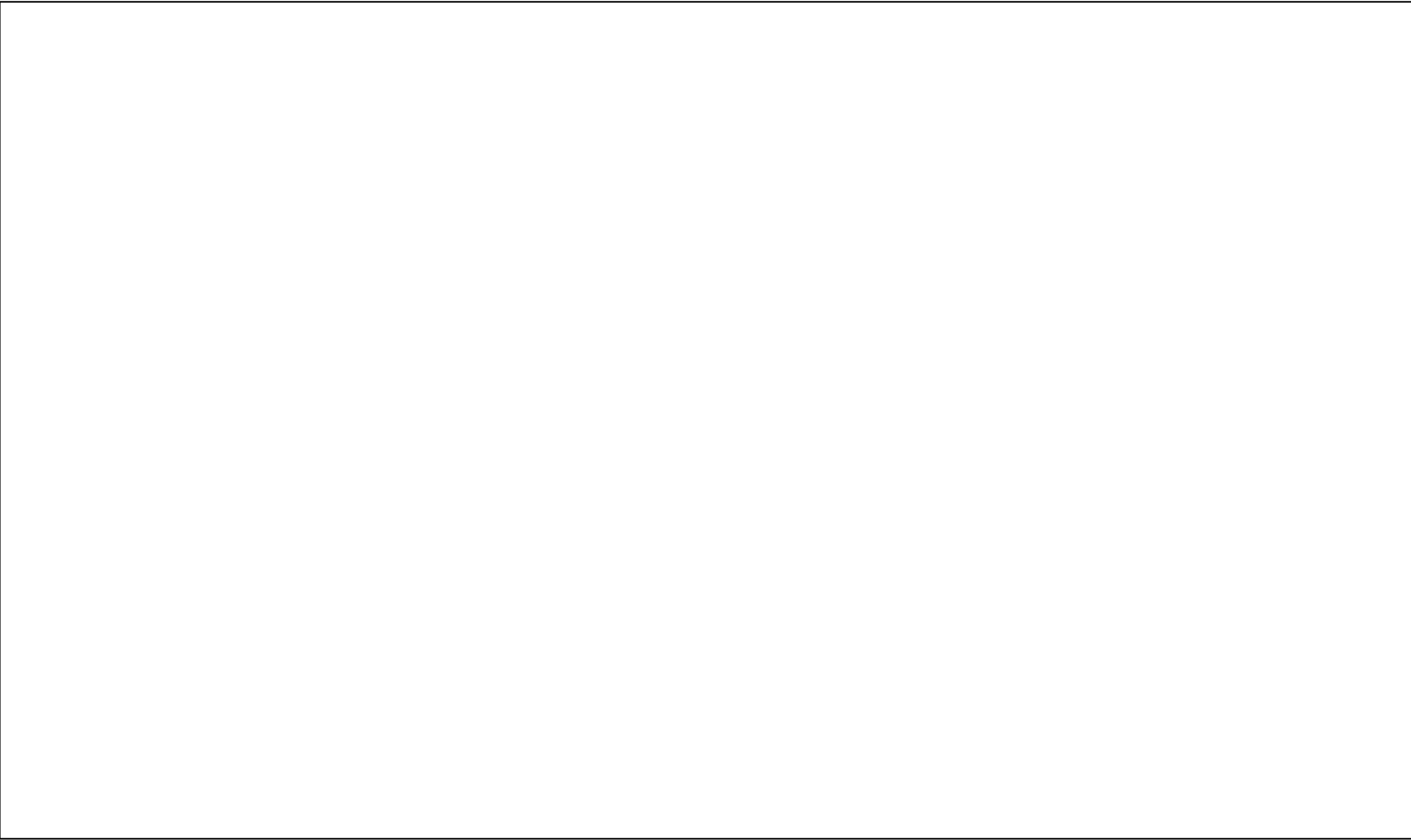
These projects address long-term community needs and goals. They may be part of multiyear strategies for economic, social, or environmental sustainability, and have likely been identified in Shape Ypsilanti, the Parks and Recreation master plan, the Climate Action Plan, Reimagine Washtenaw, or another adopted plan or policy, or they may be new opportunities that strongly align with or further one of the goals of these documents.

Added Value

These are projects that are generally considered "nice to have." They are projects that would improve the City in some manner, but do not have a significant safety impact, improve regulatory compliance, further the long-term strategic goals of the City in a meaningful way, or have a quantifiable return on investment. However, these are projects that would bring value to the City's residents.

Funding

Funding for capital improvement projects came from various sources including capital funds, federal and state grants, local contributions, charges for services, transfers, and special designated funds. Grant funding is not identified as a funding source in this document unless and until that grant has been secured.



*The Plan***Capital Improvements Requests 2020/21 through 2026/27**

Key	Submitting Department	Project Title	Justification	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Sources	Fund
1	Finance	Chart of Accounts Update	Mandatory		\$ 20,000						fund balance - capital	414
2	Finance	IT Hardware	Mandatory	\$ 400,000							fund balance - capital	414
3	Finance	Treasury Camera	Risk avoidance		\$ -						fund balance - capital	414
4	YPD	Axon Body Cameras	Mandatory	\$ 15,108	\$ 15,108	\$ 15,108					fund balance - capital	414
5	YPD	In Car Camera System	Mandatory		\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	fund balance - capital	414
6	YPD	Live Scan Fingerprinting	Mandatory	\$ 18,000							fund balance - capital	414
7	YPD	DSS Logger	Mandatory	\$ 4,500	\$ 4,500	\$ 4,500					fund balance - capital	414
8	YPD	Vehicles - PD Vehicles	Risk avoidance	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	fund balance - motorpool	641
9	YFD	Vehicles - YFD Chief's vehicle	Mandatory	\$ 32,000							fund balance - motorpool	641
10	YFD	Emergency Notification System	Risk avoidance	\$ 10,000							fund balance - capital	414
11	YFD	YFD HVAC	Risk avoidance	\$ -		\$ 35,000					fund balance - capital	414
12	YFD	YFD Office/Building Maintenance	Strategic	\$ -		\$ 20,000					fund balance - capital	414
13	YFD	Source Capture Exhaust System	Mandatory	\$ 10,000							if grant: 10k 414 and 75k assistance to firefighters grant	414
				\$ 75,000							if grant: 10k 414 and 75k assistance to firefighters grant	414
14	Facility Partner	Parkridge Classroom Expansion	Strategic				\$ 300,000				grant - cdbg (not secured)	414
15	Facility Partner	Senior Center Electrical & HVAC	Risk avoidance	\$ -		\$ 40,000					fund balance - capital	414

Capital Improvements Requests 2020/21 through 2026/27

Key	Submitting Department	Project Title	Justification	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Sources	Fund
80	Facility Partner	Parkridge Kitchen	Strategic	\$ 10,000							grant - cdbg (not secured)	414
16	Facility Partner	Senior Center Classroom Addition	Strategic			\$ 100,000					fund balance - capital	414
17	Facility Partner	Senior Center Ventilation & Fire Suppression	Strategic	\$ -		\$ 40,000					fund balance - capital	414
18	DPS	Bridge - Cross Street	Mandatory			\$ 600,000	\$7,314,000				if grant: 316700 city match, 6017300 state, 1580000 engineering	202
19	DPS	Bridge - Forest St	Mandatory		\$ 445,150						If grant: Total expense by the city- match plus CE	202
20	DPS	DPS office - breakroom reno	Strategic	\$ -		\$ 25,000					fund balance - capital	414
21	DPS	DPS Aggregate Material Stall	Strategic	\$ -		\$ 30,000					fund balance - capital	414
22	DPS	DPS North Pole Barn Concrete Barn	Risk avoidance	\$ -		\$ 40,000					fund balance - capital	414
23	DPS	DPS Paved Parking + ADA space	Strategic		\$ -	\$ 50,000					fund balance - capital	414
24	DPS	DPS Garage Bay Exhaust Venting	Risk avoidance	\$ -		\$ 25,000					fund balance - capital	414
25	DPS	DPS Garage Bay Fire Suppression	Mandatory	\$ -		\$ 60,000					fund balance - capital	414
26	DPS	DPS Hydraulic Hoist Installation	Strategic	\$ 115,000							fund balance - capital	414
27	DPS	DPS Propane Filling Station	Strategic	\$ -		\$ 60,000					fund balance - capital	414
28	DPS	DPS Workout area	Risk avoidance	\$ -		\$ 20,000					fund balance - capital	414
29	DPS	Parks - Capital Projects	Risk avoidance	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000		public safety mental health millage refund portion	414

Capital Improvements Requests 2020/21 through 2026/27

Key	Submitting Department	Project Title	Justification	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Sources	Fund
30	DPS	Roads - Minor Streets Crack Sealing	Risk avoidance	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	fund balance - 202	202
31	DPS	Roads - Major Streets Cracksealing	Risk avoidance	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	fund balance - 203	203
32	DPS	Roads - Cornell (Kingwood to HRD)	Risk avoidance						\$ 572,000		272,000 fund balance, 1,088,000 FHWA, 300,000 engineering	202
33	DPS	Roads - Harriet (First to Hawkins)	Risk avoidance					\$ 403,000			219,000 fund balance 700,000 FHWA, 184,000 CE	202
34	DPS	Roads - Harriet (Hawkins to Huron)	Risk avoidance							\$ 346,000	158,000 fund balance, 474 fed, 127 CE	202
35	DPS	Roads - N Washington (W Cross to Emmet)	Risk avoidance			\$ 99,200					if county road millage	202
36	DPS	Roads - Huron River Drive (Cornell to LeForge)	Risk avoidance				\$1,810,000				1,160,000 fund balance, 2,062,000 FHWA, 650,000 CE	202
37	DPS	Roads - Oakwood (Sherman to Congress)	Risk avoidance		\$ 86,200						if county road millage: 86200 us, 125000 county	202
					\$ 125,000						if county road millage: 86200 us, 125000 county	202
38	DPS	Roads - S Adams (Michigan to Catherine)	Risk avoidance					\$ 44,400			if county road millage: 44400 local 250000 county	202
								\$ 250,000			if county road millage: 44400 local 250000 county	202
39	DPS	Roads - W Cross (Courtland to Wallace)	Risk avoidance	\$ 495,000							215000 local + 285,000 engineering +1105000 state	202

Capital Improvements Requests 2020/21 through 2026/27

Key	Submitting Department	Project Title	Justification	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Sources	Fund
40	DPS	Roads - E Cross (River to Prospect)	Risk avoidance	\$ 215,000							WC roads millage: 125,000 +86200 + engineering	202
				\$ 90,000							WC roads millage: 125,000 +86200 + engineering	202
41	DPS	Roads - ADA sidewalk ramps	Mandatory	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	50 cdbg, 50 metro act, 20 misc 414 for design	495
				\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	50 cdbg, 50 metro act, 20 misc 414 for design	495
				\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	50 cdbg, 50 metro act, 20 misc 414 for design	414
42	DPS	Vehicles -Recycling/Yard Waste Rear Loader Truck (#612)	Risk avoidance			\$ 233,000					fund balance - motorpool	641
43	DPS	Vehicles -10 CY Rear Packer (#603)	Risk avoidance	\$ 80,000							fund balance - motorpool	641
44	DPS	Vehicles - Bobcat Loader w Bucket (#128)	Risk avoidance			\$ 66,000					fund balance - motorpool	641
45	DPS	Vehicles - Brush Chipper (#642)	Risk avoidance			\$ 50,000					fund balance - motorpool	641
46	DPS	Vehicles - City Hall Sedan (#22)	Risk avoidance	\$ 28,000							fund balance - motorpool	641
47	DPS	Vehicles - City Manager (C10)	Risk avoidance	\$ -	\$ 36,000						fund balance - motorpool	641
48	DPS	Vehicles - DPS Director (#102)	Risk avoidance				\$ 28,000				fund balance - motorpool	641
49	DPS	Vehicles - Dump Truck (#104)	Risk avoidance					\$ 60,000			fund balance - motorpool	641
50	DPS	Vehicles - Dump Truck Salt Truck (#108)	Risk avoidance			\$ 176,000					fund balance - motorpool	641
51	DPS	Vehicles - Dump Truck Salt Truck (#109)	Risk avoidance					\$ 176,000			fund balance - motorpool	641

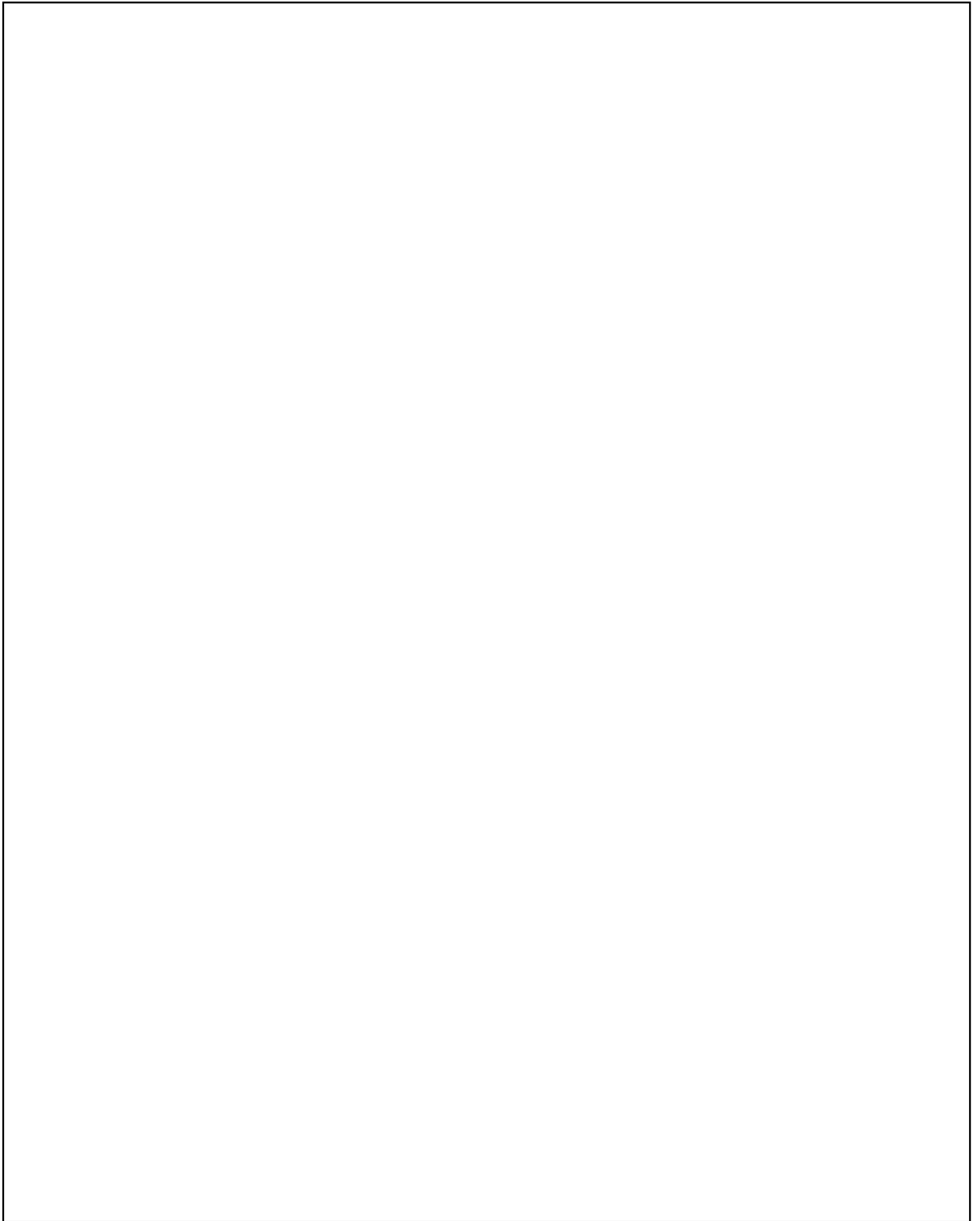
Capital Improvements Requests 2020/21 through 2026/27

Key	Submitting Department	Project Title	Justification	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Sources	Fund
52	DPS	Vehicles - Dump Truck Salt Truck (#111)	Risk avoidance					\$ 176,000			fund balance - motorpool	641
53	DPS	Vehicles - Dump Truck Salt Truck (#112)	Risk avoidance						\$ 176,000		fund balance - motorpool	641
54	DPS	Vehicles - Garden Tractor (#443)	Risk avoidance					\$ 15,000			fund balance - motorpool	641
55	DPS	Vehicles - Garden Tractor (#443)	Risk avoidance					\$ 15,000			fund balance - motorpool	641
56	DPS	Vehicles - Garden Tractor (#444)	Risk avoidance							\$ 15,000	fund balance - motorpool	641
57	DPS	Vehicles - Grapple Truck w Dump Body (#473)	Risk avoidance		\$ 225,000						fund balance - motorpool	641
58	DPS	Vehicles - Recycling/Yard Waste Rear Load Packer (#607)	Risk avoidance					\$ 233,000			fund balance - motorpool	641
59	DPS	Vehicles - Signal Shop Aerial Lift Truck (#122)	Risk avoidance							\$ 90,000	fund balance - motorpool	641
60	DPS	Vehicles - Small Loader w Bucket (#129)	Risk avoidance							\$ 75,000	fund balance - motorpool	641
61	DPS	Vehicles - Stake Truck (#126)	Risk avoidance		\$ 60,000						fund balance - motorpool	641
62	DPS	Vehicles - Stake Truck (#452)	Risk avoidance			\$ 60,000					fund balance - motorpool	641
63	DPS	Vehicles - Stake Truck (#131)	Risk avoidance				\$ 60,000				fund balance - motorpool	641
64	DPS	Vehicles - Street Sweeper (#139)	Risk avoidance	\$ 240,000							fund balance - motorpool	641
65	DPS	Vehicles - Street Sweeper (#142)	Risk avoidance				\$ 240,000				fund balance - motorpool	641

Capital Improvements Requests 2020/21 through 2026/27

Key	Submitting Department	Project Title	Justification	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Sources	Fund
66	DPS	Vehicles - DPS Supervisor (#103)	Risk avoidance	\$ 33,000							fund balance - motorpool	641
67	DPS	Vehicles - DPS Enviro Foreman (#610)	Risk avoidance						\$ 33,000		fund balance - motorpool	641
68	DPS	Vehicles - DPS Supervisor (#101)	Risk avoidance						\$ 3,000		fund balance - motorpool	641
69	DPS	Vehicles - Utility Snow Removal Vehicle (#441)	Risk avoidance							\$ 5,000	fund balance - motorpool	641
70	DPS	Vehicles - Wide Area Mower (#448)	Risk avoidance	\$ 60,000							fund balance - motorpool	641
71	CED	3rd Floor Remodel	Strategic	\$ -		\$ 40,000					fund balance - capital	414
72	CED	Vehicles - Ordinance Officer Vehicle	Risk avoidance	\$ -							fund balance - motorpool	641
73	CED	Tablets & software for Building & Code enforcement	Strategic	\$ -		\$ 20,000					fund balance - capital	414
74	Manager	Amtrak Train Stop	Strategic			\$2,429,000					if grant: 1529000 fund balance capital + 3071000 grant + CE 900000	414
74	Manager	Amtrak Train Stop	Strategic			\$3,071,000					if grant: 1529000 fund balance capital + 3071000 grant + CE 900000	414
75	Manager	Peninsular Dam Removal	Mandatory			\$ 500,000					if grant: 500,000 fund balance capital and 2,200,000 grant	414
75	Manager	Peninsular Dam Removal	Mandatory			\$2,200,000					if grant: 500,000 fund balance capital and 2,200,000 grant	0

Capital Improvements Requests 2020/21 through 2026/27												
Key	Submitting Department	Project Title	Justification	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Sources	Fund
76	DPS	Parking - Freighthouse lot	Risk avoidance	\$ 50,000							anticipated fund balance - parking	514
77	DPS	Parking - ongoing lot repairs	Risk avoidance		\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	anticipated fund balance - parking	514
78	DPS	Recycling - Public Spaces Carts	Strategic	\$ 36,000							if grant: 36000 match, 180,000 grant	226
				\$ 180,000							if grant: 36000 match, 180,000 grant	0
79	DPS	Roads - Lane Reduction	Risk avoidance		\$ 200,000						fund balance	414



*Adopted Goals***Climate Action Plan (2012)**

<u>Buildings</u>	<u>Infrastructure</u>	<u>Land Use And Transportation</u>	<u>Culture Change</u>
• Implement Commercial Lighting Retrofits and Weatherization • Install and Promote Building Lighting Sensors • Pursue Solar Thermal and Photovoltaic Opportunities • Incorporate Green Building Standards • Create Energy Efficient Rental Housing Certification • Promote Residential Weatherization Programs	• Upgrade Street Lights to LEDs • Increase Street Tree Canopy • Upgrade Wastewater Plan Controls and Promote Residential Water Efficiency • Increase Recycling Rates Through Competition • Place Artistic Trash and Recycling Bins Throughout Community • Create Kitchen Compost Drop-Off System	• Complete Network of Bicycle Facilities • Provide Parking Alternatives and Cash-out Options for Employees • Pursue Implementation of Transit Master Plan • Provide More Visibility for Alternative Transit • Create and Promote Bike Sharing and Car-Sharing Programs • Prioritize Infill Development Opportunities in Master Plan Update	• Encourage Conservation Through Energy Competition • Community Sustainability Library • Residential Energy Education • Encourage Employees to Live in Ypsilanti • Promote City Successes to Lead by Example • Include Stewardship, Engagement and Sustainability Education in Schools

Energy Plan (2018)

- Improve municipal building performance.
- Identify and implement clean energy projects.
- Increase energy efficiency and renewable energy funding through internal and external sources.
- Sustain the city's revolving loan fund.
- Establish an Energy Manager position.
- Incorporate this energy plan into the scope of work for the city's Sustainability Commission
- Promote and strengthen energy management policies and procedures.
- Improve knowledge of energy management and sustainable design among city staff, appointed and elected officials.
- Improve the data-driven approach to managing energy use.
- Establish a process to analyze data to determine energy use trends and billing errors.
- Improve communications with facility managers, utility providers, and relevant contractors to resolve issues quickly.
- Improve energy and sustainability-related communication resources.
- Promote and share energy reduction achievements and projects with staff and residents.

Urban Forestry Management Plan (2012-2020)**Resource Management**

- Perform all high priority maintenance recommendations identified in the tree inventory during Years 1–4 of the eight-year management program. This will involve the removal of 878 trees and the pruning of 1,025 trees. Estimate cost for priority maintenances is approximately \$522,775.
- Beginning in Year 4 of the eight-year management program, implement a routine pruning program to ensure all trees are pruned in seven years. This will involve the pruning of approximately 566 trees annually at an annual cost of approximately \$74,901.
- Beginning in Year 4 of the seven-year management program, implement a young tree training pruning program to ensure all young and newly planted trees are pruned every three years. This will involve the pruning of 255 trees annually at an annual cost of approximately \$6,467.
- Practice best management for maturing trees to maximize the cumulative survival rate. This includes training of tree crews, insect and dis-ease control, fertilizing, mulching, watering, and cabling and bracing (when applicable).
- Maintain or potentially expand the population (if budget allows) through tree planting. Plant 60 trees in Years 1–4, 110 trees in Year 5, and 208 trees in Year 6–8 to replace identified tree removals and stumps, loss due to natural mortality, and fill vacant planting sites.
- Practice best management for planting trees to maximize the cumulative

success rate. This includes selecting wide varieties of trees, selecting the right mature-size tree for site restrictions, purchasing good quality stock, proper installation, mulching, watering, fertilizing, and pruning.

- Update the inventory database on a daily, weekly, or monthly basis to provide accurate records and increase the opportunities for well-planned tree work.
- Conduct yearly inspections of the entire population and schedule required tree work appropriately. Also inspect the entire population after severe storm events.
- Annually check actual work performed versus benchmarks in the management program to monitor successes and discover areas for improvement

Tree Canopy

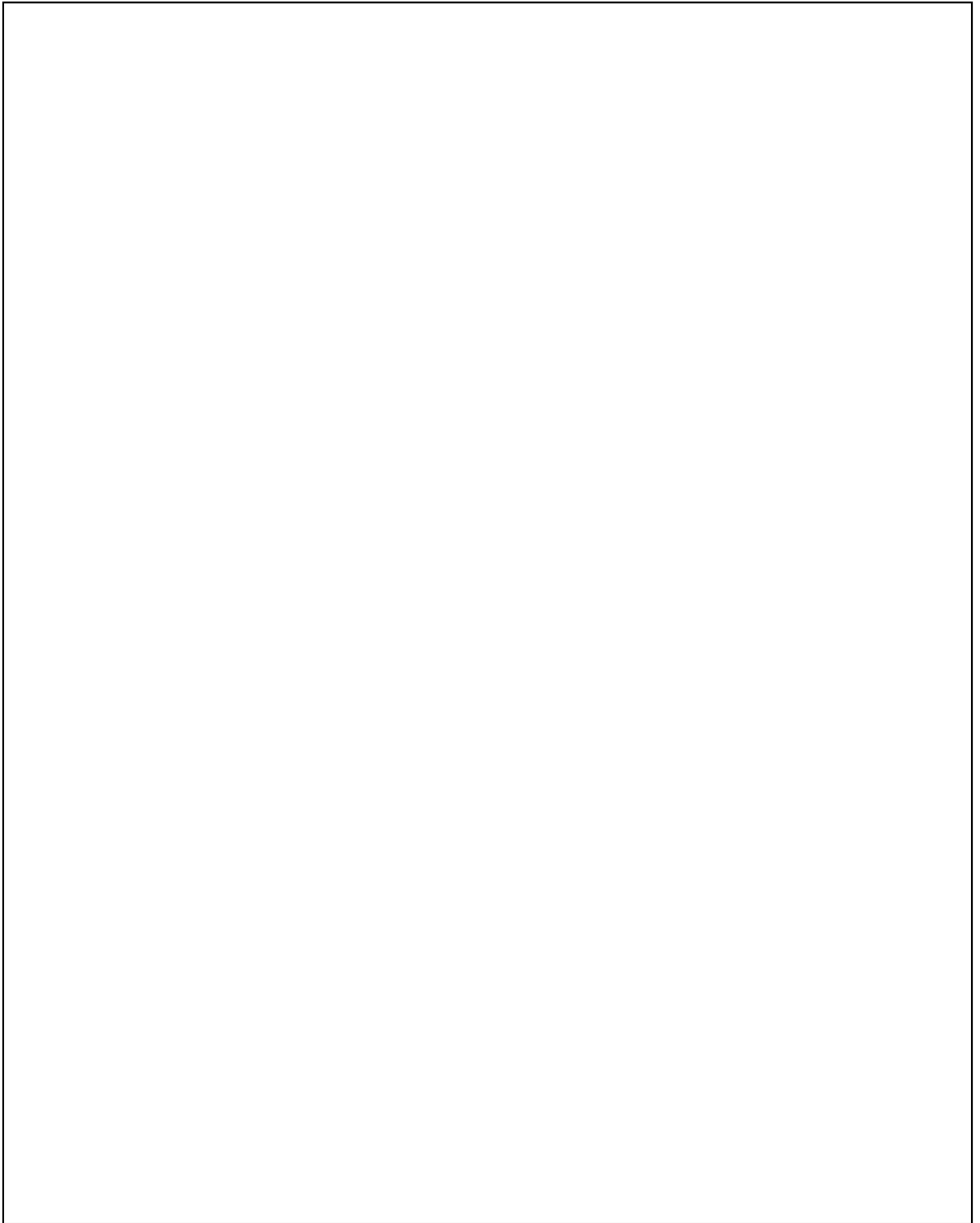
- Increase canopy cover from 36.6 percent to 40 percent and budget adequately to maintain tree canopy.
- Concentrate planting efforts along streets in zones that need more trees to increase canopy cover.
- Identify opportune areas, such as parks with an abundance of pervious area, to plant trees using land cover information.

City Nursery

- Grow a more diverse palette of tree species to increase species diversity and ultimately the sustainability of the City's urban forest.
- Use the pot-in-pot method which combines the natural advantages of field-growing with the control and convenience of above-ground growing.

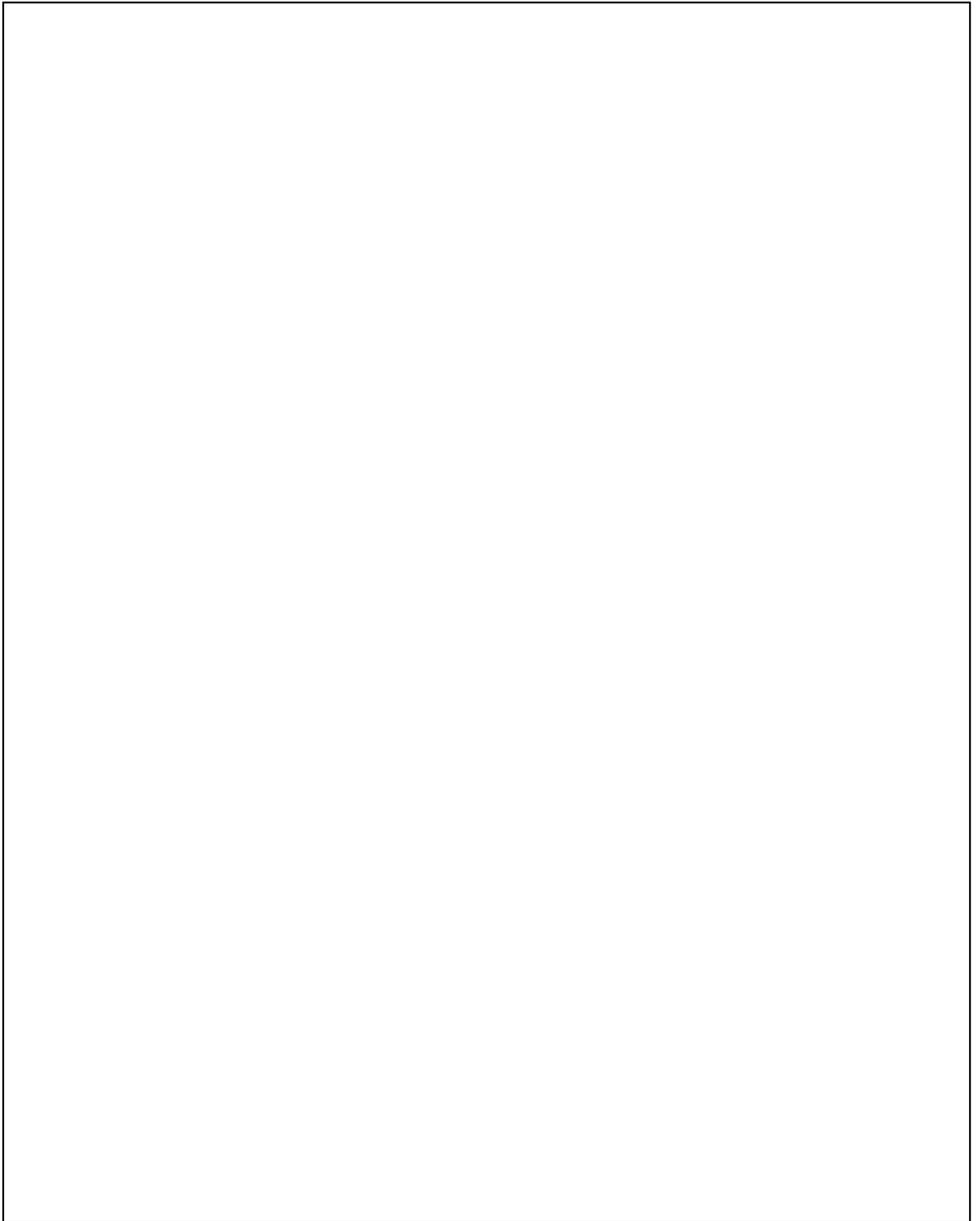
Administrative Support

- Hire enough city personnel or contract out tree work to implement the recommendations within this management plan.
- Encourage volunteers and build upon partnerships to help with nursery operations and plant and prune trees.
- Budget for and create funding sources to support a proactive urban forestry program.
- Implement a public relations program designed to educate the residents of Ypsilanti and to generate greater support for the urban forestry program.



Parks and Recreation Master Plan (2020)

- Ensure parks are attractive and accessible.
 - Ensure safe routes to parks and recreation facilities from neighborhoods, schools, and business districts, for people of all ability levels.
 - Ensure each park has a visible presence, entrance, and sign on adjacent rights-of-way.
 - Ensure that each park presents a well-maintained and clean image.
 - Ensure all parks, park shelters, trails, and other facilities are physically accessible to people of all ages and ability levels.
- Provide Parks that meet Ypsilanti's recreation needs.
 - Ensure existing facilities can continue to meet the needs of park users.
 - Ensure that parks are safe and appear to be safe.
 - Provide upgrades to the parks that increase their long-term durability and reduce operation costs.
 - Provide upgrades to the parks that increase recreation opportunities.
- Work with volunteers and organizations to continue to provide recreation opportunities to City residents
 - Improve relationships with entities that provide recreation opportunities within the City.
 - Encourage volunteerism.
 - Continue to improve the Special Events and park reservations program.



City Owned Property

DRAFT 05/27/2020

Real Property Owned by the City, FY19/20. Excludes "gap" parcels, easements, and rights-of-way.			
Common Name	Address	Category	Restrictions
Maple Street Parking Lot	75 MAPLE ST	DDA	
Riverside Arts Center	76 HURON ST	DDA	grant
Riverside Arts Center Parking lot	0 HURON ST	DDA	charter, grant, shpo
vacant lot	314 PARSONS ST	disposition	
vacant lot	21 Briggs	disposition	
Mansfield Industrial Park	563 MANSFIELD ST	disposition	
City Hall	1 HURON ST	facility	
Department of Public Services	14 FOREST AVE	facility	charter
Fire Department	525 MICHIGAN AVE	facility	
Police Department	505 MICHIGAN AVE	facility	
Former City landfill; known contamination issues	I-94	landfill	
Ballard Street Parking Lot	310 BALLARD ST	parking	charter
District Court Parking Lot	613 MICHIGAN AVE	parking	lease
East Cross Parking Lot (& alley north of E Cross)	0 MARKET PL	parking	
North Adams Parking Lot (City Lot #2)	16 ADAMS ST	parking	charter
North Huron Parking Lot	0 HURON ST	parking	charter
South Huron Parking Lot	0 HURON ST	parking	charter
Washington Parking Lot	200 N WASHINGTON ST	parking	
Ainsworth Tot Lot	0 AINSWORTH CIR	recreation	charter
Candy Cane Park	0 ROOSEVELT BLVD	recreation	charter
Carrie R Mattingly Tot Lot	0 AINSWORTH ST	recreation	grant
Charles Street Tot Lot (aka Thomas)	0 CHARLES - TOT LOT	recreation	charter
Edith Hefley Park	0 WARNER AVE	recreation	charter, grant
Freighthouse; also SHPO easement protection	100 MARKET PL	recreation	charter, grant, shpo
Frog Island (& Parking Lot)	0 RICE ST	recreation	charter, grant
Haab Brothers Memorial Park	413 S GROVE ST	recreation	deed
Minuteman Monument	0 WASHTENAW AVE	recreation	charter
Parkridge Community Center	591 ARMSTRONG DR	recreation	charter, grant
Peninsular Park	0 LEFORGE ST	recreation	grant
Prospect Park	0 PROSPECT ST	recreation	charter, grant
Recreation Park	0 CONGRESS ST	recreation	charter, grant
Riverside Park	5 W CROSS ST	recreation	charter, grant
vacant lot	761 HARRIET ST	recreation	deed
Waterworks Park (& DPS use)	20 CATHERINE ST	recreation	charter
Parkridge Park	Harriet	recreation	grants
pedestrian alleyway in depot town	0 CROSS ST	recreation	
vacant lot - plat issues	361 First Ave	retain	
	0 BELL RD	retain	
	30 Kramer	retain	
	50 KRAMER	retain	
	0 RAILROAD ST	sales	charter, deed
Apartment building - fire	206 N WASHINGTON ST	sales	
220 N Park	220 PARK ST	sales	
Currently listed for sale	326 MICHIGAN AVE	sales	billboard
house- likely demo this year	448 S Huron	sales	
rail-adjacent	206 N GROVE	sales	
vacant lot	731 W Michigan	sales	
Mansfield Industrial Park	S MANSFIELD ST	w commerce & floodway	
Mansfield Industrial Park	S MANSFIELD ST	w commerce park	
Water Street Redevelopment Area	Water Street	water street	
Water Street Redevelopment Area/ trail	0 GROVE ST	water street	charter

District Court Parking



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Department of Public Services



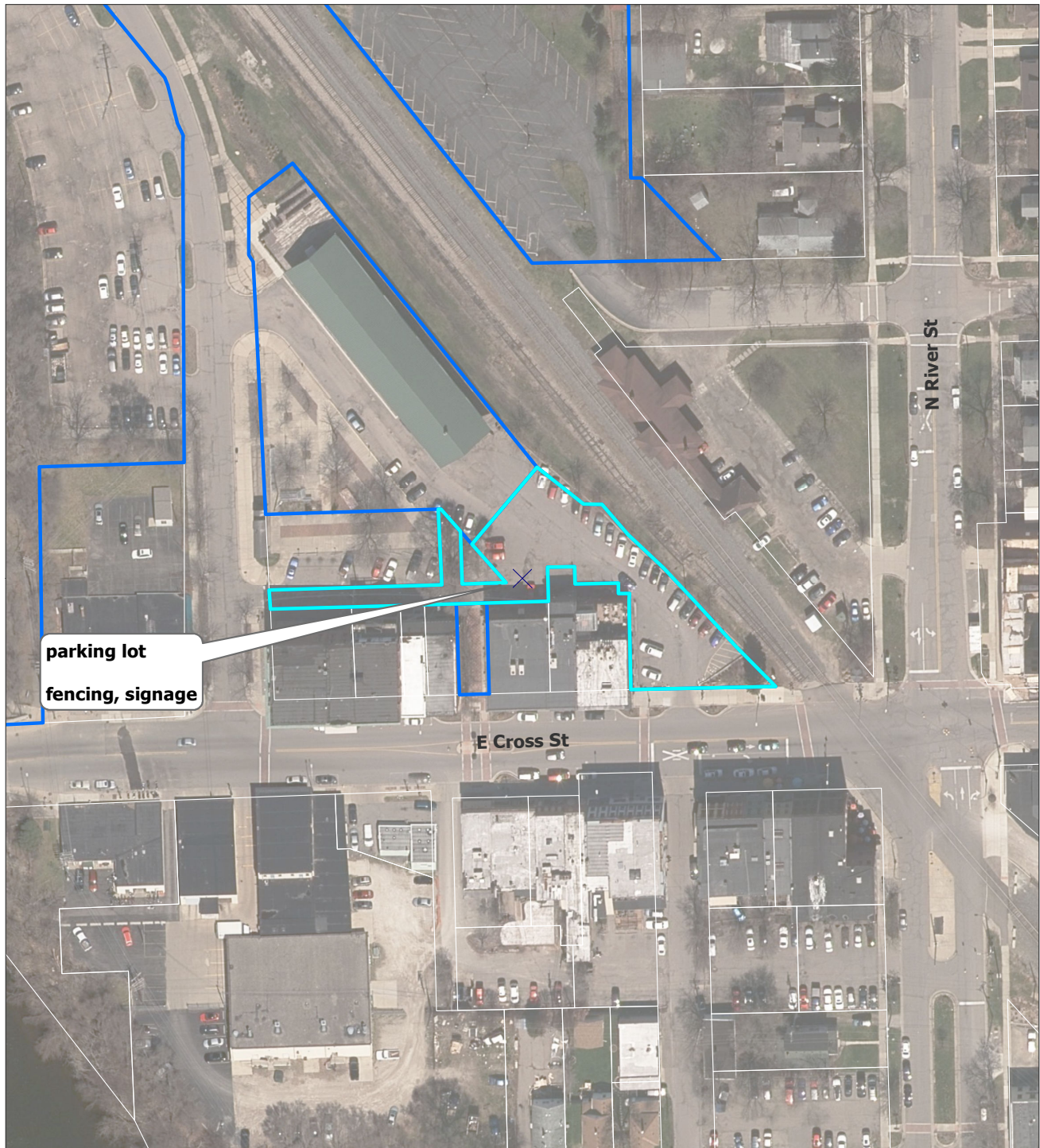
0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

E Cross Parking Lot & alley



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Edith Hefley Tot Lot



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Frog Island Park



0 125 250 500
Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Haab Brothers Memorial Park



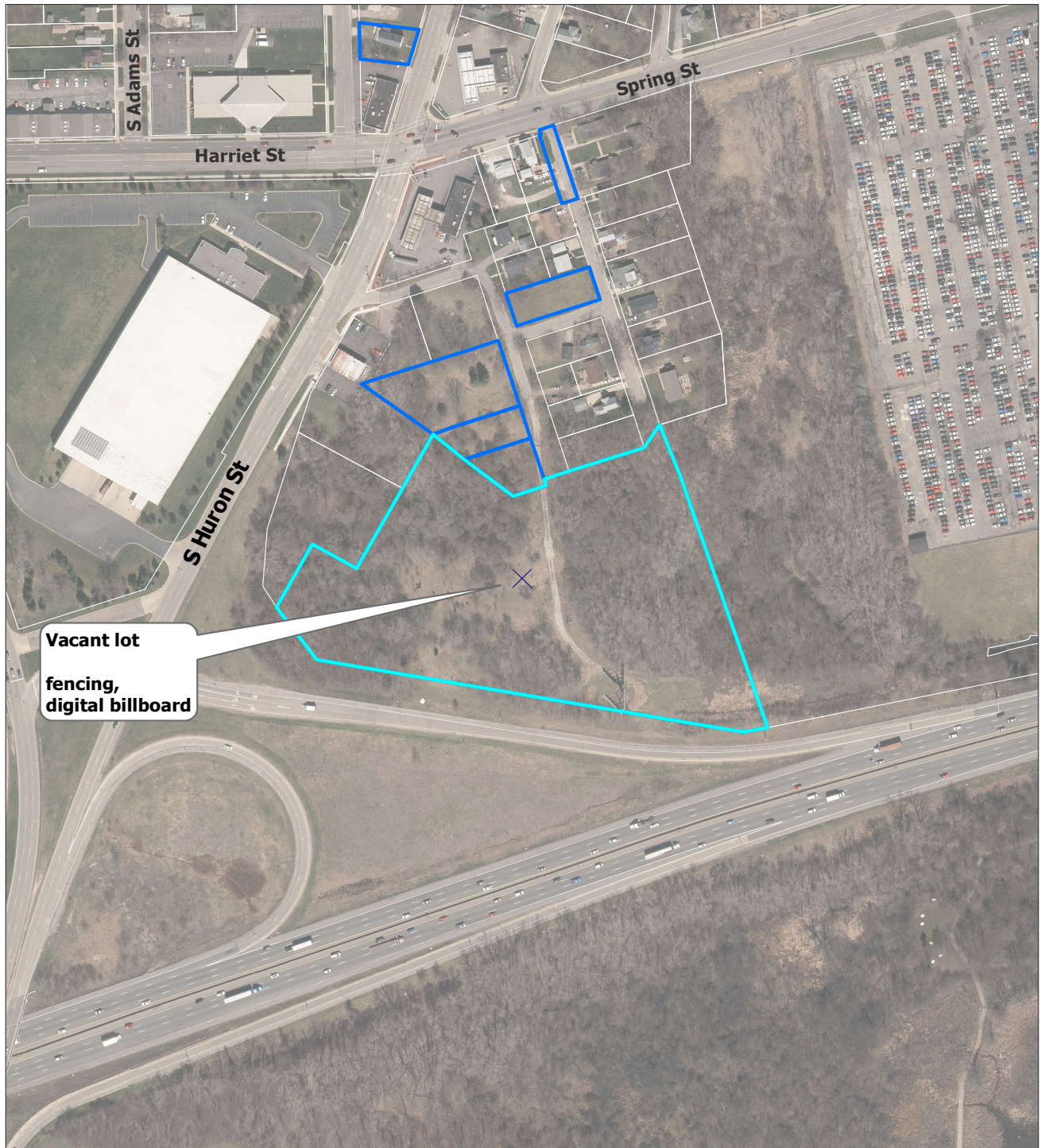
0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Landfill



**Vacant lot
fencing,
digital billboard**



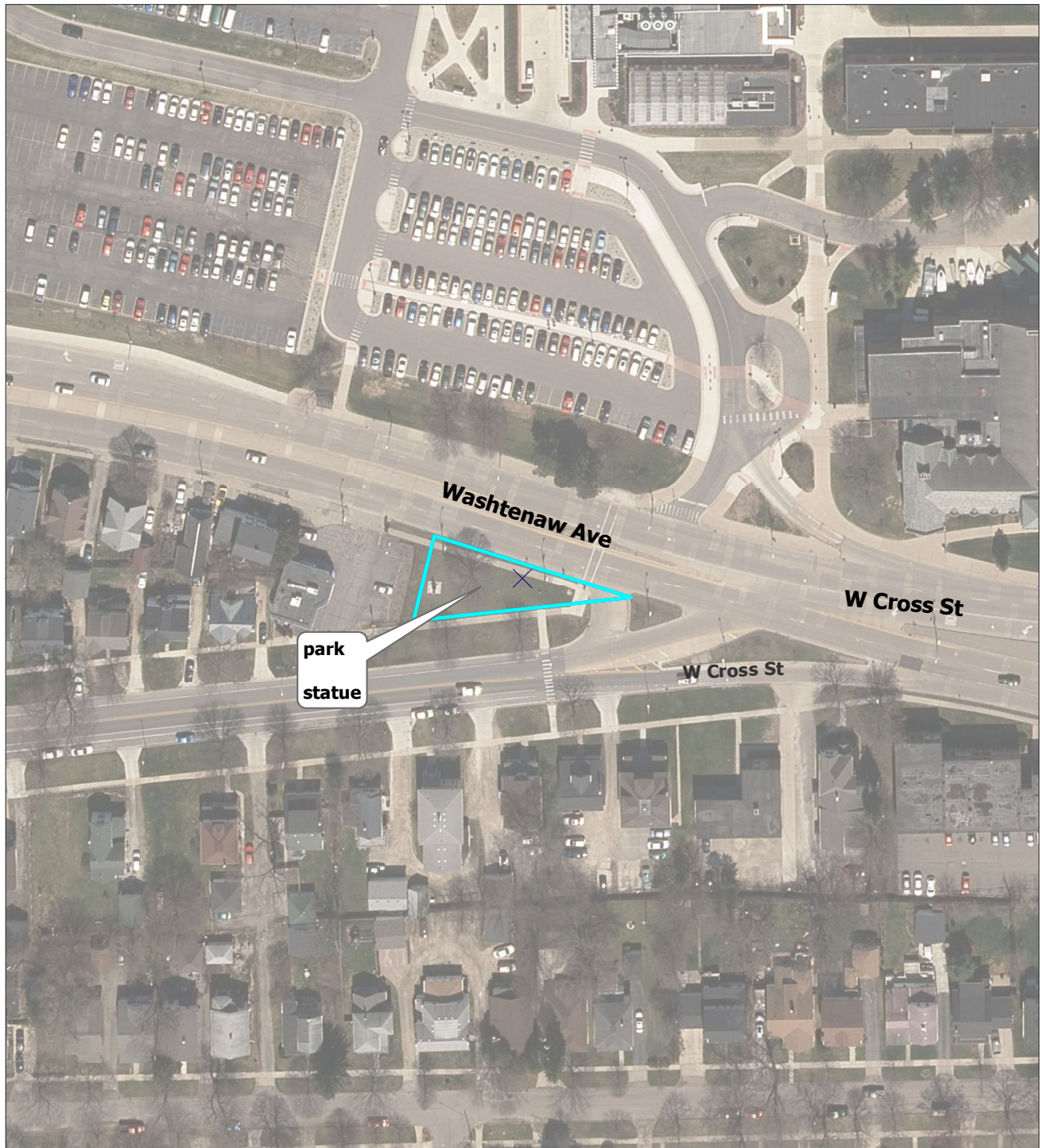
0 125 250 500
Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Minuteman Memorial



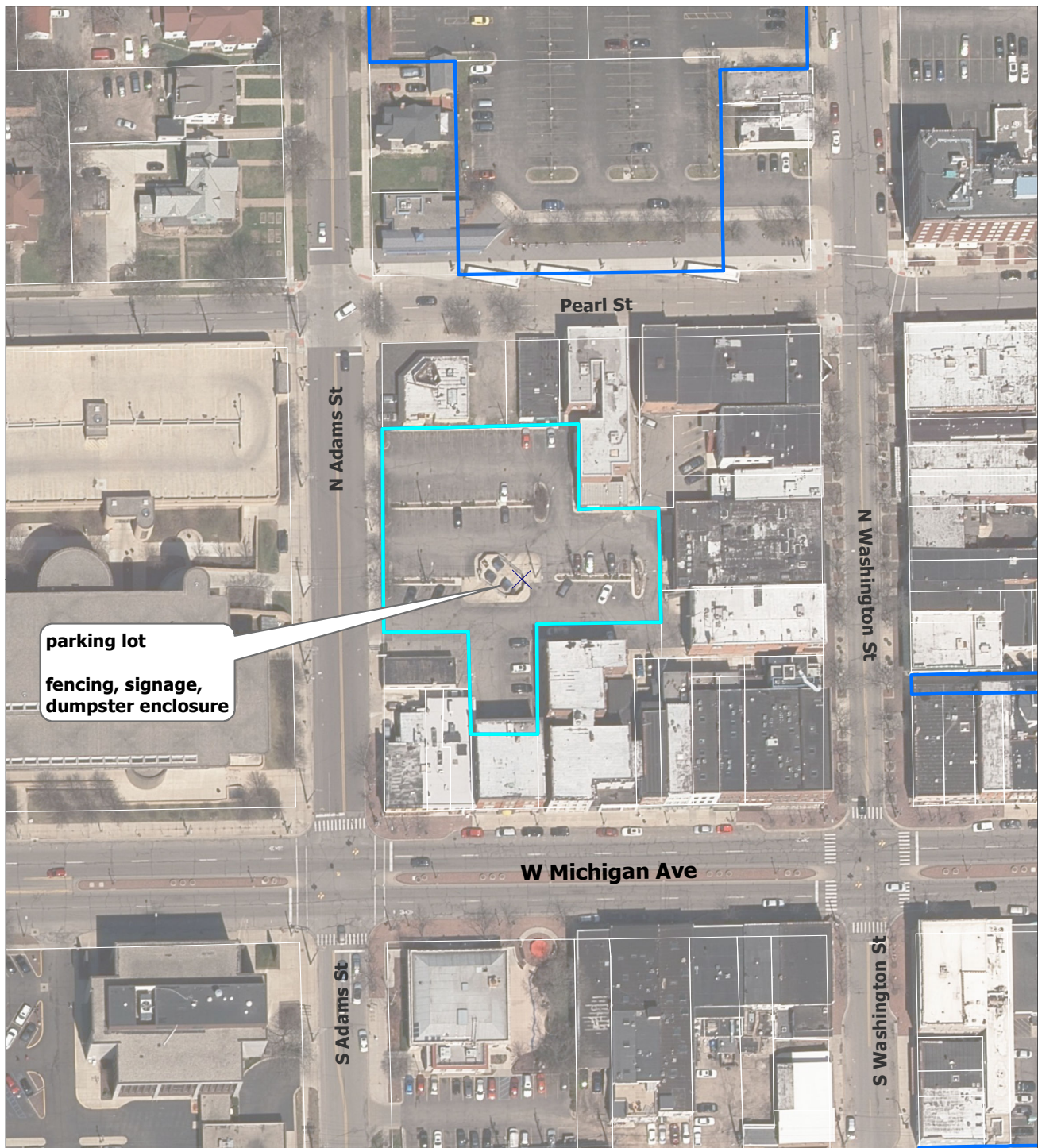
0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

N Adams Parking Lot



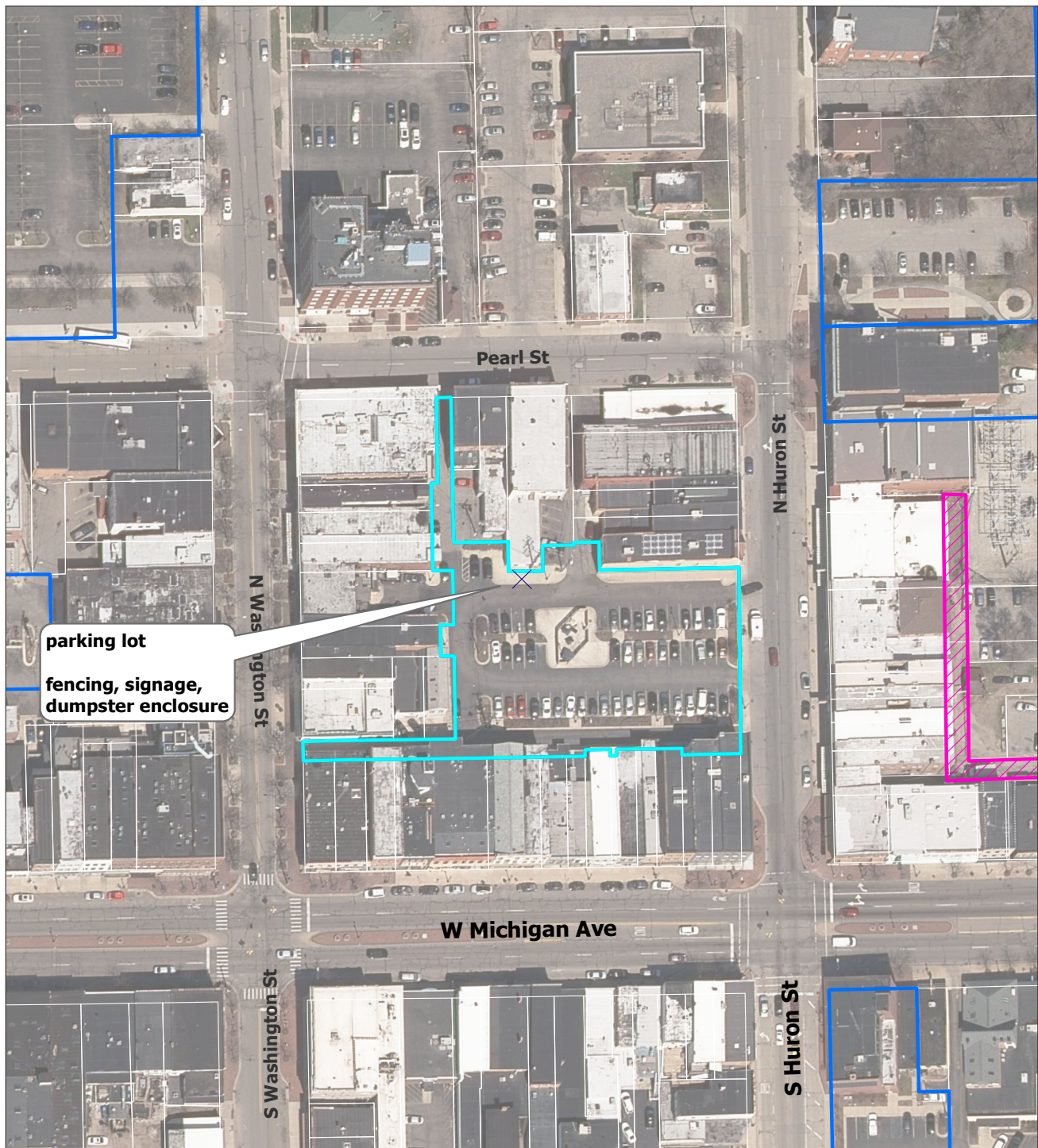
0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

N Huron Parking Lot



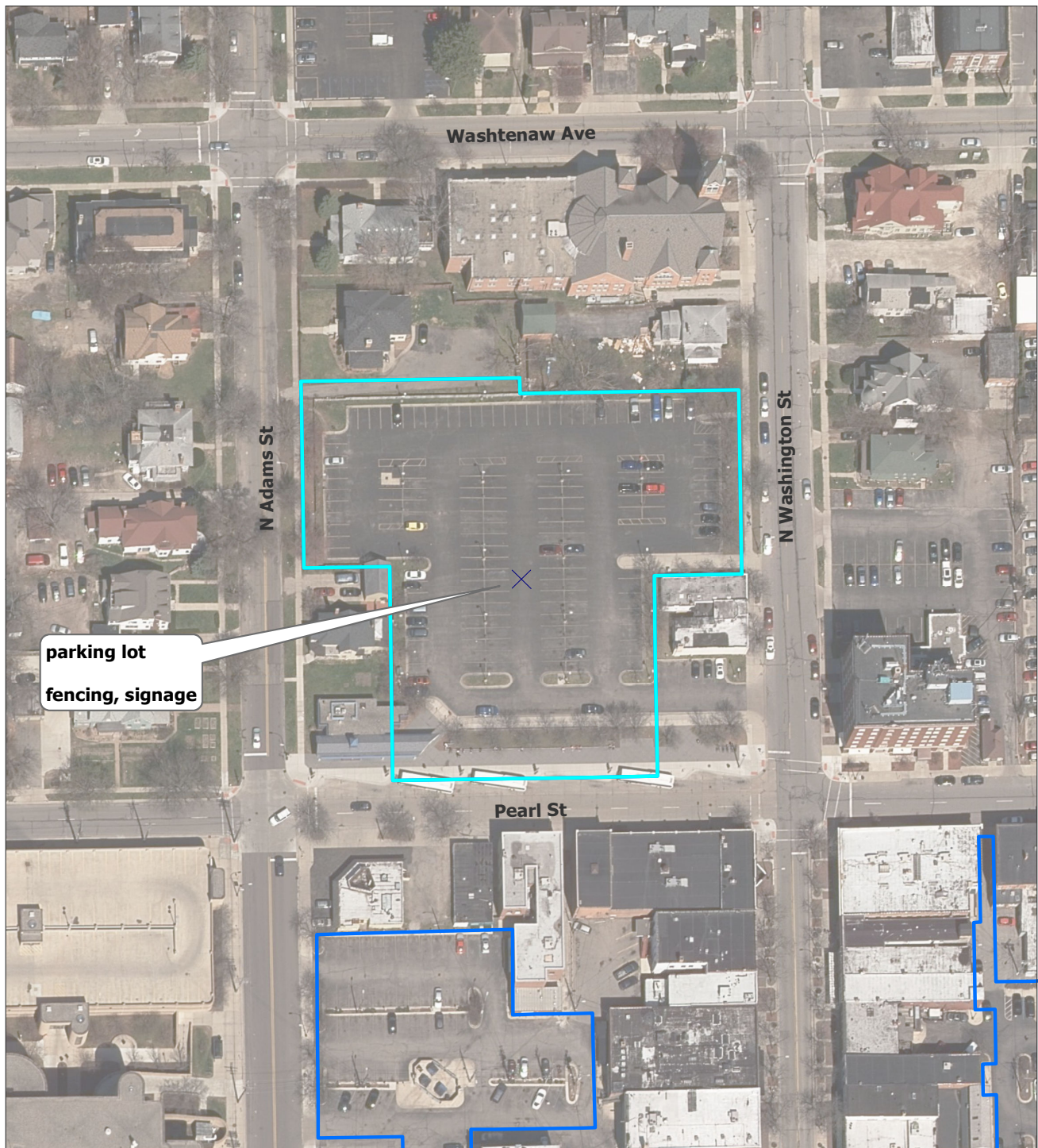
0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

N Washington Parking Lot



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Parkridge Park



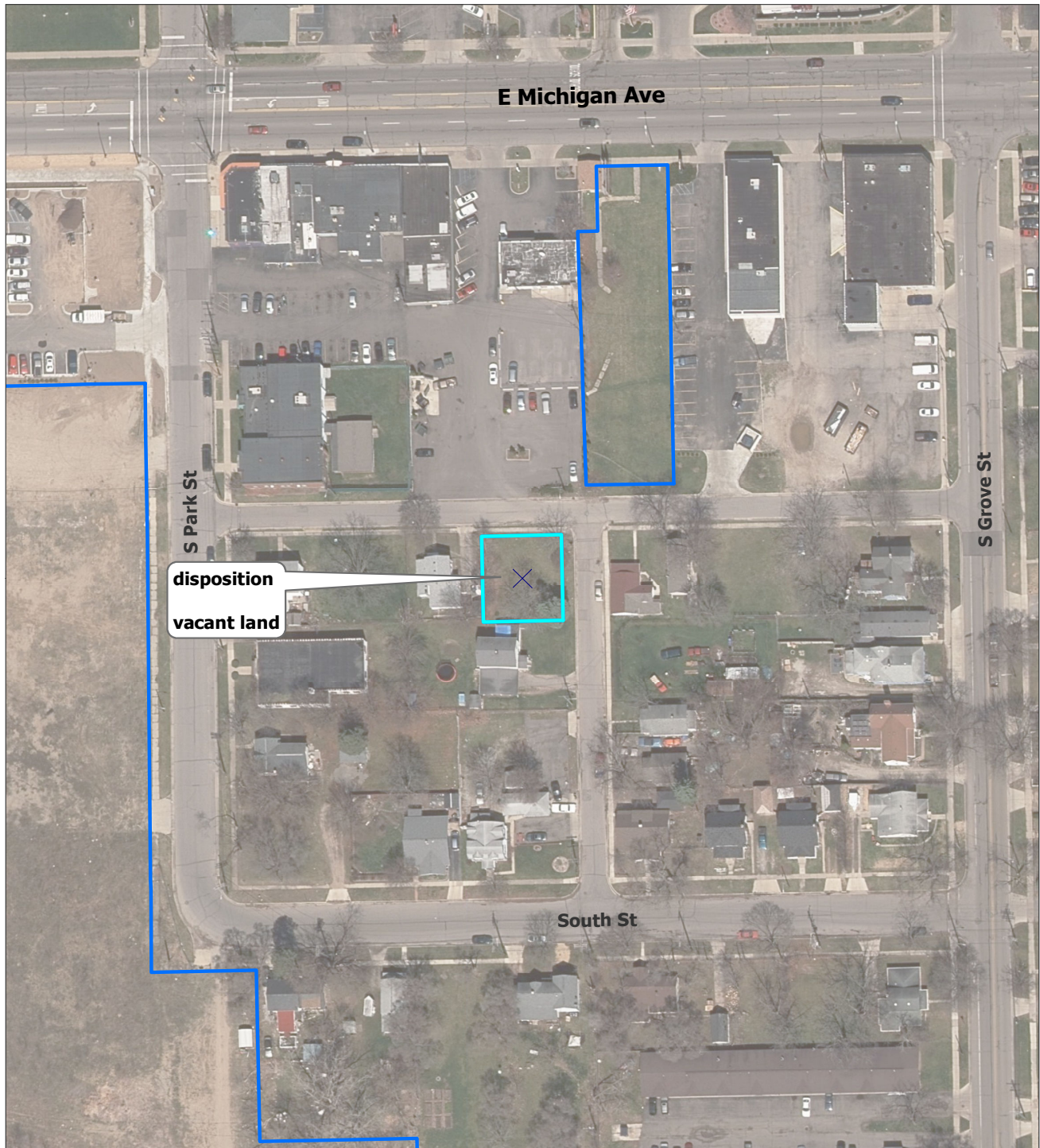
0 125 250 500 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

314 Parsons



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Parkridge Community Center



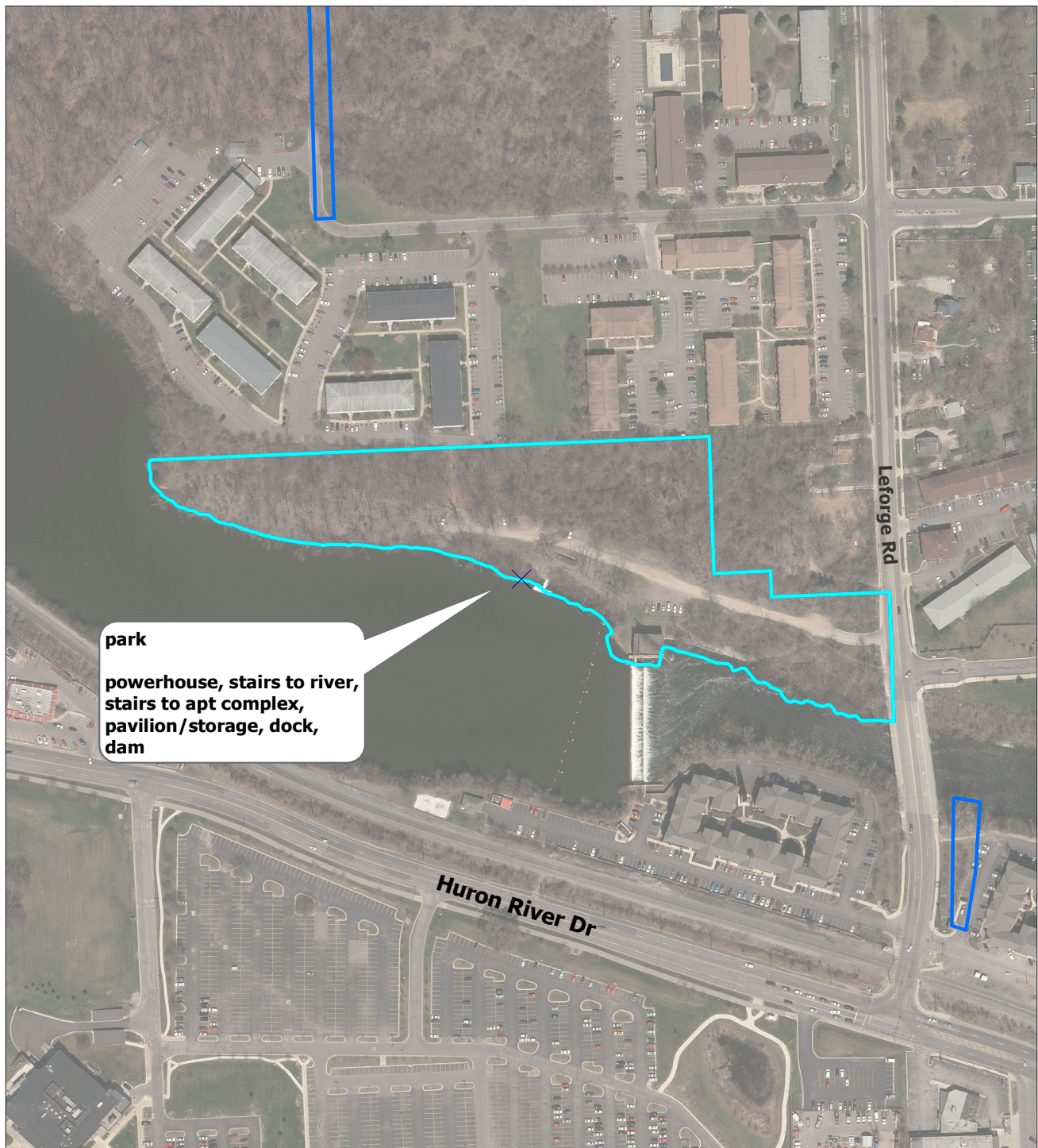
0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Peninsular Park



0 125 250 500 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Prospect Park



park

**play equipment, cannon,
pavilion/storage, storage,
pavilion, basketball, skate park,
historic marker**



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

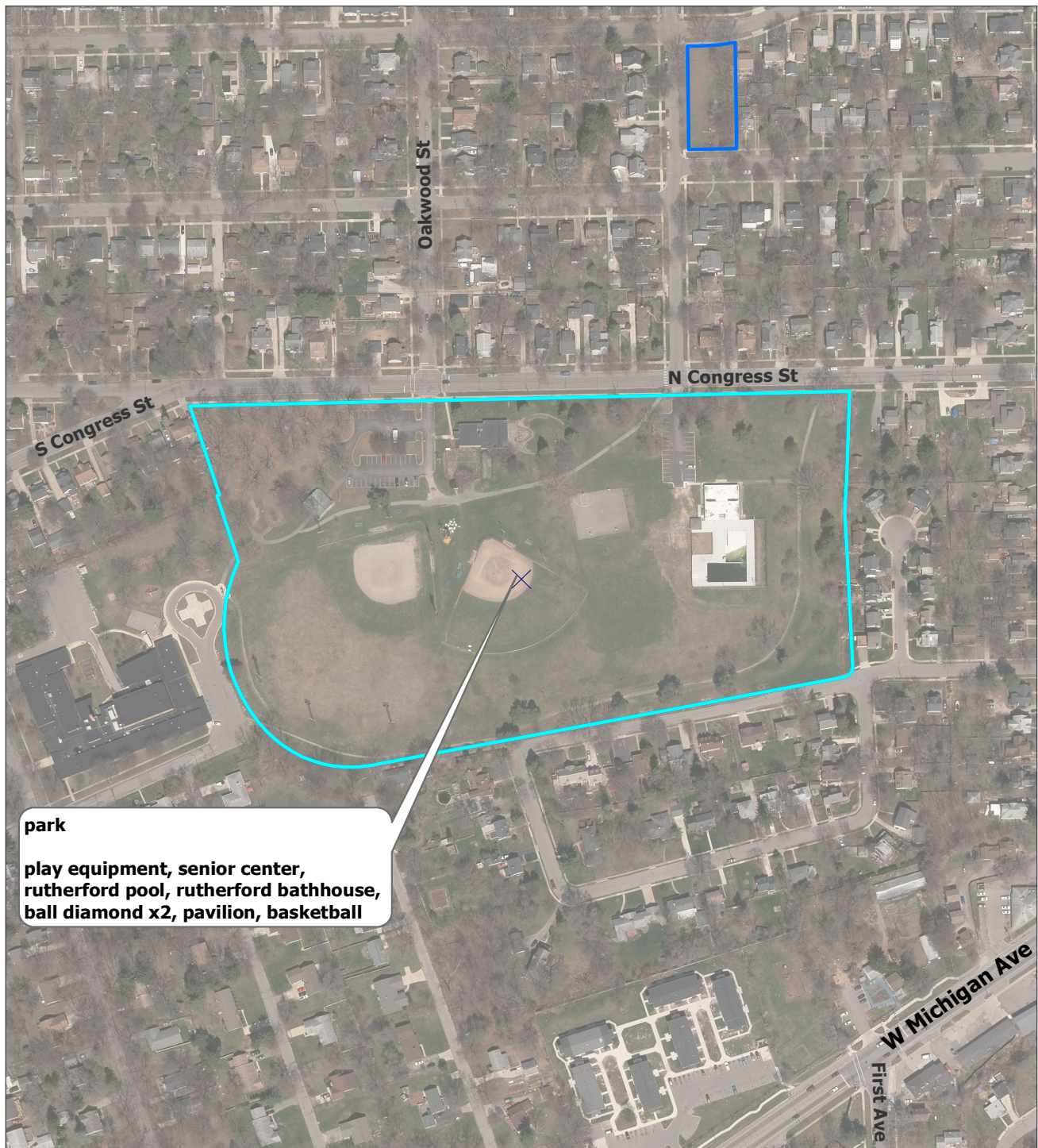
Railroad Street Property



0 50 100 200 Feet

FOR DISCUSSION ONLY.
18 Dec 2019
Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Recreation Park



park

**play equipment, senior center,
rutherford pool, rutherford bathhouse,
ball diamond x2, pavilion, basketball**



0 125 250 500
Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

River's Edge Trailhead



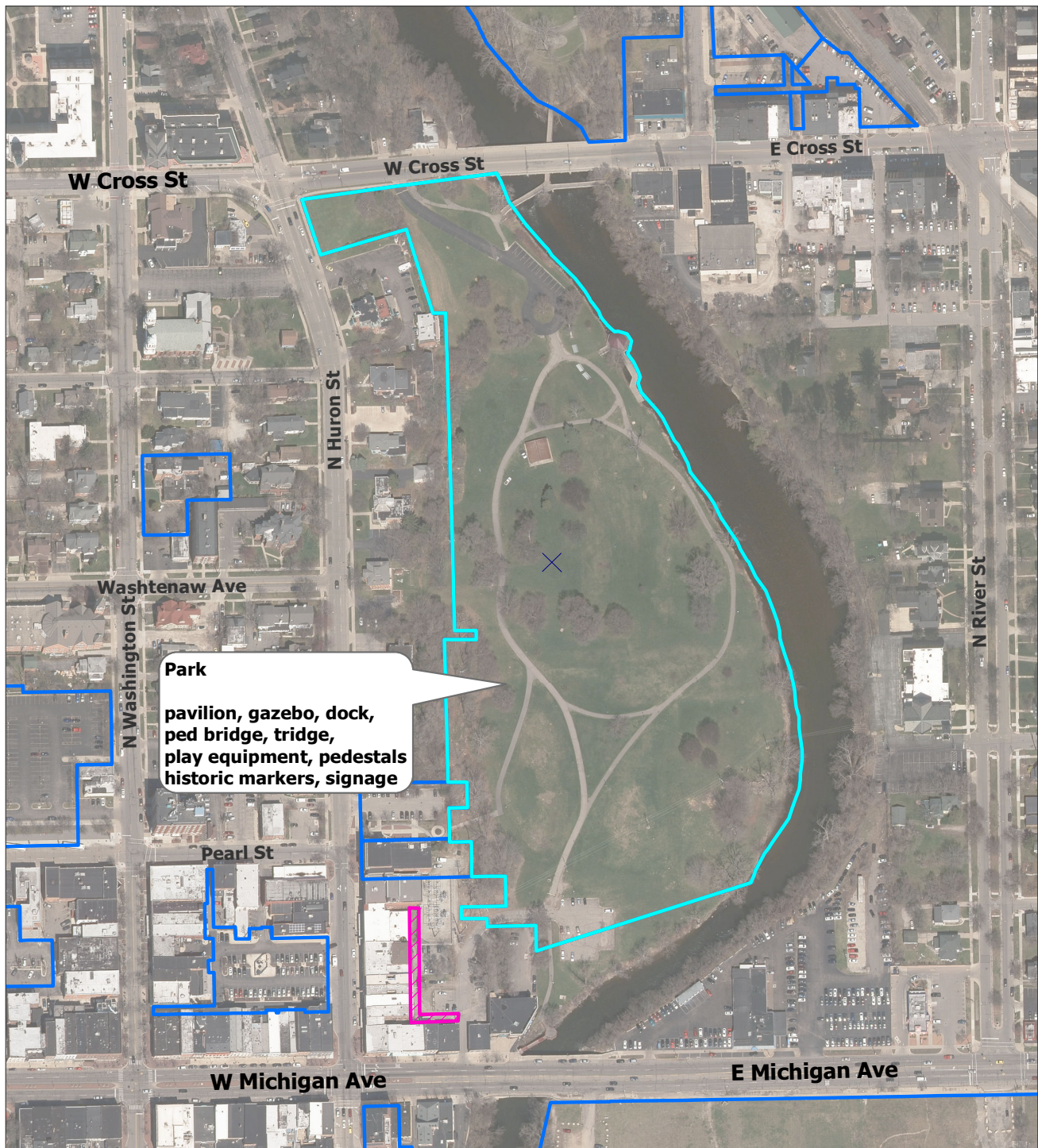
0 125 250 500 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Riverside Park



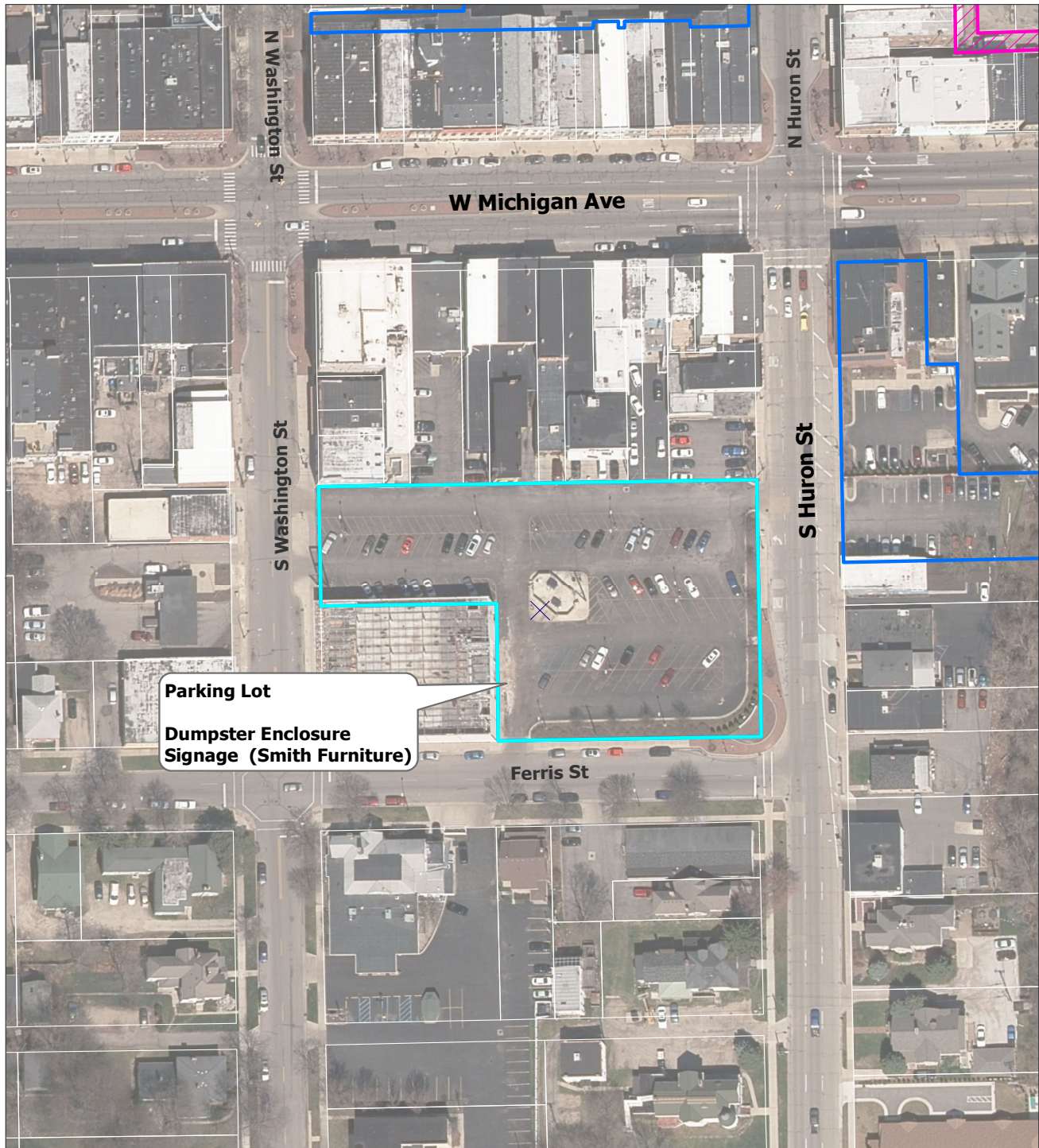
0 125 250 500 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
 Aerial date: 2015

South Huron Parking Lot



0 50 100 200 Feet

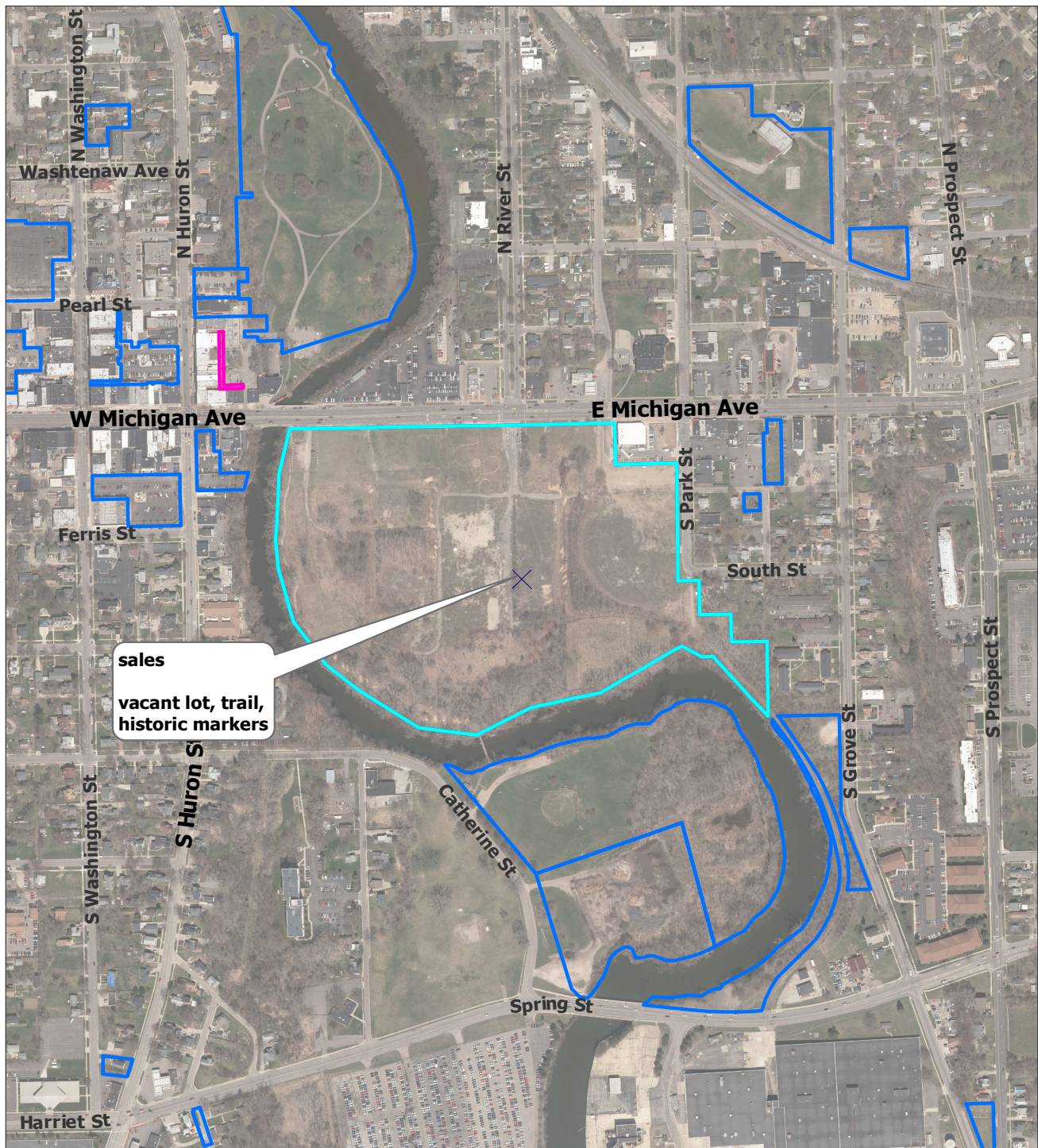
FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti

Aerial date: 2015

Water Street Redevelopment Area



0 255 510 1,020 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Water Works Park



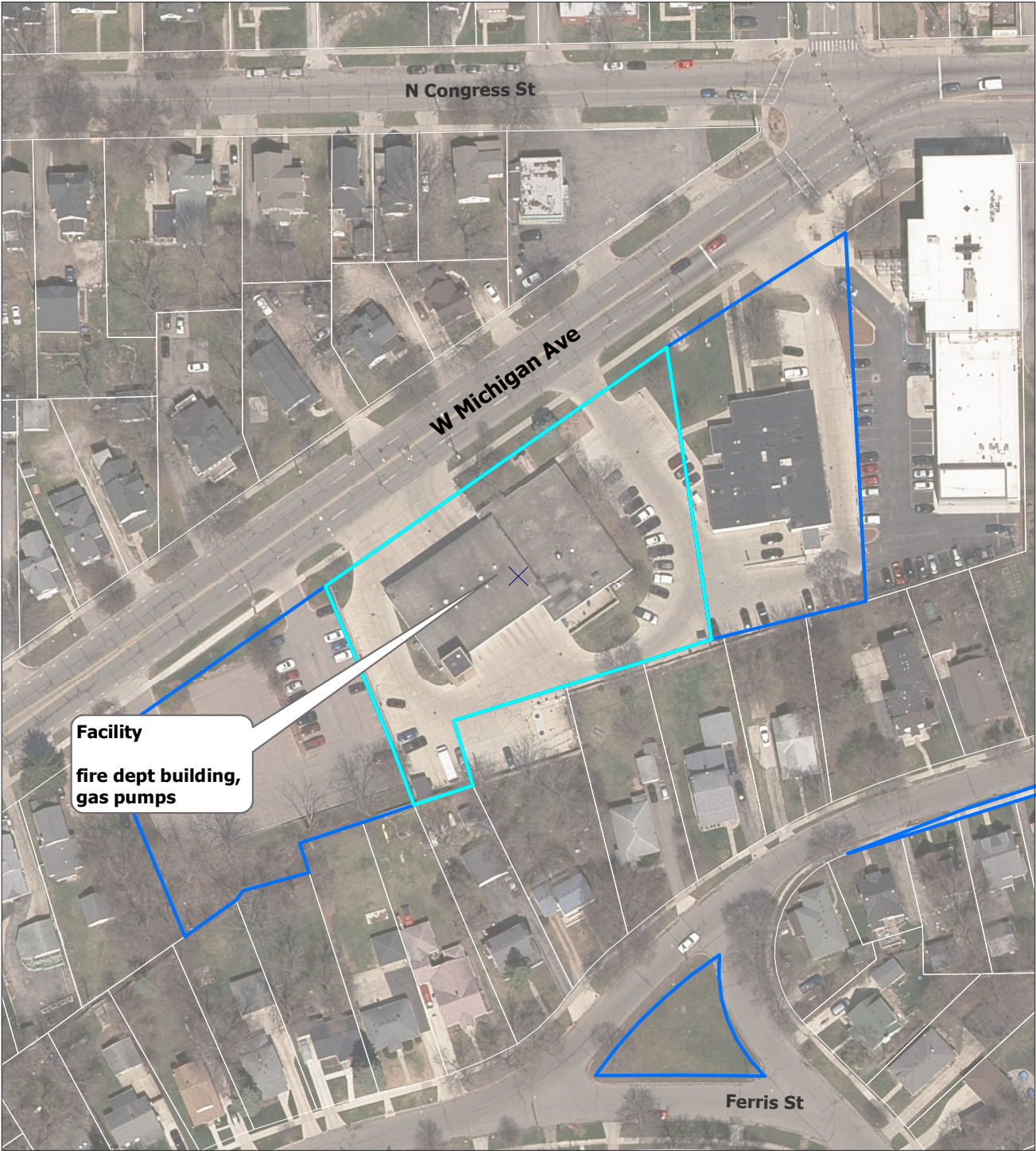
0 125 250 500 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Ypsilanti Fire Department



0 50 100 200 Feet

FOR DISCUSSION ONLY.
18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Ypsilanti Police Department



FOR DISCUSSION ONLY.
18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

21 Briggs



0 50 100 200 Feet

FOR DISCUSSION ONLY.
18 Dec 2019
Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

30 Kramer



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

50 Kramer



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

206 N Grove



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

206 N Washington



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

220 N Park



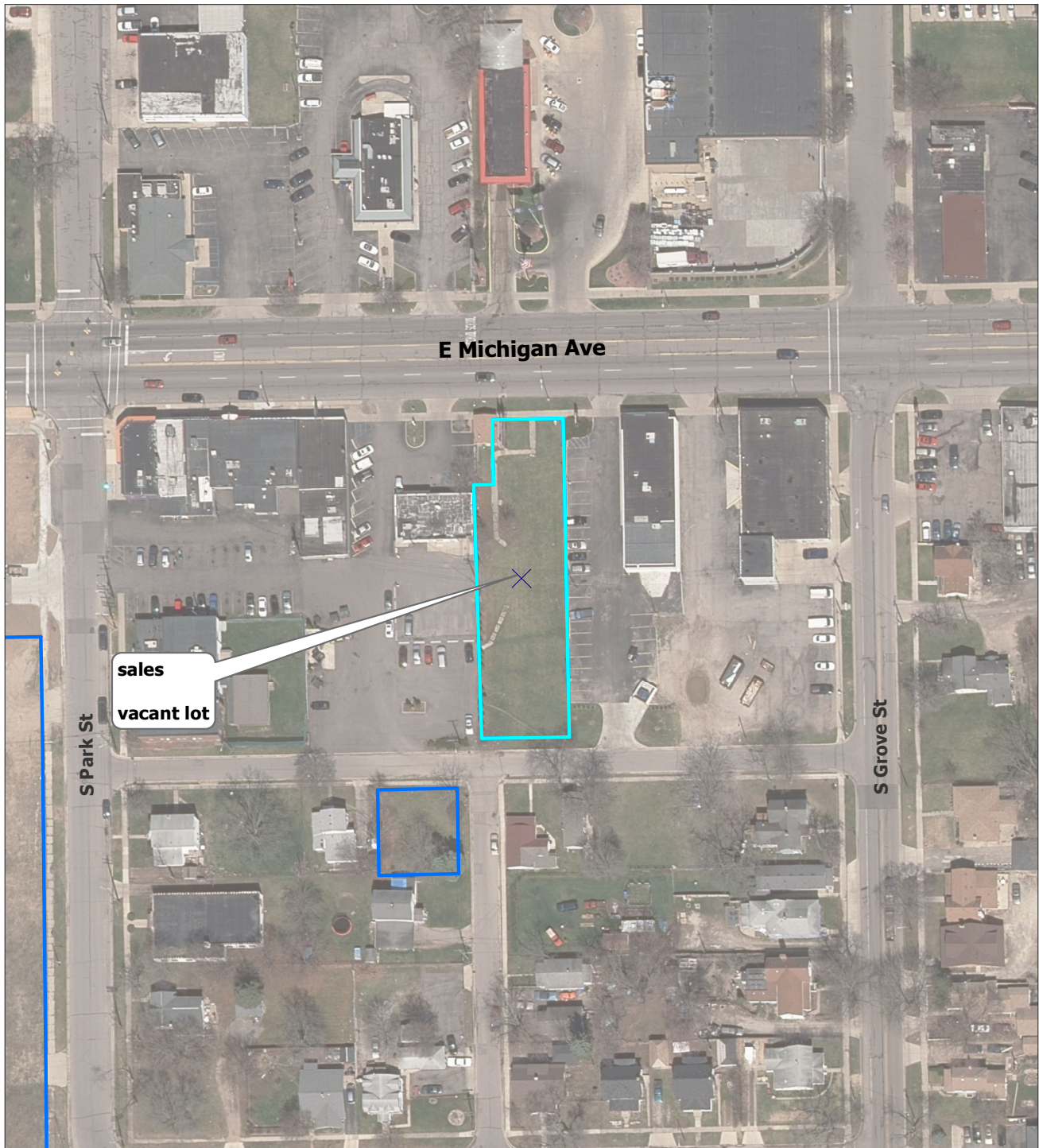
0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

326 E Michigan



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

361 First



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

448 S Huron



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

563 S Mansfield



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

731 W Michigan



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

761 Harriet



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Ainsworth Park



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Ballard Parking Lot



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Bell Rd (unaddressed)



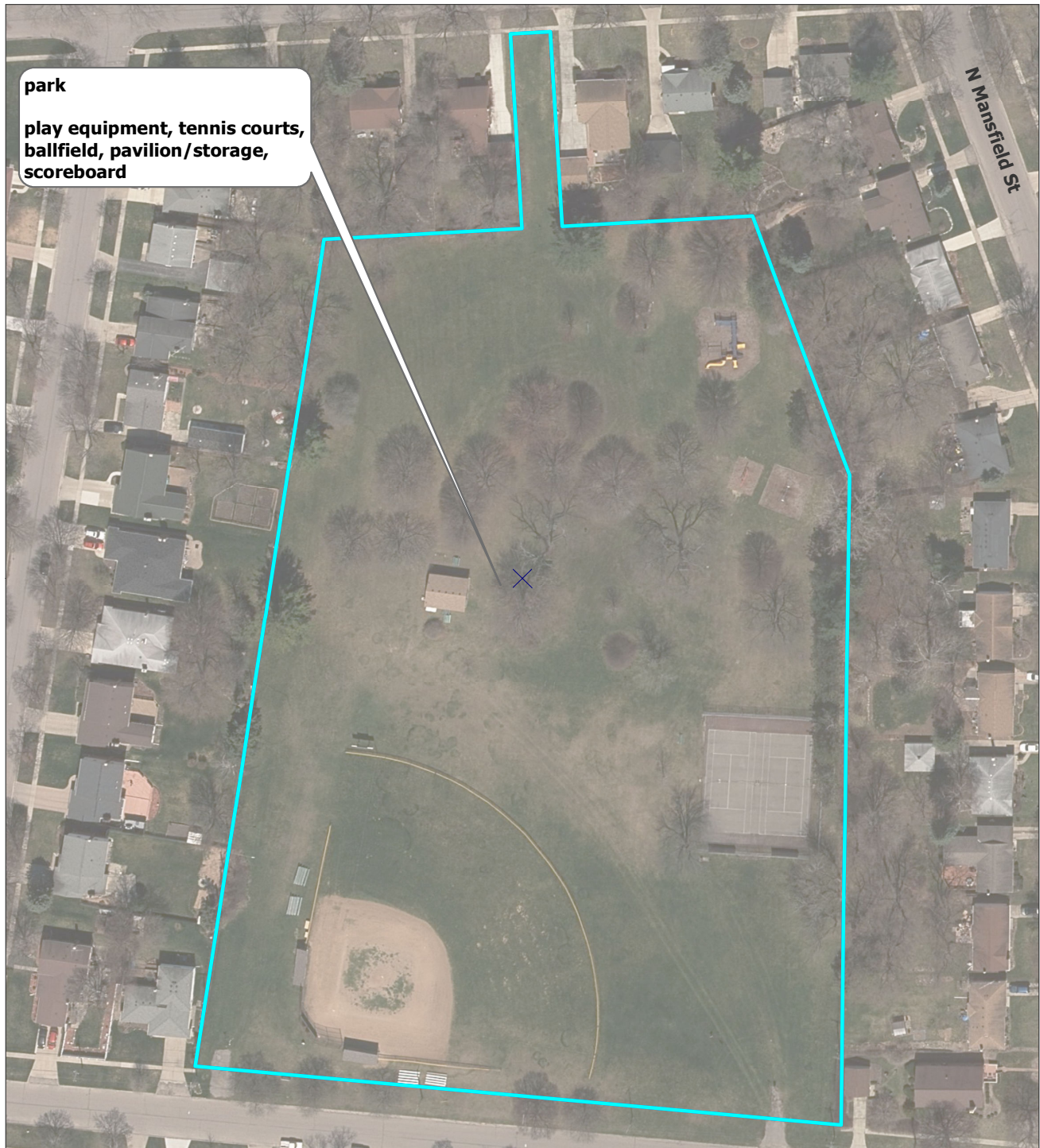
0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Candy Cane Park



0 50 100 200
Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Carrie R Mattingly Park



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Charles St Tot Lot



park
play equipment,
signage



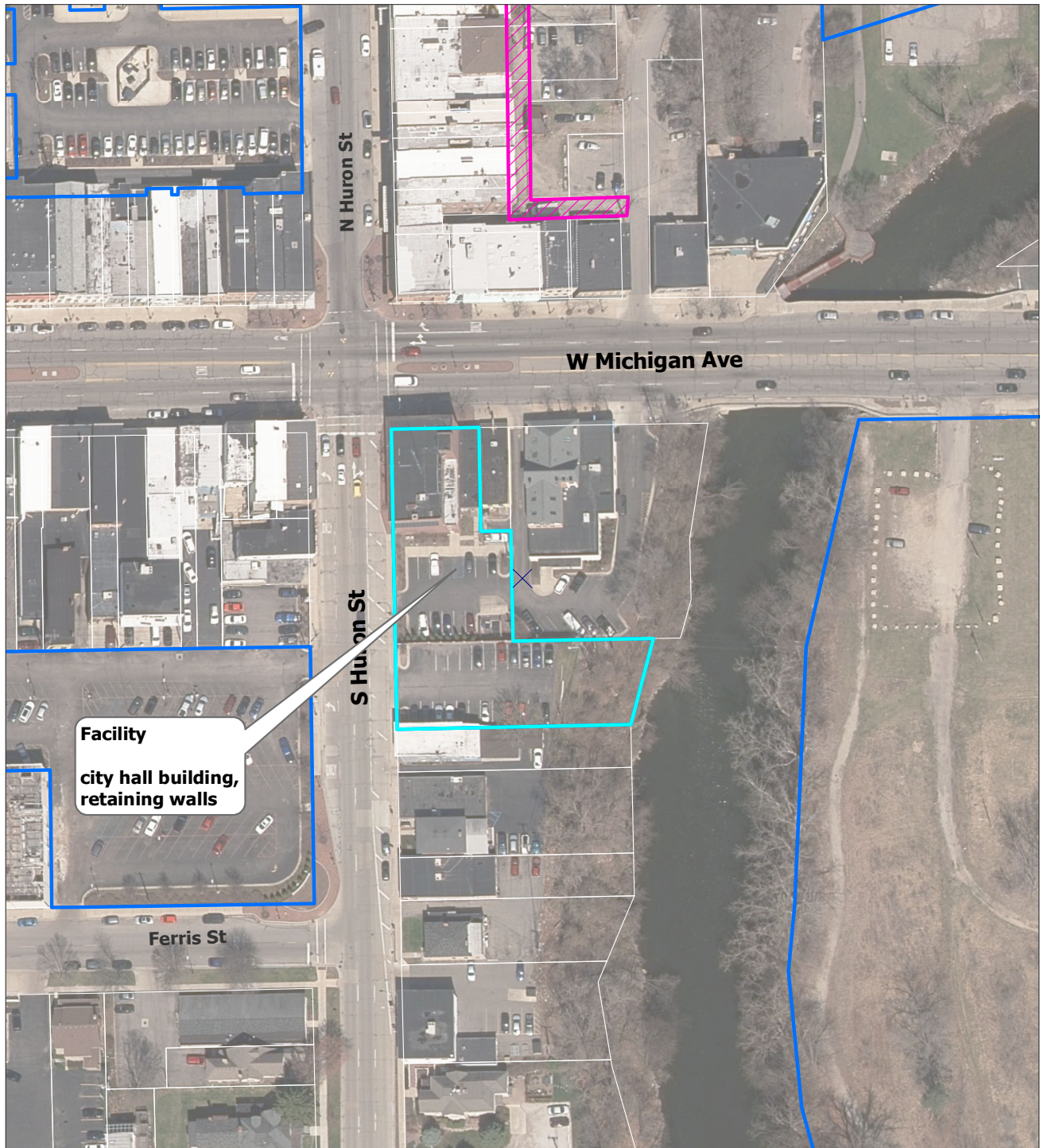
0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

City Hall



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Compost Yard



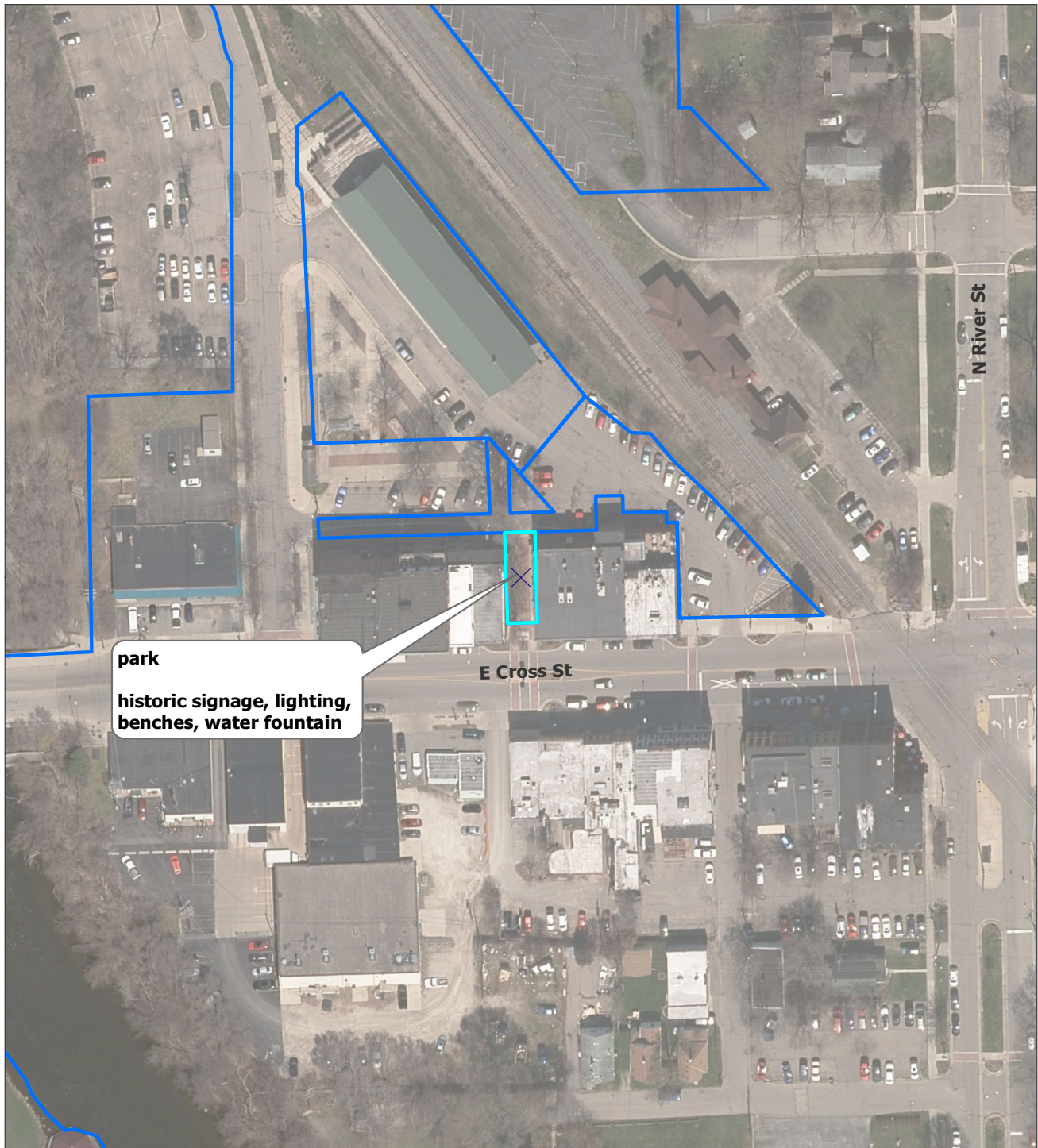
0 125 250 500 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Cross St Alley



0 50 100 200 Feet

FOR DISCUSSION ONLY.

18 Dec 2019

Source: Washtenaw County GIS/City of Ypsilanti
Aerial date: 2015

Project Sheets

DRAFT 05/27/2020



City of Ypsilanti Capital Project Request Form

01

FY2020/2021
through
FY2026/2027

Project

Title Chart of Accounts Update	
Department Finance	Prepared by/Contact for questions Rheagan Basabica
Is this the first request, or was this in last years' CIP/budget? Yes	

Description and Location

Update Chart of Accounts in compliance with the requirements from the State of Michigan

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Yes, we will be required to do this by the state
--

Schedule

Estimated start date and completion date FY 21-22
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship No

Estimated Service Life

5 Years until the next update

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)		20,000					
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL		20,000					

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Incode Sales Team

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Neither



City of Ypsilanti Capital Project Request Form

02**FY2020/2021**
through
FY2026/2027

Project

Title IT Hardware Replacement/Upgrade	
Department CED	Prepared by/Contact for questions Christopher Jacobs
Is this the first request, or was this in last years' CIP/budget? First	

Description and Location

IT hardware replacement pursuant to the contract termination with WCIT. All City Facilities.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Will be required upon termination of contract with WCIT/assumption of contract with another party.

Schedule

Estimated start date and completion date
2020/21

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
Unaffected

Estimated Service Life

5-10 years.

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	up to 400,0						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	400,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Based on responses to RFP

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Will improve IT service and reliability to City staff.



City of Ypsilanti Capital Project Request Form

03**FY2020/2021**
through
FY2026/2027

Project

Title City Hall Security System Upgrade	
Department Finance	Prepared by/Contact for questions Rheagan Basabica
Is this the first request, or was this in last years' CIP/budget? Yes	

Description and Location

Upgrade security cameras in the Treasury office and other critical public areas.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? No, this is not required but will be essential in the security of the treasury office and city hall

Schedule

Estimated start date and completion date FY 21-22
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship No

Estimated Service Life

5 Years until the next upgrade

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)		10,000					
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL		10,000					

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Cost is based on \$1,000 per camera

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
\$1,000 maintenance cost per year



City of Ypsilanti Capital Project Request Form

04

FY2020/2021
through
FY2026/2027

Project

Title Axon Body Cameras	
Department Police Department	Prepared by/Contact for questions Chief T. DeGiusti
Is this the first request, or was this in last years' CIP/budget? This started in the 2018-19 budget	

Description and Location

Body cameras worn by police personnel.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? This program has been in the Police Department since 2014. This current contract was approved to replace old equipment.

Schedule

Estimated start date and completion date Present to 2023

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship Not dependent on other projects.

Estimated Service Life

5 years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)	15,108	15,108	15,108				
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL			45,324				

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/

Current contract

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

Neither



City of Ypsilanti Capital Project Request Form

05

FY2020/2021
through
FY2026/2027

Project

Title In Car Camera System	
Department Police Department	Prepared by/Contact for questions Chief T. DeGiusti
Is this the first request, or was this in last years' CIP/budget? First Request	

Description and Location

Camera and audio recording system for each patrol vehilce.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? The in-car camera system has been a program at the police department since the early 1990s. The current equipment is obsolete and often in disrepair. The program is of great assistance in internal investigations as well as used as evidence in criminal proceedings.
--

Schedule

Estimated start date and completion date July 2021 - 2026
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship Not dependent on other projects.

Estimated Service Life

Unknown

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)		10,000	10,000	10,000	10,000	10,000	
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL						50,000	

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/

The system will be provided by Axon and is estimated based on current pricing.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

Neither



City of Ypsilanti Capital Project Request Form

06

FY2020/2021
through
FY2026/2027

Project

Title Live Scan Fingerprinting	
Department Police Department	Prepared by/Contact for questions Chief T. DeGiusti
Is this the first request, or was this in last years' CIP/budget? First Request	

Description and Location

Fingerprinting system located at the Police Department.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? The City is legally required to have a system to submit fingerprints and build criminal history files. There are no means to submit hard copy fingerprint cards, as all of the entities that require fingerprint submission have gone electronic.
--

Schedule

Estimated start date and completion date July 2020 - Continuous
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship Not dependent on other projects.

Estimated Service Life

Unknown

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)	18,000						
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	18,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/

The unit is an Ademia Model 5300D and the price is through the State Bid Contract.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

Neither



City of Ypsilanti Capital Project Request Form

07

FY2020/2021
through
FY2026/2027

Project

Title DSS Logger	
Department Police Department	Prepared by/Contact for questions Chief T. DeGiusti
Is this the first request, or was this in last years' CIP/budget? This started in the 2018-19 budget	

Description and Location

Phone recording system in the Police Department

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? This replaced obsolete equipment.

Schedule

Estimated start date and completion date Present to 2023

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship Not dependent on other projects.

Estimated Service Life

Unknown

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)	4,500	4,500	4,500				
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL			13,500				

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Current contract

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

Neither



City of Ypsilanti Capital Project Request Form

08

FY2020/2021
through
FY2026/2027

Project

Title Police Vehicles	
Department Police Department	Prepared by/Contact for questions Chief T. DeGiusti
Is this the first request, or was this in last years' CIP/budget? Recurring	

Description and Location

Routine vehicle replacement

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? This is a priority for the Department. A well maintained and operational fleet is key to the mission of the Police Department. The ability to swiftly and efficiently respond to emergencies and scenes of crimes in a core operating principle.
--

Schedule

Estimated start date and completion date Recurring

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship Not dependent on other projects.

Estimated Service Life

Approximately 7 years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other	90,0000	90,000	90,000	90,0000	90,0000	90,000	90,000
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/

Cost based on current State Bid Contracts

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

Neither



City of Ypsilanti Capital Project Request Form

09

FY2020/2021
through
FY2026/2027

Project

Title Police Chief's Vehicle Replacement	
Department Police Department	Prepared by/Contact for questions Bonnie Wessler
Is this the first request, or was this in last years' CIP/budget? First	

Description and Location

Anticipated replacement date based on vehicle inservice date
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Ensures YPD chief's vehicle is operable.
--

Schedule

Estimated start date and completion date 2020/21

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship n/a
--

Estimated Service Life

7 years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	55,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	55,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Book cost

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Necessary for chief mobility



City of Ypsilanti Capital Project Request Form

09**FY2020/2021**
through
FY2026/2027

Project

Title Chief's vehicle	
Department Fire Department	Prepared by/Contact for questions Chief Hobbs
Is this the first request, or was this in last years' CIP/budget? First Request	

Description and Location

After the selection process for Fire Marshal is completed, there will be a need for an additional vehicle for the Chief. This vehicle will require emergency lighting for emergency responses, and may be used by department emergency response personnel.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Yes, the City of Ypsilanti is required to provide the Fire Chief with a vehicle pursuant 5.08 of the Employee Handbook. The Chief's vehicle is a priority of the fire department.

Schedule

Estimated start date and completion date July 1, 2020
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

6-10 years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
\$50,000-60,000

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

Purchasing a hybrid Ford Explorer will result in saving money on fuel and will be eco-friendly.



City of Ypsilanti Capital Project Request Form

10

FY2020/2021
through
FY2026/2027

Project

Title Emergency Notification System	
Department Fire	Prepared by/Contact for questions Chief Hobbs
Is this the first request, or was this in last years' CIP/budget? Yes, this is the first request.	

Description and Location

The department currently has 14+ speakers throughout the department that need repair. Replacing the current emergency notification system will aid the department in effective and efficient communication.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
An efficient speaker system will aid fire suppression personnel to respond to fire calls with a clear understanding of the nature of the call and location.

Schedule

Estimated start date and completion date July 1, 2020
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

20+ years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
\$10,000

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

Over the course of 20 yrs., we may have minimal upkeep expenses. We expect this project to improve the 9-1-1 emergency notification system and will ultimately save the city money in the long-term.



City of Ypsilanti Capital Project Request Form

11

FY2020/2021
through
FY2026/2027

Project

Title Heating & Cooling	
Department Fire	Prepared by/Contact for questions Chief Hobbs
Is this the first request, or was this in last years' CIP/budget? Yes, this is the first request.	

Description and Location

The current heating, ventilation, and air conditioning (HVAC) unit at the fire department. This project will also require electrical updates.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? The original equipment is 45 years old and needs several updates and repairs. These repairs will help to maintain an eco-friendly environment and ensure that our building produces proper heating and cooling ventilation. An efficient HVAC system will help our department to become more energy efficient and will ultimately keep the workplace clean, and safe for the employees, and the public.

Schedule

Estimated start date and completion date July 1, 2020
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

20+ years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
\$35,000

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

This project may require upkeep, but in the long-term, will be more cost efficient.



City of Ypsilanti Capital Project Request Form

12

FY2020/2021
through
FY2026/2027

Project

Title Office/Building Maintenance	
Department Fire	Prepared by/Contact for questions Chief Hobbs
Is this the first request, or was this in last years' CIP/budget? Yes, this is the first request.	

Description and Location

The fire department currently has antiquated furniture and building equipment that need replacement. More specifically, the the department is in need of desks, tables, chairs, ceiling tiles, dorm furniture, and flooring.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? The City of Ypsilanti is required to keep a clean, safe, and healthy work environment for its employees. Replacing the antiquated furniture, and equipment we currently have will ensure that these requirements are met. Ensuring that the YFD comply with OSHA standards are a priority to the department.
--

Schedule

Estimated start date and completion date July 1, 2020 - August 1, 2020

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship This project is independent of other projects within the CIP plan for the YFD.

Estimated Service Life

10-15 years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
\$15,000-\$20,000

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

This project will not create recurring costs to the department, but will in the long-term aid in the department saving money possibly for the next 10-15 years.



City of Ypsilanti Capital Project Request Form

13

FY2020/2021
through
FY2026/2027

Project

Title Source Capture Exhaust System	
Department Fire	Prepared by/Contact for questions Chief Hobbs
Is this the first request, or was this in last years' CIP/budget? This is the first request.	

Description and Location

The YFD needs a new apparatus exhaust system. The current exhaust system threatens the health and welfare of YFD personnel and the public we serve. We will be applying for an Assistance to Firefighters Grant (AFG) to replace the obsolete exhaust system that no longer meets MIOSHA specifications.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
The City is required to ensure a safe working environment. Replacing the current exhaust system will eliminate the hazardous emissions from the fire engines. This could potentially reduce the risk of cancer. This project is a high priority for the department.

Schedule

Estimated start date and completion date
Work is dependent on receiving the grant.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

20 years +

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:	\$50,000						
Special Assessment							
Millage							
Other							
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
20% match; City's potential cost: \$10,000

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

This project will eliminate hazardous emissions and improve the health and welfare of fire personnel and the public we serve.



City of Ypsilanti Capital Project Request Form

14

FY2020/2021
through
FY2026/2027

Project

Title Parkridge Expansion	
Department Parkridge center/Recreation	Prepared by/Contact for questions Anthony Williamson
Is this the first request, or was this in last years' CIP/budget? yes	

Description and Location

This is a request to make expansion to the Parkridge community Center located at 591 Armstrong on the city's southside.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?

This is a city owned facility, there are needed upgrades and repairs put this expansion would make the facility more user friendly but there is no evidence that it will improve safety.

Schedule

Estimated start date and completion date

July. 1 2020 would be an exceptable start date I am not qualified to answer regarding completion.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship

I am not in a position to effectively respond to this question but my understanding of the city's budget and ability in previous years lend me to believe that coordination is necessary.

Estimated Service Life

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Not qualified to answer

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

The long term impact would be continued use and growth at Parkridge Center, continued collaboration with Washtenaw Community College and other local entities.

February 3, 2020

Parkridge Community Center facility expansion and improvement. Narrative to support

I would like look to explore these opportunities to enhance the quality of services to residents within the City of Ypsilanti. This request is presented in two segments;

(1) smaller maintenance and beautification;

- a. smoke detector upgrades
- b. window repair (plexiglass) in gym
- c. ceiling tile replacement throughout the building
- d. Improvement of the heating and cooling system.
- e. Regular quarterly floor waxing)
- f. upgrade to LED lighting in Gym
- g. Add 6-10 electric outlets throughout the building

(2) Larger expansion request

- a. fulfill requirements to be a licensed full use kitchen;
- b. Expand the space to include and additional classroom;
- c. Expand space to include storage space to return the front office to a functional office (currently being used as equipment storage)
- d. Additions added to the back of the facility to expand the kitchen. (I understand that there may be some possibility to connect with Washtenaw County's Office of Community and Economic Development

As there is currently no budget for recreation, I am unsure of the impact on the operating expenses. I am involved at Parkridge through a unique partnership with Washtenaw Community College. However, I have observed the growth of programs and activities in the area for the past twenty years. During the past ten years, we all have seen the improvement of what I affectionately call the Harriett Street corridor which runs from Huron street on the east and ends at First Avenue on the West. Improvements at the Harriett Street Commerce Center, the Business strip, Hamilton Crossings, Hope Clinic and New Parkridge Homes has made this one of the best areas within the City. The only physical change that has not occurred externally has been Parkridge Community Center. This will provide and opportunity for much needed change as we loOk to infuse the area with new civic pride and cultural transformation.

Respectfully,

Anthony Williamson, LLMSW
Director of Educational Development



**City of Ypsilanti
Capital Project Request Form**

15a

**FY2020/2021
through
FY2026/2027**

Project

Title: Furnace replacement	
Department: Ypsilanti Senior Center	Prepared by/Contact for questions: Monica Prince
Is this the first request, or was this in last years' CIP/budget?	

Description and Location

The aging furnace and air conditioners are in need of replacing

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
It is a priority because of the age of the furnace.

Schedule

Estimated start date and completion date < 6 months

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship: Is not dependent

Estimated Service Life

?

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/ ?

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither? It should be more energy efficient.



City of Ypsilanti
Capital Project Request Form

15b

FY2020/2021
through
FY2026/2027

Project

Title: Electrical upgrade	
Department: Ypsilanti Senior Center	Prepared by/Contact for questions: Monica Prince
Is this the first request, or was this in last years' CIP/budget? First	

Description and Location

The electrical system has been patched for many years. It needs to be upgraded to repair some of the patches, i.e. the outlets for the main room are on the same circuit as the furnace circuit.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? This will improve safety. This is a priority for the safety of the members and the building

Schedule

Estimated start date and completion date : <6 months
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship No dependent but could be coordinated with other projects
--

Estimated Service Life

lifetime

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/: \$3,000 from AJ Leo

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?



City of Ypsilanti Capital Project Request Form

16

FY2020/2021
through
FY2026/2027

Project

Title: Room addition	
Department: Ypsilanti Senior Center	Prepared by/Contact for questions: Monica Prince
Is this the first request, or was this in last years' CIP/budget? First	

Description and Location

An addition of a room on the senior center will give added activities to the schedule at the center. Right now we have activities in the rooms nearly all the time we are open. It would also help to give space to have interns from the neighboring colleges to help with programming.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
This is part of a long term masterplan for the center.

Schedule

Estimated start date and completion date +year

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship

Estimated Service Life

forever

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/: ?

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither? It would add to the upkeep of the building but would also make it more usable.



City of Ypsilanti Capital Project Request Form

17

FY2020/2021
through
FY2026/2027

Project

Title: Kitchen ventilation system	
Department: Ypsilanti Senior Center	Prepared by/Contact for questions: Monica Prince
Is this the first request, or was this in last years' CIP/budget? Firsts	

Description and Location

To comply with Health Department guidelines the small fan in the kitchen needs to be replaced with a commercial ventilation and fire suppression system.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
This will improve safety. It would also allow the kitchen to be used as a commercial kitchen. Part of a strategic goal of the senior center

Schedule

Estimated start date and completion date: < 6 months

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship: Not dependent

Estimated Service Life

Lifetime?

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/: Quotes from 2 companies between
\$30,000 - \$40,000

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither? neither



City of Ypsilanti Capital Project Request Form

18

FY2020/2021
through
FY2026/2027

Project

Title Bridge Project: Cross Street Bridge Reconstruction	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

The condition of the bridge is deteriorating where reconstruction will be needed.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Funds should be allocated to this project to ensure the bridge stays open and does not have to shut down. If the bridge shuts down it eliminates a crossing of the Huron River which may lead to emergency service delays and it could have unknown impacts on Depot Town.
--

Schedule

Estimated start date and completion date TBD

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

50 years (est.)

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:			\$6,000,000				
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL			\$6,000,000				

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Engineer provided cost estimate.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

19

FY2020/2021
through
FY2026/2027

Project

Title Bridge Project: Forest St. Bridge Rehabilitation	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

The condition of the bridge is deteriorating where major rehabilitation will be needed within the next 1-2 years. This is an estimate of the costs associated with the rehabilitation of the bridge. Staff will continue to apply for grants to perform repairs on this bridge.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Funds should be allocated to this project to ensure the bridge stays open and does not have to shut down. If the bridge shuts down it eliminates a crossing of the Huron River which may lead to emergency service delays.

Schedule

Estimated start date and completion date 2021
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:		\$100,000					
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other		\$1,000,000					
TOTAL		\$1,100,000					

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Engineer provided cost estimate.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

20

FY2020/2021
through
FY2026/2027

Project

Title Workout Equipment at DPS Facility	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

The renovation of the DPS breakroom.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? It is a departmental goal to promote our employees health and well being. Replacing outdated tables, chairs, rearranging our kitchen, and modernizing the space will promote employee well being.

Schedule

Estimated start date and completion date 2020 - 2021

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

10 + years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$25,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$25,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Staff estimate.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Project should have no significant impact on operating expenses.



City of Ypsilanti Capital Project Request Form

21

FY2020/2021
through
FY2026/2027

Project

Title DPS Aggregate Material Stall	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? Last years CIP	

Description and Location

This project includes the addition of aggregate material stalls to properly separate and store various materials we use in construction activities, such as gravel, cold patch, etc.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
This project would help organize our DPS site promoting safety and help prevent material loss.

Schedule

Estimated start date and completion date 2021
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$30,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$30,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Prior CIP.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Could be some cost savings through prevented material loss.



City of Ypsilanti Capital Project Request Form

22

FY2020/2021
through
FY2026/2027

Project

Title DPS North Pole Barn Concrete Pad	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? Last years CIP	

Description and Location

This project includes the addition of a paved concrete floor to an existing pole barn in the DPS yard. There is currently a gravel floor.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? This project would allow DPS employees to safely operate a hi-lo to provide additional storage for the City.

Schedule

Estimated start date and completion date
2021

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$40,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$40,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Prior CIP.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
No significant impact.



City of Ypsilanti Capital Project Request Form

23

FY2020/2021
through
FY2026/2027

Project

Title DPS Paved Additional Parking Areas	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? Last years CIP	

Description and Location

This project includes the addition of paved parking areas for employees and customers/visitors to the facility. Project is located at the DPS yard.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Project would add needed parking and add ADA accessible handicap parking at the DPS facility.

Schedule

Estimated start date and completion date 2022
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:		\$50,000					
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL		\$50,000					

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Prior CIP.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
No significant impact.



City of Ypsilanti Capital Project Request Form

24

FY2020/2021
through
FY2026/2027

Project

Title Garage Bay Exhaust System	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? Last years CIP	

Description and Location

Installation of a venting system for a garage that we perform lawn mower repair in.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Project is safety related to remove fuel fumes and properly circulate air without opening garage doors.

Schedule

Estimated start date and completion date 2020 - 2021

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$25,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$25,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Prior CIP.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
No significant impact.



City of Ypsilanti Capital Project Request Form

25

FY2020/2021
through
FY2026/2027

Project

Title DPS Garage Sprinkler	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? Last years CIP	

Description and Location

Installation of a sprinkler system in the DPS garage.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Project is safety related. Many items which are worked on in the garage are flammable The sprinkler system is intended to prevent the spread of fire.

Schedule

Estimated start date and completion date 2020 - 2021

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$60,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$60,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Prior CIP.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
No significant impact.



City of Ypsilanti Capital Project Request Form

26

FY2020/2021
through
FY2026/2027

Project

Title Hydraulic Hoist Installation	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? Last years CIP	

Description and Location

Installation of a hydraulic hoist in area of the mechanics shop with a higher ceiling to allow them to provide additional work on our fleet.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Project improves efficiency by allows us to reorganize our mechanic shop.

Schedule

Estimated start date and completion date
2020 - 2021

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$115,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$115,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Prior CIP.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Project may reduce costs associated with contracted mechanical services as some of those will be able to be performed in house rather than an outside dealership.



City of Ypsilanti Capital Project Request Form

27

FY2020/2021
through
FY2026/2027

Project

Title Propane Filling Station Installation at DPS	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Installation of a propane filling station at the DPS facility will allow for the conversion of city vehicles to propane injection systems which is anticipated to reduce carbon emissions by 20% - 25% for the vehicle that these are installed on. It is anticipated that the city will lease the propane tank and pump for a small monthly fee or will purchase the set up. There will be additional costs for site preparation and electric.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
It is City Council's goal to reduce carbon emissions from the DPS fleet. This is a strategy to implement this goal.

Schedule

Estimated start date and completion date 2020 - 2021

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
Vehicles will be considered with the propane conversion when they are proposed before City Council.

Estimated Service Life

7- 10 years for pump and propane tank

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$60,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$60,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/

Quote from fuel company, staff estimate of site work and electrical hook -up.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

Propane conversion should have limited impact on long term operating expenses. The conversion kit should make the engines more fuel efficient thus saving gas. Carbon emissions should be reduced by 20% - 25%.



City of Ypsilanti Capital Project Request Form

28

FY2020/2021
through
FY2026/2027

Project

Title Workout Equipment at DPS Facility	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

The purchase and set up of an area for workout gear and equipment.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? It is a departmental goal to promote our employees health. Providing for workout equipment will do this.
--

Schedule

Estimated start date and completion date 2020 - 2021

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

10 + years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$20,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$20,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Staff estimate.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
If utilized will reduce injuries and save costs related to clinic usage and workmans compensation claims.



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title Parks Capital Projects	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Annual allocation of parks capital funding. DPS has a list of projects we are working on obtaining cost estimates and prioritizing for.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Funds are needed to address several safety issues in city parks.
--

Schedule

Estimated start date and completion date 2020-2026

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000
Other							
TOTAL	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Funds available annually.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Funding parks maintenance will reduce future liability associated with deteriorating items in city parks.

2019-20 Park Assessment Capital Project List			
Park	Project	Prioritization	Estimated Cost
Penninsular	Fixing or Replacing Stairs	2 - Risk Avoidance	
Penninsular	Retaining Wall Repairs near Steps	2 - Risk Avoidance	
Penninsular	Retaining Wall Repairs near Kayak Launch	2 - Risk Avoidance	
Penninsular	Retaining Wall Repairs	2 - Risk Avoidance	
Penninsular	Anti Climb Fence Between West Papermill Wall and River	2 - Risk Avoidance	
Penninsular	Board or Fencing Papermill Windows	2 - Risk Avoidance	
Prospect	Fix Pavillion Roof	2 - Risk Avoidance	
Prospect	Fix Lights Under Pavillion	2 - Risk Avoidance	
Prospect	Fix or Cover Broken Windows on Pavillion	2 - Risk Avoidance	
Prospect	Crack sealing on pathway around park	2 - Risk Avoidance	
Prospect	Fix brick pavers near cannon	2 - Risk Avoidance	
Prospect	Remove inactive plumbing fixture near parking lot	2 - Risk Avoidance	
Prospect	Playground equipment recoating	2 - Risk Avoidance	
Prospect	Replace or fix tables near playground	2 - Risk Avoidance	
Prospect	Tree trimming and removal	2 - Risk Avoidance	
Prospect	Remove basement under small building.	2 - Risk Avoidance	
Charles Street Tot Lot	Remove A & B, Replace with something that meets safety requirements	2 - Risk Avoidance	
Charles Street Tot Lot	Remove Spring horse and replace with something that meets safety requirements	2 - Risk Avoidance	
Charles Street Tot Lot	Replace excavator, fill box with pea gravel	2 - Risk Avoidance	
Charles Street Tot Lot	Remove garden bed	2 - Risk Avoidance	
Charles Street Tot Lot	Sidewalk panel replacement	2 - Risk Avoidance	
Edith Hefley Tot Lot	Replace excavator & border	2 - Risk Avoidance	
Carrie Mattingley Tot Lot	Fix fall surface	2 - Risk Avoidance	
Recreation Park	Tree trimming and removal	2 - Risk Avoidance	
Recreation Park	Basketball Court replace or seal	2 - Risk Avoidance	
Recreation Park	Stairs behind backstop, fix for safety.	2 - Risk Avoidance	
Spanish War Memorial	Sidewalk repair	2 - Risk Avoidance	
Candy Cane Park	Tree trimming and removal	2 - Risk Avoidance	
Candy Cane Park	New border around playground	2 - Risk Avoidance	
Candy Cane Park	Look at options to fix slide	2 - Risk Avoidance	
Candy Cane Park	Have building department check bath house for structural safety	2 - Risk Avoidance	
Candy Cane Park	Replace fall surface on playground	2 - Risk Avoidance	
Parkridge	Look at fix for electrical pit near baseball diamond.	2 - Risk Avoidance	
Parkridge	Repair gate at ball diamond	2 - Risk Avoidance	
Parkridge	Repair light fixtures at Pavillion	2 - Risk Avoidance	
Parkridge	Repair chimney at Pavillion	2 - Risk Avoidance	
Parkridge	Provide concrete slab repairs at Pavillion	2 - Risk Avoidance	
Parkridge	Paint brick where there is graffiti	2 - Risk Avoidance	
Parkridge	Install outlet covers	2 - Risk Avoidance	
Parkridge	Cover holes in pavillion wall	2 - Risk Avoidance	
Parkridge	Seal and repaint tennis and basketball courts	2 - Risk Avoidance	
Parkridge	Repair fence	2 - Risk Avoidance	
Waterworks	Replace/Fix bollards in parking lot	2 - Risk Avoidance	
Waterworks	New roof on pavillion	2 - Risk Avoidance	
Waterworks	Replace fascia boards on pavillion	2 - Risk Avoidance	
Penninsular	Kayak Launch Concrete Repairs	3 - Strategic	
Penninsular	Invasive Species Removal	3 - Strategic	
Penninsular	Redeck Dock	3 - Strategic	
Prospect	Install Sidewalks along Oak St.	3 - Strategic	
Prospect	Tree Succession Planning	3 - Strategic	
Prospect	Sand an paint pavillion near playground (look at potential for replacement)	3 - Strategic	
Prospect	Provide ADA access to parking lot	3 - Strategic	
Prospect	Install locator sign for Prospect Park	3 - Strategic	
Prospect	Pathway between pathway and parking lot	3 - Strategic	
Charles Street Tot Lot	Add trash can	3 - Strategic	
Edith Hefley Tot Lot	New Garbage Can	3 - Strategic	
Edith Hefley Tot Lot	Fix post peace sign	3 - Strategic	
Carrie Mattingley Tot Lot	New sign	3 - Strategic	
Carrie Mattingley Tot Lot	LED light replacement	3 - Strategic	
Recreation Park	Remove or repair lights around ball park	3 - Strategic	
Recreation Park	Repair or replace fences in park	3 - Strategic	
Recreation Park	Pathway repairs, paving or installation for loop	3 - Strategic	
Recreation Park	ADA Ramp to Woods St.	3 - Strategic	
Recreation Park	Trash Can replacement	3 - Strategic	
Recreation Park	Remove Grills	3 - Strategic	
Spanish War Memorial	Signage for Park	3 - Strategic	
Candy Cane Park	Provide ADA accessible pathways to playground	3 - Strategic	
Candy Cane Park	Rehab Tennis Courts	3 - Strategic	
Parkridge	Add handicap access to park.	3 - Strategic	
Parkridge	Replace Trash cans	3 - Strategic	
Parkridge	Add sand to horseshoes	3 - Strategic	

2019-20 Park Assessment Capital Project List			
Park	Project	Prioritization	Estimated Cost
Parkridge	CDBG Funding for new playground	3 - Strategic	
Parkridge	Provide repairs to path around park	3 - Strategic	
Waterworks	Baseball backstop removal	3 - Strategic	
Waterworks	Re-Paint metal on pavillion	3 - Strategic	
Waterworks	Add trash cans to park	3 - Strategic	
Waterworks	Add signage for disc golf course	3 - Strategic	
Waterworks	Brushhog and tree removal for disc golf course	3 - Strategic	
Waterworks	Repair and add asphalt pathway where necessary	3 - Strategic	
Penninsular	Remove Pumps	4 - Added Value	
Penninsular	Walking Trail Through Park	4 - Added Value	
Penninsular	Playground Installation	4 - Added Value	
Prospect	Demo Small Building	4 - Added Value	
Prospect	Identify Plan for Baseball Field Area	4 - Added Value	
Prospect	Park bench replacement plan	4 - Added Value	
Prospect	Pave parking lot.	4 - Added Value	
Prospect	Grade ball field	4 - Added Value	
Carrie Mattingley Tot Lot	Look at potential for relocation	4 - Added Value	
Spanish War Memorial	Trash Can	4 - Added Value	
Spanish War Memorial	Install a bench	4 - Added Value	
Spanish War Memorial	Restore Fence with Dominos	4 - Added Value	
Candy Cane Park	Reach out to the Litte League to discuss ballpark improvements	4 - Added Value	
Candy Cane Park	Upgrade scoreboard to LED.	4 - Added Value	
Parkridge	Remove sand volleyball pit	4 - Added Value	
Parkridge	Potential rain garden on west side of tennis courts.	4 - Added Value	



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title Crack Sealing Project: Minor Roads	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Crack sealing is a preventative maintenance measure which adds life to existing roads by preventing water from seeping into cracks in the pavement. If water gets into cracks in the pavement it can erode the base accelerating the deterioration of the road. Crack sealing will occur through various locations in the city based on the passer ratings.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Preventative maintenance extends the life of a road and is a preventative measure to prevent deterioration.

Schedule

Estimated start date and completion date
Project will occur each year during the road construction season.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Available Funds

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title Crack Sealing Project: Major Roads	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Crack sealing is a preventative maintenance measure which adds life to existing roads by preventing water from seeping into cracks in the pavement. If water gets into cracks in the pavement it can erode the base accelerating the deterioration of the road. Crack sealing will occur through various locations in the city based on the passer ratings.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Preventative maintenance extends the life of a road and is a preventative measure to prevent deterioration.

Schedule

Estimated start date and completion date Project will occur each year during the road construction season.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Available Funds

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

32**FY2020/2021
through
FY2026/2027**

Project

Title Road Project: Cornell from Kingwood to Huron River Drive	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Road reconstruction project of Cornell from Kingwood to Huron River Drive. Project will be funded using federal funds and local Act 51 dollars.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Road project is listed in WATS Long Range Plan.

Schedule

Estimated start date and completion date
2025

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:						\$272,000	
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other						\$1,088,000	
TOTAL						\$1,360,000	

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
WATS Long Range Plan

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title Road Project: Harriet St from 1st to Hawkins	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Road reconstruction project of Harriet from 1st to Hawkins. Project will be funded using federal funds and local Act 51 dollars.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Road project is listed in WATS Long Range Plan.

Schedule

Estimated start date and completion date 2024
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:					\$219,000		
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other					\$700,000		
TOTAL					\$919,000		

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
WATS Long Range Plan

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title Road Project: Harriet St from Hawkins to Huron	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Road reconstruction project of Harriet from Hawkins to Huron. Project will be funded using federal funds and local Act 51 dollars.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Road project is listed in WATS Long Range Plan.

Schedule

Estimated start date and completion date 2026
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							\$158,000
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							\$632,000

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
WATS Long Range Plan

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

35**FY2020/2021**
through
FY2026/2027

Project

Title Road Project: N. Washington St. from W. Cross to Emmet	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Road Project using Washtenaw County road millage funds for 2022.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Funds will need to be spent on road dollars. These funds are Ypsilanti's allocation from the road millage. Based on City Council recommendations.

Schedule

Estimated start date and completion date 2022
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other			\$99,200				
TOTAL			\$99,200				

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Available Funds, Engineer quote

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title Road Project: N. Huron River Drive from Cornell to Leforge	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Road reconstruction project of N. Huron River Drive from Cornell to Leforge. Project will be funded using federal funds and local Act 51 dollars.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Road project is listed in WATS TIP for 2023 year and federal funding has been allocated. This is a high priority project.

Schedule

Estimated start date and completion date
Design will commence in 2021-2022. Construction will occur in 2023.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:				\$1,160,000			
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other				\$2,062,000			
TOTAL				\$3,222,000			

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Engineer provided cost estimate.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title Road Project: Oakwood from Sherman to Congress	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Road Project using Washtenaw County road millage funds for 2021.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Funds will need to be spent on road dollars. These funds are Ypsilanti's allocation from the road millage. Based on City Council recommendations.

Schedule

Estimated start date and completion date 2021
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:		\$86,200					
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other		\$125,000					
TOTAL		\$211,200					

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Available Funds, Engineer quote

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title Road Project: S. Adams St. from Michigan Ave to Catherine St	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Road Project using Washtenaw County road millage funds for 2023 & 2024.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Funds will need to be spent on road dollars. These funds are Ypsilanti's allocation from the road millage. Based on City Council recommendations.

Schedule

Estimated start date and completion date 2024
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:					\$44,400		
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other					\$250,000		
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Available Funds, Engineer quote

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title Road Project: W. Cross from Courtland to Wallace	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Road reconstruction project of W. Cross from Courtland to Wallace. Project will be funded using federal funds as local match.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Road project is listed in WATS TIP for this year and federal funding has been allocated. This is a high priority project.

Schedule

Estimated start date and completion date
Design has been completed. Construction should begin in June 2020.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$280,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other	\$1,105,000						
TOTAL	\$1,385,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Engineer provided cost estimate.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title Road Project: E Cross	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? First request	

Description and Location

Road Project using Washtenaw County road millage funds for 2019.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Funds will need to be spent on road dollars. These funds are Ypsilanti's allocation from the road millage.
--

Schedule

Estimated start date and completion date 2020
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$75,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other	\$125,000						
TOTAL	\$200,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Available Funds

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
N/A



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title ADA Sidewalk Ramp Replacement Program	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

Per the Consent Decree between the City of Ypsilanti and the Ann Arbor Center for Independent Living, the City will spend at least \$100,000 each year to convert non-compliant ADA ramps to ADA compliant ramps.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
This is part of a Consent Decree that has been entered into by the City. It is legally required.

Schedule

Estimated start date and completion date
Design will start in July of each year with actual construction occurring in late summer/early fall.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

N/A

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Bond Issue							
Grant Name:	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Special Assessment							
Millage							
Other	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
TOTAL	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000	\$120,000

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
\$50,000 from CDBG Grant, \$50,000 from METRO Act Funds, \$20,000 from Fund Balance for Design

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Project is legally required to continue at this rate until all sidewalk ramps in the city are ADA compliant. Eventual sidewalk replacement may be necessary in the future.



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #612 - Rear Loader Recycling/Yard Waste Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle to perform curbside recycling and yard waste pick-up.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? This is a scheduled vehicle replacement. This vehicle is needed to perform recycling and yard waste pick-up.
--

Schedule

Estimated start date and completion date Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:			\$233,000				
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL			\$233,000				

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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through
FY2026/2027**

Project

Title Vehicle Replacement #603 - 10 CY Rear Packer	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle to perform trash pickup in the downtown areas and City parks. This vehicle will also be used for recycling pick up in the downtown areas and City parks if the proposal is approved by City Council.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? This is a scheduled vehicle replacement. The City has a contract with the DDA to provide trash pick-up services in the downtown areas.
--

Schedule

Estimated start date and completion date Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$80,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$80,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #128 - Bobcat Loader w/ Bucket	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

Bobcat Loaders are used by our Roads Division employees to perform various maintenance duties such as parking lot snow removal and construction related operations. This is a scheduled replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
This is a schedule replacement of an existing vehicle.

Schedule

Estimated start date and completion date
Vehicle will be purchased upon approval by proper authority.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:			\$66,000				
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL			\$66,000				

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #642 - Brush Chipper	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

The brush chipper is used to chip branches and tree limbs on site for tree removal. This is a scheduled equipment replacement.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? This is a schedule replacement of existing equipment.

Schedule

Estimated start date and completion date Vehicle will be purchased upon approval by proper authority.
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:			\$50,000				
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL			\$50,000				

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
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Project

Title Vehicle Replacement #22 - Chevrolet Impala	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

Chevrolet Impala is used by city hall employees for various tasks which requires travel. This is a scheduled vehicle replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Vehicle is fifteen (15) years old and beyond its useful life. Replacement is recommended.

Schedule

Estimated start date and completion date
Vehicle will be purchased upon approval by proper authority.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

eight (8) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$28,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$28,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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Project

Title Vehicle Replacement #C-10 - Ford Tarus	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

Ford Taurus is used by the City Manager for travel for their daily activities.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Vehicle is fifteen (12) years old and beyond its useful life. Replacement is recommended.

Schedule

Estimated start date and completion date Vehicle will be purchased upon approval by proper authority.
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

eight (8) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$36,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$36,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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Project

Title Vehicle Replacement #102 - Ford Escape	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

Ford Escape is used by the DPS Director for their daily responsibilities.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? This is a scheduled replacement.
--

Schedule

Estimated start date and completion date Vehicle will be purchased upon approval by proper authority.
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

eight (8) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:				\$28,000			
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL				\$28,000			

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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Project

Title Vehicle Replacement #104 - Dump Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

Stake trucks are used by our Roads Division employees to perform various maintenance duties such as pothole filling, reconstruction of storm drains, snow removal etc. This is a scheduled replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? This is a schedule replacement of an existing vehicle.
--

Schedule

Estimated start date and completion date Vehicle will be purchased upon approval by proper authority.
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

eight (8) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:					\$60,000		
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL					\$60,000		

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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Project

Title Vehicle Replacement #108 - Dump Truck - Salt Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle for snow and ice removal operations. Our fleet consists of five (5) trucks and these vehicles are primarily used during the winter months.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? The City has obligations to perform snow and ice removal on City owned roads to prevent automotive related injuries. The City also has a contract with the State of Michigan to provide snow and ice removal on the State trunklines within the City.

Schedule

Estimated start date and completion date
Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:			\$176,000				
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL			\$176,000				

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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Project

Title Vehicle Replacement #109 - Dump Truck - Salt Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle for snow and ice removal operations. Our fleet consists of five (5) trucks and these vehicles are primarily used during the winter months.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? The City has obligations to perform snow and ice removal on City owned roads to prevent automotive related injuries. The City also has a contract with the State of Michigan to provide snow and ice removal on the State trunklines within the City.

Schedule

Estimated start date and completion date
Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:					\$176,000		
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL					\$176,000		

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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through
FY2026/2027

Project

Title Vehicle Replacement #111 - Dump Truck - Salt Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle for snow and ice removal operations. Our fleet consists of five (5) trucks and these vehicles are primarily used during the winter months.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
The City has obligations to perform snow and ice removal on City owned roads to prevent automotive related injuries. The City also has a contract with the State of Michigan to provide snow and ice removal on the State trunklines within the City.

Schedule

Estimated start date and completion date
Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:					\$176,000		
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL					\$176,000		

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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Project

Title Vehicle Replacement #112 - Dump Truck - Salt Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle for snow and ice removal operations. Our fleet consists of five (5) trucks and these vehicles are primarily used during the winter months.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? The City has obligations to perform snow and ice removal on City owned roads to prevent automotive related injuries. The City also has a contract with the State of Michigan to provide snow and ice removal on the State trunklines within the City.

Schedule

Estimated start date and completion date Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:						\$176,000	
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL						\$176,000	

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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Project

Title Vehicle Replacement #443 - Garden Tractor	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

The Garden Tractor is used to perform lawn maintenance and grass cutting on City owned properties. This is a scheduled replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
This is a scheduled replacement.

Schedule

Estimated start date and completion date
Vehicle will be purchased upon approval by proper authority.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:					\$15,000		
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL					\$15,000		

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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Project

Title Vehicle Replacement #443 - Garden Tractor	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

The Garden Tractor is used to perform lawn maintenance and grass cutting on City owned properties. This is a scheduled replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
This is a scheduled replacement.

Schedule

Estimated start date and completion date
Vehicle will be purchased upon approval by proper authority.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:					\$15,000		
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL					\$15,000		

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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Project

Title Vehicle Replacement #444 - Garden Tractor	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

The Garden Tractor is used to perform lawn maintenance and grass cutting on City owned properties. This is a scheduled replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
This is a scheduled replacement.

Schedule

Estimated start date and completion date
Vehicle will be purchased upon approval by proper authority.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							\$15,000
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							\$15,000

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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Project

Title Vehicle Replacement #473 - Grapple Truck w/ Dump Body	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle to assist in tree removal operations. For large tree trunks or other large heavy items it allows DPS staff to mechanically lift them with a hydraulic arm to avoid injuries from heavy lifting and reduce time streets are blocked off due to a fallen tree or post.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Reducing lifting injuries and reducing the time to clear roads from fallen trees and utility poles.

Schedule

Estimated start date and completion date
Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:		\$225,000					
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL		\$225,000					

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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Project

Title Vehicle Replacement #607 - Recycling/Yard Waste Rear Load Packer Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle to perform curbside recycling and yard waste pick-up.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? This is a scheduled vehicle replacement. This vehicle is needed to perform recycling and yard waste pick-up.
--

Schedule

Estimated start date and completion date Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:					\$233,000		
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL					\$233,000		

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #122 - Signal Shop Aerial Lift Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle for our signal shop to replace street signs and repair traffic signals. The truck has an aerial lift on it for the operator to perform work in the air. This is a scheduled replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
The City is required to provide road signage and maintain our traffic signals. Not doing so would be negligent.

Schedule

Estimated start date and completion date
Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							\$90,000
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							\$90,000

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #129 - Small Loader w/ Bucket	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle for snow removal on city sidewalks and small construction operations. This is a scheduled replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Removing snow from city sidewalks will improve pedestrian safety. Having equipment that performs this task is essential to meet the goals of the city's snow removal policy.

Schedule

Estimated start date and completion date
Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							\$75,000
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							\$75,000

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #126 - Stake Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

Stake trucks are used by our Roads Division employees to perform various maintenance duties such as pothole filling, reconstruction of storm drains, etc. This is a scheduled replacement.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? This is a schedule replacement of an existing vehicle.
--

Schedule

Estimated start date and completion date Vehicle will be purchased upon approval by proper authority.
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

eight (8) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:		\$60,000					
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL		\$60,000					

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #452 - Stake Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

Stake trucks are used by our Roads Division employees to perform various maintenance duties such as pothole filling, reconstruction of storm drains, etc. This is a scheduled replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
This is a schedule replacement of an existing vehicle.

Schedule

Estimated start date and completion date
Vehicle will be purchased upon approval by proper authority.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

eight (8) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:			\$60,000				
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL			\$60,000				

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #131 - Stake Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

Stake trucks are used by our Roads Division employees to perform various maintenance duties such as pothole filling, reconstruction of storm drains, etc. This is a scheduled replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
This is a schedule replacement of an existing vehicle.

Schedule

Estimated start date and completion date
Vehicle will be purchased upon approval by proper authority.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

eight (8) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:				\$60,000			
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL				\$60,000			

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #139 - Street Sweeper	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle to sweep and clean streets within the City. We are obligated to do this under the City's MS4 permit which permits the City to discharge storm water from the City's storm sewer system to the Huron River. This vehicle sweeps along the curb of a road vacuuming sediment and debris to prevent it from entering the storm sewer system. This is a scheduled vehicle replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
The City is required to sweep the streets in the spring and the fall under our MS4 permit. Cleaning the streets prevents blockages in the City's storm sewer system and it also reduces the amount of pollution that enters the Huron River.

Schedule

Estimated start date and completion date
Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$240,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$240,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #142 - Street Sweeper	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle to sweep and clean streets within the City. We are obligated to do this under the City's MS4 permit which permits the City to discharge storm water from the City's storm sewer system to the Huron River. This vehicle sweeps along the curb of a road vacuuming sediment and debris to prevent it from entering the storm sewer system. This is a scheduled vehicle replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
The City is required to sweep the streets in the spring and the fall under our MS4 permit. Cleaning the streets prevents blockages in the City's storm sewer system and it also reduces the amount of pollution that enters the Huron River.

Schedule

Estimated start date and completion date
Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:				\$240,000			
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL				\$240,000			

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



City of Ypsilanti Capital Project Request Form

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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #103 - Pick-Up Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS Supervisor pick up truck to perform various work tasks in the city. This is a scheduled vehicle replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Scheduled replacement of a Supervisor's work vehicle.

Schedule

Estimated start date and completion date
Vehicle will be purchased upon approval by proper authority.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

eight (8) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$33,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$33,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #610 - Environmental Foreman Pick-Up Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS Supervisor pick up truck to perform various work tasks in the city. This is a scheduled vehicle replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Scheduled replacement of a Supervisor's work vehicle.

Schedule

Estimated start date and completion date
Vehicle will be purchased upon approval by proper authority.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

eight (8) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:						\$33,000	
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL						\$33,000	

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
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Project

Title Vehicle Replacement #101 - Pick-Up Truck	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS Supervisor pick up truck to perform various work tasks in the city. This is a scheduled vehicle replacement.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Scheduled replacement of a Supervisor's work vehicle.

Schedule

Estimated start date and completion date
Vehicle will be purchased upon approval by proper authority.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
N/A

Estimated Service Life

eight (8) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:						\$33,000	
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL						\$33,000	

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
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Project

Title Vehicle Replacement #441 - Utility Vehicle	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

DPS utilizes this vehicle for snow removal on city sidewalks. This is a scheduled replacement.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Removing snow from city sidewalks will improve pedestrian safety. Having equipment that performs this task is essential to meet the goals of the city's snow removal policy.
--

Schedule

Estimated start date and completion date Once ordered the vehicle will be built and delivered to the City.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							\$25,000
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL							\$25,000

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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FY2020/2021
through
FY2026/2027

Project

Title Vehicle Replacement #448 - Wide Area Mower	
Department Public Services	Prepared by/Contact for questions Ron Akers - Director of Public Services
Is this the first request, or was this in last years' CIP/budget? In last year's CIP	

Description and Location

Wide Area Mower is one of the mowers used to cut grass in City parks and on other City owned properties.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Scheduled replacement of grass cutting equipment. Cutting grass limits insects and ensures compliance with City ordinances.

Schedule

Estimated start date and completion date Vehicle will be purchased upon approval by proper authority.
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship N/A
--

Estimated Service Life

ten (10) years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$60,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$60,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimate from City mechanics

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Annual expenses of operating this vehicle include fuel, charge backs to the motorpool fund, insurance, etc. Replacing vehicles at regular intervals does save the city money with regards to maintenance and repair costs. Newer vehicles have less maintenance and repair expenses than older vehicles.



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through
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Project

Title 3rd Floor Remodel	
Department Community and Economic Development	Prepared by/Contact for questions Joe Meyers
Is this the first request, or was this in last years' CIP/budget? 1st Request	

Description and Location

The third floor of City Hall was reorganized in 2019 for better efficiency and communication. This has been a very successful initiative, however some reconfiguration of workspaces is still needed. We are looking to take down a couple non load bearing walls to open up space in the Code Enforcement office and Planning Department.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
We consider this a key priority in the department to achieve better efficiency and improve work flow between staff. Space is tight on the 3rd floor and we need to open things up.

Schedule

Estimated start date and completion date
08/01/2020-08/31/2020

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
This CIP is independent.

Estimated Service Life

5-10 years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	\$40,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	\$40,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Quotes to be provided

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

This project should save staff time and improve the appearance and functionality of our work spaces.



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FY2020/2021
through
FY2026/2027

Project

Title Vehicle for Ordinance Officer	
Department Community and Economic Development	Prepared by/Contact for questions Joe Meyers
Is this the first request, or was this in last years' CIP/budget? 1st request	

Description and Location

Jamaica Berry uses a 2011-2012 Escape currently and we would like to replace that vehicle for Code Enforcement
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? A new vehicle for code enforcement is essential to public safety, health, and welfare. A newer vehicle will be more gas efficient and allow code enforcement officers the reliable transportation they need to do their jobs. It is a priority for the Department and the job of code enforcement helps improve accessibility and remove blight citywide.
--

Schedule

Estimated start date and completion date 08/01/2020
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship There may be cost savings if the vehicle we are requesting is part of a larger purchase pool with other departments such as Police or DPS.
--

Estimated Service Life

5-8 years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	20,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	20,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
MSRP- \$24,885

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

Save us money in the long run by replacing a vehicle that will soon need expensive repairs with one that is more gas efficient.



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FY2020/2021
through
FY2026/2027

Project

Title Tablets and Software	
Department Building Department and Code Enforcement	Prepared by/Contact for questions Joe Meyers
Is this the first request, or was this in last years' CIP/budget? 1st request	

Description and Location

The building department and code enforcement could use better technology in the field. Tablets and new software could allow them to better track relevant metrics, take notes, and share those details in real time in a centralized information portal.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
This will improve record keeping and coordination between staff in the building department and code enforcement. The current methods we use in the field are somewhat archaic and this new technology would help those staff in the field be more effective and share information collaboratively.

Schedule

Estimated start date and completion date
07/15/2020-07/31/2020

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
This project is independent of other project unless the new vehicle for code enforcement can somehow integrate with the new tablets and software.

Estimated Service Life

3-5 years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	20,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	20,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
MSRP- \$24,885

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

Save us money in the long run by replacing a vehicle that will soon need expensive repairs with one that is more gas efficient.



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Project

Title Amtrak Train Stop	
Department DPS	Prepared by/Contact for questions
Is this the first request, or was this in last years' CIP/budget? Last year's	

Description and Location

Council resolution 2019-242. Estimated cost of \$4.6m, committed \$1,529,000, did not specify account

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Strategic- master plan
--

Schedule

Estimated start date and completion date Unknown, grant-dependent; aim 2022.

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship Maple Street parking lot rights acquisition
--

Estimated Service Life

Forever

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:		1529000					
Bond Issue							
Grant Name:		3,171,000					
Special Assessment							
Millage							
Other							
TOTAL		4,700,000					

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Engineers' estimate

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Adds upkeep expenses (new facility).



City of Ypsilanti Capital Project Request Form

75

FY2020/2021
through
FY2026/2027

Project

Title Peninsular Dam Removal	
Department DPS	Prepared by/Contact for questions
Is this the first request, or was this in last years' CIP/budget? Last year's	

Description and Location

Council resolution 2019-101. Estimated cost of \$2.7m, committed \$500,000, did not specify account

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Mandatory to remove or repair.
--

Schedule

Estimated start date and completion date Unknown, grant-dependent
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship Other projects in Pen Park may be affected.
--

Estimated Service Life

Forever

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other	2,700,000						
TOTAL							

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Princeton Hydro feasibility report

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Will reduce expenses in the long-run- no maintenance costs.



City of Ypsilanti Capital Project Request Form

76

FY2020/2021
through
FY2026/2027

Project

Title Parking - Pavement Maintenance Projects	
Department DPS	Prepared by/Contact for questions Bonnie Wessler
Is this the first request, or was this in last years' CIP/budget? First	

Description and Location

Central Business District - Depot Town - Freighthouse lot repairs

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Strategic/risk management. Improve condition of pavement to provide safe parking/walking experience.
--

Schedule

Estimated start date and completion date spring 2021

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship independent
--

Estimated Service Life

n/a

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)	75,000						
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	75,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Will repair per available funds.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
mitigate current cold-patch and drain cleaning expenses. Encourage people to pay to park in this lot.



City of Ypsilanti Capital Project Request Form

77

FY2020/2021
through
FY2026/2027

Project

Title Parking - Pavement Maintenance Projects	
Department DPS	Prepared by/Contact for questions Bonnie Wessler
Is this the first request, or was this in last years' CIP/budget? First	

Description and Location

Central Business Districts - Lot Repairs (annual savings/spend)

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Strategic/risk management. Improve condition of pavement to provide safe parking/walking experience.
--

Schedule

Estimated start date and completion date annual/ongoing
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship independent
--

Estimated Service Life

n/a

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)		50,000	50,000	50,000	50,000	50,000	50,000
Fund Balance G/L:							
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL			50,000	50,000	50,000	50,000	50,000

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Will repair per available funds.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
mitigate current cold-patch and drain cleaning expenses. Encourage people to pay to park in lot.



City of Ypsilanti Capital Project Request Form

FY2020/2021
through
FY2026/2027

Project

Title Public Recycling Cans	
Department DPS	Prepared by/Contact for questions Bonnie Wessler
Is this the first request, or was this in last years' CIP/budget? First	

Description and Location

Public recycling cans in the parks and central business district.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Strategic

Schedule

Estimated start date and completion date 2020/21

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship n/a
--

Estimated Service Life

10 years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	36000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other	180000						
TOTAL	216,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
cost estimate

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Will add expenses; additional Equipment Operator position will be needed.



City of Ypsilanti Capital Project Request Form

79

FY2020/2021
through
FY2026/2027

Project

Title Hamilton/Huron/Washtenaw Lane Reduction	
Department DPS	Prepared by/Contact for questions Bonnie Wessler
Is this the first request, or was this in last years' CIP/budget? First	

Description and Location

Construction of a bike lane and/or on-street parking in lieu of a lane of traffic.

MDOT is leading this project. The City may be responsible for the costs of the lane reduction beyond the regular costs of their programmed road maintenance- additional striping, green paint, and potential curb relocation in one location south of Harriet.

NOTE: costs are not yet certain and will be negotiated with MDOT.

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department?
Risk mitigation. Will improve safety and nonmotorized connectivity.

Schedule

Estimated start date and completion date
MDOT fiscal 2022 (October 2021+)

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship
Coordinated with 94 nonmotorized crossing

Estimated Service Life

n/a

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:		200,000					
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL		200,000					

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/

Estimate provided by MDOT. Includes bike lane paint and new ADA ramps/crossings.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?

Neither (same amount of pavement).



City of Ypsilanti Capital Project Request Form

80

FY2020/2021
through
FY2026/2027

Project

Title Parkridge Kitchen	
Department DPS	Prepared by/Contact for questions Bonnie Wessler
Is this the first request, or was this in last years' CIP/budget? First	

Description and Location

Parkridge Community Center kitchen; updates to existing to allow for commercial food preparation/distribution.
--

Justification & Priority within the department

Is the City legally required to do this? Will it improve safety? Is it part of the Master Plan or another plan or policy? Is it a priority of your department? Strategic. The kitchen is presently unable to serve as a hot meal distribution site. Community partners have completed some scoping and fundraising.
--

Schedule

Estimated start date and completion date 2020
--

Coordination

Identify if the project is dependent upon other project(s) in the CIP and describe the relationship n/a
--

Estimated Service Life

10 years

Total Estimated Cost

Revenue Source	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Operating Revenue (fees, etc)							
Fund Balance G/L:	10,000						
Bond Issue							
Grant Name:							
Special Assessment							
Millage							
Other							
TOTAL	10,000						

Basis of Cost Estimate

Cost of comparable facility/equipment, cost estimate or quote from engineer/
Estimation to complete based on donated labor and previous fundraising.

