



COMMUNITY DEVELOPMENT DEPARTMENT

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

ZONING BOARD OF APPEALS STAFF REPORT

FOR: City of Novi Zoning Board of Appeals

MEETING DATE: August 11, 2026

REGARDING: **44725 Grand River Avenue #50-22-15-376-012 & 50-22-15-376-016 (PZ26-0032)**

BY: Alan Hall, Deputy Director Community Development

I. GENERAL INFORMATION:

Applicant

Damas Building

Variance Type

Dimensional Variance

Property Characteristics

Zoning District: this property is zoned Light Industrial (I-1)

Location: east of Taft Road, south of Grand River Avenue

Parcel #: 50-22-15-376-012 & 50-22-15-376-016

Request

The applicant is seeking variances from the City of Novi Zoning Ordinance Section 5.2.12.D to allow a reduction in parking to 86 spaces (108 spaces required, variance of 22 spaces); and from Section 3.1.18.D to allow a reduced parking setback of 6.2 ft. along the west property line (10 ft. required, variance of 3.8 ft.).

II. STAFF COMMENTS:

The applicant is seeking (2) dimensional variances to expand an existing parking lot.

- 1) A reduction of (22) parking spaces [108 spaces required, 86 spaces proposed]*
- 2) A 3.8' parking setback from the western property line [10' required, 6.2' proposed]*

This tightly designed property has topography challenges and wetlands to contend with. To accommodate the proposed site plan improvements, some encroachment into the wetland buffer area has been agreed to by our Planning Department.

III. RECOMMENDATION:

1. I move that we **grant** the variance in Case No. **PZ26-0032**, 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 is 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. **PZ26-0032** 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.

Alan Hall – Deputy Director Community Development - City of Novi

RECEIVED

JUN 29 2026

CITY OF NOVI
COMMUNITY DEVELOPMENT



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ZONING BOARD OF APPEALS APPLICATION

APPLICATION MUST BE FILLED OUT COMPLETELY

I. PROPERTY INFORMATION (Address of subject ZBA Case)			
PROJECT NAME / SUBDIVISION Parking Lot Expansion			
ADDRESS 44725 W. Grand River Avenue		LOT/SUITE/SPACE #	
SIDWELL # 50-22-15-376-012 & 016		May be obtain from Assessing Department (248) 347-0485	
CROSS ROADS OF PROPERTY Grand River & Tait			
IS THE PROPERTY WITHIN A HOMEOWNER'S ASSOCIATION JURISDICTION? ☐ YES ☒ NO		REQUEST IS FOR: ☐ RESIDENTIAL ☒ COMMERCIAL ☐ VACANT PROPERTY ☐ SIGNAGE	
DOES YOUR APPEAL RESULT FROM A NOTICE OF VIOLATION OR CITATION ISSUED? ☐ YES ☒ NO			
II. APPLICANT INFORMATION			
A. APPLICANT		EMAIL ADDRESS	
NAME Eric Modell		CELL PHONE NO.	
ORGANIZATION/COMPANY 44725 Grand River, LLC		TELEPHONE NO.	
ADDRESS 29201 Telegraph Road, Suite 410		CITY Southfield	STATE MI
		ZIP CODE 48034	
B. PROPERTY OWNER ☒ CHECK HERE IF APPLICANT IS ALSO THE PROPERTY OWNER			
Identify the person or organization that owns the subject property:		EMAIL ADDRESS	
NAME		CELL PHONE NO.	
		TELEPHONE NO.	
ORGANIZATION/COMPANY		FAX NO.	
ADDRESS		CITY	STATE
		ZIP CODE	
III. ZONING INFORMATION			
A. ZONING DISTRICT			
☐ R-A ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4 ☐ RM-1 ☐ RM-2 ☐ MH ☒ I-1 ☐ I-2 ☐ RC ☐ TC ☐ TC-1 ☐ OTHER _____			
B. VARIANCE REQUESTED			
INDICATE ORDINANCE SECTION (S) AND VARIANCE REQUESTED:			
1. Section <u>5.1.12.D</u> Variance requested Parking space deficiency of 22 spaces (86 Pro., 108 Req.)			
2. Section <u>3.1.18.D</u> Variance requested 3.8' parking setback alt west prop. line (6.2' Pro., 10.0' Req.)			
3. Section _____ Variance requested _____			
4. Section _____ Variance requested _____			
IV. FEES AND DRAWINGS			
A. FEES			
☐ Single Family Residential (Existing) \$220 ☐ (With Violation) \$275 ☐ Single Family Residential (New) \$275 ☒ Multiple/Commercial/Industrial \$330 ☐ (With Violation) \$440 ☐ Signs \$330 ☐ (With Violation) \$440 ☐ House Moves \$330 ☐ Special Meetings (At discretion of Board) \$660			
B. DRAWINGS 1-COPY & 1 DIGITAL COPY SUBMITTED AS A PDF			
• Dimensioned Drawings and Plans • Site/Plot Plan • Existing or proposed buildings or addition on the property • Number & location of all on-site parking, if applicable • Existing & proposed distance to adjacent property lines • Location of existing & proposed signs, if applicable • Floor plans & elevations • Any other information relevant to the Variance application			



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

Applicant Signature

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.

Property Owner Signature

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



Community Development Department
45175 Ten Mile Road
Novi, MI 48375
(248) 347-0415 Phone
(248) 735-5600 Facsimile
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REVIEW STANDARDS DIMENSIONAL VARIANCE

The Zoning Board of Appeals (ZBA) will review the application package and determine if the proposed Dimensional Variance meets the required standards for approval. In the space below, and on additional paper if necessary, explain how the proposed project meets each of the following standards. (Increased costs associated with complying with the Zoning Ordinance will not be considered a basis for granting a Dimensional Variance.)

Standard #1. Circumstances or Physical Conditions.

Explain the circumstances or physical conditions that apply to the property that do not apply generally to other properties in the same zoning district or in the general vicinity. Circumstances or physical conditions may include:

- a. Shape of Lot.** Exceptional narrowness, shallowness or shape of a specific property in existence on the effective date of the Zoning Ordinance or amendment.
☒ Not Applicable ☐ Applicable If applicable, describe below:

and/or

- b. Environmental Conditions.** Exceptional topographic or environmental conditions or other extraordinary situations on the land, building or structure.
☐ Not Applicable ☒ Applicable If applicable, describe below:

See attached.

and/or

- c. Abutting Property.** The use or development of the property immediately adjacent to the subject property would prohibit the literal enforcement of the requirements of the Zoning Ordinance or would involve significant practical difficulties.
☐ Not Applicable ☒ Applicable If applicable, describe below:

See attached.

Standard #2. Not Self-Created.

Describe the immediate practical difficulty causing the need for the Dimensional Variance, that the need for the requested variance is not the result of actions of the property owner or previous property owners (i.e., is not self-created).

See attached.

Standard #3. Strict Compliance.

Explain how the Dimensional Variance in strict compliance with regulations governing area, setback, frontage, height, bulk, density or other dimensional requirements will unreasonably prevent the property owner from using the property for a permitted purpose, or will render conformity with those regulations unnecessarily burdensome.

See attached.

Standard #4. Minimum Variance Necessary.

Explain how the Dimensional Variance requested is the minimum variance necessary to do substantial justice to the applicant as well as to other property owners in the district.

See attached.

Standard #5. Adverse Impact on Surrounding Area.

Explain how the Dimensional Variance will not cause an adverse impact on surrounding property, property values, or the use and enjoyment of property in the neighborhood or zoning district.

See attached.

Standard #1. Circumstances or Physical Conditions.

Explain the circumstances or physical conditions that apply to the property that do not apply generally to other properties in the same zoning district or in the general vicinity. Circumstances or physical conditions may include:

- a. **Shape of Lot.** Exceptional narrowness, shallowness or shape of a specific property in existence on the effective date of the Zoning Ordinance or amendment.

Not Applicable.

- b. **Environmental Conditions.** Exceptional topographic or environmental conditions or other extraordinary situations on the land, building or structure.

Applicable. Due to the existing conditions of the property being at a higher elevation than the adjacent property and a wetland being present, the site buildable is limited. Based upon the proposed parking additions, the site will be maximized as much as the buildable area will allow. Thus, this request is for the minimum variance needed to best align with the City Ordinance.

- c. **Abutting Property.** The use or development of the property immediately adjacent to the subject property would prohibit the literal enforcement of the requirements of the Zoning Ordinance or would involve significant practical difficulties.

Applicable. The neighbor to the west of the proposed improvement area also has wetlands present. To not impede upon the shared wetland area that is present between the two properties, the request has been presented to only provide improvements within a portion of the wetland buffer area. This has been approved by the City's wetland consultant as part of the Preliminary Site Plan approval process.

Standard #2. Not Self-Created.

Describe the immediate practical difficulty causing the need for the Dimensional Variance, that the need for the requested variance is not the result of actions of the property owner or previous property owners (i.e., is not self-created).

The requested variance is not self-created or a result of actions of the property owner. To better align with the parking spaces requirement, the parking setback variance is necessary to maximize the number of parking spaces provided. The proposed number of spaces is 86,

which is deficient by 22 spaces per the City Ordinance. The dimensional variance would now allow for better utilization of available area of the site even with the difficulties of the existing site conditions that were not self-created.

Standard #3. Strict Compliance.

Explain how the Dimensional Variance in strict compliance with regulations governing area, setback, frontage, height, bulk, density or other dimensional requirements will unreasonably prevent the property owner from using the property for a permitted purpose or will render conformity with those regulations unnecessarily burdensome.

The dimensional variance in strict compliance with the parking setback requirements of 10 ft. will further reduce the number of parking spaces proposed. Thus, resulting in additional dimensional variance request for the parking spaces deficiency. To further align with the City's Ordinance on parking setback requirements that promote parking lot shade trees, two additional parking islands are proposed. These additional landscape islands will allow for tree plantings to provide shade trees as intended by the City Ordinance.

Standard #4. Minimum Variance Necessary.

Explain how the Dimensional Variance requested is the minimum variance necessary to do substantial justice to the applicant as well as to other property owners in the district.

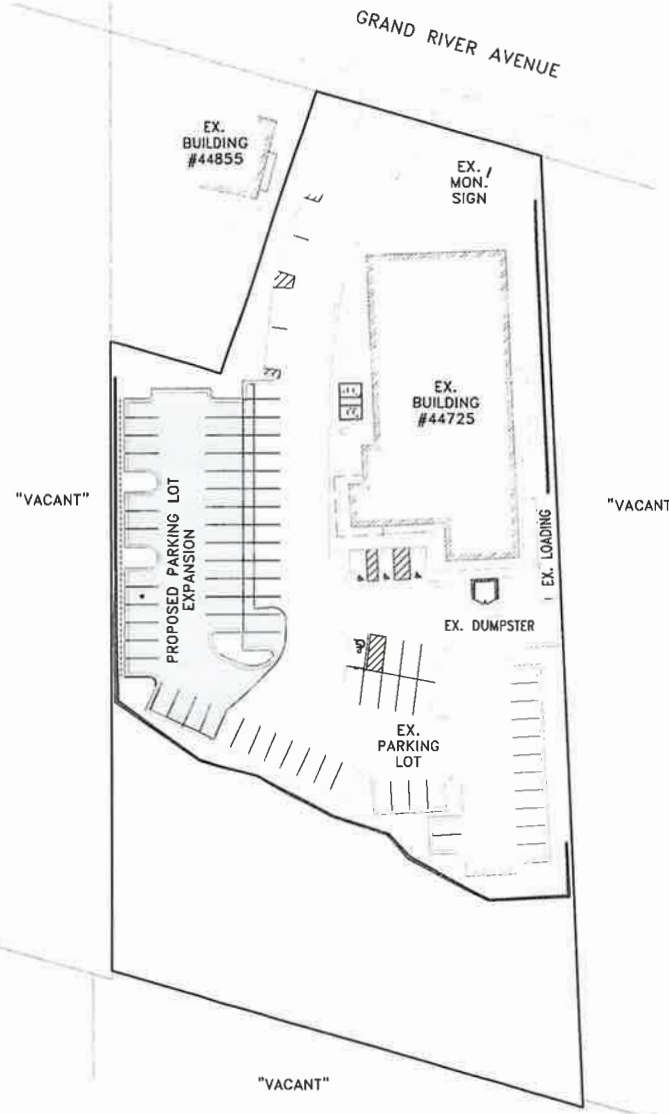
The proposed improvements require the minimum variance needed because a lesser variance would further reduce the number of parking spaces proposed. Less proposed parking spaces would result in a larger request for parking spaces deficiency.

