



KEFORD COLLISION AND TOWING JSP 18-31

KEFORD COLLISION AND TOWING JSP 18-31

Public hearing at the request of Keford Collision & Towing for Planning Commission's approval of the Preliminary site plan, Wetland permit, and Storm water management plan. The subject property is currently zoned I-2 (General Industrial) with an associated Planned Rezoning Overlay (PRO) Agreement. The subject property is approximately 7.61 acres and is located on the south side of Grand River Avenue between Taft Road and Novi Road in Section 15. The applicant proposes to use the existing building for an auto body collision repair shop along with an accessory use of car rental services and to install an enclosed storage yard in the rear yard for towed vehicles of up to 160 spaces.

REQUIRED ACTION

Approve/deny the Preliminary Site Plan, Phasing Plan, Wetland Permit, and Stormwater Management Plan.

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	10-07-19	<ul style="list-style-type: none"> • A Planning Commission approval is required for any proposed use for the smaller building, when the use is determined. • Items to be addressed on the Final Site Plan submittal.
Engineering	Approval recommended	10-10-19	<ul style="list-style-type: none"> • Items to be addressed on the Final Site Plan submittal.
Landscaping	Approval recommended	9-30-19	<ul style="list-style-type: none"> • Items to be addressed on the Final Site Plan submittal.
Wetlands	Approval recommended	10-07-19	<ul style="list-style-type: none"> • Items to be addressed on the final site plan submittal.
Traffic	Approval recommended	10-09-19	<ul style="list-style-type: none"> • 20 feet clear fire land should be maintained within outside storage yard. • Items to be addressed on the Final Site Plan submittal.
Façade	Approval recommended	10-17-19	<ul style="list-style-type: none"> • No additional comments
Fire	Approval recommended	09-24-19	<ul style="list-style-type: none"> • Items to be addressed on the Final Site Plan submittal.

MOTION SHEET

Approval – Preliminary Site Plan

In the matter of Keford Collision and Towing JSP 18-31, motion to **approve** the Preliminary Site Plan based on and subject to the following:

- a. The applicant shall include the revised demarcation plan sent via email dated 10-31-19 as part of the final site plan submittal, to maintain a clear fire lane in the outside storage yard area;
- b. The site plan shall be subject to conditions of the Keford Collision and Towing Planned Rezoning Overlay agreement;
- c. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters, as well as all of the terms and conditions of the PRO Agreement as approved, with these items being addressed on the Final Site Plan; and
- d. *(additional conditions here if any)*

(This motion is made because the plan is otherwise in compliance with Article 3, Article 4 and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)

-AND-

Approval – Wetland Permit

In the matter of In the matter of Keford Collision and Towing JSP 18-31, motion to **approve** the Wetland Permit based on and subject to the following:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan; and
- b. *(additional conditions here if any)*

(This motion is made because the plan is otherwise in compliance with Chapter 12, Article V of the Code of Ordinances and all other applicable provisions of the Ordinance.)

-AND-

Approval – Stormwater Management Plan

In the matter of In the matter of Keford Collision and Towing JSP 18-31, motion to **approve** the Stormwater Management Plan, based on and subject to:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan; and
- b. *(additional conditions here if any)*

(This motion is made because it otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)

-OR-

Denial – Preliminary Site Plan

In the matter of In the matter of Keford Collision and Towing JSP 18-31, motion to **deny** the Preliminary Site Plan... *(because the plan is not in compliance with Article 3, Article 4*

and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)

-AND-

Denial- Wetland Permit

In the matter of Keford Collision and Towing JSP 18-31, motion to **deny** the Wetland Permit... (because the plan is not in compliance with Chapter 12, Article V of the Code of Ordinances and all other applicable provisions of the Ordinance.)

-AND-

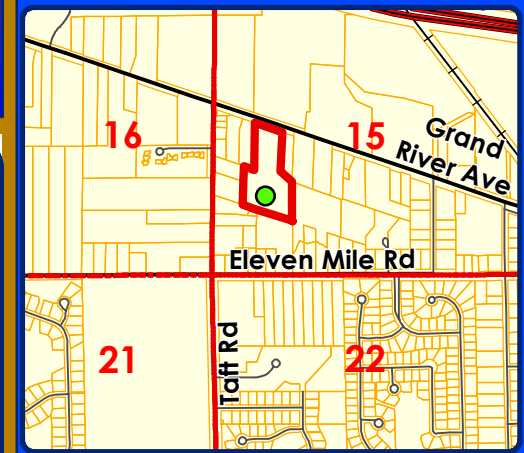
Denial – Stormwater Management Plan

In the matter of Keford Collision and Towing JSP 18-31, motion to **deny** the Stormwater Management Plan... (because the plan is not in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)

MAPS
Location
Zoning
Future Land Use
Natural Features

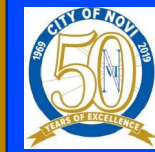
JSP 18-31 KEFORD COLLISION AND TOWING

Location



LEGEND

 Sections



City of Novi

Dept. of Community Development
City Hall / Civic Center
45175 W Ten Mile Rd
Novi, MI 48375
cityofnovi.org

Map Author: Sri Komaragiri
Date: 10/25/19
Version #: 1



1 inch = 164 feet

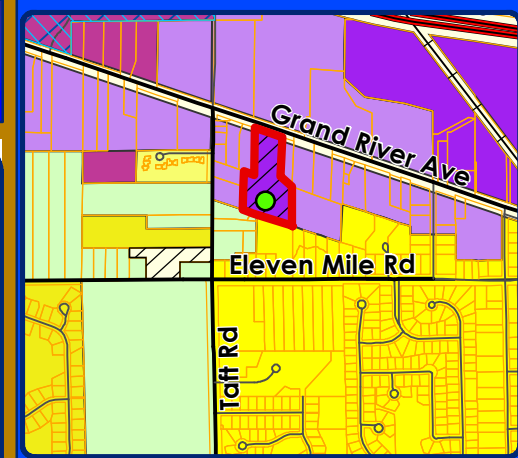
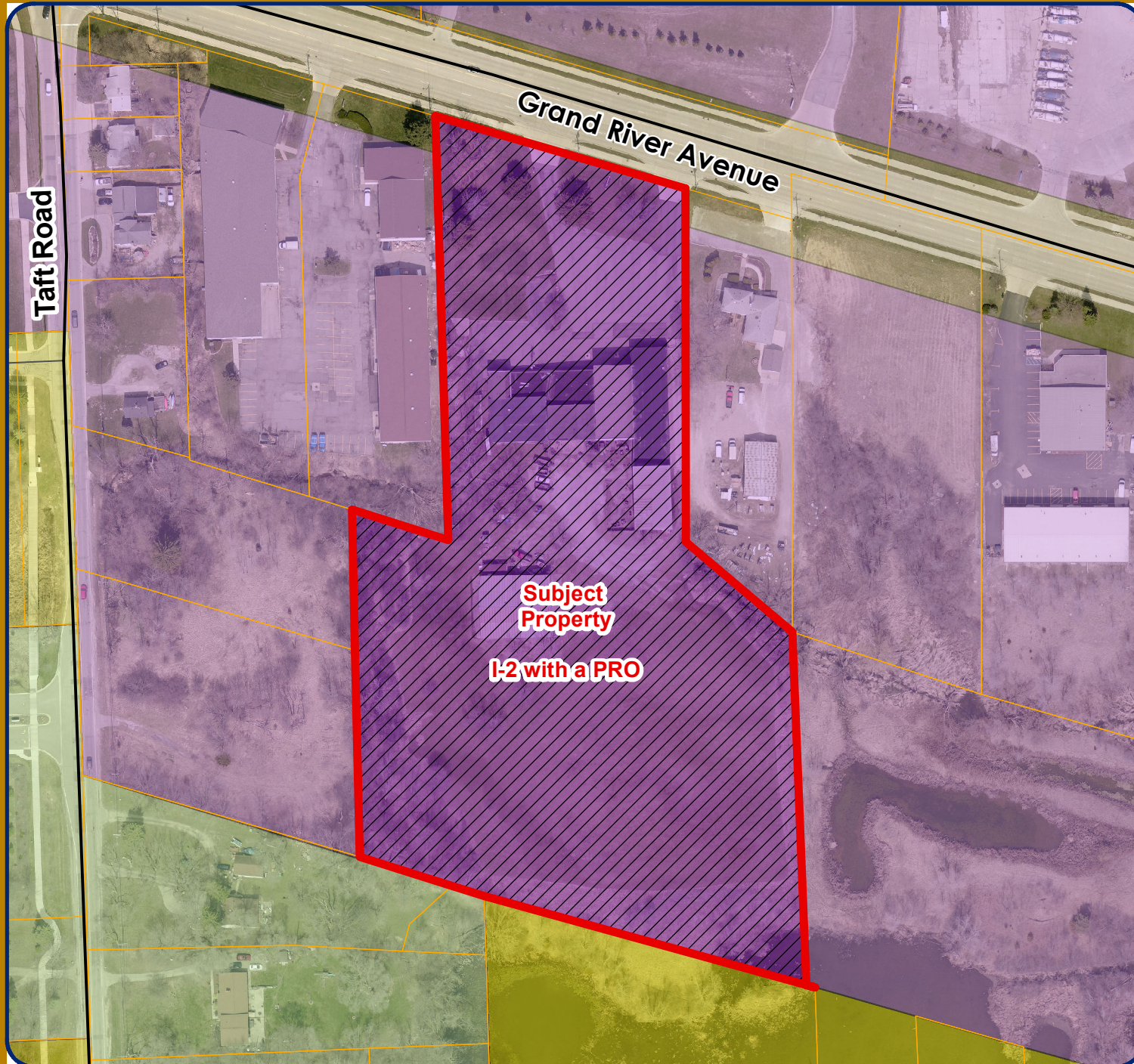


MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

JSP 18-31 KEFORD COLLISION AND TOWING











Zoning

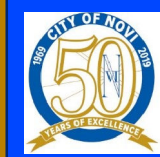


LEGEND

Zoning Overlay

Overlay Name

-  Exposition (EXO)
-  Planned Rezoning (PRO)
-  R-A: Residential Acreage
-  R-1: One-Family Residential District
-  R-2: One-Family Residential
-  R-4: One-Family Residential District
-  EXO: OST District with EXO Overlay
-  I-1: Light Industrial District
-  I-2: General Industrial District
-  OST: Office Service Technology



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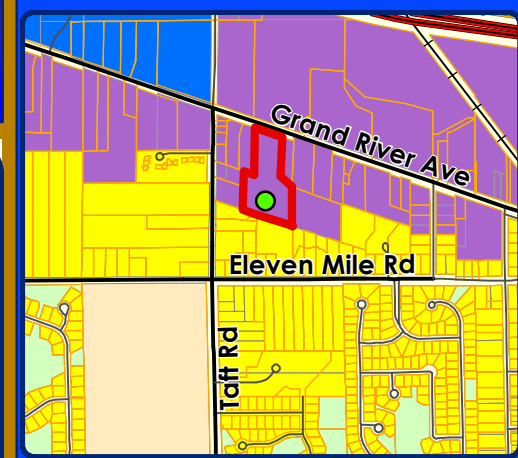
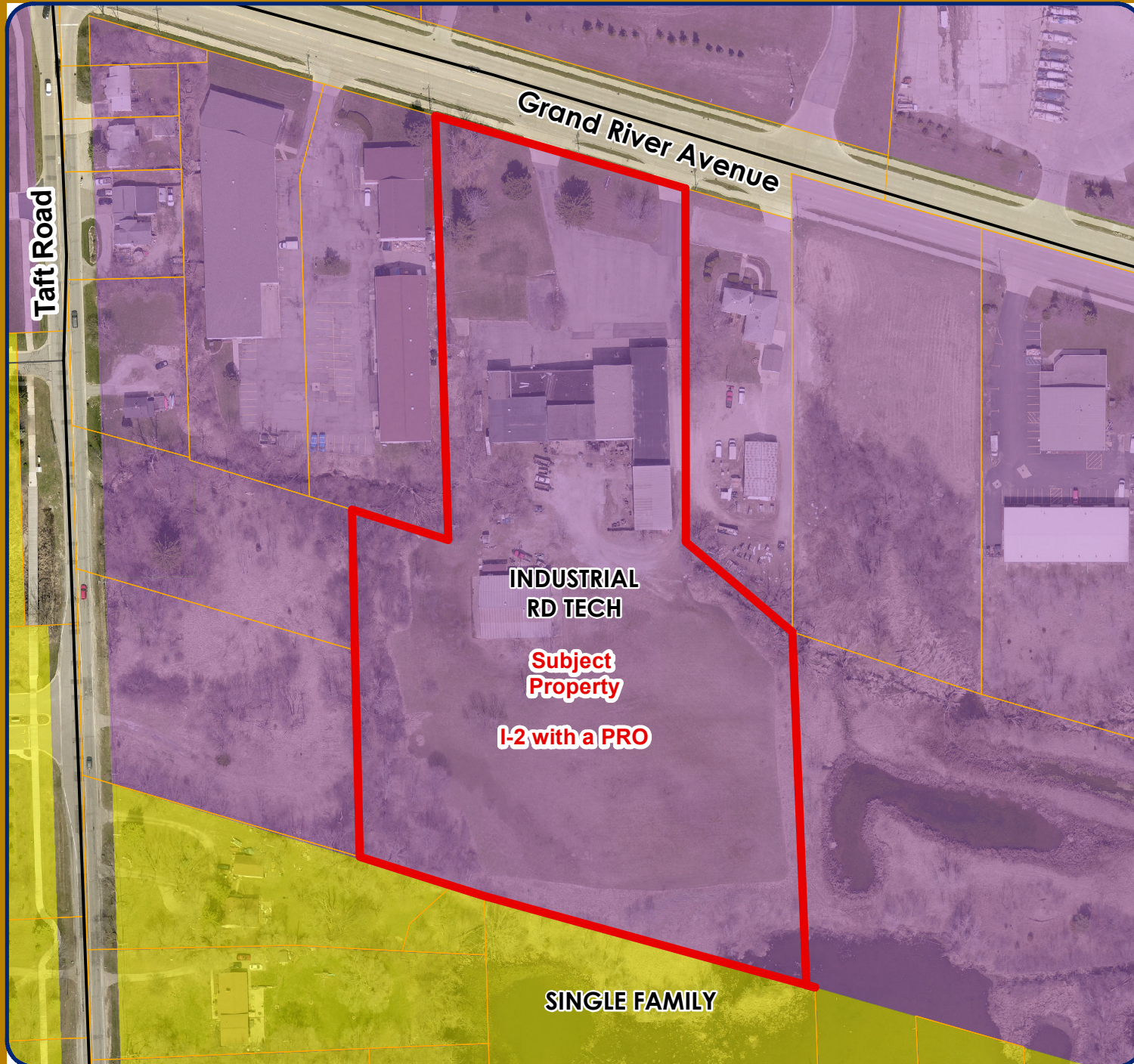


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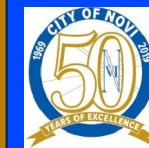
JSP 18-31 KEFORD COLLISION AND TOWING

Future Landuse



LEGEND

- FUTURE LAND USE
- Single Family
 - Office RD Tech
 - Industrial RD Tech
 - Regional Commercial
 - Educational Facility
 - Private Park



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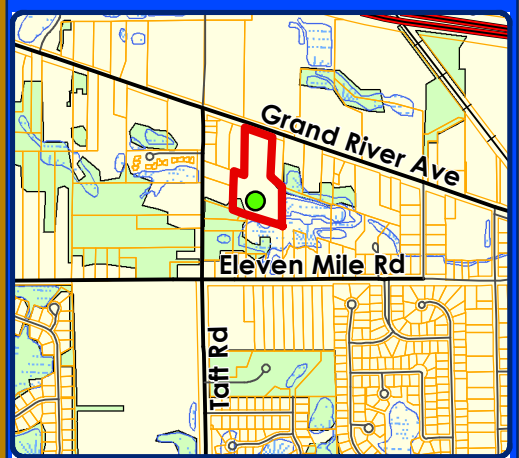


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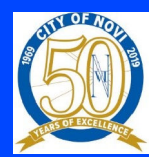
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JSP 18-31 KEFORD COLLISION AND TOWING

Natural Features

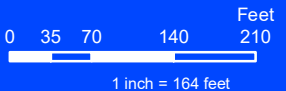


- LEGEND**
- WETLANDS
 - WOODLANDS



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SITE PLAN

(Full plan set available for viewing at the Community Development Department.)

APPLICANT:
KEFORD COLLISION & TOWING
3556 GRAND RIVER AVE.
NOVI, MI 48375
CONTACT: TOM HERRINGTON
PHONE: 248-478-7815
FAX: 248-478-0520

ARCHITECT:
CITYSCAPE ARCHITECTS, INC.
40502 GRAND RIVER AVE., SUITE 200
NOVI, MI 48375
PHONE: 248-471-1877
FAX: 248-471-7868

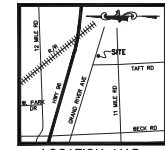
OWNER:
L V PHEL
26000 HAMPSDEA BLVD
FARMINGTON HILLS, MI 48331

SURVEYOR/ENGINEER:
ALPINE ENGINEERING, INC.
46802 WEST ROAD, SUITE 109
NOVI, MI 48377
PHONE: 248-926-3701
FAX: 248-926-3765

LANDSCAPE ARCHITECT:
ALLEN DESIGN
557 CARPENTER
NORTHVILLE, MI 48167
PHONE: 248-467-6666

PROPOSED KEFORD COLLISION & TOWING

PRELIMINARY SITE PLAN CITY OF NOVI, OAKLAND COUNTY



SITE DATA:
SITE AREA: 7.61 ACRES
PARCEL ID: 22-15-351-012
EXISTING ZONING: I-1 LIGHT INDUSTRIAL
PROPOSED ZONING: I-2 PLANNED RECREATION OVERLAY
BUILDING SQUARE FOOTAGE: 23,493 SF ± MAIN
5,703 SF ± ACCESSORY
29,196 SF ± BUILDING TOTAL
MAIN BUILDING HEIGHT: VARIES FROM 41' TO 43'
ACCESSORY BUILDING HEIGHT: ± 25'
SEE BELOW LEFT FOR SETBACKS CHART

REQUIRED PARKING:
TENT #1 (OFFICE COLLISION AND TOWING/MAIN BUILDING):
AUTOMOBILE SERVICE ESTABLISHMENTS:
TWO (2) SPACES FOR EACH SERVICE BAY, PLUS (1) SPACE FOR EVERY EMPLOYEE.
ASSUMPTIONS:
= 19 SERVICE BAYS
= 20 EMPLOYEES
= (2 x 19) + 20
= 58 SPACES
TENT #2 (SPECULATIVE CAR RENTAL/MAIN BUILDING):
RETAIL STORES EXCEPT AS OTHERWISE SPECIFIED HEREIN: ONE (1) SPACE FOR EACH TWO HUNDRED (200) SQUARE FEET GROSS LEASABLE FLOOR AREA
= 2,318/200
= 12 SPACES
TENT #3 (SPECULATIVE CAR RENTAL/MAIN BUILDING):
INDUSTRIAL OR RESEARCH ESTABLISHMENTS AND RELATED ACCESSORY OFFICES:
ONE (1) SPACE FOR EACH SEVEN HUNDRED (700) SQUARE FEET OF USABLE FLOOR AREA OR FIVE (5) PLUS ONE (1) FOR EACH ONE AND ONE-HALF (1 1/2) EMPLOYEES IN THE LARGEST WORKING SHIFT, WHICHEVER IS GREATER.
ASSUMPTIONS:
= 5,703/700 SF
= 8 SPACES
TOTAL REQUIRED: 78 SPACES

PROVIDED PARKING:
I/P PARKING (CUSTOMER/EMPLOYEES): 78
FLEET PARKING (TOW TRUCKS, TRAILERS): 17
CAR RENTAL PARKING: 10
VEHICLE STORAGE: 158
= 263 SPACES (INCLUDING 4 ADA BARRIER FREE SPACES)
FRONT YARD
TOTAL AREA: 66,937 SQ.FT.
PARKING: 7,474 SQ.FT.
PARKING OCCUPANCY: 11.5%
SIDE AND REAR YARD
TOTAL AREA: 24,161 SQ.FT.
PARKING: 7,474 SQ.FT.
PARKING OCCUPANCY: 31.1%
*PARKING DOES NOT INCLUDE STORAGE (VEHICLE STORAGE, FLEET, OR CAR RENTAL)

NOTES:
1. REFER TO PRELIMINARY SITE PLAN SUBMITTAL ONLY.
2. ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI STANDARDS AND SPECIFICATIONS.
3. REFER TO THE "PRELIMINARY STORM WATER MANAGEMENT PLAN" FOR INFORMATION REGARDING PROPOSED STORM WATER DETENTION.
4. ROOFTOP EQUIPMENT MUST BE SCREENED PER ORDINANCE REQUIREMENTS.
5. ALL STORMS SHALL COMPLY WITH SECTION 2011 FEET OF USABLE FLOOR AREA OR FIVE (5) PLUS ONE (1) FOR EACH ONE AND ONE-HALF (1 1/2) EMPLOYEES IN THE LARGEST WORKING SHIFT, WHICHEVER IS GREATER.
6. RIGHT OF WAY PERMITS ARE REQUIRED FROM THE CITY OF NOVI AND THE ROAD COMMISSIONER FOR OAKLAND COUNTY (ROC) FOR ANY WORK IN THE GRAND RIVER AVENUE RIGHT-OF-WAY.
7. ALL SIGNS SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES (CHAPTER 28) OF THE CITY OF NOVI, AND WHERE REQUIRED SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENT OF BUILDING AND SAFETY AND A PERMIT ISSUED. NO SIGNS (OTHER THAN TRAFFIC CONTROL SIGNS) ARE APPROVED AS PART OF THIS SITE PLAN APPROVAL. PRIOR TO ERECTION OF A SIGN, AN APPLICATION AND APPROPRIATE FEES SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT FOR REVIEW, APPROVAL AND ISSUANCE OF A SIGN PERMIT.
8. ALL PARKING A SIGN PERMIT CONTROL SIGNS SHALL COMPLY WITH THE DESIGN AND PLACEMENT REQUIREMENTS OF THE "2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (2011 MUTCD).
9. NOTIFY THE CITY OF NOVI A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
10. CALL MISS DIG (811) A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
11. PRIOR TO ISSUANCE OF AN OCCUPANCY PERMIT, ENGINEERING SITE INSPECTION IS REQUIRED.
12. DIMENSIONS OF PARKING STALLS (LENGTH AS WELL AS WIDTH) ABUTTING A CURB OR SIDEWALK ARE TO THE FACE OF CURB OR WALK. ALL OTHER DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE INDICATED.
13. ONLY NECESSARY LIGHTING FOR SECURITY PURPOSES AND LIMITED OPERATIONS SHALL BE USED AFTER THE SITE'S HOURS OF OPERATION.
14. FLASHING LIGHT SHALL NOT BE PERMITTED.
15. CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
16. CONTRACTOR TO PLACE BOLLARDS PER ARCHITECTURAL DRAWINGS.
17. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES, CURB, SIDEWALK, ETC.
18. ELECTRICAL SERVICE TO LIGHT FIXTURES SHALL BE PLACED UNDERGROUNDED.
19. PROVIDE 4 BICYCLE SPACES PER CITY OF NOVI REQUIREMENTS. REFER TO THE DETAIL ON THE DETAIL SHEET.
20. PARKING USE DESIGNATIONS FOR ILLUSTRATIVE USE ONLY.
21. TENT #1 (MAIN BUILDING): LOADING/UNLOADING IS ANTICIPATED TO BE DONE WITH BOX TRUCKS, EXTENDED VANS, SIMILAR VEHICLES AT THE EXISTING LOADING RAMP. TENT #2 (MAIN BUILDING): LOADING/UNLOADING IS NOT ANTICIPATED.
22. TENT #3 (ACCESSORY BUILDING): LOADING/UNLOADING IS ANTICIPATED TO BE DONE WITH BOX TRUCKS, EXTENDED VANS, SIMILAR VEHICLES AT THE ACCESSORY BUILDING. REFER TO THE "TRUCK CIRCULATION PLAN" ON THE "DETAIL SHEET".
23. ALL TRAFFIC SIGNS TO BE PLACED IN THE ROAD RIGHT-OF-WAY WILL BE INSTALLED BY THE ROC.

OWNER: CITY OF NOVI
ZONED I-1 LIGHT INDUSTRIAL
BASIN

OWNER: CITY OF NOVI
ZONED R-4 ONE-FAMILY RESIDENTIAL USE: REGIONAL DETENTION BASIN

OWNER: CITY OF NOVI
ZONED RA RESIDENTIAL ACREAGE

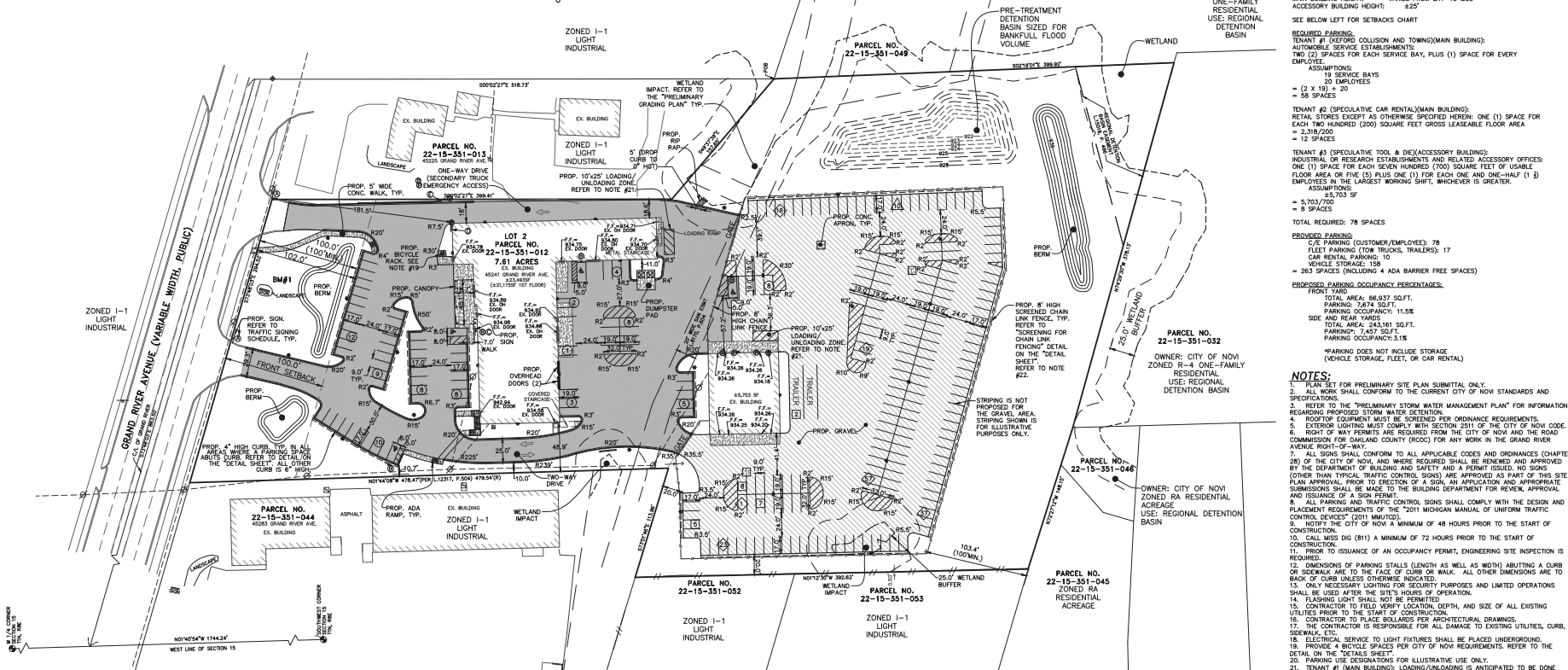
OWNER: CITY OF NOVI
ZONED I-1 LIGHT INDUSTRIAL

OWNER: CITY OF NOVI
ZONED I-1 LIGHT INDUSTRIAL

OWNER: CITY OF NOVI
ZONED I-1 LIGHT INDUSTRIAL

OWNER: CITY OF NOVI
ZONED I-1 LIGHT INDUSTRIAL

OWNER: CITY OF NOVI
ZONED I-1 LIGHT INDUSTRIAL



NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE COMPANY. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF A CONFLICT IS APPARENT.

BUILDING SETBACKS

MAIN BUILDING (EXISTING)	REQUIRED	EXISTING
FRONT	100'	181.5'
REAR	100'	461.5'
SIDE (WEST)	50'	444.9'
SIDE (EAST)	50'	48.9'

ACCESSORY BUILDING (EXISTING)	REQUIRED	EXISTING
FRONT	100'	461.5'
REAR	125'	277.0'
SIDE (WEST)	50'	146.8'
SIDE (EAST)	50'	126.4'

*NOTE: WHERE A USE ABUTS ANY RESIDENTIAL DISTRICT AND IS NOT SEPARATED THEREFROM BY A THROUGHFARE AS DESIGNATED IN THE CITY'S MASTER PLAN FOR LAND USE, OR A NEIGHBOR RIGHT-OF-WAY, THE MINIMUM DISTANCE A BUILDING SHALL SET BACK FROM A RESIDENTIAL DISTRICT SHALL BE AS FOLLOWS: I-2 DISTRICT, FIVE (5) FEET OF HORIZONTAL SETBACK FOR EACH FOOT OF BUILDING HEIGHT; OR ONE HUNDRED (100) FEET, WHICHEVER IS GREATER.

LEGEND

□	EX. TRANSFORMER	▨	PROP. CONCRETE
○	EX. LIGHT POLE	▩	PROP. GRAVEL (HEAVY DUTY)
⊕	EX. UTILITY POLE	▧	PROP. C/E PARKING
⊙	EX. GUY ANCHOR	▦	PROP. FLEET PARKING
⊘	EX. SIGN	▥	PROP. CAR RENTAL PARKING
⊚	EX. POST/BOLLARD	▤	PROP. VEHICLE STORAGE
⊛	EX. FENCE	▣	
⊜	EX. FENCE	▢	
⊝	PROP. FINISH FLOOR ELEVATION	□	
⊞	PROP. LIGHT POLE	■	
⊟	PROP. CURB & GUTTER	▤	
▭	PROP. ASPHALT		

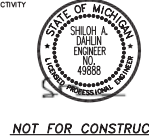
REQUESTED DEVIATIONS
-LESS THAN 20' PARKING SIDE YARD SETBACK IN FRONT YARD
-LACK OF END CAP AND INTERIOR LANDSCAPE ISLANDS EVERY 15 CONSECUTIVE PARKING SPACES
-FRONT YARD DRAINAGE PATTERNS TO THE GRAND RIVER AVENUE RIGHT-OF-WAY TO REMAIN

TRAFFIC SIGNING AND STRIPING REQUIREMENTS

1. ALL PERMANENT AND TEMPORARY TRAFFIC SIGNING & STRIPING SHALL COMPLY WITH THE 2011 MUTCD.
2. SINGLE SIGNS WITH NOMINAL DIMENSIONS OF 12" HIGH OR SMALLER IN SIZE SHALL BE MOUNTED ON A GALVANIZED 2 LB. I-CORNER POST. MULTIPLE SIGNS AND/OR SIGNS WITH NOMINAL DIMENSIONS GREATER THAN 12" HIGH SHALL BE MOUNTED ON A GALVANIZED 3 LB. OR GREATER I-CORNER POST AS DICTATED BY THE WEIGHT OF THE PROPOSED SIGN. MOUNT SIGNS ON WALL AS APPLICABLE IN ACCORDANCE WITH ALL APPLICABLE STANDARDS AND REGULATIONS.
3. STRIPING FOR HANDICAPPED PARKING SPACES SHALL BE BLUE AND MARKINGS FOR NON-HANDICAPPED PARKING SPACES SHALL BE WHITE. WHERE A HANDICAPPED PARKING SPACE ABUTS A NON-HANDICAPPED SPACE, THE TWO SPACES SHALL BE SEPARATED BY ABUTTING BLUE AND WHITE STRIPES.
4. AN END PARKING SPACE ABUTTING A CURB OR WALK SHOULD BE 8 FEET WIDE IF DESIGNATED A HANDICAPPED SPACE OR 9 FEET WIDE IF NOT. THESE WIDTHS ARE REFERENCED TO THE FACE OF CURB OR WALK.
5. EACH INTERNATIONAL SYMBOL OF ACCESSIBILITY (WHEELCHAIR) TO BE PAINTED PER THE DETAIL ON THE "DETAIL SHEET".
6. CONTRACTOR TO PROVIDE "NO PARKING FIRE LANE" SIGNS IN LOCATIONS AS REQUIRED BY THE CITY OF NOVI FIRE MARSHAL.
7. PROPOSED SIGNS TO BE MOUNTED SUCH THAT THE BOTTOM EDGE OF THE SIGN IS SEVEN (7)-FT ABOVE THE FINISH GRADE.
8. SIGNS SHALL BE PLACED TWO (2)-FT FROM THE FACE OF THE CURB OR EDGE OF THE NEAREST SIDEWALK TO THE NEAR EDGE OF THE SIGN.
9. TRAFFIC CONTROL SIGNS SHALL HAVE HIGH INTENSITY PRISMATIC (HIP) SHEETING TO MEET FHWA RETROREFLECTIVITY REQUIREMENTS.

TRAFFIC SIGNING SCHEDULE

ITEM	MUTCD CODE	QUANTITY	SIZE	DESCRIPTION
(A)	R1-1	2	30"x30"	STOP
(B)	R7-8	4	12"x18"	RESERVED PARKING ONLY
(C)	R7-8P	1	12"x6"	VAN ACCESSIBLE
(D)	RS-1	1	30"x30"	DO NOT ENTER
(E)	RS-1	1	36"x12"	ONE WAY



NOT FOR CONSTRUCTION

COMMERCIAL SURVEYING SITE ENGINEERING BOUNDARY SURVEYS INDUSTRY LOTS LAND SURVEYING CONSTRUCTION LAYOUT

RESIDENTIAL SURVEYING SITE ENGINEERING BOUNDARY SURVEYS INDUSTRY LOTS LAND SURVEYING CONSTRUCTION LAYOUT

ALPINE ENGINEERING INC. CIVIL ENGINEERS & LAND SURVEYORS

811 Know what's below Call before you dig.

KEFORD COLLISION & TOWING PRELIMINARY SITE PLAN

45241 GRAND RIVER AVENUE SECTION: 15

REVISIONS

NO.	DATE	DESCRIPTION
1	2018-02-12	2018-02-12 PRELIMINARY
2	2018-02-12	2018-02-12 PRELIMINARY
3	2018-02-12	2018-02-12 PRELIMINARY
4	2018-02-12	2018-02-12 PRELIMINARY
5	2018-02-12	2018-02-12 PRELIMINARY
6	2018-02-12	2018-02-12 PRELIMINARY
7	2018-02-12	2018-02-12 PRELIMINARY
8	2018-02-12	2018-02-12 PRELIMINARY
9	2018-02-12	2018-02-12 PRELIMINARY
10	2018-02-12	2018-02-12 PRELIMINARY
11	2018-02-12	2018-02-12 PRELIMINARY
12	2018-02-12	2018-02-12 PRELIMINARY
13	2018-02-12	2018-02-12 PRELIMINARY
14	2018-02-12	2018-02-12 PRELIMINARY
15	2018-02-12	2018-02-12 PRELIMINARY
16	2018-02-12	2018-02-12 PRELIMINARY
17	2018-02-12	2018-02-12 PRELIMINARY
18	2018-02-12	2018-02-12 PRELIMINARY
19	2018-02-12	2018-02-12 PRELIMINARY
20	2018-02-12	2018-02-12 PRELIMINARY
21	2018-02-12	2018-02-12 PRELIMINARY
22	2018-02-12	2018-02-12 PRELIMINARY
23	2018-02-12	2018-02-12 PRELIMINARY
24	2018-02-12	2018-02-12 PRELIMINARY
25	2018-02-12	2018-02-12 PRELIMINARY
26	2018-02-12	2018-02-12 PRELIMINARY
27	2018-02-12	2018-02-12 PRELIMINARY
28	2018-02-12	2018-02-12 PRELIMINARY
29	2018-02-12	2018-02-12 PRELIMINARY
30	2018-02-12	2018-02-12 PRELIMINARY
31	2018-02-12	2018-02-12 PRELIMINARY
32	2018-02-12	2018-02-12 PRELIMINARY
33	2018-02-12	2018-02-12 PRELIMINARY
34	2018-02-12	2018-02-12 PRELIMINARY
35	2018-02-12	2018-02-12 PRELIMINARY
36	2018-02-12	2018-02-12 PRELIMINARY
37	2018-02-12	2018-02-12 PRELIMINARY
38	2018-02-12	2018-02-12 PRELIMINARY
39	2018-02-12	2018-02-12 PRELIMINARY
40	2018-02-12	2018-02-12 PRELIMINARY
41	2018-02-12	2018-02-12 PRELIMINARY
42	2018-02-12	2018-02-12 PRELIMINARY
43	2018-02-12	2018-02-12 PRELIMINARY
44	2018-02-12	2018-02-12 PRELIMINARY
45	2018-02-12	2018-02-12 PRELIMINARY
46	2018-02-12	2018-02-12 PRELIMINARY
47	2018-02-12	2018-02-12 PRELIMINARY
48	2018-02-12	2018-02-12 PRELIMINARY
49	2018-02-12	2018-02-12 PRELIMINARY
50	2018-02-12	2018-02-12 PRELIMINARY

LANDSCAPE PLANS (PREPARED BY ALLEN DESIGN)
L-1 LANDSCAPE SHEET
L-2 LANDSCAPE DETAILS
L-3 WOODLAND PLAN
PHOTOMETRIC PLAN (PREPARED BY GASSER BUSH)
P-1 PHOTOMETRIC PLAN
ARCHITECTURAL PLANS (PREPARED BY CITYSCAPE ARCHITECTS, INC.)
A-101 TITLE SHEET
A-110 OVERALL FLOOR PLANS
A-211 ENLARGED FIRST FLOOR PLAN
A-211 EXTERIOR ELEVATIONS

DATE: 2018-02-12
DRAWN BY: SD
CHECKED BY: TO
SCALE: 1" = 50'
SHEET NO. 1 OF 1
17-504

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE COMPANY. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF A CONFLICT IS APPARENT.

DESCRIPTION:
PER FIRST AMERICAN TITLE INSURANCE COMPANY FILE NO. 798037, DATED NOVEMBER 14, 2017

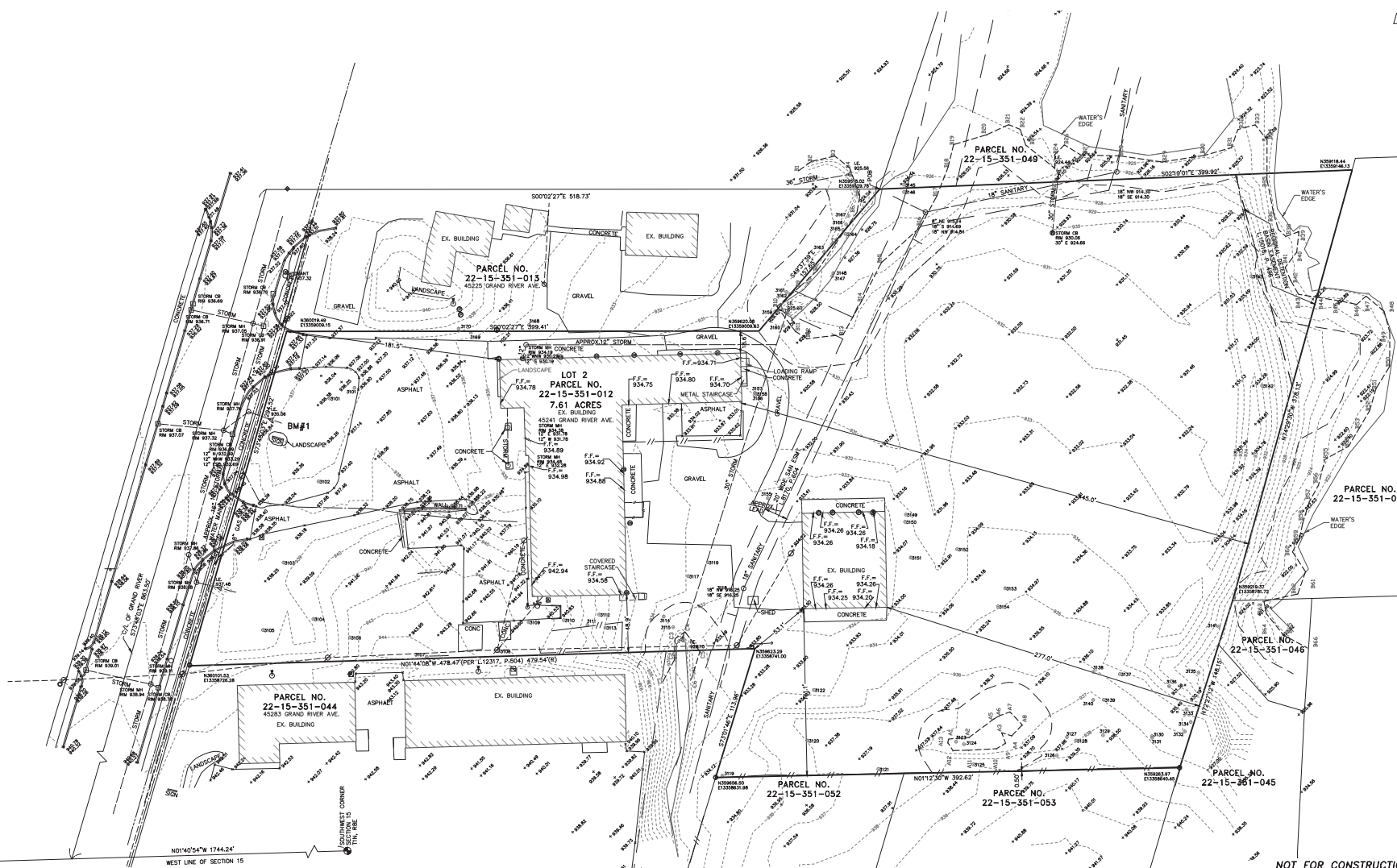
THAT PART OF THE SOUTHWEST 1/4 SECTION 15, TOWNSHIP OF NOVA, OAKLAND COUNTY, MICHIGAN, BEGINNING AT POINT DISTANT NORTH 1605.79 FEET AND SOUTH 72 DEGREES 06 MINUTES EAST 444.34 FEET FROM THE SOUTHWEST CORNER OF SECTION 15, THENCE SOUTH 72 DEGREES 06 MINUTES EAST 292.61 FEET ALONG THE SOUTH LINE OF GRAND RIVER ROAD, THENCE SOUTH 0 DEGREES 32 MINUTES 30 SECONDS WEST 399.89 FEET, THENCE SOUTH 48 DEGREES 18 MINUTES EAST 108.95 FEET; THENCE SOUTH 0 DEGREES 32 MINUTES 30 SECONDS WEST 410.79 FEET; THENCE NORTH 71 DEGREES 53 MINUTES 00 SECONDS WEST 226.30 FEET; THENCE NORTH 306.00 FEET; THENCE SOUTH 71 DEGREES 28 MINUTES EAST 115.83 FEET; THENCE NORTH 479.83 FEET TO THE POINT OF BEGINNING.

