

**AGENDA REVIEW MEETING  
CHESTERFIELD CITY COUNCIL  
Monday, October 19, 2015  
5:30PM**

To view the full City Council Packet ([CLICK HERE](#))

1. **Public Health & Safety Committee** – Chairperson Elliot Grissom, Ward II
  - A. **Bill No. 3054** – Amends Ordinance No. 283 re: “Community Service” (**SECOND READING**)
  - B. **Bill No. 3055** – Authorizes City Administrator to Sign MoDOT “Work Zone Enforcement” Grant application (**SECOND READING**)
  
2. **Planning and Public Works Committee** – Chairperson Connie Fults, Ward IV
  - A. **Bill No. 3056** - P.Z. 06-2015 - Chesterfield Airport Road (Autozone) (**SECOND READING**)
  - B. **Bill No. 3057** – Authorizes the City Administrator to Execute a Congestion Mitigation and Air Quality Program Agreement with MoDOT (CNG Fueling Station/Fleet Conversion) (**FIRST READING**)
  - C. **T.S.P. 52-2015**, Sprint (18614 Olive Street Road) (**VOICE VOTE**)
  - D. **Bill No. 3058** – Authorizes the City Administrator to Execute a Contract with Missouri American Water Company re: Water Main Relocation (Greentrails Drive South) (**FIRST READING**)
  - E. Approval of **Site Development Plan** re: **Highland on Conway** (Delmar Gardens III SDP) (**VOICE VOTE**)
  - F. **Next meeting** - Thursday, October 22, 2015 (5:30pm)

**3. Report from the City Administrator – Michael G. Herring**

**A. Recommendation – Purchase of Brush Chipper**

**B.**

**4. New Business – Mayor Bob Nation**

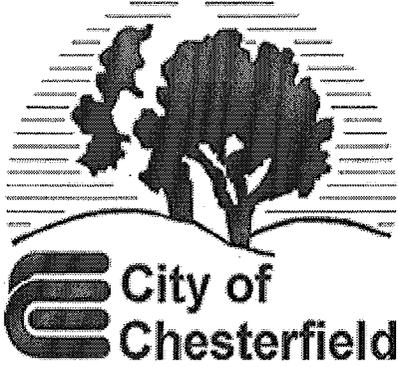
**5. Adjourn –**

**6. Executive Session – Closed Meeting (RSMo 610.021 (1))**

**A. Confidential Communication**

**NOTE:** City Council will consider and act upon the matters listed above and such other matters as may be presented at the meeting and determined to be appropriate for discussion at that time.

Notice is hereby given that the City Council may also hold a closed meeting for the purpose of dealing with matters relating to one or more of the following: legal actions, causes of action, litigation or privileged communications between the City's representatives and its attorneys (RSMo 610.021(1) 1994; lease, purchase or sale of real estate (RSMo 610.021(2) 1994; hiring, firing, disciplining or promoting employees within employee groups (RSMo 610.021(3) 1994; bidding specification (RSMo 610.021(11) 1994; and/or proprietary technological materials (RSMo 610.021(15) 1994.



**AGENDA**  
**CHESTERFIELD CITY COUNCIL MEETING**  
**Chesterfield City Hall**  
**690 Chesterfield Parkway West**  
**Monday, October 19, 2015**  
**7:00PM**

*To view the full City Council Packet ([CLICK HERE](#))*

- I. CALL TO ORDER** – Mayor Bob Nation
- II. PLEDGE OF ALLEGIANCE** – Mayor Bob Nation
- III. MOMENT OF SILENT PRAYER** – Mayor Bob Nation
- IV. ROLL CALL** –City Clerk Vickie Hass
- V. APPROVAL OF MINUTES** – Mayor Bob Nation
  - A. City Council Meeting Minutes** – October 7, 2015
- VI. INTRODUCTORY REMARKS** – Mayor Bob Nation
  - A. Next City Council Meeting** – Monday, November 2
- VII. COMMUNICATIONS AND PETITIONS** – Mayor Bob Nation
- VIII. APPOINTMENTS** – Mayor Bob Nation

## **IX. COUNCIL COMMITTEE REPORTS**

### **A. Public Health & Safety Committee – Chairperson Elliot Grissom, Ward II**

- 1. Bill No. 3054 – Amends Ordinance No. 283 re: “Community Service” (SECOND READING)**
- 2. Bill No. 3055 – Authorizes City Administrator to Sign MoDOT “Work Zone Enforcement” Grant application (SECOND READING)**

### **B. Planning and Public Works Committee – Chairperson Connie Fults, Ward IV**

- 1. Bill No. 3056 - P.Z. 06-2015 - Chesterfield Airport Road (Autozone) (SECOND READING)**
- 2. Bill No. 3057 – Authorizes the City Administrator to Execute a Congestion Mitigation and Air Quality Program Agreement with MoDOT (CNG Fueling Station/Fleet Conversion) (FIRST READING)**
- 3. T.S.P. 52-2015, Sprint (18614 Olive Street Road) (VOICE VOTE)**
- 4. Bill No. 3058 – Authorizes the City Administrator to Execute a Contract with Missouri American Water Company re: **Water Main Relocation** (Greentrails Drive South) (FIRST READING)**
- 5. Approval of Site Development Plan re: **Highland on Conway** (Delmar Gardens III SDP) (VOICE VOTE)**
- 6. Next meeting: Thursday, October 22, 2015 (5:30pm)**

## **X. REPORT FROM THE CITY ADMINISTRATOR – Michael G. Herring**

### **A. Recommendation – Purchase of Brush Chipper**

### **B.**

## **XI. OLD BUSINESS – Mayor Bob Nation**

## **XII. NEW BUSINESS – Mayor Bob Nation**

### **XIII. LEGISLATION**

- A. BILL NO. 3054 – AMENDS ORDINANCE 283 OF THE CITY OF CHESTERFIELD BY REPEALING SAID ORDINANCE RELATING TO ALTERNATIVE COMMUNITY SERVICE AND SUBSTITUTING A NEW ORDINANCE IN LIEU THEREOF (SECOND READING; PUBLIC HEALTH & SAFETY COMMITTEE RECOMMENDS APPROVAL)**
  
- B. BILL NO. 3055 – AUTHORIZES THE CITY ADMINISTRATOR TO ENTER INTO AN ON-CALL WORK ZONE ENFORCEMENT AGREEMENT WITH THE MISSOURI DEPARTMENT OF TRANSPORTATION (MoDOT) TO ALLOW COOPERATION BETWEEN THE CHESTERFIELD POLICE DEPARTMENT AND MoDOT FOR THE ON-CALL WORK ZONE ENFORCEMENT PROGRAM (SECOND READING; PUBLIC HEALTH & SAFETY COMMITTEE RECOMMENDS APPROVAL)**
  
- C. BILL NO. 3057 – AUTHORIZES THE CITY ADMINISTRATOR TO EXECUTE A CONGESTION MITIGATION AND AIR QUALITY PROGRAM AGREEMENT WITH THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION FOR THE INCREMENTAL PURCHASE OF TRUCKS PRIMARILY FUELED BY COMPRESSED NATURAL GAS AND CONSTRUCTION OF A COMPRESSED NATURAL GAS FUELING STATION IN CHESTERFIELD VALLEY (FIRST READING; PLANNING/PUBLIC WORKS COMMITTEE RECOMMENDS APPROVAL)**
  
- D. BILL NO. 3058 – AUTHORIZES THE CITY ADMINISTRATOR TO EXECUTE A CONTRACT FOR WATER FACILITY RELOCATION AND LICENSE TO UTILIZE EASEMENT WITH THE MISSOURI AMERICAN WATER COMPANY REGARDING UTILITY RELOCATION FOR THE RECONSTRUCTION OF GREENTRAILS DRIVE SOUTH FROM WHITE ROAD TO LADUE ROAD (FIRST READING; PLANNING/PUBLIC WORKS COMMITTEE RECOMMENDS APPROVAL)**

### **XIV. LEGISLATION – PLANNING COMMISSION**

- A. BILL NO. 3056 - AMENDS THE ZONING ORDINANCE OF THE CITY OF CHESTERFIELD BY CHANGING THE BOUNDARIES OF AN “NU” NON-URBAN DISTRICT TO A “PC” PLANNED COMMERCIAL DISTRICT FOR A 1.77 ACRE TRACT OF LAND LOCATED ON THE NORTH SIDE OF CHESTERFIELD AIRPORT ROAD WEST OF ITS INTERSECTION WITH ARNAGE BOULEVARD. (SECOND READING; PLANNING COMMISSION RECOMMENDS APPROVAL)**

### **XV. ADJOURNMENT**

**NOTE:** City Council will consider and act upon the matters listed above and such other matters as may be presented at the meeting and determined to be appropriate for discussion at that time.

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**AGENDA REVIEW – Monday, October 19 – 5:30PM**

Please note that an AGENDA REVIEW meeting has been scheduled for **5:30pm**, on Monday, October 19, 2015. The enclosed AGENDA contains a list of those items to be discussed, by City Council, at this meeting.

As always, if you have any questions regarding any of the items contained within said AGENDA, please let me know. Additionally, if there is anything that you would like ADDED to said AGENDA, please contact either Mayor Nation, or me, prior to Monday's meeting.

**UPCOMING MEETINGS/EVENTS**

<b>Monday, October 19</b>	<b>HAPPY BIRTHDAY COUNCILMEMBER FULTS!</b>
<b>Thursday, October 22</b>	Planning & Public Works Committee (5:30pm)
<b>Monday, October 26</b>	Planning Commission (7pm)
<b>Monday, November 2</b>	Next City Council meeting (7pm)



## RECORD OF PROCEEDING

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### MEETING OF THE CITY COUNCIL OF THE CITY OF CHESTERFIELD AT 690 CHESTERFIELD PARKWAY WEST

**OCTOBER 7, 2015**

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The meeting was called to order at 7:03 p.m.

Mayor Bob Nation led everyone in the Pledge of Allegiance and followed with a moment of silent prayer. He expressed condolences to the family of former-Mayor and Councilmember Nancy Greenwood.

A roll call was taken with the following results:

PRESENT

ABSENT

Mayor Bob Nation  
Councilmember Barry Flachsbart  
Councilmember Bridget Nations  
Councilmember G. Elliot Grissom  
Councilmember Mike Casey  
Councilmember Dan Hurt  
Councilmember Bruce DeGroot  
Councilmember Connie Fults

APPROVAL OF MINUTES

The minutes of the September 9, 2015 City Council meeting were submitted for approval. Councilmember Grissom made a motion, seconded by Councilmember Nations, to approve the City Council minutes. A voice vote was taken with a unanimous affirmative result and the motion was declared passed.

## **INTRODUCTORY REMARKS**

Mayor Nation announced that there will be a public memorial service for Councilmember Nancy Greenwood on Saturday, October 17 at 11:00 a.m. in Council Chambers.

Mayor Nation announced that the next meeting of City Council has been scheduled for Monday, October 19, at 7 p.m.

## **COMMUNICATIONS AND PETITIONS**

Mayor Nation presented a Proclamation to Director of Public Services Mike Geisel and Planning/Development Services Director Aimee Nassif, declaring the Month of October 2015 as “Community Planning Month” in the City of Chesterfield.

## **APPOINTMENTS**

Mayor Nation nominated Mr. Bud Gruchalla, 14015 Camberra Court (Ward I), for re-appointment to the Architectural Review Board. Councilmember Flachsbart made a motion, seconded by Councilmember Hurt, to approve this re-appointment. A voice vote was taken with a unanimous affirmative result and the motion was declared passed. Mr. Gruchalla’s new two-year term will expire August 29, 2017.

Mayor Nation nominated Mr. John W. Nichols, III, 132 Brighthurst Drive (Ward IV), to serve as a member of the Police Personnel Board, replacing Mr. Philip Folsom, who recently resigned. He noted that, per City Council policy, Mr. Nichols was interviewed by the Public Health and Safety Committee of City Council and that Committee, along with the Ward 4 Councilmembers, have unanimously endorsed his appointment. Councilmember DeGroot made a motion, seconded by Councilmember Fults, to approve this appointment. A voice vote was taken with a unanimous affirmative result and the motion was declared passed. Mr. Nichols’ initial term will expire August 15, 2018.

Mayor Nation nominated Barb McGuinness, 95 River Bend Dr., to fill the vacancy as Councilmember in Ward I, created by the recent passing of Councilmember Nancy Greenwood. Mayor Nation noted that Ms. McGuinness is a former-Chair of the Chesterfield Planning Commission and a leader of the effort to incorporate Chesterfield.. Councilmember Flachsbart made a motion, seconded by Councilmember Hurt, to approve this appointment.

Councilmember Casey made a motion, seconded by Councilmember DeGroot, to table this nomination. According to City Attorney O’Rourke, the motion to table the nomination supersedes the original motion to approve the nomination and is not debatable. A roll call vote was taken to table the nomination with the following results: Ayes – Nations, Casey, Fults, Grissom and DeGroot. Nays – Hurt and Flachsbart. Whereupon Mayor Nation declared the motion to table approved. Councilmember DeGroot made a statement explaining that he voted to table the nomination because the name of the individual was not provided to City Council, by the Mayor, until just before

tonight's Council meeting, and he did not have ample time to review her qualifications. Additional discussion followed. Councilmember Flachsbart noted, due to this action by City Council, that the earliest this nomination could be voted on, by City Council, would be the November 2 City Council meeting and that would only happen if a motion to take this nomination "off the table" is made/approved at the October 19 City Council meeting.

Mayor Nation requested that a member of City Council make a motion reconsider the Motion to Table. There was no such motion and Councilmember Casey suggested that the Mayor move forward and continue with the rest of the Agenda for this meeting.

## **COUNCIL COMMITTEE REPORTS**

### **Public Health & Safety Committee**

Councilmember Elliot Grissom, Chairperson of the Public Health & Safety Committee, reiterated that the Committee had interviewed and unanimously endorsed Mr. John W. Nichols for Police Personnel Board, which was approved by City Council, earlier this evening.

Councilmember Grissom reported that Bill No. 3054 (Amends Ordinance No. 283 re: "Community Service") will be read for the first time under the "Legislation" portion of the agenda.

Councilmember Grissom reported that Bill No. 3055 (Authorizes City Administrator to Sign MoDOT "Work Zone Enforcement" Grant application) will be read for the first time under the "Legislation" portion of the agenda.

Councilmember Grissom made a motion, seconded by Councilmember Casey, to approve a Budget Amendment/Transfer from General Fund – Fund Reserves to enable an expedited purchase of Police vehicles. The amount of the transfer is \$242,195. A voice vote was taken with a unanimous affirmative result and the motion was declared passed.

### **Planning/Public Works Committee**

Councilmember Connie Fults, Chairperson of the Planning/Public Works Committee, made a motion, seconded by Councilmember Casey, to approve a General Fund Budget Transfer re: Street Tree Removal Program, totaling \$100,000. A voice vote was taken with a unanimous affirmative result and the motion was declared passed.

Councilmember Fults reported that Bill No. 3056 (P.Z. 06-2015 – Chesterfield Airport Road [Autozone]) will be read for the first time under the "Legislation – Planning Commission" portion of the agenda.

Councilmember Fults announced that the next meeting of this Committee has been scheduled for Thursday, October 8, at 5:30 p.m.

## **REPORT FROM THE CITY ADMINISTRATOR**

City Administrator Mike Herring reported that Starbucks Evenings, located at 1720 Clarkson Road, has requested a new liquor license, to sell all kinds of liquor by the drink and Sunday sales. Mr. Herring reported that, per City policy, this application has been reviewed and is now recommended for approval by both the Planning/Public Services Division and Police Department. Councilmember DeGroot made a motion, seconded by Councilmember Casey, to approve issuance of a new liquor license to Starbucks Evenings. A voice vote was taken with a unanimous affirmative result and the motion was declared passed.

Mr. Herring reported that Addie's Thai House, located at 13441 Olive Blvd., has requested a change to its existing liquor license, to now include Sunday sales. Mr. Herring reported that, per City policy, this application has been reviewed and is now recommended for approval by both the Planning/Public Services Division and Police Department. Councilmember Fults made a motion, seconded by Councilmember DeGroot, to approve issuance of a new liquor license to Addie's Thai House. A voice vote was taken with a unanimous affirmative result and the motion was declared passed.

Mr. Herring asked for approval of Resolution No. 416 (Authorizes Application for Municipal Parks Grant Funding Re: Veteran's Honor Park). He noted and commended the efforts by the Veterans Honor Park citizens committee, which has now raised almost \$500,000 and reminded City Council that the City had already committed \$500,000 toward this project. This grant application will seek an additional \$500,000 from the Municipal Parks Grant Commission. Councilmember Flachsbart made a motion, seconded by Councilmember Grissom, to adopt Resolution No. 416. A voice vote was taken with a unanimous affirmative result and the motion was declared passed.

### **OLD BUSINESS**

There was no old business.

### **NEW BUSINESS**

Mayor Nation requested that an item be added to the next Finance & Administration Committee meeting agenda pertaining to transparency, and perhaps the development of a transparency portal. Mr. Herring noted, for the record, that the elected officials and staff of the City of Chesterfield have a long and well-documented record of working diligently to operate in a transparent manner, in all areas of the City's operation.

## LEGISLATION

BILL NO. 3054 AMENDS ORDINANCE 283 OF THE CITY OF CHESTERFIELD BY REPEALING SAID ORDINANCE RELATING TO ALTERNATIVE COMMUNITY SERVICE AND SUBSTITUTING A NEW ORDINANCE IN LIEU THEREOF  
**(FIRST READING)**

Councilmember Grissom made a motion, seconded by Councilmember Casey, for the first reading of Bill No. 3054. A voice vote was taken with a unanimous affirmative result and the motion was declared passed. Bill No. 3054 was read for the first time.

BILL NO. 3055 AUTHORIZES THE CITY ADMINISTRATOR TO ENTER INTO AN ON-CALL WORK ZONE ENFORCEMENT AGREEMENT WITH THE MISSOURI DEPARTMENT OF TRANSPORTATION (MoDOT) TO ALLOW COOPERATION BETWEEN THE CHESTERFIELD POLICE DEPARTMENT AND MoDOT FOR THE ON-CALL WORK ZONE ENFORCEMENT PROGRAM  
**(FIRST READING)**

Councilmember Grissom made a motion, seconded by Councilmember Casey, for the first reading of Bill No. 3055. A voice vote was taken with a unanimous affirmative result and the motion was declared passed. Bill No. 3055 was read for the first time.

## LEGISLATION – PLANNING COMMISSION

BILL NO. 3056 AMENDS THE ZONING ORDINANCE OF THE CITY OF CHESTERFIELD BY CHANGING THE BOUNDARIES OF AN “NU” NON-URBAN DISTRICT TO A “PC” PLANNED COMMERCIAL DISTRICT FOR A 1.77 ACRE TRACT OF LAND LOCATED ON THE NORTH SIDE OF CHESTERFIELD AIRPORT ROAD WEST OF ITS INTERSECTION WITH ARNAGE BOULEVARD **(FIRST READING; PLANNING COMMISSION RECOMMENDS APPROVAL)**

Councilmember Fults made a motion, seconded by Councilmember Hurt, for the first reading of Bill No. 3056. A voice vote was taken with a unanimous affirmative result and the motion was declared passed. Bill No. 3056 was read for the first time.

**ADJOURNMENT**

There being no further business to discuss, Mayor Nation adjourned the meeting at 7:41 p.m.

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Mayor Bob Nation

**ATTEST:**

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Vickie J. Hass, City Clerk

## **RECOMMENDATIONS – PLANNING/PUBLIC WORKS (P/PW) COMMITTEE**

----**Bill No. 3056** – P.Z. 06-2015 – Chesterfield Airport Road (Autozone) (**SECOND READING**)

----**Bill No. 3057** – Authorizes the City Administrator to Execute a Congestion Mitigation and Air Quality Program Agreement with MoDOT (CNG Fueling Station/Fleet Conversion) (**FIRST READING**)

**NOTE: As detailed within the attached MEMO, prepared Jim Eckrich, Public Works Director/City Engineer, approval of this ordinance and the associated Fund transfers, was previously discussed with and endorsed by the Planning/Public Works Committee of City Council. In addition to members of this Committee, please feel free to contact either Mr. Eckrich, Mr. Geisel of me, prior to Monday's meeting, if you have any additional questions.**

As detailed in the enclosed MINUTES, prepared by Mike Geisel, Director of Public Services, the P/PW Committee met on Thursday, October 8, 2015. The following items were discussed, at this meeting and are now being forwarded to City Council for final review/approval:

IIIA. **T.S.P. 52-2015**, Sprint (18614 Olive Street Road) (**VOICE VOTE**)

IIIC. **Bill No. 3058** – Authorizes the City Administrator to Execute a Contract with Missouri American Water Company re: **Water Main Relocation** (Greentrails Drive South) (**FIRST READING**)

IIIB. Approval of **Site Development Plan** re: **Highland on Conway** (Delmar Gardens III SDP) (**VOICE VOTE**)

----**Next meeting:** Thursday, October 22, 2015 (5:30pm)

As always, if you have any questions, please contact Chairperson Connie Fults, any other member of this Committee, Mr. Geisel, Ms. Nassif, Mr. Eckrich or me, prior to Monday's meeting.

**DATE:** October 9, 2015  
**TO:** Michael G. Herring  
City Administrator  
**FROM:** James A. Eckrich, P.E.   
Public Works Director / City Engineer  
**RE:** Compressed Natural Gas  
Fueling Station and Truck Conversions

✓ MBH  
10/11/15



As previously reported, the City of Chesterfield has been awarded a Congestion Mitigation and Air Quality (CMAQ) grant to fund the construction of a Compressed Natural Gas (CNG) fueling station and the incremental cost to upgrade thirteen trucks from gasoline / diesel to CNG. The CMAQ grant is explained in detail in the attached Memorandum, Financial Exhibit, and Questions / Answers provided to the Planning and Public Works Committee. After discussing the matter in detail, the Planning and Public Works Committee voted 3-0 on August 6, 2015 to recommend approval of a Program Agreement with the Missouri Department of Transportation (MODOT) and to proceed with the CNG grant.

On October 9, 2015 MODOT submitted the attached Program Agreement to the City of Chesterfield. This Program Agreement has been reviewed by the City Attorney and City Staff to ensure conformance with the grant submittal. City Staff recommends approval of the Program Agreement and the associated Fund Transfers detailed in the attached memorandum.

As we have discussed, this is a somewhat complicated grant involving not only construction of a new facility, but the purchase and conversion of trucks which would otherwise have occurred over a three year period. This project was explained in detail during a presentation at the Planning and Public Works Committee; the Mayor and a number of Councilmembers were in attendance at that meeting. Should you, or anyone else, have additional questions regarding the grant, I would be happy to address those and provide the details of the presentation.

**Action Recommended**

I request and recommend that this matter be forwarded to City Council for its consideration. If City Council concurs with Staff's recommendation it should approve the attached ordinance authorizing the CMAQ Program Agreement and the related Fund Transfers as detailed in the July 20, 2015 Memorandum recommended for approval by the Planning and Public Works Committee.

SEE BILL # 3057

Cc: Michael O. Geisel, Director of Public Services

✓ MBH

**DATE:** July 20, 2015

**TO:** Michael G. Herring  
City Administrator

**FROM:** James A. Eckrich, P.E. *JAE*  
Public Works Director / City Engineer

**RE:** Compressed Natural Gas  
Fueling Station and Truck Conversions



As you are aware, for some time the Department of Public Services has been developing a long term fuel strategy to avoid an over-reliance on a single fuel source, due to environmental concerns and to combat erratic fuel pricing. This strategy has been discussed with City Council in detail on several occasions, most recently during the 2015 Budget deliberations, at which time Council authorized the funding of five Compressed Natural Gas (CNG) trucks and an agreement with the Parkway School District allowing the City of Chesterfield to utilize its CNG fueling system. As discussed and advised when presenting the 2015 CNG vehicle purchases, no further significant vehicle conversions were to be pursued until such time as there were opportunities to fuel the CNG vehicles in close proximity to the Public Works Facility. While utilization of the Parkway CNG pumps allowed early entry and experience into the CNG market, the Parkway refueling facility is seven miles from the City's Public Works Facility, and we continued to seek better and closer opportunities to fuel our trucks. As you also will remember, Staff's proposal for the Capital Replacement Fund was presented to the F&A Committee in July of 2013. This proposal included the line item of \$350,000 for the conversion of a limited number of vehicles to utilize compressed natural gas.

I am excited and pleased to report that the City has been successful in obtaining grant funding through the Congestion Mitigation and Air Quality (CMAQ) program. The grant will fund construction of a new, minimal CNG fueling facility at the Public Works Maintenance Facility, as well providing funds for the incremental costs to upgrade 13 vehicles already scheduled and programmed for normal replacement in the next three years. The CMAQ grant will fund eighty percent of all costs, up to the estimated project amount of \$1,400,030. The City of Chesterfield would be responsible for only twenty percent of the project costs, or \$280,006, while the grant will fund eighty percent, or \$1,120,023. The City is also responsible for the normal vehicle replacement capital costs that we would otherwise incur without respect to the grant. **The grant strategy involves the consolidation of three years of vehicle replacements within the Public Services Department which is arduous to explain and requires some degree of funding flexibility, although the net result is easily communicated. The net impact to the General Fund - Fund**

**Reserve is limited to \$238,406. The current balance of the General Fund – Fund Reserve in excess of the City’s 40% policy threshold is \$2,403,211. The mechanisms to initially fund this project and reimburse City expenses are detailed herein, and summarized in the attached “Exhibit A”.** It should also be clearly stated that if the grant is accepted and once the new CNG station is constructed at the Public Works Facility, we will likely continue to access the Parkway CNG station at certain times. Having access to an alternative fueling station, especially for lighter duty vehicles, would continue to be advantageous for the City.

As you know, the City was unsuccessful in 2014 when applying for a similar grant to construct a CNG facility. Public Services Staff critically reviewed the grant scoring criteria and revised the 2015 grant application in an effort to optimize the benefit points awarded, which are largely impacted by the quantity of vehicle conversions. For the purposes of the grant, we combined the planned vehicle replacement purchases already scheduled for calendar years 2015<sup>1</sup>, 2016, and 2017 into one cumulative purchase, which would most likely occur in 2016. The trucks planned to be purchased in 2015 will be delayed one year and the 2017 purchases will be accelerated one year. The three year vehicle purchase is proposed to be aggregated into a single 2016 equipment purchase. **In order to purchase all 13 grant funded vehicle upgrades, we will defer the current 2015 vehicle replacement funding, utilize the planned 2016 vehicle replacement funding, and “forward fund” the 2017 vehicle replacement funding, to provide for one cumulative purchase during the 2016 fiscal year.**

The proposed truck purchases are shown in the table below:

Truck	Style / Size	Planned Replacement Year
S-70	2.5 ton	2015
S-100	2.5 ton	2017
S-101	2.5 ton	2017
S-109	2.5 ton	2015
S-110	2.5 ton	2016
S-111	2.5 ton	2016
S-112	2.5 ton	2017
S-51	1 ton	2016
S-53	1 ton	2017
S-71	1.5 ton	2016
S-72	1.5 ton	2016
S-76	1.5 ton	2017
BG-1	½ ton	2016

<sup>1</sup> All but two of the budgeted 2015 vehicles have already been purchased, including the two ½ ton CNG trucks and one 1.5 ton CNG truck. The two budgeted 2.5 ton trucks will be deferred to be incorporated into the grant purchase.

As part of the 2016 Budget, City Staff will request funding for those trucks which were already scheduled for replacement in 2016, including the twenty percent CNG upgrade charge for each truck. We will also need to provide for the two 2.5 ton trucks planned (and budgeted) for purchase in 2015, as well as those trucks (three 2.5 ton, one 1 ton, one 1.5 ton) which are scheduled for 2017. Funding for the 2015 trucks has already been budgeted and can simply be deferred and earmarked for re-budgeting in 2016. However, the 2016 Capital Projects Fund budget will not be able to absorb the costs necessary to “forward fund” the 2017 fiscal year vehicle replacements, which will need to be temporarily funded through a transfer from the General Fund – Fund Reserves. The 2017 upgraded vehicle costs are estimated to be \$729,000, of which \$700,200 is to be reimbursed to the General Fund; \$115,200 directly from the CMAQ grant proceeds, and \$585,000 from the Capital Projects Fund in conjunction with the 2017 Budget proposal.

The CNG Fueling Station itself is to be located just southwest of the existing Public Works Facility, on vacant land owned by the City of Chesterfield. The Station is proposed to be constructed as a “bare bones” station initially, providing two dispenser hoses for official City use only. The station could potentially be expanded at a later date. The estimated cost of the CNG Station is \$1,048,030, which includes design engineering, construction engineering, utility coordination, and contingency. A full eighty percent of the cost of the Fueling Station (\$838,424) is reimbursable through the CMAQ grant. This results in a net estimated City expenditure of \$209,606, which would also need to be funded by General Fund – Fund Reserves. This differs somewhat from the truck purchase, in that we are not accelerating an existing planned expense. The General Fund – Fund Reserves will NOT be reimbursed at a later date.

We anticipate that the CMAQ grant will be officially approved by East West Gateway at its July 29, 2015 meeting. When that occurs, the City of Chesterfield will be asked to enter into a Program Agreement, detailing the terms of the grant. In order for the City to proceed with this project and enter into the Program Agreement, it should be prepared to spend the necessary funds. Accordingly, **I recommend the following:**

- 1. The City should delay the purchase of two 2.5 ton trucks already approved and funded within the 2015 Budget. Funds appropriated for these purchases (\$380,000) will be incorporated into the 2016 Capital Projects fund budget request.**

**The two trucks will subsequently be purchased in conjunction with the 13 truck purchase detailed within the CMAQ grant. Eighty percent of the CNG upgrade charges will be reimbursed through the CMAQ grant;**

- 2. The City should accelerate the purchase of five trucks, currently planned and scheduled for replacement in 2017. These trucks would actually be purchased in 2016 and temporarily funded by a transfer from the General Fund – Fund Reserves in the amount of \$729,000. The General Fund**
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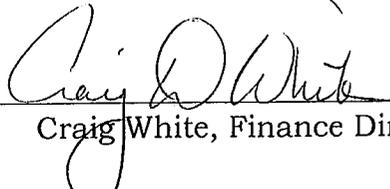
would later be reimbursed for the majority of this expense (\$700,200) through the CMAQ grant (\$115,200) and a 2017 transfer from the Capital Projects Fund (\$700,200).

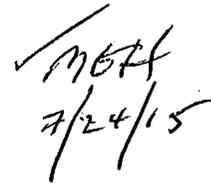
3. **The 2016 Capital Projects Fund budget should provide for the normal planned and scheduled purchase of six CNG trucks in 2016. Eighty percent of the CNG upgrade charges will be reimbursed through the CMAQ grant. Planned and scheduled vehicle replacement costs in 2016 from the Capital Projects fund are \$528,000, while CNG upcharge will increase the cost of those same vehicles to \$656,000, of which \$102,400 will be reimbursed through the CMAQ grant.**
4. **The City should fund approximately \$1,048,030 for the design and construction of the new CNG Fueling Station at the Public Works Facility, through a 2016 fund transfer from the General Fund – Fund Reserves, eighty percent (\$838,424) of which will be reimbursed directly back to the General Fund. The actual net cost of to the City to design and construct the fueling facility will be of \$209,606**

I request and recommend that this information be forwarded to the Planning and Public Works Committee for consideration. If the Planning and Public Works Committee concurs with Staff's recommendation, the CNG Program Agreement will be presented to City Council after the grant is formally approved by East West Gateway.

Attachment – Financial Impact Exhibit A  
Questions and Answers

Concurrence:

  
\_\_\_\_\_  
Craig White, Finance Director

  
MBH  
7/24/15

Cc: Michael O. Geisel, Director of Public Services

---

## EXHIBIT A – FINANCIAL IMPACT OF GRANT

### General Fund – Fund Reserves Above the 40% Policy Expenses

Fund Balance of \$2,403,211 as of 6/2/2015

#### **Transfers from the General Fund – Fund Reserves Above the 40% Policy**

\$729,000 Forward Funding of 2017 CNG Vehicles

\$1,048,030 Funding for Design & Construction of CNG Fuel Facility

**\$1,777,030 Fund Transfer from General Fund - Fund Reserves**

#### **Grant reimbursements to the General Fund**

\$576,184 Fueling station construction

\$115,200 2017 Vehicle upgrades (80% of \$144,000 for 2017 CNG upgrade expenses)

\$154,960 Engineering

\$107,280 ROW and Contingency

**\$953,624 Reimbursed to General Fund – Fund Reserves from Grant**

#### **Capital Project Fund reimbursements to the General Fund**

**\$585,000 – Forward Fund 2017 trucks** (*\$729,000 less \$144,000 for CNG upgrades*)

**\$1,538,624 Total Reimbursement to the General Fund**

**\$238,406 Net Project Cost to General Fund – Fund Reserves**

Results in General Fund Reserves above 40% - \$2,164,805

### Capital Projects Fund Expenses

#### **Total Expenditure from Capital Projects Fund**

\$1,036,000 CNG Capital Project Vehicle Expense

#### **Grant reimbursements to Capital Projects Fund**

\$166,400 Vehicle upgrades (*\$281,600 less \$115,200 reimbursed directly to GF*)

#### **Planned and scheduled Capital Project Vehicle Expenses (non-grant)**

\$828,000 for trucks budgeted for 2015 and 2016

These expenses would have incurred regardless of the CNG Project

**Net Project Cost to the Capital Projects Fund - \$41,600**

**\$ 280,006 NET PROJECT COSTS TO CITY, ALL SOURCES**

Note: \$350,000 was identified for CNG conversions in the Capital Replacement Fund list approved by the F&A Committee 7/18/2013

## Questions and Answers

Because of the amount of detail contained within the CNG memorandum, City Staff has generated the Questions and Answers below in an attempt to address some of the questions City Council may have regarding the memo.

**Question 1:** What is the total cost of the project to the City of Chesterfield?

**Answer 1:** The total cost to the City is \$280,006. \$238,406 will come from the General Fund – Fund Reserves above the 40% policy requirement and \$41,600 will come from the annual proceeds of the Capital Projects fund. This is twenty percent of the estimated cost of the project, which includes the construction of the fueling facility and the upgraded costs of converting 2015, 2016, and 2017 trucks to CNG. The expense for the trucks themselves is already planned / budgeted, and is NOT included in the project costs. The expense of the vehicles is included with the normal anticipated expenses for the Capital Project Fund. The grant pays 80% of the incremental cost to upgrade the vehicles for CNG usage.

**Question 2:** If the total cost to the City is \$280,006, why does the memo say that the impact to the General Fund – Fund Reserves in excess of the 40% policy is only \$238,406 (Page 1)?

**Answer 2:** This is the cost to the General Fund – Fund Reserves. The remaining \$41,600 will be funded through the Capital Projects Fund. The General - Fund Reserves are covering all costs for the design and construction of the fueling station, as well as the CNG upgrades for the 2017 trucks. The Capital Projects Fund is covering the CNG upgrades for the 2015 and 2016 trucks.

**Question 3:** Does the proposed project include the funding of any additional trucks?

**Answer 3:** No. The Project only includes the costs to upgrade trucks. There are no additional trucks planned, and every truck purchased was planned for replacement in 2015, 2016, or 2017. In order to comply with the terms of the grant, and obtain the best pricing possible, we are proposing that each of these trucks be replaced in one year, likely 2016. This means the purchase of 2015 trucks will be delayed one year, while the 2017 trucks will be “forward funded”. Each of the vehicles proposed to be purchased, are already scheduled and programmed to be replaced. The replacement costs of these vehicles are programmed into the Capital Improvement Project Fund five year budget.

**Question 4:** Why were these trucks chosen for conversion?

**Answer 4:** These specific vehicles were already planned and programmed for replacement. We learned from past experience that the way to get this project to qualify for funding was to maximize the truck conversions. We do not want to convert all of our trucks at one time. However, combining three years of trucks allowed us to comply with the terms of the grant, while converting a reasonable portion of our fleet to CNG.

**Question 5:** What is the total impact to the City’s Budget, for both the General Fund and the Capital Projects Fund?

**Answer 5:** The breakdown of all costs and reimbursements within both the General Fund and Capital Projects Fund is detailed within the attached Exhibit A – Financial Impact of Grant. The net cost to the General Fund – Fund reserve is \$238,406. It is noteworthy that the list of projects proposed in the Capital Replacement Fund Strategy, accepted by the F&A Committee 7/18/2013 included \$350,000 from the General Fund – Fund Reserve above the 40% policy requirement. The grant actually reduces the amount that was anticipated for the CNG conversion.

**Question 6:** Does the grant pay for the costs of the project directly?

**Answer 6:** The CMAQ Grant is a reimbursement. The City must fund all costs, and then we submit for qualifying reimbursements. The Project has been reviewed with the Finance Director, who has confirmed that fronting these costs will not negatively impact the General Fund or the Capital Projects Fund.

**Question 7:** How does the cost of CNG compare to the cost of diesel fuel?

**Answer 7:** The cost differential is variable. Conventional diesel and unleaded fuels are much more volatile than the cost of natural gas. Price stability is one of the benefits staff identified in the prior CNG conversion recommendation. However, while the cost of diesel is variable, the national average cost of diesel fuel in April of 2015 was \$3.06 per gallon, while the cost for a gas gallon equivalent of CNG was \$2.09. Fuel efficiency (gas mileage) is similar for both fuel sources.

**Question 8:** How do we proceed with this project?

**Answer 8:** We are currently waiting formal notification of receipt of the grant. That is expected to be provided at the end of July or the beginning of August. Included with formal notification will be a Program Agreement. If the Planning and Public Works Committee recommends that we proceed with this project, the Program Agreement will be provided to City Council for execution, likely in late August. If approved, City Staff will then contract with a consulting firm for design of the CNG facility.

# MEMORANDUM

✓ MBH  
10/13/15



TO: Michael G. Herring, City Administrator  
FROM: Mike Geisel, Director of Public Services  
SUBJECT: Planning & Public Works Committee Meeting Summary  
Thursday, October 8, 2015

A meeting of the Planning and Public Works Committee of the Chesterfield City Council was held on Thursday, October 8, 2015 in Conference Room 101.

In attendance were: **Chair Connie Fults** (Ward IV), **Councilmember Barry Flachsbart** (Ward I), **Councilmember Bridget Nations** (Ward II) and **Councilmember Dan Hurt** (Ward III).

Also in attendance were: Mayor Bob Nation; Councilmember Elliot Grissom (Ward II); Councilmember Mike Casey (Ward III); Councilmember Bruce DeGroot (Ward IV); Harry O'Rourke, Interim City Attorney; Planning Commission Chair Stanley Proctor; Planning Commissioner Laura Lueking; Jim Eckrich, Public Works Director/City Engineer; Aimee Nassif, Planning & Development Services Director; John Boyer, Senior Planner; Jonathan Raiche, Senior Planner; and Kathy Juergens, Recording Secretary.

The meeting was called to order at 5:30 p. m.

## I. APPROVAL OF MEETING SUMMARY

### A. Approval of the September 10, 2015 Committee Meeting Summary.

Councilmember Hurt made a motion to approve the Meeting Summary of September 10, 2015. The motion was seconded by Councilmember Nation and passed by a voice vote of 4-0.

*\*TO BE DISCUSSED AT THE 10/19 CITY COUNCIL MTG*

## II. OLD BUSINESS

None.

## III. NEW BUSINESS

- ★ A. **T.S.P. 52-2015 Sprint (18614 Olive Street Rd):** A request to amend an existing Telecommunications Siting Permit to accommodate six (6) new antennas and additional related equipment for an existing telecommunication site within the "PI" Planned Industrial District located south of the intersection of Olive Street Road and Premium Way.

## **STAFF REPORT**

John Boyer, Senior Planner, presented the project request for six additional antennas and associated equipment on an existing 101 foot tall tower on the Chesterfield Fence and Deck property located at 18614 Olive Street Road. Sprint proposes to add a new array approximately 66 feet above ground level which will be lower than the existing antenna array on site. Per the

Unified Development Code, because this material modification will not be adding 5 feet in height to the tower itself, a public hearing is not required.

**Councilmember Flachsbart made a motion to forward T.S.P. 52-2015 Sprint (18614 Olive Street Rd.) to City Council with a recommendation to approve.** The motion was seconded by Councilmember Hurt and **passed by a voice vote of 4-0.**

**[Please see the attached report prepared by Aimee Nassif, Planning and Development Services Director, for additional information on T.S.P. 52-2015 Sprint (18614 Olive Street Rd.)]**

**Note: This is a Telecommunications Siting Permit which requires a voice vote at the October 19, 2015 City Council Meeting.**

Due to the number of residents in attendance for the Highland on Conway project, it was agreed to discuss Agenda Item C. Greentrails Drive South Water Main Relocation next.

★ **C. Greentrails Drive South Water Main Relocation**

**STAFF REPORT**

Jim Eckrich, Public Works Director/City Engineer, stated the City is in the process of designing road improvements for Greentrails Drive South. Part of the design involves lowering the intersection of Dinsmoor Drive and Greentrails Drive South approximately 4 feet which affects the water line located there. The lowering of this intersection will necessitate the relocation of several utilities in the area. While most of the utilities are in public right of way, the water mains owned and maintained by Missouri American Water Company (MAWC) are partially located in a private easement. Utilities located in public right of way must relocate at their cost while utilities in private easements have the right to require the public agency to fund the relocation costs. Because approximately 62.87% of the water mains to be relocated are within a private easement, MAWC will not relocate these mains without a commitment from the City to fund 62.87% of the estimated cost of \$147,774.80. The water main relocation costs are eligible for reimbursement through the Surface Transportation Program grant the City received for this project. The net cost to the City is estimated to be no greater than \$30,600 after grant reimbursement.

Staff is recommending the following:

- ✓ 1. Approval of an Ordinance authorizing the City Administrator to execute a contract with Missouri American Water for Water Facility Relocation and License to Utilize Easement.
- ✓ 2. Approval of payment of actual costs for the relocation of the portions of water mains in private easement in an amount not to exceed \$102,000. The net cost after grant reimbursement will not exceed \$30,600. These costs will be paid from the Capital Improvements Sales Tax Fund.

Councilmember Flachsbart agreed that the intersection needs to be lowered and that the City is responsible for the cost because of the easement.

Councilmember Flachsbart made a motion to forward to City Council, with a recommendation to approve, an Ordinance authorizing the City Administrator to execute a contract with Missouri American Water for Water Facility Relocation and License to Utilize Easement and to recommend payment of actual costs for the relocation of the portions of water mains in private easement in an amount not to exceed \$102,000. The motion was seconded by Councilmember Nation.

In response to Councilmember Hurt's question, Mr. Eckrich stated the net cost of \$30,600 will be paid from the Capital Projects fund.

The above motion passed by a voice vote of 4-0.

*MGH* → [Please see the attached report prepared by Jim Eckrich, Public Works Director/City Engineer, for additional information on Greentrails Drive South Water Main Relocation.]

Note: One Bill, as recommended by the Planning & Public Works Committee, will be needed for the October 19, 2015 City Council Meeting. See Bill # 3058

- ★ B. **POWER OF REVIEW: Highland on Conway (Delmar Gardens III) SDP:** A Site Development Plan, Tree Stand Delineation, Tree Preservation Plan, Landscape Plan, Lighting Plan, and Architectural Elevations for a 5.292 acre tract of land zoned "PC" Planned Commercial District located on the north side of North Outer 40 Road, east of Chesterfield Parkway East.

#### **STAFF REPORT**

Chair Fults stated that prior to the meeting, negotiations took place between the petitioner and Staff. She asked Aimee Nassif, Planning and Development Services Director, to provide an update on the project since the September 30<sup>th</sup> Planning Commission meeting.

Ms. Nassif, stated representatives of Delmar Gardens have taken into account the concerns of the residents, the Planning Commissioners and City Council. The main concern was the distance between the property line of the August Hill on Conway Subdivision and the proposed parking garage. During the Planning Commission meeting, there was a request to move the parking garage south another 10 feet, thereby creating a 40 foot separation instead of a 30 foot separation between the development and the residential properties. As a result of Staff's discussions with the Applicant today, the Applicant stated they will be able to accommodate that request. Since a revised plan is not available at this time, Staff does not know the actual number of additional trees that will be preserved, if any. The Applicant would like the project to be considered by City Council at its October 19<sup>th</sup> meeting. The revised plans will be included in Council's meeting packet.

#### **DISCUSSION**

During discussion at the Planning Commission meeting, it was thought that an additional 10 feet could provide the opportunity of preserving approximately 18 monarch trees; however, because of grading and shoring work, the exact number of trees to be preserved cannot be confirmed at this time. Ms. Nassif stated there are a number of trees that still need to be mitigated and a mitigation plan will be required at the time landscape plans are approved.

In response to Councilmember Hurt's question, Ms. Nassif stated the number of parking spaces will be reduced to accommodate the 10 feet. Even with the reduction in parking, they will still meet Code requirements for parking.

Councilmember Flachsbart and Councilmember Nations expressed their gratitude to Delmar Gardens for working with the City and the residents in accommodating their request for an additional 10 feet. Councilmember Grissom concurred and thanked Staff for their efforts.

### **PLANNING COMMISSION REPORT**

Planning Commission Chair Stan Proctor commented that he believes the proposed changes will be met favorably by the Planning Commission as this was the primary reason the Planning Commission voted against the plan. There were other concerns related to lighting and actual hours of operation, but the petitioners were able to address these concerns. The fact that the proposed change will likely save more trees will partially address the issues raised regarding tree loss. Although he supported the project, Mr. Proctor stated the vote out of Planning Commission was 5-4 against the development.

### **COMMENTS FROM RESIDENTS**

Roger Berent, 7 Upper Conway Lane, thanked Delmar Gardens for working with the residents in moving the parking garage ten feet further from the property line. He feels this effort will save the value of their homes.

Greg Wittenbrink, 31 Upper Conway Lane, expressed his appreciation about the additional 10 feet being provided and then noted the following:

- The preservation area contains a lot of honeysuckle which he would like removed and replanted with additional evergreen trees.
- He expressed concern that the Planning and Development Services Director had the "sole authority" to approve a variance reducing the tree preservation from 30% to 2.9%.
- He does not feel the homeowners had an advocate during this entire process. While the developers were able to communicate with staff on a regular basis, residents were only allowed three minutes during public meetings to express their concerns.

Chair Fults responded by noting that the Ward II Councilmembers were the advocates for the residents. She noted that both Councilmembers, along with the Planning Commission, worked very hard on this project on behalf of the residents. Ms. Nassif stated that Staff responded to emails and questions from the residents and noted that Staff does not promote the developments but rather reviews proposals against City Code and reports on that. She added that Staff is happy to meet with residents regarding their concerns or answer any questions they may have.

Ms. Nassif then explained that her administrative approval of the special conditions was subsequent to the preliminary plan approved with the zoning in 2002 which permitted significant tree loss. She does not have the authority to approve or deny any conditions that go against an approved plan by the Council. She noted that, in this instance, the Site Plan has been submitted quite a few years after the zoning was approved, which may have caused some of the confusion and led to some of the concerns raised. She then thanked the residents for their participation and letting their concerns be known during the recent Planning Commission meetings.

As a former Planning Commissioner, Councilmember DeGroot stated he did have the opportunity to work with developers and witness Ms. Nassif's interaction with them. He further stated that Ms. Nassif is really a safeguard as she makes sure developers comply with City Code.

Then, an unidentified resident stated Ms. Nassif had no right to design the site for the developer. Upon inquiring about this statement, the resident stated this was done at the last Planning Commission meeting. To clarify, Ms. Nassif stated that in the process of understanding what the ramifications would have been had she not approved the tree removal, she placed tracing paper over an aerial of the site and sketched out a building and parking garage in the same area as shown on the site plan and preliminary plan from 2002. When 30% tree canopy coverage is retained, this would have resulted approximately in an 80,000 square foot building and half the size of the proposed parking structure from what was approved on the preliminary plan and planned district ordinance.

Ken Birenbaum, 27 Upper Conway Lane, thanked Delmar Gardens for the extra 10 feet. Since the plans are not yet firm, he questioned how the residents would know that everything being promised is carried out. Chair Fults stated that every Councilmember is aware of the project and the promises that are being made. This project will have to go before Council for approval and they will make sure that everything is incorporated in the final plan. It is out of the ordinary that the Committee is sending this project forward without a plan. However, the Petitioner is requesting that the project move forward to the October 19<sup>th</sup> Council meeting and, in response, the developer guarantees that they will submit a complete set of plans prior to that meeting. The Council can hold the project if everything promised has not been included. Ms. Nassif stated Council packets will be available October 15 and will be on the City's website. She will also be available to meet with anyone and discuss the plans at that time. Chair Fults suggested that a meeting be set up after the plans are made available and Ms. Nassif agreed.

In defense of Ms. Nassif, Planning Commissioner Proctor stated he was not on the Planning Commission in 2002 but his understanding is that there was a letter from the Petitioner at that time indicating there would be a 97% tree removal which was approved by both the Planning Commission and the City Council. Ms. Nassif acted in accordance with that plan.

Councilmember Hurt asked if Planning Commissioner Laura Lueking had any comments on the concession. Ms. Lueking stated she was very happy with the additional 10 feet; however, she does not agree with everything stated regarding the 2002 Ordinance. Ms. Lueking stated that that ordinance was reopened in 2011 and all the meeting minutes show that 30% of the existing tree canopy was going to remain. She then thanked the developers for listening to the residents' concerns.

Mr. Wittenbrink publicly acknowledged the hard work the subdivision trustees performed regarding this issue and the cooperative spirit within with Delmar Gardens listened to the residents' request.

Chair Fults clarified that instead of 30 feet, there will now be 40 feet between the property line and the parking structure. Also, any monarch trees within the additional 10 feet will be saved if possible. Ms. Nassif stated the tree preservation plan will also change and will be included in the packet. Ms. Nassif confirmed that as much tree mitigation as possible will be located between the residents' property and the structure with this additional space added.

Mr. Howard Oppenheimer, Delmar Gardens, stated they want to preserve as many trees as possible but they also have to accommodate MoDOT and Monarch Fire District requirements.

Mr. George Shuert, 19 Upper Conway Lane, asked if there will be ongoing site reviews after the plans have been submitted so that changes can be made depending on what trees can be saved and which ones have to be removed. Ms. Nassif stated if the site development plan and

landscape plan are approved on October 19 by Council, then the City requires a landscape surety to guarantee installation of those trees. The City also requires a tree protection bond to guarantee protection of trees. The landscape surety allows the developer two years to plant the required landscaping. After everything has been planted, the surety is held for an additional two-year maintenance period before any escrow is returned. Mr. Shuert stated he is concerned about the topography in the preservation area and the challenges it will present in landscaping. He wants to make sure there will be onsite reviews as the landscaping progresses. Ms. Nassif stated on site reviews will continue.

**Councilmember Nation made a motion to forward Highland on Conway (Delmar Gardens III) SDP, as amended, to City Council with a recommendation to approve. The motion was seconded by Councilmember Hurt and passed by a voice vote of 4-0.**

 [Please see the attached report prepared by Aimee Nassif, Planning and Development Services Director, for additional information on Highland on Conway (Delmar Gardens III) SDP.]

 **Note: This is a Site Development Plan which requires a voice vote at the October 19, 2015 City Council Meeting.**

#### IV. PROJECT UPDATES

Ms. Aimee Nassif, Planning and Development Services Director, presented updates on the following projects:

##### WARD I: PROJECT UPDATE

- Zoning map amendment for 3 parcels recently acquired by Friendship Village
- Zoning map amendment for Monsanto to the "UC" District

##### WARD II: PROJECT UPDATE

- Kraus Farm Center amended SDCP and ASDSP – 4-story office building
- The Grove – 96-bed assisted living development

##### WARD IV: PROJECT UPDATE

- Holiday Inn Express

##### OTHER PROJECTS UNDER REVIEW

- Barat Academy site plan
- Long Road Crossing (Ameren Substation)
- Bur Oaks improvement plans
- Courtyard by Marriot improvement plans
- Edison Express improvement plans
- St. Luke's improvement plans
- Burlington
- Telecommunications siting permits
- Gas Mart
- Highland on Conway
- Harmony Seven
- Brattle Hill

- Chesterfield Valley Nursery
- Bonhomme Presbyterian Church
- Chesterfield Airport Service-17909 Chesterfield Airport Road
- Regions Bank amended lighting plan
- Autozone change of zoning

**V. OTHER**

**VI. ADJOURNMENT**

The meeting adjourned at 6:15 p.m.

# City Council Memorandum

## Department of Public Services



**To:** Mike Herring, City Administrator  
**From:** Aimee Nassif, Planning and Development Services Director  
**Date:** October 12, 2015  
**CC Date:** October 19, 2015  
**Re:** **T.S.P. 52-2015 Sprint (18614 Olive Street Rd):** A request to amend an existing Telecommunications Siting Permit to accommodate six (6) new antennas and additional related equipment for an existing telecommunication site within the "PI" Planned Industrial District located south of the intersection of Olive Street Road and Premium Way.

Russell Been of Collective Solutions LLC, on behalf of Sprint Wireless, has submitted a request for an amended Telecommunications Siting Permit (TSP) for the above referenced property also known as the location of Chesterfield Fence and Deck. The proposed TSP is to accommodate six (6) new antennas and associated equipment on an existing 101 foot tall tower. The antennas are planned to be placed on a new antenna array at a height of 66 feet above ground level. All associated ground equipment will be placed within existing equipment shelters. Since this tower is planning to add additional antennas beyond what was originally approved, the tower must update its Telecommunications Siting Permit (TSP) as required by current code.

On October 8, 2015, the Planning and Public Works Committee discussed this petition and recommended approval to the City Council 4-0. Ordinance 2391 states that a vote of the majority by the City Council is required for the approval of a Telecommunications Facilities Siting Permit. Upon the granting of such approval by the City Council, the Planning and Development Services Director shall release said permit to the petitioner.

Attached is a copy of the amended permit to be issued upon the granting of approval for a Telecommunications Facility Siting Permit and the construction drawings.

*[Handwritten signature]*  
10/13/15

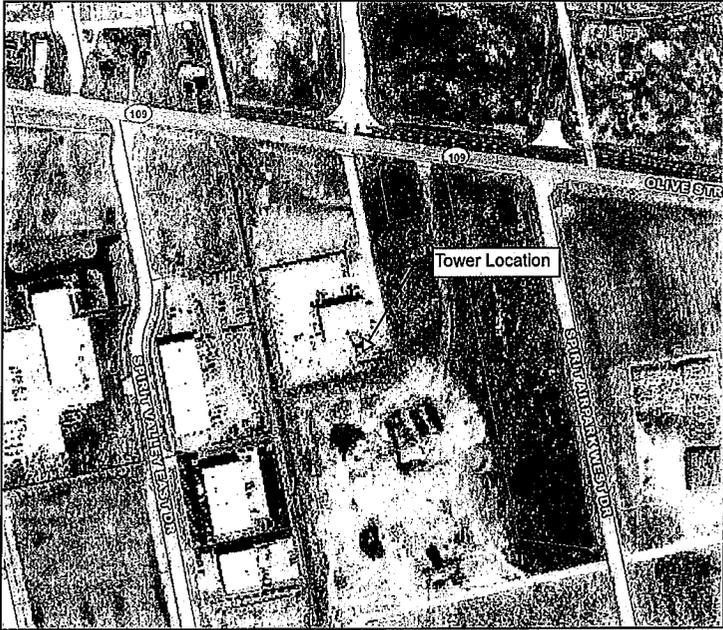


Figure 1: Aerial Photo

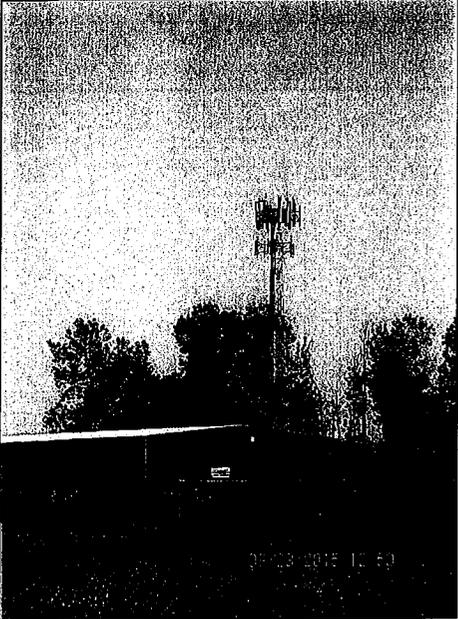


Figure 2: Site Photo

**WIRELESS TELECOMMUNICATIONS FACILITIES  
SITING PERMIT**



T.S.P. 52-2015

SITE ADDRESS: 18614 Olive Street Road

ZONING DISTRICT: "PI" Planned Industrial District

WHEREAS, Sprint (petitioner), hereinafter termed "Petitioner", requests permission and authority to install, modify, operate and / or maintain a wireless telecommunications facility within the jurisdiction of the City of Chesterfield, Saint Louis County, Missouri, and

WHEREAS, the City of Chesterfield has regulations requiring a Facilities Siting Permit for the construction, material modification, operation and maintenance of a wireless telecommunications facility, pursuant to Ordinance 2391 of the City of Chesterfield, and

WHEREAS, the City Council has considered and approved the Petitioner's application for a facilities telecommunications permit by a vote of \_\_\_ on October 19, 2015, pursuant to Ordinance 2391, and

WHEREAS, the City Council of the City of Chesterfield has instructed me to grant to the Petitioner a Wireless Telecommunications Facilities Siting Permit, and has granted me the authority to do the same,

NOW THEREFORE, I, Aimee Nassif, Planning and Development Services Director for the City of Chesterfield, hereby grant Petitioner this Wireless Telecommunications Facilities Siting Permit, based upon and pursuant to the terms of Petitioner's Application for the same. The material, design and construction methods shall conform to the standards detailed in Petitioner's application for this permit and approved by the City Council. Petitioner agrees that a separate Facilities Siting Permit is required for any new telecommunications facility or material modification of this or any other wireless telecommunications facility, pursuant to Ordinance 2391 of the City of Chesterfield, Missouri.

T.S.P. 140

Permit Number

\_\_\_\_\_  
Aimee Nassif  
Planning and Development Services Director

\_\_\_\_\_  
Date

# Sprint



PROJECT: SPRINT OCEAN PROJECT  
 SITE NAME: ATC GUMBO  
 SPRINT CASCADE: ST51XC070  
 MLA NUMBER: ST51XC070  
 SITE ADDRESS: 18614 OLIVE STREET ROAD  
 CHESTERFIELD, MO 63005  
 SITE TYPE: 101'-SELF SUPPORT  
 AMERICAN TOWER CORPORATION #: 305973 - GUMBO

**RECEIVED**  
 City of Chesterfield  
 SEP 29 2015  
 Department of Public Services

PLANS PREPARED FOR:  
**Sprint**  
 6580 Sprint Parkway  
 Overland Park, Kansas 66251

PLANS PREPARED BY:  
**SHIVE-HATTERY**  
 ARCHITECTURE+ENGINEERING  
 3025 Highland Pkwy Suite 140 | Downers Grove, Illinois 60515  
 630.390.7444 | fax 630.437.5800 | shive-hattery.com  
 Iowa | Illinois | Missouri  
 S/H PROJ # 8155100-19

ENGINEERING LICENSE:  
  
 WILLIAM C. THOMPSON, JR.  
 REGISTERED PROFESSIONAL ENGINEER  
 NUMBER E-22147  
 8/19/15

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REVISIONS:	DESCRIPTION	DATE	BY	REV
OCEAN DRAWINGS FOR REVIEW		08/07/15	SPB	0
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

SITE NAME:  
**ATC GUMBO**

SITE CASCADE:  
**ST51XC070**

SITE ADDRESS:  
 18614 OLIVE STREET ROAD  
 CHESTERFIELD, MO 63005

SHEET DESCRIPTION:  
**TITLE SHEET & PROJECT DATA**

SHEET NUMBER:  
**T-1**

**SITE INFORMATION**

**BUILDING OWNER:**  
 CHESTERFIELD FENCE & DOCK CO. INC.  
 18614 OLIVE ST.  
 CHESTERFIELD, MO 63006  
 PHONE: 636-532-4054

**LATITUDE (NAD83):**  
 38° 40' 13.97" N  
 38.67055°

**LONGITUDE (NAD83):**  
 90° 39' 46.87" W  
 -90.663019°

**COUNTY:**  
 ST. LOUIS COUNTY, MO

**ZONING JURISDICTION:**  
 CITY OF CHESTERFIELD

**ZONING DISTRICT:**  
 P1 - PLANNED INDUSTRIAL DISTRICT

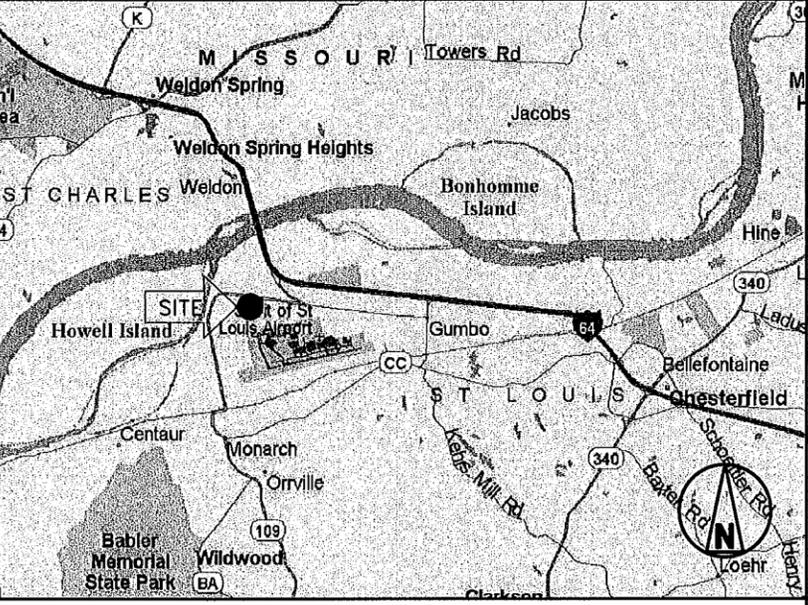
**POWER COMPANY:**  
 AMEREN  
 PHONE: 800-552-7583

**AAV PROVIDER:**  
 AT&T  
 PHONE: 800-222-0400

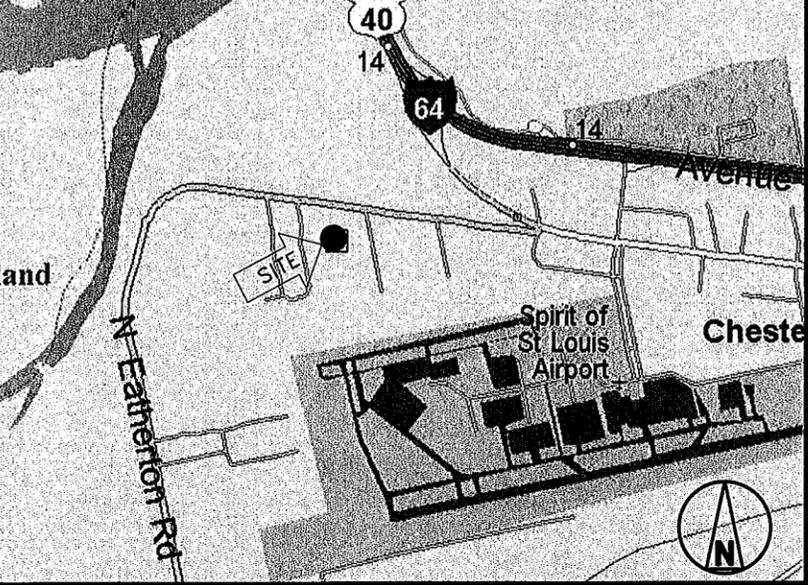
**SPRINT CM:**  
 NAME: LONNIE HAGEDORN  
 PHONE: (417) 777-0918

**EQUIPMENT SUPPLIER:**  
 ERICSSON  
 6300 LEGACY DR.  
 PLANO, TX 75024  
 CONTACT: T.B.D.  
 PHONE: (972) 583-0000

**AREA MAP**



**LOCATION MAP**



**PROJECT EQUIPMENT**

- INSTALL (1) ERICSSON BBS CABINET ON NEW PLATFORM
- INSTALL (1) ERICSSON RBS CABINET ON NEW PLATFORM
- INSTALL (1) UTILITY RACK ON NEW PLATFORM
- INSTALL (3) 800/1900 MHz PANEL ANTENNAS (1) PER SECTOR
- INSTALL (3) 2500 MHz PANEL ANTENNAS (1) PER SECTOR
- INSTALL (6) 1900 MHz RRU'S (2) PER SECTOR
- INSTALL (3) 800 MHz RRU'S (1) PER SECTOR
- INSTALL (4) 1.37"Ø HYBRID CABLES
- INSTALL (24) COAX JUMPERS AT TOP (8) PER SECTOR

**APPLICABLE CODES**

- WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
- INTERNATIONAL BUILDING CODE (2009)
  - NATIONAL ELECTRICAL CODE (2008)
  - INTERNATIONAL RESIDENTIAL CODE (2009)
  - INTERNATIONAL MECHANICAL CODE (2009)
  - INTERNATIONAL PLUMBING CODE (2009)
  - INTERNATIONAL PROPERTY MAINTENANCE CODE (2009)
  - ANSI/TIA-222 STRUCTURAL STANDARD REV G

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SP-1	SPRINT SPECIFICATIONS	0	W. THOMPSON
SP-2	SPRINT SPECIFICATIONS	0	M. VALENTINE
SURVEY	EXISTING SURVEY DOCUMENTS	0	N / A
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A-2	EQUIPMENT PLAN	0	W. THOMPSON
A-3	TOWER ELEVATION & CABLE PLAN	0	W. THOMPSON
A-4	ANTENNA LAYOUT & MOUNTING DETAILS	0	W. THOMPSON
A-5A	RF DATA SHEET	0	M. VALENTINE
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E-4	ELECTRICAL DETAILS	0	M. VALENTINE
E-5	ELECTRICAL DETAILS	0	M. VALENTINE
E-6	A/C POWER DISTRIBUTION	0	M. VALENTINE
E-7	D/C POWER DISTRIBUTION	0	M. VALENTINE
E-8	D/C SUB PANEL DETAIL	0	M. VALENTINE



THESE OUTLINE SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT STANDARD CONSTRUCTION SPECIFICATIONS, INCLUDING CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

**SECTION 01 100 – SCOPE OF WORK**

**THE WORK:**

SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF.

**PRECEDENCE:**

SHOULD CONFLICTS OCCUR BETWEEN THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES INCLUDING THE STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE CONSTRUCTION DRAWINGS, INFORMATION ON THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE.

**SITE FAMILIARITY:**

CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.

**ON-SITE SUPERVISION:**

THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

**DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE:**

THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.

- A. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. PROVIDE MATERIALS AND LABOR AS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING SYSTEM. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
- B. CONTRACTOR SHALL NOTIFY SPRINT CONSTRUCTION MANAGER OF VARIATIONS PRIOR TO PROCEEDING WITH THE WORK. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS NOTED OTHERWISE. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
- C. MARK THE FIELD SET OF DRAWINGS IN RED, DOCUMENTING CHANGES FROM THE CONSTRUCTION DOCUMENTS.

**METHODS OF PROCEDURE (MOPS) FOR CONSTRUCTION:**

CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN

- A. COAX COLOR CODING SWEEPS AND FIBER TESTING TS-0200 AND EL-0568
- B. CABLE LABELING EN-2012-00
- C. APPLICABLE INSTALLATION MOPS IDENTIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS

**SECTION 01 200 – COMPANY FURNISHED MATERIAL AND EQUIPMENT**

COMPANY FURNISHED MATERIAL AND EQUIPMENT IS IDENTIFIED ON THE RF DATA SHEET IN THE CONSTRUCTION DRAWINGS.

CONTRACTOR IS RESPONSIBLE FOR SPRINT PROVIDED MATERIAL AND EQUIPMENT TO ENSURE IT IS PROTECTED AND HANDLED PROPERLY THROUGHOUT THE CONSTRUCTION DURATION.

CONTRACTOR RESPONSIBLE FOR RECEIPT OF SPRINT FURNISHED EQUIPMENT AT CELL SITE OR CONTRACTORS LOCATION. CONTRACTOR TO COMPLETE SHIPPING AND RECEIPT DOCUMENTATION IN ACCORDANCE WITH COMPANY PRACTICE.

**SECTION 01 300 – CELL SITE CONSTRUCTION**

**NOTICE TO PROCEED:**

NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF WORK ORDER.

**SITE CLEANLINESS:**

CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.

**SECTION 01 400 – SUBMITTALS & TESTS**

**ALTERNATES:**

AT THE COMPANY'S REQUEST, ALTERNATIVES TO THE MATERIALS OR METHODS SPECIFIED SHALL BE SUBMITTED TO SPRINTS CONSTRUCTION MANAGER FOR APPROVAL. SPRINT WILL REVIEW AND APPROVE ONLY THOSE REQUESTS MADE IN WRITING. NO VERBAL APPROVALS WILL BE CONSIDERED.

