

#### TOWN OF HAYMARKET PLANNING COMMISSION

# REGULAR MEETING ~ AGENDA ~

Emily Lockhart, Town Planner http://www.townofhaymarket.org/

15000 Washington Street, Suite 100 Haymarket, VA 20169

Monday, December 21, 2020

7:00 PM

Council Chambers

- I. Call To Order
- II. Pledge of Allegiance
- III. Moment of Silence
- IV. Citizen's Time
- V. Minute Approval
  - 1. Planning Commission Regular Meeting Nov 16, 2020 7:00 PM
- VI. Agenda Items
  - 1. Consideration of Special Use Permit Application 14600 Washington Street
  - 2. McDonald's Site Plan for Secnd Drive Thru
  - 3. 2021 Meeting Schedule
- VII. Old Business
  - 1. Zoning Text Amendment Work Session Continued If Needed
- VIII. New Business
- IX. ARB Updates
- X. Town Council Updates
- XI. Adjournment



#### TOWN OF HAYMARKET PLANNING COMMISSION

# REGULAR MEETING ~ MINUTES ~

Emily Lockhart, Town Planner http://www.townofhaymarket.org/

15000 Washington Street, Suite 100 Haymarket, VA 20169

Monday, November 16, 2020

7:00 PM

Council Chambers

A Regular Meeting of the Planning Commission of the Town of Haymarket, VA, was held this evening in the Council Chambers, commencing at 7:00 PM.

Chairman Matt Caudle called the meeting to order.

#### I. Call To Order

Chairman Matt Caudle: Present, Councilman Bob Weir: Present, Commissioner Aayush Kharel: Absent, Commissioner Robert Hallet: Present, Commissioner Jackie Walker: Absent, Commissioner Alexander Beyene: Present, Commissioner Chuck Mason: Present.

#### II. Pledge of Allegiance

Chairman Matt Caudle invited everyone to stand for the Pledge of Allegiance followed by a Moment of Silence.

#### III. Moment of Silence

#### IV. Citizen's Time

Mayor Luersen was in attendance at the evening's meeting to welcome Chuck Mason as the newest member to the Haymarket Planning Commission.

#### V. Crossroads Village Concept Presentation

Town Planner Emily Lockhart shared with the Planning Commission that the owner of the Crossroads Village Center was in attendance at the evening's meeting to give an update on their upcoming submission which will include 2 amended Special Use Permits as well as an amendment to the site plan. Ms. Lockhart invited Mr. Don Wooden to the podium to share with the Planning Commission the concept going forward and what was previously discussed. Mr. Wooden gave a quick overview of the site plan. He shared that an agreement has been reached with Lidl Grocery. He showed the location of that site. He also shared that they have reached an agreement with Starbucks Coffee, which will be one of the SUP's that will be coming up before the Commission. He continued to share that they are in negotiations with additional tenants at various sites on the property. He pointed out the area of the 77 townhomes that were already approved. Mr. Wooden shared that the other SUP will be for 72 two over two town home units. He stated that Meladon exhausted all the possibilities of any hospitality or retail use at the back of the property which is where the two over two town homes would be located. Mr. Wooden went into a further explanation of the two over two concept. Lastly in Mr. Wooden's presentation was elevation and design plan for Lidl Grocery and for the Starbucks site.

After Mr. Meladon's presentation, there was a short question and answer period on the concept.

#### VI. Minute Approval

1. Planning Commission - Public Hearing/Regular Meeting - Sep 21, 2020 7:00 PM Councilman Weir moved to accept the minutes from the September 21, 2020 meeting. Commissioner Hallet seconded the motion. The motion carried.

RESULT: ACCEPTED [UNANIMOUS]

**MOVER:** Bob Weir, Councilman

**SECONDER:** Robert Hallet, Commissioner

AYES: Caudle, Weir, Hallet, Beyene, Mason

**ABSENT:** Aayush Kharel, Jackie Walker

#### VII. Agenda Items

#### 1. QBE Special Use Permit - Residential Condos

Town Planner Emily Lockhart shared that this item was on the agenda at this evening's meeting because it was deferred until the Town Council made a decision on the proffer amendment application at their November 2nd public hearing. Ms. Lockhart shared that no decision was made at that meeting. She stated that the consideration of proffer amendment was tabled until the December Town Council meeting. She continued to state that this item could be deferred until after the Town Council December Regular Meeting. Councilman Weir provided some information on the subject of the November Town Council public hearing regarding the proffer amendment.

#### 2. SUP Consideration 14600 Washington Street

Councilman Weir moved to defer further consideration of the QBE Special Use Permit until the December meeting of the Planning Commission. Commissioner Beyenne seconded the motion. The motion carried by a roll call vote.

RESULT: ADOPTED [UNANIMOUS]

MOVER: Bob Weir, Councilman

**SECONDER:** Alexander Beyene, Commissioner AYES: Caudle, Weir, Hallet, Beyene, Mason

ABSENT: Aayush Kharel, Jackie Walker

#### 3. Van Metre Site Plan Review

Town Planner Emily Lockhart introduced the representatives from Van Metre for consideration of the site plan for 38 town homes located at the 14850 and 14860 Washington Street. Ms. Lockhart shared that at the last Planning Commission meeting, there was a question about the vehicle trips per day. Ms. Lockhart stated that the correct number of vehicle trips per day was 1136 for this site. Ms. Lockhart also shared that she worked closely with the Town's Engineer with reviewing the plans and submitted their second round of comments to the applicant and waiting on outside agencies for comments. She shared that her second round of comments were mostly administrative and recommended to approve the site plan with conditional approval that it would be released once all outside agencies comments have been approved and submitted to the Town. She invited the representative to the podium and the representative that was on via Zoom to answer any questions from the Planning Commission. The representative on Zoom gave a brief presentation on the site plan. A short question and answer period followed.

Commissioner Beyenne moved that the Planning Commission to conditionally approve the Robinson Village Site Plan, with the following conditions; all outside agencies approvals must be received and all outstanding Town Engineer and Town Planner comments must be adequately addressed prior to the approval signature from the Town Zoning Administrator. Commissioner Hallet seconded the motion. The motion carried by a roll call vote.

RESULT: ADOPTED [UNANIMOUS]

MOVER: Alexander Beyene, Commissioner SECONDER: Robert Hallet, Commissioner

AYES: Caudle, Weir, Hallet, Beyene, Mason

**ABSENT:** Aayush Kharel, Jackie Walker

#### 4. One Mile Review - Lightner Road

Town Planner Emily Lockhart shared that the Town has received a one mile review from Prince William County for the Utterback community on Lightner Road. Ms Lockhart stated that Prince William County is asking to receive comments from the Town after reviewing the plan. She stated that she would like to hear concerns or comments from the Planning Commission to give back to the County. At this time, Ms. Lockhart asked Councilman Weir to provide some information to the Commissioners on this project since he is most familiar with the project. Mr. Weir shared that this project has been sitting on the County books for quite sometime. He stated that one of the principle issues through the County and VDOT was the ingress and egress. He stated from a transportation standpoint, there was a concern whether a single ingress and egress into a 240 home subdivision would be enough. He stated that he could not find a second ingress/egress point on the plan. He also stated that there are a variety of issues but particularly the student population numbers from these homes that would flood the area schools.

Ms. Lockhart stated that her comments to the County will be the Town's concerns on the density of the project as well as the traffic and school impact concerns. She stated that the Planning Commission could take time to review the project and provide any other concerns via email prior to the deadline.

#### VIII. New Business

#### 1. McDonald's Site Plan, 2Nd Drive-Thru - Informational

Town Planner Emily Lockhart stated that the site plans for the Mc Donalds second drive thru was provided so that the Commission can start to review it prior to it coming before them at the December meeting. She gave some background information on the application and also some history on the project. There was a short discussion on the site plan and the changes made from what they currently have.

#### 2. Zoning Text Amendment Discussion

Town Planner Emily Lockhart stated that the Town Council has tasked the Planning Commission to update the Zoning Text Amendment. She shared that the draft presented at the evening's meeting has some suggested changes and recommendations of where to start. Ms. Lockhart asked for the Planning Commission to review the draft and send any edits or changes before the next meeting. There was a discussion on having a work session to work on the document. It was agreed to schedule a work session one hour before the regular monthly meeting on December 21.

#### IX. Old Business

Town Planner Emily Lockhart gave the updates on the Haymarket Hotel project. She stated that there is a scheduled site visit to verify all procedures are being followed in regards to erosion and sediment control. Ms. Lockhart also shared that the Jefferson Street pedestrian project was finished and that a site walk through is scheduled for later in the week.

Ms Lockhart also shared that staff is working with VDOT and the contractor who recently paved Washington Street about the crosswalks that were placed. She stated that the contractor put down the wrong crosswalks and staff is working to get that corrected.

Ms. Lockhart informed the Planning Commission that the old BB&T bank building is being renovated and will be the home of a dentist who is relocating his office from another building in Town.

Lastly, Ms. Lockhart shared that the Shops at Haymarket on Leaberry Way was sold to a developer from Maryland and that the old Food Lion building will be the home to Aldi Grocery. She shared that Aldi will occupy one half of the building and will lease the other half. She stated that they will be coming to the ARB meeting to present their first round of design plans for the outside of the building.

The Planning Commission discussed the Crossroads Village Concept that was presented earlier that evening. Ms. Lockhart gave some information regarding the Special Use Permit application for the Starbucks and the changes to the original site plan.

#### X. ARB Updates

Ms. Lockhart shared that the ARB did not meet last month. She provided some information that the ARB will be hearing at their November meeting scheduled later that week.

#### **XI. Town Council Updates**

Councilman Weir gave brief updates from the Town Council meeting. Mr. Weir stated that the Town Council would like to see the Planning Commission start working on the Comp Plan after they finish the Zoning Text Amendment.

#### XII. Adjournment

With no further business before the Planning Commission, Councilman Weir motioned to adjourn with a second by Commissioner Hallet. The motion carried.

#### 1. Motion to Adjourn

Kim Henry, Clerk of the Council

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RESULT: MOVER: SECONDER: AYES: ABSENT:	ADOPTED [UNANIMOUS] Bob Weir, Councilman Robert Hallet, Commissioner Caudle, Weir, Hallet, Beyene, Mason Aayush Kharel, Jackie Walker
Submitted:	Approved:

Matt Caudle, Chairman



#### Emily K. Lockhart

Town Planner and Zoning Administrator

#### **MEMORANDUM**

TO: Planning Commission FROM: Emily K. Lockhart DATE: December 11, 2020

SUBJECT: SUP#2020-002 - 30 Residential Condominiums, Development Narrative and

Generalized Development Plan

#### December Town Planner Report Update Summary and Recommendation:

Applicant, Haymarket Properties Group previously submitted a Special Use Permit for 30 residential condominiums to be located at 14600 Washington Street, in a multi-use 4 story structure. The Town Planner and Town Manager worked with the applicant to address concerns and questions through several meetings, emails and conversations from June to August 31st. The applicant has not addressed the final comments sent at the end of August to date.

Town Planner recommends Denial of the Special Use Permit for the following reasons; the applicant has failed to address the concerns and comments from August 2020, the residents of Haymarket have voiced their concerns and requests for denial for the last six months, and lastly, the designated land for the SUP in the GDP has been rejected for a Proffer Amendment by the Town Council.

For the complete Resolution of Denial by Town Council please see next attachment in the agenda.

**Draft Motion:** "I move the Planning Commission recommend denial to the Town Council for the Special Use Permit, 2020-002 for 30 residential condominiums to be located at 14600 Washington Street, on the following basis, the applicant has not addressed the Town Planner's comments from August 31st regarding parking concerns, the Haymarket residents have voiced overwhelming requests for denial for the past six months and the land in which would be utilized for the SUP was denied a Proffer Amendment by the Town Council."

Or an alternate motion.

#### September Town Planner Report Application Summary:

Applicant, Haymarket Properties Group has submitted an updated Generalized Development Plan for the SUP for 30 residential condominiums to be located at 14600 Washington Street, Haymarket. The applicant has a Proffer Amendment application before the Planning Commission for Public Hearing on September 21st to modify the approved 2013 Proffer on the property from 4.51 acres to 0 acres.

The applicant has provided a Development Narrative, Proposed General Development Site Plan, Conditions of Approval and a Proffer Amendment. The documents were modified and resubmitted June 25, 2020. The applicant previously provided responses to the first round of comments, these responses can be located in the July 2020 Planning Commission Agenda Packet.

#### At the June Meeting the applicant pulled the SUP#2020-001 for the Drive Thru Use.

The Zoning Ordinance requires the following standards to be considered and met prior to approval.

- (1) The proposed use at the stipulated location shall be in accordance with the official policies of an adopted comprehensive plan, and with any specific element of such plan.
- (2) The proposed use shall be in accordance with the general purpose and intent of the applicable zoning district requirements.
- (3) The proposed use shall not adversely affect the use or values of surrounding properties and structures
- (4) The proposed use shall not adversely affect the health, safety or general welfare of persons residing or working in the neighborhood.
- (5) Pedestrian and vehicular traffic generated by the proposed use shall not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.
- (6) Utility, drainage, parking, loading and other necessary facilities provided to serve the proposed use shall be adequate.

The Town Planner's Original Comments from 6/9/2020 are below, the most recent comments sent to the applicant reflecting the feedback from the Planning Commission and Staff comments are attached in the document following, dated 8/31/2020.

#### Original Comments 6/9/2020

The Development Package is <u>Incomplete</u> and needs to address the following comments:

#### **General Development Plan:**

- Page 3 GDP: Existing conditions is not an accurate depiction of the current site and needs to be updated to show ALL existing conditions. See below items to name a few.
  - o Does not show Cookies and Cream Structure
  - o Does not show the removal of the playgrounds
  - Does not show the recent site plan amendment for Zandra's
  - o Does not show the curb/gutter work and additional parking along the building
  - The eastern tree line has been significantly modified
  - Does not show the storage sheds located in the north eastern corner
  - Does not depict the frontage changes
  - Adjoining and abutting property descriptions incomplete
  - Existing dumpster not depicted
- No Scale on the GDP
- No North Arrow on the GDP
- Page 4 GDP: Proposed conditions
  - o Parking Spaces are not delineated on the plan
  - No delineation of travelways on the plan
  - Points of Ingress/Egress are not clearly delineated with one- or two-way travel ways
  - Are the parallel parking spaces proposed on Bleight Drive for private use only?
     Cannot restrict parking on a public right of way. Provide additional information
  - Sidewalks/Pedestrian Walkways are not depicted along right of ways or within property
  - No dumpsters shown on the plan for retail, restaurant, commercial or residential uses
  - No handicap parking shown on plan

#### Parking Tabulation

- Need to include restaurant parking requirements, as it differs from the Commercial parking.
- o Retail Store parking is 1 per 250 SF of GFA, not 1 per 300 SF of GFA
- Retail store parking requires the following for loading zones; None for the first 10,000 SF then 1/30,000 up to 70,000 SF plus 1/100,000 SF thereafter. Please include the proper loading zones and ensure adequate travelways for the loading zone
- Office parking is 1 per 300 SF of GFA

#### • SUP#2020-001, Drive Thru Request

No stacking spaces shown on the plan, see above table for requirements

- No delineation of travelways on parcel
- Vehicular Ingress/Egress not shown on plan
- Pedestrian Ingress/Egress not shown on plan
- o Dumpster location not shown on plan
- o No indication of the drive thru window location
- o No proposed signage for vehicular traffic or pedestrians
- 32 parking spaces required, please clarify the location of the required parking spaces
- o No information of the hours of operation
- No reference to the front of the structure or the main entry
- No elevations of the structure provided

#### • SUP#2020-002, 30 Residential Condominiums

- No square footage for the third and fourth floor provided
- o Is residential parking reserved? If so, where?
- How many bedrooms per unit? Variety of unit types?
- Expected number of residents in the building?
- o Will residential amenities be provided?
- o No elevations of the 4-story structure provided
- Where is residential access on the building? Is residential access restricted and separate from the commercial access?
- o Will the structure have an elevator?
- Will the structure have trash dumpsters or a trash service? Dumpsters should be shown on the plan
- o Will dumpsters be shared with the retail/commercial tenants?
- o Will the underground garage parking have public access?
- No green space for residents
- Will the property have a Condo Owner Association? Who maintains the common space?
- Show full building footprint on plan
- No information on the hours of operation for the commercial spaces on the first and second floors as well as the entire site
- Will visitor parking be provided for the residential condominiums?

#### Development Narrative Comments

- Provide the date of the current GDP in the first paragraph
- Special Use Proposal states that outdoor seating will be provided. Outdoor seating is not depicted on the GDP. Update GDP to depict the outdoor seating
- Development Narrative states the project will preserve 3 ballfields to the north of the property – only 2 ballfields are shown on the proposed plan. Update the GDP to depict the proper number of ballfields

#### Proffer Amendment Statement

o Provide the approved 2013 Proffer Amendment for review

#### • Conditions of Approval

 Transportation 5.1. – Sidewalks and other street enhancements are required per the Zoning Ordinance

#### Other Comments

- No traffic impact analysis provided. The traffic will be significantly impacted by the proposed changes
- No elevations for the SUPs provided
- No environmental analysis or stormwater calculations
- No outside agencies comments received yet. VDOT, PWCSA, PWC
- No additional proffers provided or considered for Schools, Fire Department,
   Public Safety, Transportation
- Can Bleight Drive handle the increased traffic flow and the addition of the parallel parking?
- No turn lanes provided on Washington Street for the entry points
- o Provide clarification on the north eastern apartment, is the apartment on the first floor? If so, a SUP will be required for this residential space.

#### Planner Recommendation:

The application is incomplete and missing the above items. Please review the comments and provide responses or additional information for the application.

# Town Planner Review of SUP#2020-002, Proposed Residential Condominiums at 14600 Washington Street.

SUP Request Summary: "the applicant proposes to develop 53,250 square feet of the Property zoned B-1 via special use permit to allow thirty (30) residential condominium dwelling units. The proposed plan locates the residential condominiums on the 3rd and 4th floor of the new proposed multiuse building as shown on the GDP."

The Zoning Ordinance requires the following standards to be considered and met prior to approval.

(1) The proposed use at the stipulated location shall be in accordance with the official policies of an adopted comprehensive plan, and with any specific element of such plan.

The Comprehensive Plan calls for a mix of residential and commercial uses to facilitate long term economic potential and positive growth for the Town. The residential condominiums would be in accordance with the intent to blend the residential and commercial uses in the Town Center Zoning Districts.

(2) The proposed use shall be in accordance with the general purpose and intent of the applicable zoning district requirements.

#### Zoning Ordinance, Sec. 58-10.1 - Intent.

"The Town Center District, B-1, provides primarily for retail shopping and personal services to be developed either as a unit or in individual parcels oriented to attracting pedestrian shoppers, tourism and local convenience. Recognizing the economic value of the existing historical area, it shall further be the intent of the district to encourage the retention and rehabilitation of structures and uses in the district that have historic and/or architectural significance. The range, size, hours of operation, lighting, signs and other developmental aspects of permitted uses may be limited in order to enhance the general character and historic nature of the district."

The proposed use of the 3<sup>rd</sup> and 4<sup>th</sup> floors of the multi-use building for residential condominiums is not clearly defined as the intent of the Town Center District, B-1, as stated above. However, the addition of the residential units may provide an opportunity to blend the Town Center district with the surrounding residential district to create a less intrusive blending of the districts.

(3) The proposed use shall not adversely affect the use or values of surrounding properties and structures.

The proposed uses for the structure are in keeping with the intent of the zoning district and will blend the residential units with surrounding residential districts. However, the significantly increased volume of vehicle trips per day on the site due to the structure may adversely affect the surrounding properties. Additional information regarding the traffic impacts would be necessary to appropriately determine the adverse effects on the surrounding uses and properties.

There is no indication the proposed-mixed-use structure will decrease the values of the surrounding properties, however for the most accurate information an additional study on the economic value would need to be performed. There is an indication that the adjacent and surrounding residential properties could be affected by the development's traffic flow and commercial uses during the pm hours. However, the proposed commercial development is a by-right use.

(4) The proposed use shall not adversely affect the health, safety or general welfare of persons residing or working in the neighborhood.

The proposed addition of residential condominiums shows no indication of adversely affecting the health, safety, or general welfare of the adjacent properties or surrounding residential communities. However, there is indication that the increased traffic volume due to vehicular trips per day from the site may impact the residential communities that currently utilize Bleight Drive.

(5) Pedestrian and vehicular traffic generated by the proposed use shall not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.

The vehicular traffic along Bleight Drive will be impacted with the new entry/exit and added vehicular trips per day. Proper traffic studies and impact analysis shall be prepared along with projected vehicle trips per day. Since Bleight Drive is currently a lower-volume route, primarily serving the residential communities of Villages of Haymarket, Alexandra's Keep and single family homes on Bleight, it will be pertinent to not impede traffic, rather the improvements shall enhance the movement and flow through the proposed site, existing roadway and intersection.

(6) Utility, drainage, parking, loading and other necessary facilities provided to serve the proposed use shall be adequate.

Utilities, drainage, loading zones and other necessary facilities will be addressed at the site plan phase, currently there is no indication that the General Development Plan addresses all of these utilities adequately. Parking has been clearly delineated on the General Development Plan, to include underground garage parking at the residential condominium structure.

#### Planner Recommendation:

The Town Planner has sent comments to the applicant expressing concerns from the Planning Commission as well as Town Staff in regard to the SUP#2020-002 for the 30 Residential Condos. The comments were sent on August 31, 2020. The applicant has not responded nor acknowledged receipt of the comments.

At this time, the Town Planner recommends the Planning Commission not take further action on the SUP#2020-002 application until the comments and concerns are adequately addressed. At this time, the Town Planner does not recommend approval until further information is provided regarding the parking comments sent on 8/31/2020. (This is the previous Report's recommendation – updated recommendation on page 1 of report, see above. This recommendation remains for the sake of reviewing previous report and comments)



#### HAYMARKET TOWN COUNCIL RESOLUTION #2020-20

# RESOLUTION DENYING REQUEST FOR AMENDMENT TO PROFFERS IN #REZ20130528

WHEREAS the Code of Virginia empowers the Haymarket Town Council to review land use applications to ensure the health, safety and general welfare of the public, and

WHEREAS the Town Council in 2013 approved rezoning #REZ20130528 for the former PACE West School property (the "Property"), subject to proffers (the "Proffers"), in connection with the sale of that property by the Prince William County School Board and the creation of a long-term lease for use of the existing ballfields, and further contingent upon a boundary line adjustment to bring the entirety of the Property into the Town limits, and

WHEREAS the Proffers included a commitment to "maintain and make available for recreational field use approximately 4.51 acres adjacent to the existing school building as illustrated" in an attachment to the Proffers (the "Ballfields"); this commitment was to continue "so long as a public or private partner is willing to enter into a commercially reasonable form of lease agreement at a fair market price," subject to termination after one year of non-use and notice to the Town of such non-use, and

WHEREAS the Town has adopted a zoning ordinance codified as Articles I through XIX of Chapter 58 of the Town Code of Ordinances for the purpose of promoting the health, safety and general welfare of the public and of further accomplishing the objectives of Code of Virginia, §§ 15.2-2200 and 15.2-2283, and

WHEREAS Virginia Code § 15.2-2286 (A)(7) provides for amendment of existing zoning ordinances "[w]henever the public necessity, convenience, general welfare, or good zoning practice requires," and

WHEREAS Section 58-3.9 of the Town Code provides that the Town Planning Commission make recommendations, and the Town Council make decisions, regarding any proposed zoning amendments based on criteria set out in that section, and

WHEREAS Haymarket Properties Group, LLC ("Applicant"), the owner of the Property, has requested an amendment to the Proffers, which constitutes an amendment to the zoning ordinance, and

WHEREAS Applicant submitted a proffer amendment application dated June 1, 2020, requesting an amendment to the Proffers reducing the acreage for the Ballfields from 4.51 acres to 2.05 acres (the "June 1 Application:"), and

WHEREAS Applicant submitted a proffer amendment application dated June 24, 2020 (the "June 24 Application"), which – without seeking to withdraw the June 1, 2020 application – requested an amendment to the Proffers to remove all restrictions on the Ballfields upon the expiration or termination of the current lease of the Ballfields to the Board of County Supervisors of Prince William County (the June 1 Application and the June 24 Application are collectively referred to hereinafter as the "Application"), and

WHEREAS the Prince William County Parks and Recreation Department ("Parks and Rec") is currently making use of all of the Ballfields pursuant to the County's lease from the Applicant, and Parks and Rec desires to continue such use and desires additional park acreage in the western portion of Prince William County, and

WHEREAS the Applicant has not fully complied with the conditions of the Proffers inasmuch as it has not diligently pursued approval of a Final Site Plan, the approval of which would have triggered further obligations to submit a work schedule and begin Final Site Plan work, and

WHEREAS the Town of Haymarket Planning Commission and Town staff have recommended denial of the Application, and

WHEREAS the Haymarket Town Council, based on the factors outlined in Town Code § 58-3.9, finds as follows with respect to both the June 1 Application and the June 24 Application:

- 1. The factor of "existing use and character of the area" weighs against the Application because the Ballfields continue to be vital to the life and character of the neighborhood and the Town as a whole;
- 2. The factor of "suitability of the property for various uses" weighs against the Application because the Ballfields provide a vital buffer between the commercial uses on the Property and the nearby residential uses;
- 3. The factor of "trends of growth or change" is neutral in this instance because increased demand for development is balanced by the need to provide open space to maintain quality of life for residents and visitors;
- 4. The factor of "current and future requirements of the Town as to land for various purposes as determined by population and economic studies and other studies" cannot be weighed in favor of the application because the Applicant has not provided any such studies;
- 5. The factor of "transportation requirements of the community and the Town's requirements for parks, playgrounds, recreation areas, other public services, or the conservation of natural resources and preservation of floodplains" weighs against the Application because the Town requires space for recreation areas;
- 6. The factor of "conservation of properties and their values and the encouragement of most appropriate use of land throughout the Town" weighs against the Application because the

- Ballfields provide a vital buffer, as noted above, and because they provide needed recreational facilities; and
- 7. The Town's Comprehensive Plan calls for the area of the Ballfields to remain "Public" and the Comprehensive Plan specifically identifies the full potential of the Property as being "as a social, business and recreational center for the Town and adjoining area residents," so that this factor weighs against the Application because granting it would eliminate the recreational center aspect of the Property's full potential; and

WHEREAS the Haymarket Town Council finds that the balance of factors identified in Town Code § 58-3.9 weighs decidedly against approval of the Application, and that each of the factors 1, 2, 4, 5, 6, and 7 individually would suffice to justify denial of the Application, and

WHEREAS the Haymarket Town Council finds that public necessity, convenience, general welfare, and good zoning practice weigh against the approval of the Application;

**NOW, THEREFORE, BE IT RESOLVED** by the Haymarket Town Council, that in order to promote the health, safety and general welfare of the public, to promote good zoning practice, and in light of the Town Code § 58-3.9 factors identified above, it denies the Application.

$\mathbf{R}\mathbf{V}$	ORDER	OF	THE	HA	VMA	RKET	TOWN	<b>COUNCIL</b>
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	1			
Done this		day of	December	, 2020.

ORDER OF THE COUNCIL

Ken Luersen, Mayor

On Behalf of the Town Council of

Haymarket, Virginia

ATTEST:

Kim Henry, Clerk of Council

MOTION: SECOND:

122. S

Votes: Week, Morrisos, Shannon, Paranello, father

Nays:

Abstain: Schneder

Absent:

August 17, 2020

Emily Lockhart, Town Planner Town of Haymarket 15000 Washington Street #100 Haymarket, Virginia 20169

RE: REVISED QBE Business Park SUP 2020 - 0002

Dear Emily,

Enclosed herein please find the following documents in support of the Special Use Permit request for QBE Business Park located at 14600 Washington Street:

- 1. Executed Special Use Permit Application 2020 0002
- 2. Development Narrative (dated August 17, 2020)
- 3. Conditions of Approval SUP2020-002 (dated August 17, 2020)
- 4. General Development Plan (dated August 11, 2020)

Please let me know if you have any questions.

Sincerely,

Keith Lowry

Keith.Lowry@QBE.net

(703) 489 - 0821

August 17, 2020

Haymarket Properties Group, LLC GPIN: 7397-19-1734 Development Narrative

#### PROPERTY AND AREA OVERVIEW

Haymarket Properties Group, LLC (the "*Applicant*'"), has submitted a Special Use Permit application (the "*Application*'") on approximately 8.8 acres (the "*Property*'") that includes a portion of the Tax Parcel described as GPIN: 7397-19-1734. This Special Use Permit will be utilized in conjunction with a site plan amendment to the currently approved site plan dated June 7th, 2017. The new site plan will be amended as depicted in the General Development Plan (GDP) dated August 11, 2020. The applicant no longer wishes to add additional stories to the current building on site.

The Property currently has a 33,458 square feet multiuse building, known as the Old Pace West School and is located on the north side of Washington Street, the eastern most side of the Town of Haymarket. The proposed development will be accessed from Washington Street and Bleight Drive.

The land uses adjacent to the proposed development include single-family attached homes zoned R-1 located directly to the west and south, and townhomes zoned R-2 to the north.

#### SPECIAL USE PROPOSAL

Under SUP 2020 – 0002 the applicant proposes to develop 53,250 square feet of the Property zoned B-1 via special use permit to allow thirty (30) residential condominium dwelling units. The proposed plan locates the residential condominiums on the 3<sup>rd</sup> and 4<sup>th</sup> floor of the new proposed multiuse building as shown on the GDP.

The maximum building height will be four stories not to exceed 50 feet as allowed by right under the Towns B-1 zoning ordinance.

#### COMPREHENSIVE PLAN COMPLIANCE

Under the Town of Haymarket Zoning Ordinance, Sec 58-1.7 Special Uses

- (D) A special use shall be approved if its design, location, construction, method of operation, special characteristics and other aspects satisfy the following standards:
  - 1. "The proposed use at the stipulated location shall be in accordance with the official policies of an adopted comprehensive plan, and with any specific element of such plan."

The Comprehensive Plan calls for a mix of residential and non-residential land uses that will provide an economically and fiscally balanced land use strategy. Uses that generate high fiscal costs, such as residential development, must be balanced by uses that generate a positive revenue stream, such as employment uses. (Page 5, 2008 Comprehensive Plan)

However, because the school is not the direct responsibility of the Town, close coordination must be maintained with the Prince William County School Board and the Board of County

Supervisors so that the full potential of this site may be explored as a social, business and recreational center for the Town and adjoining are a residents. (Page 104, 2008 Comprehensive Plan)

The 8.8-acre site was rezoned to B-1 in August of 2013 when a portion of the site was annexed from the county during a boundary line adjustment. The Property is ideal for a combination of commercial and residential development as shown on the GDP. The Property's frontage on Washington Street lends to a combination of residential and commercial development. Its location provides convenient access for residents to I-66, Rt-29, and Rt15 for commuting to points east and north, such as the Leesburg, Ashburn, Fairfax, Tysons Corner and Washington D.C. The Property's frontage on Washington Street makes it ideal for neighborhood commercial development that will be patronized by residents and others. The depth of the Property from Washington Street to I-66 renders it suitable the sort of mixed development proposed by the GDP.

2. "The proposed use shall be in accordance with the general purpose and intent of the applicable zoning district requirements."

Article X – Town Center District B-1 Sec 58-10.1 Intent

The Town Center District, B-1, provides primarily for retail shopping and personal services to be developed either as a unit or in individual parcels oriented to attracting pedestrian shoppers, tourism and local convenience. Recognizing the economic value of the existing historical area, it shall further be the intent of the district to encourage the retention and rehabilitation of structures and uses in the district that have historic and/or architectural significance.

3. "The proposed use shall not adversely affect the use or values of surrounding properties and structures."

The Proposed use is 30 residential condominiums, the layout of these residential condominiums is intended to complement and blend in with the existing neighboring uses. The new construction of these residential condominiums will be subject to review by the Architectural Review Board to insure it is in keeping with being value additive to the community, as seen throughout the Town with Mix Use development.

4. "The proposed use shall not adversely affect the health, safety or general welfare of persons residing or working in the neighborhood."

The proposed use of 30 residential condominiums for the Property blends in with the other residential uses surrounding the site. This use is less impactful than the other by right uses allowed within the B-1 district.

5. "Pedestrian and vehicular traffic generated by the proposed use shall not be hazardous or conflict with the existing and anticipated traffic in the neighborhood."

The project proposes connecting pedestrian street sidewalks to current sidewalks located on Bleight Drive and Washington Street. The project will also include internal sidewalks. Vehicular traffic generated by the proposed use will have two vehicular ingress / egress points on Washington Street and Bleight Drive as approved in the original site plan dated June 7, 2017.

6. "Utility, drainage, parking, loading, and other necessary facilities provided to serve the proposed use shall be adequate." "

The project will provide all required drainage, onsite infrastructure, storm water management, as well as parking. All design requirements will meet the Town of Haymarket's zoning ordinance.

#### **Summary**

The proposed Special Use Permit and future site plan amendment honors the Comprehensive Plan goal of a balanced program for future land use to ensure the health, welfare, and safety of the Town and its residents by striking an appropriate balance between residential and commercial development that promotes the health, safety, and welfare of the new and existing residents. It does so by allowing healthy residential and commercial opportunities in a pedestrian friendly unified development.

The applicant respectfully requests favorable consideration of the applicant by the Staff, Planning Commission, and the Town Council.

#### Conditions of Approval SUP 2020 – 0002 August 17, 2020

#### 1. LANDUSE

- 1.1 Development shall be in substantial accordance with the Generalized Development and Special Use Permit Plan entitled "QBE Business Park" prepared by The KDL Group and dated August 11, 2020 (the "GDP") with the size, construction details and locations of buildings, roadways and other features being approximate subject to final engineering at site plan and with the color, construction materials and appearance of structures being subject to the issuance of certificates of appropriateness by the Town of Haymarket ("Town") Architectural Review Board (ARB) at advertised public meetings.
- 1.2 Residential Condominium Development on the Property shall not exceed 30 condominium units in the location generally shown on the GDP.
- 1.3 Development of the Property shall be in general conformity with the GDP. Precise locations of roads, lot lines, lot widths and depths, utility lines, and other features generally depicted on the GDP will be determined at the time of site or subdivision plan approval.

#### 2. ARCHITECTURAL DESIGN, SIGNAGE AND LANDSCAPING

2.1 Architectural details of the multiuse building housing the condominium units will be determined through the issuance of certificates of appropriateness issued by the ARB.

#### 3. STORMWATER MANAGEMENT

- 3.1 Storm water management for the Property shall employ best management practices ("BMP").
- 3.2 Storm water retention shall be provided at site plan as approved by the Town.
- 3.3 Storm water management facilities shall be maintained by the appropriate owners' associations provided below.

#### 4. CREATION OF CONDO ASSOCIATION

4.1 The Property shall be made subject a condo association that shall be created and be made responsible for the maintenance and repair of common areas, including common open space that may be established in accordance with the requirements of the Town zoning ordinance. The COA shall be granted such other responsibilities, duties and powers as a customary for such associations, or as may be required to affect the purposes for which the COA is created. Such COA shall also be granted sufficient powers that may be necessary, by regular dues, special dues or assessments, to raise revenue sufficient to perform the duties assigned hereby, or by the documents creating the association.

#### 5. TRANSPORTATION

5.1 The Applicant will construct a brick pedestrian street sidewalk along the southern edge of the property, on the northern side of Washington Street.