NOW KNOWN AS: LOT 2 OF ASSESSOR'S PLAT NO. 1, ACCORDING TO THE PLAT THEREOF RECORDED IN LIBER 018 (281) OF PLATS, PAGES 34, 35 AND 36 OF OAKLAND COUNTY RECORDS.

BENCHMARK:
BM#1 - TOP OF CONCRETE CULVERT ALONG GRAND RIVER AVENUE R.O.W. ON SUBJECT PARCEL AND -15 FEET SOUTH OF BUSINESS SIGN.

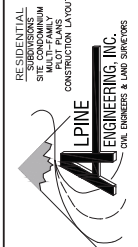
ELEVATION = 937.21 NAVD83
BM#2 - (NOVA 021534) 3" ON NORTH RIM OF GATEWELL LOCATED 3 FEET SOUTH OF BACK OF CURVE OF GRAND RIVER AND AT EAST PROPERTY LINE #45033 GRAND RIVER.
ELEVATION = 941.28 NAVD83

NOTES:
1. CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. DEMOLITION PLAN TO BE PROVIDED IN THE FINAL SITE PLAN DRAWING SUBMITTAL STAGE.



COMMERCIAL SURVEYING
SITE ENGINEERING
BOUNDARY SURVEYS
TOWNSHIP PLANS
LAND SPAVING UNIT
CONSTRUCTION LAYOUT
PARCEL BOUNDS

RESIDENTIAL SURVEYING
SITE CONSTRUCTION
BOUNDARY SURVEYS
TOWNSHIP PLANS
CONSTRUCTION LAYOUT
PARCEL BOUNDS



811
Know what's below
Call before you dig.

CLIENT: KEFORD COLLISION & TOWING
PROJECT: TOPOGRAPHIC SURVEY
SECTION: 15
TOWNSHIP: N
COUNTY: OAKLAND
STATE: MICHIGAN

45241 GRAND RIVER AVENUE
PARCELS E
SECTION: 15
TOWNSHIP: N
COUNTY: OAKLAND
STATE: MICHIGAN

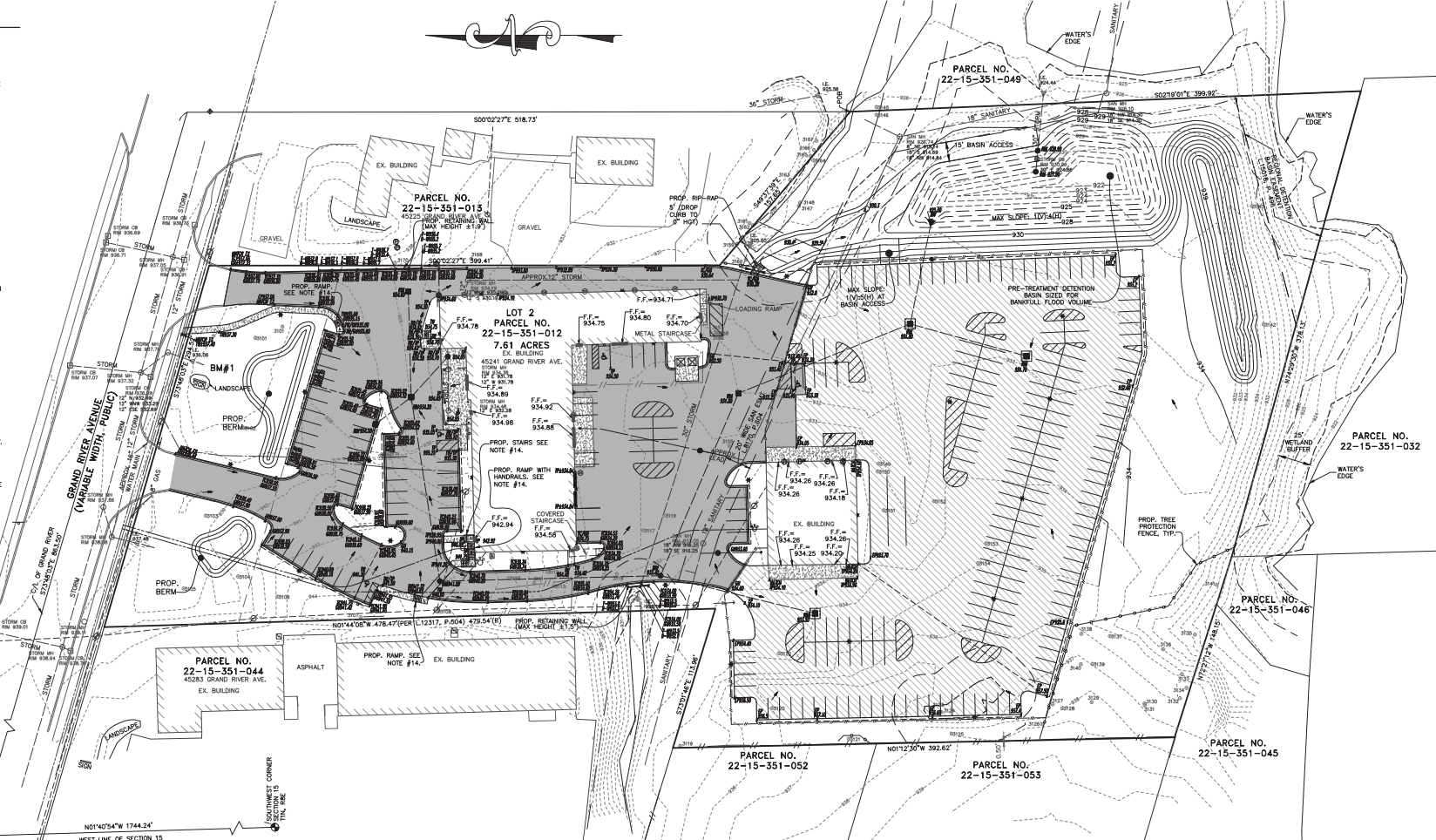
REVISED

2019-04-12 PDP SUBMITTAL
2019-07-17 PRE SUBMITTAL
2018-06-18 PRE-APPLICATION SUBMITTAL
DATE: 2018-05-02
DRAWN BY: SD
CHECKED BY: TG/SD
SCALE: 1" = 40 FT
VER: 1" = 1" FT

NOT FOR CONSTRUCTION

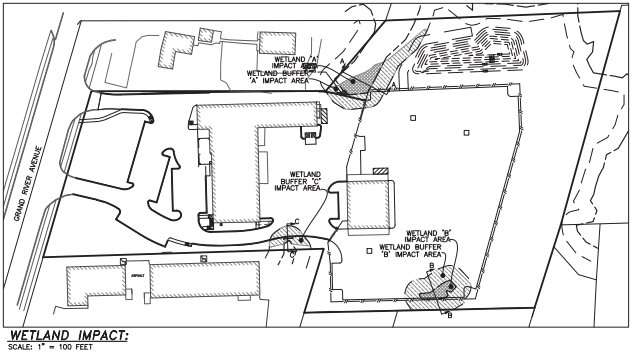
LEGEND:

- EX. CATCH BASIN
- EX. STORM MANHOLE
- EX. SANITARY MANHOLE
- EX. CLEANOUT
- EX. WATER GATE VALVE
- EX. COMMUNICATIONS MANHOLE
- EX. HYDRANT
- EX. WATER VALVE
- EX. WATER SHUTOFF
- EX. GAS SHUTOFF
- EX. GAS VENT
- EX. ELECTRIC MANHOLE
- EX. HANDLE
- EX. PEDESTAL
- EX. TRANSFORMER
- EX. LIGHTPOLE
- EX. UTILITY POLE
- EX. GUY ANCHOR
- EX. COMMUNICATION MANHOLE
- EX. SIGN
- EX. POST/BOLLARD
- EX. TRAFFIC SIGNAL
- EX. FENCE
- EX. SOIL BORING
- PROP. FENCE
- PROP. FINISH FLOOR ELEVATION
- PROP. LIGHT POLE
- PROP. STORM SEWER
- PROP. CURB & GUTTER
- PROP. SANITARY SEWER
- PROP. WATER MAIN
- PROP. STRUCTURE
- PROP. END SECTION
- PROP. CLEAN-OUT
- PROP. HYDRANT
- PROP. GATE VALVE
- PROP. CURB BOX
- PROP. GUTTER ELEV.
- PROP. TOP OF CURB ELEV.
- PROP. TOP OF WALK ELEV.
- PROP. TOP OF PAYMENT ELEV.
- PROP. SPOT ELEV.
- PROP. DRAINAGE ARROW
- PROP. SILT FENCE
- PROP. TREE PROTECTION FENCE
- PROP. INLET FILTER
- PROP. ASPHALT
- PROP. CONCRETE
- PROP. GRAVEL



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CROSS-SECTION A-A
SCALE: 1" = 8'(V)

LEGEND:

- WETLAND 'A'
EXIST. AREA: 7,026 SQ. FT.
PROP. IMPACT AREA: 0.04 ACRES
PROP. VOLUME: 110 CU. YD. (FLL)
- WETLAND 'B'
EXIST. AREA: 6,194 SQ. FT.
PROP. IMPACT AREA: 4,387 SQ. FT.
PROP. VOLUME: 200 CU. YD. (FLL)

CROSS-SECTION B-B
SCALE: 1" = 8'(V)

- WETLAND 'H'
EXIST. AREA: 973 SQ. FT.
PROP. IMPACT AREA: 0.02 ACRES
PROP. VOLUME: 415 CU. YD. (FLL)
- WETLAND 'I'
EXIST. AREA: 5,464 SQ. FT.
PROP. IMPACT AREA: 5,464 SQ. FT.
PROP. VOLUME: 220 CU. YD. (OUT)

CROSS-SECTION C-C
SCALE: 1" = 8'(V)

- WETLAND 'C'
EXIST. AREA: 207 SQ. FT.
PROP. IMPACT AREA: 0 ACRES
PROP. VOLUME: 40 CU. YD. (FLL)
- WETLAND 'D'
EXIST. AREA: 1,998 SQ. FT.
PROP. IMPACT AREA: 1,998 SQ. FT.
PROP. VOLUME: 840 CU. YD. (FLL)

NOTES:

1. PLAN SET FOR PRELIMINARY SITE PLAN SUBMITTAL ONLY.
2. ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOW STANDARDS AND SPECIFICATIONS.
3. REFER TO THE "PRELIMINARY STORM WATER MAINTENANCE PLAN FOR INFORMATION REGARDING PROPOSED STORM WATER PRE-TREATMENT AND DETENTION.
4. RIGHT OF WAY PERMIT IS REQUIRED FROM THE CITY OF NOW FOR ANY WORK IN THE GRAND RIVER AVENUE RIGHT-OF-WAY.
5. NOTIFY THE CITY OF NOW A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
6. CALL MGS DIG (811) A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
7. PRIOR TO ISSUANCE OF AN OCCUPANCY PERMIT, ENGINEERING SITE INSPECTION IS REQUIRED.
8. CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
9. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES, CURB, SIDEWALK, ETC.
10. ALL SOIL EROSION AND SILT MUST BE CONTROLLED AND CONTAINED ON-SITE.
11. ALL EXCAVATION UNDER OR WITHIN A 1 ON 1 INFLUENCE OF PUBLIC PAVEMENT, EXISTING OR PROPOSED, SHALL BE BACKFILLED AND COMPACTED WITH SAND (CLASS # MDT).
12. IF DOWNTURNING IS ANTICIPATED OR ENCOUNTERED DURING CONSTRUCTION THE CONTRACTOR IS REQUIRED TO SUBMIT A DOWNTURNING PLAN TO THE CITY ENGINEERING DIVISION FOR REVIEW.
13. ALL RIP-RAP IS REQUIRED TO BE GROUDED.
14. SIDEWALK RAMPS TO COMPLY WITH ADA REQUIREMENTS. REFER TO MOST DETAIL 28-1 PROVIDE HANDRAILS MEETING CITY/STATE BUILDING CODES AS NECESSARY AT RAMPS AND STAIRS.

ALPINE ENGINEERING INC.
4885 WEST BOLD ROAD
SUITE 109
HOWLAND, MICHIGAN 49327
(248) 924-3701 (BUS)
(248) 924-3756 (FAX)
WWW.ALPINE-INC.NET

811
Know what's below
Call before you dig.

PRELIMINARY GRADING PLAN
SECTION: 15
45241 GRAND RIVER AVENUE
TOWNSHIP: N
COUNTY: OAKLAND COUNTY
MICHIGAN

KEFORD COLLISION & TOWING

CLIENT: _____
REVISED: _____

2018-02-12 PRELIMINARY SUBMITTAL
2018-02-22 REVISED PER CLIENT
2018-06-29 PRELIMINARY SUBMITTAL
2018-07-17 PRELIMINARY SUBMITTAL
2018-07-22 REVISED PER CLIENT
2018-08-16 PRELIMINARY SUBMITTAL

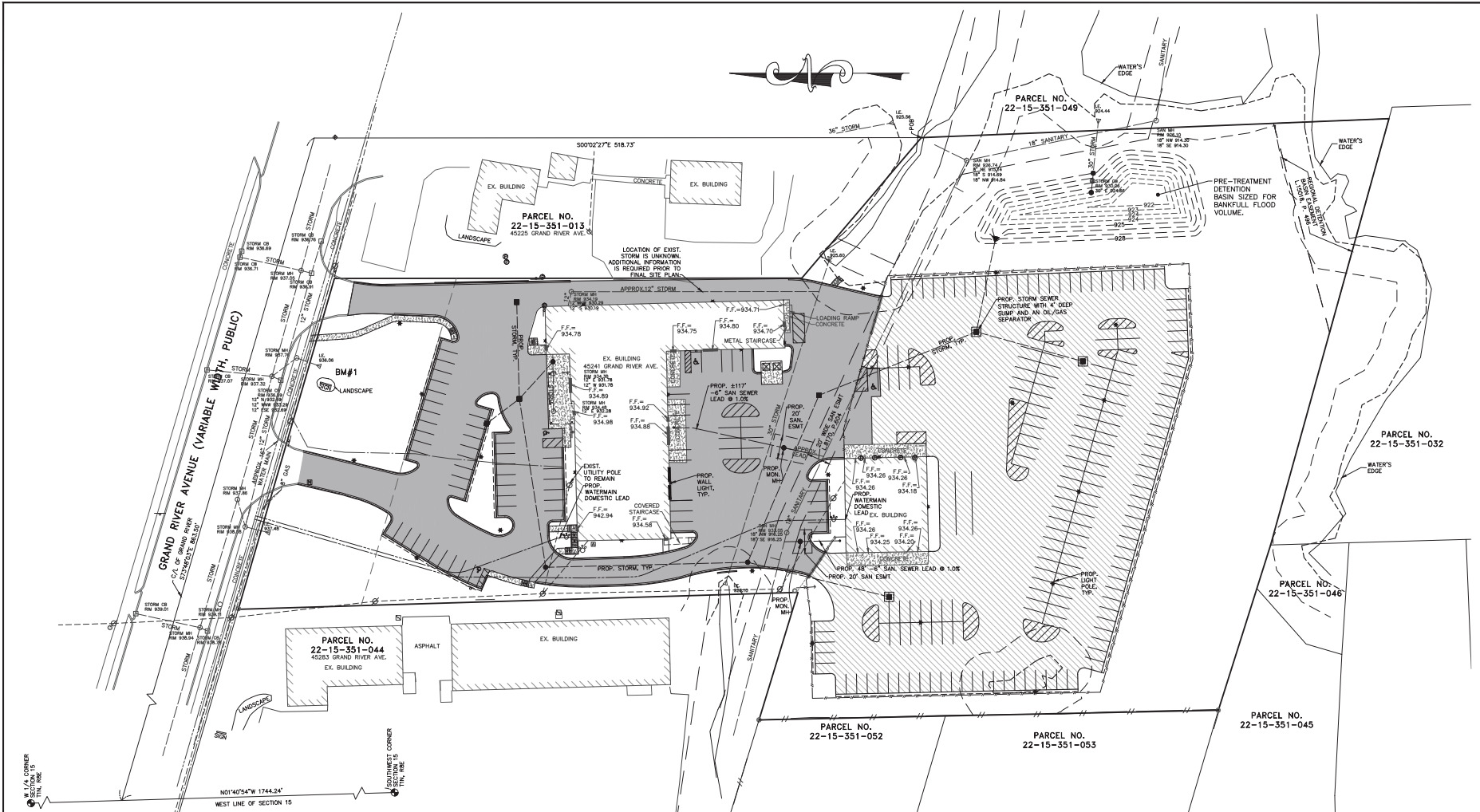
DATE: 2018-02-02
DRAWN BY: SD
CHECKED BY: TO/SD

FRK: _____
CWP: _____

SCALE: HOR 1" = 40' FT.
VER 1" = 8' FT.

17-504

NOT FOR CONSTRUCTION



LEGEND:

□	EX. CATCH BASIN	—	EX. SIGN	■	PROP. ASPHALT
○	EX. STORM MANHOLE	○	EX. POST/ROLLAD	▨	PROP. CONCRETE
○	EX. SANITARY MANHOLE	○	EX. TRAFFIC SIGNAL	▨	PROP. GRAVEL
○	EX. CLEANOUT	—	EX. FENCE		
○	EX. WATER GATE VALVE	—	EX. SOIL BORING		
○	EX. COMMUNICATIONS MANHOLE	FF	PROP. FINISH FLOOR ELEVATION		
○	EX. HYDRANT	★	PROP. LIGHT POLE		
○	EX. WATER VALVE	—	PROP. STORM SEWER		
○	EX. WATER SHUTOFF	—	PROP. CURB & GUTTER		
○	EX. GAS SHUTOFF	—	PROP. SANITARY SEWER		
○	EX. GAS VENT	—	PROP. WATER MAIN		
○	EX. ELECTRIC MANHOLE	—	PROP. STRUCTURE		
○	EX. HANDBOLE	—	PROP. END SECTION		
○	EX. PEDESTAL	—	PROP. CLEAN-OUT		
○	EX. TRANSFORMER	—	PROP. HYDRANT		
○	EX. LIGHTPOLE	—	PROP. GATE VALVE		
○	EX. UTILITY POLE	—	EX. CURB ANCHOR		
○	EX. COMMUNICATION MANHOLE	—	PROP. CURB BOX		

NOTICE:
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NOTE:
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- NOTES:**
1. PLAN SET FOR PRELIMINARY SITE PLAN SUBMITTAL ONLY.
 2. ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOV STANDARDS AND SPECIFICATIONS.
 3. REFER TO THE "PRELIMINARY STORM WATER MAINTENANCE PLAN" FOR INFORMATION REGARDING PROPOSED STORM WATER PRE-TREATMENT AND DETENTION.
 4. ROOFTOP EQUIPMENT MUST BE SCREENED PER ORDINANCE REQUIREMENTS.
 5. EXTERIOR LIGHTING MUST COMPLY WITH SECTION 2511 OF THE CITY OF NOV CODE.
 6. RIGHT OF WAY PERMITS ARE REQUIRED FROM THE CITY OF NOV AND THE RCOO FOR ANY WORK IN THE GRAND RIVER AVENUE RIGHT-OF-WAY.
 7. NOTIFY THE CITY OF NOV A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
 8. CALL MISS DIG (811) A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
 9. PRIOR TO ISSUANCE OF AN OCCUPANCY PERMIT, ENGINEERING SITE INSPECTION IS REQUIRED.
 10. ONLY NECESSARY LIGHTING FOR SECURITY PURPOSES AND LIMITED OPERATIONS SHALL BE USED AFTER THE SITE'S HOURS OF OPERATION.
 11. FLASHING LIGHT SHALL NOT BE PERMITTED.
 12. CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
 13. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES, CURB, SIDEWALK, ETC.
 14. ELECTRICAL SERVICE TO LIGHT FIXTURES SHALL BE PLACED UNDERGROUND.
 15. ALL EXCAVATION UNDER OR WITHIN A 1 ON 1 INFLUENCE OF PUBLIC PAVEMENT, EXISTING OR PROPOSED, SHALL BE BACKFILLED AND COMPACTED WITH SAND (CLASS II MDT).
 16. IF DEWATERING IS ANTICIPATED OR ENCOUNTERED DURING CONSTRUCTION THE CONTRACTOR IS REQUIRED TO SUBMIT A DEWATERING PLAN TO THE CITY ENGINEERING DIVISION FOR REVIEW.

COMMERCIAL SURVEYING
SITE ENGINEERING
BOUNDARY SURVEYS
INDUSTRIAL SURVEYS
LAND SURVEYING UNIT
CONSTRUCTION LAYOUT

RESIDENTIAL SURVEYING
SITE ENGINEERING
BOUNDARY SURVEYS
PLOT PLANS
CONSTRUCTION LAYOUT

ALPINE ENGINEERING INC.
CIVIL ENGINEERS & LAND SURVEYORS

4885 WEST BOLD
SUITE 109
NOV, MICHIGAN 48377

811
Know what's below
Call before you dig.

CLIENT: KEFORD COLLISION & TOWING

PRELIMINARY UTILITY PLAN

SECTION: 15

45241 GRAND RIVER AVENUE
RANGE 6 E
TOWNSHIP 1 N
OAKLAND COUNTY
MICHIGAN

REVISED

2019-06-12 PIP SUBMITTAL
2019-07-17 PIP RESUBMITTAL
2018-07-12 PIP CONCEPT PLAN SUBMITTAL
2018-09-25 REVIEW FOR CLIENT
2018-05-18 PRE-APPLICATION SUBMITTAL

DATE: 2018-02-02

DRAWN BY: SD

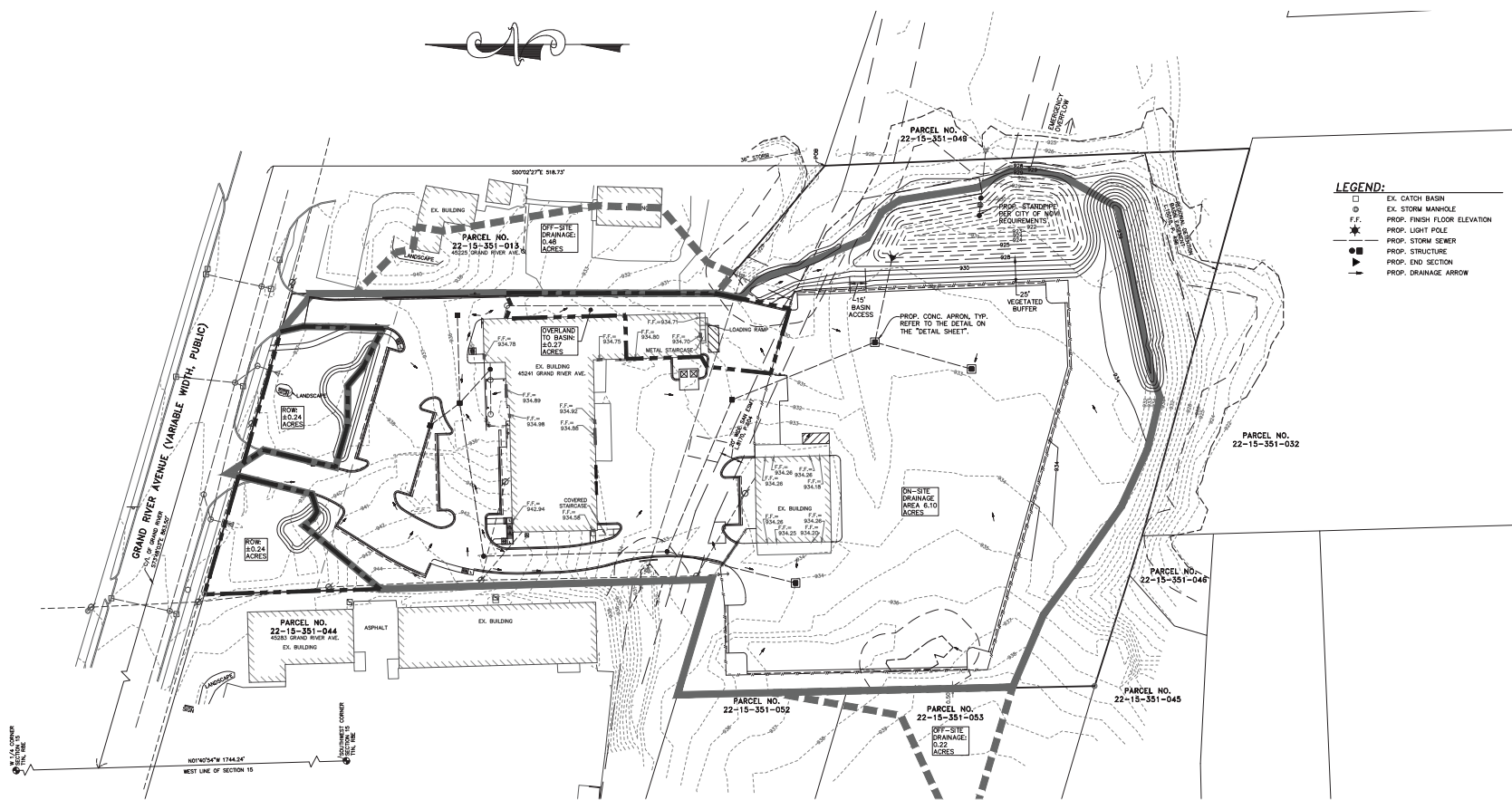
CHECKED BY: TO/SD

SCALE: 1" = 40' FT.

4

17-504

NOT FOR CONSTRUCTION



- LEGEND:**
- EX. CATCH BASIN
 - EX. STORM MANHOLE
 - FF. PROP. FINISH FLOOR ELEVATION
 - ★ PROP. LIGHT POLE
 - PROP. STORM SEWER
 - PROP. STRUCTURE
 - PROP. END SECTION
 - PROP. DRAINAGE ARROW

COMMERCIAL SURVEYING
 SITE ENGINEERING
 BOUNDARY SURVEYS
 TOPOGRAHY SURVEYS
 LAND SURVEYING UNIT
 CONSTRUCTION LAYOUT

RESIDENTIAL SURVEYING
 SITE ENGINEERING
 BOUNDARY SURVEYS
 TOPOGRAHY SURVEYS
 LAND SURVEYING UNIT
 CONSTRUCTION LAYOUT

ALPINE ENGINEERING INC.
 CIVIL ENGINEERS & LAND SURVEYORS

4885 WEST BOLD
 SUITE 109
 NOV. MICHIGAN 48377

(248) 304-3701 (BUS)
 (248) 304-3756 (FAX)
 WWW.AEPNE-INC.NET

811
 Know what's below
 Call before you dig.

CLIENT: KEFORD COLLISION & TOWING

PRELIMINARY STORM WATER MANAGEMENT PLAN

SECTION: 15 45241 GRAND RIVER AVENUE RANGE: B E
 TOWNSHIP: N
 COUNTY: OAKLAND COUNTY
 MICHIGAN

REVISED

2019-09-12 PIP SUBMITTAL

2019-07-17 PRE CONCEPT

2018-07-12 PRE CONCEPT PLAN SUBMITTAL

2018-02-22 REVIEW FOR CLIENT

2018-02-18 PRE-APPLICATION SUBMITTAL

DATE: 2019-02-02

DRAWN BY: SD

CHECKED BY: TO/SD

SCALE: HORIZ. 1" = 50 FT. VERT. 1" = 5 FT.

5

STORM WATER MANAGEMENT PLAN NARRATIVE:
 IT IS OUR UNDERSTANDING THAT THE SITE WILL BE ABLE TO UTILIZE THE REGIONAL RETENTION BASIN LOCATED EAST OF THE PROJECT. PRIOR TO RELEASE TO THE REGIONAL DETENTION BASIN, THE REAR PORTION OF THE SITE WILL BE DETAINED IN A DETENTION BASIN SIZED FOR THE BANKFULL STORM FOR PRE-TREATMENT. THE OUTLET WILL BE RESTRICTED PER THE CITY OF NOV'S STANDARDS.

NOTE THAT DUE TO GRADING CONSTRAINTS, A PORTION OF THE SITE WILL FLOW ACROSS LAND TO THE DETENTION BASIN.

NOTE THAT THERE ARE AREAS IN THE FRONT YARD OPEN SPACE THAT CURRENTLY DRAIN TO THE GRAND RIVER AVENUE RIGHT OF WAY. A PORTION OF THESE AREAS IS PROPOSED TO CONTINUE THIS DRAINAGE PATTERN.

SOIL TYPES
 PER THE ONLINE WEB SURVEY SUPPLIED BY THE NATURAL RESOURCES CONSERVATION DEPARTMENT, THE PREDOMINANT SOILS FOUND AT THE SUBJECT SITE CONSISTS OF MARLETTE SANDY LOAM, 1% - 6% SLOPES.

REQUIRED DETENTION
PROPOSED RUNOFF COEFFICIENT

ESTIMATED RUNOFF COEFFICIENT CALCULATION

LAND USE	AREA (A) (acres)	RUNOFF COEFFICIENT (C)
Building / Pavement	2.24	0.95
Gravel	1.91	0.85
Grass	2.65	0.35
TOTAL AREA	6.80	
C-SUM (A _i x C _i) / A = (2.24 x 0.95) + (1.91 x 0.85) + (2.65 x 0.35) / 6.80		
		= 0.69

STORM DETENTION REQUIRED

BANKFULL FLOOD VOLUME (V_{bf})

Tributary Area (A)	= 6.80 acres
Run-off Coefficient (C)	= 0.69
V_{bf} = 5,160' A * C	= 24,211 cf

FIRST FLUSH VOLUME (V_{ff})

V _{ff} = 1.815' A * C	= 8,516 cf
--------------------------------	------------

STORM DETENTION PROVIDED
BASIN VOLUME PROVIDED
FIRST FLUSH (PERMANENT WATER)

ELEVATION	AREA (S.F.)	AVG. AREA (S.F.)	HEIGHT (FT.)	CUMULATIVE VOLUME (C.F.)
925.00	5,610			
924.00	4,287	5,049	1.00	9,193
923.00	1,634	2,961	1.00	4,145
922.00	734	1,184	1.00	1,184

STORAGE ELEVATIONS

V_{ff} = 8,516 cf provided at Z_{detention} = 922.0

Z_{ff} = 924.9

BANKFULL DETENTION BASIN

ELEVATION	AREA (S.F.)	AVG. AREA (S.F.)	HEIGHT (FT.)	CUMULATIVE VOLUME (C.F.)
929.40	FREEBOARD			
929.00	13,229	12,147	1.00	37,249
928.00	11,065	10,138	1.00	25,102
927.00	9,210	8,332	1.00	14,964
926.00	7,454	6,632	1.00	6,632
925.00	5,610			

STORAGE ELEVATIONS

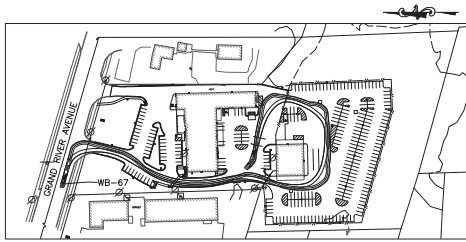
V_{ff} = 8,516 cf provided at Z_{detention} = 925.0

V_{ff} = 24,211 cf provided at Z_{ff} = 927.9

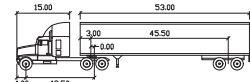
NOT FOR CONSTRUCTION

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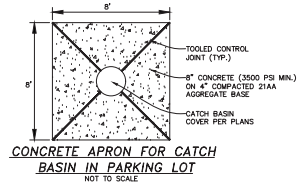
NOTE:
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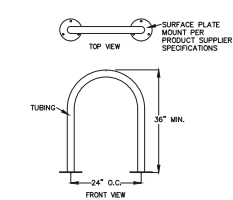
WB-67 TRUCK CIRCULATION PLAN
SCALE: 1" = 150'



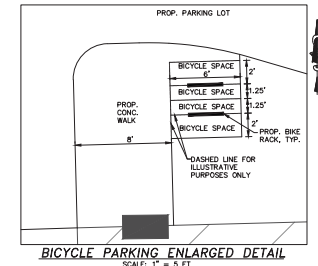
WB-67	feet		
Tractor Width	8.00	Lock to Lock Time	6.0
Trailer Width	8.00	Steering Angle	98.4
Tractor Track	8.00	Articulating Angle	75.0
Trailer Track	8.50		



CONCRETE APRON FOR CATCH BASIN IN PARKING LOT
NOT TO SCALE



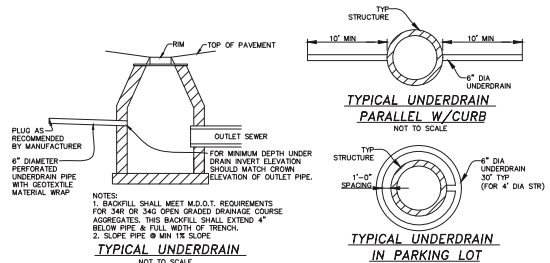
ILLUSTRATIVE BIKE RACK DETAIL
NOT TO SCALE



BIKE PARKING ENLARGED DETAIL
SCALE: 1" = 5 FT

BIKE PARKING NOTES:

1. ALL BIKE PARKING SPACES SHALL BE PAVED AND ADJACENT TO A BIKE RACK OF THE INVERTED "U" DESIGN, THAT IS SOLID, CANNOT BE EASILY REMOVED WITH COMMON TOOLS, PROVIDES AT LEAST TWO (2) CONTACT POINTS FOR A BIKE, IS AT LEAST THREE (3) FEET IN HEIGHT, AND PERMITS THE LOCKING OF A BIKE THROUGH THE FRAME AND ONE (1) WHEEL WITH A STANDARD H-LOCK OR CABLE IN AN UPRIGHT POSITION. THE RACK SHALL BE SECURELY ANCHORED IN CONCRETE OR ASPHALT. ALTERNATIVE INSTALLATIONS AND DESIGN MAY BE CONSIDERED IF THE PROPOSED RACK DESIGN FUNCTIONS SAME AS THE INVERTED "U" DESIGN.
2. ALL BIKE PARKING FACILITIES SHALL BE ACCESSIBLE FROM ADJACENT STREET(S) AND PATHWAY(S) VIA A PAVED ROUTE THAT HAS A MINIMUM WIDTH OF SIX (6) FEET.
3. ALL BIKE PARKING FACILITIES SHALL BE SEPARATED FROM AUTOMOBILE PARKING SPACES AND ACCESSIBLE BY A RAISED CURB, LANDSCAPE AREA, SIDEWALK, OR OTHER METHOD THAT COMPLIES WITH ALL CITY ORDINANCES.

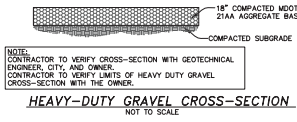


TYPICAL UNDERDRAIN PARALLEL W/ CURB
NOT TO SCALE

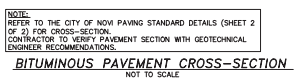
TYPICAL UNDERDRAIN IN PARKING LOT
NOT TO SCALE

- NOTES:
1. BACKFILL SHALL MEET M.D.O.T. REQUIREMENTS FOR 50% OR 74% OPEN GRADED DRAINAGE COURSE AGGREGATES. THIS BACKFILL SHALL EXTEND 4" BELOW PIPE & FULL WIDTH OF TRENCH.
 2. SLOPE PIPE @ MIN 1% SLOPE.

TYPICAL UNDERDRAIN
NOT TO SCALE



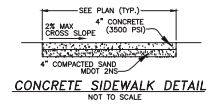
HEAVY-DUTY GRAVEL CROSS-SECTION
NOT TO SCALE



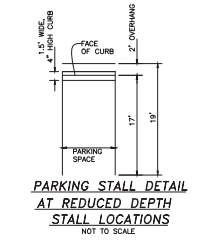
BITUMINOUS PAVEMENT CROSS-SECTION
NOT TO SCALE



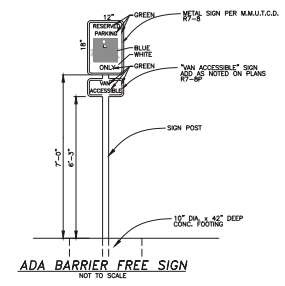
CONCRETE CURB & GUTTER - ON-SITE
NOT TO SCALE



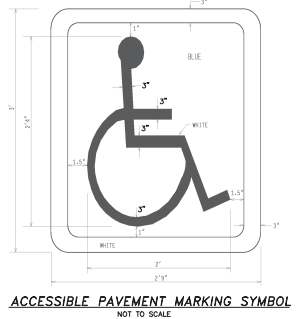
CONCRETE SIDEWALK DETAIL
NOT TO SCALE



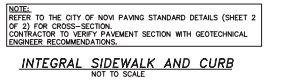
PARKING STALL DETAIL AT REDUCED DEPTH STALL LOCATIONS
NOT TO SCALE



ADA BARRIER FREE SIGN
NOT TO SCALE



ACCESSIBLE PAVEMENT MARKING SYMBOL
NOT TO SCALE



INTEGRAL SIDEWALK AND CURB
NOT TO SCALE

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

NOTE:
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100 SERIES FENCEBLOCK

Elevation View

98% BLOCKAGE

- FENCESCREEN PANELS WITH 3" POLYPROPYLENE WEAVING FOR EDGE REINFORCEMENT
- 50" BRASS GROMMETS AT 24" ON CENTER ATTACH TO FENCE WITH FENCESCREEN FASTENERS OR GALVANIZED HSS RINGS.

Perspective View

ACTUAL HEIGHTS

Fence screens will be cut 4 inches shorter than fence height. This ensures a proper, clean, and weather-tight fit.

Example:
 - 37" screen fits a 4' tall fence
 - 47" screen fits a 5' tall fence
 - 57" screen fits a 6' tall fence
 - 67" screen fits a 7' tall fence

FENCESCREEN SPECIFICATIONS

PROPERTIES	RESULTS
Construction Specifications	Warp 20' Max. 10'
Tensile Strength	800 - 10' Warp - 10'
Weight (kg/yd ²)	3.0 (6.5) lb/yd ²
UV Resistance (20% Tensile)	Warp 85' Max. 85'
Resistance After 100 Hours	
Water Permeability	4.2 gallons/ft ² /hour
Shade / Wind Blockage	98%

Attachment Encouragement

ATTACHMENT POINTS EVERY 24"

Labels: FENCE POST, EDGE BRANDING, STRETCHER BAR, FENCESCREEN, GROMMETS WITH FENCE FASTENERS OR HSS RINGS.

NOTE:
 - INSTALL PER FENCESCREEN MANUFACTURER RECOMMENDATIONS.
 - REFER TO STRUCTURAL PLANS FOR ALL FOOTING SIZES.

