2365 Haggerty Road South, Canton, Michigan 48188
Tel: 734.397.3100 Fax: 734.397.3131
www.MannikSmithGroup.com

LETTER OF TRANSMITTAL

To: **Jennifer Morris**
Ann Arbor Township
3792 Pontiac Trail
Ann Arbor, MI 48105

Project #: 401.2501958
Date: March 17, 2026

Re: Toyota 1555 Walking Trail
Major-Minor Application

Enclosed are the following:

No. of Copies	Description
7	Major-Minor Review Letter
3	Full-Size Preliminary Site Plans
4	11x17 Preliminary Site Plans
1	Application Form
1	Check ($1,700)

The above items are transmitted as checked below:

☒ For review and approval ☐ For review and comment ☐ Returned for corrections
☐ For your use ☐ Approved as submitted ☐ Approved as noted
☐ As requested ☐ Other:

Remarks:

Please see the attached Major-Minor Determination Submittal Package. We are requesting to be placed on the April 6, 2026 Planning Commission Agenda.

Copies To: File

Signed: *Christopher Riharb*
Printed: Christopher Riharb
Senior Project Manager/Vice President

March 16, 2026

Ann Arbor Charter Township
3792 Pontiac Trail
Ann Arbor, MI 48105

Re: Site Plan Amendment
Toyota 1555 Walking Trail
1555 Woodridge Road, Ann Arbor Township

Toyota Motor Engineering and Manufacturing of North America is requesting a Site Plan Amendment determination for installing a paved walking trail located at 1555 Woodridge in the Ann Arbor Tech Park.

The proposed project includes installing a paved walking trail 6-feet wide and approximately 0.4 miles in length.

At the northern end of the trail, a section of the existing 8-foot high perimeter fence will be relocated to accommodate the new trail alignment. The new replacement fencing will match existing.

At the southern end of the trail, a section of the existing 4-foot high fence will be relocated to accommodate the new trail alignment. The replacement fencing will match existing.

Any trees impacted by the new alignment or construction limits will be either transplanted or replaced per Ann Arbor Township Ordinance. The alignment of the trail is selected to minimize tree impacts.

All state and federal regulations will be adhered to. The project is to be constructed in one phase.

It is our understanding that the Planning Commission has the authority to determine if the proposed changes are a minor or major amendment to an approved site plan.

Per section 74-179(b) of the zoning ordinance a major change includes:

1. Change in concept of the project.
   There is NO change in concept of this site.
2. Change in use or character of the project.
   There is NO change in use or character of the site.
3. Change in type of dwelling unit as identified on the approved site plan.
   There is NO change in type of dwelling unit.
4. Change in number of dwelling units.
   There is NO change in number of dwelling units.
5. Change in non-residential floor area of over five percent.
   There is NO change in floor area.
6. Change in GFC, FAR or stormwater impact surface of the project over one percentage point.
   There is NO change in GFC,FAR or stormwater impact surface over one percentage point.
7. Rearrangement of lots, blocks, or building tracts.

There is NO change in rearrangement of lots, blocks or building tracts.

8. Change in character or function of any street.
   There is NO change in character or function of any street.
9. Reduction in land area set aside for common open space or the relocation of such area.
   There is NO reduction in land area set aside for common open space or the relocation of such area.
10. Increase in building height.
    There is NO increase in building height.

MSG and Toyota representatives have discussed the project with Ann Arbor Township officials and subsequently held a Pre-Application meeting. At that time, Ann Arbor Township provided initial feedback, which indicates that this work will constitute a minor site plan amendment and an administrative Township review. The proposed improvements do not meet any of the criteria for a major amendment, therefore we request that the Planning Commission determine this project to be a Minor Amendment to an approved Site Plan.

Enclosed please find the following:

- Toyota 1555 Walking Trail Preliminary Site Plan
  - Three (3) full-sized sets
  - Four (4) 11x17 sets
- Site Plan Amendment Application
- Fee (Check for $1,700)

Thank you in advance for your consideration. We look forward to hearing from you and we are asking to be placed on the April 6, 2026, Planning Commission agenda.

Respectfully,

Christopher A. Riharb

Christopher A. Riharb, PE
Senior Project Manager | Vice President

SITE PLAN APPROVAL
OF
1555 EMPLOYEE WALKING PATH
FOR
TOYOTA MOTOR NORTH AMERICA
IN
ANN ARBOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PROPERTY LEGAL DESCRIPTION

PARCEL I.D. NUMBER: I-09-24-200-011
COM AT W 1/4 COR SEC 24, TH S 87° 36' 00" E 840.44 FT TO POB, TH 114.43 FT ALG ARC OF CURV RT-RAD 775.51 FT-CH N 37° 11' 38" W 114.33 FT, TH N 32° 58' 00" W 239.30 FT, TH 365.13 FT ALG ARC OF CURV LT-RAD 681.51 FT-CH N 45° 06' 30" W 362.40 FT, TH N 57° 15' 00" W 75.40 FT, TH N 32° 45' 00" E 844.65 FT, TH N 32° 45' 00" E 1183.38 FT, TH S 41° 26' 20" E 412.00 FT, TH S 75° 57' 50" E 288.62 FT, TH N 56° 07' 50" E 250.00 FT, TH S 51° 27' 30" E 372.53 FT, TH S 25° 32' 00" W 875.17 FT, TH S 08° 29' 08" W 334.94 FT, TH 280.15 FT ALG ARC OF CURV LT-RAD 343.00 FT- S 18° 31' 33" W 272.43 FT, TH S 04° 52' 23" E 547.02 FT, TH N 89° 04' 12" W 242.99 FT, TH S 06° 11' 04" W 242.56 FT, TH 326.12 FT ALG ARC OF CURV RT-RAD 1389.39 FT, TH N 70° 22' 00" W 256.08 FT, TH 391.78 FT ALG ARC OF CURV RT-RAD 775.51 FT-CH N 55° 53' 38" W 387.63 FT TO POB PT OF NW 1/4 SEC 24, T2S-R6E 71.59 AC SPLIT ON 11/05/2012 WI I-09-24-200-006 INTO I-09-24-200-011.

NOTE:
1. THERE ARE EASEMENTS ATTACHED TO THE PARCEL, HOWEVER NONE IMPACT THE PROPOSED INVOLVEMENT AREA.
2. THERE ARE NO EXISTING OR PROPOSED DEED RESTRICTIONS.

IMPERVIOUS SURFACE

TOTAL SITE AREA= 3,118,460 SF (71.59 AC)

EXISTING IMPERVIOUS AREA= 1,244,850 SF (28.58 AC)

PROPOSED NEW IMPERVIOUS AREA= 12,291 SF (0.28 AC)

12,291 / 1,244,850 = .99% PROPOSED IMPERVIOUS SURFACE INCREASE

STORM IMPACT AREA

EXISTING SITE IMPERVIOUS SURFACE AREA = 1,244,850 SF (28.58 AC)

ADDED IMPERVIOUS SURFACE AREA = 12,291 SF (0.28 AC)

TOTAL IMPERVIOUS = 1,257,141 SF (28.86 AC)

STORM IMPACT PERCENT SURFACE AREA = 1,257,141 / 3,118,460 = 39.92%

SITE ZONING DATA

ZONING DATA:
SUBJECT PROPERTY AND ALL ADJACENT PARCELS ARE ZONED RRA 'RESEARCH AND RESEARCH APPLICATIONS' EXCEPT PARCEL I-09-24-400-001 TO THE SE, BEING ZONED R-2 'SINGLE FAMILY SUBURBAN RESIDENTIAL'.

REQUIRED SETBACKS:
-ALONG PUBLIC STREET R/W: 75 FEET
-SIDE, INTERIOR: 50 FEET ONE SIDE, 150 FEET TOTAL
SIDE, CORNER: 75 FEET
-PROTECTED WETLAND: 25 FEET NON-DISTURBANCE SETBACK FROM EDGE OF PROTECTED WETLAND.

DENSITY REGULATIONS:
-ONE EXISTING BUILDING ON SITE OF 94,633 SF.
-GROUND FLOOR COVERAGE (GFC) SHALL NOT EXCEED 15% OF LOT
-TOTAL GROUND FLOOR COVERAGE (GROUND FLOOR AREA DIVIDED BY LOT AREA):
--FLOOR AREA RATION (FAR) SHALL NOT EXCEED 0.30 (30%)
-TOTAL FLOOR AREA RATION (TOTAL FLOOR AREA DIVIDED BY LOT AREA):
-)

BUILDING HEIGHT:
-MAXIMUM BLDG HEIGHT 6 STORIES ABOVE GRADE
-BUILDING HEIGHT= ONE FLOOR - 27'4" TO TOP OF PARAPET
- TOP OF STEEL: 15'-9 3/8" TO 16'-10"

NUMBER OF EXISTING BUILDINGS ON SITE:

NUMBER OF PROPOSED BUILDINGS ON SITE: THERE ARE NO NEW BUILDINGS PLANNED FOR THIS SITE. THERE ARE BUILDING RENOVATIONS

PROPOSED USE: CREATE A WALKING PATH FOR EMPLOYEE USE.

STEEP SLOPE USE PROTECTION:
-THE SITE DOES NOT CONTAIN STEEP SLOPES AS DEFINED BY CHAPTER 74, ARTICLE VII, SEC. 74-683.

LOCATION MAP
SCALE: 1" = 300'

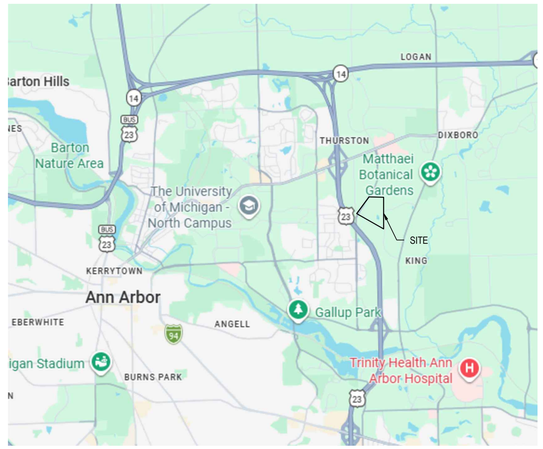
REVISION BLOCK		
NO.	DATE	DESCRIPTION
1	3/17/2026	SITE PLAN REVIEW

PROPERTY OWNER
TOYOTA MOTOR NORTH AMERICA
1555 WOODRIDGE AVE
ANN ARBOR, MI 48105
MELISSA WARD
PHONE: 313-820-3861

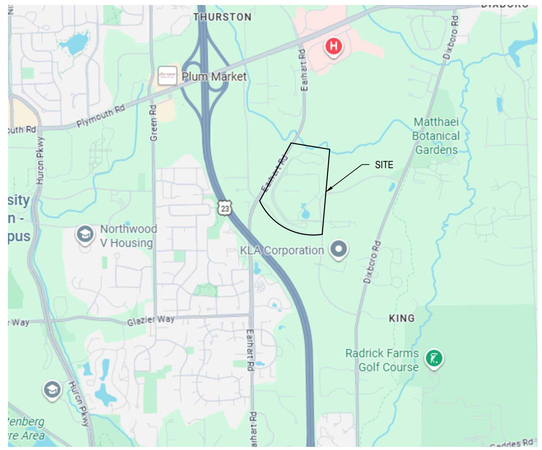
SITE ADDRESS
TOYOTA MOTOR NORTH AMERICA
1588 WOODRIDGE AVE
ANN ARBOR, MI 48105

ENGINEER
THE MANNIK & SMITH GROUP, INC.
2365 HAGGERTY ROAD SOUTH
CANTON, MI 48188
CHRIS RIHARB
PHONE: 734-397-3100 EXT 6115

SHEET INDEX



REGIONAL MAP
SCALE: 1" = 5,000'



VICINITY MAP
SCALE: 1" = 2,000'

PLANS PREPARED BY:

Mannik Smith GROUP
TECHNICAL SKILL.
CREATIVE SPIRIT.
www.MannikSmithGroup.com

CHRIS RIHARB
PROFESSIONAL CIVIL ENGINEER

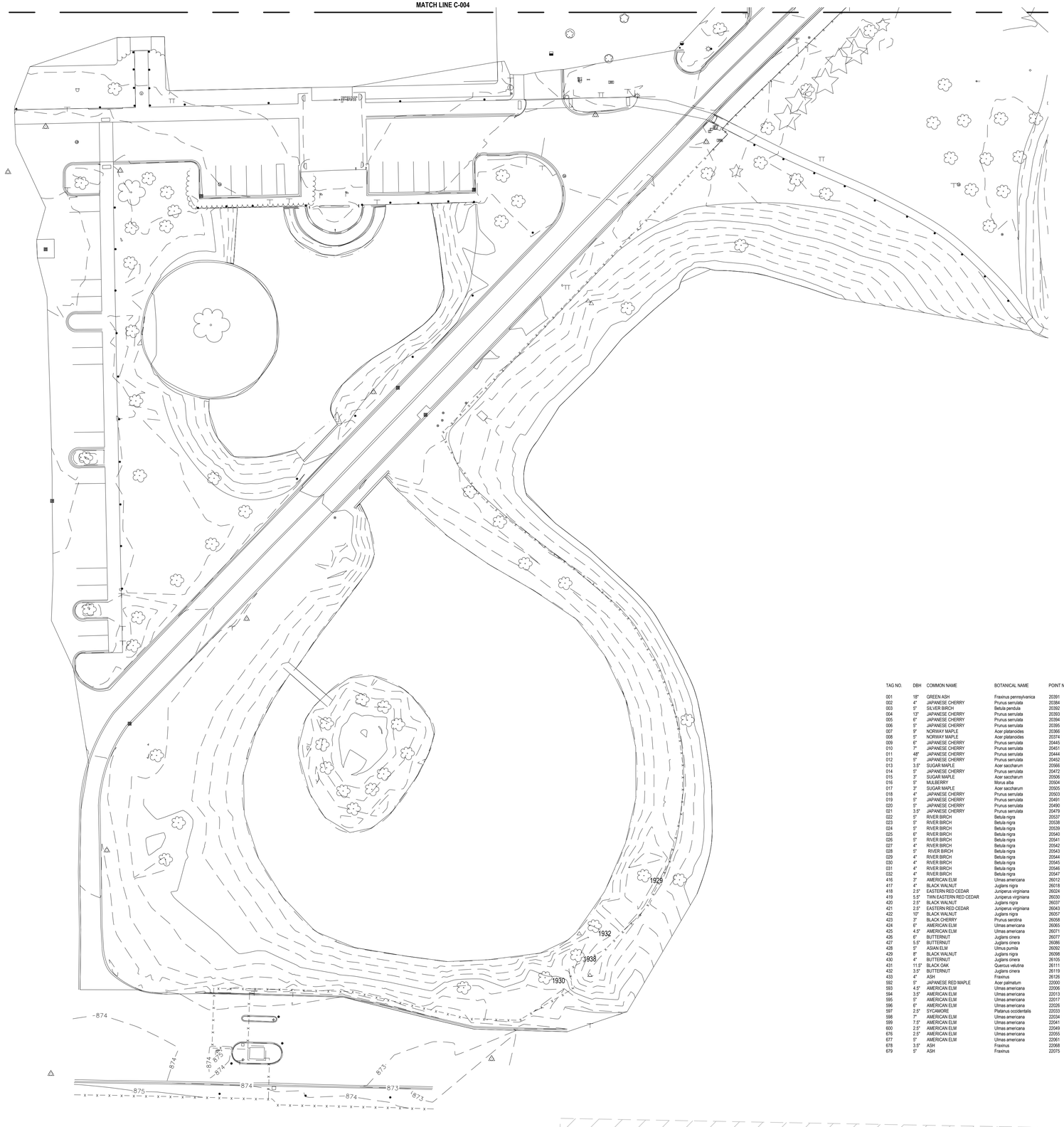
BY: _____

DATE: _____

3 FULL WORKING DAYS
BEFORE YOU DIG CALL
MISS DIG System
1-800-482-7171 or 811

Design Ticket #: _____
Survey Ticket #: _____

$DATE$
$FILE$



811
MISS DIG System, Inc.
1-800-482-7171

TAG NO.	DBH	COMMON NAME	BOTANICAL NAME	POINT NO.
001	18"	GREEN ASH	Fraxinus pennsylvanica	20391
002	4"	JAPANESE CHERRY	Prunus serrulata	20384
003	5"	SILVER BIRCH	Betula pendula	20392
004	13"	JAPANESE CHERRY	Prunus serrulata	20393
005	6"	JAPANESE CHERRY	Prunus serrulata	20394
006	5"	JAPANESE CHERRY	Prunus serrulata	20395
007	9"	NORWAY MAPLE	Acer platanoides	20366
008	5"	NORWAY MAPLE	Acer platanoides	20374
009	6"	JAPANESE CHERRY	Prunus serrulata	20445
010	7"	JAPANESE CHERRY	Prunus serrulata	20451
011	48"	JAPANESE CHERRY	Prunus serrulata	20444
012	5"	JAPANESE CHERRY	Prunus serrulata	20452
013	3.5"	SUGAR MAPLE	Acer saccharum	20566
014	5"	JAPANESE CHERRY	Prunus serrulata	20472
015	3"	SUGAR MAPLE	Acer saccharum	20506
016	5"	MULBERRY	Morus alba	20504
017	3"	SUGAR MAPLE	Acer saccharum	20505
018	4"	JAPANESE CHERRY	Prunus serrulata	20503
019	5"	JAPANESE CHERRY	Prunus serrulata	20491
020	5"	JAPANESE CHERRY	Prunus serrulata	20490
021	3.5"	JAPANESE CHERRY	Prunus serrulata	20479
022	5"	RIVER BIRCH	Betula nigra	20537
023	5"	RIVER BIRCH	Betula nigra	20538
024	5"	RIVER BIRCH	Betula nigra	20539
025	6"	RIVER BIRCH	Betula nigra	20540
026	5"	RIVER BIRCH	Betula nigra	20541
027	4"	RIVER BIRCH	Betula nigra	20542
028	5"	RIVER BIRCH	Betula nigra	20543
029	4"	RIVER BIRCH	Betula nigra	20544
030	4"	RIVER BIRCH	Betula nigra	20545
031	4"	RIVER BIRCH	Betula nigra	20546
032	4"	RIVER BIRCH	Betula nigra	20547
416	3"	AMERICAN ELM	Ulmas americana	26012
417	4"	BLACK WALNUT	Juglans nigra	26018
418	2.5"	EASTERN RED CEDAR	Juniperus virginiana	26024
419	5.5"	TWN EASTERN RED CEDAR	Juniperus virginiana	26030
420	2.5"	BLACK WALNUT	Juglans nigra	26037
421	2.5"	EASTERN RED CEDAR	Juniperus virginiana	26043
422	10"	BLACK WALNUT	Juglans nigra	26057
423	3"	BLACK CHERRY	Prunus serotina	26058
424	6"	AMERICAN ELM	Ulmas americana	26065
425	4.5"	AMERICAN ELM	Ulmas americana	26071
426	6"	BUTTERNUT	Juglans cinera	26077
427	5.5"	BUTTERNUT	Juglans cinera	26086
428	5"	ASIAN ELM	Ulmus pumila	26092
429	8"	BLACK WALNUT	Juglans nigra	26098
430	4"	BUTTERNUT	Juglans cinera	26105
431	11.5"	BLACK OAK	Quercus velutina	26111
432	3.5"	BUTTERNUT	Juglans cinera	26119
433	4"	ASH	Fraxinus	26126
592	5"	JAPANESE RED MAPLE	Acer palmatum	22000
593	4.5"	AMERICAN ELM	Ulmas americana	22006
594	3.5"	AMERICAN ELM	Ulmas americana	22013
595	5"	AMERICAN ELM	Ulmas americana	22017
596	6"	AMERICAN ELM	Ulmas americana	22026
597	2.5"	SYCAMORE	Platanus occidentalis	22033
598	7"	AMERICAN ELM	Ulmas americana	22034
599	7.5"	AMERICAN ELM	Ulmas americana	22041
600	2.5"	AMERICAN ELM	Ulmas americana	22049
676	2.5"	AMERICAN ELM	Ulmas americana	22055
677	5"	AMERICAN ELM	Ulmas americana	22061
678	3.5"	ASH	Fraxinus	22068
679	5"	ASH	Fraxinus	22075
680	5.5"	ASH	Fraxinus	22081
681	6"	AMERICAN ELM	Ulmas americana	22088
682	5"	BLACK WALNUT	Juglans nigra	22094
683	5"	BLACK WALNUT	Juglans nigra	22101
684	4"	ASH	Fraxinus	22107
685	3"	BLACK ASH	Fraxinus	22114
686	6"	SUGAR MAPLE	Acer saccharum	22121
687	3"	DWARF ELM	Ulmus pumila	22128
688	4"	TWN AMERICAN ELM	Ulmas americana	22134
689	5"	AMERICAN ELM	Ulmas americana	22140
690	3.5"	AMERICAN ELM	Ulmas americana	22146
691	2.5"	SUGAR MAPLE	Acer saccharum	22147
692	3"	SUGAR MAPLE	Acer saccharum	22153
693	3"	ROCK ELM	Ulmus thomasii	22166
694	6"	BLACK WALNUT	Juglans nigra	22184
695	4"	BLACK WALNUT	Juglans nigra	26000
696	5.5"	BLACK WALNUT	Juglans nigra	26006
825	8"	JAPANESE CHERRY	Prunus serrulata	260121132
826	8"	JAPANESE CHERRY	Prunus serrulata	260121133
827	8"	JAPANESE CHERRY	Prunus serrulata	260121134
828	8"	JAPANESE CHERRY	Prunus serrulata	260121135
833	8"	JAPANESE CHERRY	Prunus serrulata	260121136
834	8"	JAPANESE CHERRY	Prunus serrulata	260121131
943	6"	SUGAR MAPLE	Acer saccharum	8004
944	6"	SUGAR MAPLE	Acer saccharum	8010
945	5"	AMERICAN ELM	Ulmas americana	8016
946	7"	AMERICAN ELM	Ulmas americana	8024
947	12"	BLACK WALNUT	Juglans nigra	8031
948	9"	BLACK WALNUT	Juglans nigra	8046
949	9"	BLACK WALNUT	Juglans nigra	8052
950	5"	ASH	Fraxinus	8061
951	10"	BLACK WALNUT	Juglans nigra	8068
952	5"	AMERICAN ELM	Ulmas americana	8080
1341	5"	BRADFORD PEAR	Pyrus spp.	26137
1342	2.5"	BLUE SPRUCE	Picea pungens	26144
1343	3"	TWN BRADFORD PEAR	Pyrus spp.	26150
1344	4"	BLACK WALNUT	Juglans nigra	26156
1345	4.5"	NORWAY SPRUCE	Picea abies	27000
1346	4.5"	SYCAMORE	Platanus	27007
1347	3"	COMMON HACKBERRY	Celtis occidentalis	27013
1348	3.5"	BLACK WALNUT	Juglans nigra	27019
1349	2.5"	TRI BLACK WALNUT	Juglans nigra	27025
1350	5"	AMERICAN ELM	Ulmas americana	27032
1351	11"	BLACK WALNUT	Juglans nigra	27039
1351	2.5"	TRI BLACK WALNUT	Juglans nigra	27039
1352	3"	BUTTERNUT	Juglans cinera	27047
1353	6"	AMERICAN ELM	Ulmas americana	27054
1354	6"	BLACK WALNUT	Juglans nigra	27060
1355	19"	BLACK WALNUT	Juglans nigra	27067
1356	14"	BLACK WALNUT	Juglans nigra	27075
1357	2.5"	BLUE SPRUCE	Picea pungens	27087
1358	2.5"	BLUE SPRUCE	Picea pungens	27094
1359	2.5"	BLUE SPRUCE	Picea pungens	27101
1360	2.5"	JAPANESE MAPLE	Acer palmatum	27108
1361	2.5"	JAPANESE MAPLE	Acer palmatum	27115
1362	2.5"	BLUE SPUCE	Picea pungens	27122
1363	2.5"	AMERICAN BASSWOOD	Tilia	27128
1364	3.5"	WHITE SPRUCE	Picea glauca	28000
1365	3.5"	BLACK WALNUT	Juglans nigra	28007
1366	4.58"	BLACK WALNUT	Juglans nigra	28013
1367	2.5"	BLACK WALNUT	Juglans nigra	28019
1368	3"	BLACK WALNUT	Juglans nigra	28024
1369	6"	BLACK WALNUT	Juglans nigra	28031
1370	3.5"	TWN BLACK WALNUT	Juglans nigra	28038
1371		JUNIPER	Juniperus	28045
1372	4.5"	TWN BLACK WALNUT	Juglans nigra	28051
1373	3.5"	ASH	Fraxinus	28058
1374	2.5"	HAWTHIORN	Crataegus	28065
1375	2.5"	WHITE SPRUCE	Picea glauca	28072
1376	3"	WHITE SPRUCE	Picea glauca	28078
1860	4"	BLUE SPRUCE	Picea pungens	260221006
1861	8"	JAPANESE CHERRY	Prunus serrulata	260121289
1862	4"	BLUE SPRUCE	Picea pungens	260221012
1863	6"	CLUSTER OF 5 CRABAPPLE	Malus	260121278
1864	5"	NORWAY SPRUCE	Picea abies	260221029
1865	8"	JAPANESE CHERRY	Prunus serrulata	260121287
1866	8"	JAPANESE CHERRY	Prunus serrulata	260121286
1867	3"	BLUE SPRUCE	Picea pungens	260221050
1868	4"	BLUE SPRUCE	Picea pungens	260221057
1869	5"	NORWAY SPRUCE	Picea abies	260221028
1870	6"	KENTUCKY COFFEETREE	Gymnocladus dioicus	260221044
1871	5"	NORWAY SPRUCE	Picea abies	260221030
1872	8"	JAPANESE CHERRY	Prunus serrulata	260121290
1873	18"	COTTONWOOD	Populus deltoides	260121279
1874	3"	AUTUMN BLAZE MAPLE	Acer freemanii	260221017
1875	4"	BLUE SPRUCE	Picea pungens	260221056
1876	8"	JAPANESE CHERRY	Prunus serrulata	260121288
1877	8"	NORWAY SPRUCE	Picea abies	260221022
1878	6"	CLUSTER OF 5 CRABAPPLE	Malus	260121265
1884	4"	KENTUCKY COFFEE TREE	Gymnocladus dioicus	260221000
1885	2.5"	MAPLE	Acer	260221116
1886	2.5"	MAPLE	Acer	260221121
1887	2.5"	CHOKE CHERRY	Prunus virginiana	260221126
1888	5"	BLUE SPRUCE	Picea pungens	260221131
1889	3"	AUTUMN BLAZE MAPLE	Acer freemanii	260221137
1890	3"	OAK	Quercus	260221142
1891	2.5"	OAK	Quercus	260221215
1892	3"	OAK	Quercus	260221173
1893	2.5"	BIRCH	Betula	260221182
1928	8.5"	JAPANESE CHERRY	Prunus serrulata	20588
1929	12"	JAPANESE CHERRY	Prunus serrulata	20607
1930	10"	JAPANESE CHERRY	Prunus serrulata	20610
1931	6"	JAPANESE CHERRY	Prunus serrulata	20570
1932	9"	JAPANESE CHERRY	Prunus serrulata	20608
1936	5"	JAPANESE CHERRY	Prunus serrulata	20572
1937	5"	JAPANESE CHERRY	Prunus serrulata	20571
1938	5"	JAPANESE CHERRY	Prunus serrulata	20609
3975	11"	TWN BLACK CHERRY	Prunus serotina	7117
3976	12"	BLACK CHERRY	Prunus serotina	7123
3976	12"	BLACK CHERRY	Prunus serotina	8037
3979	13"	TWN BLACK CHERRY	Prunus serotina	22159
3980	18"	BLACK WALNUT	Juglans nigra	22172
*	12"	HONEY LOCUST	Gleditsia tricanthos	1880
*	14"	HONEY LOCUST	Gleditsia tricanthos	1882
*	15"	HONEY LOCUST	Gleditsia tricanthos	1883
*		TREE2		26009056
*		TREE2		26009057
*		TREE2		26009058
*		TREE2		26009059
*		TREE3		26009111
*		TREE3		26009112
*		TREE3		26009113
*		TREE3		26009225
*		TREE3		26009226

*NOTE: NO TAG NUMBER FOR 1880,1882,1883.
NO TAG NUMBER OR SPECIES ID FOR 26009056, 26009057, 26009058, 26009059, 26009111, 26009112, 26009113, 26009225, 26009226

0 15 30 60 Feet
1:360

NO.	DATE	BY	DESCRIPTION
1	03.17.2026	BH	SITE PLAN REVIEW

PROGRESS PRINT
NOT FOR CONSTRUCTION

2366 HAGGERTY ROAD SOUTH
CANTON, MI 48188
TEL: 734.397.3100
FAX: 734.397.3131

PROJECT DATE: 09/24/2025
PROJECT NO: 401.2501958
DRAWN BY: BH
CHECKED BY: CR

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
TOYOTA MOTOR
NORTH AMERICA R&D
1555 WOODRIDGE AVE
ANN ARBOR, MI 48105

TOYOTA NORTH AMERICA
1555 WALKING PATH
ANN ARBOR, MI

EXISTING CONDITIONS- SOUTH

C-003

W:\Projects_401\2025\1800-1999\2501958\CAD\SHTS\2501958 Existing Conditions.dwg Last saved 3/17/2026 9:31 AM by BHornburg, plotted 3/17/2026 9:32 AM

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0 15 30 60
1:360
Feet

MISS DIG System, Inc.
811
1-800-482-7171

C-004

EXISTING CONDITIONS- NORTH

TOYOTA NORTH AMERICA
1555 WALKING PATH

ANN ARBOR, MI

PREPARED FOR:

TOYOTA MOTOR
NORTH AMERICA R&D

1555 WOODRIDGE AVE
ANN ARBOR, MI 48105

Mannik Smith GROUP
www.MannikSmithGroup.com

TECHNICAL SKILL.
CREATIVE SPIRIT.