Standard #5. Adverse Impact on Surrounding Area.

Explain how the Dimensional Variance will not cause an adverse impact on surrounding property, property values, or the use and enjoyment of property in the neighborhood or zoning district.

The dimensional variance will not cause adverse impacts to the surrounding property, property values, or the use and enjoyment in the surrounding neighborhood or zoning district because the parking lot is obscured by an existing retaining wall that is proposed to be extended along the west property line to the limits of the proposed parking. Additionally, there is an existing wetland that creates a natural buffer between the proposed improvements and the neighboring property.

CITY OF NOVI, OAKLAND COUNTY, MICHIGAN



1 COVER SHEET
2 DIMENSION & PAVING PLAN
3 PARKING PLAN
4 EXISTING CONDITIONS
5 LEGEND SHEET
6 DEMOLITION PLAN
7 GRADING AND UTILITY PLAN
8 SOIL EROSION & SEDIMENTATION CONTROL PLAN
9 IMPERVIOUS AREA PLAN
10 SITE DETAILS

L-1 LANDSCAPE PLAN
L-2 TREE PLAN
L-3 LANDSCAPE DETAILS

1 OF 2 PHOTOMETRIC PLAN
2 OF 2 PHOTOMETRIC PLAN

1	OF 1	OAKLAND COUNTY WATER RESOURCES COMMISSIONER--
		SOIL EROSION & SEDIMENTATION CONTROL DETAILS
1	OF 2	CITY OF NOVI STORM SEWER STANDARD DETAILS
2	OF 2	CITY OF NOVI STORM SEWER STANDARD DETAILS
1	OF 2	CITY OF NOVI PAVING STANDARD DETAILS
2	OF 2	CITY OF NOVI PAVING STANDARD DETAILS
1	OF 2	CITY OF NOVI WATER MAIN STANDARD DETAILS
2	OF 2	CITY OF NOVI WATER MAIN STANDARD DETAILS
3	OF 5	CITY OF NOVI WATER MAIN STANDARD DETAILS
4	OF 5	CITY OF NOVI WATER MAIN STANDARD DETAILS
5	OF 5	CITY OF NOVI WATER MAIN STANDARD DETAILS

VERSA REAL ESTATE, LLC
29201 TELEGRAPH ROAD
SUITE 410
SOUTHFIELD, MI 48034
PHONE: (248) 979-6137
FAX: (248) 856-3173
CONTACT: ERIC MODELL

THE UMLOR GROUP
49287 WEST ROAD
WIXOM, MI 48393
PHONE: (248) 773-7858
FAX: (866) 690-4307
CONTACT: WES UMLOR, P.E.
JESSE PARKINSON

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF MOBILE.

2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND/OR OBTAIN ANY INFORMATION NECESSARY REGARDING THE PRESENCE OF UNDERGROUND UTILITIES WHICH MIGHT AFFECT THIS JOB.

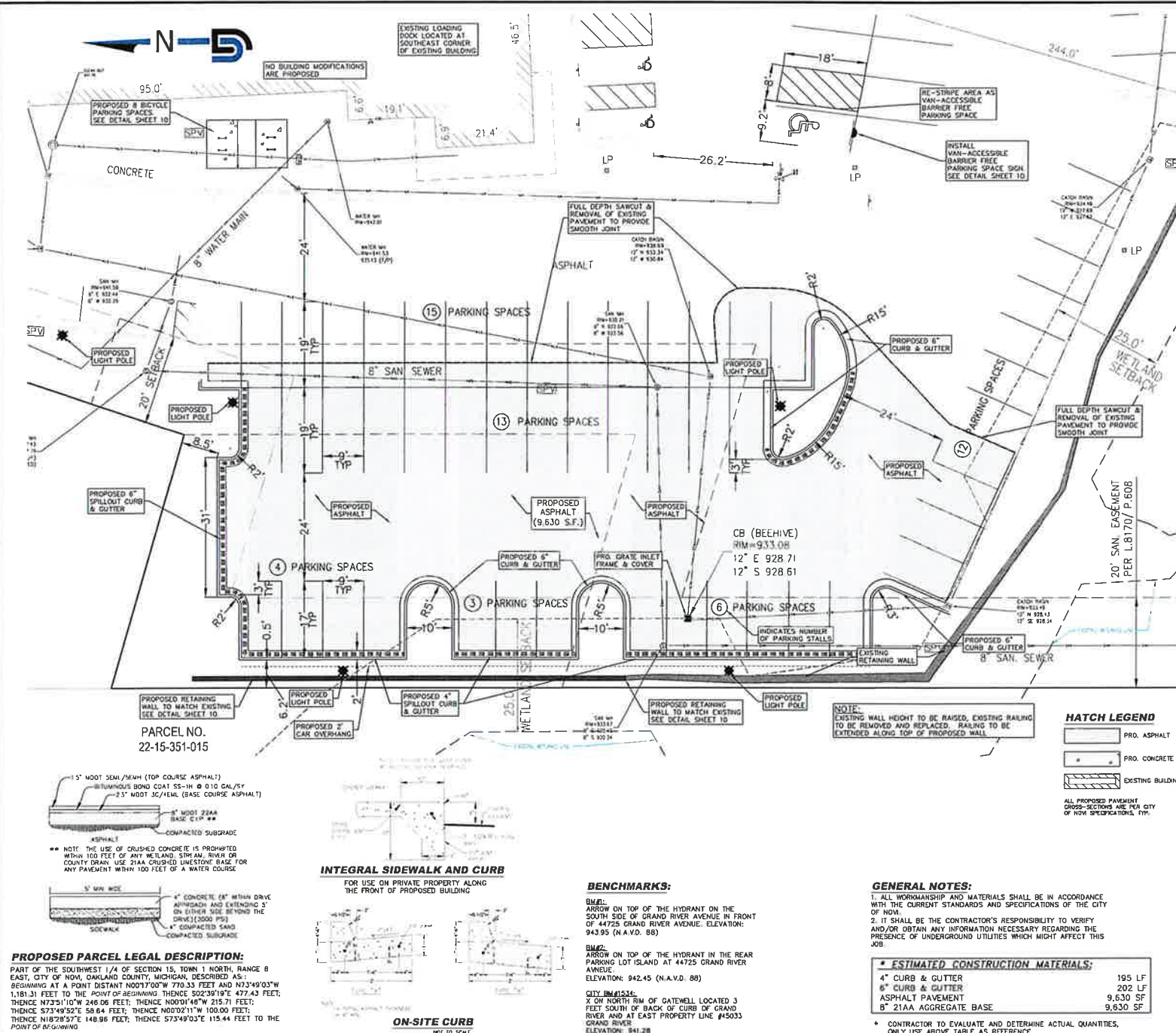
3. EXISTING EASEMENTS WILL BE SHOWN PER TITLE WORK, ONCE RECEIVED.

4. CONTRACTOR TO OBTAIN ALL REQUIRED APPROVALS AND PERMITS PRIOR TO THE START OF CONSTRUCTION.

TASK	TIMELINE
APPROVAL/PERMITTING:	WINTER 2026
LAND DEVELOPMENT:	SPRING 2026
PARKING LOT CONSTRUCTION:	SPRING/SUMMER 2026

PART OF THE SOUTHWEST 1/4 OF SECTION 15, TOWN 1 NORTH, RANGE 8
BEGINNING AT A POINT DISTANT N00°17'00"W 70.73 FEET; AND N73°49'03"W
140.73 FEET TO THE POINT OF BEGINNING; THENCE S02°39'19"E 47.73 FEET;
THENCE N73°51'10"W 246.06 FEET; THENCE N00°01'46"W 215.71 FEET;
THENCE S73°49'52"E 58.64 FEET; THENCE N00°02'11"W 150.00 FEET;
THENCE N18°26'57"E 148.96 FEET; THENCE S73°49'03"E 115.44 FEET TO THE
POINT OF BEGINNING





GENERAL NOTES:

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.

- ALL DIMENSIONS SHOWN ARE TO BACK OF CURB FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
- REFER TO CITY OF NOW PAVING STANDARD DETAILS FOR ADDITIONAL DETAILS.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF NOW CURRENT STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- ALL ON-SITE SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH UNLIMITED PAVING STALL STRIPING SHALL BE 4" WIDE (SHOULDER) AND WHITE.
- THE ACCESSIBLE PARKING SPACE AND ASSOCIATED AISLE SHALL BE STRIPED WITH 4" BLUE STRIPES THE STRIPING SPACE ADJACENT TO AN ACCESSIBLE SPACE, ABUTTING BLUE AND WHITE STRIPES SHALL BE INSTALLED.
- ANY WORK WITHIN THE STREET OR HIGHWAY RIGHT-OF-WAYS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN OBTAINED FOR THE WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE TOP OF ALL EXISTING AND PROPOSED STRUCTURES (MANHOLES, CATCH BASINS, INLETS, DATE WELLS ETC) WITHIN GRADED AND/OR PAVED AREAS TO FINAL GRADE SHOWN ON THE PLANS. ALL SUCH ADJUSTMENTS SHALL BE INDICATED TO THE JOB AND WILL NOT BE PAID FOR SEPARATELY.
- NO BUILDING MODIFICATIONS ARE PROPOSED.

WOODLANDS NOTES:

TREES TO BE SAVED ARE TO BE PROPERLY PROTECTED, AS DESIGNATED BY THE CITY OF NOW WOODLAND PROTECTION ORDINANCE.

ZONING:

I-1, LIGHT INDUSTRIAL DISTRICT
PER CITY OF NOW ZONING MAP

BUILDING SETBACKS:

FRONT: 40 FEET
REAR: 20 FEET
SIDES: 20 FEET
PER CITY OF NOW ZONING ORDINANCE

OUTDOOR STORAGE:

THERE IS NO OUTDOOR STORAGE PROPOSED FOR THIS SITE. OVERNIGHT PARKING OF DELIVERY VEHICLES WILL TAKE PLACE IN DESIGNATED PARKING AREAS ON THE SOUTH AND SOUTHEAST SIDES OF THE BUILDING.

HOURS OF OPERATION:

8:00 AM - 5:00 PM (MONDAY THROUGH FRIDAY)

PROJECT PHASING:

ONE PHASE - CONSTRUCTION TO COMMENCE SPRING 2026, COMPLETION SUMMER 2026

BUILDING INFORMATION:

PROPOSED BUILDING USE:	
1ST FLOOR BUSINESS OFFICE SPACE:	4,488 SF
1ST FLOOR MEDICAL OFFICE:	4,785 SF
2ND FLOOR MEDICAL OFFICE:	10,400 SF

PROPOSED PARKING DATA:

EXISTING PARKING: 88 SPACES, 3 BARRIER-FREE

	1ST FLOOR BUSINESS OFFICE:	1ST FLOOR MEDICAL OFFICE:	2ND FLOOR MEDICAL OFFICE:
EXISTING PARKING:	4,488 SF	4,785 SF	10,400 SF

BUSINESS OFFICE=1 SPACE PER 222 GLA
MEDICAL OFFICE=1 SPACE PER 175 GLA
4,785 (2ND FLOOR)+10,400 (2ND FLOOR)=
15,185/175 = 87 SPACES

EXISTING PARKING TO BE REMOVED = 8 SPACES
PROPOSED PARKING: 28 SPACES (1 BARRIER-FREE SPACE)
88-8=80=28=80 SPACES PROVIDED (4 BARRIER-FREE SPACES)

TOTAL REQUIRED PARKING: 20+87=107 SPACES
TOTAL PROVIDED PARKING: 86 SPACES (4 BARRIER-FREE SPACES)

NOTES:

ALL PAVING AND GRADING IMPROVEMENTS SHALL CONFORM TO THE CITY OF NOW ENGINEERING DESIGN STANDARDS.

DIMENSIONS OF PARKING STALLS ABUTTING A CURB OR SIDEWALK ARE TO FACE OF CURB OR WALK. ALL OTHER DIMENSIONS ARE TO BACK OF CURB UNLESS NOTED OTHERWISE.

CURBING AND WALKS ADJACENT TO THE END OF 17-FOOT STALLS SHALL BE REDUCED TO 4-INCH HIGH (RAILINGS) THAN THE STANDARD 6-INCH HEIGHT TO BE PROVIDED ADJACENT TO 19-FOOT STALLS). ADDITIONALLY, 2-FOOT OVERHANG SHOULD BE PROVIDED ADJACENT TO 17-FOOT PARKING STALLS.