#### 6. CONTINGENT

6.1 This Special Use Permit is contingent upon removal or amendment of the current proffer statement dated August 1, 2013 and a site plan amendment.

SIGNATURE ON FOLLOWING PAGE

#### **APPLICANT**

HAYMARKET PROPERTIES GROUP, LLC a Virginia Limited Liability Company

1

Name: Keith Corr

Title: men ber

Date: 8-17-2020

DATE: **MAY 2020** CHECKED: RAWN: JHD FILE NO: **PRE-018-HAY** 

\_1 OF \_4

OBE BUSINESS PARK GENERAL DEVELOPMENT PLAN

> TOWN OF HAYMARKET PRINCE WILLIAM COUNTY, VIRGINIA

# GENERAL NOTES:

1. THE PROPERTY SHOWN HEREON IS LOCATED ON GPIN 7397-19-1734 AND IS NOW IN THE NAME OF HAYMARKET PROPERTIES GROUP, LLC AS DOCUMENTED IN INSTRUMENT 201310110102175 AMONG THE LAND RECORDS OF PRINCE WILLIAM COUNTY, VIRGINIA.

2. THE BOUNDARY AND IMPROVEMENTS FOUND HEREON ARE TAKEN FROM THE ALTA/ACSM LAND TITLE SURVEY PREPARED BY RICE & ASSOCIATES DATED JUNE 2013 AND A CURRENT FIELD SURVEY BY BL SURVEY ARBORIST, LLC.

TOPOGRAPHIC INFORMATION DEPICTED HEREON IS TAKEN FROM THE FIELD SURVEY PERFORMED BY BL SURVEY ARBORIST, LLC AND DATED FEBRUARY 1, 2014. THE VERTICAL DATUM IS TAKEN FROM GPS COORDINATES.

3. THE SUBJECT PROPERTY CONSISTS OF APPROXIMATELY 8.84 ACRES AND IS CURRENTLY ZONED B-1 IN ACCORDANCE WITH THE TOWN OF HAYMARKET, VA ZONING ORDINANCE.

4. THERE ARE NO KNOWN CEMETERIES ON THE SUBJECT PROPERTY. FURTHER, THERE ARE NO KNOWN NATURAL, CULTURAL, OR HISTORIC RESOURCES, RPA'S, OR 100-YEAR FLOOD AREAS IDENTIFIED ON THE PRINCE WILLIAM COUNTY, VA ONLINE MAPPING SYSTEM. 5. THE PROPERTY SHOWN HEREON LIES IN FLOOD ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN PER FEMA FLOOD

6. THE DEVELOPMENT OF THIS PROPERTY IS SUBJECT TO THE APPROVAL CONDITIONS OF THE 2013 REZONING APPLICATION WITH THE TOWN OF

7. ALL CONSTRUCTION SHALL CONFORM TO THE TOWN OF HAYMARKET, PWCSA USM, AND/OR VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.

8. ALL NEW OR RELOCATED UTILITIES SHALL BE PLACED UNDERGROUND.

INSURANCE RATE MAP 51153C PANEL #0067D BEARING AN EFFECTIVE DATE OF JANUARY 5, 1995.

9. THE PROPOSED USES WITHIN THE EXISTING BUILDING SHALL BE SERVED BY THE EXISTING PUBLIC WATER AND SEWER FACILITIES OWNED BY PWCSA AT NO COST TO THE TOWN OR COUNTY. THE ANTICIPATED SEWAGE FLOWS GENERATED BY SUBJECT DEVELOPMENT IS XXXX GPD.

10. STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES MEASURES WILL BE IMPLEMENTED WITH THE FINAL SITE PLAN PER THE LATEST VIRGINIA STORMWATER MANAGEMENT HANDBOOK (VSMH).

11. EXISTING WELLS AND SEPTIC SYSTEMS THAT WILL NOT BE USED SHALL BE ABANDONED IN ACCORDANCE WITH CURRENT PRINCE WILLIAM COUNTY HEALTH DEPARTMENT STANDARDS.

12. SITE LIGHTING SHALL BE PROVIDED IN ACCORDANCE WITH THE TOWN OF HAYMARKET ZONING ORDINANCE (SECTION 58-719).

13. LANDSCAPING AND BUFFERING SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE XVI OF THE TOWN OF HAYMARKET ZONING ORDINANCE 14. STREET TREES LOCATED IN RESIDENTIAL ZONING DISTRICTS SHALL BE LOCATED GENERALLY WITHIN 20 FEET OF THE PUBLIC RIGHT-OF-WAY (SECTION 58-723(c)).

15. THE PROPOSED USE AT THE STIPULATED LOCATION SHALL BE IN ACCORDANCE WITH THE OFFICIAL POLICIES OF AN ADOPTED COMPREHENSIVE PLAN, AND WITH ANY SPECIFIC ELEMENT OF SUCH PLAN.

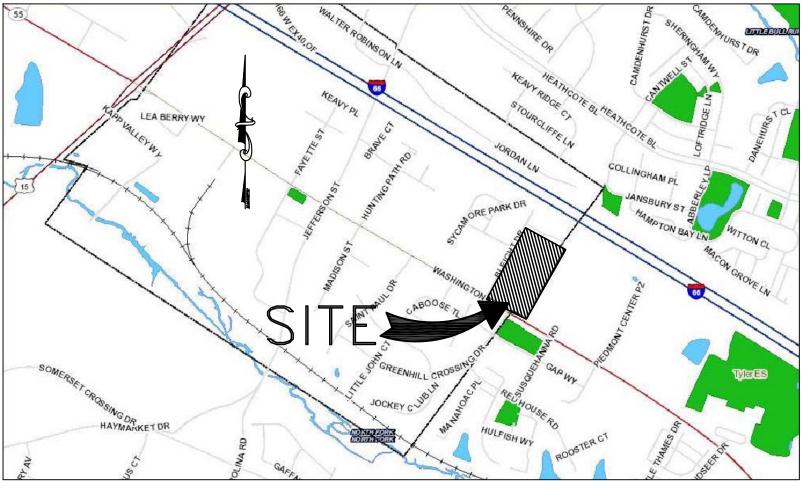
16. THE PROPOSED USE SHALL BE IN ACCORDANCE WITH THE GENERAL PURPOSE AND INTENT OF THE APPLICABLE ZONING DISTRICT

17. THE PROPOSED USE SHALL NOT ADVERSELY AFFECT THE USE OR VALUES OF SURROUNDING PROPERTIES AND STRUCTURES.

18. THE PROPOSED USE SHALL NOT ADVERSELY AFFECT THE HEALTH, SAFETY OR GENERAL WELFARE OF PERSONS RESIDING OR WORKING IN THE

19. PEDESTRIAN AND VEHICULAR TRAFFIC GENERATED BY THE PROPOSED USE SHALL NOT BE HAZARDOUS OR CONFLICT WITH THE EXISTING AND ANTICIPATED TRAFFIC IN THE NEIGHBORHOOD.

20. UTILITY, DRAINAGE, PARKING, LOADING AND OTHER NECESSARY FACILITIES PROVIDED TO SERVE THE PROPOSED USE SHALL BE ADEQUATE.



SHEET INDEX

DESCRIPTION

COVER SHEET

SITE TABULATIONS

EXISTING CONDITIONS

GENERAL DEVELOPMENT PLAN

NUMBER

VICINITY MAP SCALE: 1" = 1000'

HAYMARKET PROPERTIES GROUP, LLC

14600 WASHINGTON STREET, SUITE 137 HAYMARKET, VA 20169

# OWNER/APPLICANT

Phone: (703) 498-8650

JOHN/H. DAVIS Lic. No.028930  70.06/12/20	
700/12/20 ESTONAL ENGINEER	

APPROVAL BLOCK

DIRECTOR OF PLANNING

# AS RECORDED AS INSTRUMENT 201310110102175 AMONG THE

202**0** 

LAND RECORDS OF PRINCE WILLIAM COUNTY, VIRGINIA.

I, JOHN H. DAVIS, A PROFESSIONAL ENGINEER IN THE COMMONWEALTH OF VIRGINIA, DO HEREBY CERTIFY THAT THE LAND EMBRACED ON THIS SITE IS

A.) HAYMARKET PROPERTIES GROUP LLC - GPIN 7397-19-1734.

ENGINEER'S CERTIFICATE

NOW IN THE NAME OF:

GIVEN UNDER MY HAMO THIS 12th DAY OF JUNE

# GROUP

SCALE: H) N/A V) N/A DATE: MAY 2020

SITE TABULATIONS

B-1 (TOWN CENTER DISTRICT) EXISTING ZONING: MIXED-USE COMMERCIAL (BY-RIGHT) PROPOSED USE:

SITE AREA: 8.84 AC.

TAX MAP: GPIN 7397-19-1734

ZONING REQUIREMENTS (B-1 REQUIREMENTS PER CHAPTER 58 ARTICLE V)

<u>REQUIRED</u>

LOT SIZE: NO MINIMUM FLOOR AREA RATIO (F.A.R.): NO MAXIMUM

MAXIMUM BUILDING LOT COVERAGE: 85% (PER SECTION 58-184)

4 STORIES BUT NOT OVER 50 FEET (PER SECTION 58-182) MAXIMUM BUILDING HEIGHT:

10 FEET (FRONT) YARD REQUIREMENTS:

(PER SECTION 58-181)

10 FEET (SIDE) ABUTTING A STREET RIGHT-OF-WAY 25 FEET (SIDE) ABUTTING A RESIDENTIAL DISTRICT NONE ABUTTING SIMILAR COMMERCIAL USES 10 FEET (REAR) ABUTTING A STREET RIGHT-OF-WAY 25 FEET (REAR) ABUTTING A RESIDENTIAL DISTRICT NONE ABUTTING SIMILAR COMMERCIAL USES

LANDSCAPE REQUIREMENTS: 25 FEET LANDSCAPE BUFFER ADJACENT TO RESIDENTIAL USES

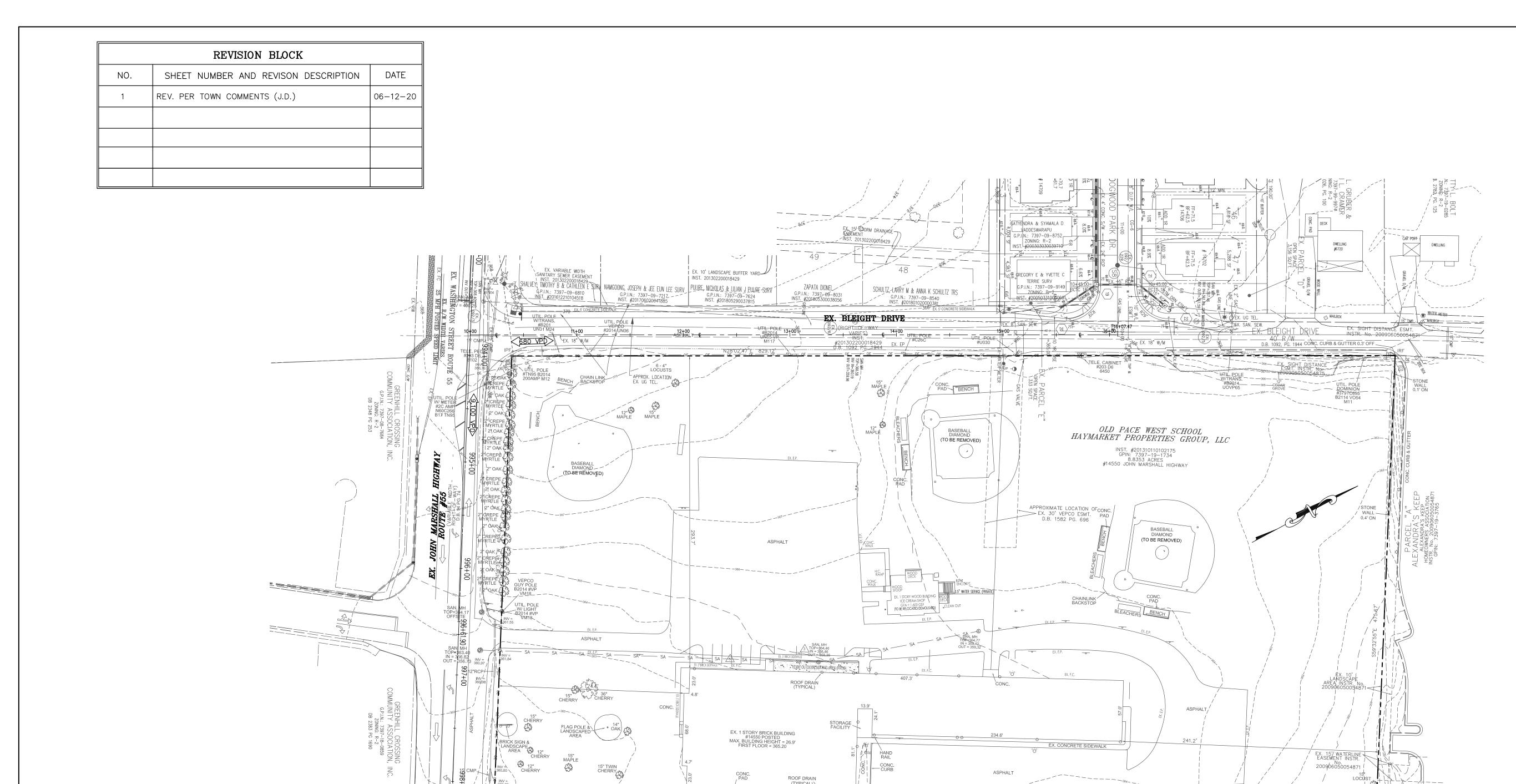
10 FEET LANDSCAPE BUFFER ADJACENT TO COMMERCIAL USES (PER SECTION 58-179(B))

LANDSCAPING, SCREENING, BUFFERING PER ARTICLE XVI

MINIMUM OFF-STREET PARKING: VARIES BY USE (PER SECTION 58-11)

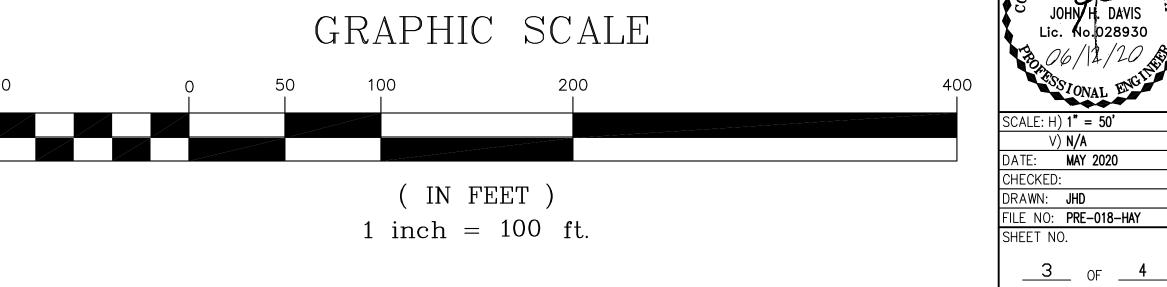
T	QBE BUSINESS PAR	•	1
	SITE TABULATIONS		
ZONING		B-1	
	PARCEL: GPIN 7397-19-1734		
GROSS SITE AREA	8.8353 AC (384,867 SF)		
CROOS SITE AREA	0.0000 AO (004,007 OF)		
	REQUIRED	PROVIDED	
BUILDABLE LOT COVERAGE	85% (MAX.)	74.30%	
BUILDING HEIGHT	4 STODIES (FOLMAY)	FOL (MAY)	
BUILDING HEIGHT	4-STORIES (50' MAX.)	50' (MAX.)	
FLOOR AREA RATIO	NO MAXIMUM	N/A	
SETBACK/YARD REQUIREMENTS			
FRONT YARD	10'	10'	
SIDE YARD	25' ABUTTING A RESIDENTIAL DISTRICT	25'	
SIDE TARD	25 ABOTTING A RESIDENTIAL DISTRICT	25	
	0' ABUTTING SIMILAR COMMERCIAL USES	10'	
REAR YARD	25' ABUTTING RESIDENTIAL DISTRICT	N/A (CORNER LOT)	
	0' ABUTTING SIMILAR COMMERCIAL USES		
BUFFER YARD REQUIREMENTS			
COMMERCIAL	10' BUFFER YARD (OS)	10' BUFFER YARD (OS)	
RESIDENTIA L	25' BUFFER YARD (TS)	25' BUFFER YARD (TS)	
	PARKING TABULATIONS		
PROPOSED USE	TARRING TABLEATIONS		
	PARKING REQUIREMENTS	REQUIRED PARKING	PROPOSED PARKING
109,485 G.S.F. COMMERCIAL/RETAIL	1 SPACE PER 300 S.F.	364.95	
	OF GROSS FLOOR AREA		
2 200 C S E DESTALIDANT/SDA/E TUDI.	4 ODA OF DED 400 O F	22.00	
3,200 G.S.F. RESTAURANT/SRIVE-THRU	1 SPACE PER 100 S.F. OF GROSS FLOOR AREA	32.00	
	OI GINOGO I LOUIVAINLA		
30 RESIDENTIAL (CONDOMINIUM)	1.5 SPACES PER D.U.	45.00	
TOTAL		441.95	376 SPACES (SURFACE PARKING
			66 SPACES (UNDERGROUND PARKING

	REVISION BLOCK	
NO.	SHEET NUMBER AND REVISON DESCRIPTION	DATE
1	REV. PER TOWN COMMENTS (JD)	06-12-20



	SYMBOL LEGEND	\$	LIGHT POLE
8	BOLLARD	(MW)	MONITORING WELL
c/\do	CLEANOUT	0	POST
С	COMMUNICATIONS HANDHOLE	S	SANITARY MANHOLE
E	ELECTRIC JUNCTION BOX		SIGN
EM	ELECTRIC METER	T	TELEPHONE PEDESTAL / CABINET
GM	GAS METER	(IK)	UNKNOWN MANHOLE
GV 	GAS VALVE	0	UTILITY POLE
-	GUY POLE	8	WATER METER
$\downarrow$	GUY WIRE	WWP	WATER WITNESS POST

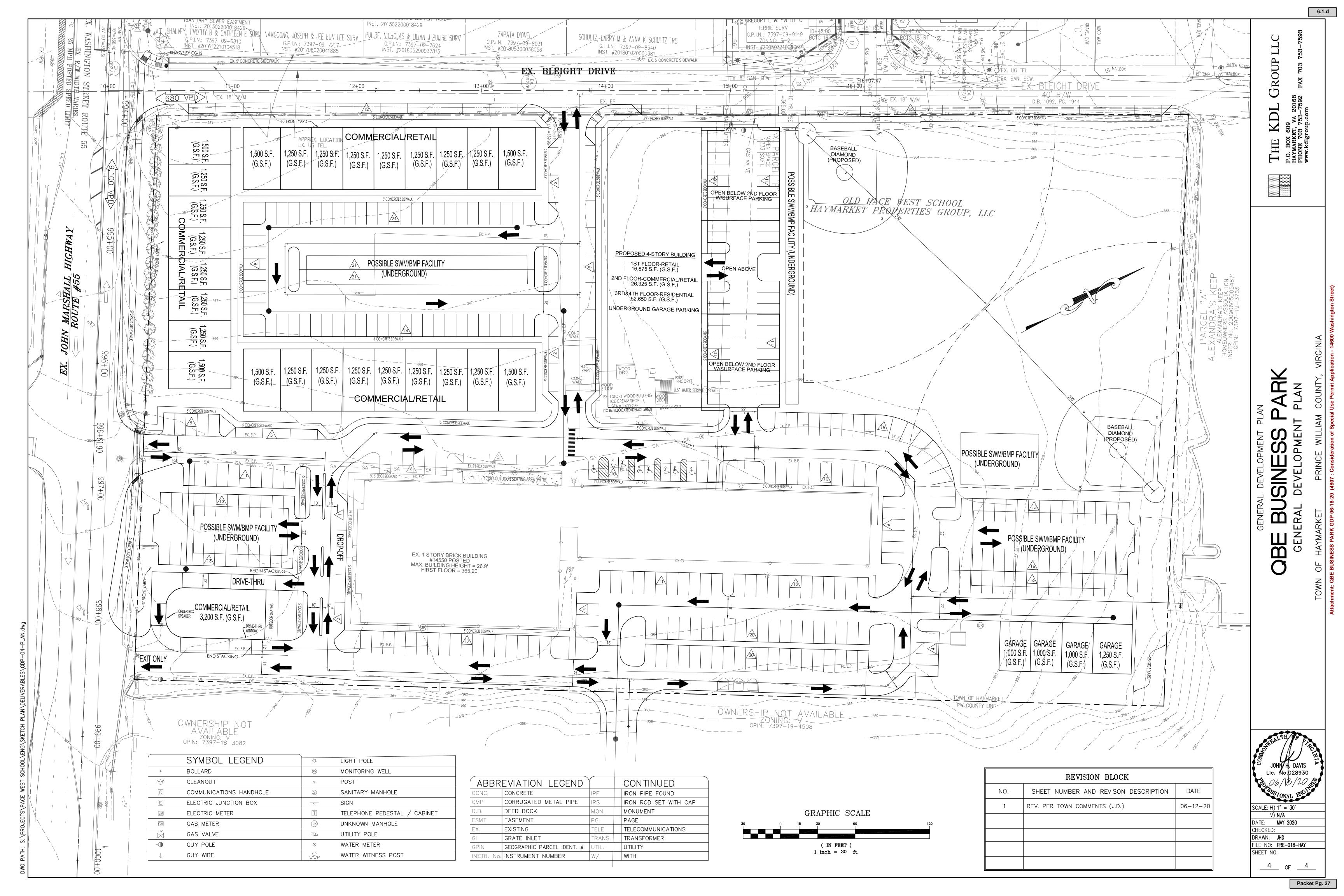
ABBR	EVIATION LEGEND `	Y	CONTINUED
CONC.	CONCRETE	IPF	IRON PIPE FOUND
CMP	CORRUGATED METAL PIPE	IRS	IRON ROD SET WITH CAP
D.B.	DEED BOOK	MON.	MONUMENT
ESMT.	EASEMENT	PG.	PAGE
EX.	EXISTING	TELE.	TELECOMMUNICATIONS
Gl	GRATE INLET	TRANS.	TRANSFORMER
GPIN	GEOGRAPHIC PARCEL IDENT. #	UTIL.	UTILITY
INSTR. No.	INSTRUMENT NUMBER	W/	WITH

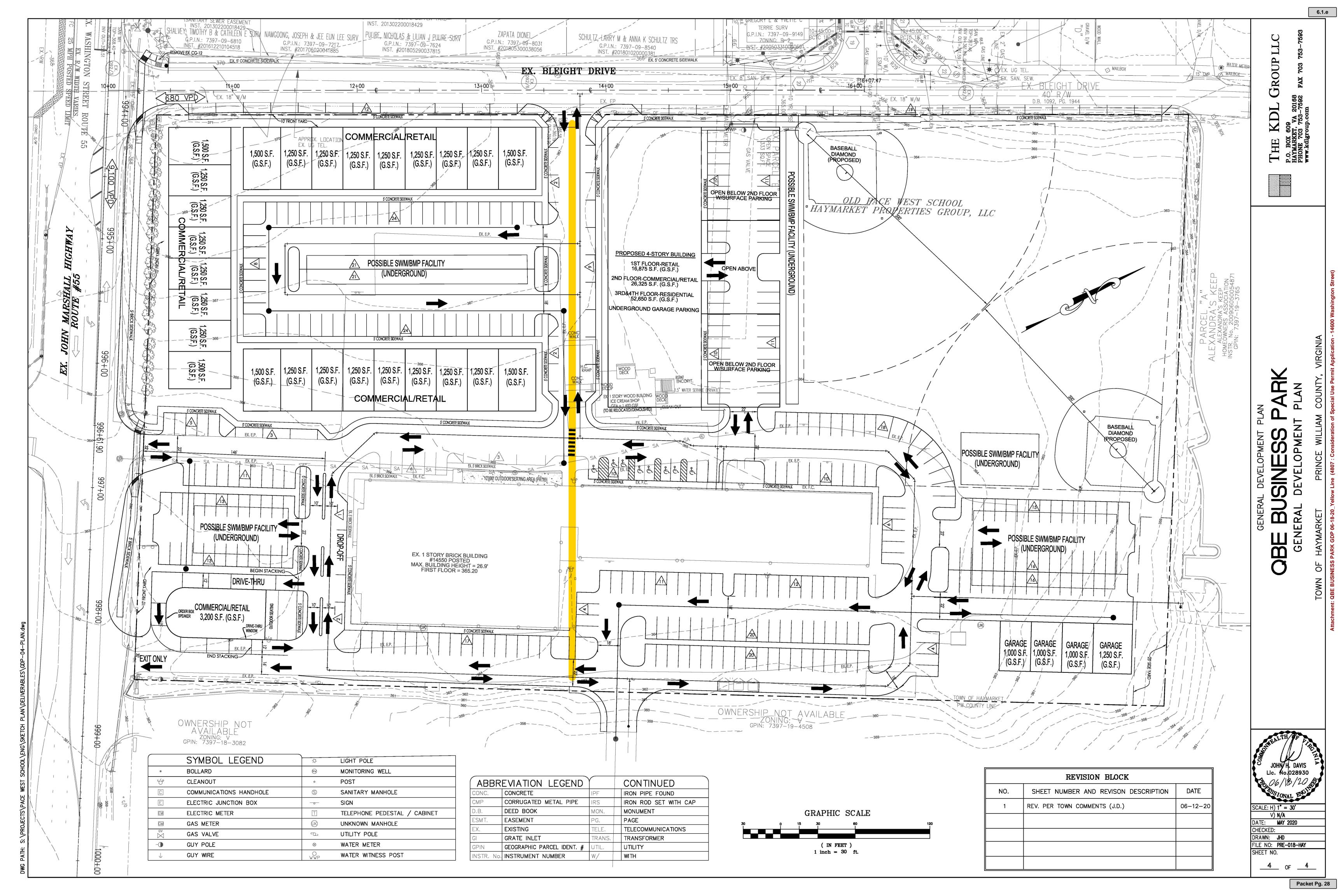




SCALE: H) 1" = 50' V) N/A DATE: MAY 2020

Packet Pg. 26







Town of Haymarket 15000 Washington Street, #100 Haymarket, VA 20169 703-753-2600

Emily K. Lockhart TOWN PLANNER ZONING ADMINISTRATOR

#### **MEMORANDUM**

TO: Planning Commission

FROM: Emily K. Lockhart, Town Planner

DATE: December 15, 2020

SUBJECT: McDonald's Second Drive - Thru

The applicant, McDonald's, has submitted the attached second drive thru plans as shown. The Town Engineer and Planner have submitted comments to the applicant for a second submission. See next attachment for comments.

The proposed site plan will close the first entrance to the site, routing all traffic to the second entrance on Leaberry Way as well as expand the drive thru lanes and modify the parking/curbing on the property. The required parking spaces have been met with the modifications, as well as the open space requirement. The applicant has proposed expanding the curbed median at the exit of the drive-thru to better control traffic and maneuvers out of the drive-thru.

The applicant needs to address the Town's comments as well as provide outside agency approvals.

#### Staff Recommendation:

At this time, the Planning Commission should discuss any concerns they may have or provide feedback to the applicant. If necessary, the Town Planner can supply a draft motion at the meeting for conditional approval if the Commission requests it.



Town of Haymarket 15000 Washington Street, #100 Haymarket, VA 20169 703-753-2600

# Kathryn M. McDaniel, P.E. TOWN ENGINEER

#### **MEMORANDUM**

TO: Emily Lockhart, Town Planner and Zoning Administrator

Chris Coon, Town Business Manager

FROM: Katie McDaniel, Town Engineer

DATE: December 14, 2020

SUBJECT: McDonalds Site Plan Engineering Review Comments

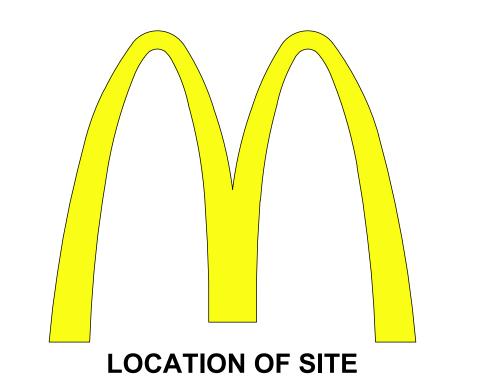
Per your request, I have reviewed the McDonalds Site Plan. I used the Haymarket Zoning and Subdivision Ordinance, Site Plan Checklist, Town Code and comment letter dated April 10, 2019 in order to review this site plan. The plan has been disapproved until the following comments are addressed.

Reference	Comment
58-2.4.3.o	Provide estimate of existing and proposed vehicle trips
	generated by the site.
58-2.4.3.v	Demo plan calls for area of asphalt outside of LOD to be
	removed/replaced. Clarify extent of removal/replacement to
	avoid changes to subgrade or include in LOD.
	Was POI 1 determined based on the limits of analysis? Provide
	calculations or narrative showing POI 1 meets limits of analysis
	requirements.
	Provide updated letter of nutrient credit availability.
	Documentation of purchase of nutrient credits will be required
	prior to commencement of land disturbing activity.
58-2.4.3.y	Include E&S Checklist in plans. Construction entrance conflicts
	with proposed curb. Ensure that increased drainage being
	directed offsite in the northwest corner will not create erosion or
	adverse downstream impacts on adjacent property.
58-6.1	Where is required loading space being provided?

Please let me know if you have any additional questions regarding these comments. I can be reached at <a href="mailto:kmcdaniel@townofhaymarket.org">kmcdaniel@townofhaymarket.org</a>.

# SITE PLAN DOCUMENTS

FOR



6740 LEA BERRY WAY
TOWN OF HAYMARKET
PRINCE WILLIAM COUNTY, VIRGINIA
GPIN: 7298-70-4485

## CONTACT INFORMATION

REFERENCES

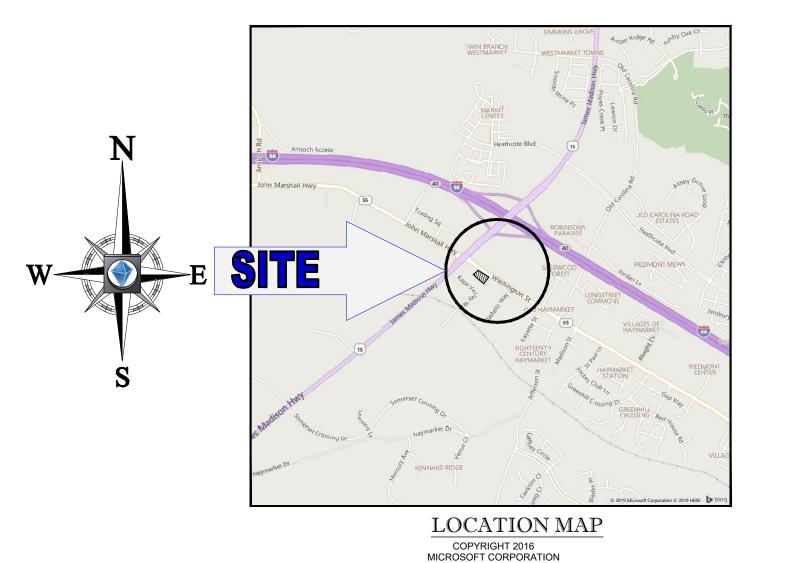
♦ BOUNDARY & TOPOGRAPHIC/ALTA SURVEY:
"BOUNDARY & TOPOGRAPHIC SURVEY FOR MCDONALD'S USA,
LLC, 6740 LEA BERRY WAY, TOWN OF HAYMARKET, PRINCE
WILLIAM COUNTY, VIRGINIA"
PREPARED BY: BOHLER ENGINEERING
PROJECT NUMBER: SV175005
DATED: 1/31/19, REVISED: 2/27/19

GOVERNING AGENCIES

◆ TOWN OF HAYMARKET PLANNING & ZONING
CONTACT: EMILY LOCKHART, TOWN PLANNER & ZONING ADMINISTRATOR
15000 WASHINGTON STREET, SUITE 100
HAYMARKET, VA 20169
(703) 753-2600 (P)

◆ TOWN OF HAYMARKET ENGINEER
CONTACT: KATIE McDANIEL, TOWN ENGINEER
15000 WASHINGTON STREET, SUITE 100
HAYMARKET, VA 20169
(703) 766-0285 (P)

◆ <u>PWSCA</u>
CONTACT: EDWARD KOVALCHUK
4 COUNTY COMPLEX COURT
WOODBRIDGE, VA 22192
(703) 335-7900 (P)



SCALE: 1" = 2,000'

OWNER/DEVELOPER

ARCHLAND PROPERTY I, LLC
P.O. BOX 182571
COLUMBUS, OH 43218
CONTACT: TOM HUGHES
PHONE: (410) 977-1214

PREPARED BY



28 BLACKWELL PARK LANE, SUITE 201 WARRENTON, VIRGINIA 20186

Phone: (540) 349-4500
Fax: (540) 349-0321

VA@BohlerEng.com

CONTACT: JONATHAN Q. RITCHIE, P.E.

ZONING REQUIREMENTS:

BULK REQUIREMENTS:	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA	N/A	0.98 AC	NO CHANGE
MIN. BUILDING SETBACK			
FRONT SETBACK (NORTH)	10'	70'	NO CHANGE
SIDE SETBACK (WEST)	0'	102'	NO CHANGE
SIDE SETBACK (EAST)	0'	77'	NO CHANGE
REAR SETBACK (SOUTH)	0'	36'	NO CHANGE
MIN. BUFFER TO ADJACENT PROPERTY			
FRONT BUFFER (NORTH)	10' *	5'	5'
SIDE BUFFER (WEST)	10' *	5'	5'
SIDE BUFFER (EAST)	10'	13'	13'
REAR BUFFER (SOUTH)	10' *	5'	5'
PARKING REQUIREMENTS			
1 SPACES PER 100 SF GFA, 2 ADA SPACES REQUIRED	40	39	40
MIN. GROSS FLOOR AREA (GFA)	N/A	3,956 SF	NO CHANGE
MAX. LOT COVERAGE (ONE STORY)	85%	84%	NO CHANGE
MAX. BUILDING HEIGHT	50'	17'	NO CHANGE
NON-CONFORMANCE (*) = MINIMUM WIDTH IS 5' WHEN THE EXISTING AN NARROWER THAN 10' IN WIDTH	DJOINING LANDS	CAPE STRIP IS	

PWSCA NOTE: NO ALTERATION OF THE EXISTING SANITARY OR WATER LINES ARE PROPOSED WITH THIS PROJECT.