2365 HAGGERTY ROAD SOUTH
CANTON, MI 48188
TEL: 734.397.3100
FAX: 734.397.3131

PROJECT DATE:	09/24/2025
PROJECT NO:	401.2501958
DRAWN BY:	BH
CHECKED BY:	CR

NO.	DATE	BY	DESCRIPTION
1	03.17.2026	BH	SITE PLAN REVIEW

PROGRESS PRINT
NOT FOR CONSTRUCTION

MATCH LINE C-201

EXISTING BUILDING

REALIGN FENCE

PROPOSED 6' ASPHALT PATH

EXISTING DETENTION POND

UTILIZE EXISTING SIDEWALK

PROPOSED 6' ASPHALT PATH

PROPOSED CROSSING

EXISTING TREE POTENTIAL REMOVAL

EXISTING DETENTION POND

EXISTING DETENTION POND

PROPOSED 6' ASPHALT PATH

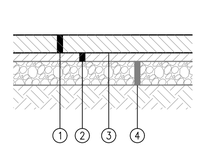
EXISTING GUARDHOUSE

REALIGN FENCE

EXISTING TREE POTENTIAL REMOVAL

EXISTING GUARDHOUSE

CONSERVATION EASEMENT

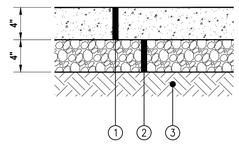


1. MDOT 13A, 5E1, 3" HMA WEARING COURSE
2. MDOT LVSP, 13A, 1 1/2" HMA BASE COURSE
3. BITUMINOUS BOND COAT (0.1 GAL./SQ. YD.)
4. 21AA AGGREGATE BASE, 4", EXTEND 1' BEYOND THE EDGE OF PAVEMENT. COMPACT TO 98% OF MAXIMUM DENSITY.

ALL PAVEMENT MATERIALS SHALL CONFORM TO THE MDOT 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

1 / C-200 ASPHALT PAVEMENT SECTION

NO SCALE



1. 4" CONCRETE PAVEMENT, MDOT GRADE 4,000
2. 4" MDOT SEC 302 STONE AGGREGATE BASE, 21AA COMPACTED TO 98% OF MAXIMUM DENSITY. EXTEND 1' BEYOND EDGE OF PAVEMENT
3. SUBGRADE COMPACTION

2 / C-200 EXERCISE EQUIPMENT PAD

NO SCALE

0 15 30 60 Feet

1:360

MISS DIG System, Inc. 811 1-800-482-7171

NO.	DATE	BY	DESCRIPTION
1	03.17.2026	BH	SITE PLAN REVIEW

PROGRESS PRINT NOT FOR CONSTRUCTION

2365 HAGGERTY ROAD SOUTH
CANTON, MI 48188
TEL: 734.397.3100
FAX: 734.397.3131

PROJECT DATE: 09/24/2025
PROJECT NO: 401.2501958
DRAWN BY: BH
CHECKED BY: CR

TECHNICAL SKILL. CREATIVE SPIRIT.

Mannik Smith GROUP

www.MannikSmithGroup.com

PREPARED FOR:

TOYOTA MOTOR NORTH AMERICA R&D

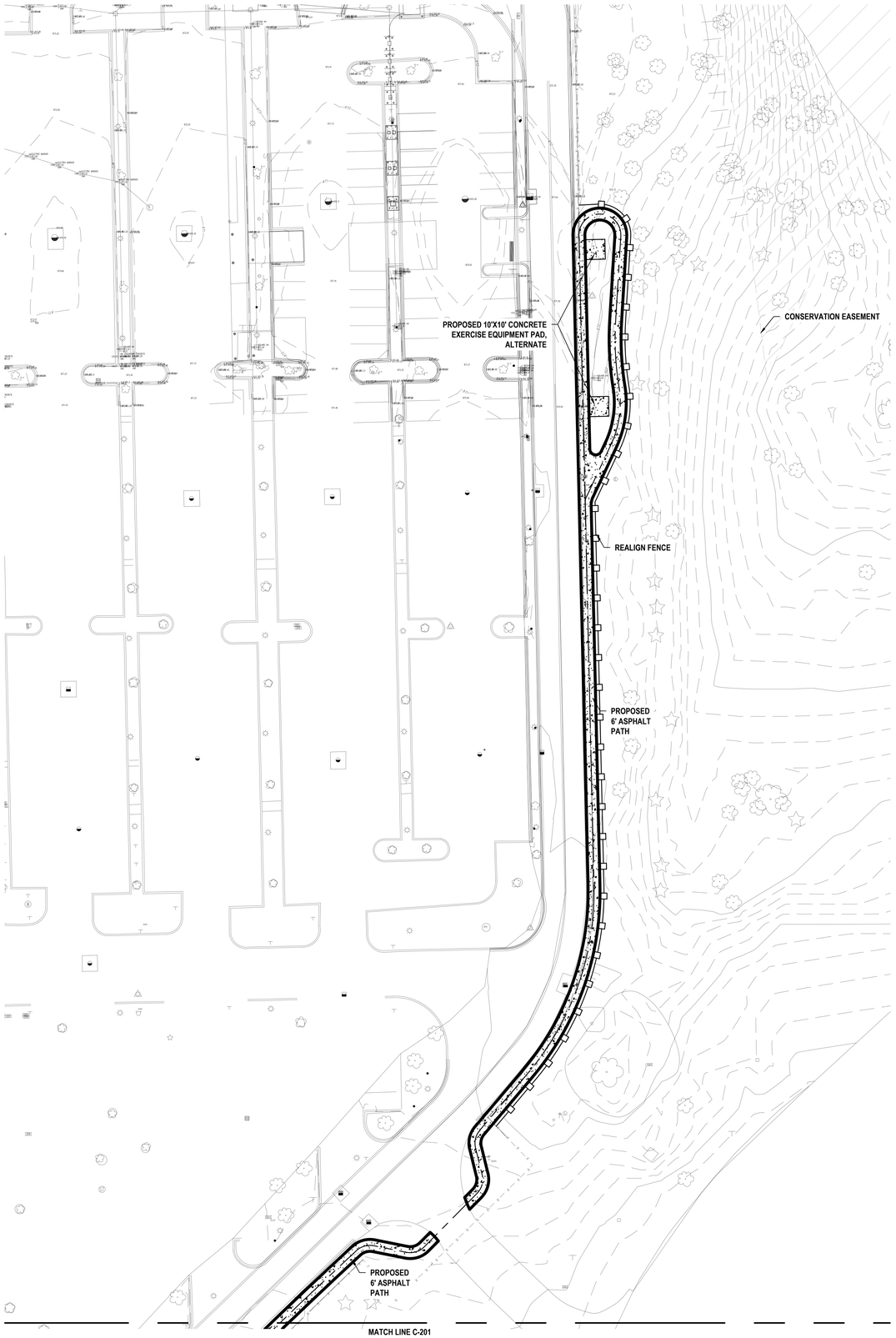
1555 WOODRIDGE AVE
ANN ARBOR, MI 48105

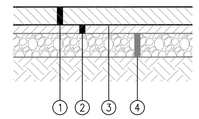
TOYOTA NORTH AMERICA
1555 WALKING PATH

ANN ARBOR, MI

SITE PLAN- SOUTH

C-200





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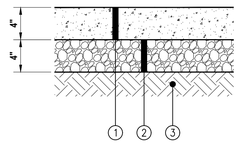
NO SCALE



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0 15 30 60 Feet

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MISS DIG System, Inc. 811 1-800-482-7171

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TECHNICAL SKILL. CREATIVE SPIRIT.

Mannik Smith GROUP

www.MannikSmithGroup.com

PREPARED FOR:

TOYOTA MOTOR NORTH AMERICA R&D

1555 WOODRIDGE AVE
ANN ARBOR, MI 48105

TOYOTA NORTH AMERICA 1555 WALKING PATH

ANN ARBOR, MI

SITE PLAN-NORTH

C-201

W:\Projects_4\01025\1800-1999\2501958\CAD\SHTS\2501958 Site Plan.dwg Last saved 3/17/2026 9:00 AM by BHornburg, plotted 3/17/2026 9:32 AM

Carlisle | Wortman
ASSOCIATES, INC.
117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

MEMORANDUM

TO: Ann Arbor Township Planning Commission

FROM: Sally M. Elmiger, AICP

DATE: March 20, 2026

RE: Toyota at 1555 Woodridge – Walking Path – Major/Minor Determination

---

The project submission proposes to install a six-foot-wide pedestrian walking trail on the east side of the existing parking lot, and around the stormwater basins. Existing fencing along the project location will be relocated to allow for the pathway. The plans don't show proposed grading, but it may be necessary to remove up to six existing trees that were planted within the vicinity of the basins.

Section 74-178 requires that all improvements must be made per the approved final site plan. In cases where changes are to be made to a development for which a preliminary or final site plan has been approved, the Planning Commission must first determine if the proposal constitutes a major or minor amendment to the existing plan, and if the applicant should be required to submit a full set of plans to seek a formal amendment to the approved site plan. If the Planning Commission determines that the proposal is a minor change to the approved plan, the changes can be approved administratively by the Zoning Official, and the Planning Commission may request that a revised final site plan drawing be provided to the Township for its records. Section 74-179 establishes the procedures for site plan amendment:

Sec. 74-179. Amendment of approved site plan.

(a) When changes are to be made to a development for which a preliminary or final site plan has been approved, the Planning Commission shall have the authority to determine if the proposed change is a minor or major amendment to the site plan. An applicant may apply for such a determination by filing with the Township a completed application for amendment, the required fee, and 17 copies of an 11 x 17 scaled plan of the site showing:

(1) The proposed changes;
(2) Any increases or decreases in stormwater impact surface;
(3) Dimensions (including height) of any proposed structures or buildings;
(4) Changes to existing structures or buildings;
(5) Any earth change or tree removal;
(6) Any change in the floor area ratio or ground floor coverage; and,
(7) Any additional information necessary for the Planning Commission to make a determination.

(b) Minor changes to a preliminary site plan may be incorporated into a final site plan, at the discretion of the Planning Commission. The Planning Commission may require, in case of minor changes in an approved preliminary or final site plan, that revised preliminary or final site plan drawings be submitted showing such minor changes, for purposes of record. If the Planning Commission determines that the proposed change is a major change, a site plan submittal and review, as provided in section 74-175 for a preliminary site plan and in section 74-176 for a final site plan, will be required. An applicant may elect in writing to acknowledge that the proposed change is a major change without a formal determination from the Planning Commission and upon such written acknowledgement may proceed directly to site plan submittal and review as a major change. A major change shall include a:

(1) Change in concept of the project;
(2) Change in use or character of the project;
(3) Change in type of dwelling unit as identified on the approved site plan;
(4) Change in the number of dwelling units;
(5) Change in non-residential floor area of over five percent;
(6) Change in GFC, FAR or stormwater impact surface of the project of over one percentage point;
(7) Rearrangement of lots, blocks, or building tracts;
(8) Change in the character or function of any street;
(9) Reduction in land area set aside for common open space or the relocation of such area; or
(10) Increase in building height.

The project is providing for pedestrian walking paths on site so that employees have a safe place to walk and exercise during the work day. Per the criteria listed above, this project does not meet any of the criteria for a major change. Therefore, we recommend that the Planning Commission find that the proposed change constitutes a minor amendment.

Sally M. Elmiger

CARLISLE/WORTMAN ASSOC., INC.
Sally M. Elmiger, AICP, LEED AP
Principal

cc: Eric Humesky, Township Engineer (Townshipeng@aatwp.org)
Sarah Gabis, Township Attorney (SGabis@bodmanlaw.com)

2365 Haggerty Road South, Canton, Michigan 48188
Tel: 734.397.3100 Fax: 734.397.3131
www.MannikSmithGroup.com

LETTER OF TRANSMITTAL

To: **Jennifer Morris**
Ann Arbor Township
3792 Pontiac Trail
Ann Arbor, MI 48105

Project #: 401.2501172.OP0
Date: March 17, 2026

Re: Toyota 1588 Isolation Pad
Major-Minor Application

Enclosed are the following:

No. of Copies	Description
7	Major-Minor Review Letter
3	Full-Size Preliminary Site Plans
4	11x17 Preliminary Site Plans
1	Application Form
1	Check ($1,700)

The above items are transmitted as checked below:

☒ For review and approval ☐ For review and comment ☐ Returned for corrections
☐ For your use ☐ Approved as submitted ☐ Approved as noted
☐ As requested ☐ Other:

Remarks:

Please see the attached Major-Minor Determination Submittal Package. We are requesting to be placed on the April 6, 2026 Planning Commission Agenda.

Copies To: File

Signed: *Christopher Riharb*
Printed: Christopher Riharb
Senior Project Manager/Vice President

SITE PLAN APPROVAL
OF
1588 OBSERVATION PAD AND FIRE LANE
FOR
TOYOTA MOTOR NORTH AMERICA
IN
ANN ARBOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PROPERTY LEGAL DESCRIPTION

PARCEL "A" LEGAL DESCRIPTION
QUA L2690 P650 FROM 0924200004 03/01/93 FROM 0924200005 03/01/93AA 24-5C-1
BEGINNING AT CENTER OF SECTION 24, THENCE N87°36'00"W 869.69 FEET; THENCE N4°52'23"W 432.72 FEET; THENCE 171.86 FEET ALONG AN ARC TO THE RIGHT, RADIUS 257.00 FEET, CHORD BEARING N14°17'03"E 168.68 FEET; THENCE 231.83 FEET ALONG THE ARC TO THE RIGHT, RADIUS 257.00 FEET, CHORD BEARING N59°17'03"E 224.05 FEET; THENCE N85°07'37"E 291.81 FEET; THENCE 226.29 FEET ALONG AN ARC TO THE LEFT, RADIUS 543.00 FEET, CHORD BEARING N73°11'19"E, 224.65 FEET; THENCE N61°15'00"E 177.91 FEET; THENCE S00°45'10"E 954.64 FEET TO POINT OF BEGINNING. PART OF THE NORTHWEST ¼ SECTION 24, T2S R6E. CONTAINING 16.05 ACRES. (LEGAL DESCRIPTION OBTAINED FROM "EXISTING TOPOGRAPHIC SURVEY (SITE1588), TOYOTA TECHNICAL CENTER, BY SPICER GROUP, JOB NUMBER 26356, SHEET FSP-7, DATED 11-20-02.)

EXISTING DEED RESTRICTION
DECLARATION OF RESTRICTIVE COVENANT ADOPTED MAY 6, 2003 BY TOYOTA MOTOR SALES. THE TREE MITIGATION AREA AND THE RESTRICTIVE COVENANT WERE REQUIRED AS PART OF THE FINAL SITE PLAN APPROVAL BY ANN ARBOR TOWNSHIP FOR CONSTRUCTION OF THE SATELLITE DESIGN STUDIO AT 1410 WOODRIDGE AVE. THE DEED RESTRICTION STIPULATES, IN PART, THAT PARCEL "B" (LEGAL DESCRIPTION FOLLOWS) ONLY SHALL HAVE THIS RESTRICTIVE COVENANT IMPOSED UPON IT: NO TREE REMOVAL OR LAND CLEARING SHALL OCCUR ON PARCEL "B" WITHOUT CHARTER TOWNSHIP OF ANN ARBOR'S WRITTEN APPROVAL.

PARCEL "B" LEGAL DESCRIPTION
TO FIX THE POINT OF BEGINNING, COMMENCE AT THE CENTER OF SECTION 24, T.2 S. - R.6 E., ANN ARBOR TOWNSHIP, WASHTENAW COUNTY, MICHIGAN; THENCE N. 00°-45'-10" W. ON THE NORTH AND SOUTH 1/4 LINE OF SAID SECTION, 78.48 FEET TO POINT OF BEGINNING OF THIS DESCRIPTION; THENCE S. 89°-14'-50" W., 140.00 FEET; THENCE N00°45'10"W, 520.58 FEET; THENCE S89°14'50"W, 50.00 FEET; THENCE N00°45'10" 58.00 FEET; THENCE N89°14'50"E., 58.00 FEET; THENCE N00°45'10"W, 36.00 FEET; THENCE 89°14'50"W, 33.00 FEET; THENCE N00°45'10"W, 68.00 FEET; THENCE N89°14'50"E, 92.00 FEET; THENCE S26°40'48"E, 166.96 FEET TO SAID NORTH AND SOUTH 1/4 LINE; THENCE S00°45'10"E, ON THE NORTH AND SOUTH 1/4 LINE, 532.42 FEET TO THE POINT OF BEGINNING, CONTAINING 2.17 ACRES OF LAND.

SITE ZONING DATA

ZONING DATA:
SUBJECT PROPERTY AND ALL ADJACENT PARCELS ARE ZONED RRA 'RESEARCH AND RESEARCH APPLICATIONS' EXCEPT PARCEL I-09-24-400-001 TO THE SE, BEING ZONED R-2 'SINGLE FAMILY SUBURBAN RESIDENTIAL'.

REQUIRED SETBACKS:
-ALONG PUBLIC STREET R/W: 75 FEET
-SIDE, INTERIOR: 50 FEET ONE SIDE, 150 FEET TOTAL
SIDE, CORNER: 75 FEET
-PROTECTED WETLAND: 25 FEET NON-DISTURBANCE SETBACK FROM EDGE OF PROTECTED WETLAND.

DENSITY REGULATIONS:
-ONE EXISTING BUILDING ON SITE OF 94,633 SF.
-GROUND FLOOR COVERAGE (GFC) SHALL NOT EXCEED 15% OF LOT
-TOTAL GROUND FLOOR COVERAGE (GROUND FLOOR AREA DIVIDED BY LOT AREA):
-94,633 SF TOTAL BUILDING FOOTPRINT/699,138 SF LOT AREA (16.05 ACRES)= 0.1354 (13.54%)
-FLOOR AREA RATION (FAR) SHALL NOT EXCEED 0.30 (30%)
-TOTAL FLOOR AREA RATION (TOTAL FLOOR AREA DIVIDED BY LOT AREA):
-94,633 SF TOTAL BUILDING FOOTPRINT/699,138 SF LOT AREA (16.05 ACRES)= 0.1354 (13.54%)

BUILDING HEIGHT:
-MAXIMUM BLDG HEIGHT 6 STORIES ABOVE GRADE
-BUILDING HEIGHT= ONE FLOOR - 27'4" TO TOP OF PARAPET
- TOP OF STEEL: 15'-9 ⅜" TO 16'-10"

NUMBER OF EXISTING BUILDINGS ON SITE: ONE

NUMBER OF PROPOSED BUILDINGS ON SITE: THERE ARE NO NEW BUILDINGS PLANNED FOR THIS SITE. THERE ARE BUILDING RENOVATIONS

PROPOSED USE: BUILDING RENOVATION FOR EGRESS OF VEHICLES WITH FAILING BATTERIES

STEEP SLOPE USE PROTECTION:
-THE SITE DOES NOT CONTAIN STEEP SLOPES AS DEFINED BY CHAPTER 74, ARTICLE VII, SEC. 74-683.