Longer-Term Impact on Operating Expenses

Will this project add upkeep expenses, save us money in the long-term, or neither?
Neither



REQUEST FOR LEGISLATION

TO: Mayor and City Council
FROM: Bonnie Wessler
DATE: June 2, 2020
SUBJECT: Candy Cane Playground Bids

DESCRIPTION:

Candy Cane Playground Bids

SUMMARY:

Earlier this year, the City identified Candy Cane Park's playground equipment as a priority for replacement. The product line has been discontinued, and replacement parts cannot be obtained; this is a significant issue as some parts are in need of replacement. Given the success of the new Liz Dahl MacGregor playground at Riverside Park, staff identified elements from that installation that would help ensure the success of the Candy Cane playground, including a ramp for accessibility (in lieu of steps with a transfer point), a concrete mow strip, and accessible surfacing. In addition, staff encouraged potential bidders to include in their proposal relocation of the play area south, closer to Roosevelt Street, to improve visibility and accessibility. Staff set aside \$75,000 of the parks capital fund (2019-2020) for this improvement, with a target completion of this budget year. This timeline will not be met due to the complications brought about by COVID-19, but the project can be completed this summer.

Staff received five responses to the request for proposals, and submitted them to the Parks and Recreation Commission (PRC) at their 5/12 meeting. Although the bidders submitted some truly engaging play structure ideas, many were deficient. One submitted for an incorrect age range (ages 2-5, Penchura/Landscape Structures), did not address the tot swing relocation (Great Lakes Recreation/Little Tikes, PlayPower/Miracle Midwest), or left the play structure at the top of the hill (Sinclair/GameTime). After review of the potential locations and likely budget constraints in the future, the PRC expressed a strong preference for locating the play area to the south of the park, as the construction of an accessible path would be less costly. The PRC reviewed each proposal, and recommends that City Council award the bid to Play Environments, Inc, for their option 2. This option incorporates a ramp, play elements for children ages 2-12, the concrete border and accessible surfacing, locates the play area in the southern portion of the park, and relocates the tot swings to this location as well, for a total of \$74,994. The full

bids can be viewed here:

<https://cityofypsilanti.com/AgendaCenter/ViewFile/Agenda/05122020-1383?html=true>

RECOMMENDED ACTION: Approval

ATTACHMENTS: Bid Tab, Bid summaries, Parks & Recreation Commission resolution

CITY MANAGER APPROVAL: _____ COUNCIL AGENDA DATE: _____

CITY MANAGER COMMENTS: _____

FISCAL SERVICES DIRECTOR APPROVAL: _____



Resolution No. 2020-124
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

Whereas, the City released a Request for Proposals to replace outdated play equipment at Candy Cane Park in February of this year with an option to relocate it; and

Whereas, five complete bids were received in a timely fashion; and

Whereas, the lowest well-qualified bid was submitted by Play Environments, option 2, for \$74,994; and

Now therefore be it resolved that the City Council award the bid submitted by Play Environments for option 2-, with funds to be allocated from the existing Parks Capital Fund, budget year 2019-20, account 414-7-7510-970-00.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-124



Candycane Park Equipment

**Bid Opening – Tally Sheet
March 20, 2020
2:00 p.m.**

Company	Proposal
Play environments design LLC	74,995
Penchura	74,977
Great Lakes Rec	75,000
Playpower	73,229.02/74,999.56
Sinclair	75,000

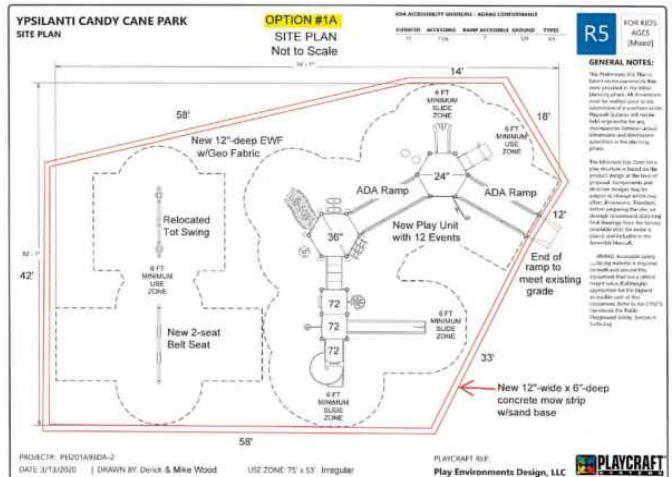
Play Environments Design

Holland, Michigan

Option 1A: \$74,995

- Uphill location, will move tot swing closer
- Designed age range: 2-12
- Timeline: 6-8 weeks
- Warranty: 1/3/5/10/15/25/lifetime warranty (see full bid)
- play equipment: \$44,500
 - o 12 events, 11 of which elevated

Elevated	Accessible	Ramp Accessible	Ground	Types
11	11/6	7	1/0	1/3



1- Play Environments

YPSILANTI CANDY CANE PARK
SW VIEW

OPTION #1A

R5

FOR KIDS
AGES
2-12



STRUCTURE#: R5081F79A
PROJECT#: PEI201A93DA-2
DATE: 3/13/2020 | DRAWN BY: Derick



YPSILANTI CANDY CANE PARK
NE VIEW

OPTION #1A

R5

FOR KIDS
AGES
2-12



STRUCTURE#: R5081F79A
PROJECT#: PEI201A93DA-2
DATE: 3/13/2020 | DRAWN BY: Derick



YPSILANTI CANDY CANE PARK SITE PLAN

OPTION #1A

SITE PLAN Not to Scale

ADA ACCESSIBILITY GUIDELINE - ADAAG CONFORMANCE

ELEVATED	ACCESSIBLE	RAMP ACCESSIBLE	GROUND	TYPES
11	11/6	7	5/0	3/3

R5

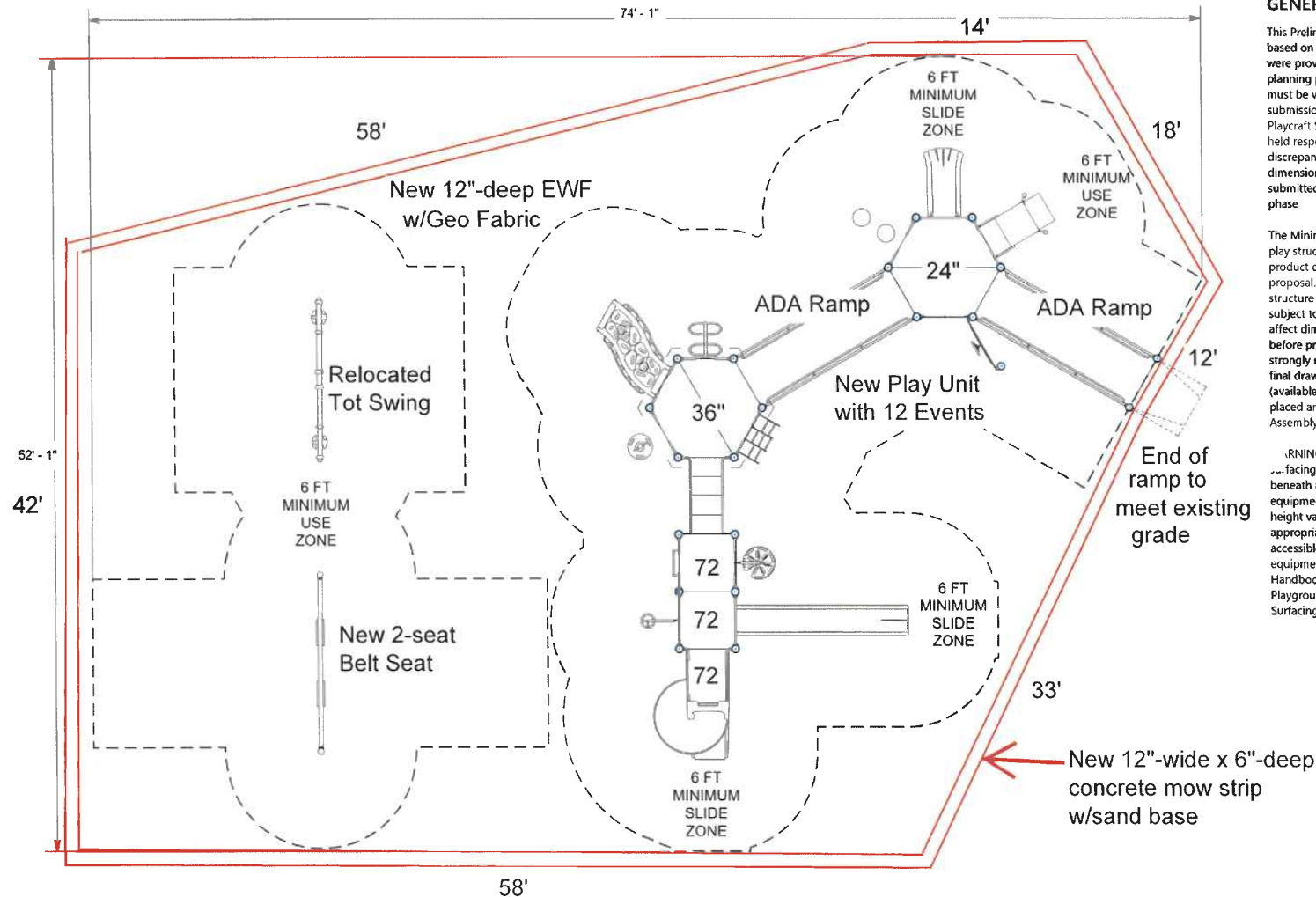
FOR KIDS
AGES
[Mixed]

GENERAL NOTES:

This Preliminary Site Plan is based on measurements that were provided in the initial planning phase. All dimensions must be verified prior to the submission of a purchase order. Playcraft Systems will not be held responsible for any discrepancies between actual dimensions and dimensions submitted in the planning phase.

The Minimum Use Zone for a play structure is based on the product design at the time of proposal. Components and structure designs may be subject to change which may affect dimensions. Therefore, before preparing the site, we strongly recommend obtaining final drawings from the factory (available after the order is placed and included in the Assembly Manual).

WARNING: Accessible safety surfacing material is required beneath and around this equipment that has a critical height value (Fall Height) appropriate for the highest accessible part of this equipment. Refer to the CPSC's Handbook For Public Playground Safety, Section 4: Surfacing.



PROJECT#: PEI201A93DA-2

DATE: 3/13/2020 | DRAWN BY: Derick & Mike Wood

USE ZONE: 75' x 53' Irregular

PLAYCRAFT REP:

Play Environments Design, LLC



YPSILANTI CANDY CANE PARK TOP VIEW

OPTION #1A

ADA ACCESSIBILITY GUIDELINE - ADAAG CONFORMANCE

ELEVATED	ACCESSIBLE	RAMP ACCESSIBLE	GROUND	TYPES
11	11/6	7	1/0	1/3

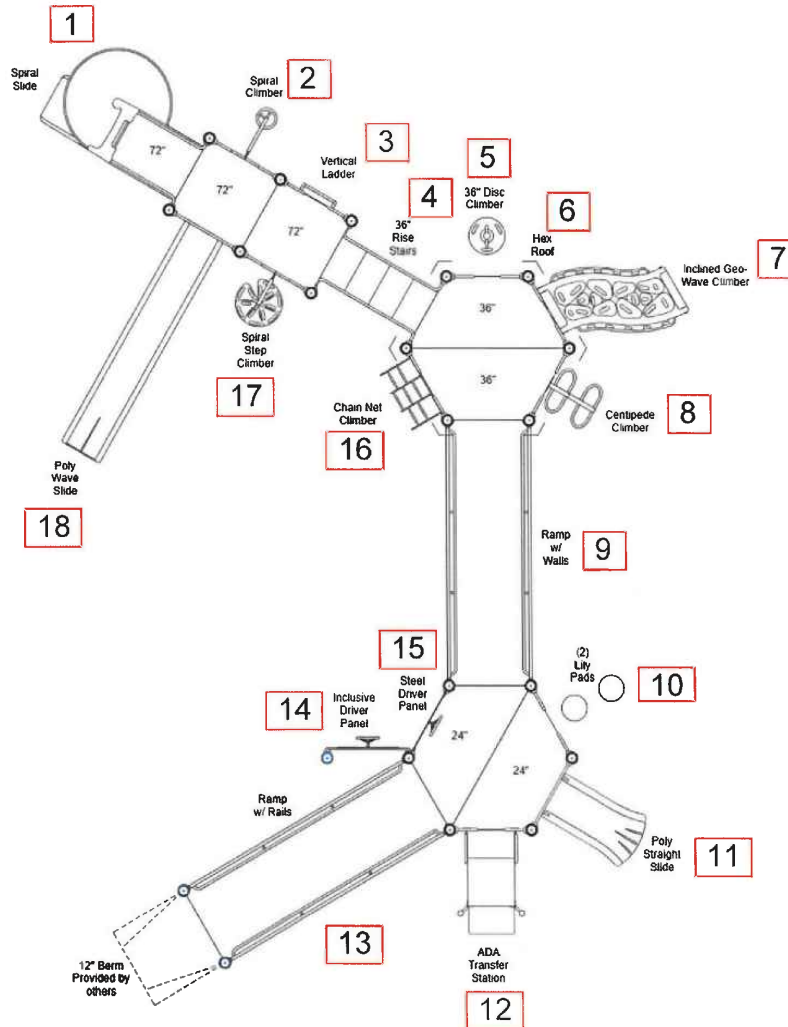
R5

FOR KIDS
AGES
2-12

GENERAL NOTES:

This conceptual plan is based on information provided prior to construction. Detailed site information, including the following, should be obtained, evaluated, and utilized in the final project design. Exact site dimensions, topography, existing utilities, soil conditions and drainage solutions.

WARNING: Accessible safety surfacing material is required beneath and around this equipment that has a critical height value (Fall Height) appropriate for the highest accessible part of this equipment. Refer to the CPSC'S Handbook For Public Playground Safety, Section 4: Surfacing



STRUCTURE#: R5081F79A

PROJECT#: PEI201A93DA-2

DATE: 3/13/2020 | DRAWN BY: Derick

MIN. USE ZONE: 42' x 53'

PLAYCRAFT REP:

Play Environments Design, LLC





OPTION #1A

Bill of Materials

YPSILANTI CANDY CANE PARK

Project# PEI201A93DA-2

3/13/2020

Item	Description	Quantity
R5081F79A		
HS-1004-R	Collars	48
GF-7002	Dome Cap, R5	15
S-1007-R5-07ft	Post, 07ft R5	1
S-1008-R5-08ft	Post, 08ft R5	2
S-1009-R5-09ft	Post, 09ft R5	6
S-1013-R5-13ft	Post, 13ft R5	6
S-1014-R5-14ft	Post, 14ft R5	6
S-1101-R5	Square Deck	2
S-1106-R5	Hex Deck, Half (4 Post)	4
S-1206-36R5	ADA Stairs, 36in Rise w/ Walls	1
S-1208-R-RAIL24	Ramp 144in (06-12in High w/ Rails, Inclined)	1
S-1208-R-WALL36	Ramp 144in (18-24in High w/ Walls, Inclined)	1
S-1209-12-HW-R5	Transfer Station, 24in-C (RHW)	1
S-1210-72	Climber, Vertical Ladder 66-72in	1
S-1220-3	Climber, Centipede 30-36in	1
S-1221-3	Climber, Chain Net 30-36in	1
S-1223-6R	Climber, Spiral 66-72in	1
S-1233-3-HW	Climber, Disc 30-36in (w/ HW)	1
S-1234-6R	Climber, Spiral Step 66-72in	1
S-1249-DGH	Climber, Incl. Geo-Wave 30-36in (Horiz, DTG Right)	1
S-1304-R5	Single Slide SitDown Wall	1
S-1309-2-R5	Half Walls (Pair) R5	6
S-1310-R5	Transition Wall	2
S-1414	Lily Pad Step 12-18in	2
S-1625-STL-R5	Driver Panel (Steel)	1



PLAYCRAFT®
S Y S T E M S

OPTION #1A

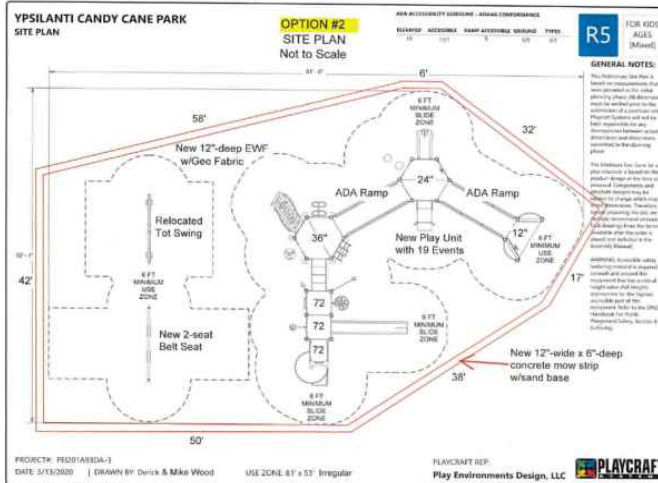
**Bill of Materials
(continued)**

Item	Description	Quantity
S-1628-R5	Inclusive Driver Panel (Ground)	1
S-1701-2R5V2	Slide, Single 24-30in (Straight)	1
S-1704-6	Slide, Wave 72in (Single)	1
S-1706-R5	Slide, Spiral 72in	1
S-1803-R5	Roof, Hex	1
HS-1100-2	Deck to Deck Hardware	3
FREPC2181		
A2-2181-2B	PC 2181-8 8ft Single Post Swing (2B)	1
FREPC2190		
A2-2190	PC 2190 T-Swing (2FB)	0

Option 2: \$74,994

- Downhill location, will relocate tot swing
- Designed age range: 2-12
- Timeline: 6-8 weeks
- play equipment: 48394
 - o 19 events (adds: bell panel pal, chinning bar; balcony deck w/inclusive driver panel, balcony deck w inclusive maze panel), 13 of which elevated

elevated	Accessible	Ramp accessible	ground	types
13	13/7	9	2/0	2/3



1- Play Environments

YPSILANTI CANDY CANE PARK
SW VIEW

OPTION #2

R5

FOR KIDS
AGES
2-12



STRUCTURE#: R50D975AA
PROJECT#: PEI201A93DA-3
DATE: 3/13/2020 | DRAWN BY: Derick



YPSILANTI CANDY CANE PARK
NE VIEW

OPTION #2

R5

FOR KIDS
AGES
2-12



STRUCTURE#: R50D975AA
PROJECT#: PEI201A93DA-3
DATE: 3/13/2020 | DRAWN BY: Derick



YPSILANTI CANDY CANE PARK SITE PLAN

OPTION #2 SITE PLAN Not to Scale

ADA ACCESSIBILITY GUIDELINE - ADAAG CONFORMANCE

ELEVATED	ACCESSIBLE	RAMP ACCESSIBLE	GROUND	TYPES
13	13/7	9	6/0	3/3

R5

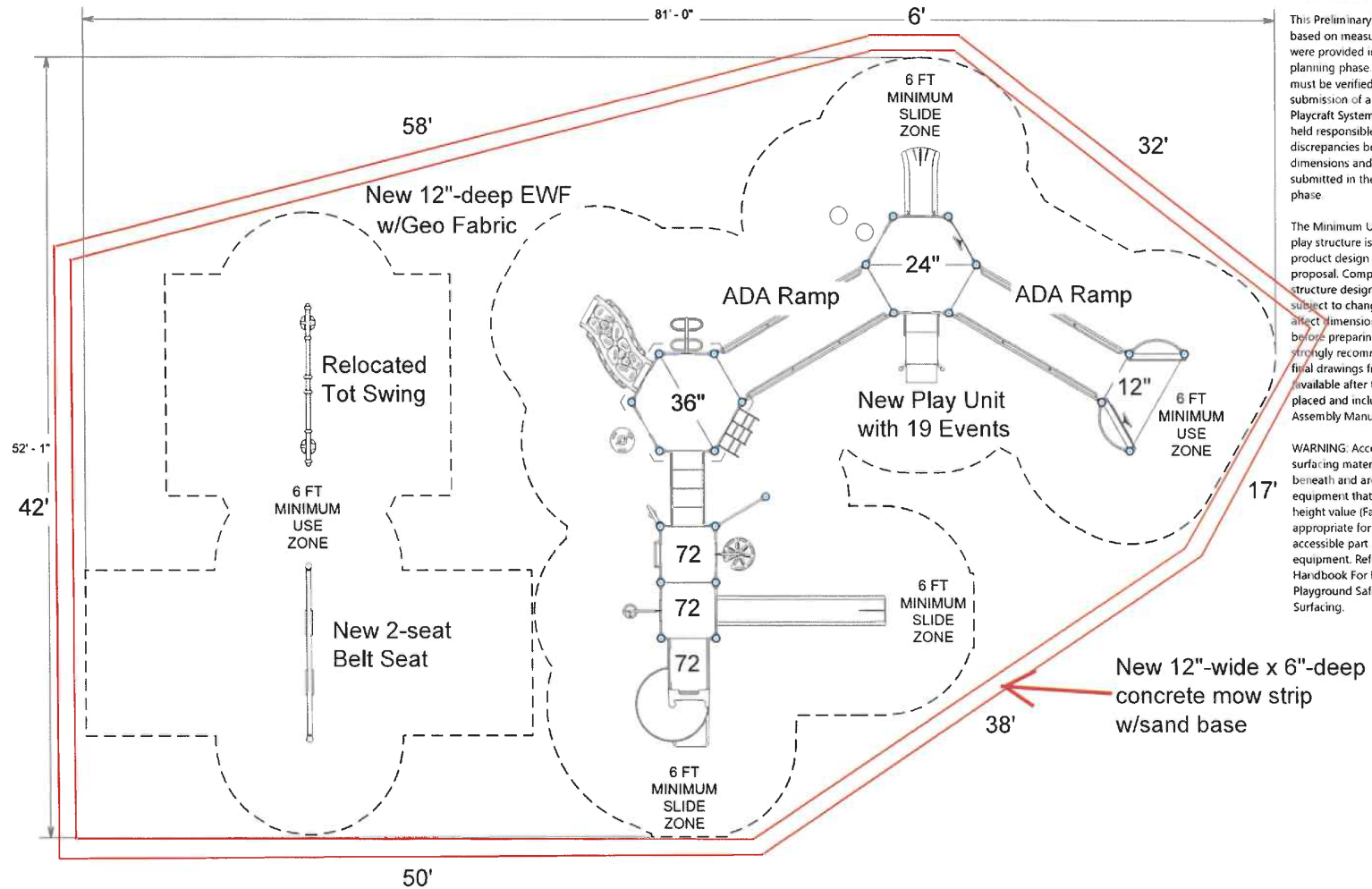
FOR KIDS
AGES
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GENERAL NOTES:

This Preliminary Site Plan is based on measurements that were provided in the initial planning phase. All dimensions must be verified prior to the submission of a purchase order. Playcraft Systems will not be held responsible for any discrepancies between actual dimensions and dimensions submitted in the planning phase.

The Minimum Use Zone for a play structure is based on the product design at the time of proposal. Components and structure designs may be subject to change which may affect dimensions. Therefore, before preparing the site, we strongly recommend obtaining final drawings from the factory available after the order is placed and included in the Assembly Manual).

WARNING: Accessible safety surfacing material is required beneath and around this equipment that has a critical height value (Fall Height) appropriate for the highest accessible part of this equipment. Refer to the CPSC's Handbook For Public Playground Safety, Section 4 Surfacing.



PROJECT#: PEI201A93DA-3

DATE: 3/13/2020 | DRAWN BY: Derick & Mike Wood

USE ZONE: 81' x 53' Irregular

PLAYCRAFT REP:

Play Environments Design, LLC



YPSILANTI CANDY CANE PARK TOP VIEW

OPTION #2

ADA ACCESSIBILITY GUIDELINE - ADAAG CONFORMANCE

ELEVATED	ACCESSIBLE	RAMP ACCESSIBLE	GROUND	TYPES
13	13/7	9	2/0	2/3

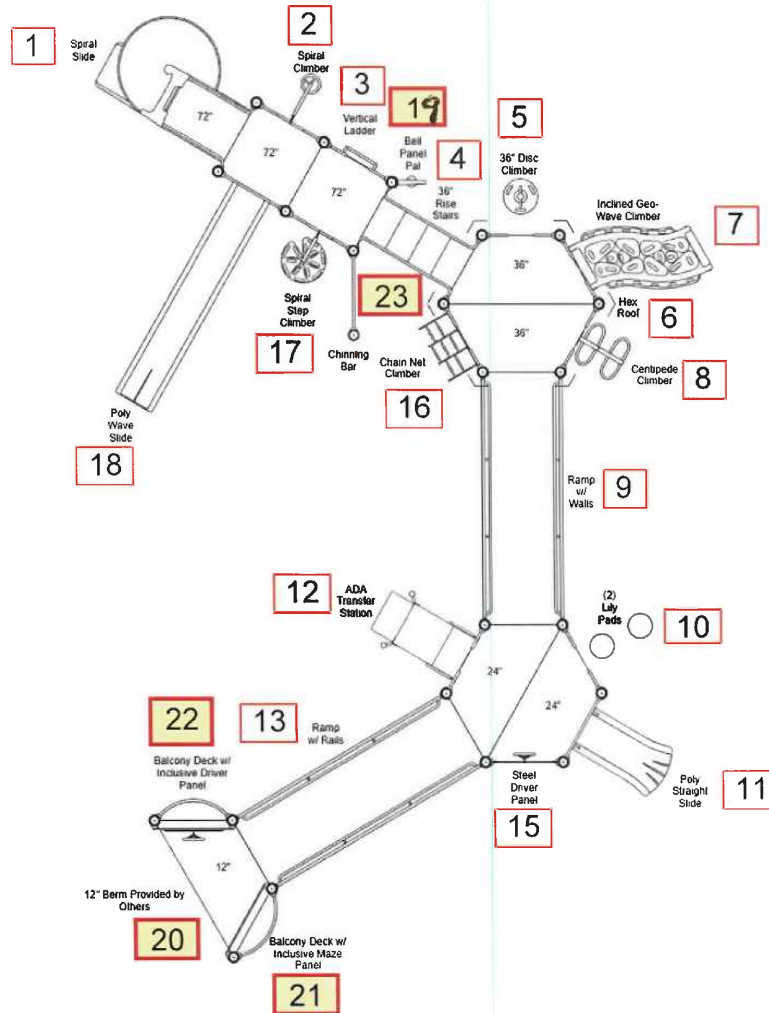
R5

FOR KIDS
AGES
2-12

GENERAL NOTES:

This conceptual plan is based on information provided prior to construction. Detailed site information, including the following, should be obtained, evaluated, and utilized in the final project design. Exact site dimensions, topography, existing utilities, soil conditions and drainage solutions.

WARNING: Accessible safety surfacing material is required beneath and around this equipment that has a critical height value (Fall Height) appropriate for the highest accessible part of this equipment. Refer to the CPSC's Handbook For Public Playground Safety, Section 4: Surfacing.



STRUCTURE#: R50D975AA
PROJECT#: PEI201A93DA-3
DATE: 3/13/2020 | DRAWN BY: Derick

MIN. USE ZONE: 42' x 57'

PLAYCRAFT REP:
Play Environments Design, LLC





Bill of Materials

OPTION #2

YPSILANTI CANDY CANE PARK

Project# PEI201A93DA-3

3/13/2020

Item	Description	Quantity
R50D975AA		
HS-1004-R	Collars	58
GF-7002	Dome Cap, R5	17
S-1008-R5-08ft	Post, 08ft R5	5
S-1009-R5-09ft	Post, 09ft R5	6
S-1013-R5-13ft	Post, 13ft R5	6
S-1014-R5-14ft	Post, 14ft R5	6
S-1101-R5	Square Deck	2
S-1106-R5	Hex Deck, Half (4 Post)	5
S-1109-R5	Balcony Deck	2
S-1206-36R5	ADA Stairs, 36in Rise w/ Walls	1
S-1208-R-RAIL24	Ramp 144in (06-12in High w/ Rails, Inclined)	1
S-1208-R-WALL36	Ramp 144in (18-24in High w/ Walls, Inclined)	1
S-1209-12-HW-R5	Transfer Station, 24in-C (RHW)	1
S-1210-72	Climber, Vertical Ladder 66-72in	1
S-1220-3	Climber, Centipede 30-36in	1
S-1221-3	Climber, Chain Net 30-36in	1
S-1223-6R	Climber, Spiral 66-72in	1
S-1233-3-HW	Climber, Disc 30-36in (w/ HW)	1
S-1234-6R	Climber, Spiral Step 66-72in	1
S-1249-DGH	Climber, Incl. Geo-Wave 30-36in (Horiz, DTG Right)	1
S-1304-R5	Single Slide SitDown Wall	1
S-1309-2-R5	Half Walls (Pair) R5	6
S-1310-R5	Transition Wall	2
S-1414	Lily Pad Step 12-18in	2
S-1625-STL-R5	Driver Panel (Steel)	1



OPTION #2

Bill of Materials
(continued)

Item	Description	Quantity
S-1628-R5	Inclusive Panel, Driver	1
S-1661-R5	Panel Pal, Bell	1
S-1688-R5	Inclusive Panel, Maze	1
S-1701-2R5V2	Slide, Single 24-30in (Straight)	1
S-1704-6	Slide, Wave 72in (Single)	1
S-1706-R5	Slide, Spiral 72in	1
S-1803-R5	Roof, Hex	1
S-1930-R5	Chinning Bar	1
HS-1100-2	Deck to Deck Hardware	3
FREPC2181		
A2-2181-2B	PC 2181-8 8ft Single Post Swing (2B)	1
FREPC2190		
A2-2190	PC 2190 T-Swing (2FB)	0

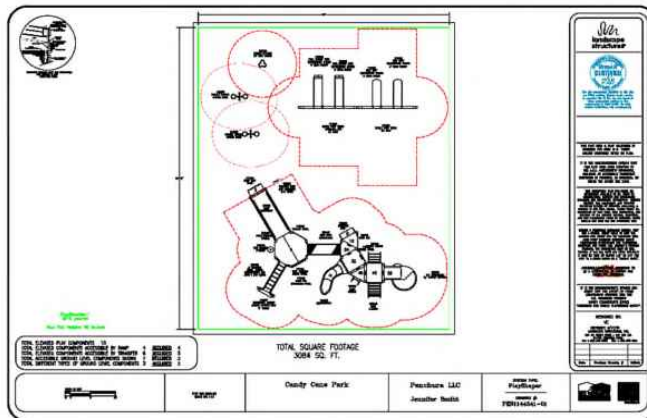
Penchura (Landscape Structures)

Brighton, Michigan

Total: \$74,977

- Can go in either location; replace tot swings
- Partnered with American Forests to purchase trees for carbon offsets; expected 6.02 tons CO2e/18 trees.
- Designed age range: 2-5 years
- Timeline: begin 3-5 weeks from award w/color selection, complete 3-5 weeks after
- Warranty: 3/5/8/19/15/100-year warranty depending on part
- play equipment: \$49,970

elevated	Ramp accessible/ required	Accessible by transfer/ required	Total accessible ground level components	Different types of ground level components/ required
10	4/4	6/5	7/3	3/3





Candy Cane Park

PEN1144341-01 • 03.17.2020



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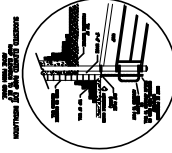


Candy Cane Park

PEN1144341-01 • 03.17.2020



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TOTAL ELEVATED PLAY COMPONENTS 10
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP 4
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER 6
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN 7
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS 3

PlayBooster®
(2-5 years)
Max Fall Height 56 inches



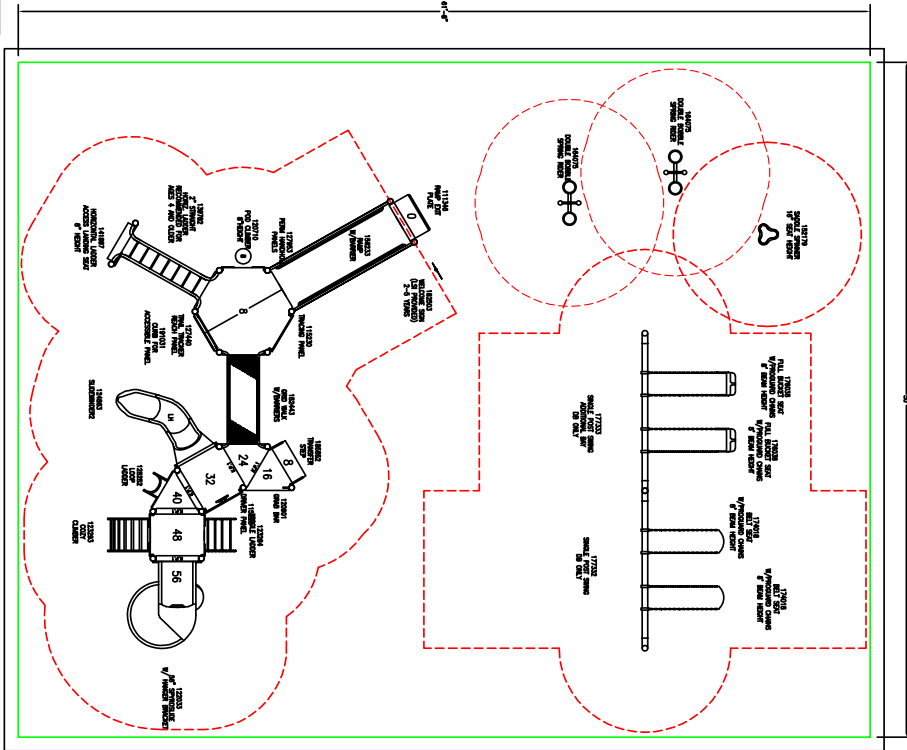
6" = 1' MAX SPACING
(6x10' OR 1')

Candy Cane Park

Penchura LLC
Jennifer Smith

SYSTEM TYPE:
PlayShaper
Drawing #:
PEN1144341-01

TOTAL SQUARE FOOTAGE
3084 SQ. FT.



The Play Company is located on the left side of the drawing. The Play Company is located on the left side of the drawing. The Play Company is located on the left side of the drawing.

THE PLAY ENGINE & PLAY COMPANY IS DESIGNED FOR AGES 2-5 YEARS UNLESS OTHERWISE NOTED ON PLAN.

IT IS THE USER'S RESPONSIBILITY TO PROVIDE THE APPROPRIATE SAFETY SURROUNDINGS, INCLUDING PROTECTIVE FENCING, TO PROTECT THE ENTIRE USE ZONE.

THE USER SHALL BE RESPONSIBLE FOR PROVIDING THE APPROPRIATE SAFETY SURROUNDINGS, INCLUDING PROTECTIVE FENCING, TO PROTECT THE ENTIRE USE ZONE.

CHOOSE A SURROUNDING SURFACE WHICH MEETS THE FOLLOWING CRITERIA: THE SURFACE SHALL BE FLAT, FREE OF OBSTACLES, AND CAPABLE OF WITHSTANDING THE WEIGHT OF THE STRUCTURE AND THE WEIGHT OF THE CHILDREN.

IF THE USER WANTS TO USE THE STRUCTURE FOR OTHER PURPOSES, THEY MUST CONSULT WITH THE PLAY COMPANY FOR A SEPARATE DESIGN AND SAFETY EVALUATION.

DESIGNED BY:
VC
CORPORATE 317/72
LANDSCAPE STRUCTURES, INC.
801 THE CENTER DRIVE - 2ND FLOOR
PH: 1-800-328-0000 FAX: 770-475-0001



PlayCAD Quote

Date: 03/17/2020
By: VC

Rep Organization: Penchura LLC
Contact Person: Jennifer Smith

Quote No: PEN1144341-01

Project Title: Candy Cane Park

Location:

PlayBooster® (2-5 years)						
PHASE-1 Direct Bury Aluminum			UNIT		TOTAL	
QTY	NO.	DESCRIPTION	WEIGHT (lb)	PRICE (US \$)	WEIGHT (lb)	PRICE (2020)
PlayBooster®						
Bridges & Ramps						
1	152443A	Grid Walk w/Barriers			328.0	3,240.00
1	111346B	Ramp Exit Plate DB			44.0	485.00
1	156233A	Ramp w/Barriers			554.0	4,885.00
Climbers W/Permalene Handholds						
1	123293B	Cozy Climber Perm Handholds 48"Dk DB			126.0	2,460.00
1	128252A	Loop Ladder 40"Dk DB			63.0	870.00
1	123284C	Wiggle Ladder 48"Dk DB			52.0	710.00
Decks						
1	178710A	Hexagon Tenderdeck			285.0	2,735.00
5	121948A	Kick Plate 8"Rise	13.0	110.00	65.0	550.00
2	111228A	Square Tenderdeck	118.0	955.00	236.0	1,910.00
1	185852A	Transfer Step w/2 Handloops DB			77.0	935.00
3	111231A	Triangular Tenderdeck	62.0	740.00	186.0	2,220.00
Enclosures						
1	191031A	Accessible Panel Curb			5.0	105.00
1	115228A	Driver Panel Above Deck			46.0	810.00
1	127953A	Handhold Panel Set			24.0	265.00
1	115230A	Tracing Panel Above Deck			44.0	680.00
1	127440A	Trail Tracker Reach Panel Above Deck			19.0	445.00
Motion & More Fun						
1	120901A	Grab Bar			5.0	180.00
Overhead Events						
1	139782A	2"Horizontal Ladder 4-5 Years			74.0	870.00
1	141887A	Access/Landing Assembly Seat Barrier Right 8"Dk			36.0	570.00
Posts						
5	111404G	100"Alum Post DB	26.0	275.00	130.0	1,375.00
2	111404F	108"Alum Post DB	28.0	280.00	56.0	560.00
1	111404E	116"Alum Post DB			29.0	285.00
2	111404D	124"Alum Post DB	30.0	330.00	60.0	660.00
2	111404C	132"Alum Post DB	31.0	345.00	62.0	690.00
2	111404J	76"Alum Post DB	19.0	240.00	38.0	480.00

PlayCAD Quote

Date: 03/17/2020
By: VC

Rep Organization: Penchura LLC
Contact Person: Jennifer Smith

Quote No: PEN1144341-01

Project Title: Candy Cane Park

Location:

PlayBooster® (2-5 years)						
PHASE-1 Direct Bury Aluminum			UNIT		TOTAL	
QTY	NO.	DESCRIPTION	WEIGHT (lb)	PRICE (US \$)	WEIGHT (lb)	PRICE (2020)
4	111404I	84" Alum Post DB	21.0	255.00	84.0	1,020.00
1	111404H	92" Alum Post DB			23.0	265.00
Slides						
1	124863A	SlideWinder2 32"Dk DB 1 Left			139.0	1,920.00
1	122033D	SpyroSlide 56"w/Hanger Bracket DB ¹			402.0	5,525.00
Freestanding Play Climbers						
1	120710A	Pod Climber 8" DB			12.0	265.00
Motion & More Fun						
2	164075B	Double Bobble Rider DB	131.0	1,925.00	262.0	3,850.00
1	152179A	Saddle Spinner DB 16" Height			40.0	950.00
Signs						
1	182503A	Welcome Sign (LSI Provided) Ages 2-5 years Direct Bury			24.0	0.00
Swings						
2	174018A	Belt Seat ProGuard Chains for 8' Beam Height	8.0	120.00	16.0	240.00
2	176038A	Full Bucket Seat ProGuard Chains for 8' Beam Height	14.0	325.00	28.0	650.00
1	177332A	Single Post Swing Frame 8' Beam Height Only			213.0	1,180.00
1	177333A	Single Post Swing Frame Additional Bay 8' Beam Height Only			129.0	880.00

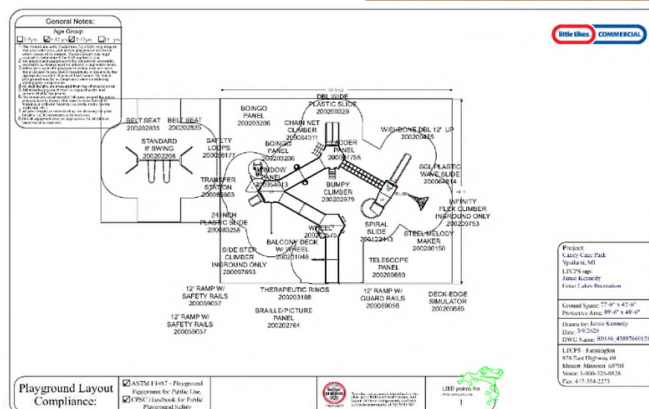
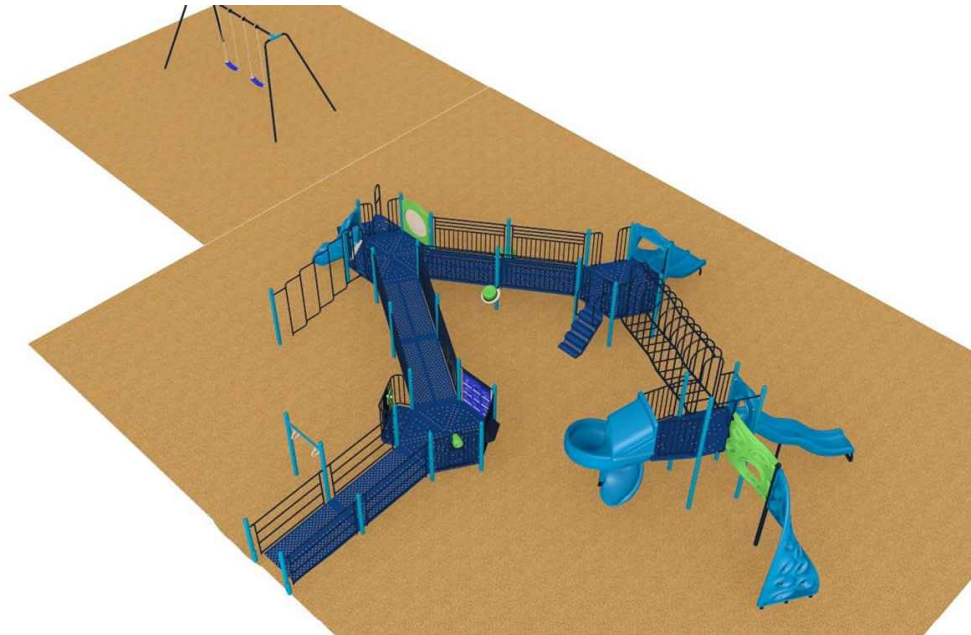
SUMMARY		CONCRETE (cu-ft)	FOOTINGS (count)	LABOR (man-hours)	WEIGHT (lb)	PRICE (2020)
PlayBooster® (2-5 years) PHASE-1		91.3	40	70.0	4,016.0	45,720.00
Total Safety Zone Area = 2231 sq. ft.						

ALL PHASES	PlayBooster®	53.4	32	53.0	3,292.0	37,705.00
	Freestanding Play	37.9	8	17.0	724.0	8,015.00
	Total	91.3	40	70.0	4,016.0	45,720.00

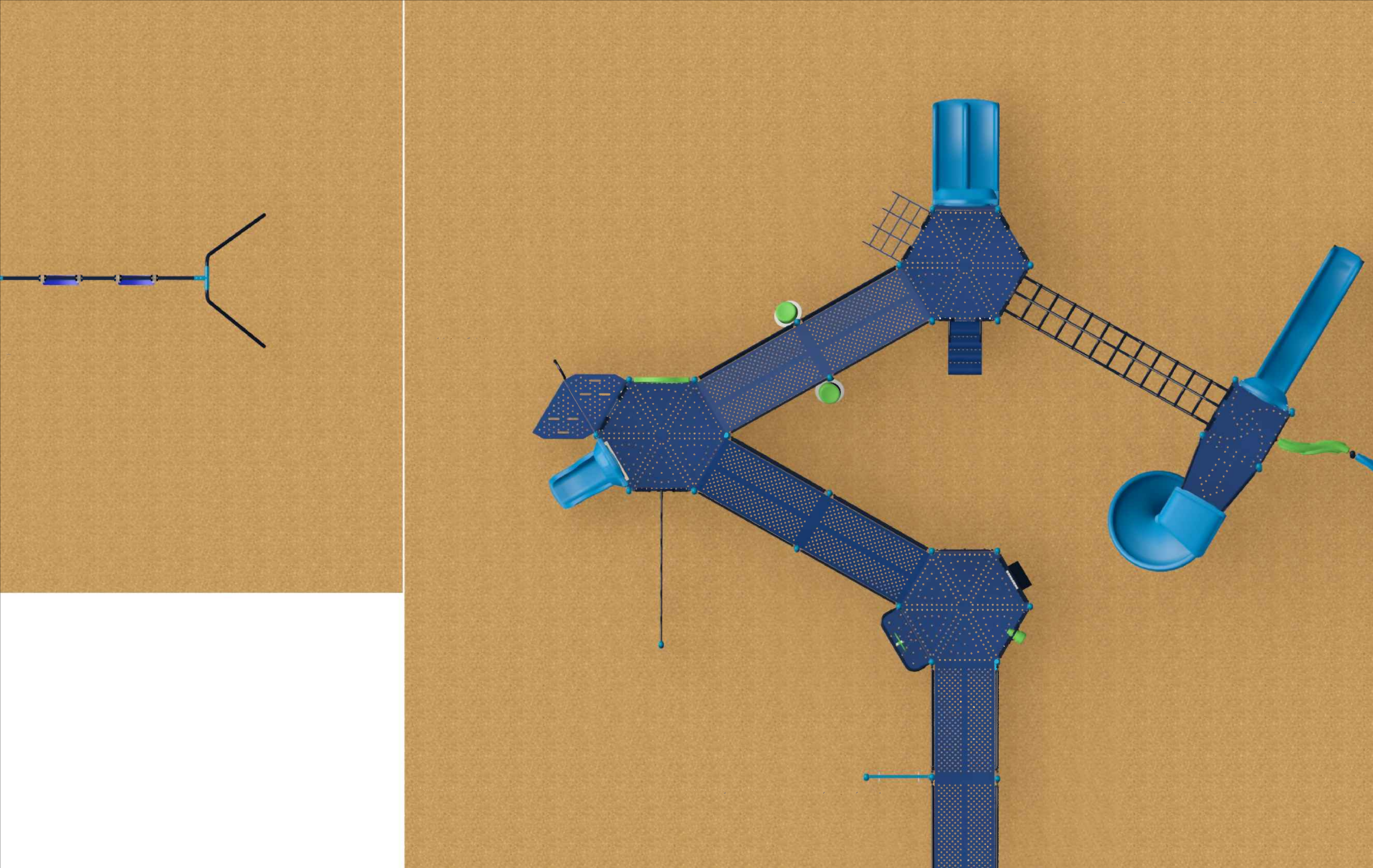
Holland, Michigan

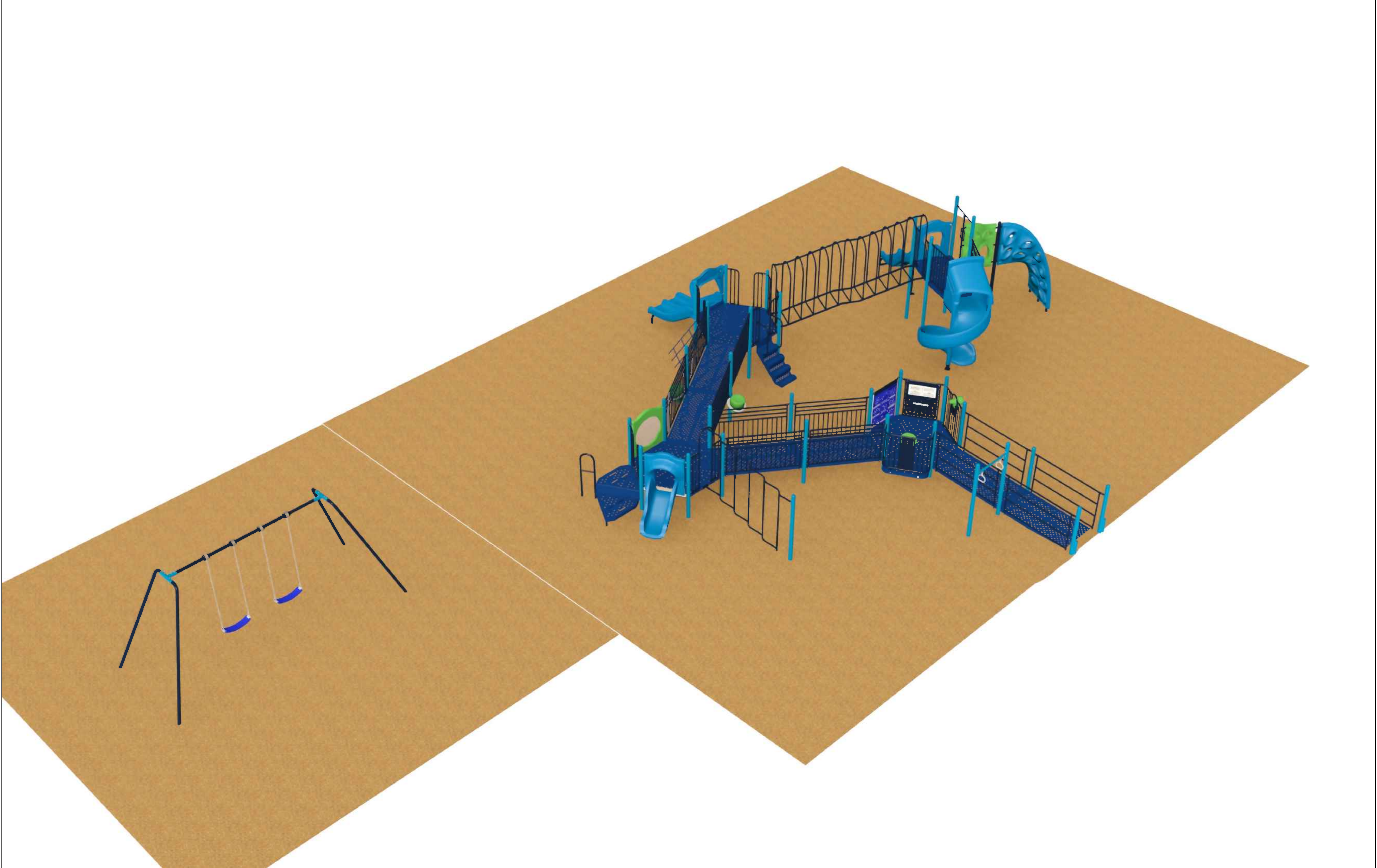
Total: \$75,000

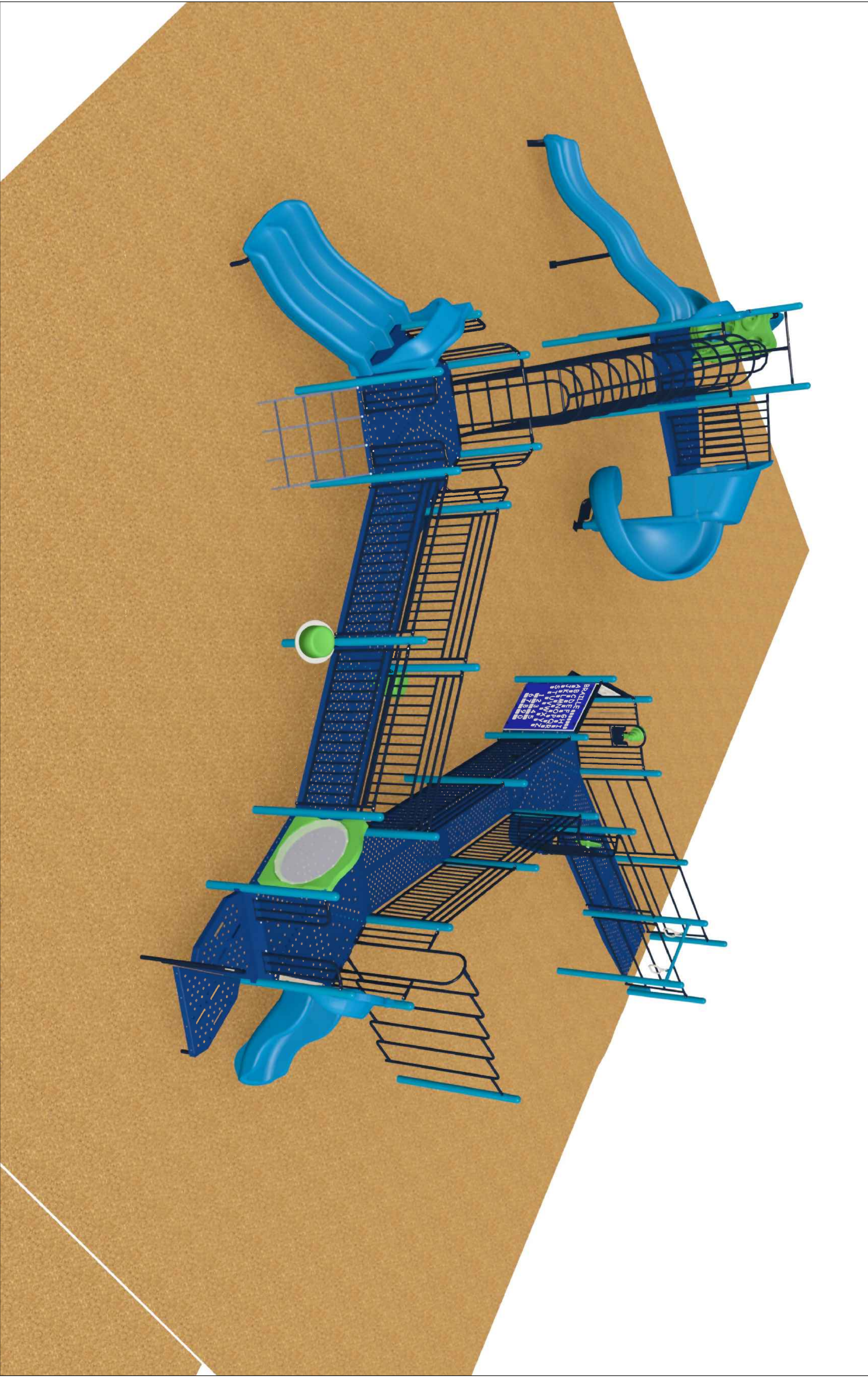
- Location not specified, tot swing not shown
- Designed age range: 2-12
- Timeline: 4-6 weeks to receive, 2-3 weeks to install
- Warranty: 1/3/5/8/10/15/lifetime warranty
- Play equipment: 42,471
 - o 74 children accommodated



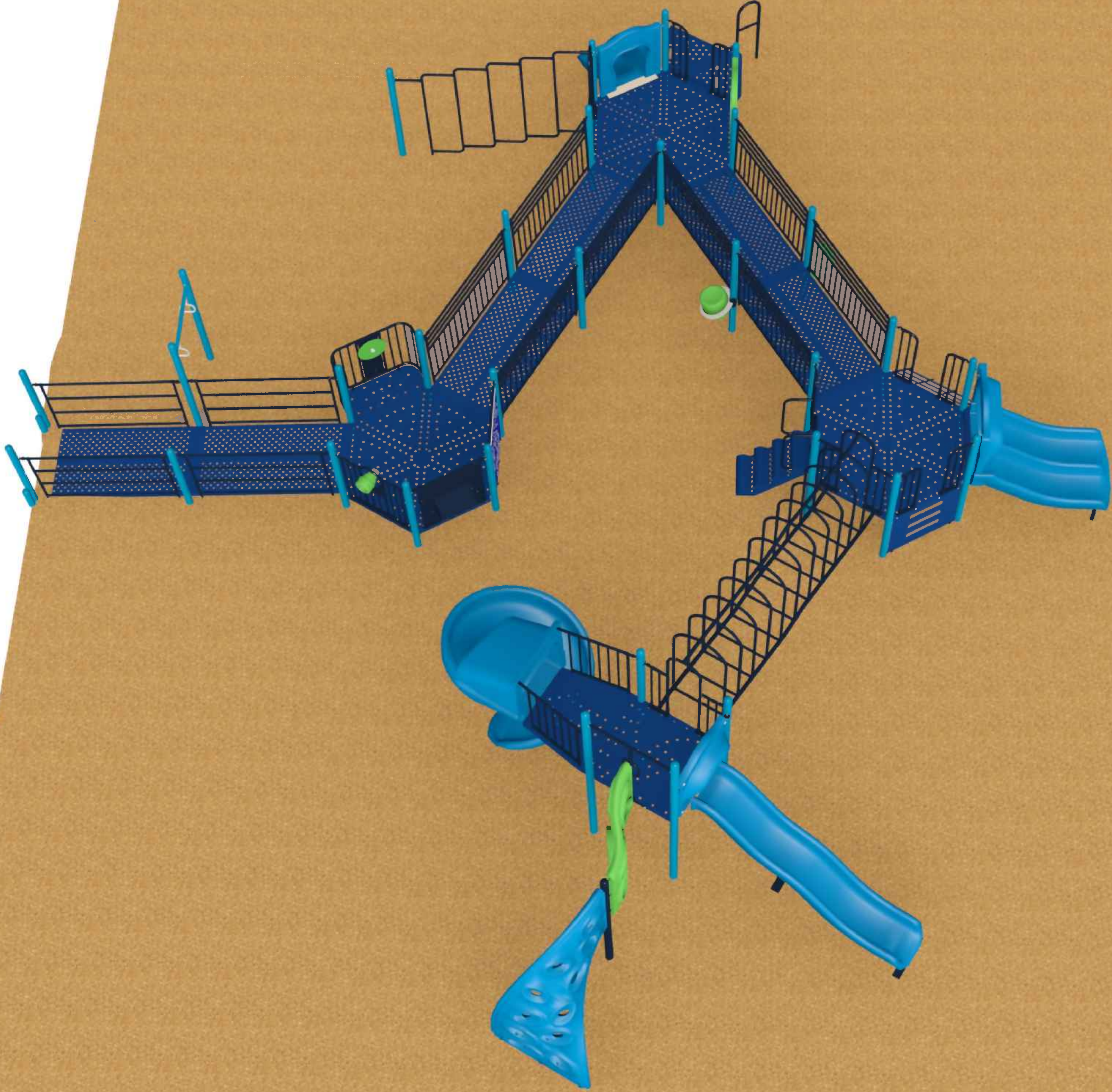
3- Great Lakes Recreation

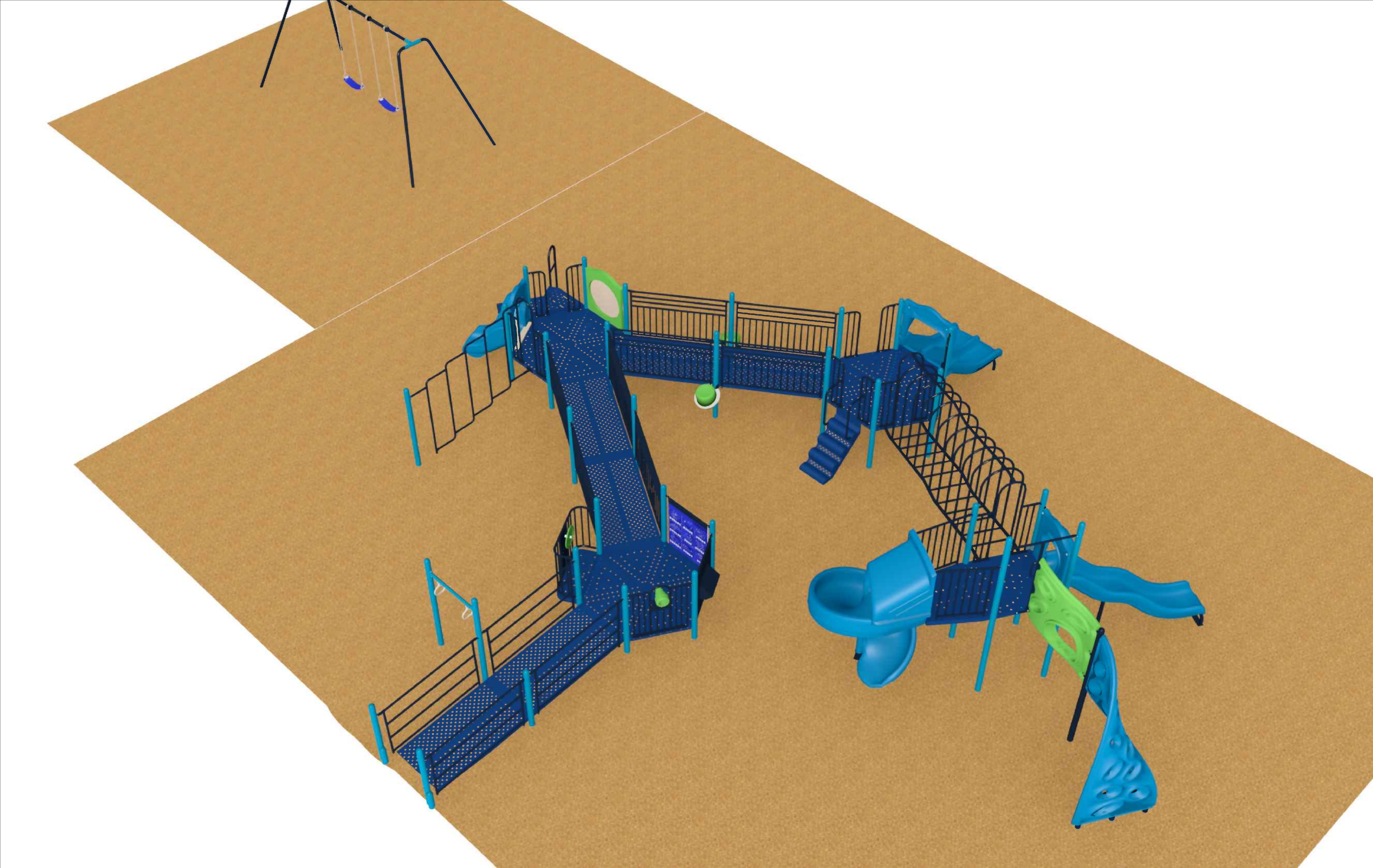










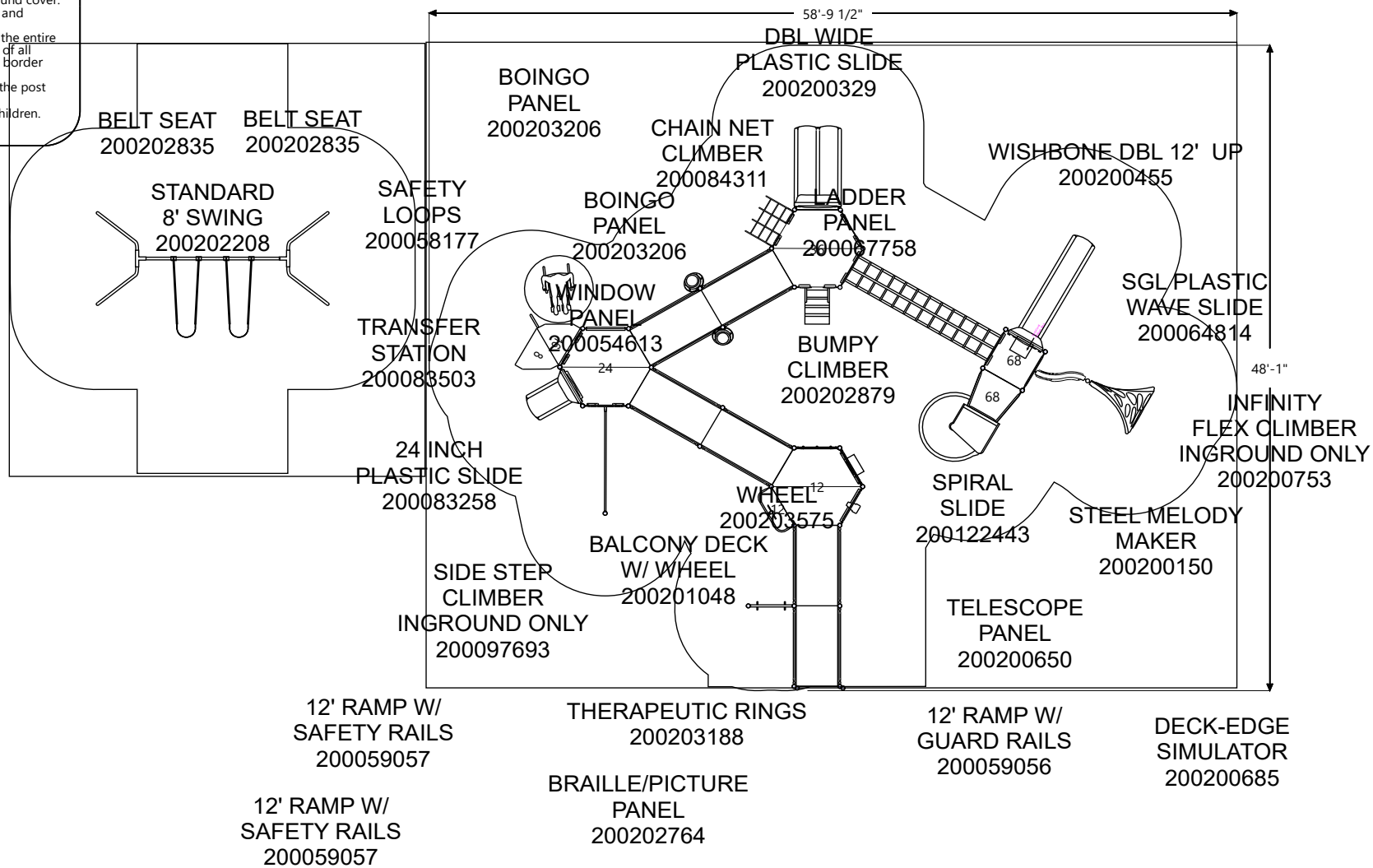


General Notes:

Age Group

☐ 2-5yrs ☒ 5-12 yrs ☒ 2-12yrs ☐ 13+ yrs

- 1.The Americans with Disabilities Act (ADA) may require that you make your park and/or playground accessible when viewed in its entirety. Please consult your legal counsel to determine if the ADA applies to you.
- 2.For playground equipment to be considered accessible, accessible surfacing must be utilized in applicable areas.
- 3.Although a particular playground design may not meet the proposed Access Board Regulations in regards to the appropriate number of ground level events, the actual playground may be in compliance when considering existing play components.
- 4.All deck heights are measured from top of ground cover.
- 5.Fall absorbing ground cover is required under and around all play equipment.
- 6.The minimum recommended fall zone around the entire playstructure is shown. This zone is to be free of all tripping or collision hazards (i.e. roots, rocks, border material, etc.).
- 7.All post lengths are identified by text showing the post lengths, i.e. 96 represents a 96 inch post.
- 8.Not all equipment may be appropriate for all children. Supervision is required.



Project:
Candy Cane Park
Ypsilanti, MI
LTCPS rep:
Jamie Kennedy
Great Lakes Recreation

Ground Space: 77'-6" x 42'-6"
Protective Area: 89'-6" x 48'-6"

Drawn by: Jamie Kennedy
Date: 3/9/2020
DWG Name: R0336_43897660128

LTCPS - Farmington
878 East Highway 60
Monett, Missouri 65708
Voice: 1-800-325-8828
Fax: 417-354-2273

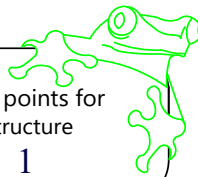
Playground Layout Compliance:

- ☒ ASTM F1487 - Playground Equipment for Public Use.
- ☒ CPSC Handbook for Public Playground Safety



The play components identified in this plan are IPEMA certified. The use and layout of these components conform to the requirements of ASTM F1487.

LEED points for this structure
1





PlayPower LT Farmington, Inc.
878 E. US Hwy 60
Monett, MO 65708
1-800-325-8828

For PlayPower Internal Use Only
ORDER: 0000200010
PROJECT: R0336_43897660128_02

Clumdy Core Puck

74 Uses

PlayArea_2_1

Product line: KidBuilders
Age group: 5-12

Ypsi

*3812 - 975 sqft swings
2837 sqft*

Components

Part Number	Description	Qty	Weight	Volume	Unit Price	Total
100005274	PB SQUARE DECK	1	77.00	3.00	656.00	656.00
200008193	TOOL BOX KID BUILDERS #2, S.S. (MM)	1	3.00	0.36	0.00	0.00
200054613	PB PANEL ARCH WINDOW	1	22.00	3.00	769.00	769.00
200058177	PB SAFETY LOOP	1	17.00	1.00	287.00	287.00
200059056	PB 3660 RAMP W/GUARD RAILS	1	359.00	24.00	2,452.00	2,452.00
200059057	PB 3660 RAMP W/SAFETY RAILS	2	481.00	24.00	3,281.00	6,562.00
200064814	SLIDE WAVE SGL.WD. 1625MM F/PB	1	150.00	48.00	1,336.00	1,336.00
200067758	LADDER PANEL BELOW DECK 915 F/PB W/SFTY	1	79.00	2.00	570.00	570.00
200083258	SLIDE SGL.WD. 610MM/24" F/PB	1	78.00	16.00	1,058.00	1,058.00
200083503	TRANSFER STATION 610 MM F/PB	1	149.00	8.00	1,403.00	1,403.00
200084311	CHAIN NET PB 36"/915 W/SAFETY LOOPS	1	77.00	6.00	936.00	936.00
200097693	PB SIDE STEP CLIMBER 2440 DECK-TO-POST	1	117.00	19.00	1,447.00	1,447.00
200101172	POST W/CAP F/PB 2955/116.3"	4	32.00	2.00	179.00	716.00
200122443	SLIDE SPIRAL PB 1625/64 (2007)	1	378.00	188.00	4,586.00	4,586.00
200200150	PANEL PB STEEL MELODY MAKER ABOVE DECK	1	97.00	10.00	1,720.00	1,720.00
200200329	SLIDE DBL. WD.PLASTIC36"/915MM PB (2004)	1	137.00	52.00	1,094.00	1,094.00
200200455	WISHBONE 12' DBL. F/PB	1	339.00	205.00	3,010.00	3,010.00
200200530	KIT MAINTENANCE KB W/PAINT W/O LIST	1	10.00	1.00	0.00	0.00
200200650	PB TELESCOPE PANEL DKMT	1	60.00	4.00	1,137.00	1,137.00
200200685	DECK EDGE SIMMULATOR F/PB RAMP LWR END	1	25.00	0.50	94.00	94.00
200200753	PB INFINITY FLEX GROUND TO DECK SGL	1	250.00	140.00	2,443.00	2,443.00
200201048	PB BALCONY DECK W/ RAIL F/ WHEEL	1	100.00	20.00	1,185.00	1,185.00
200202208	STANDARD 8' STANDARD BEAM	1	273.00	13.00	1,123.00	1,123.00
200202609	PB POST W/CAP 1345MM (53")	2	19.00	1.00	111.00	222.00
200202611	PB POST W/CAP 2285MM (90")	3	33.00	2.00	131.00	393.00
200202612	PB POST W/CAP 2490MM (98")	6	36.00	2.00	144.00	864.00
200202613	PB POST W/CAP 2690MM (106")	9	39.00	2.00	152.00	1,368.00
200202614	PB POST W/CAP 2895MM (114")	4	42.00	2.00	166.00	664.00
200202615	PB POST W/CAP 3100MM (122")	2	44.00	2.00	179.00	358.00
200202619	PB POST W/CAP 3910MM (154")	2	56.00	2.00	209.00	418.00
200202621	PB POST W/CAP 4320MM (170")	2	62.00	3.00	221.00	442.00
200202764	PB BRAILLE PICTURE PANEL DKMT	1	30.00	2.00	880.00	880.00
200202835	ASSY BELT SEAT F/8' SWING W/CHAIN	2	18.00	0.50	112.00	224.00
200202879	PB CLIMBER BUMPY 1016MM DECK	1	154.00	0.00	1,704.00	1,704.00
200202993	PB HEX DECK	3	220.00	12.00	2,439.00	7,317.00
200203188	PB THERAPEUTIC RINGS	1	25.00	2.00	453.00	453.00
200203206	PB BOINGO	1	15.00	2.00	274.00	274.00
200203206	PB BOINGO	1	15.00	2.00	274.00	274.00
200203575	ASSY RAIL MT.ALUM.STEER.WHL.	1	2.00	0.08	221.00	221.00
HW7704-1	HRDW PKG F/CLAMP ELIMINATION S1/1	2	1.00	0.00	102.00	204.00

RiskSign_Included

Product line: Park Service

3/15/2020

Page 1 of 2

Age group:

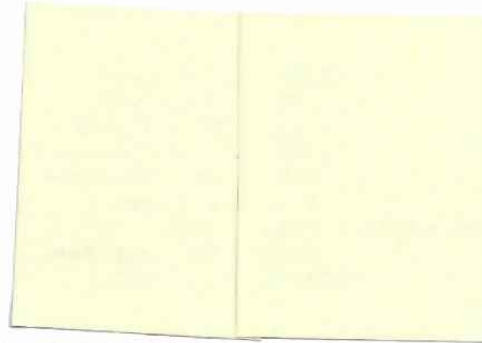
Components

Part Number	Description	Qty	Weight	Volume	Unit Price	Total
787Z	RISK MANAGEMENT SIGN - ENGLISH	1	0.00	0.00	0.00	0.00

Additional Items

Part Number	Description	Qty	Weight	Volume	Unit Price	Total
200111492	LABEL, IDENTIFICATION STAMPED W/RIVETS	3	0.00	0.00	0.00	0.00
200305596	14' MED CRATE (ASSY DOMESTIC)	1	277.00	0.00	0.00	0.00
200305597	14' LARGE CRATE (ASSY DOMESTIC)	4	385.00	0.00	0.00	0.00
925603	LABEL P/C (5 TO 12 YRS) PPLT	2	0.00	0.00	4.00	8.00
925960	THUMB DRIVE 2GB - PPLT	1	0.00	0.00	0.00	0.00
926020	LITTLE TIKES CARD F/THUMB DRIVE	1	0.00	0.00	0.00	0.00
INSTALL BOOK	INSTALL BOOK FOR PP ORDERS	1	0.00	0.00	0.00	0.00

Totals:



PlayPower (Miracle Midwest)

Holly, Michigan

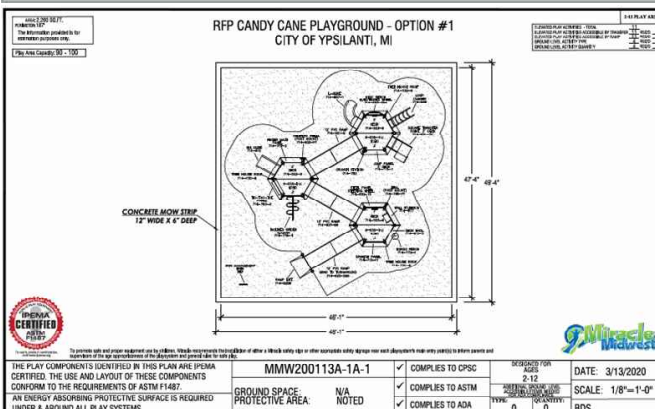
Option 1: \$73,229.02

- Does not include relocating tot swings
- Designed age range: 2-12
- Timeline: 5-6 weeks after signed contract & order
- Warranty: 1/3/5/8/10/15/lifetime warranty
- play equipment: 30295.40
 - o 11 events, 90-100 users

elevated	Accessible/ required	Ramp accessible/ required	Ground/ required	Ground types/ required
11	11/0	11/6	4/0	4/0



RFP Candy Cane Playground - Option #1 - View 4
City of Ypsilanti, MI
MMW200113A





Miracle Midwest
PO Box 130
Holly, MI 48442
1-800-722-8546
info@miraclemidwest.com

QUOTE: R0016200006
CUSTOMER: 4819B06
Quote Date: 3/16/2020
Valid For: 30 Days From Quote Date
DELIVERY TIME ARO: 5-7 weeks
(After Receipt of Order and Any Required
Approved Submittals, Drawings, and/or
Color Selections)

Prepared For:

City of Ypsilanti
1 South Huron
Ypsilanti, MI 48197

Project Name & Location:

Candy Cane Park Playground
802 Courtland St.
Ypsilanti, MI 48197
OPTION 1

Prepared by:

Kim Alexander (cs)
Miracle Midwest
Holly, MI 48442
(800) 722-8546 (phone)
info@miraclemidwest.com

OPTION 1

MMW200113A-1A - 2-12 STRUCTURE

Product line: KidsChoice

Age group: 2-12

Components

Part Number	Description	Qty
7145039	1/2 HEX FULL DECK (ATTACHES TO 4 POSTS)	6
7145491	5" OD X 88" POST F/MAZE PANELS	4
7145493	5" OD X 112" POST (3' DECK)	6
714551	5" OD X 106" POST (2'6" DECKS OR LESS)	8
714555	5" OD X 76" POST FOR FENCING & PANELS	2
71460215	STEEL PANEL W/STEERING WHEEL	1
71471511	SPANISH PANEL	1
7147152	FINGER MAZE PANEL	1
7147153	JUMP PANEL (3' DECK)	1
7147632	TIC-TAC-TOE PANEL	1
7147721	BONGO PERCH (STATIONARY)	1
7147784	INCLINED SPIDER CLIMBER (3' & 4' DECK)	1
714782	CRUNCH STATION	1
714796P1	BELL (POST MOUNT)	1
7148135	DECK ENCL FOR OVERHEAD CLIMBERS (ONLY)	1
714817	CST TREEHOUSE WALL W/SEAT	1
71485139	SQUARE TRANSFER POINT W/CLOSED HR (3' DECK)	1
714900P1	STEERING WHEEL (POST MOUNT)	1
7149071	"L" SLIDE RH, ROCKITE (3' DECK)	1
714910	4' SKI SLIDE (2' DECK)	1
714920595	12' RAMP GRND TO DECK 1:12, W/OUT PST, OPN HR	1
714920E	ADA RAMP EXTENSION INCLINED (LARGE)	1
71492159	12' RAMP DECK TO DECK 1:12, OPEN HNDRL	1
7149219	12' RAMP DECK TO DECK 1:12	1
714968	CURVED LOOP CLIMBER (3' DECK)	1
71499269A	KIDS' PERCH W/EXTENDED WHEEL	1
7147306	HEXAGON TREEHOUSE ROOF	3
787Z	RISK MANAGEMENT SIGN - ENGLISH (NO PRICE)	1
714999Z	CUSTOMER SERVICE KIT (NO PRICE)	1

Equipment Price: \$30,295.40

ENGINEERED WOOD FIBER

113CY	ENGINEERED WOOD FIBER SAFETY SURFACING	\$ 2,188.50
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Continued to next page...

3/16/2020
QUOTE: R0016200006

Page 1 of 4

INSTALLATION

INSTALL

INSTALLATION SERVICES INCLUDE:

- DEMOLITION, REMOVE, LOAD AND HAUL OFF EXISTING PLAY STRUCTURE AND CONCRETE FOOTINGS
- LOAD AND HAUL OFF SITE EXISTING ENGINEERED WOOD FIBER
- EXCAVATE APPROXIMATELY 58' X 54' 12" DEPTH SEPARATE TOPSOIL FROM SUBSOIL WHERE POSSIBLE USE EXCAVATED MATERIAL AS FILL MATERIAL
- LEVEL SOIL, ROUGH GRADE IN PREPARATION FOR RESTORATION WORK
- INSTALL EQUIPMENT SHOWN IN MMW200113A PER MANUFACTURER SPECIFICATIONS
- ACCEPT DELIVERY OF EQUIPMENT SHOWN IN MMW200113A, UNLOAD AND STORE ON JOB SITE
- SUPPLY AND INSTALL SINGLE LAYER GEOTEXTILE FABRIC
- INSTALL ENGINEERED WOOD FIBER SAFETY SURFACING
- TURF RESTORATION
- INSTALL CONCRETE MOW STRIP AS SPECIFIED 12" X 6"

PLEASE NOTE: OPTION 1 DOES NOT INCLUDE RELOCATING SWINGS

Install Price: \$36,600.08

Totals:

SubTotal: \$69,083.98

Estimated Sales Tax 6%: \$ 4,145.04

Grand Total: \$73,229.02

**NO ORDERS WILL BE PLACED WITHOUT A SIGNED QUOTATION AND/OR PURCHASE ORDER.
ORDERS OVER \$5,000 WILL REQUIRE A SIGNED PURCHASE ORDER BEFORE THEY WILL BE PLACED.**

PLEASE NOTE THE FOLLOWING:

- ✓ Sales tax on this quote is only an estimate. Final sales tax will be added to your invoice if a current state sales tax exemption certificate is not on file in our office.
- ✓ A Miracle Credit Application may be required and must be completed and returned before your order is placed. If credit is not issued, Cash in Advance is required with order.
- ✓ **ORDERS OVER \$10,000.00 MAY REQUIRE 50% DEPOSIT BEFORE ORDER IS RELEASED.**
- ✓ See top of quote for terms.
- ✓ This quote is to supply the equipment listed above only. Any other contractual requirements/needs are the responsibility of the contractor.
- ✓ PLEASE provide 4-5 sturdy adults or appropriate unloading equipment to unload your equipment
- ✓ Due to fluctuating fuel and steel prices, quotes are valid for only 30 days. After 30 days, cost is only an estimate and actual charges may differ.
- ✓ Price was quoted site unseen, it assumes the site is reasonably flat
- ✓ Please add Sales Tax, if appropriate, or fax a copy of your Tax Exempt Certificate with Order
- ✓ THIS QUOTE **DOES NOT** INCLUDE:
 - ✓ Equipment, Services, Materials not specifically noted above
 - ✓ Removal of soils/excess excavated materials from site
 - ✓ Drainage materials/Installation of drainage materials
 - ✓ Dewatering/excess water removal from footings, excavations, or any other installation processes where excess water may be present
 - ✓ Accessible route to new play area
 - ✓ Any permits, if required
 - ✓ Repair of any utilities/irrigation system not marked by Miss Dig or owner
 - ✓ Testing of soil conditions
 - ✓ Prevailing Wage or union/labor wages
 - ✓ Bid/Performance/Labor/Material Bonds

Continued to next page...

3/16/2020

QUOTE: R0016200006

Page 2 of 4



RFP Candy Cane Playground - Option #1 - View 1
City of Ypsilanti, MI
MMW200113A





RFP Candy Cane Playground - Option #1 - View 2
City of Ypsilanti, MI
MMW200113A





RFP Candy Cane Playground - Option #1 - View 3
City of Ypsilanti, MI
MMW200113A





RFP Candy Cane Playground - Option #1 - View 4
City of Ypsilanti, MI
MMW200113A



AREA: 2,200 SQ.FT.
PERIMETER: 187'
The information provided is for
estimation purposes only.

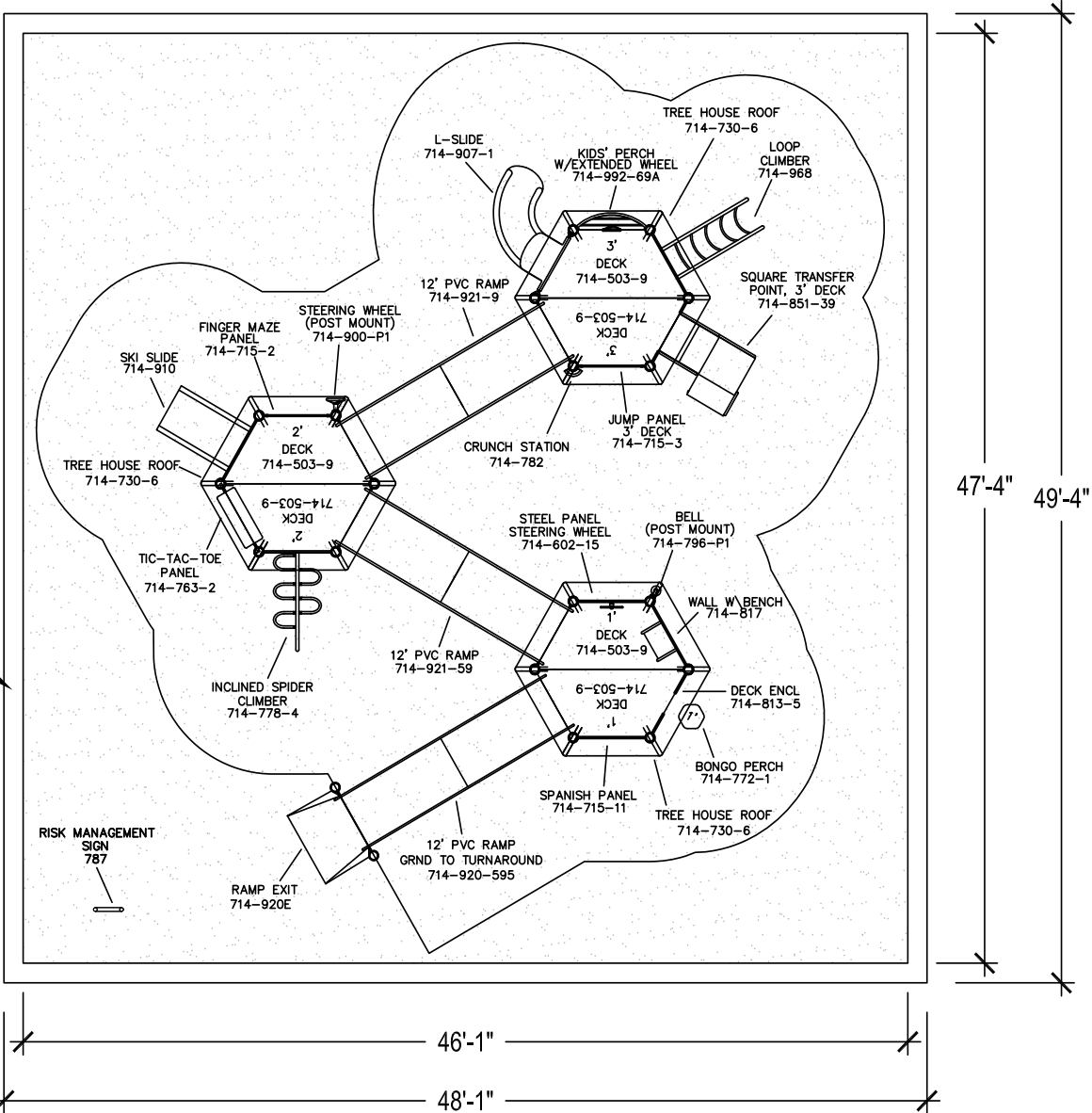
Play Area Capacity: 90 - 100

RFP CANDY CANE PLAYGROUND - OPTION #1
CITY OF YPSILANTI, MI

2-12 PLAY AREA

ELEVATED PLAY ACTIVITIES - TOTAL	11	
ELEVATED PLAY ACTIVITIES ACCESSIBLE BY TRANSFER	11	REQ'D 0
ELEVATED PLAY ACTIVITIES ACCESSIBLE BY RAMP	11	REQ'D 6
GROUND LEVEL ACTIVITY TYPE	4	REQ'D 0
GROUND LEVEL ACTIVITY QUANTITY	4	REQ'D 0

CONCRETE MOW STRIP
12" WIDE X 6" DEEP



To verify product certification, visit www.ipema.org

To promote safe and proper equipment use by children, Miracle recommends the installation of either a Miracle safety sign or other appropriate safety signage near each playsystem's main entry point(s) to inform parents and supervisors of the age appropriateness of the playsystem and general rules for safe play.

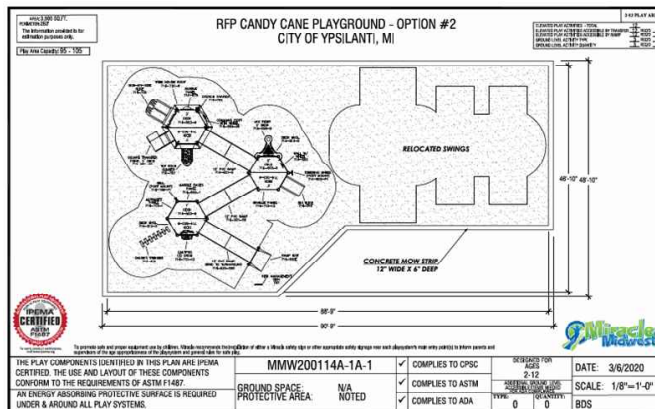


THE PLAY COMPONENTS IDENTIFIED IN THIS PLAN ARE IPEMA CERTIFIED. THE USE AND LAYOUT OF THESE COMPONENTS CONFORM TO THE REQUIREMENTS OF ASTM F1487. AN ENERGY ABSORBING PROTECTIVE SURFACE IS REQUIRED UNDER & AROUND ALL PLAY SYSTEMS.	MMW200113A-1A-1		✓	COMPLIES TO CPSC	DESIGNED FOR AGES 2-12	DATE: 3/13/2020	
	GROUND SPACE: PROTECTIVE AREA:	N/A NOTED	✓	COMPLIES TO ASTM		SCALE: 1/8"= 1'-0"	
			✓	COMPLIES TO ADA	TYPE: 0	QUANTITY: 0	BDS

Option 2: 74,999.56

- Includes tot swing relocation
- Designed age range: 2-12
- Timeline: 5-6 weeks after signed contract & order
- Warranty: 1/3/5/8/10/15/lifetime warranty
- play equipment: 29906.80
 - o 12 events, 95-105 users

elevated	Accessible/ required	Ramp accessible/ required	Ground/ required	Ground types/ required
12	12/0	12/6	3/0	3/0





Miracle Midwest
PO Box 130
Holly, MI 48442
1-800-722-8546
info@miraclemidwest.com

QUOTE: R0016200007
CUSTOMER: 4819B06
Quote Date: 3/16/2020
Valid For: 30 Days From Quote Date
DELIVERY TIME ARO: 5-7 weeks
(After Receipt of Order and Any Required
Approved Submittals, Drawings, and/or
Color Selections)

Prepared For:

City of Ypsilanti
1 South Huron
Ypsilanti, MI 48197

Project Name & Location:

Candy Cane Park Playground
802 Courtland St.
Ypsilanti, MI 48197
OPTION 2

Prepared by:

Kim Alexander
Miracle Midwest
Holly, MI 48442
(800) 722-8546 (phone)
info@miraclemidwest.com

OPTION 2

MMW200114A-1A - 2-12 STRUCTURE

Product line: KidsChoice

Age group: 2-12

Part Number	Description	Qty
7145039	1/2 HEX FULL DECK (ATTACHES TO 4 POSTS)	6
7145491	5" OD X 88" POST F/MAZE PANELS	6
714551	5" OD X 106" POST (2'6" DECKS OR LESS)	6
714555	5" OD X 76" POST FOR FENCING & PANELS	2
714572	5" OD X 144" POST FOR ROOF (3' DECKS OR LESS)	6
714631	CHUNKY TREKKER CLIMBER (FREESTANDING)	1
7146582	JAX RIZER TO DECK (1'6" & 2' DECKS)	1
714700	5' SIDE-BY-SIDE SLIDE W/CANOPY (3' DECK)	1
7147151	ALPHABET PANEL	1
71471512	BRAILLE PANEL	1
71471513	CALYPSO 3 DRUM PANEL	1
7147306	HEXAGON TREEHOUSE ROOF	1
714782	CRUNCH STATION	1
714787	TOT ROCK CLIMBER (3' DECK)	1
714796P1	BELL (POST MOUNT)	1
7148135	DECK ENCL FOR OVERHEAD CLIMBERS (ONLY)	2
71485139	SQUARE TRANSFER POINT W/CLOSED HR (3' DECK)	1
714875	BUBBLE PANEL	1
714900	WALL ENCLOSURE W/STEERING WHEEL	1
714900P1	STEERING WHEEL (POST MOUNT)	1
714910	4' SKI SLIDE (2' DECK)	1
714920595	12' RAMP GRND TO DECK 1:12, W/OUT PST, OPN HR	1
714920E	ADA RAMP EXTENSION INCLINED (LARGE)	1
71492159	12' RAMP DECK TO DECK 1:12, OPEN HNDRL	1
7149219	12' RAMP DECK TO DECK 1:12	1
7149831	MARBLE RACE PANEL	1
71499226	COMMAND POST W/WHEEL	1
787Z	RISK MANAGEMENT SIGN - ENGLISH (NO PRICE)	1
714999Z	CUSTOMER SERVICE KIT (NO PRICE)	1

Equipment Price: \$29,906.80

ENGINEERED WOOD FIBER

175CY	ENGINEERED WOOD FIBER SAFETY SURFACING	\$ 3,000.00
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Continued to next page...

INSTALLATION

INSTALL

INSTALLATION SERVICES INCLUDE:

- DEMOLITION, REMOVE, LOAD AND HAUL OFF EXISTING PLAY STRUCTURE AND CONCRETE FOOTINGS
- LOAD AND HAUL OFF SITE EXISTING ENGINEERED WOOD FIBER
- EXCAVATE APPROXIMATELY 58' X 54' 12" DEPTH
SEPARATE TOPSOIL FROM SUBSOIL WHERE POSSIBLE
USE EXCAVATED MATERIAL AS FILL MATERIAL
- LEVEL SOIL, ROUGH GRADE IN PREPARATION FOR RESTORATION WORK
- INSTALL EQUIPMENT SHOWN IN MMW200114A PER MANUFACTURER SPECIFICATIONS
- ACCEPT DELIVERY OF EQUIPMENT SHOWN IN MMW200114A, UNLOAD AND STORE ON JOB SITE
- SUPPLY AND INSTALL SINGLE LAYER GEOTEXTILE FABRIC
- INSTALL ENGINEERED WOOD FIBER SAFETY SURFACING
- TURF RESTORATION
- INSTALL CONCRETE MOW STRIP AS SPECIFIED 12" X 6"
- RELOCATE SWINGS

Install Price: \$37,847.50

Totals:

SubTotal: \$70,754.30

Estimated Sales Tax 6%: \$ 4,245.26

Grand Total: \$74,999.56

**NO ORDERS WILL BE PLACED WITHOUT A SIGNED QUOTATION AND/OR PURCHASE ORDER.
ORDERS OVER \$5,000 WILL REQUIRE A SIGNED PURCHASE ORDER BEFORE THEY WILL BE PLACED.**

PLEASE NOTE THE FOLLOWING:

- ✓ Sales tax on this quote is only an estimate. Final sales tax will be added to your invoice if a current state sales tax exemption certificate is not on file in our office.
- ✓ A Miracle Credit Application may be required and must be completed and returned before your order is placed. If credit is not issued, Cash in Advance is required with order.
- ✓ **ORDERS OVER \$10,000.00 MAY REQUIRE 50% DEPOSIT BEFORE ORDER IS RELEASED.**
- ✓ See top of quote for terms.
- ✓ This quote is to supply the equipment listed above only. Any other contractual requirements/needs are the responsibility of the contractor.
- ✓ PLEASE provide 4-5 sturdy adults or appropriate unloading equipment to unload your equipment
- ✓ Due to fluctuating fuel and steel prices, quotes are valid for only 30 days. After 30 days, cost is only an estimate and actual charges may differ.
- ✓ Price was quoted site unseen, it assumes the site is reasonably flat
- ✓ Please add Sales Tax, if appropriate, or fax a copy of your Tax Exempt Certificate with Order
- ✓ THIS QUOTE **DOES NOT** INCLUDE:
 - ✓ Equipment, Services, Materials not specifically noted above
 - ✓ Removal of soils/excess excavated materials from site
 - ✓ Drainage materials/Installation of drainage materials
 - ✓ Dewatering/excess water removal from footings, excavations, or any other installation processes where excess water may be present
 - ✓ Accessible route to new play area
 - ✓ Any permits, if required
 - ✓ Repair of any utilities/irrigation system not marked by Miss Dig or owner
 - ✓ Testing of soil conditions
 - ✓ Prevailing Wage or union/labor wages
 - ✓ Bid/Performance/Labor/Material Bonds

Continued to next page...

3/16/2020

QUOTE: R0016200007

Page 2 of 4



RFP Candy Cane Playground - Option #2 - View 1
City of Ypsilanti, MI
MMW200114A





RFP Candy Cane Playground - Option #2 - View 2
City of Ypsilanti, MI
MMW200114A





RFP Candy Cane Playground - Option #2 - View 3
City of Ypsilanti, MI
MMW200114A





RFP Candy Cane Playground - Option #2 - View 4
City of Ypsilanti, MI
MMW200114A



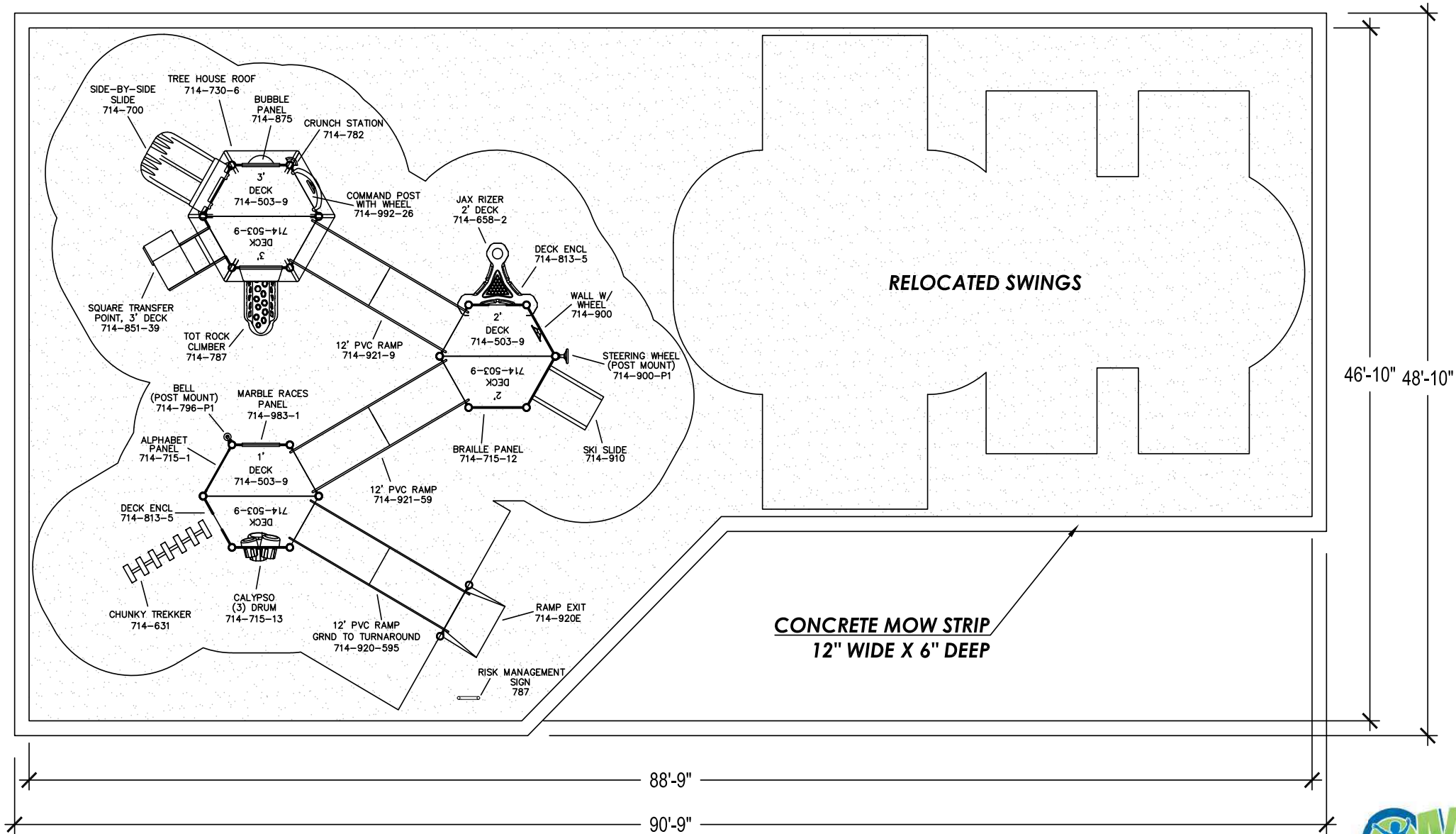
AREA: 3,500 SQ.FT.
PERIMETER: 263'
The information provided is for
estimation purposes only.

Play Area Capacity: 95 - 105

RFP CANDY CANE PLAYGROUND - OPTION #2
CITY OF YPSILANTI, MI

2-12 PLAY AREA

ELEVATED PLAY ACTIVITIES - TOTAL	12	
ELEVATED PLAY ACTIVITIES ACCESSIBLE BY TRANSFER	12	REQ'D 0
ELEVATED PLAY ACTIVITIES ACCESSIBLE BY RAMP	12	REQ'D 6
GROUND LEVEL ACTIVITY TYPE	3	REQ'D 0
GROUND LEVEL ACTIVITY QUANTITY	3	REQ'D 0



To verify product certification,
visit www.ipema.org

To promote safe and proper equipment use by children, Miracle recommends the installation of either a Miracle safety sign or other appropriate safety signage near each playsystem's main entry point(s) to inform parents and supervisors of the age appropriateness of the playsystem and general rules for safe play.



THE PLAY COMPONENTS IDENTIFIED IN THIS PLAN ARE IPEMA
CERTIFIED. THE USE AND LAYOUT OF THESE COMPONENTS
CONFORM TO THE REQUIREMENTS OF ASTM F1487.

AN ENERGY ABSORBING PROTECTIVE SURFACE IS REQUIRED
UNDER & AROUND ALL PLAY SYSTEMS.

MMW200114A-1A-1

GROUND SPACE: N/A
PROTECTIVE AREA: NOTED

✓ COMPLIES TO CPSC

✓ COMPLIES TO ASTM

✓ COMPLIES TO ADA

DESIGNED FOR
AGES
2-12

ADDITIONAL GROUND LEVEL
ACCESSIBLE ITEMS NEEDED
FOR ADA COMPLIANCE

TYPE:
0

QUANTITY:
0

DATE: 3/6/2020

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

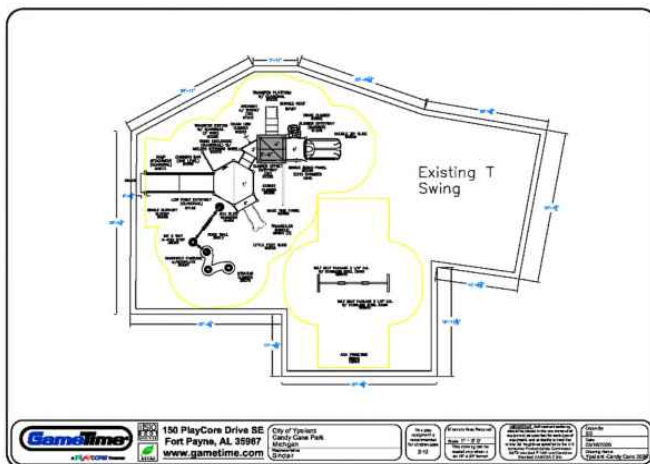
BDS

Sinclair Recreation (GameTime)

Holland, Michigan

Total: \$75,000

- Moves near existing tot swing (top of hill)
- Designed age range: 2-12
- Timeline: Begin 45 days after order, complete 2 weeks after that
- Warranty:
- Play equipment: 33886.00



5- Sinclair



GameTime c/o Sinclair Recreation
PO Box 1409
Holland, MI 49422-1409
Ph: 800-444-4954
Fax: 616-392-8634

03/12/2020
Quote #60421-01-02

City of Ypsilanti - Candy Cane Park

CITY OF YPSILANTI
Attn: Christopher Jacobs
1 S HURON ST
YPSILANTI, MI 48197-5420
cjacobs@cityofypsilanti.com

Ship to Zip 48197

Quantity	Part #	Description	Unit Price	Amount
1	RDU	GameTime - Custom Ramped Play Structure	\$47,989.00	\$47,989.00
		(3) 26094 -- Triangular Shroud		
		(1) 90466 -- Maze Panel, Above Dk		
		(1) 90478 -- Rung Encl Mold S. Whl & Gr, Above Dk		
		(1) 91209 -- Climber Entryway - Barrier		
		(1) 90592 -- Ridge Climber (Single)		
		(1) 4842 -- Echo Chamber Ass'Y		
		(1) 90430 -- Decorative Panel W/Gizmo, Above Dk		
		(1) 91335 -- Climber Offset Entryway (3D)		
		(1) 90058 -- 6' Cosmix Climber		
		(1) 90508 -- 4' Double Zip Slide, Std Dk		
		(1) 16700 -- Ada49"Sq Punch Steel Deck		
		(1) 80687 -- Handhold/Kick Plate Pkg		
		(1) 90530 -- 2'2'-6" Little Foot Slide W/Encl		
		(1) 16465 -- Slide Transfer (Ada)		
		(1) 81656 -- 1-Level Chin Bar		
		(1) 36076 -- Stratus Climber		
		(1) 36022 -- 90 Deg 2 Way X-Pod Step		
		(1) 36013 -- Rock Wall Link		
		(1) 36020 -- Single Upright Support W/Step		
		(1) 16806 -- Ada 6"Stepped Platform		
		(1) 80187 -- Shingle Roof		
		(1) 90033 -- 4' Transfer Platform W/Guardrail		
		(1) 91010 -- Archway W/ Socket (3D)		
		(1) 90243 -- 3' & 3'-6" Chain Link Climber		
		(1) 91145 -- Low Point Entryway - Guardrail		
		(1) 90026 -- 2'-0" Transfer System W/ Guardrail		
		(1) 16701 -- Ada 49"Tri Punch Steel Dk		
		(1) 90673 -- Ramp (Guardrail)		
		(1) 90005 -- Two Piece Hex Deck, Ada Ramp Access		
		(3) G90265 -- 7' Upright, Galv		
		(2) 90264 -- 6' Upright, Alum		
		(1) 90267 -- 9' Upright, Alum		



GameTime c/o Sinclair Recreation
PO Box 1409
Holland, MI 49422-1409
Ph: 800-444-4954
Fax: 616-392-8634

03/12/2020
Quote #60421-01-02

City of Ypsilanti - Candy Cane Park

Quantity	Part #	Description	Unit Price	Amount
		(2) 90266 -- 8' Upright, Alum		
		(4) 90272 -- 14' Upright, Alum		
		(2) G90262 -- 4' Upright, Galv		
		(2) G90266 -- 8' Upright, Galv		
		(2) 90268 -- 10' Upright, Alum		
1	RDU	GameTime - One Bay Primetime Swing and Seat Packages	\$1,831.00	\$1,831.00
		(2) SS8910 -- Belt Seat 3 1/2" /8' W/Clevis		
		(1) 12583 -- Ada Primetime Swing Frame, 3 1/2" Od		
2810	GTIMPX	GT-Impax - SF 12" Engineered Wood Fiber	\$1.20	\$3,372.00
2	161290	GameTime - Geo-Textile 2250 Sqft Roll	\$681.00	\$1,362.00
1	INSTALL	Installation - Installation of New Equipment, EWF, Felt, Excavation, Removal of Old, and Concrete Mow Strip	\$36,633.00	\$36,633.00
			Sub Total	\$91,187.00
			Grant	(\$19,559.51)
			Freight	\$3,372.51
			Total	\$75,000.00

This quotation is subject to policies in the current GameTime Playground Catalog and the following terms and conditions. Our quotation is based on shipment of all items at one time to a single destination, unless noted, and changes are subject to price adjustment. Purchases to be supported by your written purchase order made out to GAMETIME C/O SINCLAIR RECREATION.

NOTE: PRICING DOES NOT INCLUDE ANY DAVIS BACON OR PREVAILING WAGE RATES UNLESS SPECIFICALLY IDENTIFIED ABOVE IN QUOTE.

Pricing: f.o.b. factory, firm for 30 days from date of quotation unless otherwise noted on quotation. Sales tax will be added at time of invoicing unless a tax exemption certificate is provided at time of order entry.

Payment terms: Net 30 days for tax supported governmental agencies. A 1.5% per month finance charge will be imposed on all past due accounts. Equipment shall be invoiced separately from other services and shall be payable in advance of those services and project completion. Retainage not accepted.

Shipment: Order shall ship within 30-45 days after GameTime's receipt and acceptance of your purchase order, color selections, approved submittals, and receipt of deposit, if required.

NOTE: To qualify for the GameTime Grant, you must complete the application form for pre-approval. Upon approval, a Partial Matching Grant (reflected in the pricing shown above) is good toward the purchase of a new Powerscape, PrimeTime, XScape or Ionix Structure only. The order MUST be received no later than October 30, to allow for processing, and your order will ship within 3-5 weeks from date of order placement. The Grant does not apply toward Freight, Freestanding Items, Surfacing or Installation. Terms will be Net 30 days.



**150 PlayCore Drive SE
Fort Payne, AL 35967
www.gametime.com**

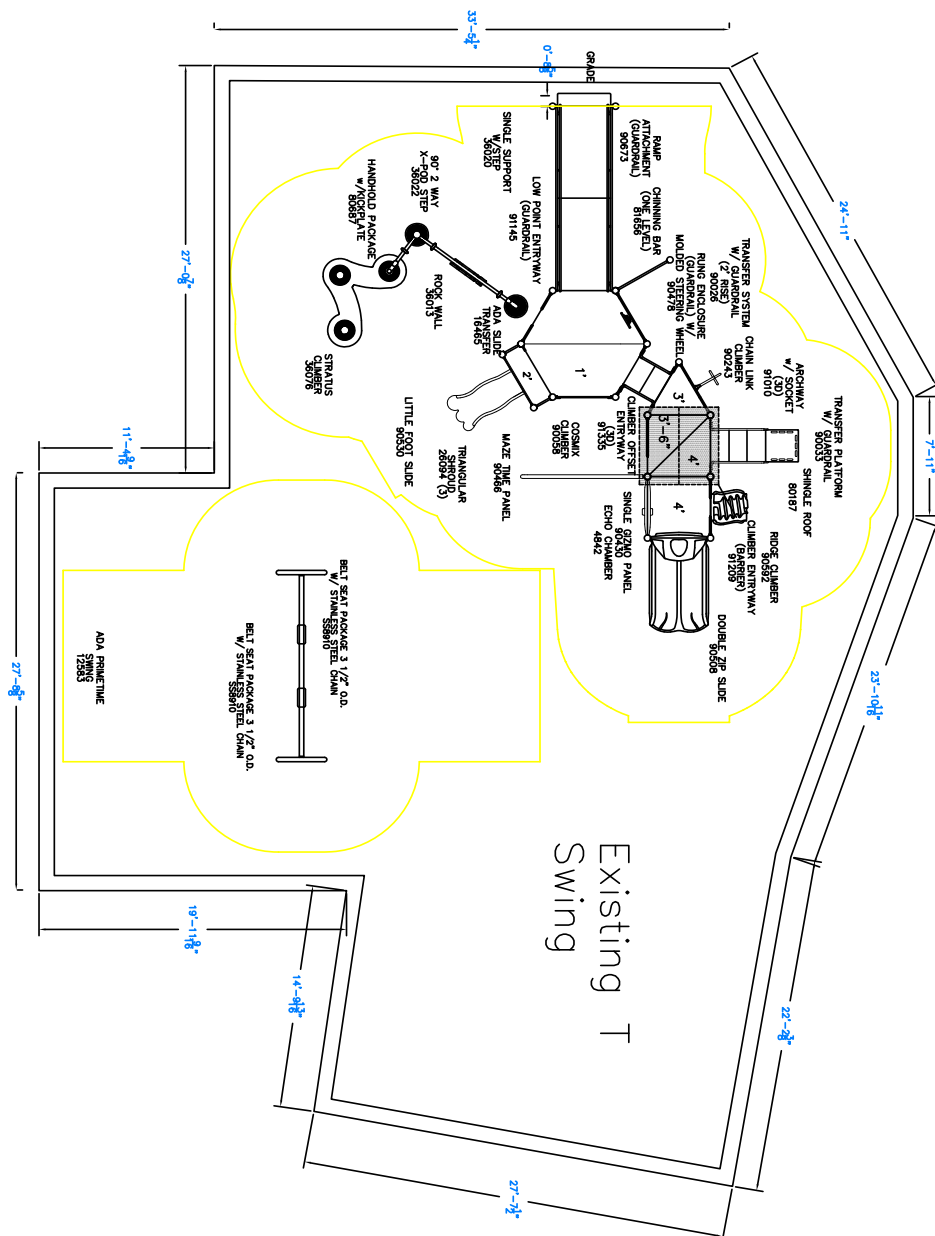
City of Ypsilanti
Candy Cane Park
Michigan
Representative
Sinclair

This play
equipment is
recommended
for children ages
2-12

Minimum Area Required:
Scale: 1" = 5'-0"
This drawing can be
scaled only when in
an 18" x 24" format

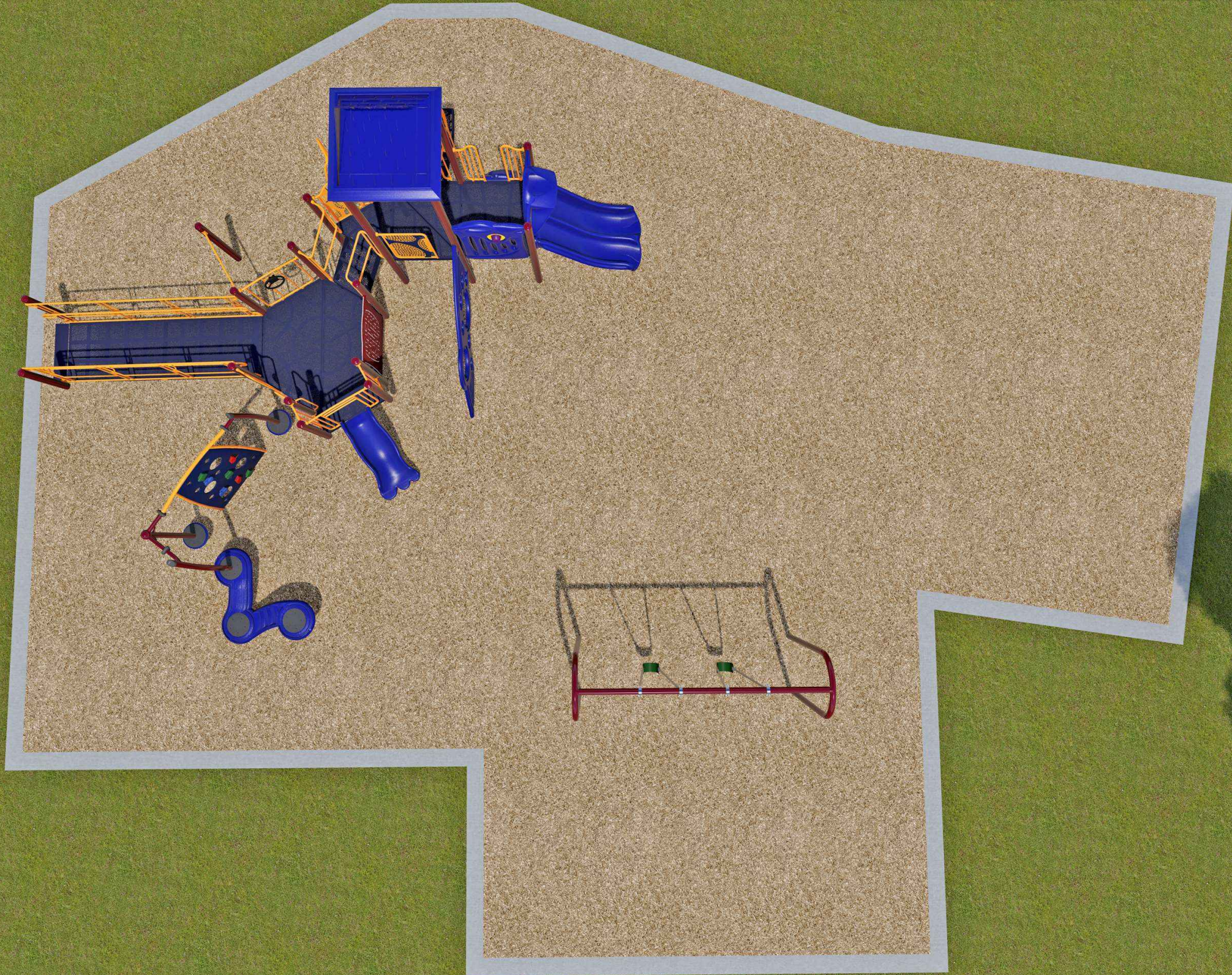
should be placed in the use zones of all equipment, as specified for each type of equipment, and at depths to meet the critical fall heights as specified by the U.S. consumer Product Safety Commission, ASTM standard F 1487 and Canadian Standard CAN/CSA-Z-614.

Drawn By: SS
Date: 03/16/2020
Drawing Name: Ypsilanti-Candy Cane 2020 2D





Intellectual property of GameTime, a PlayCore Company. The site shown in rendering is an interpretation and may not reflect exact site conditions.



Rendered in Jellybean Palette



City of Ypsilanti
Candy Cane Park 2020





Resolution No. 2020 - 01
May 12, 2020

**RESOLVED BY THE PARKS AND RECREATION COMMISSION OF THE CITY OF
YPSILANTI:**

Whereas, the City released a Request for Proposals to replace outdated play equipment at Candy Cane Park in February of this year with an option to relocate it; and

Whereas, five complete bids were received in a timely fashion; and

Whereas, the lowest well-qualified bid was submitted by Play Environments, option 2; and

Now therefore be it resolved that the Ypsilanti City Parks and Recreation Commission recommend that City Council award the bid submitted by Play Environments for option 2.

OFFERED BY: Ben Connor-Barrie

SUPPORTED BY: Dillon Navarre

YES: 8 NO: 0 ABSENT: 0 VOTE: carries



REQUEST FOR LEGISLATION

TO: Mayor and City Council
FROM: Ron Akers
DATE: June 2, 2020
SAW Grant – Stormwater Asset Management Plan Computerized
SUBJECT: Maintenance Management System Software

DESCRIPTION:

SAW Grant – Stormwater Asset Management Plan Computerized Maintenance Management System Software

SUMMARY:

In 2013, the City of Ypsilanti submitted a Stormwater, Asset Management, and Wastewater (SAW) Grant Application to the Michigan Department of Environment, Great Lakes, and Energy (EGLE), previously known as the Michigan Department of Environmental Quality (MDEQ), to create a Stormwater Asset Management Plan. The City of Ypsilanti was awarded the SAW Grant in the amount of \$376,288 with a local match of \$41,810 to create a Stormwater Asset Management Plan. As a part of this grant, the city allocated approximately \$81,000 for AM/GIS training, hardware, and software purchases. The City has reviewed three (3) options for this software and is recommending ElementsXS as it is the most user friendly, offers more services, and is more comprehensive in its potential uses.

The initial costs of this package will be covered by the SAW grant (\$65,500), but there are annual fees which total \$20,500 which will have to be taken from the city's Act 51 accounts 202 & 203. Attached to this RFL is an OHM memo which explains what the asset management software packages are and how they can provide value to our operations.

RECOMMENDED ACTION:

Staff recommends City Council authorizes the Director of Public Services to enter into a sales agreement with Elements XS for the purchase of Asset Management Software for an amount of \$65,500 with any changes to be approved by the City Manager.

ATTACHMENTS: Price comparison e-mail, OHM memo, and proposed sales agreement

CITY MANAGER APPROVAL: _____ COUNCIL AGENDA DATE: _____

CITY MANAGER COMMENTS: _____

FISCAL SERVICES DIRECTOR APPROVAL: _____



Resolution No. 2020-125
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

WHEREAS, the City of Ypsilanti was awarded a SAW grant from the State of Michigan in an amount of \$376,288; and,

WHEREAS, \$81,000 of those grant funds were set aside to purchase asset management software; and,

WHEREAS, city staff has evaluated three (3) different options for digital asset management and has recommended Elements XS due to its simplicity of use and comprehensive scope.

NOW THEREFORE BE IT RESOLVED THAT that the City of Ypsilanti authorizes the Department of Public Services Director to enter into a sales agreement with Elements XS for the purchase of Asset Management Software for an amount of \$65,500 with any changes to be approved by the City Manager.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-125



Novotx LLC | 1436 Legend Hills Dr Ste 335 | Clearfield, UT 84015 | sales@novotx.com

Sales Agreement

May 19, 2020

This agreement describes the products and/or services to be provided and/or licensed by the Customer at the Installation Address below. Prior to installation and/or use, an authorized representative of the Customer must agree to the terms and conditions of the License Agreement(s) associated with the product(s) listed below (provided separately).

Any Governmental, not-for-profit or quasi-governmental entity may avail itself of this contract and purchase any and all goods/services, specified herein from the successful bidder(s)/proposer(s) at the contract price(s) established herein, when permissible by federal, state, and local laws, rules, and regulations.

Each Governmental, not-for-profit or quasi-governmental entity which uses this formal solicitations and resulting bid contract or agreement will establish its own contract/agreement, place its own orders, issue its own purchase orders, and be invoiced there from and make its own payments, determine shipping terms and issue its own exemption certificates as required by the successful bidder(s)/proposer(s).

Customer Information			
Licensed Entity Name	City of Ypsilanti, MI	Contact Name	Ron Akers
Installation Address	1 South Huron Street, Ypsilanti, MI 48197	Title	Director of Public Services
Billing Address	Same as Installation	Email	rakers@cityofypsilanti.com
Website	http://cityofypsilanti.com	Phone	734-483-1421

Vendor Information			
Vendor	Novotx LLC	Contact Name	Ken Peterson
Address	1436 Legend Hills Dr Suite 335 Clearfield, UT 84015	Email Address	kpeterson@novotx.com
Website	https://elementsxs.com	Phone	402-309-5701

Description of Products and Services	Qty	Rate	Total
Software			
Elements XS Enterprise Subscription	1	15,000	15,000
Includes unlimited users based on max population of 25,000 Annual subscription renews every 12 months from date of installation.			
Amazon Cloud Hosting (yearly)	1	5,500	5,500
Services			
Elements XS Implementation Services, includes up to 30 billable days of services including application installation, configuration, and training for the Department of Public Services. Services to include: •Storm sewer maintenance	1		\$45,000
Total Software and Services			\$65,500

Additional Transaction Details		
Payment Terms	Total Due Upon Contracting	\$49,125
	Total Due Upon Project Completion	\$16,375
	Total Due Every 12 Months	\$20,500
Additional Services & Travel	Additional professional services are billed at \$1,800 per day (\$225 per hour). Services beyond the project scope must be approved by Customer prior to services being performed and will be billed separately. Services beyond the scope of this agreement include: - Any scripts, interfaces, reports or program code requested by the Licensee, other than Program Modifications to the Elements XS applications that provide specific functionality uniquely designed for the Licensee - Consulting services for Custom Applications or Custom Programming performed specifically for the Licensee Travel expenses will be billed actual, as incurred, for any services performed onsite.	
Expiration	Sales Agreement expires 30 days after date of this agreement.	
Sales Tax	Customer agrees to pay any and all sales, use, excise or transaction taxes with respect to the products and services under this Sales Agreement.	
Required Licensing	Microsoft SQL Server and Esri's ArcGIS Enterprise (and/or an active subscription to ArcGIS Online) is required for this deployment. Pricing in this agreement does not include this software and Customer is responsible for purchasing, installing, and maintaining these applications.	

Purchase Authorization	
By signing below, Customer agrees to purchase the software and services listed above.	



Signature	Printed Name	Title	Date



memorandum

Date: May 7, 2020

To: Ron Akers, AICP
Director of Public Services

From: OHM Advisors

Re: SAW Grant - Stormwater Asset Management Plan
Computerized Maintenance Management System Software

In 2018, the City of Ypsilanti was awarded the Stormwater, Asset Management, and Wastewater (SAW) Grant from the Michigan Department of Environment, Great Lakes, and Energy (EGLE) to develop a stormwater asset management plan. The SAW Grant is authorized to covers costs related to the development of the stormwater asset management plan that includes, but is not limited to: collecting stormwater asset inventory, asset condition evaluation, asset management software/training, Geographic Information Systems (GIS) software/training, hardware (i.e. tablets, computers, etc), and cleaning and televising of assets.

The City of Ypsilanti Department of Public Services (DPS) vetted different asset management software, also known as Computerized Maintenance Management System (CMMS) software, to determine the most appropriate application for the City's operations. The CMMS software demonstration that stood out the most was ElementsXS.

ElementsXS is a web-based asset management software that integrates with the Geographic Information Systems (GIS). Under the SAW Grant, the City of Ypsilanti's storm sewer network has been inventoried and assets like manholes, pipes, and outfalls have been placed in GIS. GIS is a centralized geospatial database that will allow Staff to better understand what assets they have and where these assets are. Once the GIS is fully implemented, it will be the repository for static asset information like asset location, size, material, and installation date.

ElementsXS uses GIS as a foundation but enhances the ability to implement asset management, work order management, and maintenance management. Managers will be capable of creating cyclical inspections for each asset to know how an asset is performing and create workflows to prolong the service life of each asset. Managers will be able to create work orders that can be sent to Crews in the field and track which asset is being worked on. This process can streamline the workforce and make sure work is getting completed efficiently. Managers will be able to create maintenance schedules and track labor costs, materials usage and equipment usage with every work order created. Photos or

OHM Advisors*
34000 PLYMOUTH ROAD
LIVONIA, MICHIGAN 48150

T 734.522.6711
F 734.522.6427

OHM-Advisors.com



media files can also be attached to each work order. ElementsXS is a web-based software that can be accessed through the internet via any mobile device, laptop, or desktop computer. Paper will be eliminated, and Field Crews can fill out inspections or work orders in real-time. Once the inspection or work orders are completed, the Field Crews edits will be reflected back in the office. Once all the data is collected, Managers can run reports on the work and see the progress for the day, month, or year.

ElementsXS also has tools so Managers can perform a more thorough analysis of each asset. Managers can analyze the condition of each asset so a priority list can be created for precision maintenance. Managers can focus on preventative maintenance instead of reactive fixes. After the data is in ElementsXS, budgeting and capital improvement forecasting become extremely easy to accomplish. The combination of GIS and ElementsXS gives Managers the technology needed to increase efficiencies and extend the service life of Ypsilanti's assets.

The initial purchase and implementation costs will be covered by the SAW Grant. The software can later be integrated with other assets besides stormwater. ElementsXS can be designed to include additional utility assets and can be configured to include other Department's workforce.

Ronald Akers

From: Rachel Jackson <Rachel.Jackson@ohm-advisors.com>
Sent: Thursday, April 2, 2020 2:28 PM
To: Ronald Akers
Cc: John Tanner; Michael Cousins
Subject: Pricing - SAW Grant - AMP Software, Hardware, Training
Attachments: Ypsilanti MI Sales Agreement (1) (1).pdf

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Ron,

We received the quotations from ElementsXS and Lucy for the City of Ypsi CMMS Software and I've provided the summary below. I've also included the costs for OHM to set up the Workforce Application that Mike had ran through the example from the City of Oak Park..

- ElementsXS Pricing
 - One-time implementation costs - \$45,000
 - Annual Subscription Costs (unlimited users) - \$20,500
- Lucy CentralSquare Cloud EAM Pricing
 - One-time Implementation Costs - \$34,840
 - Annual Subscription Costs (5 Users) - \$17,500
- GIS ESRI Workforce Application (OHM)
 - One-time Implementation Costs (incl. training) - \$25,000
 - Annual Subscription Costs
 - 1 ESRI Fieldworker License - \$350 (recommend multiple for multiple users to receive work orders)
 - As-needed OHM assistance (budget between \$10K and \$20K)

As a reminder, we have budgeted \$81,000 for AM/GIS training, hardware, and software under the SAW Grant. To give you the full picture of what we're looking at, I've also summarized the hardware costs that we discussed in our January meeting with Mike. These costs are regardless of what CMMS software the City chooses:

- One-time Software/Hardware/Training Costs (min. total cost \$22,600)
 - 1 Tablet (quantity decided by City) \$600
 - GPS/EOS units with Bluetooth \$8,000
 - Scanner/plotter combo \$13,000
 - 1 office workstation (desktop, monitor, mouse, keyboard: quantity decided by the City) \$1,000
 - OHM provide as-needed training
- Annual Costs (min. total cost \$1,150/yr)
 - ESRI admin 1 pro-basic \$700/yr
 - ESRI viewer \$100/yr
 - ESRI Fieldworker \$350/yr

I know I provided a lot of information, please feel free to give me a call. I can also set up a quick conference call with the team to go over in further detail. Just let me know!

Thanks,

RACHEL JACKSON, PE
PROJECT ENGINEER



REQUEST FOR LEGISLATION

TO: Mayor and City Council
FROM: Joe Meyers
DATE: June 2, 2020
SUBJECT: Street and Parking Space Closure to Support Businesses in our Downtown Districts

DESCRIPTION:

Street and Parking Space Closure to Support Businesses in our Downtown Districts

SUMMARY:

After the COVID-19 stay at home order went into place the DDA conducted a survey of its businesses to gauge the economic impact of virus and shutdown. To date the DDA has received almost 50 surveys and found that most businesses are planning on reopening within a short time of the governors stay at home order being lifted. In addition to the data the DDA collected, many of the comments received indicate a desire to see the City provide additional capacity using public sidewalks, parking spaces, and streets. Staff and the DDA Board want to ensure that establishments permitted to open to the public have the ability to accommodate social distancing guidelines expected to come from the State of Michigan. The DDA has approved the following recommendations to provide retailers and restaurants expanded operational space and allow pedestrians to safely social distance while visiting the Downtown, Depot Town, and West Cross. This information will be presented to City Council for approval on June 2nd, with the goal of starting the street closures in June.

We would begin by permitting restaurants to expand outdoors into streets and parking spaces and then allow for retail stores to expand as well. The additional capacity would help reduce crowding in stores and allow pedestrians to spread out on our most popular corridors of E Cross Street and Washington, rather than being funneled onto sidewalks. We hope this encourages people to feel more comfortable and confident returning to their favorite restaurants and shops by providing adequate space to practice safe social distancing.

Removable barricades can be placed at the street ends that could be moved aside to allow emergency vehicles through. Outdoor displays or dining areas cannot be permanent structures that would impede the path of an emergency vehicle but could be easily moved in a quick and

orderly fashion if there were a fire or ambulance call. Parking will be available in surrounding lots and side streets.

We will work with the Michigan Liquor Control Commission (MLCC) to allow restaurants with patios to have alcohol service within their expanded outdoor boundaries, provided there is some kind of perimeter in place to clearly delineate areas where customers can drink. Walking between restaurant patios with open containers would not be permitted. When things reopen, it cannot be business as usual and this will give the opportunity to restaurants and shops to expand out their footprints and offer their goods and services while keeping people safe.

With the recent adoption of the Parking Strategy the DDA understands that it is essential for the city to collect revenue for parking spaces to pay for maintenance obligations. To assist in offsetting this cost, the DDA has approved \$2,500 to cover the cost of parking spaces used under this program. The average metered space collects approximately \$1.20 per day and there are 24 spaces estimated for the street closure plan.

The DDA is requesting a special event permit to close E Cross Street– stretching from Rice Street to River Street, North Washington Street from Pearl to Michigan Avenue, as well as South Washington Street between Michigan Avenue and the South Huron Parking Lot. In addition to the street closures the DDA is requesting on street parking on W. Michigan and W. Cross to be closed to accommodate added outdoor seating and potential curbside pickup spaces. The closures would remain in effect during overnight hours and last until September 8, 2020. Michigan Ave, located in the middle of the closure zone Downtown, would remain open to East-West vehicle traffic. The DDA has agreed to pay for the parking spaces being blocked off to allow the plan at a cost of \$2,500.

These spaces/streets will only be closed if there is interest from the adjacent business owner to expand their outdoor patio space or the DDA sees it necessary to reserve communal spaces for curbside pickup.

RECOMMENDED ACTION: Staff recommends the support of the DDA's request.

CITY MANAGER APPROVAL: _____ COUNCIL AGENDA DATE: _____

CITY MANAGER COMMENTS: _____

FISCAL SERVICES DIRECTOR APPROVAL: _____



Resolution No. 2020-126
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

WHEREAS, the COVID-19 crisis has hit the City of Ypsilanti and our businesses extremely hard; and

WHEREAS, public health guidance is indicating that eating on outdoor patio's at restaurants is the safest way to dine out, and

WHEREAS, the city seeks to assist in the recovery of our small businesses when the stay at home stay safe order is lifted; and

WHEREAS, It is expected that restaurants capacity is expected to be reduced to at least 50% when they are allowed to reopen, and

NOW THEREFORE BE IT RESOLVED THAT the Ypsilanti City Council approves a special event permit closing E Cross Street– stretching from Rice Street to River Street, North Washington Street from Pearl to Michigan Avenue, as well as South Washington Street between Michigan Avenue and the South Huron Parking Lot. In addition to the street closures the DDA is requesting on street parking on W. Michigan and W. Cross to be closed to accommodate added outdoor seating and potential curbside pickup spaces. The closures would remain in effect during overnight hours and last until September 8, 2020 at a cost not to exceed \$2,500.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this 2 day of June 2020

#Resolution No. 2020-126



REQUEST FOR LEGISLATION

TO: Mayor and City Council
FROM: Ron Akers
DATE: June 2, 2020
SUBJECT: Small Cell Wireless Application 2020-001

DESCRIPTION:

Small Cell Wireless Application 2020-001

SUMMARY:

In late 2018 the State of Michigan adopted the "Small Wireless Communication Facilities Deployment Act" which was intended to accelerate and encourage deployment of small wireless infrastructure in the public right of way. This law provided a framework for which municipalities have to review these facilities within the public right of way and provided specific guidelines that both the municipalities and the small cell wireless providers needed to follow.

In response to this and interest from small cell wireless providers, City Council has adopted an Ordinance which regulate Small Cell Wireless Facilities in the City in response to changes in state law and the use of these facilities in the expansion of 5G wireless technology. The Ordinance works within the framework of the state statute and takes several factors into consideration when evaluating these facilities.

Verizon Wireless has submitted several sites to be located within the City of Ypsilanti and each of these sites has been reviewed based on the criteria of the Small Cell Wireless Ordinance. The location of the proposed sites are as follows:

1. 1102 Kingswood
2. 302 Hiawatha
3. 1307 Whittier
4. 1519 Washtenaw
5. 707 W. Michigan Ave
6. 89 Oakwood
7. 1219 Elbridge
8. 07 Ballard

- 9. 728 Mansfield
- 10. 14 W. Forest
- 11. 1201 Roosevelt
- 12. 805 Congress
- 13. 207 Ballard
- 14. 122 College Place
- 15. 399 Perrin
- 16. 701 Lowell
- 17. 1016 Cornell
- 18. 213 N Summit
- 19. 947 Sheridan
- 20. 103 N Normal

These proposed locations are all within the City owned Right of Way and plans have been reviewed by Department of Public Services staff for compliance with the Small Cell Wireless Ordinance.

RECOMMENDED ACTION:

Based on our review of the criteria in the Small Cell Wireless Ordinance Staff is recommending approval for these locations.

ATTACHMENTS: Application, plans.

CITY MANAGER APPROVAL: _____ COUNCIL AGENDA DATE: _____

CITY MANAGER COMMENTS: _____

FISCAL SERVICES DIRECTOR APPROVAL: _____



Resolution No. 2020-127
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

WHEREAS, the State of Michigan adopted the "Small Wireless Communication Facilities Deployment Act" in late 2018 which required municipalities to allow small cell wireless facilities within public right of way; and,

WHEREAS, the City of Ypsilanti adopted an ordinance to regulate small cell wireless facilities within the constraints of this law; and,

WHEREAS, Verizon Wireless has submitted an application; and,

WHEREAS, City staff has reviewed the plans and application and has found that the plans are consistent with the requirements of city ordinances;

NOW THEREFORE BE IT RESOLVED THAT that the City of Ypsilanti approves small cell wireless application 2020-001 subject to review by the City Attorney.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-127

SMALL CELL ACT PERMIT APPLICATION FORM

city of Ypsilanti (Authority)

**APPLICATION FOR
ACCESS TO AND ONGOING USE OF PUBLIC WAYS BY**

**SMALL CELL WIRELESS PROVIDERS
UNDER
SMALL WIRELESS COMMUNICATIONS FACILITIES DEPLOYMENT ACT**

**2018 PA 365
MCL SECTIONS 460.1301 TO 460.1339**

BY

**Cellco Partnership d/b/a Verizon Wireless
("APPLICANT")**

Where to File: Applicants should file copies as follows:

-- Three (3) paper copies (one of which shall be marked and designated as the master copy) with the Clerk at [insert address].

--One copy by email to the City Clerk at 1 South Huron Street, Ypsilanti, MI 48197

City of Ypsilanti

**APPLICATION FOR
ACCESS TO AND ONGOING USE OF PUBLIC WAYS BY
TELECOMMUNICATIONS PROVIDERS**

**By
Cellco Partnership d/b/a Verizon Wireless
("APPLICANT")**

This is an application pursuant to Small Wireless Communications Facilities Deployment Act, 2018 PA 365 ((The "Small Cell Act") for access to and ongoing usage of the public right-of-way, or "ROW" which means the area on, below, or above a public roadway, highway, street, alley, bridge, sidewalk, or utility easement dedicated for compatible uses in the Municipality for one or more Small Cell Wireless Facilities. Public right-of-way does not include any of the

following: (i) A private right-of-way; (ii) A limited access highway; or (iii) Land owned or controlled by a railroad as defined in section 109 of the railroad code of 1993, 1993 PA 354, MCL 462.109.

Following receipt of an application, the Small Cell Act allows 25 days for a determination by the authority (municipality) that the application is complete, or not. The Act further provides 60-120 days for an authority to approve or deny access from the date a provider files an application for a permit for access to a public right-of-way." This application must be accompanied by a one-time application fee of \$200 in the event applicant intends to use an existing utility pole or, \$300 in the event the applicant intends to use a new or replacement of an existing pole, regardless of what entity actually replaces the pole. A bond of \$1000 per site is also required at the time of permitting.

1 GENERAL INFORMATION:

1.1 Date: 1/13/2020

1.2 Applicant's legal name: **Cellco Partnership d/b/a Verizon Wireless**
Mailing Address: **One Verizon Way**
Mailstop 4AW100
Basking Ridge, NJ 07920

Telephone Number: 866-860-4404

FaxNumber:NA

Corporate website:

Name and title of Applicant's local manager (and if different) contact person regarding this application: **David Haslinger/Stan Wojciechowski**

Mailing Address: **Verizon Wireless**
24242 Northwestern Hwy
Southfield MI 48075

Telephone Number: 248-915-3568
Fax Number: 248-915-3598
E-mail Address: david.haslinger@verizonwireless.com

1.3 Type of Entity: (Check one of the following)

☐	Corporation	
☒	General	Partnership
☐	Limited	Partnership
☐	Limited Liability	Company
☐	Individual	
☐	Other, please describe:	

1.4 Assumed name for doing business, if any: **NA**

1.5 Description of Entity: **Telecommunications**

1.5.1 Jurisdiction of incorporation/formation; **Delaware**

1.5.2 Date of incorporation/formation; **October 4th 1994**

1.5.3 If a subsidiary, name of ultimate parent company; **NA**

1.5.4 Chairperson, President/CEO, Secretary and Treasurer (and equivalent officials for non-corporate entities). **Caroline Armour, Senior Vice President and CFO**

1.6 Attach copies of Applicant's most recent annual report (with state ID number) filed with the Michigan Department of Licensing and Regulatory Affairs and certificate of good standing with the State of Michigan. For entities in existence for less than one year and for non-corporate entities, provide equivalent information. **NA General Partnerships do not register with the State of MI**

1.7 Is Applicant aware of any present or potential conflicts of interest between Applicant and Municipality? If yes, describe: **NO**

1.8 In the past three (3) years, has Applicant had a permit to install Small Cell Facilities in the public right of way revoked by any Michigan municipality?

Circle: Yes No

If "yes," please describe the circumstances.

1.9 In the past three (3) years, has an adverse finding been made or an adverse final action been taken by any Michigan court or administrative body against Applicant under any law or regulation related to the following:

1.9.1 A felony; or

1.9.2 A revocation or suspension of any authorization (including cable franchises) to provide personal wireless cellular services?

Circle: Yes

☒ No

If "yes," please attach a full description of the parties and matters involved, including an identification of the court or administrative body and any proceedings (by dates and file numbers, if applicable), and the disposition of such proceedings.

1.10 Please provide a copy of any and all licenses or permits held by the applicant to provide personal wireless services. [If Applicant provides a license to provide wireless service, no financial information needs to be supplied.] Whether privately or publicly held, provide Applicant's most recent financial statements. If financial statements of a parent company of Applicant (or other affiliate of Applicant) are provided in lieu of those of Applicant, please explain.

1.10.1 If privately held, and if Municipality requests the information within 25 days of the date of this Application, the Applicant and the Municipality shall make arrangements for the Municipality to review the financial statements and obtain copies of those records necessary to support the financial ability of applicant to carry out the permit requested in a reasonable and timely fashion.

If no financial statements are provided, please explain and provide particulars.

2 DESCRIPTION OF PROJECT:

2.1 Provide a copy of authorizations, if applicable, Applicant holds to provide wireless services in this Municipality, County and State. If no authorizations are applicable, please explain. **Business License**

2.2 Describe in plain English how Municipality should describe to the public the wireless services to be provided by Applicant and the wireless facilities to be installed by Applicant in the Public Ways. **Statement of Work**

2.2.1 Does the intended location of the wireless facility installation(s) involve particularly sensitive areas or districts of the community including: Recent Downtown Development/Renewal Streetscapes, Residential, Underground, historic or high end commercial? If so, please specify and, state what alternatives the applicant considered prior to application. **Specified on Construction Drawings**

2.3 Attach route maps showing the location and detailed drawings, plans and specifications, of all wireless facilities and associated support structures as existing and as intended to be replaced, if applicable, and all other equipment intended to be installed in the public right-of-way. Please include whether such facilities are intended as overhead or underground and – if fiber or other lines are to be installed as related to this wireless facility, attach the Metro Act Permit or pending application regarding same.

These installation details must specifically identify the exact location intended including side of the street, height, width and weight of all such equipment and support structures.

Construction approval is a separate process and may require greater detailed engineering drawings and other information to insure the safety and protection of the public and existing infrastructure of other ROW users and occupants. **SEE SPECIFIC DRAWINGS**

2.4 Please provide an anticipated or actual construction schedule and a total cost of the project including all fees paid to any other entities for attachment and make ready work.

DTE Colo Estimated Cost 23k, New is 20K

2.5 Please list all organizations and entities which will have any ownership interest in the facilities proposed to be installed in the Public Ways. **Cellco Partnership d/b/a Verizon Wireless**

2.6 Who will be responsible for maintaining the facilities Applicant places in the Public Ways and how are they to be promptly contacted? If Applicant's facilities are to be installed on or in existing facilities in the Public Ways of existing public utilities or incumbent

telecommunications providers, describe the facilities to be used, and provide verification of their consent to such usage by Applicant. **Verizon Wireless**

3 WIRELESS PROVIDER ADMINISTRATIVE MATTERS:

Please provide the following or attach an appropriate exhibit.

- 3.1 Address of Applicant's nearest local office; **24242 Northwestern Hwy. Southfield MI 48075**
- 3.2 Location of all records and engineering drawings, if not at local office;
- 3.3 Names, titles, addresses, e-mail addresses and telephone numbers of contact person(s) for Applicant's engineer or engineers and their responsibilities for the wireless system;
- 3.4 Provide evidence of self-insurance or a certificate of insurance showing Applicant's insurance coverage, carrier and limits of liability for the following:
 - 3.4.1 Worker's compensation;
 - 3.4.2 Commercial general liability, including at least:
 - 3.4.2.1 Combined overall limits;
 - 3.4.2.2 Combined single limit for each occurrence of bodily injury;
 - 3.4.2.3 Personal injury;
 - 3.4.2.4 Property damage;
 - 3.4.2.5 Blanket contractual liability for written contracts, products, and completed operations;
 - 3.4.2.6 Independent contractor liability;
 - 3.4.2.7 For any non-aerial installations, coverage for property damage from perils of explosives, collapse, or damage to underground utilities (known as XCU coverage);
 - 3.4.2.8 Environmental contamination;
 - 3.4.3 Automobile liability covering all owned, hired, and non-owned vehicles used by Applicant, its employee, or agents.
- 3.5 Names of all anticipated contractors and subcontractors involved in the construction, maintenance and operation of Applicant's facilities in the Public Ways.
- 3.6 It is recommended that the applicant prepare a wireless facilities permit from the Clerk's office and attach same to this application with all attachments. Much of the information

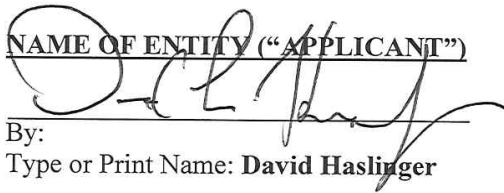
sought in this application will be required by completing the permit, which can substitute for providing the same information a second time here.

It is also recommended the applicant review the City of Ypsilanti ordinance and or Policy concerning Wireless facilities in the ROW.

4 CERTIFICATION:

All the statements made in the application and attached exhibits are true and correct to the best of my knowledge and belief.

Date

NAME OF ENTITY ("APPLICANT")

By:
Type or Print Name: **David Haslinger**

Title **Business Development and Strategic
Planning 5G**



www.kitch.com

Michael J. Watza
KITCH DRUTCHAS WAGNER VALITUTTI &
SHERBROOK
PROTEC General Counsel
www.protec-mi.org

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Detroit, MI 48226
Direct Line: 313.965.7983
Cell: 248.921.3888
Fax: 313.965.7403
mike.watza@kitch.com



REQUEST FOR LEGISLATION

TO:

FROM: Ron Akers

DATE:

SUBJECT: Small Cell Wireless Application 2020-002

DESCRIPTION:

Small Cell Wireless Application 2020-002

SUMMARY:

In late 2018 the State of Michigan adopted the "Small Wireless Communication Facilities Deployment Act" which was intended to accelerate and encourage deployment of small wireless infrastructure in the public right of way. This law provided a framework for which municipalities have to review these facilities within the public right of way and provided specific guidelines that both the municipalities and the small cell wireless providers needed to follow.

In response to this and interest from small cell wireless providers, City Council has adopted an Ordinance which regulate Small Cell Wireless Facilities in the City in response to changes in state law and the use of these facilities in the expansion of 5G wireless technology. The Ordinance works within the framework of the state statute and takes several factors into consideration when evaluating these facilities.

Verizon Wireless has submitted several sites to be located within the City of Ypsilanti and each of these sites has been reviewed based on the criteria of the Small Cell Wireless Ordinance. The location of the proposed sites are as follows:

1. 1339 N. Huron River Drive
2. 1212 N. Huron River Drive
3. 301 N. Hamilton

These proposed locations are all within the City owned Right of Way and plans have been reviewed by Department of Public Services staff for compliance with the Small Cell Wireless Ordinance.

Please note that there are three (3) additional sites within this application which need to receive Historic District Commission approval prior to consideration by City Council. This will be brought back before council at a later date after consideration by the Historic District Commission.

RECOMMENDED ACTION:

Based on our review of the criteria in the Small Cell Wireless Ordinance Staff is recommending partial approval of the applications for the above-mentioned locations.

ATTACHMENTS: Application, plans, HDC letter.

CITY MANAGER APPROVAL: _____ COUNCIL AGENDA DATE: _____

CITY MANAGER COMMENTS: _____

FISCAL SERVICES DIRECTOR APPROVAL: _____



Resolution No. 2020-128
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

WHEREAS, the State of Michigan adopted the "Small Wireless Communication Facilities Deployment Act" in late 2018 which required municipalities to allow small cell wireless facilities within public right of way; and,

WHEREAS, the City of Ypsilanti adopted an ordinance to regulate small cell wireless facilities within the constraints of this law; and,

WHEREAS, Verizon Wireless has submitted an application; and,

WHEREAS, City staff has reviewed the plans and application and has found that the plans are consistent with the requirements of city ordinances;

NOW THEREFORE BE IT RESOLVED THAT that the City of Ypsilanti partially approves small cell wireless application 2020-002 for the following locations: 1339 N. Huron River Drive; 1212 N. Huron River Drive; and 301 N. Hamilton, subject to review by the City Attorney.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-128

SMALL CELL ACT PERMIT APPLICATION FORM

city of Ypsilanti (Authority)

**APPLICATION FOR
ACCESS TO AND ONGOING USE OF PUBLIC WAYS BY**

**SMALL CELL WIRELESS PROVIDERS
UNDER
SMALL WIRELESS COMMUNICATIONS FACILITIES DEPLOYMENT ACT**

**2018 PA 365
MCL SECTIONS 460.1301 TO 460.1339**

BY

**Cellco Partnership d/b/a Verizon Wireless
("APPLICANT")**

Where to File: Applicants should file copies as follows:

-- Three (3) paper copies (one of which shall be marked and designated as the master copy) with the Clerk at [insert address].

--One copy by email to the City Clerk at 1 South Huron Street, Ypsilanti, MI 48197

City of Ypsilanti

**APPLICATION FOR
ACCESS TO AND ONGOING USE OF PUBLIC WAYS BY
TELECOMMUNICATIONS PROVIDERS**

**By
Cellco Partnership d/b/a Verizon Wireless
("APPLICANT")**

This is an application pursuant to Small Wireless Communications Facilities Deployment Act, 2018 PA 365 ((The "Small Cell Act") for access to and ongoing usage of the public right-of-way, or "ROW" which means the area on, below, or above a public roadway, highway, street, alley, bridge, sidewalk, or utility easement dedicated for compatible uses in the Municipality for one or more Small Cell Wireless Facilities. Public right-of-way does not include any of the

following: (i) A private right-of-way; (ii) A limited access highway; or (iii) Land owned or controlled by a railroad as defined in section 109 of the railroad code of 1993, 1993 PA 354, MCL 462.109.

Following receipt of an application, the Small Cell Act allows 25 days for a determination by the authority (municipality) that the application is complete, or not. The Act further provides 60-120 days for an authority to approve or deny access from the date a provider files an application for a permit for access to a public right-of-way." This application must be accompanied by a one-time application fee of \$200 in the event applicant intends to use an existing utility pole or, \$300 in the event the applicant intends to use a new or replacement of an existing pole, regardless of what entity actually replaces the pole. A bond of \$1000 per site is also required at the time of permitting.

1 GENERAL INFORMATION:

1.1 Date: 1/13/2020

1.2 Applicant's legal name: **Cellco Partnership d/b/a Verizon Wireless**
Mailing Address: **One Verizon Way**
Mailstop 4AW100
Basking Ridge, NJ 07920

Telephone Number: 866-860-4404

FaxNumber:NA

Corporate website:

Name and title of Applicant's local manager (and if different) contact person
regarding this application: **David Haslinger/Stan Wojciechowski**

Mailing Address: **Verizon Wireless**
24242 Northwestern Hwy
Southfield MI 48075

Telephone Number: 248-915-3568
Fax Number: 248-915-3598
E-mail Address: david.haslinger@verizonwireless.com

1.3 Type of Entity: (Check one of the following)

☐	Corporation	
☒	General	Partnership
☐	Limited	Partnership
☐	Limited Liability	Company
☐	Individual	
☐	Other, please describe:	

1.4 Assumed name for doing business, if any: **NA**

1.5 Description of Entity: **Telecommunications**

1.5.1 Jurisdiction of incorporation/formation; **Delaware**

1.5.2 Date of incorporation/formation; **October 4th 1994**

1.5.3 If a subsidiary, name of ultimate parent company; **NA**

1.5.4 Chairperson, President/CEO, Secretary and Treasurer (and equivalent officials for non-corporate entities). **Caroline Armour, Senior Vice President and CFO**

1.6 Attach copies of Applicant's most recent annual report (with state ID number) filed with the Michigan Department of Licensing and Regulatory Affairs and certificate of good standing with the State of Michigan. For entities in existence for less than one year and for non-corporate entities, provide equivalent information. **NA General Partnerships do not register with the State of MI**

1.7 Is Applicant aware of any present or potential conflicts of interest between Applicant and Municipality? If yes, describe: **NO**

1.8 In the past three (3) years, has Applicant had a permit to install Small Cell Facilities in the public right of way revoked by any Michigan municipality?

Circle: Yes No

If "yes," please describe the circumstances.

1.9 In the past three (3) years, has an adverse finding been made or an adverse final action been taken by any Michigan court or administrative body against Applicant under any law or regulation related to the following:

1.9.1 A felony; or

1.9.2 A revocation or suspension of any authorization (including cable franchises) to provide personal wireless cellular services?

Circle: Yes

☒ No

If "yes," please attach a full description of the parties and matters involved, including an identification of the court or administrative body and any proceedings (by dates and file numbers, if applicable), and the disposition of such proceedings.

1.10 Please provide a copy of any and all licenses or permits held by the applicant to provide personal wireless services. [If Applicant provides a license to provide wireless service, no financial information needs to be supplied.] Whether privately or publicly held, provide Applicant's most recent financial statements. If financial statements of a parent company of Applicant (or other affiliate of Applicant) are provided in lieu of those of Applicant, please explain.

1.10.1 If privately held, and if Municipality requests the information within 25 days of the date of this Application, the Applicant and the Municipality shall make arrangements for the Municipality to review the financial statements and obtain copies of those records necessary to support the financial ability of applicant to carry out the permit requested in a reasonable and timely fashion.

If no financial statements are provided, please explain and provide particulars.

2 DESCRIPTION OF PROJECT:

2.1 Provide a copy of authorizations, if applicable, Applicant holds to provide wireless services in this Municipality, County and State. If no authorizations are applicable, please explain. **Business License**

2.2 Describe in plain English how Municipality should describe to the public the wireless services to be provided by Applicant and the wireless facilities to be installed by Applicant in the Public Ways. **Statement of Work**

2.2.1 Does the intended location of the wireless facility installation(s) involve particularly sensitive areas or districts of the community including: Recent Downtown Development/Renewal Streetscapes, Residential, Underground, historic or high end commercial? If so, please specify and, state what alternatives the applicant considered prior to application. **Specified on Construction Drawings**

2.3 Attach route maps showing the location and detailed drawings, plans and specifications, of all wireless facilities and associated support structures as existing and as intended to be replaced, if applicable, and all other equipment intended to be installed in the public right-of-way. Please include whether such facilities are intended as overhead or underground and – if fiber or other lines are to be installed as related to this wireless facility, attach the Metro Act Permit or pending application regarding same.

These installation details must specifically identify the exact location intended including side of the street, height, width and weight of all such equipment and support structures.

Construction approval is a separate process and may require greater detailed engineering drawings and other information to insure the safety and protection of the public and existing infrastructure of other ROW users and occupants. **SEE SPECIFIC DRAWINGS**

2.4 Please provide an anticipated or actual construction schedule and a total cost of the project including all fees paid to any other entities for attachment and make ready work.

DTE Colo Estimated Cost 23k, New is 20K

2.5 Please list all organizations and entities which will have any ownership interest in the facilities proposed to be installed in the Public Ways. **Cellco Partnership d/b/a Verizon Wireless**

2.6 Who will be responsible for maintaining the facilities Applicant places in the Public Ways and how are they to be promptly contacted? If Applicant's facilities are to be installed on or in existing facilities in the Public Ways of existing public utilities or incumbent

telecommunications providers, describe the facilities to be used, and provide verification of their consent to such usage by Applicant. **Verizon Wireless**

3 WIRELESS PROVIDER ADMINISTRATIVE MATTERS:

Please provide the following or attach an appropriate exhibit.

- 3.1 Address of Applicant's nearest local office; **24242 Northwestern Hwy. Southfield MI 48075**
- 3.2 Location of all records and engineering drawings, if not at local office;
- 3.3 Names, titles, addresses, e-mail addresses and telephone numbers of contact person(s) for Applicant's engineer or engineers and their responsibilities for the wireless system;
- 3.4 Provide evidence of self-insurance or a certificate of insurance showing Applicant's insurance coverage, carrier and limits of liability for the following:
 - 3.4.1 Worker's compensation;
 - 3.4.2 Commercial general liability, including at least:
 - 3.4.2.1 Combined overall limits;
 - 3.4.2.2 Combined single limit for each occurrence of bodily injury;
 - 3.4.2.3 Personal injury;
 - 3.4.2.4 Property damage;
 - 3.4.2.5 Blanket contractual liability for written contracts, products, and completed operations;
 - 3.4.2.6 Independent contractor liability;
 - 3.4.2.7 For any non-aerial installations, coverage for property damage from perils of explosives, collapse, or damage to underground utilities (known as XCU coverage);
 - 3.4.2.8 Environmental contamination;
 - 3.4.3 Automobile liability covering all owned, hired, and non-owned vehicles used by Applicant, its employee, or agents.
- 3.5 Names of all anticipated contractors and subcontractors involved in the construction, maintenance and operation of Applicant's facilities in the Public Ways.
- 3.6 It is recommended that the applicant prepare a wireless facilities permit from the Clerk's office and attach same to this application with all attachments. Much of the information

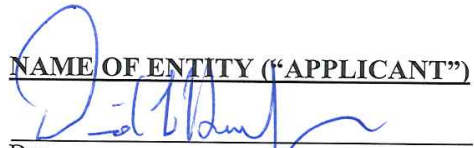
sought in this application will be required by completing the permit, which can substitute for providing the same information a second time here.

