



# COMMUNITY DEVELOPMENT DEPARTMENT

45175 Ten Mile Road  
Novi, MI 48375  
(248) 347-0415 Phone  
(248) 735-5600 Facsimile  
[www.cityofnovi.org](http://www.cityofnovi.org)

## ZONING BOARD OF APPEALS STAFF REPORT

FOR: City of Novi Zoning Board of Appeals

ZONING BOARD APPEALS DATE: February 9, 2021

REGARDING: 26222 Novi Road, Parcel # 50-22-14-352-002 (PZ21-0003)

BY: Larry Butler, Deputy Director Community Development

### I. GENERAL INFORMATION:

#### Applicant

Novi Road Retail Management LLC

#### Variance Type

Dimensional Variance

#### Property Characteristics

Zoning District:	Town Center
Location:	East of Novi Road and North of Grand River Avenue
Parcel #:	50-22-14-352-002

#### Request

The applicant is requesting variances from the Novi Zoning Ordinance Section 3.1.25.D for a 5.2-foot exterior side yard (south) setback (20 feet required by code, variance of 14.8 feet). This property is zoned Town Center (TC).

### II. STAFF COMMENTS:

### III. RECOMMENDATION:

The Zoning Board of Appeals may take one of the following actions:

1. I move that we **grant** the variance in Case No. **PZ21-0003**, sought by \_\_\_\_\_, for \_\_\_\_\_ because Petitioner has shown practical difficulty requiring \_\_\_\_\_.
  - (a) Without the variance Petitioner will be unreasonably prevented or limited with respect to use of the property because \_\_\_\_\_.
  - (b) The property is unique because \_\_\_\_\_.
  - (c) Petitioner did not create the condition because \_\_\_\_\_.

- \_\_\_\_\_.
- (d) The relief granted will not unreasonably interfere with adjacent or surrounding properties because\_\_\_\_\_.
  - (e) The relief if consistent with the spirit and intent of the ordinance because\_\_\_\_\_.
  - (f) The variance granted is subject to:
    - 1. \_\_\_\_\_.
    - 2. \_\_\_\_\_.
    - 3. \_\_\_\_\_.
    - 4. \_\_\_\_\_.

2. I move that we **deny** the variance in Case No. **PZ21-0003**, sought by \_\_\_\_\_, for \_\_\_\_\_ because Petitioner has not shown practical difficulty requiring \_\_\_\_\_.

- (a) The circumstances and features of the property including \_\_\_\_\_ are not unique because they exist generally throughout the City.
- (b) The circumstances and features of the property relating to the variance request are self-created because\_\_\_\_\_.
- (c) The failure to grant relief will result in mere inconvenience or inability to attain higher economic or financial return based on Petitioners statements that \_\_\_\_\_.
- (d) The variance would result in interference with the adjacent and surrounding properties by\_\_\_\_\_.
- (e) Granting the variance would be inconsistent with the spirit and intent of the ordinance to\_\_\_\_\_.

Should you have any further questions with regards to the matter please feel free to contact me at (248) 347-0417.

Larry Butler  
Deputy Director Community Development  
City of Novi



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## ZONING BOARD OF APPEALS APPLICATION

**APPLICATION MUST BE FILLED OUT COMPLETELY**

<b>I. PROPERTY INFORMATION (Address of subject ZBA Case)</b>				Application Fee: _____
PROJECT NAME / SUBDIVISION Storie Lou Plaza				Meeting Date: _____
ADDRESS 26222 Novi Rd		LOT/SIUTE/SPACE #		
SIDWELL # 50-22-14 -352 -002		May be obtain from Assessing Department (248) 347-0485		
CROSS ROADS OF PROPERTY north east corner of Novi Rd and Crowe Drive				ZBA Case #: PZ _____
IS THE PROPERTY WITHIN A HOMEOWNER'S ASSOCIATION JURISDICTION? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		REQUEST IS FOR: <input type="checkbox"/> RESIDENTIAL <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> VACANT PROPERTY <input type="checkbox"/> SIGNAGE		
DOES YOUR APPEAL RESULT FROM A NOTICE OF VIOLATION OR CITATION ISSUED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				
<b>II. APPLICANT INFORMATION</b>				
<b>A. APPLICANT</b>		EMAIL ADDRESS heather@alrigusa.com		CELL PHONE NO. 989 615 7532
NAME Heather Henika		TELEPHONE NO. 248 289 7132		
ORGANIZATION/COMPANY Novi Road Retail Management LLC		FAX NO.		
ADDRESS 30200 Telegraph Rd, Ste 205		CITY Bingham Farms	STATE MI	ZIP CODE 48025
<b>B. PROPERTY OWNER</b> <input checked="" type="checkbox"/> CHECK HERE IF APPLICANT IS ALSO THE PROPERTY OWNER				
Identify the person or organization that owns the subject property:		EMAIL ADDRESS		CELL PHONE NO.
NAME		TELEPHONE NO.		
ORGANIZATION/COMPANY		FAX NO.		
ADDRESS		CITY	STATE	ZIP CODE
<b>III. ZONING INFORMATION</b>				
<b>A. ZONING DISTRICT</b>				
<input type="checkbox"/> R-A <input type="checkbox"/> R-1 <input type="checkbox"/> R-2 <input type="checkbox"/> R-3 <input type="checkbox"/> R-4 <input type="checkbox"/> RM-1 <input type="checkbox"/> RM-2 <input type="checkbox"/> MH <input type="checkbox"/> I-1 <input type="checkbox"/> I-2 <input type="checkbox"/> RC <input checked="" type="checkbox"/> TC <input type="checkbox"/> TC-1 <input type="checkbox"/> OTHER _____				
<b>B. VARIANCE REQUESTED</b>				
INDICATE ORDINANCE SECTION (S) AND VARIANCE REQUESTED:				
1. Section <u>3.1.25.D</u> Variance requested <u>Parking Setback - See attached letter</u>				
2. Section _____ Variance requested _____				
3. Section _____ Variance requested _____				
4. Section _____ Variance requested _____				
<b>IV. FEES AND DRAWINGS</b>				
<b>A. FEES</b>				
<input type="checkbox"/> Single Family Residential (Existing) \$200 <input type="checkbox"/> (With Violation) \$250 <input type="checkbox"/> Single Family Residential (New) \$250 <input checked="" type="checkbox"/> Multiple/Commercial/Industrial \$300 <input type="checkbox"/> (With Violation) \$400 <input type="checkbox"/> Signs \$300 <input type="checkbox"/> (With Violation) \$400 <input type="checkbox"/> House Moves \$300 <input type="checkbox"/> Special Meetings (At discretion of Board) \$600				
<b>B. DRAWINGS 1-COPY &amp; 1 DIGITAL COPY SUBMITTED AS A PDF</b>				
<ul style="list-style-type: none"> <li>• Dimensioned Drawings and Plans</li> <li>• Site/Plot Plan</li> <li>• Existing or proposed buildings or addition on the property</li> <li>• Number &amp; location of all on-site parking, if applicable</li> <li>• Existing &amp; proposed distance to adjacent property lines</li> <li>• Location of existing &amp; proposed signs, if applicable</li> <li>• Floor plans &amp; elevations</li> <li>• Any other information relevant to the Variance application</li> </ul>				





# ZONING BOARD OF APPEALS APPLICATION

## V. VARIANCE

### A. VARIANCE (S) REQUESTED

DIMENSIONAL     USE     SIGN

There is a five-(5) hold period before work/action can be taken on variance approvals.

### B. SIGN CASES (ONLY)

Your signature on this application indicates that you agree to install a **Mock-Up Sign ten-(10) days** before the schedule ZBA meeting. Failure to install a mock-up sign may result in your case not being heard by the Board, postponed to the next schedule ZBA meeting, or cancelled. A mock-up sign is **NOT** to be actual sign. Upon approval, the mock-up sign must be removed within five-(5) days of the meeting. If the case is denied, the applicant is responsible for all costs involved in the removal of the mock-up or actual sign (if erected under violation) within five-(5) days of the meeting.

### C. ORDINANCE

#### City of Novi Ordinance, Section 3107 – Miscellaneous

No order of the Board permitting the erection of a building shall be valid for a period longer than one-(1) year, unless a building permit for such erection or alteration is obtained within such period and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.

No order of the Board permitting a use of a building or premises shall be valid for a period longer than one-hundred and eighty-(180) days unless such use is establish within such a period; provided, however, where such use permitted is dependent upon the erection or alteration or a building such order shall continue in force and effect if a building permit for such erection or alteration is obtained within one-(1) year and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.

### D. APPEAL THE DETERMINATION OF THE BUILDING OFFICIAL

PLEASE TAKE NOTICE:

The undersigned hereby appeals the determination of the Building Official / Inspector or Ordinance made

CONSTRUCT NEW HOME/BUILDING     ADDITION TO EXISTING HOME/BUILDING     SIGNAGE

ACCESSORY BUILDING     USE     OTHER \_\_\_\_\_

## VI. APPLICANT & PROPERTY SIGNATURES

### A. APPLICANT

Heather Henika

Applicant Signature

1/4/2021

Date

### B. PROPERTY OWNER

**If the applicant is not the owner, the property owner must read and sign below:**

The undersigned affirms and acknowledges that he, she or they are the owner(s) of the property described in this application, and is/are aware of the contents of this application and related enclosures.

[Signature]

Property Owner Signature

1/4/2021

Date

## VII. FOR OFFICIAL USE ONLY

### DECISION ON APPEAL:

GRANTED

DENIED

The Building Inspector is hereby directed to issue a permit to the Applicant upon the following and conditions:

\_\_\_\_\_  
Chairperson, Zoning Board of Appeals

\_\_\_\_\_  
Date



L A W O F F I C E S  
**LANDRY, MAZZEO & DEMBINSKI, P.C.**  
37000 GRAND RIVER AVENUE SUITE 200  
FARMINGTON HILLS, MICHIGAN 48335  
www.lmdlaw.com

TELEPHONE  
(248) 476-6900

FACSIMILE  
(248) 476-6564

D. B. LANDRY  
dlandry@lmdlaw.com

January 4, 2021

**VIA HAND DELIVERY**

City of Novi Zoning Board of Appeals  
45175 Ten Mile Road  
Novi, MI 48375

Attention: Chairperson Peddiboyina and ZBA Members

RE: Storie Lou Plaza  
Application for parking setback variance

Dear Mr. Peddiboyina and ZBA Members:

This office represents the applicant, Novi Road Retail Management, LLC, with respect to an Application to this Zoning Board of Appeals for a variance from the parking setback requirements contained within the City of Novi Zoning Ordinance applicable to this property. Attached is a completed Application For Variance from the parking setback requirements of the City of Novi Zoning Ordinance, Section 3.1.25D. This letter will provide background on the site itself, the proposed development and the basis for this variance application.

The site is located on the northeast corner of Novi Road and Crowe Drive. It is currently unoccupied. It is the former site of a 5/3 Bank. There is a single structure on the site and the site has two curb cuts: one onto Novi Road to the west and the other onto Crowe Drive to the south. The planned redevelopment of this site will eliminate the curb cut onto Novi Road.

The proposed redevelopment would maximize conformance with the intent of TC zoning district on a unique parcel of land which is both small, 1.17 acres, and uniquely surrounded on three sides by public and private streets. This project is scheduled for consideration by the Novi Planning Commission at its January 13, 2021 meeting. All administrative reviews have recommended approval of the Preliminary Site Plan. This certainly speaks to the efficacy of the proposed development in achieving the goals of the City of Novi Zoning Ordinance, the TC zoning district and the City's Master Plan For Land Use.

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The applicant seeks a single variance from the parking setback requirements for the side yard (south side) along Crowe Drive. The Zoning Ordinance section 3.1.25.D sets forth a 20 foot side yard parking setback. The applicant is proposing a 5.2 foot parking setback. Please note: the sight currently (for the former 5/3 bank) has only an 8.4 foot parking setback. We respectfully request the ZBA to take into consideration the following.

1. Improvements To The Existing Site.

The proposed development replaces an existing single use building with a multi-tenant building. That alone is more compatible with the intent of the TC zoning district. The proposed redevelopment is almost identical to the Novi Town Center Plaza LLC redevelopment to the south across Crowe Drive, which was itself a redevelopment of the former Kim's Gardens Restaurant, which redevelopment was approved by the City in 2017 with several parking setback waivers from the ZBA. As such the proposed redevelopment will be architecturally consistent with the Novi Town Center Plaza LLC immediately to the south across Crowe Drive as well as the existing Town Center out buildings further to the south. In keeping with the amenity requirements of the TC zoning district and mirroring the development to the south the applicant has created a pedestrian plaza along Novi Road. The applicant also eliminates a curb cut along Novi Road leaving a single safe curb cut on the southern boundary along Crowe Drive across from the existing curb cut for the development to the south. The proposed development includes the installation of a pedestrian sidewalk along Crowe Drive and the installation of a decorative brick wall with a railing on top, again, mirroring the development to the south of Crowe Drive. (See attached photographs of existing decorative wall with railing on the south side of Crowe Drive.) This redevelopment will create a consistent look along the east side of Novi road and create a consistent architectural and planning look along Crowe Drive.

2. Practical Difficulties.

The practical difficulties which arise are a result of the small size of the property coupled with the intent of the TC District to promote "the development of a pedestrian accessible, commercial service district in which a variety of retail, commercial, office, . . . uses. . . ." and the unique circumstance of the property being surrounded on three sides by public and private streets. In the entire Town Center commercial/retail development, this is one of the smallest parcels which is bounded on three sides by



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public streets. The applicant requests that the ZBA take into consideration the positive and mitigating impacts of these unique circumstances. To achieve the desired number of parking spaces to safely serve this building a single parking setback variance is required. The site developments to the south within the proposed parking setback are significant, including a sidewalk and a decorative brick wall topped with a decorative wrought iron type railing. Please note, the applicant does not seek to eliminate the parking setback but only reduce it. Moreover, the decorative brick wall topped with a wrought iron railing serves to not only add to the architectural theme but will in fact shield the parking from view by traffic along Crowe Drive. Moreover, the elimination of the dangerous curb cut on Novi Road improves the overall safety of the site. It is respectfully suggested that the proposed plan is entirely consistent with the TC District intent and improves the safety and architectural consistency of the TC District.

### 3. Review Standards For A Dimensional Variance.

*Standard #1 - Circumstances or Physical Conditions.* The unique circumstances/physical condition of this property is that it is one of the only properties of its small size, approximately 1.17 acre, that is surrounded on three sides by public and private streets in the Town Center district. These streets are designed to convey extensive traffic in and out of the Town Center while the stated intent of the TC District is to “promote the development of a pedestrian accessible, commercial service district in which a variety of retail, commercial, office . . . uses. . . are permitted.” The applicant has certainly proposed a development that provides a pedestrian accessible site that provides commercial, and restaurant uses. The key to this proposed development is that it achieves the stated intent of the TC District on this site along with the elimination of yet another curb cut on Novi Road. By routing all traffic into this site from Crowe Drive and aligning that curb cut with the existing curb cut to the south (for the Novi Town Center Plaza LLC) this proposed development creates a much safer site. The existing site compounds the traffic problems along Novi Road. Currently, there is traffic constantly turning into the car wash to the south and also turning into the Town Center on Crowe Drive. The existing site adds yet another stream of traffic turning off Novi Road into this site. Indeed, the size and shape of this lot, bounded by three streets, is unique and the proposed development greatly improves the safety of the site by eliminating the curb cut along Novi Road. To provide a viable project for the uses intended by the TC Zoning District a parking setback variance is, therefore, required.



**LANDRY, MAZZEO & DEMBINSKI, P.C.**

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*Standard #2 – Not Self-Created.* The need for the parking setback variance is not self-created. The Applicant did not develop the Town Center and did not layout the streets or create this unique piece of property of such a small site surrounded on three sides by public and private streets. A parking setback variance is needed in order to develop this property in conformance with and to maximize all of the goals of the TC zoning district and to develop this piece of property to promote and integrate both pedestrian accessibility and safety of those pedestrians and motorists.

*Standard #3 – Strict Compliance.* The applicant is striving to redevelop this site to maximize the development with the purpose of a TC zoning district and the surrounding Town Center development. The applicant's proposed development changes the existing character of the site from a single use to a multi-use building located immediately adjacent to Novi Road, aligned with and architecturally similar to the developments to the south. The proposed development encourages pedestrian use by creating a pedestrian plaza in front of the building along Novi Road and adding a sidewalk along Crowe Drive. This development is consistent with the purposes of the TC district and creates a "pedestrian accessible" development which includes a "variety of uses". A strict compliance with the full 20 feet parking setback will unreasonably prevent the use of the property for the permitted and desired use in the TC district and render absolute conformity unreasonably burdensome. Please note: the existing 5/3 bank site has only an 8.4 foot setback.) Any further decrease in the size of this building would decrease the theme along Novi Road of multi-use buildings close to Novi Road.

*Standard #4 – Minimum Variance Necessary.* The requested parking variance is an improvement from the existing conditions and is the minimum variance necessary to achieve a functional, efficient and safe development which is consistent with purposes of not only the Zoning Ordinance but the Master Plan for Land Use. The variance being sought is a 14.8 foot variance. (20 feet required – 5.2 feet provided). Please note, the applicant is not requesting a variance to eliminate the entire parking setback. Attached hereto are the minutes from the ZBA meeting of January 11, 2011 wherein Walmart was granted four separate parking setback variances of 0 feet! Thus, within this very same TC district a former applicant was allowed variances to *eliminate entirely* four parking setback variances. We are requesting only the minimum variance necessary to allow the proper development of the site consistent with the TC district standards.

*Standard #5 - No Adverse Impact on Surrounding Area.* By eliminating the curb cut along Novi Road the safety of traffic along Novi Road is improved. The proposed development significantly improves the impact on surrounding properties. To the west, a

**LANDRY, MAZZEO & DEMBINSKI, P.C.**

January 4, 2021

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pedestrian plaza is being developed along Novi Road. To the south a sidewalk will be installed with a decorative brick wall topped with a wrought iron type railing. Thus, safe pedestrian walkways will be created by the applicant for pedestrian access to the entire Town Center area along Crowe Drive. The decorative brick wall with wrought iron type railing on top will screen from view the parking along Crowe Drive, where the parking setback is being requested. Thus, a parking setback variance will not adversely impact surrounding properties. Redeveloping this site to be consistent with the existing surrounding properties will only have a positive impact.

4. Conclusion.

The proposed development is compatible with the intent of the TC zoning ordinance, compatible with the Master Plan For Land Use, achieves consistency with the existing architecture of the Town Center out lot developments to the south and significantly improves the pedestrian and vehicular safety of the site and of Novi Road. This proposed development will increase pedestrian access to the very large Town Center development via the sidewalk along Crowe Drive.

It is also suggested that the ZBA consider the scope of the requested variance in relation to the benefits of the proposed development. The applicant is *not seeking a variance in the required number of parking spaces* but only a reduction in the *parking setbacks*. All required parking is being provided in a safe manner approved by the Novi Fire Department. Moreover, the parking along this setback will be screened from view by the brick wall with railing. Given the multiple benefits provided by this proposal the applicant respectfully requests a single variance from the parking setback requirements.

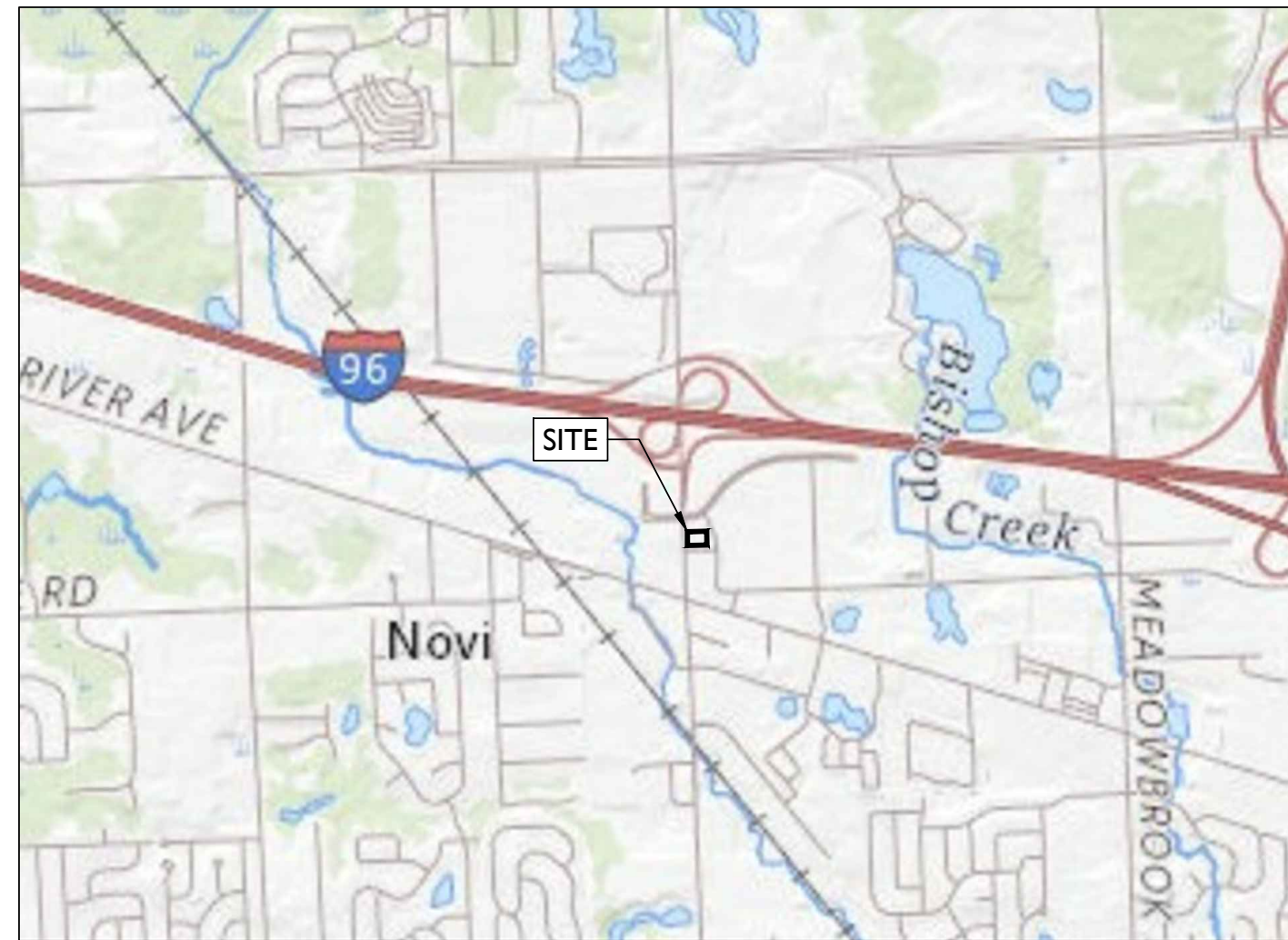
Very truly yours,

LANDRY, MAZZEO & DEMBINSKI, P.C.

  
David B. Landry

DBL/rr  
Enclosures





SOURCE: USGS ONLINE MAP SERVICE

### LOCATION MAP

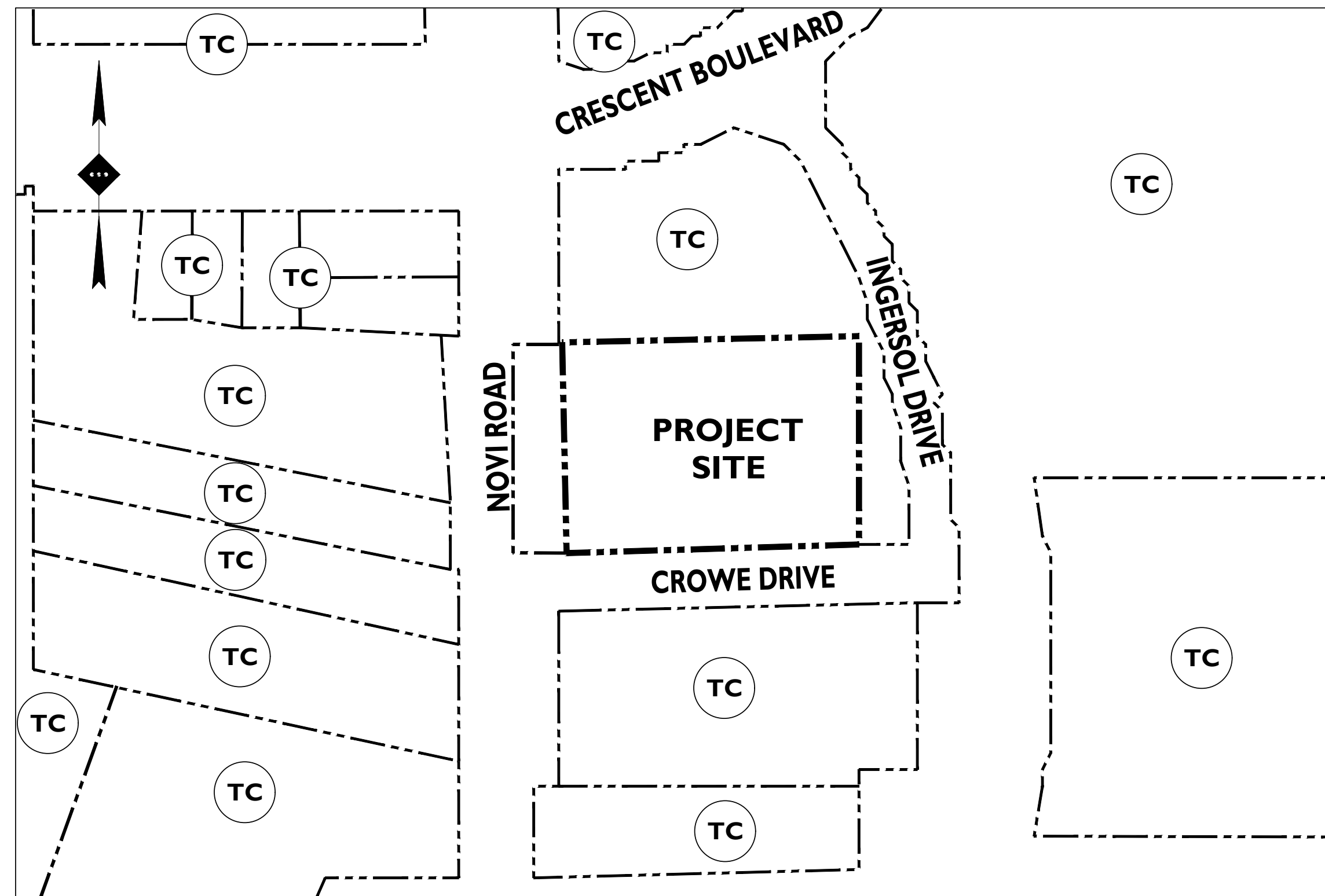
SCALE: 1" = 2,000'±



SOURCE: IMAGE OBTAINED FROM GOOGLE EARTH PRO

### AERIAL MAP

SCALE: 1" = 100'±



SOURCE: CITY OF NOVI ZONING DISTRICT MAP

### ZONING MAP

SCALE: 1" = 200'±

# SITE DEVELOPMENT PLANS FOR STORIE LOU PLAZA

## 26222 NOVI ROAD PROPOSED MULTI-TENANT COMMERCIAL BUILDING

PARCEL ID: 22-14-352-002  
26222 NOVI ROAD  
CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

### APPLICANT

NOVI ROAD RETAIL MANAGEMENT, LLC  
30200 TELEGRAPH ROAD, SUITE 205  
BINGHAM FARMS, MI 48205  
248-646-9999

ISSUE	DATE	BY	DESCRIPTION
3	11/24/2020	MG	FOR OWNER REVIEW
2	11/11/2020	MG	FOR OWNER REVIEW
1	09/16/2020	AF/MG	FOR PRELIMINARY SITE PLAN APPROVAL

NOT APPROVED FOR CONSTRUCTION

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**SITE DEVELOPMENT PLANS**  
**STORIE LOU PLAZA**  
26222 NOVI ROAD  
**PROPOSED MULTI-TENANT COMMERCIAL BUILDING**

SECTION 14, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS FOLLOWS:  
PARCEL ID: 22-14-352-002  
CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

### PROPERTY DESCRIPTION

PARCEL ID: 22-14-352-002

LAND SITUATED IN THE CITY OF NOVI, COUNTY OF OAKLAND, STATE OF MICHIGAN, DESCRIBED AS FOLLOWS:

ALL THAT PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 14, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS: BEGINNING ON THE WEST LINE OF SECTION 14, WHICH LINE IS ALSO THE CENTERLINE OF NOVI ROAD, 66 FEET WIDE, AT A POINT DISTANT DUE NORTH 537.18 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION 14; THENCE CONTINUING ALONG THE WEST LINE OF SAID SECTION 14, DUE NORTH 188.62 FEET; THENCE SOUTH 89 DEGREES 47 MINUTES 40 SECONDS EAST 328.40 FEET; THENCE SOUTH 00 DEGREES 52 MINUTES 00 SECONDS WEST 187.06 FEET; THENCE SOUTH 89 DEGREES 55 MINUTES 45 SECONDS WEST 325.50 FEET TO THE POINT OF BEGINNING, EXCEPT THE WEST 55 FEET DEEDED FOR ROAD PURPOSES.