IMPERVIOUS SURFACE

TOTAL SITE AREA= 699,138 SF (16.05 AC)
.
EXISTING IMPERVIOUS AREA= 189,882 SF (4.36 AC)
[PAVEMENT= 96,624 SF (2.22 AC)]

PROPOSED EXISTING IMPERVIOUS AREA REMOVAL= 193 SF (0.004 AC)
[PAVEMENT= 193 SF (0.004 AC)]

PROPOSED NEW IMPERVIOUS AREA= 3,360 SF (0.077 AC)
[PAVEMENT= 3,360 SF (0.077 AC)]

PROPOSED TOTAL IMPERVIOUS AREA= 193,049 SF (4.43 AC)
[PAVEMENT= 99,791 SF (2.29 AC)]

PERCENT IMPERVIOUS- (193,049 / 699,138) X 100 = 27.61%

REVISION BLOCK		
NO.	DATE	DESCRIPTION
A	11/21/2025	30% OWNER REVIEW
B	1/14/2026	60% OWNER REVIEW
C	2/25/2026	90% OWNER REVIEW
D	3/17/2026	SITE PLAN REVIEW

PROPERTY OWNER
TOYOTA MOTOR NORTH AMERICA
1555 WOODRIDGE AVE
ANN ARBOR, MI 48105
JOE AKERS
PHONE: 313-820-3861

SITE ADDRESS
TOYOTA MOTOR NORTH AMERICA
1588 WOODRIDGE AVE
ANN ARBOR, MI 48105

ENGINEER
THE MANNIK & SMITH GROUP, INC.
2365 HAGGERTY ROAD SOUTH
CANTON, MI 48188
CHRIS RIHARB
PHONE: 734-397-3100 EXT 6115

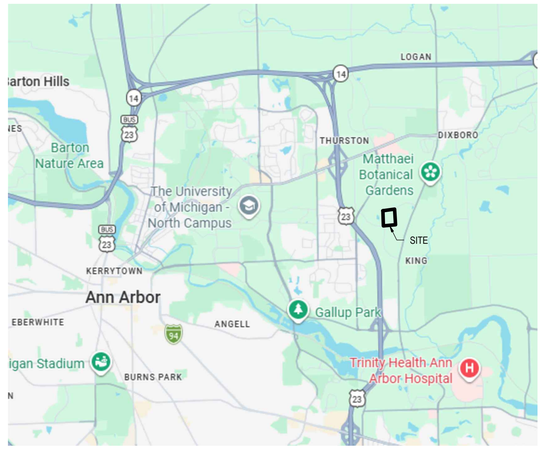
ARCHITECT
BHDP
302 W THIRD ST, SUITE 500
CINCINNATI, OH 45202
JOHN WILLIS
513-527-0238

MEP/FP
CMTA
1100 SYCAMORE ST, SUITE 400
CINCINNATI, OH 45202
ALYSSA MEHNERT
PHONE: 513-429-4404

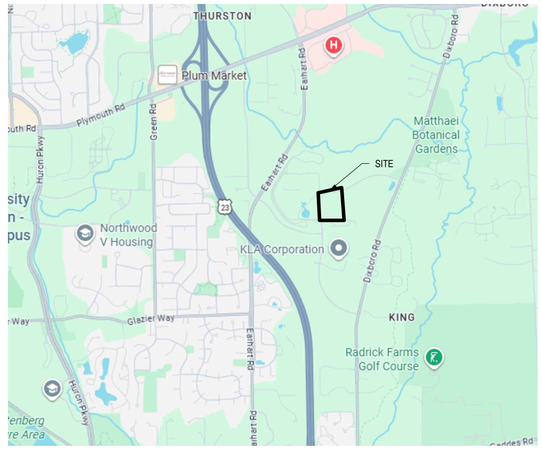
AREA MAP
SCALE: 1" = 300'

SHEET INDEX

SHEET NO.	SHEET TITLE	30% REVIEW 11/21/2025	60% REVIEW 01/14/2026	90% REVIEW 01/14/2026	90% REVIEW 01/14/2026
C-001	COVER SHEET	●	●	●	●
C-002	SITE AERIAL PHOTO	●	●	●	●
C-003	TOPOGRAPHIC SURVEY	●	●	●	●
C-004	NATURAL FEATURES PLAN	●	●	●	●
C-005	GENERAL NOTES			●	●
C-100	REMOVAL PLAN	●	●	●	●
C-101	SESC & TREE PROTECTION PLAN	●	●	●	●
C-102	TRAFFIC CONTROL PLAN			●	●
C-200	SITE PLAN	●	●	●	●
C-300	GRADING PLAN		●	●	●
C-400	UTILITY PLAN	●	●	●	●
C-500	STORMWATER PLAN			●	●
C-700	SESC & TREE PROTECTION DETAILS		●	●	●
C-701	SITE DETAILS		●	●	●
C-702	PIT DETAILS		●	●	●
C-703	STORM SEWER DETAILS		●	●	●
C-705	STORM SEWER PROFILES				
C-706	SESC DETAILS		●	●	●
C-707	TRAFFIC CONTROL DETAILS AND NOTES			●	●
SS-001	STRUCTURAL NOTES		●	●	●
SS-100	WALL OPENING PLAN	●	●	●	●
SS-101	OBSERVATION PAD PLANS		●	●	●
SS-300	WALL OPENING ELEVATIONS		●	●	●
SS-301	OBSERVATION PAD ELEVATIONS		●	●	●
SS-400	WALL OPENING SECTIONS		●	●	●
SS-401	WALL OPENING SECTIONS		●	●	●
SS-402	OBSERVATION PAD SECTIONS			●	●
SS-403	OBSERVATION PAD SECTIONS			●	●
L-200	LANDSCAPE PLAN	●	●	●	●
L-700	LANDSCAPE DETAILS AND NOTES		●	●	●



REGIONAL MAP
SCALE: 1" = 5,000'



VICINITY MAP
SCALE: 1" = 2,000'

PLANS PREPARED BY:

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

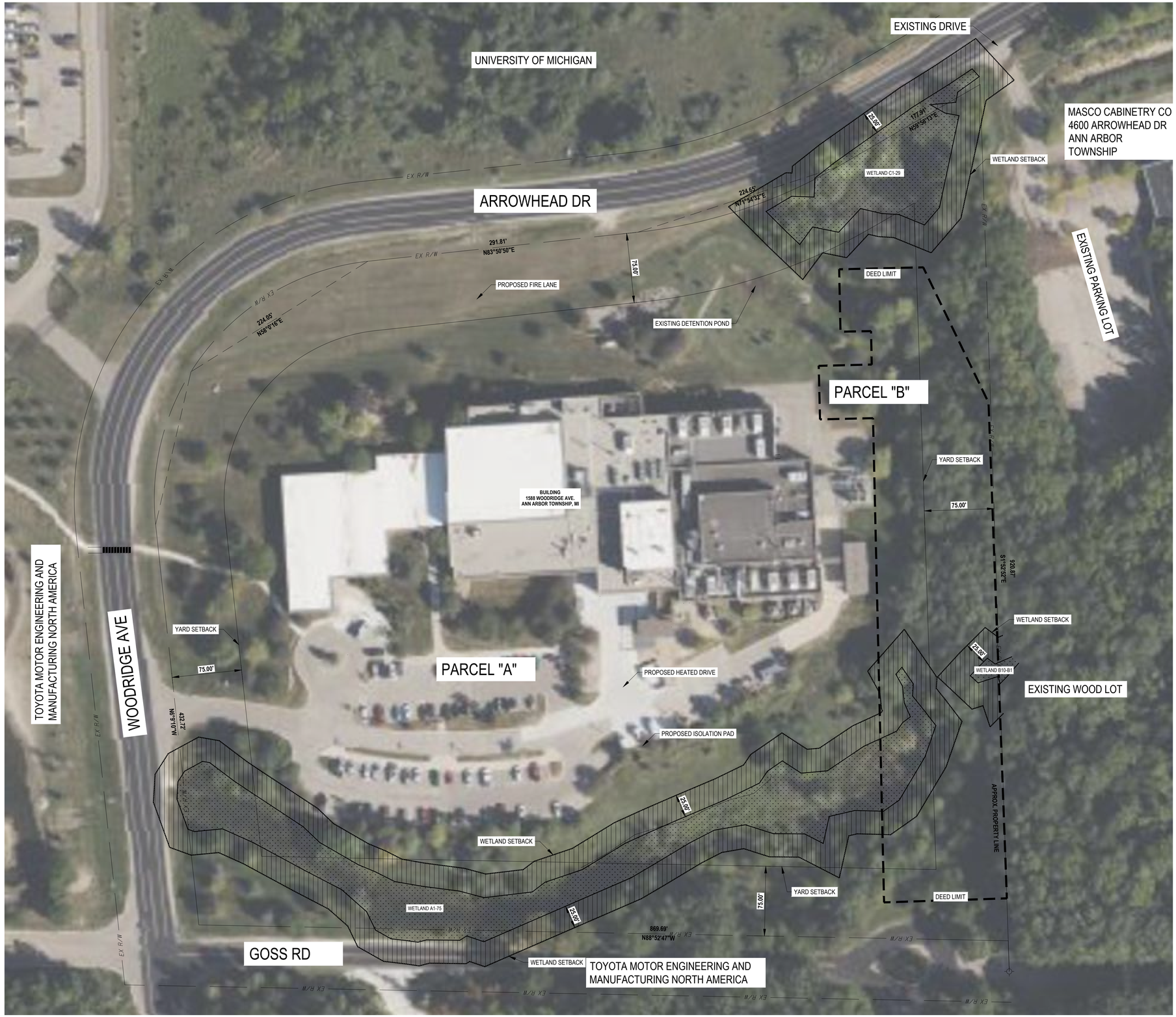
CHRIS RIHARB
PROFESSIONAL CIVIL ENGINEER

BY: _____

DATE: _____

3 FULL WORKING DAYS BEFORE YOU DIG CALL
MISS DIG System
1-800-482-7171 or 811
Design Ticket #: _____
Survey Ticket #: _____

$DATE$
$FILE$



MISS DIG System, Inc.
811
1-800-482-7171

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A	11/26/2025	BH	30% REVIEW
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C	02/20/26	CR	90% REVIEW
D	03/12/26	CR	100% REVIEW

2365 HAGGERTY ROAD SOUTH
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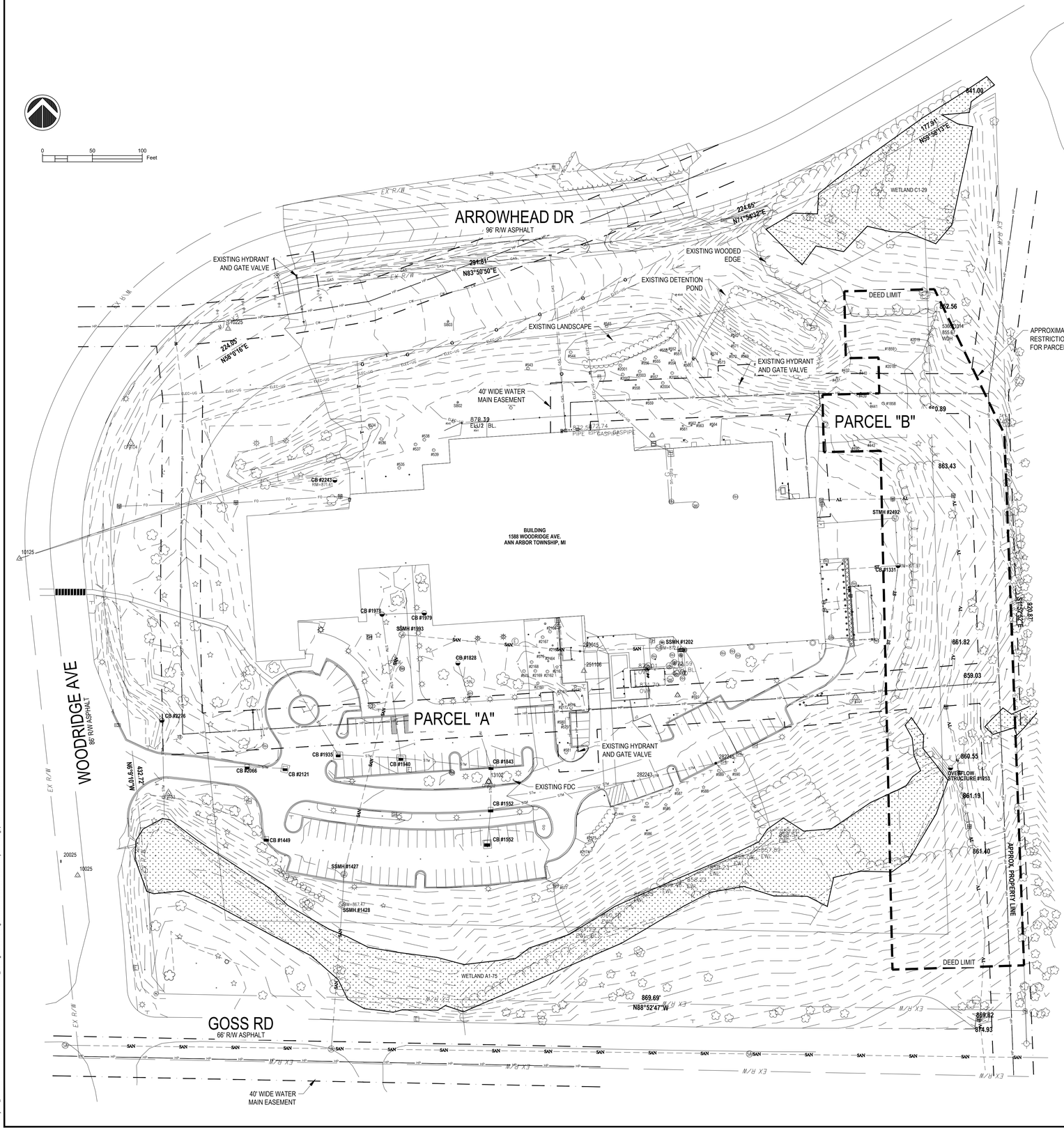
PREPARED FOR:
TOYOTA MOTOR NORTH AMERICA R&D
1555 WOODRIDGE AVE
ANN ARBOR, MI 48105

TOYOTA NORTH AMERICA
1588 ISOLATION PAD DESIGN
ANN ARBOR, MI

SITE AERIAL PHOTO

C-002



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TO FIX THE POINT OF BEGINNING, COMMENCE AT THE CENTER OF SECTION 24, T 2 S. - R 6 E., ANN ARBOR TOWNSHIP, WASHTENAW COUNTY, MICHIGAN; THENCE N. 00°-45'-10" W. ON THE NORTH AND SOUTH 1/4 LINE OF SAID SECTION, 78.48 FEET TO POINT OF BEGINNING OF THIS DESCRIPTION; THENCE S. 89°-14'-50" W., 140.00 FEET; THENCE N00°45'10"W, 520.58 FEET; THENCE S89°14'50"W, 50.00 FEET; THENCE N00°45'10" 58.00 FEET; THENCE N89°14'50"E., 58.00 FEET; THENCE N00°45'10"W, 36.00 FEET; THENCE 89°14'50"W, 33.00 FEET; THENCE N00°45'10"W, 68.00 FEET; THENCE N89°14'50"E, 92.00 FEET; THENCE S26°40'48"E, 166.96 FEET TO SAID NORTH AND SOUTH 1/4 LINE; THENCE S00°45'10"E, ON THE NORTH AND SOUTH 1/4 LINE, 532.42 FEET TO THE POINT OF BEGINNING, CONTAINING 2.17 ACRES OF LAND.

STORM AND SANITARY STRUCTURE SCHEDULE

CB #1331
T/CAST=871.97
N 12" RCP IE 865.87
S 12" RCP IE 865.85
W 8" CLAY IE 866.67

CB #1490
T/CAST=868.49
N 12" RCP IE 863.89

CB #1449
T/CAST=870.13
N/A

CB #1552
T/CAST=869.05
N 24" RCP IE 863.95
E 24" RCP IE 863.75
S 12" RCP IE 864.05

CB #1843
T/CAST=869.40
N 15" RCP IE 864.20
W 18" RCP IE 864.50
S 24" RCP IE 864.10

CB #1828
T/CAST=870.65
S15" RCP IE 864.90

CB #1935
T/CAST=869.93
E 12" RCP IE 865.58
NW 12" RCP IE 865.58

CB #1828
T/CAST=870.65
S 15" RCP IE 864.90

CB #1935
T/CAST=869.93
E 12" RCP IE 865.58
NW 12" RCP IE 865.58

CB #1940
T/CAST=869.66
N 15" RCP IE 865.26
W 12" RCP IE 865.26
E 18" RCP IE 865.16

CB #1978
T/CAST=871.70
E 15" RCP IE 865.90
S 15" RCP IE 865.90

CB #1940
T/CAST=869.66
N 15" RCP IE 865.26
W 12" RCP IE 865.26
E 18" RCP IE 865.16

CB #1843
T/CAST=869.40
N 15" RCP IE 864.20
W 18" RCP IE 864.50
S 24" RCP IE 864.10

CB #1979
T/CAST=872.16
N 15" RCP IE 866.66
W 15" RCP IE 866.26
SE 6" STEEL IE 868.86

CB #2066
T/CAST=870.20
E 12" RCP IE 866.00
W 12" RCP IE 865.90

CB #2121
T/CAST=870.47
W 12" RCP IE 865.97

CB #2276
T/CAST=868.57
S 12" RCP IE 864.07

CB #2243
T/CAST=871.61
E 4" PVC IE 870.61

STMH #2492
T/CAST=871.89
S 12" RCP IE 866.14
W 8" RCP IE 866.49

OVERFLOW STRUCTURE #1253
T/CAST=880.40
N/S 12" IRON IE 858.20

SSMH #1202
T/CAST=872.64
W 6" CLAY IE 863.74
E 6" PVC IE 863.94
E 6" STEEL IE 866.84

SSMH #1993
T/CAST=872.47
N/A

SSMH #1427
T/CAST=869.93
S 8" STEEL IE 860.33
N 8" STEEL IE 860.53

SSMH #1428
T/CAST=867.47
S 8" STEEL IE 856.67
N 8" STEEL IE 856.97
N 8" STEEL IE 860.27

289015
RIM=872.71
NNE 8" VCP IE 863.10
E 8" VCP IE 863.10
W 8" VCP IE 863.10

282243
RIM=870.45
NW 24" RCP IE 865.30
SE 24" RCP IE 865.30
SUMP=863.30

282245
RIM=869.08
E 24" RCP IE 861.20
WNW 24" RCP IE 864.70
SUMP=859.30

BENCHMARKS
BM #1- SANITARY SEWER MANHOLE COVER (SSMH #1993 LOCATED 283.06' EAST OF WOODRIDGE AVE RIGHT-OF-WAY AND 364.99' NORTH OF GOSS ROAD RIGHT-OF-WAY. ELEV 872.47 (NAVD88)

BM #2- SANITARY SEWER MANHOLE COVER (SSMH #1202) LOCATED 539.30' EAST OF WOODRIDGE AVE RIGHT-OF-WAY AND 356.89' NORTH OF GOSS ROAD RIGHT-OF-WAY. ELEV 872.64 (NAVD88)

CONTROL POINTS

100	290793.52	13309812.02	873.19	CP
10025	290813.286	13310406.31	867.71	CP
20025	290827.368	13310389.58	866.00	BM
20125	291414.663	13310625.76	873.66	BM

EXISTING TOPO LEGEND
- CATCH BASIN SQUARE
- STORM MANHOLE
- CULVERT
- FIRE HYDRANT
- WATER SHUT OFF
- IRRIGATION CONTROL VALVE
- POST INDICATOR VALVE
- SANITARY MANHOLE
- CLEANOUT
- FLOOD LIGHT
- ELECTRIC TRANSFORMER
- ELECTRIC METER
- CONDUIT
- GAS LINE MARKER
- FIBER OPTIC MARKER
- TELEPHONE MARKER
- SIGN
- BOLLARD
- DECIDUOUS TREE
- PINE TREE
- GAS LINE
- UNDERGROUND ELECTRIC LINE
- STORM SEWER LINE

GENERAL NOTES
1. NO EXISTING DRAIN TILE WAS FOUND WITHIN THE PROJECT LIMITS.

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PROGRESS PRINT

2365 HAGGERTY ROAD SOUTH
CANTON, MI 48188
TEL: 734.397.3100
FAX: 734.397.3131

PROJECT DATE: 09/24/2025
PROJECT NO: 401.2501172.0P0
DRAWN BY: BH
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PREPARED FOR:
TOYOTA MOTOR NORTH AMERICA R&D
1555 WOODRIDGE AVE
ANN ARBOR, MI 48105

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1588 ISOLATION PAD DESIGN
ANN ARBOR, MI

TOPOGRAPHIC SURVEY

C-003

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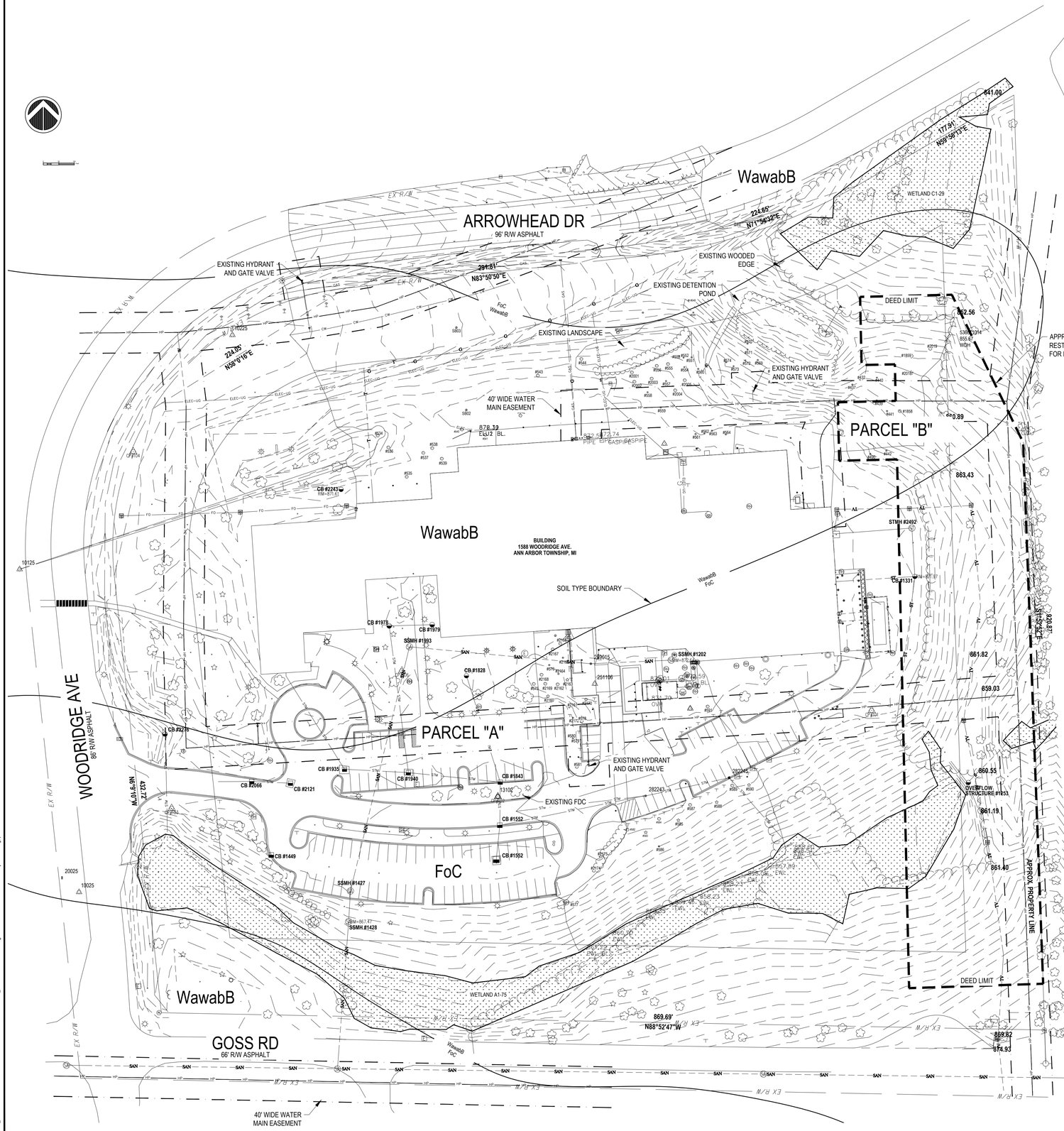

NATURAL FEATURES IMPACT STATEMENT

1. NO NATURAL FEATURES WILL BE IMPACTED BY THE PROPOSED DEVELOPMENT.
2. EXISTING TEES TO BE REMOVED WILL BE REPLACED (TRANSPLANTED) ON SITE OR NEW TREES WILL BE PLANTED. SEE SHEET L-200
3. THERE ARE NO STEEP SLOPES (PER ORDINANCE ON THIS SITE.

EXISTING TOPO LEGEND

CATCH BASIN SQUARE
STORM MANHOLE
CULVERT
FIRE HYDRANT
WATER SHUT OFF
IRRIGATION CONTROL VALVE
POST INDICATOR VALVE
SANITARY MANHOLE
CLEANOUT
FLOOD LIGHT
ELECTRIC TRANSFORMER
ELECTRIC METER
CONDUIT
GAS LINE MARKER
FIBER OPTIC MARKER
TELEPHONE MARKER
SIGN
BOLLARD
DECIDUOUS TREE
PINE TREE
GAS LINE
UNDERGROUND ELECTRIC LINE
STORM SEWER LINE

SOIL BOUNDARY LIMITS

SOIL DESCRIPTIONS

FoC- Fox sandy loam, Huron Lobe, 6 to 12 percent slopes
Map Unit Setting
- Elevation: 660 to 1,250 feet
- Mean annual precipitation: 31 to 40 inches
- Mean annual air temperature: 48 to 55 degrees F
- Frost-free period: 145 to 175 days

Map Unit Composition
- Fox and similar soils: 90 percent
- Minor components: 10 percent

Description of Fox
Setting
- Landform: Out wash plains, moraines, ice-contact slopes
- Landform position (two-dimensional): Shoulder, backslope
- Landform position (three-dimensional): Side slope
- Down-slope shape: Convex
- Across-slope shape: Convex, linear

Properties and qualities
- Slope: 6 to 12 percent
- Depth to restrictive feature: 20 to 40 inches
- Drainage class: Well drained
- Runoff class: Medium
- Capacity of the most limiting layer to transmit water: Moderately high to high
- Depth to water table: More than 80 inches
- Frequency of flooding: None
- Frequency of ponding: None
- Calcium carbonate, maximum content: 55 percent
- Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups
- Land capability classification (irrigated): None Specified
- Land capability classification (non-irrigated): 3e
- Hydrologic Soil Group: B
- Ecological site: F098XA015MI- Dry Loamy Drift Plains
- Hydric soil rating: No

Typical profile
- Ap- 0 to 9 inches: sandy loam
- Bt1- 9 to 27 inches: sandy clay loam
- Bt2- 27 to 33 inches: gravelly loam
- 2C- 33 to 79 inches: stratified gravelly sand

WawabB- Wawasee loam, 2 to 6 percent slopes
Map Unit Setting
- Elevation: 670 to 1,180 feet
- Mean annual precipitation: 32 to 40 inches
- Mean annual air temperature: 46 to 50 degrees F
- Frost-free period: 150 to 170 days

Map Unit Composition
- Wawasee and similar soils: 85 percent
- Minor components: 15 percent

Description of Fox
Setting
- Landform: Moraines
- Landform position (two-dimensional): Summit, shoulder, backslope
- Landform position (three-dimensional): Side slope
- Down-slope shape: Convex
- Across-slope shape: Linear

Properties and qualities
- Slope: 2 to 6 percent
- Depth to restrictive feature: More than 80 inches
- Drainage class: Well drained
- Runoff class: Medium
- Capacity of the most limiting layer to transmit water: Moderately high to high
- Depth to water table: More than 80 inches
- Frequency of flooding: None
- Frequency of ponding: None
- Calcium carbonate, maximum content: 30 percent
- Available water supply, 0 to 60 inches: Moderate (about 7.6 inches)

Interpretive groups
- Land capability classification (irrigated): None Specified
- Land capability classification (non-irrigated): 2e
- Hydrologic Soil Group: B
- Ecological site: F098XA015MI- Dry Loamy Drift Plains
- Hydric soil rating: No

Typical profile
- Ap- 0 to 9 inches: loam
- Bt1- 9 to 27 inches: loam
- Bt2- 27 to 33 inches: clay loam
- C- 33 to 79 inches: loam

EXISTING TREE REMOVAL LIST

TAG NO.	SCIENTIFIC NAME	COMMON NAME	DBH	NOTE
540	GLEDITSIA	HONEY LOCUST	6"	TRANSPLANT
541	GLEDITSIA	HONEY LOCUST	6"	TRANSPLANT
547	MALUS SP	CRABAPPLE	3"	TRANSPLANT
548	MALUS SP	CRABAPPLE	3"	TRANSPLANT
549	PINUS	WHITE PINE	3"	TRANSPLANT
550	PICEA	BLUE SPRUCE	3"	TRANSPLANT
582	TILIA	LINDEN	6"	TRANSPLANT
583	PICEA	SPRUCE	6"	TRANSPLANT
584	TILIA	LINDEN	8"	TRANSPLANT

GENERAL NOTES
1. TREE TAG NUMBERS REFER TO THE TREE SURVEY TEXT DOCUMENT SEE SHEET C-005.
FROM: THE MANNIK & SMITH GROUP, DATED 02/26/2026
PREPARED BY: BRAD HORNBURG, LICENSED LANDSCAPE ARCHITECT

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NO.	DATE	BY	DESCRIPTION
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C	02/26/2026	BH	90% REVIEW
D	03/17/2026	BH	100% REVIEW

PROGRESS PRINT
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TEL: 734.397.3100
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PROJECT DATE: 09/24/2025
PROJECT NO: 401.2501172.0P0
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ANN ARBOR, MI