**TESTS AND INSPECTIONS:**

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.
- B. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
  - 1. COAX SWEEPS AND FIBER TESTS PER TS-0200 REV 4 ANTENNA LINE ACCEPTANCE STANDARDS.
  - 2. AGL, AZIMUTH AND DOWNTILT PROVIDE AN AUTOMATED REPORT UPLOADED TO SITERRA USING A COMMERCIAL MADE-FOR THE PURPOSE ELECTRONIC ANTENNA ALIGNMENT TOOL (AAT). INSTALLED AZIMUTH, CENTERLINE AND DOWNTILT MUST CONFORM WITH RF CONFIGURATION DATA

- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTIONS TO WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.
- 4. TESTING REQUIRED BY APPLICABLE INSTALLATION MOPS.

**C. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING;**

- 1. AZIMUTH, DOWNTILT, AGL FROM SUNSIGHT INSTRUMENTS – ANTENNALIGN ALIGNMENT TOOL (AAT)
- 2. SWEEP AND FIBER TESTS
- 3. SCALABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT
- 4. AVAILABLE JURISDICTIONAL PERMIT AND OCCUPANCY INFORMATION
- 5. PDF SCAN OF REDLINES PRODUCED IN FIELD
- 6. A PDF SCAN OF REDLINE MARK-UPS SUITABLE FOR USE IN ELECTRONIC AS-BUILT DRAWING PRODUCTION
- 7. LIEN WAIVERS
- 8. FINAL PAYMENT APPLICATION
- 9. REQUIRED FINAL CONSTRUCTION PHOTOS
- 10. CONSTRUCTION AND COMMISSIONING CHECKLIST COMPLETE WITH NO DEFICIENT ITEMS
- 11. APPLICABLE POST NTP TASKS INCLUDING DOCUMENT UPLOADS COMPLETED IN SITERRA (SPRINTS DOCUMENT REPOSITORY OF RECORD).
- 12. CLOSEOUT PHOTOGRAPHS AND CLOSEOUT CHECKLIST: SPRINT WILL PROVIDE SEPARATE GUIDANCE

**SECTION 11 700 – ANTENNA ASSEMBLY, REMOTE RADIO UNITS AND CABLE INSTALLATION**

**SUMMARY:**

THIS SECTION SPECIFIES INSTALLATION OF ANTENNAS, RRU'S, AND CABLE EQUIPMENT, INSTALLATION, AND TESTING OF COAXIAL FIBER CABLE.

**ANTENNAS AND RRU'S:**

THE NUMBER AND TYPE OF ANTENNAS AND RRU'S TO BE INSTALLED IS DETAILED ON THE CONSTRUCTION DRAWINGS.

**HYBRID CABLE:**

HYBRID CABLE WILL BE DC/FIBER AND FURNISHED FOR INSTALLATION AT EACH SITE. CABLE SHALL BE INSTALLED PER THE CONSTRUCTION DRAWINGS AND THE APPLICABLE MANUFACTURER'S REQUIREMENTS.

**JUMPERS AND CONNECTORS:**

FURNISH AND INSTALL 1/2" COAX JUMPER CABLES BETWEEN THE RRU'S AND ANTENNAS. JUMPERS SHALL BE TYPE LDF 4, FLC 12-50, CR 540, OR FXL 540. SUPER-FLEX CABLES ARE NOT ACCEPTABLE. JUMPERS BETWEEN THE RRU'S AND ANTENNAS OR TOWER TOP AMPLIFIERS SHALL CONSIST OF 1/2 INCH FOAM DIELECTRIC, OUTDOOR RATED COAXIAL CABLE, MIN LENGTH FOR JUMPER SHALL BE 10"-0".

**REMOTE ELECTRICAL TILT (RET) CABLES:**

**MISCELLANEOUS:**

INSTALL SPLITTERS, COMBINERS, FILTERS PER RF DATA SHEET, FURNISHED BY SPRINT.

**ANTENNA INSTALLATION:**

THE CONTRACTOR SHALL ASSEMBLE ANTENNAS ONSITE IN ACCORDANCE WITH THE INSTRUCTIONS SUPPLIED BY THE MANUFACTURER. ANTENNA HEIGHT, AZIMUTH, AND FEED ORIENTATION INFORMATION SHALL BE A DESIGNATED ON THE CONSTRUCTION DRAWINGS.

- A. THE CONTRACTOR SHALL POSITION THE ANTENNA ON TOWER PIPE MOUNTS SO THAT THE BOTTOM STRUT IS LEVEL. THE PIPE MOUNTS SHALL BE PLUMB TO WITHIN 1 DEGREE.
- B. ANTENNA MOUNTING REQUIREMENTS: PROVIDE ANTENNA MOUNTING HARDWARE AS INDICATED ON THE DRAWINGS.

**HYBRID CABLE INSTALLATION:**

- A. THE CONTRACTOR SHALL ROUTE, TEST, AND INSTALL CABLES AS INDICATED ON THE CONSTRUCTION DRAWINGS AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- B. THE INSTALLED RADIUS OF THE CABLES SHALL NOT BE LESS THAN THE MANUFACTURER'S SPECIFICATIONS FOR BENDING RADI.
- C. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE CABLES DURING HANDLING AND INSTALLATION.
  - 1. FASTENING MAIN HYBRID CABLES: CABLES SHALL BE ATTACHED TO THE CABLE LADDER WITH SUPPORT HANGERS AS REQUIRED BY THE MANUFACTURER.
  - 2. FASTENING INDIVIDUAL FIBER AND DC CABLES ABOVE BREAKOUT ENCLOSURE (MEDUSA), WITHIN THE MMBS CABINET AND INTERMEDIATE DISTRIBUTION BOXES:
    - a. FIBER: SUPPORT FIBER BUNDLES USING 1/2" VELCRO STRAPS OF THE REQUIRED LENGTH @ 18" OC. STRAPS SHALL BE UV, OIL AND WATER RESISTANT AND SUITABLE FOR INDUSTRIAL INSTALLATIONS AS MANUFACTURED BY TEXTOL OR APPROVED EQUAL.
    - b. DC: SUPPORT DC BUNDLES WITH ZIP TIES OF THE ADEQUATE LENGTH. ZIP TIES TO BE UV STABILIZED, BLACK NYLON, WITH TENSILE STRENGTH AT 12,000 PSI AS MANUFACTURED BY NELCO PRODUCTS OR EQUAL.
  - 3. FASTENING JUMPERS: SECURE JUMPERS TO THE SIDE ARMS OR HEAD FRAMES USING STAINLESS STEEL TIE WRAPS OR STAINLESS STEEL BUTTERFLY CLIPS.
  - 4. CABLE INSTALLATION:
    - a. INSPECT CABLE PRIOR TO USE FOR SHIPPING DAMAGE, NOTIFY THE CONSTRUCTION MANAGER.
    - b. CABLE ROUTING: CABLE INSTALLATION SHALL BE PLANNED TO ENSURE THAT THE LINES WILL BE PROPERLY ROUTED IN THE CABLE ENVELOP AS INDICATED ON THE DRAWINGS. AVOID TWISTING AND CROSSOVERS.
    - c. HOIST CABLE USING PROPER HOISTING GRIPS. DO NOT EXCEED MANUFACTURES RECOMMENDED MAXIMUM BEND RADIUS.

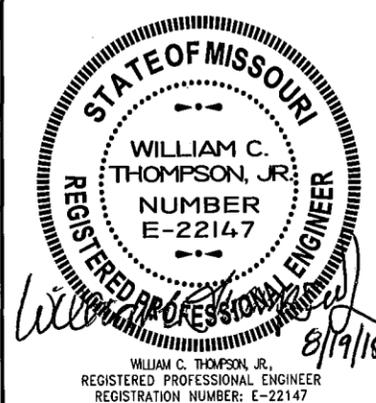
PLANS PREPARED FOR:



PLANS PREPARED BY:



ENGINEERING LICENSE:



DRAWING NOTICE:

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REVISIONS:

DESCRIPTION	DATE	BY	REV
OCEAN DRAWINGS FOR REVIEW	08/07/15	SPB	0
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

SITE NAME:

ATC GUMBO

SITE CASCADE:

ST51XC070

SITE ADDRESS:

18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

SP-1

CONTINUE FROM SP-1

- 5. GROUNDING OF TRANSMISSION LINES: ALL TRANSMISSION LINES SHALL BE GROUNDED AS INDICATED ON DRAWINGS.
- 6. HYBRID CABLE COLOR CODING: COLOR CODING SHALL BE AS REQUIRED IN TS 0200 REV 4.
- 7. HYBRID CABLE LABELING: INDIVIDUAL HYBRID AND DC BUNDLES SHALL BE LABELED ALPHA-NUMERICALLY ACCORDING TO SPRINT CELL SITE ENGINEERING NOTICE - EN 2012-001, REV 1

**WEATHERPROOFING EXTERIOR CONNECTORS AND HYBRID CABLE GROUND KITS:**

- A. FIBER & COAX CONNECTORS AND GROUND KITS SHALL BE WEATHERPROOFED.
- B. WEATHERPROOFED USING ONE OF THE FOLLOWING METHODS. INSTALLATIONS MUST BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INDUSTRY BEST PRACTICES.
  - 1. COLD SHRINK: ENCOMPASS CONNECTOR IN COLD SHRINK TUBING AND PROVIDE A DOUBLE WRAP OF 2" ELECTRICAL TAPE EXTENDING 2" BEYOND TUBING. PROVIDE 3M COLD SHRINK CXS SERIES OR EQUAL.
  - 2. SELF-AMALGAMATING TAPE: CLEAN SURFACES. APPLY A DOUBLE WRAP OF SELF-AMALGAMATING TAPE 2" BEYOND CONNECTOR. APPLY A SECOND WRAP OF SELF-AMALGAMATING TAPE IN OPPOSITE DIRECTION. APPLY DOUBLE WRAP OF 2" WIDE ELECTRICAL TAPE EXTENDING 2" BEYOND THE SELF-AMALGAMATING TAPE.
  - 3. 3M SLIM LOCK CLOSURE 716: SUBSTITUTIONS WILL NOT BE ALLOWED.
  - 4. OPEN FLAME ON JOB SITE IS NOT ACCEPTABLE

**SECTION 11 800 - INSTALLATION OF MULTIMODAL BASE STATIONS (MMBS) AND RELATED EQUIPMENT**

**SUMMARY:**

- A. THIS SECTION SPECIFIES MMBS CABINETS, POWER CABINETS, AND INTERNAL EQUIPMENT INCLUDING BY NOT LIMITED TO RECTIFIERS, POWER DISTRIBUTION UNITS, BASE BAND UNITS, SURGE ARRESTORS, BATTERIES, AND SIMILAR EQUIPMENT FURNISHED BY THE COMPANY FOR INSTALLATION BY THE CONTRACTOR (OFCI).
- B. CONTRACTOR SHALL PROVIDE AND INSTALL MISCELLANEOUS MATERIALS AND PROVIDE LABOR REQUIRED FOR INSTALLATION EQUIPMENT IN EXISTING CABINET OR NEW CABINET AS SHOWN ON DRAWINGS AND AS REQUIRE BY THE APPLICABLE INSTALLATION MOPS.
- C. COMPLY WITH MANUFACTURERS INSTALLATION AND START-UP REQUIREMENTS

**DC CIRCUIT BREAKER LABELING**

- A. NEW DC CIRCUIT IS REQUIRED IN MMBS CABINET SHALL BE CLEARLY IDENTIFIED AS TO RRU BEING SERVICED

**SECTION 26 100 - BASIC ELECTRICAL REQUIREMENTS**

**SUMMARY:**  
THIS SECTION SPECIFIES BASIC ELECTRICAL REQUIREMENTS FOR SYSTEMS AND COMPONENTS.

**QUALITY ASSURANCE:**

- A. EQUIPMENT FURNISHED UNDER DIVISION 26 SHALL CARRY UL LABELS AND LISTINGS WHERE SUCH LABELS AND LISTINGS ARE AVAILABLE IN THE INDUSTRY.
- B. MANUFACTURERS OF EQUIPMENT SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE WITH THEIR EQUIPMENT INSTALLED AND OPERATING IN THE FIELD IN A USE SIMILAR TO THE PROPOSED USE FOR THIS PROJECT.
- C. **MATERIALS AND EQUIPMENT:** MATERIALS AND EQUIPMENT SPECIFIED IN DIVISION 26 OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL BE NEW, OF THE BEST QUALITY AND DESIGN, AND FREE FROM DEFECTS

**SUPPORTING DEVICES:**

- A. EQUIPMENT FURNISHED UNDER DIVISION 26 SHALL CARRY UL LABELS AND LISTINGS WHERE SUCH LABELS AND LISTINGS ARE AVAILABLE IN THE INDUSTRY.
- B. MANUFACTURERS OF EQUIPMENT SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE WITH THEIR EQUIPMENT INSTALLED AND OPERATING IN THE FIELD IN A USE SIMILAR TO THE PROPOSED USE FOR THIS PROJECT.
- C. **MATERIALS AND EQUIPMENT:** MATERIALS AND EQUIPMENT SPECIFIED IN DIVISION 26 OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL BE NEW, OF THE BEST QUALITY AND DESIGN, AND FREE FROM DEFECTS

**SUPPORTING DEVICES:**

- A. MANUFACTURED STRUCTURAL SUPPORT MATERIALS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE FOLLOWING:
  - 1. ALLIED TUBE AND CONDUIT
  - 2. B-LINE SYSTEM
  - 3. SUNISTRUT DIVERSIFIED PRODUCTS
  - 4. THOMAS & BETTS
- B. FASTENERS: TYPES, MATERIALS, AND CONSTRUCTION FEATURES AS FOLLOWS:
  - 1. EXPANSION ANCHORS: CARBON STEEL WEDGE OR SLEEVE TYPE.
  - 2. POWER-DRIVEN THREADED STUDS: HEAT-TREATED STEEL, DESIGNED SPECIFICALLY FOR THE INTENDED SERVICE.
  - 3. FASTEN BY MEANS OF WOOD SCREWS ON WOOD.
  - 4. TOGGLE BOLTS ON HOLLOW MASONRY UNITS.
  - 5. CONCRETE INSERTS OR EXPANSION BOLTS ON CONCRETE OR SOLID MASONRY.
  - 6. MACHINE SCREWS, WELDED THREADED STUDS, OR SPRING-TENSION CLAMPS ON STEEL.
  - 7. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE SHALL NOT BE PERMITTED.
  - 8. DO NOT WELD CONDUIT, PIPE STRAPS, OR ITEMS OTHER THAN THREADED STUDS TO STEEL STRUCTURES.
  - 9. IN PARTITIONS OF LIGHT STEEL CONSTRUCTION, USE SHEET METAL SCREWS.

**SUPPORTING DEVICES:**

- A. INSTALL SUPPORTING DEVICES TO FASTEN ELECTRICAL COMPONENTS SECURELY AND PERMANENTLY IN ACCORDANCE WITH NEC.
- B. COORDINATE WITH THE BUILDING STRUCTURAL SYSTEM AND WITH OTHER TRADES.
- C. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, FASTEN ELECTRICAL ITEMS AND THEIR SUPPORTING HARDWARE SECURELY TO THE STRUCTURE IN ACCORDANCE WITH THE FOLLOWING:
- D. ENSURE THAT THE LOAD APPLIED BY FASTENER DOES NOT EXCEED 25 PERCENT OF THE PROOF TEST LOAD.
- E. USE VIBRATION AND SHOCK-RESISTANT FASTENERS FOR ATTACHMENTS TO CONCRETE SLABS.

**ELECTRICAL IDENTIFICATION:**

- A. UPDATE AND PROVIDE TYPED CIRCUIT BREAKER SCHEDULES IN THE MOUNTING BRACKET, INSIDE DOORS OF AC PANEL BOARDS WITH ANY CHANGES MADE TO THE AC SYSTEM.
- B. BRANCH CIRCUITS FEEDING AVIATION OBSTRUCTION LIGHTING EQUIPMENT SHALL BE CLEARLY IDENTIFIED AS SUCH AT THE BRANCH CIRCUIT PANELBOARD.

**SECTION 26 200 - ELECTRICAL MATERIALS AND EQUIPMENT**

**EXISTING STRUCTURE:**

- A. EXISTING EXPOSED WIRING AND ALL EXPOSED OUTLETS, RECEPTACLES, SWITCHES, DEVICES, BOXES, AND OTHER EQUIPMENT THAT ARE NOT TO BE UTILIZED IN THE COMPLETED PROJECT SHALL BE REMOVED OR DE-ENERGIZED AND CAPPED IN THE WALL, CEILING, OR FLOOR SO THAT THEY ARE CONCEALED AND SAFE. WALL, CEILING, OR FLOOR SHALL BE PATCHED TO MATCH THE ADJACENT CONSTRUCTION.

**CONDUIT AND CONDUCTOR INSTALLATION:**

- A. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
- B. CONDUCTORS SHALL BE PULLED IN ACCORDANCE WITH ACCEPTED GOOD PRACTICE.

**CONDUIT:**

- A. RIGID GALVANIZED STEEL (RGS) CONDUIT SHALL BE USED FOR EXTERIOR LOCATIONS ABOVE GROUND AND IN UNFINISHED INTERIOR LOCATIONS AND FOR ENCASED RUNS IN CONCRETE. RIGID CONDUIT AND FITTINGS SHALL BE STEEL, COATED WITH ZINC EXTERIOR AND INTERIOR BY THE HOT DIP GALVANIZING PROCESS. CONDUIT SHALL BE PRODUCED TO ANSI SPECIFICATIONS C80.1, FEDERAL SPECIFICATION WW-C-581 AND SHALL BE LISTED WITH THE UNDERWRITERS' LABORATORIES. FITTINGS SHALL BE THREADED - SET SCREW OR COMPRESSION FITTINGS WILL NOT BE ACCEPTABLE. RGS CONDUITS SHALL BE MANUFACTURED BY ALLIED, REPUBLIC OR WHEATLAND.
- B. UNDERGROUND CONDUIT IN CONCRETE SHALL BE POLYVINYLCHLORIDE (PVC) SUITABLE FOR DIRECT BURIAL AS APPLICABLE. JOINTS SHALL BE BELLED, AND FLUSH SOLVENT WELDED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE CARLON ELECTRICAL PRODUCTS OR APPROVED EQUAL.
- C. TRANSITIONS BETWEEN PVC AND RIGID (RGS) SHALL BE MADE WITH PVC COATED METALLIC LONG SWEEP RADIUS ELBOWS.
- D. EMT OR RIGID GALVANIZED STEEL CONDUIT MAY BE USED IN FINISHED SPACES CONCEALED IN WALLS AND CEILINGS. EMT SHALL BE MILD STEEL, ELECTRICALLY WELDED, ELECTRO-GALVANIZED OR HOT-DIPPED GALVANIZED AND PRODUCED TO ANSI SPECIFICATION C80.3, FEDERAL SPECIFICATION WW-C-563, AND SHALL BE UL LISTED. EMT SHALL BE MANUFACTURED BY ALLIED, REPUBLIC OR WHEATLAND, OR APPROVED EQUAL. FITTINGS SHALL BE METALLIC COMPRESSION. SET SCREW CONNECTIONS SHALL NOT BE ACCEPTABLE.
- E. LIQUID TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED FOR FINAL CONNECTION TO EQUIPMENT. FITTINGS SHALL BE METALLIC GLAND TYPE COMPRESSION FITTINGS, MAINTAINING THE INTEGRITY OF CONDUIT SYSTEM. SET SCREW CONNECTIONS SHALL NOT BE ACCEPTABLE. MAXIMUM LENGTH OF FLEXIBLE CONDUIT SHALL NOT EXCEED 6- FEET. LFMC SHALL BE PROTECTED AND SUPPORTED AS REQUIRE BY NEC. MANUFACTURERS OF FLEXIBLE CONDUITS SHALL BE CAROL, ANACONDA METAL HOSE OR UNIVERSAL METAL HOSE, OR APPROVED EQUAL.
- F. MINIMUM SIZE CONDUIT SHALL BE 3/4 INCH (21MM).

**HUBS AND BOXES:**

- A. AT ENTRANCES TO CABINETS OR OTHER EQUIPMENT NOT HAVING INTEGRAL THREADED HUBS PROVIDE METALLIC THREADED HUBS OF THE SIZE AND CONFIGURATION REQUIRED. HUB SHALL INCLUDE LOCKNUT AND NEOPRENE O-RING SEAL. PROVIDE IMPACT RESISTANT 105 DEGREE C PLASTIC BUSHINGS TO PROTECT CABLE INSULATION.
- B. CABLE TERMINATION FITTINGS FOR CONDUIT
  - 1. CABLE TERMINATORS FOR RGS CONDUITS SHALL BE TYPE CRC BY O-Z/GEDNEY OR EQUAL BY ROX TEC.
  - 2. CABLE TERMINATORS FOR LFMC SHALL BE ETCO - CL2075; OR MADE FOR THE PURPOSE PRODUCTS BY ROXTEC.
- C. EXTERIOR PULL BOXES AND PULL BOXES IN INTERIOR INDUSTRIAL AREAS SHALL BE PLATED CAST ALLOY, HEAVY DUTY, WEATHERPROOF, DUST PROOF, WITH GASKET, PLATED IRON ALLOY COVER AND STAINLESS STEEL COVER SCREWS, CROUSE-HINDS WAB SERIES OR EQUAL.
- D. CONDUIT OUTLET BODIES SHALL BE PLATED CAST ALLOY WITH SIMILAR GASKETED COVERS. OUTLET BODIES SHALL BE OF THE CONFIGURATION AND SIZE SUITABLE FOR THE APPLICATION. PROVIDE CROUSE-HINDS FORM 8 OR EQUAL.
- E. MANUFACTURER FOR BOXES AND COVERS SHALL BE HOFFMAN, SQUARE "D", CROUSE-HINDS, COOPER, ADALET, APPLETON, O-Z GEDNEY, RACO, OR APPROVED EQUAL.

**SUPPLEMENTAL GROUNDING SYSTEM**

- A. FURNISH AND INSTALL A SUPPLEMENTAL GROUNDING SYSTEM TO THE EXTENT INDICATED ON THE DRAWINGS. SUPPORT SYSTEM WITH NON-MAGNETIC STAINLESS STEEL CLIPS WITH RUBBER GROMMETS. GROUNDING CONNECTORS SHALL BE TINNED COPPER WIRE, SIZES AS INDICATED ON THE DRAWINGS. PROVIDE STRANDED OR SOLID BARE OR INSULATED CONDUCTORS EXCEPTED AS OTHERWISE NOTED.
- B. SUPPLEMENTAL GROUNDING SYSTEM: CONNECTIONS TO BE MADE WITH CAD WELDS, EXCEPT AT EQUIPMENT USE LUGS OR OTHER AVAILABLE GROUNDING MEANS AS REQUIRED BY MANUFACTURER; AT GROUND BARS USE TWO HOLE SPADES WITH NO OX.
- C. STOLEN GROUND-BARS: IN THE EVENT OF STOLEN GROUND BARS, CONTACT SPRINT CM FOR REPLACEMENT INSTRUCTION USING THREADED ROD KITS.

PLANS PREPARED FOR:



6580 Sprint Parkway  
Overland Park, Kansas 66251

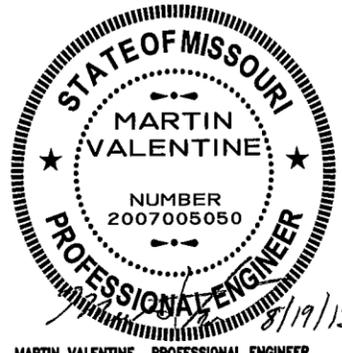
PLANS PREPARED BY:



ARCHITECTURE+ENGINEERING  
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ENGINEERING LICENSE:



MARTIN VALENTINE, PROFESSIONAL ENGINEER  
REGISTRATION NUMBER: 2007005050

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DESCRIPTION	DATE	BY	REV
OCEAN DRAWINGS FOR REVIEW	08/07/15	SPB	0
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-	-	-	-
-	-	-	-
-	-	-	-

SITE NAME:

ATC GUMBO

SITE CASCADE:

ST51XC070

SITE ADDRESS:

18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005

SHEET DESCRIPTION:

SPRINT SPECIFICATIONS

SHEET NUMBER:

SP-2

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SITE NAME:

**ATC GUMBO**

SITE CASCADE:

**ST51XC070**

SITE ADDRESS:

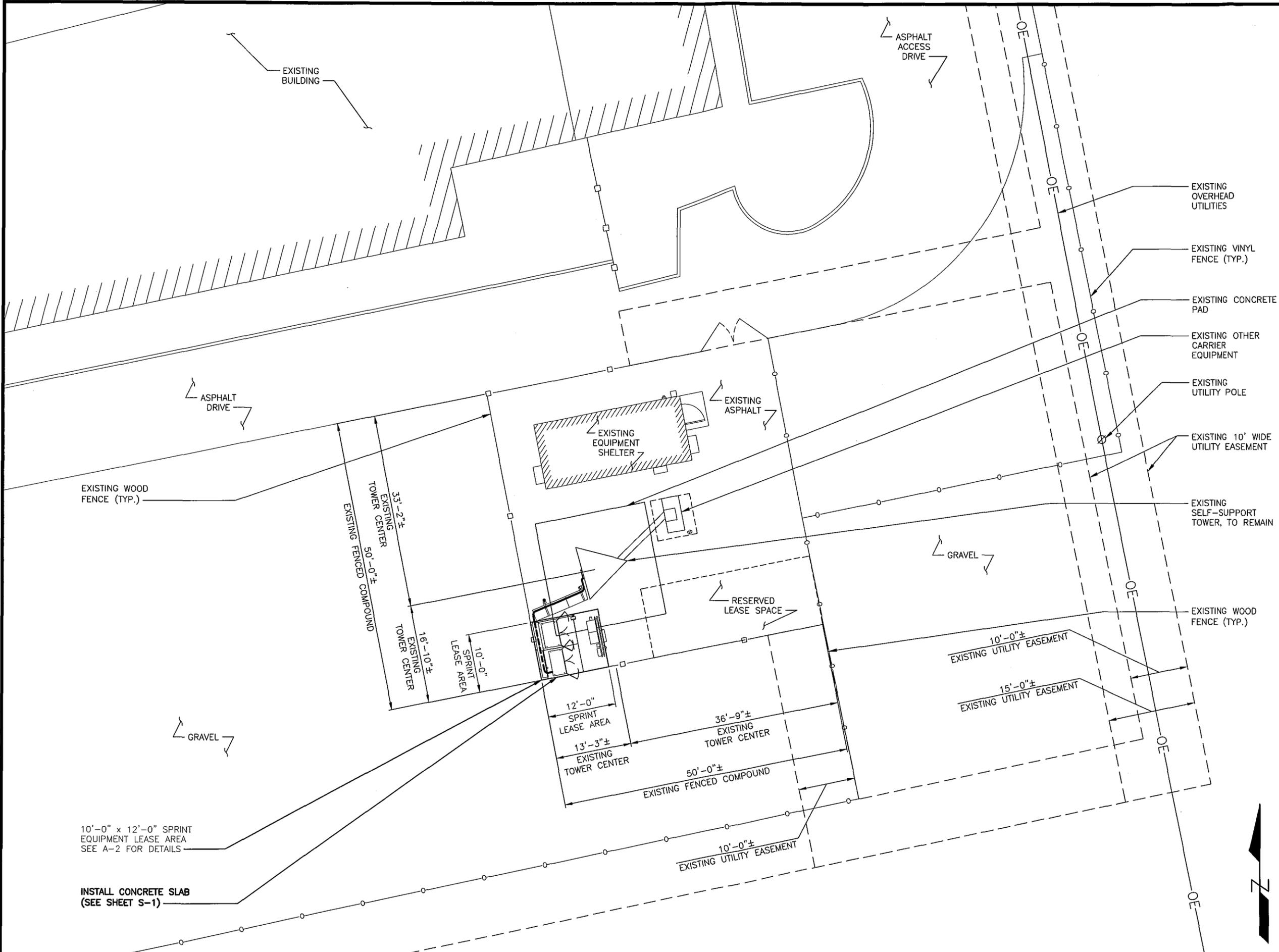
18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005

SHEET DESCRIPTION:

**PARTIAL SITE PLAN**

SHEET NUMBER:

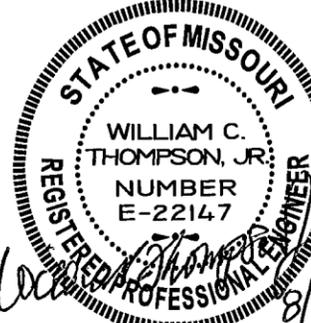
**A-1**



10'-0" x 12'-0" SPRINT EQUIPMENT LEASE AREA SEE A-2 FOR DETAILS

INSTALL CONCRETE SLAB (SEE SHEET S-1)

PLANS PREPARED BY:  
**SHIVEHATTERY**  
 ARCHITECTURE + ENGINEERING  
 3025 Highland Pkwy Suite 140 | Downers Grove, Illinois 60515  
 630.390.7444 | fax 630.437.5800 | shive-hattery.com  
 Iowa | Illinois | Missouri  
 S/H PROJ # 8155100-19

ENGINEERING LICENSE:  
  
 WILLIAM C. THOMPSON, JR.  
 REGISTERED PROFESSIONAL ENGINEER  
 REGISTRATION NUMBER: E-22147

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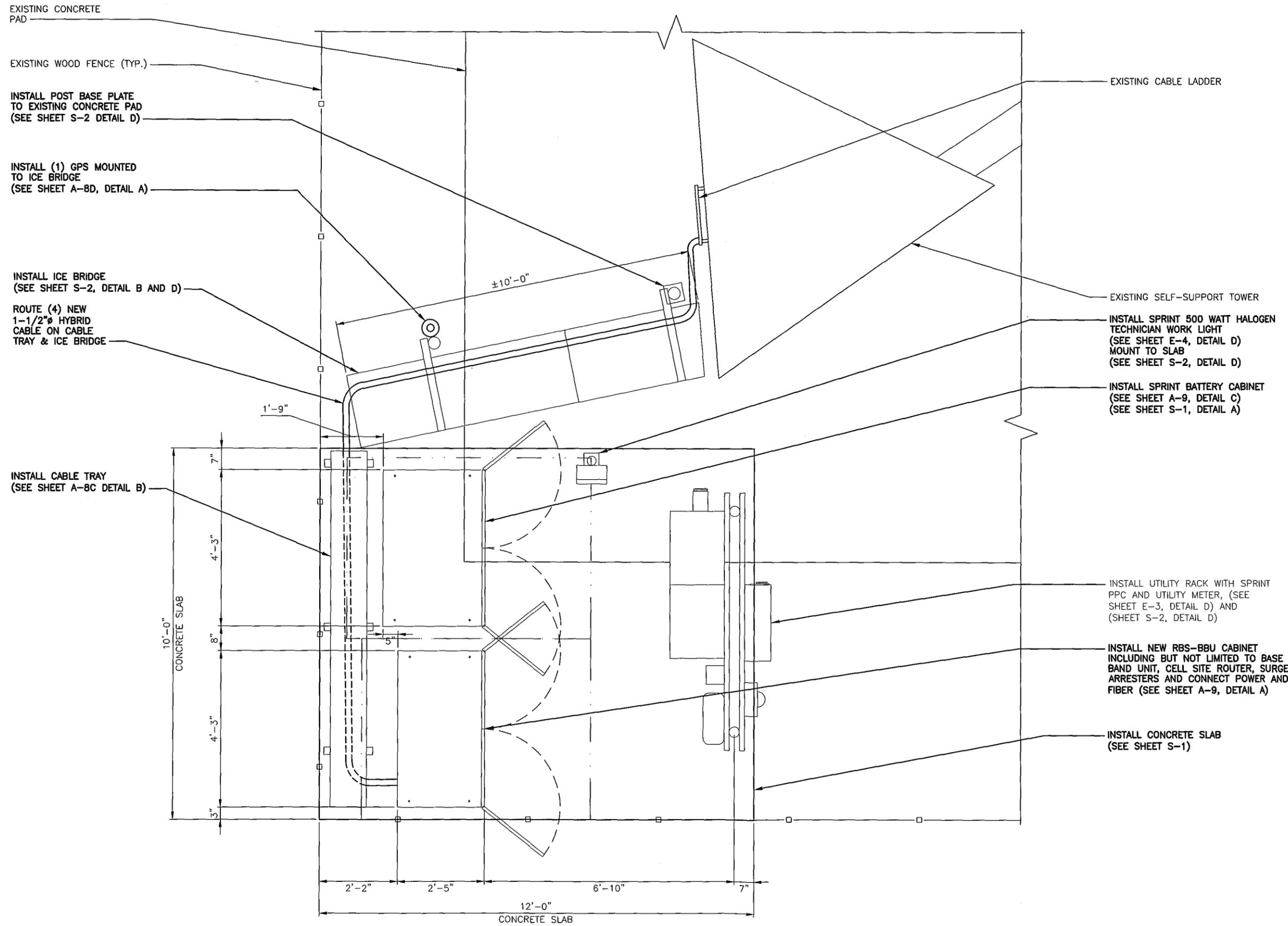
SITE NAME:  
**ATC GUMBO**

SITE CASCADE:  
**ST51XC070**

SITE ADDRESS:  
 18614 OLIVE STREET ROAD  
 CHESTERFIELD, MO 63005

SHEET DESCRIPTION:  
**EQUIPMENT PLAN**

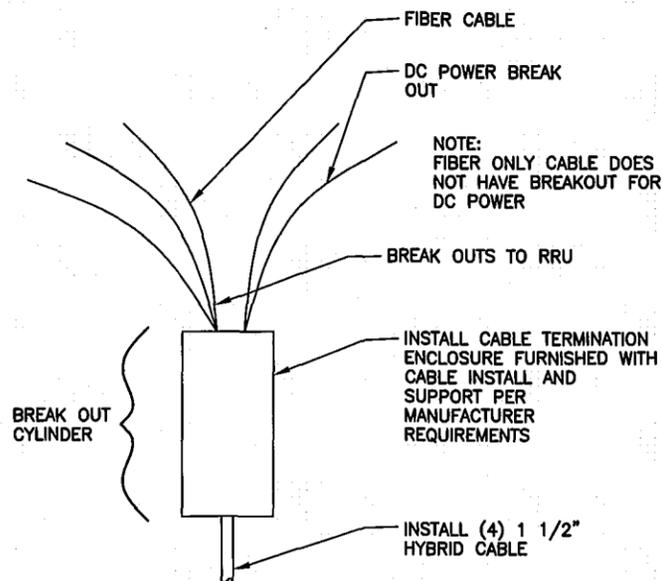
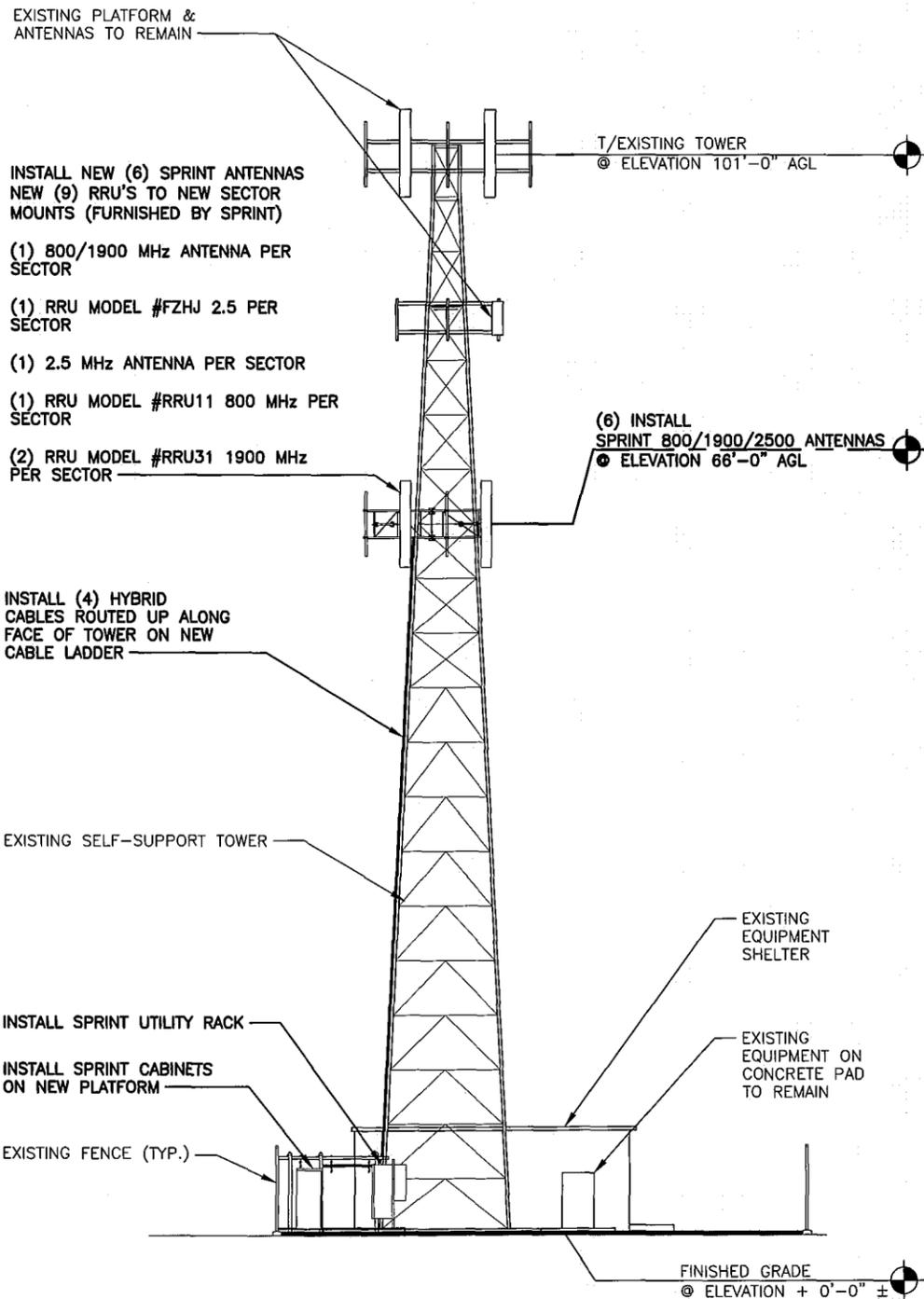
SHEET NUMBER:  
**A-2**



**EQUIPMENT PLAN**

11x17 SCALE: 3/8"=1'-0" 22x34 SCALE: 3/4"=1'-0" A

**STRUCTURAL NOTE:**  
 CONTRACTOR TO VERIFY PROPOSED AND EXISTING ANTENNAS AND CABLES WERE CONSIDERED AND PASSED A STRUCTURAL ANALYSIS PERFORMED BY A LICENSED ENGINEER PRIOR TO INSTALLATION.

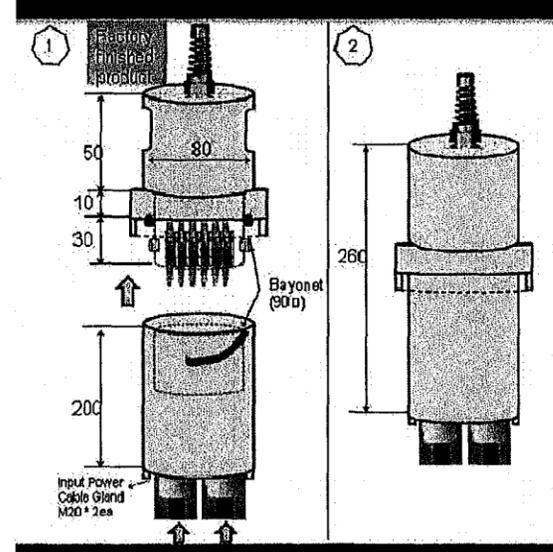


HYBRID BREAK OUT DETAIL

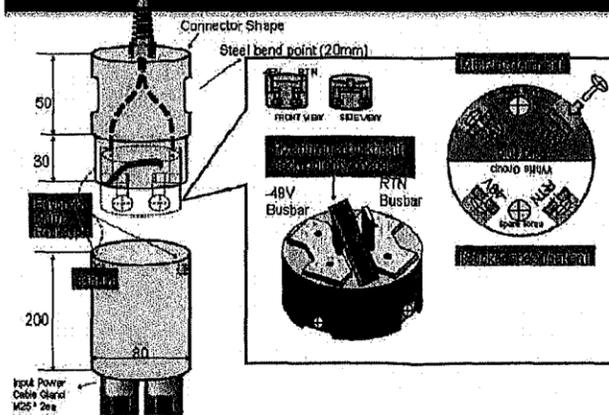
NO SCALE

C

Fiber Junction Cylinder



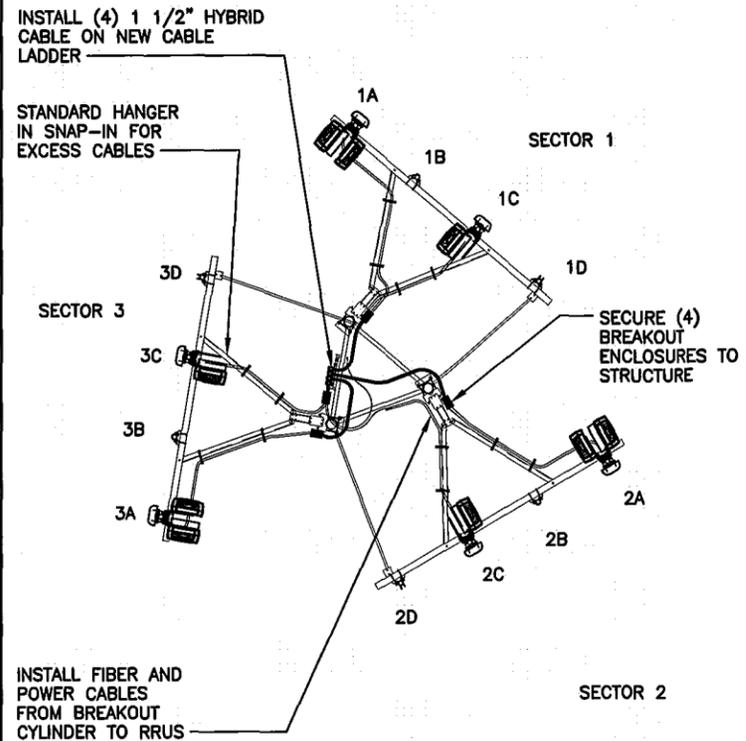
Power Junction Cylinder



POWER & FIBER JUNCTION CYLINDER

NO SCALE

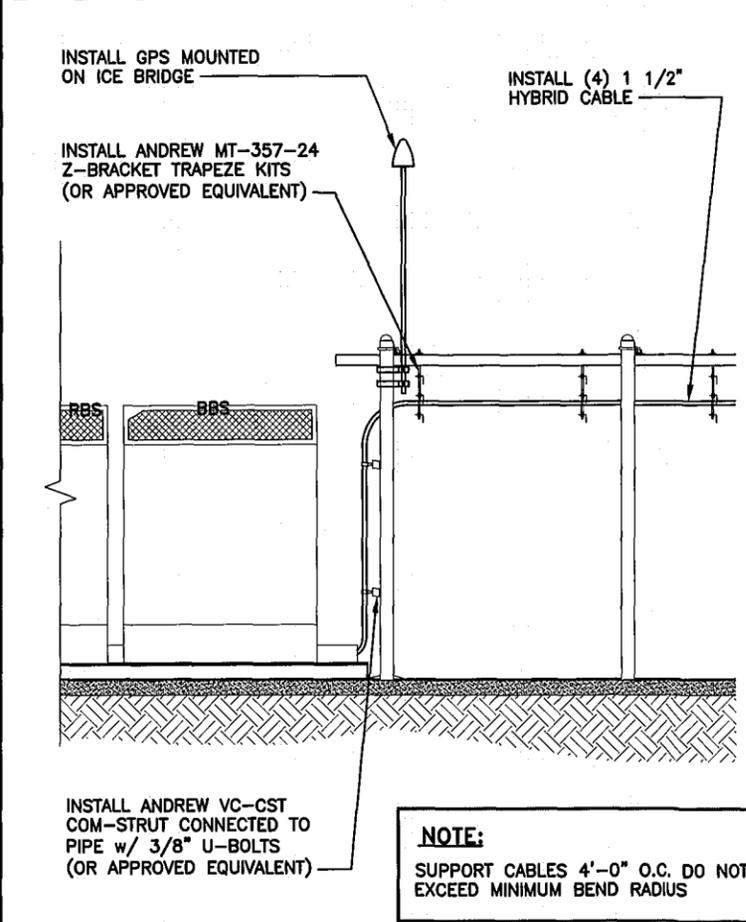
D



CABLE INSTALLATION AT PLATFORM

NO SCALE

A



CABLE ROUTE FROM CABINET

NO SCALE

B

PLANS PREPARED BY:

**SHIVEHATTERY**  
 ARCHITECTURE+ENGINEERING  
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 630.390.7444 | fax 630.437.5800 | shive-hattery.com  
 Iowa | Illinois | Missouri

S/H PROJ # 8155100-19

ENGINEERING LICENSE:

STATE OF MISSOURI

WILLIAM C. THOMPSON, JR.  
 REGISTERED PROFESSIONAL ENGINEER  
 NUMBER E-22147

WILLIAM C. THOMPSON, JR.,  
 REGISTERED PROFESSIONAL ENGINEER  
 REGISTRATION NUMBER: E-22147

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-	-	-	-
-	-	-	-

SITE NAME:

ATC GUMBO

SITE CASCADE:

ST51XC070

SITE ADDRESS:

18614 OLIVE STREET ROAD  
 CHESTERFIELD, MO 63005

SHEET DESCRIPTION:

TOWER ELEVATION & CABLE PLAN

SHEET NUMBER:

A-3

SITE ELEVATION

11x17 SCALE: 1/32" = 1'-0"

22x34 SCALE: 1/8" = 1'-0"

E

ENGINEERING LICENSE:

WILLIAM C. THOMPSON, JR.  
 REGISTERED PROFESSIONAL ENGINEER  
 REGISTRATION NUMBER: E-22147

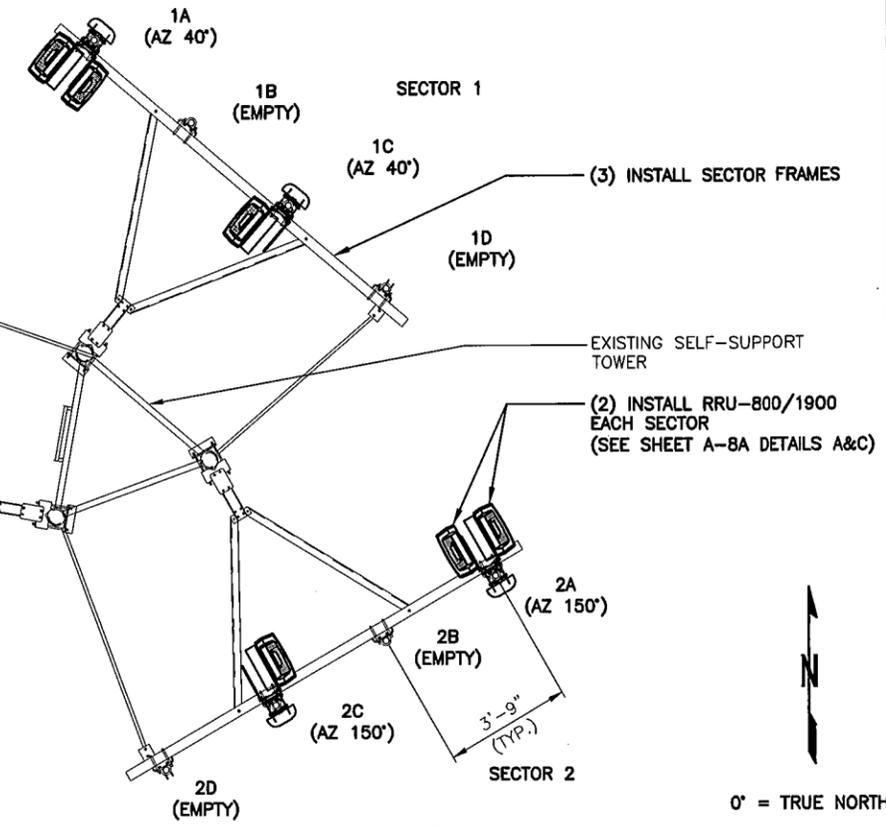
**STRUCTURAL NOTE:**  
 CONTRACTOR TO VERIFY PROPOSED AND EXISTING ANTENNAS AND CABLES WERE CONSIDERED AND PASSED A STRUCTURAL ANALYSIS PERFORMED BY A LICENSED ENGINEER PRIOR TO INSTALLATION.

(1) INSTALL RRU-2.5 EACH SECTOR (SEE SHEET A-8A DETAIL B)

(1) INSTALL SPRINT 2500 MHz ANTENNA EACH SECTOR (SEE SHEET A-8B, DETAIL A)

SECTOR 3  
 (1) INSTALL SPRINT 800/1900 MHz ANTENNA EACH SECTOR (SEE SHEET A-8B, DETAIL B)

INSTALLED MOUNTING LAYOUT (SEE DETAILS THIS SHEET)



DETAIL NOT USED

NO SCALE

C

ANTENNA LAYOUT @ 102'-0"

NO SCALE

A

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OCEAN DRAWINGS FOR REVIEW	08/07/15	SPB	0
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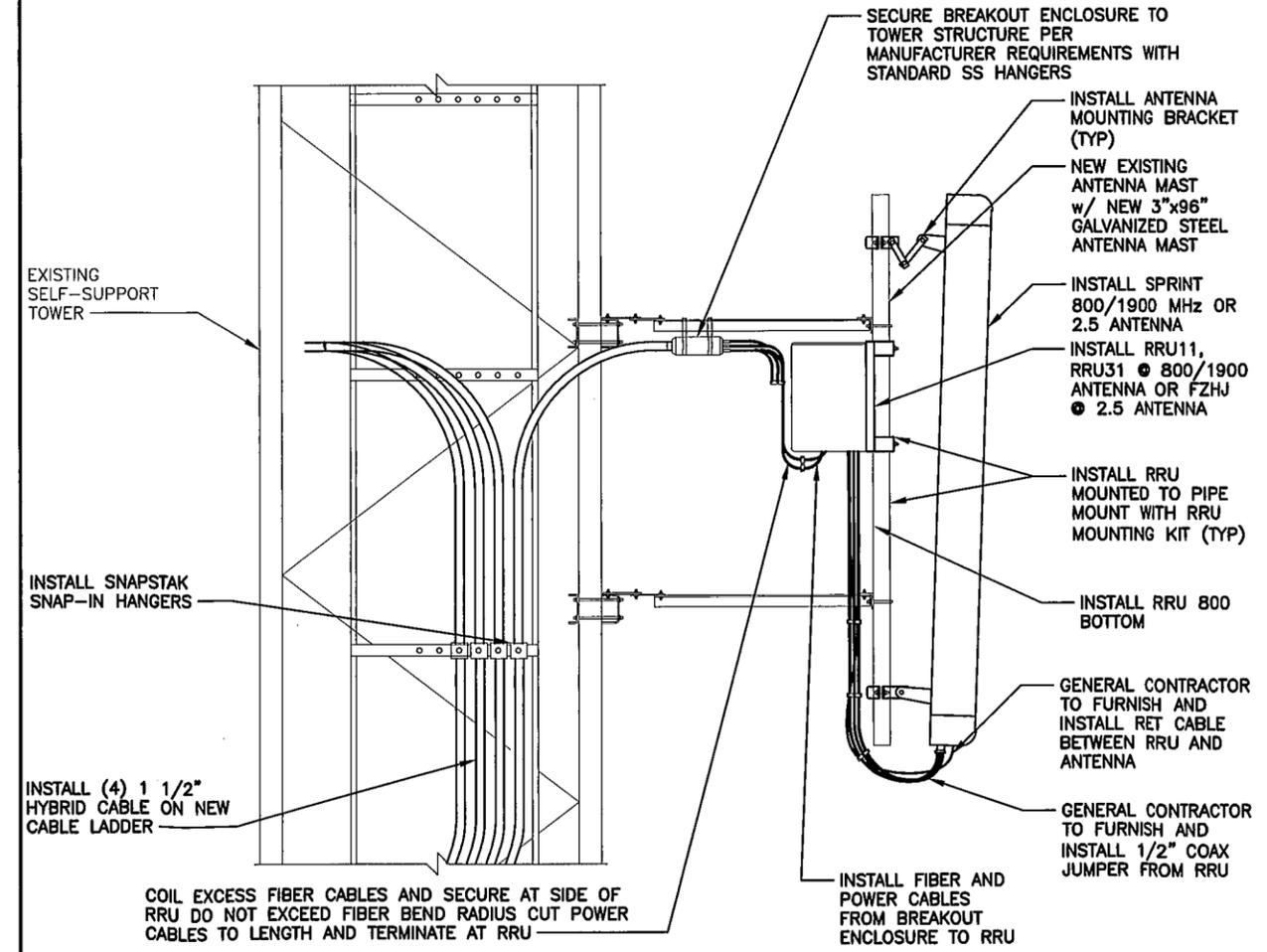
SITE NAME:  
**ATC GUMBO**

SITE CASCADE:  
**ST51XC070**

SITE ADDRESS:  
 18614 OLIVE STREET ROAD  
 CHESTERFIELD, MO 63005

SHEET DESCRIPTION:  
**ANTENNA LAYOUT & MOUNTING DETAILS**

SHEET NUMBER:  
**A-4**



DETAIL NOT USED

NO SCALE

D

800/1900 MHz ANTENNA MOUNTING DETAIL

NO SCALE

B



6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

**SHIVEHATTERY**

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3025 Highland Pkwy Suite 140 | Downers Grove, Illinois 60515  
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-	-	-	-	-
-	-	-	-	-

SITE NAME:  
**ATC GUMBO**

SITE CASCADE:  
**ST51XC070**

SITE ADDRESS:  
18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005

SHEET DESCRIPTION:  
**RF DATA SHEET**

SHEET NUMBER:  
**A-5A**

**Part A**

RF Design Sheet Basic Information	
Cascade Number	ST51XC070
Site Structure Type (Ground Mount, Self-Supporting, Roof Top, etc.)	self support
Site Name	
Site Number 1 or 2 (for more than 3 sector site)	
99 Market Name	Missouri
OEM	Ericsson
Cluster ID	
Issue Date	6/8/2015
Revision Date	
Solution ID	
PID	
RFDS Engineer (OEM RF Engineer)	
Sprint RF Engineer	Jeff Tomlin
Sprint RF Engineer (phone/e-mail)	
Sprint RF Manager	
Sprint RF Manager (phone/email)	
RF Need By Date	
Project Description	ATC Gumbo
Siterra Project Schedule Name	

Location Information	
Latitude (≥ 6 decimal places)	38.69250003 °
Longitude (≥ 6 decimal places)	-90.66583332 °
Site Elevation - Mean Sea Level (MSL) (ft)	582ft
Address	
City, State, Zip Code	Chesterfield Missouri 63005
County	St. Louis

**Part B**

Antenna 1 Configuration	Sector 1	Sector 2	Sector 3
Azimuth (True North, not magnetic)	40 °	150 °	280
Antenna Radiation Center - Above Ground Level (AGL - ft)	66ft	66ft	66ft
Antenna Manufacturer	Commscope	Commscope	Commscope
Antenna Model	TTTT65AP-1XR	TTTT65AP-1XR	TTTT65AP-1XR
Antenna Qty	1	1	1
Antenna Mechanical Downtilt (+down -up)	0 °	0 °	0
Antenna Electrical Downtilt (800   1900   2500)	0 °	0 °	0 °
Antenna Actual Length			
Combined with <sup>2</sup>			

Antenna 2 Configuration	Sector 1	Sector 2	Sector 3
Azimuth (True North, not magnetic)	40 °	150 °	280
Antenna Radiation Center - Above Ground Level (AGL - ft)	66ft	66ft	66ft
Antenna Manufacturer	RFS	RFS	RFS
Antenna Model	APXVSP18-C-A20	APXVSP18-C-A20	APXVSP18-C-A20
Antenna Qty	1	1	1
Antenna Mechanical Downtilt (+down -up)	0 °	0 °	0
Antenna Electrical Downtilt (800   1900   2500)	0 °	0 °	0 °
Antenna Actual Length			
Combined with <sup>2</sup>			

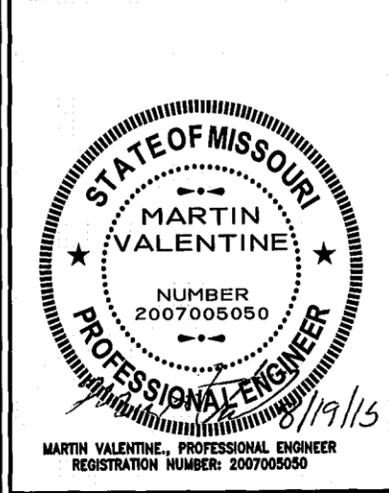
PLANS PREPARED FOR:



PLANS PREPARED BY:



ENGINEERING LICENSE:



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	OCEAN DRAWINGS FOR REVIEW	08/07/15	SPB	0

SITE NAME:  
**ATC GUMBO**

SITE CASCADE:  
**ST51XC070**

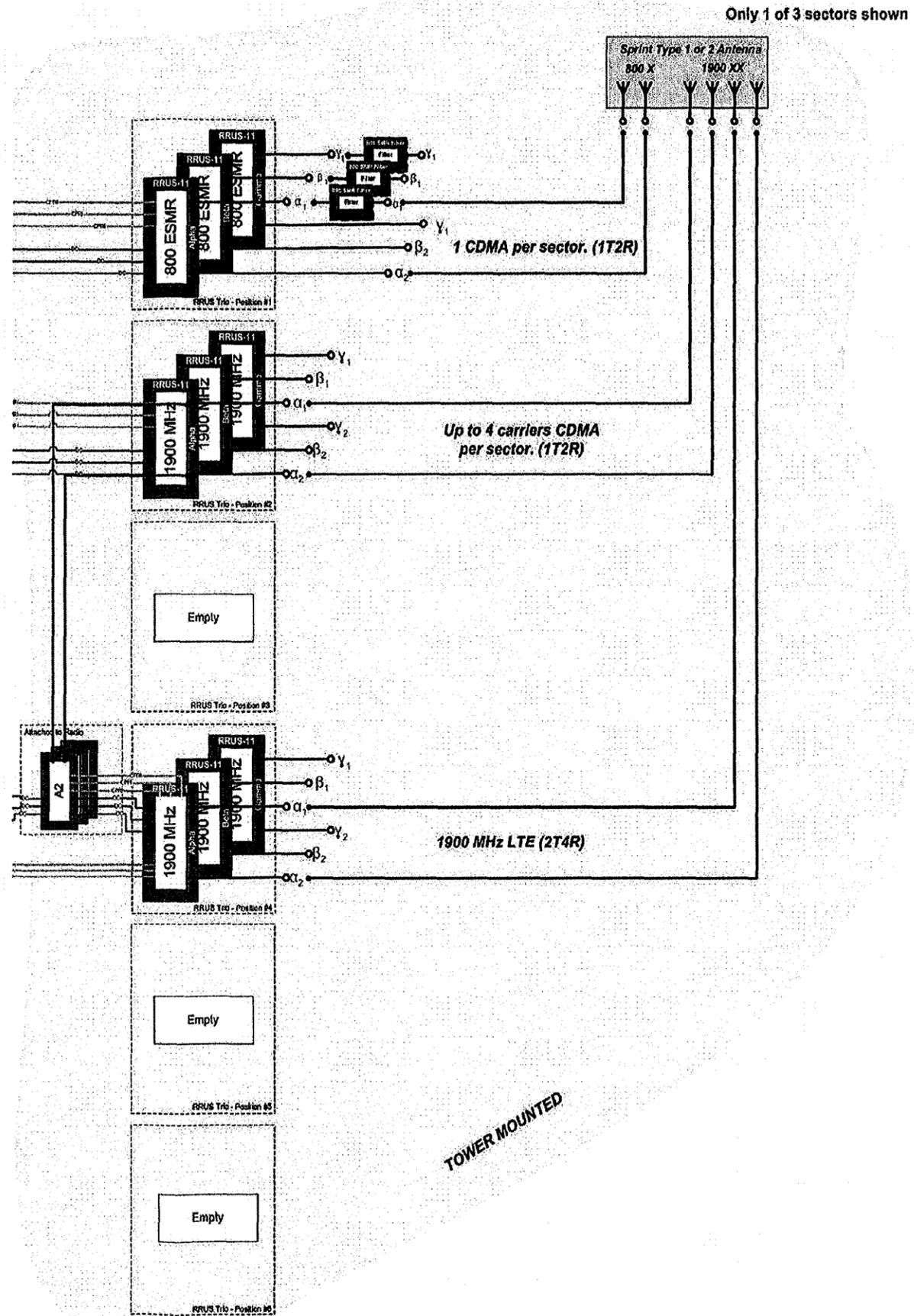
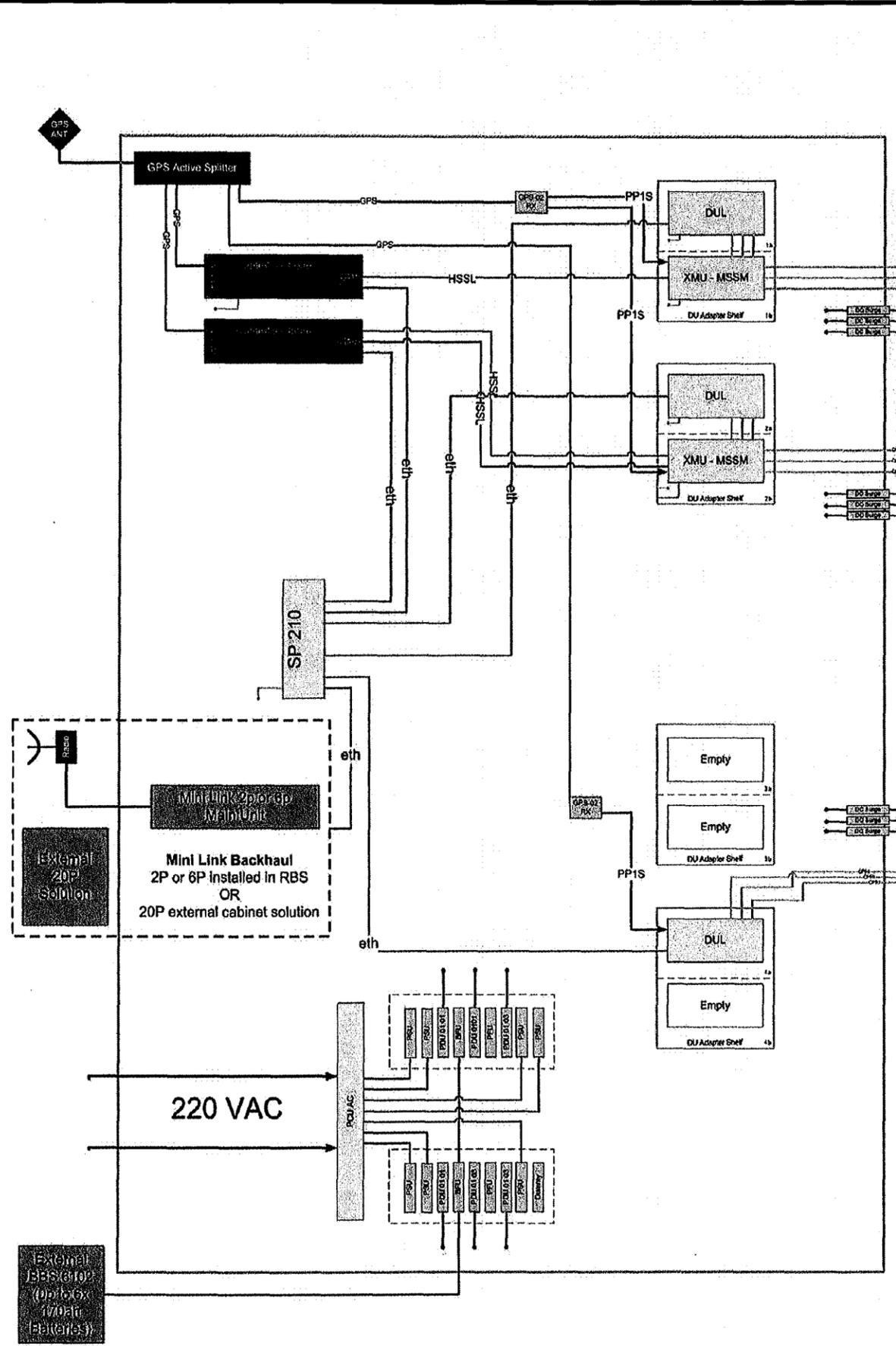
SITE ADDRESS:  
**18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005**

SHEET DESCRIPTION:  
**RF DATA SHEET**

SHEET NUMBER:  
**A-5B**

Part D	Sector 1	Sector 2	Sector 3
Bottom Jumper Make/Model/Coaxial Kit - (Ground Mounted System)			
Bottom Jumper Coax Quantity - (Ground Mounted System)			
Bottom Coax Jumper length in feet - (Ground Mounted System)			
Main Coaxial Length - (Ground Mounted System)			
Main Coax Make/Model - (Ground Mounted System)			
Main Coax Quantity - (Ground Mounted System)			
Main Cable Size Outside Diameter (Inches) - (Ground Mounted System)			
RRU Coaxial Jumper Length to Antenna (Tower or Ground Mounted RRUs)			
RRU Coaxial Jumper Make/Model - (Tower or Ground Mounted RRUs)			
RRU Coaxial Jumper Size Outside Diameter (Inches) - (Tower or Ground Mounted RRUs)			
Unique Combiner, Splitter, Connector			
AISG Make Model/Kit			
Upper Diplexer/Triplicor/Duplexor Model			
RF Filter Make/Model			
RF Filter Quantity			
Site Structure Type (Ground Mount, Standard Tower, Roof Top, etc.) Use same Structure description located in NRM	self support	self support	self support
Required Ethernet Size			
800 Radio Configuration 3G	2T2R	2T2R	2T2R
800 Radio Configuration LTE	2T2R	2T2R	2T2R
1900 Radio Configuration 3G	2T2R	2T4R	2T2R
1900 Radio Configuration LTE	2T2R	2T4R	2T4R
2.5 Radio Configuration LTE			
Split Mode (Yes, No)			
For ERC only # RRU 11's	1	1	1
For ERC only # RRU 31's	2	2	2
Enter 800 Part Number			
Enter 1900 Part Number			
Enter 2500 Part Number			
Plumbing Diagram Number (if available)			

Part E	Band/Configuration	Sector 1 Channel	Sector 2 Channel	Sector 3 Channel
LTE 2.5 GHz		40978	40978	40978
LTE 2.5 GHz				
LTE 2.5 GHz				
3G 800		476	476	476
LTE 800		8763	8763	8763
3G 1900 MHz A - F Voice		575	575	575
3G 1900 MHz A - F Voice		625	625	625
3G 1900 MHz A - F Voice				
3G 1900 MHz A - F Voice				
3G 1900 MHz A - F Voice				
3G 1900 MHz A - F Voice				
3G 1900 MHz A - F Voice				
3G 1900 MHz A - F Voice				
3G 1900 MHz A - F Data		475	475	475
3G 1900 MHz A - F Data		600	600	600
3G 1900 MHz A - F Data				
3G 1900 MHz A - F Data				
3G 1900 MHz A - F Data				
3G 1900 MHz A - F Data				
LTE PCS G Block		8665	8665	8665
LTE PCS G Block				
LTE PCS G Block				
LTE PCS Block A-F				
LTE PCS Block A-F				
LTE PCS Block A-F				
1900 LTE 5x5 carriers (QTY)		1	1	1
1900 LTE 10x10 carriers (QTY)				
1900 LTE 15x15 carriers (QTY)				
1900 LTE 20x20 carriers (QTY)				



RBS 6102 Main Remote – 2011 Deployments with RRUS-11  
 800 MHz: 1 carrier 1T2R CDMA  
 1900 MHz: up to 4 carriers 1T2R CDMA  
 1900 MHz: 5 MHz 2T2R LTE

PLANS PREPARED FOR:

6580 Sprint Parkway  
 Overland Park, Kansas 66251

PLANS PREPARED BY:

3025 Highland Pkwy Suite 140 | Downers Grove, Illinois 60515  
 630.390.7444 | fax 630.437.5800 | shive-hattery.com  
 Iowa | Illinois | Missouri

S/H PROJ # 8155100-19

ENGINEERING LICENSE:

MARTIN VALENTINE, PROFESSIONAL ENGINEER  
 REGISTRATION NUMBER: 2007005050

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-	-	-	-
-	-	-	-

SITE NAME: ATC GUMBO

SITE CASCADE: ST51XC070

SITE ADDRESS: 18614 OLIVE STREET ROAD  
 CHESTERFIELD, MO 63005

SHEET DESCRIPTION: RF DATA SHEET

SHEET NUMBER: A-6

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SITE NAME:

**ATC GUMBO**

SITE CASCADE:

**ST51XC070**

SITE ADDRESS:

18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005

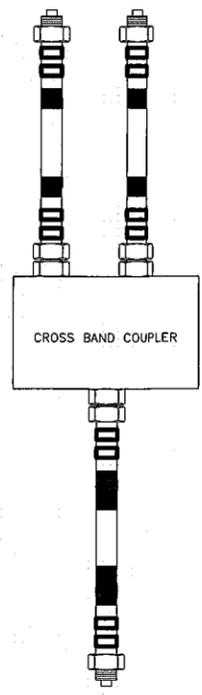
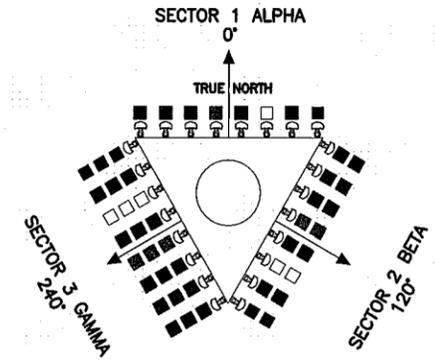
SHEET DESCRIPTION:

**RF DATA SHEET**

SHEET NUMBER:

**A-7**

**ANTENNA AND CABLE COLOR CODING**  
(3 SECTORED / MULTIPLE RF CHANNELS)  
ASSUMING 8 LINES AND ANTENNAS



**SECTOR LEGEND**

SECTOR 1 => 1 BAND  
SECTOR 2 => 2 BAND  
SECTOR 3 => 3 BAND  
SECTOR 4 => 4 BAND  
SECTOR 5 => 5 BAND  
SECTOR 6 => 6 BAND

**TECHNOLOGY COLOR CODE**

- IDEN
- CDMA
- WIMAX

**EXAMPLE**  
SECTOR 2 AND CABLE 2  
(800Mhz Radio #1)

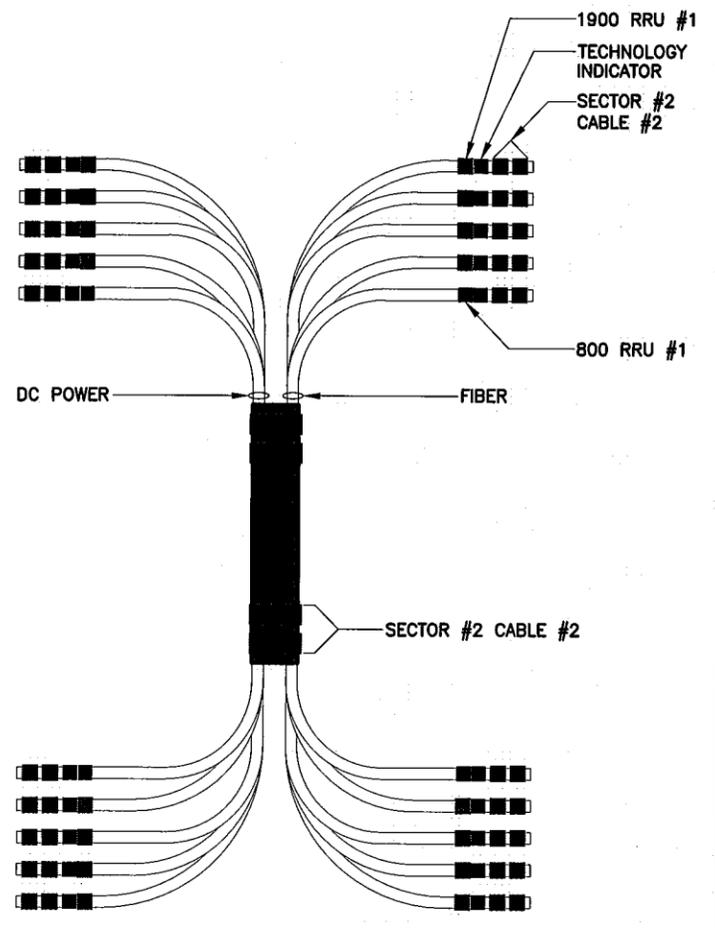
**EXAMPLE**  
SECTOR 3, CABLE 1,  
(1900Mhz RADIO #1)

**EXAMPLE**  
SECTOR 2, CABLE 4,  
(800Mhz RADIO #1 AND 190Mhz RADIO #1)

- COLOR BAND TO BE 2" WIDE ON MAIN LINE.
- SPACING TO BE 1" BETWEEN BANDS AND 2" BETWEEN LINE AND TECHNOLOGY BANDS. NO SPACE BETWEEN TECHNOLOGY COLOR BANDS.
- COLOR BAND ON JUMPERS 1" WIDE W/ 1" SPACE.
- START COLOR BANDS 2" BEYOND WEATHERPROOFING.
- START SECTOR COLOR NEXT TO END CONNECTOR.