PARCEL AS DESCRIBED: ±51,051 SQ. FT. (±1.17 ACRES)



Know what's below  
Call before you dig.

### PLANS PREPARED BY:



Detroit, MI · Rutherford, NJ · New York, NY  
Princeton, NJ · Tampa, FL · Boston, MA  
www.stonefieldeng.com

607 Shelby Suite 200, Detroit, MI 48226  
Phone 248.247.1115

### PLAN REFERENCE MATERIALS:

- THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
  - ALTA / NSPS LAND TITLE SURVEY PREPARED BY CORE LAND CONSULTING, DATED 09/24/2020
  - ARCHITECTURAL PLANS PREPARED BY DETROIT ARCHITECTURAL GROUP, RECEIVED 09/16/2020
  - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO
  - LOCATION MAP OBTAINED FROM USGS ONLINE NATION MAP
- ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI STANDARDS & SPECIFICATIONS

### SHEET INDEX

DRAWING TITLE	SHEET #
COVER SHEET	C-1
DEMOLITION PLAN	C-2
SITE PLAN	C-3
GRADING PLAN	C-4
UTILITY & STORMWATER MANAGEMENT PLAN	C-5
LIGHTING PLAN	C-6
LANDSCAPING PLAN	C-7
LANDSCAPING DETAILS	C-8
SOIL EROSION & SEDIMENT CONTROL PLAN	C-9
CONSTRUCTION DETAILS	C-10 THRU C-12

### ADDITIONAL SHEETS

DRAWING TITLE	SHEET #
VEHICLE CIRCULATION EXHIBIT	EX-1
OPEN SPACE EXHIBIT	EX-2
ALTA / NSPS LAND TITLE SURVEY	I OF I
TREE INVENTORY PLAN	TP-1

MICHIGAN LICENSE No. 6201069428  
LICENSED PROFESSIONAL ENGINEER

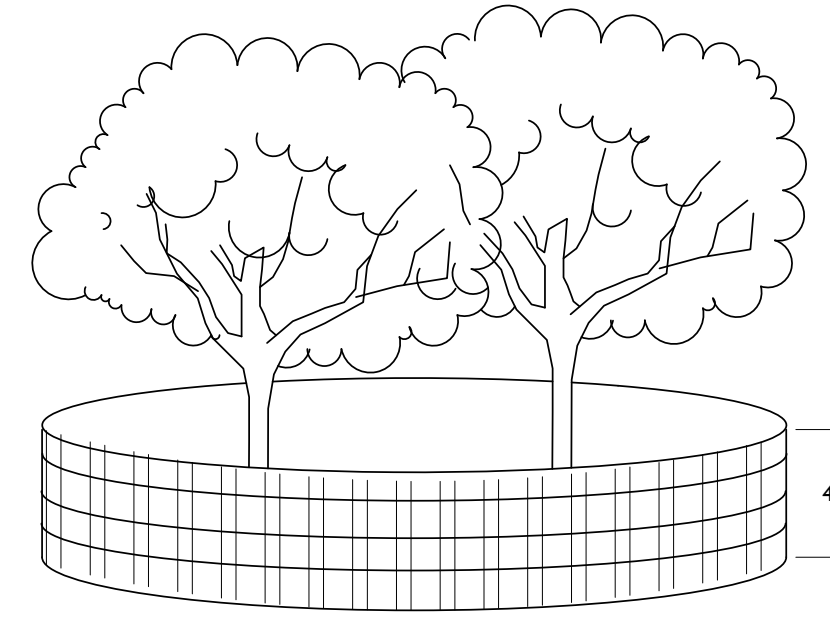
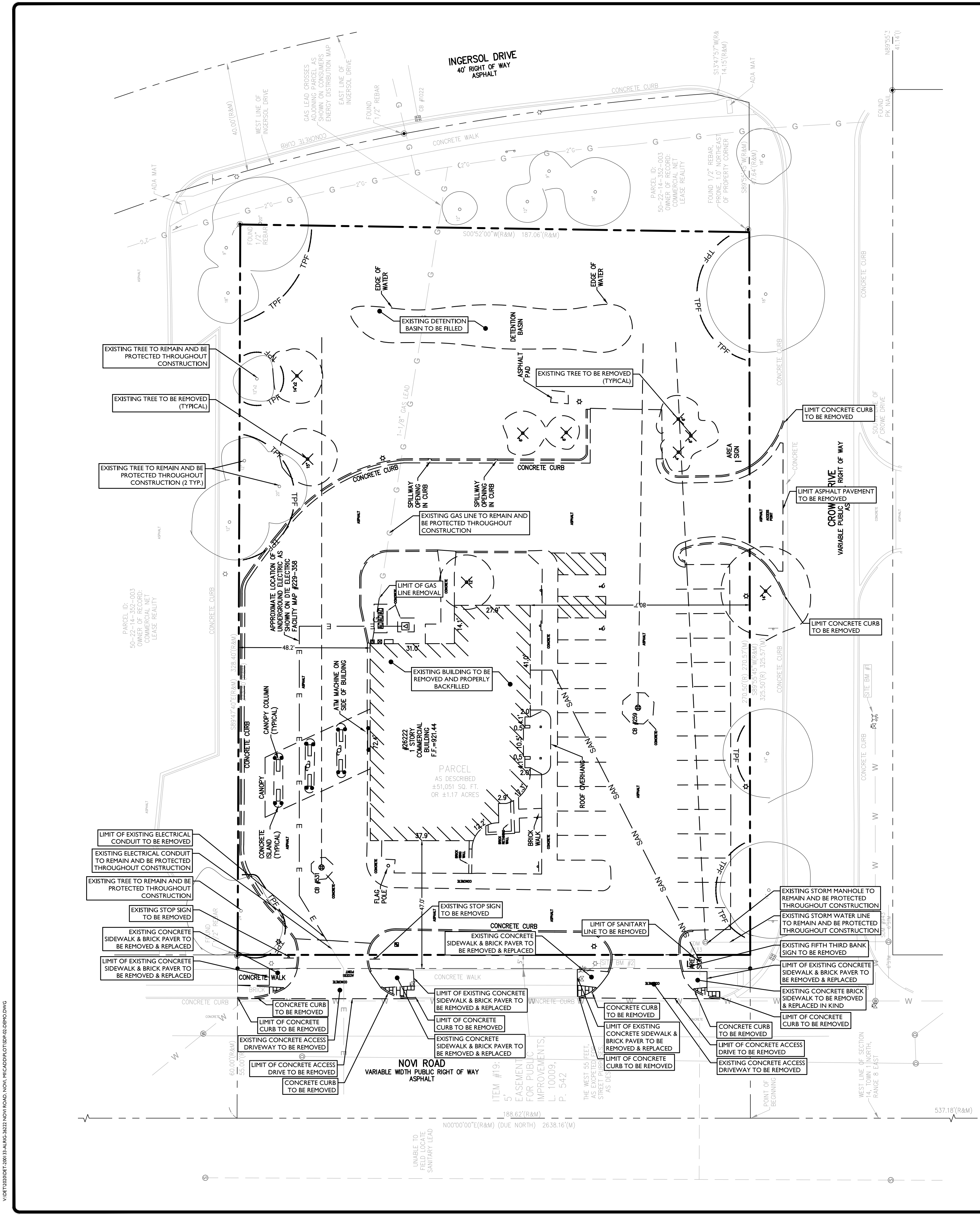


SCALE: AS SHOWN PROJECT ID: DET-200133

TITLE:  
**COVER SHEET**

DRAWING:  
**C-1**





- NOTES:
1. SNOW FENCING IS TO BE 4'-0" HIGH AND SELF SUPPORTED.
  2. DO NOT STOCKPILE MATERIALS OR STORE EQUIPMENT WITHIN THE TREE PROTECTION FENCING.
  3. SNOW FENCE TO BE INSTALLED AT DRIP LINE OF EXISTING TREE OR TREE CLUSTER TO BE PROTECTED OR NO CLOSER THAN 6' FROM TREE TRUNK IF NECESSARY.
  4. IF THE PROJECT AREA ENCOMPASSES A PORTION OF THE DRIP LINE OF THE TREE, NO MORE THAN ONE THIRD OF THE OF THE TOTAL AREA OF WITHIN THE DRIP LINE SHOULD BE DISTURBED BY CONSTRUCTION OR REGRADING AND A 3" THICK LAYER OF MULCH SHALL BE INSTALLED OVER THE AREA OF THE DRIP LINE WHICH IS NOT PROTECTED BY FENCING TO PROVIDE A CUSHION.

**TREE PROTECTION DETAIL**  
NOT TO SCALE

SYMBOL	DESCRIPTION
---	PROPERTY LINE
---	PROPOSED TREE PROTECTION FENCE
---	FEATURE TO BE REMOVED/DEMOLISHED
(X)	TREE TO BE REMOVED

**ALL SITE FEATURES WITHIN THE PROPERTY LINE INDICATED ON THIS PLAN ARE TO BE REMOVED / DEMOLISHED UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IF SIGNIFICANT DISCREPANCIES ARE DISCERNED BETWEEN THIS PLAN AND FIELD CONDITIONS**

**ALL SITE FEATURES OUTSIDE THE PROPERTY LINE INDICATED ON THIS PLAN ARE TO REMAIN & BE PROTECTED UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IF SIGNIFICANT DISCREPANCIES ARE DISCERNED BETWEEN THIS PLAN AND FIELD CONDITIONS**

**TREE REMOVAL REQUIREMENTS; 37-8**

REMOVED TREE D.B.H. (IN INCHES)	RATIO REPLACEMENT/REMOVED TREES	NUMBER OF TREE TO BE REMOVED
8 < 11	1 TREE	0 TREES
> 11 < 20	2 TREES	5 TREES
> 20 < 29	3 TREES	0 TREES
> 30	4 TREES	0 TREES
TOTAL REPLACEMENT TREES REQUIRED [2 x 5 = 10 REQUIRED TREES]		10 REQUIRED TREES

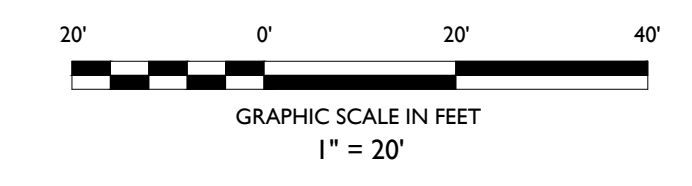
**LANDSCAPE TREE CREDIT CHART; LDM 9.b(f)**

DIAMETER OF TRUNK OF PRESERVED TREE (CALIPER INCHES)	NUMBER OF TREE CREDITS	NUMBER OF TREES TO BE PRESERVED
36" OR GREATER	7 TREES	0 TREES
> 29" TO 36"	6 TREES	0 TREES
> 23" TO 29"	5 TREES	1 TREE
> 17" TO 23"	4 TREES	2 TREES
> 12" TO 17"	3 TREES	5 TREES
> 7" TO 12"	2 TREES	0 TREES
3" TO 7"	1 TREES	0 TREES
TOTAL REPLACEMENT TREES REQUIRED [5 x 1 = 5 TREE CREDITS] [4 x 2 = 8 TREE CREDITS] [3 x 5 = 15 TREE CREDITS]		28 TREE CREDITS



Know what's below  
Call before you dig.

- DEMOLITION NOTES**
1. THE WORK REFLECTED ON THE DEMOLITION PLAN IS TO PROVIDE GENERAL INFORMATION TOWARDS THE EXISTING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE ENTIRE PLAN SET AND ASSOCIATED REPORTS/REFERENCE DOCUMENTS INCLUDING ALL DEMOLITION ACTIVITIES AND INCIDENTAL TASKS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS.
  2. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF DEMOLITION ACTIVITIES.
  3. EXPLOSIVES SHALL NOT BE USED UNLESS WRITTEN CONSENT FROM BOTH THE OWNER AND ANY APPLICABLE GOVERNING AGENCY IS OBTAINED. BEFORE THE START OF ANY EXPLOSIVE PROGRAM, THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL LOCAL, STATE, AND FEDERAL PERMITS. ADDITIONALLY, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL SEISMIC TESTING AS REQUIRED AND ANY DAMAGES AS THE RESULT OF SAID DEMOLITION PRACTICES.
  4. ALL DEMOLITION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL UTILITIES ARE DISCONNECTED IN ACCORDANCE WITH THE UTILITY AUTHORITIES' REQUIREMENTS PRIOR TO STARTING THE DEMOLITION OF ANY STRUCTURE. ALL EXCAVATIONS ASSOCIATED WITH DEMOLISHED STRUCTURES OR REMOVED TANKS SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO SUPPORT SITE AND BUILDING IMPROVEMENTS. A GEOTECHNICAL ENGINEER SHOULD BE PRESENT DURING BACKFILLING ACTIVITIES TO OBSERVE AND CERTIFY THAT BACKFILL MATERIAL WAS COMPACTED TO A SUITABLE CONDITION.
  5. DEMOLISHED DEBRIS SHALL NOT BE BURIED ON SITE. ALL WASTE/DEBRIS GENERATED FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL RECORDS OF THE DISPOSAL TO DEMONSTRATE COMPLIANCE WITH THE ABOVE REGULATIONS.
  6. THE CONTRACTOR SHALL LIMIT DISRUPTION TO ANY ADJACENT PAVEMENT AND REPAIR ANY DAMAGED PAVEMENT THAT IS OUTSIDE THE SCOPE OF WORK SHOWN WITHIN THIS PLAN SET.
  7. ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI STANDARDS AND SPECIFICATIONS.
  8. A CITY OF NOVI RIGHT-OF-WAY PERMIT IS REQUIRED FOR WORK WITHIN CROWDE DRIVES RIGHT-OF-WAY, INGERSOL DRIVES RIGHT-OF-WAY, AND/OR CITY EASEMENT.
  9. AN OAKLAND COUNTY RIGHT-OF-WAY PERMIT IS REQUIRED FOR WORK WITHIN NOVI ROAD'S RIGHT-OF-WAY.



ISSUE	DATE	BY	DESCRIPTION
3	1/17/2020	MG	FOR OWNER REVIEW
2	1/11/2020	MG	FOR OWNER REVIEW
1	09/16/2020	AF/MG	FOR PRELIMINARY SITE PLAN APPROVAL

**NOT APPROVED FOR CONSTRUCTION**

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**SITE DEVELOPMENT PLANS**

**STORIE LOU PLAZA**  
26222 NOVI ROAD  
PROPOSED MULTI-TENANT  
COMMERCIAL BUILDING

SECTION 1.4  
PARCEL ID: 22-14332-002  
26222 NOVI ROAD  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

MICHIGAN LICENSE No. 6201069428  
LICENSED PROFESSIONAL ENGINEER

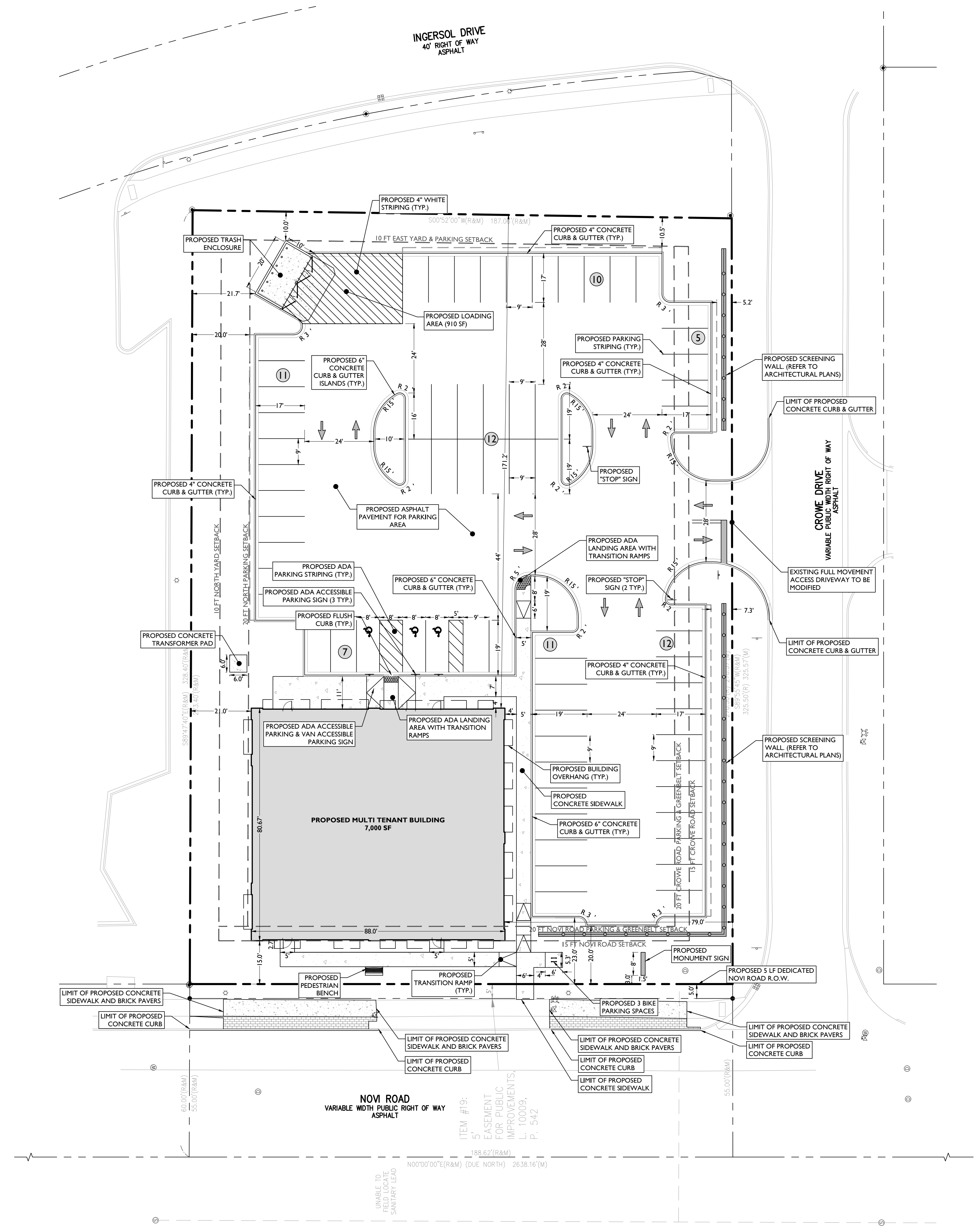
**STONEFIELD**  
engineering & design

SCALE: 1" = 20' PROJECT ID: DET-200133

TITLE:  
**DEMOLITION PLAN**

DRAWING:  
**C-2**

NOT TO SCALE



### LAND USE AND ZONING

PARCEL ID: 22-14-352-002  
TOWN CENTER DISTRICT (TC)

ZONING REQUIREMENT	REQUIRED	PROPOSED
MINIMUM LOT AREA <sup>(1)</sup>	N/A	51,051 SF (1.17 AC)
MINIMUM OPEN SPACE	15% (7,515 SF)	27.4% (13,971 SF)
MAXIMUM BUILDING HEIGHT	65 FT (5 STORIES)	26.3 FT (1 STORY)
MINIMUM NOVI ROAD SETBACK <sup>(2)</sup>	15 FT	15.0 FT
MINIMUM CROWE ROAD SETBACK <sup>(2)</sup>	15 FT	79.4 FT
MINIMUM NORTH YARD SETBACK <sup>(2)</sup>	10 FT	21.0 FT
MINIMUM EAST YARD SETBACK <sup>(2)</sup>	10 FT	171.2 FT
MINIMUM NOVI ROAD PARKING SETBACK	20 FT	23.0 FT
MINIMUM CROWE ROAD PARKING SETBACK	20 FT	5.2 FT (W)
MINIMUM NORTH SIDE PARKING SETBACK	20 FT	20.0 FT
MINIMUM EAST SIDE PARKING SETBACK	10 FT	10.5 FT
MINIMUM NOVI R.O.W GREENBELT	20 FT	20.0 FT
MINIMUM CROWE R.O.W GREENBELT	20 FT	5.2 FT (W)

- (1) PROFESSIONAL SERVICES, BUSINESSES WHICH SERVE AS OFFICES FOR PROFESSIONAL, EXECUTIVE, ADMINISTRATIVE, AND MEDICAL USES, INCLUDING THE OFFICES OF ARCHITECTS, ACCOUNTANTS, INSURANCE, DOCTORS, DENTISTS, GOVERNMENT AND FINANCIAL INSTITUTIONS.
- (2) VARIANCE
- (W) WAIVER
- (1) PROPOSED LOT AREA EXCLUDES THE NOVI ROAD RIGHT-OF-WAY (0.26 AC)
- (2) REQUIREMENTS FROM CITY COMMENTS RECEIVED ON 7/7/2020 CONCEPTUAL MEETING

### OFF-STREET PARKING REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
§ 5.2.12.C.b	RESTAURANT (SIT DOWN): 1 SPACES PER 70 SF GROSS FLOOR AREA (3,500 SF)(1 / 70 SF) = 50 SPACES RETAIL: 1 SPACE PER 200 SF GROSS LEASABLE AREA (3,500 SF)(1 SPACE / 200 SF) = 18 SPACES <b>TOTAL SPACES: 50 + 18 = 68 SPACES*</b>	68 SPACES
§ 5.3.2	90' PARKING: 9 FT X 19 FT WITH 4-IN CURB 9 FT X 17 FT WITH 4-IN CURB 24 FT DRIVE AISLE	PROVIDED
§ 5.4.2	LOADING: 10 SF PER 1 FT OF FRONTAGE (88 FT)(10 SF/FT) = 880 SF	910 SF
§ 5.16.1	BICYCLE PARKING: 5% REQUIRED AUTOMOBILE SPACES (MIN. 2) (68 SPACES) (0.05) = 3 SPACES	3 SPACES

(\*) REQUIRED PARKING SPACES MAY BE REDUCED BY 1 FOR EVERY 10 UNCOVERED (5 COVERED) BIKE SPACES PROVIDED, UP TO 10% OF TOTAL REQUIRED PARKING SPACES.

### ZONING RELIEF

REQUIRED	TYPE
MINIMUM CROWE R.O.W. PARKING SETBACK	VARIANCE
MINIMUM CROWE GREENBELT	WAIVER

**CONTRACTOR TO PROVIDE SMOOTH TRANSITION BETWEEN ALL PROPOSED AND EXISTING PAVEMENTS AND CURBS**

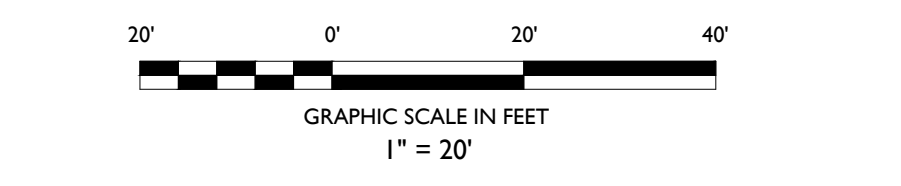
- #### GENERAL NOTES
- THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC PRIOR TO THE START OF CONSTRUCTION.
  - THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
  - ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
  - THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
  - THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
  - THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
  - THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTOR'S EXPENSE.
  - CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
  - THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
  - THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
  - THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION/DEMOLITION ACTIVITIES.
  - SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC, BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.
  - IF DEWATERING IS ANTICIPATED OR ENCOUNTERED DURING CONSTRUCTION A DEWATERING PLAN MUST BE SUBMITTED TO THE ENGINEERING DIVISION FOR REVIEW.

### SIGN DATA TABLE

NOT TO SCALE

M.U.T.C.D. NUMBER	TEXT	COLOR		SIZE OF SIGN (WIDTH X HEIGHT)	TYPE OF MOUNT	QUANTITY
		LEGEND	BACKGROUND			
STOP SIGN (R1-1)		RED	WHITE	36"x36"	GROUND	3

- NOTE:
- ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), EXCEPT AS NOTED.
  - ALL SIGNS SHALL BE MOUNTED AS TO NOT OBSTRUCT THE SHAPE OF "STOP" (R1-1) AND "YIELD" (R1-2) SIGNS.
  - FHWA STANDARD ALPHABET SERIES USED FOR ALL SIGN LANGUAGE.
  - HIGH-INTENSITY PRISMATIC (HIP) SHEETING TO MEET FHWA RETRO-REFLECTIVITY.