NATURAL FEATURES PLAN

C-004

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TREE SURVEY					
TAG #	BOTANICAL NAME	COMMON NAME	DBH	CONDITION	LANDMARK
246	Quercus bicolor	Swamp Oak	12"	Fair	N
247	Liquidambar styraciflua	Sweetgum	6"	Good	N
437	Pinus strobus	Eastern White Pine	3"	Fair	N
438	Acer rubrum	Red Maple	7"	Good	N
439	Gleditsia triacanthos	Honey Locust	12" Mult	Fair	N
440	Pinus strobus	Eastern White Pine	3"	Fair	N
441	Cratageus sp	Hawthorn	6"	Good	N
442	Acer rubrum	Red Maple	13"	Good	N
490	Liquidambar styraciflua	Sweetgum	10"	Fair	N
534	Gleditsia triacanthos	Honey Locust	10" Tri	Fair	N
535	Gleditsia triacanthos	Honey Locust	12"		N
536	Acer rubrum	Red Maple	6"	Good	N
537	Gleditsia triacanthos	Honey Locust	6"	Good	N
538	Gleditsia triacanthos	Honey Locust	6"	Good	N
539	Acer	Maple	12"	Fair	N
540	Gleditsia triacanthos	Honey Locust	6" Tri	Good	N
541	Gleditsia triacanthos	Honey Locust	6"	Good	N
542	Liquidambar styraciflua	Sweetgum	6"	Good	N
543	Gleditsia triacanthos	Honey Locust	6"	Good	N
544	Tilia americana	Basswood	8"	Good	N
545	Tilia americana	Basswood	8"	Good	N
546	Ginkgo biloba	Ginkgo	3"	Fair	N
547	Malus sp.	Crabapple	3"	Good	N
548	Malus sp.	Crabapple	3"	Good	N
549	Pinus strobus	Eastern White Pine	3"	Good	N
550	Picea pungens	Blue Spruce	3"	Good	N
551	Picea pungens	Blue Spruce	3"	Poor	N
552	Picea pungens	Blue Spruce	3"	Fair	N
553	Picea pungens	Blue Spruce	3"	Fair	N
554	Picea pungens	Blue Spruce	3"	Poor	N
555	Acer platanoides	Norway Maple	12"	Fair	N
556	Gleditsia triacanthos	Honey Locust	8" Twin	Fair	N
557	Picea pungens	Blue Spruce	3"	Poor	N
558	Picea pungens	Blue Spruce	3"	Poor	N
559	Acer platanoides	Norway Maple	3"	Fair	N
560	Acer rubrum	Red Maple	4"	Dead	N
561	Malus sp.	Crabapple	3"	Good	N
562	Picea pungens	Blue Spruce	5"	Fair	N
563	Picea pungens	Blue Spruce	3"	Poor	N
564	Tilia americana	Basswood	5"	Good	N
565	Pinus strobus	Eastern White Pine	3"	Poor	N
566	Picea pungens	Blue Spruce	4"	Poor	N
567	Picea pungens	Blue Spruce	4"	Poor	N
568	N/A	N/A	2"	Dead	N
569	Malus sp.	Crabapple	3"	Fair	N
570	Malus sp.	Crabapple	3"	Poor	N
571	Pinus strobus	Eastern White Pine	4"	Fair	N
572	Picea pungens	Blue Spruce	3"	Poor	N
573	Picea pungens	Blue Spruce	3"	Fair	N
574	Pinus strobus	Eastern White Pine	4"	Poor	N
575	Gleditsia triacanthos	Honey Locust	8"	Good	N
576	Gleditsia triacanthos	Honey Locust	6" Twin	Fair	N
577	Pinus strobus	Eastern White Pine	12"	Good	N
578	Gleditsia triacanthos	Honey Locust	6" Twin	Good	N
579	Gleditsia triacanthos	Honey Locust	5" Twin	Good	N
580	Gleditsia triacanthos	Honey Locust	5" Twin	Good	N
581	Tilia americana	Basswood	8"	Good	N
582	Tilia americana	Basswood	8"	Good	N
583	Picea pungens	Blue Spruce	6"	Poor	N
584	Tilia americana	Basswood	8"	Good	N
585	Picea pungens	Blue Spruce	6"	Fair	N
586	Ulmus	Elm	5" Twin	Good	N
587	Tilia americana	Basswood	11"	Good	N
588	Picea pungens	Blue Spruce	8"	Poor	N
589	Pyrus calleryana	Callery Pear	10"	Good	N
590	Pinus strobus	Eastern White Pine	10"	Poor	N
591	Acer rubrum	Red Maple	8"	Good	N
1857	Quercus bicolor	Swamp White Oak	14"	Good	N
1858	Cratageus sp	Hawthorn	6"	Good	N
1859	Acer	Maple	24"	Fair	Y
2001	Cratageus sp	Hawthorn	8"	Good	N
2002	Cratageus sp	Hawthorn	8" Tri	Good	N
2003	Cratageus sp	Hawthorn	8" Tri	Fair	N
2004	Cratageus sp	Hawthorn	8" Multi	Good	N
2005	Cratageus sp	Honey Locust	8"	Good	N
2018	Pinus sylvestris	Scotch Pine	16"	Fair	N
2019	Acer rubrum	Red Maple	10"	Poor	N
2133	Cratageus sp	Hawthorn	6"	Good	N
2160	Pinus Resinosa	Red Pine	14"	Good	N
2161	Cratageus sp	Hawthorn	5" Multi	Poor	N
2162	Gleditsia triacanthos	Honey Locust	6" Twin	Fair	N
2163	Pinus Resinosa	Red Pine	14"	Good	N
2164	Cratageus sp	Hawthorn	5" Twin	Poor	N
2165	Cratageus sp	Hawthorn	5" Twin	Good	N
2166	Cratageus sp	Hawthorn	6" Tri	Good	N
2167	Cratageus sp	Hawthorn	8" Twin	Good	N
2168	Cratageus sp	Hawthorn	6" Multi	Fair	N
2169	Cratageus sp	Hawthorn	5" Twin	Fair	N
2170	Pinus Resinosa	Red Pine	11"	Good	N
2172	Cratageus sp	Hawthorn	5" Twin	Good	N
2174	Cratageus sp	Hawthorn	6" Twin	Good	N
2175	Cratageus sp	Hawthorn	8"	Good	N

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A	11/26/2025	BH	30% REVIEW
B	01/16/2026	BH	60% REVIEW
C	02/20/2026	BH	90% REVIEW/PE
D	03/12/2026	BH	100% REVIEW

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PROGRESS PRINT

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CANTON, MI 48188
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ANN ARBOR, MI 48105

TOYOTA NORTH AMERICA
1588 ISOLATION PAD DESIGN
ANN ARBOR, MI

TREE SURVEY

C-005

1.00 GENERAL

1.01 DESCRIPTION

A. The CONTRACTOR shall perform all excavation and backfilling necessary to complete the work. This shall include the excavation of earth and rock, the removal and disposal of unsuitable material, dewatering, placement of suitable fill and backfill material, pipe boring and jacking, all quality assurance testing, and the restoration and final grading for all earth surfaces.

1.02 WORK WITHIN RIGHTS-OF-WAY

A. Where the governmental bodies having jurisdiction of the streets or rights-of-way have specific specifications relating to the requirements for work within their jurisdiction, such requirements must be met as a minimum requirement, and if these Specifications impose further limitation on the work, they shall also be met as the required work standard.

B. During all operations of the CONTRACTOR in the streets and roadways, the CONTRACTOR shall maintain barricades, lights, and warning signs as required by the agency having jurisdiction.

1.03 WORK WITHIN EASEMENTS

A. During construction within any easements, the CONTRACTOR shall confine himself to the limits shown on the Plans. He shall notify property owners in advance of moving equipment on easements and use of the access routes which will be designated by the OWNER. The OWNER will cooperate in working out the details of access. The topsoil over the trench shall be removed and carefully replaced upon completion of the work. The backfill of the trench in the easement may be left slightly high to provide for any slight residual settlement. Any trees, shrubs, or bushes removed shall be replaced per the approved landscape plan.

1.04 SOIL BORINGS

A. Soil boring results, if taken on a site, are appended to these Specifications with locations noted. Boring logs are shown to be generally representative of the site and to assist in the design and construction of the work.

2.00 PRODUCTS

2.01 BACKFILL MATERIAL

A. For areas not requiring "granular backfill" material, backfill shall be of the excavated material, with the exception that materials such as soft clay, topsoil, muck, cinders, vegetable matter, refuse, boulders and other objectionable and non-packing earth shall be excluded from the backfill and removed from the site. Stone larger than 3 inches in any dimension shall be excluded from the backfill and removed from the site by the CONTRACTOR.

B. Where "granular material" backfill is required as specified herein, backfill material shall be defined as a material meeting granular material Class II as defined in 2003 MDOT 902.08.

2.02 ENCASING PIPE

A. Steel encasing pipe for boring and jacking shall conform to the requirements of either ASTM A53, Type E or S, Grade B or ASTM A139, Grade B.

B. Steel encasing pipe used under channels and highways shall meet the requirements of the governmental agency having jurisdiction and the following minimum requirements:

Nominal Diameter Inches	Minimum Wall Thickness
Under 13	0.188 inches
13-24	0.250 inches
25-36	0.312 inches
42	0.438 inches
48	0.500 inches
54	0.563 inches

C. Steel encasing pipe used under railroads shall meet the requirements of the railroad and the following minimum requirements:

Nominal Diameter Inches	Minimum Wall Thickness (inches) Coated or Cathodically Protected	Uncoated & Unprotected
Under 14	0.180	0.251
14-16	0.219	0.282
18	0.250	0.313
20	0.281	0.344
22	0.312	0.375
24	0.344	0.407
26	0.375	0.438
28-30	0.406	0.469
32	0.438	0.501
34-36	0.469	0.532
38-42	0.500	0.563
48	0.563	0.626

D. Casing pipe joints shall be welded to form a leakproof continuous casing.

E. The inside diameter of casing pipe shall be at least 2 inches greater than the largest outside diameter of the carrier pipe joints or couplings for carrier pipe less than 6 inches in diameter, and at least 4 inches greater than the largest outside diameter of the carrier pipe joints for carrier pipe 6 inches and over in diameter, unless otherwise shown on the Plans.

F. The steel casing pipe shall be of smooth interior and shall be placed accurately to line and grade, allowing for the encased pipe thickness and supports under each length of encased pipe.

3.00 EXECUTION

3.01 GENERAL EXCAVATION

A. Excavation shall be performed by any practicable method consistent with the integrity and protection of the work and neighboring structures, workmen, and the public. Topsoil shall be separately removed and stockpiled for reuse.

B. All excavation, except where necessary to tunnel or bore and jack under roads, railroads, tree roots and other obstructions within the limits indicated on the Plans, may be open cut from the surface. Tunneling or boring under trees shall be considered as incidental to construction and will not be considered as cause for request for additional payment.

C. Foreign material or unsuitable foundation material encountered such as wood, boulders, etc., which obstruct the excavation, shall be removed. Such materials found at the bottom of the excavation shall be removed and the foundation restored with approved materials.

D. If excess excavation is made or the material becomes disturbed so as to require removal beyond the prescribed limits, the resulting space shall be filled with selected material solidly tamped into place, in not more than 6-inch layers to the satisfaction of the ENGINEER, before the construction work proceeds. At the direction of the ENGINEER, the excess excavation may be filled with 2000 psi concrete at the CONTRACTOR's expense.

E. The excavation shall be kept dry during the work. Where water is encountered in the excavation, it shall be removed by pumping or well points. All necessary precautions shall be taken to prevent damage to existing wells and to completed or partially completed structures. The CONTRACTOR shall be responsible for all damages caused by him due to inadequate or improper protection.

F. The CONTRACTOR shall take ample precautions to protect all trees and ornamental shrubbery not within the limits of the construction areas, and within the construction areas shown on the Plans to be retained from injury by workmen, equipment, or any other agencies connected with the work, including subcontractors. Such protection shall be provided during the progress of the excavation, grading, or other phases of the work as necessary. Such trees or shrubbery shall be surrounded by protective posts or fencing before construction begins, when in judgment of the ENGINEER, such precautionary measures are necessary. If, as a result of any phase of the work, trees are damaged or it is necessary to remove limbs in the way of construction, the repair of the damage and such limb removal shall be done by the CONTRACTOR as directed by the ENGINEER. All costs for the protective work shall be borne by the CONTRACTOR as incidental the Contract work.

G. Any excavation not backfilled at the end of each day must be clearly marked and surrounded by appropriate safety fencing as directed by the ENGINEER. If directed by the ENGINEER, the CONTRACTOR shall cover the open excavation with a steel plate and light the excavated area.

3.02 EXCAVATION FOR SEWERS AND WATER MAINS

A. Trenches shall be excavated to the depth required with allowance for bedding the pipe. The trench shall be cut wider and deeper at each pipe joint location to provide for properly completing the pipe joint and to relieve the joint of all loadings.

B. The width of the trench at the top of a rigid pipe shall be sufficient to allow the pipe to be laid and jointed properly and shall provide for a minimum net clearance of 6 inches and a maximum net clearance of 12 inches on each side of the barrel of the pipe and to allow the backfill to be placed and properly compacted.

C. The width of the trench at the top of a flexible pipe backfill shall be sufficient to allow the pipe to be laid and jointed properly with the minimum net clearance of 12 inches and a maximum net clearance of 18 inches on each side of the barrel of the pipe.

D. Where the conditions of the ground require, or where the work is in close proximity of existing structures, the sides of excavation shall be securely held by bracing and/or sheeting which may be removed in units when the level of the backfill has reached a point where it is safe to pull the sheeting without disturbing the protected feature. No sheeting, bracing, or other timber shall be left in the excavation upon the completion of the main or other structures, except with the specific review and direction of the ENGINEER.

E. Other underground mains, sewers or structures encountered in the excavation shall be adequately supported during the CONTRACTOR's operations, and before backfilling, shall be given permanent support as directed by the ENGINEER to meet the standards or requirements of the owning utility or agency.

F. Water, sewer, gas and other utility services disturbed by the CONTRACTOR in his operations shall be repaired or replaced in a manner equal to the original condition by the CONTRACTOR at his own expense. Where these services are encountered and are undamaged, they shall be supported and/or protected by the CONTRACTOR at his expense against later settlement and/or damage after backfill. The CONTRACTOR shall consult the agency or the utility firm having jurisdiction over any duct line, gas main, etc., which may cross the excavation to determine method of supporting such duct or pipe.

G. All excavated material shall be piled in a manner that will not endanger the work and that will avoid obstructing sidewalks and driveways. Hydrants under pressure, valve manhole covers, valve boxes, curb stop boxes, fire and police call boxes, or other utility controls shall be left unobstructed and accessible until the work is completed. Gutters shall be kept clean, or other satisfactory provisions made for street drainage, and natural water courses shall not be obstructed except as otherwise provided for herein on a temporary basis.

H. Where utilities and roads are to be constructed alongside each other, station numbers shall be the same for the utilities and the road.

3.03 EXCAVATION FOR STRUCTURES

A. Excavation for structures shall be extended sufficiently beyond the limits of the structure to provide ample room for form construction and for practicable construction methods to be followed.

B. Excavation shall be on all sides of an existing structure.

C. Requirements for excavation of sewers and water mains shall also apply to this Section.

3.04 EXCAVATION FOR PAVED SURFACES

A. In excavating around manholes and catch basins or inlets, care shall be exercised to avoid removing the castings and pushing dirt into the structures. Dirt pushed into manholes, catch basins or inlets by the CONTRACTOR's operations shall be immediately removed so that the dirt will not be carried into the sewer by the flow of sewage or storm water.

B. The CONTRACTOR shall take ample precautions to protect all trees and ornamental shrubbery not within the limits of the construction area, or within the construction areas shown on the Plans to be retained from injury by workmen, equipment, or any other agencies connected with the work, including subcontractors. Such protection shall be provided during the progress of the excavation, grading, or other phases of the work as necessary. Such trees or shrubbery shall be surrounded by protective posts or fencing before construction begins, when in the judgment of the ENGINEER, such precautionary measures are necessary. If, as a result of any phase of the work, trees are damaged or it is necessary to remove limbs in the way of construction, the repair of the damage and such limb removal shall be done by the CONTRACTOR as directed by the ENGINEER. All costs for the protective work shall be borne by the CONTRACTOR as incidental to the Contract work.

3.05 ROCK EXCAVATION

A. Rock excavation shall consist of excavating igneous, metamorphic and sedimentary rock which cannot be excavated without continuous drilling and blasting or drilling and splitting to fracture the rock. Blasting shall be permitted only after it has been shown that other methods of excavation are impractical. All rock excavation shall be carried to a minimum depth of 8 inches below the pipe or manhole bottom and to the bottom of all footings. The width of the rock excavation shall not exceed the diameter of the pipe plus 12 inches on either side or the edge of the foundation footing.

B. When the use of explosives is necessary for the progression of the work, the CONTRACTOR shall comply with all laws, ordinances and applicable safety code requirements and regulations relative to the handling, storage and use of explosives and protection of life and property, including notifying all Township emergency response agencies. A person competent and experienced in the use of explosives shall be employed to supervise the work. The CONTRACTOR shall schedule all blasting for a definite hour of the day and shall so notify all residents and businesses in the area as to the scheduled day and hour for such blasting operations. Explosive materials shall not be stockpiled and stored in residential areas. Explosives and initiating devices shall not be carried in the same vehicle.

C. Suitable weighted plank coverings or timber mats shall be provided to confine all materials lifted by blasting within the limits of the excavation of trench. Excessive blasting or overshooting shall not be permitted. Any material outside of the authorized excavation cross section which may be shattered or loosened shall be removed at the CONTRACTOR's expense. The CONTRACTOR shall be responsible for all damage resulting from the use of explosives.

3.06 PIPE BORING AND JACKING

A. The CONTRACTOR shall obtain all necessary permits for jacking the encasing pipe under channels, highways and railroads and shall notify the governmental agency and company having jurisdiction 48 hrs before work at any crossing is started. The CONTRACTOR shall pay all costs for an inspector and flagmen required by a railroad or governmental agency.

B. A suitable approach trench shall be opened, adjacent to the toe of the slope of the embankment. The approach trench shall be long enough to accommodate the length of pipe units to be placed, and wide enough to provide sufficient working room. Guide timbers or rails for keeping the pipe on-line and grade shall be installed in the bottom of the trench and heavy timber backstop supports installed at the rear of the trench to take the thrust of the jacks. A timber bearing a "pushing frame" shall be built and furnished to fit or match the end of the pipe to be jacked, so that the pressure of the jacks will be evenly distributed over the end of the pipe. Two (2) hydraulic jacks of sufficient power shall be used to apply pushing or jacking pressure. For firm ground, excavation shall be carried on from inside the pipe, not to exceed twelve (12) inches ahead of the lead pipe. For unstable ground, the lead pipe shall precede the auger. Excavation at the top and sides shall be accurately cut to line and grade. Adjoining sections of steel pipe shall be welded. Pipe shall be jacked on successive shifts until completed to guard against the "freezing of the line" due to settlement and compaction of surrounding soil.

C. The sheeting of pits along any road will be required if the leading edge of all work pits will be closer to the pavement edge than the shoulder point or ten (10) ft, which ever distance is greater, or on curb and gutter sections, closer than five (5) ft from back of curb.

D. Upon completion of the installation of the steel pipe encasement, the contractor shall furnish and install a bolted style casing spacer as described below on the carrier pipe. Casing spacers shall be placed a maximum of seven (7) feet apart along the length of the carrier pipe with one casing spacer within 2-1/2 feet of each side of a pipe joint and the rest evenly spaced. Wood skids are not an acceptable method of supporting the carrier pipe.

1. Casing spacers for carrier pipes from 4" - 24" shall be made of a molded, segmented high density polyethylene plastic with 304 stainless steel connecting nuts and bolts. Minimum spacer width shall be 5.2" for carrier pipes from 4" - 12" and 7.0" for carrier pipes 14" - 24". Each casing spacer shall have at least six (6) integrally molded skids extending 1" beyond the bell or mechanical joint of the carrier pipe. The casing spacers shall be equal to the PSI Ranger as manufactured by Pipeline Seal and Insulator, Inc., Houston, TX.

2. Casing spacers for carrier pipes larger than 24" shall be a PVC fusion bonded coated (10-16 mils) steel shell (minimum 14 gauge steel) with a 90 mil PVC inner liner and 2" wide 30% glass reinforced polyester runners (minimum compressive strength = 18,000 psi) (polyethylene is not an acceptable runner material) attached by 3/8" coated steel studs welded to the steel shell. All bolts and nuts used to fasten the shell to the carrier pipe shall be cadmium plated steel. Where risers are required under the runners they shall be a minimum 10 gauge steel welded to the shell and coated as specified for the shell (epoxy is not an acceptable coating for the shell riser). The casing spacers shall be equal to the PSI Model C as manufactured by Pipeline Seal and Insulator, Inc., Houston, Texas.

E. Boring shall be performed by accepted and recognized methods which will provide adequate safety and protection at all times to workmen employed in the work and to inspectors and others involved in the construction.

F. If voids should develop around the outside of the encasing pipe, grouting or other methods approved by the ENGINEER shall be employed to fill such voids.

G. Each end of the casing shall be bullheaded to a water tight condition.

H. Entire casing shall be flooded with water after the installation of the pipe and casing spacers in place prior to grouting. The pipe in the casing will be televised while the casing is flooded with water. Temporary bulkheads will be placed on each end of the casing.

3.07 SHORING, SHEETING AND BRACING

A. Where sheet piling, shoring, sheeting, bracing, or other supports are necessary, they shall be furnished, placed, maintained, and except as shown or specified otherwise, removed by the CONTRACTOR.

B. All sheet piling, shoring, sheeting and bracing shall be designed by a professional engineer engaged by the CONTRACTOR with demonstrated competence and experience in such work. The sheeting system shall be designed to prevent bottom failure and hydrostatic uplift within the excavation. Provision shall also be made in the design for lateral pressures due to side slope and construction equipment or other surcharge loads, as applicable.

C. The CONTRACTOR shall provide to the ENGINEER for his review, design calculations and arrangement drawings of the sheeting system prior to ordering any materials for bracing, sheeting, etc., and prior to the commencement of the excavation.

D. All materials, except as otherwise specified, used for sheeting and sheet piling, lagging, braces, shores, and stringers, or waling strips shall be of approved quality and dimensions throughout.

E. Materials for sheeting systems shall be furnished and driven or set in place by the CONTRACTOR, where necessary or wherever ordered by the ENGINEER, whether the same is or is not considered necessary by the CONTRACTOR. If, in the opinion of the ENGINEER, the materials furnished by the CONTRACTOR are not of proper quality or sufficient size or not properly placed to ensure the safety of the work or of adjacent structures and property, the CONTRACTOR shall, upon notice from the ENGINEER to that effect, forthwith procure, furnish and set in place or drive other and satisfactory materials, or place the material in a satisfactory manner; and if he shall fail or neglect to do so, the ENGINEER may order all or any part of the work to be stopped until such materials so used are furnished and placed; and the CONTRACTOR shall not be entitled to claim, demand, or receive any compensation for larger size or better quality or different disposal of materials ordered by the ENGINEER, nor any compensation for allowance of any kind whatsoever for or on account of any damage or delay resulting from such stoppage of work.

F. Steel sheet piling may be either new or used. It shall be of adequate strength, straight and properly braced. Steel sheet piling shall be of the interlocking type. Friction in the interlocks shall not be assumed to contribute to the strength of the sheet piling.

G. The design, planning, installation and removal, if required, of all sheet piling, shoring, sheeting, and bracing shall be accomplished in such a manner as to maintain the required excavation or trench section and to maintain the undisturbed state of the soils below and adjacent to the excavation.

H. Steel sheet piling for the excavation shall be driven straight and in-line. The piling shall be supported aboveground, before driving, by a guide frame at least 20 ft high which will keep the piling accurately in the required position and vertical. Each piece of piling shall be driven only a few feet at a time and driving shall proceed continuously around the perimeter so that the piles shall reach their full penetration together.

I. Walers and bracing shall be supplied and installed as required to complete the sheeting system. Walers and braces shall be of adequate strength for the load imposed. Splices in walers shall develop the full strength of the member in bending, shear, and axial compression.

J. If bracing members are to be removed during construction, the timing and procedure for removal shall not induce excessive stresses in the permanent structures or in steel sheet piling and bracing members.

K. If the construction sequence of structures requires the transfer of bracing to the completed portions of any structure, the CONTRACTOR shall secure written acceptance of the ENGINEER prior to the installation of such bracing.

L. In trenching operations the use of horizontal strutting below the barrel of pipe or the use of the pipe as support for trench racing will not be permitted. The use of a traveling shield for sewer construction shall require that the device be approved for use by a professional engineer. Sheet piling and timbers in trench excavations shall be withdrawn in a manner so as to prevent subsequent settlement of the pipe or additional backfill loadings which might overload the pipe.

M. The neglect, failure, or refusal of the ENGINEER to order the use of sheeting, or sheet piling or steel, or to order the same to be left in place, or the giving or failure to give of any order or directions as to the manner or methods of driving or placing sheeting, sheet piling, bracing, shores, etc., shall not in any way relieve the CONTRACTOR of any or all obligations under this Contract. Sheeting left in place shall be cut off one (1) ft below existing grade.

N. The rules of the OSHA and the State Department of Labor with respect to excavation and construction shall at all times be strictly observed.

3.08 GENERAL BACKFILLING

A. For all areas, unless otherwise noted, backfilling shall consist of placing excavated material as defined in Paragraph 2.01.A. of this Section, in 12-inch lifts to finish grade. Compaction of backfill shall be such as to obtain 90% of the maximum density.

B. Under pavements, curb, paved driveways, and sidewalks, and where pipe is within a one on one influence of pavement, compaction testing shall be performed by an independent testing laboratory. Testing shall be performed at intervals of one test per lift per 50 feet of trench or as determined necessary by the ENGINEER.

3.09 BACKFILLING FOR SEWERS AND WATER MAINS

A. Backfilling shall consist of placement of the prescribed materials from a level 12 inches above the crown of the pipe. Placement shall be as follows:

1. Under gravel driveways, gravel roads and shoulders, the backfill shall be granular material which shall be solidly compacted by mechanical tamps in layers of not more than 12 inches loose thickness with backfilling carried up to within 12 inches of finished grade. Compaction of backfill shall be such as to obtain 95% of the maximum unit density as determined at the optimum moisture content.