**TYPICAL COAX CABLE COLOR CODING SCHEME**

SECTOR	CABLE	FIRST RING	SECOND RING	THIRD RING
1 ALPHA	1	GREEN	NO TAPE	NO TAPE
1	2	BLUE	NO TAPE	NO TAPE
1	3	BROWN	NO TAPE	NO TAPE
1	4	WHITE	NO TAPE	NO TAPE
1	5	RED	NO TAPE	NO TAPE
1	6	SLATE	NO TAPE	NO TAPE
1	7	PURPLE	NO TAPE	NO TAPE
1	8	ORANGE	NO TAPE	NO TAPE
2 BETA	1	GREEN	GREEN	NO TAPE
2	2	BLUE	BLUE	NO TAPE
2	3	BROWN	BROWN	NO TAPE
2	4	WHITE	WHITE	NO TAPE
2	5	RED	RED	NO TAPE
2	6	SLATE	SLATE	NO TAPE
2	7	PURPLE	PURPLE	NO TAPE
2	8	ORANGE	ORANGE	NO TAPE
3 GAMMA	1	GREEN	GREEN	GREEN
3	2	BLUE	BLUE	BLUE
3	3	BROWN	BROWN	BROWN
3	4	WHITE	WHITE	WHITE
3	5	RED	RED	RED
3	6	SLATE	SLATE	SLATE
3	7	PURPLE	PURPLE	PURPLE
3	8	ORANGE	ORANGE	ORANGE

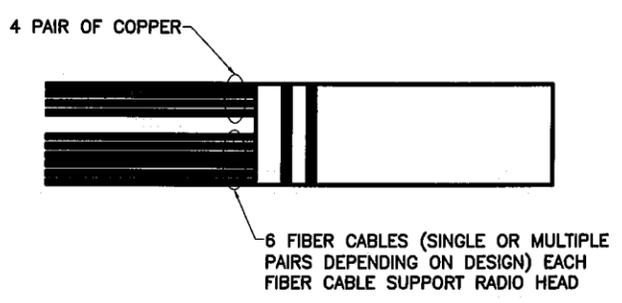


**HYBRID CABLE COLOR CODE EXAMPLE** NO SCALE D

**COAXIAL CABLE COLOR CODE** NO SCALE B

**ANTENNA & CABLE COLOR CODE** NO SCALE A

**NOTE:**  
HYBRID CABLE WILL BE MARKED IN A SIMILAR MANNER AS COAX CABLE DESCRIBED IN THE "ANTENNA & CABLE COLOR CODE" DETAIL LOCATED ON THE SHEET. THE MAIN "TRUNK" OF THE HYBRID CABLE WILL NOT BE MARKED WITH THE FREQUENCY CODE AS THE HYBRID CABLE IN MANY CASES WILL CONTAIN ALL TECHNOLOGIES. THE INDIVIDUAL POWER PAIRS AND FIBER CABLES WILL BE LABELED WITH BOTH THE FREQUENCY AND SECTOR CABLE MARKINGS.



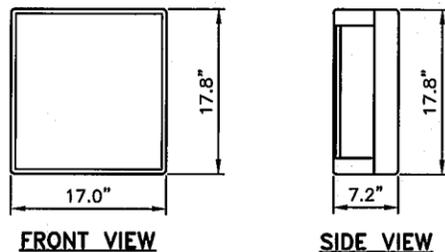
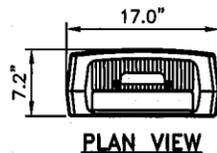
**HYBRID CABLE COLOR CODE** NO SCALE E

TECHNOLOGY COLOR CODE	FIRST RING	SECOND RING
800		GREEN
1900 #1		RED
1900 #2		BLUE
RESERVED		BROWN
RESERVED		SLATE
RESERVED		ORANGE
RESERVED		WHITE
1600 #1		PURPLE

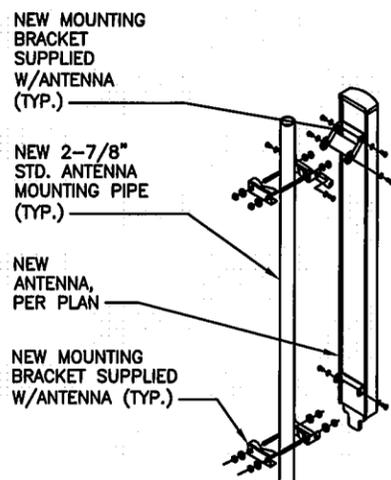
TECHNOLOGY COLOR CODE	FIRST RING	SECOND RING	THIRD RING	FOURTH RING	FIFTH RING	SIXTH RING
2500 #1 - CABLE 1				WHITE		
2500 #1 - CABLE 2					WHITE	
2500 #1 - CABLE 3						WHITE
2500 #2 - CABLE 1				PURPLE		
2500 #2 - CABLE 2					PURPLE	
2500 #2 - CABLE 3						PURPLE

**TECHNOLOGY COLOR CODE** NO SCALE C

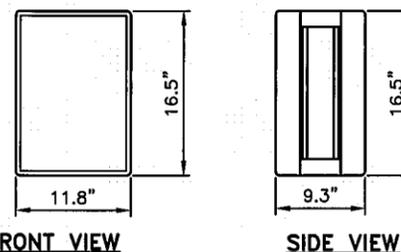
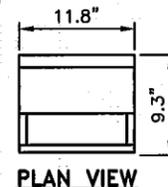
**NOTE:**  
GENERAL CONTRACTOR TO ENSURE THAT ALL RRU'S RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING. DO NOT OPEN RRU PACKAGES IN THE RAIN



DIMENSIONS (HxWxD)	17" x 17.8" x 7.2"
WEIGHT	54 LBS



**NOTE:**  
GENERAL CONTRACTOR TO ENSURE THAT ALL RRU'S RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING. DO NOT OPEN RRU PACKAGES IN THE RAIN



DIMENSIONS (HxWxD)	11.8" x 17.8" x 9.3"
WEIGHT	59.5 LBS



PLANS PREPARED FOR:

6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

**SHIVE-HATTERY**  
ARCHITECTURE+ENGINEERING  
3025 Highland Pkwy Suite 140 | Downers Grove, Illinois 60515  
630.390.7444 | fax 630.437.5800 | shive-hattery.com  
Iowa | Illinois | Missouri

S/H PROJ # 8155100-19

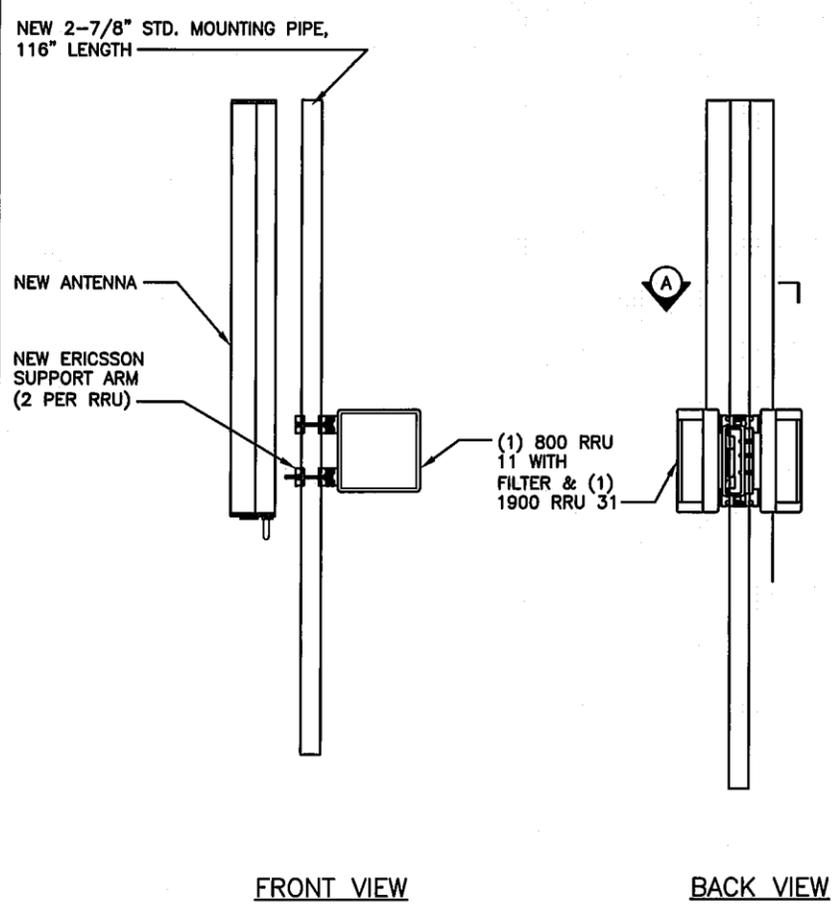
ENGINEERING LICENSE:

WILLIAM C. THOMPSON, JR.  
REGISTERED PROFESSIONAL ENGINEER  
REGISTRATION NUMBER: E-22147

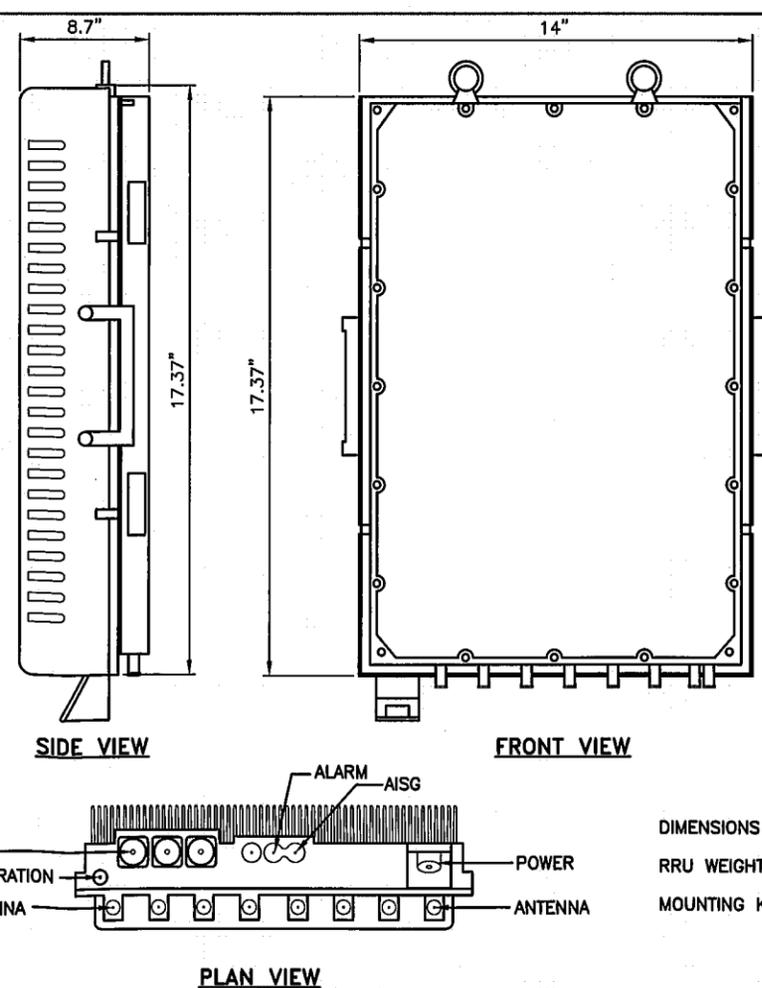
RRU 11 NO SCALE C

ANTENNA MOUNTING NO SCALE D

RRU 31 NO SCALE A



RRU MOUNTING DETAIL NO SCALE E



2.5 RRUS NO SCALE B

**NOTES**

COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRU'S RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING. DO NOT OPEN RRU PACKAGES IN THE RAIN

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OCEAN DRAWINGS FOR REVIEW	08/07/15	SPB	0
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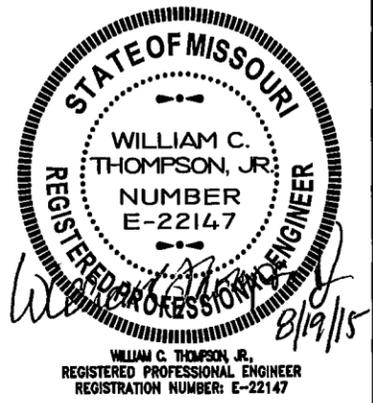
SITE NAME:  
**ATC GUMBO**

SITE CASCADE:  
**ST51XC070**

SITE ADDRESS:  
18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005

SHEET DESCRIPTION:  
**EQUIPMENT DETAILS**

SHEET NUMBER:  
**A-8A**



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**ST51XC070**

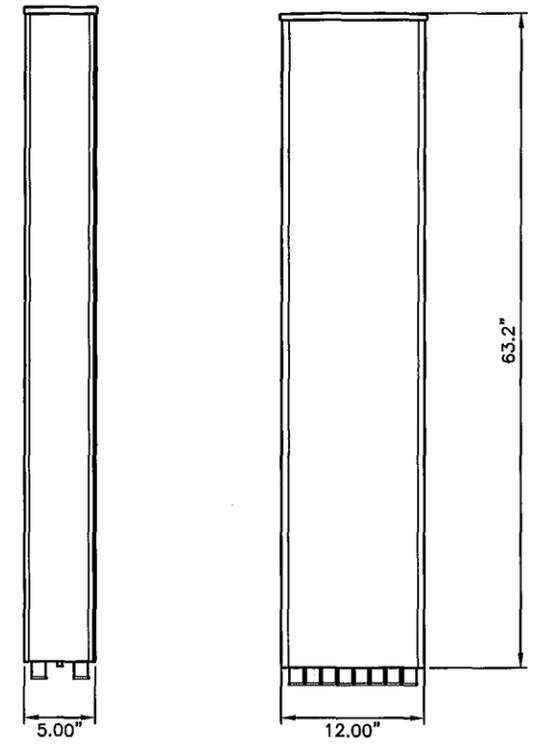
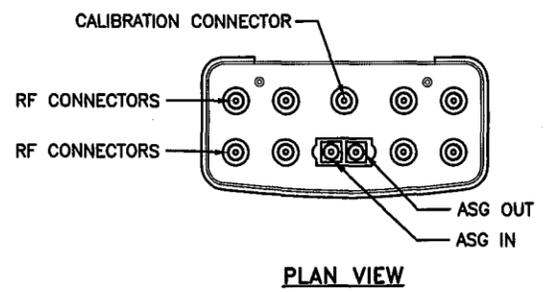
SITE ADDRESS:  
 18614 OLIVE STREET ROAD  
 CHESTERFIELD, MO 63005

SHEET DESCRIPTION:  
**EQUIPMENT DETAILS**

SHEET NUMBER:  
**A-8B**

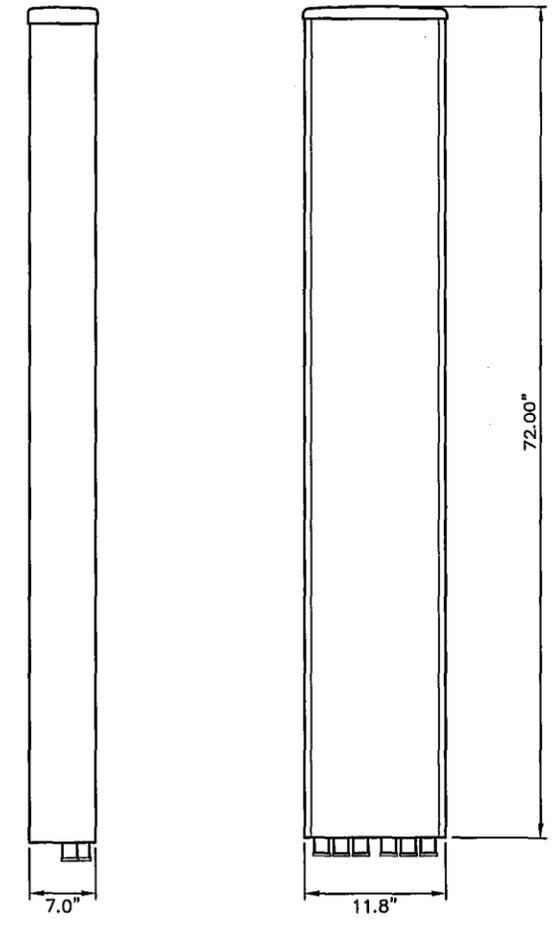
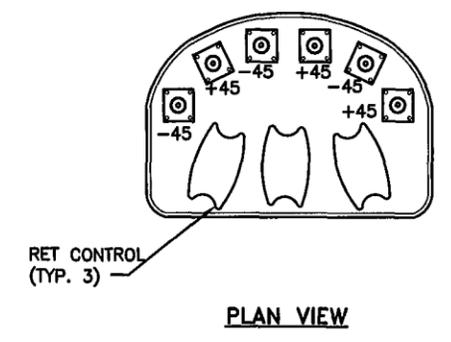
**COMMSCOPE - TTTT65AP1XR**

RADOME COLOR: LIGHT GRAY  
 DIMENSIONS, HxWxD.in(mim): 63.2"x12.0"x5.0"  
 WEIGHT: 39.2 lbs



**RFS / APXVSP18-C-A20**

RADOME COLOR: LIGHT GRAY  
 FREQUENCY RANGE: 806-869 MHz 1850-1995 MHz  
 DIMENSIONS, HxWxD.in(mim): 72.0"x11.8"x7.0"  
 WEIGHT w/o MOUNTING: 25.8 lbs  
 MOUNT WEIGHT: 3.4 lbs  
 TOTAL WEIGHT: 29.2 lbs



**NOTICE**



Radio frequency fields beyond this point may exceed the FCC general public exposure limit.

Obey all posted signs and site guidelines for working in radio frequency environments.

In accordance with Federal Communications Commission rules on radio frequency emissions 47 CFR 1.1307(b)

Upon Switch or Cell Area Entry,  
Technical Support, or Emergency  
Please Call Toll Free:  
**National Operations Control Center  
(NOCC)**  
**888-859-1400**  
24 Hours/Day, 7 Days/Week, 365 Days/Year

SITE ID# \_\_\_\_\_

**RADIO FREQUENCY ANTENNAS AT THIS SITE**

PLEASE EXERCISE CAUTION AROUND ANTENNAS  
AND OBEY POSTED SIGNS AND/OR MARKINGS

FOR ACCESS TO RESTRICTED AREAS OR  
FOR FURTHER INFORMATION, PLEASE CALL

**1-888-859-1400**

IN ACCORDANCE WITH FCC RULES 47 CFR 1.1307(b)

**Sprint**

6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

**SHIVEHATTERY**  
ARCHITECTURE+ENGINEERING

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630.390.7444 | fax 630.437.5800 | shive-hattery.com  
Iowa | Illinois | Missouri

S/H PROJ # 8155100-19

ENGINEERING LICENSE:



WILLIAM C. THOMPSON, JR.  
REGISTERED PROFESSIONAL ENGINEER  
REGISTRATION NUMBER: E-22147

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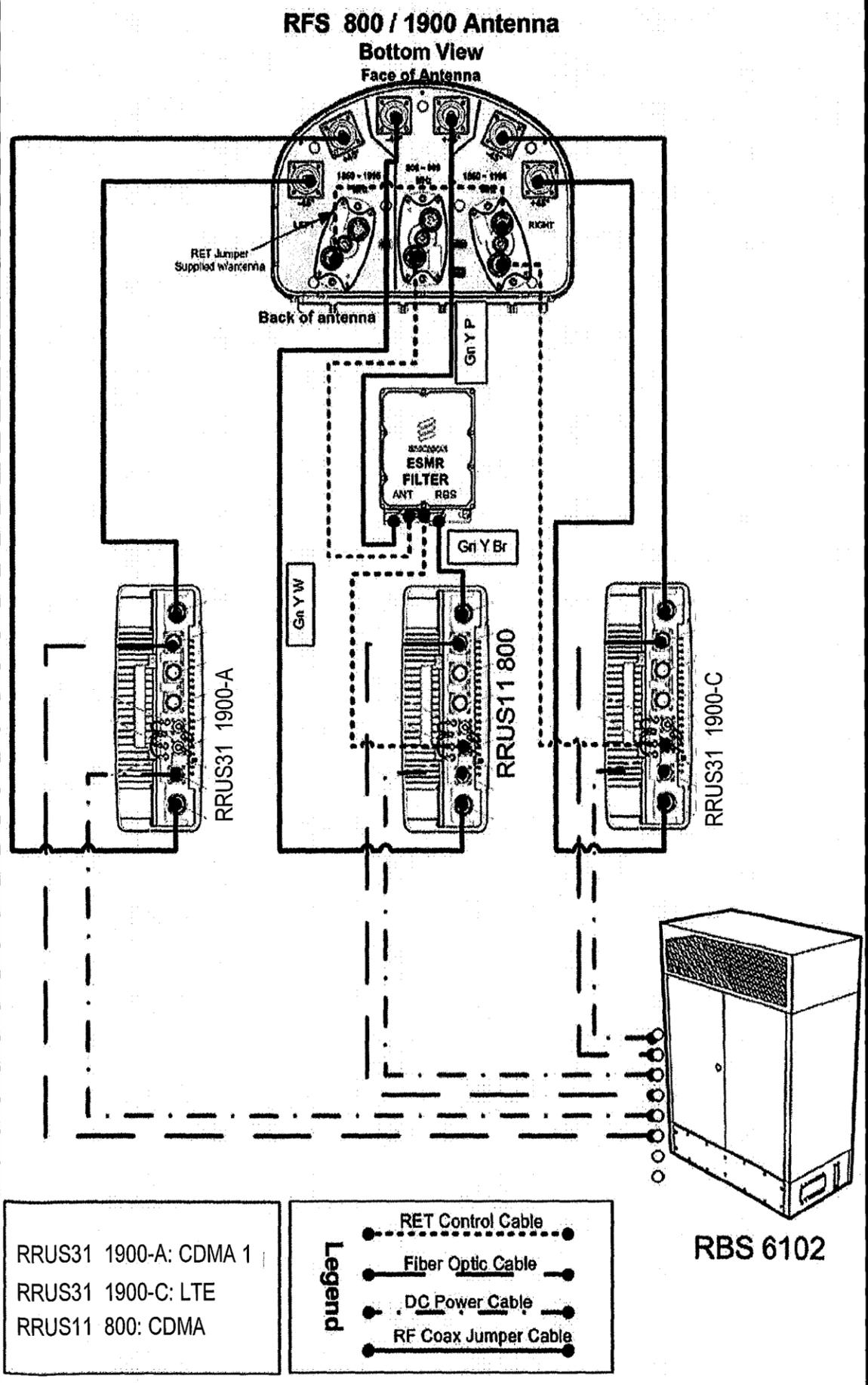
SITE NAME: **ATC GUMBO**

SITE CASCADE: **ST51XC070**

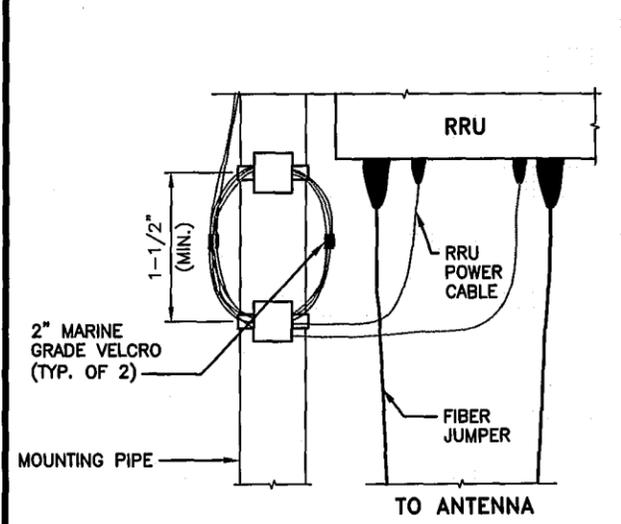
SITE ADDRESS: **18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005**

SHEET DESCRIPTION: **EQUIPMENT DETAILS**

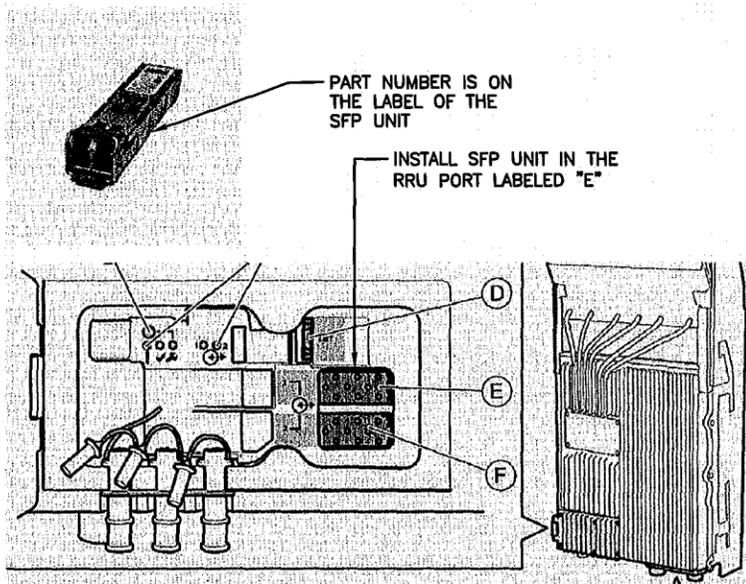
SHEET NUMBER: \_\_\_\_\_



SIGNAGE DETAIL NO SCALE B



- NOTES:
- EXCESS FIBER OPTIC RRU JUMPER CABLES SHALL BE COILED AND SECURED TO THE ANTENNA/RRU SUPPORT STRUCTURE USING APPROVED CABLE SUPPORT BLOCKS. FIBER JUMPER STORAGE COILS SHALL BE PLACED AS CLOSE TO THE RRU AS POSSIBLE.
  - 2" OUTDOOR RATED VINYL TAPE OR OUTDOOR (UV) RATED VELCRO WRAPS WILL BE UTILIZED TO BUNDLE FIBER COILS. EXCESS HYBRID FIBER SHALL NOT BE COILED ON THE ANTENNA SUPPORT STRUCTURE.
  - FIBER OPTIC COILS AND BENDS SHALL NOT BE LESS THAN THE MANUFACTURER'S BEND RADIUS



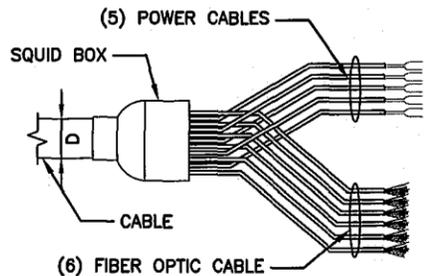
- VERIFY THE PART NUMBER RDH 102 47/2 IS THE SFP USED FOR THE REMOTE RADIO AND DIGITAL UNIT FIBER CONNECTION.
- IF THE SFP UNITS ARE NOT AVAILABLE, DO NOT SUBSTITUTE WITH ANY OTHER SFP UNIT.
- NOTIFY YOUR LEAD OR IMPLEMENTATION MANAGER OF THE ISSUE AND GET THE CORRECT SFP UNITS BEFORE PROCEEDING.

COIL CABLE CONTROL NO SCALE C

SFP DETAIL NO SCALE D

RFS ANTENNA RET CABELING DIAGRAM NO SCALE A

**A-8C**



LENGTH IN METERS	H+S ARTICLE #	DIAMETER (IN)	MINIMUM BEND RADIUS (IN)	WEIGHT (LB/FT)
30	84132554	1	12	0.44
40	84132555	1	12	0.44
50	84132556	1	12	0.44
60	84132557	1	12	0.44
70	84132558	1-3/8	14.03	0.64
80	84132559	1-3/8	14.03	0.64
90	84132560	1-3/8	14.03	0.64
100	84132561	1-3/8	14.03	0.64

MLE HYBRID TOWER CABLE

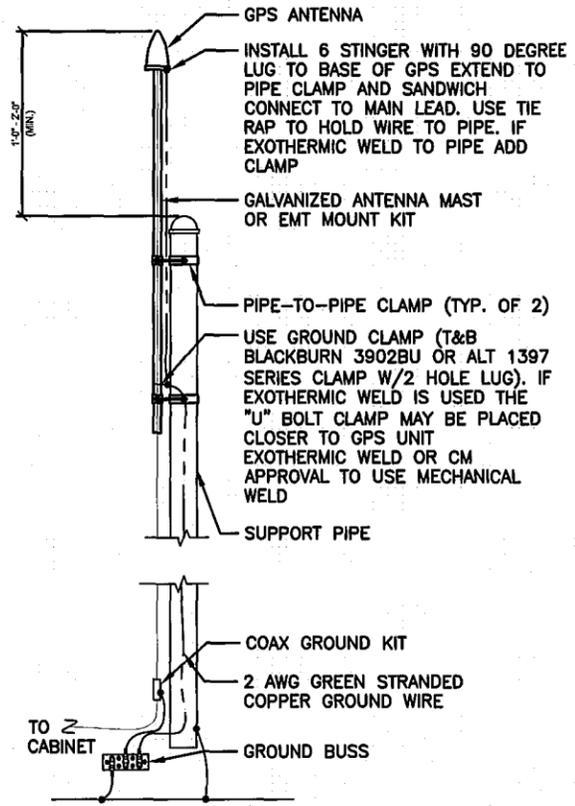
NO SCALE C

ERICSSON MM-BTS RBS 6102	ALARM CONTACT	SEVERITY	OWNER	COMMENTS	COLOR CODE
BTS SCAN POINT 1	{2200} BBS 6102 OPEN DOOR (CABLE SUPPLIED)	NC	SERVICE ASSURANCE	RBS/RIGHT OVP1/A1	BLACK/BROWN
BTS SCAN POINT 2	{2100} BBS 6102 CLIMATE UNIT FAILURE (CABLE SUPPLIED)	NC	FIELD SERVICES	RBS/RIGHT OVP1/A2	RED/ORANGE
BTS SCAN POINT 3	{2008} CDMA DBU1 FAN FAILURE (CABLE SUPPLIED INTERNAL)	NC	FIELD SERVICES	RBS/RIGHT OVP1/A3	WHITE/BROWN
BTS SCAN POINT 4	{1000} UTILITY POWER FAILURE	NC	SERVICE ASSURANCE	RBS/RIGHT OVP1/A4	WHITE/BLUE
BTS SCAN POINT 5	{1200} GENERATOR FAILURE	NC	FIELD SERVICES	RBS/RIGHT OVP1/A5	WHITE/ORANGE
BTS SCAN POINT 6	{1201} GENERATOR RUNNING	NC	NO ACTION. DRMS ONLY	RBS/RIGHT OVP1/A6	WHITE/GREEN
BTS SCAN POINT 7	{1202} GENERATOR LOW FUEL THRESHOLD	NC	FIELD SERVICES	RBS/RIGHT OVP1/A7	WHITE/BROWN
BTS SCAN POINT 8	CUSTOMER DEFINED			RBS/RIGHT OVP1/A8	WHITE/SLATE
BTS SCAN POINT 9	{2008} CDMA DBU2 FAN FAILURE (CABLE SUPPLIED INTERNAL)	NC	FIELD SERVICES	RBS/RIGHT OVP2/A1	WHITE/BROWN
BTS SCAN POINT 10	{9000} TOWER TOP LIGHT FAILURE, NOT AM REQUIRED	NC	SERVICE ASSURANCE	RBS/RIGHT OVP2/A2	RED/BLUE
BTS SCAN POINT 11	{9100} TOWER SIDE LIGHT FAILURE, NO NOT AM	NC	SERVICE ASSURANCE	RBS/RIGHT OVP2/A3	RED/ORANGE
BTS SCAN POINT 12	USER DEFINED FROM STANDARDS COLUMN A ONLY			RBS/RIGHT OVP2/A4	RED/GREEN
BTS SCAN POINT 13	USER DEFINED FROM STANDARDS COLUMN A ONLY			RBS/RIGHT OVP2/A5	RED/BROWN
BTS SCAN POINT 14	USER DEFINED FROM STANDARDS COLUMN A ONLY			RBS/RIGHT OVP2/A6	RED/SLATE
BTS SCAN POINT 15	USER DEFINED FROM STANDARDS COLUMN A ONLY			RBS/RIGHT OVP2/A7	BLACK/BLUE
BTS SCAN POINT 16	USER DEFINED FROM STANDARDS COLUMN A ONLY			RBS/RIGHT OVP2/A8	BLACK/ORANGE
BTS SCAN POINT 17	{2008} CDMA DBU3 FAN FAILURE (CABLE SUPPLIED INTERNAL)	NC	FIELD SERVICES	RBS/LEFT OVP1/A1	WHITE/BROWN

\*NC = NORMALLY CLOSED (CLOSED CONTACTS WITH NO ALARM CONDITION)  
 @NOC = GLOBAL NETWORK OPERATIONS CENTER

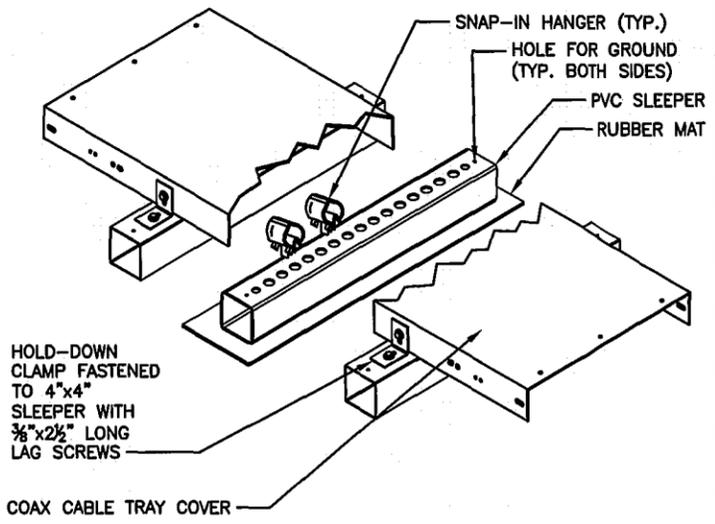
MMBTS ALARM SCHEDULE

NO SCALE B



TYPICAL GPS ANTENNA DETAIL

NO SCALE A



NOTES:  
 1. 6'-0" MAXIMUM SPACING BETWEEN SUPPORTS.  
 2. PARTS TO BE FURNISHED & INSTALLED BY CONTRACTOR UNLESS OTHERWISE NOTED.

CABLE TRAY

NO SCALE B

PLANS PREPARED FOR:

6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

**SHIVEHATTERY**  
 ARCHITECTURE+ENGINEERING  
 3025 Highland Pkwy Suite 140 | Downers Grove, Illinois 60515  
 630.390.7444 | fax 630.437.5800 | shive-hattery.com  
 Iowa | Illinois | Missouri

S/H PROJ # 8155100-19

ENGINEERING LICENSE:

WILLIAM C. THOMPSON, JR.  
 REGISTERED PROFESSIONAL ENGINEER  
 NUMBER E-22147

WILLIAM C. THOMPSON, JR.  
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OCEAN DRAWINGS FOR REVIEW	08/07/15	SPB	0

SITE NAME:

ATC GUMBO

SITE CASCADE:

ST51XC070

SITE ADDRESS:

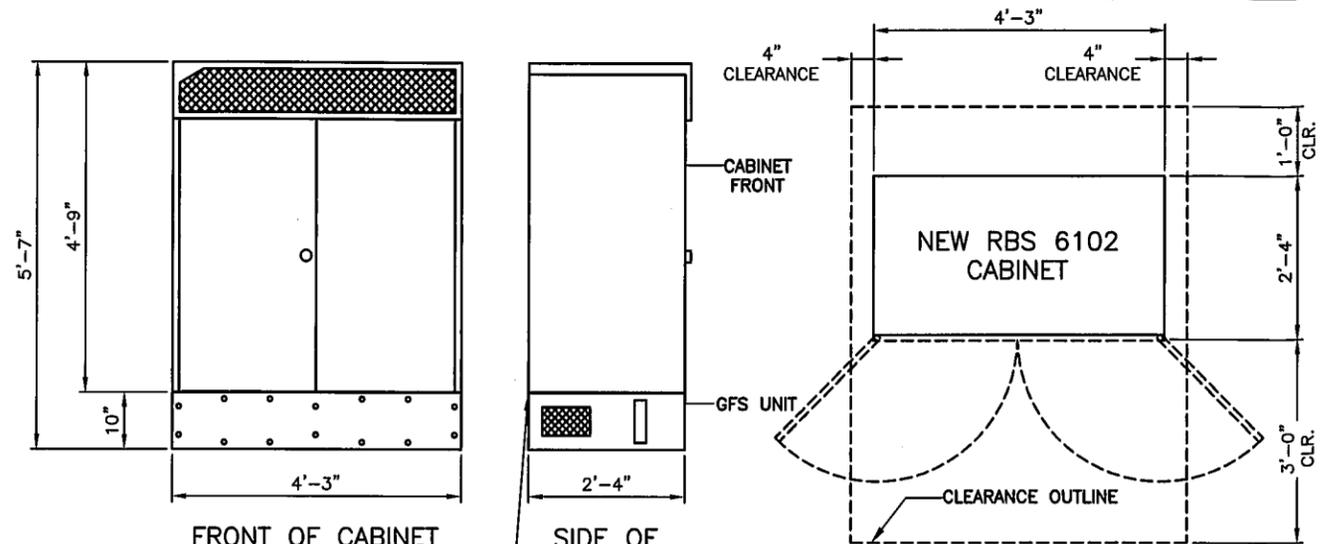
18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005

SHEET DESCRIPTION:

EQUIPMENT DETAILS

SHEET NUMBER:

A-8D



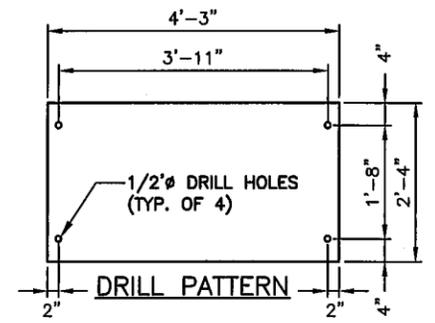
FRONT OF CABINET

SIDE OF CABINET

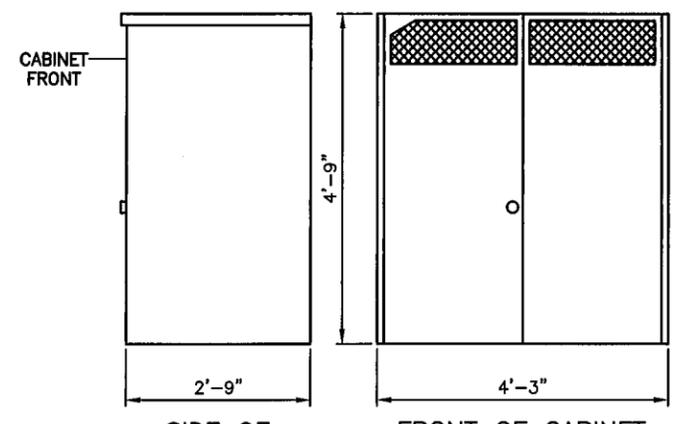
APPLY 1-1/2" x 1/4" CLOSED NEOPRENE SELF ADHESIVE WEATHER STRIPPING BETWEEN RBS CABINET AND PLINTH.

ERICSSON RBS 6102		
DIMENSIONS	51.18"W x 27.56"D x *66.93"H	
WEIGHT	**727 LBS.	
MINIMUM CLEARANCES		
FRONT	SIDES	REAR
3'-0"	4"	1'-0"

\*HEIGHT SHOWN ON THE TABLE INCLUDES GLOBAL BASE UNIT PROVIDE BY ERICSSON.  
 \*\*WEIGHT SHOWN ON THE TABLE INCLUDES GLOBAL BASE UNIT PROVIDE BY ERICSSON.



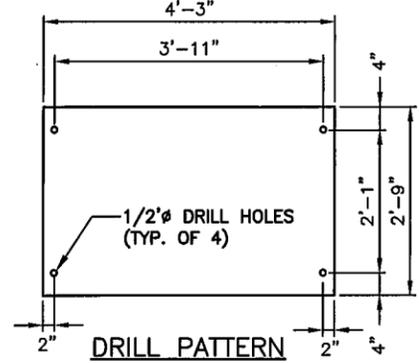
DRILL PATTERN



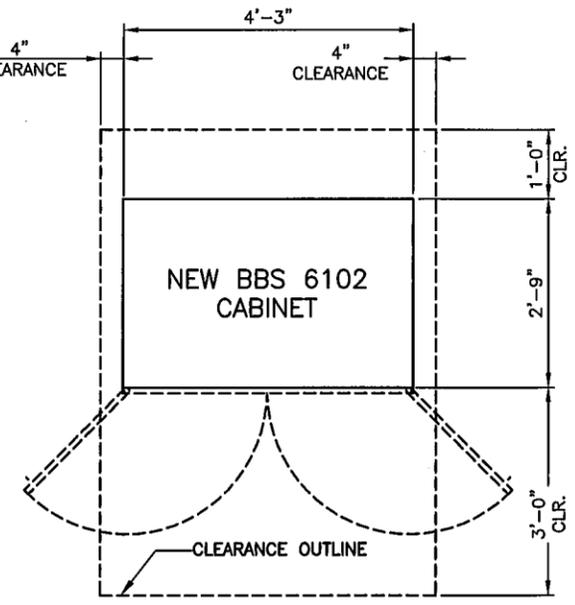
SIDE OF CABINET

FRONT OF CABINET

BATTERIES TO BE INSTALLED AS PER ERICSSON REQUIREMENTS. NO SUBSTITUTES WILL BE ALLOWED WITHOUT WRITTEN PERMISSION FROM ERICSSON PROJECT MANAGER.



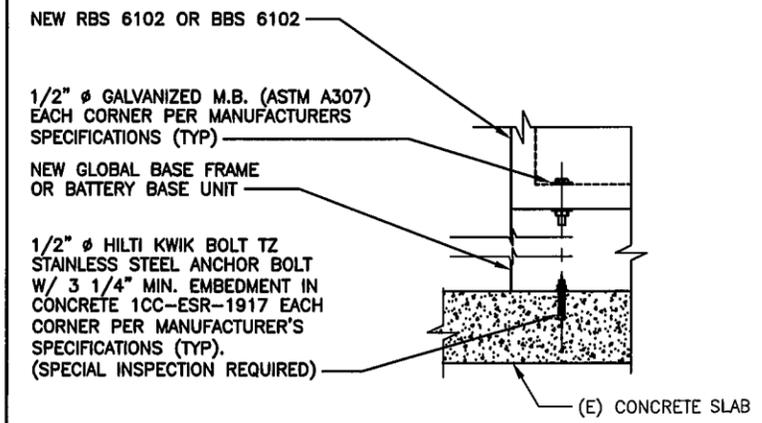
DRILL PATTERN



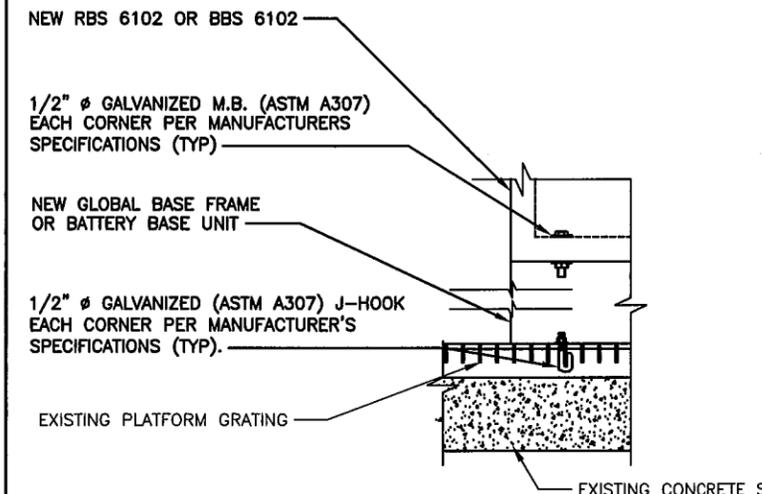
NEW BBS 6102 CABINET

ERICSSON BBS 6102		
DIMENSIONS	51.18"W x 27.56"D x *66.93"H	
WEIGHT	***2821 - 3153 LBS.	
MINIMUM CLEARANCES		
FRONT	SIDES	REAR
3'-0"	4"	1'-0"

\*\*\*WEIGHT SHOWN ON THE TABLE INCLUDES OPzV BATTERIES



MOUNTING TO CONCRETE

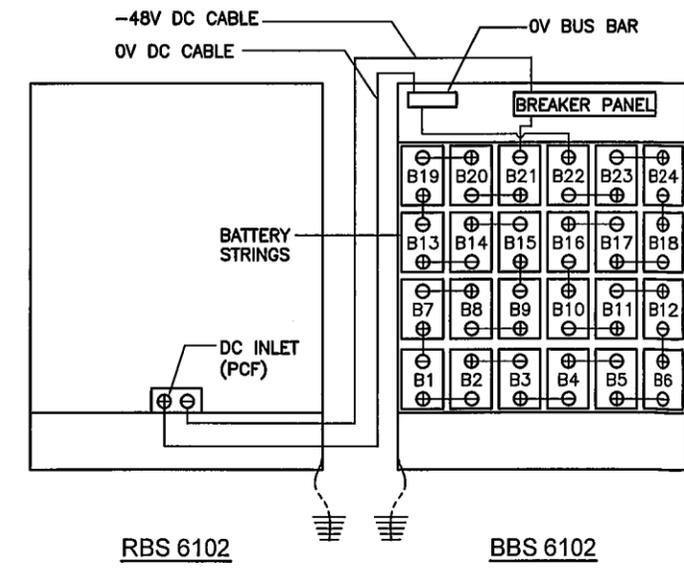


MOUNTING TO GRATING

CABINET MOUNTING DETAIL

NO SCALE A

**NOTE:**  
 ALL BATTERIES, CABLES AND CONNECTIONS SHALL BE INSTALLED BY CONTRACTOR PER ERICSSON SPECIFICATIONS



EXTERNAL BBS 6102 CONNECTION DIAGRAM

NO SCALE B

ERICSSON 6102 CABINET DETAILS

NO SCALE C

PLANS PREPARED FOR:

6580 Sprint Parkway  
 Overland Park, Kansas 66251

PLANS PREPARED BY:

3025 Highland Pkwy Suite 140 | Downers Grove, Illinois 60515  
 630.390.7444 | fax 630.437.5800 | shive-hattery.com  
 Iowa | Illinois | Missouri

S/H PROJ # 8155100-19

ENGINEERING LICENSE:

WILLIAM C. THOMPSON, JR.  
 REGISTERED PROFESSIONAL ENGINEER  
 REGISTRATION NUMBER: E-22147

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SITE NAME:

ATC GUMBO

SITE CASCADE:

ST51XC070

SITE ADDRESS:

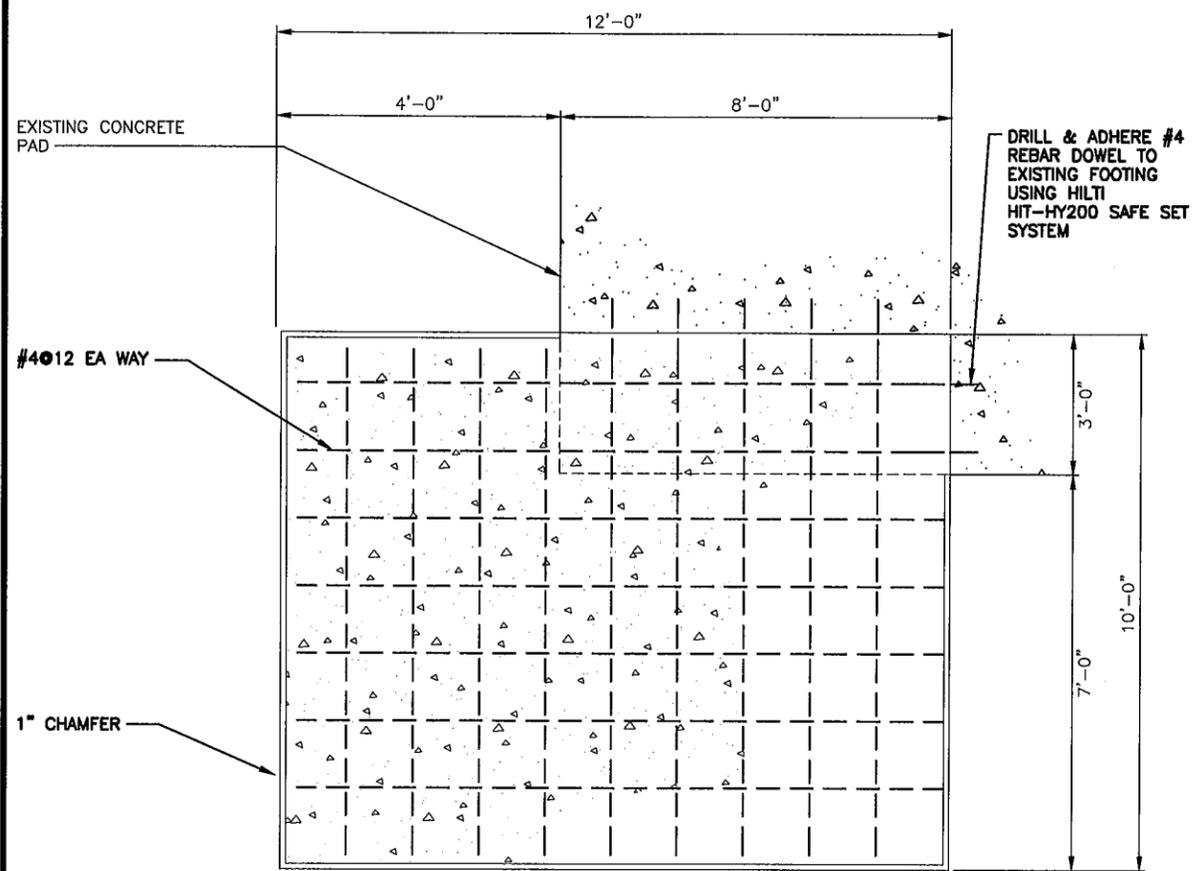
18614 OLIVE STREET ROAD  
 CHESTERFIELD, MO 63005

SHEET DESCRIPTION:

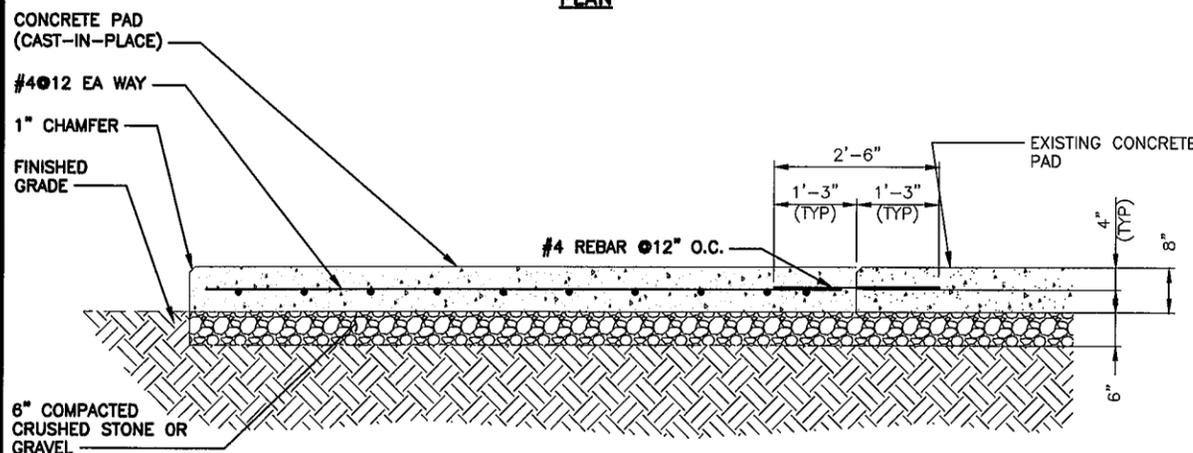
EQUIPMENT DETAILS

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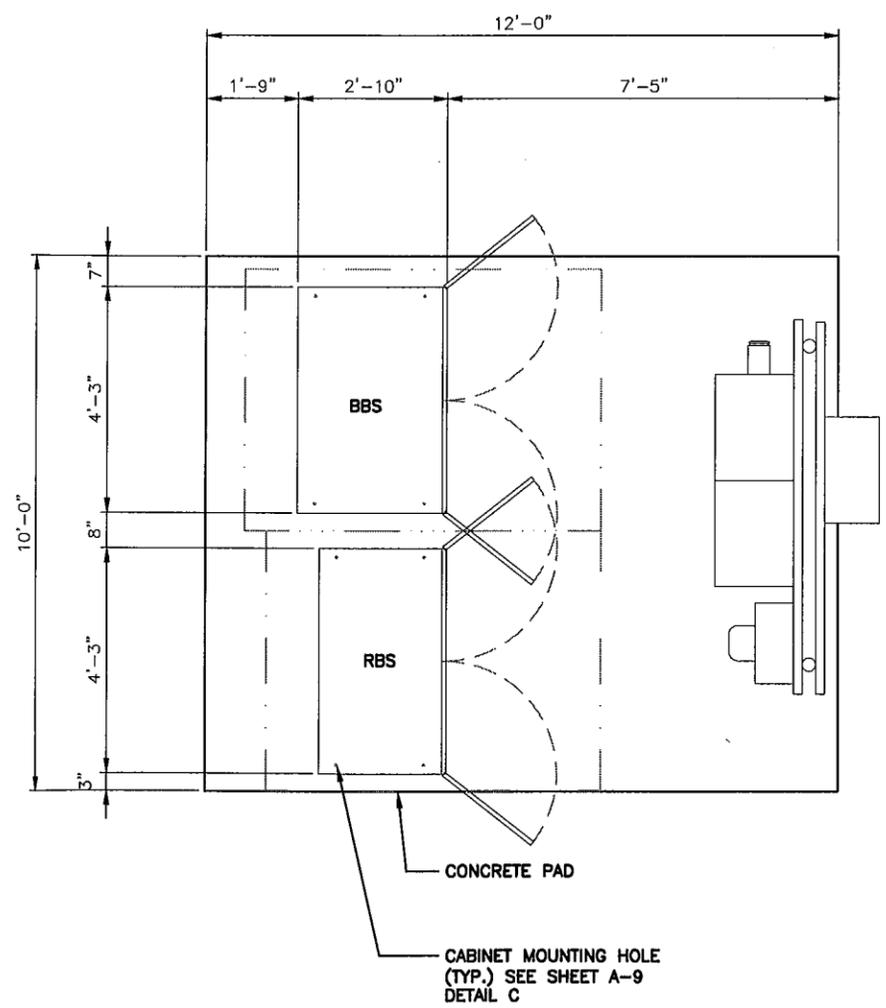
A-9



PLAN



SECTION



- NOTE:**
1. USE GALVANIZED HILTI EXPANSION ANCHORS OR, APPROVED MANUFACTURER EQUIVALENT, FOR EQUIPMENT ANCHORAGE.
  2. FOR SIZE AND LOCATION OF ANCHORS AND OTHER REQUIREMENT, SEE EQUIPMENT VENDOR DRAWINGS.
  3. CABINET ORIENTATION AND LAYOUT MAY VARY. REFERENCE EQUIPMENT PLAN FOR EXACT DETAILS.

PLANS PREPARED FOR:

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Overland Park, Kansas 66251

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**ATC GUMBO**

SITE CASCADE:

**ST51XC070**

SITE ADDRESS:

18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005

SHEET DESCRIPTION:

**STRUCTURAL DETAILS**

SHEET NUMBER:

**S-1**

CONCRETE PAD FOR EQUIPMENT

NO SCALE B

EQUIPMENT BOLTING PLAN

NO SCALE A

ENGINEERING LICENSE:

WILLIAM C. THOMPSON, JR.  
 REGISTERED PROFESSIONAL ENGINEER  
 REGISTRATION NUMBER: E-22147

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SITE NAME:  
**ATC GUMBO**

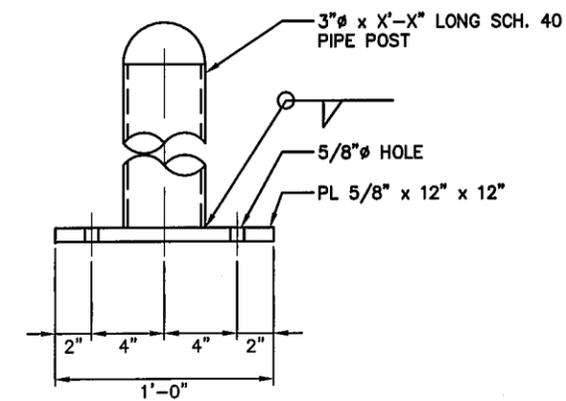
SITE CASCADE:  
**ST51XC070**

SITE ADDRESS:  
 18614 OLIVE STREET ROAD  
 CHESTERFIELD, MO 63005

SHEET DESCRIPTION:  
**STRUCTURAL DETAILS**

SHEET NUMBER:  
**S-2**

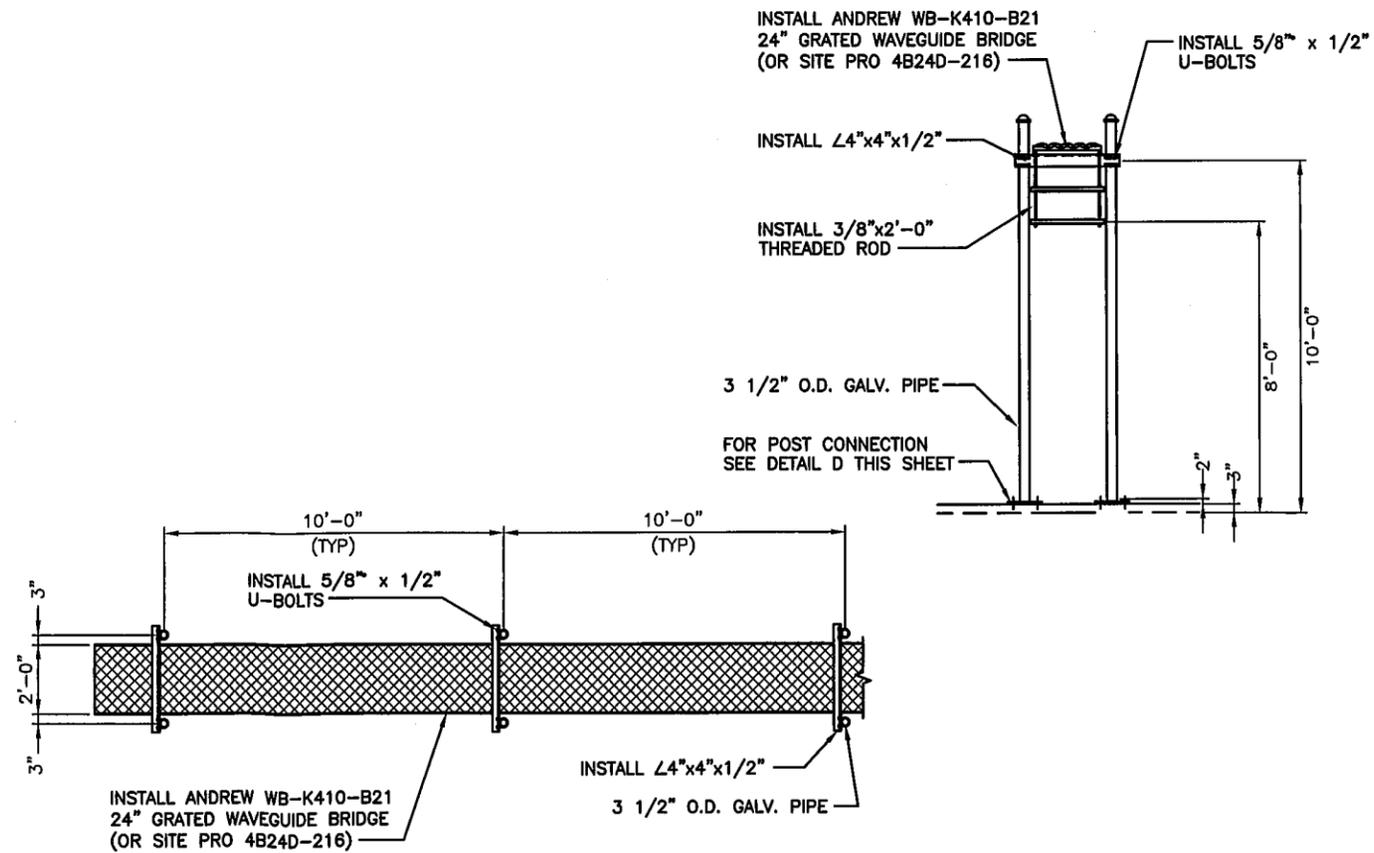
DETAIL NOT USED NO SCALE C



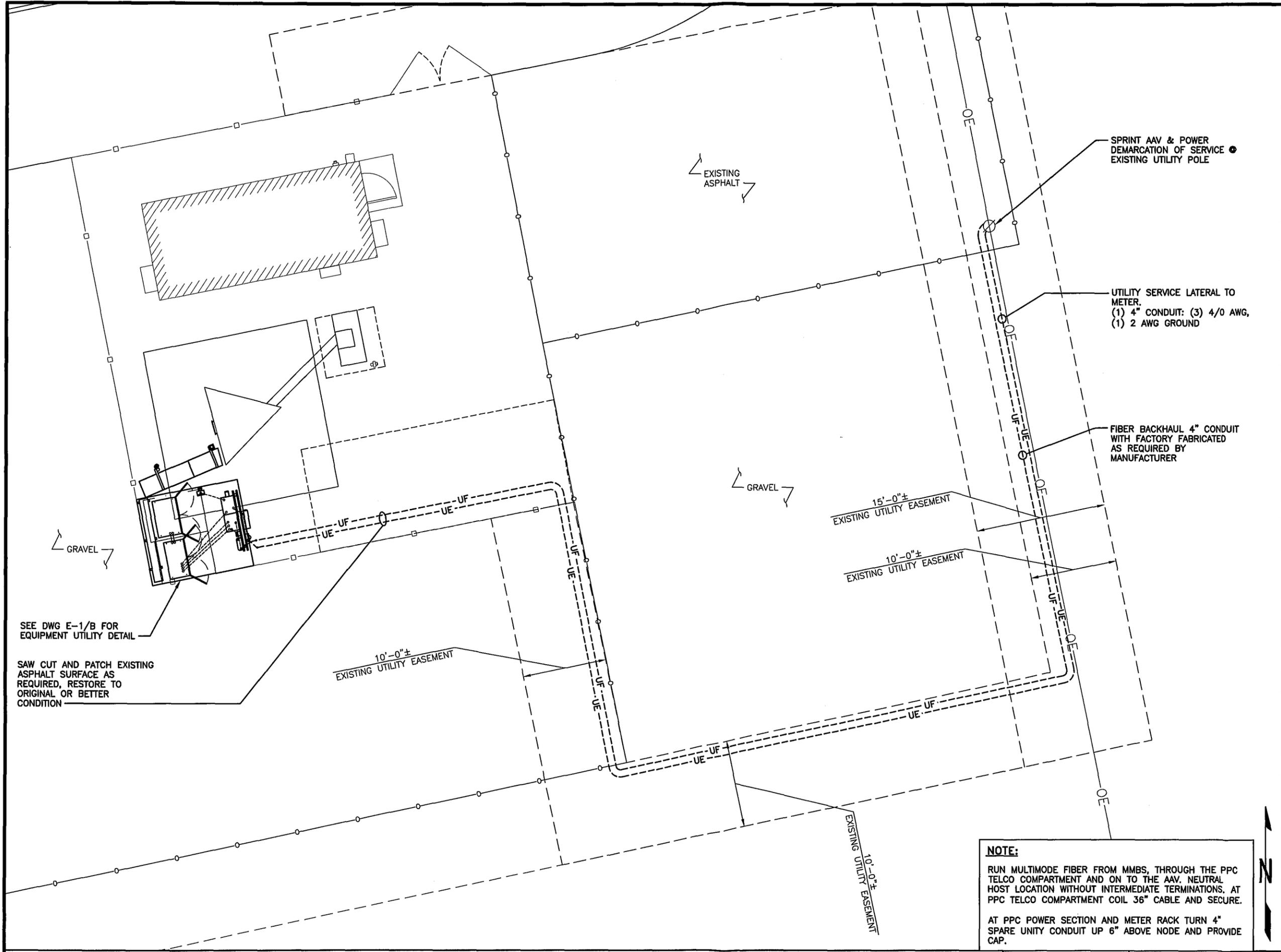
- NOTE:  
 1. STEEL SHALL BE HOT DIPPED GALVANIZED.  
 2. CONNECT TO SLAB w/ (4) 1/2" HILTI KB BOLT TZ w/ 3 1/4" MIN EMBEDMENT PER PLATE

PAD MOUNTED POST CONNECTION DETAIL NO SCALE D

DETAIL NOT USED NO SCALE A



ICE BRIDGE DETAILS NO SCALE B



SEE DWG E-1/B FOR EQUIPMENT UTILITY DETAIL

SAW CUT AND PATCH EXISTING ASPHALT SURFACE AS REQUIRED, RESTORE TO ORIGINAL OR BETTER CONDITION

**NOTE:**  
 RUN MULTIMODE FIBER FROM MMBS, THROUGH THE PPC TELCO COMPARTMENT AND ON TO THE AAV. NEUTRAL HOST LOCATION WITHOUT INTERMEDIATE TERMINATIONS. AT PPC TELCO COMPARTMENT COIL 36" CABLE AND SECURE.  
 AT PPC POWER SECTION AND METER RACK TURN 4" SPARE UNITY CONDUIT UP 6" ABOVE NODE AND PROVIDE CAP.