DATE	BY	ISSUE	DESCRIPTION
11/24/2020	MG	3	FOR OWNER REVIEW
1/11/2020	MG	2	FOR OWNER REVIEW
09/16/2020	AF/MG	1	FOR PRELIMINARY SITE PLAN APPROVAL

**NOT APPROVED FOR CONSTRUCTION**

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### SITE DEVELOPMENT PLANS

# STORIE LOU PLAZA

26222 NOVI ROAD  
PROPOSED MULTI-TENANT  
COMMERCIAL BUILDING

SECTION 14  
PARCEL ID: 22-14-352-002  
26222 NOVI ROAD  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

MICHIGAN LICENSE No. 6201069428  
LICENSED PROFESSIONAL ENGINEER

## STONEFIELD

engineering & design

SCALE: 1" = 20' PROJECT ID: DET-200133

TITLE: **SITE PLAN**

DRAWING: **C-3**

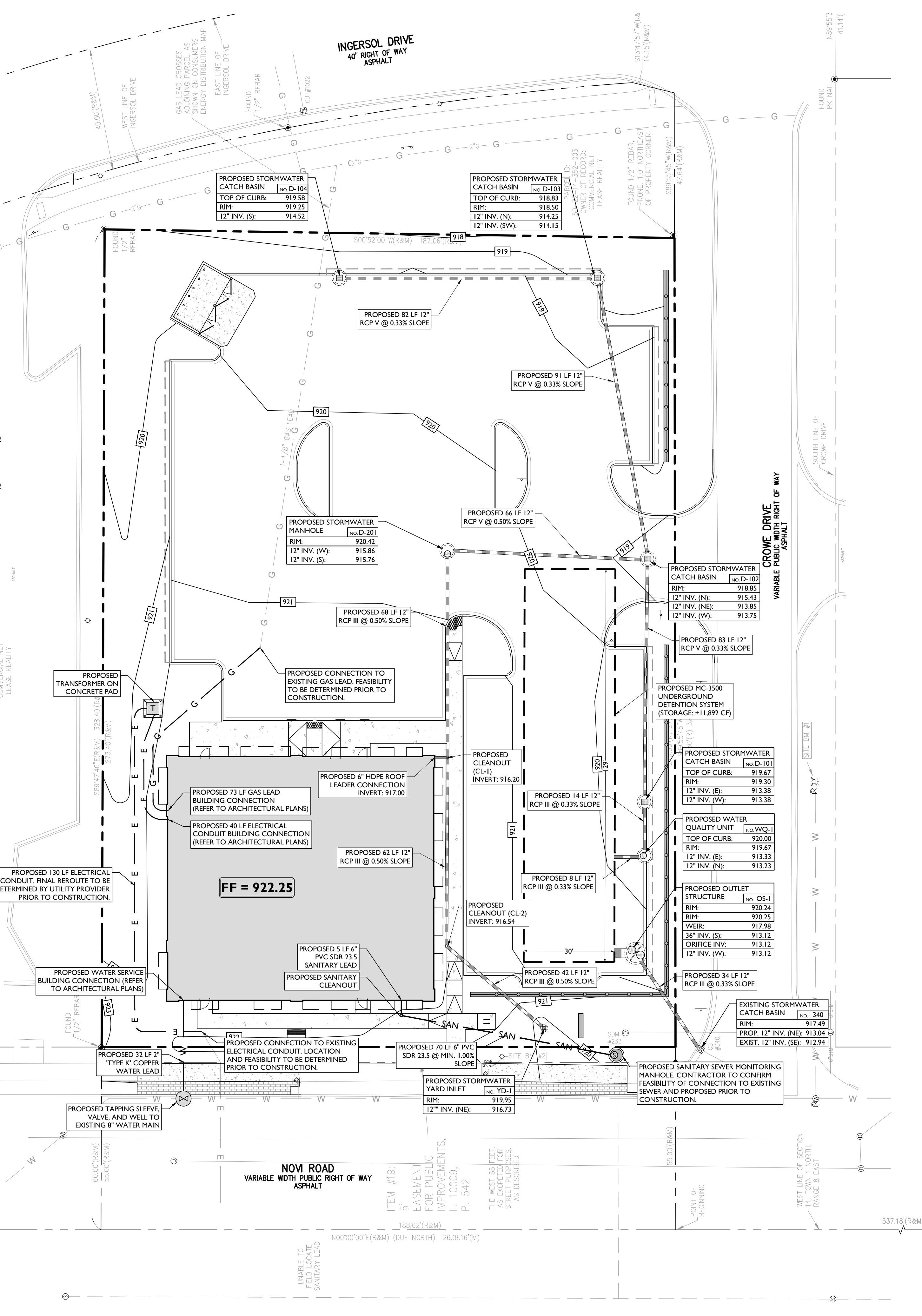






**MANHOLE SCHEDULE:**

- STORM DRAIN MANHOLE (SDM #233)**  
RIM=921.32  
8" RCP, EAST, 914.731.E.  
12" RCP, SOUTH, 914.712.E.
- ROUND CATCH BASIN (CB #259)**  
RIM=918.88  
8" RCP, EAST, 916.501.E.
- SQUARE CATCH BASIN (CB #340)**  
RIM=917.49  
12" RCP, SOUTHEAST, 912.941.E.
- ROUND CATCH BASIN (CB #531)**  
RIM=920.42  
8" RCP, EAST, 916.951.E.
- STORM DRAIN MANHOLE (SDM #569)**  
RIM=922.24  
12" RCP, SOUTH, 910.241.E.
- STORM DRAIN MANHOLE (SDM #578)**  
RIM=916.04  
12" RCP, WEST, 912.041.E.  
12" RCP, SOUTHEAST, 912.041.E.
- STORM DRAIN MANHOLE (SDM #580)**  
RIM=916.24  
12" RCP, NORTH, 909.591.E.  
12" RCP, SOUTH, 909.591.E.  
12" RCP, EAST, 911.741.E.  
12" RCP, WEST, 911.341.E.
- STORM DRAIN MANHOLE (SDM #943)**  
RIM=916.91  
12" RCP, NORTH, 914.391.E.  
6" STEEL, WEST, 910.441.E.  
6" STEEL, EAST, 910.561.E.
- SQUARE CATCH BASIN (CB #1022)**  
RIM=917.02  
12" RCP, EAST, 912.671.E.
- SANITARY SEWER MANHOLE (SMH #1190)**  
RIM=916.57  
8" PIPE, NORTH, 904.971.E.  
8" PIPE, SOUTH, 904.971.E.
- SANITARY SEWER MANHOLE (SMH #1192)**  
RIM=922.38  
8" PIPE, SOUTH, 910.481.E.
- SQUARE CATCH BASIN (CB #20418)**  
RIM=915.33  
12" RCP, NORTHWEST, 911.981.E.  
12" RCP, NORTHEAST, 912.081.E.



**STORMWATER MANAGEMENT CALCULATIONS**  
(Based on the City of Novi Engineering Design Manual)

Project: 26222 Novi Road, Novi, MI Designer: MG Date: 11/23/20

Landcover	Area (SF)	C-Value*	Weighted Value
Building / Roof	7,000	0.95	6,650
Asphalt or Concrete Pavements	29,161	0.95	27,703
Open Space (HSG C <4% Slope)	13,948	0.30	4,184
<b>Subtotals</b>	<b>50,109</b>		<b>38,537</b>
<b>Total Area (Acres)</b>	<b>1.15</b>		

\*C-values obtained from City of Novi Engineering Design Manual

Composite C Value, C: 0.77

Relative Imperviousness C Value, C<sub>IMP</sub>: 0.69

**ALLOWABLE SITE DISCHARGE & BASIN DISCHARGE RATIO**

Site Area, A: 1.15 AC

\*Allowable Discharge Ratio: 0.15 CFS/AC

Allowable Site Discharge, Q<sub>A</sub>: 0.17 CFS

Basin Discharge Ratio, Q: 0.20 CFS/AC\*IMP

Q = Q<sub>A</sub> / (A \* C)

**BASIN STORAGE TIME**

Design Storm Frequency: 100 YR

Basin Storage Time, T: 204.94 MINS

T = -25 + (10.3125 / Q)<sup>0.5</sup>

**BASIN VOLUME REQUIRED**

V = (16,500 \* T / (T + 25)) - 40 \* Q \* T

Basin Volume Ratio, V<sub>r</sub>: 13.107 CF/AC\*IMP

Basin Volume Required, V<sub>TR</sub>: 11,596 CF

V<sub>r</sub> = V \* A \* C

**UTILITY QUANTITIES**

2" TYPE K COPPER	12 LF
8" TAPPING SLEEVE, VALVE, & WELL	1 EA
6" PVC SDR 23.5 PIPE	75 LF
SANITARY CLEANOUT	1 EA
SANITARY MONITORING MANHOLE	1 EA
GAS LINE	73 LF
ELECTRICAL CONDUIT	170 LF
STORM - 12" RCP III	272 LF
STORM - 12" RCP V	278 LF
STORM - 6" HDPE ROOF LINE	3 LF
STORM - CATCH BASINS	4 EA
STORM - MANHOLE	1 EA
STORM - YARD INLET	1 EA
STORM - WATER QUALITY UNIT	1 EA
STORM - OUTLET STRUCTURE	1 EA

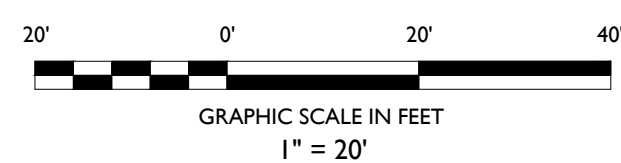
FOR MUNICIPAL REFERENCE ONLY. CONTRACTOR TO VERIFY QUANTITIES PRIOR TO CONSTRUCTION.

**SYMBOL DESCRIPTION**

- PROPERTY LINE
- SAN PROPOSED SANITARY LATERAL
- W PROPOSED DOMESTIC WATER SERVICE
- E PROPOSED ELECTRICAL CONDUITS
- G PROPOSED GAS LINE
- ⊗ PROPOSED VALVE
- T PROPOSED TRANSFORMER ON CONCRETE PAD WITH BOLLARDS
- ⊙ PROPOSED SANITARY STRUCTURES
- 100 PROPOSED GRADING CONTOUR
- PROPOSED STORMWATER PIPING
- ⊙ PROPOSED STORMWATER STRUCTURES

**DRAINAGE AND UTILITY NOTES**

- THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
- THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
- A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
- ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
- THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
- CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UPGRADIENT.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CARPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS SHOWN WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
- COMPACTED SAND BACKFILL (MDOT SAND CLASS 2) SHALL BE PROVIDED FOR ALL UTILITIES WITHIN THE INFLUENCE OF PAVED AREAS.



NO.	DATE	ISSUE	BY	DESCRIPTION
3	11/24/2020	MG		FOR OWNER REVIEW
2	11/11/2020	MG		FOR OWNER REVIEW
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**NOT APPROVED FOR CONSTRUCTION**

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**SITE DEVELOPMENT PLANS**

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26222 NOVI ROAD  
PROPOSED MULTI-TENANT  
COMMERCIAL BUILDING

SECTION 1.4  
PARCEL ID: 22-14332-002  
26222 NOVI ROAD  
CITY OF NOVI  
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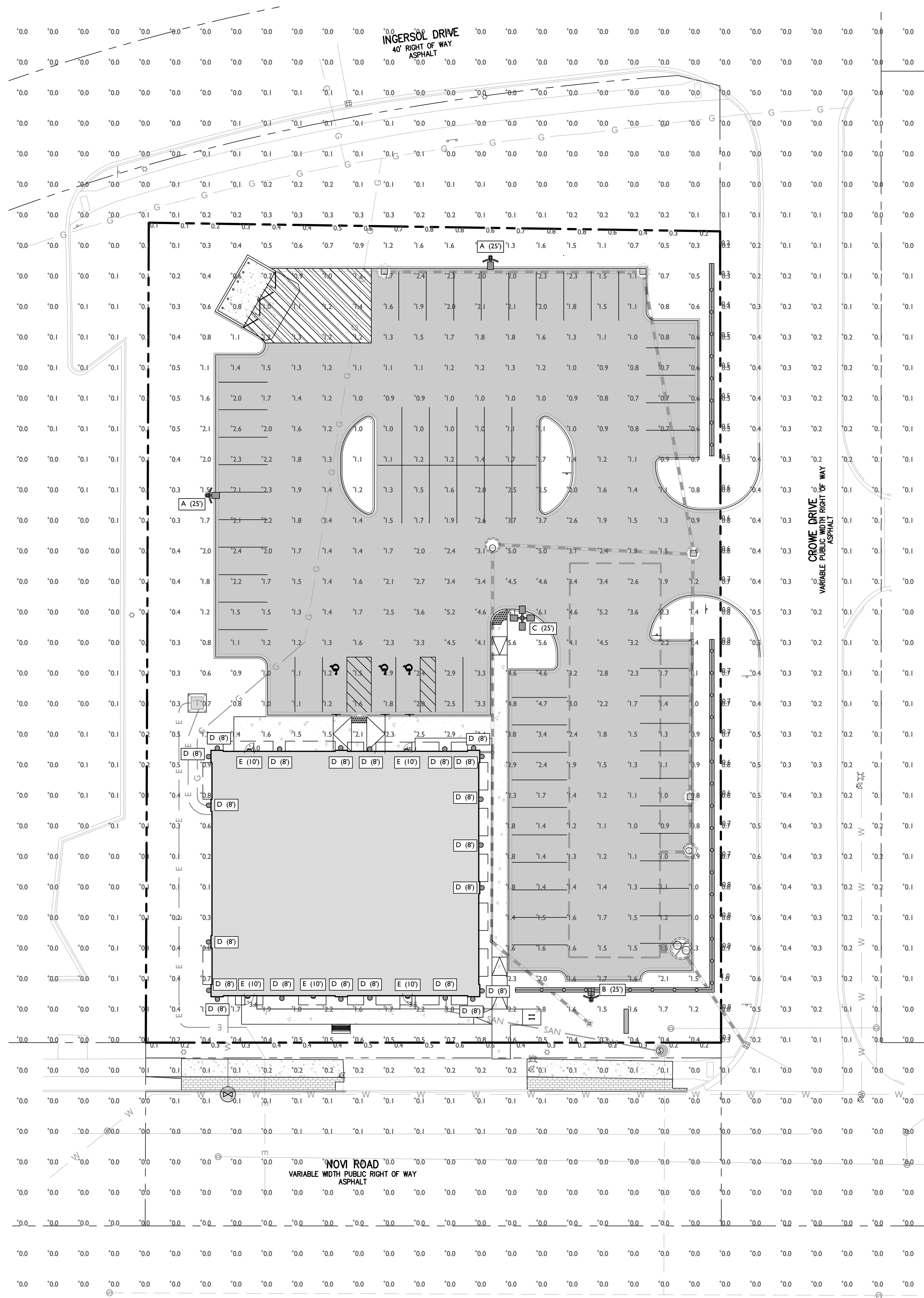
**STONEFIELD**  
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SCALE: 1" = 20' PROJECT ID: DET-200133

TITLE:  
**UTILITY & STORMWATER  
MANAGEMENT PLAN**

DRAWING:

**C-5**



SYMBOL	DESCRIPTION
---	PROPERTY LINE
A (XX')	PROPOSED LIGHTING FIXTURE (MOUNTING HEIGHT)
+xx	PROPOSED LIGHTING INTENSITY (FOOTCANDLES)
[Hatched Box]	PARKING AREA
[Diagonal Lines Box]	LOADING AREA

PROPOSED LUMINAIRE SCHEDULE							
SYMBOL	LABEL	QUANTITY	FIXTURES	DISTRIBUTION	LLF	MANUFACTURER	IES FILE
[Symbol A]	A	2	PREVAL LED AREA LIGHT WITH HOUSE SIDE SHIELD - SERIES PPRV - 4000K	TYPE III	0.9	EATON	PRV-C25-D-UNV-T3-BZ-7030-HSS
[Symbol B]	B	1	PREVAL LED AREA LIGHT WITH HOUSE SIDE SHIELD - SERIES PPRV - 4000K	TYPE IV	0.9	EATON	PRV-C25-D-UNV-T4-BZ-7030-HSS
[Symbol C]	C	1	PREVAL LED AREA LIGHT WITH HOUSE SIDE SHIELD - SERIES PPRV - 4000K - 4 FIXTURES @ 90°	TYPE IV	0.9	EATON	PRV-C25-D-UNV-T4-BZ-7030-HSS
[Symbol D]	D	21	LEDA OUTDOOR LED SCNCE - 4000K	TYPE IV	0.9	OXYGEN	3-712-222 Leda
[Symbol E]	E	5	ALL WEATHER LED WALLPACK - 4000K	TYPE II	0.9	LSI	AWL

LIGHTING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§5.7.3.A	MAXIMUM MOUNTING HEIGHT: 25 FT	25 FT
§5.7.3.E	AVERAGE UNIFORM ILLUMINATION RATIO FOR PAVED AREAS: FOUR TO ONE (4:1)	3.12:1 <sup>(1)</sup>
§5.7.3.K	MAXIMUM PROPERTY LINE ILLUMINATION: 1.0 FC	1.0 FC
	MINIMUM ON-SITE ILLUMINATION LEVELS:	
	PARKING AREAS: 0.2 FC	0.6 FC
	LOADING/UNLOADING AREAS: 0.4 FC	0.9 FC
	WALKWAYS: 0.2 FC	0.6 FC
	BUILDING ENTRANCE: 1.0 FC	3.5 FC
	BUILDING ENTRANCE (INFREQUENT USE): 0.2 FC	N/A

(1) AVERAGE UNIFORM RATIO CALCULATED FOR ALL PAVED AREAS WITHIN THE SHOWN PROPERTY LINE AS DISCUSSED WITH THE CITY OF NOVI'S ENGINEERING DEPARTMENT

**GENERAL LIGHTING NOTES**

- THE LIGHTING LEVELS DEPICTED WITHIN THE PLAN SET ARE CALCULATED UTILIZING DATA OBTAINED FROM THE LISTED MANUFACTURER. ACTUAL ILLUMINATION LEVELS AND PERFORMANCE OF ANY PROPOSED LIGHTING FIXTURE MAY VARY DUE TO UNCONTROLLABLE VARIABLES SUCH AS WEATHER, VOLTAGE SUPPLY, LAMP TOLERANCE, EQUIPMENT SERVICE LIFE AND OTHER VARIABLE FIELD CONDITIONS.
- WHERE APPLICABLE, THE EXISTING LIGHT LEVELS DEPICTED WITHIN THE PLAN SET SHALL BE CONSIDERED APPROXIMATE. THE EXISTING LIGHT LEVELS ARE BASED ON FIELD OBSERVATIONS AND THE MANUFACTURER'S DATA OF THE ASSUMED OR MOST SIMILAR LIGHTING FIXTURE MODEL.
- UNLESS NOTED ELSEWHERE WITHIN THIS PLAN SET, THE LIGHT LOSS FACTORS USED IN THE LIGHTING ANALYSIS ARE AS FOLLOWS:
  - LIGHT EMITTING DIODES (LED): 0.90
  - HIGH-PRESSURE SODIUM: 0.72
  - METAL HALIDE: 0.72
- THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC, IN WRITING, PRIOR TO THE START OF CONSTRUCTION, OF ANY PROPOSED LIGHTING LOCATIONS THAT CONFLICT WITH EXISTING/PROPOSED DRAINAGE, UTILITY, OR OTHER IMPROVEMENTS.
- THE CONTRACTOR IS RESPONSIBLE TO PREPARE A WIRING PLAN AND PROVIDE ELECTRICAL SERVICE TO ALL PROPOSED LIGHTING FIXTURES. THE CONTRACTOR IS REQUIRED TO PREPARE AN AS-BUILT PLAN OF WIRING AND PROVIDE COPIES TO THE OWNER AND STONEFIELD ENGINEERING & DESIGN, LLC.

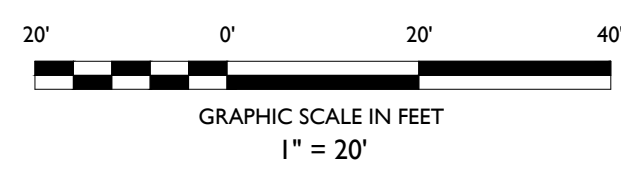
**CITY OF NOVI LIGHTING NOTES**

- ELECTRICAL SERVICE TO LIGHT FIXTURES SHALL BE PLACED UNDERGROUND.
- FLASHING LIGHT SHALL NOT BE PERMITTED.
- ONLY NECESSARY LIGHTING FOR SECURITY PURPOSES & LIMITED OPERATIONS SHALL BE PERMITTED AFTER SITE'S HOURS OF OPERATIONS.

**HOURS OF OPERATION: 9AM - 8PM**

**NEIGHBORING PROPERTIES:**

IMPACT FROM SPILL-OVER LIGHTING IS NOT ANTICIPATED FROM ADJACENT PROPERTIES WITH LANDSCAPE SCREENING IN PLACE.



NO.	DATE	ISSUE	BY	DESCRIPTION
3	11/24/2020	MG		FOR OWNER REVIEW
2	11/11/2020	MG		FOR OWNER REVIEW
1	09/16/2020	AF/MG		FOR PRELIMINARY SITE PLAN APPROVAL

**NOT APPROVED FOR CONSTRUCTION**

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www.stonefielddesign.com

607 Shelby Suite 200, Detroit, MI 48226  
Phone 248.247.1115

**SITE DEVELOPMENT PLANS**

**STORIE LOU PLAZA**  
26222 NOVI ROAD  
PROPOSED MULTI-TENANT  
COMMERCIAL BUILDING

SECTION 1.4  
PARCEL ID: 22-14332-002  
26222 NOVI ROAD  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

MICHIGAN LICENSE No.6201069428  
LICENSED PROFESSIONAL ENGINEER

**STONEFIELD**  
engineering & design

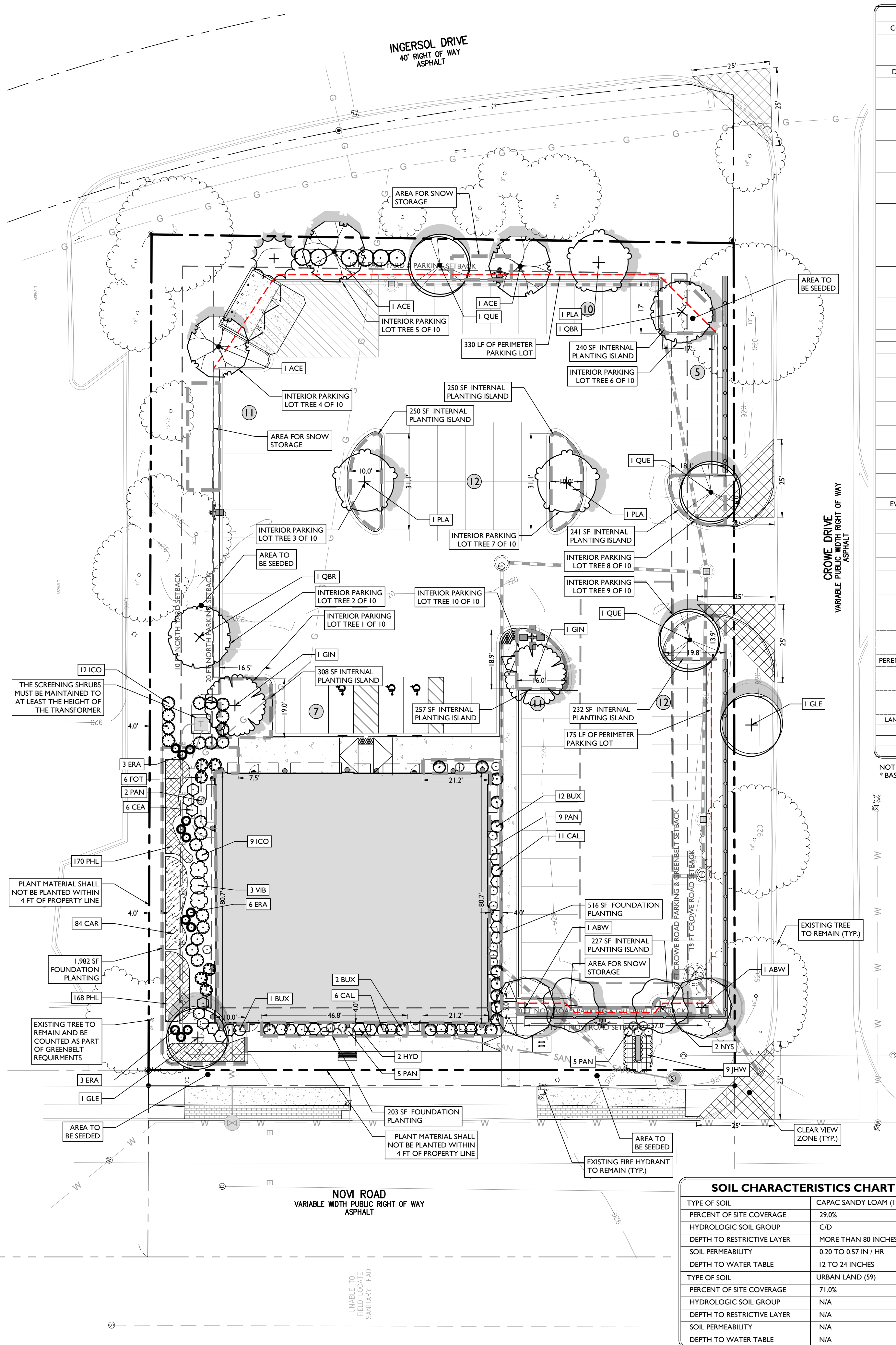
SCALE: 1" = 20' PROJECT ID: DET-200133

TITLE:  
**LIGHTING PLAN**

DRAWING:  
**C-6**

V:\PROJECTS\2021\2021-14332-002\NOVI ROAD, NOVI, MICH\2021\2021-14332-002-LIGHTING





PLANT SCHEDULE												
CONIFEROUS TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS	QTY	UNIT COST	TOTAL	GENUS %	SPECIES %	
JUN	JUN	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	6' - 7' HT	B&B	NATIVE	1	\$325	\$325	5.0%	5.0%	
DECIDUOUS TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS	QTY	UNIT COST	TOTAL	GENUS %	SPECIES %	
ACE	ACE	ACER RUBRUM	RED MAPLE	2.5" - 3" CAL	B&B	NATIVE	3	\$400	\$1,200	25.0%	15.0%	
ABW	ABW	ACER RUBRUM 'BOWHALL'	BOWHALL RED MAPLE	3" - 3.5" CAL	B&B	NATIVE	2	\$400	\$800	10.0%	10.0%	
GIN	GIN	GINKGO BILOBA	MAIDENHAIR TREE	3" - 3.5" CAL	B&B	NATIVE	2	\$400	\$800	10.0%	10.0%	
GLE	GLE	GLADSTONIA TRIACANTHOS	HONEY LOCUST	3" - 3.5" CAL	B&B	NATIVE	2	\$400	\$800	10.0%	10.0%	
NYS	NYS	NYSSA SYLVATICA	SOUR GUM	3" - 3.5" CAL	B&B	NATIVE	2	\$400	\$800	10.0%	10.0%	
PLA	PLA	PLATANUS X ACERIFOLIA	LONDON PLANE TREE	2.5" - 3" CAL	B&B	NOT NATIVE	3	\$400	\$1,200	15.0%	15.0%	
QUE	QUE	QUERCUS ALBA	WHITE OAK	3" - 3.5" CAL	B&B	NATIVE	3	\$400	\$1,200	25.0%	15.0%	
QBR	QBR	QUERCUS BOREALIS	NORTHERN RED OAK	2.5" - 3" CAL	B&B	NATIVE	2	\$400	\$800	10.0%	10.0%	
TOTAL							20			100%	100%	
SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS	QTY	UNIT COST	TOTAL			
CEA	CEA	CEANOTHUS AMERICANUS	NEW JERSEY TEA	18" - 24"	POT	NATIVE	6	\$50	\$300			
CAL	CAL	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	18" - 24"	POT	NOT NATIVE	17	\$50	\$850			
EJO	EJO	EUONYMUS ALATUS	WINGED EUONYMUS	36" - 42"	B&B	NOT NATIVE	6	\$50	\$300			
FOT	FOT	FOTHERGILLA GARDENII	DWARF FOTHERGILLA	18" - 24"	POT	NATIVE	6	\$50	\$300			
HYD	HYD	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER'	BAILMER HYDRANGEA	18" - 24"	POT	NOT NATIVE	5	\$50	\$250			
VIB	VIB	VIBURNUM DENTATUM	VIBURNUM	36" - 42"	POT	NATIVE	3	\$50	\$150			
EVERGREEN SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS	QTY	UNIT COST	TOTAL			
BUX	BUX	BUXUS MICROPHYLLA 'WINTER GEM'	GLOBE WINTER GEM BOXWOOD	18" - 24"	B&B	NOT NATIVE	15	\$50	\$750			
ICO	ICO	ILEX GLABRA	INKBERRY	18" - 24"	POT	NATIVE	21	\$50	\$1,050			
GRASSES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS	QTY	UNIT COST	TOTAL			
ERA	ERA	ERAGROSTIS SPECTABILIS	PURPLE LOVE GRASS	1 GAL	POT	NOT NATIVE	12	\$15	\$180			
PAN	PAN	PANICUM VIRGATUM	SWITCH GRASS	1 GAL	POT	NATIVE	21	\$15	\$315			
SHRUB AREAS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS	QTY	UNIT COST	TOTAL			
JHW	JHW	JUNIPERUS HORIZONTALIS 'WILTONII'	BLUE RUG JUNIPER	1 GAL	POT, 36" O.C.	NOT NATIVE	9	\$15	\$135			
PERENNIALS AND GRASSES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS	QTY	UNIT COST	TOTAL			
CAR	CAR	CAREX X 'ICE DANCE'	ICE DANCE SEDGE	1 GAL	POT, 18" O.C.	NOT NATIVE	84	\$3.50	\$294			
PHL	PHL	PHLOX DIVARICATA	WOODLAND PHLOX	1 GAL	PLUG, 18" O.C.	NATIVE	491	\$12	\$5,892			
LANDSCAPING MATERIAL												
MULCH			BROWN HARDWOOD MULCH	1 CYD			19	\$35.00	\$665			
SEED				1 STD			225	\$3.00	\$675			
TOTAL:									\$20,071			

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.  
\*BASED ON MATERIAL COST ONLY - COST MAY VARY.