END ISLAND NOTE:

ALL END ISLANDS SHALL BE CONSTRUCTED 3 FT. SHORTER THAN THE ADJACENT PARKING SPACE WHEN ABUTTING A MANEUVERING AISLE.

SIDEWALK NOTE:

NO CHANGES TO THE EXISTING SIDEWALK ARE PROPOSED WITH THIS PROJECT.

SIGNAGE NOTE:

NO CHANGES TO THE EXISTING SITE SIGNAGE ARE PROPOSED WITH THIS PROJECT.

LIGHTING NOTES:

- ALL ON-SITE POLE MOUNTED LIGHTS SHALL BE SHIELDED AND AWAY FROM THE AREAS TO BE SECURED (PARKING SPACES, DRIVES, WALKS, ETC.).
- BUILDING MOUNTED FIXTURES SHALL BE DESIGNED TO ILLUMINATE THE DRIVEWAY AND NOT ILLUMINATE THE LANDSCAPE, AREAS OR PAVEMENT AREAS UNLESS SPECIFICALLY DESIGNED ON THESE PLANS.

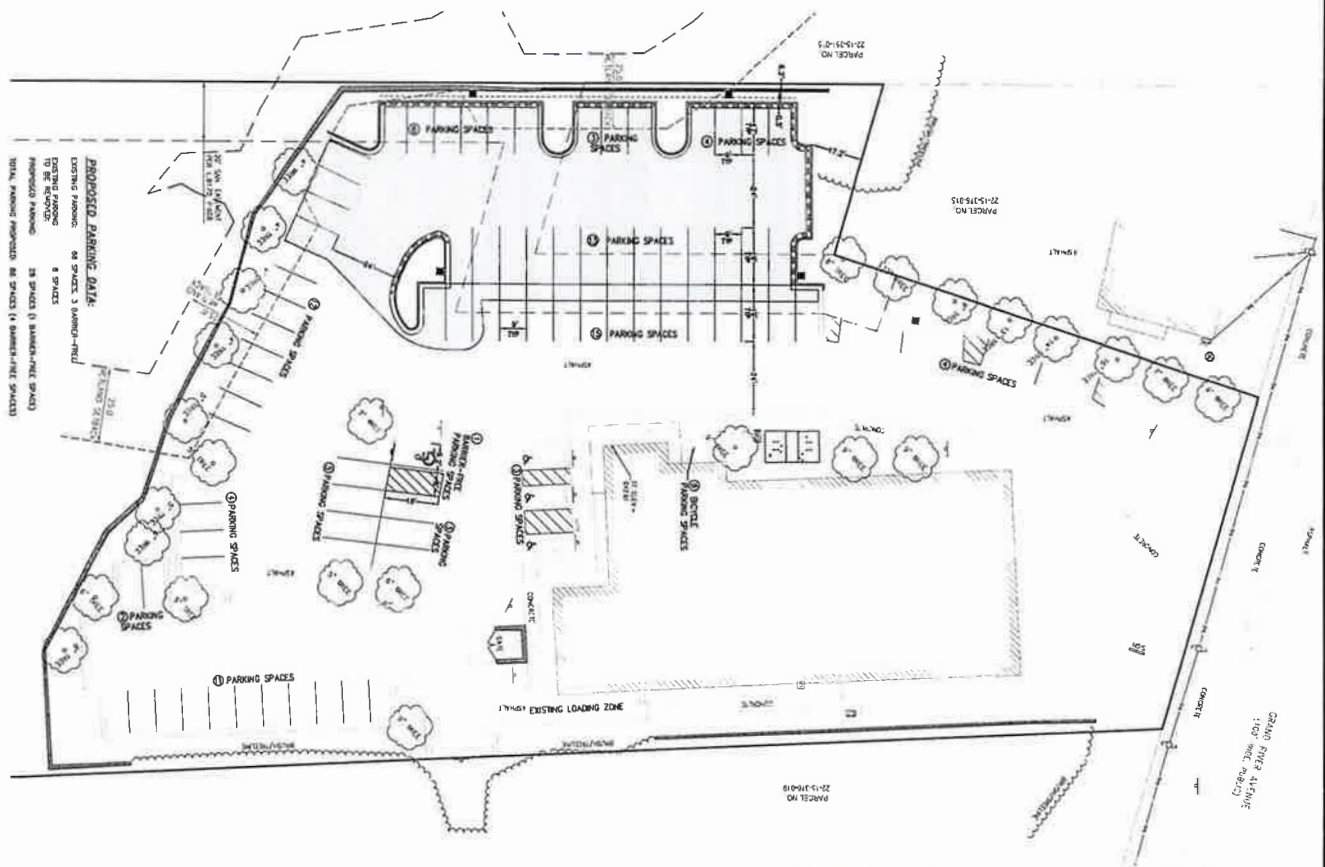
GENERAL NOTES:

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF NOW.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND/OR OBTAIN ANY INFORMATION NECESSARY REGARDING THE PRESENCE OF UNDERGROUND UTILITIES WHICH MIGHT AFFECT THIS JOB.

*** ESTIMATED CONSTRUCTION MATERIALS:**

	195 LF	202 LF
4" CURB & GUTTER		
8" CURB & GUTTER		
ASPHALT PAVEMENT	9,630 SF	
B" 21AA AGGREGATE BASE	9,630 SF	

* CONTRACTOR TO EVALUATE AND DETERMINE ACTUAL QUANTITIES, ONLY USE ABOVE TABLE AS REFERENCE.



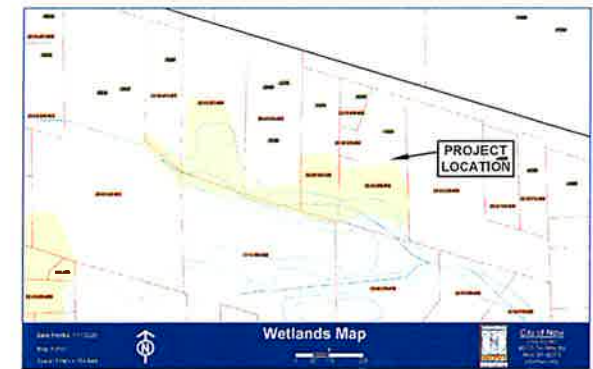
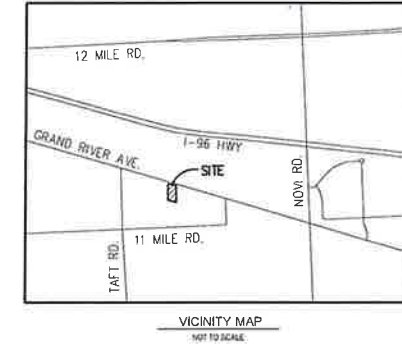
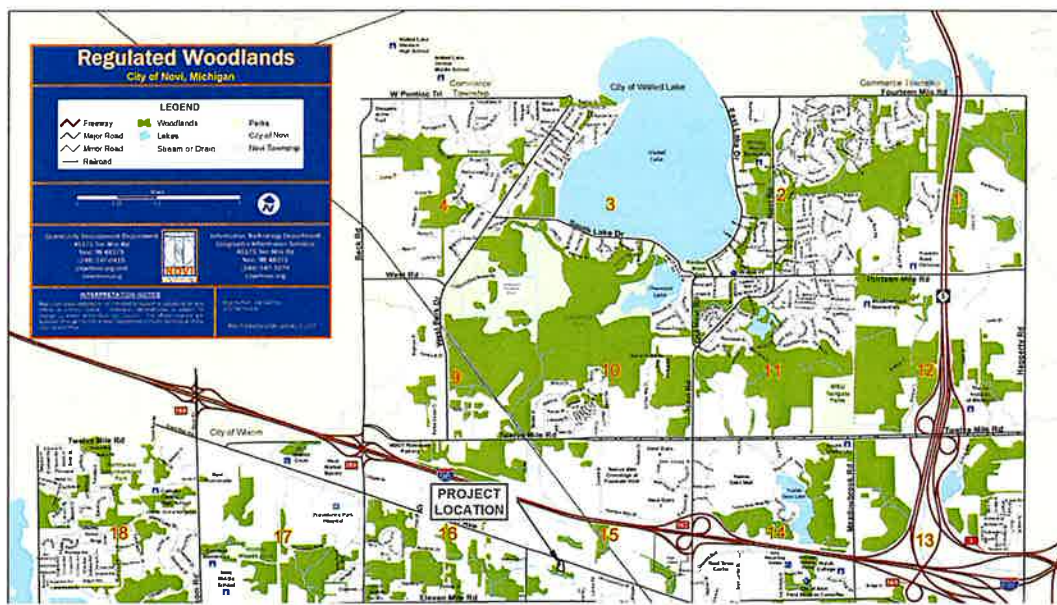
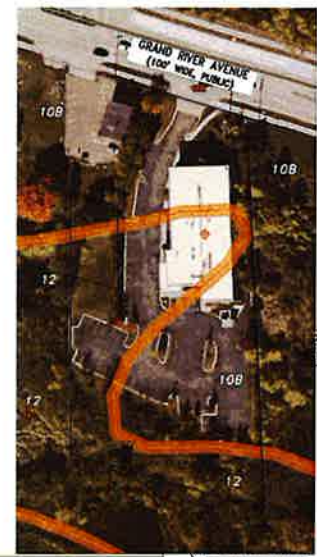


Figure 2-1. Regs River Watershed



SYMBOL	DESCRIPTION
○	FOUND WDN
○	FOUND CAPED IRON
○	FOUND IRON ROD
○	MEASURED BEARING
○	EX. OVERHEAD ELECTRIC
○	EX. SANITARY SEWER
○	EX. STORM SEWER
○	EX. UNDERGROUND CABLE
○	EX. UNDERGROUND ELECTRIC
○	EX. UNDERGROUND GAS
○	EX. WATER MAIN
○	EX. WALL
○	EX. CATCH BASIN ROUND
○	EX. STORM INLET/CATCH BASIN
○	EX. CLEAN OUT
○	EX. ELECTRIC METER
○	EX. GAS METER
○	EX. GATE VALVE IN WELL
○	EX. HYDRANT
○	EX. LIGHT POLE
○	EX. MAILBOX
○	EX. SANITARY MANHOLE
○	EX. SIGN
○	EX. STORM MANHOLE
○	EX. TRANSFORMER
○	EX. UTILITY POLE
○	EX. WATER MANHOLE
○	EX. WATER SHUT OFF
○	EX. WATER VALVE
○	EX. WELL
○	EX. TREE (DECIDUOUS/CONIFER)



PROJECT LOCATION

DISTANCE TO WALLED LAKE BRANCH OF THE MIDDLE ROUGE

Map Unit	Map Unit Name	Area in Acre	Percent of Acre
100	Marquette sandy loam, 1 to 6 percent slopes	0.0	0.4%
12	Marquette sandy loam, 1 to 6 percent slopes	3.1	35.2%
12	Marquette sandy loam, 1 to 6 percent slopes	0.0	0.0%
Totals for Area of Interest		8.7	100.0%

BENCHMARKS:

BM#1:
ARROW ON TOP OF THE HYDRANT ON THE SOUTH SIDE OF GRAND RIVER AVENUE IN FRONT OF 44725 GRAND RIVER AVENUE. ELEVATION: 943.95 (N.A.V.D. 85)