Available Colors
 Neutral Green, Black

Material Composition
 FENCESCREEN is made from 100% virgin polypropylene with UV stabilizers.

Detail Name: 600 Series FENCESCREEN

Drawing Number: FSD600

PHONE: 1.888.313.6313 | **www.FenceScreen.com**

SCREENING FOR CHAINLINK FENCING
NOT TO SCALE

811
Know what's below
Call before you dig.

ALPINE ENGINEERING INC.
CIVIL ENGINEERS & LAND SURVEYORS

4880 WEST BROADWAY SUITE 109
NOVI, MICHIGAN 48377

(248) 304-3701 (BUS)
(248) 304-3756 (FAX)
WWW.AEPINC-INC.NET

DETAIL SHEET

45241 GRAND RIVER AVENUE
TOWNSHIP OF N. OAKLAND COUNTY
MICHIGAN

SECTION: 15

REVISIONS

NO.	DATE	DESCRIPTION
2019-06-12	2019-06-12	PRELIMINARY
2019-07-17	2019-07-17	RESUBMITTAL
2019-08-02	2019-08-02	PRELIMINARY
2019-08-29	2019-08-29	PRELIMINARY
2019-09-12	2019-09-12	PRELIMINARY
2019-09-24	2019-09-24	REVIEW FOR CLIENT
2019-09-18	2019-09-18	PRE-APPLICATION SUBMITTAL

DATE: 2019-02-02
 DRAWN BY: SD
 CHECKED BY: TO/SD

NOT TO SCALE

FENCE: 6
 CHP: 6
 SCALE: 1/8" = 1' = 12" FT. 17-504

NOT FOR CONSTRUCTION

Seal:



Title:

Landscape Plan

Project:

Keford Collision & Towing
 Novi, Michigan

Prepared for:

Alpine Engineering
 46892 West Road
 Novi, Michigan 48277
 248.926.3701

Revision:

Issued:

Review	March 9, 2018
Revised	March 14, 2018
Revised	May 16, 2018
Revised	May 18, 2018
Revised	May 23, 2018
Revised	July 11, 2018
Revised	July 12, 2018
Revised	August 30, 2018
Revised	March 4, 2019
Revised	July 17, 2019
Revised	September 11, 2019

Job Number:

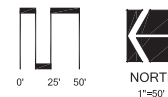
19-016

Drawn By:

Checked By:

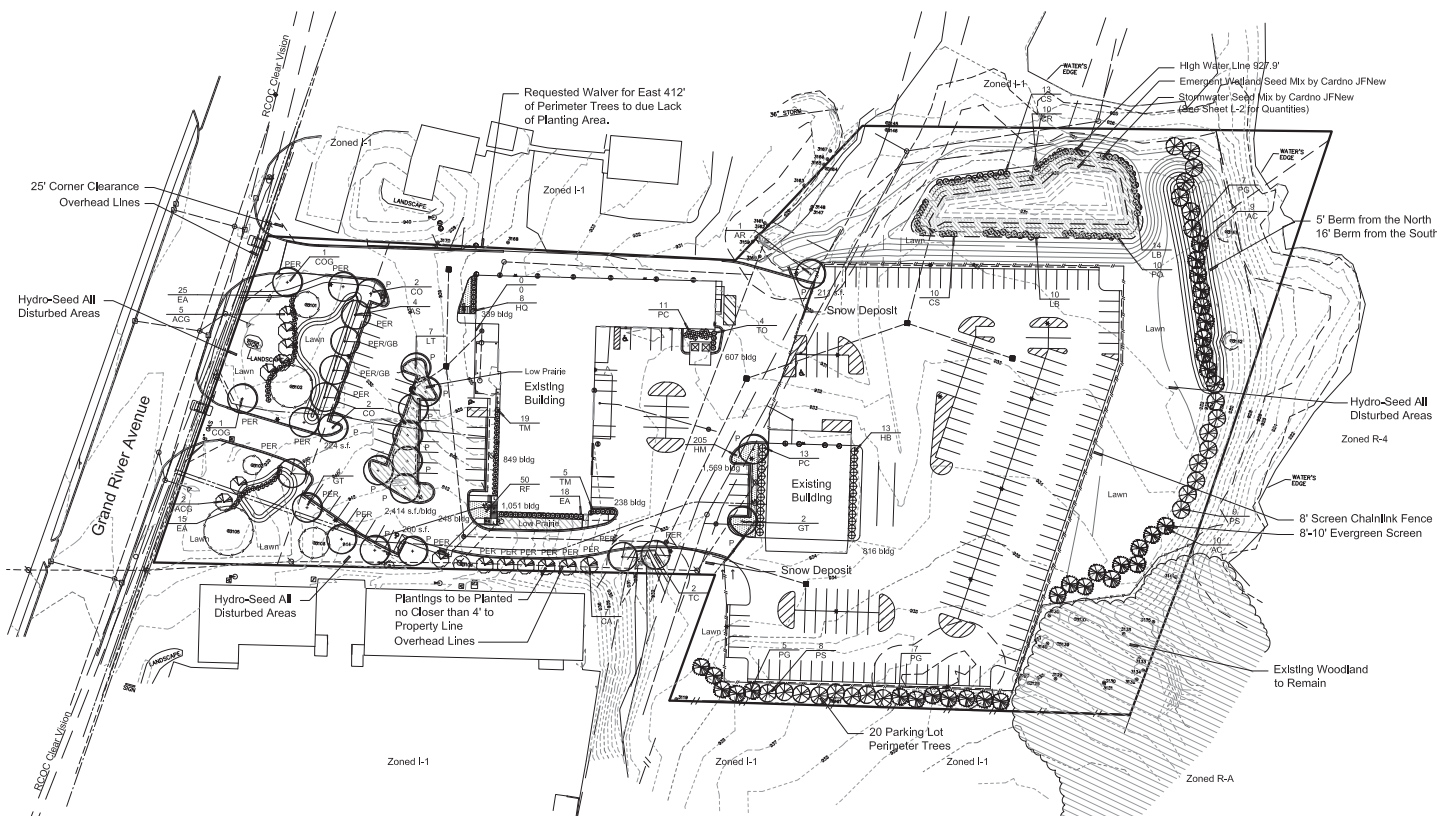
jca

jca



Sheet No.

L-1



Low Prairie Seed Mix

Botanical Name	Common Name	PLS	Ounces/Acre
Permanent Grasses:			
Carex spp.	Prairie Carex Mix		4.00
Elymus canadensis	Canada Wild Rye		32.00
Elymus virginicus	Virginia Wild Rye		10.00
Koeleria cristata	June Grass		1.00
Panicum virgatum	Switch Grass		1.00
Schizachyrium scoparium	Little Bluestem		32.00
		Total	80.00
Temporary Cover:			
Avena sativa	Common Oat		360.00
Lolium multiflorum	Annual Rye		100.00
		Total	460.00
Forbs:			
Anemone cylindrica	Thimbleweed		0.50
Asclepias tuberosa	Butterfly Milkweed		2.00
Aster excelsus	Heath Aster		0.25
Aster laevis	Smooth Blue Aster		0.75
Aster novae-angliae	New England Aster		0.25
Chaenactis fasciculata	Partridge Pea		14.00
Coreopsis lanceolata	Sand Coreopsis		5.00
Coreopsis rogersii	Tall Coreopsis		3.00
Delice candida	White Prairie Clover		1.50
Desmodium canadense	Showy Tick Trefoil		1.50
Elymus canadensis	Prairie Cordgrass		8.00
Euthamia graminifolia	Grass-leaved Goldenrod		2.50
Lespedeza capitata	Round-head Bush Clover		2.00
Lespedeza bicolor	Rough Blazing Star		0.50
Lupinus perennis	Wild Lupine		2.00
Mirabilis jalapa	Wild Begonia		0.75
Pharbitis nil	Wild Quinine		1.00
Pennisetum digitatis	Foxtail Beard Tongue		0.50
Pycnanthemum virginicum	Common Mountain Mint		1.00
Rudbeckia hirta	Yellow Blackfoot		4.00
Rudbeckia hirta	Black-Eyed Susan		5.00
Silphium lacustrum	Compass Plant		3.00
Silphium terebinthaceum	Prairie Dock		0.50
Solidago nemoralis	Old Field Goldenrod		0.50
Solidago rigida	Stiff Goldenrod		1.00
Tradescantia virginiana	Common Spiderwort		0.75
Vernonia spp.	Ironweed (Various Mix)		1.75
Xanthoxylum virginicum	Culvers Root		0.25
		Total	63.75

3,465 s.f.
 37.3 lbs. per Acre Application Rate
 3.0 lbs. of Low Profile Prairie Seed Mix
 3'-4" of Topsoil Shall be Placed in this Area.
Seeds Available from Carcino JNew
All Seed shall be Protected with Mulch Blanket.

Plant List

Sym.	Qty	Botanical Name	Common Name	Caliper	Spacing	Root	Height	Price	Total	Species	Genus	Name	Total		
Parking Lot, Perimeter and Buffer Trees															
AC	19	Aster cordifolius	Concolor Fir		as shown	B&B	8'-10'	\$ 400.00	\$ 7,600.00	20%	20%		1		
AR	1	Acer rubrum	Red Maple	3.0"	as shown	B&B		\$ 400.00	\$ 400.00	1%	1%		1		
AS	4	Acer saccharum	Sugar Maple	3.0"	as shown	B&B		\$ 400.00	\$ 1,600.00	4%	4%		1		
CA	7	Cornus alternifolia	Alternate Leaf Dogwood	2.5"	as shown	B&B		\$ 250.00	\$ 1,750.00	7%	9%	1	1		
CO	4	Celtis occidentalis	Northern Hackberry	3.0"	as shown	B&B		\$ 400.00	\$ 1,600.00	4%	4%		1		
GT	6	Gleditsia triacanthos var. inermis	Thornless Honeylocust	3.0"	as shown	B&B		\$ 400.00	\$ 2,400.00	6%	6%		1		
LT	7	Lindera lucida	Tulip Tree	3.0"	as shown	B&B		\$ 400.00	\$ 2,800.00	7%	7%		1		
PG	19	Picea canadensis	White Spruce	3.0"	as shown	B&B	8'-10'	\$ 400.00	\$ 7,600.00	20%	20%		1		
PS	17	Picea strobus	White Pine	3.0"	as shown	B&B	8'-10'	\$ 400.00	\$ 6,800.00	18%	18%		1		
TC	2	Tilia cordata	Greenspire Linden	3.0"	as shown	B&B		\$ 400.00	\$ 800.00	2%	2%		1		
Street Lawn and Greenbelt															
ACG	7	Amelanchier laevis	Shadblow	2.5"	as shown	B&B		\$ 250.00	\$ 1,750.00	7%	7%	1	1		
COG	2	Celtis occidentalis	Northern Hackberry	3.0"	as shown	B&B		\$ 400.00	\$ 800.00	2%	9%		1		
Detention Strips															
CR	10	Cornus racemosa	Gray Dogwood		as shown		30"	\$ 50.00	\$ 500.00				1		
CS	23	Cornus stolonifera	Red-osier Dogwood		as shown		30"	\$ 50.00	\$ 1,150.00				1		
LB	24	Lindera benzoin	Spiracanth		as shown		30"	\$ 50.00	\$ 1,200.00				1		
PO	10	Physocarpus opulifolius-Straight Species	Eastern Ninebark		as shown		30"	\$ 50.00	\$ 500.00				1		
General Plantings															
EA	58	Eurolymus alata 'Compacta'	Compact Burning Bush		as shown	B&B	30"	\$ 50.00	\$ 2,900.00				1		
HB	13	Hydrangea arborescens 'vanot'	Blond Hydrangea		as shown	B&B	30"	\$ 50.00	\$ 650.00				1		
HM	205	Heimericallis 'Happy Returns'	Happy Returns Daylily	1 gal.	18" o.c.	cont.	30"	\$ 15.00	\$ 3,075.00				1		
HO	8	Hydrangea quercifolia	Oakleaf Hydrangea		as shown	B&B	30"	\$ 50.00	\$ 400.00				1		
PC	24	Physocarpus opulifolius 'Coppertina'	Coppertina Ninebark		as shown	B&B	30"	\$ 50.00	\$ 1,200.00				1		
RF	50	Rudbeckia fulgida s. 'Goldsturm'	Black Eyed Susan		as shown	42 cont.	30"	\$ 15.00	\$ 750.00				1		
TM	24	Taxus x Media 'Densiformis'	Genoa Yew		as shown	B&B	30"	\$ 50.00	\$ 1,200.00				1		
TO	4	Tilia occidentalis 'Fectory'	Fectory Anemone		as shown	B&B	30"	\$ 75.00	\$ 300.00				1		
													Total	15	22
													% Native	68%	
													Total	\$ 15,000.00	
													30' Deep Shredded Hardwood Bark Mulch' s.f.	\$ 910.00	
													4,548 Seed / s.f. (Low)	\$ 13,844.00	
													350 Seed / s.f. (Low Prairie)	\$ 2,100.00	
													753 Seed / s.f. (Detention Pond)	\$ 4,518.00	
													Total	\$ 85,972.00	

Landscape Summary

Existing Zoning	I-1	Street Lawn	87 l.f. (294' - 107' drive openings)
Parking Lot Landscaping		Street Frontage	2 Trees (87 l.f. / 45')
Vehicular Use Area	153,824 s.f.	Trees Required	0 Trees
Landscape Area Required	3,019 s.f.	Detention Pond	
50,000 s.f. x 0.5% = 2,500 s.f.		High Water Length	474 l.f.
103,824 s.f. x 0.5% = 519 s.f.		Landscape Required	332 l.f. (474' x 70%)
		Landscape Provided	337 l.f. (71%)
		15 Trees (3,019 / 200)	
		Canopy Trees Shown	15 Trees
		Parking Lot Perimeter	
		Perimeter	2,203 l.f.
		Trees Required	63 Trees (2,203 l.f. / 35')
		Trees Shown	26.5 Trees
		Building Foundation Landscaping	
		Perimeter of Building	758 l.f. (830' less 72' of Doors)
		Perimeter of Out Building	252 l.f. (302' less 50' of Doors)
		Landscape Area Required	8,080 s.f. (1,010 l.f. x 8')
		Landscape Area Shown	8,369 s.f.
		Greenbelt Plantings	
		Street Frontage	241 l.f. (294' - 53' drive openings)
		Trees Required	2 Trees (241 l.f. / 40')
		Trees Shown	7 Trees (4 Existing)
		Sub-Canopy Trees Required	7 Trees (241 l.f. / 35')
		Sub-Canopy Trees Shown	7 Trees

Waivers Granted by Planning Commission on September 26, 2018:
 1. Sec. 4.5.5 - Storage Requires Screening to Adjacent Parcels.
 A Waiver is Requested for the East Side of the Storage Area as the Adjacent Parcel is a Regional Detention Pond.
 2. Sec. 5.5.3.II - Land Use Berm. A berm and proposed plantings are located only in the areas to screen affected adjacent properties.
 3. Sec. 5.5.3.IV.g - Reduction of Perimeter Trees Due to 8' Screened Chain Link Fence and 412' of Insufficient Planting Area.
 4. Sec. 5.5.3.B.II - Street Lawn Trees. Trees cannot be Planted Due to Existing Utilities and 4' of Lawn Area Between the Curb and Walk.
 5. Sec 5.5.3.C.I - End Cap Islands.
 6. Sec 5.5.D - Shortage of Building Frontage Landscaping Due to Existing Conditions.

Notes:
 1. Soils Information is Found on the Preliminary Storm Water Management Plan.
 2. Trees Shall be Planted no Closer than 10' Utility Structure Including Hydrants.
 3. Trees Shall not be Planted within 4' of Property Lines.
 4. Utility Boxes Shall be Screen per Detail on Sheet L-2.



Know what's below.
 Call before you dig.

Seal:



Title:
Woodland Plan

Project:
**Keford Collision & Towing
 Novi, Michigan**

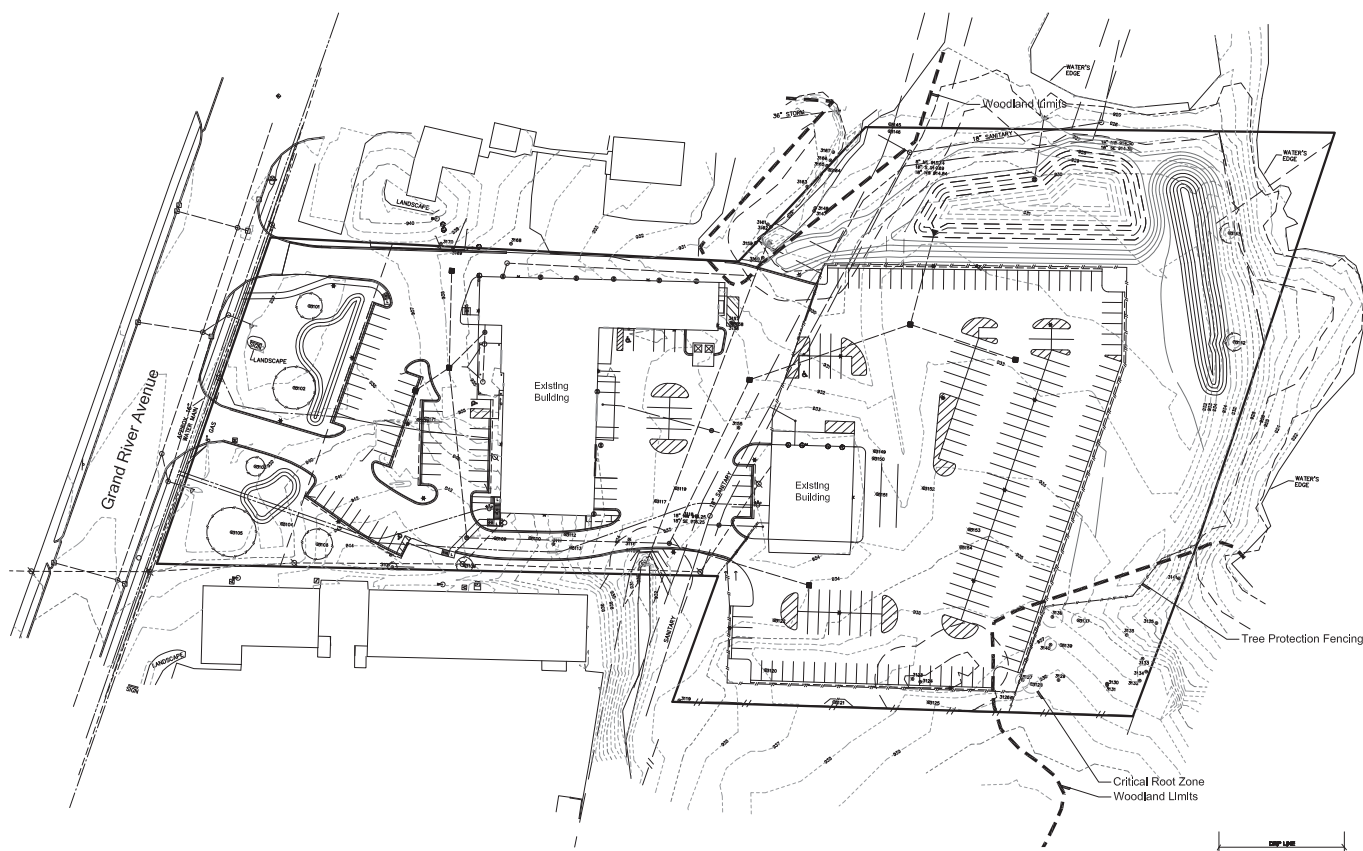
Prepared for:
 Alpine Engineering
 46892 West Road
 Novi, Michigan 48377
 248.926.3701

Revision: Issued:
 Review March 9, 2018
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 Revised August 30, 2018
 Revised March 4, 2019
 Revised July 17, 2019
 Revised September 11, 2019

Job Number:
 18-016

Drawn By: Checked By:
 jca jca

Sheet No.



Tree List

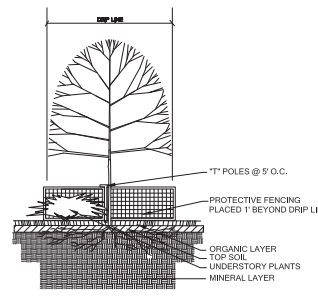
Tag No.	DBH	Common Name	Botanical Name	Condition	Remarks	Replacement	Credits	Tag No.	DBH	Common Name	Botanical Name	Condition	Remarks	Replacement	Credits
3107	19.20	Silver Maple	Acer saccharinum	Good	Crack	3	3137	11	Black Cherry	Prunus serotina	Good	Saw			
3102	35	Norway Spruce	Picea canadensis	Good	Crack	6	3138	11	Sugar Maple	Acer saccharum	Good	Saw			
3103	14	Norway Spruce	Picea canadensis	Good	Crack	3	3139	11	Sugar Maple	Acer saccharum	Good	Saw			
3104	20	Norway Spruce	Picea canadensis	70% dead	Remove	0	3140	8	American Elm	Ulmus americana	Good	Saw			
3105	32.41	White Willow	Salix alba	Good	Crack	6	3141	7	Eastern Cottonwood	Populus deltoides	Good	Saw			
3106	24	Norway Spruce	Picea canadensis	Good	Crack	5	3142	8	American Elm	Ulmus americana	Good	Saw			
3107	7.8	Norway Spruce	Picea canadensis	Good	Crack	1	3143	7.8	Box Elder	Acer negundo	Good	Saw			
3108	12	Box Elder	Acer negundo	Good	Crack	1	3144	9	Eastern Cottonwood	Populus deltoides	Good	Saw			
3109	14.15	Siberian Elm	Ulmus pumila	Good	Exempt	2	3145	20"	White Willow	Salix alba	Good	Saw			
3110	7.8	Box Elder	Acer negundo	Good	Exempt	2	3146	30"	White Willow	Salix alba	Good	Saw			
3111	9	Box Elder	Acer negundo	Good	Exempt	2	3147	34"	White Willow	Salix alba	Good	Saw			
3112	8.11	Box Elder	Acer negundo	Good	Exempt	2	3148	8.0-9	White Willow	Salix alba	Good	Saw			
3113	9	Box Elder	Acer negundo	Good	Exempt	2	3149	8.0-9	White Willow	Salix alba	Good	Saw			
3114	13.24	Eastern Cottonwood	Populus deltoides	Good	Exempt	2	3150	8.0-9	Eastern Cottonwood	Populus deltoides	Good	Exempt			
3115	26	Eastern Cottonwood	Populus deltoides	90% dead	Remove	0	3151	11.11	Eastern Cottonwood	Populus deltoides	Good	Exempt			
3116	8	Box Elder	Acer negundo	Good	Exempt	10	3152	10	Black Cherry	Prunus serotina	Good	Exempt			
3118	9	Box Elder	Acer negundo	Good	Exempt	3153	5.6, 7.9, 9	Box Elder	Acer negundo	Good	Exempt				
3119	Dead			Exempt		3154	7.7, 8	Box Elder	Acer negundo	Good	Exempt				
3121	Dead			Exempt		3155	8.8, 11	Eastern Cottonwood	Populus deltoides	Good	Exempt				
3122	10	Norway Spruce	Picea canadensis	Good	Crack	2	3156	9	Eastern Cottonwood	Populus deltoides	Good	Exempt			
3123	14	Eastern Cottonwood	Populus deltoides	Good	Exempt		3157	8	Eastern Cottonwood	Populus deltoides	Good	Exempt			
3124	17	Eastern Cottonwood	Populus deltoides	Good	Exempt		3158	9	Eastern Cottonwood	Populus deltoides	Good	Exempt			
3125	Dead			Exempt		3159	26	White Willow	Salix alba	Good	Saw				
3129	17	Siberian Elm	Ulmus pumila	70% dead	Remove	0	3160	10	Siberian Elm	Ulmus pumila	Good	Saw			
3129	15	Eastern Cottonwood	Populus deltoides	Good	Saw		3161	9	Box Elder	Acer negundo	Good	Saw			
3129	14	Eastern Cottonwood	Populus deltoides	Good	Saw		3162	17.1"	White Willow	Salix alba	Good	Saw			
3130	13	Black Cherry	Prunus serotina	Good	Saw		3163	8"	White Willow	Salix alba	Good	Saw			
3131	10	Mulberry	Morus nigra	Good	Saw		3164	8"	Box Elder	Acer negundo	Good	Saw			
3132	15	Eastern Cottonwood	Populus deltoides	Good	Saw		3165	32"	White Willow	Salix alba	Good	Saw			
3133	11	Box Elder	Acer negundo	Good	Saw		3166	34"	White Willow	Salix alba	Good	Saw			
3134	13	Common Apple	Malus sp.	Good	Saw		3167	33"	White Willow	Salix alba	Good	Saw			
3135	6.9, 9	Box Elder	Acer negundo	Good	Saw		3168	8.0, 9.3	Box Elder	Acer negundo	Good	Saw			
3136	19	Sugar Maple	Acer saccharum	Good	Saw		3169	67.8	Norway Spruce	Picea canadensis	Good	Exempt			
							3170	10	Box Elder	Acer negundo	Good	Saw			
							3171	7.8, 9	Norway Spruce	Picea canadensis	Good	Exempt			
							3172	67.8, 8	Japanese Maple	Acer palmatum	Good	Exempt			

* Trees Located in Standing Water. Size are approximate.

Woodland Summary

Total Trees	71 Trees
Less Non-Regulated Trees:	37 Trees
Non-Regulated Trees	34 Regulated Trees
Regulated Trees Removed	0 Trees
Replacement Required	
Trees 8" - 11"	0 trees x 1= 0 Trees
Trees 11" - 20"	0 trees x 2= 0 Trees
Trees 20" - 30"	0 trees x 3= 0 Trees
Trees 30"+	0 trees x 4= 0 Trees
Multi-Stemmed Trees	0 Trees
Net Replacement Required	0 Trees
Available Credits	28 Trees
Replacement Required	0 Trees

- Key
- Removed Tree
 - Regulated tree be saved
 - Tree is located outside of a woodland area and will be saved.
 - Tree is located in a regulated woodland and will be removed.
 - Tree is dead or located outside of a woodland area and will be removed.



1. Use Heavy Duty or Wood Drip Edge. Stone Paving Should Be Installed on or Beyond the CRP Line, Unless Shown Otherwise in Project Specific Details.
2. Install 1" Poles at 8' O.C. to Support the Fencing and to Allow for the Tree to Grow Through the Fencing.
3. Fencing Shall Not Be Installed on the Tree Trunk or on the CRP Line of Those Trees to be Saved.
4. Understory Plants Shall Be Installed on the CRP Line.
5. Understory Plants Shall Be Installed on the CRP Line.
6. Understory Plants Shall Be Installed on the CRP Line.
7. Understory Plants Shall Be Installed on the CRP Line.
8. Understory Plants Shall Be Installed on the CRP Line.
9. Understory Plants Shall Be Installed on the CRP Line.
10. Understory Plants Shall Be Installed on the CRP Line.
11. Understory Plants Shall Be Installed on the CRP Line.
12. Understory Plants Shall Be Installed on the CRP Line.
13. Understory Plants Shall Be Installed on the CRP Line.
14. Understory Plants Shall Be Installed on the CRP Line.
15. Understory Plants Shall Be Installed on the CRP Line.
16. Understory Plants Shall Be Installed on the CRP Line.
17. Understory Plants Shall Be Installed on the CRP Line.
18. Understory Plants Shall Be Installed on the CRP Line.
19. Understory Plants Shall Be Installed on the CRP Line.
20. Understory Plants Shall Be Installed on the CRP Line.

TREE PROTECTION DETAIL

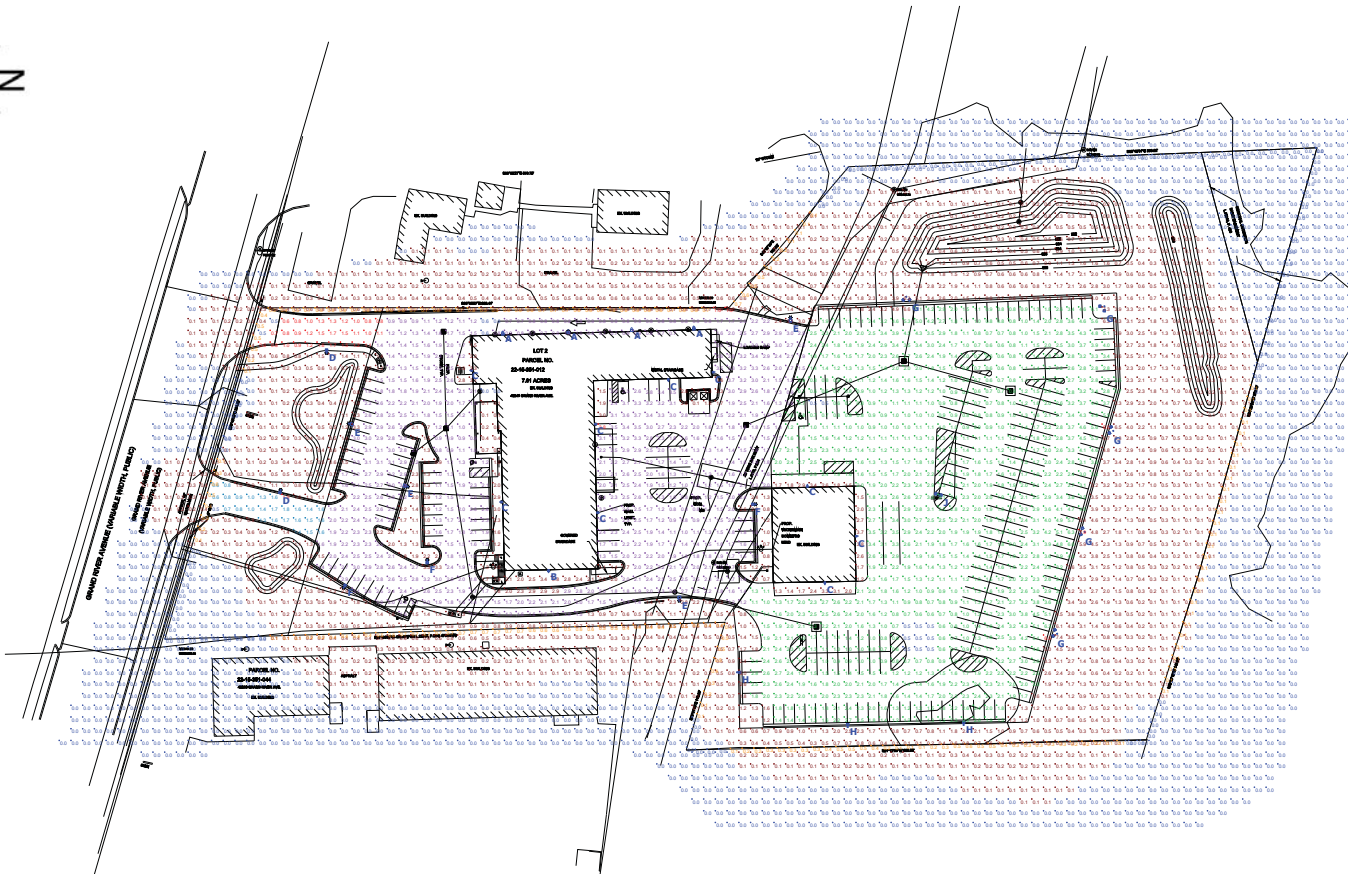
NO SCALE



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.

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



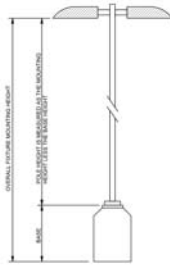
- General Note**
- SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
 - SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.
 - ALL CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: 0' - 0"

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 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASO@GASSERBUSH.COM OR 734-266-6705.

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
EAST ENTRANCE	+	1.1 fc	1.7 fc	0.5 fc	3:4:1	2:2:1	0.6:1
NON-SECURED LOT	+	2.0 fc	3.8 fc	0.6 fc	6:3:1	3:3:1	0.5:1
PROPERTY LINE	+	0.3 fc	1.0 fc	0.0 fc	N/A	N/A	0.3:1
SECURED LOT	+	2.0 fc	6.5 fc	0.5 fc	13:0:1	4:0:1	0.3:1
WEST ENTRANCE	+	1.3 fc	1.9 fc	0.5 fc	3:8:1	2:6:1	0.7:1



Plan View
Scale - 1" = 50ft

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens per Lamp	LLF	Wattage	Mounting Height
A	A	1	Lithonia Lighting	DSXW1 LED 20C 350 40K T3M MVOLT	DSXW1 LED WITH (2) 35 LED LIGHT ENGINES, TYPE T3M OPTIC, 4000K, @ 3500LM	LED	1	DSXW1_LED_20C_350_40K_T3M_VOLT_1	4000	0.9	23.3	22'-0"
B	B	1	Lithonia Lighting	DSX1 LED P4 40K T3M MVOLT WBA	DSX1 LED AREA LIGHT, P4 PERFORMANCE PACKAGE, 4000K, TYPE 3 MEDIUM DISTRIBUTION, MVOLT, WALL BRACKET	LED	1	DSX1_LED_P4_40K_T3M_MVOLT_WBA	14073	0.9	125	22'-0"
C	C	9	Lithonia Lighting	DSX1 LED P4 40K 177R MVOLT WBA	DSX1 LED AREA LIGHT, P4 PERFORMANCE PACKAGE, 4000K, FORWARD THROW MEDIUM DISTRIBUTION, MVOLT, WALL BRACKET	LED	1	DSX1_LED_P4_40K_177R_MVOLT_WBA	14487	0.9	125	22'-0"
D	D	2	Lithonia Lighting	DSX1 LED P2 40K T2M MVOLT	DSX1 LED AREA LIGHT, P2 PERFORMANCE PACKAGE, 4000K, TYPE 2 MEDIUM DISTRIBUTION, MVOLT	LED	1	DSX1_LED_P2_40K_T2M_MVOLT	8977	0.9	70	25'-0"
E	E	3	Lithonia Lighting	DSX1 LED P4 40K T3M MVOLT	DSX1 LED AREA LIGHT, P4 PERFORMANCE PACKAGE, 4000K, TYPE 3 MEDIUM DISTRIBUTION, MVOLT	LED	1	DSX1_LED_P4_40K_T3M_MVOLT	14073	0.9	125	25'-0"
F	F	1	Lithonia Lighting	DSX1 LED P4 40K 140R MVOLT	DSX1 LED AREA LIGHT, P4 PERFORMANCE PACKAGE, 4000K, TYPE 4 MEDIUM DISTRIBUTION, MVOLT	LED	1	DSX1_LED_P4_40K_140R_MVOLT	14181	0.9	125	25'-0"
G	G	9	Lithonia Lighting	DSX1 LED P5 40K 140R MVOLT	DSX1 LED AREA LIGHT, P5 PERFORMANCE PACKAGE, 4000K, TYPE 4 MEDIUM DISTRIBUTION, MVOLT	LED	1	DSX1_LED_P5_40K_140R_MVOLT	18534	0.9	126	25'-0"
H	H	3	Lithonia Lighting	DSX1 LED P5 40K 177R MVOLT FIS	DSX1 LED AREA LIGHT, P5 PERFORMANCE PACKAGE, 4000K, FORWARD THROW MEDIUM DISTRIBUTION, MVOLT, HOUSE SIDE MOUNT	LED	1	DSX1_LED_P5_40K_177R_MVOLT_FIS_HS_344	12559	0.9	138	25'-0"
J	J	1	Lithonia Lighting	DSX1 LED P4 40K 15W MVOLT	DSX1 LED AREA LIGHT, P4 PERFORMANCE PACKAGE, 4000K, TYPE 3 WIDE DISTRIBUTION, MVOLT	LED	1	DSX1_LED_P4_40K_15W_MVOLT	14043	0.9	250	25'-0"



D-Series

Specifications

Luminaire: 13.34" W x 11.81" H
Depth: 4.37" (11.21")
Height: 4.37" (11.21")

D-Series Size 1 LED Wall Luminaire

Back Box (BWX, ELCW)

Walls: 13.34" W x 11.81" H
Depth: 4.37" (11.21")
Height: 4.37" (11.21")

Introduction

The D-Series Wall Luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance. With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.


Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DOBTBD

Item	Code	Label	Manufacturer	Part Number	Quantity	Mounting	Mounting Height
DSXW1	20C	1000	40K	T3M	MVOLT	DOBTBD	22'-0"

Accessories

WBA: Wall Bracket
FIS: House Side Mount
SMB: Small Mount Bracket
SMB-L: Small Mount Bracket - Left
SMB-R: Small Mount Bracket - Right
SMB-T: Small Mount Bracket - Top
SMB-B: Small Mount Bracket - Bottom
SMB-LT: Small Mount Bracket - Left Top
SMB-LB: Small Mount Bracket - Left Bottom
SMB-RT: Small Mount Bracket - Right Top
SMB-RB: Small Mount Bracket - Right Bottom
SMB-TL: Small Mount Bracket - Top Left
SMB-TB: Small Mount Bracket - Top Bottom
SMB-BL: Small Mount Bracket - Bottom Left
SMB-BR: Small Mount Bracket - Bottom Right



D-Series

Specifications

Walls: 13.34" W x 11.81" H
Depth: 4.37" (11.21")
Height: 4.37" (11.21")

D-Series Size 1 LED Area Luminaire

4x4" Capable Luminaire

This luminaire is an 4x4" capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability. All configurations of this luminaire meet the Acuity Brands' specifications for luminaire compatibility.

- This luminaire is A+ Certified when ordered with DTZ+ controls marked by a **DTZ+DTZ+DTZ+DTZ** DTZ-DLL equipped luminaire meet the A+ Certification for luminaire to photocell interoperability!
- This luminaire is part of an A+ Certified solution for RCMAP or iRAMP™ Wireless control networks, providing out of the box control compatibility with simple commissioning, when ordered with drivers and control options marked by a **WBA@DTZ+DTZ+DTZ**.