LANDSCAPING AND BUFFER REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§5.5.3.B.ii	RIGHT-OF-WAY LANDSCAPE SCREENING REDUCTION OF 33% GREENBELT PLANTINGS MAY BE REDUCED IF WALL IS OF MASONRY OR CONCRETE ONE CANOPY OR EVERGREEN TREE PER 25 LF: [CROWE DRIVE: (270 - 28 LF)/25 * .67 = 6 REQUIRED TREES] [NOVI ROAD: (116 LF)/30 + ((70/25) * .67) = 6 TREES]	2-1/2 FOOT WALL PROPOSED ALONG CROWE & PORTIONS OF NOVI 4 EXISTING TREES & 4 PROPOSED TREES 1 EXISTING TREE & 5 PROPOSED TREES 84 FT (W) 20.0 FT
§5.5.3.C.g	EACH ISLAND: MINIMUM 200 SF WITH 10 FT WIDTH MINIMUM 3 FT BACK OF CURB TO TREE TRUNK	COMPLIES
§5.5.3.C.iii	TOTAL INTERIOR PARKING LOT ISLAND AREA AND CANOPY TREE CHART: CATEGORY I, TC ZONE a. [25,926 SF OF PARKING STALLS * 0.075] = 1,945 b. [0.0 SF OF ADDITIONAL PAVED AREA (OVER 50,000 SF * 0.01)] = 0 c. TOTAL SF OF LANDSCAPE ISLANDS REQUIRED A+B = TOTAL SF OF ISLANDS [1,945 + 0 = 1,945 SF] d. NUMBER OF CANOPY TREES REQUIRED c / 200 = TOTAL CANOPY TREES [1,945 / 200 = 10 TREES]	2,005 SF INTERIOR LANDSCAPE ISLAND 10 TOTAL INTERIOR TREES PROPOSED
§5.5.3.D.i	MINIMUM FOUNDATION LANDSCAPE SQUARE FOOTAGE IS 8 FT MULTIPLIED BY BUILDING PERIMETER (NOT INCLUDING INGRESS / EGRESS) [320 FT * 8 FT = 2,560 SF REQUIRED]	2,701 SF FOUNDATION LANDSCAPE AREA
§5.5.3.D.ii	LANDSCAPE PLANTING BEDS MINIMUM 75% OF BUILDING FOUNDATION AREA WITH 4 FT WIDTH. [337 LF * 75% = 253 LF REQUIRED PLANTING BED]	268.1 LF (79.6%) OF FOUNDATION LANDSCAPE BEDS
§5.5.3.D.iii	FAÇADES ADJACENT TO PUBLIC STREET SHALL HAVE MINIMUM 60% PERIMETER AS GREENSPACE [88 LF OF BUILDING FRONTAGE AT NOVI ROAD * 0.60 = 53 REQUIRED LF OF GREENSPACE]	78 LF (88.6%) PROPOSED

**IRRIGATION NOTE:**

IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA PRIOR TO CONSTRUCTION. DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL WHERE POSSIBLE. DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE IMPLEMENTED. CONTRACTOR TO VERIFY MAXIMUM ON SITE DYNAMIC WATER PRESSURE AVAILABLE MEASURED IN PSI. PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVES, PIPING, HEADS, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN HARDCAPE AREAS.

CITY MUST APPROVE ANY SUBSTITUTIONS IN WRITING PRIOR TO INSTALLATION

NO EXISTING OR PROPOSED OVERHEAD UTILITY LINES ON SITE

ANY TREE ON SITE WHICH IS REMOVED THAT IS NOT PERMITTED MUST BE REPLACED.

**LANDSCAPING NOTES**

- THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
- THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH.
- THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
- THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABRUPT CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS.
- LANDSCAPING SHOULD BE PLANTED BETWEEN MARCH 15 - NOVEMBER 15 PER CITY OF NOVI'S RECOMMENDATION.
- ANY SPECIE SUBSTITUTIONS WILL REQUIRE WRITTEN APPROVAL BY CITY OF NOVI'S LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- INSTALLATION OF SILT FENCING OR TREE PROTECTION FENCING SHALL NOT OCCUR PRIOR TO THE INITIAL CITY PRE-CONSTRUCTION MEETING.
- WHEN NATURAL FEATURES EXIST ON THE SITE, INSPECTION OF STAKING MAY BE REQUIRED PRIOR TO INSTALLATION OF THE FENCING.

**ZONING NOTES**

- ALL ADJACENT PROPERTIES ARE WITHIN ZONING DISTRICT TC TOWN CENTER.

**SOIL CHARACTERISTICS CHART**

TYPE OF SOIL	CAPAC SANDY LOAM (11B)
PERCENT OF SITE COVERAGE	29.0%
HYDROLOGIC SOIL GROUP	C/D
DEPTH TO RESTRICTIVE LAYER	MORE THAN 80 INCHES
SOIL PERMEABILITY	0.20 TO 0.57 IN / HR
DEPTH TO WATER TABLE	12 TO 24 INCHES
TYPE OF SOIL	URBAN LAND (S9)
PERCENT OF SITE COVERAGE	71.0%
HYDROLOGIC SOIL GROUP	N/A
DEPTH TO RESTRICTIVE LAYER	N/A
SOIL PERMEABILITY	N/A
DEPTH TO WATER TABLE	N/A



Know what's below  
Call before you dig.

PAUL DEVITTO, L.L.A.  
MICHIGAN LICENSE NO. 3901001797  
LICENSED LANDSCAPE ARCHITECT



ISSUE	DATE	BY	DESCRIPTION
3	11/24/2020	MG	FOR OWNER REVIEW
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NOT APPROVED FOR CONSTRUCTION

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**STORIE LOU PLAZA**  
26222 NOVI ROAD  
PROPOSED MULTI-TENANT  
COMMERCIAL BUILDING

SECTION 1.1  
PARCEL ID: 22-14332-002  
26222 NOVI ROAD  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

MICHIGAN LICENSE NO. 6201069428  
LICENSED PROFESSIONAL ENGINEER

SCALE: 1" = 20' PROJECT ID: DET-200133

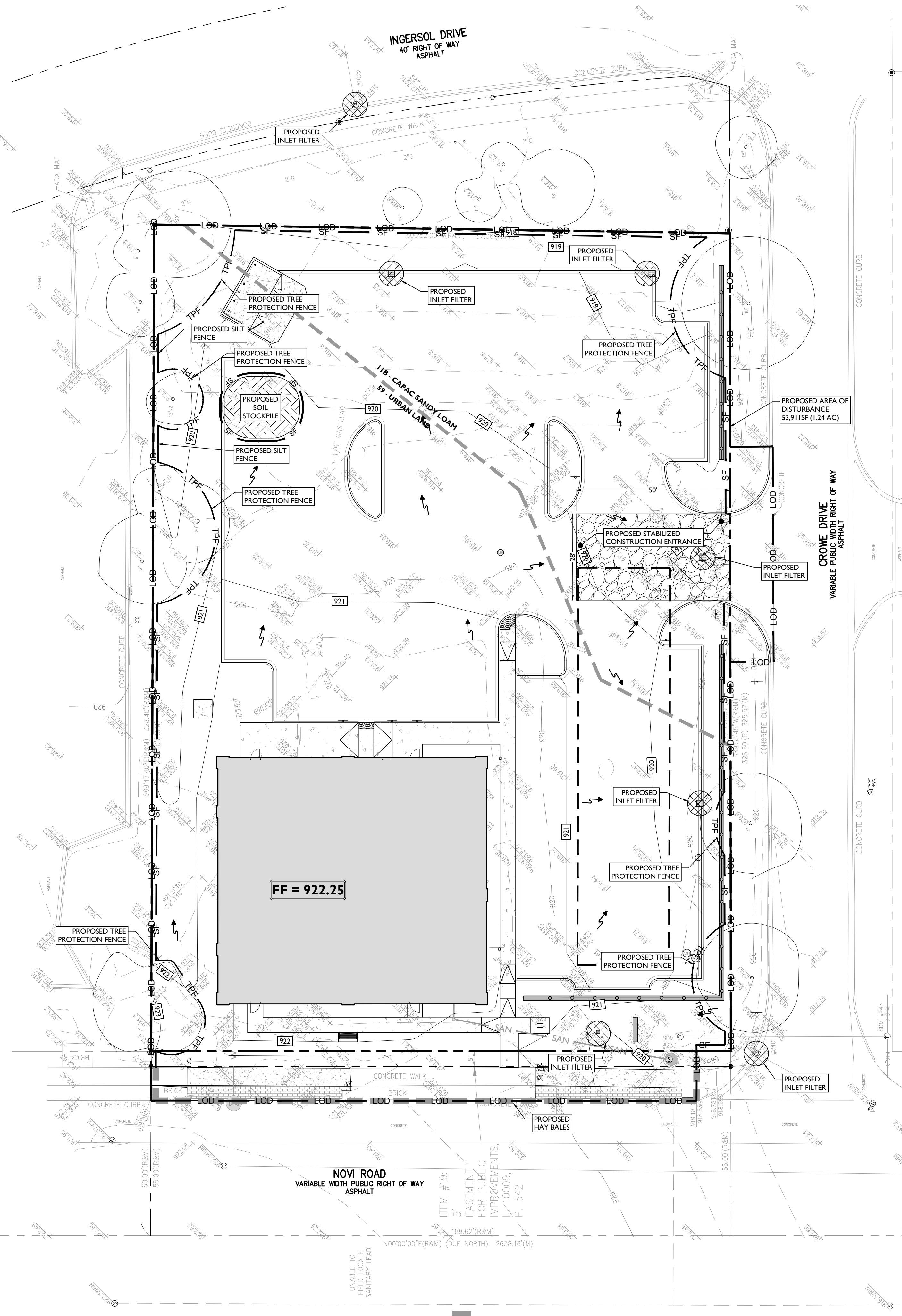
TITLE:  
**LANDSCAPING PLAN**

DRAWING:  
**C-7**









**LOCATION MAP**  
SCALE: 1" = 2,000'±

SYMBOL	DESCRIPTION
---	PROPERTY BOUNDARY
- - -	ADJACENT PROPERTY BOUNDARY
---	SOIL BOUNDARY
---	PROPOSED LIMIT OF DISTURBANCE
---	PROPOSED SILT FENCE
---	PROPOSED TREE PROTECTION FENCE
---	PROPOSED STOCKPILE & EQUIPMENT STORAGE
---	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
---	PROPOSED INLET PROTECTION FILTER
---	PROPOSED HAY BALES

**SOIL CHARACTERISTICS CHART**

TYPE OF SOIL	CAPAC SANDY SLOPE (6BGP)
PERCENT OF SITE COVERAGE	29.0%
HYDROLOGIC SOIL GROUP	C/D
DEPTH TO RESTRICTIVE LAYER	MORE THAN 80 INCHES
SOIL PERMEABILITY	0.20 TO 0.57 IN / HR
DEPTH TO WATER TABLE	12 TO 24 INCHES

**SOIL CHARACTERISTICS CHART**

TYPE OF SOIL	URBAN LAND (6BHP)
PERCENT OF SITE COVERAGE	71.0%
HYDROLOGIC SOIL GROUP	N/A
DEPTH TO RESTRICTIVE LAYER	N/A
SOIL PERMEABILITY	N/A
DEPTH TO WATER TABLE	N/A

- SEQUENCE OF CONSTRUCTION**
- INSTALL SILT FENCE WHERE NECESSARY (2 DAYS).
  - ROUGH GRADING AND TEMPORARY SEEDING (10 DAYS).
  - EXCAVATE AND INSTALL DRAINAGE PIPING, AND INLETS (20 DAYS).
  - INSTALL INLET FILTERS (1 DAY).
  - BUILDING CONSTRUCTION AND SITE IMPROVEMENTS (90 DAYS).
  - LANDSCAPING IMPROVEMENTS AND FINAL SEEDING (7 DAYS).
  - REMOVE SOIL EROSION MEASURES (1 DAY).

- SOIL EROSION AND SEDIMENT CONTROL NOTES**
- THE CONTRACTOR IS RESPONSIBLE FOR SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
  - THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL AIR QUALITY STANDARDS.
  - THE CONTRACTOR IS RESPONSIBLE TO INSPECT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES WEEKLY AND AFTER A PRECIPITATION EVENT GREATER THAN 1 INCH. THE CONTRACTOR SHALL MAINTAIN AN INSPECTION LOG ON SITE AND DOCUMENT CORRECTIVE ACTION TAKEN THROUGHOUT THE COURSE OF CONSTRUCTION AS REQUIRED.

**BENCHMARK DATA:**  
CITY OF NOVI BENCHMARK #1542:  
"X" ON NORTH RIM OF SANITARY MANHOLE 25' WEST OF BACK OF CURB AND 45' SOUTH OF DRIVEWAY TO #26179 NOVI ROAD.  
ELEVATION = 915.10 NAVD88

CITY OF NOVI BENCHMARK #2221:  
"X" ON SOUTHEAST FLANGE BOLT OF FIRE HYDRANT AT THE SOUTHWEST CORNER OF GRAND RIVER BOULEVARD AND NOVI ROAD.  
ELEVATION = 910.80 NAVD88

SITE BENCHMARK 1 (SITE BM #1):  
TOP ARROW OF HYDRANT LOCATED ON THE SOUTH SIDE OF CROWE DRIVE ±103 FEET EAST OF NOVI ROAD.  
ELEVATION = 919.97 NAVD88

SITE BENCHMARK 2 (SITE BM #2):  
TOP ARROW OF HYDRANT LOCATED ON THE EAST SIDE OF NOVI ROAD ±75 FEET NORTH OF CROWE ROAD.  
ELEVATION = 923.77 NAVD88

**PROPERTY DESCRIPTION**  
LAND SITUATED IN THE CITY OF NOVI, COUNTY OF OAKLAND, STATE OF MICHIGAN, DESCRIBED AS FOLLOWS:  
NOTE: THAT PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 14, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS BEGINNING ON THE WEST LINE OF SECTION 14, WHICH LINE IS ALSO THE CENTERLINE OF NOVI ROAD, 66 FEET WIDE, AT A POINT DISTANT DUE NORTH 537.18 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION 14, THENCE CONTINUING ALONG THE WEST LINE OF SAID SECTION 14, DUE NORTH 188.62 FEET; THENCE SOUTH 89 DEGREES 47 MINUTES 40 SECONDS EAST 238.40 FEET; THENCE SOUTH 00 DEGREES 52 MINUTES 00 SECONDS WEST 187.04 FEET; THENCE SOUTH 89 DEGREES 55 MINUTES 45 SECONDS WEST 325.50 FEET TO THE POINT OF BEGINNING, EXCEPT THE WEST 55 FEET DEEDED FOR ROAD PURPOSES.

**PARCEL AREA**  
SUBJECT PARCEL AS DESCRIBED CONTAINS 551,051 SQUARE FEET OF LAND BEING ±1.17 ACRES OF LAND.

**BASIS OF BEARING**  
THE BASIS OF BEARING IS THE WEST LINE OF SECTION 14, TOWN 1 NORTH, RANGE 8 WEST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN.

NO.	DATE	ISSUE	DESCRIPTION
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**NOT APPROVED FOR CONSTRUCTION**

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**SITE DEVELOPMENT PLANS**

**STORIE LOU PLAZA**  
26222 NOVI ROAD  
PROPOSED MULTI-TENANT  
COMMERCIAL BUILDING

SECTION 14,  
PARCEL ID: 22-14352-002  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

MICHIGAN LICENSE No. 6201069428  
LICENSED PROFESSIONAL ENGINEER

**STONEFIELD**  
engineering & design

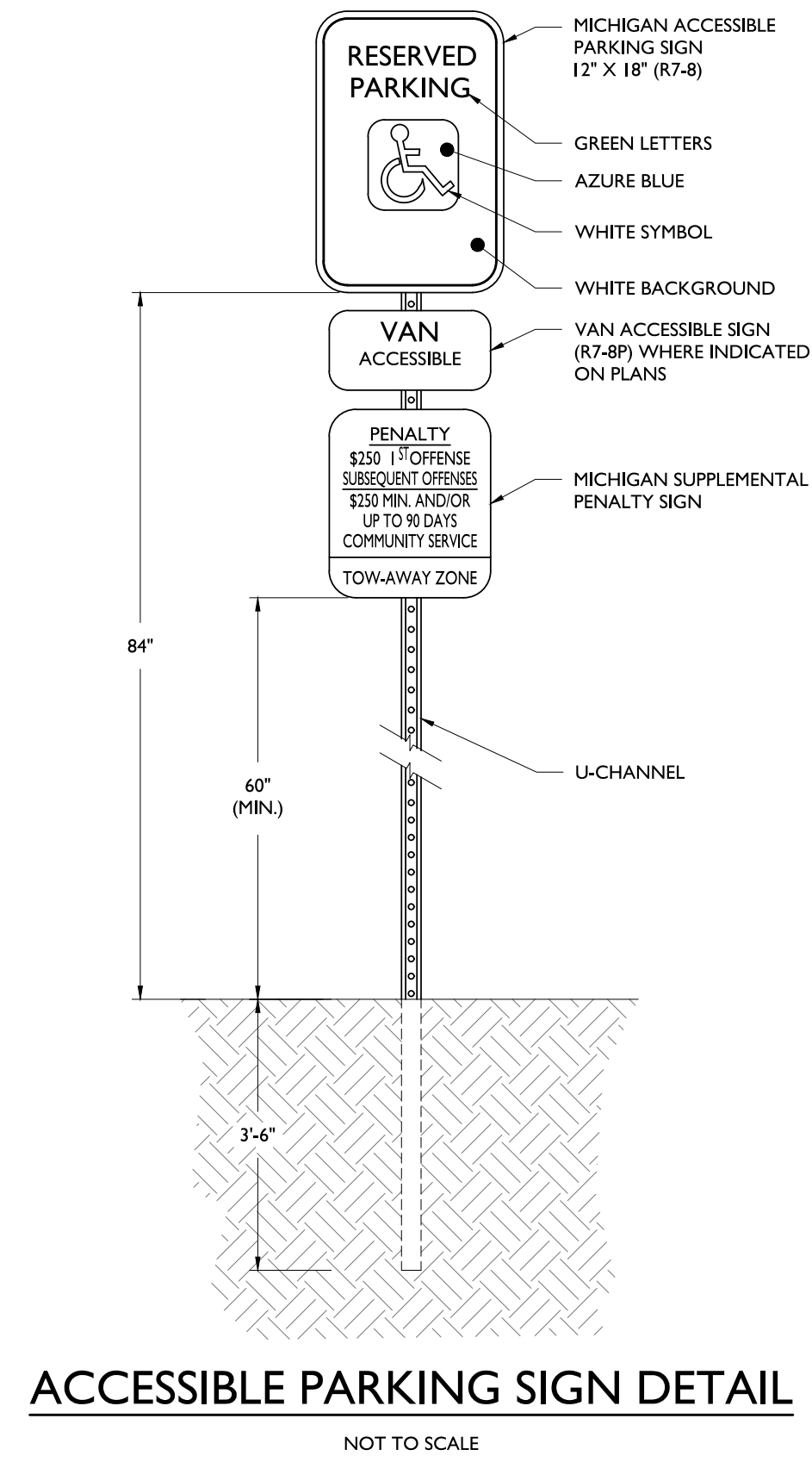
SCALE: 1" = 20' PROJECT ID: DET-200133

TITLE:  
**SOIL EROSION & SEDIMENT CONTROL PLAN**

DRAWING:  
**C-9**

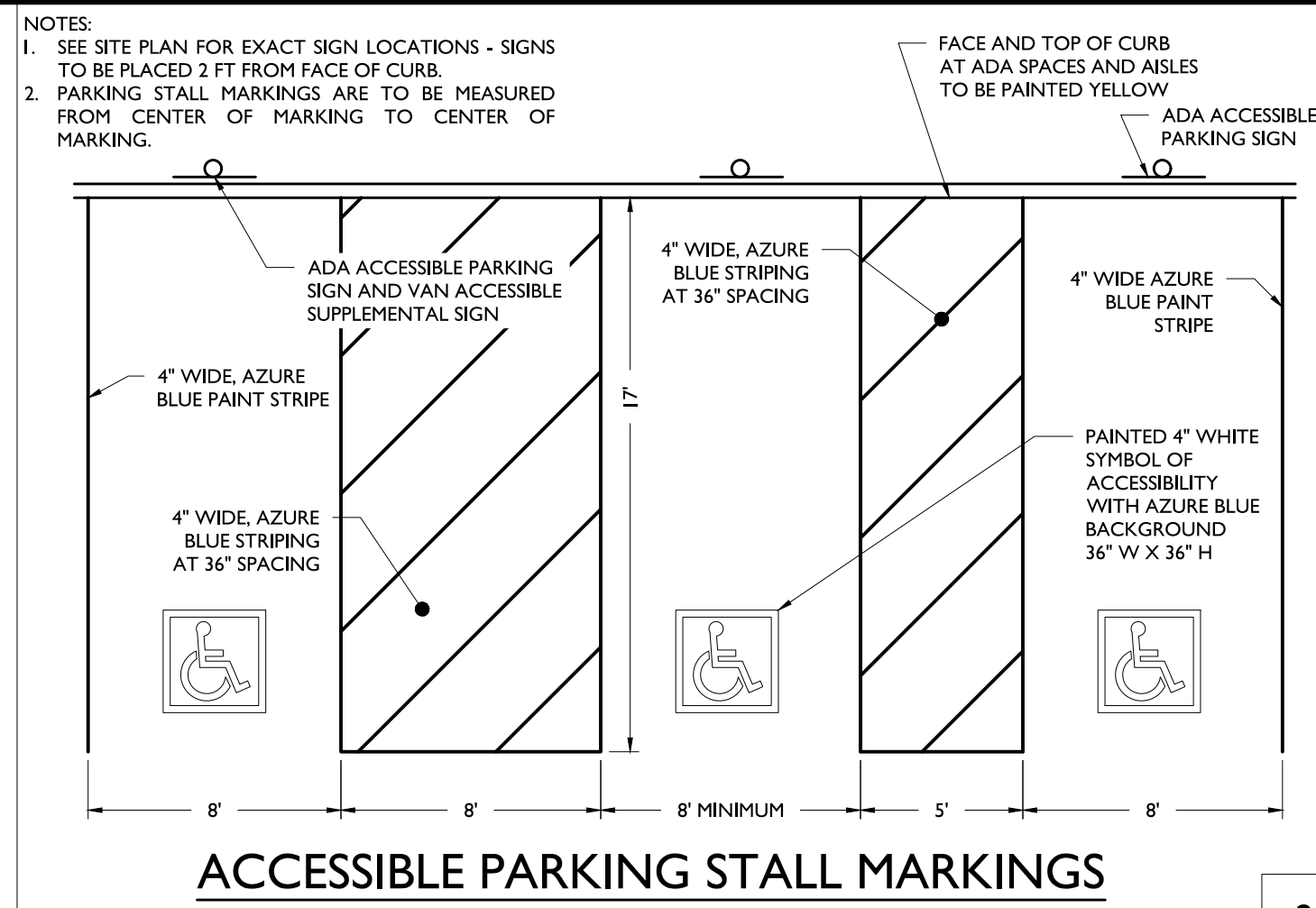
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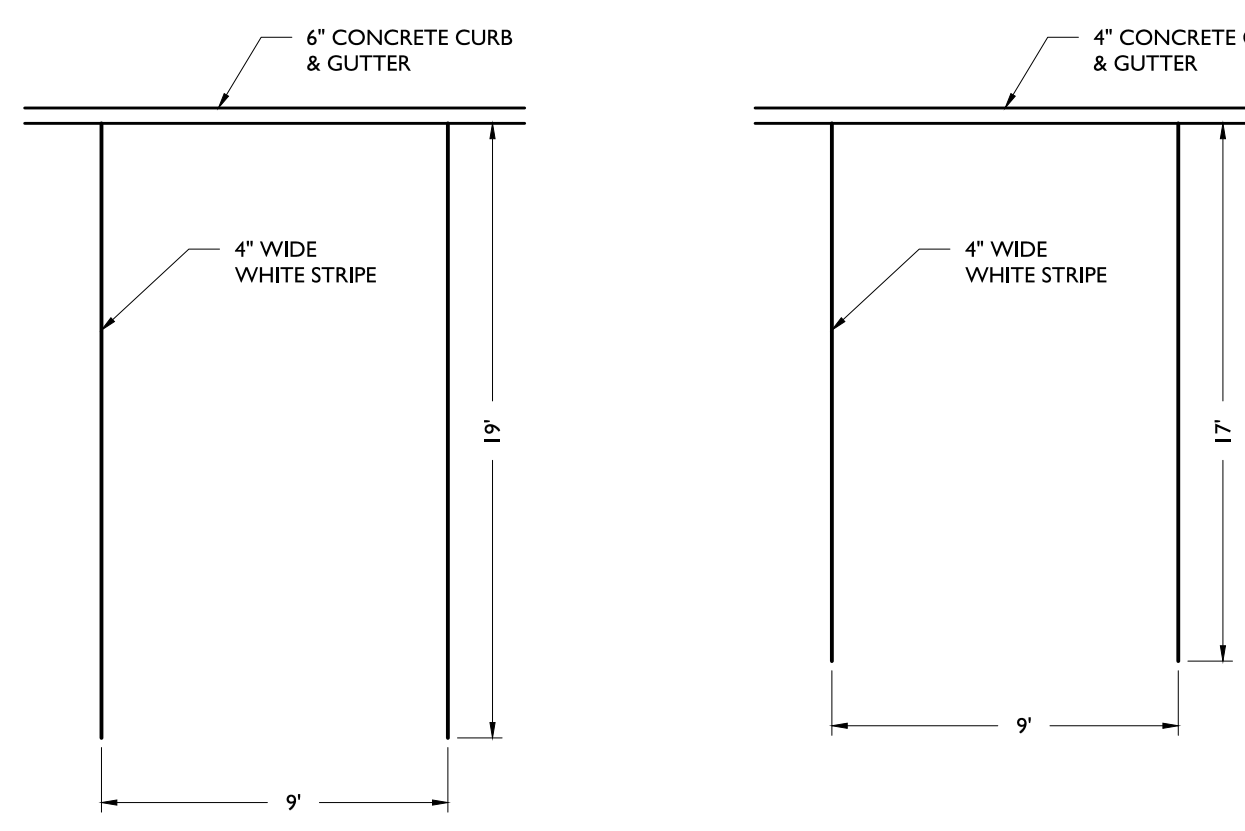
ACCESSIBLE PARKING SIGN DETAIL