PLANS PREPARED FOR:



6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

**SHIVEHATTERY**  
 ARCHITECTURE+ENGINEERING  
 3025 Highland Pkwy Suite 140 | Downers Grove, Illinois 60515  
 630.390.7444 | fax 630.437.5800 | shive-hattery.com  
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S/H PROJ # 8155100-19

ENGINEERING LICENSE:



MARTIN VALENTINE, PROFESSIONAL ENGINEER  
 REGISTRATION NUMBER: 2007005050

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REVISIONS:

DESCRIPTION	DATE	BY	REV
OCEAN DRAWINGS FOR REVIEW	08/07/15	SPB	0
-	-	-	-
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SITE NAME:

**ATC GUMBO**

SITE CASCADE:

**ST51XC070**

SITE ADDRESS:

18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005

SHEET DESCRIPTION:

**ELECTRICAL PLAN**

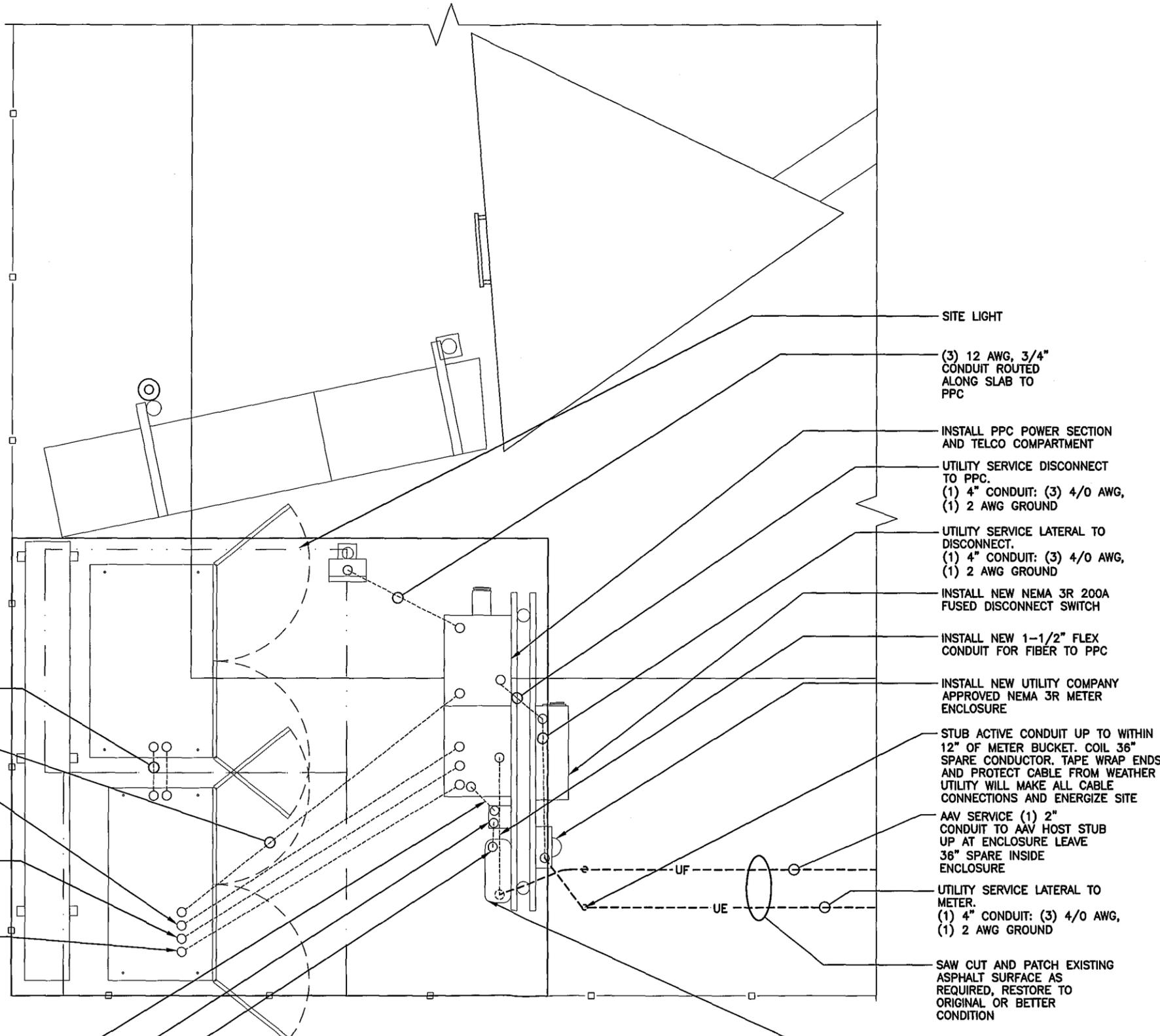
SHEET NUMBER:

**E-1A**

**ELECTRICAL PLAN**

11x17 SCALE: 1/4"=1'-0" 22x34 SCALE: 1/2"=1'-0" A

**NOTE:**  
 RUN MULTIMODE FIBER FROM MMBS, THROUGH THE PPC TELCO COMPARTMENT AND ON TO THE AAV. NEUTRAL HOST LOCATION WITHOUT INTERMEDIATE TERMINATIONS. AT PPC TELCO COMPARTMENT COIL 36" CABLE AND SECURE.  
 AT PPC POWER SECTION AND METER RACK TURN 4" SPARE UNITY CONDUIT UP 6" ABOVE NODE AND PROVIDE CAP.



FACTORY WIRE HARNESS  
 SIZE CONDUIT AS REQUIRED  
 BY MANUFACTURER

AC POWER FOR RBS (3) 2  
 AWG, (1) 2 AWG GROUND,  
 1 1/2" FLEX-CONDUIT

ALARMS 1" FLEX-CONDUIT,  
 25PR 24GA CAT5E

FIBER 1-1/2" FLEX-CONDUIT  
 WITH FACTORY FABRICATED  
 MULTIMODE FIBER AS REQUIRED  
 BY MANUFACTURER

1" PVC WITH DC POWER FOR  
 CIENNA

INSTALL 1" FLEX CONDUIT FOR  
 DC POWER TO CIENNA

INSTALL 6x6x6 J-BOX FOR DC  
 BREAKERS, SERVICE TO CIENNA

INSTALL 1" FLEX CONDUIT FOR  
 DC POWER TO CIENNA

SITE LIGHT

(3) 12 AWG, 3/4"  
 CONDUIT ROUTED  
 ALONG SLAB TO  
 PPC

INSTALL PPC POWER SECTION  
 AND TELCO COMPARTMENT

UTILITY SERVICE DISCONNECT  
 TO PPC.  
 (1) 4" CONDUIT: (3) 4/0 AWG,  
 (1) 2 AWG GROUND

UTILITY SERVICE LATERAL TO  
 DISCONNECT.  
 (1) 4" CONDUIT: (3) 4/0 AWG,  
 (1) 2 AWG GROUND

INSTALL NEW NEMA 3R 200A  
 FUSED DISCONNECT SWITCH

INSTALL NEW 1-1/2" FLEX  
 CONDUIT FOR FIBER TO PPC

INSTALL NEW UTILITY COMPANY  
 APPROVED NEMA 3R METER  
 ENCLOSURE

STUB ACTIVE CONDUIT UP TO WITHIN  
 12" OF METER BUCKET. COIL 36"  
 SPARE CONDUCTOR. TAPE WRAP ENDS  
 AND PROTECT CABLE FROM WEATHER  
 UTILITY WILL MAKE ALL CABLE  
 CONNECTIONS AND ENERGIZE SITE

AAV SERVICE (1) 2"  
 CONDUIT TO AAV HOST STUB  
 UP AT ENCLOSURE LEAVE  
 36" SPARE INSIDE  
 ENCLOSURE

UTILITY SERVICE LATERAL TO  
 METER.  
 (1) 4" CONDUIT: (3) 4/0 AWG,  
 (1) 2 AWG GROUND

SAW CUT AND PATCH EXISTING  
 ASPHALT SURFACE AS  
 REQUIRED, RESTORE TO  
 ORIGINAL OR BETTER  
 CONDITION

INSTALL AT&T CIENNA  
 CABINET TO UTILITY RACK

ENGINEERING LICENSE:

MARTIN VALENTINE, PROFESSIONAL ENGINEER  
 REGISTRATION NUMBER: 2007005050

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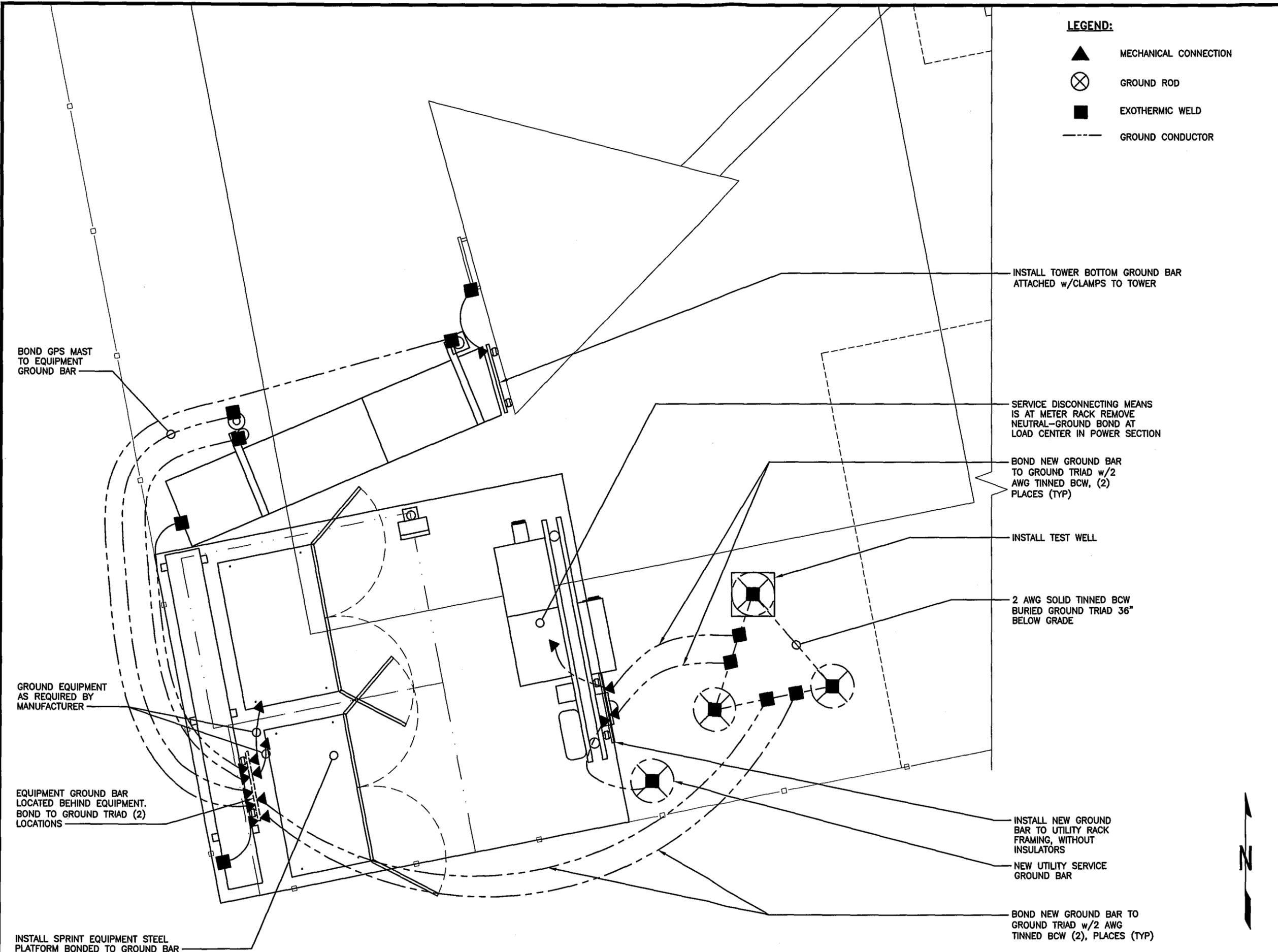
SITE NAME:  
**ATC GUMBO**

SITE CASCADE:  
**ST51XC070**

SITE ADDRESS:  
 18614 OLIVE STREET ROAD  
 CHESTERFIELD, MO 63005

SHEET DESCRIPTION:  
**ELECTRICAL PLAN DETAIL**

SHEET NUMBER:  
**E-1B**



- LEGEND:**
- ▲ MECHANICAL CONNECTION
  - ⊗ GROUND ROD
  - EXOTHERMIC WELD
  - GROUND CONDUCTOR

PLANS PREPARED FOR:

**Sprint**

6580 Sprint Parkway  
Overland Park, Kansas 66251

---

PLANS PREPARED BY:

**SHIVEHATTERY**  
ARCHITECTURE+ENGINEERING

3025 Highland Pkwy Suite 140 | Downers Grove, Illinois 60515  
630.390.7444 | fax 630.437.5800 | shive-hattery.com  
Iowa | Illinois | Missouri

S/H PROJ # 8155100-19

ENGINEERING LICENSE:

MARTIN VALENTINE, PROFESSIONAL ENGINEER  
REGISTRATION NUMBER: 2007005050

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SITE NAME:

**ATC GUMBO**

SITE CASCADE:

**ST51XC070**

SITE ADDRESS:

18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005

SHEET DESCRIPTION:

**GROUNDING PLAN**

SHEET NUMBER:

**E-2**

**GROUNDING PLAN**

SCALE: NONE A



**SHIVEHATTERY**  
 ARCHITECTURE+ENGINEERING  
 3026 Highland Pkwy Suite 140 | Downers Grove, Illinois 60515  
 630.390.7444 | fax 630.437.5800 | shive-hattery.com  
 Iowa | Illinois | Missouri  
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MARTIN VALENTINE, PROFESSIONAL ENGINEER  
 REGISTRATION NUMBER: 2007005050

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-	-	-	-
-	-	-	-

ATC GUMBO

ST51XC070

18614 OLIVE STREET ROAD  
 CHESTERFIELD, MO 63005

ELECTRICAL DETAILS  
 TOWER GROUNDING

E-3

**NOTE:**  
 CONDUCTORS SHALL BE 2 AWG INSULATED STRANDED GREEN CU, GROUND WIRE, (TYP.) U.N.O

(3) INSTALL SPRINT 800 MHZ RRU

(3) INSTALL SPRINT 1900 MHZ RRU

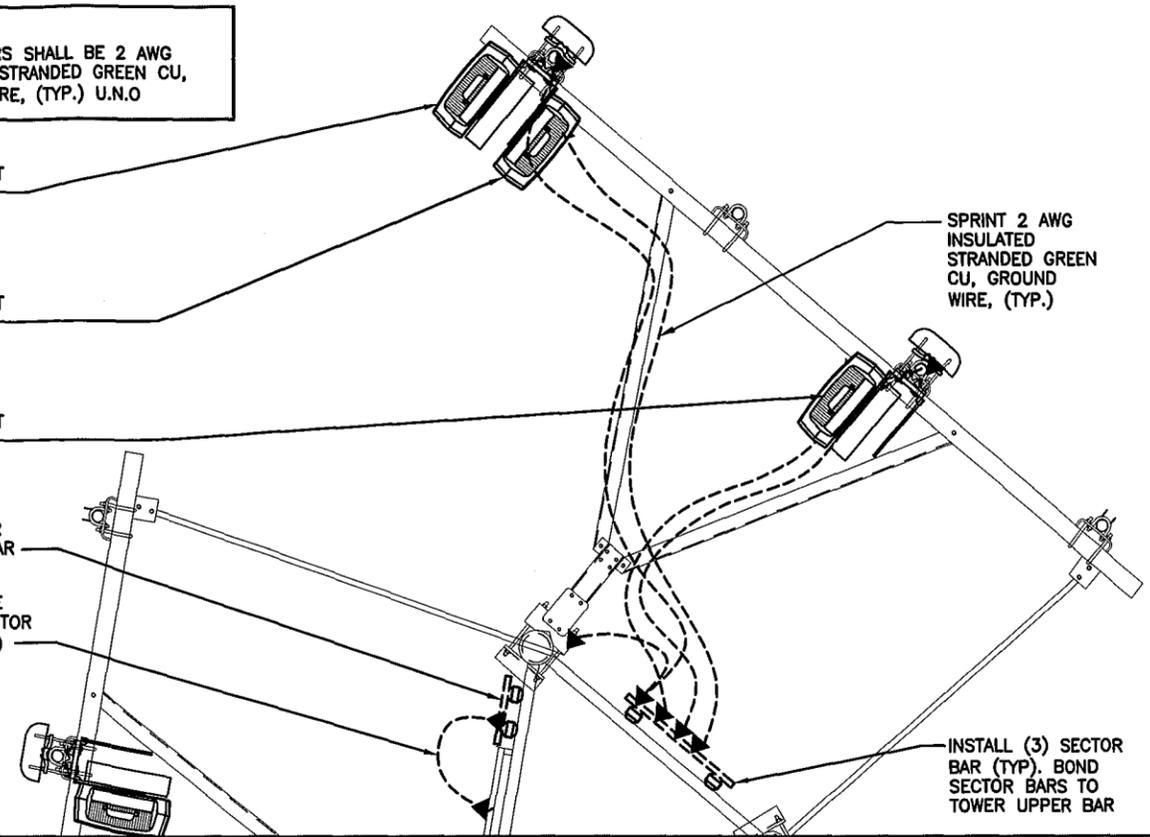
(3) INSTALL SPRINT 2500 MHZ RRU

INSTALL (1) UPPER TOWER GROUND BAR

NEW HYBRID CABLE GROUNDED TO SECTOR GROUND BAR (TYP)

SPRINT 2 AWG INSULATED STRANDED GREEN CU, GROUND WIRE, (TYP.)

INSTALL (3) SECTOR BAR (TYP). BOND SECTOR BARS TO TOWER UPPER BAR



DETAIL NOT USED

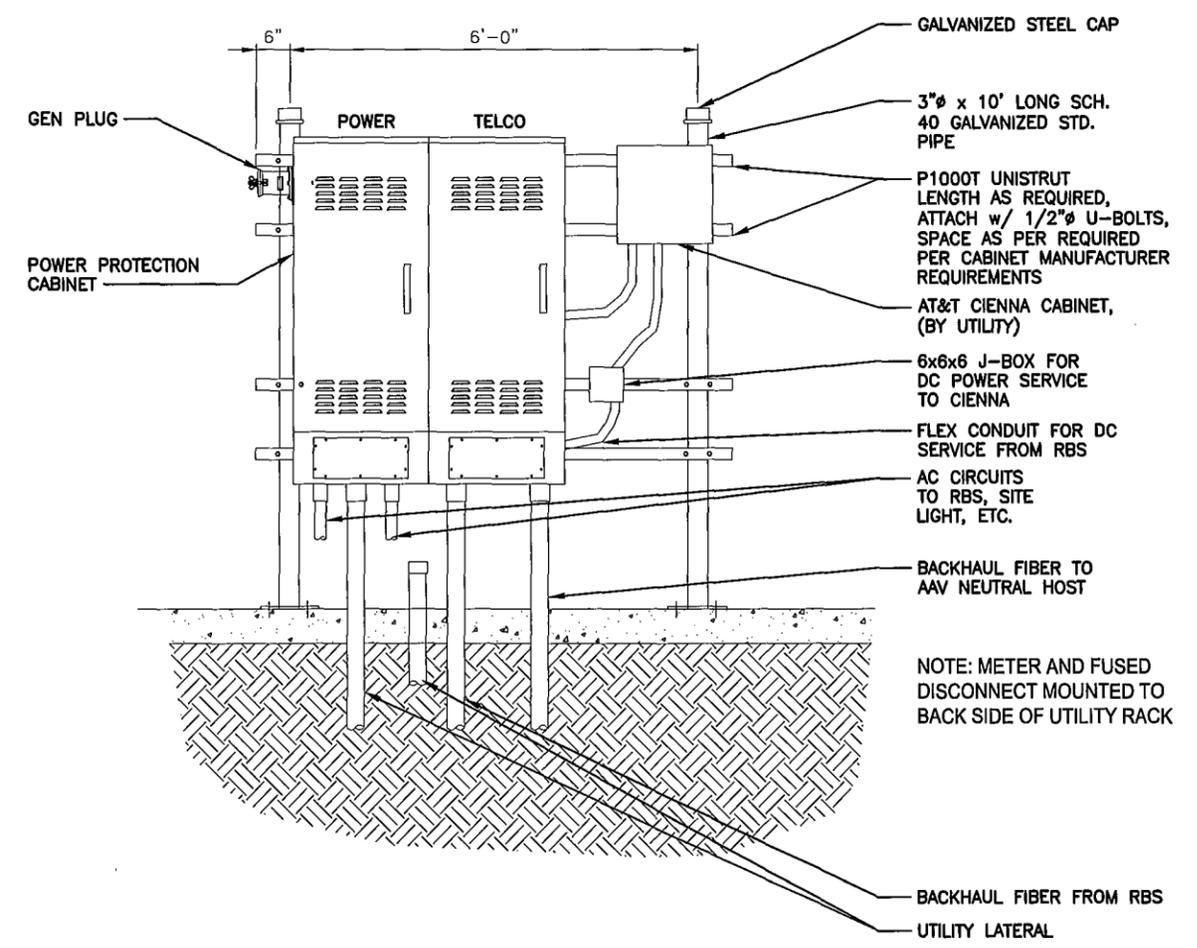
NO SCALE

C

ANTENNA GROUNDING PLAN (TYP)

NO SCALE

A

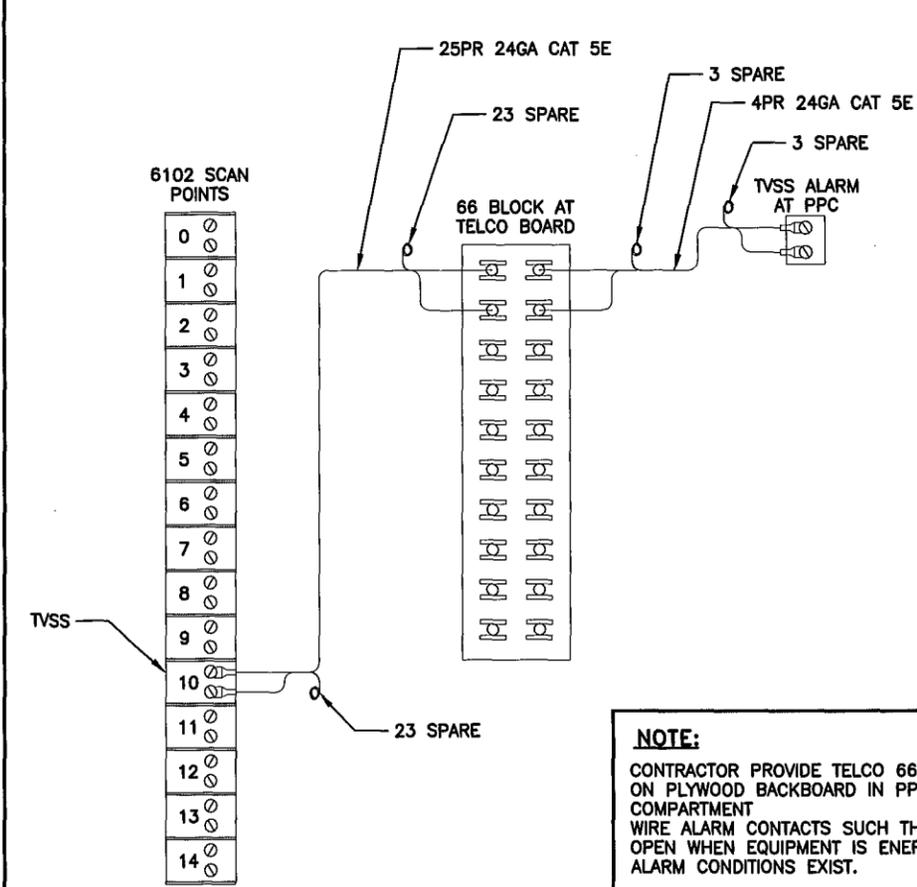


- GALVANIZED STEEL CAP
- 3" x 10' LONG SCH. 40 GALVANIZED STD. PIPE
- P1000T UNISTRUT LENGTH AS REQUIRED, ATTACH w/ 1/2" U-BOLTS, SPACE AS PER REQUIRED PER CABINET MANUFACTURER REQUIREMENTS
- AT&T CIENNA CABINET, (BY UTILITY)
- 6x6x6 J-BOX FOR DC POWER SERVICE TO CIENNA
- FLEX CONDUIT FOR DC SERVICE FROM RBS
- AC CIRCUITS TO RBS, SITE LIGHT, ETC.
- BACKHAUL FIBER TO AAV NEUTRAL HOST
- NOTE: METER AND FUSED DISCONNECT MOUNTED TO BACK SIDE OF UTILITY RACK
- BACKHAUL FIBER FROM RBS
- UTILITY LATERAL

H-FRAME FOR POWER PROTECTION CABINET

NO SCALE

D

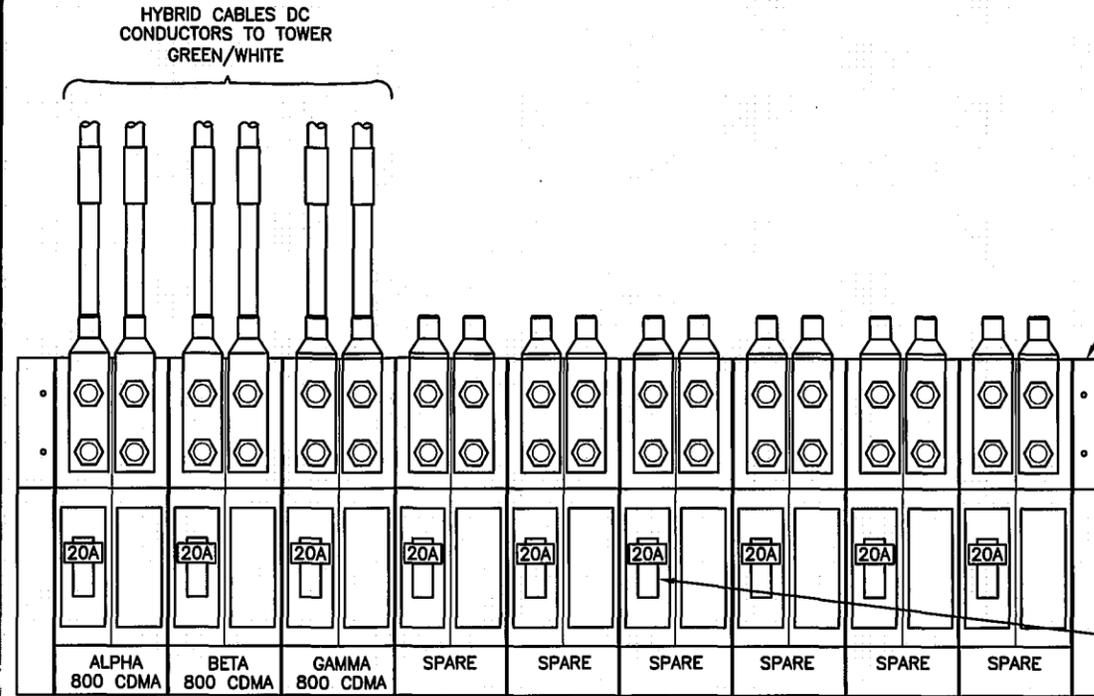
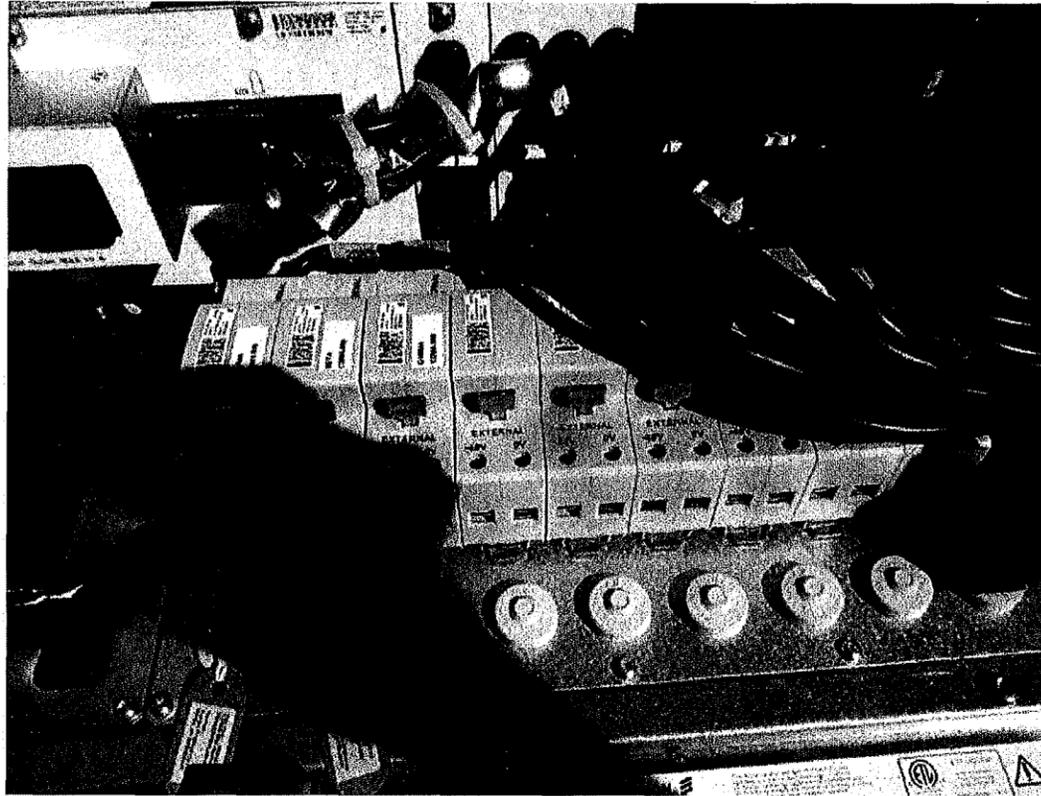


**NOTE:**  
 CONTRACTOR PROVIDE TELCO 66-BLOCK MOUNTED ON PLYWOOD BACKBOARD IN PPC TELCO COMPARTMENT WIRE ALARM CONTACTS SUCH THAT CONTACTS ARE OPEN WHEN EQUIPMENT IS ENERGIZED AND NO ALARM CONDITIONS EXIST.

ALARM WIRING DIAGRAM

NO SCALE

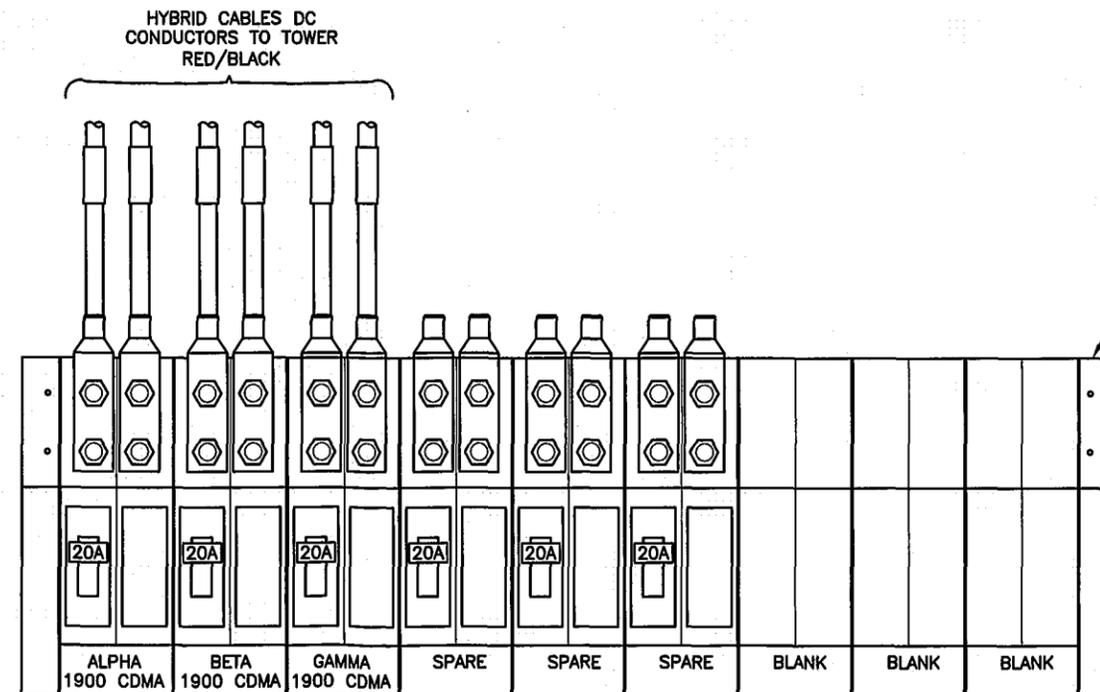
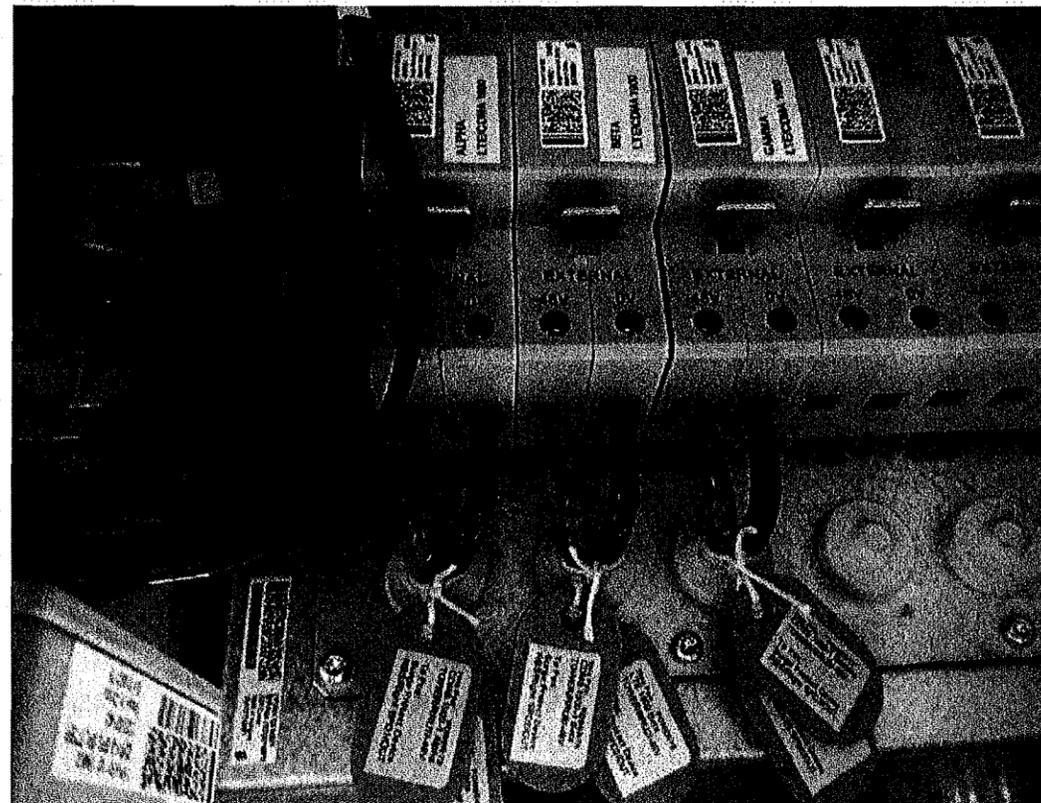
B



DC DISTRIBUTION BUS #1

NO SCALE

A



DC DISTRIBUTION BUS #2

NO SCALE

B

PLANS PREPARED FOR:



6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

**SHIVEHATTERY**  
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S/H PROJ # 8155100-19

ENGINEERING LICENSE:



MARTIN VALENTINE, PROFESSIONAL ENGINEER  
REGISTRATION NUMBER: 2007005050

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-	-	-	-

SITE NAME:

ATC GUMBO

SITE CASCADE:

ST51XC070

SITE ADDRESS:

18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005

SHEET DESCRIPTION:

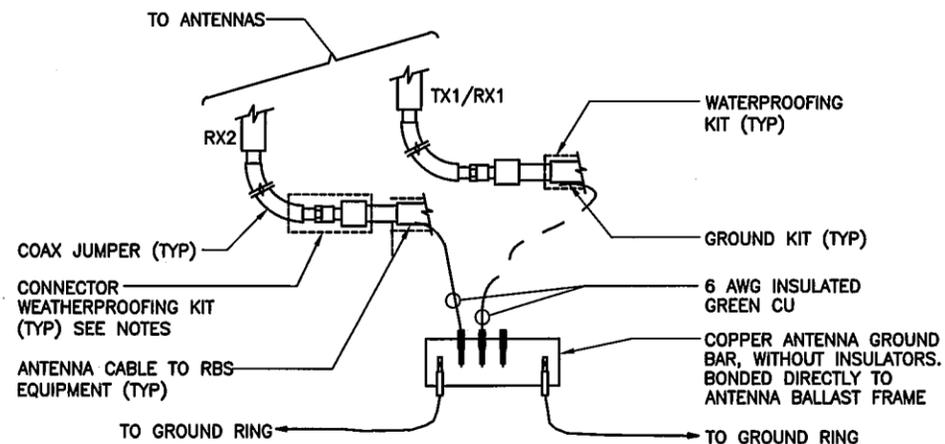
D/C POWER DISTRIBUTION

SHEET NUMBER:

E-7

**NOTES:**

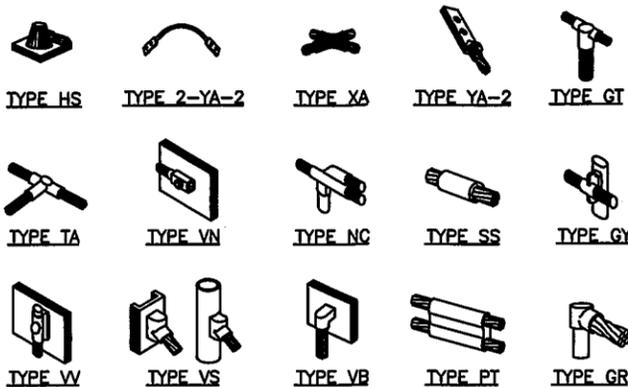
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
- WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.



TYPICAL ANTENNA GROUND KIT

NO SCALE

E



**NOTE:**

ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.

EXOTHERMIC WELDS

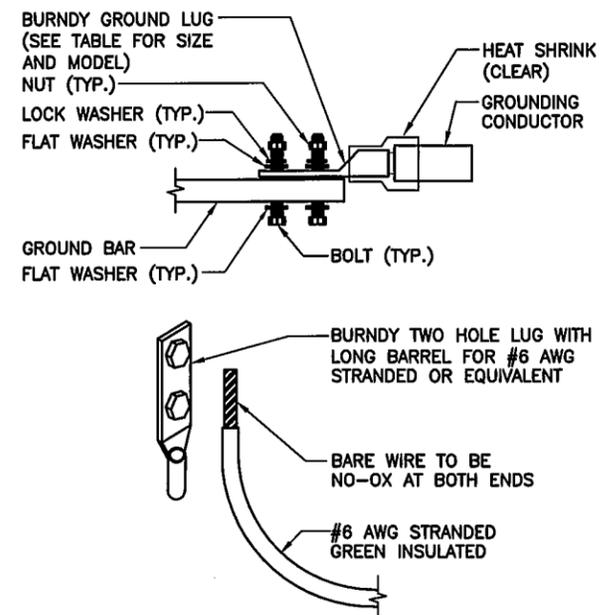
NO SCALE

C

WIRE SIZE	BURNDY LUG	BOLT SIZE
6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT

**NOTES:**

- HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. HARDWARE IS TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.
- COPPER SHIELD, ANTIOX, OR NO-OX OR EQUIVALENT SHALL BE PLACE WHERE DISSIMILAR METALS CONNECT.
- LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- FLAT WASHER SHALL NOT OVERLAP ADJACENT LUGS OR WASHERS



MECHANICAL LUG CONNECTION

NO SCALE

C

PLANS PREPARED FOR:



6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

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SITE NAME:

ATC GUMBO

SITE CASCADE:

ST51XC070

SITE ADDRESS:

18614 OLIVE STREET ROAD  
CHESTERFIELD, MO 63005

SHEET DESCRIPTION:

D/C SUB  
PANEL DETAIL

SHEET NUMBER:

E-8

SEE BILL#  
3058

✓ MGH  
10/13/15

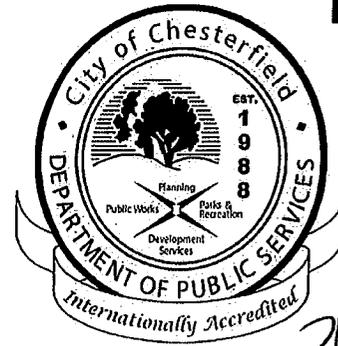
III.C

**DATE:** September 24, 2015

**TO:** Michael G. Herring, ICMA-CM  
City Administrator

**FROM:** James A. Eckrich, P.E. *JAE*  
Public Works Director / City Engineer

**RE:** Greentrails Drive South  
Water Main Relocation



*Forward to PPH  
me*

The City of Chesterfield was previously awarded a Surface Transportation Program (STP) grant to reconstruct Greentrails Drive South from Ladue Road to White Road. This project will include the construction of a new concrete road, sidewalks, handicap ramps, and storm sewer improvements. The design of this project is being completed by HR Green through an Agreement approved by City Council in early 2014. City Staff is in the process of acquiring the temporary easements necessary to complete the project (37 of 44 obtained to date). All project costs, including design, easement acquisition, and construction, are eligible for reimbursement at the rate of 70 percent through the STP grant.

Plans, specifications, and estimate (PS&E) for this project were submitted to the Missouri Department of Transportation (MODOT) on September 11, 2015. Those plans include the lowering of the intersection of Greentrails South Drive and Dinsmoor Drive, which will improve the road profile, remove sight distance restrictions, and allow for compliance with ADA standards when constructing curb ramps. The lowering of this intersection will necessitate the relocation of several utilities in the area. While most of the utilities are in public right of way, the water mains owned and maintained by Missouri American Water Company are partially located in private easement. This is an important distinction as utilities located in public right of way must relocate at their cost, while utilities in private easement have the right to require the public agency (the City of Chesterfield) to fund the relocation costs.

The Missouri American Water Company has designed a relocation plan whereby the water mains on Greentrails Drive South and Dinsmoor Drive will be lowered in order to accommodate the new road profile. The estimated cost of this relocation is \$147,774.80. Because approximately 62.87% of the water mains to be relocated are within easement, the Missouri American Water Company will not relocate these mains without a commitment from the City to fund 62.87% of the estimated cost, or \$92,912.28.

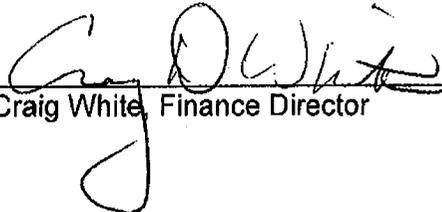
Attached are an Ordinance and a Contract for Water Facility Relocation and License to Utilize Easement (Contract). These documents have been reviewed by the City Attorney. I recommend that the City of Chesterfield enact the attached ordinance authorizing execution of the attached Contract in an amount not to exceed \$102,000 (City portion of estimate plus contingency). Please be advised that the water main relocation costs are eligible for reimbursement through the STP grant, so the net cost to the City of Chesterfield will actually be no greater than \$30,600

### Action Recommended

This matter should be forwarded to the Planning and Public Works Committee for consideration. Should the Committee concur with Staff's recommendation, it should vote to recommend approval to City Council of the following:

- Approval of the attached ordinance authorizing the City Administrator to execute the attached Contract for Water Facility Relocation and License to Utilize Easement with the Missouri American Water Company.
- Approval of payment of actual costs for the relocation of the portions of water mains in private easement, in an amount not to exceed \$102,000. The net cost, after grant reimbursement, will not exceed \$30,600. These costs will be paid from the Capital Improvements Sales Tax Fund.

Concurrence:

  
\_\_\_\_\_  
Craig White, Finance Director

# Memorandum

## Department of Public Services



**TO: James A. Eckrich, PE–Public Works Director/City Engineer**

**FROM: Zachary S. Wolff, PE – Civil Engineer** 

**DATE: September 24, 2015**

**RE: Greentrails Drive South, 2013-PW-06  
Missouri American Water Company Relocation**

---

As you are aware, HR Green has completed the design of the Greentrails Drive South reconstruction project and the plans, specifications, and estimate (PS&E) were submitted to MoDOT for review and approval on September 11<sup>th</sup>, 2015. Prior to the PS&E submittal a utility coordination meeting was held on August 26<sup>th</sup>, 2015 to present the final project plans to utility providers, receive their plans of adjustment, and determine the schedule for utility relocations.

The primary work area on the project that will impact utilities is the intersection of Greentrails Drive South and Dinsmoor Drive. This intersection will be lowered to provide for required ADA accessible cross walks on each of the four legs of the intersection, to ensure a smooth driving surface through the intersection and crosswalks, and also to eliminate a sight distance issue across the intersection due to the current grades. This work will require each utility present under the intersection to lower and/or relocate their facilities. With the exception of Missouri American Water Company (MAWC), each of the utility provider's facilities (Ameren, Charter, AT&T, and Laclede) are located within right-of-way and will be relocated without cost to the City prior to the beginning of the project. Storm sewer work has been approved by MSD and will be completed by the City's contractor as part of the reconstruction project.

MAWC facilities are partially located in a private easement outside of right-of-way along Greentrails Drive South and Dinsmoor Drive. MAWC is therefore entitled to and is requesting a partial reimbursement from the City for the relocation work of their facilities within that private easement. As you know, we have worked with MAWC to minimize their relocations as much as possible with the current design and have also worked with MAWC to clarify some of the contract language and exhibits in

the attached Contract For Water Facility Relocation and License To Utilize Easement (Contract).

A plan of the necessary relocation work is shown on Exhibit A of the Contract. MAWC Engineering Estimate for the relocation work totaling \$147,774.80 is detailed on Exhibit B. Based on the lineal footage of MAWC's existing facilities in right-of-way and in private easement, the City's share of the reimbursement cost is 62.87% or an estimated \$92,912.28. The City's obligation is for 62.87% of the final cost of the relocation be it more or less than the estimate.

In order to authorize MAWC to proceed with the relocation work the Contract must be reviewed by the City Attorney, approved by City Council by ordinance (draft attached), and executed by the City Administrator.

**At this time, I recommend;**

- **Forwarding the Contract to the City Attorney for review and approval as to legal form,**
- **And requesting authorization from City Council, by ordinance, to execute a contract with Missouri American Water Company for reimbursement of 62.87% of the actual relocation cost in an amount not to exceed \$102,000.00. This amount includes an approximate 10% contingency to allow for additional reimbursement as may be necessary due to unforeseen conditions.**

Attachments: Draft Ordinance  
Contract For Water Facility Relocation and License to Utilize Easement

CC:

# City Council Memorandum Department of Public Services



**To:** Michael Herring, City Administrator  
**From:** Aimee Nassif, Planning and Development Services Director  
**Date:** October 13, 2015  
**CC Date:** October 19, 2015

*MNH*  
*10/14/15*

**RE:** **Highland on Conway (Delmar Gardens III) SDP:** A Site Development Plan, Tree Stand Delineation, Tree Preservation Plan, Landscape Plan, Lighting Plan, and Architectural Elevations for a 5.292 acre tract of land zoned "PC" Planned Commercial District located on the north side of North Outer 40 Road, east of Chesterfield Parkway East.

Civil Engineering Design Consultants on behalf of Delmar Gardens III, LLC has submitted a request for a 126,760 square foot, five-story office building with a four level parking garage immediately east of the existing Delmar Gardens office buildings. The subject site is zoned "PC" Planned Commercial District and is governed under the terms and conditions of City of Chesterfield Ordinance Number 2651.

The project was reviewed by the Architectural Review Board (ARB) on July 9<sup>th</sup>, 2015. A motion to forward the submittal to the Planning Commission with a recommendation for approval passed by a vote of 4-0.

At the August 24<sup>th</sup>, 2015 Planning Commission meeting, the plans were presented with a Staff recommendation for approval. After discussion occurred, a motion to postpone the vote on the proposed site development plan passed by a vote of 9-0. Additional information regarding heights of architectural elements, the potential for leaving more ground undisturbed in the proposed buffer, and the potential for preserving more trees in the buffer area was requested by the Planning Commission.

The applicant resubmitted revised plans in response to the Planning Commission requests and the plans were brought back to Planning Commission on September 30<sup>th</sup>, 2015. After discussion, a motion to approve the project failed by a vote of 4 in favor and 5 opposed. Subsequently, Power of Review was called and this project was placed on the October 8, 2015 Planning & Public Works Committee agenda.

At the Planning & Public Works Committee meeting, the applicant offered to amend the plans to include an additional 10 feet between the northern property line and the proposed parking structure. The Committee voted to forward the project, as amended, to City Council with a recommendation to approve by a vote of 4-0.

Attached please find a copy of the Site Development Plan packet that was revised to reflect the changes required from the Planning & Public Works Committee meeting. Staff has reviewed the updated plans and the project meets all code requirements.

**DESCRIPTION**

ICON'S gentle curves and sleek profile create a shape that is beyond common. Two (2) unique arm choices combined with structural element options and multiple housing sizes provide no limitations in bridging to the architectural application.

<b>Catalog #</b>	ICM 150 HPS XX 3S DP PRCPR L HS VA012-XX	<b>Type</b>	F1
<b>Project</b>	DELMAR GARDENS III	<b>Date</b>	2015.06.25
<b>Comments</b>			
<b>Prepared by</b>	McCLURE ENGINEERING/ mkg		

**SPECIFICATION FEATURES**

**Construction**

**HOUSING:** Heavy wall, die-cast aluminum housing maintains a nominal .125 wall thickness for precise tolerance control and repeatability in manufacturing. **DOOR:** Heavy wall, die-cast aluminum door maintains a nominal .125 wall thickness. Continuous silicone gasketing provides an IP65 fixture rating. Toolless entry to housing is provided via two (2) recess mounted button style latches. Captive hinging is fully concealed. **UPSWEEP ARM:** Manufactured of heavy wall cast aluminum. Internal bolts guides provided for positioning arm to housing and pole. **LINEAR ARM:** Manufactured of heavy wall extruded aluminum. Arm features internal bolt guides for positioning arm to housing and pole. **STRUCTURAL MOUNT:** Die-cast aluminum cleat factory mounted and finished in luminaire color. Stainless steel structural rod measures 1/2" in diameter and is provided in luminaire finish or optional natural finish. Wall bracket works in conjunction with linear arm. **INVUE poles provided pre-**

**drilled for suspension mount applications.** See INVUE pole brochure for complete selection of matching poles. **STRUCTURAL WALL MOUNT:** Die-cast aluminum cleat factory mounted to luminaire and finished in luminaire color. Stainless steel structural rod measures 1/2" in diameter and is provided in luminaire finish or optional natural finish. Wall bracket works in conjunction with linear arm.

**Electrical**

**ELECTRICAL TRAY:** Ballast and related electrical components are mounted to a reinforced one piece toolless release power tray. Electrical quick disconnects allow tray to be completely removed from housing providing ample hand and tool room for attachment of luminaire during installation.

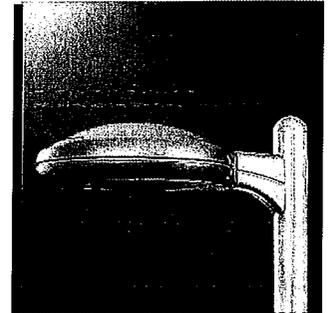
**Optical**

**LENS:** Impact-resistant 1/8" thick tempered clear or optional frosted flat glass for concealment of lamp image. **OPTICAL SYSTEM:** Choice of five (5) high efficiency segmented optical systems

constructed of premium 95% reflective anodized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs, or other means of attachment which may cause streaking in the light distribution. All reflector modules feature toolless removal, quick disconnect wiring plugs, and are toolless field rotatable in 90° increments. Medium housing (ICM) optics feature mogul-base lampholders for HID lamp sources.

**Finish**

Housing and arm finished in a 5 stage premium TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum, and graphite metallic. RAL and custom color matches available. Consult your INVUE Lighting Systems Representative for more information.

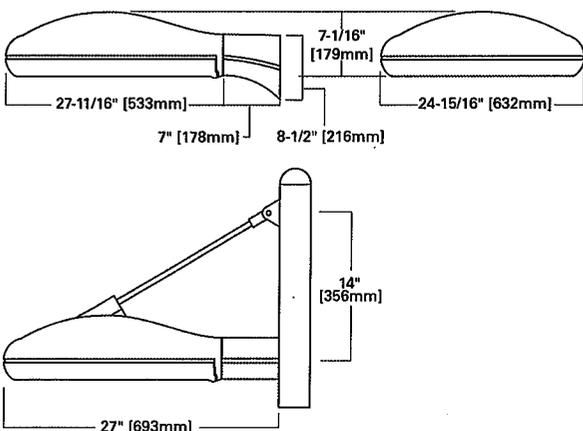


**ICM  
ICON SITE  
MEDIUM**

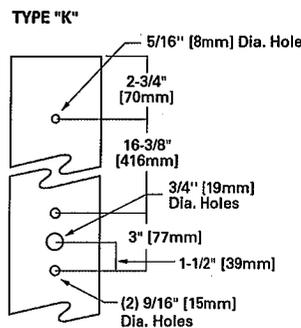
- 84 - 400W
- Pulse Start Metal Halide
- Metal Halide
- High Pressure Sodium
- Compact Fluorescent

**ARCHITECTURAL  
AREA LUMINAIRE**

**DIMENSIONS**



**STRUCTURAL MOUNT**

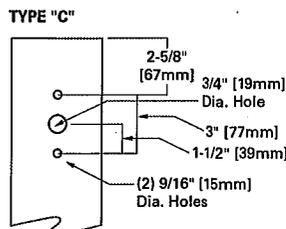


**WATTAGE TABLE**

Lamp Type	Wattage
Pulse Start Metal Halide (MP)®	150, 175, 250, 320, 350, 400W
High Pressure Sodium (HPS)	150, 250, 400W
Metal Halide (MH)	175, 250, 400W
Compact Fluorescent (CF)	(2) 42, (2) 57W

NOTE: ®EISA Compliant: 175-400W.

**ARM DRILLING**



**CERTIFICATION DATA**

- IP65 Rated
- U.L. 1598 Listed
- 3G Vibration Tested
- CSA Listed
- 25°C Ambient Temperature Rating
- ISO 9001
- Full Cutoff

**EPA  
Effective Projected Area:  
(Sq. Ft.)**

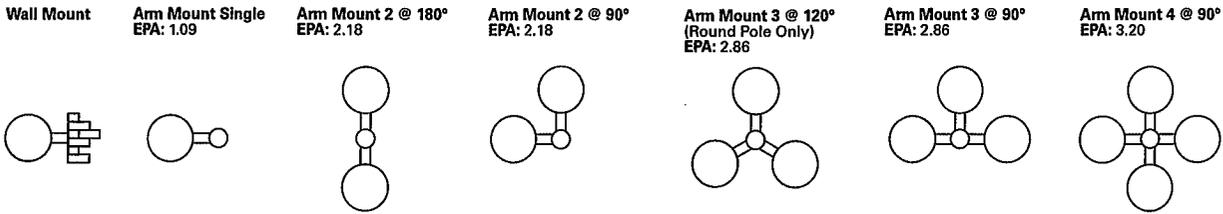
- Single: 1.09
- Single Structural: 1.11

**SHIPPING DATA**

- (Approximate)
- Net Weight (lbs.): 53
- Volume (cu. ft.): 4.00



**MOUNTING VARIATIONS**



**ORDERING INFORMATION**

Sample Number: ICM-400-MH-MT-3S-BK-PRCPS-L

			TBD				
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**Product Family** <sup>1</sup>  
**ICM** ICON Site  
 Medium

**Lamp Wattage** <sup>2</sup>  
**MP**

- 150=150W
- 175=175W
- 250=250W
- 320=320W
- 350=350W
- 400=400W<sup>3</sup>
- MH** <sup>4</sup>
- 175=175W
- 250=250W
- 400=400W<sup>3</sup>
- HPS**
- 150=150W
- 250=250W
- 400=400W

**Compact Fluorescent**

- 84=(2) 42W<sup>5</sup>
- 114=(2) 57W<sup>5</sup>

**Lamp Type**

- MP**: Pulse Start Metal Halide
- MH**: Metal Halide
- HPS**: High Pressure Sodium
- CF**: Compact Fluorescent<sup>6</sup>

**Voltage** <sup>7</sup>

- 120=120V
- 208=208V
- 240=240V
- 277=277V
- 347=347V
- 480=480V
- DT**=Dual-Tap wired 277V<sup>8</sup>
- MT**=Multi-Tap wired 277V<sup>9</sup>
- TT**=Triple-Tap wired 347V<sup>10</sup>
- UNV**=120-277V Universal Electronic Ballast

**Optical System**

- 2S**: Type II
- 3S**: Type III
- 4S**: Type IV
- 5S**: Type V
- SL**=Forward Throw w/ Spill Light Eliminator

**Color** <sup>11</sup>

- BK**=Black
- AP**=Grey
- BZ**=Bronze
- WH**=White
- DP**=Dark Platinum
- GM**=Graphite Metallic

**Structural Options** <sup>12</sup>

**Pole Mount**

- PRCPS**: Strut Rod and Clevis Set for Square Pole<sup>13</sup> (Painted to match fixture, does not include arm)
  - PRCSS**: Stainless Steel Strut Rod and Clevis Set<sup>13</sup> for Square Poles (Clevis' painted to match fixture, does not include arm)
  - PRCPR**: Strut Rod and Clevis Set for Round Pole<sup>14</sup> (Painted to match fixture, does not include arm)
  - PRCSR**: Stainless Steel Strut Rod and Clevis Set <sup>14</sup> for Round Poles (Clevis' painted to match fixture, does not include arm)
- Wall Mount**
- WRCP**: Strut Rod and Clevis Set (Painted to <sup>15</sup> match fixture, does not include arm)
  - WRCS**: Stainless Steel Strut Rod and Clevis Set <sup>15</sup> (Clevis' painted to match fixture, does not include arm)

**Options**

- CEC**=California Title 20 Compliant Ballast (Applies to 175-320W and 400W MP only)
- F**=Single Fuse (120, 277 or 347V) Specify Voltage
- FF**=Double Fuse (208, 240 or 480V) Specify Voltage
- Q**=Quartz Restrike<sup>16</sup>
- EM**=Quartz Restrike w/ Time Delay (Also Strikes at <sup>16</sup> Cold Start)
- EM/SC**=Quartz Emergency Separate Circuit<sup>16</sup>
- R**=NEMA Twistlock Photocontrol Receptacle<sup>17</sup>
- PC**=Button Type Photocontrol (Specify Voltage)
- DS**=Dual Fluorescent Switching Control<sup>18</sup>
- HS**=House Side Shield<sup>19</sup>
- FR**=Frosted Flat Glass Lens
- L**=Lamp Included

**Accessories** <sup>20</sup>

- VA1003-XX**: Wall Mount Kit w/ Upsweep Arm<sup>21</sup>
- VA1004-XX**: Wall Mount Kit w/ Linear Arm<sup>21</sup>
- VA1011-XX**: Upsweep Arm for Square Pole
- VA1012-XX**: Upsweep Arm for Round Pole
- VA1014-XX**: Linear Arm for Square Pole
- VA1015-XX**: Linear Arm for Round Pole
- VA1018-XX**: Mast Arm Adapter Kit
- VA1074-XX**: ICM Structural Mount Wall Mount Arm<sup>22</sup>
- VA1033-XX**: Single-arm Tenon Adapter for 2 3/8" O.D. Tenon
- VA1034-XX**: @180 Degree Tenon Adapter for 2 3/8" O.D. Tenon
- VA1035-XX**: @120 Degree Tenon Adapter for 2 3/8" O.D. Tenon
- VA1036-XX**: @90 Degree Tenon Adapter for 2 3/8" O.D. Tenon
- VA1037-XX**: @90 Degree Tenon Adapter for 2 3/8" O.D. Tenon
- VA1038-XX**: @30 Degree Tenon Adapter for 2 3/8" O.D. Tenon
- VA1039-XX**: @2@120 Degree Tenon Adapter for 2 3/8" O.D. Tenon
- VA1040-XX**: Single-arm Tenon Adapter for 3 1/2" O.D. Tenon
- VA1041-XX**: @2@180 Degree Tenon Adapter for 3 1/2" O.D. Tenon
- VA1042-XX**: @3@120 Degree Tenon Adapter for 3 1/2" O.D. Tenon
- VA1043-XX**: @4@90 Degree Tenon Adapter for 3 1/2" O.D. Tenon
- VA1044-XX**: @2@90 Degree Tenon Adapter for 3 1/2" O.D. Tenon
- VA1045-XX**: @3@90 Degree Tenon Adapter for 3 1/2" O.D. Tenon
- VA1046-XX**: @2@120 Degree Tenon Adapter for 3 1/2" O.D. Tenon
- OA/RA1016**=NEMA Photocontrol - Multi-Tap
- OA/RA1027**=NEMA Photocontrol - 480V
- OA/RA1201**=NEMA Photocontrol - 347V

- Notes: 1 Arm not included. See accessories.  
 2 Standard with mogul-base socket for HPS, MH and 175-400W MP. Standard with medium-base socket for MP lamps 150W and below.  
 3 400W MP and MH requires reduced envelope ED28 lamp.  
 4 MH products available for non-U.S. markets only.  
 5 Dual Compact Fluorescent lamp options available in Type 2S with 84 and 114W. Type 3S available in 84W only.  
 6 CF ballasts are 120 through 277V. Specify with UNV voltage designation.  
 7 Products also available in non-US voltages and 50Hz for international markets. Consult factory for availability and ordering information.  
 8 Dual-tap is 120/277V wired 277V.  
 9 Multi-tap is 120/208/240/277V wired 277V.  
 10 Triple-tap is 120/277/347V wired 347V.  
 11 Custom and RAL color matching available upon request. Consult your INVUE Lighting Systems Representative for further information.  
 12 Add as suffix in the order shown.  
 13 Square pole mount structural options do not include arm assembly (See Accessories). Compatible with VA1014 linear arm only.  
 14 Round pole mount structural options do not include arm assembly (See Accessories). Compatible with VA1015 linear arm only.  
 15 Wall mount structural options do not include arm assembly (See Accessories). Compatible with VA1074 linear arm only.  
 16 Quartz options not available with SL optic.  
 17 NEMA photocontrol receptacle not available in conjunction with structural options.  
 18 Dual switching requires dual 42W or dual 57W Compact Fluorescent lamps. Allows independent switching control of each lamp through use of two (2) electronic ballasts. Allows 50% power reduction when dual ballasts are independently wired and controlled.  
 19 House side shield not available on 5S and SL optics.  
 20 Order separately, replace XX with color suffix.  
 21 For use in down lighting applications only.  
 22 Includes arm only. Must specify WRCP or WRCS in fixture ordering logic. Down light only.

**DESCRIPTION**

ICON'S gentle curves and sleek profile create a shape that is beyond common. Two (2) unique arm choices combined with structural element options and multiple housing sizes provide no limitations in bridging to the architectural application.

<b>Catalog #</b>	ICM 150 HPS XX 4S DP PRCPR L HS VA012-XX	<b>Type</b>	F2
<b>Project</b>	DELMAR GARDENS III	<b>Date</b>	2015.06.25
<b>Comments</b>			
<b>Prepared by</b>	McCLURE ENGINEERING/ mkg		

**SPECIFICATION FEATURES**

**Construction**

**HOUSING:** Heavy wall, die-cast aluminum housing maintains a nominal .125 wall thickness for precise tolerance control and repeatability in manufacturing. **DOOR:** Heavy wall, die-cast aluminum door maintains a nominal .125 wall thickness. Continuous silicone gasketing provides an IP65 fixture rating. Toolless entry to housing is provided via two (2) recess mounted button style latches. Captive hinging is fully concealed. **UPSWEEP ARM:** Manufactured of heavy wall cast aluminum. Internal bolts guides provided for positioning arm to housing and pole. **LINEAR ARM:** Manufactured of heavy wall extruded aluminum. Arm features internal bolt guides for positioning arm to housing and pole. **STRUCTURAL MOUNT:** Die-cast aluminum cleat factory mounted and finished in luminaire color. Stainless steel structural rod measures 1/2" in diameter and is provided in luminaire finish or optional natural finish. Wall bracket works in conjunction with linear arm.

drilled for suspension mount applications. See INVUE pole brochure for complete selection of matching poles. **STRUCTURAL WALL MOUNT:** Die-cast aluminum cleat factory mounted to luminaire and finished in luminaire color. Stainless steel structural rod measures 1/2" in diameter and is provided in luminaire finish or optional natural finish. Wall bracket works in conjunction with linear arm.

**Electrical**

**ELECTRICAL TRAY:** Ballast and related electrical components are mounted to a reinforced one piece toolless release power tray. Electrical quick disconnects allow tray to be completely removed from housing providing ample hand and tool room for attachment of luminaire during installation.

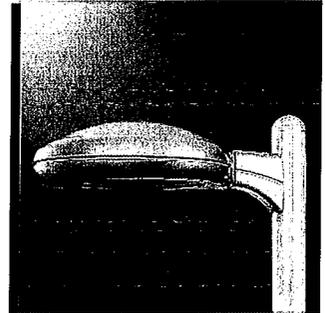
**Optical**

**LENS:** Impact-resistant 1/8" thick tempered clear or optional frosted flat glass for concealment of lamp image. **OPTICAL SYSTEM:** Choice of five (5) high efficiency segmented optical systems

constructed of premium 95% reflective anodized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs, or other means of attachment which may cause streaking in the light distribution. All reflector modules feature toolless removal, quick disconnect wiring plugs, and are toolless field rotatable in 90° increments. Medium housing (ICM) optics feature mogul-base lampholders for HID lamp sources.

**Finish**

Housing and arm finished in a 5 stage premium TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum, and graphite metallic. RAL and custom color matches available. Consult your INVUE Lighting Systems Representative for more information.

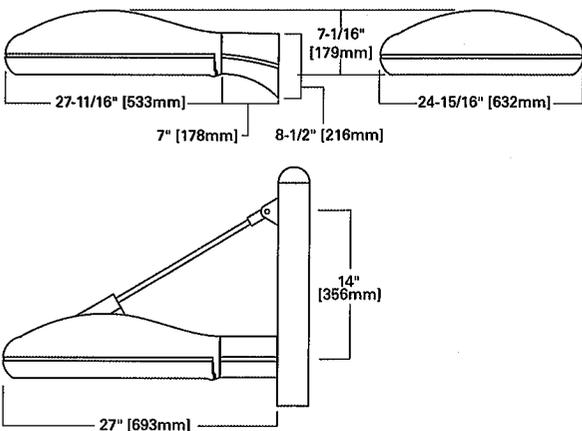


**ICM  
ICON SITE  
MEDIUM**

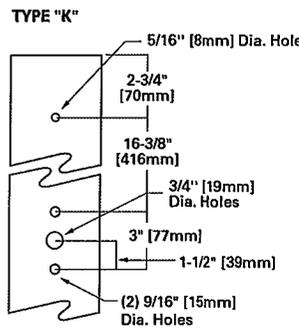
- 84 - 400W
- Pulse Start Metal Halide
- Metal Halide
- High Pressure Sodium
- Compact Fluorescent

**ARCHITECTURAL  
AREA LUMINAIRE**

**DIMENSIONS**



**STRUCTURAL MOUNT**

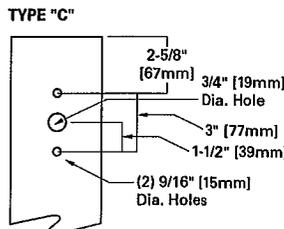


**WATTAGE TABLE**

Lamp Type	Wattage
Pulse Start Metal Halide (MP) <sup>®</sup>	150, 175, 250, 320, 350, 400W
High Pressure Sodium (HPS)	150, 250, 400W
Metal Halide (MH)	175, 250, 400W
Compact Fluorescent (CF)	(2) 42, (2) 57W

NOTE: <sup>®</sup>EISA Compliant: 175-400W.