SHEET INDEX	
SHEET TITLE	SHEET NUMBER
COVER SHEET	1
GENERAL NOTES	2
GENERAL NOTES AND LEGEND	3
BOUNDARY & TOPOGRAPHIC SURVEY	4
EXISTING CONDITIONS/DEMOLITION PLAN	5
SITE PLAN	6
SIGNAGE PLAN	7
GRADING PLAN	8
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EROSION AND SEDIMENT CONTROL PLAN PHASE I & II	10
EROSION AND SEDIMENT CONTROL NOTES	11
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LIGHTING PLAN (BY OTHERS)	15
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ENGELINGE ERRING

SITE CIVIL AND CONSULTING ENGINEERING

LAND SURVEYING

PROGRAM MANAGEMENT

LANDSCAPE ARCHITECTURE

SUSTAINABLE DESIGN

PERMITTING SERVICES

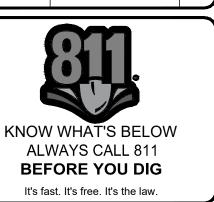
TRANSPORTATION SERVICES

REVISIONS

REV DATE COMMENT BY

1 03/27/2020 PER TOWN COMMENTS JQR

2 10/23/2020 PER TOWN COMMENTS JQR



NOT APPROVED FOR CONSTRUCTION

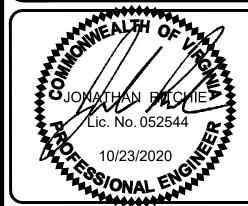
PROJECT No.:
DRAWN BY:
CHECKED BY:
DATE:
SCALE:
AS

PROP.
SITE PLAN
DOCUMENTS
FOR

LOCATION OF SITE 6740 LEA BERRY WAY TOWN OF HAYMARKET PRINCE WILLIAM COUNTY, VIRGINIA



28 BLACKWELL PARK LANE, SUITE 20
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com



COVER SHEET

SHEET NUMBER:

1

H:\17\V175005\DRAWINGS\PLAN SETS\SITE PLAN DOCUMENTS\V175005SD0.DWG PRINTED BY: MGIBSON 10.22:20 @ 4:43 PM LAST SAVED BY: MGIBSON

THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL SPECIFICATIONS/REPORTS CONTAINED HEREIN. THE CONTRACTOR MUST ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS. THESE NOTES. AND THE REQUIREMENTS ARTICULATED IN THE NOTES CONTAINED IN ALL THE OTHER DRAWINGS THAT COMPRISE THE PLAN SET OF DRAWINGS. ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLANS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM WITH THE ENGINEER OF RECORD THAT THE LATEST EDITION OF THE DOCUMENTS AND/OR REPORTS REFERENCED WITHIN THE PLAN REFERENCES ARE BEING USED FOR CONSTRUCTION. THIS IS THE CONTRACTOR'S SOLE AND COMPLETE RESPONSIBILITY.

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION IS TO BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE CONDITIONS OF APPROVAL TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND HAS ALSO CONFIRMED THAT ALL NECESSARY AND REQUIRED PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND <u>APPROVALS ON SITE AT ALL TIMES.</u>

THE CONTRACTOR MUST ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THESE PLANS SPECIFICATIONS/REPORTS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT. AND ALL PROVISIONS IN AND CONDITIONS OF THE CONSTRUCTION CONTRACT WITH THE OWNER/DEVELOPER INCLUDING ALL EXHIBITS, ATTACHMENTS AND ADDENDA TO SAME

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFULLY REVIEWING THE MOST CURRENT ARCHITECTURAL, CIVIL AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLANS. WHERE APPLICABLE), THE CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND ENGINEER OF RECORD, IN WRITING, OF ANY CONFLICTS. DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT COMPRISE THE CONSTRUCTION DOCUMENTS

CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS. ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT

THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY NOTIFY ENGINEER OF RECORD, IN WRITING, IF ANY CONFLICTS. DISCREPANCIES. OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE RE-DONE OR REPAIRED DUE TO DIMENSIONS, MEASUREMENTS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO BOTH (A) THE CONTRACTOR GIVING ENGINEER OF RECORD WRITTEN NOTIFICATION OF SAME AND (B) ENGINEER OF RECORD, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND MEASUREMENTS INCLUDED ON DESIGN DOCUMENTS HEREIN AND MUST NOT SCALE OFF THE DRAWINGS DUE TO POTENTIAL PRINTING INACCURACIES. ALL DIMENSIONS AND MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF PARTS AND MATERIALS AND COMMENCEMENT OF SITE WORK. SITE PLAN DRAWINGS ARE NOT INTENDED AS SURVEY DOCUMENTS. DIMENSIONS SUPERSEDE GRAPHICAL REPRESENTATIONS. THE CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF IMPROVEMENTS.

THE OWNER AND CONTRACTOR MUST BE FAMILIAR WITH, AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS, THE GEOTECHNICAL REPORT, SPECIFICATIONS AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND. IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN: (A) THE PLANS: AND (B) THE GEOTECHNICAL REPORT AND RECOMMENDATIONS. MUST TAKE PRECEDENCE UNLESS SPECIFICALLY. NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF RECORD. IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS, PRIOR TO PROCEEDING WITH ANY FURTHER WORK. IF A GEOTECHNICAL REPORT WAS NOT CREATED, THEN THE CONTRACTOR MUST FOLLOW AND COMPLY WITH ALL OF THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS WHICH HAVE JURISDICTION OVER THIS PROJECT.

2. ENGINEER OF RECORD IS NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY. 3 THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES. ALL OF THIS WORK IS TO BE PERFORMED AT CONTRACTOR'S SOLE COST AND EXPENSE.

THE CONTRACTOR MUST EXERCISE EXTREME CAUTION WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT. STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT. 5. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION AND CONSTRUCTION WASTES, UNSUITABLE EXCAVATED MATERIAL, EXCESS SOIL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER THE CONTRACTOR

S. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES. TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.

THE CONTRACTOR MUST REPAIR, AT CONTRACTOR'S SOLE COST, ALL DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC, AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN RE-SURVEY. RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR CODES, LAWS, RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE CONTRACTOR MUST, PROMPTLY, DOCUMENT ALL EXISTING DAMAGE AND NOTIFY, IN WRITING, THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.

18. THE ENGINEER OF RECORD AND BOHLER ENGINEERING ARE NOT RESPONSIBLE FOR AND HAVE NO CONTRACTUAL, LEGAL OR OTHER RESPONSIBILITIES FOR JOB SITE SAFETY JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME. THE ENGINEER OF RECORD AND BOHLER ENGINEERING HAVE NOT BEEN RETAINED TO PERFORM OR TO BE RESPONSIBLE FOR JOB SITE SAFETY. SAME BEING WHOLLY OUTSIDE OF ENGINEER OF RECORD'S AND BOHLER ENGINEERING SERVICES AS RELATED TO THE PROJECT THE ENGINEER OF RECORD AND BOHLER ENGINEERING ARE NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS AT ANY TIME

). THE CONTRACTOR MUST IMMEDIATELY IDENTIFY IN WRITING, TO THE ENGINEER OF RECORD AND BOHLER ENGINEERING, ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST, IF THE CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER WRITTEN NOTIFICATION AS DESCRIBED ABOVE. IT WILL BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, THE CONTRACTOR MUST INDEMNIFY, DEFEND AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER ENGINEERING FOR ANY AND ALL DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM OR ARE IN ANY WAY RELATED TO SAME INCLUDING, BUT NOT LIMITED TO, ANY THIRD PARTY AND FIRST PARTY CLAIMS 20. THE ENGINEER OF RECORD AND BOHLER ENGINEERING ARE NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM

THE CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS, AND CURRENT CODES, RULES, STATUTES AND THE LIKE, IF THE CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, RULES, STATUTES, CODES AND THE LIKE, THE CONTRACTOR AND/OR OWNER AGREE TO AND MUST JOINTLY, INDEPENDENTLY, SEPARATELY, AND SEVERALLY INDEMNIFY AND HOLD THE ENGINEER OF RECORD AND BOHLER ENGINEERING HARMLESS FOR AND FROM ALL INJURIES. CLAIMS AND DAMAGES THAT ENGINEER AND BOHLER. ENGINEERING SUFFER AND ANY AND ALL COSTS THAT ENGINEER AND BOHLER ENGINEERING INCUR AS RELATED TO SAME

21. ALL CONTRACTORS MUST CARRY AT LEAST THE MINIMUM AMOUNT OF THE SPECIFIED AND COMMERCIALLY REASONABLE STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND COMMERCIAL GENERAL LIABILITY INSURANCE (CGL) INCLUDING ALSO ALL UMBRELLA COVERAGES. ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER ENGINEERING, AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSUREDS AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE (DEFEND, IF APPLICABLE) AND HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED AND AGREED TO BY THE CONTRACTOR HEREIN. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING WITH CERTIFICATIONS OF INSURANCE OR CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE COVERAGES PRIOR TO COMMENCING ANY WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR TWO YEARS AFTER THE COMPLETION OF CONSTRUCTION AND AFTER ALL PERMITS ARE ISSUED, WHICHEVER DATE IS LATER. IN ADDITION, ALL CONTRACTORS AGREE THAT THEY WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW. INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER ENGINEERING AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTOR(S), ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. THE CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.

22. THE ENGINEER OF RECORD AND BOHLER ENGINEERING ARE NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS IN SCOPE AND REVISIONS THAT RESULT FROM SAME. THE CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

3. NEITHER THE PROFESSIONAL ACTIVITIES OF: BOHLER ENGINEERING, NOR THE PRESENCE OF BOHLER ENGINEERING AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE (HEREIN "BOHLER ENGINEERING PARTIES") RELIEVES OR WILL RELIEVE THE CONTRACTOR OF AND FROM ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING. SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE WITH ALL HEALTH AND SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER ENGINEERING AND ITS EMPLOYEES, PERSONNEL, AGENTS, SUBCONTRACTORS AND SUBCONSULTANTS HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER (OR ANY RESPONSIBILITY FOR) ANY CONSTRUCTION, THE CONTRACTOR OR ITS EMPLOYEES RELATING TO THEIR WORK AND ANY AND ALL HEALTH AND SAFETY PROGRAMS OR PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR MUST INDEMNIFY, DEFEND, PROTECT AND HOLD HARMLESS BOHLER ENGINEERING FOR AND FROM ANY LIABILITY TO BOHLER ENGINEERING RESULTING FROM THE CONTRACTOR'S WORK, SERVICES AND/OR VIOLATIONS OF THIS NOTE, THESE NOTES OR ANY NOTES IN THE PLAN SET AND, FURTHER, THE CONTRACTOR MUST NAME BOHLER ENGINEERING AS AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE

 $^{24}$ . WHEN IT IS CLEARLY AND SPECIFICALLY WITHIN BOHLER ENGINEERING'S SCOPE OF SERVICES CONTRACT WITH THE OWNER/DEVELOPER. BOHLER ENGINEERING WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT BUT ONLY FOR THE LIMITED PURPOSE OF EVALUATING CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER ENGINEERING HAS NO RESPONSIBILITY OR LIABILITY FOR SAME. BOHLER ENGINEERING WILL PERFORM ITS SHOP DRAWING REVIEW WITH REASONABLE PROMPTNESS. AS CONDITIONS PERMIT. ANY DOCUMENT, DOCUMENTING BOHLER ENGINEERING'S REVIEW OF A SPECIFIC ITEM OR LIMITED SCOPE, MUST NOT INDICATE THAT BOHLER ENGINEERING HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR MUST, IN WRITING, PROMPTLY AND IMMEDIATELY BRING ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS TO BOHLER ENGINEERING'S ATTENTION. BOHLER ENGINEERING IS NOT REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.

25. IF THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER OF RECORD AND/OR BOHLER ENGINEERING FOR ALL DEVIATIONS WITHIN ENGINEER'S SCOPE, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK PERFORMED WHICH DEVIATES FROM THE PLANS. ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, MUST DEFEND, INDEMNIFY, PROTECT, AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER ENGINEERING PARTIES TO THE FULLEST EXTENT PERMITTED UNDER THE LAW. FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS.

JUDGMENTS, CLAIMS, INJURIES, PENALTIES AND THE LIKE RELATED TO SAME . THE CONTRACTOR IS RESPONSIBLE FOR A MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND ELEMENTS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS, FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE RIGHT OF WAY OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE AND IS THE

CONTRACTOR'S SOLE RESPONSIBILITY 7. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN; AND, FURTHER, THE ENGINEER OF RECORD AND/OR BOHLER ENGINEERING ARE NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD THE ENGINEER OF RECORD AND BOHLER ENGINEERING PARTIES, HARMLESS FOR ALL INJURIES, DAMAGES AND COSTS THAT ENGINEER OF RECORD AND/OR BOHLER ENGINEERING INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE.

28 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES AND MATERIALS COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL RULES AND REGULATIONS, LAWS, ORDINANCES, AND CODES, AND ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 ET SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.

29. THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS. AND/OR ANY OTHER AGENCY WITH JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. ENGINEER OF RECORD AND BOHLER ENGINEERING HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK. 30. THE CONTRACTOR AND THE OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALL ATION CRITERIA AND SPECIFICATIONS. IF THE CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY, INDEPENDENTLY, SEPARATELY, COLLECTIVELY, AND

SEVERALLY INDEMNIFY, DEFEND, PROTECT AND HOLD ENGINEER OF RECORD AND/OR BOHLER ENGINEERING PARTIES HARMLESS

FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE. 31. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS OR LOCAL GOVERNING AGENCY FOR SITES WHERE ONE (1) ACRE OR MORE IS DISTURBED BY CONSTRUCTION ACTIVITIES (UNLESS THE LOCAL JURISDICTION REQUIRES A DIFFERENT THRESHOLD). THE CONTRACTOR MUST ENSURE THAT ALL ACTIVITIES. INCLUDING THOSE OF ALL SUBCONTRACTORS. ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE AND FURTHER, THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR FAILING TO DO SO

32. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE SIGNATORY PROFESSIONAL ENGINEER OF RECORD. THE USE OF THE WORDS 'CERTIFY' OR 'CERTIFICATION' CONSTITUTE(S) AN EXPRESSION ONLY OF PROFESSIONAL OPINION REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE ENGINEER OF RECORD'S KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON AND ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY NATURE OR TYPE, EITHER EXPRESSED OR IMPLIED, UNDER ANY

### SITE LAYOUT NOTES

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT

DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN. AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES. 2. PRIOR TO THE COMMENCEMENT OF GENERAL CONSTRUCTION. THE CONTRACTOR MUST INSTALL SOIL EROSION CONTROL AND

ANY STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MEASURES NECESSARY, AS INDICATED ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES TO PREVENT SEDIMENT AND/OR LOOSE DEBRIS FROM WASHING ONTO ADJACENT PROPERTIES OR THE RIGHT OF WAY. 3. ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CONFORM TO THE LATEST STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED SUPPLEMENTS, GUIDELINES, RULES,

REGULATIONS STANDARDS AND THE LIKE THE LOCATIONS OF PROPOSED UTILITY POLES AND TRAFFIC SIGNS SHOWN ON THE PLANS ARE SCHEMATIC AND PRELIMINARY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD-VERIFYING THEIR LOCATION. THE CONTRACTOR MUST COORDINATE THE

RELOCATION OF TRAFFIC SIGNS WITH THE ENTITY WITH JURISDICTION OVER THE PROJECT ALL DIMENSIONS SHOWN ARE TO BOTTOM FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, EXCEPT WHEN DIMENSION IS TO A PROPERTY LINE, STAKE OUT OF LOCATIONS OF INLETS, LIGHT POLES, ETC. MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILS, UNLESS NOTED CLEARLY OTHERWISE.

#### GRADING NOTES

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.

SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AS REFERENCED IN THIS PLAN SET, IF NO GEOTECHNICAL REPORT HAS BEEN REFERENCED. THE CONTRACTOR MUST HAVE A GEOTECHNICAL ENGINEER PROVIDE WRITTEN SPECIFICATIONS AND RECOMMENDATIONS PRIOR TO THE CONTRACTOR COMMENCING THE GRADING WORK. THE CONTRACTOR MUST FOLLOW THE REQUIREMENTS OF ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS, WHICH HAVE JURISDICTION OVER THIS PROJECT,

THE CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. THE CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO THE ENGINEER OF RECORD AND THE OWNER PRIOR TO THE CONTRACTOR COMMENCING ANY WORK.

4. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFYING EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION, SHOULD DISCREPANCIES BETWEEN THE PLANS AND INFORMATION. OBTAINED THROUGH FIELD VERIFICATIONS BE IDENTIFIED OR EXIST. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING.

THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING ALL UNSUITABLE MATERIALS WITH SUITABLE MATERIALS A SPECIFIED IN THE GEOTECHNICAL REPORT. THE CONTRACTOR MUST COMPACT ALL EXCAVATED OR FILLED AREAS IN STRICT ACCORDANCE WITH THE GEOTECHNICAL REPORT'S GUIDANCE. MOISTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED. THIS REPORT MUST VERIFY THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS. SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS. RULES STATUTES, LAWS, ORDINANCES AND CODES WHICH ARE IN EFFECT AND WHICH ARE APPLICABLE TO THE PROJECT. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE MUST BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL. COMPACTED AS THE GEOTECHNICAL REPORT DIRECTS. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR

ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED FINISHED GRADES WITH NO TRIPPING OR SAFETY HAZARD IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.

'. IN THE EVENT OF A DISCREPANCY(IES) AND/OR A CONFLICT(S) BETWEEN PLANS, OR RELATIVE TO OTHER PLANS, THE GRADING PLAN TAKES PRECEDENCE AND CONTROLS. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCY(IES) AND/OR CONFLICT(S).

8. THE CONTRACTOR IS RESPONSIBLE TO IMPORT FILL OR EXPORT EXCESS MATERIAL AS NECESSARY TO CONFORM TO THE

PROPOSED GRADING, AND TO BACKFILL EXCAVATIONS FOR THE INSTALLATION OF UNDERGROUND IMPROVEMENTS.

# ACCESSIBILITY DESIGN GUIDELINES

1. ALL ACCESSIBLE (A.K.A. ADA) COMPONENTS AND ACCESSIBLE ROUTES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF: (A) THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 ET SEQ. 18. THE CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS UPON WHICH IS INDICATED THE LOCATION OF EXISTING UTILITIES AND 42 U.S.C. § 4151 ET SEQ.); AND (B) ANY APPLICABLE LOCAL AND STATE GUIDELINES, AND ANY AND ALL AMENDMENTS TO BOTH, WHICH ARE IN EFFECT WHEN THESE PLANS WERE COMPLETED. 2. THE CONTRACTOR MUST REVIEW ALL DOCUMENTS REFERENCED IN THESE NOTES FOR ACCURACY, COMPLIANCE AND

CONSISTENCY WITH INDUSTRY GUIDELINES. 3. THE CONTRACTOR MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ACCESSIBLE (ADA) COMPONENTS AND ACCESSIBLE ROUTES FOR THE SITE FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING. SPACES, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, AND INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, MUST COMPLY WITH THE ACCESSIBLE GUIDELINES AND REQUIREMENTS WHICH INCLUDE, BUT ARE NOT LIMITED O THE FOLLOWING:

A. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SLOPES MUST NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION. . PATH OF TRAVEL ALONG ACCESSIBLE ROUTE MUST PROVIDE A 36-INCHES MINIMUM WIDTH (48-INCHES PREFERRED), OR AS SPECIFIED BY THE GOVERNING AGENCY. UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS) MUST NOT REDUCE THIS MINIMUM WIDTH. THE SLOPE MUST NOT EXCEED 1:20 (5.0%) IN THE DIRECTION OF TRAVEL AND MUST NOT EXCEED 1:50 (2.0%) IN CROSS SLOPE, WHERE ACCESSIBLE PATH OF TRAVEL IS GREATER THAN 1:20 (5.0%), AN ACCESSIBLE RAMP MUST BE PROVIDED. ALONG THE ACCESSIBLE PATH OF TRAVEL, OPENINGS MUST NOT EXCEED 1/2-INCH IN WIDTH. VERTICAL CHANGES OF UP TO 1/2-INCH ARE PERMITTED ONLY IF THEY INCLUDES A 1/4-INCH BEVEL AT A SLOPE NOT STEEPER

THAN 1:2. NO VERTICAL CHANGES OVER 1/4-INCH ARE PERMITTED. ACCESSIBLE RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%) AND A RISE OF 30-INCHES. LEVEL LANDINGS MUST BE PROVIDED AT EACH END OF ACCESSIBLE RAMPS. LANDING MUST PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES, AND MUST NOT EXCEED 1:50 (2.0%) SLOPE IN ANY DIRECTION. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS MUST HAVE A CLEAR LANDING OF A MINIMUM OF 60-INCHES BY 60-INCHES. HAND RAILS ON BOTH SIDES OF THE RAMP MUST BE PROVIDED ON AN ACCESSIBLE RAMP WITH A RISE GREATER THAN 6-INCHES

D. ACCESSIBLE CURB RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%). WHERE FLARED SIDES ARE PROVIDED, THEY MUST NOT EXCEED 1:10 (10%) SLOPE. LEVEL LANDING MUST BE PROVIDED AT RAMPS TOP AT A MINIMUM OF 36-INCHES LONG (48-INCHES PREFERRED). IN ALTERATIONS, WHEN THERE IS NO LANDING AT THE TOP, FLARE SIDES SLOPES MUST NOT EXCEED A SLOPE

DOORWAY LANDINGS AREAS MUST BE PROVIDED ON THE EXTERIOR SIDE OF ANY DOOR LEADING TO AN ACCESSIBLE PATH OF

TRAVEL. THIS LANDING MUST BE SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (2.0%) FOR POSITIVE DRAINAGE. THIS

LANDING AREA MUST BE NO FEWER THAN 60-INCHES (5 FEET) LONG, EXCEPT WHERE OTHERWISE CLEARLY PERMITTED BY ACCESSIBLE STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2009 AND OTHER REFERENCES INCORPORATED BY CODE). WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ACCESSIBLE COMPONENTS FROM EXISTING DOORWAYS OR SURFACES, THE CONTRACTOR MUST VERIFY ALL EXISTING ELEVATIONS SHOWN ON THE PLAN. NOTE THAT TABLE 405.2 OF THE DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS FOR STEEPER RAMP SLOPES. IN RARE CIRCUMSTANCES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY

WAY OR IN ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS BEFORE COMMENCING ANY WORK. CONSTRUCTED

4. IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION TO ENSURE SAME IS

CONSISTENT WITH THE LOCAL BUILDING CODE PRIOR TO COMMENCING CONSTRUCTION.

IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ACCESSIBLE GUIDELINES : THE CONTRACTOR MUST VERIFY ALL OF THE SLOPES OF THE CONTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF ANY NON-CONFORMANCE EXISTS OR IS OBSERVED OR DISCOVERED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, PRIOR TO POURING CONCRETE, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL COSTS TO REMOVE REPAIR AND/OR REPLACE NON-CONFORMING CONCRETE AND/OR PAVEMENT SURFACES

#### DEMOLITION NOTES

THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.

THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO FINSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY. WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY, THE CONTRACTOR MUST

PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION AND TO IDENTIFY ONLY

CONDITIONS REGARDING ITEMS TO BE DEMOLISHED. REMOVED, AND/OR TO REMAIN. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES

ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS. THIS PLAN IS NOT INTENDED TO AND DOES NOT PROVIDE DIRECTION REGARDING THE MEANS. METHODS, SECUENCING TECHNIQUES AND PROCEDURES TO BE EMPLOYED TO ACCOMPLISH THE WORK, ALL MEANS, METHODS, SEQUENCING TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT ACCORDANCE AND CONFORMANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE CONTRACTOR AND THE PUBLIC

THE CONTRACTOR MUST PROVIDE ALL "METHODS AND MEANS" NECESSARY TO PREVENT MOVEMENT. SETTLEMENT. OF COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR, AT THE CONTRACTOR'S SOLE COST, MUST REPAIR ALL DAMAGE TO ALL ITEMS AND FEATURES THAT ARE TO REMAIN CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS CONTRACTOR'S REPAIRS MUST INCLUDE THE RESTORATION. OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR MUST PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE

ENGINEER OF RECORD AND/OR BOHLER ENGINEERING ARE NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE

CONTRACTOR MUST PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER. COMPLYING WITH ALL OSHA REQUIREMENTS. TO ENSURE PUBLIC AND CONTRACTOR SAFETY AND SAFETY TO ALL PROPERTY ON THE SITE OR ADJACENT OR NEAR TO THE SAME THE CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY. WHICH MUST INCLUDE, BUT IS NOT LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING, OTHER APPROPRIATE AND/OR NECESSARY SAFETY FEATURES AND ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF ALL UNAUTHORIZED PERSONS AT ANY TIME, TO OR NEAR THE DEMOLITION AREA.

PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY, THE CONTRACTOR MUST, IN WRITING, RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS AND/OR SPECIFICATIONS. ALL CONCERNS OR QUESTIONS REGARDING THE APPLICABLE SAFETY STANDARDS, AND/OR THE SAFETY OF THE CONTRACTOR AND/OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT. ANY SUCH CONCERNS MUST BE CONVEYED TO THE ENGINEER OF RECORD AND/OR BOHLER ENGINEERING. IN WRITING AND MUST ADDRESS ALL ISSUES AND ITEMS RESPONDED TO BY THE ENGINEER OF RECORD AND/OR BY BOHLER ENGINEERING. IN WRITING, ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND

LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES. THE CONTRACTOR MUST BECOME FAMILIAR WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING LITHLITY DEMOLITION AND/OR DISCONNECTION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES. AND SERVICES HAVE BEEN TERMINATED, REMOVED AND/OR ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. PRIOR TO COMMENCING ANY DEMOLITION. THE CONTRACTOR MUST

OBTAIN ALL REQUIRED PERMITS AND MAINTAIN THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND ALL PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK. NOTIFY, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL SOIL CONSERVATION JURISDICTION, AT LEAST 72 BUSINESS HOURS PRIOR TO THE COMMENCEMENT OF WORK INSTALL THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE, AND MAINTAIN

SAID CONTROLS UNTIL SITE IS STABILIZED IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION LOCATE AND PROTECT ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR MUST USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL UNDERGROUND UTILITIES

PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ANY

DEMOLITION ACTIVITIES ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS REGARDING THE METHODS AND MEANS TO CONSTRUCT SAME. THESE ARE NOT THE ENGINEER OF RECORD'S RESPONSIBILITY. IN THE EVENT OF ABANDONMENT, THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WITH IMMEDIATE WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE

WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS NECESSARY OR AS REQUIRED TO MINIMIZE THE IMPACT ON, OF AND TO THE AFFECTED PARTIES. WORK REQUIRED TO BE PERFORMED "OFF-PEAK" IS TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER. IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL. THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS, OR THE CONTRACT WITH THE OWNER/DEVELOPER. THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK IN THE AREA OF DISCOVERY, AND IMMEDIATELY NOTIFY, IN WRITING AND VERBALLY, THE OWNER AND ENGINEER OF RECORD AND BOHLER ENGINEERING, THE DISCOVERY OF SUCH MATERIALS TO PURSUE PROPER

AND COMPLIANT REMOVAL OF SAME. 11. THE CONTRACTOR MUST ENSURE THAT ANY EXISTING ASBESTOS-CONTAINING MATERIALS ENCOUNTERED ARE PROPERLY REMOVED FROM THE SUBJECT PREMISES AND ARE DISPOSED OF IN ACCORDANCE WITH FEDERAL. STATE. AND LOCAL REQUIREMENTS, PRIOR TO THE COMMENCEMENT OF DEMOLITION ON SITE AND MUST PERFORM ALL AGENCY NOTIFICATIONS AS REQUIRED, AT THE CONTRACTOR'S SOLE EXPENSE.

12. THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES. DEMOLITION OR REMOVAL OF FOUNDATION WALLS. CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, OR PURSUANT TO THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.

13. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE OR INCLUDE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT SPECIFIC WRITTEN PERMISSION AND AUTHORITY OF AND FROM THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH

14. THE CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL MUST BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT ALL NEW IMPROVEMENTS AND MUST BE PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE ARTICULATED IN THE GEOTECHNICAL REPORT. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES AND MUST BE PERFORMED SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIVE DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TESTING AND MUST SUBMIT SUCH REPORTS AND RESULTS TO THE ENGINEER OF RECORD AND THE OWNER.

15. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT FROM BOTH THE OWNER AND ALL APPLICABLE, NECESSARY AND REQUIRED GOVERNMENTAL AUTHORITIES. PRIOR TO COMMENCING ANY EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION ACTIVITIES. THE CONTRACTOR MUST ENSURE AND OVERSEE THE INSTALL ATION OF ALL OF THE REQUIRED PERMIT AND EXPLOSIVE CONTROL MEASURES THAT THE FEDERAL STATE, AND LOCAL GOVERNMENTS REQUIRE. THE CONTRACTOR IS ALSO RESPONSIBLE TO CONDUCT AND PERFORM ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES AND THE LIKE. 16. IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS, THE CONTRACTOR MUST USE DUST CONTROL MEASURES

TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR. AFTER THE DEMOLITION IS COMPLETE. THE CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS WHICH THE DEMOLITION OPERATIONS CAUSE. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR 'PRE-DEMOLITION" CONDITION AT CONTRACTOR'S SOLE COST. 17. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, MUST EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF

EXCAVATION. STOCKPILING OF DEBRIS OUTSIDE OF APPROVED AREAS WILL NOT BE PERMITTED, INCLUDING BUT NOT LIMITED TO, THE PUBLIC RIGHT-OF-WAY PREPARED IN A NEAT AND WORKMAN-LIKE MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE

THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT MUST BE WORK, ALL OF WHICH IS AT THE CONTRACTOR'S SOLE COST. 19. THE CONTRACTOR MUST EMPTY, CLEAN AND REMOVE FROM THE SITE ALL UNDERGROUND STORAGE TANKS, IF ENCOUNTERED, IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, PRIOR TO CONTINUING CONSTRUCTION IN THE

#### LIGHTING NOTES (Rev. 1/2019)

AREA AROUND THE TANK WHICH EMPTYING, CLEANING AND REMOVAL ARE AT THE CONTRACTOR'S SOLE COST.

THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT. DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES. THE LIGHTING CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE PLANS,

INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL AGENCY AND GOVERNMENTAL REGULATIONS THIS LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER, ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND

OTHER RELATED VARIABLE FIELD CONDITIONS THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK MAY INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND RE-LAMPING (IF NECESSARY) AT LEAST ONCE EVERY SIX (6) MONTHS. UPON COMPLETION AND OWNER'S ACCEPTANCE OF THE WORK ALL OF THE ABOVE OUTLINED AND DESCRIBED RESPONSIBILITIES SHALL BECOME SOLELY THE OWNER'S.

WHERE APPLICABLE, THE EXISTING CONDITION LIGHT LEVELS ILLUSTRATED ARE REPRESENTATIVE OF AN APPROXIMATION UTILIZING LABORATORY DATA FOR SIMILAR FIXTURES, UNLESS ACTUAL FIELD MEASUREMENTS ARE TAKEN WITH A LIGHT METER. DUE TO FACTORS SUCH AS FIXTURE MAINTENANCE, EQUIPMENT TOLERANCES, WEATHER CONDITIONS, ETC., ACTUAL LIGHT LEVELS MAY DIFFER. EXISTING LIGHT LEVELS DEPICTED ON THIS PLAN ARE TO BE CONSIDERED APPROXIMATE. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES. POWER SYSTEM, CONDUITS, WIRING AND OTHER ELECTRICAL COMPONENTS ARE SOLELY THE ARCHITECT'S, MECHANICAL ENGINEER'S AND/OR LIGHTING CONTRACTOR'S RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THESE ITEMS MUST BE INSTALLED AS REQUIRED

APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES. THE CONTRACTOR MUST BRING IMMEDIATELY, IN WRITING, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURE(S) TO THE ENGINEER OF RECORD'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE LIGHTING CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT REGARDING ANY AND ALL POWERS SOURCE

BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND

FROM WITHIN THE BUILDING, AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT 10. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.

#### SOIL EROSION & SEDIMENT CONTROL PLAN NOTES

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.

EROSION CONTROL MEASURES MUST CONFORM TO THE VIRGINIA GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL UNLESS OTHERWISE NOTED, OR UNLESS ENGINEER CLEARLY AND SPECIFICALLY, IN WRITING, DIRECTS OTHERWISE. INSTALLATION OF EROSION CONTROL, CLEARING, AND SITE WORK MUST BE PERFORMED EXACTLY AS INDICATED IN THE EROSION CONTROL CONSTRUCTION NOTES.

THE DISTURBED LAND AREA OF THIS SITE IS APPROXIMATELY 0.47 ACRES. THE FOLLOWING EROSION CONTROL MEASURES ARE PROPOSED FOR THIS SITE:

A. STABILIZED CONSTRUCTION ENTRANCE/EXIT - A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT IS TO BE INSTALLED AT THE DESIGNATED LOCATION SHOWN ON THE PLAN. THIS AREA MUST BE GRADED SO THAT RUNOFF WATER WILL BE RETAINED ON-SITE

B. SEDIMENT FENCE - INSTALL SILT FENCE(S) AND/OR SILT SOCK AROUND ALL OF THE DOWNSLOPE PERIMETERS OF THE SITE, TEMPORARY FILL AND SOIL STOCKPILES. C. INSTALL FILTER FABRIC DROP INLET PROTECTION AROUND EACH DRAINAGE INLET AS DRAINAGE STRUCTURES ARE INSTALLED TO REDUCE THE QUANTITY OF SEDIMENT. INSTALL TEMPORARY INLET PROTECTION ON INLETS DOWNSLOPE

FROM DISTURBANCE, WHICH MAY BE BEYOND THE LIMITS OF DISTURBED AREA. INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCORDANCE WITH ALL OF THE MANUFACTURER'S RECOMMENDATIONS.

6. THE CONTRACTOR MUST INSPECT EROSION CONTROL MEASURES WEEKLY. THE CONTRACTOR MUST REMOVE ANY SILT DEPOSITS GREATER THAN 6" COLLECTED ON THE FILTER FABRIC AND/OR SILT SOCK BARRIERS AND EXCAVATE AND REMOVE ANY SILT FROM DROP INLET PROTECTION. THE CONTRACTOR MUST APPLY TEMPORARY SEED AND MULCH TO ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO

FINISHED GRADE AND VEGETATED WITHIN 7 DAYS. WHEN AREAS ARE DISTURBED AFTER THE GROWING SEASON. THE CONTRACTOR MUST STABILIZE SAME WITH GEOTEXTILE FABRIC AND MAINTAIN SAME IN STRICT ACCORDANCE WITH BEST MANAGEMENT PRACTICES THE CONTRACTOR MUST INSTALL ADDITIONAL EROSION CONTROL MEASURES IF ENGINEER SO REQUIRES, TO PREVENT ANY,

INCLUDING THE INCIDENTAL, DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE. THE CONTRACTOR MUST BE RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION CONTROL MEASURES ON THE SITE UNTIL PERMANENT PAVING AND TURF/LANDSCAPING IS ESTABLISHED. THE COSTS OF INSTALLING AND MAINTAINING THE EROSION CONTROL MEASURES MUST BE INCLUDED IN THE BID PRICE FOR THE SITE WORK AND THE CONTRACTOR IS RESPONSIBLE FOR

ALL SUCH COSTS. 10. THE CONTRACTOR MUST CONTINUE TO MAINTAIN ALL EROSION CONTROL MEASURES UNTIL THE COMPLETION OF CONSTRUCTION AND THE ESTABLISHMENT OF VEGETATION.