NOT TO SCALE



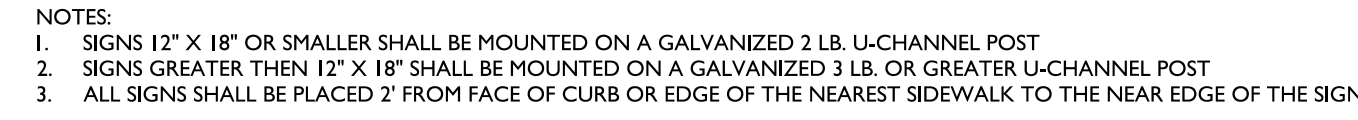
ACCESSIBLE PARKING STALL MARKINGS

NOT TO SCALE



PARKING STALL MARKINGS

3

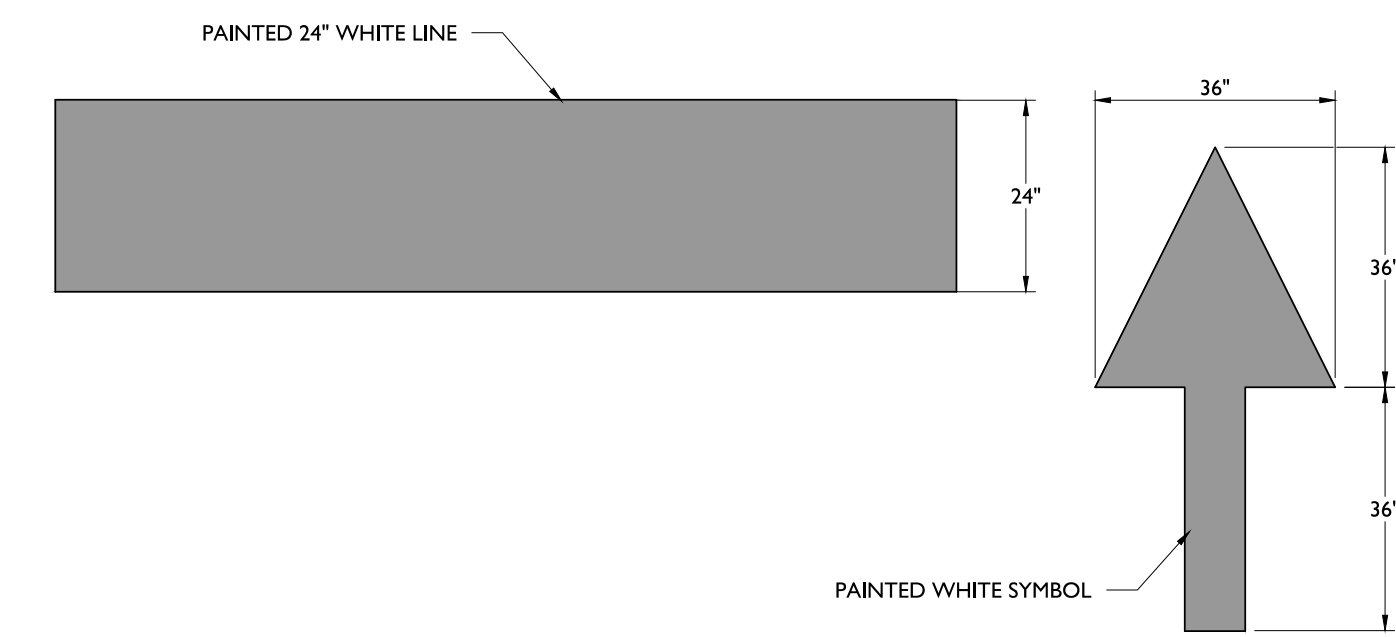


SIGN POST DETAIL

NOT TO SCALE

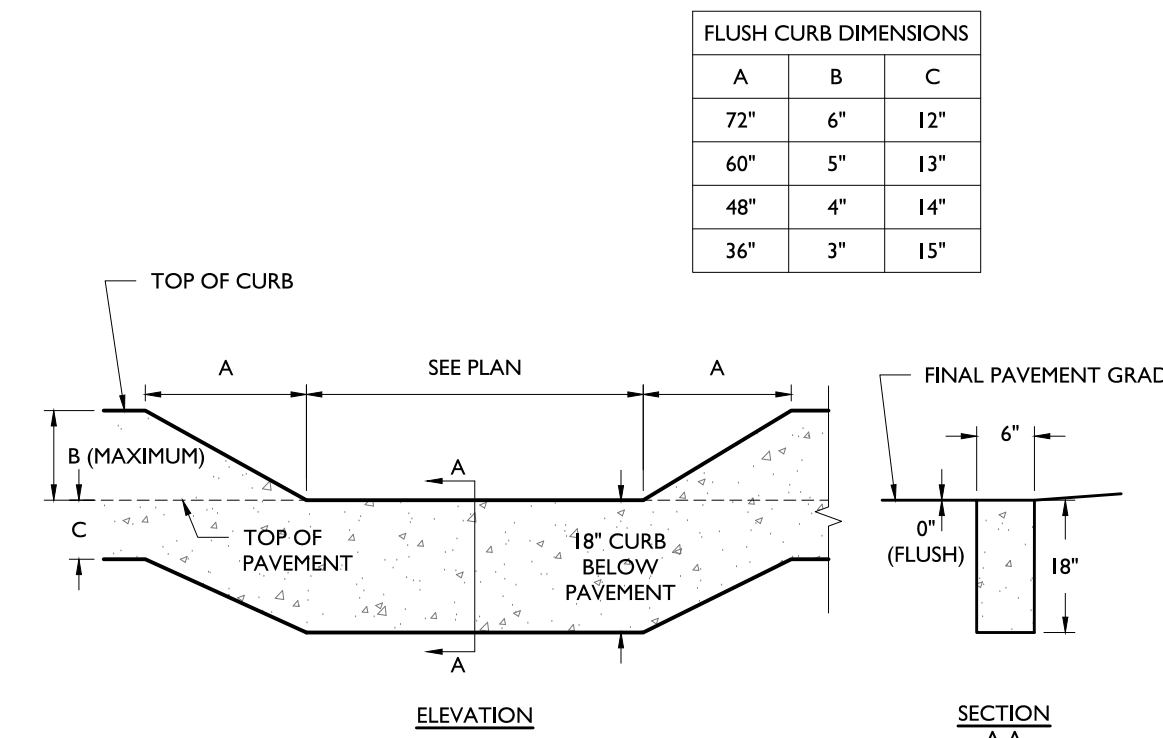
- NOTES:
- SIGNS 12" X 18" OR SMALLER SHALL BE MOUNTED ON A GALVANIZED 2 LB. U-CHANNEL POST
  - SIGNS GREATER THEN 12" X 18" SHALL BE MOUNTED ON A GALVANIZED 3 LB. OR GREATER U-CHANNEL POST
  - ALL SIGNS SHALL BE PLACED 2' FROM FACE OF CURB OR EDGE OF THE NEAREST SIDEWALK TO THE NEAR EDGE OF THE SIGN

4



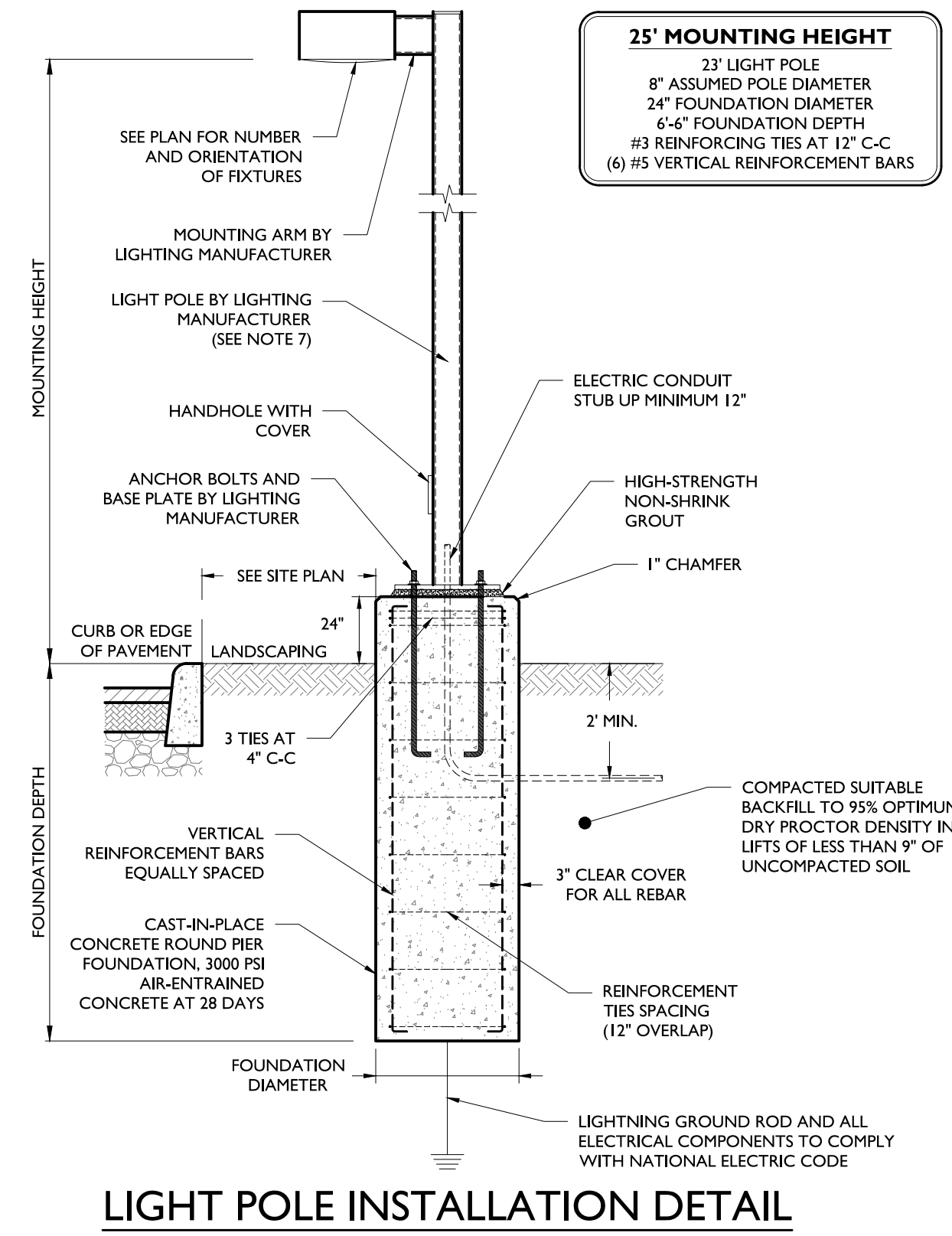
STOP BAR & ARROW DETAILS

NOT TO SCALE



FLUSH CURB DETAIL

6

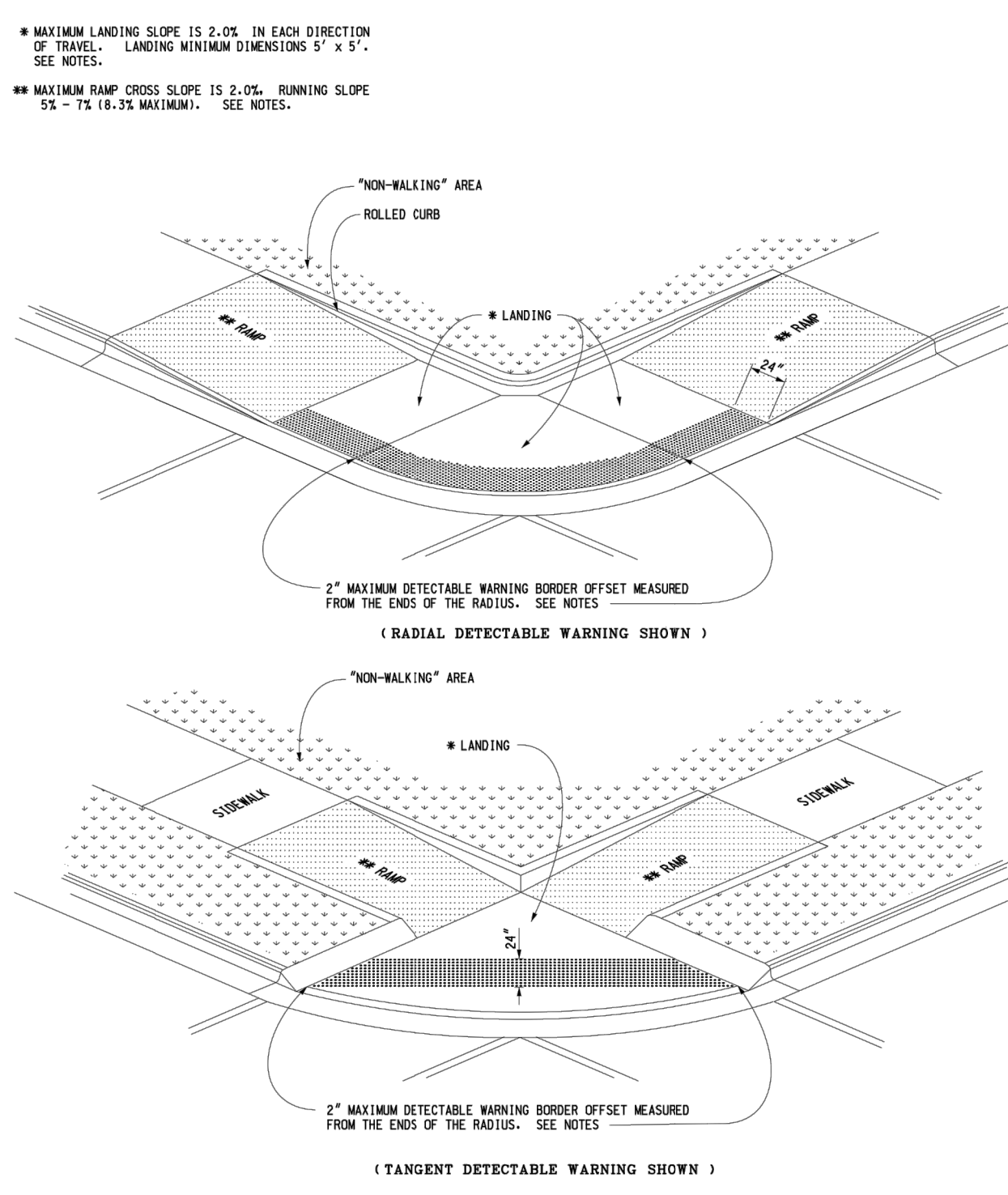


LIGHT POLE INSTALLATION DETAIL

NOT TO SCALE

- NOTES:
- MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
  - CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
  - ALL REBAR TO BE NEW GRADE 60 STEEL.
  - PRE-CAST PIERS ACCEPTABLE UPON WRITTEN APPROVAL OF SHOP DRAWING BY ENGINEER.
  - CONCRETE TO BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO INSTALLING LIGHT POLE. POURED CONCRETE MIX REQUIRED TO OBTAIN 80% OF DESIGN STRENGTH PRIOR TO INSTALLING LIGHT POLE.
  - CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4" (WITHIN 1" TOLERANCE).
  - POLE SHALL BE RATED FOR 10 MPH HIGHER THAN MAXIMUM WIND SPEED 33FT ABOVE GROUND FOR THE AREA BASED ON ANS/JASCE 7.93.
  - POUR TO BE TERMINATED AT A FORM.
  - WORK SHALL CONFORM TO ACI BEST PRACTICES FOR APPROPRIATE TEMPERATURE AND WEATHER CONDITIONS.
  - CONTRACTOR TO TEMPORARILY SUPPORT ADJACENT SOIL AND STRUCTURES DURING EXCAVATION IF REQUIRED.

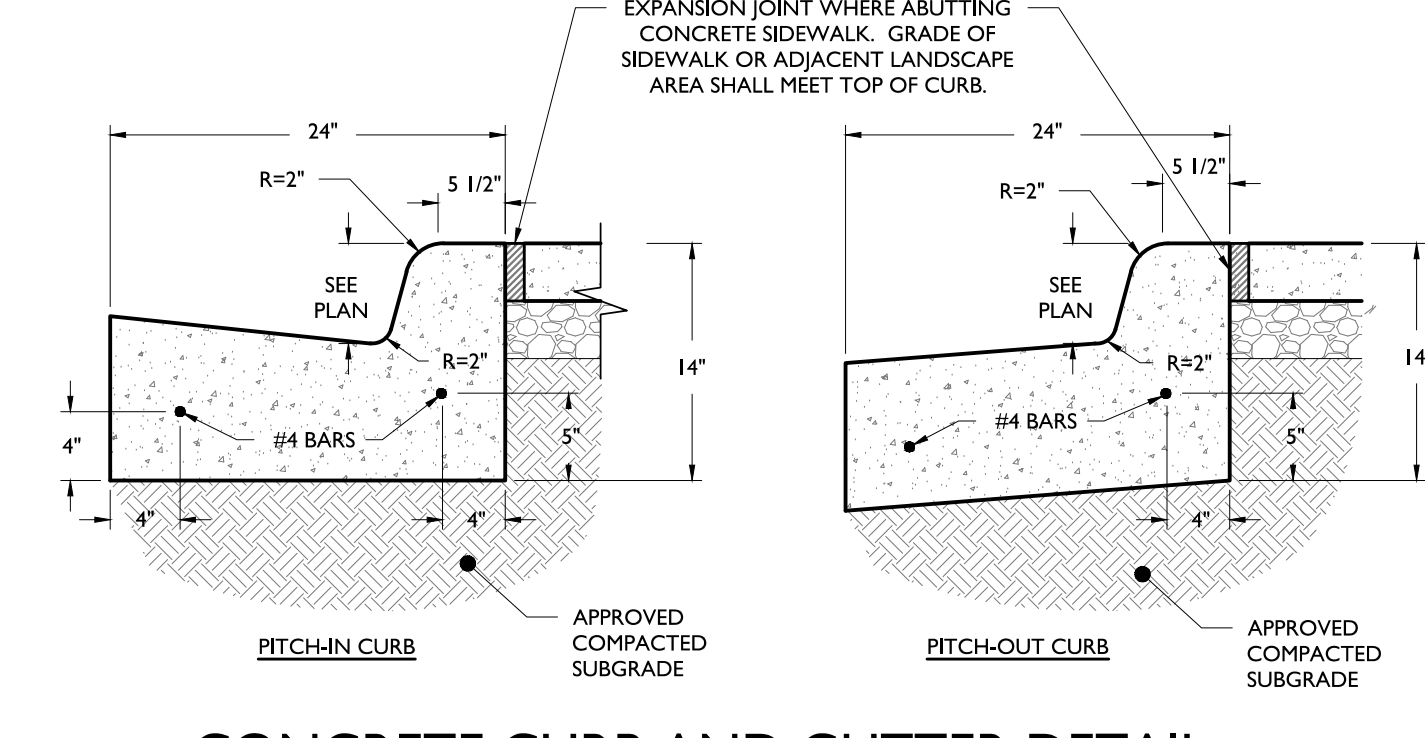
7



MDOT SIDEWALK RAMP TYPE D DETAIL

NOT TO SCALE

8

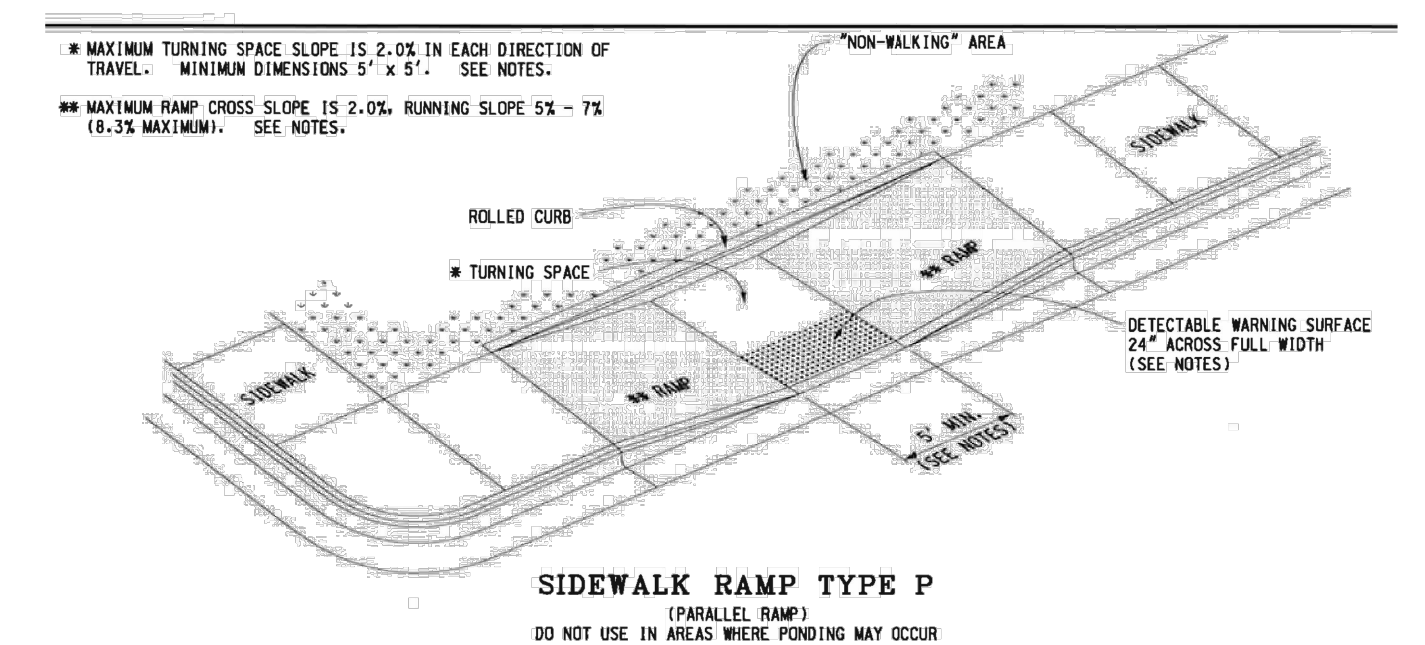


CONCRETE CURB AND GUTTER DETAIL

NOT TO SCALE

- NOTES:
- CONCRETE SHALL BE 3000 PSI AT 28 DAYS, AIR-ENTRAINED.
  - TRANSVERSE EXPANSION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/4" FROM SURFACE.
  - HALF DEPTH CONTRACTION JOINTS SHALL BE PROVIDED AT 10 FOOT INTERVALS.
  - 1/4" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.

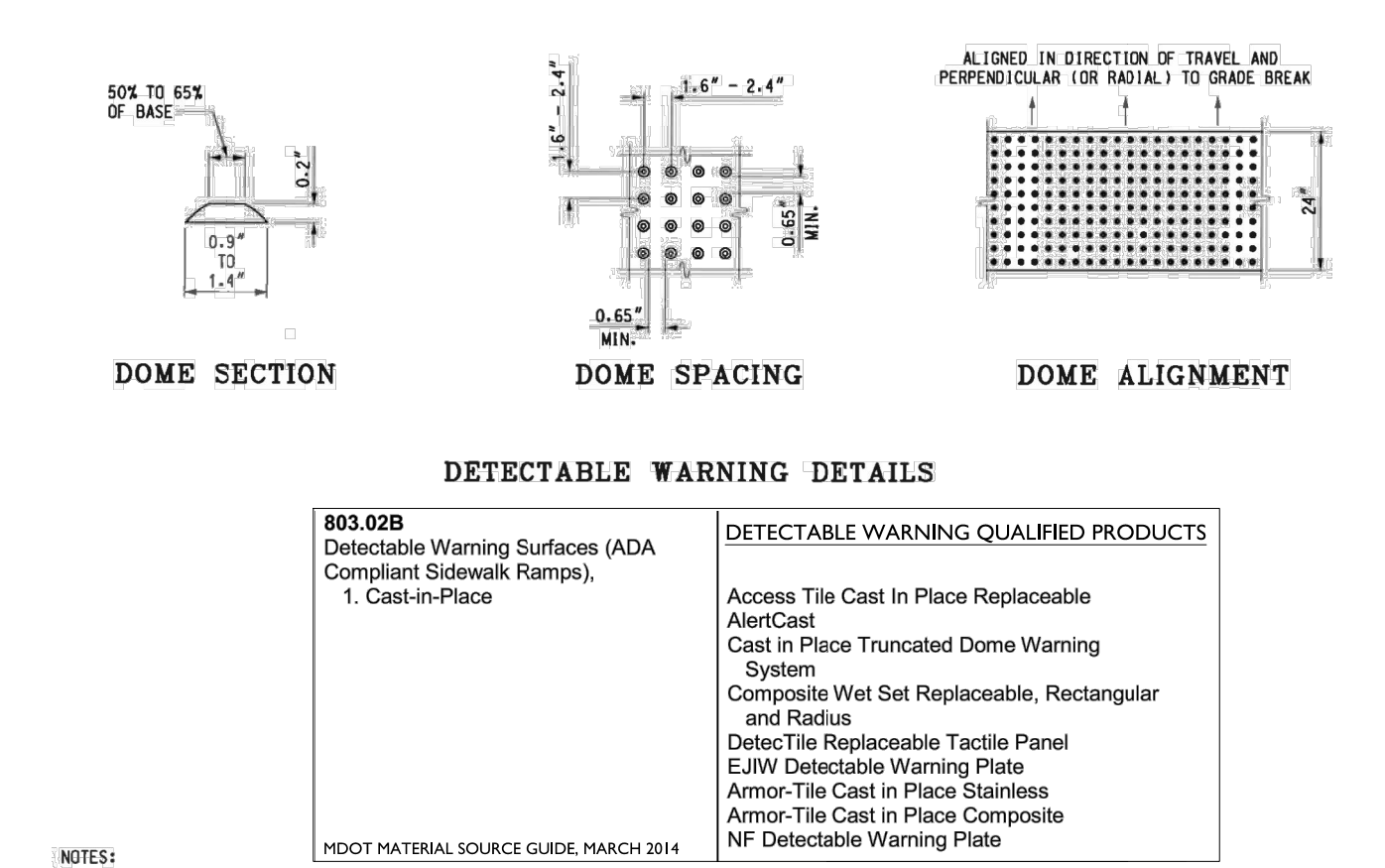
9



MDOT SIDEWALK RAMP TYPE P DETAIL

NOT TO SCALE

10



DETECTABLE WARNING DETAILS

- NOTES:
- DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION, RECONSTRUCTION, OR ALTERATION OF STREETS, CURBS, OR SIDEWALKS IN THE PUBLIC RIGHT OF WAY.
  - SIDEWALK RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
  - RAMPS SHALL BE PROVIDED AT ALL CORNERS OF AN INTERSECTION WHERE THERE IS EXISTING OR PROPOSED SIDEWALK AND CURB. RAMPS SHALL ALSO BE PROVIDED AT MARKED AND/OR SIGNALIZED MID-BLOCK CROSSINGS.
  - SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE RUNNING SLOPE.
  - RAMPS SHALL BE RAMPED WHERE THE DRIVEWAY CURB IS EXTENDED ACROSS THE WALK.
  - CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP, WHERE CONDITIONS PERMIT, IT IS DESIRABLE THAT THE SLOPE OF THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.
  - RAMPS SHALL BE INCREASED, IF NECESSARY, TO ACCOMMODATE SIDEWALK SNOW REMOVAL EQUIPMENT NORMALLY USED BY THE MUNICIPALITY.
  - PROVIDE TURNING SPACES WHERE PEDESTRIAN TURNING MOVEMENTS ARE REQUIRED.
  - WHEN 5' MINIMUM WIDTHS ARE NOT FEASIBLE, RAMP WIDTH MAY BE REDUCED TO NOT LESS THAN 4' AND TURNING SPACES TO NOT LESS THAN 4' X 4'.
  - DETECTABLE WARNING SURFACE COVERAGE IS 24" WITHIN THE DIRECTION OF RAMP/PATH TRAVEL AND THE FULL WIDTH OF THE RAMP/PATH OPENING EXCLUDING CURBED OR FLARED CURB TRANSITION AREAS. A BORDER OFFSET NOT GREATER THAN 2" MEASURED ALONG THE EDGES OF THE DETECTABLE WARNING IS ALLOWABLE. FOR RADIAL CURB THE OFFSET IS MEASURED FROM THE ENDS OF THE RADIIUS.
  - DETECTABLE WARNING PLATES MUST BE INSTALLED USING FABRICATED OR FIELD CAST UNITS CAST AND/OR ANCHORED IN THE PAVEMENT TO RESIST SHIFTING OR HEAVING.