It is also recommended the applicant review the City of Ypsilanti ordinance and or Policy concerning Wireless facilities in the ROW.

4 CERTIFICATION:

All the statements made in the application and attached exhibits are true and correct to the best of my knowledge and belief.

NAME OF ENTITY ("APPLICANT")



By:

Type or Print Name: **David Haslinger**

Date

Title **Business Development and Strategic Planning 5G**



www.kitch.com

Michael J. Watza
KITCH DRUTCHAS WAGNER VALITUTTI &
SHERBROOK
PROTEC General Counsel
www.protec-mi.org

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Detroit, MI 48226
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mike.watza@kitch.com



May 5, 2020

Scott Hubble
Verizon Wireless
24242 Northwestern Hwy
Southfield, MI 48075

DTE is working with Verizon Wireless to facilitate the installation of their communication fiber, small wireless communications equipment, associated antennas and transmission cables on DTE owned poles located on public or private right of ways within the City of Ypsilanti, Michigan (excluding steel, aluminum, fiberglass streetlight or ornamental poles).

This letter serves as notification for Verizon Wireless submissions as described above within the jurisdiction.

DTE is currently in an agreement with Verizon Wireless to provide joint use space on DTE owned assets that meet internal requirements. The full details of this agreement are protected under a mutual non-disclosure agreement.

During the make ready process to accommodate wireless attachments the overall height of the pole may be increased to maintain the minimum safety separation from the energized zone. This increase in pole height is necessary to create a 5-foot safety buffer between the power and wireless equipment attachment.

The full details of this agreement are protected under a mutual non-disclosure agreement.

Please call me if you have any questions regarding this letter.

Sincerely,

Aaron Belanger
Principal Supervisor
DTE / Marketing / Joint Use
(313)235-7267

RF Certification Form

For Pole Mounted Radio/Antenna Systems

This form certifies that a Verizon certified engineer has evaluated a certain digital transmitter site and has determined that it complies with FCC Rule Section 1.1307 et. Seq. and related OET Bulletin No 65-governing radio frequency ("RF") emissions. Based up on engineering evaluation of the pole mount radio equipment, the RF emissions are within the Maximum Permissible Exposure ("MPE") limits for an uncontrolled environment at a distance 4 feet vertically below and 15 feet horizontally adjacent to the transmitting antenna.

Beyond this evaluation, Verizon will provide an:

- a. *RF Safety Plan that indicates Access Point(s) to Area(s) with Active Antenna(s)*
- b. *Location(s) of Active Antenna(s)*
- c. *Radiofrequency (RF) Emissions Map*
- d. *Operational Procedure for General Maintenance*

In an event where emergency maintenance must be performed on the facility, please call the Verizon Network Operations Center at 800-264-6620 for assistance. If time doesn't permit or clearances cannot be maintained, (as indicated in the DTE Line Construction Standards and RF Safety Plan.) DTE or their authorized contractor may power down the radio equipment on the pole following the instructions on the safety placard (placed near disconnect switch box).

The original of this form should be kept by Verizon with their market station files.

A copy of the completed form should be sent to DTE Electric Company, at the address specified on the Permit Application (Attachment 1, Exhibit 2-1).

Any changes of the pole mount antenna installation that would affect the MPE calculations must be agreed to by DTE Electric Company and Verizon.

Site Number: _____ Site Name: _____

Site Address: _____

City and State: _____

Site Compliance Procedure

The site complies with the FCC's Maximum Permissible Exposure ("MPE") standards, taking into account any nearby significant transmitting sources, based on OET Bulletin 65 calculation methods.

Additional Information for Categorical Exclusion

The sum of all ERP's of all operating frequencies does not exceed 1000 watts ERP.

Signature

Printed Name

Date of Evaluation

- GENERAL NOTES
1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.

2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.

3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.

4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.

5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.

6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.

7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)

8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.

9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.

10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.

11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.

12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

- DEFINITIONS
1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.

2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.

3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.

4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.

5. THE TERM "VERIFY" OR "V.I.F" SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.

6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.

7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

- PROJECT SPECIFIC NOTES
1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.

2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.

3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

- GROUND CONSTRUCTION NOTES:
1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.

2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.

3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.

4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.

5. ALL EQUIPMENT TO BE BONDED.

6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

- STANDARD GROUNDING NOTES:
1. GROUND TESTED AT 25 OHMS OR LESS.

2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.

3. #6 GROUND AND BOND WIRE.

4. MOLDING, STAPLED EVERY 1' AND AT EACH END.

5. GROUND RODS 18" FROM POLE.

- STANDARD CONDUIT NOTES:
1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.

2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.

3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.

4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.

5. RISER STRAPS TO BE INSTALLED EVERY 5'.

6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.

7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

- STANDARD TRENCHING NOTES:
1. MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.

2. MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.

3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.

4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.

5. PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

- UTILITY POLE CONSTRUCTION NOTES:
1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".

2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.

3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.

4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.

5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).

6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.

7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.

8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.

9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

- VERIZON WIRELESS CONSTRUCTION NOTES:
1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.

2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.

3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.

4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.

5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

DRAWING NOTICE:

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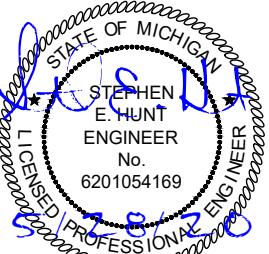
CHECKED BY:

CTD

REVISIONS

1	05/28/20	USE	CONSTRUCTION ISSUE
0	02/11/20	CDM	CONSTRUCTION ISSUE
A	02/10/20	USE	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:



NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME:

45521

ADDRESS:

1102 KINGWOOD ST
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 15' 2.900" N

LONGITUDE:

83° 37' 46.139" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

GENERAL NOTES

DRAWING NO.

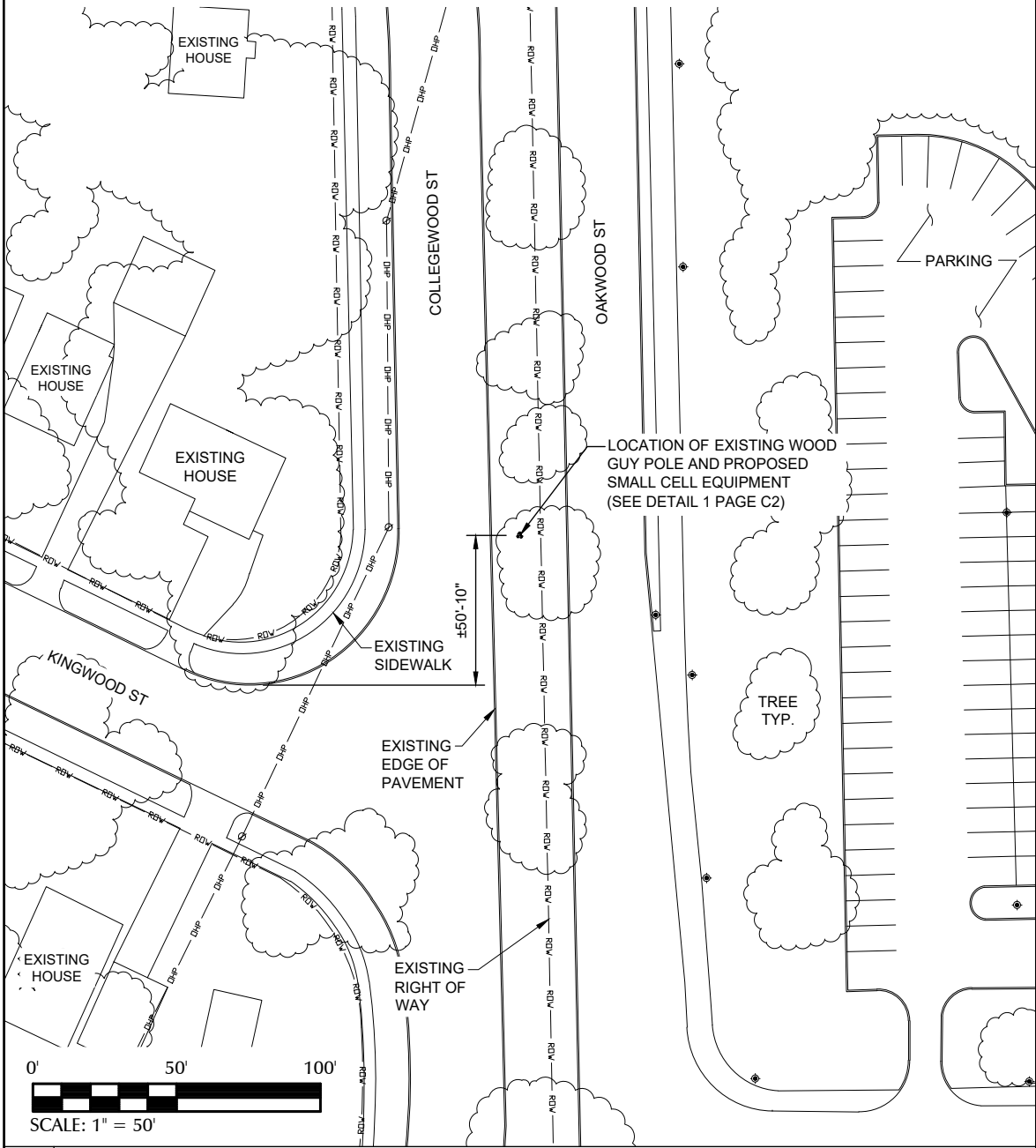
GN1

REVISION:

1

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.



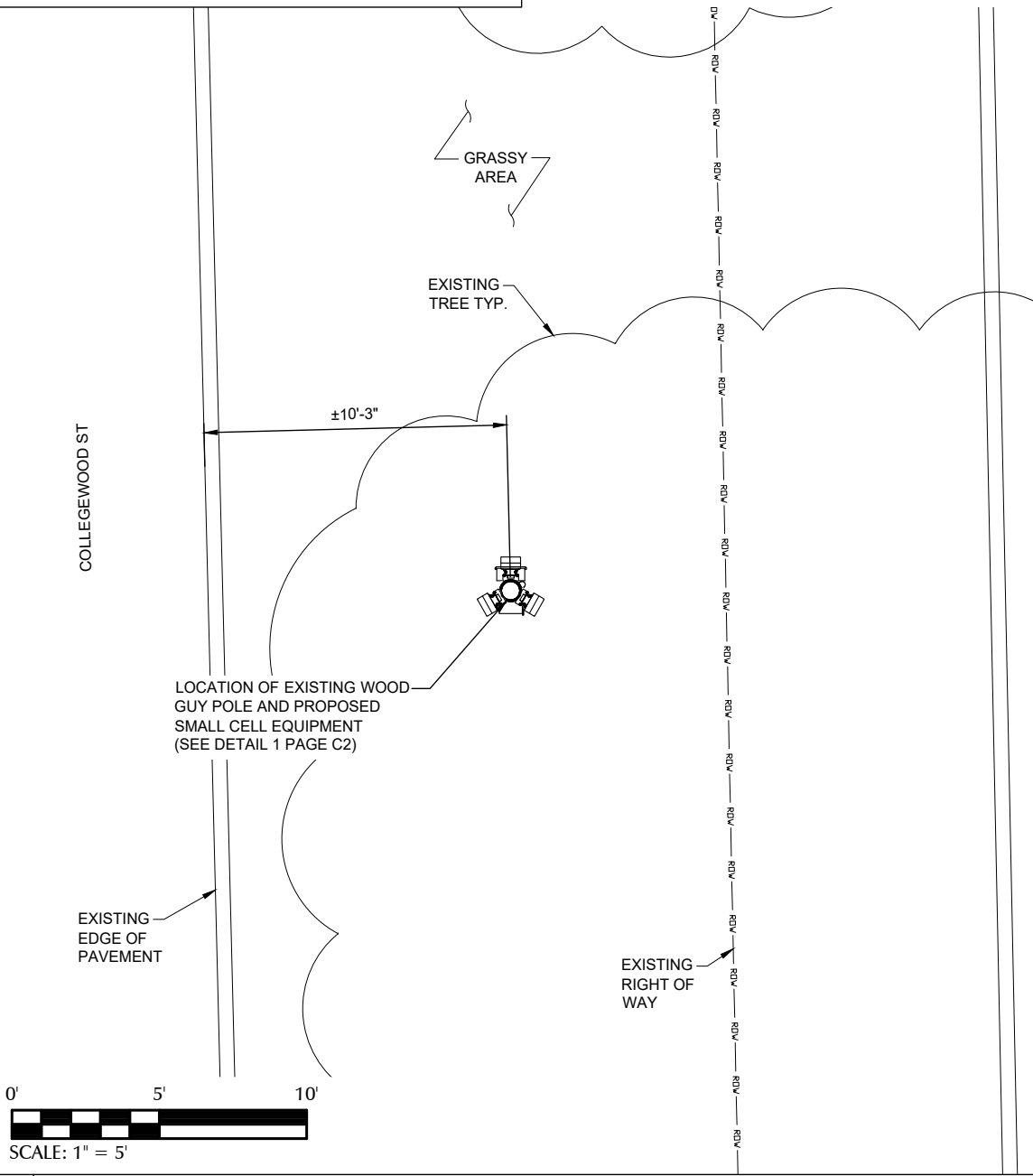
1 OVERALL SITE LAYOUT

LEGEND

OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊙
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊙
FENCE	— X —	MANHOLE	⊙
WOOD FENCE	— O —	GAS VALVE	⊙
SEWER LINE	— SWR —	FIRE HYDRANT	⊙
WATER LINE	— WTR —	TELCO PEDESTAL	⊙
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— RDW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



2 ENLARGED SITE LAYOUT

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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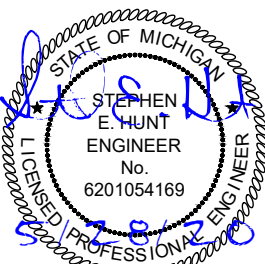
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A	02/10/20	USE	PRELIMINARY REVIEW

ENGINEER'S STAMP:



NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME: 45521

ADDRESS:
1102 KINGWOOD ST
YPSILANTI, MI 48197

COUNTY:
WASHTENAW

LATITUDE:
42° 15' 2.900" N

LONGITUDE:
83° 37' 46.139" W

DESIGN TYPE:
COLOCATION

SHEET TITLE:

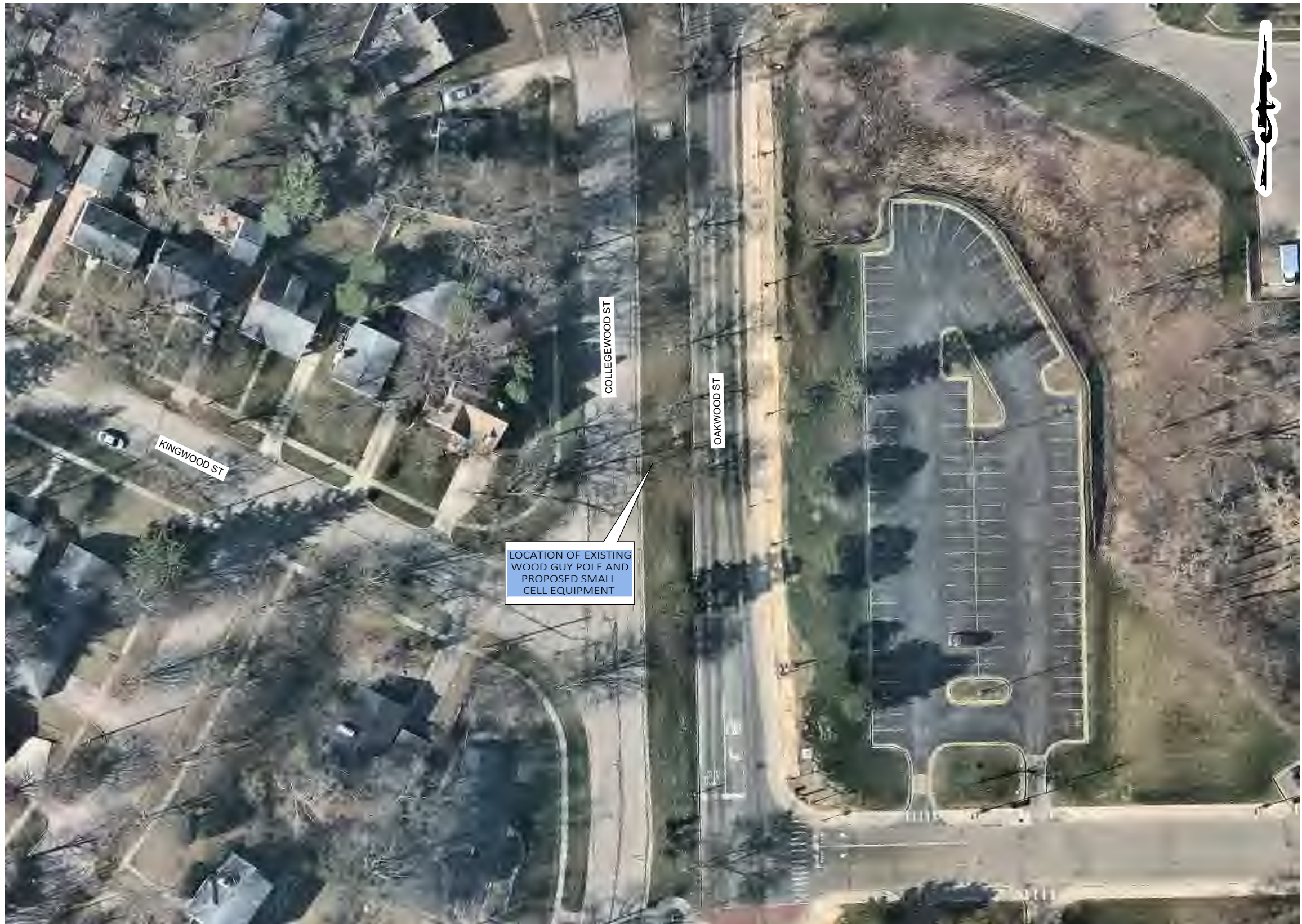
SITE LAYOUTS

DRAWING NO.

C1

REVISION:

1



PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

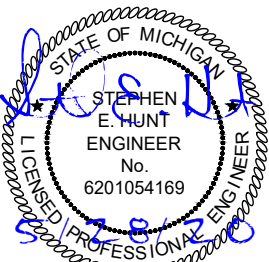
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YPSILANTI, MI 48197

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LATITUDE: 42° 15' 2.900" N

LONGITUDE: 83° 37' 46.139" W

DESIGN TYPE: COLOCATION

SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO.	REVISION:
C1A	1

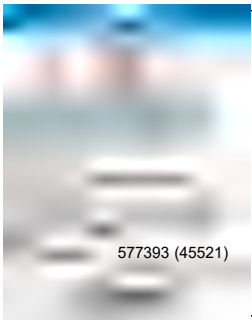
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

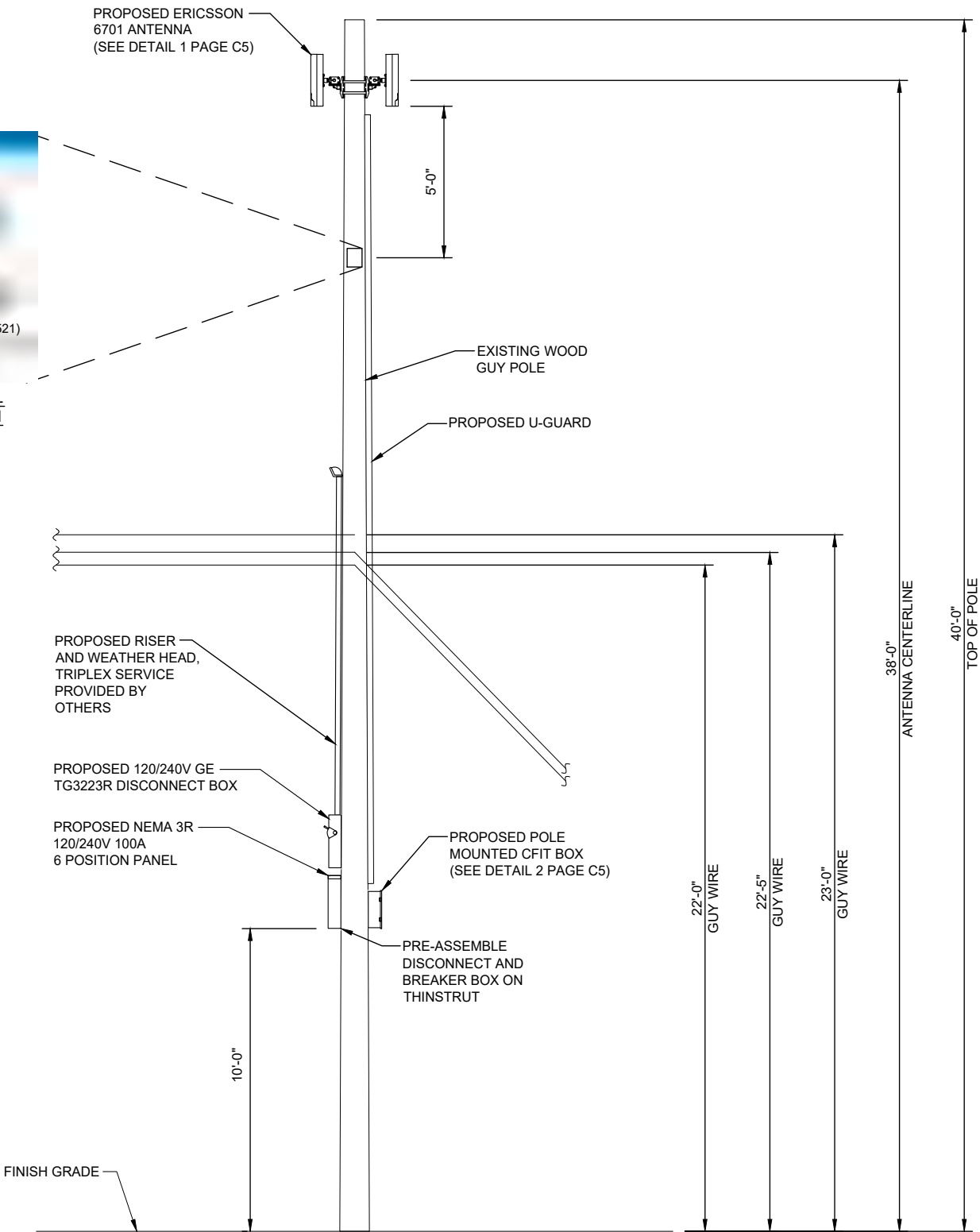
40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



6"x7.5" VERTICAL
RF NOTICE SIGN
TYPICAL OF 2



INSTALL ON BREAKER PANEL

1 POLE ELEVATION

N.T.S.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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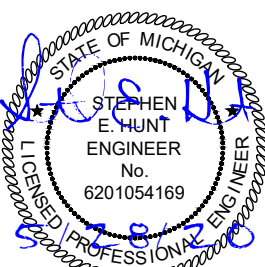
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DESIGN TYPE:
COLOCATION

SHEET TITLE:

POLE ELEVATION

DRAWING NO.

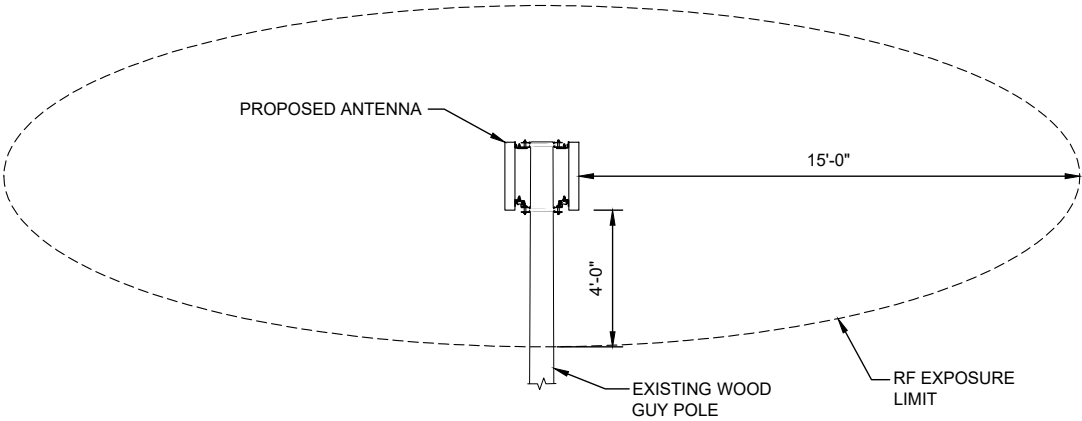
C2

REVISION:

1

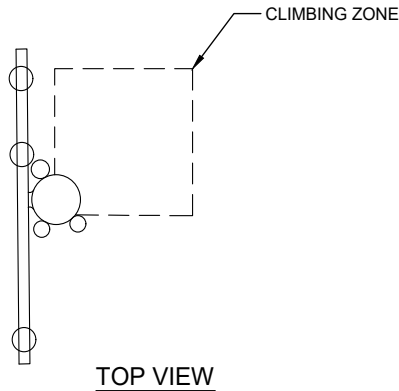
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT. OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

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HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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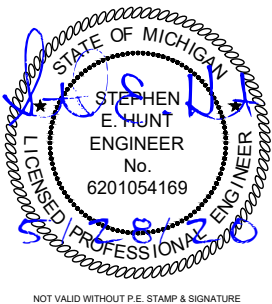
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0	02/11/20	CDM	CONSTRUCTION ISSUE
A	02/10/20	USE	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME: 45521

ADDRESS:
1102 KINGWOOD ST
YPSILANTI, MI 48197

COUNTY:
WASHTENAW

LATITUDE:
42° 15' 2.900" N

LONGITUDE:
83° 37' 46.139" W

DESIGN TYPE:
COLOCATION

SHEET TITLE:

SITE DETAILS

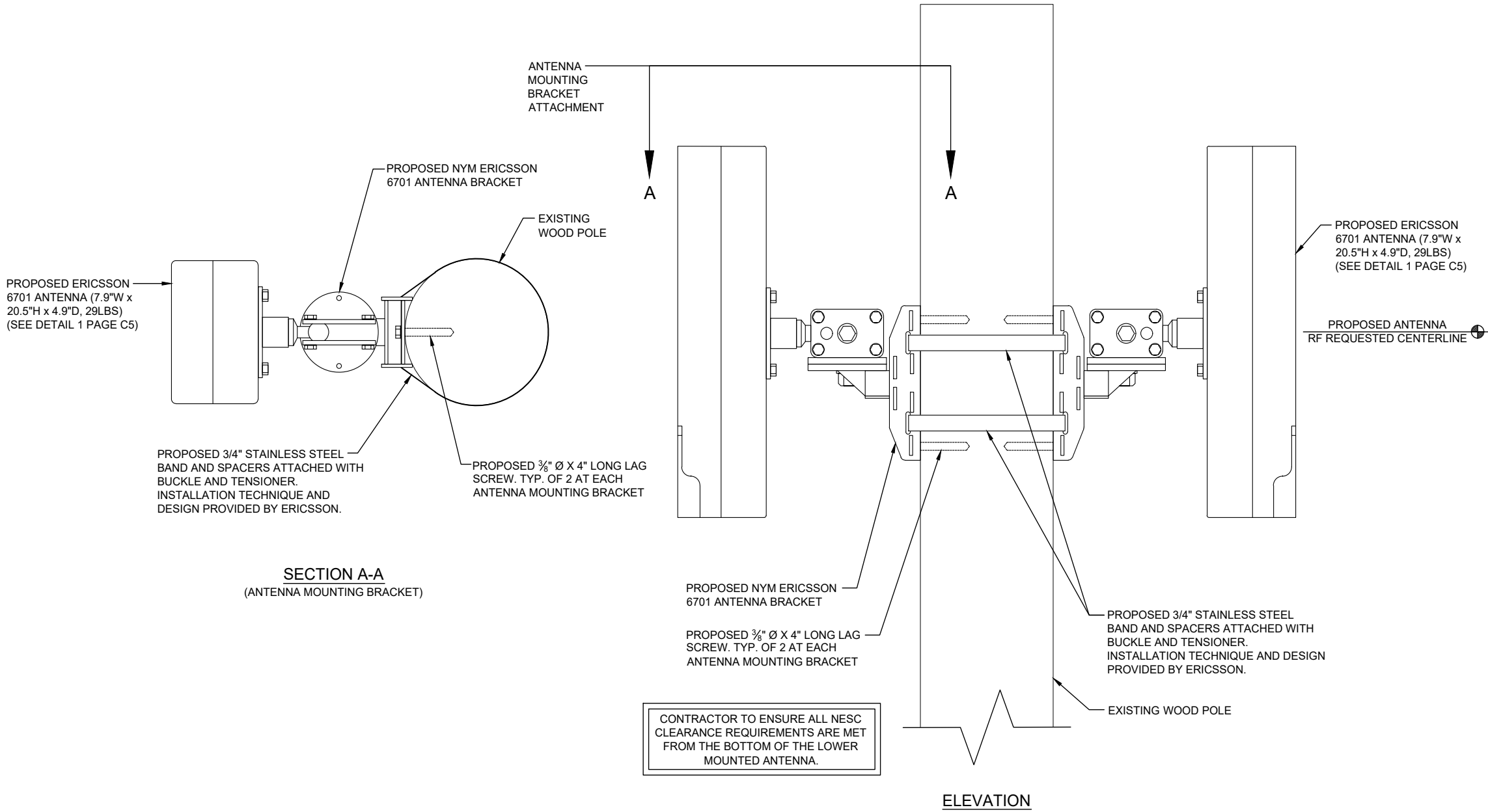
DRAWING NO.

C3

REVISION:

1

1 EQUIPMENT CU-FT. TABLE



PREPARED FOR:



PREPARED BY:



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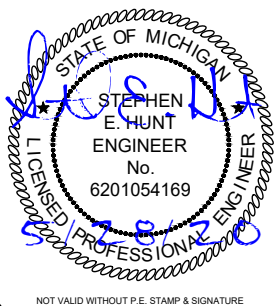
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SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

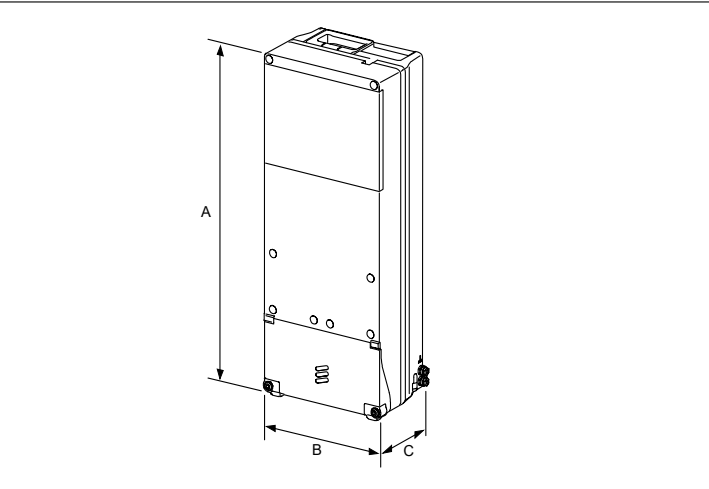
REVISION:

1

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS_REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

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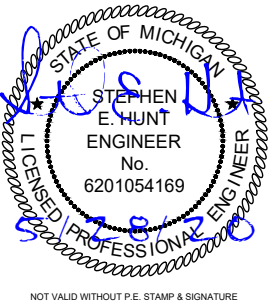
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83° 37' 46.139" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

EQUIPMENT DETAILS

DRAWING NO.

C5

REVISION:

1

1

6701 ANTENNA

N.T.S.

2

CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

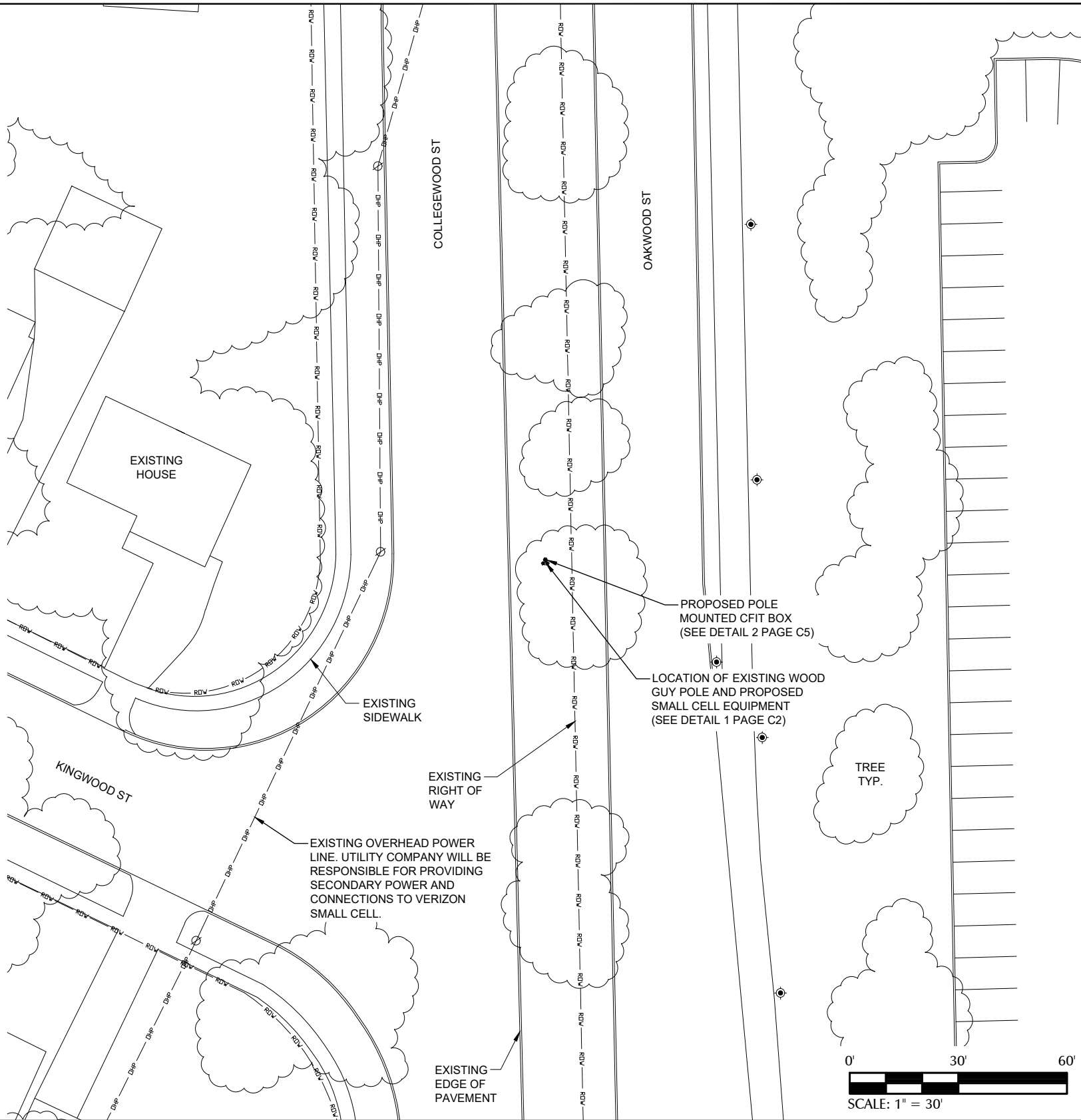
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM	COPPER	CONDUIT SIZE
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	▢
UNDERGROUND POWER	UGP	STREET SIGN	—
OVERHEAD POWER	DHP DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	UGT	UTILITY POLE	⊙
OVERHEAD TELCO	DHT	LIGHT POLE	⊙
GAS LINE	GAS GAS	WATER VALVE	⊗
FENCE	x x x x x x	MANHOLE	⊙
WOOD FENCE	o o o o o o	GAS VALVE	⊗
SEWER LINE	SWR SWR	FIRE HYDRANT	⊙
WATER LINE	VTR	TELCO PEDESTAL	⊙
HYBRID CABLE	HYB	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW RDW		
PROPERTY LINE	PL PL		



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

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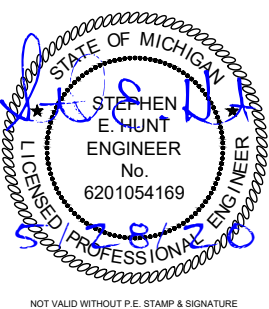
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WASHTENAW

LATITUDE:

42° 15' 2.900" N

LONGITUDE:

83° 37' 46.139" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

UTILITY SITE PLAN

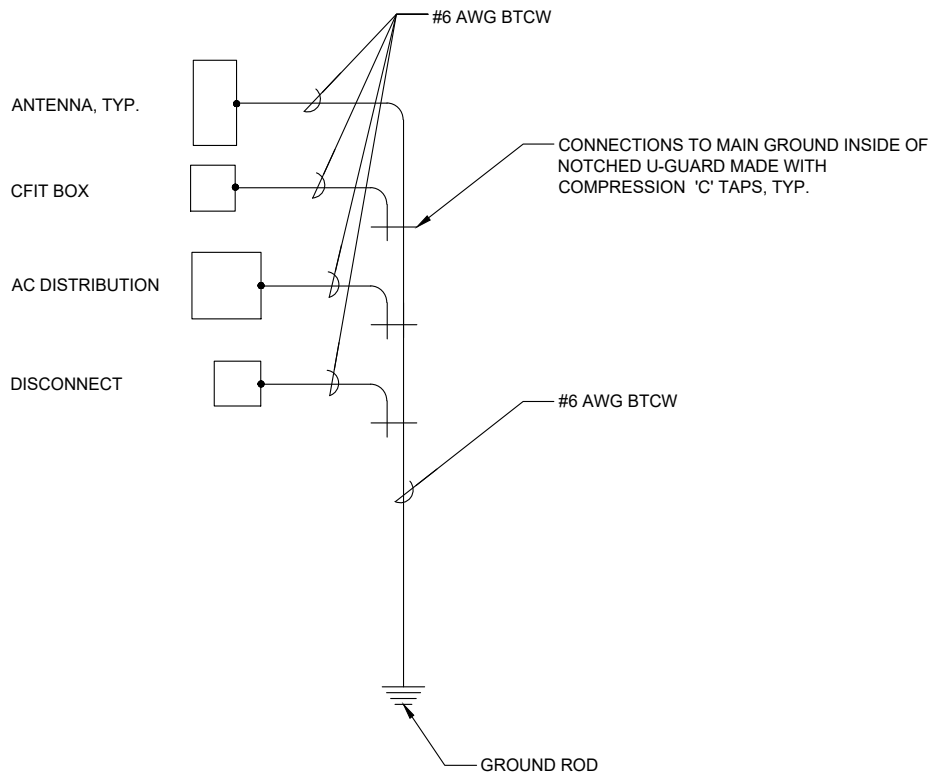
DRAWING NO.

E1

REVISION:

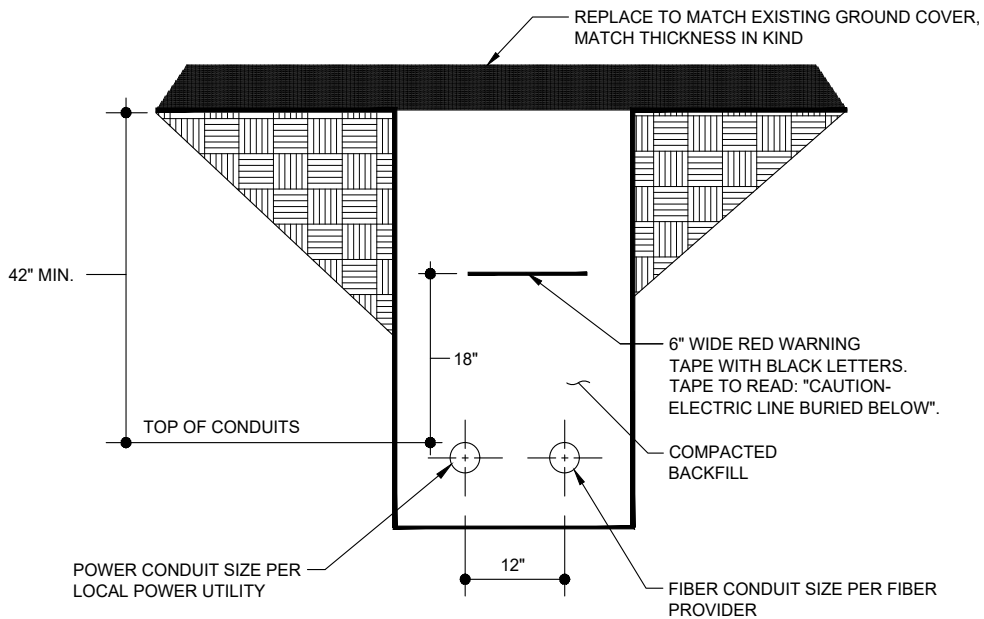
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1 UTILITY SITE PLAN



1 SINGLE POINT RADIAL GROUND DETAIL

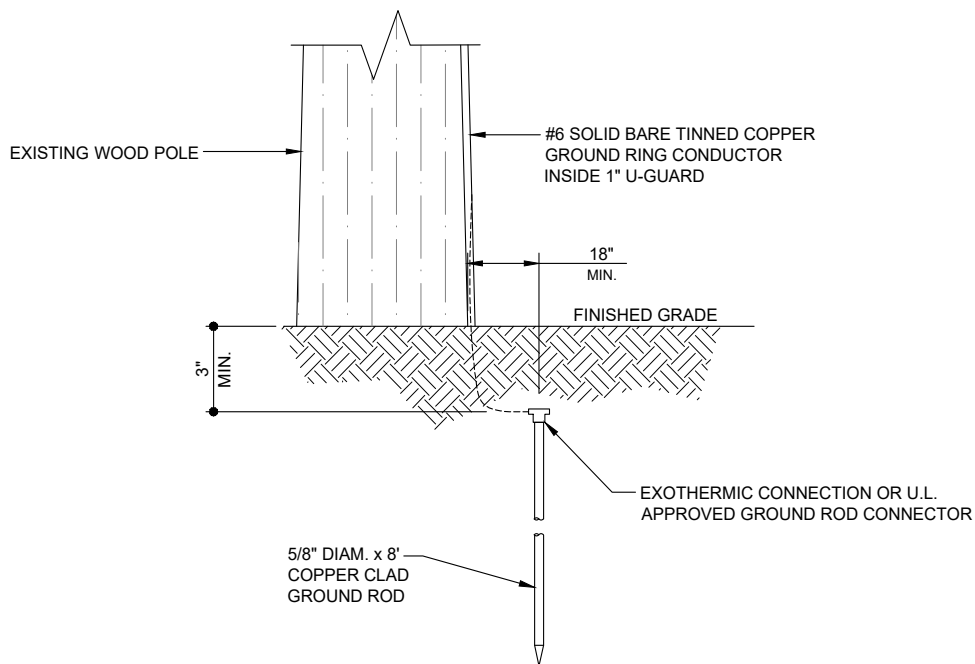
N.T.S.



NOTE: TYPICAL SPACING FOR ALL UNDERGROUND CONDUITS.

2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

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verizon

PREPARED BY:

TeleCAD
Wireless

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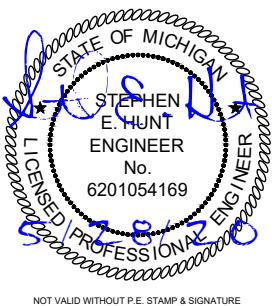
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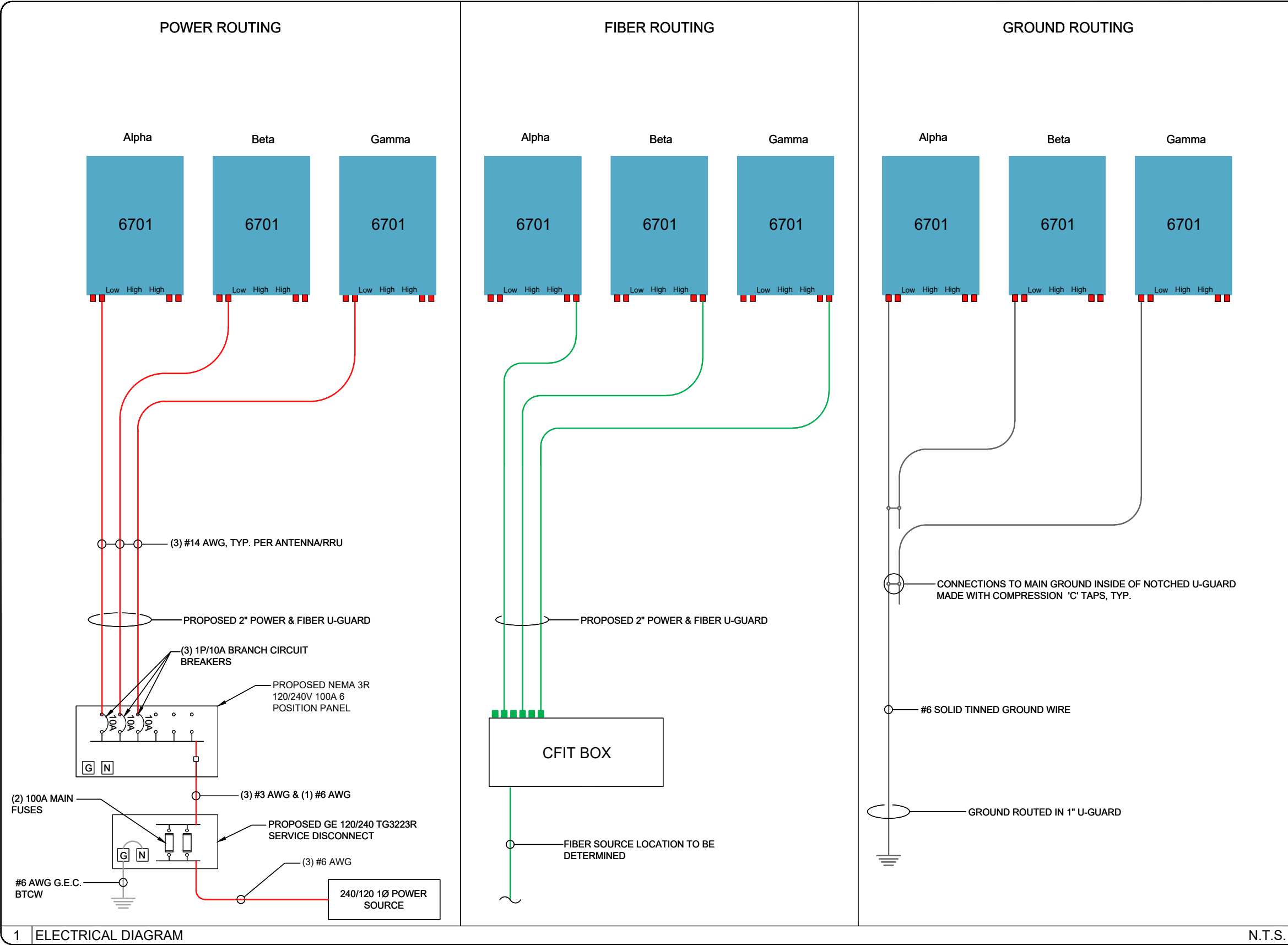
ELECTRICAL DETAILS

DRAWING NO.

E2

REVISION:

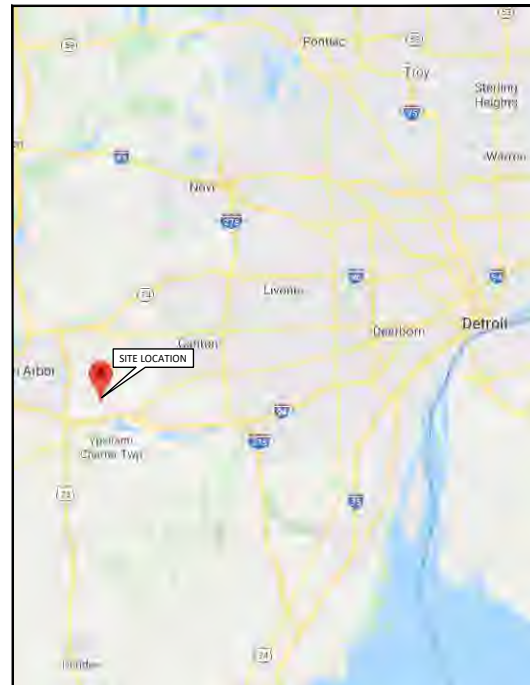
1



SITE NAME:	45520
SITE ADDRESS: (ESTIMATED)	302 HIAWATHA ST. YPSILANTI, MI 48197
COUNTY:	WASHTENAW
JURISDICTION:	CITY OF YPSILANTI
<u>SITE COORDINATES:</u>	
LATITUDE:	42° 14' 37.400" N
LATITUDE:	42.24372°
LONGITUDE:	83° 37' 48.381" W
LONGITUDE:	-83.63011°
ELEVATION:	±790'-0"
PROPERTY DEFINITION:	R.O.W.
FUZE PROJECT ID:	15899287
PSLC CODE:	577392
EXISTING POLE HEIGHT:	40'-0"



VICINITY MAP



NOT TO SCALE

NOT TO SCALE

[illegible]

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT

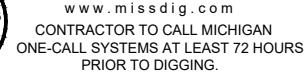
MICHIGAN

WASHTENAW COUNTY

1

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.

PLOT SIZE:
11" x 17": TO SCALE



GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
5. THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
5. ALL EQUIPMENT TO BE BONDED.
6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 25 OHMS OR LESS.
2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
3. #6 GROUND AND BOND WIRE.
4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
5. GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
5. RISER STRAPS TO BE INSTALLED EVERY 5'.
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

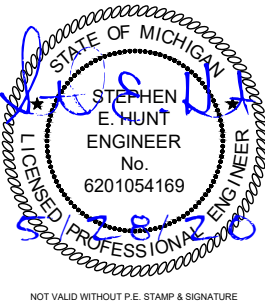
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CHECKED BY:	CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	05/28/20	RGM	CONSTRUCTION ISSUE
0	01/31/20	CDM	CONSTRUCTION ISSUE
A	01/30/20	MDR	PRELIMINARY REVIEW

ENGINEER'S STAMP:



NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME: 45520

ADDRESS: 302 HIAWATHA ST.
YPSILANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 14' 37.400" N

LONGITUDE: 83° 37' 48.381" W

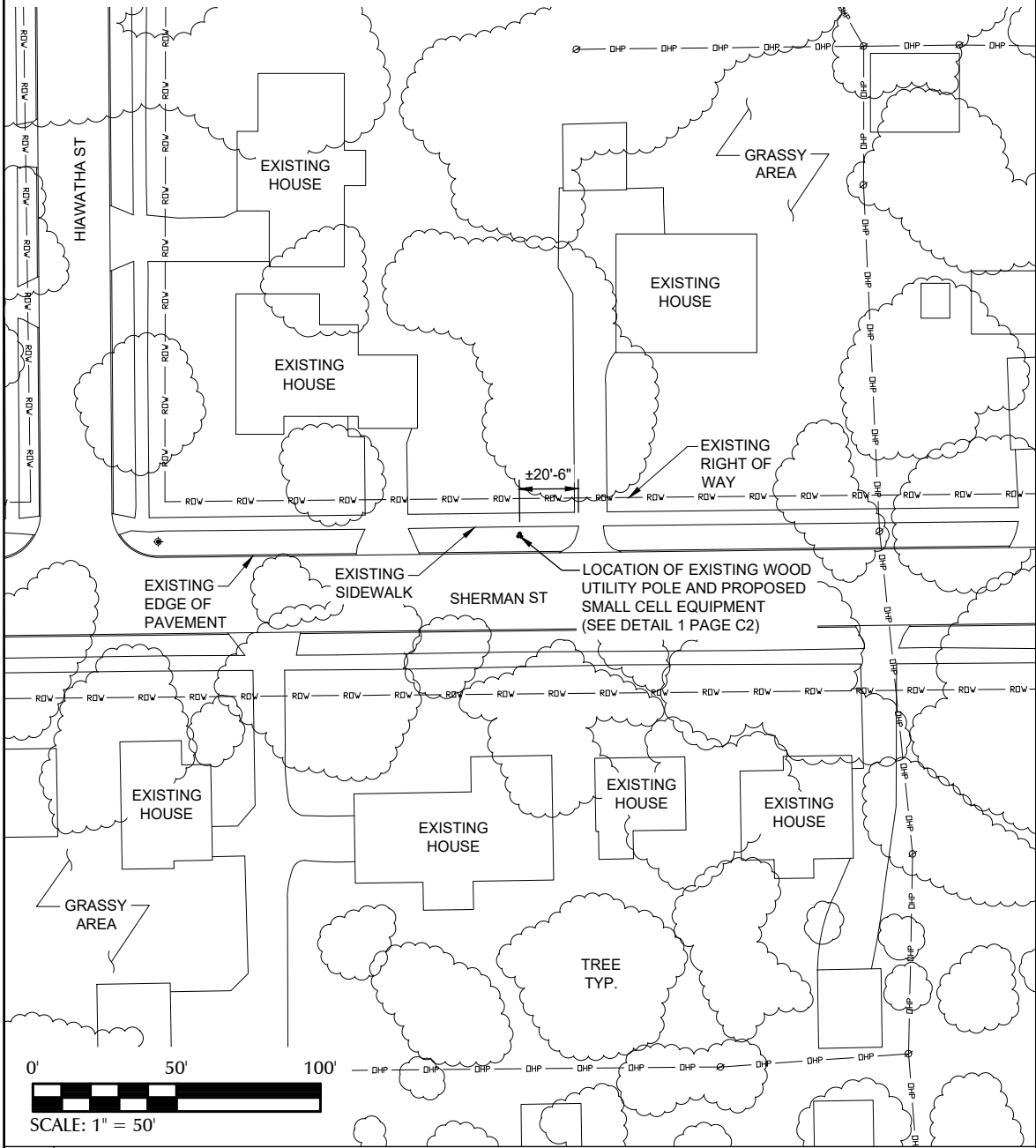
DESIGN TYPE: COLOCATION

SHEET TITLE: GENERAL NOTES

DRAWING NO. GN1	REVISION: 1
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NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.



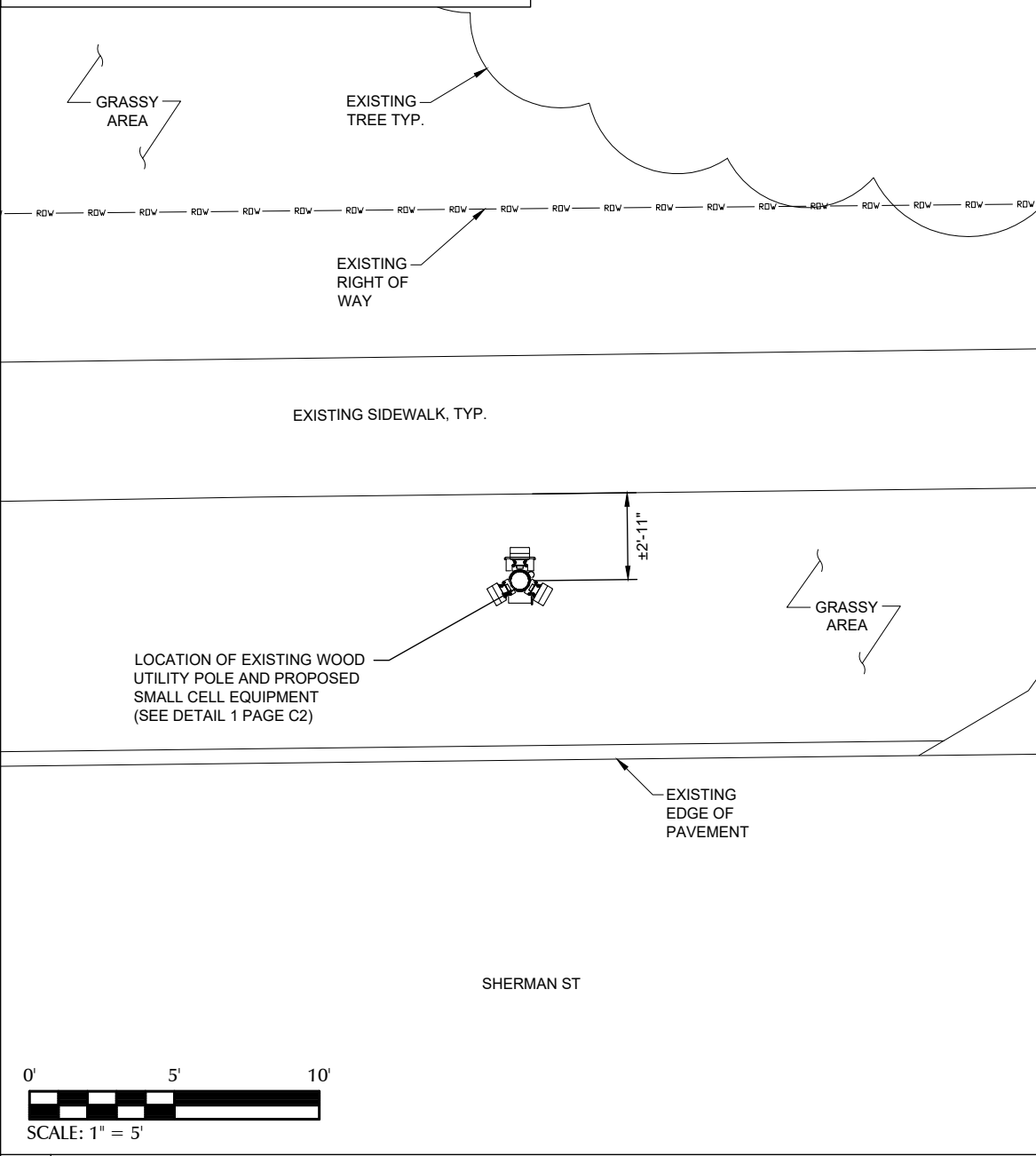
1 OVERALL SITE LAYOUT

LEGEND

OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊙
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— X — X — X — X —	MANHOLE	⊙
WOOD FENCE	— O — O — O — O —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊙
WATER LINE	— VTR —	TELCO PEDESTAL	⊙
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— RDW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



2 ENLARGED SITE LAYOUT

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verizon

PREPARED BY:

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Wireless

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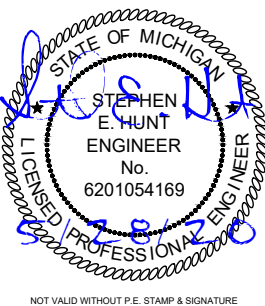
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WASHTENAW

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LONGITUDE:

83° 37' 48.381" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

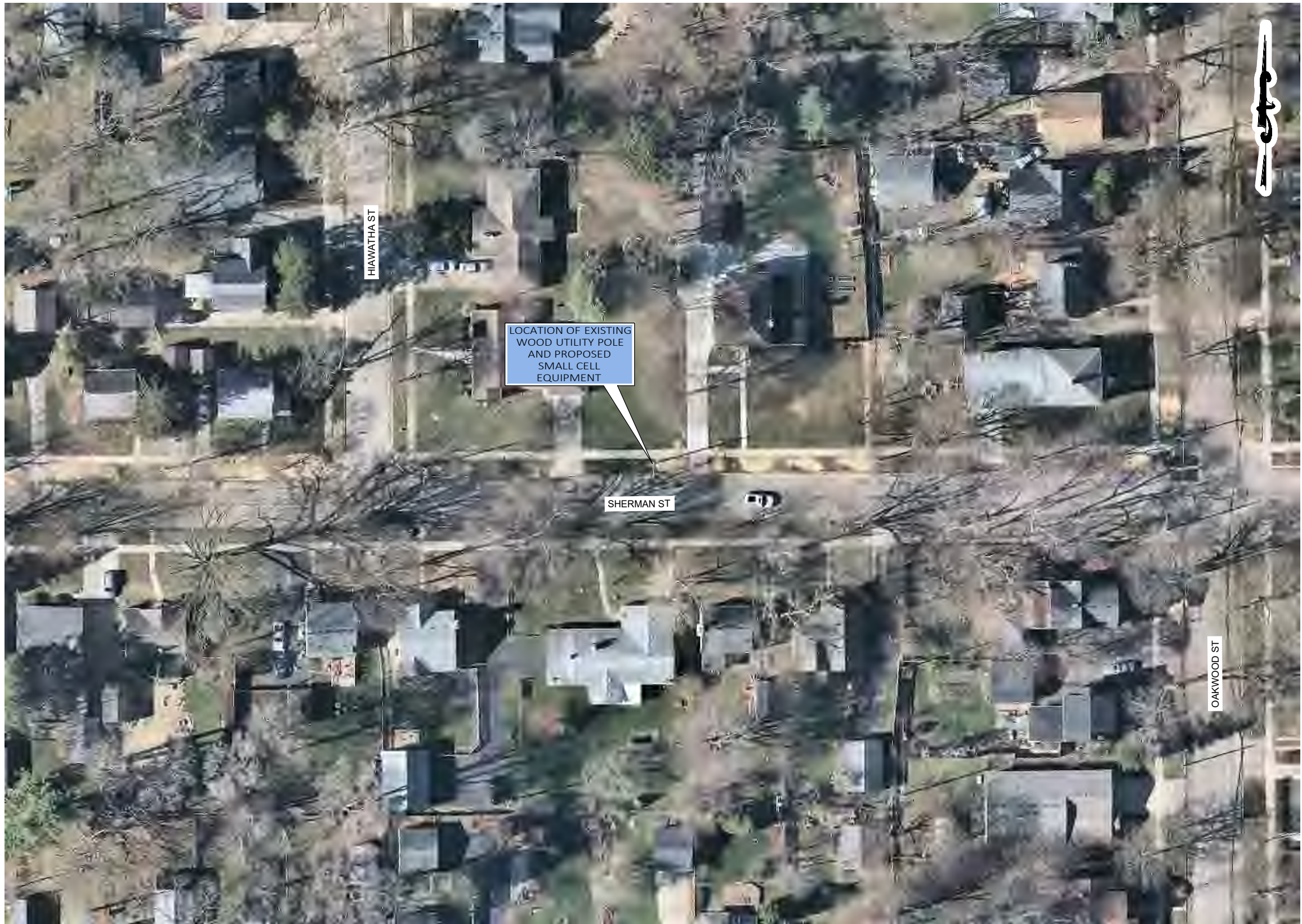
SITE LAYOUTS

DRAWING NO.

C1

REVISION:

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STATE OF MICHIGAN
STEPHEN E. HUNT
ENGINEER
No. 6201054169
LICENSED PROFESSIONAL ENGINEER

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LONGITUDE: 83° 37' 48.381" W

DESIGN TYPE: COLOCATION

SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO.	REVISION:
C1A	1

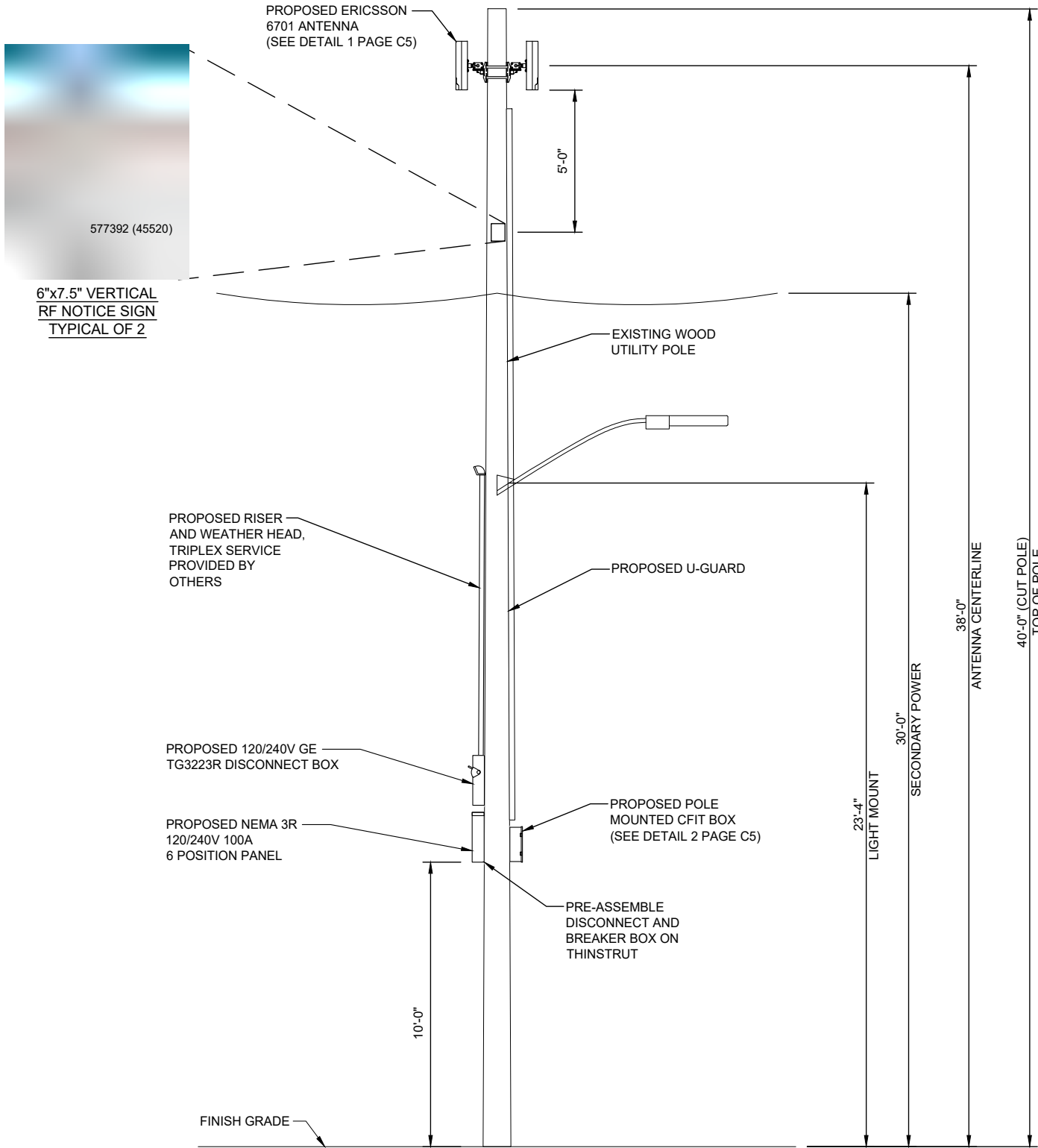
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



PREPARED FOR:

verizon

PREPARED BY:

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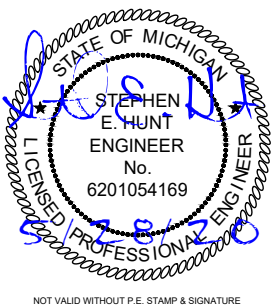
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DESIGN TYPE:
COLOCATION

SHEET TITLE:

POLE ELEVATION

DRAWING NO.

C2

REVISION:

1

N.T.S.

INSTALL ON BREAKER PANEL

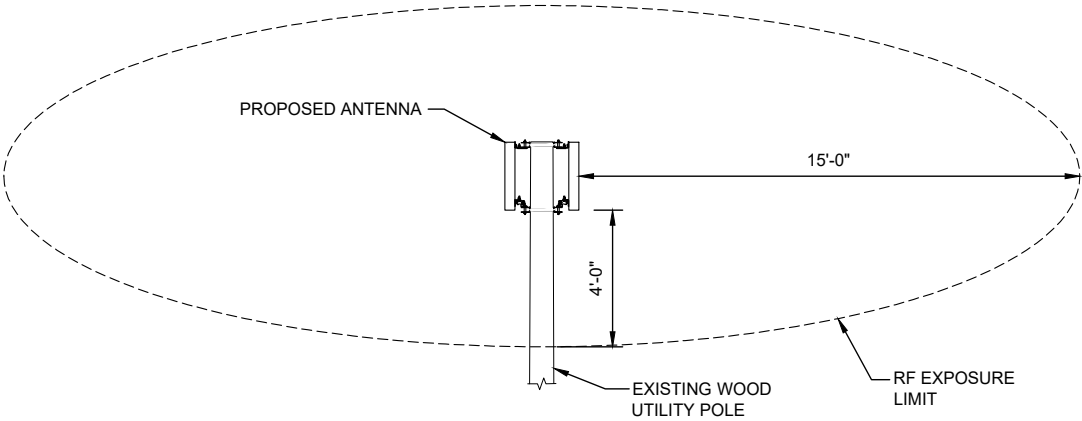
1

POLE ELEVATION

45520

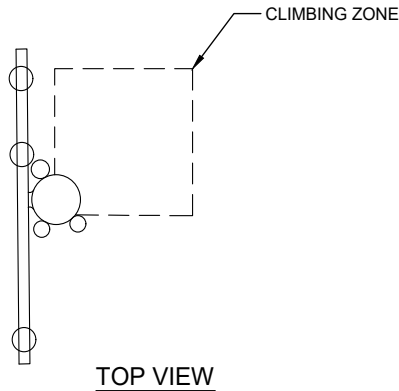
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT. OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.

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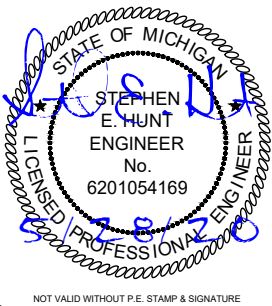
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DESIGN TYPE:
COLOCATION

SHEET TITLE:

SITE DETAILS

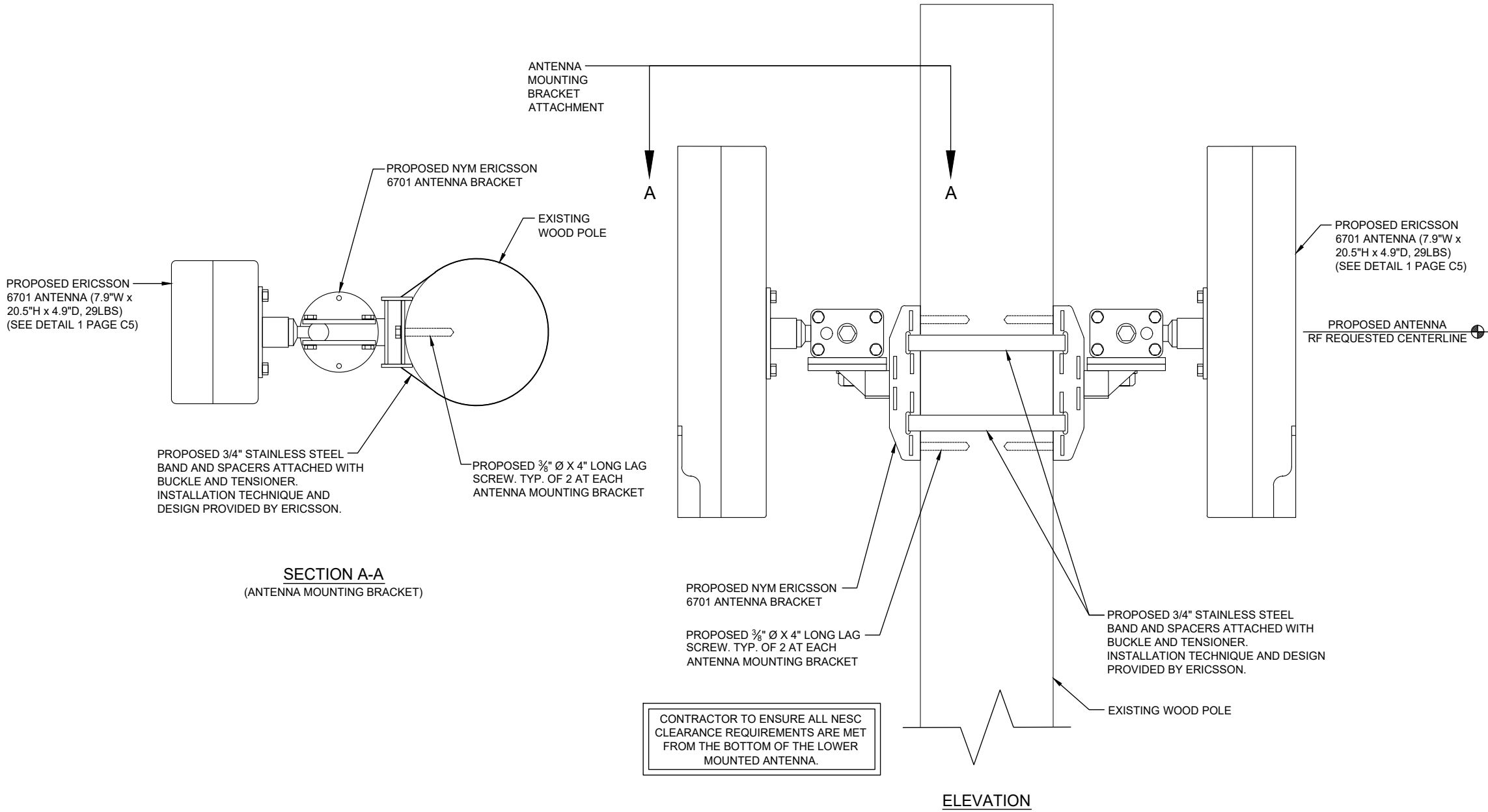
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C3

REVISION:

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1 EQUIPMENT CU-FT. TABLE



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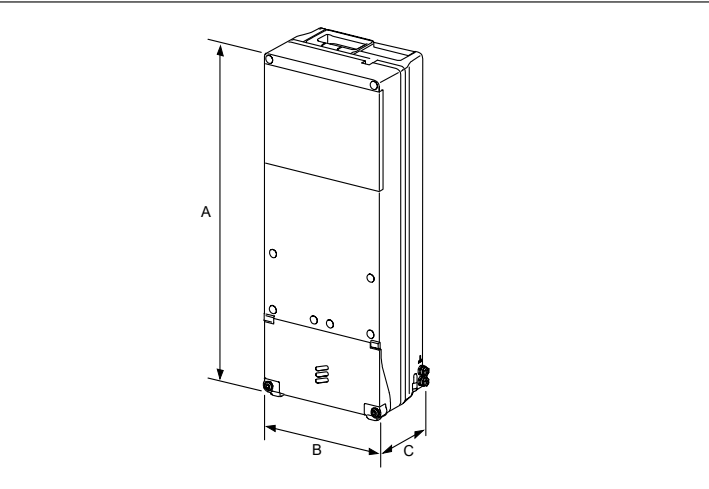
SHEET TITLE: SITE DETAILS

DRAWING NO. C4	REVISION: 1
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Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS_REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

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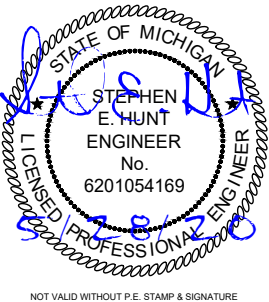
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DESIGN TYPE:
COLOCATION

SHEET TITLE:

EQUIPMENT DETAILS

DRAWING NO.

C5

REVISION:

1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

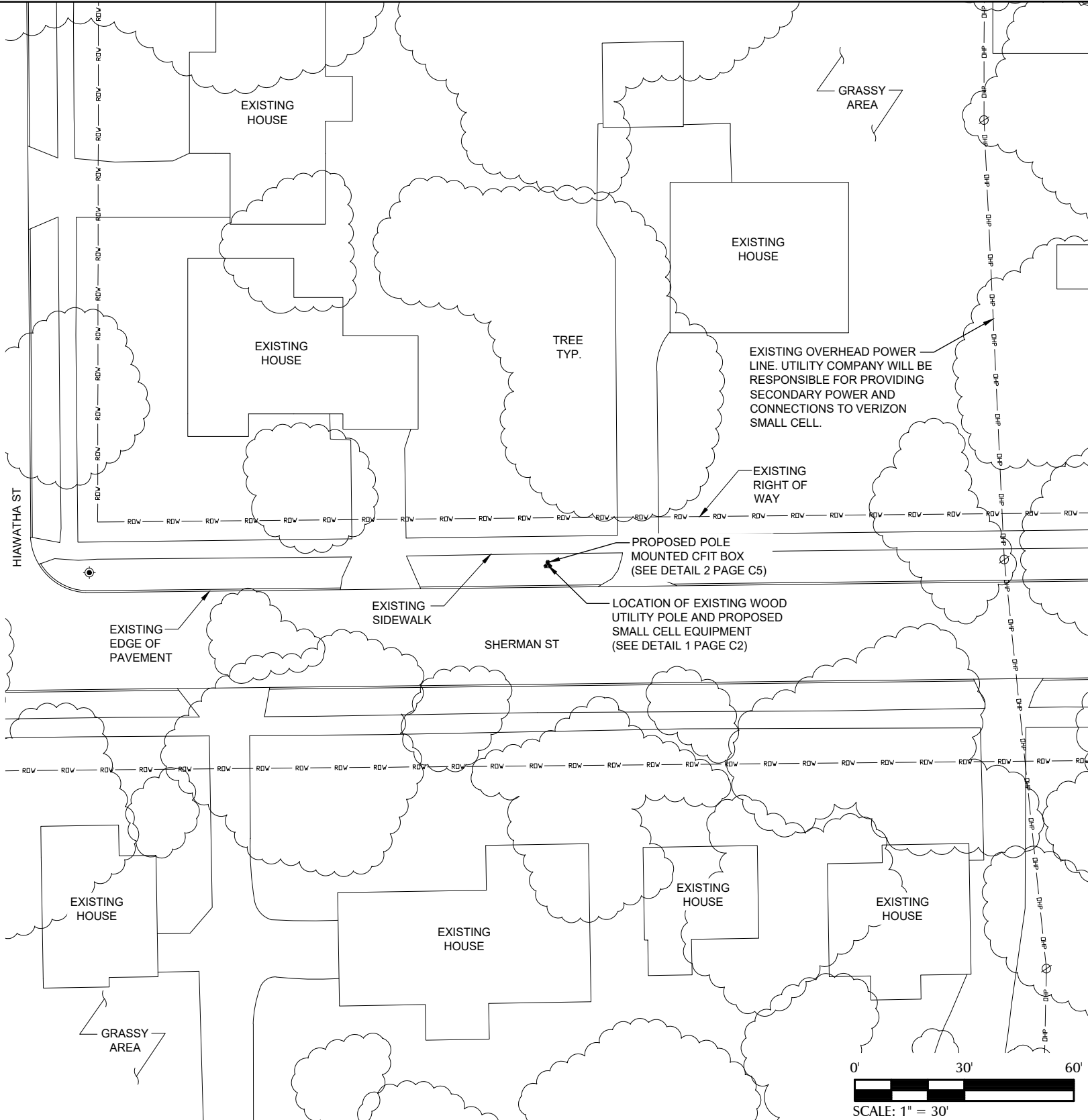
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

WIRE SIZE	SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)		CONDUIT SIZE
	ALUMINUM	COPPER	
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	▢
UNDERGROUND POWER	UGP	STREET SIGN	—
OVERHEAD POWER	DHP DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	UGT	UTILITY POLE	⊙
OVERHEAD TELCO	DHT	LIGHT POLE	⊙
GAS LINE	GAS GAS	WATER VALVE	⊗
FENCE	x x x x x x	MANHOLE	⊙
WOOD FENCE	o o o o o o	GAS VALVE	⊗
SEWER LINE	SWR SWR	FIRE HYDRANT	⊙
WATER LINE	VTR	TELCO PEDESTAL	⊙
HYBRID CABLE	HYB	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW RDW		
PROPERTY LINE	PL PL		



PREPARED FOR:



PREPARED BY:



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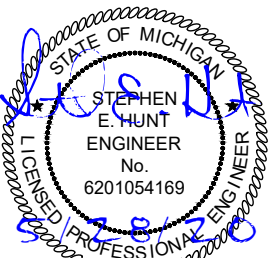
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COLOCATION

SHEET TITLE:

UTILITY SITE PLAN

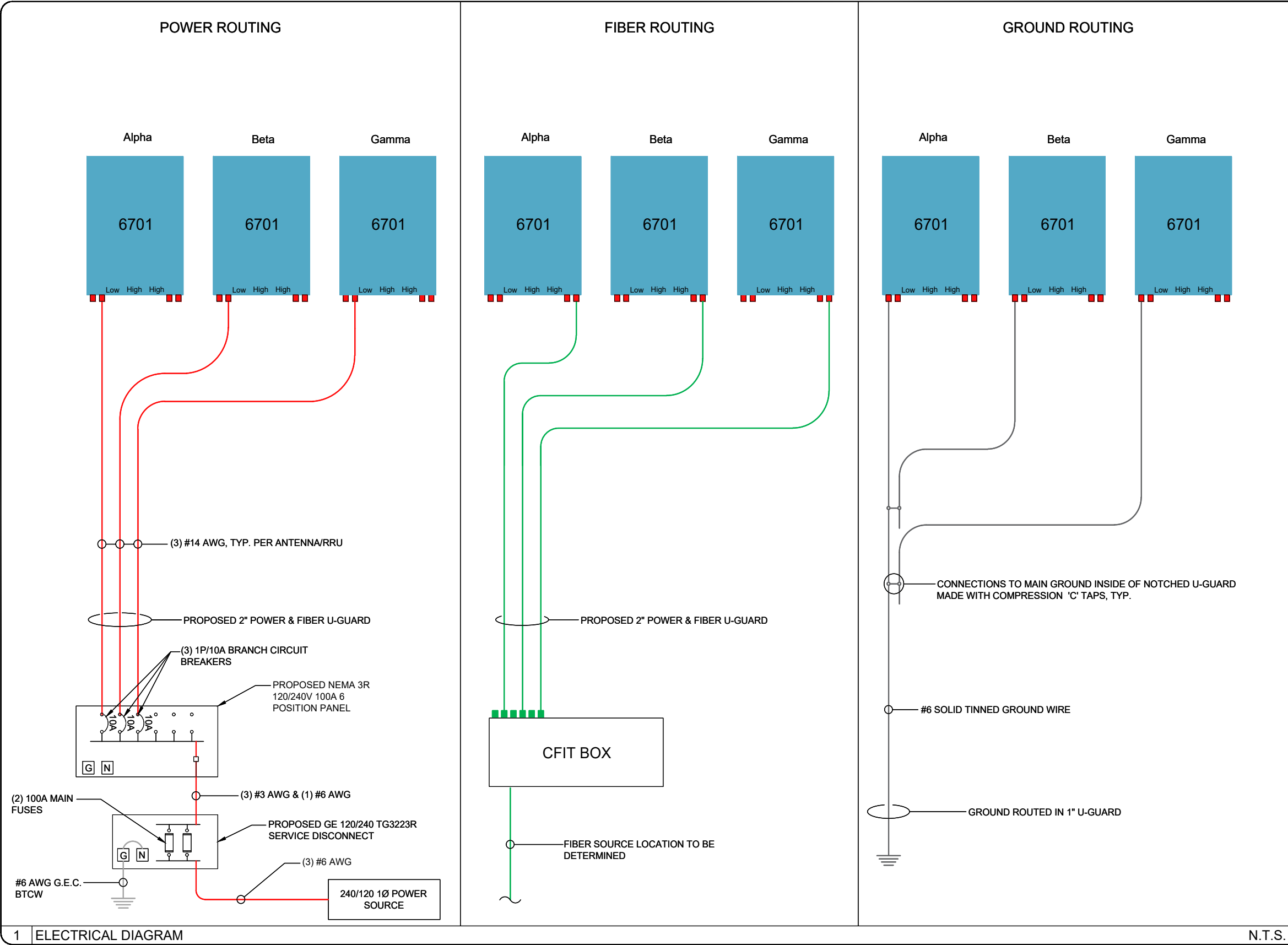
DRAWING NO.

E1

REVISION:

1

1 UTILITY SITE PLAN



GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
5. THE TERM "VERIFY" OR "V.I.F" SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
5. ALL EQUIPMENT TO BE BONDED.
6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 25 OHMS OR LESS.
2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
3. #6 GROUND AND BOND WIRE.
4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
5. GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
5. RISER STRAPS TO BE INSTALLED EVERY 5'.
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:

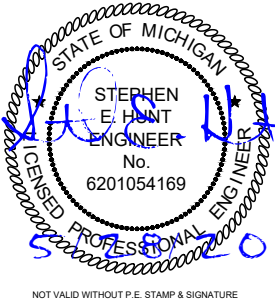


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CHECKED BY:	CTD

REVISIONS			
1	05/28/20	JCJ	CONSTRUCTION ISSUE
0	01/31/20	JSK	CONSTRUCTION ISSUE
A	01/27/20	LA	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:



SITE NAME:	45529
ADDRESS:	1307 WHITTIER RD YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 14' 52.354" N
LONGITUDE:	83° 38' 5.461" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:	GENERAL NOTES
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DRAWING NO.	REVISION:
GN1	1

NOTES:

- 1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
- 3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
- 4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
- 5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
- 6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND

OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	—
OVERHEAD POWER	— DHP — DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊙
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS — GAS —	WATER VALVE	⊗
FENCE	— x — x — x — x —	MANHOLE	⊗
WOOD FENCE	— o — o — o — o —	GAS VALVE	⊗
SEWER LINE	— SWR — SWR —	FIRE HYDRANT	⊗
WATER LINE	— VTR —	TELCO PEDESTAL	⊗
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊗
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— RDW — RDW —		
PROPERTY LINE	— PL — PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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verizon

PREPARED BY:

TeleCAD Wireless

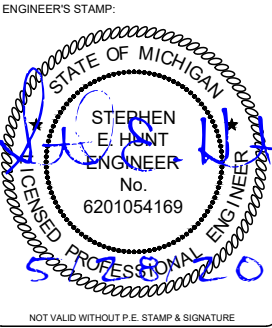
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HIXSON, TN 37343
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FAX: 423-843-9509

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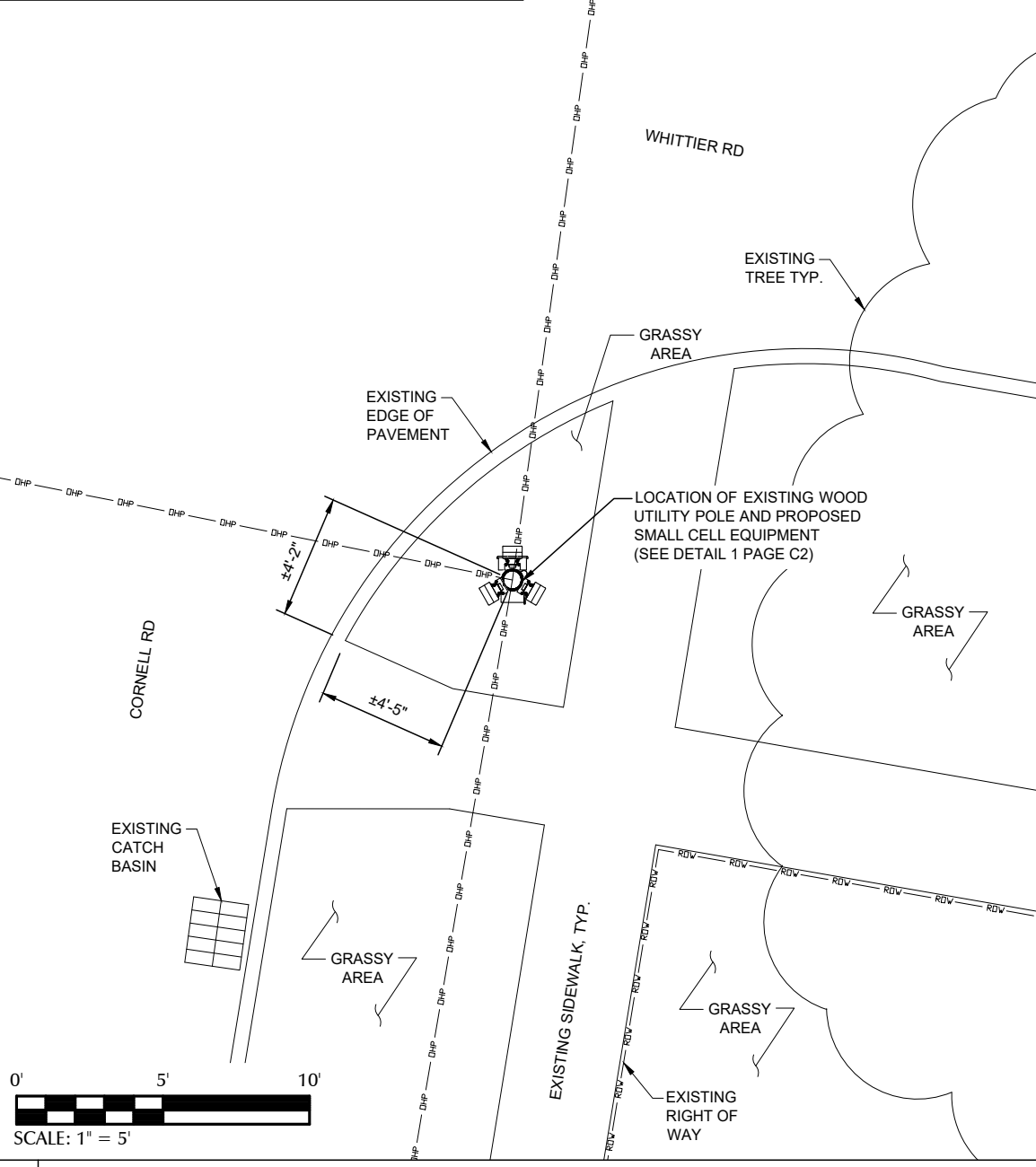
SITE NAME: 45529
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COUNTY: WASHTENAW
LATITUDE: 42° 14' 52.354" N
LONGITUDE: 83° 38' 5.461" W
DESIGN TYPE: COLOCATION

SHEET TITLE: SITE LAYOUTS

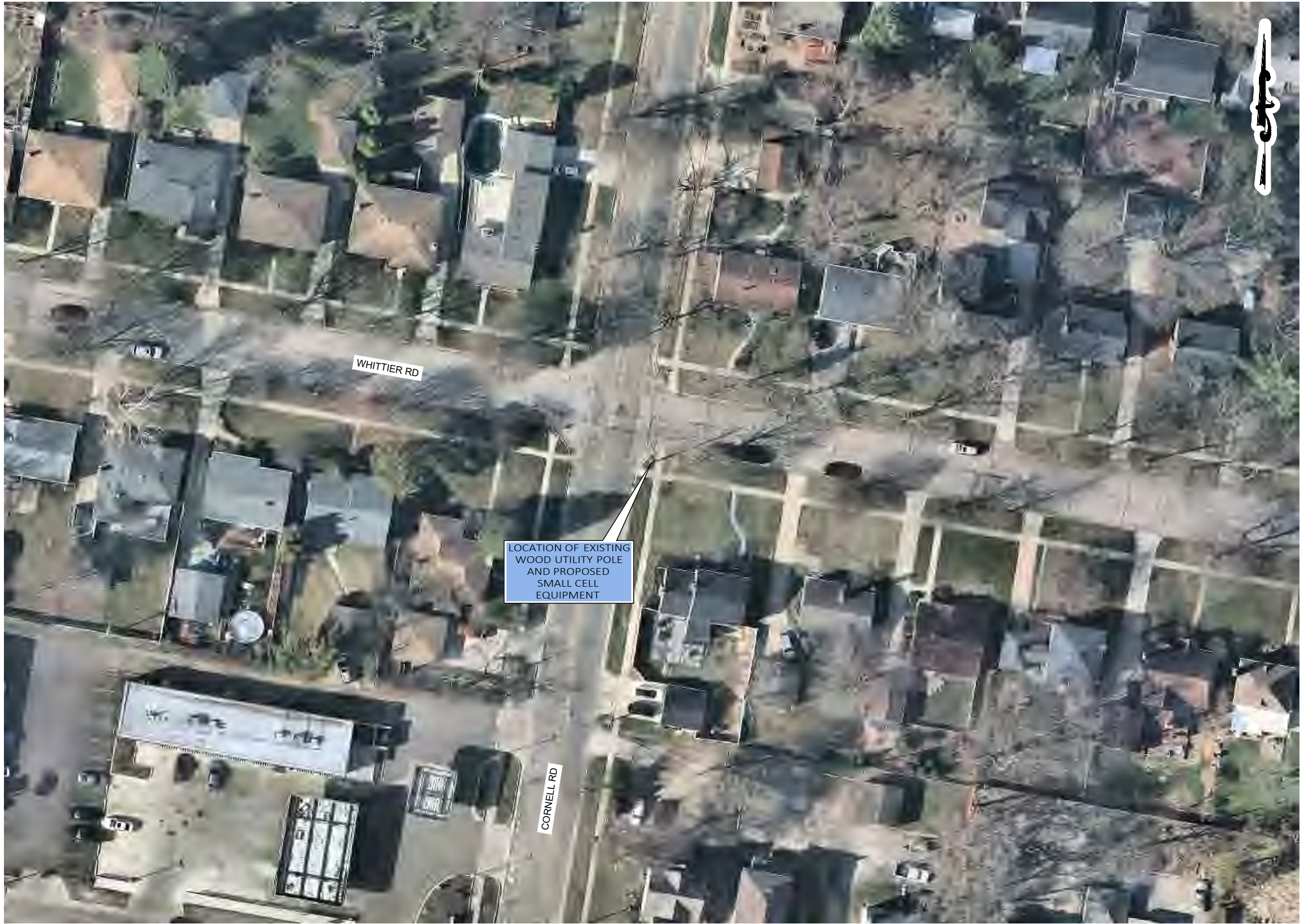
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REVISION: 1



1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT



1 OVERALL SITE LAYOUT - AERIAL IMAGERY

PREPARED FOR:



PREPARED BY:



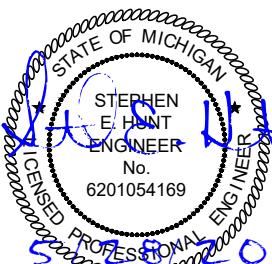
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ENGINEER'S STAMP:



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COUNTY:	WASHTENAW
LATITUDE:	42° 14' 52.354" N
LONGITUDE:	83° 38' 5.461" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO.	REVISION:
C1A	1

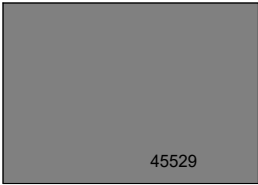
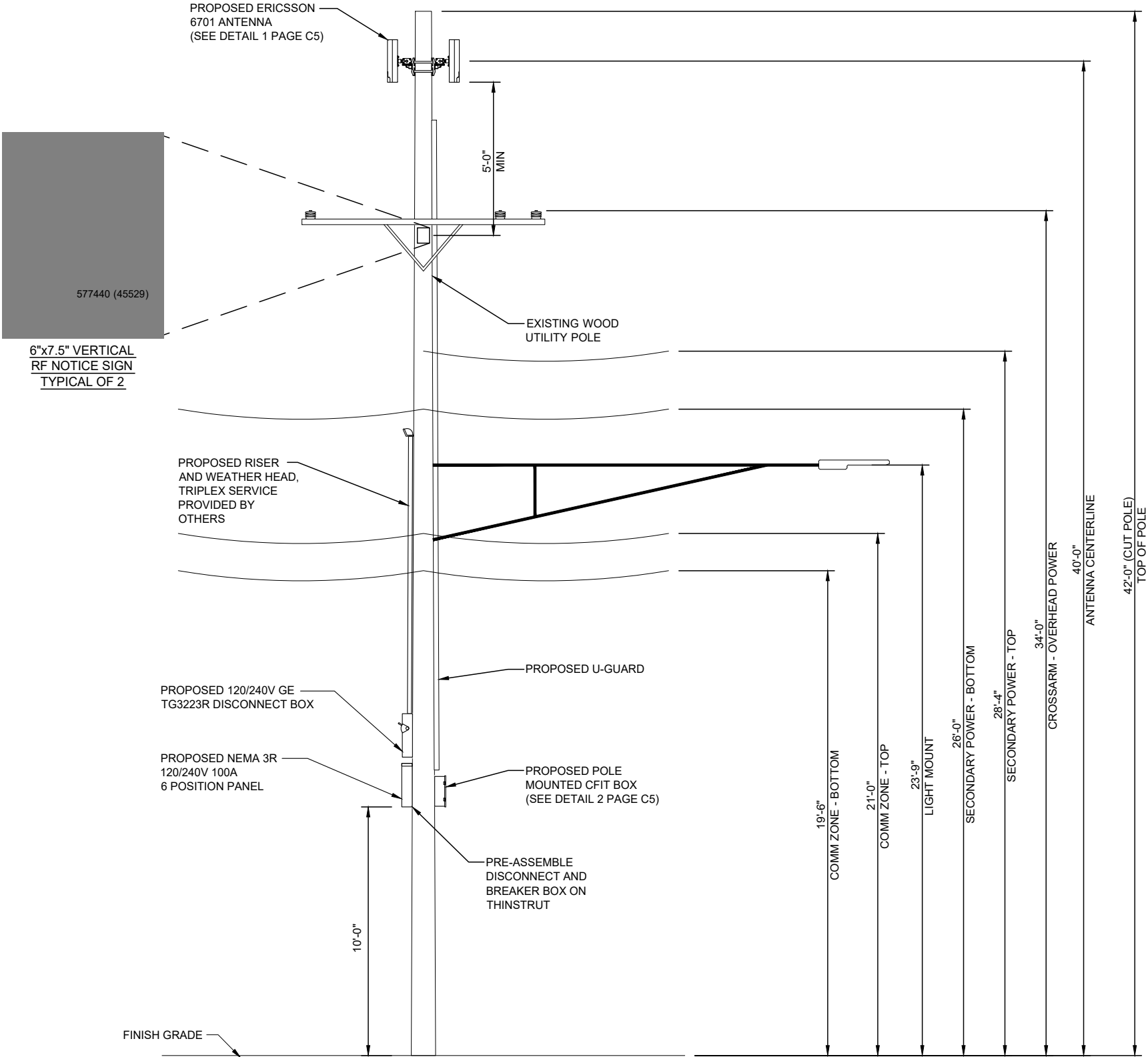
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



INSTALL ON BREAKER PANEL

1 POLE ELEVATION

N.T.S.

PREPARED FOR:



PREPARED BY:

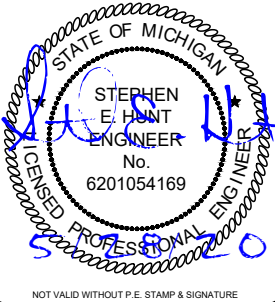
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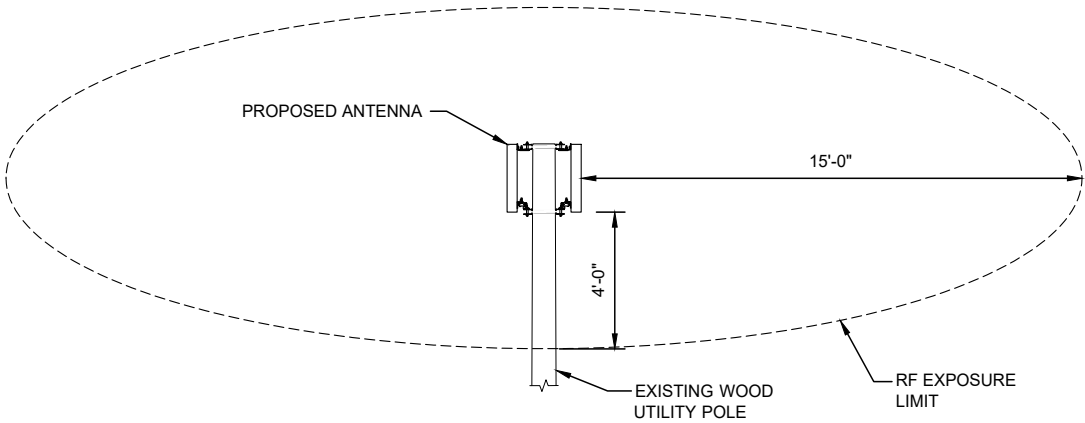
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SHEET TITLE:
POLE ELEVATION

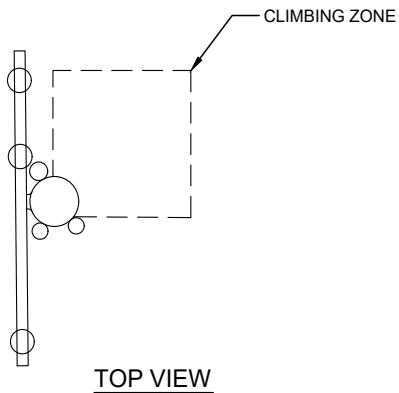
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C2	1

POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT, OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES N.T.S.

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verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
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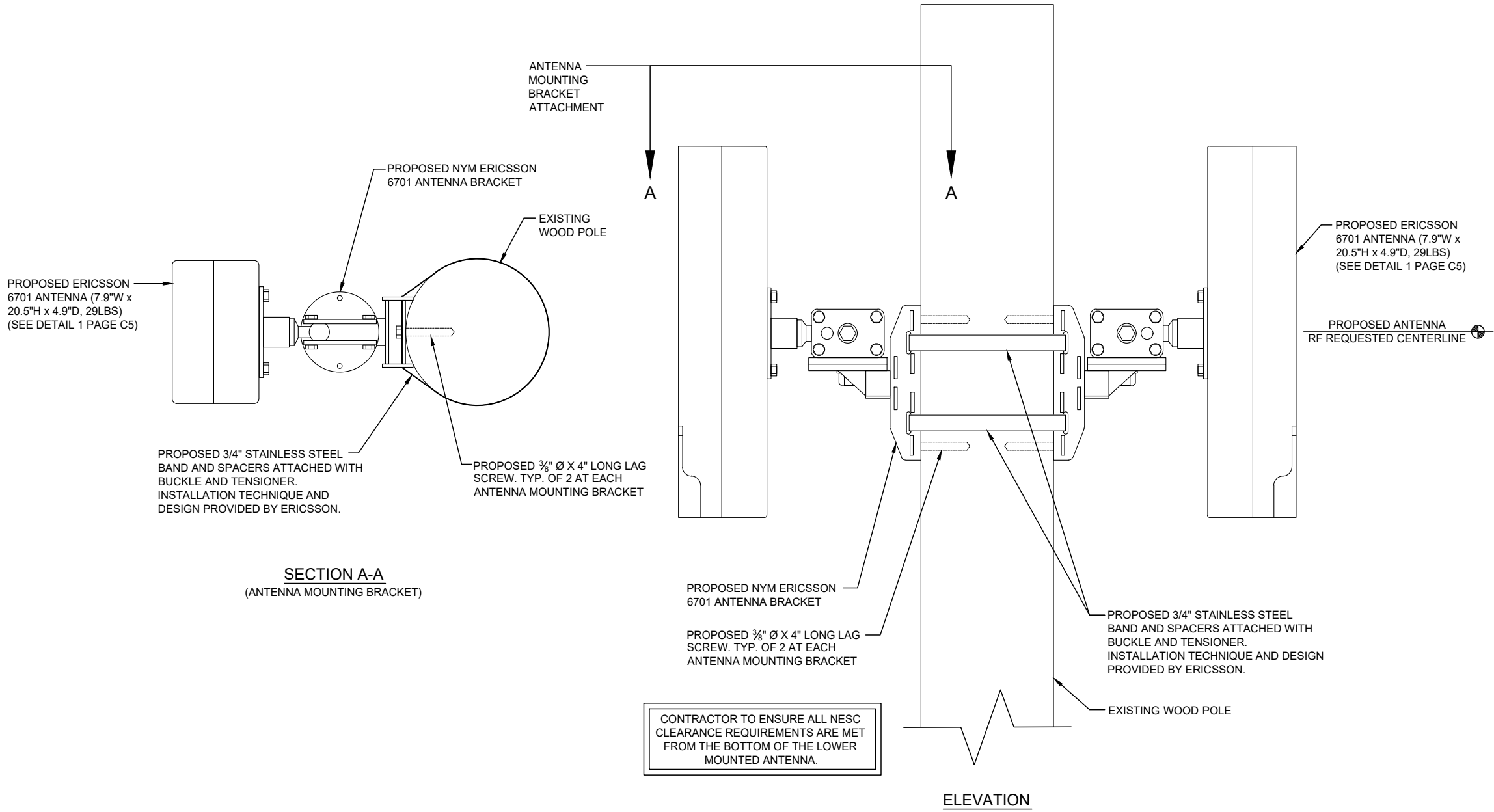
STATE OF MICHIGAN
STEPHEN E. HUNT
ENGINEER
No. 6201054169
LICENSED PROFESSIONAL ENGINEER

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SITE NAME: 45529
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YPSILANTI, MI 48197
COUNTY: WASHTENAW
LATITUDE: 42° 14' 52.354" N
LONGITUDE: 83° 38' 5.461" W
DESIGN TYPE: COLOCATION

SHEET TITLE:
SITE DETAILS

DRAWING NO. C3
REVISION: 1



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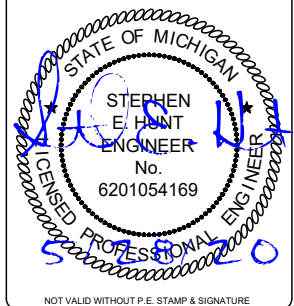
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SITE NAME:

45529

ADDRESS:

1307 WHITTIER RD
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 52.354" N

LONGITUDE:

83° 38' 5.461" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

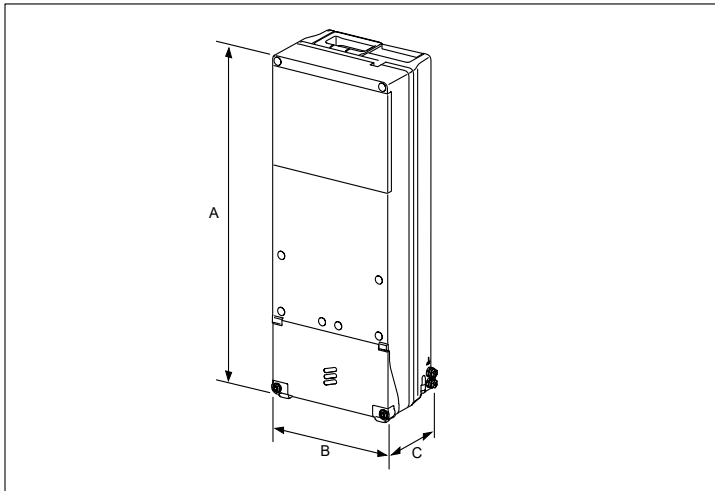
REVISION:

1

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX



PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES

PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless
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FAX: 423-843-9509

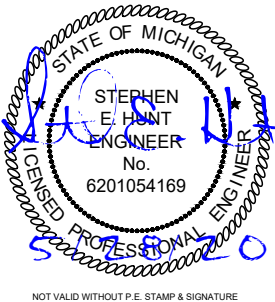
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SHEET TITLE:
EQUIPMENT DETAILS

DRAWING NO.	REVISION:
C5	1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

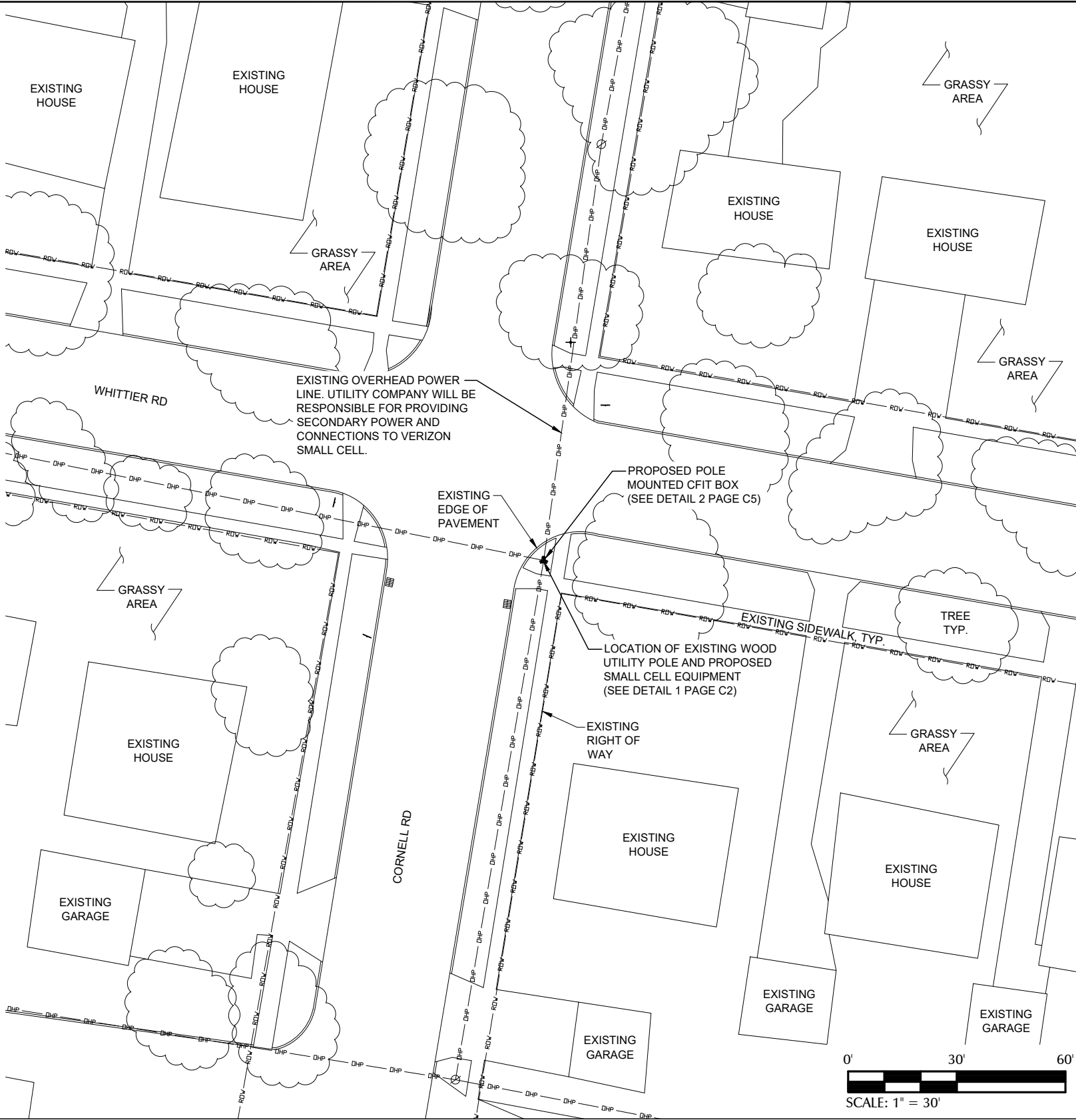
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	CONDUCTOR TYPE		CONDUIT SIZE
	ALUMINUM	COPPER	
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHP	CATCH BASIN	CB
UNDERGROUND POWER	UGP	STREET SIGN	SS
OVERHEAD POWER	DHP	4 WAY STREET SIGN	4WS
UNDERGROUND TELCO	UGT	UTILITY POLE	UP
OVERHEAD TELCO	DHT	LIGHT POLE	LP
GAS LINE	GAS	WATER VALVE	WV
FENCE	FX	MANHOLE	M
WOOD FENCE	WFX	GAS VALVE	GV
SEWER LINE	SVR	FIRE HYDRANT	FH
WATER LINE	VTR	TELCO PEDESTAL	TP
HYBRID CABLE	HYB	ELECTRICAL BOX	EB
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW		
PROPERTY LINE	PL		



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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LA

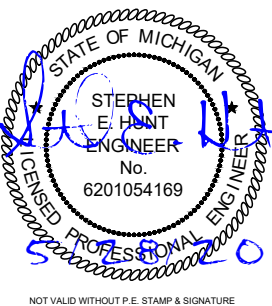
CHECKED BY:

CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	05/28/20	JCJ	CONSTRUCTION ISSUE
0	01/31/20	JSK	CONSTRUCTION ISSUE
A	01/27/20	LA	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

45529

ADDRESS:

1307 WHITTIER RD

YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 52.354" N

LONGITUDE:

83° 38' 5.461" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

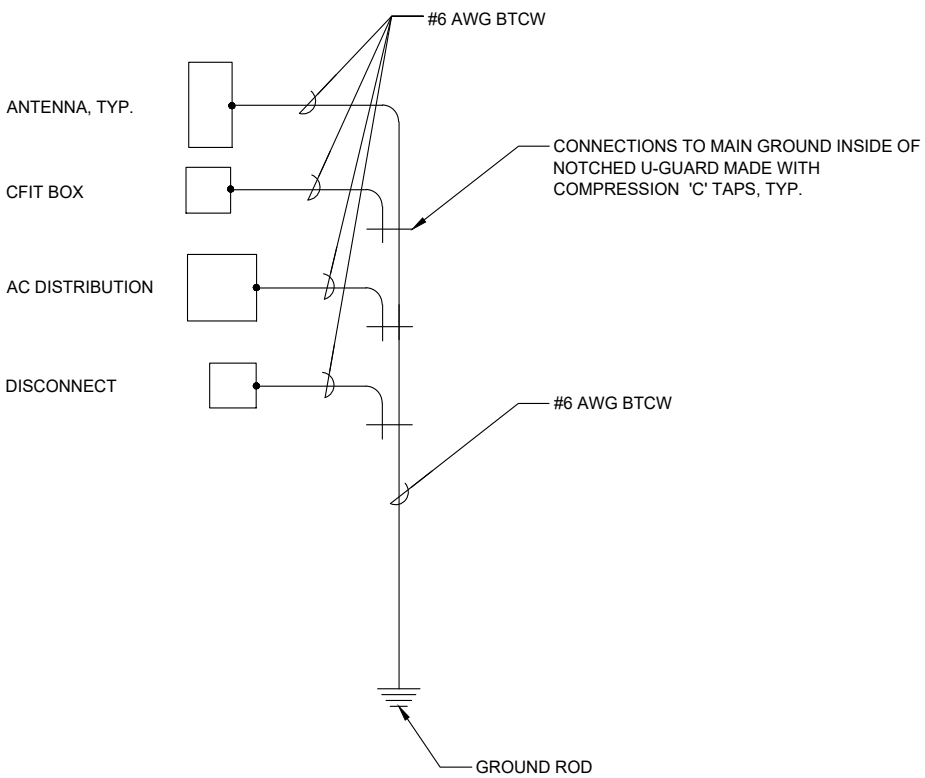
UTILITY SITE PLAN

DRAWING NO.

E1

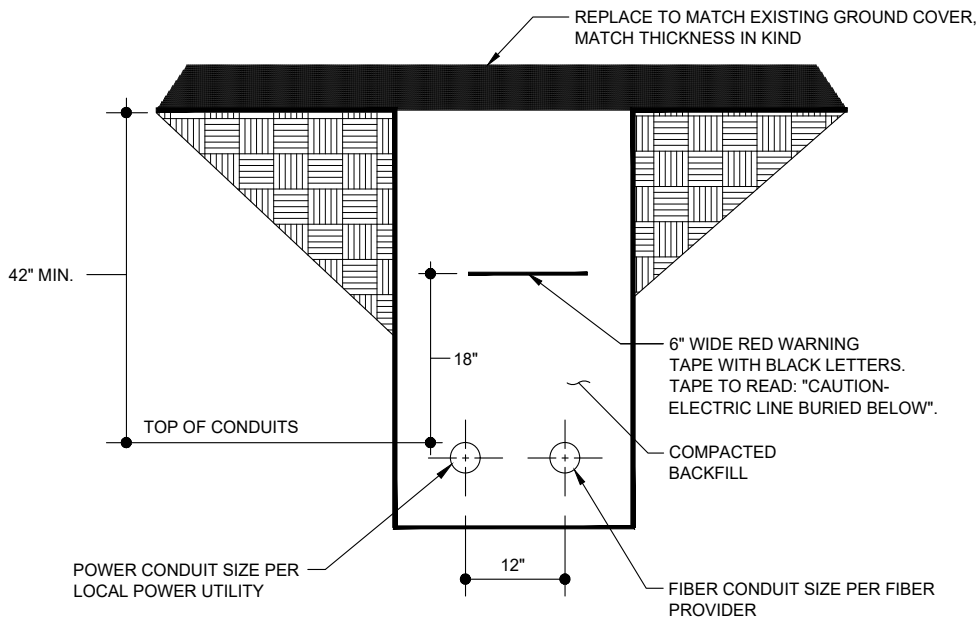
REVISION:

1



1 SINGLE POINT RADIAL GROUND DETAIL

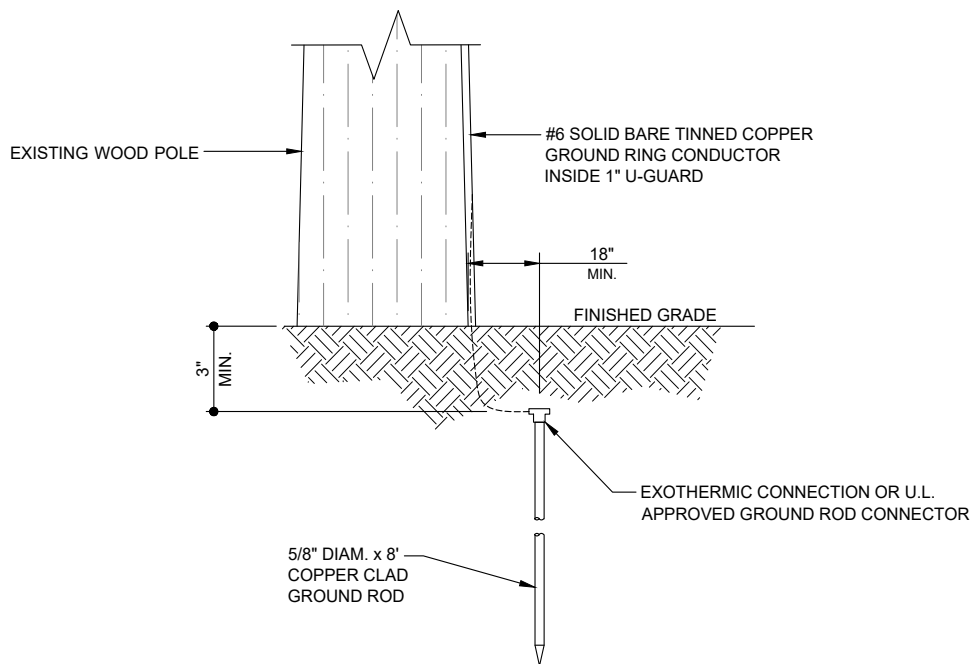
N.T.S.



NOTE: TYPICAL SPACING FOR ALL UNDERGROUND CONDUITS.

2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

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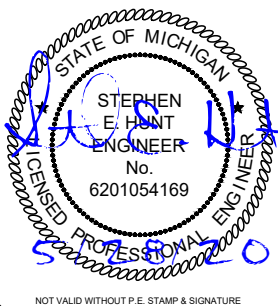
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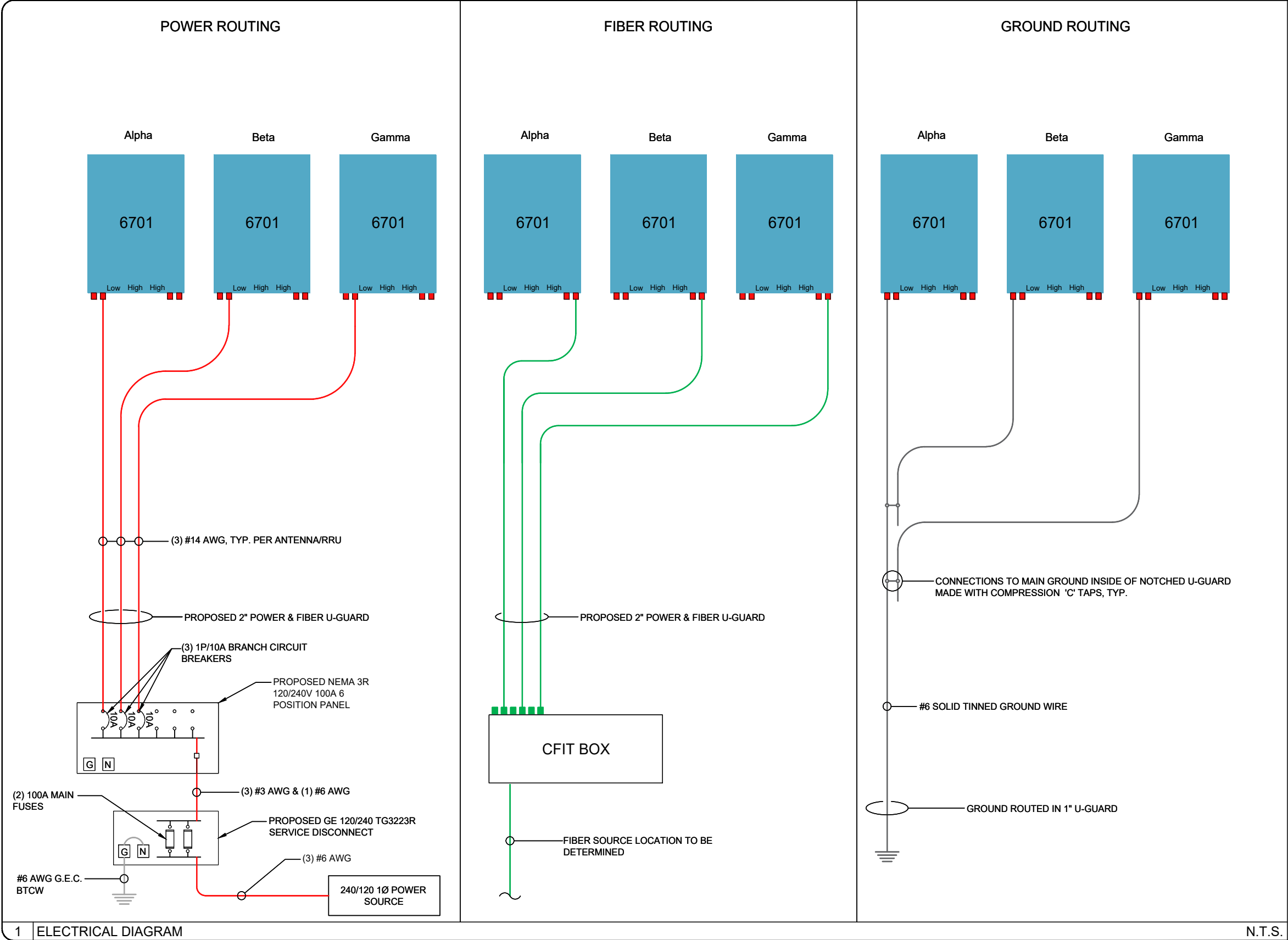
ELECTRICAL DETAILS

DRAWING NO.

E2

REVISION:

1

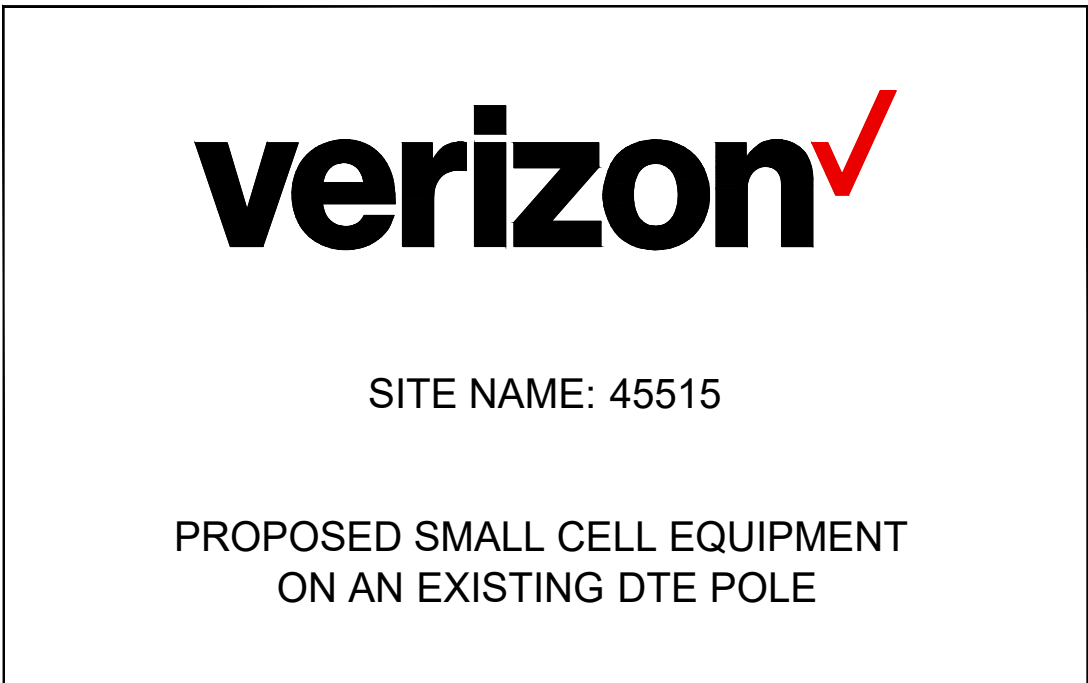


PROJECT SUMMARY

SITE NAME:	45515
SITE ADDRESS: (ESTIMATED)	1519 WASHTENAW AVE YPSILANTI, MI 48197
COUNTY:	WASHTENAW
JURISDICTION:	CITY OF YPSILANTI
<u>SITE COORDINATES:</u>	
LATITUDE:	42° 14' 49.241" N
LATITUDE:	42.24701°
LONGITUDE:	83° 38' 14.128" W
LONGITUDE:	-83.63726°
ELEVATION:	±792'-4"
PROPERTY DEFINITION:	R.O.W.
FUZE PROJECT ID:	15899307
PSLC CODE:	577387
EXISTING POLE HEIGHT:	40'-0"

STRUCTURAL REVIEW

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.

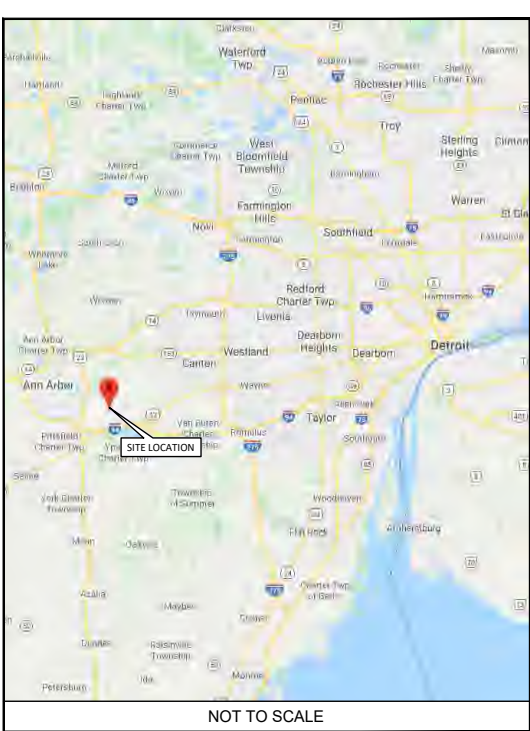


SITE NAME: 45515

PROPOSED SMALL CELL EQUIPMENT
ON AN EXISTING DTE POLE

PROPOSED SMALL CELL EQUIPMENT
ON AN EXISTING DTE POLE

VICINITY MAP



NOT TO SCALE

LOCATION MAP



NOT TO SCALE

SHEET INDEX

[illegible]

SCOPE OF WORK

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT

STATE COUNTY MAP



1

Page 431 of 652

- GENERAL NOTES
1.

THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.

2.

THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.

3.

PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.

4.

THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.

5.

ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.

6.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.

7.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)

8.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.

9.

KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.

10.

PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.

11.

THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.

12.

ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

- DEFINITIONS
1.

"TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.

2.

"SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.

3.

"AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.

4.

"ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.

5.

THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.

6.

WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.

7.

FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

- PROJECT SPECIFIC NOTES
1.

THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.

2.

THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.

3.

IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

- GROUND CONSTRUCTION NOTES:
1.

120/240V POWER REQUIRED FOR 3-WIRE SERVICE.

2.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.

3.

CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.

4.

ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.

5.

ALL EQUIPMENT TO BE BONDED.

6.

METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

- STANDARD GROUNDING NOTES:
1.

GROUND TESTED AT 25 OHMS OR LESS.

2.

5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.

3.

#6 GROUND AND BOND WIRE.

4.

MOLDING, STAPLED EVERY 1' AND AT EACH END.

5.

GROUND RODS 18" FROM POLE.

- STANDARD CONDUIT NOTES:
1.

FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.

2.

IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.

3.

IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.

4.

RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.

5.

RISER STRAPS TO BE INSTALLED EVERY 5'.

6.

CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.

7.

ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

- STANDARD TRENCHING NOTES:
1.

MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.

2.

MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.

3.

IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.

4.

IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.

5.

PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

- UTILITY POLE CONSTRUCTION NOTES:
1.

NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".

2.

FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.

3.

ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.

4.

CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.

5.

90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).

6.

USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.

7.

USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.

8.

USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.

9.

FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

- VERIZON WIRELESS CONSTRUCTION NOTES:
1.

CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.

2.

CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.

3.

CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.

4.

CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.

5.

CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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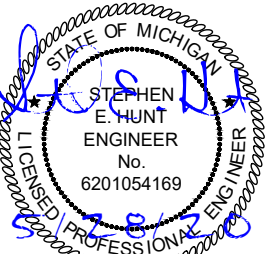
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REVISIONS

1	05/28/20	RGM	CONSTRUCTION ISSUE
0	01/22/20	CDM	CONSTRUCTION ISSUE
A	01/21/20	USE	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:



NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME:

45515

ADDRESS:

1519 WASHTENAW AVE
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 49.241" N

LONGITUDE:

83° 38' 14.128" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

GENERAL NOTES

DRAWING NO.

GN1

REVISION:

1

NOTES:

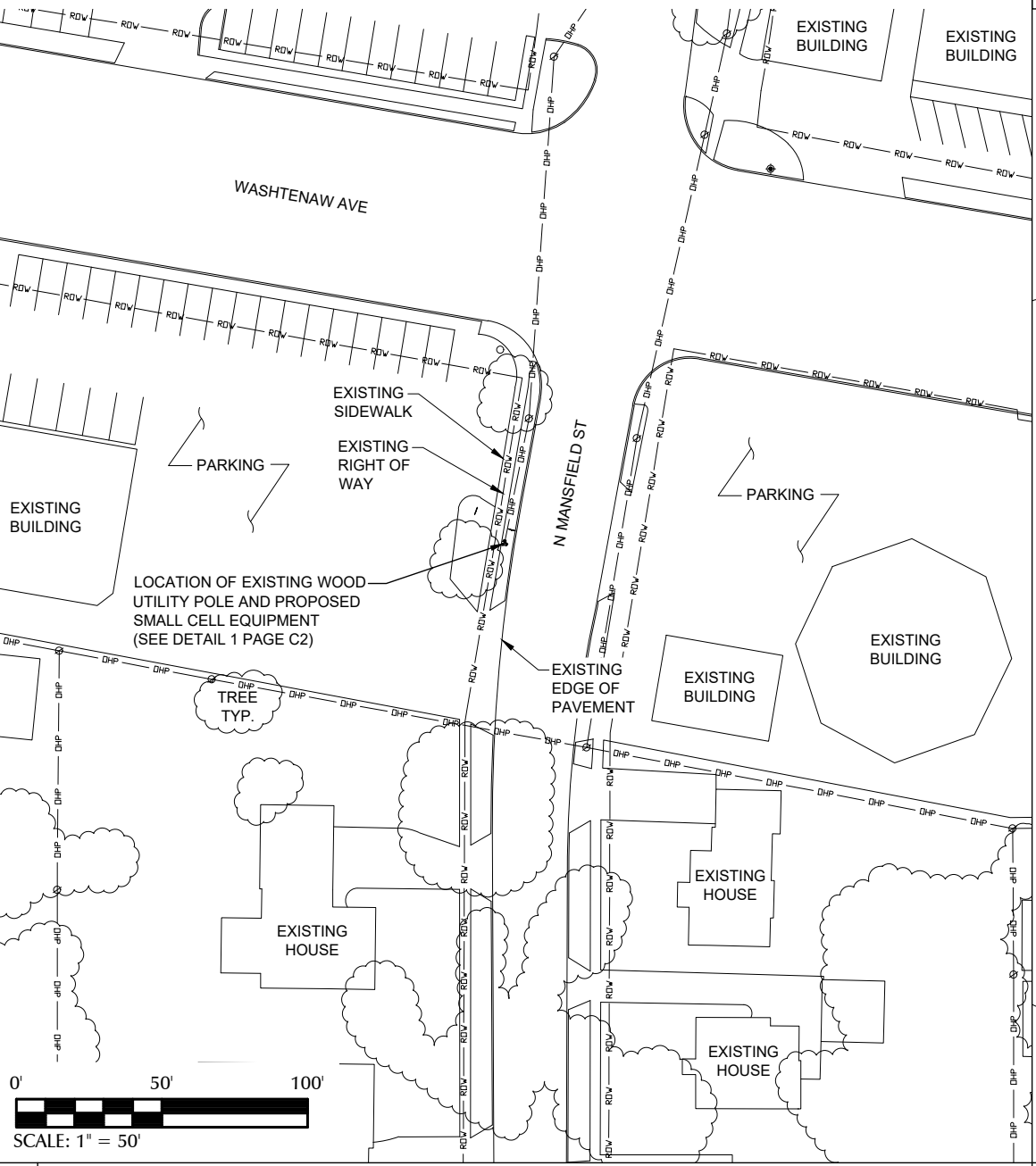
- 1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
- 3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
- 4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
- 5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
- 6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND

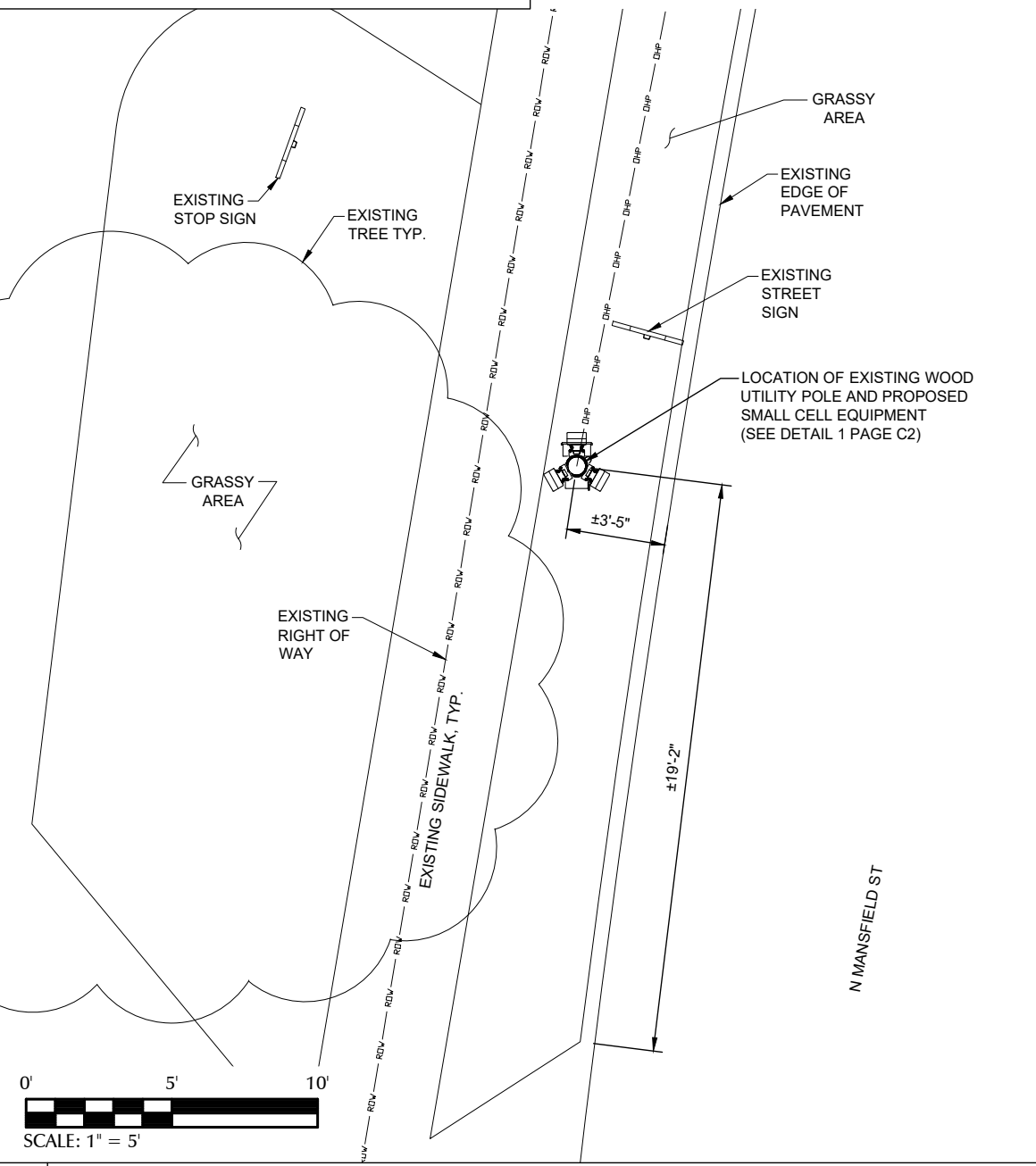
OVERHEAD UTILITIES	DHU	CATCH BASIN	
UNDERGROUND POWER	UGP	STREET SIGN	
OVERHEAD POWER	DHP	4 WAY STREET SIGN	
UNDERGROUND TELCO	UGT	UTILITY POLE	
OVERHEAD TELCO	DHT	LIGHT POLE	
GAS LINE	GAS	WATER VALVE	
FENCE	X-X-X-X-X	MANHOLE	
WOOD FENCE	O-O-O-O-O	GAS VALVE	
SEWER LINE	SWR	FIRE HYDRANT	
WATER LINE	WTR	TELCO PEDESTAL	
HYBRID CABLE	HYB	ELECTRICAL BOX	
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW		
PROPERTY LINE	PL		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
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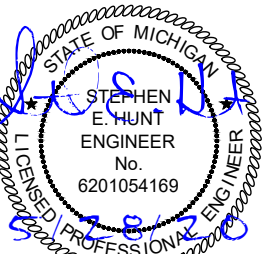
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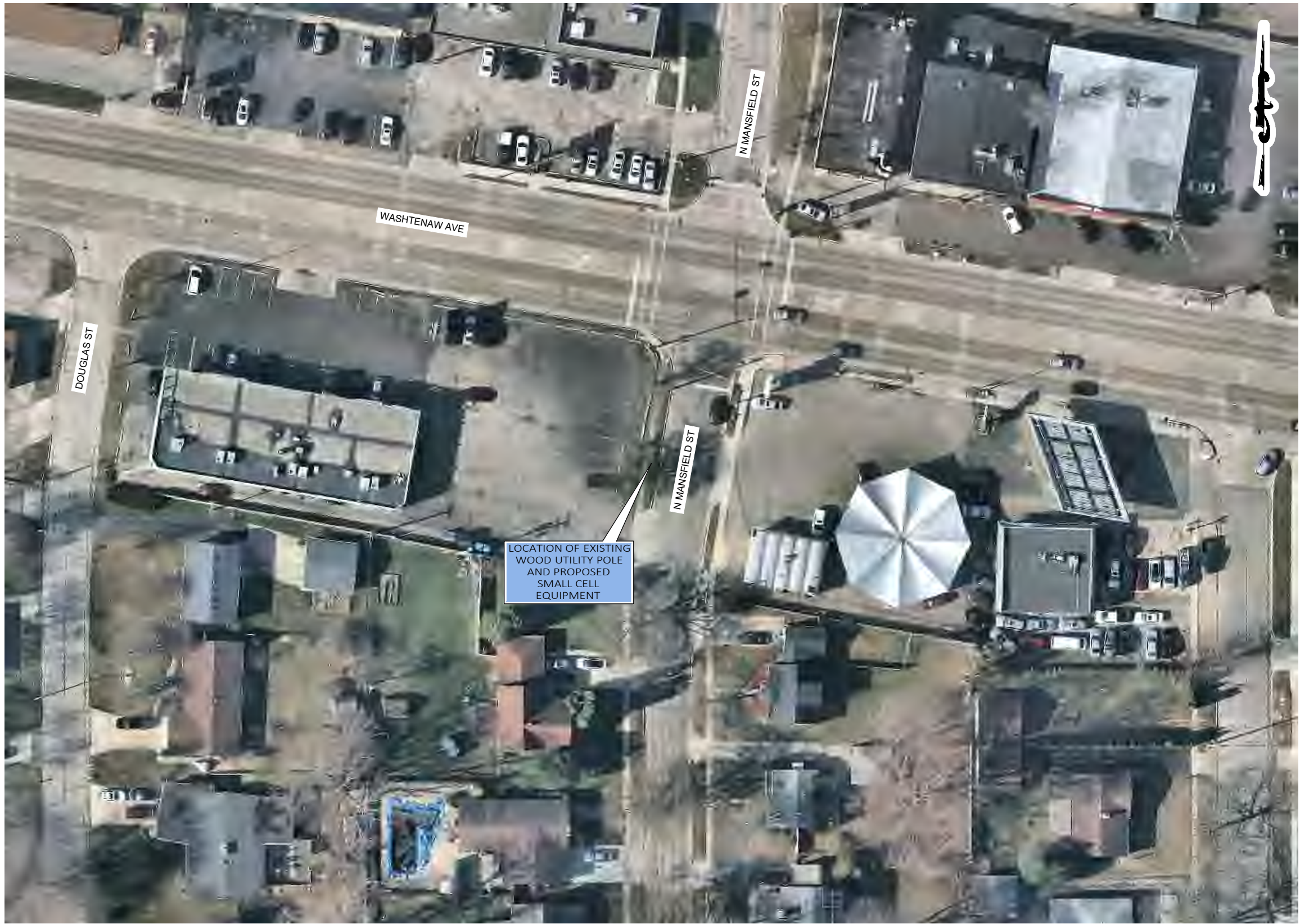
SITE LAYOUTS

DRAWING NO.

C1

REVISION:

1



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PREPARED BY:



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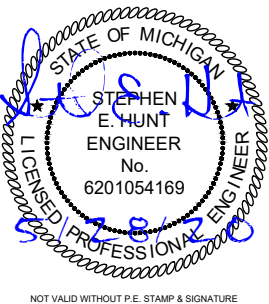
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COLOCATION

SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO. C1A	REVISION: 1
--------------------	----------------

1 OVERALL SITE LAYOUT - AERIAL IMAGERY

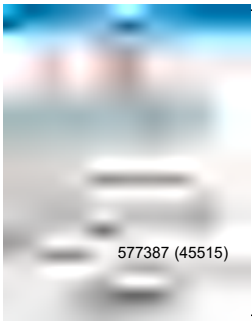
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

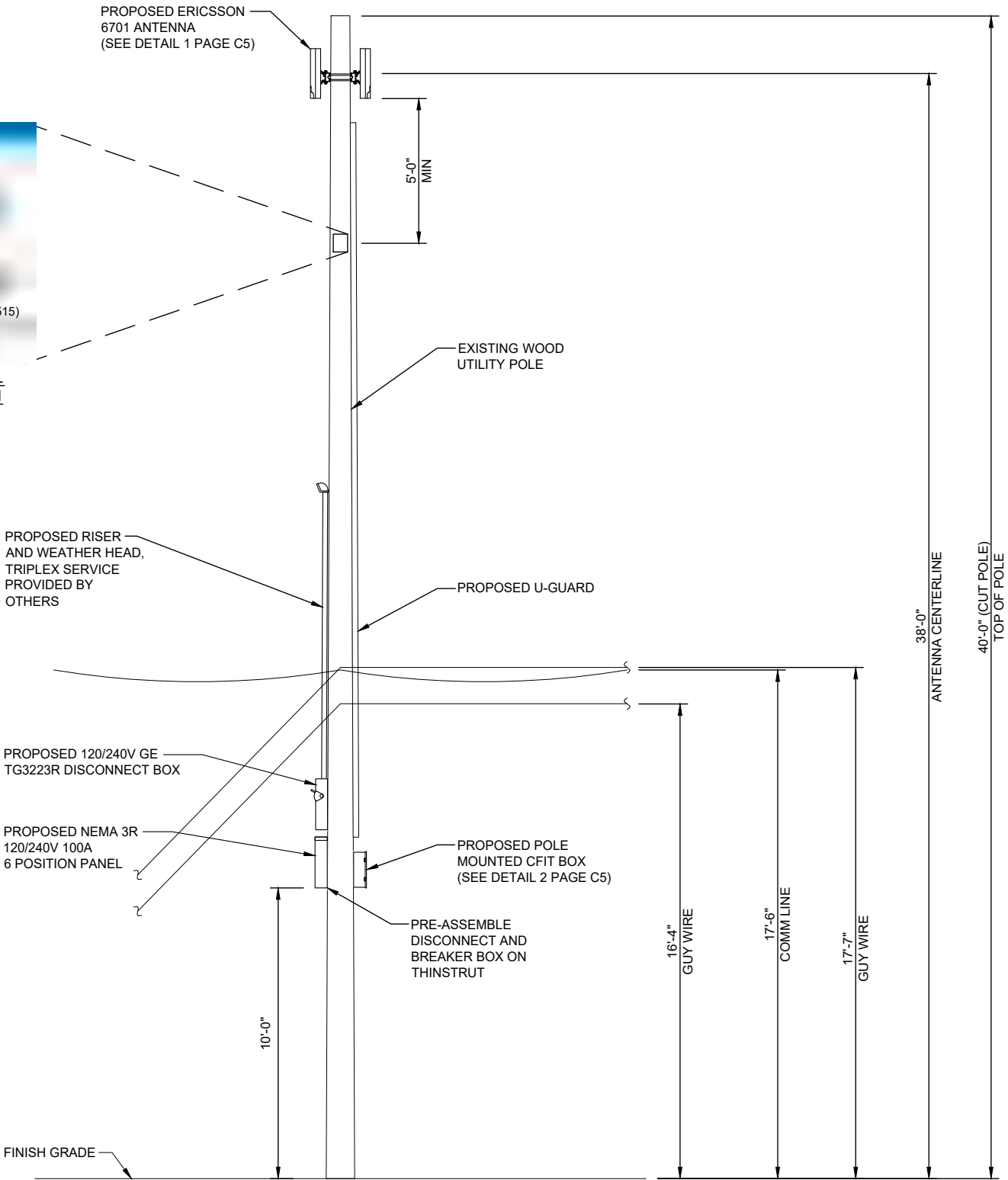
40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



6"x7.5" VERTICAL
RF NOTICE SIGN
TYPICAL OF 2



INSTALL ON BREAKER PANEL

1 POLE ELEVATION

N.T.S.

PREPARED FOR:



PREPARED BY:



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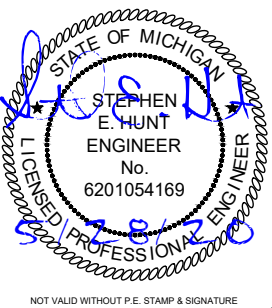
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CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	05/28/20	RGM	CONSTRUCTION ISSUE
0	01/22/20	CDM	CONSTRUCTION ISSUE
A	01/21/20	USE	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

45515

ADDRESS:

1519 WASHTENAW AVE
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 49.241" N

LONGITUDE:

83° 38' 14.128" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

POLE ELEVATION

DRAWING NO.

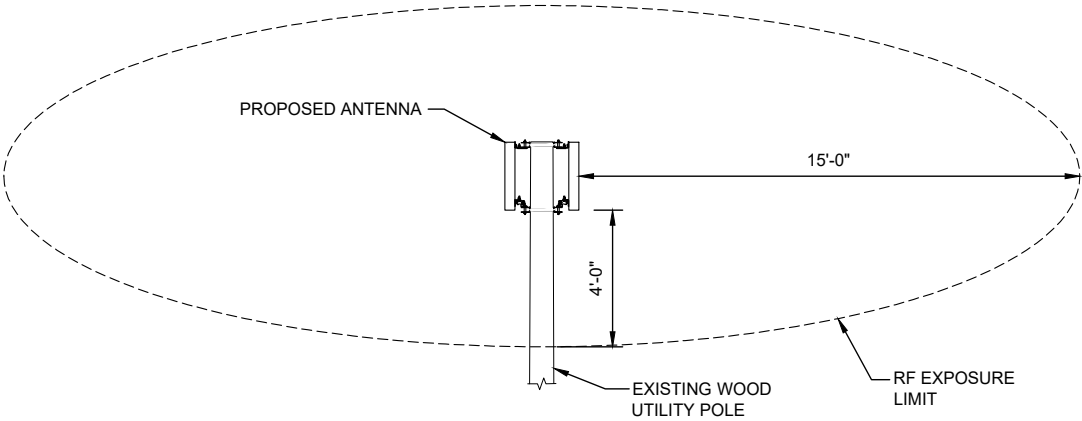
C2

REVISION:

1

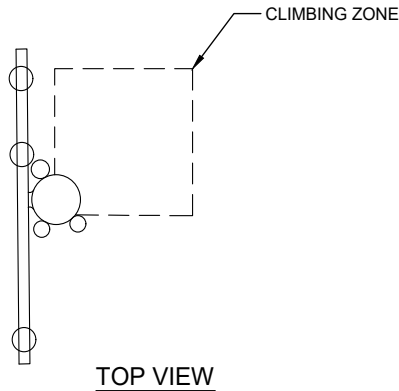
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT. OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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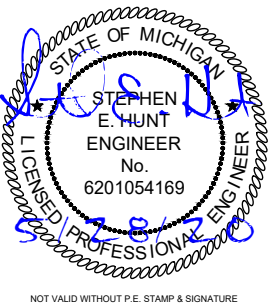
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DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

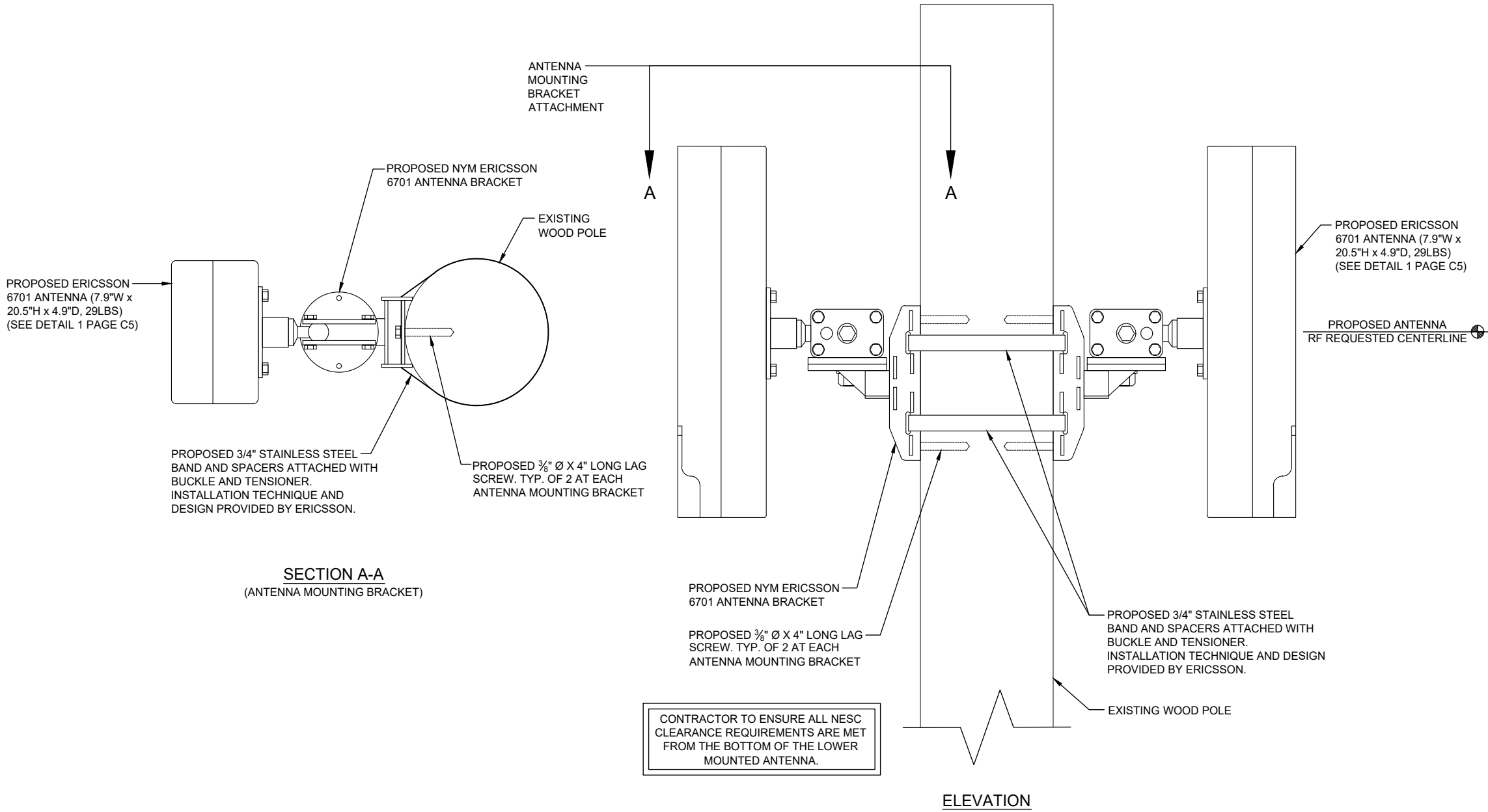
DRAWING NO.

C3

REVISION:

1

1 EQUIPMENT CU-FT. TABLE



PREPARED FOR:



PREPARED BY:



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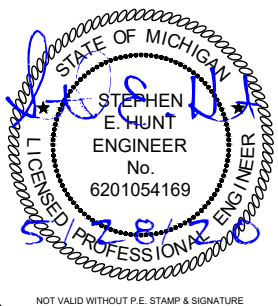
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LONGITUDE:

83° 38' 14.128" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

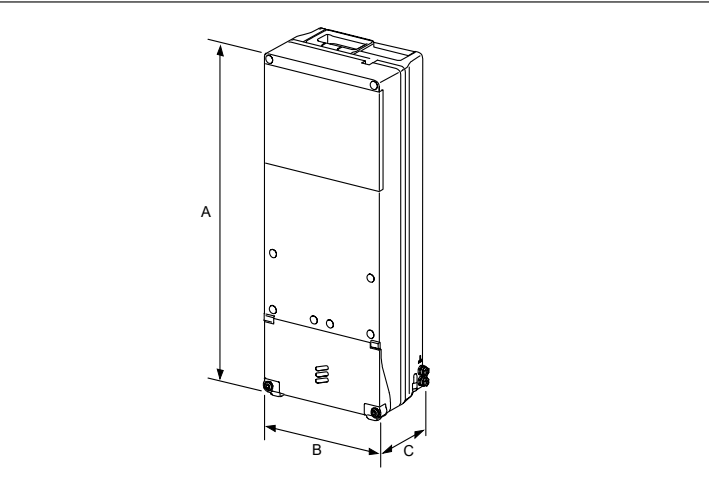
REVISION:

1

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS_REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
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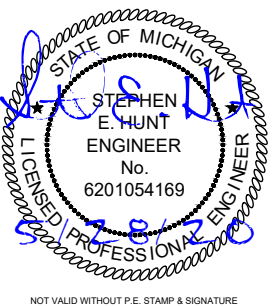
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WASHTENAW

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42° 14' 49.241" N

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83° 38' 14.128" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

EQUIPMENT DETAILS

DRAWING NO.