**ARM DRILLING**



**DARK SKY FCO**  
**COMPLIANT Full Cutoff**

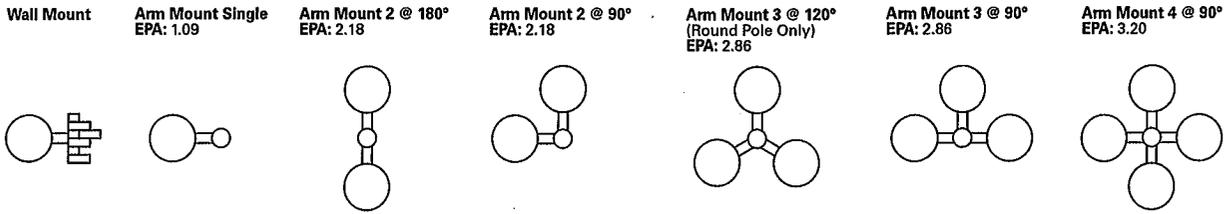
**CERTIFICATION DATA**  
IP65 Rated  
U.L. 1598 Listed  
3G Vibration Tested  
CSA Listed  
25°C Ambient Temperature Rating  
ISO 9001  
Full Cutoff

**EPA**  
**Effective Projected Area:**  
(Sq. Ft.)  
Single: 1.09  
Single Structural: 1.11

**SHIPPING DATA**  
(Approximate)  
Net Weight (lbs.): 53  
Volume (cu. ft.): 4.00



**MOUNTING VARIATIONS**



**ORDERING INFORMATION**

Sample Number: ICM-400-MH-MT-3S-BK-PRCPS-L

			TBD					
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**Product Family**<sup>1</sup>  
**ICM** ICON Site Medium

**Lamp Wattage**<sup>2</sup>  
**MP**  
 150=150W  
 175=175W  
 250=250W  
 320=320W  
 350=350W  
 400=400W<sup>3</sup>  
**MH**<sup>4</sup>  
 175=175W  
 250=250W  
 400=400W<sup>3</sup>  
**HPS**  
 150=150W  
 250=250W  
 400=400W  
**Compact Fluorescent**  
 84=(2) 42W<sup>5</sup>  
 114=(2) 57W<sup>5</sup>

**Lamp Type**  
**MP**: Pulse Start Metal Halide  
**MH**: Metal Halide  
**HPS**: High Pressure Sodium  
**CF**=Compact Fluorescent<sup>6</sup>  
**Voltage**<sup>7</sup>  
 120=120V  
 208=208V  
 240=240V  
 277=277V  
 347=347V  
 480=480V  
**DT**=Dual-Tap wired 277V<sup>8</sup>  
**MT**=Multi-Tap wired 277V<sup>9</sup>  
**TT**=Triple-Tap wired 347V<sup>10</sup>  
**UNV**=120-277V Universal Electronic Ballast

**Optical System**  
**2S**: Type II  
**3S**: Type III  
**4S**: Type IV  
**5S**: Type V  
**SL**=Forward Throw w/ Spill Light Eliminator  
**Color**<sup>11</sup>  
**BK**=Black  
**AP**=Grey  
**BZ**=Bronze  
**WH**=White  
**DP**=Dark Platinum  
**GM**=Graphite Metallic

**Structural Options**<sup>12</sup>  
**Pole Mount**  
**PRCPS**: Strut Rod and Clevis Set for Square Pole<sup>13</sup> (Painted to match fixture, does not include arm)  
**PRCSS**: Stainless Steel Strut Rod and Clevis Set<sup>13</sup> for Square Poles (Clevis' painted to match fixture, does not include arm)  
**PRCPR**: Strut Rod and Clevis Set for Round Pole<sup>14</sup> (Painted to match fixture, does not include arm)  
**PRCSR**: Stainless Steel Strut Rod and Clevis Set<sup>14</sup> for Round Poles (Clevis' painted to match fixture, does not include arm)  
**Wall Mount**  
**WRCP**: Strut Rod and Clevis Set (Painted to<sup>15</sup> match fixture, does not include arm)  
**WRCS**: Stainless Steel Strut Rod and Clevis Set<sup>15</sup> (Clevis' painted to match fixture, does not include arm)

**Options**  
**CEC**=California Title 20 Compliant Ballast (Applies to 175-320W and 400W MP only)  
**F**=Single Fuse (120, 277 or 347V) Specify Voltage  
**FF**=Double Fuse (208, 240 or 480V) Specify Voltage  
**Q**=Quartz Restrike<sup>16</sup>  
**EM**=Quartz Restrike w/ Time Delay (Also Strikes at<sup>16</sup> Cold Start)  
**EM/SC**=Quartz Emergency Separate Circuit<sup>16</sup>  
**R**=NEMA Twistlock Photocell Receptacle<sup>17</sup>  
**PC**=Button Type Photocontrol (Specify Voltage)  
**DS**=Dual Fluorescent Switching Control<sup>18</sup>  
**HS**=House Side Shield<sup>19</sup>  
**FR**=Frosted Flat Glass Lens  
**L**=Lamp Included

**Accessories**<sup>20</sup>  
**VA1003-XX**: Wall Mount Kit w/ Upsweep Arm<sup>21</sup>  
**VA1004-XX**: Wall Mount Kit w/ Linear Arm<sup>21</sup>  
**VA1011-XX**: Upsweep Arm for Square Pole  
**VA1012-XX**: Upsweep Arm for Round Pole  
**VA1014-XX**: Linear Arm for Square Pole  
**VA1015-XX**: Linear Arm for Round Pole  
**VA1018-XX**: Mast Arm Adapter Kit  
**VA1074-XX**: ICM Structural Mount Wall Mount Arm<sup>22</sup>  
**VA1033-XX**: Single-arm Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1034-XX**: @180 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1035-XX**: @120 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1036-XX**: @90 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1037-XX**: @90 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1038-XX**: @30 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1039-XX**: @2@180 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1040-XX**: Single-arm Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1041-XX**: @2@180 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1042-XX**: @3@120 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1043-XX**: @4@90 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1044-XX**: @2@90 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1045-XX**: @3@90 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1046-XX**: @2@120 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**OA/RA1016**=NEMA Photocontrol - Multi-Tap  
**OA/RA1027**=NEMA Photocontrol - 480V  
**OA/RA1201**=NEMA Photocontrol - 347V

- Notes: 1 Arm not included. See accessories.  
 2 Standard with mogul-base socket for HPS, MH and 175-400W MP. Standard with medium-base socket for MP lamps 150W and below.  
 3 400W MP and MH requires reduced envelope ED28 lamp.  
 4 MH products available for non-U.S. markets only.  
 5 Dual Compact Fluorescent lamp options available in Type 2S with 84 and 114W. Type 3S available in 84W only.  
 6 CF ballasts are 120 through 277V. Specify with UNV voltage designation.  
 7 Products also available in non-US voltages and 50Hz for International markets. Consult factory for availability and ordering information.  
 8 Dual-tap is 120/277V wired 277V.  
 9 Multi-tap is 120/208/240/277V wired 277V.  
 10 Triple-tap is 120/277/347V wired 347V.  
 11 Custom and RAL color matching available upon request. Consult your INVUE Lighting Systems Representative for further information.  
 12 Add as suffix in the order shown.  
 13 Square pole mount structural options do not include arm assembly (See Accessories). Compatible with VA1014 linear arm only.  
 14 Round pole mount structural options do not include arm assembly (See Accessories). Compatible with VA1015 linear arm only.  
 15 Wall mount structural options do not include arm assembly (See Accessories). Compatible with VA1074 linear arm only.  
 16 Quartz options not available with SL optic.  
 17 NEMA photocell receptacle not available in conjunction with structural options.  
 18 Dual switching requires dual 42W or dual 57W Compact Fluorescent lamps. Allows independent switching control of each lamp through use of two (2) electronic ballasts. Allows 50% power reduction when dual ballasts are independently wired and controlled.  
 19 House side shield not available on 5S and SL optics.  
 20 Order separately, replace XX with color suffix.  
 21 For use in down lighting applications only.  
 22 Includes arm only. Must specify WRCP or WRCS in fixture ordering logic. Down light only.

**DESCRIPTION**

ICON'S gentle curves and sleek profile create a shape that is beyond common. Two (2) unique arm choices combined with structural element options and multiple housing sizes provide no limitations in bridging to the architectural application.

<b>Catalog #</b>	ICM 150 HPS XX 5S DP PRCPR L VA012-XX	<b>Type</b>	F3
<b>Project</b>	DELMAR GARDENS III	<b>Date</b>	2015.06.25
<b>Comments</b>			
<b>Prepared by</b>	McCLURE ENGINEERING/ mkg		

**SPECIFICATION FEATURES**

**Construction**

**HOUSING:** Heavy wall, die-cast aluminum housing maintains a nominal .125 wall thickness for precise tolerance control and repeatability in manufacturing. **DOOR:** Heavy wall, die-cast aluminum door maintains a nominal .125 wall thickness. Continuous silicone gasketing provides an IP65 fixture rating. Toolless entry to housing is provided via two (2) recess mounted button style latches. Captive hinging is fully concealed. **UPSWEEP ARM:** Manufactured of heavy wall cast aluminum. Internal bolts guides provided for positioning arm to housing and pole. **LINEAR ARM:** Manufactured of heavy wall extruded aluminum. Arm features internal bolt guides for positioning arm to housing and pole. **STRUCTURAL MOUNT:** Die-cast aluminum cleat factory mounted and finished in luminaire color. Stainless steel structural rod measures 1/2" in diameter and is provided in luminaire finish or optional natural finish. Wall bracket works in conjunction with linear arm. **INVUE poles** provided pre-

drilled for suspension mount applications. See INVUE pole brochure for complete selection of matching poles. **STRUCTURAL WALL MOUNT:** Die-cast aluminum cleat factory mounted to luminaire and finished in luminaire color. Stainless steel structural rod measures 1/2" in diameter and is provided in luminaire finish or optional natural finish. Wall bracket works in conjunction with linear arm.

**Electrical**

**ELECTRICAL TRAY:** Ballast and related electrical components are mounted to a reinforced one piece toolless release power tray. Electrical quick disconnects allow tray to be completely removed from housing providing ample hand and tool room for attachment of luminaire during installation.

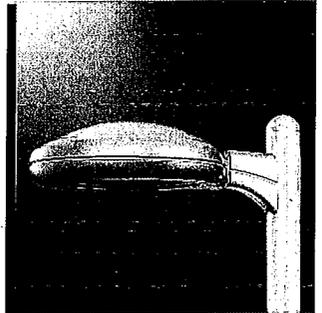
**Optical**

**LENS:** Impact-resistant 1/8" thick tempered clear or optional frosted flat glass for concealment of lamp image. **OPTICAL SYSTEM:** Choice of five (5) high efficiency segmented optical systems

constructed of premium 95% reflective anodized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs, or other means of attachment which may cause streaking in the light distribution. All reflector modules feature toolless removal, quick disconnect wiring plugs, and are toolless field rotatable in 90° increments. Medium housing (ICM) optics feature mogul-base lampholders for HID lamp sources.

**Finish**

Housing and arm finished in a 5 stage premium TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum, and graphite metallic. RAL and custom color matches available. Consult your INVUE Lighting Systems Representative for more information.

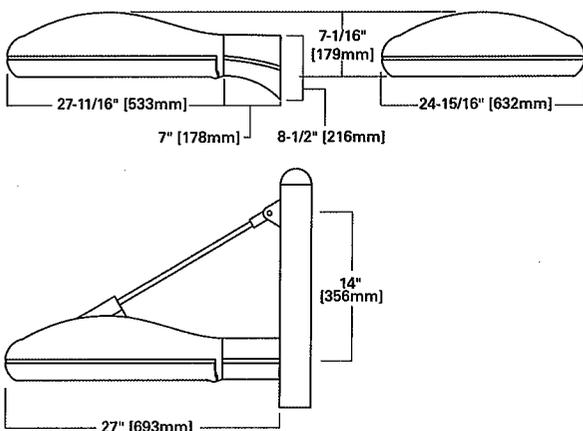


**ICM  
ICON SITE  
MEDIUM**

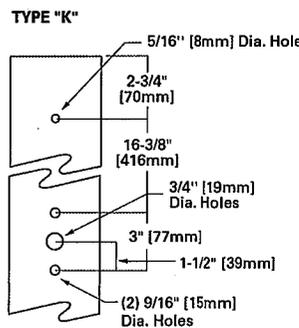
- 84 - 400W
- Pulse Start Metal Halide
- Metal Halide
- High Pressure Sodium
- Compact Fluorescent

**ARCHITECTURAL  
AREA LUMINAIRE**

**DIMENSIONS**



**STRUCTURAL MOUNT**

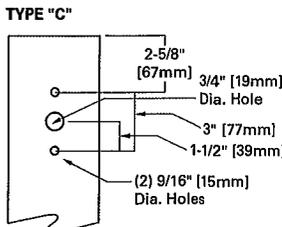


**WATTAGE TABLE**

Lamp Type	Wattage
Pulse Start Metal Halide (MP)®	150, 175, 250, 320, 350, 400W
High Pressure Sodium (HPS)	150, 250, 400W
Metal Halide (MH)	175, 250, 400W
Compact Fluorescent (CF)	(2) 42, (2) 57W

NOTE: ® EISA Compliant: 175-400W.

**ARM DRILLING**



**DARK SKY FCO**  
**COMPLIANT Full Cutoff**

**CERTIFICATION DATA**

- IP65 Rated
- U.L. 1598 Listed
- 3G Vibration Tested
- CSA Listed
- 25°C Ambient Temperature Rating
- ISO 9001
- Full Cutoff

**EPA  
Effective Projected Area:  
(Sq. Ft.)**

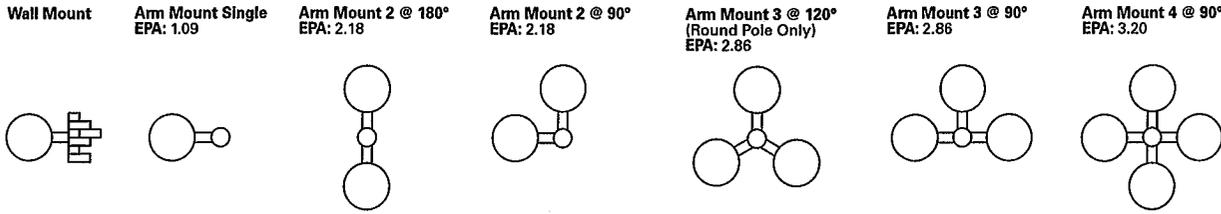
- Single: 1.09
- Single Structural: 1:11

**SHIPPING DATA  
(Approximate)**

- Net Weight (lbs.): 53
- Volume (cu. ft.): 4.00



**MOUNTING VARIATIONS**



**ORDERING INFORMATION**

Sample Number: ICM-400-MH-MT-3S-BK-PRCPS-L

			TBD				
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**Product Family**<sup>1</sup>  
**ICM** ICON Site Medium

**Lamp Wattage**<sup>2</sup>

- MP**  
 150=150W  
 175=175W  
 250=250W  
 320=320W  
 350=350W  
 400=400W<sup>3</sup>  
**MH**<sup>4</sup>  
 175=175W  
 250=250W  
 400=400W<sup>3</sup>  
**HPS**  
 150=150W  
 250=250W  
 400=400W

**Compact Fluorescent**

- 84=(2) 42W<sup>5</sup>  
 114=(2) 57W<sup>5</sup>

**Lamp Type**

- MP**: Pulse Start Metal Halide  
**MH**: Metal Halide  
**HPS**: High Pressure Sodium  
**CF**=Compact Fluorescent<sup>6</sup>

**Voltage**<sup>7</sup>

- 120=120V  
 208=208V  
 240=240V  
 277=277V  
 347=347V  
 480=480V  
**DT**=Dual-Tap wired 277V<sup>8</sup>  
**MT**=Multi-Tap wired 277V<sup>9</sup>  
**TT**=Triple-Tap wired 347V<sup>10</sup>  
**UNV**=120-277V Universal Electronic Ballast

**Optical System**

- 2S**: Type II  
**3S**: Type III  
**4S**: Type IV  
**5S**: Type V  
**SL**=Forward Throw w/ Spill Light Eliminator

**Color**<sup>11</sup>

- BK**=Black  
**AP**=Grey  
**BZ**=Bronze  
**WH**=White  
**DP**=Dark Platinum  
**GM**=Graphite Metallic

**Structural Options**<sup>12</sup>

- Pole Mount**  
**PRCPS**=Strut Rod and Clevis Set for Square Pole<sup>13</sup> (Painted to match fixture, does not include arm)  
**PRCSS**=Stainless Steel Strut Rod and Clevis Set<sup>13</sup> for Square Poles (Clevis' painted to match fixture, does not include arm)  
**PRCPR**=Strut Rod and Clevis Set for Round Pole<sup>14</sup> (Painted to match fixture, does not include arm)  
**PRCSR**=Stainless Steel Strut Rod and Clevis Set<sup>14</sup> for Round Poles (Clevis' painted to match fixture, does not include arm)  
**Wall Mount**  
**WRCP**=Strut Rod and Clevis Set (Painted to match fixture, does not include arm)  
**WRCS**=Stainless Steel Strut Rod and Clevis Set<sup>15</sup> (Clevis' painted to match fixture, does not include arm)

**Options**

- CEC**=California Title 20 Compliant Ballast (Applies to 175-320W and 400W MP only)  
**F**=Single Fuse (120, 277 or 347V) Specify Voltage  
**FF**=Double Fuse (208, 240 or 480V) Specify Voltage  
**Q**=Quartz Restrike<sup>16</sup>  
**EM**=Quartz Restrike w/ Time Delay (Also Strikes at<sup>16</sup> Cold Start)  
**EM/SC**=Quartz Emergency Separate Circuit<sup>16</sup>  
**R**=NEMA Twistlock Photocell Receptacle<sup>17</sup>  
**PC**=Button Type Photocontrol (Specify Voltage)  
**DS**=Dual Fluorescent Switching Control<sup>18</sup>  
**HS**=House Side Shield<sup>19</sup>  
**FR**=Frosted Flat Glass Lens  
**L**=Lamp Included

**Accessories**<sup>20</sup>

- VA1003-XX**: Wall Mount Kit w/ Upsweep Arm<sup>21</sup>  
**VA1004-XX**: Wall Mount Kit w/ Linear Arm<sup>21</sup>  
**VA1011-XX**: Upsweep Arm for Square Pole  
**VA1012-XX**: Upsweep Arm for Round Pole  
**VA1014-XX**: Linear Arm for Square Pole  
**VA1015-XX**: Linear Arm for Round Pole  
**VA1018-XX**: Mast Arm Adapter Kit  
**VA1074-XX**: ICM Structural Mount Wall Mount Arm<sup>22</sup>  
**VA1033-XX**=Single-arm Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1034-XX**=2@180 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1035-XX**=3@120 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1036-XX**=4@90 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1037-XX**=2@90 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1038-XX**=3@90 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1039-XX**=2@120 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1040-XX**=Single-arm Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1041-XX**=2@180 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1042-XX**=3@120 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1043-XX**=4@90 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1044-XX**=2@90 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1045-XX**=3@90 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**OA/RA1016**=NEMA Photocontrol - Multi-Tap  
**OA/RA1027**=NEMA Photocontrol - 480V  
**OA/RA1201**=NEMA Photocontrol - 347V

- Notes:**
- 1 Arm not included. See accessories.
  - 2 Standard with mogul-base socket for HPS, MH and 175-400W MP. Standard with medium-base socket for MP lamps 150W and below.
  - 3 400W MP and MH requires reduced envelope ED28 lamp.
  - 4 MH products available for non-U.S. markets only.
  - 5 Dual Compact Fluorescent lamp options available in Type 2S with 84 and 114W. Type 3S available in 84W only.
  - 6 CF ballasts are 120 through 277V. Specify with UNV voltage designation.
  - 7 Products also available in non-US voltages and 50Hz for international markets. Consult factory for availability and ordering information.
  - 8 Dual-tap is 120/277V wired 277V.
  - 9 Multi-tap is 120/208/240/277V wired 277V.
  - 10 Triple-tap is 120/277/347V wired 347V.
  - 11 Custom and RAL color matching available upon request. Consult your INVUE Lighting Systems Representative for further information.
  - 12 Add as suffix in the order shown.
  - 13 Square pole mount structural options do not include arm assembly (See Accessories). Compatible with VA1014 linear arm only.
  - 14 Round pole mount structural options do not include arm assembly (See Accessories). Compatible with VA1015 linear arm only.
  - 15 Wall mount structural options do not include arm assembly (See Accessories). Compatible with VA1074 linear arm only.
  - 16 Quartz options not available with SL optic.
  - 17 NEMA photocell receptacle not available in conjunction with structural options.
  - 18 Dual switching requires dual 42W or dual 57W Compact Fluorescent lamps. Allows independent switching control of each lamp through use of two (2) electronic ballasts. Allows 50% power reduction when dual ballasts are independently wired and controlled.
  - 19 House side shield not available on 5S and SL optics.
  - 20 Order separately, replace XX with color suffix.
  - 21 For use in down lighting applications only.
  - 22 Includes arm only. Must specify WRCP or WRCS in fixture ordering logic. Down light only.

**DESCRIPTION**

ICON'S gentle curves and sleek profile create a shape that is beyond common. Two (2) unique arm choices combined with structural element options and multiple housing sizes provide no limitations in bridging to the architectural application.

<b>Catalog #</b>	ICM 150 HPS XX 4S DP PRCPR L VA012-XX	<b>Type</b>	F4
<b>Project</b>	DELMAR GARDENS III	<b>Date</b>	2015.06.25
<b>Comments</b>			
<b>Prepared by</b>	McCLURE ENGINEERING/ mkg		

**SPECIFICATION FEATURES**

**Construction**

**HOUSING:** Heavy wall, die-cast aluminum housing maintains a nominal .125 wall thickness for precise tolerance control and repeatability in manufacturing. **DOOR:** Heavy wall, die-cast aluminum door maintains a nominal .125 wall thickness. Continuous silicone gasketing provides an IP65 fixture rating. Toolless entry to housing is provided via two (2) recess mounted button style latches. Captive hinging is fully concealed. **UPSWEEP ARM:** Manufactured of heavy wall cast aluminum. Internal bolts guides provided for positioning arm to housing and pole. **LINEAR ARM:** Manufactured of heavy wall extruded aluminum. Arm features internal bolt guides for positioning arm to housing and pole. **STRUCTURAL MOUNT:** Die-cast aluminum cleat factory mounted and finished in luminaire color. Stainless steel structural rod measures 1/2" in diameter and is provided in luminaire finish or optional natural finish. Product functions in conjunction with linear arm. INVUE poles provided pre-

drilled for suspension mount applications. See INVUE pole brochure for complete selection of matching poles. **STRUCTURAL WALL MOUNT:** Die-cast aluminum cleat factory mounted to luminaire and finished in luminaire color. Stainless steel structural rod measures 1/2" in diameter and is provided in luminaire finish or optional natural finish. Wall bracket works in conjunction with linear arm.

**Electrical**

**ELECTRICAL TRAY:** Ballast and related electrical components are mounted to a reinforced one piece toolless release power tray. Electrical quick disconnects allow tray to be completely removed from housing providing ample hand and tool room for attachment of luminaire during installation.

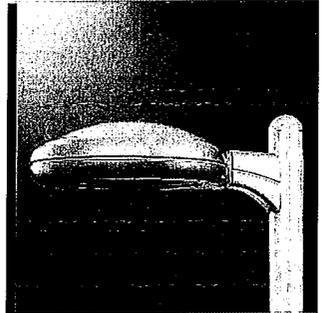
**Optical**

**LENS:** Impact-resistant 1/8" thick tempered clear or optional frosted flat glass for concealment of lamp image. **OPTICAL SYSTEM:** Choice of five (5) high efficiency segmented optical systems

constructed of premium 95% reflective anodized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs, or other means of attachment which may cause streaking in the light distribution. All reflector modules feature toolless removal, quick disconnect wiring plugs, and are toolless field rotatable in 90° increments. Medium housing (ICM) optics feature mogul-base lampholders for HID lamp sources.

**Finish**

Housing and arm finished in a 5 stage premium TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum, and graphite metallic. RAL and custom color matches available. Consult your INVUE Lighting Systems Representative for more information.

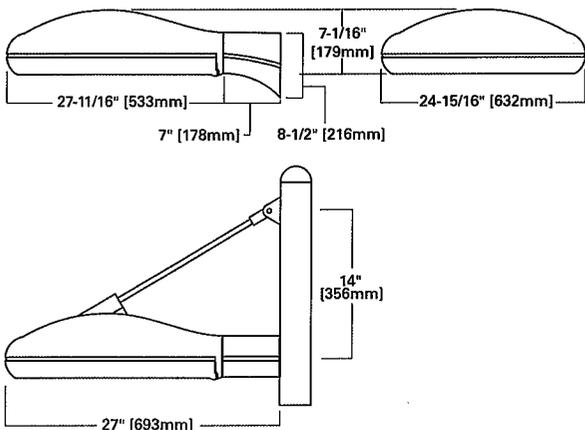


**ICM  
ICON SITE  
MEDIUM**

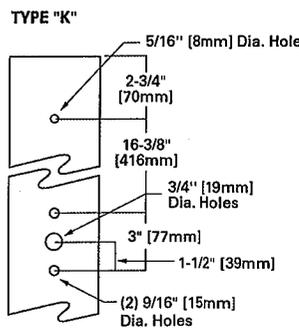
- 84 - 400W
- Pulse Start Metal Halide
- Metal Halide
- High Pressure Sodium
- Compact Fluorescent

**ARCHITECTURAL  
AREA LUMINAIRE**

**DIMENSIONS**



**STRUCTURAL MOUNT**



**DARK SKY  
COMPLIANT** FCO Full Cutoff

**CERTIFICATION DATA**

- IP65 Rated
- U.L. 1598 Listed
- 3G Vibration Tested
- CSA Listed
- 25°C Ambient Temperature Rating
- ISO 9001
- Full Cutoff

**EPA  
Effective Projected Area:  
(Sq. Ft.)**

- Single: 1.09
- Single Structural: 1.11

**SHIPPING DATA  
(Approximate)**

- Net Weight (lbs.): 53
- Volume (cu. ft.): 4.00

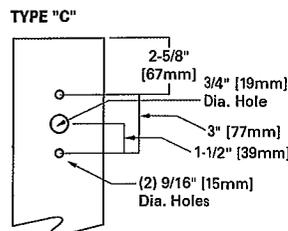


**WATTAGE TABLE**

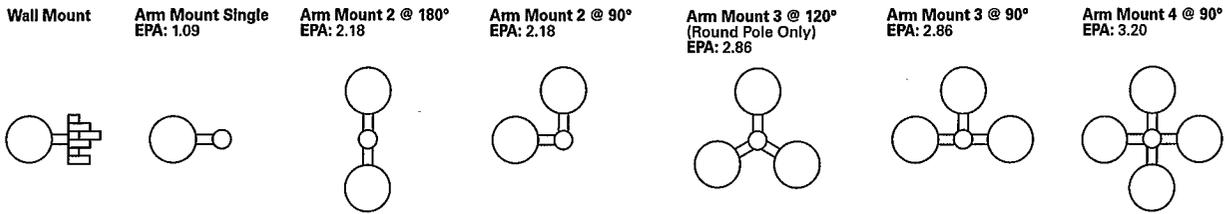
Lamp Type	Wattage
Pulse Start Metal Halide (MP)®	150, 175, 250, 320, 350, 400W
High Pressure Sodium (HPS)	150, 250, 400W
Metal Halide (MH)	175, 250, 400W
Compact Fluorescent (CF)	(2) 42, (2) 57W

NOTE: ®EISA Compliant: 175-400W.

**ARM DRILLING**



**MOUNTING VARIATIONS**



**ORDERING INFORMATION**

Sample Number: ICM-400-MH-MT-3S-BK-PRCPS-L

			TBD					
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**Product Family**<sup>1</sup>  
**ICM**: ICON Site Medium

**Lamp Wattage**<sup>2</sup>  
**MP**  
 150=150W  
 175=175W  
 250=250W  
 320=320W  
 350=350W  
 400=400W<sup>3</sup>  
**MH**<sup>4</sup>  
 175=175W  
 250=250W  
 400=400W<sup>3</sup>  
**HPS**  
 150=150W  
 250=250W  
 400=400W  
**Compact Fluorescent**  
 84=(2) 42W<sup>9</sup>  
 114=(2) 57W<sup>9</sup>

**Lamp Type**  
**MP**: Pulse Start Metal Halide  
**MH**: Metal Halide  
**HPS**: High Pressure Sodium  
**CF**=Compact Fluorescent<sup>6</sup>  
**Voltage**<sup>7</sup>  
 120=120V  
 208=208V  
 240=240V  
 277=277V  
 347=347V  
 480=480V  
**DT**=Dual-Tap wired 277V<sup>8</sup>  
**MT**=Multi-Tap wired 277V<sup>8</sup>  
**TT**=Triple-Tap wired 347V<sup>10</sup>  
**UNV**=120-277V Universal Electronic Ballast

**Optical System**  
**2S**: Type II  
**3S**: Type III  
**4S**: Type IV  
**5S**: Type V  
**SL**=Forward Throw w/ Spill Light Eliminator  
**Color**<sup>11</sup>  
**BK**=Black  
**AP**=Grey  
**BZ**=Bronze  
**WH**=White  
**DP**=Dark Platinum  
**GM**=Graphite Metallic

**Structural Options**<sup>12</sup>  
**Pole Mount**  
**PRCPS**: Strut Rod and Clevis Set for Square Pole<sup>13</sup> (Painted to match fixture, does not include arm)  
**PRCSS**: Stainless Steel Strut Rod and Clevis Set<sup>13</sup> for Square Poles (Clevis' painted to match fixture, does not include arm)  
**PRCPR**: Strut Rod and Clevis Set for Round Pole<sup>14</sup> (Painted to match fixture, does not include arm)  
**PRCSR**: Stainless Steel Strut Rod and Clevis Set<sup>14</sup> for Round Poles (Clevis' painted to match fixture, does not include arm)  
**Wall Mount**  
**WRCP**=Strut Rod and Clevis Set (Painted to<sup>15</sup> match fixture, does not include arm)  
**WRCS**=Stainless Steel Strut Rod and Clevis Set<sup>15</sup> (Clevis' painted to match fixture, does not include arm)

**Accessories**<sup>20</sup>  
**VA1003-XX**: Wall Mount Kit w/ Upsweep Arm<sup>21</sup>  
**VA1004-XX**: Wall Mount Kit w/ Linear Arm<sup>21</sup>  
**VA1011-XX**: Upsweep Arm for Square Pole  
**VA1012-XX**: Upsweep Arm for Round Pole  
**VA1014-XX**: Linear Arm for Square Pole  
**VA1015-XX**: Linear Arm for Round Pole  
**VA1018-XX**: Mast Arm Adapter Kit  
**VA1074-XX**: ICM Structural Mount Wall Mount Arm<sup>22</sup>  
**VA1033-XX**: Single-arm Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1034-XX**: 2@180 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1035-XX**: 3@120 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1036-XX**: 4@90 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1037-XX**: 2@90 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1038-XX**: 3@90 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1039-XX**: 2@120 Degree Tenon Adapter for 2 3/8" O.D. Tenon  
**VA1040-XX**: Single-arm Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1041-XX**: 2@180 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1042-XX**: 3@120 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1043-XX**: 4@90 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1044-XX**: 2@90 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1045-XX**: 3@90 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**VA1046-XX**: 2@120 Degree Tenon Adapter for 3 1/2" O.D. Tenon  
**OA/RA1016**=NEMA Photocontrol - Multi-Tap  
**OA/RA1027**=NEMA Photocontrol - 480V  
**OA/RA1201**=NEMA Photocontrol - 347V

- Notes:**
- 1 Arm not included. See accessories.
  - 2 Standard with mogul-base socket for HPS, MH and 175-400W MP. Standard with medium-base socket for MP lamps 150W and below.
  - 3 400W MP and MH requires reduced envelope ED28 lamp.
  - 4 MH products available for non-U.S. markets only.
  - 5 Dual Compact Fluorescent lamp options available in Type 2S with 84 and 114W. Type 3S available in 84W only.
  - 6 CF ballasts are 120 through 277V. Specify with UNV voltage designation.
  - 7 Products also available in non-US voltages and 50Hz for international markets. Consult factory for availability and ordering information.
  - 8 Dual-tap is 120/277V wired 277V.
  - 9 Multi-tap is 120/208/240/277V wired 277V.
  - 10 Triple-tap is 120/277/347V wired 347V.
  - 11 Custom and RAL color matching available upon request. Consult your INVUE Lighting Systems Representative for further information.
  - 12 Add as suffix in the order shown.
  - 13 Square pole mount structural options do not include arm assembly (See Accessories). Compatible with VA1014 linear arm only.
  - 14 Round pole mount structural options do not include arm assembly (See Accessories). Compatible with VA1015 linear arm only.
  - 15 Wall mount structural options do not include arm assembly (See Accessories). Compatible with VA1074 linear arm only.
  - 16 Quartz options not available with SL optic.
  - 17 NEMA photocell receptacle not available in conjunction with structural options.
  - 18 Dual switching requires dual 42W or dual 57W Compact Fluorescent lamps. Allows independent switching control of each lamp through use of two (2) electronic ballasts. Allows 50% power reduction when dual ballasts are independently wired and controlled.
  - 19 House side shield not available on 5S and SL optics.
  - 20 Order separately, replace XX with color suffix.
  - 21 For use in down lighting applications only.
  - 22 Includes arm only. Must specify WRCP or WRCS in fixture ordering logic. Down light only.

**Options**  
**CEC**=California Title 20 Compliant Ballast (Applies to 175-320W and 400W MP only)  
**F**=Single Fuse (120, 277 or 347V) Specify Voltage  
**FF**=Double Fuse (208, 240 or 480V) Specify Voltage  
**Q**=Quartz Restrike<sup>16</sup>  
**EM**=Quartz Restrike w/ Time Delay (Also Strikes at<sup>16</sup> Cold Start)  
**EM/SC**=Quartz Emergency Separate Circuit<sup>16</sup>  
**R**=NEMA Twistlock Photocell Receptacle<sup>17</sup>  
**PC**=Button Type Photocontrol (Specify Voltage)  
**DS**=Dual Fluorescent Switching Control<sup>18</sup>  
**HS**=House Side Shield<sup>19</sup>  
**FR**=Frosted Flat Glass Lens  
**L**=Lamp Included



**SRX STEEL  
ROUND STRAIGHT**

Catalog #		Type
Project		
Comments		Date
Prepared by		

**FEATURES**

- ASTM Grade steel base plate with ASTM A366 base cover
- Hand hole assembly 3" x 5" on 5" and 6" poles, 2" x 4" on 4" poles
- 10'-30' mounting heights
- Drilled or tenon (specify)

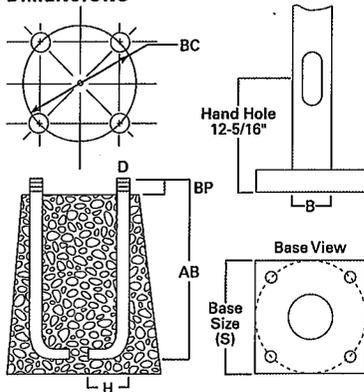
**ORDERING INFORMATION**

SAMPLE NUMBER: SRX4A20SGMCXG

Product Family	Shaft Size (Inches) <sup>1</sup>	Wall Thickness (Inches)	Mounting Height (Feet)	Base Type	Finish	Mounting Type	Number and Location of Arms	Options (Add as Suffix)
SRX-Steel Round Straight	4=4" 5=5" 6=6"	A=0.120" M=0.188"	10=10' 15=15' 20=20' 25=25' 30=30'	S=Square Steel Base	AP=Grey BK=Black BZ=Bronze DP=Dark Platinum GM=Graphite Metallic GN=Hartford Green WH=White	2=2-3/8" O.D. Tenon (4" Long) 3=3-1/2" O.D. Tenon (5" Long) 4=4" O.D. Tenon (6" Long) - Slide/Flite/Epic 5=3" O.D. Tenon (4" Long) - Mesa 6=2-3/8" O.D. Tenon (6" Long) 7=4" O.D. Tenon (10" Long) - SDM1/SDM2 A=Icon and Ascent Small Drill Pattern C=Icon and Ascent Medium Drill Pattern E=Vision Site Small Drill Pattern F=Vision Site Structural Mount G=Vision Site Medium Structural Mount J=Icon Small Structural Drill Pattern K=Icon Medium Structural Drill Pattern M=Vision Site Medium Drill Pattern X=None	1=Single 2=2 at 180° 3=Triple <sup>2</sup> 4=4 at 90° 5=2 at 90° 6=3 at 90° 7=2 at 120° X=None	A=1/2" Tapped Hub (Specify location desired) B=3/4" Tapped Hub (Specify location desired) C=Convenience Outlet <sup>3</sup> G=Ground Lug H=Additional Hand Hole <sup>4</sup> E=GFCI Convenience Outlet <sup>3</sup> V=Vibration Dampener

**NOTES:** 1. All shaft sizes nominal. 2. Square poles are 3 at 90°, round poles are 3 at 120°. 3. Outlet is located 4" above base and on same side of pole as hand hole, unless specified otherwise. Receptacle not included, provision only. 4. Additional hand hole is located 12" below pole top and 90° from standard hand hole location, unless otherwise specified.

**DIMENSIONS**



**WARNING:** The use of unauthorized accessories such as banners, signs, cameras or pennants for which the pole was not designed voids the pole warranty from Eaton's Cooper Lighting business and may result in pole failure causing serious injury or property damage. Upon request, Eaton's Cooper Lighting business will supply information regarding total loading capacity. The pole warranty from Eaton's Cooper Lighting business is void unless poles are used and installed as a complete pole/luminaire combination. This warranty specifically excludes failure as the result of a third party act or omission, misuse, unanticipated uses, fatigue failure or similar phenomena resulting from induced vibration, harmonic oscillation or resonance associated with movement of air currents around the product.

Specifications and dimensions subject to change without notice. Consult your Eaton's Cooper Lighting business representative or visit [www.cooperlighting.com](http://www.cooperlighting.com) for available options, accessories and ordering information.

## Effective Projected Area (At Pole Top)

Mounting Height (Feet)	Catalog Number <sup>1,2</sup>	Wall Thickness (Inches)	Base Square <sup>3</sup>	Bolt Circle Diameter (Inches)	Anchor Bolt Projection <sup>3</sup> (Inches)	Shaft Size <sup>3</sup> (Inches)	Anchor Bolt Diameter x Length x Hook (Inches)	Net Weight (Pounds)	Maximum Effective Projected Area (Square Feet) <sup>4</sup>				Max. Fixture Load - Includes Bracket (Pounds)
									80 mph	90 mph	100 mph	110 mph	
MH			S	BC	BP	B	D x AB x H						
10	SRX4A10S	0.120	10-1/2	11	4-1/2	4	3/4 x 25 x 3	73	21.0	16.0	12.7	10.5	100
15	SRX4A15S	0.120	10-1/2	11	4-1/2	4	3/4 x 25 x 3	97	11.2	8.3	6.4	5.1	100
20	SRX4A20S	0.120	10-1/2	11	4-1/2	4	3/4 x 25 x 3	122	5.8	3.9	2.7	2.0	150
20	SRX5M20S	0.188	10-1/2	11	4-1/2	5	3/4 x 25 x 3	216	17.0	13.0	10.4	8.4	150
25	SRX5M25S	0.188	10-1/2	11	4-1/2	5	3/4 x 25 x 3	264	11.0	8.5	6.5	5.2	200
30	SRX6M30S	0.188	12-1/2	12-1/2	5	6	1 x 36 x 4	394	14.0	10.7	8.4	6.7	200

## Effective Projected Area (Two Feet Above Pole Top)

Mounting Height (Feet)	Catalog Number <sup>1,2</sup>	Wall Thickness (Inches)	Base Square <sup>3</sup>	Bolt Circle Diameter (Inches)	Anchor Bolt Projection <sup>3</sup> (Inches)	Shaft Size <sup>3</sup> (Inches)	Anchor Bolt Diameter x Length x Hook (Inches)	Net Weight (Pounds)	Maximum Effective Projected Area (Square Feet) <sup>4</sup>				Max. Fixture Load - Includes Bracket (Pounds)
									80 mph	90 mph	100 mph	110 mph	
MH			S	BC	BP	B	D x AB x H						
10	SRX4A10S	0.120	10-1/2	11	4-1/2	4	3/4 x 25 x 3	73	16.7	13.0	10.4	8.5	100
15	SRX4A15S	0.120	10-1/2	11	4-1/2	4	3/4 x 25 x 3	97	9.8	7.2	5.6	4.4	100
20	SRX4A20S	0.120	10-1/2	11	4-1/2	4	3/4 x 25 x 3	122	5.3	3.5	2.4	1.8	150
20	SRX5M20S	0.188	10-1/2	11	4-1/2	5	3/4 x 25 x 3	216	15.0	11.7	9.2	7.5	150
25	SRX5M25S	0.188	10-1/2	11	4-1/2	5	3/4 x 25 x 3	264	10.2	7.8	6.0	4.8	200
30	SRX6M30S	0.188	12-1/2	12-1/2	5	6	1 x 36 x 4	394	13.1	10.0	7.8	5.9	200

## NOTES:

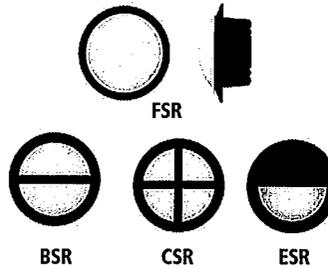
1. Catalog number includes pole with hardware kit. Anchor bolts not included. Before installing, make sure proper anchor bolts and templates are obtained from Eaton's Cooper Lighting business.
2. Tenon size or machining for rectangular arms must be specified. Hand hole position relative to drill location.
3. Shaft size, base square, anchor bolts and projections may vary slightly. All dimensions nominal.
4. EPAs based on shaft properties with wind normal to flat. EPAs calculated using base wind velocity as indicated plus 30% gust factor.

# MILLENIUM™ ROUND

## MR13 SERIES – SEMI-RECESSED

### PRODUCT FEATURES:

- » Surface mount – ceiling or wall; 14" Dia. x3"D
- » Peace of Mind Guarantee® against breakage
- » Dust and water protected to IP64 standards
- » ADA compliant



### PROJECT INFORMATION

Job Name DELMAR GARDENS III  
 Fixture Type WP  
 Catalog Number \_\_\_\_\_  
 Approved by McCLURE ENGINEERING/ mkg

### SPECIFICATIONS:

**HOUSING (SERIES PP, ND,CO):** Die-cast aluminum housing with integral heat sinks. Housing interlocks and wraps around lens base producing maximum moisture deflection and resistance to prying. Standard bronze exterior TGIC polyester powder coat – 5-step pre-treatment.

**HOUSING (SERIES NL, CC):** 18-gauge CRS housing. Housing interlocks and wraps around lens base producing maximum moisture deflection and resistance to prying. Standard white exterior TGIC polyester powder coat – 5-step pre-treatment.

**REFLECTOR:** Compact Fluorescent: Full reflector/wire cover – 92% reflectivity. HID: Full reflector/wire cover. High efficiency semi-specular aluminum.

**LENS:** UV-stabilized, high impact resistant, virgin injection molded polycarbonate. High efficiency blonded fluted lens obscures lamp image and maximizes uniformity. Close tolerance push/turn/lock-in-place mating of injection molded lens and lens base. Lens and lens base secured with one concealed captive Torx® with center pin fastener.

**LENS BASE/GRILLE:** Lens base shields lamp from viewing angles. High Impact resistant, injection molded opaque black, bronze or white polycarbonate. Optional Light Gray, Silver, Forest Green or Custom Color (see Ordering Information below) are chemically bonded, impact resistant finishes.

**GASKETING:** Closed cell, silicone "O" ring gaskets positioned in gasket channels of lens base and in Series PP, ND, CO housing.

**HARDWARE:** One stainless steel Torx® with center pin fastener.

**ELECTRICAL:** Fluorescent magnetic ballasts – 120V/277V power factor corrected, fluorescent electronic 120/277/347 and dual voltage ballasts high power factor (<10% THD), HID ballasts high power factor. Metal halide lamps utilize pulse start technology. Shock absorbing, medium base lamp sockets provided for HID lamps.

**INSTALLATION:** See [Technical Data Sheets](#) for semi-recessed installation details, mounting accessories and rough-in box availability.

**WARRANTY:** Standard four-point mounting and polycarbonate lens required for Peace of Mind Guarantee®.

**PATENT:** U.S. Patent No. 6,042,251.

**LISTINGS:** UL and CUL listed for Wet Location (listing includes Emergency Battery Pack "EL" option). UL certified IP64 per IEC 60598.



### ORDERING INFORMATION (Ex: MR13FSR-ND-PP-MB-35S-1-120-FS)

Model	Mounting Type	Lens Type	Finish	Lamp Type	Lamp Qty	Voltage	Options	Accessories
<b>Model</b>				<b>Lamp Type (Qty/Ballast/Volt./Starting Temp)</b>			<b>Options</b>	
MR13BSR	Bar			7 7 Watt Twin (1,2/MB/120,277/0°F)			EL One-Lamp WL Emergency Pack (32°F)(max 32 total system watts) (n/a with Twin Lamping)	
MR13CSR	Cross			13 13 Watt Twin (1,2/MB/120,277/32°F)			FS Single Fuse & Holder	
MR13ESR	Eyelid			13Q 13 Watt Quad (1,2/RS/120,277,347/0°F)			QR Quartz restrike system for maximum 75-Watt DC bay quartz lamp (see C-0796)	
MR13FSR	Full Face			18Q 18 Watt Quad (1,2/RS/120,277,347/0°F)			QRC Hot/Cold Quartz restrike	
				26Q 26 Watt Quad (1,2/RS/120,277,347/0°F)			QS Quartz socket only	
				32P 32 Watt PLT (1/RS/120,277,347/0°F)			NAT Natatorium Environment Option	
				42P 42 Watt PLT (1/RS/120,277,347/0°F) (n/a with MR13ESR)				<b>Accessories</b>
<b>Mounting Type</b>								C-0796 75 Watt DC Bay Quartz Lamp
PP	Pour-in-Place or Masonry							9500 Torx® Screwdriver
ND	Non IC (Deep Profile)							
NL	Non IC (Low Profile)			35S 35 Watt HPS (1/HPF/120/-40°F)				
CC**	Canopy (Covered Top) (n/a with MR13ESR)			50M† 50 Watt MH (1/HPF/120,277,347/-20°F)				
CO**	Canopy (Open Top) (n/a with MR13ESR)			50S 50 Watt HPS (1/HPF/120,277/-40°F)				
<b>Lens Type</b>				<b>Lamp Quantity</b>				
PP	Pearlescent Polycarbonate			See Lamp Type for availability				** Ceiling Mounting Only
S	Clear Starburst Polycarbonate			1 One Lamp				† UV shielding lamp supplied
				2 Two Lamps				
<b>Finish</b>				<b>Voltage</b>				
MB	Matte Black			See Lamp Type for availability				
MW	Matte White			120 120 Volts				
DB	Dark Bronze			277 277 Volts				
LG	Light Gray			347 347 Volts				
SL	Silver			DV 120-277 Volts, electronic ballasts only				
FG	Forest Green							
CC	Custom Color (Consult factory)							



www.kenall.com

P: 800-4-Kenall

F: 847-360-1781

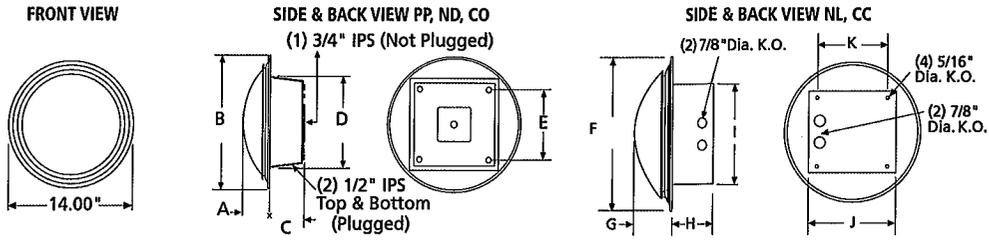
1020 Lakeside Drive Gurnee, Illinois 60031

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MR13\_SR-120213

**MILLENIUM™ ROUND**  
**MR13 SERIES – SEMI-RECESSED**

**DIMENSIONAL DATA**



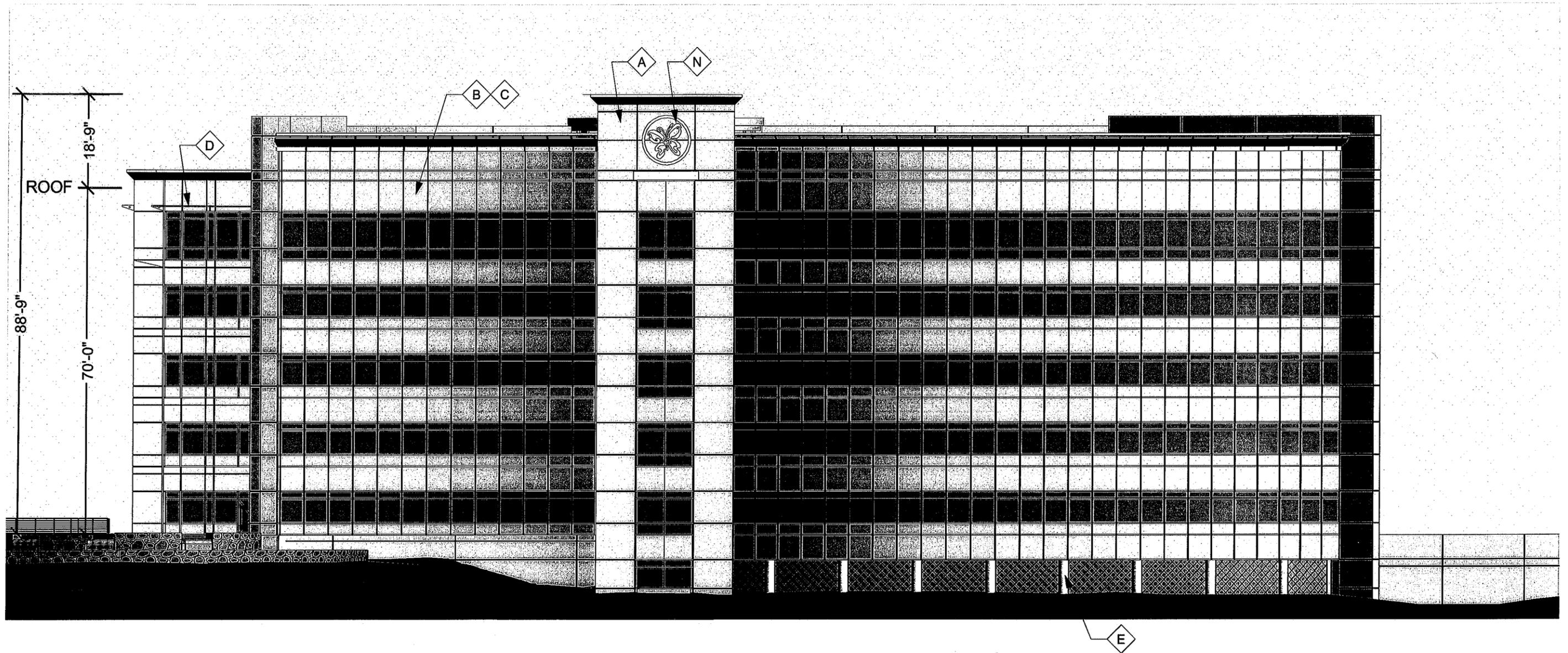
**DIMENSIONAL DATA (IN INCHES)**

	A	B	C	D	E	F	G	H	I	J	K
<b>FSR</b>	2.80	14.00	4.10	9.00	6.40	14.00	2.80	3.80	8.88	8.88	7.00
<b>BSR</b>	3.00	14.00	4.10	9.00	6.40	14.00	3.00	3.80	8.88	8.88	7.00
<b>CSR</b>	3.00	14.00	4.10	9.00	6.40	14.00	3.00	3.80	8.88	8.88	7.00
<b>ESR</b>	3.00	14.00	4.10	9.00	6.40	14.00	3.00	3.80	8.88	8.88	7.00



[www.kenall.com](http://www.kenall.com) P: 800-4-Kenall F: 847-360-1781 1020 Lakeside Drive Gurnee, Illinois 60031

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## OFFICE BUILDING - SOUTH ELEVATION

### ELEVATION NOTES

NOTE: THIS BUILDING WILL UTILIZE THE SAME MATERIALS, COLORS, AND DESIGN FEATURES EMPLOYED BY THE EXISTING BUILDING PALLETTER FOR THE ADJACENT DELMAR GARDENS CORPORATE CAMPUS IMMEDIATELY TO THE WEST.

- A. ARCHITECTURAL PRECAST CONCRETE PANELS - "SANDSTONE/ BEIGE" WITH "EGGSHELL WHITE" ACCENT
- B. GLASS - 1" INSULATED "GREEN" TINT (VISION + SPANDREL PANELS)
- C. ALUMINUM FRAMING/ MULLIONS - "CHAMPAGNE" ANODIZED FINISH
- D. ALUMINUM SUN SCREEN - CLEAR ANODIZED + BRUSHED METAL FINISH
- E. DECORATIVE COLUMN WRAP - CLEAR ANODIZED (LIGHT GREY) ALUCOBOND CLADDING
- F. DECORATIVE ARCHITECTURAL PANEL/ ROTUNDA INFILL - BRUSHED ALUMINUM
- G. ENTRY CANOPY - BRUSHED ALUMINUM WITH POLISHED STAINLESS STEEL ACCENT/ CLEAR GLASS PANELS

H. EXTERIOR HANDRAIL - BRUSHED ALUMINUM WITH POLISHED STAINLESS STEEL CAP

I. GRANITE ACCENT PANELS - WARM TONE POLISHED GRANITE AT WAINSCOT DETAIL

J. ENTRY DOORS - POLISHED STAINLESS STEEL FRAME AND CLEAR GLASS

K. SERVICE DOORS - ALUMINUM DOORS (PAINT TO MATCH ADJACENT ARCHITECTURAL PRECAST CONCRETE PANELS)

L. DUMPSTER SCREEN - ARCHITECTURAL PRECAST PANELS/ METAL DOORS PAINTED TO MATCH

M. NOT USED

N. ARTWORK - POLISHED STAINLESS STEEL

DELMAR GARDENS OFFICE BUILDING III  
SOUTH ELEVATION



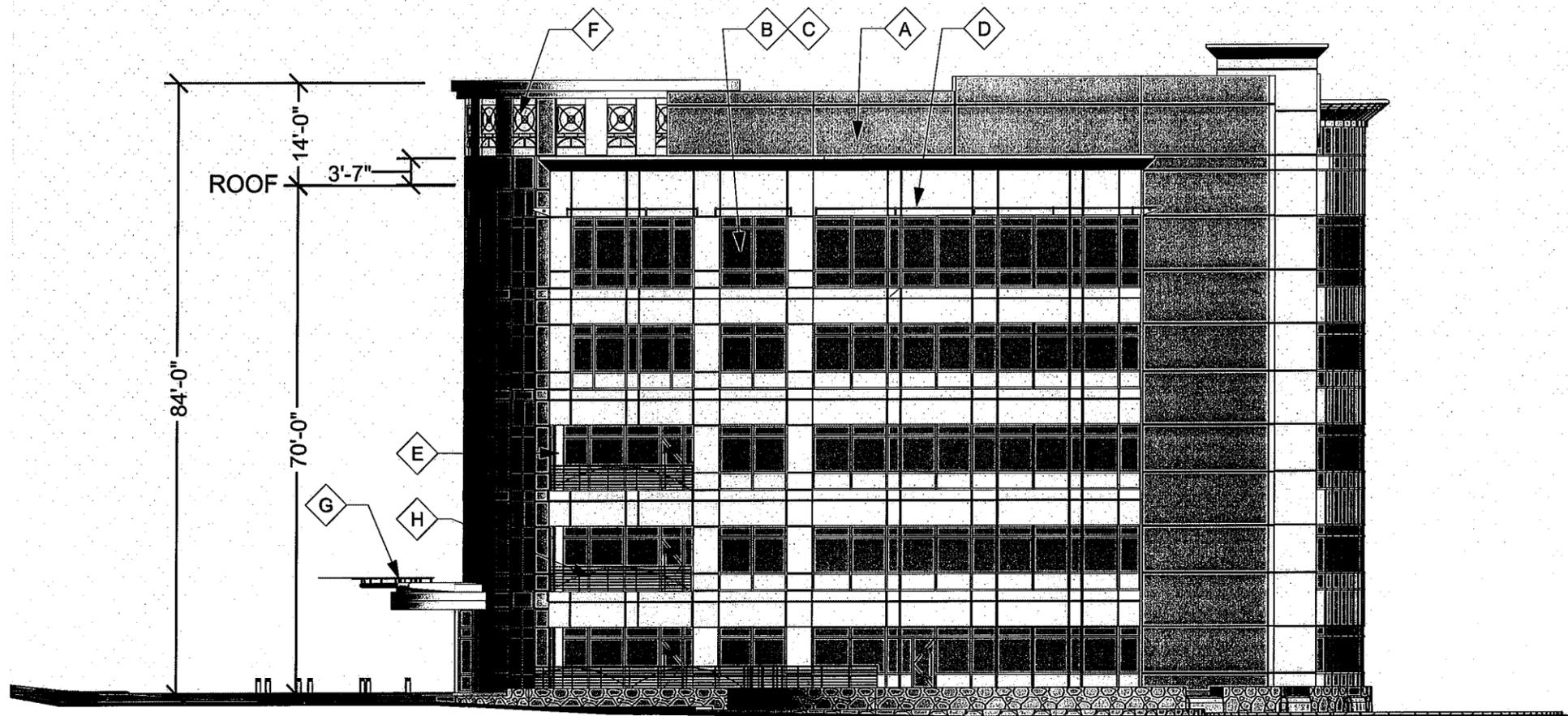
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A1





## OFFICE BUILDING - WEST ELEVATION

### ELEVATION NOTES

NOTE: THIS BUILDING WILL UTILIZE THE SAME MATERIALS, COLORS, AND DESIGN FEATURES EMPLOYED BY THE EXISTING BUILDING PALLETTER FOR THE ADJACENT DELMAR GARDENS CORPORATE CAMPUS IMMEDIATELY TO THE WEST.

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C. ALUMINUM FRAMING/ MULLIONS - "CHAMPAGNE" ANODIZED FINISH

D. ALUMINUM SUN SCREEN - CLEAR ANODIZED + BRUSHED METAL FINISH

E. DECORATIVE COLUMN WRAP - CLEAR ANODIZED (LIGHT GREY) ALUCOBOND CLADDING

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L. DUMPSTER SCREEN - ARCHITECTURAL PRECAST PANELS/ METAL DOORS PAINTED TO MATCH

M. NOT USED

N. ARTWORK - POLISHED STAINLESS STEEL

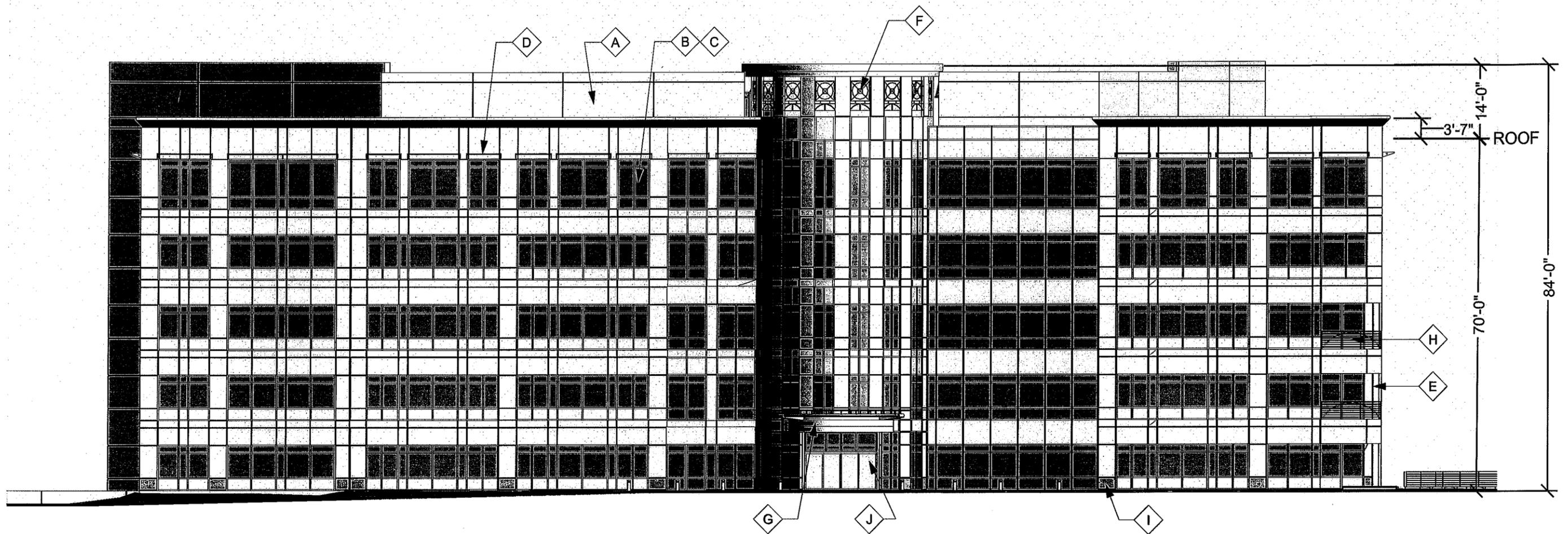
DELMAR GARDENS OFFICE BUILDING III  
WEST ELEVATION



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A2



## OFFICE BUILDING - NORTH ELEVATION

### ELEVATION NOTES

NOTE: THIS BUILDING WILL UTILIZE THE SAME MATERIALS, COLORS, AND DESIGN FEATURES EMPLOYED BY THE EXISTING BUILDING PALLETTER FOR THE ADJACENT DELMAR GARDENS CORPORATE CAMPUS IMMEDIATELY TO THE WEST.

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- N. ARTWORK - POLISHED STAINLESS STEEL



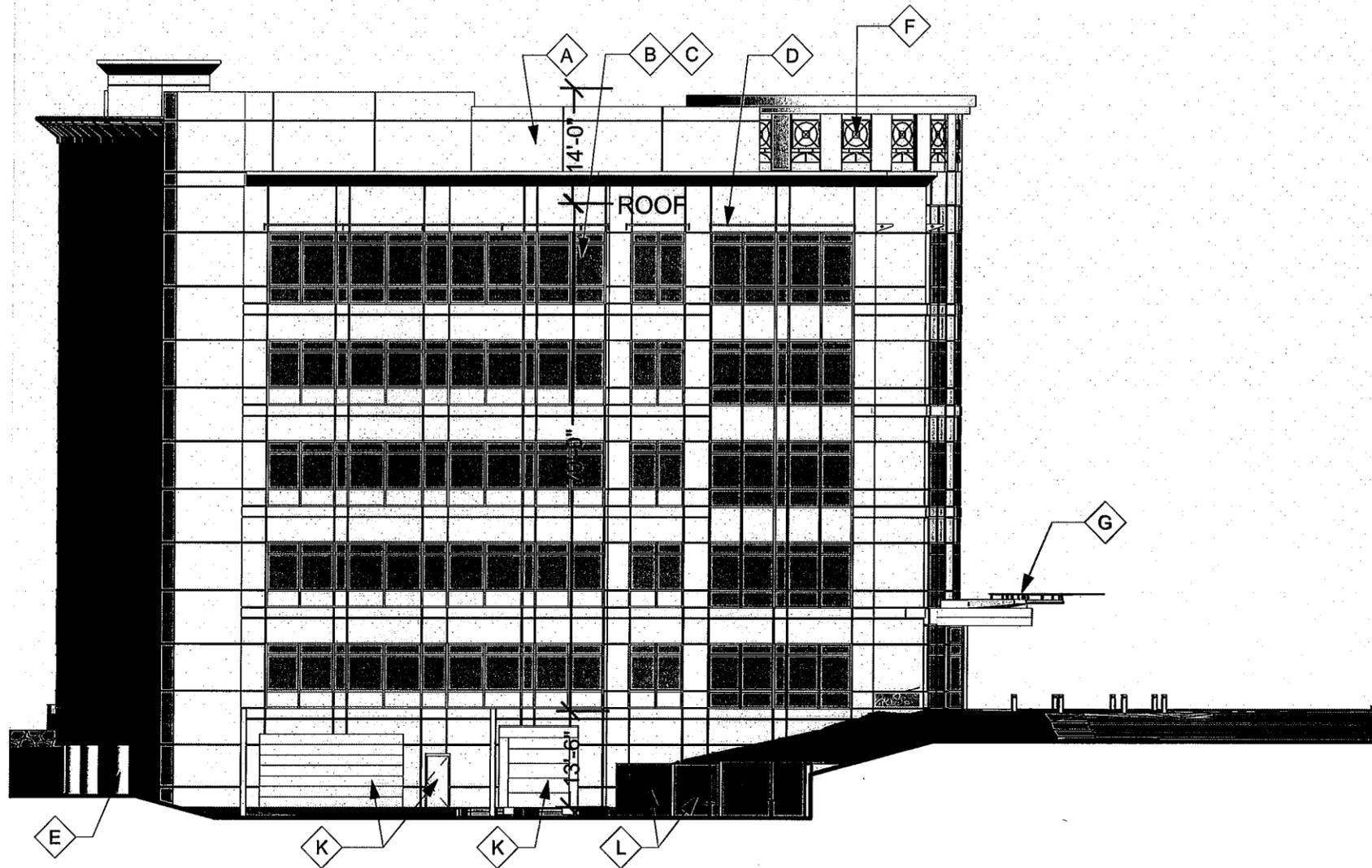
DELMAR GARDENS OFFICE BUILDING III  
NORTH ELEVATION



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A3



## OFFICE BUILDING - EAST BUILDING

### ELEVATION NOTES

NOTE: THIS BUILDING WILL UTILIZE THE SAME MATERIALS, COLORS, AND DESIGN FEATURES EMPLOYED BY THE EXISTING BUILDING PALLETTER FOR THE ADJACENT DELMAR GARDENS CORPORATE CAMPUS IMMEDIATELY TO THE WEST.

