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AGENDA
PLANNING AND ZONING COMMISSION MEETING
CITY OF CREVE COEUR, MISSOURI
MONDAY, MAY 19, 2014
7:00 PM

1. ROLL CALL

Mr. Tim Carney
Mr. James Faron
Mr. Ken Howard
Mr. Tim Madden
Mr. Charles Pullium
Mr. Gene Rovak
Mr. Carl Lumley, City Attorney
Mr. Paul Langdon, Director of Community Development
Ms. Whitney Kelly, City Planner

Pursuant to Section 610.022 RSMO, the Planning and Zoning Commission could, at any time during the meeting, vote to close the public meeting and move to closed session to discuss matters relating to litigation, legal actions and/or communications from the City Attorney as provided under Section 610.021(1) RSMo. and/or personnel matters under Section 610.021(13) RSMo. and/or employee matters under Section 610.021(3) RSMo. and/or real estate matters under Section 610.021(2) or other matters as permitted by Chapter 610.

Reports, documents, plans, and related materials are available for examination at the Creve Coeur Government Center, 300 North New Ballas Road, prior to the meeting.

Special disabled service may be arranged by contacting the Office of the City Administrator in advance.

2. ADDITIONS TO – ACCEPTANCE OF THE AGENDA

3. APPROVAL OF MINUTES

A. Draft minutes of the meeting of April 21, 2014.

Minutes from the meeting of May 5, 2014, will be available for an upcoming agenda.

4. PUBLIC COMMENT

An opportunity for members of the public to address the Planning and Zoning Commission regarding issues or concerns not already on the agenda for this meeting. Those wishing to speak will be asked to limit comments to three minutes and to complete a speaker card.

5. **UNFINISHED BUSINESS**

None

6. **NEW BUSINESS**

A. Application #14-018: A minor site development plan for a fence within the front-yard setback along Ladue Road for the property at 105 N. Mosley.

Applicant/Agent: Thomas R. Kelly
The Kelly Co.
1304 Breezeridge Drive
Des Peres, MO 63131

B. Application #14-019: Approval for a final plat for the minor subdivision of Mosley Grove at 536 N. Mosley Road & boundary adjustment between Lot 2 of Mosley Grove Subdivision and 16 Mosley Acres Drive.

Applicant/Agent: William Levinson
Benton Homebuilders, Inc.
1000 Executive Parkway, Suite 106
St. Louis, MO 631141

7. **WORK AGENDA**

None

8. **OTHER BUSINESS**

A. Planning Division Report

B. City Attorney Report

9. **ADJOURNMENT**

Posted: _____
Paul Langdon
Planning Director



**CITY OF CREVE COEUR - MINUTES
PLANNING AND ZONING COMMISSION MEETING
MONDAY, APRIL 21, 2014
7:00 P.M.**

A public hearing and regular meeting of the Planning and Zoning Commission of the City of Creve Coeur, Missouri was held on Monday, April 21, 2014, at the Creve Coeur Government Center, 300 North New Ballas Road. Chair Tim Madden called the meeting to order at 7:00 p.m.

MEMBERS PRESENT: *Mr. Tim Madden, Chair*
 Mr. Tim Carney
 Mr. James Faron
 Mr. Charles Pullium
 Mr. Gene Rovak

OTHERS PRESENT: *Mr. Carl Lumley, City Attorney*
 Mr. Paul Langdon, Director of Community Development
 Ms. Whitney Kelly, AICP, City Planner
 Ms. Julie Lowery, Recording Secretary

2. ADDITIONS TO – ACCEPTANCE OF THE AGENDA

The agenda was amended to move Item C under new business to the very beginning because it will only take a few minutes. The motion carried unanimously.

3. APPROVAL OF MINUTES

- A. Draft minutes for the meeting of March 31, 2014 - Mr. Faron moved approval of the draft minutes. Mr. Carney seconded the motion, which carried unanimously.
- B. Draft minutes for the meeting of April 7, 2014 - Mr. Faron moved approval of the draft minutes. Mr. Carney seconded the motion, which carried unanimously.

4. PUBLIC COMMENT

None

5. NEW BUSINESS

- C. Application #14-015: Approval of the final plat for the minor subdivision of Difani Estates at 815 North Mason Road.

Applicant/Agent: Dale Bax
Bax Engineering Company
221 Point West Boulevard
St. Charles, MO 63301

Property Owner: William A. Aldrich Trust
Lee Difani

815 North Mason Road
Creve Coeur, MO 63141

Ms. Jessica Hargrave, 221 Point West Boulevard, said she is seeking final approval of the 2 lot subdivision for Difani Estates. Ms Hargrave said everything has been reviewed by the city already; this is the final plat process to create the 2 plats.

Mr. Carl Lumley, City Attorney, asked with the MSD change to the bio-retention if the indentures would change or would both lots still contribute to the cost. Ms. Hargrave said it would still be both lots contributing.

Mr. Faron motioned to recommend approval of the final subdivision plat for Difani Estates with the conditions outlined in the staff report for the meeting of April 21, 2014. Mr. Pullium seconded the motion with the resultant vote as follows:

Mr. Carney – aye
Mr. Pullium – aye

Mr. Faron – aye
Chair - aye

Mr. Rovak – aye

6. UNFINISHED BUSINESS

A. Application #14-004: Rezoning of 853 N. Mason from A Single-Family Residential to D Single-Family Residential District with RDD Designation.

Applicant/Agent: Chris Matteo
Pulte Homes of St. Louis LLC
17107 Chesterfield Airport Road, Suite 120
Chesterfield, MO 63005

Applicant's Representative: George M. Stock, P.E.
Stock & Associates Consulting Engineers, Inc.
257 Chesterfield Business Parkway
Chesterfield, MO 63005

Mr. Paul Langdon, Director of Community Development, said that there are a few changes that were made to the project that he wanted to explain. Mr. Langdon stated when entering into the RDD process, one of the decisions that has to be made is which density is going to be the fixed density, regardless of how many lots are in the project. Mr. Langdon said along with that there is the Comprehensive Plan guideline that says the lots are being adjusted under an RDD and you should not reduce them to anything less than 75% of the ordinance standard.

Mr. George Stock, 257 Chesterfield Business Parkway, presented the changes since the last meeting. Mr. Stock showed illustrations of the topographical changes and went over the retaining wall proposal. Mr. Stock showed pictures of the site sections and explained the existing verses the proposed. Mr. Stock also showed and explained the grading plan and went over the cuts and fills. The setbacks were discussed and Mr. Stock asked for an exception on lot 5 due to the shape of the lot. Mr. Stock went over the community features and benefits and showed an example of the detention basin. Mr. Stock showed pictures of example homes.

Mr. Steven L. Kling Jr., 150 N. Meramec, on behalf of Steven Lieber, said he was opposed to the density and this would set a precedent. Mr. Kling said the side yard setbacks are too narrow. For the record, Mr. Kling clarified at the last meeting he spoke to an issue with the Kodner Trust; however it is not the Kodner Trust property that is next to this proposal, and therefore could not speak for that property.

Mr. Richard Hardt, 330 Henry Avenue, is supportive of the property. Mr. Hardt gave a history of the property to set the record straight because his family owned it. Mr. Pullium asked why he would want to sell the property. Mr. Hardt said that he already owns his own farm and his sisters and him have no interest in maintaining more than they already have. Mr. Pullium asked how a refusal of the rezoning would hurt his private interest, and Mr. Hardt said the property has already been on the market for 4 years and that this was the best option for the land due to the reputation of the builder and the scope of the project.

Ms. Jeanne Rhoades, 12778 Mason Manor, said she is opposed to the project. Ms. Rhoades reiterated some of the history of the Comprehensive Plan. Ms. Rhoades believes this project sets a precedent and has minimal public gain. Ms. Rhoades asked if the project is passed to make sure the path on the development is not promoting trespassing onto other resident's yards.

Mr. David Caldwell, 257 Brooktrail Court, said if enhanced common ground is worth changing the zoning then they are missing one very big point, which is that honeysuckle and plants be removed and real greenspace be put in its place.

Mr. Langdon said the direction of the Comprehensive Plan is important and he clarified what fulfills the Comprehensive Plan. Mr. Langdon said they will make sure issue of the trail and where it connects does not place hardship on any resident's properties.

Mr. Pullium asked what standard he should be considering on the welfare. Mr. Langdon said it is subjective.

Mr. Faron asked the applicant if lowering the density was an option. Mr. Stock said no, that lowering the density is not this project.

Mr. Faron motioned to recommend approval of the Rezoning and Preliminary Plat for the Creekside at Mason subdivision from A Single Family Residential to B Single Family Residential and authorizing a Residential Designed Development (RDD) submitted with Application #14-004, subject to the conditions contained in the draft ordinance attached to the staff report for the meeting of April 21, 2014. Mr. Rovak seconded the motion. Mr. Lumley said there should be an amendment to allow lot 5 to a 15 foot front yard setback, and that condition 7 should include the landscape easement area. Mr. Faron accepted the amendment as stated and Mr. Rovak seconded, with the resultant vote as follows:

Mr. Carney – nay
Mr. Pullium – nay

Mr. Faron – nay
Chair – aye

Mr. Rovak – nay

Mr. Faron motioned to recommend approval of the Site Development Plan for the Creekside at Mason subdivision with Application #14-004, subject to the conditions

contained in the draft ordinance attached to the staff report for the meeting of April 21, 2014. Mr. Rovak seconded the motion with the resultant vote as follows:

Mr. Rovak – aye
Mr. Faron - aye

Mr. Pullium – aye
Chair - aye

Mr. Carney – aye

B. Application #14-009: Approval of an amendment to the Site Concept Plan for Missouri Baptist University and Site Development Plan for a football practice field, Student Housing and eight foot tall fencing around the maintenance yard.

Applicant/Agent: Rick W. Keisker
Wm B. Ittner Architects, Inc.
611 N. 10th Street
St. Louis, MO 63101

Property Owner: Missouri Baptist University
1 College Park Drive
Creve Coeur, MO 63141

Mr. Greg Goebel, 611 N. 10th Street, said the appearance of the locker room has changed. Mr. Goebel said they changed the look from a box building to what they would seek in the long-term. Mr. Goebel showed a picture and pointed out that they added a roof structure and metal bleachers to be inset in masonry to give it a more pleasing look. Mr. Goebel showed an aerial view and pointed out the archway for the public to walk through and also pointed out where they added trees next to parking areas.

Ms. Whitney Kelly, City Planner, said the changes made are a significant improvement to the project and have no issues.

Mr. Faron motioned to approve the site development plan for the Locker Room Building subject to the conditions listed in the staff report on Application #14-009, for the meeting of April 21, 2014. Mr. Rovak seconded the motion with the resultant vote as follows:

Mr. Rovak – aye
Mr. Faron - aye

Mr. Pullium – aye
Chair - aye

Mr. Carney – aye

7. NEW BUSINESS

A. PUBLIC HEARING

Application #14-008: Text Amendment to allow for Drive-Thru Restaurant Services on sites of 2 or more acres subject to certain building and site requirements.

Applicant/Agent: Paul Langdon
Director of Community Development
City of Creve Coeur
300 N. New Ballas Road
Creve Coeur, MO 63141

Mr. Langdon said this application is an evolution of a private project from last year, project number 13-045, and explained what requirements and reasoning of not building a stand alone drive-thru on 3 acre site or of building one and it becoming part of a larger project. There was discussion about the value of integrating uses and Mr. Langdon

showed some pictures as examples. Mr. Langdon asked the Commission to consider whether or not they really wanted to include drive-thru restaurants before attempting to resolve specific regulations that would permit them in certain situations.

Peter Sheahan, 10416 Whitebridge Lane, Creve Coeur, Missouri, 63141, spoke against the amendment because the proposed regulations are too restrictive and the community would be better with more drive-thru restaurants. Mr. Sheahan stated that the proposed building requirements were unrealistic in the St. Louis market.

Steven Wolff, Wolff Properties, 11456 Olive Boulevard, Creve Coeur, Missouri, 63141, spoke against the amendment stating that it is too restrictive. Mr. Wolff does not understand the objections to drive-thru restaurants because the concerns with traffic and appearance can be managed.

Susan Moriconi, 800 Cella Road, St. Louis, Missouri, 63124 spoke against the amendment because she believes Olive Boulevard is dying and needs the additional development. She identified that she had not been able to locate a drive-thru restaurant on her property.

Steven L. Kling, Jr., Jenkins and Kling, P.C., 150 N. Meramec Avenue, Clayton, Missouri, 63105, stated that he was representing Panera Bread Company and that his client believed a reasonable compromise can be reached where drive-thru restaurants could be accommodated without harming the community. Mr. Kling said that he was not in favor of including banks in the discussion.

Linda Rezny, 104 Graeser Acres Lane, St. Louis, Missouri, 63146, spoke against the amendment and encouraged the Planning Commission to eliminate drive-thru restaurants because they always impact nearby residences.

Jan Ericson, 676 Coeur de Royale Drive, Unit B, Creve Coeur, Missouri, 63141, spoke against the amendment because he believes drive-thru restaurants are bad for the environment and should be eliminated, not encouraged.

Mr. Langdon stated that he understood the concern with requiring multi-story buildings and said the Commission should consider eliminating that part of the proposal. He stated that the requirement for multi-tenant buildings was, in his opinion, still a reasonable alternative to the current three acre requirement.

Commissioner Rovak asked that the amendment be closely tailored to the specific concerns with drive-thru restaurants.

Commissioner Faron wondered if the conditions in Section 405.470 could be eliminated?

Mr. Langdon responded that those conditions eliminate some of the negotiations over design and could be amended under the proposal, but should not be eliminated.

City Attorney, Carl Lumley, pointed out that restaurants with drive-thru lanes are still a conditional use; drive-thru lanes are not a stand-alone use under the code.

At the request of the Chair, Mr. Lumley presented the exhibits for the record and the public hearing was closed.

(This ends the Public Hearing; see verbatim transcript for further information)

Mr. Faron asked about how other communities handle drive-thru restaurants?

Mr. Langdon summarized a wide range of standards in other communities and identified that Creve Coeur has moderately strong development standards, but it is still very dependent on negotiated solutions. He suggested that relying too much on negotiations could result in unpredictable outcomes in the future, but noted that being overly restrictive can be bad for economic development.

Mr. Faron was concerned that many of the residents do not realize that drive-thru restaurants are already allowed and that people should be made aware that there are few limitations beyond the three acre minimum requirement.

Mr. Rovak reiterated his interest in performance-based standards.

Chairman Madden expressed concern with the City's ability to enforce performance standards. He indicated that he is in favor of eliminating the multi-story requirement. Mr. Madden suggested continuing the matter.

Mr. Langdon clarified that banks are not included in the draft ordinance. He also asked that the Commission review the questions in the staff report. There was general agreement among the Commission that the multi-story requirement should be eliminated.

Commissioner Pullium supported eliminating the multi-story requirement and focusing the amendment on "bright line" rules. He asked when the current rules were passed.

Mr. Langdon responded that his recollection was 1983 or 1984.

Mr. Pullium said the long history and effect of the current rules should be respected and any amendment should not be overly permissive or vague. He indicated that he did not understand the building width criterion. He also indicated that he believed most residents do not understand the current requirements and how the amendment would or would not change things.

Mr. Madden asked staff to estimate how many sites of two or more acres might be possible on Olive Boulevard and Ballas Road. He suggested sticking with the 200-foot building width condition for now, that it was hard to determine if the traffic and noise mitigation standards were adequate and, lastly, that the amendment should not include other uses beside restaurants. There was general agreement among the Commission.

Mr. Faron asked for an estimate of three acre sites as well.

Mr. Pullium made a motion to continue the application to May 5, 2014, to allow staff time to address the concerns and comments of the Planning Commission.

Mr. Faron seconded the motion with the resultant vote as follows:

Mr. Carney – aye	Mr. Faron - aye	Mr. Rovak – aye
Mr. Pullium – aye	Chair - aye	

B. PUBLIC HEARING

Application #14-014: Conditional Use Permit for a Communications Tower at 10900 Ladue Road.

Applicant/Agent: CIS Communications, LLC
749 Old Ballas Road
St. Louis, MO 63141

Property Owner: City of Ladue School District
9701 Conway Road
Ladue, MO 63124

Mr. Brick Storts, 749 Old Ballas Road, said he is presenting for a 100 feet tall cell tower. Mr. Storts said AT&T is the primary customer right now, but have interest from T-Mobile too. Mr. Storts showed a site plan and where the tower would be located. Mr. Storts explained the tower is located in the center of the site and all the boring is underground. Mr. Storts explained the color, per the City's request, is grey and the tower has no lights on it.

Mr. Rick Rovak, 37 Oak Park Drive, is supportive of the project but wanted to know if it could be lowered.

Mr. David Caldwell, 257 Brooktrail Court, is opposed to the project and is upset Ladue School District would allow this.

Mr. Todd McDowell, 38 Oak Park Drive, is opposed to the project and thinks it will negatively impact the value of his home.

Mr. Tom Gantner, 39 Oak Park Drive, is opposed to the project and thinks it will negatively impact the value of his home.

Ms. Nancy Marino, 297 S Graeser Road, is opposed to the project and thinks it will negatively impact the treescape.

Mr. Peter Wittenberg, 14 Alden Lane, is supportive of the project and is excited to get better service and generate revenue for Ladue School District.

Chair Madden clarified the tower would be 100 feet tall with no additions and Mr. Langdon confirmed.

There being no further comments, City Attorney, Mr. Carl Lumley, presented the exhibits for the record and the public hearing was closed.

(This ends the Public Hearing; see verbatim transcript for further information)

Mr. Pullium motioned to recommend approval of Application #14-014 for a conditional use permit for a communications tower located at 10900 Ladue Road, subject to the conditions contained in the draft ordinance attached to the staff report prepared for the meeting of April 21, 2014. Mr. Rovak seconded the motion. Mr. Lumley asked for clarification on section 2 and section 3 to add on “the above described” and a condition to include all utilities are underground. All Commission members agreed and the resultant vote went as follows:

Mr. Rovak – aye
Mr. Faron - aye

Mr. Pullium – aye
Chair - aye

Mr. Carney – aye

8. WORK AGENDA

None

9. OTHER BUSINESS

A. Planning Division Report

Mr. Langdon said that at the next meeting on May 5th, 2014 the remaining plats for Enclave Bellerive will be presented, a fence application, Monsanto trash compactor facility application and the Drive-Thru should be back.

B. City Attorney Report

None

10. ADJOURNMENT

There being no further business to come before the Planning and Zoning Commission, upon motion being made and duly seconded, the meeting was adjourned at 10:46 p.m.

Timothy Madden, Chair

Julie Lowery, Recording Secretary



city of CREVE COEUR

300 North New Ballas Road • Creve Coeur, Missouri 63141
(314) 432-6000 • Fax (314) 872-2539 • Relay MO 1-800-735-2966
www.creve-coeur.org

APPLICATION TO PLANNING AND ZONING COMMISSION #14-019 FOR FINAL PLAT FOR THE MINOR SUBDIVISION OF MOSLEY GROVE AT 536 N. MOSLEY ROAD & BOUNDARY ADJUSTMENT

FOR THE MEETING OF: May 19, 2014

LOCATION: 536 Mosley Road, at the northeast corner of N. Mosley Road
and Mosley Acres Drive..

REQUEST: An application has been submitted for the approval of a final plat for the minor subdivision of the 4.91 acres at 536 N. Mosley Road into four, one-acre lots with a new cul-de-sac drive, Elise Manor, off Mosley Road. The preliminary plat was approved by the Planning and Zoning Commission on September 16, 2013. Included in the request is a Boundary Adjustment between the newly created Lot 2 to adjust 0.15 acres to the adjacent residence at 16 Mosley Acres, while maintaining the one acre minimum for the district.

ADDITIONAL INFORMATION: Approval of a final plat is a ministerial act that should be granted unless a technical failure is found in the drawing or the drawing is not in substantial conformance with the preliminary plat. Boundary Adjustments between adjoining property owners, where such sale does not create additional lots is a ministerial act; if the drawings are technically accurate it must be approved by the Planning and Zoning Commission.

Key Issues:

- Do the lots substantially conform with the previously approved preliminary plat?
- Do the final plat drawings meet the technical requirements for such drawings?

Comp. Plan References

- Residential Neighborhoods

Zoning Code References

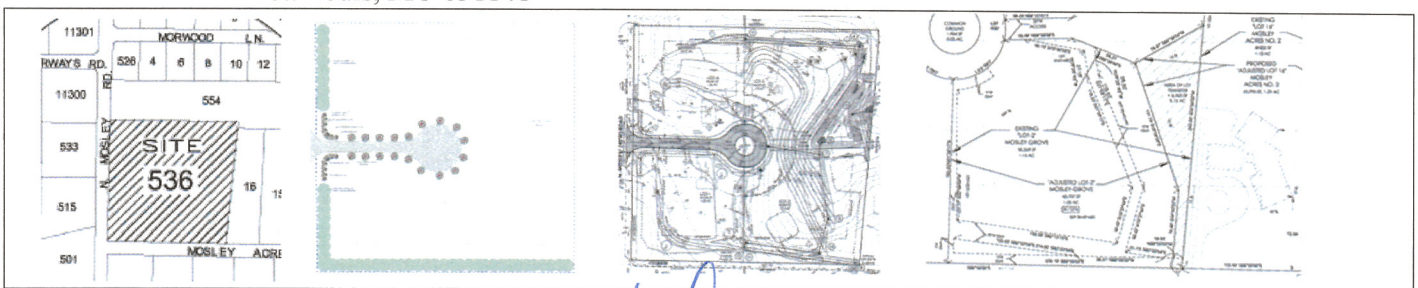
- Section 405.250: "A" Single-Family Residential

Subdivision Code References

- Section 410.030(D)
- Section 410.140: Step Five -- Final Subdivision Plat

APPLICANT: William Levinson
Benton Homebuilders, Inc.
1000 Executive Parkway, Suite 106
St. Louis, MO 631141

OWNER: Candace Lee Welch
536 N. Mosley Road
St. Louis, MO 63141



REPORT PREPARED BY:

Whitney Kelly
Whitney Kelly, AICP, City Planner

5/16/2014
Date

ATTACHMENTS: Applicant's Preliminary Plat submitted May 15, 2014
Draft Ordinance

LAND USE AND ZONING OF SURROUNDING PROPERTIES

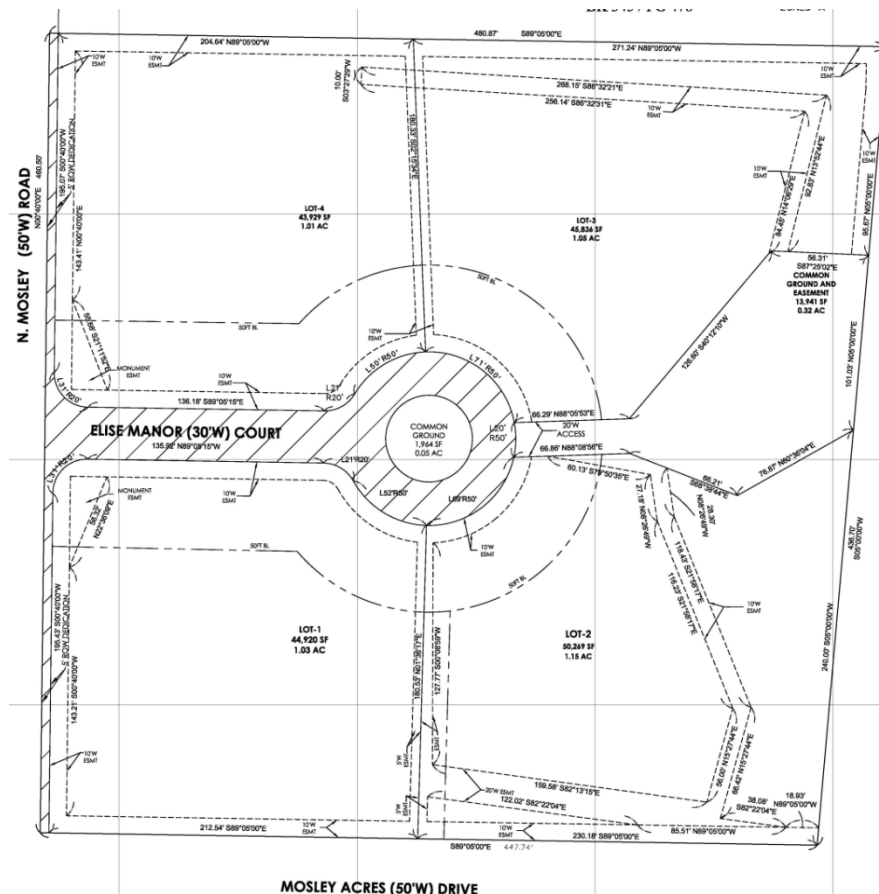
The adjacent zoning and land uses are as follows:

Direction	Use	Zoning District	Separated by
North	Single-family residence	A Single-family Residential	N/A
South	Single-family residences	A Single-family Residential	Mosley Acres Drive
East	Single-family residences	A Single-family Residential	N/A
West	Single-family residence	A Single-family Residential	Mosley Road

DISCUSSION

Final Plat

The Planning and Zoning Commission initially reviewed the preliminary subdivision plat where the proposed lots comply with the minimum district requirements for “A” Single Family Residential that requires a minimum of 150 feet of frontage along the proposed new road, and have a minimum lot area of 1 acre or more. Lot 1 will be 1.03 acres. Lot 2 will be 1.15 acres. Lot 3 will be 1.05 acres, and Lot 4 will be 1.01 acres. The road coming off Mosley Road, Elise Manor Court is 0.42 acres, and the common ground and easements for stormwater is 0.32 acres. The final plat is in substantial compliance with the prior preliminary plat. Below is a close-up of the final plat. It should be noted that the prior approval included a condition that a separated sidewalk be provided along Elise Manor Court and Mosley Road. The site improvement plans only provide a sidewalk along the north side of Elise Manor Court. The sidewalk will need to be on both sides of the minor subdivision street.



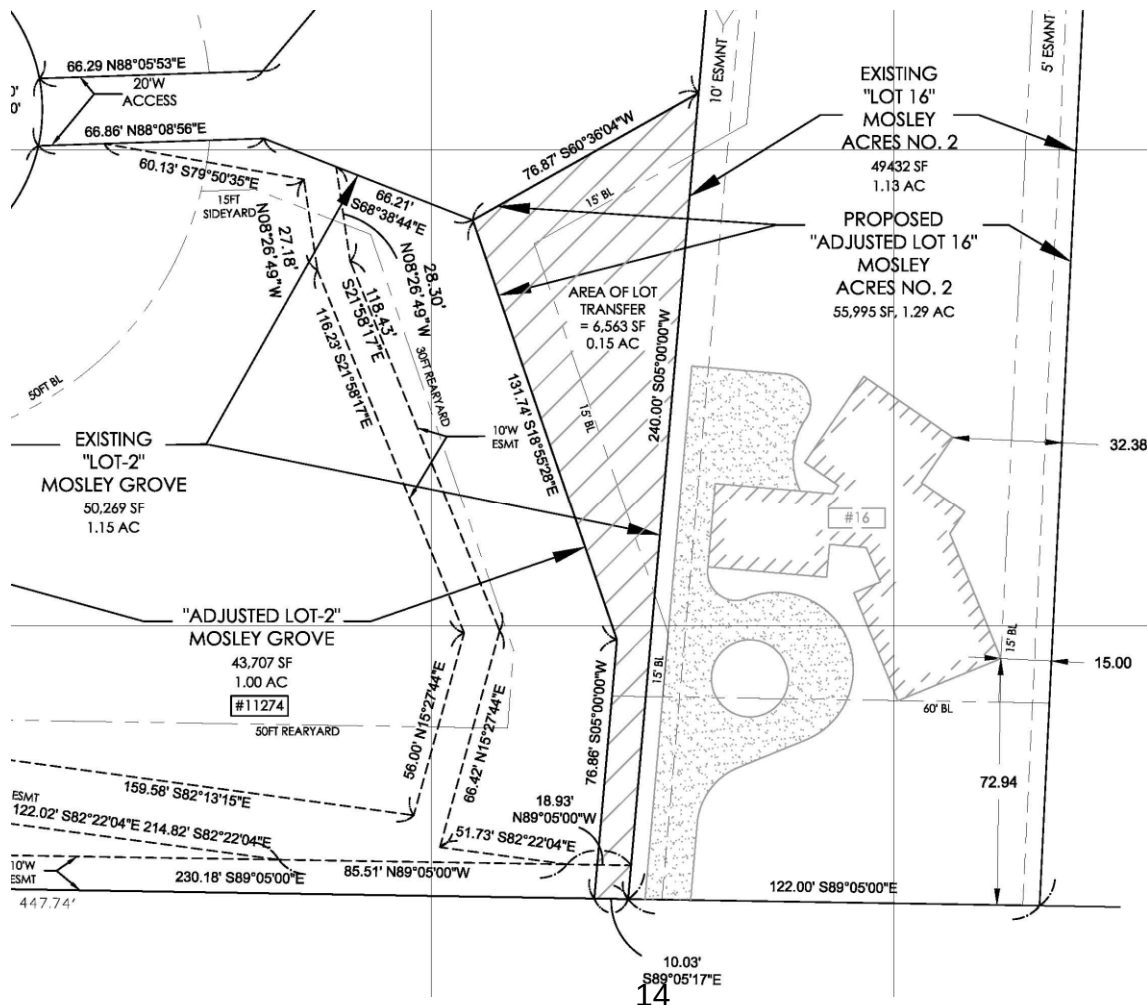
Conditions of Approval for the Final Plat

Should the Planning and Zoning Commission recommend approval of the proposed final plat, staff recommend the following conditions be added:

1. The Applicant shall provide two (2) disks containing a digitized version of the plat shall be submitted along with two (2) printed copies of the recorded plat. Acceptable data formats include AutoCAD (.dwg or .dxf), MicroStation Design File (.dgn), ArcInfo Coverage, ArcView Shape File (.shp), or MapInfo.
2. The Subdivision Improvement Plan shall include a separated sidewalk in conformance with Chapter 410, Subdivision and Development of Land. The sidewalk may be discontinued at the back of the cul-de-sac as long as all lots facing Elise Manor Court are connected by sidewalk to Mosley Road.
3. The Applicant shall escrow funds with the City for the sidewalk along Mosley Road.
4. The subdivision indentures shall be reviewed and approved by the City Attorney prior to the signing of the Mylar

BOUNDARY ADJUSTMENT

The property owner of 16 Mosley Acres has a non-conforming lot width of 122 feet, and would like to purchase 0.15 acres from the newly created Lot 2 to add an additional 10.03 feet to the width along Mosley Acres Drive. The Lot 2 acreage will decrease from 1.15 to 1.0, thus maintain the minimum district requirement for Lot 2. 16 Mosely Acres will increase from 1.13 acres to 1.29 acres. While the additional property will not eliminate the non-conforming lot width, it will decrease the degree of the non-conformity.



A boundary adjustment, which is not a subdivision plat, is possible when the following regulation from the Subdivision Code is satisfied:

410.030(D) Sale or transfer of small parcels of land to or between adjoining property owners, where such sale does not create additional lots, is exempt from the requirement of recording by plat; provided, however, that certification by the Planning and Zoning Commission shall be required prior to such sale or transfer. This certification shall be recorded with the title of the property by the St. Louis County Recorder of Deeds.

This appears to be the case with the current application. The drawings are technically accurate and the adjustment will not create any additional nonconformities. Staff concludes that the adjustment should be approved by the Planning Commission, subject to the conditions in the example motion.

ACTION

Mosley Grove Final Subdivision

Action on this item will be in the form of a motion to recommend approval as presented, or approval with additional conditions to meet all technical requirements. The following is an example motion for this application:

- 1) "I move to recommend approval of the final subdivision plat for Mosley Grove Subdivision with the conditions outlined in the staff report for the meeting of May 19, 2014." (other conditions may be added, eliminated, altered, and modified by prior motion).

Lot 2 Mosley Grove and Lot 16 Mosley Acres Boundary Adjustment

If the members of the Planning Commission are satisfied that the requested boundary adjustment meets the applicable requirements of the Subdivision Code, the Planning Department staff request that a final decision be voted upon; no action by the City Council is required. The following are examples of a motion for this application:

- 2) "I move to approve the boundary adjustment between Lot 2 Mosley Grove Subdivision and 16 Mosley Acres Drive boundary adjustment attached to the staff report on application #14-019 for the meeting of May 19, 2014, subject to the condition that authorization and recording of the final drawing shall not occur until copies of the recorded final plat for Mosley Grove subdivision have been provided to the City."

APPENDIX 1: COMPREHENSIVE PLAN

Included and attached by reference. See body of report for specific excerpts.

APPENDIX 2: ZONING CODE (CHAPTER 405 OF THE CREVE COEUR MUNICIPAL CODE)

Included and attached by reference. See body of report for specific excerpts.

APPENDIX 3: CREVE COEUR SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (CHAPTER 410 OF THE CREVE COEUR MUNICIPAL CODE)

Included and attached by reference. See body of report for specific excerpts.