Introduction

The D-Series Wall Luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance. With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SFA DOBTBD

Item	Code	Label	Manufacturer	Part Number	Quantity	Mounting	Mounting Height
DSX1	P7	40K	T3M	MVOLT	SFA	DOBTBD	22'-0"

Accessories

WBA: Wall Bracket
FIS: House Side Mount
SMB: Small Mount Bracket
SMB-L: Small Mount Bracket - Left
SMB-R: Small Mount Bracket - Right
SMB-T: Small Mount Bracket - Top
SMB-B: Small Mount Bracket - Bottom
SMB-LT: Small Mount Bracket - Left Top
SMB-LB: Small Mount Bracket - Left Bottom
SMB-RT: Small Mount Bracket - Right Top
SMB-RB: Small Mount Bracket - Right Bottom
SMB-TL: Small Mount Bracket - Top Left
SMB-TB: Small Mount Bracket - Top Bottom
SMB-BL: Small Mount Bracket - Bottom Left
SMB-BR: Small Mount Bracket - Bottom Right

CARSTAR

(Keford Collision)

Renovation



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Novi, MI 48375
248 471 7877 ph
248 471 7868 fax



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project title
**Carstar
(Keford)
Collision**
45241 GRAND RIVER AVE
NOVI, MI 48375

sheet title
TITLE SHEET
DO NOT SCALE DRAWINGS
USE FIGURES DIMENSIONS ONLY



project number
17062
drawn **JW**
approved **TD**
issued date
DESIGN DEVELOPMENT 03-08-2019
OWNER UPDATES 06-10-2019
PRO 07-17-2019
PRELIM. SITE PLAN 09-13-2019

sheet number
T-001

INDEX OF DRAWINGS		01-00-000 02-00-000 03-00-000 04-00-000 05-00-000 06-00-000 07-00-000 08-00-000 09-00-000 10-00-000	
T-001	TITLE SHEET		
ARCHITECTURAL DRAWINGS			
A-001	DEMOLITION PLAN	●	
A-021	DEMOLITION ELEVATIONS	●	
A-100	OVERALL FLOOR PLAN	●	●
A-110	FLOOR PLAN	●	●
A-121	REFLECTED CEILING PLAN	●	
A-131	FLOOR FINISH PLAN	●	
A-151	FF&E PLAN	●	
A-211	EXTERIOR ELEVATIONS	●	●
A-311	BUILDING SECTIONS	●	
STRUCTURAL DRAWINGS			
S-301	ROOF FRAMING AND FOUNDATION PLAN	●	
MECHANICAL DRAWINGS			
M-000	LEGEND, SYMBOLS, & ABBREVIATIONS	●	
M-011	MECHANICAL DEMOLITION FLOOR PLAN	●	
M-111	MECHANICAL NEW WORK FLOOR PLAN	●	
M-200	DETAILS AND DIAGRAMS	●	
M-300	TEMPERATURE CONTROLS	●	
M-400	TEMPERATURE CONTROLS	●	
PLUMBING DRAWINGS			
P-000	LEGEND, SYMBOLS, & ABBREVIATIONS	●	
P-021	PLUMBING DEMOLITION FLOOR PLAN	●	
P-011	PLUMBING UNDERGROUND PLAN	●	
P-111	PLUMBING NEW WORK FLOOR PLAN	●	
P-200	DETAILS	●	
P-300	DETAILS	●	
ELECTRICAL DRAWINGS			
E-000	ELECTRICAL LEGEND AND SYMBOLS	●	
E-021	ELECTRICAL DEMOLITION POWER PLAN	●	
E-022	ELECTRICAL DEMOLITION LIGHTING PLAN	●	
E-101	ELECTRICAL POWER FLOOR PLAN	●	
E-201	ELECTRICAL LIGHTING FLOOR PLAN	●	
E-300	ELECTRICAL RISER DIAGRAM AND PANELS	●	

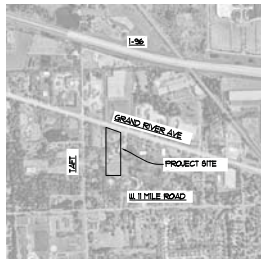
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COMMERCE TWP, MI 48390
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LYONIA, MI 4803
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Electrical Engineer
ETB ENGINEERING, INC.
4815 S. WASHINGTON BLVD.
ROYAL OAK, MI 48067
CONTACT: SCOTT LEO
PHONE: 248-344-0560



LOCATION MAP
NTS

CODE DATA

APPLICABLE CODES:
BUILDING 2015 Michigan Building Code + 2015 Michigan Rehabilitation Code For Existing Buildings
ACCESSIBILITY Chapter 11 of the Michigan Building Code (ICC/ANSI A117.1-2009) Standard as referenced in Chapter 11
PLUMBING 2015 Michigan Plumbing Code
MECHANICAL 2015 Michigan Mechanical Code
ELECTRICAL 2014 National Electrical Code (NEC) with Michigan Amendments
ENERGY ASHRAE 90.1 2013 Part 10A Michigan Uniform Energy
FIRE 2015 International Fire Code (IFC) with City Amendments Chapter 53 City Code of Ordinance

CHAPTER 6: CONSTRUCTION TYPE (NO CHANGE)
CONSTRUCTION TYPE: IIB

CHAPTER 9: FIRE PROTECTION SYSTEMS
AUTOMATIC SPRINKLER SYSTEM NOT REQUIRED OR PROVIDED

PLUMBING CALCULATION (BUSINESS / CUSTOMER AREAS):
OCCUPANT LOAD: 23 OCC. TOTAL
23 MALE / 3 FEMALE
DOES NOT INCLUDE FUTURE TENANT SPACE AREA

FIXTURE	REQUIRED	PROVIDED
WC # 1/28 FOR FIRST 50, THEN 1/50	1 PER SEX	2 PER SEX
LAV # 1/40 FOR FIRST 50, THEN 1/50	1 PER SEX	2 PER SEX
DRINKING FOUNTAIN # 1/500	2 TOTAL	2 TOTAL
SERVICE SINK	1 TOTAL	1 TOTAL

PLUMBING CALCULATION (SERVICE / PARTS DEPARTMENT):
OCCUPANT LOAD: 89 OCC. TOTAL

ONLY MALE TECHNICIANS ARE CURRENTLY (AND HISTORICALLY) EMPLOYED. NUMBERS BELOW BASED ON ALL OCCUPANTS IN THIS AREA BEING MALE. SHOULD MALE EMPLOYEES/OCCUPANTS REQUIRE RESTROOM FACILITIES, THEY MAY USE RESTROOMS PROVIDED IN BUSINESS AREA.

FIXTURE	REQUIRED	PROVIDED
WC # 1/50	1 PER SEX	3 TOILETS, 3 URINALS
LAV # 1/50	1 PER SEX	2 TOTAL
DRINKING FOUNTAIN # 1/500	1 TOTAL	2 TOTAL (1 CHIT, 1 LANGE)

PROJECT DESCRIPTION:
PROJECT CONSISTS OF AN INTERIOR AND EXTERIOR RENOVATION OF AN EXISTING BUILDING. THERE WILL BE NO CHANGE TO BUILDING AREA OR USE. MECHANICAL AND ELECTRICAL UPGRADES WILL BE MADE TO SUPPORT BUILD-OUT.

CHAPTER 3: USE AND OCCUPANCY - NO CHANGE
MIXED USE / NON-SEPARATED BUILDING (NO SEPARATION REQUIRED)
1. STORAGE USE GROUP (S-1, MODERATE HAZARD STORAGE)
2. MOTOR VEHICLE REPAIR GARAGE
3. BUSINESS USE GROUP (B, BUSINESS TRANSACTIONS), OFFICES

CHAPTER 5: GENERAL BUILDING HEIGHT AND AREA (NO CHANGE)
TOTAL BUILDING AREA: 22,811 SF (NO CHANGE)

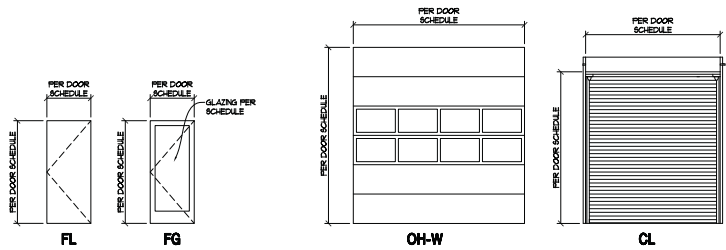
ALLOWABLE AREA Section 506

USE GROUP	ALLOWABLE AREA PER TABLE 505	FREET FRONTAGE INCREASE: 40% OF ALLOW PER TYPE IIB CONTRL	TOTAL ALLOWABLE
USE "B"	7,000 SF	7,000 SF	24,000 SF
USE "S-1"	17,000 SF	7,000 SF	24,000 SF
4,591 SF	29,000 SF	29,000 SF	29,000 SF

4,591 SF = 2,878 SF + 1,713 SF
29,000 SF = 11' x 26' x 400' THEREFORE BUILDING IS WITHIN ALLOWABLE LIMIT

CODE PLAN





DOOR TYPES

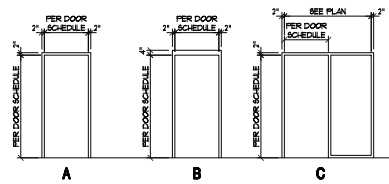
DOOR SCHEDULE LEGEND

EX EXISTING TO REMAIN
 SF ALUM STOREFRONT ALUMINUM DOOR FRAME PER SPECIFICATION SECTION 06 410

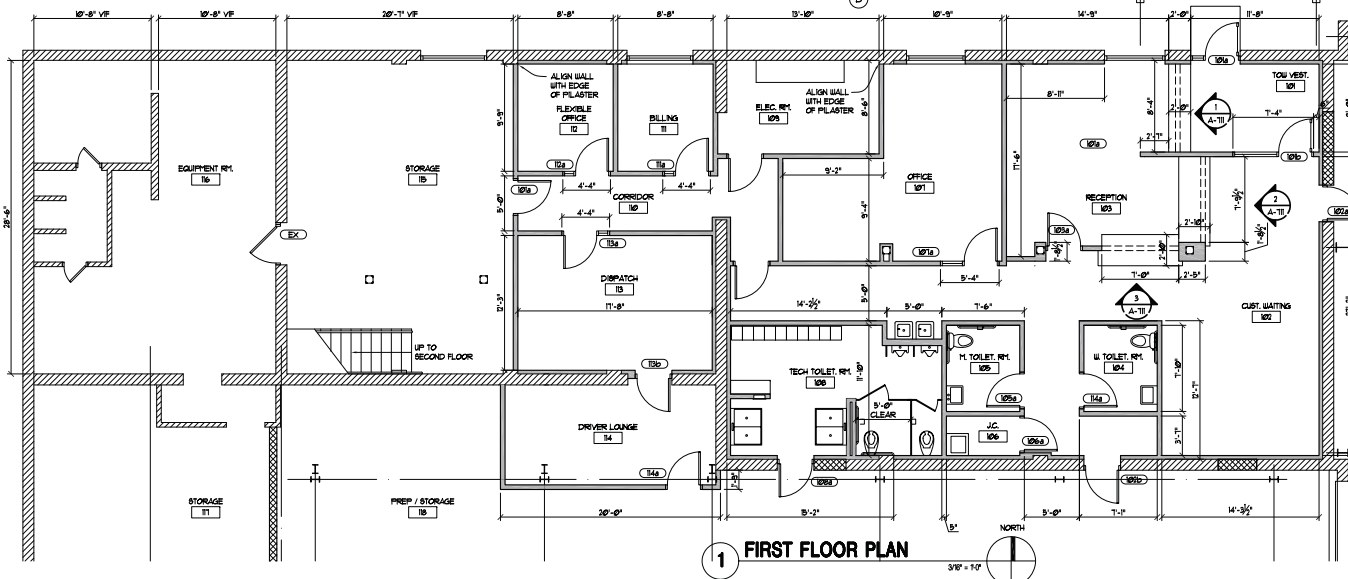
GLAZING SCHEDULE

IG-1 INSULATED GLAZING
 IG-T TEMPERED INSULATED GLAZING
 IG-TT TEMPERED NONGLAZING

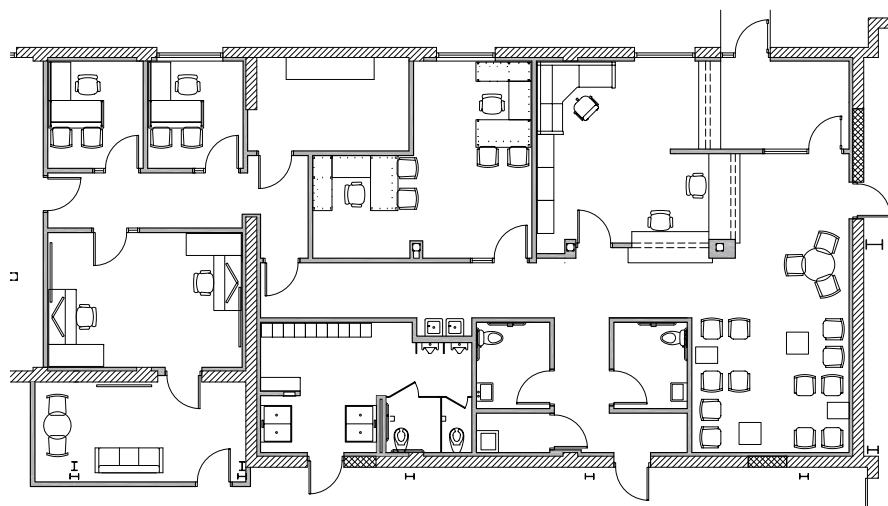
DOOR SCHEDULE												
DOOR NO.	DOOR / OPENING SIZE	DOOR			FRAME			DETAILS		HDW SET	REMARKS	DOOR NO.
		ACTION	TYPE	MATL FINISH	TYPE	MATL FINISH	HEAD	JAMB				
101a	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	A	H.M. PAINT	head	jamb	hdw			101a
101b	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	C	H.M. PAINT	head	jamb	hdw			101b
102a	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	B	H.M. PAINT	head	jamb	hdw			102a
102b	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	B	H.M. PAINT	head	jamb	hdw			102b
103a	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	A	H.M. PAINT	head	jamb	hdw			103a
105a	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	A	H.M. PAINT	head	jamb	hdw			105a
106a	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	A	H.M. PAINT	head	jamb	hdw			106a
107a	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	C	H.M. PAINT	head	jamb	hdw			107a
108a	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	B	H.M. PAINT	head	jamb	hdw			108a
111a	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	C	H.M. PAINT	head	jamb	hdw			111a
112a	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	C	H.M. PAINT	head	jamb	hdw			112a
113a	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	C	H.M. PAINT	head	jamb	hdw			113a
113b	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	A	H.M. PAINT	head	jamb	hdw			113b
114a	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	A	H.M. PAINT	head	jamb	hdw			114a
117a	3'-0" x 7'-0"	SWING	FL	H.M. PAINT	A	H.M. PAINT	head	jamb	hdw			117a
118a	12'-0" x 14'-0" VF	O.H.	OH-W	GL/ALUM FACTORY	C	PAINT	-	head	jamb	hdw		118a
118b	12'-0" x 14'-0" VF	O.H.	OH-W	GL/ALUM FACTORY	C	PAINT	-	head	jamb	hdw		118b
119a	12'-0" x 14'-0" VF	O.H.	OH-W	GL/ALUM FACTORY	C	PAINT	-	head	jamb	hdw		119a
119b	12'-0" x 12'-0" VF	O.H.	CL	ALUM FACTORY	C	-	-	head	jamb	hdw	2 HOUR FIRE RATED	119b
119C	12'-0" x 12'-0" VF	O.H.	CL	ALUM FACTORY	C	-	-	head	jamb	hdw	2 HOUR FIRE RATED	119C
121a	(2) 3'-0" x 7'-0"	O.H.	FL	H.M. PAINT	B	PAINT	-	head	jamb	hdw		121a
EX											EXISTING TO REMAIN	EX



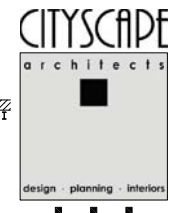
FRAME TYPES



1 FIRST FLOOR PLAN



2 FURNITURE PLAN (CONCEPT ONLY)



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 248 471 7868 fax



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project title
Carstar (Keford) Collision

45241 GRAND RIVER AVE
 NOVI, MI 48375

sheet title

ENLARGED FIRST FLOOR PLAN

DO NOT SCALE DRAWINGS. USE MEASUREMENTS ONLY.



project number

17062

drawn JWH
 approved TD

issued date

DESIGN DEVELOPMENT 03-08-2019

OWNER UPDATES 06-10-2019

PRO 07-17-2019

PRELIM. SITE PLAN 09-13-2019

sheet number

A-111

CARSTAR

(Keford Collision)

Renovation



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project title
Carstar (Keford) Collision
45241 GRAND RIVER AVE
NOVI, MI 48375

TITLE SHEET
DO NOT SCALE DRAWINGS
USE INQUIRED OVERLEAFS ONLY



project number
17062
drawn **JW**
approved **TD**
issued date
DESIGN DEVELOPMENT 03-08-2019
OWNER UPDATES 06-10-2019
PRO 07-17-2019
PRELIM. SITE PLAN 09-13-2019
REV. SPA SUB. 10-17-2019
sheet number

T-001

T-001	TITLE SHEET	ISSUED	ISSUED FOR REFERENCE ONLY
ARCHITECTURAL DRAWINGS			
A-011	DEMOLITION PLAN	●	
A-021	DEMOLITION ELEVATIONS	●	
A-110	OVERALL FLOOR PLAN	●	
A-111	FLOOR PLAN	●	
A-121	REFLECTED CEILING PLAN	●	
A-131	FLOOR FINISH PLAN	●	
A-151	FF&E PLAN	●	
A-211	EXTERIOR ELEVATIONS	●	
A-311	BUILDING SECTIONS	●	
STRUCTURAL DRAWINGS			
S-301	ROOF FRAMING AND FOUNDATION PLAN	●	
MECHANICAL DRAWINGS			
M-000	LEGEND, SYMBOLS, & ABBREVIATIONS	●	
M-011	MECHANICAL DEMOLITION FLOOR PLAN	●	
M-111	MECHANICAL NEW WORK FLOOR PLAN	●	
M-200	DETAILS AND DIAGRAMS	●	
M-300	TEMPERATURE CONTROLS	●	
M-400	TEMPERATURE CONTROLS	●	
PLUMBING DRAWINGS			
P-000	LEGEND, SYMBOLS, & ABBREVIATIONS	●	
P-001	PLUMBING DEMOLITION FLOOR PLAN	●	
P-011	PLUMBING UNDERGROUND PLAN	●	
P-111	PLUMBING NEW WORK FLOOR PLAN	●	
P-200	DETAILS	●	
P-300	DETAILS	●	
ELECTRICAL DRAWINGS			
E-000	ELECTRICAL LEGEND AND SYMBOLS	●	
E-001	ELECTRICAL DEMOLITION POWER PLAN	●	
E-032	ELECTRICAL DEMOLITION LIGHTING PLAN	●	
E-101	ELECTRICAL POWER FLOOR PLAN	●	
E-201	ELECTRICAL LIGHTING FLOOR PLAN	●	
E-300	ELECTRICAL RISER DIAGRAM AND PANELS	●	

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FAX: 248-482-0052

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CONTACT: SCOTT LEDO
PHONE: 248-744-0360



CODE DATA

ACCESSIBILITY Chapter 11 of the Michigan Building Code (C2/463) 4117.1 - 2009 Standard as referenced in Chapter 11

PLUMBING 2015 Michigan Plumbing Code

MECHANICAL 2015 Michigan Mechanical Code

ELECTRICAL 2014 National Electrical Code (2014 NEC) with Michigan Amendments

ENERGY ASHRAE 90.1 2013 PartIDA Michigan Uniform Energy

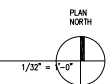
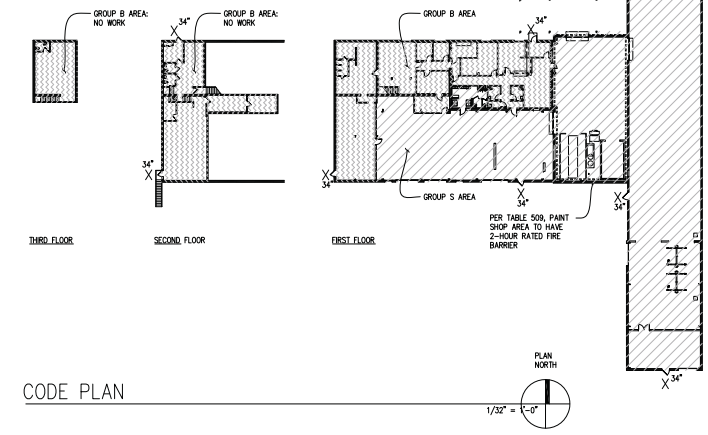
FIRE 2015 International Fire Code (2015 IFC) with City Amendments Chapter 93 City Code of Ordinance

PROJECT DESCRIPTION:
PROJECT CONSISTS OF AN INTERIOR AND EXTERIOR RENOVATION OF AN EXISTING BUILDING. THERE WILL BE NO CHANGE TO BUILDING AREA OR USE. MECHANICAL AND ELECTRICAL UPGRADES WILL BE MADE TO SUPPORT BUILD-OUT.

CHAPTER 3: USE AND OCCUPANCY - NO CHANGE
MIXED USE / NON-SEPARATED BUILDING (NO SEPARATION REQUIRED)
1. STORAGE USE GROUP (S-1, MODERATE HAZARD STORAGE); MOTOR VEHICLE REPAIR GARAGE;
2. BUSINESS USE GROUP (B, BUSINESS TRANSACTIONS) : OFFICES

CHAPTER 5: GENERAL BUILDING HEIGHT AND AREA (NO CHANGE)
TOTAL BUILDING AREA: 22,877 SF (NO CHANGE)

USE GROUP	ALLOWABLE AREA PER TABLE 503 TYPE III CONSTR.	STREET FRONTAGE INCREASE: 508.33	40% OF ALLOW. PER CONSTR.	TOTAL ALLOWABLE
USE "U"	18,000 SF	7,800 SF	2,450 SF	28,250 SF
USE "S-1"	12,500 SF	7,200 SF	2,450 SF	22,150 SF
40% OF 28,250 SF	11,300 SF	11,300 SF	11,300 SF	33,900 SF
20,000 SF	24,000 SF	24,000 SF	24,000 SF	72,000 SF





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project title

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(Keford)
Collision**

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sheet title

**OVERALL FLOOR
PLANS**

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project number

17062

drawn JW
approved TD

issued date

DESIGN DEVELOPMENT 03-08-2019

OWNER UPDATES 06-10-2019

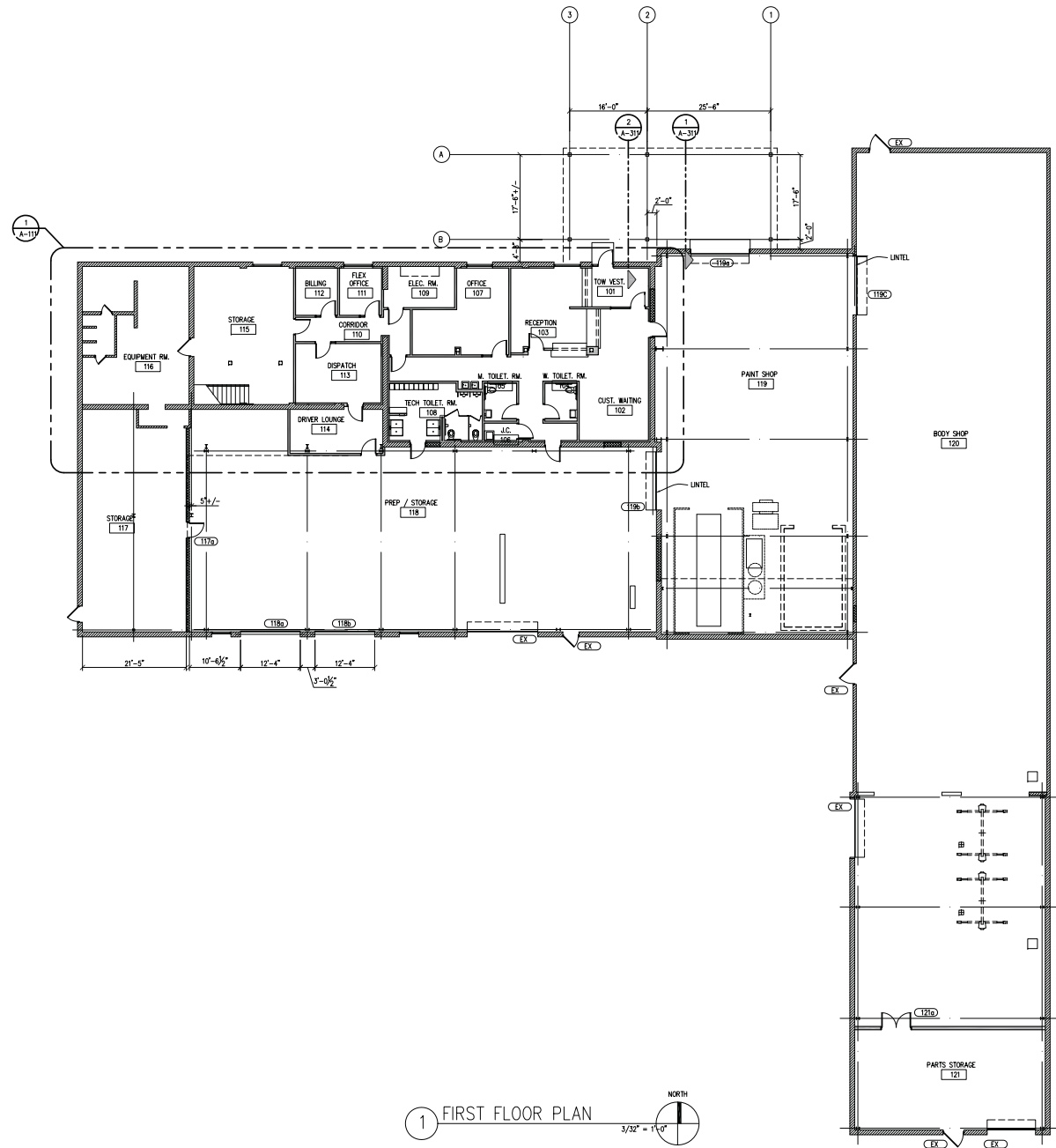
PRO 07-17-2019

PRELIM. SITE PLAN 09-13-2019

REV. SPA SUB. 10-17-2019

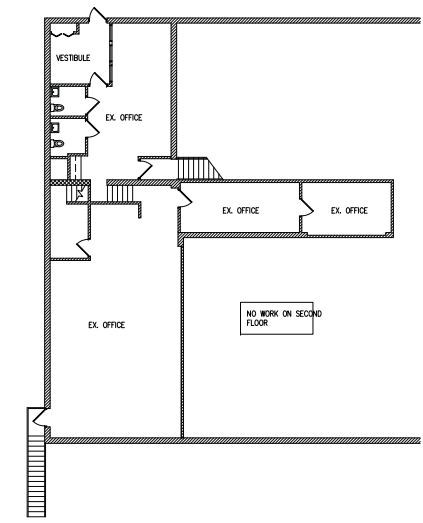
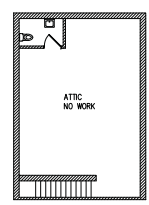
sheet number

A-110

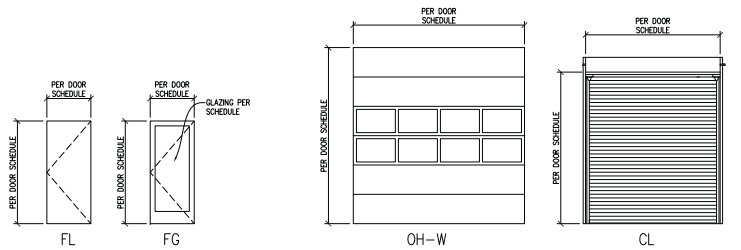


1 FIRST FLOOR PLAN
3/32" = 1'-0"

3 ATTIC FLOOR PLAN - NO WORK
3/32" = 1'-0"



2 SECOND FLOOR PLAN - NO WORK
3/32" = 1'-0"



DOOR TYPES

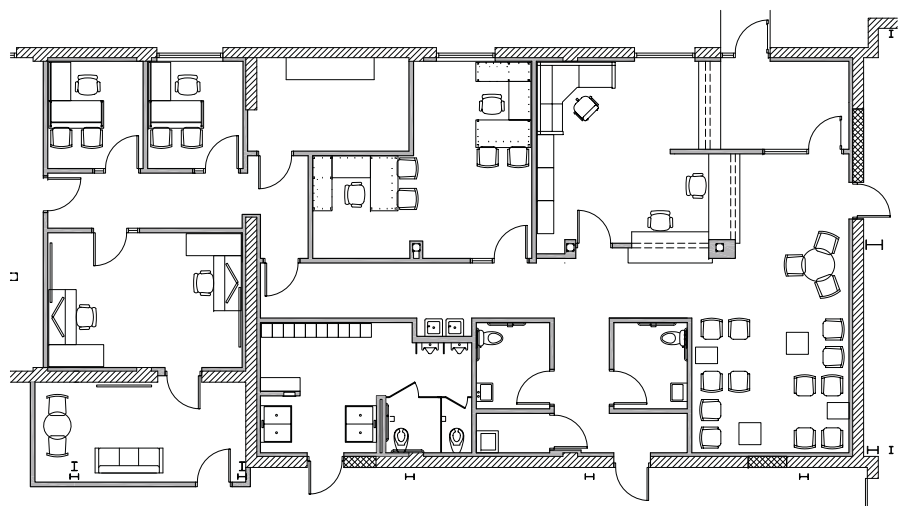
DOOR SCHEDULE LEGEND

EX EXISTING TO REMAIN
 SF ALUM STOREFRONT ALUMINUM DOOR/FRAME PER SPECIFICATION SECTION 08-4113

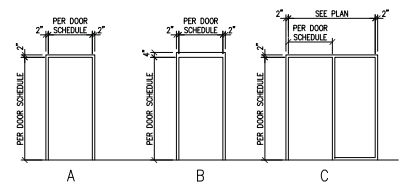
GLAZING SCHEDULE

IG-1 INSULATED GLAZING
 IG-1T TEMPERED INSULATED GLAZING
 MG-1T TEMPERED MONOLITHIC GLAZING

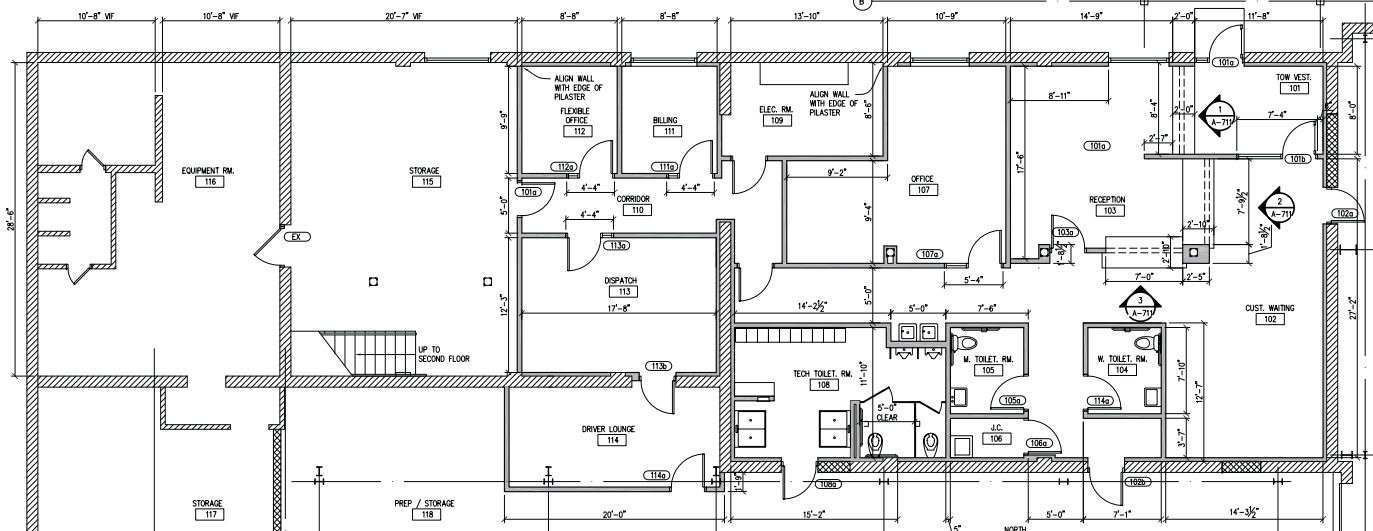
DOOR SCHEDULE													
DOOR NO.	DOOR / OPENING SIZE	ACTION	DOOR TYPE	MAT'L	FINISH	FRAME TYPE	MAT'L	FINISH	HEAD	JAMB	HDW SET	REMARKS	DOOR NO.
101a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		101a
101b	3'-0" x 7'-0"	SWING	FG	SF ALUM	FACTORY	XXX	SF ALUM	FACTORY	head	jamb	hdw		101b
102a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	B	H.M.	PAINT	head	jamb	hdw		102a
102b	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	B	H.M.	PAINT	head	jamb	hdw		102b
103a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		103a
105a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		105a
106a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		106a
107a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	C	H.M.	PAINT	head	jamb	hdw		107a
108a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	B	H.M.	PAINT	head	jamb	hdw		108a
111a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	C	H.M.	PAINT	head	jamb	hdw		111a
112a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	C	H.M.	PAINT	head	jamb	hdw		112a
113a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	C	H.M.	PAINT	head	jamb	hdw		113a
113b	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		113b
114a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		114a
117a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		117a
118a	12'-0" x 14'-0" WF	O.H.	OH/W	GL/ALUM	FACTORY	C	PAINT	-	head	jamb	hdw		118a
118b	12'-0" x 14'-0" WF	O.H.	OH/W	GL/ALUM	FACTORY	C	PAINT	-	head	jamb	hdw		118b
119a	12'-0" x 14'-0" WF	O.H.	OH/W	GL/ALUM	FACTORY	C	PAINT	-	head	jamb	hdw		119a
119b	12'-0" x 12'-0" WF	O.H.	CL	ALUM	FACTORY	C	-	-	head	jamb	hdw	2 HOUR FIRE RATED	119b
119c	12'-0" x 12'-0" WF	O.H.	CL	ALUM	FACTORY	C	-	-	head	jamb	hdw	2 HOUR FIRE RATED	119c
121a	(2) 3'-0" x 7'-0"	O.H.	FL	H.M.	PAINT	B	PAINT	-	head	jamb	hdw		121a
EX												EXISTING TO REMAIN	EX



2 FURNITURE PLAN (CONCEPT ONLY)
 3/16" = 1'-0"



FRAME TYPES



1 FIRST FLOOR PLAN
 3/16" = 1'-0"

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client
CARSTAR
 Auto Body Repair Experts

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ENLARGED FIRST FLOOR PLAN

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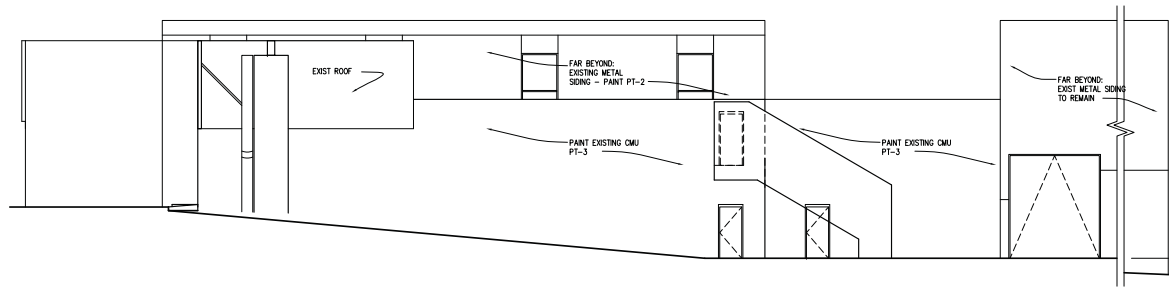
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 REV. SPA SUB. 10-17-2019

sheet number

A-111



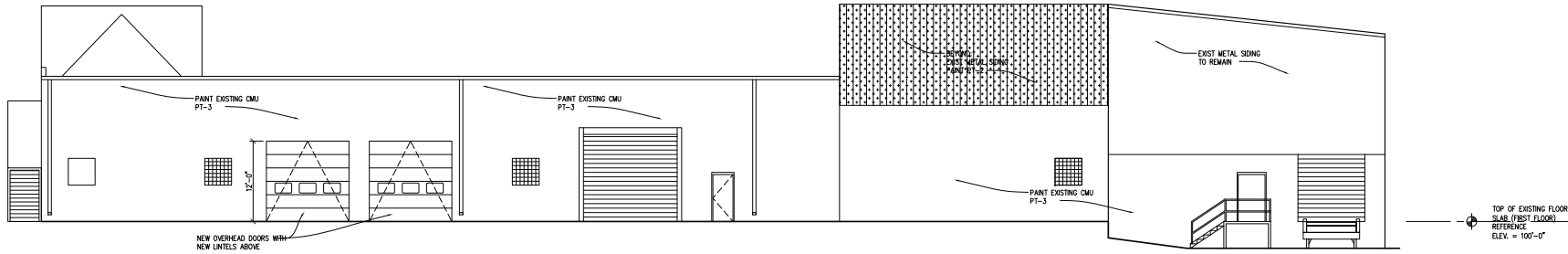
4 SOUTH ELEVATION

KEY NOTES	
SYMBOL	DESCRIPTION
S-1	SIGNAGE BY OWNER - G.C. TO COORDINATE EXACT SIZE, LOCATION, POWER AND MOUNTING REQUIREMENTS WITH SIGNAGE SUPPLIER. THRU CANES, ALL SIGNAGE TO BE PERMITTED SEPARATELY.

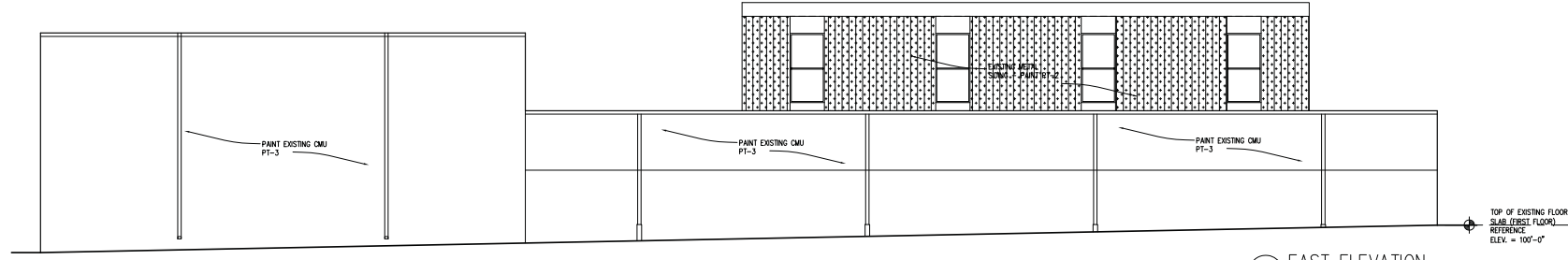
IMPORTANT NOTE:
NO RTU EXIST ON EXISTING ROOFTOP, AND THERE WILL BE NO NEW ROOFTOP UNITS PROPOSED AS PART OF THIS FUTURE RENOVATION.

EXTERIOR FINISH MATERIALS SCHEDULE		SPECIFICATION SECTION
SYMBOL	DESCRIPTION	
OMP-1	1/2" CORRUGATED METAL PANEL WITH EXPOSED FASTENERS MFR: PAC CLAD COLOR: PREFINISHED TO MATCH PT-3	
OMP-2	CORRUGATED METAL PANEL WITH EXPOSED FASTENERS PROFILE TO MATCH EXISTING ADJACENT METAL PANEL MFR: PAC CLAD COLOR: PREFINISHED TO MATCH PT-2	
PT-1	PAINT: BENJAMIN MOORE POPPY 1315 THIS DESIGNATION REFERS TO COLOR AND SHEEN ONLY. REFER TO SPECIFICATION FOR PAINT TYPE AND ADDITIONAL INFORMATION.	
PT-2	PAINT: SHERWIN WILLIAMS CITYSCAPE SW7067 THIS DESIGNATION REFERS TO COLOR AND SHEEN ONLY. REFER TO SPECIFICATION FOR PAINT TYPE AND ADDITIONAL INFORMATION.	
PT-3	PAINT: BENJAMIN MOORE STORMY SKY 1616 THIS DESIGNATION REFERS TO COLOR AND SHEEN ONLY. REFER TO SPECIFICATION FOR PAINT TYPE AND ADDITIONAL INFORMATION.	

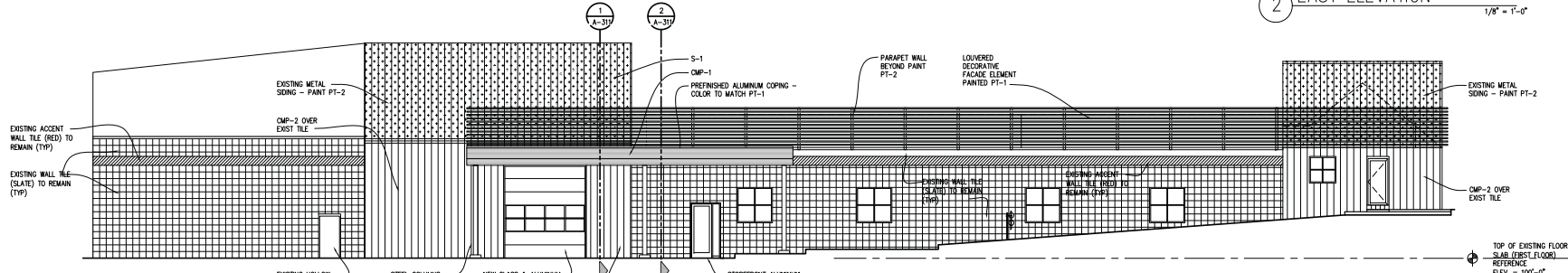
09100



3 SOUTH ELEVATION



2 EAST ELEVATION



1 NORTH ELEVATION



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**EXTERIOR
ELEVATIONS**

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REV. SPA SUB.	10-17-2019

sheet number

A-211



Existing



Proposed

10/17/19

DEMARICATION PLAN FOR OUTSIDE STORAGE YARD

PLANNING REVIEW



PLAN REVIEW CENTER REPORT

October 07, 2019

Planning Review
 Keford Collision & Towing
 JSP 18-31

PETITIONER

Keford Collision & Towing

REVIEW TYPE

Preliminary Site Plan

PROPERTY CHARACTERISTICS

Section	15	
Site Location	South of Grand River Avenue and east of Taft Road	
Site School District	Novi School District	
Current Site Zoning	I-1 Light Industrial	
Proposed Site Zoning	I-2 General Industrial	
Adjoining Zoning	North	I-1 Light Industrial
	East	I-1 Light Industrial
	West	I-1 Light Industrial
	South	R-4 and RA: One Family Residential
Current Site Use	Vacant manufacturing facility	
Adjoining Uses	North	Corrigan Worldwide, Inc
	East	Construction Company
	West	Warehouse Supply Office and Vacant Lots
	South	City Regional Detention Pond and Single Family Homes
Site Size	7.61 Acres	
Plan Date	September 12, 2019	

PROJECT SUMMARY

The petitioner is requesting a Zoning Map amendment for 7.61acre property on the south side of Grand River Ave. between Taft Road and Novi Road (Section 15) from I-1 (Light Industrial) to I-2 (General Industrial). The subject property contains two existing buildings which are currently unoccupied. The applicant proposes to use the larger building (23,493 square feet) for an auto body collision repair shop and related offices, along with an accessory use of car rental services. The car rental service proposes to use up to a maximum of 10 parking spaces in the rear. The applicant states that the potential use for the out building (5,703 square feet) would be a small tool and die shop. No particular subtenants have been identified yet. In addition to the indoor uses, the applicant proposes to use up to 160 spaces in an enclosed yard in the rear yard for storage of towed vehicles.