C5

REVISION:

1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

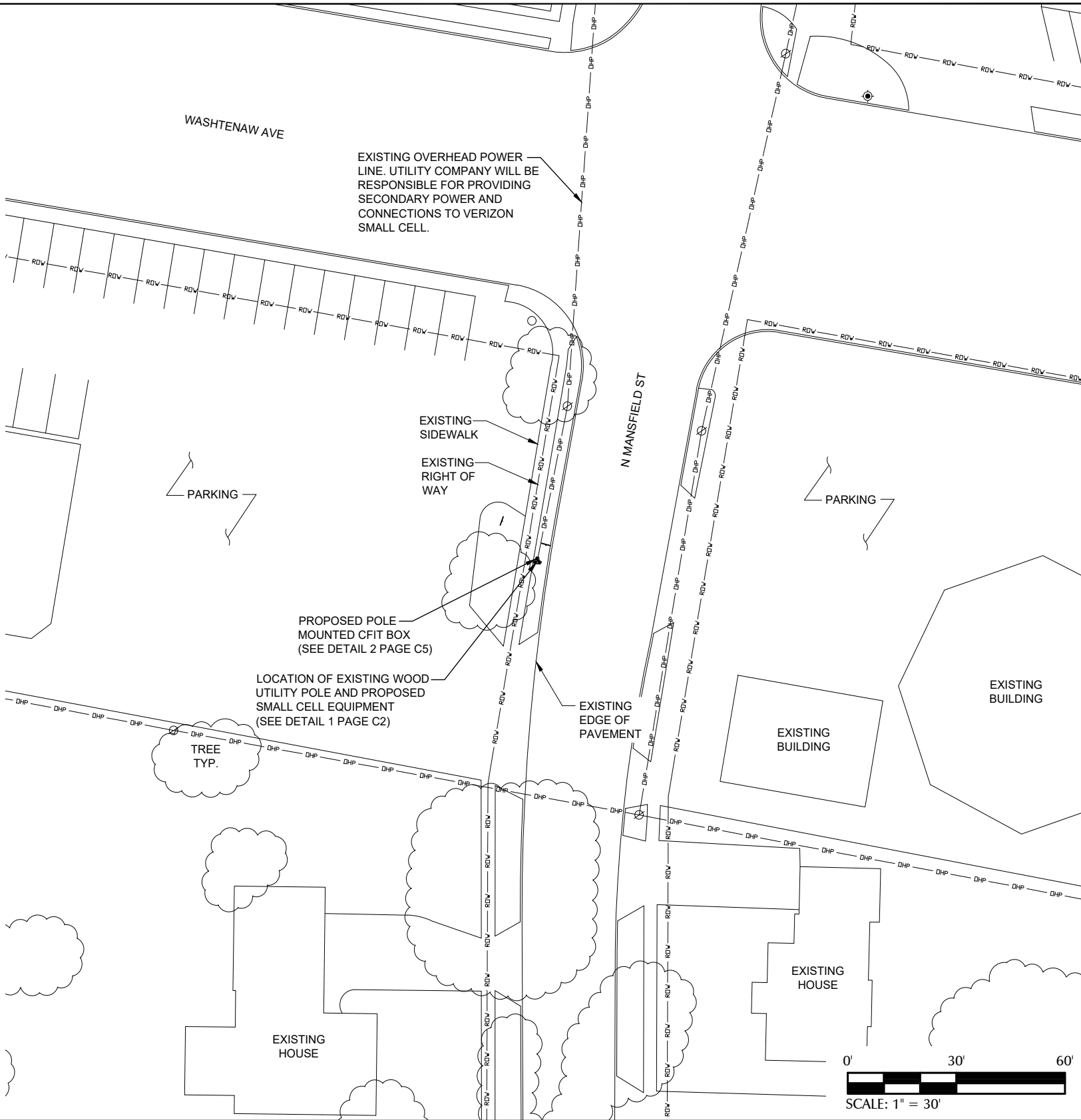
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	120V		CONDUIT SIZE
	ALUMINUM	COPPER	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	⌘
UNDERGROUND POWER	UGP	STREET SIGN	—
OVERHEAD POWER	DHP DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	UGT	UTILITY POLE	⊗
OVERHEAD TELCO	DHT	LIGHT POLE	⊙
GAS LINE	GAS GAS	WATER VALVE	⊗
FENCE	x x x x x x	MANHOLE	⊗
WOOD FENCE	o o o o o o	GAS VALVE	⊗
SEWER LINE	SWR SWR	FIRE HYDRANT	⊗
WATER LINE	VTR	TELCO PEDESTAL	⊗
HYBRID CABLE	HYB	ELECTRICAL BOX	⊗
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW RDW		
PROPERTY LINE	PL PL		



PREPARED FOR:



PREPARED BY:



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HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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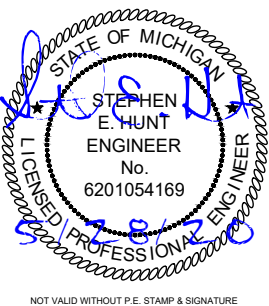
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45515

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1519 WASHTENAW AVE
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 49.241" N

LONGITUDE:

83° 38' 14.128" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

UTILITY SITE PLAN

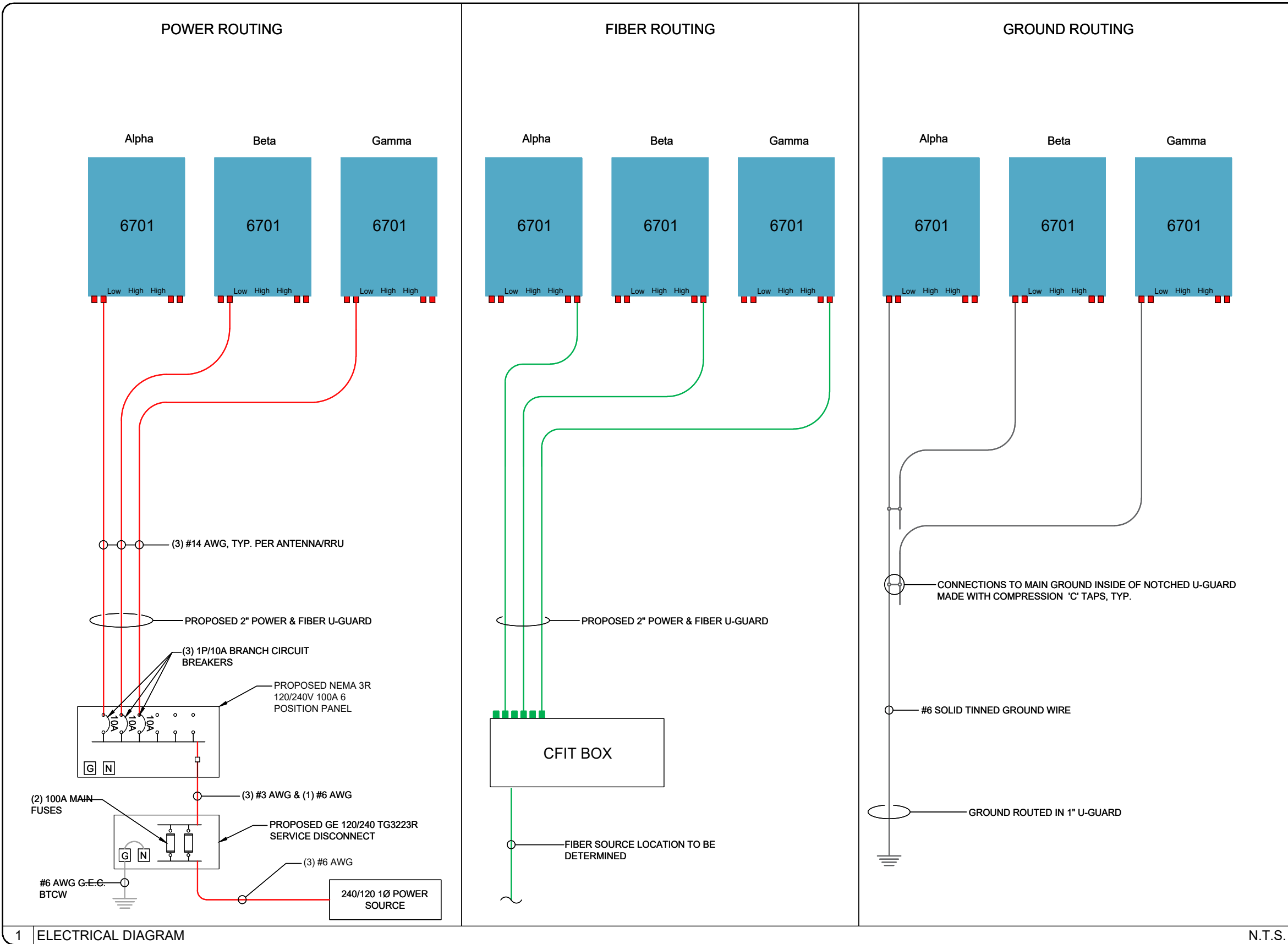
DRAWING NO.

E1

REVISION:

1

1 UTILITY SITE PLAN



PROJECT SUMMARY

SITE NAME:	45525
SITE ADDRESS: (ESTIMATED)	707 W MICHIGAN AVE YPSILANTI, MI 48197
COUNTY:	WASHTENAW
JURISDICTION:	CITY OF YPSILANTI
<u>SITE COORDINATES:</u>	
LATITUDE:	42° 14' 21.156" N
LATITUDE:	42.23921°
LONGITUDE:	83° 37' 19.548" W
LONGITUDE:	-83.62210°
ELEVATION:	±756'-10"
PROPERTY DEFINITION:	R.O.W.
FUZE PROJECT ID:	15899299
PSLC CODE:	577436
EXISTING POLE HEIGHT:	40'-0"

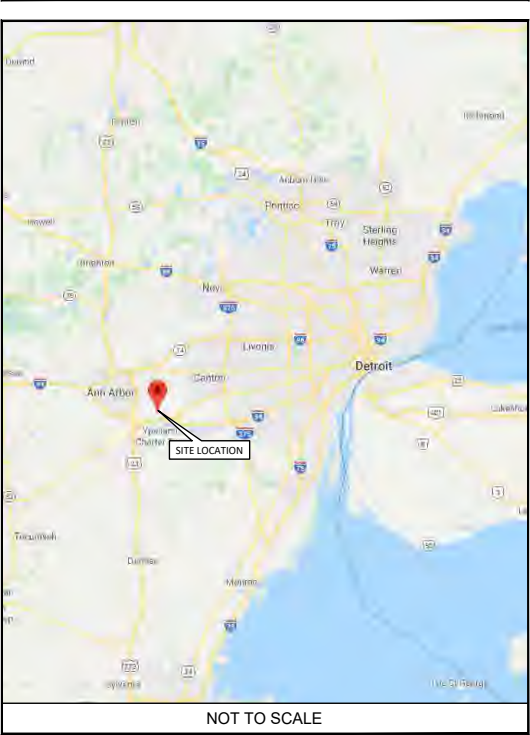
STRUCTURAL REVIEW

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.
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VICINITY MAP	LOCATION MAP
--------------	--------------

VICINITY MAP



SHEET SCALE FACTOR:
PLOT SIZE:
11" x 17": TO SCALE

LOCATION MAP



 1 (800) 482-7171
www.missdig.com
 CONTRACTOR TO CALL MICHIGAN
 ONE-CALL SYSTEMS AT LEAST 72 HOURS
 PRIOR TO DIGGING.

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SHEET INDEX

[illegible]

SCOPE OF WORK

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT

STATE COUNTY MAP



PREPARED FOR:

verizon 

PREPARED BY:

TeleCAD
Wireless

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ADDRESS:

707 W MICHIGAN AVE

YPSILANTI, MI 48197

COUNTY: WAGHTEHAM

WASHTEAW

LATITUDE: 42° 14' 21.156" N

LONGITUDE:

83° 37' 19.548" W

DESIGN TYPE:
COLOCATION

SHEET TITLE:

TITLE SHEET

DRAWING NO.	REVISION:
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DRAWING NO.	REVISION:
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GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
5. THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
5. ALL EQUIPMENT TO BE BONDED.
6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 25 OHMS OR LESS.
2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
3. #6 GROUND AND BOND WIRE.
4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
5. GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
5. RISER STRAPS TO BE INSTALLED EVERY 5'.
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:

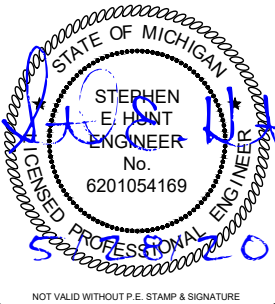


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1	05/28/20	JCJ	CONSTRUCTION ISSUE
0	01/31/20	CDM	CONSTRUCTION ISSUE
A	01/30/20	USE	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:



SITE NAME:	45525
ADDRESS:	707 W MICHIGAN AVE YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 14' 21.156" N
LONGITUDE:	83° 37' 19.548" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:	GENERAL NOTES
--------------	---------------

DRAWING NO.	REVISION:
GN1	1

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND			
OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	—
OVERHEAD POWER	— DHP — DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊙
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS — GAS —	WATER VALVE	⊙
FENCE	— x — x — x — x —	MANHOLE	⊙
WOOD FENCE	— o — o — o — o —	GAS VALVE	⊙
SEWER LINE	— SWR — SWR —	FIRE HYDRANT	⊙
WATER LINE	— VTR —	TELCO PEDESTAL	⊙
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— RDW — RDW —		
PROPERTY LINE	— PL — PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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USE

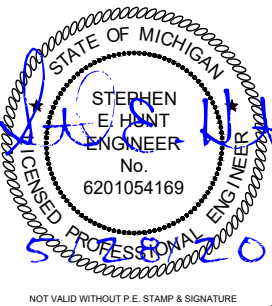
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CTD

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COUNTY:

WASHTENAW

LATITUDE:

42° 14' 21.156" N

LONGITUDE:

83° 37' 19.548" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

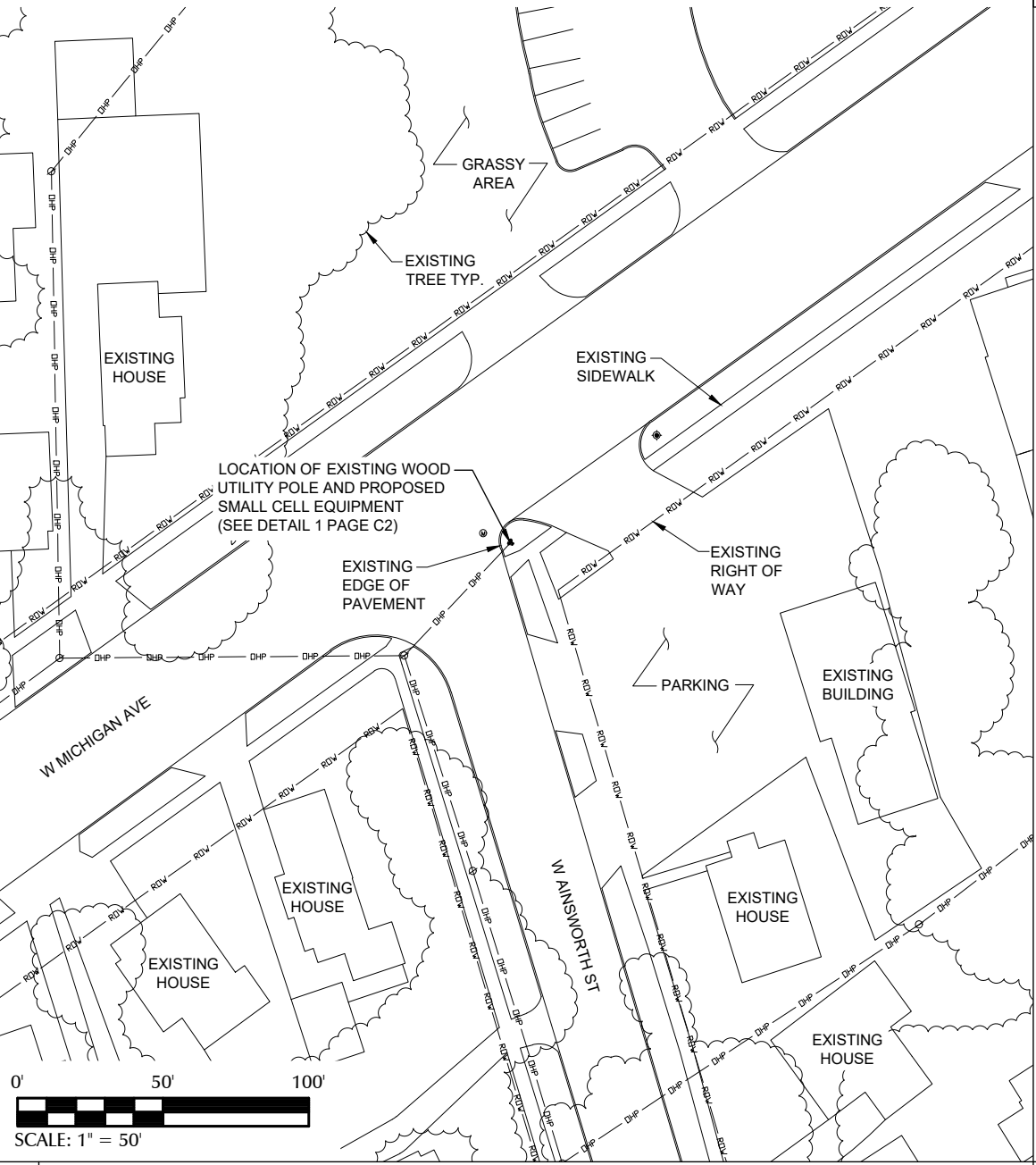
SITE LAYOUTS

DRAWING NO.

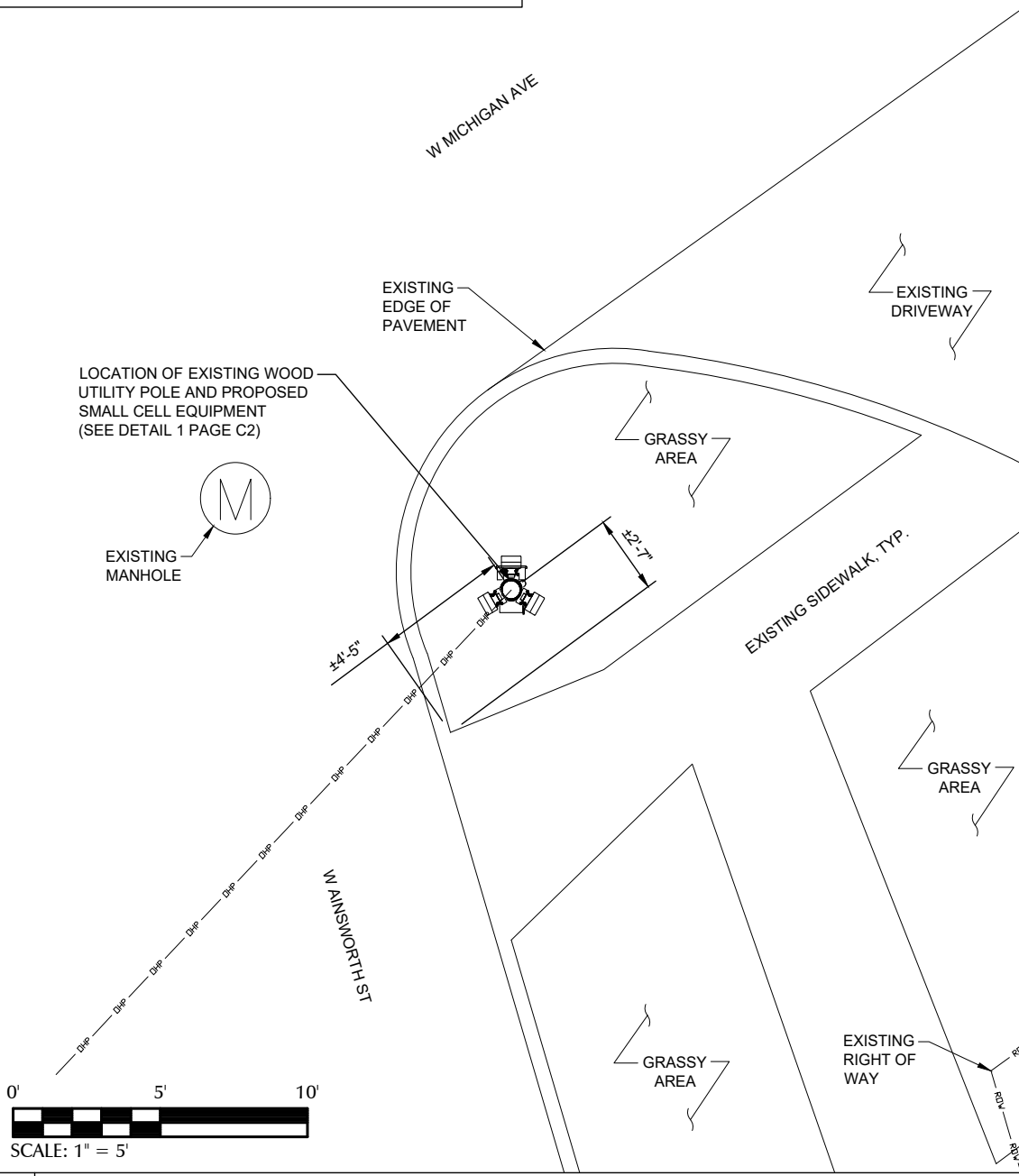
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REVISION:

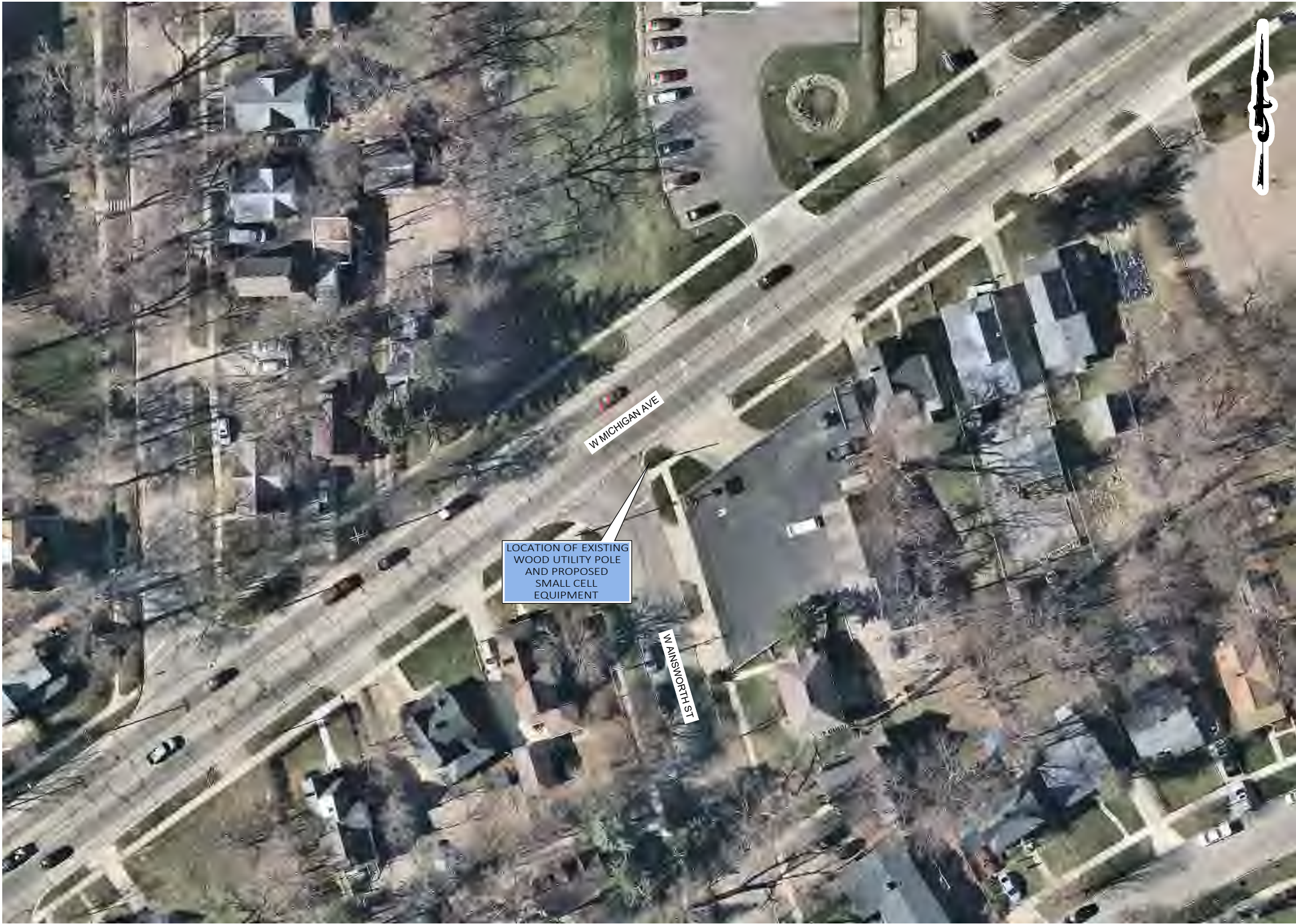
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1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT



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PREPARED BY:



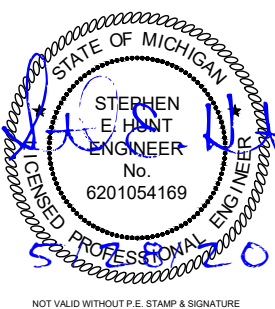
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SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO.	REVISION:
C1A	1

1 OVERALL SITE LAYOUT - AERIAL IMAGERY

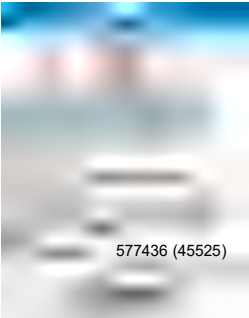
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

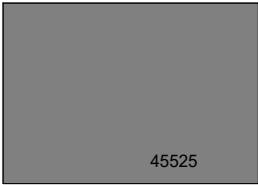
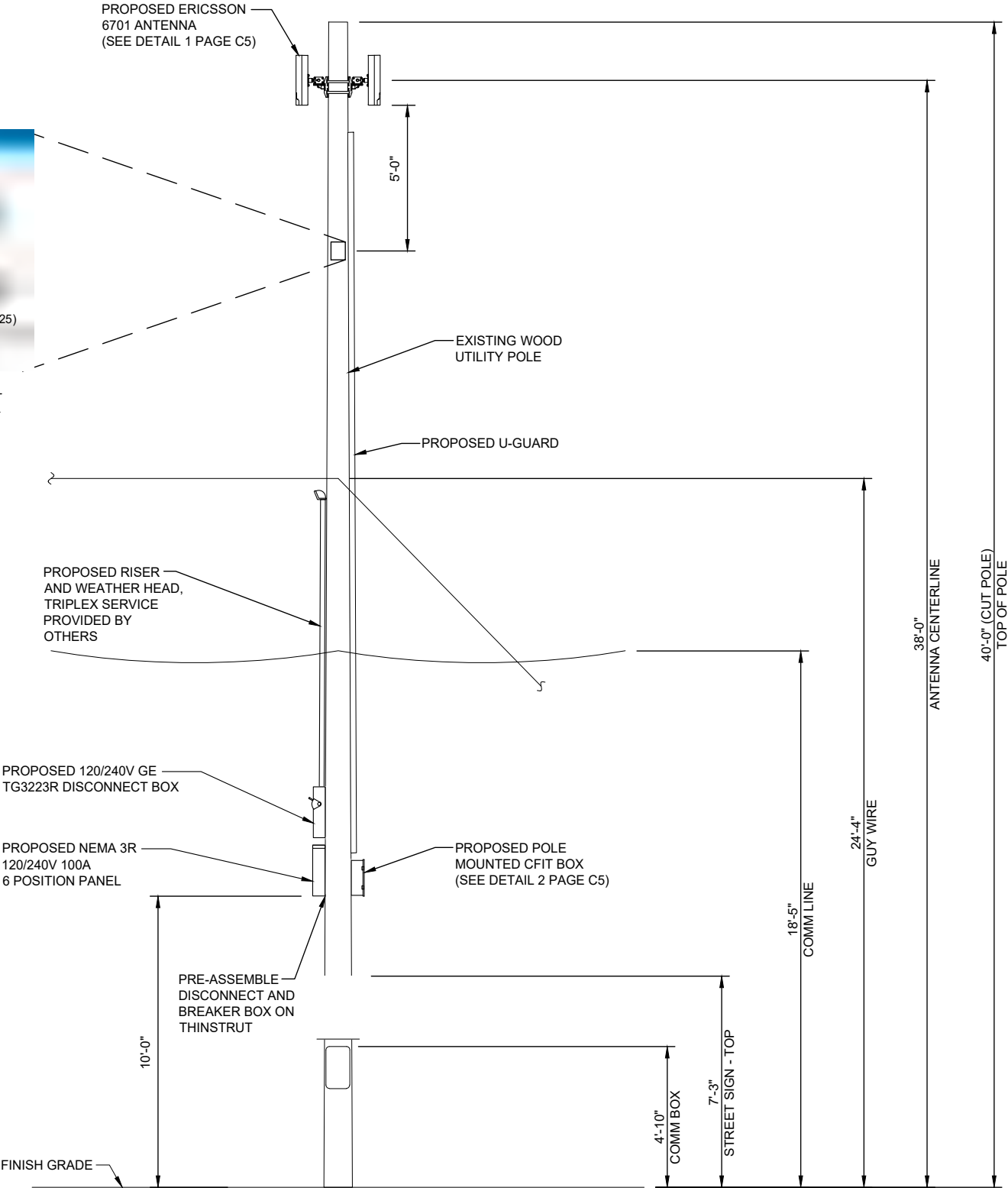
40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



6"x7.5" VERTICAL
RF NOTICE SIGN
TYPICAL OF 2



INSTALL ON BREAKER PANEL

1 POLE ELEVATION

N.T.S.

PREPARED FOR:



PREPARED BY:

TeleCAD
Wireless

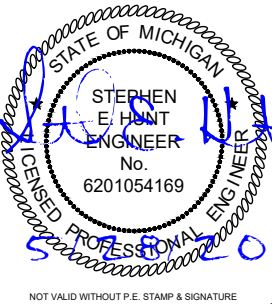
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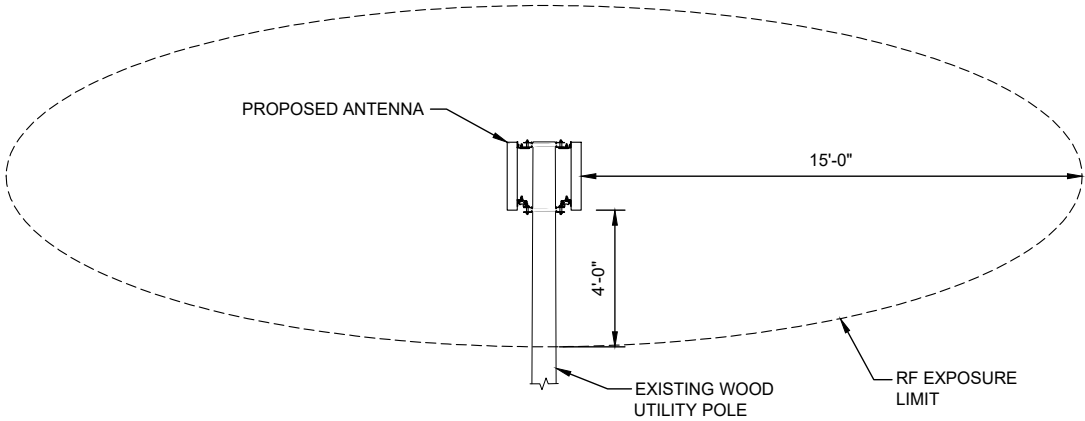
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COUNTY:	WASHTENAW
LATITUDE:	42° 14' 21.156" N
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DESIGN TYPE:	COLOCATION

SHEET TITLE:
POLE ELEVATION

DRAWING NO.	REVISION:
C2	1

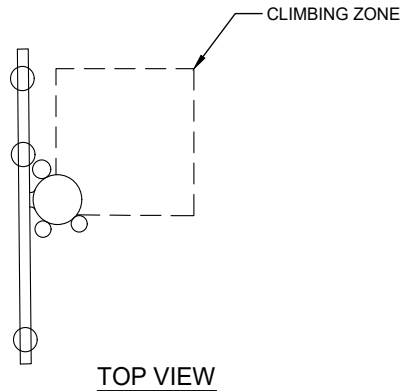
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



NOTES:

1. WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT, OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
2. ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
3. VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
4. BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
5. SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
6. 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
7. ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.

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verizon

PREPARED BY:

TeleCAD
Wireless
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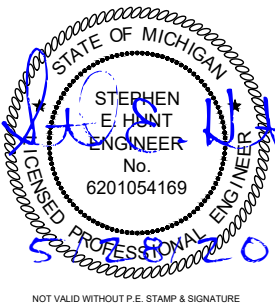
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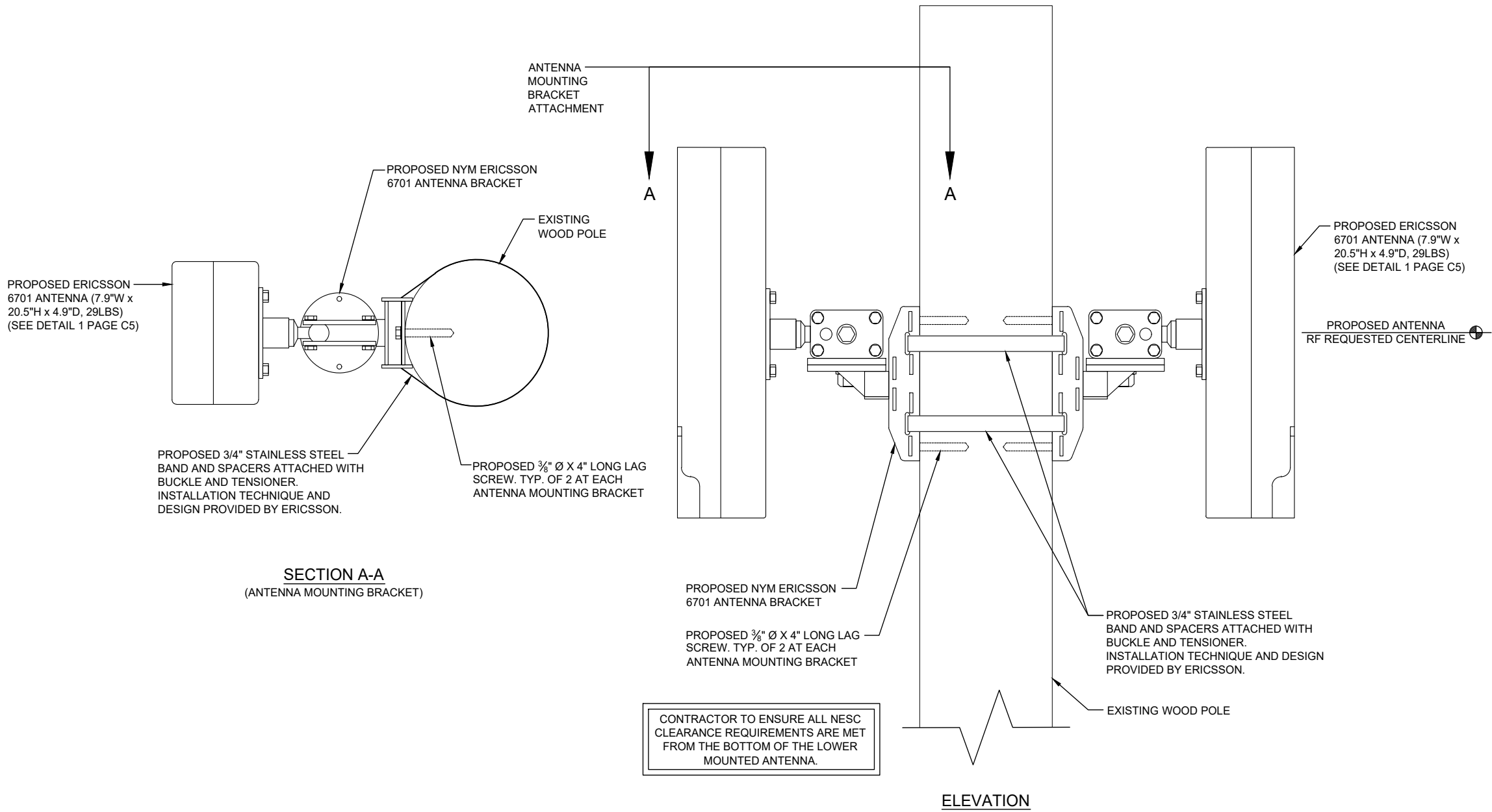
LONGITUDE:
83° 37' 19.548" W

DESIGN TYPE:
COLOCATION

SHEET TITLE:
SITE DETAILS

DRAWING NO.
C3

REVISION:
1



PREPARED FOR:



PREPARED BY:



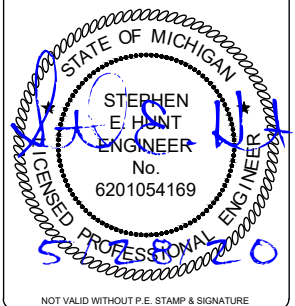
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DESIGN TYPE: COLOCATION

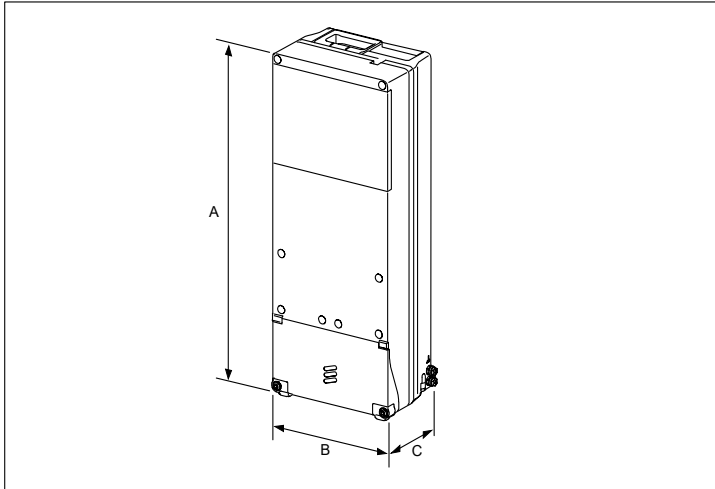
SHEET TITLE: SITE DETAILS

DRAWING NO. C4	REVISION: 1
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Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS _{REFSENS_50M}	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX



PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES

PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless
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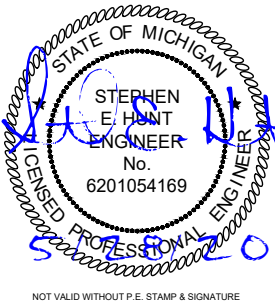
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SHEET TITLE:
EQUIPMENT DETAILS

DRAWING NO.	REVISION:
C5	1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

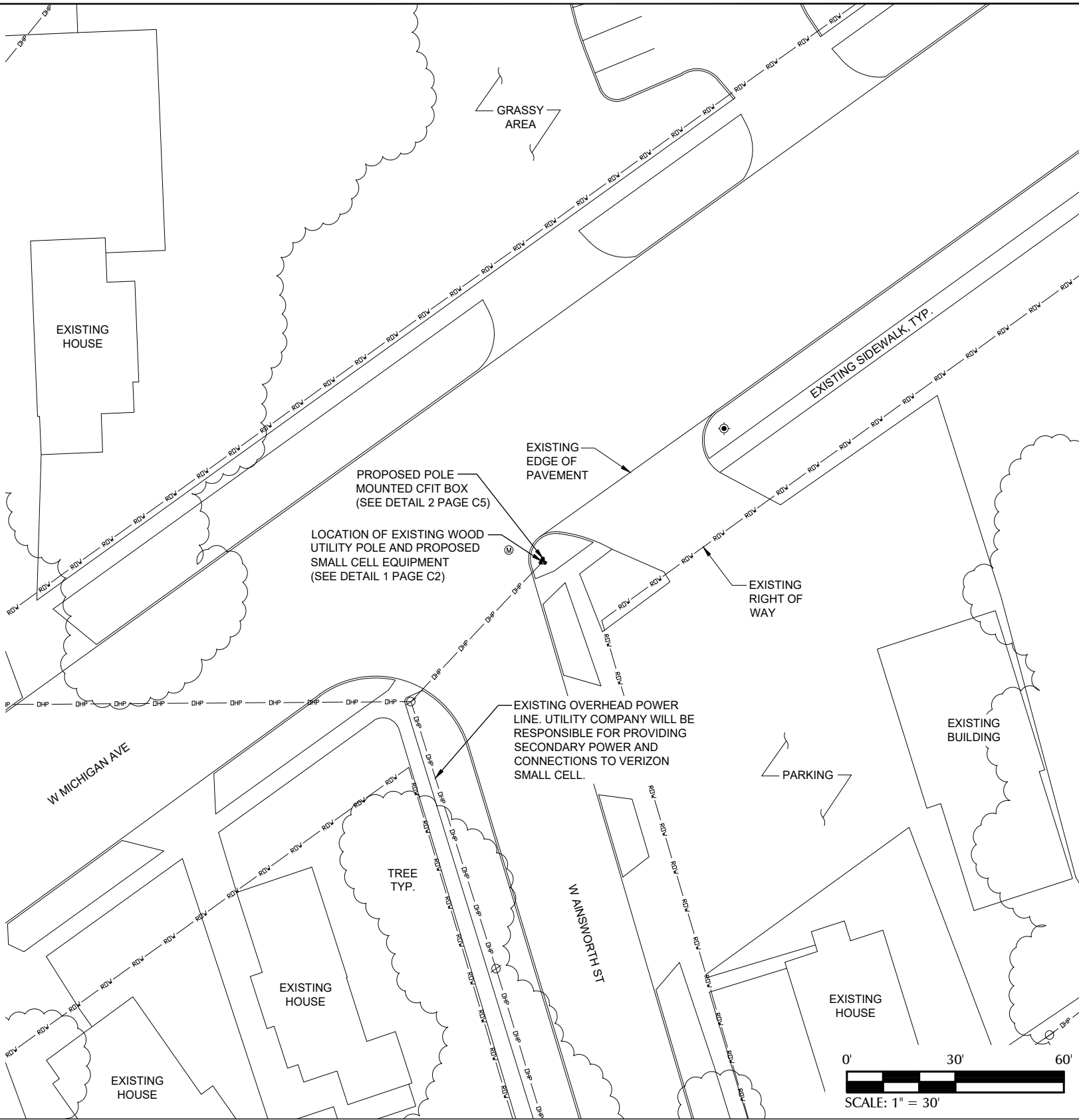
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

WIRE SIZE	SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)		CONDUIT SIZE
	ALUMINUM	COPPER	
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	⌘
UNDERGROUND POWER	UGP	STREET SIGN	—
OVERHEAD POWER	DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	UGT	UTILITY POLE	⊙
OVERHEAD TELCO	DHT	LIGHT POLE	⦿
GAS LINE	GAS	WATER VALVE	⌘
FENCE	x x x x x	MANHOLE	M
WOOD FENCE	o o o o o	GAS VALVE	G
SEWER LINE	SWR	FIRE HYDRANT	⦿
WATER LINE	WTR	TELCO PEDESTAL	T
HYBRID CABLE	HYB	ELECTRICAL BOX	E
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW		
PROPERTY LINE	PL		



PREPARED FOR:



PREPARED BY:



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UTILITY SITE PLAN

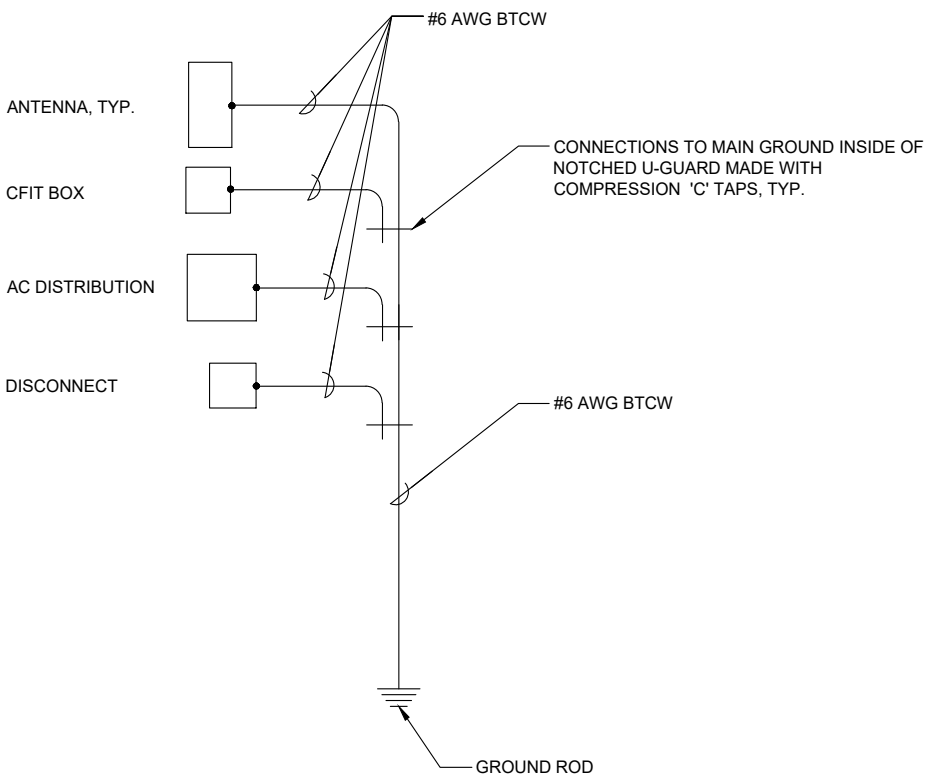
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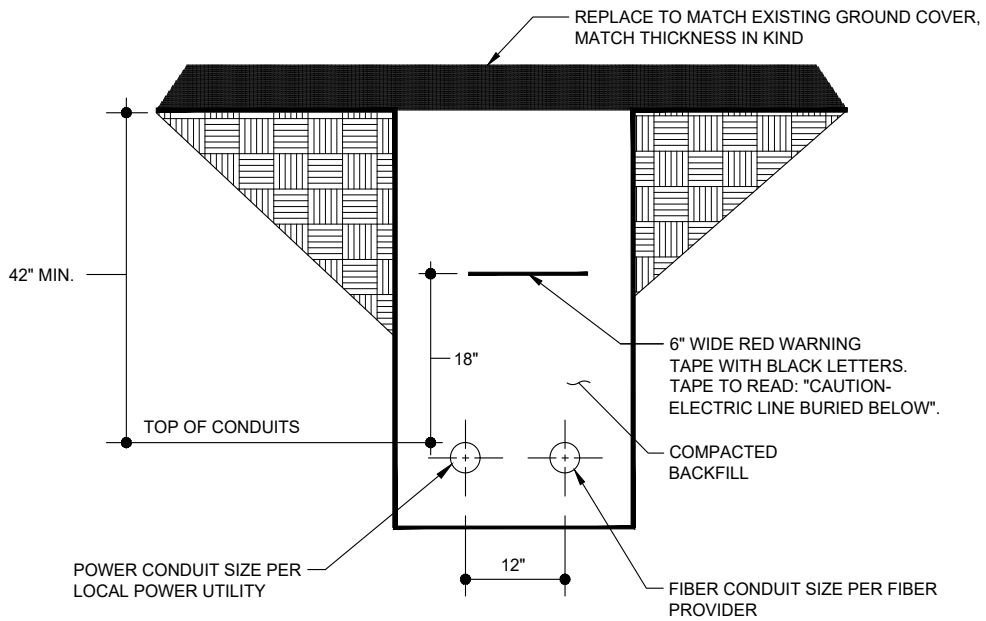
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1 UTILITY SITE PLAN



1 SINGLE POINT RADIAL GROUND DETAIL

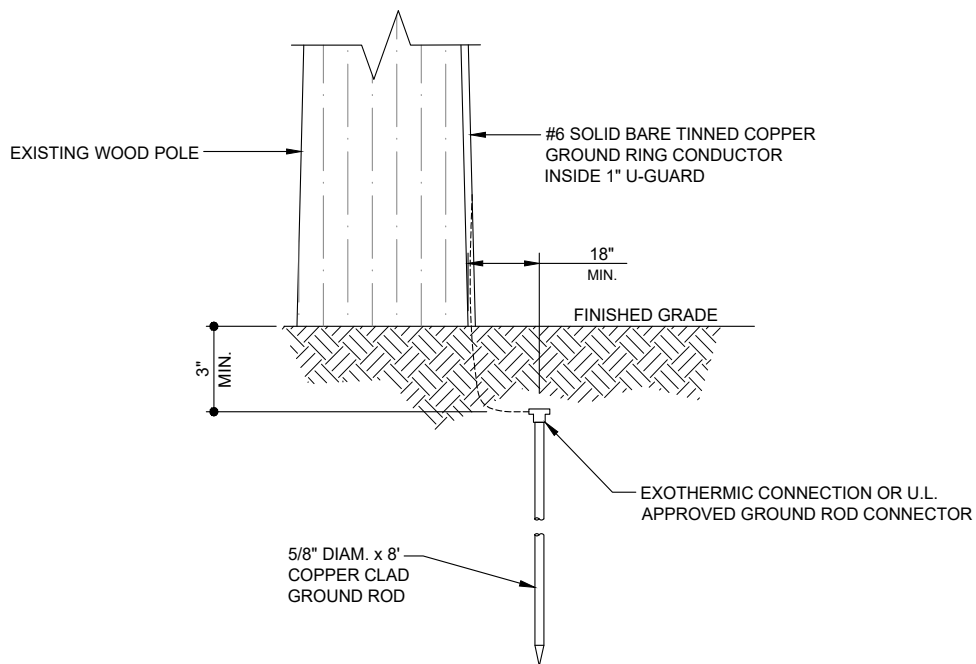
N.T.S.



NOTE: TYPICAL SPACING FOR ALL UNDERGROUND CONDUITS.

2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

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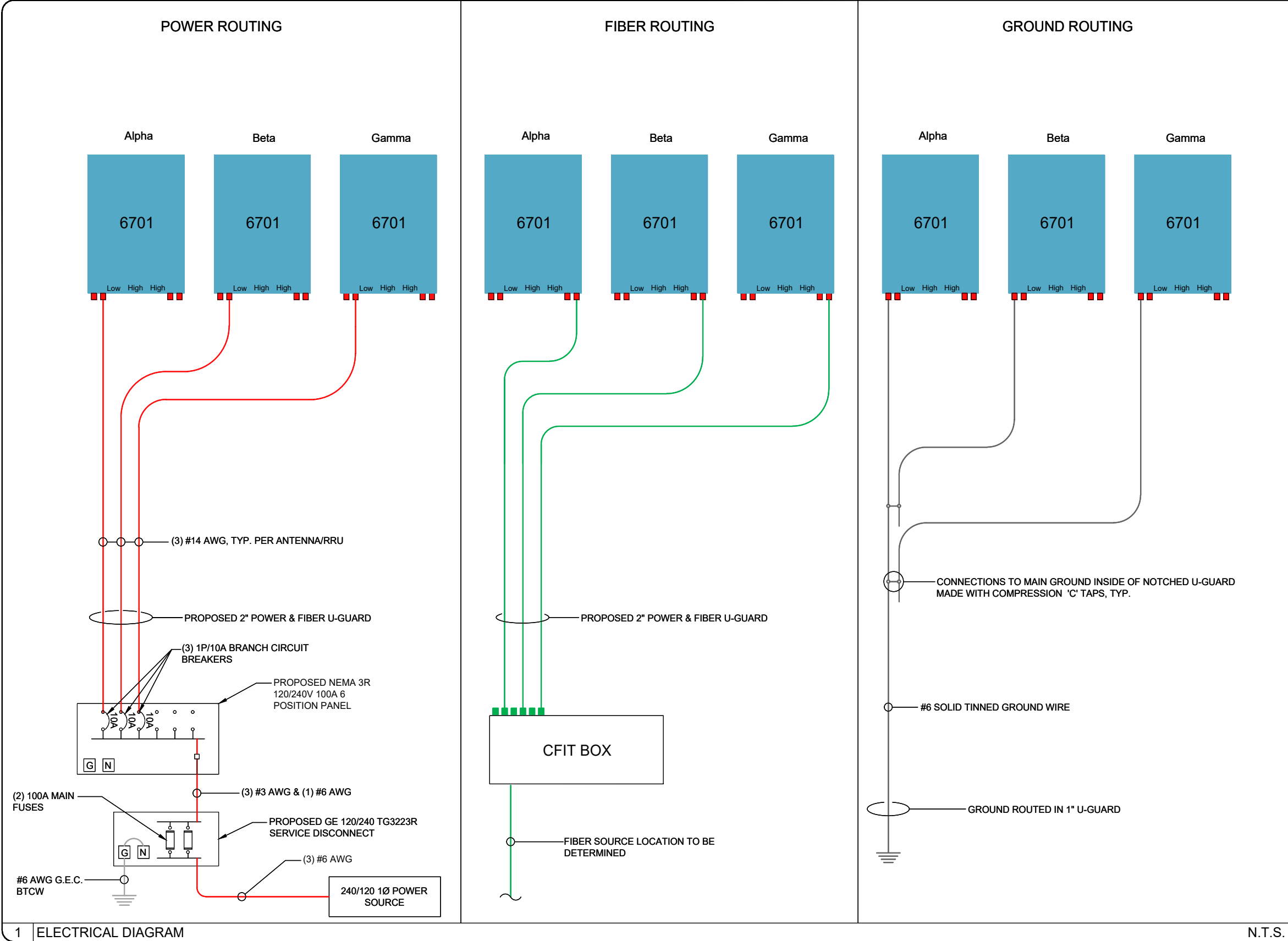
ELECTRICAL DETAILS

DRAWING NO.

E2

REVISION:

1



PROJECT SUMMARY

SITE NAME: 45519

SITE ADDRESS: 89 OAKWOOD AVE.
(ESTIMATED) YPSILANTI, MI 48197

COUNTY: WASHTENAW

JURISDICTION: CITY OF YPSILANTI

SITE COORDINATES:

LATITUDE: 42° 14' 31.179" N

LATITUDE: 42.24199°

LONGITUDE: 83° 37' 44.479" W

LONGITUDE: -83.62902°

ELEVATION: ±791'-2"

PROPERTY DEFINITION: R.O.W.

FUZE PROJECT ID: 15899293

PSLC CODE: 577391

EXISTING POLE HEIGHT: 41'-0"

RESUBMITTAL SUMMARY

THE OVERALL HEIGHT OF THIS POLE IS (41'-0"). THIS IS DUE TO THE ELEVATION OF THE EXISTING POWER LINES OF (33'-0") AND THE MINIMUM POWER TO ANTENNA SEPARATION, TO INCLUDE PLACARDS BEING (5'-0") OUR ANTENNA CL IS (39'-0") AND OVERALL POLE HEIGHT WILL BE (41'-0").

STRUCTURAL REVIEW

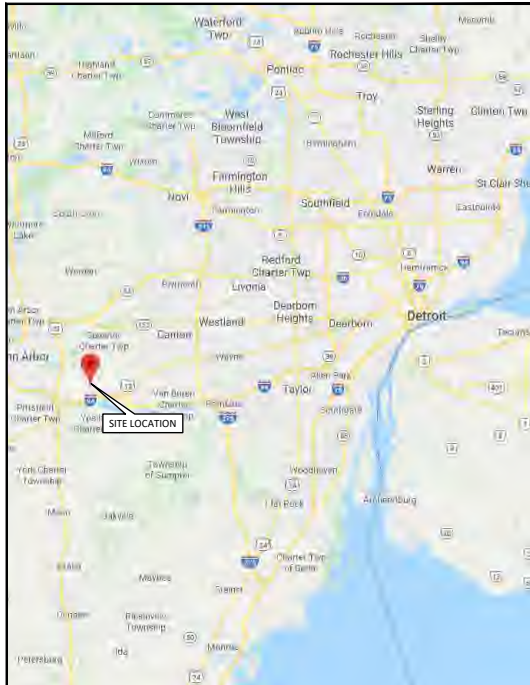
STRUCTURAL ANALYSIS PERFORMED BY OTHERS.



SITE NAME: 45519

PROPOSED SMALL CELL EQUIPMENT
ON AN EXISTING DTE POLE

VICINITY MAP



NOT TO SCALE

SHEET SCALE FACTOR:
PLOT SIZE:
11" x 17": TO SCALE

LOCATION MAP



NOT TO SCALE



1 (800) 482-7171
www.missdig.com
CONTRACTOR TO CALL MICHIGAN
ONE-CALL SYSTEMS AT LEAST 72 HOURS
PRIOR TO DIGGING.

SHEET INDEX

NO.	DESCRIPTION
T1	TITLE SHEET
GN1	GENERAL NOTES
C1	SITE LAYOUTS
C1A	SITE LAYOUT - AERIAL IMAGERY
C2	POLE ELEVATION
C3	SITE DETAILS
C4	SITE DETAILS
C5	EQUIPMENT DETAILS
E1	UTILITY SITE PLAN
E2	ELECTRICAL DETAILS
E3	SINGLE LINE DIAGRAM

SCOPE OF WORK

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT

STATE COUNTY MAP



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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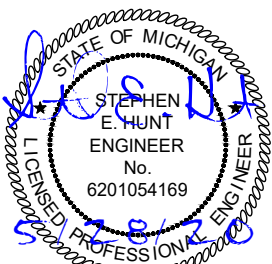
DRAWN BY: USE

CHECKED BY: CTD

REVISIONS

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0	01/31/20	JSK	CONSTRUCTION ISSUE
A	01/30/20	USE	PRELIMINARY REVIEW

ENGINEER'S STAMP:



NOT VALID WITHOUT P.E. STAMP & SIGNATURE

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YPSILANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 14' 31.179" N

LONGITUDE: 83° 37' 44.479" W

DESIGN TYPE: COLOCATION

SHEET TITLE:

TITLE SHEET

DRAWING NO.

T1

REVISION:

1

GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
5. THE TERM "VERIFY" OR "V.I.F" SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
5. ALL EQUIPMENT TO BE BONDED.
6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 25 OHMS OR LESS.
2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
3. #6 GROUND AND BOND WIRE.
4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
5. GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
5. RISER STRAPS TO BE INSTALLED EVERY 5'.
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

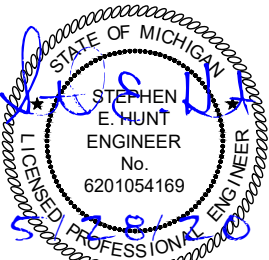
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CHECKED BY:	CTD

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NO.	DATE	BY	DESCRIPTION

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NOT VALID WITHOUT P.E. STAMP & SIGNATURE

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ADDRESS:	89 OAKWOOD AVE. YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 14' 31.179" N
LONGITUDE:	83° 37' 44.479" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:
GENERAL NOTES

DRAWING NO.	REVISION:
GN1	1

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND

OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	+
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊗
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊗
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— X — X — X — X —	MANHOLE	⊗
WOOD FENCE	— O — O — O — O —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊗
WATER LINE	— VTR —	TELCO PEDESTAL	⊗
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊗
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— ROW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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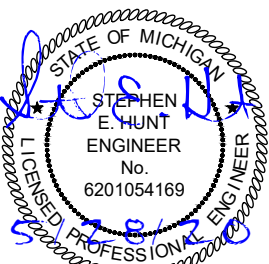
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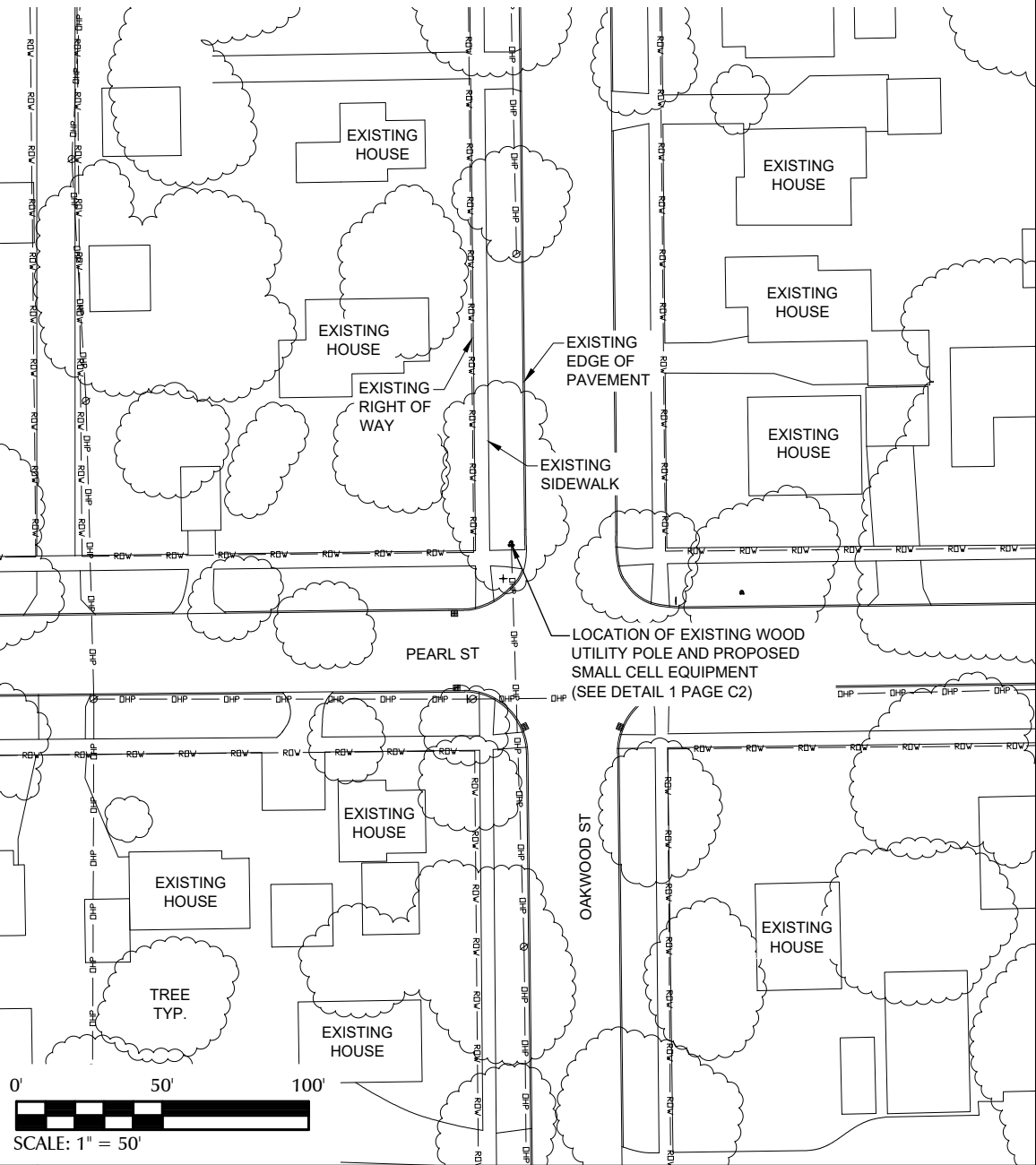
SITE LAYOUTS

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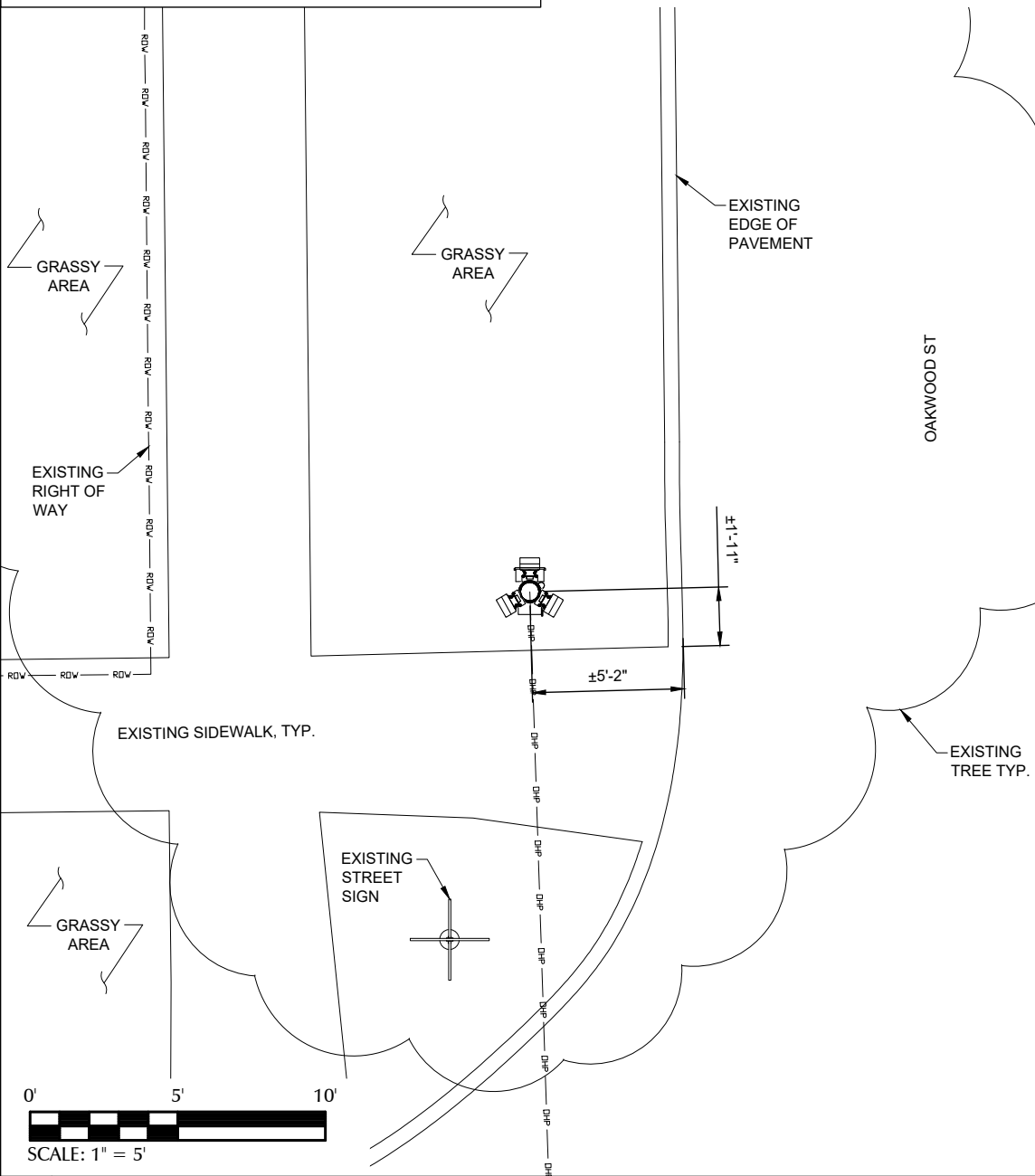
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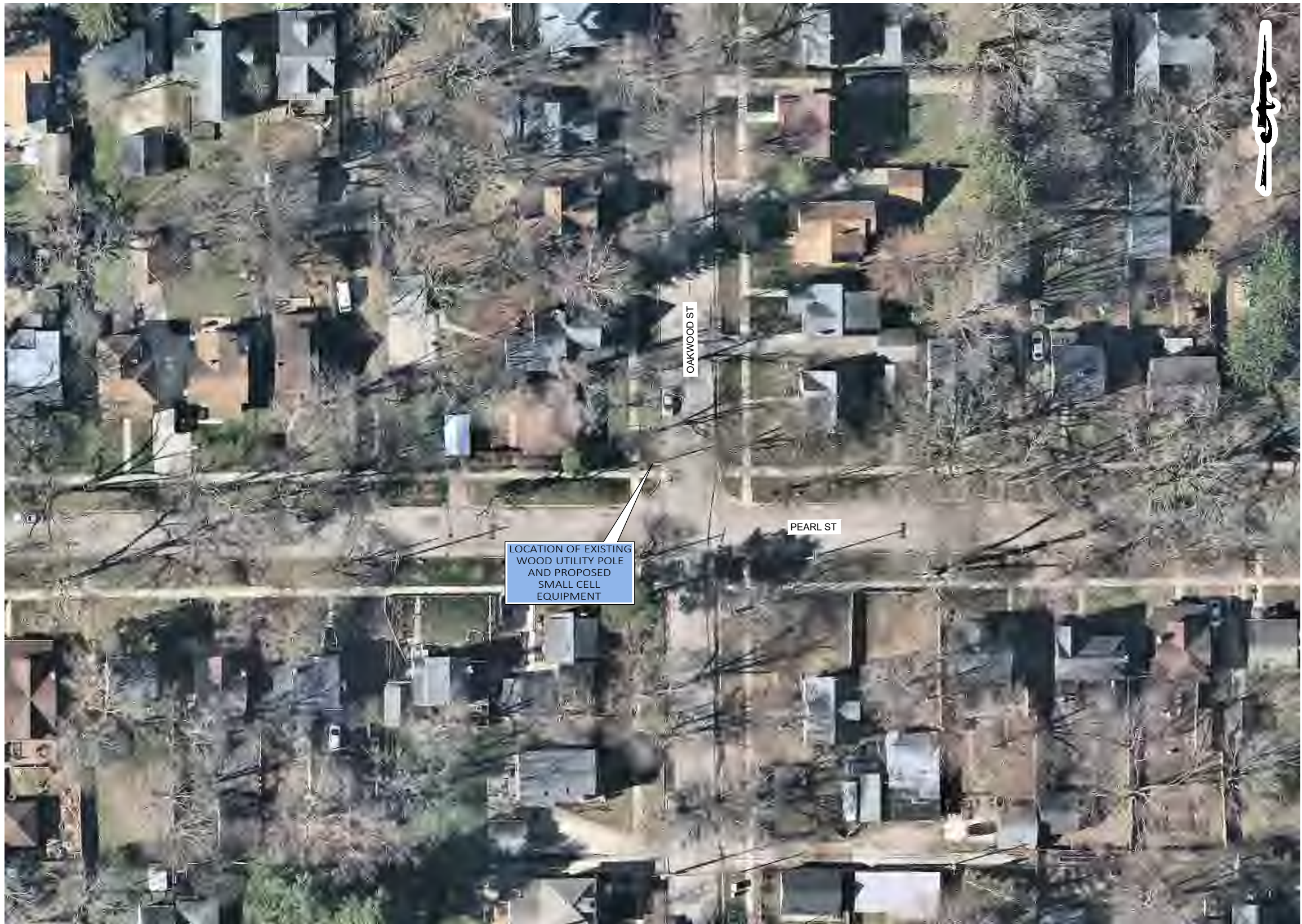
1



1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT



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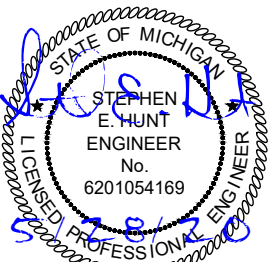
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SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO.	REVISION:
C1A	1

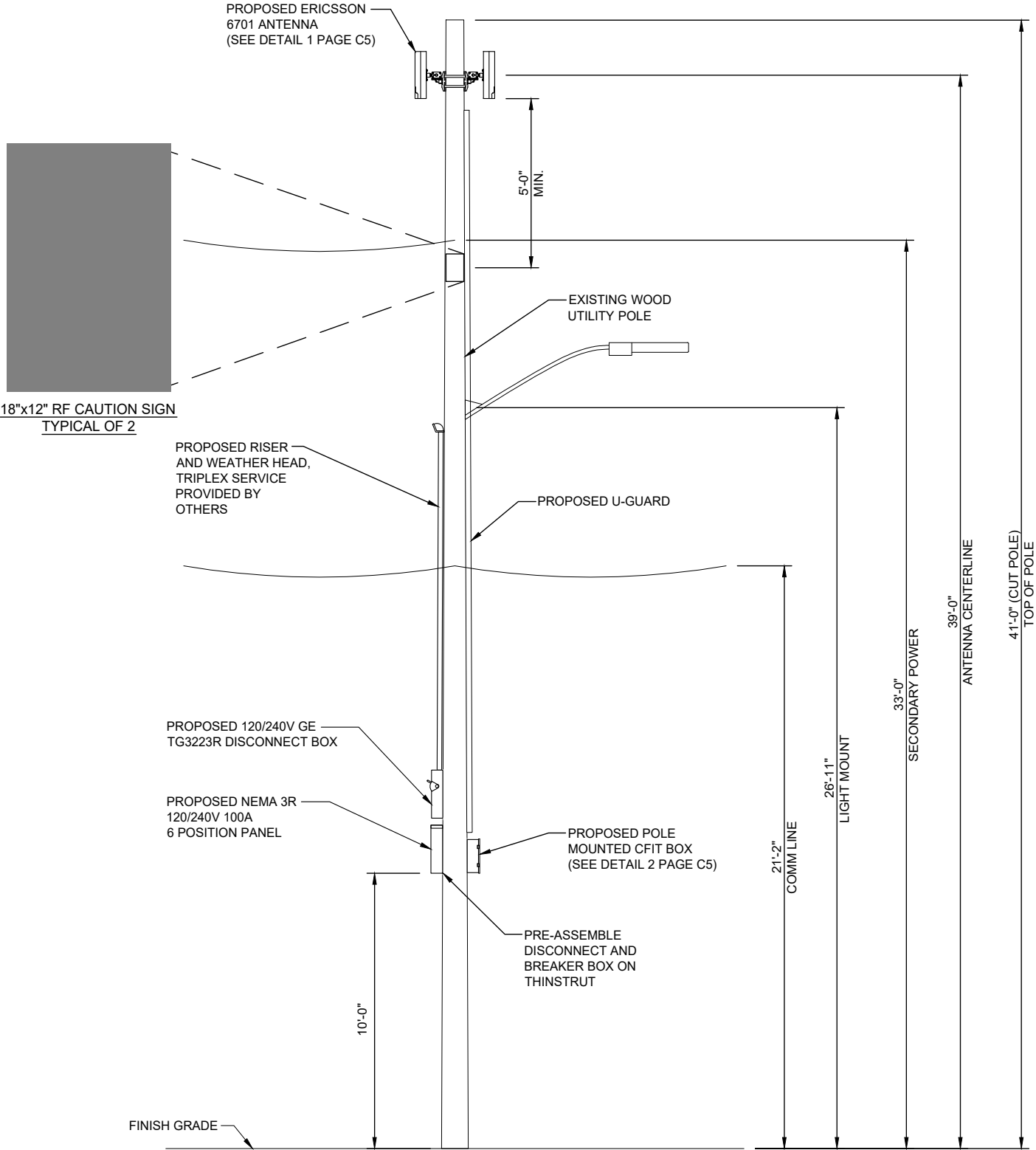
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



PREPARED FOR:



PREPARED BY:



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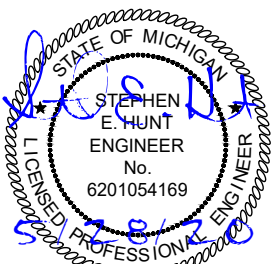
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COLOCATION

SHEET TITLE:

POLE ELEVATION

DRAWING NO.

C2

REVISION:

1

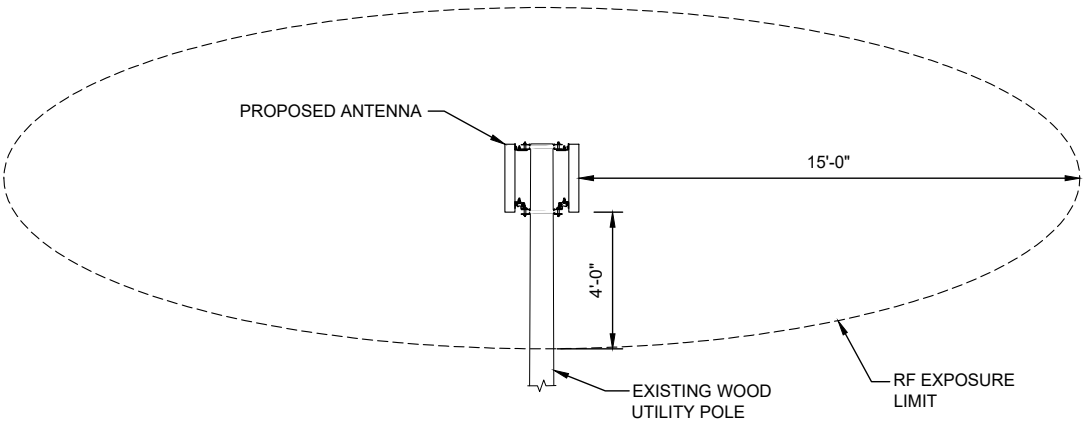
INSTALL ON BREAKER PANEL

1 POLE ELEVATION

N.T.S.

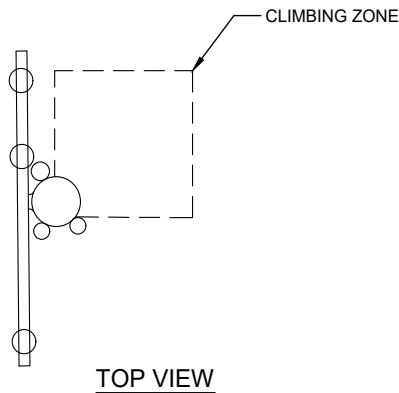
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT. OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

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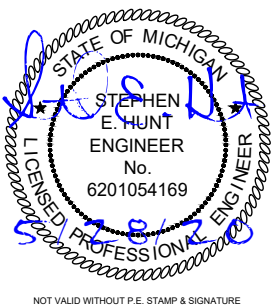
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COUNTY:

WASHTENAW

LATITUDE:

42° 14' 31.179" N

LONGITUDE:

83° 37' 44.479" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

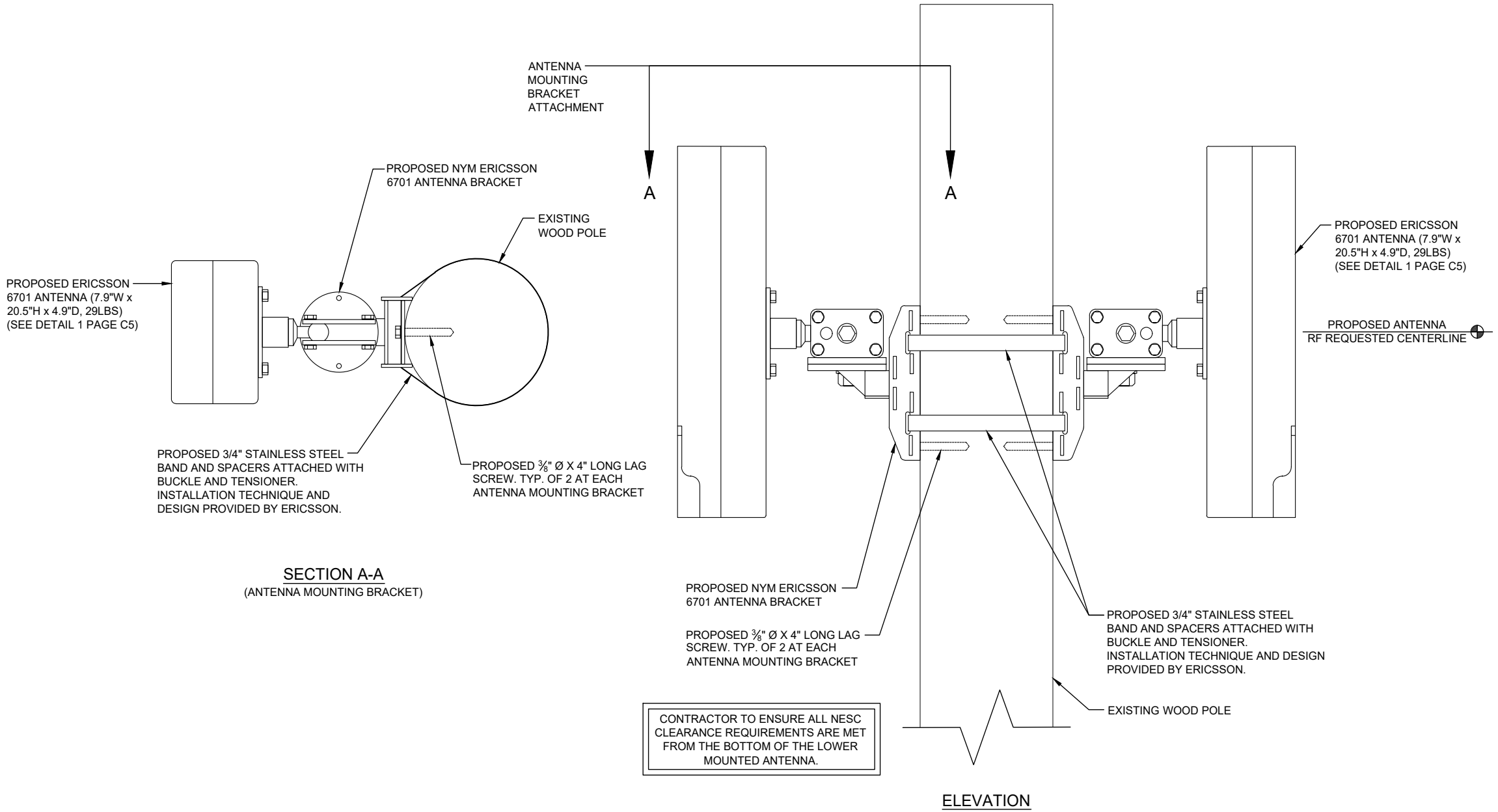
DRAWING NO.

C3

REVISION:

1

1 EQUIPMENT CU-FT. TABLE



PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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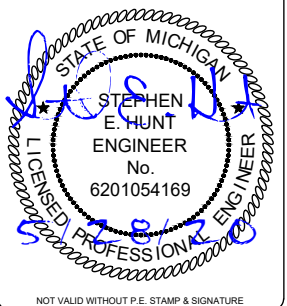
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NO.	DATE	BY	DESCRIPTION
1	05/28/20	USE	CONSTRUCTION ISSUE
0	01/31/20	JSK	CONSTRUCTION ISSUE
A	01/30/20	USE	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

45519

ADDRESS:

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YPSILANTI, MI 48197

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C4

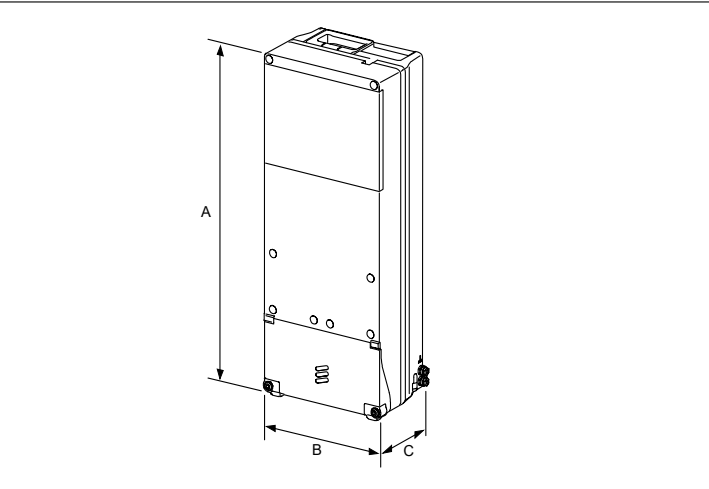
REVISION:

1

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS_REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
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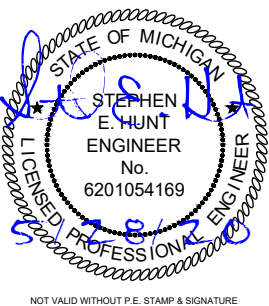
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EQUIPMENT DETAILS

DRAWING NO.

C5

REVISION:

1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

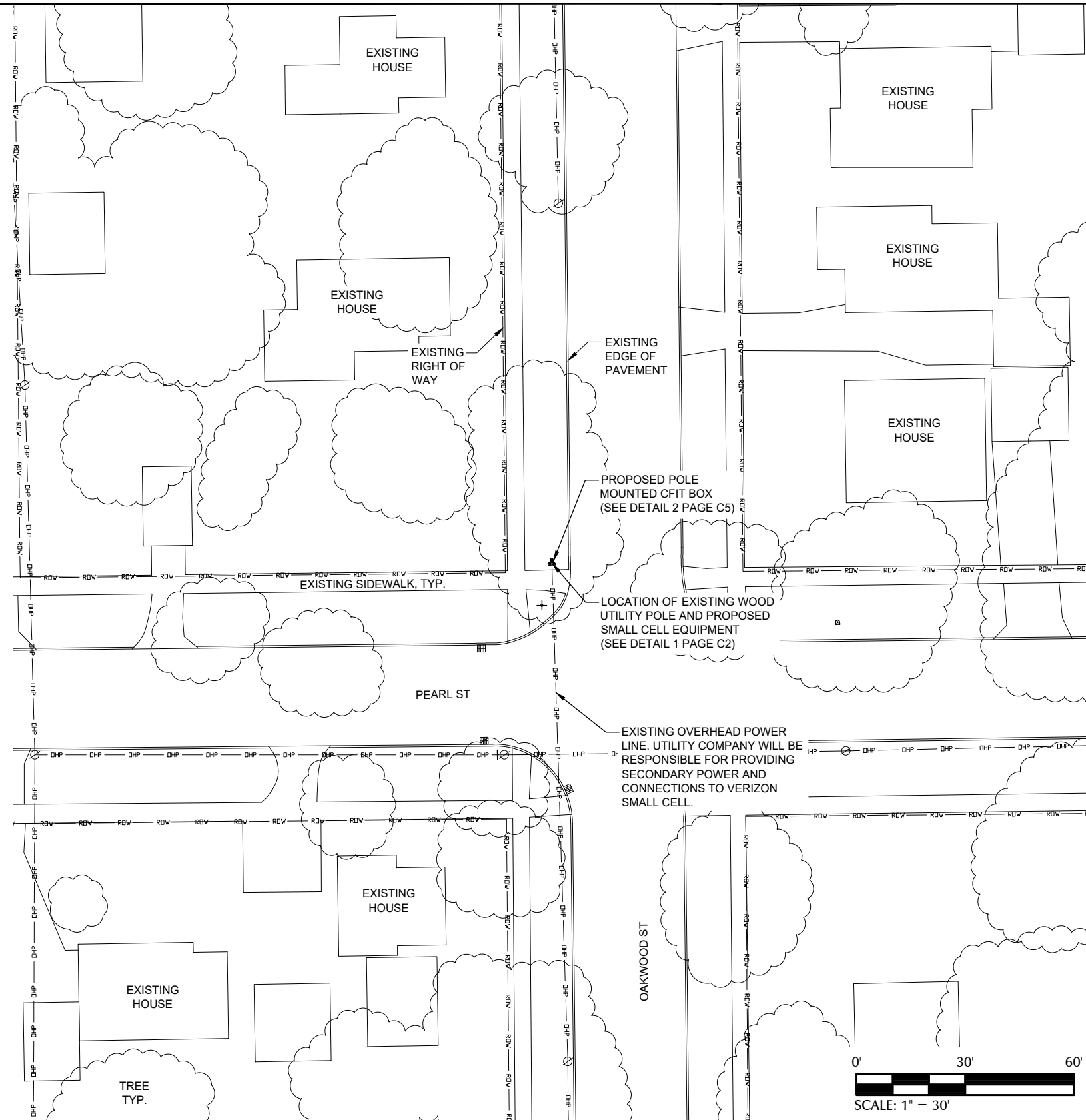
1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM	COPPER	CONDUIT SIZE
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	▣
UNDERGROUND POWER	UGP	STREET SIGN	—
OVERHEAD POWER	DHP DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	UGT	UTILITY POLE	⊙
OVERHEAD TELCO	DHT	LIGHT POLE	⊙
GAS LINE	GAS GAS	WATER VALVE	⊗
FENCE	x x x x x x	MANHOLE	⊙
WOOD FENCE	o o o o o o	GAS VALVE	⊗
SEWER LINE	SWR SWR	FIRE HYDRANT	⊙
WATER LINE	VTR	TELCO PEDESTAL	⊙
HYBRID CABLE	HYB	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW RDW		
PROPERTY LINE	PL PL		



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
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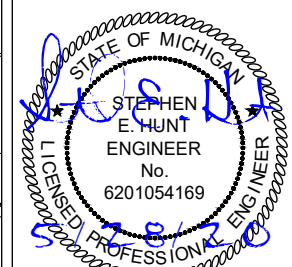
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UTILITY SITE PLAN

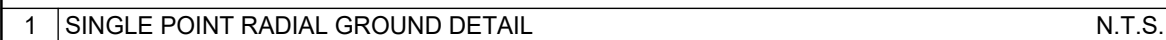
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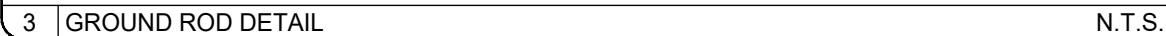
REVISION:

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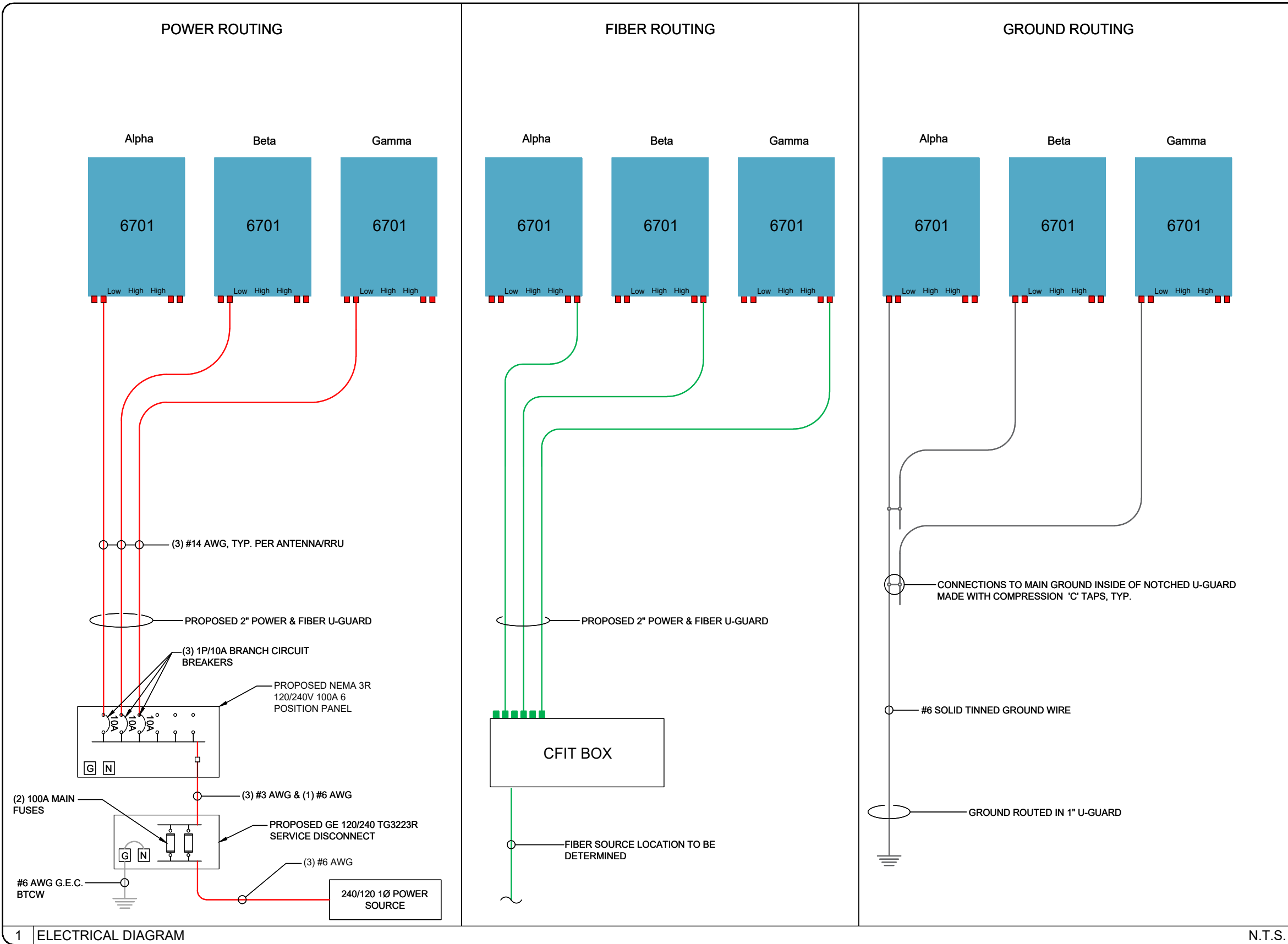
1 UTILITY SITE PLAN



2	TRENCH DETAIL (IF REQUIRED)	N.T.S.
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1



PROJECT SUMMARY

SITE NAME: 45516

SITE ADDRESS: 1219 ELBRIDGE ST
(ESTIMATED) YPSILANTI, MI 48197

COUNTY: WASHTENAW

JURISDICTION: CITY OF YPSILANTI

SITE COORDINATES:

LATITUDE: 42° 14' 44.734" N

LATITUDE: 42.24576°

LONGITUDE: 83° 37' 58.795" W

LONGITUDE: -83.63300°

ELEVATION: ±792' 10"

PROPERTY DEFINITION: R.O.W.

FUZE PROJECT ID: 15899301

PSLC CODE: 577388

EXISTING POLE HEIGHT: 41'-0"

RESUBMITTAL SUMMARY

THE OVERALL HEIGHT OF THIS POLE IS (41'-0"). THIS IS DUE TO THE ELEVATION OF THE EXISTING POWER LINES OF (33'-0") AND THE MINIMUM POWER TO ANTENNA SEPARATION, TO INCLUDE PLACARDS BEING (5'-0") OUR ANTENNA CL IS (39'-0") AND OVERALL POLE HEIGHT WILL BE (41'-0").

STRUCTURAL REVIEW

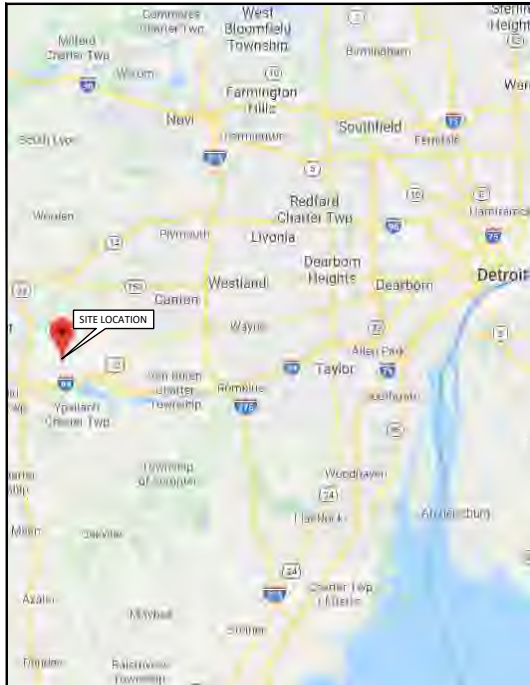
STRUCTURAL ANALYSIS PERFORMED BY OTHERS.



SITE NAME: 45516

PROPOSED SMALL CELL EQUIPMENT
ON AN EXISTING DTE POLE

VICINITY MAP



NOT TO SCALE

SHEET SCALE FACTOR:
PLOT SIZE:
11" x 17": TO SCALE

LOCATION MAP



NOT TO SCALE



1 (800) 482-7171
www.missdig.com
CONTRACTOR TO CALL MICHIGAN
ONE-CALL SYSTEMS AT LEAST 72 HOURS
PRIOR TO DIGGING.

SHEET INDEX

NO.	DESCRIPTION
T1	TITLE SHEET
GN1	GENERAL NOTES
C1	SITE LAYOUTS
C1A	SITE LAYOUT - AERIAL IMAGERY
C2	POLE ELEVATION
C3	SITE DETAILS
C4	SITE DETAILS
C5	EQUIPMENT DETAILS
E1	UTILITY SITE PLAN
E2	ELECTRICAL DETAILS
E3	SINGLE LINE DIAGRAM

SCOPE OF WORK

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT

STATE COUNTY MAP



PREPARED FOR:



PREPARED BY:



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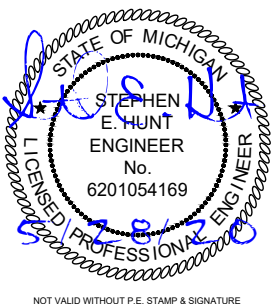
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DESIGN TYPE: COLOCATION

SHEET TITLE:

TITLE SHEET

DRAWING NO.

T1

REVISION:

1

GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
5. THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
5. ALL EQUIPMENT TO BE BONDED.
6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 25 OHMS OR LESS.
2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
3. #6 GROUND AND BOND WIRE.
4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
5. GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
5. RISER STRAPS TO BE INSTALLED EVERY 5'.
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
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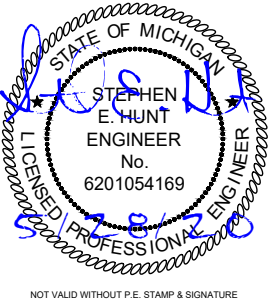
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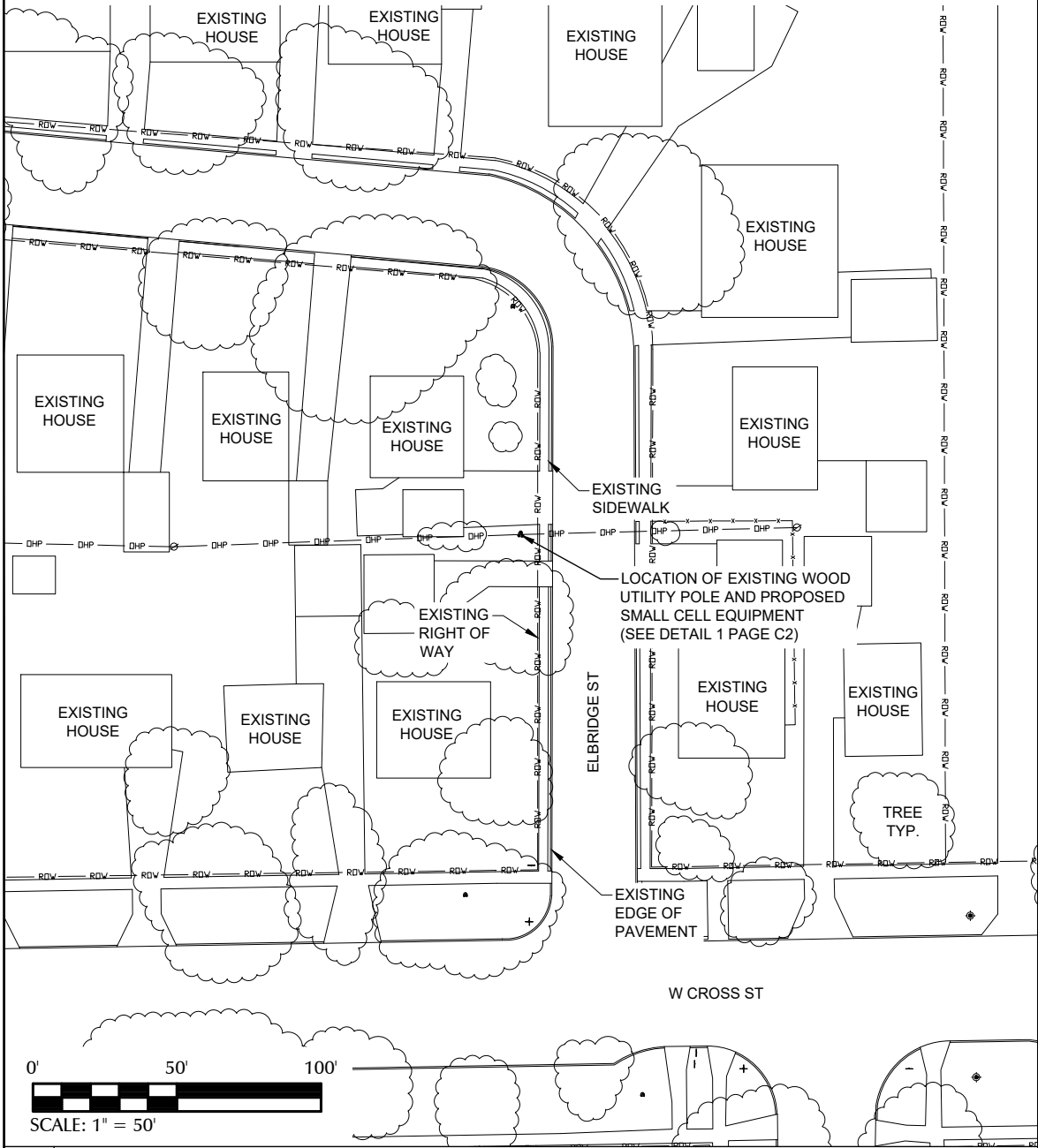
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DESIGN TYPE:	COLOCATION

SHEET TITLE:	GENERAL NOTES
--------------	---------------

DRAWING NO.	REVISION:
GN1	1

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.



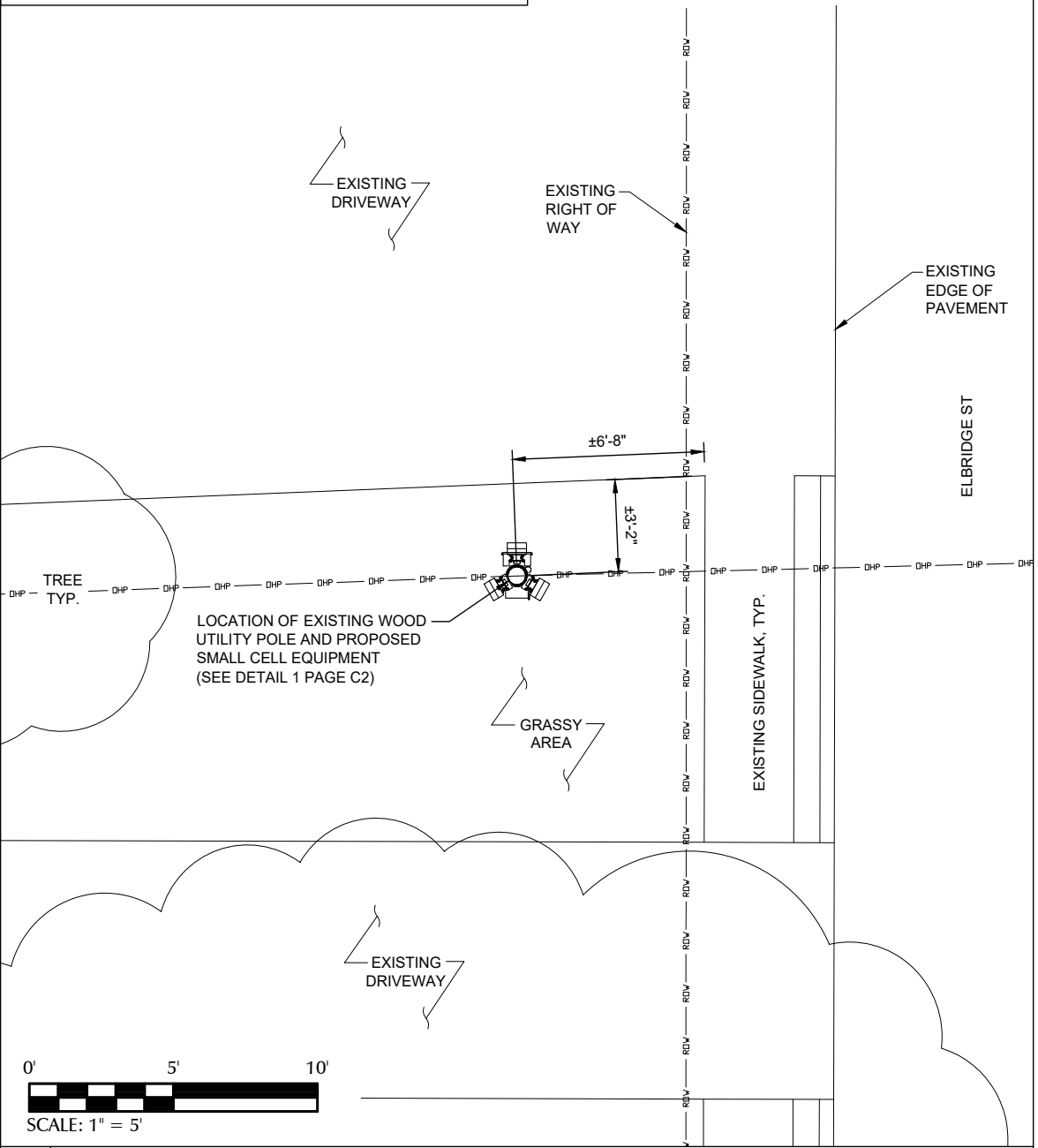
1 OVERALL SITE LAYOUT

LEGEND

OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊙
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— X —	MANHOLE	⊙
WOOD FENCE	— O —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊙
WATER LINE	— WTR —	TELCO PEDESTAL	⊙
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— ROW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



2 ENLARGED SITE LAYOUT

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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RGM

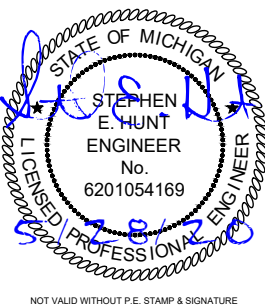
CHECKED BY:

CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	05/28/20	RGM	CONSTRUCTION ISSUE
0	01/31/20	JSK	CONSTRUCTION ISSUE
A	01/27/20	RGM	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

45516

ADDRESS:

1219 ELBRIDGE ST
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 44.734" N

LONGITUDE:

83° 37' 58.795" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE LAYOUTS

DRAWING NO.

C1

REVISION:

1



PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

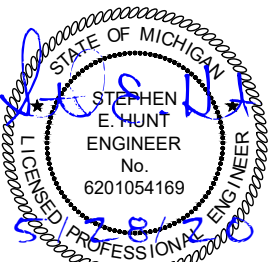
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DRAWN BY:	RGM
CHECKED BY:	CTD

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ENGINEER'S STAMP:



NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME:	45516
ADDRESS:	1219 ELBRIDGE ST YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 14' 44.734" N
LONGITUDE:	83° 37' 58.795" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:	SITE LAYOUT - AERIAL IMAGERY
--------------	---------------------------------

DRAWING NO.	REVISION:
C1A	1

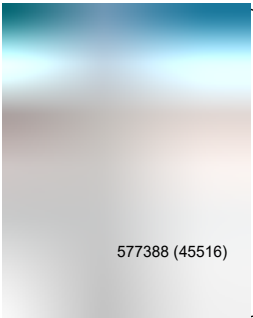
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

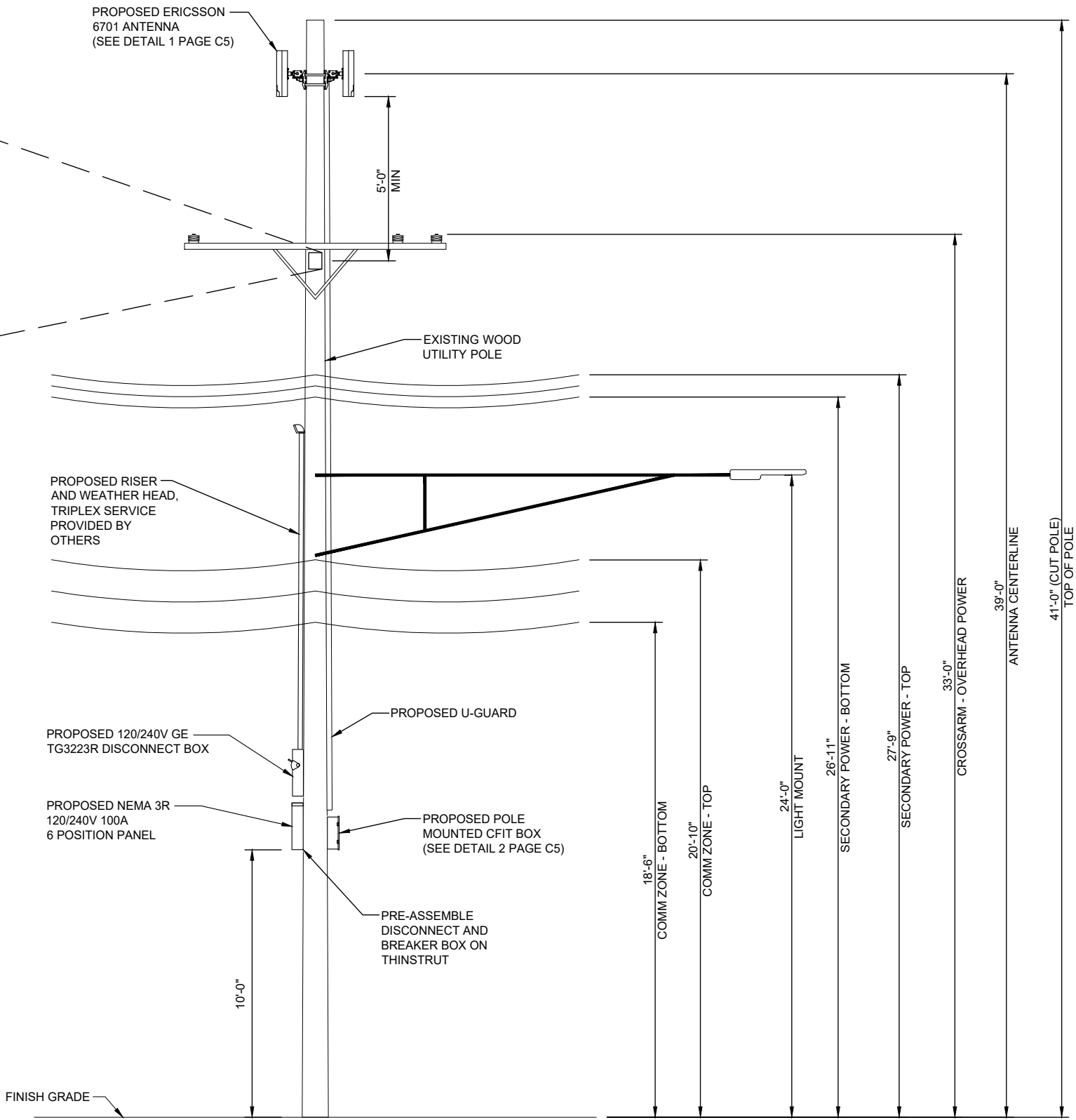
40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



6"x7.5" VERTICAL
RF NOTICE SIGN
TYPICAL OF 2



INSTALL ON BREAKER PANEL

1 POLE ELEVATION

N.T.S.

PREPARED FOR:



PREPARED BY:

TeleCAD
Wireless

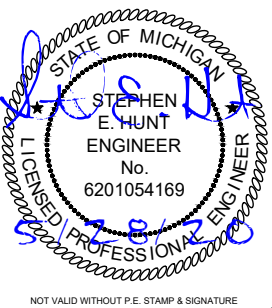
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A	01/27/20	RGM	PRELIMINARY REVIEW	
NO.	DATE	BY	DESCRIPTION	

ENGINEER'S STAMP:



SITE NAME: 45516

ADDRESS: 1219 ELBRIDGE ST
YPSILANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 14' 44.734" N

LONGITUDE: 83° 37' 58.795" W

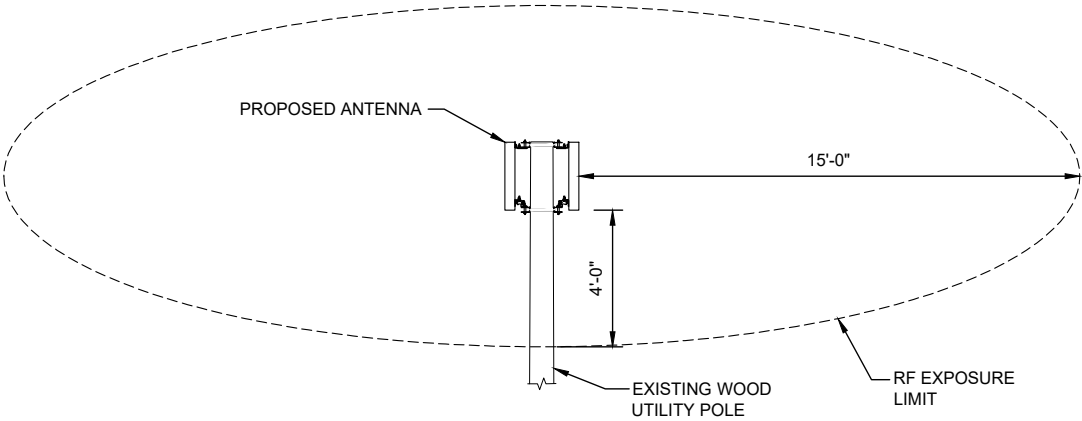
DESIGN TYPE: COLOCATION

SHEET TITLE:
POLE ELEVATION

DRAWING NO. C2	REVISION: 1
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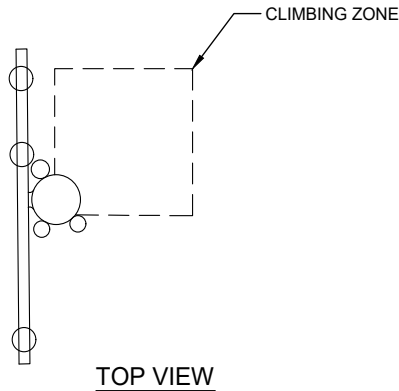
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT. OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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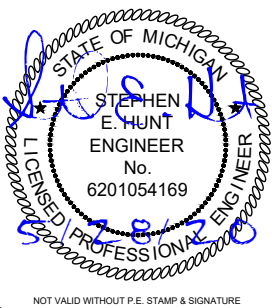
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CTD

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A	01/27/20	RGM	PRELIMINARY REVIEW

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COUNTY:

WASHTENAW

LATITUDE:

42° 14' 44.734" N

LONGITUDE:

83° 37' 58.795" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

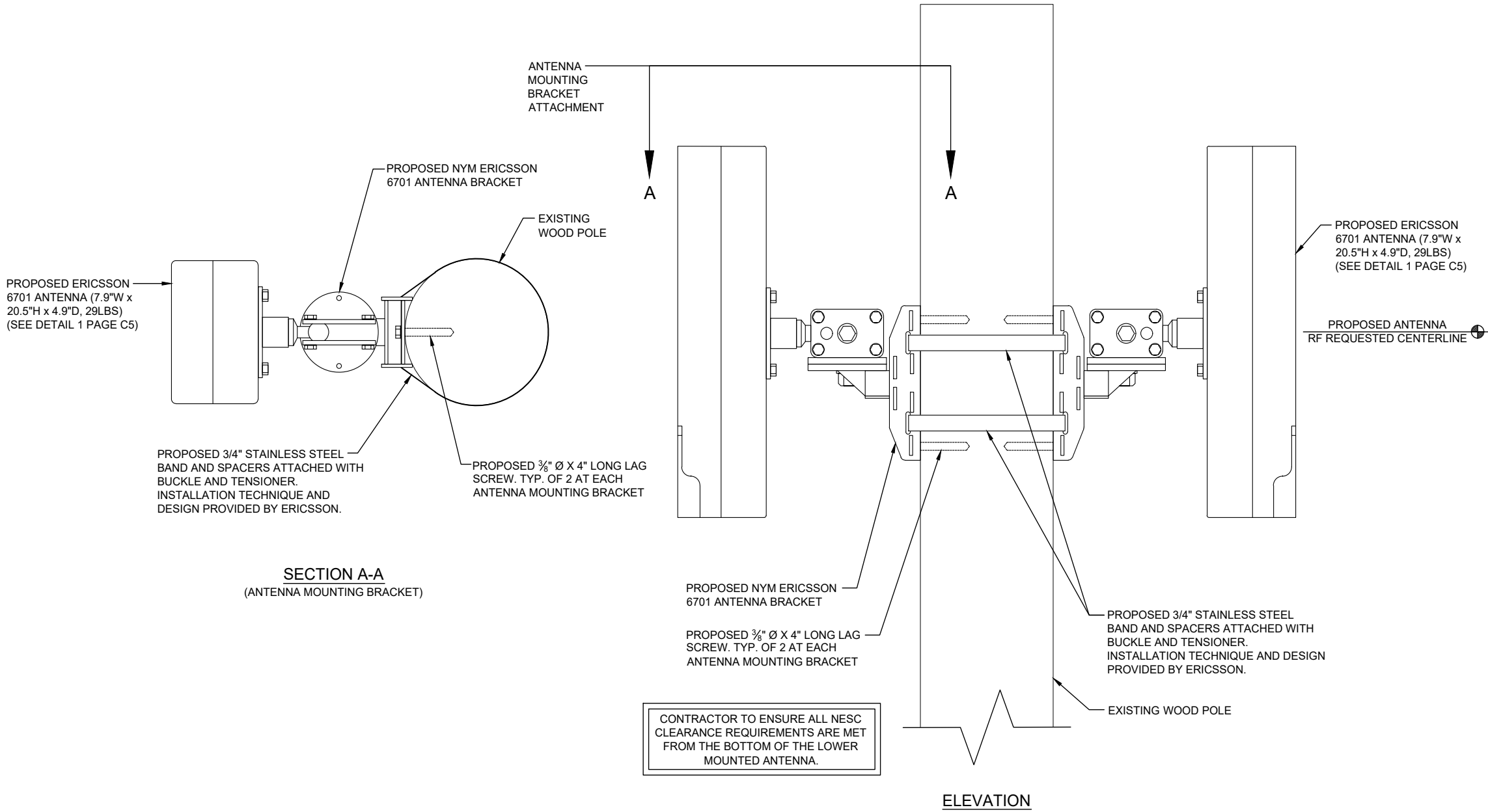
DRAWING NO.

C3

REVISION:

1

1 EQUIPMENT CU-FT. TABLE



PREPARED FOR:



PREPARED BY:



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HIXSON, TN 37343
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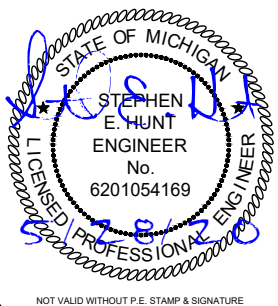
CHECKED BY:

CTD

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A	01/27/20	RGM	PRELIMINARY REVIEW

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45516

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YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 44.734" N

LONGITUDE:

83° 37' 58.795" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

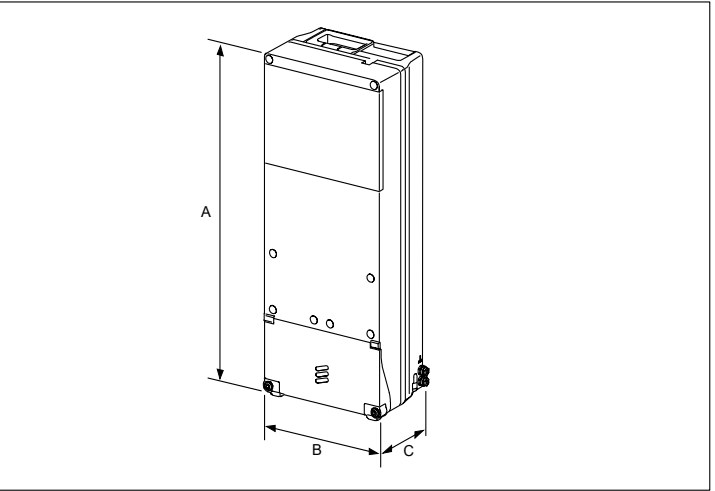
REVISION:

1

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS_REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless
1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

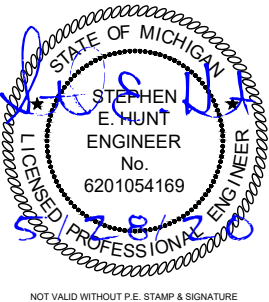
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CHECKED BY:	CTD

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DESIGN TYPE:	COLOCATION

SHEET TITLE:
EQUIPMENT DETAILS

DRAWING NO.	REVISION:
C5	1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

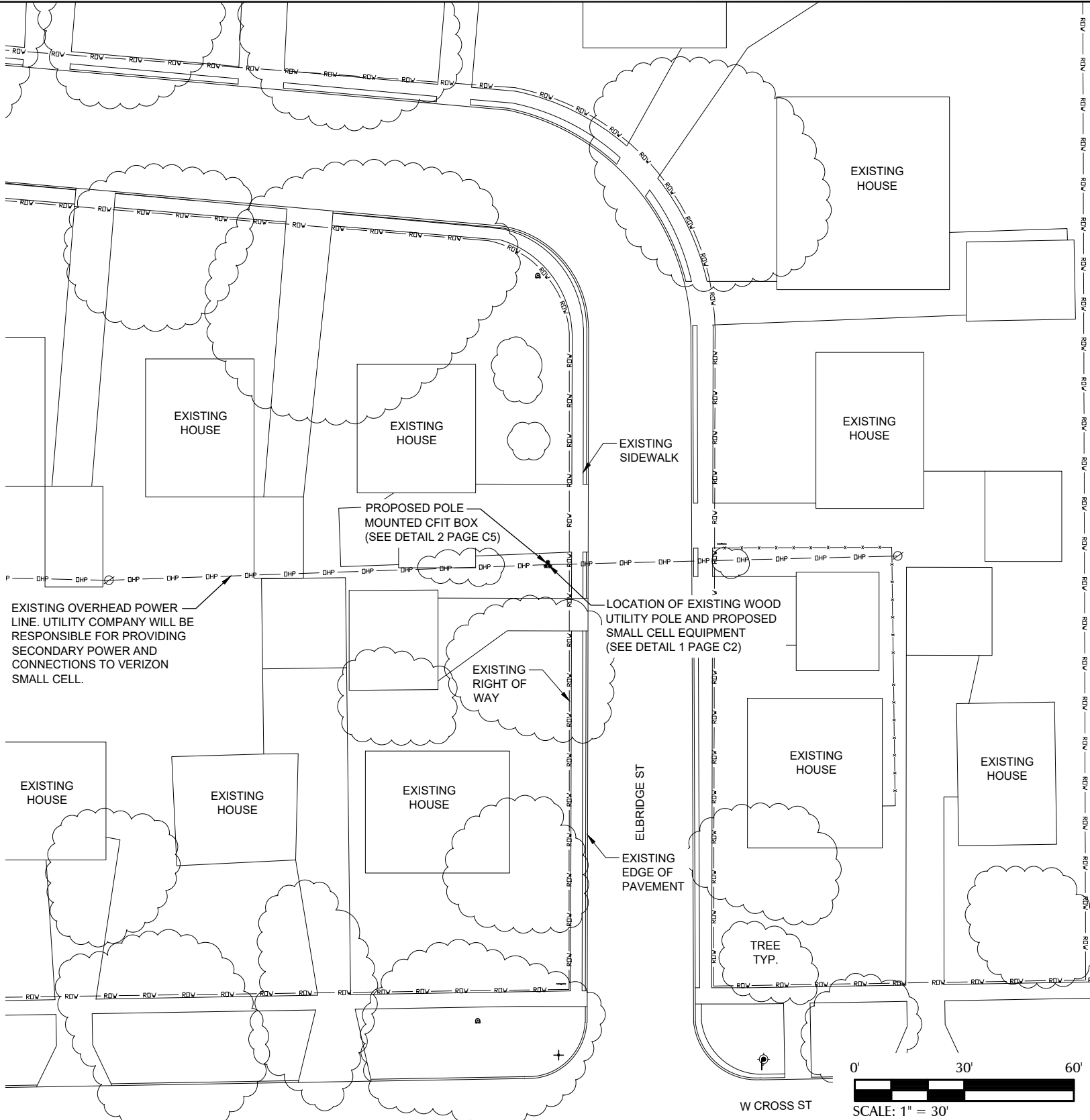
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM	COPPER	CONDUIT SIZE
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	▢
UNDERGROUND POWER	UGP	STREET SIGN	—
OVERHEAD POWER	DHP DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	UGT	UTILITY POLE	⊙
OVERHEAD TELCO	DHT	LIGHT POLE	⊙
GAS LINE	GAS GAS	WATER VALVE	⊗
FENCE	x x x x x x	MANHOLE	⊙
WOOD FENCE	o o o o o o	GAS VALVE	⊗
SEWER LINE	SWR SWR	FIRE HYDRANT	⊙
WATER LINE	VTR	TELCO PEDESTAL	⊙
HYBRID CABLE	HYB	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	ROW ROW		
PROPERTY LINE	PL PL		



PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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RGM

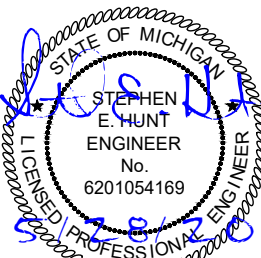
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YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 44.734" N

LONGITUDE:

83° 37' 58.795" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

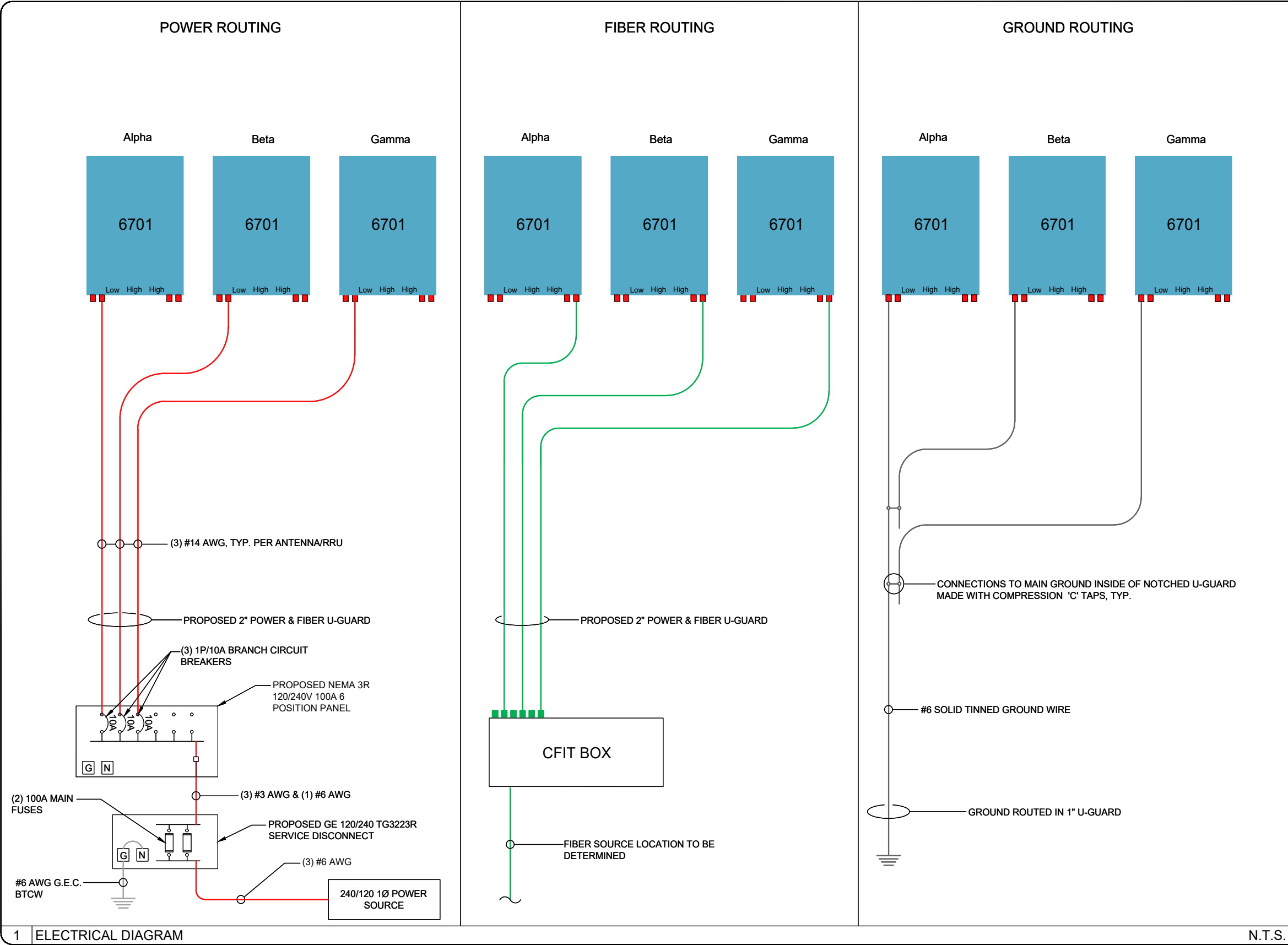
UTILITY SITE PLAN

DRAWING NO.

E1

REVISION:

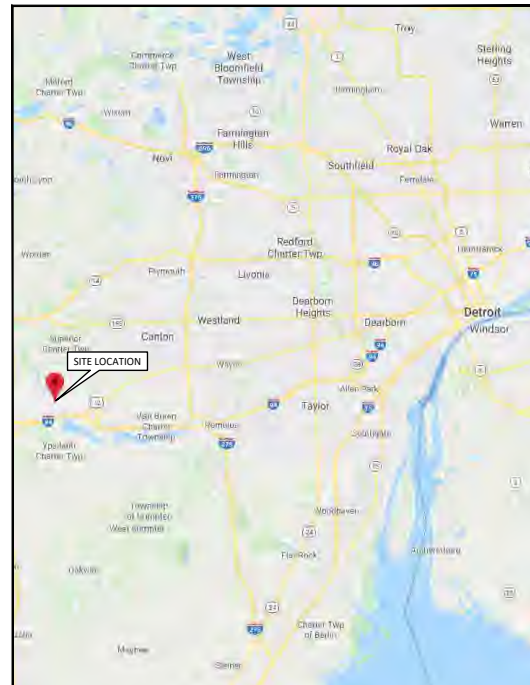
1



SITE NAME:	40211
SITE ADDRESS: (ESTIMATED)	07 BALLARD ST YPSILANTI, MI 48197
COUNTY:	WASHTENAW
JURISDICTION:	CVITY OF YPSILANTI
<u>SITE COORDINATES:</u>	
LATITUDE:	42° 14' 28.392" N
LATITUDE:	42.24122°
LONGITUDE:	83° 37' 09.084" W
LONGITUDE:	-83.61919°
ELEVATION:	±739'-6"
PROPERTY DEFINITION:	R.O.W.
FUZE PROJECT ID:	15487095
PSLC CODE:	544750
EXISTING POLE HEIGHT:	40'-0"



VICINITY MAP



NOT TO SCALE

NOT TO SCALE

[illegible]

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT
- POWER AND FIBER PROVIDED BY OTHERS

A map of the state of Michigan, showing its county boundaries. The word "MICHIGAN" is printed in large, bold, black capital letters across the upper right portion of the map. The county of Washtenaw is located in the southeastern part of the state. A black dot is placed within the boundaries of Washtenaw County, and a thin black line extends from this dot to the left, ending at the text "WASHTENAW COUNTY" which is written in black capital letters.

DRAWING NO.	REVISION:
T1	1

STRUCTURAL REVIEW

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.

SHEET SCALE FACTOR:
PLOT SIZE:
11" x 17": TO SCALE



1 (800) 482-7171
www.missdig.com
CONTRACTOR TO CALL MICHIGAN
ONE-CALL SYSTEMS AT LEAST 72 HOURS
PRIOR TO DIGGING.

- GENERAL NOTES
1.

THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.

2.

THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.

3.

PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.

4.

THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.

5.

ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.

6.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.

7.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)

8.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.

9.

KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.

10.

PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.

11.

THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.

12.

ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

- DEFINITIONS
1.

"TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.

2.

"SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.

3.

"AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.

4.

"ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.

5.

THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.

6.

WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.

7.

FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

- PROJECT SPECIFIC NOTES
1.

THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.

2.

THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.

3.

IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

- GROUND CONSTRUCTION NOTES:
1.

120/240V POWER REQUIRED FOR 3-WIRE SERVICE.

2.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.

3.

CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.

4.

ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.

5.

ALL EQUIPMENT TO BE BONDED.

6.

METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

- STANDARD GROUNDING NOTES:
1.

GROUND TESTED AT 25 OHMS OR LESS.

2.

5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.

3.

#6 GROUND AND BOND WIRE.

4.

MOLDING, STAPLED EVERY 1' AND AT EACH END.

5.

GROUND RODS 18" FROM POLE.

- STANDARD CONDUIT NOTES:
1.

FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.

2.

IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.

3.

IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.

4.

RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.

5.

RISER STRAPS TO BE INSTALLED EVERY 5'.

6.

CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.

7.

ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

- STANDARD TRENCHING NOTES:
1.

MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.

2.

MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.

3.

IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.

4.

IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.

5.

PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

- UTILITY POLE CONSTRUCTION NOTES:
1.

NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".

2.

FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.

3.

ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.

4.

CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.

5.

90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).

6.

USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.

7.

USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.

8.

USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.

9.

FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

- VERIZON WIRELESS CONSTRUCTION NOTES:
1.

CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.

2.

CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.

3.

CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.

4.

CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.

5.

CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

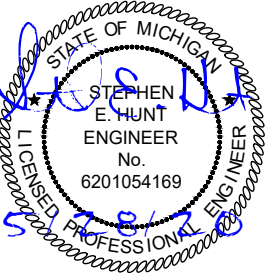
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REVISIONS				
1	05/28/20	USE	CONSTRUCTION ISSUE	
0	01/30/20	CDM	CONSTRUCTION ISSUE	
A	01/30/20	LA	PRELIMINARY REVIEW	
NO.	DATE	BY	DESCRIPTION	

ENGINEER'S STAMP:



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SITE NAME: 40211

ADDRESS: 07 BALLARD ST
YPSILANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 14' 28.392" N

LONGITUDE: 83° 37' 09.084" W

DESIGN TYPE: COLOCATION

SHEET TITLE:

GENERAL NOTES

DRAWING NO.	REVISION:
GN1	1

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND

OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊙
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— X — X — X — X —	MANHOLE	⊙
WOOD FENCE	— O — O — O — O —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊙
WATER LINE	— VTR —	TELCO PEDESTAL	⊙
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— RDW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

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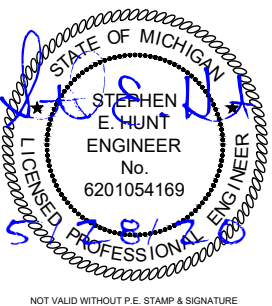
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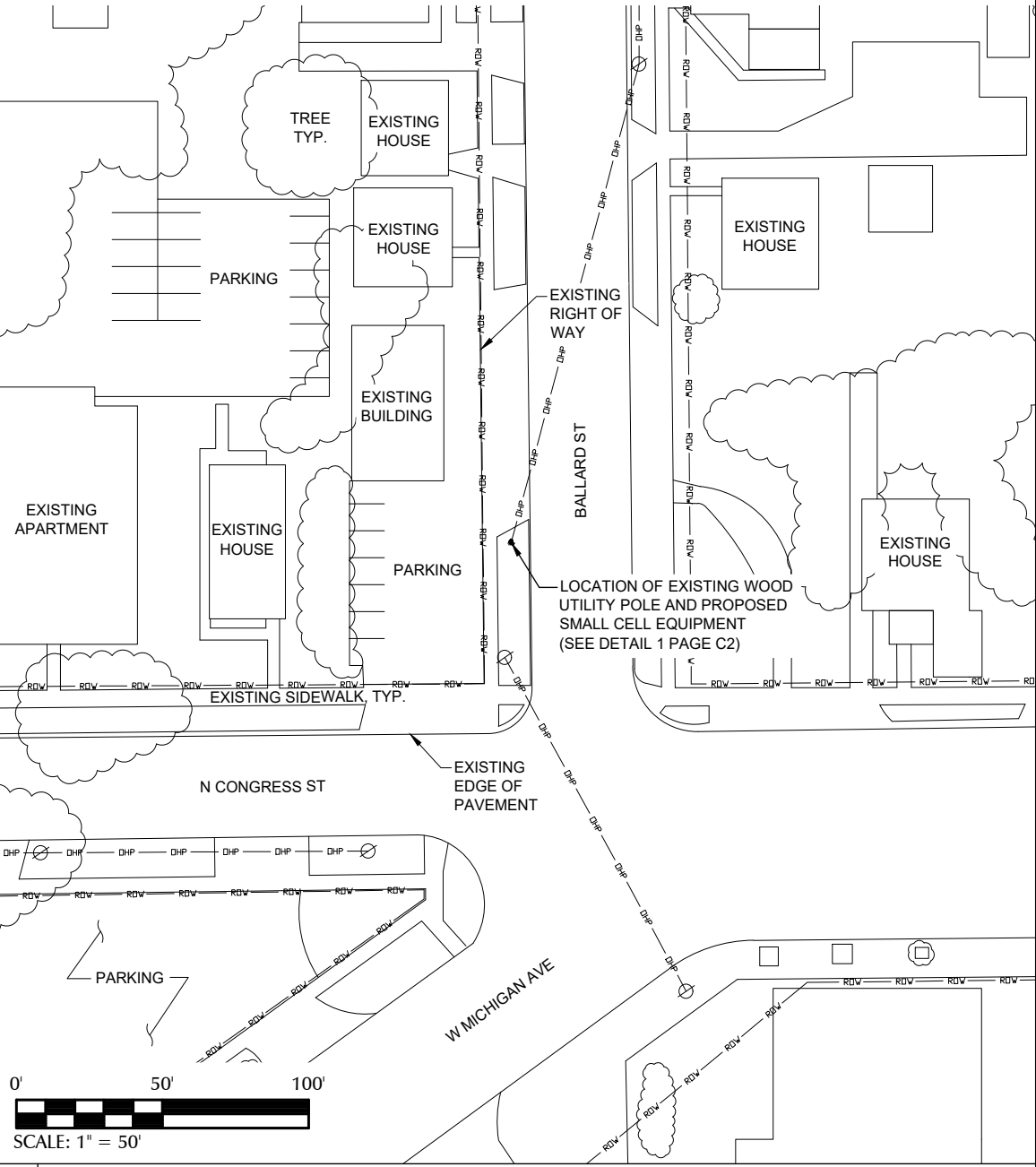
SITE LAYOUTS

DRAWING NO.

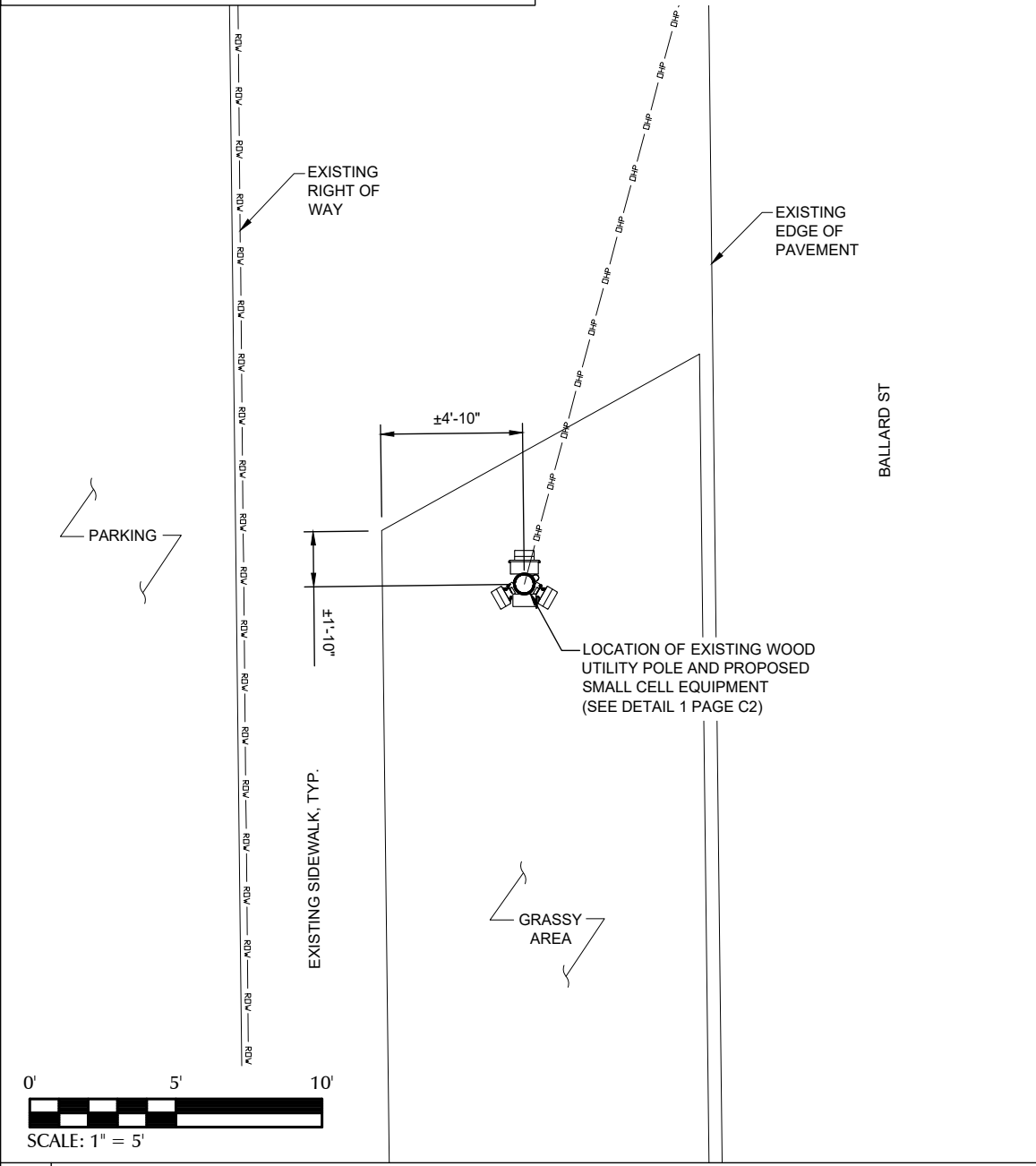
C1

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1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT



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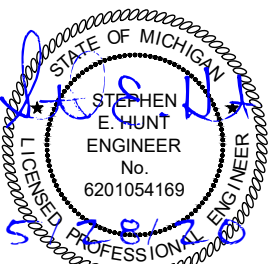
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COUNTY:	WASHTENAW
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LONGITUDE:	83° 37' 09.084" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO.	REVISION:
C1A	1

1 OVERALL SITE LAYOUT - AERIAL IMAGERY

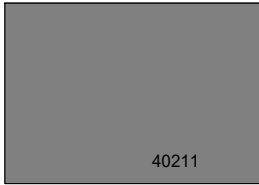
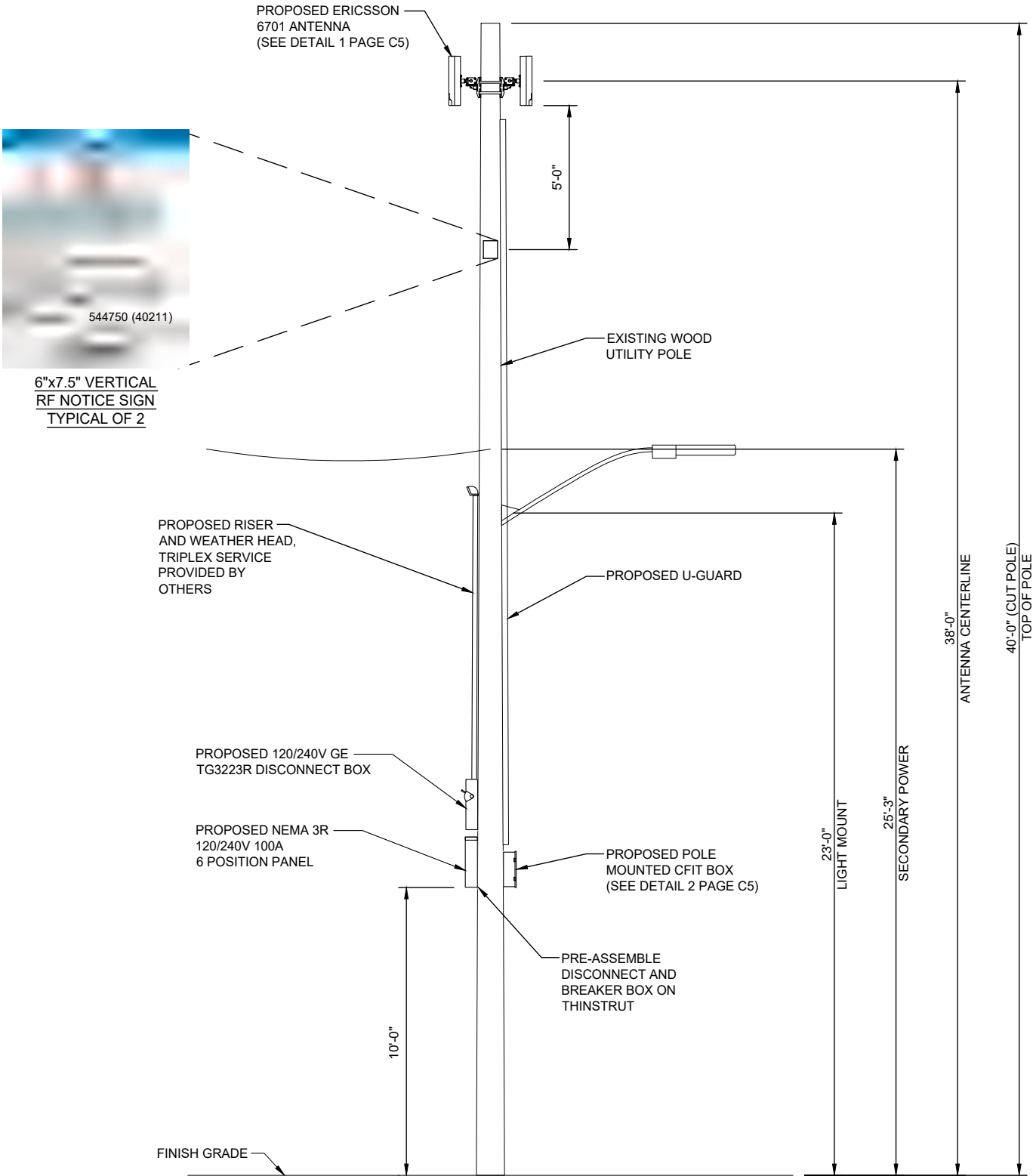
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



INSTALL ON BREAKER PANEL

1 POLE ELEVATION

N.T.S.

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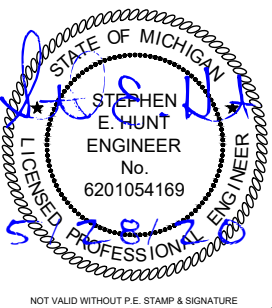
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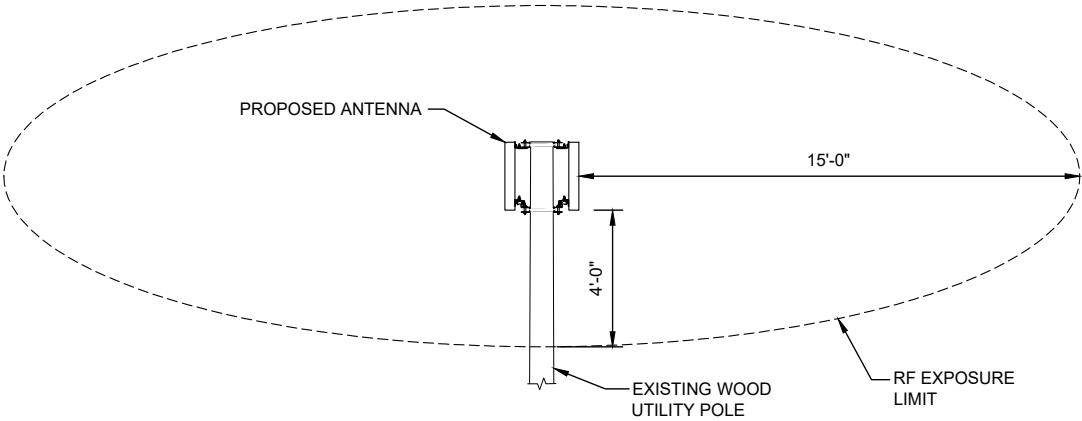
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COUNTY: WASHTENAW
LATITUDE: 42° 14' 28.392" N
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DESIGN TYPE: COLOCATION

SHEET TITLE:
POLE ELEVATION

DRAWING NO. C2
REVISION: 1

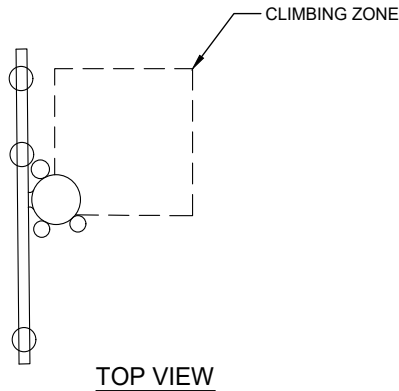
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT. OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

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Wireless

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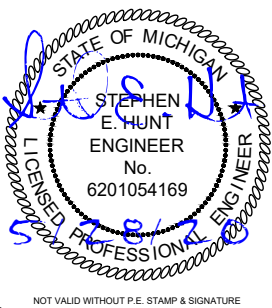
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DESIGN TYPE:
COLOCATION

SHEET TITLE:

SITE DETAILS

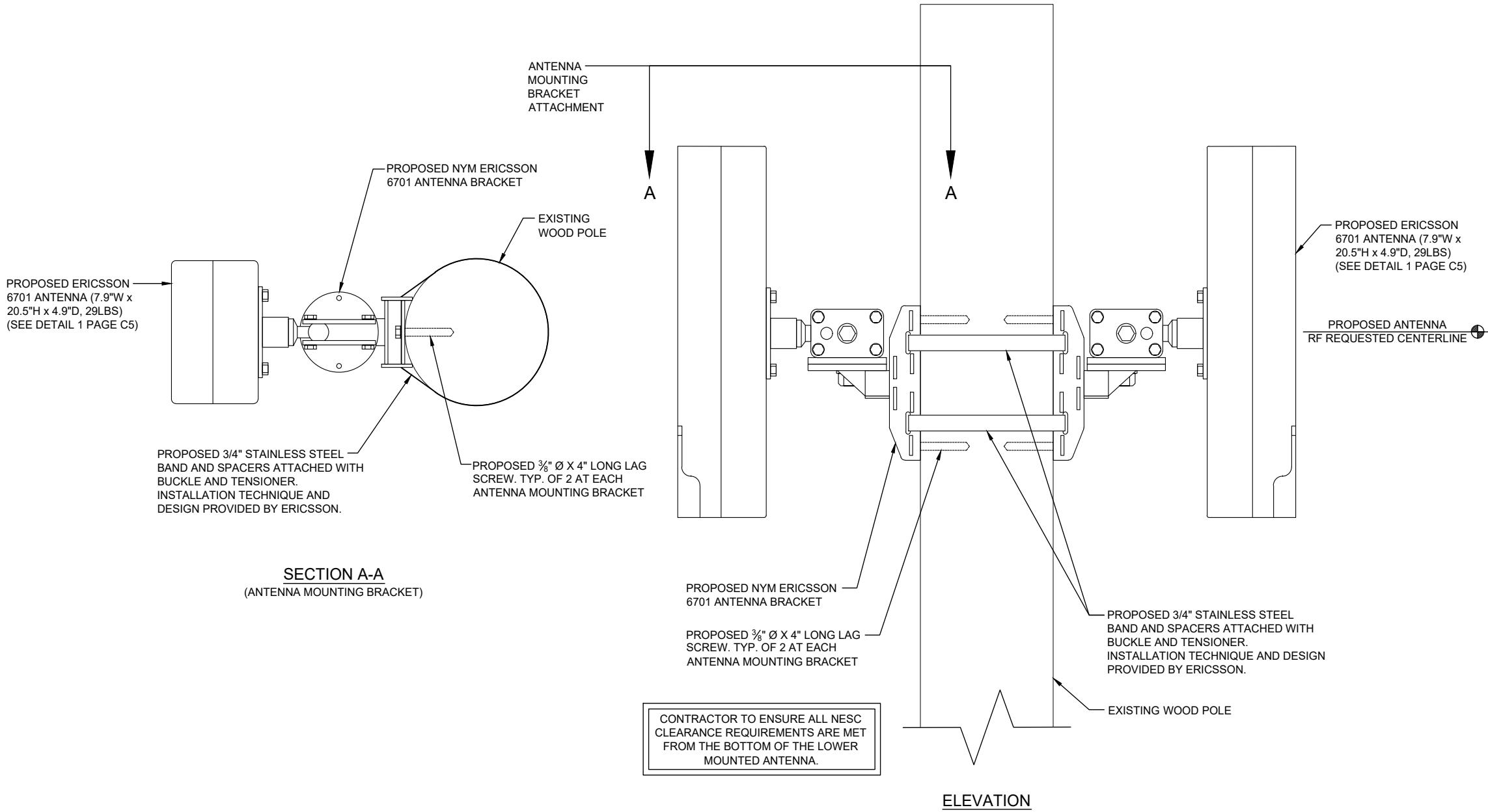
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C3

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1

1 EQUIPMENT CU-FT. TABLE



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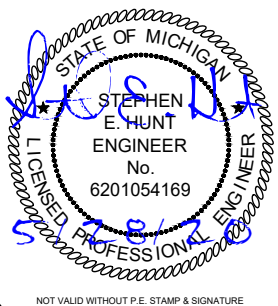
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DESIGN TYPE: COLOCATION

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

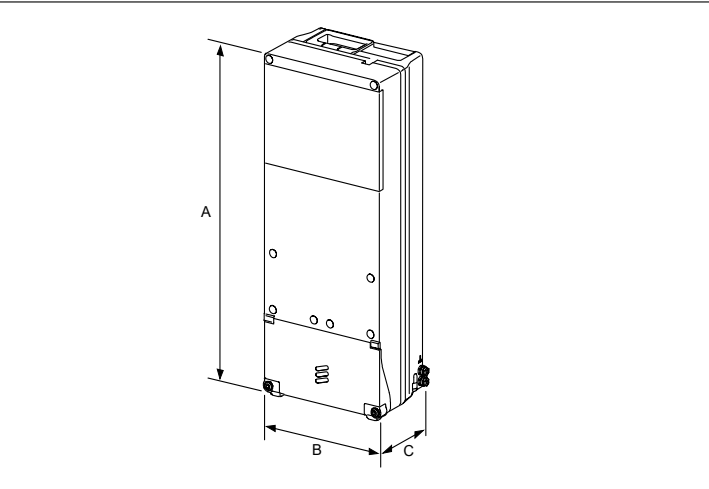
REVISION:

1

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS_REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

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Wireless
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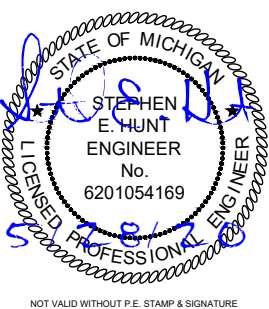
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EQUIPMENT DETAILS

DRAWING NO.	REVISION:
C5	1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

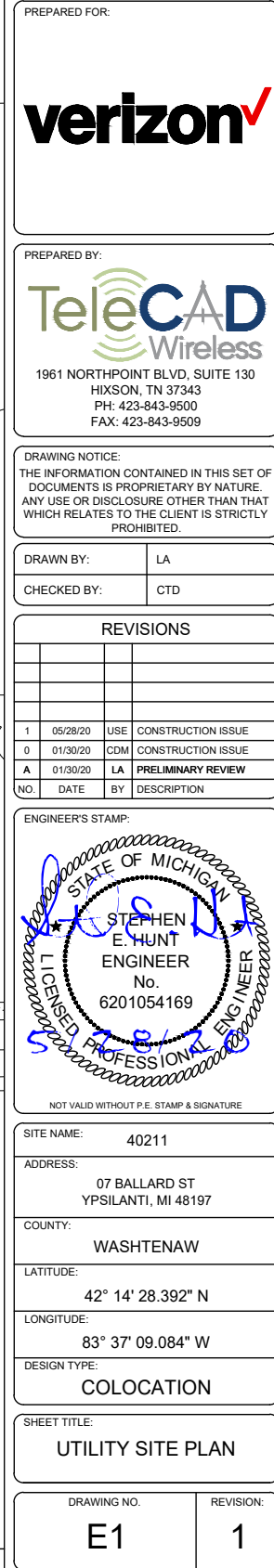
N.T.S.