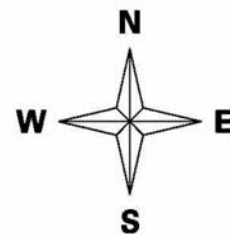
APPENDIX 4: AERIAL PHOTO



Property lines



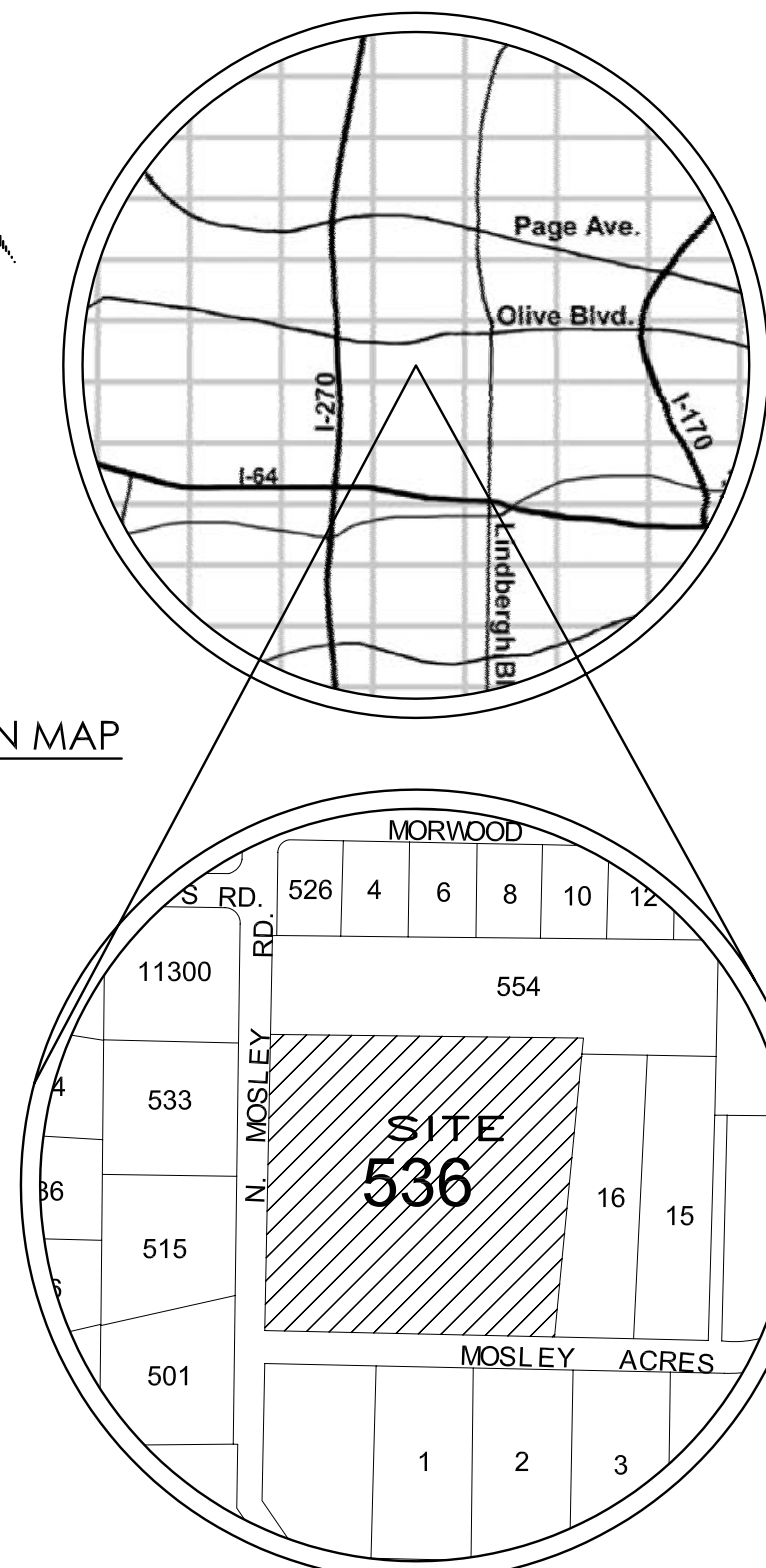
536 N. Mosley Road



SUBDIVISION PLAT
MOSLEY GROVE
IN THE SOUTHWEST QUARTER OF SECTION 2
TOWNSHIP 44 NORTH, RANGE 5 EAST,
CITY OF CREVE COEUR, ST. LOUIS COUNTY, MO



LOCATION MAP
N.T.S.



STATE OF MISSOURI)
COUNTY OF ST. LOUIS)
ON THIS ____ DAY OF _____, 20____, BEFORE ME PERSONALLY

APPEARED _____ TO ME KNOWN TO BE
THE PERSONS DESCRIBED IN AND WHO EXECUTED THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED THAT
THEY EXECUTED THE SAME AS A FREE ACT AND DEED.

IN TESTIMONY WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY NOTARY SEAL, THE DAY AND YEAR
ABOVE WRITTEN.

MY COMMISSION EXPIRES: _____

NOTARY PUBLIC _____

WHEREAS, _____ BY A DEED OF TRUST, DATED _____, AND RECORDED IN
THE RECORDERS OFFICE, IN AND FOR THE COUNTY OF ST. LOUIS AND THE STATE OF MISSOURI, IN BOOK
PAGE _____ CONVEYED TO THE TRUSTEE THEREIN, CERTAIN REAL ESTATE, TO SECURE THE PAYMENT OF CERTAIN
NOTE OR NOTES IN SAID DEED DESCRIBED AND SET FORTH, AND WHEREAS, SAID DEED OF TRUST AND NOTE OR
NOTES HAS OR HAVE BEEN PARTLY PAID AND SATISFIED.

NOW, THEREFORE, THE UNDERSIGNED, PRESENT HOLDER AND LEGAL OWNER OF SAID DEED OF TRUST AND
NOTE OR NOTES, DOES BY HEREBY REMISE, RELEASE AND QUIT-CLAIM UNTO THE PRESENT OWNERS, PART OF THE
ESTATE IN SAID DEED OF TRUST DESCRIBED, SITUATED IN THE COUNTY OF ST. LOUIS, AND STATE OF MISSOURI, TO
WIT: ALL COMMON GROUND OR COMMON LAND SHOWN ON THIS PLAT, AND ALL STREETS, PUBLIC OR
PRIVATE, OR ROADWAY EASEMENTS ON THIS PLAT.

TO HAVE AND TO HOLD THE SAME, WITH ALL THE APPURTENANCES THERETO BELONGING FREE, CLEAR AND
DISCHARGED FROM THE ENCUMBRANCE OF SAID DEED OF TRUST.

IN WITNESS WHEREOF, THE UNDERSIGNED HAS EXECUTED THESE PRESENTS THIS ____ DAY OF _____, 20____.

BY: _____

STATE OF MISSOURI)
COUNTY OF ST. LOUIS)
ON THIS ____ DAY OF _____, 2014, BEFORE ME APPEARED

TO ME PERSONALLY KNOWN, WHO BEING BY ME DULY SWORN, DID SAY HE IS

_____ OF _____ AND THAT THE SEAL AFFIXED TO THE FOREGOING INSTRUMENT IS
THE CORPORATE SEAL OF SAID CORPORATION, AND THAT SAID INSTRUMENT WAS SIGNED AND SEALED IN BEHALF
OF SAID CORPORATION BY AUTHORITY OF ITS BOARD OF DIRECTORS, AND SAID

_____ ACKNOWLEDGED SAID INSTRUMENT TO BE THE FREE ACT AND DEED OF SAID

CORPORATION.

IN TESTIMONY WHEREOF, I HAVE HEREWIT SET MY HAND AND AFFIXED MY NOTARIAL SEAL, THE DAY AND YEAR
ABOVE WRITTEN.

MY COMMISSION EXPIRES: _____

NOTARY PUBLIC _____

THIS IS TO CERTIFY THAT BY AUTHORITY OF ORDINANCE NO. _____ DATED _____, 20____, THIS PLAT WAS
APPROVED BY THE CITY OF CREVE COEUR, MISSOURI ON THIS ____ DAY OF _____, 20____.

CHAIRMAN, PLANNING & ZONING COMMISSION

MAYOR CITY CLERK

THIS IS TO CERTIFY THAT AT THE REQUEST OF BENTON HOMEBUILDERS, INC., LLC,
WE HAVE DURING THE MONTH OF SEPTEMBER 2013, MADE A SURVEY OF, AND DURING THE MONTH OF MAY,
2014, PREPARED A SUBDIVISION PLAT OF TRACTS OF LAND IN THE SOUTHWEST QUARTER OF SECTION 2, TOWNSHIP
44 NORTH, RANGE 5 EAST, CITY OF CREVE COEUR, ST. LOUIS COUNTY, MISSOURI AND THAT THE RESULT OF SAID
SURVEY AND SUBDIVISION IS CORRECTLY REPRESENTED UPON THIS PLAT, THIS SURVEY IS IN COMPLIANCE WITH THE
MINIMUM STANDARDS FOR PROPERTY SURVEYS OF THE MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT
AND THE DEPARTMENT OF AGRICULTURE, THE CLASSIFICATION OF PROPERTY SURVEYED IS URBAN.

BUESCHER DITCH & ASSOCIATES, INC.; L.C. 2001010600-D

BY: GREGORY L. STARK; PLS 2000148667

FND. O.I.P.
OIP IS 5.04' EAST OF CROSS
ON OLD STONE (NOT RECOVERED) PER
SURVEY BY COLE & ASSOC. JOB
#05-270, HELD LOCATION FOR R/W

5/8" I.R. w/ CAP
LS 269-D

1/2" I.P. w/ CAP
LS 129-D
0.28' W.

1/2" O.I.P.

1/2" O.I.R.

3/8" O.I.R.
0.4' W.

1/2" I.P. w/ CAP
LS 129-D
HELD FOR R/W

FAIRWAYS PLAT 1
P.B. 86 PG. 40

MOSLEY ACRES NO. 2
P.B. 83 PG. 50

N/F
HILTON, PAUL & LISA H/W TR
17982/4994
16 MOSLEY ACRES DR.
LOC#17N210411
1.13 AC - ZONED "A"

N/F
LEVINSON, WILLIAM
20716/2850
548 N. MOSLEY RD
LOC#17N210411
1.23 AC - ZONED "A"

MOSLEY (VAR. WIDTH) ROAD

LEGEND

- FOUND MONUMENT: IRON ROD, IRON PIPE, ETC.
- SET PERMANENT MON.
- SET SEMI-PERMANENT MON.

REFERENCE BENCHMARK: ST. LOUIS COUNTY BENCHMARK 13-197: "U" ON THE
END OF THE NORTH CURB AT THE NORTH ENTRANCE TO FAIRWAYS SUBDIVISION:
27' NORTH OF THE CENTERLINE OF MOSLEY ROAD AND 12' NORTH OF THE
CENTERLINE OF FAIRWAYS CIRCLE. ELEVATION=673.77

SITE BENCHMARK: CHISELED "U" ON THE WEST END OF A 12" DIAMETER RCP ON
THE SOUTH SIDE OF PRIVATE DRIVE TO 5556 MOSLEY ROAD; 2.8' EAST OF THE
EASTERN EDGE OF MOSLEY ROAD PAVEMENT AND 7.0' NORTHWEST OF A UTILITY
POLE. ELEVATION=651.26

BASIS OF BEARING: NORTH LINE OF THE SUBJECT TRACT PER PLAT OF "REVELS
SUB." AS RECORDED IN P.B. 345 PG. 478.

EXISTING EASEMENTS SHOWN PER TRUE TITLE COMMITMENT NO. T130269,
EFFECTIVE DATE OF FEBRUARY 20, 2013.

BEARINGS, DISTANCES AND/OR ACREAGE SHOWN IN () OR INDICATED BY
(R) IS INFORMATION OF RECORD.

WE, THE UNDERSIGNED OWNERS OF THE TRACT OF LAND HEREON PLATTED AND FURTHER DESCRIBED IN THE FOREGOING
SURVEYORS CERTIFICATE HAVE CAUSED THE SAME TO BE SURVEYED AND SUBDIVIDED IN THE MANNER SHOWN ON THIS PLAT,
WHICH SUBDIVISION SHALL HEREAFTER BE KNOWN AS "MOSLEY GROVE".

ALL EASEMENTS SHOWN ON THIS PLAT, UNLESS DESIGNATED FOR OTHER SPECIFIC PURPOSE ARE HEREBY DEDICATED TO CITY
OF CREVE COEUR, MISSOURI, MISSOURI-AMERICAN WATER COMPANY, LACLEDE GAS COMPANY, SOUTHWESTERN BELL
TELEPHONE COMPANY, AMEREN UE ELECTRIC COMPANY, METROPOLITAN ST. LOUIS SEWER DISTRICT, THE RELEVANT CABLE
TELEVISION COMPANY, THEIR SUCCESSORS AND ASSIGNS AS THEIR INTEREST MAY APPEAR FOR THE PURPOSE OF
IMPROVING, CONSTRUCTING, MAINTAINING AND REPAIRING PUBLIC UTILITIES AND SEWER DRAINAGE FACILITIES, WITH THE
RIGHT OF TEMPORARY USE OF ADJACENT GROUND NOT OCCUPIED BY IMPROVEMENTS FOR THE EXCAVATION AND
STORAGE OF MATERIALS DURING INSTALLATION, REPAIR AND REPLACEMENT OF SAID UTILITIES.

BUILDING LINES AS SHOWN ON THIS PLAT ARE HEREBY ESTABLISHED. THIS SUBDIVISION IS SUBJECT TO DECLARATION OF
RESTRICTIONS AS TO BE FILED.

THE 5 FOOT WIDE RIGHT OF WAY DEDICATIONS ALONG MOSLEY ROAD AND RIGHT OF WAY OF ELISE MANOR COURT
SHOWN HEREON HATCHURED ARE HEREBY DEDICATED TO THE CITY OF CREVE COEUR FOREVER.

THIS IS TO CERTIFY THAT ALL KNOWN EXISTING EASEMENTS ARE SHOWN ON THIS PLAT AS OF THE TIME AND DATE OF
RECORDING OF THIS PLAT.

IN WITNESS WHEREOF, I HAVE HERETO SET MY HAND THIS ____ DAY OF _____, 20____.

BENTON HOMEBUILDERS, INC. LLC

STATE OF MISSOURI)
COUNTY OF ST. LOUIS)

ON THIS ____ DAY OF _____, 20____, BEFORE ME APPEARED

_____ TO BE PERSONALLY KNOWN, WHO BEING BY

ME DULY SWORN, DID SAY HE IS _____ OF BENTON HOMEBUILDERS, INC., LLC, AND THAT THE SEAL
AFFIXED TO THE FOREGOING INSTRUMENT IS THE CORPORATE SEAL OF SAID CORPORATION, AND THAT SAID
INSTRUMENT WAS SIGNED AND SEALED IN BEHALF OF SAID CORPORATION BY

AUTHORITY OF ITS BOARD OF DIRECTORS, AND SAID _____ ACKNOWLEDGED SAID INSTRUMENT
TO BE THE FREE ACT AND DEED OF SAID CORPORATION.

IN TESTIMONY WHEREOF, I HAVE HEREWIT SET MY HAND AND AFFIXED MY NOTARIAL SEAL, THE DAY AND YEAR
ABOVE WRITTEN.

MY COMMISSION EXPIRES: _____

NOTARY PUBLIC _____

LAND DESCRIPTION: A TRACT OF LAND BEING PART OF THE SOUTHWEST QUARTER OF SECTION 2, TOWNSHIP 44
NORTH RANGE 5 EAST, CITY OF CREVE COEUR, ST. LOUIS COUNTY, MISSOURI AND MORE PARTICULARLY
DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE EAST LINE OF MOSLEY ROAD (20' PERPENDICULAR DISTANCE FROM
CENTERLINE) AND THE NORTH LINE OF MOSLEY ACRES (50 FEET WIDE STREET); THENCE WITH THE EAST LINE OF SAID
MOSLEY ROAD NORTH 02°40'09" EAST A DISTANCE OF 440.56 FEET TO THE INTERSECTION OF MOSLEY ROAD AND
THE SOUTH LINE PROJECTED OF REVELS SUBDIVISION AS RECORDED IN P.B. 345 PAGE 478 OF THE ST. LOUIS
COUNTY RECORDS; THENCE WITH SAID SOUTH LINE SOUTH 89°05'00" EAST A DISTANCE OF 481.01 FEET TO A
FOUND IRON ROD; THENCE SOUTH 02°55'06" WEST A DISTANCE OF 24.89 FEET TO A FOUND IRON PIPE MARKING
THE NORTHWEST CORNER OF "MOSLEY ACRES NO. 2"; A SUBDIVISION RECORDED IN PLAT BOOK 83 PAGE 50 OF
THE ST. LOUIS COUNTY RECORDS; THENCE WITH THE WESTERLY LINE OF SAID "MOSLEY ACRES NO. 2" SOUTH
05°00'17" WEST A DISTANCE OF 436.69 FEET TO A POINT ON THE NORTH LINE OF AFOREMENTIONED "MOSLEY
ACRES"; THENCE WITH SAID NORTH LINE NORTH 89°05'17" WEST A DISTANCE OF 447.89 FEET TO THE POINT OF
BEGINNING AND CONTAINING 4.92 ACRES MORE OR LESS.

C.S.O.
GS
Drawn By: GS
Checked By: DW/BD
Project Number: 12043.02
Date: 5/15/14

Prepared by:

Land Surveyor:

BUESCHER DITCH & ASSOC., INC.
CIVIL ENGINEERING AND SURVEYING
2 EAST FIFTH STREET, SUITE 200
ST. LOUIS, MO 63102
WASHINGTON, MISSOURI 63090
Ph. (636) 239-6255
Fax (636) 239-7681

Civil Engineer:

wind
ENGINEERS
PLANNERS
SURVEYORS

122 N. Kirkwood Road
Kirkwood, MO 63122
Telephone: 314.965.WIND
Fax: 314.965.7592
Email: wind@windengr.com

Prepared for:

BENTON HOMEBUILDERS,
INC.
1000 EXECUTIVE
PARKWAY, SUITE 106
CREVE COEUR, MO 63141

314-336-5555

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CONSTRUCTION NOTES

A. GENERAL (as may also be Common across multiple work tasks)

1. SEE INDIVIDUAL SHEETS AS FOLLOWS, AND ARCHITECTURAL / MEP / STRUCTURAL / LANDSCAPE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR POSSIBLE ADDITIONAL NOTES AND CONDITIONS REGARDING SITE AND DETAIL-SPECIFIC CONSTRUCTION REQUIREMENTS. THE MORE STRINGENT OF ANY DUPPLICATIVE OR CONFLICTING NOTES AND REQUIREMENTS SHALL CONTROL.
2. ALL REFERENCES TO STANDARDS AND SPECIFICATIONS OF AGENCIES, INDUSTRY AND TRADE ASSOCIATIONS, RESEARCH INSTITUTES OR ORGANIZATIONS, ETC., EXPAND HEREON TO THEIR (A) LATEST REVISIONS AND UPDATES, REGARDLESS OF THE DATES AS MAY BE INDICATED IN THE NOTES, DRAWINGS OR DETAILS. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL CONTRACTORS AND SUBCONTRACTORS TO RESEARCH, REVIEW AND ADHERE TO THE CURRENT, APPLICABLE LOCAL STANDARDS, CODES AND SPECIFICATIONS FOR MATERIALS AND METHODS OF INSTALLATION.
3. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THEREFORE, THE RELATIONSHIP BETWEEN PROPOSED WORK AND EXISTING FACILITIES, STRUCTURES AND UTILITIES MUST BE CONSIDERED APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THEIR EXACT LOCATION AND THE EXISTENCE OF ANY NOT SHOWN, INCLUDING PRIVATE SERVICE LINES. (ALL UTILITIES SHALL BE LOCATED BOTH HORIZONTALLY AND VERTICALLY TO VERIFY CLEARANCES/COVER OF ANY PROPOSED GRADING, SEWERS, FOOTINGS, ETC., PRIOR TO CONSTRUCTION. UTILITY COMPANY REPRESENTATIVES SHALL BE ON-SITE DURING SUCH TIMES THAT EXCAVATIONS ARE TAKING PLACE IN THE VICINITY OF THEIR FACILITIES.)
4. SIDEWALKS AND CURB RAMPS, RAMPS, WALKWAYS AND ACCESSIBLE PARKING SPACES, EXTERIOR TO THE BUILDINGS AS PROPOSED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG), INCLUDING SPECIFICATIONS FOR SIGNAGE AND STRIPING, GRADES, DETECTABLE WARNING DEVICES, RAILINGS, AND CONSTRUCTIONS MATERIALS. IN THE EVENT THERE IS A CONFLICT BETWEEN THE INFORMATION AS SHOWN ON THE DRAWINGS AND THE ADAAG, ADAAG SHALL TAKE PRECEDENCE. PRIOR TO CONSTRUCTING ANY MODIFICATIONS FROM AS SHOWN UPON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE OFFICE OF THE ENGINEER AS TO THE SPECIFIC CONFLICT AND THE PROPOSED ADJUSTMENT.
5. ALL ELEVATIONS ARE BASED ON U.S.G.S. OR CITY OF ST. LOUIS DTD.
6. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY GREGORY L. STARKE, MO PLS 2000148667, BUESCHER DITCH & ASSOCIATES, INC., MO, L.C., 2001010600-DAV, DATED 08/28/13.
7. BOUNDARY AND TOPOGRAPHIC INFORMATION OFF-SITE HAS BEEN SUPPLEMENTED PER AVAILABLE RECORDS AND VERIFIED PER SITE RECONNAISSANCE DATED NOV 2013.
8. OMITTED.
9. THE RESULTS OF ANY DEPTH TO ROCK OR SOIL TESTING AS MAY BE SHOWN HEREON ARE FOR INFORMATION ONLY, WITHOUT ANY EXPRESSED OR IMPLIED AGREEMENT OR GUARANTEE THAT THE DEPTHS, CHARACTER OF, OR VARIATIONS IN MATERIALS ARE CORRECTLY SHOWN, OR THAT CONDITIONS AFFECTING THE WORK WILL NOT DIFFER FROM THAT AS SHOWN ON THESE DRAWINGS.
10. ROCK ELEVATIONS AS MAY BE SHOWN ON SEWER PROFILES ON CROSS SECTIONS HAVE BEEN INTERPOLATED BETWEEN TEST HOLES, BASED ON INFORMATION SUPPLIED BY OTHERS, AND ARE TO BE CONSIDERED APPROXIMATE ONLY.
11. PRIOR TO BEGINNING ANY WORK ON THE SITE, THE CONTRACTOR(S) SHALL CONTACT THE OFFICE OF THE OWNER FOR SPECIFIC INSTRUCTIONS RELEVANT TO THE COORDINATION AND SEQUENCING OF WORK AMONGST THE VARIOUS TRADES.
12. REFERENCE LINES AND GRADES SHALL BE ESTABLISHED BY THE CONTRACTOR(S) PRIOR TO STARTING THEIR WORK AND SHALL BE MAINTAINED DURING THE DURATION OF CONSTRUCTION.
13. THE CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITION, ALL "OFFSITE" PROPERTY IN EASEMENTS DISTURBED BY HIS OPERATIONS.
14. ALL WORK BEYOND THE LIMITS OF OWNER'S PROPERTY MUST BE PERFORMED WITHIN EXISTING OR ACQUIRED EASEMENTS. AGENCY APPROVAL OF THESE PLANS DOES NOT AUTHORIZE OR CONDONE WORK BEYOND THE LIMITS OF EASEMENTS. OFFSITE PROPERTY OWNERS SHALL BE GIVEN NOTICE 48 HOURS IN ADVANCE OF ANY WORK ON THEIR PROPERTY.
15. ANY OFFSITE PROPERTY (I.E. BUSHES, FENCES, MAILBOXES, ETC.) DISTURBED BY THE CONTRACTORS OPERATIONS SHALL BE REPLACED IN KIND, FULLY AT THE CONTRACTOR'S EXPENSE.
16. REMOVAL OF CONCRETE PAVEMENT OR PAVERS SHALL BE TO THE NEAREST JOINT(S) OR EDGE OF PAVEMENT. INCREASE THE LIMITS OF REMOVAL AS NEEDED TO PERFORM THE SPECIFIC WORK THAT MANDATES REMOVAL OF PAVEMENT OR PAVERS. REMOVAL OF ASPHALT PAVEMENT SHALL BE ACCOMPLISHED VIA SAW CUT LOCATED AT LEAST 12 INCHES BEYOND THE LIMITS OF NEW WORK. REMOVAL OF CURBS OR CURBS AND GUTTER SHALL BE VIA SAW CUT LOCATED AT LEAST TWO FEET BEYOND THE LIMITS OF THE WORK REQUIRED. IF AN EXISTING JOINT IS LOCATED WITHIN 12 INCHES (BEYOND) A PLANNED SAW CUT AS DESCRIBED ABOVE, THE CURB SHALL BE REMOVED TO THE JOINT AND THE SAW CUT ELIMINATED. CONTRACTOR TO REPLACE ANY ADJACENT PAVEMENT, PAVERS OR CURBS, BEYOND THE LIMITS OF REMOVAL, THAT ARE DAMAGED BY HIS OPERATIONS.
17. ALL SAW CUTS SHALL BE TO A STRAIGHT AND TRUE LINE, PERPENDICULAR TO THE ALIGNMENT OF CURBS, PARALLEL AND PERPENDICULAR TO EXISTING JOINTS OR EDGES OF PAVEMENT, AND SHALL EXCEED THE FULL DEPTH OF THE PAVEMENT. SAW CUTTING OF PAVERS IS NOT PERMITTED.
18. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE CURRENT STANDARDS, SPECIFICATIONS AND CROSS REFERENCES OF THE ST. LOUIS COUNTY, MO. IN THE ABSENCE OF ANY APPLICABLE LOCAL STANDARDS, THE REQUIREMENTS SET FORTH OR AS REFERENCED HEREON SHALL GOVERN.
19. THE TERMS "SOILS ENGINEER" AND "GEO/TECHNICAL ENGINEER" ARE TO BE CONSIDERED INTERCHANGEABLE, ONE AND THE SAME.
20. PROPOSED CONTOURS AND FINISH SPOT ELEVATIONS AS SHOWN ON THE DRAWINGS ARE FINAL GRADES AND ARE NOT TO BE ADJUSTED TO PAVEMENT AND/OR FINISH DIRT GRADE. THE CONTRACTORS ARE TO MAKE APPROPRIATE ADJUSTMENTS FOR VARIOUS SUBGRADE REQUIREMENTS.
21. "SPOT" FINISH GRADES ("SPOT ELEVATIONS") AND/OR ELEVATIONS OF THE TOP OF SEWER OR UTILITY STRUCTURES AS MAY BE SHOWN ON THE SITE PLAN AND/OR PROFILES ARE TO BE VERIFIED AT THE JOB SITE, BY THE CONTRACTORS, AND PROPER ADJUSTMENTS MADE AT NO ADDITIONAL COST. CONTRACTORS AND/OR OWNER ARE HEREBY MADE AWARE OF THIS RESPONSIBILITY. CONTRACTORS SHOULD INCLUDE IN THEIR QUOTE TO THE OWNER PROVISIONS FOR SUCH VERIFICATION. IT IS THEREFORE THE RESPONSIBILITY OF THE CONTRACTORS TO IDENTIFY ANY NEEDED ADJUSTMENTS AND NOTIFY THE DESIGN ENGINEER OF THE PROPOSED CHANGE, PRIOR TO CONSTRUCTION OF THOSE ITEMS THAT WOULD BE AFFECTED BY THE CHANGE IN ELEVATION. ADJUSTMENTS TO GRADES, PAVING, STRUCTURES OR OTHER ELEMENTS OF THE PROJECT DURING OR FOLLOWING CONSTRUCTION ARE LIKEWISE THE RESPONSIBILITY OF THE CONTRACTORS AS PART OF THIS VERIFICATION PROCEDURE.
22. ALL MANHOLES, INLETS, CLEANOUTS, METER VAULTS, UTILITY ACCESS BOXES, RISERS, VALVE AND SHUT-OFF BOXES, ETC., SHALL BE ADJUSTED TO ADAPT TO FINISH GRADES.
23. THE CONTRACTOR(S) SHALL VERIFY THE X-Y-Z LOCATION OF EXISTING UTILITIES, SEWERS AND DRAINAGE FACILITIES AS LOCATED EITHER ON OR ADJOINING THE SITE, PRIOR TO ANY OTHER ACTIVITIES THEY MAY UNDERTAKE ON THE SITE, AND PROTECT SAME DURING THEIR WORK.
24. THE CONTRACTOR SHALL KEEP EXISTING ROADWAYS CLEAN OF MUD AND DEBRIS.
25. PRIOR TO CONSTRUCTION OF ANY FOUNDATIONS, THE BUILDING CONTRACTOR SHALL LOCATE THE END OF THE SANITARY BUILDING SEWER (LATERAL) TO VERIFY BOTH THE DEPTH AND ADEQUATE CLEARANCES, MONUMENT THE LOCATION AND PROTECT THE PIPE DURING THE WORK.
26. ALL TRENCHES UNDER AREAS TO BE PAVED, AND UNDER EXISTING PAVING, SHALL BE BACKFILLED TO SUBGRADE WITH DURABLE CRUSHED LIMESTONE, USE CLEAN STONE WHERE RECOMMENDED BY THE SOILS ENGINEER. REFERENCE THE PROJECT GEO/TECHNICAL REPORT, THE GRANULAR MATERIAL, INCLUDING GRADATION AND PLACEMENT, TO BE IN ACCORDANCE WITH THE STANDARDS OF MODOT, M.S.D., ST. LOUIS COUNTY, MO, AND/OR THE SOILS ENGINEER, WHICHEVER REQUIREMENTS MAY BE MORE STRINGENT. WHEREVER THE EDGE OF THE UTILITY AND/OR SEWER TRENCH IS LESS THAN THREE (3) FEET FROM THE PROPOSED OR EXISTING EDGE OF PAVED AREAS, GRANULAR BACKFILL IS REQUIRED.
27. IN ALL REGARDS THE PREVENTION OF TRENCH SETTLEMENT UNDER IMPROVED AREAS IS ESSENTIAL. RESTORATION OF SETTLED AREAS AND ANY DAMAGE RESULTING THEREFROM IS THE RESPONSIBILITY OF THE CONTRACTOR BE EST
28. FOOTINGS OF BUILDINGS OR OTHER STRUCTURES MAY IMPOSE LOADS ON SEWERS OR OTHER UNDERGROUND CONDUITS ALONGSIDE AND ADJOINING THE STRUCTURES. A 1:1 SLOPE SHOULD BE SECURED FROM THE BOTTOM OF THE FOOTING TO THE BOTTOM OF THE SEWER OR CONDUIT. IF A 1:1 SLOPE IS NOT AVAILABLE, THE FOOTINGS SHOULD BE LOWERED OR THE STRUCTURE MOVED AWAY FROM THE SEWER OR CONDUIT SUBJECT TO OWNER'S DIRECTION AND ANY AGENCY-MANDATED STRUCTURE SETBACKS.
29. ALL DIMENSIONS AND OFF-SET DISTANCES ARE TO THE BACK OF CURBS, EXCEPT WHERE NOTED.
30. VERTICAL CLEARANCE BETWEEN SANITARY SEWERS AND WATER SERVICE LINES OR WATER MAINS SHALL BE MINIMUM OF 7'-0"
31. RETAINING WALLS OF CAST-IN-PLACE CONCRETE, PRE-CAST SEGMENTAL UNITS (SRW) OR OTHER SYSTEMS, WHEN DESIGNED BY THE SOILS ENGINEER OR THE WALL CONTRACTOR, WALL CONTRACTOR TO SUPPLY SEALED SHOP DRAWINGS, DETAILS AND STRUCTURAL CALCULATIONS AS MAY BE REQUIRED TO OBTAIN PERMITS FROM LOCAL REVIEW AGENCIES FOR ANY RETAINING WALLS.
32. THE OWNER IS ADVISED THAT UTILITY COMPANIES MAY/WILL CAN REQUIRE COMPENSATION FOR RELOCATION OR ADJUSTMENT OF THEIR FACILITIES WITHIN THE PUBLIC ROAD RIGHT-OF-WAY. UTILITY RELOCATION OR ADJUSTMENT COSTS WILL BE THE OWNER'S RESPONSIBILITY. THE OWNER SHOULD ALSO BE AWARE OF EXTENSIVE DELAYS TO ACCOMPLISH UTILITY RELOCATIONS AND ADJUSTMENTS, SUCH DELAYS MAY ENCUMBER THE CONSTRUCTION SCHEDULE OR OCCUPANCY.
33. ALL CONTRACTORS ARE TO PROVIDE ADEQUATE OFF-STREET PARKING FOR THEIR EMPLOYEES AND SUBCONTRACTORS. PARKING ON A NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEE VEHICLES MAY BE TRACKED ONTO THE STREET PAVEMENT AS MAY POTENTIALLY CREATE HAZARDOUS CONDITIONS, CONSTRUCTION ENTRANCE, EMPLOYEE PARKING, WASHDOWN AREA - PROVIDE 8" TYPE "1" (MODOT) FREE-DRAINING AGGREGATE BASE OF A SIZE AS NEEDED TO ACCOMMODATE THE NUMBER AND SIZE OF CONSTRUCTION VEHICLES. A WASH STATION CONSISTING OF A ROCKED AREA CONNECTED TO ANY TEMPORARY DRIVEWAY AND PARKING AREA, INCLUDING A WATER SERVICE LINE OR WATER TRUCK, WILL NORMALLY BE REQUIRED ALONG WITH ADEQUATE PERSONNEL / STAFFING FOR REMOVAL OF MUD FROM VEHICLES LEAVING THE SITE. OTHER METHODS OF MUD CONTROL MAY BE SUBMITTED TO ST. LOUIS COUNTY FOR CONSIDERATION AND APPROVAL PRIOR TO IMPLEMENTATION. LIMITATIONS AS TO THE USE OF TEMPORARY ENTRANCES SHALL BE AS DETERMINED BY ST. LOUIS COUNTY.
34. ALL WORK WITHIN THE STREET RIGHT-OF-WAY, INCLUDING HAULING, SHALL OCCUR ONLY BETWEEN THE HOURS OF 9:00 AM AND 2:00 PM, UNLESS APPROVED OTHERWISE BY ST. LOUIS COUNTY.