MDOT DETECTABLE WARNING DETAILS

NOT TO SCALE

- NOTE:
- CITY OF NOVI WILL NOT ALLOW STAMPED CONCRETE FOR DETECTABLE WARNING STRIPS.
  - CAST-IN-PLACE DETECTABLE WARNING SURFACES ONLY.

11

NO.	DATE	ISSUE	BY	DESCRIPTION
3	1/17/2020	MG		FOR OWNER REVIEW
2	1/11/2020	MG		FOR OWNER REVIEW
1	09/16/2020	AF/MG		FOR PRELIMINARY SITE PLAN APPROVAL

NOT APPROVED FOR CONSTRUCTION

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**STONE LOU PLAZA**  
26222 NOVI ROAD  
PROPOSED MULTI-TENANT  
COMMERCIAL BUILDING

SECTION 1.1  
PARCEL ID: 22-14332-002  
26222 NOVI ROAD  
OAKLAND COUNTY, MICHIGAN

MICHIGAN LICENSE No.6201069428  
LICENSED PROFESSIONAL ENGINEER

**STONEFIELD**  
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SCALE: AS SHOWN PROJECT ID: DET-200133

TITLE: CONSTRUCTION DETAILS

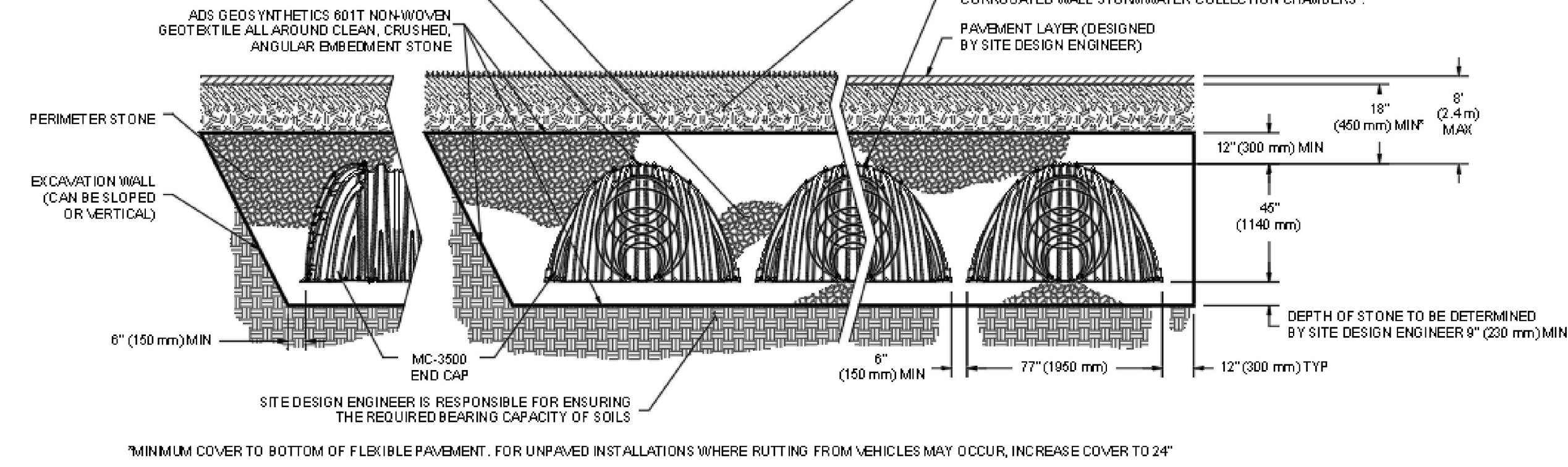
DRAWING: C-10



EMBEDMENT STONE SHALL BE A CLEAN, CRUSHED AND ANGULAR STONE WITH AN AASHTO M43 DESIGNATION BETWEEN #3 AND #4 CHAMBERS SHALL MEET ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".

GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES, COMPACT IN 12" (300 mm) MAX LIFTS TO 95% PROCTOR DENSITY. SEE THE TABLE OF ACCEPTABLE FILL MATERIALS.

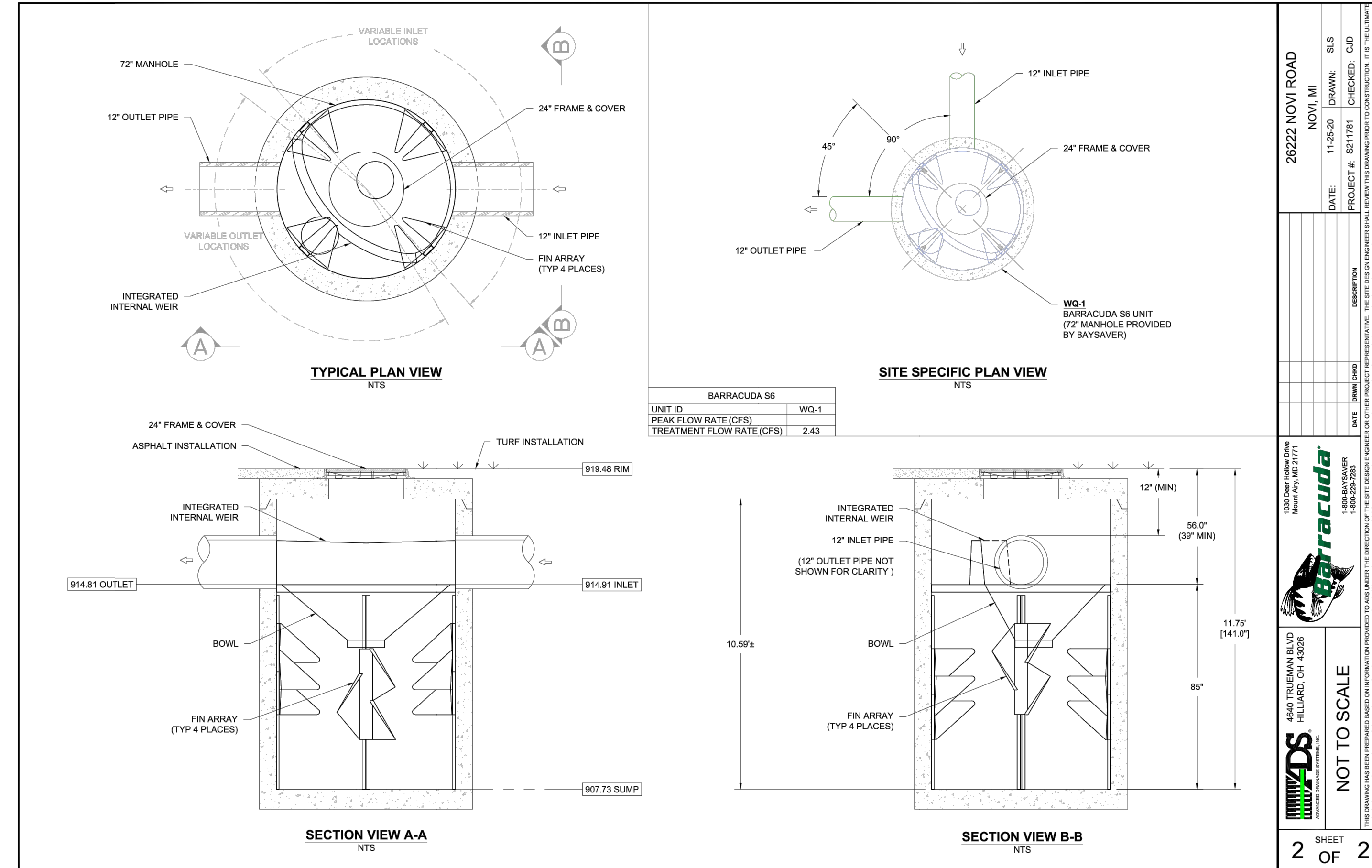
CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2797 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".



\*MINIMUM COVER TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 24"

UNDERGROUND DETENTION BASIN  
NOT TO SCALE

1



WATER QUALITY UNIT (WQ-1)  
NOT TO SCALE

2

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page 2  
Z48L OPTIONS

0-10V (D)  
This fixture is offered standard with 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (PER and PER7)  
Photocontrol receptacles provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PER7 receptacle.

Dimming Occupancy Sensor (MSP/DIM-LXX)  
These sensors are factory installed in the luminaire housing. When a sensor for dimming operation (DIM) is selected, the luminaire will dim down to approximately 50 percent power after five minutes of no activity is detected. When activity is detected, the luminaire returns to full light output.

These occupancy sensors include an integral photocell that can be activated or inactivated with the programming remote / configuration tool for "dusk-to-dawn" control or "daylight harvesting". Note: For MSP sensors, the factory preset is ON (Enabled). The programming remote / tool is a wireless tool that can be utilized to change the dimming level, time delay, sensitivity and other parameters. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 8'-30'.

POWER AND LUMENS

Light Engine	C15	C25	C40	C60
Nominal Power (Watts)	57W	87W	143W	193W
Input Current @ 120V (A)	0.43	0.80	1.09	1.32
Input Current @ 277V (A)	0.19	0.35	0.49	0.57

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (9000 Hours)	Theoretical L70 (Hours)
25°C	> 91.30%	> 194,000
40°C	> 87.50%	> 134,000

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.22
15°C	1.01
25°C	1.00
40°C	0.99

ORDERING INFORMATION

Series	Number of Fixtures	Light Engine	Distribution	Pole Height	Maximum Wind Zone (MPH)	Options (Add as Suffix)	Accessories (Order Separately)
PPRV-Preval	1-1	C15-L1 LED 2100	T2-Type II	15-10	Black-80	N/A: No Anchor Bolt (used when ordered separately)	HS-VERD-House Side Shield*
Fixture	2-2	C25-L2 LED 2100	T2-Type II	15-20	Black-80	MS-DIM-L2-Integrated Sensor for Dimming Operation, 0'-12' Mounting Height	
Combo	4-4	C40-L2 LED 2100	T2-Type II	25-30	Black-80	MS-DIM-L2-Integrated Sensor for Dimming Operation, 0'-12' Mounting Height	

NOTE: 1- LED luminaire is POLYPROPYLENE (PP) & uses hardware kit POLS-BW-CORCHP

page 3  
PREVAL POLE AND FIXTURE COMBO

INCLUDED POLE REFERENCE TABLES

1 Fixture (EPA=0.75)	Wind Zone (MPH)
Pole Height (Feet)	80 90 100
15	SSSA15SFM*
20	SSSA20SFM*
25	SSSA25SFM*
30	SSSA30SFM*

2 Fixtures (EPA=1.50)	Wind Zone (MPH)
Pole Height (Feet)	80 90 100
15	SSSA15SFM*
20	SSSA20SFM*
25	SSSA25SFM*
30	SSSA30SFM*

3 Fixtures (EPA=2.25)	Wind Zone (MPH)
Pole Height (Feet)	80 90 100
15	SSSA15SFM*
20	SSSA20SFM*
25	SSSA25SFM*
30	SSSA30SFM*

4 Fixtures (EPA=3.00)	Wind Zone (MPH)
Pole Height (Feet)	80 90 100
15	SSSA15SFM*
20	SSSA20SFM*
25	SSSA25SFM*
30	SSSA30SFM*

NOTE: \* Lumen maintenance POLS-BW-CORCHP & uses hardware kit POLS-BW-CORCHP

LIGHTING FIXTURES A, B, & C  
SPECIFICATIONS

3

LEDA Outdoor  
120v: 3-712-2xx  
277v: 37-712-2xx

oxygen

FIXTURE TYPE LOCATION  
PROJECT DATE

24 Satin Nickel  
22 Oiled Bronze

LIGHT SOURCE  
1 x 1.0, 1W LED, 3000K, CRI 90

LUMINAIRE POWER  
13.0W at 120V  
60000 Hr RL

RATED LIFE  
2700K, 3500K, 4000K

LUMEN OUTPUT  
Delivered: 680 lm (lm-79)

INPUT VOLTAGE  
120V or 277V

DRIVER OUTPUT  
350 mA, 12W

DIMMING  
0-10v & Phase (EV) Dimming - 50/60Hz 100% to 10% Dimming

CONSTRUCTION  
Cast Aluminum and Acrylic

DIFFUSER  
2 Matte White Acrylic

FINISHES  
Oiled Bronze (-22), Satin Nickel (-24)

MOUNTING  
4" Octagonal J-Box (Inhaler must provide a bead of caulk between fixture housing and mounting surface)

STANDARDS  
ETL, Wet, Conforms to UL STD 1598, Certified CAN/CSA, STD C22.2 No 250.0

ORDERING INFORMATION

Order example for standard fixture:  
3-712-224 (L - Voltage - xxx-Sequence # - x-Diffuser - xx-Finish)  
3: 120v, 37: 277v  
Order example for optional color temperatures: 3-712-27224  
27: 2700K, 35: 3500K, 40: 4000K

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LIGHTING FIXTURE D  
SPECIFICATIONS

4

AWL  
All-Weather Wallpack - Low Profile

IP65

Overview

Overview	Value
Lumen Range	1500
CCT	4000K
Voltage	15
Efficiency (LPW)	100
Weight lbs (kg)	3.7 lbs (EP model 4.5 lbs.)

FEATURES & SPECIFICATIONS

Construction  
• Die-cast aluminum housing  
• Available in Bronze, White, Black, and Silver

Optical  
• UV-resistant, high-impact polycarbonate lens  
• Minimum CRI of 70

Electrical  
• Standard Universal Voltage - 120/277VAC dual primary at 60Hz  
• Emergency Package (EP) option draws and additional 17W and includes self-test/self-diagnostic and a heater for cold weather operation to -25°C (-13°F)  
• Standard photocontrol sensor for use in dusk to dawn applications that can be disabled

to be used as and always on or switchable fixture.  
• Optional PIR motion sensor (PIR) with up to 10' of detection and operational dusk to dawn. The light will activate when motion is detected in Ac mode only and turn off after two minutes of inactivity.

Battery  
• Maintenance-free NiCad Battery  
• Operating temperatures: -25°C to 50°C (-13°F to 122°F)

Installation  
• Universal pattern backplate provides 3" or 4" J-box mounting pattern with keyhole slots  
• Can be surface mounted using the 1/2" conduit entry point at top of housing

Warranty  
• 5 year warranty on all electronics and housing

Listings  
• cULus Listed for Wet Locations  
• IP65 rated  
• State of California Title 24  
• NFPA 101  
• NFPA 70  
• NEC  
• UL Listed 90 minute emergency run time, 24 hour recharge time

ORDERING GUIDE

Profile	Housing Color	Controls
AWL - All-Weather Wallpack Low Profile	BR - Bronze WH - White BK - Black SL - Silver	EP - Emergency Package PIR - PIR motion sensor

PRODUCT DIMENSIONS

1- EP option includes self-test/self-diagnostic and a heater for cold weather operation to -25°C (-13°F)  
2- PIR option adds a PIR motion sensor and removes photocontrol

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LIGHTING FIXTURE E  
SPECIFICATIONS

5

SITE DEVELOPMENT PLANS  
**STORIE LOU PLAZA**  
26222 NOVI ROAD  
PROPOSED MULTI-TENANT  
COMMERCIAL BUILDING  
SECTION 1.1  
PARCEL ID: 22-14332-002  
26222 NOVI ROAD  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