THE CONTRACTOR MUST REMOVE EROSION CONTROL MEASURES, SILT AND DEBRIS AFTER ESTABLISHING PERMANENT VEGETATION COVER OR OTHER INSTALLING A DIFFERENT, SPECIFIED METHOD OF STABILIZATION. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY FROSION AND SEDIMENTATION CONTROL FACILITIES, MEASURES AND STRUCTURES. ADDITIONAL FACILITIES, MEASURES AND STRUCTURES MUST BE INSTALLED WHERE

NECESSARY TO COMPLY WITH ALL APPLICABLE CODES AND STANDARDS AND/OR TO PREVENT ANY, INCLUDING THE INCIDENTAL DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE. 13. THE CONTRACTOR MUST PROTECT ALL EXISTING TREES AND SHRUBS. THE CONTRACTOR MUST REFER TO THE LANDSCAPE

AND/OR DEMOLITION PLAN(S) FOR TREE PROTECTION, FENCE LOCATIONS AND DETAILS. THE CONTRACTOR MUST REFER TO GRADING PLANS FOR ADDITIONAL INFORMATION. 15. THE CONTRACTOR MUST CLEAN EXISTING AND PROPOSED DRAINAGE STRUCTURES AND INTERCONNECTING PIPES ON OR

OFF-SITE AS THE JURISDICTIONAL AGENCY REQUIRES, BOTH AT THE TIME OF SITE STARILIZATION AND AT END OF PROJECT SOIL EROSION CONTROL MEASURES MUST BE ADJUSTED OR RELOCATED BY THE CONTRACTOR AS IDENTIFIED DURING SITE OBSERVATION IN ORDER TO MAINTAIN THE COMPLETE EFFECTIVENESS OF ALL CONTROL MEASURES.

THE CONTRACTOR MUST IDENTIFY, ON THE PLAN, THE LOCATION OF WASTE CONTAINERS, FUEL STORAGE TANKS, CONCRETE WASHOUT AREAS AND ANY OTHER LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED.

# DRAINAGE AND UTILITY NOTES

(Rev.1/2019)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE, AND THE CONTRACTOR MUST INDEPENDENTLY

VERIFY AND CONFIRM THOSE LOCATIONS AND SERVICES WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCING ANY CONSTRUCTION OR EXCAVATION. THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM ALL SANITARY CONNECTION. POINTS AND ALL OTHER UTILITY SERVICE CONNECTION POINTS IN THE FIELD. PRIOR TO COMMENCING NY CONSTRUCTION. THE CONTRACTOR MUST REPORT ALL DISCREPANCIES, ERRORS AND OMISSIONS IN WRITING, TO THE ENGINEER OF RECORD.

THE CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS WATER FLECTRIC SANITARY AND STORM, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC, WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE. WHICHEVER IS GREATER. THE CONTRACTOR MUST USE. REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL OF THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES WHICH OCCUR DURING CONSTRUCTION, AT NO COST TO THE OWNER AND AT CONTRACTOR'S SOLE COST AND EXPENSE. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES WHICH OCCURS DURING CONSTRUCTION. THE CONTRACTOR MUST FIELD VERIFY THE PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND

UTILITIES BY USING A TEST PIT TO CONFIRM EXACT DEPTH, PRIOR TO COMMENCEMENT OF CONSTRUCTION. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR

VERIFYING LOCATIONS OF SAME BASED UPON FINAL ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SITE PLAN DOCUMENTS AND ARCHITECTURAL PLANS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS AND DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITY SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL LITILITY REQUIREMENTS OF THE APPLICABLE JURISDICTION AND REGULATORY AGENCIES AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT(S) EXISTS BETWEEN THESE DOCUMENTS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, AND PRIOR TO CONSTRUCTION,

MUST RESOLVE SAME 7. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE EXACTLY AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND THE CONTRACTOR MUST COORDINATE SAME WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS. FILL AND COMPACTION MUST, AT A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS AND CONSULTANT

HAS NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL. COMPACTION AND BACKFILL. DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE IN ANY RESPECT. FROM THE INFORMATION CONTAINED IN THESE PLANS. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE SITE PLAN. WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER IMMEDIATELY UPON THE COMPLETION OF WORK.

THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SANITARY WATER AND STORM SYSTEMS, ARE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND OR STATE DOT DETAILS AS APPLICABLE. THE CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME. 10. FINAL LOCATIONS OF PROPOSED UTILITY POLES, AND/ OR POLES TO BE RELOCATED ARE AT THE SOLE DISCRETION OF THE

WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY.

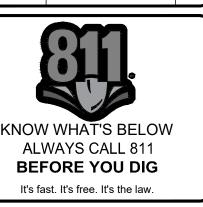
THE CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR

RESPECTIVE UTILITY COMPANY, REGARDLESS OF WHAT THIS PLAN DEPICTS.

TO COMMENCING CONSTRUCTION.

**[** + ] ⊢

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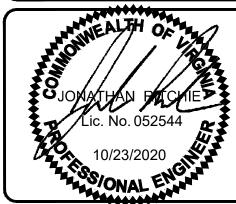
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**PROJECT** 





**WARRENTON, VIRGINIA 20186** Phone: (540) 349-4500 Fax: (540) 349-0321 VA@BohlerEng.com



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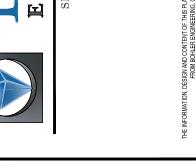
BORING

TYP	TYPICAL
UG	UNDERGROUND
UP	UTILITY POLE
W	WIDE
W/L	WATER LINE
W/M	WATER METER

DIAMETER

M	さ 2
	<b>=</b>
	Ţ





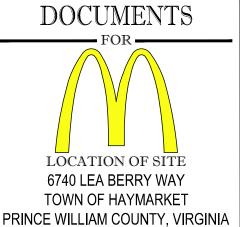
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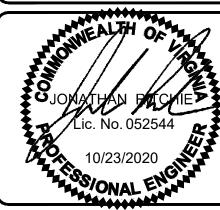
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SHEET TITLE:

PROPOSED EASEMENT LEGEND

STORM DRAIN

WATER

SANITARY SEWER

PUBLIC ACCESS

COMMON SHARED

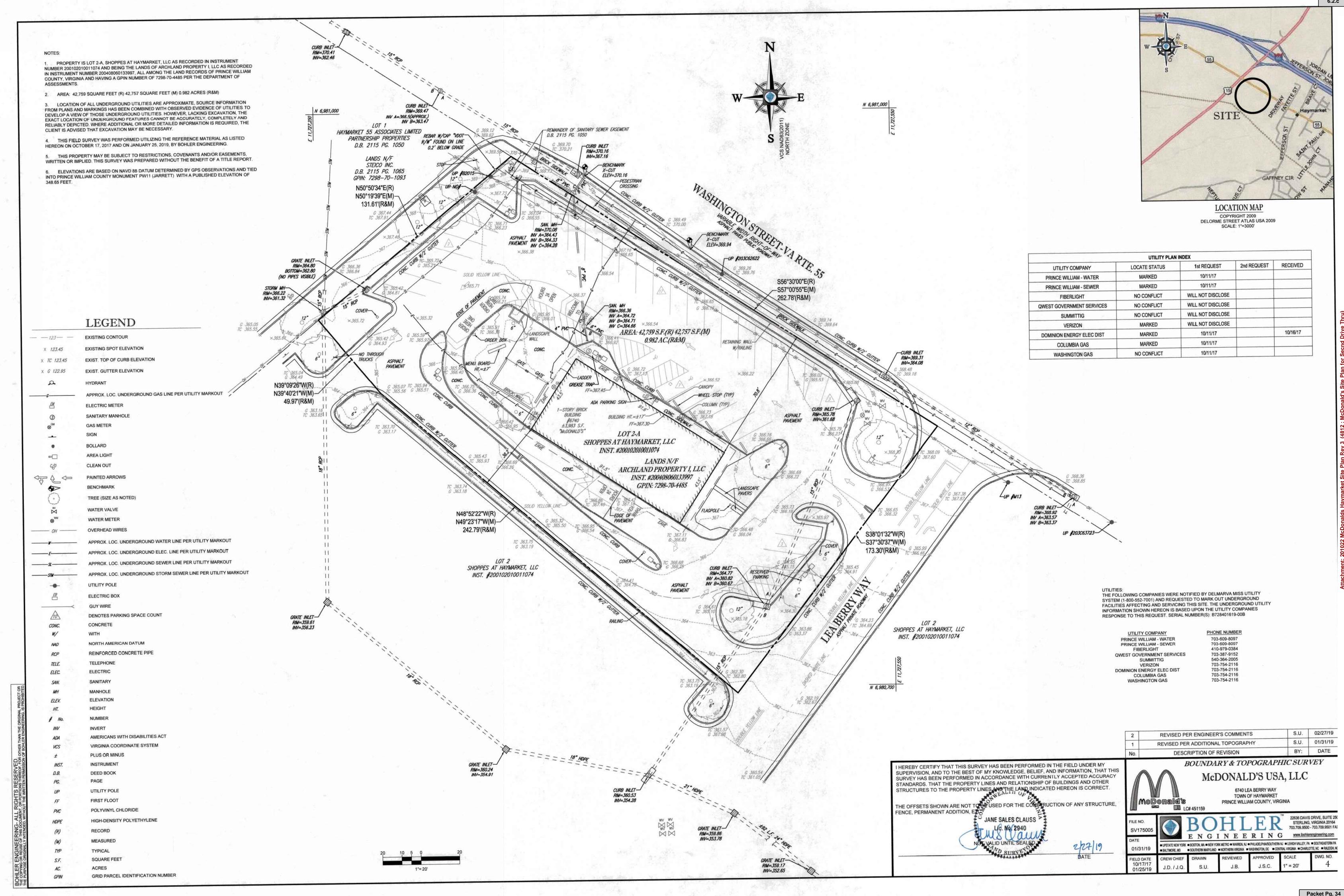
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PUBLIC UTILITY

GENERAL NOTES AND LEGEND

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**BEFORE YOU DIG** It's fast. It's free. It's the law.

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SITE PLAN

DOCUMENTS

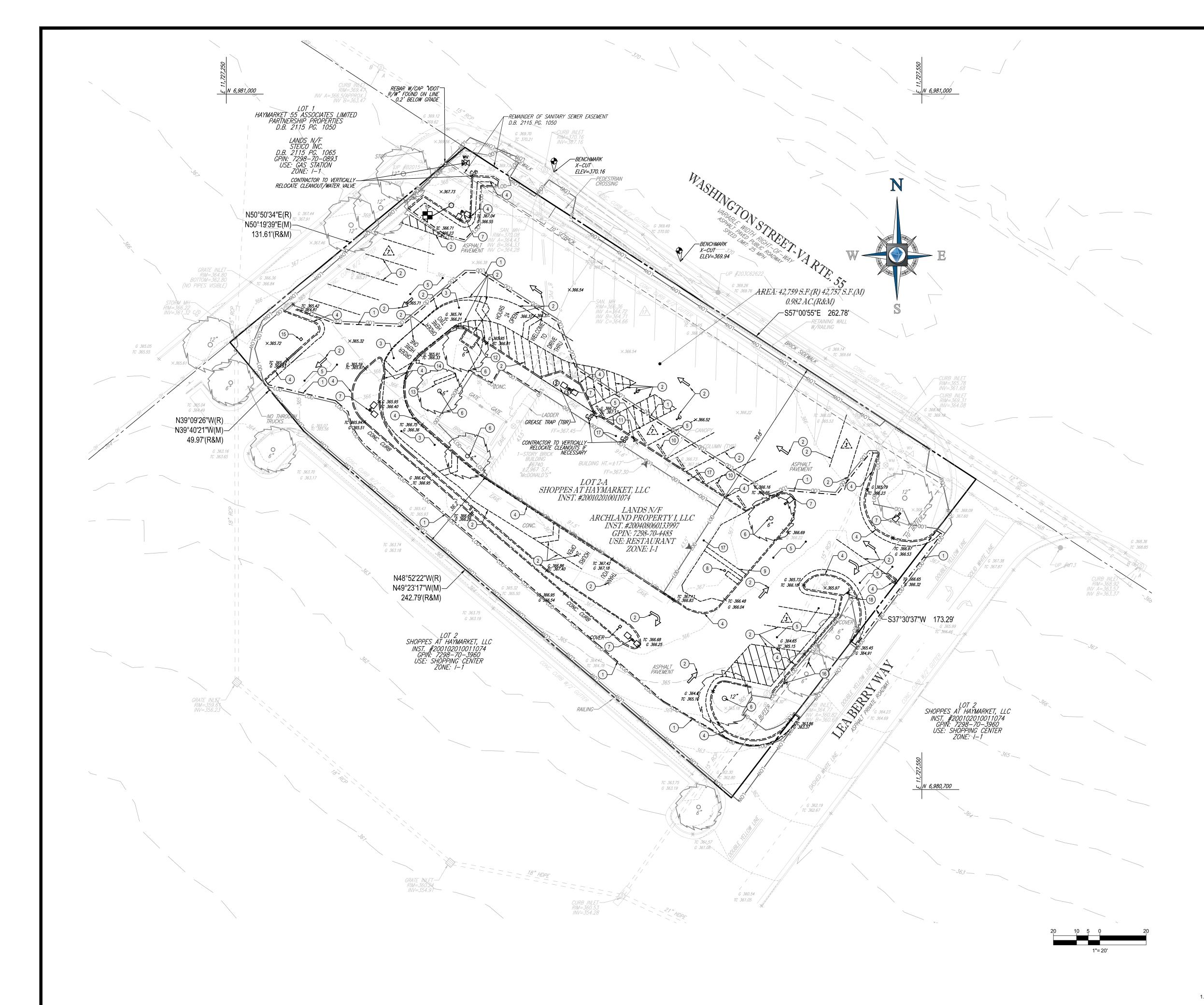
LOCATION OF SITE 6740 LEA BERRY WAY

TOWN OF HAYMARKET

PRINCE WILLIAM COUNTY, VIRGINIA

DRAWN BY:

DATE: SCALE: CAD I.D.:



LEGEND				
DEMOLITION/REMOVAL NOTE	TYPICAL NOTE TEX			
	EASEMENT LINE			
	CONCRETE CURB GUTTER			
-===-O	UTILITY POLE WITH LIGHT			
£==0	POLE LIGHT			
×	TRAFFIC LIGHT			
þ	UTILITY POLE			
<b>®</b>	TYPICAL LIGHT			
<b>\$</b>	ACORN LIGHT			
₩	TYPICAL SIGN			
ŹŠ.	PARKING COUNTS			
TC 516.4 OR 516.4	SPOT ELEVATIONS			
SAN #	SANITARY LABEL			
STM #	STORM			
SL	LABEL SANITARY SEWEF LATERAL			
w	UNDERGROUND WATER LINE			
Е	UNDERGROUND ELECTRIC LINE			
G	UNDERGROUND GAS LINE			
ОН	OVERHEAD WIRE			
T	UNDERGROUND TELEPHONE LINE			
c	UNDERGROUND CABLE LINE			
	STORM SEWER			
ss	SANITARY SEWER MAIN			
Ø	HYDRANT			
(§)	SANITARY MANHOLE			
(D)	STORM MANHOLE			
⊗ <sup>WM</sup>	WATER METER			
w∨ ⊠	WATER VALVE			
	GAS VALVE			
	GAS METER			

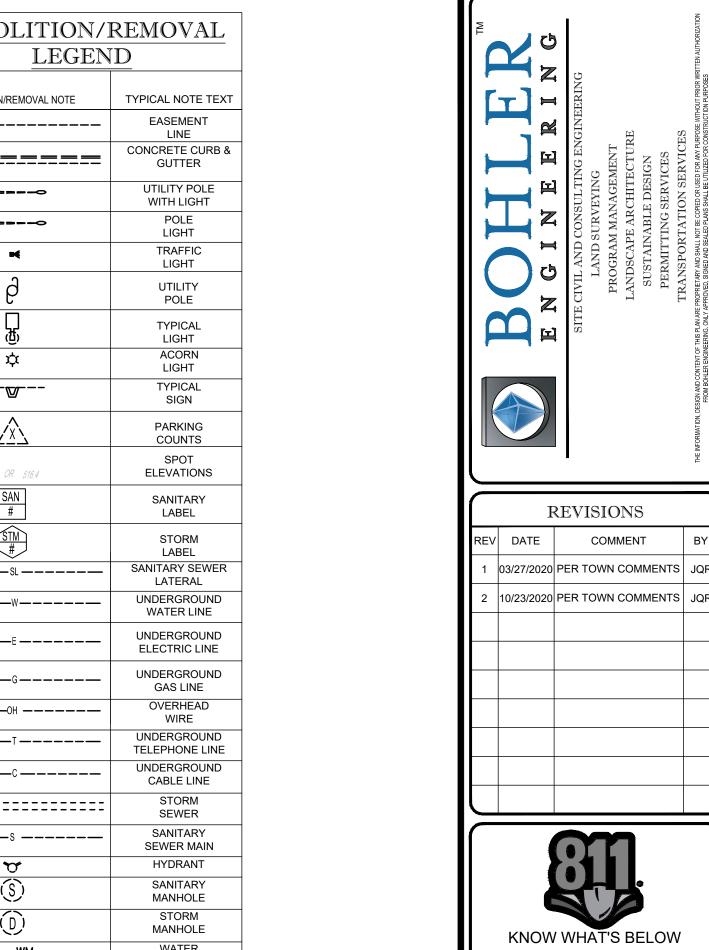
# DEMOLITION KEY

- 1) SAWCUT AND REMOVE CONCRETE / ASPHALT / CURB AND GUTTER
- 2 PAVEMENT MARKING TO BE REMOVED
- (3) CONCRETE TO BE REPLACED, SEE SITE PLAN
- 5 ASPHALT TO BE REMOVED AND REPLACED PER SITE PLAN
- 6 TREE TO BE REMOVED
- 7 LIGHT POLE TO BE RELOCATED
- WHEEL STOP TO BE REMOVED
- (11) ADA PARKING SIGN TO BE RELOCATED

- CONTRACTOR TO CONFIRM IRRIGATION COVER AND RELOCATE (NOTIFY ENGINEER IF DISCREPANCIES ARISE)
- (16) RESERVED PARKING SIGN TO BE RELOCATED
- (17) SIDEWALK TO BE REPLACED, SEE SITE PLAN
- (18) SIGN TO BE REMOVED

# DEMOLITION PLAN NOTES:

- 1. CONTRACTOR TO PROVIDE MINIMUM PAVEMENT SECTION AND MATCH EXISTING CROSS-SLOPES IF ASPHALT PATCHING IS REQUIRED. SEE PAVEMENT DETAILS.
- 2. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND HAVE NOT BEEN FIELD VERIFIED. CONTRACTOR SHALL DETERMINE ACTUAL LOCATIONS AND DEPTHS OF ALL UTILITIES PRIOR TO CONSTRUCTION. IF CONFLICTS EXIST, NOTIFY ENGINEER IMMEDIATELY.
- 3. THERE ARE NO MAPPED RPA'S OR HISTORIC AREAS ON SITE.
- 4. THERE ARE NO CEMETERIES OR HISTORIC SITES ON THE PARCEL.



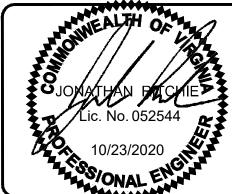
- (4) CURB TO BE REMOVED

- (8) FLAG POLE TO BE RELOCATED
- (9) LANDSCAPE PAVERS TO BE REMOVED
- (12) LANDSCAPE WALL TO BE REMOVED
- (13) MENU BOARD TO BE REMOVED
- (14) ORDER BOX TO BE REMOVED



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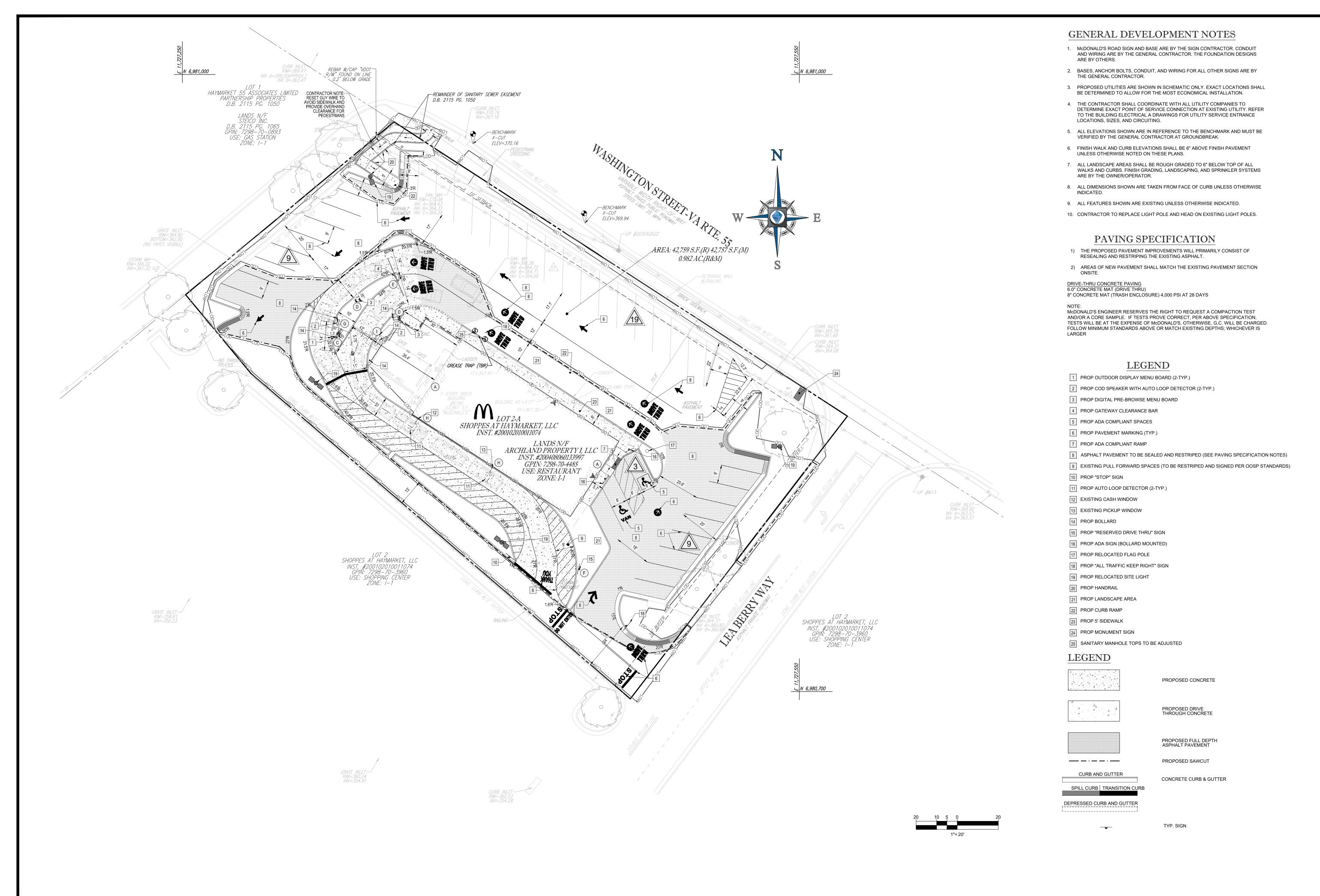
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EXISTING CONDITIONS/ DEMOLITION PLAN

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Packet Pg. 35



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GINDONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
CANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES
TRANSPORTATION SERVICES

THE INFORMATION, DESIGN AND CONTENT OF THIS PLA FROM BOALER ENGINEERING.

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1 03/27/2020 PER TOWN COMMENTS JQR

2 10/23/2020 PER TOWN COMMENTS JQR

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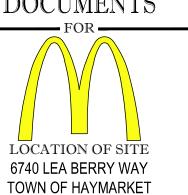
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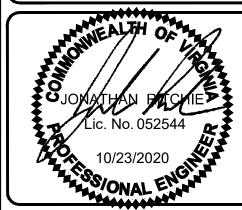
PROP.
SITE PLAN
DOCUMENTS



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PRINCE WILLIAM COUNTY, VIRGINIA

28 BLACKWELL PARK LANE, SUITE 207
WARRENTON, VIRGINIA 20186
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VA@BohlerEng.com

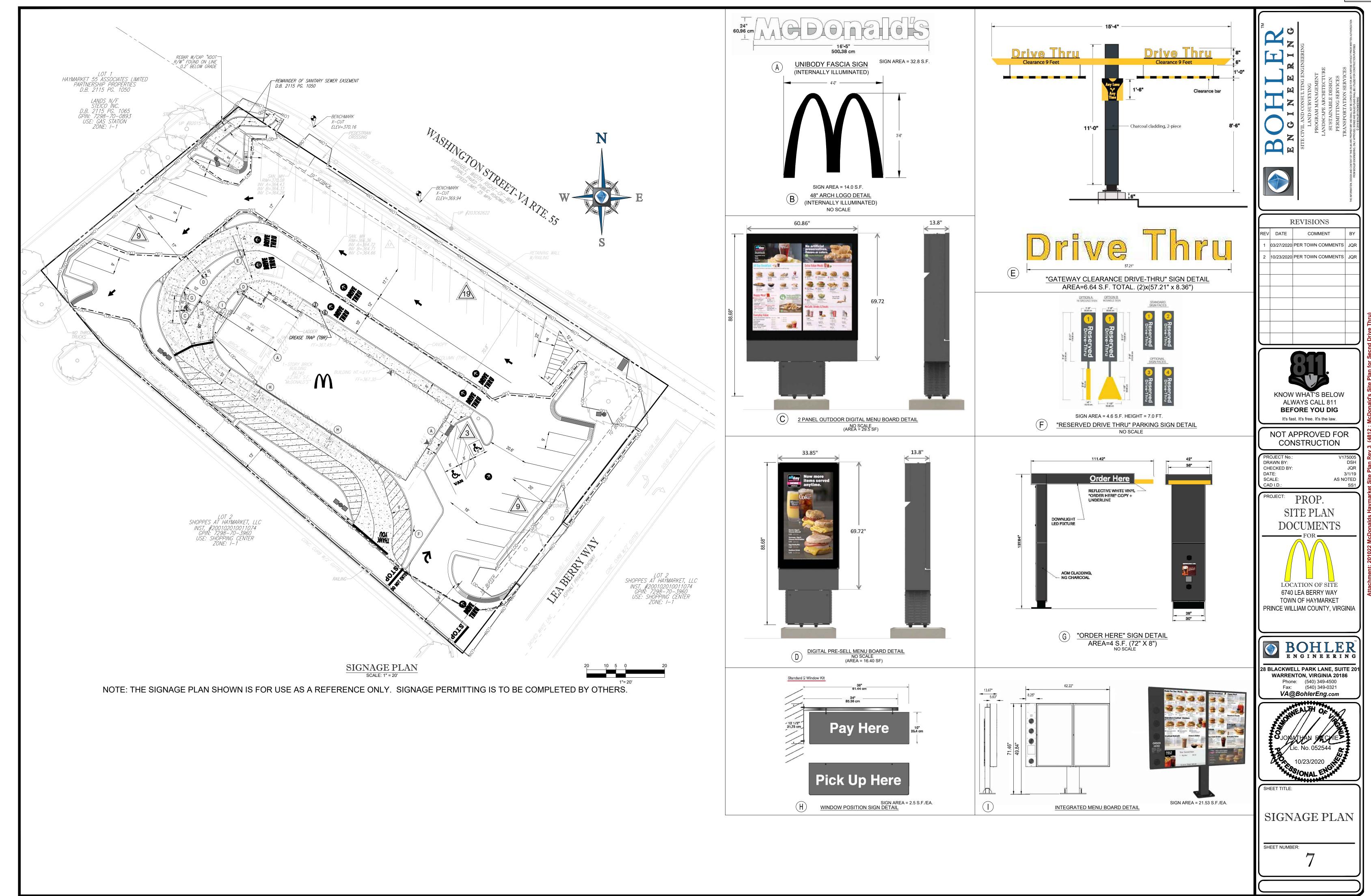


SHEET TITLE

SITE PLAN

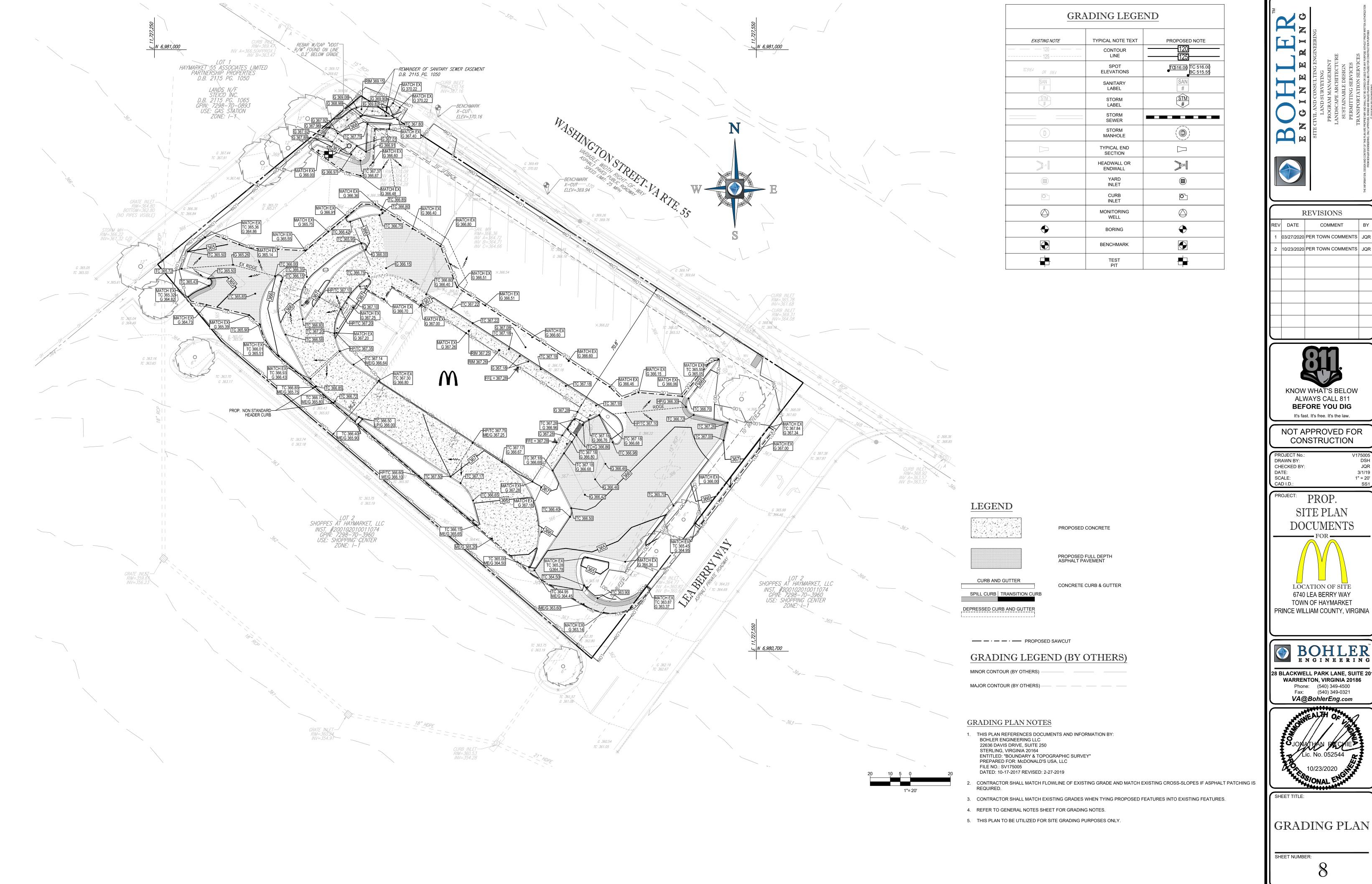
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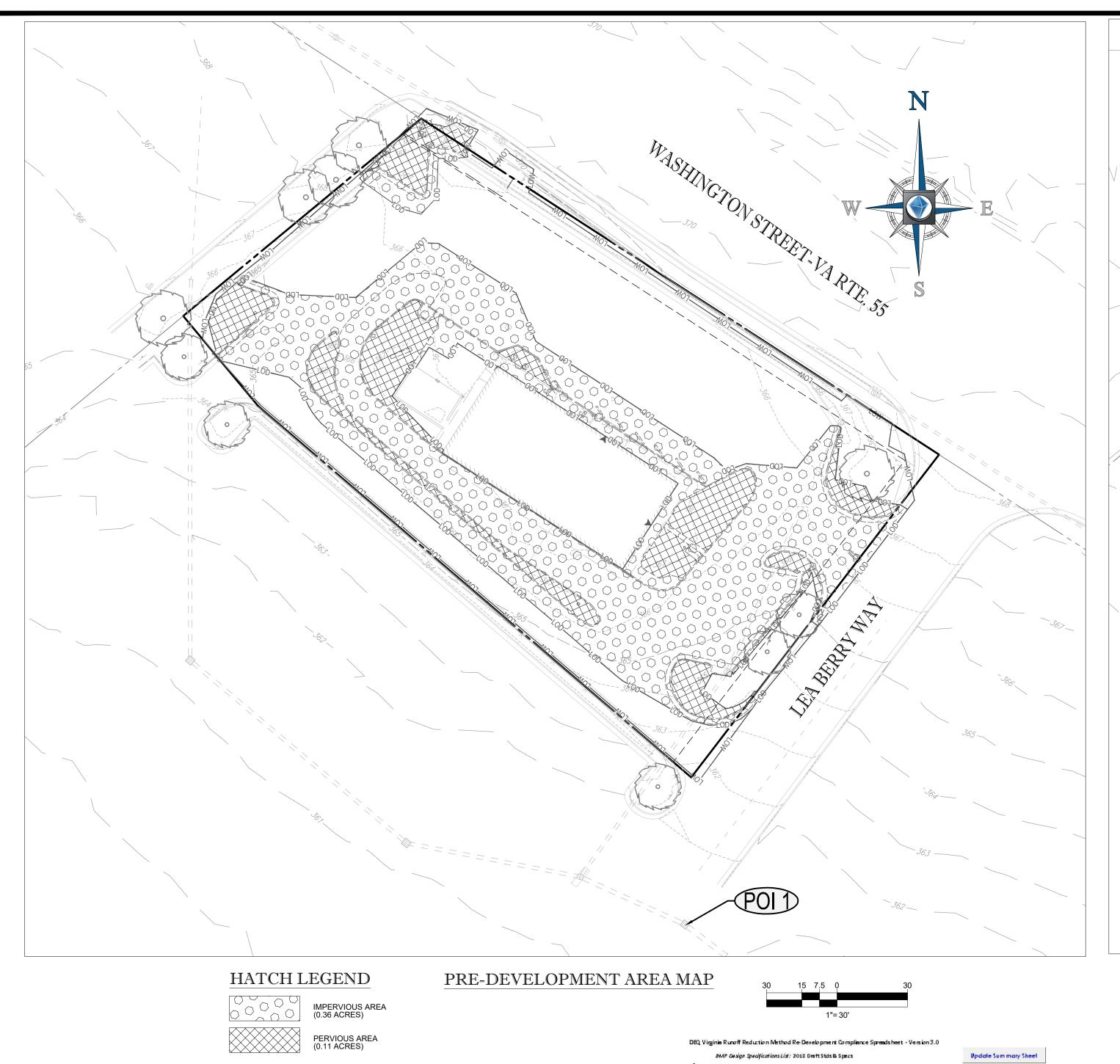
TOWN OF HAYMARKET PRINCE WILLIAM COUNTY, VIRGINIA