B. SITE PREPARATION AND GRADING

1. DEMOLITION CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH UTILITY PROVIDERS AND LOCAL REVIEW AGENCIES, AND ACQUIRE ALL NEEDED PERMITS, FOR REMOVAL, RELOCATIONS, DISCONNECTS AND/OR THE CAPPING OFF OF ALL EXISTING UTILITIES INCLUDING PRIVATE SERVICE LINES AS MAY BE ENCOUNTERED ON THE SITE.
2. DEMOLITION CONTRACTOR TO REMOVE ALL RESIDUAL DEBRIS FOLLOWING HIS ACTIVITIES. DISPOSAL OF ALL DEBRIS TO BE IN ACCORD WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
3. AS DIRECTED BY THE OWNER OR LOCAL AGENCIES, ANY MATERIALS AS RESULT FROM DEMOLITION THAT ARE TO BE SALVAGED FOR RE-USE SHALL BE STORED AND PROTECTED FROM DAMAGE BY THE CONTRACTOR.
4. SEWERS AND SEWER STRUCTURES EITHER TO BE DEMOLISHED OR ABANDONED AND REMOVED FROM SERVICE ARE TO BE TREATED AS DIRECTED BY M.S.D. AS MAY INCLUDE COMPLETE REMOVAL, GROUT IN PLACE, ETC.
5. IT SHALL BE THE RESPONSIBILITY OF THE GRADING CONTRACTOR TO NOTIFY THE PROJECT GEO/TECHNICAL ENGINEER OF WORK IN PROGRESS AND TO COMPLY WITH THE SPECIFICATIONS DEVELOPED BY THE GEO/TECHNICAL ENGINEER WITH REGARDS TO SURFACE PREPARATION, EXCAVATION, PLACEMENT OF FILL, AND COMPACTION. BRUCKER ENGINEERING LTD. IS AN INDEPENDENT AGENT RETAINED BY THE OWNER.
6. ALL EXCAVATIONS, WHETHER THEY BE UTILITY TRENCHES OR FOOTING EXCAVATIONS, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) "CONSTRUCTION STANDARDS FOR EXCAVATIONS."
7. IN THE ABSENCE OF ANY REQUIREMENTS AS SET FORTH BY THE PROJECT GEO/TECHNICAL ENGINEER, ALL WEEDS, BRUSH, SHRUBS, TREES, STUMPES, ROCKS, TRASH, DEBRIS, RUBBLE, BROKEN ASPHALT, FOUNDATIONS, TANKS, VAULTS, ORGANIC MATERIAL & REFUSE, OR ANY OTHER DELETTERIOUS THE FILL MATERIAL, DEEMED BY THE SOILS ENGINEER AS BEING INCAPABLE OF SUPPORTING THE BUILDING, VEHICULAR AND/OR OVERBURDEN LOADS TO BE IMPOSED, [SUCH MATERIAL AS MAY BE LOCATED EITHER ON THE SURFACE OR BURIED WITHIN THE LIMITS OF GRADING AND/OR BUILDING OR PAVED AREAS], SHALL BE CLEARED, GRUBBED OR EXCAVATED AS THE CASE MAY DICTATE, PRIOR TO GRADING, AND SHALL BE REMOVED FROM THE SITE OR DISPOSED OF ON SITE IN A MANNER AS APPROVED BY APPLICABLE RULES AND REGULATIONS OF THE LOCAL REGULATORY AGENCIES AND AS FURTHER DIRECTED BY THE SOILS ENGINEER.

CONSTRUCTION NOTES CONT.

B. SITE PREPARATION AND GRADING (CONT')

8. IN THE ABSENCE OF ANY REQUIREMENTS AS SET FORTH BY THE PROJECT GEO/TECHNICAL ENGINEER, SHOULD BURIED TANKS OR CHAMBERS BE ENCOUNTERED, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ANY CONTENTS. DISPOSAL REQUIREMENTS MAY VARY DEPENDING UPON THE CONTENTS OF THE TANK OR CHAMBER, AND THE CONTRACTOR SHALL COMPLY WITH PERTINENT LOCAL, STATE AND FEDERAL REGULATIONS IN THIS REGARD. UNLESS SPECIFIED ON THE SITE PLAN OR WITHIN THE PROJECT GEO/TECHNICAL REPORT FOR THE TANK TO BE COMPLETELY REMOVED, THE BOTTOM OF THE CHAMBER SHALL BE PERFORATED TO ALLOW FOR DRAINAGE. IF THE TOP OF THE TANK IS CONCRETE, IT MAY BE BROKEN UP AND SELECTIVELY DEPOSITED IN THE TANK WITH DUE CONCERN TO ELIMINATE ANY VOIDS. THE SIDEWALLS SHALL BE LOWERED AT LEAST TWO (2) FEET BELOW PROPOSED SUBGRADE. THE REMAINDER OF THE TANK SHALL BE FILLED WITH GRANULAR MATERIAL. SELECT EARTH, COMPACTED IN PLACE, SHALL BE USED TO BRING THE SURFACE TO SUBGRADE. TANKS LOCATED BENEATH BUILDINGS OR AREAS TO BE PAVED SHALL BE COMPLETELY REMOVED, AND THE RESULTANT EXCAVATION BACKFILLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE SOILS ENGINEER. ANY TANKS IN CORRIDORS FOR UNDERGROUND INSTALLATIONS, INCLUDING BUT NOT LIMITED TO SEWERS, UTILITY SERVICE LINES, THAT SHALL BE SIMILARLY TREATED AND/OR REMOVED BY THE CONTRACTOR. IN THE EVENT OF A CONFLICT, 9. SITUATION AND EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBANCE, AND SHALL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS, INCLUDING THE REMOVAL OF ANY ACCUMULATED SILT. UNLIT, SUFFICIENT VEGETATION OR IMPROVEMENTS HAVE BEEN ESTABLISHED ON THE SITE TO PREVENT EROSION AND CONTAIN SILT-LADEN RUNOFF, IF LAND DISTURBANCE OPERATIONS OCCUR DURING A SEASON NOT FAVORABLE FOR IMMEDIATE ESTABLISHMENT OF A PERMANENT GROUND COVER. A FAST GERMINATING ANNUAL SUCH AS RYE GRASSES SHALL BE UTILIZED TO RETARD EROSION.
10. THE INSTALLATION AND MAINTENANCE OF ALL SITUATION AND EROSION CONTROL DEVICES INCLUDING BEST MANAGEMENT PRACTICES A.K.A. BMP'S, FURTHER REFERENCE ANY STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS MAY BE WITHIN THE DRAWING SET SHALL BE THE RESPONSIBILITY OF THE GRADING CONTRACTOR. THE APPURTENANT BMP DEVICES, SYSTEMS AND STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. IN ALL REGARDS CONFORM TO THE REQUIREMENTS OF ANY SITE-SPECIFIC, GENERAL, MAJOR, MINOR OR ORDINARY LAND DISTURBANCE PERMITS, AS MAY INCLUDE THE USE OF APPROVED INSPECTORS TO SAMPLE AND TEST RUNOFF, THE MAKING OR FILING OF REPORTS, AND ANY OTHER REQUIRED REMEDIAL ACTIVITIES, PRIOR TO ANY LAND DISTURBANCE THE GRADING CONTRACTOR SHALL RESEARCH AND REVIEW WHAT, IF ANY, LAND DISTURBANCE REGULATIONS AND PERMITS ARE EITHER ALREADY IN PLACE OR MAY YET NEED TO BE OBTAINED FOR THE PROPOSED WORK.
11. ALL TOSPOIL IN BORROW AND FILL AREAS SHALL BE EXCAVATED AND DISPOSED OF ON-SITE IN LOCATIONS OUTSIDE THE CONSTRUCTION AREA, OR REMOVED FROM THE SITE. IF THE DRAWINGS INDICATED PLANTING, LANDSCAPING & BERM AREAS, THE TOSPOIL MAY BE STOCKPILED ON-SITE FOR FUTURE REDISTRIBUTION IN THESE PLANTING AREAS. IN NO INSTANCE SHALL TOSPOIL BE PLACED IN BUILDING PADS AND/OR AREAS TO BE PAVED.
12. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT GRADED AREAS FROM, AND AS NECESSARY RESTORE TO GRADE, ANY RUTS, WASHES OR OTHER CHANGES FROM THE DESIGN ELEVATIONS SHOWN HEREON, UNTIL THE GRADING WORK IS ACCEPTED BY THE OWNER.
13. IN THE ABSENCE OF ANY REQUIREMENTS AS SET FORTH BY THE PROJECT GEO/TECHNICAL ENGINEER, ALL FILLS, REFILLED OVEREXCAVATIONS, SCARIFIED SURFACES AND TRENCHES BACKFILLED WITH EARTH SHALL BE COMPACTED TO A MINIMUM OF 90 % OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED AASHTO COMPACTION TEST, OR ASTM D 1557-78. FILL MATERIAL SHALL BE EVENLY SPREAD IN LIFTS OF THICKNESSES SUCH THAT FOLLOWING THE COMPACTION OF EACH LAYER WILL NOT EXCEED SIX (6) INCHES IN DEPTH. THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE CONTROLLED WITH THE LIMITS ESTABLISHED BY THE MODIFIED AASHTO COMPACTION TEST OR ASTM D 1557-78. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RETAIN A QUALIFIED SOILS ENGINEER TO OBSERVE ALL PHASES OF THE GRADING OPERATIONS AND TO TEST COMPACTION OF THE FILL DURING PLACEMENT.
14. TOLERANCE OF ALL LINES AND GRADES IN SUBGRADE CROSS SECTIONS TO BE 0.08'.
15. ALL FOOTING EXCAVATIONS SHOULD TERMINATE IN FIRM BEARING SOILS, WHICH IN THE OPINION OF THE SOILS ENGINEER, ARE CAPABLE OF SUPPORTING THE LOADS TO BE IMPOSED. THE BASE OF ALL EXCAVATIONS SHOULD BE PROTECTED FROM EXTREME TEMPERATURES, PRECIPITATION AND CONSTRUCTION DISTURBANCES. 16. SLOPES ON THIS PROJECT SHALL NOT BE GREATER THAN ONE UNIT VERTICAL TO THREE UNITS HORIZONTAL. SLOPES ARE STEEPER THAN 3:1 REQUIRE A STABILITY ANALYSIS BY THE PROJECT GEO/TECHNICAL ENGINEER.
16. ALL EXISTING IMPROVEMENTS AND STRUCTURES ON-SITE SHALL BE REMOVED UNLESS OTHERWISE NOTED ON THE SITE PLANS OR AS DIRECTED BY THE OWNER OR DEVELOPER.
17. THE FINISH GRADE OF THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL SLOPE AWAY FROM THE BUILDING AT 1:20 (5 PERCENT) FOR A DISTANCE OF TEN (10) FEET, UNLESS ALTERNATE METHODS ARE PROVIDED TO PREVENT THE ACCUMULATION OF WATER (E.G. STORM DRAINS AND INLETS) AND DIVERT RUNOFF AWAY FROM THE FOUNDATION. IN WHICH CASE THE ELEVATION OF THE TOP OF FOUNDATION OR SLAB SHALL BE A MINIMUM OF TWELVE (12) INCHES ABOVE THE POINT OF DISCHARGE, PLUS TWO (2) PERCENT. ALTERNATE ELEVATIONS ARE PERMITTED SO LONG AS POSITIVE DRAINAGE AWAY FROM THE STRUCTURE IS PROVIDED AT ALL LOCATIONS ON THE SITE, SUBJECT TO APPROVAL BY THE LOCAL BUILDING OFFICIAL.
18. PRIOR TO COMMENCEMENT OF ANY HAULING ONTO OR OFF THE SITE, THE GRADING CONTRACTOR SHALL OBTAIN APPROVAL OF THE HAUL ROUTE(S) AS MAY BE REQUIRED BY THE ST. LOUIS COUNTY. ADDITIONAL INFORMATION AND/OR PLANS MAY BE REQUIRED BY ST. LOUIS COUNTY.
20. THE OWNER AND/OR GENERAL CONTRACTOR SHALL FULLY COORDINATE THE ACTIVITIES OF THE VARIOUS SUBCONTRACTORS WITH RESPECT TO ATTAINING FINISH ELEVATIONS AND POSITIVE DRAINAGE PATTERNS ON / ACROSS THE SITE. I.E. BULK GRADING TO RECOGNIZE POSSIBLE FUTURE LANDSCAPING, SUCH WORK AS MAY INCLUDE IMPOUND OF TOSPOIL PRIOR TO SODDING, SEEDING, PLANTINGS OR PLACING OF MULCH; PROVISIONS FOR REMOVAL OR REDISTRIBUTION OF SPOILS FROM UTILITIES AND SEWER INSTALLATIONS, ETC., REFERENCE NOTE 18.

C. SEWERS AND DRAINAGE

1. ALL MATERIALS AND METHODS OF CONSTRUCTION FOR PUBLIC SANITARY SEWERS AND PUBLIC STORM DRAINAGE TO MEET THE LATEST STANDARDS AND SPECIFICATIONS OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT. (2000 EDITION OR LATER)
2. ALL PUBLIC SEWER AND DRAINAGE STRUCTURES TO CONFORM TO THE STANDARD DETAILS SHOWN IN METROPOLITAN ST. LOUIS SEWER DISTRICT "STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES" (2000 EDITION OR LATER).
3. ALL MANHOLE AND INLET COVERS SHALL BE AS APPROVED BY METROPOLITAN ST. LOUIS SEWER DISTRICT.
4. ALL LATERAL (BUILDING SEWER) CONSTRUCTION METHODS AND MATERIALS TO CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE ST. LOUIS COUNTY, MO PLUMBING CODE.
5. CLEANOUTS SHALL BE LOCATED AT ALL HORIZONTAL CHANGES IN DIRECTION OF FLOW OF LATERALS AND ANY SANITARY LATERAL OF 100' FEET OR LONGER. LOCAL PLUMBING CODES MAY REQUIRE VENTS BE INSTALLED IN THE BUILDING SEWER. CONTRACTOR TO VERIFY AND ADAPT TO THE SITE REQUIREMENTS AS NECESSARY.
6. CLEANOUTS LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC TO BE HEAVY DUTY, WITH A CAST IRON RISER AND A RECESSED UD MARKED "SEWER", FULLY ENCASE RISER, AND SEWER FITTING AT POINT RISER CONNECTION, WITH CLASS "B" CONCRETE.
7. LIDS FOR CLEANOUTS IN PEDESTRIAN WALKWAYS AND SHALL BE COUNTERSUNK MPT AND SET FLUSH WITH THE FINISH WALKING SURFACE.
8. CAPS FOR CLEANOUTS IN LANDSCAPED AREAS SHALL BE SOLID PVC, MINIMALLY PROJECTED ABOVE GRADE AS NEEDED TO FACILITATE REMOVAL, COLOR AS SELECTED BY OWNER.
9. TOP ELEVATIONS OF ALL EXISTING SANITARY STRUCTURES AND CLEANOUTS SHALL BE ADJUSTED IN THE FIELD TO MATCH FINAL GRADES.
10. MANHOLES LOCATED IN PAVED AREAS TO HAVE A LOCK TYPE FRAME AND COVER WHERE SO DIRECTED BY M.S.D. OR THE ST. LOUIS COUNTY PERMIT REQUIREMENTS AND CONSTRUCTION SPECIFICATIONS.
11. FRAMES AND COVERS, FRAMES AND GRATES, OR OTHER SIMILAR PAIRS OF ITEMS SHALL HAVE TRUE COMMON BEARING SURFACES SUCH THAT THE COVERS OR GRATES WILL SEAT FIRMLY WITHOUT ROCKING OR SHIFTING. THE GRATES OR COVERS SHALL BE PLACED AFTER THE FRAMES OR FITTINGS HAVE BEEN INSTALLED AND AFTER THE CONCRETE OR MORTAR HAS BEEN ALLOWED TO HARDEN FOR AT LEAST 24 HOURS AND WILL NOT BE DAMAGED.
12. CONTRACTOR TO START LAYING PIPE AT DOWNSTREAM STRUCTURE AND WORK UPSTREAM.
13. GRATES FOR PRIVATE INLETS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS:
 - a. NON-PAVED PEDESTRIAN WAYS AND PLAY AREAS: FLAT POLYETHYLENE, COLOR AS SELECTED BY OWNER.
 - b. PAVED PEDESTRIAN WAYS AND PLAZAS: FLAT BRONZE, PATTERN AS SELECTED BY OWNER OR LANDSCAPE ARCHITECT
 - c. AREAS SUBJECT TO VEHICULAR TRAFFIC: FLAT GALVANIZED, OF SUFFICIENT CROSS SECTION AS RECOMMENDED BY THE GRATE MANUFACTURER FOR THE ANTICIPATED WHEEL LOADS, INCLUDING SUPPORTING FRAME, RISER AND ANY ADAPTER
 - d. NON PAVED AREAS NOT SUBJECT TO PEDESTRIAN TRAFFIC, INCLUDING LANDSCAPED AREAS: DOMED OR ATRIUM POLYETHYLENE, COLOR AS SELECTED BY OWNER
14. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURES OR TO THE END OF FLARED END SECTIONS.
15. 90°BENDS ON PRIVATE DRAIN LINES TO BE ACCOMPLISHED USING DUAL MITER FITTINGS OR 2-45° ELBOWS.
16. ATTENTION SEWER CONTRACTOR:
 - a. FOR SEWER PIPE (STORM AND SANITARY) WITH A DESIGN GRADE LESS THAN ONE PERCENT (1%) , VERIFICATION OF THE PIPE GRADE WILL BE REQUIRED FOR EACH INSTALLED REACH OF SEWER, PRIOR TO ANY SURFACE RESTORATION OR INSTALLATION OF ANY SURFACE IMPROVEMENTS. THE CONTRACTOR'S FIELD SUPERVISOR WILL BE REQUIRED TO PROVIDE DAILY DOCUMENTATION VERIFYING THAT THE AS-BUILT PIPE GRADE MEETS THE DESIGN GRADE THROUGH THE SUBMITTAL OF SIGNED CUT SHEETS TO THE MSD INSPECTOR UPON REQUEST.
 - b. FIELD SURVEYED VERIFICATION MUST BE MADE UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR OR REGISTERED ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE AND REPLACE ANY SEWER REACH HAVE ANY AS-BUILT GRADE WHICH IS FLATTER THAN THE DESIGN GRADE BY MORE THAN 0.1%, SEWERS WITH GRADES GREATER THAN THE DESIGN SLOPE MAY BE LEFT IN PLACE, PROVIDED NO OTHER SEWER GRADE IS REDUCED BY THIS VARIATION IN THE AS-BUILT GRADE.
 - c. MSD RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO REMOVE AND REPLACE ANY SEWER (AT ANY TIME PRIOR TO CONSTRUCTION APPROVAL) FOR WHICH THE AS-BUILT GRADE DOES NOT COMPLY WITH THE GRADE TOLERANCE STATED IN THE ABOVE PARAGRAPH.
 - d. THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL AND REPLACEMENT OF THE SEWER PIPE OR ASSOCIATED APPURTENANCES.
17. MAINTENANCE OF THE SEWERS DESIGNATED AS "PUBLIC" SHALL BE THE RESPONSIBILITY OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT UPON DEDICATION OF THE SEWERS TO THE DISTRICT.
18. CONTRACTOR'S INSURANCE REQUIREMENTS: PRIOR TO OBTAINING A CONSTRUCTION PERMIT FROM THE METROPOLITAN ST. LOUIS SEWER DISTRICT, THE CONTRACTOR SHALL PROVIDE TO THE DISTRICT AS NECESSARY A COPY OF AN EXECUTED "CERTIFICATE OF INSURANCE" INDICATING THAT THE FIRM/HIS HAS OBTAINED AND WILL CONTINUE TO CARRY COMMERCIAL GENERAL LIABILITY AND COMPREHENSIVE AUTO LIABILITY INSURANCE. THE REQUIREMENTS AND LIMITS SHALL BE AS STATED IN THE RULES AND REGULATIONS AND ENGINEERING DESIGN REQUIREMENTS FOR SANITARY AND STORMWATER DRAINAGE FACILITY, SECTION 10.090 (ADDENDUM).
19. CONNECTIONS TO SEWERS SHALL BE TRAPPED IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF M.S.D. AND THE ST. LOUIS COUNTY AND C PLUMBING CODE.
20. PIPE FOR PRIVATE ON-SITE GRAVITY STORM DRAINAGE SYSTEM SHALL BE PVC OR DUAL-WALL CORRUGATED HIGH DENSITY OUT POLYETHYLENE (CHDPE) UNLESS WHERE EITHER IS NOTED ON THE DRAWINGS.
21. PVC PIPE FOR PRIVATE ON-SITE STORM DRAINAGE LINES SHALL BE SCHEDULE 40 MEETING THE REQUIREMENTS OF ASTM D1785 "Standard Specification for PolyVinyl Chloride (PVC) Plastic Pipe". WHERE STORM DRAINAGE PIPES ARE LOCATED BENEATH FOOTINGS OR FOUNDATIONS, OR AS OTHERWISE MAY BE DIRECTED ON THE PLANS, SCHEDULE 80 PVC IS REQUIRED. PIPE AND FITTINGS TO BE PRODUCED BY THE SAME MANUFACTURER. FITTINGS SHALL BE MONOLITHIC IN CONSTRUCTION, OF THE SAME MATERIAL AND STRENGTH REQUIREMENTS AS THE PIPE PROPER. FITTINGS AND JOINTS SHALL BE SOLVENT WELDED AND MEET THE REQUIREMENTS OF ASTM D 2466 "PVC Plastic Fittings, Schedule 40 AS REQUIRED" AND ASTM D 2564 "Solvent Cement for PVC Pipe and Fittings". CONTRACTOR TO FIRST DRY FIT THE PIPE ASSEMBLY TO THE REQUIRED ALIGNMENT, PRIOR TO GLUING THE JOINTS. INSTALLATION TO BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS AND/OR APPLICABLE LOCAL PLUMBING CODES.
22. OMIT
23. BEDDING AND BACKFILL OF PRIVATE STORM DRAINAGE LINES SHALL BE IN ACCORDANCE WITH LOCAL PLUMBING CODES.
24. ALL FILL UNDER STORM OR SANITARY LINES CONSTRUCTED ABOVE THE ORIGINAL GRADE SHALL BE COMPACTED TO 90 % OF MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED A.S.T.M.T.O. COMPACTION TEST. THE SOILS ENGINEER SHALL VERIFY THAT ALL COMPRESSIBLE MATERIAL HAS BEEN REMOVED PRIOR TO PLACEMENT OF ANY FILL AND THAT ALL FILL UNDER SANITARY AND STORM LINES CONSTRUCTED ABOVE ORIGINAL GRADE, HAS BEEN COMPACTED TO 90% OF THE "MODIFIED PROCTOR". FILL IS TO BE PLACED IN A MAXIMUM OF 9" LIFTS. TESTS SHALL BE TAKEN AT A MAXIMUM OF 50 FOOT INTERVALS ALONG THE ROUTE OF THE PIPE: AT A MAXIMUM OF TWO (2) FEET VERTICALLY; AND LATERALLY ON EACH SIDE OF THE PIPE. AT A DISTANCE EQUAL TO THE DEPTH OF FILL OVER THE PIPE. A COPY OF THESE TEST RESULTS IS TO BE SUBMITTED BY THE SOILS ENGINEER TO M.S.D. PRIOR TO CONSTRUCTION OF THE SEWER LINE.
25. M.S.D. TYPE "C" BEDDING IS REQUIRED FOR PIPES INSTALLED IN AREAS OF ROCK EXCAVATION.

CONSTRUCTION NOTES CONT.

26. STANDARD CONSTRUCTION:
ALL STORM AND SANITARY SEWER STRUCTURES AND APPURTENANCES TO BE DEDICATED TO MSD, OR TO BE PRIVATE UNDER MSD INSPECTION, SHALL CONFORM TO THE METROPOLITAN ST. LOUIS SEWER DISTRICT, STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES.

2009, THAT WILL INCLUDE STANDARD DETAILS SHOWN THEREIN, AND SHALL INCLUDE ALL SUBSEQUENT CHANGES MADE THERETO.

SOME RECENT CHANGES CONCERN PIPE FIELD TESTING AND PERFORMANCE, AND INCLUDE THE FOLLOWING:

PART 4 - PIPE SEWER CONSTRUCTION

SECTION 8, PIPE FIELD TESTS, PARAGRAPH 2, REACH INTEGRITY TESTING - DELETE THE FIRST SENTENCE AND THE FOLLOWING REPLACEMENT APPLIES:

ALL SANITARY AND COMBINED SEWERS SHALL SUSTAIN A MAXIMUM LEAKAGE LIMIT OF 100 GALLONS/INCH OF PIPE DIAMETER/MILE OF LINE/DAY, AS REQUIRED BY THE MISSOURI DEPARTMENT OF NATURAL RESOURCES SPECIFICATIONS.

SECTION 8, PIPE FIELD TESTS, PARAGRAPH 2, REACH INTEGRITY TESTING, SUBPARAGRAPH C, INFILTRATION/EXFILTRATION TESTING - DELETE THE SIXTH SENTENCE, CONCERNING LEAKAGE LIMITS, AND THE FOLLOWING REPLACEMENT APPLIES:

THE MEASUREMENT OF LEAKAGE SHALL RIOT EXCEED 100 GALLONS/INCH OF PIPE DIAMETER/MILE OF LINE/DAY, AS REQUIRED BY THE MISSOURI DEPARTMENT OF NATURAL RESOURCES SPECIFICATIONS.

SECTION 8, PIPE FIELD TESTS, PARAGRAPH 4, MANHOLE TESTING, SUBPARAGRAPH A, VACUUM TESTING - AFTER THE FIRST SENTENCE: THE FOLLOWING ADDITION APPLIES:

THE VACUUM TEST MUST BE PERFORMED PRIOR TO BACKFILLING AROUND THE MANHOLE UNLESS THE CONTRACTOR PROVIDES DOCUMENTATION SHOWING THE PRECAST MANHOLE MANUFACTURER STATING THAT THE MANHOLE MAY BE VACUUM TESTED AFTER BACKFILLING HAS TAKEN PLACE. THE CONTRACTOR MUST SUBMIT THIS DOCUMENTATION PRIOR TO BACKFILLING AROUND ANY MANHOLE.

SECTION 8, PIPE FIELD TESTS, PARAGRAPH 4, MANHOLE TESTING, SUBPARAGRAPH B, EXFILTRATION TESTING - DELETE THE SECOND SENTENCE, CONCERNING LEAKAGE LIMITS, AND THE FOLLOWING ADDITION APPLIES:

FOR EXFILTRATION TESTING, THE ALLOWABLE LEAKAGE LIMIT IS 100 GALLONS/INCH OF PIPE DIAMETER/MILE OF LINE/DAY WHEN THE AVERAGE HEAD ON THE TEST SECTION IS THREE FEET (3') OR LESS.

NOTE - PIPE JOINTS WITH ADAPTERS AND COUPLINGS SHALL BE SUPPLIED AND INSTALLED WITH 3/16 STAINLESS STEEL NUT AND BOLT CLAMPS (T-BOLT) CONFIGURATION; AND WITH STAINLESS STEEL SHEAR BANDS, BEING A MINIMUM OF TWELVE (12) MILS (MSD STD. CONST. SPECS. PT. 2 SUBSECTION H-11). WORK DRIVE HOSE CLAMPS AND CONCRETE BACKFILLING (CAUSTICITY) WILL NO LONGER BE ALLOWED AT THOSE JOINTS. GRANULAR BACKFILL SHOULD BE USED, IF FLOWABLE FILL IS REQUIRED, THE CONTRACTOR SHALL WRAP AND TAPE THE ADAPTERS AND COUPLINGS WITH A SIX (6) MIL POLYETHYLENE SHEET.

D. OTHER UTILITIES

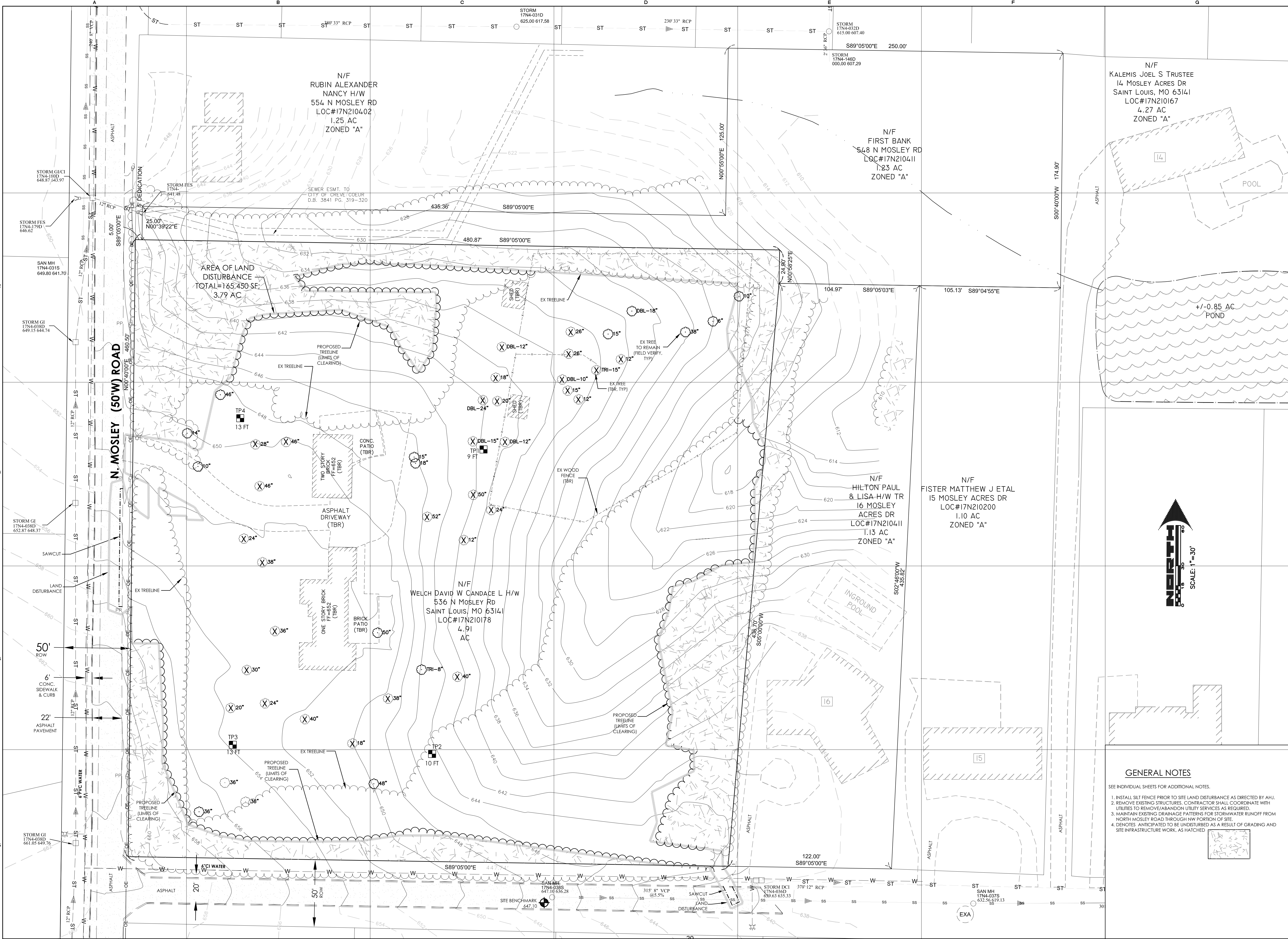
1. MATERIALS FOR AND INSTALLATION OF WATER SERVICE LINES, TAPS AND METER SETS, INCLUDING FIRE SUPPRESSION SERVICE, SHALL BE IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODE(S) AND THE RULES OF THE MISSOURI AMERICAN WATER DEPARTMENT.
2. DOMESTIC WATER SERVICE LINES LESS THAN 4" IN DIAMETER SHALL BE RIGID COPPER, WITH SILVER SOLDERED JOINTS.
3. FIRE SUPPRESSION LINES, PRIVATE DOMESTIC WATER SERVICE LINES (4 INCHES OR GREATER IN DIAMETER) AND/OR MAINS TO SERVICE ON-SITE SUPPLYING THE RESIDENTS ARE TO BE PROTECTED FROM EXTREME TEMPERATURES, PRECIPITATION AND CONSTRUCTION DISTURBANCES. 4. SLOPES ON THIS PROJECT SHALL NOT BE GREATER THAN ONE UNIT VERTICAL TO THREE UNITS HORIZONTAL. SLOPES ARE STEEPER THAN 3:1 REQUIRE A STABILITY ANALYSIS BY THE PROJECT GEO/TECHNICAL ENGINEER.
4. ALL EXISTING IMPROVEMENTS AND STRUCTURES ON-SITE SHALL BE REMOVED UNLESS OTHERWISE NOTED ON THE SITE PLANS OR AS DIRECTED BY THE OWNER OR DEVELOPER.
5. THE FINISH GRADE OF THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL SLOPE AWAY FROM THE BUILDING AT 1:20 (5 PERCENT) FOR A DISTANCE OF TEN (10) FEET, UNLESS ALTERNATE METHODS ARE PROVIDED TO PREVENT THE ACCUMULATION OF WATER (E.G. STORM DRAINS AND INLETS) AND DIVERT RUNOFF AWAY FROM THE FOUNDATION. IN WHICH CASE THE ELEVATION OF THE TOP OF FOUNDATION OR SLAB SHALL BE A MINIMUM OF TWELVE (12) INCHES ABOVE THE POINT OF DISCHARGE, PLUS TWO (2) PERCENT. ALTERNATE ELEVATIONS ARE PERMITTED SO LONG AS POSITIVE DRAINAGE AWAY FROM THE STRUCTURE IS PROVIDED AT ALL LOCATIONS ON THE SITE, SUBJECT TO APPROVAL BY THE LOCAL BUILDING OFFICIAL.
6. PRIOR TO COMMENCEMENT OF ANY HAULING ONTO OR OFF THE SITE, THE GRADING CONTRACTOR SHALL OBTAIN APPROVAL OF THE HAUL ROUTE(S) AS MAY BE REQUIRED BY THE ST. LOUIS COUNTY. ADDITIONAL INFORMATION AND/OR PLANS MAY BE REQUIRED BY ST. LOUIS COUNTY.
20. THE OWNER AND/OR GENERAL CONTRACTOR SHALL FULLY COORDINATE THE ACTIVITIES OF THE VARIOUS SUBCONTRACTORS WITH RESPECT TO ATTAINING FINISH ELEVATIONS AND POSITIVE DRAINAGE PATTERNS ON / ACROSS THE SITE. I.E. BULK GRADING TO RECOGNIZE POSSIBLE FUTURE LANDSCAPING, SUCH WORK AS MAY INCLUDE IMPOUND OF TOSPOIL PRIOR TO SODDING, SEEDING, PLANTINGS OR PLACING OF MULCH; PROVISIONS FOR REMOVAL OR REDISTRIBUTION OF SPOILS FROM UTILITIES AND SEWER INSTALLATIONS, ETC., REFERENCE NOTE 18.