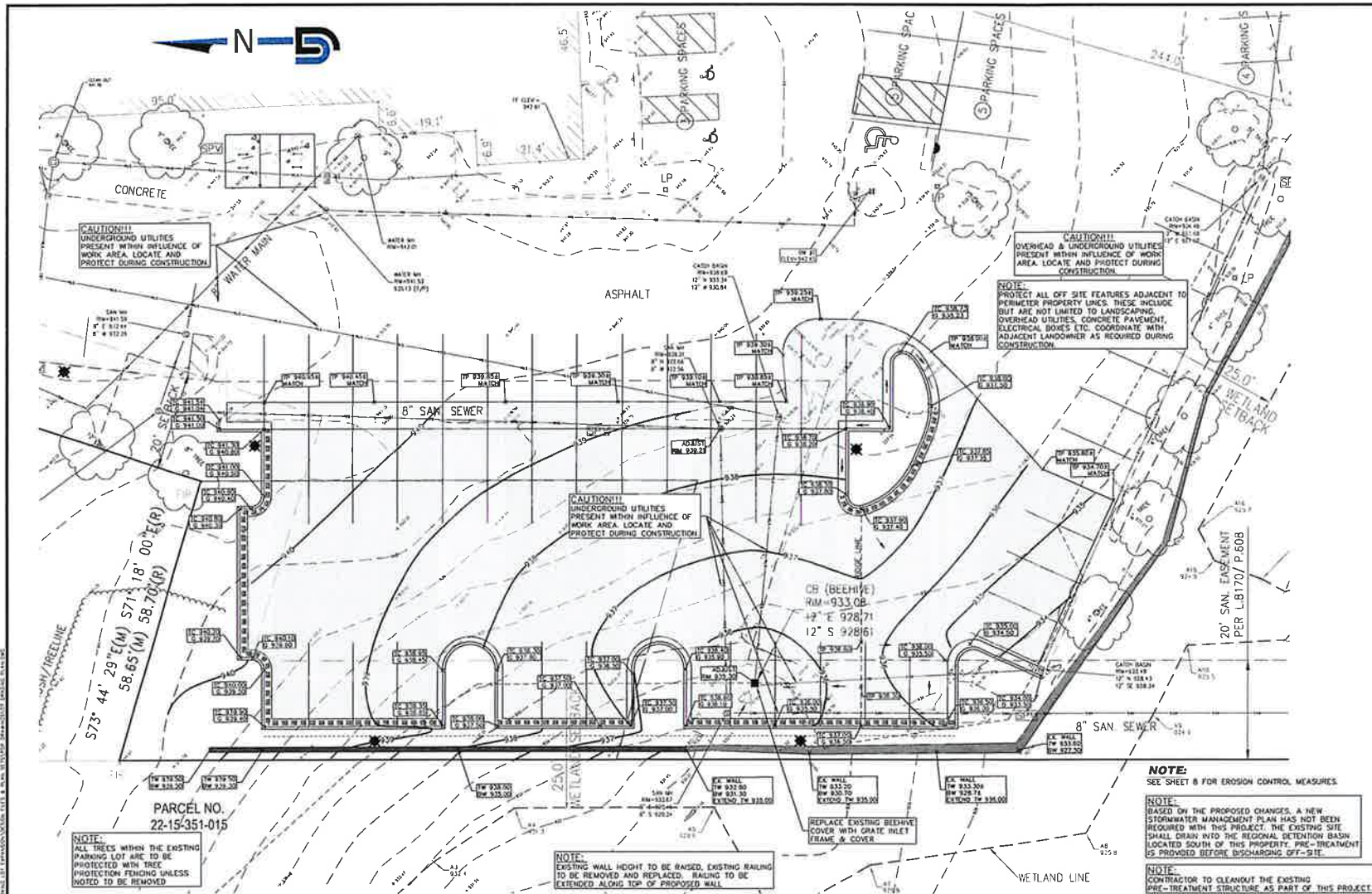
BM#2:
ARROW ON TOP OF THE HYDRANT IN THE REAR PARKING LOT ISLAND AT 44725 GRAND RIVER AVENUE. ELEVATION: 942.45 (N.A.V.D. 85)

UTILITY CONTACTS:

UTILITY	CONTACT
STORM DRAINAGE	CITY OF NOVI ENGINEERING DIVISION 28300 LEE BECKLE DR NOVI, MI 48215 (248)725-5614
WATER SERVICE	CITY OF NOVI ENGINEERING DIVISION 28300 LEE BECKLE DR NOVI, MI 48215 (248)725-5614
SANITARY SERVICE	CITY OF NOVI WATER AND SEWER DIVISION 28300 LEE BECKLE DR NOVI, MI 48215 (248)725-5614
TELEPHONE	AT&T (FORMERLY SBC) 54 W. HILL ST., 4TH FLOOR POWERS, MI 48142 (248)725-8256



3



BENCHMARKS:

B.M.1:
ARROW ON TOP OF THE HYDRANT ON THE SOUTH SIDE OF GRAND RIVER AVENUE IN FRONT OF 44725 GRAND RIVER AVENUE. ELEVATION: 943.95 (N.A.V.D. 88)

B.M.2:
ARROW ON TOP OF THE HYDRANT IN THE REAR PARKING LOT ISLAND AT 44725 GRAND RIVER AVENUE. ELEVATION: 942.45 (N.A.V.D. 88)

CITY B.M.1534:
X ON NORTH RM OF GATEWELL LOCATED 3 FEET SOUTH OF BACK CURB OF GRAND RIVER AND AT EAST PROPERTY LINE #45033 GRAND RIVER ELEVATION: 941.28

SYMBOL	DESCRIPTION
(W)	FOUND W/ON
(F)	FOUND CAPPED IRON
(R)	FOUND IRON ROD
(S)	RECOGNIZED BEARING
(H)	HEAVYWEIGHT BEARING
(E)	EX. OVERHEAD ELECTRIC
(S)	EX. SANITARY SEWER
(U)	EX. UNDERGROUND CABLE
(C)	EX. UNDERGROUND GAS
(W)	EX. WATER MAIN
(V)	EX. VALVE
(B)	EX. CATCH BASIN ROUND
(S)	EX. STORM INLET/CATCH BASIN
(L)	EX. GLENN OUT
(M)	EX. ELECTRIC METER
(G)	EX. GAS METER
(W)	EX. GATE VALVE IN WELL
(H)	EX. HYDRANT
(P)	EX. LIGHT POLE
(M)	EX. MANHOLE
(S)	EX. SANITARY MANHOLE
(S)	EX. SIGN
(S)	EX. STORM MANHOLE
(T)	EX. TRANSFORMER
(P)	EX. UTILITY POLE
(W)	EX. WATER MANHOLE
(S)	EX. WATER SHUT OFF
(V)	EX. WATER VALVE
(W)	EX. WELL
(T)	EX. TREE (DECEASED/COMING)

GRADING AND DRAINAGE LEGEND:

BX200 - PROPOSED SPOT GRADE ELEVATION
TP = TOP OF PAVEMENT
TC = TOP OF CURB
G = GUTTER
TW = TOP OF WALL
BW = BOTTOM OF WALL
FG = FINISH GRADE
— = OVERLAND FLOW DIRECTION

HATCH LEGEND

PRO. ASPHALT
 PRO. CONCRETE
 EXISTING BUILDING

ALL PROPOSED PAVEMENT CROSS-SECTIONS ARE PER CITY OF IOWA SPECIFICATIONS, TYP.

NOTE:

ALL PAVING AND GRADING IMPROVEMENTS SHALL CONFORM TO THE CITY OF IOWA ENGINEERING DESIGN STANDARDS.

GENERAL NOTES:

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF IOWA.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND/OR OBTAIN ANY INFORMATION NECESSARY REGARDING THE PRESENCE OF UNDERGROUND UTILITIES WHICH MIGHT AFFECT THIS JOB.

EARTHWORK BALANCING NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING OR EXPORTING ALL MATERIALS AS REQUIRED TO PROPERLY GRADE THIS PROJECT TO THE FINISHED ELEVATIONS SHOWN ON THE APPROVED PLANS. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF CUT AND FILL QUANTITIES AND ALLOW FOR REMOVAL OF EXCESS OR IMPORTATION OF ADDITIONAL MATERIAL AT NO ADDITIONAL COST TO THE OWNER.

RESTORATION NOTE:

THE CONTRACTOR SHALL RESTORE AREAS DISTURBED FROM HIS CONSTRUCTION OPERATIONS TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER, AND TO THE SATISFACTION OF THE OWNER. LANDSCAPE AREAS REQUIRING RESTORATION SHALL INCLUDE MIN. 3" TOPSOIL AND SOIL. PAVEMENT AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, WITH THE APPLICABLE CROSS-SECTION TO MATCH EXISTING.

GRADING NOTES:

1. SUBGRADE PREPARATION FOR PAVEMENT AND UTILITIES SHALL BE MONITORED BY A GEOTECHNICAL ENGINEER.
2. ACCEPTABLE MATERIAL FROM UNDERCUTTING MAY BE USED AS ENGINEERED FILL AS APPROVED BY SOILS ENGINEER.
3. CONTRACTOR SHALL TEMPORARILY STOCKPILE TOP SOIL TO BE USED FOR FINAL GRADING.
4. REMOVE ANY EXISTING TOPSOIL, ORGANIC SOILS, VEGETATION, TREES AND OTHER DELETERIOUS MATERIALS TO EXPOSE THE SUBGRADE SOIL. TREES SHOULD BE COMPLETELY REMOVED OR AS DIRECTED BY OWNER.
5. THE TOP 12 INCHES OF THE EXPOSED SUBGRADE AS WELL AS INDIVIDUAL FILL LAYERS SHOULD BE COMPACTED TO ACHIEVE A 95% COMPACTION LEVEL (MODIFIED PROCTOR - ASTM D1557).
6. THE FINAL SUBGRADE SHOULD BE THOROUGHLY PROOFROLLED USING A FULLY LOADED TANDEN AXLE TRUCK UNDER THE OBSERVATION OF A GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS THAT CAN NOT BE MECHANICALLY STABILIZED SHOULD BE REMOVED AND REPLACED WITH ENGINEERED FILL.
7. THE AGGREGATE BASE SHOULD BE COMPACTED TO ACHIEVE A 95 PERCENT COMPACTION LEVEL (MODIFIED PROCTOR - ASTM D1557). THE BASE AND SUBGRADE COMPACTION SHOULD EXTEND A MINIMUM OF 1 FOOT BEYOND THE PAVED EDGE.
8. ALL BITUMINOUS MATERIAL SHOULD BE COMPACTED TO A DENSITY OF 97% OF THE MAXIMUM DENSITY AS DETERMINED BY THE MARSHALL METHOD.
9. SEE CITY OF IOWA PAVING STANDARD DETAIL SHEET 2 OF 2 FOR PAVEMENT SECTIONS AND CURB DETAILS.

GRADING NOTES:

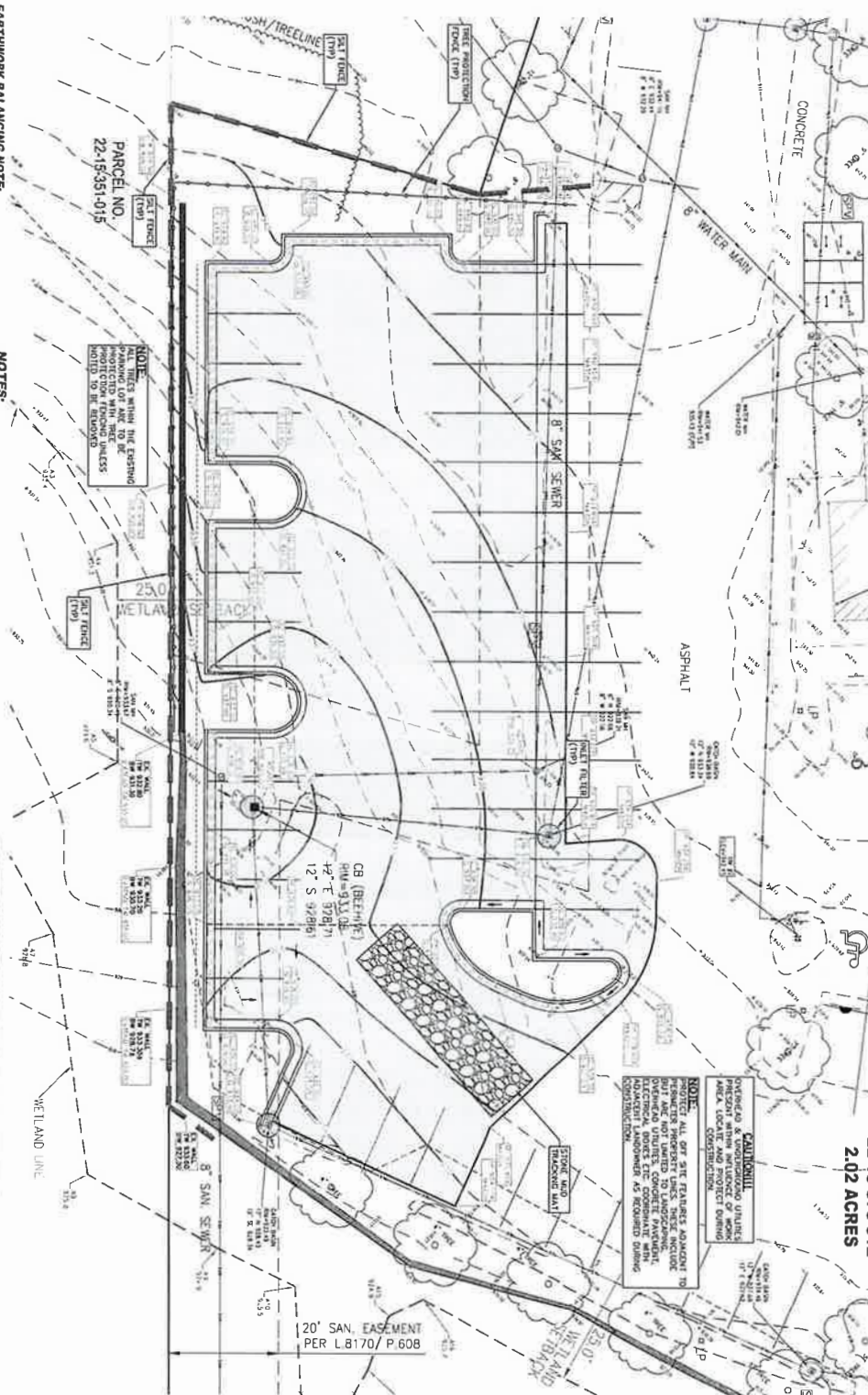
1. ALL PAVING AND GRADING IMPROVEMENTS SHALL CONFORM TO THE CITY OF IOWA ENGINEERING DESIGN STANDARDS.
2. SAWCUT AND REMOVE EXISTING CURBS AND PAVEMENT AS NECESSARY FOR CONSTRUCTION.
3. FIELD VERIFY EXISTING PAVEMENT AND CURB ELEVATIONS WHERE PROPOSED PAVEMENT AND CURB MEETS EXISTING PAVEMENT AND CURB PRIOR TO CONSTRUCTION. PAVING CONTRACTOR SHALL TAKE EXTRA CARE TO ENSURE 1% MINIMUM PAVEMENT SLOPE IS ACHIEVED AND SHALL CONTACT DESIGN ENGINEER PRIOR TO CONSTRUCTION IF A CONFLICT IS APPARENT.
4. CONTRACTOR TO ADJUST EXISTING RM ELEVATIONS AS NECESSARY, TO PROPOSED FINISHED GRADES.