1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

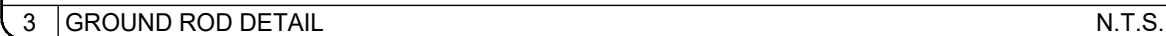
SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 40 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM	COPPER	CONDUIT SIZE
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

OVERHEAD UTILITIES	DUH	CATCH BASIN	
UNDERGROUND POWER	UGP	STREET SIGN	
OVERHEAD POWER	DHP DHP	4 WAY STREET SIGN	
UNDERGROUND TELCO	UGT	UTILITY POLE	
OVERHEAD TELCO	DHT	LIGHT POLE	
GAS LINE	GAS GAS	WATER VALVE	
FENCE	x x x x x x x	MANHOLE	
WOOD FENCE	o o o o o o o	GAS VALVE	
SEWER LINE	SWR SWR	FIRE HYDRANT	
WATER LINE	VTR	TELCO PEDESTAL	
HYBRID CABLE	HYB	ELECTRICAL BOX	
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	ROW ROW		
PROPERTY LINE	PL PL		

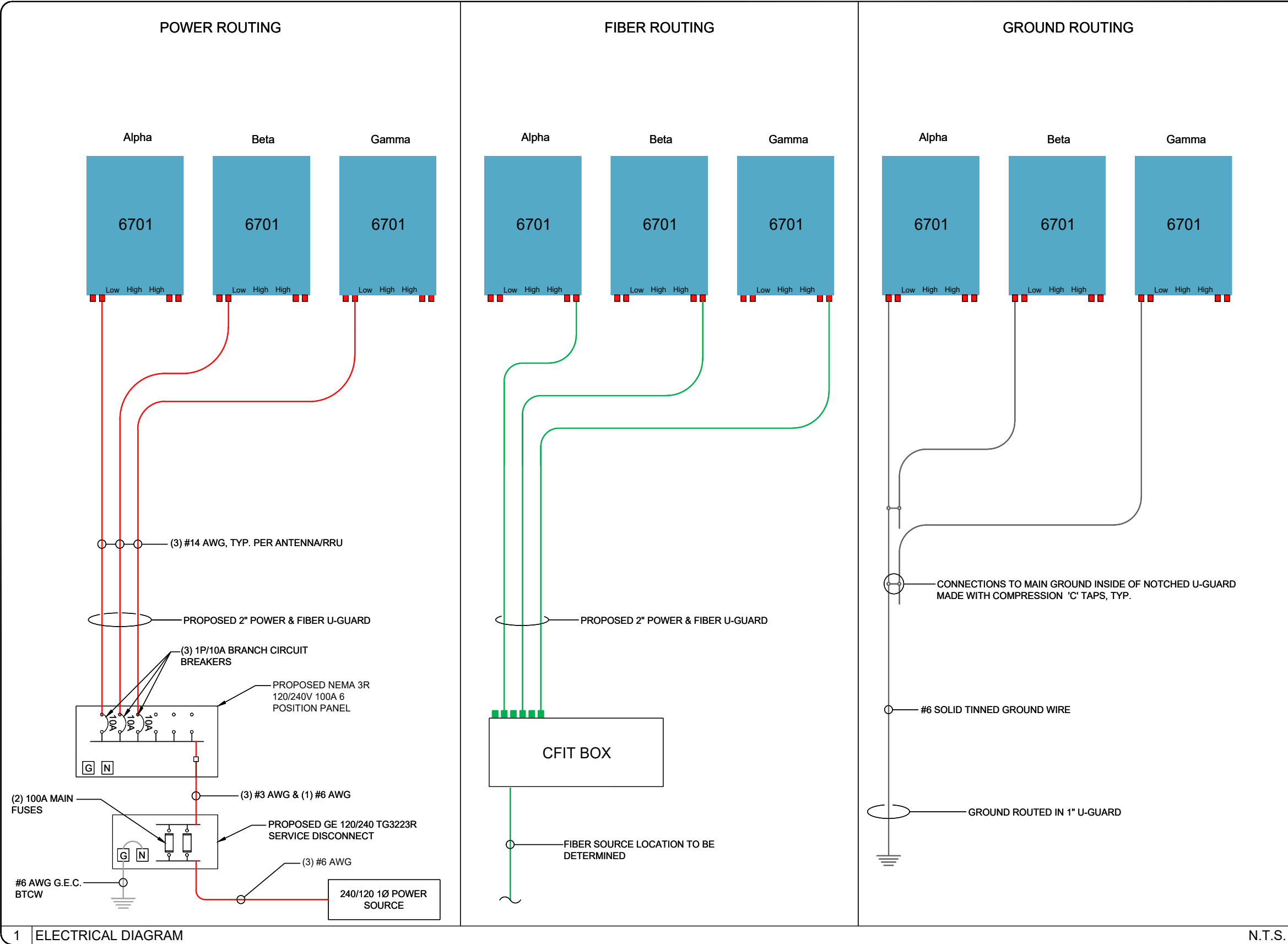




2	TRENCH DETAIL (IF REQUIRED)	N.T.S.
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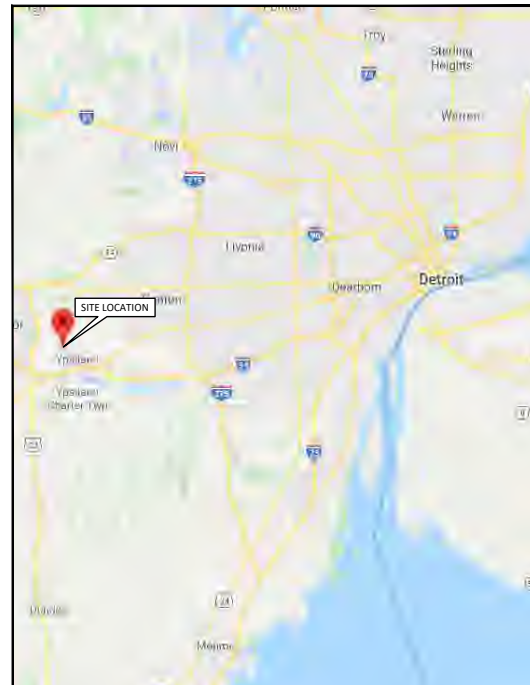
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SITE NAME:	45514
SITE ADDRESS: (ESTIMATED)	728 MANSFIELD ST. YPSILANTI, MI 48197
COUNTY:	WASHTENAW
JURISDICTION:	CITY OF YPSILANTI
<u>SITE COORDINATES:</u>	
LATITUDE:	42° 15' 0.634" N
LATITUDE:	42.25018°
LONGITUDE:	83° 38' 13.415" W
LONGITUDE:	-83.63706°
ELEVATION:	±764'-11"
PROPERTY DEFINITION:	R.O.W.
FUZE PROJECT ID:	15899315
PSLC CODE:	577386
EXISTING POLE HEIGHT:	40'-0"



VICINITY MAP



NOT TO SCALE

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.

NOT TO SCALE

- ## SCOPE OF WORK

MICHIGAN

WASHTENAW COUNTY

[illegible]

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

DRAWN BY:	MDR
CHECKED BY:	CTD

1	05/28/20	RGM	CONSTRUCTION ISSUE
0	01/31/20	JSK	CONSTRUCTION ISSUE
A	01/27/20	MDR	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

COUNTY: WASHTENAW

LONGITUDE: 83° 38' 13.415" W

SHEET TITLE:

TITLE SHEET

DRAWING NO.	REVISION:
T1	1

- GENERAL NOTES
1.

THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.

2.

THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.

3.

PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.

4.

THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.

5.

ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.

6.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.

7.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)

8.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.

9.

KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.

10.

PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.

11.

THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.

12.

ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

- DEFINITIONS
1.

"TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.

2.

"SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.

3.

"AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.

4.

"ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.

5.

THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.

6.

WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.

7.

FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

- PROJECT SPECIFIC NOTES
1.

THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.

2.

THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.

3.

IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

- GROUND CONSTRUCTION NOTES:
1.

120/240V POWER REQUIRED FOR 3-WIRE SERVICE.

2.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.

3.

CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.

4.

ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.

5.

ALL EQUIPMENT TO BE BONDED.

6.

METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

- STANDARD GROUNDING NOTES:
1.

GROUND TESTED AT 25 OHMS OR LESS.

2.

5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.

3.

#6 GROUND AND BOND WIRE.

4.

MOLDING, STAPLED EVERY 1' AND AT EACH END.

5.

GROUND RODS 18" FROM POLE.

- STANDARD CONDUIT NOTES:
1.

FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.

2.

IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.

3.

IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.

4.

RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.

5.

RISER STRAPS TO BE INSTALLED EVERY 5'.

6.

CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.

7.

ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

- STANDARD TRENCHING NOTES:
1.

MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.

2.

MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.

3.

IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.

4.

IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.

5.

PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

- UTILITY POLE CONSTRUCTION NOTES:
1.

NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".

2.

FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.

3.

ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.

4.

CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.

5.

90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).

6.

USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.

7.

USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.

8.

USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.

9.

FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

- VERIZON WIRELESS CONSTRUCTION NOTES:
1.

CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.

2.

CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.

3.

CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.

4.

CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.

5.

CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

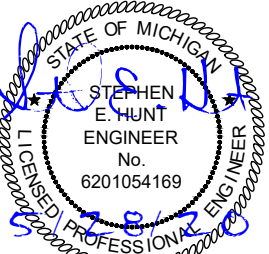
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DRAWN BY:	MDR
CHECKED BY:	CTD

REVISIONS			
1	05/28/20	RGM	CONSTRUCTION ISSUE
0	01/31/20	JSK	CONSTRUCTION ISSUE
A	01/27/20	MDR	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:



NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME: 45514

ADDRESS: 728 MANSFIELD ST.
YPSILANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 15' 0.634" N

LONGITUDE: 83° 38' 13.415" W

DESIGN TYPE: COLOCATION

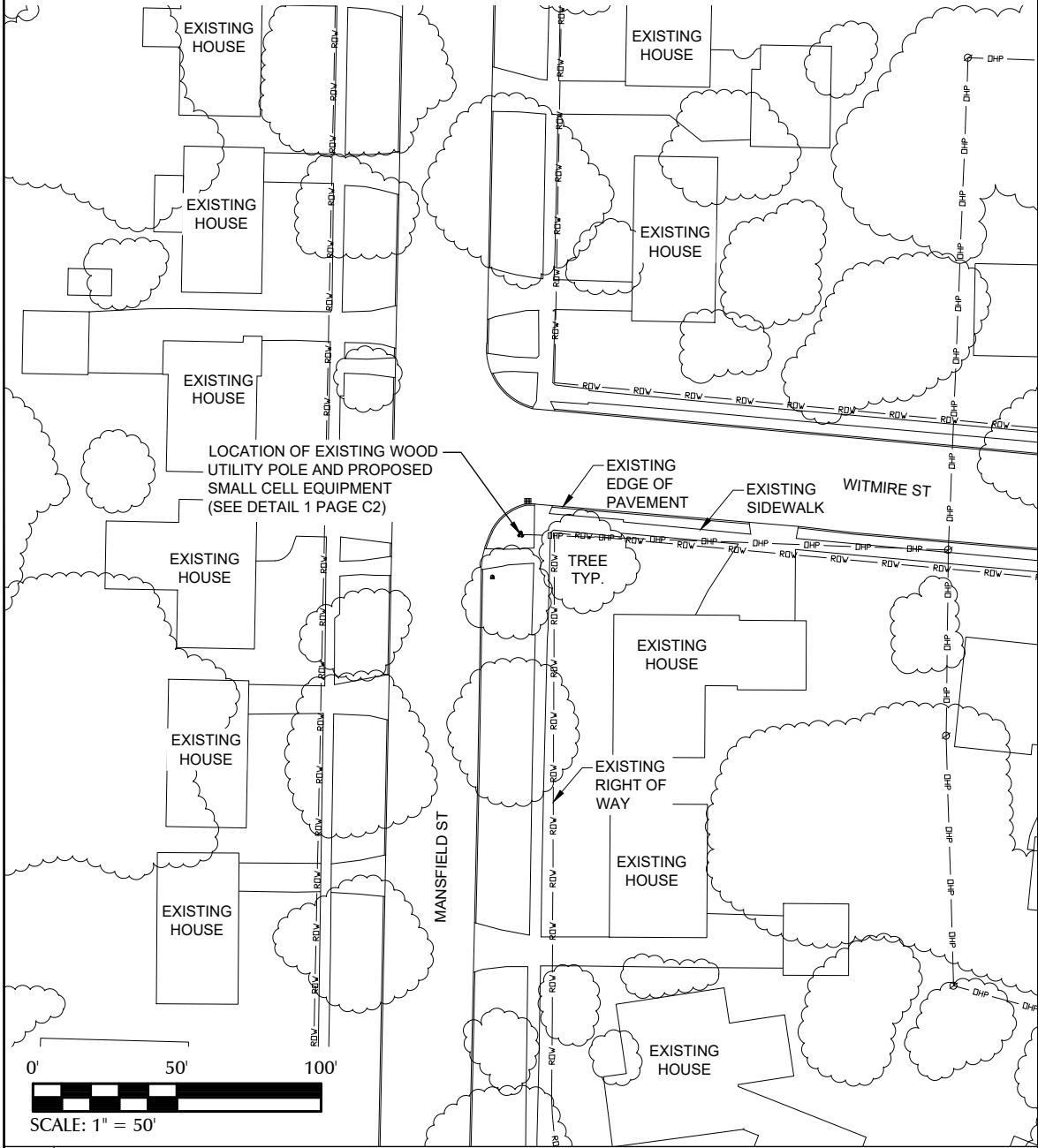
SHEET TITLE:

GENERAL NOTES

DRAWING NO.	REVISION:
GN1	1

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.



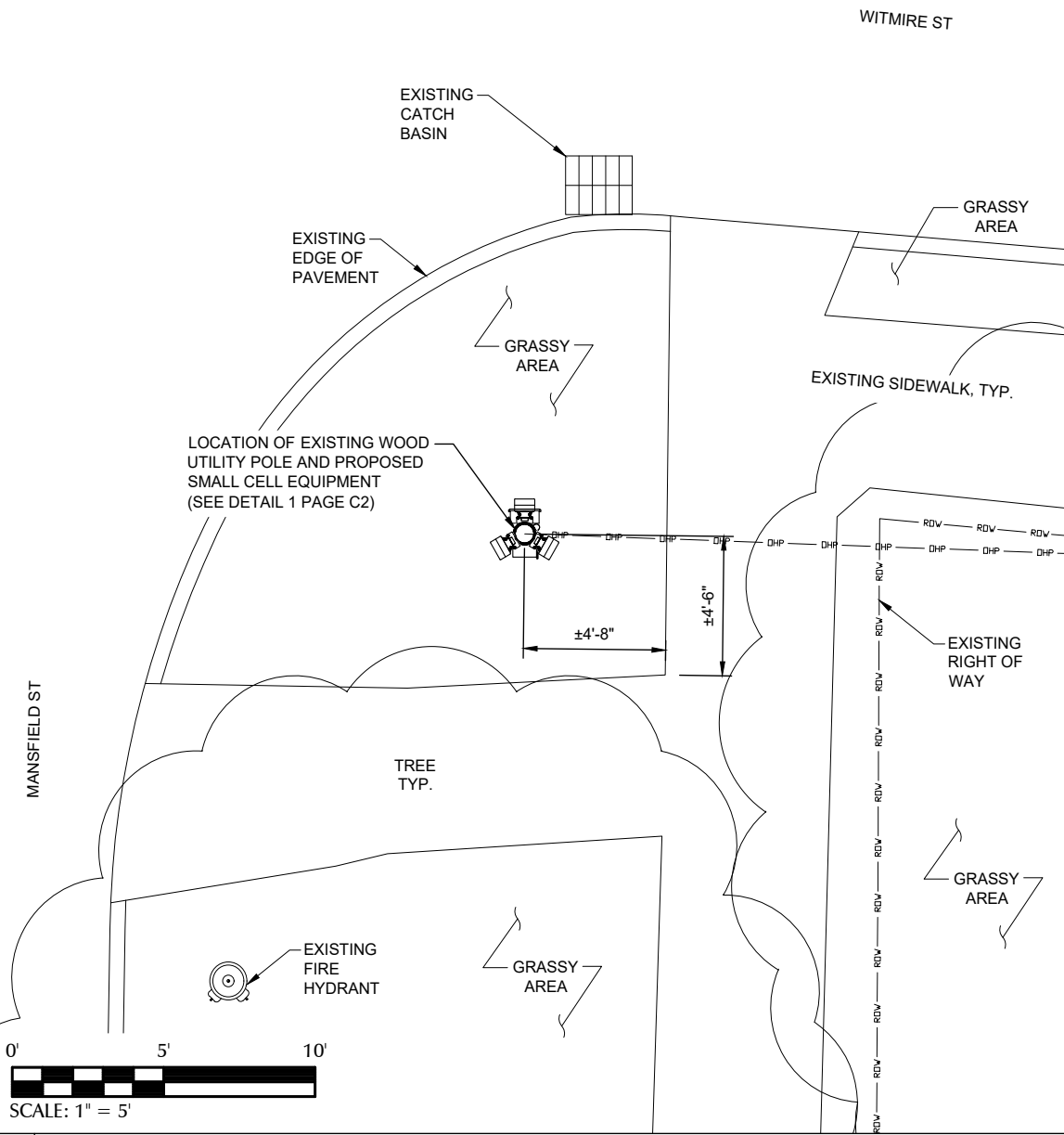
1 OVERALL SITE LAYOUT

LEGEND

OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊙
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊙
FENCE	— X —	MANHOLE	⊙
WOOD FENCE	— O —	GAS VALVE	⊙
SEWER LINE	— SWR —	FIRE HYDRANT	⊙
WATER LINE	— VTR —	TELCO PEDESTAL	⊙
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— ROW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



2 ENLARGED SITE LAYOUT

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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DRAWN BY:

MDR

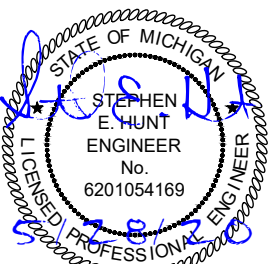
CHECKED BY:

CTD

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SITE NAME:

45514

ADDRESS:

728 MANSFIELD ST.
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 15' 0.634" N

LONGITUDE:

83° 38' 13.415" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

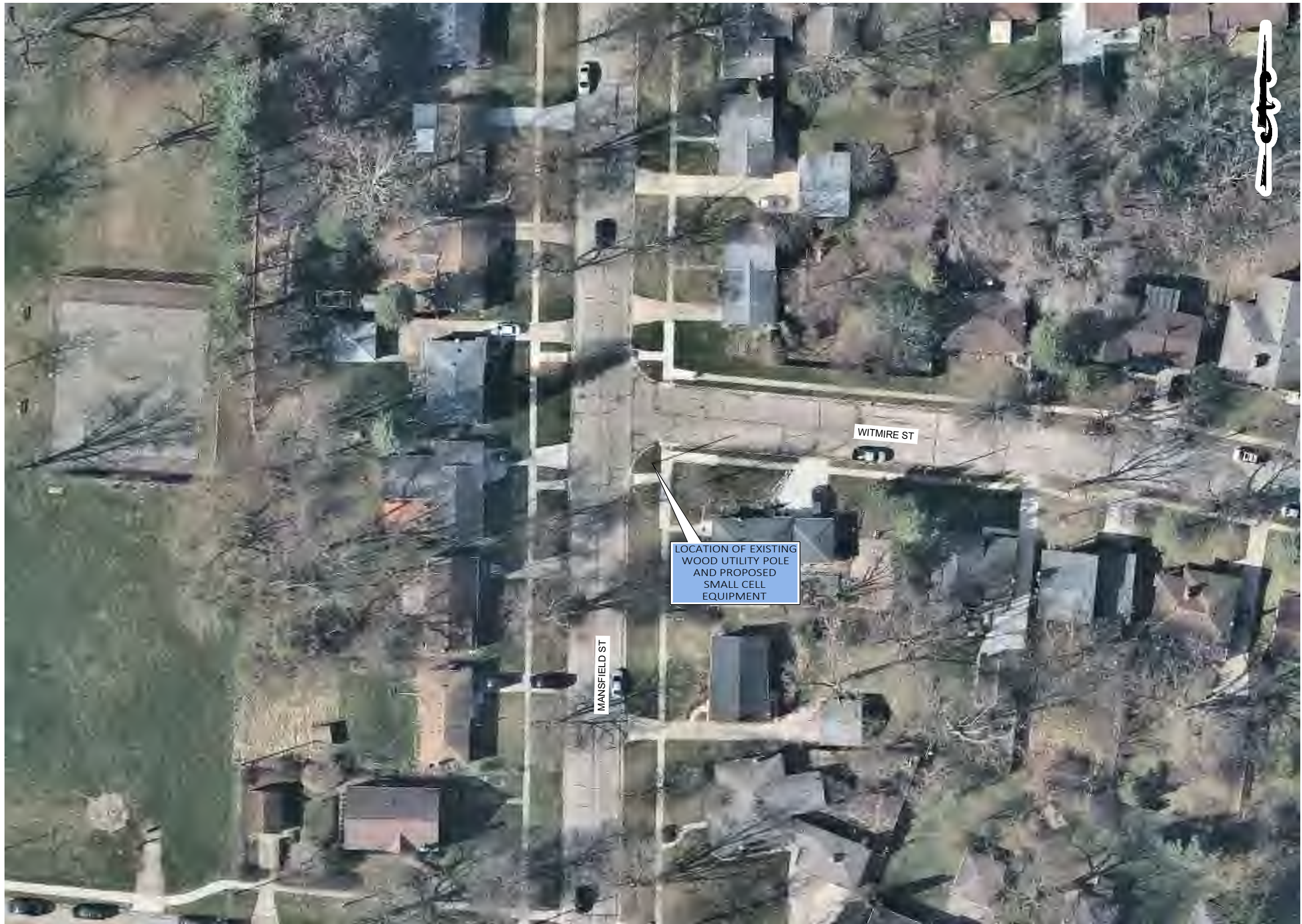
SITE LAYOUTS

DRAWING NO.

C1

REVISION:

1



PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

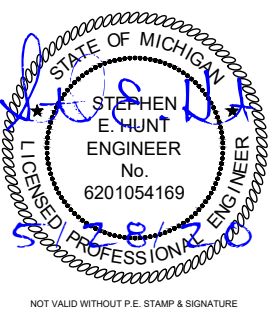
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DRAWN BY: MDR
CHECKED BY: CTD

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COUNTY: WASHTENAW
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DESIGN TYPE: COLOCATION

SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO. C1A
REVISION: 1

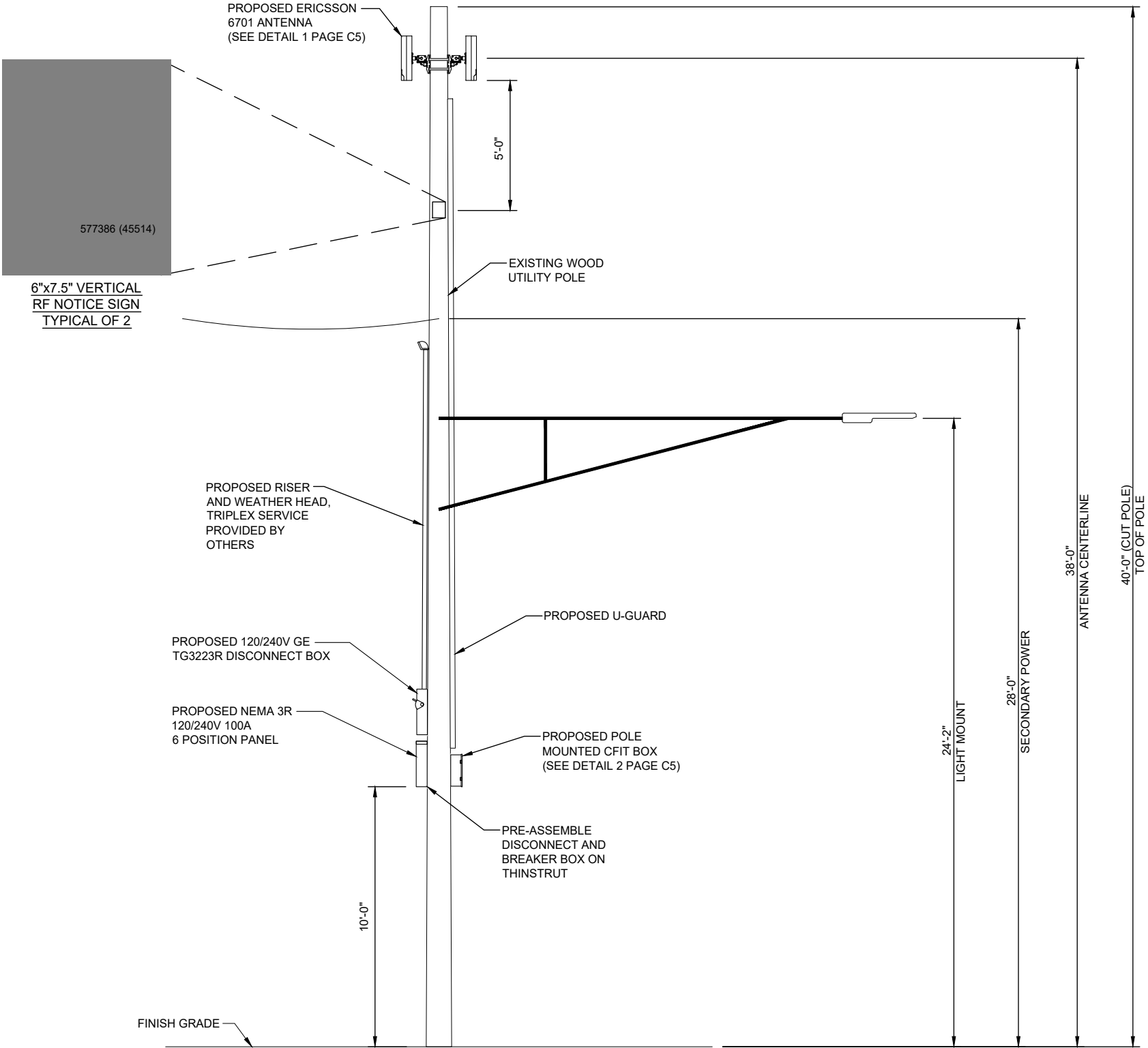
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



INSTALL ON BREAKER PANEL

1 POLE ELEVATION

N.T.S.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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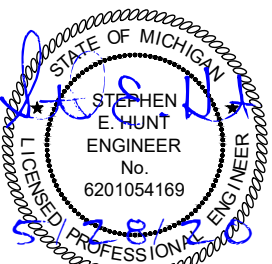
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42° 15' 0.634" N

LONGITUDE:
83° 38' 13.415" W

DESIGN TYPE:
COLOCATION

SHEET TITLE:

POLE ELEVATION

DRAWING NO.

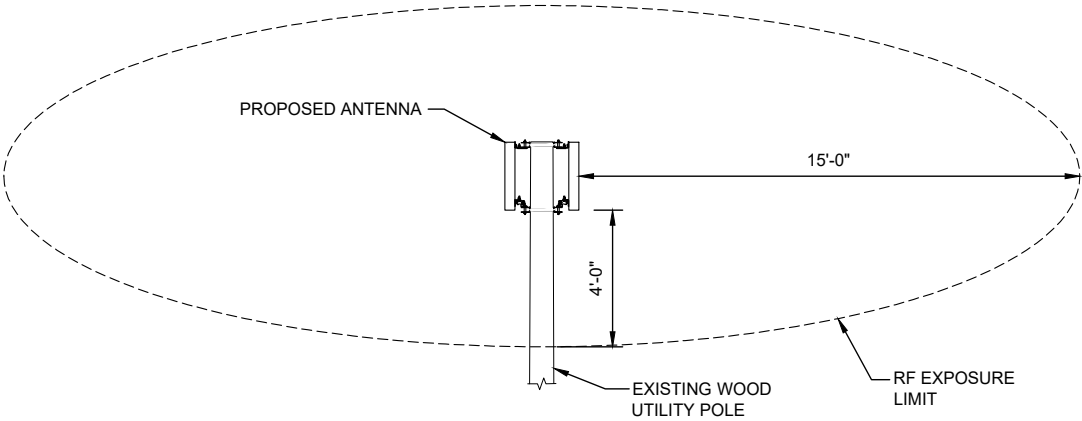
C2

REVISION:

1

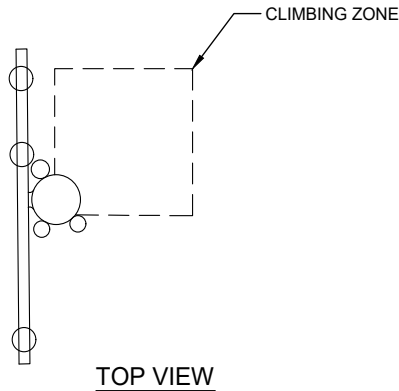
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT. OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
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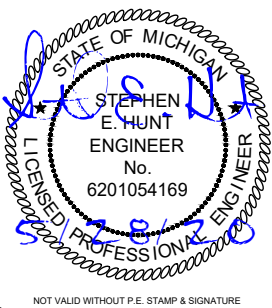
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SHEET TITLE:

SITE DETAILS

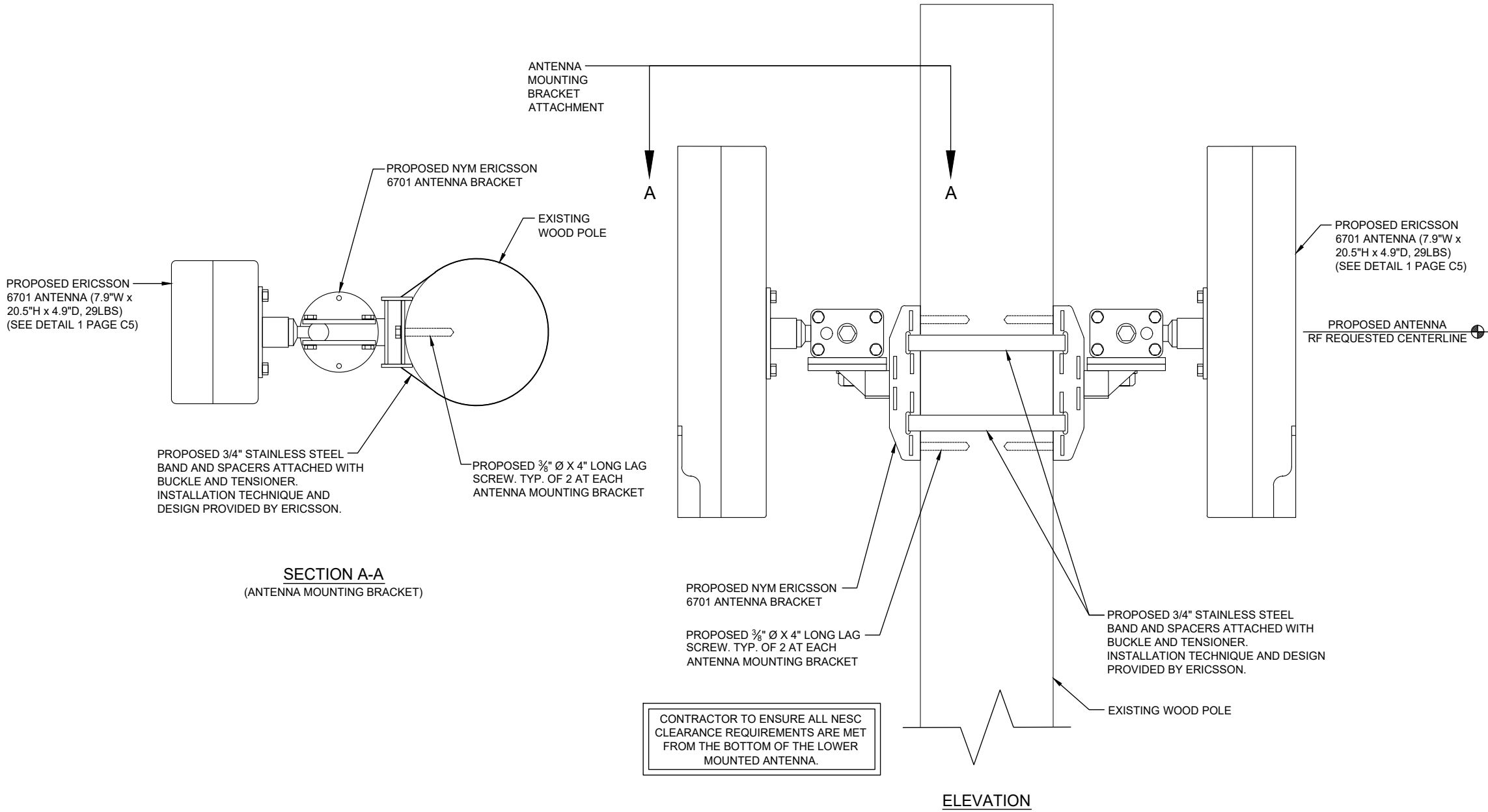
DRAWING NO.

C3

REVISION:

1

1 EQUIPMENT CU-FT. TABLE



PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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MDR

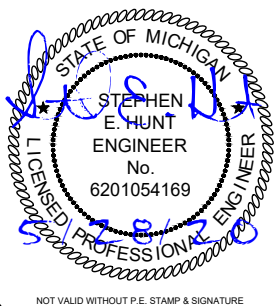
CHECKED BY:

CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	05/28/20	RGH	CONSTRUCTION ISSUE
0	01/31/20	JSK	CONSTRUCTION ISSUE
A	01/27/20	MDR	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

45514

ADDRESS:

728 MANSFIELD ST.
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 15' 0.634" N

LONGITUDE:

83° 38' 13.415" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

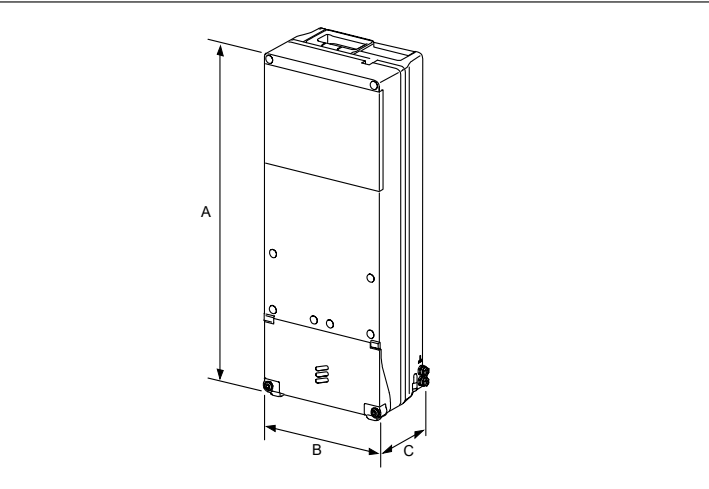
REVISION:

1

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS_REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless
1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
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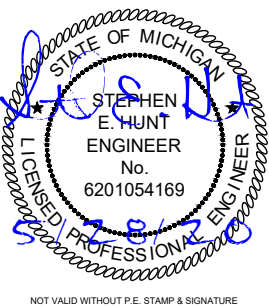
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COUNTY:	WASHTENAW
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LONGITUDE:	83° 38' 13.415" W
DESIGN TYPE:	COLOCATION

EQUIPMENT DETAILS

DRAWING NO.	REVISION:
C5	1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

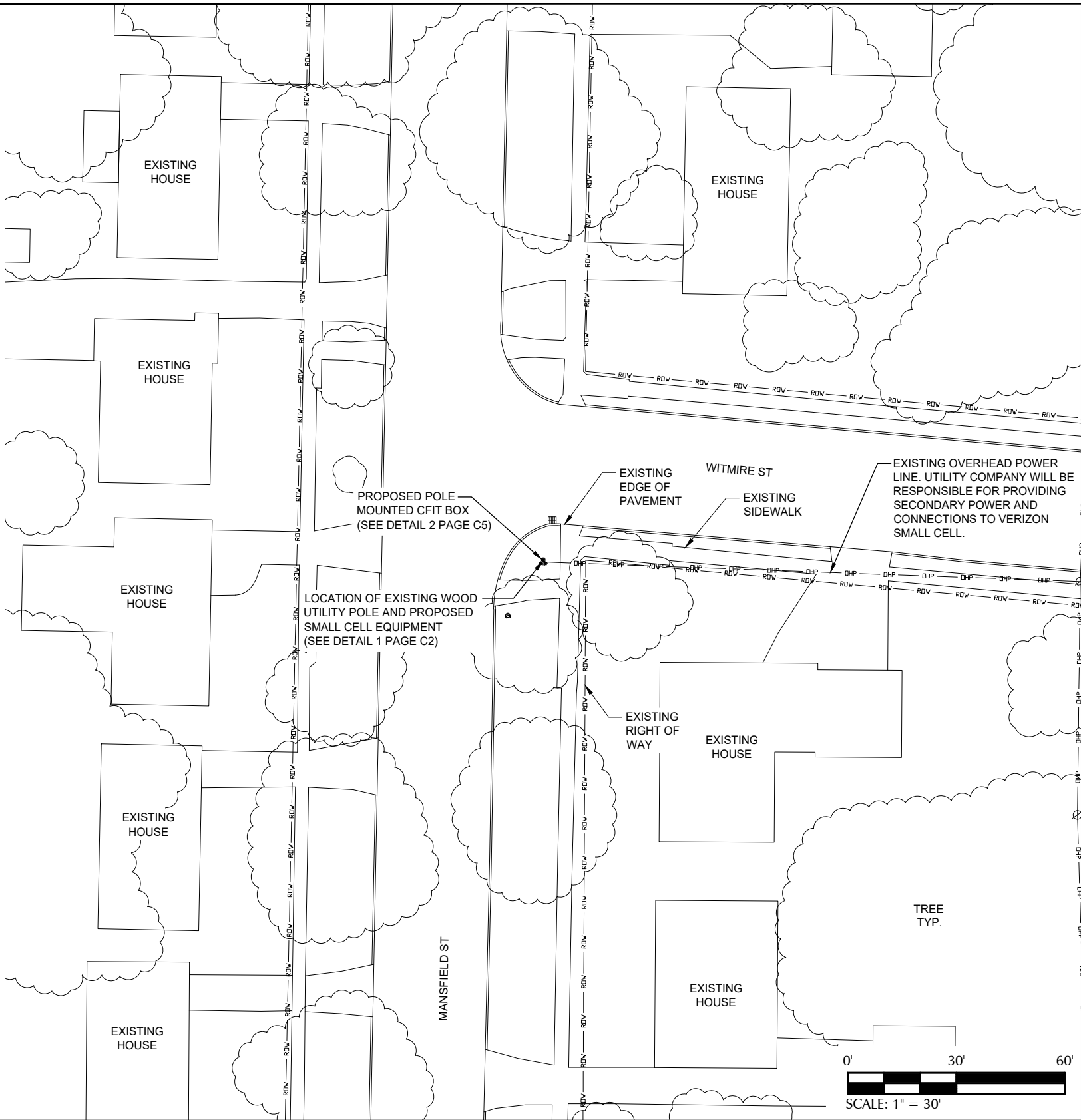
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM	COPPER	CONDUIT SIZE
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	▣
UNDERGROUND POWER	UGP	STREET SIGN	—
OVERHEAD POWER	DHP DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	UGT	UTILITY POLE	⊗
OVERHEAD TELCO	DHT	LIGHT POLE	⊙
GAS LINE	GAS GAS	WATER VALVE	⊗
FENCE	x x x x x x	MANHOLE	⊙
WOOD FENCE	o o o o o o	GAS VALVE	⊗
SEWER LINE	SWR SWR	FIRE HYDRANT	⊙
WATER LINE	VTR	TELCO PEDESTAL	⊙
HYBRID CABLE	HYB	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	ROW ROW		
PROPERTY LINE	PL PL		



PREPARED FOR:



PREPARED BY:



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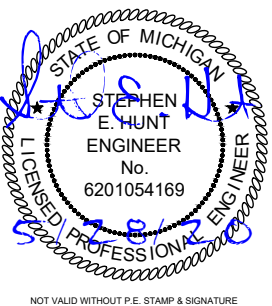
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COUNTY:

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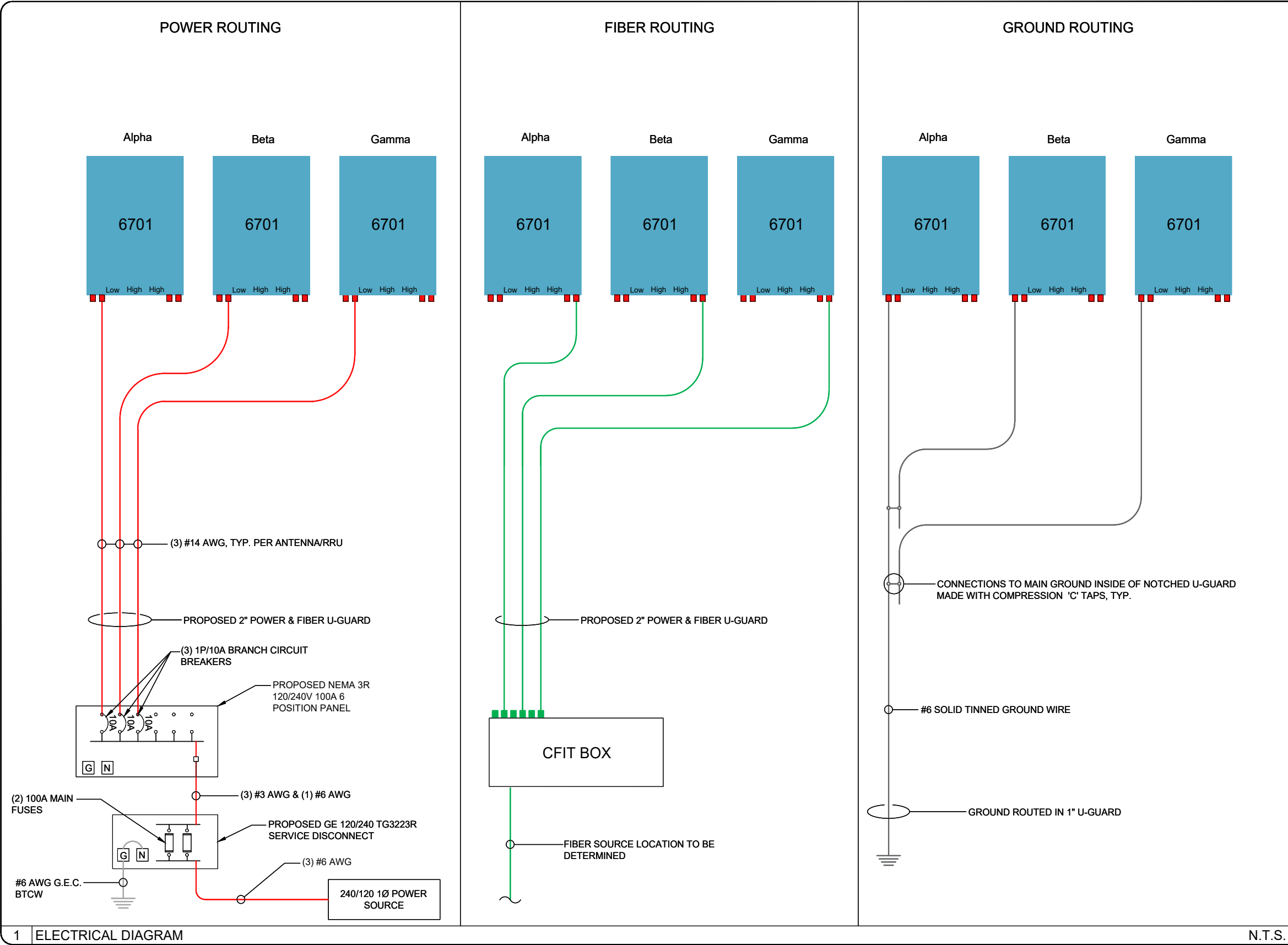
UTILITY SITE PLAN

DRAWING NO.

E1

REVISION:

1



PROJECT SUMMARY

SITE NAME: 45523

SITE ADDRESS:
(ESTIMATED) 14 W FOREST AVE.
YPSILANTI, MI 48197

COUNTY: WASHTENAW

JURISDICTION: CITY OF YPSILANTI

SITE COORDINATES:

LATITUDE: 42° 14' 58.849" N

LATITUDE: 42.24968°

LONGITUDE: 83° 36' 54.556" W

LONGITUDE: -83.61515°

ELEVATION: ±719'-7"

PROPERTY DEFINITION: R.O.W.

FUZE PROJECT ID: 15899275

PSLC CODE: 577395

EXISTING POLE HEIGHT: 40'-0"



SITE NAME: 45523

PROPOSED SMALL CELL EQUIPMENT
ON AN EXISTING DTE POLE

SHEET INDEX

NO.	DESCRIPTION
T1	TITLE SHEET
GN1	GENERAL NOTES
C1	SITE LAYOUTS
C1A	SITE LAYOUT - AERIAL IMAGERY
C2	POLE ELEVATION
C3	SITE DETAILS
C4	SITE DETAILS
C5	EQUIPMENT DETAILS
E1	UTILITY SITE PLAN
E2	ELECTRICAL DETAILS
E3	SINGLE LINE DIAGRAM

PREPARED FOR:



PREPARED BY:



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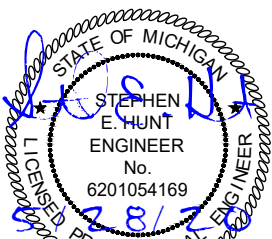
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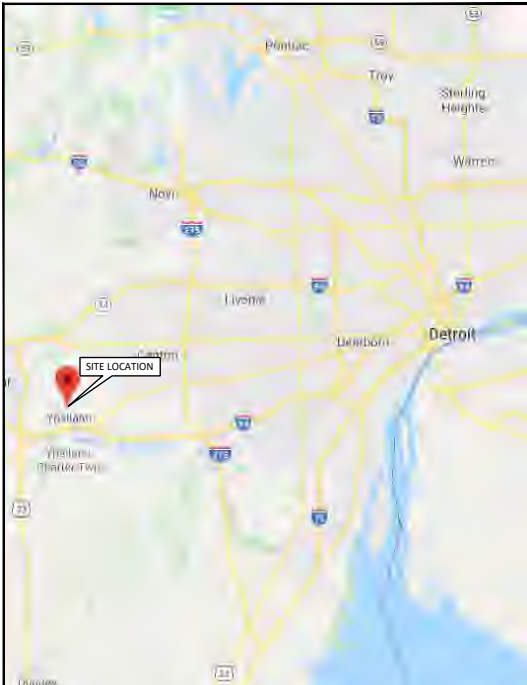
DRAWING NO.

T1

REVISION:

1

VICINITY MAP



NOT TO SCALE

LOCATION MAP



NOT TO SCALE

SCOPE OF WORK

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT

STATE COUNTY MAP



STRUCTURAL REVIEW

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.

SHEET SCALE FACTOR:

PLOT SIZE:
11" x 17": TO SCALE



1 (800) 482-7171

www.missdig.com
CONTRACTOR TO CALL MICHIGAN
ONE-CALL SYSTEMS AT LEAST 72 HOURS
PRIOR TO DIGGING.

GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
5. THE TERM "VERIFY" OR "V.I.F" SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
5. ALL EQUIPMENT TO BE BONDED.
6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 25 OHMS OR LESS.
2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
3. #6 GROUND AND BOND WIRE.
4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
5. GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
5. RISER STRAPS TO BE INSTALLED EVERY 5'.
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:



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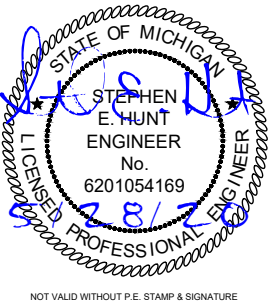
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CHECKED BY:	CTD

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DESIGN TYPE:	COLOCATION

SHEET TITLE:	GENERAL NOTES
--------------	---------------

DRAWING NO.	REVISION:
GN1	1

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	CB
UNDERGROUND POWER	UGP	STREET SIGN	SS
OVERHEAD POWER	DHP	4 WAY STREET SIGN	4WS
UNDERGROUND TELCO	UGT	UTILITY POLE	UP
OVERHEAD TELCO	DHT	LIGHT POLE	LP
GAS LINE	GAS	WATER VALVE	WV
FENCE	X-X-X-X-X	MANHOLE	M
WOOD FENCE	O-O-O-O-O	GAS VALVE	GV
SEWER LINE	SWR	FIRE HYDRANT	FH
WATER LINE	WTR	TELCO PEDESTAL	TP
HYBRID CABLE	HYB	ELECTRICAL BOX	EB
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	ROW		
PROPERTY LINE	PL		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

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FAX: 423-843-9509

DRAWING NOTICE:

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MDR

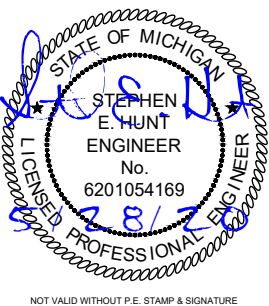
CHECKED BY:

CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	05/28/20	RGM	CONSTRUCTION ISSUE
0	01/31/20	CDM	CONSTRUCTION ISSUE
A	01/30/20	MDR	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

45523

ADDRESS:

14 W FOREST AVE.
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 58.849" N

LONGITUDE:

83° 36' 54.556" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

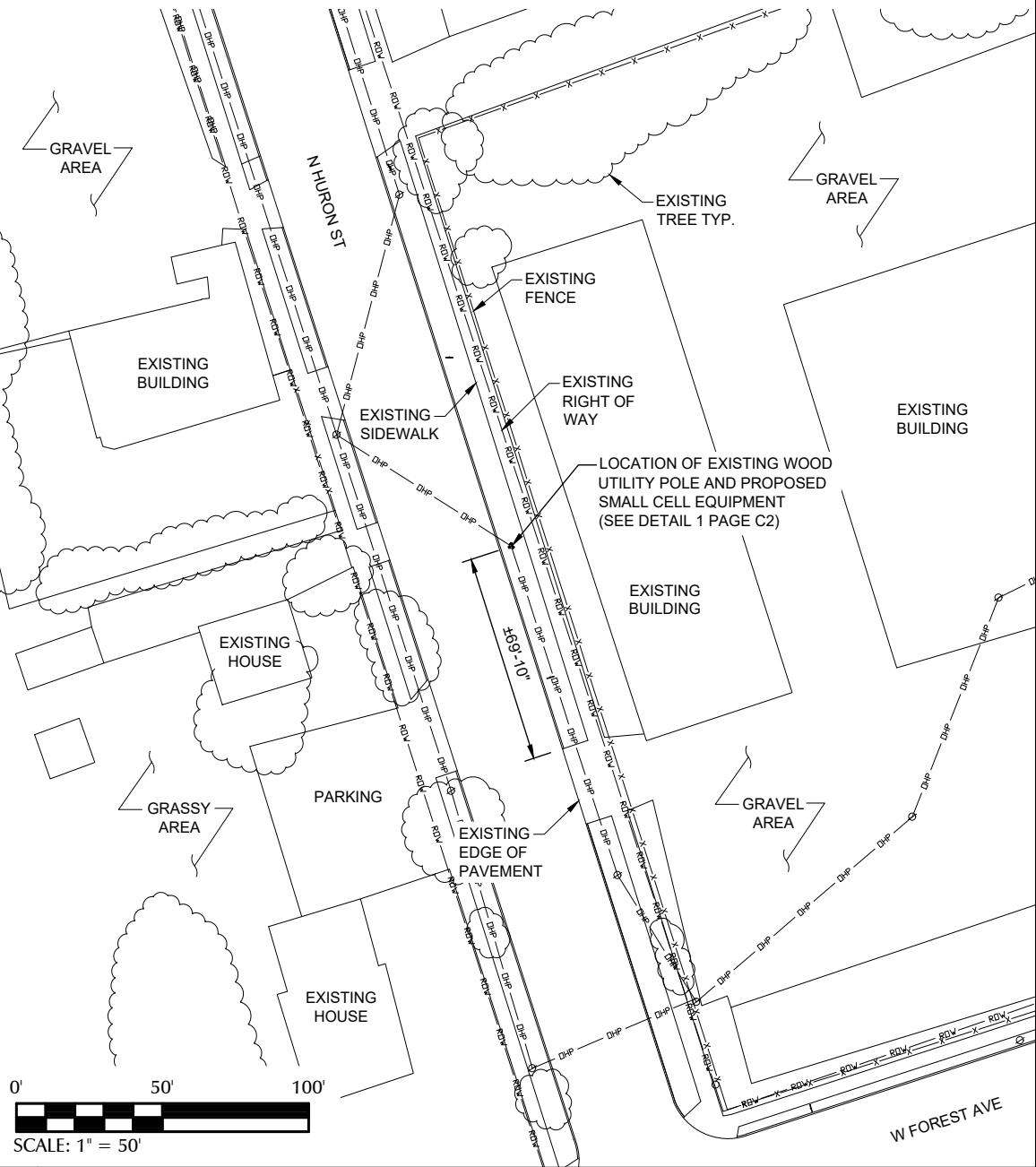
SITE LAYOUTS

DRAWING NO.

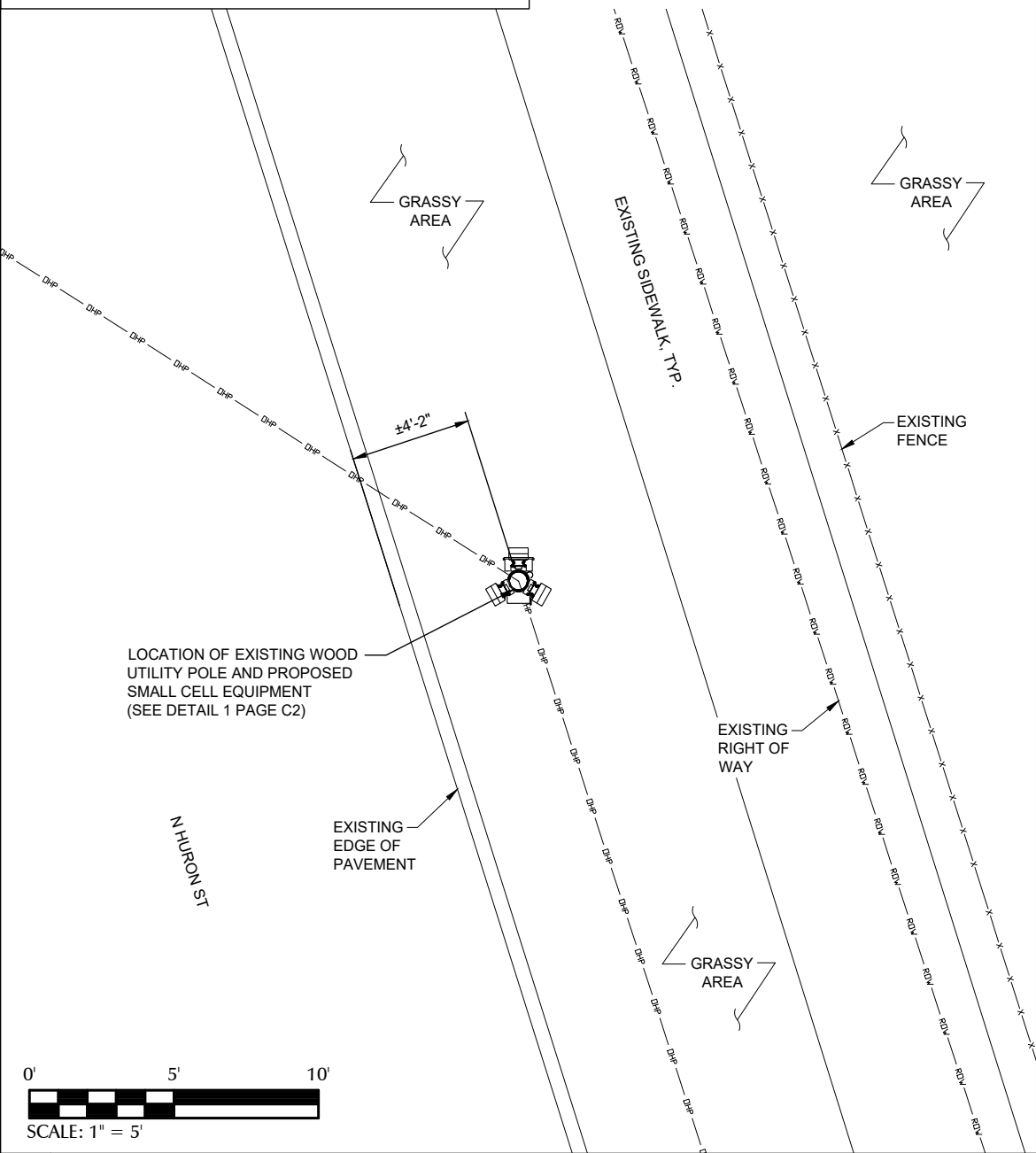
C1

REVISION:

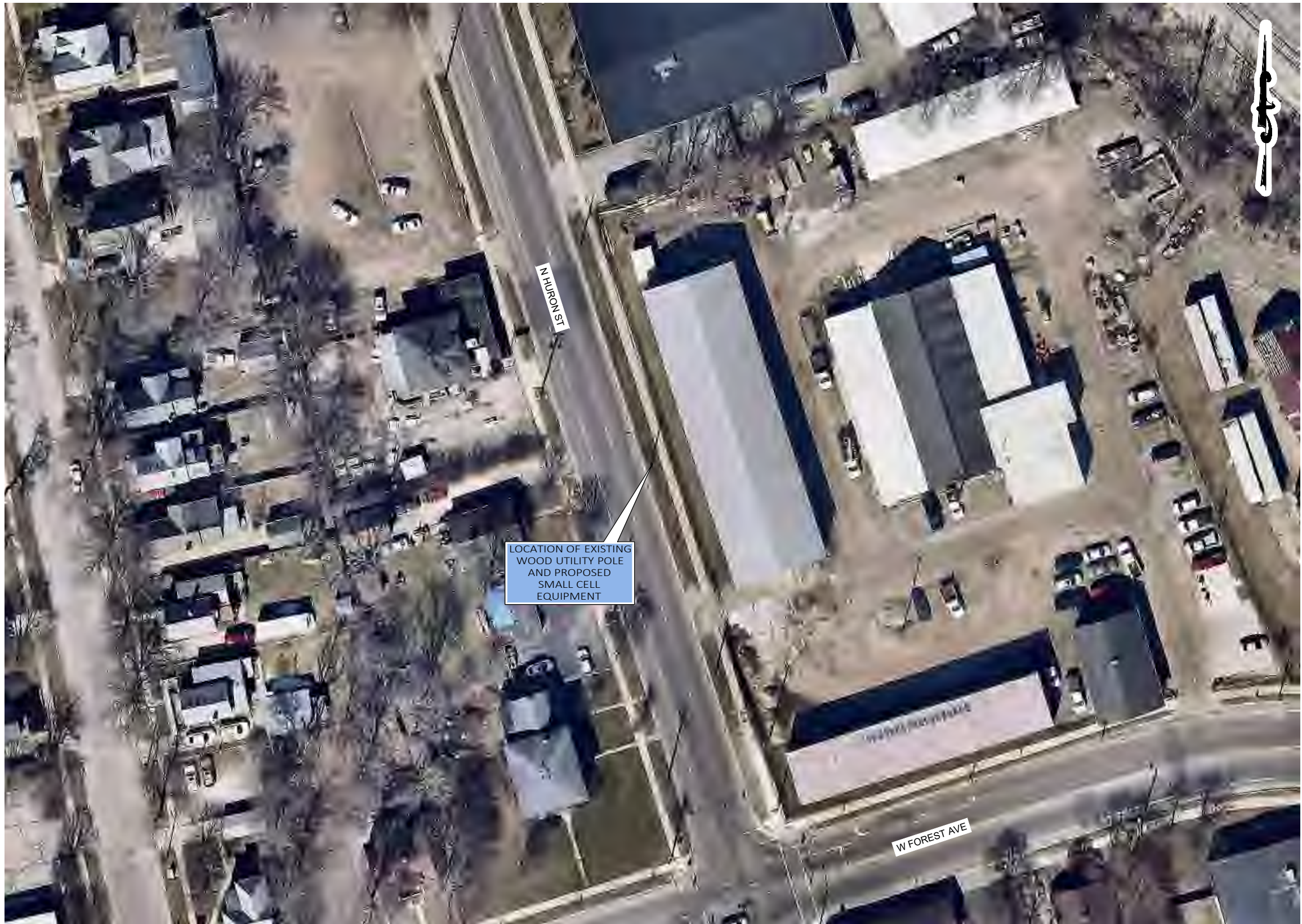
1



1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT



PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

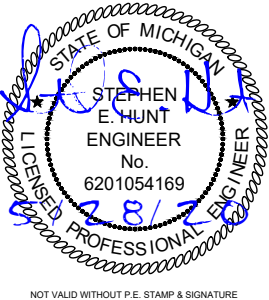
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CHECKED BY: CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
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0	01/31/20	CDM	CONSTRUCTION ISSUE
A	01/30/20	MDR	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME: 45523
ADDRESS: 14 W FOREST AVE.
YPSILANTI, MI 48197
COUNTY: WASHTENAW
LATITUDE: 42° 14' 58.849" N
LONGITUDE: 83° 36' 54.556" W
DESIGN TYPE: COLOCATION

SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO. C1A
REVISION: 1

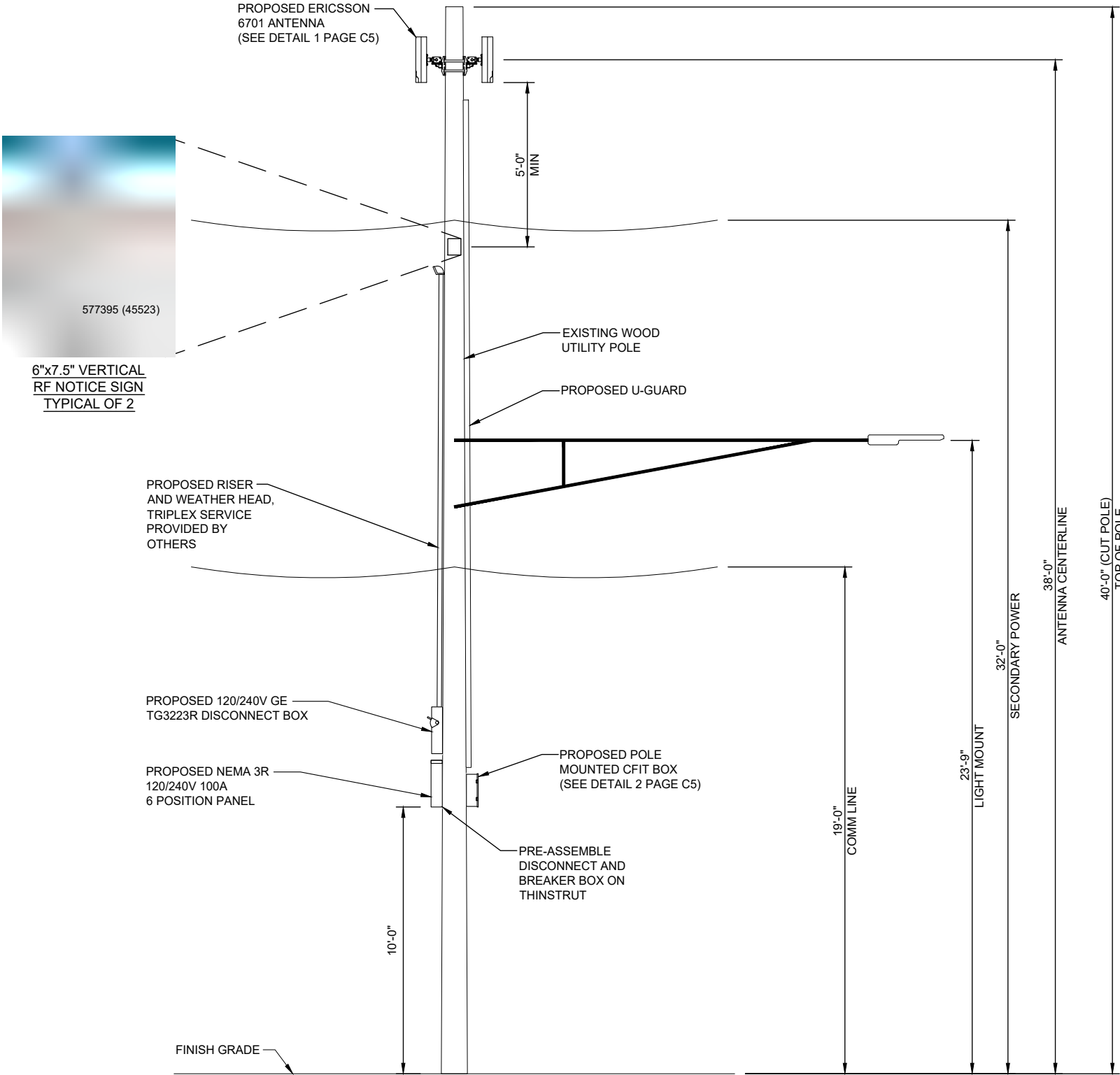
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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MDR

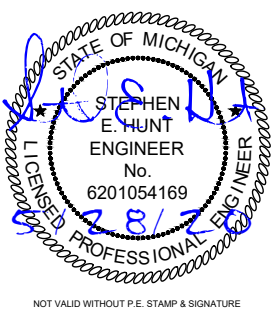
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CTD

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A	01/30/20	MDR	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME: 45523

ADDRESS:
14 W FOREST AVE.
YPSILANTI, MI 48197

COUNTY:
WASHTENAW

LATITUDE:
42° 14' 58.849" N

LONGITUDE:
83° 36' 54.556" W

DESIGN TYPE:
COLOCATION

SHEET TITLE:

POLE ELEVATION

DRAWING NO.

C2

REVISION:

1

N.T.S.

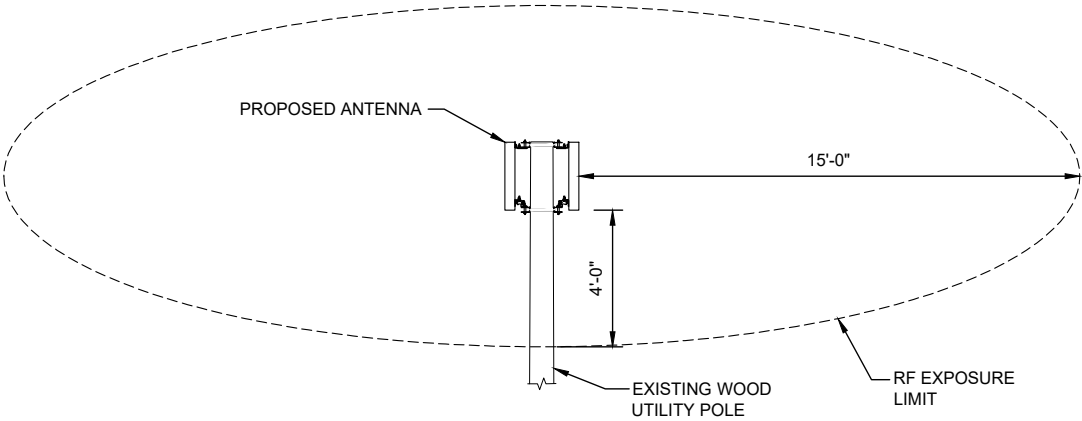
INSTALL ON BREAKER PANEL

1 POLE ELEVATION

45523

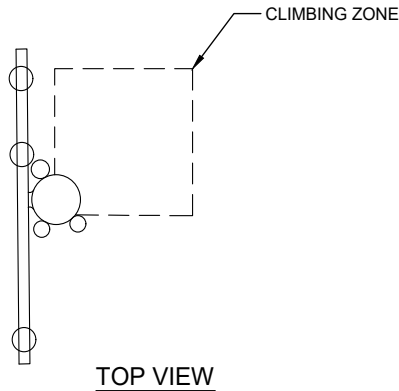
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT. OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
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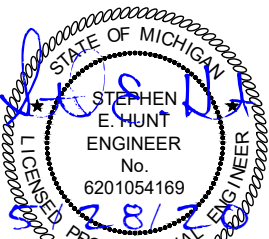
CHECKED BY:

CTD

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NOT VALID WITHOUT P.E. STAMP & SIGNATURE

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COUNTY:
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42° 14' 58.849" N

LONGITUDE:
83° 36' 54.556" W

DESIGN TYPE:
COLOCATION

SHEET TITLE:

SITE DETAILS

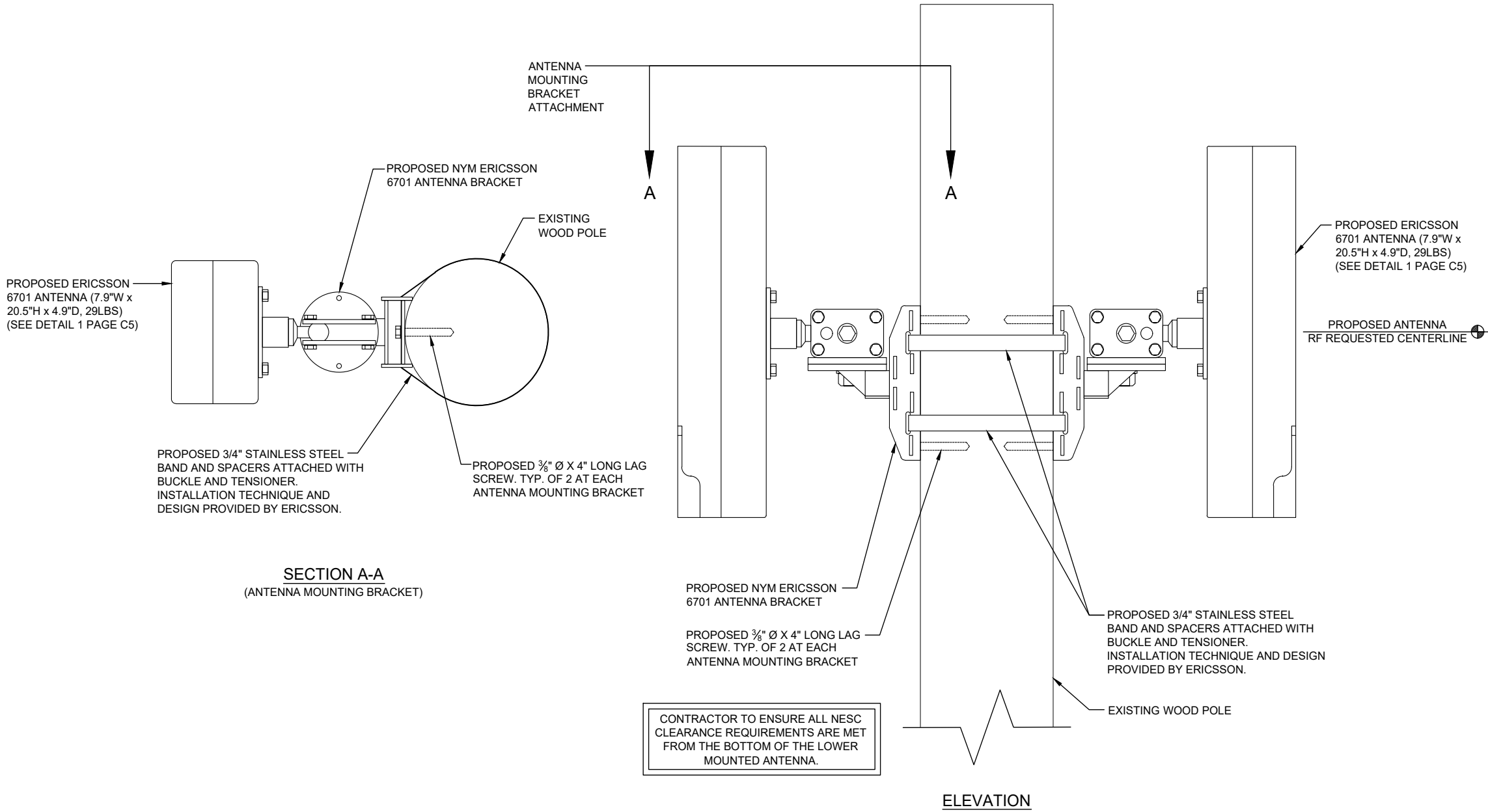
DRAWING NO.

C3

REVISION:

1

1 EQUIPMENT CU-FT. TABLE



PREPARED FOR:



PREPARED BY:



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HIXSON, TN 37343
PH: 423-843-9500
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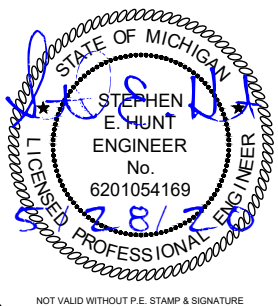
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CTD

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A	01/30/20	MDR	PRELIMINARY REVIEW

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45523

ADDRESS:

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YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 58.849" N

LONGITUDE:

83° 36' 54.556" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

REVISION:

1

Frequency	GR950
1BW	15.0 dBm
12BW	15.0 dBm
13BW	15.0 dBm
14BW	15.0 dBm
15BW	15.0 dBm
16BW	15.0 dBm
17BW	15.0 dBm
18BW	15.0 dBm
19BW	15.0 dBm
20BW	15.0 dBm
21BW	15.0 dBm
22BW	15.0 dBm
23BW	15.0 dBm
24BW	15.0 dBm
25BW	15.0 dBm
26BW	15.0 dBm
27BW	15.0 dBm
28BW	15.0 dBm
29BW	15.0 dBm
30BW	15.0 dBm
31BW	15.0 dBm
32BW	15.0 dBm
33BW	15.0 dBm
34BW	15.0 dBm
35BW	15.0 dBm
36BW	15.0 dBm
37BW	15.0 dBm
38BW	15.0 dBm
39BW	15.0 dBm
40BW	15.0 dBm
41BW	15.0 dBm
42BW	15.0 dBm
43BW	15.0 dBm
44BW	15.0 dBm
45BW	15.0 dBm
46BW	15.0 dBm
47BW	15.0 dBm
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91BW	15.0 dBm
92BW	15.0 dBm
93BW	15.0 dBm
94BW	15.0 dBm
95BW	15.0 dBm
96BW	15.0 dBm
97BW	15.0 dBm
98BW	15.0 dBm
99BW	15.0 dBm
100BW	15.0 dBm

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ
DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:



PREPARED BY:



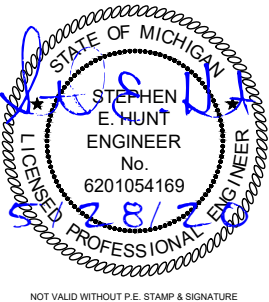
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CHECKED BY:	CTD

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0	01/31/20	CDM	CONSTRUCTION ISSUE
A	01/30/20	MDR	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:	45523
ADDRESS:	14 W FOREST AVE. YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 14' 58.849" N
LONGITUDE:	83° 36' 54.556" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:
EQUIPMENT DETAILS

DRAWING NO.	REVISION:
C5	1

1	6701 ANTENNA	N.T.S.	2	CFIT BOX	N.T.S.
---	--------------	--------	---	----------	--------

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

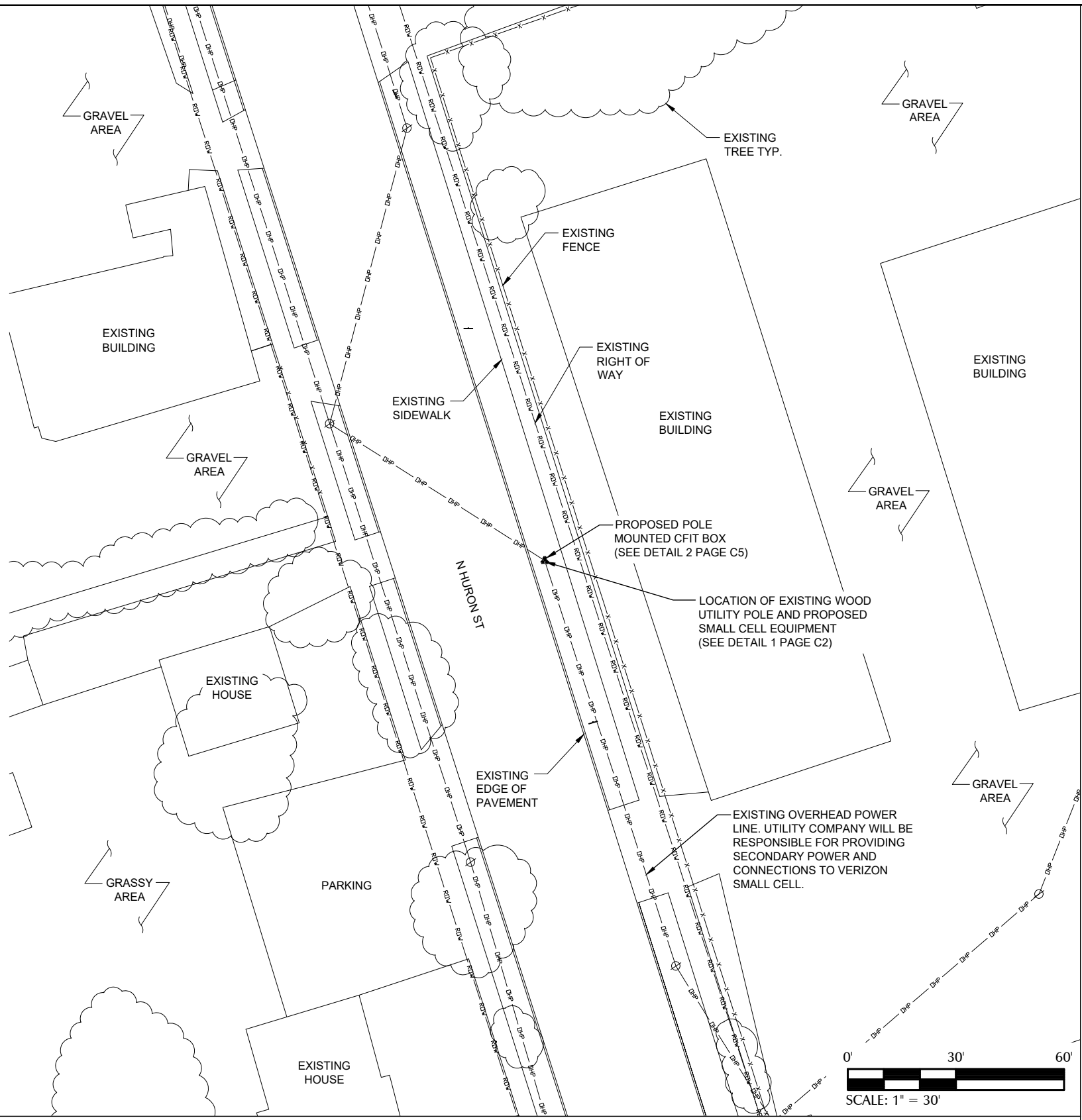
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

WIRE SIZE	SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)		CONDUIT SIZE
	ALUMINUM	COPPER	
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	▣
UNDERGROUND POWER	UGP	STREET SIGN	—
OVERHEAD POWER	DHP DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	UGT	UTILITY POLE	○
OVERHEAD TELCO	DHT	LIGHT POLE	●
GAS LINE	GAS GAS	WATER VALVE	⊗
FENCE	x x x x x x	MANHOLE	⊙
WOOD FENCE	o o o o o o	GAS VALVE	⊗
SEWER LINE	SWR SWR	FIRE HYDRANT	⊙
WATER LINE	VTR	TELCO PEDESTAL	⊞
HYBRID CABLE	HYB	ELECTRICAL BOX	⊞
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	ROW ROW		
PROPERTY LINE	PL PL		



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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CHECKED BY:	CTD

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ENGINEER'S STAMP:

STATE OF MICHIGAN

STEPHEN E. HUNT
ENGINEER
No. 6201054169
2/28/20

NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME: 45523

ADDRESS: 14 W FOREST AVE.
YPSILANTI, MI 48197

COUNTY: WASHTENAW

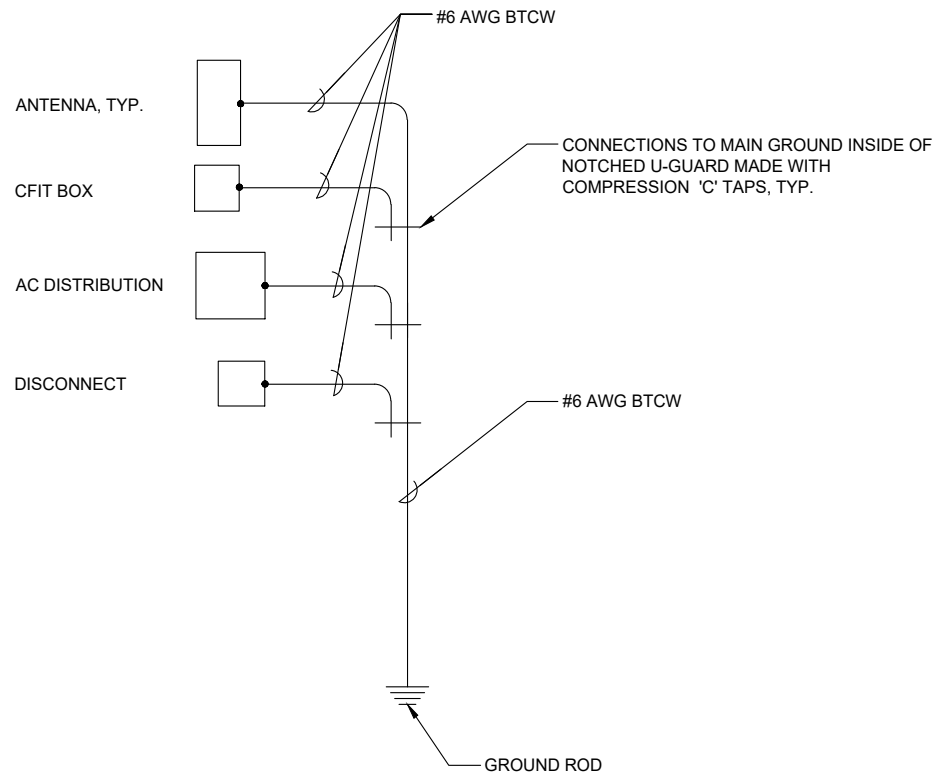
LATITUDE: 42° 14' 58.849" N

LONGITUDE: 83° 36' 54.556" W

DESIGN TYPE: COLOCATION

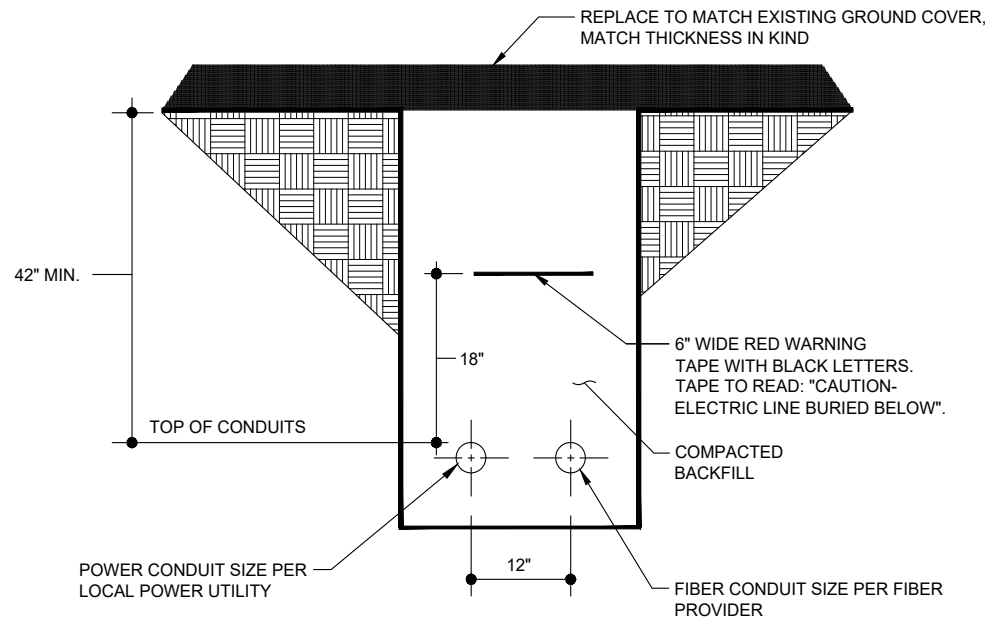
SHEET TITLE: UTILITY SITE PLAN

DRAWING NO. E1	REVISION: 1
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1 SINGLE POINT RADIAL GROUND DETAIL

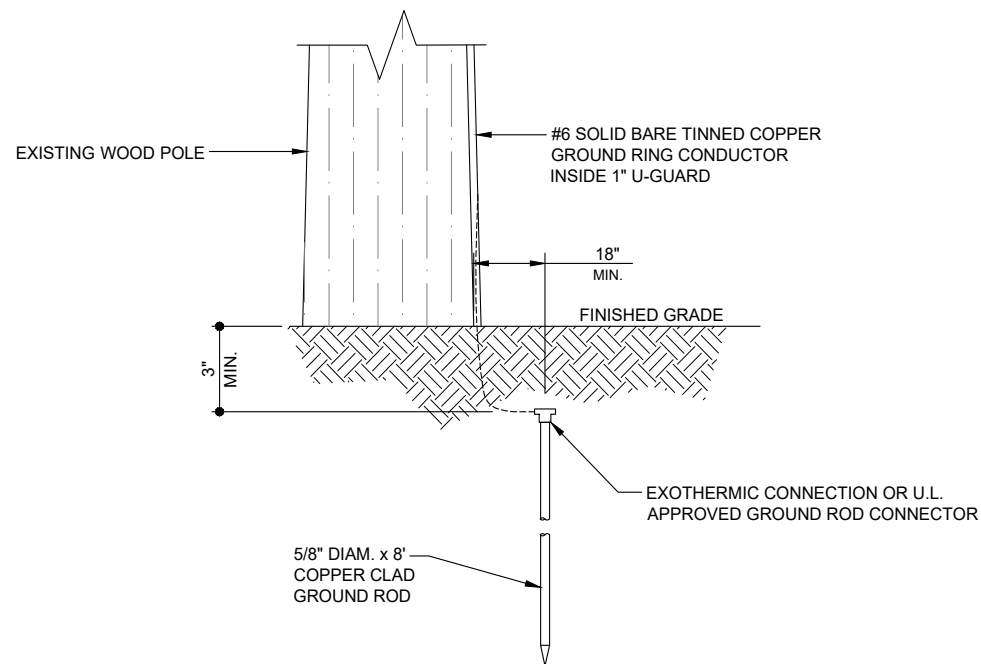
N.T.S.



NOTE: TYPICAL SPACING FOR ALL UNDERGROUND CONDUITS.

2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
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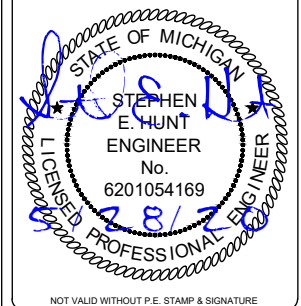
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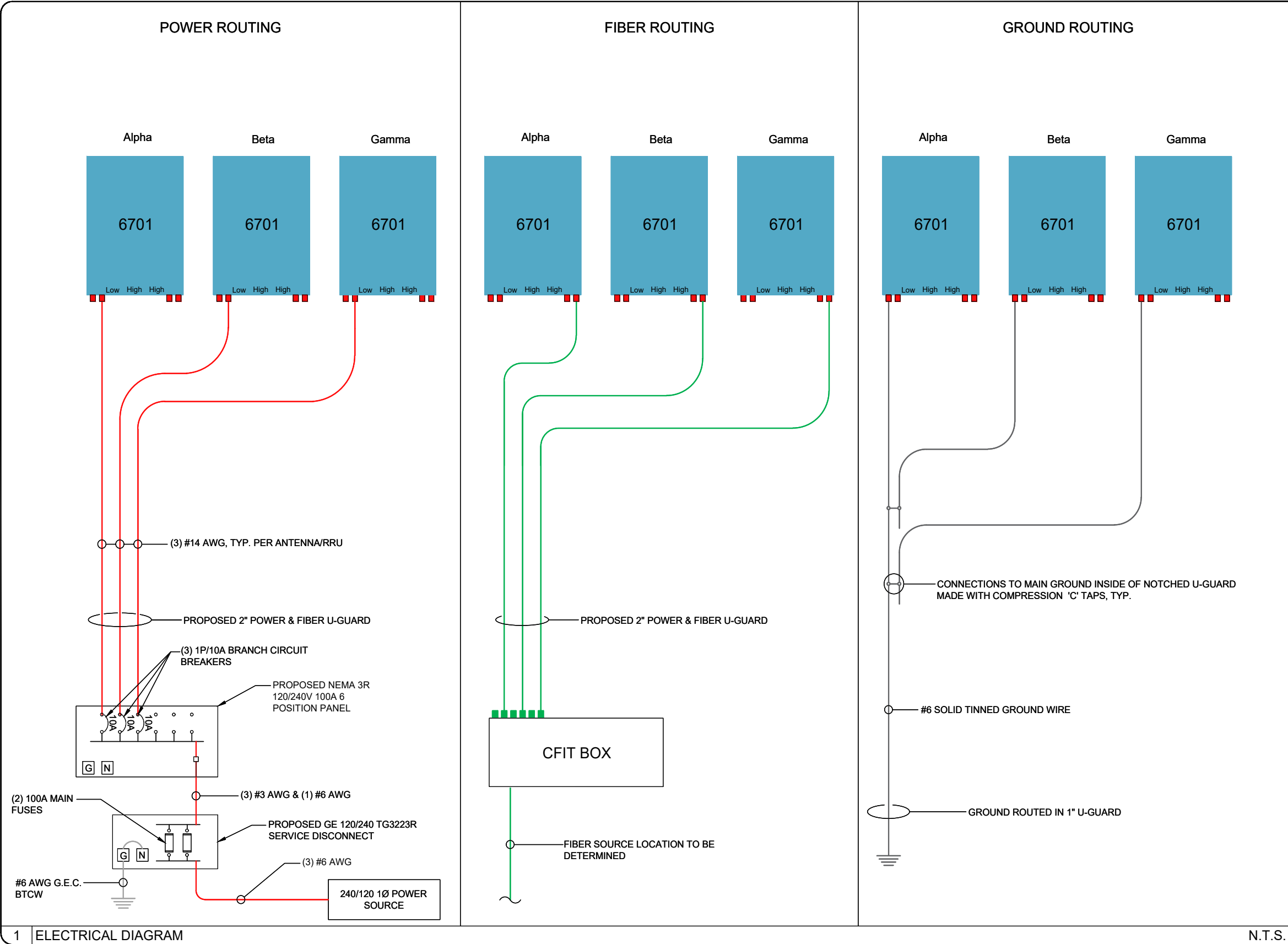
ELECTRICAL DETAILS

DRAWING NO.

E2

REVISION:

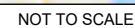
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SITE NAME:	45517
SITE ADDRESS: (ESTIMATED)	1201 ROOSEVELT ST YPSILANTI, MI 48197
COUNTY:	WASHTENAW
JURISDICTION:	CITY OF YPSILANTI
<u>SITE COORDINATES:</u>	
LATITUDE:	42° 14' 54.364" N
LATITUDE:	42.24843°
LONGITUDE:	83° 37' 55.345" W
LONGITUDE:	-83.63204°
ELEVATION:	±786'-1"
PROPERTY DEFINITION:	R.O.W.
FUZE PROJECT ID:	15899347
PSLC CODE:	577389
EXISTING POLE HEIGHT:	40'-0"



VICINITY MAP



CONTRACTOR TO CALL MICHIGAN
ONE-CALL SYSTEMS AT LEAST 72 HOURS
PRIOR TO DIGGING.

NOT TO SCALE

[illegible]

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT

MICHIGAN

TENAW COUNTY



TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

DRAWN BY:	USE
CHECKED BY:	CTD

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A	01/27/20	USE	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

SHEET TITLE:

TITLE SHEET

DRAWING NO.	REVISION:
T1	1

- GENERAL NOTES
1.

THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.

2.

THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.

3.

PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.

4.

THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.

5.

ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.

6.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.

7.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)

8.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.

9.

KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.

10.

PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.

11.

THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.

12.

ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1.

"TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.

2.

"SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.

3.

"AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.

4.

"ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.

5.

THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.

6.

WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.

7.

FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1.

THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.

2.

THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.

3.

IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1.

120/240V POWER REQUIRED FOR 3-WIRE SERVICE.

2.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.

3.

CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.

4.

ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.

5.

ALL EQUIPMENT TO BE BONDED.

6.

METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1.

GROUND TESTED AT 25 OHMS OR LESS.

2.

5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.

3.

#6 GROUND AND BOND WIRE.

4.

MOLDING, STAPLED EVERY 1' AND AT EACH END.

5.

GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1.

FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.

2.

IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.

3.

IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.

4.

RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.

5.

RISER STRAPS TO BE INSTALLED EVERY 5'.

6.

CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.

7.

ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1.

MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.

2.

MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.

3.

IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.

4.

IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.

5.

PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1.

NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".

2.

FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.

3.

ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.

4.

CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.

5.

90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).

6.

USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.

7.

USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.

8.

USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.

9.

FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1.

CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.

2.

CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.

3.

CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.

4.

CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.

5.

CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

815 482 7171

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509DRAWING NOTICE:
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REVISIONS

1	05/28/20	RGM	CONSTRUCTION ISSUE
0	01/31/20	CDM	CONSTRUCTION ISSUE
A	01/27/20	USE	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:

STATE OF MICHIGAN

STEPHEN E. HUNT

ENGINEER

No. 6201054169

LICENSED PROFESSIONAL ENGINEER

NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME: 45517

ADDRESS: 1201 ROOSEVELT ST
YPSILANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 14' 54.364" N

LONGITUDE: 83° 37' 55.345" W

DESIGN TYPE: COLOCATION

SHEET TITLE: GENERAL NOTES

DRAWING NO. GN1

REVISION: 1

Page 509 of 652

NOTES:

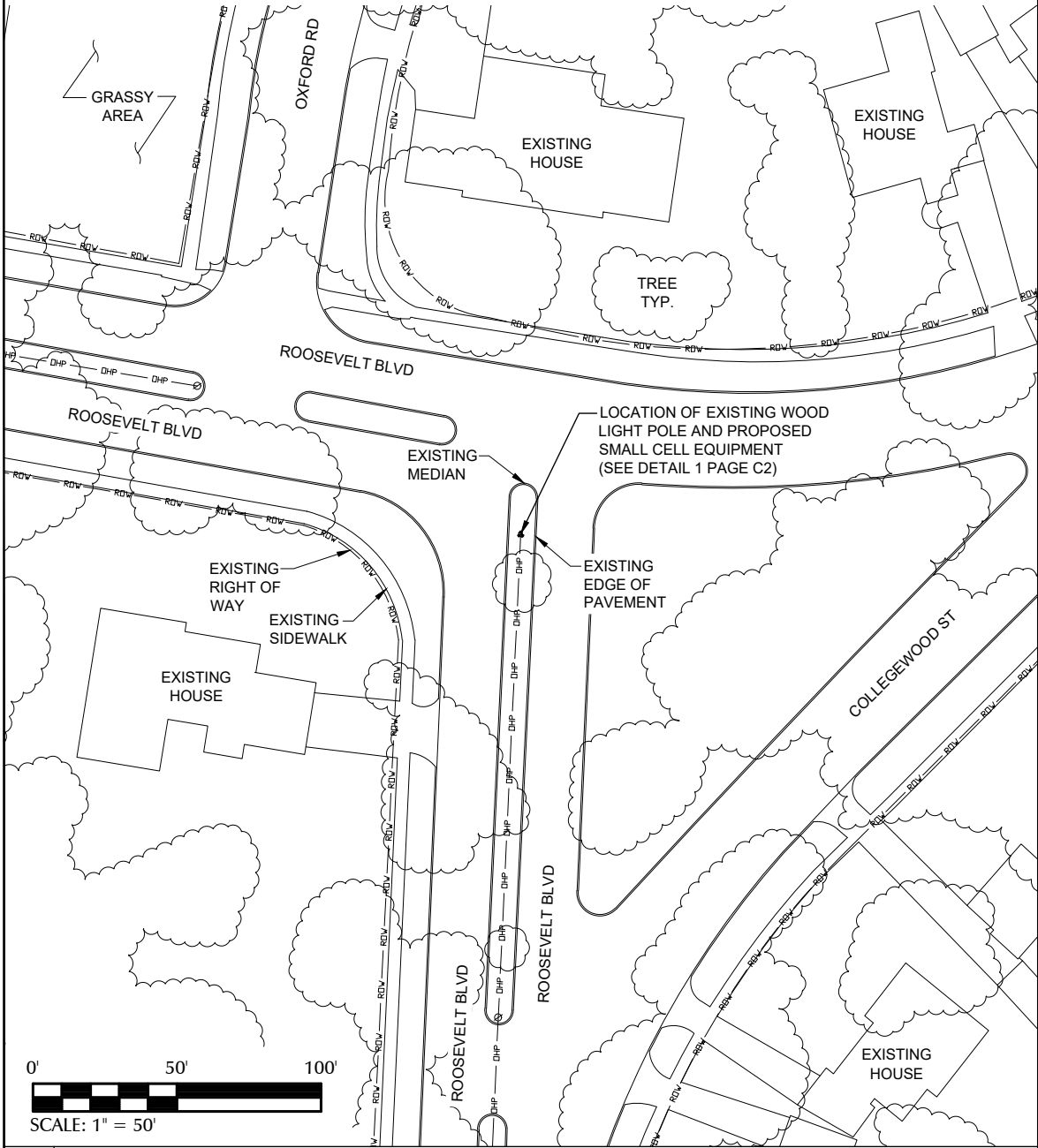
1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND

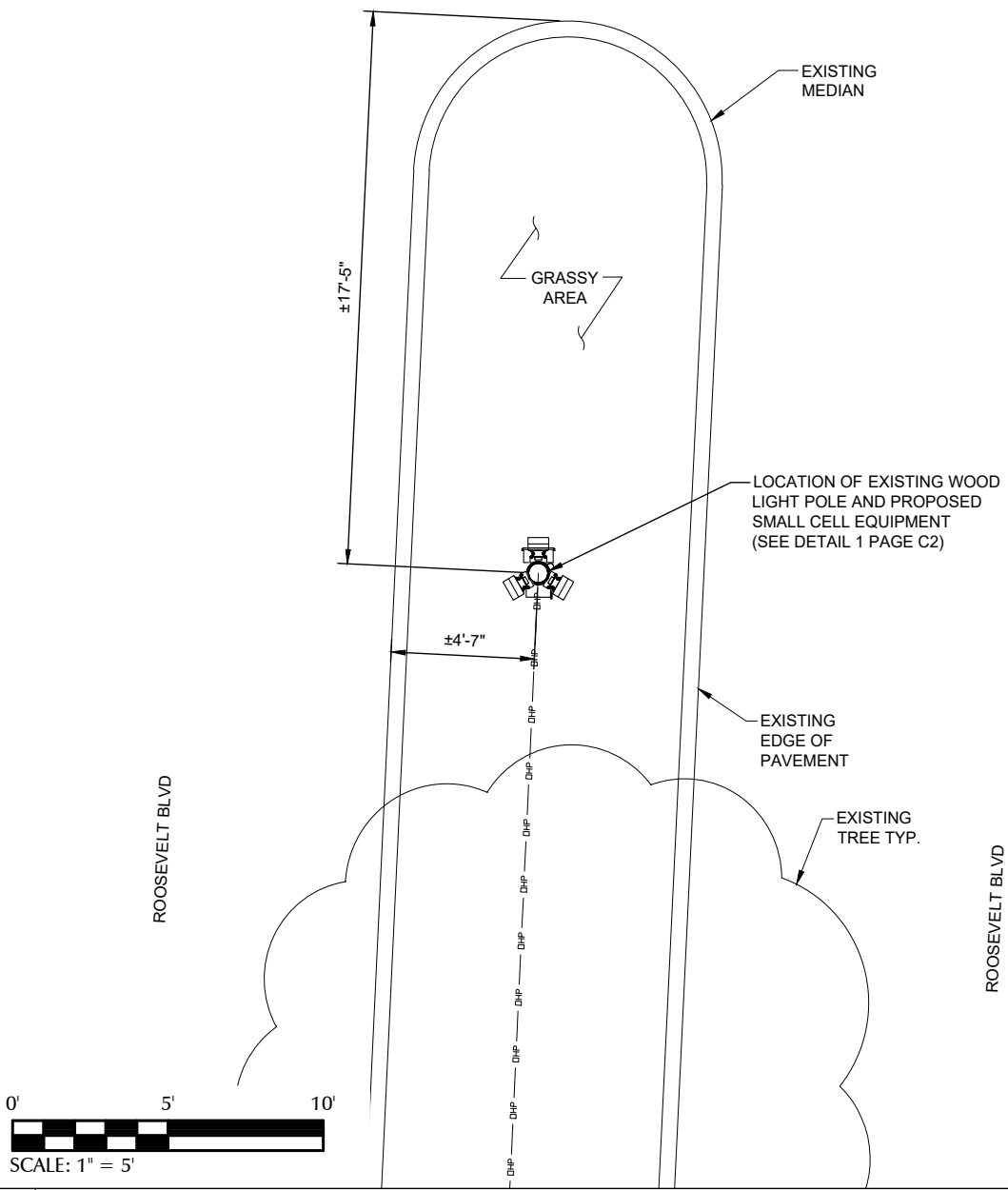
OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	+
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊗
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— X —	MANHOLE	⊗
WOOD FENCE	— O —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊗
WATER LINE	— VTR —	TELCO PEDESTAL	⊗
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊗
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— ROW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT

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PREPARED BY:

TeleCAD Wireless

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HIXSON, TN 37343
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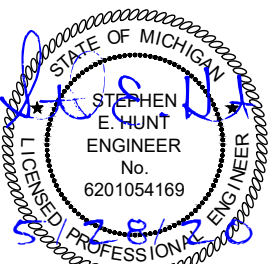
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CTD

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45517

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YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 54.364" N

LONGITUDE:

83° 37' 55.345" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

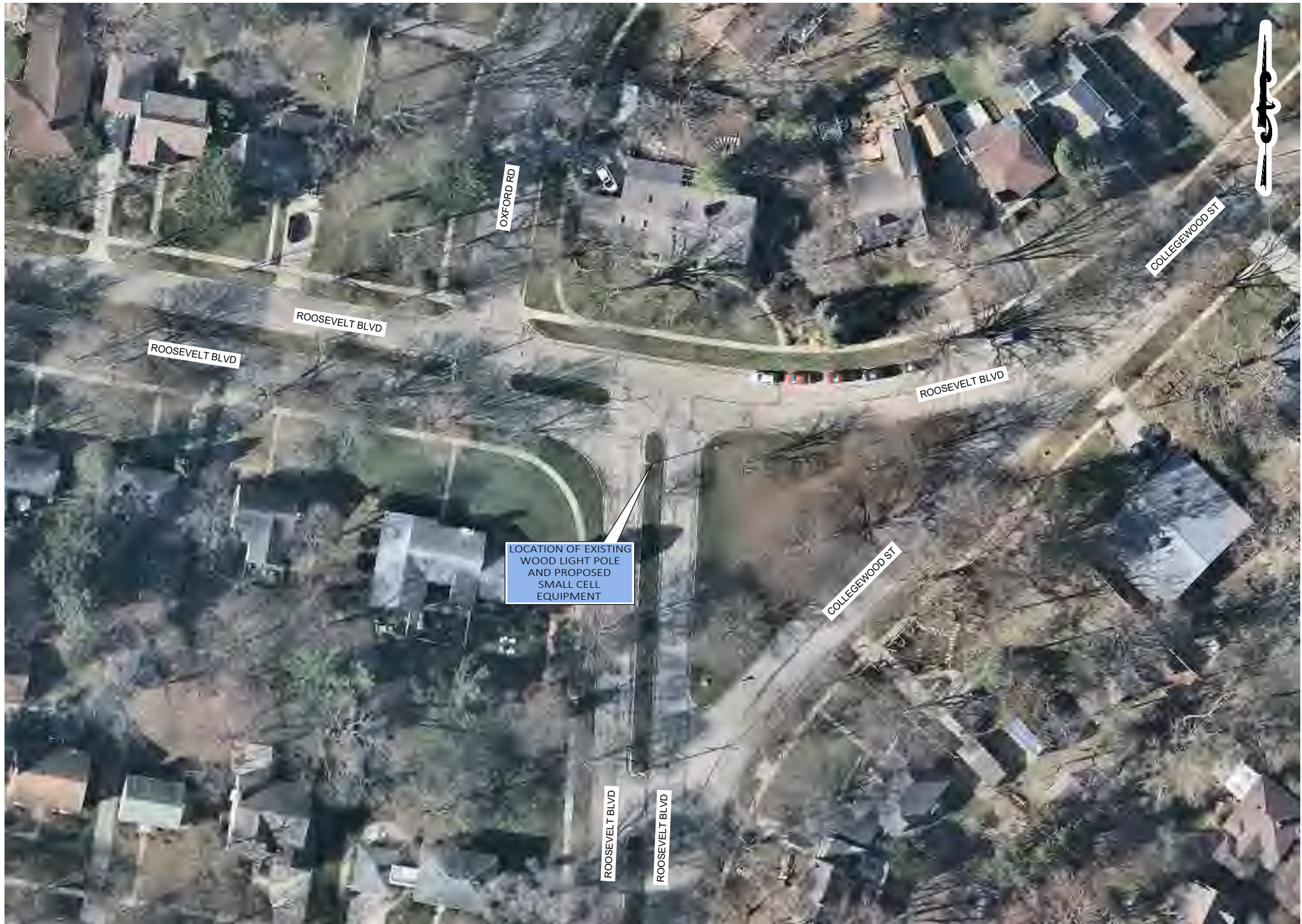
SITE LAYOUTS

DRAWING NO.

C1

REVISION:

1



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LATITUDE: 42° 14' 54.364" N

LONGITUDE: 83° 37' 55.345" W

DESIGN TYPE: COLOCATION

SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO.	REVISION:
C1A	1

1 OVERALL SITE LAYOUT - AERIAL IMAGERY

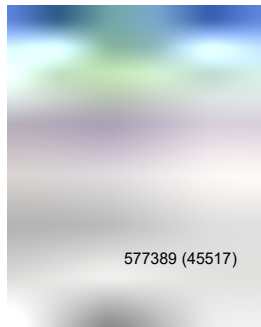
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



6"x7.5" VERTICAL
RF NOTICE SIGN
TYPICAL OF 2

PROPOSED ERICSSON
6701 ANTENNA
(SEE DETAIL 1 PAGE C5)

EXISTING WOOD
LIGHT POLE

PROPOSED RISER
AND WEATHER HEAD,
TRIPLEX SERVICE
PROVIDED BY
OTHERS

PROPOSED 120/240V GE
TG3223R DISCONNECT BOX

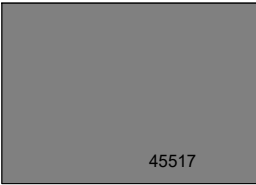
PROPOSED NEMA 3R
120/240V 100A
6 POSITION PANEL

PROPOSED U-GUARD

PROPOSED POLE
MOUNTED CFIT BOX
(SEE DETAIL 2 PAGE C5)

PRE-ASSEMBLE
DISCONNECT AND
BREAKER BOX ON
THINSTRUT

FINISH GRADE



INSTALL ON BREAKER PANEL

1 POLE ELEVATION

N.T.S.

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Wireless

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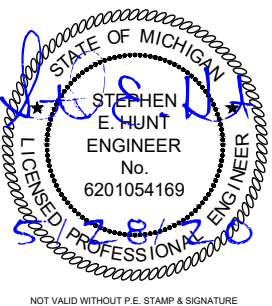
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YPSILANTI, MI 48197

COUNTY:
WASHTENAW

LATITUDE:
42° 14' 54.364" N

LONGITUDE:
83° 37' 55.345" W

DESIGN TYPE:
COLOCATION

SHEET TITLE:

POLE ELEVATION

DRAWING NO.

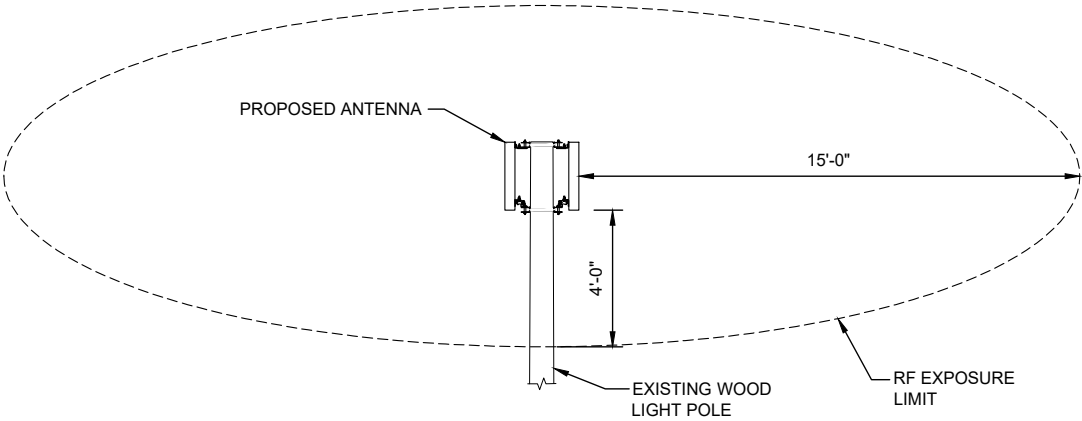
C2

REVISION:

1

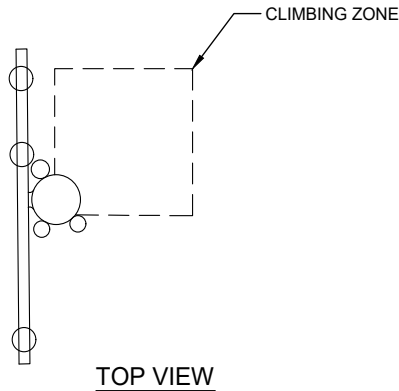
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT. OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.

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PREPARED BY:

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Wireless

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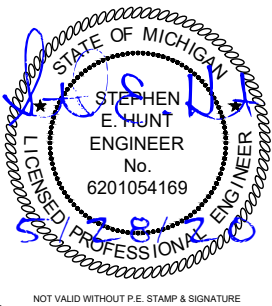
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COLOCATION

SHEET TITLE:

SITE DETAILS

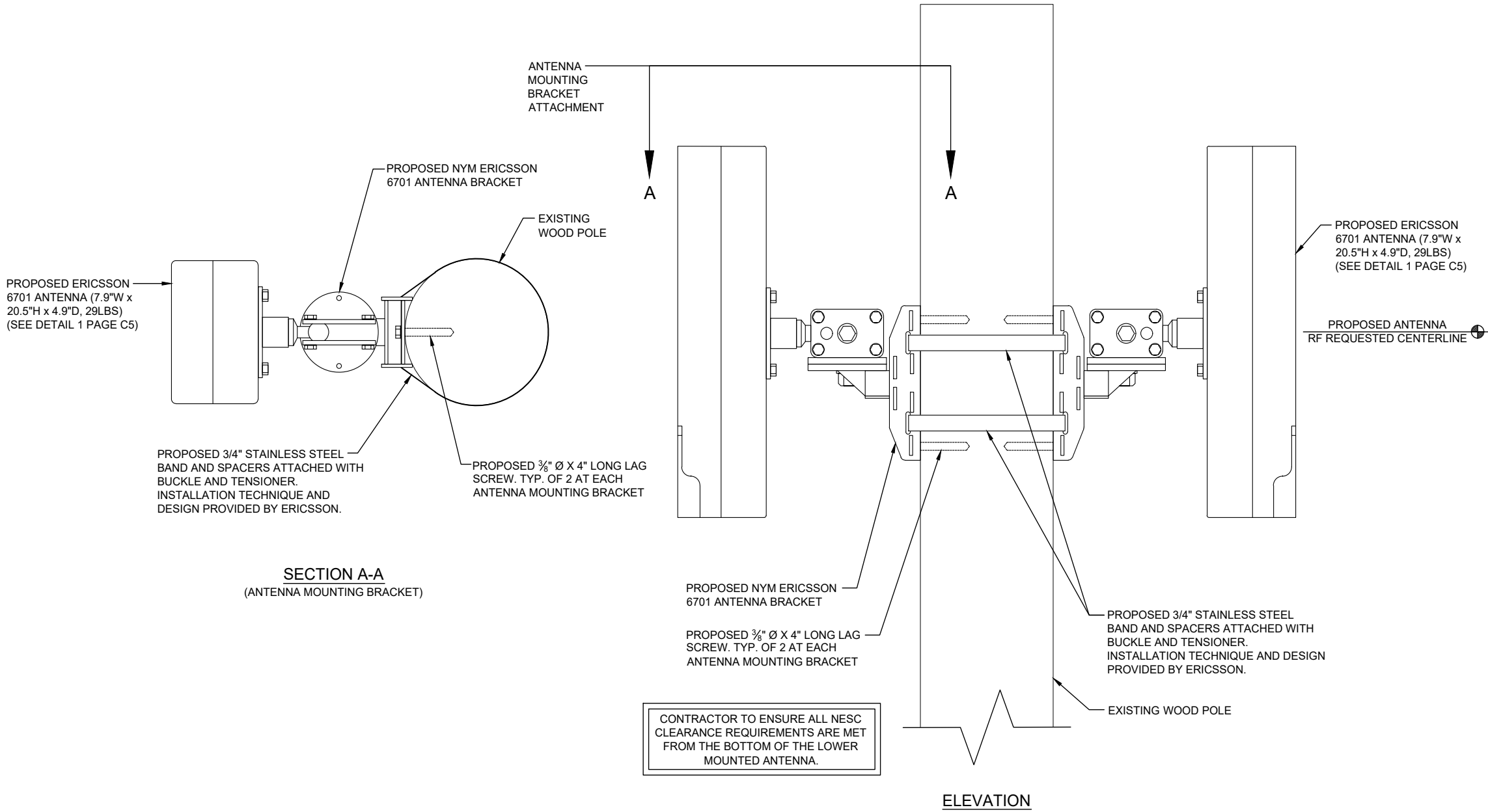
DRAWING NO.

C3

REVISION:

1

1 EQUIPMENT CU-FT. TABLE



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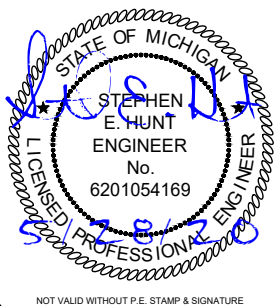
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45517

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YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 54.364" N

LONGITUDE:

83° 37' 55.345" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

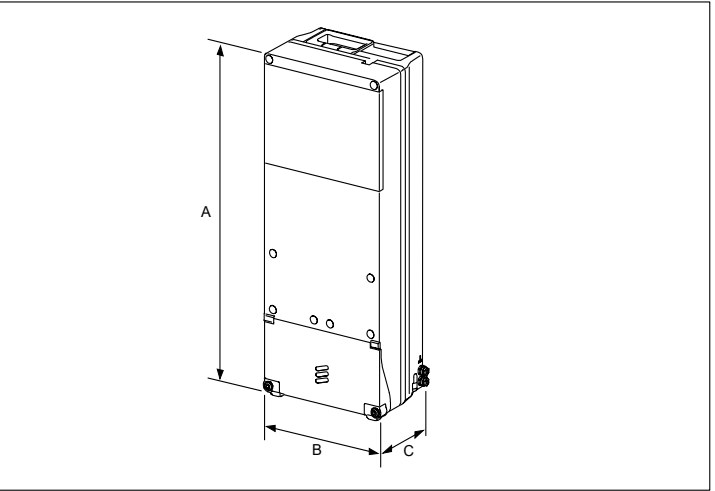
REVISION:

1

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS_REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless
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PH: 423-843-9500
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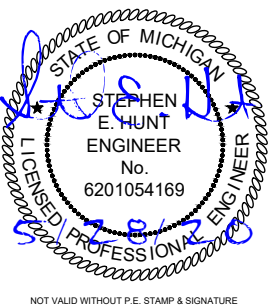
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CHECKED BY:	CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	05/28/20	RGM	CONSTRUCTION ISSUE
0	01/31/20	CDM	CONSTRUCTION ISSUE
A	01/27/20	USE	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:	45517
ADDRESS:	1201 ROOSEVELT ST YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 14' 54.364" N
LONGITUDE:	83° 37' 55.345" W
DESIGN TYPE:	COLOCATION

EQUIPMENT DETAILS

DRAWING NO.	REVISION:
C5	1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

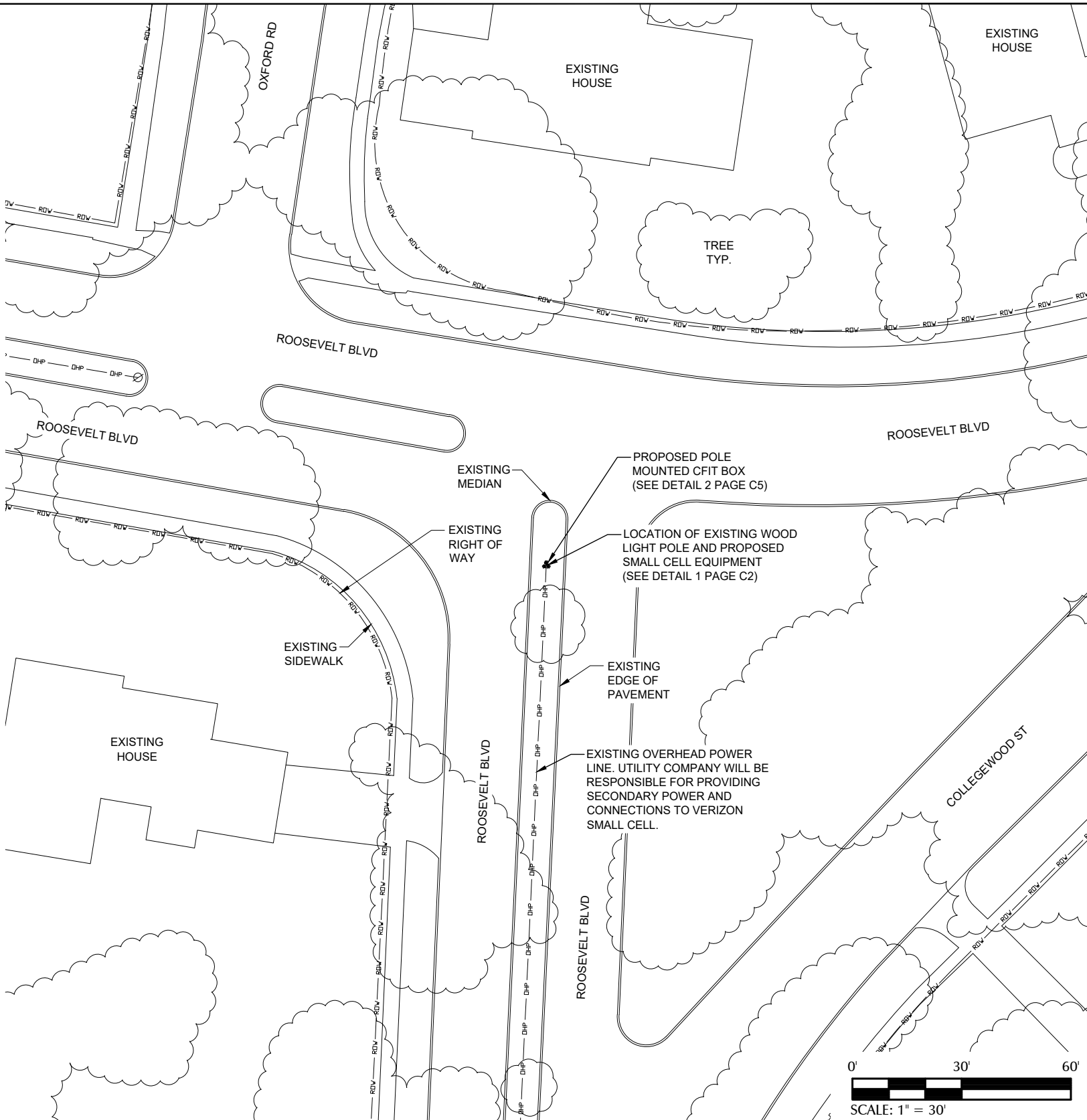
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

WIRE SIZE	SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)		CONDUIT SIZE
	ALUMINUM	COPPER	
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHJ	CATCH BASIN	▣
UNDERGROUND POWER	UGP	STREET SIGN	—
OVERHEAD POWER	DHP DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	UGT	UTILITY POLE	⊗
OVERHEAD TELCO	DHT	LIGHT POLE	⊙
GAS LINE	GAS GAS	WATER VALVE	⊗
FENCE	x x x x x x	MANHOLE	⊙
WOOD FENCE	o o o o o o	GAS VALVE	⊗
SEWER LINE	SWR SWR	FIRE HYDRANT	⊙
WATER LINE	VTR	TELCO PEDESTAL	⊙
HYBRID CABLE	HYB	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW RDW		
PROPERTY LINE	PL PL		



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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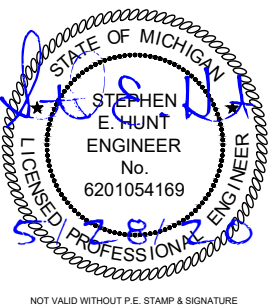
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42° 14' 54.364" N

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DESIGN TYPE:
COLOCATION

SHEET TITLE:

UTILITY SITE PLAN

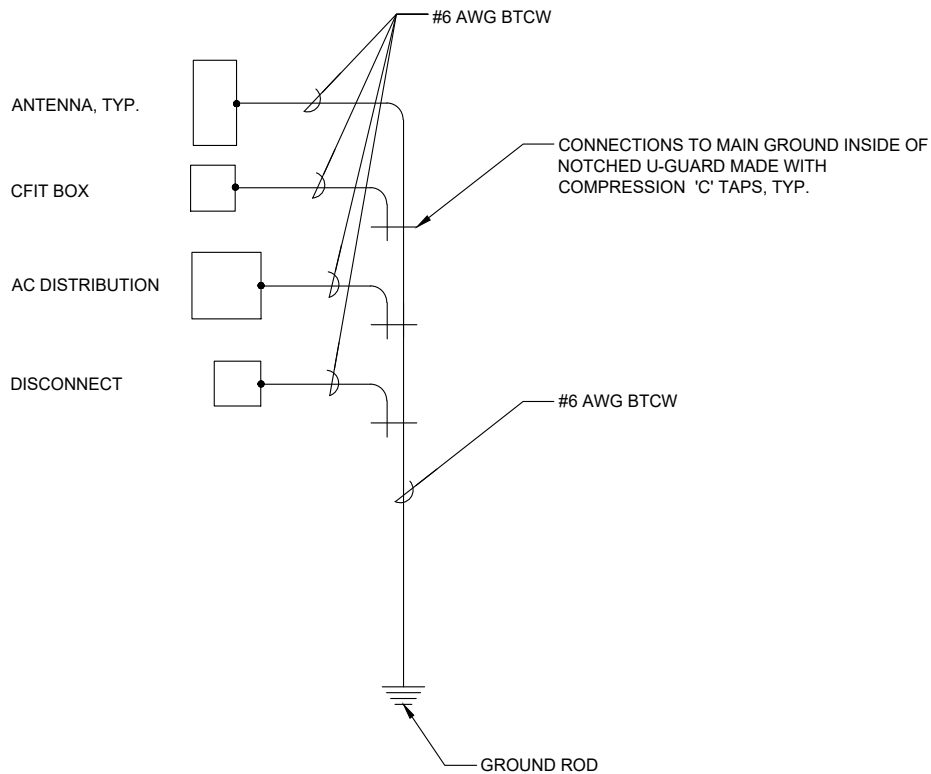
DRAWING NO.

E1

REVISION:

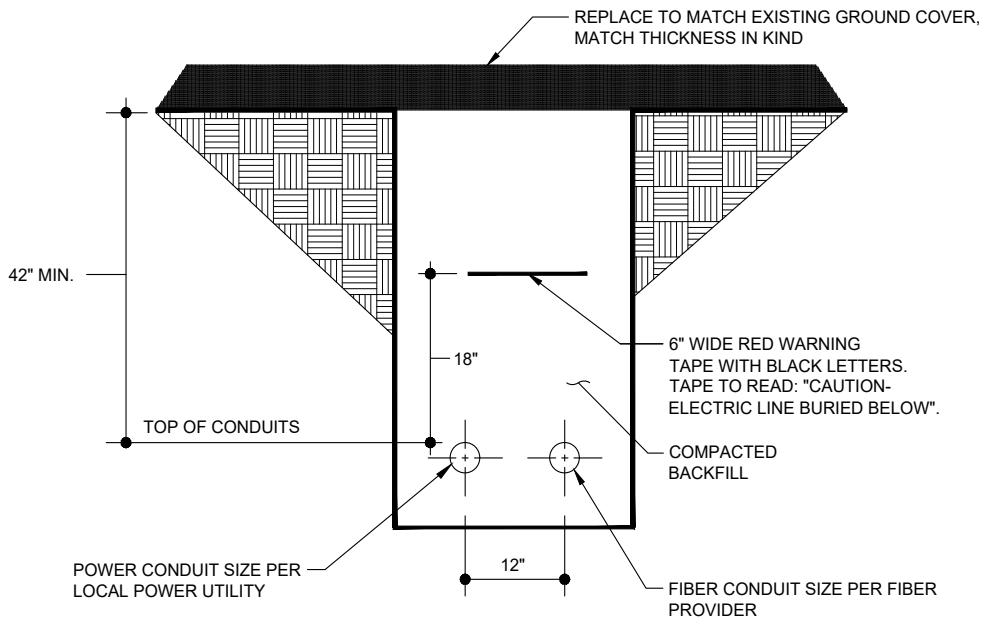
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1 UTILITY SITE PLAN



1 SINGLE POINT RADIAL GROUND DETAIL

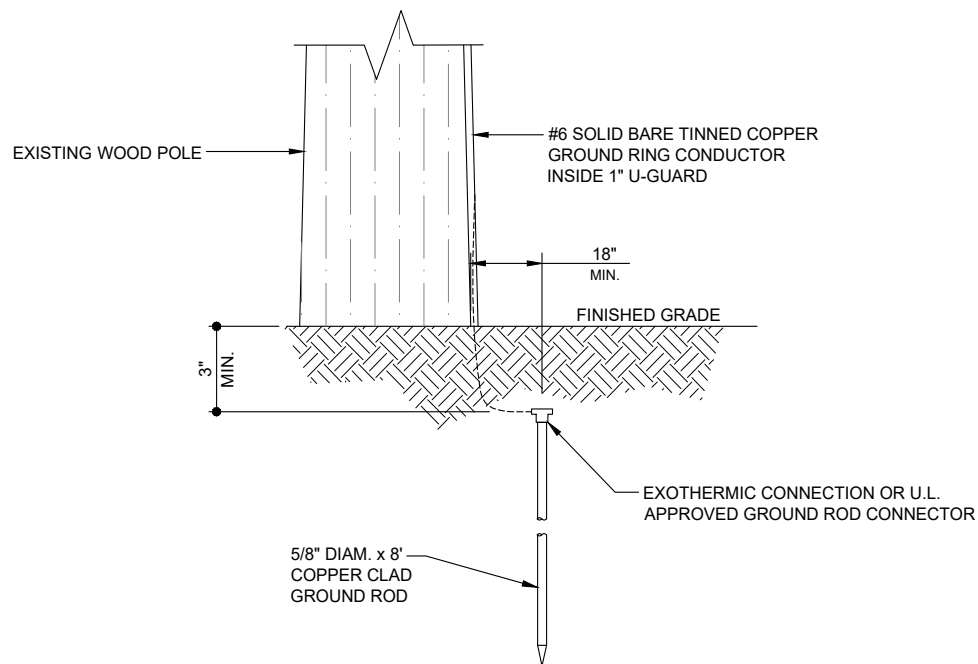
N.T.S.



NOTE: TYPICAL SPACING FOR ALL UNDERGROUND CONDUITS.

2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
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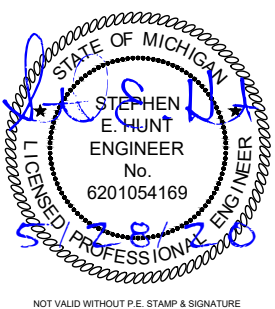
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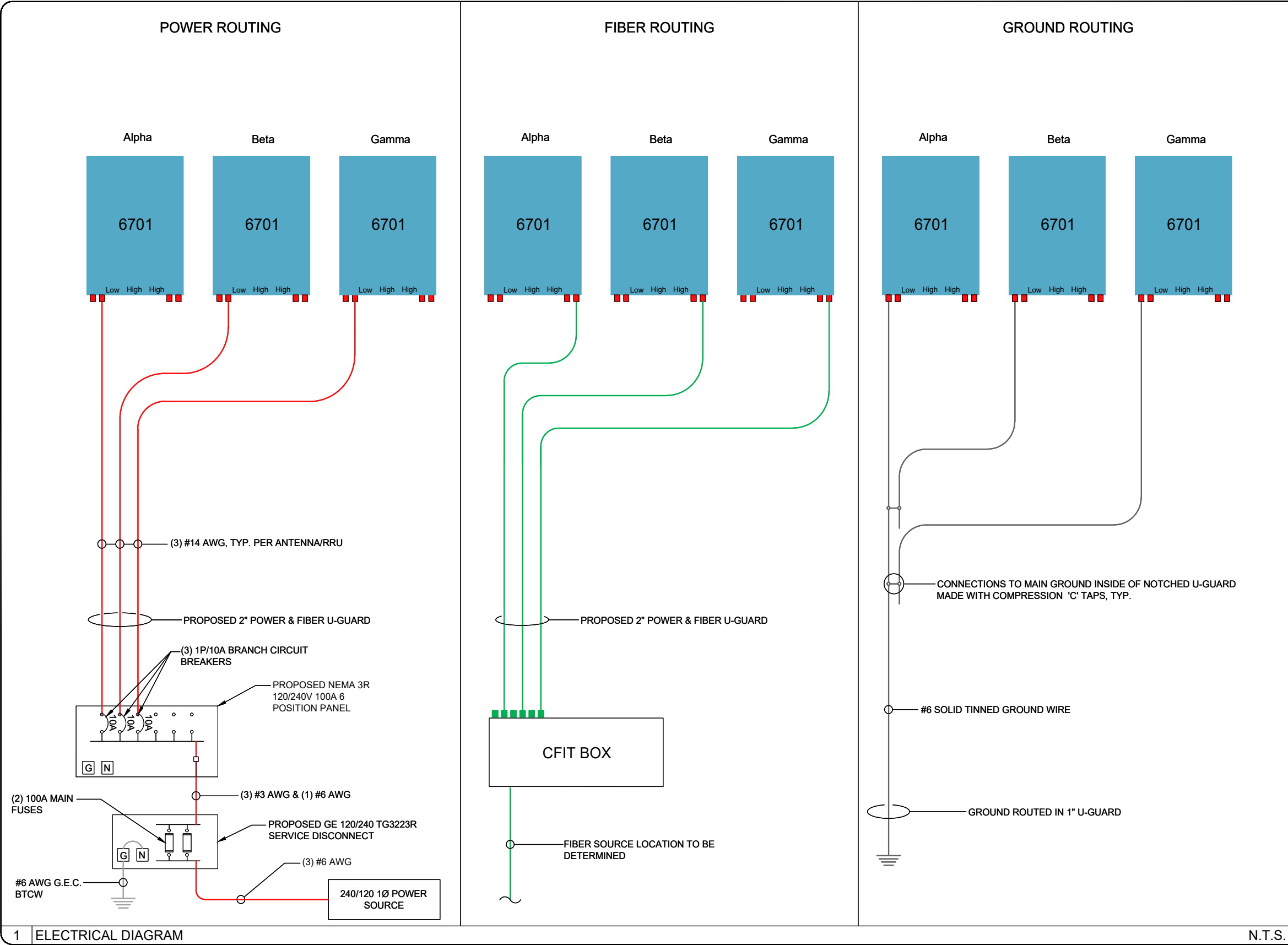
ELECTRICAL DETAILS

DRAWING NO.

E2

REVISION:

1



PROJECT SUMMARY

SITE NAME:	45524
SITE ADDRESS: (ESTIMATED)	805 CONGRESS ST YPSILANTI, MI 48197
COUNTY:	WASHTENAW
JURISDICTION:	CITY OF YPSILANTI
<u>SITE COORDINATES:</u>	
LATITUDE:	42° 14' 27.367" N
LATITUDE:	42.24094°
LONGITUDE:	83° 37' 25.736" W
LONGITUDE:	-83.62382°
ELEVATION:	±790'-5"
PROPERTY DEFINITION:	R.O.W.
FUZE PROJECT ID:	15899331
PSLC CODE:	577396
EXISTING POLE HEIGHT:	40'-0"

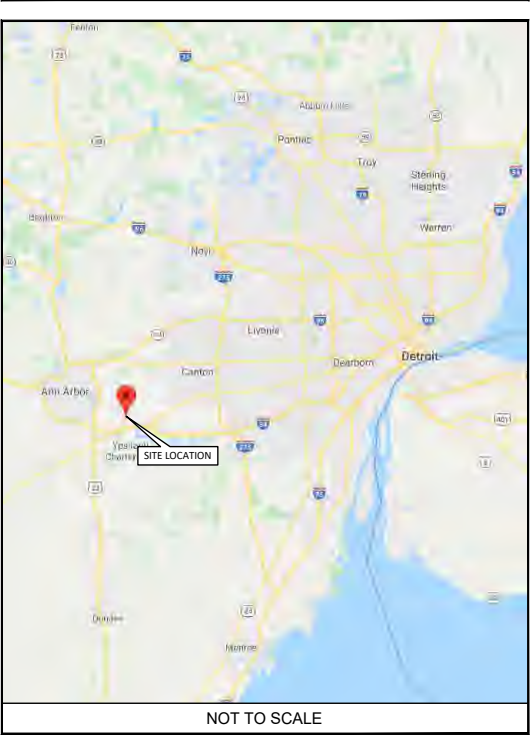
STRUCTURAL REVIEW

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.
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VICINITY MAP	LOCATION MAP
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VICINITY MAP



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LOCATION MAP



--



 1 (800) 482-7171
www.missdig.com



CONTRACTOR TO CALL MICHIGAN
ONE-CALL SYSTEMS AT LEAST 72 HOURS
PRIOR TO DIGGING.

SHEET INDEX

[illegible]

SCOPE OF WORK

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT

STATE COUNTY MAP



PREPARED FOR:

verizon ✓



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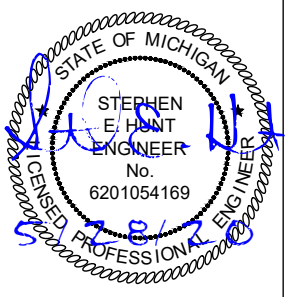
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NOT VALID WITHOUT P.E. STAMP & SIGNATURE

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COUNTY: WASHTENAW

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LONGITUDE: 83° 37' 25.736" W

DESIGN TYPE:
COLOCATION

SHEET TITLE:

TITLE SHEET

DRAWING NO.	REVISION:
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T1	1
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T1	1
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GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
5. THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
5. ALL EQUIPMENT TO BE BONDED.
6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 25 OHMS OR LESS.
2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
3. #6 GROUND AND BOND WIRE.
4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
5. GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
5. RISER STRAPS TO BE INSTALLED EVERY 5'.
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:

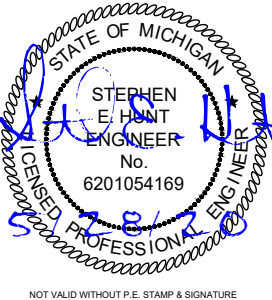


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SHEET TITLE:	GENERAL NOTES
--------------	---------------

DRAWING NO.	REVISION:
GN1	1

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND

OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊙
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— X —	MANHOLE	⊙
WOOD FENCE	— O —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊙
WATER LINE	— VTR —	TELCO PEDESTAL	⊙
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— RDW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
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FAX: 423-843-9509

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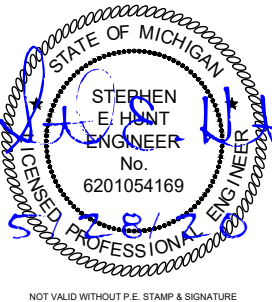
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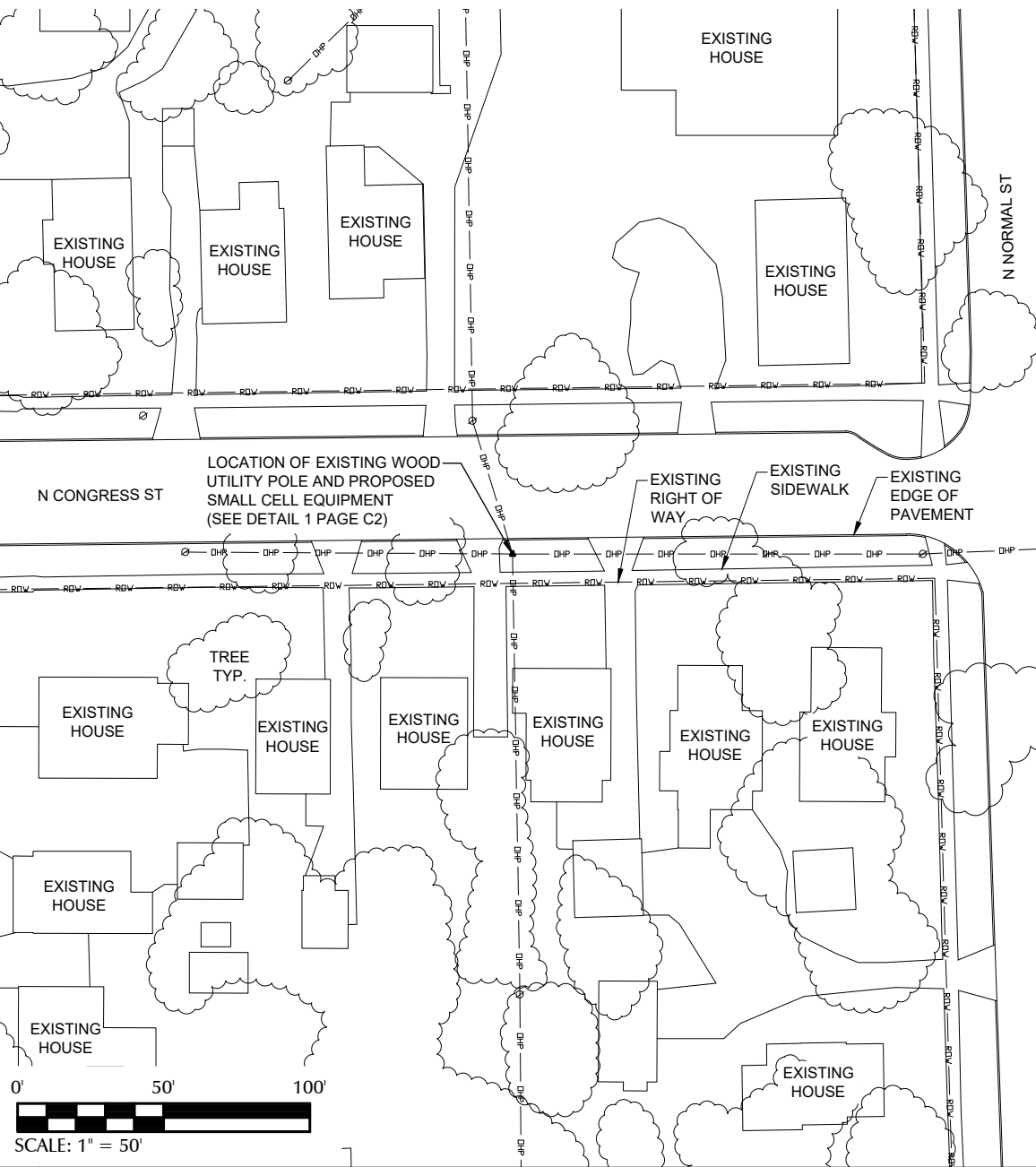
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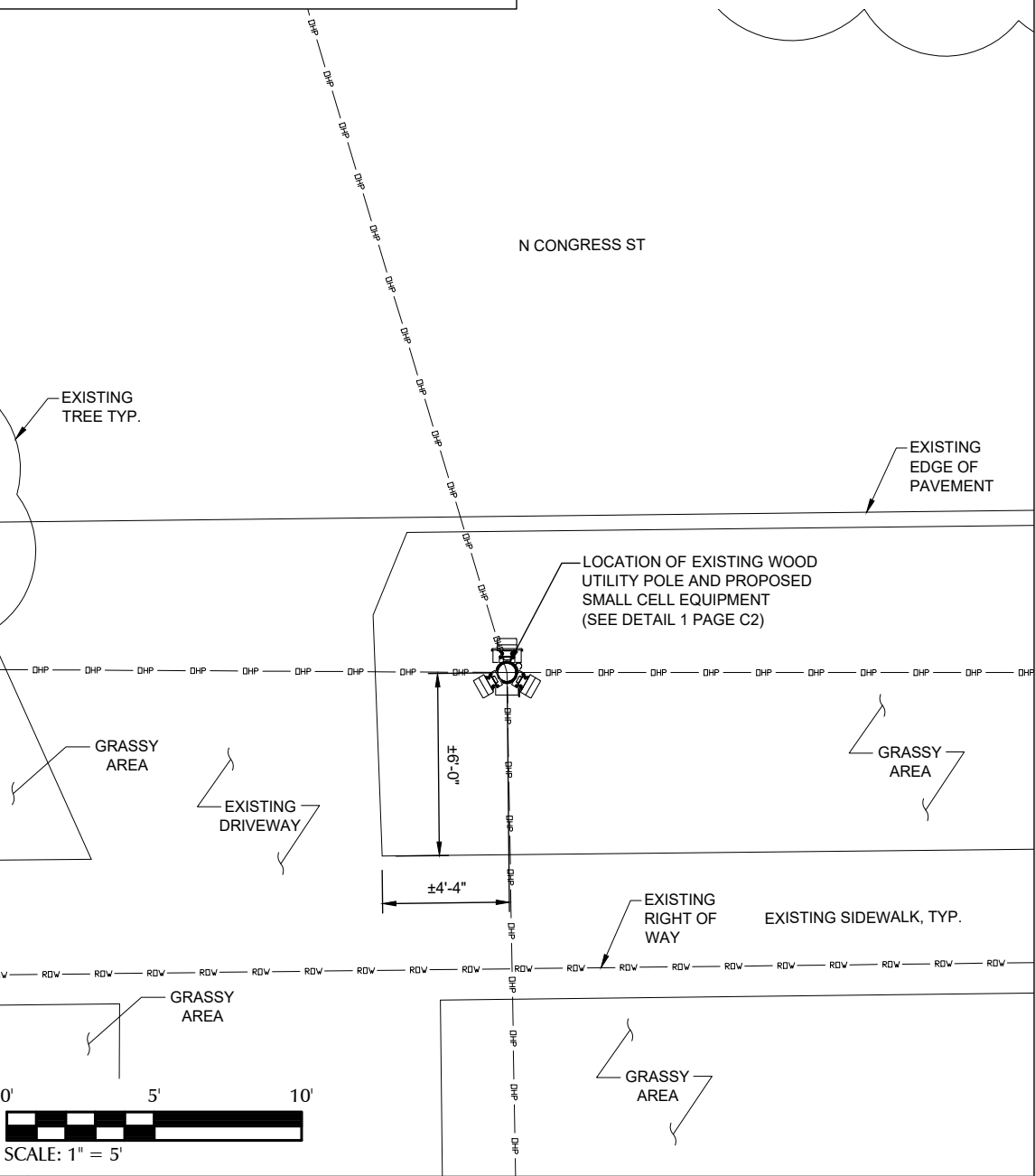
C1

REVISION:

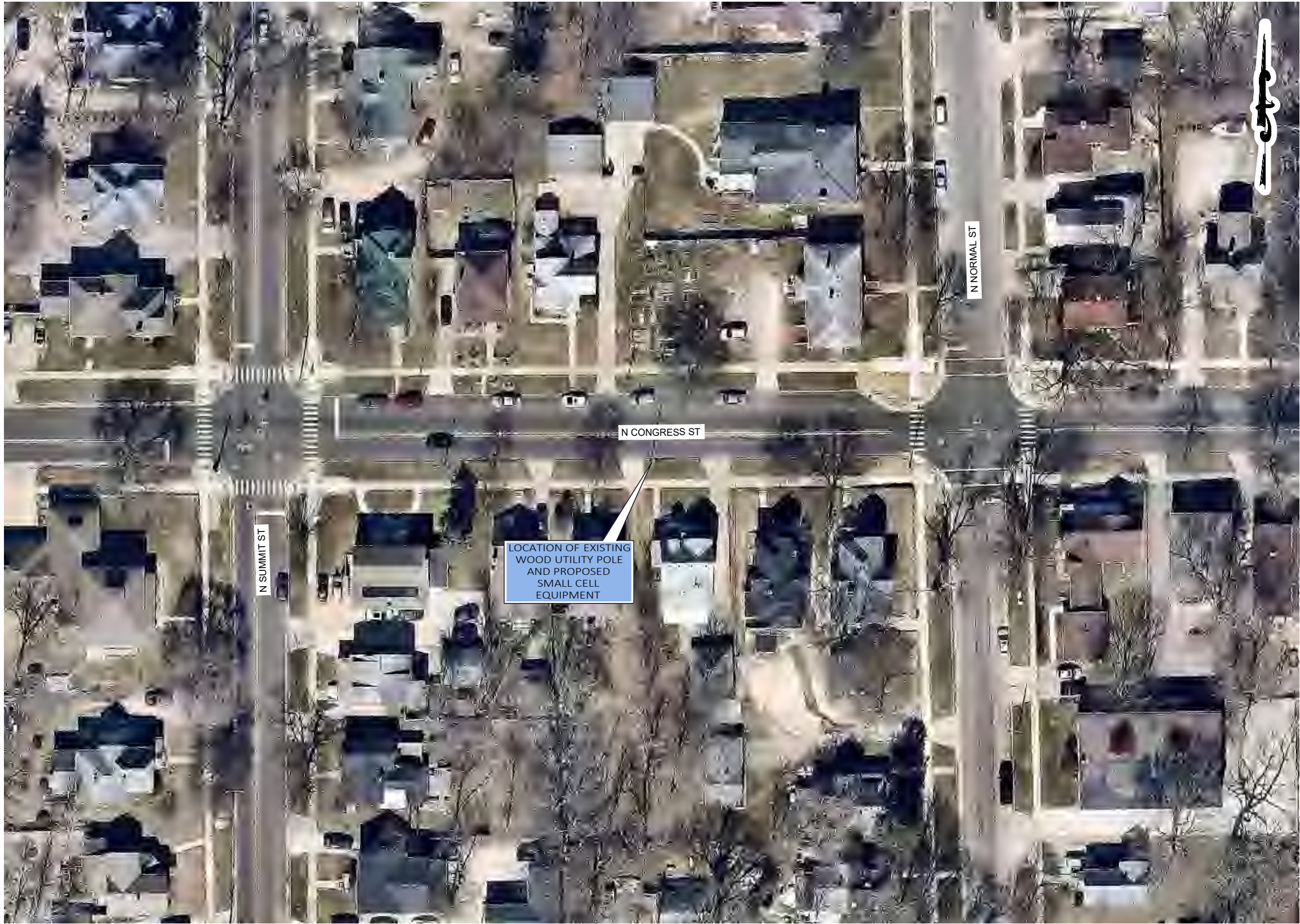
1



1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT



PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

DRAWING NOTICE:
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DRAWN BY:	USE
CHECKED BY:	CTD

REVISIONS			
1	05/28/20	JCJ	CONSTRUCTION ISSUE
0	01/31/20	CDM	CONSTRUCTION ISSUE
A	01/30/20	USE	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:



NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME:	45524
ADDRESS:	805 CONGRESS ST YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 14' 27.367" N
LONGITUDE:	83° 37' 25.736" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:	SITE LAYOUT - AERIAL IMAGERY
--------------	---------------------------------

DRAWING NO.	REVISION:
C1A	1

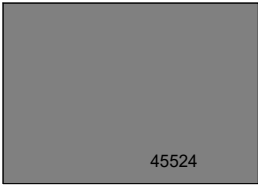
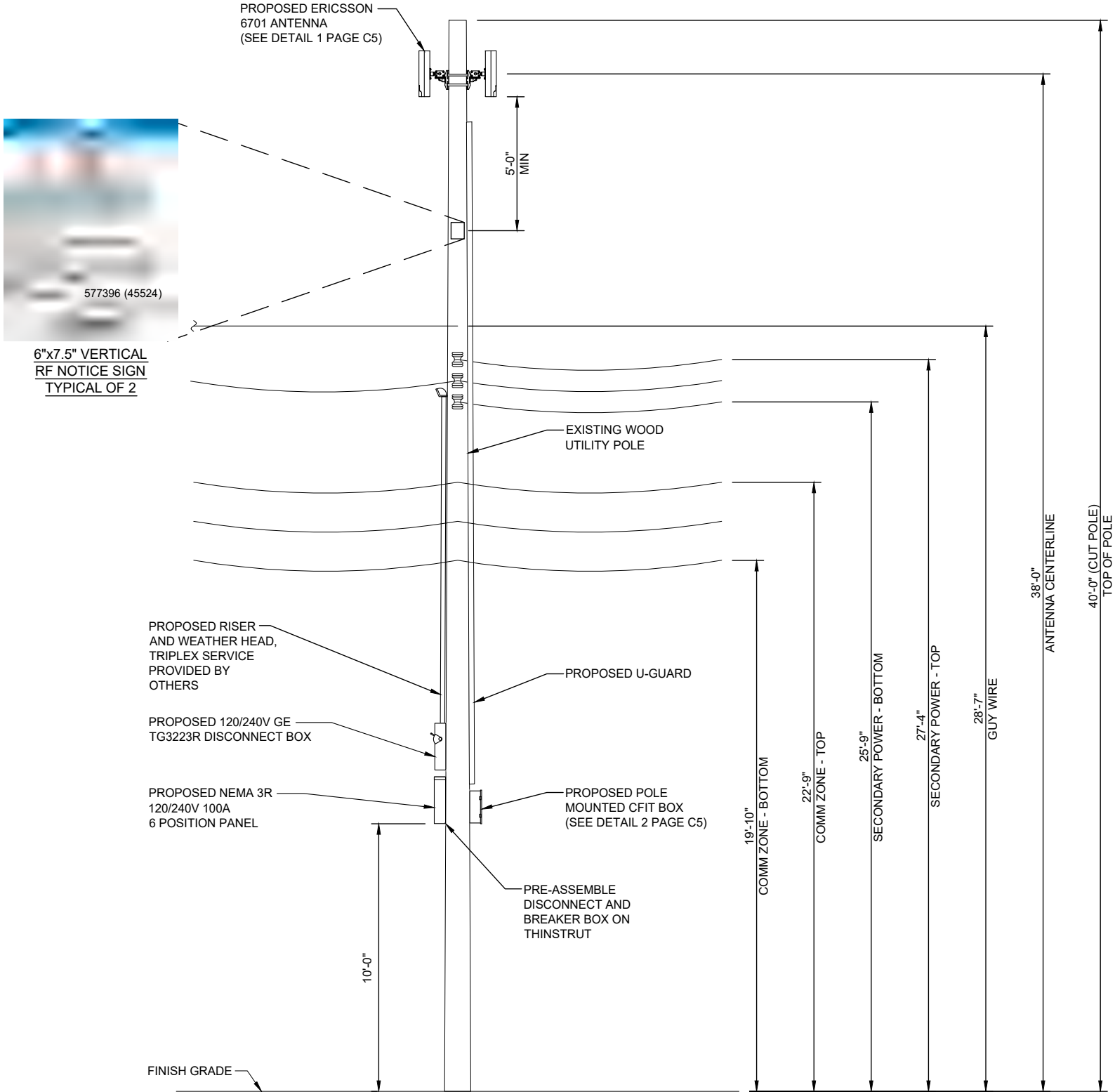
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



45524

INSTALL ON BREAKER PANEL

1 POLE ELEVATION

N.T.S.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

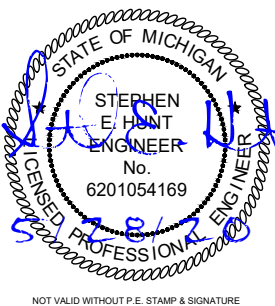
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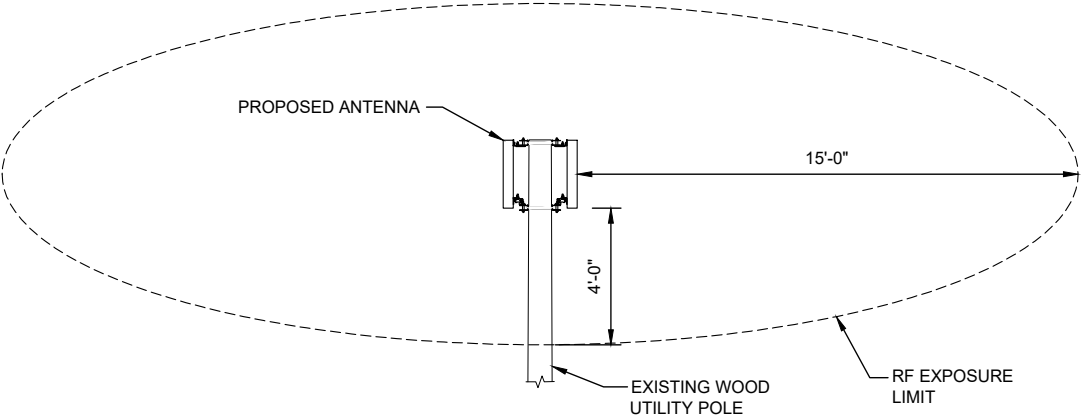
SITE NAME: 45524
ADDRESS: 805 CONGRESS ST
YPSILANTI, MI 48197
COUNTY: WASHTENAW
LATITUDE: 42° 14' 27.367" N
LONGITUDE: 83° 37' 25.736" W
DESIGN TYPE: COLOCATION

SHEET TITLE:
POLE ELEVATION

DRAWING NO. C2
REVISION: 1

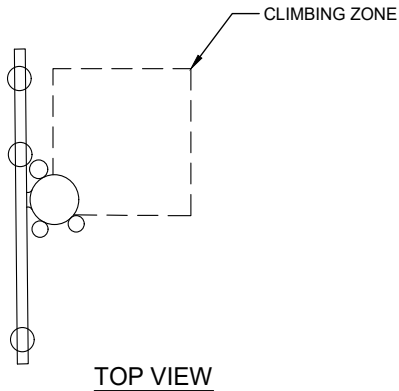
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



NOTES:

1. WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT, OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
2. ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
3. VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
4. BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
5. SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
6. 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
7. ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

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LATITUDE:

42° 14' 27.367" N

LONGITUDE:

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DESIGN TYPE:

COLOCATION

SHEET TITLE:

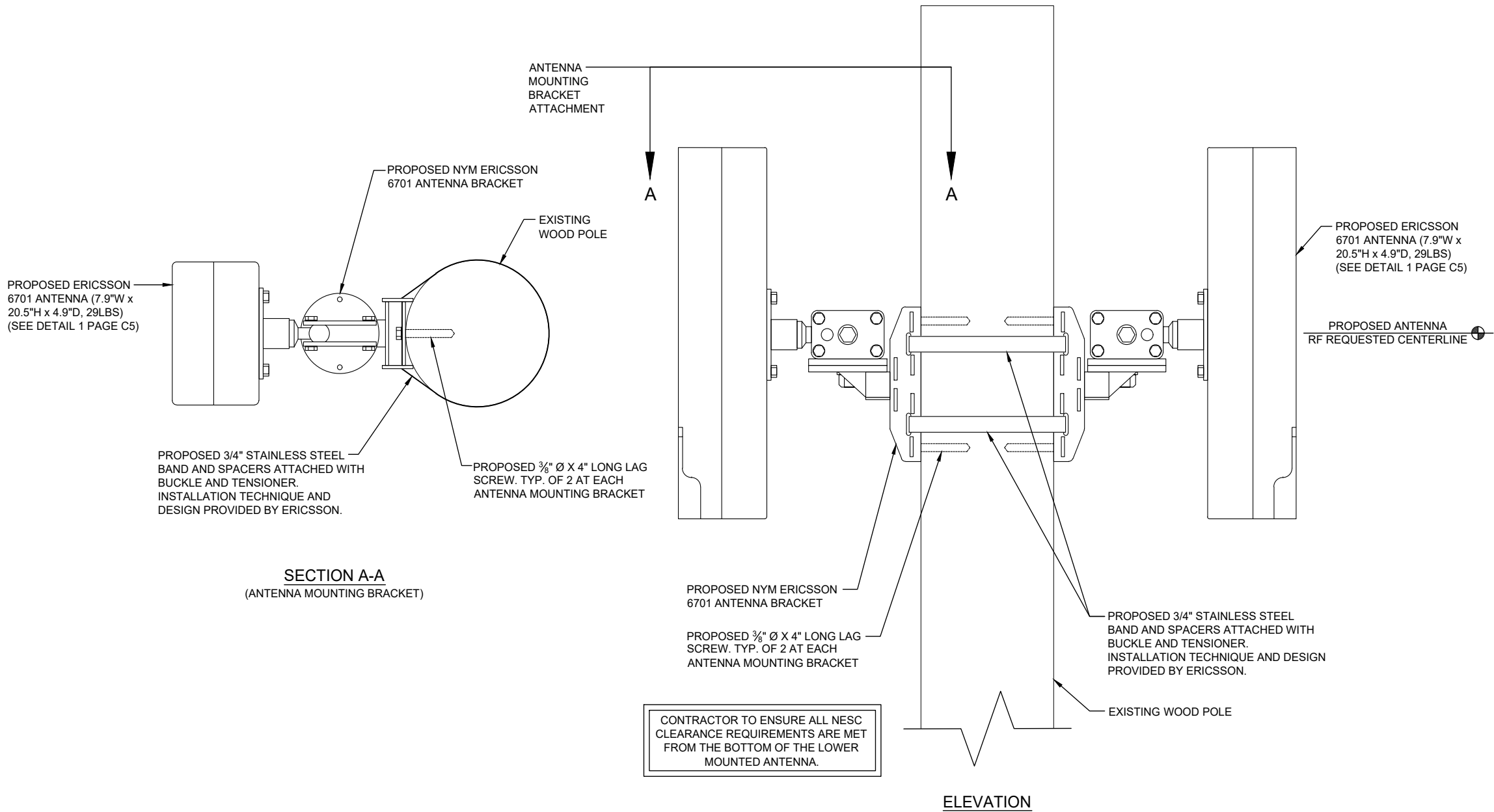
SITE DETAILS

DRAWING NO.