RECOMMENDATION

Approval of the Preliminary Site Plan is recommended. The plan mostly conforms to the requirements of the Zoning Ordinance, with a few deviations that were approved by City Council as part of PRO Concept plan approval. **Planning Commission's approval of Preliminary Site Plan, Wetland Permit and Storm Water Management Plan approval is required.**

PRO OPTION

The PRO option creates a "floating district" with a conceptual plan attached to the rezoning of a parcel. As part of the PRO, the underlying zoning is proposed to be changed (in this case from I-1 to I-2) and the applicant enters into a PRO agreement with the City, whereby the applicant submits a conceptual plan for development of the site. The City Council reviews the Concept Plan, and if the plan may be acceptable, it directs for preparation of an agreement between the City and the applicant, which also requires City Council approval. Following final approval of the PRO concept plan and PRO agreement, the applicant will submit for Preliminary and Final Site Plan approval under standard site plan review procedures. The PRO runs with the land, so future owners, successors, or assignees are bound by the terms of the agreement, absent modification by the City of Novi. If the development has not begun within two (2) years, the rezoning and PRO concept plan expires and the agreement becomes void.

PROJECT REVIEW HISTORY FOR THE REZONING REQUEST

Action summaries from all the public meetings listed below are provided in the attachment.

- On June 11, 2018, a Pre-application meeting was held.
- On August 22, 2018, the plan was presented to Master Planning and Zoning Committee.
- On September 26, 2018, the Planning Commission considered the proposed development and made a favorable recommendation to Council.
- On November 13, 2018, the City Council tentatively approved the proposed zoning amendment.
- On June 03, 2019, the City Council approved the proposed PRO Concept plan and the agreement.

REVIEW COMMENTS

This project was reviewed for conformance with the Zoning Ordinance with respect to Article 3 (Zoning Districts), Article 4 (Use Standards), Article 5 (Site Standards), and any other applicable provisions of the Zoning Ordinance. **Please see the attached charts for information pertaining to ordinance requirements.** Items in **bold** below must be addressed and incorporated as part of the stamping set submittal.

1. **PRO Conditions and Deviations:** Please add the PRO Conditions and deviations listed in this letter on the site plan sheet for reference. Please refer to additional comments that need to be addressed to comply with the PRO Conditions listed in next section.
2. **Uses Permitted per approved PRO Agreement.** The Land as reclassified shall be used only as follows:
 - a. *The larger existing building (23,493 square feet) shall be used for an auto body collision repair shop and related offices, along with an accessory use of car rental services, which shall have use of no more than 10 parking spaces in the rear yard of the building.*
 - b. *The smaller existing out-building (5,703 square feet) shall be used only for a use specifically approved by the Planning Commission, in its reasonable discretion. **It appears that there is no proposed use or a prospective tenant for the out building. The applicant should provide an update. A Planning Commission approval is required for any proposed use. The applicant should contact Community Development department once a prospective tenant is determined***
 - c. *An enclosed yard in the rear yard for storage of towed vehicles of no more than 160 spaces. **Current plan shows a total of 158 spaces.***
3. **Designated Parking:** The plan should clearly label the 10 dedicated spaces for car rental, dedicated spaces for staging.
4. **Lighting and Photometric Plan:**

- a. **Building Lighting** (Sec. 5.7.2.A.iii): Relevant building elevation drawings showing all fixtures, the portions of the walls to be illuminated, luminance levels of walls and the aiming points of any remote fixtures. **Please provide the photometric information on building facades, in addition to the site photometric plan.**
- b. **Lighting Plan** (Sec.5.7.A.2): **Specification sheets for all proposed lighting are not provided. Please provide as required**
- c. **Security Lighting** (Sec. 5.7.3.H): **Indicate what lights will be turned on past hours of operation for security reasons. A separate photometric plan is required for security lights only**

MAJOR CONDITIONS OF PLANNED REZONING OVERLAY AGREEMENT

Some selected conditions that are part of draft PRO are included below. Please refer to the draft PRO agreement for other details. Staff comments are provided in **bold**.

1. *The applicant shall provide \$10,000 for use by the City of Novi Grand River Corridor Improvement Authority in a manner consistent with the Grand River Corridor Improvement Plan, as determined by the Authority in its discretion (by way of example only, funding the installation of sidewalks in certain "gap" areas along Grand River to improve mobility). Such amount shall be paid to the City immediately upon recording of this Agreement. **The applicant has paid the amount. This condition has been met.***
2. *Outside storage of vehicles in the enclosed rear yard shall be limited to 160 parking spaces only. **Current plan shows a total of 158 spaces.***
3. *The smaller existing out-building shall be used only for a use permitted in the I-2 District and specifically approved by the Planning Commission, in its sole discretion. Developer acknowledges that the PRO process is a voluntary undertaking on its part, and a discretionary determination by the City. Because Developer cannot identify any particular use of the building, the City cannot determine is the use of that building will be an appropriate use or an overall benefit to the public or will instead detract from the PRO Plan and primary use of the Land as described in this Agreement. Given the lack of a specified use, the Planning Commission shall have the authority to (a) approve or deny any proposed future use, and (b) review and approve or deny any improvements to the Land in connection with such use, in accordance with the terms and conditions of this Agreement. **It appears that there is no proposed use or a prospective tenant for the out building. The applicant should provide an update.***
4. *If the Developer, or a successor or company that acquires the Developer, ceases operation of the proposed outdoor vehicle storage operation at the site, then the City shall have the ability, without objection or challenge in any way by Developer, to rezone the land to its prior classification of I -1, Light Industrial. **It appears that there is name change to the business. It is unclear if the ownership changed as well. The applicant should clarify.***
5. *In consideration of the City's waiver of the ordinance requirement that the rear storage area be paved, Developer shall*
 - i. *Keep the access aisle as shown on the PRO plan free from parked vehicles or other obstructions so that there is fire truck access at all times (with the details of the Developer's plan to designate or demarcate the access aisle shown on the final approved site plan); **The plans do not show clear demarcation as required. Refer to Traffic review for more details.***
 - ii. *Undertake regular maintenance of the gravel storage area so as to prevent the migration of the gravel storage area to other areas of the Land or Development or adjacent properties or roadways or nearby waterbodies. To ensure compliance with these requirements, the City shall have a reasonable right to enter onto the Land or Development for purposes of inspection; provided, however, the City shall give 48*

hours' notice of any expected inspection. If the City determines that corrective action is required to be taken, it shall issue a notice of corrective action, which shall include a time period for correction. Failure to comply shall be treated as a breach of this Agreement.

ORDINANCE DEVIATIONS

The following deviations from the standards of the zoning ordinance are hereby authorized pursuant to §7.13.D.i.c (2) of the City's Zoning Ordinance.

1. *Planning deviation from Section 3.1.19.D for not meeting the minimum requirements for side yard setback for Parking (20 feet minimum required, 10.7 proposed in the northwest parking lot);*
2. *Landscape deviation from Section 5.5.3.A for not meeting the minimum requirements for a 10-15 foot tall landscaped berm or not providing the minimum required screening trees between residentially zoned property and industrial. A berm approximately 7 feet in height is proposed south of the southeast corner of the storage lot, but not along the entire southern frontage, nor at the southwestern corner of the property (not including the preserved woodland);*
3. *Landscape deviation from Section 5.5.3.C.ii and iii. for lack of interior canopy trees, in the southern portion of the vehicular storage area due to conflict with truck turning patterns.*
4. *Landscape deviation from Section 5.5.3.C.iv for lack of parking lot perimeter trees along 400 feet of eastern edge of property due to lack of room between drive and adjacent property;*
5. *Landscape deviation from Section 5.5.3.C.iv to allow planting of parking lot perimeter trees, more than 15 feet away from the edge of the vehicular storage area;*
6. *Landscape deviation from Section 5.5.3.D for the shortage of a total of 2980 square feet (37%) of required building foundation landscaping for the two buildings;*
7. *Landscape deviation from Section 5.5.3.D for allowing less than 75 percent of each building perimeter to be landscaped;*
8. *Landscape deviation from Section 5.5.3.D for the shortage of green scape along the building frontage facing Grand River (60% required, 54% proposed);*
9. *Landscape deviation from Section 5.5.3.C.ii.i. for the lack of landscape islands every 15 spaces within the enclosed outside storage yard due to the nature of the proposed use;*
10. *Traffic deviation from Section for proposing painted end islands in lieu of the required raised end islands.*
11. *Design and Construction waiver of Section 11-239 to allow gravel parking for storage yard in the rear.*
12. *Design and Construction waiver of Section 11-239 for lack of curb and gutter within the rear yard storage area.*
13. *Design and Construction waiver of Section 11-239 for lack of parking lot striping.*

SUMMARY OF REVIEWS

- a. Engineering Review: Additional comments to be addressed with Final Site Plan. Engineering recommends conditional approval.
- b. Landscape Review: Additional comments to be addressed with Final Site Plan. Landscape recommends conditional approval.
- c. Wetlands Review: A City of Novi Non-minor Wetland Permit and Buffer Authorization are required for the proposed impacts to wetlands and regulated wetland setbacks. Additional comments to be addressed with Final Site Plan. Wetlands recommend approval.
- d. Woodlands Review: Not applicable
- e. Traffic Review: Additional comments to be addressed with Final Site Plan. Traffic recommends conditional approval.
- f. Facade Review: Façade is currently note recommending approval.

- g. Fire Review: Additional comments to be addressed with Final Site Plan. Fire recommends conditional approval.

NEXT STEP: REVISED SITE PLAN SUBMITTAL

Façade review is currently not recommending approval. The proposed elevations are different from what was reviewed/approved as part of the PRO approval. However, the façade review notes the colors that are currently proposed are neutral and can be recommended with the exception of these comments:

- a. The color proposed for the louver feature and the accent band (SW6868 Real Red) is not consistent with Section 5.15.2 of the Façade Ordinance which prohibits intense colors. **Please work with our façade consultant to find a compatible red.**
- b. The façade materials on the side and rear elevations are not proposed to be changed. The PRO approval for the front façade was contingent on the side and rear elevations be painted or otherwise treated in a manner that is consistent with the front façade and that the existing natural fired clay tile will not be painted. **Please provide revised side and rear elevations as noted.**

Please submit revised elevations addressing comments in Façade review letter.

PLANNING COMMISSION MEETING

The site plan requires **Planning Commission's approval of Preliminary Site Plan, Wetland Permit and Storm Water Management Plan approval.** The site plan also requires a public hearing. **All façade issues should be resolved prior to scheduling the Planning Commission Meeting.**

Please work with the Planner to discuss timelines and deadlines.

FINAL SITE PLAN SUBMITTAL

After receiving the Preliminary Site Plan approval, please submit the following for Final site plan review and approval

1. Seven copies of Final Site Plan addressing all comments from Preliminary review
2. Response letter **addressing all comments and refer to sheet numbers where the change is reflected**
3. [Final Site Plan Application](#)
4. [Final Site Plan Checklist](#)
5. Engineering Cost Estimate
6. Landscape Cost Estimate
7. [Other Agency Checklist](#)
8. [Hazardous Materials Packet](#) (Non-residential developments)
9. [Non-Domestic User Survey](#) (Non-residential developments)
10. [No Revision Façade Affidavit](#) (if no changes are proposed for Façade)
11. Legal Documents as required
12. Drafts of any legal documents (note that off-site easements need to be executed and any on-site easements need to be submitted in draft form before stamping sets will be stamped)

ELECTRONIC STAMPING SET SUBMITTAL AND RESPONSE LETTER

After receiving Final Site Plan approval, please submit the following for Electronic stamping set approval:

1. Plans addressing the comments in all of the staff and consultant review letters in PDF format.
2. Response letter addressing all comments in ALL letters and ALL charts and **refer to sheet numbers where the change is reflected.**

STAMPING SET APPROVAL

Stamping sets are still required for this project. After having received all of the review letters from City staff the applicant should make the appropriate changes on the plans and submit **10 size 24" x 36" copies with original signature and original seals,** to the Community Development Department for final Stamping Set approval.

SITE ADDRESSING

A new address is not required for this project. The applicant should contact the Building Division for an address prior to applying for a building permit. Building permit applications cannot be processed without a correct address. The address application can be found by clicking on this [link](#).

Please contact the Ordinance Division 248.735.5678 in the Community Development Department with any specific questions regarding addressing of sites.

STREET AND PROJECT NAME

This project does not require approval from the Street and Project Naming Committee. Please contact Madeleine Kopko (248-347-0579) in the Community Development Department for additional information. The address application can be found by clicking on this [link](#).

PRE-CONSTRUCTION MEETING

A Pre-Construction meeting is required for this project. Prior to the start of any work on the site, Pre-Construction (Pre-Con) meetings must be held with the applicant's contractor and the City's consulting engineer. Pre-Con meetings are generally held after Stamping Sets have been issued and prior to the start of any work on the site. There are a variety of requirements, fees and permits that must be issued before a Pre-Con can be scheduled. If you have questions regarding the checklist or the Pre-Con itself, please contact Sarah Marchioni [248.347.0430 or smarchioni@cityofnovi.org] in the Community Development Department.

CHAPTER 26.5

Chapter 26.5 of the City of Novi Code of Ordinances generally requires all projects be completed within two years of the issuance of any starting permit. Please contact Sarah Marchioni at 248-347-0430 for additional information on starting permits. The applicant should review and be aware of the requirements of Chapter 26.5 before starting construction.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5607 or skomaragiri@cityofnovi.org



Sri Ravali Komaragiri – Planner



PLANNING REVIEW CHART: I-2: General Industrial District with a PRO

Review Date: October 07, 2019
Review Type: Preliminary Site Plan
Project Name: JSP 18-31 Keford Towing
Plan Date: September 12, 2019
Prepared by: Sri Komaragiri, Planner
E-mail: skomaragiri@cityofnovi.org; **Phone:** (248) 735-5607

Items in **Bold** need to be addressed by the applicant with the next submittal.

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan <i>(adopted August 25, 2016)</i>	Industrial Research Development Technology	Heavy Industrial	No	<i>On June 03, 2019, the City Council approved the proposed PRO Concept plan and the agreement.</i>
Area Study	Grand River Corridor Study		No	
Zoning <i>(Effective December 25, 2013)</i>	I-1: Light Industrial District	I-2 General Industrial	Yes	
Uses Permitted (Sec 3.1.18.B & C)	Permitted use are subject to the PRO Agreement. Refer to Planning review letter for more details	Outdoor storage yard for towed vehicles (160 cars) Auto body repair shop with 19 service bays and a Car rental services with 10 spaces (23,493 SF) Tool and dye shop (5,703 SF)	Yes	<i>Uses permitted are consistent with the PRO agreement.</i> The applicant should contact Community Development department once a prospective tenant is determined
Phasing	Provide phases lines and detail description of activities in each phase	Phasing not proposed	NA	
Automobile Service Establishment (Sec. 4.50)				
Site area	2 acres minimum	7.61 acres		
Site frontage	200 feet minimum	294.52 ft.		

Item	Required Code	Proposed	Meets Code	Comments
Vehicle parking within front yard setbacks	Not allowed	Not proposed	NA	
Vehicle parking within side yard setbacks	Not allowed	Not proposed	NA	
Service bay doors	No service bay doors shall face a major thoroughfare.	No doors	NA	
Curb cuts	Only 1 curb cut PC may require a marginal access roads; setbacks are measured from marginal access road	Two curb cuts existing	NA	
Height, bulk, density and area limitations (Sec 3.1.19)				
Frontage on a Public Street. (Sec. 5.12)	Frontage on a Public Street is required	Frontage on Grand River Avenue	Yes	
Access to Major Thoroughfare (Sec. 5.13)	Vehicular access shall be provided only to an existing or planned major thoroughfare or freeway service drive	Access to Grand River Avenue	Yes	
Minimum Zoning Lot Size for each Unit in Ac (Sec 3.6.2.D)	Except where otherwise provided in this Ordinance, the minimum lot area and width, and the maximum percent of lot coverage shall be determined on the basis of off-street parking, loading, greenbelt screening, yard setback or usable open space		NA	
Minimum Zoning Lot Size for each Unit: Width in Feet			NA	
Open Space Area	----		NA	---
Maximum % of Lot Area Covered (By All Buildings)	(Sec 3.6.2.D)	Existing Building	Yes	
Building Height (Sec. 3.1.19.D)	1-2: 60 ft.	Existing Building: varies from 11 feet to 33 feet	Yes	
Building Setbacks (Sec. 3.1.19.D)				
Front	100 ft.	181.5 ft.	Yes?	<i>Setbacks do not conform to the code, but they are considered legal non-conforming. No changes to existing setbacks</i>
Rear	50 ft.	Appears to be in conformance		
Side	50 ft.	18 feet east 48.9 feet west (Existing setbacks)		
Parking Setback (Sec 3.1.19.D) & Refer to applicable notes in Sec 3.6.2				

Item	Required Code	Proposed	Meets Code	Comments
Front	No parking in front building setback of 100 ft. Minimum site area: 2 acres Parking area > 50 % of front yard	No parking proposed within 100 feet	Yes/No?	<i>This deviation is included the approved PRO agreement.</i>
Rear	100 ft. min (Sec. 3.6.2.F)	103.4 ft.	Yes	
Side	20 ft. min	10.7 ft. west 20 ft. min on east	No	
Note To District Standards (Sec 3.6.2) For I-1 and I-2				
Exterior Side Yard Abutting a Street (Sec 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to front yard.	No side yard abutting street	NA	
Off-Street Parking in Front Yard (Sec 3.6.2.E)	Development is 2 acres in size	7.61 acres	Yes	
	Parking does not extend into required building setback (100 ft.)	102 ft.	Yes	
	Parking does not occupy more than 50% of area b/w front setback and bldg. façade	Appears to comply	Yes	
	Parking is screened with 2.5 ft. brick wall or landscape berm	A berm is proposed;	Yes	
	Planning Commission finds parking is compatible with surrounding area	To be determined	TBD	
Off-Street Parking in Side and Rear Yards abutting residential (Sec 3.6.2.F)	Parking does not occupy more than 50% of area b/w side and rear abutting residential and bldg. façade	Applicant is proposing outside storage for a major part of the rear yard.	Yes	
	100 ft. setback	Appears to be in conformance		
Setback from Residential District (Sec 3.6.2.H)	Building shall be setback 3 feet for each foot of building height	33 feet. Maximum height 99 feet building setback provided	Yes	
Wetland/Watercourse Setback (Sec 3.6.2.M)	A setback of 25ft from wetlands and from high watermark course shall be maintained	Buffers are indicated on the plan	Yes	
Additional Height (Sec 3.6.2.O)	Additional heights for selected building is allowed based on conditions listed in Sec 3.6.2.O	Existing building	NA	
Parking setback screening (Sec 3.6.2.P)	Required parking setback area shall be landscaped per sec 5.5.3.	Provided	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Modification of parking setback requirements (Sec 3.6.2.Q)	The Planning Commission may modify parking setback requirements based on conditions listed in Sec 3.6.2.Q	10.7 ft. setback proposed for western side yard in front of the building	No	<i>This deviation is included the approved PRO agreement.</i>
Parking, Loading and Dumpster Requirements				
Number of Parking Spaces Sec. 5.2 Sec. 4.50 Automobile Service Establishment Outside Storage As determined Car rental services	<u>Automobile Service Establishment</u> 2 spaces per each service plus 1 space for each employee -19 service bays and 20 employees Required: 58 spaces <u>Outside Storage</u> 158 vehicles <u>Out Building</u> Industrial warehouse establishment 1 space for 700 sf or five plus 1 per each employee 5703/700 = 8 spaces <u>Car rental (2,318 sf)</u> 1 per 222 GLA plus number of spaces designated or rental car parking 2318/222 = 10 spaces Refer to Section 5.2. To be determined based on the proposed use type	Total proposed parking: 263 158 vehicle storage 10 spaces for rental cars 94 spaces for office uses	Yes?	Per approved PRO agreement, the car rental use shall have use of no more than 10 parking spaces in the rear yard of the building. Clearly label rental car parking on the plan The applicant also referred to parking for vehicles prior to moving them inside for repair. Please clearly label dedicated spaces used for staging.
Parking Space Dimensions and maneuvering Lanes (Sec. 5.3.2)	90°: 9 ft. x 19 ft. parking spaces with 24 ft. drives 9 ft. x 17 ft. parking spaces along 7 ft. interior sidewalks, provided a 4 in. curb at these locations & along landscaping 0°: 8 ft. x 23 ft. parking spaces with 13 ft. drives	9 ft. x 17ft. with 24' to 34' wide aisles to accommodate tow trucks 9 ft. 19 ft. parking	Yes	
Parking stall adjacent to entrance (Sec. 5.3.13)	- shall not be located closer than twenty-five (25) feet from the street right-of-way (ROW) line, street easement	Not applicable	NA	

Item	Required Code	Proposed	Meets Code	Comments
	or sidewalk, whichever is closer			
End Islands (Sec. 5.3.12)	<ul style="list-style-type: none"> - End Islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles. - The end islands shall generally be at least 8 feet wide, have an outside radius of 15 feet, and be constructed 3' shorter than the adjacent parking stall as illustrated in the Zoning Ordinance 	The plan does not propose end islands in the rear yard and the outside storage	No	<i>This deviation is included the approved PRO agreement.</i>
Barrier Free Spaces <i>Barrier Free Code</i>	To be determined based on required parking	Proposed	Yes	
Barrier Free Space Dimensions <i>Barrier Free Code</i>	<ul style="list-style-type: none"> - 8' wide with an 8' wide access aisle for van accessible spaces - 5' wide with a 5' wide access aisle for regular accessible spaces 			
Barrier Free Signs <i>Barrier Free Code</i>	One sign for each accessible parking space.	Proposed	Yes	
Minimum number of Bicycle Parking (Sec. 5.16.1)	Four (4) spaces	Minimum 4 spaces	Yes	
Bicycle Parking General requirements (Sec. 5.16)	No farther than 120 ft. from the entrance being served	Less than 120 ft.	Yes	
	When 4 or more spaces are required for a building with multiple entrances, the spaces shall be provided in multiple locations	All four spaces proposed in a single location	Yes	
	Spaces to be paved and the bike rack shall be inverted "U" design	inverted "U" design	Yes	
	Shall be accessible via 6 ft. paved sidewalk	6 ft. paved sidewalk	Yes	
Bicycle Parking Lot layout (Sec 5.16.6)	Parking space width: 6 ft. One tier width: 10 ft. Two tier width: 16 ft. Maneuvering lane width: 4 ft. Parking space depth: 2 ft. single, 2 ½ ft. double	Six bike spaces proposed	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Loading Spaces (Sec. 5.4.1)	Loading area in the rear yard Loading area in interior side yard if it is adjacent to I, EXPO or EXO district	Proposed in the rear	Yes	Refer to Traffic review for more comments
Accessory Structures				
Dumpster (Sec 4.19.2.F)	<ul style="list-style-type: none"> - Located in rear yard - Attached to the building or - No closer than 10 ft. from building if not attached - Not located in parking setback - If no setback, then it cannot be any closer than 10 ft. from property line. - Away from Barrier free Spaces 	11 ft. from the building	Yes	
Dumpster Enclosure (Sec. 21-145. (c))	<ul style="list-style-type: none"> - Screened from public view - A wall or fence 1 ft. higher than height of refuse bin - And no less than 5 ft. on three sides - Posts or bumpers to protect the screening - Hard surface pad. - Screening Materials: Masonry, wood or evergreen shrubbery 	Unable to determine	Yes?	Provide dumpster elevations to verify conformance
Roof top equipment and wall mounted utility equipment (Sec. 4.19.2.E.ii)	All roof top equipment must be screened and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building	Existing building	NA	
Roof top appurtenances screening	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road or adjacent property.	Existing building	NA	
I-2 District Required Conditions (Sec. 3.15)				
Outdoor Storage	Storage cannot extend to a greater height than the obscure on-site screen	8 foot chain-link fence along edge of parking	Yes	
Sidewalks and Pathways				
Article XI. Off-Road Non-Motorized Facilities	A 6 foot sidewalk is required along Grand River Avenue	Existing sidewalk	Yes	
Pedestrian Connectivity	Assure safety and convenience of both vehicular	Provided	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	and pedestrian traffic both within the site and in relation to access streets			
Other Requirements				
Exterior lighting <i>(Sec. 5.7)</i>	Photometric plan and exterior lighting details needed at time of Final Site Plan submittal	A plan is provided	Yes?	Refer to comments provided later in the chart
Design and Construction Standards Manual	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Provided	Yes	
General layout and dimension of proposed physical improvements	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Mostly provided	Yes?	Refer to Traffic review for more comments
Economic Impact Information	- Total cost of the proposed building & site improvements - Number of anticipated jobs created (during construction & after building is occupied, if known)	Provided on page 8 of the narrative	Yes	
Development and Street Names	Development and street names must be approved by the Street Naming Committee before Preliminary Site Plan approval	Not Applicable. Project name is an established business name		
Development/ Business Sign	Signage if proposed requires a permit.	Building signage is indicated on the elevations.		<u>A sign permit is required.</u> For sign permit information contact Ordinance at 248-347-0438 .
Lighting and Photometric Plan (Sec.5.7)				
Intent <i>(Sec. 5.7.1)</i>	Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties & reduce unnecessary transmission of light into the night sky	A plan is provided	Yes	
Lighting Plan <i>(Sec. 5.7.A.1)</i>	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures			

Item	Required Code	Proposed	Meets Code	Comments
Building Lighting (Sec. 5.7.2.A.iii)	Relevant building elevation drawings showing all fixtures, the portions of the walls to be illuminated, luminance levels of walls and the aiming points of any remote fixtures.	Not provided	No	Please provide the photometric information on building facades, in addition to the site photometric plan.
Lighting Plan (Sec.5.7.A.2)	Specifications for all proposed & existing lighting fixtures	Provided		Hours of operation not provided Specification sheets for all proposed lighting are not provided. Please provide as required
	Photometric data	Provided		
	Fixture height	Provided (22 ft. to 25 ft.)		
	Mounting & design	Pole and wall mount LED		
	Glare control devices			
	Type & color rendition of lamps			
	Hours of operation			
Photometric plan illustrating all light sources that impact the subject site, including spill-over information from neighboring properties				
Required Conditions (Sec. 5.7.3.A)	Height not to exceed maximum height of zoning district (or 25 ft. where adjacent to residential districts or uses	25 ft. maximum	Yes	
Required Conditions (Sec. 5.7.3.B)	<ul style="list-style-type: none"> - 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 a site's hours of operation 	Notes are provided on sheet : Preliminary site plan	No	Please add these notes to photometric sheet P-1
Security Lighting (Sec. 5.7.3.H) Lighting for security purposes shall be directed only onto the area to be secured.	<ul style="list-style-type: none"> - All fixtures shall be located, shielded, and aimed at the areas to be secured. - Fixtures mounted on the building and designed to illuminate the facade are preferred. 	Not provided	No	Indicate what lights will be turned on past hours of operation for security reasons. A separate photometric plan is required for security lights only
Required Conditions (Sec.5.7.3.E)	Average light level of the surface being lit to the lowest light of the surface being lit shall not exceed 4:1	Does not exceed 4:1	Yes	
Required Conditions (Sec. 5.7.3.F)	Use of true color rendering lamps such as metal halide is preferred over high & low	LED	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	pressure sodium lamps			
Min. Illumination <i>(Sec. 5.7.3.k)</i>	Parking areas: 0.2 min	All minimums are met	Yes	
	Loading & unloading areas: 0.4 min			
	Walkways: 0.2 min			
	Building entrances, frequent use: 1.0 min			
	Building entrances, infrequent use: 0.2 min			
Max. Illumination adjacent to Non-Residential <i>(Sec. 5.7.3.K)</i>	When site abuts a non-residential district, maximum illumination at the property line shall not exceed 1 foot candle	Maximum of 0.8 provided along sides that abut non-residential	Yes	
Cut off Angles <i>(Sec. 5.7.3.L)</i>	when adjacent to residential districts - All cut off angles of fixtures must be 90° - maximum illumination at the property line shall not exceed 0.5 foot candle	0 foot candles provided along property lines abutting residential	Yes	

NOTES:

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. Please refer to those sections in Article 3, 4 and 5 of the zoning ordinance for further details.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.

ENGINEERING REVIEW



PLAN REVIEW CENTER REPORT

October 10, 2019

Engineering Review
Keford Collision and Towing
JSP18-0031

Applicant

Keford Properties, LLC

Review Type

Preliminary Site Plan

Property Characteristics

- Site Location: South side of Grand River Avenue, between Taft Road and Novi Road
- Site Size: 7.61 acres
- Plan Date: 09/12/2019
- Design Engineer: Alpine Engineering, Inc.

Project Summary

- Modifications to existing parking lot at existing building and addition of a tow-yard vehicle storage/parking area south of the existing building.
- Water service would be provided to the two existing buildings by two proposed domestic leads of unspecified diameter.
- Sanitary sewer service would be provided to the two existing buildings by two proposed 6-inch leads to an existing 18-inch main.
- Storm water would be collected on site, with bank full detention/pretreatment storage provided with restricted discharge to an off-site regional detention basin.

Recommendation

Approval of the Preliminary Site Plan is recommended, with items to be addressed at Final Site Plan submittal.

Comments:

The Preliminary Site Plan meets the general requirements of Chapter 11 of the Code of Ordinances, the Storm Water Management Ordinance and the Engineering Design Manual with the following exceptions, which shall be addressed at **Final Site Plan submittal**:

General

1. A right-of-way permit will be required from the City of Novi for work in the Grand River Avenue right-of-way.
2. A right-of-way permit will also be required from the Road Commission for Oakland County (RCOC) for work in the Grand River Avenue right-of-way.
3. The Non-domestic User Survey form shall be submitted to the City so it can be forwarded to Oakland County.
4. Show and label the existing 50-foot half right-of-way width for Grand River Avenue.
5. A license agreement will be required for fencing proposed within existing sanitary sewer easement.

Water Main

6. The applicant should be aware that additional hydrants may be required per Fire Department review, given the lack of existing hydrants on-site and the distance of the nearest existing hydrant northeast of the site in the Grand River Avenue right-of-way.

Storm Water Management Plan

7. The Storm Water Management Plan for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the new Engineering Design Manual.
8. The storm water management plan proposes to maintain an existing condition of site drainage going into the Grand River right-of-way. Review and approval by the Road Commission for Oakland County will be required, and a variance from the Design and Construction Standards is required in any case where all drainage is not captured on-site.
9. Restricted discharge to an off-site regional detention basin is proposed. Bankfull storage will be provided on-site. Any applicable storm water detention tap fees will be pro-rated for bankfull detention storage provided on the site.
10. Provide a soil boring in the vicinity of the basin to determine soil conditions and to establish the high water elevation of the groundwater table.
11. One foot of freeboard shall be provided above the uppermost storage elevation, rather than the 0.4 foot shown on the plan.
12. A 25-foot vegetated buffer shall be provided around the storm water basin where any pavement runoff is directed toward the basin.
13. The maintenance access route to the basin outlet structure shall be a minimum of 15 feet wide for its entirety, including the proposed rip-rap and curb drop.
14. Provide a 5-foot wide stone bridge/access route allowing direct access to the standpipe from the bank of the basin during high-water conditions (i.e. stone 6-inches above high water elevation).

15. Provide an access easement for maintenance over the storm water detention system and the pretreatment structure. Also, include an access easement to the detention area from the public road right-of-way.
16. Provide manufacturer's details and sizing calculations for the pretreatment structure within the plans. Provide drainage area and runoff coefficient calculations specific to the area tributary to the treatment structure. The treated flow rate should be based on the 1-year storm event intensity (~1.6 In/Hr). Higher flows shall be bypassed.
17. Provide release rate calculations for the two design storm events addressed on this site (first flush and bankfull).
18. Due to maintenance concerns, each restricting orifice in the control structure shall be a minimum of 1 square-inch in size, even though this may result in a flow rate above that calculated.

Paving & Grading

19. In consideration of the City's waiver of the ordinance requirement that the rear storage area be paved, Developer shall:
 - a. Keep the access aisle as shown on the PRO plan free from parked vehicles or other obstructions so that there is fire truck access at all times (with the details of the Developer's plan to designate or demarcate the access aisle shown on the final approved site plan);
 - b. Undertake regular maintenance of the gravel storage area so as to prevent the migration of the gravel storage area to other areas of the Land or Development or adjacent properties or roadways or nearby waterbodies. To ensure compliance with these requirements, the City shall have a reasonable right to enter onto the Land or Development for purposes of inspection; provided, however, the City shall give 48 hours' notice of any expected inspection. If the City determines that corrective action is required to be taken, it shall issue a notice of corrective action, which shall include a time period for correction. Failure to comply shall be treated as a breach of this Agreement.
20. Design and Construction waivers of Section 11-239 of the City's Zoning Ordinance were authorized:
 - a. To allow gravel parking for storage yard in the rear;
 - b. For lack of curb and gutter within the rear yard storage area;
 - c. For lack of parking lot striping.
21. Two of the proposed barrier free ramps appear to exceed the absolute maximum longitudinal slope of 8.33%. These ramps are (1) the longest ramp at the northwest corner of the main existing building, and (2) the short ramp at the northeast corner of the paved parking lot.
22. Verify and label the slopes along the ingress/egress routing to the building from the barrier-free stalls. All barrier-free stalls shall comply with Michigan Barrier-Free regulations.
23. Detectable warning plates are required at all barrier free ramps, hazardous vehicular crossings and other areas where the sidewalk is flush with the adjacent drive or parking pavement. The barrier-free ramps shall comply

- with current MDOT specifications for ADA Sidewalk Ramps. Provide the latest version of the MDOT standard detail for detectable surfaces.
24. Label specific ramp locations on the plans where the detectable warning surface is to be installed.
 25. Specify the product proposed and provide a detail for the detectable warning surface for barrier free ramps. The product shall be the concrete-embedded detectable warning plates, or equal, and shall be approved by the Engineering Division. Stamped concrete will not be acceptable.
 26. Provide proposed contours for areas surrounding the rear yard gravel lot.
 27. Clarify all proposed contours by labeling contour elevations.
 28. Add pavement and curb grades to proposed parking along existing south building.
 29. Curbing and walks adjacent to the end of 17-foot stalls shall be reduced to 4-inches high (rather than the standard 6-inch height to be provided adjacent to 19-foot stalls). Some top-of-curb grades adjacent to 17-foot stalls continue to be 6 inches above top-of-pavement.
 30. Provide a plan view and cross-section of the retaining walls. Sheet with these details shall be signed and sealed by the design engineer responsible for the proposed retaining wall design and all associated calculations.

Soil Erosion and Sediment Control

31. An SESC permit is required. A full review has not been completed at this time. The review checklist detailing all SESC requirements is attached to this letter. Please submit an SESC permit application under separate cover. The application can be found on the City's website at <http://cityofnovi.org/Reference/Forms-and-Permits.aspx>.

Off-Site Easements

32. Any required off-site easements must be executed prior to final approval of the plans. Drafts shall be submitted at the time of the Final Site Plan submittal.

The following must be submitted at the time of Final Site Plan submittal:

33. A letter from either the applicant or the applicant's engineer must be submitted with the Final Site Plan highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved. **Additionally, a statement must be provided stating that all changes to the plan have been discussed in the applicant's response letter.**
34. An itemized construction cost estimate must be submitted to the Community Development Department for the determination of plan review and construction inspection fees. This estimate should only include the civil site work and not any costs associated with construction of the building or any demolition work. **The estimate must be itemized** for each utility (water, sanitary, storm sewer), on-site paving (square yardage), right-of-way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pre-treatment structure and restoration).

The following must be submitted with the Stamping Set:

(Please note that all documents must be submitted together as a package with the Stamping Set submittal with a legal review transmittal form that can be found on the City's website. Partial submittals will not be accepted.)

35. A draft copy of the Storm Drainage Facility Maintenance Easement Agreement (SDFMEA), as outlined in the Storm Water Management Ordinance, must be submitted to the Community Development Department. Once the agreement is approved by the City's Legal Counsel, this agreement will then be sent to City Council for approval/acceptance. The SDFMEA will then be recorded at the office of the Oakland County Register of Deeds. This document is available on our website.
36. A draft copy of the access easement to sanitary sewer monitoring manholes must be submitted to the Community Development Department. This document is available on our website.

The following must be addressed prior to construction:

37. A pre-construction meeting shall be required prior to any site work being started. Please contact Sarah Marchioni in the Community Development Department to setup a meeting (248-347-0430).
38. A City of Novi Grading Permit will be required prior to any grading on the site. This permit will be issued at the pre-construction meeting (no application required). No fee is required for this permit.
39. Material certifications must be submitted to Spalding DeDecker for review prior to the construction of any onsite utilities. Contact Ted Meadows at 248-844-5400 for more information.
40. Construction inspection fees must be paid to the Community Development Department.
41. Legal escrow fees must be deposited with the Community Development Department. All unused escrow will be returned to the payee at the end of the project. This amount includes engineering legal fees only. There may be additional legal fees for planning legal documents.
42. A storm water performance guarantee (equal to 120% of the cost required to complete the storm water management facilities) as specified in the Storm Water Management Ordinance must be posted at the Community Development Department.
43. Water and Sanitary Sewer Fees must be paid prior to the pre-construction meeting. Contact the Water & Sewer Division at 248-347-0498 to determine the amount of these fees.
44. A street sign financial guarantee (\$400 per traffic control sign proposed) must be posted at the Community Development Department. Signs must be installed in accordance with MMUTCD standards.

45. As described previously, a Soil Erosion Control Permit must be obtained from the City of Novi. Contact Sarah Marchioni in the Community Development Department, Building Division (248-347-0430) for forms and information. The financial guarantee and inspection fees will be determined during the SESC review.
46. A permit for all proposed work activities within the road right-of-way of Grand River Avenue must be obtained from the City of Novi. This application is available from the City Engineering Division or on the City website and can be filed once the Final Site Plan has been submitted. Please contact the Engineering Division at 248-347-0454 for further information. Please submit the cover sheet, standard details and plan sheets applicable to the permit only.
47. A permit for work within the road right-of-way of Grand River Avenue must be obtained from the Road Commission for Oakland County (RCOC). Please contact the RCOC (248-858-4835) directly with any questions. The applicant must forward a copy of this permit to the City. Provide a note on the plans indicating all work within the road right-of-way will be constructed in accordance with the RCOC standards.
48. An NPDES permit must be obtained from the MDEQ since the site is over 5 acres in size. The MDEQ may require an approved SESC plan to be submitted with the Notice of Coverage.
49. An inspection permit for the sanitary sewer taps must be obtained from the Oakland County Water Resource Commissioner (OCWRC).

The following must be addressed prior to issuance of a Temporary Certificate of Occupancy (TCO) approval for the development:

50. The amount of the incomplete site work performance guarantee for any outstanding site improvement items (limited to top course of pavement and other minor items), is calculated at 1.2 times the amount required to complete the site improvements (as specified in the Performance Guarantee Ordinance).
51. All easements and agreements referenced above must be executed, notarized and approved by the City Attorney and Engineering Division.
52. The City's consultant Engineer Spalding DeDecker will prepare the record drawings for this development. The record drawings will be prepared in accordance with Article XII, Design and Construction Standards, Chapter 11 of the Novi Code of Ordinances.
53. Submit an up-to-date Title Policy (dated within 90 days of City Council consideration of acceptance) for the purpose of verifying that the parties signing the Easement documents have the legal authority to do so. Please be sure that all parties of interest shown on the title policy (including mortgage holders) either sign the easement documents themselves or

provide a Subordination Agreement. Please be aware that the title policy may indicate that additional documentation is necessary to complete the acceptance process.

To the extent this review letter addresses items and requirements that require the approval of or a permit from an agency or entity other than the City, this review shall not be considered an indication or statement that such approvals or permits will be issued.

Please contact Victor Boron at (248) 735-5695 with any questions.

A handwritten signature in black ink, appearing to read "Victor Boron", written over a horizontal line.

Victor Boron
Civil Engineer

cc: Sri Komaragiri, Community Development
Angela Sosnowski, Community Development
Tina Glenn, Treasurers
Kristin Pace, Treasurers
Ben Croy, Engineering
T. Meadows, T. Reynolds; Spalding DeDecker

LANDSCAPE REVIEW



PLAN REVIEW CENTER REPORT

September 30, 2019

Preliminary Landscape Plan - Landscaping

Keford Towing

Review Type _____
Preliminary Landscape Plan Review

Job # _____
JSP18-0031

Property Characteristics

- Site Location: 45241 Grand River Ave.
- Site Acreage: 7.6 acres
- Site Zoning: I-1 Proposed rezone to I-2.
- Adjacent Zoning: North, East, West: I-1, South: RA, R-4
- Plan Date: 9/12/2019

Ordinance Considerations

This project was reviewed for conformance with Chapter 37: Woodland Protection, Zoning Article 5.5 Landscape Standards, the Landscape Design Manual and any other applicable provisions of the Zoning Ordinance. Items in **bold** below must be addressed and incorporated as part of the Final Site Plans. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review and the accompanying Landscape Chart is a summary and not intended to substitute for any Ordinance.