2. Under pavements, curb, paved driveways, and sidewalks, the backfill shall be granular material compacted in layers not to exceed 12 inches loose thickness with backfilling carried up to subgrade. Compaction of backfill shall be such as to obtain 95% of the maximum unit density as determined at the optimum moisture content. After a period of about 60 days or less, if the backfill compaction is satisfactory to the ENGINEER, to provide for any slight settlement, the CONTRACTOR shall retrim neatly any broken edges of pavement and replace the top surface of the backfill within the pavement area with pavement surface equal to that surface which was removed. The pavement shall be re\-placed in accordance with the standard specifications of the agency having jurisdiction.

3. Backfill around lift stations, or buried underground structures shall be granular material compacted in 12-inch lifts. Compaction of backfill shall be such as to obtain 95% of the maximum unit density as determined at the optimum moisture content.

4. For all other areas, backfilling shall consist of placing excavated material as defined in Paragraph 2.01.A. of this Section, in 12-inch lifts to finish grade. Compaction of backfill shall be such as to obtain 90% of the maximum unit density as determined at the optimum moisture content.

5. Pea gravel or crushed stone used for bedding shall be separated from the sand backfill with a non-woven geotextile fabric. The fabric shall be Amoco 4551, or approved equal.

3.10 FILLING AND BACKFILLING FOR STRUCTURES

A. Embankments underlying structural footings, streets and drives, sidewalks and around structures shall be granular material meeting the requirements of the Michigan Department of Transportation for granular material compacted to 95% density.

B. In all other areas, material required for embankments and backfilling shall be soil or soil-rock mixture free of organic and other deleterious matter and shall contain no more than 15% rocks or lumps larger than 2-1/2 inches in the greatest dimension, compacted to 90% density.

C. Under all interior and exterior floor slabs, an 8-inch thick granular cushion shall be placed. This material shall be clean mineral aggregate meeting the following gradation requirements:

Passing the No. 4 Sieve	100%
Passing the No. 200 Sieve	0-3%

D. Where embankment material is placed to achieve a new surface elevation, the top 4 inches shall be approved topsoil either salvaged from the site or hauled in by the CONTRACTOR.

3.11 FILLING AND BACKFILLING FOR PAVED SURFACES

A. Embankments, including sand cushions and granular fills, shall be placed in successive layers not more than 6 inches in depth the full width of the cross section, each layer to be thoroughly compacted by means of vibratory compactors or by an approved pneumatic-tired roller or combination thereof, as required by the ENGINEER. Each layer shall be compacted to not less than 95% of the maximum unit density as determined at the optimum moisture content. All parts of the embankment shall be uniformly compacted and the CONTRACTOR shall so direct all earthmoving equipment used in the work so that the same shall be attained. Embankment or fill outside the limits of the subgrade where sand or gravel is not required shall be made with suitable material which is free from perishable organic matter, rubbish, stones, broken concrete, roots, or other foreign materials, at no additional compensation. Before any embankments are begun, the base shall be made firm and cleared of topsoil, sod or other perishable material. The sides of the embankment shall be neatly and evenly dressed to the slope shown on the Plans, or such other slope as the ENGINEER may direct.

B. Upon completion of the placing of the curbs, and after the concrete has cured sufficiently, forms shall be removed and the excavated space behind the curb shall be backfilled with a good quality of surface soil, free of rubbish, stone, broken concrete, roots or other foreign material. Where adequate acceptable material for backfill behind the curb is not available, granular fill conforming to 2003 MDOT 8.02.06, Class II, shall be used. Where the area behind the curb is in cut, it shall be trimmed from the top of the curb on the slope shown on the Plans. If the area is in embankment or fill, an earth berm shall be placed immediately adjacent to the top of the curb and then the embankment of fill shall be finished to the slope shown on the Plans. All trimming and finishing shall be done in a neat, workmanlike manner. All excess concrete and debris shall be removed from the excavation behind the curb line before backfilling begins.

C. In construction of non-rigid pavements, backfilling back of curb and gutter shall be completed before placement and compaction of the base course of the roadway.

3.12 PREPARATION OF SUBGRADE FOR ROADWAY SURFACES

A. The bottom of the excavation for the pavement or top of the fill shall be known as the pavement subgrade and shall be smoothed, trimmed and compacted to the required line, grade and cross section to receive the road metal. It shall be thoroughly compacted by rolling with a roller of approved type weighing not less than 8 tons. The subgrade shall be compacted to at least 95% of the maximum density as designated by the test method AASHTO T-180. Inaccessible areas, where rolling is not practical, shall be thoroughly compacted by mechanical tampers capable of striking a blow equivalent to at least 250 foot-pounds per square foot. The subgrade thus formed shall be maintained in a smooth and compacted condition until the pavement has been placed. No base course, surfacing, curb, or curb and gutter, shall be placed until the subgrade has been reviewed by the ENGINEER. The subgrade shall be finished in an acceptable condition at least one day in advance of the pavement construction at all times. Six inches of compacted depth of granular material shall be used where uncompactable soil is encountered. The granular fill shall conform to the 2003 MDOT 9.02.08., Class II, compacted to 95% of its density.

B. Immediately prior to placing the pavement, the subgrade shall be tested for conformity with the cross section shown on the Plans by means of an approved template riding on the curb and gutter sections or on side forms. If necessary, materials, shall be removed or added, as required, to bring all portions of the subgrade to the correct elevation. Corrected portions shall then be thoroughly compacted and again tested with the template. Pavement material shall not be placed at any portion of the subgrade which has not been tested for correct elevation.

C. The finished subgrade shall be maintained in a smooth and compacted condition until the pavement is placed. No storage piles of fine or coarse aggregate shall be placed directly upon the finished subgrade. Should the subgrade become rutted or disturbed in any manner, it shall be reshaped and recomputed.

3.13 GRADING

A. The CONTRACTOR shall grade the site to achieve the elevations as shown on the Plans. All disturbed areas beyond the grading limits shall be restored to prior condition.

B. Surplus excavated material not needed for embankment shall be disposed of by the CONTRACTOR. Headwalls, culverts, drains, sewers and appurtenances filled or damaged by the CONTRACTOR during the course of his operations shall be cleaned, repaired, or replaced at his expense.

C. All temporary earth changes shall be in conformance with the Soil and Erosion Control Act.

3.14 RESTORATION

A. Headwalls, culverts, and drainage systems filled or damaged by the CONTRACTOR during the course of his operations shall be cleaned, re-laid or rebuilt with new materials to a condition equal to the original state, and of thickness equal to the original structure and to the original line and grade at the CONTRACTOR's expense.

B. Where the excavation is located beside a ditch and/or where an existing ditch is filled or disturbed in the CONTRACTOR's operations, the CONTRACTOR shall clean, repair, or replace the ditch with properly pitched bottom and side slopes and of section and capacity not less than the original section.

C. Where excavation has been through lawn areas, the CONTRACTOR shall restore the disturbed area by placing topsoil and seeding or sodding over the final backfill material.

D. The CONTRACTOR shall remove excess dirt and other construction material from the site of the work and leave the site in a condition equal to its original state.

E. The final condition of the streets and roadways shall be subject to the approval of the governmental body having jurisdiction thereof, as well as review by the ENGINEER.

AAT May 2010

NO.	DATE	BY	DESCRIPTION
A	11/26/2025	BH	30% REVIEW
B	[illegible]	BH	60% REVIEW
C	[illegible]	BH	90% REVIEW
D	[illegible]	BH	[illegible]

PROGRESS PRINT
NOT FOR CONSTRUCTION

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CANTON, MI 48188
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FAX: 734.397.3131

PROJECT DATE: 09/24/2025
PROJECT NO: 401.2501172.OP0
DRAWN BY: BH
CHECKED BY: CR

PREPARED FOR:
TOYOTA MOTOR NORTH AMERICA R&D
1555 WOODRIDGE AVE
ANN ARBOR, MI 48105

TOYOTA NORTH AMERICA
1588 ISOLATION PAD DESIGN
ANN ARBOR, MI

GENERAL NOTES

C-006

GENERAL NOTES

1. UNLESS NOTED OTHERWISE ON THIS PLAN, MAINTAIN ALL EXISTING BELOW AND ABOVE GRADE UTILITIES. DO NOT DISTURB DURING CONSTRUCTION.
2. REFER TO SHEET C-706 FOR NOTES AND DETAILS.
3. SAWCUT ALL PAVEMENTS AT REMOVAL LIMITS.
4. CONTRACTOR TO REMOVE AND LEGALLY DISPOSE OF ALL ITEMS OFF SITE AS REQUIRED TO CONSTRUCT PROPOSED IMPROVEMENTS.

LEGEND

- REMOVE CONCRETE PAVEMENT
- SILT FENCE
- TREE PROTECTION FENCE
- TRANSPLANT DECIDUOUS TREE
- TRANSPLANT EVERGREEN TREE
- REMOVE SIGN
- RELOCATE LIGHT POLE
- SAWCUT

REMOVALS

TOTAL REMOVED PARKING SPACES: 4

TOTAL REMOVED TREES: 0

TOTAL TRANSPLANTED TREES: 9

NO.	DATE	BY	DESCRIPTION
A	11/26/2025	BH	30% REVIEW
B	01/14/2026	BH	60% REVIEW
C	02/20/26	BH	90% REVIEW
D	03/12/26	BH	100% REVIEW

PROGRESS PRINT
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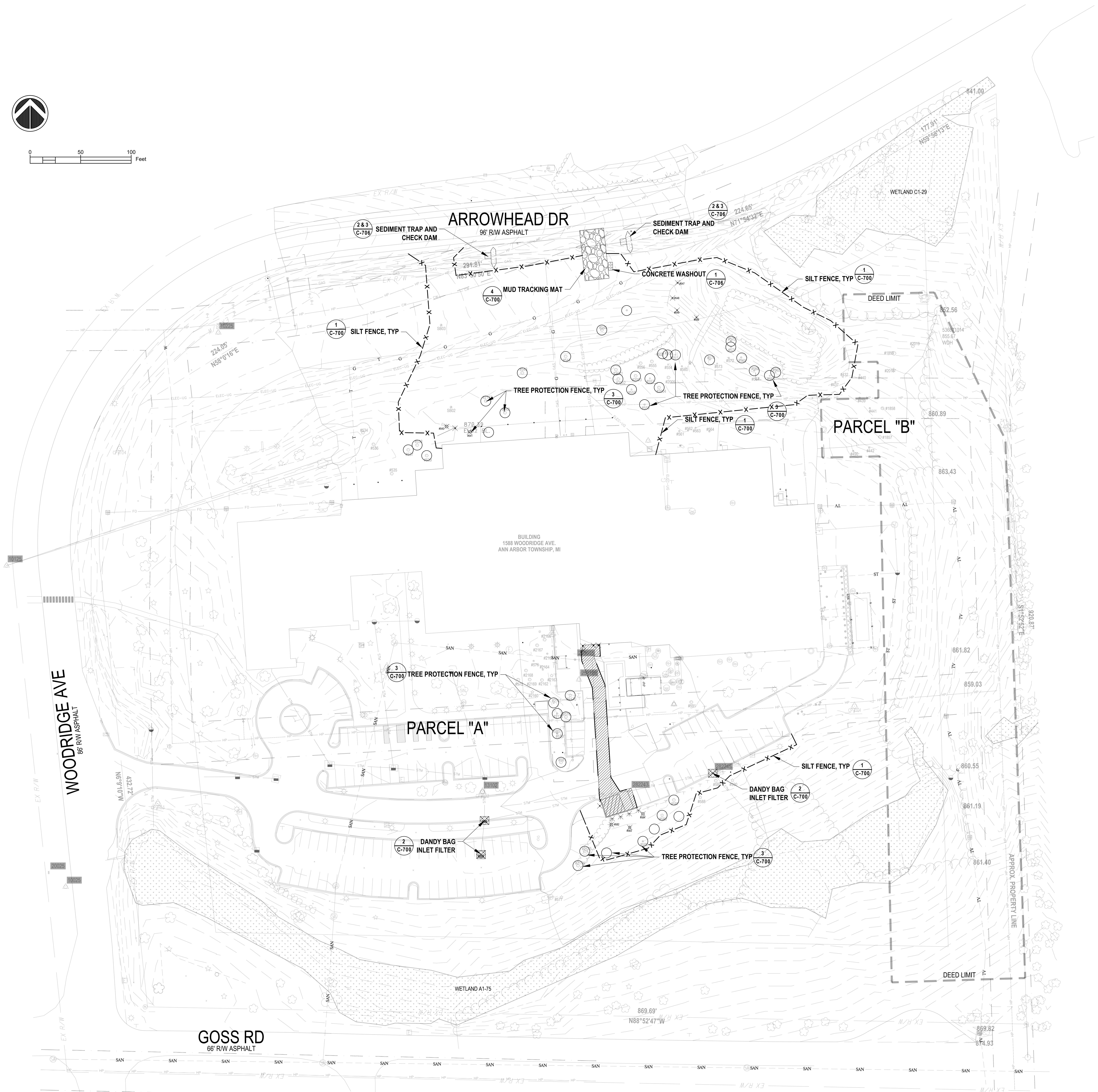
TOYOTA NORTH AMERICA 1588 ISOLATION PAD DESIGN

ANN ARBOR, MI

REMOVAL PLAN

C-100



GENERAL NOTES

1. UNLESS NOTED OTHERWISE ON THIS PLAN, MAINTAIN ALL EXISTING BELOW AND ABOVE GRADE UTILITIES. DO NOT DISTURB DURING CONSTRUCTION.
2. REFER TO SHEET C-700 & C-706 FOR NOTES AND DETAILS.
3. SAWCUT ALL PAVEMENTS AT REMOVAL LIMITS.
4. CONTRACTOR TO REMOVE AND LEGALLY DISPOSE OF ALL ITEMS OFF SITE AS REQUIRED TO CONSTRUCT PROPOSED IMPROVEMENTS.

LEGEND

- REMOVE CONCRETE PAVEMENT
- SILT FENCE
- TREE PROTECTION FENCE
- TRANSPLANT DECIDUOUS TREE
- TRANSPLANT EVERGREEN TREE
- REMOVE SIGN
- RELOCATE LIGHT POLE
- SAWCUT

NO.	DATE	BY	DESCRIPTION
A	11/26/2025	BH	30% REVIEW
B	01/14/2026	BH	60% REVIEW
C	02/25/2026	BH	90% REVIEW/IFB
D	03/17/2026	BH	SITE PLAN REVIEW

PROGRESS PRINT
NOT FOR CONSTRUCTION

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PROJECT DATE: 09/24/2025
PROJECT NO: 401.2501172.OP0
DRAWN BY: BH
CHECKED BY: CR

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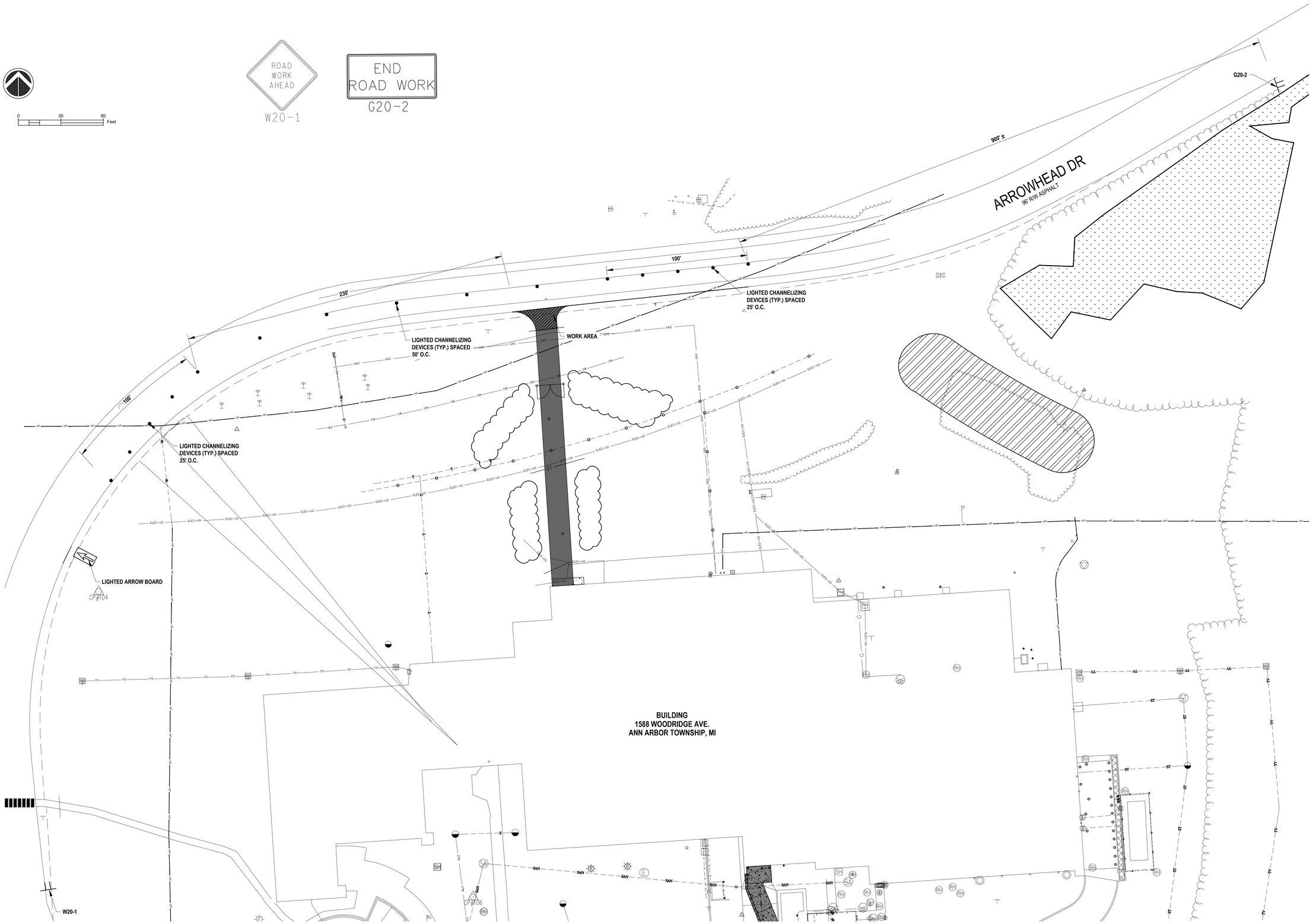
TOYOTA NORTH AMERICA 1588 ISOLATION PAD DESIGN

ANN ARBOR, MI

SESC & TREE PROTECTION PLAN

C-101



NO.	DATE	BY	DESCRIPTION
A	11/26/2025	BH	30% REVIEW
B	01/16/2026	BH	60% REVIEW
C	02/20/2026	BH	90% REVIEW/PW
D	03/16/2026	BH	STAMPING

NOT FOR CONSTRUCTION
PROGRESS PRINT

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PROJECT DATE: 09/24/2025
PROJECT NO: 401.2501172.OP0
DRAWN BY: BH
CHECKED BY: CR

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TOYOTA NORTH AMERICA 1588 ISOLATION PAD DESIGN

ANN ARBOR, MI

TRAFFIC CONTROL PLAN

C-102

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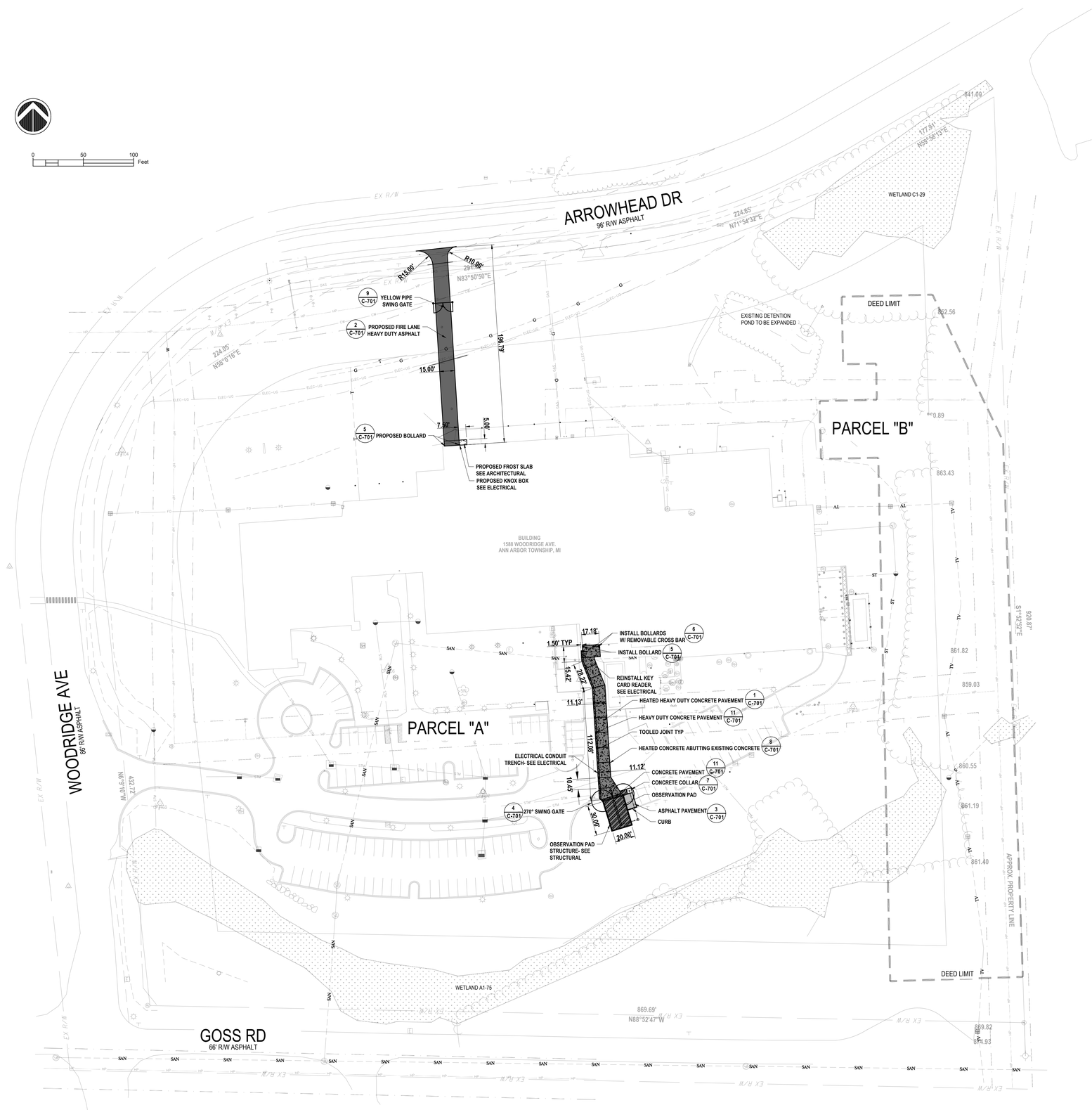

GENERAL NOTES

1. MAINTAIN ALL EXISTING BELOW AND ABOVE GRADE UTILITIES. DO NOT DISTURB DURING CONSTRUCTION
2. TRASH STORAGE: NO ADDITIONAL OUTDOOR TRASH STORAGE IS INTENDED FOR THE PROJECT SITE.
3. DIMENSIONS ARE TO EDGE OF PAVEMENT
4. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION, TOYOTA STANDARD SPECIFICATIONS OR ANN ARBOR TOWNSHIP STANDARDS, WHICH EVER IS MORE STRINGENT.
5. PER SPECIFICATIONS, PROOF ROLL SUBGRADE IN THE PRESENCE OF A GEOTECHNICAL ENGINEER AND AS DIRECTED PRIOR TO PLACING AGGREGATE BASE OR SURFACE.
6. SEE ELECTRICAL PLANS FOR SITE ELECTRICAL.
7. SEE MECHANICAL PLANS FOR LAYOUT OF SNOWMELT SYSTEM

PARKING REQUIREMENTS
ZONING: RRA- RESEARCH AND RESEARCH APPLICATIONS DISTRICT

PROCESSING, RESEARCH AND TESTING ESTABLISHMENTS.
ONE SPACE PER 300SF.
(CALCULATION SHALL BE BASED UPON 93,358 SF BUILDING)

OFF-STREET PARKING CALCULATIONS

EXISTING NUMBER OF PARKING SPACES	130
BUILDING SQUARE FOOTAGE	93,358 SF
NMBER OF PARKING SPACES REQUIRED	93,358/300 = 311
NUMBER OF PARKING SPACES REMOVED	4
PARKING SPACES PROVIDED	130-58-4= 68 SURPLUS

LEGEND

- CONCRETE PAVEMENT
- HEATED HEAVY DUTY CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- BOLLARD

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2365 HAGGERTY ROAD SOUTH
CANTON, MI 48188
TEL: 734.397.3100
FAX: 734.397.3131