C3

REVISION:

1



1 ERICSSON 6701 ANTENNA MOUNTING DETAIL

N.T.S.

PREPARED FOR:

verizon

PREPARED BY:

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USE

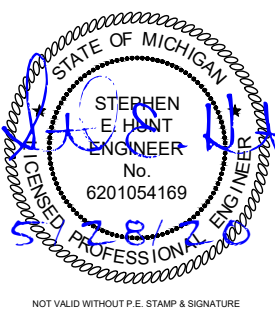
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CTD

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A	01/30/20	USE	PRELIMINARY REVIEW

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LONGITUDE:

83° 37' 25.736" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

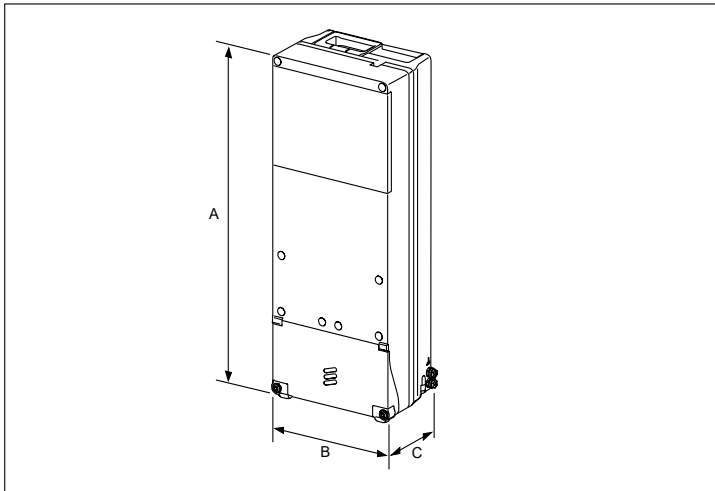
REVISION:

1

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS _{REFSENS_50M}	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX



PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES

PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless
1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

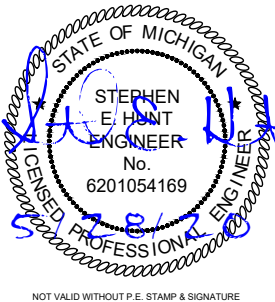
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LONGITUDE:	83° 37' 25.736" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:
EQUIPMENT DETAILS

DRAWING NO.	REVISION:
C5	1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

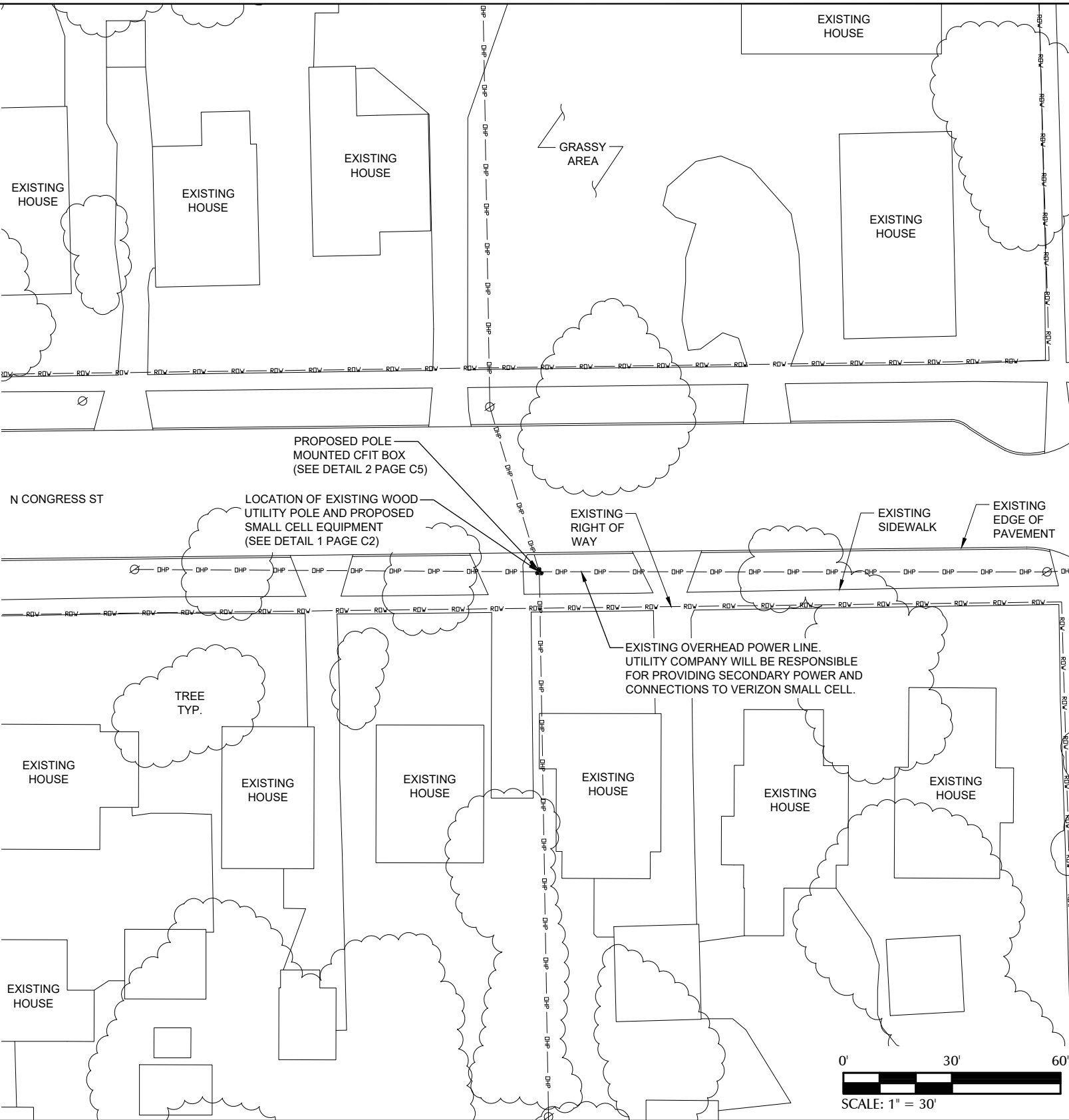
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM	COPPER	CONDUIT SIZE
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	⌘
UNDERGROUND POWER	UGP	STREET SIGN	—
OVERHEAD POWER	DHP DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	UGT	UTILITY POLE	⊙
OVERHEAD TELCO	DHT	LIGHT POLE	⊙
GAS LINE	GAS GAS	WATER VALVE	⌘
FENCE	x x x x x x	MANHOLE	M
WOOD FENCE	o o o o o o	GAS VALVE	G
SEWER LINE	SWR SWR	FIRE HYDRANT	⊙
WATER LINE	WTR	TELCO PEDESTAL	T
HYBRID CABLE	HYB	ELECTRICAL BOX	E
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW RDW		
PROPERTY LINE	PL PL		



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

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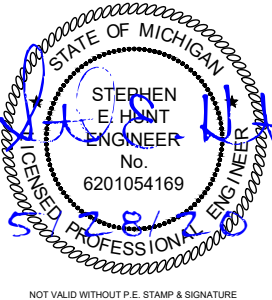
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WASHTENAW

LATITUDE:

42° 14' 27.367" N

LONGITUDE:

83° 37' 25.736" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

UTILITY SITE PLAN

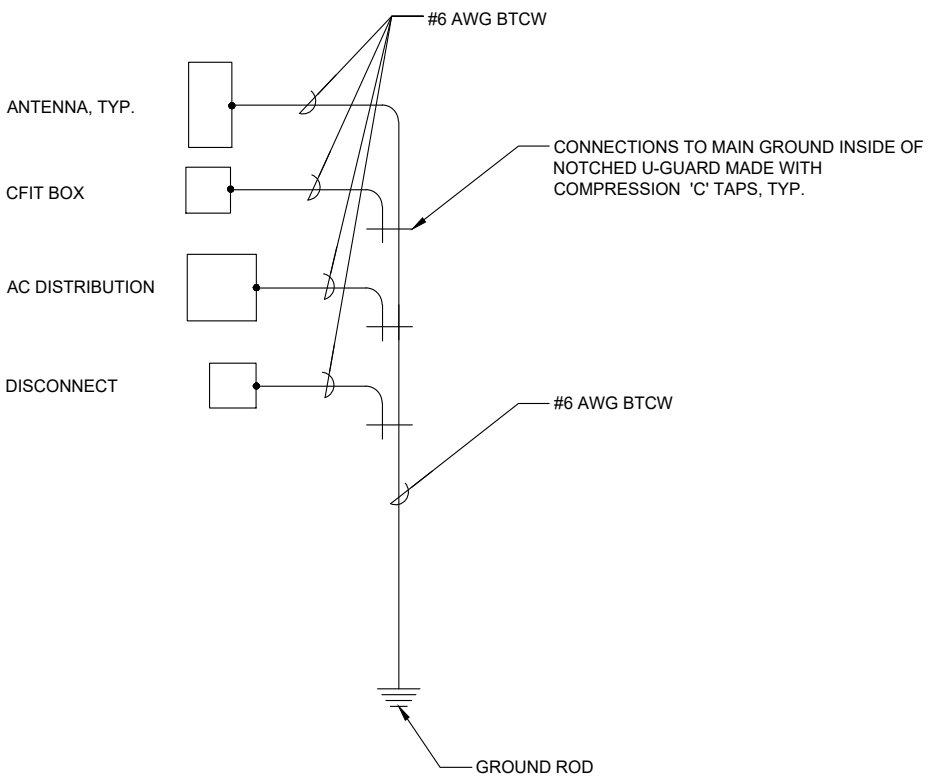
DRAWING NO.

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REVISION:

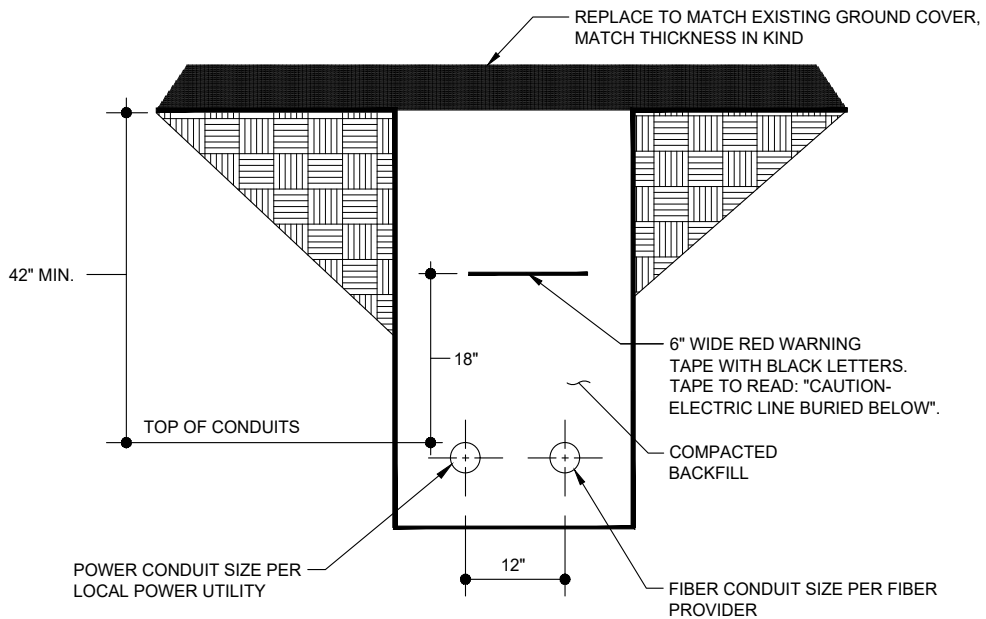
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1 UTILITY SITE PLAN



1 SINGLE POINT RADIAL GROUND DETAIL

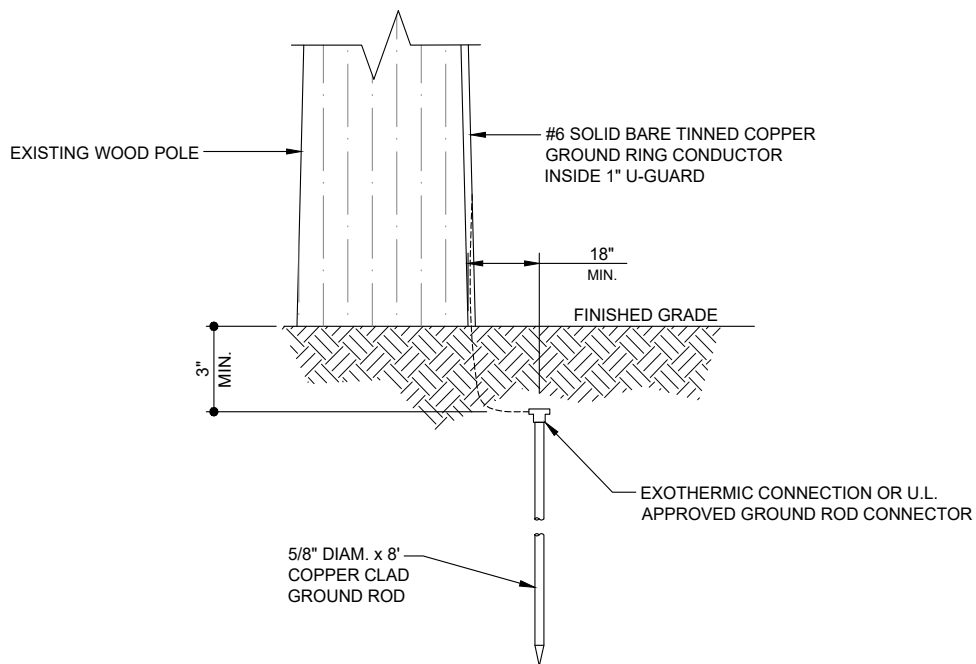
N.T.S.



NOTE: TYPICAL SPACING FOR ALL UNDERGROUND CONDUITS.

2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

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verizon

PREPARED BY:

TeleCAD
Wireless

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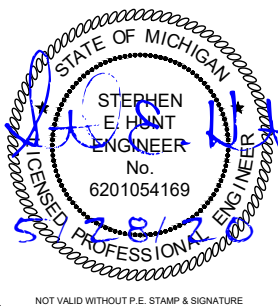
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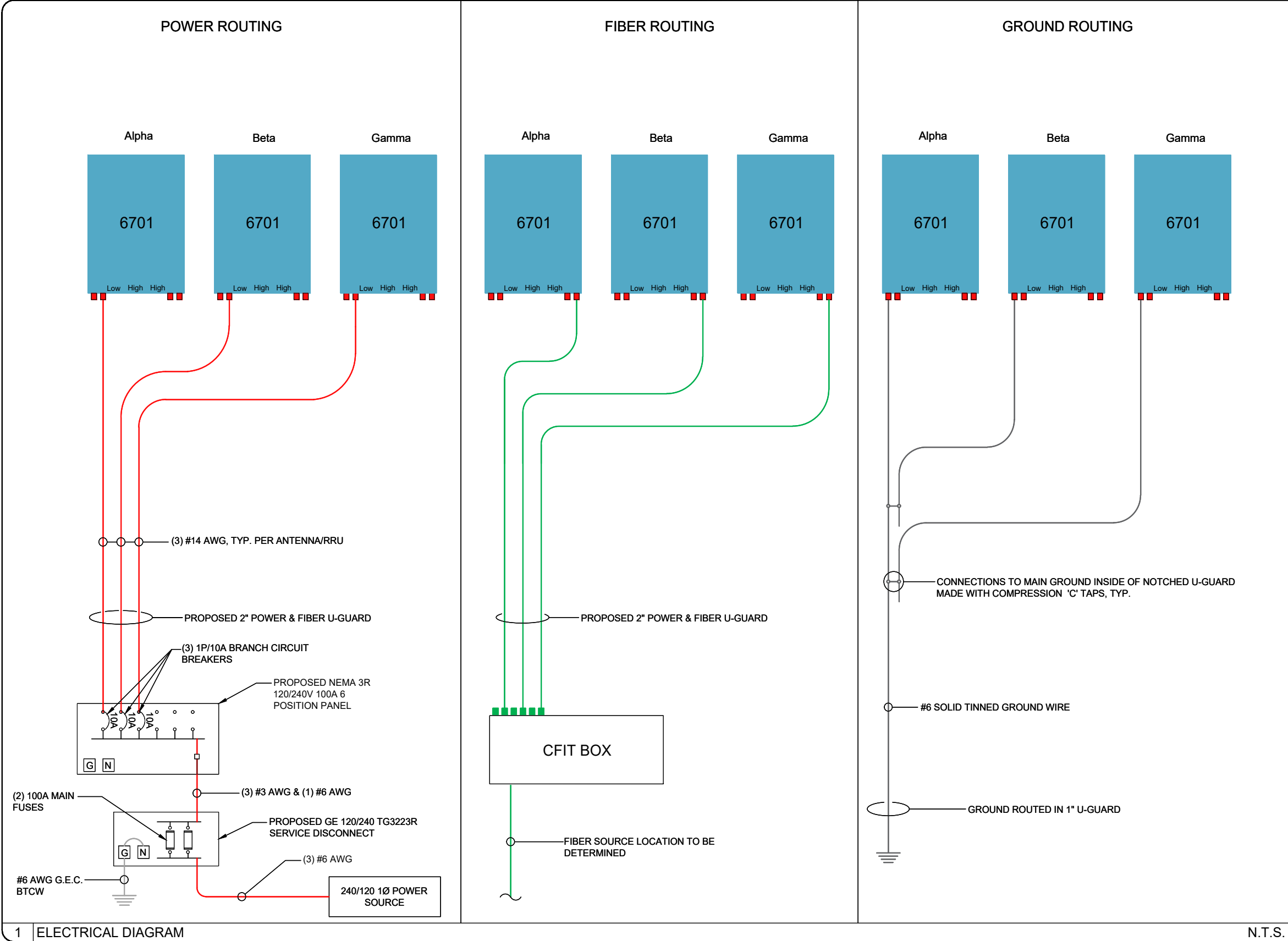
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DESIGN TYPE: COLOCATION

SHEET TITLE:
ELECTRICAL DETAILS

DRAWING NO. E2
REVISION: 1



PROJECT SUMMARY

SITE NAME: 40210
SITE ADDRESS: 207 BALLARD ST
(ESTIMATED) YPSILANTI, MI 48197
COUNTY: WASHTENAW
JURISDICTION: CITY OF YPSILANTI
SITE COORDINATES:
LATITUDE: 42° 14' 39.089" N
LATITUDE: 42.24419°
LONGITUDE: 83° 37' 9.264" W
LONGITUDE: -83.61924°
ELEVATION: ±741'-0"
PROPERTY DEFINITION: R.O.W.
FUZE PROJECT ID: 15487093
PSLC CODE: 544744
EXISTING POLE HEIGHT: 52'-0"



SITE NAME: 40210

PROPOSED SMALL CELL EQUIPMENT
ON AN EXISTING DTE POLE

SHEET INDEX

NO.	DESCRIPTION
T1	TITLE SHEET
GN1	GENERAL NOTES
C1	SITE LAYOUTS
C1A	SITE LAYOUT - AERIAL IMAGERY
C2	POLE ELEVATION
C3	SITE DETAILS
C4	SITE DETAILS
C5	EQUIPMENT DETAILS
E1	UTILITY SITE PLAN
E2	ELECTRICAL DETAILS
E3	SINGLE LINE DIAGRAM

PREPARED FOR:



PREPARED BY:



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DESIGN TYPE: COLOCATION

SHEET TITLE: TITLE SHEET

DRAWING NO:

T1

REVISION:

0

VICINITY MAP



NOT TO SCALE

LOCATION MAP



NOT TO SCALE

SCOPE OF WORK

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT

STATE COUNTY MAP



STRUCTURAL REVIEW

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.

SHEET SCALE FACTOR:

PLOT SIZE:
11" x 17": TO SCALE



1 (800) 482-7171

www.missdig.com

CONTRACTOR TO CALL MICHIGAN
ONE-CALL SYSTEMS AT LEAST 72 HOURS
PRIOR TO DIGGING.

GENERAL NOTES

- 1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
- 2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
- 3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
- 4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
- 5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
- 6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
- 7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER, (BASE COMMANDER OR AUTHORIZED AGENT)
- 8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
- 9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
- 10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED, RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
- 11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
- 12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

- 1. "TYPICAL" OR "TYP" MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
- 2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
- 3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
- 4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
- 5. THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
- 6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
- 7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL. INSTALL ITEMS FURNISHED BY OTHERS, PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

- 1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
- 2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
- 3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

- 1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.
- 2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
- 3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
- 4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
- 5. ALL EQUIPMENT TO BE BONDED.
- 6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

- 1. GROUND TESTED AT 25 OHMS OR LESS.
- 2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
- 3. #6 GROUND AND BOND WIRE.
- 4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
- 5. GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

- 1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
- 2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
- 3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
- 4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
- 5. RISER STRAPS TO BE INSTALLED EVERY 5'.
- 6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
- 7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

- 1. MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.
- 2. MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.
- 3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
- 4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
- 5. PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

- 1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
- 2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
- 3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
- 4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
- 5. 90" SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
- 6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS, PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
- 7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
- 8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
- 9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

- 1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
- 2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
- 3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
- 4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
- 5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR

verizon

PREPARED BY

TeleCAD

1561 NORTHPOINT BLVD. SUITE 130
HIXSON, TN 37343
PH: 423-643-9500
FAX: 423-843-9509

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DRAWN BY

RGM

CHECKED BY

CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
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A	01/17/20	RGM	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP



SITE NAME

40210

ADDRESS

207 BALLARD ST
YPSILANTI, MI 48197

COUNTY

WASHTENAW

LATITUDE

42° 14' 39.089" N

LONGITUDE

83° 37' 9.264" W

DESIGN TYPE

COLOCATION

SHEET TITLE

GENERAL NOTES

DRAWING NO.

GN1

REVISION

0

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND

OVERHEAD UTILITIES	— DHP —	CATCH BASIN	⊞
UNDERGROUND POWER	— UGP —	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊙
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— F —	MANHOLE	⊗
WOOD FENCE	— WF —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊗
WATER LINE	— WTR —	TELCO PEDESTAL	⊗
HYBRID CABLE	— HVB —	ELECTRICAL BOX	⊗
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— RDW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

PREPARED FOR:

verizon

PREPARED BY:

TeleC-D

1951 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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CHECKED BY: CTD

REVISIONS

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2	01/27/20	RGM	PRELIMINARY REVIEW

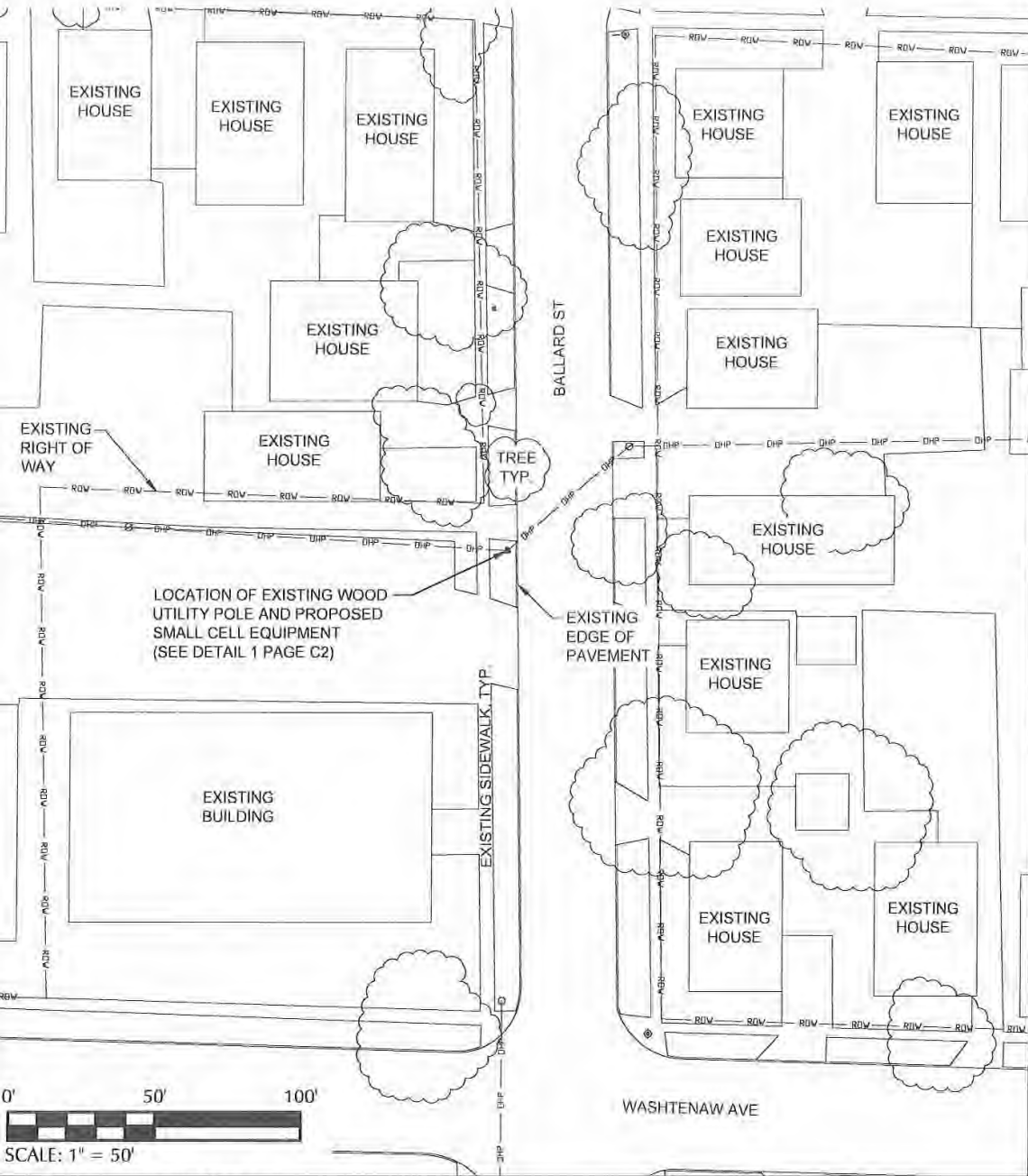
ENGINEER'S STAMP



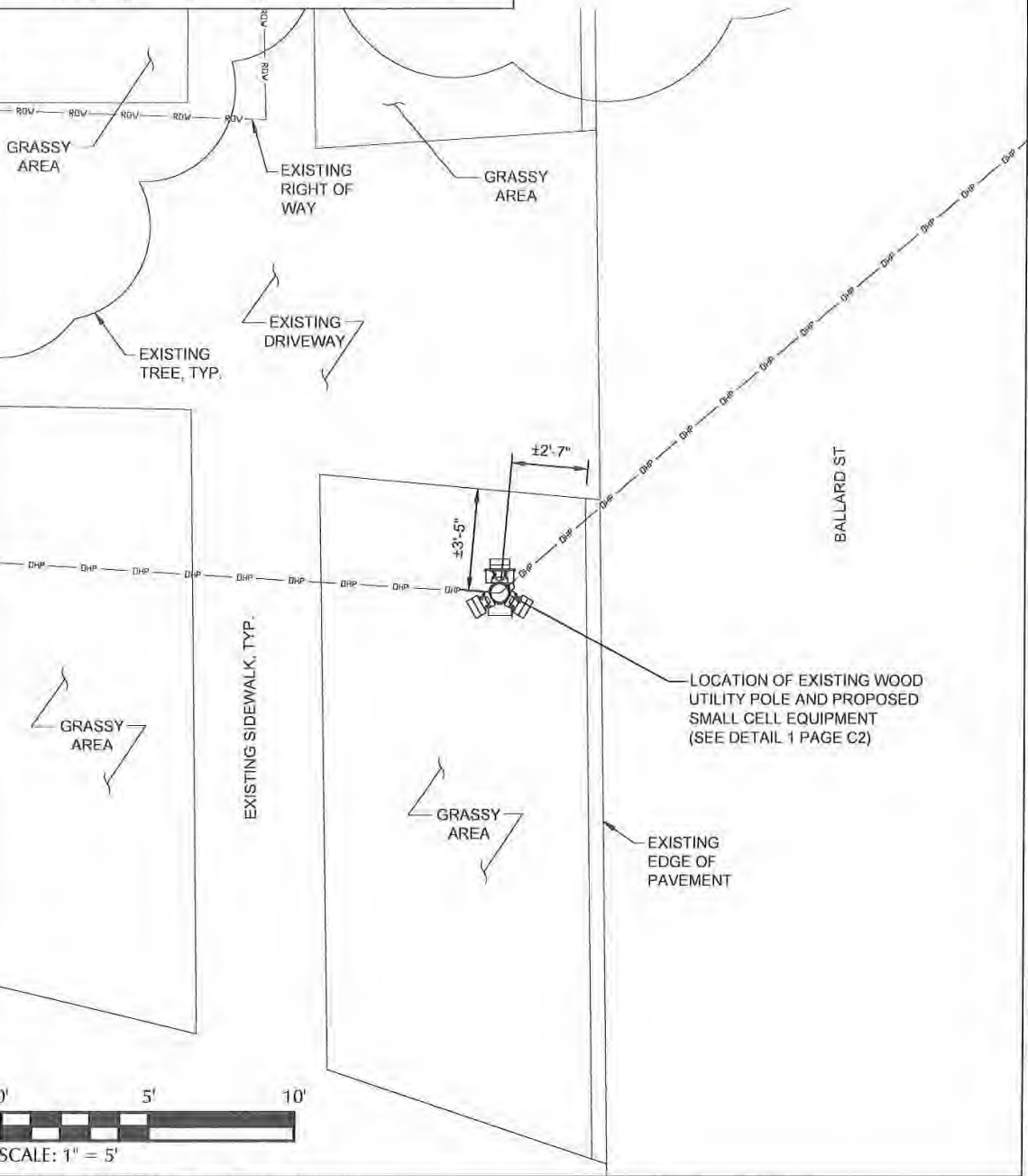
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ADDRESS: 207 BALLARD ST
YPSILANTI, MI 48197
COUNTY: WASHTENAW
LATITUDE: 42° 14' 39.089" N
LONGITUDE: 83° 37' 9.264" W
DESIGN TYPE: COLOCATION

SHEET TITLE: SITE LAYOUTS

DRAWING NO. C1
REVISION: 0



1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT



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verizon

PREPARED BY:

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HIXSON, TN 37343
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CHECKED BY:	CTD

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A	01/12/20	RGM	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION



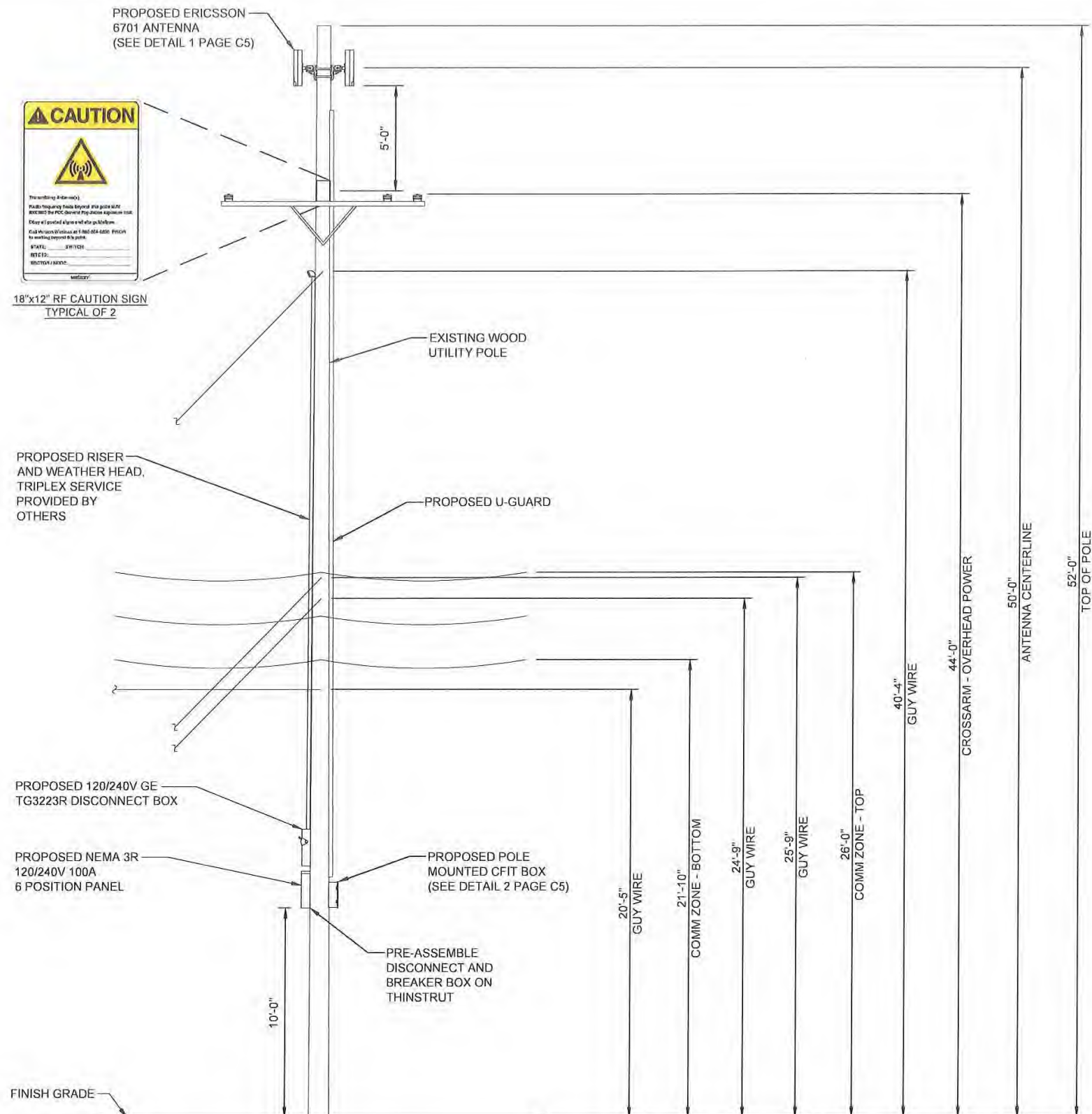
SITE NAME:	40210
ADDRESS:	207 BALLARD ST YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 14' 39.089" N
LONGITUDE:	83° 37' 9.264" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:
**SITE LAYOUT -
AERIAL IMAGERY**

DRAWING NO.	REVISION
C1A	0

1 | OVERALL SITE LAYOUT - AERIAL IMAGERY

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



PREPARED FOR:



PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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DRAWN BY

RGM	
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CTD

REVISIONS

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ENGINEER'S STAMP



NOT VALID WITHOUT P.E. STAMP & SIGNATURE.

SITE NAME 40210

ADDRESS: 207 BALLARD ST
YPSILANTI, MI 48197

COUNTY

WASHTENAW

LATITUDE:

42° 14' 39.089" N

LONGITUDE

83° 37' 9.264" W

DESIGN TYPE	
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COLOCATION

SHEET TITLE.

POLE ELEVATION

DRAWING NO.

REVISION.

C2

0

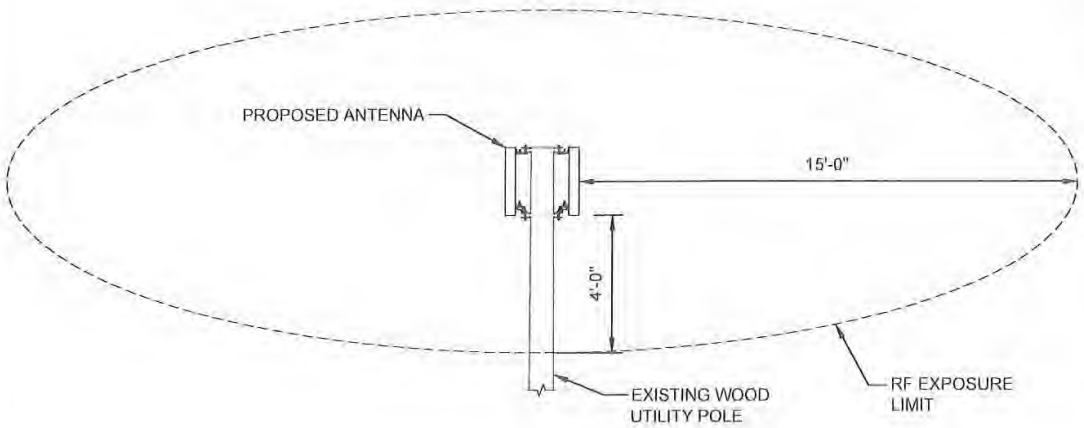
N.T.S.

INSTALL ON BREAKER PANEL

1	POLE ELEVATION
---	----------------

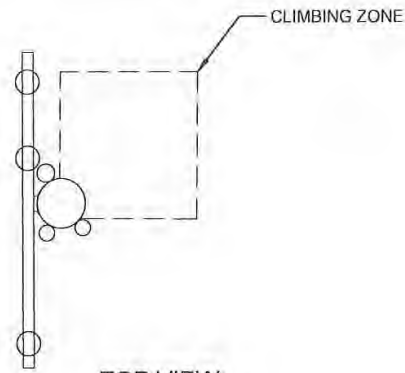
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



NOTES:

1. WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT, OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
2. ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
3. VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
4. BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
5. SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
6. 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
7. ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.

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PREPARED BY:

TeleCAD
Wireless

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HIXSON, TN 37345
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SITE NAME:

40210

ADDRESS:

207 BALLARD ST
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 39.089" N

LONGITUDE:

83° 37' 9.264" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

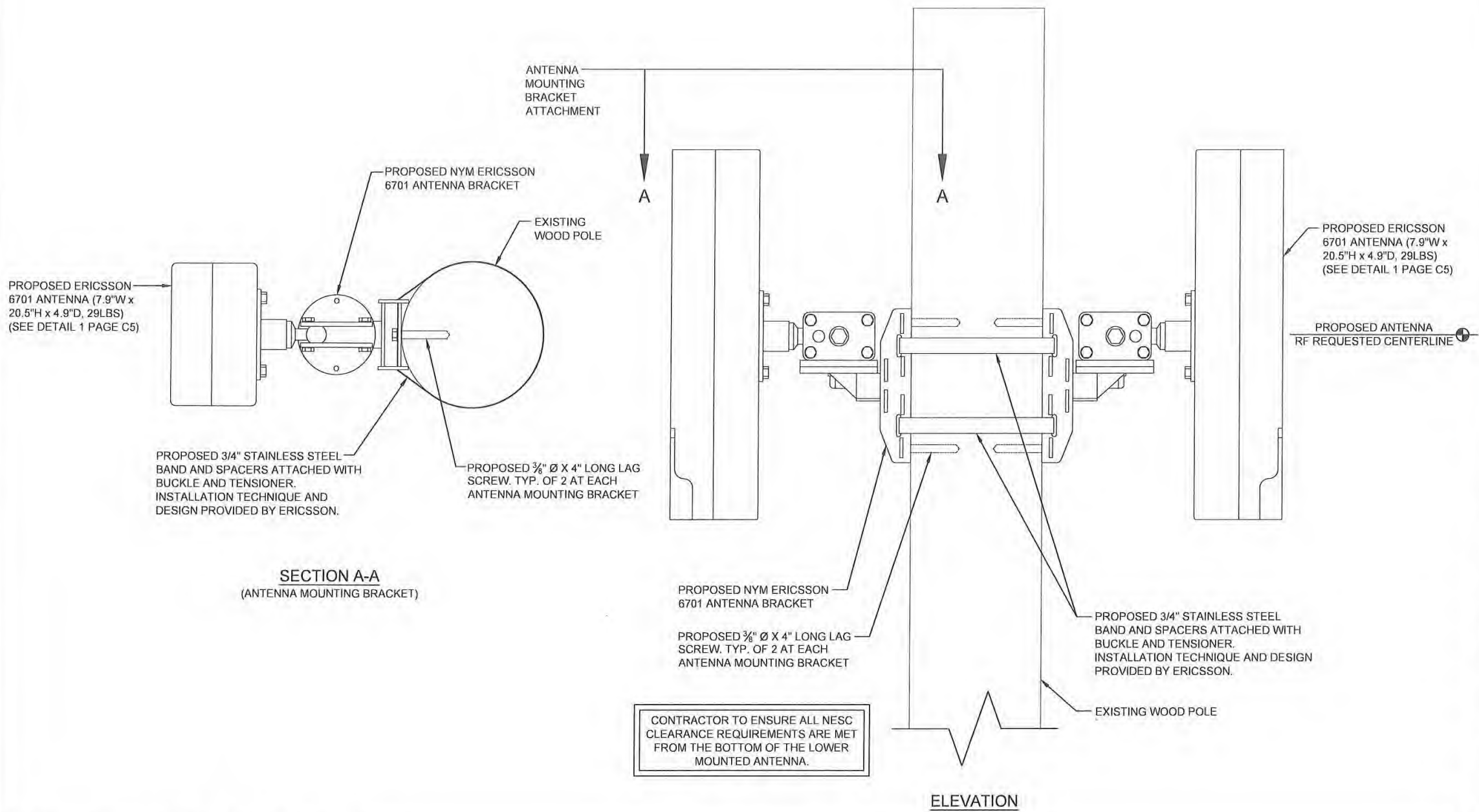
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REVISION:

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1 EQUIPMENT CU-FT. TABLE



1 ERICSSON 6701 ANTENNA MOUNTING DETAIL

N.T.S.

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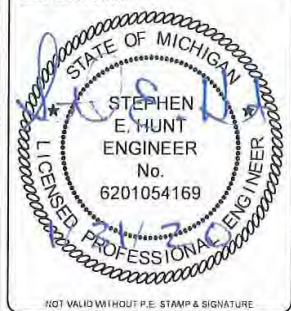
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DESIGN TYPE:

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SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

REVISION:

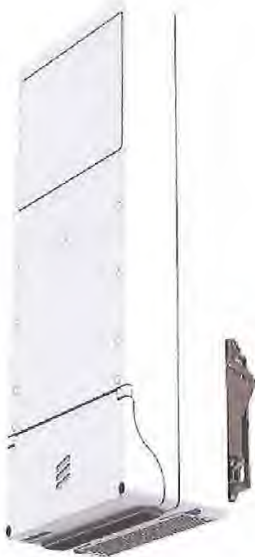
0

Spectrum: 28 GHz
IBW Full band
OBW 800 MHz
EIRP ~ 55 dBm

of Users: 2,000+
Total Antenna BW: 1600 MHz
Throughput: 5 Gbps DL/ 1 Gbps UL
RI ports: 2
TN/IDLports: 2
Misc: 4xExternal Alarms, USB connector
PoE, GPS, 1588 Synch

Weight: ~ 13 kg (29 lbs)
Size: 20,5"x4,9"x7,9" (13 l)
Operational conditions: -40 to +55 degrees
Cooling: Active
Power: AC, <300W Max
IP Class: IP 65

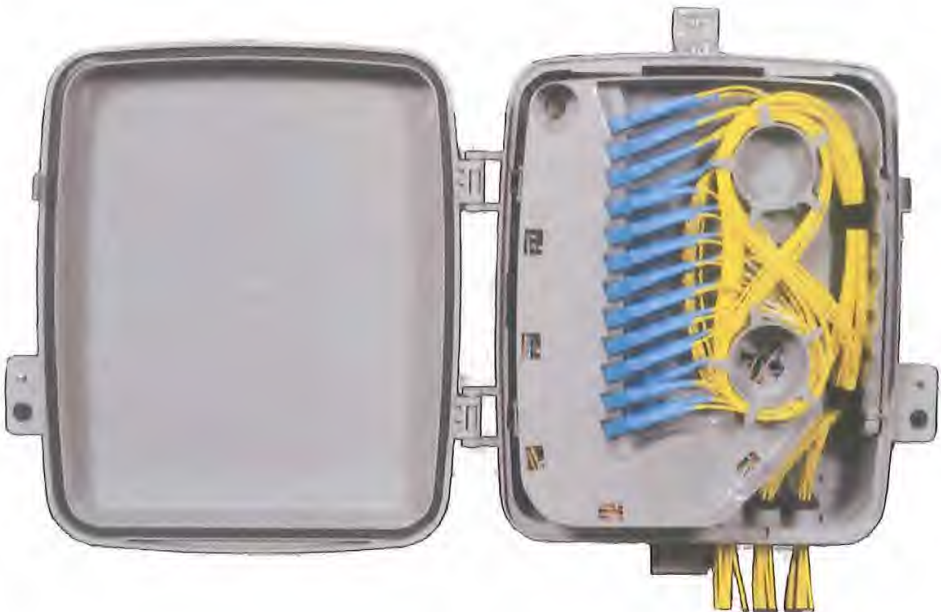
© 2015 Charles Industries, Inc.



20,5"x5"x8" *Not to Exceed Dimensions*

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ
DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPlicing CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless
1961 NORTHPOINT BLVD, SUITE 130
HIKSON, TN 37343
PH 423-843-9500
FAX 423-843-9509

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CHECKED BY:	CTD

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ENGINEER'S STAMP:



SITE NAME: 40210
ADDRESS: 207 BALLARD ST
YPSILANTI, MI 48197
COUNTY: WASHTENAW
LATITUDE: 42° 14' 39.089" N
LONGITUDE: 83° 37' 9.264" W
DESIGN TYPE: COLOCATION

SHEET TITLE:

EQUIPMENT DETAILS

DRAWING NO.	REVISION
C5	0

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

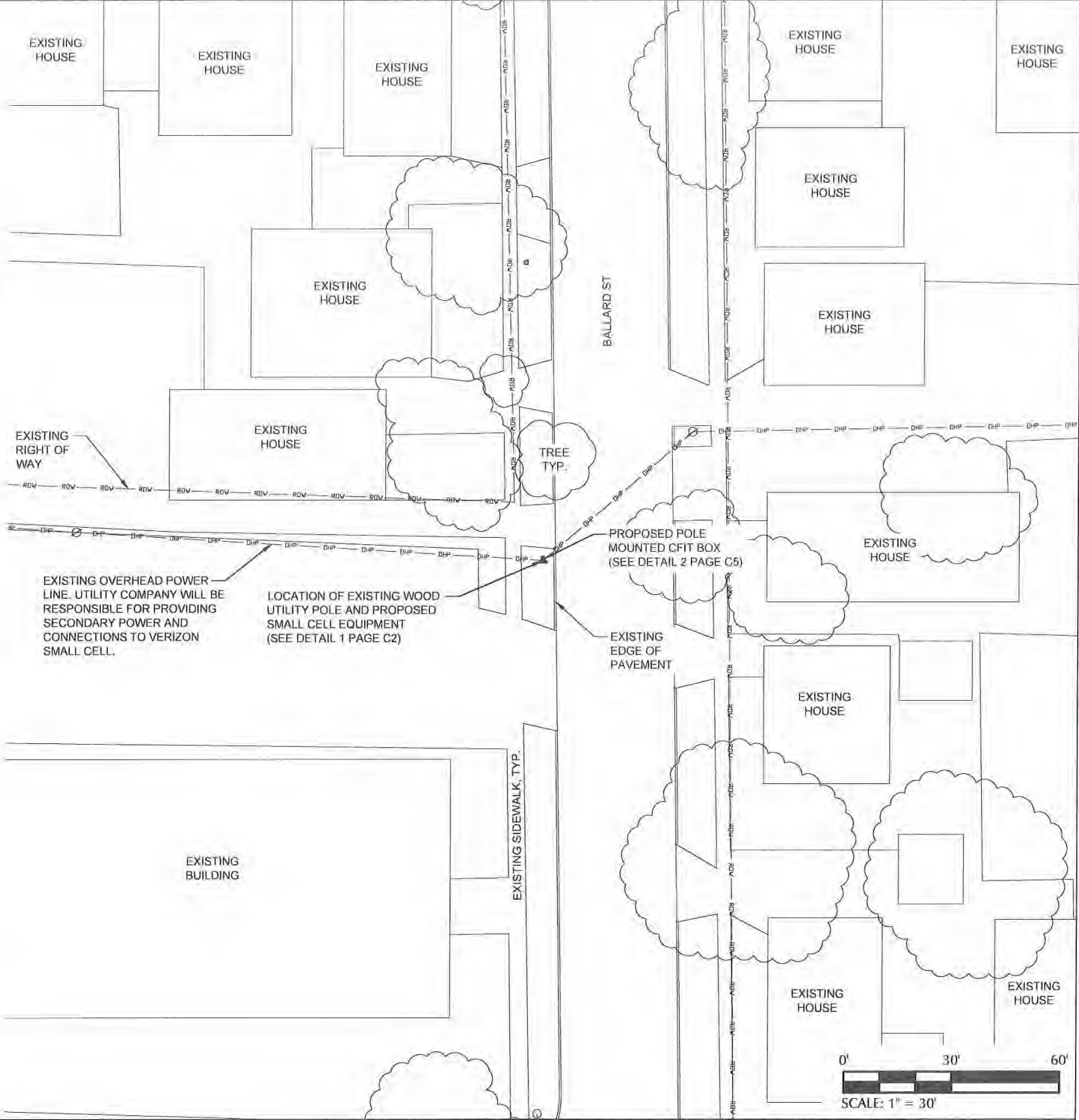
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM 120V	COPPER 120V	CONDUIT SIZE
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	▢
UNDERGROUND POWER	UGP	STREET SIGN	—
OVERHEAD POWER	DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	UGT	UTILITY POLE	⊗
OVERHEAD TELCO	DHT	LIGHT POLE	⊙
GAS LINE	GAS	WATER VALVE	⊗
FENCE	—	MANHOLE	⊙
WOOD FENCE	—	GAS VALVE	⊗
SEWER LINE	SVR	FIRE HYDRANT	⊙
WATER LINE	WTR	TELCO PEDESTAL	⊙
HYBRID CABLE	HYB	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW		
PROPERTY LINE	PL		



PREPARED BY:
TeleCAD
1951 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
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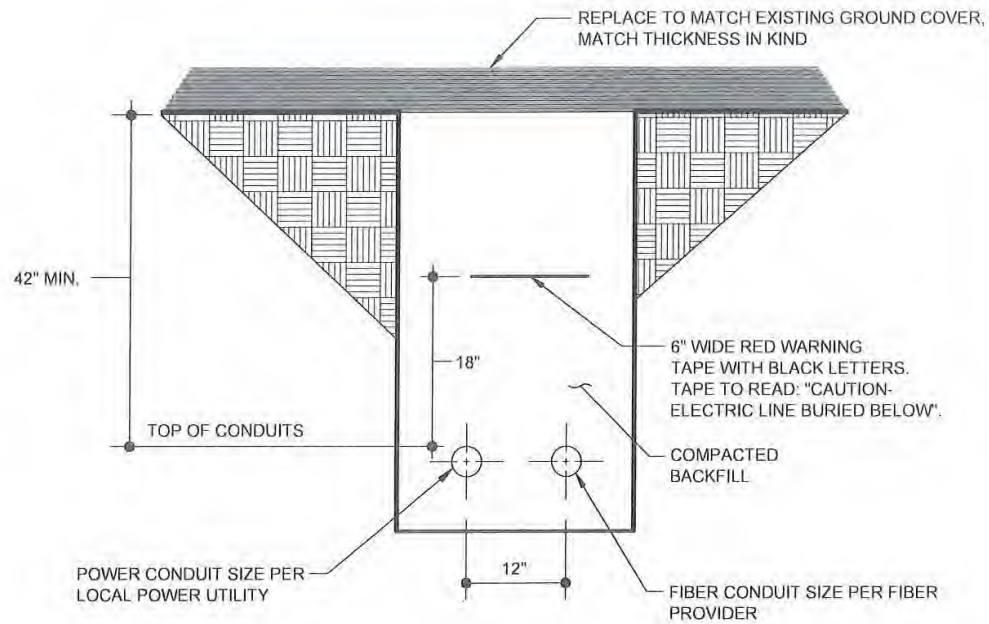
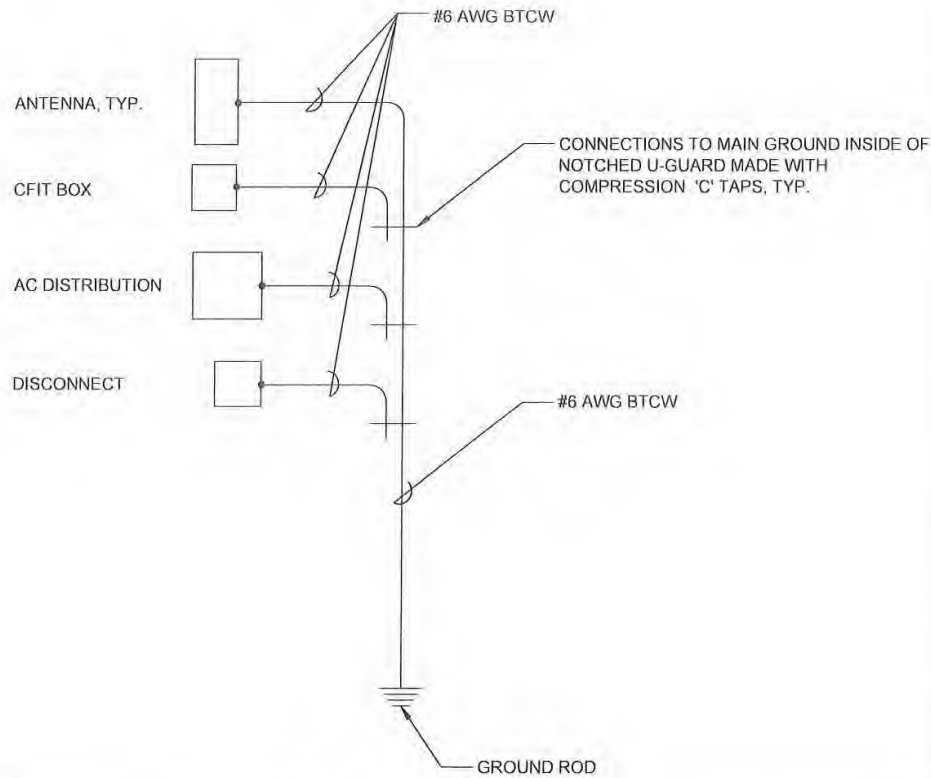
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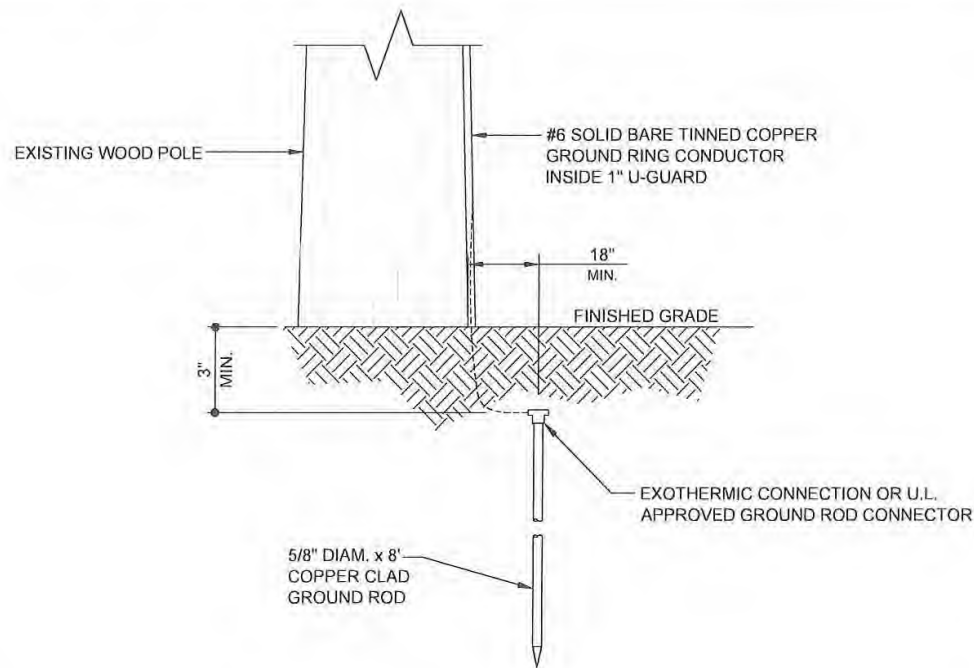
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YPSILANTI, MI 48197
COUNTY: WASHTENAW
LATITUDE: 42° 14' 39.089" N
LONGITUDE: 83° 37' 9.264" W
DESIGN TYPE: COLOCATION

SHEET TITLE: UTILITY SITE PLAN

DRAWING NO. E1
REVISION: 0



NOTE: TYPICAL SPACING FOR ALL UNDERGROUND CONDUITS.



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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DRAWN BY:	RGM
CHECKED BY:	CTD

REVISIONS				
NO.	DATE	BY	DESCRIPTION	
0	01/31/20	CDM	CONSTRUCTION ISSUE	
A	01/27/20	RGM	PRELIMINARY REVIEW	

ENGINEER'S STAMP:

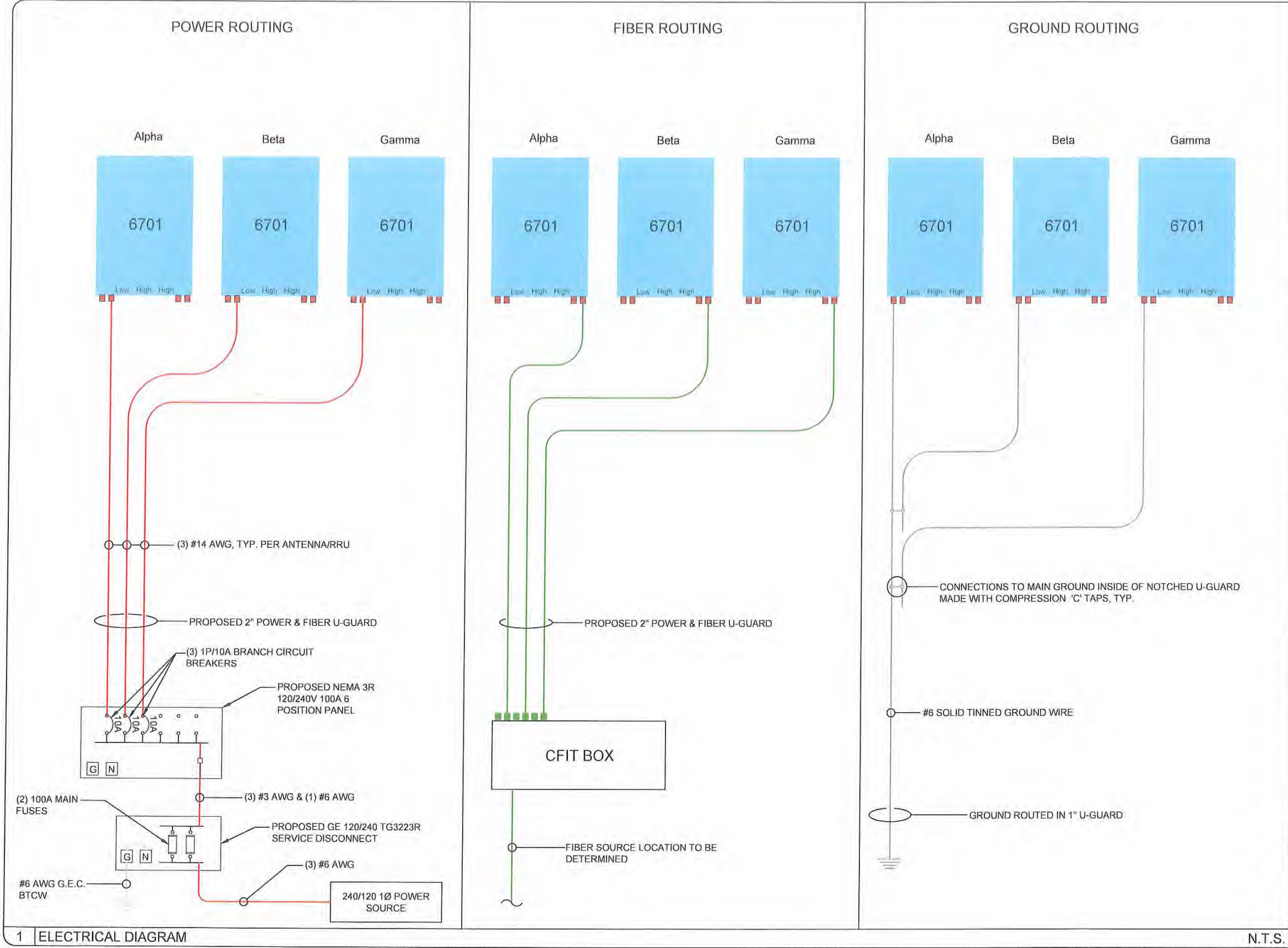
STATE OF MICHIGAN
STEPHEN E. HUNT
ENGINEER
No. 6201054169
LICENSED PROFESSIONAL ENGINEER

NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME:	40210
ADDRESS:	207 BALLARD ST YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 14' 39.089" N
LONGITUDE:	83° 37' 9.264" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:
ELECTRICAL DETAILS

DRAWING NO.	REVISION
E2	0



PROJECT SUMMARY

SITE NAME: 40209
SITE ADDRESS: 122 COLLEGE PL
(ESTIMATED) YPSILANTI, MI 48197
COUNTY: WASHTENAW COUNTY
SITE COORDINATES:
LATITUDE: 42° 14' 35.196" N (NAD 83)
LATITUDE: 42.24311°
LONGITUDE: 83° 37' 18.408" W (NAD 83)
LONGITUDE: 83.62178°
ELEVATION: ±773'-2"

PROPERTY DEFINITION: R.O.W.
FUZE PROJECT ID: 15487091
PSC CODE: 544749
EXISTING POLE NUMBER: N/A
EXISTING POLE HEIGHT: 38'-6"
EXISTING POLE CLASS: N/A



SITE NAME: 40209

PROPOSED SMALL CELL EQUIPMENT
ON AN EXISTING DTE POLE

SHEET INDEX

NO.	DESCRIPTION
T1	TITLE SHEET
GN1	GENERAL NOTES
C1	SITE LAYOUTS
C2	POLE ELEVATION
C2A	ANTENNA LAYOUT
C3	DTE NOTES
C4	SITE DETAILS
C5	EQUIPMENT DETAILS
E1	UTILITY SITE PLAN
E2	ELECTRICAL DETAILS
E3	SINGLE LINE DIAGRAM

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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DRAWN BY: JCI

CHECKED BY: CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
0	06/28/19	JCI	CONSTRUCTION ISSUE
1	06/19/19	JCI	PRELIMINARY REVIEW

SCOPE OF WORK

- INSTALLING EQUIPMENT
- CFIT BOX
- DISCONNECT
- CONNECTING ON SITE UTILITIES TO WIRELESS EQUIPMENT

ENGINEER'S STAMP:



SITE NAME:

40209

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 35.196" N

LONGITUDE:

83° 37' 18.408" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

TITLE SHEET

DRAWING NO:

T1

REVISION:

0

VICINITY MAP



NOT TO SCALE

LOCATION MAP



NOT TO SCALE

STATE COUNTY MAP



STRUCTURAL REVIEW

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.

SHEET SCALE FACTOR:

PLOT SIZE:
11" x 17": TO SCALE



1 (800) 482-7171

www.missdig.com

CONTRACTOR TO CALL MICHIGAN
ONE-CALL SYSTEMS AT LEAST 72 HOURS
PRIOR TO DIGGING.

GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER (BASE COMMANDER OR AUTHORIZED AGENT).
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
5. THE TERM "VERIFY" OR "V.I.F" SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
2. THIS SET IS TO BE PRINTED AT 11" x 17", IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
5. ALL EQUIPMENT TO BE BONDED
6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 25 OHMS OR LESS.
2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
3. #6 GROUND AND BOND WIRE.
4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
5. GROUND RODS 18" FROM POLE

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
5. RISER STRAPS TO BE INSTALLED EVERY 5'.
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 36" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 36" MINIMUM COVER FOR COMMUNICATION CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 12" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.



PREPARED BY:



1561 NORTHPOINT BLVD, SUITE 13
LUXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

ENVIRONMENTAL

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CHECKED BY _____

REVISIONS

0	05/28/19	DAI	CONSTRUCTION ISSUE
6	06/19/19	JCI	PRELIMINARY REVIEW
1/2	DATE	BY	DESCRIPTION

ENGINEER'S STAMP



SUPPLEMENT

40209

COUNTY

WASHTENAW

LATITUDE

42° 14' 35.196" N

LONGITUDINAL

83° 37' 18.408" W

DESIGN TYPE

COLOCATION

SHEET TWO

GENERAL NOTES

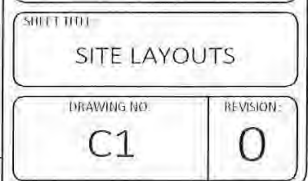
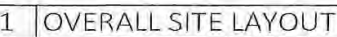
DRAWING NO.

GN1

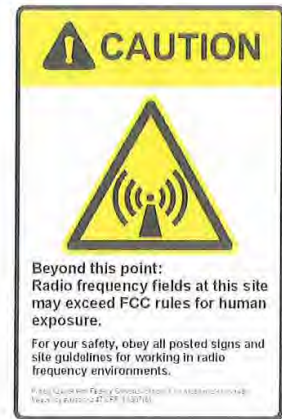
REVISION:

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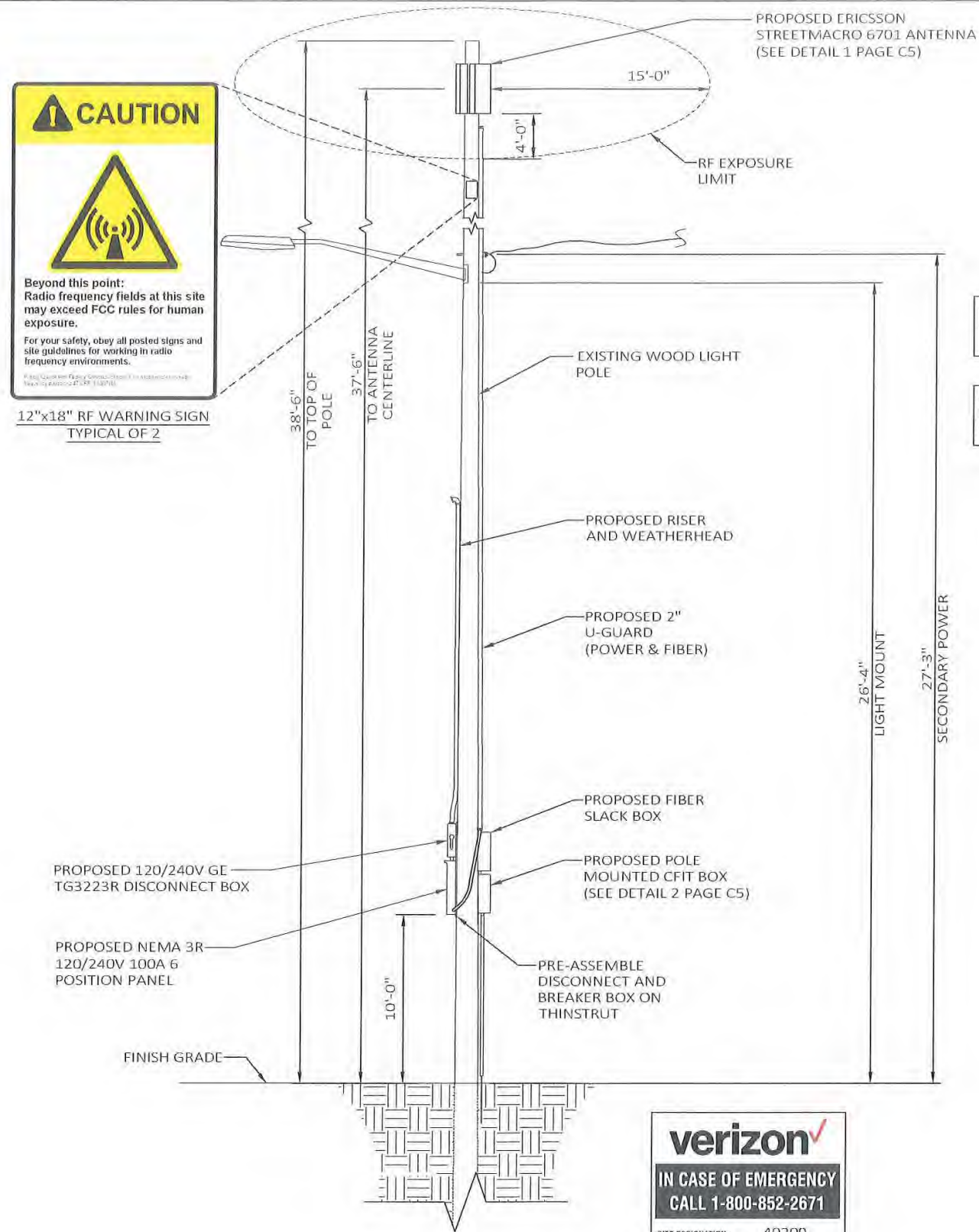
1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.



CONTRACTOR TO OBTAIN LATEST RFDS FROM VERIZON PRIOR TO CONSTRUCTION.



12"x18" RF WARNING SIGN
TYPICAL OF 2



5'-0" MIN. CLEARANCE
ABOVE ANY DTE EQUIPMENT
TO BOTTOM OF ANTENNA

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE



INSTALL ON BREAKER PANEL

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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CHECKED BY:	CTD

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A	06/19/19	ICJ	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:

STATE OF MICHIGAN

STEPHEN E. HUNT
ENGINEER
No. 6201054169
LICENSED PROFESSIONAL ENGINEER

NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME:
40209

COUNTY:
WASHTENAW

LATITUDE:
42° 14' 35.196" N

LONGITUDE:
83° 37' 18.408" W

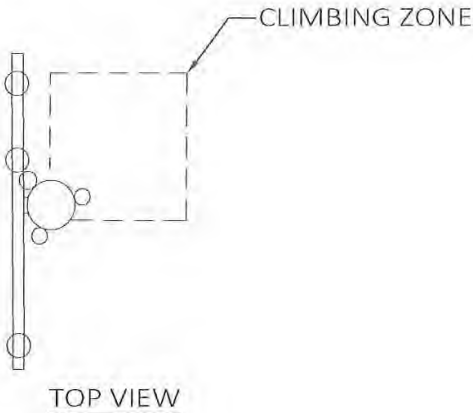
DESIGN TYPE:
COLOCATION

SHEET TITLE:
POLE ELEVATION

DRAWING NO. C2	REVISION: 0
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CONTRACTOR TO OBTAIN LATEST RFDS
FROM VERIZON PRIOR TO CONSTRUCTION.

POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
STREET MACRO 6701 ANTENNA	0.46
STREET MACRO 6701 ANTENNA	0.46
STREET MACRO 6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38



- NOTES:
1. WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT, OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 2. ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 3. VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 4. BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 5. SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 6. 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 7. ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
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JCI

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CTD

REVISIONS

0	06/28/19	JCI	CONSTRUCTION ISSUE
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ENGINEER'S STAMP:



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40209

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 35.196" N

LONGITUDE:

83° 37' 18.408" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

DTE NOTES

DRAWING NO.

C3

REVISION:

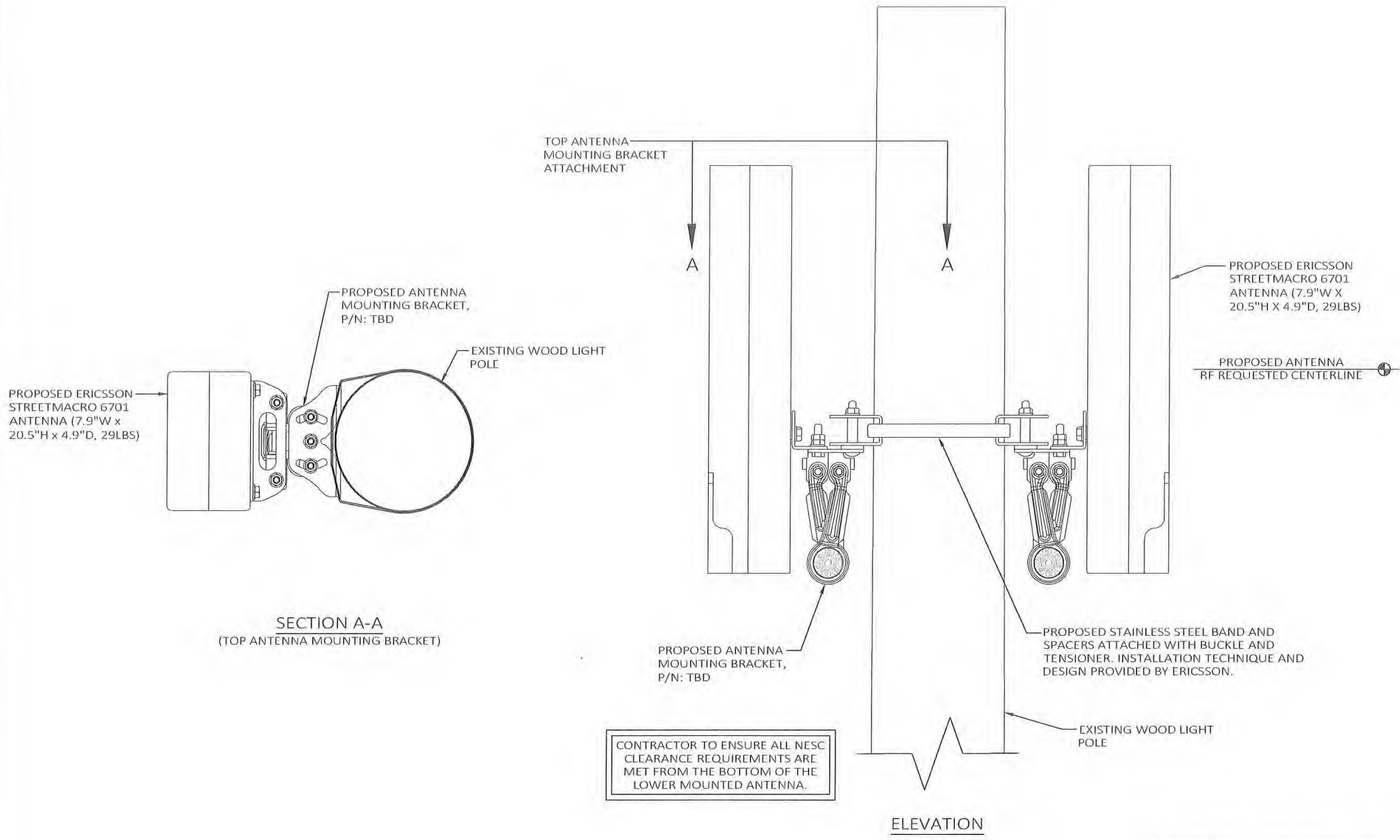
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1 EQUIPMENT CU-FT. TABLE

N.T.S.

2 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless
1961 NORTHPOINT BLVD, SUITE 130
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ICJ

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CJD

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42° 14' 35.196" N

LONGITUDE:

83° 37' 18.408" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

REVISION:

0

1 ERICSSON STREETMACRO 6701 ANTENNA MOUNTING DETAIL

N.T.S.

THIRD ANTENNA NOT SHOWN FOR CLARITY. VERTICAL SEPARATION WILL APPLY PER DETAIL.

CONTRACTOR TO ENSURE ALL NESC CLEARANCE REQUIREMENTS ARE MET FROM THE BOTTOM OF THE LOWER MOUNTED ANTENNA.

ELEVATION

SECTION A-A

(TOP ANTENNA MOUNTING BRACKET)

TOP ANTENNA MOUNTING BRACKET ATTACHMENT

A

A

PROPOSED ANTENNA MOUNTING BRACKET, P/N: TBD

EXISTING WOOD LIGHT POLE

PROPOSED ERICSSON STREETMACRO 6701 ANTENNA (7.9\"/>

PROPOSED ERICSSON STREETMACRO 6701 ANTENNA (7.9\"/>

PROPOSED ANTENNA RF REQUESTED CENTERLINE

PROPOSED ANTENNA MOUNTING BRACKET, P/N: TBD

PROPOSED STAINLESS STEEL BAND AND SPACERS ATTACHED WITH BUCKLE AND TENSIONER. INSTALLATION TECHNIQUE AND DESIGN PROVIDED BY ERICSSON.

EXISTING WOOD LIGHT POLE

Spectrum: 28 GHz
IBW Full band
OBW 800 MHz
EIRP ~ 55 dBm

of Users: 2,000+
Total Antenna BW: 1600 MHz
Throughput: 5 Gbps DL/ 1 Gbps UL
RI ports: 2
TN/IDLports: 2
Misc: 4xExternal Alarms, USB connector
PoE, GPS, 1588 Synch

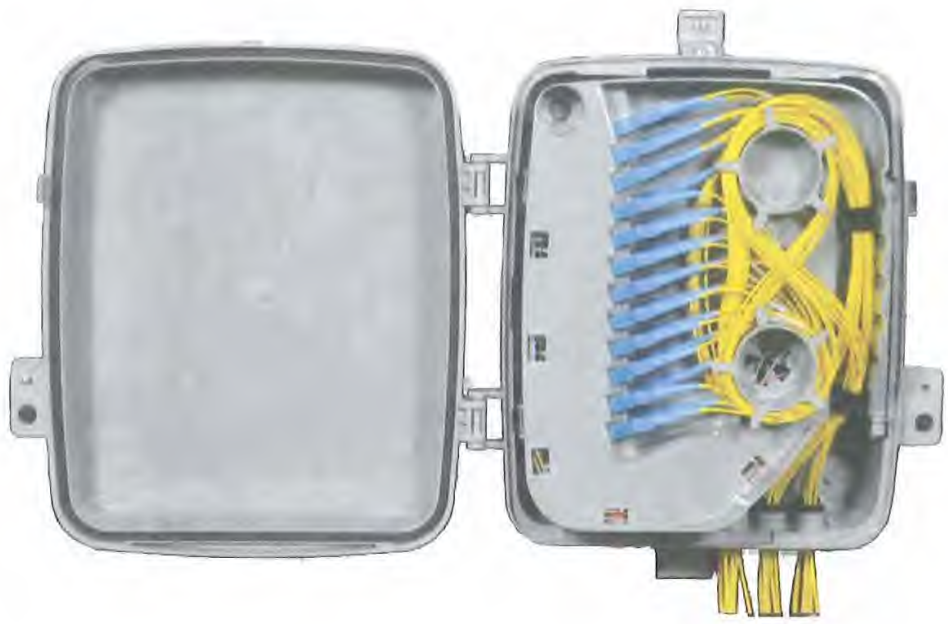
Weight: ~ 13 kg (29 lbs)
Size: 20,5"x4,9"x7,9" (13 l)
Operational conditions: -40 to +55 degrees
Cooling: Active
Power: AC, <300W Max
IP Class: IP 65

Dimension: 20,5"x5"x8" (13 l)



CFIT BOX

PART CODE: CFIT-C48D4LHXVZ
DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

PREPARED BY:

1961 NORTHPOINT BLVD, SUITE 130
HIKSON, TN 37343
PH: 423-843-9500
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JCI

CHECKED BY:

CTD

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COUNTY:

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LATITUDE:

42° 14' 35.196" N

LONGITUDE:

83° 37' 18.408" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

EQUIPMENT DETAILS

DRAWING NO.

C5

REVISION:

0

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 12" BELOW GRADE.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 40 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC AND TELEPHONE UTILITY COMPANIES FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT SHELTER WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE

UTILITY NOTES:

- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.
- 2. INSTALL PULL STRING IN TELCO CONDUIT.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM 120V	COPPER 120V	CONDUIT SIZE
3 AWG	55'	90'	3/4" MIN
2 AWG	70'	115'	3/4" MIN
1 AWG	85'	145'	3/4" MIN
1/0 AWG	110'	180'	1" MIN
2/0 AWG	140'	230'	1" MIN
3/0 AWG	175'	290'	1 1/4" MIN
4/0 AWG	220'	365'	1 1/4" MIN
250 KCMIL	265'	435'	1 1/4" MIN
300 KCMIL	315'	520'	1 1/2" MIN
350 KCMIL	370'	610'	1 1/2" MIN
400 KCMIL	420'	695'	2" MIN
500 KCMIL	530'	870'	2" MIN

LEGEND

UNDERGROUND POWER	— GP — GP —	CATCH BASIN	⊞
OVERHEAD POWER	— GP — GP —	IRON PIN SET (IPF) 3" REBAR	⦿
OVERHEAD UTILITIES	— DU — DU —	IRON PIN FOUND (IPF)	⦿
UNDERGROUND TELCO	— UT — UT —	BENCHMARK	⦿
OVERHEAD TELCO	— UT — UT —	CONCRETE MON. FOUND	⦿
GAS LINE	— GAS — GAS —	CONCRETE MON. SET	⦿
FENCE	— F — F —	UTILITY POLE	⦿
SEWER LINE	— SW — SW —	LIGHT POLE	⦿
WATER LINE	— W — W —	WATER VALVE	⦿
COAX CABLE	— C — C —	MANHOLE	⦿
HYBRID CABLE	— H — H —	GAS VALVE	⦿
HIGH VOLTAGE POWER	— HV — HV —	FIRE HYDRANT	⦿
FIBER	— F — F —	TELCO PEDESTAL	⦿
RIGHT-OF-WAY	— RW — RW —	ELECTRICAL PULL BOX	⦿
PROPERTY LINE	— PL — PL —		
EDGE OF PAVEMENT	— EP — EP —		



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

DRAWING NOTICE:
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DRAWN BY: JCI
CHECKED BY: CJD

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	06/26/19	DAI	CONSTRUCTION ISSUE
2	06/19/19	JCI	PRELIMINARY REVIEW

ENGINEER'S STAMP



SITE NAME:

40209

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 35.196" N

LONGITUDE:

83° 37' 18.408" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

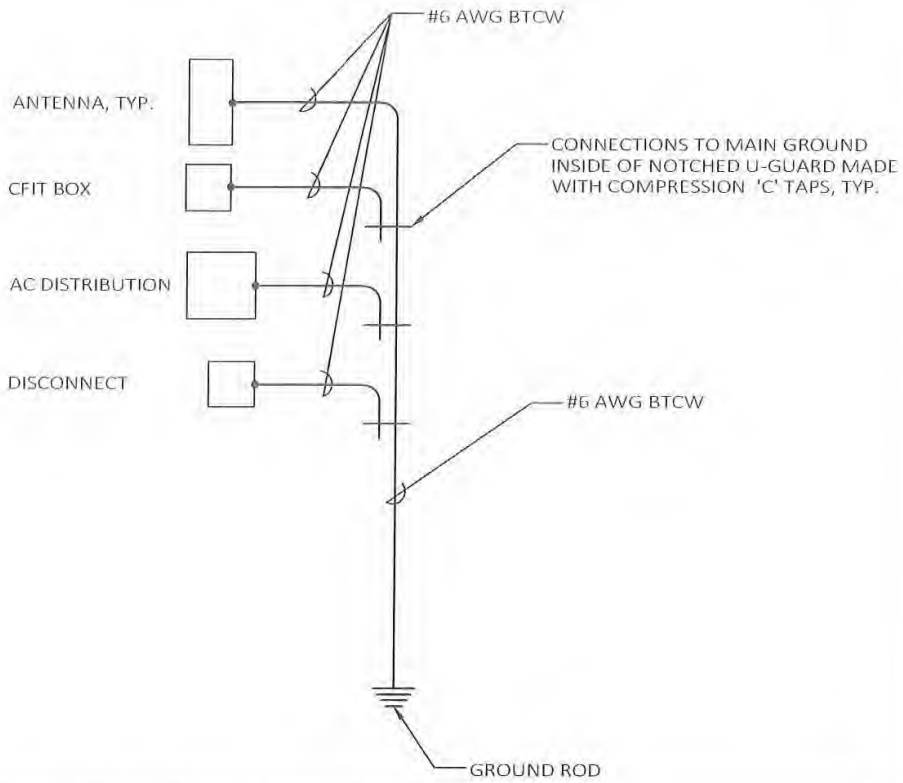
UTILITY SITE PLAN

DRAWING NO:

E1

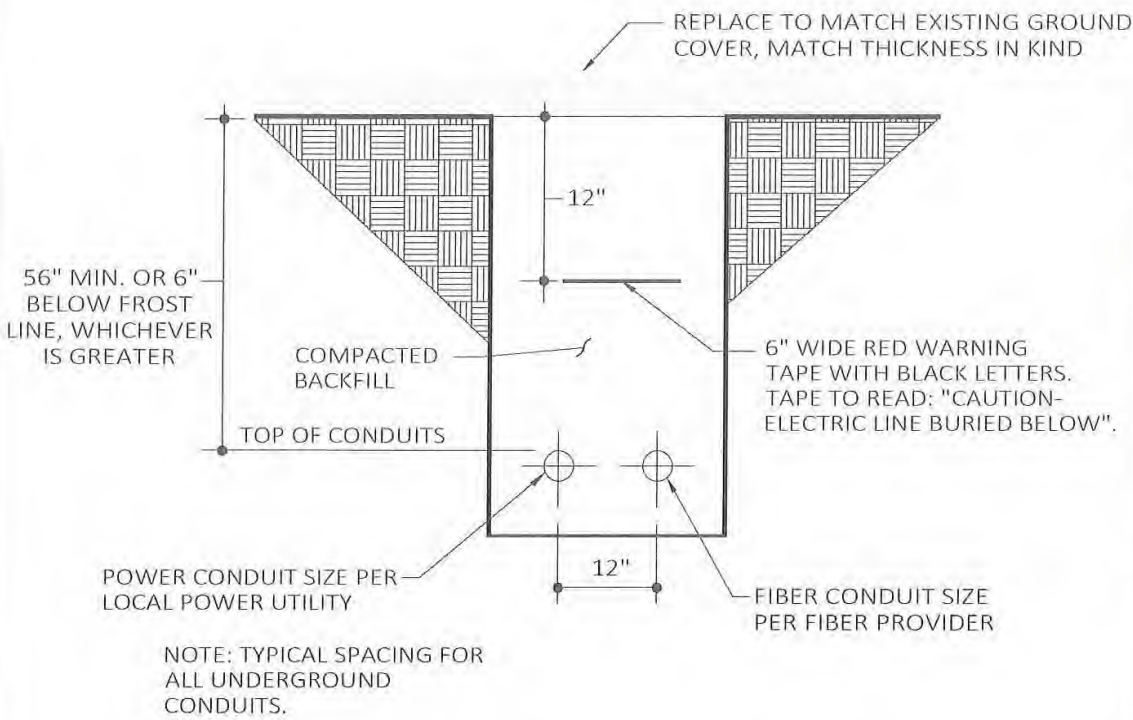
REVISION:

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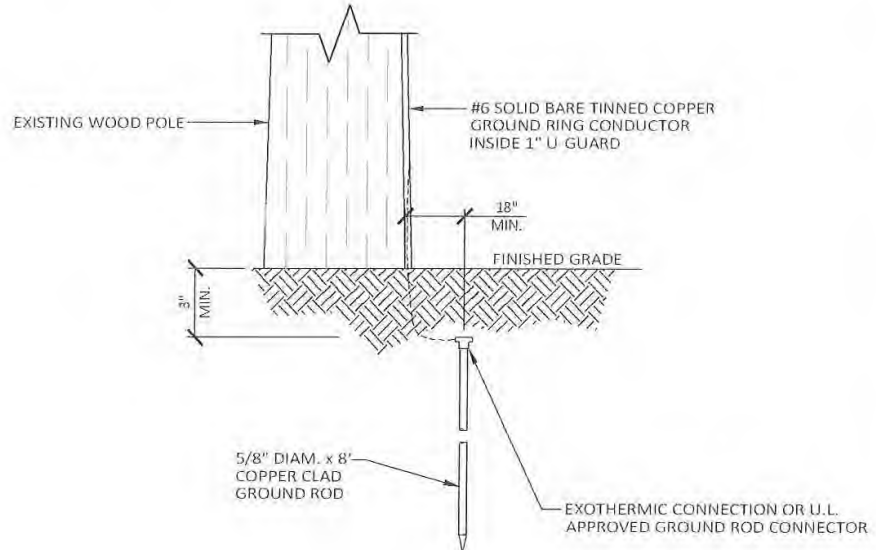
1 SINGLE POINT RADIAL GROUND DETAIL

N.T.S.



2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

N.T.S.

PREPARED FOR:

PREPARED BY:

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
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DRAWN BY:	ICI
CHECKED BY:	CTD

REVISIONS			
NO.	DATE	BY	DESCRIPTION
D	06/28/19	DAJ	CONSTRUCTION ISSUE
A	06/19/19	ICI	PRELIMINARY REVIEW

ENGINEER'S STAMP:

SITE NAME:
40209

COUNTY:
WASHTENAW

LATITUDE:
42° 14' 35.196" N

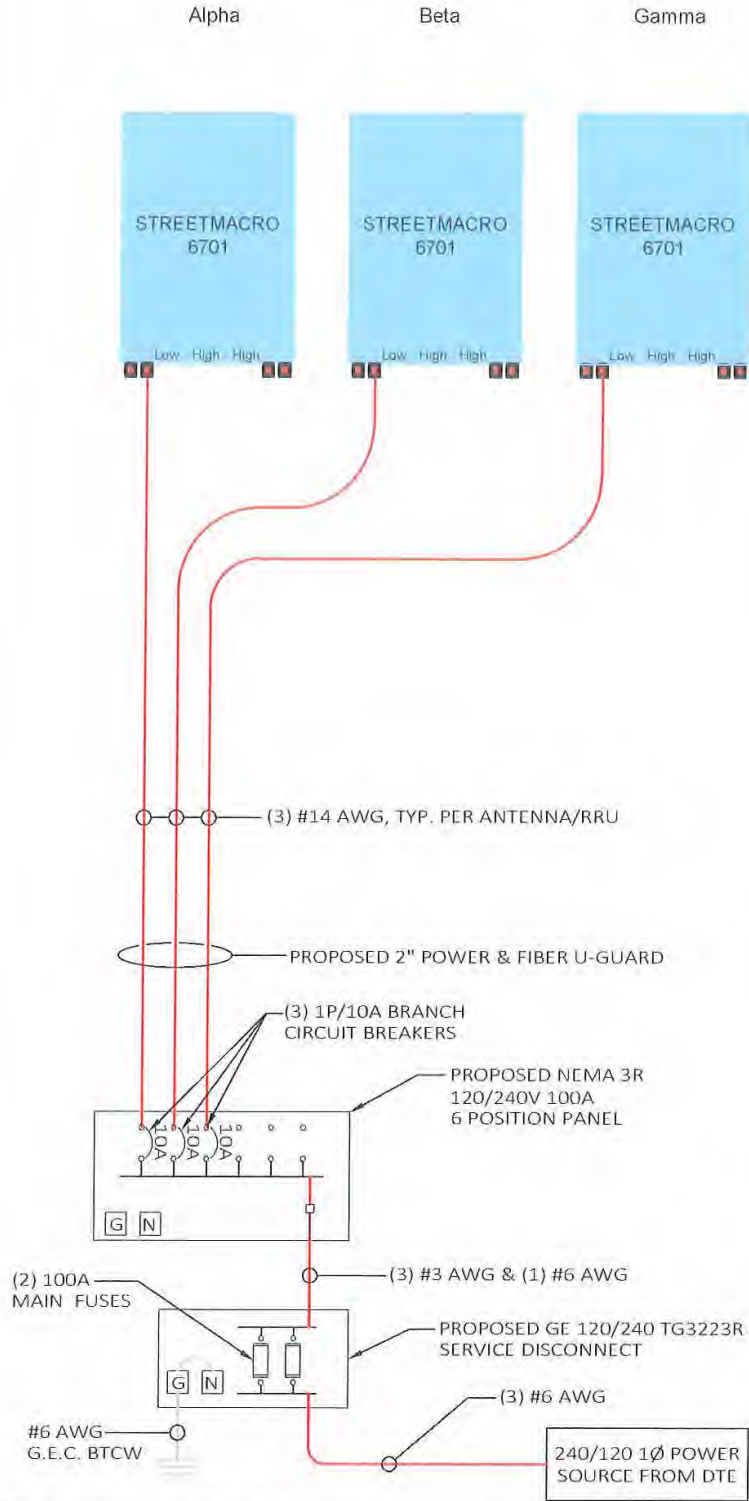
LONGITUDE:
83° 37' 18.408" W

DESIGN TYPE:
COLOCATION

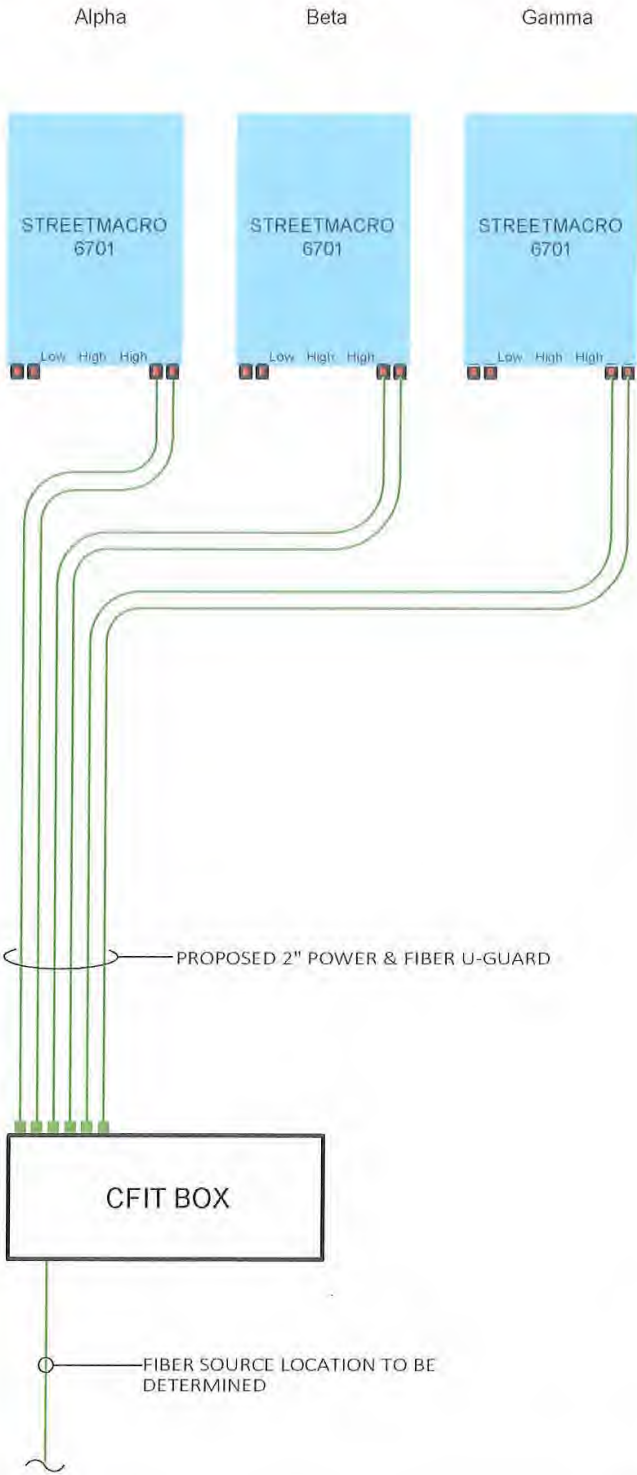
SHEET TITLE:
ELECTRICAL DETAILS

DRAWING NO. E2	REVISION: 0
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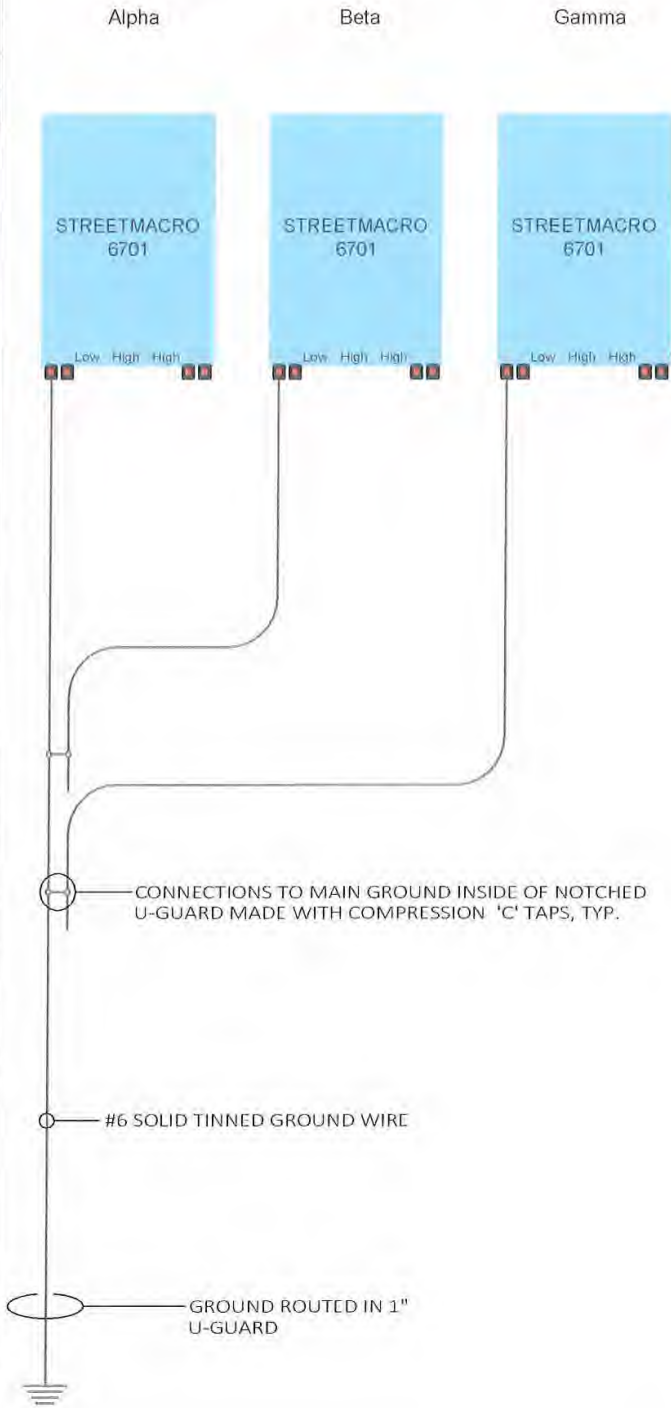
POWER ROUTING



FIBER ROUTING



GROUND ROUTING



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
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CHECKED BY: CTD

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NO.	DATE	BY	DESCRIPTION
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A	06/19/19	JCI	PRELIMINARY REVIEW

ENGINEER'S STAMP:



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40209

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 35.196" N

LONGITUDE:

83° 37' 18.408" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SINGLE LINE DIAGRAM

DRAWING NO.

E3

REVISION:

0

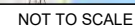
1 ELECTRICAL DIAGRAM

N.T.S

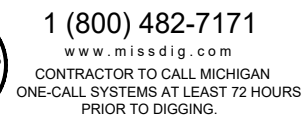
SITE NAME:	40212
SITE ADDRESS: (ESTIMATED)	399 PERRIN ST YIPSILANTI, MI 48197
COUNTY:	WASHTENAW
JURISDICTION:	CITY OF YIPSILANTI
<u>SITE COORDINATES:</u>	
LATITUDE:	42° 14' 44.232" N
LATITUDE:	42.24562°
LONGITUDE:	83° 37' 14.16" W
LONGITUDE:	-83.62060°
ELEVATION:	±748'-3"
PROPERTY DEFINITION:	R.O.W.
FUZE PROJECT ID:	15783137
PSLC CODE:	544751
PROPOSED POLE HEIGHT:	40'-0"
PROPOSED POLE CLASS:	TBD



VICINITY MAP



NOT TO SCALE

[illegible]

- INSTALLING NEW WOOD UTILITY POLE (CLASS TBD)
- INSTALLING EQUIPMENT
 - (3) ERICSSON 6701 ANTENNAS
 - CFIT BOX
 - (1) FIBER & (1) POWER CABLE PER ANTENNA
 - DISCONNECT
- RUN CONDUITS FOR POWER AND FIBER

MICHIGAN

WASHTENAW COUNTY

1

- GENERAL NOTES
1.

THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.

2.

THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.

3.

PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.

4.

THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.

5.

ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.

6.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.

7.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)

8.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.

9.

KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.

10.

PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.

11.

THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.

12.

ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

- DEFINITIONS
1.

"TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.

2.

"SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.

3.

"AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.

4.

"ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.

5.

THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.

6.

WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.

7.

FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

- PROJECT SPECIFIC NOTES
1.

THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.

2.

THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.

3.

IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

- GROUND CONSTRUCTION NOTES:
1.

120/240V POWER REQUIRED FOR 3-WIRE SERVICE.

2.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.

3.

CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.

4.

ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.

5.

ALL EQUIPMENT TO BE BONDED.

6.

METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

- STANDARD GROUNDING NOTES:
1.

GROUND TESTED AT 25 OHMS OR LESS.

2.

5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.

3.

#6 GROUND AND BOND WIRE.

4.

MOLDING, STAPLED EVERY 1' AND AT EACH END.

5.

GROUND RODS 18" FROM POLE.

- STANDARD CONDUIT NOTES:
1.

FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.

2.

IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.

3.

IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.

4.

RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.

5.

RISER STRAPS TO BE INSTALLED EVERY 5'.

6.

CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.

7.

ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

- STANDARD TRENCHING NOTES:
1.

MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.

2.

MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.

3.

IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.

4.

IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.

5.

PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

- UTILITY POLE CONSTRUCTION NOTES:
1.

NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".

2.

FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.

3.

ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.

4.

CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.

5.

90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).

6.

USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.

7.

USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.

8.

USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.

9.

FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

- VERIZON WIRELESS CONSTRUCTION NOTES:
1.

CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.

2.

CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.

3.

CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.

4.

CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.

5.

CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

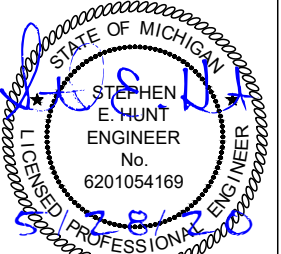
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DRAWN BY:	AJD
CHECKED BY:	CTD

REVISIONS				
1	05/28/20	MDR	CONSTRUCTION ISSUE	
0	06/27/19	DAJ	CONSTRUCTION ISSUE	
A	06/19/19	AJD	PRELIMINARY REVIEW	
NO.	DATE	BY	DESCRIPTION	

ENGINEER'S STAMP:



NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME: 40212

ADDRESS: 399 PERRIN ST
YIPSILANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 14' 44.232" N

LONGITUDE: 83° 37' 14.16" W

DESIGN TYPE: RAWLAND

SHEET TITLE:

GENERAL NOTES

DRAWING NO.	REVISION:
GN1	1

NOTES:

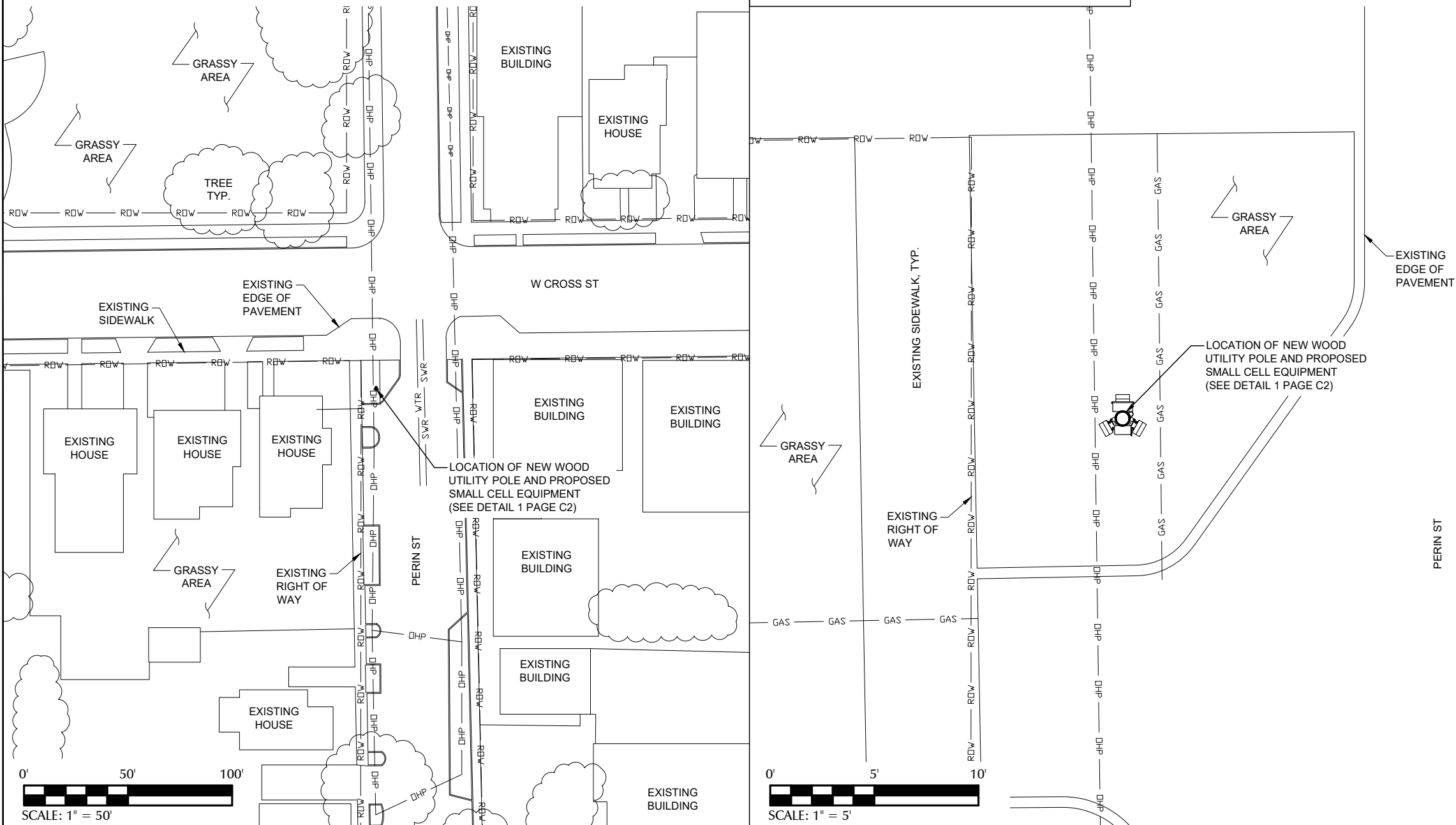
1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND

OVERHEAD UTILITIES	_____	CATCH BASIN	⌘
UNDERGROUND POWER	_____	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	_____	UTILITY POLE	⊗
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— X — X — X — X —	MANHOLE	⊗
WOOD FENCE	— □ — □ — □ — □ —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊗
WATER LINE	— WTR —	TELCO PEDESTAL	⊗
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊗
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— ROW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



1 OVERALL SITE LAYOUT

2 ENLARGED SITE LAYOUT

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
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AJD

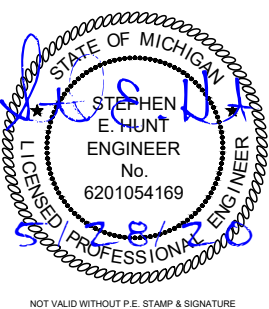
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399 PERRIN ST
YIPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 44.232" N

LONGITUDE:

83° 37' 14.16" W

DESIGN TYPE:

RAWLAND

SHEET TITLE:

SITE LAYOUTS

DRAWING NO.

C1

REVISION:

1



PREPARED FOR:



PREPARED BY:



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HIXSON, TN 37343
PH: 423-843-9500
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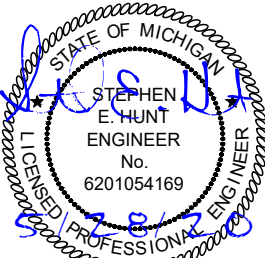
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DESIGN TYPE:	RAWLAND

SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

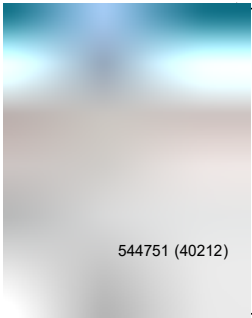
DRAWING NO.	REVISION:
C1A	1

1 OVERALL SITE LAYOUT - AERIAL IMAGERY

CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



6"x7.5" VERTICAL
RF NOTICE SIGN
TYPICAL OF 2

PROPOSED ERICSSON
6701 ANTENNA
(SEE DETAIL 1 PAGE C5)

5'-0"

NEW WOOD UTILITY
POLE

PROPOSED RISER
AND WEATHER HEAD,
TRIPLEX SERVICE
PROVIDED BY
OTHERS

PROPOSED 120/240V GE
TG3223R DISCONNECT BOX

PROPOSED NEMA 3R
120/240V 100A
6 POSITION PANEL

PROPOSED U-GUARD

PROPOSED POLE
MOUNTED CFIT BOX
(SEE DETAIL 2 PAGE C5)

PRE-ASSEMBLE
DISCONNECT AND
BREAKER BOX ON
THINSTRUT

10'-0"

FINISH GRADE

30'-0"
WEATHERHEAD

39'-0"
ANTENNA CENTERLINE

40'-0"
TOP OF POLE



INSTALL ON BREAKER PANEL

1 POLE ELEVATION

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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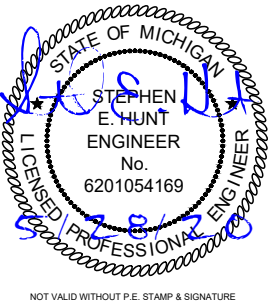
CHECKED BY:

CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	05/28/20	MDR	CONSTRUCTION ISSUE
0	06/27/19	DAJ	CONSTRUCTION ISSUE
A	06/19/19	AJD	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME: 40212

ADDRESS:
399 PERRIN ST
YIPILANTI, MI 48197

COUNTY:
WASHTENAW

LATITUDE:
42° 14' 44.232" N

LONGITUDE:
83° 37' 14.16" W

DESIGN TYPE:
RAWLAND

SHEET TITLE:

POLE ELEVATION

DRAWING NO.

C2

REVISION:

1

N.T.S.

POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97

PREPARED FOR:



PREPARED BY:



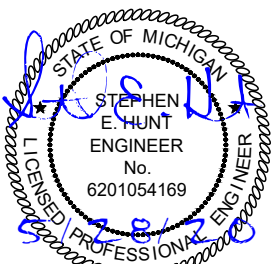
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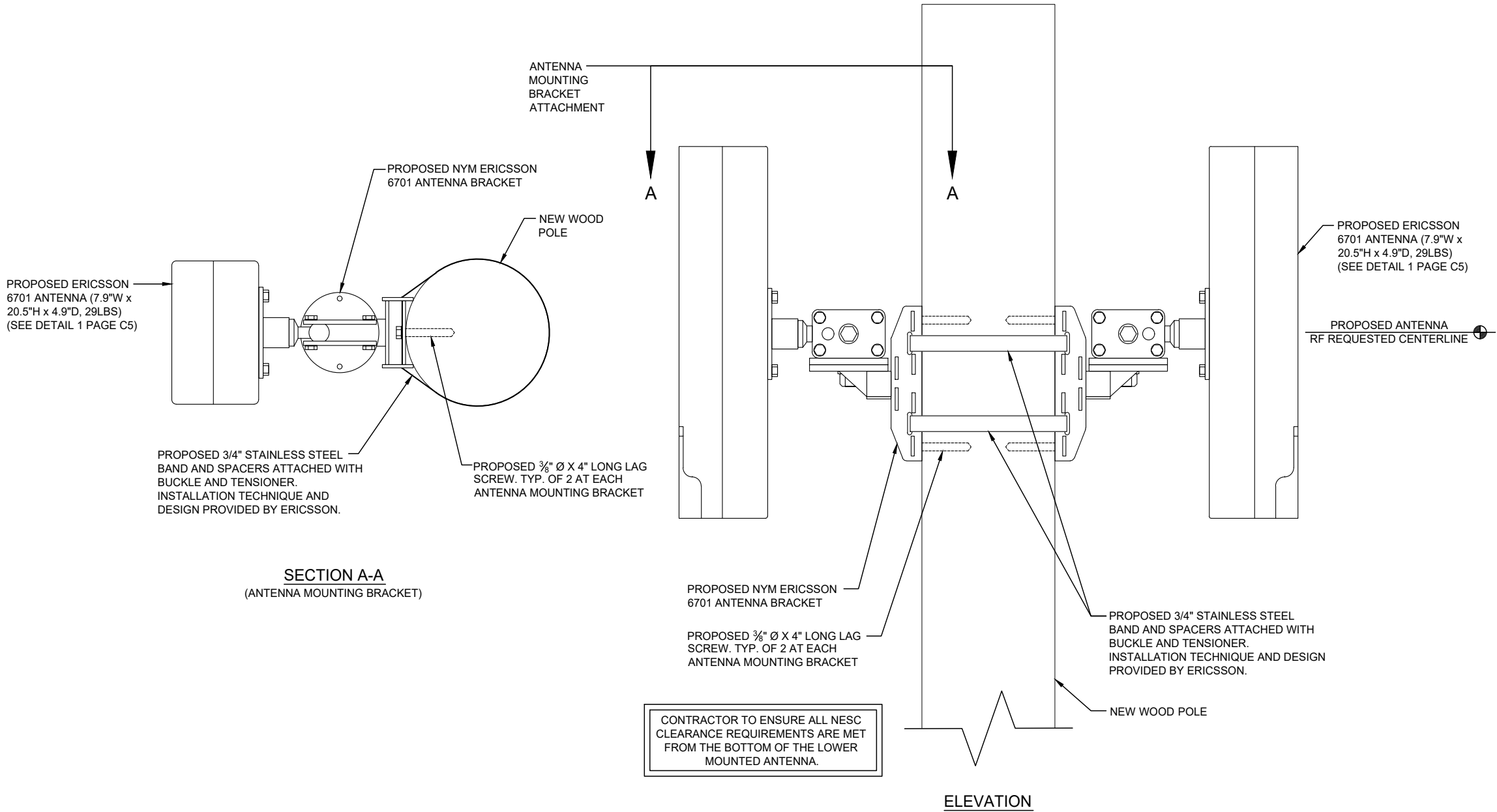


NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME:	40212
ADDRESS:	399 PERRIN ST YIPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 14' 44.232" N
LONGITUDE:	83° 37' 14.16" W
DESIGN TYPE:	RAWLAND

SHEET TITLE:	SITE DETAILS
--------------	--------------

DRAWING NO.	REVISION:
C3	1



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

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HIXSON, TN 37343
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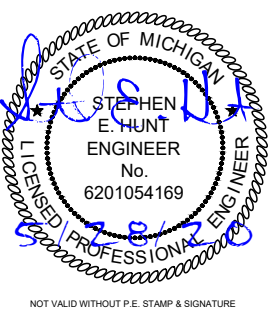
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CTD

REVISIONS

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ENGINEER'S STAMP:



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ADDRESS: 399 PERRIN ST
YIPSI LANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 14' 44.232" N

LONGITUDE: 83° 37' 14.16" W

DESIGN TYPE: RAWLAND

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

REVISION:

1

1

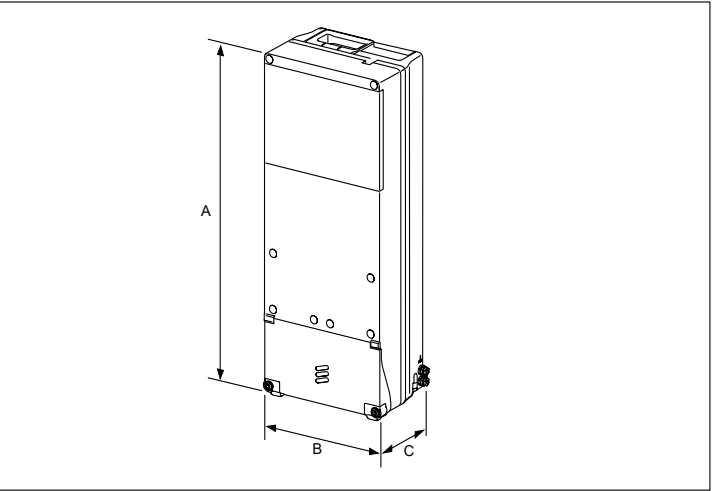
ERICSSON 6701 ANTENNA MOUNTING DETAIL

N.T.S.

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS_REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
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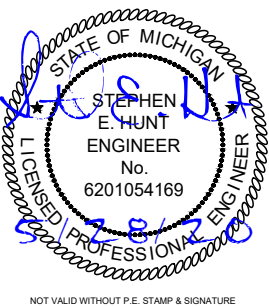
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40212

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YIPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 44.232" N

LONGITUDE:

83° 37' 14.16" W

DESIGN TYPE:

RAWLAND

SHEET TITLE:

EQUIPMENT DETAILS

DRAWING NO.

C5

REVISION:

1

1

6701 ANTENNA

N.T.S.

2

CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

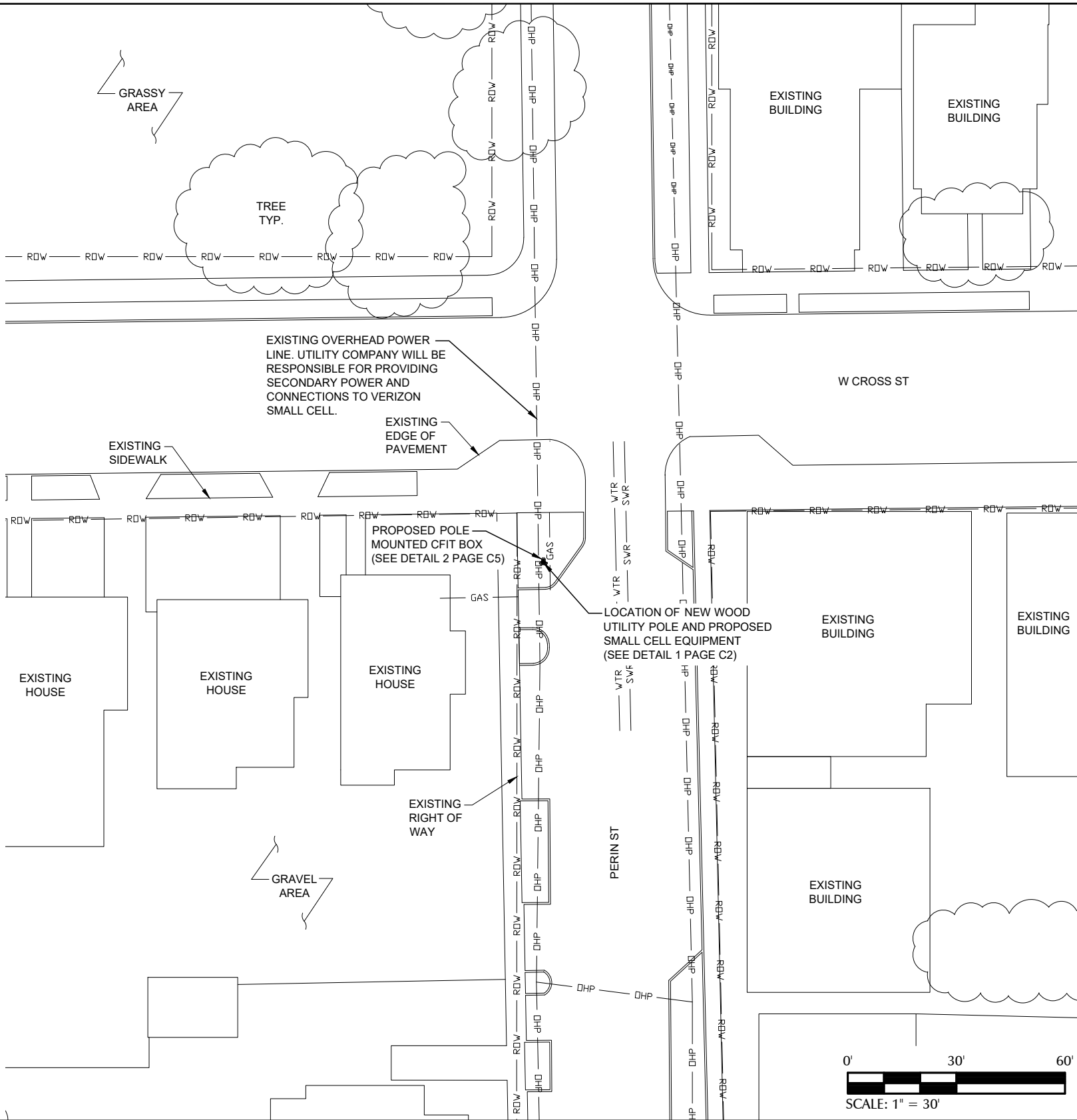
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM	COPPER	CONDUIT SIZE
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	—	CATCH BASIN	▣
UNDERGROUND POWER	—	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	—	UTILITY POLE	⊗
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— x — x — x —	MANHOLE	⊗
WOOD FENCE	— □ — □ — □ —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊗
WATER LINE	— WTR —	TELCO PEDESTAL	⊗
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊗
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— ROW —		
PROPERTY LINE	— PL —		



PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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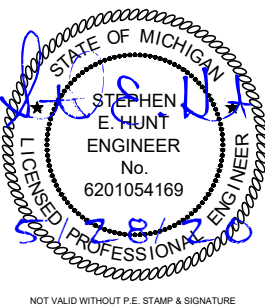
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A	06/19/19	AJD	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

40212

ADDRESS:

399 PERRIN ST
YIPISILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 44.232" N

LONGITUDE:

83° 37' 14.16" W

DESIGN TYPE:

RAWLAND

SHEET TITLE:

UTILITY SITE PLAN

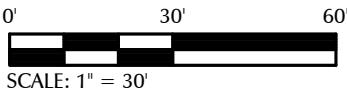
DRAWING NO.

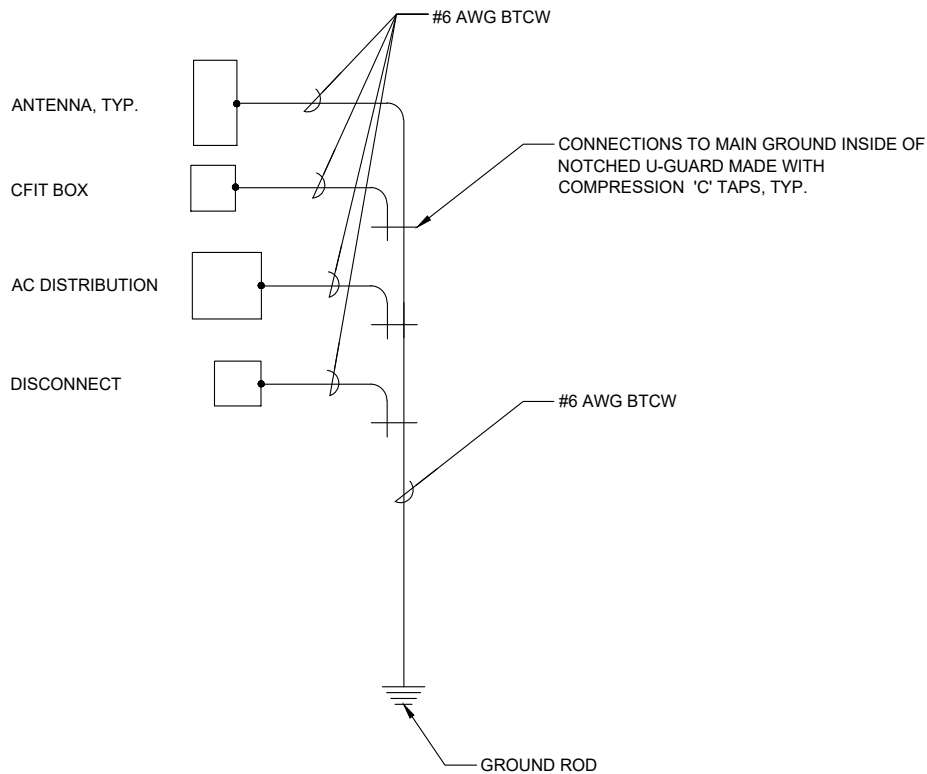
E1

REVISION:

1

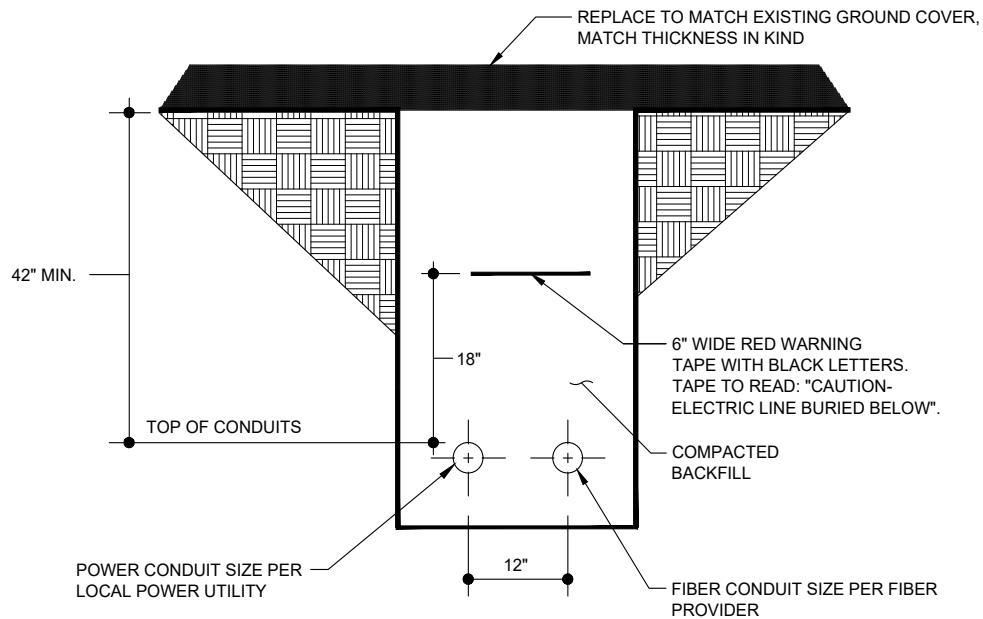
1 UTILITY SITE PLAN





1 SINGLE POINT RADIAL GROUND DETAIL

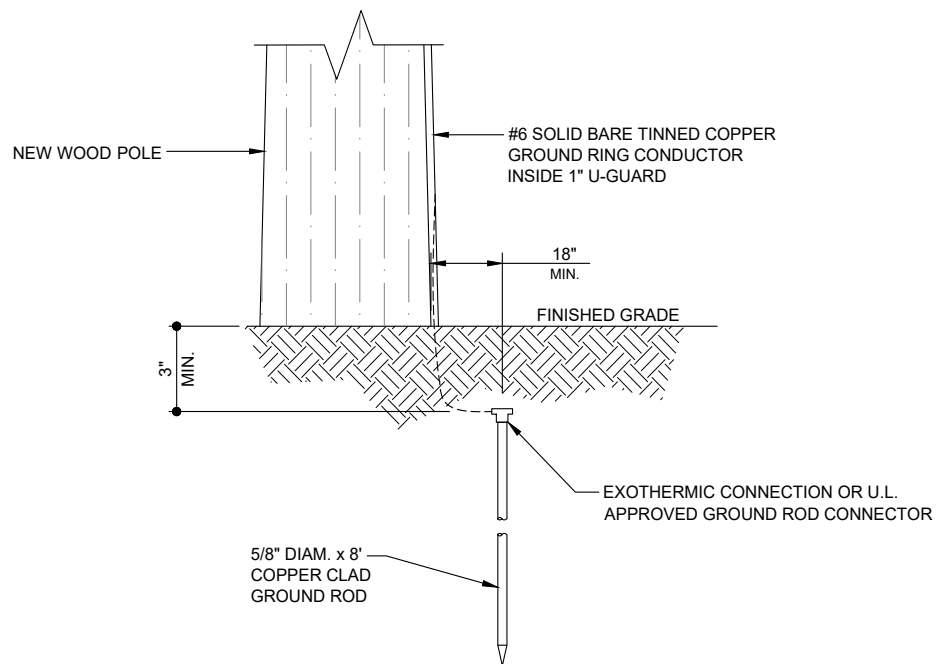
N.T.S.



NOTE: TYPICAL SPACING FOR ALL UNDERGROUND CONDUITS.

2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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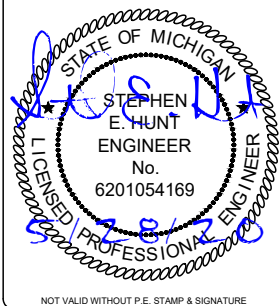
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ENGINEER'S STAMP:



SITE NAME: 40212

ADDRESS: 399 PERRIN ST
YIPSI LANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 14' 44.232" N

LONGITUDE: 83° 37' 14.16" W

DESIGN TYPE: RAWLAND

SHEET TITLE:

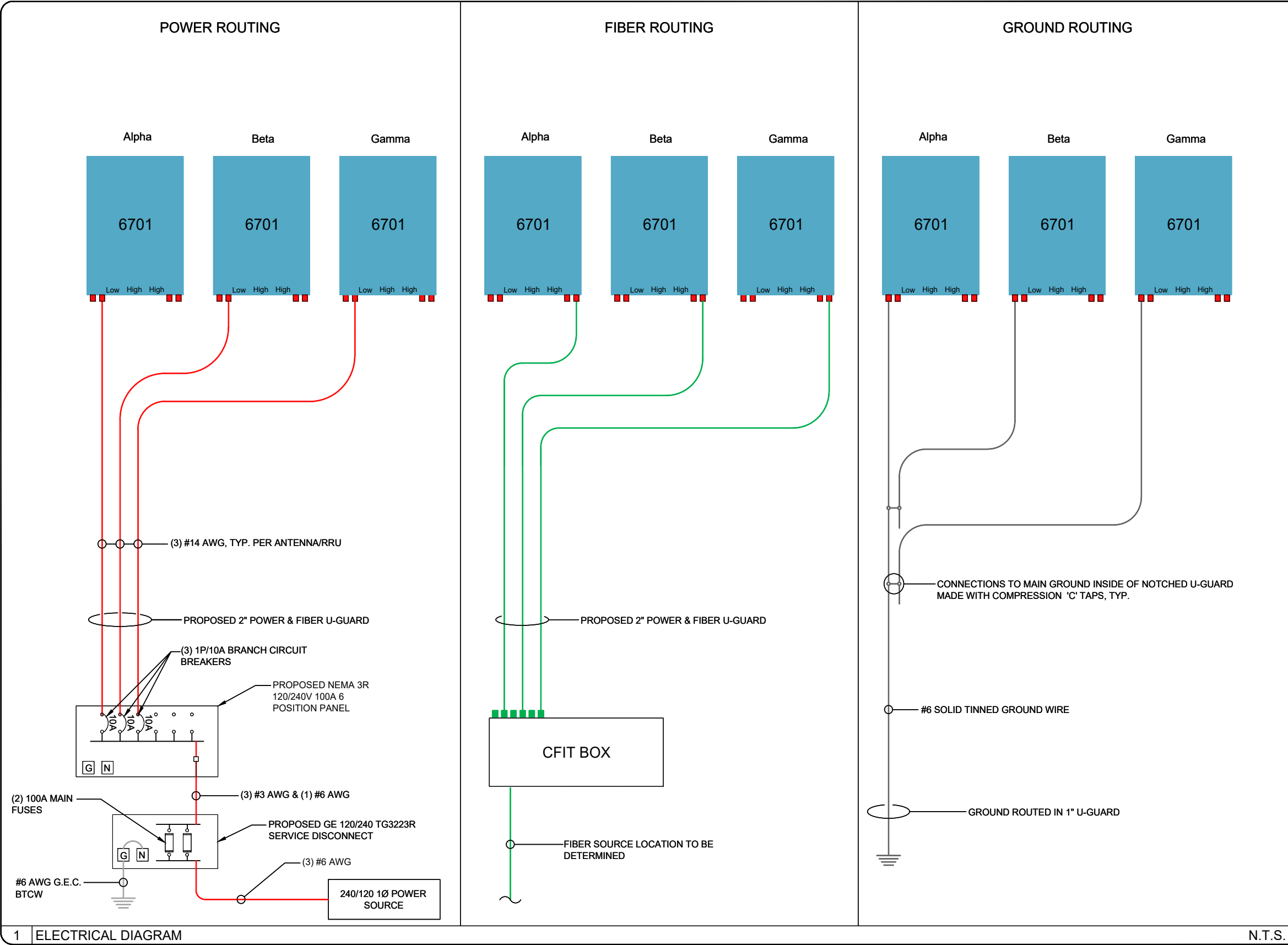
ELECTRICAL DETAILS

DRAWING NO.

E2

REVISION:

1



SITE NAME:	40216
SITE ADDRESS: (ESTIMATED)	701 LOWELL ST YIPSILANTI, MI 48197
COUNTY:	WASHTENAW
JURISDICTION:	CITY OF YIPSILANTI
<u>SITE COORDINATES:</u>	
LATITUDE:	42° 14' 53.844" N
LATITUDE:	42.24829°
LONGITUDE:	83° 37' 07.32" W
LONGITUDE:	-83.61870°
ELEVATION:	±738'-8"
PROPERTY DEFINITION:	R.O.W.
FUZE PROJECT ID:	15487105
PSLC CODE:	544754
EXISTING POLE HEIGHT:	46'-0"

THE OVERALL HEIGHT OF THIS POLE IS (46'-0"). THIS IS DUE TO THE ELEVATION OF THE EXISTING POWER LINES OF (38'-0") AND THE MINIMUM POWER TO ANTENNA SEPARATION, TO INCLUDE PLACARDS BEING (5'-0") OUR ANTENNA CL IS (44'-0") AND OVERALL POLE HEIGHT WILL BE (46'-0").

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.



VICINITY MAP



NOT TO SCALE

NOT TO SCALE

[illegible]

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT
- POWER AND FIBER PROVIDED BY OTHERS

MICHIGAN

WASHTENAW COUNTY



TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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ADDRESS:	701 LOWELL ST YIPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 14' 53.844" N
LONGITUDE:	83° 37' 07.32" W
DESIGN TYPE:	COLOCATION

TITLE SHEET

REVISION:

1

- GENERAL NOTES
1.

THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.

2.

THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.

3.

PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.

4.

THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.

5.

ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.

6.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.

7.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)

8.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.

9.

KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.

10.

PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.

11.

THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.

12.

ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1.

"TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.

2.

"SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.

3.

"AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.

4.

"ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.

5.

THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.

6.

WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.

7.

FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1.

THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.

2.

THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.

3.

IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1.

120/240V POWER REQUIRED FOR 3-WIRE SERVICE.

2.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.

3.

CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.

4.

ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.

5.

ALL EQUIPMENT TO BE BONDED.

6.

METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1.

GROUND TESTED AT 25 OHMS OR LESS.

2.

5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.

3.

#6 GROUND AND BOND WIRE.

4.

MOLDING, STAPLED EVERY 1' AND AT EACH END.

5.

GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1.

FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.

2.

IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.

3.

IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.

4.

RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.

5.

RISER STRAPS TO BE INSTALLED EVERY 5'.

6.

CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.

7.

ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1.

MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.

2.

MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.

3.

IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.

4.

IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.

5.

PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1.

NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".

2.

FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.

3.

ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.

4.

CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.

5.

90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).

6.

USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.

7.

USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.

8.

USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.

9.

FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1.

CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.

2.

CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.

3.

CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.

4.

CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.

5.

CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

815 482 7171

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PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509DRAWING NOTICE:
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CHECKED BY: CTD

REVISIONS

1	05/28/20	MDR	CONSTRUCTION ISSUE
0	06/27/19	DAJ	CONSTRUCTION ISSUE
A	06/19/19	ATC	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:

STATE OF MICHIGAN

STEPHEN E. HUNT

ENGINEER

No. 6201054169

LICENSED PROFESSIONAL ENGINEER

7/8/20

NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME: 40216

ADDRESS: 701 LOWELL ST
YIPSI LANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 14' 53.844" N

LONGITUDE: 83° 37' 07.32" W

DESIGN TYPE: COLOCATION

SHEET TITLE: GENERAL NOTES

DRAWING NO. GN1

REVISION: 1

Page 564 of 652

NOTES:

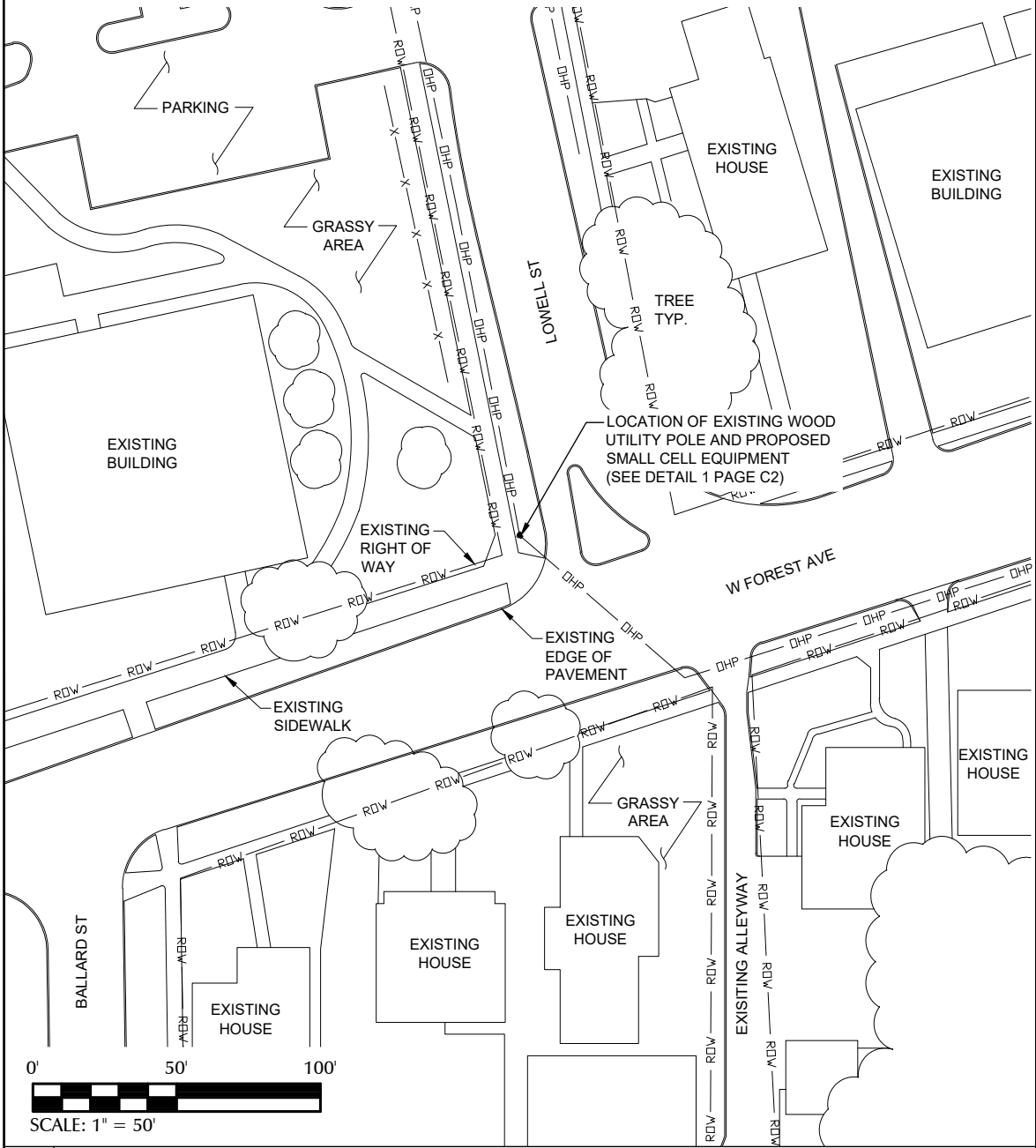
1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND

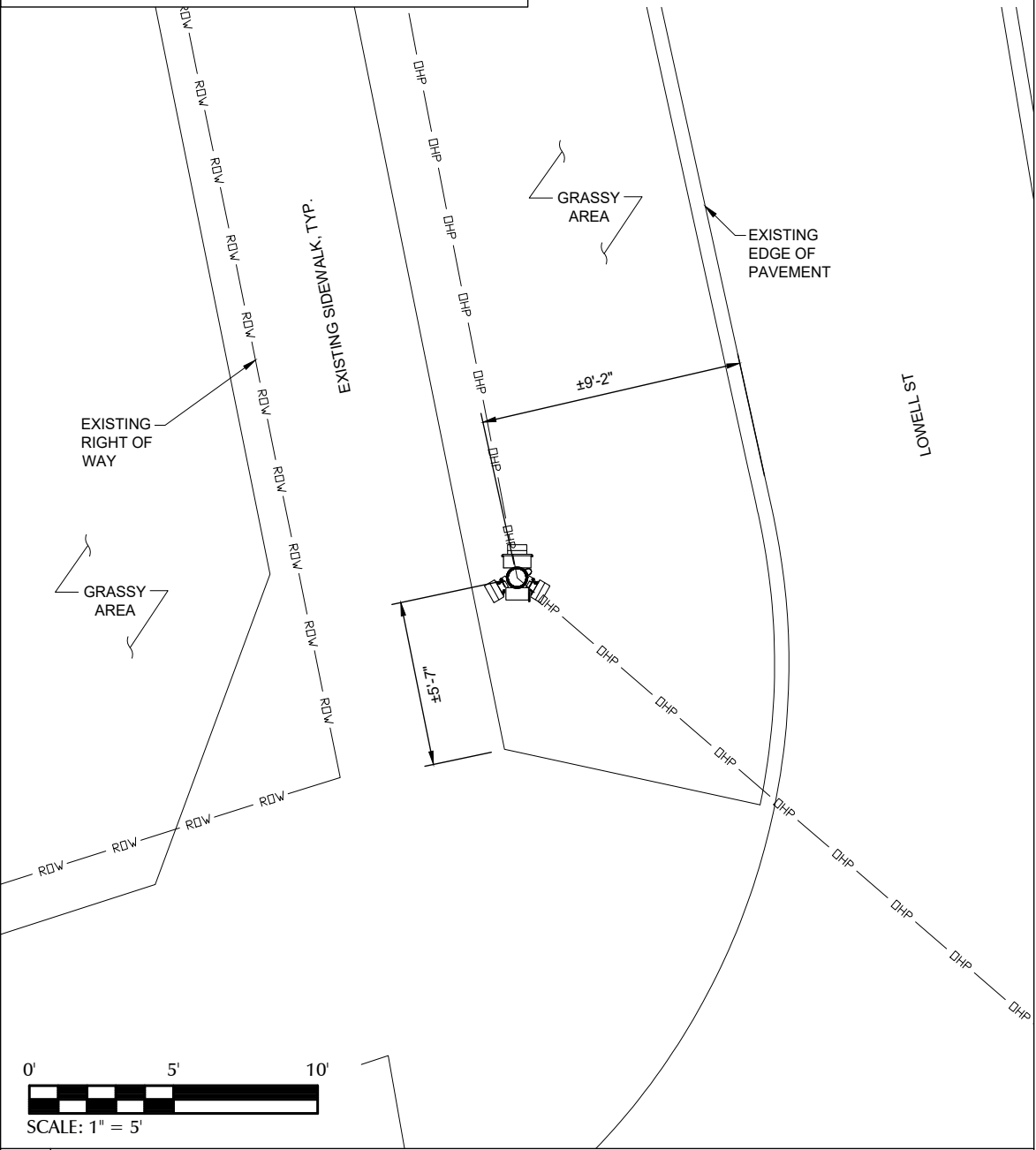
OVERHEAD UTILITIES	_____	CATCH BASIN	⌘
UNDERGROUND POWER	_____	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	_____	UTILITY POLE	⊗
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— X — X — X — X —	MANHOLE	⊗
WOOD FENCE	— □ — □ — □ — □ —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊗
WATER LINE	— WTR —	TELCO PEDESTAL	⊗
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊗
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— ROW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT

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PREPARED BY:

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HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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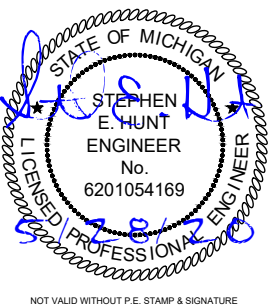
CHECKED BY:

CTD

REVISIONS

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0	06/27/19	DAJ	CONSTRUCTION ISSUE
A	06/19/19	ATC	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME: 40216

ADDRESS: 701 LOWELL ST
YIPSIANT, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 53.844" N

LONGITUDE:

83° 37' 07.32" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE LAYOUTS

DRAWING NO.

C1

REVISION:

1



PREPARED FOR:



PREPARED BY:



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HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

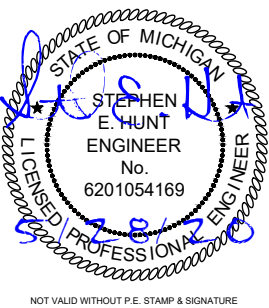
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LONGITUDE: 83° 37' 07.32" W
DESIGN TYPE: COLOCATION

SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO. C1A
REVISION: 1

1 OVERALL SITE LAYOUT - AERIAL IMAGERY

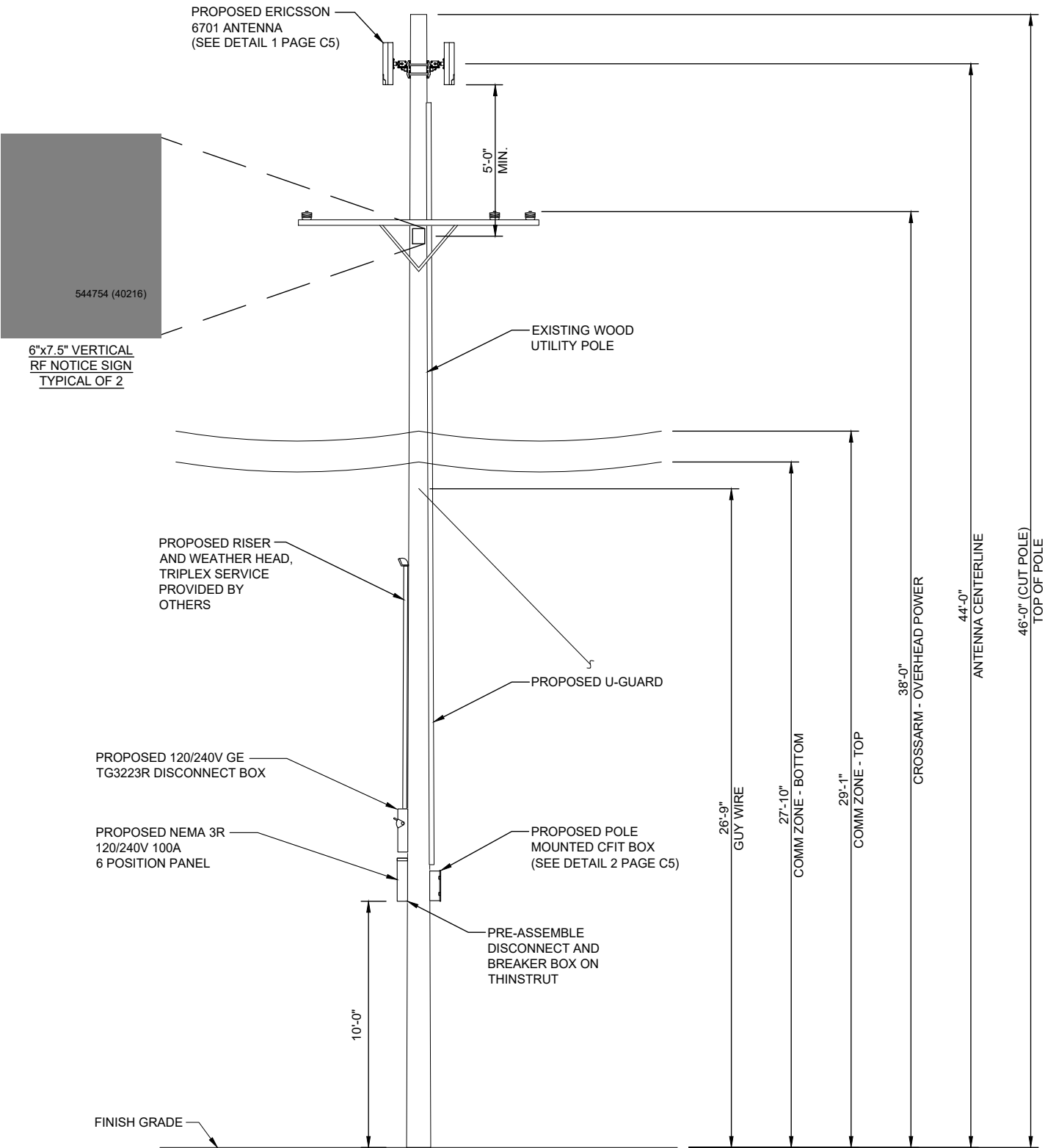
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



PREPARED FOR:

verizon

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TeleCAD Wireless

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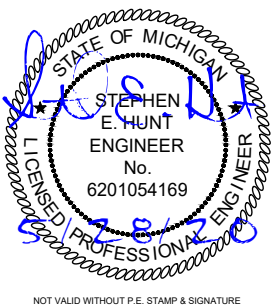
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ENGINEER'S STAMP:



SITE NAME:

40216

ADDRESS:

701 LOWELL ST
YIPSIANT, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 53.844" N

LONGITUDE:

83° 37' 07.32" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

POLE ELEVATION

DRAWING NO.

C2

REVISION:

1

N.T.S.

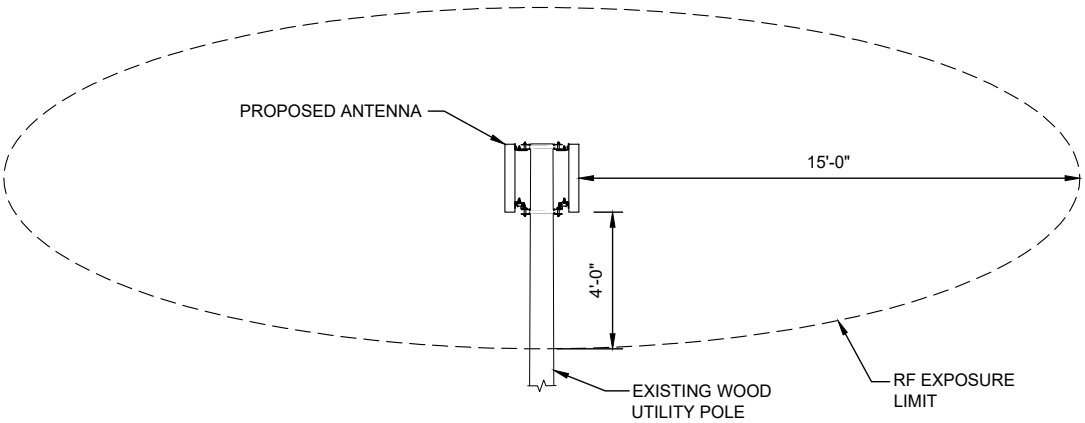
INSTALL ON BREAKER PANEL

1

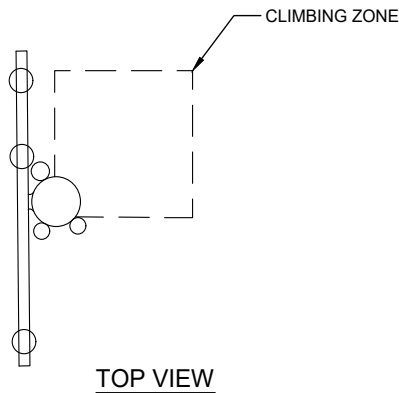
POLE ELEVATION

POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT. OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES N.T.S.