Recommendation

This plan **is recommended for Preliminary Site Plan approval**. Please make the indicated changes on Final Site Plans.

Landscape Deviations Granted by the Planning Commission on 9/26/2018:

1. Not meeting the minimum requirements for a 10 - 15 foot tall landscaped berm or not providing the minimum required screening trees between residentially zoned property and industrial. A berm approximately 7 feet in height is proposed south of the southeast corner of the storage lot, but not along the entire southern frontage, nor at the southwestern corner of the property (not including the preserved woodland);
2. Lack of interior canopy trees in the southern portion of the vehicular storage area due to conflict with truck turning patterns.
3. Lack of parking lot perimeter trees along 400 feet of the eastern edge of the property due to lack of room between drive and adjacent property
4. Parking lot perimeter trees planted more than 15 feet away from the vehicular storage area
5. Shortage of a total of 2980 square feet (37%) of required building foundation landscaping for the two buildings
6. Less than 75 percent of each building perimeter to be landscaped
7. Shortage of green scape along the building frontage facing Grand River (60% required, 54% proposed);
8. Lack of landscape islands every 25 spaces within the enclosed outside storage yard due to the nature of the proposed use

Please copy the above, including the meeting date, to Sheet L-1 in place of the other text regarding waivers.

Ordinance Considerations

Existing Soils (Preliminary Site Plan checklist #10, #17)

Provided

Existing and proposed overhead and underground utilities, including hydrants.(LDM 2.e.(4))

Provided

Existing Trees (Sec 37 Woodland Protection, Preliminary Site Plan checklist #17 and LDM 2.3 (2))

Provided

Adjacent to Residential - Buffer (Zoning Sec. 5.5.3.B.ii and iii)

1. The required 10-15' berm is not provided as required between the residential properties and the site.
2. A 7 foot tall berm is provided along the eastern 230' of the southern parking lot frontage, well south of the lot.
3. Most of the existing woodland at the southwest corner of the lot is being preserved.
4. A landscape deviation was granted for the lack of berm and landscaping for the parts of the southern frontage abutting residential property and for the lack of height of the proposed berm.
5. Additional evergreens have been added along the south border to provide additional screening for the residences to the south.

Required I-2 Screening/Outdoor Storage yards (4.55)

A landscape deviation was granted to allow the applicant to screen with evergreens and opaque fencing.

Adjacent to Public Rights-of-Way – Berm (Wall) & Buffer (Zoning Sec. 5.5.3.B.ii and iii)

The required berm and landscaping are provided.

Street Tree Requirements (Zoning Sec. 5.5.3.E.i.c and LDM 1.d.)

The RCOC sight vision requirements leave no room for any street trees along Grand River and none are provided.

Parking Lot Landscaping (Zoning Sec. 5.5.3.C.)

1. Based on the vehicular use areas, 3,019 sf of islands and 15 interior trees are required. 3,049 sf of islands and 15 trees are provided, all but 3 of which are located in the north part of the site.
2. Landscape deviations were granted for the lack of interior islands and interior landscaping in the south section (vehicular storage area) of the site.

Parking Lot Perimeter Canopy Trees (Zoning Sec. 5.5.3.C.(3) Chart footnote)

1. The site has a total of 2203 lf of parking lot perimeter, including access drives from Grand River, 412 lf of which are along the east edge where there is no room for trees. The applicant has not proposed deciduous canopy trees along the eastern property line and most of the southern vehicular storage lot perimeter.
2. Landscape deviations were granted for the lack of perimeter trees along the east accessway due to a lack of room, and to plant parking lot perimeter trees further than 15 feet from the edge of the parking lot.

Loading Zone screening (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)

1. An eight-foot screening fence with opacity greater than 90% is proposed around the entire storage area of the site. This, along with the evergreen trees planted along the west side of the site, is acceptable.
2. Additional screening beyond the opaque fencing is not required along the east side of the site as it fronts on a regional detention pond zoned I-1, which has a large berm on the eastern end that screens the historic home from the site.

Building Foundation Landscape (Zoning Sec 5.5.3.D.)

1. A total of 6064 sf of foundation landscaping is required for the main building. Only 5339sf are provided. A landscape deviation was granted for a shortage in the landscaping.
2. A total of 2016 sf of foundation landscaping is required for the outbuilding and 2385 sf is provided.
3. Neither building meets the 75% minimum requirement of building perimeter with at least 4' strip of landscaping, which is a variation. A landscape deviation was granted for this deficiency.
4. 54% of the main building's frontage facing Grand River is landscaped, which is less than the 60% requirement. A landscape deviation was granted for this deficiency.

Plant List (LDM 2.h. and t.)

1. Provided
2. The tree diversity requirements of the Landscape Design Manual were exceeded by the evergreens.
3. **Please add Norway spruce (*Picea abies*) as an additional species of spruce to reduce the percentages of *Abies concolor* and *Picea glauca*.**
4. 15 of 22 species used (68%) are native to Michigan.

Planting Notations and Details (LDM)

Provided

Storm Basin Landscape (Zoning Sec 5.5.3.E.iv and LDM 1.d.(3))

Provided

Irrigation (LDM 1.a.(1)(e) and 2.s)

1. **The proposed landscaping must be provided with sufficient water to become established and survive over the long term. Please note how this will be accomplished if an irrigation plan is not provided.**
2. **Please provide the plan with Final Site Plans or Electronic Stamping Sets at the latest.**

Proposed topography. 2' contour minimum (LDM 2.e.(1))

Provided

Snow Deposit (LDM.2.q.)

Provided

Proposed trees to be saved (Sec 37 Woodland Protection 37-9, LDM 2.e.(1))

Provided

Corner Clearance (Zoning Sec 5.9)

Provided

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5621 or rmeader@cityofnovi.org.



Rick Meader – Landscape Architect

LANDSCAPE REVIEW SUMMARY CHART – Preliminary Site Plan

Review Date: September 30, 2018
Project Name: JSP18 – 0031: Keford Collision & Towing
Plan Date: September 12, 2019
Prepared by: Rick Meader, Landscape Architect E-mail: rmeader@cityofnovi.org;
 Phone: (248) 735-5621

Items in **Bold** need to be addressed by the applicant on the Final Site Plan.

Landscaping Deviations Granted by the Planning Commission on 9/26/2018:

1. Not meeting the minimum requirements for a 10 - 15 foot tall landscaped berm or not providing the minimum required screening trees between residentially zoned property and industrial. A berm approximately 7 feet in height is proposed south of the southeast corner of the storage lot, but not along the entire southern frontage, nor at the southwestern corner of the property (not including the preserved woodland);
2. Lack of interior canopy trees in the southern portion of the vehicular storage area due to conflict with truck turning patterns.
3. Lack of parking lot perimeter trees along 400 feet of the eastern edge of the property due to lack of room between drive and adjacent property
4. Parking lot perimeter trees planted more than 15 feet away from the vehicular storage area
5. Shortage of a total of 2980 square feet (37%) of required building foundation landscaping for the two buildings
6. Less than 75 percent of each building perimeter to be landscaped
7. Shortage of green scape along the building frontage facing Grand River (60% required, 54% proposed);
8. Lack of landscape islands every 25 spaces within the enclosed outside storage yard due to the nature of the proposed use

Please copy the above, including the meeting date, to Sheet L-1 in place of the other text regarding waivers.

Item	Required	Proposed	Meets Code	Comments
Landscaping Plan Requirements (LDM (2))				
Landscaping Plan <i>(Zoning Sec 5.5.2, LDM 2.e.)</i>	<ul style="list-style-type: none"> ▪ New commercial or residential developments ▪ Addition to existing building greater than 25% increase in overall footage or 400 SF whichever is less. ▪ 1"=20' minimum with proper North. Variations from this scale can be approved by LA ▪ Consistent with plans throughout set 	Scale 1"=50'	Yes	
Project Information	Name and Address	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
<i>(LDM 2.d.)</i>				
Owner/Developer Contact Information <i>(LDM 2.a.)</i>	Name, address and telephone number of the owner and developer or association	Yes – the address is on the cover sheet but not the Landscape plan.	Yes	
Landscape Architect contact information <i>(LDM 2.b.)</i>	Name, Address and telephone number of RLA/LLA	Yes	Yes	
Sealed by LA. <i>(LDM 2.g.)</i>	Requires original signature	Yes	Yes	<u>Original signature is needed on printed stamping sets.</u>
Miss Dig Note (800) 482-7171 <i>(LDM.3.a.(8))</i>	Show on all plan sheets	Yes	Yes	
Zoning <i>(LDM 2.f.)</i>	Include all adjacent zoning	<u>Parcel:</u> I-1 proposed rezone to I-2. <u>North, East, West:</u> I-1 <u>South:</u> RA, R-4	Yes	
Survey information <i>(LDM 2.c.)</i>	<ul style="list-style-type: none"> ▪ Legal description or boundary line survey ▪ Existing topography 	Topographic survey and legal description on Sheet 2	Yes	
Existing plant material Existing woodlands or wetlands <i>(LDM 2.e.(2))</i>	<ul style="list-style-type: none"> ▪ Show location type and size. Label to be saved or removed. ▪ Plan shall state if none exists. 	<ul style="list-style-type: none"> ▪ Existing trees and trees proposed to be removed shown on Sheet L-3. ▪ Tree chart and removal calculations also shown on Sheet L-3. 	Yes	See ECT review for more detailed discussion of woodlands and wetlands.
Soil types <i>(LDM.2.r.)</i>	<ul style="list-style-type: none"> ▪ As determined by Soils survey of Oakland county ▪ Show types, boundaries 	<ul style="list-style-type: none"> ▪ Sheet 5 ▪ Boundaries not shown, only Marlette mentioned. 	Yes	
Existing and proposed improvements <i>(LDM 2.e.(4))</i>	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Yes	Yes	
Existing and proposed utilities <i>(LDM 2.e.(4))</i>	Overhead and underground utilities, including hydrants	Yes	Yes	
Proposed grading. 2' contour minimum <i>(LDM 2.e.(1))</i>	Provide proposed contours at 2' interval	<ul style="list-style-type: none"> ▪ 7 foot tall berm is provided at southeast corner of property. It has 	Yes	

Item	Required	Proposed	Meets Code	Comments
		been extended to the east as requested to better screen the home southeast of the site. ■ Section views of the property are provided.		
Snow deposit <i>(LDM.2.q.)</i>	Show snow deposit areas on plan	Yes	Yes	
LANDSCAPING REQUIREMENTS				
Parking Area Landscape Requirements LDM 1.c. & Calculations (LDM 2.o.)				
General requirements <i>(LDM 1.c)</i>	<ul style="list-style-type: none"> ■ Clear sight distance within parking islands ■ No evergreen trees 	Yes	Yes	
Name, type and number of ground cover (LDM 1.c.(5))	As proposed on planting islands	Low prairie mix is indicated on islands, lawn in greenbelt and perimeter.	Yes	
General <i>(Zoning Sec 5.5.3.C.ii)</i>				
Parking lot Islands <i>(a, b. i)</i>	<ul style="list-style-type: none"> ■ A minimum of 200 SF to qualify ■ A minimum of 200sf unpaved area per tree planted in an island ■ 6" curbs ■ Islands minimum width 10' BOC to BOC 	All new islands in south section are just painted (on gravel).	No	A landscape deviation was granted for the painted islands in the vehicular storage area.
Curbs and Parking stall reduction <i>(c)</i>	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7 ft.	Landscape island areas are provided.	Yes	
Contiguous space limit <i>(i)</i>	Maximum of 25 contiguous spaces	<ul style="list-style-type: none"> ■ 31 is maximum bay length ■ The applicant is not proposing the required islands in the south section in order to make it easier for their tow vehicles to maneuver around the site. 	No	A landscape deviation was granted for the lack of islands in the vehicular storage area.
Plantings around Fire Hydrant <i>(d)</i>	<ul style="list-style-type: none"> ■ No plantings with matured height greater than 12' within 	None	Yes	

Item	Required	Proposed	Meets Code	Comments
	10 ft. of fire hydrants ▪ Trees should also be at least 5 feet from underground lines.			
Landscaped area (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	Yes	Yes	
Clear Zones (LDM 2.3.(5))	25 ft corner clearance required. Refer to Zoning Section 5.5.9	▪ RCOC clear vision zones are provided. ▪ They occupy all of the frontage.	Yes	1. No street trees are required due to the RCOC requirements. 2. This does not require a deviation as there is no room for the trees that would be required.
Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, NCC, EXPO, FS, TC, TC-1, RC, Special Land Use or non-residential use in any R district (Zoning Sec 5.5.3.C.iii)				
A = Total square footage of vehicular use areas up to 50,000sf x 7.5%	<ul style="list-style-type: none"> • $A = x \text{ sf} * 7.5 \% = A \text{ sf}$ • $50,000 * 7.5\% = 3750 \text{ sf}$ 	NA		
B = Total square footage of additional paved vehicular use areas (not including A or B) over 50,000 SF) x 1 %	<ul style="list-style-type: none"> • $B = x \text{ sf} * 1\% = B \text{ sf}$ • $(xxx - 50000) * 1\% = xx \text{ sf}$ 	NA		
Category 2: For: I-1 and I-2 (Zoning Sec 5.5.3.C.iii)				
A. = Total square footage of vehicular use area up to 50,000 sf x 5%	<ul style="list-style-type: none"> • $A = x \text{ sf} * 5\% = A \text{ sf}$ • $50000 * 5\% = 2500 \text{ sf}$ 			
B = Total square footage of additional paved vehicular use areas over 50,000 SF x 0.5%	<ul style="list-style-type: none"> ▪ $B = 0.5\% \times 0 \text{ sf} = B \text{ SF}$ ▪ $(153824-50000)*0.5\% = 519 \text{ sf}$ 			
All Categories				
C = A+B Total square footage of landscaped islands	$2500 + 519 = 3019 \text{ SF}$	3049 sf	Yes/No	A landscape deviation was granted for the lack of landscape islands in the vehicular storage area.
D = C/200 Number of canopy trees required	<ul style="list-style-type: none"> ▪ $3019/200 = 15 \text{ Trees}$ ▪ NOTE: The applicant cites the unique nature of their business as a justification for not providing the required 	15 trees	Yes/No	A landscape deviation was granted for the lack of landscape islands in the vehicular storage area.

Item	Required	Proposed	Meets Code	Comments
	interior or perimeter trees.			
Perimeter Green space	<ul style="list-style-type: none"> ▪ 1 Canopy tree per 35 lf ▪ (2203)/35 = 63 trees ▪ - 12 trees deviation = 51 canopy trees required ▪ Maximum of 25% evergreens can be used for parking lot perimeter trees. 	<ul style="list-style-type: none"> ▪ 8 canopy trees ▪ 7 subcanopy trees (4.7 canopy equivalent) ▪ 20 evergreen trees 	No	<ol style="list-style-type: none"> 1. A landscape deviation was granted to not provide perimeter trees along the east drive. 2. Another landscape deviation was granted to not require perimeter trees along the south and east sides of the vehicular storage area.
Accessway perimeter	<ul style="list-style-type: none"> ▪ 1 canopy tree per 35 lf on each side of road, less widths of access drives. ▪ (xx lf)/35 = xx trees 	The accessway calculation was included in the overall parking lot perimeter calculation.	Yes	
Parking land banked	▪ NA	No		
Berms, Walls and ROW Planting Requirements				
Berms				
<ul style="list-style-type: none"> ▪ All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours ▪ Berm should be located on lot line except in conflict with utilities. ▪ Berms should be constructed with 6" of top soil. 				
Residential Adjacent to Non-residential (Sec 5.5.3.A) & (LDM 1.a)				
Berm requirements (Zoning Sec 5.5.A)	Landscaped berm 10-15 feet high required along south property line facing residential property.	<ul style="list-style-type: none"> ▪ A 7 foot tall berm is proposed for approximately 210 lf of the southeastern frontage. ▪ No berm is provided for the 150 lf west of the berm and east of the woods. ▪ A wetland, at least 500 lf and existing trees separate the houses to the south from the property line. ▪ Evergreens are provided along 		A landscape deviation was granted for the lack of the 10-15' tall berm as distance and the provided opaque fence, evergreens and existing trees will provide sufficient screening.

Item	Required	Proposed	Meets Code	Comments
		the entire south frontage to screen the residences to the south from view of the site.		
Planting requirements (LDM 1.a.)	LDM Novi Street Tree List	NA		
Adjacent to Public Rights-of-Way (Sec 5.5.B) and (LDM 1.b)				
Berm requirements (Zoning Sec 5.5.3.A.(5))	An undulating berm a minimum of 3 feet high with a 3 foot wide crest is required along Grand River.	Proposed berms are provided.	Yes	
Cross-Section of Berms (LDM 2.j)				
Slope, height and width	<ul style="list-style-type: none"> ▪ Label contour lines ▪ Maximum 33% ▪ Min. 3 feet flat horizontal area ▪ Minimum 3 feet high ▪ Constructed of loam with 6' top layer of topsoil. 	Yes	Yes	
Type of Ground Cover		Lawn		
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	NA		
Walls (LDM 2.k & Zoning Sec 5.5.3.vi)				
Material, height and type of construction footing	Freestanding walls should have brick or stone exterior with masonry or concrete interior	No walls are proposed.		
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer		NA		
ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)				
Greenbelt width (2)(3) (5)	Parking: 25 ft. No Pkg: 25 ft	102 ft	Yes	
Min. berm crest width	None	No	No	
Minimum berm height (9)	None	No	No	
3' wall	(4)(7)	No		
Canopy deciduous or	▪ Adjacent to Parking: 1	6 trees – 4 existing	Yes	

Item	Required	Proposed	Meets Code	Comments
large evergreen trees Notes (1) (10)	tree per 40 lf ▪ (294-54)/40 = 6 trees	and 2 perimeter trees.		
Sub-canopy deciduous trees Notes (2)(10)	▪ Adjacent to Parking: 1 tree per 35 lf ▪ (294-54)/35=7 trees	7 trees	Yes	
Canopy deciduous trees in area between sidewalk and curb <i>(Novi Street Tree List)</i>	▪ Parking & No Parking: 1 tree per 45 lf ▪ xx/45 = x trees	0 trees	Yes	The widths of the RCOC clear vision zones leave no room for any street trees along Grand River. No deviation is required.
Non-Residential Zoning Sec 5.5.3.E.iii & LDM 1.d (2) Refer to Planting in ROW, building foundation landscape, parking lot landscaping and LDM				
Interior Street to Industrial subdivision <i>(LDM 1.d.(2))</i>	<ul style="list-style-type: none"> ▪ 1 canopy deciduous or 1 large evergreen per 35 l.f. along ROW ▪ No evergreen trees closer than 20 ft. ▪ 3 sub canopy trees per 40 l.f. of total linear frontage ▪ Plant massing for 25% of ROW 	NA		
Screening of outdoor storage, loading/unloading <i>(Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)</i>	Storage area shall be completely screened from view of adjacent residential or commercial districts.	<ul style="list-style-type: none"> • 8 foot tall screening fence is provided around entire southern portion of vehicular use area. • Evergreen trees or existing woods are provided along all of the south boundary. • Evergreen trees are provided along west property line to screen lot from adjacent I-1 properties. • A 7 foot tall berm is provided along eastern 210' of southern frontage 	Yes	
Transformers/Utility boxes <i>(LDM 1.e from 1 through 5)</i>	<ul style="list-style-type: none"> ▪ A minimum of 2ft. separation between box and the plants ▪ Ground cover below 4" is allowed up to pad. 	While no transformers are shown, a note stating that transformers must be screened per	Yes	

Item	Required	Proposed	Meets Code	Comments
	<ul style="list-style-type: none"> No plant materials within 8 ft. from the doors 	the detail provided on L-1 has been added.		
Building Foundation Landscape Requirements (Sec 5.5.3.D)				
Interior site landscaping SF	<ul style="list-style-type: none"> Equals to entire perimeter of the building, less paved access points, x 8 with a minimum width of 4 ft. Main bldg.: 758 * 8 ft = 6064 sf Outbldg: 252 * 8 ft = 2016 sf 	<ul style="list-style-type: none"> 5091 sf front building 2385 sf outbuilding 	No/Yes	A deviation was granted for the deficiency in foundation landscaping as the applicant is improving an existing site.
<i>Zoning Sec 5.5.3.D.ii. All items from (b) to (e)</i>	If visible from public street a minimum of 60% of the exterior building perimeter should be covered in green space	It appears that 54% of the building facing Grand River is landscaped.	No	A deviation was granted for the deficiency in foundation landscaping as the applicant is improving an existing site.
Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)				
Planting requirements (Sec. 5.5.3.E.iv)	<ul style="list-style-type: none"> Clusters of large native shrubs shall cover 70-75% of the basin rim area 10" to 14" tall grass along sides of basin Refer to wetland for basin mix 	<ul style="list-style-type: none"> 73% of the detention pond rim is landscaped with 3 species of native shrubs The pond is shown as being seeded. 	Yes	
Phragmites Control (Sec 5.5.6.C)	<ul style="list-style-type: none"> Any and all populations of Phragmites australis on site shall be included on tree survey. Treat populations per MDEQ guidelines and requirements to eradicate the weed from the site. 	A note has been added stating that there is no Phragmites on the site.	Yes	
LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS				
Landscape Notes – Utilize City of Novi Standard Notes				
Installation date (LDM 2.I. & Zoning Sec 5.5.5.B)	Provide intended date	Fall or Spring 2019 or 2020	Yes	
Maintenance & Statement of intent (LDM 2.m & Zoning Sec 5.5.6)	<ul style="list-style-type: none"> Include statement of intent to install and guarantee all materials for 2 years. 	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
	<ul style="list-style-type: none"> Include a minimum one cultivation in June, July and August for the 2-year warranty period. 			
Plant source (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade.	Yes	Yes	
Irrigation plan (LDM 2.s.)	A fully automatic irrigation system or a method of providing sufficient water for plant establishment and survival is required on Final Site Plans.	No		<ol style="list-style-type: none"> Please add irrigation plan or information as to how plants will be watered sufficiently for establishment and long- term survival. If xeriscaping is used, please provide information about plantings included.
Other information (LDM 2.u)	Required by Planning Commission	NA		
Establishment period (Zoning Sec 5.5.6.B)	2 yr. Guarantee	Yes	Yes	
Approval of substitutions. (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	
Plant List (LDM 2.h.) – Include all cost estimates				
Quantities and sizes	Refer to LDM suggested plant list	Yes	Yes	Please provide plant list on Preliminary Site Plans
Root type		No	No	
Botanical and common names		<ul style="list-style-type: none"> Evergreen species exceed the diversity percentages of the Landscape Design Manual 15/22 species used (68%) are native to Michigan 	No/Yes	Please add Norway Spruce (<i>Picea abies</i>) to reduce the numbers of <i>Abies concolor</i> and <i>Picea glauca</i>.
Type and amount of lawn		Yes	Yes	
Cost estimate (LDM 2.t)		For all new plantings, mulch and sod as listed on the plan	Yes	Yes
Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	
Evergreen Tree		Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
Multi-stem Tree		Yes	Yes	
Shrub		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	
Tree stakes and guys. (Wood stakes, fabric guys)		Yes	Yes	
Tree protection fencing	Located at Critical Root Zone (1' outside of dripline)	Yes	Yes	
Other Plant Material Requirements (LDM 3)				
General Conditions <i>(LDM 3.a)</i>	Plant materials shall not be planted within 4 ft. of property line	Yes	Yes	
Plant Materials & Existing Plant Material <i>(LDM 3.b)</i>	Clearly show trees to be removed and trees to be saved.	Sheet L-3	Yes	
Landscape tree credit <i>(LDM3.b.(d))</i>	Substitutions to landscape standards for preserved canopy trees outside woodlands/ wetlands should be approved by LA. Refer to Landscape tree Credit Chart in LDM	No		
Plant Sizes for ROW, Woodland replacement and others <i>(LDM 3.c)</i>	2.5" canopy trees 6' evergreen trees	Yes	Yes	
Plant size credit <i>(LDM3.c.(2))</i>	NA	No		
Prohibited Plants <i>(LDM 3.d)</i>	No plants on City Invasive Species List	None used		
Recommended trees for planting under overhead utilities <i>(LDM 3.e)</i>	Label the distance from the overhead utilities	<ul style="list-style-type: none"> ▪ Overhead lines are clearly indicated. ▪ Subcanopy trees are proposed beneath the lines. 	Yes	
Collected or Transplanted trees <i>(LDM 3.f)</i>		None		
Nonliving Durable Material: Mulch <i>(LDM 4)</i>	<ul style="list-style-type: none"> ▪ Trees shall be mulched to 3" depth and shrubs, groundcovers to 2" depth ▪ Specify natural color, finely shredded hardwood bark mulch. 	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
	Include in cost estimate. ▪ Refer to section for additional information			

NOTES:

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. For the landscape requirements, please see the Zoning Ordinance landscape section 5.5 and the Landscape Design Manual for the appropriate items under the applicable zoning classification.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.

TRAFFIC REVIEW



AECOM
 27777 Franklin Road
 Southfield
 MI, 48034
 USA
 aecom.com

Project name:
 JSP18-0031 Keford Towing and Collision
 Preliminary Site Plan Traffic Review

From:
 AECOM

Date:
 October 9, 2019

To:
 Barbara McBeth, AICP
 City of Novi
 45175 10 Mile Road
 Novi, Michigan 48375

CC:
 Sri Komaragiri, Lindsay Bell, Kate Richardson,
 Madeleine Kopko, Victor Boron

Memo

Subject: JSP18-0031 Keford Towing and Collision Preliminary Site Plan Traffic Review

The preliminary site plan was reviewed to the level of detail provided and AECOM recommends **approval** for the applicant to move forward with the condition that the comments provided below are adequately addressed to the satisfaction of the City.

GENERAL COMMENTS

1. The applicant, Keford Collision and Towing is proposing to utilize the existing 23,493 SF building and the existing 5,703 SF building on the 7.61 acres parcel on the south side of Grand River Avenue, east of Taft Road for the operation of a towing and automobile collision service.
2. Grand River Avenue is under the jurisdiction of the Road Commission for Oakland County (RCOC).
3. The site is currently zoned I-1, Light Industrial, and the applicant is requesting an I-2 planned rezoning overlay.
4. Summary of traffic-related waivers/variances:
 - a. **The applicant was granted a waiver to install painted end islands in lieu of raised end islands.**
 - b. **The applicant was granted a waiver for the lack of landscape islands every 15 consecutive spaces.**

TRAFFIC IMPACTS

1. AECOM performed an initial trip generation estimate based on the ITE Trip Generation Manual, 10th Edition, as follows. The ITE Code (Automobile Care Center) is the most closely-related land use available in the ITE Trip Generation Manual, even though it does not match the use of Keford Towing specifically. *Note that the 5,703 SF building is not included in the trip generation since the land use for that building has not yet been confirmed.*

ITE Code: 942 – Automobile Care Center
 Development-specific Quantity: 23,493 GSF
 Zoning Change: N/A

Trip Generation Summary				
	Estimated Trips	Estimated Peak-Direction Trips	City of Novi Threshold	Above Threshold?
AM Peak-Hour Trips	53	35	100	No

PM Peak-Hour Trips	73	38	100	No
Daily (One-Directional) Trips	Not Available	N/A	750	No

- The number of trips does not exceed the City's threshold of 100 trips per either the AM or PM peak hour. AECOM recommends performing the following traffic impact study in accordance with the City's requirements.

Trip Impact Study Recommendation	
Type of Study:	Justification
Rezoning Traffic Impact Statement	As part of the PRO process, the applicant is required to submit a rezoning traffic impact study. The applicant submitted a rezoning traffic impact study on July 16, 2018. AECOM review of the traffic impact study is discussed in a separate letter.

EXTERNAL SITE ACCESS AND OPERATIONS

The following comments relate to the external interface between the proposed development and the surrounding roadway(s).

- The applicant is not proposing any modifications to the external site access points at this time.

INTERNAL SITE OPERATIONS

The following comments relate to the on-site design and traffic flow operations.

- General Traffic Flow
 - The applicant has generally indicated 24 foot aisles throughout the site.
 - The applicant is proposing an 18 foot wide, one-way emergency access drive along the east side of the building. The applicant should provide further detail regarding the gate and signing requirements and should work with the Fire Marshal regarding the need for gates at either end of the drive.
 - The applicant should indicate the manner in which the drive aisles in the unstriped rear gravel lot will be maintained for clear fire access.**
 - The applicant was granted a deviation to install painted end islands in lieu of raised end islands.**
 - The applicant has included dimensions for the widths of the proposed painted end islands throughout the site that are generally in compliance with City requirements as stated in Section 5.3.12 of the Zoning Ordinance.
 - Note that all end islands shall be constructed three (3) feet shorter than the adjacent parking space.
 - The radii of the painted end islands are generally in compliance with City standards, with the exception of the following.
 - The applicant should provide justification for the irregular raised end island near the building canopy on the south side of the site or update to meet City standards.
 - Additionally, there is a painted end island proposed near the south side of the auxiliary building within the gated area that has an outside radius of 10 feet. This should be updated to a minimum of 15 feet.

- f. The applicant has proposed a trash receptacle in the rear yard. The trash receptacle is located in a position that, while during pick-up periods, may diminish the ability for vehicles to exit the nearest parking space; however, it is not expected to diminish accessibility beyond acceptable levels.
 - g. The applicant has indicated a loading ramp location and a 10' by 25' loading zone on the site plan.
 - i. The applicant provided truck travel patterns throughout the site and confirmed accessibility to/from the loading zone.
 - h. There are proposed parking bays that have more than 15 consecutive parking spaces. **The applicant has been granted a deviation for the lack of landscape islands every 15 spaces in accordance with the City's Zoning Ordinance, section 5.5.3.C.ii.i.**
2. Parking Facilities
- a. Refer to the Planning Letter for information about parking requirements and calculations.
 - b. The applicant has indicated 17 foot long parking spaces abutting four inch curbs, and 19 foot long parking spaces in all other areas.
 - c. The applicant has provided the width of the barrier-free parking spaces and aisles, which are in compliance with City standards.
 - i. One of the barrier-free parking spaces in proposed to be behind the gated portion of the parking lot. The applicant could consider moving this space to be within the main parking lot area.
 - d. The applicant has proposed a barrier-free parking space along the western side of the property and should strongly consider relocating this parking space to be closer to the building entrance which it is serving. The applicant indicated that the grading of the site limits the ability to move this space.
 - i. The applicant should provide a ramp to the sidewalk next to this accessible parking space.
 - e. The applicant should review the curb heights throughout the site to generally provide 6" curbs for all landscape areas, except when placed directly in front of a 17' parking space where the curb should be 4".
 - i. The grading plan and details are generally in compliance with this; however, there are locations throughout the site where further clarification is needed, such as along the existing building to the south.
 - ii. Note that when a 17' space is provided, there must be a clear 2' area to accommodate the vehicle overhang. The applicant has provided a detail showing the 2' overhang.
 - f. The applicant has provided four (4) bicycle parking spaces.
 - i. The bicycle parking layout details are in conformance with Section 5.16.5 of the Zoning Ordinance.
 - ii. The sidewalk in front of the bicycle parking is 8 feet, which is in compliance with City standards.
 - iii. The applicant should ensure that there is a barrier between the bicycle parking spaces and the drive aisle, such as a curb.
3. Sidewalk Requirements
- a. The applicant should dimension the width of all proposed sidewalks.
 - i. Sidewalks throughout the site are required to be a minimum of 5' wide.
 - ii. Note that when a 17' parking space abuts a sidewalk, the sidewalk shall be 4" in height and a minimum of 7' wide to accommodate a 2' vehicle overhand and provide 5' of unobstructed travel way for non-motorized users.
 - b. The applicant has labeled sidewalk ramps on the plans and should include the latest Michigan Department of Transportation (MDOT) detail.

SIGNING AND STRIPING

1. All on-site signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices (MMUTCD). The following is a discussion of the proposed signing and striping.
2. The applicant has included a sign quantity table.
3. The applicant should provide the following notes related to proposed signing.

Memo

- a. Traffic control signs shall use the FHWA Standard Alphabet series.
4. The applicant should provide notes and details related to proposed pavement markings.
 - a. Detail the pavement markings for the end islands and other hatched areas, including color, striping width, etc.
 - b. Detail the pavement markings for crosswalks, including color and striping width.
 - i. The applicant should consider adding crosswalk markings at the northeast sidewalk ramp to the sidewalk that leads to Grand River Avenue.
 - c. A detail has been provided for the international symbol for accessibility.

Should the City or applicant have questions regarding this review, they should contact AECOM for further clarification.

Sincerely,

AECOM



Patricia Thompson, EIT
Traffic Engineer



Josh A. Bocks, AICP, MBA
Senior Transportation Planner/Project Manager

WETLANDS REVIEW



ECT Project No. 190657-0100
October 7, 2019

Ms. Barbara McBeth, AICP
City Planner
Community Development Department
City of Novi
45175 W. Ten Mile Road
Novi, Michigan 48375

Re: Keford Collision & Towing (JSP18-0031)
Wetland Review of the Preliminary Site Plan (PSP19-0142)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Preliminary Site Plan for the proposed Keford Collision & Towing project prepared by Alpine Engineering, Inc. dated September 12, 2019 and stamped "Received" by the City of Novi Community Development Department on September 13, 2019 (Plan). The Plan was reviewed for conformance with the City of Novi Wetland and Watercourse Protection Ordinance and the natural features setback provisions in the Zoning Ordinance.

ECT currently recommends approval of the Preliminary Site Plan for Wetlands. The Applicant shall address the items noted in the *Wetland Comments* Section of this letter prior to receiving Wetland approval of the Final Site Plan.

Item	Required/Not Required/Not Applicable
Wetland Permit (specify Non-Minor or Minor)	Required (Non-Minor)
Wetland Mitigation	Not Required
Wetland Buffer Authorization	Required
EGLE Permit	To Be Determined. It is the applicant's responsibility to contact EGLE in order to determine the need for a wetland use permit.
Wetland Conservation Easement	Not Required

The proposed project is located south of Grand River Avenue and east of Taft Road in Section 15. The Plan proposes the construction of proposed pavement and asphalt improvements around two (2) existing buildings to remain, associated storm sewer, and a stormwater detention basin.

Based on our review of the application, Novi aerial photos, Novi GIS, the City of Novi Official Wetlands and Woodlands Maps (see Figure 1, attached), and our wetland verification site inspection conducted on July 25, 2018 it appears as if this proposed project site contains three (3) areas of on-site wetlands.

Wetland Evaluation

Environmental Consulting & Technology, Inc. (ECT) conducted a wetland evaluation for the proposed project site on July 25, 2018. ECT's in-office review of available materials included the City of Novi Regulated Wetland and Watercourse map (see Figure 1), USGS topographic quadrangle map, NRCS soils

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map, USFWS National Wetland Inventory map, and historical aerial photographs (from Oakland County). The applicant has also provided a Wetland Delineation map (Figure 2) prepared by King & MacGregor Environmental, Inc. dated July 16, 2018. As noted, three (3) wetlands have been delineated, but not all of these wetland areas are indicated on the City's Regulated Wetlands Map. Based on our review of this information the overall proposed project parcel contains areas mapped as City-Regulated Wetlands/Watercourses. The site appears to contain wetland/watercourse areas that are regulated by the City of Novi as well as the Michigan Department of Environment, Great Lakes, and Energy (EGLE; formerly MDEQ).

The focus of the site inspection was to review site conditions in order to determine whether City-regulated wetlands are found on-site. King & MacGregor Environmental, Inc. (KME) completed a wetland delineation for this site. The Wetland Delineation map (Figure 2) is dated July 16, 2018. Pink wetland boundary flagging was in place at the time of this site inspection. ECT reviewed the flagging and agrees that the wetland boundaries were accurately flagged in the field. Based on the existing vegetation and topography, it is ECT's assessment that the on-site wetlands have been accurately delineated on-site.

The following is a brief description of the on-site wetland features as provided on the original Wetland Delineation map (see Figure 2 provided by KME):

Wetland A – Scrub shrub wetland located in the southwest portion of the site. Wetland A is listed as less than 0.01-acre. The dominant wetland vegetation includes common buckthorn (*Rhamnus cathartica*), green ash (*Fraxinus pennsylvanica*), and Virginia creeper (*Parthenocissus quinquefolia*). This wetland is a small, isolated wetland.

Wetland B – Scrub-shrub and emergent wetland located on the eastern and southern portions of the site. This wetland extends off-site to the east and south, however the on-site portion is listed as 0.32-acres. The dominant wetland vegetation includes sedges (*Carex spp.*), reed canary grass (*Phalaris arundinacea*), cattails (*Typha spp.*), eastern cottonwood (*Populus deltoides*), and box elder (*Acer negundo*).

Wetland C – Scrub shrub wetland located in the western portion of the site but extends off-site to the west. Wetland C is listed as less than 0.01-acre. The dominant wetland vegetation is similar to that of Wetland A.

Wetland Impact Review

As noted above, several areas of wetland have been confirmed on the subject property by the applicant's wetland consultant (KME) and ECT. Currently, the Plan indicates two (2) direct impacts to on-site wetlands. The Plan quantifies the areas of the proposed wetland impacts on Sheet 3 (*Preliminary Grading Plan*). The total amount of direct (i.e., fill or excavation) impact to on-site wetlands currently indicated is 0.065-acre. The current impact to Wetland A in the southwest portion of the site (Impact 'B' on the *Preliminary Grading Plan*) is for the purpose of parking lot construction. The impact to Wetland B on the east side of the site (Impact 'A' on the *Preliminary Grading Plan*) is for the purpose of constructing parking area/loading ramp and the stormwater detention basin. The Plan also proposes the discharge of pre-treated stormwater runoff to Wetland B on the east side of the site from the proposed pre-treatment detention basin.

The following table summarizes the proposed wetland impacts as listed on the *Preliminary Grading Plan* (Sheet 3):

Table 1. Proposed Wetland Impacts

Impact Area	Wetland Impacted	City Regulated?	MDEQ Regulated?	Impact Area (square feet)	Impact Area (acres)	Impact Volume (cubic yards)
A	B	Yes City Regulated /Essential	Likely	1,841	0.04	120
B	A	Yes City Regulated /Essential	Likely	973	0.02	15
C	C	Yes City Regulated /Essential	Likely	None	None	None
TOTAL	--	--	--	2,814	0.06	135

In addition to the proposed wetland impacts, the Plan proposes disturbance to on-site 25-foot wetland buffer areas. The applicant is urged to minimize impacts to all wetlands and 25-foot wetland setback areas to the greatest extent practicable. The City regulates wetland and watercourse buffers/setbacks. Article 24, Schedule of Regulations, of the Zoning Ordinance states that:

“There shall be maintained in all districts a wetland and watercourse setback, as provided herein, unless and to the extent, it is determined to be in the public interest not to maintain such a setback. The intent of this provision is to require a minimum setback from wetlands and watercourses”.

The proposed wetland buffer impacts appear to be to the entire setback of Wetland A in the southwestern portion of the site, a large portion of the Wetland C buffer on the western side of the site, and portion of the Wetland B buffer on the eastern side of the site. The Applicant shall indicate whether all proposed impacts to the 25-foot wetland buffer are permanent or temporary on subsequent plan submittals. All impacts on the *Preliminary Grading Plan* (Sheet 3) appear to be permanent, however a Low Prairie Seed Mix is proposed on the *Landscape Plan* (Sheet L-1). It is not clear where this particular seed mix is proposed to be installed.

The following table summarizes the proposed wetland setback impacts as listed on the Plan:

Table 2. Proposed 25-Foot Wetland Buffer Impacts

Impact Area	Wetland Buffer Impacted	Wetland Buffer Area		Buffer Impact Area		Purpose of Impact
		Square Feet	Acre	Square Feet	Acre	
A	B	6,194	0.14	4,987	0.11	Parking lot, loading ramp detention basin
B	A	5,464	0.13	5,464	0.13	Parking lot
C	C	1,992	0.05	1,598	0.04	Grading for storm sewer inlet
TOTAL		13,650	0.32	12,049	0.28	--

Regulatory Status - EGLE

ECT has evaluated the on-site wetlands and believes that they are all considered to be essential/regulated by the City of Novi as they meet one or more of the essentiality criteria (i.e., functions and values) outlined in the City of Novi Wetland and Watercourse Protection Ordinance and regulated by EGLE. As noted, the wetlands appear to accurately flagged in the field and appear to be generally indicated accurately on the *Wetland Delineation Map* provided by KME (Figure 2, attached).