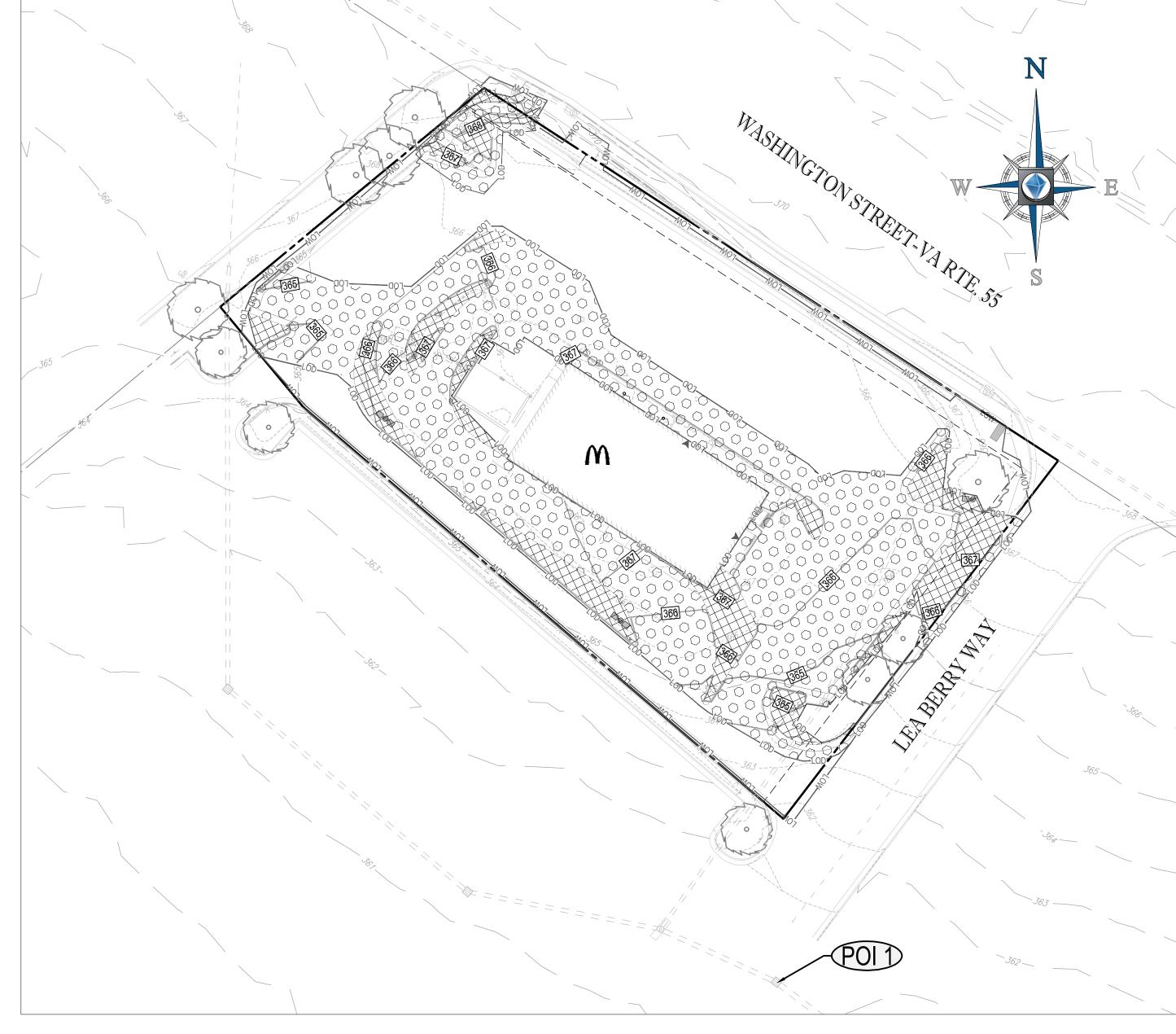
28 BLACKWELL PARK LANE, SUITE 20<sup>-</sup> **WARRENTON, VIRGINIA 20186** 

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GRADING PLAN





Site Land Cover Summary

Pre-ReDevelopment Land Cover (acres) 
 A soils
 8 Soils
 C Soils
 D Soils
 Totals
 % of Total

 0.00
 0.00
 0.00
 0.00
 0.00
 0

 0.00
 0.00
 0.11
 0.00
 0.11

 0.00
 0.00
 0.36
 0.00
 0.36
 Managed Turf (acres) Post-Re Development Land Cover (acres)

THE PROPOSED REDEVELOPMENT WILL NOT INCREASE IMPERVIOUS AREA ONSITE. THE DISTURBED AREA WILL ALSO CONTAIN 0.36 ACRES OF IMPERVIOUS AREA Impervious Cover (acres) Site Triand Land Cover Nutrient Loads Final Post-Development

> 0.72 Treatment Volume (ft<sup>\*</sup>) TotalTP Load Reduction Required 0.02 0 Final Post-Deve lopment Load

(Post-Re Development & New Impervious) TN Load (Ib/yr)

BASED ON REVIEW OF AVAILABLE GIS DATA, THE SHOPPING CENTER DRAINS GENERALLY TO THE SOUTH TO THE NORTH FORK OF BROAD RUN. THE CONTRIBUTING DRAINAGE AREA TO THAT POINT IS APPROXIMATELY 3,800 AC, OVER ONE THOUSAND TIMES THE DISTURBED AREA. GIVEN THAT THE FLOW RATE DOES NOT INCREASE DUE TO THE PROPOSED DEVELOPMENT AND THERE IS NO EROSION OF THE MANMADE STORWMATER CONVEYANCE SYSTEM AT THE POINT OF INTEREST SHOWN ON THE PLAN; AT NO POINT BETWEEN THIS POINT OF INTEREST AND THE LIMITS OF ANALYSIS WILL THE PROPOSED DEVELOPMENT CAUSE THE EXISTING CONDITION TO INCREASE. THEREFORE IT IS THE OPINION OF THE ENGINEER THAT CHANNEL AND FLOOD PROTECTION REQUIREMENTS HAVE BEEN MET AND NO FURTHER ANALYSIS IS WARRANTED.

THE PROPOSED PROJECT IS FOR THE REDEVELOPMENT OF AN EXISTING DRIVE-THRU RESTAURANT, ASSOCIATED SITE IMPROVEMENTS AND PARKING LOT

RECONFIGURATION. THE SITE IS LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF WASHINGTON STREET (VA ROUTE 55) AND LEA BERRY WAY.

RUNOFF FROM THIS REDEVELOPMENT DRAINS TO AN EXISTING STORM SYSTEM VIA EXISTING CURB INLETS ON THE EASTERN AND WESTERN SIDES OF THE SITE AND

IS CONVEYED TO THE EXISTING STORMWATER SYSTEM. BASED ON AVAILABLE GIS DATA, THE SHOPPING CENTER DRAINS TO THE SOUTH INTO NORTH FORK BROAD

THE PROPOSED LIMITS OF DISTURBANCE FOR THIS PROJECT IS APPROXIMATELY 0.47 ACRES. THE EXISTING SITE FLOWS INTO A LARGER STORMWATER SYSTEM

BELONGING TO THE ADJACENT SHOPPING CENTER TO THE SOUTH. PRIOR TO THE PROPOSED IMPROVEMENTS, THE LIMITS OF DISTURBANCE CONTAINED 0.36 ACRES

C-FACTORS OF 0.30 AND 0.90 WERE USED FOR PERVIOUS AND IMPERVIOUS SURFACES, RESPECTIVELY, PER EXHIBIT 1, SECTION 700 OF THE PWC DCSM. RAINFALL

AT THE POINT OF INTEREST, THERE IS NO CHANGE IN THE 2 AND 10-YEAR FLOW RATES BETWEEN THE EXISTING AND PROPOSED CONDITIONS. THEREFORE, AS THE

EXISTING, MANMADE CONVEYANCE SYSTEM IS CONCRETE PIPE, DESIGNED TO ADEQUATELY CONVEY THE 10-YEAR STORMWATER EVENT, THERE IS NO CONCERN

FOR EROSION DURING THE 2-YEAR STORMWATER EVENT. THUS MEETING CHANNEL PROTECTION REQUIREMENTS. GIVEN THE EXISTING FLOW IS UNCHANGED IN

POST DEVELOPED CONDITIONS, THE EXISTING STORM CONVEYANCE SYSTEM IS STILL ADEQUATE FOR THE 10-YEAR STORM EVENT AS WELL; THEREFORE MEETING

OF IMPERVIOUS AREA AND 0.11 ACRES OF PERVIOUS AREA IN THE DISTURBED AREA, EQUIVALENT TO A C FACTOR OF 0.76.

2-YEAR: 1.56 CFS

10-YEAR: 2.45 CFS

THE PRE AND POST-DEVELOPMENT FLOW RATES AT THE POINT OF INTEREST ARE SUMMARIZED BELOW:

### STORMWATER QUALITY

STORMWATER MANAGEMENT AND BMP NARRATIVE:

AND 0.11 ACRES OF PERVIOUS AREA, EQUIVALENT TO A C-FACTOR OF 0.76.

INTENSITIES WERE BASED ON NOAA ATLAS 14 RAINFALL DATA.

STORMWATER QUANTITY

2-YEAR: 1.56 CFS 10-YEAR: 2.45 CFS

FLOOD PROTECTION REQUIREMENTS.

SINCE THE SUBJECT SITE WAS PREVIOUSLY DEVELOPED, WATER QUALITY REQUIREMENTS WERE CALCULATED USING THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) RE DEVELOPMENT SPREADSHEET. USING THIS SPREADSHEET, IT WAS DETERMINED THAT THE DEVELOPMENT OF THIS SITE WOULD REQUIRE THE TREATMENT OF AN ADDITIONAL 0.08 LB/YR OF PHOSPHORUS REMOVAL. TO MEET THIS REMOVAL REQUIREMENT, NUTRIENT OFFSET CREDITS WILL BE PURCHASED. AN AVAILABILITY LETTER SHOWING THAT MORE CREDITS THAN REQUIRED ARE AVAILABLE HAS BEEN PROVIDED. SINCE THE PHOSPHORUS REMOVAL ACHIEVED BY THESE MEASURES MEETS THE AMOUNT REQUIRED BY THE VRRM RE DEVELOPMENT SPREADSHEET, ALL STORMWATER QUALITY REQUIREMENTS FOR THIS PROJECT HAVE BEEN MET AND NO FURTHER ANALYSIS IS REQUIRED.

# CONCLUSION

AS STORMWATER QUALITY REQUIREMENTS ARE BEING MET THROUGH THE PURCHASE OF NUTRIENT OFFSET CREDITS AND THE STORMWATER QUANTITY REQUIREMENTS ARE BEING MET BY SHOWING THAT EXISTING DRAINAGE AREAS AND FLOWS ARE BEING MAINTAINED, IT IS THE OPINION OF THE ENGINEER THAT THE STORMWATER QUANTITY AND QUALITY REQUIREMENTS ARE SATISFIED FOR THIS PROJECT AND NO FURTHER ANALYSIS IS WARRANTED.

Site Summary ProjectTitle: Mt Do na ld 5 Hay market - V175005 Total Raintall (in): 48 Total Disturbed Acreage: 0.47

Ronest/Open (a cres) Managed Tu rf (acres) rostRe Deve lopment
Re Deve lopment
(New Impervious)
Re Deve lopment

Re De ve lo prime rit

# Site Compliance Summary

10% Pre-ReDevelopment Load

0	Total Runoff Volume Reduction (ft <sup>3</sup> )
0.00	Total TP Load Reduction Achieved (16/γr)
0.00	Total TN Load Reduction Achieved (lb/yr)
0.84	Remaining Post Development TP Load (lb/yr)
0.08	Remaining TP Load Reduction (lb/yr) Required

VRRM SUMMARY SHEETS

Print Previous Print

PreReDevelopment
Development TP Load
TP Load persone
persone
(https://doi.org/lip.)

 (Itb/scre/yr)
 (Itb/scre/yr)

 178
 178

 178
 178

POST-DEVELOPMENT AREA MAP

IMPERVIOUS AREA (0.36 ACRES) PERVIOUS AREA (0.11 ACRES)

HATCH LEGEND

Owings Mills, MD 21117

Baton Rouge, LA 70802

5020 Montrose Blvd.

1200 Camellia Blvd.

1371/2 East Main St.

Suite 431 Pittsburgh, PA 15219

302 Jefferson St. Suite 110 Raleigh, NC 27605

1408 B Roseneath Rd

February 27, 2019 Kevin Lee Staff Engineer **Bohler Engineering** Caitlan Parker Credit Sales Coordinator Resource Environmental Solutions Subject: Potomac Watershed - Nutrient Credit Availability Project Reference: McDonald's - Haymarket, VA; 0.10 Credits Requested; HUC

This letter is to confirm the availability of 0.10 authorized nutrient credits ("Nutrient Credits") from one or more of Resource Environmental Solutions' ("RES") Potomac nutrient bank facilities for use by permit applicants within the Potomac watershed, including HUC 02070010, to compensate for nutrient loadings in excess of state or local regulations, as per Virginia Code § 62.1-44.15:35 and § 62.1-44.19:14 and Virginia Administrative Code 9 VAC 25-820-10 et seq. These Nutrient Credits are generated and managed under the terms of the Banking Instruments known as the Antonio Nutrient Reduction Implementation Plan ("NRIP").

Please feel free to contact me if you have any questions.

author B. Packers Caitlan B. Parker Resource Environmental Solutions cparker@res.us

NUTRIENT CREDIT AVAILABILITY LETTER

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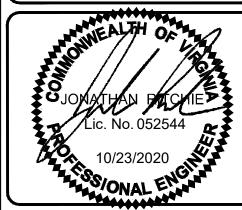
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LOCATION OF SITE 6740 LEA BERRY WAY TOWN OF HAYMARKET PRINCE WILLIAM COUNTY, VIRGINIA

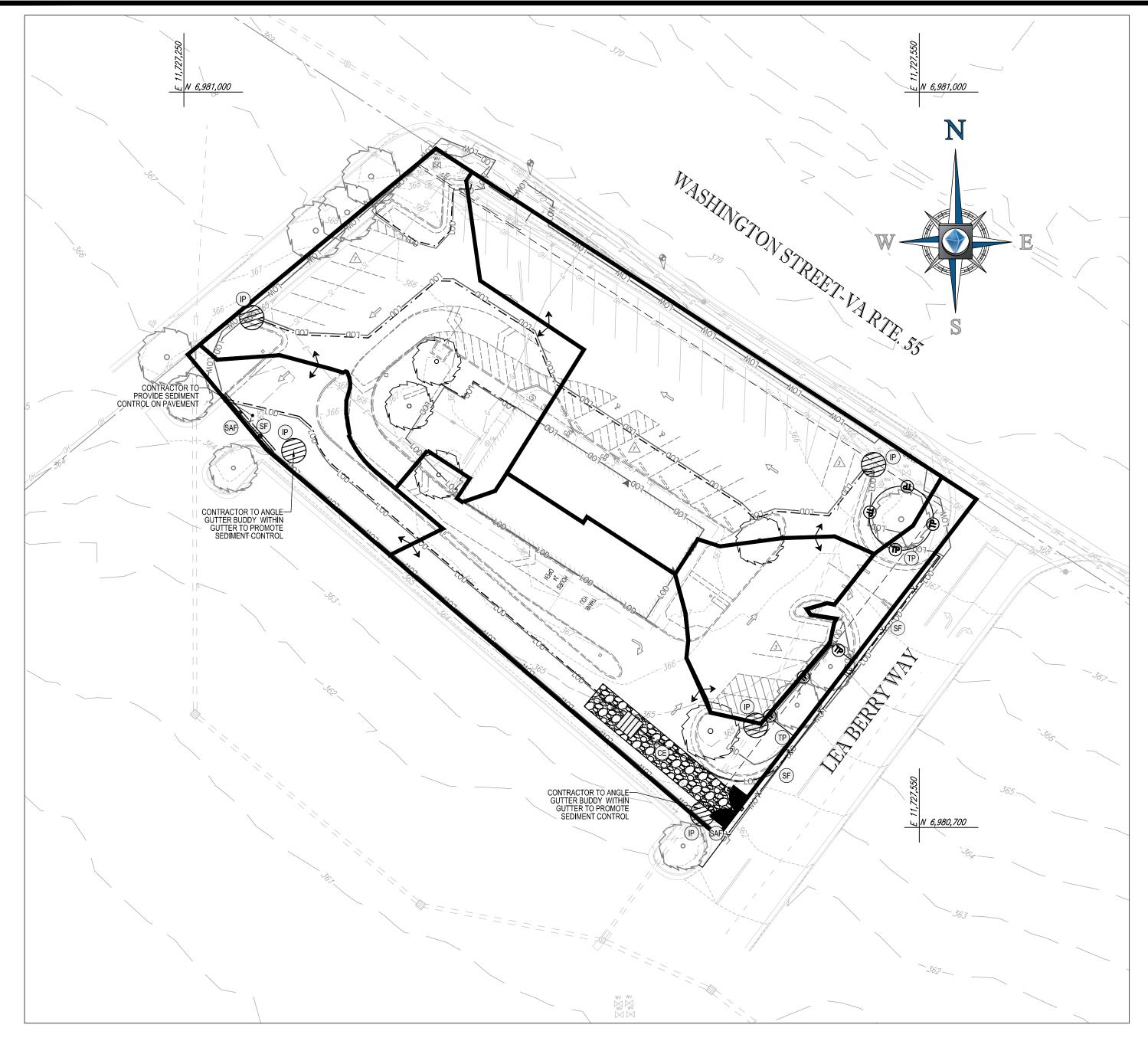


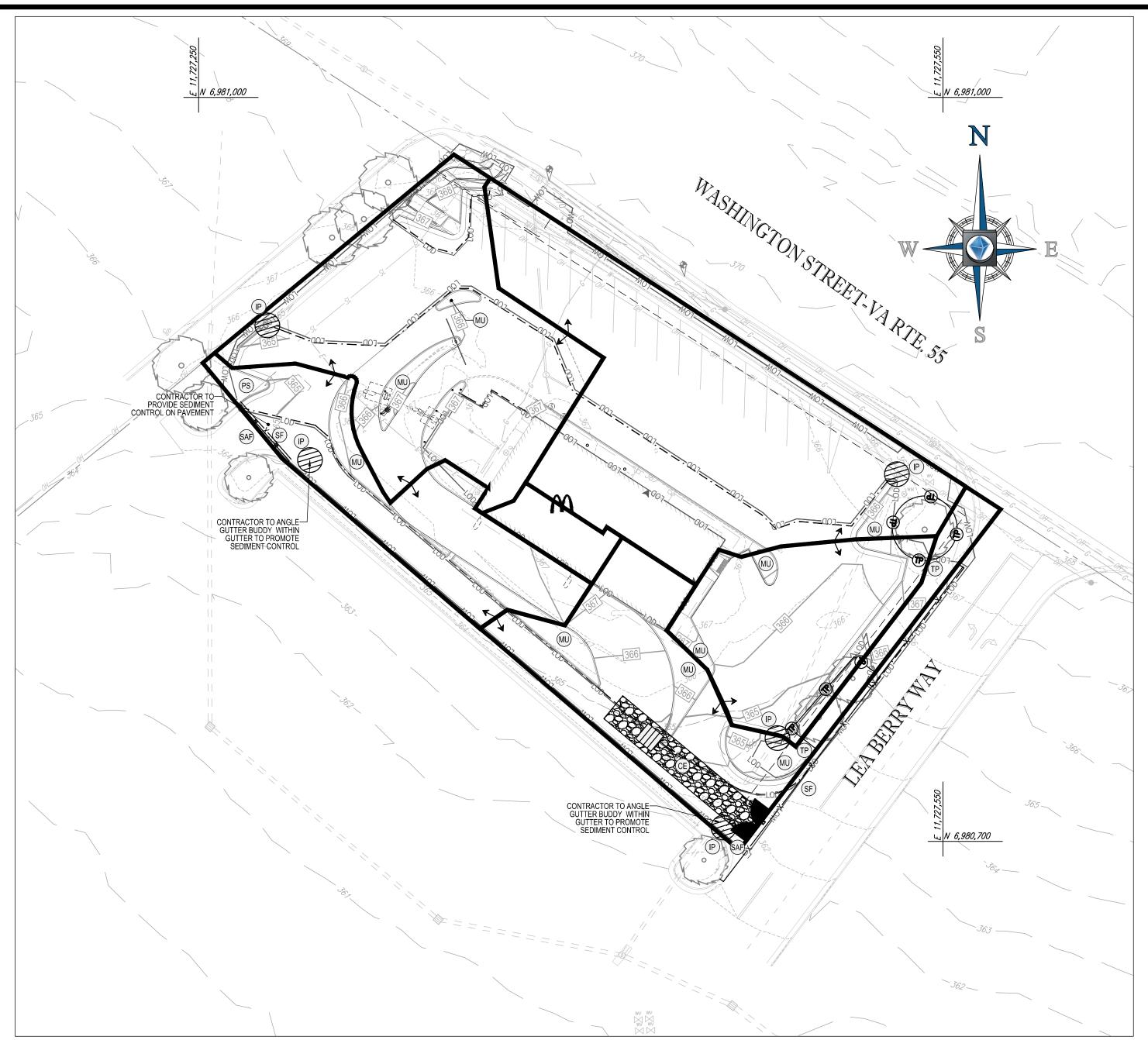
28 BLACKWELL PARK LANE, SUITE 20<sup>-</sup> **WARRENTON, VIRGINIA 20186** Phone: (540) 349-4500 Fax: (540) 349-0321 VA@BohlerEng.com



PRE/POST DEVELOPED DRAINAGE MAP

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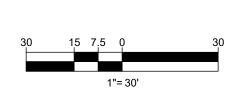




E&S CONTROL PLAN - PHASE I



E&S CONTROL PLAN - PHASE II



# VIRGINIA UNIFORM CODING SYSTEM

	SOILS TABLE	E
SYMBOL	SOIL NAME	SLOPES
4B	ARCOLA SILT LOAM	2-7%

			FOR EROSION AND SEC	DIMEN	IT CONTROL	PRACTICES		
NO.	TITLE	KEY	SYMBOL		NO.	TITLE	KEY	SYMBOL
3.01	SAFETY FENCE	SAF	SAF)		3.32	PERMANENT SEEDING	PS	PS
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	CE)		3.35	MULCHING	MU	MU
3.05	SILT FENCE	SF			3.38	TREE PRESERVATION AND PROTECTION	TP	TP
3.07	STORM DRAIN INLET PROTECTION	IP)						

# EROSION CONTROL NOTES

- 1. REFER TO EROSION CONTROL DETAILS FOR ADDITIONAL EROSION NOTES & DETAILS.
- 2. THIS PLAN TO BE UTILIZED FOR EROSION PURPOSES ONLY.
- 3. SEE SHEET 11 FOR SEQUENCE OF CONSTRUCTION.



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2	10/23/2020	PER TOWN COMMENTS	JQR					



NOT APPROVED FOR CONSTRUCTION

PROJECT No.: DRAWN BY: CHECKED BY: DATE: SCALE:

PROP.
SITE PLAN
DOCUMENTS





28 BLACKWELL PARK LANE, SUITE 20
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com



SHEET TITLE:
EROSION AND
SEDIMENT
CONTROL PLAN
PHASE I & II
SHEET NUMBER:

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THIS PROPERTY IS LOCATED AT 6740 LEA BERRY WAY IN HAYMARKET, VIRGINIA. THE PURPOSE OF THIS PROJECT IS TO EXPAND THE DRIVE-THRU, CLOSE AN ENTRANCE, AND RECONFIGURE THE PARKING LOT. THE TOTAL AREA DISTURBED IS 0.47 ACRES UPON COMPLETION, AND THERE IS NO INCREASE IN IMPERVIOUS AREA.

THE EXISTING 0.98 ACRE SITE IS CURRENTLY A RESTAURANT, DRIVE THRU, AND PARKING LOT. CONSTRUCTION ENTRANCE, SILT FENCE, TREE PROTECTION AND INLET PROTECTION WILL SERVE AS PERIMETER CONTROLS TO PROTECT THE EXISTING VEGETATION OUTSIDE THE LIMITS OF CLEARING AND TO PREVENT SEDIMENT FROM EXITING THE SITE. THE SLOPES ON THE SITE ARE BETWEEN 1% AND 15%, AND GENERALLY DRAIN TO THE PERIMETER OF THE SITE INTO AN EXISTING CONCRETE STORM SYSTEM.

THIS PROPERTY IS BORDERED TO THE NORTH BY WASHINGTON STREET (VA ROUTE 55), TO THE EAST BY LEA BERRY WAY, TO THE SOUTH BY A COMMERCIAL SHOPPING CENTER AND PARKING LOT, AND TO THE WEST BY A GAS

NO OFFSITE AREAS REQUIRED FOR EXPORT OF MATERIALS ARE ANTICIPATED WITH THE PROJECT. IF EXCAVATED MATERIAL IS GENERATED, IT SHALL BE DISPOSED OF IN A LAWFUL MANNER AND THE CONTRACTOR SHALL COORDINATE THE HAUL ROUTE WITH THE TOWN OF HAYMARKET CIVIL INSPECTOR. ANY OFFSITE AREAS SHALL BE APPROVED AND PERMITTED BY THE TOWN OF HAYMARKET PRIOR TO USE.

PER NRCS SOILS INFORMATION, THE SOILS ON-SITE ARE 4B (ARCOLA SILT LOAM, 2 TO 7 PERCENT SLOPES), HYDROLOGIC SOIL GROUP C.

OFF-SITE AREAS:

NO KNOWN CRITICAL AREAS SUCH AS STEEP SLOPES, CHANNELS, OR UNDERGROUND SPRINGS HAVE BEEN IDENTIFIED WITHIN THE PROPOSED LIMITS OF DISTURBANCE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE APPROPRIATE SAFETY MEASURES AND EROSION CONTROLS DURING THE CONSTRUCTION ACTIVITIES.

### **EROSION AND SEDIMENT CONTROL MEASURES:**

UNLESS OTHERWISE NOTED ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED. ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). THE MINIMUM STANDARDS OF THE VESCH SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE

SPECIFIC EROSION AND SEDIMENT MEASURES UTILIZED IN THIS PROJECT INCLUDE THE FOLLOW

1. SAFETY FENCE - 3.01 - A PROTECTIVE BARRIER INSTALLED TO PREVENT ACCESS TO AN EROSION CONTROL MEASURE. SAFETY FENCE SHALL BE INSTALLED AROUND THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS TO PREVENT PEDESTRIAN TRAFFIC ON SITE.

TEMPORARY CONSTRUCTION ENTRANCE - 3.02 - A TEMPORARY CONSTRUCTION ENTRANCE WITHOUT A WASH RACK SHALL BE INSTALLED. DRIVERS OF THE CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR

SILT FENCE - 3.05 - A PROTECTIVE BARRIER TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS IN ORDER TO PRESENT SEDIMENT FROM LEAVING

4. STORM INLET PROTECTION - 3.07 - A SEDIMENT FILTER OR AN EXCAVATED IMPOUNDING AREA AROUND A STORM DRAIN DROP INLET OR CURB INLET

PERMANENT SEEDING - 3.32 - ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER ON DISTURBED ARES BY PLANTING SEED TO REDUCE EROSION AND DECREASE SEDIMENT YIELD, IMPROVED WILDLIFE HABITAT, ENHANCE NATURAL BEAUTY AND TO PERMANENTLY STABILIZE DISTURBED AREAS IN A MANNER THAT IS ECONOMICAL, ADAPTABLE TO SITE CONDITIONS, AND ALLOWS SELECTION OF THE MOST APPROPRIATE PLANT

MULCHING - 3.35 - APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO THE SOIL SURFACE.

TREE PROTECTION - 3.38 - PROTECTION OF DESIRABLE TREES FROM MECHANICAL AND OTHER INJURY DURING LAND DISTURBING AND CONSTRUCTION ACTIVITY.

### SEQUENCE OF CONSTRUCTION:

- 1. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS.
- 2. PRIOR TO ANY EARTH DISTURBANCE, CONTRACTOR TO CONTACT THE TOWN AND SCHEDULE A PRE-CONSTRUCTION MEETING.
- 3. CONTRACTOR SHALL CONTACT JURISDICTION AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- 4. INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT (AS SHOWN ON SHEET 10).
- INSTALL INLET PROTECTION ON EXISTING INLETS AND GUTTERBUDDY'S ALONG GUTTER PAN (AS SHOWN ON
- 6. INSTALL TREE PROTECTION.
- 7. BEGIN REMOVING THE EXISTING PAVEMENT, CURB, AND SURROUNDING DISTURBED AREAS.
- 8. START CONSTRUCTION OF PROPOSED DRIVE-THRU, BEGIN GRADING THE DISTURBED AREAS AND PREPARING
- START CONSTRUCTION OF CURB AND GUTTER, DRIVE-THRU ISLANDS, AND SIDEWALK.
- 10. TEMPORARILY STABILIZE, THROUGHOUT CONSTRUCTION IMMEDIATELY FOLLOWING THE COMPLETION OF THE R-5: NOT APPLICABLE. THERE ARE NO PROPOSED EARTHEN STRUCTURES. MOST RECENT LAND DISTURBING/GRADING ACTIVITY, ANY DISTURBED AREAS, INCLUDING MATERIAL
- STOCKPILES THAT ARE SCHEDULED OR LIKELY TO REMAIN INACTIVE FOR 7 DAYS OR MORE. 11. IMMEDIATELY, PERMANENTLY STABILIZED AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE.
- 12. INSTALLED COMPACTED SUB BASE AND POUR CONCRETE FOR SIDEWALKS AND THE DRIVE-THRU. MILL AND OVERLAY PARKING LOT IN NECESSARY AREAS.
- 13. INSTALL TOP COAT OF ASPHALT AND TIE TO DRIVE-THRU CONCRETE IN NECESSARY AREAS.
- 14. INSTALL APPROPRIATE PROTECTION DEVICES FOR PAVED AREAS AS WORK PROGRESSES.
- 15. COMPLETE GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL AREAS, IF NECESSARY 16. OBTAIN CONCURRENCE FROM THE TOWN INSPECTOR THAT THE SITE HAS BEEN FULLY STABILIZED AND ALL
- CONSTRUCTION HAS BEEN COMPLETED. THEN: WITHIN 30 DAYS REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.
- REMOVE ALL TEMPORARY CONSTRUCTION EQUIPMENT, CONSTRUCTION MATERIALS AND DEBRIS

STABILIZE ANY AREAS DISTURBED BY THE REMOVAL OF TEMPORARY MEASURES.

### NOTE: THE CONTRACTOR SHALL CONTRACT WITH A GEOTECHNICAL ENGINEER FOR SPECIFIC CONSTRUCTION RECOMMENDATIONS REGARDING MATERIALS AND TESTING. MAINTENANCE PROGRAM:

MADE AS NEEDED. SAFETY FENCE SHALL BE CHECKED REGULARLY FOR WEATHER-RELATED OR OTHER DAMAGE. ANY NECESSARY REPAIRS MUST BE MADE IMMEDIATELY. CARE SHOULD BE TAKEN TO SECURE ALL ACCESS POINTS (GATES) AT THE END OF EACH WORKING DAY.

TEMPORARY CONSTRUCTION ENTRANCE - 3.02 - THE MEASURE SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL AND REPAIRS MADE AS NEEDED. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS MS-9: WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIAL DROPPED, R-9: IT IS NOT ANTICIPATED HOWEVER, CONTRACTOR SHALL ENSURE ADEQUATE MEASURES ARE PROVIDED WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.

SILT FENCE - 3.05 - SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL, ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCES RESULTING FROM END RUNS AND UNDERCUTTING. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY. THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIERS. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

4. STORM DRAIN INLET PROTECTION - 3.07 - THE MEASURE SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

5. PERMANENT SEEDING - 3.32 - ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.

6. MULCHING - 3.35 - ALL MULCHES AND SOIL COVERINGS SHOULD BE INSPECTED PERIODICALLY (PARTICULARLY AFTER RAINSTORMS) TO CHECK FOR EROSION. WHERE EROSION IS OBSERVED IN MULCHED AREAS, ADDITIONAL MULCH SHOULD BE APPLIED. NETS AND MATS SHOULD BE INSPECTED AFTER RAINSTORMS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE OR DITCH. INSPECTIONS SHOULD TAKE PLACE UP UNTIL GRASSES ARE FIRMLY ESTABLISHED. WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE; REPAIR AS NEEDED.

NO AREA SHALL BE LEFT DENUDED FOR A PERIOD LONGER THAN 7 DAYS WITHOUT CONSTRUCTION ACTIVITY

NO UNPROTECTED, UNDISTURBED AREA SHALL DRAIN TO ROADWAY PAVEMENTS SUCH THAT THE SUBBASE, BASE, OR WEARING SURFACE ARE CONTAMINATED BY SILT TRAPPED AT LOW POINTS.

ADJACENT ROADWAYS AND ENTRANCES WILL BE KEPT CLEAN FROM ACCUMULATED DEBRIS AT ALL TIMES.

10. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.

### PERMANENT STABILIZATION:

PERMANENT STABILIZATION SHALL BE PROVIDED ONCE ALL CONSTRUCTION ACTIVITIES ARE COMPLETE. THE SPECIFICATIONS AND DETAILS FOR THE PERMANENT STABILIZATION ARE INCLUDED ON THIS SHEET. PERMANENT STABILIZATION INCLUDES PERMANENT SEEDING, SODDING, AND MULCHING. THE SITE CONTRACTOR SHALL USE THE STABILIZATION METHOD AS DEEMED MOST APPROPRIATE FOR EACH GIVEN PERVIOUS AREA.

### **STORMWATER RUNOFF CONSIDERATIONS:**

THERE IS NO INCREASE IN IMPERVIOUS AREA FOR THE SITE AND DRAINAGE DIVIDES ARE GENERALLY BEING MAINTAINED. FLOWS ARE NON-EROSIVE, AND EXISTING SYSTEM IS ADEQUATE, THEREFORE NO FURTHER STORMWATER CONSIDERATIONS ARE REQUIRED.

THERE ARE NO CALCULATIONS REQUIRED FOR THE PROPOSED EROSION AND SEDIMENT CONTROLS.

- 1. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLANS SHALL BE MAINTAINED ON SITE AT ALL PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A
- 3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES AND INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES AS NECESSARY TO PREVENT EROSION AND

SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN

- SEDIMENTATION AS DETERMINED BY THE CITY OF CHESTER. 4. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN
- 5. ALL AREAS TO BE PAVED MAY BE STABILIZED BY INSTALLATION OF BASE AND SUBBASE MATERIALS INSTEAD OF
- THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING MUD FROM TRUCKS AND/OR OTHER EQUIPMENT PRIOR TO ENTERING THE PUBLIC RIGHT-OF-WAY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAR THE STREETS AND TAKE WHATEVER MEASURES NECESSARY TO ENSURE THAT THE STREETS ARE
- MAINTAINED IN A CLEAN AND DUST-FREE CONDITION AT ALL TIMES. 7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM THE WORK IN SUCH A MANNER AS TO PREVENT RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT THE WASHING OF ANY TOPSOIL OR DEBRIS ONTO ADJACENT PROPERTIES.
- PRIOR TO FORECAST OF A LARGE STORM EVENT, THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES AND ENSURE THEY ARE FUNCTIONAL. ANY OPEN TRENCHES SHALL BE TEMPORARILY BACKFILLED.