PROJECT DATE: 09/24/2025
PROJECT NO.: 401.2501172.OP0
DRAWN BY: BH
CHECKED BY: CR

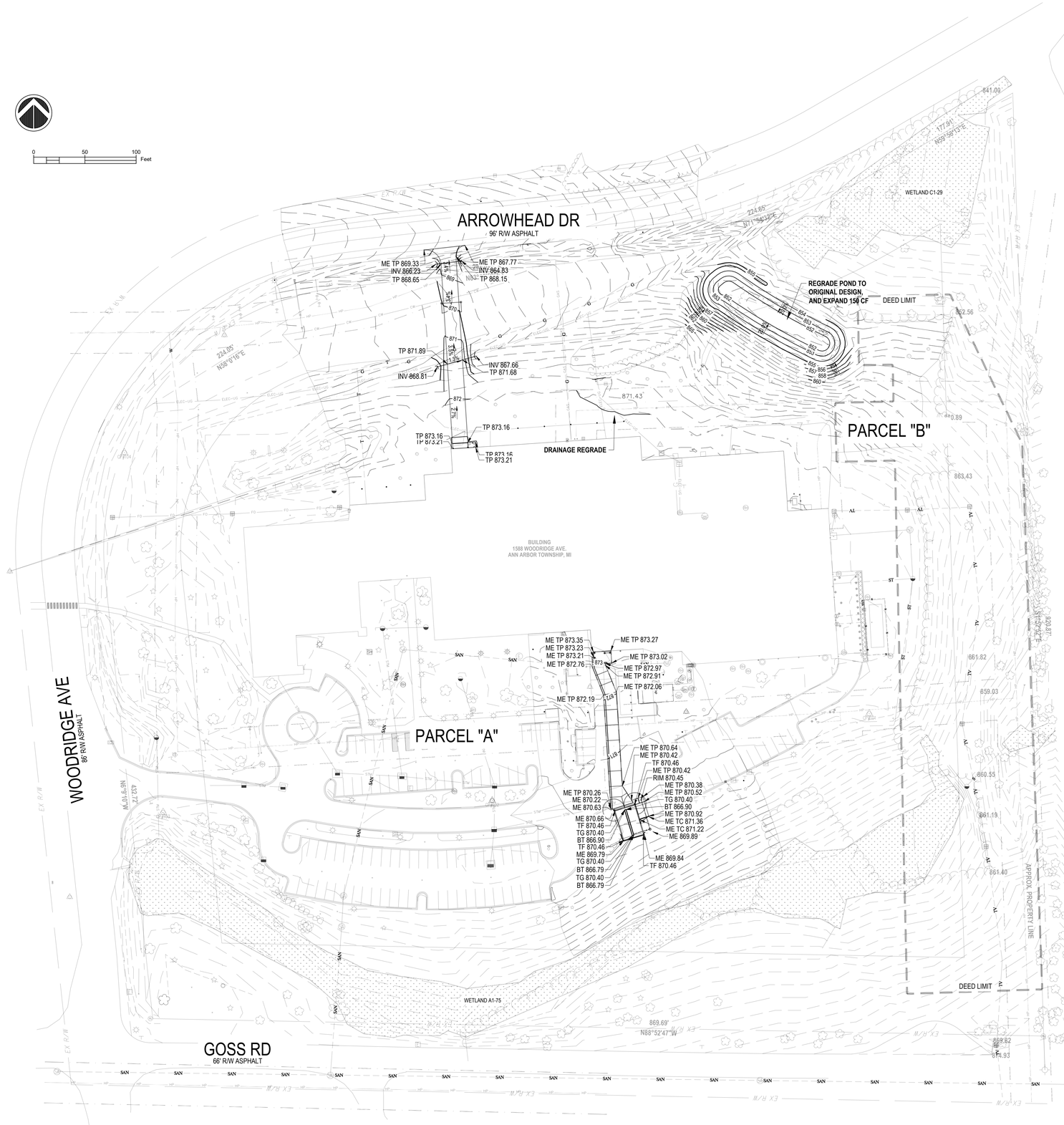
TECHNICAL SKILL. CREATIVE SPIRIT.
Mannik Smith GROUP
www.MannikSmithGroup.com

PREPARED FOR:
TOYOTA MOTOR
NORTH AMERICA R&D
1555 WOODRIDGE AVE
ANN ARBOR, MI 48105

TOYOTA NORTH AMERICA
1588 ISOLATION PAD DESIGN
ANN ARBOR, MI

SITE PLAN

C-200



GENERAL NOTES

1. MAINTAIN ALL EXISTING BELOW AND ABOVE GRADE UTILITIES. DO NOT DISTURB DURING CONSTRUCTION
2. PROPOSED GRADES WILL NOT EXCEED 3:1
3. MINIMUM SLOPE ON PAVEMENT SHALL BE 1%
4. IN ALL DISTURBED AREA NOT SCHEDULED TO BE PAVED, SPREAD STOCKPILED TOPSOIL TO A MINIMUM DEPTH OF 4". SEED WITH ANNUAL RYE AT 5LBS PER 1,000SF.
5. NO CHEMICALS ARE ALLOWED IN ANY AREAS WITH THE FOLLOWING EXCEPTION: INVASIVE SPECIES MAY BE TREATED WITH CHEMICALS BY A CERTIFIED APPLICATOR.
6. SEED BED PREPARATION, SEED INSTALLATION, AND SEEDED AREA MAINTENANCE TO BE CONDUCTED BY AN ENVIRONMENTAL RESTORATION PROFESSIONAL WITH DOCUMENTED EXPERIENCE AND SUCCESS IN ESTABLISHING A NATIVE SEED PLANTING, AND SHALL USE RECOGNIZED METHODS TO ENSURE SUCCESSFUL ESTABLISHMENT OF SEEDED AREA.
7. RESTORE ALL GRADES TO EXISTING ELEVATIONS UNLESS OTHERWISE SPECIFIED ON THE GRADING PLAN.

LEGEND

XXX.XX	SPOT ELEVATION
ME XXX.XX	MATCH EXISTING ELEVATION
ME TP XXX.XX	MATCH EXISTING TOP OF PAVEMENT ELEVATION
ME TC XXX.XX	MATCH EXISTING TOP OF CURB ELEVATION
INV XXX.XX	INVERT ELEVATION
RIM XXX.XX	RIM ELEVATION
BT XXX.XX	BOTTOM OF TRENCH
TG XXX.XX	TOP OF GRATE
TF XXX.XX	TOP OF FOUNDATION
TP XXX.XX	TOP OF PAVEMENT

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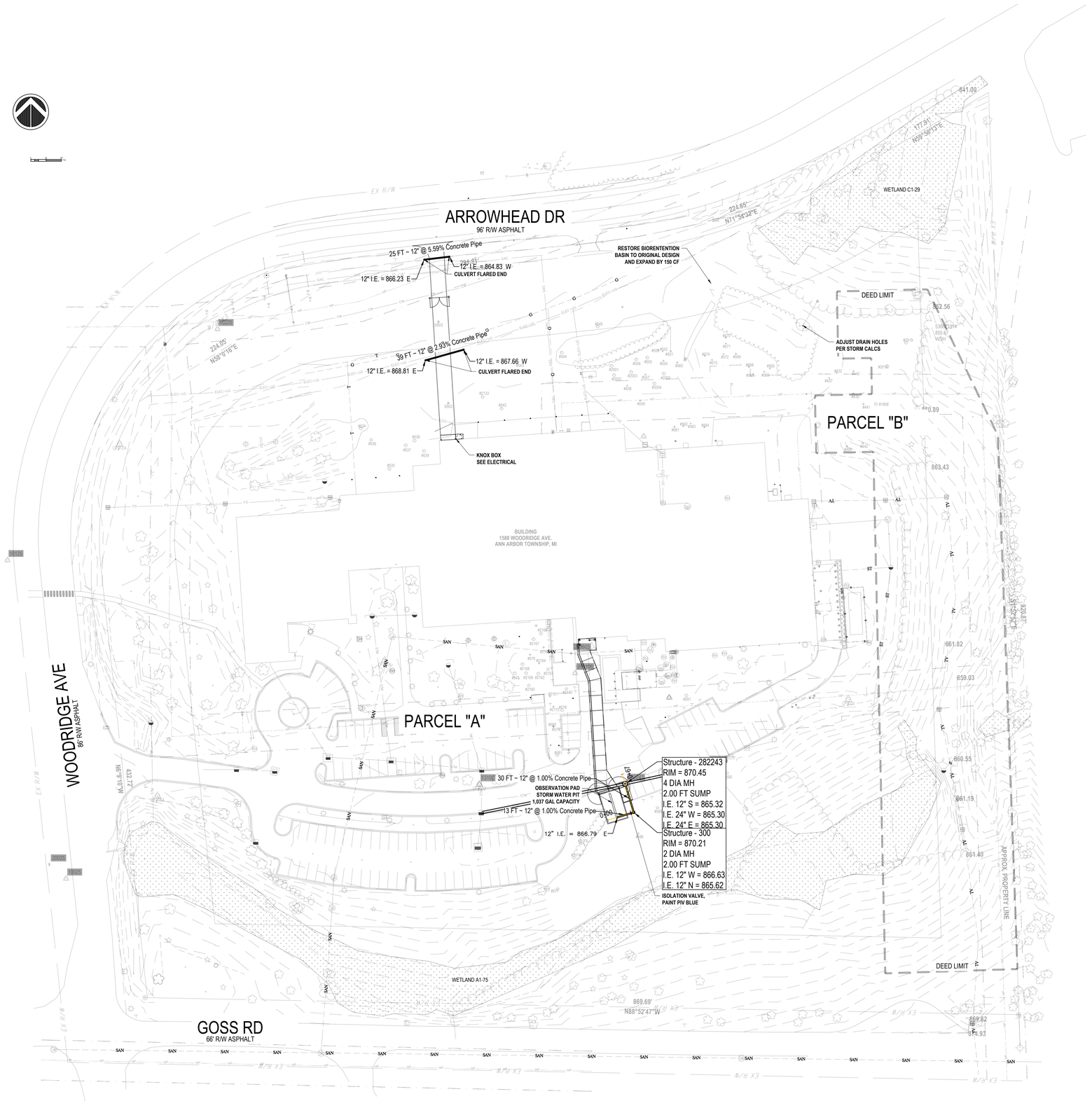
GRADING PLAN

C-300



GENERAL NOTES

1. MAINTAIN ALL EXISTING BELOW AND ABOVE GRADE UTILITIES. DO NOT DISTURB DURING CONSTRUCTION
2. NO EARTH CHANGING ACTIVITY MAY COMMENCE UNTIL ALL TREES SHOWN ON PLAN TO REMAIN HAVE TREE PROTECTION FENCING AND SECONDARY TREE PROTECTION PLACED.
3. NO UTILITY CONSTRUCTION AMY COMMENCE UNTIL AN ANN ARBOR TOWNSHIP UTILITY PERMIT HAS BEEN ISSUED. A PRE-CONSTRUCTION MEETING HELD, AND ALL CONSTRUCTION SHOP DRAWINGS HAVE BEEN SUBMITTED AND APPROVED.
4. WATERMAINS SHALL BE POTHOLED PRIOR TO CONSTRUCTION TO CONFIRM 18: OF VERTICAL SEPARATION CAN BE MAINTAINED.

LEGEND

CONCRETE PAVEMENT

— ST — PROPOSED STORM SEWER

		Main Basin		
Elevation	Height (ft)	Contour Area (sf)	Incremental Volume (cf)	Cumulative Volume (cf)
852	0.0	1,794		
853	1.0	3,185	2,490	2,490
854	2.0	4,733	3,959	6,449
855	3.0	6,438	5,585	12,034

STRUCTURE DATA TABLE

NO.	STRUCTURE TYPE	RIM	INV ELEVATION	CASTING
282243	EXISTING	870.4500	12" S = 866.31 24" W = 865.30 24" E = 865.30	EXISTING
300	2' DIA CATCHBASIN	870.2100	12" W = 866.63 12" N = 866.61	EJ 1040 APT 1045ZPT

NOTE:

1. USE EXTREME CAUTION DURING EXCAVATION FOR, AND CONSTRUCTION OF OBSERVATION PAD AND FOOTINGS TO NOT DISTURB EXISTING STORM SEWER.
2. NO EARTH CHANGE ACTIVITY MAY COMMENCE UNTIL SOIL EROSION PLAN AND APPLICATION HAVE BEEN APPROVED, A PERMIT ISSUED AND SOIL EROSION CONTROL MEASURES HAVE BEEN INSPECTED AND APPROVED.
3. NO EARTH CHANGE ACTIVITY MAY COMMENCE UNTIL ALL TREES SHOWN ON PLAN TO REMAIN HAVE TREE PROTECTION FENCING AND SECONDARY TREE PROTECTION INSTALLED.
4. NO UTILITY CONSTRUCTION MAY COMMENCE UNTIL AN ANN ARBOR TOWNSHIP UTILITY PERMIT HAS BEEN ISSUED, A PRE-CONSTRUCTION MEETING HELD, AND ALL CONSTRUCTION SHOP DRAWINGS HAVE BEEN SUBMITTED AND APPROVED.
5. OUTLET PIPE INVERT TO BE AT THE BOTTOM OF THE CONTAINMENT PIT.

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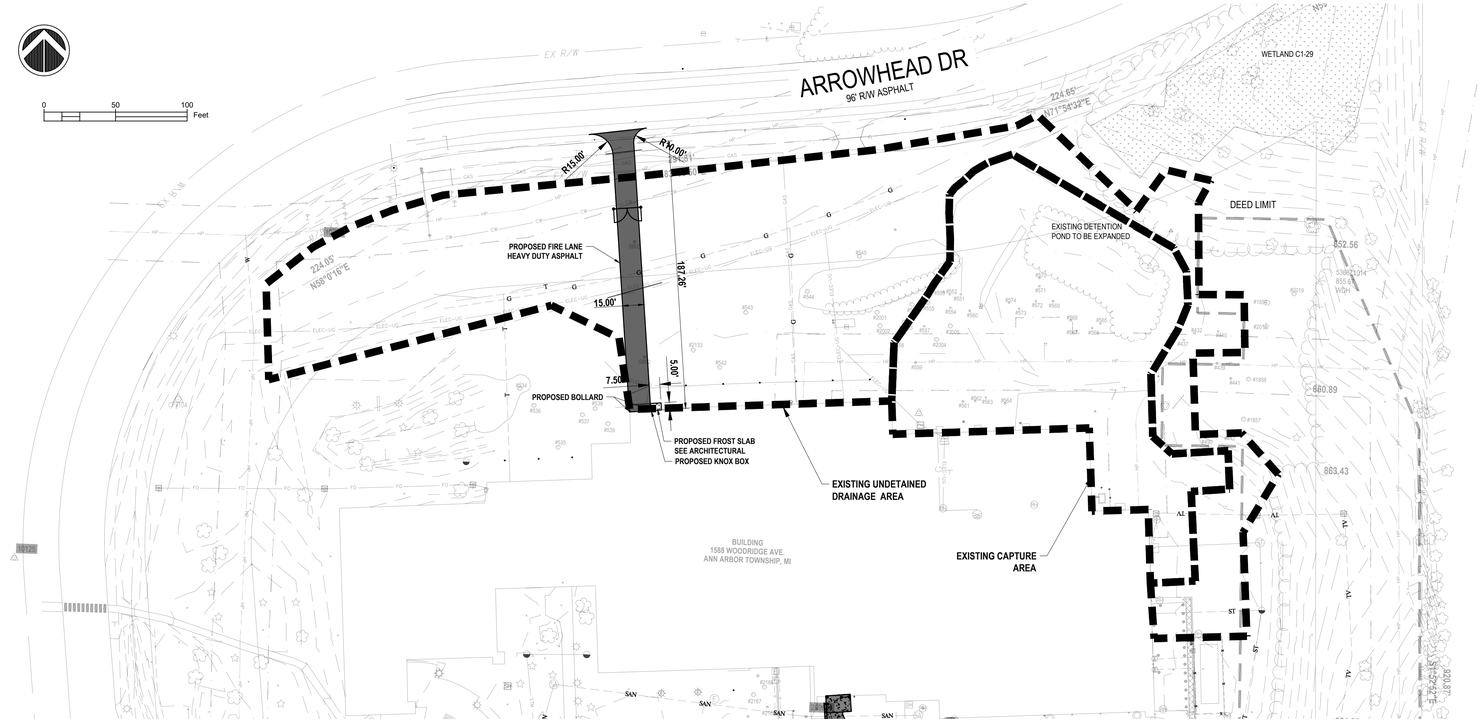
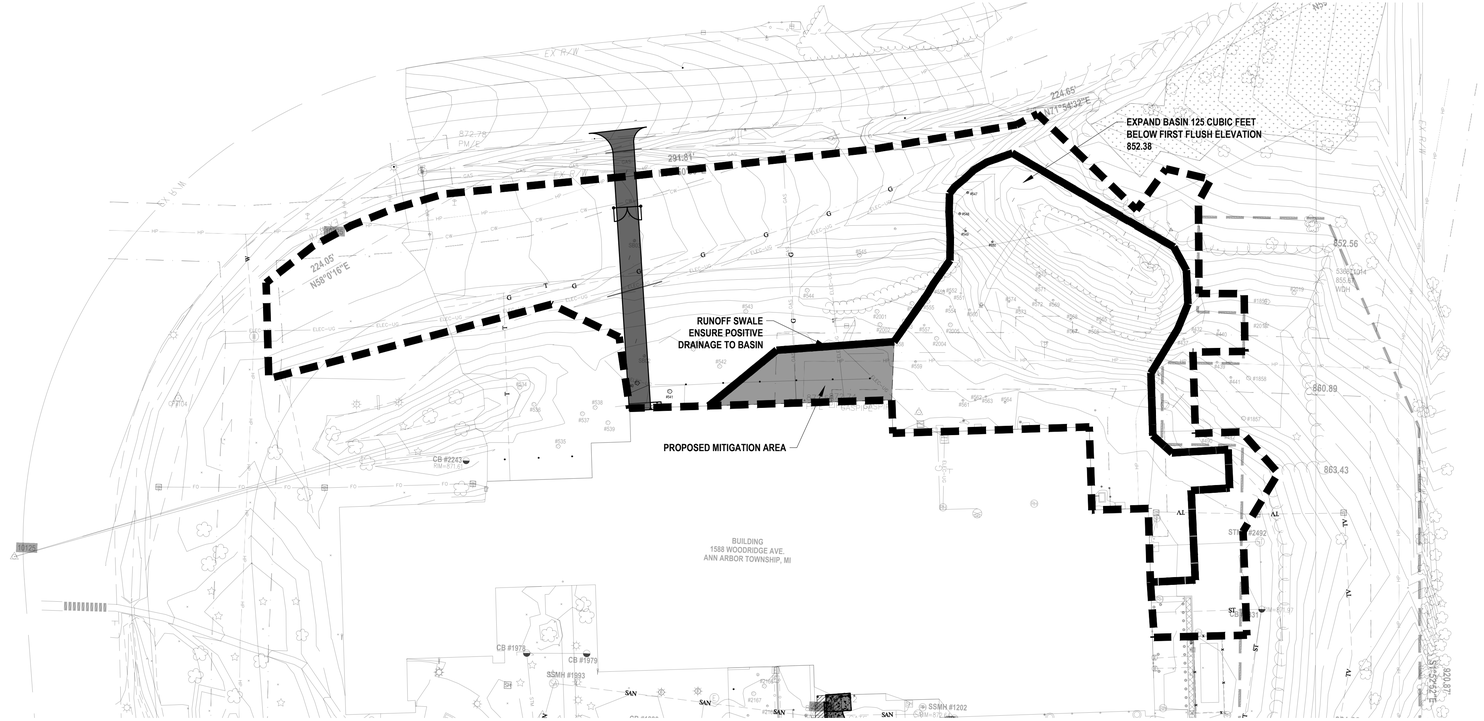
UTILITY PLAN

C-400





STORM WATER MAINTENANCE SCHEDULE	OUTLET CONTROL STRUCTURE	STORM DETENTION AREA	SCHEDULE
Inspection for sediment accumulation	X	X	Annually
Removal of sediment accumulation	X	X	Every 2 years/ As needed
Inspect for floatables and debris	X	X	Annually
Cleaning of floatables and debris	X	X	Annually
Inspection for erosion	X	X	Annually
Re-establish permanent vegetation on eroded slopes	X	X	As needed
Replacement of stone	X		Every 3-5 years/As needed
Mowing		X	0-2 times per year
Inspect storm water system components during wet weather and compare to as-built plans (by professional engineer reporting to TEAM)	X	X	Annually
Make adjustments or replacements as determined by annual wet weather inspection	X	X	As needed
Have professional engineer carry out emergency inspections upon identification of severe problems	X	X	As needed

STORMWATER

THE PROPOSED PROJECT INCLUDES CONSTRUCTION OF A NEW DRIVEWAY THAT CONVERTS AN EXISTING PERVIOUS AREA TO IMPERVIOUS PAVEMENT, RESULTING IN AN INCREASE IN PEAK RUNOFF. DUE TO GRADING CONSTRAINTS AND THE LINEAR NATURE OF THE DRIVEWAY, ON-SITE DETENTION AT THE POINT OF RUNOFF GENERATION IS NOT PRACTICABLE WITHOUT CREATING ADVERSE DRAINAGE CONDITIONS OR SAFETY CONCERNS.

MITIGATION IS PROVIDED BY REDIRECTING EXISTING PERVIOUS DRAINAGE AREA THAT IS NOT CURRENTLY TRIBUTARY TO THE BASIN INTO THE EXISTING STORMWATER MANAGEMENT BASIN, COMBINED WITH A MODEST INCREASE IN BASIN STORAGE BELOW THE WATER QUALITY (FIRST FLUSH) ELEVATION. THIS APPROACH ENSURES THAT THE BASIN RECEIVES AND MANAGES AN EQUIVALENT OR GREATER RUNOFF CONTRIBUTION RELATIVE TO THE PRE-PROJECT CONDITION WHILE MAINTAINING EXISTING DISCHARGE CONTROLS.

PEAK RUNOFF IS EVALUATED USING THE RATIONAL METHOD (Q = C I A). FOR EQUIVALENCY COMPARISONS, RAINFALL INTENSITY CANCELS AND THE ANALYSIS IS BASED ON THE CHANGE IN WEIGHTED RUNOFF AREA (C X A).

AREA CONVERTED TO PAVEMENT = 2,452 SQUARE FEET
EXISTING RUNOFF COEFFICIENT (GRASS) C = 0.35
PROPOSED RUNOFF COEFFICIENT (PAVEMENT) C = 0.95

NET INCREASE IN WEIGHTED RUNOFF AREA:

DELTA (C X A) = (0.95 - 0.35) X 2,452
DELTA (C X A) = 0.60 X 2,452
DELTA (C X A) = 1,471.2

TO OFFSET THIS INCREASE USING PERVIOUS AREA WITH C = 0.35 ROUTED TO THE BASIN:

0.35 X A_EQ = 1,471.2
A_EQ = 1,471.2 / 0.35
A_EQ = 4,203 SQUARE FEET

APPROXIMATELY 4,200 SQUARE FEET (0.096 ACRES) OF EXISTING PERVIOUS AREA WILL BE REDIRECTED TO THE BASIN TO PROVIDE AN EQUIVALENT OFFSET TO THE PEAK RUNOFF INCREASE ASSOCIATED WITH CONVERTING 2,452 SQUARE FEET OF GRASS TO PAVEMENT. POSITIVE DRAINAGE WILL BE PROVIDED TO ENSURE THIS AREA RELIABLY DISCHARGES TO THE BASIN WITHOUT BYPASS.

TO ACCOMMODATE THE ADDITIONAL TRIBUTARY AREA, THE BASIN WILL BE EXPANDED TO PROVIDE INCREASED STORAGE BELOW THE EXISTING WATER QUALITY (FIRST FLUSH) ELEVATION. THE OUTLET STRUCTURE, CONTROL ELEVATIONS, AND DISCHARGE CHARACTERISTICS REMAIN UNCHANGED.

BECAUSE THE ADDITIONAL STORAGE OCCURS AT LOW STAGES, REQUIRED PEAK DISCHARGE CONTROL IS MAINTAINED OR IMPROVED, NO INCREASE IN DOWNSTREAM DISCHARGE IS INTRODUCED, AND WATER QUALITY CAPTURE IS PRESERVED OR ENHANCED.

THE PROPOSED MODIFICATIONS ENSURE THAT POST-CONSTRUCTION RUNOFF MANAGED BY THE BASIN IS EQUAL TO OR LESS THAN THE PRE-PROJECT CONDITION FOR REGULATED STORM EVENTS, PEAK DISCHARGE RATES ARE NOT INCREASED, AND NO ADVERSE DOWNSTREAM IMPACTS ARE ANTICIPATED.

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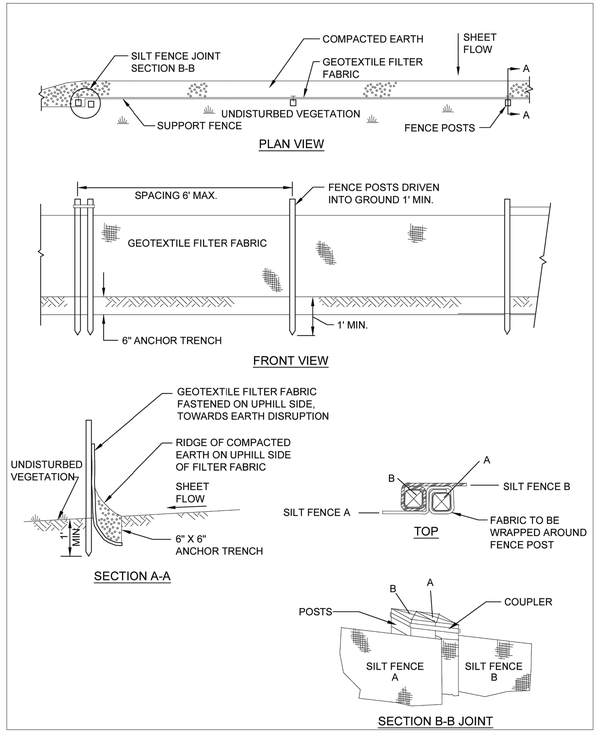
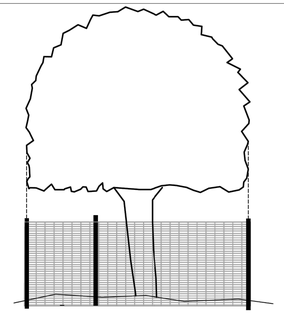
STORMWATER MANAGEMENT PLAN

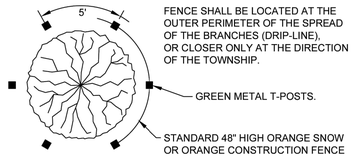
C-500



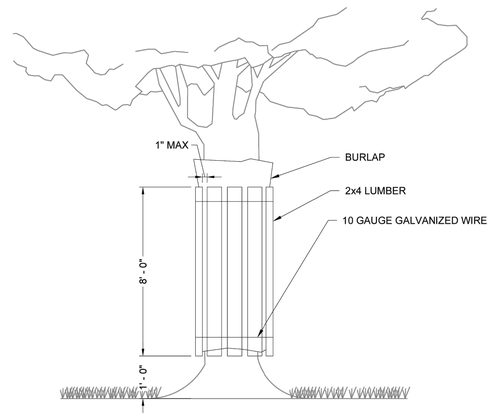
1 C-700 SILT FENCE

NO SCALE





NOTES:
1. ALL TREES TO BE REMOVED WILL BE INDENTIFIED BY RED FLAGGING.
2. TREE PROTECTION FENCING IS TO BE ERECTED PRIOR TO ANY EARTHWORK OR CONSTRUCTION AND IS TO REMAIN IN PLACE UNTIL CONSTRUCTION AND GRADING IS COMPLETE.
3. ALL DEBRIS, FILL, EQUIPMENT OR MATERIAL IS TO BE KEPT CLEAR OF AREA WITHIN PROTECTIVE FENCE. NO CLEANING OF EQUIPMENT OR MATERIAL OR STORAGE OR DISPOSAL OF ANY MATERIAL WITHIN THE DRIP LINE OF ANY TREES TO BE SAVED.