EGLE generally regulates wetlands that are within 500 feet of an inland lake, pond, or stream, or within 1,000 feet of a Great Lake, Lake St. Clair, the St. Clair River, or the Detroit River. Isolated wetlands five (5) acres in size or greater are also regulated. EGLE may also exert regulatory control over isolated wetlands less than five acres in size "...if the department determines that protection of the area is essential to the preservation of the natural resources of the state from pollution, impairment, or destruction and the department has notified the owner". It appears as if a tributary to the Walled Lake Branch of the Middle Rouge River may be enclosed and flow through this site within an existing 30-inch stormsewer (appears to connect Wetlands B and C). It is the applicant's responsibility to contact EGLE in order to confirm the regulatory authority with respect to the on-site wetland areas. In a *Pre-Application Meeting Response to Review* letter dated September 12, 2019, the applicant's engineer notes that the wetland permitting is currently in process with EGLE.

Regulatory Status – City of Novi

The City of Novi Wetland and Watercourse Protection Ordinance (City of Novi Code of Ordinances, Part II, Chapter 12, Article V.; Division 2.) describes the regulatory criteria for wetlands and review standards for wetland permit applications. The City of Novi regulates wetlands that are: (1) contiguous to a lake, pond, river or stream, as defined in Administrative Rule 281.921; (2) two (2) acres in size or greater; or (3) less than two (2) acres in size but deemed essential to the preservation of the natural resources of the city under the criteria set forth in subsection 12-174(b). Wetlands deemed regulated by the City of Novi require the approval of a use permit for any proposed impacts to the wetland.

ECT has evaluated the areas of on-site wetland and believes that each wetland is regulated by the City's Wetland and Watercourse Protection Ordinance because all on-site wetlands appear to be either located within 500-feet of a regulating stream/drain or extend offsite and are 2 acres in size or greater.

It should be noted that in those cases where an activity results in the impact to wetland areas of 0.25-acre or greater that are deemed essential under City of Novi Ordinance subsection 12-174(b) mitigation shall be required. The applicant shall submit a mitigation plan which provides for the establishment of replacement wetlands at a ratio of 1:1 through 2:1 times the area of the natural wetland impaired or destroyed, if impacts meet or exceed the 0.25-acre threshold. In general, the MDEQ's threshold for the requirement of wetland mitigation is 0.3-acre of wetland impacts. Wetland mitigation does not appear to be a requirement of the current Plan.

As noted above, any proposed use of the wetlands will require a City of Novi *Wetland Use Permit* as well as an *Authorization to Encroach the 25-Foot Natural Features Setback* for any proposed impacts to the 25-foot wetland buffers. The applicant is urged to minimize impacts to on-site wetlands and wetland setbacks to the greatest extent practicable. The City regulates wetland buffers/setbacks. Article 24, Schedule of Regulations, of the Zoning Ordinance states that:

“There shall be maintained in all districts a wetland and watercourse setback, as provided herein, unless and to the extent, it is determined to be in the public interest not to maintain such a setback. The intent of this provision is to require a minimum setback from wetlands and watercourses”.

Finally, as proposed, the project will require a City of Novi Non-Minor Use wetland permit. The granting or denying of nonresidential minor use permits shall be the responsibility of the Community Development Department. A nonresidential minor use permit is a permit for activities consisting of no more than one (1) of the following activities which have a minimal environmental effect:

- a. Minor fills of three hundred (300) cubic yards or less and not exceeding ten thousand (10,000) square feet in a wetland area, providing the fill consists of clean, nonpolluting materials which will not cause siltation and do not contain soluble chemicals or organic matter which is biodegradable, and providing that any upland on the property is utilized to the greatest degree possible. All fills shall be stabilized with sod, or seeded, fertilized and mulched, or planted with other native vegetation, or riprapped as necessary to prevent soil erosion.
- b. Installation of a single water outfall provided that the outlet is riprapped or otherwise stabilized to prevent soil erosion.
- c. Watercourse crossings by utilities, pipelines, cables and sewer lines which meet all of the following design criteria:
 - i. The method of construction proposed is the least disturbing to the environment employable at the given site;
 - ii. The diameter of pipe, cable or encasement does not exceed twenty (20) inches;
 - iii. A minimum of thirty (30) inches of cover will be maintained between the top of the cable or pipe and the bed of the stream or other watercourse on buried crossings; and
 - iv. Any necessary backfilling will be of washed gravel.
- d. Extension of a wetland/watercourse permit previously approved by the Planning Commission.
- e. Replacement of a culvert of an identical length and size, and at the same elevation. If the proposed culvert is of a greater length or size than the existing culvert, or is a new culvert

altogether, it must meet the conditions of subpart c., above, to qualify for a nonresidential minor use permit.

- f. Temporary impacts where the encroachment into protected areas is less than five hundred (500) feet.

Because the project contains a proposed stormwater outfall as well as two (2) direct impacts to wetlands, a Non-Minor Wetland Permit (and approval of Planning Commission) shall be required.

Wetland and Watercourse Comments

The following are repeat comment from our Wetland Review of the PRO Concept Plan (PSP18-0107) letter dated August 7, 2018. The current status of each comment follows in *bold italics*. ECT recommends that the Applicant address the items noted below in subsequent site plan submittals:

1. The wetland and wetland buffer boundaries indicated on the Plan appear to be approximate. Subsequent site plan submittals shall include the actual, surveyed wetland boundary information that appears to be included on the Wetland Delineation map provided by KME (Figure 2). The wetland flag numbers shall also be provided on the Plan.

This comment has been satisfactorily addressed. This information has been included on the Topographic Survey (Sheet 2).

2. It is unclear if the proposed site work will impact Wetland C, however it does not appear likely. The boundaries of Wetland C are not currently shown on Sheet 1. This information should be provided/clarified on subsequent site plan submittals.

This comment has been satisfactorily addressed. This information has been included on the Preliminary Grading Plan (Sheet 3).

3. The applicant shall indicate, quantify and label all existing areas of wetland and 25-foot wetland buffers (square feet or acres) on the Plan.

This comment has been satisfactorily addressed. This information has been included on the Preliminary Grading Plan (Sheet 3).

4. The applicant shall indicate, quantify and label all proposed impacts to the wetlands (square feet or acres) including proposed volume of cut/fill (cubic feet or cubic yards).

This comment has been satisfactorily addressed. This information has been included on the Preliminary Grading Plan (Sheet 3).

5. The applicant shall indicate, quantify and label all proposed impacts to the 25-foot wetland setbacks (square feet or acres).

This comment has been satisfactorily addressed. This information has been included on the Preliminary Grading Plan (Sheet 3).

6. It appears as though a MDEQ Wetland Permit and a City of Novi Non-Minor *Wetland Use Permit* would be required for any proposed impacts to on-site wetlands, if applicable. A City of Novi *Authorization to Encroach the 25-Foot Natural Features Setback* would be required for any proposed impacts to on-site 25-foot wetland or watercourse buffers.

This comment has been partially addressed. In a Pre-Application Meeting Response to Review letter dated September 12, 2019, the applicant's engineer notes that the wetland permitting is currently in process with EGLE. The Applicant should provide a copy of the EGLE Wetland Use Permit application to the City (and our office) for review and a copy of the approved permit upon issuance. A City of Novi Wetland Permit cannot be issued prior to receiving this information.

7. It should be noted that it is the Applicant's responsibility to confirm the need for a Permit from the MDEQ for any proposed wetland or floodplain impacts. Final determination as to the regulatory status of any on-site wetlands (if applicable) shall be made by MDEQ. The Applicant should provide a copy of the MDEQ Wetland Use Permit application to the City (and our office) for review and a copy of the approved permit upon issuance. A City of Novi Wetland Permit cannot be issued prior to receiving this information.

This comment has been partially addressed. See Comment No. 6, above.

8. The Plan should address how any temporary impacts to wetland or 25-foot wetland buffers shall be restored, if applicable. Subsequent Plan submittals shall include specifications for any proposed seed mixes proposed for use within these areas. Sod or common grass seed will not be acceptable to restore temporary impacts to wetlands or 25-foot wetland buffers.

This comment has not been addressed. All impacts on the Preliminary Grading Plan (Sheet 3) appear to be permanent, however a Low Prairie Seed Mix is proposed on the Landscape Plan (Sheet L-1). It is not clear where this particular seed mix is proposed to be installed. Please review and revise the Plan as necessary.

9. The applicant should ensure that any proposed snow storage areas are located such that any runoff will not directly affect any on-site wetlands, or the Walled Lake Branch of the Middle Rouge River (if applicable).

This comment has been satisfactorily addressed. The proposed snow storage areas have been indicated on the Landscape Plan (Sheet 1). It appears as though the runoff from the snow melt will be routed through the proposed detention basin prior to discharge to existing Wetland B on the eastern side of the site.

10. ECT suggests that any proposed stormwater management plan be reviewed by the City of Novi Engineering Department to ensure that they meet the City of Novi design requirements.

This comments still applies.

Keford Collision & Towing (JSP18-0031)
Wetland Review of the Preliminary Site Plan (PSP19-0142)
October 7, 2019
Page 8 of 12

Wetland Conclusion

The project site appears to contain wetlands/watercourse that are regulated by both the City of Novi and EGLE. Any proposed impacts to on-site wetlands will require a permit from EGLE, a City of Novi *Wetland and Watercourse Non-Minor Use Permit*, and an *Authorization to Encroach the 25-Foot Natural Features Setback* for any proposed impacts to the 25-foot wetland buffers.

Recommendation

ECT currently recommends approval of the Preliminary Site Plan for Wetlands. The Applicant shall address the items noted in the *Wetland Comments* Section of this letter prior to receiving Wetland approval of the Final Site Plan.

If you have any questions regarding the contents of this letter, please contact us.

Respectfully submitted,
ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.



Pete Hill, P.E.
Senior Associate Engineer

cc: Lindsay Bell, City of Novi Planner
Sri Komaragiri, City of Novi Planner
Madeleine Kopko, City of Novi Planning Assistant
Rick Meader, City of Novi Landscape Architect

Attachments: Figure 1 – City of Novi Regulated Wetland and Woodland Map
Figure 2 – Wetland Delineation Map
Site Photos

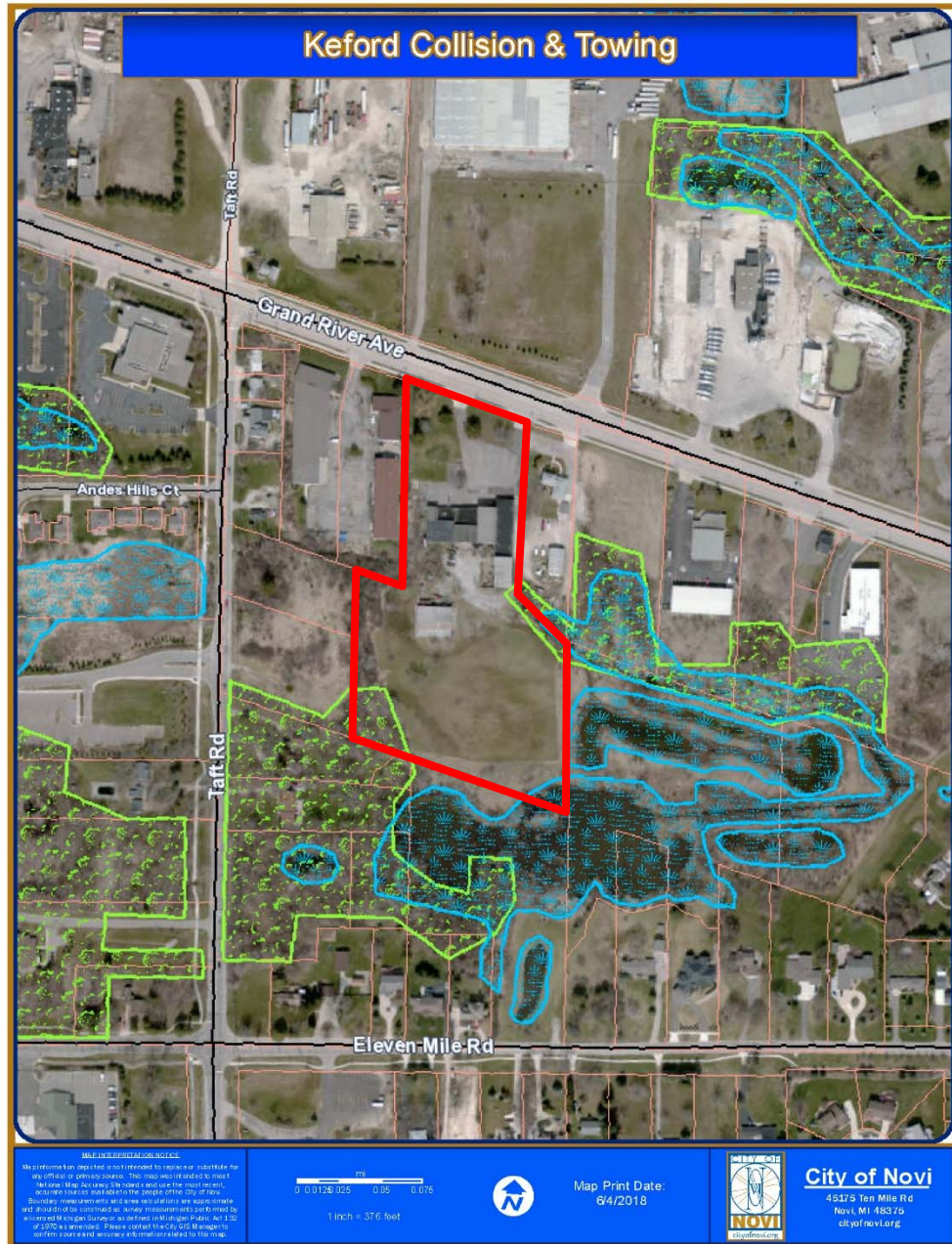
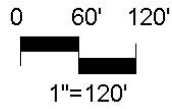


Figure 1. City of Novi Regulated Wetland & Woodland Map (approximate parcel boundary shown in red). Regulated Woodland areas are shown in green and Regulated Wetland areas are shown in blue.



Please be advised the information provided by KME, Inc. regarding wetland boundaries is an estimate of the wetland boundary. The ultimate decision on wetland boundary locations and jurisdictions thereof rests with the MDEQ and, in some cases, the Federal government. As a result, there may be adjustments to boundaries based upon review of a regulatory agency. An agency determination can vary, depending on various factors including, but not limited to, experience of the agency representative making the determination and the season of the year. In addition, the physical characteristics of the site can change with time, depending on the weather, vegetation patterns, drainage and management activities on adjacent parcels or other events. Any of these factors can change the nature/extent of wetlands on site. This wetland determination, as defined by the boundary flags depicted on this drawing, is valid for one growing season from the date flagged. There is no assurance given herein or otherwise implied that the KME, Inc. wetland boundary will be accepted by any regulatory agency. Reliance on KME, Inc.'s opinion is at the client's risk. Further, it has been our experience that site conditions are likely to change over the course of one year. Therefore, KME, Inc. strongly recommends that the client have no reliance on our opinion after one growing season. Be aware the manufacturer of the G.P.S. (Global Positioning System) used by KME, Inc. has advised that the equipment has, at best, sub-meter accuracy. The location of the actual wetland boundaries may therefore vary somewhat if a professional survey of the wetland flags is conducted.



PROJECT NUMBER 18199	SHEET NAME Wetland Boundary Map	SHEET NUMBER 1	DATE 07/16/18	DRAWN BY MM	CHECKED BY MM	SCALE AS SHOWN	PROJECT TITLE Wetland Delineation For: 45237 Grand River Avenue City of Novi, Oakland County, Michigan		

Figure 2. Wetland Delineation Map (provided by King & MacGregor Environmental, Inc., dated July 16, 2018).

Site Photos



Photo 1. Looking south at Wetland B (near flag B-12) along the eastern portion of the site (ECT, July 25, 2018).



Photo 2. Looking southeast at open water area of Wetland B located off-site to the south (ECT, July 25, 2018).



Photo 3. Looking west at scrub-shrub Wetland B located in the southwest portion of the site (ECT, July 25, 2018).



Photo 4. Looking north towards Wetland C located in the western portion of the site (ECT, July 25, 2018).

FAÇADE REVIEW



October 17, 2019

City of Novi Planning Department
 45175 W. 10 Mile Rd.
 Novi, MI 48375- 3024

Façade Review Status Summary:
Approved - Full compliance.
Section 9 Waiver not required.

Re: FACADE ORDINANCE REVIEW – Preliminary Site Plan
Keford Collision & Towing, JSP18-31, PSP18-0107
 Façade Region: 1, Zoning District: I-1,

Dear Ms. McBeth;

The following is the Façade Review for the Preliminary Site Plan of the above referenced project. This review is based on the drawings dated 10/17/19, prepared Cityscape Architects of Novi, Michigan. A sample board with renderings and proposed colors was also provided. The percentages of materials proposed for each façade are as shown on the table below. The maximum percentages of materials allowed by Façade Ordinance are shown in the right hand column. Note that the façade materials on the side and rear elevations are not proposed to be changed.

	North (Front)	East	West	South	Ordinance Maximum (Minimum)
Brick (existing 8" x 8" natural fired clay tile)	47%	UN	UN	UN	30% Minimum
Tile (Proposed 8" x 8", blue color)	25%	UN	UN	UN	25%
Flat Metal (Canopy fascia)	3%	UN	UN	UN	50%
Flat Metal (horizontal louver feature, "real red")	25%	UN	UN	UN	50%
UN - Unaltered					

Recommendation – This project is considered a façade alteration as regulated by Section 5.15.6 of the Ordinance. The applicant has revised the color of the proposed louver feature to a more subdued tone (BM-1315). The color is now consistent with Section 5.15.2 of the Façade Ordinance which prohibits intense colors. The existing 8” x 8” tile is a natural fired clay product. This material may be considered brick with respect to the Ordinance, providing that it is not painted. Although the façade materials on the side and rear facades are not proposed to be altered these facades are proposed to be painted to generally match the color of front façade (BM1616). Therefore, it is our recommendation that the design is consistent with the Façade Ordinance and the PRO Agreement. A Section 9 Waiver is not required for this project.

Notes to the Applicant:

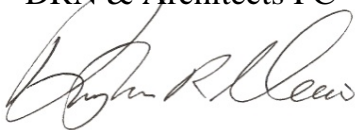
1. It should be noted that all roof top equipment must be screened from view from all vantage points both on-site and off-site using materials in compliance with the Façade Ordinance.

2. Inspections – The Façade Ordinance requires inspection(s) for all projects. Materials displayed on the approved sample board (in this case the adjacent existing material) will be compared to materials to be installed. It is the applicant’s responsibility to request the inspection of each façade material at the appropriate time. Inspections may be requested using the Novi Building Department’s Online Inspection Portal with the following link. Please click on “Click here to Request an Inspection” under “Contractors”, then click “Façade”.

<http://www.cityofnovi.org/Services/CommDev/OnlineInspectionPortal.asp>.

If you have any questions regarding this review, please do not hesitate to call.

Sincerely,
DRN & Architects PC

A handwritten signature in black ink, appearing to read "Douglas R. Necci". The signature is fluid and cursive, written over a faint, larger version of the same signature.

Douglas R. Necci, AIA

FIRE REVIEW



September 24, 2019

TO: Barbara McBeth- City Planner
Sri Ravali Komaragiri- Plan Review Center
Lindsay Bell-Plan Review Center
Madeleine Kopko-Planning Assistant

CITY COUNCIL

Mayor
Bob Gatt

Mayor Pro Tem
Dave Staudt

Andrew Mutch

Laura Marie Casey

Kelly Breen

Ramesh Verma

Doreen Poupard

City Manager
Peter E. Auger

Director of Public Safety
Chief of Police
David E. Molloy

Director of EMS/Fire Operations
Jeffery R. Johnson

Assistant Chief of Police
Erick W. Zinser

Assistant Chief of Police
Scott R. Baetens

RE: Keford Towing

Project Description:

Build a 23493 S.Q.F.T. structure off of Grand River.

Comments:

- **All** fire hydrants **MUST** be installed and operational prior to any combustible material is brought on site. **IFC 2015 3312.1**
- Water-main sizes and fire hydrant locations **MUST** be put on the plans for review.
- **MUST** provide a Knox Lock for the gates X2.
- **Existing fire lane Corrected**. Fire access lane on the east side of the structure **MUST** be 20' wide. NOT 18.6'. **IFC 2015 503.2.1**
- Turning radius doesn't meet city standards, 50' outside and 30' inside turning radius. Locations are northwest corner and southeast corner of the structure.

Recommendation:

APPROVED WITH CONDITIONS

Sincerely,

A handwritten signature in black ink, appearing to read 'KSP', with a horizontal line extending to the right.

Kevin S. Pierce-Fire Marshal
City of Novi – Fire Dept.

cc: file

Novi Public Safety Administration
45125 Ten Mile Road
Novi, Michigan 48375
248.348.7100
248.347.0590 fax

cityofnovi.org

APPLICANT RESPONSE LETTER



46892 West Road, Suite 109
Novi, Michigan 48377
Phone: (248) 926-3701
Fax: (248) 926-3765
Web: www.alpine-inc.net

October 22, 2019

via email

Sri Ravali Komaragiri
City of Novi Community Development Department
45175 West 10 Mile Road
Novi, MI 48375

**Re: Keford Towing
Response to PSP Review Comments
Alpine Engineering Inc. Project #17-504
JSP18-31**

Dear Sri

On behalf of our client, Keford Towing, please find the following information for your distribution and review:

- PDF copy of the Preliminary Site Plan (dated 09-12-2019)
- PDF copy of the Demarcation Plan (dated 10-22-2019)

Please find the following responses to the reviews received on October 11, 2019 via email for the above referenced project.

PLANNING REVIEW LETTER (DATED OCTOBER 7, 2019)

- 1. Comment:** Please add the PRO conditions and deviations listed in this letter on the site plan sheet for reference. Please refer to additional comments that need to be addressed to comply with the PRO Conditions listed in next section.

Response: The PRO conditions and deviations will be listed on the plans for the Final Site Plan submittal.
- 2. Comment:** It appears that there is no proposed use or a prospective tenant for the out building. The applicant should provide an update. A Planning Commission approval is required for any proposed use. The applicant should contact Community Development department once a prospective tenant is determined.

Response: The Applicant will provide this information when it is determined.
- 3. Comment:** The plan should clearly label the 10 dedicated spaces for car rental, dedicated spaces for staging.

Response: Additional notation will be provided to provide clarity for the dedicated parking spaces.
- 4. Comment:** Please provide the photometric information on building facades. In addition to the site photometric plan.

Response: Additional photometric information will be provided on the Final Site Plan.
- 5. Comment:** Indicate what lights will be turned on past hours of operation for security reasons. A separate photometric plan is required for security lights only.

Response: Additional photometric information will be provided on the Final Site Plan.
- 6. Comment:** It appears that there is no proposed use or a prospective tenant for the out building. The applicant should provide an update.

Response: The Applicant will provide this information when it is determined.
- 7. Comment:** It appears that there is name change to the business. It is unclear if the ownership changed as well. The applicant should clarify.

Response: The Applicant will provide this information.
- 8. Comment:** The plans do not show clear demarcation as required. Refer to Traffic review for more details.

Response: A Demarcation Plan has been included with this submittal for review.

PLANNING REVIEW CHART (DATED OCTOBER 7, 2019)

9. **Comment:** *The applicant should contact Community Development department once a prospective tenant is determined.*
Response: Understood.
10. **Comment:** Clearly label rental car parking on the plan. The applicant also referred to moving them inside for repair. Please clearly label dedicated spaces used for staging.
Response: The rental car parking including spaces proposed for staging will be labeled on the Final Site Plan.
11. **Comment:** Review to the traffic review for more comments.
Response: Refer to the traffic review responses below.
12. **Comment:** Provide dumpster elevations to verify conformance.
Response: A dumpster elevation will be provided on the Final Site Plan.
13. **Comment:** Exterior Lighting. Refer to comments provided later in the chart.
Response: Refer to the photometrics review responses below.
14. **Comment:** Refer to traffic review for more comments.
Response: Refer to the traffic review responses below.
15. **Comment:** A sign permit is required. For sign permit information contact Ordinance at 248-347-0438.
Response: Understood.
16. **Comment:** Please provide the photometric information on building facades. In addition the site photometric plan.
Response: Additional photometrics information will be provided on the Final Site Plan.
17. **Comment:** Hours of operation not provided.
Response: The hours of operation will be provided on the Final Site Plan.
18. **Comment:** Specification sheets for all proposed lighting are not provided. Please provide as required.
Response: The cut sheets for the proposed lights will be provided on the Final Site Plan.
19. **Comment:** Please add these notes to photometric sheet P-1.
Response: The notes indicated will be added on the Final Site Plan.
20. **Comment:** Indicate what lights will be turned on past hours of operation for security reasons. A separate photometric plan is required for security lights only.
Response: Additional information regarding security lighting will be provided on the Final Site Plan.

ENGINEERING REVIEW (DATED OCTOBER 10, 2019)

1. **Comment:** *A right-of-way permit will be required from the City of Novi for work in the Grand River Avenue right-of-way.*
Response: A City of Novi right-of-way permit will be applied for at the time of the Final Site Plan and a note indicating this is located on the plans. Refer to Note #6 on the "Preliminary Site Plan".
2. **Comment:** *A right-of-way permit will also be required from the Road Commission for Oakland County (RCOC) for work in the Grand River Avenue right-of-way.*
Response: An Oakland County right-of-way permit will be applied for at the time of the Final Site Plan and a note indicating this is located on the plans. Refer to Note #6 on the "Preliminary Site Plan".
3. **Comment:** *The Non-domestic User Survey form shall be submitted to the City so it can be forwarded to Oakland County.*
Response: Per discussion with the Planning Department on September 9th, 2019, the Non-domestic User Survey will be provided with the Final Site Plan submittal.
4. **Comment:** *Show and label the existing 50-foot half right-of-way for Grand River Avenue.*
Response: The existing 50-foot half right-of-way line will be shown and labeled on the Final Site Plan.
5. **Comment:** *A license agreement will be required for fencing proposed within existing sanitary sewer easement.*
Response: Understood. We have contacted the City Engineering Department to obtain the process for acquiring this agreement.
6. **Comment:** *The applicant should be aware that additional hydrants may be required per Fire Department review, given the lack of existing hydrants on-site and the distance of the nearest existing hydrant northeast of the site in the Grand River Avenue right-of-way.*
Response: Understood.

7. **Comment:** *The Storm Water Management Plan for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the new Engineering Design Manual.*
Response: Understood.
8. **Comment:** *The storm water management plan proposes to maintain an existing condition of site drainage going into the Grand River right-of-way. Review and approval by the Road Commission for Oakland County will be required, and a variance from the Design and Construction Standards is required in any case where all drainage is not captured on-site.*
Response: Understood, the plans will be submitted to the RCO. We respectfully request a variance from the Design and Construction Standards for maintaining existing site drainage draining to the Grand River Avenue Right-of-Way.
9. **Comment:** *Restricted discharge to an off-site regional detention basin is proposed. Bankfull storage will be provided on-site. Any applicable storm water detention tap fees will be pro-rated for bankfull detention storage provided on the site.*
Response: No comment.
10. **Comment:** *Provide a soil boring in the vicinity of the basin to determine soil conditions and to establish the high water elevation of the groundwater table.*
Response: A soil boring in the proposed basin area will be submitted at the time of the Final Site Plan submittal.
11. **Comment:** *One foot of freeboard shall be provided above the uppermost storage elevation, rather than the 0.4 foot shown on the plans.*
Response: The plans currently show one (1) foot of freeboard. Additional information will be provided on the Final Site Plan to provide clarity.
12. **Comment:** *A 25-foot vegetated buffer shall be provided around the storm water basin where any pavement runoff is directed toward the basin.*
Response: A twenty-five (25)-ft vegetated buffer has been provided along the west side of the basin. Refer to the "Preliminary Storm Water Management Plan".
13. **Comment:** *The maintenance access route to the basin outlet structure shall be a minimum of 15 feet wide for its entirety, including the proposed rip-rap and curb drop.*
Response: This information will be provided on the Final Site Plan.
14. **Comment:** *Provide a 5-foot wide stone bridge/access route allowing direct access to the standpipe from the bank of the basin during high-water conditions (i.e. stone 6-inches above high water elevation).*
Response: This information will be provided on the Final Site Plan.
15. **Comment:** *Provide an access easement for maintenance over the storm water detention system and the pretreatment structure. Also, include an access easement to the detention area from the public road right-of-way.*
Response: An access easement for storm water detention system maintenance will be provided at the time of the Final Site Plan submittal.
16. **Comment:** *Provide manufacturer's details and sizing calculations for the pretreatment structure within the plans. Provide drainage area and runoff coefficient calculations specific to the area tributary to the treatment structure. The treated flow rate should be based on the 1-year storm event intensity (~1.6 in/hr). Higher flows shall be bypassed.*
Response: Currently, the design is utilizing a wet detention basin to accommodate water quality treatment. Additional information regarding the basin will be provided on the Final Site Plan.
17. **Comment:** *Provide release rate calculations for the two design storm events addressed on this site (first flush and bankfull).*
Response: Additional calculations will be provided on the Final Site Plan.
18. **Comment:** *Due to maintenance concerns, each restricting orifice in the control structure shall be a minimum of 1 square-inch in size, even though this may result in a flow rate above that calculated.*
Response: Additional detail for the outlet control structures will be provided on the Final Site Plan.
19. **Comment:** *In consideration of the City's waiver of the ordinance requirements that the rear storage are be paved. Developer shall:*
 - a. **Comment:** *Keep the access aisle as shown on the PRO plan free from parked vehicles or other obstructions so that there is fire truck access at all times (with the details of the Developer's plan to*

designate or demarcate the access aisle shown on the final approved site plan);

Response: A Demarcation Plan has been provided for the PC meeting as requested by the Planning Department.

- b. **Comment:** Undertake regular maintenance of the gravel storage areas so as to prevent the migration of the gravel storage area to other areas of the waterbodies. To ensure compliance with these requirements, the City shall have a reasonable right to enter onto the Land or Development for purposes of inspection; provided, however, the City shall give 48 hours' notice of any expected inspection. If the City determines that corrective action is required to be taken, it shall issue a notice of corrective action, which shall include a time period for correction. Failure to comply shall be treated as a breach of this Agreement.

Response: Understood.

20. **Comment:** Design and Construction waivers of Section 11-239 of the City's Zoning Ordinance were authorized:

- a. **Comment:** To allow gravel parking for storage yard in the rear

Response: No comment.

- b. **Comment:** For lack of curb and gutter within the rear yard storage area

Response: No comment.

- c. **Comment:** For lack of parking lot striping.

Response: No comment.

21. **Comment:** Two of the proposed barrier free ramps appear to exceed the absolute maximum longitudinal slope of 8.33%. These ramps are (1) the longest ramp at the northwest corner of the main existing building, and (2) the short ramp at the northwest corner of the paved parking lot.

Response: Additional detail will be provided on the Final Site Plan.

22. **Comment:** Verify and label the slopes along the ingress/egress routing to the building from the barrier-free stalls. All barrier-free stalls shall comply with Michigan Barrier-Free regulations.

Response: Additional detail will be provided on the Final Site Plan.

23. **Comment:** Detectable warning plates are required at all barrier free ramps, hazardous vehicular crossings and other areas where the sidewalk is flush with the adjacent drive or parking pavement. The barrier-free ramps shall comply with current MDOT specifications for ADA Sidewalk Ramps. Provide the latest version of the MDOT standard detail for detectable surfaces.

Response: Additional detail will be provided on the Final Site Plan.

24. **Comment:** Label specific ramp locations on the plans where the detectable warning surface is to be installed.

Response: Additional detail will be provided on the Final Site Plan.

25. **Comment:** Specify the product proposed and provide a detail for the detectable warning surfaces for barrier free ramps. The product shall be the concrete warning surface for barrier free ramps. The product shall be the concrete embedded detectable warning plates, or equal, and shall be approved by the Engineering Division. Stamped concrete will not be acceptable.

Response: Additional detail will be provided on the Final Site Plan.

26. **Comment:** Provide proposed contours for areas surrounding the rear yard gravel lot.

Response: Additional detail will be provided on the Final Site Plan.

27. **Comment:** Clarify all proposed contours by labeling contour elevations.

Response: Additional detail will be provided on the Final Site Plan.

28. **Comment:** Add pavement and curb grades to proposed parking along existing south building.

Response: Additional detail will be provided on the Final Site Plan.

29. **Comment:** Curbing and walks adjacent to the end of 17-foot stalls shall be reduced to 4-inches high (rather than the standard 6-inch heights to be provided adjacent to 19-foot stalls). Some top-of-curb grades adjacent to 17-foot stalls continue to be 6 inches above top-of-pavement.

Response: Grading corrections will be provided on the Final Site Plan.

30. **Comment:** Provide a plan view and cross-sections of the retaining walls. Sheet with these details shall be signed and sealed by the design engineer responsible for the proposed retaining wall design and all associated calculations.

Response: Additional detail will be provided on the Final Site Plan.

31. **Comment:** An SESC permit is required. A full review has not been completed at this time. The review checklist

detailing all SESC requirements is attached to this letter. Please submit an SESC permit application under separate cover.

Response: A SESC permit will be applied for at the time of the Final Site Plan.

32. **Comment:** Any required off-site easements must be executed prior to final approval of the plans. Drafts shall be submitted the time of the Final Site Plan submittal.

Response: Understood.

33. **Comment:** A letter from either the applicant or the applicant's engineer must be submitted with the Final Site Plan highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved. Additionally, a statement must be provided stating that all changes to the plan have been discussed in the applicant's response letter.

Response: Understood.

34. **Comment:** An itemized construction cost estimate must be submitted to the Community Development Department for the determination of plan review and construction inspection fees. This estimate should only include the civil site work and not any costs associated with construction of the building or any demolition work. The estimate must be itemized for each utility (water, sanitary, storm sewer), on-site paving (square yardage), right-of-way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pre-treatment structure and restoration).

Response: Understood.

35. **Comment:** A draft copy of the Storm Drainage Facility Maintenance Easement Agreement (SDRMEA), as outline in the Storm Water Management Ordinance, must be submitted to the Community Development Department. Once the agreement is approved by the City's Legal Counsel, this agreement will then be sent to City Council for approval/acceptance. The SDFMEA will then be recorded at the office of the Oakland County Register of Deeds.

Response: Understood.

36. **Comment:** A draft copy of the access easement to sanitary sewer monitoring manholes must be submitted to the Community Development Department. This document is available on our website.

Response: Understood.

37. **Comment:** A pre-construction meeting shall be required prior to any site work being started. Please contact Sarah Marchioni in the Community Development Department to setup a meeting (248-347-0430)

Response: Understood.

38. **Comment:** A City of Novi Grading Permit will be required prior to any grading on the site. This permit will be issued at the pre-construction meeting (no application required). No fee is required for this permit.

Response: Understood.

39. **Comment:** Material certifications must be submitted to Spalding DeDecker for review prior to the construction of any onsite utilities. Contact Ted Meadows at 248-844-5400 for more information.

Response: Understood.

40. **Comment:** Construction inspection fees must be paid to the Community Development Department.

Response: Understood.

41. **Comment:** Legal escrow fees must be deposited with the Community Development Department. All unused escrow will be returned to the payee at the end of the project. This amount includes engineering legal fees only. There may be additional legal fees for planning legal documents.

Response: Understood.

42. **Comment:** A storm water performance guarantee (equal to 120% of the cost required to complete the storm water management facilities) as specified in the Storm Water Management Ordinance must be posted at the Community Development Department.

Response: Understood.

43. **Comment:** Water and Sanitary Sewer Fees must be paid prior to the pre-construction meeting. Contact the Water & Sewer Division at 248-347-0498 to determine the amount of these fees.

Response: Understood.

44. **Comment:** A street sign financial guarantee (\$400 per traffic control sign proposed) must be posted at the Community Development Department. Signs must be installed in accordance with MMUTCD standards.

Response: Understood.

45. As described previously, a Soil Erosion Control Permit must be obtained from the City of Novi.
Response: Understood.
46. **Comment:** A permit for all proposed work activities within the road right-of-way of Grand River Avenue must be obtained from the City of Novi.
Response: Understood.
47. **Comment:** A permit for work within the road right-of-way of Grand River Avenue must be obtained from the Road Commission for Oakland County (RCOC).
Response: Understood.
48. **Comment:** An NPDES permit must be obtained from the MDEQ since the site is over 5 acres in size. The MDEQ may require an approved SESC plan to be submitted with the Notice of Coverage.
Response: Understood.
49. **Comment:** An inspection permit for the sanitary sewer taps must be obtained from the Oakland County Water Resource Commissioner (OCWRC).
Response: Understood.
50. **Comment:** The amount of the incomplete site work performance guarantee for any outstanding site improvement items, is calculated at 1.2 times the amount required to complete the site improvements.
Response: Understood.
51. **Comment:** All easement and agreements referenced above must be executed, notarized and approved by the City Attorney and Engineering Division.
Response: Understood.
52. **Comment:** The City's consultant Engineer Spaulding DeDecker will prepare the record drawings for this development. The record drawings will be prepared in accordance with Article XII, Design and Construction Standards, Chapter 11 of the Novi Code of Ordinances.
Response: Understood.
53. **Comment:** Submit an up-to-date Title Policy (dated within 90 days of City Council consideration of acceptance) for the purpose of verifying that the parties signing the Easement documents have the legal authority to do so. Please be sure that all parties of interest shown on the title policy (including mortgage holders) Either sign the easement documents themselves or provide a Subordination Agreement. Please be aware that the title policy may indicate that additional documentation is necessary to complete the acceptance process.
Response: Understood.

ECT – WETLANDS & WOODLAND REVIEW (DATED OCTOBER 9, 2019)

Wetland Review Comments

1. **Comment:** *The wetland and wetland buffer boundaries indicated on the Plan appear to be approximate. Subsequent site plan submittals shall include the actual, surveyed wetland boundary information that appears to be included on the Wetland Delineation map provided by KME (figure 2). The wetland flag numbers shall also be provided on the plans. **This comment has been satisfactorily addressed. This information has been included on the Topographic Survey (Sheet 2)***
Response: No comment.
2. **Comment:** *It is unclear if the proposed site work will impact Wetland C, however it does not appear likely. The boundaries of Wetland C are not currently shown on sheet 1. This information should be provided/clarified on subsequent site plan submittals. **This comment has been satisfactorily addressed. This information has been included on the Preliminary Grading Plan (Sheet 3).***
Response: No comment.
3. **Comment:** *The applicant shall indicate, quantity and label all existing areas of wetland and 25-foot wetland buffers (square feet or acres) on the Plan. **This comment has been satisfactorily addressed. This information has been included on the Preliminary Grading Plan. (Sheet 3).***
Response: No comment.
4. **Comment:** *The applicant shall indicate, quantify and label all proposed impacts to the wetlands (square feet or acres) including proposed volume of cut/fill (cubic feet or cubic yards). **This comment has been satisfactorily addressed. This information has been included on the Preliminary Grading Plan (sheet 3).***
Response: No comment.

5. **Comment:** *The applicant shall indicate, quantify and label all proposed impacts to the 25-foot wetland setbacks (square feet or acres). This comment has been satisfactorily addressed. This information has been included on the Preliminary Grading Plan (Sheet 3).*
Response: No comment.
6. **Comment:** *It appears as though a MDEQ Wetland Permit and a City of Novi Non-Minor Wetland Use Permit would be required for any proposed impacts to on-site wetlands, if applicable. A City of Novi Authorization to encroach the 25-foot Natural Features Setback would be required for any proposed impacts to on-site 25-foot wetland or watercourse buffers. This comment has been partially addressed. In a Pre-Application Meeting Response to Review letter dated September 12, 2019, the applicant's engineer notes that the wetland permitting is currently in process with EGLE. The Applicant should provide a copy of the EGLE Wetland Use Permit application to the City (and our office) for review and a copy of the approved permit upon issuance. A City of Novi Wetland Permit cannot be issued prior to receiving this information.*
Response: Wetland permitting is currently in process. The application will be forwarded once ready.
7. **Comment:** *It should be noted that it is the Applicant's responsibility to confirm the need for a Permit from the MDEQ for any proposed wetland impact. Final determination as to the regulatory status of each of the on-site wetlands shall be made by MDEQ. The Applicant should provide a copy of the MDEQ Wetland Use Permit application to the City (and our office) for review and a copy of the approved permit upon issuance. A City of Novi Wetland Permit cannot be issued prior to receiving this information. This comment has been partially addressed. See Comment No. 6, above.*
Response: This information is currently being investigated and will be submitted under separate cover.
8. **Comment:** *The Plan should address how any temporary impacts to wetland or 25-foot wetland buffers shall be restored, if applicable. Subsequent Plan submittals shall include specifications for any proposed seed mixes proposed for use within these areas. Sod or common grass seed will be acceptable to restore temporary impacts to wetlands or 25-foot wetland buffers. This comment has not been addressed. All impacts on the Preliminary Grading Plan (Sheet 3) appear to be permanent, however Low Prairie Seed Mix is proposed on the Landscape Plan (Sheet L-1). It is not clear where this particular seed mix is proposed to be installed. Please review and revise the Plan as necessary.*
Response: Additional information will be provided on the Final Site Plan.
9. **Comment:** *The applicant should ensure that any proposed snow storage areas are located such that any runoff will not directly affect any on-site wetlands or the Walled Lake Branch of the Middle Rouge River (if applicable)*
Response: Additional information has been provided. Refer to the "Landscape Plan". **This comment has been satisfactorily addressed. The proposed snow storage areas have been indicated on the Landscape Plan (Sheet 1). It appears as though the runoff from the snow melt will be routed through the proposed detention basin prior to discharge to existing Wetland B on the eastern side of the site.**
Response: No comment.
10. **Comment:** *ECT suggests that any proposed stormwater management plan be reviewed by the City of Novi Engineering Department to ensure that they meet the City of Novi design requirements. This comment still applies.*
Response: No comment.