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PREPARED BY:

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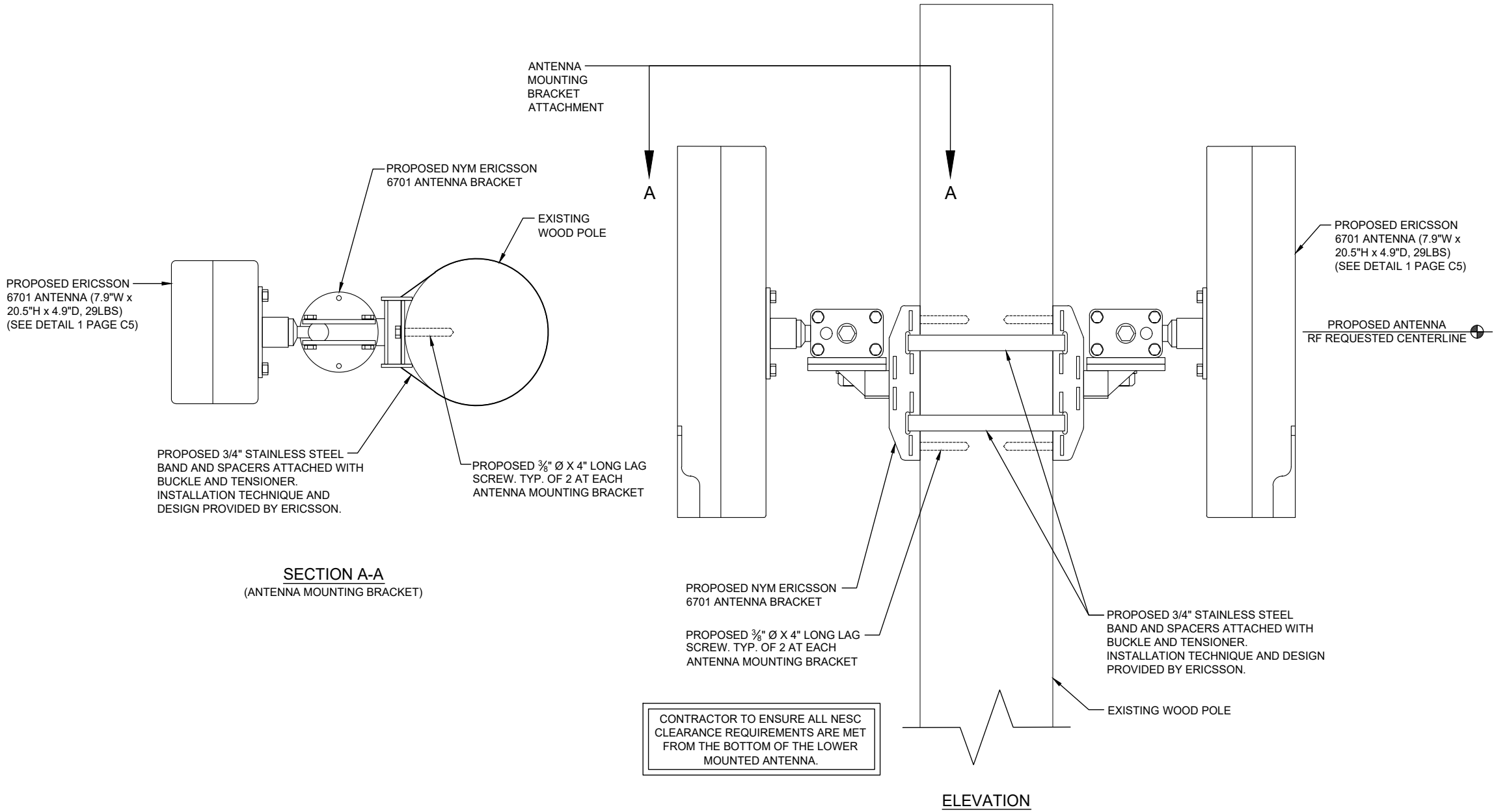
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DESIGN TYPE: COLOCATION
SHEET TITLE: SITE DETAILS
DRAWING NO. C3
REVISION: 1

1 EQUIPMENT CU-FT. TABLE



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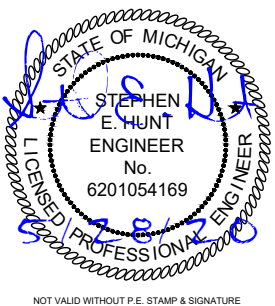
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COUNTY:
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LATITUDE:
42° 14' 53.844" N

LONGITUDE:
83° 37' 07.32" W

DESIGN TYPE:
COLOCATION

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

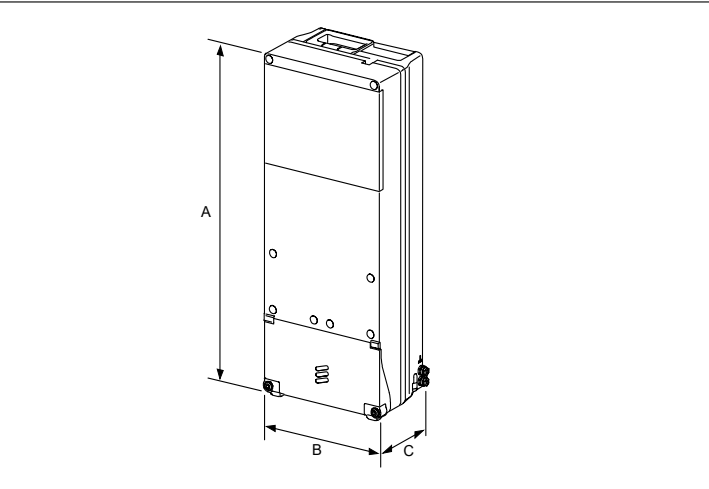
REVISION:

1

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS_REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

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Wireless
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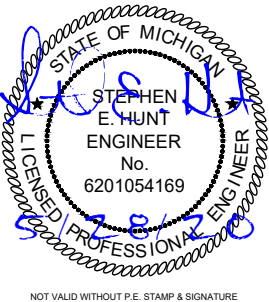
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DESIGN TYPE:	COLOCATION

SHEET TITLE:
EQUIPMENT DETAILS

DRAWING NO.	REVISION:
C5	1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

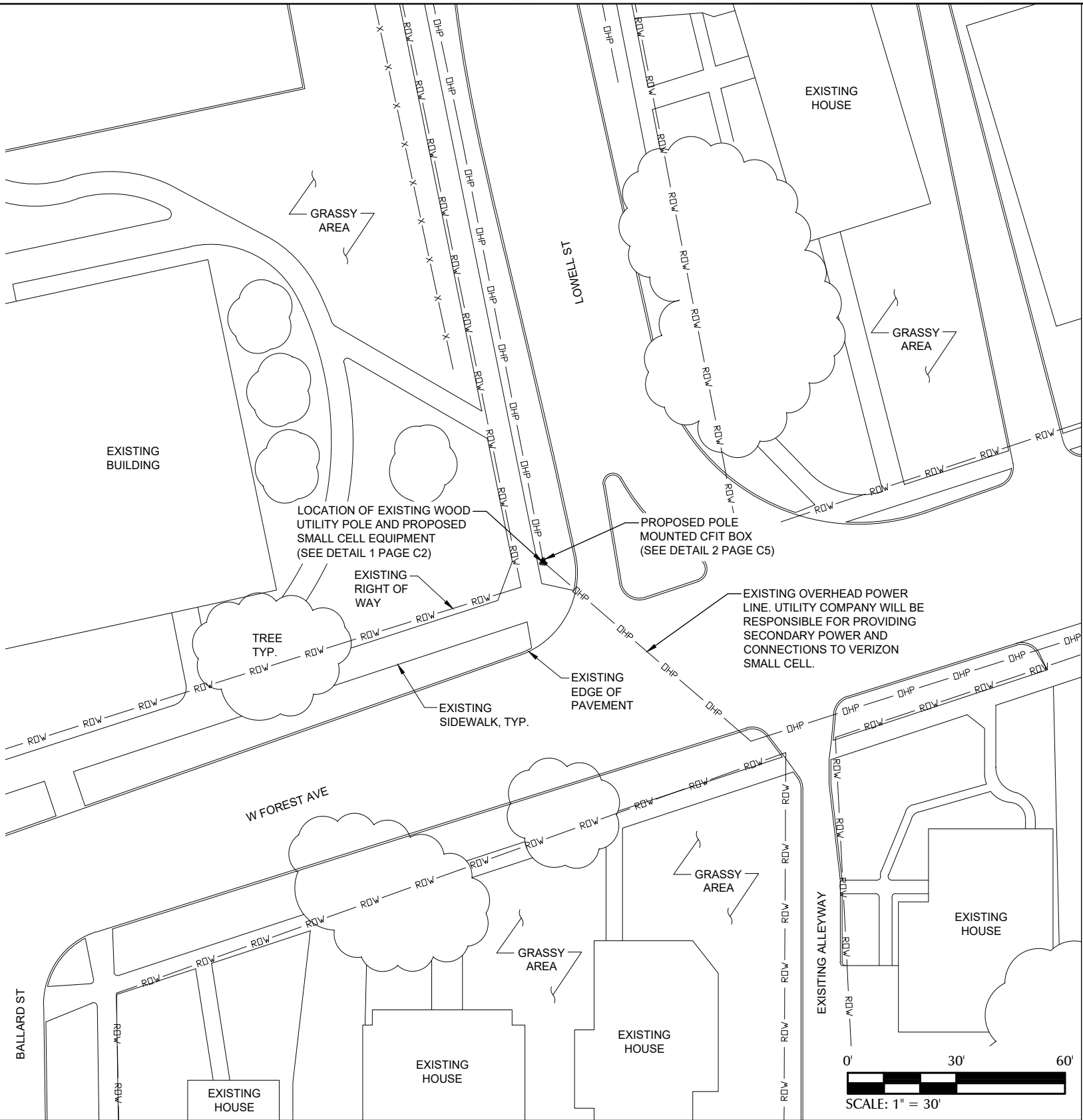
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

WIRE SIZE	SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)		CONDUIT SIZE
	ALUMINUM	COPPER	
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	—	CATCH BASIN	▣
UNDERGROUND POWER	—	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— DHT —	UTILITY POLE	⊗
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— X — X — X —	MANHOLE	⊗
WOOD FENCE	— □ — □ — □ —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊗
WATER LINE	— WTR —	TELCO PEDESTAL	⊗
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊗
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— RDW —		
PROPERTY LINE	— PL —		



PREPARED FOR:

verizon

PREPARED BY:

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Wireless

1961 NORTHPOINT BLVD, SUITE 130
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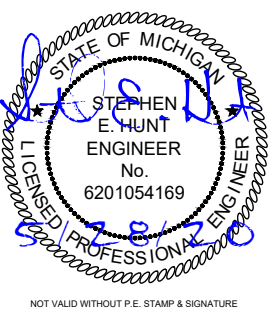
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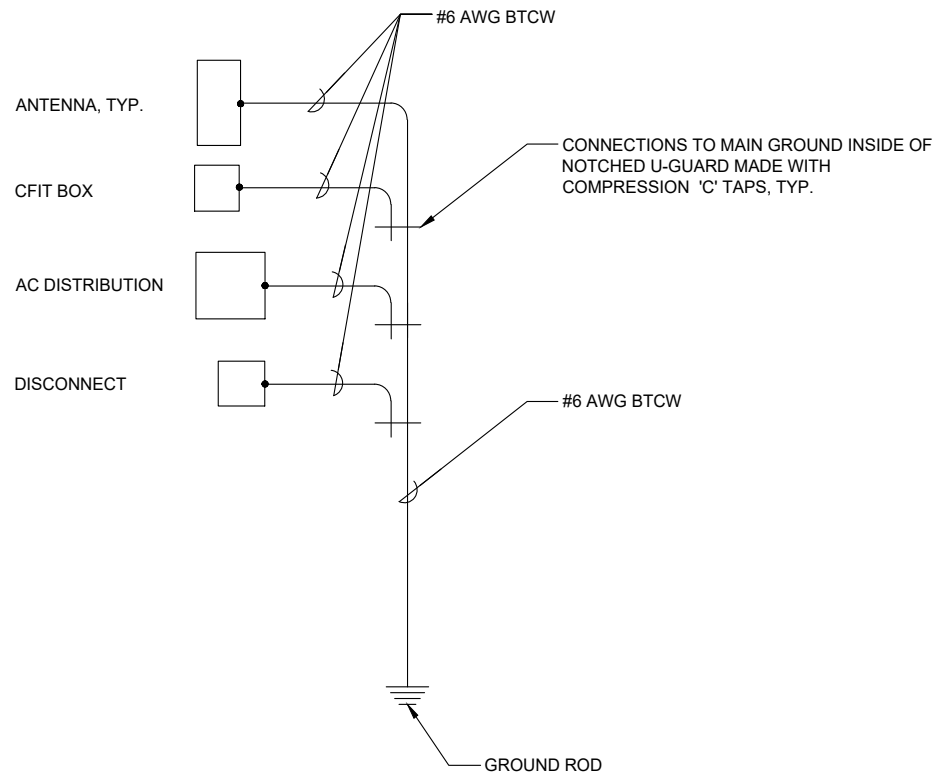
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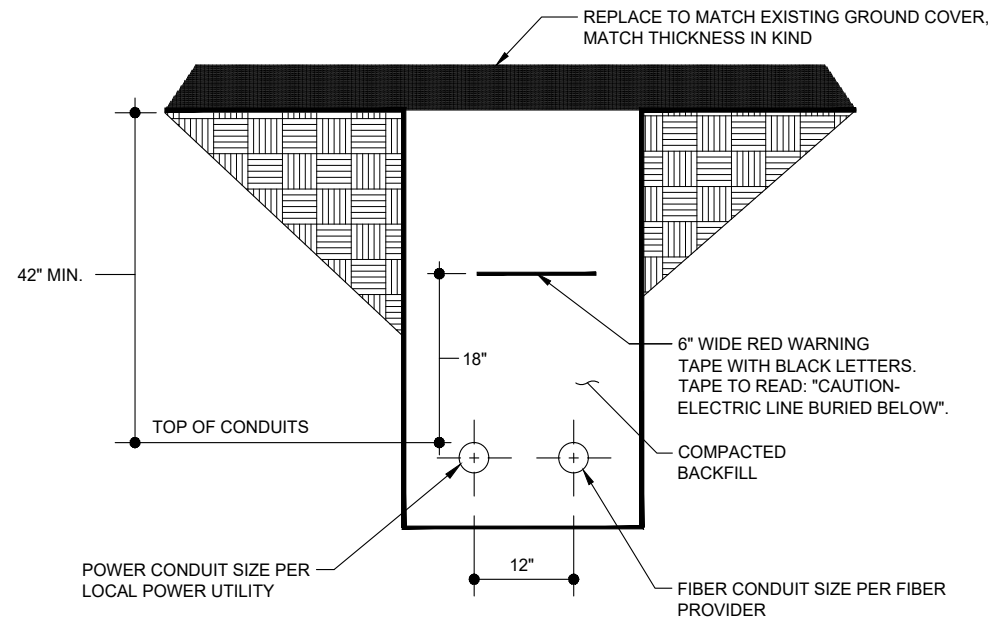
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1 UTILITY SITE PLAN



1 SINGLE POINT RADIAL GROUND DETAIL

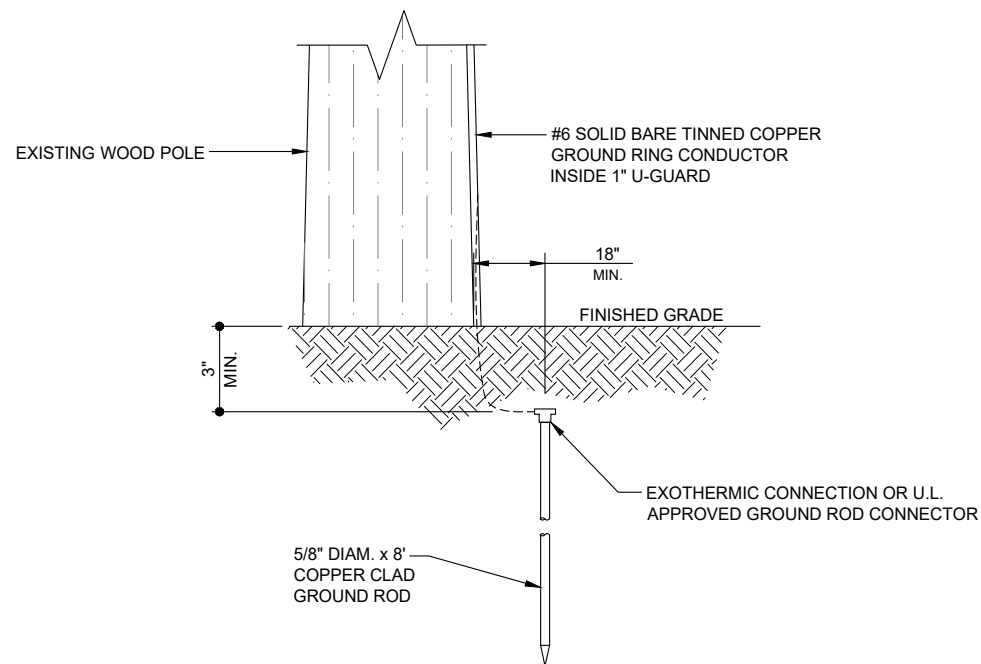
N.T.S.



NOTE: TYPICAL SPACING FOR ALL UNDERGROUND CONDUITS.

2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

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1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

DRAWING NOTICE:

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DRAWN BY:

ATC

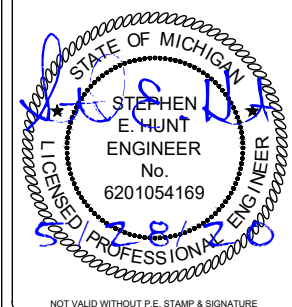
CHECKED BY:

CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	05/28/20	MDR	CONSTRUCTION ISSUE
0	06/27/19	DAJ	CONSTRUCTION ISSUE
A	06/19/19	ATC	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME: 40216

ADDRESS: 701 LOWELL ST
YIPILANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 14' 53.844" N

LONGITUDE: 83° 37' 07.32" W

DESIGN TYPE: COLOCATION

SHEET TITLE:

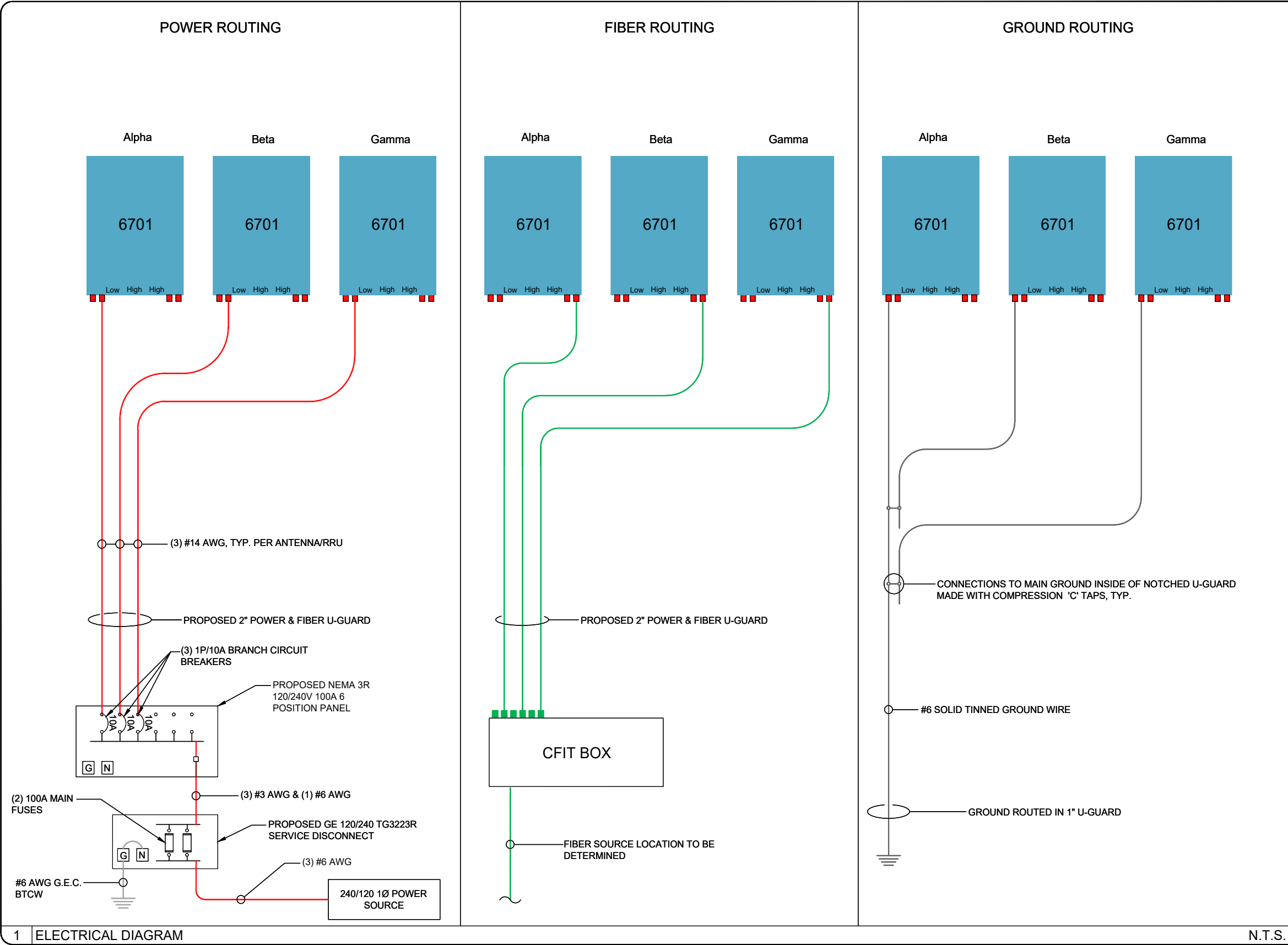
ELECTRICAL DETAILS

DRAWING NO.

E2

REVISION:

1



SITE NAME:	40204
SITE ADDRESS: (ESTIMATED)	1016 CORNELL ROAD YPSILANTI, MI 48197
COUNTY:	WASHTENAW
JURISDICTION:	CITY OF YPSILANTI
<u>SITE COORDINATES:</u>	
LATITUDE:	42° 15' 11.16" N
LATITUDE:	42.2531°
LONGITUDE:	83° 38' 2.436" W
LONGITUDE:	-83.63401°
ELEVATION:	±763'-3"
PROPERTY DEFINITION:	R.O.W.
FUZE PROJECT ID:	15487081
PSLC CODE:	544752
EXISTING POLE HEIGHT:	41'-0"



THE OVERALL HEIGHT OF THIS POLE IS (41'-0"). THIS IS DUE TO THE ELEVATION OF THE EXISTING POWER LINES OF (33'-0") AND THE MINIMUM POWER TO ANTENNA SEPARATION, TO INCLUDE PLACARDS BEING (5'-0") OUR ANTENNA CL IS (39'-0") AND OVERALL POLE HEIGHT WILL BE (41'-0").

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.

The map shows the Detroit, Michigan area. Major roads are highlighted in red and blue. Water bodies are shown in blue. City names are labeled in black. A black box with the text 'SITE LOCATION' and an arrow points to a specific area near the Detroit River, west of Detroit and north of Toledo.

NOT TO SCALE

CONTRACTOR TO CALL MICHIGAN
ONE-CALL SYSTEMS AT LEAST 72 HOURS
PRIOR TO DIGGING.

NOT TO SCALE

[illegible]

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT
- POWER AND FIBER PROVIDED BY OTHERS

MICHIGAN

WASHTENAW COUNTY

1	05/28/20	LA	CONSTRUCTION ISSUE
0	07/31/19	DAJ	CONSTRUCTION ISSUE
A	06/13/19	LA	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

DRAWING NO.	REVISION:
T1	1

- GENERAL NOTES
1.

THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.

2.

THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.

3.

PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.

4.

THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.

5.

ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.

6.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.

7.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)

8.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.

9.

KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.

10.

PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.

11.

THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.

12.

ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

- DEFINITIONS
1.

"TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.

2.

"SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.

3.

"AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.

4.

"ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.

5.

THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.

6.

WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.

7.

FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

- PROJECT SPECIFIC NOTES
1.

THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.

2.

THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.

3.

IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

- GROUND CONSTRUCTION NOTES:
1.

120/240V POWER REQUIRED FOR 3-WIRE SERVICE.

2.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.

3.

CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.

4.

ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.

5.

ALL EQUIPMENT TO BE BONDED.

6.

METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

- STANDARD GROUNDING NOTES:
1.

GROUND TESTED AT 25 OHMS OR LESS.

2.

5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.

3.

#6 GROUND AND BOND WIRE.

4.

MOLDING, STAPLED EVERY 1' AND AT EACH END.

5.

GROUND RODS 18" FROM POLE.

- STANDARD CONDUIT NOTES:
1.

FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.

2.

IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.

3.

IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.

4.

RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.

5.

RISER STRAPS TO BE INSTALLED EVERY 5'.

6.

CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.

7.

ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

- STANDARD TRENCHING NOTES:
1.

MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.

2.

MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.

3.

IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.

4.

IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.

5.

PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

- UTILITY POLE CONSTRUCTION NOTES:
1.

NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".

2.

FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.

3.

ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.

4.

CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.

5.

90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).

6.

USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.

7.

USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.

8.

USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.

9.

FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

- VERIZON WIRELESS CONSTRUCTION NOTES:
1.

CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.

2.

CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.

3.

CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.

4.

CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.

5.

CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

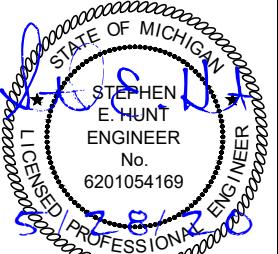
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DRAWN BY:	LA
CHECKED BY:	CTD

REVISIONS				
1	05/28/20	LA	CONSTRUCTION ISSUE	
0	07/31/19	DAJ	CONSTRUCTION ISSUE	
A	06/13/19	LA	PRELIMINARY REVIEW	
NO.	DATE	BY	DESCRIPTION	

ENGINEER'S STAMP:



NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME:

40204

ADDRESS:

1016 CORNELL ROAD
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 15' 11.16" N

LONGITUDE:

83° 38' 2.436" W

DESIGN TYPE:

COLOCATION

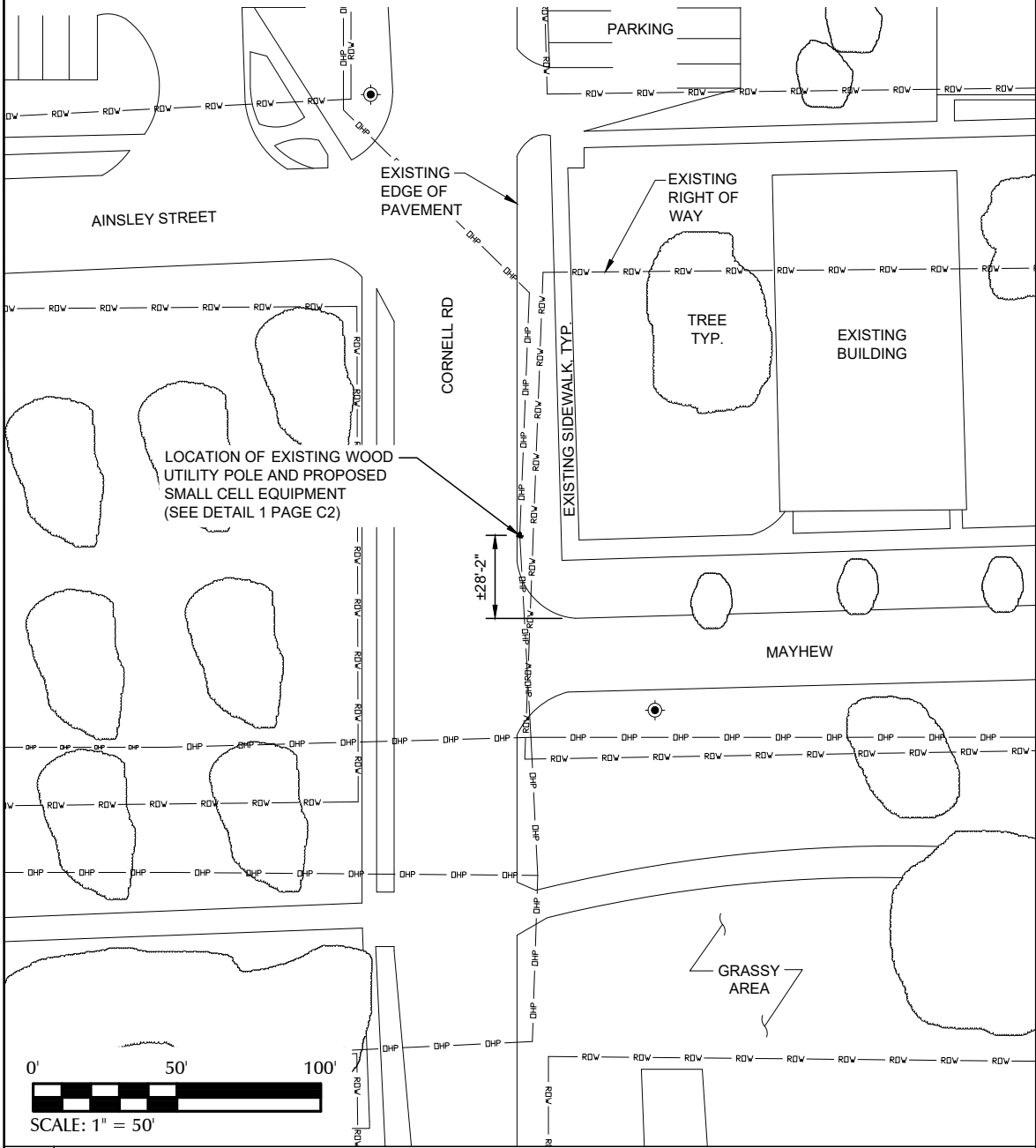
SHEET TITLE:

GENERAL NOTES

DRAWING NO.	REVISION:
GN1	1

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.



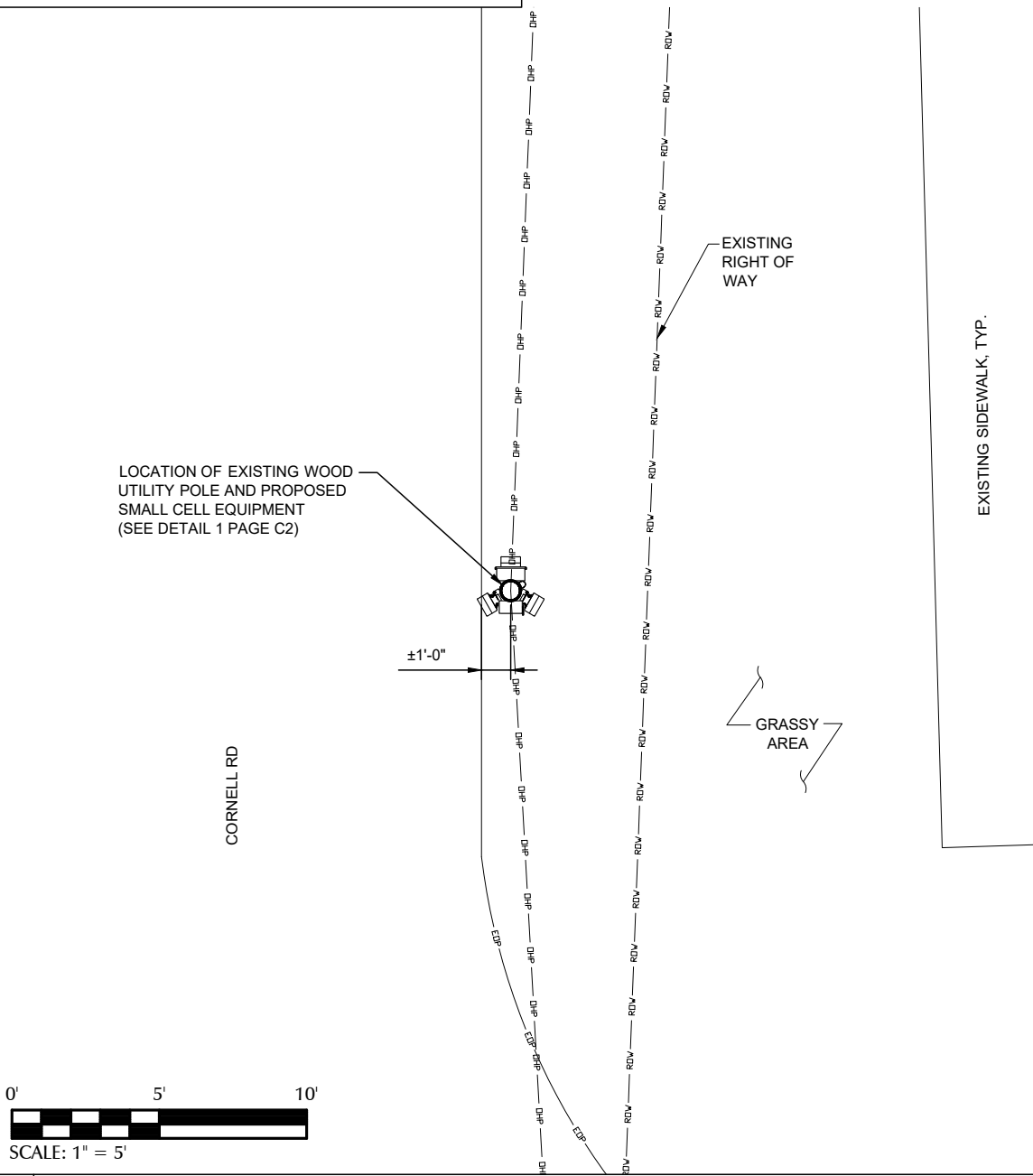
1 OVERALL SITE LAYOUT

LEGEND

OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊗
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— X —	MANHOLE	⊗
WOOD FENCE	— O —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊗
WATER LINE	— VTR —	TELCO PEDESTAL	⊗
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊗
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— RDW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



2 ENLARGED SITE LAYOUT

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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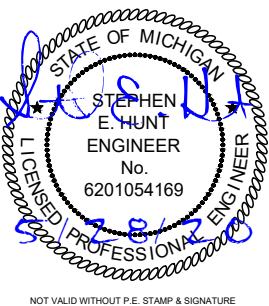
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A	06/13/19	LA	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

40204

ADDRESS:

1016 CORNELL ROAD
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 15' 11.16" N

LONGITUDE:

83° 38' 2.436" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE LAYOUTS

DRAWING NO.

C1

REVISION:

1



PREPARED FOR:



PREPARED BY:



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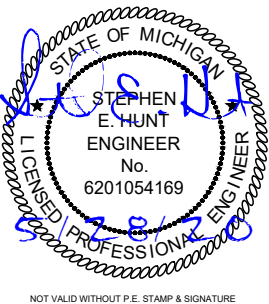
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SITE NAME: 40204
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YPSILANTI, MI 48197
COUNTY: WASHTENAW
LATITUDE: 42° 15' 11.16" N
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DESIGN TYPE: COLOCATION

SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO. C1A	REVISION: 1
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1 OVERALL SITE LAYOUT - AERIAL IMAGERY

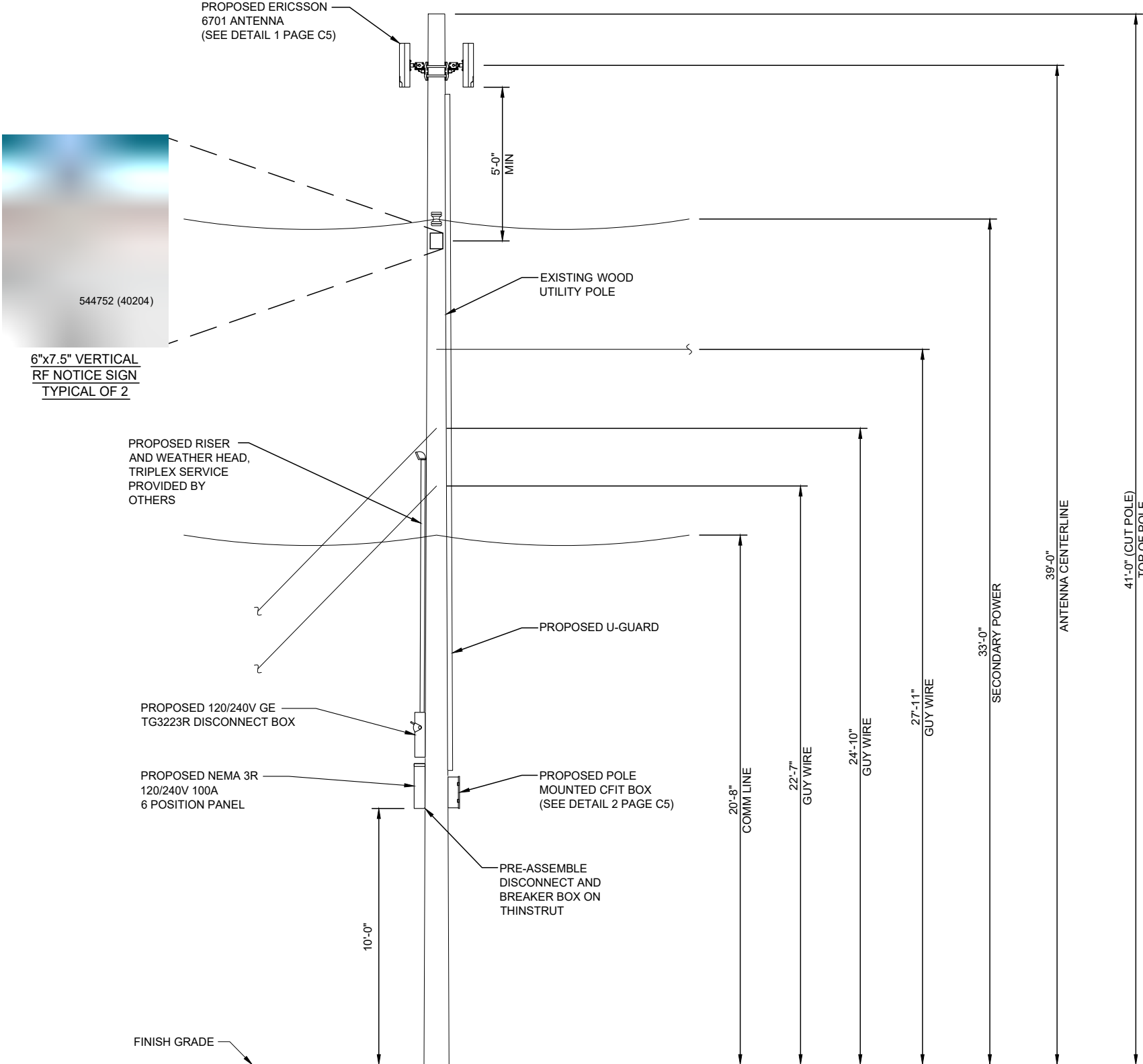
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



PREPARED FOR:



PREPARED BY:



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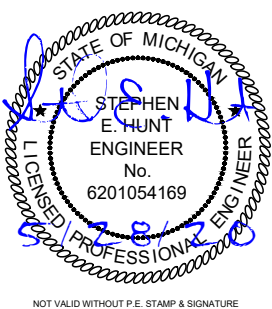
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1016 CORNELL ROAD
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COUNTY:

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LATITUDE:

42° 15' 11.16" N

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83° 38' 2.436" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

POLE ELEVATION

DRAWING NO.

C2

REVISION:

1

N.T.S.

INSTALL ON BREAKER PANEL

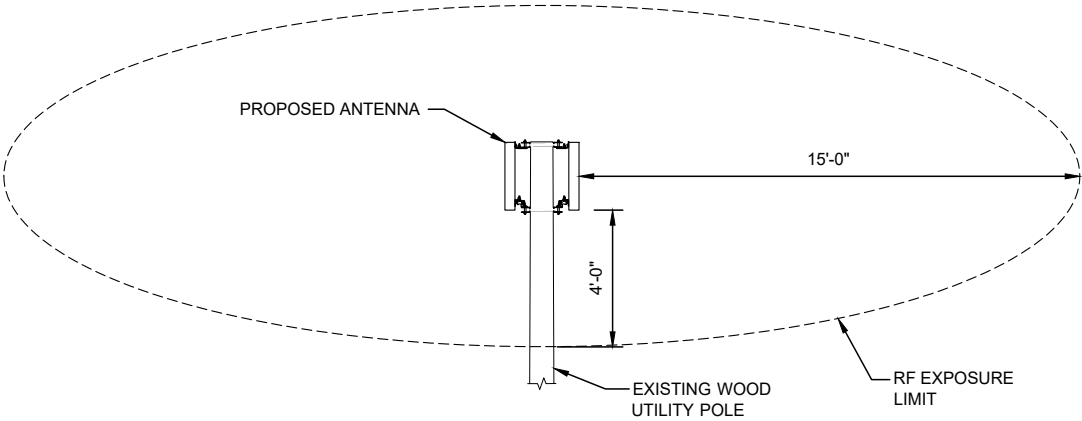
1

POLE ELEVATION

40204

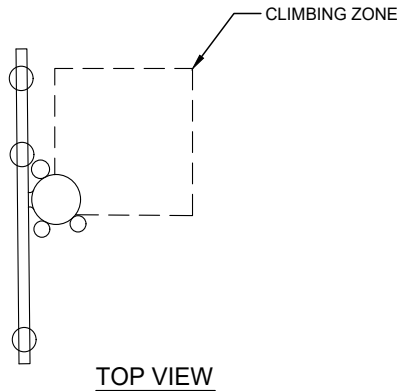
POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT

N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT, OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
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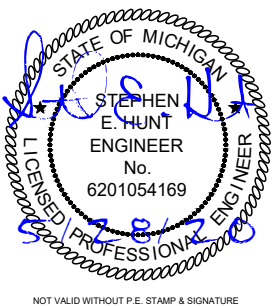
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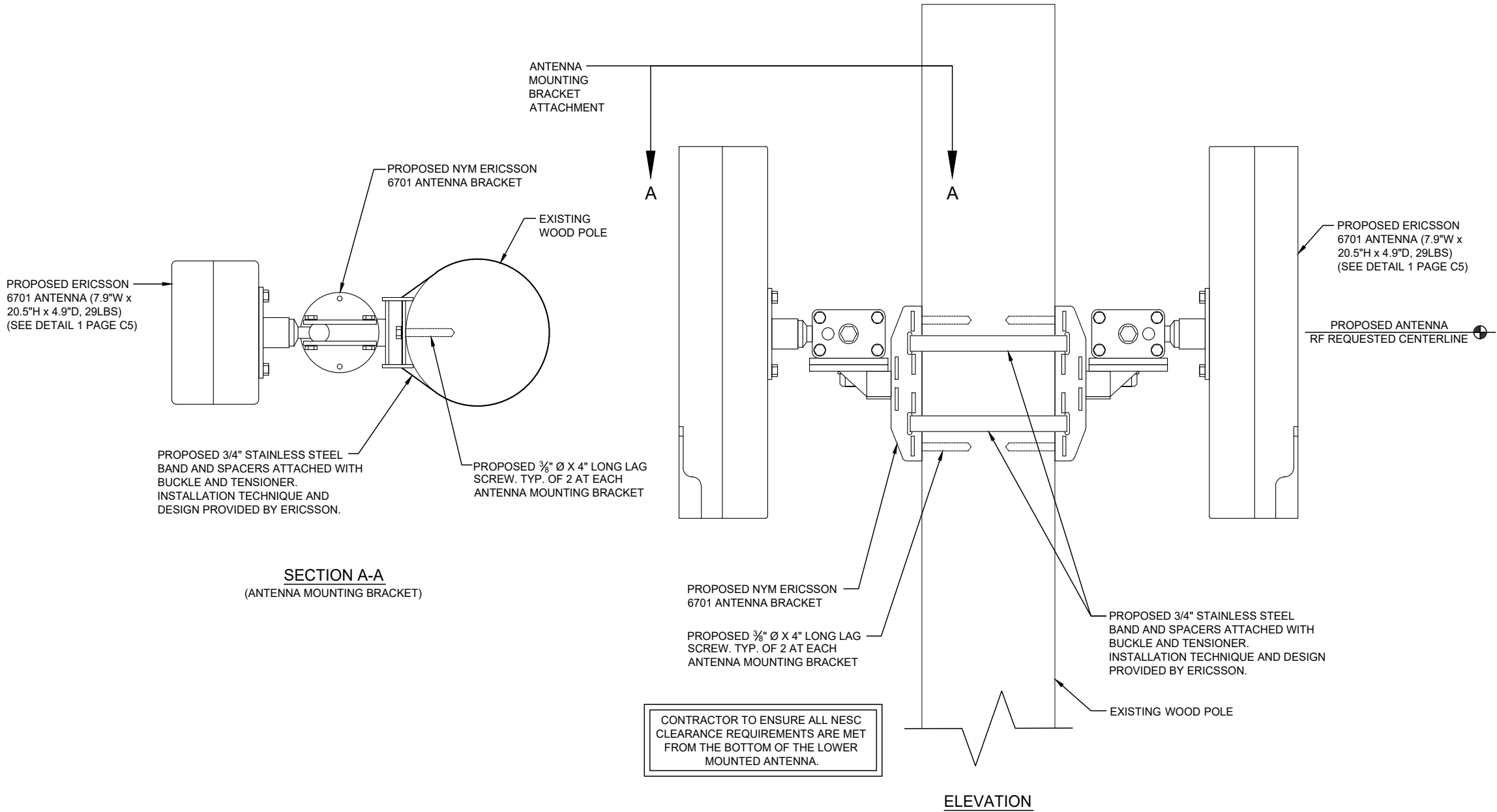
DRAWING NO.

C3

REVISION:

1

1 EQUIPMENT CU-FT. TABLE



PREPARED FOR:

PREPARED BY:

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

DRAWING NOTICE:
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DRAWN BY: LA

CHECKED BY: CTD

REVISIONS				
NO.	DATE	BY	DESCRIPTION	
1	05/28/20	LA	CONSTRUCTION ISSUE	
0	07/31/19	DAJ	CONSTRUCTION ISSUE	
A	06/13/19	LA	PRELIMINARY REVIEW	

ENGINEER'S STAMP:

NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME: 40204

ADDRESS: 1016 CORNELL ROAD
YPSILANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 15' 11.16" N

LONGITUDE: 83° 38' 2.436" W

DESIGN TYPE: COLOCATION

SHEET TITLE: SITE DETAILS

DRAWING NO. C4

REVISION: 1

1

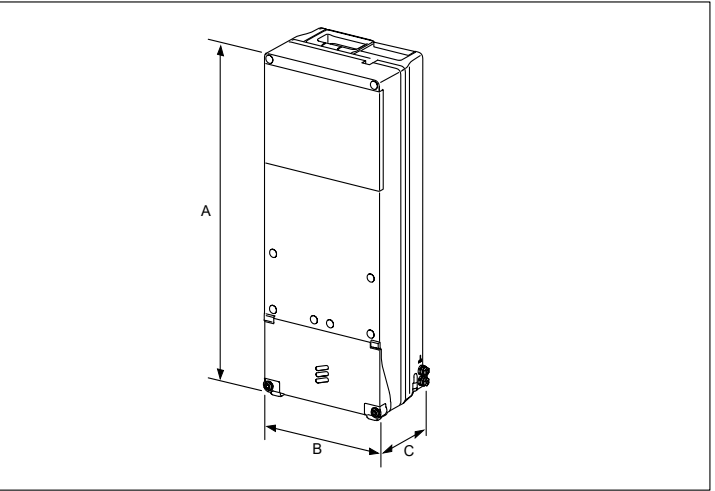
ERICSSON 6701 ANTENNA MOUNTING DETAIL

N.T.S.

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS_REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ
DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:



PREPARED BY:



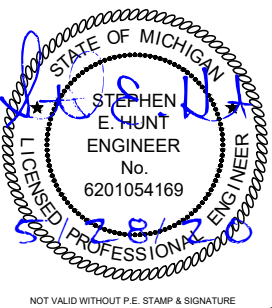
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ENGINEER'S STAMP:



SITE NAME:	40204
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COUNTY:	WASHTENAW
LATITUDE:	42° 15' 11.16" N
LONGITUDE:	83° 38' 2.436" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:

EQUIPMENT DETAILS

DRAWING NO.	REVISION:
C5	1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

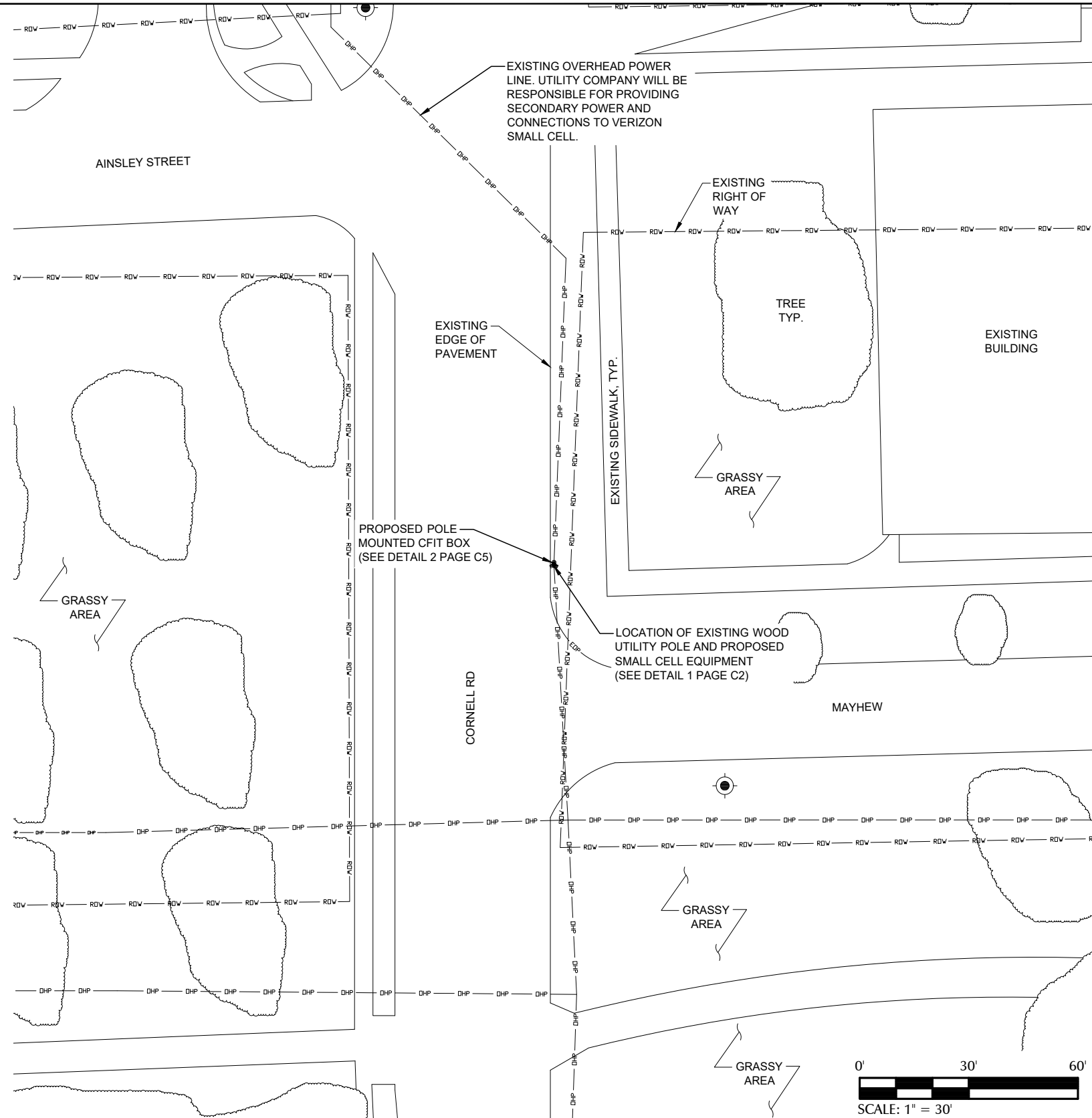
1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

WIRE SIZE	SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)		CONDUIT SIZE
	ALUMINUM	COPPER	
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	▢
UNDERGROUND POWER	UGP	STREET SIGN	—
OVERHEAD POWER	DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	UGT	UTILITY POLE	○
OVERHEAD TELCO	DHT	LIGHT POLE	⦿
GAS LINE	GAS	WATER VALVE	⊗
FENCE	x-x-x-x-x-x	MANHOLE	Ⓜ
WOOD FENCE	o-o-o-o-o-o	GAS VALVE	⊗
SEWER LINE	SWR	FIRE HYDRANT	⦿
WATER LINE	WTR	TELCO PEDESTAL	Ⓣ
HYBRID CABLE	HYB	ELECTRICAL BOX	ⓔ
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW		
PROPERTY LINE	PL		



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
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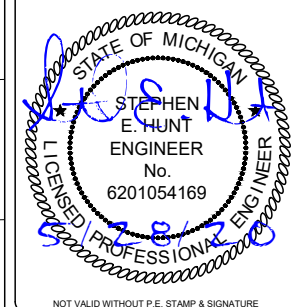
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CTD

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LONGITUDE:

83° 38' 2.436" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

UTILITY SITE PLAN

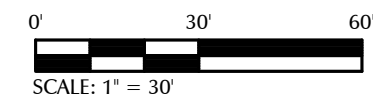
DRAWING NO.

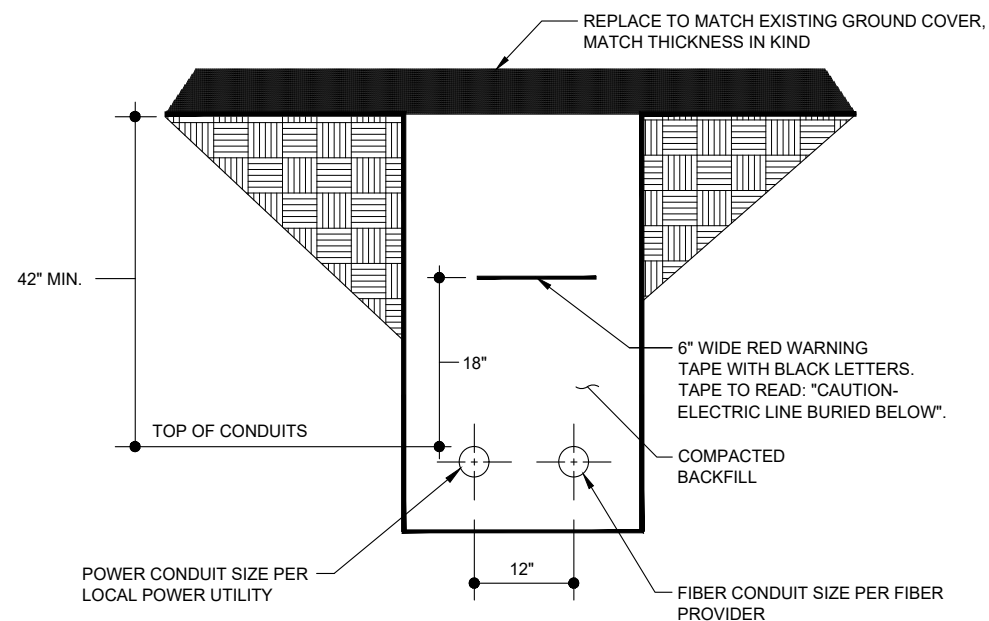
E1

REVISION:

1

1 UTILITY SITE PLAN





1	SINGLE POINT RADIAL GROUND DETAIL
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N.T.S.

2	TRENCH DETAIL (IF REQUIRED)
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N.T.S.



N.T.S.

4	DETAIL NOT IN USE
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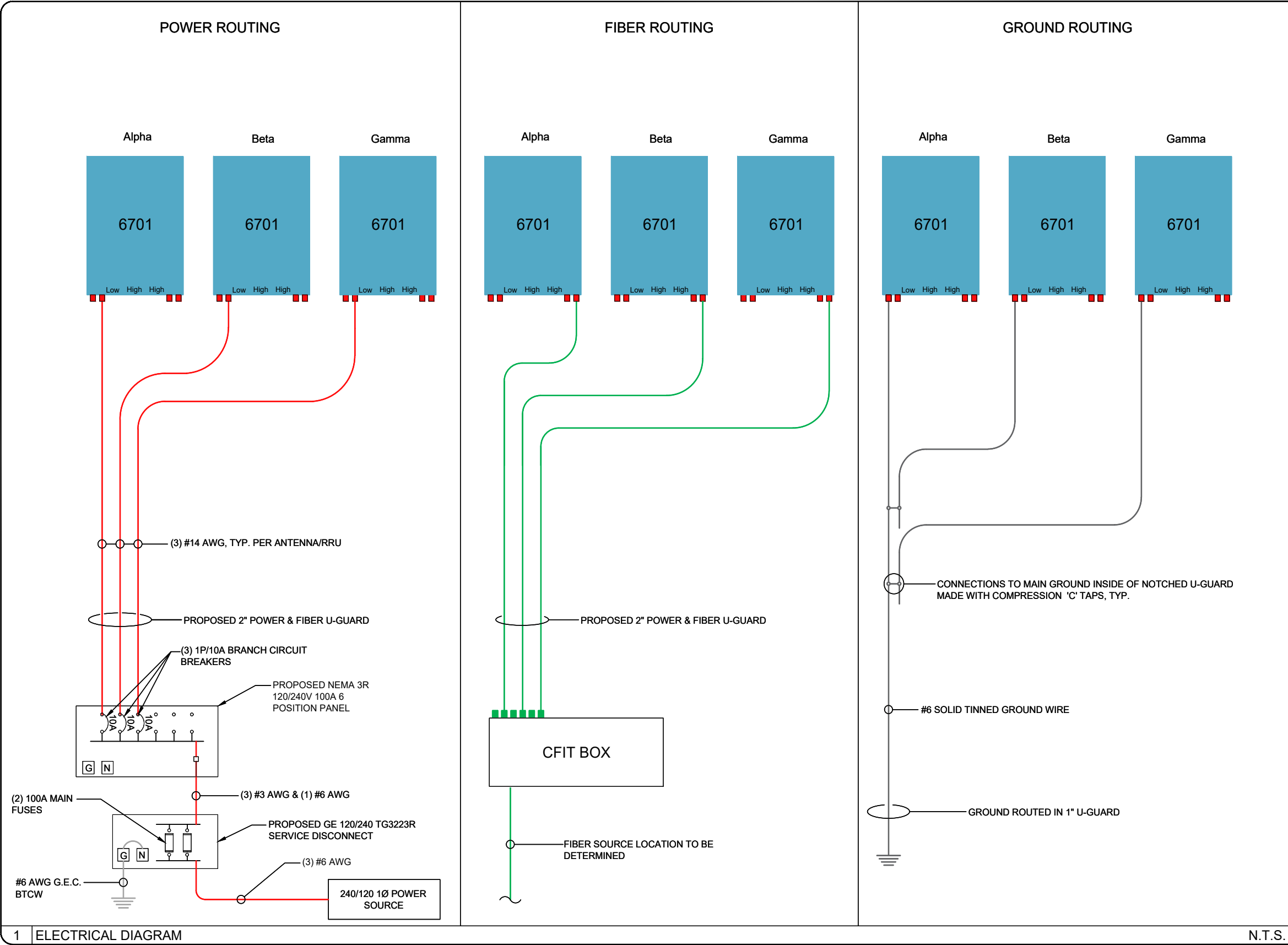
	CTD
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REVISION:

E2

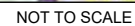
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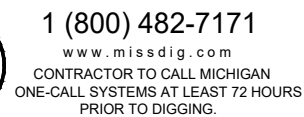
SITE NAME:	40207
SITE ADDRESS: (ESTIMATED)	213 NORTH SUMMIT STREET YPSILANTI, MI 48197
COUNTY:	WASHTENAW
JURISDICTION:	CITY OF YPSILANTI
<u>SITE COORDINATES:</u>	
LATITUDE:	42°14'38.7"N
LATITUDE:	42.24409°
LONGITUDE:	83°37'28.9"W
LONGITUDE:	-83.62468°
ELEVATION:	±794'-6"
PROPERTY DEFINITION:	R.O.W.
FUZE PROJECT ID:	15487087
PSLC CODE:	544747
EXISTING POLE HEIGHT:	40'-0"



VICINITY MAP



NOT TO SCALE

[illegible]

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT
- POWER AND FIBER PROVIDED BY OTHERS

MICHIGAN

WASHTENAW COUNTY

T1	1
----	---

GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
5. THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
5. ALL EQUIPMENT TO BE BONDED.
6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 25 OHMS OR LESS.
2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
3. #6 GROUND AND BOND WIRE.
4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
5. GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
5. RISER STRAPS TO BE INSTALLED EVERY 5'.
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:



PREPARED BY:

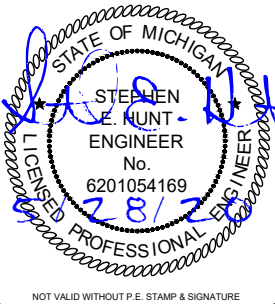


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SHEET TITLE:	GENERAL NOTES
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DRAWING NO.	REVISION:
GN1	1

NOTES:

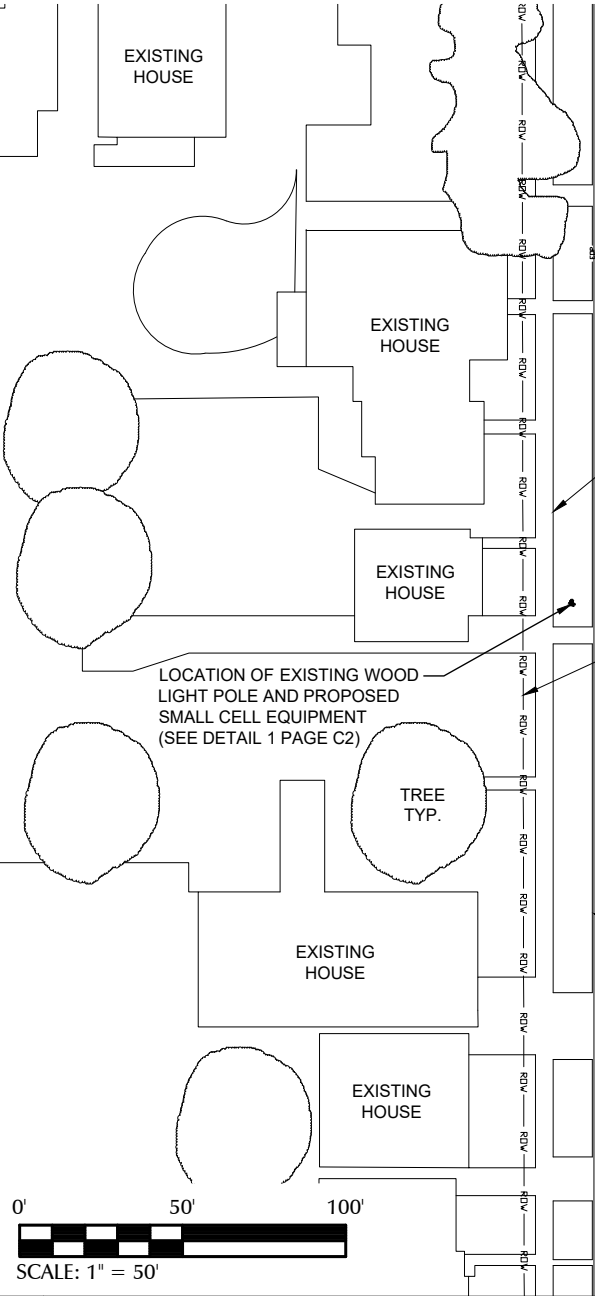
- 1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
- 3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
- 4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
- 5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
- 6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND

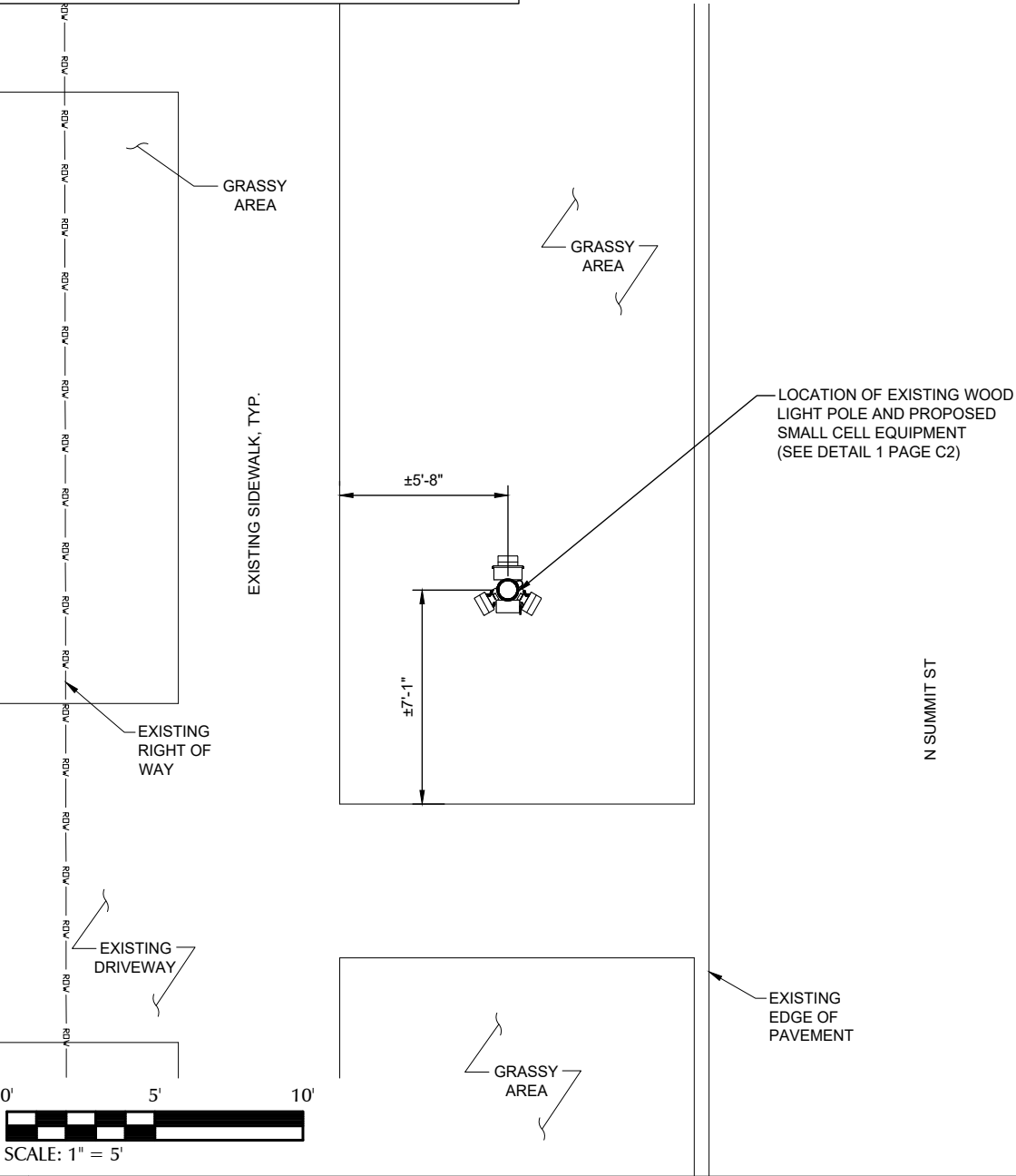
OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	—
OVERHEAD POWER	— DHP — DHP	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊙
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS — GAS	WATER VALVE	⊗
FENCE	— x — x — x — x —	MANHOLE	⊗
WOOD FENCE	— o — o — o — o —	GAS VALVE	⊗
SEWER LINE	— SWR — SWR	FIRE HYDRANT	⊗
WATER LINE	— VTR —	TELCO PEDESTAL	⊗
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊗
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— RDW — RDW		
PROPERTY LINE	— PL — PL		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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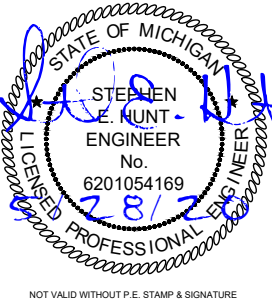
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YPSILANTI, MI 48197

COUNTY:

WASHTENAW

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42°14'38.7"N

LONGITUDE:

83°37'28.9"W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE LAYOUTS

DRAWING NO.

C1

REVISION:

1



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

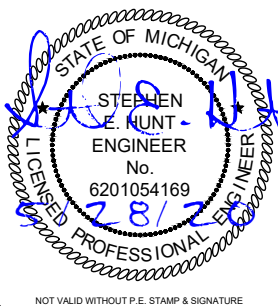
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DRAWN BY: CBC
CHECKED BY: CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	05/28/20	CBC	CONSTRUCTION ISSUE
0	06/18/19	DAJ	CONSTRUCTION ISSUE
A	06/13/19	LA	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME: 40207
ADDRESS: 213 NORTH SUMMIT STREET
YPSILANTI, MI 48197
COUNTY: WASHTENAW
LATITUDE: 42°14'38.7"N
LONGITUDE: 83°37'28.9"W
DESIGN TYPE: COLOCATION

SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO. C1A
REVISION: 1

1 OVERALL SITE LAYOUT - AERIAL IMAGERY

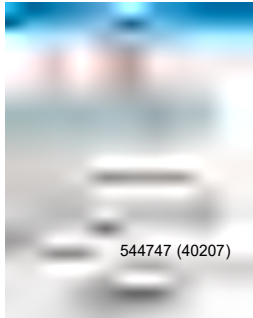
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

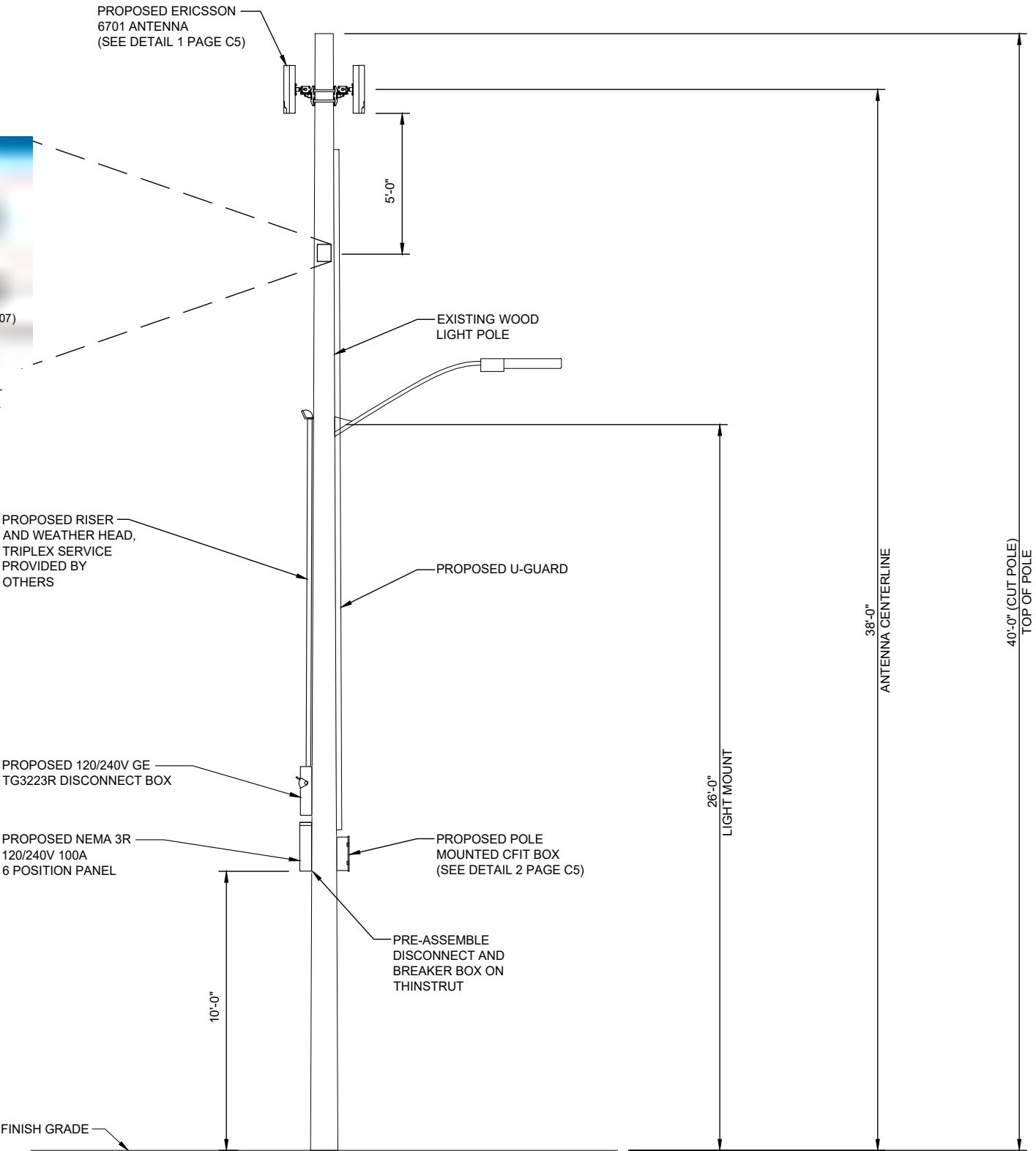
40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



6"x7.5" VERTICAL
RF NOTICE SIGN
TYPICAL OF 2



INSTALL ON BREAKER PANEL

1 POLE ELEVATION

N.T.S.

PREPARED FOR:



PREPARED BY:

TeleCAD
Wireless

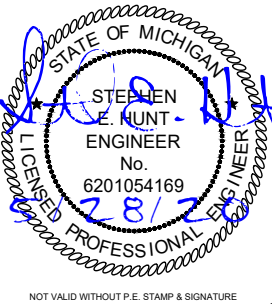
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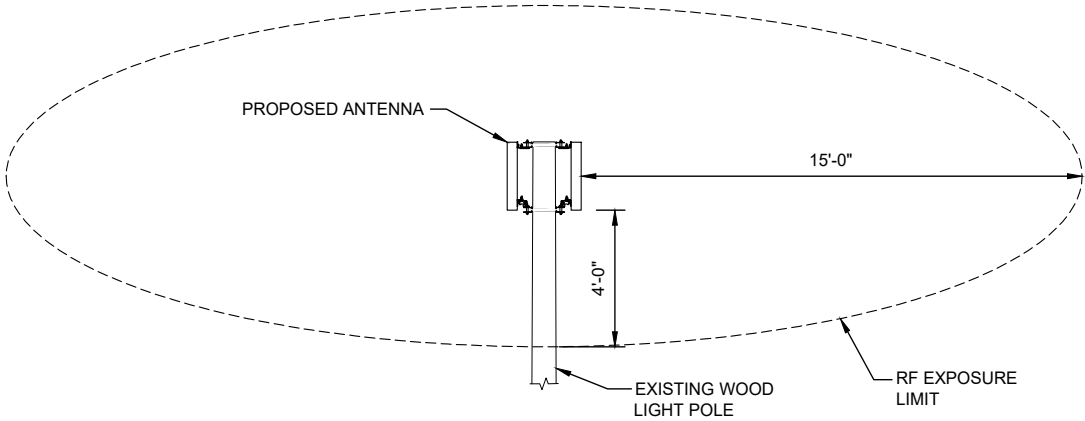
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COUNTY:	WASHTENAW
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LONGITUDE:	83°37'28.9"W
DESIGN TYPE:	COLOCATION

SHEET TITLE:
POLE ELEVATION

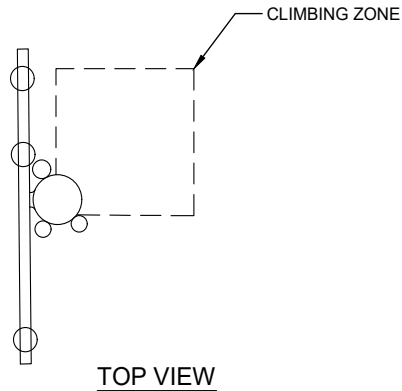
DRAWING NO.	REVISION:
C2	1

POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT N.T.S.



NOTES:

1. WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT, OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
2. ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
3. VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
4. BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
5. SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
6. 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
7. ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES N.T.S.

PREPARED FOR:



PREPARED BY:

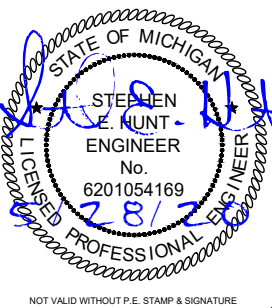


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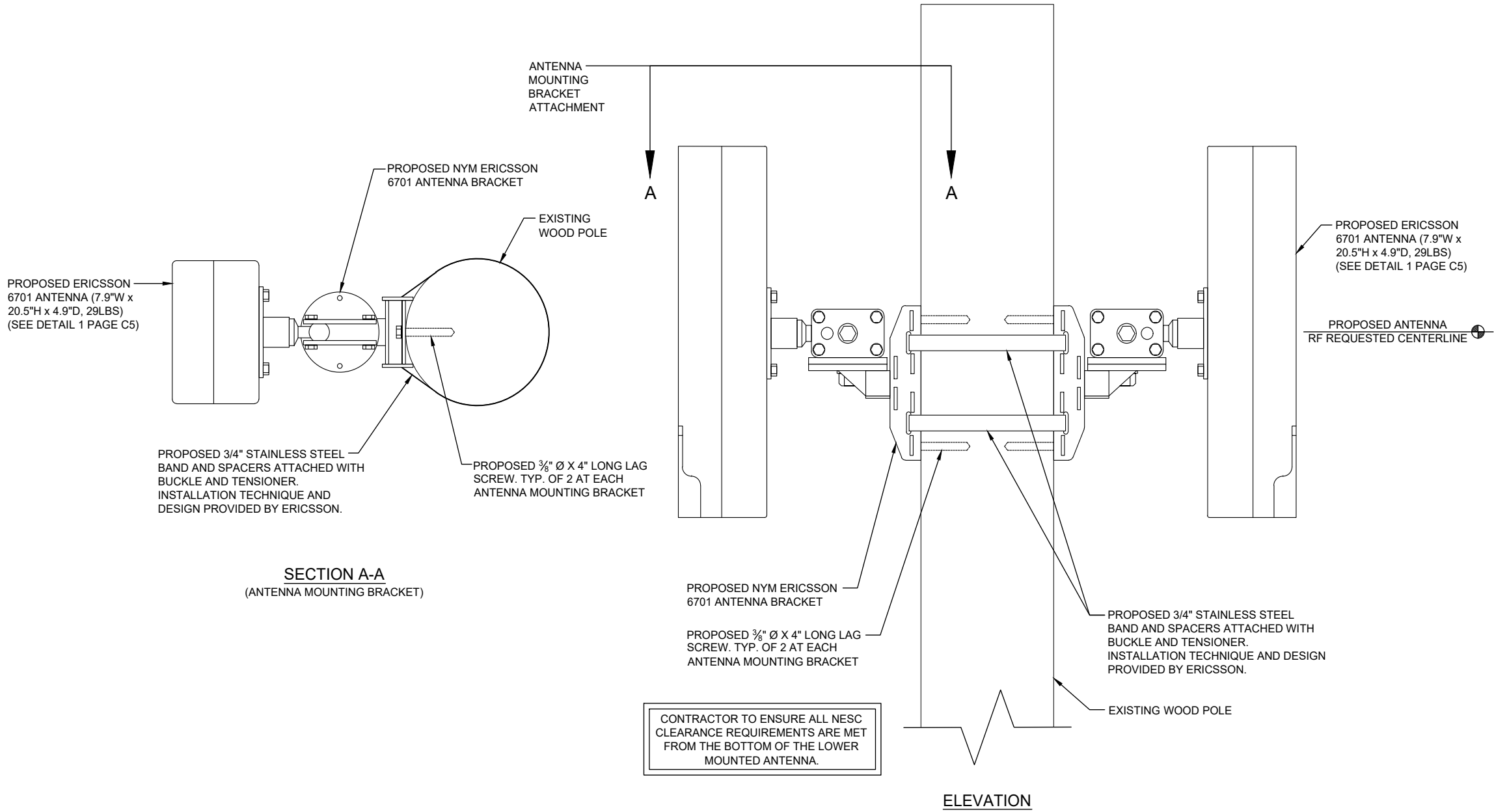
ENGINEER'S STAMP:



SITE NAME: 40207
ADDRESS: 213 NORTH SUMMIT STREET
YPSILANTI, MI 48197
COUNTY: WASHTENAW
LATITUDE: 42°14'38.7"N
LONGITUDE: 83°37'28.9"W
DESIGN TYPE: COLOCATION

SHEET TITLE: SITE DETAILS

DRAWING NO. C3
REVISION: 1



PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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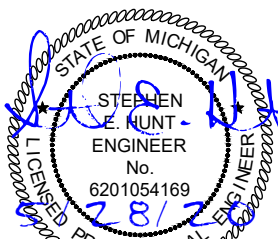
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NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME: 40207

ADDRESS:
213 NORTH SUMMIT STREET
YPSILANTI, MI 48197

COUNTY:
WASHTENAW

LATITUDE:
42°14'38.7"N

LONGITUDE:
83°37'28.9"W

DESIGN TYPE:
COLOCATION

SHEET TITLE:
SITE DETAILS

DRAWING NO.
C4

REVISION:
1

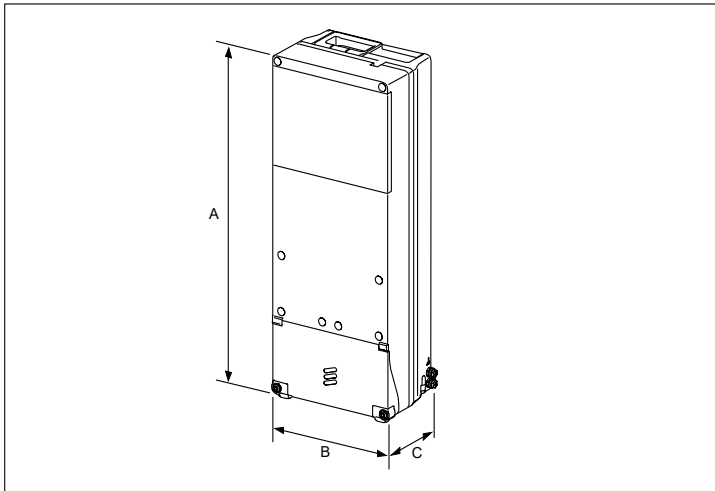
1 ERICSSON 6701 ANTENNA MOUNTING DETAIL

N.T.S.

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS _{REFSENS_50M}	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX



PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES

PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless
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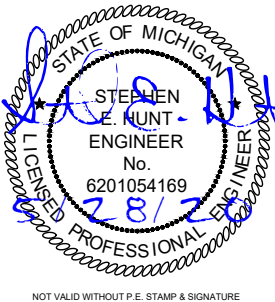
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DESIGN TYPE:	COLOCATION

SHEET TITLE:
EQUIPMENT DETAILS

DRAWING NO.	REVISION:
C5	1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

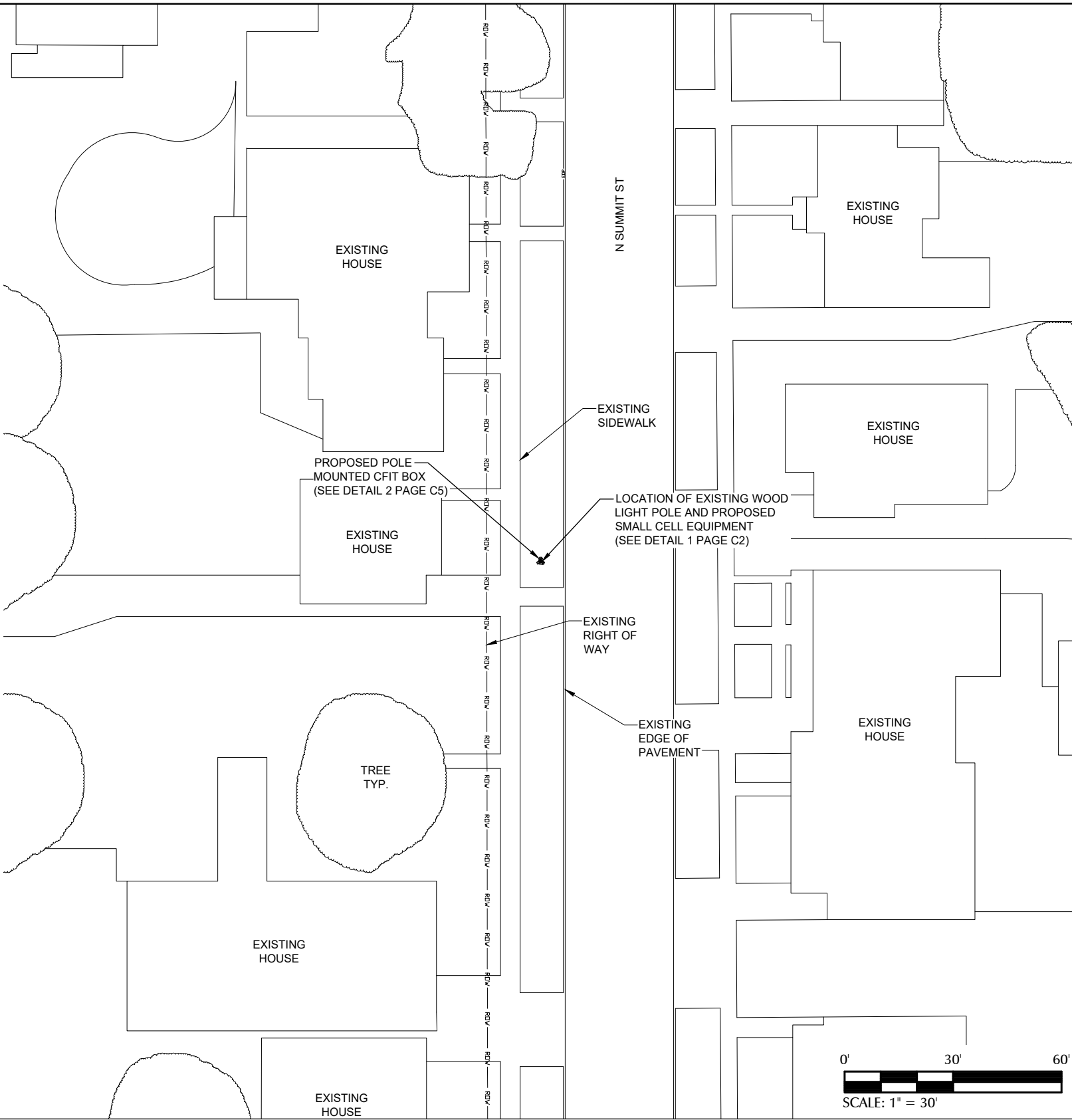
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM	COPPER	CONDUIT SIZE
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	CB
UNDERGROUND POWER	UGP	STREET SIGN	SS
OVERHEAD POWER	DHP	4 WAY STREET SIGN	4SS
UNDERGROUND TELCO	UGT	UTILITY POLE	UP
OVERHEAD TELCO	DHT	LIGHT POLE	LP
GAS LINE	GAS	WATER VALVE	WV
FENCE	FX	MANHOLE	M
WOOD FENCE	OWF	GAS VALVE	GV
SEWER LINE	SWR	FIRE HYDRANT	FH
WATER LINE	WTR	TELCO PEDESTAL	TP
HYBRID CABLE	HYB	ELECTRICAL BOX	EB
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW		
PROPERTY LINE	PL		



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless
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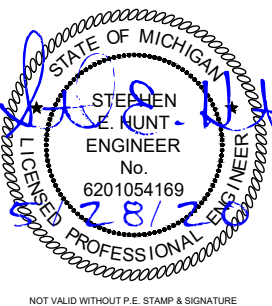
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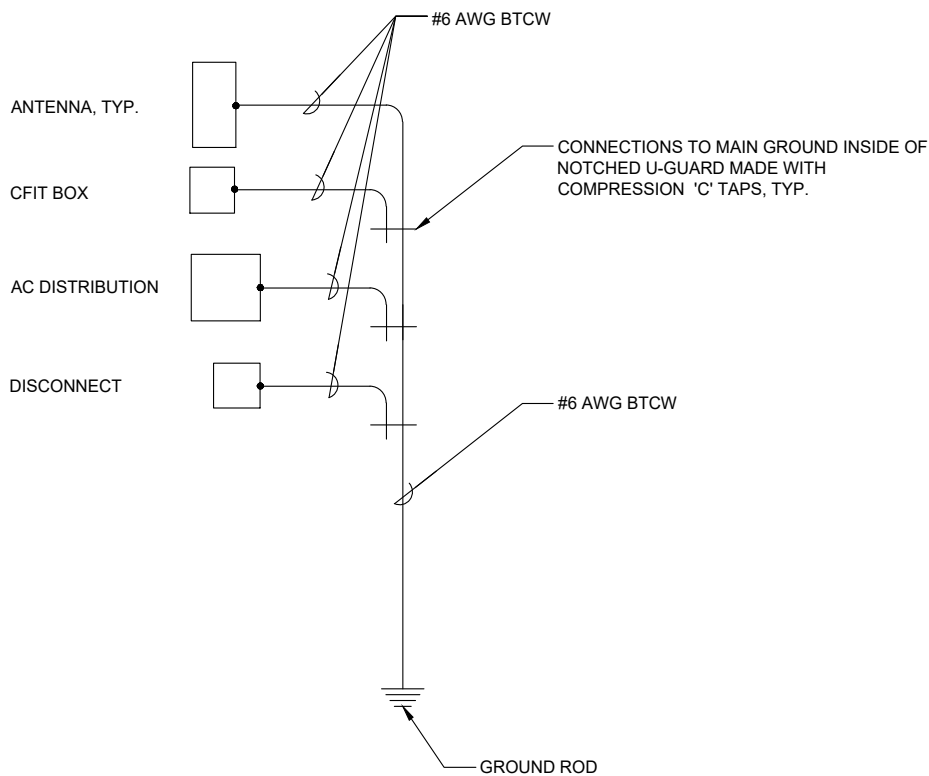


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DESIGN TYPE: COLOCATION

SHEET TITLE:
UTILITY SITE PLAN

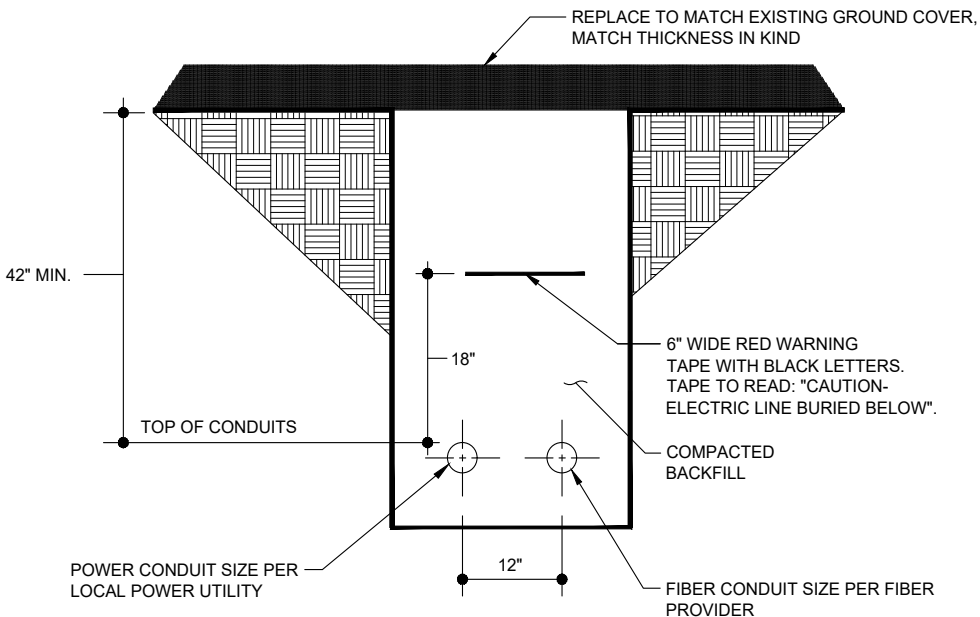
DRAWING NO. E1
REVISION: 1

1 UTILITY SITE PLAN



1 SINGLE POINT RADIAL GROUND DETAIL

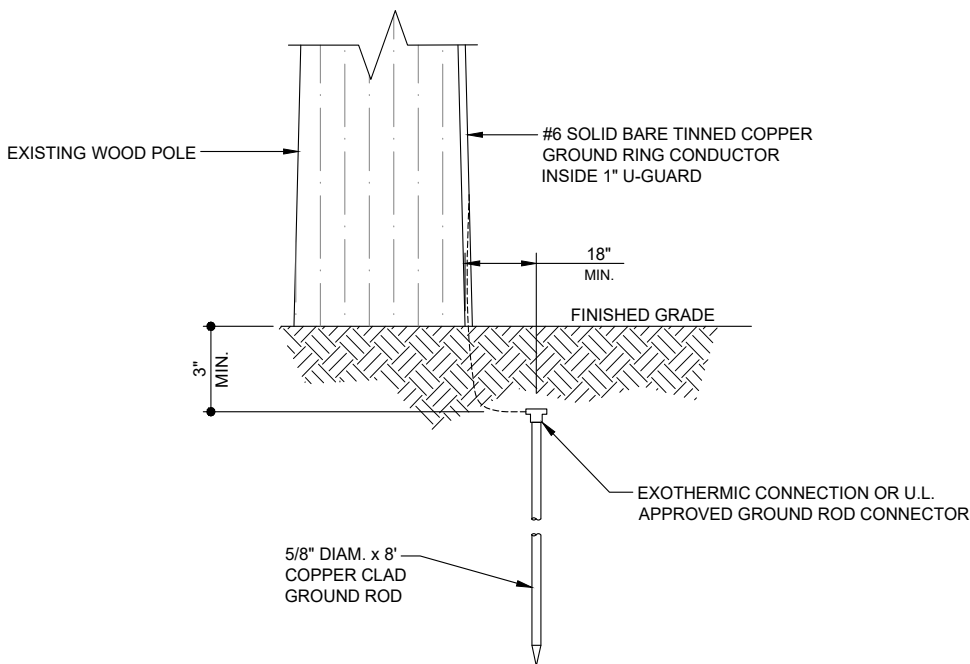
N.T.S.



NOTE: TYPICAL SPACING FOR ALL UNDERGROUND CONDUITS.

2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

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verizon

PREPARED BY:

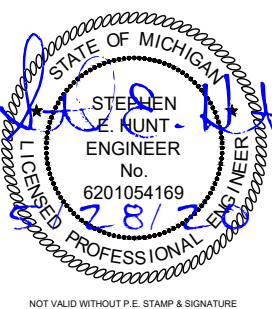
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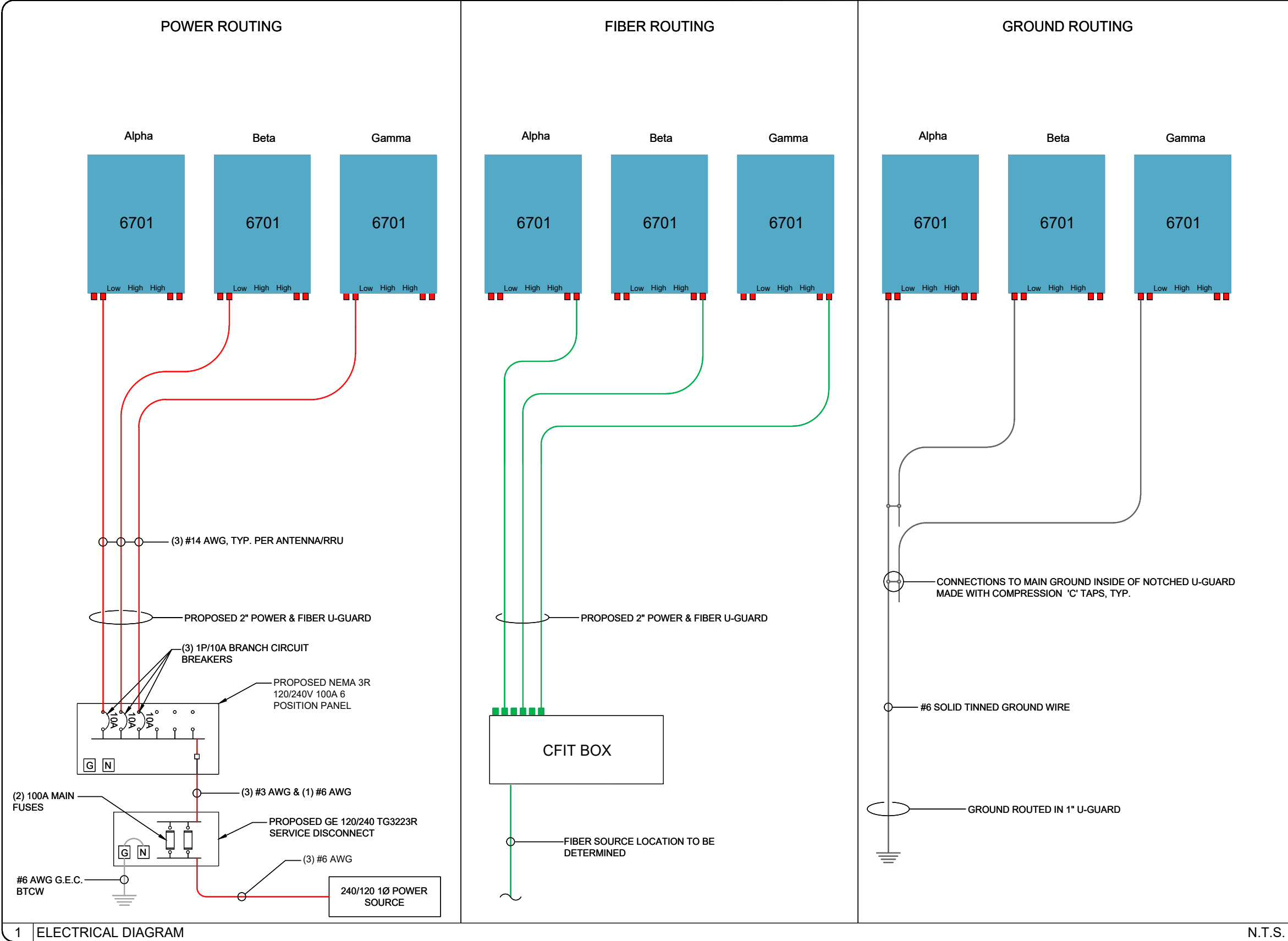
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DESIGN TYPE: COLOCATION

SHEET TITLE:
ELECTRICAL DETAILS

DRAWING NO. E2	REVISION: 1
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- GENERAL NOTES
1.

THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.

2.

THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.

3.

PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.

4.

THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.

5.

ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.

6.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.

7.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)

8.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.

9.

KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.

10.

PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.

11.

THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.

12.

ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1.

"TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.

2.

"SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.

3.

"AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.

4.

"ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.

5.

THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.

6.

WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.

7.

FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1.

THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.

2.

THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.

3.

IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1.

120/240V POWER REQUIRED FOR 3-WIRE SERVICE.

2.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.

3.

CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.

4.

ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.

5.

ALL EQUIPMENT TO BE BONDED.

6.

METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1.

GROUND TESTED AT 25 OHMS OR LESS.

2.

5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.

3.

#6 GROUND AND BOND WIRE.

4.

MOLDING, STAPLED EVERY 1' AND AT EACH END.

5.

GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1.

FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.

2.

IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.

3.

IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.

4.

RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.

5.

RISER STRAPS TO BE INSTALLED EVERY 5'.

6.

CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.

7.

ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1.

MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.

2.

MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.

3.

IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.

4.

IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.

5.

PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1.

NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".

2.

FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.

3.

ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.

4.

CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.

5.

90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).

6.

USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.

7.

USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.

8.

USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.

9.

FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1.

CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.

2.

CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.

3.

CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.

4.

CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.

5.

CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

815 482 7171

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verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509DRAWING NOTICE:
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CHECKED BY: CTD

REVISIONS

1	05/28/20	MDR	CONSTRUCTION ISSUE
0	06/27/19	JCJ	CONSTRUCTION ISSUE
A	06/19/19	LA	PRELIMINARY REVIEW
NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:

STATE OF MICHIGAN

STEPHEN E. HUNT

ENGINEER

No. 6201054169

LICENSED PROFESSIONAL ENGINEER

7/8/20

NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME: 40205

ADDRESS: 947 SHERIDAN ST
YIPSILANTI, MI 48197

COUNTY: WASHENTENAW

LATITUDE: 42° 14' 40.704" N

LONGITUDE: 83° 37' 37.884" W

DESIGN TYPE: COLOCATION

SHEET TITLE: GENERAL NOTES

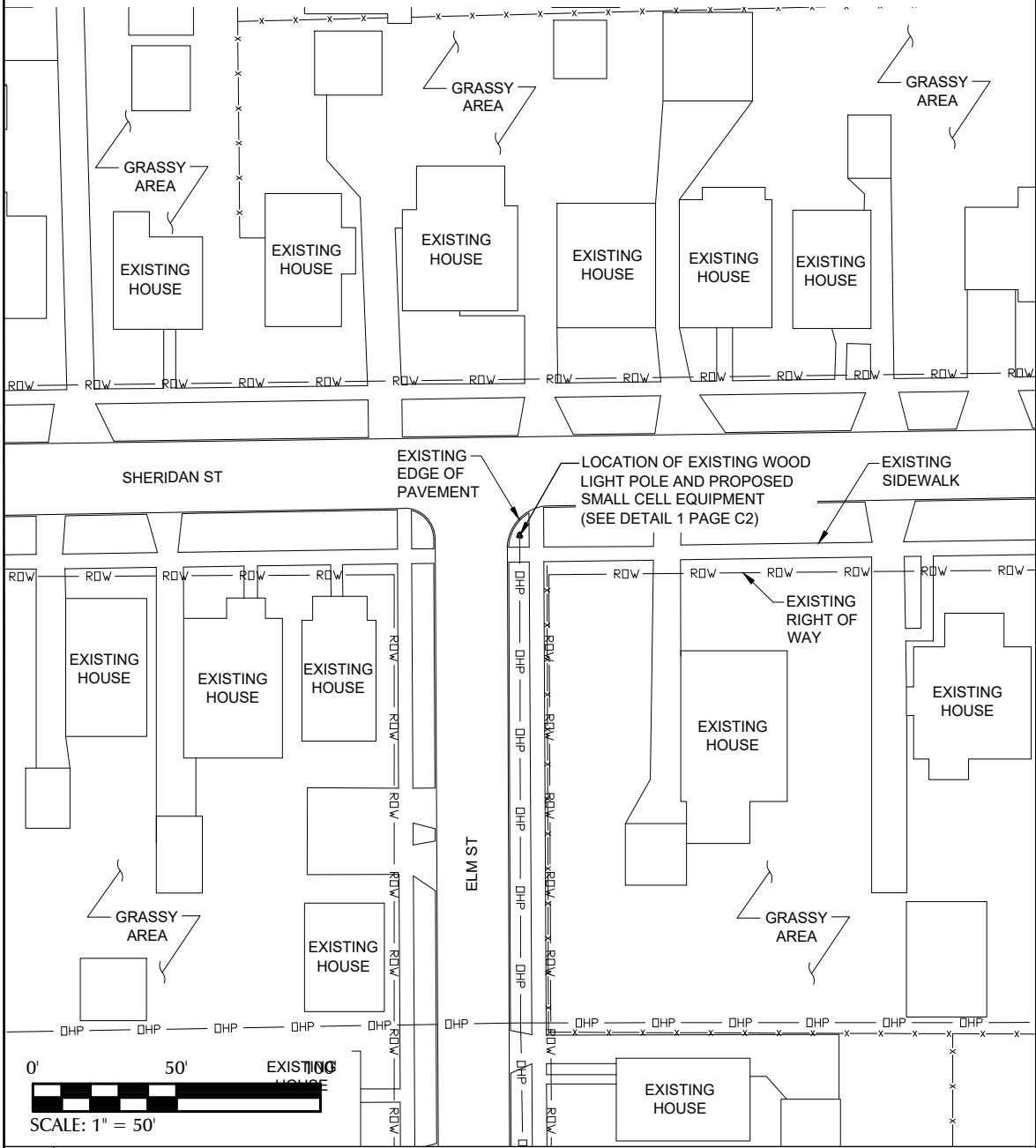
DRAWING NO. GN1

REVISION: 1

Page 597 of 652

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.



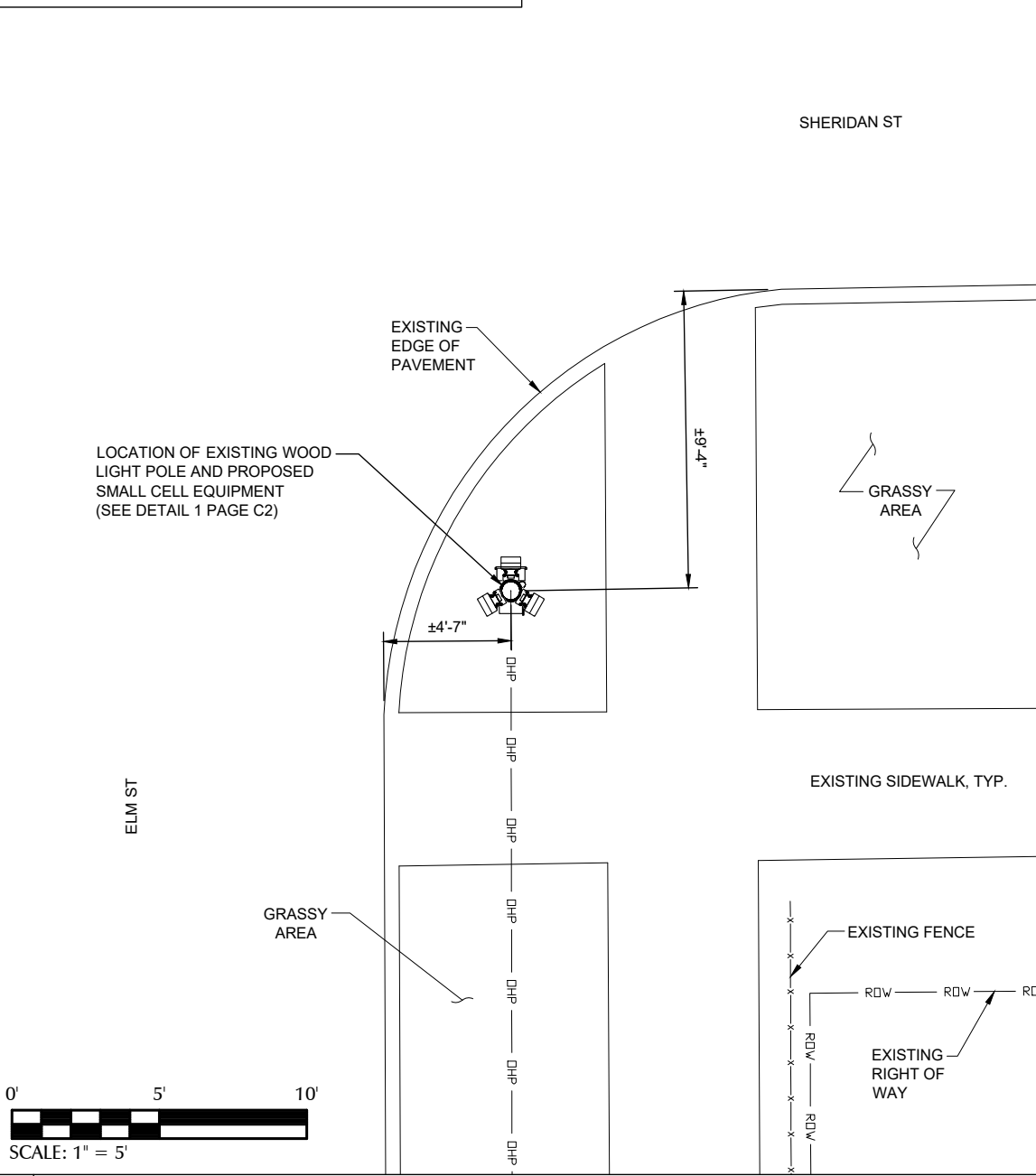
1 OVERALL SITE LAYOUT

LEGEND

OVERHEAD UTILITIES	_____	CATCH BASIN	_____
UNDERGROUND POWER	_____	STREET SIGN	_____
OVERHEAD POWER	_____ DHP _____	4 WAY STREET SIGN	_____
UNDERGROUND TELCO	_____	UTILITY POLE	_____
OVERHEAD TELCO	_____ DHT _____	LIGHT POLE	_____
GAS LINE	_____ GAS _____	WATER VALVE	_____
FENCE	_____ X X X X _____	MANHOLE	_____
WOOD FENCE	_____ O O O O _____	GAS VALVE	_____
SEWER LINE	_____ SWR _____	FIRE HYDRANT	_____
WATER LINE	_____ WTR _____	TELCO PEDESTAL	_____
HYBRID CABLE	_____ HYB _____	ELECTRICAL BOX	_____
HIGH VOLTAGE POWER	_____ HVP _____		
FIBER	_____ FBR _____		
RIGHT-OF-WAY	_____ ROW _____		
PROPERTY LINE	_____ PL _____		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



2 ENLARGED SITE LAYOUT

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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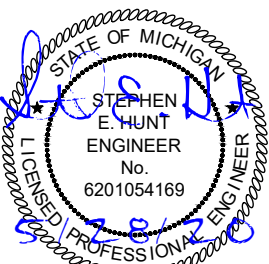
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0	06/27/19	JCJ	CONSTRUCTION ISSUE
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40205

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YIPSIANTI, MI 48197

COUNTY:

WASHENTENAW

LATITUDE:

42° 14' 40.704" N

LONGITUDE:

83° 37' 37.884" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE LAYOUTS

DRAWING NO.

C1

REVISION:

1



PREPARED FOR:

PREPARED BY:

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LONGITUDE: 83° 37' 37.884" W

DESIGN TYPE: COLOCATION

SHEET TITLE:

SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO.	REVISION:
C1A	1

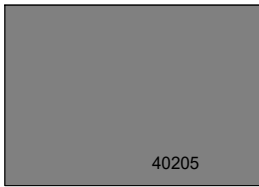
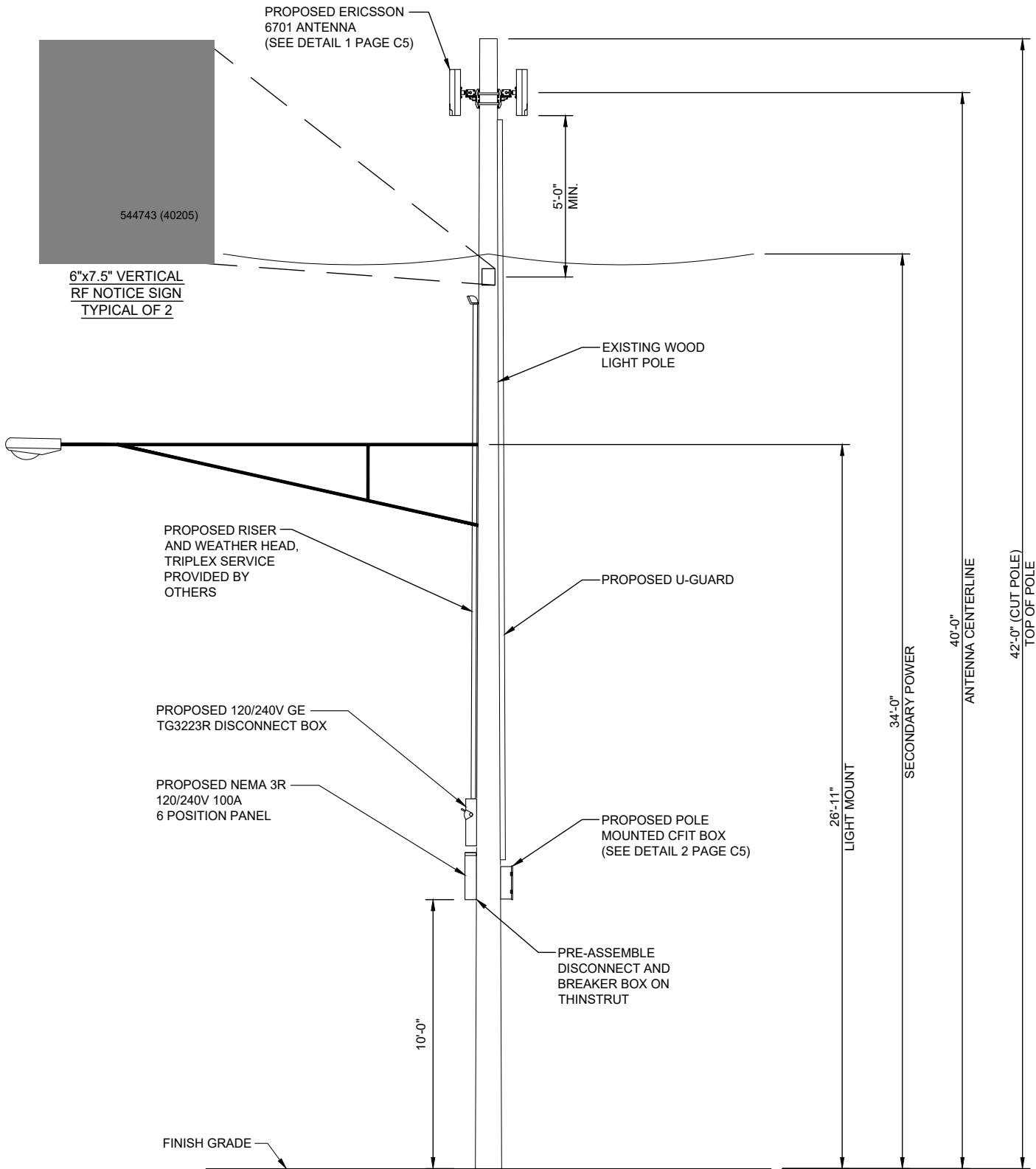
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



INSTALL ON BREAKER PANEL

1 POLE ELEVATION

PREPARED FOR:



PREPARED BY:

TeleCAD Wireless
1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
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ENGINEER'S STAMP:

STATE OF MICHIGAN
STEPHEN E. HUNT
ENGINEER
No. 6201054169
LICENSED PROFESSIONAL ENGINEER

NOT VALID WITHOUT P.E. STAMP & SIGNATURE

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COUNTY:	WASHENTENAW
LATITUDE:	42° 14' 40.704" N
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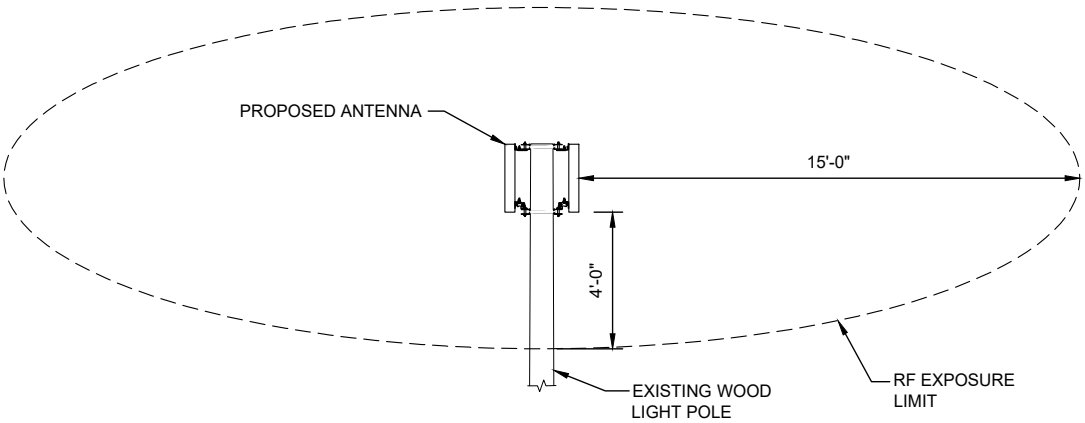
SHEET TITLE:
POLE ELEVATION

DRAWING NO. C2	REVISION: 1
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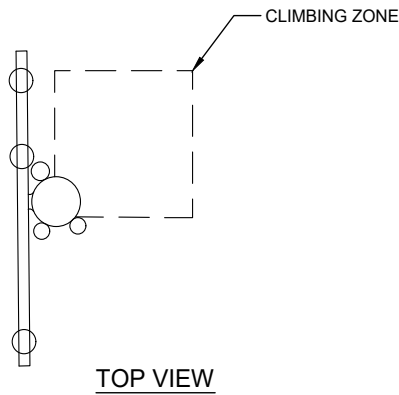
N.T.S.

POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT N.T.S.



- NOTES:
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT. OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES N.T.S.

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TeleCAD
Wireless

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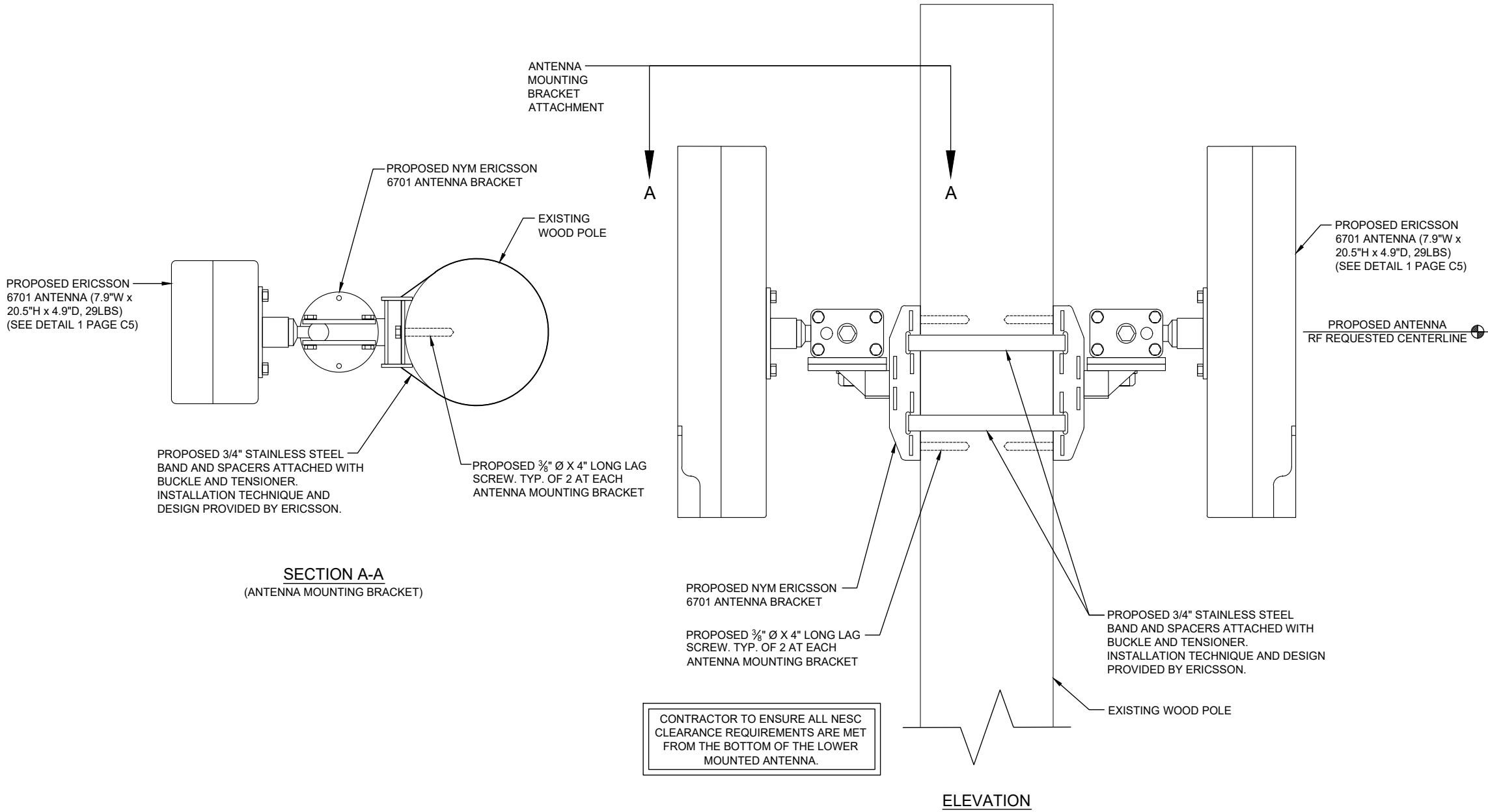
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DESIGN TYPE:	COLOCATION

SHEET TITLE:
SITE DETAILS

DRAWING NO.	REVISION:
C3	1

1 EQUIPMENT CU-FT. TABLE



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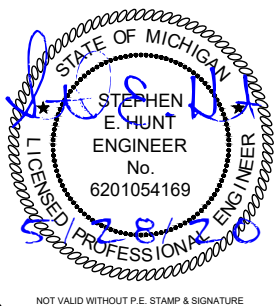
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DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

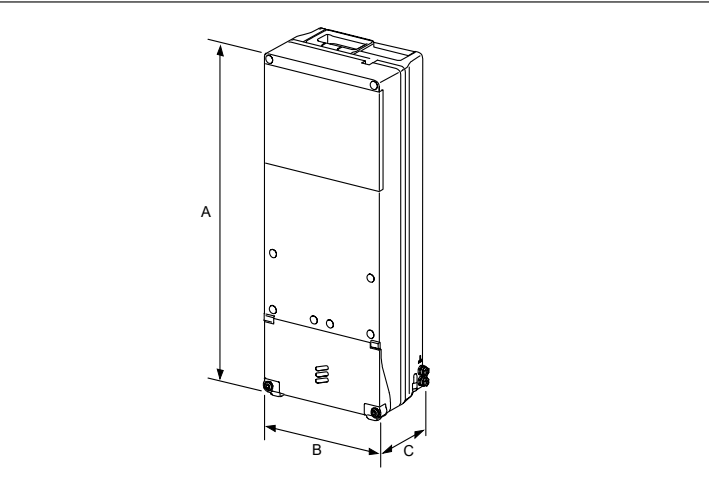
REVISION:

1

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS_REFSENS_50M	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIKSON, TN 37343
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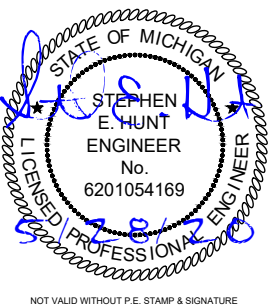
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DESIGN TYPE:

COLOCATION

SHEET TITLE:

EQUIPMENT DETAILS

DRAWING NO.

C5

REVISION:

1

1

6701 ANTENNA

N.T.S.

2

CFIT BOX

N.T.S.

ELECTRICAL NOTES:

1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

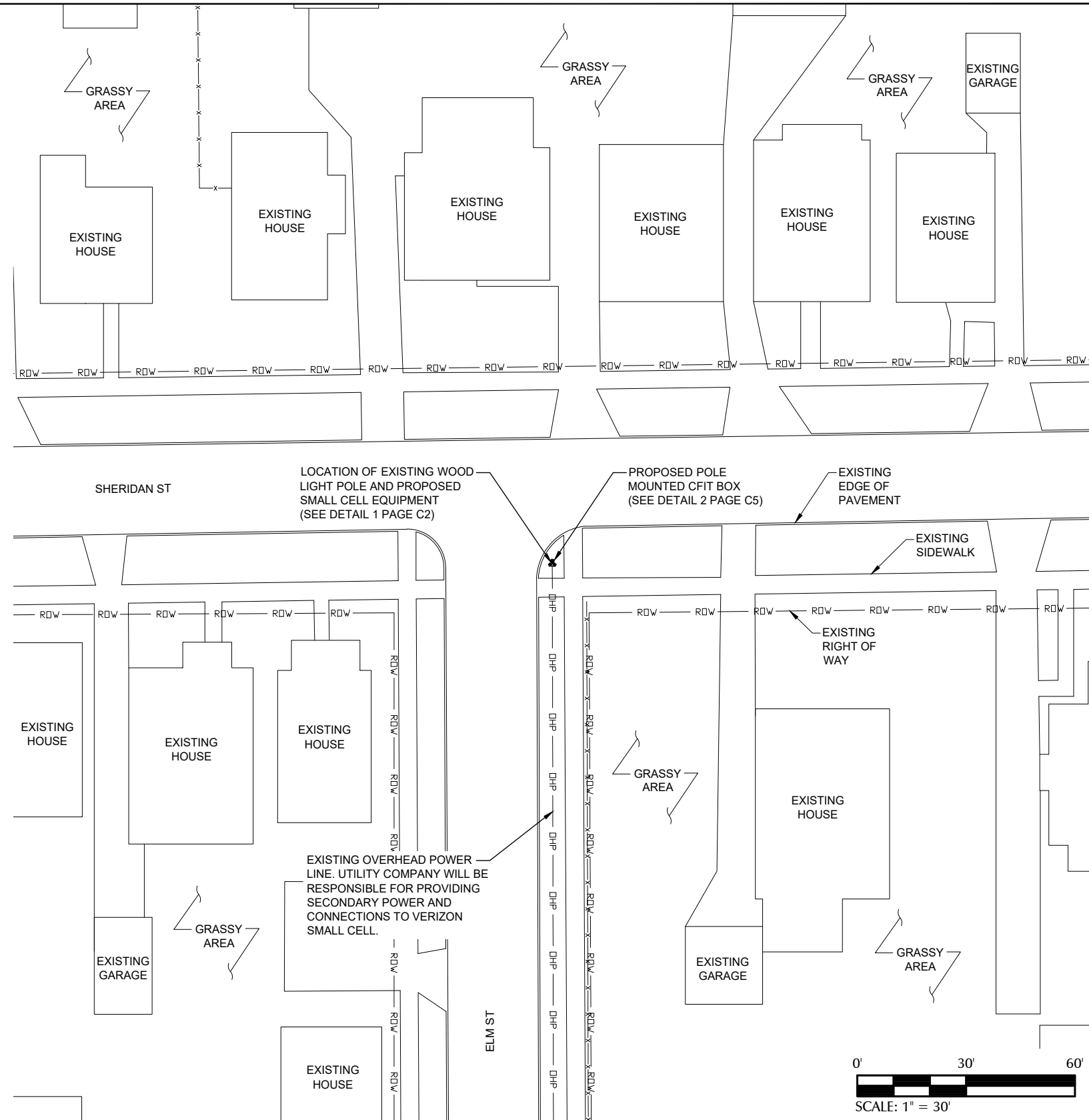
1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM	COPPER	CONDUIT SIZE
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	—	CATCH BASIN	▣
UNDERGROUND POWER	—	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— DHT —	UTILITY POLE	⊗
OVERHEAD TELCO	—	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— x — x — x —	MANHOLE	⊗
WOOD FENCE	— □ — □ — □ —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊗
WATER LINE	— WTR —	TELCO PEDESTAL	⊗
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊗
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— RDW —		
PROPERTY LINE	— PL —		



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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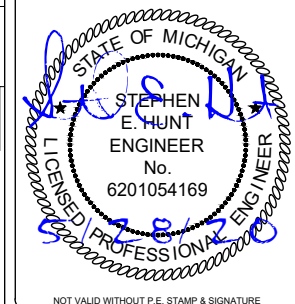
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YIPILANTI, MI 48197

COUNTY:

WASHENTENAW

LATITUDE:

42° 14' 40.704" N

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83° 37' 37.884" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

UTILITY SITE PLAN

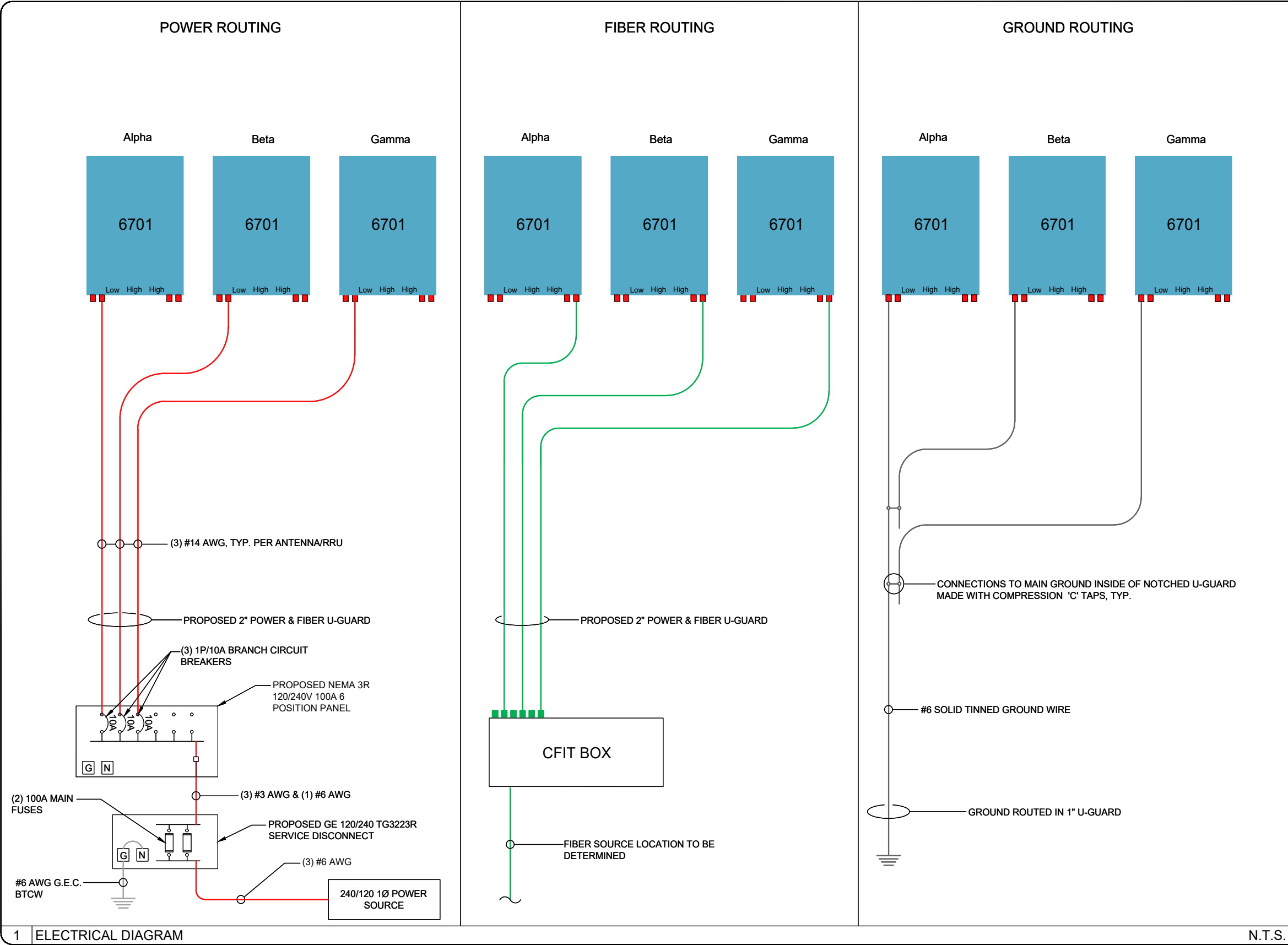
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1 UTILITY SITE PLAN



PROJECT SUMMARY

SITE NAME: 40208
SITE ADDRESS: 103 N NORMAL ST
(ESTIMATED) YPSILANTI, MI 48197
COUNTY: WASHTENAW
JURISDICTION: CIT OF YPSILANTI
SITE COORDINATES:
LATITUDE: 43° 14' 31.956" N
LATITUDE: 42.24221°
LONGITUDE: 83° 37' 23.88" W
LONGITUDE: -83.6233°
ELEVATION: ±786'-6"
PROPERTY DEFINITION: R.O.W.
FUZE PROJECT ID: 15487089
PSLC CODE: 544748
EXISTING POLE HEIGHT: 65'-6"

RESUBMITTAL SUMMARY

THE OVERALL HEIGHT OF THIS POLE IS (64'-0"). THIS IS DUE TO THE ELEVATION OF THE EXISTING POWER LINES OF (56'-0") AND THE MINIMUM POWER TO ANTENNA SEPARATION, TO INCLUDE PLACARDS BEING (5'-0") OUR ANTENNA CL IS (62'-0") AND OVERALL POLE HEIGHT WILL BE (64'-0").

STRUCTURAL REVIEW

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.



SITE NAME: 40208

PROPOSED SMALL CELL EQUIPMENT
ON AN EXISTING DTE POLE

VICINITY MAP



NOT TO SCALE

SHEET SCALE FACTOR:
PLOT SIZE:
11" x 17": TO SCALE

LOCATION MAP



NOT TO SCALE



1 (800) 482-7171
www.missdig.com
CONTRACTOR TO CALL MICHIGAN
ONE-CALL SYSTEMS AT LEAST 72 HOURS
PRIOR TO DIGGING.

SHEET INDEX

NO.	DESCRIPTION
T1	TITLE SHEET
GN1	GENERAL NOTES
C1	SITE LAYOUTS
C1A	SITE LAYOUT - AERIAL IMAGERY
C2	POLE ELEVATION
C3	SITE DETAILS
C4	SITE DETAILS
C5	EQUIPMENT DETAILS
E1	UTILITY SITE PLAN
E2	ELECTRICAL DETAILS
E3	SINGLE LINE DIAGRAM

SCOPE OF WORK

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ONSITE UTILITIES TO WIRELESS EQUIPMENT
- POWER AND FIBER PROVIDED BY OTHERS

STATE COUNTY MAP



PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

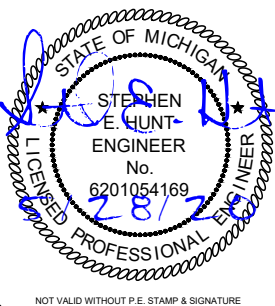
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NO.	DATE	BY	DESCRIPTION
1	05/28/19	USE	CONSTRUCTION ISSUE
0	07/01/19	PLS	CONSTRUCTION ISSUE
A	06/26/19	PLS	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:	40208
ADDRESS:	103 N NORMAL ST YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	43° 14' 31.956" N
LONGITUDE:	83° 37' 23.88" W
DESIGN TYPE:	COLOCATION
SHEET TITLE:	TITLE SHEET
DRAWING NO.	T1
REVISION:	1

GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
5. THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
5. ALL EQUIPMENT TO BE BONDED.
6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 25 OHMS OR LESS.
2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
3. #6 GROUND AND BOND WIRE.
4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
5. GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
5. RISER STRAPS TO BE INSTALLED EVERY 5'.
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

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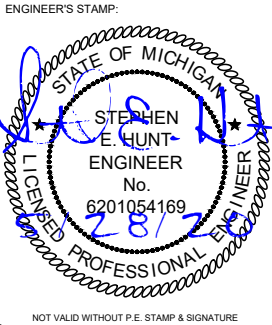
PREPARED BY:



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ADDRESS:	103 N NORMAL ST YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	43° 14' 31.956" N
LONGITUDE:	83° 37' 23.88" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:	GENERAL NOTES
--------------	---------------

DRAWING NO.	REVISION:
GN1	1

NOTES:

- 1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
- 3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
- 4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
- 5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.
- 6. RIGHT OF WAY INFORMATION ACQUIRED FROM GIS.

LEGEND

OVERHEAD UTILITIES	— DHU —	CATCH BASIN	⌘
UNDERGROUND POWER	— UGP —	STREET SIGN	—
OVERHEAD POWER	— DHP —	4 WAY STREET SIGN	+
UNDERGROUND TELCO	— UGT —	UTILITY POLE	⊙
OVERHEAD TELCO	— DHT —	LIGHT POLE	⊙
GAS LINE	— GAS —	WATER VALVE	⊗
FENCE	— x —	MANHOLE	⊙
WOOD FENCE	— o —	GAS VALVE	⊗
SEWER LINE	— SWR —	FIRE HYDRANT	⊙
WATER LINE	— VTR —	TELCO PEDESTAL	⊙
HYBRID CABLE	— HYB —	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	— HVP —		
FIBER	— FBR —		
RIGHT-OF-WAY	— RDW —		
PROPERTY LINE	— PL —		

UTILITY NOTE:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

PREPARED FOR:



PREPARED BY:

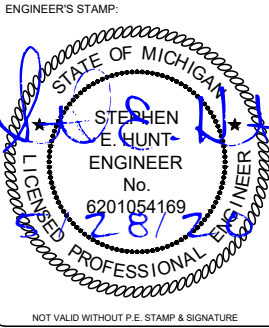


1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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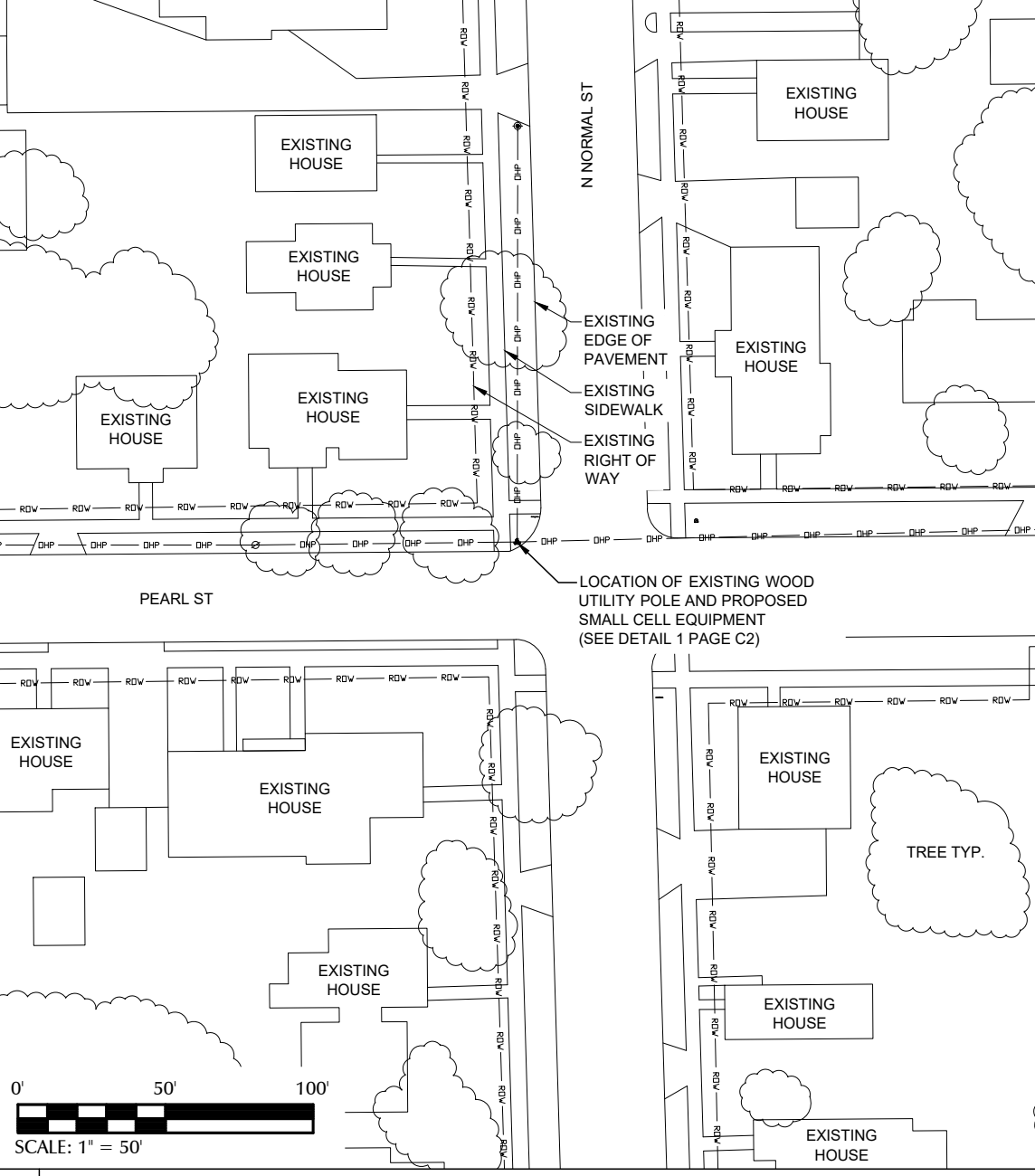
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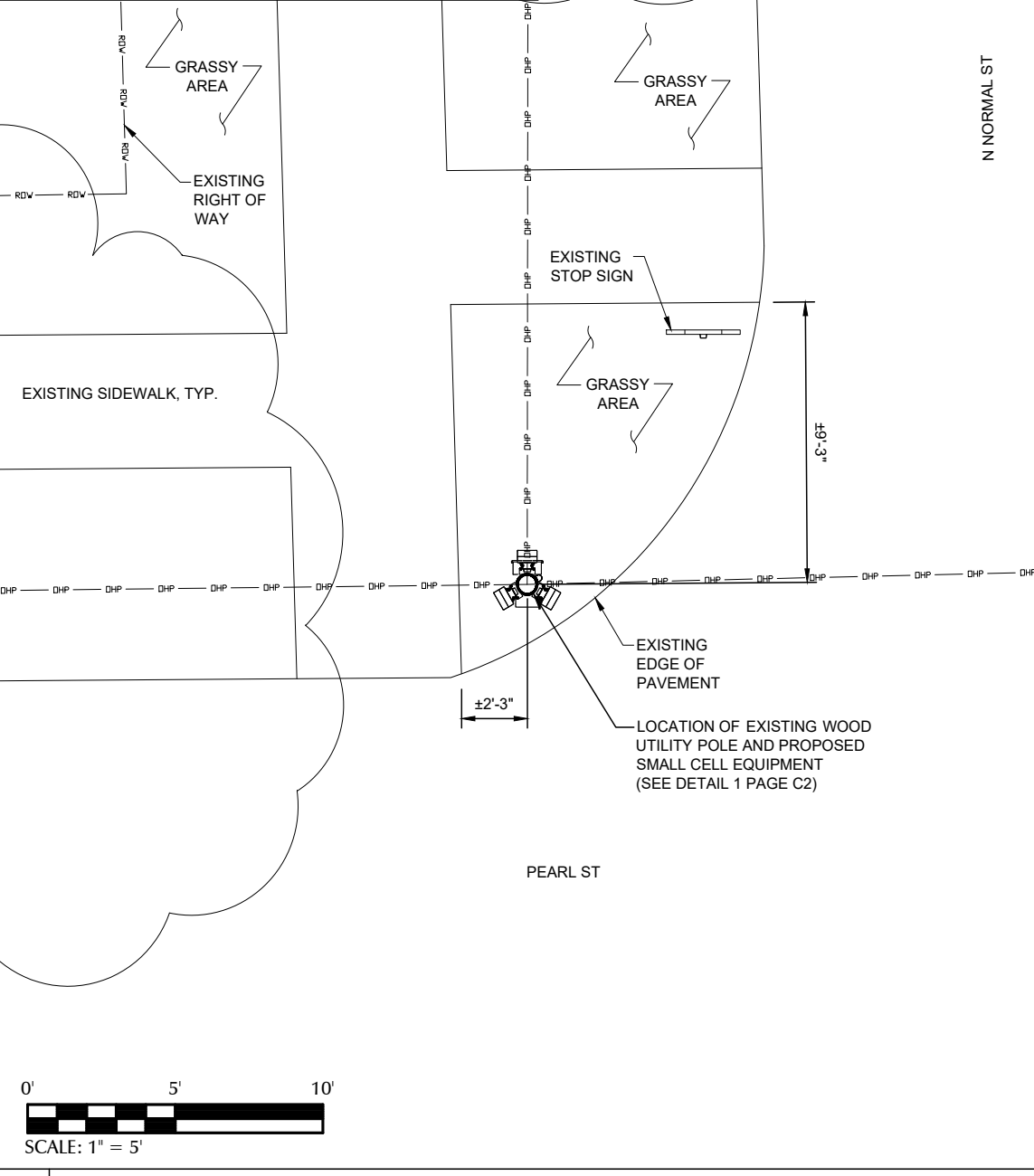
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SITE LAYOUTS

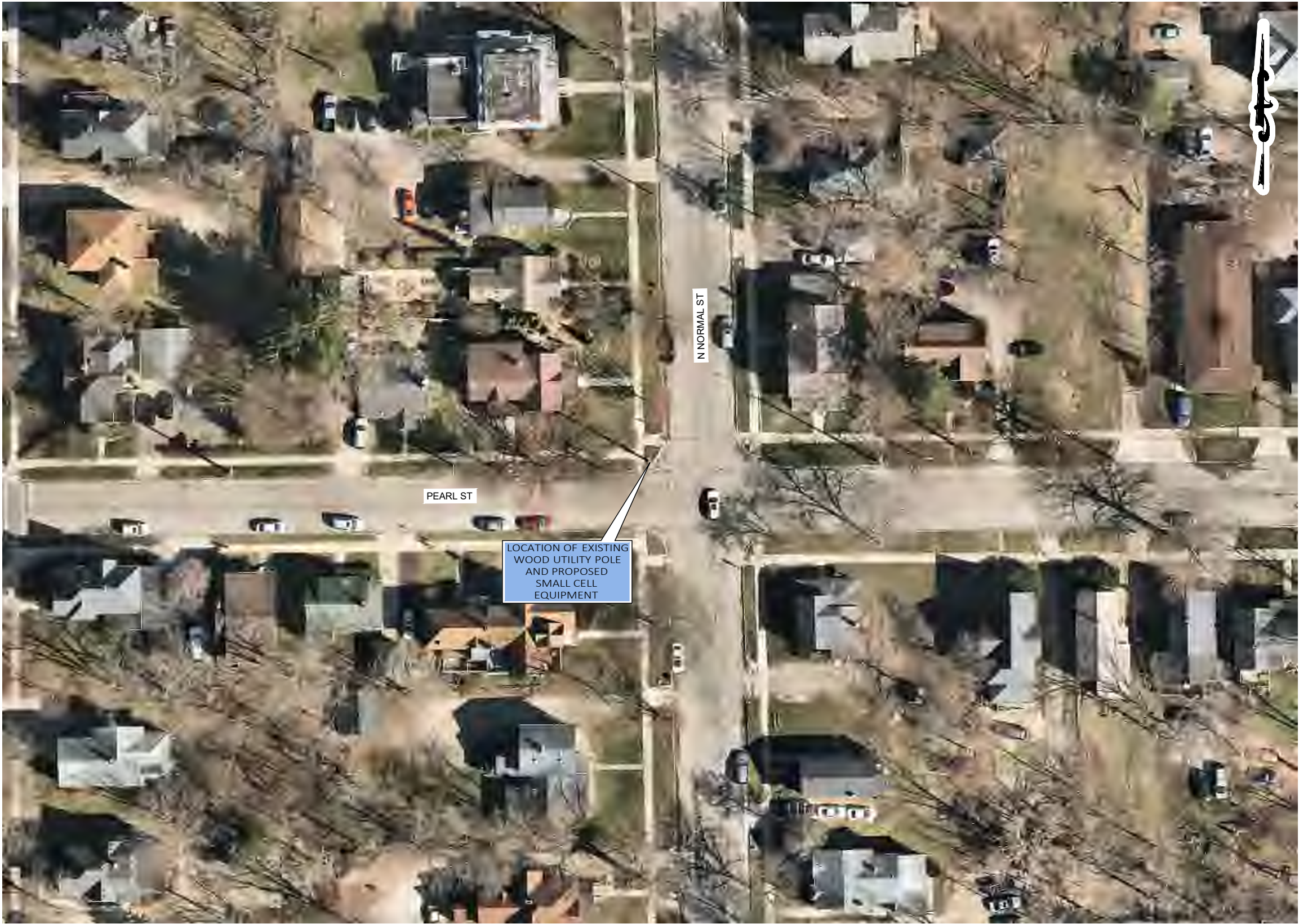
DRAWING NO.	REVISION:
C1	1



1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT



1 OVERALL SITE LAYOUT - AERIAL IMAGERY

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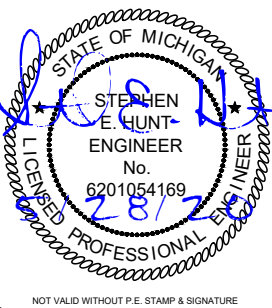
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SHEET TITLE:
SITE LAYOUT -
AERIAL IMAGERY

DRAWING NO.	REVISION:
C1A	1

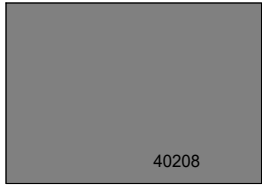
CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

MAINTAIN A MIN. OF 3'-0"
CLEARANCE BETWEEN
DISCONNECT BOX AND ANY
COMM LINES

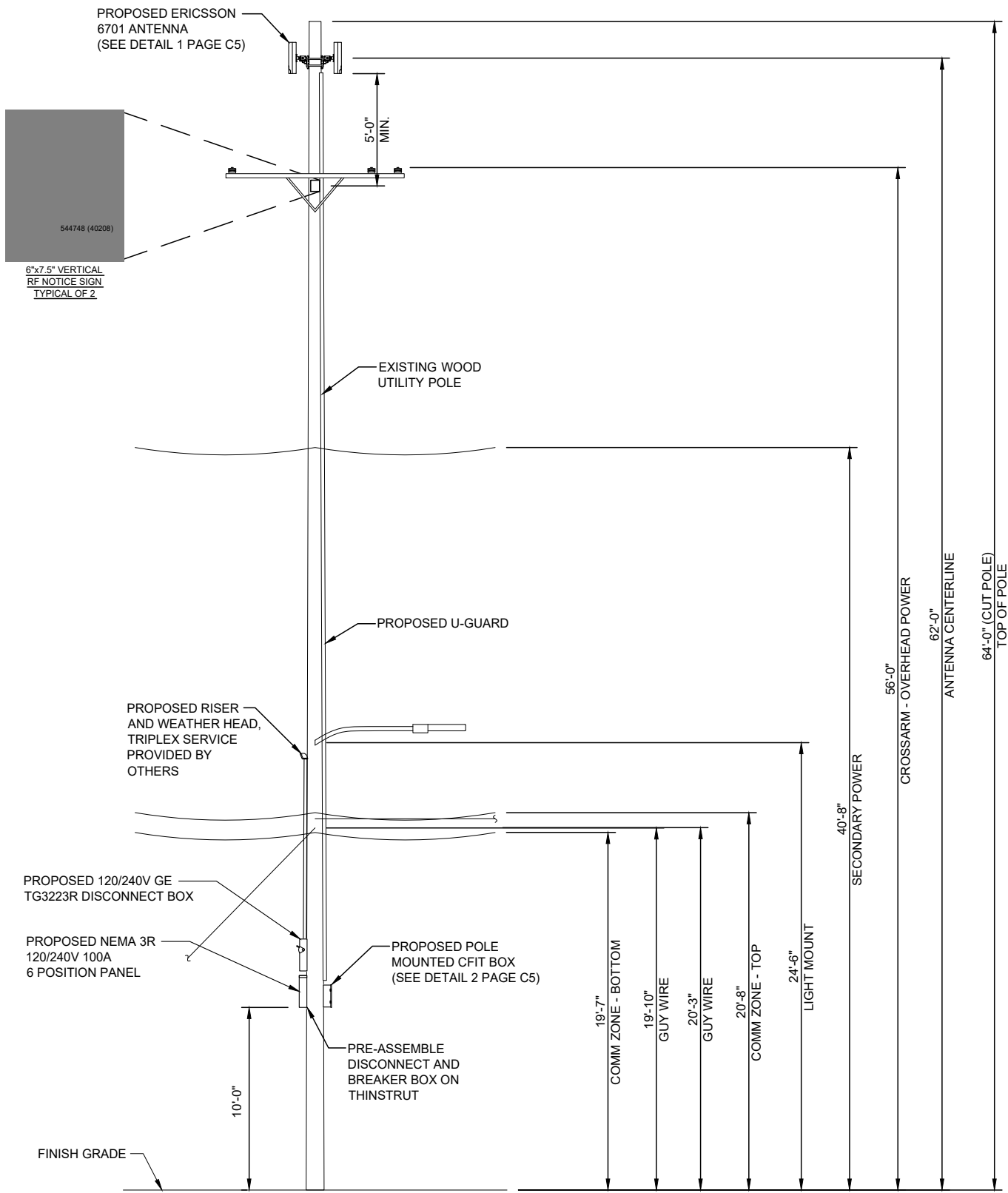
40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

5'-0" MIN. CLEARANCE ABOVE
ANY DTE EQUIPMENT TO
BOTTOM OF ANTENNA

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



INSTALL ON BREAKER PANEL



1 POLE ELEVATION

N.T.S.

PREPARED FOR:



PREPARED BY:



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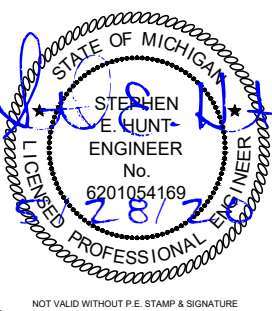
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SHEET TITLE:

POLE ELEVATION

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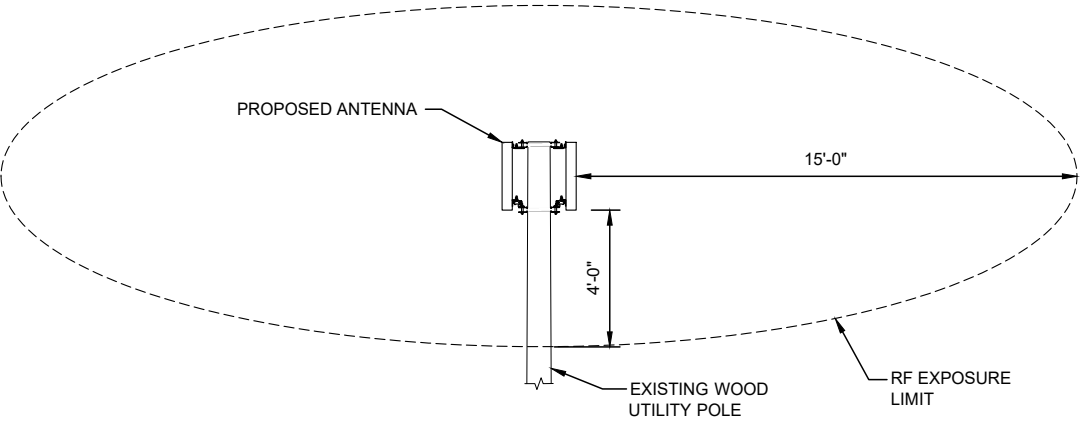
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REVISION:

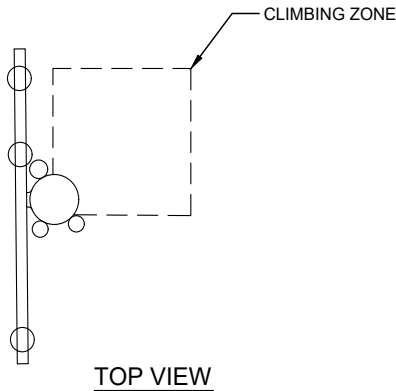
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POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6701 ANTENNA	0.46
6701 ANTENNA	0.46
6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38

POLE ANCILLARY EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
6 POSITION PANEL	0.80
DISCONNECT	0.57
CFIT BOX	0.60
TOTAL IN CU-FT	1.97



2 RF EXPOSURE LIMIT N.T.S.



- NOTES:**
- WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT, OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 - ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 - VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 - BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 - SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 - 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 - ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

3 DTE CLIMBING ZONE REQUIREMENT AND NOTES N.T.S.

PREPARED FOR:



PREPARED BY:



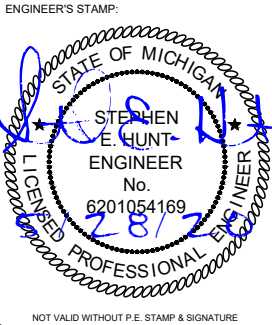
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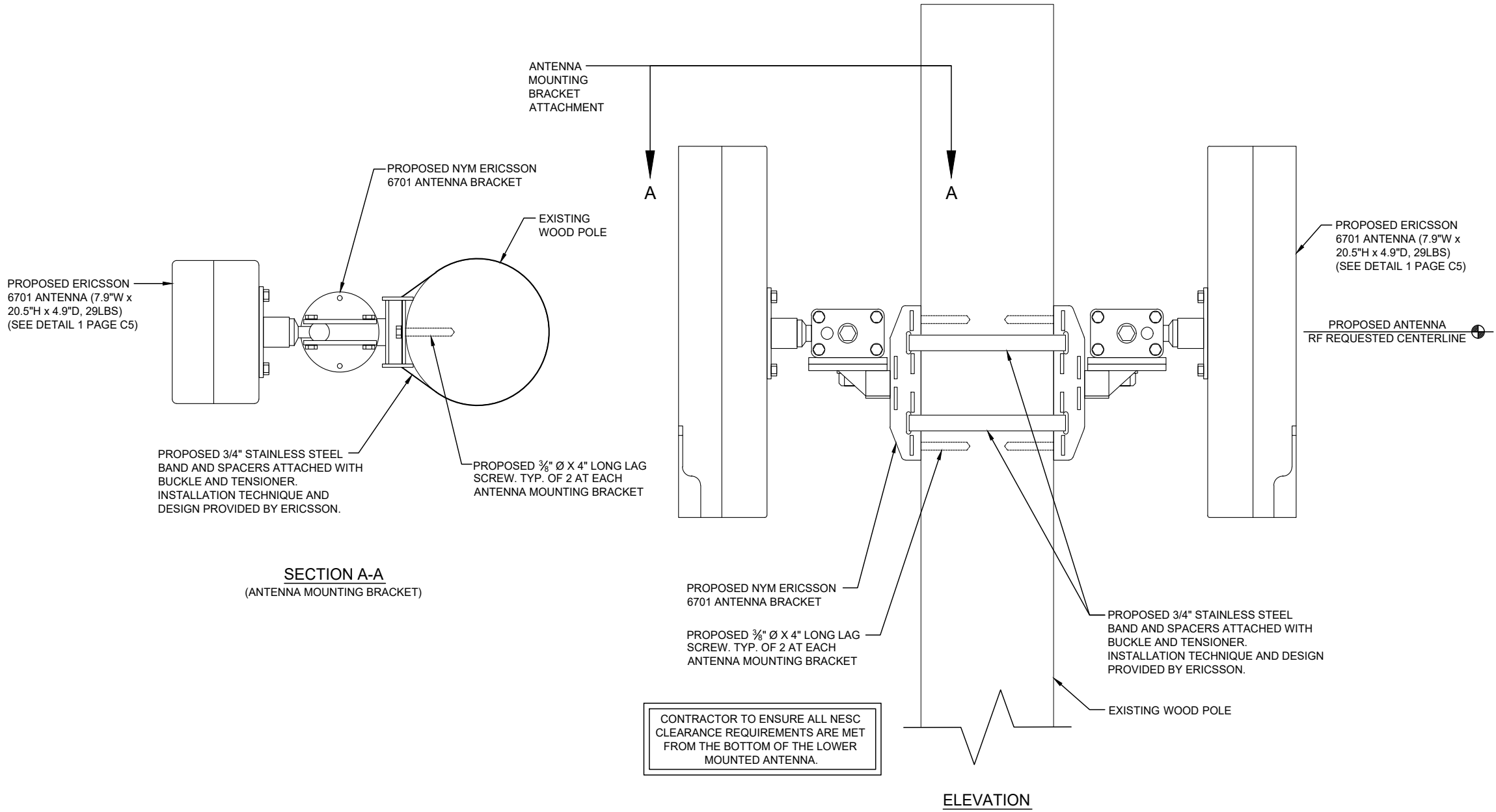
SHEET TITLE:
SITE DETAILS

DRAWING NO. REVISION:

C3

1

1 EQUIPMENT CU-FT. TABLE



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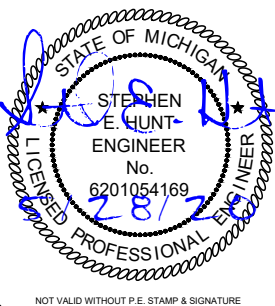
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0	07/01/19	PLS	CONSTRUCTION ISSUE
A	06/26/19	PLS	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME: 40208

ADDRESS:
103 N NORMAL ST
YPSILANTI, MI 48197

COUNTY:
WASHTENAW

LATITUDE:
43° 14' 31.956" N

LONGITUDE:
83° 37' 23.88" W

DESIGN TYPE:
COLOCATION

SHEET TITLE:
SITE DETAILS

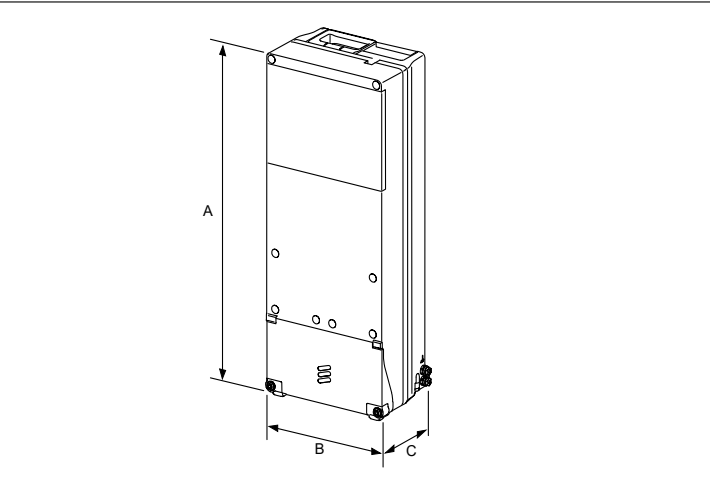
DRAWING NO.
C4

REVISION:
1

Technical Data

Description	Value
Frequency	N261 (27.5–28.35 GHz)
Number of carriers	Config mode 2: Up to 8 Config mode 1: Up to 16
Operating bandwidth	Config mode 2: 800 MHz Config mode 1: 1600 MHz
Component carrier bandwidth	50MHz, 100 MHz
EIRP ⁽¹⁾	Config mode 2: 53 dBm per RF beam in boresight , 56 dBm per radio Config mode 1: 47 dBm per RF beam in boresight , 53 dBm per radio
EIS _{REFSENS_50M}	Config mode 2: -109 dBm Config mode 1: -106 dBm

(1) The MaxTxPower can be configured up to 10 dB lower than the stated EIRP without product performance being degraded. If the MaxTxPower is configured lower than the given power limit here, significant performance degradation will occur.