UTILITY NOTES:

1. ELECTRICAL SERVICE TO LIGHT FIXTURES TO BE UNDERGROUND.
2. NO FLASHING LIGHT PERMITTED.
3. COMPACTED SAND BACKFILL (MOIST SAND CLASS #3) SHALL BE PROVIDED FOR ALL UTILITIES WITHIN THE INFLUENCE OF PAVED AREAS.



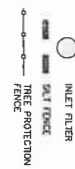
2.02 ACRES



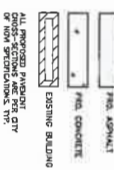
BENCHMARKS:

BULKHEAD ON TOP OF THE HARBOR ON THE SOUTH SIDE OF GRAND RIVER AVENUE IN FRONT OF THE HARBOR. ELEVATION: 943.93 (N.AVD. 88)
BULKHEAD ON TOP OF THE HARBOR IN THE REAR AREA OF LOT 15 AND AT 4723 GRAND RIVER AVENUE. ELEVATION: 942.45 (N.AVD. 88)

SOIL EROSION LEGEND



HATCH LEGEND



CLEANING SCHEDULE:

	DATE	ADVIS	REMARKS
1. INITIAL SILT FENCE AND WASH TRUCKING WASH			
2. INITIAL SILT FENCE AND WASH TRUCKING WASH			
3. INITIAL SILT FENCE AND WASH TRUCKING WASH			
4. INITIAL SILT FENCE AND WASH TRUCKING WASH			
5. INITIAL SILT FENCE AND WASH TRUCKING WASH			
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8. INITIAL SILT FENCE AND WASH TRUCKING WASH			
9. INITIAL SILT FENCE AND WASH TRUCKING WASH			
10. INITIAL SILT FENCE AND WASH TRUCKING WASH			

TIMING AND SEQUENCE OF CONSTRUCTION:

1. INITIAL SILT FENCE AND WASH TRUCKING WASH
2. INITIAL SILT FENCE AND WASH TRUCKING WASH
3. INITIAL SILT FENCE AND WASH TRUCKING WASH
4. INITIAL SILT FENCE AND WASH TRUCKING WASH
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9. INITIAL SILT FENCE AND WASH TRUCKING WASH
10. INITIAL SILT FENCE AND WASH TRUCKING WASH

EARTHWORK BALANCING NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING OR EXPORTING THE EXCESS EARTHWORK TO OR FROM THE SITE. THE CONTRACTOR SHALL MAINTAIN THE EXISTING EARTHWORK TO THE ORIGINAL GRADE AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK.

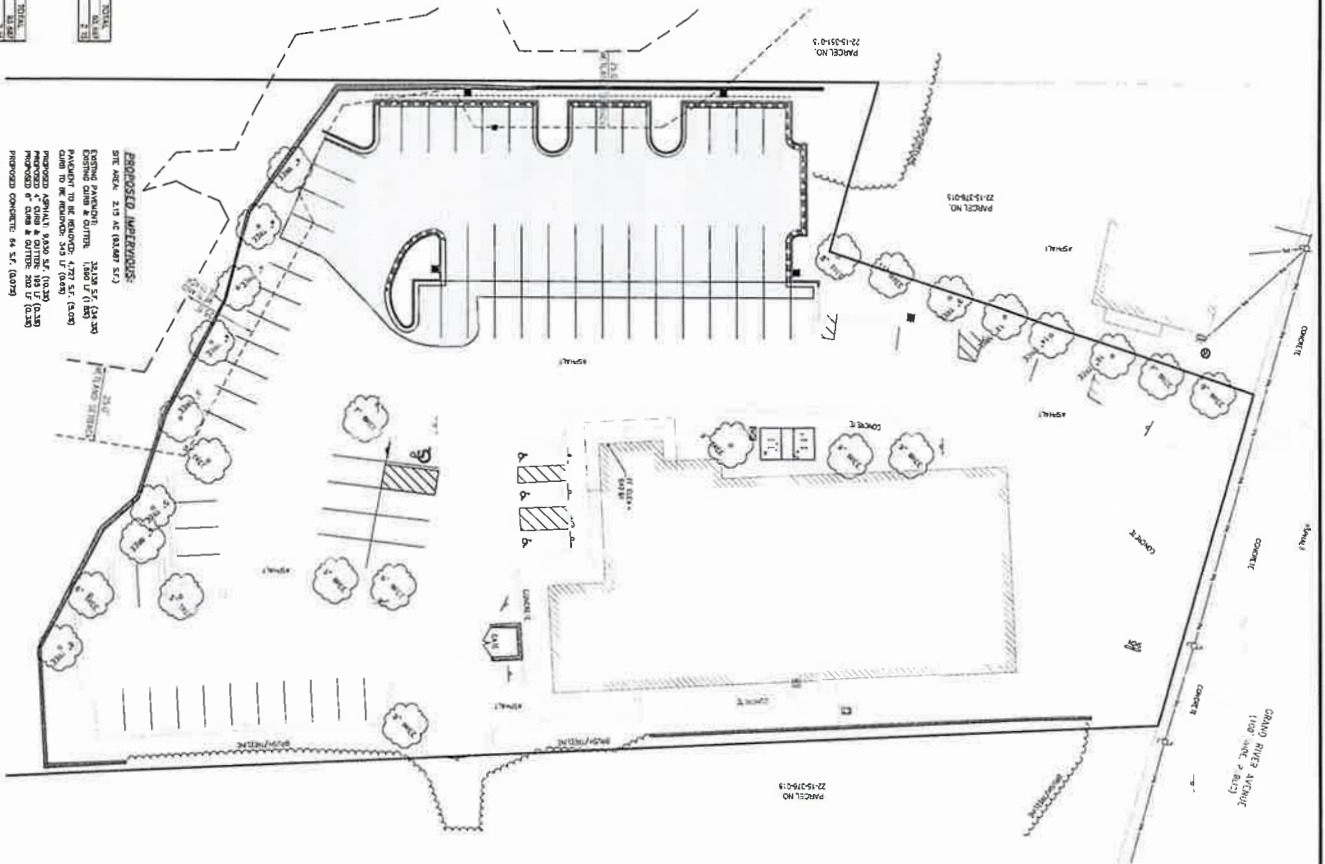
GENERAL NOTES:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK.

RESTORATION NOTE:
THE CONTRACTOR SHALL RESTORE THE AREAS DISTURBED BY THE CONSTRUCTION TO THE ORIGINAL GRADE AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK.

NOTES:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK.

MAINTENANCE REQUIREMENTS (EROSION CONTROL):
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING EARTHWORK.

VERSAR REAL ESTATE, LLC
SECTION 15



NOTE:
ALL PARKING DIMENSIONS SHOWN
ARE TO FACE OF CURB TO END OF
STALL. UNLESS OTHERWISE NOTED.

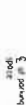
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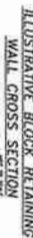
Ym26 Co



PROJECT.



Pharmaceuticals



TYPICAL SIGN AND POST INSTALLATION



6' 11" BEHIND FACE OF CURB
OR SIDEWALK



LEARNING SIGN OFF

© 1998 Blackwell Science Ltd, *Journal of Internal Medicine* 243: 333–340



Versa Real Estate
29201 Telegraph, Suite 410
Southfield, Michigan 48034
Eric Modell 248-970-1637

Region	t_0
--------	-------

26-018

24

No

Sheet No. _____



Know what's below.
Call before you dig.



North
No Scale

11

“PER”

1. No Overhead Lines Exist Along the South and West Property Lines.
2. Trees Shall be Planted no Closer than 10' to Sanitary Sewer, Utility Structures Including Hydrants and 5' from Utility Lines.
3. Trees Shall not be Planted Within 4' of Property Lines.
4. Utility Boxes are not Proposed.
5. Soils Information is Found on Sheet-S.
6. No Piranhas or Japanese Knotweed Exist On-Site.
7. Existing Irrigation System to be Extended to New Development.
8. Any Landscaping Missing from the Original Approved Plans Shall be Replaced. If the Plantings are Significantly Different from What was Originally Proposed, Fill Inconsistent Gaps and Provide an as-built for the Revised Landscaping.

[illegible]

Seal:



Title:

Tree Plan
Parking Lot Expansion

Project:

44725 Grand River
Novi, Michigan

Prepared for:

Vernon Real Estate
29201 Telegraph, Suite 410
Southfield, Michigan 48034
Eric Modell 248-979-1637

Revision:

Is:

Revised

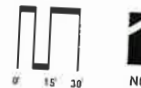
As

Job Number:

20-016

Drawn By:

CT



Sheet No.

L-2



Know what's below.
Call before you dig.