E. PAVING

1. MATCH EXISTING CURBING AND PAVEMENT IN HORIZONTAL LOCATION AND ELEVATION.
2. EXISTING PAVEMENT AS REMOVED AND REPLACED SHALL BE FINISHED TO THE SAME LEVEL, SURFACE TEXTURE (CRACKS OR OTHER DEGRADATION ARE NOT CONSIDERED TEXTURE) AND COLOR AS THE ADJOINING PAVEMENT THAT REMAINS IN PLACE.
3. ASPHALTIC CONCRETE CURBS SHALL BE MACHINE LAID, UNLESS AS OTHERWISE APPROVED BY THE ENGINEER.
4. MATERIALS AND METHODS OF CONSTRUCTION FOR ALL PAVING, FLATWORK AND CURBING, CONCRETE OR ASPHALT, TO BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF MODOT AND/OR THE ST. LOUIS COUNTY, INCLUDING ASPHALT, AGGREGATE, BASE MATERIAL, GEOTEXTILES, CONCRETE AND REINFORCING, JOINTS AND SEALANTS, EXCEPT WHERE OTHERWISE NOTED ON THE DRAWINGS.
5. CONCRETE PAVING TO HAVE A COMPRESSIVE STRENGTH OF 4000 PSI, REFER TO MODOT SECTIONS 501, 502 AND ANY CROSS REFERENCES.
6. BRICK OR COBBLESTONE PAVERS AND STONE CURBS, WHERE REQUIRED, TO MEET THE ST. LOUIS COUNTY STANDARDS WITH RESPECT TO BOTH MATERIALS AND INSTALLATION.
7. CONTRACTOR TO WARP PAVING TO ADAPT TO DESIGN INTENT FOR DRAINAGE PATTERNS. REFER TO DRAINAGE AREA MAP AS NEEDED, FULLY SHAPE AND REVIEW SUBGRADE FOR PROPER DRAINAGE PATTERNS PRIOR TO PLACING ANY PAVING IN WARPED AREAS, ESP. PARKING LOTS, FOR CONCRETE PAVING, SET FORMS TO ADAPT TO FINISH ELEVATIONS, INCLUDING VERTICAL BREAK POINTS AS MAY BE REQUIRED INCREMENTAL TO HORIZONTAL SURFACE JOINTING. CONTACT THE OFFICE OF THE ENGINEER FOR ADDITIONAL AND/OR HIGHER-ORDER SPOT ELEVATIONS AND/OR CONSTRUCTION LAYOUT AS NEEDED TO ESTABLISH FORMS. UPON COMPLETION, ALL PAVING TO EXHIBIT POSITIVE DRAINAGE. REMOVE AND REPLACE ANY PAVING THAT DOES NOT MEET THE DESIGN INTENT.
8. THE FINAL POSITION OF ALL DOWELS AND TIE-BARS SHALL BE PERPENDICULAR TO THE PLANE OF THE JOINT AND PARALLEL TO THE SURFACE OF THE PAVEMENT AND PARALLEL TO EACH OTHER.
9. THE WIDTH AND LOCATION OF EACH POURED PORTION OF CONCRETE PAVEMENT MAY CHANGE THE TYPE AND LOCATION OF JOINT REQUIRED.
10. ALL DEFORMED BARS FOR JOINTS AND CURBS SHALL BE IN ACCORDANCE WITH ASTM M 31, GRADE 40 AND EPOXY COATED.
11. THE FREE END OF DOWEL BARS, FOR A LENGTH OF AT LEAST 11 INCHES, SHALL BE COATED WITH AN APPROVED LUBRICANT CONFORMING TO MODOT STANDARD SPECIFICATIONS, OR THE CONTRACTOR MAY SUBSTITUTE COMPLETE BASKET UNITS PRE-DEIGNED IN AN APPROVED BOND BREAKER SOLUTION.
12. ALL DOWEL BARS SHALL BE EPOXY COATED.
13. PRIOR TO SETTING FORMS FOR CURBS OR OTHERWISE PLACING PAVEMENT THROUGH INTERSECTIONS AND ROUNDINGS, CONTRACTOR SHALL CAUSE THE IMPROVEMENTS TO BE STAKED AND ESTABLISH A CONTINUOUS STRING LINE AT THE PROPOSED TOP OF CURB ELEVATION, TO VERIFY SMOOTH GRADIENT TRANSITIONS, AND ADJOINING CURBLINE WITH ANY ADJOINING ACCESSIBLE RAMPS AND WALKS. PENDING SUCH REVIEW, SHOULD ADJUSTMENTS PROVE NECESSARY, CONTRACTOR SHALL INQUIRE WITH OFFICE OF THE ENGINEER FOR INPUT ON ANY PROPOSED MODIFICATIONS.
14. ISOLATION JOINTS TO BE FLEXIBLE, NON-DEGRADABLE SPONGE RUBBER OF THE THICKNESS NOTED ON THE PLANS.
15. SEALING OF ISOLATION JOINTS: PROVIDE BOND BREAKER SURFACE OR PLASTIC TAPE BETWEEN SEALANT AND JOINT FILLER BOARD, SEALER TO BE COLOR MATCHED TO PAVEMENT, AND MEET THE MATERIAL SPECS OF MODOT, INSTALL PER MFGR RECOMMENDATIONS, AND TOOL SURFACES.
16. SEAL EXPANSION JOINT FILLER BOARD IN PLAZAS, ENTRYWAYS, RAMPS & STAIRS WITH PERFORMED MATERIAL SIMILAR TO "G-SEAL" AS MFGR BY GREENBREAK, OR AS APPROVED BY ARCHITECT OR ENGINEER.
17. SEAL EXPANSION JOINT FILLER BOARDS AS EXPOSED TO WEATHER, HORIZONTAL AND VERTICAL PLANES, IN SIDEWALKS CURBS, OR CURBS AND GUTTERS, WITH GUN-GRADE SEALANT COLOR MATCHED TO THE ADJOINING CONCRETE. SEALER TO MEET APPLICABLE MODOT SPECIFICATIONS. TRIM FILLER BOARDS AS NECESSARY PRIOR TO PLACING SEALANT. TOOL EXPOSED SURFACE OF SEALANT FOR A SMOOTH APPEARANCE, AND TO FILL ANY VOIDS.
18. JOINTING OF NEW PAVEMENT TO BE IN ACCORD WITH MODOT AND/OR ST. LOUIS COUNTY STANDARDS AND DETAILS, THE CONTRACTOR SHALL DETERMINE THE FINAL JOINT SPACING BASED ON FIELD CONDITIONS. SEE SHEET C7 FOR GENERAL JOINTING PLAN. CONTRACTOR TO ADAPT TO ACTUAL FIELD CONDITIONS.
19. COLOR OF STRIPING FOR NON-ACCESSIBLE PARKING SPACES TO BE EITHER AS SELECTED BY THE OWNER OR AS MAY BE REGULATED BY THE LOCAL PERMIT AUTHORITY, AND SHALL SUPERSEDE THAT AS MAY BE SHOWN ON THE DRAWINGS.
20. PEDESTRIAN WALKS INTERNAL TO THE SITE SHALL HAVE A BROOM FINISH APPLIED ACROSS THE WIDTH OF THE WALK. SIDEWALKS IN THE PUBLIC RIGHT-OF-WAY SHALL HAVE A JOINT PATTERN AND BE SURFACE FINISHED IN ACCORD WITH THE STANDARDS AND SPECIFICATIONS OF THE APPLICABLE LOCAL PERMIT AUTHORITY, PLAZAS AND ENTRY WAYS SHALL BE FINISHED AND PATTERNED (JOINTED) PER THE ARCHITECTURAL OR LANDSCAPE ARCHITECTURAL PLANS, AS MAY INCLUDE EXPLODED AGGREGATE, COLORING, STAMPING OR A SMOOTH TOWELED FINISH. IN THE ABSENCE OF ANY DIRECTIVES BY THE ARCHITECT OR LANDSCAPE ARCHITECT, CONTRACTOR TO CONSULT WITH THE OWNER FOR PREFERRED FINISH AND REFER TO ANY JOINTING PLAN WITHIN THE DRAWINGS.

F. EXCAVATIONS IN PUBLIC RIGHTS OF WAY OR PAVED AREAS

1. OPEN TRENCH CROSSINGS OR EXCAVATIONS REQUIRE PAVEMENT REMOVAL TO AN EXISTING JOINT IN CONCRETE PAVEMENT OR AREAS OF PAVES STONES, OR TO A SAW CUT EDGE IN ASPHALT PAVEMENT. BACK FILL TO BE IN ACCORDANCE WITH THE PERMIT REQUIREMENTS OF ST. LOUIS COUNTY HIGHWAYS AND TRAFFIC.
2. ST. LOUIS COUNTY HIGHWAYS AND TRAFFIC SHALL BE NOTIFIED PRIOR TO BEGINNING WORK WITHIN ANY STREET OR ALLEY R.O.W., WITH SUFFICIENT ADVANCE NOTICE PER THE CONDITIONS IN THE APPLICABLE PERMITS, OR A MINIMUM OF 48 HOURS.
3. ALL EXCAVATIONS WITHIN THE PUBLIC ROAD RIGHT-OF-WAY SHALL BE COVERED AND PROTECTED AT ALL TIMES OTHER THAN DURING WORKING OPERATIONS. EXCAVATED MATERIALS SHALL NOT BE STORED ON THE ROADWAY SURFACE OVERNIGHT. PAVEMENT SHALL BE KEPT CLEAN AND FREE OF MUD, ROCK AND DEBRIS AT ALL TIMES. FLAGMEN, BARRICADES AND/OR OTHER SAFETY DEVICES TO BE AS DIRECTED BY ST. LOUIS COUNTY OR OSHA REQUIREMENTS.
4. FOLLOWING COMPLETION OF CONSTRUCTION, ALL TEMPORARY MATERIALS SHALL BE REMOVED AND THE RIGHT-



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STATE OF MISSOURI
Professional Engineer
No. 14364
EXPIRES: 12-31-2014

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MOSLEY GROVE
EXISTING CONDITIONS + CLEARING PLAN

Prepared For: **BENTON Homebuilders**
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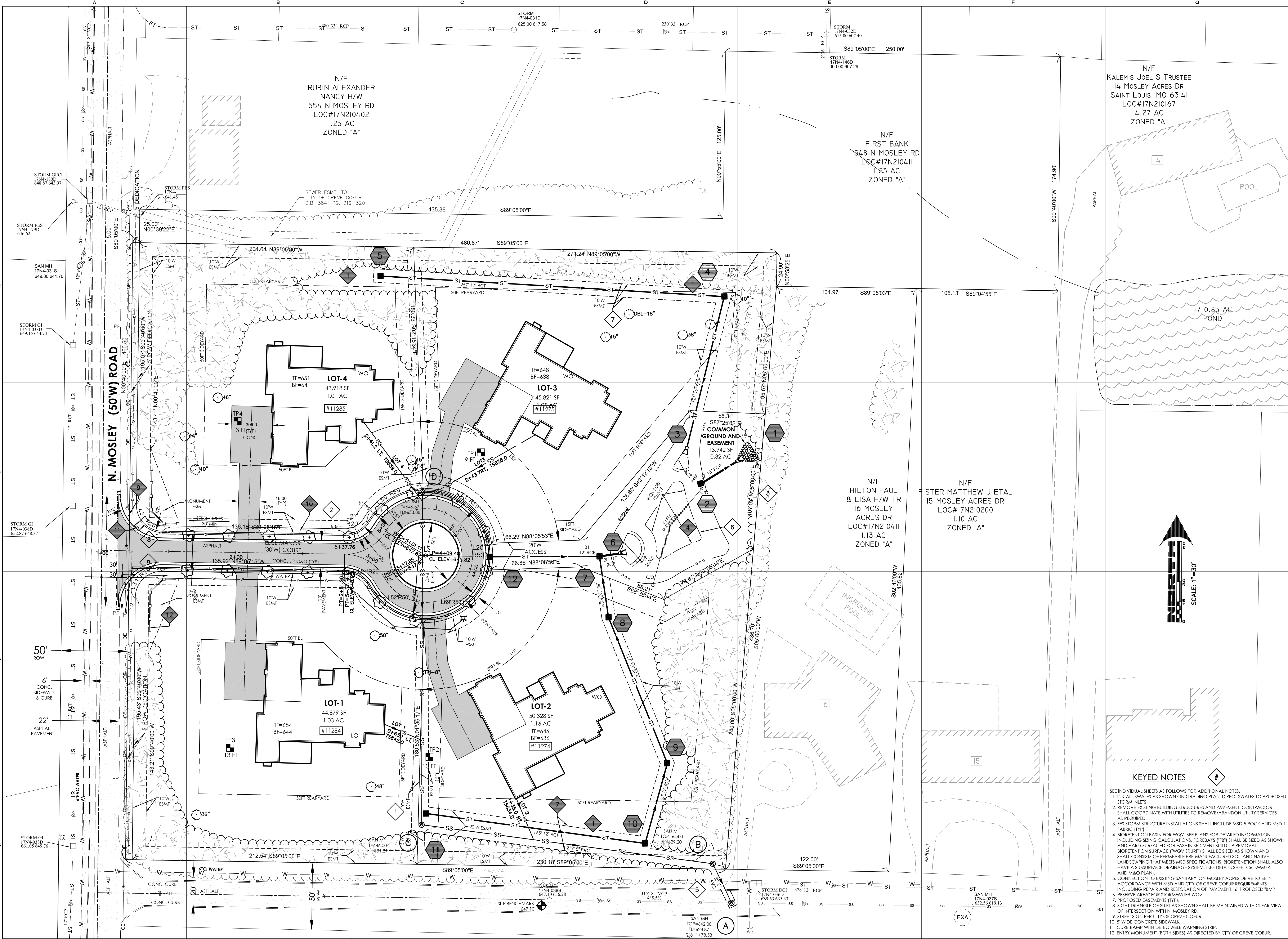
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NO.	DATE	DESCRIPTION
1	04/22/14	TREE PREP. PLAN EDITION / CITY COMMENT
2	04/22/14	IN HOUSE REVISIONS
3	04/22/14	CITY COMMENTS
4	07/10/14	SURVEY UPDATES, CITY REVIEW & MSD COMMENTS
5	12/10/13	REVISIONS

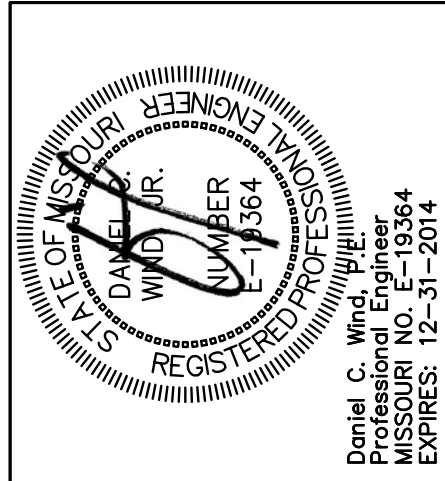
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1. INSTALL SILT FENCE PRIOR TO SITE LAND DISTURBANCE AS DIRECTED BY A.H.I.
2. REMOVE EXISTING STRUCTURES. CONTRACTOR SHALL COORDINATE WITH UTILITIES TO REMOVE/ABANDON UTILITY SERVICES AS REQUIRED.
3. MAINTAIN EXISTING DRAINAGE PATTERNS FOR STORMWATER RUNOFF FROM NORTH MOSLEY ROAD THROUGH NW PORTION OF SITE.
4. DENOTES ANTICIPATED TO BE UNDISTURBED AS A RESULT OF GRADING AND SITE INFRASTRUCTURE WORK, AS HATCHED.

Date: 4/25/13
Field Work: BD Field Checked: DW
Drawn By: PC,GS C. S. O.: GS
Checked By: DW
Project Number: 12043.02
Sheet Number: **C3**
MSD P. 002973-00 BASEMAP 17N4



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MOSLEY GROVE FLAT (GEOMETRIC) PLAN

Prepared For:
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Wind Engineering & Surveying

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2	07/10/14	MSD REVIEW COMMENTS
3	04/29/14	CITY COMMENTS
4	04/22/14	IN-HOUSE REVISIONS
5	05/15/14	TREE PRES. PLAN EDITION / CITY COMMENT

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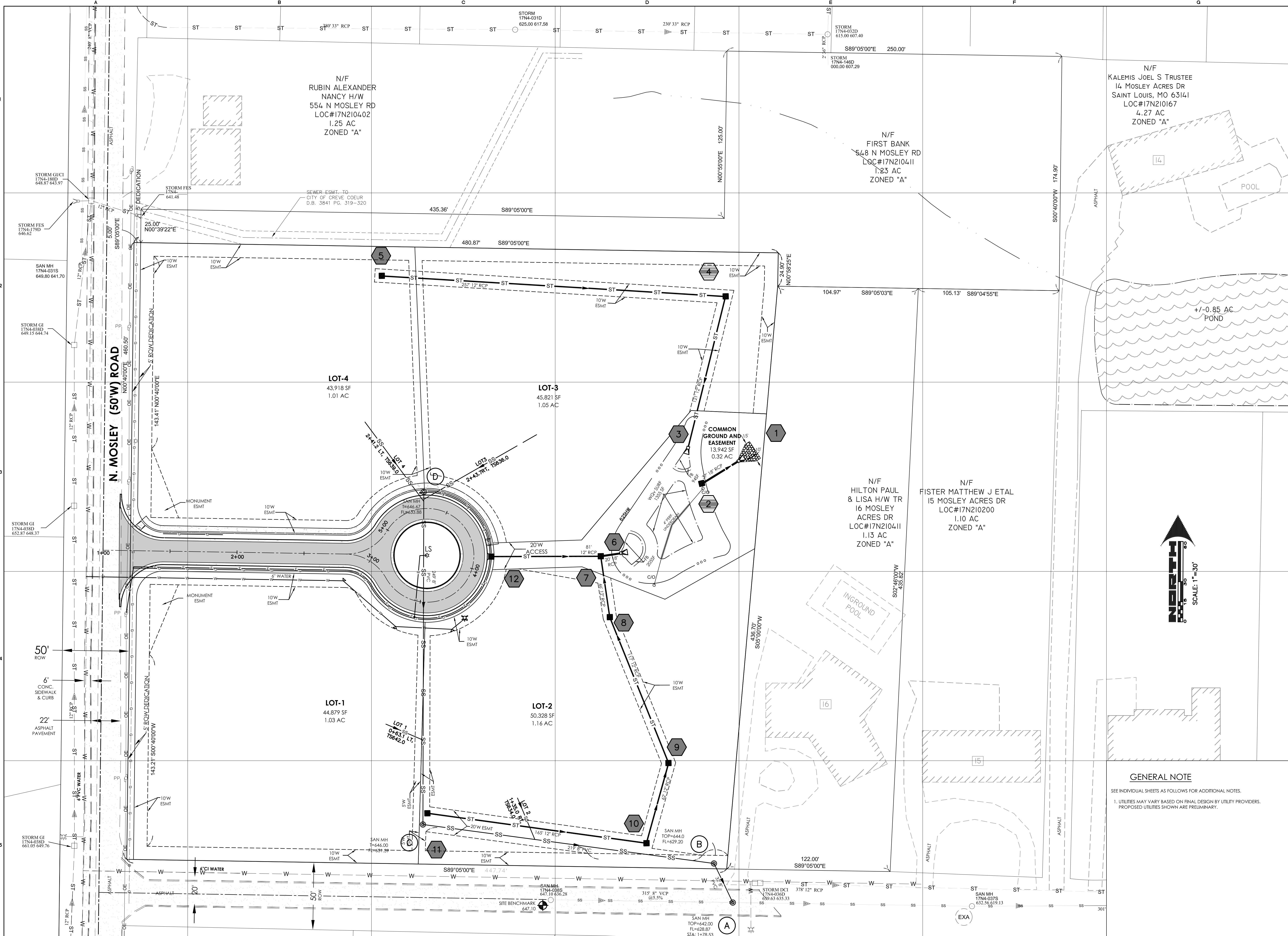
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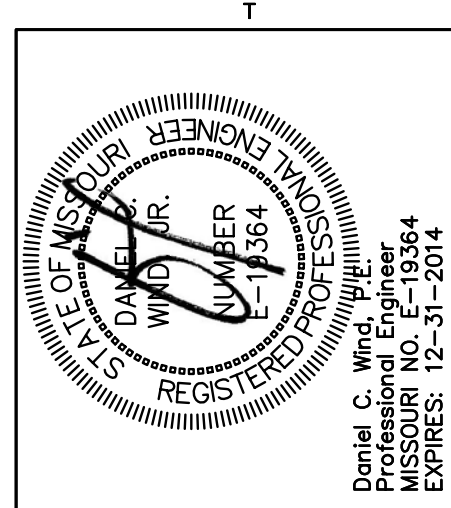
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MOSLEY GROVE
UTILITY PLAN

BENTON
Homebuilders

wind
ENGINEERING & ASSOC., INC.

Prepared For:
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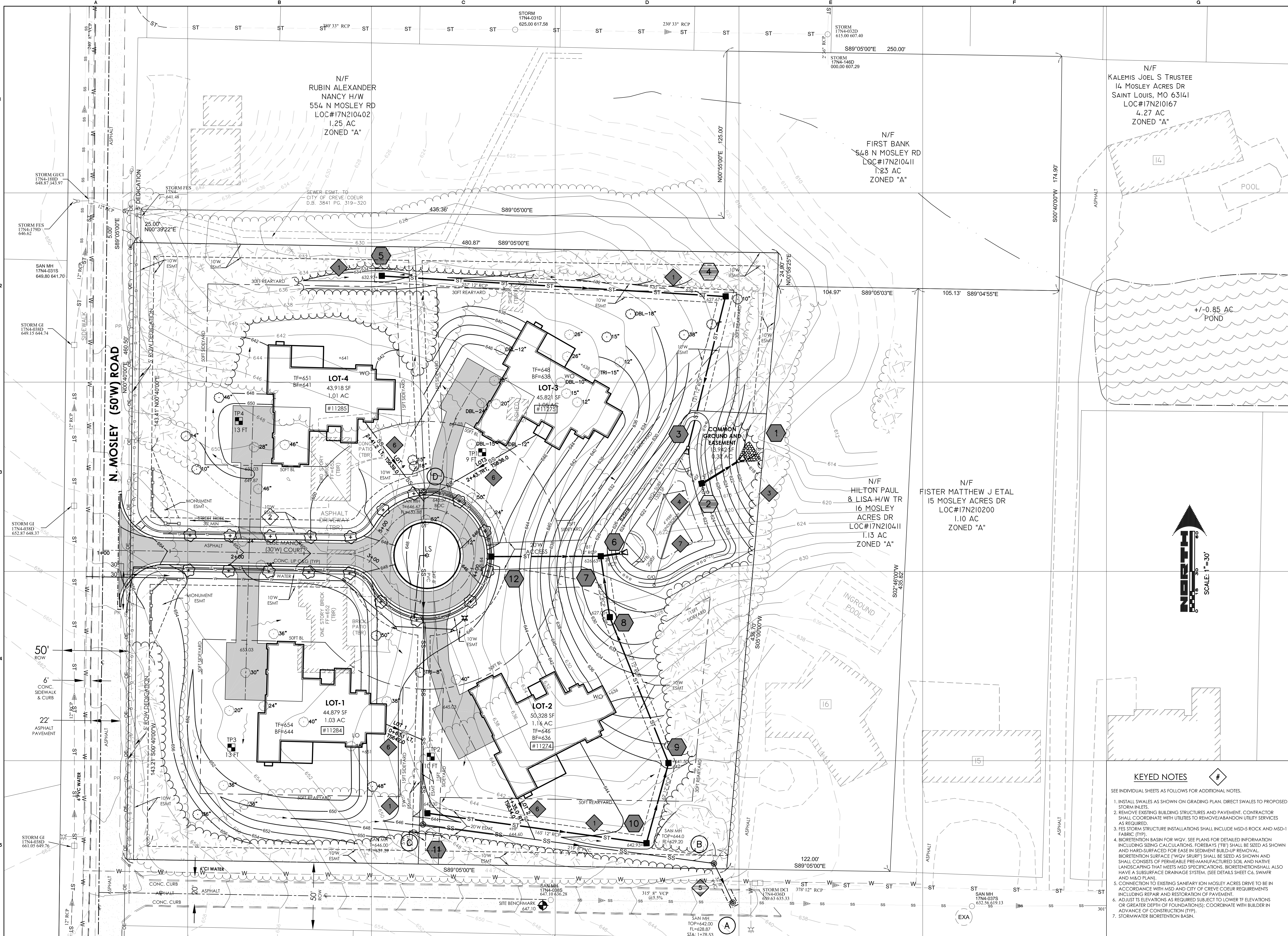
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3	04/28/14	CITY COMMENTS
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Drawn By: PC,GS C. S. O.: GS
Checked By: DW
Project Number: 12043.02
Sheet Number: **C4.1**
MSD P. 002793-00 BASEMAP 17N4

GENERAL NOTE

SEE INDIVIDUAL SHEETS AS FOLLOWS FOR ADDITIONAL NOTES.
1. UTILITIES MAY VARY BASED ON FINAL DESIGN BY UTILITY PROVIDERS.
PROPOSED UTILITIES SHOWN ARE PRELIMINARY.



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STATE OF MISSOURI

REGISTERED PROFESSIONAL ENGINEER

WIND ENGINEERING COMPANY

17364

12-31-2014

Daniel C. Wind
Professional Engineer
EXPIRES: 12-31-2014

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MOSLEY GROVE

SITE + GRADING PLAN

Prepared For:

BUESCHER DITCH & ASSOC., INC.

CIVIL ENGINEERING AND SURVEYING

2 EAST FIFTH STREET

WASHINGTON, MISSOURI 63090

For: 314-336-5555

Prepared By:

Wind Engineering Company

17364

12-31-2014

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3	04/28/14	CITY COMMENTS
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PC,GS

C. S. O.:

GS

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12043.02

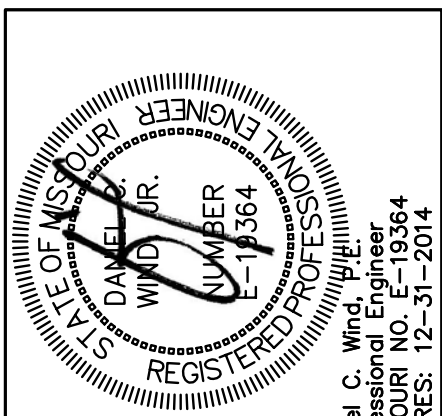
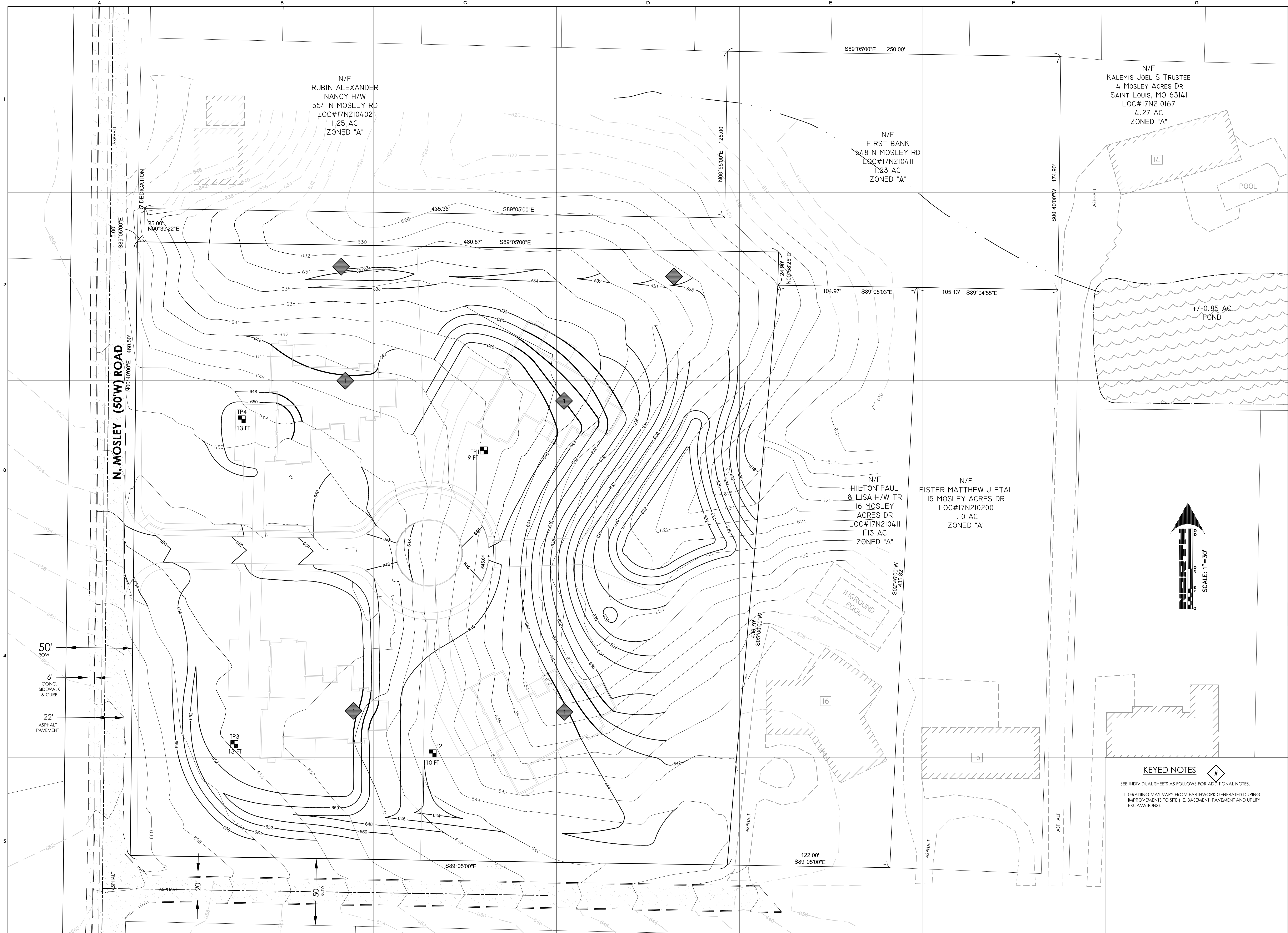
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MSD P. 002793-00

BASEMAP 17N4

- KEYED NOTES**
- SEE INDIVIDUAL SHEETS AS FOLLOWS FOR ADDITIONAL NOTES.
- INSTALL SWALES AS SHOWN ON GRADING PLAN. DIRECT SWALES TO PROPOSED STORM INLETS.
 - REMOVE EXISTING BUILDING STRUCTURES AND PAVEMENT. CONTRACTOR SHALL COORDINATE WITH UTILITIES TO REMOVE/ABANDON UTILITY SERVICES AS REQUIRED.
 - FES STORM STRUCTURE INSTALLATIONS SHALL INCLUDE MSD-5 ROCK AND MSD-1 FABRIC (TYP).
 - BIORETENTION BASIN FOR WQV. SEE PLANS FOR DETAILED INFORMATION INCLUDING SIZING CALCULATIONS. FOREBAY (FB) SHALL BE SIZED AS SHOWN AND HARD-SURFACED FOR EASE IN SEDIMENT BUILD-UP REMOVAL. BIORETENTION SURFACE ("WQV SURF") SHALL BE SIZED AS SHOWN AND SHALL CONSIST OF PERMEABLE PRE-MANUFACTURED SOIL AND NATIVE LANDSCAPING THAT MEETS MSD SPECIFICATIONS. BIORETENTION SHALL ALSO HAVE A SUBSURFACE DRAINAGE SYSTEM. (SEE DETAILS SHEET C6, SWMFR AND M&O PLAN).
 - CONNECTION TO EXISTING SANITARY ION MOSLEY ACRES DRIVE TO BE IN ACCORDANCE WITH MSD AND CITY OF CREVE COEUR REQUIREMENTS INCLUDING REPAIR AND RESTORATION OF PAVEMENT.
 - ADJUST IS ELEVATIONS AS REQUIRED SUBJECT TO LOWER TF ELEVATIONS OR GREATER DEPTH OF FOUNDATION(S); COORDINATE WITH BUILDER IN ADVANCE OF CONSTRUCTION (TYP).
 - STORMWATER BIORETENTION BASIN.