Woodland Review Comments

1. **Comment:** *ECT currently recommends approval of the PRO Concept Plan for Woodlands. No further woodland review of the proposed project is necessary.*
A review letter for the woodlands was not provided within the October 11th, 2019 review package.
Response: No comment.

AECOM – TRAFFIC REVIEW (DATED OCTOBER 9, 2019)

Internal Site Operations

1. **General Traffic Flow**
 - a. **Comment:** *The applicant has generally indicated 24 foot aisles throughout the site.*
Response: Additional dimensions will be included on the Final Site Plan.
 - b. **Comment:** *The applicant is proposing an 18 foot wide, one-way emergency access drive along the east side of the building. The applicant should provide further detail regarding the gate and signing*

requirements, and should work with the Fire Marshal regarding the need for gates at either end of the drive.

Response: Additional information will be provided on the Final Site Plan.

- c. **Comment:** *The applicant should indicate the manner in which the drive aisles in the unstriped rear gravel lot will be maintained for clear fire access.*

Response: A Demarcation Plan has been prepared to address this item. Refer to the "Demarcation Plan".

- d. **Comment:** *The applicant was granted a deviation to install painted end islands in lieu of raised end islands.*

Response: No comment.

- e. **Comment:** *The applicant has included dimensions for the widths of the proposed painted end islands throughout the site that are generally in compliance with City requirements as stated in Section 5.3.12 of the Zoning Ordinance.*

- i. **Comment:** *Note that all end islands shall be constructed three (3) feet shorter than the adjacent parking space.*

Response: *Additional dimensions will be added to provide clarity on the Final Site Plan.*

- ii. **Comment:** *The radii of the painted end islands are generally in compliance with City standards, with the exception of the following.*

1. **Comment:** *The applicant should provide justification for the irregular raised end island near the building canopy on the south side of the site or update to meet City standards.*

Response: *Additional information to provide clarity will be provided on the Final Site Plan.*

2. **Comment:** *Additionally, there is a painted end island proposed near the south side of the auxiliary building within the gated area that has an outside radius of 10 feet. This should be updated to a minimum of 15 feet.*

Response: *Additional information to provide clarity will be provided on the Final Site Plan.*

- f. **Comment:** *The applicant has proposed a trash receptacle in the rear yard. The trash receptacle is located in a position that, while during pick-up periods, may diminish the ability for vehicles to exist the nearest parking space; however, it is not expected to diminish accessibility beyond acceptable levels.*

Response: No comment.

- g. **Comment:** *The applicant has indicated a loading ramp location and a 10' by 25' loading zone on the site plan.*

- i. **Comment:** *The applicant provided truck travel patterns throughout the site and confirmed accessibility to/from the loading zone.*

Response: No comment.

- h. **Comment:** *There are proposing parking bays that have more than 15 consecutive parking spaces. The applicant has been granted a deviation for the lack of landscape islands every 15 spaces in accordance with the City's Zoning Ordinance, section 5.5.3.C.ii.i.*

Response: No comment.

2. Parking Facilities

- a. **Comment:** *Refer to the Planning Letter for information about parking requirements and calculations.*

Response: No comment.

- b. **Comment:** *The applicant has indicated 17 foot long parking spaces abutting four inch curbs, and 19 foot long parking spaces in all other areas.*

Response: No comment.

- c. **Comment:** *The applicant has provided the width of the barrier free parking spaces and aisles, which are in compliance with City standards.*

- i. **Comment:** *One of the barrier-free parking spaces is proposed to be behind the gated portion of the parking lot. The applicant could consider moving this space to be within the main parking lot area.*

Response: No comment.

- d. **Comment:** *The applicant has proposed a barrier-free parking space along the western side of the property and should strongly consider relocating this parking space to be closer to the building entrance which it is serving. The applicant indicated that the grading of the site limits the ability to move this space.*
 - i. **Comment:** *The applicant should provide a ramp to the sidewalk next to this accessible parking space.*
Response: Additional grading detail will be provided on the Final Site Plan.
- e. **Comment:** *The applicant should review the curb heights throughout the site to generally provide 6" curbs for all landscape areas, except when placed directly in front of a 17' parking space where the curb should be 4".*
 - i. **Comment:** *The grading plan and details are generally in compliance with this; however, there are locations throughout the site where further clarification is needed, such as along the existing building to the south.*
Response: Grading will be reviewed and corrected where necessary for the Final Site Plan.

3. Sidewalk Requirements

- a. **Comment:** *The applicant should dimension the width of all proposed sidewalks.*
 - i. **Comment:** *Sidewalk throughout the site are required to be a minimum of 5' wide.*
Response: Additional dimensions will be included on the Final Site Plan.
 - ii. **Comment:** *Note that when a 17' parking space abuts a sidewalk, the sidewalk shall be 4" in height and a minimum of 7' wide to accommodate a 2' vehicle overhang and provide 5' of unobstructed travel way for non-motorized users.*
Response: Grading will be reviewed and corrected where necessary for the Final Site Plan.
- b. **Comment:** *The applicant should label sidewalk ramps on the plans and include the latest Michigan Department of Transportation (MDOT) detail.*
Response: MDOT details for ADA barrier free ramps will be included on the Final Site Plan.
- c. **Comment:** *The applicant should provide a sidewalk ramp at the north bay of parking that connects the sidewalk from Grand River Avenue to the site.*
Response: Grading will be reviewed and corrected where necessary for the Final Site Plan.

Signing and Striping

- 1. **Comment:** *All on-site signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices (MMUTCD). The following is a discussion of the proposed signing and striping.*
Response: No comment.
- 2. **Comment:** *The applicant has included a sign quantity table*
Response: No comment.
- 3. **Comment:** *The applicant should provide notes and details related to proposed signing.*
 - a. **Comment:** *Traffic control signs shall use the FHWA Standard Alphabet series*
Response: Additional information will be provided on the Final Site Plan.
- 4. **Comment:** *The applicant should provide notes and details related to proposed pavement markings.*
 - a. **Comment:** *Detail the pavement markings for the end islands and other hatched areas, including color, striping width, etc.*
Response: Additional information will be provided on the Final Site Plan.
 - b. **Comment:** *Detail the pavement markings for crosswalks, including color and striping width.*
 - i. **Comment:** *The applicant should consider adding crosswalk markings at the northeast sidewalk ramp to the sidewalk that leads to Grand River Avenue.*
Response: The Applicant will consider additional crosswalk markings.
 - c. **Comment:** *A detail has been provided for the international symbol for accessibility.*
Response: No comment.

CITY OF NOVI FIRE DEPARTMENT REVIEW (DATED SEPTEMBER 24, 2019)

- 1. **Comment:** *All fire hydrants must be installed and operational prior to any combustible material is brought on site.*
Response: A note indicating this will be provided on the Final Site Plan.

2. **Comment:** *Water main sizes and fire hydrant locations must be put on the plans for review.*
Response: No comment.
3. **Comment:** Must provide a Knox lock for the gates
Response: A note indicating this will be provided on the Final Site Plan.
4. **Comment:** Existing fire lane Corrected. Fire access lane on the east side of the structure must be 20' wide. Not 18.6'
Response: East access lane is an existing condition.
5. **Comment:** Turning radius doesn't meet city standards, 50' outside and 30' inside turning radius. Locations are northwest corner and southeast corner of the structure.
Response: Additional information will be provided on the Final Site Plan.

DRN & ASSOCIATES, ARCHITECT, PC REVIEW (DATED AUGUST 7, 2019)

Refer to the response to review letter prepared by Cityscape and dated October 16, 2019.


LANDSCAPE REVIEW LETTER (DATED SEPTEMBER 30, 2019)

Refer to the response to review letter prepared by Allen Design and dated October 21, 2019.

If you have any questions/comments, please feel free to contact me at (248) 926-3701 or shiloh@alpine-inc.net.

Thank you.

Sincerely,
Alpine Engineering, Inc.



Shiloh Dahlin
Senior Project Engineer

October 21, 2019

Mr. Rick Meader, Landscape Architect
City of Novi Community Development
45175 West 10 Mile
Novi, MI 48375

RE: Keford Collison and Towing

Dear Mr. Meader:


Below are our responses to your review of plans dated September 12, 2019.

Landscape Comments:

- The landscape waivers, including the meeting date, will be shown on Sheet L-1.
- An additional evergreen tree species will be used.
- An irrigation plan will be submitted with Stamping Sets.

If you have any questions or comments regarding this response, please contact me at your convenience.

Sincerely,



James C. Allen
Allen Design L.L.C.



October 16, 2019

Mr. Sri Ravali Komaragiri
City of Novi Planning Department
45175 West Ten Mile Road
Novi, MI 48375

RE: Façade Ordinance Review – Preliminary Site Plan
Keford Collision & Towing, JSP18-31, PSP18-0107
Façade Region1, Zoning District I-1

Dear Sri,

On behalf of our client, Keford Towing, please find the following architectural updated elements in response to Doug Necci's Façade Review letter dated August 7, 2018.

- PDF files of revised architectural documents dated 10/17/19, including Shts #T-001, A-110, A-111, A-211, and one colored rendering.
- Color elevation rendering on Sht T-001 has been revised.
- Sht A-110 and A-111 revision date has been added to title block.
- Sht A-211 color PT-3 has been added to material schedule and color PT-1 has been revised to a more subdued tone of red.
- Note has been added in reference to the fact that no rooftop mechanical units exist on the roof; therefore, we are not planning to add any new rooftop units (RTU) as part of this proposed design.

Please let us know if you have any questions or require any further information from our firm

Regards,

A handwritten signature in black ink, appearing to read "Tony Dellicolli".

Tony Dellicolli, RA, AIA
Principal

A handwritten signature in black ink, appearing to read "Derrick J. Mroz".

Derrick J. Mroz, RA, LEED AP
Principal

Cc: Tom Herrington, Keford Towing
Shiloh Dahlin, Alpine Engineering
David Landry, Landry, Mazzeo & Dembinski, PC

Enclosure

□ □ □

CARSTAR

(Keford Collision)

Renovation



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Novi, MI, 48375
248 471 7877 ph
248 471 7868 fax



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project title
**Carstar
(Keford)
Collision**
45241 GRAND RIVER AVE
NOVI, MI 48375

sheet title
TITLE SHEET
DO NOT SCALE DRAWINGS
USE FIGURED DIMENSIONS ONLY



project number
17062
drawn JW
approved TD
issued date
DESIGN DEVELOPMENT 03-08-2019
OWNER UPDATES 06-10-2019
PRO 07-17-2019
PRELIM. SITE PLAN 09-13-2019
REV. SPA SUB. 10-17-2019

sheet number
T-001

INDEX OF DRAWINGS		<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p>● ISSUED ○ ISSUED FOR REFERENCE ONLY</p> </div> <div style="width: 50%; text-align: right;"> <p>01-30-2019 07-17-2019 07-17-2019 REV. SPA SUB 07-17-2019 07-17-19</p> </div> </div>									
T-001	TITLE SHEET	●	●	●	●	●	●	●	●	●	●
ARCHITECTURAL DRAWINGS											
A-011	DEMOLITION PLAN	●	●	●	●	●	●	●	●	●	●
A-021	DEMOLITION ELEVATIONS	●	●	●	●	●	●	●	●	●	●
A-110	OVERALL FLOOR PLAN	●	●	●	●	●	●	●	●	●	●
A-111	FLOOR PLAN	●	●	●	●	●	●	●	●	●	●
A-121	REFLECTED CEILING PLAN	●	●	●	●	●	●	●	●	●	●
A-131	FLOOR FINISH PLAN	●	●	●	●	●	●	●	●	●	●
A-151	FF&E PLAN	●	●	●	●	●	●	●	●	●	●
A-211	EXTERIOR ELEVATIONS	●	●	●	●	●	●	●	●	●	●
A-311	BUILDING SECTIONS	●	●	●	●	●	●	●	●	●	●
STRUCTURAL DRAWINGS											
S-301	ROOF FRAMING AND FOUNDATION PLAN	●	●	●	●	●	●	●	●	●	●
MECHANICAL DRAWINGS											
M-000	LEGEND, SYMBOLS, & ABBREVIATIONS	●	●	●	●	●	●	●	●	●	●
M-011	MECHANICAL DEMOLITION FLOOR PLAN	●	●	●	●	●	●	●	●	●	●
M-111	MECHANICAL NEW WORK FLOOR PLAN	●	●	●	●	●	●	●	●	●	●
M-200	DETAILS AND DIAGRAMS	●	●	●	●	●	●	●	●	●	●
M-300	TEMPERATURE CONTROLS	●	●	●	●	●	●	●	●	●	●
M-400	TEMPERATURE CONTROLS	●	●	●	●	●	●	●	●	●	●
PLUMBING DRAWINGS											
P-000	LEGEND, SYMBOLS, & ABBREVIATIONS	●	●	●	●	●	●	●	●	●	●
P-001	PLUMBING DEMOLITION FLOOR PLAN	●	●	●	●	●	●	●	●	●	●
P-011	PLUMBING UNDERGROUND PLAN	●	●	●	●	●	●	●	●	●	●
P-111	PLUMBING NEW WORK FLOOR PLAN	●	●	●	●	●	●	●	●	●	●
P-200	DETAILS	●	●	●	●	●	●	●	●	●	●
P-300	DETAILS	●	●	●	●	●	●	●	●	●	●
ELECTRICAL DRAWINGS											
E-000	ELECTRICAL LEGEND AND SYMBOLS	●	●	●	●	●	●	●	●	●	●
E-001	ELECTRICAL DEMOLITION POWER PLAN	●	●	●	●	●	●	●	●	●	●
E-032	ELECTRICAL DEMOLITION LIGHTING PLAN	●	●	●	●	●	●	●	●	●	●
E-101	ELECTRICAL POWER FLOOR PLAN	●	●	●	●	●	●	●	●	●	●
E-201	ELECTRICAL LIGHTING FLOOR PLAN	●	●	●	●	●	●	●	●	●	●
E-300	ELECTRICAL RISER DIAGRAM AND PANELS	●	●	●	●	●	●	●	●	●	●

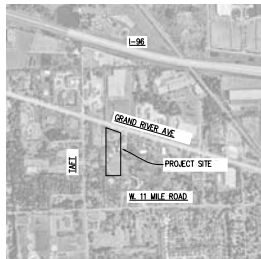
Architect
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PHONE: 248-744-0360



CODE DATA

ACCESSIBILITY Chapter 11 of the Michigan Building Code (IC7/A601 4117.1 -2009 Standard as referenced in Chapter 11)

PLUMBING 2015 Michigan Plumbing Code

MECHANICAL 2015 Michigan Mechanical Code

ELECTRICAL 2014 National Electrical Code (2014 NEC) with Michigan Amendments

ENERGY ASHRAE 90.1 2013 PartIDA Michigan Uniform Energy

FIRE 2015 International Fire Code (2015 IFC) with City Amendments Chapter 93 City Code of Ordinance

PROJECT DESCRIPTION:
PROJECT CONSISTS OF AN INTERIOR AND EXTERIOR RENOVATION OF AN EXISTING BUILDING. THERE WILL BE NO CHANGE TO BUILDING AREA OR USE. MECHANICAL AND ELECTRICAL UPGRADES WILL BE MADE TO SUPPORT BUILD-OUT.

CHAPTER 3: USE AND OCCUPANCY - NO CHANGE
MIXED USE / NON-SEPARATED BUILDING (NO SEPARATION REQUIRED)
1. STORAGE USE GROUP (S-1, MODERATE HAZARD STORAGE); MOTOR VEHICLE REPAIR GARAGE;
2. BUSINESS USE GROUP (B, BUSINESS TRANSACTIONS) : OFFICES

CHAPTER 5: GENERAL BUILDING HEIGHT AND AREA (NO CHANGE)
TOTAL BUILDING AREA: 22,877 SF (NO CHANGE)

USE GROUP	ALLOWABLE AREA PER TABLE 503 TYPE III CONSTR.	STREET FRONTAGE INCREASE: 508.33	40% OF ALLOW. PER CONSTR.	TOTAL ALLOWABLE
USE "U"	18,000 SF	7,800 SF	2,450 SF	28,250 SF
USE "S-1"	13,500 SF	7,200 SF	2,450 SF	23,150 SF
40% OF 28,250 SF	11,300 SF	4,518 SF	1,415 SF	17,233 SF
28,250 SF	24,000 SF	1,228 SF	392 SF	25,620 SF

WITHIN ALLOWABLE LIMIT

CHAPTER 6: CONSTRUCTION TYPE (NO CHANGE)
CONSTRUCTION TYPE: III-B

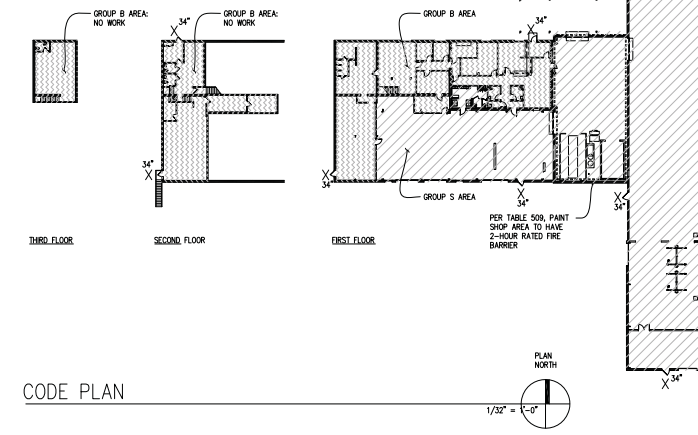
CHAPTER 9: FIRE PROTECTION SYSTEMS
AUTOMATIC SPRINKLER SYSTEM NOT REQUIRED OR PROVIDED

PLUMBING CALCULATION (BUSINESS / CUSTOMER AREAS):

OCCUPANT LOAD:	23 OCC TOTAL	
12 MALE / 12 FEMALE		
DOES NOT INCLUDE FUTURE TENANT SPACE AREA.		
FUTURE	REQUIRED	PROVIDED
WC @ 1/25 FOR FIRST 50, THEN 1/50	1 PER SEX	1 PER SEX
LAV. @ 1/40 FOR FIRST 50, THEN 1/50	1 PER SEX	2 PER SEX
DRINKING FOUNTAIN @ 1/100	2 TOTAL	2 TOTAL
SERVICE SINK	1 TOTAL	1 TOTAL

PLUMBING CALCULATION (SERVICE & PARTS DEPARTMENT):

OCCUPANT LOAD:	49 OCC. TOTAL	
ONLY MALE RETROGRADE ARE CURRENTLY (AND HISTORICALLY) EMPLOYED. NUMBERS BELOW BASED ON ALL OCCUPANTS IN THIS AREA BEING MALE. SHOULD FEMALE EMPLOYEES/OCCUPANTS REQUIRE RESTROOM FACILITIES, THEY MAY USE RESTROOMS PROVIDED IN BUSINESS AREA.		
FUTURE	REQUIRED	PROVIDED
WC @ 1/100	1 PER SEX	3 TOILETS, 3 URINALS
LAV. @ 1/100	1 PER SEX	2 TOTAL
DRINKING FOUNTAIN @ 1/1,000	1 TOTAL	2 TOTAL (BY CONST. LOAN)





design · planning · interiors

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248 471 7877 ph
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client



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project title

**Carstar
(Keford)
Collision**

45241 GRAND RIVER AVE
NOVI, MI 48375

sheet title

**OVERALL FLOOR
PLANS**

DO NOT SCALE DRAWINGS.
USE INQUIRED DIMENSIONS ONLY



project number

17062

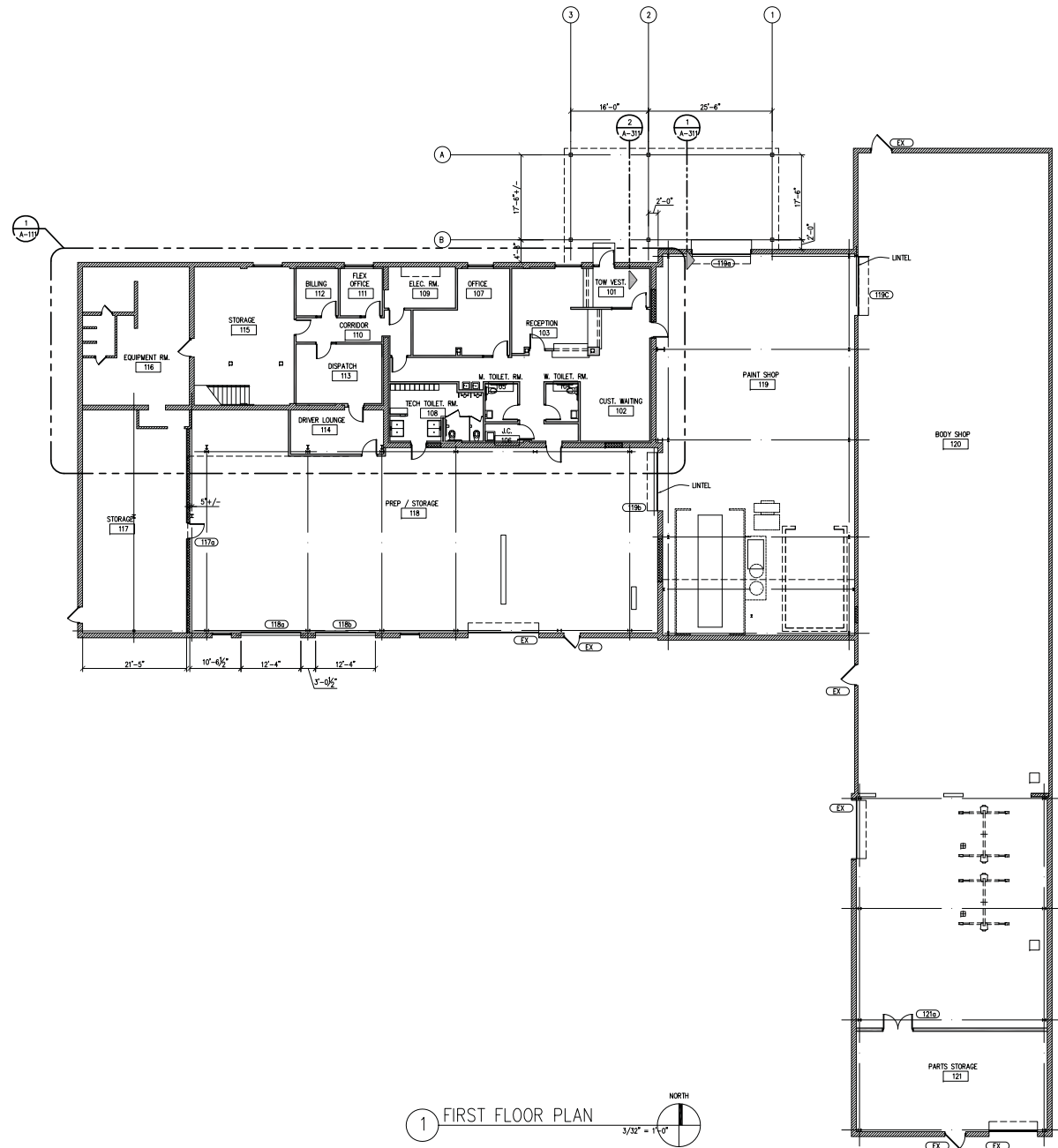
drawn JW
approved TD

issued date

DESIGN DEVELOPMENT	03-28-2019
OWNER UPDATES	06-10-2019
PRO	07-17-2019
PRELIM. SITE PLAN	09-13-2019
REV. SPA SUB.	10-17-2019

sheet number

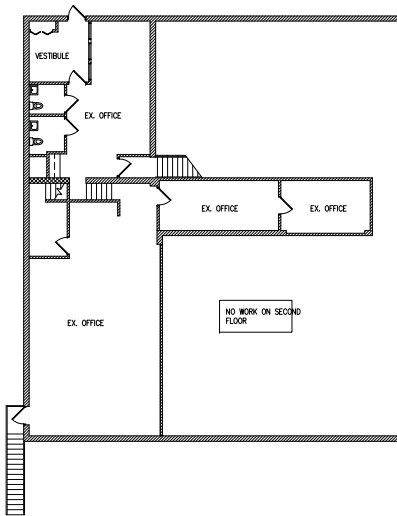
A-110



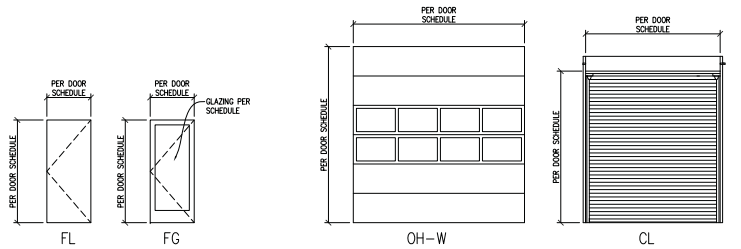
3 ATTIC FLOOR PLAN – NO WORK
3/32" = 1'-0"



2 SECOND FLOOR PLAN – NO WORK
3/32" = 1'-0"



1 FIRST FLOOR PLAN
3/32" = 1'-0"



DOOR TYPES

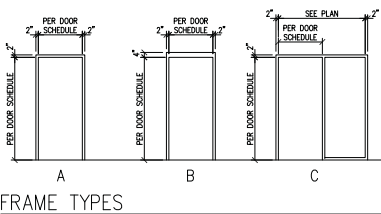
DOOR SCHEDULE LEGEND

EX EXISTING TO REMAIN
 SF ALUM STOREFRONT ALUMINUM DOOR/FRAME PER SPECIFICATION SECTION 08-4113

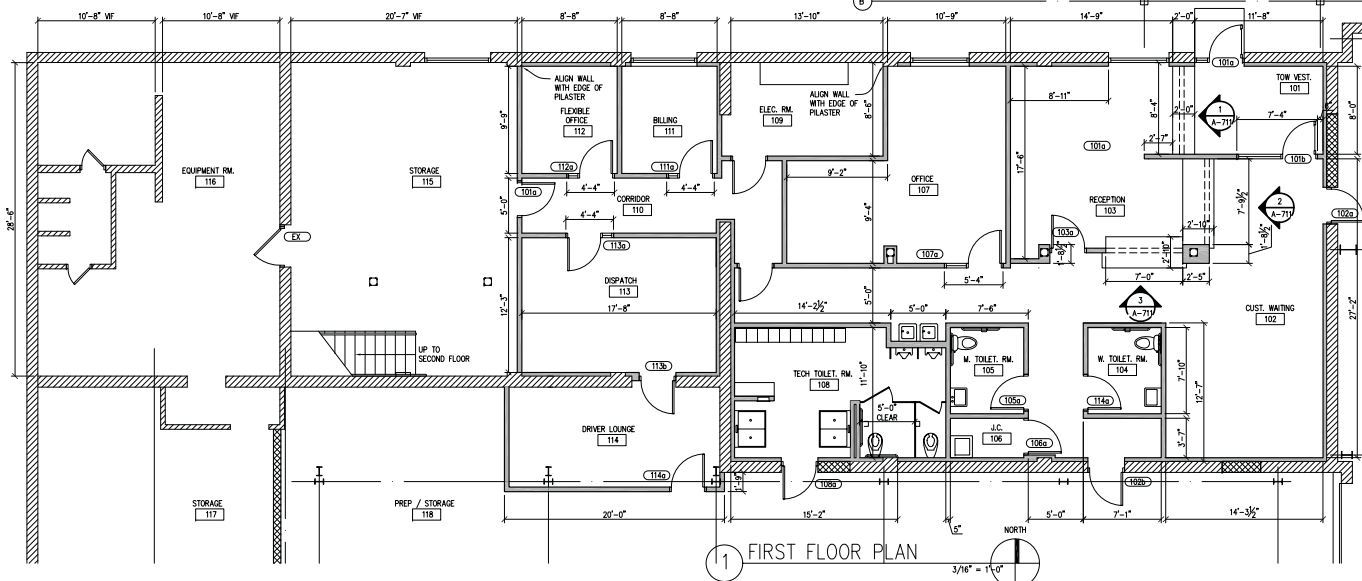
GLAZING SCHEDULE

IG-1 INSULATED GLAZING
 IG-1T TEMPERED INSULATED GLAZING
 MG-1T TEMPERED MONOLITHIC GLAZING

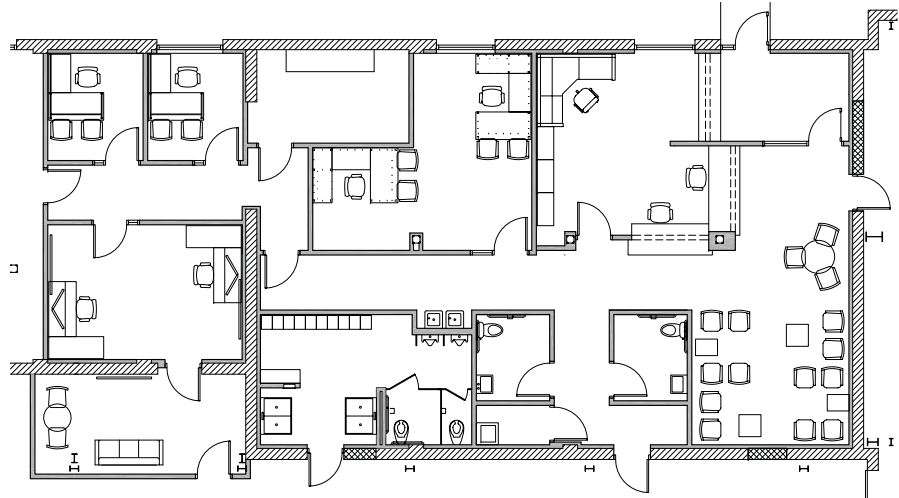
DOOR SCHEDULE													
DOOR NO.	DOOR / OPENING SIZE	ACTION	DOOR TYPE	MAT'L	FINISH	FRAME TYPE	MAT'L	FINISH	HEAD	JAMB	HW SET	REMARKS	DOOR NO.
101a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		101a
101b	3'-0" x 7'-0"	SWING	FG	SF ALUM	FACTORY	XXX	SF ALUM	FACTORY	head	jamb	hdw		101b
102a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	B	H.M.	PAINT	head	jamb	hdw		102a
102b	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	B	H.M.	PAINT	head	jamb	hdw		102b
103a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		103a
105a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		105a
106a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		106a
107a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	C	H.M.	PAINT	head	jamb	hdw		107a
108a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	B	H.M.	PAINT	head	jamb	hdw		108a
111a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	C	H.M.	PAINT	head	jamb	hdw		111a
112a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	C	H.M.	PAINT	head	jamb	hdw		112a
113a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	C	H.M.	PAINT	head	jamb	hdw		113a
113b	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		113b
114a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		114a
117a	3'-0" x 7'-0"	SWING	FL	H.M.	PAINT	A	H.M.	PAINT	head	jamb	hdw		117a
118a	12'-0" x 14'-0" WF	O.H.	OH/W	GL/ALUM	FACTORY	C	PAINT	-	head	jamb	hdw		118a
118b	12'-0" x 14'-0" WF	O.H.	OH/W	GL/ALUM	FACTORY	C	PAINT	-	head	jamb	hdw		118b
119a	12'-0" x 14'-0" WF	O.H.	OH/W	GL/ALUM	FACTORY	C	PAINT	-	head	jamb	hdw		119a
119b	12'-0" x 12'-0" WF	O.H.	CL	ALUM	FACTORY	C	-	-	head	jamb	hdw	2 HOUR FIRE RATED	119b
119c	12'-0" x 12'-0" WF	O.H.	CL	ALUM	FACTORY	C	-	-	head	jamb	hdw	2 HOUR FIRE RATED	119c
121a	(2) 3'-0" x 7'-0"	O.H.	FL	H.M.	PAINT	B	PAINT	-	head	jamb	hdw		121a
EX												EXISTING TO REMAIN	EX



FRAME TYPES



1 FIRST FLOOR PLAN



2 FURNITURE PLAN (CONCEPT ONLY)

CITYSCAPE
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client
CARSTAR
 Auto Body Repair Experts

notice
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project title
Carstar (Keford) Collision

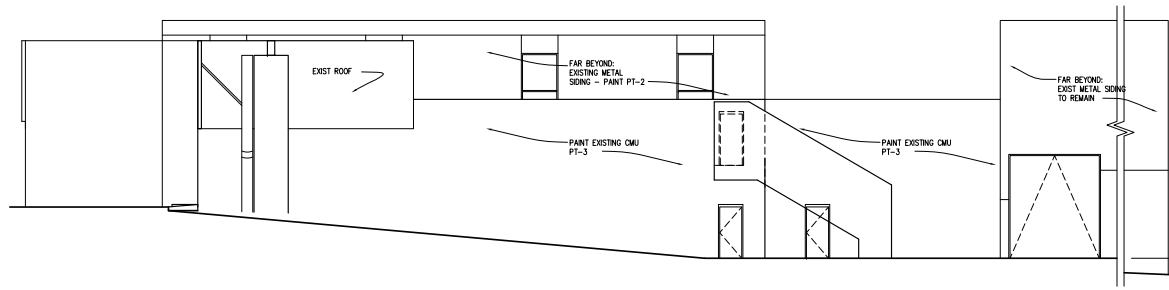
45241 GRAND RIVER AVE
 NOVI, MI 48375

ENLARGED FIRST FLOOR PLAN
 DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY.

project number
17062

drawn	JWH
approved	TD
issued	date
DESIGN DEVELOPMENT	03-28-2019
OWNER UPDATES	06-10-2019
PRO	07-17-2019
PRELIM. SITE PLAN	09-13-2019
REV. SPA SUB.	10-17-2019

sheet number
A-111



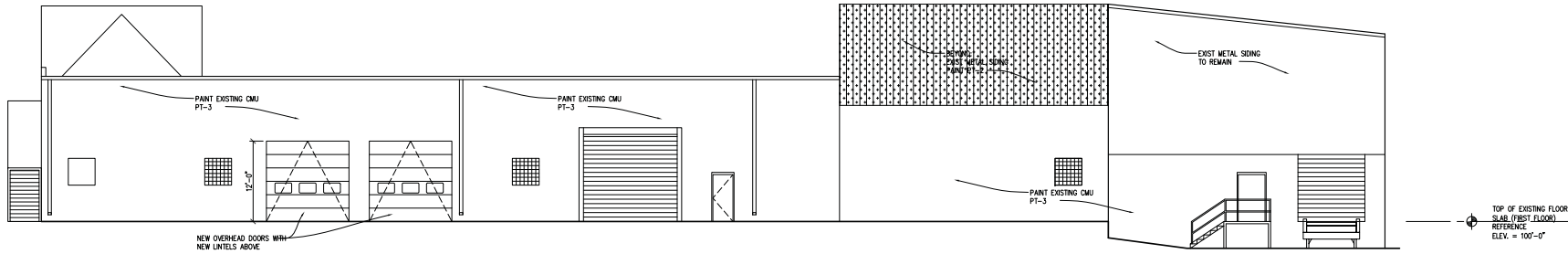
KEY NOTES	
SYMBOL	DESCRIPTION
S-1	SIGNAGE BY OWNER - G.C. TO COORDINATE EXACT SIZE, LOCATION, POWER AND MOUNTING REQUIREMENTS WITH SIGNAGE SUPPLIER. THRU CANES, ALL SIGNAGE TO BE PERMITTED SEPARATELY.

IMPORTANT NOTE:
NO RTU EXIST ON EXISTING ROOFTOP, AND THERE WILL BE NO NEW ROOFTOP UNITS PROPOSED AS PART OF THIS FUTURE RENOVATION.

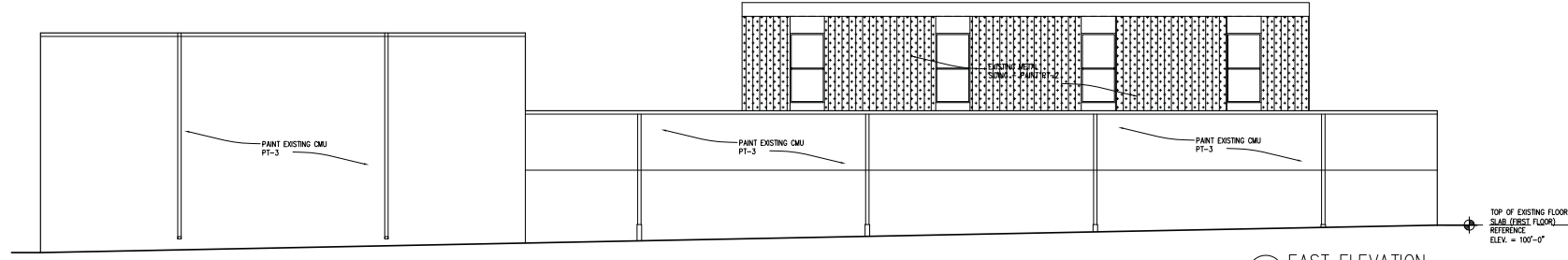
EXTERIOR FINISH MATERIALS SCHEDULE		SPECIFICATION SECTION
SYMBOL	DESCRIPTION	
OMP-1	1/2\"/>	
OMP-2	CORRUGATED METAL PANEL WITH EXPOSED FASTENERS MFR: PAC CLAD COLOR: PREFINISHED TO MATCH PT-3	
PT-1	PAINT: BENJAMIN MOORE POPPY 1315 THIS DESIGNATION REFERS TO COLOR AND SHEEN ONLY. REFER TO SPECIFICATION FOR PAINT TYPE AND ADDITIONAL INFORMATION.	
PT-2	PAINT: SHERWIN WILLIAMS CITYSCAPE SW7067 THIS DESIGNATION REFERS TO COLOR AND SHEEN ONLY. REFER TO SPECIFICATION FOR PAINT TYPE AND ADDITIONAL INFORMATION.	
PT-3	PAINT: BENJAMIN MOORE STORMY SKY 1616 THIS DESIGNATION REFERS TO COLOR AND SHEEN ONLY. REFER TO SPECIFICATION FOR PAINT TYPE AND ADDITIONAL INFORMATION.	

09100

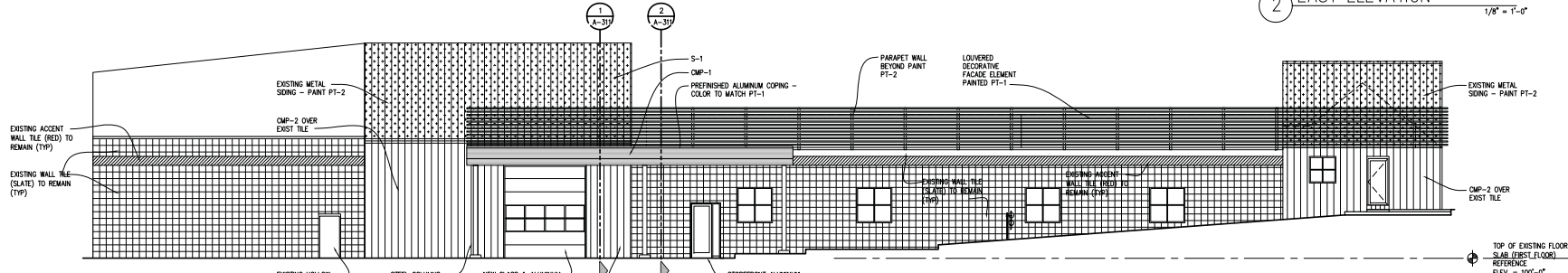
4 SOUTH ELEVATION
1/8" = 1'-0"



3 SOUTH ELEVATION
1/8" = 1'-0"



2 EAST ELEVATION
1/8" = 1'-0"



1 NORTH ELEVATION
1/8" = 1'-0"



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project title

**Carstar
(Keford)
Collision**

45241 GRAND RIVER AVE
NOVI, MI 48375

sheet title

**EXTERIOR
ELEVATIONS**

DO NOT SCALE DRAWINGS
USE FIGURED DIMENSIONS ONLY



project number

17062

drawn JMW
approved TD

issued date

DESIGN DEVELOPMENT	03-08-2019
OWNER UPDATES	06-10-2019
PRO	07-17-2019
PRELIM. SITE PLAN	09-13-2019
REV. SPA SUB.	10-17-2019

sheet number

A-211



Existing



Proposed

10/17/19