Woodland Summary

Total Trees: 24 Trees
Lost Trees - Regulated Trees: 0 Trees
Non-Regulated Trees: 24 Trees
Regulated Trees Removed: 0 Trees

Replacement Required:
Trees 6" - 11" Diameter: 1 Tree
Trees 11" - 20" Diameter: 2 Trees
Trees 20" - 30" Diameter: 3 Trees
Trees 30" - 40" Diameter: 4 Trees
Non-Stemmed Trees (5 Trees): 0 Trees
Replacement Required: 0 Trees

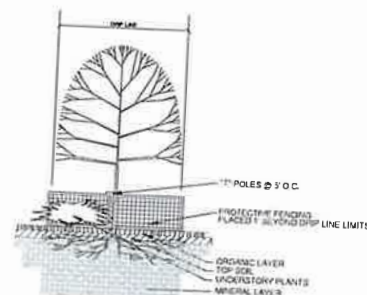
40' Diameter Tree to be Removed

Tree Fence Installation and Removal: \$330.00 (155 x \$611)

Tree List

TABLE	IDENTIFY NAME	COMMON NAME	SIZE	POSITION	STATUS	REMARKS
1101	Ulmus sp.	ELM	12"	01010	Save	
1102	Ulmus sp.	ELM	12"	01010	Save	
1103	Acer sp.	MAPLE	12"	01010	Save	
1104	Acer sp.	MAPLE	12"	01010	Save	
1105	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1106	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1107	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1108	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1109	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1110	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1111	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1112	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1113	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1114	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1115	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1116	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1117	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1118	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1119	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1120	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1121	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1122	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1123	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1124	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1125	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1126	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1127	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1128	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1129	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1130	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1131	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1132	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1133	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1134	Prunus pennsylvanica	CHERRY	12"	01010	Save	
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1141	Prunus pennsylvanica	CHERRY	12"	01010	Save	
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1150	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1151	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1152	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1153	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1154	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1155	Prunus pennsylvanica	CHERRY	12"	01010	Save	
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1176	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1177	Prunus pennsylvanica	CHERRY	12"	01010	Save	
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1185	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1186	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1187	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1188	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1189	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1190	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1191	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1192	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1193	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1194	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1195	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1196	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1197	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1198	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1199	Prunus pennsylvanica	CHERRY	12"	01010	Save	
1200	Prunus pennsylvanica	CHERRY	12"	01010	Save	

Tree Identification Performed by Under Group



1. Before Work, all Wood Storage Areas (Including Drifts) to be located at or beyond the Drift Line Limits.
2. After Work, all Wood Storage Areas (Including Drifts) to be located at or beyond the Drift Line Limits.
3. During Work, all Wood Storage Areas (Including Drifts) to be located at or beyond the Drift Line Limits.
4. During Work, all Wood Storage Areas (Including Drifts) to be located at or beyond the Drift Line Limits.
5. During Work, all Wood Storage Areas (Including Drifts) to be located at or beyond the Drift Line Limits.
6. During Work, all Wood Storage Areas (Including Drifts) to be located at or beyond the Drift Line Limits.
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19. During Work, all Wood Storage Areas (Including Drifts) to be located at or beyond the Drift Line Limits.
20. During Work, all Wood Storage Areas (Including Drifts) to be located at or beyond the Drift Line Limits.

TREE PROTECTION DETAIL

NO SCALE

NOTE
ONLY DECIDUOUS TREES ABOVE
3" CAL. STAKE DECIDUOUS
TREES BELOW 3" CAL.

STAKE TREES AT FIRST BRANCH
USING 2" X 2" WIDE BELT-LIKE
NYLON OR PLASTIC STRAPS
ALLOW FOR SOME MINIMAL
FLEXING OF THE TREE.
REMOVE AFTER ONE YEAR.

2" X 2" HARDWOOD STAKES
MIN. 32" ABOVE GROUND FOR
UPRIGHT. 18" IF ANGLED. DRIVE
STAKES A MIN. 18" INTO
UNDISTURBED GROUND. REMOVE
OUTSIDE ROOTBALL. REMOVE
AFTER ONE YEAR.

MULCH 4" DEPTH WITH
SHREDDED HARDWOOD BARK
NATURAL IN COLOR. LEAVE 3"
CIRCLE OF BARE SOIL AT BASE
OF TREE TRUNK. PULL ANY
ROOT BALL DIRT EXTENDING
ABOVE THE ROOT FLARE AWAY
FROM THE TRUNK SO THE ROOT
FLARE IS EXPOSED TO AIR.

MOUND EARTH TO FORM SAUCER
REMOVE ALL
NON-Biodegradable MATERIALS
COMPLETELY FROM THE
ROOTBALL. CUT DOWN WIRE
BASKET AND FOLD DOWN BURLAP
FROM TOP 1/3 OF THE ROOTBALL.

DECIDUOUS TREE PLANTING DETAIL

NOTE
TREE SHALL BEAR SAME
RELATION TO FINISH GRADE AS
IT BORE ORIGINALLY OR
SLIGHTLY HIGHER THAN FINISH
GRADE UP TO 5' ABOVE GRADE.
IF DIRECTED BY LANDSCAPE
ARCHITECT FOR HEAVY CLAY
SOIL AREAS.

DO NOT PRUNE TERMINAL
LEADER. PRUNE ONLY DEAD OR
BROKEN BRANCHES.

REMOVE ALL TAGS, STRING,
PLASTICS AND OTHER
MATERIALS THAT ARE
UNUSUALLY OR COULD CAUSE
GIRDLING.

PLANTING MIXTURE
AMEND SOILS PER
SITE CONDITIONS
AND REQUIREMENTS
OF THE PLANT
MATERIAL.

STAMPY SUBGRADE
AND PLANTING PIT
SIDES. RECOMPACT
BASE OF 3" TO 4"
DEPTH.

NOTE
ONLY EVERGREEN TREES ABOVE
12" HEIGHT. STAKE EVERGREEN
TREES BELOW 12" HEIGHT.

STAKE TREES AT FIRST BRANCH
USING 2" X 2" WIDE BELT-LIKE
NYLON OR PLASTIC STRAPS.
ALLOW FOR SOME MINIMAL
FLEXING OF THE TREE.
REMOVE AFTER ONE YEAR.

2" X 2" HARDWOOD STAKE
MIN. 18" ABOVE GROUND FOR
UPRIGHT. 18" IF ANGLED. DRIVE
STAKES A MIN. 18" INTO
UNDISTURBED GROUND. REMOVE
OUTSIDE ROOTBALL. REMOVE
AFTER ONE YEAR.

MULCH 4" DEPTH WITH
SHREDDED HARDWOOD BARK
NATURAL IN COLOR. LEAVE 3"
CIRCLE OF BARE SOIL AT BASE
OF TREE TRUNK. PULL ANY
ROOT BALL DIRT EXTENDING
ABOVE THE ROOT FLARE AWAY
FROM THE TRUNK SO THE ROOT
FLARE IS EXPOSED TO AIR.

MOUND EARTH TO FORM SAUCER
REMOVE ALL
NON-Biodegradable MATERIALS
COMPLETELY FROM THE
ROOTBALL. CUT DOWN WIRE
BASKET AND FOLD DOWN BURLAP
FROM TOP 1/3 OF THE ROOTBALL.

EVERGREEN TREE PLANTING DETAIL

NOTE
TREE SHALL BEAR SAME
RELATION TO FINISH GRADE AS
IT BORE ORIGINALLY OR
SLIGHTLY HIGHER THAN FINISH
GRADE UP TO 5' ABOVE GRADE.
IF DIRECTED BY LANDSCAPE
ARCHITECT FOR HEAVY CLAY
SOIL AREAS.

DO NOT PRUNE TERMINAL
LEADER. PRUNE ONLY DEAD OR
BROKEN BRANCHES.

REMOVE ALL TAGS, STRING,
PLASTICS AND OTHER
MATERIALS THAT ARE
UNUSUALLY OR COULD CAUSE
GIRDLING.

PLANTING MIXTURE
AMEND SOILS PER
SITE CONDITIONS
AND REQUIREMENTS
OF THE PLANT
MATERIAL.

STAMPY SUBGRADE
AND PLANTING PIT
SIDES. RECOMPACT
BASE OF 3" TO 4"
DEPTH.

STAKE 3" DEPTH WITH
SHREDDED HARDWOOD BARK
NATURAL IN COLOR. PULL BACK
3" FROM TRUNK.

PLANTING MIXTURE
AMEND SOILS PER
SITE CONDITIONS
AND REQUIREMENTS
OF THE PLANT
MATERIAL.
MOUND EARTH TO FORM SAUCER.

REMOVE COLLAR OF ALL FIBER.
POTS SHALL BE CUT TO
PROVIDE FOR ROOT GROWTH.
REMOVE ALL NONBIODEGRADABLE
CONTAINERS COMPLETELY.

REMOVE ALL
NONBIODEGRADABLE MATERIALS
COMPLETELY FROM THE
ROOTBALL. FOLD DOWN BURLAP
FROM TOP 1/3 OF THE ROOTBALL.

NOTE
TREE SHALL BEAR SAME
RELATION TO FINISH GRADE AS
IT BORE ORIGINALLY OR
SLIGHTLY HIGHER THAN FINISH
GRADE UP TO 5' ABOVE GRADE.
IF DIRECTED BY LANDSCAPE
ARCHITECT FOR HEAVY CLAY
SOIL AREAS.

PRUNE ONLY DEAD OR BROKEN
BRANCHES.

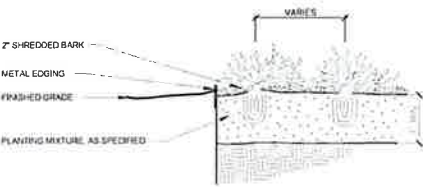
REMOVE ALL TAGS, STRING,
PLASTICS AND OTHER
MATERIALS THAT ARE
UNUSUALLY OR COULD CAUSE
GIRDLING.

PLANTING MIXTURE
AMEND SOILS PER
SITE CONDITIONS
AND REQUIREMENTS
OF THE PLANT
MATERIAL.
MOUND EARTH TO FORM SAUCER.

REMOVE COLLAR OF ALL FIBER.
POTS SHALL BE CUT TO
PROVIDE FOR ROOT GROWTH.
REMOVE ALL NONBIODEGRADABLE
CONTAINERS COMPLETELY.

SHRUB PLANTING DETAIL

NOT TO SCALE



PERENNIAL PLANTING DETAIL

Not to Scale



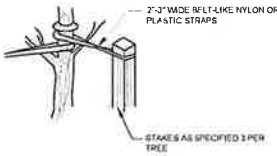
STAKING/GUYING LOCATION



GUYING DETAIL

TREE STAKING DETAIL

Not to Scale



STAKING DETAIL

LANDSCAPE NOTES

- All plants shall be north Midwest American region group No. 1 grade plant material and shall be true to name. Free from physical damage and weed burn.
- Plants shall be full and well-developed, and in healthy vigorous growing condition.
- Plants shall be watered before and after planting is complete.
- All trees must be staked, fertilized and mulched and shall be guaranteed to reach a normal growth cycle for at least two (2) full years following Town/County approval.
- All material shall conform to the guidelines established in the most recent edition of the American Standard for Nursery Stock.
- Provenance backfill soil using material stockpiled on site. Soil shall be screened and free of any debris, foreign material, and stones.
- "Agronorm" latex or similar slow-release fertilizer shall be added to the planting pits before being backfilled.
- Amended planting mix shall consist of 1/3 screened topsoil, 1/3 sand and 1/3 peat, mixed well and tamped to the depth as indicated in planting details.
- All plantings shall be mulched per planting details located on this sheet.
- The Landscape Contractor shall be responsible for all work shown on the landscape drawings and specifications.
- No substitutions or changes of location or plant types shall be made without the approval of the Landscape Architect.
- The Landscape Architect shall be notified of any discrepancies between the plans and field conditions prior to installation.
- The Landscape Contractor shall be responsible for maintaining all plant material in a vertical condition throughout the guaranteed period.
- The Landscape Architect shall have the right, at any stage of the installation to reject any work or material that does not meet the requirements of the plans and specifications. If requested by owner.
- Contractor shall be responsible for checking plant quantities to ensure quantities on drawings and plant list are the same. In the event of a discrepancy, the quantities on the plans shall prevail.
- The Landscape Contractor shall seed and mulch or sod (as indicated on plans) all areas disturbed during construction throughout the contract limit.
- A pre-emergent weed control agent "Preen" in equal shall be applied uniformly on top of all mulching in all planting beds.
- All landscape areas shall be provided with an underground automatic sprinkler system.
- Plant shall be kept page 404 "Barnes-Chenault" Kentucky Blue Grass grown in a sod nursery on farm lot.

CITY OF NOVI NOTES

- All landscape islands shall be backfilled with a sand mixture to facilitate drainage.
- All proposed landscape islands shall be curbed.
- All landscape areas shall be irrigated.
- Overhead utility lines and poles to be relocated as directed by utility company of record.
- Evergreen and canopy trees shall be planted a minimum of 10' from a fire hydrant and minimum 15' from overhead wires.
- All plant material shall be guaranteed for two (2) years after City Approval and shall be installed and maintained according to City of Novi standards. Redwood Planting Material within 3 Months of Discovering the Need for Replacement. One cultivation per month shall occur from July-August.
- All proposed street trees shall be planted a minimum of 4' from both the back of curb and proposed walks.
- All tree and shrub planting beds shall be mulched with shredded hardwood bark, spread to minimum depth of 4". All bare tree trunks shall have a 4" diameter circle of shredded hardwood mulch 3" away from trunk. All perennial annual and ground cover beds shall receive 2" of dark colored bark mulch as indicated on the plans list. Mulch is to be free from debris and foreign material, and shall contain no pieces of incontinent size.
- All Substitutions or Deviations from the Landscape Plan Must be Approved in Writing by the City of Novi Prior to their installation.