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- THE DESIGN OF ANY STRUCTURE OR COVER, OR THE CONSTRUCTION OF ANY STRUCTURAL AND ELECTRICAL COMPONENTS, GEOTECHNICAL INVESTIGATIONS AND FOUNDATIONS, OR THE CONSTRUCTION OF ANY STRUCTURE OR COVER;
- RECOMMENDATIONS, WATER, GAS, ELECTRIC AND TELEPHONE SUPPLY AND DISTRIBUTION FACILITIES, ANY AND ALL OTHER PLANS, SPECIFICATIONS, AND CALCULATIONS, FOR ANY AND ALL SUCH STRUCTURES, COVERS, OR WORKS;
- THE PROJECT TO BE INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT, UNLESS AUTHENTICATED BY THE DATED SIGNATURE AND SEAL OF THE REGISTERED PROFESSIONAL ENGINEER.

THE REGISTERED PROFESSIONAL ENGINEER'S CONSTRUCTION MARKER AND METHOD OF MARKING SHALL BE AS FOLLOWS:

ONE PART OF THE TOTAL TWO-TO-ONE AND TWO-THIRDS UNLESS OTHERWISE INDICATED.

MOSLEY GROVE
GRADING PLAN (LESS IMPROVEMENTS)

Prepared By Civil Engineer:

 **wind**
ENGINEERING COMPANY

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BLUESCHER DITCH & ASSOC., INC.
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2025 FIFTH STREET, SUITE 200
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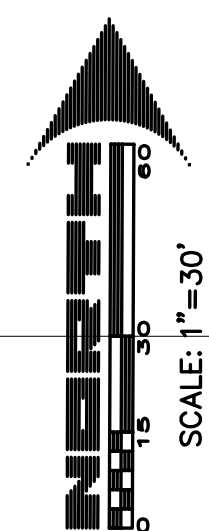
Prepared For:

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314-936-5555

REVISIONS	
5	06/15/14 TREE PRIS. PLAN EDIT/ CITY COMMENT
4	04/22/14 IN HOUSE REVISIONS
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Drawn By:	PC,GS C. S. O.: GS
Checked By:	DW
Project Number:	12043.02
Sheet Number:	C5.1
MSD P- 0029773-00	BASEMAP 17N4



BIORETENTION PREPARATION GENERAL NOTES:

- GENERAL CONSTRUCTION PHASING:
1. CONSTRUCTION SITE RUNOFF SHALL NOT FLOW INTO THE WATER QUALITY BMP(S). ALL STORMWATER FLOW TO THE STORMWATER BMP(S) SHALL BE DIVERTED, PLUGGED, OR DISCONNECTED UNTIL CONSTRUCTION SITE IS STABLE AND THE MSD DEDICATION INSPECTOR PROVIDES APPROVAL TO PLACE THE BMP(S) ONLINE.
SOIL TEXTURE AND STRUCTURE:
PERMEABLE SOIL FOR FILTER FACILITIES SHOULD HAVE:
A SANDY LOAM OR LOAMY SAND (SHOULD CONTAIN A MINIMUM OF 60% SAND, BY VOLUME).
1. SAND 40% (MIN)
2. SILT 30% (MAX)
3. CLAY CONTENT LESS THAN 10% BY VOLUME
4. REQUIRED SATURATED HYDRAULIC CONDUCTIVITY= MINIMUM 2 FT/DAY REQUIRED.
5. THE SOIL MUST BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER WOODY MATERIAL LARGER THAN ONE INCH IN DIAMETER. NO OTHER MATERIALS OR SUBSTANCES SHOULD BE MIXED OR DUMPED WITHIN THE BIORETENTION THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS.
6. THE PLANTING SOIL MUST BE FREE OF PLANT OR SEED MATERIAL OF NON-NATIVE, INVASIVE SPECIES, OR NOXIOUS WEEDS, FOR BEST RESULTS. BRUSH OR SEEDS FROM NOXIOUS WEEDS, SUCH AS JOHNSON GRASS, MUHURK, NUTSEDGE AND CANADIAN THISTLE SHOULD NOT BE PRESENT IN THE SOILS.

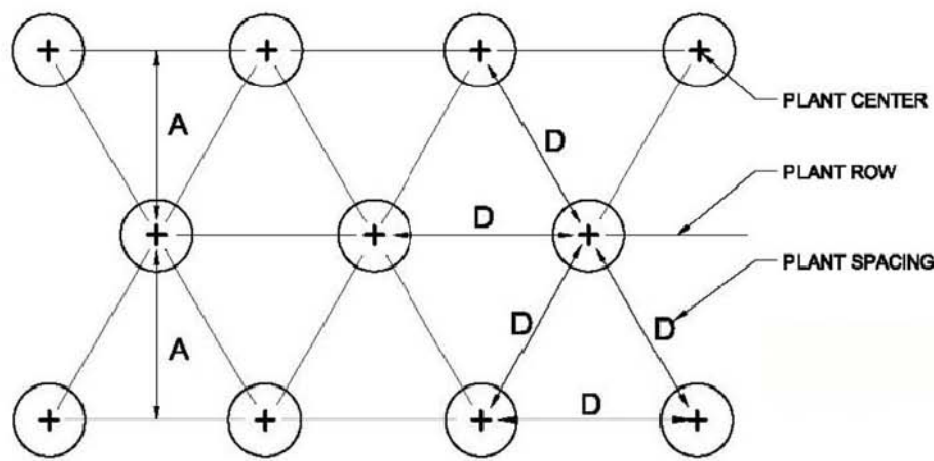
PLANTING SOIL CHARACTERISTICS (per MSD Landscape Guide for Stormwater BMPs)	
PARAMETER	VALUE
pH RANGE	5.2 TO 8.00
ORGANIC MATTER	1.5% TO 5.0%
MAGNESIUM	35 LBS. / AC. (MINIMUM)
PHOSPHORUS (PO ₄ -O ₃)	75 LBS. / AC. (MINIMUM)
SOLUBLE SALTS	< OR = TO 500 ppm
POTASSIUM (K ₂ O)	85 LBS. / AC. (MINIMUM)

- SOIL PREPARATION:
1. PERMEABLE SOIL IS TO BE PRE-MANUFACTURED SOIL DESIGNED TO THE ABOVE SPECIFICATIONS. SOIL SHALL BE PREPARED AND/OR TRANSPORTED TO THE FACILITY LOCATION WHEN READY FOR INSTALLATION.
2. PRIOR TO INSTALLATION, THE SOIL MIX SHOULD BE CERTIFIED AS MEETING THE CRITERIA ESTABLISHED FOR THE SOIL. MEDIUM AND APPROVED BY THE SITE INSPECTOR.
SOIL PLACEMENT:
1. PLACEMENT OF THE PLANTING SOIL IN THE FILTER AREA SHOULD BE IN LIFTS OF 12 TO 18 INCHES AND LIGHTLY COMPACTED. MINIMAL COMPACTION EFFORT CAN BE APPLIED TO THE SOIL BY TAMPING WITH A BUCKET FROM A DOZER OR BACKHOE. LIFTS ARE NOT TO BE COMPACTED BUT ARE PERFORMED IN ORDER TO REDUCE THE POSSIBILITY OF EXCESSIVE SETTLEMENT. INSTALLATION OF SOILS MUST BE DONE IN A MANNER THAT WILL ENSURE ADEQUATE FILTRATION.
SOIL COMPACTION:
1. AVOID OVER COMPACTION BY ALLOWING TIME FOR NATURAL COMPACTION AND SETTLEMENT. NO ADDITIONAL MANUAL COMPACTION OF SOIL IS NECESSARY.
2. RAKE SOIL MATERIAL AS NEEDED TO LEVEL OUT. OVERRILL ABOVE THE PROPOSED SURFACE INVERT TO ACCOMMODATE NATURAL SETTLEMENT TO PROPER GRADE.
3. DEPENDING UPON THE SOIL MATERIAL, UP TO 20% NATURAL COMPACTION MAY OCCUR. CONTRACTOR SHALL FINISH GRADING AFTER SIGNIFICANT SETTLEMENT HAS OCCURRED.
4. IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF THE REQUIRED BACKFILL. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCING FILTRATION RATES AND STORAGE VOLUMES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER.
5. WHEN BACK FILLING THE FACILITY, DO NOT USE HEAVY EQUIPMENT WITHIN THE BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE FILTER MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

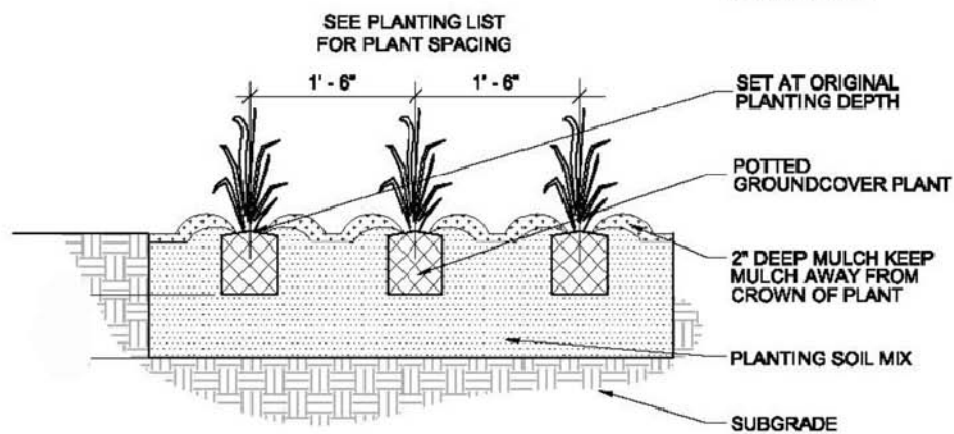
- SOIL PRESOAK:
1. IN ORDER TO SPEED UP THE NATURAL COMPACTION PROCESS, PRESOAKING THE PLACED SOIL MAY BE PERFORMED. SIGNIFICANT SETTLEMENT CAN OCCUR AFTER THE FIRST PRESOAK, AND ADDITIONAL SETTLEMENT MAY OCCUR SUBSEQUENT TO THE INITIAL WETTING. IF TIME AND CONSTRUCTION SCHEDULING PERMITS, IT IS PREFERABLE TO ALLOW NATURAL SETTLEMENT TO OCCUR WITH THE HELP OF RAIN EVENTS TO PRESOAK THE SOIL MEDIUM. SAND:
1. SAND SHOULD BE CLEAN AND FREE OF DELETERIOUS MATERIALS: MEETING AASHTO M-8 OR ASTM C-33 WITH GRAIN SIZE OF 0.075-0.04". GRAVEL:
1. 6" - PEA GRAVEL SHALL BE AASHTO M-43 No. 8
2. 6" - 3/4" CLEAN GRAVEL SHALL BE AASHTO M-43 No. 6 OR 67
GEOTEXTILE:
1. MSD TYPE 4
PLANTING, WATERING & MULCHING:
1. MULCH SHALL BE A 2" SHREDDED HARDWOOD
2. PLANTS SHALL BE PER "BIORETENTION LANDSCAPE PLANTING TABLE"
3. HEALTHY (AND MAINTENANCE) SHALL BE CONDUCTED SUFFICIENTLY TO MAINTAIN HEALTHY PLANT GROWTH PER BIORETENTION PLANT SUPPLIER RECOMMENDATIONS.
4. SEE "PLANTING, WATERING, MULCHING REQUIREMENTS FOR STORMWATER BMPs" (BELOW)

SPACING "T"	ROW "A"	NUMBER OF PLANTS/SQ. FT.
30"	20"	100
24"	20.8"	25
18"	15.8"	450
15"	13.0"	640
12"	10.4"	1,000
10"	8.66"	1,440
8"	6.93"	2,250

NOTE: PLANT QUANTITIES WERE DETERMINED BY MULTIPLYING AREA (SQ. FT.) BY NUMBER OF PLANTS/SQ. FT. FOR REQUIRED SPACING.



Quantity of plants as noted in planting schedule.



- NOTES:
1. REMOVE SPENT FLOWERS PRIOR TO PLANTING.
2. LOOSEN ROOT MASS AT BOTTOM OF ROOTBALL.
3. TOP OF ROOTBALL STRIPPED OF 1/4" SURFACE GROWING MEDIA AND COVERED WITH 1/2" LANDSCAPE BED MIX PLUS SURFACE MULCH.
4. SEE "PLANTING, WATERING, MULCHING REQUIREMENTS FOR STORMWATER BMPs" (BELOW)

PLANT SPACING SCHEDULE

SCALE: NTS

Planting, Water and Mulch Requirements for Stormwater BMPs

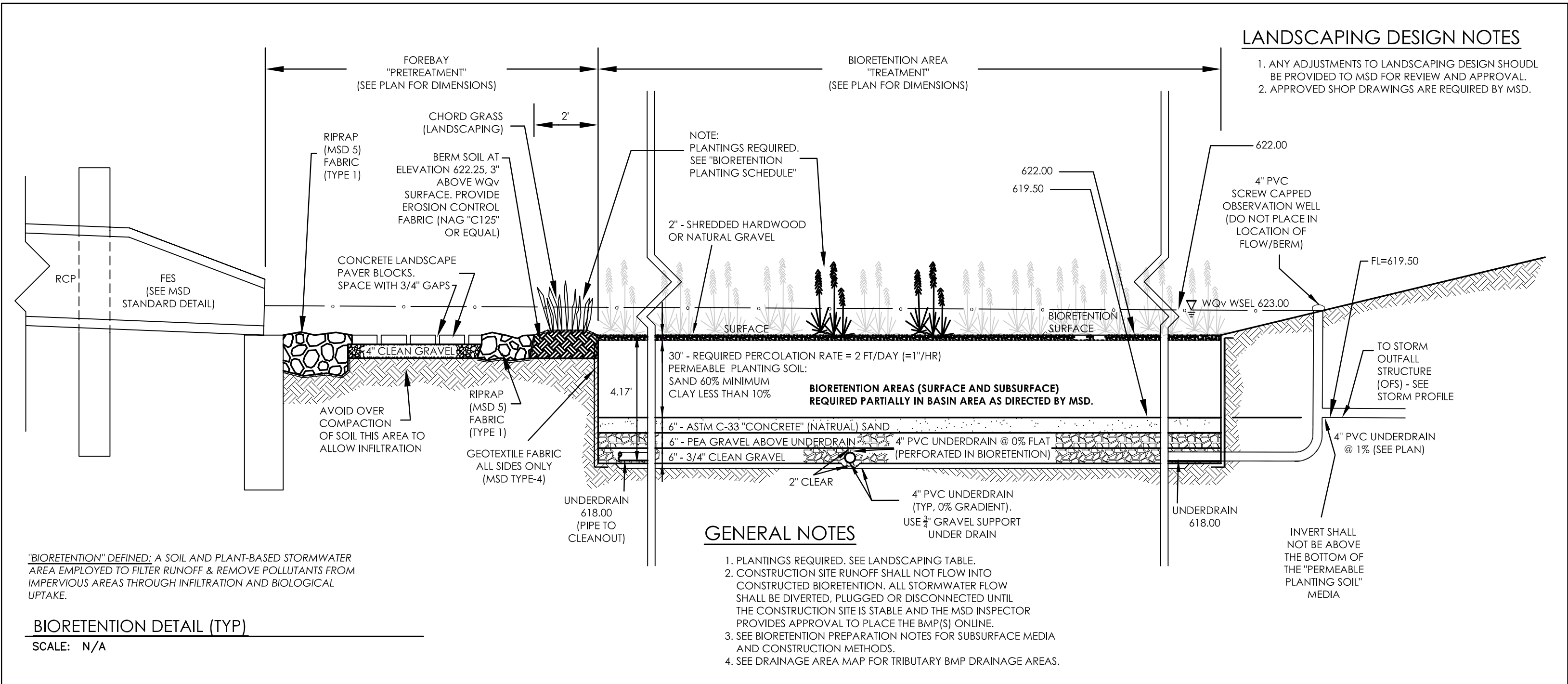
Water Availability	Required Planting Period	Minimum Container Size	Water Requirement First 3 Weeks*	Water Requirement After 3 Weeks*	Maximum Mulch Depth****
No ability to water after	Late Feb. - April only	2.25" x 3.75" or larger	Water each plug immediately		1.5" for plugs
Manual watering with standard sprinkler	Late Feb. - Early June	4.5" x 5" (quart) or larger in summer & fall	1" (60 min) every 4 days	1" (60 min) every 7 days until plants established***	1.5" for plugs
Automatic irrigation (set to water more frequently than normal during first two months after planting)	Late Feb. - Early Oct.	2.25" x 3.75" (plug) or larger in spring	1" (60 min) every 4 days in spring and fall	1" (60 min) every 7 days until plants established***	1.5" for plugs
		4.5" x 5" (quart) or larger in summer & fall	1" (60 min) every 3 days in summer		2.5" for quarts

*This water amount includes natural rainfall. If you get a 1/8 inch of natural rain then you will need to add a 1/8 inch of water to meet the 1 inch requirement.

**Requires transport of water to the planting site in large containers and pouring enough water onto each plant (after planting) to moisten the entire planting pit.

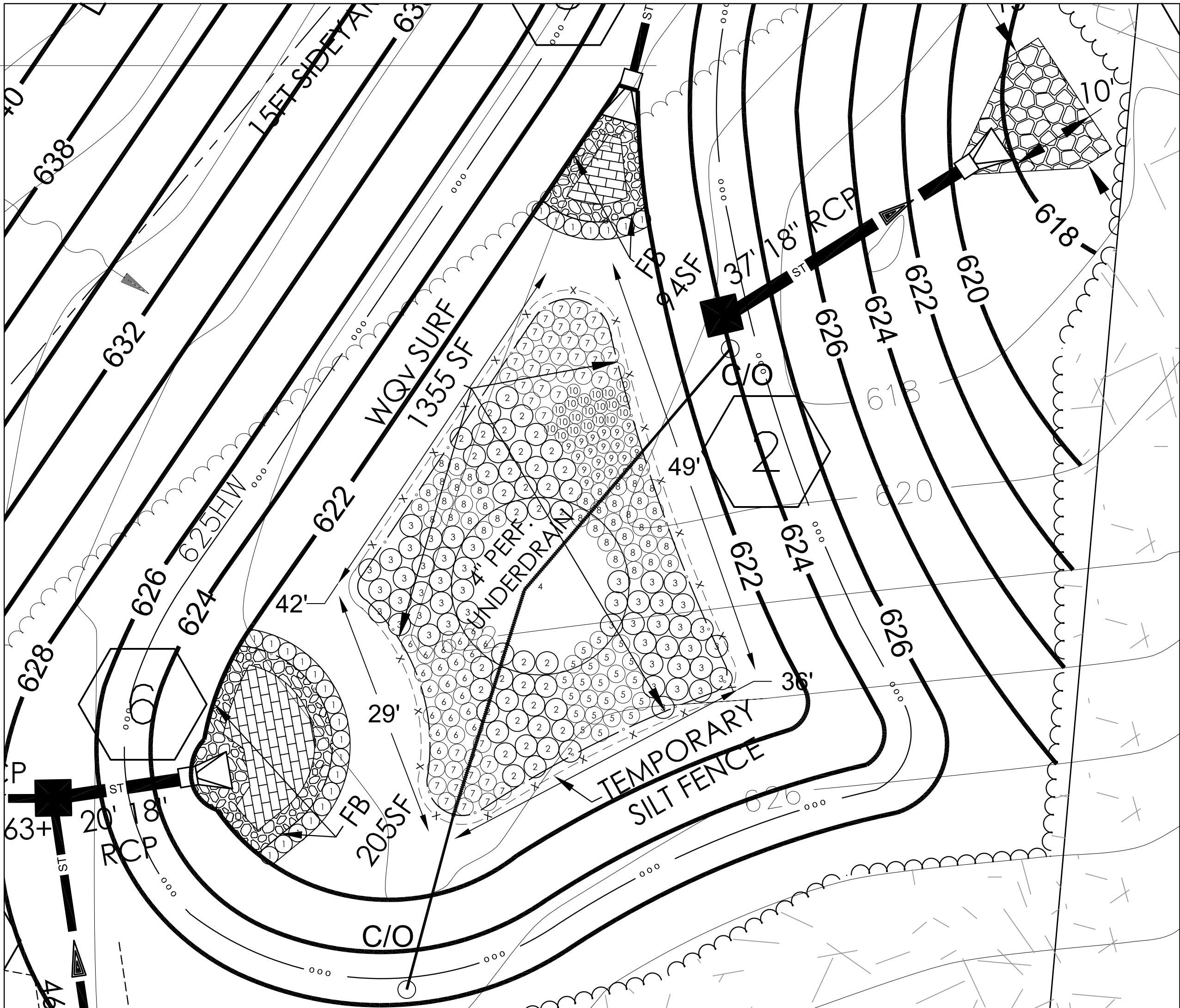
***Plants are established when roots have grown out of the container soil and into the native soil by 3-5 inches. This normally takes 3-4 months for most perennials and grasses and up to 6-7 months for trees and shrubs.

****Shredded leaf compost is recommended for use with perennials and grasses. Shredded bark mulch is recommended for tree and shrub plantings at a depth of 3 inches.



GENERAL NOTES

1. PLANTINGS REQUIRED. SEE LANDSCAPING TABLE.
2. CONSTRUCTION SITE RUNOFF SHALL NOT FLOW INTO CONSTRUCTED BIORETENTION. ALL STORMWATER FLOW SHALL BE DIVERTED, PLUGGED OR DISCONNECTED UNTIL THE CONSTRUCTION SITE IS STABLE AND THE MSD INSPECTOR PROVIDES APPROVAL TO PLACE THE BMP(S) ONLINE.
3. SEE BIORETENTION PREPARATION NOTES FOR SUBSURFACE MEDIA AND CONSTRUCTION METHODS.
4. SEE DRAINAGE AREA MAP FOR TRIBUTARY BMP DRAINAGE AREAS.



BIORETENTION PLANTING SCHEDULE

PLANT NO. (SEE PLAN) (#)	SOFT	SPECIES	PARTICULAR SPECIES	COMMON NAME	SPACING (FT)	FLOOD HEIGHT TOLERANCE (IN)	NUMBER OF PLANTS
1	75	Grasses / Sedges	Spartina Pectinata	Cord Grass	2	48	24
2	216	Forbs	Amorpha Illinoensis	Shining Bluestar	2.5	36	44
3	231	Forbs	Hibiscus Latifolius	Rose Mallow	2.5	36	47
4	314	Tree	Carpinus Caroliniana	Muscledwood	20	6	1
5	72	Grasses / Sedges	Adropogon gerardii	Big Bluestem	2	12	23
6	69	Forbs	Aster Novae-angliae	New England Aster	2	24	22
7	141	Forbs	Chelone Obliqua	Rose Turtlehead	2	12	45
8	129	Forbs	Iris Virginica	Southern Blueflag Iris	2	36	41
9	35	Forbs	Ratibida Pinnata	Yellow/Grey Coneflower	1.5	12	20
10	35	Grasses / Sedges	Carex Vulpinoidea	Fox Sedge	1.5	24	20
1319							287

BIORETENTION (F-6)			
WATER QUALITY CALCULATIONS, WQv:		REQUIRED	PROVIDED COMMENTS
SITE AREA (SF)		214194	
SITE AREA (AC)		4.92	
WQv=1.14(.05+.009(I))*A			
A, BMP DRAINAGE AREA (SF):		178596	
A, BMP DRAINAGE AREA (AC):		4.10	
I, PERCENT IMPERVIOUS:		20%	
WQv, (AF):		0.0880	
WQv (CF):		3.835	*WQv REQUIRED
CHECK MIN STORAGE VOL OF 0.2 IN/AC			
SITE AREA (AC)		4.92	
WQv=SITE AREA*0.2/12 FT/AC, (AF):		0.08	
WQv (CF):		3570	(USE WQv EQN)

PRETREATMENT:

SURFACE AREA REQUIRED (PRETREATMENT):			
Asf (I < 75%) = 0.066 (WQv) (SF)			
Asf=SURFACE AREA OF PRETREATMENT			
WQv=WATER QUALITY VOLUME (CF):		3835	
Asf (SF):		253	*Asf REQUIRED
VOLUME REQUIRED (PRETREATMENT):			
Vst=25% WQv			
Vst (CF):		959	*Vst REQUIRED

SURFACE AREA PROVIDED (PRETREATMENT):			
Asf surf (SF):		253	*Asf surf PROVIDED
SURFACE VOLUME PROVIDED (PRETREATMENT):			
Vst surf=1/3*Pi*(R1^2+R1^2+R2^2)*D			
SURFACE AREA, A1 (SF):		300	
R1=bottom equivalent radius=(A1/Pi)*(1/2) (SF):		9.77	
SURFACE AREA ELEVATION (FT):		622.00	
HIGHWATER AREA (SF):		300	
R2=hw equivalent radius=(A2/Pi)*(1/2) (SF):		9.77	
HIGHWATER ELEVATION (FT):		623.00	
PONDING DEPTH, D (FT):		1.00	
Vst surf(CF):		300	*Vst surf PROVIDED

TREATMENT:

VOLUME REQUIRED (TREATMENT):			
Vt=50% WQv (50% / PRETREATMENT PROVIDED)			
Vt (CF):		1917	*Vt REQUIRED
SURFACE AREA REQUIRED:			
Asf=(100% WQv) / (k * (h + d) * f)			
Asf=SURFACE AREA OF FILTER BED			
WQv=WATER QUALITY VOLUME (CF):		3835	
HEIGHT OF WATER ABOVE FILTER BED (FT)		3.0	
h=AVE. HEIGHT OF WATER ABOVE FILTER BED (FT):		1.50	
d=FILTER BED DEPTH (FT):		4.17	
k=COEFF. OF PERM (FT/DAY):		2.00	
t=DESIGN FILTER BED DRAIN TIME (DAYS):		2.00	
Asf (SF):		705	*Asf REQUIRED
SURFACE VOLUME PROVIDED (TREATMENT):			
Vt surf=1/3*Pi*(R1^2+R1^2+R2^2)*D			
SURFACE AREA, A1 (SF):		1355	
R1=bottom equivalent radius=(A1/Pi)*(1/2) (SF):		20.77	
SURFACE AREA ELEVATION (FT):		622.00	
HIGHWATER AREA (SF):		1355	
R2=hw equivalent radius=(A2/Pi)*(1/2) (SF):		20.77	
HIGHWATER ELEVATION (FT):		623.00	
PONDING DEPTH, D (FT):		1.00	
Vt surf(CF):		1356	*Vt surf PROVIDED

SUBSURFACE VOLUME PROVIDED:			
VOID RATIO (%)		35%	
SURFACE AREA (SF):		1355	
PLANTING SOIL DEPTH (FT):		2.67	
SAND DEPTH (FT):		0.50	
GRAVEL / UNDERDRAIN DEPTH (FT):		1.00	
TOTAL DEPTH (FT):		4.17	
Vt subsurf (CF):		1978	*Vt subsurf PROVIDED

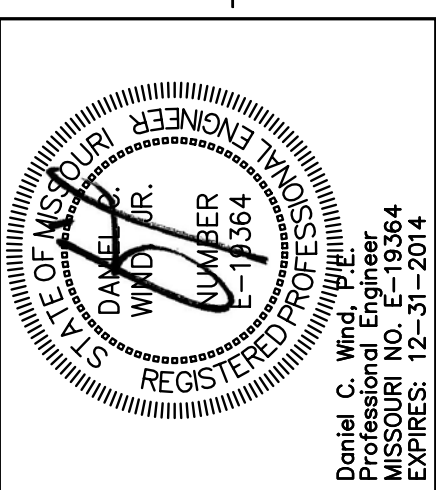
TOTAL TREATMENT VOLUME PROVIDED:			
Vt = Vt SURF + Vt subsurf, (CF)		3333	*Vt PROVIDED
TOTAL TREATMENT SURFACE AREA PROVIDED:			
Asf (SF):		1355	*Asf PROVIDED

WQv VOLUME RESULTS:

TOTAL VOLUME REQUIRED:	2876	**
TOTAL VOLUME PROVIDED:	3333	**
CHECK DIFFERENCE (CF):	457	
DIFFERENCE (%):	116%	

BMP / STORMWATER CREDIT SUMMARY TABLE

LAND DISTURBANCE AREA (Ac)	BMP TRIBUTARY DRAINAGE AREAS	BMP DRAINAGE AREA (Ac)	STRUCTURAL BMP	STORMWATER CREDIT	WQv STORAGE REQUIRED (Cu.Ft.)	WQv STORAGE PROVIDED (Cu.Ft.)
3.79	A-H, & K	4.10	BIORETENTION	N/A	2876	3333



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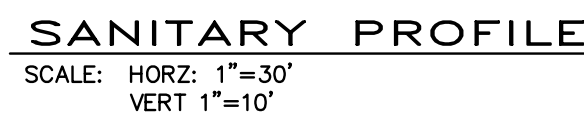
BENTON Homebuilders
Prepared For: BUESCHER DITCH & ASSOC., INC.
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NO.	DATE	DESCRIPTION
1	03/15/14	TREE PRES. PLAN EDITS / CITY COMMENT
2	04/22/14	IN HOUSE REVISIONS
3	04/08/14	CITY COMMENTS
4	07/01/14	MSD REVIEW COMMENTS
5	12/01/13	SURVEY UPDATES, CITY REVIEW & MSD COMMENTS

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Drawn By: PC, GS	C. S. O.: GS
Checked By:	DW
Project Number:	12043.02
Sheet Number:	C6
MSD P- 0029773-00	BASEMAP 1794



KEYED NOTES

SEE INDIVIDUAL SHEETS AS FOLLOWS FOR ADDITIONAL NOTES

1. ADJUST TS ELEVATIONS AS REQUIRED SUBJECT TO LOWER TF ELEVATIONS OR GREATER DEPTH OF FOUNDATION(S); COORDINATE WITH BUILDER IN ADVANCE OF CONSTRUCTION (TYP).
2. DEPTH TO ROCK UNK. GEOTECHNICAL FIELD TESTING NOT AVAILABLE AT THE TIME THESE PLANS WERE PREPARED.
3. ADJUST TOP OF MANHOLE ELEVATION AS REQ'D TO MATCH EXISTING ELEVATION IN PAVEMENT (AS REPLACED.). PROVIDE EXPANSION JOINTS IN PAVEMENT AROUND MANHOLE AS PER APPLICABLE STDs OF CITY OF CREVE COEUR AND MSD.