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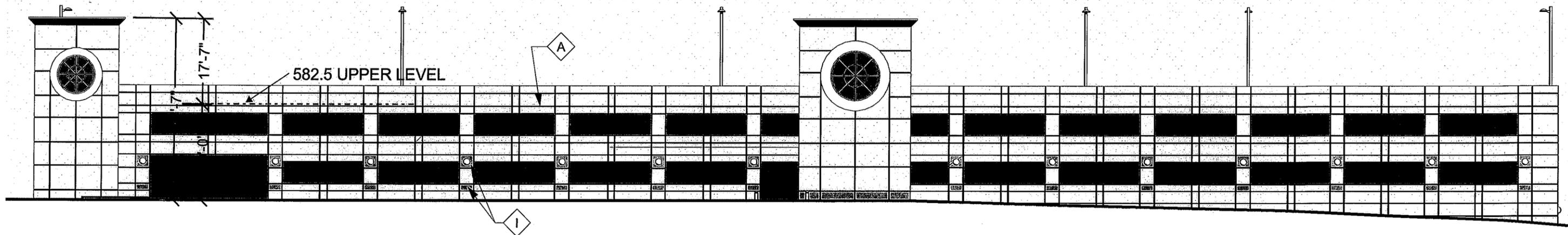
## DELMAR GARDENS OFFICE BUILDING III EAST ELEVATION



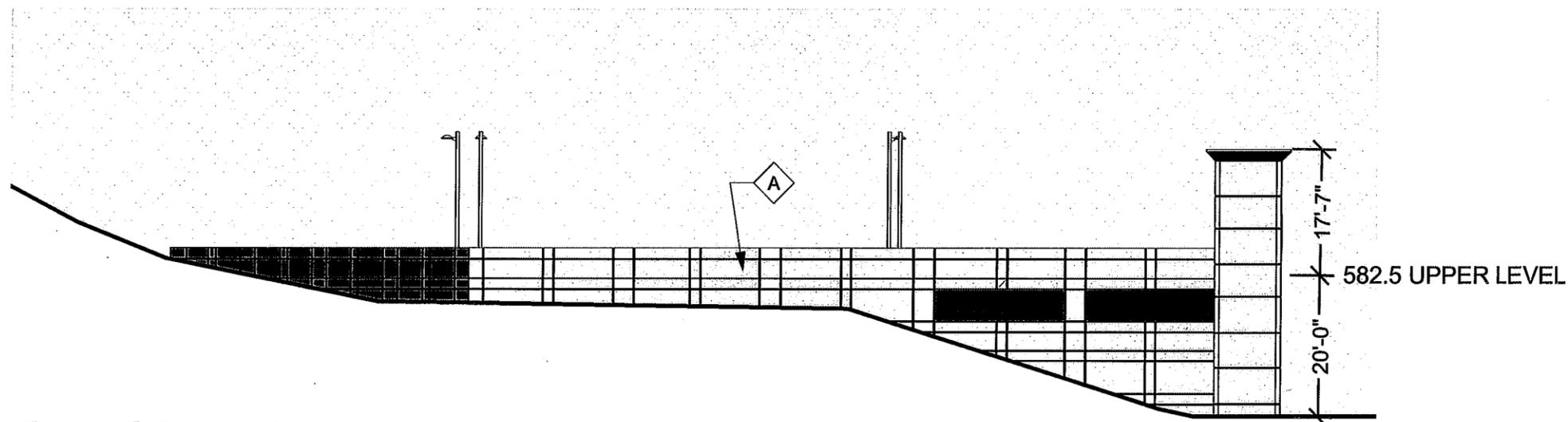
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**GARAGE - SOUTH ELEVATION**



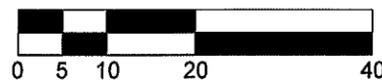
**GARAGE - WEST ELEVATION**

**ELEVATION NOTES**

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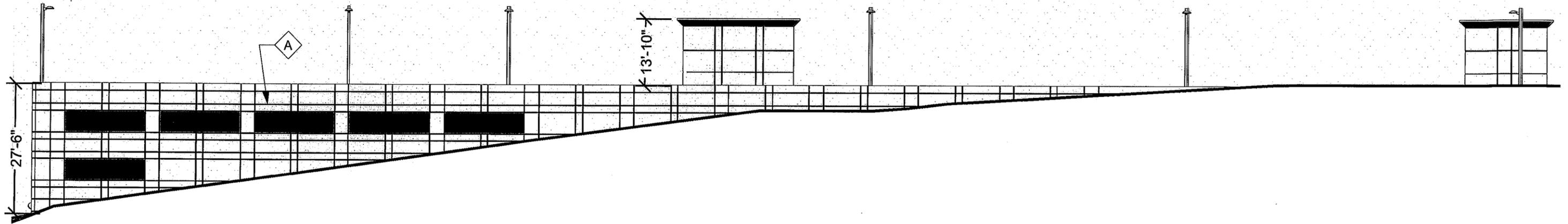
**DELMAR GARDENS OFFICE BUILDING III  
GARAGE ELEVATIONS**



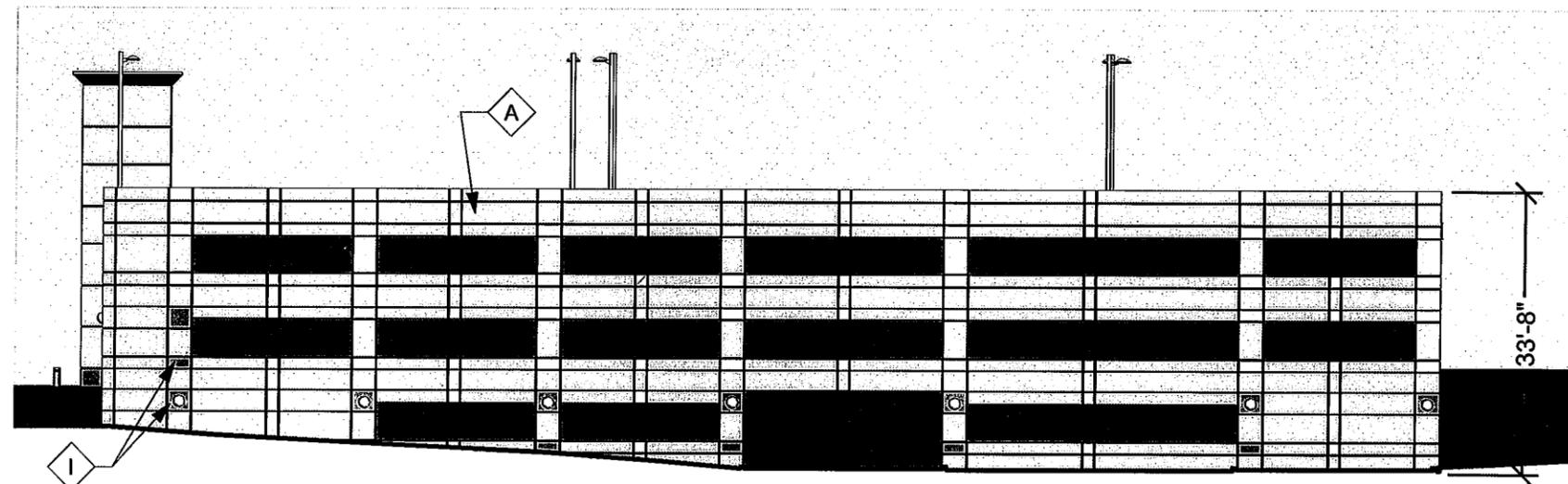
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**GARAGE - NORTH ELEVATION**



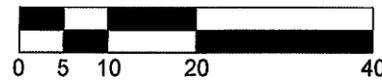
**GARAGE - EAST ELEVATION**

**ELEVATION NOTES**

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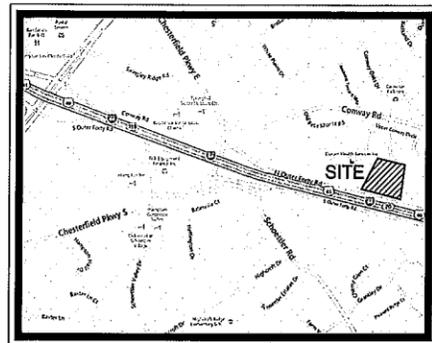
**DELMAR GARDENS OFFICE BUILDING III  
GARAGE ELEVATIONS**



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10.12.2015

A6



LOCATION MAP (NOT TO SCALE)

LEGEND

EXISTING CONTOURS	433
PROPOSED CONTOURS	433
EXISTING STORM SEWER	—
PROPOSED STORM SEWER	—
EXISTING SANITARY SEWER	—
PROPOSED SANITARY SEWER	—
RIGHT-OF-WAY	—
EASEMENT	—
CENTERLINE	—
EXISTING TREE	—
EXISTING SPOT ELEVATION	433.28
PROPOSED SPOT ELEVATION	433.28
SEWER/DRAINAGE PATH TO BE REMOVED	T.B.R.
TO BE REMOVED & RELOCATED	T.B.R. & R.
TO BE USED IN PLACE	U.P.
TO BE ABANDONED	T.A.B.
BACK OF CURB	B.C.
FACE OF CURB	F.C.
WATER MAIN	—
GAS MAIN	—
UNDERGROUND TELEPHONE	—
OVERHEAD WIRE	—
UNDERGROUND ELECTRIC	—
FIRE HYDRANT	—
POWER POLE	—
WATER VALVE	—

ABBREVIATIONS

N	NORTH
S	SOUTH
E	EAST
W	WEST
CONC.	CONCRETE
ASPH.	ASPHALT
PL	PLAT BOOK
DB	DEED BOOK
PA	PAGE
SF	SQUARE FEET
AC	ACRES
ELEV.	ELEVATION
FT	FOOT
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
STU	STORM
SAN	SANITARY
(S)	SAVE
(R)	REMOVE

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

Ingress & Egress Easement (P.B. 356, Page 299)

# SITE DEVELOPMENT PLAN

## DELMAR GARDENS OFFICE BUILDING III

FOR LOT 21 OF HIGHLAND ON CONWAY PLAT NO. 2, PER PLAT BOOK 83 PAGE 39 EXCEPTING THEREFROM THAT PART CONVEYED TO THE STATE OF MISSOURI PER BOOK 5496 PAGE 202 AND A TRACT OF LAND BEING PART OF THE RIGHT OF WAY OF INTERSTATE HIGHWAY 64 AND U.S. HIGHWAY 40 & 61, BEING ALSO PART OF ORIGINAL LOT 21 OF THE SUBDIVISION OF HIGHLAND ON CONWAY PLAT NO. 2, PER PLAT BOOK 83 PAGE 39 OF THE ST. LOUIS COUNTY RECORDS, PER CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI.

### LAND DESCRIPTION

A tract of land being part of Lot 21 of Highland on Conway Plat No. 2, a subdivision recorded in Plat Book 83 Page 39 of the St. Louis County Land Records Office in St. Louis County, Missouri, being more particularly described as follows:

Beginning at a found 1/2" x 1/8" rebar with cap stamped "Marler 347-D" (Typical) at the Northeast corner of Lot 21; Thence along the North line of Lot 21, South 77 degrees 22 minutes 00 seconds East a distance of 400.00 feet to a point being the Northeast corner of Lot 21, from which a found 3/8" iron pipe bears South 49 degrees 51 minutes West 0.19 feet Thence along the Eastern line of Lot 21, South 00 degrees 55 minutes 57 seconds West a distance of 49.19 feet to a set rebar on the Northern right of way line of Interstate 64 (Highway 40-61) (Variable width); Thence along the Northern right of way line of said Interstate 64, North 76 degrees 13 minutes 03 seconds West a distance of 571.49 feet to a set rebar on the Western line of Lot 21; Thence along the Western line of said Lot 21, North 27 degrees 24 minutes 00 seconds East a distance of 484.54 feet to the point of beginning containing 230,476 sq. ft. or 5.29 acres more or less, as surveyed by Marler Surveying Company, Inc. during October 2013.

### PROPERTY DATA

SITE ADDRESS: 14767 N. OUTER 40 ROAD  
 LOCATOR NO.: DELMAR GARDEN AT CONWAY RIDGE III, LLC  
 SITE AREA: 230,476 sq. ft. or 5.29 AC.  
 EXISTING ZONING: P-2 PLANNED COMMERCIAL (ORD. 2651)  
 FIRE DISTRICT: MONARCH FIRE PROTECTION DISTRICT  
 SCHOOL DISTRICT: PARKWAY SCHOOL DISTRICT  
 SEWER DISTRICT: METROPOLITAN ST. LOUIS SEWER DISTRICT  
 WATER SUPPLY: METROPOLITAN ST. LOUIS SEWER DISTRICT  
 ELECTRIC COMPANY: AMERICAN ELECTRIC GAS COMPANY  
 GAS COMPANY: MISSOURI AMERICAN WATER CO.  
 PHONE COMPANY: AT&T  
 WATER COMPANY: MISSOURI AMERICAN WATER CO.

### GENERAL NOTES

- ALL UTILITIES SHOWN HAVE BEEN LOCATED BY THE ENGINEER FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO VERIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION. TO HAVE EXISTING UTILITIES FIELD LOCATED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MISSOURI ONE CALL SYSTEM.
- ALL ELEVATIONS ARE BASED ON THE BENCHMARK SHOWN.
- BOUNDARY AND TOPOGRAPHIC SURVEY BY MARLER SURVEYING CO.
- ALL MATERIALS AND METHODS OF CONSTRUCTION TO MEET THE CURRENT STANDARDS AND SPECIFICATIONS OF THE DIRECTOR OF PUBLIC WORKS FOR THE CITY OF CHESTERFIELD.
- ALL GRADED AREAS SHALL BE PROTECTED FROM EROSION BY EROSION CONTROL DEVICES AND/OR SEEDING AND MULCHING AS REQUIRED BY THE CITY OF CHESTERFIELD.
- PRIOR TO BEGINNING ANY WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR SPECIFIC INSTRUCTIONS RELEVANT TO THE SEQUENCING OF CONSTRUCTION.
- GRADING CONTRACTOR SHALL INSTALL SILTATION CONTROL PRIOR TO STARTING THE GRADING. ADDITIONAL SILTATION CONTROL DEVICES SHALL BE INSTALLED AS SPECIFIED FOR THE LANDSCAPE PLAN.
- ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS.
- GRADING CONTRACTOR SHALL KEEP EXISTING ROADWAYS CLEAN OF MUD AND DEBRIS AT ALL TIMES.
- PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS ON PAVED AREAS.
- GRADING & STORM WATER PER U.S.D. AND THE CITY OF CHESTERFIELD'S STANDARDS AND SPECIFICATIONS.
- DRIVE ENTRANCES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE MISSOURI DEPARTMENT OF TRANSPORTATION.
- SEEDING, SOAKING, MULCHING AND PLANTINGS FOR ALL DISTURBED AREAS SHALL BE SPECIFIED FOR THE LANDSCAPE PLAN.
- SIDEWALKS ALONG THE ACCESSIBLE ROUTE SHALL NOT HAVE A SLOPE EXCEEDING 1:20%. SLOPES GREATER THAN 1:20% MUST BE DESIGNED AS A RAMP.
- SIDEWALKS, CURB RAMPS, RAMPS AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENTLY APPLICABLE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) ALONG WITH THE REQUIRED CURB CUTTING, SIDEWALKS, RAMPS AND ACCESSIBLE PARKING SPACES. IN THE EVENT OF A CONFLICT BETWEEN THE ADA GUIDELINES AND THE INFORMATION ON THE PLANS, THE ADA GUIDELINES SHALL TAKE PRECEDENCE AND THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER PRIOR TO ANY CONSTRUCTION.
- THE PROPOSED CONNECTION TO THE SHARED ACCESS DRIVE TO THE WEST WILL ELIMINATE 8 PARKING SPACES FROM THE DELMAR GARDENS I & II DEVELOPMENT. THE EXISTING 8 SPACES IS ALLOWED 6,000 SF OF GENERAL OFFICE AND 5,000 SF OF MEDICAL/DENTAL USE. APPLYING THE CITY'S CURRENT PARKING RATES TO THE EXISTING SITE, THE APPROVED SITE DEVELOPMENT PLAN DEMONSTRATES A TOTAL PROPOSED PARKING AS 510 SPACES. THE LOSS OF 8 SPACES DUE TO THIS DEVELOPMENT WILL RESULT IN 502 SPACES REMAINING.
- PARKING CALCULATIONS:  
 PARKING PROVIDED: 510 SPACES  
 BUILDING AREA = 126,760 s.f.  
 GENERAL OFFICE = 3.3 SPACES / 1,000 s.f.  
 MAXIMUM ALLOWED = 4.5 SPACES / 1,000 s.f.  
 MIN. PARKING REQUIRED = 126,760 s.f. / 1,000 = 126.76 SPACES  
 MAX. PARKING ALLOWED = 126,760 s.f. / 1,000 = 126.76 SPACES  
 PARKING PROVIDED: 510 SPACES  
 CITY OF CHESTERFIELD: 96 SPACES  
 UPPER LEVEL: 136 SPACES  
 LOWER LEVEL: 24 SPACES  
 458 SPACES (8 ADA)  
 BUILDING GARAGE: 34 SPACES (1 ADA)  
 SURFACE PARKING: 18 SPACES (4 ADA)  
 TOTAL PARKING PROVIDED: 510 SPACES (INCLUDES 13 ADA SPACES)
- OPEN SPACE CALCULATIONS:  
 MINIMUM OPEN SPACE = 30% (ORD. 2651)  
 OPEN SPACE = 123,197 S.F.  
 SITE AREA = 230,476 S.F.  
 (123,197 / 230,476) x 100 = 53%
- FLOOR AREA RATIO (F.A.R.) = 0.55  
 MAXIMUM FLOOR AREA PER LOT (ORD. 2651)  
 230,476 S.F. x 0.55 = 126,762 S.F.
- NO ON-SITE ILLUMINATION SOURCE SHALL BE SO SITUATED THAT LIGHT IS CAST DIRECTLY ON ADJACENT PROPERTIES OR PUBLIC ROADWAYS.
- APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SIGNAGE. SIGN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL PROPOSED UTILITIES SHALL BE PLACED UNDERGROUND.
- ROOF TOP EQUIPMENT SHALL BE SCREENED.
- THIS DEVELOPMENT SHALL CONFORM TO USD REQUIREMENTS FOR WATER QUALITY, IF APPLICABLE.
- ALL LIGHTING MUST ADHERE TO THE FOOTCANDLE LEVELS AS OUTLINED IN CITY OF CHESTERFIELD'S ORDINANCE NO. 1652 AND AS CREATED BY ORDINANCE NO. 1652 AND AS OUTLINED IN CITY OF CHESTERFIELD'S ORDINANCE NO. 1652 AND AS CREATED BY THE CITY OF CHESTERFIELD.

GRAY DESIGN GROUP  
 Gray Design Group, Inc.  
 9 Sunnen Drive, Suite 110  
 Saint Louis, Missouri 63143  
 Telephone 314.548.0400  
 www.graydesigngroup.com



PAUL K. BOYER, P.E. E-28259  
 CIVIL ENGINEER  
 CEDC LICENSE #: 2003004874

Site Development Plan for  
**DELMAR GARDENS OFFICE BUILDING III**  
 14767 N. Outer 40 Road  
 Chesterfield, MO 63017

**CEDC**  
 CIVIL ENGINEERING  
 DESIGN CONSULTANTS  
 11402 Gravois Road  
 Suite 100  
 Saint Louis, MO 63126  
 314.729.1400  
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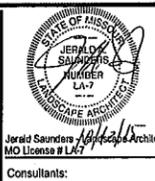
City Submitt	05.28.15
per City	07.23.15
per City	08.27.15
per City	09.28.15
per City	09.15.15
per City	10.13.15



Job | 1327  
 C1

### GRAPHIC SCALE

(IN FEET)  
 1 inch = 30 ft.



Consultants:  
 Jerald Saunders, Architect  
 MO License # LA-7

**Delmar Gardens At Conway Ridge III**  
**Delmar Gardens Enterprises**  
 Chesterfield, Missouri

Tree Stand Delineation Narrative May 26, 2015

**Woodland A:**  
 Woodland A is located along the Northern and upper slope of the Eastern boundaries. The dominant species include White Oak, Red Oak and Hickory. The Understory is made up of Bush Honeysuckle and Halls Honeysuckle with small 1-inch flowering Dogwood and young Oaks. The average diameter of the canopy trees are 8-12 inches with a density of 80 trees/ac. Monarch trees in this area are marked with an "M" and identified in a table.

**Woodland B:**  
 Woodland B is located across the South end of the property and along the existing drive on the western side. Woodland B is made up of what were formerly yard trees of Norway Spruce, White Pine and Sugar Maple. Their canopies have since grown together. Individual Trees within this area have been located and identified in the Existing Tree List. Several of the Pine and Spruce have broken branches and other damage from an ice storm a few years ago. The Understory consists of Bush Honeysuckle, Halls Honeysuckle and small 1-2' tall Sugar Maple. The average size of the trees are between 10-14" diameter. There are no Monarch trees in this Woodland.

**Woodland C:**  
 Woodland C is located along the drainage swale running North along the East property line. The dominant species of Overstory trees are Sycamore, Ash, Box Elder. The Understory is comprised of cactails, small 2-3' tall Walnut and Bush Honeysuckle. The Overstory canopy in this area is declining in health with as much as 50% dieback on a majority of the Overstory canopy. There are several Sycamore that exceed 20" but due to their poor condition, do not meet the requirements for Monarch trees.

There are no rare or champion trees on this property.

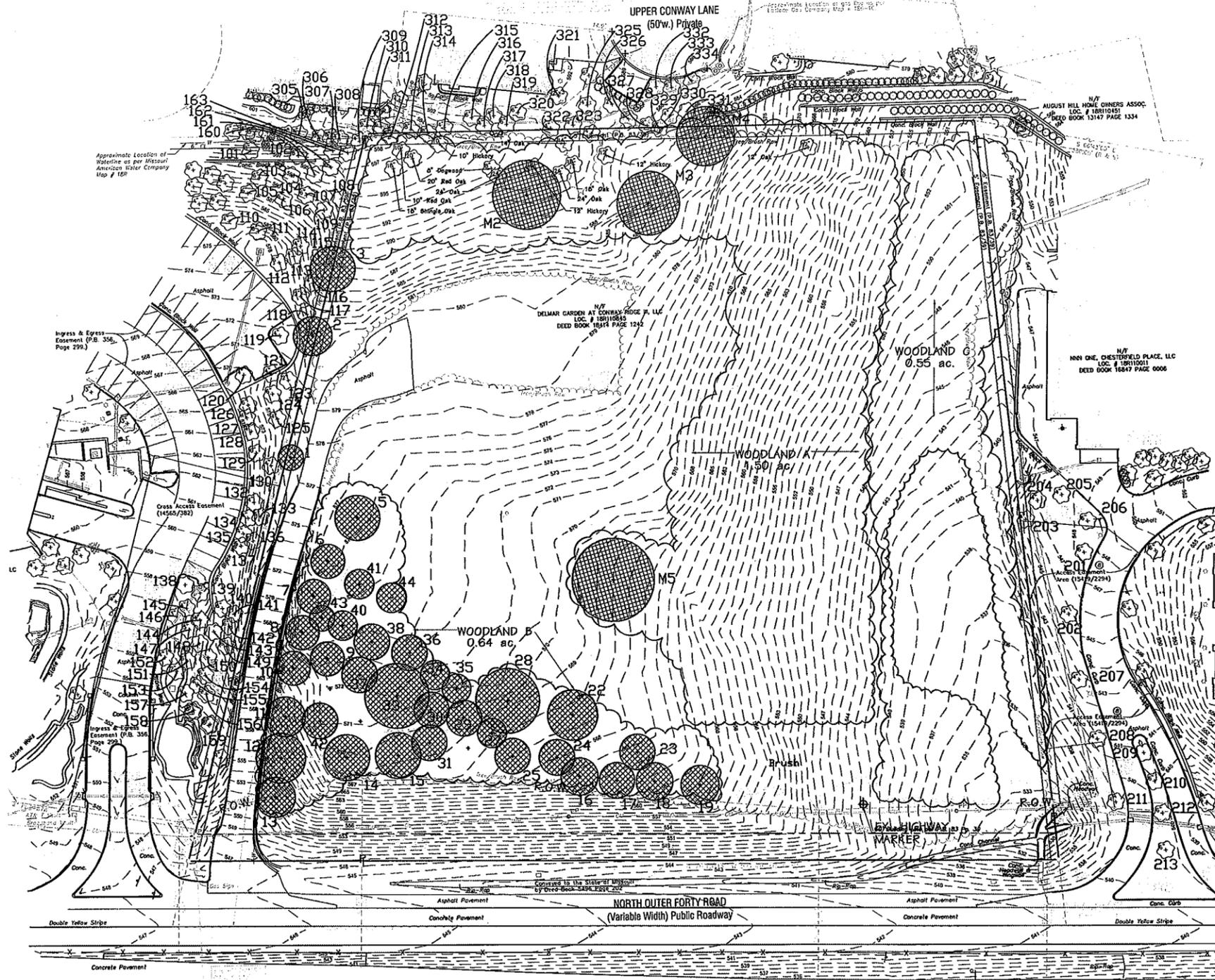
Woodland A= 65,624 s.f. or 1.50 ac.  
 Woodland B= 27,951 s.f. or 0.64 ac.  
 Woodland C= 23,985 s.f. or 0.55 ac.  
 Individual trees= 683 s.f. or 0.02 ac.  
 Total Woodlands= 118,253 s.f. or 2.71 ac.

Douglas A. DeLong - Certified Arborist MW-4826A  
 DeLong Landscape Architecture  
 7620 West Bruno  
 St. Louis, MO 63117  
 (314) 346-4856

*Douglas A. DeLong*

Tree Stand Delineation Plan Prepared under direction of: Douglas DeLong  
 Certified Arborist MW-4826A

Base Map Provided by: Civil Engineering Design Consultants



Existing Monarch Tree List					
Type	Size	Condition	Area-S.F.	Ac.	Comments
M2	White Oak 24"	Good	1558		
M3	White Oak 30"	Good	1339		
M4	Black Oak 24"	Good	1152		
M5	Pin Oak 30"	Good	2271		

Existing Tree List					
Type	Size	Condition	Area-S.F.	Ac.	Comments
1	Oak	14"	Poor	214	
2	Uinden Tree	14"	Poor	498	
3	Uinden Tree	14"	Poor	671	
4	Norway Spruce	16"	Fair	669	
5	White Pine	10"	Poor	378	
6	White Pine	10"	Poor	378	
7	White Pine	14"	Poor	380	
8	White Pine	14"	Poor	380	
9	Norway Spruce	11"	Fair	380	
10	Norway Spruce	12"	Fair	380	
11	White Pine	18"	Poor	526	
12	White Pine	20"	Fair	818	
13	White Pine	15"	Fair	526	Double trunk
14	White Pine	16"	Poor	669	
15	White Pine	16"	Poor	669	
16	White Pine	13"	Poor	457	
17	White Pine	13"	Poor	419	
18	White Pine	13"	Poor	455	
19	White Pine	13"	Poor	498	
20	Norway Spruce	18"	Good	834	
21	Sugar Maple	12"	Fair	419	
22	Sugar Maple	15"	Fair	420	
23	Sugar Maple	15"	Fair	420	
24	Sugar Maple	15"	Fair	420	
25	Sugar Maple	15"	Fair	420	
26	Sugar Maple	15"	Fair	420	
27	Green Ash	20"	Poor	1375	
28	Sugar Maple	15"	Fair	419	
29	Sugar Maple	12"	Fair	419	
30	Sugar Maple	12"	Fair	419	
31	Green Ash	20"	Fair	1375	
32	Norway Spruce	18"	Poor	282	
33	Norway Spruce	18"	Poor	282	
34	Norway Spruce	18"	Poor	419	
35	White Pine	18"	Fair	419	
36	White Pine	18"	Fair	419	
37	White Pine	18"	Fair	419	
38	Sugar Maple	12"	Poor	282	
39	Sugar Maple	12"	Poor	282	
40	Sugar Maple	12"	Poor	282	
41	Sugar Maple	12"	Poor	282	
42	Sugar Maple	12"	Poor	282	
43	Sugar Maple	12"	Poor	282	
44	Sugar Maple	12"	Poor	282	

Revisions:		
Date	Description	No.
6/30/15	City Comments	
7/27/15	City Comments	
8/27/15	Plan Changes	
10/12/15	City Comments	

Drawn: KP  
 Checked: JS



Sheet Title: Tree Stand Delineation

Sheet No: TSD-1

Date: 06/03/15  
 Job #: 680.044

**TREE STAND DELINEATION**  
 SCALE 1" = 30'

Existing Tree List - Offsite Trees West of Property				
Type	Size	Comments	Future Max Area-S.F.	Ac.
101	Maple	8"	400	
102	White Pine	8"	400	
103	Redbud	6"	300	
104	Spruce	6"	300	
105	Redbud	6"	300	
106	Tulip Poplar	6"	400	
107	Spruce	6"	300	
108	Spruce	6"	300	
109	Dogwood	4"	200	
110	Crabapple	4"	200	
111	Bald Cypress	6"	400	
112	Bald Cypress	6"	400	
113	Hawthorn	4"	200	
114	Hawthorn	4"	200	
115	White Pine	12"	400	
116	Redbud	4"	300	
117	Hawthorn	2"	200	
118	Hawthorn	2"	200	
119	Ash	4"	400	
120	Ash	4"	400	

Existing Tree List - Offsite Trees West of Property				
Type	Size	Comments	Future Max Area-S.F.	Ac.
121	Crabapple	4"	200	
123	Spruce	10"	300	
124	Maple	6"	400	
125	Tulip Poplar	4"	400	
126	Tulip Poplar	6"	400	
127	Crabapple	4"	200	
128	Crabapple	4"	200	
129	Maple	6"	400	
130	White Pine	4"	400	
132	Hawthorn	4"	200	
133	Spruce	10"	300	
134	Redbud	4"	300	
135	Crabapple	4"	200	
136	Spruce	10"	300	
137	Spruce	6"	300	
138	Red Maple	6"	400	
139	Redbud	6"	400	
140	Tulip Poplar	6"	400	
141	Tulip Poplar	4"	400	
142	Tulip Poplar	6"	400	

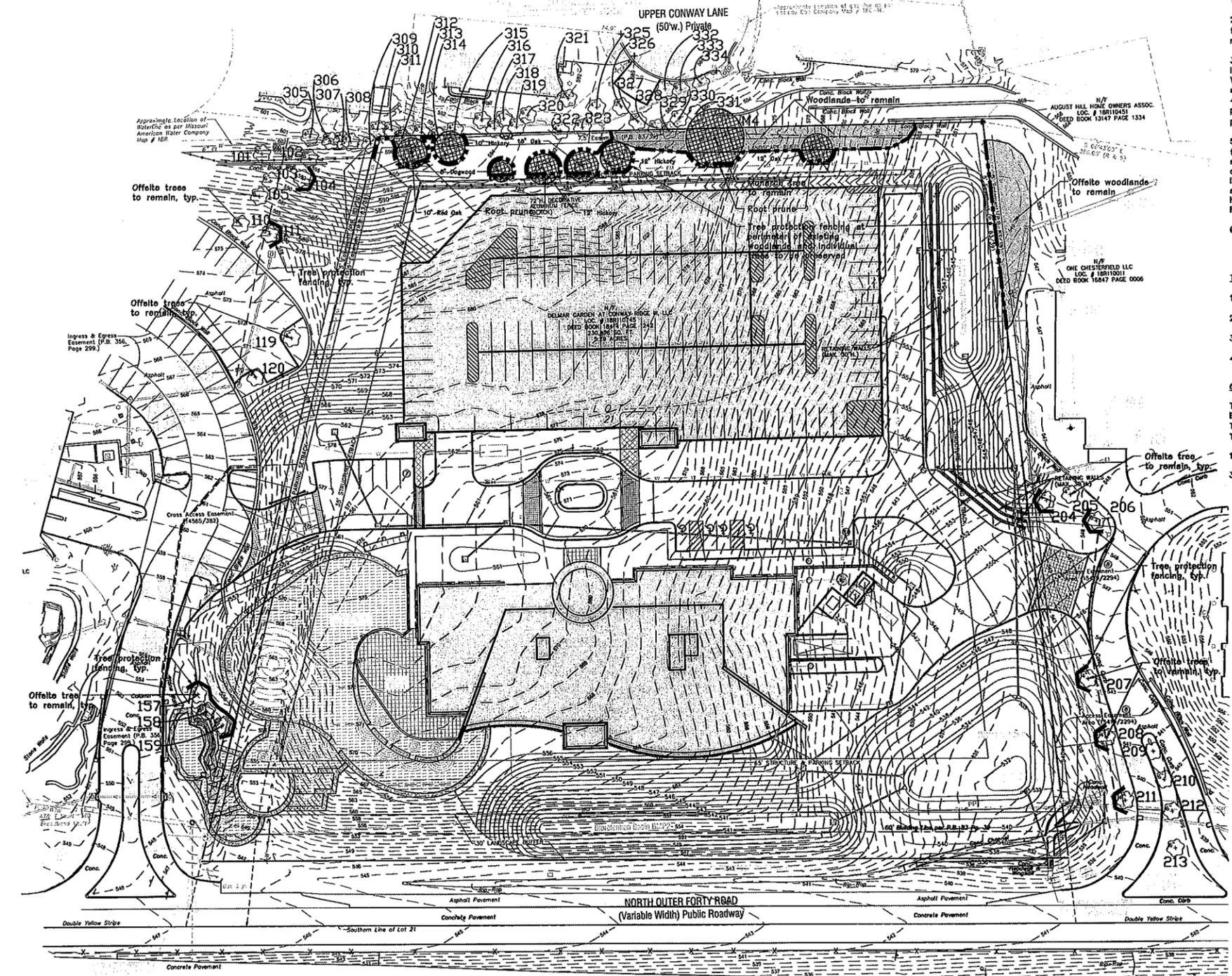
Existing Tree List - Offsite Trees West of Property				
Type	Size	Comments	Future Max Area-S.F.	Ac.
143	White Pine	6"	400	
144	Spruce	4"	300	
145	Redbud	4"	300	
146	Red Maple	3"	400	
147	Spruce	3"	300	
148	Spruce	3"	300	
149	White Pine	6"	400	
150	White Pine	6"	400	
151	Redbud	6"	400	
152	Red Maple	4"	400	
153	Crabapple	2"	200	
154	White Pine	6"	400	
155	Redbud	4"	300	
156	White Pine	2"	400	
157	Redbud	4"	300	
158	Tulip Poplar	6"	400	
159	Tulip Poplar	6"	400	
160	Spruce	6"	400	
161	White Pine	6"	400	
162	Spruce	4"	300	
163	White Pine	4"	400	

Existing Tree List - Offsite Trees East of Property				
Type	Size	Comments	Future Max Area-S.F.	Ac.
201	Maple	6"	400	
202	Maple	4"	400	
203	Spruce	15"	300	
204	Norway Spruce	15"	300	
205	Spruce	4"	300	
206	Redbud	6"	300	
207	Maple	6"	400	
208	Maple	4"	400	
209	Redbud	6"	300	
210	Redbud	6"	300	
211	Maple	4"	400	
212	Redbud	6"	300	
213	Redbud	6"	300	

Existing Tree List - Offsite Trees North of Property				
Type	Size	Comments	Future Max Area-S.F.	Ac.
305	Crabapple	4"	200	
306	Spruce	6"	300	
307	White Pine	8"	400	
308	White Pine	4"	400	
309	Spruce	4"	300	
310	White Pine	6"	400	
311	White Pine	6"	400	
312	Pear	6"	300	
313	White Pine	8"	400	
314	White Pine	6"	400	
315	White Pine	4"	400	
316	Pear	6"	300	
317	Maple	4"	400	
318	Spruce	4"	300	
319	White Pine	6"	400	
320	Pear	6"	300	
321	Birch	2"	400	
322	Pear	4"	300	
323	Spruce	4"	300	

Existing Tree List - Offsite Trees North of Property				
Type	Size	Comments	Future Max Area-S.F.	Ac.
325	Magnolia	4"	300	
326	Honeylocust	2"	400	
327	Spruce	4"	300	
328	White Pine	8"	400	
329	Spruce	6"	300	
330	White Pine	4"	400	
331	Spruce	15"	300	
332	Amur Maple	6"	200	
333	Crabapple	6"	200	
334	Spruce	12"	300	

**TREE LEGEND**  
 Existing Individual Tree # Reference Number  
 Location/Canopy Size



**TREE PROTECTION NOTES:**

- 1) Preserved woodland is delineated with shading.
- 2) Pre-construction meeting to be held on-site to include a presentation of tree protection measures to operators; construction supervisors; developer's representative; and city zoning inspector.
- 3) Clearing Limits to be rough staked in order to facilitate location for installation of protection fencing. No early maintenance schedule is required. Where noted on plan, contractor to trench and root prune prior to any grading activity. Required siltation devices to be installed along limit of disturbance line.
- 4) No clearing or grading shall begin in areas where the treatment and preservation measures have not been completed including the installation of tree protection fencing along all "Limit of Disturbance" lines shown on the map.
- 5) Tree Protection Fencing shall be 4-foot high chain link fencing with dust fabric. No equipment traffic/parking, concrete washout, material storage or other such construction activity shall be permitted to penetrate the protection fencing or disrupt the Protected Woodland Area except for the removal of dead or invasive plant material. Any proposed plantings shall be subject to the review and approval of the City Arborist. All ground plans shall be mulched with hardwood bark mulch. Tree Protection Signage will be placed along the Protection Fencing as shown as the dashed line on the map.
- 6) Tree protection measures to be maintained throughout construction sequence.

**TREE PROTECTION ACTION KEY SEQUENCE:**

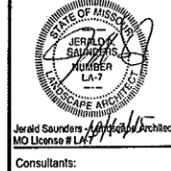
- 1) Survey limit of disturbance.
- 2) Install tree protection fencing.
- 3) Post tree protection signage on fence (No signs will be posted on trees).
- 4) Maintain tree protection area as an off-limits zone.

**CALCULATIONS:**

Total Site Area: 230,476 s.f., or 5.29 acres  
 Existing Tree Canopy Coverage: 110,253 s.f., or 2.71 acres  
 Tree Canopy proposed for removal: 113,675 s.f., or 2.61 acres (96.1%)  
 Tree Canopy proposed for preservation: 4,500 s.f., or 0.10 acres (3.9%)  
 110,253 s.f. x .30 = 35,476 s.f. of tree canopy preservation required  
 30,096 s.f. new tree canopy required

Existing Monarch Tree List					
ID	Type	Size	Condition	Area-S.F.	Add. Comments
M2	White Oak	24"	Good	1538	T.B.R.
M3	White Oak	30"	Good	1359	T.B.R.
M4	Black Oak	24"	Good	1152	
M5	Pin Oak	30"	Good	2271	T.B.R.

Existing Tree List					
ID	Type	Size	Condition	Area-S.F.	Add. Comments
1	Oak	14"	Poor	214	T.B.R.
2	Linden Tree	14"	Poor	458	T.B.R.
3	Linden Tree	14"	Poor	671	T.B.R.
5	Norway Spruce	16"	Fair	669	T.B.R.
6	White Pine	10"	Poor	378	T.B.R.
7	White Pine	16"	Poor	378	T.B.R.
8	White Pine	14"	Poor	380	T.B.R.
9	Norway Spruce	11"	Fair	380	T.B.R.
10	Norway Spruce	12"	Fair	380	T.B.R.
11	White Pine	18"	Poor	526	T.B.R.
12	White Pine	20"	Fair	618	T.B.R.
13	White Pine	15"	Fair	526	Dist. Trunk; T.B.R.
14	White Pine	15"	Poor	689	T.B.R.
15	White Pine	16"	Poor	689	T.B.R.
16	White Pine	13"	Poor	457	T.B.R.
17	White Pine	13"	Poor	419	T.B.R.
18	White Pine	13"	Poor	465	T.B.R.
19	White Pine	13"	Poor	468	T.B.R.
22	Norway Spruce	18"	Good	834	T.B.R.
23	Sugar Maple	12"	Fair	419	T.B.R.
24	Sugar Maple	15"	Fair	420	T.B.R.
25	Sugar Maple	15"	Fair	420	T.B.R.
27	Sugar Maple	15"	Fair	420	T.B.R.
28	Green Ash	20"	Poor	1375	T.B.R.
29	Sugar Maple	15"	Fair	419	T.B.R.
30	Sugar Maple	12"	Fair	419	T.B.R.
31	Sugar Maple	12"	Fair	419	T.B.R.
33	Green Ash	20"	Fair	1375	T.B.R.
34	Norway Spruce	18"	Poor	282	T.B.R.
35	Norway Spruce	18"	Poor	282	T.B.R.
36	Norway Spruce	18"	Poor	419	T.B.R.
37	White Pine	18"	Fair	419	T.B.R.
38	White Pine	18"	Fair	420	T.B.R.
40	Sugar Maple	12"	Poor	282	T.B.R.
41	Sugar Maple	12"	Poor	282	T.B.R.
42	Sugar Maple	16"	Good	420	T.B.R.
43	Sugar Maple	11"	Poor	214	T.B.R.
44	Sugar Maple	12"	Poor	282	T.B.R.



Jerald Saunders, Landscape Architect  
 Missouri License # LA 1000018  
 Consultants:

**Delmar Gardens At Conway Ridge III**  
**Delmar Gardens Enterprises**  
 Chesterfield, Missouri

Revisions:

Date	Description	No.
5/30/15	City Comments	
7/27/15	City Comments	
8/27/15	Plan Changes	
9/8/15	City Comments	
9/15/15	City Comments	
9/30/15	TPP Total Adjust	
10/12/15	City Comments	

Drawn: KP  
 Checked: JS



Sheet Title: Tree Preservation Plan  
 Sheet No: TPP-1  
 Date: 06/03/15  
 Job #: 680.044

**TREE PRESERVATION PLAN**  
 SCALE 1" = 30'

Existing Tree List - Offsite Trees West of Property					
ID	Type	Size	Comments	Future Max Area-S.F.	Area-S.F.
101	Maple	8"		400	
102	White Pine	8"		400	
103	Redbud	6"		300	
104	Spruce			300	
105	Redbud	6"		300	
106	Tulip Poplar	6"	T.B.R.	400	
107	Spruce	6"	T.B.R.	300	
108	Spruce	6"	T.B.R.	300	
109	Dogwood		T.B.R.	200	
110	Crabapple	4"		200	
111	Bald Cypress	6"		400	
112	Bald Cypress	6"	T.B.R.	400	
113	Hawthorn	4"	T.B.R.	200	
114	Hawthorn	4"	T.B.R.	200	
115	White Pine	12"	T.B.R.	400	
116	Redbud	4"	T.B.R.	300	
117	Hawthorn	2"	T.B.R.	200	
118	Hawthorn		T.B.R.	200	
119	Ash	4"		400	
120	Ash	4"		400	

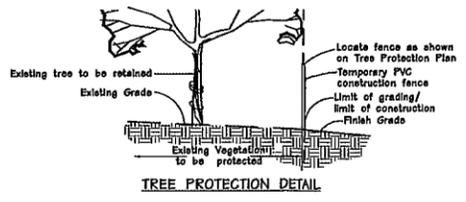
Existing Tree List - Offsite Trees West of Property					
ID	Type	Size	Comments	Future Max Area-S.F.	Area-S.F.
121	Crabapple	4"	T.B.R.	200	
123	Spruce	10"	T.B.R.	300	
124	Maple	6"	T.B.R.	400	
125	Tulip Poplar	4"	T.B.R.	400	
126	Tulip Poplar	6"	T.B.R.	400	
127	Crabapple	4"	T.B.R.	200	
128	Crabapple	4"	T.B.R.	200	
129	Maple	6"	T.B.R.	400	
130	White Pine	4"	T.B.R.	400	
132	Hawthorn	4"	T.B.R.	200	
133	Spruce	10"	T.B.R.	300	
134	Redbud	4"	T.B.R.	300	
135	Crabapple	4"	T.B.R.	200	
136	Spruce	10"	T.B.R.	300	
137	Spruce	6"	T.B.R.	300	
138	Red Maple		T.B.R.	400	
139	Redbud		T.B.R.	300	
140	Tulip Poplar	6"	T.B.R.	400	
141	Tulip Poplar	4"	T.B.R.	400	
142	Tulip Poplar	6"	T.B.R.	400	

Existing Tree List - Offsite Trees West of Property					
ID	Type	Size	Comments	Future Max Area-S.F.	Area-S.F.
143	White Pine		T.B.R.	400	
144	Spruce	4"	T.B.R.	300	
145	Redbud	4"	T.B.R.	300	
146	Red Maple	3"	T.B.R.	400	
147	Spruce	3"	T.B.R.	300	
148	Spruce		T.B.R.	300	
149	White Pine	6"	T.B.R.	400	
150	White Pine	6"	T.B.R.	400	
151	Redbud	6"	T.B.R.	300	
152	Red Maple	4"	T.B.R.	400	
153	Crabapple	2"	T.B.R.	200	
154	White Pine	6"	T.B.R.	400	
155	Redbud	4"	T.B.R.	300	
156	White Pine	2"	T.B.R.	400	
157	Redbud			300	
158	Tulip Poplar	6"		400	
159	Tulip Poplar	6"		400	
160	Spruce		T.B.R.	300	
161	White Pine	6"	T.B.R.	400	
162	Spruce	4"	T.B.R.	300	
163	White Pine	4"	T.B.R.	400	
T.B.R. Total					18200

Existing Tree List - Offsite Trees East of Property					
ID	Type	Size	Comments	Future Max Area-S.F.	Area-S.F.
201	Maple	6"	T.B.R.	400	
202	Maple	4"	T.B.R.	400	
203	Spruce	15"	T.B.R.	300	
204	Norway Spruce	15"		300	
205	Redbud	4"		300	
206	Redbud	6"		300	
207	Maple	6"		400	
208	Maple	4"		400	
209	Redbud			300	
210	Redbud	6"		300	
211	Maple	4"		400	
212	Redbud	6"		300	
213	Redbud	6"		300	
T.B.R. Total					1100

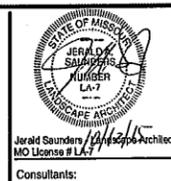
Existing Tree List - Offsite Trees North of Property					
ID	Type	Size	Comments	Future Max Area-S.F.	Area-S.F.
305	Crabapple	4"		200	
306	Spruce	6"		300	
307	White Pine	6"		400	
308	White Pine	4"		400	
309	Spruce	4"		300	
310	White Pine	6"		400	
311	White Pine	6"		400	
312	Pear	6"		200	
313	White Pine	8"		400	
314	White Pine	6"		400	
315	White Pine	4"		400	
316	Pear	6"		300	
317	Maple	4"		400	
318	Spruce	4"		300	
319	White Pine	6"		400	
320	Pear	6"		300	
321	Birch	2"		400	
322	Pear	4"		300	
323	Spruce	4"		300	

Existing Tree List - Offsite Trees North of Property					
ID	Type	Size	Comments	Future Max Area-S.F.	Area-S.F.
325	Magnolia	4"		300	
326	Honeylocust	2"		400	
327	Spruce	4"		300	
328	White Pine	8"		400	
329	Spruce	6"		300	
330	White Pine	4"		400	
331	Spruce	15"		300	
332	Amur Maple			200	
333	Crabapple	6"		200	
334	Spruce	12"		300	



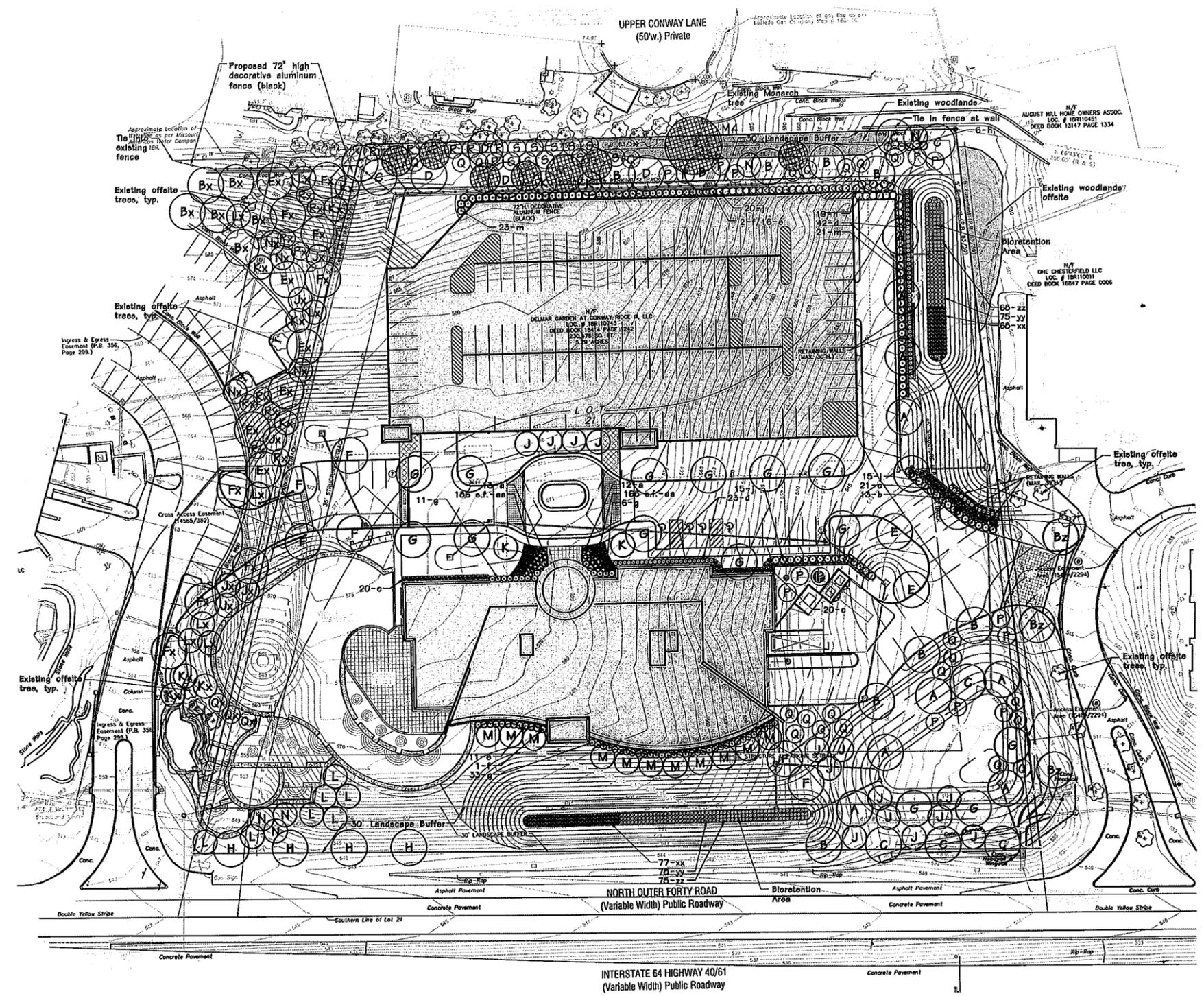
**KEY**

- Woodland areas to be preserved
- Tree protection fence
- Root pruning



Jerald Saunders  
Landscape Architect  
Missouri License # LA-7

Consultants:



OPEN SPACE = 53%

**CALCULATIONS:**

Total Site Area: 230,476 s.f., or 5.29 acres  
 Existing Tree Canopy Coverage: 118,253 s.f., or 2.71 acres (98.1%)  
 Tree Canopy proposed for removal: 113,675 s.f., or 2.61 acres (98.1%)  
 Tree Canopy proposed for preservation: 4,580 s.f., or 0.10 acres (3.9%)  
 118,253 s.f. x .30 = 35,476 s.f. of tree canopy preservation required  
 30,896 s.f. new tree canopy required

**PROPOSED OFFSITE PLANTINGS, PROVIDE:**

**OFFSITE TREES - WEST OF PROPERTY**  
 22 large trees @ 400 s.f./tree = 8,800 s.f.  
 24 medium trees @ 300 s.f./tree = 7,200 s.f.  
 11 small trees @ 200 s.f./tree = 2,200 s.f.  
 16,200 s.f.

**OFFSITE TREES - EAST OF PROPERTY**  
 3 large trees @ 400 s.f./tree = 1,200 s.f.  
 1,200 s.f.

**KEY**

A, H, P - Required trees

Ax, Hx, Px - Offsite replacement trees

**LANDSCAPE PLAN**  
 SCALE 1" = 30'

TREES						
SYMBOL	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	REMARKS	TYPE
A	9	Acer rubrum 'Frankford'	Red Sunset Maple	3" cal	B&B	Deciduous
B	11	Gleditsia triacanthos 'Skycole'	Skyline Honeylocust	3" cal	B&B	Deciduous
C	8	Quercus bicolor	Swamp White Oak	3" cal	B&B	Deciduous
D	4	Taxodium distichum	Bald Cypress	3" cal	B&B	Deciduous
E	2	Platanus x acerifolia 'Bloodgood'	Bloodgood Planetree	3" cal	B&B	Deciduous
F	6	Tilia cordata	Littleleaf Linden	3" cal	B&B	Deciduous
G	14	Zelkova serrata	Zelkova	3" cal	B&B	Deciduous
H	4	Carpinus betulus	European Hornbeam	3" cal	B&B	Deciduous
J	14	Cercle canadensis	Redbud	2.5" cal	B&B	Ornamental
K	6	Amelanchier arborea	Downy Serviceberry	2.5" cal	B&B	Ornamental
L	7	Prunus sargentii 'Columnaris'	Columnar Cherry	2.5" cal	B&B	Ornamental
M	11	Prunus serrulata 'Kwanzan'	Kwanzan Plum	2.5" cal	B&B	Ornamental
N	5	Prunus cerasifera	Purpleleaf Plum	2.5" cal	B&B	Ornamental
P	14	Pinus strobus	White Pine	8" ht	B&B	Evergreen
Q	2	Picea alata	White Spruce	8" ht	B&B	Evergreen
R	6	Picea pungens	Colorado Blue Spruce	8" ht	B&B	Evergreen
S	10	Picea pungens	Colorado Blue Spruce	12-14" ht	B&B	Evergreen

BIORETENTION PLANTINGS				
SYMBOL	QUANTITY	SCIENTIFIC NAME	COMMON NAME	REMARKS
xx	145	Iris virginica	Southern Blueflag Iris	18-24"
yy	133	Rudbeckia fulgida	Orange Coneflower	18-24"
zz	143	Carex praegracilis	Towhee Sedge	18-24"

SHRUBS				
SYMBOL	QUANTITY	SCIENTIFIC NAME	COMMON NAME	REMARKS
a	25	Spiraea japonica 'Little Princess'	Little Princess Spiraea	18-24"
b	13	Forsythia viridicoma 'Bronzenele'	Bronx Forsythia	18-24"
c	61	Rosa 'Radrazz' Knock Out	Knock Out Rose	18-24"
d	65	Viburnum opulus 'Nanum'	Dwarf European Cranberrybush	24-36"
e	24	Ilex 'Masob' China Girl	China Girl Holly	24-36"
f	3	Ilex 'Masob' China Boy	China Boy Holly	24-36"
g	50	Buxus sinica var. insularis 'Wintergreen'	Wintergreen Boxwood	24-36"
h	25	Syringa patula 'Miss Kim'	Miss Kim Lilac	36-42"
i	50	Viburnum plicatum 'Mareel'	Doublefile Viburnum	36-42"
m	44	Juniperus chinensis 'Sea Green'	Sea Green Juniper	7 gal

OFFSITE TREES - WEST OF PROPERTY						
SYMBOL	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	REMARKS	TYPE
Bx	6	Gleditsia triacanthos 'Skycole'	Skyline Honeylocust	3" cal	B&B	Deciduous
Ex	6	Platanus x acerifolia 'Bloodgood'	Bloodgood Planetree	3" cal	B&B	Deciduous
Fx	8	Tilia cordata	Littleleaf Linden	3" cal	B&B	Deciduous
Jx	6	Cercle canadensis	Redbud	2.5" cal	B&B	Ornamental
Kx	6	Amelanchier arborea	Downy Serviceberry	2.5" cal	B&B	Ornamental
Lx	7	Prunus sargentii 'Columnaris'	Columnar Cherry	2.5" cal	B&B	Ornamental
Nx	4	Prunus cerasifera	Purpleleaf Plum	2.5" cal	B&B	Ornamental
Px	2	Pinus strobus	White Pine	8-8" ht	B&B	Evergreen
Qx	3	Picea alata	White Spruce	8-8" ht	B&B	Evergreen
Rx	7	Picea pungens	Colorado Blue Spruce	8-8" ht	B&B	Evergreen

Revisions:		
Date	Description	No.
6/30/15	City Comments	
7/22/15	City Comments	
8/27/15	Plan Changes	
9/8/15	City Comments	
9/15/15	City Comments	
9/30/15	1177 Adjust	
10/12/15	City Comments	

Drawn: KP  
 Checked: JS



Sheet Title: Landscape Plan

Sheet No: L-1

Date: 06/03/15  
 Job #: 660.044

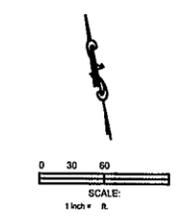
**Delmar Gardens At Conway Ridge III**  
**Delmar Gardens Enterprises**  
 Chesterfield, Missouri

POLE FIXTURES MOUNTED 20' ABOVE GRADE, INCLUDING TOP DECK OF GARAGE  
 ASSUMING PARKING GARAGE TOP DECK WILL BE 36' ABOVE GROUND BELOW  
 ALL LIGHT LEVELS CALCULATED ON THE PARKING SURFACE

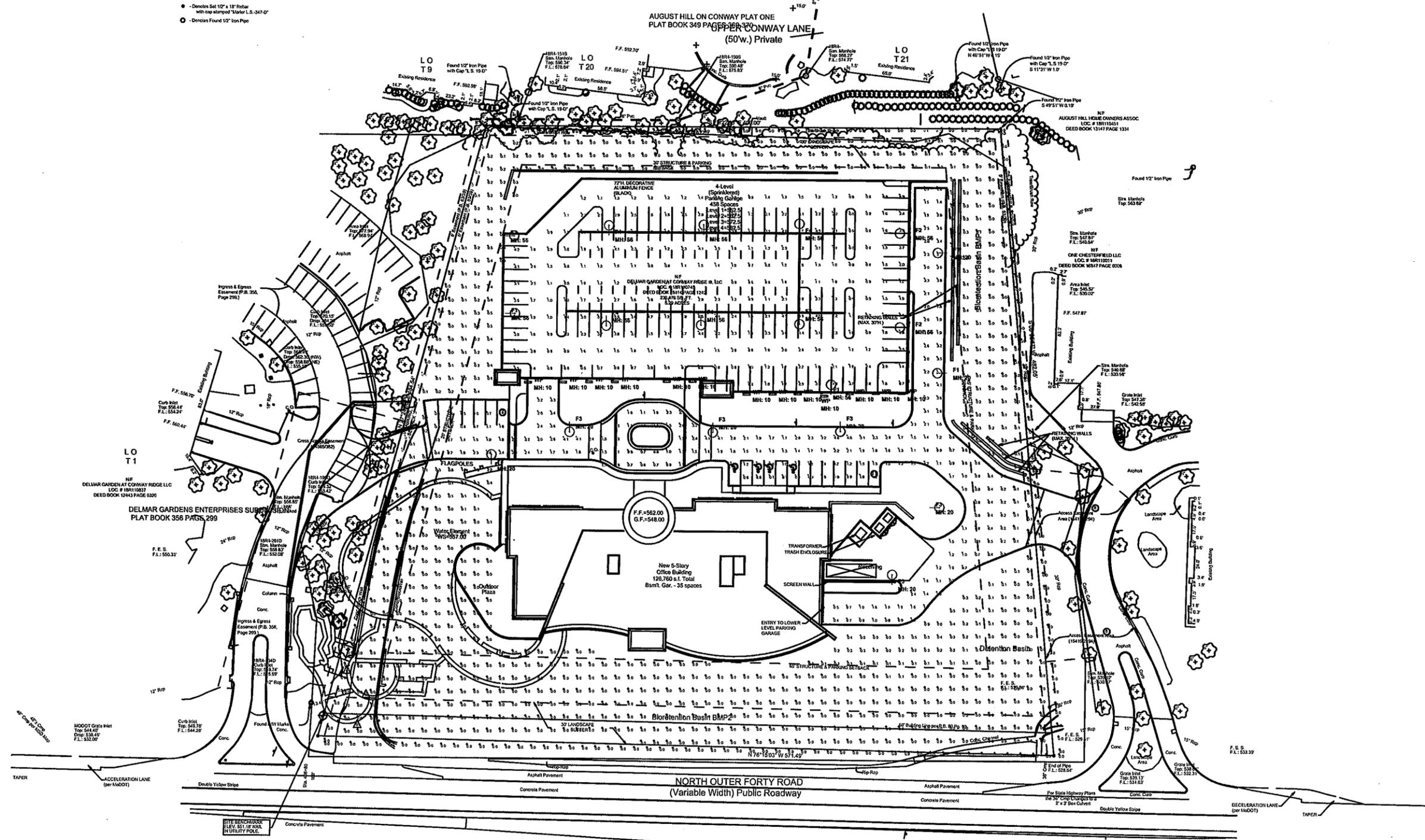
Calculation Summary						
Label	CalcType	Units	Avg	Max	Min	Avg/Min
GARAGE TOP DECK_Top	Illuminance	Fc	1.96	6.6	0.5	13.20
PROPERTY LINE	Illuminance	Fc	0.01	0.1	0.0	N.A.
SITE_Planar	Illuminance	Fc	1.54	5.1	0.1	15.40
SPILL LIGHT	Illuminance	Fc	0.07	3.4	0.0	N.A.

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
⊙	4	F1	SINGLE	16000	1.000	ICS-150-HPS-XX-35-XX-XX-HS
⊙	4	F2	SINGLE	16000	1.000	ICS-150-HPS-XX-45-XX-XX-HS
⊙	5	F3	SINGLE	16000	1.000	ICS-150-HPS-XX-55
⊙	6	F4	SINGLE	16000	1.000	ICS-150-HPS-XX-4S
⊙	13	WP	SINGLE	6300	1.000	MRI13FDSM70S1120

DESIGN IS BASED ON CURRENT INFORMATION PROVIDED AT THE TIME OF REQUEST.  
 ANY CHANGES IN MOUNTING HEIGHT OR LOCATION, LAMP WATTAGE, LAMP TYPE, AND  
 EXISTING FIELD CONDITIONS, THAT AFFECT ANY OF THE PREVIOUSLY MENTIONED, WILL  
 VOID CURRENT LAYOUT AND REQUIRE A CHANGE REQUEST AND RECALCULATION.



- Denotes Set 1/2" x 1/8" Rebar with cap stamped "Major L.S. 347-0"
- Denotes Found 1/2" Iron Pipe



**SITE LIGHTING PLAN**  
 SCALE: 1" = 30' - 0"

**HIGHLAND ON CONWAY**  
**DELMAR GARDENS III**  
**SITE DEVELOPMENT PLAN**  
 CHESTERFIELD, MO  
 ADDRESS



KEITH B. COOPER  
 STATE LIC. #27195

NO.	DATE	REVISIONS	DESCRIPTION

DATE: 10/13/2015  
 PROJECT #: 133200.000  
 DRAWN BY: KGH  
 CHECKED BY: JMG

**SITE LIGHTING PLAN**

**E0.1**

S:\133200.000\Elec\Lighting\E0.1.dwg 10/13/15 09:27 Khetlage

SHEET IS PLOTTED TO SCALE IF ADJACENT LINE MEASURES 1 INCH

**RECOMMENDATIONS – PUBLIC HEALTH AND SAFETY (PH&S) COMMITTEE**

**Bill No. 3054** – Amends Ordinance No. 236 re: “Community Service” (**SECOND READING**)

**Bill No. 3055** – Authorizes City Administrator to Sign MoDOT “Work Zone Enforcement” Grant application (**SECOND READING**)

Just a reminder that you can/should forward any questions, regarding the items listed above, to PH&S Committee Chairperson Elliot Grissom, any other member of this Committee, Chief Johnson or me, prior to Monday’s meeting.”

## **RECOMMENDATION – PURCHASE OF BRUSH CHIPPER**

As detailed in the enclosed MEMO, prepared by Jim Eckrich, Public Works Director/City Engineer, bids were recently sought for the purchase of a **BRUSH CHIPPER**, to replace a similar piece of equipment, purchased in 2006. Purchase of this item, now, is in keeping with the City's ten-year replacement cycle for similar pieces of equipment.

Having reviewed the information contained within Mr. Eckrich's MEMO, I join with him in recommending to you that a contract be awarded to **Vermeer Midwest**, a Chesterfield-based company, **totaling \$41,457, including trade-in**, for the purchase of a **Vermeer BC 1800 XL Brush Chipper**.

**NOTE:** As fully-explained within Mr. Eckrich's MEMO, **this item is actually \$7000 more expensive than the alternate bid submitted by Vermeer Midwest**. The increased cost is deemed acceptable/desirable, due to the fact that the higher-priced item is equipped with "surge brakes", rather than "electric brakes". As explained by Mr. Eckrich, **"surge brakes are both safer and allow for less maintenance than electric brakes"**.

Additionally, **the purchase of this item, during FY2015, is made possible due to the deferred purchase of two, 2.5 ton trucks, which are being packaged with other vehicles in conjunction with the CNG grant, which is discussed below. As a result, there are significant/sufficient funds available to cover this entire \$41,457 expense.**

As always, if you have any questions, please contact Mr. Eckrich or me, prior to Monday's meeting.



**DATE:** October 2, 2015

**TO:** Michael G. Herring, ICMA-CM  
City Administrator

**FROM:** James A. Eckrich, P.E. *JA*  
Public Works Director / City Engineer

**RE:** Purchase of a Brush Chipper

The City of Chesterfield Public Services Department publicly opened bids for a Brush Chipper on September 29, 2015. Two bids were received, as detailed in the attached memorandum from Superintendent of Maintenance Operations Mike O'Connor. After reviewing both bids, I recommend that the City of Chesterfield purchase the Vermeer BC 1800XL model with a John Deere Tier IVF engine (Bid B) at a cost of \$41,457. You will note this model is approximately \$7,000 more expensive than the low bid (Bid A) of \$34,410. The City Staff believes Bid B is a better product and worth the additional cost because it is equipped with surge brakes in lieu of electric brakes. Surge brakes are both safer and allow for less maintenance than electric brakes. Surge brakes assist in stopping and slowing the chipper when it is being transported from site to site.

Please note that the cost shown (\$41,457) is the net cost after trade-in of the 2006 Brush Chipper (\$18,000). This Brush Chipper was originally planned for purchase in 2016. However, as we have discussed, the purchase of two 2.5 ton trucks has been deferred to accommodate the CNG grant. This ensures there are sufficient budgetary funds in the Capital Improvements Sales Tax Fund (Account 120-079-5440) to purchase the Brush Chipper at this time, accommodating the ten year replacement cycle for this item.

Should you have questions or require additional information, please let me know.

#### Action Recommended

This matter should be forwarded to City Council for consideration. Should City Council concur with Staff's recommendation, it should vote to recommend approval of the Vermeer BC1800XL Brush Chipper in the amount of \$41,457, after trade-in.

Concurrence:

*Craig White*  
\_\_\_\_\_  
Craig White, Finance Director

*MAH*  
*10/7/15*

Cc: Michael O. Geisel, Director of Public Services

Date: October 2, 2015

To: Jim Eckrich, Public Works Director

From: Mike O'Connor, Superintendent of Maintenance Operations

Re: Bid recommendation for a "Brush Chipper"

We opened bids for a Brush Chipper on September 29, 2015. We received two bids from Vermeer Sales & Service M.I., Inc. No other bids were received.

See attached bid tab. Bid "A" is for a brush chipper with an engine which meets our specifications, and also meets current Federal Emissions standards. This unit has "electric" brakes which would need to be wired to the truck's braking system. None of our large trucks, which are used to pull the brush chippers, are currently wired for electric brakes. This particular unit has been used as a "Demo" unit and has 35 running hours on the meter. The final price after the trade in allowance is \$34,410.00.

Bid "B" is for a brush chipper that meets our specifications, but offers an engine which would meet next year's Federal Emission Standards. This unit offers "surge" brakes, which do not require the braking system to be wired to the truck's brake system. All of our current brush chippers and equipment trailers that the City of Chesterfield owns have this type of braking system. This would be a new unit coming from the factory with no previous use. The final price after the trade in allowance is \$41,457.00.

I recommend that the City of Chesterfield purchase the Brush Chipper offered in Bid "B" as so continue to have equipment that has the surge braking system, thus eliminating the need to wire the large trucks with electric brakes controls. Maintaining wiring on trucks that are also used to haul salt is always a problem. Keeping additional wiring to a minimum helps eliminate these problems.

**BID RESULTS ONLY**

**NEW TRAILER-MOUNTED DRUM CHIPPER OF THE 19 INCH CAPACTIY CLASS**

**10:00 A.M., TUESDAY, SEPTEMBER 29, 2015**

**BID A**

**BID B**

<p><b>Vermeer Midwest 621 Spirit Valley East Drive Chesterfield, MO 63005</b></p>	<p><b>\$34,410.00*</b> This unit has 35 hours on it, full warranty. Intermediate tier 4 engine with electric brakes.  *Base \$52,410 minus trade in of \$18,000.</p>	<p><b>\$41,457.00*</b> Final tier 4 engine with surge brakes.  *Base \$59,457 minus trade of \$18,000.</p>

***NOTICE: Bids were read randomly – These are bid tabulations – NOT AWARDS***

## **LEGISLATION**

**BILL NO. 3054** – AMENDS ORDINANCE 283 OF THE CITY OF CHESTERFIELD BY REPEALING SAID ORDINANCE RELATING TO ALTERNATIVE COMMUNITY SERVICE AND SUBSTITUTING A NEW ORDINANCE IN LIEU THEREOF (**SECOND READING; PUBLIC HEALTH & SAFETY COMMITTEE RECOMMENDS APPROVAL**)

**BILL NO. 3055** – AUTHORIZES THE CITY ADMINISTRATOR TO ENTER INTO AN ON-CALL WORK ZONE ENFORCEMENT AGREEMENT WITH THE MISSOURI DEPARTMENT OF TRANSPORTATION (MoDOT) TO ALLOW COOPERATION BETWEEN THE CHESTERFIELD POLICE DEPARTMENT AND MoDOT FOR THE ON-CALL WORK ZONE ENFORCEMENT PROGRAM (PH&S COMMITTEE RECOMMENDS APPROVAL (**SECOND READING; PUBLIC HEALTH & SAFETY COMMITTEE RECOMMENDS APPROVAL**))

**BILL NO. 3057** – AUTHORIZES THE CITY ADMINISTRATOR TO EXECUTE A CONGESTION MITIGATION AND AIR QUALITY PROGRAM AGREEMENT WITH THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION FOR THE INCREMENTAL PURCHASE OF TRUCKS PRIMARILY FUELED BY COMPRESSED NATURAL GAS AND CONSTRUCTION OF A COMPRESSED NATURAL GAS FUELING STATION IN CHESTERFIELD VALLEY (**FIRST READING; PLANNING/PUBLIC WORKS COMMITTEE RECOMMENDS APPROVAL**)

**BILL NO. 3058** – AUTHORIZES THE CITY ADMINISTRATOR TO EXECUTE A CONTRACT FOR WATER FACILITY RELOCATION AND LICENSE TO UTILIZE EASEMENT WITH THE MISSOURI AMERICAN WATER COMPANY REGARDING UTILITY RELOCATION FOR THE RECONSTRUCTION OF GREENTRAILS DRIVE SOUTH FROM WHITE ROAD TO LADUE ROAD (**FIRST READING; PLANNING/PUBLIC WORKS COMMITTEE RECOMMENDS APPROVAL**)

BILL NO. 3054

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE AMENDING ORDINANCE 283 OF THE CITY OF CHESTERFIELD BY REPEALING SAID ORDINANCE RELATING TO ALTERNATIVE COMMUNITY SERVICE AND SUBSTITUTING A NEW ORDINANCE IN LIEU THEREOF.

NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI AS FOLLOWS:

Section 1. Ordinance Number 283 of the City of Chesterfield is hereby repealed and in lieu thereof the City substitutes this ordinance as defined herein.

Section 2. The Municipal Judge for the City of Chesterfield or the person performing the duties of the Municipal Judge may order any person who (a) has been convicted, or (b) has received a suspended imposition of sentence for violating an ordinance of the City of Chesterfield, whether the original punishment be by fine or imprisonment or both, to perform alternative community service, as defined in this ordinance, as a condition of probation or in lieu of a fine or imprisonment or both.

Section 3. Alternative community service may consist of:

A. Service on the public streets, highways and alleys or other public works or buildings or public grounds of the City of Chesterfield, and/or

B. Such other service for a charitable, religious or educational organization or entity as may be approved and authorized by the Municipal Judge for the City of Chesterfield or authorized by resolution of the City Council.

C. The service performed pursuant to A. and/or B. herein above shall be performed without compensation to the defendant for such service.

Section 4. If the alternative community service determined by the Municipal Judge for the City of Chesterfield is pursuant to A. herein above, the Chief of Police, City Engineer, Street Commissioner or other officer of the City of Chesterfield, as may be authorized by resolution of the City Council, is hereby authorized, empowered and directed to assign work to and supervise all persons ordered to perform alternative community service by the Municipal Judge.

Section 5. The Municipal Judge may determine the number of hours of alternative community service that a person shall perform under this ordinance.

Section 6. The authority granted in this ordinance shall be subject to the provisions of Section 559.021 of the Revised Statutes of the State of Missouri.

Section 7. This ordinance shall be in full force and effect from and after its passage and approval.

Passed and approved this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
MAYOR

ATTEST:

\_\_\_\_\_  
CITY CLERK

BILL NO. 3055

ORDINANCE NO. \_\_\_\_\_

**AN ORDINANCE AUTHORIZING THE CITY ADMINISTRATOR TO ENTER INTO AN ON CALL WORK ZONE ENFORCMENT AGREEMENT WITH THE MISSOURI DEPARTMENT OF TRANSPORTATION (MoDOT) TO ALLOW COOPERATION BETWEEN THE CHESTERFIELD POLICE DEPARTMENT AND MoDOT FOR THE ON CALL WORK ZONE ENFORCEMENT PROGRAM.**

**WHEREAS**, funding has become available through the Missouri Department of Transportation to be used to support Statewide Transportation Improvement Program (STIP) and to provide support to law enforcement work zone activities; and

**WHEREAS**, the Missouri Department of Transportation has offered to award monetary grants to the City of Chesterfield Police Department beginning in fiscal year 2016 through the end of fiscal year 2018; and

**WHEREAS**, the Chesterfield Police Department will be participating with MoDOT to enforce work zone safety and control traffic and lane closures in designated MoDOT work zones within the City of Chesterfield.

**NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHESTERFIELD AS FOLLOWS**

Section 1. The City Council of the City of Chesterfield hereby authorizes the City Administrator to apply for and accept grants from the Missouri Department of Transportation beginning in the fiscal year 2016 through the end of fiscal year 2018 to enforce work zone safety in designated MoDOT work zones.

Section 2. This Ordinance shall be in full force and effect from and after its passage and approval.

Passed and approved this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
MAYOR

ATTEST:

\_\_\_\_\_  
CITY CLERK

First Reading Held \_\_\_\_\_



CCO Form: HS3A  
Approved: 07/06 (AMN)  
Revised: 06/13 (ASB)  
Modified:

COPY

Award years: 2014-2018  
Region: SL - St. Louis

**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  
STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM ON CALL WORK  
ZONE ENFORCEMENT PROGRAM AGREEMENT**

THIS AGREEMENT is entered into by the Missouri Highways and Transportation Commission (hereinafter, "Commission") and the City of Chesterfield, a municipal corporation in the State of Missouri (hereinafter, "City").

WITNESSETH:

NOW, THEREFORE, in consideration of the mutual covenants, promises and representations in this Agreement, the parties agree as follows:

(1) PURPOSE: The Commission has authorized funds to be used to support Statewide Transportation Improvement Program (hereinafter, "STIP") On Call Work Zone Enforcement activities. The purpose of this Agreement is to grant the use of such funds to the City.

(2) ACTIVITY: The funds which are the subject of this Agreement are provided to support law enforcement work zone activities to further STIP On Call Work Zone Enforcement.

(3) INDEMNIFICATION:

(A) To the extent allowed or imposed by law, the City shall defend, indemnify and hold harmless the Commission, including its members and the Missouri Department of Transportation (MoDOT) employees, from any claim or liability whether based on a claim for damages to real or personal property or to a person for any matter relating to or arising out of the City's wrongful or negligent performance of its obligations under this Agreement.

(B) The City will require any contractor procured by the City to work under this Agreement:

(1) To obtain a no cost permit from the Commission's district engineer prior to working on the Commission's right-of-way, which shall be signed by an authorized contractor representative (a permit from the Commission's district engineer will not be required for work outside of the Commission's right-of-way); and

(2) To carry commercial general liability insurance and commercial automobile liability insurance from a company authorized to issue insurance in Missouri, and to name the Commission, and MoDOT and its employees, as additional named insureds in amounts sufficient to cover the sovereign immunity limits for Missouri public entities as calculated by the Missouri Department of Insurance, Financial

Institutions and Professional Registration, and published annually in the Missouri Register pursuant to Section 537.610, RSMo. The City shall cause insurer to increase the insurance amounts in accordance with those published annually in the Missouri Register pursuant to Section 537.610, RSMo.

(C) In no event shall the language of this Agreement constitute or be construed as a waiver or limitation for either party's rights or defenses with regard to each party's applicable sovereign, governmental, or official immunities and protections as provided by federal and state constitution or law.

(4) AMENDMENTS: Any change in this Agreement, whether by modification or supplementation, must be accomplished by a formal contract amendment signed and approved by the duly authorized representatives of the City and the Commission.

(5) COMMISSION REPRESENTATIVE: This Commission's District Engineer is designated as the Commission's representative for the purpose of administering the provisions of this Agreement. The Commission's representative may designate by written notice other persons having the authority to act on behalf of the Commission in furtherance of the performance of this Agreement.

(6) CITY REPRESENTATIVE: The City's \_\_\_\_\_ is designated as the City's representative for the purpose of administering the provisions of this Agreement. Further, the City's \_\_\_\_\_ shall have the authority to execute Program Orders in accordance with this Agreement.

(7) NONDISCRIMINATION CLAUSE: The City shall also comply with all state and federal statutes applicable to the City relating to nondiscrimination, including, but not limited to, Chapter 213, RSMo; Title VI and Title VII of the Civil Rights Act of 1964 as amended (42 U.S.C. Sections 2000d and 2000e, *et seq.*); and with any provision of the "Americans with Disabilities Act" (42 U.S.C. Section 12101, *et seq.*).

(8) ASSIGNMENT: The City shall not assign, transfer or delegate any interest in this Agreement without the prior written consent of the Commission.

(9) LAW OF MISSOURI TO GOVERN: This Agreement shall be construed according to the laws of the State of Missouri. The City shall comply with all local, state and federal laws and regulations relating to the performance of this Agreement.

(10) CANCELLATION: The Commission may cancel this Agreement at any time for a material breach of contractual obligations by providing the City with written notice of cancellation. Should the Commission exercise its right to cancel this Agreement for such reasons, cancellation will become effective upon the date specified in the notice of cancellation sent to the City.

(11) FUNDING/REIMBURSEMENT:

(A) General: With regard to work under this Agreement, the City agrees that funds to implement work zone law enforcement activities shall only be available for reimbursement of eligible costs which have been incurred by the City. The City shall

supply to the Commission copies of all bid information, purchase orders, invoices and, for hours worked, certified payroll (on Program Agreements that include salaries). Any costs incurred by the City prior to authorization and notification to proceed from the Commission are **not** reimbursable costs. The Commission shall not be responsible for any costs associated with the activity herein unless specifically identified in this Agreement or subsequent written amendments or Task Orders.

(B) Peace Officer Standards and Training: Law enforcement work performed by a duly licensed, Peace Officer Standards and Training certified law enforcement officer will be reimbursed.

(12) EQUIPMENT:

(A) Procurement: The City may use its own procurement regulations which reflect applicable state/local laws, rules & regulations provided they adhere to the following:

(1) Equipment with a cost of \$3,000 or more must be purchased on a competitive bid basis, or purchased through use of state cooperative procurement.

(2) Price or rate quotations shall be solicited from at least three (3) sources.

(3) All procurement transactions, regardless of whether by sealed bids or by negotiation, shall be conducted in a manner that provides maximum open and free competition.

(4) The City shall have a clear and accurate description of the item to be purchased. Such description shall not, in competitive procurements, contain features that unduly restrict competition. A "brand name or equal" description may be used as a means to define the performance or other requirement of procurement.

(5) If for some reason the low bid is not acceptable, the City must have written approval from the MHTC prior to bid approval and purchase.

(6) The City will make a good faith effort to utilize minority and women owned businesses within resource capabilities when procuring goods and services.

(B) Disposition: The City shall make written request to the MHTC for instructions on the proper disposition of all items of equipment provided under the terms of this contract with a cost of \$3,000 or more. City must keep and maintain equipment with a cost of under \$3,000 until it is no longer useful for its originally intended purpose.

(C) Replacement: No equipment may be funded on a replacement basis. Participation in equipment and manpower projects must be in addition to the City's previous twelve months authorized strength.

(13) ACCOUNTING: The City shall maintain all documentation in file for audit review; failure to provide supporting documentation at the time of audit could result in

questioned costs. The City must document the following: (1) Receipt of funds, (2) date and amount paid to officers, (3) officer's timesheet (regular hours and overtime hours). Documentation shall be kept available for inspection for representatives of the MHTC for a period of three years following date of final payments. Copies of such records shall be made available upon request.

(14) **PROGRAM ORDER:** On Call Work Zone Enforcement funding will be conducted under a Program Order. Each Program Order must be executed by the Commission and the City's Representative. Each Program Order shall contain, but is not limited to the following:

(A) Program Order Job Number(s).

(B) Funds available for the completion of the Program Order.

(C) Starting and completion dates for the Program Order.

(15) **LIMITS ON OVERTIME:** The City will not be eligible for reimbursement for any individual law enforcement officer working under this grant where said officer is claiming to have worked as a law enforcement officer for more than 16 hours in any 24 hour period.

(16) **USE OF FUNDS:** Any employee of the City whose salary or wages are paid in whole or in part with federal funds is prohibited from participating in certain partisan political activities, including, but not limited to, being a candidate for elective office pursuant to Title 5 United States Code (hereinafter, "U.S.C."), Sections 1501-1508. If an employee of the City participates in activities prohibited by the Hatch Act, the City shall no longer pay that employee's salary or wages with federal funds unless the requirements of 5 U.S.C. Sections 1501-1508 are not applicable to that employee pursuant to 5 U.S.C. Section 1502(c).

(17) **AUDIT OF RECORDS:** The City must maintain all records relating to this Agreement, including but not limited to invoices, payrolls, etc. These records must be available at all reasonable times at no charge to the Commission and/or its designees or representatives during the period of this Agreement and any extension thereof, and for three (3) years from the date of final payment made under this Agreement.

(18) **VENUE:** It is agreed by the parties that any action at law, suit in equity, or other judicial proceeding to enforce or construe this Agreement, or regarding its alleged breach, shall be instituted only in the Circuit Court of Cole County, Missouri.

(19) **FINAL AUDIT:** The Commission may, in its sole discretion, perform a final audit of project costs. The City shall refund any overpayments as determined by the final audit.

(20) **SOLE BENEFICIARY:** This Agreement is made for the sole benefit of the parties hereto and nothing in this Agreement shall be construed to give any rights or benefits to anyone other than the Commission and the City.

(21) EMPLOYEES ONLY: The funding granted by the Commission to the City under this Agreement extends only to reimbursement for work zone enforcement by employees of the City covered by the City worker's compensation plan.

(22) DURATION AND EXTENSION: Unless otherwise terminated, this Agreement shall be in effect for five years from the execution of this Agreement. Upon the approval of both parties, the terms and conditions of this Agreement are renewable for an additional two, one year extensions from the date of the expiration of the Agreement. Any extension shall be memorialized in an appropriate Supplemental Agreement and executed by the duly authorized representatives of the parties.

(23) AUTHORITY TO EXECUTE: The signers of this Agreement warrant that they are acting officially and properly on behalf of their respective institutions and have been duly authorized, directed and empowered to execute this Agreement.

*[Remainder of Page Intentionally Left Blank]*

IN WITNESS WHEREOF, the parties have entered into this Agreement on the date last written below.

Executed by the City this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Executed by the Commission this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION CITY OF \_\_\_\_\_, MISSOURI

By \_\_\_\_\_ By \_\_\_\_\_

Title \_\_\_\_\_ Title \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Secretary to the Commission

By \_\_\_\_\_

Title \_\_\_\_\_

Approved as to Form

\_\_\_\_\_  
Commission Counsel

By \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

Approved as to Form:

\_\_\_\_\_

Title \_\_\_\_\_

Ordinance No \_\_\_\_\_

CCO Form: HS09A  
Approved: 07/06 (AMN)  
Revised: 06/13 (ASB)  
Modified:

**PROGRAM ORDER  
TO AGREEMENT DATED \_\_\_\_\_**

Program Order Number: FWZEA85Z

Date: \_\_\_\_\_

Contract Amount: \$15,000.00

Effective Date: July 1, 2015

Completion Date: December 31, 2016

Contractor: Chesterfield Police Department

Mail Invoices/Vouchers to: MoDOT Traffic and Highway Safety Division  
PO Box 270  
Jefferson City, MO 65102

This Program Order is issued under the authority of the Agreement between the Missouri Highway and Transportation Commission (the "Commission") and the City of Chesterfield (the "City") dated \_\_\_\_\_ and is subject to all applicable provisions and covenants of that Agreement, which are incorporated herein by this reference.

*[Remainder of Page Intentionally Left Blank]*

IN WITNESS WHEREOF, the parties hereto have caused this contract to be duly executed intending to be bound thereby.

Executed by the City of \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Executed by the Commission this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

MISSOURI HIGHWAYS AND  
TRANSPORTATION COMMISSION

CITY OF \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

Attest:

\_\_\_\_\_  
Secretary to the Commission

Approved as to Form:

\_\_\_\_\_  
Commission Counsel

BILL NO. 3057

ORDINANCE NO. \_\_\_\_\_

**AN ORDINANCE AUTHORIZING THE CITY ADMINISTRATOR TO EXECUTE A CONGESTION MITIGATION AND AIR QUALITY PROGRAM AGREEMENT WITH THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION FOR THE INCREMENTAL PURCHASE OF TRUCKS PRIMARILY FUELED BY COMPRESSED NATURAL GAS AND CONSTRUCTION OF A COMPRESSED NATURAL GAS FUELING STATION IN CHESTERFIELD VALLEY.**

WHEREAS, the City of Chesterfield was successful in obtaining a reimbursement grant for the incremental purchase of trucks primarily fueled by compressed natural gas (CNG) and the construction of a CNG fueling station in Chesterfield Valley;

WHEREAS, in order to proceed with the project, CMAQ-5410(627), the City needs to enter into a Congestion Mitigation and Air Quality (CMAQ) Program Agreement with the Missouri Highways and Transportation Commission; and

WHEREAS, the City Council of Chesterfield, Missouri, after careful consideration of the matter and thorough discussion with the City Attorney, wishes to authorize the City Administrator of Chesterfield to enter into a CMAQ Program Agreement similar in form to that attached as Exhibit A;

NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHESTERFIELD AS FOLLOWS:

Section 1. The City Council of the City of Chesterfield hereby authorizes the City Administrator to act on behalf of the City of Chesterfield to enter into a Program Agreement in form substantially similar to Exhibit A hereto with the Missouri Highways and Transportation Commission concerning the incremental purchase of trucks primarily fueled by CNG and the construction of a CNG fueling station, and to execute all documents and take all steps necessary to effect the provisions of the Program Agreement.

Section 2. This Ordinance shall be in full force and effect from and after its passage and approval.

Passed and approved this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
MAYOR

ATTEST:

\_\_\_\_\_  
CITY CLERK

First Reading held \_\_\_\_\_

Missouri Department of Transportation

1590 Woodlake Drive  
Chesterfield, Missouri 63017-5712  
314.275.1500  
Fax: 573.522.6475  
1.888.ASK MODOT (275.6636)

October 9, 2015

Mr. Chris Krueger  
City of Chesterfield

RE: City of Chesterfield  
CNG Vehicle Fleet and Fueling Station  
Federal Project No: CMAQ-5410(627)  
TIP #6625-16  
Draft Program Agreement, Programming Comments

Dear Mr. Krueger:

This federal aid project is shown in the regional Transportation Improvement Program (TIP) and has been assigned a federal project number of CMAQ-5410(627). Please use this number on all future project correspondence. **In order for the City to remain eligible for federal reimbursement for Design, Right of Way, or Construction activities, the City must first obtain MoDOT approval.** This project will be administered per the direction given in the Local Public Agency (LPA) Manual. The LPA Manual can be viewed at MoDOT's website.

**Federal Aid Program Agreement**

Enclosed for your review is a draft copy of the CMAQ program agreement for the above noted project. This agreement must be fully executed by the City and by the Missouri Highways and Transportation Commission (MHTC) before obligation of federal funds and authorization of reimbursable work. Federal Form 1273, 'Required Contract Provisions for Federal Aid Construction Contracts' (which outlines the requirements of the Federal-Aid process) is attached to the draft program agreement. If this program agreement is acceptable to the City, then please return a minimum of four executed copies of the agreement to this office. You may send more than four copies if your agency prefers more than one fully executed copy. Each copy of the program agreement must include a copy of the location map labeled "Exhibit A", the project schedule labeled "Exhibit B" and a copy of Form 1273. Also submit two copies of the City's applicable enabling ordinance. Please note that the person authorized to sign the agreement per the enabling ordinance will be required to provide signatures on the executed program agreements. MoDOT will forward the agreements to the MHTC for execution and will return a fully executed program agreement to your office.

Also enclosed is the 1590 Federal Funding Accountability and Transparency Act (FFATA) form that must be filled out and returned to this office. This form is required annually from Local Agencies participating in the fed-aid program.

**Consultant Contracts/Preliminary Engineering/Construction Engineering Costs**

Federal funds for Preliminary Engineering (PE) will be programmed in FY 2016. If the City is seeking federal funds for consultant engineering services, the City must use a Qualification Based Selection (QBS) process for the procurement of engineering services, see LPA section 136.4 for details. As the City is developing the RFQ, please submit an estimate of cost for the consultant



*Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri.*

www.modot.org

CCO Form: FS15  
Approved: 10/96 (KMH)  
Revised: 08/15 (MWH)  
Modified:

CFDA Number: CFDA #20.205  
CFDA Title: Highway Planning and Construction  
Award name/number: CMAQ- 5410(627)  
Award Year: 2016  
Federal Agency: Federal Highway Administration, Department of Transportation

**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  
CONGESTION MITIGATION AND AIR QUALITY AGREEMENT**

THIS AGREEMENT is entered into by the Missouri Highways and Transportation Commission (hereinafter, "Commission") and City of Chesterfield (hereinafter, "City").

WITNESSETH:

WHEREAS, the Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21), 23 U.S.C. §149 authorizes the funding of projects providing for congestion mitigation and air quality (CMAQ); and

WHEREAS, the Commission is the agency designated to receive and dispense such funds; and

WHEREAS, the Commission has determined that fleet greening and fueling station installation is consistent with the goals of the CMAQ funding; and

WHEREAS, the City has the resources to develop and provide such services.

NOW, THEREFORE, in consideration of the mutual covenants, promises and representations in this Agreement, the parties agree as follows:

(1) PURPOSE: The United States Congress has authorized, in 23 U.S.C. §149, funds to be used for activities for CMAQ. The purpose of this Agreement is to grant the use of such funds to green the vehicle fleet and install a CNG fueling station with associated infrastructure.

(2) SCOPE OF WORK: City shall provide planning and implementation of an incremental purchase of trucks primarily fueled by Compressed Natural Gas (CNG) and installation of a fueling station in the Chesterfield Valley area as more fully described in the attached Exhibit A which is incorporated herein by reference.

contract and a list of anticipated activities that will take place during the design process. This information will be used to determine a DBE goal for the contract, which will need to be included in the RFQ. LPA Figure 136.4.7 is a sample RFQ solicitation form.

When the approved RFQ process is completed, please submit a .pdf copy of the Engineering Services Contract (ESC) using the ESC sample cover letter, LPA Fig. 136.4.9, to this office for review and approval. The standardized contract format in LPA Fig. 136.4.1 is required. A .pdf of the consultant's E-Verify MOU, Affidavit of Compliance, and Consultant Rating Sheets are also required.

If the consultant contract is estimated to be less than \$100,000, the LPA may select a firm from the LPA On-Call Consultant List for consideration without advertisement. For further information regarding using the LPA ON-Call Consultant List, please see section 136.4.2.4.3 of the LPA Manual.

#### **Design Criteria**

The City's engineer of record for this project will be considered responsible for determining the appropriate design parameters chosen, see LPA 136.7.2.7. If any improvements are to occur on MoDOT right of way, the project design criteria that will be used will need to be approved by MoDOT.

#### **Environmental Requirements**

The TIP application for this project has been forwarded to MoDOT Environmental Division to determine if a programmatic Categorical Exclusion (CE-2) will be applied for this project. The status of the CE-2 determination will be forwarded to your office as soon as possible.

Consideration shall be given at the preliminary engineering stage on the possible effect of the project on historic buildings, archaeological sites, and historic bridges that is on or eligible for the National Register of Historic Places. It is the City's responsibility to obtain clearance on these issues from the Missouri Department of Natural Resources. The City must send a copy of the DNR clearance to MoDOT. (Section 136.6 of the LPA Manual).

#### **Utilities, Public Meetings, Preliminary Plan Submittal**

All utility companies that are affected by this project should be notified of the project scope and project schedule at this time. Utility company comments may affect preliminary plan development. As stated in the LPA manual, public hearings are required for certain projects. If a public hearing is required for this project, please provide this office with a copy of the advertisement for the public hearing that is to be published.

#### **ADA requirements**

The Americans with Disabilities Act (ADA) requires that all facilities must be designed to current accessibility standards. When final plans for this project are submitted to MoDOT for review, the plans will need to include enough detail to show that sidewalks, curb cuts, detectable warning panels, etc., meet ADA requirements.

Once preliminary plans are complete, please submit an electronic copy of the plans via CD or email for review/approval.

If you have any questions please contact me at [Cynthia.Simmons@modot.mo.gov](mailto:Cynthia.Simmons@modot.mo.gov) or (314) 453-1833.

(6) COMMISSION REPRESENTATIVE: The Commission's District Engineer is designated as the Commission's representative for the purpose of administering the provisions of this Agreement. The Commission's representative may designate by written notice other persons having the authority to act on behalf of the Commission in furtherance of the performance of this Agreement.

(7) NONDISCRIMINATION ASSURANCE: with regard to work under this Agreement, the City agrees as follows:

(A) Civil Rights Statutes: The City shall comply with all state and federal statutes relating to nondiscrimination, including but not limited to Title VI and Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. §2000d and §2000e, *et seq.*), as well as any applicable titles of the "Americans with Disabilities Act" (42 U.S.C. §12101, *et seq.*). In addition, if the City is providing services or operating programs on behalf of the Department or the Commission, it shall comply with all applicable provisions of Title II of the "Americans with Disabilities Act".

(B) Administrative Rules: The City shall comply with the administrative rules of the United States Department of Transportation relative to nondiscrimination in federally-assisted programs of the United States Department of Transportation (49 C.F.R. Part 21) which are herein incorporated by reference and made part of this Agreement.

(C) Nondiscrimination: The City shall not discriminate on grounds of the race, color, religion, sex, disability, national origin, age or ancestry of any individual in the selection and retention of subcontractors including procurement of materials and leases of equipment. The City shall not participate either directly or indirectly in the discrimination prohibited by 49 C.F.R. §21.5, including employment practices.

(D) Solicitations for subcontracts, Including Procurements of Material and Equipment: These assurances concerning nondiscrimination also apply to subcontractors and suppliers of the City. These apply to all solicitations either by competitive bidding or negotiation made by the City for work to be performed under a subcontract including procurement of materials or equipment. Each potential subcontractor or supplier shall be notified by the City of the requirements of this Agreement relative to nondiscrimination on grounds of the race, color, religion, sex, disability or national origin, age or ancestry of any individual.

(E) Information and Reports: The City shall provide all information and reports required by this Agreement, or orders and instructions issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Commission or the United States Department of transportation to be necessary to ascertain compliance with other contracts, orders and instructions. Where any information required of the City is in the exclusive possession of another who fails or refuses to furnish this information, the City shall so

(3) REASONABLE PROGRESS POLICY: The project as described in this agreement is subject to the reasonable progress policy set forth in the Local Public Agency (LPA) Manual and the final deadline specified in Exhibit B attached hereto and incorporated herein by reference. In the event, the LPA Manual and the final deadline within Exhibit B conflict, the final deadline within Exhibit B controls. If the project is within a Transportation Management Area that has a reasonable progress policy in place, the project is subject to that policy. If the project is withdrawn for not meeting reasonable progress, the City agrees to repay the Commission for any progress payments made to the City for the project and agrees that the Commission may deduct progress payments made to the City from future payments to the City.

(4) INDEMNIFICATION:

(A) To the extent allowed or imposed by law, the City shall defend, indemnify and hold harmless the Commission, including its members and the Missouri Department of Transportation (MoDOT or Department) employees, from any claim or liability whether based on a claim for damages to real or personal property or to a person for any matter relating to or arising out of the City's wrongful or negligent performance of its obligations under this Agreement.

(B) The City will require any contractor procured by the City to work under this Agreement:

1. To obtain a no cost permit from the Commission's district engineer prior to working on the Commission's right-of-way, which shall be signed by an authorized contractor representative (a permit from the Commission's district engineer will not be required for work outside of the Commission's right-of-way); and

2. To carry commercial general liability insurance and commercial automobile liability insurance from a company authorized to issue insurance in Missouri, and to name the Commission, and MoDOT and its employees, as additional named insureds in amounts sufficient to cover the sovereign immunity limits for Missouri public entities as calculated by the Missouri Department of Insurance, Financial Institutions and Professional Registration, and published annually in the Missouri Register pursuant to Section 537.610, RSMo. The City shall cause insurer to increase the insurance amounts in accordance with those published annually in the Missouri Register pursuant to Section 537.610, RSMo.

(C) In no event shall the language of this Agreement constitute or be construed as a waiver or limitation for either party's rights or defenses with regard to each party's applicable sovereign, governmental, or official immunities and protections as provided by federal and state constitution or law.

(5) AMENDMENTS: Any change in this Agreement, whether by modification or supplementation, must be accomplished by a formal contract amendment signed and approved by the duly authorized representatives of the City and the Commission.

Sincerely,

*Cynthia R. Myer Simmons*

Cindy Simmons  
District Design Liaison  
MoDOT

Copy: Jason Lange – East West Gateway

notice of cancellation. Should the Commission exercise its right to cancel this Agreement for such reasons, cancellation will become effective upon the date specified in the notice of cancellation sent to the City.

(13) ACCESS TO RECORDS: The City and its contractors must maintain all records relating to this Agreement, including but not limited to invoices, payrolls, etc. These records must be available at no charge to the Federal Highway Administration (FHWA) and the Commission and/or their designees or representatives during the period of this Agreement and any extension, and for a period of three (3) years after the date on which the City receives reimbursement of their final invoice from the Commission.

(14) BUDGET: The City shall incur obligations in connection with the performance of the period only in conformity with the latest budget approved by the Commission as specified in Appendix A - Project Budget. This budget may be revised as necessary; however no budget or revision shall be effective unless approved by the Commission's representative and FHWA.

(15) ELIGIBLE EXPENDITURES: No expenditure or charges shall be eligible for reimbursement that are contrary to the provisions of this Agreement or not required for the carrying out of the project.

(16) REIMBURSEMENT: The cost of the contemplated improvements will be borne by the United States Government and by the City as follows:

Any federal funds for project activities shall only be available for reimbursement of eligible costs which have been incurred by City. Any costs incurred by City prior to authorization from FHWA and notification to proceed from the Commission are **not** reimbursable costs. All federally funded projects are required to have a project end date. Any costs incurred after the project end date are not eligible for reimbursement. The federal share for this project will be 80 percent not to exceed \$1,120,023.60. The calculated federal share for seeking federal reimbursement of participating costs for the herein improvements will be determined by dividing the total federal funds applied to the project by the total participating costs. Any costs for the herein improvements which exceed any federal reimbursement or are not eligible for federal reimbursement shall be the sole responsibility of the City. The Commission shall not be responsible for any costs associated with the herein improvement unless specifically identified in this Agreement or subsequent written amendments.

(17) PROGRESS PAYMENTS: The City may request progress payments be made for the herein improvements as work progresses but not more than once every two weeks. Progress payments must be submitted monthly. All progress payment requests must be submitted for reimbursement within 90 days of the project completion date for the final phase of work. The City shall repay any progress payments which involve ineligible costs.

(18) PROMPT PAYMENTS: Progress invoices submitted to MoDOT for reimbursement more than thirty (30) calendar days after the date of the vendor invoice shall also include documentation that the vendor was paid in full for the work identified in the progress invoice. Examples of proof of payment may include a letter or e-mail from the vendor, lien waiver or copies of cancelled checks. Reimbursement will not be made on these submittals until proof of payment is provided. Progress invoices submitted to MoDOT for reimbursement within thirty (30) calendar days of the date on the vendor invoice will be processed for reimbursement without proof of payment to the vendor. If the City has not paid the vendor prior to receiving reimbursement, the City must pay the vendor within two (2) business days of receipt of funds from MoDOT.

(19) PERMITS: The City shall secure any necessary approvals or permits from any federal or state agency as required for the completion of this project.

(20) INSPECTION OF CONTRACTOR'S RECORDS: The City shall assure that its contractors, and all subcontractors, if any, maintain all books, documents, papers and other evidence pertaining to costs incurred in connection with this Agreement. The City shall make such materials available at such contractor's office at all reasonable times during the contract period, and for three (3) years from the date of final payment under the contract, for inspection by the Commission, FHWA or any authorized representatives of the Federal Government and the State of Missouri. Copies thereof shall be furnished at no charge, upon request, to authorized representatives of the Commission, State, FHWA, or other Federal agencies.

(21) FINAL AUDIT: The Commission will perform a final audit of project costs. The United States Government shall reimburse the City, through the Commission, any monies due. The City shall refund any overpayments as determined by the final audit.

(22) AUDIT REQUIREMENTS: If the City expend(s) seven hundred fifty thousand dollars (\$750,000) or more in a year in federal financial assistance it is required to have an independent annual audit conducted in accordance with 2 CFR Part 200. A copy of the audit report shall be submitted to MoDOT within the earlier of thirty (30) days after receipt of the auditor's report(s), or nine (9) months after the end of the audit period. Subject to the requirements of 2 CFR Part 200, if the City expend(s) less than seven hundred fifty thousand dollars (\$750,000) a year, the City may be exempt from auditing requirements for that year but records must be available for review or audit by applicable state and federal authorities.

(23) FHWA APPROVAL: This Agreement is made and entered into subject to the approval of the FHWA.

(24) FEDERAL-AID PROVISIONS: Because responsibility for the performance of all functions or work contemplated as part of this project is assumed by the City, and the City may elect to construct part of the improvement contemplated by this Agreement with its own forces, a copy of Section II and Section III, as contained in the United States Department of Transportation Form Federal Highway Administration (FHWA)

certify to the Commission or the United States Department of Transportation as appropriate and shall set forth what efforts it has made to obtain the information.

(F) Sanctions for Noncompliance: In the event the City fails to comply with the nondiscrimination provisions of this Agreement, the Commission shall impose such contract sanctions as it or the United States Department of Transportation may determine to be appropriate, including but not limited to:

1. Withholding of payments under this Agreement until the City complies; and/or
2. Cancellation, termination or suspension of this Agreement, in whole or in part, or both.

(G) Incorporation of Provisions: The City shall include provisions of paragraph (7) of this Agreement in every subcontract, including procurements of materials and leases of equipment, unless exempted by the statutes, executive order, administrative rules or instructions issued by the Commission of the United States Department of Transportation. The City will take such action with respect to any subcontract or procurement as the Commission or the United States Department of Transportation may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided that in the event the City becomes involved or is threatened with litigation with a subcontractor or supplier as a result of such direction, the City may request the United States to enter into such litigation to protect the interests of the United States.

(8) DISADVANTAGED BUSINESS ENTERPRISES (DBE): It is the policy of the U.S. Department of Transportation and the Commission that businesses owned by socially and economically disadvantaged individuals (DBE's), as defined in 49 C.F.R. Part 26, have the maximum opportunity to participate in the performance of contracts financed in whole or in part with federal funds.

(9) ASSIGNMENT: The City shall not assign, transfer or delegate any interest in this Agreement without the prior written consent of the Commission.

(10) LAW OF MISSOURI TO GOVERN: This Agreement shall be construed according to the laws of the State of Missouri. The City shall comply with all local, state and federal laws and regulations relating to the performance of this Agreement.

(11) VENUE: It is agreed by the parties that any action at law, suit in equity, or other judicial proceeding to enforce or construe this Agreement, or regarding its alleged breach, shall be instituted only in the Circuit Court of Cole County, Missouri.

(12) CANCELLATION: The Commission may cancel this Agreement at any time for a material breach of contractual obligations by providing the City with written

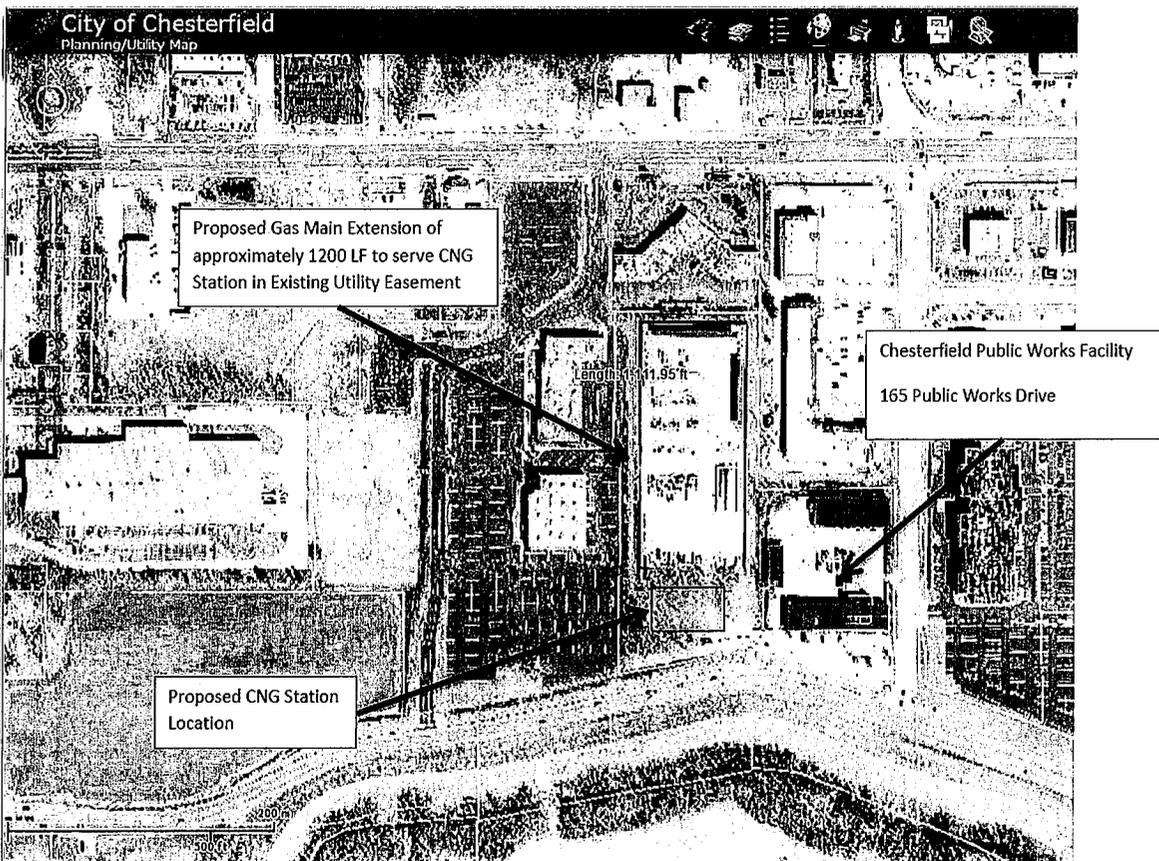
Appendix A - Project Budget

<b>PROJECT BUDGET</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY</b>	<b>TOTAL</b>
<b>PE/Planning/ Environ. Studies</b>	178699.50			178699.50
<b>Right-Of-Way</b>	30000.00			30000.00
<b>Implementation</b>		1176330.00		1176330.00
<b>Construction Engineering</b>		15000.00		15000.00
<b>Implementation Total</b>	0.00	1191330.00	0.00	1191330.00
<b>PHASE TOTAL</b>	208699.50	1191330.00	0.00	1400029.50

## Exhibit A – Scope of Work

To achieve this project, the City of Chesterfield proposes the following:

- The incremental purchase to replace 7 – 2 ½ ton diesel trucks to Dedicated CNG.
- The incremental purchase to replace 2 – 1 ton diesel trucks to Bi-Fuel (Unleaded/CNG).
- The incremental purchase to replace 3 – 1.5 ton diesel trucks to Bi-Fuel (Unleaded/CNG).
- The incremental purchase to replace 1 – ½ ton compact truck to Bi-Fuel (Unleaded/CNG).
- A CNG (Fast Fill) Fueling Station and the associated infrastructure required.



## Exhibit B – Project Schedule

Project Description: CMAQ-5410(627) – Greening of vehicle fleet and CNG fueling station

Activity Description	Start Date (MM/YYYY)	Finish Date* (MM/YYYY)	Time Frame (Months)
Receive Notification Letter	10/2015	10/2015	1.0
Execute Agreement (Project sponsor & DOT)	10/2015	12/2015	2.0
Engineering Services Contract Submitted & Approved <sup>1</sup>	01/2016	04/2016	3.0
Obtain Environmental Clearances (106, CE-2, etc.)	04/2016	06/2016	2.0
Public Meeting/Hearing			
Develop and Submit Preliminary Plans	04/2016	05/2016	1.0
Preliminary Plans Approved	06/2016	08/2016	2.0
Develop and Submit Right-of-Way Plans	04/2016	05/2016	1.0
Review and Approval of Right-of-Way Plans	06/2016	08/2016	2.0
Submit & Receive Approval for Notice to Proceed for Right-of-Way Acquisition (A-Date) <sup>2</sup>	08/2016	09/2016	2.0
Right-of-Way Acquisition	10/2016	02/2017	4.0
Utility Coordination	09/2016	03/2017	6.0
Develop and Submit PS&E	09/2016	02/2017	5.0
District Approval of PS&E/Advertise for Bids <sup>3</sup>	03/2017	05/2017	2.0
Submit and Receive Bids for Review and Approval	05/2017	06/2017	2.0
Project Implementation/Construction	07/2017	01/2018	6.0

\*Note: the dates established in the schedule above will be used in the applicable ESC between the sponsor agency and consultant firm.

\*\*Schedule dates are approximate as the project schedule will be actively managed and issues mitigated through the project delivery process. The Award Date or Planning Study Date deliverable is not approximate and requires request to adjust.

# Exhibit C

## REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

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### ATTACHMENTS

- A. Employment Preference for Appalachian Contracts  
(Included in Appalachian contracts only)

#### I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;  
Section IV, paragraphs 1, 2, 3, 4, and 7;  
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

#### II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all

related subcontracts of \$10,000 or more.)

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 *et seq.*) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed

in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

#### **6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for

minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualified minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

**8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

**9. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA

IN WITNESS WHEREOF, the parties have entered into this Agreement on the date last written below.

Executed by the City this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Executed by the Commission this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

MISSOURI HIGHWAYS AND  
TRANSPORTATION COMMISSION

City \_\_\_\_\_

\_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

ATTEST:

\_\_\_\_\_

By \_\_\_\_\_

Secretary to the Commission

Title \_\_\_\_\_

Approved as to Form:

Approved as to Form:

\_\_\_\_\_

Title \_\_\_\_\_

Commission Counsel

\*If the contracting party is a county with a commission form of government, additional lines need to be inserted to allow all three commissioners to sign the agreement.

1273 "Required Contract Provisions, Federal-Aid Construction Contracts," is attached and made a part of this Agreement as Exhibit C. Wherever the term "the contractor" or words of similar import appear in these sections, the term "the City" is to be substituted. The City agrees to abide by and carry out the condition and obligations of "the contractor" as stated in Section II, Equal Opportunity, and Section III, Nonsegregated Facilities, as set out in Form FHWA 1273.

(25) FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT OF 2006: The City shall comply with all reporting requirements of the Federal Funding Accountability and Transparency Act (FFATA) of 2006, as amended. This Agreement is subject to the award terms within 2 C.F.R. Part 170.

(26) ACQUISITION OF RIGHT OF WAY: With respect to the acquisition of right of way necessary for the completion of the project, the City shall acquire any additional necessary right of way required for this project and in doing so agrees that it will comply with all applicable federal laws, rules and regulations, including 42 U.S.C. 4601-4655, the Uniform Relocation Assistance and Real Property Acquisition Act, as amended and any regulations promulgated in connection with the Act. However, upon written request by the City and written acceptance by the Commission, the Commission shall acquire right of way for the City. Upon approval of all agreements, plans and specifications by the Commission and by the FHWA, the Commission will file copies of said plans in the office of the County clerk: and proceed to acquire by negotiation and purchase or by condemnation any necessary right of way required for the construction of the improvement contemplated herein. All right of way acquired by negotiation and purchase will be acquired in the name of the City, and the City will pay to grantors thereof the agreed upon purchase prices. All right of way acquired through condemnation proceedings will be acquired in the name of the State of Missouri and subsequently released to the City. The City shall pay into court all awards and final judgments in favor of any such condemnees. The City shall also reimburse the Commission for any expense incurred by the Commission in acquiring said right of way, including but not limited to the costs of surveying, appraisal, negotiation, condemnation, and relocation assistance benefits. Unless otherwise agreed to in writing the Commission shall have the final decision regarding the settlement amount in condemnation.

(27) CONFLICT OF INTEREST: The City shall comply with conflict of interest policies identified in 23 CFR 1.33. A conflict of interest occurs when an entity has a financial or personal interest in a federally funded project.

(28) MANDATORY DISCLOSURES: The City shall comply with 2 CFR 200.113 and disclose, in a timely manner, in writing all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award.

*[Remainder of Page Intentionally Left Blank]*

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

## V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

### 1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

### 2. Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof of the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made

either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

## VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 636) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

## VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 636).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of

a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

### VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

### IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

#### NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

*"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality,*

*quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or*

*Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or*

*Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;*

*Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both."*

### X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 *et seq.*, as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 *et seq.*, as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

### XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this

#### 4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

##### a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

##### b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour

Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

##### c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

#### 5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

#### 6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

#### 7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

#### 8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

#### 9. Withholding for Unpaid Wages and Liquidated Damages:

each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

### III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

### IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

#### 1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)) the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

#### 2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

#### 3. Payment of Fringe Benefits:

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\*\*\*\*\*

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\*\*\*\*\*

**XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

\*\*\*\*\*

#### **Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions**

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\*\*\*\*\*

#### **2. Instructions for Certification - Lower Tier Covered Transactions:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and

**ATTACHMENT A - EMPLOYMENT PREFERENCE FOR  
APPALACHIAN CONTRACTS**  
(Applicable to Appalachian contracts only.)

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph 1c shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph 4 below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification,

(c) the date on which he estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, he shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within 1 week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph 1c above.

5. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

BILL NO. 3058

ORDINANCE NO. \_\_\_\_\_

**AN ORDINANCE AUTHORIZING THE CITY ADMINISTRATOR TO EXECUTE A CONTRACT FOR WATER FACILITY RELOCATION AND LICENSE TO UTILIZE EASEMENT WITH THE MISSOURI AMERICAN WATER COMPANY REGARDING UTILITY RELOCATION FOR THE RECONSTRUCTION OF GREENTRAILS DRIVE SOUTH FROM WHITE ROAD TO LADUE ROAD.**

WHEREAS, the City of Chesterfield desires to reconstruct Greentrails Drive South; and

WHEREAS, in order to construct the project as designed Missouri American Water Company must relocate existing water facilities, located in private easements, along Greentrails Drive South and Dinsmoor Drive; and,

WHEREAS, in order to proceed with the project, the City needs to enter into a Contract For Water Facility Relocation and License To Utilize Easement with the Missouri American Water Company; and,

WHEREAS, the City Council of Chesterfield, Missouri, after careful consideration of the matter and thorough discussion with the City's attorney, desires to authorize the City Administrator of Chesterfield to enter into a Contract For Water Facility Relocation and License to Utilize Easement similar in form to that attached as Exhibit A;

NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHESTERFIELD AS FOLLOWS:

Section 1. The City Council of the City of Chesterfield hereby authorizes and directs the City Administrator to act on behalf of the City of Chesterfield to enter into an agreement with the Missouri American Water Company relative to the utility relocation for the reconstruction of Greentrails Drive South from White Road to Ladue Road, in a form substantially similar to that attached hereto as Exhibit A.

Section 2. This Ordinance shall be in full force and effect from and after its passage and approval.

Passed and approved this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
CITY ADMINISTRATOR

ATTEST:

\_\_\_\_\_  
CITY CLERK

First Reading held \_\_\_\_\_

Project Name: Greentrails Dr. South

Asset#: \_\_\_\_\_

Project Manager: Mark Radake

CIAC#: \_\_\_\_\_

**CONTRACT FOR WATER FACILITY RELOCATION AND  
LICENSE TO UTILIZE EASEMENT**

THIS CONTRACT, entered into this \_\_\_ day of \_\_\_\_\_, 20\_\_\_, by and between MISSOURI-AMERICAN WATER COMPANY, a corporation existing under the laws of the State of Missouri, (hereinafter referred to as "COMPANY"), and the **CITY OF CHESTERFIELD, 690 CHESTERFIELD PKWY W, CHESTERFIELD, MO 63017**, (hereinafter referred to as ("CITY")),

WITNESSETH:

WHEREAS, CITY contemplates the location, widening, construction and/or improvement of **GREENTRAILS DR. SOUTH**, in accordance with certain plans titled **GREENTRAILS DRIVE S. RECONSTRUCION (WHITE RD. TO LADUE RD.)** Improvements on file in the office of the CITY; and

WHEREAS, in carrying out the opening, widening, establishment, and improvement of **GREENTRAILS DR. SOUTH**, it will be necessary to relocate certain portions of the COMPANY'S water facilities now located partly within CITY right-of-way and partly on the COMPANY'S private easement along **GREENTRAILS DR. SOUTH** in the CITY; and

WHEREAS, COMPANY is willing to accommodate CITY'S needs upon condition that CITY accepts the provisions hereinafter specified and evidences such acceptance by execution hereof in accordance with Section 432.070 RSMo and City Ordinance

No. \_\_\_\_\_

NOW THEREFORE, in consideration of the mutual covenants contained herein, it is agreed as follows:

1. COMPANY will, as soon as practicable after receiving notice from the CITY, and receipt of payment in full of the estimated cost described in Paragraph 2, furnish all labor, materials, and supervision necessary, and will relocate its said water facilities currently located partly within CITY right-of-way and partly within the private easement of the COMPANY as shown on the plans marked Exhibit "A" attached hereto and made a part hereof.

Project Name: Greentrails Dr. South

Asset#: \_\_\_\_\_

Project Manager: Mark Radake

CIAC#: \_\_\_\_\_

2. The estimated cost (Exhibit "B") for this relocation is **\$147,774.80**. It is agreed that CITY'S obligation toward the cost of this relocation shall be **62.87%** of the actual costs thereof ("CITY'S OBLIGATION"), which is the percentage of the affected water facilities located within the COMPANY'S private easement. CITY agrees that prior to commencement of the relocation contemplated herein and upon receipt of a statement of cost, it will, or it will direct its agent or assign to promptly pay COMPANY for **62.87%** of the estimated cost of the relocation as set forth in Exhibit B, hereinafter referred to as "CITY'S PAYMENT"... The failure of any agent or assign of the CITY to promptly pay the COMPANY shall not be a defense and shall not mitigate the duty of the CITY to pay the COMPANY in full.
3. At the conclusion of the relocation work, the COMPANY shall calculate the difference between actual costs and estimated costs, if any. In the event the CITY's pro rata share of the actual costs exceeds CITY'S PAYMENT, the parties will enter into a supplement to this contract that addresses the CITY reimbursing the COMPANY for the additional amount owed. In the event the actual costs are less than CITY'S PAYMENT, the COMPANY will pay CITY its pro rata share of the difference between CITY'S PAYMENT and the actual cost. Payments owed to COMPANY shall be paid within forty five (45) days of receipt of invoice.
4. If any substantial change is made in the original plan and extent of the COMPANY'S relocation, work on the additional relocation will not be performed until estimated costs have been approved by the CITY. Upon completion of this additional relocation work, CITY will reimburse COMPANY for any incurred costs above the estimated costs set forth in paragraph 2 of the contract that directly result from such change of plans.

Project Name: Greentrails Dr. South

Assot#: \_\_\_\_\_

Project Manager: Mark Radake

CIAC#: \_\_\_\_\_

5. CITY agrees to furnish COMPANY with all necessary information of the project improvements including surveying and marking the proposed elevation and the right-of-way in order for COMPANY to properly carry out the utility relocation.
  
6. Upon the completion of the relocation provided for herein, COMPANY shall remove all leftover materials and debris resulting from the work and leave right-of-way in a neat, workman-like condition, free of holes, mounds of dirt, or other objectionable material.
  
7. COMPANY hereby grants and conveys unto the CITY, without warranty of title or extent of interest in the real estate hereinafter described, expressed or implied, the license and right to construct, reconstruct, and maintain roadway and drainage structures over and across those portions of easement owned and held by COMPANY, situated in St. Louis County, Missouri, and indicated by hachuring on the attached plat, made part hereof and referred to as Exhibit "C" with the following conditions and limitations:
  - a. In the event COMPANY must excavate to replace, expand, or maintain its facilities, COMPANY will request a permit from CITY, which will be granted without cost to COMPANY. COMPANY will, comply with all lawful conditions of such permit.

Project Name: Greentrails Dr. South

Asset#: \_\_\_\_\_

Project Manager: Mark Radake

CIAC#: \_\_\_\_\_

b. In the event of future improvements, reconstruction, or maintenance of the road or drainage structures involved which from time to time necessitate the further relocation of COMPANY'S water facilities within the area indicated on Exhibit "C", CITY will advise COMPANY of contemplated change and will reimburse COMPANY for costs and expenses incurred by it in relocating or otherwise adjusting its facilities. If, for reasons stated above, COMPANY must relocate its facilities but there is no usable remaining area of its original private easement, COMPANY will relocate its facilities to adjacent public right-of-way or new private easement acquired by CITY but subject to the same protections and assurances from CITY herein specified as if the facilities remained in COMPANY'S original private easement.

8. This agreement shall inure to the benefit and detriment of the successors and assigns of CITY and COMPANY.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their duly authorized officials.

ATTEST:

MISSOURI-AMERICAN WATER COMPANY

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
\_\_\_\_\_  
(Title)

ATTEST:

CITY OF CHESTERFIELD

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

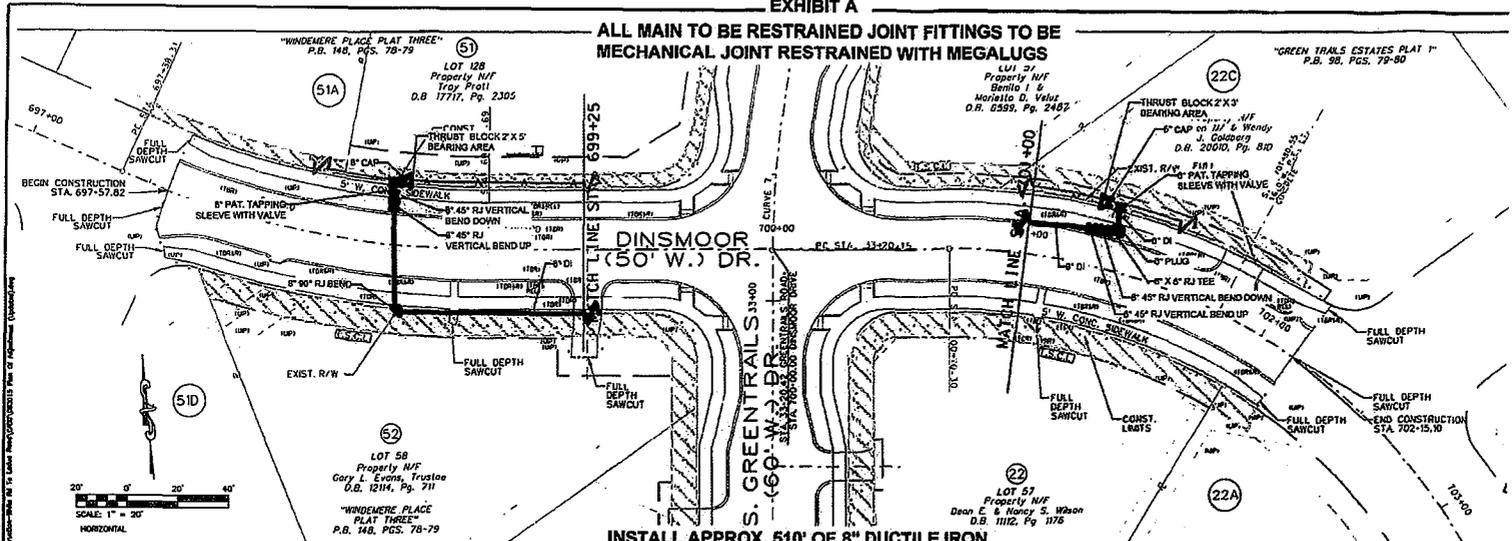
APPROVED AS TO LEGAL FORM:

\_\_\_\_\_  
City Counselor



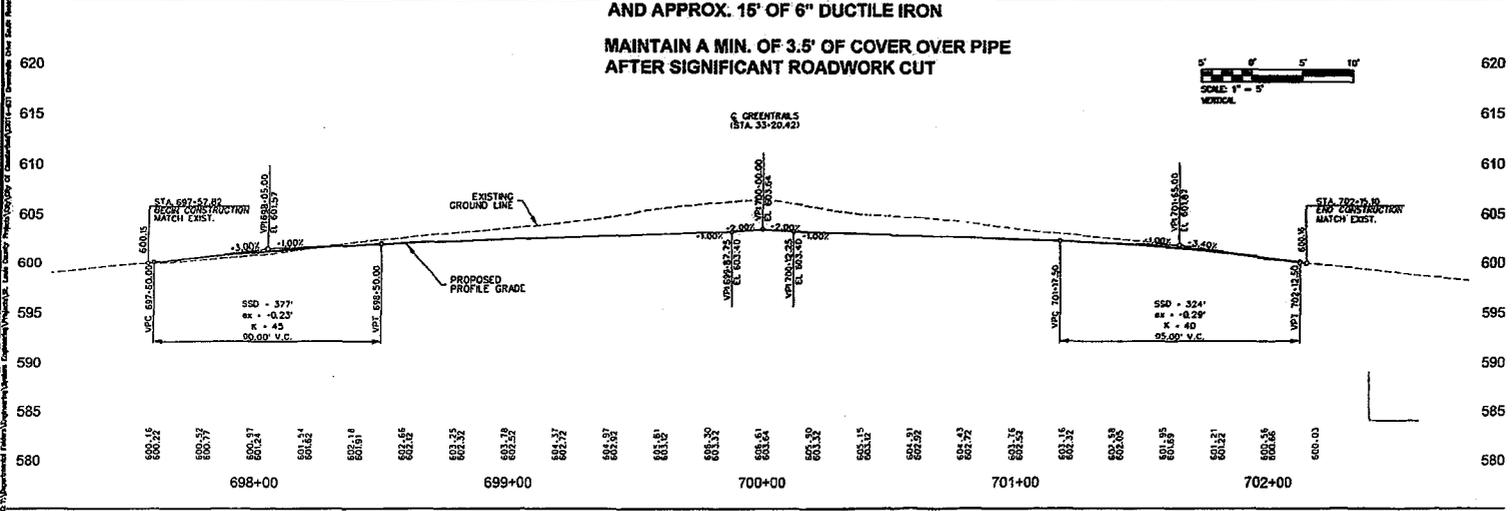
EXHIBIT A

ALL MAIN TO BE RESTRAINED JOINT FITTINGS TO BE MECHANICAL JOINT RESTRAINED WITH MEGALUGS



INSTALL APPROX. 510' OF 8" DUCTILE IRON AND APPROX. 15' OF 6" DUCTILE IRON

MAINTAIN A MIN. OF 3.5' OF COVER OVER PIPE AFTER SIGNIFICANT ROADWORK CUT



PROJECT: GREEN TRAILS DR SOUTH RECONSTRUCTION  
 TITLE: WATER MAIN RELOCATION  
 WELDON SPRINGS, MISSOURI

NO.	DATE	BY	REVISION

MISSOURI  
 AMERICAN WATER  
 ENGINEERING DEPARTMENT, 707 CHAMBERLAIN BLVD., LOUISIANA, MISSOURI 64088-1111

DATE: 11/15/2011	BY: J. W. B.
DATE: 11/15/2011	BY: J. W. B.
DATE: 11/15/2011	BY: J. W. B.
DATE: 11/15/2011	BY: J. W. B.
DATE: 11/15/2011	BY: J. W. B.

**American Water Company  
Engineering Estimate**

	RETIRED: Footage on easement	272.2	Footage on Public R/W	160.7
	INSTALLED: Footage on easement	120.2	Footage on Public R/W	403.2
*****				
	NET TOTAL CHARGES			\$147,774.80
*****				
	Total Installed Footage = Footage on easement + Footage on R/W			523.4
	Net Total Charges divided by Total Installed Footage =		\$282.34 per ft.	
	Company share of cost =			37.13%
		37.13%	X	\$147,774.80
			=	\$54,862.52
	Public Agency Share of Costs =			62.87%
		62.87%	X	\$147,774.80
			=	\$92,912.28
	Total Costs =			\$147,774.80
*****				

Records supporting the actual cost of relocations will be available in our Accounting Department at our offices at 727 Craig Road, St. Louis, MO 63141.

If American Water Company, at its option, recovers material for reuse from the existing facilities, credit shall be allowed for the salvage of materials in accordance with the practice followed by the Company in this regard.

Reimbursement Percentage (per Agreement)	=	62.87%
Footage to Relocate, Reimbursable	=	272 ft.
Total Footage to Relocate	=	433 ft.
Footage Adjustment Factor	=	62.87%
Cost for Relocating with Same Size Main	=	\$147,774.80
Cost for Relocating with Actual Size Main	=	#N/A
Cost Adjustment Factor	=	100.00%
Adjusted Percent Reimbursable	=	62.87%
(Footage Factor X Cost Factor)		
Total Installed Pipe	=	523.39
Cost per Foot	=	\$282.34





**LEGISLATION - PLANNING COMMISSION**

**BILL NO. 3056 - AMENDS THE ZONING ORDINANCE OF THE CITY OF CHESTERFIELD BY CHANGING THE BOUNDARIES OF AN "NU" NON-URBAN DISTRICT TO A "PC" PLANNED COMMERCIAL DISTRICT FOR A 1.77 ACRE TRACT OF LAND LOCATED ON THE NORTH SIDE OF CHESTERFIELD AIRPORT ROAD WEST OF ITS INTERSECTION WITH ARNAGE BOULEVARD. (SECOND READING; PLANNING COMMISSION RECOMMENDS APPROVAL)**

**BILL NO. 3056** \_\_\_\_\_

**ORDINANCE NO.** \_\_\_\_\_

**AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE CITY OF CHESTERFIELD BY CHANGING THE BOUNDARIES OF AN “NU” NON-URBAN DISTRICT TO A “PC” PLANNED COMMERCIAL DISTRICT FOR A 1.77 ACRE TRACT OF LAND LOCATED ON THE NORTH SIDE OF CHESTERFIELD AIRPORT ROAD WEST OF ITS INTERSECTION WITH ARNAGE BOULEVARD. (P.Z. 06-2015 17505 CHESTERFIELD AIRPORT ROAD {AUTOZONE} 17U230254).**

**WHEREAS**, the petitioner, The Reding Company, LLC, has requested a change in zoning from “NU” Non-Urban District to “PC” Planned Commercial District for a 1.77 acre tract of land located on the north side of Chesterfield Airport Road west of its intersection with Arnage Boulevard; and,

**WHEREAS**, a Public Hearing was held before the Planning Commission on July 13, 2015; and,

**WHEREAS**, the Planning Commission, having considered said request, recommended approval of the change of zoning; and,

**WHEREAS**, the City Council, having considered said request voted to approve the change of zoning request.

**NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI, AS FOLLOWS:**

**Section 1.** City of Chesterfield Unified Development Code and the Official Zoning District Map, which are part thereof, are hereby amended by establishing a “PC” Planned Commercial District for a 1.77 acre tract of land located at 17505 Chesterfield Airport Road and as described as follows:

A tract of land being part of Lots 5 and 6 of the subdivision in partition of the estate of Peter Steffan, deceased, in U.S. surveys 125 and 126, Township 45 North, Range 4 East, according to the plat of said subdivision attached to report of commissioners in partition suit of Kranung, ET AL vs. Steffan, ET AL in cause No. 4189 of the circuit court of St. Louis County, Missouri, A certified copy of which is recorded in Book 80 Page 457 of the St. Louis County records, in

the City of Chesterfield, St. Louis County, Missouri, and said tract being more particularly described as follows:

Beginning at the point of intersection of the northerly line of Chesterfield Airport Road, 100 feet wide, with the easterly line of a parcel described in deed to James Waller recorded in Book 4129 Page 488 of St. Louis County records, said point being 10 feet westerly of the easterly line of said lot 5; thence along the northly line of Chesterfield Airport Road South 89degrees 09 minutes 00 seconds west 385.00 feet to the westerly line of a parcel described in deed to James Waller recorded in Book 4129 Page 492 of said county records; thence along said westerly line North 00 degrees 07minutes 00 seconds east 200.00 feet to the northwesterly corner of said Waller parcel recorded in Book 4192 Page 492; thence along the northerly line of said Waller parcels and the Northerly line of a parcel described in deed to James Waller recorded in Book 2932 Page 441 of said county records, North 89 degrees 09 minutes 00 seconds East 385.00 feet to the northeasterly corner of said Waller parcel recorded in Book 4129 Page 488: thence along the easterly line of said Waller parcel recorded in Book 4129 Page 488 South 00 degrees 07 minutes 00 seconds West 200.00 feet to the Point of Beginning according to Survey No. 118469 executed by James Engineering & Surveying Co., Inc. in May 1993.

**Section 2.** The preliminary approval, pursuant to the City of Chesterfield Unified Development Code is granted, subject to all of the ordinances, rules and regulations and the specific conditions as recommended by the Planning Commission in its recommendation to the City Council, which are set out in the "Attachment A" and the preliminary plan indicated as "Attachment B" which is attached hereto as and made part of.

**Section 3.** The City Council, pursuant to the petition filed by The Reding Company, LLC in P.Z. 06-2015, requesting the amendment embodied in this ordinance, and pursuant to the recommendation of the City of Chesterfield Planning Commission that said petition be granted and after a public hearing, held by the Planning Commission on the 13<sup>th</sup> day of July 2015, does hereby adopt this ordinance pursuant to the power granted to the City of Chesterfield under Chapter 89 of the Revised Statutes of the State of Missouri authorizing the City Council to exercise legislative power pertaining to planning and zoning.

**Section 4.** This ordinance and the requirements thereof are exempt from the warning and summons for violations as set out in Section 8 of the City of Chesterfield Unified Development Code.

**Section 5.** This ordinance shall be in full force and effect from and after its passage and approval.

Passed and approved this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
MAYOR

ATTEST:

\_\_\_\_\_  
CITY CLERK

FIRST READING HELD: 10/07/2015

## **ATTACHMENT A**

**All provisions of the City of Chesterfield City Code shall apply to this development except as specifically modified herein.**

### **I. SPECIFIC CRITERIA**

#### **A. PERMITTED USES**

1. The uses allowed in this "PC" Planned Commercial District shall be:
  - a. Office, dental
  - b. Office, general
  - c. Office, medical
  - d. Retail sales establishment, community
  - e. Retail sales establishment, neighborhood
  - f. Coffee shop, drive thru
  - g. Restaurant, sit down
  - h. Restaurant, fast food
  - i. Restaurant, take out
  - j. Financial Institution, drive-thru
  - k. Dry cleaning establishment, with drive-thru
  - l. Vehicle repair and service facility
2. All permitted uses in this "PC" District that include outdoor storage and/or outdoor activity shall be adequately screened and shown on the Site Development Plan and approved by the City of Chesterfield.
3. In conjunction with use "1" above, the parking and storage of vehicles shall be restricted to periods of time not to exceed 24 hours, located at the rear of the building only, and not visible from Chesterfield Airport Road.
4. Hours of Operation
  - a. All deliveries and trash pick-ups shall be limited to 7:00 AM to 11:00 PM.
  - b. Hours of operation for this development shall not be restricted.

**B. FLOOR AREA, HEIGHT, BUILDING AND PARKING STRUCTURE REQUIREMENTS**

1. Height

The maximum height of the buildings, exclusive of roof screening, shall not exceed thirty (30) feet.

2. Building Requirements

A minimum of thirty-five percent (35%) open space will be required for each lot within this development.

**B. SETBACKS**

1. Structure Setbacks

No building or structure, other than: a freestanding project identification sign, light standards, or flag poles will be located within the following setbacks:

- a. Thirty (30) feet from the southern boundary of this district.
- b. Ten (10) feet from the northern boundary of this district.
- c. Five (5) feet from the eastern boundary of this district.
- d. Thirty-five (35) feet from the western boundary of this district.

2. Parking Setbacks

No parking stall or loading space, internal driveway, or roadway, except points of ingress or egress, will be located within the following setbacks:

- a. Thirty (30) feet from the southern boundary of this district.
- b. Ten (10) feet from the northern boundary of this district.
- c. Five (5) feet from the eastern boundary of this district.
- d. Zero (0) feet from the western boundary of this district.

#### **D. PARKING AND LOADING REQUIREMENTS**

1. Parking and loading spaces for this development shall be as required in the City of Chesterfield Unified Development Code.
2. Construction Parking
  - a. No construction related parking shall be permitted within right of way or on any existing roadways. All construction related parking shall be confined to the development.
3. Parking lots shall not be used as streets.

#### **E. LANDSCAPE AND TREE REQUIREMENTS**

1. The developer shall adhere to the Tree Preservation and Landscape Requirements of the City of Chesterfield Unified Development Code.

#### **F. SIGN REQUIREMENTS**

1. Signs shall be permitted in accordance with the regulations of the City of Chesterfield Unified Development Code or a Sign Package may be submitted for the planned district. Sign packages shall adhere to the City of Chesterfield Unified Development Code.
2. Ornamental Entrance Monument construction, if proposed, shall be reviewed by the City of Chesterfield, and/or the St. Louis County Department of Highways and Traffic, for sight distance considerations prior to installation or construction.

#### **G. LIGHT REQUIREMENTS**

1. Provide a lighting plan and cut sheet in accordance with the City of Chesterfield Unified Development Code.

#### **H. ARCHITECTURAL**

1. The development shall adhere to the Architectural Review Standards of the City of Chesterfield Unified Development Code.
2. Trash enclosures: All exterior trash areas will be enclosed with a minimum six (6) foot high sight-proof enclosure complemented by adequate landscaping. The location, material, and elevation of any trash enclosures will be as approved by the City of Chesterfield on the Site Development Plan.

**I. ACCESS/ACCESS MANAGEMENT**

1. Access to this development from Chesterfield Airport Road shall be via one (1) commercial entrance located opposite Valley Center Drive to be expanded and shared by adjacent future development to the west and to provide required sight distance and constructed to Saint Louis County standards as directed by the Saint Louis County Department of Transportation and the City of Chesterfield.
2. Cross access easements shall be provided to adjacent properties to the east, north, and west. Cross access easements shall be 26' wide.
3. Provide cross access easement and temporary slope construction license or other appropriate legal instrument or agreement guaranteeing permanent access between this site and adjacent properties to the north to eventually connect to the extension of Arnage Road as directed by the Saint Louis County Department of Transportation.
4. Adequate sight distance shall be provided, as directed by the City of Chesterfield, the Missouri Department of Transportation and St. Louis County Department of Highways and Traffic, as applicable.
5. If required sight distance cannot be provided at the access locations, acquisition of right-of-way, reconstruction of pavement including correction to the vertical alignment and other off-site improvements may be required to provide adequate sight distance as directed by the Saint Louis County Department of Transportation.