NOTE:
THE APPROXIMATE DATE OF INSTALLATION FOR THE PROPOSED LANDSCAPE SHALL BE WITHIN MARCH-NOVEMBER.

THE SITE WILL BE MAINTAINED BY THE DEVELOPER IN ACCORDANCE WITH THE STANDARDS SET FORTH IN THE CITY OF NOVI ORDINANCE. THIS INCLUDES WEEDING AND WATERING AS REQUIRED BY NORMAL MAINTENANCE PRACTICES.

DEVELOPER SHALL BE RESPONSIBLE FOR REPLACING ANY TREES WITHIN UTILITY EXISTENCE THAT ARE DAMAGED THROUGH NORMAL MAINTENANCE OR REPAIRS.

PLANT MATERIALS SHALL BE GUARANTEED FOR 2 YEARS AND SHALL BE MAINTAINED IN ACCORDANCE WITH CITY ORDINANCES. WARRANTY PERIOD BEGINS AT THE TIME OF CITY APPROVAL. WATERING AS NECESSARY SHALL OCCUR DURING THIS WARRANTY PERIOD.

ALLENDE!
LANDSCAPE ARCHITECTS

Seal:



Title:

Landscape Designer
Parking Lot Expansion

Project:

44725 Grand River
Pontiac, Michigan

Prepared for:

Venue Real Estate
28201 Telegraph, Suite 410
Southfield, Michigan 48034
Eric Modell, 248-879-6137

Revision:

Review
Revised
Issued
By
Date

Job Number:

78-018

Drawn By: C

JKL

Sheet No.



L-3

Plan View
Scale - 1" = 20'

Schedule						
Symbol	Label	QTY	Manufacturer	Catalog Number	Description	LLF Wattage
	P1	2	Lithonia Lighting	DSX0 LED P4 30K 80CRI TFM H5	D-Series Size 0 Area Luminaire P4 Performance Package 3000K CCT 80 CRI Forward Throw Houseside Shield	0.9 93.04
	P2	1	Lithonia Lighting	DSX0 LED P1 30K 80CRI RCCO EGS	D-Series Size 0 Area Luminaire P1 Performance Package 3000K CCT 80 CRI Right Corner Cutoff Extreme Backlight Control External Glare Shield	0.9 33.21
	P3	1	Lithonia Lighting	DSX0 LED P1 30K 80CRI LCCO EGS	D-Series Size 0 Area Luminaire P1 Performance Package 3000K CCT 80 CRI Left Corner Cutoff Extreme Backlight Control External Glare Shield	0.9 33.21
	P4	1	Lithonia Lighting	DSX0 LED P4 30K 80CRI BLC3 EGS	D-Series Size 0 Area Luminaire P4 Performance Package 3000K CCT 80 CRI Type 3 Extreme Backlight Control External Glare Shield	0.9 93.04
	EX1	1	EXISTING	TO BE CONFIRMED BY OWNER	TO BE CONFIRMED BY OWNER	0.9 93.04
	EX2	4	EXISTING	TO BE CONFIRMED BY OWNER	TO BE CONFIRMED BY OWNER	0.9 93.04
	EX3	1	EXISTING	TO BE CONFIRMED BY OWNER	TO BE CONFIRMED BY OWNER	0.9 93.04

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Overall/Grade	+	0.4 fc	2.4 fc	0.0 fc	N/A	N/A
Parking & Drive Lanes	X	1.4 fc	2.4 fc	0.5 fc	4.8:1	2.8:1
Property Line	+	0.1 fc	0.5 fc	0.0 fc	N/A	N/A

General Note

1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
2. SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.
3. CALCULATIONS ARE SHOWN IN FOOT-CANDELS AT: GRADE
4. ELECTRICAL SERVICE TO SERVICE TO BE UNDERGROUND
5. NO FLASHING LIGHT(S) WILL BE PERMITTED WITHIN SITE
6. ONLY NECESSARY LIGHTING FOR SECURITY PURPOSES SHALL BE PERMITTED AFTER HOURS

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIREMENTS DEFINED IN ASHRAE 90.1 2019. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT CONTROLS@GASSERBUSH.COM OR 734-266-6705.

Alternates Note
THE USE OF FIXTURE ALTERNATES MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.

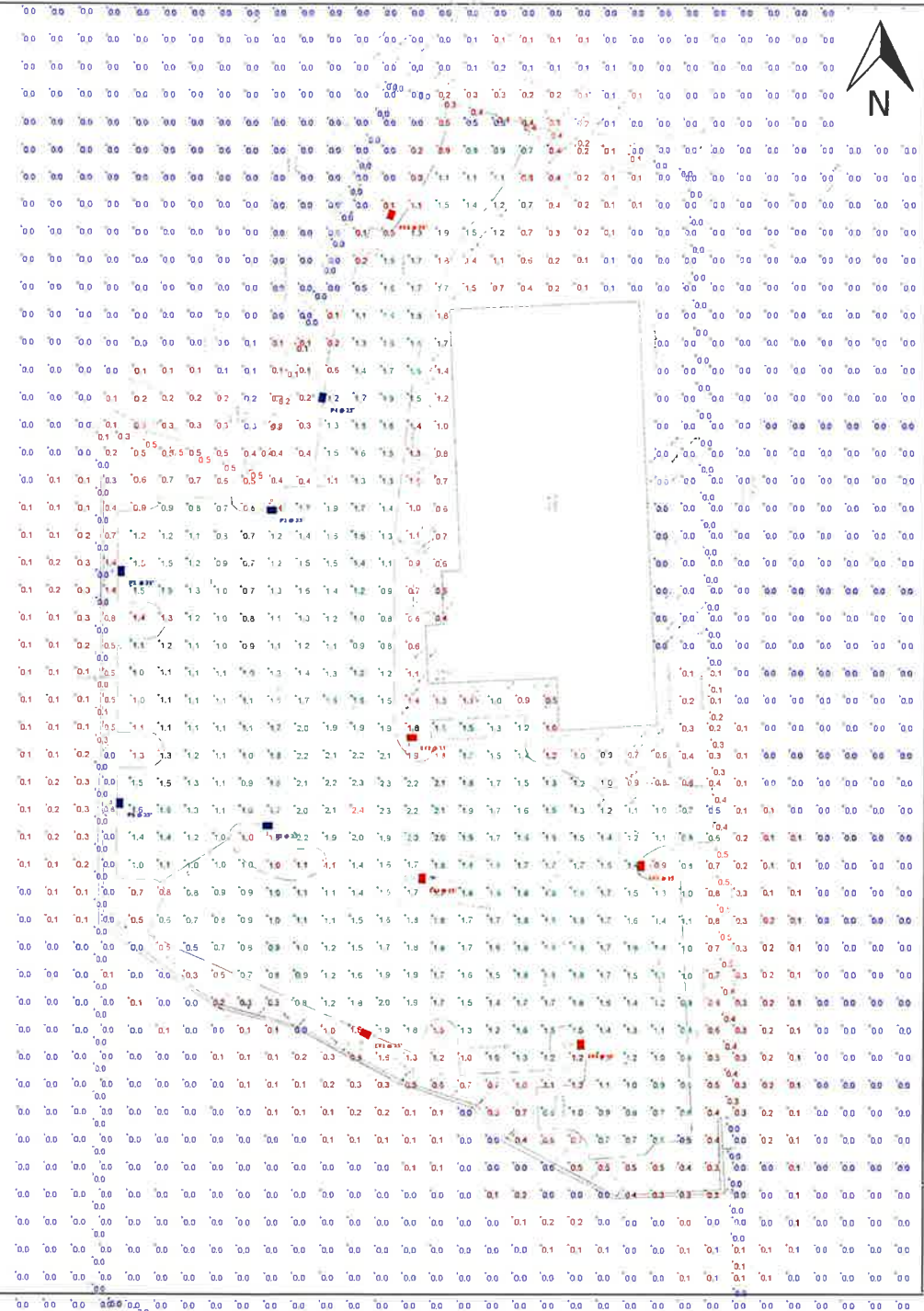
Ordering Note
FOR INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.

Drawing Note

THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

Mounting Height Note

MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.





D-Series Size 0 LED Area Luminaire



Specifications

EPA: 0.44 ft²
(0.04 m²)

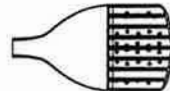
Length: 26.18"
(665 mm)

Width: 14.06"
(357 mm)

Height H1: 2.26"
(57 mm)

Height H2: 7.46"
(189 mm)

Weight: 23 lbs
(10.4 kg)



Ordering Information

EXAMPLE: DSX0 LED P6 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

Series	LEDs	Color Temperature	Color Rendering Index	Description	Voltage	Mounting
DSX0 LED	Forward optics		(this section 70CRI only)	AFR Automotive front view	T3M Type I medium	AMVOLT (100V-277V) **
	P1	P5	3000K	T15 Type I down	T3G Type I low glare	BMVOLT (147V-400V) **
	P2	P6	4000K	T3M Type II medium	T3W Type IV wide	BMVOLT (107V-300V) **
	P3	P7	5000K	T3M Type III medium	BCS Type II backlight control	120 v.h.
	P4			T3G Type II low glare	BCA Type II backlight control	240 v.h.
	Rotated optics			T3M Type IV medium	CCO Left corner cut	277 v.h.
	P10	P12	27K	T3M Type IV medium	CCO Right corner cut	480 v.h.
	P11	P13	30K	T3M Type IV medium		
			35K	T3M Type IV medium		
			40K	T3M Type IV medium		
			50K	T3M Type IV medium		
			50K	T3M Type IV medium		

Control options	Other options	Finish options
Shipped installed NLTAIR2 PIRHN All-glass 2' x 2' x 2' with 5-40 mounting height, ambient sensor installed at 20' x 2' x 2'.	Shipped installed HS Hissable shield (black finish standard) * L90 Left rotated optics R90 Right rotated optics CEE Coastal Commission * HA Bay Area Ambient Air and/or Bay Area Ambient Air SF Single line (120, 277, 347V) ** DF Double line (208, 240, 480V) *	Shipped installed DDBXD Dark bronze DDBXD Black DDBXD Natural aluminum DDBXD White DDBXD Insulated dark bronze DDBXD Insulated black DDBXD Insulated natural aluminum DDBXD Insulated white
PIR High-flow, motion/ambient sensor, 5-40 mounting height, ambient sensor installed at 20' x 2' x 2'.	PIR7 Seven-perceptacle only (ambush ordered separately) * *	
PIR Ambient (back view) only (ambush ordered separately) *	EAO End adjustable output, 5% *	
PIR5 Five-perceptacle only (ambush ordered separately) *	BL30 Bi-level switched dimming, 5% *	
	BL50 Bi-level switched dimming, 5% *	
	DMG 5-10' dimming, ambushed (outside fixture for use with an external control, ambushed separately) *	



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DSX0-LED
Rev. 08/25/25
Page 1 of 9