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MOSLEY GROVE SANITARY PROFILE

ed For:

BENTON
Homebuilders

1000 EXECUTIVE PARKWAY, SUITE 106
CREVE COEUR, MO 63141

Land Surveyor:

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Drawn By: PC,GS C. S. O.: GS

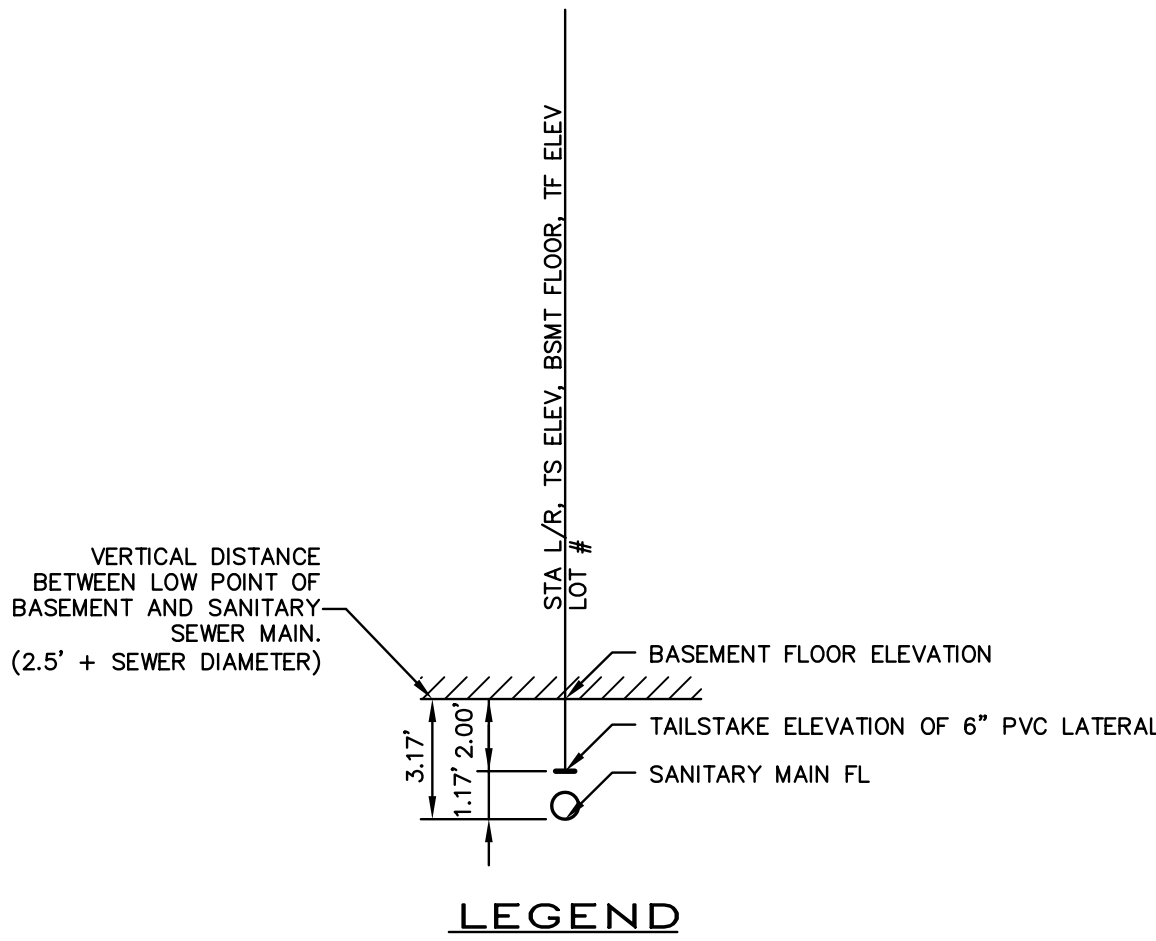
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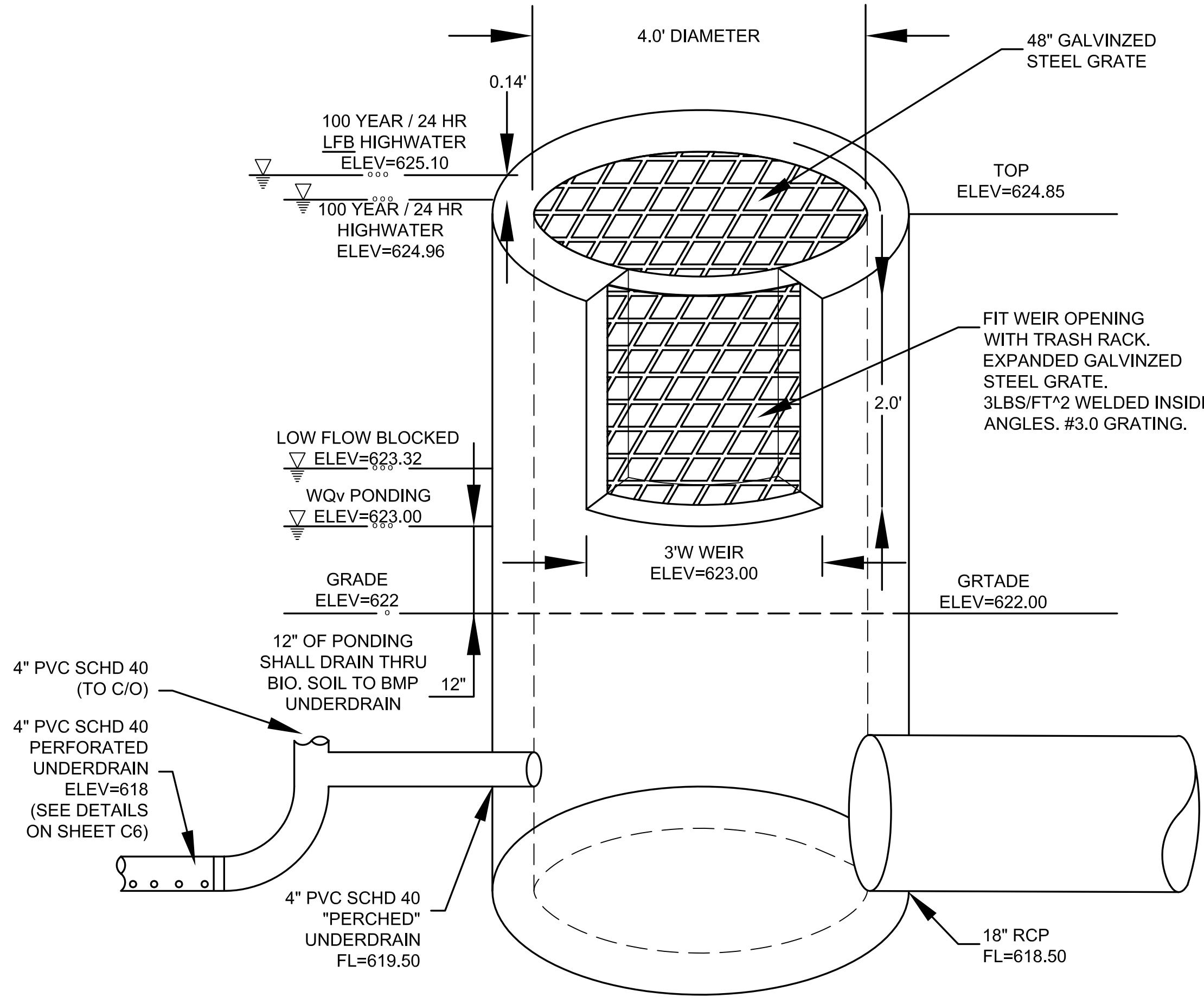
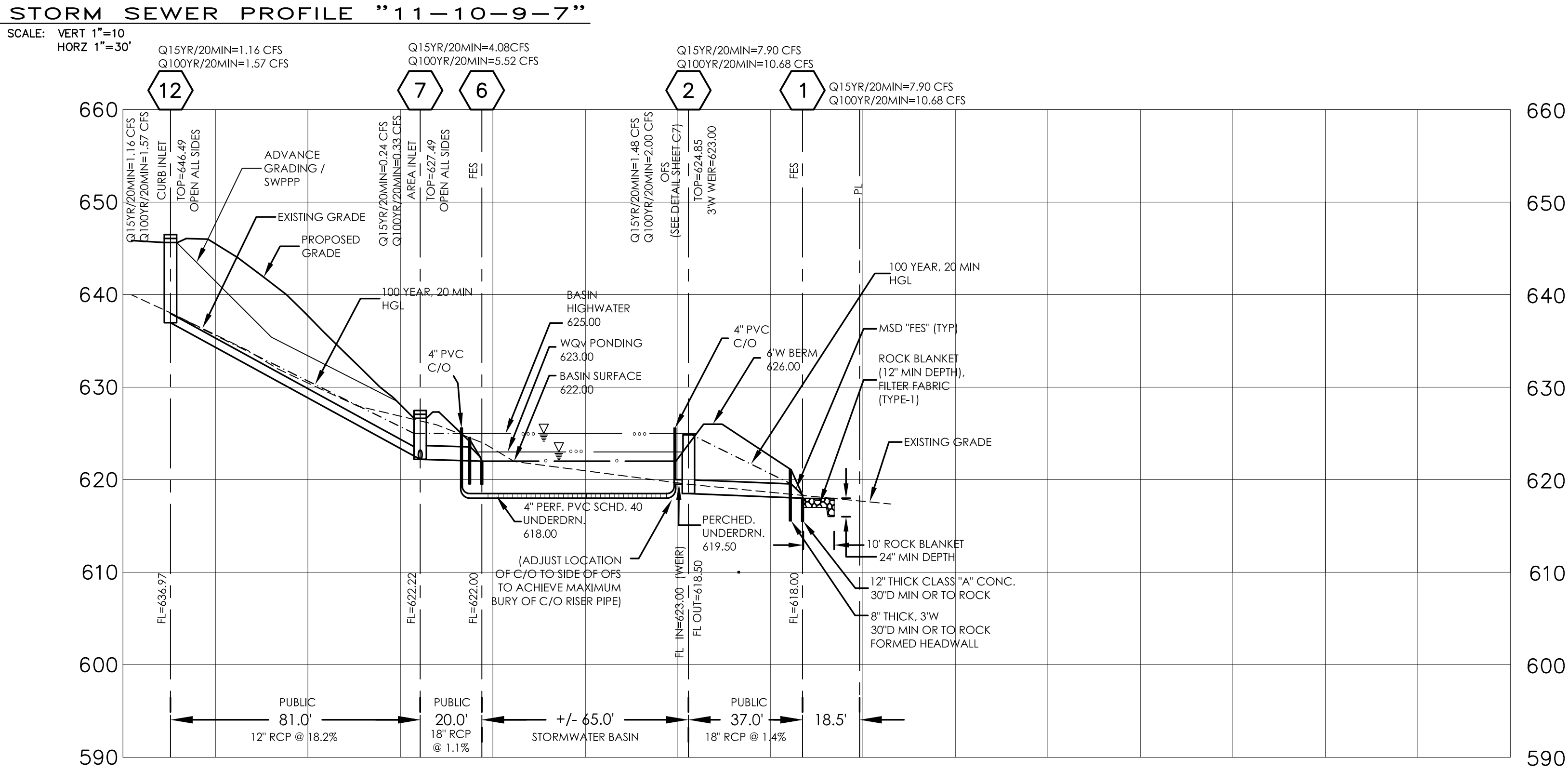
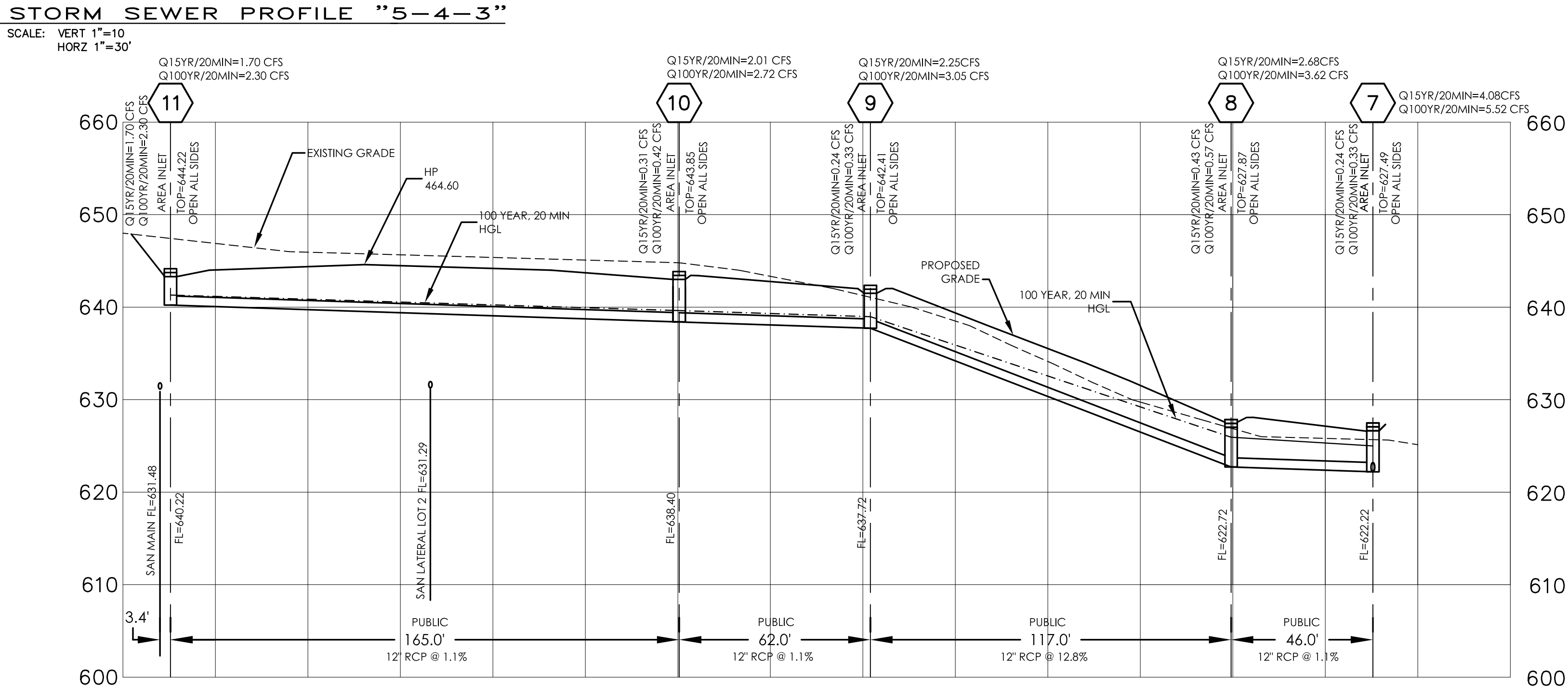
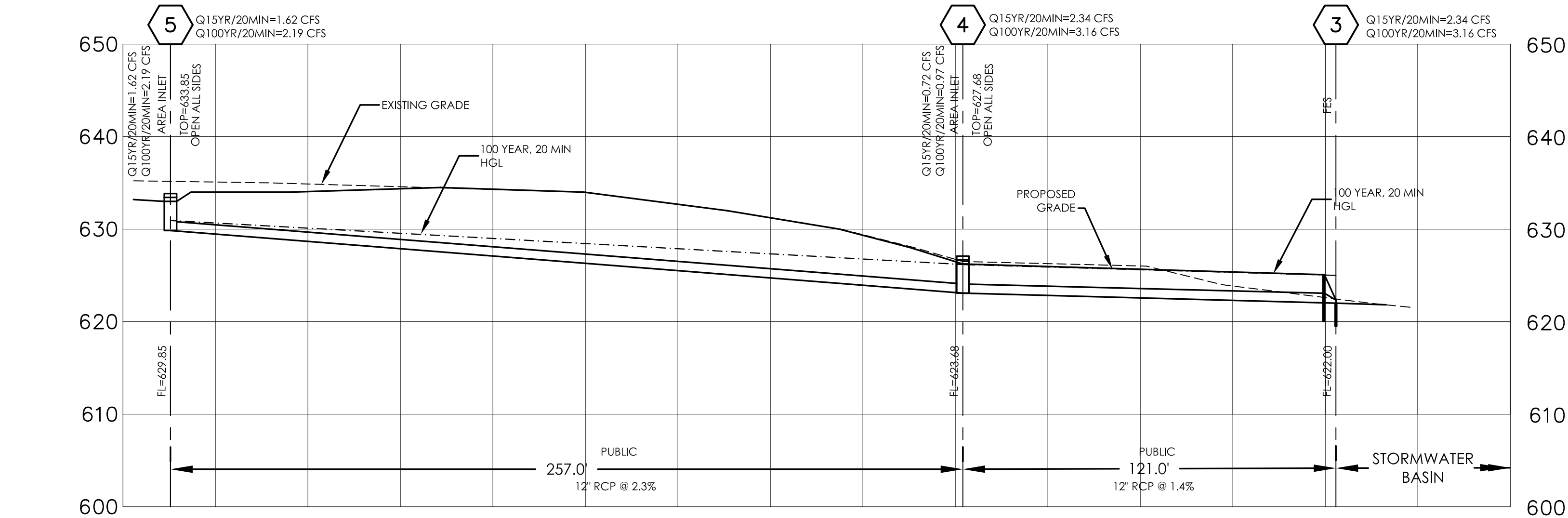
Sheet Number: C7

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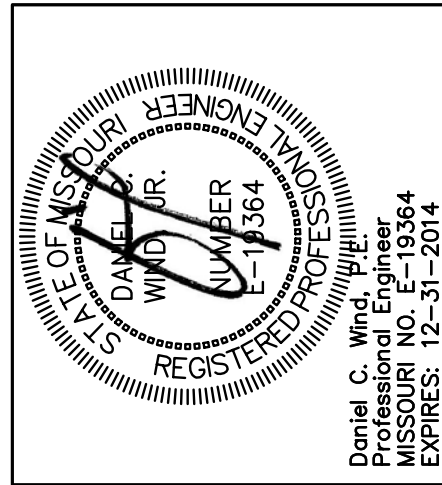
MSD P- 0029773-00 BASEMAP 17N4



NOTE: CONTRACTOR SHALL PROVIDE DOCUMENTATION OF FINAL SANITARY LATERAL WHLY LOCATIONS.



SHOP DRAWING NOTE:
THE PROJECT ENGINEER SHALL PROVIDE SIGNED AND SEALED SHOP DRAWINGS FOR APPROVAL TO MSD PROR TO
CONSTRUCTION OF THIS STRUCTURE. THE MSD CONTACT PERSON IS BRIAN DUNN, PHONE: (314) 335-2072



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MOSLEY GROVE STORM PROFILES

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No.	Date	Description
1	03/15/14	TREE PRES. PLAN EDITS / CITY COMMENT
2	04/22/14	IN HOUSE REVISIONS
3	04/08/14	CITY COMMENTS
4	01/07/14	MSD REVIEW COMMENTS
5	12/10/13	SURVEY UPDATES, CITY REVIEW & MSD COMMENTS

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Checked By:	DW
Project Number:	12043.02
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PROPOSED DRAINAGE AREA RUNOFF TABLE

SITE AREA ALLOCATION TABLE
"SITE DIFFERENTIAL RUNOFF TABLE"
(ASSUMES PRE-DEVELOPED CONDITIONS
ARE 100% PERVIOUS)

FLOOR AREA RATIO [F.A.R.]						
BUILDING COVERAGE						
SITE COVERAGE / OPEN SPACE						
STORMWATER RUNOFF CALCULATIONS						
DIFFERENTIAL RUNOFF FOR 15 YR		20 MIN	RAINFALL EVENT			
NO.	ITEM		AREA (SF) / %	AREA (AC) / %	PI RUNOFF FACTOR (CFS / AC)	RUNOFF (CFS)
		Rounded to:	100 SF ± 1	0.01	0.01	0.01
1	SITE AREA EXISTING		214,053	4.91		
2	TOTAL BLDG AREA (ALL FLOORS)		0	0		
3	FLOOR AREA RATIO [F.A.R. =27/1]		0%			
4	ROOF, INCL OVERHANGS AND CANOPIES		0	0	0	0
5	BUILDING COVERAGE [=4/1]		0			
6	PAVEMENT + FLATWORK [calc'd ave PI]		0	0	3.54	0
a	Asphalt and Concrete		0	0.17	3.54	0
b	Aggregate / Gravel / Crushed Stone		0	0.00	3.17	0
c	Porous Pavement + Unit Pavers, w/ base		0	0.00	1.70	0
7	SITE COVERAGE [calc'd ave PI]		0			
8	SITE COVERAGE [=7/1]		5%			
9	GRASS / OPEN [=1÷7]		214,053	4.91	1.70	8.35
10	OPEN SPACE [=9/1]		100%			
11	SURFACE TOTALS [=4+6+9]		214,053	4.91		8.35
12	AVE PI FACTOR FOR 15 YR EVENT				1.70	
13	TOTAL BLDG AREA (ALL FLOORS)		33,000	0.76		
14	FLOOR AREA RATIO [F.A.R. =13/1]		15%			
15	ROOF, INCL OVERHANGS AND CANOPIES		22,000	0.51	3.54	1.79
16	BUILDING COVERAGE [=15/1]		18,380			
17	PAVEMENT + FLATWORK [calc'd ave PI]		18,380	0.42	3.54	1.49
a	Asphalt and Concrete		0	0.42	3.54	1.49
b	Aggregate / Gravel / Crushed Stone		0	0.00	3.17	0.00
c	Porous Pavement + Unit Pavers, w/ base		0	0.00	1.70	0.00
18	SITE COVERAGE [calc'd ave PI]		40,380	0.93	3.54	3.28
19	SITE COVERAGE [=18/1]		19%			
20	GRASS / OPEN [=1÷18]		173,673	3.99	1.70	6.78
21	OPEN SPACE [=20/1]		81%			
22	SURFACE TOTALS [=15+17+20]		214,053	4.91		10.06
23	AVE PI FACTOR FOR 15 YR EVENT				2.05	
24	DIFFERENTIAL STORMWATER RUNOFF, CFS [=22-1]					1.7

BMP / STORMWATER CREDIT SUMMARY TABLE						
LAND DISTURBANCE AREA (Ac)	BMP TRIBUTARY DRAINAGE AREAS	BMP DRAINAGE AREA (Ac)	STRUCTURAL BMP	STORMWATER CREDIT	WQv STORAGE REQUIRED (Cu.Ft)	WQv STORAGE PROVIDED (Cu.Ft)
3.79	A-H & K	4.10	BIORETENTION	-	2876	3333

THIS SHEET IS NOT FOR CONSTRUCTION



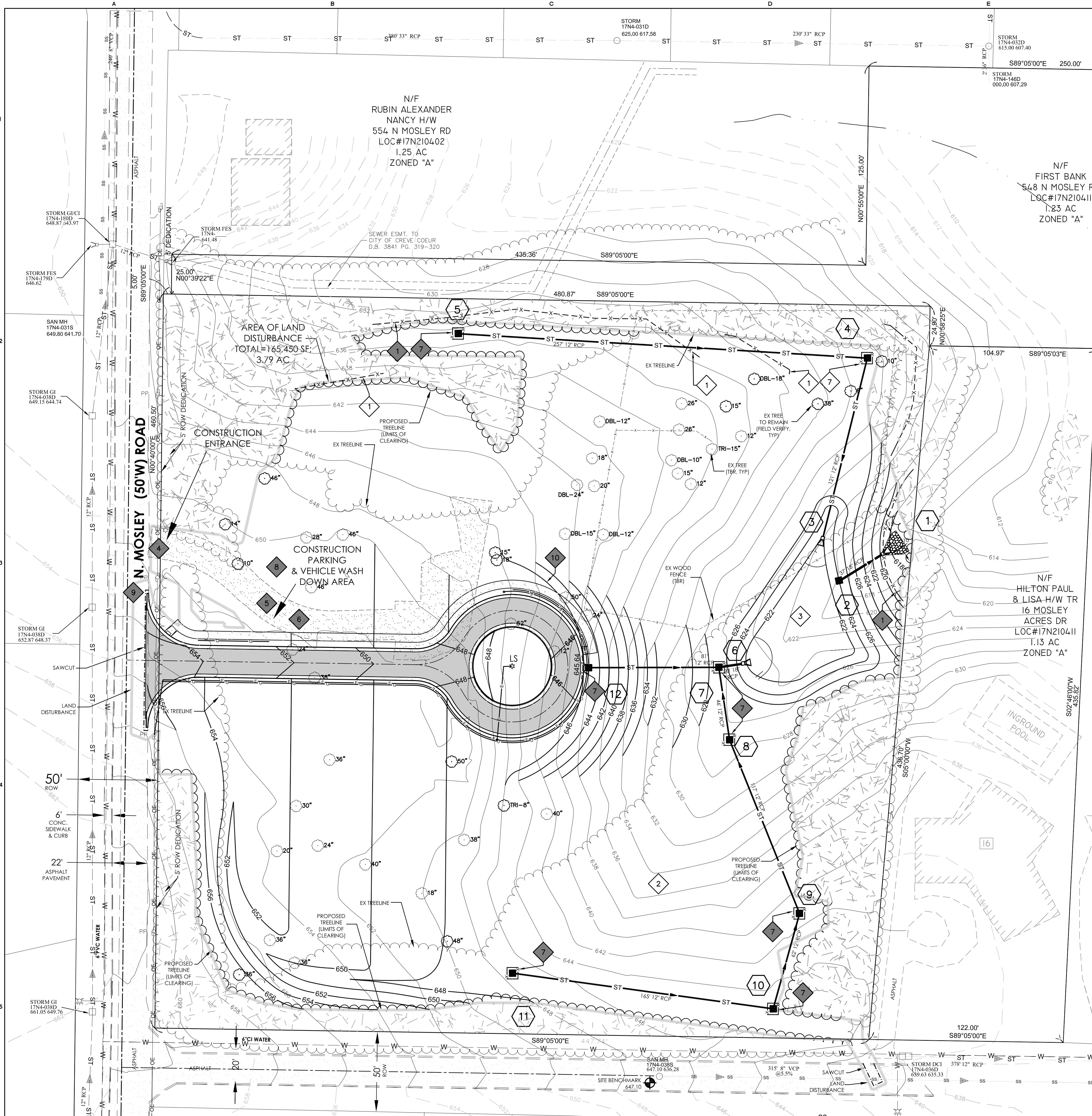
MOSLEY GROVE DRAINAGE AREA MAP

Prepared By Civil Engineer:  122 N. Redwood Road Kirkwood, MO 63122 Telephone: 314.765.5500 Fax: 314.765.5501 Email: wind@windengineering.com Web: www.windengineering.com C.O.#: IE1-1607-D	Land Surveyor:  BUESCHER DITCH & ASSOC., INC. CIVIL ENGINEERING AND SURVEYING P.O. BOX 521 P.O. BOX 521 WASHINGTON, MO 63090 Tel: (636) 239-0080 Fax: (636) 239-0081	Prepared For: BENTON Homebuilders 1000 DECISION PARKWAY, SUITE 106 ST. LOUIS, MISSOURI 63114 31.4.55.5555
---	---	---

3	03/13/14	FREE PRESS, FLYER EDIT 3 CITY COMMENT
4	04/22/14	IN HOUSE REVISIONS
3	04/08/14	CITY COMMENTS
2	01/10/14	MSD REVIEW COMMENTS
1	12/10/13	SURVEY UPDATES, CITY REVIEW & MSD COMMENTS
No. Date:	Description:	P.E. Signature

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Checked By:	DW
Project Number:	12043.02
Sheet Number:	C9
MSD P- 002973-00	BASEMAP 17N4



KEYED NOTES

- GENERAL: SEE KEYED NOTES OTHER SHEETS FOR APPLICABILITY.
1. INSTALL SILT FENCE. ADD AS DIRECTED BY CITY OF CREVE COEUR (TYP).
 2. ALL EXISTING IMPROVEMENTS IN AREA OF LAND DISTURBANCE SHALL BE REMOVED AS DIRECTED BY OWNER. SEE SHEET C3 FOR LIMITS OF CLEARING.
 3. INSTALL SEDIMENT BASIN. STABILIZE OUTFALL WITH ROCK OUTLET WHERE DISCHARGING TO GRADE.
 4. CONSTRUCTION ENTRANCE. UTILIZE EXISTING ASPHALT DRIVEWAY.
 5. OFF STREET CONSTRUCTION PARKING. UTILIZE EXISTING ASPHALT DRIVEWAY.
 6. WASH DOWN AREA. PROVIDE WATER TRUCK OR OBTAIN TEMPORARY TAP FROM MOHAM WATER.
 7. INLET FABRIC DROP.
 8. CONCRETE WASTE. COORDINATE APPROVALS WITH CITY OF CREVE COEUR FOR ALTERNATE CONCRETE WASTE METHODS.
 9. 500 ROW AS DIRECTED BY CITY OF CREVE COEUR.
 10. INTERIM GRADING PRIOR TO DETERMINATION OF CUSTOM HOME EXCAVATION SPOILS TO BE RETAINED ON SITE AS FILL.

GENERAL NOTES

- GENERAL: SEE KEYED NOTES OTHER SHEETS FOR APPLICABILITY.
1. INDIVIDUAL LOT SWPPPS SHALL BE DEVELOPED / FILED AS HOMES ARE CONSTRUCTED / FINAL DESIGN.
 2. ANY LAND DISTURBANCE ACTIVITY INVOLVING ONE (1) ACRE OR MORE OF LAND IS A MAJOR LAND DISTURBANCE (MLD) AND A LAND DISTURBANCE PERMIT FOR THE MLD MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS. ANY LAND DISTURBANCE ACTIVITY INVOLVING LESS THAN ONE (1) ACRE IS AN ORDINARY LAND DISTURBANCE AND THE APPROPRIATE PERMIT(S) MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS.
 3. SITUATION CONTROL SHALL BE IN PLACE PRIOR TO START OF GRADING.
 4. NO SLOPES SHALL EXCEED 3 (HORIZONTAL) TO 1 (VERTICAL), UNLESS JUSTIFIED BY A GEOTECHNICAL REPORT, WHICH HAS BEEN ACCEPTED/ APPROVED BY CITY OF CREVE COEUR.
 5. ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO CITY OF CREVE COEUR STANDARDS AND CONSTRUCTION SPECIFICATIONS.
 6. A LAND DISTURBANCE PERMIT WILL BE REQUIRED. SITE PLAN/PLAT APPROVAL IS NOT TO BE CONSTRUED AS APPROVAL OF A LAND DISTURBANCE PERMIT.
 7. GEOTECHNICAL ENGINEERING WAS NOT PERFORMED PRIOR TO PLAN PREPARATION. GEOTECHNICAL ENGINEERING RECOMMENDATIONS TO BE USED AT THE DISCRETION OF OWNER AND/OR CONTRACTOR IF NECESSARY DURING CONSTRUCTION PHASE.
 8. UTILITIES SHALL BE NOTIFIED PRIOR TO DEVELOPMENT.
 9. NO FEMA HIGHWATER ELEVATIONS EXIST ON SITE.

SERIES OF EVENTS FOR BMP'S

- I. GRADING, ROUGH GRADING, STRIPPING & CLEARING.
 - A. CONSTRUCTION ENTRANCE.
 - INSTALL USING EXISTING DRIVEWAY ENTRANCE.
 - B. WASH DOWN STATION (REQUIRED DURING ALL GRADING OPERATIONS)
 - SECURE LOCATION AND ADEQUATE WATER SOURCE.
 - C. SILT FENCE.
 - INSTALL AT LOCATION(S) PER PLAN PRIOR TO ANY LAND DISTURBANCE
 - D. SEDIMENT BASIN.
 - SEDIMENT BASIN SHALL HAVE STABILIZED EMERGENCY SPILLWAYS TO MINIMIZE THE POTENTIAL FOR EROSION OF THE SPILLWAY OR BASIN EMBANKMENT.
 - II. UTILITY INSTALLATION
 - A. SILT FENCE.
 - SILT FENCE AS INSTALLED FOR THE GRADING OPERATIONS TO REMAIN IN PLACE DURING SEWER INSTALLATION & WILL PROTECT FROM ANY SILT FROM MIGRATING OFF SITE. PROTECT THE DISTURBED AREA UNTIL VEGETATION IS ESTABLISHED.
 - B. BACKFILL TRENCHES.
 - TRENCHES ARE TO BE BACKFILLED AT THE END OF EACH WORK DAY AND ANY SILT FENCE THAT WAS REMOVED TO EXCAVATE THE TRENCH MUST BE REPLACED. COMPACT TRENCH BACKFILL BENEATH. IMMEDIATELY UPSTREAM AND DOWNSTREAM OF THE SILT FENCE AS NECESSARY TO ELIMINATE ANY SETTLEMENT THAT MAY OCCUR DURING A RAIN EVENT. SUITABLE TO PREVENT FLOW BENEATH THE SILT FENCE
 - IV. PAVEMENT INSTALLATION
 - A. SILT FENCE.
 - SILT FENCE AS INSTALLED FOR THE GRADING OPERATIONS TO REMAIN IN PLACE DURING PAVEMENT INSTALLATION AND WILL PROTECT FROM ANY SILT FROM MIGRATING OFF SITE
 - V. TEMPORARY EROSION MANAGEMENT.
 - (SEE SWPPP NOTES FOR TEMPORARY VEGETATION INSTALLATION REQUIREMENTS AS DETERMINED BY LAND DISTURBANCE EVENTS.)
 - VI. PERMANENT EROSION CONTROL.
 - SEED AND MULCH ALL DISTURBED NON-PAVEMENT AREAS TO ESTABLISH PERMANENT VEGETATION.
 - SOD AREAS OF DISTURBED ROW.

SEDIMENT PROVISIONS (ACTION PLAN)

1. SEDIMENT RUNOFF INSPECTIONS ARE TO BE MADE WITHIN NO LATER THAN 48 HOURS AFTER A RAINFALL THAT CAUSES STORMWATER RUNOFF TO OCCUR ON SITE TO VERIFY THAT NO SEDIMENT HAS BREACHED THE SILT CONTROL DEVICES.
2. IF SEDIMENT HAS BREACHED SILT CONTROL DEVICES AND COLLECTED ON NEARBY PROPERTY, CONTRACTOR IS TO CONTACT PROPERTY OWNER(S) BEFORE ANY ATTEMPT IS MADE TO RESTORE THE PROPERTY.
3. IF SEDIMENT HAS COLLECTED ON OFFSITE PROPERTY CONTRACTOR IS TO COORDINATE WITH AFFECTED PROPERTY OWNER TO REMOVE THE SEDIMENT AND RESTORE THE PROPERTY TO PREVIOUS CONDITIONS.
4. ONSITE SEDIMENT CONTROL AND RESTORATION SHALL BE REQUIRED ONSITE AS DICTATED PER 'SWPPP NOTES'.
5. SEDIMENT REMOVED DURING THE MAINTENANCE OF THE BMP'S SHALL BE SPREAD OUT ON THE SITE DURING GRADING. SEDIMENT NOT TO BE PLACED IN ROW AREAS.
6. ADDITIONAL SITUATION CONTROL SHALL BE INSTALLED AS REQUIRED BY CITY OF CREVE COEUR.
7. ALL OFFSITE PROPERTY OWNERS SHALL BE GIVEN NOTICE 48 HOURS IN ADVANCE OF ANY WORK.
8. ANY DISTURBED OFF SITE PROPERTY (I.E. BUSHES, TREES, FENCES, MAILBOXES, ETC.) SHALL BE REPLACED, IN KIND, AT THE DEVELOPER'S EXPENSE.
9. ANY LOSS OF CONTAINED SEDIMENT MUST INCLUDE DOCUMENTATION OF ACTIONS AND MANDATORY REPORTING TO CITY OF CREVE COEUR.

PERMIT HOLDER REQUIREMENTS

- THE PERMIT-HOLDER SHALL:
1. NOTIFY ALL CONTRACTORS AND OTHER ENTITIES (INCLUDING UTILITY CREWS, CITY EMPLOYEES, OR THEIR AGENTS) THAT WILL PERFORM WORK AT THE SITE, OF THE EXISTENCE OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND WHAT ACTIONS OR PRECAUTIONS SHALL BE TAKEN WHILE ON SITE TO MINIMIZE THE POTENTIAL FOR EROSION AND THE POTENTIAL FOR DAMAGING ANY BEST MANAGEMENT PRACTICES (BMP'S).
 2. DETERMINE THE NEED FOR AND ESTABLISH TRAINING PROGRAMS TO ENSURE THAT ALL SITE WORKERS HAVE BEEN TRAINED, AT A MINIMUM, IN EROSION CONTROL, MATERIAL HANDLING AND STORAGE, AND HOUSEKEEPING; AND
 3. PROVIDE COPIES OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) TO ALL PARTIES WHO ARE RESPONSIBLE FOR INSTALLATION, OPERATION OR MAINTENANCE OF ANY BEST MANAGEMENT PRACTICES (BMP'S); AND
 4. MAINTAIN A CURRENT COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ON THE SITE AT ALL TIMES.