MICHIGAN LICENSE No.6201069428  
LICENSED PROFESSIONAL ENGINEER

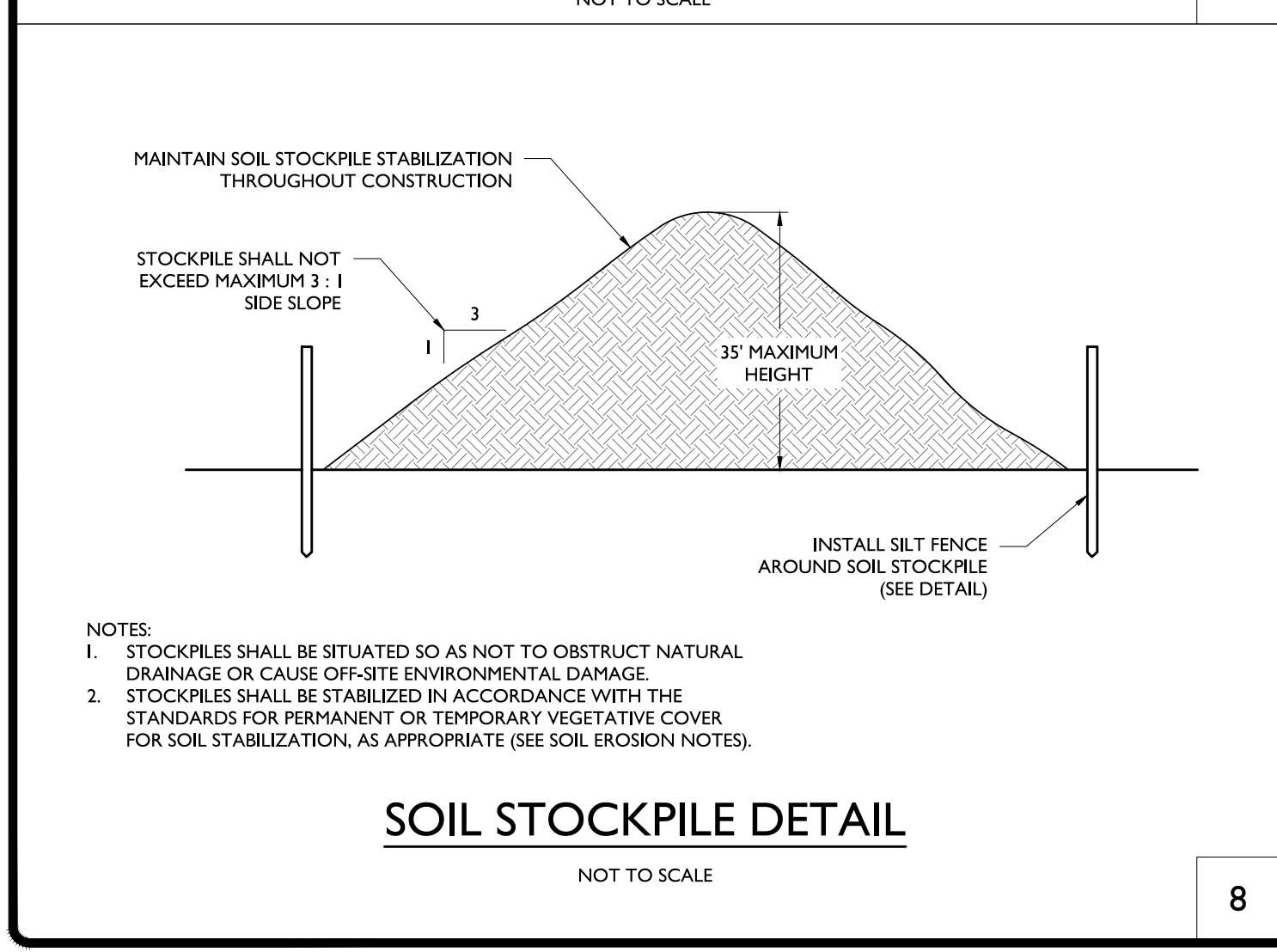
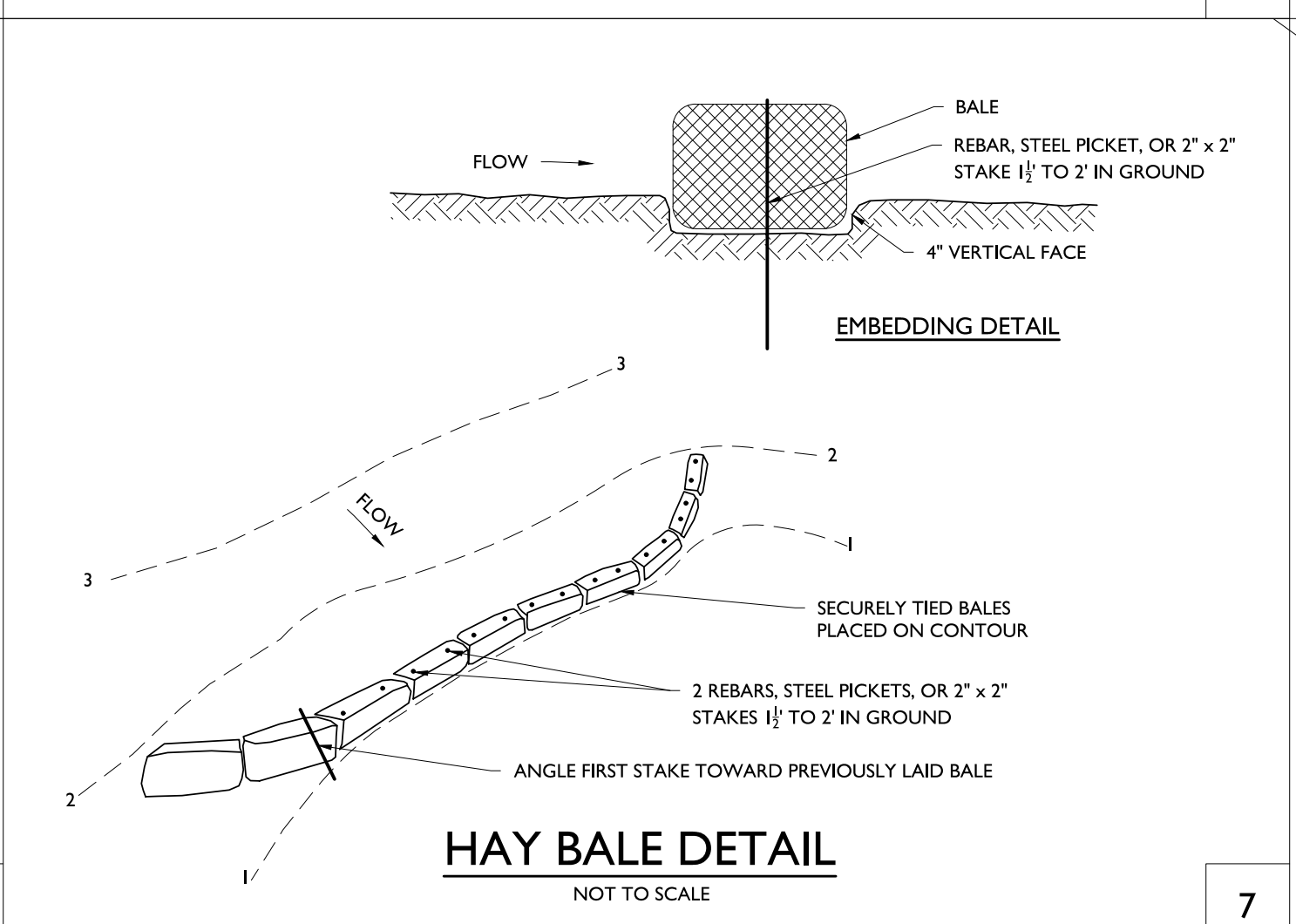
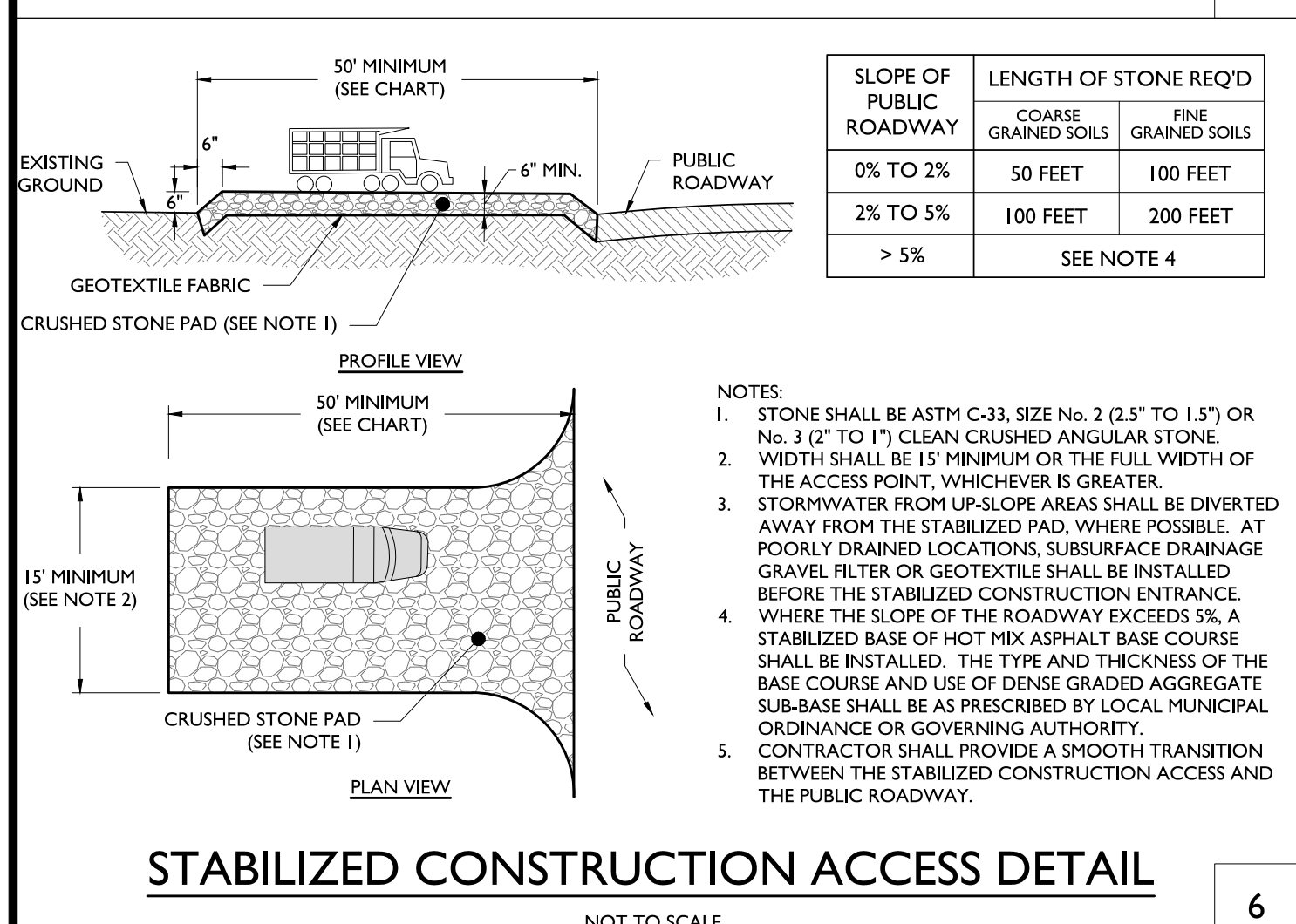
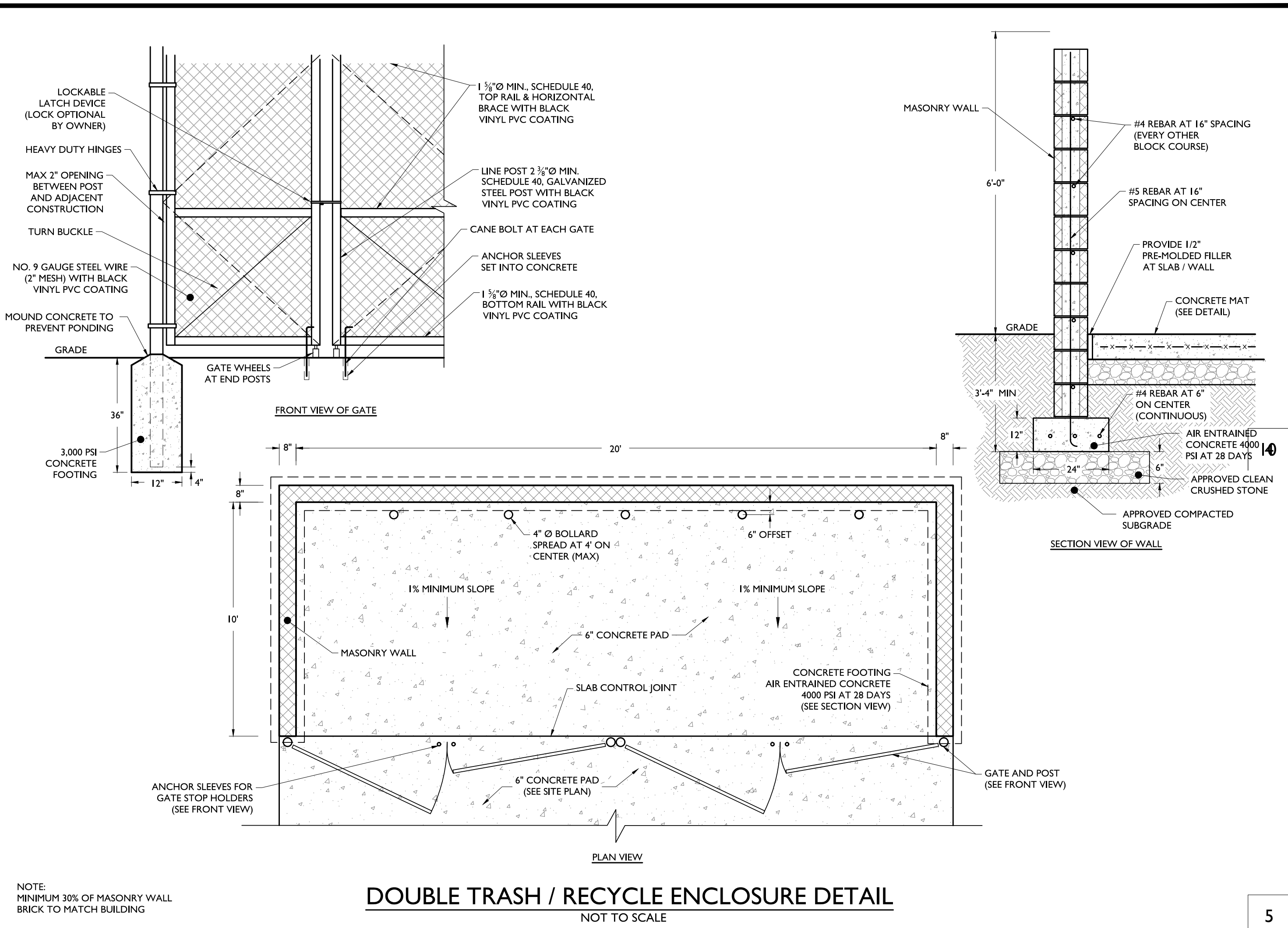
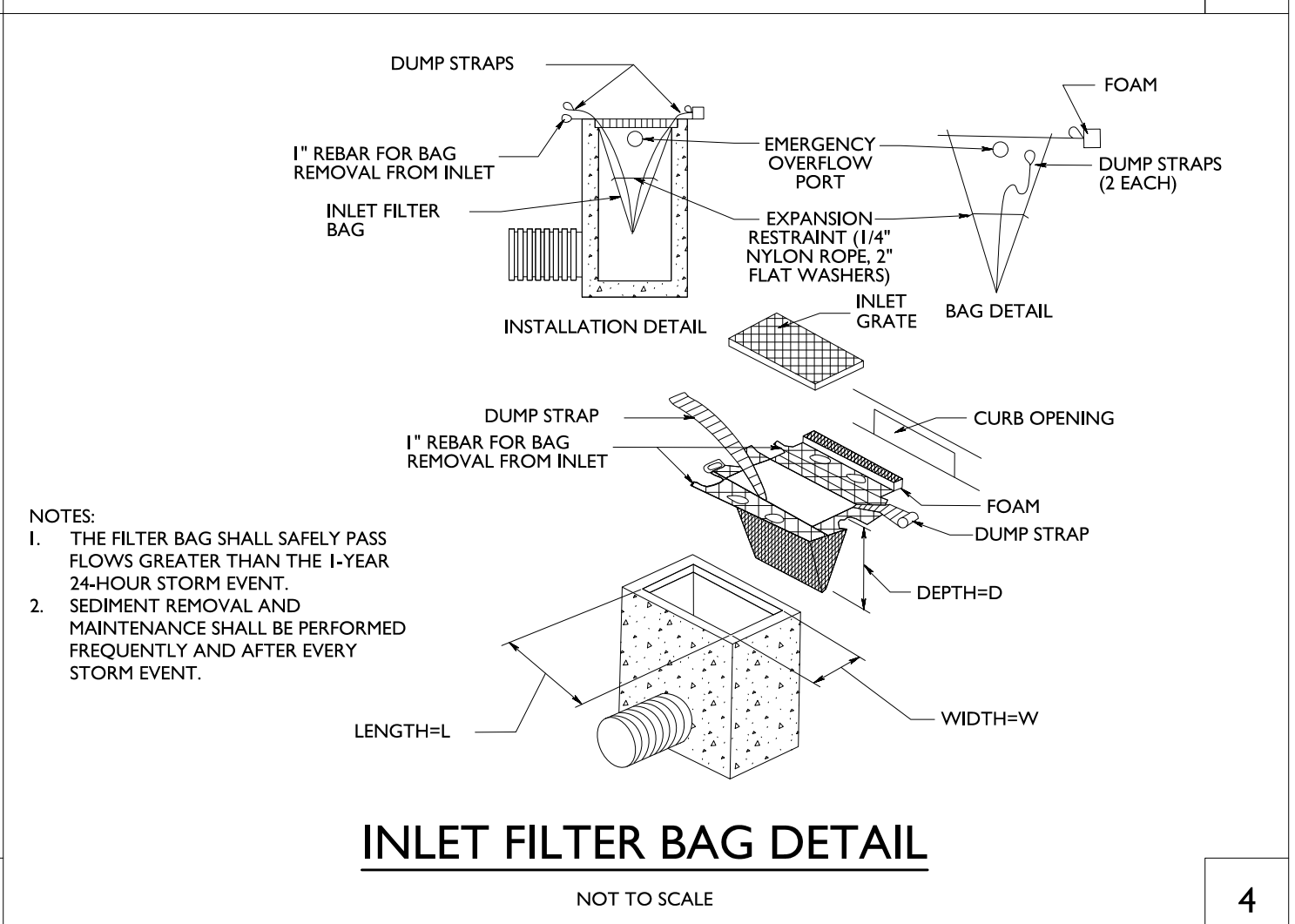
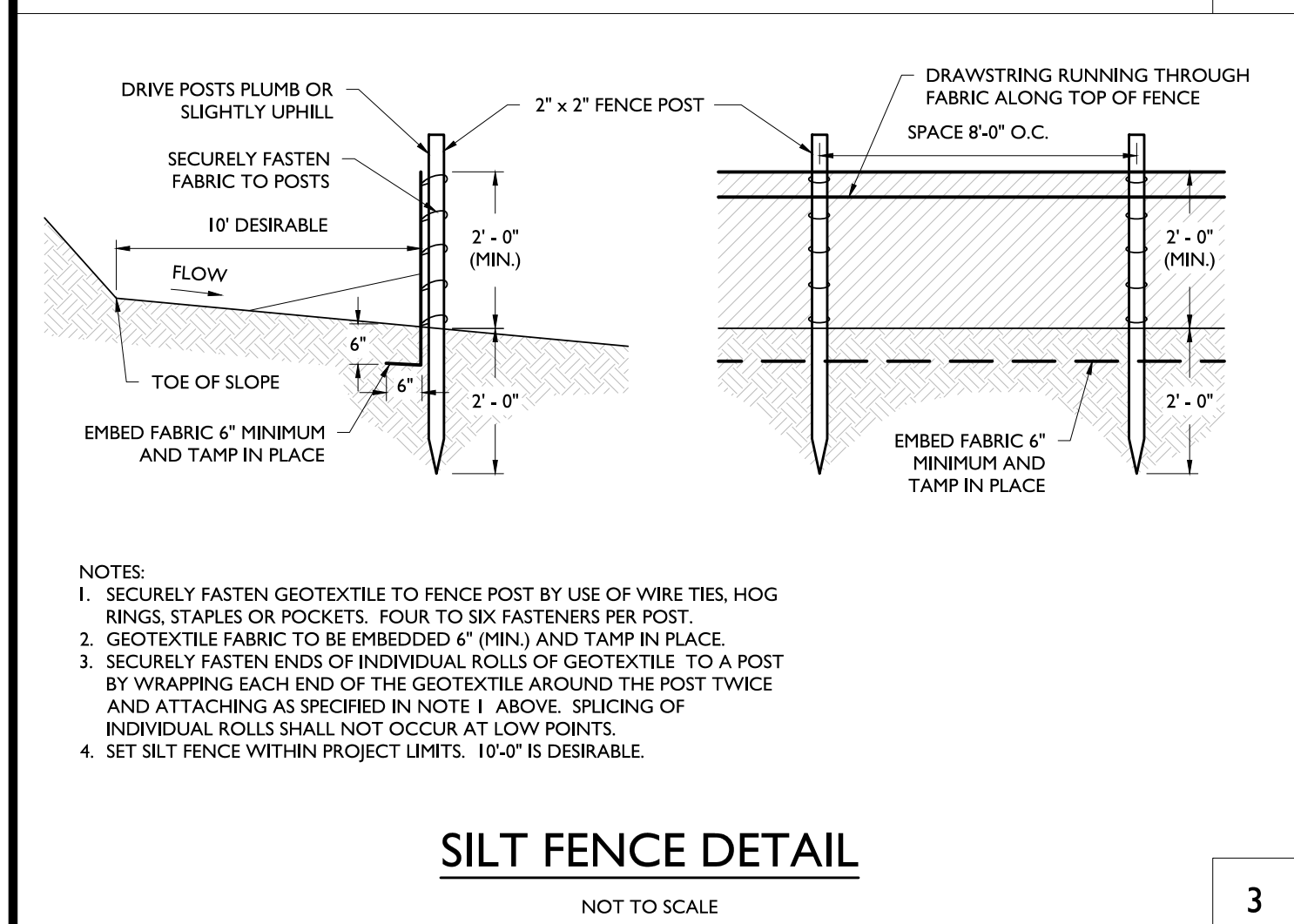
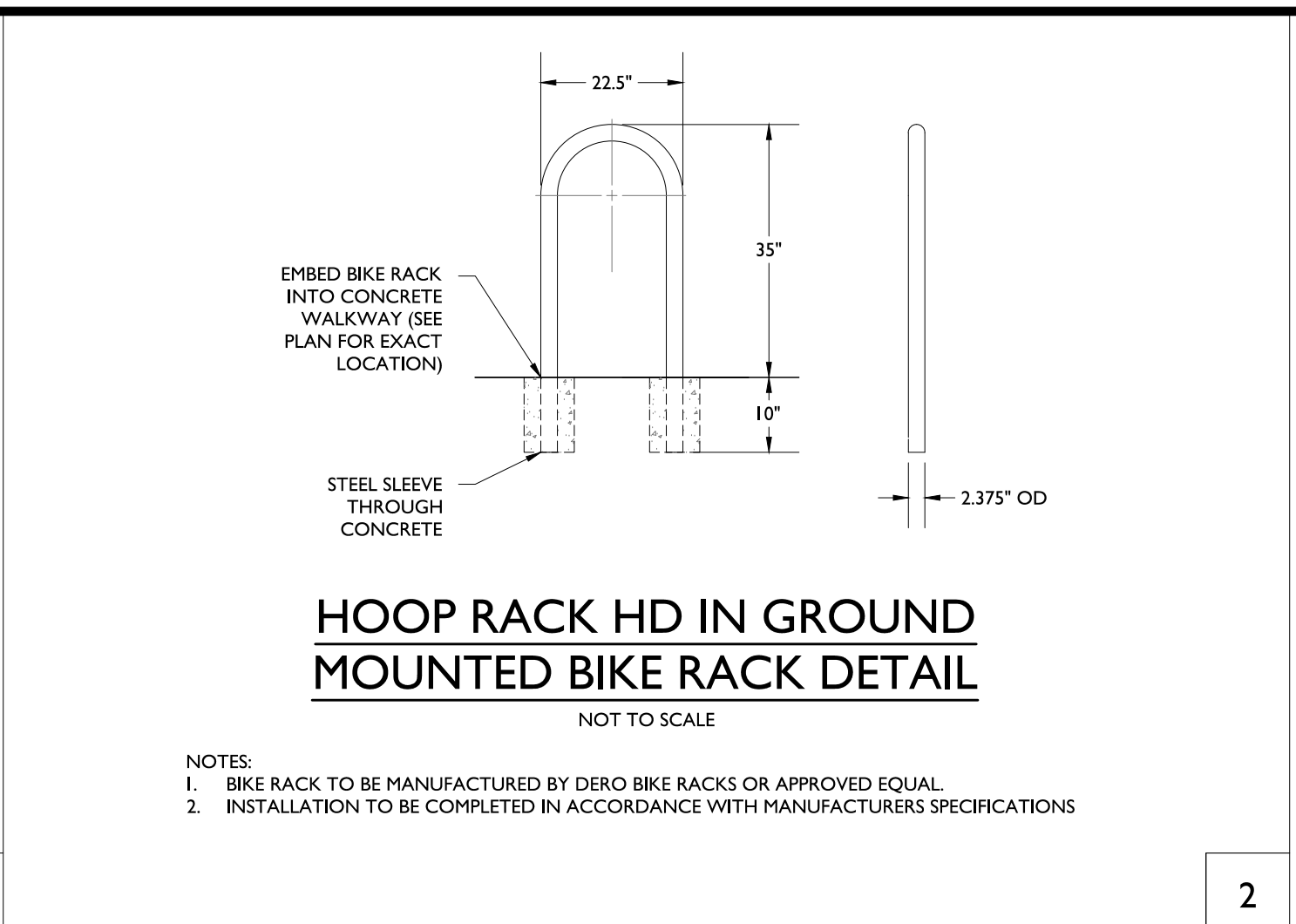
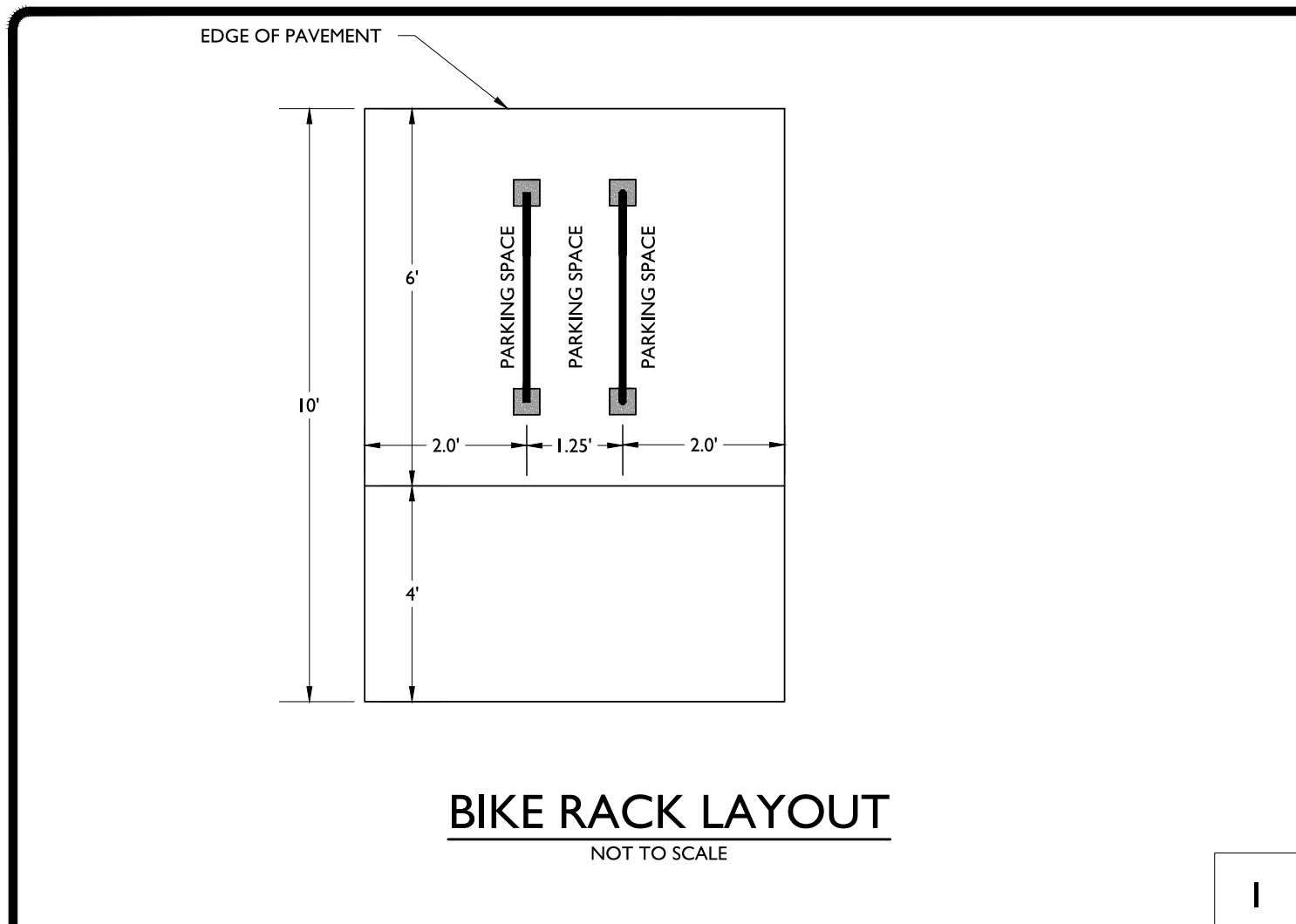
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TITLE:  
**CONSTRUCTION  
DETAILS**

DRAWING:  
**C-11**





NO.	DATE	ISSUE	BY	DESCRIPTION
3	11/24/2020	MG		FOR OWNER REVIEW
2	11/11/2020	MG		FOR OWNER REVIEW
1	09/16/2020	AF/MG		FOR PRELIMINARY SITE PLAN APPROVAL

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**SITE DEVELOPMENT PLANS**

**STORIE LOU PLAZA**  
26222 NOVI ROAD  
PROPOSED MULTI-TENANT  
COMMERCIAL BUILDING

SECTION 1.1  
PARCEL ID: 22-14332-002  
26222 NOVI ROAD  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

MICHIGAN LICENSE No. 6201069428  
LICENSED PROFESSIONAL ENGINEER

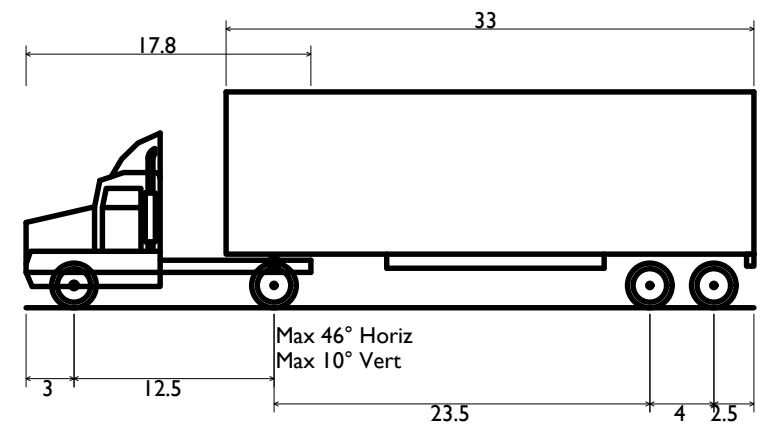
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SCALE: AS SHOWN PROJECT ID: DET-200133

TITLE:  
**CONSTRUCTION  
DETAILS**

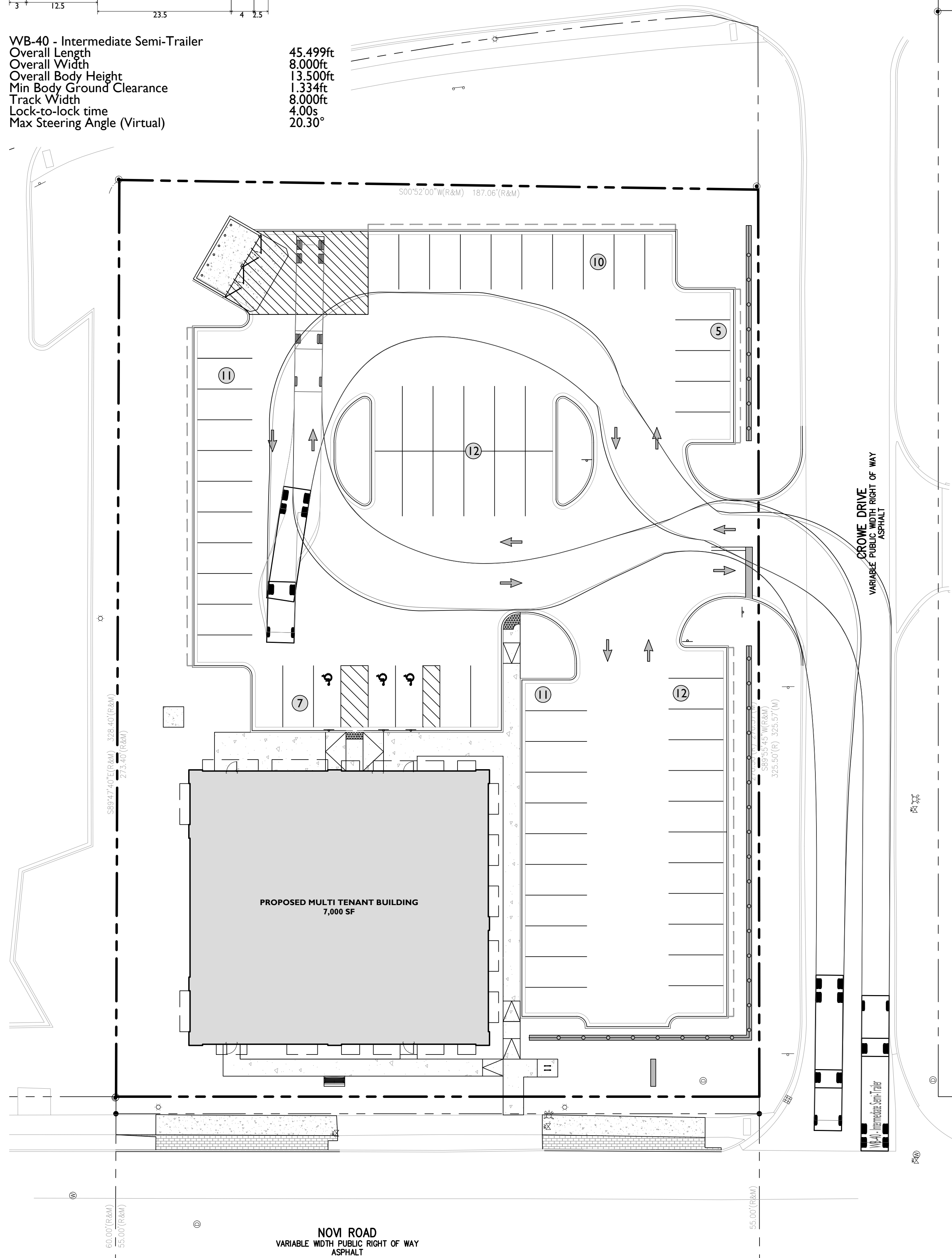
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**C-12**

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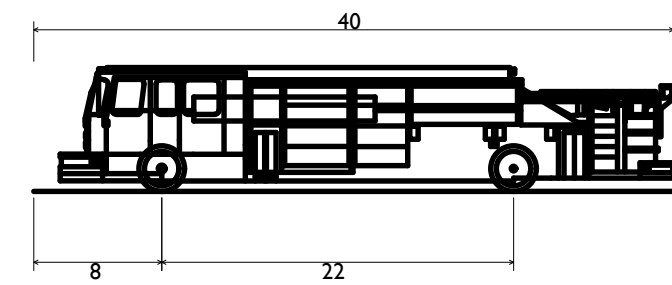


WB-40 - Intermediate Semi-Trailer  
 Overall Length 45.499ft  
 Overall Width 8.000ft  
 Overall Body Height 13.500ft  
 Min Body Ground Clearance 1.334ft  
 Track Width 8.000ft  
 Lock-to-lock time 4.00s  
 Max Steering Angle (Virtual) 20.30°

45.499ft  
 8.000ft  
 13.500ft  
 1.334ft  
 8.000ft  
 4.00s  
 20.30°

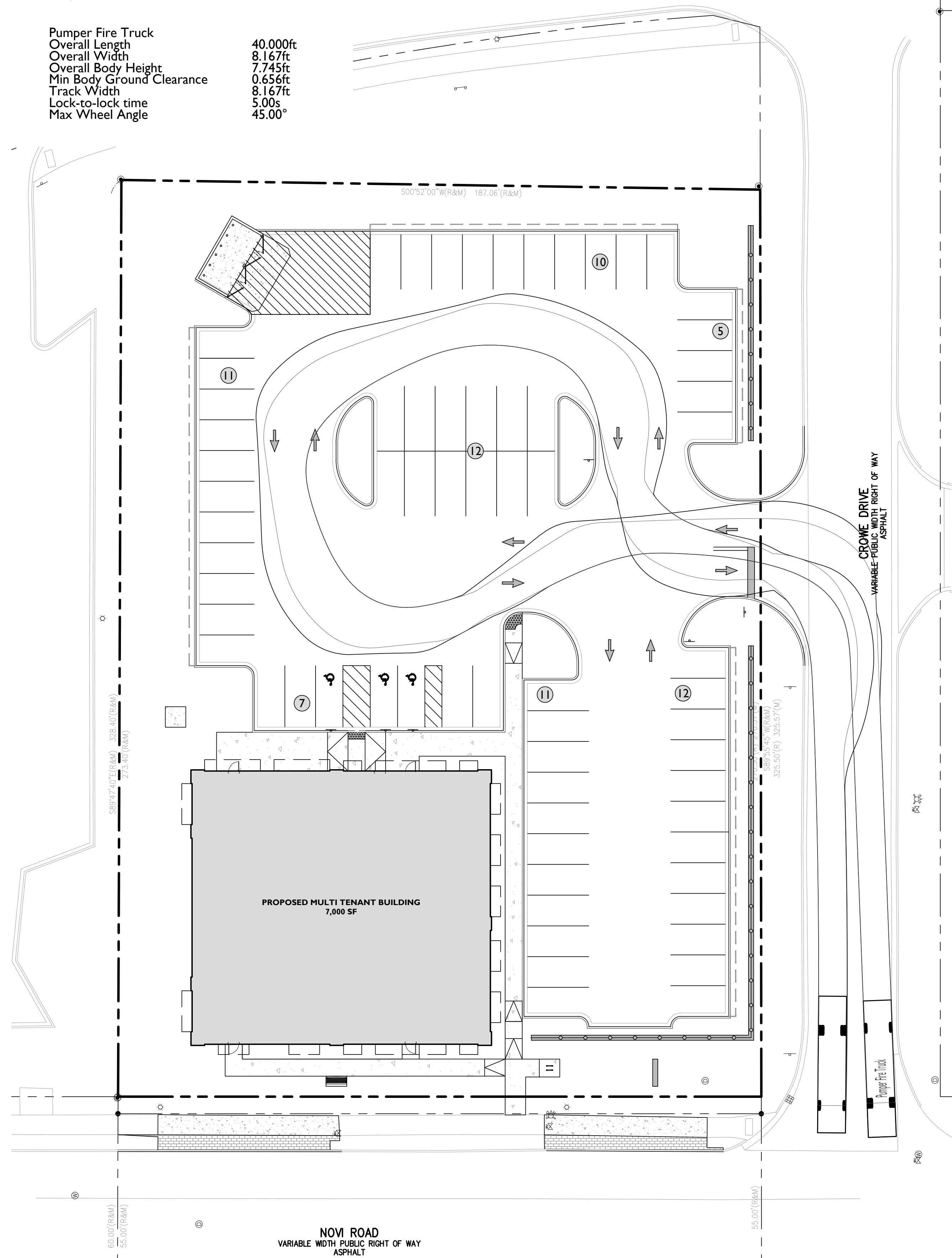


**WB-40 SEMI-TRAILER TRUCK**

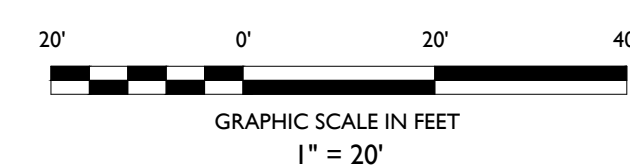


Pumper Fire Truck  
 Overall Length 40.000ft  
 Overall Width 8.167ft  
 Overall Body Height 7.745ft  
 Min Body Ground Clearance 0.656ft  
 Track Width 8.167ft  
 Lock-to-lock time 5.00s  
 Max Wheel Angle 45.00°