Coating	
Notes	
Qty	

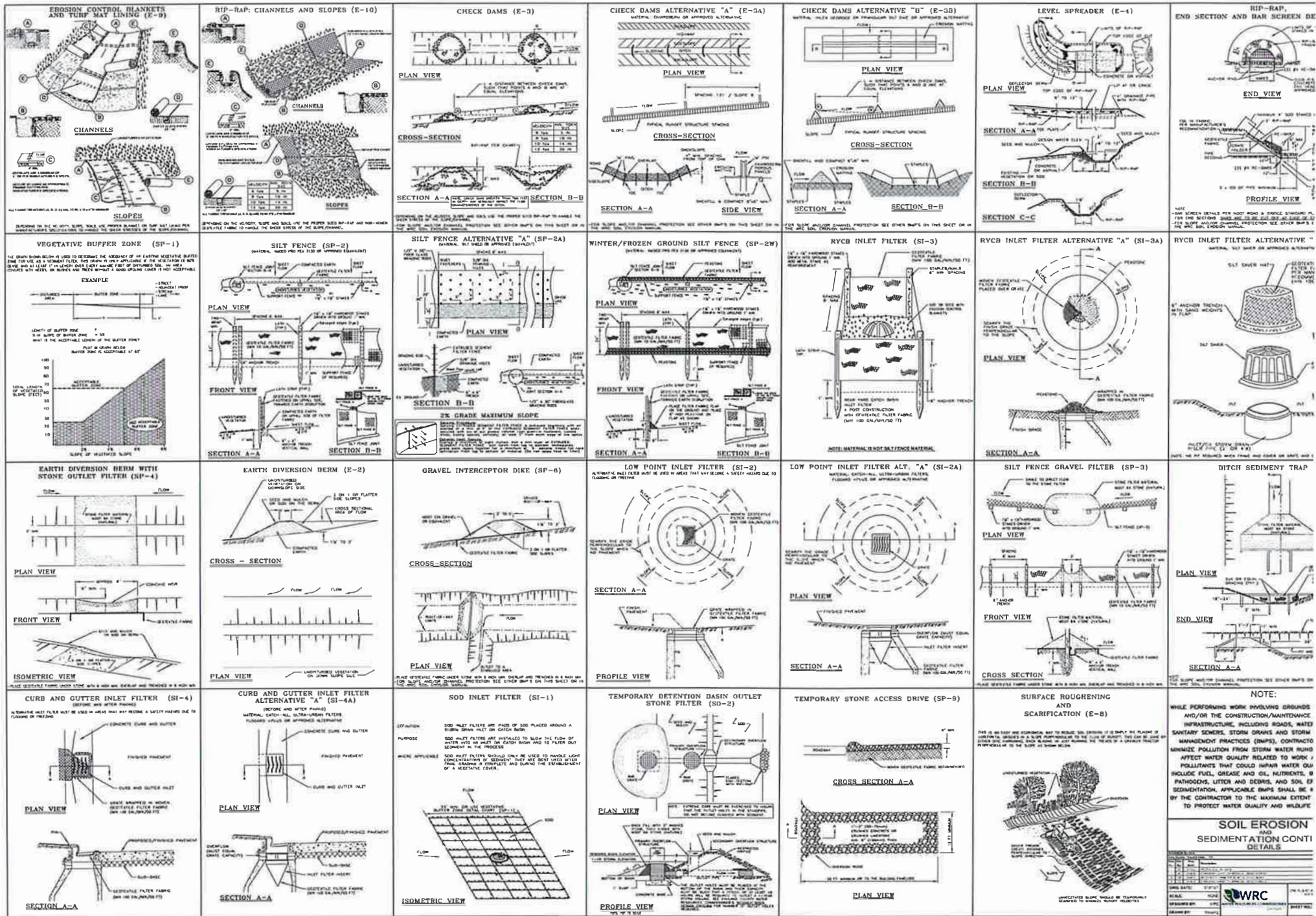
Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

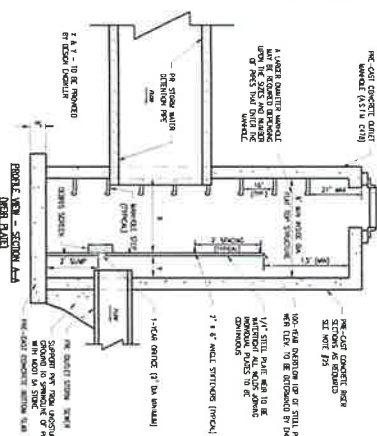
The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.



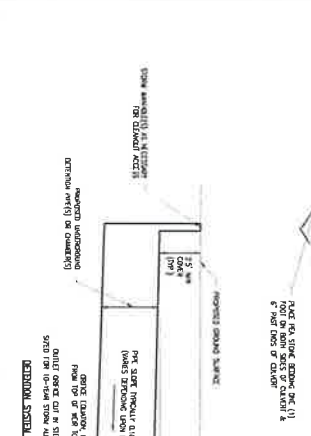
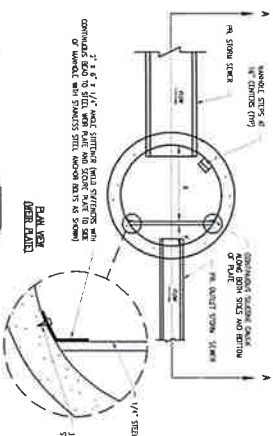
Items marked by a shield icon are eligible for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details.



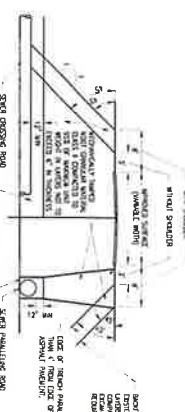
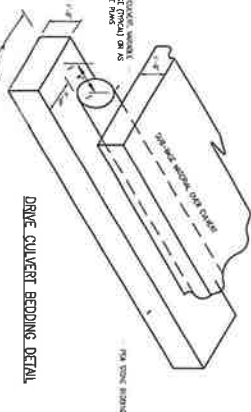
MANHOLE SIZING CHART	
INLET DIAMETER	MANHOLE PIPE SIZE FOR STRAIGHT THROUGH INSTALLATION
12"	12"
18"	18"
24"	24"
30"	30"
36"	36"
42"	42"
48"	48"
54"	54"
60"	60"
66"	66"
72"	72"
78"	78"
84"	84"
90"	90"
96"	96"
102"	102"
108"	108"
114"	114"
120"	120"
126"	126"
132"	132"
138"	138"
144"	144"
150"	150"
156"	156"
162"	162"
168"	168"
174"	174"
180"	180"
186"	186"
192"	192"
198"	198"
204"	204"
210"	210"
216"	216"
222"	222"
228"	228"
234"	234"
240"	240"
246"	246"
252"	252"
258"	258"
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270"	270"
276"	276"
282"	282"
288"	288"
294"	294"
300"	300"
306"	306"
312"	312"
318"	318"
324"	324"
330"	330"
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342"	342"
348"	348"
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606"	606"
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660"	660"
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708"	708"
714"	714"
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750"	750"
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774"	774"
780"	780"
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798"	798"
804"	804"
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990"	990"
996"	996"
1002"	1002"
1008"	1008"
1014"	1014"
1020"	1020"
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1032"	1032"
1038"	1038"
1044"	1044"
1050"	1050"
1056"	1056"
1062"	1062"
1068"	1068"
1074"	1074"
1080"	1080"
1086"	1086"
1092"	1092"
1098"	1098"
1104"	1104"
1110"	1110"
1116"	1116"
1122"	1122"
1128"	1128"
1134"	1134"
1140"	1140"
1146"	1146"
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1164"	1164"
1170"	1170"
1176"	1176"
1182"	1182"
1188"	1188"
1194"	1194"
1200"	1200"
1206"	1206"
1212"	1212"
1218"	1218"
1224"	1224"
1230"	1230"
1236"	1236"
1242"	1242"
1248"	1248"
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1272"	1272"
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1284"	1284"
1290"	1290"
1296"	1296"
1302"	1302"
1308"	1308"
1314"	1314"
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1332"	1332"
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1344"	1344"
1350"	1350"
1356"	1356"
1362"	1362"
1368"	1368"
1374"	1374"
1380"	1380"
1386"	1386"
1392"	1392"
1398"	1398"
1404"	1404"
1410"	1410"
1416"	1416"
1422"	1422"
1428"	1428"
1434"	1434"
1440"	1440"
1446"	1446"
1452"	1452"
1458"	1458"
1464"	1464"
1470"	1470"
1476"	1476"
1482"	1482"
1488"	1488"
1494"	1494"
1500"	1500"
1506"	1506"
1512"	1512"
1518"	1518"
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1584"	1584"
1590"	1590"
1596"	1596"
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1614"	1614"
1620"	1620"
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1632"	1632"
1638"	1638"
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1650"	1650"
1656"	1656"
1662"	1662"
1668"	1668"
1674"	1674"
1680"	1680"
1686"	1686"
1692"	1692"
1698"	1698"
1704"	1704"
1710"	1710"
1716"	1716"
1722"	1722"
1728"	1728"
1734"	1734"
1740"	1740"
1746"	1746"
1752"	1752"
1758"	1758"
1764"	1764"
1770"	1770"
1776"	1776"
1782"	1782"
1788"	1788"
1794"	1794"
1800"	1800"
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1812"	1812"
1818"	1818"
1824"	1824"
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1836"	1836"
1842"	1842"
1848"	1848"
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1866"	1866"
1872"	1872"
1878"	1878"
1884"	1884"
1890"	1890"
1896"	1896"
1902"	1902"
1908"	1908"
1914"	1914"
1920"	1920"
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1932"	1932"
1938"	1938"
1944"	1944"
1950"	1950"
1956"	1956"
1962"	1962"
1968"	1968"
1974"	1974"
1980"	1980"
1986"	1986"
1992"	1992"
1998"	1998"
2004"	2004"
2010"	2010"
2016"	2016"
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2094"	2094"
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2424"	2424"
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2460"	2460"
2466"	2466"
2472"	2472"
2478"	2478"
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2502"	2502"
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2568"	2568"
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3384"	3384"
3390"	3390"
3396"	3396"
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3438"	3438"
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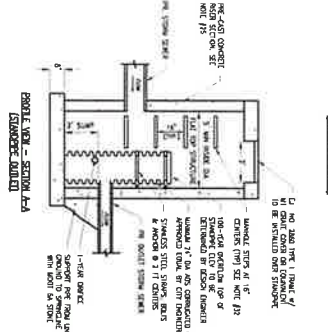
TYPICAL UNDERGROUND DETENTION AND OUTLET MANHOLE DETAILS



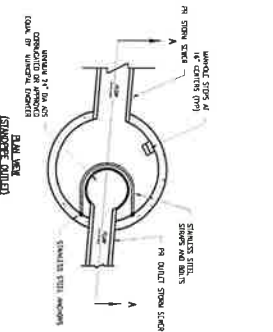
DRIVE CULVERT BEDDING DETAIL



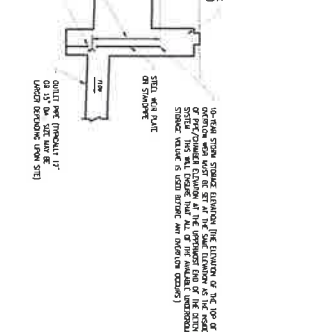
SAND OR GRAVEL BACKFILL DETAILS FOR SEWERS UNDER GRAVEL, CONCRETE OR ASPHALT PAVEMENTS, SIDEWALKS, DRIVEWAYS AND PARKING AREAS



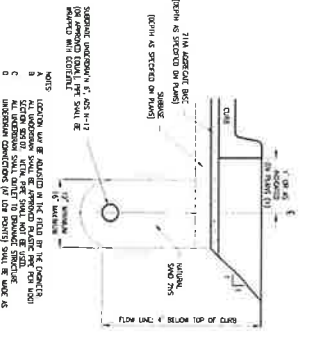
LITERATURE CITED



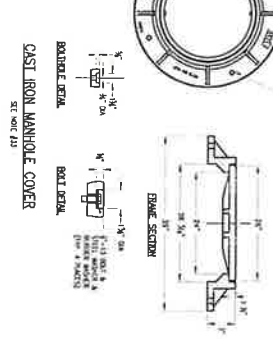
STANDARD OUTLET



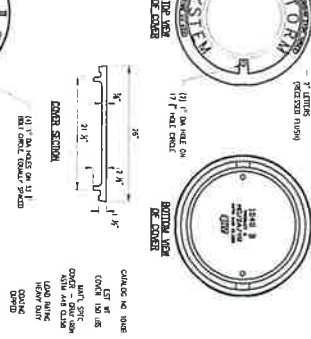
**THE NEW
DE POWER**



SUBGRADE UNDERDRAIN, 6



CAST IRON MANHOLE COVER

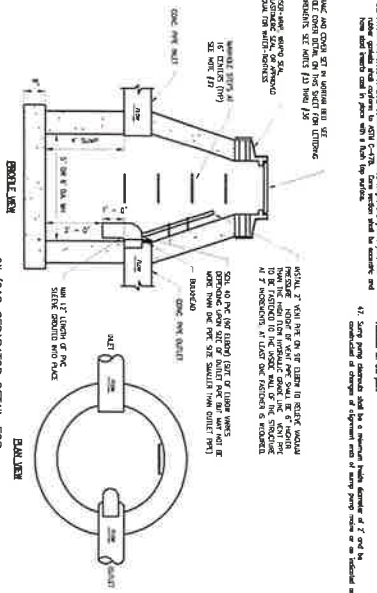


**BUILDING WITH
DE POWER**



- [illegible]

OIL/GAS SEPARATOR DETAIL FOR
18" DIAMETER AND SMALLER OUTLET PIPE



ELABORATION