EROSION AND SEDIMENT CONTROL NOTES MS-1: PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7)

DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BÉ APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE (1) YEAR. R-1: TEMPORARY SOIL STABILIZATION WILL BE APPLIED TO NEWLY GRADED AND DENUDED AREAS THAT WILL

REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 7 DAYS. PERMANENT STABILIZATION WILL BE APPLIED WITHIN 14 DAYS TO DENUDED AREAS WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED FOR LONGER

MS-2: DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

### R-2: NOT APPLICABLE

MS-3: A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE STABILIZED PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE, AND WILL INHIBIT EROSION.

R-3: PERMANENT VEGETATION WILL BE PROVIDED FOR ALL DENUDED AREAS.

MS-4: SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

R-4: INLET PROTECTION IS PROPOSED AT EXISTING INLETS NEAR DISTURBED AREAS AND WILL BE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE COMMENCES.

MS-5: STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION

MS-6: SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE (3) ACRES. B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE (3) ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL AT A MINIMUM MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A TWENTY-FIVE YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

# R-6: NOT APPLICABLE. THERE ARE NO PROPOSED SEDIMENT TRAPS

MS-7: CUT AND FILL SLOPES SHALL BE ASSIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE (1) YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

R-7: NOT APPLICABLE. THERE ARE NO CUT OR FILL SLOPES PROPOSED WITH THESE IMPROVEMENTS.

1. SAFETY FENCE - 3.01 - THE MEASURE SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL AND REPAIRS MS-8: CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

> R-8: CONCENTRATED RUN-OFF IS NOT EXPECTED DURING CONSTRUCTION, ANY CONCENTRATED RUN-OFF ENCOUNTERED DURING CONSTRUCTION WILL BE CONTAINED WITHIN AN ADEQUATE, CHANNEL, FLUME OR SLOPE

MS-10: ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO

THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

R-10: INLET PROTECTION IS PROPOSED TO PREVENT UNFILTERED WATER TO ENTER THE CONVEYANCE SYSTEM. MS-11: BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE

# R-11: NOT APPLICABLE, NO STORMWATER CONVEYANCE CHANNEL OR PIPES ARE PROPOSED.

MS-12: WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NON-ERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NON-ERODIBLE COVER MATERIALS.

R-12: NOT APPLICABLE. THE PROPOSED WORK DOES NOT CROSS A LIVE WATERCOURSE.

INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

MS-13: WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN A SIX (6) MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NON-ERODIBLE MATERIALS SHALL

# R-13: NOT APPLICABLE. THE PROPOSED WORK DOES NOT CROSS A LIVE WATERCOURSE.

R-14: NOT APPLICABLE. THE PROPOSED WORK DOES NOT CROSS A LIVE WATERCOURSE.

MS-14: ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE

MS-15: THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

### R-15: NOT APPLICABLE. THE PROPOSED WORK DOES NOT CROSS A LIVE WATERCOURSE.

MS-16: UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA

- A. NO MORE THAN 500 LINEAR FEET OF TRENCH SHALL BE OPENED AT ONE TIME
- B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFFSITE PROPERTY.

D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE

EROSION AND PROMOTE STABILIZATION. E. RE-STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS. F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

## R-16: CONTRACTOR TO ENSURE THAT STANDARDS ARE MET SHOULD UTILITIES BE RELOCATED.

MS-17: WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

R-17: ANY AND ALL MATERIAL OR DEBRIS TRACKED ONTO A PUBLIC OR PRIVATE ROAD SURFACE WILL BE REMOVED THOROUGHLY AT THE END OF EACH DAY BY THE CONTRACTOR. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING AND BE TRANSPORTED TO A SEDIMENT CONTROLLED DISPOSAL AREA. THE EXISTING ASPHALT ENTRANCE AS SPECIFIED IN THIS SITE PLAN SET WILL BE UTILIZED AS THE SITE CONSTRUCTION ENTRANCE AND WILL BE MAINTAINED IN ACCORDANCE WITH THIS STATEMENT.

MS-18: ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS FURTHER EROSION AND SEDIMENTATION.

### R-18: TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WILL BE REMOVED UPON APPROVAL BY THE TOWN INSPECTORS AND ANY AREA DISTURBED BY THE REMOVAL WILL BE IMMEDIATELY STABILIZED.

B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER

). THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.

CONTAINED WITHIN THE APPURTENANCES: OR

PERFORMING THE MAINTENANCE

MS-19: PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:

A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED

(1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR

(2) (A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO (2) YEAR STORM TO VERIFY

THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR (B) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF À TEN (10) YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS BY THE USE OF A TWO (2) YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF

USE OF A TEN (10) YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR

CHANNEL BED OR BANKS: AND PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE

PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL (1) IMPROVE THE CHANNEL TO A CONDITION WHERE A TEN (10) YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO (2) YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL BED OR BANKS; OR (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN (10) YEAR STORM IS

(3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO (2) YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN (10) YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR

(4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURE WHICH IS SATISFACTORY TO THE PLAN-APPROVING AUTHORITY TO PREVENT DOWNSTREAM

E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT OF THE SUBJECT PROJECT. F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION HE SHALL OBTAIN APPROVAL FROM THE LOCALITY OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN

G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATERS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL. H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE

I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A

SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR

J. IN APPLYING THESE STORMWATER RUNOFF CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.

K ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE. L. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT

RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO

I. DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; II. DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24- HOUR

STORM: AND III. REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT

IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 10.1-562 OR 10.1-570 OF THE ACT.

M. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 10.1-561 A

OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 10.1-603.2 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS. UNLESS SUCH LAND DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 4VAC50-60-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS. N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 4VAC50-60-66 OF THE VIRGINIA

MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF MINIMUM STANDARD 19.

R-19: THE PROPOSED IMPROVEMENTS CAUSE A NEGLIGIBLE INCREASE IN STORMWATER DRAINING TO THE EXISTING INLETS. AS SUCH, IT IS THE OPINION OF THE ENGINEER THAT THE EXISTING CLOSED STORM SYSTEM IS ADEQUATE TO CONVEY STORMWATER

### GENERAL EROSION & SEDIMENT CONTROL NOTES

SOURCE: TABLE 6-1, CHAPTER 6, VIRGINIA EROSION & SEDIMENT CONTROL

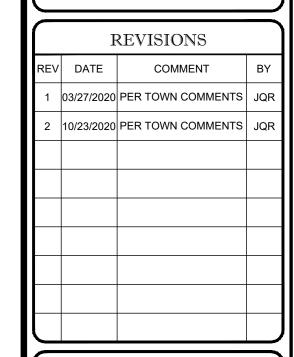
- ES-1 UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL <u>HANDBOOK</u> AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL
- THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
- ES-3 ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING AND GRADING.
- ES-4 A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLANS SHALL BE MAINTAINED ON THE SITE AT ALL TIMES. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON
- THESE PLANS (INCLUDING BUT NOT LIMITED, OFFSITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
- ES-6 THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
- ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- ES-8 DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING ES-9 THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND
- AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE ES-10 SEEDING OPERATIONS SHALL BE INITIATED WITHIN 7 DAYS AFTER REACHING FINAL GRADE OR
- THAN 30 DAYS OR UPON COMPLETION OF GRADING OPERATIONS FOR A SPECIFIC AREA. ES-11 PERMANENT VEGETATION SHALL NOT BE CONSIDERED ADEQUATELY STABILIZED UNTIL THE VEGETATION IS UNIFORM IN HEIGHT, THICK ENOUGH TO PREVENT EROSION AND MATURE

UPON SUSPENSION OF GRADING OPERATIONS FOR ANTICIPATED DURATION OF GREATER

ES-12 THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOILS WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS, OR HARM ANIMAL OR PLANT LIFE.

7







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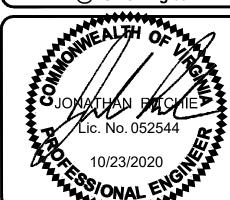
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PRINCE WILLIAM COUNTY, VIRGINIA



8 BLACKWELL PARK LANE, SUITE 20 **WARRENTON, VIRGINIA 20186** Phone: (540) 349-4500 Fax: (540) 349-0321 VA@BohlerEng.com

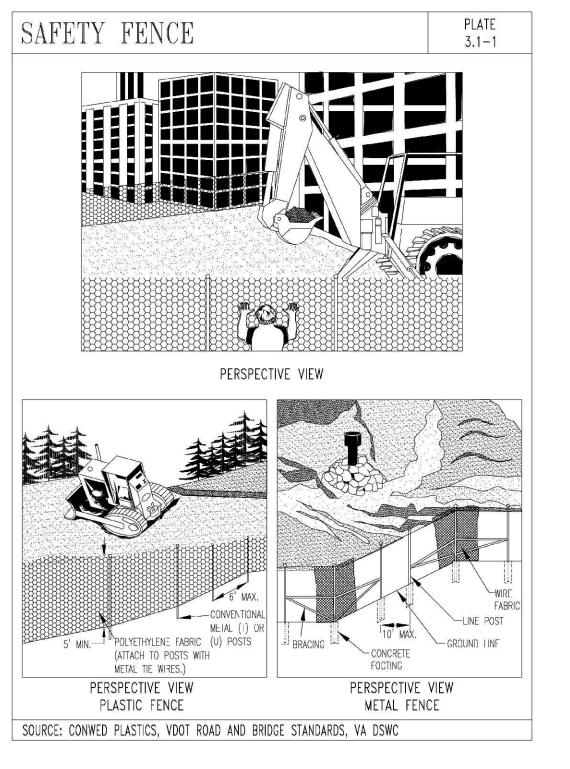


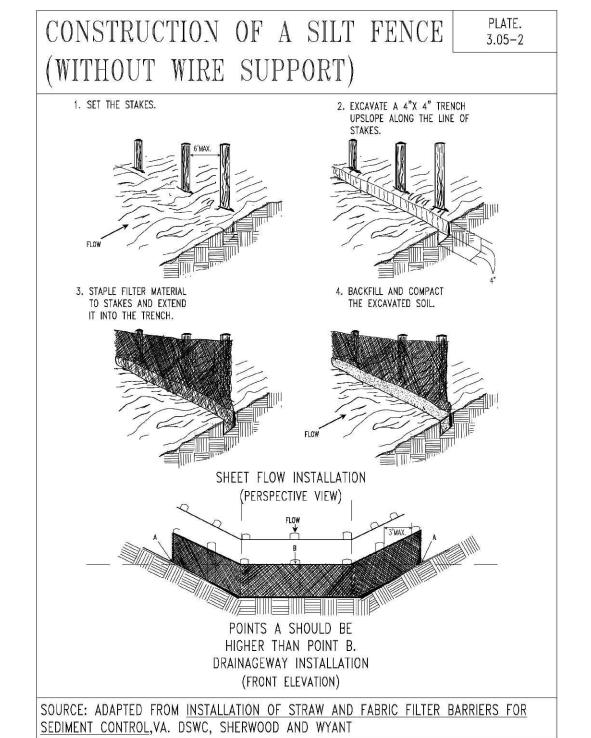
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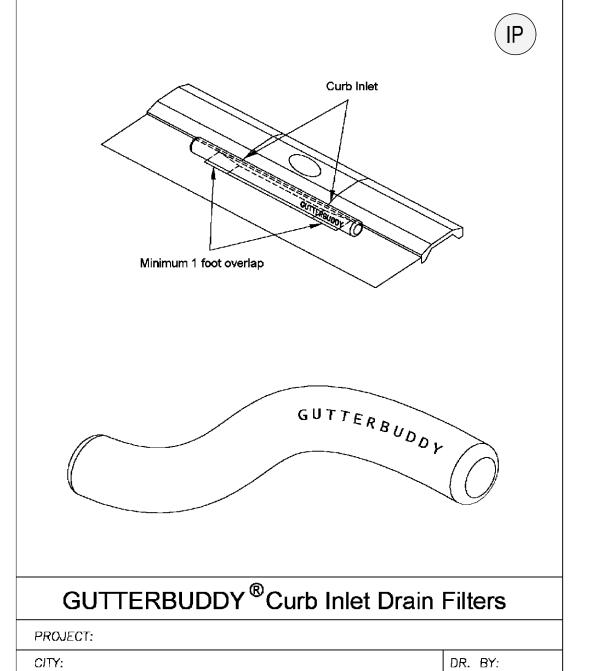
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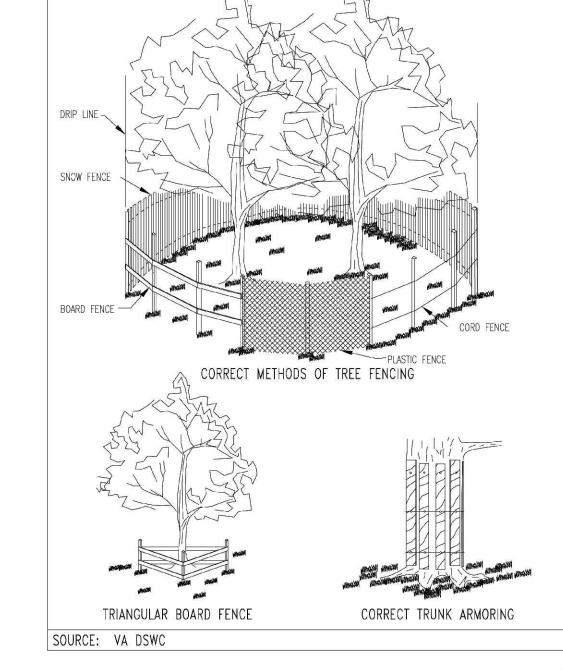




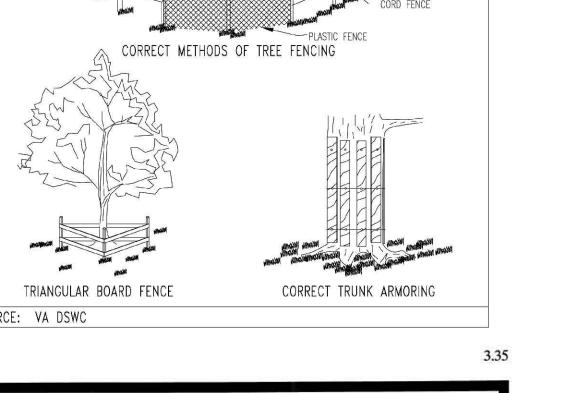
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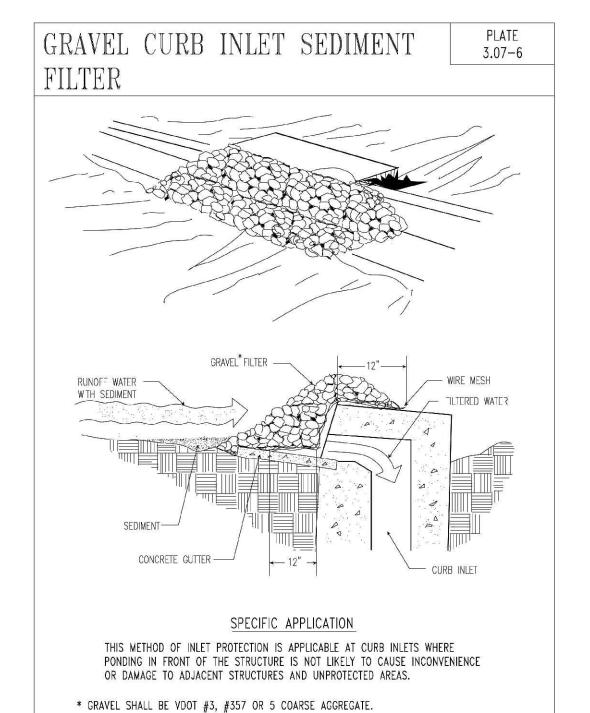
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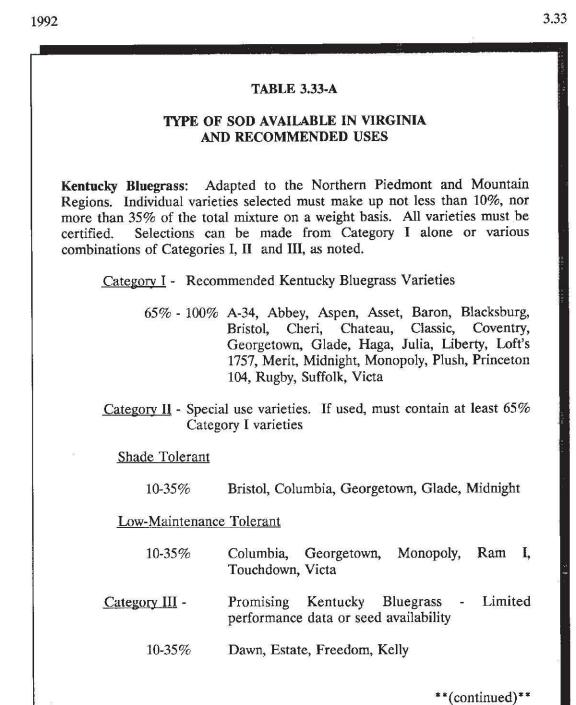
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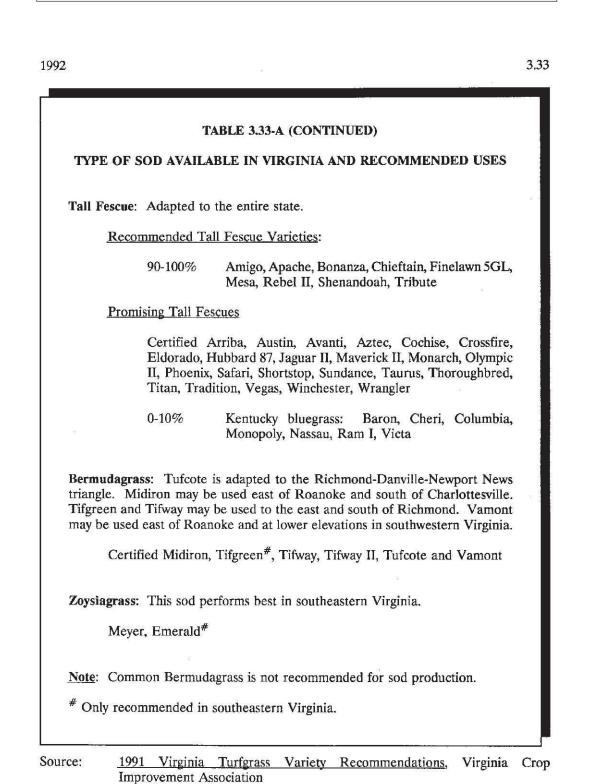


FENCING AND ARMORING









STONE CONSTRUCTION ENTRANCE (OPTIONAL) SIDE ELEVATION EXISTING GROUND 75' MN. --- WASHRACK (OPTIONAL) ✓ VDOI #1 COURSE TO SEDIMENT AGGREGATE TRAPPING DEVICE \* MUST EXTEND FULL WIDTH PLAN VIEW OF INGRESS AND EGRESS FILTER CLOTH -SECTION A-A REINFORCED CONCRETE DRAIN SPACE SECTION B-B SOURCE: ADAPTED FROM 1983 MARYLAND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, AND VA. DSWC

ORGAN	NIC MULCH MA	ATERIALS AND A	APPLICATION RATES
	RA	TES:	
MULCHES:	Per Acre	Per 1000 sq. ft.	NOTES:
Straw or Hay	1½ - 2 tons (Minimum 2 tons for winter cover)	70 - 90 lbs.	Free from weeds and coarse matter. Must be anchored. Spread with mulch blower or by hand.
Fiber Mulch	Minimum 1500 lbs.	35 lbs.	Do not use as mulch for winter cover or during hot, dry periods.* Apply as slurry.
Corn Stalks	4 - 6 tons	185 - 275 lbs.	Cut or shredded in 4-6" lengths. Air-dried. Do not use in fine turf areas. Apply with mulch blower or by hand.
Wood Chips	4 - 6 tons	185 - 275 lbs.	Free of coarse matter. Airdried. Treat with 12 lbs nitrogen per ton. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.
Bark Chips or Shredded Bark	50 - 70 cu. yds.	1-2 cu. yds.	Free of coarse matter. Airdried. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.

Source: Va. DSWC

REVISIONS

PLATE **3.38**-2

REV DATE COMMENT 03/27/2020 PER TOWN COMMENTS JQ



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3/1/19 AS NOTED

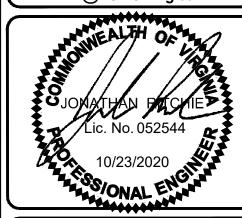
PROP. SITE PLAN DOCUMENTS

LOCATION OF SITE 6740 LEA BERRY WAY TOWN OF HAYMARKET



PRINCE WILLIAM COUNTY, VIRGINIA

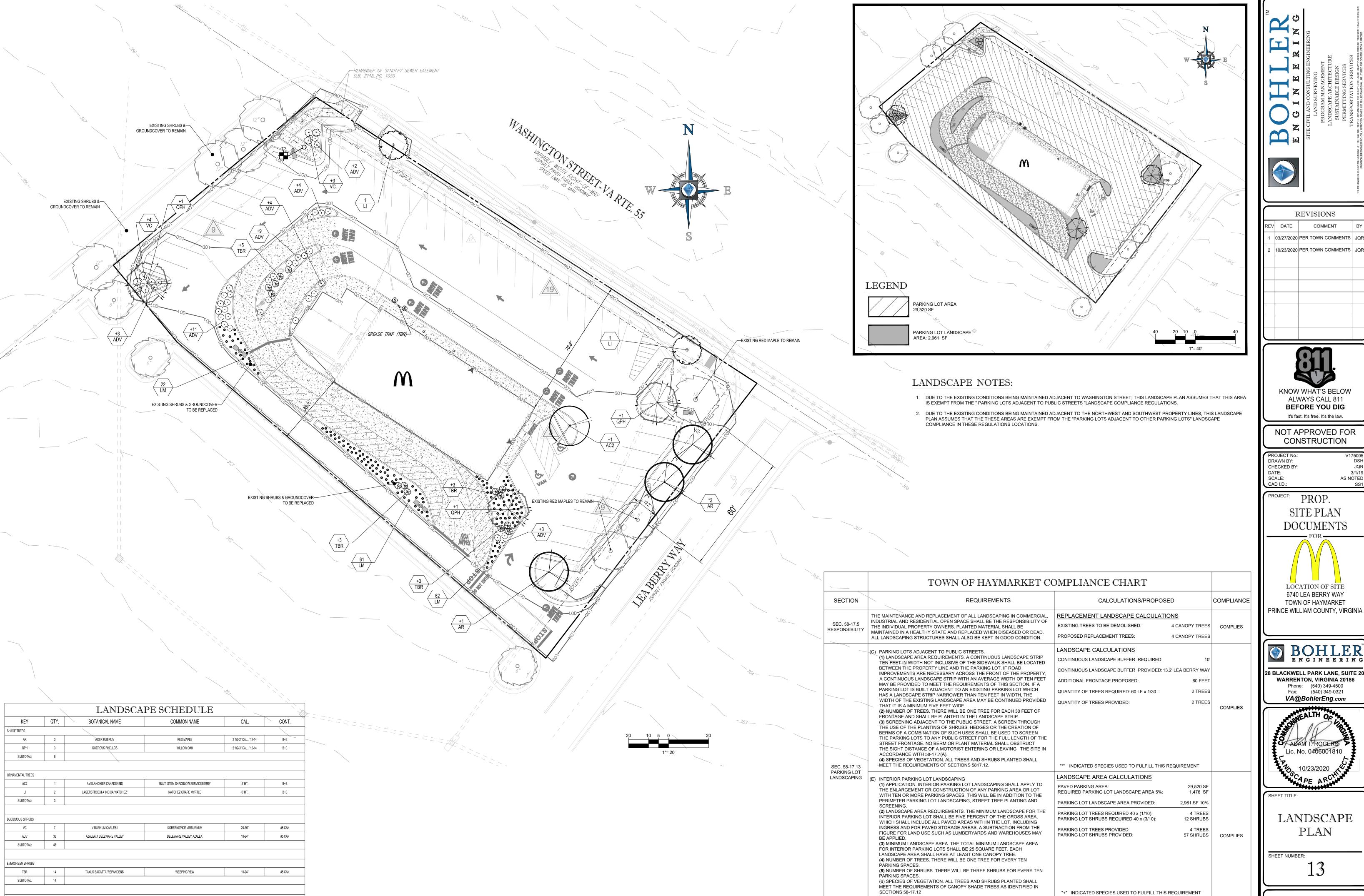
28 BLACKWELL PARK LANE, SUITE 20<sup>-</sup> **WARRENTON, VIRGINIA 20186** Phone: (540) 349-4500 Fax: (540) 349-0321 VA@BohlerEng.com



**EROSION AND** SEDIMENT CONTROL DETAILS

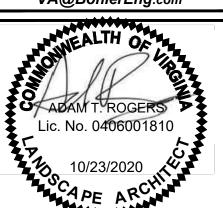
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SOURCE: VA DSWC



6.2.c 03/27/2020 PER TOWN COMMENTS JQI





# LANDSCAPE SPECIFICATIONS

1. SCOPE OF WORK: THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

# A. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE

DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.

- B. TOPSOIL NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE
- C. LAWN ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM SIX INCH (6") THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT. AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES. 1.1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
- 1.2. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. 1.3. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
- D. MULCH THE MULCH AROUND THE PERIMETER OF THE BUILDING SHALL BE A 3" LAYER OF DOUBLE SHREDDED BLACK CEDAR MULCH ONLY. ALL OTHER AREAS SHALL BE MULCHED WITH A 3" LAYER OF DOUBLE SHREDDED DARK BROWN HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.
- E. FERTILIZER 1.1. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER, FERTILIZER SHALL BE STORED IN A
- WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE 1.2. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY

### PLANT MATERIAL 1.1. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR

- NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION
- 1.2. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL
- 1.3. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION. 1.4. TREES WITH ABRASION OF THE BARK, SUN SCALDS. DISFIGURATION OR FRESH CUTS OF LIMBS OVER 11/4".
- WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED.PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. 1.5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF
- GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE. 1.6. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE.
- IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE. 1.7. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE
- LONGEST BRANCH 1.8. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL

MATERIALS AND TOOLS SHALL BE PROPERLY STORED. STOCKPILED OR DISPOSED OF

- A. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS,
- B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

- A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
- B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE
- CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
- B. A FORTY-FIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE' OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL
- WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
- D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

# 6. SOIL MODIFICATIONS

- A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY
- B. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.
- THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS
- PERFORMED BY A CERTIFIED SOIL LABORATORY. 1.1. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5
- 1.2. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX.
- SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE 1.3. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

# FINISHED GRADING

- A. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE
- B. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL
- ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
- D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

# A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL. OR AS DIRECTED BY THE

- LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
- B. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
- . CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE
- ALL PLANTING AND LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA): 1.1. 20 POUNDS 'GROW POWER' OR APPROVED EQUAL
- E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

1.2. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP

### <u>9. PLANTING</u> A. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.

- B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.
- C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
- D. ALL PLANTING CONTAINERS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.
- E. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS. MAKING NECESSARY ADJUSTMENTS AS DIRECTED
- F. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:
- 1.1. PLANTS: MARCH 15 TO DECEMBER 15 1.2. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
- G. PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.
- H. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY. THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON
- ACFR RUBRUM PLATANUS X ACERIFOLIA **BETULA VARIETIES** POPULOUS VARIETIES CARPINUS VARIETIES PRUNUS VARIETIES CRATAEGUS VARIETIES PYRUS VARIFTIES KOELREUTERIA **QUERCUS VARIETIES** LIQUIDAMBER STYRACIFLUA TILIA TOMENTOSA LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES
- PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
- 1 PART PEAT MOSS
- 1 PART COMPOSTED COW MANURE BY VOLUME
- 3 PARTS TOPSOIL BY VOLUME • 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
- A) 2 TABLETS PER 1 GALLON PLANT B) 3 TABLETS PER 5 GALLON PLANT
- C) 4 TABLETS PER 15 GALLON PLANT D) LARGER PLANTS: 2 TABLETS PER 1/2" CALIPER OF TRUNK
- J. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.
- K. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL
- L. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED
- TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE. M. GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
- N. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.
- O. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
- P. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.

### 10. TRANSPLANTING (WHEN REQUIRED) A. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.

- B. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL,
- C. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
- D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
- E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN. F. IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE

# MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.

### A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.

- B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.
- C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH

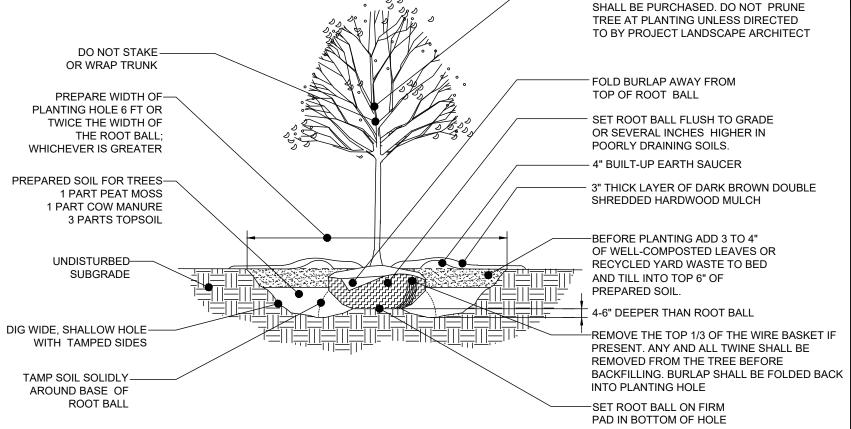
- A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
- B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.
- C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.
- D. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

- A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.
- B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

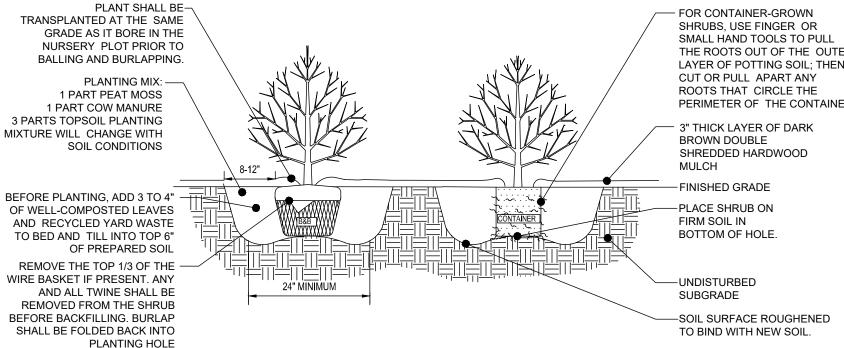
### ONLY TREES WITH ONE MAIN LEADER SHALL BE PURCHASED DO NOT PRUNE TREE AT PLANTING UNLESS DIRECTED TO BY PROJECT LANDSCAPE ARCHITECT DO NOT STAKE OR-FOLD BURLAP AWAY FROM TOP OF WRAP TRUNK ROOT BALL SET ROOT BALL FLUSH TO GRADE OR PREPARE WIDTH OF SEVERAL INCHES HIGHER IN PLANTING HOLE 6 FT OR TWICE THE WIDTH POORLY DRAINING SOILS. OF THE ROOT BALL - 4" BUILT-UP EARTH SAUCER WHICHEVER IS GREATER 3" THICK LAYER OF DARK BROWN DOUBLE SHREDDED HARDWOOD MULCH PREPARED SOIL FOR TREES 1 PART PEAT MOSS 1 BEFORE PLANTING ADD 3 TO 4" PART COW MANURE 3 OF WELL-COMPOSTED LEAVES PARTS TOPSOIL OR RECYCLED YARD WASTE TO BED AND TILL INTO TOP 6" OF PREPARED SOIL. 4-6" DEEPER THAN ROOT BALL UNDISTURBED-SUBGRADE REMOVE THE TOP 1/3 OF THE WIRE BASKET IF PRESENT. ANY AND ALL TWINE SHALL BE DIG WIDE, SHALLOW HOLE-REMOVED FROM THE TREE BEFORE WITH TAMPED SIDES BACKFILLING. BURLAP SHALL BE FOLDED TAMP SOIL SOLIDLY AROUND-**BACK INTO PLANTING HOLE** BASE OF ROOT BALL SET ROOT BALL ON FIRM PAD IN BOTTOM OF HOLE REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

# EVERGREEN TREE PLANTING DETAIL

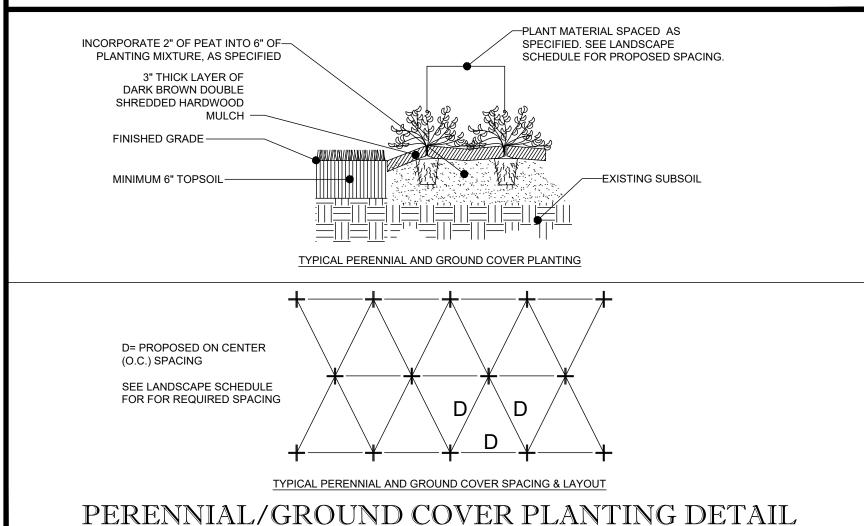
ONLY TREES WITH ONE MAIN LEADER



# REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT. DECIDUOUS TREE PLANTING DETAIL



### REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL NOT TO SCALE



NOT TO SCALE

# SEEDING SPECIFICATIONS

### MATERIAL:

NOTE: TREE STAKING TO BE REMOVED

DO NOT WRAP TRUNK

(1/2" DIA.)

2 PER TREE

EXISTING GRADE-

1 PART PEAT MOSS

3 PARTS TOPSOIL

1 PART COW MANURE

REINFORCED RUBBER HOSE-

PREPARED SOIL FOR TREES-

UNDISTURBED SUBGRADE-

TAMP SOIL SOLIDLY AROUND-

BASE OF ROOT BALL

12 GAUGE GALVANIZED WIRE GUYS TWISTED-

2" DIA. HARDWOOD STAKES 2/3 TREE HT.-

AFTER 2 GROWING SEASONS

- 1.1. SEED MIXTURE MUST BE COMPRISED OF THE FOLLOWING VARIETIES AND AT THE SPECIFIED COMPOSITION:
- 1.1.1. 80% TURF TYPE TALL FESCUE SEED 10% - KENTUCKY BLUEGRASS SEED
- 1.1.3. 10% ANNUAL RYE GRASS SEED

THROUGH THE STRAW LAYER.