40.000ft  
 8.167ft  
 7.745ft  
 0.656ft  
 8.167ft  
 5.00s  
 45.00°



**PUMPER FIRE TRUCK**



V:\012020\DET-20013\AUG-2022\NOVI ROAD\_NOV1\PROJECT\DWG\DET-20013-1-EXHIBIT\TRUCK\WB-40-TRUCK.DWG

NO.	DATE	BY	DESCRIPTION
2	11/11/2020	MG	FOR OWNER REVIEW
1	09/16/2020	AF/IMG	FOR PRELIMINARY SITE PLAN APPROVAL

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**EXHIBIT**

**STORIE LOU PLAZA**  
 26222 NOVI ROAD  
 PROPOSED MULTI-TENANT  
 COMMERCIAL BUILDING

SECTION 1.2  
 PARCEL ID: 22-14332-002  
 26222 NOVI ROAD  
 CITY OF NOVI  
 OAKLAND COUNTY, MICHIGAN

MICHIGAN LICENSE No. 6201069428  
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SCALE: 1" = 20' PROJECT ID: DET-200133  
 TITLE: VEHICLE CIRCULATION EXHIBIT  
 DRAWING: **EX-1**







**BENCHMARK DATA:**  
 CITY OF NOV BENCHMARK #1542:  
 "X" ON NORTH RIM OF SANITARY MANHOLE 25' WEST OF BACK OF CURB AND 43' SOUTH OF DRIVEWAY TO #26179 NOV ROAD.  
 ELEVATION = 915.10 NAVD88

CITY OF NOV BENCHMARK #2221:  
 "X" ON SOUTHWEST FLANGE BOLT OF FIRE HYDRANT AT THE SOUTHWEST CORNER OF GRAND RIVER BOULEVARD AND NOV ROAD.  
 ELEVATION = 910.80 NAVD88

SITE BENCHMARK 1 (SITE BM #1):  
 TOP ARROW OF HYDRANT LOCATED ON THE SOUTH SIDE OF CROWE DRIVE #103 FEET EAST OF NOV ROAD.  
 ELEVATION = 919.97 NAVD88

SITE BENCHMARK 2 (SITE BM #2):  
 TOP ARROW OF HYDRANT LOCATED ON THE EAST SIDE OF NOV ROAD #75 FEET NORTH OF CROWE ROAD.  
 ELEVATION = 923.77 NAVD88

**MANHOLE SCHEDULE:**  
 STORM DRAIN MANHOLE (SDM #233)  
 RM=901.35  
 8" RCP, EAST, 914.72'E.  
 12" RCP, SOUTH, 914.72'E.

ROUND CATCH BASIN (CB #259)  
 RM=918.88  
 8" RCP, EAST, 916.50'E.

SQUARE CATCH BASIN (CB #340)  
 RM=917.49  
 12" RCP, SOUTHEAST, 912.94'E.

ROUND CATCH BASIN (CB #531)  
 RM=920.42  
 8" RCP, EAST, 916.99'E.

STORM DRAIN MANHOLE (SDM #562)  
 RM=922.24  
 12" RCP, SOUTH, 910.24'E.

STORM DRAIN MANHOLE (SDM #578)  
 RM=916.04  
 12" RCP, WEST, 912.04'E.  
 12" RCP, SOUTHEAST, 912.04'E.

STORM DRAIN MANHOLE (SDM #580)  
 RM=916.24  
 12" RCP, NORTH, 909.59'E.  
 12" RCP, SOUTH, 909.39'E.  
 12" RCP, EAST, 911.74'E.  
 12" RCP, WEST, 911.34'E.

STORM DRAIN MANHOLE (SDM #943)  
 RM=916.31  
 12" RCP, NORTH, 914.30'E.  
 6" STEEL, WEST, 910.46'E.  
 6" STEEL, EAST, 910.56'E.

SQUARE CATCH BASIN (CB #1022)  
 RM=917.02  
 12" RCP, EAST, 912.67'E.

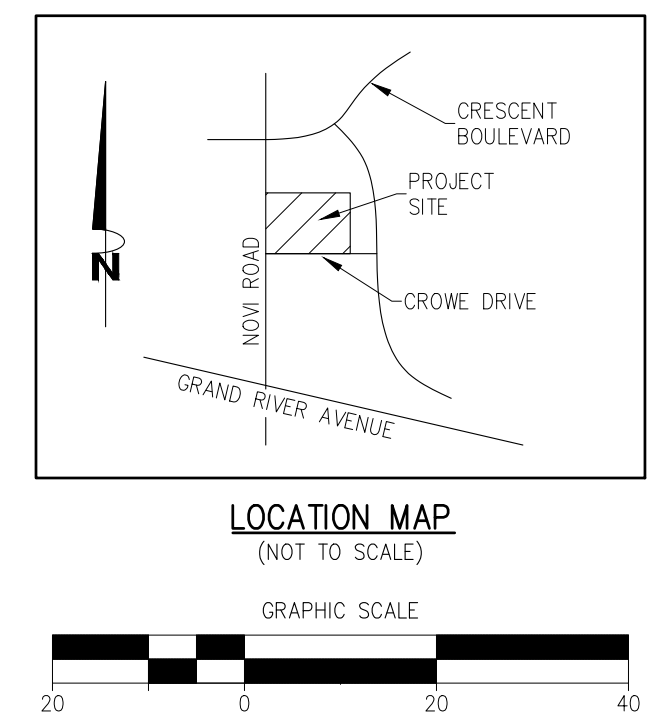
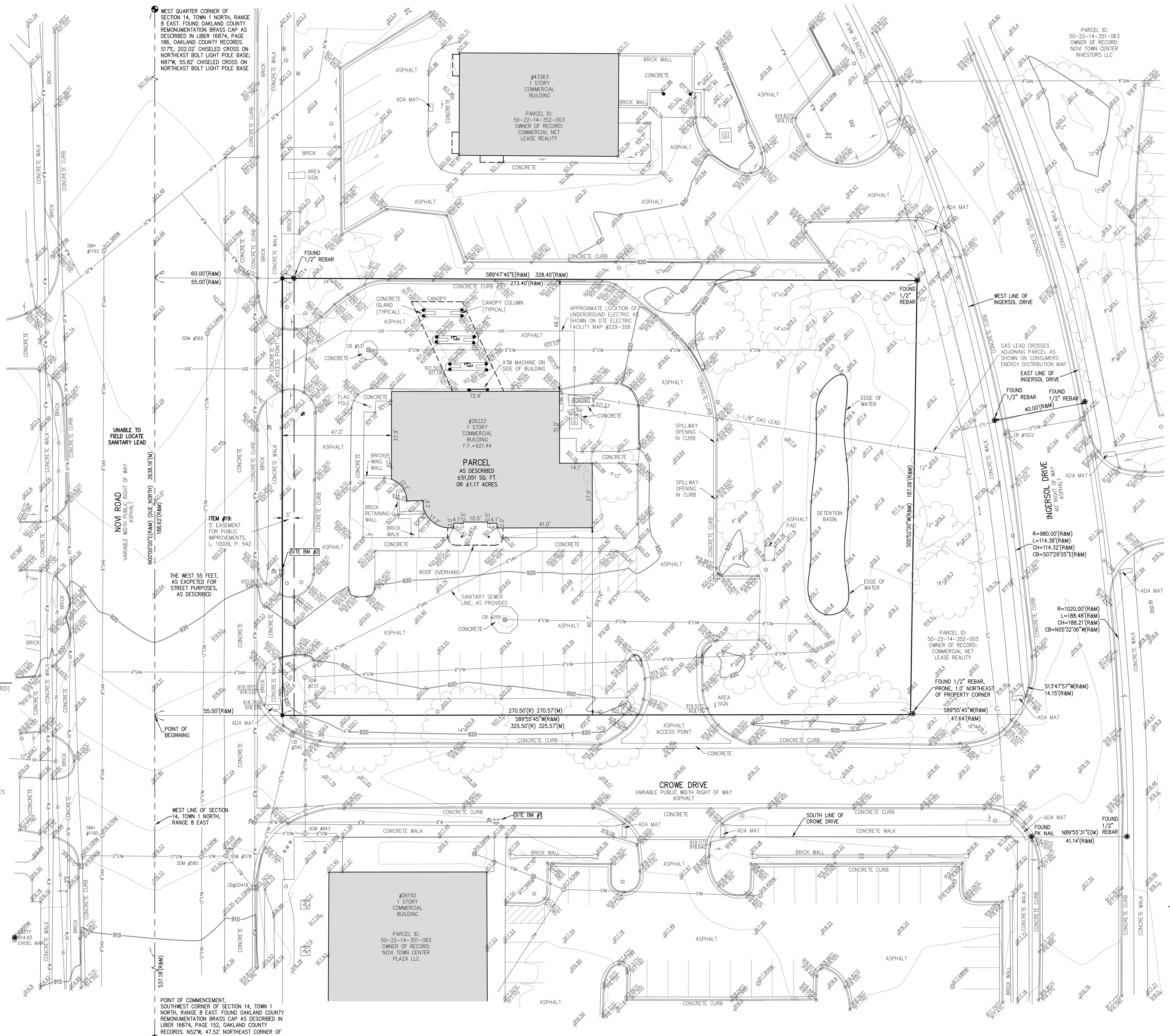
SANITARY SEWER MANHOLE (SMH #1190)  
 RM=916.57  
 8" PIPE, NORTH, 904.97'E.  
 8" PIPE, SOUTH, 904.97'E.

SANITARY SEWER MANHOLE (SMH #1192)  
 RM=922.38  
 8" PIPE, SOUTH, 910.48'E.

SQUARE CATCH BASIN (CB #20418)  
 RM=915.33  
 12" RCP, NORTHWEST, 911.98'E.  
 12" RCP, NORTHEAST, 912.08'E.

**LEGEND:**

- FOUND MONUMENT (AS NOTED)
- SECTION CORNER
- PROPERTY CORNER
- SQUARE CATCH BASIN
- STORM MANHOLE
- ROUND CATCH BASIN
- FIRE HYDRANT
- WATER VALVE
- WATER MANHOLE
- UNKNOWN MANHOLE
- GAS METER
- GAS MARKER
- EXISTING ELEVATION
- TREE W/DIAMETER IN INCHES
- LIGHT POLE
- ELECTRIC METER
- ELECTRIC TRANSFORMER
- ELECTRIC PANEL
- AIR CONDITIONER
- TELEPHONE RISER
- TELEVISION RISER
- TELEVISION BOX
- HANDICAP PARKING
- BOLLARD
- SINGLE POST SIGN
- DOUBLE POST SIGN
- FLAG POLE
- PNEUMATIC TUBE
- ADJOINING BOUNDARY LINE
- EDGE OF ASPHALT
- BOUNDARY LINE
- BUILDING
- BUILDING OVERHANG
- EDGE OF CONCRETE
- CONCRETE CURB
- EASEMENT
- EASEMENT CENTERLINE
- EDGE OF METAL
- PARKING STRIPE
- SECTION LINE
- EDGE OF SIDEWALK
- TREE CANOPY
- WALL (AS NOTED)
- EDGE OF BRICK
- EDGE OF WATER



**LEGAL DESCRIPTION**  
 LAND SITUATED IN THE CITY OF NOV, COUNTY OF OAKLAND, STATE OF MICHIGAN, DESCRIBED AS FOLLOWS:  
 ALL THAT PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 14, TOWN 1 NORTH, RANGE 6 EAST, CITY OF NOV, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS: BEGINNING ON THE WEST LINE OF SECTION 14, WHICH LINE IS ALSO THE CENTERLINE OF NOV ROAD, 65 FEET WIDE, AT A POINT DISTANT DUE NORTH 537.18 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION 14; THENCE CONTINUING ALONG THE WEST LINE OF SAID SECTION 14, DUE NORTH 186.62 FEET; THENCE SOUTH 89 DEGREES 47 MINUTES 40 SECONDS EAST 328.40 FEET; THENCE SOUTH 00 DEGREES 52 MINUTES 00 SECONDS WEST 187.06 FEET; THENCE SOUTH 89 DEGREES 55 MINUTES 45 SECONDS WEST 325.57 FEET TO THE POINT OF BEGINNING, EXCEPT THE WEST 55 FEET DEEDED FOR ROAD PURPOSES.

**TITLE REPORT EXCEPTIONS:**  
 ONLY THOSE EXCEPTIONS CONTAINED WITHIN TITLE CONNECT TITLE COMMITMENT NUMBER 1C13-91368, DATED MAY 13, 2020 AND RE-LISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.

19. EASEMENT FOR PUBLIC IMPROVEMENTS IN FAVOR OF THE CITY OF NOV, AND THE TERMS, CONDITIONS AND PROVISIONS CONTAINED THEREIN, RECORDED IN LIBER 10009, PAGE 542. (AS SHOWN)

21. TERMS, CONDITIONS AND PROVISIONS CONTAINED IN AGREEMENT AND GRANT OF EASEMENT RECORDED IN LIBER 9388, PAGE 185. (DOCUMENT DOES NOT SPECIFICALLY DEFINE THE LOCATION OF EASEMENT AREA. THEREFORE SAID EASEMENT AREA IS NOT SHOWN HEREON) (SUBJECT PARCEL IS PART OF THE SHOPPING CENTER, AS DEFINED IN SAID DOCUMENT)

**UTILITY NOTE:**  
 THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA. EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

**NOTES:**

- SURVEY IN ACCORDANCE WITH TITLE COMMITMENT NO. 1C13-91368 PREPARED BY TITLE CONNECT, UNDER WRITTEN FIRST AMERICAN TITLE INSURANCE COMPANY, DATED MAY 13, 2020.
- TREE SIZES ARE THE BEST ESTIMATION OF THE FIELD SURVEYOR. SPECIFIC QUESTIONS REGARDING INDIVIDUAL TREES SHOULD BE DIRECTED TO A QUALIFIED FORESTER.
- THE BASIS OF BEARING IS THE WEST LINE OF SECTION 14, TOWN 1 NORTH, RANGE 6 WEST, CITY OF NOV, OAKLAND COUNTY, MICHIGAN.
- BY GRAPHIC PLOTTING ONLY, THIS PARCEL IS LOCATED WITHIN A FEDERALLY DESIGNATED FLOOD HAZARD AREA ZONE X - OTHER AREAS (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD-PLAN) OF THE FLOOD INSURANCE RATE MAP, MAP NUMBER 26125C0626F, EFFECTIVE DATE OF SEPTEMBER 29, 2006. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THE ZONE AND AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THIS DETERMINATION OR APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
- SUBJECT PARCEL AS DESCRIBED CONTAINS 151,051 SQUARE FEET OF LAND BEING 11.17 ACRES OF LAND.
- THERE ARE 24 REGULAR PARKING SPACES AND 2 HANDICAPPED PARKING SPACES WITHIN THE SUBJECT PARCEL.
- AT THE TIME OF SURVEY THERE WAS NO OBSERVABLE EVIDENCE OF EARTH MOVING WORK OR BUILDING CONSTRUCTION WITHIN RECENT MONTHS.
- AT THE TIME OF SURVEY THERE WERE NO CHANGES IN THE STREET RIGHT OF WAY LINES EITHER COMPLETED OR PROPOSED AND AVAILABLE FROM THE CONTROLLING JURISDICTION OR OBSERVABLE EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION REPAIRS UPON SUBJECT PARCEL.
- AT THE TIME OF SURVEY, THERE WAS NO EVIDENCE OF FIELD DELINEATED WETLAND MARKERS PRESENT UPON SUBJECT PARCEL.
- AT THE TIME OF SURVEY THERE WAS NO OBSERVABLE EVIDENCE OF CEMETERIES, BURIAL GROUNDS OR ISOLATED GRAVESTONES WITHIN THE SUBJECT PARCEL.
- AT THE TIME OF SURVEY, SUBJECT PARCEL HAS ACCESS TO NOV ROAD, A PUBLIC RIGHT OF WAY AND CROWE DRIVE, A PUBLIC RIGHT OF WAY.
- AT THE TIME OF SURVEY THERE WAS NO OBSERVABLE EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
- GAS, ELECTRIC, WATER, TELEPHONE AND SEWER UTILITIES ACCESS THE PROPERTY VIA A PUBLIC RIGHT OF WAY OR AN EASEMENT LEADING TO A PUBLIC RIGHT OF WAY, EXCEPT AS SHOWN HEREON.

**SURVEYORS CERTIFICATION:**  
 TO ALTA USA ACQUISITIONS LLC, TITLE CONNECT AND FIRST AMERICAN TITLE INSURANCE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDE ITEMS 2, 4, 7(A), 8, 11, 16, AND 18 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JULY 16, 2020.

MARK D. LAYMAN, P.E. #46874  
 7/24/20  
 PROFESSIONAL SURVEYOR  
 NO. 46874

**ALTA/NSPS LAND TITLE SURVEY**

**CLIENT:**  
 ALRG ACQUISITIONS, LLC

**PROJECT LOCATION:**  
 26222 NOV ROAD  
 NOV 48755  
 WAYNE COUNTY, MICHIGAN

**DRAWN BY:** CLG  
**CHECKED BY:** NEM/MDL  
**FIELD WORK BY:** NEM/RG

**811**  
 Know what's below.  
 Call before you dig.

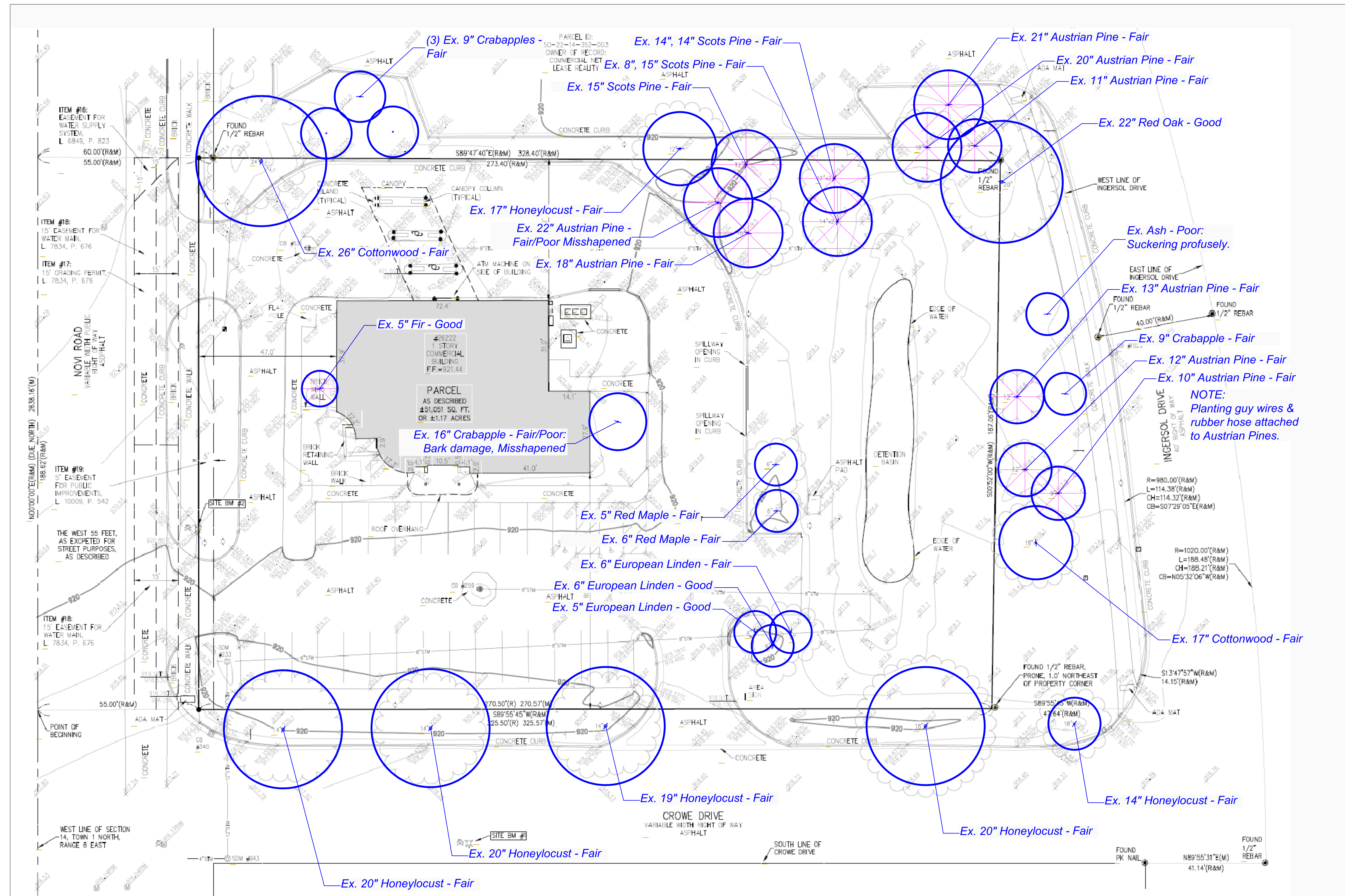
**TERMS AND CONDITIONS FOR ELECTRONIC DATA:**  
 This document is provided in electronic format for the referenced project. It is understood and agreed that any use or reuse of original or altered files will be at the user's own risk and legal responsibility. It is also agreed that the electronic files provided by Core Land Consulting, LLC (CLC) are being provided for general information purposes only. Neither the electronic files nor any CAD versions are to be relied upon for design, construction, liability, demands or other costs arising out of or resulting from the unauthorized use of these materials. CLC makes no representation as to the accuracy of the information provided by the electronic media. Data on electronic media can deteriorate or be modified without the knowledge of CLC.

**SHEET:**  
 ALTA/NSPS LAND TITLE SURVEY

**DATE:** 07/27/2020  
**SCALE:** 1" = 20'  
**PROJECT NO:** 3253-347

**1**  
 SHEET 1 OF 1





TREE INVENTORY PLAN

scale: 1" = 20'

**DEFINITION OF RATINGS:**

- **GOOD:** The tree appears to be in a healthy and satisfactory condition with an overall sound stem structure and with a full and balanced crown; the growth habit appears normal; there is no indication of pests or diseases present; and the life expectancy is judged to be greater than twenty-five (25) years. The rating based on the health / condition chart ranges from 30 to 24.
- **FAIR:** The tree appears to be in a healthy and satisfactory condition with a minimum of structural problems and with minor crown imbalance or thin crown; the growth habit appears normal; there is no indication of pests or diseases present; and the life expectancy is judged to be greater than twenty (20) years. The rating based on the health / condition chart ranges from 23 to 16.
- **POOR:** The tree appears to be in an unhealthy condition with structural problems and with major crown imbalance, dead or dying limbs, or growth only in the top quarter of the tree; the growth habit is misshapen and askew; there is evidence of pests or diseases present; and the life expectancy is judged to be less than ten (10) years. The rating based on the health / condition chart ranges from 15 to 7.
- **VERY POOR (V. Poor):** The tree appears to be in an unhealthy condition with major structural problems and with major crown imbalance or several dead limbs and/or peeling bark; the growth habit is severely misshapen and askew; there is evidence of pests or diseases present; and the life expectancy is judged to be less than five (5) years. The rating based on the health / condition chart ranges from 6 to 1.
- **DEAD:** The tree has no live branches, is topped, or has fallen. The rating based on the health / condition chart is 0.

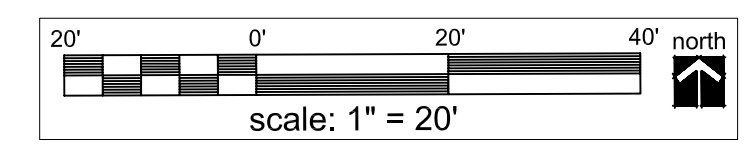
**TREE HEALTH / CONDITION FACTORS & RATINGS**

Values	Best	5	4	3	2	1	0 Worst
1 Trunk	Sound & solid	Sound	Sections of bark missing	Extensive decay & hollow	> 6 inch twig elongation	< 2 inch twig elongation	
2 Growth Rate	Sound	Sound	One major or several minor limbs dead	Two or more major limbs dead			
3 Structure	Sound	One pest present	Two or more pests present				
4 Insects & Diseases	No pests present	One pest present	Two or more pests present				
5 Crown Development	Full & balanced	Full but unbalanced	Unbalanced and lacking a full crown				
6 Life Expectancy	> 30 years	15 years to 20 years	< 5 years				

**TREE NAMES**

COMMON NAME	BOTANICAL NAME
Honeylocust	<i>Gleditsia triacanthos inermis</i>
Eastern Cottonwood	<i>Populus deltoides</i>
Red Maple	<i>Acer rubrum</i>
Red Oak	<i>Quercus rubra</i>
European Linden	<i>Tilia cordata</i>
Crabapple	<i>Malus sp.</i>
Fir	<i>Abies sp.</i>
Austrian Pine	<i>Pinus nigra</i>
Scots Pine	<i>Pinus sylvestris</i>

date: November 17, 2020  
revised:



**PROJECT LOCATION:**  
Existing Tree Inventory  
26222 Novi Road  
Novi, Michigan

**LANDSCAPE PLAN FOR:**  
Stonefield Engineering  
607 Shelby Street, Suite 200  
Detroit, Michigan 48226  
(248) 247-1115

**LANDSCAPE PLAN BY:**  
Nagy Devlin Land Design, L.L.C.  
31736 West Chicago Avenue  
Livonia, Michigan 48150  
(734) 634 9208

**TP - 1: TREE INVENTORY PLAN**

\* Base data from a survey by CORE LAND CONSULTING.