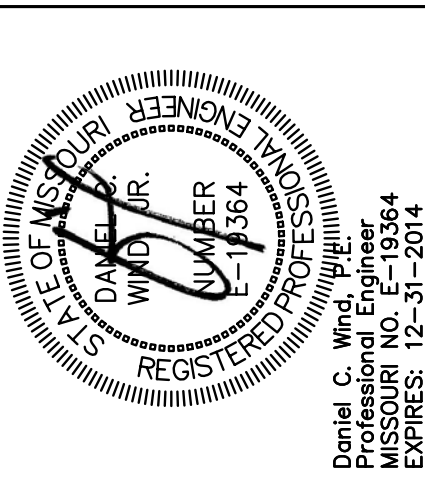
SWPPP REQUIREMENTS

1. ANY LAND CLEARING, CONSTRUCTION OR DEVELOPMENT INVOLVING THE MOVEMENT OF EARTH SHALL BE IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN, AND THE PERSON ISSUED A LAND DISTURBANCE PERMIT ASSUMES AND ACKNOWLEDGES RESPONSIBILITY FOR COMPLIANCE LAND DISTURBANCE CODE AND THE APPROVED STORM WATER POLLUTION PREVENTION PLAN AT THE SITE OF THE PERMITTED ACTIVITY.
2. PRIOR TO ANY MAJOR LAND DISTURBANCE ACTIVITY, A LAND DISTURBANCE PERMIT FROM THE STATE OF MISSOURI DEPARTMENT OF NATURAL RESOURCES WILL BE REQUIRED.

SWPPP NOTES

- THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE SITE INCLUDES SITUATION CONTROL DEVICES FOR IMPLEMENTATION OF BEST MANAGEMENT PRACTICE (BMP) ON THE SITE DURING CONSTRUCTION.
1. PRIOR TO BULK GRADING OR SITE DISTURBANCE, INSTALL SITUATION CONTROL FENCE AROUND THE PERIMETER OF THE SITE AS INDICATED.
 2. EROSION AND SITUATION CONTROL SHALL BE INSTALLED PRIOR TO ANY GRADING AND BE MAINTAINED THROUGHOUT THE PROJECT UNTIL ACCEPTANCE OF THE WORK BY THE OWNER AND/OR CONTROLLING REGULATORY AGENCY & ADEQUATE VEGETATIVE GROWTH INSURES NO FURTHER EROSION OF THE SOIL.
 3. TEMPORARY SITUATION CONTROL MEASURES (STRUCTURAL) SHALL BE MAINTAINED UNTIL VEGETATIVE COVER IS ESTABLISHED AT A SUFFICIENT DENSITY TO PROVIDE EROSION CONTROL ON THE SITE.
 4. WHERE NATURAL VEGETATION IS REMOVED DURING GRADING, VEGETATION SHALL BE REESTABLISHED IN SUCH A DENSITY AS TO PREVENT EROSION.
 5. WHEN GRADING OPERATIONS ARE COMPLETED OR SUSPENDED FOR MORE THAN 5 DAYS IN ANY AREA, THE DISTURBED AREA SHALL BE SEED OR OTHERWISE STABILIZED TO SIGNIFICANTLY REDUCE THE ERODIBILITY OF THE SOIL. PROTECTIVE MEASURES MAY INCLUDE SEEDING, SODDING, MULCHING OR OTHER SUITABLE MEANS TO PROTECT THE GROUND SURFACE FROM EROSION.
 6. AT LEAST ONCE EVERY WEEK, AND NO LATER THAN 48 HOURS AFTER A RAINFALL THAT CAUSES STORMWATER RUNOFF TO OCCUR ON SITE, EROSION AND SITUATION CONTROL DEVICES SHALL BE INSPECTED FOR DAMAGE AND AMOUNT OF SEDIMENTATION ACCUMULATED AND CORRECTIVE ACTIONS TAKEN. REPORT OF THESE INSPECTIONS AND CORRECTIVE ACTIONS SHALL BE PREPARED.
 7. IF CUT AND FILL OPERATIONS OCCUR DURING A SEASON NOT FAVORABLE FOR IMMEDIATE ESTABLISHMENT OF PERMANENT GROUND COVER, A FAST GERMINATING ANNUAL SUCH AS RYE GRASSES OR SUDDAN GRASSES SHALL BE UTILIZED TO RETARD EROSION. IF ADEQUATE STORM WATER DETENTION AND EROSION CONTROL DEVICES HAVE NOT BEEN ESTABLISHED.
 8. CONTRACTOR SHALL KEEP A MINIMUM OF 10% SURPLUS EROSION & CONTROL DEVICES FOR EMERGENCY REPAIR.
 9. SEDIMENT REMOVED DURING THE MAINTENANCE OF THE BMP'S SHALL BE SPREAD OUT ON THE SITE DURING GRADING. SEDIMENT NOT TO BE PLACED IN ROW AREAS.
 10. PROVIDE ADEQUATE 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 DRIVEWAY CONDITIONS.
 11. ADDITIONAL SITUATION CONTROL SHALL BE INSTALLED AS REQUIRED BY THE CITY OF CREVE COEUR.
 12. ALL WORK WITHIN RIGHT-OF-WAY SHALL BE TO CITY OF CREVE COEUR STANDARDS.
 13. ALL STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT.
 14. INTERIM STORM WATER DRAINAGE CONTROL IN THE FORM OF SITUATION CONTROL MEASURES ARE REQUIRED.
 15. THE DEVELOPER IS REQUIRED TO PROVIDE ADEQUATE STORM WATER SYSTEMS IN ACCORDANCE WITH THE CITY OF CREVE COEUR AND M.S.D. STANDARDS.

BMP	SWPPP BMP QUANTITY TABLE				COMMENT	INSTALLATION
	DRAWING	QUANTITY	VOLUME	UNIT		
CONCRETE WASTE MANAGEMENT	806-46.03	1	-	BASIN		TEMPORARY
CONSTRUCTION ENTRANCE	806-46.01	1	-	-	UTILIZE EXISTING ASPHALT DRIVE ENTRANCE	TEMPORARY
CONSTRUCTION ROAD	806-45.99	1	-	CY	UTILIZE EXISTING ASPHALT DRIVE ENTRANCE	TEMPORARY
OFFSTREET CONSTRUCTION PARKING	N/A	1	-	CY		TEMPORARY
INLET FABRIC PROTECTION DROP	806-45.12	5	140	LF		TEMPORARY
MULCH	(SEE DETAILS)	14520	-	SY	EDIT AS NEEDED / CONSTRUCTION SEQUENCING	TEMPORARY
SEEDING	(SEE DETAILS)	14520	-	SY	EDIT AS NEEDED / CONSTRUCTION SEQUENCING	TEMPORARY
NON-SEDIMENT POLLUTION CONTROL	(SEE DETAILS)	-	-	-		TEMPORARY
POLLUTION PREVENTION PROCEDURES	(SEE DETAILS)	-	-	-		TEMPORARY
WASHDOWN STATION	806-46.00	1	-	-		TEMPORARY
ROCK OUTLET	806-55.10	1	16.5	SY		TEMPORARY
SEDIMENT BASIN	806-40.01	1	-	-		TEMPORARY
SILT FENCE	806-70.00	500	-	LF	KEEP SURPLUS OF 10% MIN ON SITE, = 50 LF	TEMPORARY



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BENTON Homebuilders

1000 EXECUTIVE PARKWAY, SUITE 106
CREVE COEUR, MISSOURI 63008
CRE: 314-333-5555

MOSLEY GROVE SWPPP

Prepared For: **BUESCHER DITCH & ASSOC., INC.**
CIVIL ENGINEERING AND SURVEYING
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WASHINGTON, MISSOURI 63090
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Leads Surveyor: **wind**
122 N. Kirkwood Road
Kirkwood, MO 63122
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REVISIONS	
5. 05/17/14. TREE PRES. PLAN EDIT / CITY COMMENT	
4. 04/22/14. IN HOUSE REVISIONS	
3. 04/28/14. CITY COMMENTS	
2. 07/10/14. MSD REVIEW COMMENTS	
1. 12/10/13. SURVEY UPDATES, CITY REVIEW & MSD COMMENTS	
No. Date:	Description:

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Date: 4/25/13

Field Work: BD Field Checked: DW

Drawn By: PC,GS C. S. O.: GS

Checked By: DW

Project Number: 12043.02

Sheet Number: **C11.0**

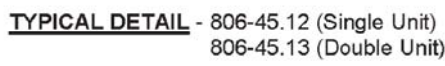
MSD P. 002973-00 BASEMAP 17N4

SITE CONDITIONS FOR REMOVAL - Removed concurrently with upstream BMP. Some may be left as a permanent post construction BMP as shown on approved plans or in the permit.

TYPICAL DETAIL - 611-50.40

The Design Criteria Manual includes standard drawing numbers:

- C609.15 - Paved Ditches and Gutters
- C611.50 - Heavy Stone Revetment Ditch Liner
- C611.60 - Concrete Slope Protection
- C611.70 - Gabion Walls



DISCLAIMER

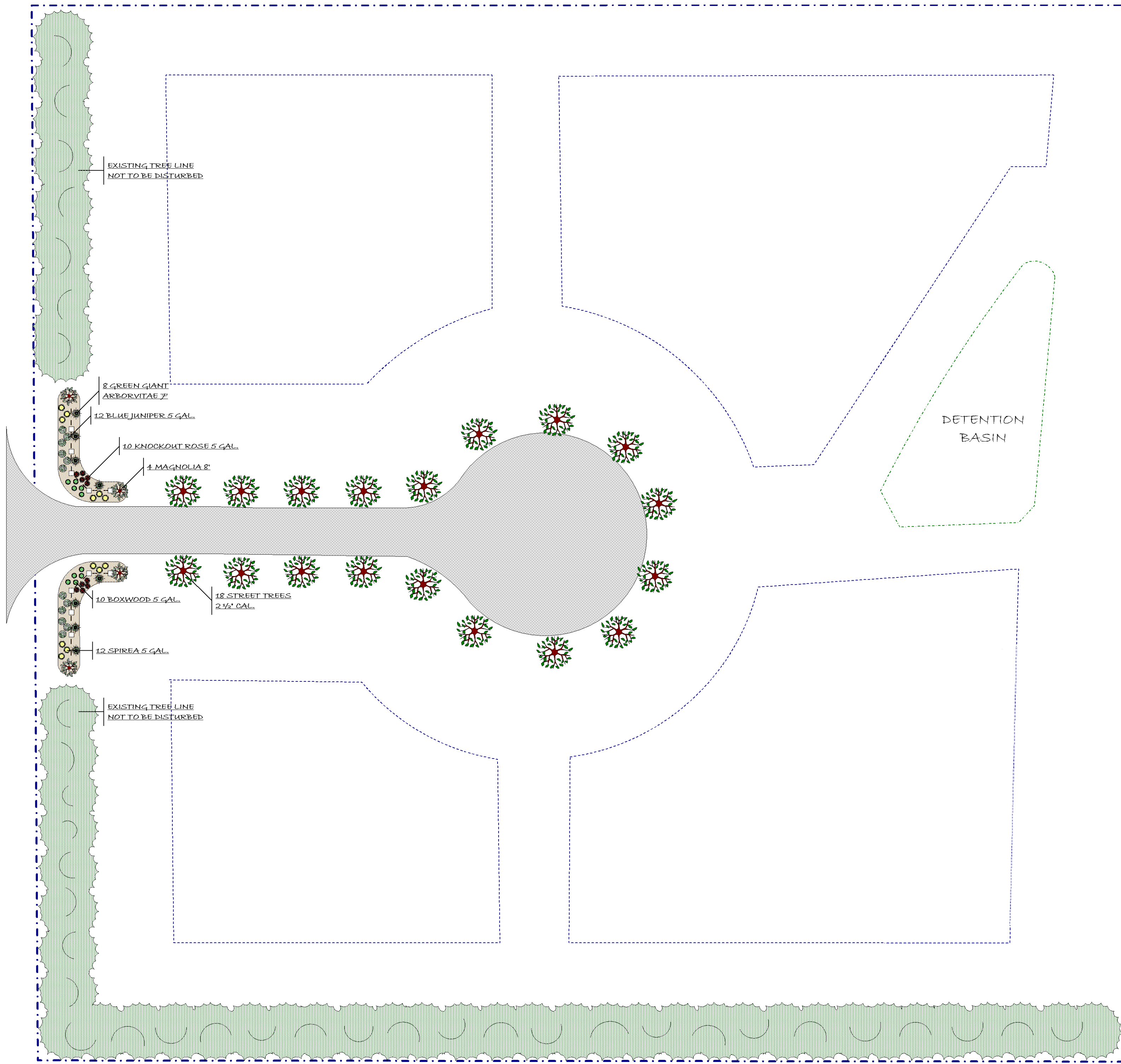
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MOSLEY GROVE SWPPP DETAILS 3	Prepared By: Civil Engineer: wind 122 N. Kirkwood Road Kirkwood, MO 63122 Telephone: 314.979.0190 Email: wind@windeng.com	Land Surveyor: BIUSCHER DITCH & ASSOC., INC. CIVIL ENGINEERING AND SURVEYING 2 EAST 10TH AVE. SUITE 200 ST. LOUIS, MO 63103 Phone: (314) 238-6245	Prepared For: BENTON Homebuilders 1000 CREVE COEUR, MO 63114 CREVE COEUR, MO 63114
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5	05/15/14	THREE PRES. PLAN EDIT/ CITY COMMENT
4	04/22/14	IN HOUSE REVISIONS
3	04/08/14	CITY COMMENTS
2	01/10/14	ASD REVIEW COMMENTS
1	12/10/13	SURVEY UPDATES, CITY REVIEW & MSD COMMENTS

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C. S. O.:	GS
Checked By:	DW
Project Number:	12043.02
Sheet Number:	C11.3
MSD P- 0029773-00	BASEMAP 17N



30 SCALE

R1

LANDSCAPE DEVELOPMENT PLAN FOR MOSLEY GROVE

williamL@bentonhomebuilders.com billt@bentonhomebuilders.com



17259 Wildhorse Creek Road (636) 532-1033 FAX (636) 532-1258
Chesterfield, MO 63005 www.baxtergardens.com

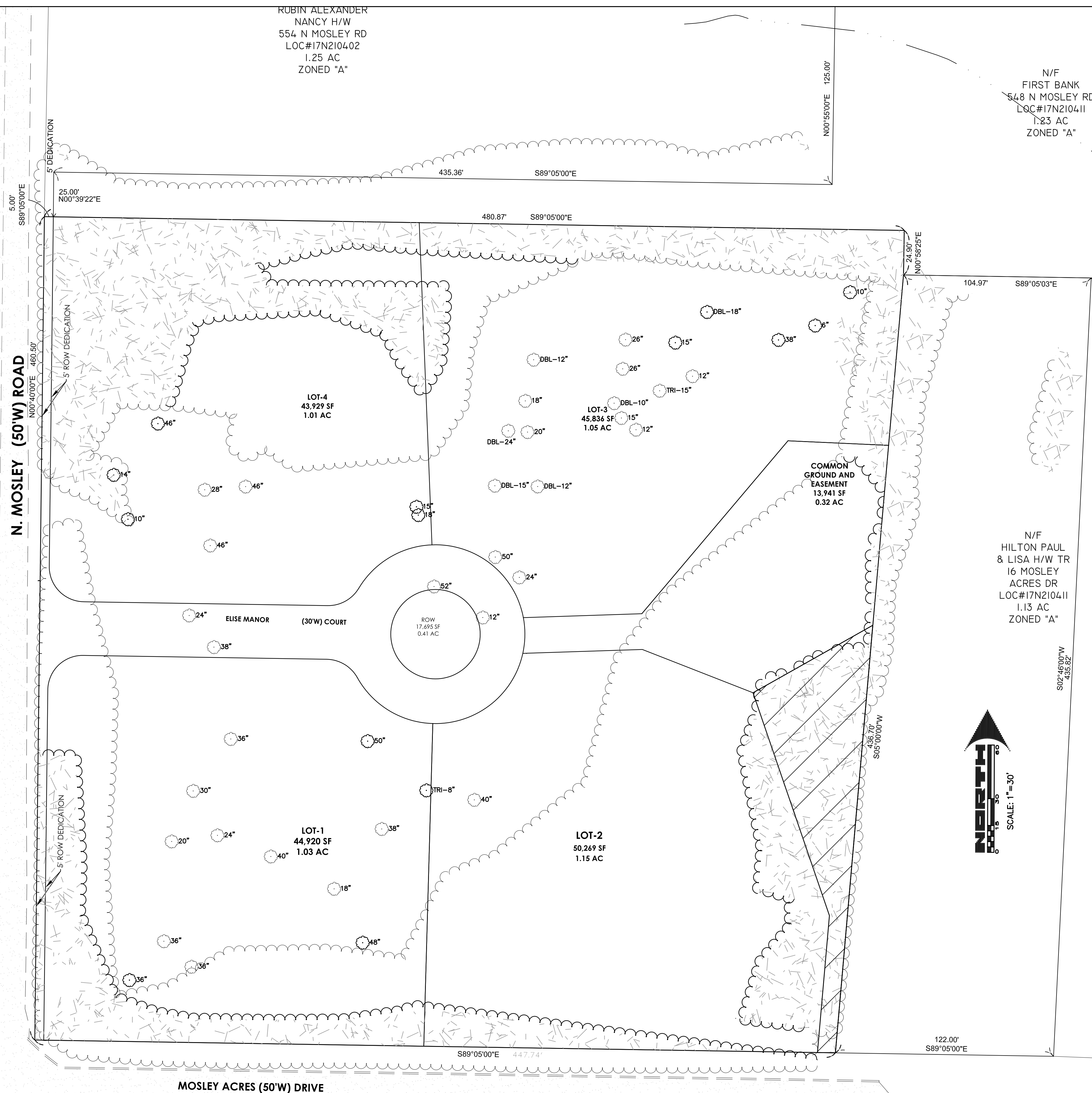
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DESIGNED BY: Chris Weishaar

ORIGINAL DATE: July 25, 2013

REVISION DATE:

GRAPHIC ART: BAT / HNH



MOSLEY GROVE TREE PRESERVATION PLAN
5/15/14 (REVISED)

Summary:

Existing Site:		
Site Area (Ac)		4.92
Site Area (SF)		214284

Proposed Site w/ Future Boundary Adjustment of Lot 2 and adjoiner #16 Mosley Acres:

Site Area (Ac)	4.77
Site Area (SF)	207710
Tree Coverage Existing Site (SF)	103655
Tree Coverage Existing (%)	48.37%

Tree Coverage To be Removed (SF)	76911
Tree Coverage To be Removed (%)	74.20%

Tree Coverage Proposed / Site (SF)	26744
Tree Coverage Proposed (%)	12.48%
Tree Coverage Retained (%)	25.80%

Detailed Tree Census:

Note: The minimum standards of the subdivision regulations require exceeding retention of twenty-five percent (25 %) of the existing tree mass areas.

Existing	Remove	Retained
89855	67311	22544
100%	74.91%	25.09%

Trees (>8-IN Diameter)

Note: The minimum standards of the subdivision regulations require exceeding retention of twenty-five percent (25 %) of the existing trees.

Existing	Remove	Retained
46	32	14
100%	69.57%	30.43%

Canopy Area (SF)	Canopy Area (SF)	Canopy Area (SF)
13800	9600	4200

Count	Diam (IN)	
1	46	Deciduous
2	14	Deciduous
3	10	Deciduous
4	15	Deciduous
5	18	Deciduous
6	50	Deciduous
7	8	Evergreen
8	36	Deciduous
9	46	Deciduous
10	15	Evergreen
11	18	Evergreen
12	36	Evergreen
13	8	Evergreen
14	10	Deciduous

Count	Diam (IN)	
1	28	Deciduous
2	46	Deciduous
3	46	Deciduous
4	24	Deciduous
5	36	Deciduous
6	52	Deciduous
7	12	Deciduous
8	36	Deciduous
9	38	Deciduous
10	30	Deciduous
11	24	Deciduous
12	20	Deciduous
13	40	Deciduous
14	18	Deciduous

Count	Diam (IN)	
1	46	Deciduous
2	14	Deciduous
3	10	Deciduous
4	15	Deciduous
5	18	Deciduous
6	50	Deciduous
7	8	Evergreen
8	36	Deciduous
9	46	Deciduous
10	15	Evergreen
11	18	Evergreen
12	36	Evergreen
13	8	Evergreen
14	10	Deciduous

15	28	Deciduous
16	46	Deciduous
17	46	Deciduous
18	24	Deciduous
19	38	Deciduous
20	52	Deciduous
21	12	Deciduous
22	36	Deciduous
23	38	Deciduous
24	38	Deciduous
25	24	Deciduous
26	20	Deciduous
27	40	Deciduous
28	18	Deciduous
29	38	Deciduous
30	36	Deciduous
31	40	Deciduous
32	50	Deciduous
33	24	Deciduous
34	15	Deciduous
35	12	Deciduous
36	24	Deciduous
37	20	Evergreen
38	18	Evergreen
39	12	Deciduous
40	15	Deciduous
41	15	Deciduous
42	10	Deciduous
43	26	Deciduous
44	26	Deciduous
45	15	Deciduous
46	12	Deciduous

15	36	Deciduous
16	36	Deciduous
17	40	Deciduous
18	50	Deciduous
19	24	Deciduous
20	15	Deciduous
21	12	Deciduous
22	24	Deciduous
23	20	Evergreen
24	18	Evergreen
25	12	Deciduous
26	12	Deciduous
27	15	Deciduous
28	10	Deciduous
29	26	Deciduous
30	26	Evergreen
31	15	Deciduous
32	12	Deciduous

Definitions:

TREE MASS: A group of trees located in such close proximity that no one (1) tree is more than thirty (30) feet from any other tree and which contains five (5) or more trees of at least eight (8) inch caliper size. The distance between trees shall be measured from trunk to trunk.

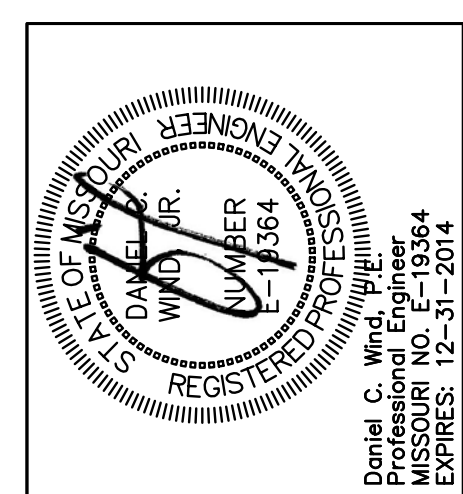
CALIPER: The diameter of a tree measured twenty-four (24) inches above ground level.

TREES CENSUS: A graphic depiction of a parcel of land which indicates the general location of all tree masses and the general location of all trees which are eight (8) inch caliper size or larger including an indication of all such tree masses and all such trees to remain and all such tree masses and all such to be removed.

LEGEND

 # EXISTING EVERGREEN +CALIPER	 EXISTING TREE +CALIPER RETAINED (IF POSSIBLE**)
 EXISTING TREE MASS	 EXISTING TREE MASS RETAINED (IF POSSIBLE**)
FUTURE BOUNDARY ADJUSTMENT OF LOT 2 AND ADJOINER #16 MOSLEY ACRES, TPP ASSUMES REMOVAL OF ALL TREE MASS EXISTING ON SUBJECT PARCEL AS HATCHURED, ~ 6574 SF	

*NOTE: RETAINED TREES AS SHOWN MAY VARY PER ACTUAL FIELD CONDITIONS, HOWEVER SHALL MEET ALL CITY MINIMUM 'TREE PRESERVATION PLAN' REQUIREMENTS.



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[illegible]

MOSLEY GROVE

TREE PRESERVATION PLAN

or: **BENTON**
homebuilders
EXECUTIVE PARKWAY, SUITE 106
CREVE COEUR, MO 63141
314-336-5555

Prepared For:

and Surveyor:

BUESCHER DITCH & ASSOC., INC.
CIVIL ENGINEERING AND SURVEYING
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Prepared By Civil Engineer:

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C.O.A. #E-1607-D

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Checked By:	DW
Project Number:	12043.02
Sheet Number:	TTP

MSD P- 0029773-00	BASEMAP 17N4
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LOT 2 MOSLEY GROVE - LOT 16 MOSLEY ACRES NO. 2

#16 MOSLEY ACRES DRIVE: LOT 16 OF MOSLEY ACRES NO. 2, A SUBDIVISION IN ST. LOUIS COUNTY, MISSOURI, ACCORDING TO PLAT THEREOF RECORDED IN PLAT BOOK 83 PAGE 50 OF THE ST. LOUIS COUNTY RECORDS.

LOCATION MAP
N.T.S.

BUILDING LINES AS SHOWN ON THIS PLAT ARE HEREBY ESTABLISHED. THIS SUBDIVISION IS SUBJECT TO DECLARATION OF RESTRICTIONS AS TO BE FILED.

THIS IS TO CERTIFY THAT ALL EXISTING EASEMENTS ARE SHOWN ON THIS PLAT AS OF THE TIME AND DATE OF RECORDING OF THIS PLAT.

IN WITNESS THEREOF, I HAVE HERETO SET MY HAND THIS _____ DAY OF _____, 20____.

BENTON HOMEBUILDERS HILTON PAUL & LISA H/W TR

STATE OF MISSOURI)
) ss
COUNTY OF ST. LOUIS)

ON THIS ____ DAY OF _____, 20____, BEFORE ME APPEARED
_____, TO BE PERSONALLY KNOWN, WHO BEING BY ME DULY
SWORN, DID SAY HE IS _____ OF BENTON HOMEBUILDERS, INC., AND THAT
THE SEAL AFFIXED TO THE FOREGOING INSTRUMENT IS THE CORPORATE SEAL OF SAID
CORPORATION, AND THAT SAID INSTRUMENT WAS SIGNED AND SEALED IN BEHALF OF
SAID CORPORATION BY AUTHORITY OF ITS BOARD OF DIRECTORS, AND SAID
_____ ACKNOWLEDGED SAID INSTRUMENT TO BE THE FREE ACT AND
DEED OF SAID CORPORATION.

IN TESTIMONY WHEREOF, I HAVE HERewith SET MY HAND AND AFFIXED MY NOTARIAL SEAL THE DAY AND YEAR ABOVE WRITTEN.

MY COMMISSION EXPIRES: _____

NOTARY PUBLIC

STATE OF MISSOURI)
)SS
COUNTY OF ST. LOUIS)

ON THIS _____ DAY OF _____, 20____, BEFORE ME PERSONALLY APPEARED _____ TO ME KNOWN TO BE THE PERSONS DESCRIBED IN _____ AND WHO EXECUTED THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED THAT THEY EXECUTED THE SAME AS A FREE ACT AND DEED.

IN TESTIMONY WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY NOTARY SEAL, THE DAY AND YEAR ABOVE WRITTEN.

MY COMMISSION EXPIRES: _____

NOTARY PUBLIC

WHEREAS, _____ BY A DEED OF TRUST, DATED _____ AND RECORDED IN THE RECORDERS OFFICE, IN AND FOR THE COUNTY OF ST. LOUIS AND THE STATE OF MISSOURI, IN BOOK _____ PAGE _____ CONVEYED TO THE TRUSTEE THEREIN, CERTAIN REAL ESTATE, TO SECURE THE PAYMENT OF CERTAIN NOTE OR NOTES IN SAID DEED DESCRIBED AND SET FORTH, AND WHEREAS, SAID DEED OF TRUST AND NOTE OR NOTES HAS OR HAVE BEEN PARTLY PAID AND SATISFIED.

NOW, THEREFORE, THE UNDERSIGNED, PRESENT HOLDER AND LEGAL OWNER OF SAID DEED OF TRUST AND NOTE OR NOTES, DOES BY HEREBY REMISE, RELEASE AND QUIT-CLAIM UNTO THE PRESENT OWNERS, PART OF THE ESTATE IN SAID DEED OF TRUST DESCRIBED, SITUATED IN THE COUNTY OF ST. LOUIS, AND STATE OF MISSOURI, TO WIT: ALL COMMON GROUND OR COMMON LAND SHOWN ON THIS PLAT, AND ALL STREETS, PUBLIC OR PRIVATE, OR ROADWAY EASEMENTS ON THIS PLAT.

TO HAVE AND TO HOLD THE SAME, WITH ALL THE APPURTENANCES THERETO BELONGING FREE, CLEAR AND DISCHARGED FROM THE ENCUMBRANCE OF SAID DEED OF TRUST.

IN WITNESS WHEREOF, THE UNDERSIGNED HAS EXECUTED THESE PRESENTS THIS
 ____ DAY OF ____, 20__

BY: _____

STATE OF MISSOURI)
) SS
COUNTY OF ST. LOUIS)

ON THIS ____ DAY OF _____, 20____, BEFORE ME APPEARED _____, TO BE PERSONALLY KNOWN, WHO BEING BY ME DULY SWORN, DID SAY HE IS _____ OF _____, AND THAT THE SEAL AFFIXED TO THE FOREGOING INSTRUMENT IS THE CORPORATE SEAL OF SAID CORPORATION, AND THAT SAID INSTRUMENT WAS SIGNED AND SEALED IN BEHALF OF SAID CORPORATION BY AUTHORITY OF ITS BOARD OF DIRECTORS, AND SAID _____ ACKNOWLEDGED SAID INSTRUMENT TO BE THE FREE ACT AND DEED OF SAID CORPORATION.

IN TESTIMONY WHEREOF, I HAVE HEREWITH SET MY HAND AND AFFIXED MY NOTARIAL SEAL THE DAY AND YEAR ABOVE WRITTEN.

MY COMMISSION EXPIRES: _____

NOTARY PUBLIC

THIS IS TO CERTIFY THAT BY AUTHORITY OF ORDINANCE NO. _____ DATED _____, 20__ THIS PLAT WAS
APPROVED BY THE CITY OF CREVE COEUR, MISSOURI ON THIS _____ DAY OF _____, 20__

CHAIRMAN, PLANNING & ZONING COMMISSION

MAYOR

CITY CLERK

THIS IS TO CERTIFY THAT AT THE REQUEST OF BENTON HOMEBUILDERS, INC., LLC, WE HAVE DURING THE MONTH OF SEPTEMBER 2013, MADE A SURVEY OF, AND DURING THE MONTH OF MAY, 2014, PREPARED A BOUNDARY ADJUSTMENT PLAT OF TRACTS OF LAND IN THE SOUTHWEST QUARTER OF SECTION 24, TOWNSHIP 44 NORTH, RANGE 5 EAST, CITY OF CREVE COEUR, ST. LOUIS COUNTY, MISSOURI AND THAT THE RESULT OF SAID SURVEY AND SUBDIVISION IS CORRECTLY REPRESENTED UPON THIS PLAT. THIS SURVEY IS IN COMPLIANCE WITH THE MINIMUM STANDARDS FOR PROPERTY SURVEYS OF THE MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT AND THE DEPARTMENT OF AGRICULTURE. THE CLASSIFICATION OF PROPERTY SURVEYED IS URBAN.

BUESCHER DITCH & ASSOCIATES, INC.; L.C. 2001010600-D

BY: GREGORY L. STARKE, PLS 2000148667

C.S.O.	GS
Drawn By:	GS
Checked By:	DW/BD
Project Number:	12043.02
Date:	5/15/14

Prepared by:

Land Surveyor:

BUESCHER DITCH & ASSOC., INC.
CIVIL ENGINEERING AND SURVEYING
2 EAST 57TH STREET, SUITE 200
P.O. BOX 821
WASHINGTON, MISSOURI 63090
Ph. (636) 239-6255
Fax (636) 239-7681



Civil Engineer:

wind
ENGINEERS
PLANNERS
SURVEYORS

122 N. Kirkwood Road
Kirkwood, MO 63122
Telephone: 314.965.WIND
Fax: 314.965.7592
Email: wind@windengr.com

Prepared for:

BENTON HOMEBUILDERS,
INC.
1000 EXECUTIVE
PARKWAY, SUITE 106
CREVE COEUR, MO 63141

314-336-5555

BILL NUMBER _____

ORDINANCE NUMBER _____

**AN ORDINANCE APPROVING A FINAL SUBDIVISION PLAT FOR A
SUBDIVISION KNOWN AS MOSLEY GROVE ON AT THE NORTH EAST
CORNER OF MOSLEY ROAD AND MOSLEY ACRES DRIVE, CITY OF
CREVE COEUR, ST. LOUIS COUNTY, MISSOURI**

WHEREAS, An application has been submitted for the approval of a final plat for the minor subdivision of the 4.91 acres at 536 N. Mosley Road into four, one-acre lots with a new cul-de-sac drive, Elise Manor, off Mosley Road; and

WHEREAS, the final plat of the Mosley Grove subdivision substantially conforms to the preliminary plat reviewed by the Planning and Zoning Commission on September 16, 2013; and,

WHEREAS, public notice of said final plat application was provided in accordance with Section 410.140.C.2 of the Creve Coeur Municipal Code; and

WHEREAS, the Planning and Zoning Commission recommended, by a vote of _____, approval of the Mosley Grove final plat on May 19, 2014; and

WHEREAS, a copy of the proposed ordinance has been made available for public inspection prior to its adoption by the City Council and this bill having been read by title in open meeting two times before final passage by the City Council, and

NOW, THEREFORE, be it ordained by the City Council of the City of Creve Coeur, Missouri as follows:

SECTION 1: The final plat of the subdivision known as Mosley Grove, described as a tract of land being part of southwest $\frac{1}{4}$ of Section 2 Township 44 North, Range 5 East of the fifth principal meridian, City Of Creve Coeur, St. Louis County, Missouri, as heretofore submitted on April 11, 2014 is hereby approved subject to the following conditions:

1. The Applicant shall provide two (2) disks containing a digitized version of the plat shall be submitted along with two (2) printed copies of the recorded plat. Acceptable data formats include AutoCAD (.dwg or .dxf), MicroStation Design File (.dgn), ArcInfo Coverage, ArcView Shape File (.shp), or MapInfo.
2. The Subdivision Improvement Plan shall include a separated sidewalk in conformance with Chapter 410, Subdivision and Development of Land. The sidewalk may be discontinued at the back of the cul-de-sac as long as all lots facing Elise Manor Court are connected by sidewalk to Mosley Road.
3. The Applicant shall escrow funds with the City for the sidewalk along Mosley Road.
4. The subdivision indentures shall be reviewed and approved by the City Attorney prior to the signing of the Mylar

SECTION 2: Such approval of the plats for the subdivision of the property shall be endorsed on said Plat as indicated in Section 1 hereof under the hand of the City Clerk, and the seal of the City of Creve Coeur, Missouri shall be affixed thereto.