**J. PUBLIC/PRIVATE ROAD IMPROVEMENTS, INCLUDING PEDESTRIAN CIRCULATION**

1. Improve Chesterfield Airport Road to one half of the ultimate section including all storm drainage facilities as directed by the Saint Louis County Department of Transportation.
2. Construct a two-hundred (200) foot right turn deceleration lane on Chesterfield Airport Road as directed by the Saint Louis County Department of Transportation.

3. Provide a 5 foot wide sidewalk, conforming to ADA standards, along the Chesterfield Airport Road frontage of the site. The sidewalk shall be privately maintained; therefore, no public easements shall be required.
4. Obtain approvals from the City of Chesterfield, St. Louis County Highways and Traffic and other entities as necessary for locations of proposed curb cuts and access points.
5. Prior to Special Use Permit issuance by the Saint Louis County Department of Transportation, a special cash escrow or a special escrow supported by an Irrevocable Letter of Credit, must be established with the Saint Louis County Department of Transportation to guarantee completion of the required roadway improvements.
6. Provide adequate temporary off-street parking for construction employees. Parking on non-surfaced areas shall be prohibited in order to eliminate the condition whereby mud from construction and employee vehicles is tracked onto the pavement causing hazardous roadway and driving conditions.

#### **K. TRAFFIC STUDY**

1. Provide a traffic study as directed by the City of Chesterfield and/or the St. Louis County Department of Highways and Traffic. The scope of the study shall include internal and external circulation and may be limited to site specific impacts, such as the need for additional lanes, entrance configuration, geometrics, sight distance, traffic signal modifications or other improvements required, as long as the density of the proposed development falls within the parameters of the City's traffic model. Should the density be other than the density assumed in the model, regional issues shall be addressed as directed by the City of Chesterfield.
2. Provide a sight distance evaluation report, as required by the City of Chesterfield, for the proposed entrance onto Chesterfield Airport Road. If adequate sight distance cannot be provided at the access location, acquisition of right-of-way, reconstruction of pavement, including correction to the vertical alignment, and/or other off-site improvements shall be required, as directed by the City of Chesterfield and/or the Missouri Department of Transportation.

#### **L. POWER OF REVIEW**

Either Councilmember of the Ward where a development is proposed or the Mayor may request that the plan for a development be reviewed and approved by the entire City Council. This request must be made no later than twenty-four (24) hours after Planning Commission review. The City Council will then take appropriate action relative to the proposal. The plan for a development, for purposes of this section, may include the site development plan, site development section plan, site development concept plan, landscape plan, lighting plans, architectural elevations, sign package or any amendment thereto.

#### **M. STORMWATER**

1. The site shall provide for the positive drainage of storm water and it shall be discharged at an adequate natural discharge point or an adequate piped system.
2. Detention/retention and channel protection measures are to be provided in each watershed as required by the City of Chesterfield and the Metropolitan St. Louis Sewer District. The storm water management facilities shall be operational prior to paving of any driveways or parking areas in non-residential developments or issuance of building permits exceeding sixty percent (60%) of the approved dwelling units in each plat, watershed or phase of residential developments. The location and types of storm water management facilities shall be identified on all Site Development Plans.
3. Emergency overflow drainage ways to accommodate runoff from the 100-year storm event shall be provided for all storm sewers, as directed by the City of Chesterfield.
4. Offsite storm water shall be picked up and piped to an adequate natural discharge point. Such bypass systems must be adequately designed.
5. The lowest opening of all structures shall be set at least two (2) feet higher than the one hundred (100) year high water elevation in detention/retention facilities. All structures shall be set at least 30 feet horizontally from the limits of the one hundred (100) year high water.

6. Locations of site features such as lakes and detention ponds must be approved by the City of Chesterfield and the Metropolitan Saint Louis Sewer District.
7. The developer shall be responsible for construction of any required storm water improvements per the Chesterfield Valley Master Storm Water Plan, as applicable, and shall coordinate with the owners of the properties affected by construction of the required improvements. In the event that the ultimate required improvements cannot be constructed concurrently with this development, the developer shall provide interim drainage facilities and establish sufficient escrows as guarantee of future construction of the required improvements, including removal of interim facilities. Interim facilities shall be sized to handle runoff from the 100-year, 24-hour storm event as produced by the Master Storm Water Plan model. The interim facilities shall provide positive drainage and may include a temporary pump station, if necessary. Interim facilities shall be removed promptly after the permanent storm water improvements are constructed. Interim facilities shall also provide a no volume increase in runoff to adjacent properties as compared to existing conditions and a site plan showing no concentrated discharge points to adjacent properties. Interim facilities shall provide means to connect to future storm water facilities across the north property.
8. Formal MSD review, approval, and permits are required prior to construction.
9. Post Construction Best Management Practices (BMPs) are required to treat the extents of the project's disturbed area. Volume reduction BMPs shall be the emphasis of the site's post construction water quality strategy and applied to the maximum extent practicable.
10. The project is located within the Caulks Creek Impact area, subject to a surcharge of \$2750.00/acre.
11. Approval from the Monarch Chesterfield Levee District indicating that the final plans conform to their master conveyance plan will be required prior to formal MSD plan approval.

#### **N. SANITARY SEWER**

1. Sanitary sewers shall be as approved by the City of Chesterfield and the Metropolitan St. Louis Sewer District.
2. Public sanitary sewers will need to be extended to the site, and would appear to require offsite construction, easement acquisition and dedication of existing offsite private facilities. A combination of a pumping and gravity system may be necessary.

#### **O. GEOTECHNICAL REPORT**

Prior to Site Development Plan approval, provide a geotechnical report, prepared by a registered professional engineer licensed to practice in the State of Missouri, as directed by the City of Chesterfield. The report shall verify the suitability of grading and proposed improvements with soil and geologic conditions and address the existence of any potential sinkhole, ponds, dams, septic fields, etc., and recommendations for treatment. A statement of compliance, signed and sealed by the geotechnical engineer preparing the report, shall be included on all Site Development Plans and Improvement Plans.

#### **P. MISCELLANEOUS**

1. All utilities will be installed underground. The development of this parcel will coordinate the installation of all utilities in conjunction with the construction of any roadway on site.
2. The developer is advised that utility companies will require compensation for relocation of their facilities within public road right-of-way. Utility relocation cost shall not be considered as an allowable credit against the petitioner's traffic generation assessment contribution. The developer should also be aware of extensive delays in utility company relocation and adjustments. Such delays will not constitute a cause to allow occupancy prior to completion of road improvements.
3. An opportunity for recycling will be provided. All provisions of Chapter 25, Article VII, and Section 25-122 thru Section 25-126 of the City of Chesterfield, Missouri Code, with the exception of the land use designation, shall be required where applicable.

4. Road improvements and right-of-way dedication shall be completed prior to the issuance of an occupancy permit. If development phasing is anticipated, the developer shall complete road improvements, right-of-way dedication, and access requirements for each phase of development as directed by the City of Chesterfield and Saint Louis County Department of Highways and Traffic. Delays due to utility relocation and adjustments will not constitute a cause to allow occupancy prior to completion of road improvements.
5. Prior to record plat approval, the developer shall cause, at his expense and prior to the recording of any plat, the reestablishment, restoration or appropriate witnessing of all Corners of the United States Public Land Survey located within, or which define or lie upon, the out boundaries of the subject tract in accordance with the Missouri Minimum Standards relating to the preservation and maintenance of the United States Public Land Survey Corners, as necessary.
6. Prior to final release of subdivision construction deposits, the developer shall provide certification by a registered land surveyor that all monumentation depicted on the record plat has been installed and United States Public Land Survey Corners have not been disturbed during construction activities or that they have been reestablished and the appropriate documents filed with the Missouri Department of Natural Resources Land Survey Program, as necessary.

## **II. TIME PERIOD FOR SUBMITTAL OF SITE DEVELOPMENT CONCEPT PLANS AND SITE DEVELOPMENT PLANS**

- A.** The developer shall submit a concept plan within eighteen (18) months of City Council approval of the change of zoning.
- B.** In lieu of submitting a Site Development Concept Plan and Site Development Section Plans, the petitioner may submit a Site Development Plan for the entire development within eighteen (18) months of the date of approval of the change of zoning by the City.
- C.** Failure to comply with these submittal requirements will result in the expiration of the change of zoning and will require a new public hearing.

- D.** Said Plan shall be submitted in accordance with the combined requirements for Site Development Section and Concept Plans. The submission of Amended Site Development Plans by sections of this project to the Planning Commission shall be permitted if this option is utilized.
- E.** Where due cause is shown by the developer, the City Council may extend the period to submit a Site Development Concept Plan or Site Development Plan for eighteen (18) months.

### **III. COMMENCEMENT OF CONSTRUCTION**

- A.** Substantial construction shall commence within two (2) years of approval of the Site Development Concept Plan or Site Development Plan, unless otherwise authorized by ordinance.
- B.** Where due cause is shown by the developer, the City Council may extend the period to commence construction for two (2) additional years.

### **IV. GENERAL CRITERIA**

#### **A. SITE DEVELOPMENT CONCEPT PLAN**

1. Any Site Development Concept Plan shall show all information required on a preliminary plat as required in the City of Chesterfield Code.
2. Include a Conceptual Landscape Plan in accordance with the City of Chesterfield Code to indicate proposed landscaping along arterial and collector roadways.
3. Include a Lighting Plan in accordance with the City of Chesterfield Code to indicate proposed lighting along arterial collector roadways.
4. Provide comments/approvals from the appropriate Fire District, the St. Louis County Department of Highways and Traffic, Monarch Chesterfield Levee District, Spirit of St. Louis Airport and the Missouri Department of Transportation.
5. Compliance with the current Metropolitan Sewer District Site Guidance as adopted by the City of Chesterfield.

## **B. SITE DEVELOPMENT PLAN SUBMITTAL REQUIREMENTS**

The Site Development Plan shall include, but not be limited to, the following:

1. Location map, north arrow, and plan scale. The scale shall be no greater than one (1) inch equals one hundred (100) feet.
2. Outboundary plat and legal description of property.
3. Density calculations.
4. Parking calculations. Including calculation for all off street parking spaces, required and proposed, and the number, size and location for handicap designed.
5. Provide open space percentage for overall development including separate percentage for each lot on the plan.
6. Provide Floor Area Ratio (F.A.R.).
7. A note indicating all utilities will be installed underground.
8. A note indicating signage approval is separate process.
9. Depict the location of all buildings, size, including height and distance from adjacent property lines, and proposed use.
10. Specific structure and parking setbacks along all roadways and property lines.
11. Indicate location of all existing and proposed freestanding monument signs.
12. Zoning district lines, subdivision name, lot number, dimensions, and area, and zoning of adjacent parcels where different than site.
13. Floodplain boundaries.

14. Depict existing and proposed improvements within 150 feet of the site as directed. Improvements include, but are not limited to, roadways, driveways and walkways adjacent to and across the street from the site, significant natural features, such as wooded areas and rock formations, and other karst features that are to remain or be removed.
15. Depict all existing and proposed easements and rights-of-way within 150 feet of the site and all existing or proposed off-site easements and rights-of-way required for proposed improvements.
16. Indicate the location of the proposed storm sewers, detention basins, sanitary sewers and connection(s) to the existing systems.
17. Depict existing and proposed contours at intervals of not more than one (1) foot, and extending 150 feet beyond the limits of the site as directed.
18. Address trees and landscaping in accordance with the City of Chesterfield Unified Development Code.
19. Comply with all preliminary plat requirements of the City of Chesterfield Subdivision Regulations per the City of Chesterfield Unified Development Code.
20. Signed and sealed in conformance with the State of Missouri Department of Economic Development, Division of Professional Registration, Missouri Board for Architects, Professional Engineers and Land Surveyors requirements.
21. Provide comments/approvals from the appropriate Fire District, Monarch Levee District, Spirit of St. Louis Airport and the Missouri Department of Transportation, Metropolitan St. Louis Sewer District (MSD), and St. Louis County Department of Highways and Traffic.
22. Compliance with Sky Exposure Plane.
23. Compliance with the current Metropolitan Sewer District Site Guidance as adopted by the City of Chesterfield.

### **C. SITE DEVELOPMENT SECTION PLAN SUBMITTAL REQUIREMENTS**

The Site Development Section Plan shall adhere to the above criteria and to the following:

1. Location map, north arrow, and plan scale. The scale shall be no greater than one (1) inch equals one hundred (100) feet.
2. Parking calculations. Including calculation for all off street parking spaces, required and proposed, and the number, size and location for handicap designed.
3. Provide open space percentage for overall development including separate percentage for each lot on the plan.
4. Provide Floor Area Ratio (F.A.R.).
5. A note indicating all utilities will be installed underground.
6. A note indicating signage approval is separate process.
7. Depict the location of all buildings, size, including height and distance from adjacent property lines and proposed use.
8. Specific structure and parking setbacks along all roadways and property lines.
9. Indicate location of all existing and proposed freestanding monument signs.
10. Zoning district lines, subdivision name, lot number, lot dimensions, lot area, and zoning of adjacent parcels where different than site.
11. Floodplain boundaries.
12. Depict existing and proposed improvements within 150 feet of the site as directed. Improvements include, but are not limited to, roadways, driveways and walkways adjacent to and across the street from the site, significant natural features, such as wooded areas and rock formations, and other karst features that are to remain or be removed.
13. Depict all existing and proposed easements and rights-of-way within 150 feet of the site and all existing or proposed off-site easements and rights-of-way required for proposed improvements.

14. Indicate the location of the proposed storm sewers, detention basins, sanitary sewers and connection(s) to the existing systems.
15. Depict existing and proposed contours at intervals of not more than one (1) foot, and extending 150 feet beyond the limits of the site as directed.
16. Address trees and landscaping in accordance with the City of Chesterfield Code.
17. Comply with all preliminary plat requirements of the City of Chesterfield Subdivision Regulations per the City of Chesterfield Code.
18. Signed and sealed in conformance with the State of Missouri Department of Economic Development, Division of Professional Registration, Missouri Board for Architects, Professional Engineers and Land Surveyors requirements.
19. Provide comments/approvals from the appropriate Fire District, Monarch Levee District, Spirit of St. Louis Airport, St. Louis Department of Highways and Traffic, Metropolitan St. Louis Sewer District (MSD) and the Missouri Department of Transportation.
20. Compliance with Sky Exposure Plane.
21. Compliance with the current Metropolitan Sewer District Site Guidance as adopted by the City of Chesterfield.

#### **V. TRUST FUND CONTRIBUTION**

- A.** The developer shall be required to contribute a Traffic Generation Assessment (TGA) to the Chesterfield Valley Trust Fund (No. 556). This contribution shall not exceed an amount established by multiplying the required parking spaces by the following rate schedule:

<b><u>Type of Development</u></b>	<b><u>Required Contribution</u></b>
General Retail	\$1,990.41/required parking space
Loading Space	\$3,257.06/required parking space

If types of development proposed differ from those listed, rates shall be provided by the Saint Louis County Department of Highways and Traffic.

If a portion of the improvements required herein are needed to provide for the safety of the traveling public, their completion as a part of this development is mandatory.

Allowable credits for required roadway improvements will be awarded as directed by the Saint Louis County Department of Highways and Traffic and the City of Chesterfield. Sidewalk construction and utility relocation, among other items, are not considered allowable credits.

- B.** As this development is located within a trust fund area established by Saint Louis County, any portion of the traffic generation assessment contribution which remains following completion of road improvements required by the development should be retained in the appropriate trust fund.
- C.** Road improvement traffic generation assessment contributions shall be deposited with Saint Louis County Department of Highways and Traffic. The deposit shall be made prior to the issuance of a Special Use Permit (S.U.P.) by Saint Louis County Department of Highways and Traffic or prior to the issuance of building permits in the case where no S.U.P. is required. If development phasing is anticipated, the developer shall provide the traffic generation assessment contribution prior to issuance of building permits for each phase of development. Funds shall be payable to Treasurer, Saint Louis County.
- D.** The amount of all required contributions for roadway, storm water and primary water line improvements, if not submitted by January 1, 2016, shall be adjusted on that date and on the first day of January in each succeeding year thereafter in accordance with the construction cost index as determined by the Saint Louis County Department of Transportation.

**E. WATER MAIN**

- 1. The primary water line contribution is based on gross acreage of the development land area. The contribution shall be a sum of \$800.53 per acre for the total area as approved on the Site Development Plan to be used solely to help defray the cost of constructing the primary water line serving the Chesterfield Valley area.

2. The primary water line contribution shall be deposited with the Saint Louis County Department of Highways and Traffic. The deposit shall be made before St. Louis County approval of the Site Development Plan unless otherwise directed by the Saint Louis County Department of Highways and Traffic. Funds shall be payable to the Treasurer, Saint Louis County.

#### **F. STORM WATER**

1. The storm water contribution is based on gross acreage of the development land area. These funds are necessary to help defray the cost of engineering and construction improvements for the collection and disposal of storm water from the Chesterfield Valley in accordance with the Master Plan on file with and jointly approved by Saint Louis County and the Metropolitan Saint Louis Sewer District. The amount of the storm water contribution will be computed based on \$2,539.89 per acre for the total area as approved on the Site Development Plan.
2. The storm water contributions to the Trust Fund shall be deposited with the Saint Louis County Department of Highways and Traffic. The deposit shall be made before the issuance of a Special Use Permit (S.U.P.) by Saint Louis County Department of Highways and Traffic or before the issuance of building permits in the case where no Special Use Permit is required. Funds shall be payable to the Treasurer, Saint Louis County.

#### **G. SANITARY SEWER**

1. The sanitary sewer contribution is collected as the Caulks Creek impact fee.
2. The sanitary sewer contribution within Chesterfield Valley area shall be deposited with the Metropolitan St. Louis Sewer District as required by the District.

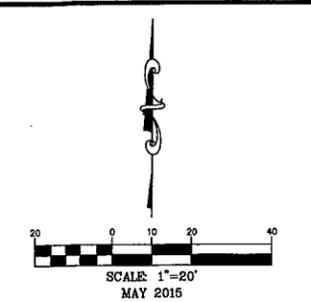
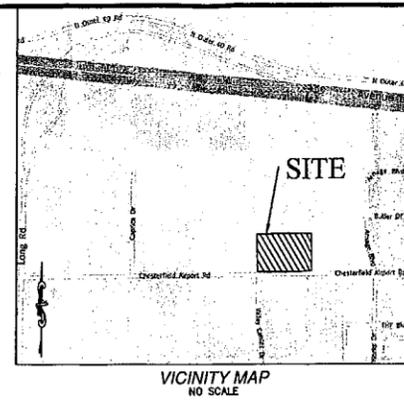
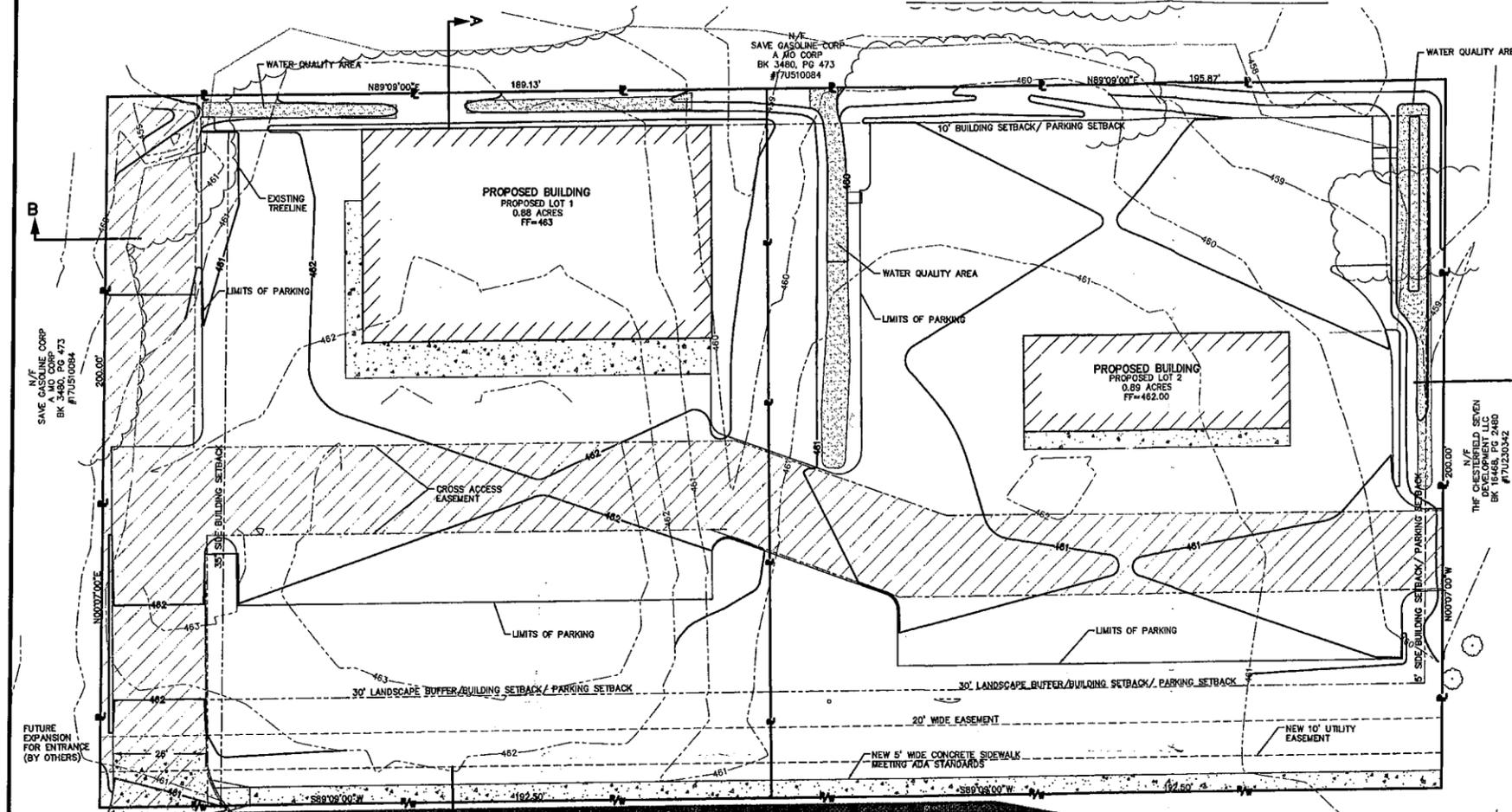
#### **VI. RECORDING**

Within sixty (60) days of approval of any development plan by the City of Chesterfield, the approved Plan will be recorded with the St. Louis County Recorder of Deeds. Failure to do so will result in the expiration of approval of said plan and require re-approval of a plan by the Planning Commission.

## **IX. ENFORCEMENT**

- A.** The City of Chesterfield, Missouri will enforce the conditions of this ordinance in accordance with the Plan approved by the City of Chesterfield and the terms of this Attachment A.
- B.** Failure to comply with any or all the conditions of this ordinance will be adequate cause for revocation of approvals/permits by reviewing Departments and Commissions.
- C.** Non-compliance with the specific requirements and conditions set forth in this Ordinance and its attached conditions or other Ordinances of the City of Chesterfield shall constitute an ordinance violation, subject, but not limited to, the penalty provisions as set forth in the City of Chesterfield Code.
- D.** Waiver of Notice of Violation per the City of Chesterfield Code.
- E.** This document shall be read as a whole and any inconsistency to be integrated to carry out the overall intent of this Attachment A.

# PRELIMINARY PLAN



**LEGEND**

RIGHT OF WAY	---
PROPERTY LINE	---
BUILDING SETBACK	---
EXISTING EASEMENT	---
EXISTING CONTOUR	---
EXISTING CONTOUR IDX	---
EXISTING ASPHALT PAVEMENT	---
EXISTING WATER LINE	---
NEW BUILDING	---
NEW STANDARD DUTY ASPHALT	---
NEW CONCRETE SIDEWALK AND APPROACHES	---
WATER QUALITY AREA	---
CROSS ACCESS EASEMENT	---

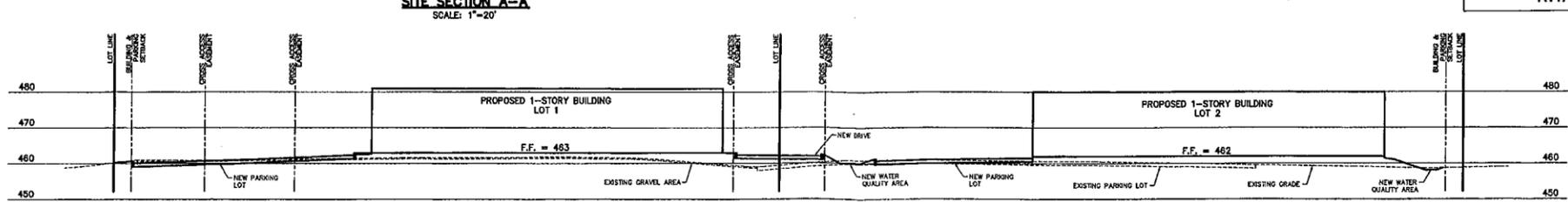
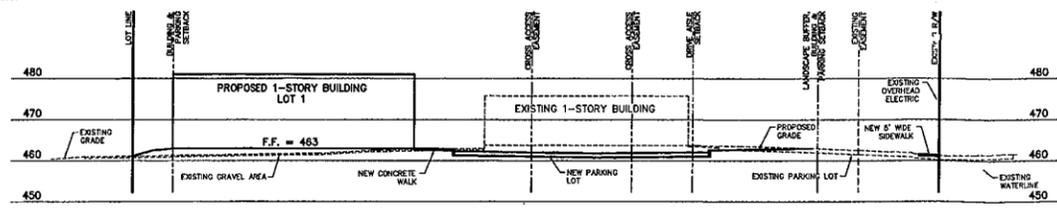
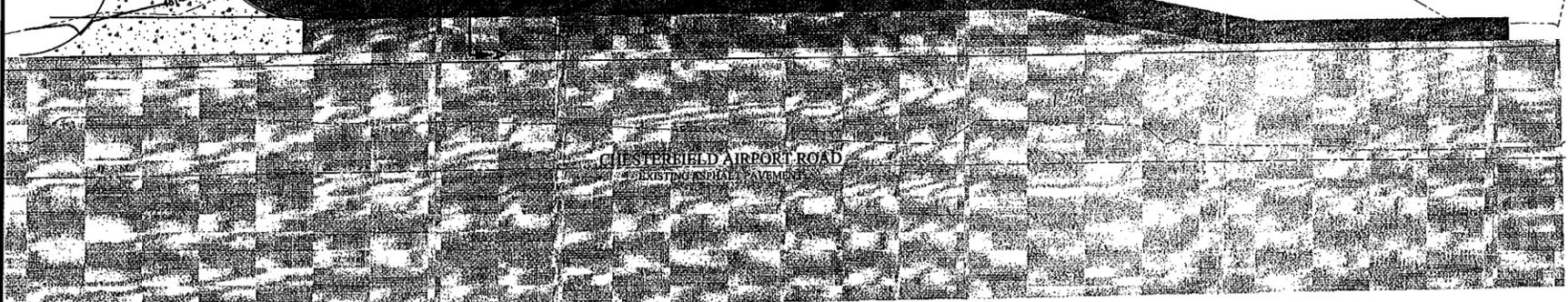
- NOTES:**
- TOTAL SITE ACRES: 1.77 ACRES
  - EXISTING ZONING: NU - NON-URBAN
  - PROPOSED ZONING: PC - PLANNED COMMERCIAL DISTRICT
  - SETBACKS:
  - BUILDING:
    - FRONT - 30'
    - REAR - 10'
    - SIDE - 5' (EAST SIDE LOT 2)
    - SIDE - 35' (WEST SIDE LOT 1)
  - PARKING:
    - FRONT - 30'
    - REAR - 10'
    - SIDE - 5' (EAST SIDE OF LOT 2)
    - SIDE - 0' (WEST SIDE OF LOT 1)
  - LANDSCAPE:
    - FRONT - 30'
  - THE SITE LAND USE SHALL BE COMMERCIAL.
  - THIS SITE IS SERVED BY:
    - WATER - MISSOURI AMERICAN WATER
    - SEWER - METROPOLITAN ST. LOUIS SEWER DISTRICT
    - TELEPHONE - AT&T DISTRIBUTION/CHARTER COMMUNICATIONS/MCI
    - ELECTRIC - AMEREN MISSOURI ELECTRIC
    - GAS - Laclede Gas Company
  - THIS SITE FALLS WITHIN THE "UNSHADED ZONE X" AREAS OF 500 YR FLOOD AREAS PER 100 YR FLOOD WITH AVERAGE DEPTHS LESS THAN 1 FT. OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE, AND AREAS PROTECTED BY LEVEES FROM 100 YR FLOOD, PER FIRM, FOR ST. LOUIS COUNTY, MISSOURI MAP NUMBER 28185D0165K, EFFECTIVE DATE OF FEBRUARY 4, 2015. EFFORTS WILL BE MADE TO DIRECT DRAINAGE TO EXISTING DISCHARGE POINTS.
  - ALL UTILITIES ARE TO BE LOCATED UNDERGROUND.
  - THE PROPOSED BUILDING HEIGHT SHALL BE NO MORE THAN 30 FT.
  - THE SITE SHALL CONFORM TO CITY OF CHESTERFIELD STANDARDS.
  - UNDERGROUND STRUCTURES, FACILITIES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, DEEDS AND RECORDS. THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS NOT KNOWN.
  - ALL ROADWAY DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
  - NO INVESTIGATION HAS BEEN PERFORMED BY COCHRAN REGARDING HAZARDOUS WASTE, UNDERGROUND CONDITIONS OR UTILITIES AFFECTING THE TRACT SHOWN HEREON.
  - THIS DRAWING DOES NOT CONSTITUTE A BOUNDARY SURVEY.
  - ALL PAVEMENT STRIPING SHALL BE 4" WIDE PAINTED YELLOW.
  - ACCESSIBLE PARKING STRIPING SHALL BE BLUE.
  - LOCATION, REPLACEMENT, AND CONNECTION OF THE UTILITIES SHALL BE COORDINATED WITH THE UTILITY COMPANIES.
  - TRASH ENCLOSURE IS TO BE MASONRY TO MATCH THE BUILDING AND SCREENED ACCORDING TO CITY REQUIREMENTS.
  - ALL MECHANICAL, HVAC, AND UTILITY EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW ACCORDING TO CITY ORDINANCE.
  - ALL LANDSCAPING MATERIAL AND DESIGN WILL FOLLOW CHESTERFIELD CITY CODES, INCLUDING TYPES OF PLANTS AND SPACING.
  - ALL DISTURBED AREAS INTENDED FOR GRASS SHALL BE SOODED.
  - MAXIMUM BUILDING HEIGHT SHALL BE TWO STORY.
  - OPEN SPACE SHALL BE A MINIMUM OF 35% OF EACH LOT FOR THE DEVELOPMENT.

**PROPERTY DESCRIPTION:**  
 FIRST AMERICAN TITLE INSURANCE COMPANY  
 FILE NO: 0502080REV1; EFFECTIVE DATE: APRIL 7, 2015  
 SCHEDULE "A", NO. 4.

A TRACT OF LAND BEING PART OF LOTS 5 AND 8 OF THE SUBDIVISION IN PARTITION OF THE ESTATE OF PETER STEFFAN, DECEASED, IN U.S. SURVEYS 125 AND 126, TOWNSHIP 45 NORTH, RANGE 4 EAST, ACCORDING TO THE PLAT OF SAID SUBDIVISION ATTACHED TO REPORT OF COMMISSIONERS IN PARTITION SUIT OF KRANUNG, ET AL VS. STEFFAN, ET AL IN CAUSE NO. 4189 OF THE CIRCUIT COURT OF ST. LOUIS COUNTY, MISSOURI, A CERTIFIED COPY OF WHICH IS RECORDED IN BOOK 80 PAGE 457 OF THE ST. LOUIS COUNTY RECORDS, IN THE CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI, AND SAID TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
 BEGINNING AT THE POINT OF INTERSECTION OF THE NORTHERLY LINE OF CHESTERFIELD AIRPORT ROAD, 100 FEET WIDE, WITH THE EASTERLY LINE OF A PARCEL DESCRIBED IN DEED TO JAMES WALLER RECORDED IN BOOK 4129 PAGE 488 OF THE ST. LOUIS COUNTY RECORDS, AND POINT BEING 10 FEET WESTERLY OF THE EASTERLY LINE OF SAID LOT 5; DEGREES 00 MINUTES 00 SECONDS WEST 385.00 FEET TO THE WESTERLY LINE OF A PARCEL DESCRIBED IN DEED TO JAMES WALLER RECORDED IN BOOK 4129 PAGE 488 OF SAID COUNTY RECORDS; THENCE ALONG SAID WESTERLY LINE NORTH 00 DEGREES 07 MINUTES 00 SECONDS EAST 200.00 FEET TO THE NORTHWESTERLY CORNER OF SAID WALLER PARCEL RECORDED IN BOOK 4192 PAGE 492; THENCE ALONG THE NORTHERLY LINE OF SAID WALLER PARCEL AND THE NORTHERLY LINE OF A PARCEL DESCRIBED IN DEED TO JAMES WALLER RECORDED IN BOOK 2932 PAGE 441 OF SAID COUNTY RECORDS, NORTH 89 DEGREES 09 MINUTES 00 SECONDS EAST 385.00 FEET TO THE NORTHEASTERLY CORNER OF SAID WALLER PARCEL RECORDED IN BOOK 4129 PAGE 488; PAGE 488 SOUTH 00 DEGREES 07 MINUTES 00 SECONDS WEST 200.00 FEET TO THE POINT OF BEGINNING ACCORDING TO SURVEY NO. 118469 EXECUTED BY JAMES ENGINEERING & SURVEYING CO., INC. IN MAY 1993.

**BENCHMARKS:**  
 PROJECT BENCHMARK:  
 ELEV=460.06 (NGVD 1929)  
 ST. LOUIS COUNTY BENCHMARK SYSTEM 12-171: "STANDARD ALUMINUM DISK" STAMPED SL-38, 1990, DISK IS SET AT THE NORTHWEST CORNER OF CHESTERFIELD AIRPORT ROAD AND CAPRICE DRIVE.  
 SITE BENCHMARK:  
 ELEV=463.04

"O" IN OPEN ON A FIRE HYDRANT LOCATED APPROXIMATELY 80 NORTH OF THE CENTERLINE OF CHESTERFIELD AIRPORT ROAD AND 1,185 FEET EAST OF THE INTERSECTION WITH CAPRICE DRIVE IN CHESTERFIELD, MISSOURI.



CITY OF CHESTERFIELD  
 PLANNED DISTRICT ORDINANCE  
 ATTACHMENT B

RECEIVED  
 City of Chest.  
 SEP - 1 2015  
 Department of Public Works

STATE OF MISSOURI  
 ERIC SCOTT KIRCHNER  
 E-200104618  
 REGISTERED PROFESSIONAL ENGINEER  
 DATE

DEVELOPER:  
 THE REDING COMPANY, LLC  
 2460 EXECUTIVE DRIVE, SUITE 114,  
 ST. CHARLES, MO 63303

Eric S. Kirchner No. E-200104618  
 Registered Professional Engineer  
 State of Missouri  
 for Cochran Engineering & Surveying

636-330-4874 (Mo.)  
 636-330-4870 (Toll Free)  
 www.cochran-engineering.com

**COCHRAN**

Civil Engineering  
 Land Surveying  
 Architecture  
 Site Development  
 General Consulting  
 Master Planning

PRELIMINARY PLAN  
 AUTOZONE  
 CHESTERFIELD, MISSOURI

PRELIMINARY PLAN

DATE	5-25-15	REVISED PER CITY COMMENTS	
DRAWN BY	ESK	APP'D BY	ESK
DATE	5-12-15		
SCALE	1"=20'		
PROJECT NO.	M14-7090		
DWG. NO.			

1 OF 1

**LEGISLATION - PLANNING COMMISSION**

**BILL NO. 3056 - AMENDS THE ZONING ORDINANCE OF THE CITY OF CHESTERFIELD BY CHANGING THE BOUNDARIES OF AN "NU" NON-URBAN DISTRICT TO A "PC" PLANNED COMMERCIAL DISTRICT FOR A 1.77 ACRE TRACT OF LAND LOCATED ON THE NORTH SIDE OF CHESTERFIELD AIRPORT ROAD WEST OF ITS INTERSECTION WITH ARNAGE BOULEVARD. (SECOND READING; PLANNING COMMISSION RECOMMENDS APPROVAL)**

BILL NO. 3058

ORDINANCE NO. \_\_\_\_\_

**AN ORDINANCE AUTHORIZING THE CITY ADMINISTRATOR TO EXECUTE A CONTRACT FOR WATER FACILITY RELOCATION AND LICENSE TO UTILIZE EASEMENT WITH THE MISSOURI AMERICAN WATER COMPANY REGARDING UTILITY RELOCATION FOR THE RECONSTRUCTION OF GREENTRAILS DRIVE SOUTH FROM WHITE ROAD TO LADUE ROAD.**

WHEREAS, the City of Chesterfield desires to reconstruct Greentrails Drive South; and

WHEREAS, in order to construct the project as designed Missouri American Water Company must relocate existing water facilities, located in private easements, along Greentrails Drive South and Dinsmoor Drive; and,

WHEREAS, in order to proceed with the project, the City needs to enter into a Contract For Water Facility Relocation and License To Utilize Easement with the Missouri American Water Company; and,

WHEREAS, the City Council of Chesterfield, Missouri, after careful consideration of the matter and thorough discussion with the City's attorney, desires to authorize the City Administrator of Chesterfield to enter into a Contract For Water Facility Relocation and License to Utilize Easement similar in form to that attached as Exhibit A;

NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHESTERFIELD AS FOLLOWS:

Section 1. The City Council of the City of Chesterfield hereby authorizes and directs the City Administrator to act on behalf of the City of Chesterfield to enter into an agreement with the Missouri American Water Company relative to the utility relocation for the reconstruction of Greentrails Drive South from White Road to Ladue Road, in a form substantially similar to that attached hereto as Exhibit A.

Section 2. This Ordinance shall be in full force and effect from and after its passage and approval.

Passed and approved this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
CITY ADMINISTRATOR

ATTEST:

\_\_\_\_\_  
CITY CLERK

First Reading held \_\_\_\_\_

Project Name: Greentrails Dr. South

Asset#: \_\_\_\_\_

Project Manager: Mark Radake

CIAC#: \_\_\_\_\_

**CONTRACT FOR WATER FACILITY RELOCATION AND  
LICENSE TO UTILIZE EASEMENT**

THIS CONTRACT, entered into this \_\_\_ day of \_\_\_\_\_, 20\_\_\_, by and between MISSOURI-AMERICAN WATER COMPANY, a corporation existing under the laws of the State of Missouri, (hereinafter referred to as "COMPANY"), and the **CITY OF CHESTERFIELD, 690 CHESTERFIELD PKWY W, CHESTERFIELD, MO 63017**, (hereinafter referred to as ("CITY")),

WITNESSETH:

WHEREAS, CITY contemplates the location, widening, construction and/or improvement of **GREENTRAILS DR. SOUTH**, in accordance with certain plans titled **GREENTRAILS DRIVE S. RECONSTRUCTION (WHITE RD. TO LADUE RD.)** Improvements on file in the office of the CITY; and

WHEREAS, in carrying out the opening, widening, establishment, and improvement of **GREENTRAILS DR. SOUTH**, it will be necessary to relocate certain portions of the COMPANY'S water facilities now located partly within CITY right-of-way and partly on the COMPANY'S private easement along **GREENTRAILS DR. SOUTH** in the CITY; and

WHEREAS, COMPANY is willing to accommodate CITY'S needs upon condition that CITY accepts the provisions hereinafter specified and evidences such acceptance by execution hereof in accordance with Section 432.070 RSMo and City Ordinance

No. \_\_\_\_\_

NOW THEREFORE, in consideration of the mutual covenants contained herein, it is agreed as follows:

1. COMPANY will, as soon as practicable after receiving notice from the CITY, and receipt of payment in full of the estimated cost described in Paragraph 2, furnish all labor, materials, and supervision necessary, and will relocate its said water facilities currently located partly within CITY right-of-way and partly within the private easement of the COMPANY as shown on the plans marked Exhibit "A" attached hereto and made a part hereof.

Project Name: Greentrails Dr. South

Asset#: \_\_\_\_\_

Project Manager: Mark Radake

CIAC#: \_\_\_\_\_

2. The estimated cost (Exhibit "B") for this relocation is **\$147,774.80**. It is agreed that CITY'S obligation toward the cost of this relocation shall be **62.87%** of the actual costs thereof ("CITY'S OBLIGATION"), which is the percentage of the affected water facilities located within the COMPANY'S private easement. CITY agrees that prior to commencement of the relocation contemplated herein and upon receipt of a statement of cost, it will, or it will direct its agent or assign to promptly pay COMPANY for **62.87%** of the estimated cost of the relocation as set forth in Exhibit B, hereinafter referred to as "CITY'S PAYMENT"... The failure of any agent or assign of the CITY to promptly pay the COMPANY shall not be a defense and shall not mitigate the duty of the CITY to pay the COMPANY in full.
3. At the conclusion of the relocation work, the COMPANY shall calculate the difference between actual costs and estimated costs, if any. In the event the CITY's pro rata share of the actual costs exceeds CITY'S PAYMENT, the parties will enter into a supplement to this contract that addresses the CITY reimbursing the COMPANY for the additional amount owed. In the event the actual costs are less than CITY'S PAYMENT, the COMPANY will pay CITY its pro rata share of the difference between CITY'S PAYMENT and the actual cost. Payments owed to COMPANY shall be paid within forty five (45) days of receipt of invoice.
4. If any substantial change is made in the original plan and extent of the COMPANY'S relocation, work on the additional relocation will not be performed until estimated costs have been approved by the CITY. Upon completion of this additional relocation work, CITY will reimburse COMPANY for any incurred costs above the estimated costs set forth in paragraph 2 of the contract that directly result from such change of plans.

Project Name: Greentrails Dr. South

Asset#: \_\_\_\_\_

Project Manager: Mark Radake

CIAC#: \_\_\_\_\_

5. CITY agrees to furnish COMPANY with all necessary information of the project improvements including surveying and marking the proposed elevation and the right-of-way in order for COMPANY to properly carry out the utility relocation.
6. Upon the completion of the relocation provided for herein, COMPANY shall remove all leftover materials and debris resulting from the work and leave right-of-way in a neat, workman-like condition, free of holes, mounds of dirt, or other objectionable material.
7. COMPANY hereby grants and conveys unto the CITY, without warranty of title or extent of interest in the real estate hereinafter described, expressed or implied, the license and right to construct, reconstruct, and maintain roadway and drainage structures over and across those portions of easement owned and held by COMPANY, situated in St. Louis County, Missouri, and indicated by hachuring on the attached plat, made part hereof and referred to as Exhibit "C" with the following conditions and limitations:
  - a. In the event COMPANY must excavate to replace, expand, or maintain its facilities, COMPANY will request a permit from CITY, which will be granted without cost to COMPANY. COMPANY will, comply with all lawful conditions of such permit.

Project Name: Greentrails Dr. South

Asset#: \_\_\_\_\_

Project Manager: Mark Radake

CIAC#: \_\_\_\_\_

b. In the event of future improvements, reconstruction, or maintenance of the road or drainage structures involved which from time to time necessitate the further relocation of COMPANY'S water facilities within the area indicated on Exhibit "C", CITY will advise COMPANY of contemplated change and will reimburse COMPANY for costs and expenses incurred by it in relocating or otherwise adjusting its facilities. If, for reasons stated above, COMPANY must relocate its facilities but there is no usable remaining area of its original private easement, COMPANY will relocate its facilities to adjacent public right-of-way or new private easement acquired by CITY but subject to the same protections and assurances from CITY herein specified as if the facilities remained in COMPANY'S original private easement.

8. This agreement shall inure to the benefit and detriment of the successors and assigns of CITY and COMPANY.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their duly authorized officials.

ATTEST:

MISSOURI-AMERICAN WATER COMPANY

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
\_\_\_\_\_  
(Title)

ATTEST:

CITY OF CHESTERFIELD

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

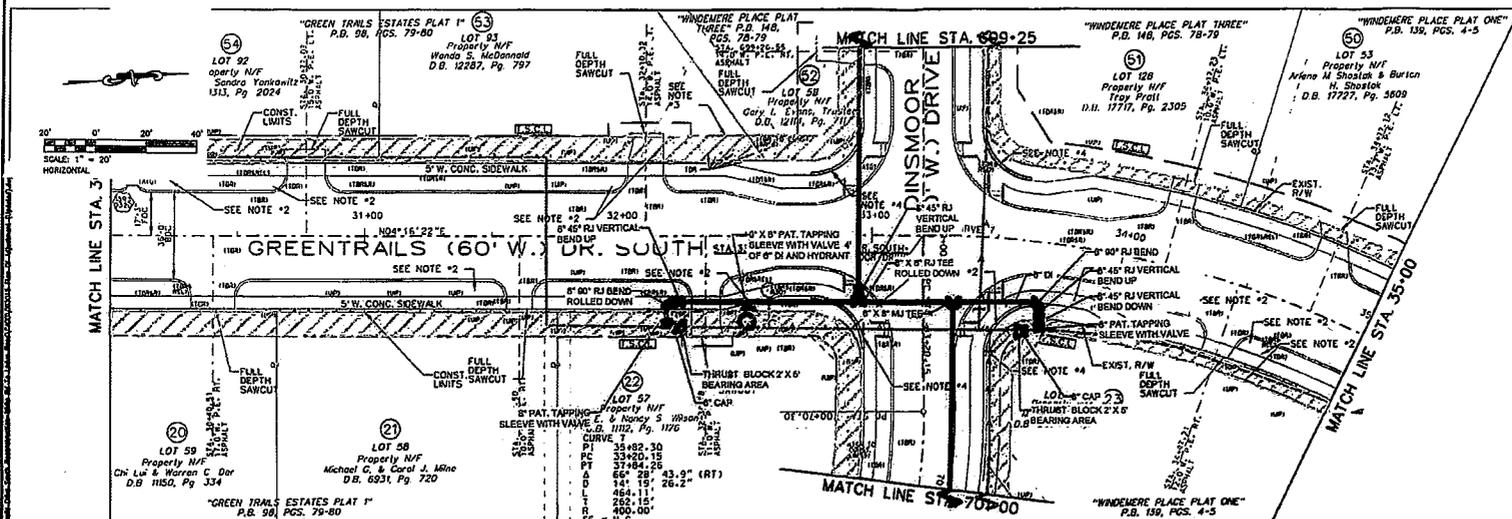
APPROVED AS TO LEGAL FORM:

\_\_\_\_\_  
City Counselor

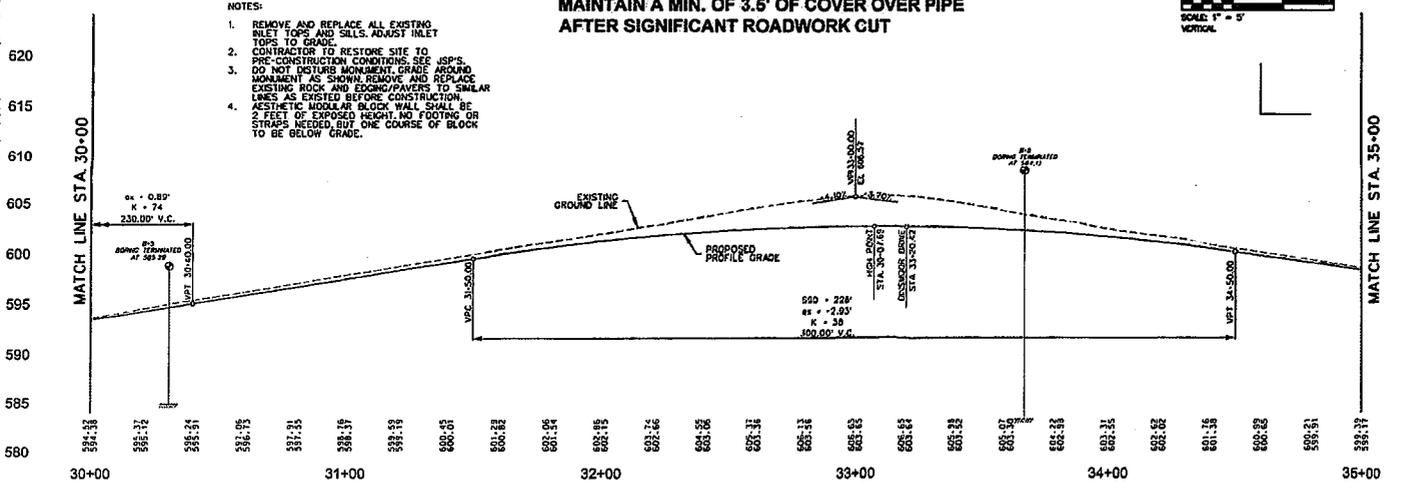
ALL MAIN TO BE RESTRAINED JOINT FITTINGS TO BE MECHANICAL JOINT RESTRAINED WITH MEGALUGS

EXHIBIT A

INSTALL APPROX. 510' OF 8" DUCTILE IRON AND APPROX. 15' OF 6" DUCTILE IRON



NOTES:  
 1. REMOVE AND REPLACE ALL EXISTING INLET TOPS AND SALLS ADJUST INLET TOPS TO GRADE.  
 2. CONTRACTOR TO RESTORE SITE TO PRE-CONSTRUCTION CONDITIONS. SEE JSP'S.  
 3. DO NOT DISTURB MONUMENT GRADE. MONUMENT AS SHOWN REMOVE AND REPLACE EXISTING ROCK AND EDGING/PAVING TO SIMILAR LINES AS EXISTED BEFORE CONSTRUCTION.  
 4. AESTHETIC MODULAR BLOCK WALL SHALL BE 2 FEET OR EXPOSED HEIGHT. NO FOOTING OR STRAPS NEEDED, BUT ONE COURSE OF BLOCK TO BE BELOW GRADE.



GREEN TRAILS DR SOUTH RECONSTRUCTION  
 WATER MAIN RELOCATION  
 CHESTERFIELD, MISSOURI

NO.	DATE	BY	REVISION

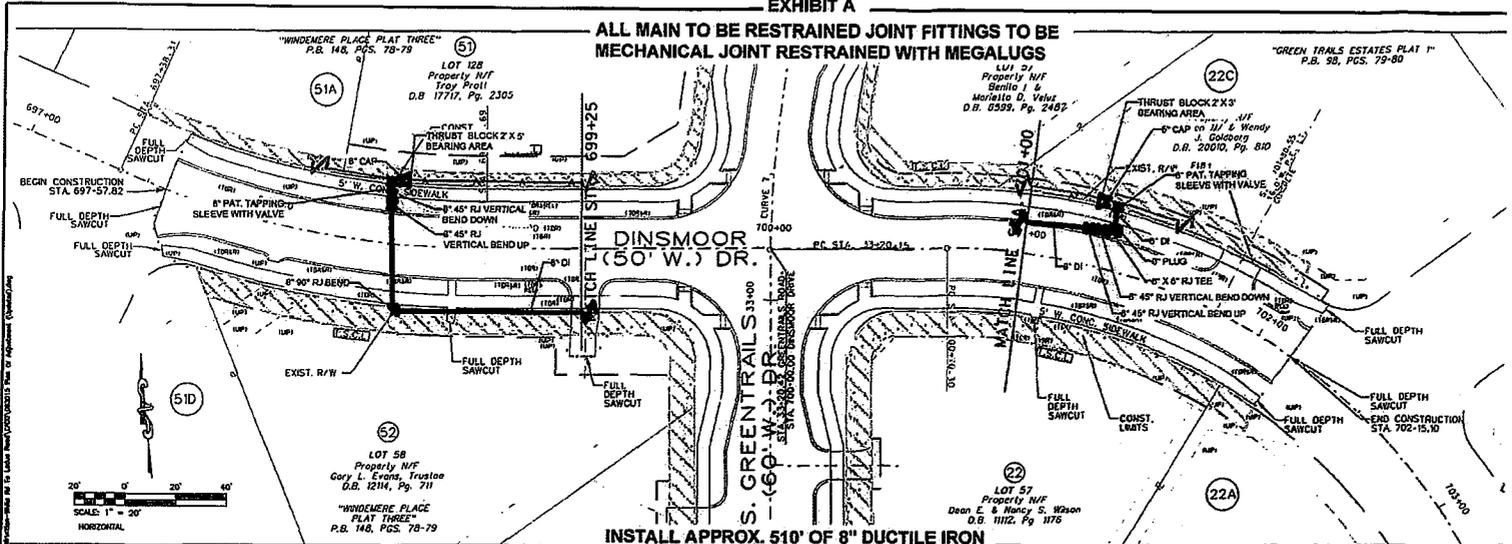
SCALE: 1" = 5'

MISSOURI  
 AMERICAN WATER

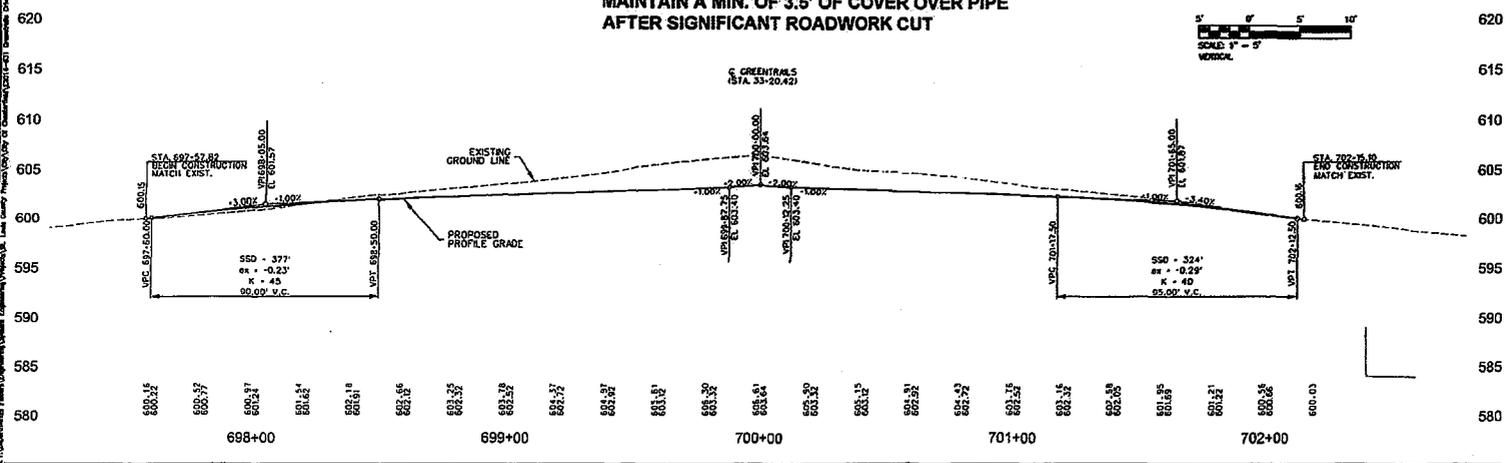
DESIGNED BY	
CHECKED BY	
DATE	
PROJECT NO.	
CREATED BY	
APPROVED BY	
SCALE	
SHEET	

EXHIBIT A

ALL MAIN TO BE RESTRAINED JOINT FITTINGS TO BE MECHANICAL JOINT RESTRAINED WITH MEGALUGS



INSTALL APPROX. 510' OF 8" DUCTILE IRON AND APPROX. 15' OF 6" DUCTILE IRON  
 MAINTAIN A MIN. OF 3.5' OF COVER OVER PIPE AFTER SIGNIFICANT ROADWORK CUT



PROJECT: GREENTAILS DR SOUTH RECONSTRUCTION  
 WATER MAIN RELOCATION  
 WELDON SPRINGS, MISSOURI

NO.	DATE	REV.	BY	REVISIONS

MISSOURI  
**AMERICAN WATER**  
 ENGINEERING DEPARTMENT • 757 DOWNSIDE ST. LOUIS, MISSOURI 64111

SCALE: 1" = 40'	DATE: 11/20/2012
DRAWN BY: J. D. WILSON	CHECKED BY: J. D. WILSON
APPROVED BY: J. D. WILSON	DATE: 11/20/2012

<h2 style="margin: 0;">American Water Company Engineering Estimate</h2>
-----------------------------------------------------------------------------

\*\*\*\*\*

RETIRED:	Footage on easement	272.2	Footage on Public R/W	160.7
INSTALLED:	Footage on easement	120.2	Footage on Public R/W	403.2

\*\*\*\*\*

NET TOTAL CHARGES \$147,774.80

Total Installed Footage = Footage on easement + Footage on R/W 523.4

Net Total Charges divided by Total Installed Footage = \$282.34 per ft.

Company share of cost =					37.13%
	37.13%	X	\$147,774.80	=	\$54,862.52

Public Agency Share of Costs =					62.87%
	62.87%	X	\$147,774.80	=	\$92,912.28

Total Costs = \$147,774.80

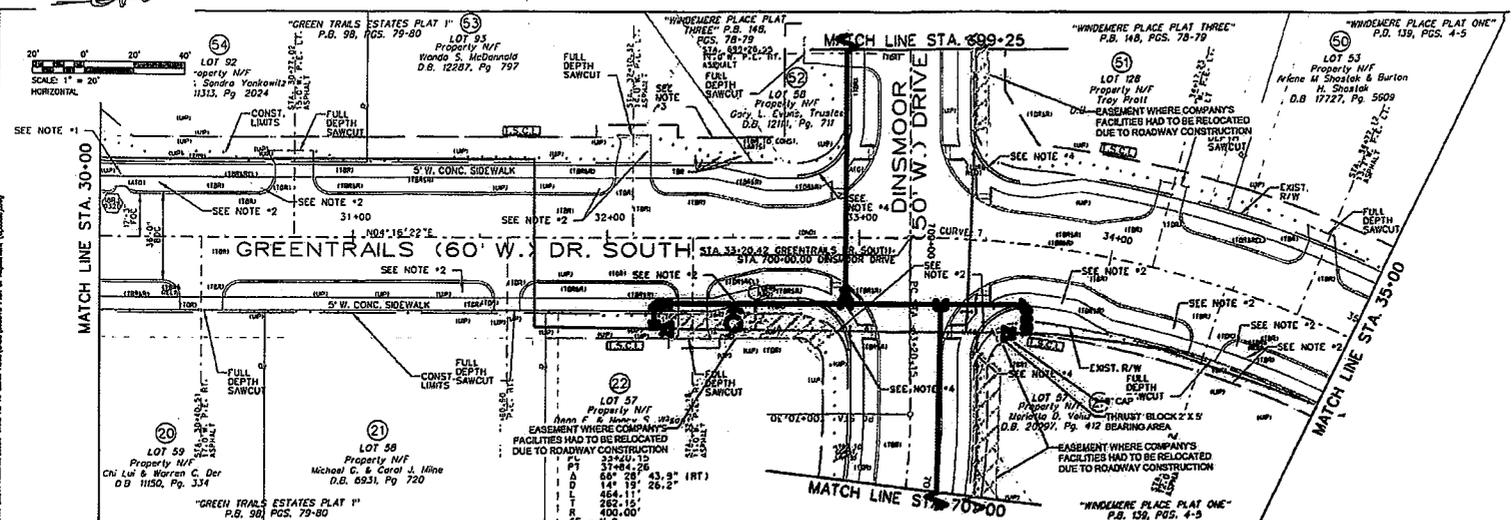
\*\*\*\*\*

Records supporting the actual cost of relocations will be available in our Accounting Department at our offices at 727 Craig Road, St. Louis, MO 63141.

If American Water Company, at its option, recovers material for reuse from the existing facilities, credit shall be allowed for the salvage of materials in accordance with the practice followed by the Company in this regard.

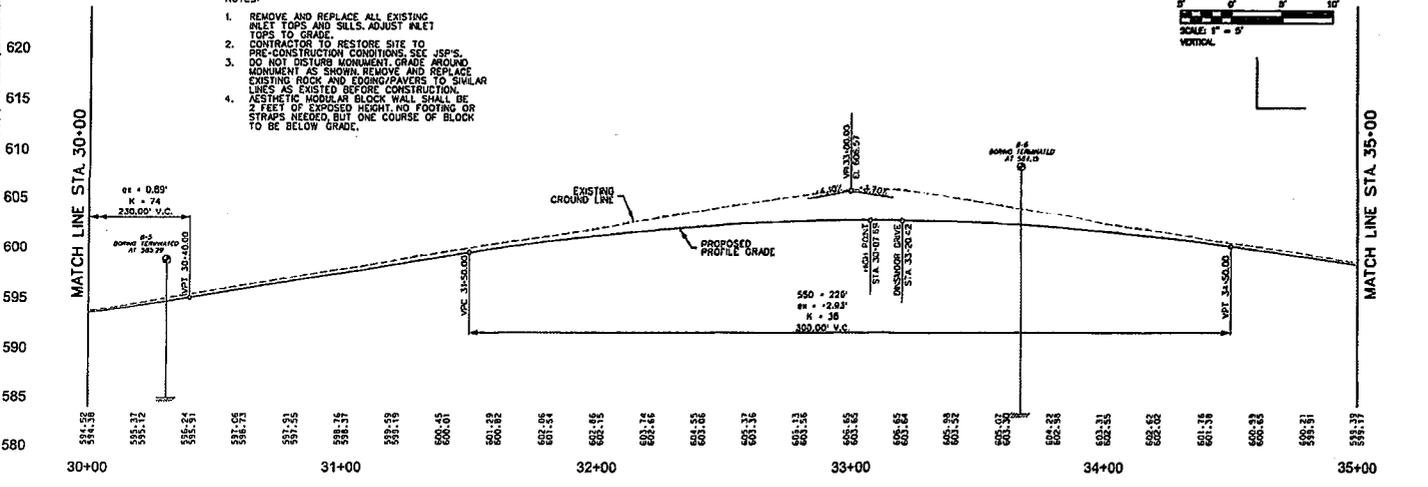
Reimbursement Percentage (per Agreement)	=				62.87%
Footage to Relocate, Reimbursable	=				272 ft.
Total Footage to Relocate	=				433 ft.
Footage Adjustment Factor	=				62.87%
Cost for Relocating with Same Size Main	=			\$147,774.80	
Cost for Relocating with Actual Size Main	=				#N/A
Cost Adjustment Factor	=			100.00%	
Adjusted Percent Reimbursable (Footage Factor X Cost Factor)	=				62.87%
Total Installed Pipe	=				523.39
Cost per Foot	=				\$282.34

EXHIBIT C



NOTES:

1. REMOVE AND REPLACE ALL EXISTING INLET TOPS AND SILLS, ADJUST INLET TOPS TO GRADE.
2. CONTRACTOR TO RESTORE SITE TO PRE-CONSTRUCTION CONDITIONS, SEE JSPS. DO NOT DISTURB MONUMENT GRADE AROUND MONUMENT AS SHOWN. REMOVE AND REPLACE EXISTING ROCK AND EDGING/PRAVERS TO SIMILAR LINES AS EXISTED BEFORE CONSTRUCTION.
3. AESTHETIC MODULAR BLOCK WALL SHALL BE 2 FEET OF EXPOSED HEIGHT, NO FOOTING OR STRAPS NEEDED, BUT ONE COURSE OF BLOCK TO BE BELOW GRADE.



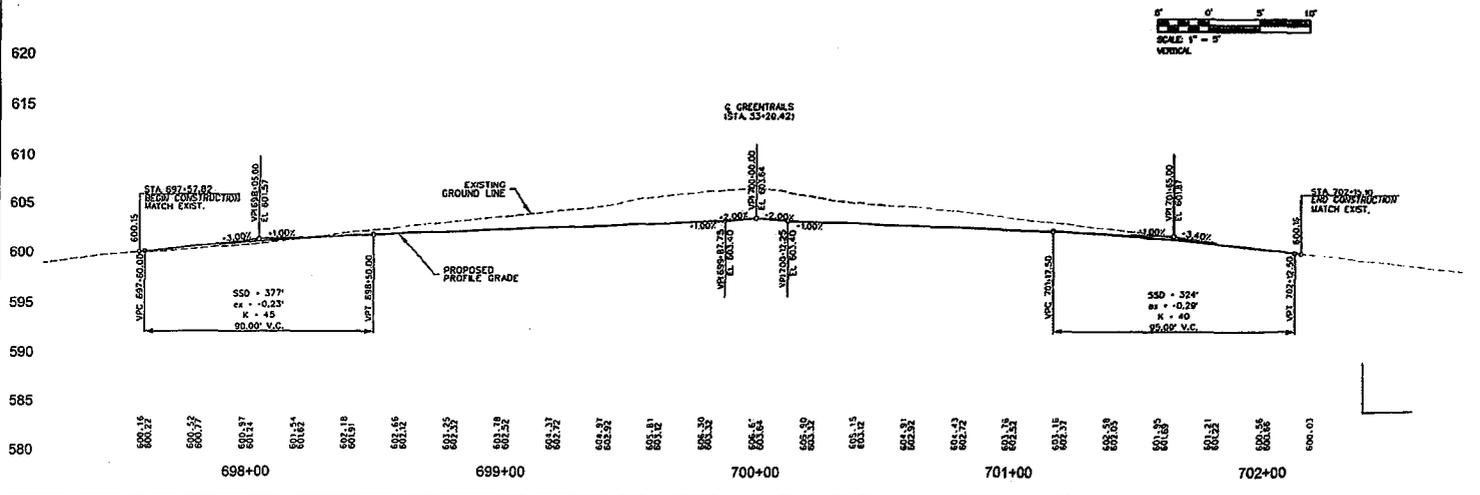
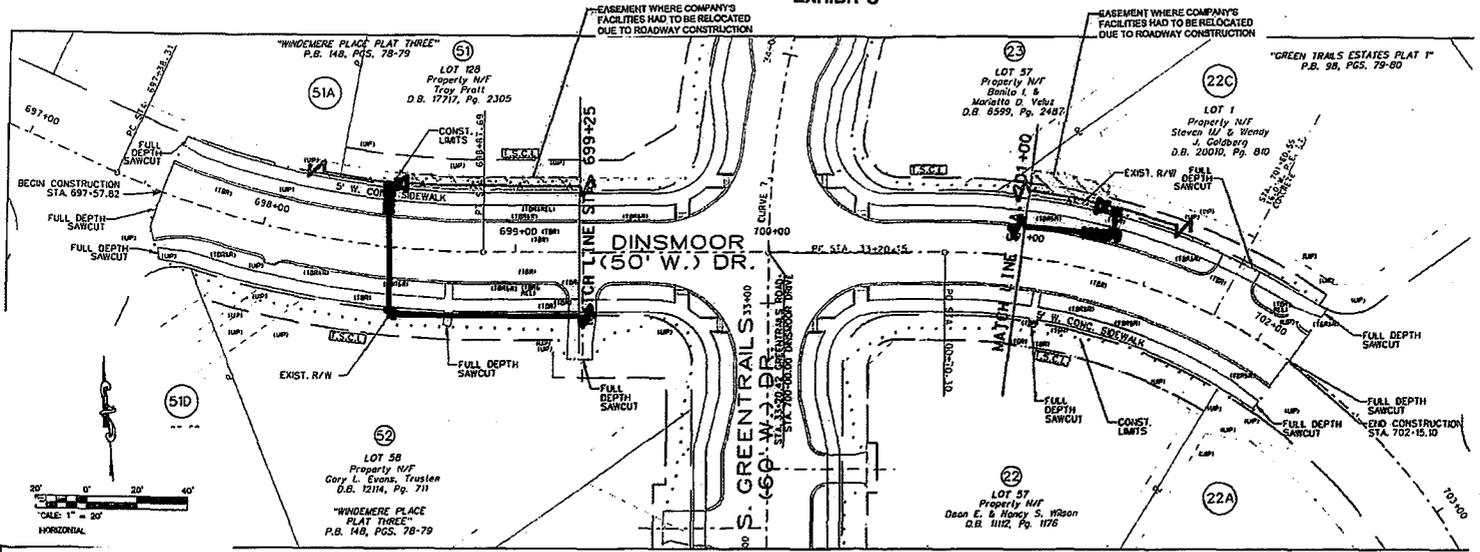
GREEN TRAILS DR SOUTH RECONSTRUCTION  
WATER MAIN RELOCATION  
CHESTERFIELD, MISSOURI

NO.	DATE	BY	REVISIONS

**MISSOURI AMERICAN WATER**
  
 ENGINEERS AND ARCHITECTS 2500 BANKERS BUILDING MISSOURI

SCALE	DATE	PROJECT

EXHIBIT C



MISSOURI  
**AMERICAN WATER**  
 PROJECT: GREEN TRAILS DR SOUTH RECONSTRUCTION WATER MAIN RELOCATION  
 TITLE: WELDON SPRINGS, MISSOURI  
 SHEET NO. 1 OF 1  
 DATE: 11/15/2011  
 DRAWN BY: [blank]  
 CHECKED BY: [blank]  
 APPROVED BY: [blank]  
 SCALE: 1" = 20'