Dimensions, Weight, and Color

Dimensions	
Height (A)	511 mm
Width (B)	200 mm
Depth (C)	125 mm
Weight	14 kg
Color	Gray Reference number: NCS S 1002-B

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ

DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

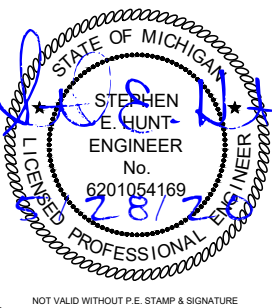
TeleCAD
Wireless
1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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CHECKED BY:	CTD

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LATITUDE:	43° 14' 31.956" N
LONGITUDE:	83° 37' 23.88" W
DESIGN TYPE:	COLOCATION

SHEET TITLE:
EQUIPMENT DETAILS

DRAWING NO.	REVISION:
C5	1

1 6701 ANTENNA

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 80 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

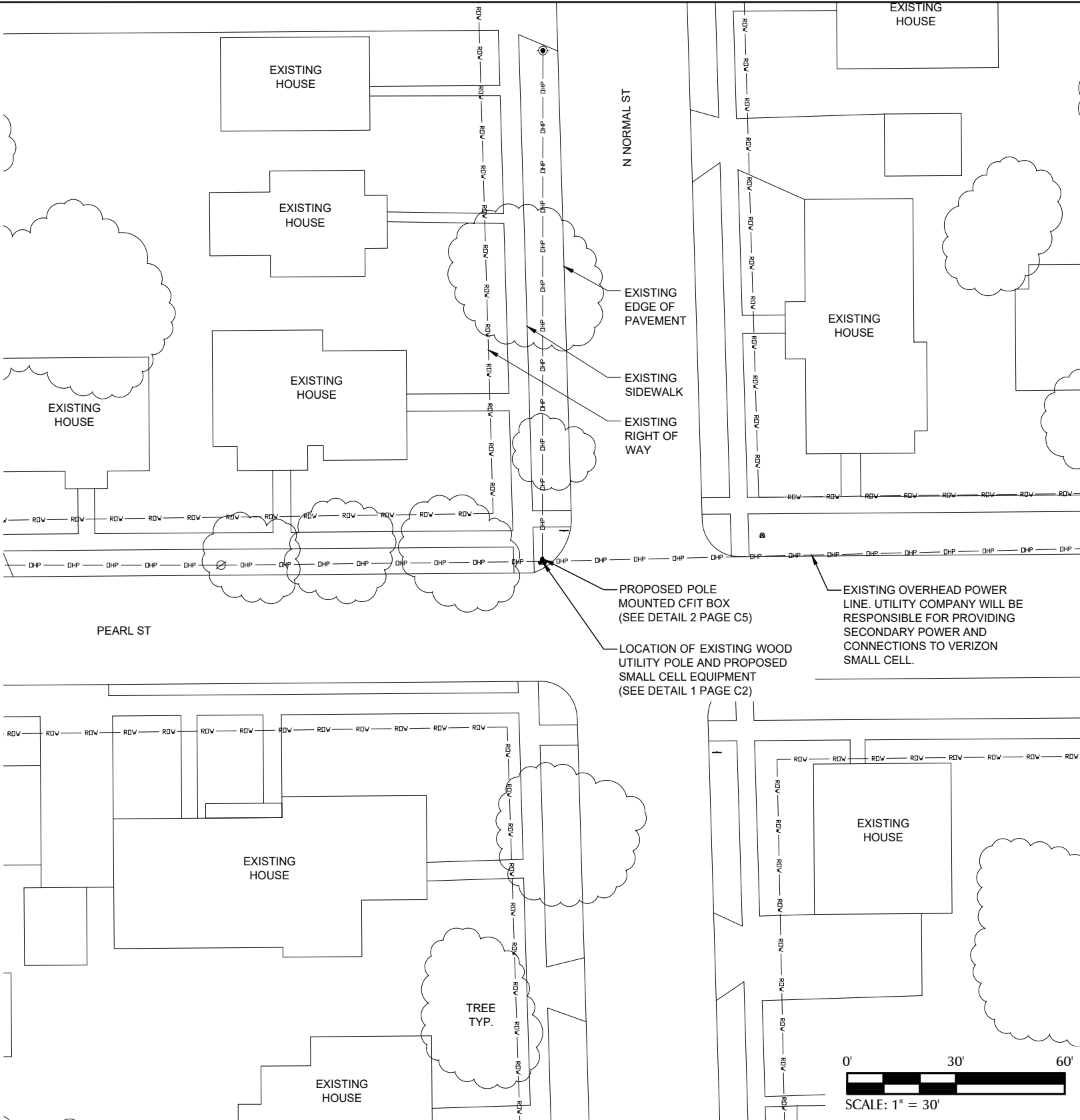
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM	COPPER	CONDUIT SIZE
	120V	120V	
3 AWG	55'	90'	1" MIN
2 AWG	70'	115'	1 1/4" MIN
1 AWG	85'	145'	1 1/4" MIN
1/0 AWG	110'	180'	1 1/2" MIN
2/0 AWG	140'	230'	1 1/2" MIN
3/0 AWG	175'	290'	2" MIN
4/0 AWG	220'	365'	2" MIN
250 KCMIL	265'	435'	2" MIN
300 KCMIL	315'	520'	2 1/2" MIN
350 KCMIL	370'	610'	2 1/2" MIN
400 KCMIL	420'	695'	2 1/2" MIN
500 KCMIL	530'	870'	3" MIN

LEGEND

OVERHEAD UTILITIES	DHU	CATCH BASIN	
UNDERGROUND POWER	UGP	STREET SIGN	
OVERHEAD POWER	DHP	4 WAY STREET SIGN	
UNDERGROUND TELCO	UGT	UTILITY POLE	
OVERHEAD TELCO	DHT	LIGHT POLE	
GAS LINE	GAS	WATER VALVE	
FENCE	X-X-X-X-X-X	MANHOLE	
WOOD FENCE	-O-O-O-O-O-	GAS VALVE	
SEWER LINE	SWR	FIRE HYDRANT	
WATER LINE	WTR	TELCO PEDESTAL	
HYBRID CABLE	HYB	ELECTRICAL BOX	
HIGH VOLTAGE POWER	HVP		
FIBER	FBR		
RIGHT-OF-WAY	RDW		
PROPERTY LINE	PL		



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
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PLS

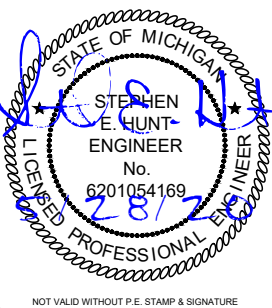
CHECKED BY:

CTD

REVISIONS

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ENGINEER'S STAMP:



SITE NAME:

40208

ADDRESS:

103 N NORMAL ST
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

43° 14' 31.956" N

LONGITUDE:

83° 37' 23.88" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

UTILITY SITE PLAN

DRAWING NO.

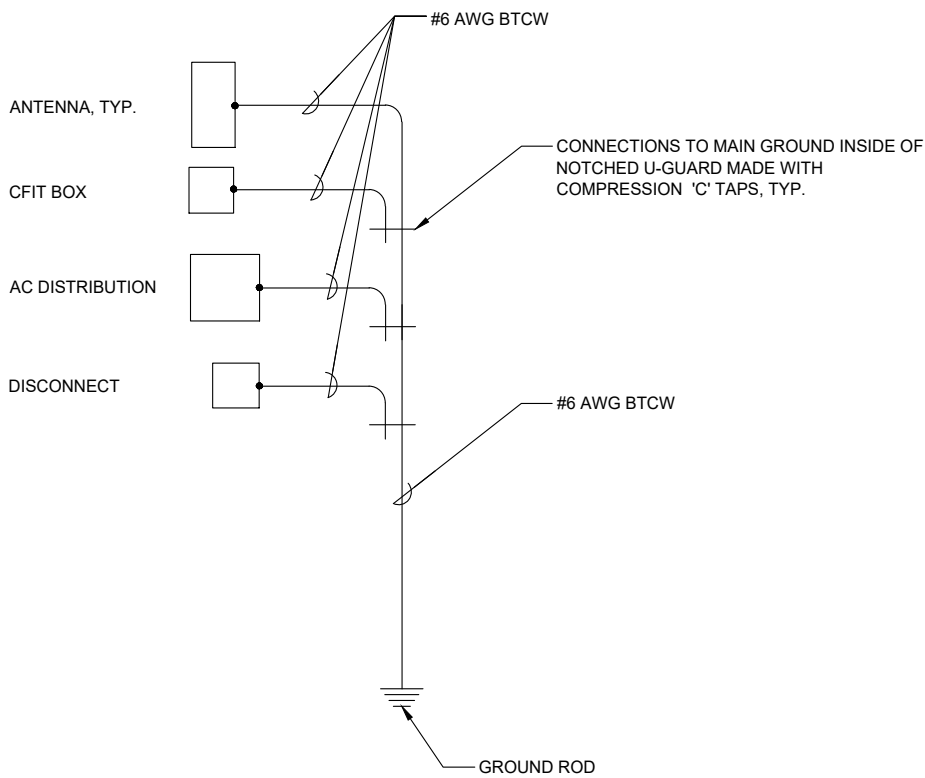
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REVISION:

1

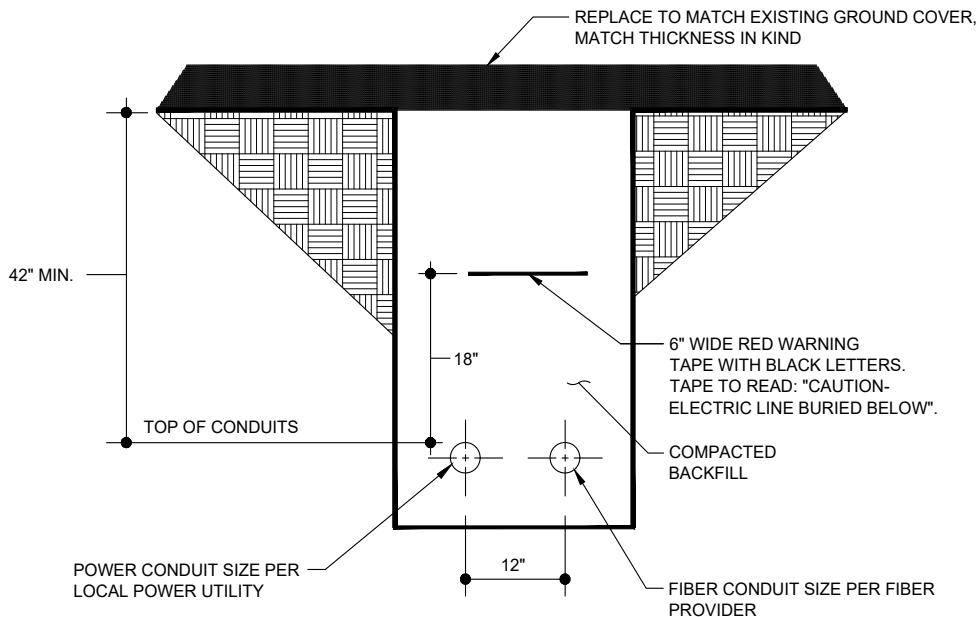
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UTILITY SITE PLAN



1 SINGLE POINT RADIAL GROUND DETAIL

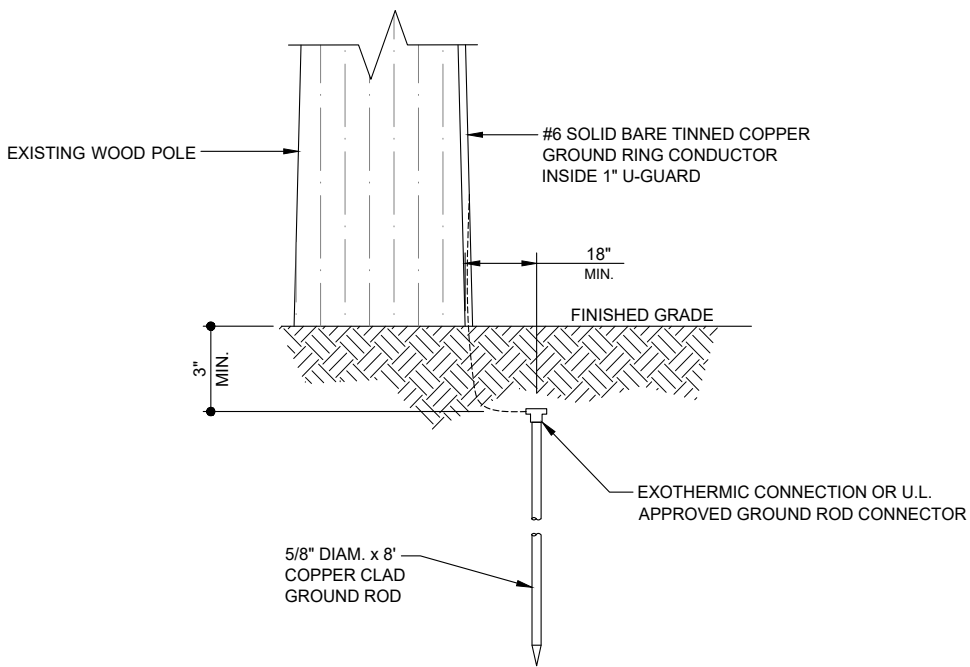
N.T.S.



NOTE: TYPICAL SPACING FOR ALL UNDERGROUND CONDUITS.

2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

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HIXSON, TN 37343
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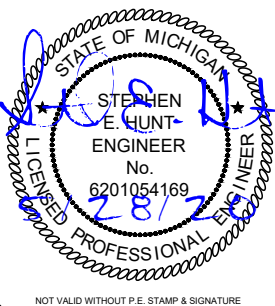
CHECKED BY:

CTD

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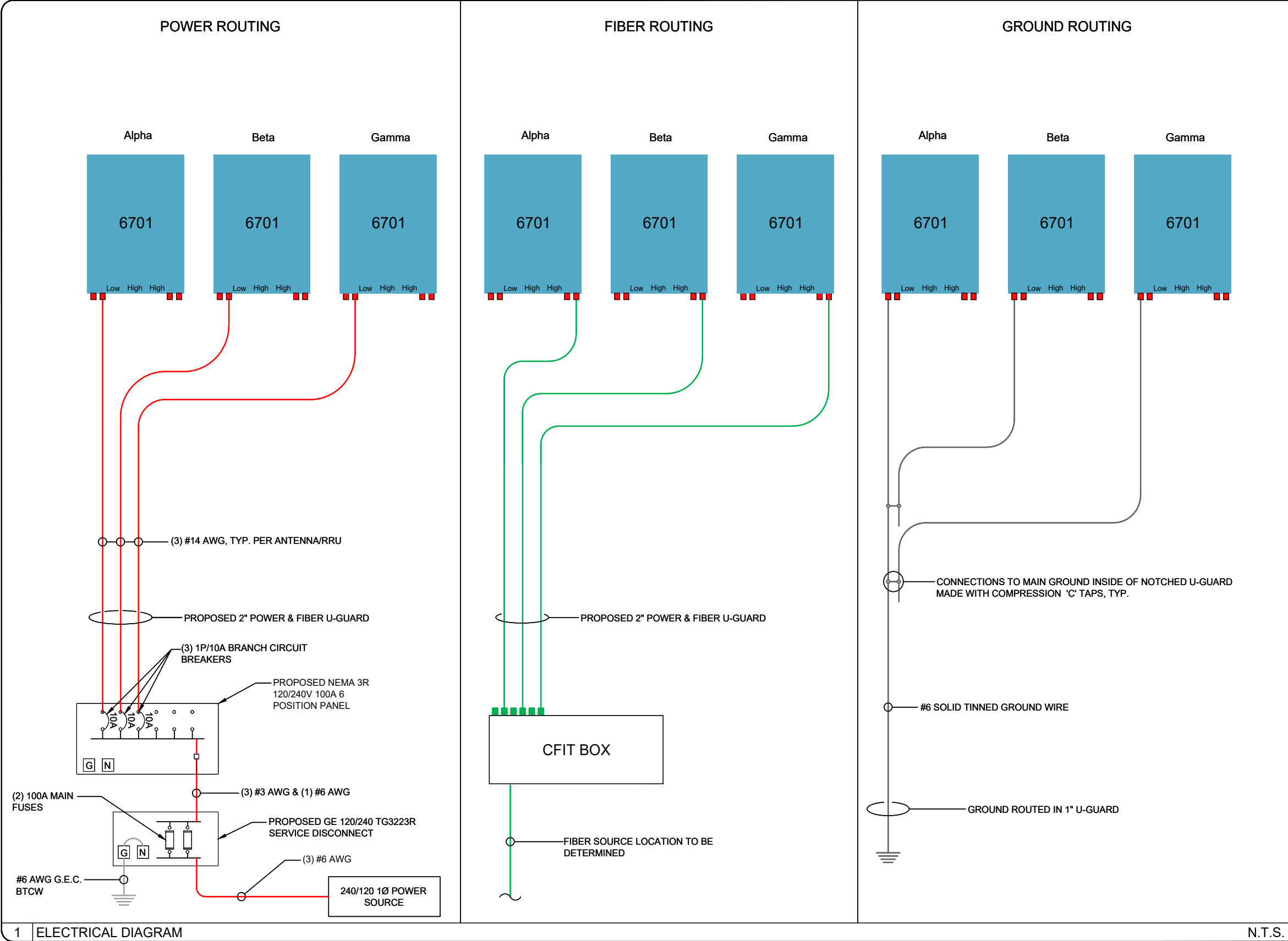
ELECTRICAL DETAILS

DRAWING NO.

E2

REVISION:

1



PROJECT SUMMARY

SITE NAME: 40202
SITE ADDRESS: 1335 N HURON RIVER DR
(ESTIMATED) YPSILANTI, MI 48197
COUNTY: WASHTENAW
JURISDICTION: THE CITY OF YPSILANTI
SITE COORDINATES:
LATITUDE: 42° 15' 25.308" N
LATITUDE: 42.25703°
LONGITUDE: 83° 38' 10.644" W
LONGITUDE: -83.63629°
ELEVATION: ±770'-5"
PROPERTY DEFINITION: R.O.W.
FUZE PROJECT ID: 15487077
PSLC CODE: 544742
PROPOSED POLE HEIGHT: 40'-0"
PROPOSED POLE CLASS: TBD



SITE NAME: 40202

PROPOSED SMALL CELL EQUIPMENT
ON A NEW VERIZON POLE

SHEET INDEX

NO.	DESCRIPTION
T1	TITLE SHEET
GN1	GENERAL NOTES
C1	SITE LAYOUTS
C2	POLE ELEVATION
C3	ANTENNA LAYOUT
C4	SITE DETAILS
C5	SITE DETAILS
C6	EQUIPMENT DETAILS
E1	UTILITY SITE PLAN
E2	ELECTRICAL DETAILS
E3	SINGLE LINE DIAGRAM

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless
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HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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NO.	DATE	BY	DESCRIPTION
0	07/12/19	AID	CONSTRUCTION ISSUE
A	07/12/19	AID	PRELIMINARY REVIEW

ENGINEER'S STAMP:



NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME: 40202
ADDRESS: 1335 N HURON RIVER DR
YPSILANTI, MI 48197
COUNTY: WASHTENAW
LATITUDE: 42° 15' 25.308" N
LONGITUDE: 83° 38' 10.644" W
DESIGN TYPE: RAWLAND

SHEET TITLE:
TITLE SHEET

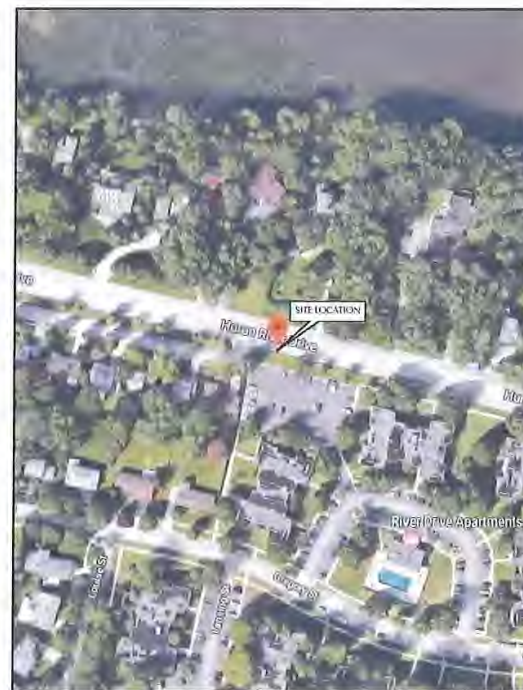
DRAWING NO. T1
REVISIONS 0

VICINITY MAP



NOT TO SCALE

LOCATION MAP



NOT TO SCALE

SCOPE OF WORK

- INSTALLING NEW WOOD UTILITY POLE (CLASS TBD)
- INSTALLING EQUIPMENT
 - (2) ERICSSON STREETMACRO 6701 ANTENNAS
 - CFIT BOX
 - (1) FIBER & (1) POWER CABLE PER ANTENNA
 - DISCONNECT
- RUN CONDUITS FOR POWER AND FIBER

STATE COUNTY MAP



STRUCTURAL REVIEW

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.

SHEET SCALE FACTOR:
PLOT SIZE:
11" x 17": TO SCALE



1 (800) 482-7171
www.missdig.com
CONTRACTOR TO CALL MICHIGAN
ONE-CALL SYSTEMS AT LEAST 72 HOURS
PRIOR TO DIGGING.

GENERAL NOTES

- 1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
- 2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
- 3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
- 4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
- 5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
- 6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
- 7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)
- 8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
- 9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
- 10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
- 11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
- 12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

- 1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
- 2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
- 3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
- 4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
- 5. THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
- 6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
- 7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

- 1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
- 2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
- 3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

- 1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.
- 2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
- 3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
- 4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
- 5. ALL EQUIPMENT TO BE BONDED.
- 6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

- 1. GROUND TESTED AT 25 OHMS OR LESS.
- 2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
- 3. #6 GROUND AND BOND WIRE.
- 4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
- 5. GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

- 1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
- 2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
- 3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
- 4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
- 5. RISER STRAPS TO BE INSTALLED EVERY 5'.
- 6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
- 7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

- 1. MAINTAIN 42" MINIMUM COVER FOR ELECTRICAL CONDUIT.
- 2. MAINTAIN 42" MINIMUM COVER FOR COMMUNICATION CONDUIT.
- 3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
- 4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
- 5. PLACE WARNING TAPE IN TRENCH 18" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

- 1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
- 2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
- 3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
- 4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
- 5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
- 6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
- 7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
- 8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
- 9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

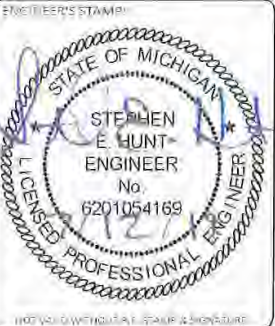
- 1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
- 2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
- 3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
- 4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
- 5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.



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DRAWN BY:	AD
CHECKED BY:	CTB

REVISIONS			



SITE NAME:	40202
ADDRESS:	1339 N HURON RIVER DR YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 15' 25.308" N
LONGITUDE:	83° 38' 10.644" W
DESIGN TYPE:	RAWLAND

SHEET TITLE:	GENERAL NOTES
--------------	---------------

DRAWING NO.:	GN1
REVISION:	0

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

LEGEND	
OVERHEAD UTILITIES	— 100' — 100' —
UNDERGROUND POWER	— 100' — 100' —
OVERHEAD POWER	— 100' — 100' —
UNDERGROUND TELCO	— 100' — 100' —
OVERHEAD TELCO	— 100' — 100' —
GAS LINE	— 100' — 100' —
FENCE	— 100' — 100' —
WOOD FENCE	— 100' — 100' —
SEWER LINE	— 100' — 100' —
WATER LINE	— 100' — 100' —
HYBRID CABLE	— 100' — 100' —
HIGH VOLTAGE POWER	— 100' — 100' —
FIBER	— 100' — 100' —
RIGHT OF WAY	— 100' — 100' —
PROPERTY LINE	— 100' — 100' —
CATCH BASIN	— 100' — 100' —
STREET SIGN	— 100' — 100' —
4 WAY STREET SIGN	— 100' — 100' —
UTILITY POLE	— 100' — 100' —
LIGHT POLE	— 100' — 100' —
WATER VALVE	— 100' — 100' —
MANHOLE	— 100' — 100' —
GAS VALVE	— 100' — 100' —
FIRE HYDRANT	— 100' — 100' —
TELCO PEDESTAL	— 100' — 100' —
TELCO RICAL BOX	— 100' — 100' —

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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DRAWN BY: JAD
CHECKED BY: CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
0	07/13/19	AJD	CONSTRUCTION ISSUE
1	07/11/19	AJD	PRELIMINARY REVIEW

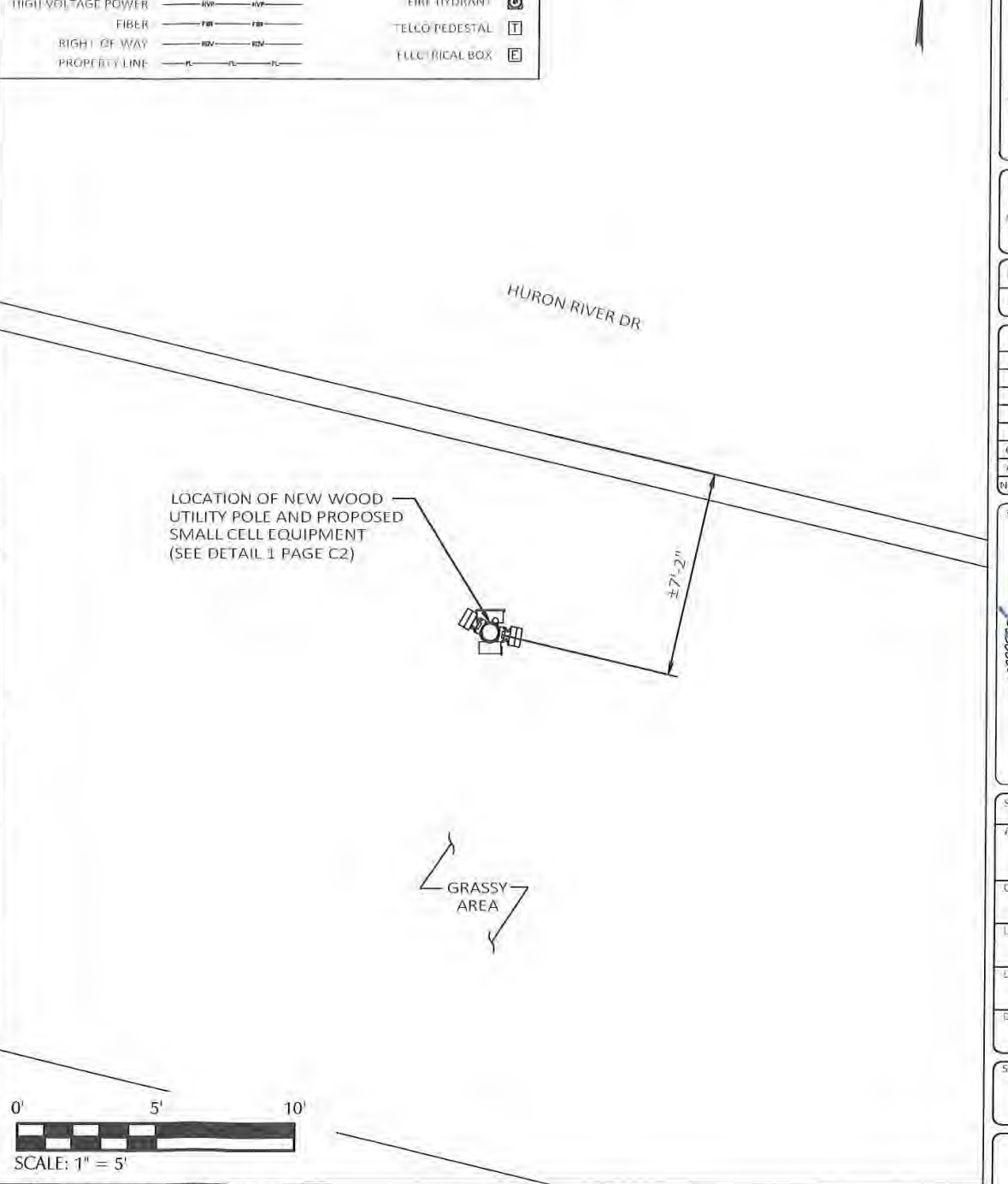
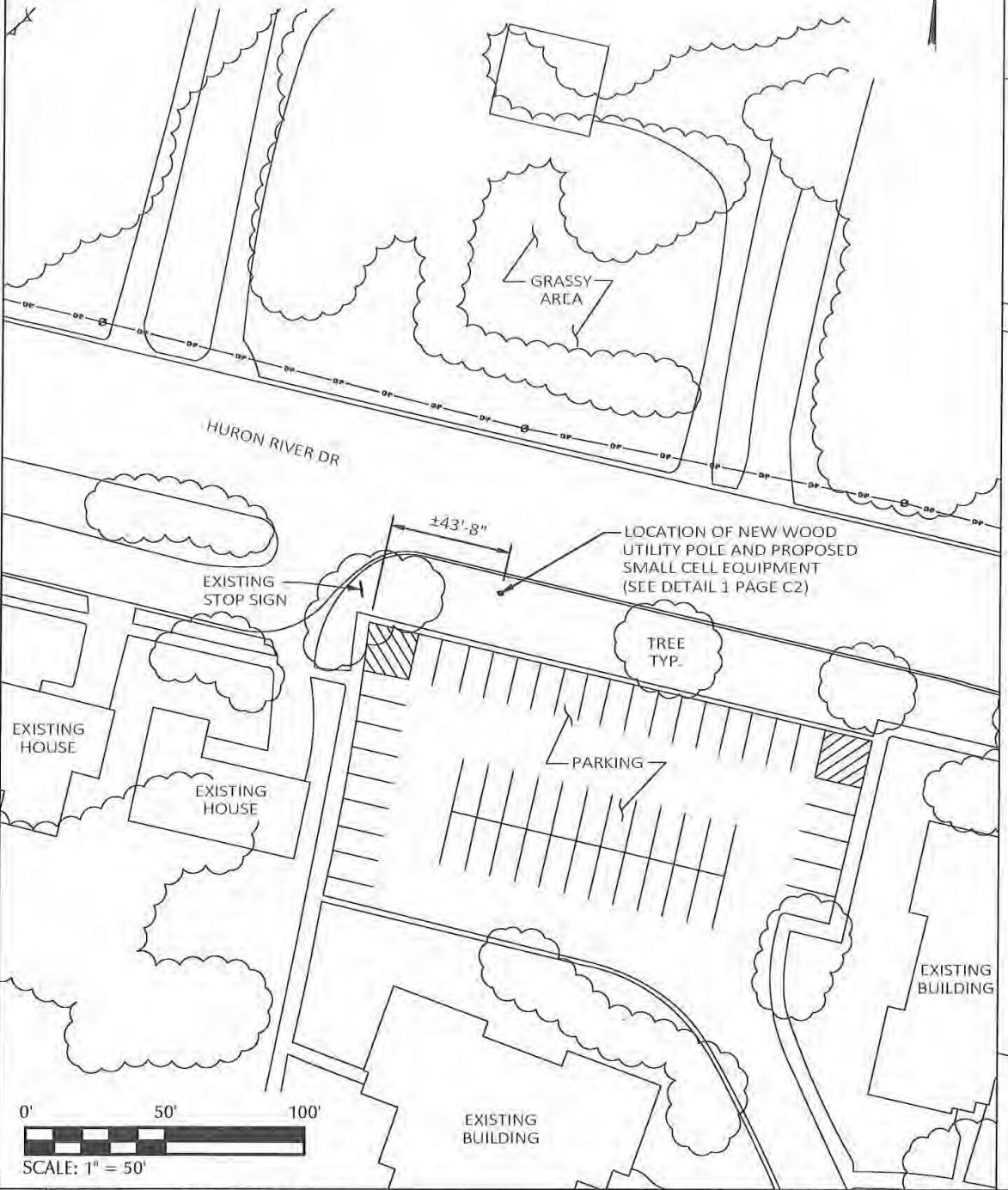
ENGINEER'S STAMP:



SITE NAME: 40202
ADDRESS: 1339 N HURON RIVER DR
YPSILANTI, MI 48197
COUNTY: WASHTENAW
LATITUDE: 42° 15' 25.308" N
LONGITUDE: 83° 38' 10.644" W
DESIGN TYPE: RAWLAND

SHEET TITLE:
SITE LAYOUTS

DRAWING NO.: C1
REVISION: 0

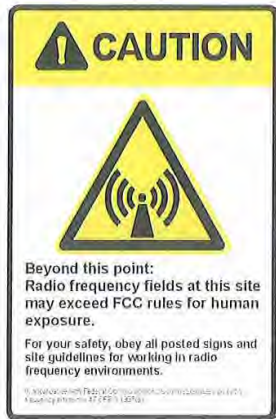


1 OVERALL SITE LAYOUT

2 ENLARGED SITE LAYOUT

CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE



12"x18" RF CAUTION SIGN
TYPICAL OF 2

PROPOSED ERICSSON
STREETMACRO 6701
ANTENNA
(SEE DETAIL 1 PAGE C6)

NEW WOOD
UTILITY POLE

PROPOSED RISER
AND WEATHER
HEAD, TRIPLEX
SERVICE PROVIDED
BY OTHERS

PROPOSED 120/240V GE
TG3223R DISCONNECT BOX

PROPOSED NEMA 3R
120/240V 100A
6 POSITION PANEL

PROPOSED U-GUARD

PROPOSED FIBER
SLACK BOX

PROPOSED POLE
MOUNTED CFIT BOX
(SEE DETAIL 2 PAGE C6)

PRE-ASSEMBLE
DISCONNECT AND
BREAKER BOX ON
THINSTRUT

FINISH GRADE

10'-0"

39'-0"
ANTENNA CENTERLINE

40'-0"
TOP OF POLE



INSTALL ON BREAKER PANEL

1 POLE ELEVATION

N.T.S.

PREPARED FOR:

verizon

PREPARED BY:

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HIKSON, TN 37343
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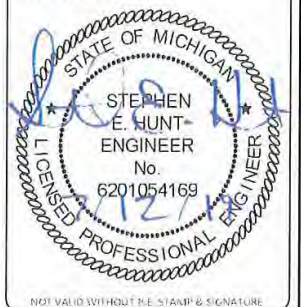
DRAWN BY: AID

CHECKED BY: CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:



SITE NAME: 40202

ADDRESS:
1339 N HURON RIVER DR
YPSILANTI, MI 48197

COUNTY:
WASHTENAW

LATITUDE:
42° 15' 25.308" N

LONGITUDE:
83° 38' 10.644" W

DESIGN TYPE:
RAWLAND

SHEET TITLE:

POLE ELEVATION

DRAWING NO.

C2

REVISION:

0

REFER TO RFDS FOR SMALL
CELL AZIMUTHS



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NO.	DATE	BY	DESCRIPTION

SITE NAME: 40202

ADDRESS:
1339 N HURON RIVER DR
YPSILANTI, MI 48197

LATITUDE: 42° 15' 25.308" N

DESIGN TYPE:
RAWLAND

DRAWING NO.	REVISION:
C3	0

POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
STREET MACRO 6701 ANTENNA	0.46
STREET MACRO 6701 ANTENNA	0.46
TOTAL IN CU-FT	0.92

PREPARED FOR:



PREPARED BY:



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HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:



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SITE NAME: 40202

ADDRESS:

1339 N HURON RIVER DR
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 15' 25.308" N

LONGITUDE:

83° 38' 10.644" W

DESIGN TYPE:

RAWLAND

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

REVISION:

0

PREPARED FOR:



PREPARED BY:



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HIXSON, TN 37343
PH: 423-843-9500
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CHECKED BY:	CTD

REVISIONS				
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A	07/11/19	AJD	PRELIMINARY REVIEW	
NO.	DATE	BY	DESCRIPTION	

ENGINEER'S STAMP:

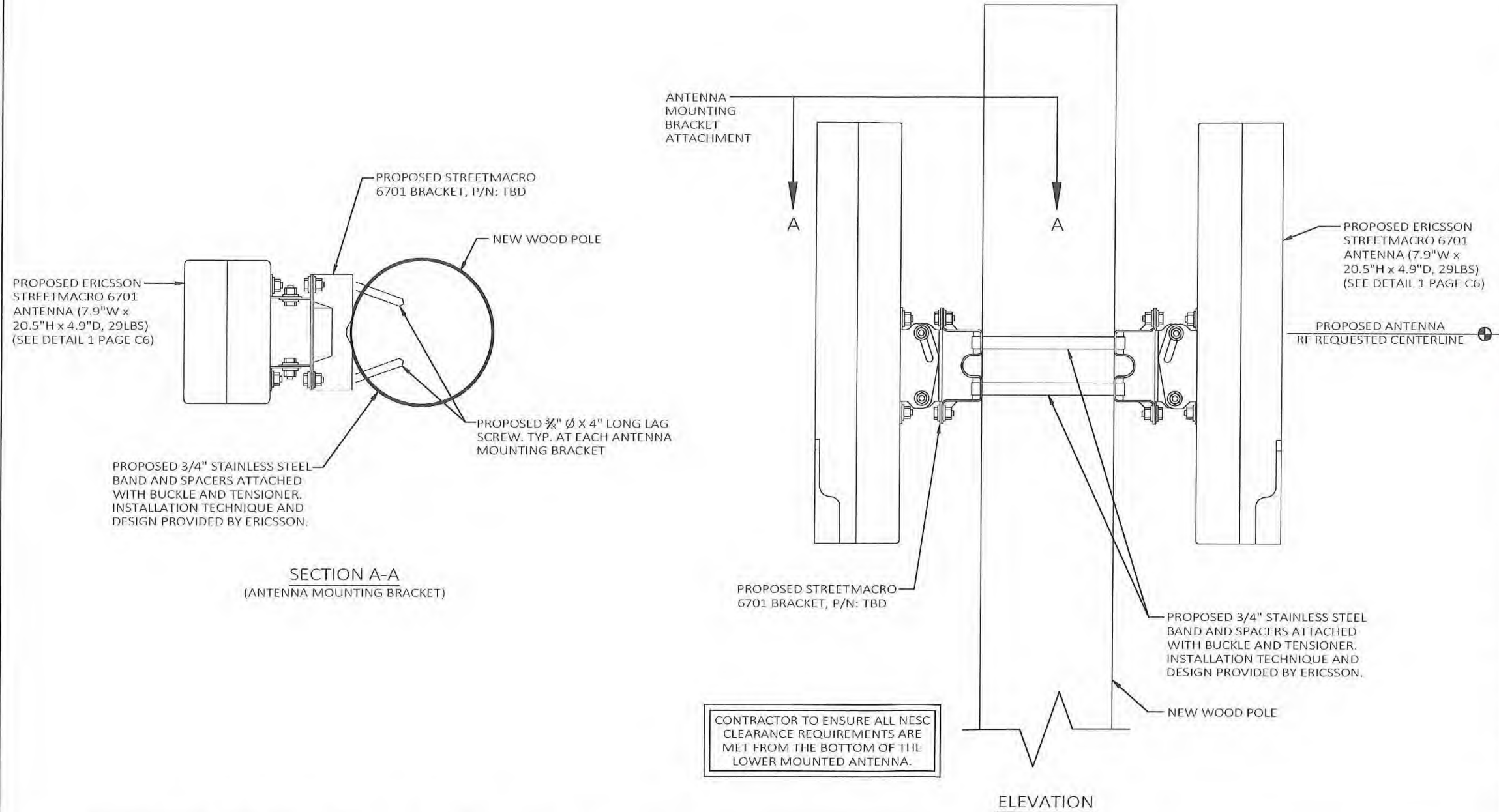


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SITE NAME:	40202
ADDRESS:	1339 N HURON RIVER DR YPSILANTI, MI 48197
COUNTY:	WASHTENAW
LATITUDE:	42° 15' 25.308" N
LONGITUDE:	83° 38' 10.644" W
DESIGN TYPE:	RAWLAND

SHEET TITLE:
SITE DETAILS

DRAWING NO.	REVISION:
C5	0

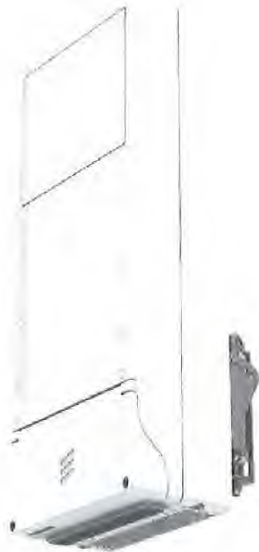


Spectrum: 28 GHz
IBW Full band
OBW 800 MHz
EIRP ~ 55 dBm

of Users: 2,000+
Total Antenna BW: 1600 MHz
Throughput: 5 Gbps DL/ 1 Gbps UL
RI ports: 2
TN/IDLports: 2
Misc: 4xExternal Alarms, USB connector
PoE, GPS, 1588 Synch

Weight: ~ 13 kg (29 lbs)
Size: 20,5"x4,9"x7,9" (13 l)
Operational conditions: -40 to +55 degrees
Cooling: Active
Power: AC, <300W Max
IP Class: IP 65

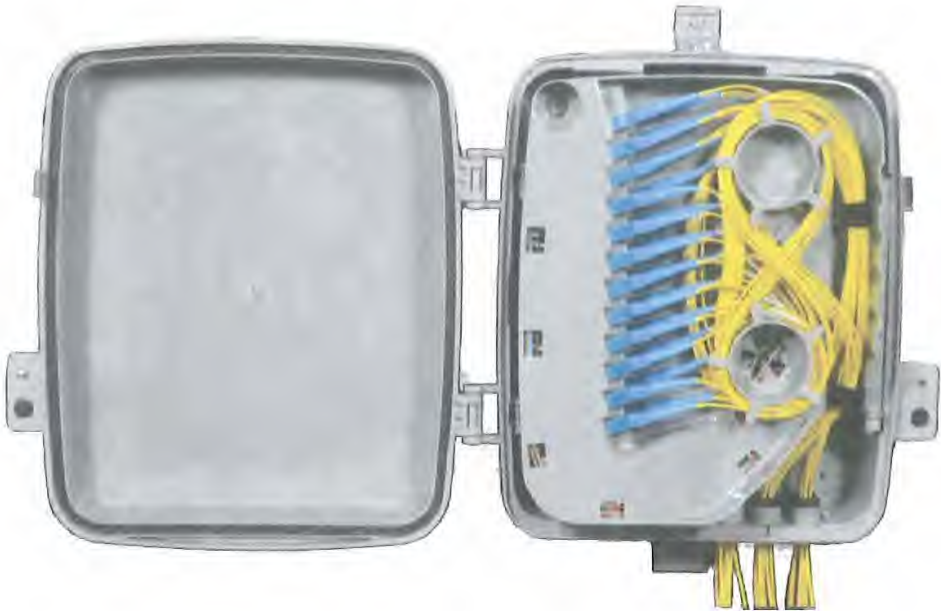
Dimensions (mm) (mm) (mm) (mm) (mm) (mm)



20,5"x5"x8" Not to Scale Dimensions

CFIT BOX

PART CODE: CFIT-C48D4LHXVZ
DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
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DRAWN BY: AJD

CHECKED BY: CTD

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YPSILANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 15' 25.308" N

LONGITUDE: 83° 38' 10.644" W

DESIGN TYPE: RAWLAND

SHEET TITLE:

EQUIPMENT DETAILS

DRAWING NO.

C6

REVISION:

0

1 STREETMACRO 6701

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 18" ABOVE CONDUITS.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 40 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

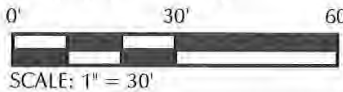
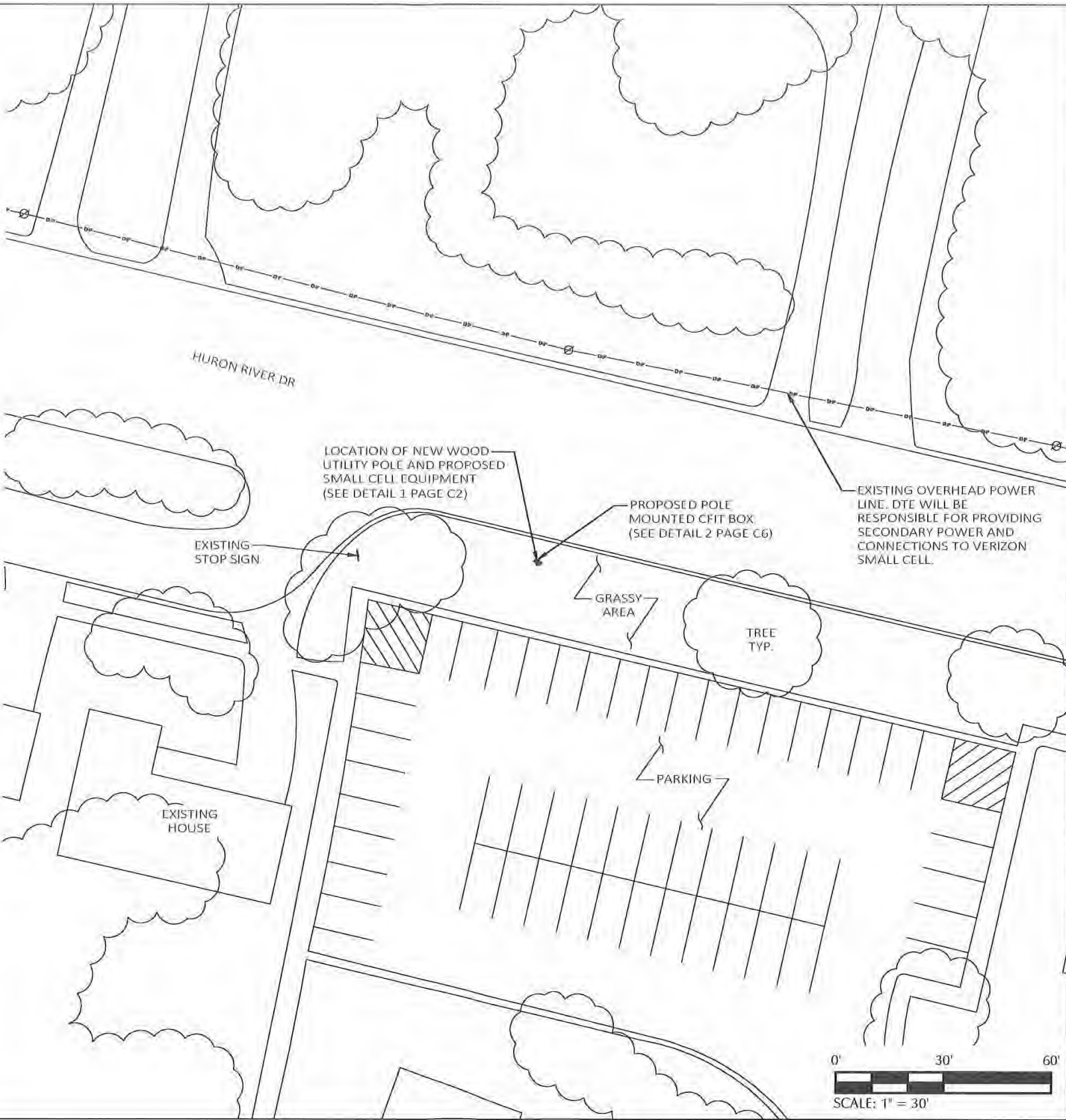
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM 120V	COPPER 120V	CONDUIT SIZE
3 AWG	55'	30'	1" MIN.
2 AWG	70'	115'	1 1/4" MIN.
1 AWG	85'	145'	1 1/4" MIN.
1/0 AWG	110'	180'	1 1/2" MIN.
2/0 AWG	140'	230'	1 1/2" MIN.
3/0 AWG	175'	290'	2" MIN.
4/0 AWG	220'	365'	2" MIN.
250 KCMIL	265'	435'	2" MIN.
300 KCMIL	315'	520'	2 1/2" MIN.
350 KCMIL	370'	610'	2 1/2" MIN.
400 KCMIL	420'	695'	2 1/2" MIN.
500 KCMIL	530'	870'	3" MIN.

LEGEND

OVERHEAD UTILITIES	—●—●—●—	CATCH BASIN	▣
UNDERGROUND POWER	—○—○—○—	STREET SIGN	—
OVERHEAD POWER	—●—●—●—	4 WAY STREET SIGN	+
UNDERGROUND TELCO	—○—○—○—	UTILITY POLE	○
OVERHEAD TELCO	—●—●—●—	LIGHT POLE	⊙
GAS LINE	—●—●—●—	WATER VALVE	⊗
FENCE	—●—●—●—	MANHOLE	⊙
WOOD FENCE	—○—○—○—	GAS VALVE	⊗
SEWER LINE	—○—○—○—	FIRE HYDRANT	⊙
WATER LINE	—○—○—○—	TELCO PEDestal	⊙
HYBRID CABLE	—○—○—○—	ELECTRICAL BOX	⊙
HIGH VOLTAGE POWER	—○—○—○—		
FIBER	—○—○—○—		
RIGHT-OF-WAY	—○—○—○—		
PROPERTY LINE	—○—○—○—		



PREPARED BY:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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AJD

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CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
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A	07/11/19	AJD	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

40202

ADDRESS:

1339 N HURON RIVER DR
YPSILANTI, MI 48197

COUNTY:

WASHTENAW

LATITUDE:

42° 15' 25.308" N

LONGITUDE:

83° 38' 10.644" W

DESIGN TYPE:

RAWLAND

SHEET TITLE:

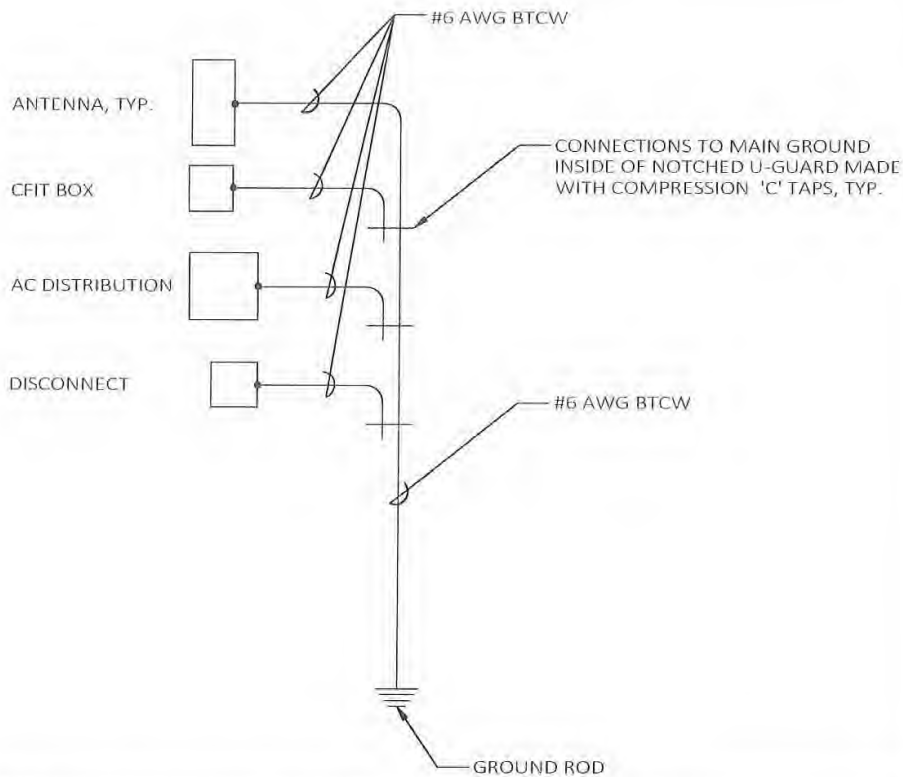
EXISTING SITE PLAN
BUILDING

DRAWING NO.

E1

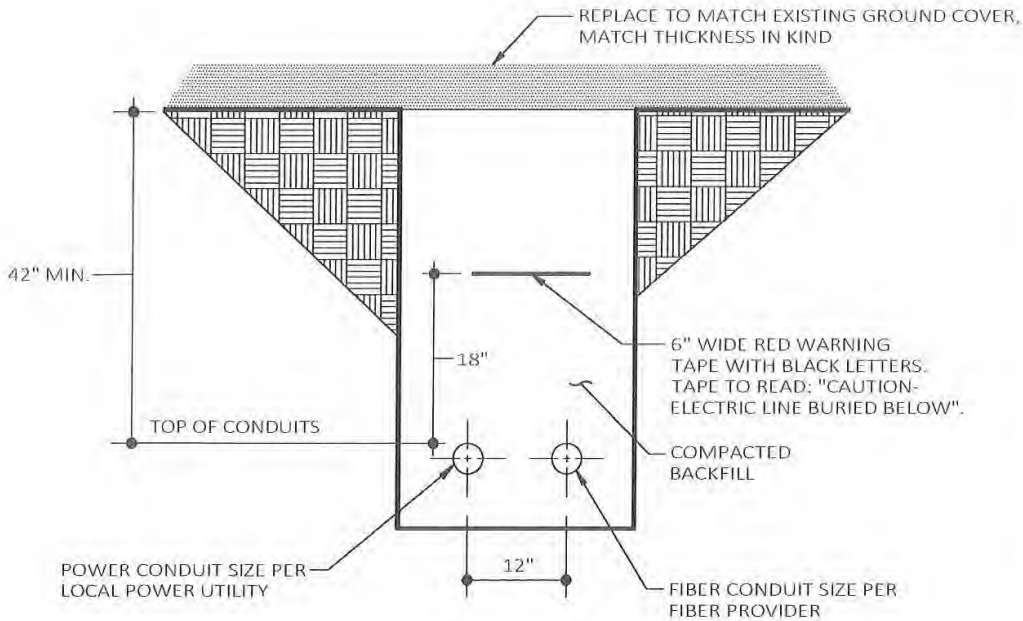
REVISION:

0



1 SINGLE POINT RADIAL GROUND DETAIL

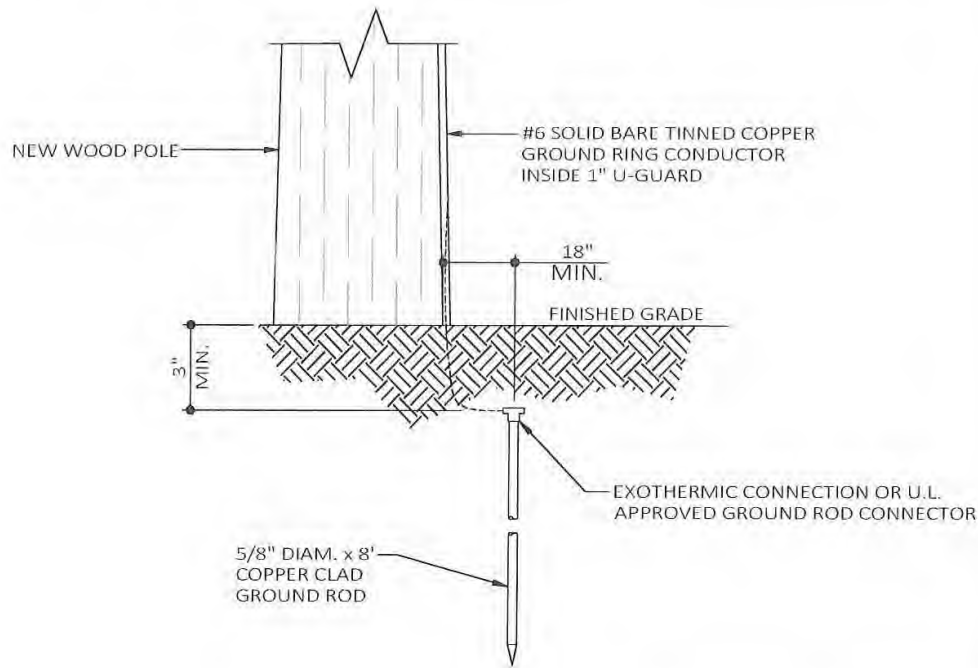
N.T.S.



NOTE: TYPICAL SPACING FOR ALL UNDERGROUND CONDUITS.

2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

PREPARED FOR:

verizon

PREPARED BY:

TelCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
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42° 15' 25.308" N

LONGITUDE:
83° 38' 10.644" W

DESIGN TYPE:
RAWLAND

SHEET TITLE:

ELECTRICAL DETAILS

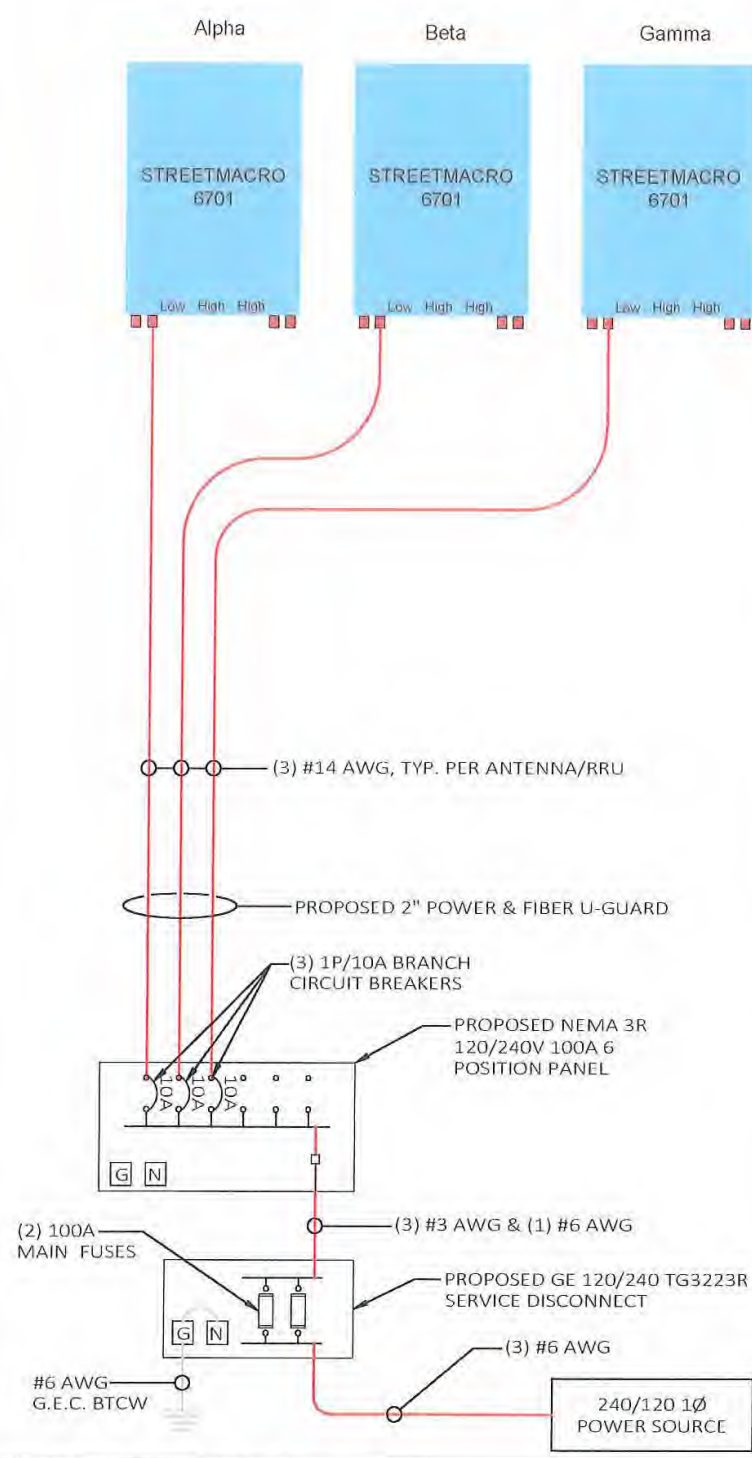
DRAWING NO.

E2

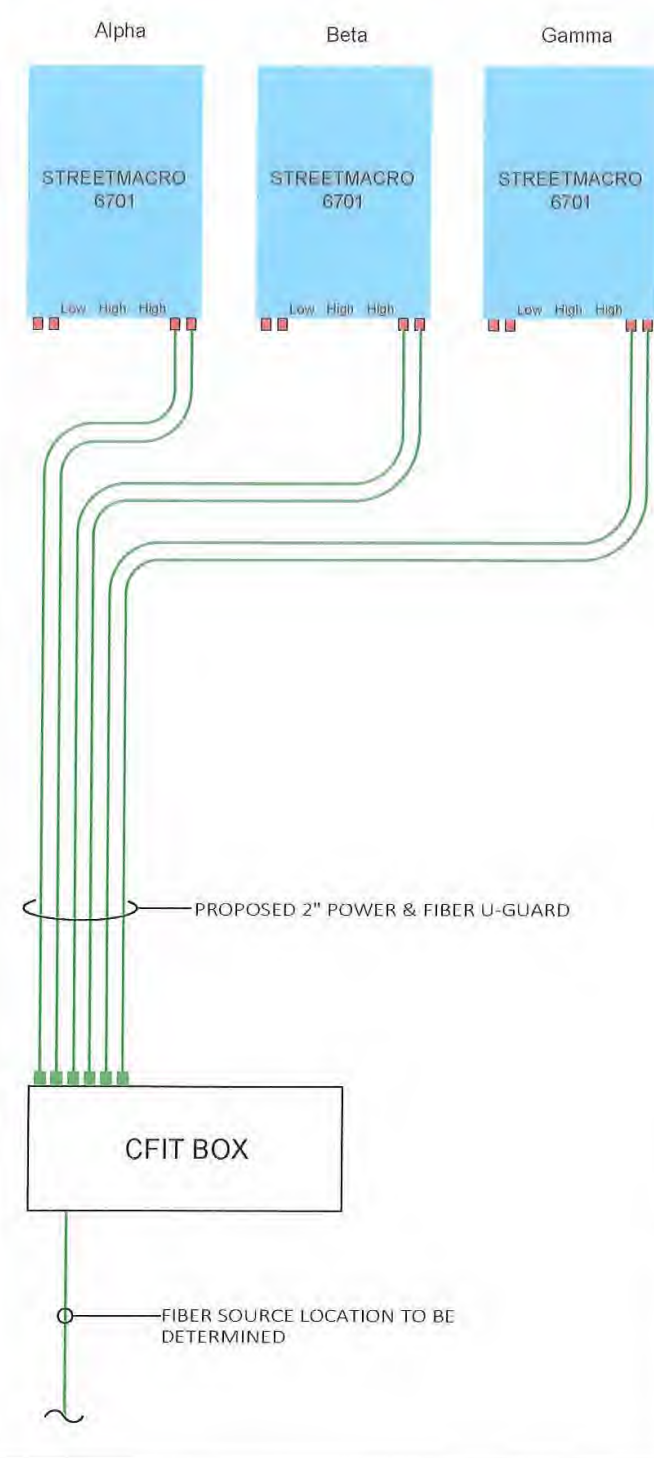
REVISION:

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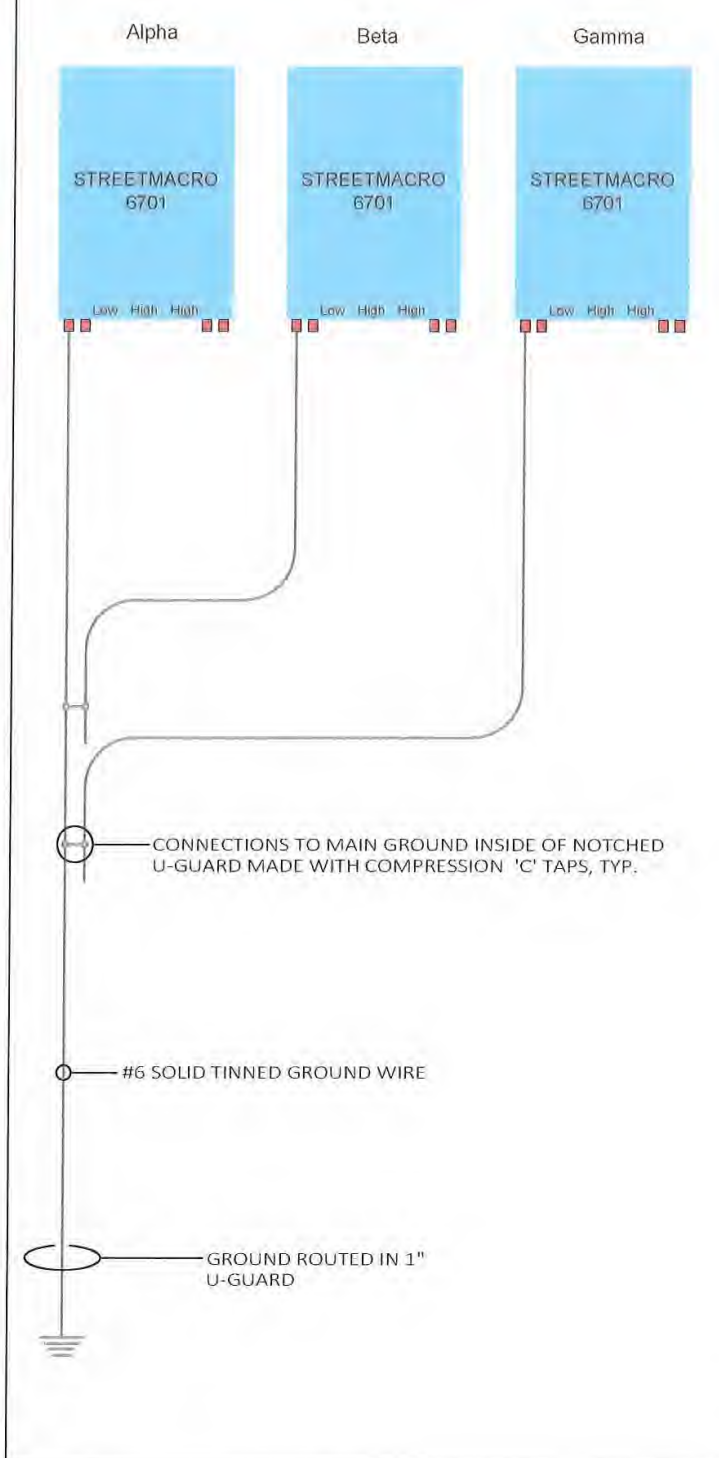
POWER ROUTING



FIBER ROUTING



GROUND ROUTING



PREPARED BY:

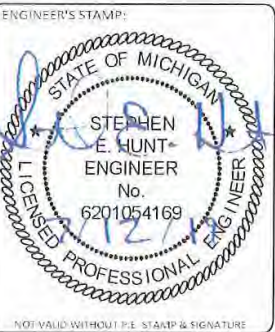
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YPSILANTI, MI 48197

COUNTY: WASHTENAW

LATITUDE: 42° 15' 25.308" N

LONGITUDE: 83° 38' 10.644" W

DESIGN TYPE: RAWLAND

SHEET TITLE: SINGLE LINE DIAGRAM

DRAWING NO: E3
REVISION: 0

1 ELECTRICAL DIAGRAM

N.T.S.

GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED)

DEFINITIONS

1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
5. THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A&E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES:

1. 120/240V POWER REQUIRED FOR 3-WIRE SERVICE.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND REGULATIONS AS WELL AS NEC.
3. CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171.
4. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
5. ALL EQUIPMENT TO BE BONDED.
6. METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING.

STANDARD GROUNDING NOTES:

1. GROUND TESTED AT 25 OHMS OR LESS.
2. 5/8" x 8' RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
3. #6 GROUND AND BOND WIRE.
4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
5. GROUND RODS 18" FROM POLE.

STANDARD CONDUIT NOTES:

1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS.
3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS.
4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
5. RISER STRAPS TO BE INSTALLED EVERY 5'.
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. MAINTAIN 36" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 36" MINIMUM COVER FOR COMMUNICATION CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 12" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES:

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2"
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES:

1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED FOR:

verizon

PREPARED BY:

T&C GAP Wireless
1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-5500
FAX: 423-843-0509

DRAWING NOTES:
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DRAWN BY: AID
CHECKED BY: LTD

REVISIONS			
1	07/02/19	DAJ	CONSTRUCTION ISSUE
2	08/13/19	AJD	PRELIMINARY REVIEW
NO	DATE	BY	DESCRIPTION



SITE NAME: 40203
COUNTY: WASHTENAW
LATITUDE: 42° 15' 23.256" N
LONGITUDE: 83° 37' 54.984" W
DESIGN TYPE: RAWLAND

SHEET TITLE: GENERAL NOTES

DRAWING NO: GN1
REVISION: 0

NOTES:

1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

LEGEND			
UNDERGROUND POWER	---	CATCH BASIN	■
OVERHEAD POWER	---	IRON PIN SET (IPF) 2" REBAR	●
OVERHEAD UTILITIES	---	IRON PIN FOUND (IPF)	○
UNDERGROUND TELCO	---	BENCHMARK	■
OVERHEAD TELCO	---	CONCRETE MON. FOUND	■
GAS LINE	---	CONCRETE MON. SET	■
FENCE	---	UTILITY POLE	⊗
SEWER LINE	---	LIGHT POLE	⊗
WATER LINE	---	WATER VALVE	⊗
COAX CABLE	---	MANHOLE	⊗
HYBRID CABLE	---	GAS VALVE	⊗
HIGH VOLTAGE POWER	---	FIRE HYDRANT	⊗
FIBER	---	TELCO PEDESTAL	⊗
RIGHT-OF-WAY	---	ELECTRICAL PULL BOX	⊗
PROPERTY LINE	---		
EDGE OF PAVEMENT	---		

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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DRAWN BY:

AJD

CHECKED BY:

CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
0	07/02/19	DAJ	CONSTRUCTION ISSUE
A	06/19/19	AJD	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

40203

COUNTY:

WASHTENAW

LATITUDE:

42° 15' 23.256" N

LONGITUDE:

83° 37' 54.984" W

DESIGN TYPE:

RAWLAND

SHEET TITLE:

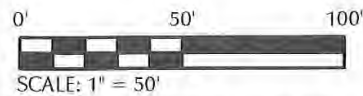
SITE LAYOUTS

DRAWING NO

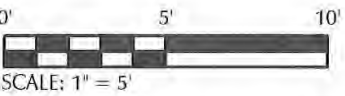
C1

REVISION:

0

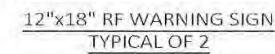


1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE



PREPARED TO:

verizon ✓

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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CHECKED BY:	CTD

REVISIONS			
0	07/02/29	DAJ	CONSTRUCTION ISSUE
A	06/19/19	AJD	PRELIMINARY REVIEW
N/O.	DATE	BY	DESCRIPTION

SITE NAME:	40203
COUNTY:	WASHTENAW
LATITUDE:	42° 15' 23.256" N
LONGITUDE:	83° 37' 54.984" W
DESIGN TYPE:	RAWLAND

SHEET TITLE:

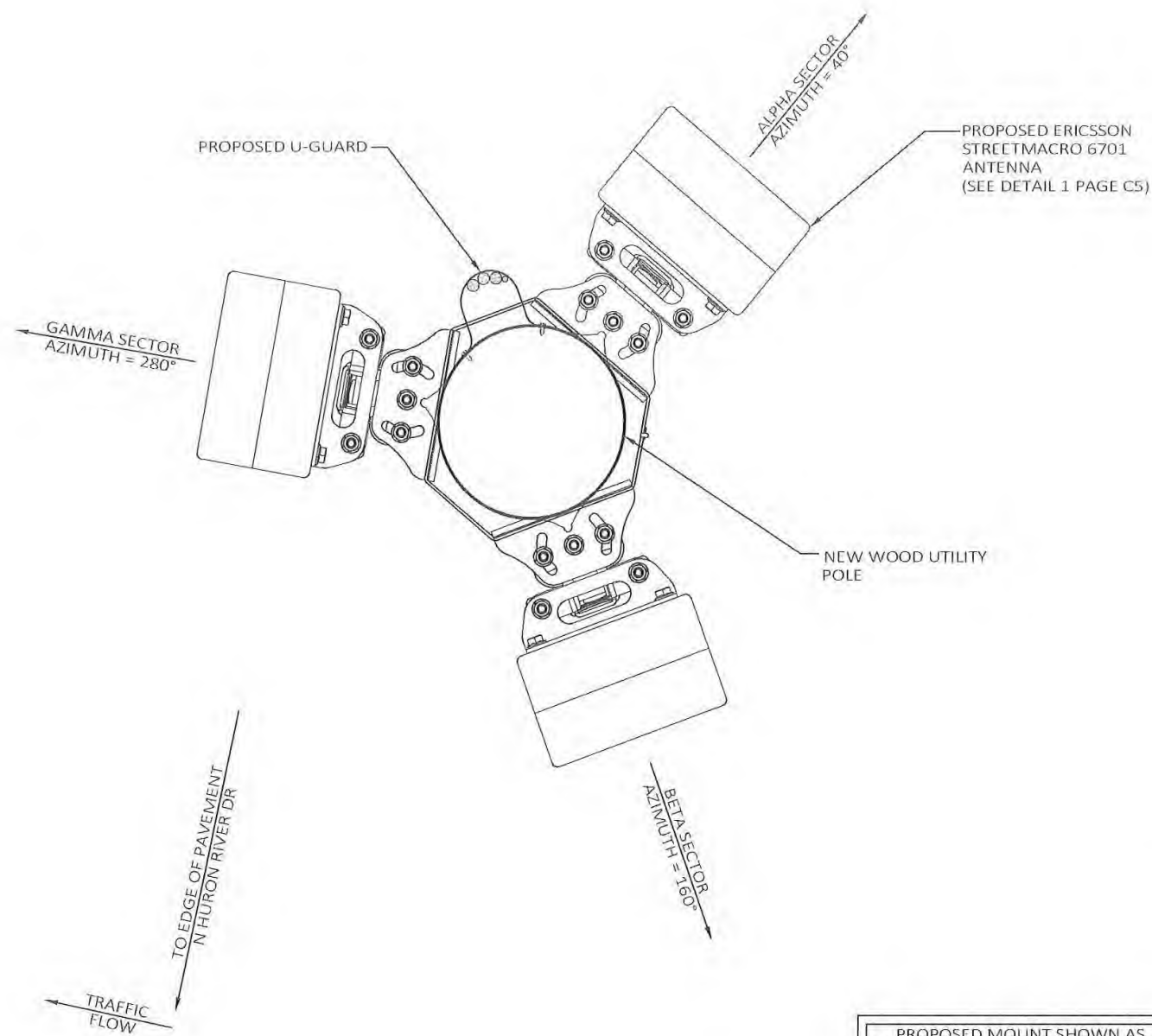
POLE ELEVATION

DRAWING NO.	REVISION:
C2	0

AZIMUTHS ARE SUBJECT TO CHANGE. CONTRACTOR TO VERIFY AZIMUTHS FROM FINAL RFDS FROM VZW. ANTENNA MOUNT TO BE SUPPLIED BY ERICSSON OR VERIZON. ANTENNA TO BE INSTALLED BY VERIZON CONTRACTOR.

CONTRACTOR TO OBTAIN LATEST RFDS FROM VERIZON PRIOR TO CONSTRUCTION.

INSTALL STRAIN RELIEF FOR POWER & FIBER CABLES AT OR NEAR ANTENNAS



PROPOSED MOUNT SHOWN AS PLACEHOLDER. ACTUAL MOUNT SUBJECT TO CHANGE PER DTE AND VERIZON FUTURE DISCUSSIONS

U-GUARD NOTES
1. PROPOSED U-GUARD, CONTRACTOR TO RELOCATE AS REQUIRED TO ACCOMMODATE THE PROPOSED ERICSSON ANTENNA INSTALLATION.
2. U-GUARD STOPS BELOW ANTENNAS AND DOES NOT INTERFERE WITH BANDING.
3. U-GUARD MUST BE RACEWAY CAPABLE.

PREPARED FOR:

PREPARED BY:

1961 NORTHPOINT BLVD, SUITE 130
HIKSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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CHECKED BY: CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
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A	06/19/19	AID	PRELIMINARY REVIEW

ENGINEER'S STAMP:

NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME:
40203

COUNTY:
WASHTENAW

LATITUDE:
42° 15' 23.256" N

LONGITUDE:
83° 37' 54.984" W

DESIGN TYPE:
RAWLAND

SHEET TITLE:
ANTENNA LAYOUT

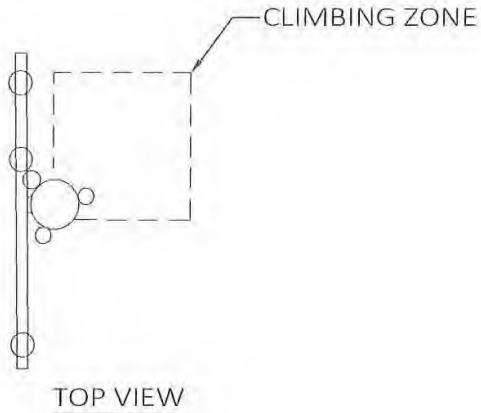
DRAWING NO.
C2A

REVISION:
0

1 | ANTENNA LAYOUT PLAN

N.T.S.

POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
STREET MACRO 6701 ANTENNA	0.46
STREET MACRO 6701 ANTENNA	0.46
STREET MACRO 6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38



- NOTES:
1. WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT, OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 2. ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 3. VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 4. BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 5. SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 6. 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 7. ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
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AJD

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A	06/19/19	AJD	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

40203

COUNTY:

WASHTENAW

LATITUDE:

42° 15' 23.256" N

LONGITUDE:

83° 37' 54.984" W

DESIGN TYPE:

RAWLAND

SHEET TITLE:

DTE NOTES

DRAWING NO.

C3

REVISION:

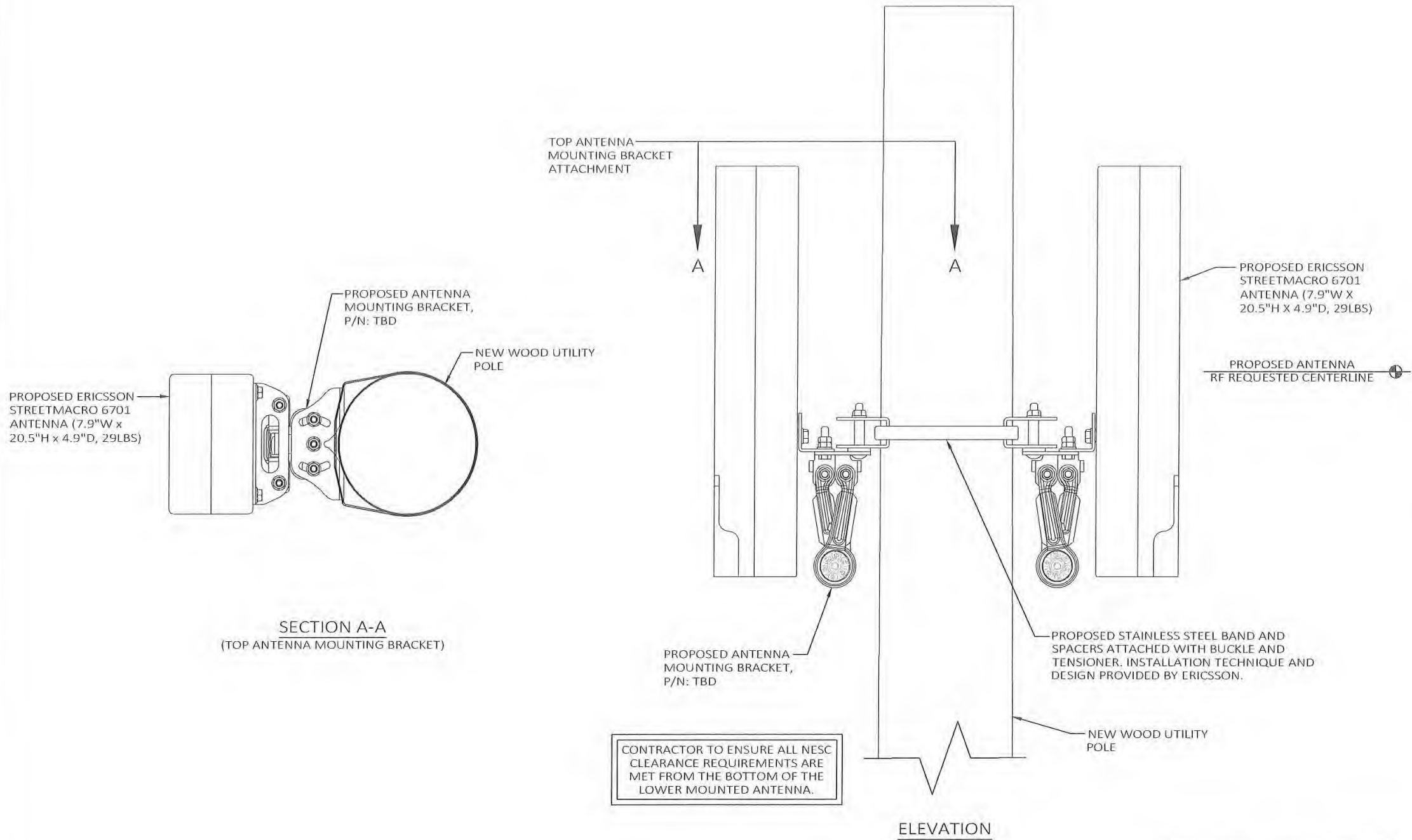
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1 EQUIPMENT CU-FT. TABLE

N.T.S.

2 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.



1 | ERICSSON STREETMACRO 6701 ANTENNA MOUNTING DETAIL

N.T.S.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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A	06/19/19	AJD	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

40203

COUNTY:

WASHTENAW

LATITUDE:

42° 15' 23.256" N

LONGITUDE:

83° 37' 54.984" W

DESIGN TYPE:

RAWLAND

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

REVISION:

0

Spectrum: 28 GHz
IBW Full band
OBW 800 MHz
EIRP ~ 55 dBm

of Users: 2,000+
Total Antenna BW: 1600 MHz
Throughput: 5 Gbps DL/ 1 Gbps UL
RI ports: 2
TN/IDLports: 2
Misc: 4xExternal Alarms, USB connector
PoE, GPS, 1588 Synch

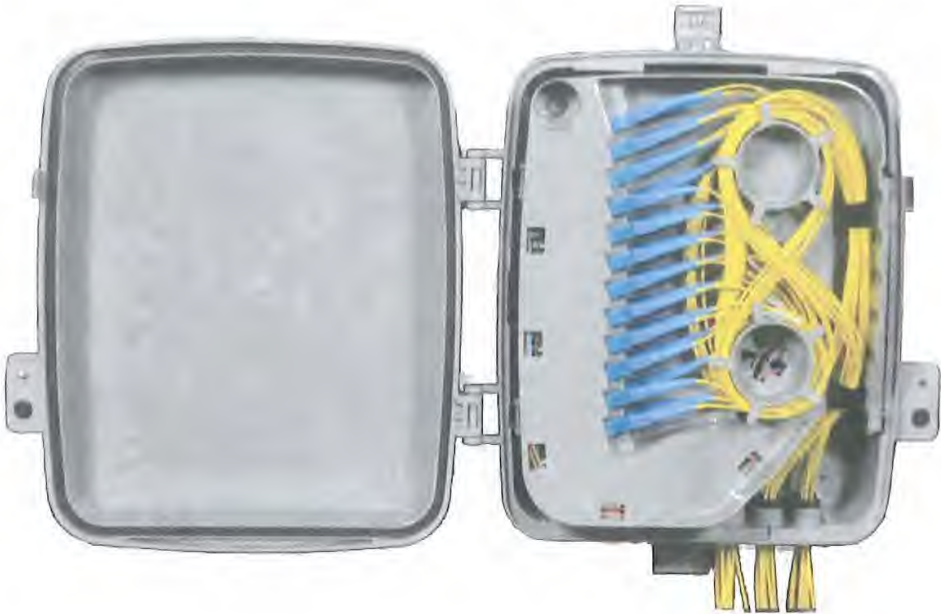
Weight: ~ 13 kg (29 lbs)
Size: 20.5"x4.9"x7.9" (13 l)
Operational conditions: -40 to +55 degrees
Cooling: Active
Power: AC, <300W Max
IP Class: IP 65

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CFIT BOX

PART CODE: CFIT-C48D4LHXVZ
DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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CHECKED BY: CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
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A	06/19/19	AID	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

40203

COUNTY:

WASHTENAW

LATITUDE:

42° 15' 23.256" N

LONGITUDE:

83° 37' 54.984" W

DESIGN TYPE:

RAWLAND

SHEET TITLE:

EQUIPMENT DETAILS

DRAWING NO.

C5

REVISION:

0

1 STREETMACRO 6701

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

- 1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 12" BELOW GRADE.
- 2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
- 3. CONTRACTOR TO USE PVC SCH 40 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
- 4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC AND TELEPHONE UTILITY COMPANIES FOR SERVICES.
- 5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
- 6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
- 7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT SHELTER WITH MANUFACTURER'S DRAWINGS.
- 8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

UTILITY NOTES:

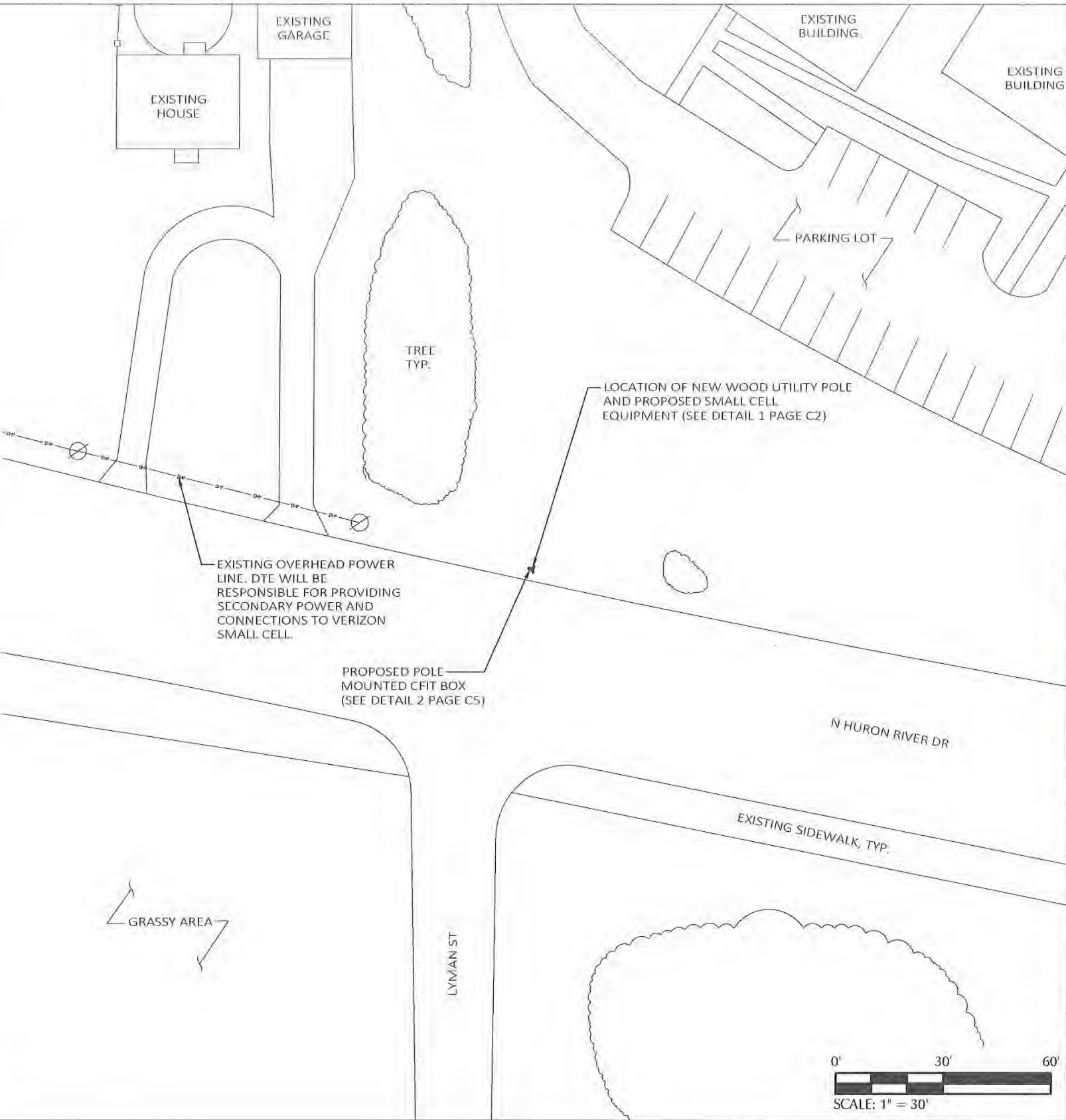
- 1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.
- 2. INSTALL PULL STRING IN TELCO CONDUIT.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART			
(BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM	COPPER	CONDUIT SIZE
	120V	120V	
3 AWG	55'	90'	3/4" MIN
2 AWG	70'	115'	3/4" MIN
1 AWG	85'	145'	3/4" MIN
1/0 AWG	110'	180'	1" MIN
2/0 AWG	140'	230'	1" MIN
3/0 AWG	175'	290'	1 1/4" MIN
4/0 AWG	220'	365'	1 1/4" MIN
250 KCMIL	265'	435'	1 1/4" MIN
300 KCMIL	315'	520'	1 1/2" MIN
350 KCMIL	370'	610'	1 1/2" MIN
400 KCMIL	420'	695'	2" MIN
500 KCMIL	530'	870'	2" MIN

LEGEND

UNDERGROUND POWER	—UP—	CATCH BASIN	■
OVERHEAD POWER	—OP—	IRON PIN SET (IPF) 8" REBAR	●
OVERHEAD UTILITIES	—OU—	IRON PIN FOUND (IPF)	○
UNDERGROUND TELCO	—UT—	BENCHMARK	⊕
OVERHEAD TELCO	—OT—	CONCRETE MON. FOUND	□
GAS LINE	—GL—	CONCRETE MON. SET	■
FENCE	—F—	UTILITY POLE	⊙
SEWER LINE	—SL—	LIGHT POLE	⊙
WATER LINE	—WL—	WATER VALVE	⊕
COAX CABLE	—C—	MANHOLE	⊙
HYBRID CABLE	—HB—	GAS VALVE	⊕
HIGH VOLTAGE POWER	—HVP—	FIRE HYDRANT	⊕
FIBER	—FB—	TELCO PEDESTAL	⊕
RIGHT-OF-WAY	—ROW—	ELECTRICAL PULL BOX	⊕
PROPERTY LINE	—PL—		
EDGE OF PAVEMENT	—EOP—		



PREPARED FOR:
TeleCAD Wireless
1961 NORTHPOINT BLVD. SUITE 130
HIXSON, TN 37348
PH: 423-843-9500
FAX: 423-843-9509

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DRAWN BY: AJD
CHECKED BY: CTD

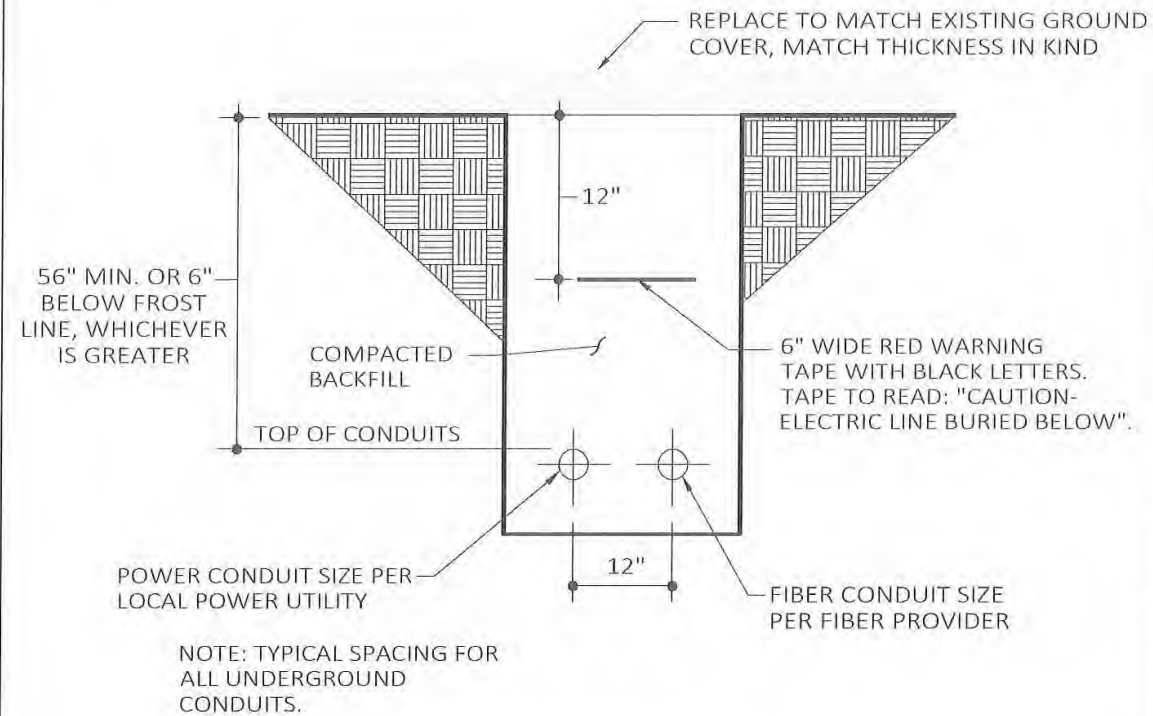
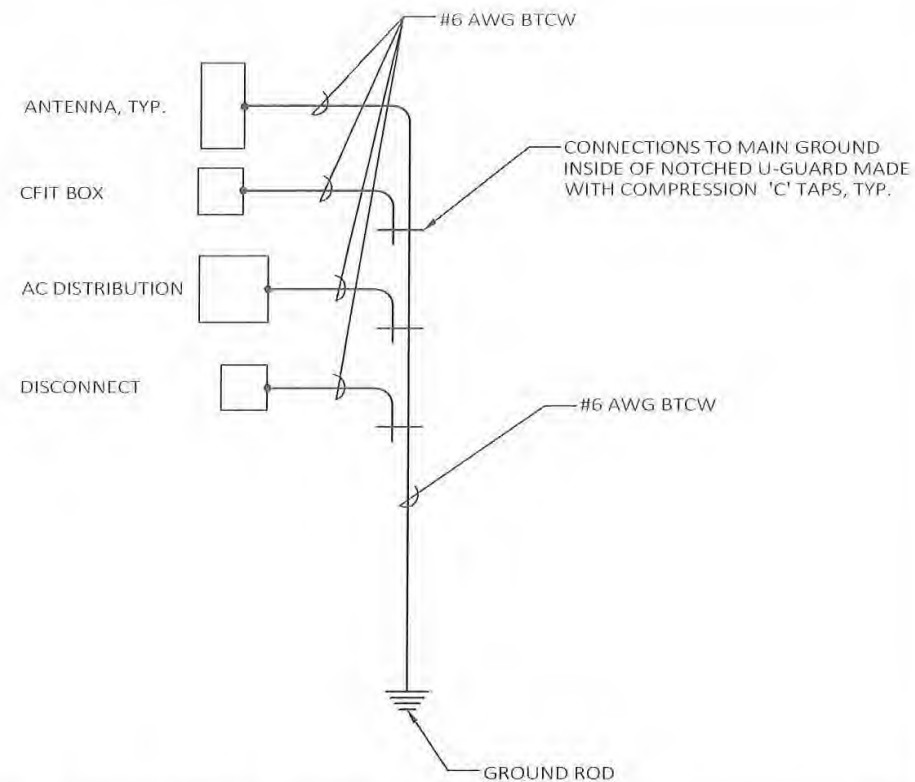
REVISIONS			



SITE NAME: 40203
COUNTY: WASHTENAW
LATITUDE: 42° 15' 23.256" N
LONGITUDE: 83° 37' 54.984" W
DESIGN TYPE: RAWLAND

SHEET TITLE: UTILITY SITE PLAN

DRAWING NO.: E1
REVISION: 0



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless
1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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CHECKED BY: CTD

REVISIONS			
NO.	DATE	BY	DESCRIPTION
0	07/02/19	DAJ	CONSTRUCTION ISSUE
1	06/19/19	AID	PRELIMINARY REVIEW



SITE NAME:
40203

COUNTY:
WASHTENAW

LATITUDE:
42° 15' 23.256" N

LONGITUDE:
83° 37' 54.984" W

DESIGN TYPE:
RAWLAND

SHEET TITLE:
ELECTRICAL DETAILS

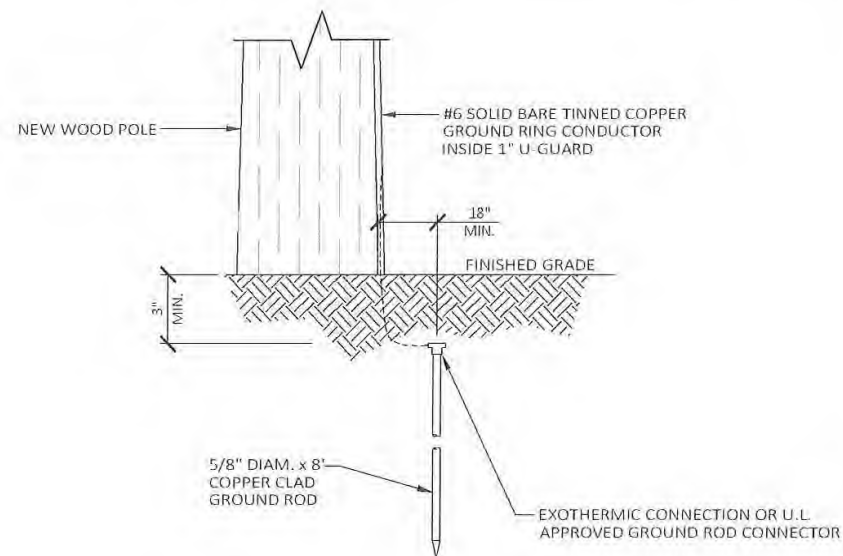
DRAWING NO.: E2
REVISION: 0

1 SINGLE POINT RADIAL GROUND DETAIL

N.T.S.

2 TRENCH DETAIL (IF REQUIRED)

N.T.S.



3 GROUND ROD DETAIL

N.T.S.

4 DETAIL NOT IN USE

N.T.S.



City of Ypsilanti

Community and Economic Development

February 26, 2020

TRILEAF CORP/VERIZON WIRELESS
10845 OLIVE BLVD STE 260
SAINT LOUIS, MO 63141

CERTIFICATE OF APPROPRIATENESS

RE: HDC Work Permit Application (PHDC-20-0013) for 301 N HAMILTON

Dear TRILEAF CORP/VERIZON WIRELESS,

On Tuesday, February 25, 2020 the Historic District Commission (HDC) reviewed your request for work at 301 N HAMILTON. Your application was **approved** to include:

Work as submitted in the application, dated February 7, 2020, for installation of a 38'6" wood pole, light fixture, antennas, and connection boxes, as specified.

In the commission's decision, the following Secretary of the Interior Standards were cited:
#10 - New work shall be removable.

Approval by the Historic District Commission does not guarantee approval by the zoning, building and/or other necessary departments. Before proceeding with the project it is the responsibility of the applicant to have obtained all approvals necessary. You must start work or apply for and receive all applicable permits within six months of this date for your HDC approval to remain valid. **Any change in the work listed above needs to be reviewed by the HDC using an amended application.**

Please contact me at 734-483-9646 or sslagor@cityofypsilanti.com with any questions.

Sincerely,

Scott E. Slagor, Preservation Planner
Community & Economic Development Department

CC: Property Owner - MCCORMICK, KELSEY 408 EMMET STREET YPSILANTI MI 48197
File
Building Department
Department of Public Services

One South Huron Street
Ypsilanti, MI 48197

Tel: (734) 483-9646
Fax: (734) 483-7260

www.cityofypsilanti.com

PROJECT SUMMARY

SITE NAME: 40213
SITE ADDRESS: 301 N HAMILTON ST
(ESTIMATED) YPSILANTI, MI 48197
COUNTY: WASHTENAW COUNTY
SITE COORDINATES:
LATITUDE: 42° 14' 41.424" N (NAD 83)
LATITUDE: 42.24484°
LONGITUDE: 83° 37' 3.432" W (NAD 83)
LONGITUDE: -83.61762°
ELEVATION: ±738' 3"

PROPERTY DEFINITION: R.O.W.
FUZE PROJECT ID: 15487099
PSLC CODE: 544753
EXISTING POLE NUMBER: N/A
EXISTING POLE HEIGHT: 38' 6"
EXISTING POLE CLASS: N/A



SITE NAME: 40213

PROPOSED SMALL CELL EQUIPMENT
ON AN EXISTING DTE POLE

VICINITY MAP



NOT TO SCALE

LOCATION MAP



NOT TO SCALE

SHEET INDEX

NO.	DESCRIPTION
T1	TITLE SHEET
GN1	GENERAL NOTES
C1	SITE LAYOUTS
C2	POLE ELEVATION
C2A	ANTENNA LAYOUT
C3	DTE NOTES
C4	SITE DETAILS
C5	EQUIPMENT DETAILS
E1	UTILITY SITE PLAN
E2	ELECTRICAL DETAILS
E3	SINGLE LINE DIAGRAM

SCOPE OF WORK

- INSTALLING EQUIPMENT
 - CFIT BOX
 - DISCONNECT
- CONNECTING ON SITE UTILITIES TO WIRELESS EQUIPMENT

STATE COUNTY MAP



STRUCTURAL REVIEW

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.

SHEET SCALE FACTOR:
PLOT SIZE:
11" x 17": TO SCALE



1 (800) 482-7171
www.missdig.com
CONTRACTOR TO CALL MICHIGAN
ONE-CALL SYSTEMS AT LEAST 72 HOURS
PRIOR TO DIGGING.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless
1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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DRAWN BY: AID

CHECKED BY: CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
0	06/27/19	DAJ	CONSTRUCTION ISSUE
A	06/19/19	AID	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

40213

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 41.424" N

LONGITUDE:

83° 37' 3.432" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

TITLE SHEET

DRAWING NO.

T1

REVISION:

0

GENERAL NOTES

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION TEAM AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER. (BASE COMMANDER OR AUTHORIZED AGENT)
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF EXTENT.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE SHALL BE HOT DIPPED GALVANIZED. UNLESS OTHERWISE STATED)

DEFINITIONS

1. "TYPICAL" OR "TYP." MEANS THAT THIS ITEM IS VIRTUALLY IDENTICAL ACROSS SIMILAR CONDITIONS. "TYP." SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
2. "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
3. "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OR BY THE CONTRACT DOCUMENTS.
4. "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
5. THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN VERIFY IN FIELD WITH ARCHITECT AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
6. WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTOR'S ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
7. FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

PROJECT SPECIFIC NOTES

1. THIS SET IS PROVIDED TO ILLUSTRATE THE EXPECTED SCOPE OF DRAWINGS, QUALITY OF DRAWINGS AND EXTENT GRAPHIC STANDARDS. NOTES ARE FOR A/E CONTRACTOR REFERENCE TO HELP CLARIFY THE SCOPE. ADDITIONAL DRAWINGS MAY BE REQUIRED TO MEET THE REQUIREMENTS OF A GIVEN BASE. ALL EXAMPLES SHOWN ARE FOR REFERENCE ONLY AND ANY NOTES, DETAILS, CALCULATIONS OR OTHER WORK NEEDS TO BE COMPLETED OR CONFIRMED BY THE CONTRACTOR GENERATING THE DRAWINGS IN CONSTRUCTION DOCUMENTS.
2. THIS SET IS TO BE PRINTED AT 11" x 17". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS SIZE IS ACCEPTABLE BY THE BASE AND TO PROVIDE A LARGER STANDARD SIZE IF REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ENGINEER TO CONFIRM ALL WORK SHOWN IS IN COMPLIANCE WITH BASE AND FEDERAL CODES. DRAWINGS SHOWN WITHIN THIS SET ARE SAMPLES AND MAY NOT REFLECT ALL OF THE REQUIRED ELEMENTS, CLEARANCES OR OTHER ITEMS OF ASSEMBLIES NEEDED TO BE CODE COMPLIANT IN THE PARTICULAR MUNICIPALITY THE NODE IS LOCATED WITHIN.

GROUND CONSTRUCTION NOTES

- 1 120/240V POWER REQUIRED FOR 3-WIRE SERVICE
2 ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FEDERAL STANDARDS AND
3 REGULATIONS AS WELL AS NEC.
4 CALL MICHIGAN ONE CALL 72 HOURS PRIOR TO EXCAVATING AT (800) 482-7171
5 ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
6 ALL EQUIPMENT TO BE BONDED
7 METERING CABINET (IF INSTALLED) REQUIRES 3' CLEARANCE AT DOOR OPENING

STANDARD GROUNDING NOTES

1. GROUND TESTED AT 25 OHMS OR LESS.
2. 5/8" x 8" RODS, CAD WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE
3. #6 GROUND AND BOND WIRE.
4. MOLDING, STAPLED EVERY 1' AND AT EACH END.
5. GROUND RODS 18" FROM POLE

STANDARD CONDUIT NOTES

1. FOR UNDERGROUND CONDUIT AND ABOVE GRADE RISERS USE SCHEDULE 40.
2. IF DIRECTIONAL BORING PLACE 1-1/4" SDR-11 GRAY CONDUIT FOR UNDERGROUND POWER APPLICATIONS
3. IF TRENCHING, PLACE PVC SCH 40 CONDUIT PER TABLE ON SHEET E1 FOR UNDERGROUND POWER APPLICATIONS
4. RISERS TO BE ATTACHED TO POLE WITH STANDARD STRAPS AND LAG SCREWS.
5. RISER STRAPS TO BE INSTALLED EVERY 5'
6. CONDUIT UNDER 1" MAY BE ATTACHED WITH GROUND WIRE MOLDING STAPLES.
7. ALL CONDUIT WILL BE PROOFED WITH A MANDREL AND EQUIPPED WITH PULL ROPE OR MULE TAPE

STANDARD TRENCHING NOTES

1. MAINTAIN 36" MINIMUM COVER FOR ELECTRICAL CONDUIT.
2. MAINTAIN 36" MINIMUM COVER FOR COMMUNICATION CONDUIT.
3. IN STREET SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT SLURRY 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. PLACE WARNING TAPE IN TRENCH 12" ABOVE ALL CONDUITS AND #18 WARNING TAPE ABOVE GROUND EQUIPMENT.

UTILITY POLE CONSTRUCTION NOTES

1. NO BOLT THREADS TO PROTRUDE MORE THAN 1/2".
2. FILL ALL HOLES LEFT IN POLE FROM REARRANGEMENT OF CLIMBERS.
3. ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.
5. 90° SHORT SWEEP UNDER ANTENNA ARM. ALL CABLES MUST ONLY TRANSITION ON THE INSIDE OR BOTTOM OF ARMS (NO CABLE ON TOP OF ARMS).
6. USE CABLE CLAMPS TO SECURE CABLE TO ARMS; PLACE 2" CARRIER ID TAGS ON BOTH SIDE OF ARMS.
7. USE 90° CONNECTOR AT CABLE CONNECTION TO ANTENNAS.
8. USE 1/2" CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
9. FILL VOID AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

VERIZON WIRELESS CONSTRUCTION NOTES

1. CONTRACTOR IS TO FOLLOW THE MOST CURRENT VZW STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR SHALL COMPLETE VZW PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
3. CONTRACTOR TO REFER TO THE MOST CURRENT VZW STANDARDS FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
4. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
5. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING AND RECORDING "PIM" MEASUREMENTS.

PREPARED BY



PREPARATION

TeleCAD
Windows
1961 NORTHPOINT BLVD, SUITE 13
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-0500

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CHECKED BY:	E-13

REVISIONS

U	05/27/14	Q&A	CONSTRUCTION ISSUE
A	06/15/14	ADD	PRELIMINARY REVIEW
00	06/16/14	ADD	DESCRIPTION

ENGINEER'S STAMP

A circular professional engineer seal for the State of Michigan. The outer ring contains the text "STATE OF MICHIGAN" at the top and "LICENSED PROFESSIONAL ENGINEER" at the bottom. The center of the seal contains the name "STEPHEN E. HUNT", the title "ENGINEER", the license number "No. 6201054169", and the year "2017". The seal is stamped in blue ink on a white background.

UNIT NAME _____

40213

COUNTY _____

WASHTENAW

42° 14' 41.424" N

83° 37' 3.432" W

COLOCATION

SHEET TITLE:

GENERAL NOTES

DRAWING NO.	REVISION
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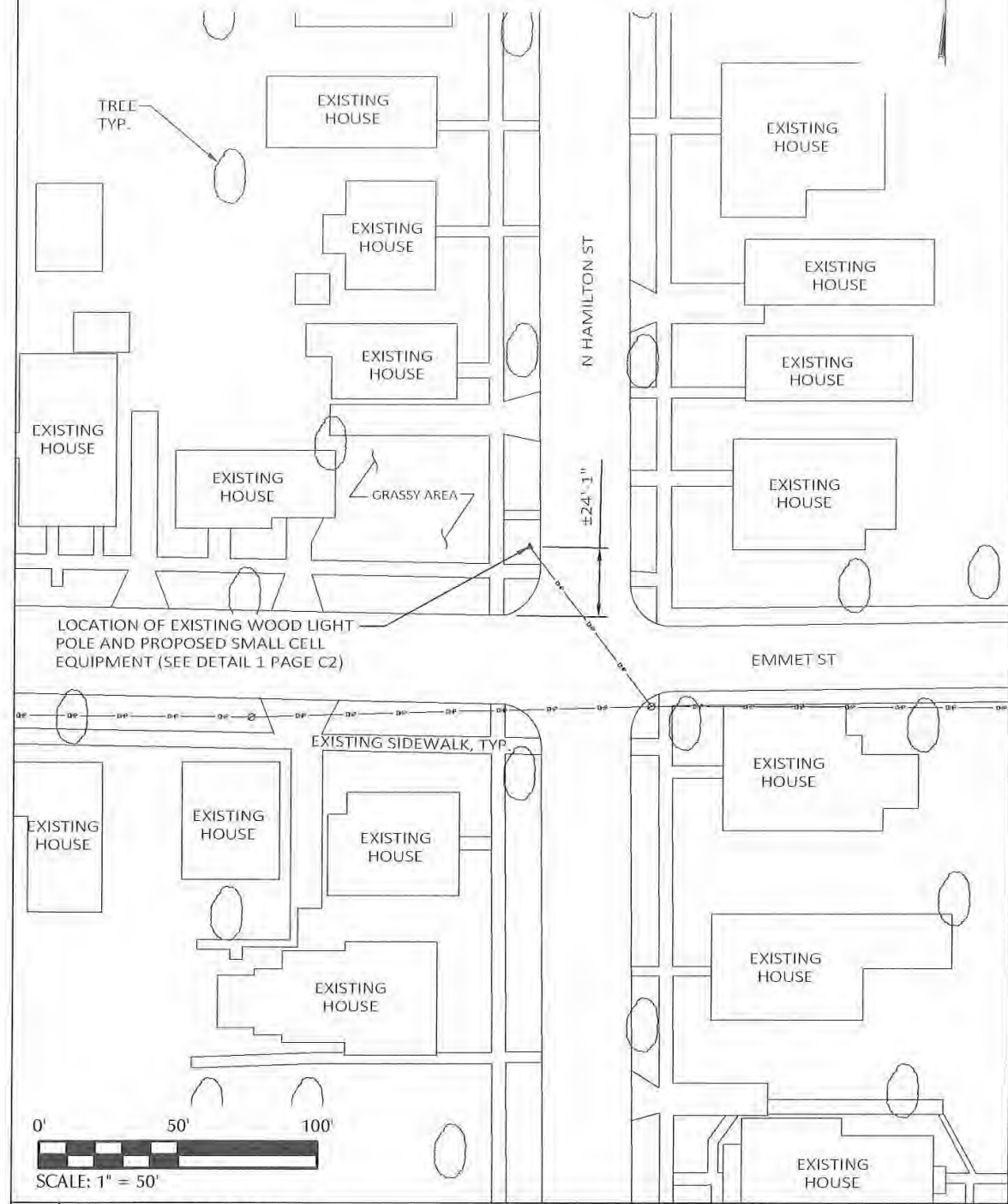
GN1	0
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NOTES:

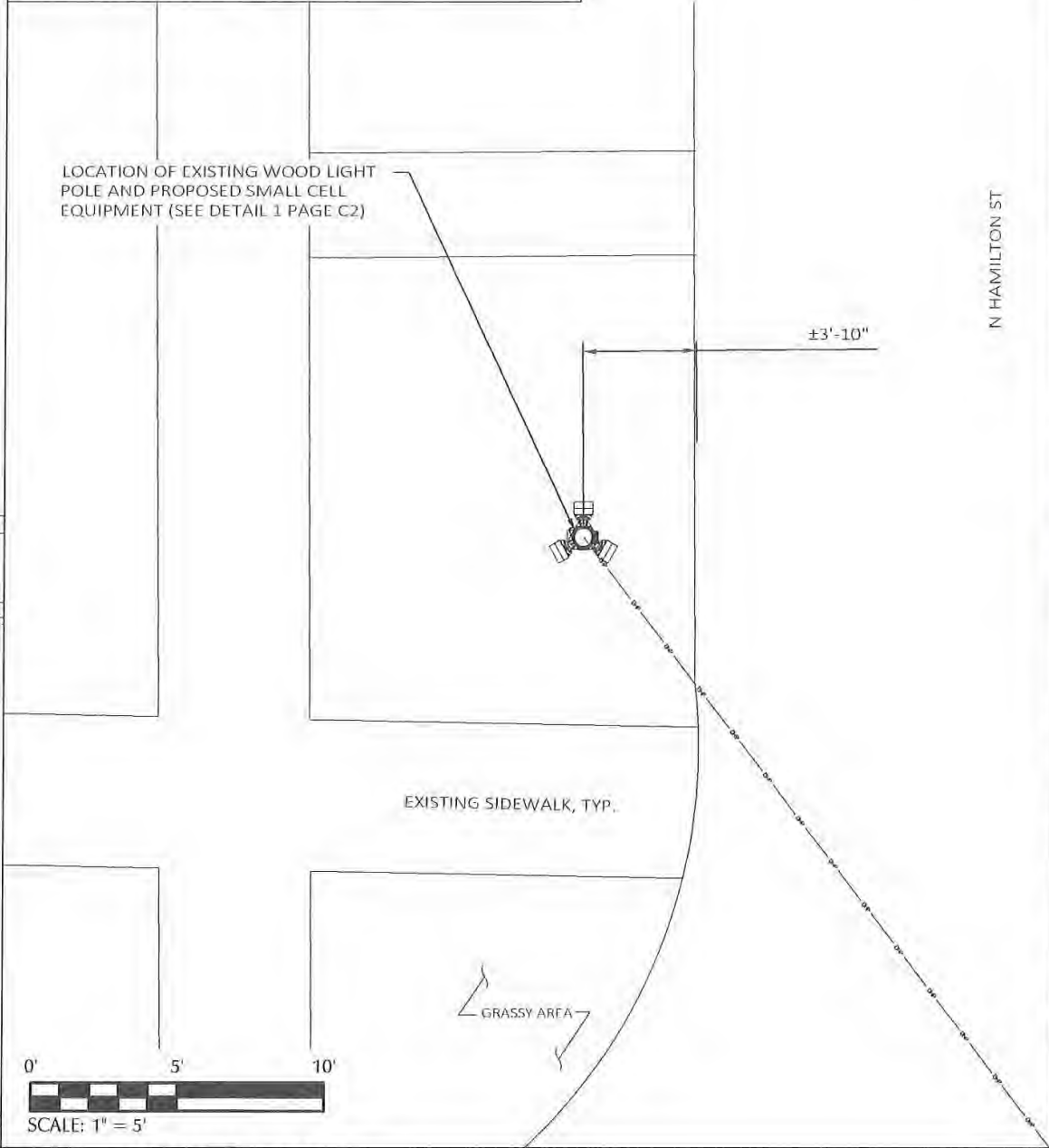
- 1. THIS DRAWING IS BASED ON AERIAL IMAGERY AND FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
- 3. FOR GENERAL SITE WORK NOTES, SEE SHEET GN1.
- 4. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.
- 5. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

LEGEND

UNDERGROUND POWER	—●—●—●—	CATCH BASIN	⊞
OVERHEAD POWER	—○—○—○—	IRON PIN SET (IPF) REBAR	⊙
OVERHEAD UTILITIES	—□—□—□—	IRON PIN FOUND (IPF)	⊙
UNDERGROUND TELCO	—○—○—○—	BENCHMARK	⊙
OVERHEAD TELCO	—○—○—○—	CONCRETE MON. FOUND	⊙
GAS LINE	—○—○—○—	CONCRETE MON. SET	⊙
FENCE	—○—○—○—	UTILITY POLE	⊙
SEWER LINE	—○—○—○—	LIGHT POLE	⊙
WATER LINE	—○—○—○—	WATER VALVE	⊙
COAX CABLE	—○—○—○—	MANHOLE	⊙
HYBRID CABLE	—○—○—○—	GAS VALVE	⊙
HIGH VOLTAGE POWER	—○—○—○—	FIRE HYDRANT	⊙
FIBER	—○—○—○—	TELCO PEDESTAL	⊙
RIGHT-OF-WAY	—○—○—○—	ELECTRICAL PULL BOX	⊙
PROPERTY LINE	—○—○—○—		
EDGE OF PAVEMENT	—○—○—○—		



1 OVERALL SITE LAYOUT



2 ENLARGED SITE LAYOUT

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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CHECKED BY:	CTD

REVISIONS			
NO.	DATE	BY	DESCRIPTION
0	06/27/20	DAJ	CONSTRUCTION ISSUE
A	06/19/19	AJD	PRELIMINARY REVIEW

ENGINEER'S STAMP:

STATE OF MICHIGAN

STEPHEN E. HUNT - ENGINEER
No. 6201054169

PROFESSIONAL ENGINEER

NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SUB NAME: 40213

COUNTY: WASHTENAW

LATITUDE: 42° 14' 41.424" N

LONGITUDE: 83° 37' 3.432" W

DESIGN TYPE: COLOCATION

SHEET TITLE: SITE LAYOUTS

DRAWING NO:	REVISION
C1	0

CONTRACTOR TO OBTAIN
LATEST RFDS FROM VERIZON
PRIOR TO CONSTRUCTION.



12"x18" RF WARNING SIGN
TYPICAL OF 2

5'-0" MIN. CLEARANCE
ABOVE ANY DTE EQUIPMENT
TO BOTTOM OF ANTENNA

40" MIN. CLEARANCE
BELOW NEW TRIPLEX
SERVICE

PREPARED FOR:



PREPARED BY:



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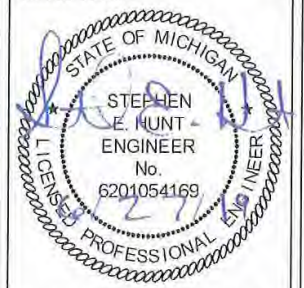
DRAWN BY:	AJD
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CHECKED BY:	CTB
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REVISIONS

O	06/27/19	OAI	CONSTRUCTION ISSUE
A	06/19/19	AID	PRELIMINARY REVIEW
NO	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:



NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME.

40213

COUNTY:

WASHTENAW

LATTITUDE

42° 14' 41.424" N

LONGITUDE:

83° 37' 3.432" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

POLE ELEVATION

DRAWING NO.

C2

REVISION:

0

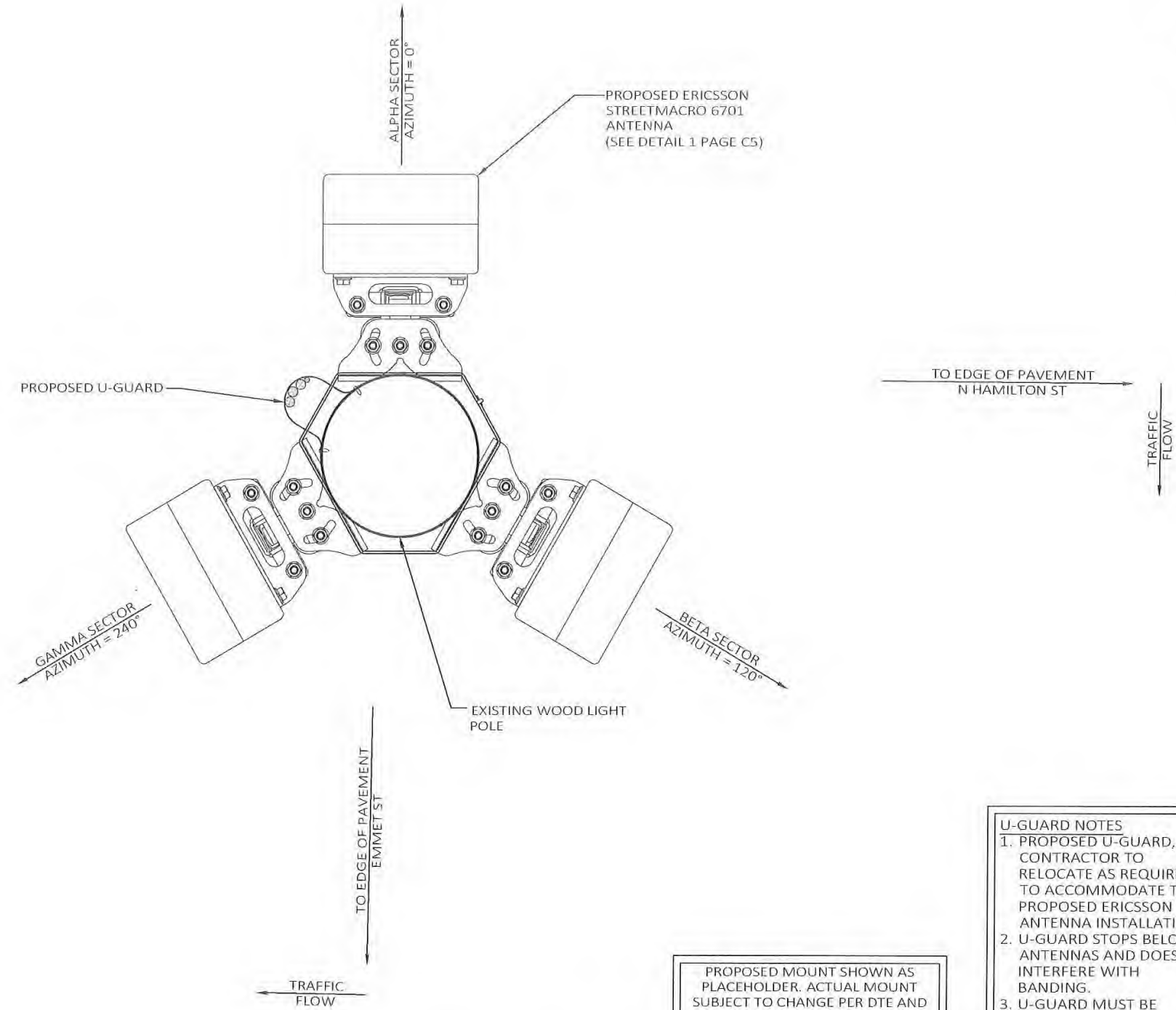
N.T.S.

1	POLE ELEVATION
---	----------------

AZIMUTHS ARE SUBJECT TO CHANGE. CONTRACTOR TO VERIFY AZIMUTHS FROM FINAL RFDS FROM VZW. ANTENNA MOUNT TO BE SUPPLIED BY ERICSSON OR VERIZON. ANTENNA TO BE INSTALLED BY VERIZON CONTRACTOR.

CONTRACTOR TO OBTAIN LATEST RFDS FROM VERIZON PRIOR TO CONSTRUCTION.

INSTALL STRAIN RELIEF FOR POWER & FIBER CABLES AT OR NEAR ANTENNAS



PROPOSED MOUNT SHOWN AS PLACEHOLDER. ACTUAL MOUNT SUBJECT TO CHANGE PER DTE AND VERIZON FUTURE DISCUSSIONS

U-GUARD NOTES
1. PROPOSED U-GUARD, CONTRACTOR TO RELOCATE AS REQUIRED TO ACCOMMODATE THE PROPOSED ERICSSON ANTENNA INSTALLATION.
2. U-GUARD STOPS BELOW ANTENNAS AND DOES NOT INTERFERE WITH BANDING.
3. U-GUARD MUST BE RACEWAY CAPABLE.

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

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CHECKED BY:	CTD

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NO.	DATE	BY	DESCRIPTION

ENGINEER'S STAMP:

STATE OF MICHIGAN

STEPHEN E. HUNT - ENGINEER
No. 6201054169

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SITE NAME: 40213

COUNTY: WASHTENAW

LATITUDE: 42° 14' 41.424" N

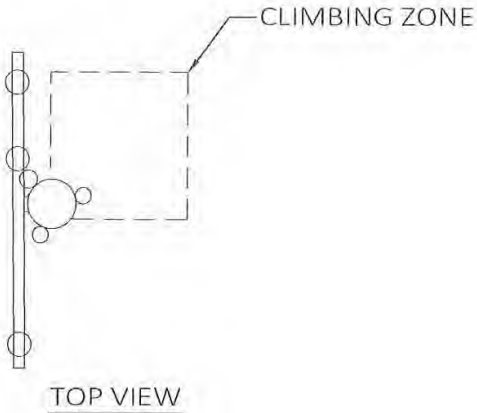
LONGITUDE: 83° 37' 3.432" W

DESIGN TYPE: COLOCATION

SHEET TITLE: ANTENNA LAYOUT

DRAWING NO. C2A	REVISION: 0
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POLE ATTACHED EQUIPMENT	
EQUIPMENT	VOLUME (CU-FT)
STREET MACRO 6701 ANTENNA	0.46
STREET MACRO 6701 ANTENNA	0.46
STREET MACRO 6701 ANTENNA	0.46
TOTAL IN CU-FT	1.38



- NOTES:
1. WORKING CLEARANCE FROM ENERGIZED ANTENNA MUST BE GREATER THAN 4 FT, OTHERWISE SHUT DOWN RADIO AND ANTENNA PER INSTRUCTIONS ON PLACARD OR BY OPENING DISCONNECT SWITCH TO RADIO EQUIPMENT ON POLE.
 2. ANTENNA AND MOUNTING BRACKETS INSTALLED ABOVE DTE WIRES MUST BE INSTALLED AND MAINTAINED BY DTE OR DTE'S DESIGNATED CONTRACTOR.
 3. VERTICAL CLIMBING ZONE MUST BE MAINTAINED ON ALL POLES. (SEE TOP VIEW)
 4. BASE CABINET TO BE CLEARLY LABELED WITH OWNER'S NAME AND 1-800 PHONE NUMBER WITH 3/4" TALL LETTERING.
 5. SHUTDOWN PLACARD TO BE PLACED ON THE POLE NEAR BASE CABINET AND DISCONNECT SWITCH BOX.
 6. 5' FT MIN. CLEARANCE ABOVE ANY DTE EQUIPMENT.
 7. ANTENNA POLE TOP CLEARANCES APPLY TO ANY DTE EQUIPMENT OR WIRES INSTALLED UNDER THE ANTENNA.

REFERENCE DTE ENERGY
CELLULAR ANTENNA SMALL CELL SITE CONSTRUCTION
LINE CONSTRUCTION STANDARDS 4-JOINT USE 1-4-26.1
DATED 11/1/2017

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD
Wireless
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40213

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WASHTENAW

LATITUDE:

42° 14' 41.424" N

LONGITUDE:

83° 37' 3.432" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

DTE NOTES

DRAWING NO:

C3

REVISION:

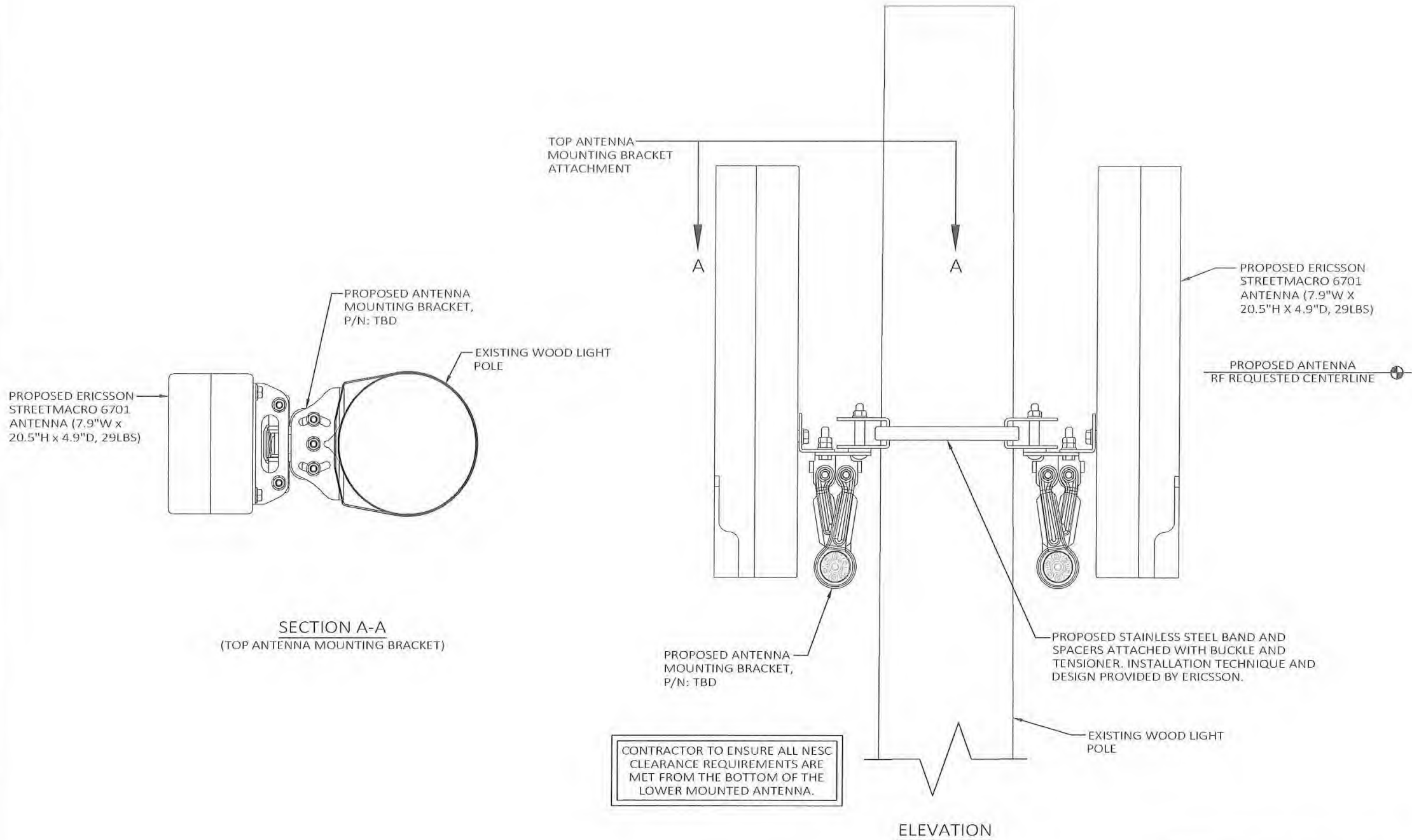
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1 EQUIPMENT CU-FT. TABLE

N.T.S.

2 DTE CLIMBING ZONE REQUIREMENT AND NOTES

N.T.S.



1 ERICSSON STREETMACRO 6701 ANTENNA MOUNTING DETAIL

N.T.S.

PREPARED FOR:



PREPARED BY:



1961 NORTHPOINT BLVD, SUITE 130
HIKSON, TN 37343
PH: 423-843-9500
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CJD

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SITE NAME:

40213

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 41.424" N

LONGITUDE:

83° 37' 3.432" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

SITE DETAILS

DRAWING NO.

C4

REVISION:

0

Spectrum: 28 GHz
IBW Full band
OBW 800 MHz
EIRP ~ 55 dBm

of Users: 2,000+
Total Antenna BW: 1600 MHz
Throughput: 5 Gbps DL/ 1 Gbps UL
RI ports: 2
TN/IDLports: 2
Misc: 4xExternal Alarms, USB connector
PoE, GPS, 1588 Synch

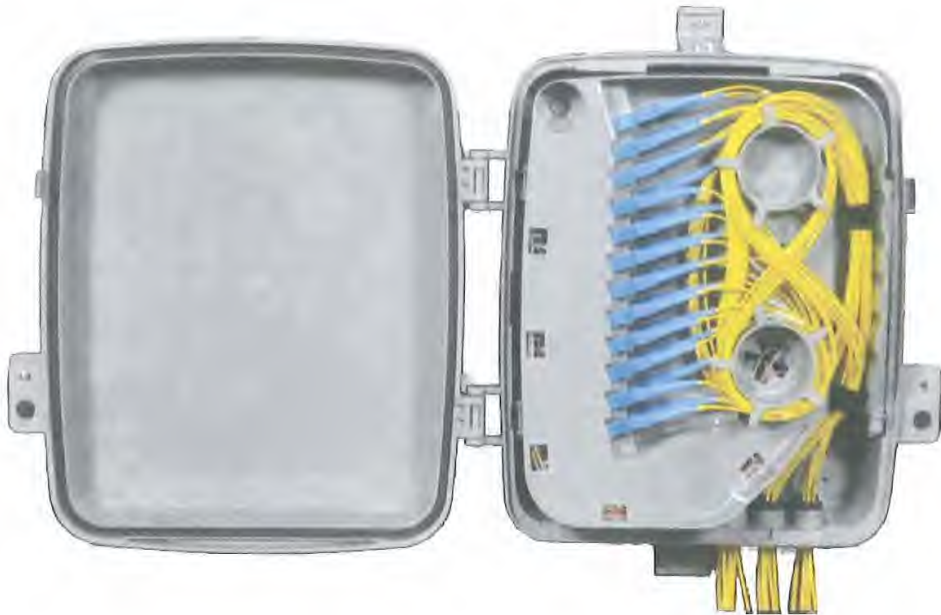
Weight: ~ 13 kg (29 lbs)
Size: 20,5"x4,9"x7,9" (13 l)
Operational conditions: -40 to +55 degrees
Cooling: Active
Power: AC, <300W Max
IP Class: IP 65

StreetMacro 6701



CFIT BOX

PART CODE: CFIT-C48D4LHXVZ
DESIGNED BY CHARLES INDUSTRIES



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
HEIGHT (PANEL ONLY)	15 in.
DEPTH, BASE (FRONT TO BACK)	5.5 in.
WIDTH	12 in.
WEIGHT	4 lbs.
CONSTRUCTION	RUGGED UL94-5VA GRAY POLYCARBONATE
SUPPORTED FIBER CONNECTOR TYPES	SC, LC or MPO
COMPLIANCE	DESIGNED TO MEET GR-950, GR2898, NEMA 4, IP66
SPLICING CAPACITY	UP TO THREE (3) 4"x6" HINGED SPLICE TRAYS ON FEED FIBER SIDE.
BULKHEAD CAPACITY	24 SC ADAPTERS

PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

DRAWING NOTICE:

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DRAWN BY:

AJD

CHECKED BY:

CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
C	05/27/19	DAJ	CONSTRUCTION ISSUE
A	05/19/19	AJD	PRELIMINARY REVIEW

ENGINEER'S STAMP:



SITE NAME:

40213

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 41.424" N

LONGITUDE:

83° 37' 3.432" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

EQUIPMENT DETAILS

DRAWING NO.

C5

REVISION:

0

1 STREETMACRO 6701

N.T.S.

2 CFIT BOX

N.T.S.

ELECTRICAL NOTES:

1. PROVIDE AND INSTALL WARNING TAPE FOR ELECTRIC SERVICE CONDUIT 12" BELOW GRADE.
2. CONTRACTOR TO PAY FOR THE SERVICE AS DIRECTED BY THE MUNICIPALITY.
3. CONTRACTOR TO USE PVC SCH 40 CONDUIT WHERE CONDUITS CROSS ACCESS ROADS.
4. CONTRACTOR SHALL COORDINATE WITH ELECTRIC AND TELEPHONE UTILITY COMPANIES FOR SERVICES.
5. CONTRACTOR TO PAY ALL FEES FOR SERVICES REQUIRED.
6. CONTRACTOR TO BE ADVISED THAT EXISTING UNDERGROUND CONDUITS, GROUND CABLES EXIST. DIG WITH CAUTION.
7. CONTRACTOR TO VERIFY POWER AND TELCO LB LOCATIONS AND FLEX CONDUIT SIZE AND ROUTING TO THE EQUIPMENT SHELTER WITH MANUFACTURER'S DRAWINGS.
8. OPEN CUT CONSTRUCTION THROUGH EXISTING PAVEMENT, I.E. ROADWAYS, PARKING AREAS, SIDEWALKS WILL NOT BE ALLOWED. CONSTRUCTION UNDER EXISTING PAVEMENTS WILL BE REQUIRED TO BE INSTALLED WITH DIRECTIONAL BORING TECHNIQUE.

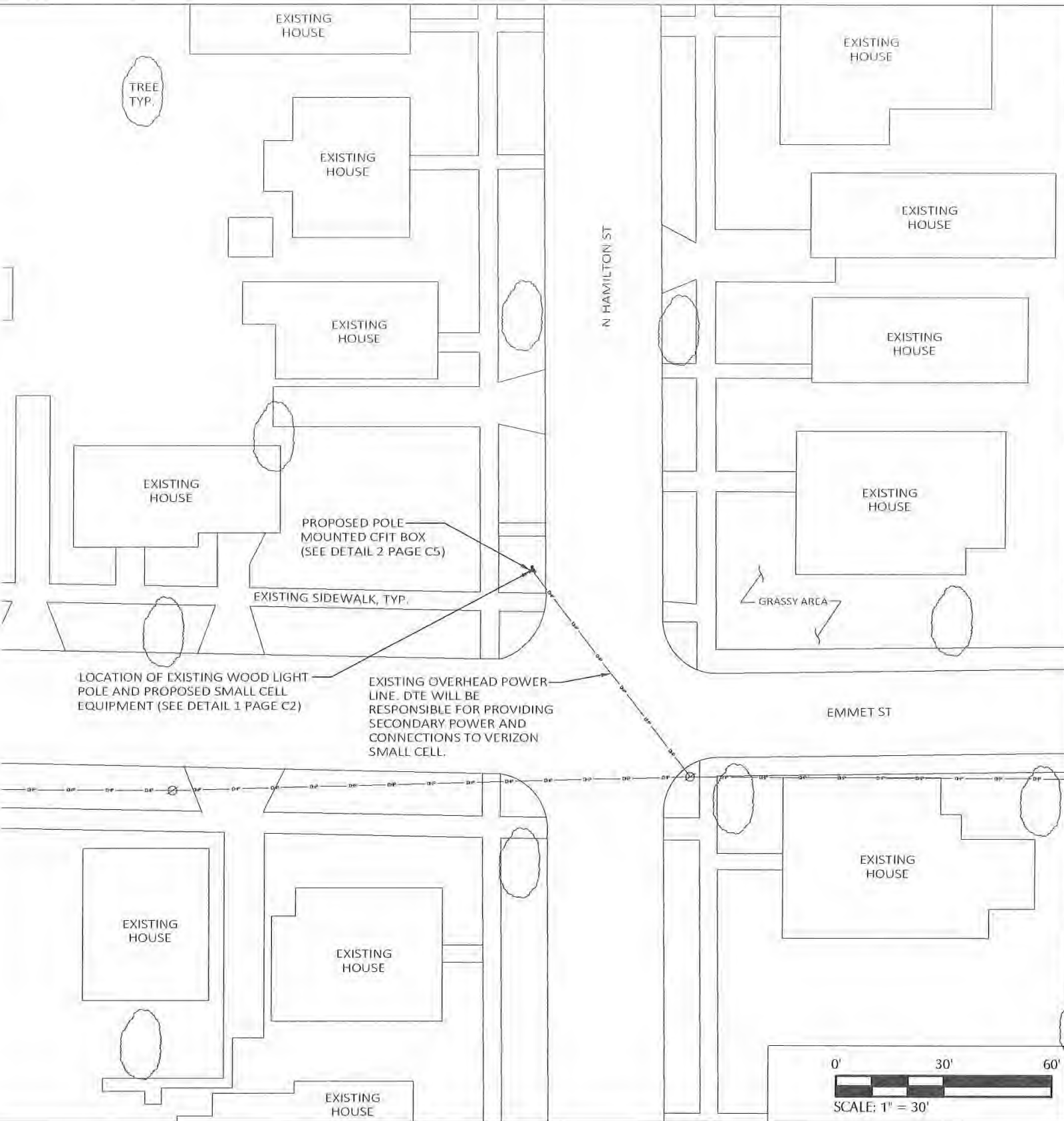
UTILITY NOTES:

1. ALL POWER CONDUITS ABOVE GRADE, SWEEPS, & ELBOWS TO BE PVC SCH 40.
2. INSTALL PULL STRING IN TELCO CONDUIT.

STANDARD POWER SUPPLY FOR THE SMALL CELL NODES IS A 100 AMP 120/240 VOLT SINGLE PHASE SERVICE

SERVICE CONDUCTOR MAXIMUM DISTANCE CHART (BASED ON 80 AMP MAX. CONTINUOUS LOAD)			
WIRE SIZE	ALUMINUM 120V	COPPER 120V	CONDUIT SIZE
3 AWG	55'	90'	3/4" MIN
2 AWG	70'	115'	3/4" MIN
1 AWG	85'	145'	3/4" MIN
1/0 AWG	110'	180'	1" MIN
7/0 AWG	140'	230'	1" MIN
3/0 AWG	175'	290'	1 1/4" MIN
4/0 AWG	220'	365'	1 1/4" MIN
750 KCMIL	265'	435'	1 1/4" MIN
300 KCMIL	315'	520'	1 1/2" MIN
350 KCMIL	370'	610'	1 1/2" MIN
400 KCMIL	420'	695'	2" MIN
500 KCMIL	530'	870'	2" MIN

LEGEND			
UNDERGROUND POWER	---	CATCH BASIN	■
OVERHEAD POWER	---	IRON PIN SET (IPF) 2" RE BAR	●
OVERHEAD UTILITIES	---	IRON PIN FOUND (IPF)	⊙
UNDERGROUND TELCO	---	BENCHMARK	⊕
OVERHEAD TELCO	---	CONCRETE MON. FOUND	□
GAS LINE	---	CONCRETE MON. SET	■
FENCE	---	UTILITY POLE	⊙
SEWER LINE	---	LIGHT POLE	⊙
WATER LINE	---	WATER VALVE	⊕
COAX CABLE	---	MANHOLE	⊕
HYBRID CABLE	---	GAS VALVE	⊕
HIGH VOLTAGE POWER	---	FIRE HYDRANT	⊕
FIBER	---	TELCO PEDESTAL	⊕
RIGHT-OF-WAY	---	ELECTRICAL PULL BOX	⊕
PROPERTY LINE	---		
EDGE OF PAVEMENT	---		



PREPARED FOR:

verizon

PREPARED BY:

TeleCAD Wireless
1951 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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DRAWN BY: JVD
CHECKED BY: CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
0	05/27/19	DAI	CONSTRUCTION ISSUE
A	05/19/19	AVD	PRELIMINARY REVIEW

ENGINEER'S STAMP



SITE NAME:

40213

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 41.424" N

LONGITUDE:

83° 37' 3.432" W

DESIGN TYPE:

COLOCATION

SHEET TITLE:

UTILITY SITE PLAN

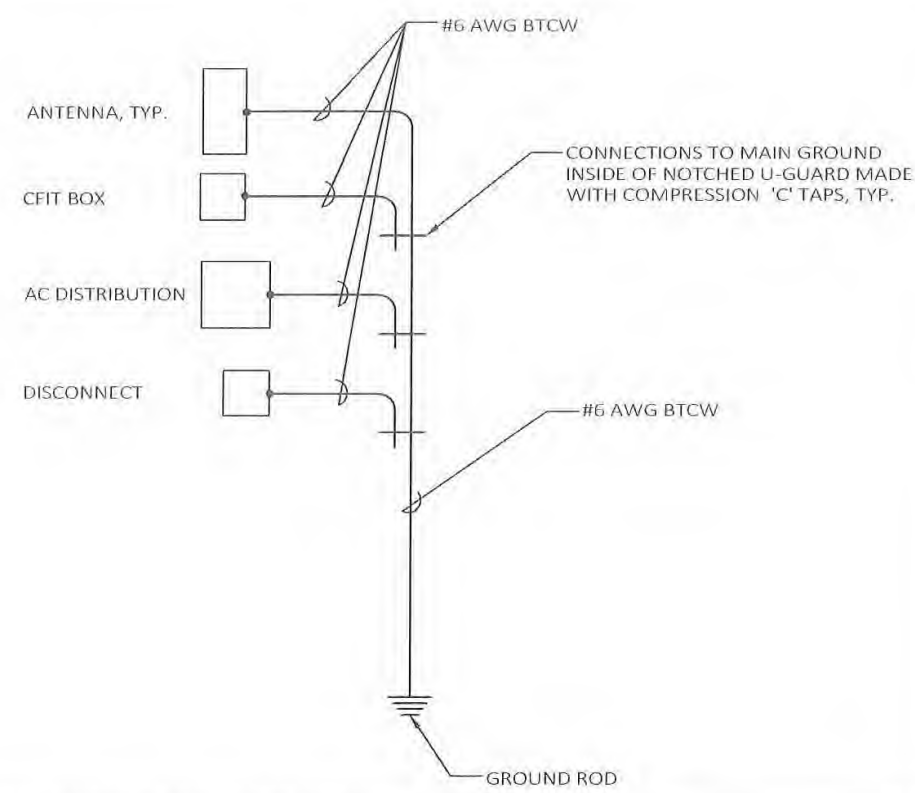
DRAWING NO.

E1

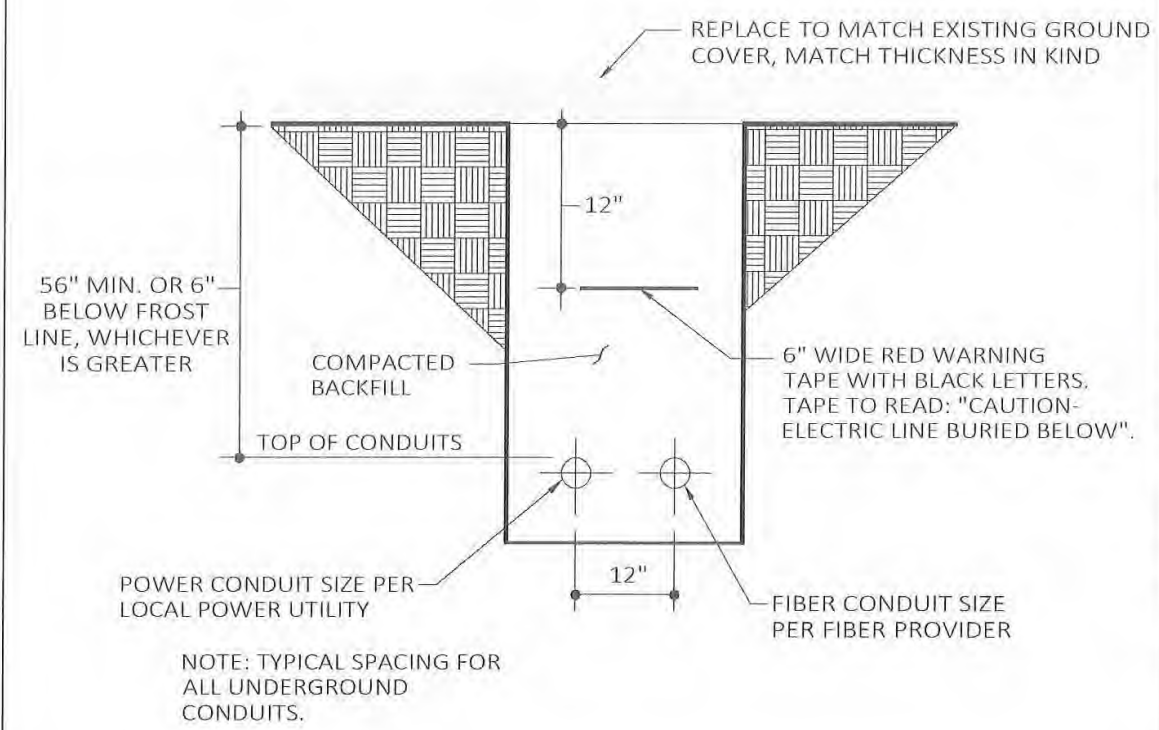
REVISION

0

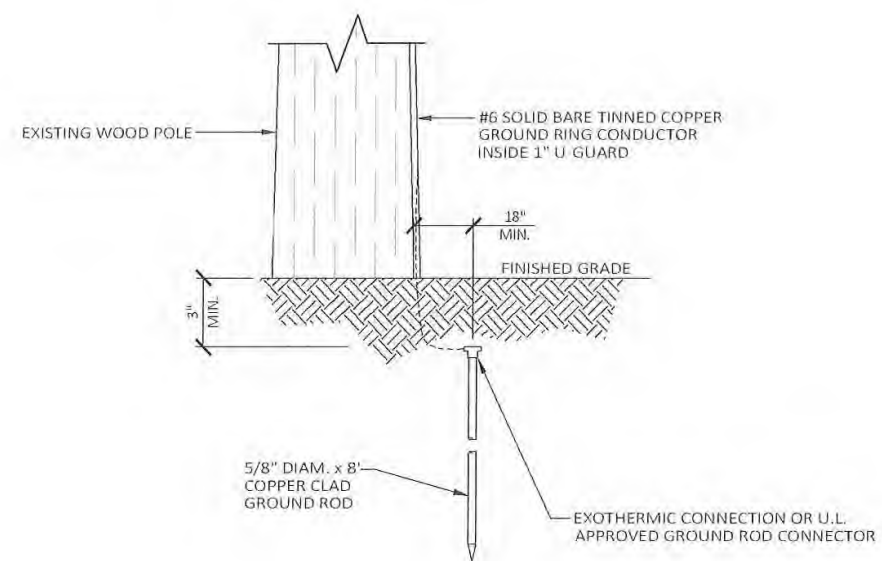
1 UTILITY SITE PLAN



1 SINGLE POINT RADIAL GROUND DETAIL N.T.S.



2 TRENCH DETAIL (IF REQUIRED) N.T.S.



3 GROUND ROD DETAIL N.T.S.

4 DETAIL NOT IN USE N.T.S.

PREPARED FOR:

PREPARED BY:

1961 NORTHPOINT BLVD, SUITE 130
HIXSON, TN 37343
PH: 423-843-9500
FAX: 423-843-9509

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DRAWN BY: AID

CHECKED BY: CTD

REVISIONS

NO.	DATE	BY	DESCRIPTION
B	06/27/19	DAI	CONSTRUCTION ISSUE
A	08/19/19	AID	PRELIMINARY REVIEW

ENGINEER'S STAMP:

NOT VALID WITHOUT P.E. STAMP & SIGNATURE

SITE NAME:

40213

COUNTY:

WASHTENAW

LATITUDE:

42° 14' 41.424" N

LONGITUDE:

83° 37' 3.432" W

DESIGN TYPE:

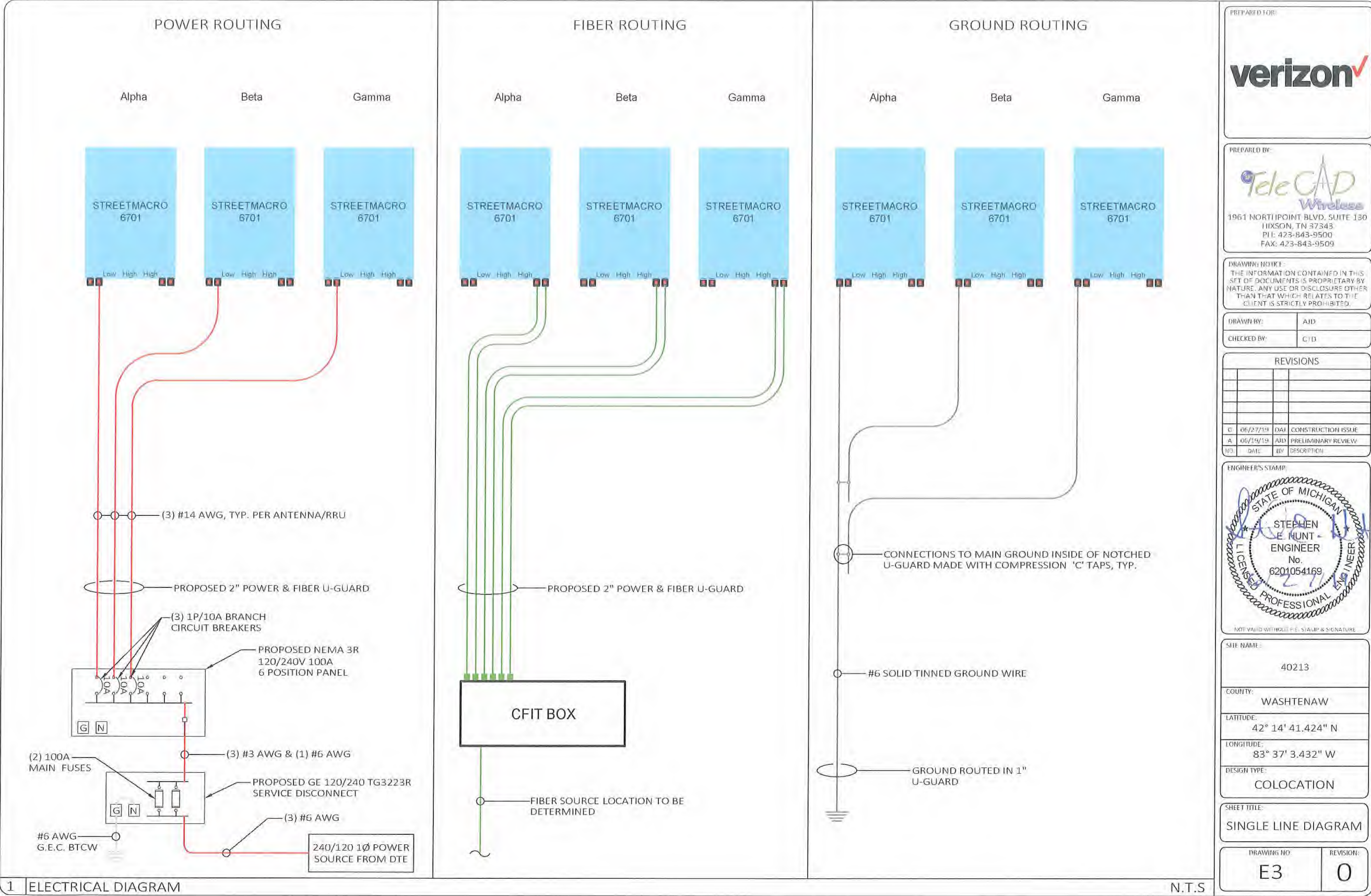
COLOCATION

SHEET TITLE:

ELECTRICAL DETAILS

DRAWING NO. E2

REVISION: 0





Resolution No. 2020-129
June 2, 2020

RESOLVED BY THE COUNCIL OF THE CITY OF YPSILANTI:

That the City Council Meeting be adjourned, on call, by the Mayor or three (3) members of Council.

OFFERED BY: _____

SECONDED BY: _____

YES: NO: ABSENT: VOTE:

This resolution is adopted by the Council of the City of Ypsilanti and approved by the Mayor this
2 day of June 2020

#Resolution No. 2020-129