- 1.2. INSTALLATION RATES SEED: LAWN SEED SHOULD BE APPLIED AT A RATE OF 7 LBS/1,000 SF LIME: AGRICULTURAL OR PELLETIZED LIME SHOULD BE APPLIED AT SPECIFIED RATE ACCORDING TO SOIL ANALYSIS OR 2 000 LBS PER ACRE
- (46 LBS/1.000 SF) IF NO SOIL ANALYSIS IS PERFORMED FERTILIZER: COMMERCIAL GRADE 12-20-12 SHOULD BE APPLIED AT A RATE OF 250 LBS PER PER ACRE (5.8 LBS/ 1,000 SF) LIQUID OR DRY LIME: LIQUID LIME SHOULD BE APPLIED AT A RATE OF 2.5

GALLONS PER ACRE OR NEUTRA LIME DRY APPLIED AT A RATE OF 80LBS

PER ACRE IN AREAS OF ACIDIC SOILS TO ASSURE GERMINATION AND INITIAL ESTABLISHMENT MULCH: WHEAT, OAT, OR BARLEY STRAW MULCH SHALL BE APPLIED AT A RATE OF 80 LBS PER 1,000 SF. DO NOT INSTALL MULCH SO THICK THAT IT COMPLETELY COVERS THE GROUND. TOPSOIL SHOULD BE VISIBLE

### 2. EXECUTION AND PREPARATION:

- 2.1. A SOIL ANALYSIS SHOULD BE PERFORMED TO ASSESS THE FERTILITY NEEDS AND PH OF THE SOIL. ALL INSTALLATION AREAS SHOULD BE PREPARED TO AGRICULTURAL STANDARD RECOMMENDED BY THE DEPARTMENT OF AGRICULTURE WITHIN THE STATE WHERE THE WORK IS BEING PERFORMED. AGRICULTURAL LIME OR PELLETIZED LIME SHOULD BE ADDED DURING THE GROUND PREPARATION STAGE AT THE RATE RECOMMENDED ACCORDING TO SOIL ANALYSIS.
- 2.2. ALL WEEDS AND UNDESIRABLE PLANTS SHOULD BE REMOVED BEFORE PLANTING BY METHOD OF SPRAYING OR TILLAGE. A NON-SELECTIVE HERBICIDE CAN BE SPRAYED ONE MONTH PRIOR TO PLANTING TO KILL ALI WEEDS AND UNDESIRABLE PLANTS THAT MAY COMPETE WITH THE NEW SEEDLINGS. TILLAGE CAN BE PERFORMED AT LEAST 4 WEEKS PRIOR TO PLANTING AND AGAIN 2 WEEKS AFTER THE INITIAL TILLAGE. THE TILLAGE PROCEDURE CAN BE ADVANTAGEOUS IF LARGE AMOUNTS OF ORGANIC
- DEBRIS ARE PRESENT ON THE INSTALL ATION AREAS 2.3. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED
- OF ALL DEBRIS LARGER THAN 2" DIAMETER. 2.4. AREAS TO BE PLANTED SHOULD BE ROLLED WITH A CULTI-PACKER. TURF ROLLER, OR SIMILAR DEVICE TO FIRM THE SEEDBED. THIS PROCESS HELPS ACHIEVE THE DESIRED FIRMNESS. SOIL SHOULD BE FIRMED TO 85% OF

# 3. INSTALLATION:

AND RECOMMENDATIONS

- 3.1. STRICTLY COMPLY WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS
- 3.2. EQUIPMENT USED TO SPREAD SEED SHOULD HAVE SUFFICIENT CAPACITY TO HOLD AND AGITATE SEED EVENLY IN A CYCLONE OR DROP PATTERN. HYDROSEEDING MAY ALSO BE PERFORMED WITH THE ENGINEER/ARCHITECT'S APPROVAL.
- 3.3. SEED MAY NEED TO BE APPLIED AT A HALF RATE IN ALTERNATING DIRECTIONS TO ENSURE AN EVEN COVERAGE OF SEED
- LIQUID LIME OR NEUTRA LIME DRY SHOULD BE TOPICALLY APPLIED TO AREAS WITH ACIDIC SOILS TO ASSIST THE SEED GERMINATION AND VEGETATION GROWTH DURING THE FIRST 90 DAYS. LIQUID LIME SHOULD BE APPLIED AT A RATE OF 2.5 GALLONS PER ACRE OR NEUTRA LIME DRY AT A RATE OF 80LBS PER ACRE.
- RECOMMENDED RATE DETERMINED BY THE INITIAL SOIL ANALYSIS. IF NO SOIL ANALYSIS IS AVAILABLE EVENLY APPLY 12-20-12 STARTER FERTILIZER AT A RATE OF 250LBS PER ACRE (5.8LBS/1000 SQUARE FEET). 3.6. A ROLLED EROSION CONTROL PRODUCT CAN BE APPLIED OVER THE TOP OF

3.5. FERTILIZER SHOULD BE SPREAD EVENLY OVER THE SEEDED AREAS AT THE

SEED IN STEEP SLOPE SITUATIONS TO HELP PREVENT SEED FROM WASHING AND REINFORCE VEGETATION THROUGH ESTABLISHMENT. (FOLLOW REC PRODUCT MANUFACTURER RECOMMENDATIONS.)

# 4. MAINTENANCE

OTHER HAZARDS

- 4.1. FREQUENT LIGHT IRRIGATION WILL NEED TO BE APPLIED TO SEEDED AREAS IF NO NATURAL RAIN EVENTS HAVE OCCURRED WITHIN 2 WEEKS OF SEEDING. AFTER SEED GERMINATION HAS OCCURRED AND PLANTS ARE VISIBLE THE FREQUENCY OF IRRIGATION CAN BE CUT BACK WITH HEAVIER
- 4.2. REPAIR ALL SEED WASHINGS AND EROSION.

APPLICATION RATES.

# OWNER MAINTENANCE RESPONSIBILITIES

- UPON OWNER'S (OR OWNER CONTRACTOR'S) COMPLETION OF LANDSCAPING WORK, THE OWNER IS FULLY RESPONSIBLE FOR ALL FUTURE MAINTENANCE, CARE, UPKEEP, WATERING, AND TRIMMING OF ALL INSTALLED VEGETATION, PLANTS, TREE, BUSHES, SHRUBS, GRASSES, GRASS, ORNAMENTAL PLANTS AND FLOWERS, FLOWERS, GROUND COVER, AND LANDSCAPING, INCLUDING ALL LANDSCAPE ISLANDS AND AREAS ADJACENT OR PART OF THE LANDSCAPED AREAS. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:
- TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY BRANCHES MUST BE LIMBED UP TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PEDESTRIAN SURFACES) OR PRUNED BACK TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH OF TRAVEL
- TREES WITHIN VEHICULAR SIGHT LINES, AS ILLUSTRATED ON THE LANDSCAPE PLAN, ARE TO BE TRIMMED TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PAVED, TRAVELED SURFACES), OR AS OTHERWISE INDICATED ON THE PLANS.
- VEGETATIVE GROUND COVER, SHRUBS AND ORNAMENTAL PLANTS AND GRASSES MUST BE TRIMMED SO THAT NO PORTION OF THE PLANT EXCEEDS 30 INCHES ABOVE GRADE (OF ALL PAVED, TRAVEL SURFACES) ALONG AND WITHIN THE SIGHT LINES OF PARKING LOTS AND INGRESS-EGRESS WAYS.

FALLEN PLANT FLOWERS, FRUIT, SEEDS AND DEBRIS DROPPINGS ARE TO BE REMOVED IMMEDIATELY

FROM VEHICULAR AND PEDESTRIAN TRAFFIC AREAS TO PREVENT TRIPPING, SLIPPING OR ANY

THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE.

# REVISIONS FV DATE COMMENT 10/23/2020 PER TOWN COMMENTS JO

-ONLY TREES WITH ONE MAIN LEADER

SHALL BE PURCHASED. DO NOT PRUNE

TO BY PROJECT LANDSCAPE ARCHITECT

TREE AT PLANTING UNLESS DIRECTED

-SET ROOT BALL FLUSH TO GRADE

OR SEVERAL INCHES HIGHER IN

POORLY DRAINING SOILS.

-3" THICK LAYER OF DARK

HARDWOOD MULCH

OF PREPARED SOIL

BROWN DOUBLE SHREDDED

-4" BUILT-UP EARTH SAUCER

BACK INTO PLANTING HOLE

-SET ROOT BALL ON FIRM

PAD IN BOTTOM OF HOLE

TREE PLANTING ON SLOPE DETAIL

NOT TO SCALE

BEFORE PLANTING ADD 3 TO 4" OF

REMOVED FROM THE TREE BEFORE

WELL-COMPOSTED LEAVES OR RECYCLED

YARD WASTE TO BED AND TILL INTO TOP 6

-REMOVE THE TOP 1/3 OF THE WIRE BASKET

IF PRESENT. ANY AND ALL TWINE SHALL BE

BACKFILLING. BURLAP SHALL BE FOLDED

03/27/2020 PER TOWN COMMENTS | JQF

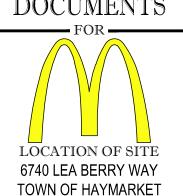


NOT APPROVED FOR CONSTRUCTION

DRAWN BY CHECKED BY:

SCALE:

AS NOTED



PRINCE WILLIAM COUNTY, VIRGINIA



8 BLACKWELL PARK LANE, SUITE 20 **WARRENTON, VIRGINIA 20186** Phone: (540) 349-4500 Fax: (540) 349-0321 VA@BohlerEng.com



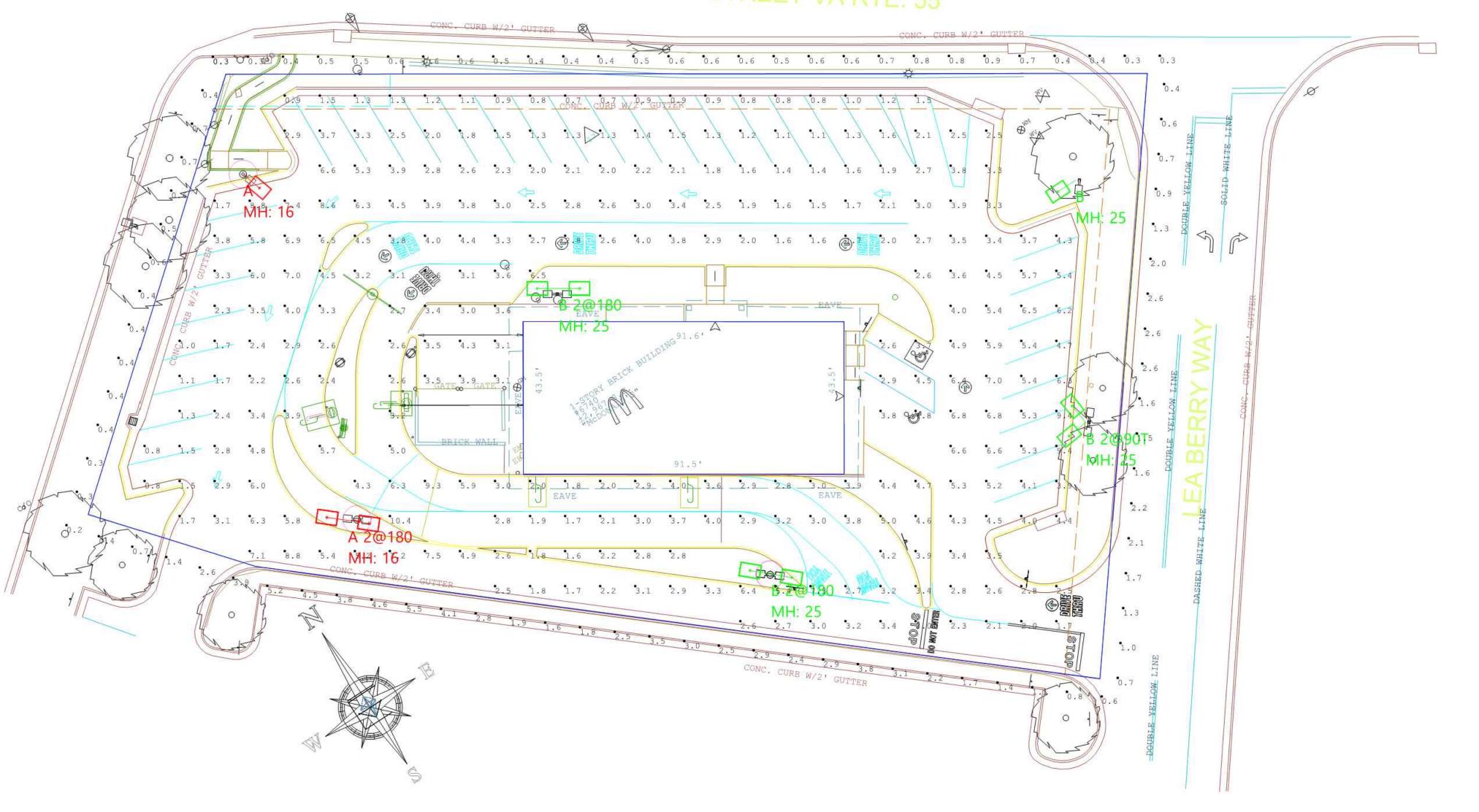
LANDSCAPE NOTES AND DETAILS

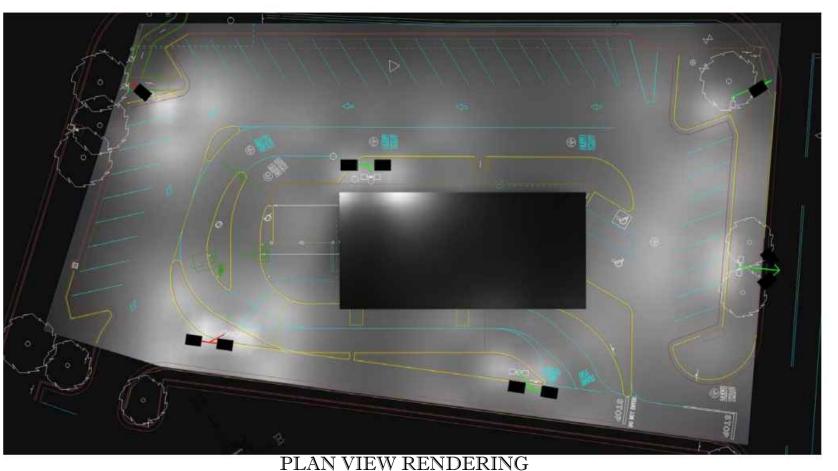
INGS\PLAN SETS\SITE PLAN DOCUMENTS\V175005SD0.DWG PRINTED BY: MGIBSON, 10,22,20 @ 4:45 PM, LAST SAVED BY: MGIBSON.

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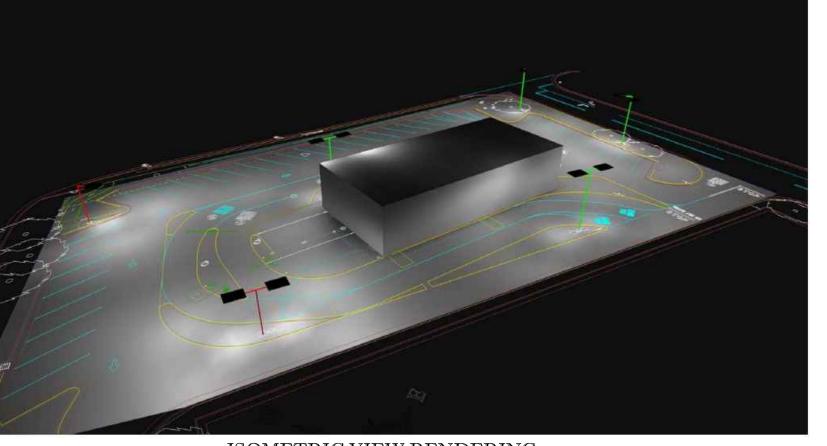
Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PAVED SURFACE READINGS	Illuminance	Fc	3.41	10.4	0.7	4.87	14.86
PROPERTY LINE READINGS	Illuminance	Fc	1.41	5.5	0.2	7.05	27.50

# WASHINGTON STREET-VA RTE. 55





NOT TO SCALE



ISOMETRIC VIEW RENDERING NOT TO SCALE

# FOR REFERENCE ONLY

# 2100 Golf Road, Suite 460, Rolling Meadows, IL 60008 1-800-544-4848

1. THIS LIGHTING DESIGN IS BASED ON INFORMATION SUPPLIED BY OTHERS TO SECURITY LIGHTING SYSTEMS. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.

3, CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.

4. THIS LAYOUT MAY NOT MEET TITLE 24 OR LOCAL ENERGY REQUIREMENTS. IF THIS LAYOUT NEEDS TO E COMPLIANT WITH TITLE 24 OR OTHER ENERGY REQUIREMENTS, PLEASE CONSULT FACTORY WITH SPECIFIC DETAILS REGARDING PROJECT REQUIREMENTS SO THAT REVISIONS MAY BE MADE TO THE DRAWING.

rawn by BV POINT-BY-POINT FOOTCANDLE PLOT FOR MCDONALDS 6740 LEA BERRY WAY HAYMARKET, VA NATIONAL STORE NUMBER

SCALE 1"=20' 0"

25126 DRAWING NUMBER

0/20/2020 41886A-Rev2.AGI

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES

Luminai	re Sche	dule	11.			90		A3 10	
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	EPA	Mtg Height	Pole Type
-	1	A	SINGLE	0.900	VP-L-80NB-180-5K-T4	180	1.2	16	SES-13-40-1-GL-TA-xx (4")
-	1	A 2@180	BACK-BACK	0.900	VP-L-80NB-180-5K-T4	180	2.4	16	SES-13-40-1-GL-TA-xx (4")
-	1	В	SINGLE	0.900	VP-L-80NB-180-5K-T4	180	1.2	25	EXISTING
	2	B 2@180	BACK-BACK	0.900	VP-L-80NB-180-5K-T4	180	2.4	25	EXISTING
- 8	1	B 2@90T	2 @ 90 DEGREES	0.900	VP-L-80NB-180-5K-T4	180	2.4	25	EXISTING

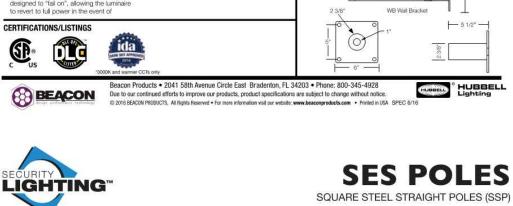
\* PROJECT WIND LOAD CRITERIA BASED ON: ASCE 7-10 WIND SPEEDS (3-SEC PEAK GUST MPH) 50 YEAR MEAN RECURRENCE INTERVAL Wind Load 90MPH Allowed EPA 14.2

(New Poles Only)

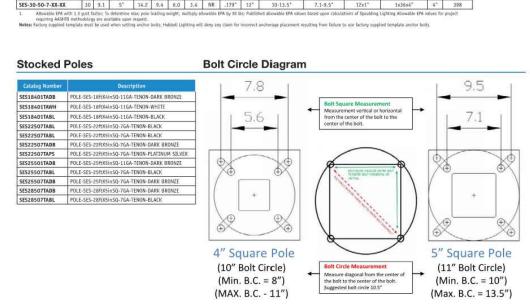
THIS DRAWING MEETS OR EXCEEDS McDONALDS CURRENT ILLUMINATION SPECIFICATIONS OF A 3-4 FOOTCANDLE AVERAGE, UNLESS SUPERSEDED BY OTHER REQUIREMENTS,

Packet Pg. 45











All listed SES poles use 27701349904 paper template It's the contractors' responsibilty to ensure that new poles will fit existing bases

> weight tables shown for the style, material, and height pole required. The maximum allowable must be equal to or exceed the

Maintenance: The facility owner's/manager's regular scheduled

vibration dampers, special corrosion, foundation settlement, excessive

### Poles should initially be selected, according to lighting application POLE SELECTION PROCEDURE needs, and second, but equally important, according to the structural With an understanding of the parameters for pole selection, you requirements imposed on the pole by the lighting fixtures, can follow this simple step-by-step procedure and, with confidence, bracketry and wind. Before attempting to make this selection, it select a pole to meet your particular requirements. would be helpful to have an understanding of the terminology, 1. Determine the site location and steady wind velocity by referring to

such as steady or sustained wind velocity, gust velocity, EPA, special wind region, and maximum weight. Then a step-by-step the appropriate isotach map. If the steady wind exceeds those listed, procedure can be followed to select the proper pole for your consult factory. The isotach maps are provided for reference only. particular requirements. Consult local authorities to determine the maximum velocities in

### STEADY WIND OR SUSTAINED WIND VELOCITY This is the maximum steady wind velocity expressed in MPH likely 2. Total the EPA for the required luminaires and bracketry. to occur in a specific location. Refer to isotach wind map on the next page for the wind velocity in your location. Isotach maps are 3. Total the **weight** of the luminaires and bracketry.

provided for reference only. Consult local authorities to determine the maximum velocities in your area. 4. Compare steps 2 and 3 with the maximum allowable EPA and Our isotach maps represent two different methods of addressing wind speed gusts. We have used the 'fastest-mile' wind speeds for years.

These have a 1.3 gust factor in the calculations to account for gusting. POLE SELECTION CONCERNS As technology has improved the ability to accurately measure wind Caution: These selection methods are guidelines only. Hubbell speeds for short durations, the gusts associated to a sustained wind Lighting assumes no responsibility for selection and recommends speed have lessened. We are now moving toward '3-second-gust' wind you consult qualified professionals for verification of overall system speed maps. The results are typically higher steady/sustained wind design, site suitability, foundation considerations and applicable speeds with lower factors for gusts. The gust factors are different depending on the wind speed map selected.

EFFECTIVE PROJECTED AREA Effective Projected Area (EPA) is the exposed surface area of a fixture and bracket multiplied by a shape factor which varies depending on the shape of the fixture and bracket. For example, a large rectangular fixture will present more resistance to the wind than will a round or cylindrical shape.

SPECIAL WIND REGIONS Many locations such as mountainous areas, coastal areas and areas or any items that can add excessive wind or mechanical load to surrounding the Great Lakes exhibit wind velocities considerably higher than the surrounding areas. Consult local authorities to determine maximum wind velocities and select equipment accordingly.

MAXIMUM WEIGHT weight is based on 30 pounds per square foot of EPA. Weight exceeding the 30 pound per foot of EPA may reduce the allowable shaft deflection and vibration for all lighting poles. Immediate repair EPA rating of the pole.

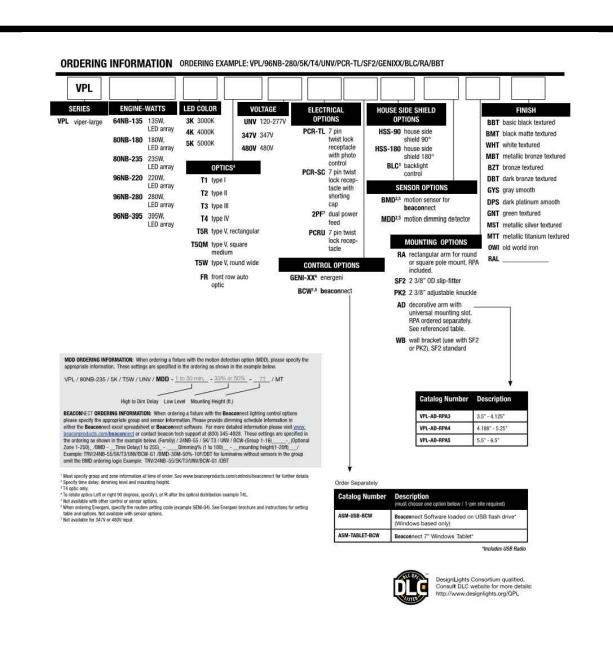
maintenance program must include initial and regular follow-up inspections for structural damage, broken welds, tampering, nut loosening, missing wire covers, dangling electrical wiring, internal deflection and vibration for all lighting poles. Immediate repair or replacement may be necessary. Overloading: Do not overload poles by attaching flags, banners,

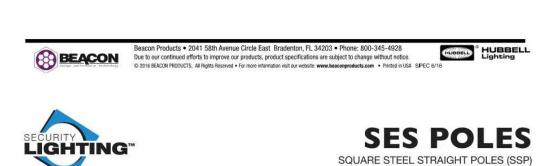
Observation: Installation and local area conditions can dramatically affect lighting pole performance. Excessive vibration may result from some wind and mounting conditions. Only individuals with local knowledge, who have observed or inspected the site can effectively This is the maximum allowable weight based on EPA loads. The evaluate site specific issues. Consult the factory for information on

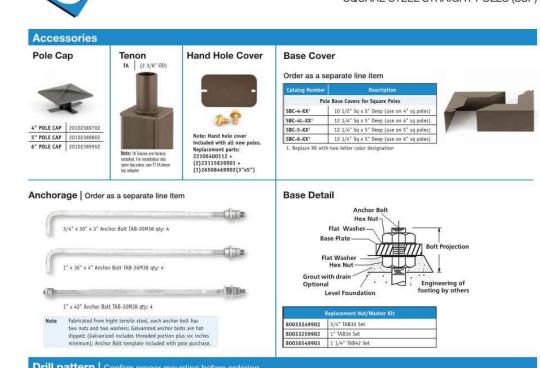
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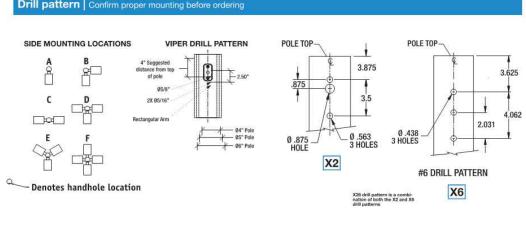
or replacement may be necessary. Web: <u>www.securitylighting.com</u>
2100 Golf Road, Suite 460, Rolling Meadows, IL 60008-4704
Phone: 1-800-LIGHT IT, 1-800-544-4848, Fax: 847-279-0642













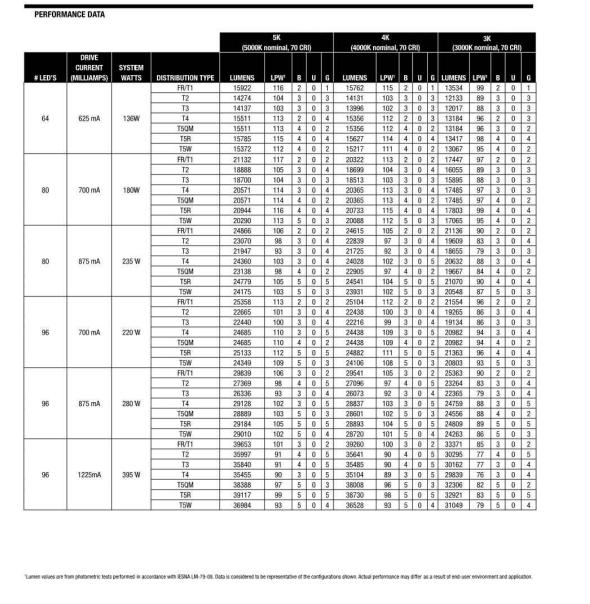
# **SES POLES** SQUARE STEEL STRAIGHT POLES (SSP)



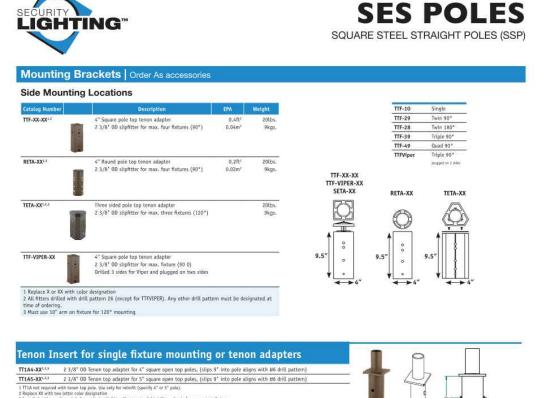
• Use caution in determining wind velocities in special wind areas such as mountainous areas, coastal areas and areas surrounding Isotach map is provided for reference only. Consult local authorities to determine the maximum velocities in your area Note The maximum allowable EPA and weights are listed for each pole; The EPA and weights are listed in this Selection Guide for each luminaire and bracket

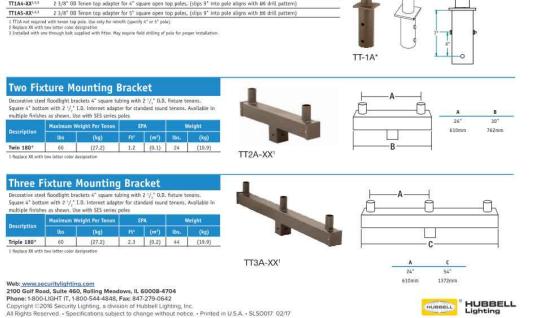


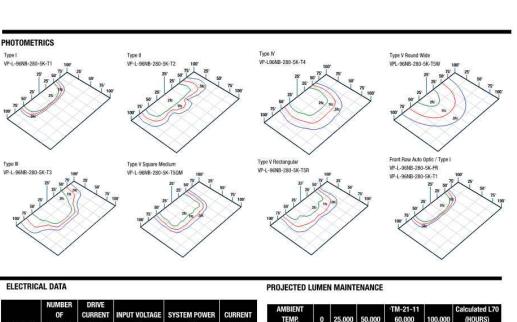
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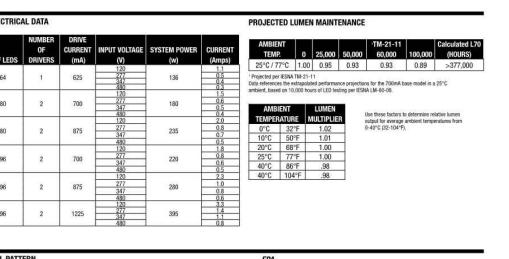


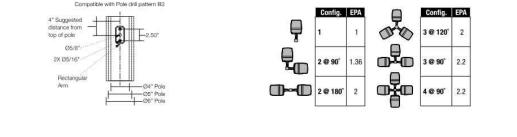






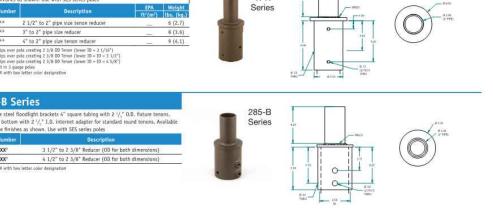










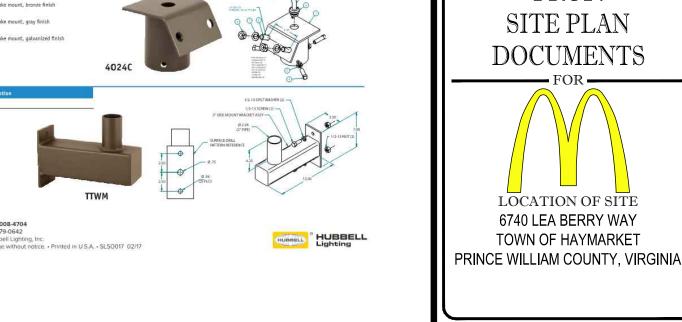






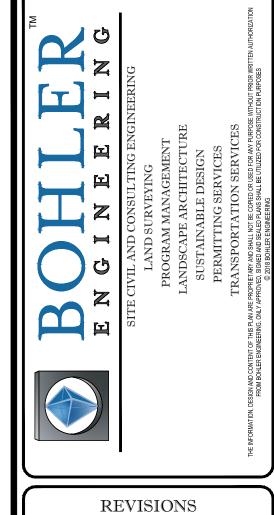


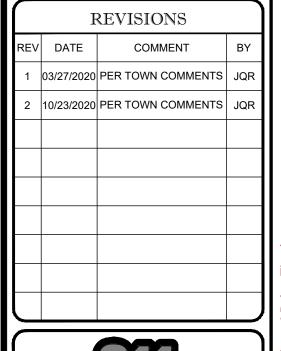






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NOT APPROVED FOR CONSTRUCTION

JQR

AS NOTED

DRAWN BY: CHECKED BY: SCALE: CAD I.D.