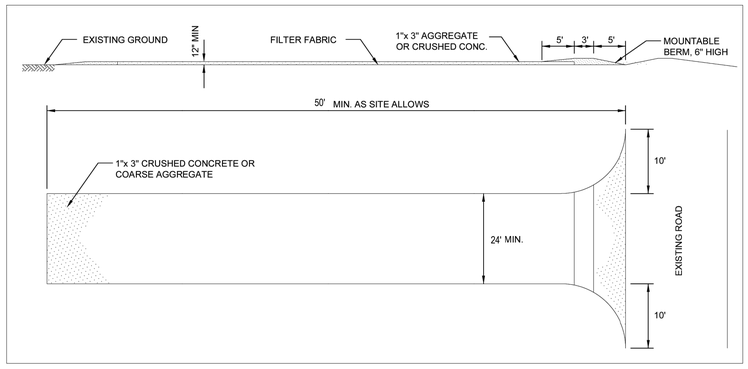


SECONDARY TREE PROTECTION DETAIL

NOTES:
1. SECONDARY TREE PROTECTION SHALL BE USED WHEN NECESSARY TO PROTECT IMPACTED TRESS WHEN GRADING OR EQUIPMENT MAY BE WITHIN THE TREE'S DRIP LINE.

3 C-700 TREE PROTECTION FENCE

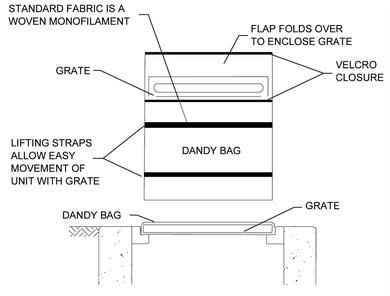
NO SCALE

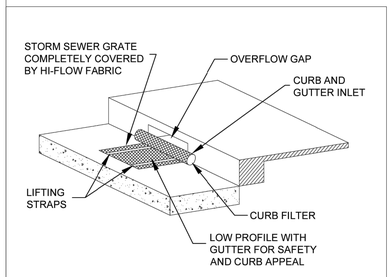


4 C-700 MUD TRACKING MAT

NO SCALE

NOTE:
TO INSURE PROPER OPERATION REMOVE SILT, SEDIMENT, AND DEBRIS FROM THE SURFACE AND THE VICINITY OF THE UNIT WITH A SQUARE POINT SHOVEL OR STIFF BRISTLE BROOM AWAY FROM ENVIRONMENTALLY SENSITIVE AREAS AND WATERWAYS IN MANNER SATISFACTORY TO THE ENGINEER/INSPECTOR. REMOVE FINE MATERIAL FROM INSIDE DANDY BAG AS NEEDED. DISPOSE OF DANDY BAG NO LONGER IN USE AT AN APPROPRIATE RECYCLING OR SOLID WASTE FACILITY. TO INSPECT INLET, REMOVE DANDY BAG WITH GRATE INSIDE, INSPECT CATCH BASIN AND REPLACE DANDY BAG BACK INTO GRATE FRAME.





2 C-700 INLET PROTECTION

NO SCALE

GENERAL NOTES

1. CONTRACTOR SHALL PROVIDE NECESSARY MAINTENANCE OF TRAFFIC TO INCLUDE SIGNS, BARRICADES, FLAGGERS AND OTHER DEVICES FOR PROTECTION OF THE PUBLIC AND EXISTING BUILDING EMPLOYEES PRIOR TO PERFORMING ANY WORK ON THIS SITE. ALL CONSTRUCTION SHALL BE CONDUCTED SUCH THAT THERE WILL BE MINIMAL INTERFERENCE WITH STREETS, WALKS, CROSS ACCESS DRIVES, AND ADJACENT PROPERTY. DO NOT CLOSE OR OBSTRUCT STREETS WITHOUT THE PERMISSION FROM LOCAL AGENCIES OR THE PROPERTY OWNER.
2. PROTECT EXISTING UTILITIES AND STRUCTURES TO REMAIN AS NECESSARY. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING/PROPOSED CONSTRUCTION RESULTING FROM OR CAUSED BY PROPOSED CONSTRUCTION.
3. COORDINATE WITH ARCHITECTURAL AND ENGINEERING DRAWINGS FOR REMOVALS AND PROPOSED CONSTRUCTION.
4. ALL SOIL EROSION AND SEDIMENT CONTROL (SESC) MEASURES ARE TO BE IN PLACE PRIOR TO STARTING DEMOLITION OR REMOVALS.
5. PUBLIC STREETS AND ON SITE DRIVES SHALL BE KEPT FREE OF MUD, DUST AND DEBRIS. ALL MUD/DIRT TRACKED ONTO EXISTING STREETS FROM THIS SITE, DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR. STREET CLEANING SHALL OCCUR AT THE END OF EACH WORKDAY.
6. SOIL EROSION AND SEDIMENT CONTROL ACTIVITIES SHALL BE PERFORMED IN CONFORMANCE WITH THE SESC PERMIT, ANN ARBOR TOWNSHIP AND WASHTENAW COUNTY.
7. EROSION AND SEDIMENTATION RESULTING FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT IN ANY OFF-SITE AREAS OR WATERWAYS.
8. EROSION CONTROL BLANKETS WITH MATTING SHALL BE USED ON ALL DISTURBED DITCHES GREATER THAN 2% AND ALL DISTURBED SLOPES GREATER THAN 10%.

SOIL EROSION AND SEDIMENTATION CONTROL MAINTENANCE NOTES

1. SILT FENCE SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD. IF REPAIR OR REPLACEMENTS NECESSARY, IT SHALL BE PERFORMED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. MAINTENANCE INCLUDES THE REMOVING OF BUILT-UP SEDIMENT ACCUMULATED TO $\frac{1}{2}$ THE HEIGHT OF THE FENCE. CONTRACTOR SHALL REMOVE, REPLACE, RETRENCH, OR RE-BACKFILL THE SILT FENCE IF IT FAILS. ADDITIONALLY, THE CONTRACTOR SHALL REINSTALL ANY PORTION OF THE FENCING DAMAGED BY CONSTRUCTION MACHINERY.
2. PLACE STOCKPILES AND OTHER SPOIL PILES AWAY FROM THE DRAINAGE SYSTEM TO MINIMIZE SEDIMENT TRANSPORT.
3. SEEDING OR OTHER STABILIZATION SHALL BE REQUIRED IMMEDIATELY TO AREAS WHICH HAVE BEEN DAMAGED BY RUNOFF. REFER TO THE TEMPORARY SEEDING GUIDE ON THIS SHEET FOR SEED TYPE AND APPLICATION TIME FRAME.
4. THE CONTRACTOR SHALL MAINTAIN DUST CONTROL THROUGHOUT THE DURATION OF THE CONSTRUCTION PROCESS IN ACCORDANCE WITH ALL GOVERNMENTAL AGENCIES AND OWNER REQUIREMENTS.
5. INSPECTIONS WITHIN 24 HOURS OF ANY RAINFALL WILL BE REQUIRED. THESE INSPECTIONS MAY RESULT IN RECOMMENDATIONS FOR ROUTINE MAINTENANCE OF THE SOIL EROSION CONTROL DEVICES.
6. DO NOT DISCHARGE CONCRETE WASHOUT INTO DRAINS.

SOIL EROSION AND SEDIMENTATION CONTROL CONSTRUCTION SEQUENCE

1. INSTALL MUD TRACKING ROAD CONSTRUCTION ENTRANCE IF NECESSARY. INSTALL ADDITIONAL MEASURES AS REQUIRED PER ENGINEER AS CURRENT FIELD CONDITIONS MERIT.
2. INSTALL TEMPORARY EROSION CONTROL MEASURES INCLUDING CHECK DAMS, SILT FENCE AND INLET FILTERS. PROVIDE TREE PROTECTION FENCE AS SHOWN PER THE DEMOLITION, TREE PROTECTION AND SOIL EROSION PLAN.
3. INSTALL INLET FILTERS ON CATCH BASINS AND MANHOLES AS SHOWN ON DEMOLITION, TREE PROTECTION AND SOIL EROSION PLAN .
4. APPLY TOPSOIL AND ESTABLISH VEGETATION, SEED, AND MULCH ON DISTURBED GROUND AREAS. INSTALL LANDSCAPE MATERIALS.
5. CLEAN PAVEMENT, INLETS AND STORM SEWERS OF ALL SEDIMENT AND DEBRIS.
6. REMOVE SOIL EROSION CONTROL MEASURES AFTER EROSION CONTROL VEGETATION HAS BEEN FULLY ROOTED AND ESTABLISHED AS APPROVED BY ANN ARBOR TOWNSHIP AND/OR OWNER.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL SOIL EROSION CONTROL MEASURES ARE INSTALLED AND MAINTAINED PER ANN ARBOR TOWNSHIP, OWNER AND ENGINEERS' REQUIREMENTS.

SITE RESTORATION NOTES

1. ALL DISTURBED AREAS BEYOND THE GRADING LIMITS SHALL BE RESTORED TO PRIOR CONDITION OR BETTER.
2. SURPLUS EXCAVATED MATERIAL NOT NEEDED FOR EMBANKMENT SHALL BE DISPOSED OF BY THE CONTRACTOR. IF STORED ON SITE, CONTRACTOR SHALL INSTALL AND MAINTAIN SILT FENCE AROUND STOCKPILED EXCAVATED MATERIAL.
3. HEADWALLS, CULVERTS, DRAINS, SEWERS AND APPURTENANCES FILLED OR DAMAGED BY THE CONTRACTOR DURING THE COURSE OF OPERATIONS SHALL BE CLEANED, REPAIRED, OR REPLACED AT THE CONTRACTOR'S EXPENSE.
4. HEADWALLS, CULVERTS, AND DRAINAGE SYSTEMS FILLED OR DAMAGED BY THE CONTRACTOR DURING THE COURSE OF OPERATIONS SHALL BE CLEANED, RE-LAID OR REBUILT WITH NEW MATERIALS TO A CONDITION EQUAL TO THE ORIGINAL STATE, AND OF THICKNESS EQUAL TO THE ORIGINAL STRUCTURE AND TO THE ORIGINAL LINE AND GRADE AT THE CONTRACTOR'S EXPENSE.
5. WHERE THE EXCAVATION IS LOCATED BESIDE A DITCH AND/OR WHERE AN EXISTING DITCH IS FILLED OR DISTURBED IN THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL CLEAN, REPAIR, OR REPLACE THE DITCH WITH PROPERLY PITCHED BOTTOM AND SIDE SLOPES AND OF SECTION AND CAPACITY NOT LESS THAN THE ORIGINAL SECTION.
6. WHERE EXCAVATION HAS BEEN THROUGH LAWN AREAS, THE CONTRACTOR SHALL RESTORE THE DISTURBED AREA BY PLACING TOPSOIL AND SEEDING OR SODDING OVER THE FINAL BACKFILL MATERIAL.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL REPLACEMENT, REPAIR AND MAINTENANCE TO DISTURBED AREAS UNTIL THE AREA IS RESTORED TO ORIGINAL CONDITION. RESTORATION WORK TO BE APPROVED BY OWNER.
8. THE CONTRACTOR SHALL REMOVE EXCESS DIRT AND OTHER CONSTRUCTION MATERIAL FROM THE SITE OF THE WORK AND LEAVE THE SITE IN A CONDITION EQUAL TO ITS ORIGINAL STATE.
9. THE FINAL CONDITION OF THE STREETS AND ROADWAYS SHALL BE SUBJECT TO THE APPROVAL OF THE GOVERNMENTAL BODY HAVING JURISDICTION THEREOF, AS WELL AS REVIEW BY THE OWNER AND ENGINEER.

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TECHNICAL SKILL. CREATIVE SPIRIT.
Mannik Smith GROUP
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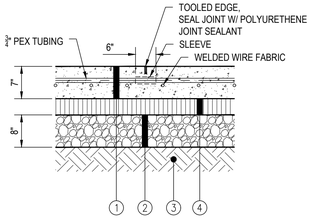
PREPARED FOR:
TOYOTA MOTOR NORTH AMERICA R&D
1555 WOODRIDGE AVE
ANN ARBOR, MI 48105

TOYOTA NORTH AMERICA
1588 ISOLATION PAD DESIGN
ANN ARBOR, MI

SESC DETAILS AND NOTES

C-700

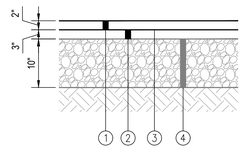


1. 6" CONCRETE PAVEMENT, MDOT GRADE 4,000, ROUNDED AGGREGATE
2. 8" MDOT AGGREGATE BASE, 21AA COMPACTED TO 98% OF MAXIMUM DENSITY.
3. SUBGRADE COMPACTION
4. 2" R-10 SLAB INSULATION

NOTE: CONFIRM CONC. MIX DESIGN WITH SNOW-MELT SYSTEM MANUFACTURER

1 C-701 HEATED CONCRETE PAVEMENT SECTION

NOT TO SCALE

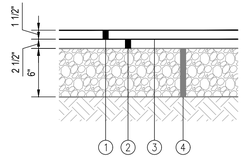


1. 2" HMA, LVSP,PG64-22, WEAR COURSE
2. 3" HMA, LVSP, PG64-22, BASE COURSE
3. BITUMINOUS BOND COAT (0.1 GAL./SQ. YD.)
4. 21AA AGGREGATE BASE, 10", EXTEND 1' BEYOND THE EDGE OF PAVEMENT. COMPACT TO 98% OF MAXIMUM DENSITY.

ALL PAVEMENT MATERIALS SHALL CONFORM TO THE MDOT 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

2 C-701 HEAVY-DUTY ASPHALT PAVEMENT SECTION

NO SCALE



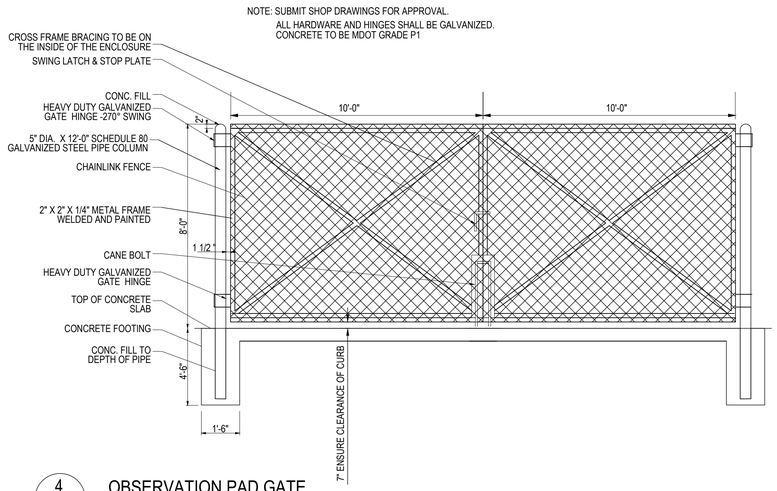
1. 1 1/2" HMA, LVSP,PG64-22, WEAR COURSE
2. 2 1/2" HMA, LVSP, PG64-22, BASE COURSE
3. BITUMINOUS BOND COAT (0.1 GAL./SQ. YD.)
4. 21AA AGGREGATE BASE, 6", EXTEND 1' BEYOND THE EDGE OF PAVEMENT. COMPACT TO 98% OF MAXIMUM DENSITY.

ALL PAVEMENT MATERIALS SHALL CONFORM TO THE MDOT 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

3 C-701 ASPHALT PAVEMENT SECTION

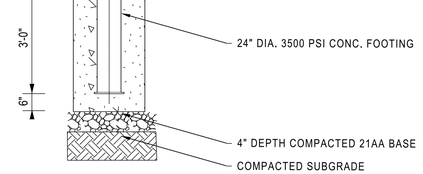
NO SCALE

NOTE: SUBMIT SHOP DRAWINGS FOR APPROVAL.
ALL HARDWARE AND HINGES SHALL BE GALVANIZED.
CONCRETE TO BE MDOT GRADE P1



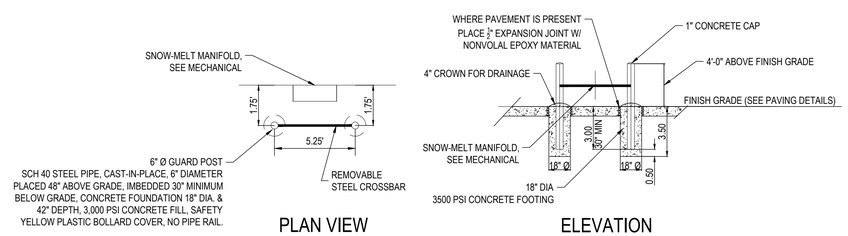
4 C-701 OBSERVATION PAD GATE

NOT TO SCALE



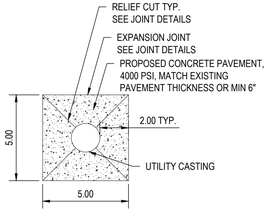
5 C-701 GUARD POST DETAIL

NOT TO SCALE



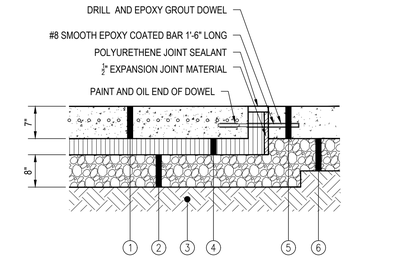
6 C-701 BOLLARD WITH REMOVABLE CROSS BAR

NOT TO SCALE



7 C-701 CONCRETE COLLAR

NOT TO SCALE

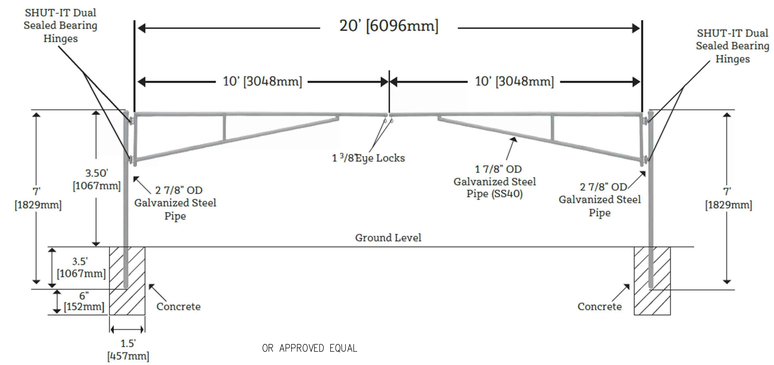


1. 7" CONCRETE PAVEMENT, MDOT GRADE 4,000, ROUNDED AGGREGATE
2. 8" MDOT AGGREGATE BASE, 21AA COMPACTED TO 98% OF MAXIMUM DENSITY.
3. SUBGRADE COMPACTION
4. 2" R-10 SLAB INSULATION
5. EXISTING CONCRETE
6. EXISTING AGGREGATE

NOTE: CONFIRM CONC. MIX DESIGN WITH SNOW-MELT SYSTEM MANUFACTURER

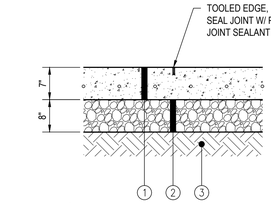
8 C-701 HEATED CONCRETE PAVEMENT ABUTTING EXISTING CONCRETE

NOT TO SCALE



9 C-701 TIGER TEETH SENTINEL DOUBLE IN-GROUND MANUAL SWING GATE

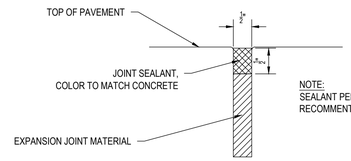
NOT TO SCALE



1. 6" CONCRETE PAVEMENT, MDOT GRADE 4,000, ROUNDED AGGREGATE
2. 8" MDOT AGGREGATE BASE, 21AA COMPACTED TO 98% OF MAXIMUM DENSITY.
3. SUBGRADE COMPACTION

11 C-701 HEAVY DUTY CONCRETE PAVEMENT SECTION

NOT TO SCALE



1. HORIZONTAL SURFACES: PROVIDE MANUFACTURE'S STANDARD, NON-MODIFIED, TWO-OR-MORE-PART, POLYURETHANE-BASED, ELASTOMERIC SEALANT; COMPLYING WITH EITHER ASTM C 920 TYPE M CLASS 25, OR FS TT-S-00227E CLASS A; SELF-LEVELING GRADE/TYPE.
2. SETUP TIME FOR SEALANT ON WALKING SURFACES SHALL BE NO LONGER THAN 8 HOURS.
3. PROVIDE PRODUCT OF ONE OF THE FOLLOWING MANUFACTURERS:
   - 3.1. CONTECH/SONNEBORN
   - 3.2. MAMECO INTERNATIONAL
   - 3.3. W.R. MEADOWS, INC.
   - 3.4. PECORA CORP.
   - 3.5. PRODUCTS RESEARCH & CHEMICAL CORP.
   - 3.6. SIKA CHEMICAL CORP.
   - 3.7. TREMCO, INC.
   - 3.8. TOCH/CARBOLINE
4. DO NOT ALLOW SEALANTS TO OVERFLOW OR SPILL ONTO ADJOINING SURFACES. REMOVE EXCESS AND SPILLAGE OF SEALANTS PROMPTLY.

NOTES:
INCLUDED IN SIDEWALK PAY ITEM

10 C-701 EXPANSION JOINT DETAIL

NO SCALE

NO.	DESCRIPTION	DATE	BY
A	30% REVIEW	11/26/2025	BH
B	60% REVIEW	01/14/2026	BH
C	90% REVIEW	02/27/26	BH
D	BID SET	07/10/26	BH

PROGRESS PRINT
NOT FOR CONSTRUCTION

2365 HAGGERTY ROAD SOUTH
CANTON, MI 48188
TEL: 734.397.3100
FAX: 734.397.3131

PROJECT DATE: 09/24/2025
PROJECT NO.: 401.2501172.0P0
DRAWN BY: BH
CHECKED BY: CR

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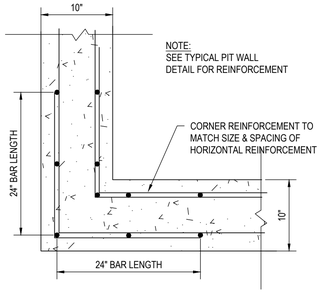
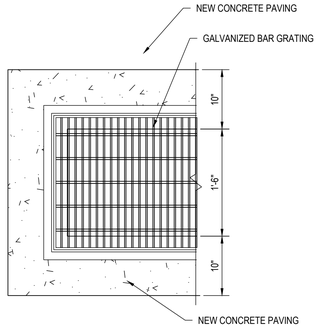
TOYOTA NORTH AMERICA
1588 ISOLATION PAD DESIGN
ANN ARBOR, MI

SITE DETAILS

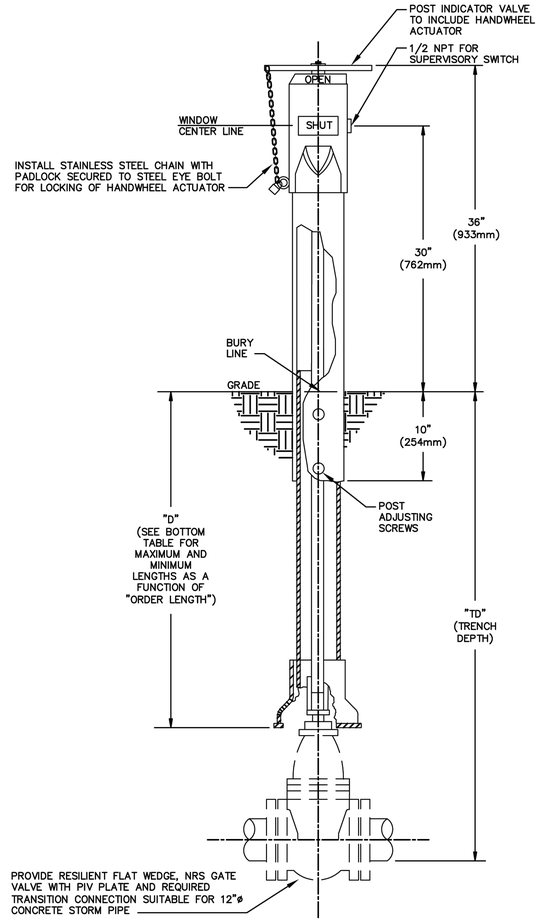
C-701



1 C-702 TYP. PIT WALL CORNER DETAIL
NOT TO SCALE

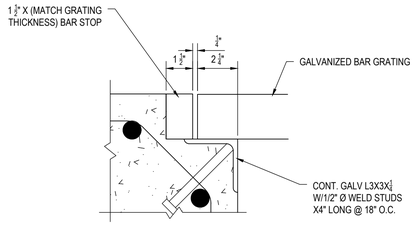


4 C-702 TRENCH DETAIL
NOT TO SCALE

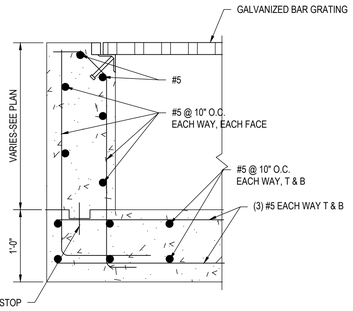


NOTE: PAINT PIV BLUE

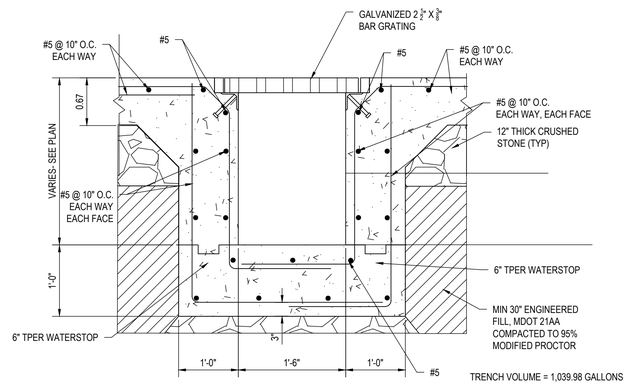
6 C-702 ISOLATION VALVE (POST INDICATOR VALVE) DETAIL
NOT TO SCALE



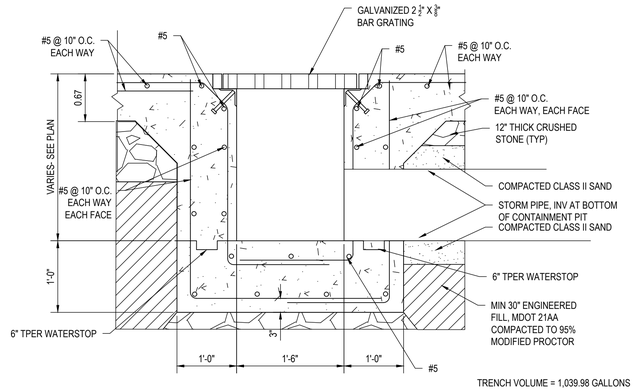
2 C-702 ENLARGED DETAIL
NOT TO SCALE



5 C-702 TRENCH DETAIL
NOT TO SCALE



3 C-702 TRENCH SECTION
NOT TO SCALE



7 C-702 TRENCH DRAIN SECTION
NOT TO SCALE

NO.	DATE	BY	DESCRIPTION
A	11/26/2025	BH	30% REVIEW
B	01/14/2026	BH	60% REVIEW
C	02/27/2026	CR	90% REVIEW
D	03/10/2026	CR	100% REVIEW

PROGRESS PRINT
NOT FOR CONSTRUCTION

2365 HAGGERTY ROAD SOUTH
CANTON, MI 48188
TEL: 734.397.3100
FAX: 734.397.3131

PROJECT DATE: 09/24/2025
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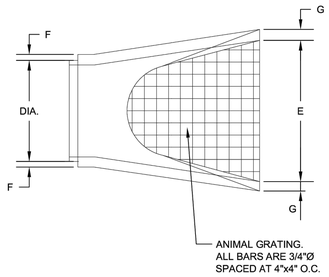
ANN ARBOR, MI 48105

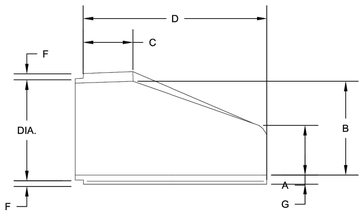
TOYOTA NORTH AMERICA
1588 ISOLATION PAD DESIGN
ANN ARBOR, MI

PIT DETAILS

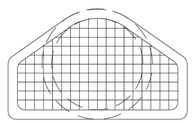
C-702



DIA	A	B	C	D	E	F	G
12"	5"	13"	45.5"	72"	24"	2"	2"
15"	7"	16"	43.5"	72"	30"	2.25"	2.25"
18"	11"	19"	41.5"	72"	36"	2.5"	2.5"
24"	12"	25"	29"	72"	48"	3"	2"
30"	14"	31"	19"	72"	60"	3.5"	3.5"
36"	17"	37"	34.5"	96"	72"	4"	4"
42"	22"	43"	32.5"	96"	78"	4.5"	4.5"
48"	24"	49"	23.5"	96"	84"	5"	5"

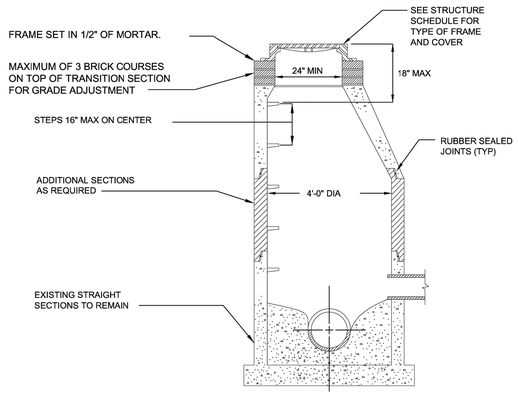


NOTE:
FLARED END SECTIONS SHALL BE MANUFACTURED TO THE CLASS SPECIFICATIONS AS THE PIPE ITSELF.