SECTION 3: This ordinance shall become effective in accordance with Section 3.11 (g) of the City Charter.

ADOPTED THIS ____ DAY OF _____, 2014.

CHARLOTTE D'ALFONSO
PRESIDENT OF CITY COUNCIL

APPROVED THIS ____ DAY OF _____, 2014.

BARRY GLANTZ
MAYOR

ATTEST:

DEBORAH RYAN, MPCC
CITY CLERK



city of CREVE COEUR

300 North New Ballas Road • Creve Coeur, Missouri 63141
(314) 432-6000 • Fax (314) 872-2539 • Relay MO 1-800-735-2966
www.creve-coeur.org

APPLICATION TO PLANNING AND ZONING COMMISSION #14-018 A MINOR SITE DEVELOPMENT PLAN FOR A FENCE WITHIN THE FRONT-YARD SETBACK ALONG LADUE ROAD FOR THE PROPERTY AT 105 N. MOSLEY

FOR MEETING OF: May 19, 2014

SUBJECT PROPERTY LOCATION: 105 N. Mosley, at the northwest corner of Mosley Road and Ladue Road.

REQUEST: The Kelly Company, the home builder, has submitted an application for approval of a six-foot, white vinyl, sight-proof fence, 20 feet from the property line, where the setback along Ladue Road is 50 feet. The subject property is zoned "A" Single-Family Residential.

ADDITIONAL INFORMATION: The City of Creve Coeur's Zoning Ordinance Section 405.640 (C) *Fences Within The Front Yard Section And Along Street Right-Of-Way* states that no fence shall be located within the front yard setback or along street right-of-way, within the area equivalent to the front yard setback of the applicable zoning district, unless approved by site development plan approval by the Planning and Zoning Commission. City Council action is not required.

Key Issues:

- Does the request further the goals and/or implement the Comprehensive Plan?
- Maintaining open green spaces
- Visual scenic impact along Country View Drive

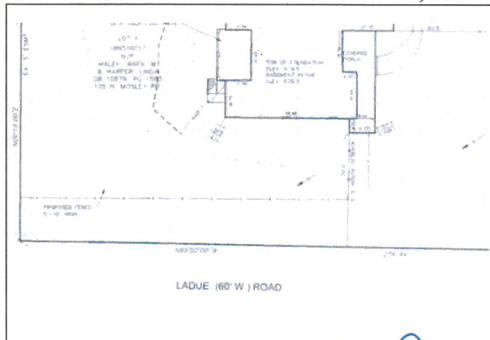
Comp. Plan References

- Residential Neighborhoods
- Design Guidelines

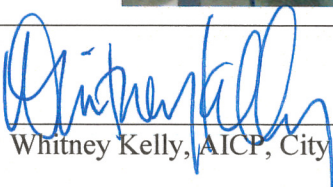
Zoning Code References

- Section 405.250: "A" Single-Family Residential District
- 405.640 Fences within the Front Yard Section and along Street Right-of-Way

APPLICANT / Thomas R. Kelly
PROPERTY OWNER: The Kelly Co.
1304 Brezeridge Drive
Des Peres, MO 63131



REPORT PREPARED BY:


Whitney Kelly, AICP, City Planner

5/15/2014
Date

ATTACHMENTS: Applicant's Materials Submitted on April 10, 2014
Public Comment

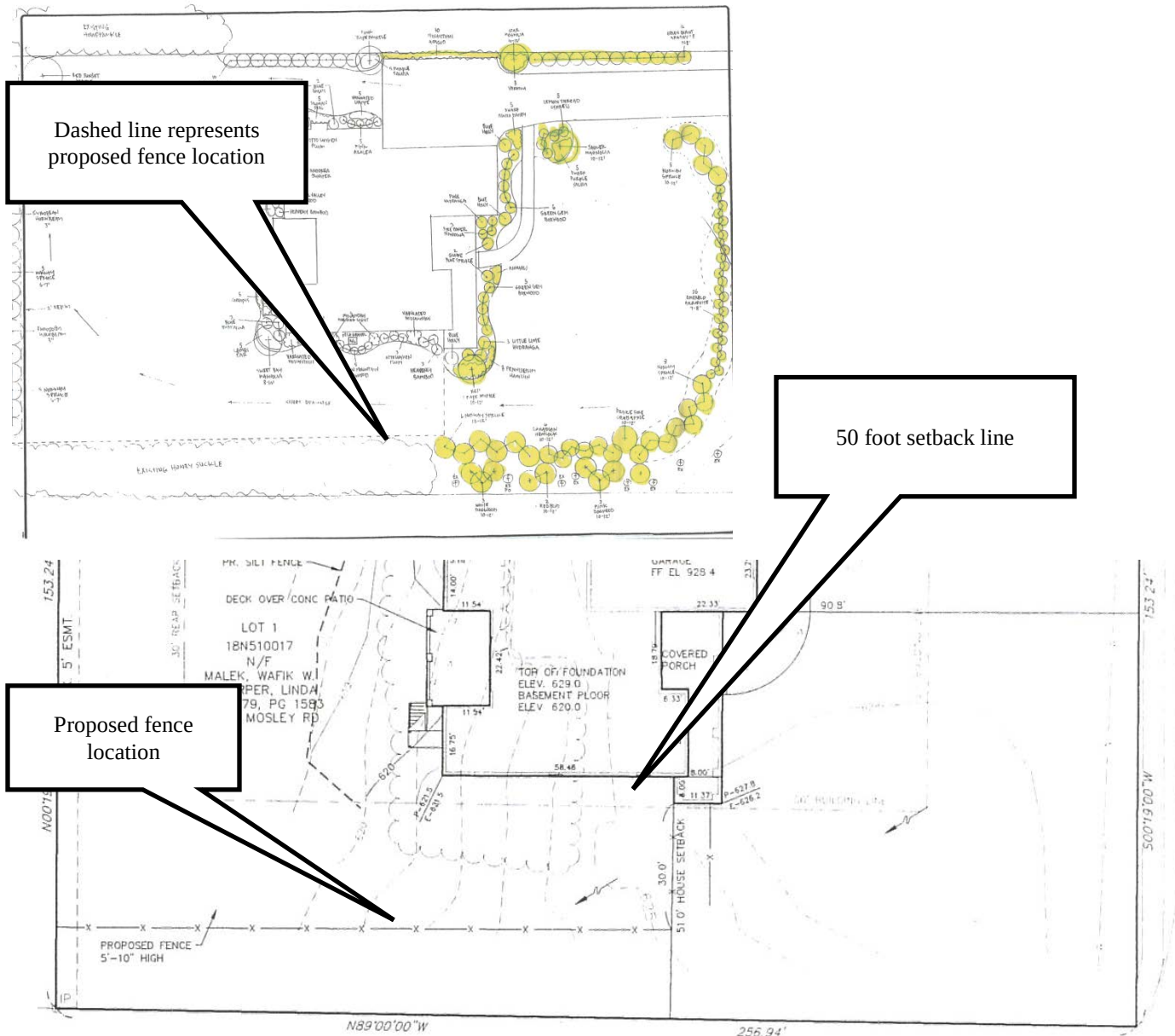
LAND USE AND ZONING OF SURROUNDING PROPERTIES

The adjacent zoning and land uses are as follows:

DIRECTION	USE	ZONED	SEPARATED BY
North	Single family residences	A Single Family Residential	NA
South	Single family residences	A Single Family Residential	NA
East	Single family residences	A Single Family Residential	Mosley Road
West	Single family residences	A Single Family Residential	Ladue Road

FENCE PLACEMENT AND DESIGN

The proposed fence would be a six-foot tall, white-vinyl privacy fence approximately 20 feet from the south property line for 142 feet and then turn north to meet the south east corner of the new home. Below is a close up of the landscape plan showing the fence configuration along Ladue Road. The drawing suggests that the fence will be largely screened by the existing scrub along the street (mostly shrub honeysuckle), and the additional plantings along Mosley Road. The second drawing is a close-up of the site plan indicating the fence location in relation to the building setback. The property line is approximately 10 feet from the street pavement of Ladue Road.



ANALYSIS

The Zoning Code does not provide guidance in evaluating requests for fences within the setback, except that no fence shall exceed six feet in height.

The Comprehensive Plan and Design Guidelines provide further direction for review of fences with the following:

Comprehensive Plan: Residential Preservation and Economic Development

2. Encourage the continued preservation of the suburban landscape character of the area, its open green spaces, and stream corridors. New development or redevelopment should protect and enhance stream channels, preserving remaining riparian corridors, preserve trees and encourage re-establishment of natural streams, where feasible. The use of pervious paving materials and vegetated swales to manage storm water in new development and redeveloping areas is encouraged.
6. Require that new development or redevelopment be compatible with the character of the surrounding neighborhood with regard to lot frontage, building setbacks, building lines, building scale, and lot coverage. (p.44-45)

Design Review Guidelines: F. Screening (Fences and Walls)

1. All new sound walls, masonry walls or fences are to be designed to minimize visual monotony through changes in plane, height, material, texture or significant landscape massing.
2. The design of fencing, sound walls, trash enclosures, and similar site elements is to be compatible with the architecture of the main buildings and should use similar materials.
3. All fencing should be designed as an integrated part of the site, rather than as a separate fence, such as a planter wall or continuation of an architectural wall feature.
5. In highly visible public areas where fencing is needed, decorative fencing is encouraged. (p.18-19)

Further, the Design Guidelines recommends the use of natural “green” materials, and discourages the use of synthetic, and highly reflective materials.

The proposed fence would provide the property much more privacy in the rear yard where most property owners would expect a higher level of privacy. It also provides a degree of safety for children and pets by keeping them away from Ladue Road where posted speed limits are 40 miles per hour, versus 25 miles per hour along a typical subdivision street. Similar arguments were made for the fences approved nearby and are typically cited in such applications.

The proposed fence would also expand the amount of privacy fencing in this immediate vicinity that reduces the openness of the Ladue Road viewshed. Whether or not this expansion represents an incremental change or a step too far in the wrong direction is largely a matter of visual preference and consideration of the design details. The use of white vinyl is inconsistent with the Design Guidelines and certainly makes the fence more noticeable along the public right-of-way, and would be a significant departure from the surrounding homes along Mosley Road, where a more open fence designs have been used. The existing honeysuckle does provide a significant screening along Ladue Road, albeit less so in the winter, and the additional landscaping along Mosley Road will lessen the visual impact of the fence. However, the use of a more open fence design might also serve to reduce the visual impact and any losses in privacy could be mitigated with evergreen plantings. Staff recommends that a condition of the approval require the fence be a black open-slatted, wrought-iron style fence, or a natural wood material of an open design to meet with the Comprehensive Plan and the Design Guidelines. If the Commission finds that a solid fence is appropriate, staff recommends that it be of a natural wood materials, or of a natural color.

Further, as discussed with prior applications, honeysuckle is an invasive species and there has been discussion at the Horticulture, Environmental and Beautification Committee that it should be a requirement with any redevelopment project that it be removed. If the Planning and Zoning Commission wishes to see the invasive Honeysuckle removed and replaced with additional landscaping to provide an opaque screen as mentioned above, they should add an appropriate condition of approval in concert with discussions with the applicant.

CONCLUSION AND ACTION

If the members of the Planning Commission find the applicant's reasons for the fence sufficiently compelling, they can approve it as proposed. If changes are deemed necessary, Staff recommends that a condition of the approval require the fence be a black open-slatted, wrought-iron style fence, or a natural wood material of an open design to meet with the Comprehensive Plan and Design Guidelines. If the request is denied, the applicant may construct the fence along the 50-foot setback line. The motion for the fence within the setback of Ladue Road as shown in the enclosed site plan will be in the form of approval, approval with conditions, denial or deferral. Action by the City Council is not required.

MOTION

The following is an example motion for this application:

"I move to approve the site plan for the fence within the area equivalent to the front-yard setback along Ladue Road for the property addressed as 105 N. Mosley Road submitted with Application #14-018, as presented to the Planning and Zoning Commission on May 19, 2014, subject to the conditions listed in the Staff Report" (conditions may be added by separate motion).

APPENDIX 1: COMPREHENSIVE PLAN

Included and attached by reference. See body of report for specific excerpts.

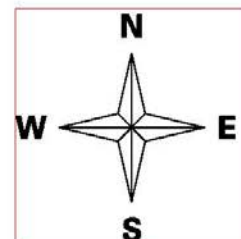
APPENDIX 2: ZONING CODE

Included and attached by reference. See body of report for specific excerpts.

APPENDIX 3: AERIAL MAP



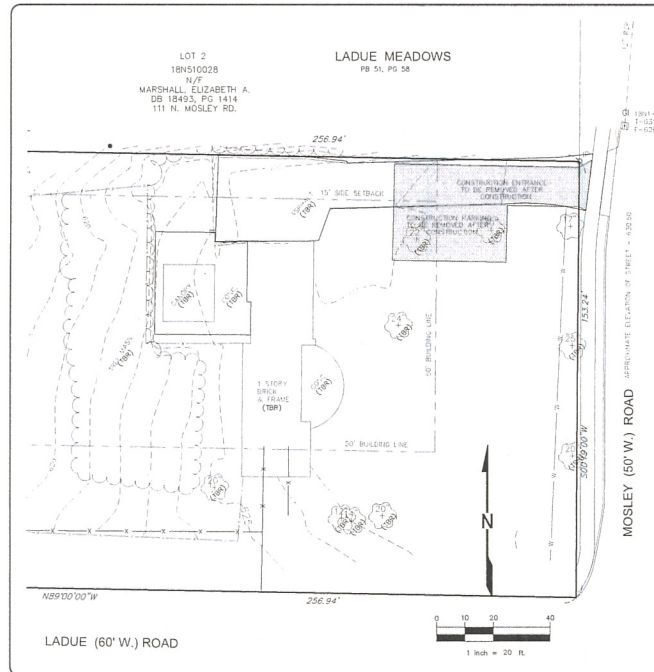
-  Property Lines
-  105 N. Mosley



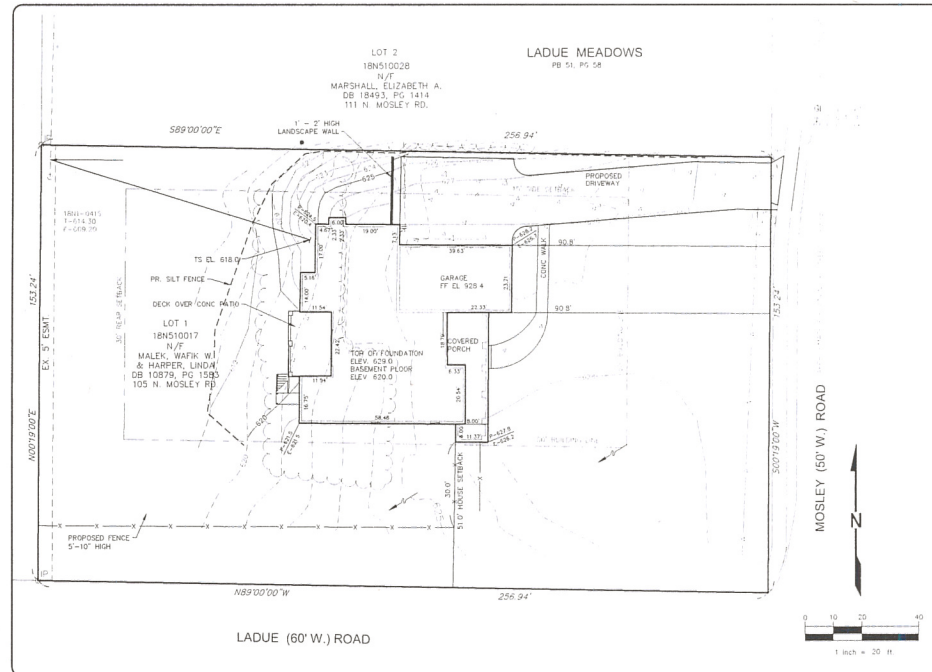
APPENDIX 4: SITE PHOTOGRAPHS	Photo Date: 05/15/2014
	Description: View looking west from Mosley Road at the corner of the home. The existing temporary construction fence is the approximate location of the proposed fence.
	Description: View looking west from the sidewalk at the intersection of Mosley Road and Ladue Road.
	Description: View looking northwest from across Ladue Road.

105 N. MOSELY ROAD

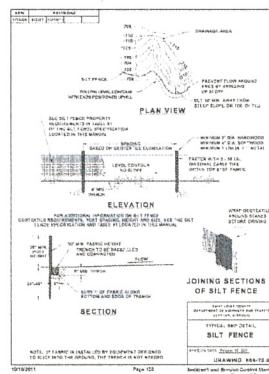
LOT 1 OF LADUE MEADOWS
PLATBOOK 51, PAGE 58
CITY OF CREVE COEUR, ST. LOUIS COUNTY, MISSOURI



EXISTING CONDITIONS / DEMOLITION PLAN



PROPOSED NEW HOME



DIFFERENTIAL RUNOFF

15 IN. 20 MIN. STORM	
SITE AREA = 36,370 S.F. / 0.83 AC	PROPOSED
EXISTING	PROPOSED
DRIVES / WALKS = 2,650 S.F.	DRIVES / WALKS = 3,173 S.F.
PATIO = 147 S.F.	PATIO = 338 S.F.
HOUSE = 1,881 S.F.	HOUSE = 4,378 S.F.
TOTAL = 5,658 S.F.	TOTAL = 7,889 S.F.
5658 S.F. / 0.13 AC	7889 S.F. / 0.18 AC
EXISTING RUNOFF = 0.13 AC x 3.54 CFS/AC = 0.46 CFS	PROPOSED RUNOFF = 0.18 AC x 3.54 CFS/AC = 0.64 CFS
AS THE INCREASE IN PROPOSED RUNOFF IS INCONSIDERABLE AND WOULD BE UNPERCEPTIBLE, NO STORMWATER MITIGATION HAS BEEN PROPOSED.	

1.90 CFS - 1.77 CFS = 0.13 CFS INCREASE.

NOTES:

1. THE PROPOSED GRADE LEVEL AT THE BUILDING TO BE MINIMUM OF 6" BELOW TOP OF FOUNDATION FOR MASONRY AND 8" FOR FRAME AND BRICK VENEER, AND AT LEAST 4" BELOW BASEMENT DOORS WHEN THEY OPEN ONTO GRADE.
2. THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN ONE UNIT VERTICAL TO 10 UNITS HORIZONTAL (1:10) FOR A MINIMUM DISTANCE OF 8 FEET MEASURED PERPENDICULAR TO THE FACE OF THE WALL.
3. THE SLOPE SHALL BE GRADED STEEPER THAN ONE UNIT VERTICAL TO 3 UNITS HORIZONTAL (1:3).
4. ALL GRADING SHALL CONFORM TO THE APPROVED GRADING PLAN FOR ENCLAVE AT BELLEVUE.
5. BASEMENT VENT WINDOWS MAY REQUIRE WINDOW WELLS FOR PROPER LOT DRAINAGE TO BE DETERMINED BY BUILDER IN THE FIELD UPON FINAL LOT GRADING.
6. ALL AREAS SHALL BE SLOPED TOWARD LOWER ELEVATION (OFF THE LOT OR DRAINAGE STRUCTURES) OR NEAR THE LOT. FRESH GRADING SHALL ALLOW FOR DRAINAGE PASSING THROUGH FROM HIGHER LOTS.
7. FOUNDATION FOOTINGS SHALL BE CONSTRUCTED TO AT LEAST MAINTAIN A 12" DEPTH OF EARTH COVER UP AS REQUIRED BY THE LOCAL BUILDING CODES.
8. ALL EXCAVATED MATERIAL, NOT USED FOR FINISH GRADING, SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.
9. CONTINUING BASED ON APPROVED GRADING PLAN.
10. STORM WATER / DOWNSPUT PIPES SHALL NOT PERMIT TO DISCHARGE CLOSER THAN 10' TO A PROPERTY LINE.
11. THE PUBLIC WORKS INSPECTOR CAN MAKE MINOR CHANGES TO MANAGE OR CONTROL STORM WATER FLOW.
12. THERE SHALL BE NO CONSTRUCTION PARKING ALLOWED ON-LOT.
13. FOUNDATION AND TOPOGRAPHIC INFORMATION USED FROM AVAILABLE DATA.

HOUSE DIMENSIONS TO BE VERIFIED BY PROJECT SUPERINTENDENT PRIOR TO CONSTRUCTION.

VANCE ENGINEERING, INC.

AUTHORITY NO. 2003022194

THIS IS NOT A SURVEY AND DOES NOT MEET THE MISSOURI MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS (IN CSR 30-2 AND CSR 30-16 EFFECTIVE DECEMBER 30, 1999).

BUILDING SETBACKS

- 50' FRONT YARD SETBACK
- 15' SIDE YARD SETBACK
- 10' REAR YARD SETBACK

SITE COVERAGE CALCULATIONS

DRIVES / WALKS = 3,173 S.F.	SITE AREA = 36,370 S.F.
PATIO = 338 S.F.	
HOUSE = 4,378 S.F.	
TOTAL = 7,889 S.F.	
7,889 S.F. / 36,370 S.F. = 0.217 (21.7% MAX ALLOWABLE)	

NOTICE TO CONTRACTOR

UNDERGROUND FACILITIES, SUCH AS UTILITIES, HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THEREFORE, THE LOCATION OF ANY UNDERGROUND FACILITIES, WHICH WERE NOT RECORDED, IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF THESE FACILITIES. ALSO, WITH ANY EXISTENCE THERE MAY NOT SHOWN, TO DETERMINE THEIR LOCATION WITHIN HORIZONTAL AND VERTICALITY IN ACCORDANCE WITH THE REQUIREMENTS OF THE MISSOURI UTILITY FACILITY (MURF) AND TO DETERMINE THAT MINIMUM CLEARANCE AND COVER REQUIREMENTS, BETWEEN THE EXISTING FACILITY AND THE PROPOSED WORK, WILL BE MET.



BEFORE YOU
DIG - DRILL - BLAST
1-800-344-7483
(TOLL FREE)
MISSOURI ONE CALL SYSTEM, INC.

MICHAEL J. KELLY, P.E.
VANCE ENGINEERING, INC.
AUTHORITY NO. 2003022194

THE KELLY COMPANY
665 WESTCHESTER CT
CREVE COEUR, MO 63141
P. 314-427-1801

Vance Engineering, Inc.
10779 Page Ave.
St. Louis, MO 63143
P. 314-427-1800
F. 314-427-1801

105 N. MOSELY RD.

SITE PLAN

RECEIVED
CITY OF CREVE COEUR
JUL 14 2011

13060
7/15/2011
1/1
COPYRIGHT 2011

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Veranda 6 ft. x 56 in. White Dogwood Drive Gate Kit

Model # 73010809⁵ Internet # 202879382 Store SO SKU # 232659

★★★★★ (2) Write a Review +

\$167.00 / piece

PRODUCT SOLD : Online Only

Item cannot be shipped to the following state(s): AK, GU, HI, PR, VI

PRODUCT OVERVIEW

With an exceptional variety of different styles, Barrette vinyl fencing has do-it-yourself friendly styles to professional grade fencing. Our Vinyl fence offers the perfect combination of high quality and low maintenance you have been looking for. The lightweight design makes installation fast and easy. Supported with a transferable limited lifetime warranty. The ornamental design allows you to easily add some elegance to your home projects.

- Corresponding posts sold separately, use Model #73010805 Line, Model #73010806 Corner, and Model #73010807 End
- Gate hardware sold separately
- Made of durable, low maintenance vinyl
- Easy to install, ideal for the do-it-yourselfer
- Gate kit, assembly required
- Dogwood Drive Gate Kit comes with transferable limited lifetime warranty

SPECIFICATIONS

Assembled Depth (in.)	2.00 in	Assembled Height (in.)	72 in
Assembled Width (in.)	56 in	Color Family	White
Commercial/Residential Use	Residential	Fencing Product Type	Vinyl Gate
Gate Height	72.00 in	Gate opening width (in.)	58
Gate thickness (in.)	2.00	Gate width (in.)	56.00
Installed height (in.)	72.00	Installed width (in.)	56.00
Manufacturer Warranty	Transferable Limited Lifetime Warranty	Material	Composite
Post and accessories included	No	Product Weight (lb.)	54
Returnable	90-Day	Structure type	Permanent or temporary
UV Protected	Yes		

SHIPPING OPTIONS

Most orders process within 5 business days.

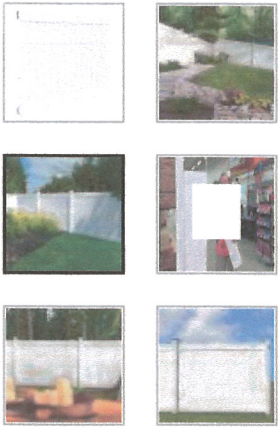
Please allow 3 to 5 business days for **Standard Shipping** in addition to order processing time, which varies by product. Items deliver by small parcel service.

If product is eligible for shipping to AK, HI and US Territories additional transit time and remote surcharges may apply. days, plus order processing time.

This item is also available for pick up in your local store (FREE) within 4-7 business

Veranda 6 ft. x 8 ft. White Linden Pro Privacy Fence Panel Kit

Model # 73013298



F
V
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-
-
-
-
-
- Learn how to install.

How to Install Vinyl Fence: A DIY Video Guide



SPECIFICATIONS

Actual panel height (in.)	68	Actual panel thickness (in.)	1.75
Actual panel width (in.)	94	Assembled Depth (in.)	1.75 in

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Veranda 5 in. x 5 in. x 8 ft. White Vinyl Fence Post

Model # 73010700 Internet # 202084745 Store SKU # 284503
Store SO SKU # 232659

★★★★★ (5) Write a Review +

\$24.97 / piece

32 in Stock at **Manchester Road #3004**

Aisle **OG** Bay **062**
(change pick up store)

PRODUCT SOLD : Online & In Store
Item cannot be shipped to the following state(s): AK, GU, HI, PR, VI

PRODUCT OVERVIEW

The 5 in. x 5 in. x 8 ft. Vinyl Post resists rust and decay when placed into the ground. This durable vinyl post also features a lightweight design and requires no painting. Backed by a transferable limited warranty, the 5 in. x 5 in. x 8 ft. Vinyl Post is a must for any fencing project.

- Constructed of lightweight uv-resistant vinyl material
- Available in a variety of colors including white
- Never needs painting. Won't splinter
- Lightweight, blank post design
- Resists rust and decay when placed into the ground
- Panels and post tops sold separately
- Transferable Limited Lifetime Warranty
- Note: Product may vary by store
- Learn how to install:

How to Install Vinyl Fence:

A DIY Video Guide



1) How To Measure and Lay Out Fence Posts



2) How To Dig Holes for Vinyl Fence Posts



3) How To Install a Vinyl Privacy Fence

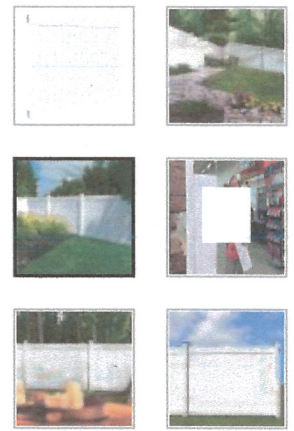
SPECIFICATIONS

Actual post height (in.)	96	Actual post thickness (in.)	0.115
Actual post width (in.)	5	Assembled Depth (in.)	5 in
Assembled Height (in.)	96 in	Assembled Width (in.)	5 in
Cap/top included	No	Color Family	White
Color/Finish	White	Commercial/Residential Use	Commercial / Residential

Color Family	White	Color/Finish	White
Commercial/Residential Use	Residential	Fence Application	Privacy
Fencing Material	Vinyl	Fencing Product Type	Vinyl Fence Panels
Manufacturer Warranty	Transferable Limited Lifetime Warranty	Material	Vinyl
Nominal panel depth (in.)	2.00	Nominal panel height (ft.)	6
Nominal panel width (ft.)	6	Number of pickets for panels	12
Number of rails for panels	3	Product Weight (lb.)	35.37
Structure type	Permanent or temporary	UV Protected	Yes

SHIPPING OPTIONS

Store Exclusive. This item is available for purchase in select stores only.



F

V

or high quality and low maintenance you have been looking for. The lightweight design makes installation fast and easy. Supported with a transferable limited lifetime warranty. The white finish and ornamental design allows you to easily add some elegance to your home projects.

- Corresponding posts sold separately
- Tongue and groove boards featuring 7 in. top and bottom rails
- Made of durable, low maintenance vinyl
- Easy to install for the do-it-yourselfer
- Includes a transferable limited lifetime warranty
- Learn how to install:

How to Install Vinyl Fence: A DIY Video Guide



SPECIFICATIONS

Actual panel height (in.)	68	Actual panel thickness (in.)	1.75
Actual panel width (in.)	94	Assembled Depth (in.)	1.75 in

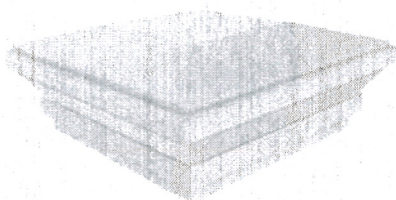
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Veranda 5 in. x 5 in. White Vinyl Contemporary Post Top

Model # 73013119 Internet # 202707722 Store SO SKU # 232659

★★★★★ (3) Write a Review +

\$8.47 / piece

Item Not Sold at Manchester Road #3004

Check nearby stores to confirm availability and pick up options.

PRODUCT SOLD : Online & In Store

Item cannot be shipped to the following state(s): AK, GU, HI, PR, VI

PRODUCT OVERVIEW

The Veranda 5 in. x 5 in. White Vinyl Contemporary Post Top sports a beveled design with a transitional style that easily coordinates with most decor. Backed by a transferable limited lifetime warranty, the Veranda 5 in. x 5 in. White Vinyl Contemporary Post Top is a must for any fencing project.

- Made from vinyl
- Beveled design gives contemporary look
- Fits a 5 in. x 5 in. post
- Available in a variety of colors including white
- Backed by a transferable limited lifetime warranty

SPECIFICATIONS

Assembled Depth (in.)	5.00 in	Assembled Height (in.)	2.75 in
Assembled Width (in.)	5 in	Builders Hardware Product Type	Gate Accessories
Manufacturer Warranty	Transferable Limited Lifetime Warranty	Returnable	90-Day

SHIPPING OPTIONS

Most orders process within 5 business days.

Please allow 3 to 5 business days for **Standard Shipping** in addition to order processing time, which varies by product. Items deliver by small parcel service.

If product is eligible for shipping to AK, HI and US Territories additional transit time and remote surcharges may apply.

Fencing Product Type	Vinyl Posts	Manufacturer Warranty	Transferable Limited Lifetime Warranty
Material	Vinyl	Number of posts included	1
Product Weight (lb.)	11.49	Returnable	90-Day
Shape	Square	UV Protected	Yes
Use	Any		

SHIPPING OPTIONS

Most orders process within 5 business days.

Please allow 3 to 5 business days for **Standard Shipping** in addition to order processing time, which varies by product. Items deliver by small parcel service.

If product is eligible for shipping to AK, HI and US Territories additional transit time and remote surcharges may apply.

Dear Chairman Madden and the Planning and Zoning Commission,

I am writing to you in regard to the six foot white plastic fence proposed for 105 N. Mosley Rd. This letter comes from me, not as a Ward 2 City Council person, but rather as a long-time resident of N. Mosley Rd.

105 N. Mosley Rd had a sale price of \$1,295,000 (http://www.realtor.com/realestateandhomes-detail/105-N-Mosley-Rd_Creve-Coeur_MO_63141_M86631-29005?source=web). One of the words use to describe this home in the Kelly Company's description was 'elegant'. There is nothing elegant about a six foot white plastic fence. These kind of fences are, to say the least, cheap and ugly looking. Even with plantings around them, this remains the case.

As far as I can tell from the drawings, the builders even want to wrap the fence around the front of the home onto the N. Mosley Rd, side. To date, there are NO fences in the front of any home along the street, let alone such obvious ugly ones. [I should know as I walk the entire length of the street most days.] This fence absolutely does not fit in with the look of the neighborhood. To allow this to be installed would set a precedent that none of the current residents would be happy or comfortable with.

I can understand the home owner and builder wanting to screen the home from Ladue Rd. This is not unreasonable. However, this goal can easily be accomplished with a series of plantings. Plantings would look leagues better, and be environmentally the superior choice. Many plant types are available that provide for a privacy screen (<http://homeguides.sfgate.com/fast-growing-privacy-shrubs-41152.html>, <http://www.arborday.org/trees/privacyhedge/>). When the sprinkler system is installed, drip irrigation could be placed in those areas to insure easy maintenance. [I know this works as we did this when we built our home.] I admit that plantings are a more expensive option, but for a \$1.3 million dollar home, I believe they are the right way to go. I am sure the builder didn't use cheap ugly materials on the inside of this home. They should not do so on the outside where everyone else will have to put up with substandard materials for years just to save some money at the end of construction.

I urge the commission to reject this request.

Many thanks for your consideration.

Best Regards,

Ellen Lawrence

501 N. Mosley Rd.