> **DOCUMENTS** LOCATION OF SITE 6740 LEA BERRY WAY



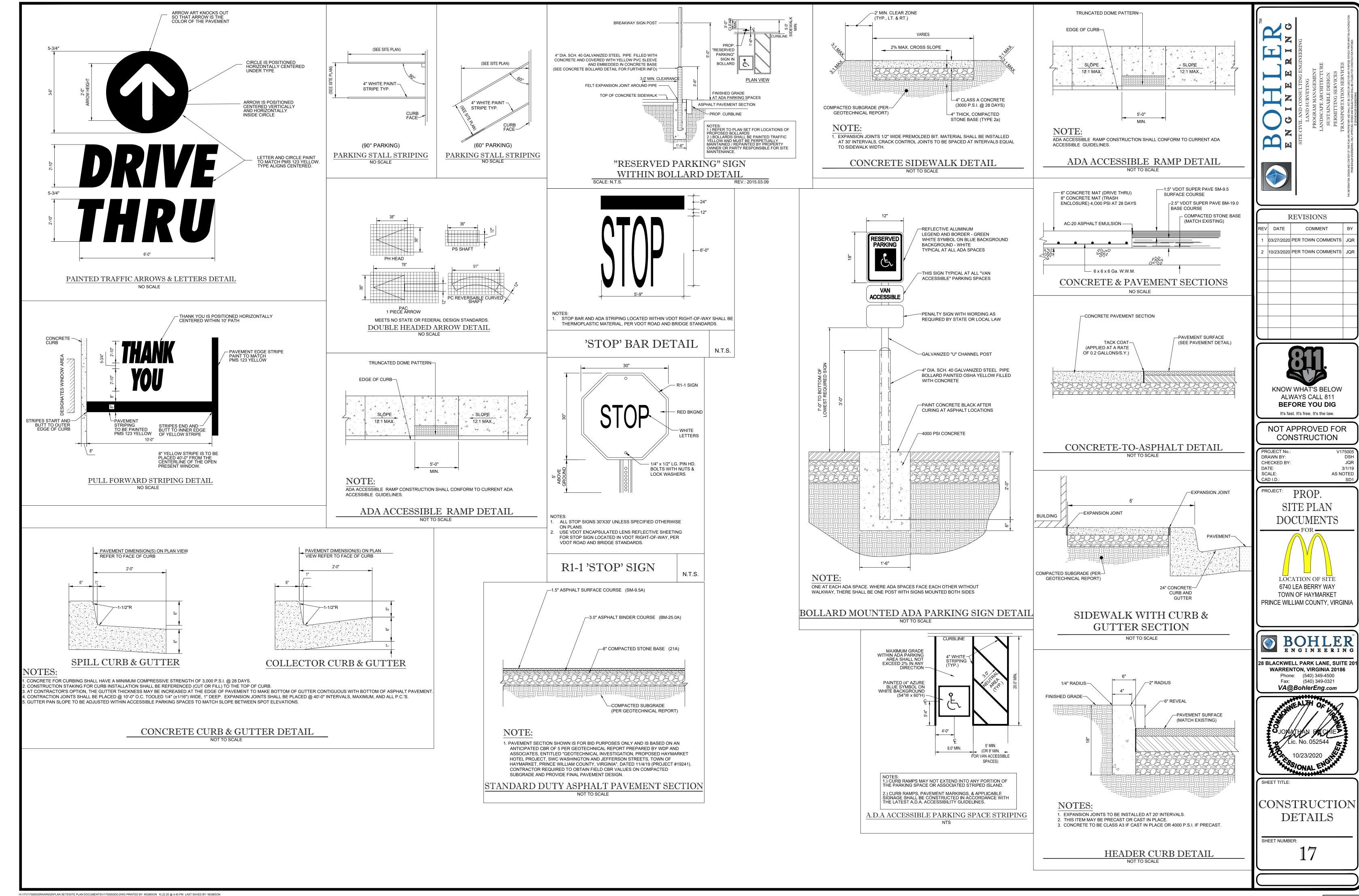
**WARRENTON, VIRGINIA 20186** Phone: (540) 349-4500 Fax: (540) 349-0321 VA@BohlerEng.com



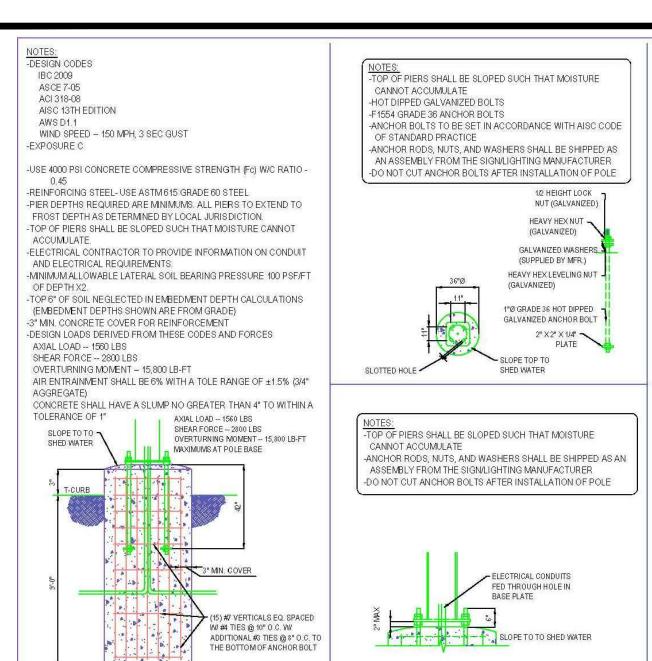
SHEET TITLE LIGHTING DETAILS

SHEET NUMBER:

H:\17\V175005\DRAWINGS\PLAN SETS\SITE PLAN DOCUMENTS\V175005SD0.DWG PRINTED BY: MGIBSON 10.22.20 @ 4:45 PM LAST SAVED BY: MGIBSON



Packet Pg. 47



GENERAL NOTES:
-THE FOLLOWING CODES WERE USED IN DESIGN: -IBC 2009 -ASCE 7-05 -AISC 13TH EDITION

-WIND SPEED 150 MPH, 3 SEC GUST. -DESIGN LOADS DERIVED FROM THESE CODES AND FORCES -AXIAL -1560 LBS -SHEAR - 2800 LBS

-STEEL ANGLES, CHANNELS, STRUCTURAL SHAPES AND PLATES: STM A36 -REINFORCEMENT: GRADE 60 -NUTS: A563DH OR A194-2H -WASHERS: A36 -USE HOT DIPPED GALVANIZED BOLTS AND FASTENERS -MOMENT - 15,800 LB-FT FOOTING EXCAVATIONS ARE TO BE CLEAR OF WATER AND FOREIGN MATTER -ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM BEFORE PLACING CONCRETE THE SIGN/LIGHTING MANU FACTURER -MINIMUM ALLOWABLE LATERAL SOIL BEARING PRESSURE OF 100 PSF/FT (X2) -SITE SOIL CONDITIONS TO BE CONFIRMED BY GEOTECHNICAL ENGINEER. II ASSUMED SOIL CONDITIONS ARE NOT PRESENT, FOUNDATION SHALL BE

DESIGNED BY A LICENSED STRUCTURAL ENGINEER TAKING INTO ACCOUNT ACTUAL SITE SOIL CONDITIONS. -TOP 6" OF SOIL NEGLECTED IN EMBEDMENT DEPTH CALCULATIONS (EMBEDMENT DEPTHS SHOWN ARE FROM GRADE). -ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS. ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED RESIDUAL SOIL AND/OR
ENGINEERED EARTH FILL COMPACTED TO 98% OF ITS MAXIMUM DRY DENSITY AS

-DETAILS AND STRUCTURAL MEMBERS NOT SHOWN DESIGNED
-ANY MODIFICATIONS ARE TO BE VERIFIED BY AN ENGINEER.

-ALL PIERS TO EXTEND TO FROST DEPTH AS DETERMINED BY LOCAL -TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE. -MINIMUM CONCRETE STRENGTH (Fc) SHOULD CONFORM WITH MCDONALDS CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A OR MINIMUM OF 4000 PSI W/C 0.45 -USE OF ADMIXTURES SHALL CONFORM TO MCDONALDS CAST-IN-PLACE CONCRETE SPECIFICATION SECTION 2.6 OR MINIMUM AS SPECIFIED IN THIS -AIR ENTRAINMENT SHALL CONFORM WITH MCD ONALDS CAST-IN-PLACE CONCRETE SPECIFICATION SECTIONS 2.6-A & 2.13-A OR MINIMUM AS SPECIFIED IN -WATER CONTENT RATION SHALL CONFORM TO MCDONALDS CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A OR MINIMUM AS -FOUNDATION CONCRETE TO BE TESTED PER MCDONALDS CAST-IN-PLACE

CONCRETE SPECIFICATIONS SECTION 3.14 OR MINIMUM AS SPECIFIED IN THIS

-PROVIDE A MINIMUM3" OF CONCRETE COVER OVER ALL EMBEDDED STEEL.

CONCRETE SPECIFICATIONS SECTIONS 3.2 & 3.5.

-REINFORCEMENT PLACEMENT SHALL CONFORM TO MCDONALDS CAST-IN-PLACE

-DO NOT PLACE POLES ON CRETE UNTIL CONCRETE HAS CURED PER MCDONALDS

ANCHOR BOLTS TO BE SET IN ACCORDANCE WITH AISC CODE OF STANDARD

-NO FIELD HEATING TO BEND STEEL SHALL BE ALLOWED WITHOUT ENGINEER'S -DO NOT CUT ANCHOR BOLTS AFTER INSTALLATION OF POLE -AFTER INSTALLATION, ALL EXPOSED STEEL SHALL BE PAINTED WITH AN ENAMEL PAINT TO INHIBIT CORROSION. -ANY FIELD WELDING SHALL FIRST BE VERIFIED BY ENGINEER AND PERFORMED IN ACCORDANCE WITH AWS D1.1. -REFER TO SIGN MANUFACTURER DRAWINGS AND INSTRUCTIONS FOR ADDITIONAL CONTRACTOR (INSTALLER) IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION IN REGARDS TO JOBSITE SAFETY. -DETAILS AND STRUCTURAL MEMBERS NOT SHOWN DESIGNED BY OTHERS.

N.T.S.

STEEL PIPE SECTION: ASTM A53 PR A252 TYPE E GRADE B

HSS SQUARE/RECTANGULAR SECTIONS: ASTM A500 GRADE B

HSS ROUND SECTION: ASTM A500 GRADE B (Fy = 42ksi)

-CONNECTION BOLTS A325

ORDER POINT FOUNDATION DETAIL

CAST-IN-PLACE CONCRETE SPECIFICATION, SECTION 3.11-E.

ENSURE TOP OF-—ELECTRICAL DESIGN BY FOUNDATION MATCHES TOP OF ADJACENT CURB <del>- . || || -</del> 2'-0" DIA.

NOTES:

1. REINFORCING STEEL TO BE ASTM 615 GRADE 60 STEEL.

OUTDOOR DISPLAY MENU BOARD FOUNDATION DETAIL

SCALE: N.T.S.

OTHERS (MIN. 3 - 3/4"

SLOPE TO SHED WATER

—FINISHED GRADE

-UNDISTURBED SOIL

-(4) NO. 3 TIES, 3" C/C

CONTRACTOR

—(2) NO. 3 TIES, 6" C/C

SUPPLIED BY GENERAL

SUPPLIED BY GENERAL

-(6) (4'-4") #6 BARS (10"

FOUNDATION, 4,000

SPACING) SUPPLIÈD BY

GENERAL CONTRACTOR

-(4) 3/4" DIA.

-2"x2"x1/4"

ANCHOR RODS,

EMBEDDED 18'

STEEL PLATE

CONTRACTOR

CONTRACTOR

-CONCRETE

PSI @ 28 DAYS

—NO. 3 TIES, 12" C/C

SUPPLIED BY GENERAL

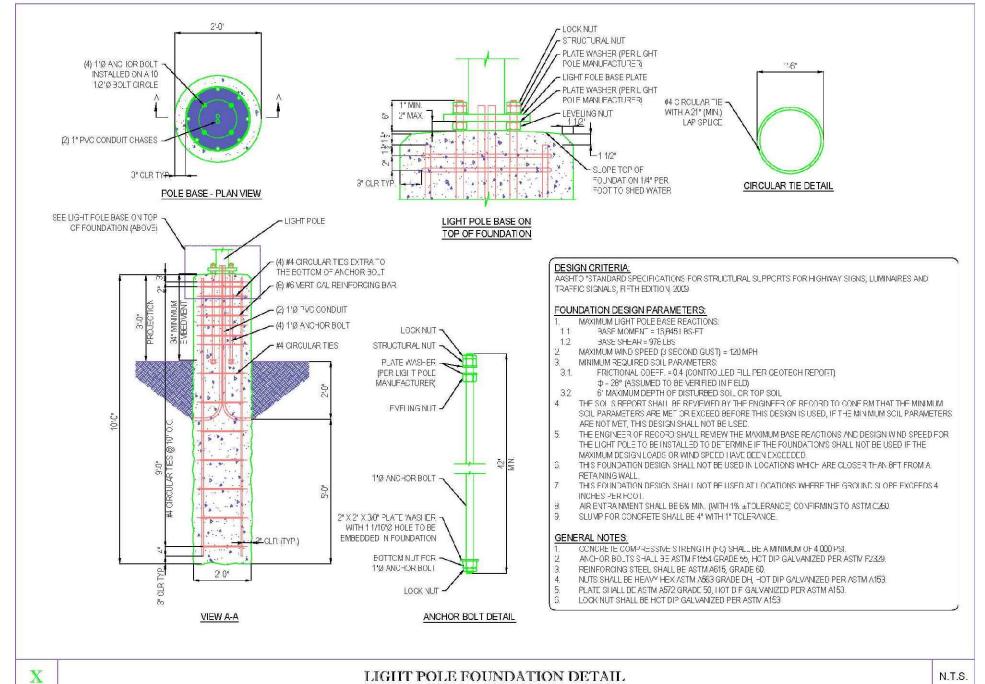
CONDUITS)

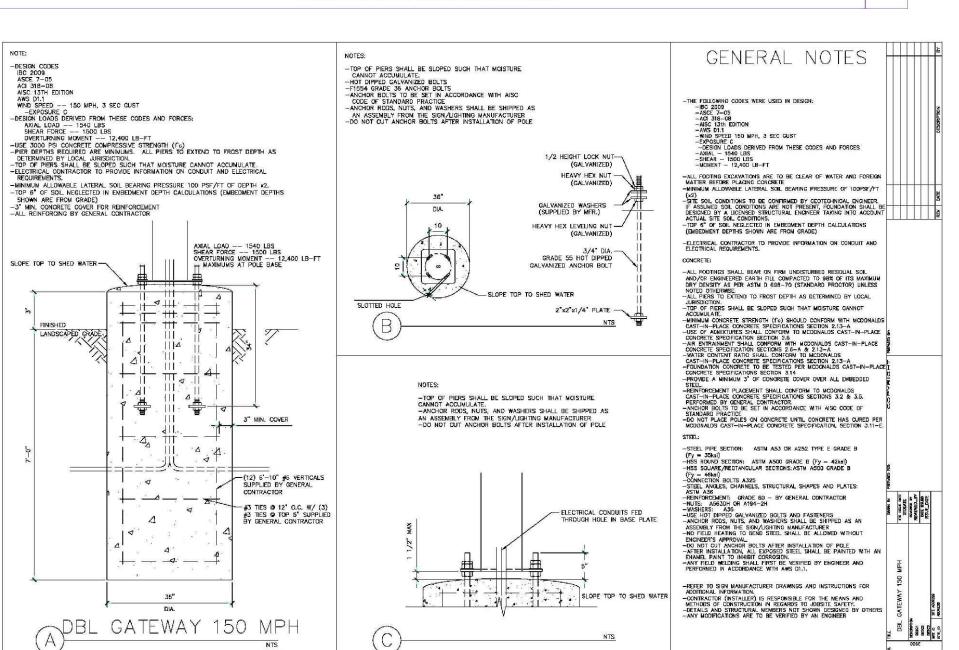
ENSURE TOP OF-ELECTRICAL DESIGN BY **FOUNDATION** OTHERS (MIN. 3 - 3/4" MATCHES TOP OF CONDUITS) ADJACENT CURB SLOPE TO SHED WATER -FINISHED GRADE [] [] 🗸 🗛 -UNDISTURBED SOIL -(4) NO. 3 TIES, 3" C/C SUPPLIED BY GENERAL CONTRACTOR -(4) 3/4" DIA ANCHOR RODS, EMBEDDED 18" -2"x2"x1/4" STEEL PLATE —(2) NO. 3 TIES, 6" C/C SUPPLIED BY GENERAL CONTRACTOR -CONCRETE FOUNDATION, 4,000 PSI @ 28 DAYS -NO. 3 TIES, 12" C/C SUPPLIED BY GENERAL CONTRACTOR (6) (4'-4") #6 BARS (10" SPACING) SUPPLIED BY GENERAL CONTRACTOR 2'-0" DIA.

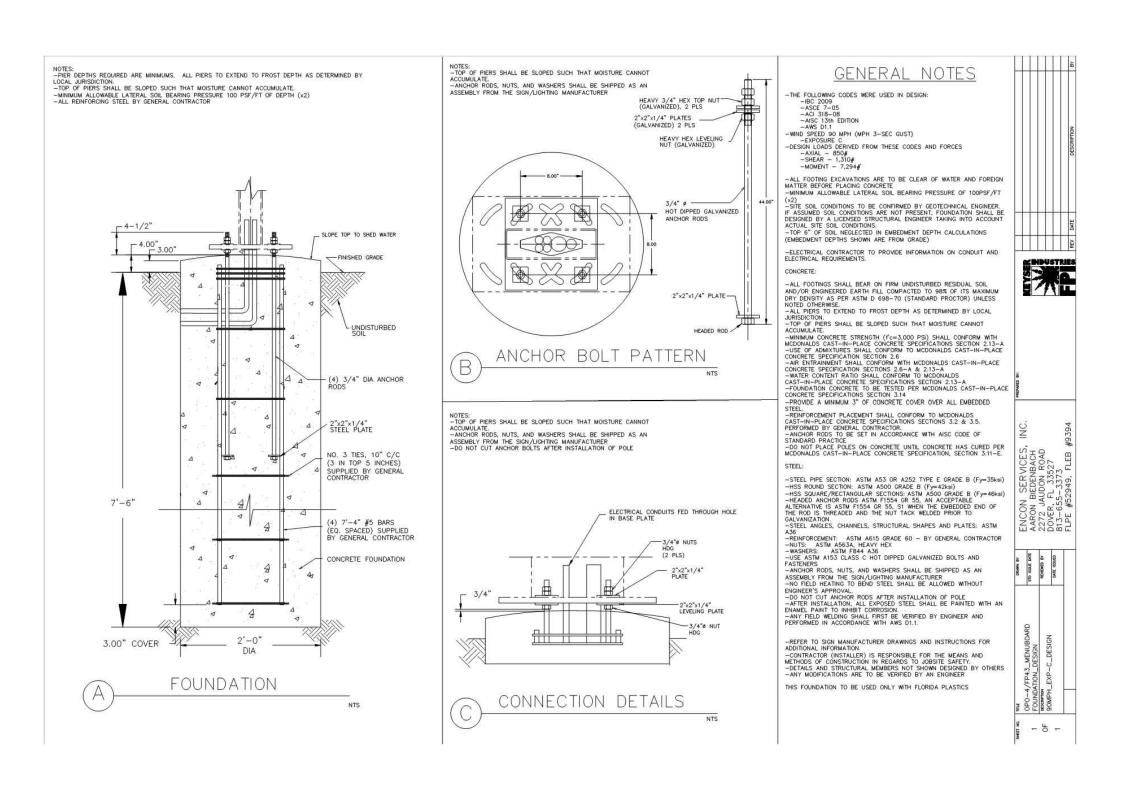
1. REINFORCING STEEL TO BE ASTM 615 GRADE 60 STEEL.

PRE-BROWSE MENU BOARD FOUNDATION DETAIL

SCALE: N.T.S.







ALL DETAILS ON THIS SHEET WERE PROVIDED BY MCONDALD'S AND ARE FOR INFORMATIONAL PURPOSES ONLY. BOHLER ENGINEERING SHALL BE HELD HARMLESS IN THE EVENT OF ERRONEOUS INFORMATIONED CONTAINED WITHIN THESE DETAILS AND/OR STRUCTURAL FAILURE.

REVISIONS REV DATE COMMENT 03/27/2020 PER TOWN COMMENTS | JQF 10/23/2020 PER TOWN COMMENTS JQ



NOT APPROVED FOR CONSTRUCTION

JQR

3/1/19

AS NOTED

DRAWN BY: CHECKED BY:

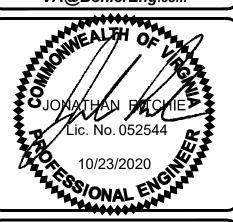
SCALE:

CAD I.D.: **PROJECT DOCUMENTS** 

LOCATION OF SITE 6740 LEA BERRY WAY TOWN OF HAYMARKET PRINCE WILLIAM COUNTY, VIRGINIA



Phone: (540) 349-4500 Fax: (540) 349-0321 VA@BohlerEng.com



CONSTRUCTION DETAILS

SHEET TITLE

SHEET NUMBER: 18

# COUNTY OF PRINCE WILLIAM DEPARTMENTS OF TRANSPORTATION / PUBLIC WORKS

# UNIT PRICE LISTS FOR PERFORMANCE BONDS, LANDSCAPING ESCROWS AND SILTATION & EROSION CONTROL ESCROWS

UNIT PRICE LIS	15 FOR PERFORMANCE BUNDS, LANDSCAP	ING ESCROWS AND SILIATION & EROSION C	ON I ROL ESCROWS
REVISED: March 15, 2017 EFFECTIVE DATE: March 15, 2017	J. MISCELLANEOUS DRAINAGE ITEMS		7. LANDSCAPING ESCROWS
PROJECT NAME : McDonald's - Haymarket, VA	QTY COST	QTY COST Guardrail @\$ 39 LF	A. DECIDUOUS TREES  QTY  COST
	Box Culvert @ \$ 727 CY	GR-7 NCHRP 350 @ \$ 2,686 EA	5' - 6' @ \$ 165 EA
P.W.C. FILE # : DATE PREPARED : Mar 01, 2019	Energy Dissipater	GR-9 @ \$ 3,640 EA	1" - 1.5 " or 1.5" - 2"
Note: This form is to be used to estimate performance bond, landscaping escrow and soil erosion escrow prices posted with Prince William County. These prices do not include items that are to be		Street Name Sign @ \$ 410 EA Traffic Control Sign @ \$ 392 EA	3" - 3.5 " or 3.5" - 4" @ \$ 450 EA
bonded separately with the Virginia Department of Transportation.	Ditches Roadside standard ditches @\$ 7.00 LF	Bus Stop Sign @ \$ 342 EA Bus Shelter @ \$ 17,284 EA	B. EVERGREEN TREES
1. MOBILIZATION/DEMOBILIZATION OF CONSTRUCTION EQUIPMENT	(Seed, fertilize and mulch)	Traffic Signal @ \$ LUMP SUM	5' - 6' @ \$ 125 EA 6' - 7' @ \$ 175 EA
Mobilization/Demobilization @ LUMP SUM	Paved Ditches @ \$ 8.00 SF	Bike Rack @ \$ 305 EA	7' - 8' @ \$ 300 EA
2. STORM DRAINAGE	Filter Cloth Fabric & Gabion Stone   @ \$ 14.00 SF	Roadside Delineators (ED-1)	8' - 10' @ \$ 400 EA
A. STRUCTURES	Grouted Rip-Rap @ \$ 9.00 SF Paved Flume @ \$ 10.00 SF	Pavement Marking (Paint) @\$ 2.00 SF Pavement Marking (Thermoplastic) @\$ 6.00 SF	C. SHRUBS
QTY COST QTY COST	Flush the Drainage System @ \$ 250 HR 8 hours Min.	Traffic Barricade (TB-1) @ \$ 1,500 EA  Street Lighting @ \$ 5,500 EA	57
DI-1 @\$ 3,970 EA JB-1 @\$ 6,000 EA	SUB-TOTAL \$ -	Utilities Relocation \$40,000 Min. (Or provide an estimate from utility company)	D. ORNAMENTAL
DI-3 @ \$ 4,500 EA DI-7 @ \$ 4,000 EA DI-12 @ \$ 4,000 EA		VDOT Street Acceptance Package @ \$ 5,000	ACADA SI SHAPANIS POPULISA SISTEMA
MH-1 @ \$ 3,000 EA MH-2 @ \$ 3,500 EA	3. CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY AND/OR PRIVATE INGRESS/EGRESS EASEMENTS	P.E. Certified "As-Built" Plans @ \$ LUMP SUM	1 Gal. (#1) @ \$ 10 EA 3 2 Gal. (#2) @ \$ 22 EA \$ 66
B. CONCRETE PIPE	A. SITE WORK	SUB-TOTAL \$ 170	3 Gal. (#3) @ \$ 30 EA
12"	Clear & Grub @ \$ 11,860 AC	4. SANITARY SEWER & WATER LINE CONSTRUCTION	E. PERENNIAL 18" - 24" @ \$ 9 EA
18" @\$ 50 LF 48" @\$ 150 LF	Excavation @ \$ 26.00 CY	WATERMAIN (Exclusive of Fire Hydrants)	F. REFORESTATION
24" @\$ 60 LF 60" @\$ 240 LF	Embankment (haul off) @ \$ 36.00 CY		
27" @ \$ 65 LF 66" @ \$ 300 LF 30" @ \$ 75 LF 72" @ \$ 350 LF	Final Grading @ \$ 5,000.00 AC	4" DIP	# of Acres @ \$ 11,700 AC
33" @ \$ 110 LF	Slope Stabilization - Hydroseeding @ \$ 1.00 SY	8" DIP @\$ 78 LF	TOTAL LANDSCAPE ESCROW AMOUNT \$ 4,131
C. END WALLS	Slope Stab Jute Mesh, Matting, Blankets, etc. @\$ 6.00 SY	16" DIP @\$ 140 LF	7. SILTATION AND EROSION CONTROL ESCROWS
12"     @ \$ 900 EA 36"     @ \$ 2,800 EA 15"     @ \$ 1,100 EA	(Between 2:1 to 3:1) \$200 Min.	4" or 6" RW Valve (with Accessories) @ \$ 1,000 EA	Diversion Dike @\$ 6 LF Cleaning out SWM Facilities, @\$ 500 HR
18" @ \$ 1,300 EA48" @ \$ 4,200 EA	Slope Stab Sod @ \$ 8.00 SY	16" or 24" RW Valve (with Accessories) @ \$ 6,000 EA	Silt Traps, and Sediment Basins \$20,000 Min. Lump Sum
21"	(Between 2:1 to 3:1) \$200 Min.	Fire Hydrant Assembly @\$ 8,000 EA Central Sewer Lift/Pump Station Construction @\$ LUMP SUM	Silt Fence 0' - 1,000' @ \$ 8 LF <u>\$ 1,600</u> (installation, maintenance for 1 year & removal)
27" @ \$ 1,900 EA 66" @ \$ 6,000 EA 30" @ \$ 2,100 EA 72" @ \$ 7,500 EA	Steep Slopes (Grading and Stabilization @ \$ 17.00 SY with Jute Mesh, Netting, Blankets, etc.)	Standard Meter Crock & Appurtenances @\$ 2,000 EA (Angle Valve, Backflow Preventer, Yoke, Frame & Cover, and Svc Line)	Silt Fence 1,001' - 10,000' @ \$ 6 LF (installation, maintenance for 1 year & removal)
33" @ \$ 2,300 EA	B. SUBGRADE, SUBBASE AND BASE COURSE ITEMS	Meter Vault & Appurtenances @ \$ 10,500 EA	Silt Fence 10,000' + @ \$ 4 LF (installation, maintenance for 1 year & removal)
D. END SECTIONS (ES - 1)	Subgrade Preparation @\$ 3.00 SY	Water Main Blow-off Assembly @\$ 2,500 EA Air Release Assembly @\$ 3,500 EA	Super Silt Fence 0' - 1,000' @ \$ 20 LF (installation, maintenance for 1 year & removal)
12" @\$ 550 EA27" @\$ 1,200 EA		Dead End Anchor System @\$ 7,500 EA	Super Silt Fence 1,001' - 10,000' @ \$ 10 LF
15" @ \$ 580 EA 30" @ \$ 1,130 EA 18" @ \$ 700 EA 33" @ \$ 1,500 EA	Subbase & Base Course:  Aggregate (21A/21B) (per inch depth) @ \$ 2.50 SY	SANITARY SEWER PIPE LINE (Exclusive of Manhole Structures)	(installation, maintenance for 1 year & removal)  Super Silt Fence 10,000' + @\$ 7 LF
21" @ \$ 875 EA 36" @ \$ 1,900 EA	Bituminous Concrete (per inch depth) @ \$ 5.50 SY	1.5" thru 4" LPFM @\$ 30 LF	(installation, maintenance for 1 year & removal) Sod @\$ 6.00 SY
E. CORRUGATED METAL PIPES	Gravel Shoulders (4" depth) @\$ 8.50 SY Soil Cem. Stabilization (4%) (6" depth) @\$ 20.50 SY	(Low Pressure Force Main System) 8" PVC @\$ 70 LF	400 Seed, Fertilizer & Mulch @ \$ 1.50 SY \$ 600 \$200 Min.
12" @\$ 30 LF 36" @\$ 90 LF	Lime Stabilization (10%) (6" depth) @\$ 15.00 SY  Cement Treated Aggregate (per inch depth) @\$ 5.00 SY	8" DIP @\$ 80 LF	Steep Slopes (grading and stabilization with jute mesh, @ \$ 15.00 SY netting,and blankets, etc.)
15" @ \$ 35 LF42" @ \$ 100 LF	Underdrains:	10" DIP @\$ 90 LF	@ \$ 28 TON
18" @ \$ 45 LF 48" @ \$ 115 LF 24" @ \$ 55 LF 54" @ \$ 130 LF	UD-1 @ \$ 16.00 LF	12" DIP @\$ 150 LF	(# 1 or # 57) 3 Inlet Protection @ \$ 165 EA \$ 495
30" @ \$ 65 LF 60" @ \$ 150 LF	UD-2 @ \$ 18.00 LF UD-3 @ \$ 19.00 LF	15" PVC	Check Dam
F. END SECTION (ES - 2)	UD-4 @\$ 21.00 LF	5' Dia. Sanitary Sewer Manhole @ \$ 10,000 EA Street Manhole Frame & Cover Assembly @ \$ 1,000 EA	1 Wash Rack @ \$ 2,000 EA \$ 2,000 EA
15"	C. ENTRANCES AND PIPE STEMS	(including Rain Bowl & Chimney Seal)  Easement Manhole Frame & Cover Assembly @\$ 1,000 EA	(Drainage area 0-1 Ac.)
24" @ \$ 480 EA48" @ \$ 1,800 EA	DE-1	(including Chimney Seal)	(Drainage area 2-3 Ac.) @ \$ 2,000 EA
	DE-3 @ \$ 2,000 EA	4" PVC Lateral (including clean-out stack) @ \$ 40 LF	Channel Diversion By itemized cost
G. AD N-12 (HDPE)	DE-4 @ \$ 2,000 EA PP-1 (1 lot) @ \$ 1,800 EA	4" DIP Lateral (including clean-out stack) @ \$ 50 LF	6' Chain-link Safety Fence @ \$ 20 LF 30 4' Plastic Orange Safety Fence @ \$ 3.00 LF \$ 90
12" @\$ 35 LF 30" @\$ 85 LF 15" @\$ 45 LF 36" @\$ 95 LF	PP-1 (2 - 5 lots) @ \$ 2,000 EA PP-2 (1 lot) @ \$ 1,200 EA	6" DIP Lateral (including clean-out stack) @ \$ 65 LF	Yard utility refurbishment (Single Family Lot) @ \$ 750 EA Stockpile Removal (Quantity based on policy) @ \$ 25 CY
18" @\$ 65 LF 42" @\$ 105 LF 24" @\$ 75 LF 48" @\$ 125 LF	PP-2 (2 - 5 lots) @ \$ 1,500 EA CG-9D or equal (30' Width) @ \$ 5,000 EA	Sewerage Air Release/Vacuum Breaker Assembly @\$ 3,500 EA Steel Casing @\$ 500 LF	1 Removal of Erosion Control Measures @ AC \$ 2,000 \$ 2,000 \$ 200 Min.
End @ \$ EA 60" @ \$ 165 LF	CG-9D or equal (40' Width) @ \$ 6,500 EA CG-10A or equal (30' Width) @ \$ 4,120 EA	Grease Trap (500 Gal. Minimum) @ \$ 4,500 EA	Level Spreader By itemized cost
	CG-10A or equal (40' Width) @ \$ 5,300 EA	For sizes larger than 15", add \$4.00 per inch increase in diameter.	TOTAL <u>\$ 7,935</u>
H. STORMWATER MANAGEMENT / BMP FACILITIES COST ESTIMATES PER IMPERVIOUS ACRE TREATED (SEE NOTE #3)	CG-11 (Concrete Entrance)       @ \$ 3,000 EA         Valley Gutter       @ \$ 55 SY	SUB-TOTAL _\$	ADMINISTRATIVE COST (10% of Total Cost) \$ 794
Non-Proprietary BMP By Itemized Cost	Pipestem Driveway - 10' (1 lot) @ \$ 55 LF Pipestem Driveway - 18' (2-5 lots) @ \$ 70 LF	TOTAL CONSTRUCTION COST \$ 170	TOTAL SILTATION & EROSION CONTROL ESCROW AMOUNT \$ 8,729
(Engineer Estimate for all SWM) Proprietary/Manufactured BMP - CDS Unit By Itemized Cost	D. MISCELLANEOUS CONSTRUCTION ITEMS	5. MISCELLANEOUS COSTS	(Minimum acceptable amount for Siltation and Erosion Control Escrow is \$1,000.00)
(Manufacturer's Certified Cost Plus Construction Cost) Proprietary/Manufactured BMP - Underground System By Itemized Cost	5 Sidewalk (5' Width) @ \$ 34 LF _\$ 170	A. ADMINISTRATIVE COST - 10% of the total construction cost \$ 17	
(Manufacturer's Certified Cost Plus Construction Cost)	Header Curb (CG-2/CG-3) @ \$ 20 LF	not to exceed \$50,000  B. INFLATION COST - Compounded annually at 3.0% per year \$ 5	I hereby certify that the above is my best estimate of the quantities and current cost of bondable improvements, landscaping items, and Siltation & Erosion Control Escrow in this subdivision or site plan.
I. MISCELLANEOUS STORMWATER MANAGEMENT	CG-12 (Exposed Aggregate) @ \$ 2,000 EA	of the total Construction Cost	NEX. 0 04 1.54 1
Seed, Fertilizer, Mulch \$200 Min. @ \$ 1.50 SY	Bicycle Trail/Walkway	TOTAL PERFORMANCE BOND AMOUNT \$ 192	
Sod @ \$ 6.00 SY	(MS-1A)Trail (Wood Chip) @ \$ 19 SY	6. FLOODPLAIN ITEMS ESCROW	PREPARER'S SIGNATURE TELEPHONE #
Bituminous Concrete - 1" depth @ \$ 5.00 SY  Rip-Rap @ \$ 7.00 SF	Trail (Stone Dust) @ \$ 19 SY	LOMR @ \$ 15,000	
Grouted Rip-Rap @ \$ 9.00 SF Erosion Control Stone (EC - 1) @ \$ 113.00 TON	Retaining Walls Timber @ \$ 29 SF	Elevation Certificate @ \$ 800 LOMC (SF Detached) @ \$ 1,500	NAME (print) COMPANY OR FIRM
# 57 - Coarse Aggregate @ \$ 26.00 TON	Crib @ \$ 38 SF	Stream Restoration  By Itemized Cost	
4' High Chain Link Fence @ \$ 19.00 LF (# 9 gauge or better, including braces, end posts and gate)	MSE/Geogrid       @ \$ 43 SF         Gravity Wall       @ \$ 62 SF	TOTAL FLOODPLAIN ITEMS ESCROW AMOUNT \$ 0	
6' High Chain Link Fence @ \$ 37.00 LF (# 9 gauge or better, including braces, end posts and gate)	Excavation for tiebacks @ \$ 25 CY  (For walls in cut areas)		NOTES:
SWM Sign (WATER RISES RAPIDLY) @ \$ 390 EA (Minimum 3 signs per facility)	Anti-Graffiti Treatment/Sealant @ \$ 15 SF (Concrete retaining walls only) \$2,500 Min.		<ol> <li>For items identified with ** the quantity for the embankment material the net difference of total fill material needed and cut material available at the project site, if excavated or cut</li> </ol>
Access Road By Itemized Cost			material is suitable for embankment.
			2 The excavation and embankment costs include the necessary grading, spreading and/or compaction of soil in accordance with County and State Standards and Specifications.
			3 The unit cost for each of the items in this Unit Price List is the installation cost which includes factors such as excavation, bedding, backfilling, compaction, form work, etc.
			4 Inflation has been calculated based on Northern Virginia Consumer Price Index of the Washington D.C. area provided by the Bureau of Labor and Statistics.
			<ol> <li>Whomever certifies the site development plans must also certify the total cost of the bonded items, landscaping escrow and siltation and erosion control escrow and must sign on</li> </ol>
			"Preparer's Signature" on page 10 of this form.
	1		<ol><li>Floodplain Items Escrow not to be part of Bond/Escrow reduction.</li></ol>

3/1/19 AS NOTED SD1





28 BLACKWELL PARK LANE, SUITE 201
WARRENTON, VIRGINIA 20186
Phone: (540) 349-4500
Fax: (540) 349-0321
VA@BohlerEng.com



SHEET TITLE:

UNIT PRICE LIST

SHEET NUMBE

19



### Town of Haymarket 15000 Washington Street, #100 Haymarket, VA 20169 703-753-2600

### Kimberly Henry Town Clerk

### **MEMORANDUM**

TO: Haymarket Planning Commission FROM: Kimberly Henry, Town Clerk

DATE: December 21, 2020 SUBJECT: Calendar of Meetings

Town Staff is working on the 2021 calendar for Planning Commission meetings. Note that in January and February the 3<sup>rd</sup> Monday is a holiday. The Planning Commission will need to decide alternate meeting dates for January and February. Staff has proposed the following:

### 2021 Meeting Calendar

- January: 1/18 Holiday: MLK Day Staff recommends either Monday, 1/11 or Tuesday, 1/19
- February: 2/15 Holiday George Washington Day Staff recommends either Monday,
   2/8 or Tuesday, 2/16
- March: Monday 3/15April: Monday 4/19
- **May:** Monday 5/19
- **June:** Monday 6/21
- **July:** Monday 7/19
- **August:** Monday 8/16
- **September:** Monday 9/20
- October: Monday 10/18
- **November:** Monday 11/15
- **December:** Monday 12/20

### **Draft Motion:**

I move the Town of Haymarket Planning Commission set the	e 2021 Meeting Schedule as
presented with the exception of January and February 2021.	The January meeting shall be
and the February meeting shall be	

Or an Alternate Motion