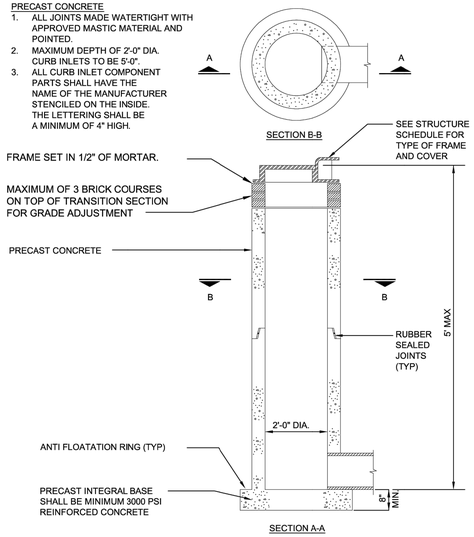
STANDARD END SECTIONS FOR PRECAST CONCRETE

NOTES:
1. SECTIONS SHALL MEET ASTM C478.
2. ALL JOINTS MADE WATERTIGHT WITH RUBBER GASKET JOINTS
3. REMOVE CONE, ADD STRAIGHT SECTIONS AS REQUIRED AND REPLACE CONE
4. ADD MANHOLE STEPS AS NECESSARY
5. ADD ADJUSTMENT RINGS FOR RIM GRADE ADJUSTMENT



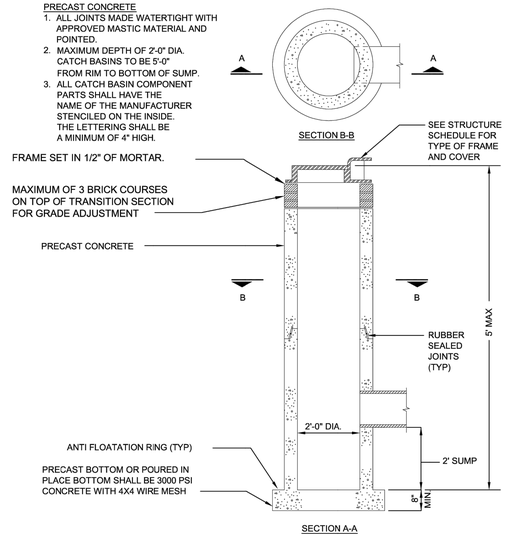
MANHOLE & CATCH BASIN RECONSTRUCTION DETAIL

PRECAST CONCRETE
1. ALL JOINTS MADE WATERTIGHT WITH APPROVED MASTIC MATERIAL AND POINTED.
2. MAXIMUM DEPTH OF 2'-0" DIA. CURB INLETS TO BE 5'-0".
3. ALL CURB INLET COMPONENT PARTS SHALL HAVE THE NAME OF THE MANUFACTURER STENCILED ON THE INSIDE. THE LETTERING SHALL BE A MINIMUM OF 4" HIGH.



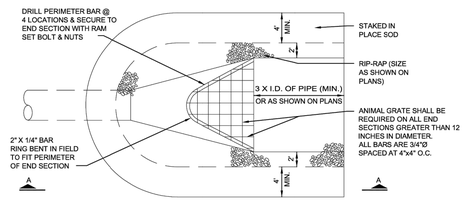
2' DIAMETER INLET

PRECAST CONCRETE
1. ALL JOINTS MADE WATERTIGHT WITH APPROVED MASTIC MATERIAL AND POINTED.
2. MAXIMUM DEPTH OF 2'-0" DIA. CATCH BASINS TO BE 5'-0" FROM RIM TO BOTTOM OF SUMP.
3. ALL CATCH BASIN COMPONENT PARTS SHALL HAVE THE NAME OF THE MANUFACTURER STENCILED ON THE INSIDE. THE LETTERING SHALL BE A MINIMUM OF 4" HIGH.

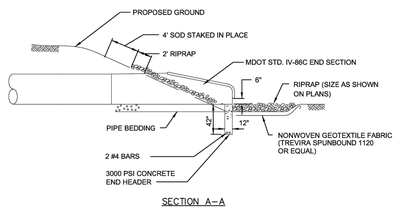


2' DIAMETER CATCH BASIN

NOTES:
1. EXTENT OF RIPRAP SHALL BE AS SHOWN HERE OR AS SHOWN ON PLANS, WHICH-EVER IS GREATEST.
2. RIPRAP THICKNESS AS SHOWN ON PLANS.



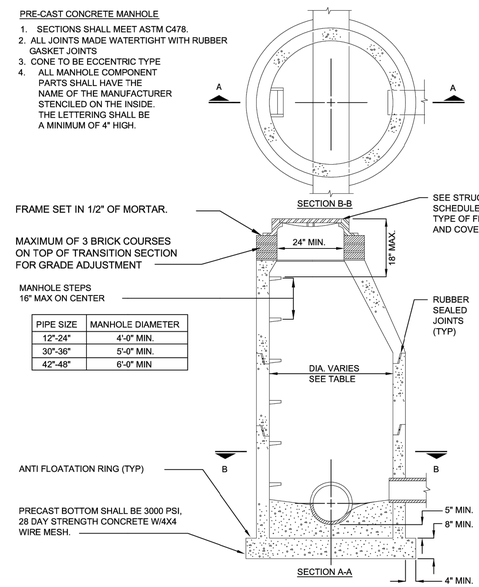
PLAN VIEW



SECTION A–A

END SECTION AND RIPRAP DETAIL

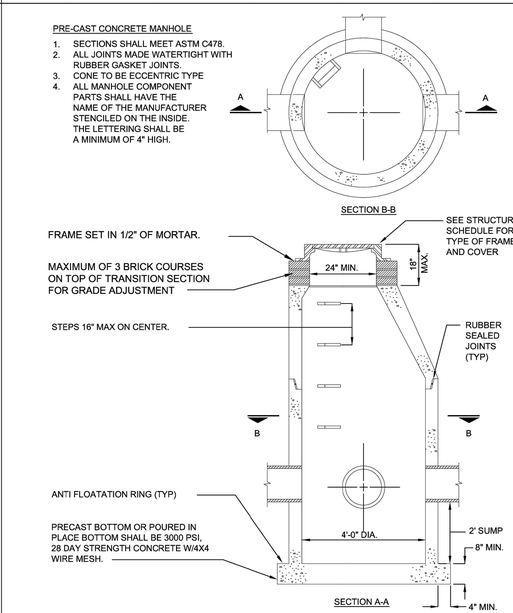
PRE-CAST CONCRETE MANHOLE
1. SECTIONS SHALL MEET ASTM C478.
2. ALL JOINTS MADE WATERTIGHT WITH RUBBER GASKET JOINTS
3. CONE TO BE ECCENTRIC TYPE
4. ALL MANHOLE COMPONENT PARTS SHALL HAVE THE NAME OF THE MANUFACTURER STENCILED ON THE INSIDE. THE LETTERING SHALL BE A MINIMUM OF 4" HIGH.



PIPE SIZE	MANHOLE DIAMETER
12"-24"	4'-0" MIN.
30"-36"	5'-0" MIN.
42"-48"	6'-0" MIN

STORM SEWER MANHOLE

PRE-CAST CONCRETE MANHOLE
1. SECTIONS SHALL MEET ASTM C478.
2. ALL JOINTS MADE WATERTIGHT WITH RUBBER GASKET JOINTS.
3. CONE TO BE ECCENTRIC TYPE
4. ALL MANHOLE COMPONENT PARTS SHALL HAVE THE NAME OF THE MANUFACTURER STENCILED ON THE INSIDE. THE LETTERING SHALL BE A MINIMUM OF 4" HIGH.



4' DIAMETER CATCH BASIN

NO.	DATE	BY	DESCRIPTION
A	11/26/2025	BH	30% REVIEW
B	01/14/2026	BH	60% REVIEW
C	02/20/26	CR	90% REVIEW
D	03/10/26	CR	100% REVIEW

PROGRESS PRINT
NOT FOR CONSTRUCTION

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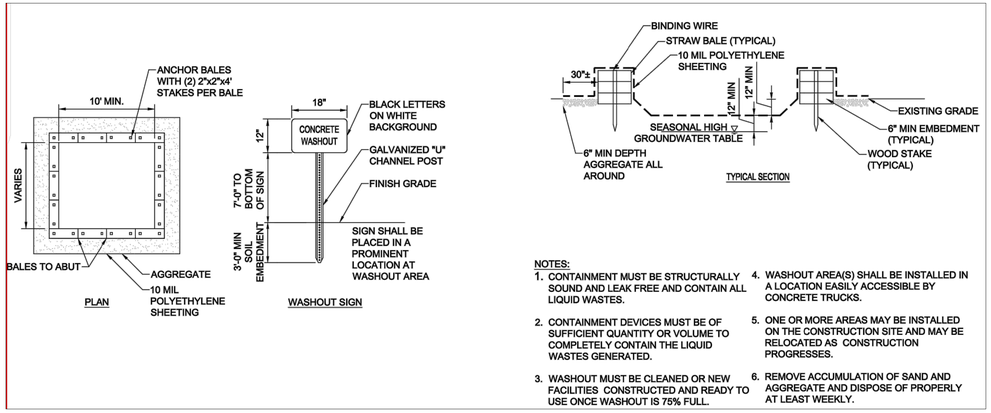
TOYOTA NORTH AMERICA
1588 ISOLATION PAD DESIGN
ANN ARBOR, MI

STORM SEWER DETAILS

C-703



NOTES:

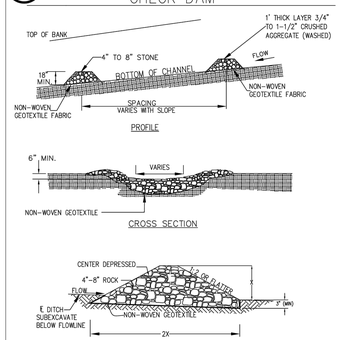
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY AT LEAST WEEKLY.

1 / C-706 — CONCRETE WASHOUT

NO SCALE

ES31

CHECK DAM



NOTE: BASE WIDTH SHOULD BE AT LEAST 2X THE HEIGHT

STANDARD SYMBOL

STATE OF MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET STATE FACILITIES ADMINISTRATION

ES31

CHECK DAM SPECIFICATIONS

When	• To reduce surface flow velocities.
Why	• To minimize erosion in flow corridors.
Where	• Within constructed flow corridors to reduce velocity until permanent stabilization is achieved. • Within existing flow corridors to address or prevent velocity-caused erosion.
How	1. The check dam shall be constructed of rock only. 2. The rock shall be placed on non-woven geotextile fabric. 3. Remove woody vegetation prior to placing non-woven geotextile fabric. 4. Non-woven geotextile fabric shall be inset a minimum of 3" below adjacent grades. 5. The check dam shall be constructed of 4"-8" stone. The stone shall be placed to completely cover the width of the flow corridor and shall be keyed into adjacent banks. 6. The middle of the check dam shall be lower than the outer edges, such that no flow goes around the structure. 7. The up-stream side of the check dam can be lined with smaller crushed aggregate to improve efficiency. 8. Slopes of check dam should be 1:2 or flatter.
Maintenance	• Check dams should be inspected after each runoff event. • Clogged stone should be periodically cleaned. • Needed repairs should be initiated immediately after inspection. • Accumulated upflow sediment should be periodically removed. • If check dam is intended as temporary structure, remove after stabilization is achieved.
Limitations	• Use only in small open channels which drain 10 acres or less. • Not to be used in live streams.

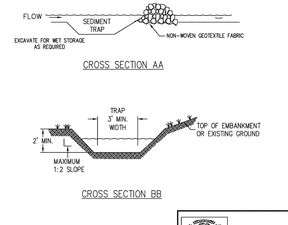
STATE OF MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET STATE FACILITIES ADMINISTRATION

2 / C-706 — CHECK DAM

NO SCALE

S56

SEDIMENT TRAP



STANDARD SYMBOL

STATE OF MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET STATE FACILITIES ADMINISTRATION

S56

SEDIMENT TRAP SPECIFICATIONS

When	• When runoff from construction sites contains suspended sediment.
Why	• Should be used as a temporary measure. • To collect and store sediment from sites cleared and/or graded during construction.
Where	• In small drainage areas with less than 5 acres of contributing drainage. • Along the construction site perimeter where runoff is discharged offsite. • Above check dams and/or upslope of drain inlet protection measures.
How	1. Prior to construction initiation, identify stormwater drainage routes likely to carry construction site runoff. 2. Build sediment traps in site runoff corridors before clearing, grubbing, and grading begin. 3. Install traps in natural depressions or in small drainageways to minimize vegetation removal. 4. A sediment trap is intended as a temporary measure. 5. In-stream applications should be designed by a professional engineer, with consideration for the type of soil, size of drainage area, and desired sediment removal efficiency. 6. Locate where the trap can be easily cleared of sediment. 7. Collection channels should enter the trap from the upslope side. 8. The sediment trap should have a minimum length to width ratio of 2:1. 9. The outlet of the trap must be stabilized with rock, vegetation, or another suitable material.

STATE OF MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET STATE FACILITIES ADMINISTRATION

S56

SEDIMENT TRAP SPECIFICATIONS

Maintenance	• Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in an upland area in such a manner that it will not erode. • The structure shall be inspected after each rain event and repairs made as needed. • The sediment trap shall be removed and the area stabilized when the contributory drainage area has been properly stabilized. The swale sediment trap will be properly backfilled and the swale or ditch reconstructed.
Limitations	• Only use for drainage areas up to 5 acres. • Removes coarse sediment only (medium silt size or larger) unless trap area is sized similar to a sediment basin with extended residence time.

STATE OF MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET STATE FACILITIES ADMINISTRATION

3 / C-706 — SEDIMENT TRAP

NO SCALE

NO.	DATE	BY	DESCRIPTION
A	11/26/2025	BH	30% REVIEW
B	01/14/2026	BH	60% REVIEW
C	02/20/26	CR	90% REVIEW
D	03/12/26	CR	100% REVIEW

PROGRESS PRINT
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PROJECT DATE: 09/24/2025
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TECHNICAL SKILL. CREATIVE SPIRIT.

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PREPARED FOR:

TOYOTA MOTOR NORTH AMERICA R&D

1555 WOODRIDGE AVE
ANN ARBOR, MI 48105

TOYOTA NORTH AMERICA
1588 ISOLATION PAD DESIGN

ANN ARBOR, MI

SESC DETAILS

C-706

THE FOLLOWING NOTES APPLY IF CALLED FOR ON THE TRAFFIC TYPICAL

GENERAL NOTES

G1: SEE GEN-SPACING-CHARTS FOR COMMON VALUES INCLUDING
D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
L = MINIMUM LENGTH OF TAPER
B = LENGTH OF LONGITUDINAL BUFFER
ROLL AHEAD DISTANCE

G2: DISTANCE BETWEEN SIGNS, "D". THE VALUES FOR WHICH ARE SHOWN IN TYPICAL GEN-KEY ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.

G3: ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING SHALL MEET NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT 350 (NCHRP 350) TEST LEVEL 3, OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) TL-3 AS WELL AS THE CURRENT EDITION OF THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS. ONLY DESIGNS AND MATERIALS APPROVED BY MDOT WILL BE ALLOWED.

G4: DO NOT STORE EQUIPMENT, MATERIALS OR PERFORM WORK IN ESTABLISHED BUFFER AREAS.

G5: ALL EXISTING PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH EITHER PROPOSED CHANGES IN TRAFFIC PATTERNS OR PROPOSED TEMPORARY TRAFFIC MARKINGS SHALL BE REMOVED BEFORE ANY CHANGE IS MADE IN THE TRAFFIC PATTERN. EXCEPTION WILL BE MADE FOR TRAFFIC PATTERNS FOR WORK LESS THAN THREE DAYS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES

SIGN NOTES

S1: ALL NON-APPLICABLE SIGNING WITHIN THE CIA MUST BE MODIFIED TO FIT CONDITIONS, COVERED, OR REMOVED. FOR GUIDANCE SEE THE WORK ZONE SAFETY AND MOBILITY MANUAL SECTIONS 6.01.09 AND 6.01.10

S2: R5-1(b) SIGNS ARE ONLY REQUIRED ON FREEWAY PROJECTS WITH A DURATION OF 15 DAYS OR LONGER OR NON-FREEWAY PROJECTS WITH A DURATION OF 90 DAYS OR LONGER TO APPLY THIS TYPICAL WITHOUT R5-1(b) SIGNS. REMOVE THE SIGNS AND CONSOLIDATE THE SEQUENCE AS APPROPRIATE.

S3: R5-1(b) IS ONLY REQUIRED IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. OMIT THIS SIGN IN SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE.

S4: ADDITIONAL SIGNING AND/OR ELONGATED SIGNING SEQUENCES SHOULD BE USED WHEN TRAFFIC VOLUMES ARE SIGNIFICANT ENOUGH TO CREATE BACKUPS BEYOND THE W20-1 SIGNS.

S5: PLACE ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE WORK ZONE SPEED AFTER EACH MAJOR CROSSROAD THAT INTERSECTS THE WORK ZONE, OR AFTER EACH ENTRANCE RAMP THAT COMES ONTO THE FREEWAY WHERE THE REDUCED SPEED IS IN EFFECT. PLACE ADDITIONAL SPEED LIMIT SIGNS AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS ARE MORE THAN 2 MILES APART. PLACE ADDITIONAL SPEED LIMIT SIGNS AT THE END OF THE WORK ZONE. PLACE ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED BEYOND THE LIMITS OF THE WORK AREA AS INDICATED. IF PERMANENT SIGNS DISPLAYING THE CORRECT SPEED LIMIT ARE POSTED, OMIT ALL W3-5a AND R2-1 SIGNS AND REDUCE SPACING ACCORDINGLY.

S6: FABRICATE SPECIAL SIGNS IN ACCORDANCE WITH CURRENT SIGNING DESIGN STANDARDS.

S7: PLACE ADDITIONAL R8-3 SIGNS AT A MAXIMUM 500' SPACING THROUGHOUT THE WORK ZONE.

S8: WHEN SPEED LIMIT SIGNS CANNOT BE PLACED SIDE BY SIDE AS SHOWN, PLACE THEM "D" DISTANCE APART.

S9: STOP SIGNS NOT REQUIRED IF SIGNALS ARE ON 4-WAY FLASHING RED. STOP AHEAD SIGNS ARE NOT REQUIRED IF THERE IS ADEQUATE VISIBILITY OF THE STOP SIGN OR IF SIGNALS ARE BEING USED TO CONTROL TRAFFIC.

S10: PLACE REDUCED SPEED ZONE AHEAD SIGN (W3-5a) HERE WHEN USING A SPEED REDUCTION IN THIS DIRECTION.

S11: THE NUMBER OF W1-6 SHIFT SIGNS TO PLACE FOR A SHIFT IS AS FOLLOWS:
SHIFTS 4FT OR LESS, PLACE ONE W1-6(R/L)
SHIFTS 5FT TO 12FT, PLACE TWO W1-6(R/L)
SHIFTS MORE THAN 12FT, PLACE THREE OR MORE W1-6(R/L) SIGNS DEPENDING UPON LENGTH OF SHIFT AND AS PER THE ENGINEER.

S12: PLACE R2-1 SIGNS AS DETAILED IN NOTE S5 WHEN THERE IS A SPEED REDUCTION IN THIS DIRECTION

TRAFFIC REGULATOR NOTES

TR1: TRAFFIC REGULATORS MUST FOLLOW ALL THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS, THE CURRENT VERSIONS OF THE TRAFFIC REGULATOR'S INSTRUCTION MANUAL AND THE VIDEO "HOW TO SAFELY REGULATE TRAFFIC IN MICHIGAN". THE MAXIMUM DISTANCE BETWEEN THE TRAFFIC REGULATORS IS DETERMINED BY THE ROADWAY ADT, GEOMETRICS, AND AS DIRECTED BY THE ENGINEER.

TR2: PROVIDE APPROPRIATE BALLOON LIGHTING TO SUFFICIENTLY ILLUMINATE TRAFFIC REGULATOR'S STATIONS WHEN TRAFFIC REGULATING IS ALLOWED DURING THE HOURS OF DARKNESS.

TEMPORARY TRAFFIC CONTROL DEVICE NOTES

TCD1: THE MAXIMUM DISTANCE IN FEET BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD NOT EXCEED 1.5 TIMES THE WORK ZONE SPEED LIMIT IN MPH FOR ROADWAYS WITH A POSTED WORK ZONE SPEED LIMIT LESS THAN 45 MPH AND SHOULD NOT EXCEED 50 FEET ON ROADWAYS WITH A POSTED WORK ZONE SPEED LIMIT OF 45 MPH OR GREATER. THE SPACING FOR 42 INCH CHANNELIZING DEVICE TAPERS ARE NOT TO EXCEED 25 FEET AT NIGHT.

TCD2: THE MAXIMUM DISTANCE IN FEET BETWEEN CHANNELIZING DEVICES IN A TANGENT SHOULD NOT EXCEED TWICE THE WORK ZONE SPEED LIMIT IN MPH FOR ROADWAYS WITH A POSTED WORK ZONE SPEED LIMIT LESS THAN 45 MPH AND SHOULD NOT EXCEED 100 FEET ON ROADWAYS WITH A POSTED WORK ZONE SPEED LIMIT OF 45 MPH OR GREATER. THE SPACING FOR 42 INCH CHANNELIZING DEVICE TANGENTS ARE NOT TO EXCEED 50 FEET AT NIGHT.

TCD3: TYPE III BARRICADES MUST BE LIGHTED FOR OVERNIGHT CLOSURES.

TCD4: WHEN THE HAUL ROAD IS NOT IN USE, PLACE LIGHTED TYPE III BARRICADES WITH "ROAD CLOSED" EXTENDING COMPLETELY ACROSS THE HAUL ROAD.

TCD5: USE VERTICAL PANELS IN LIEU OF THE TYPE B HIGH INTENSITY LIGHT SHOWN IN THE STANDARD PLAN FOR TEMPORARY CONCRETE BARRIER (R-53, AND R-126) WHEN USED WITH A TEMPORARY SIGNAL SYSTEM.

TCD6: PLACE LIGHTED ARROW PANELS AS CLOSE TO THE BEGINNING OF TAPERS AS PRACTICAL, BUT NOT IN A MANNER THAT WILL OBSCURE OR CONFUSE APPROACHING MOTORISTS WHEN PHYSICAL LIMITATIONS RESTRICT PLACEMENT. IN CURBED SECTIONS, IF ARROW BOARD CANNOT BE PLACED BEHIND CURB, PLACE ARROW BOARD IN THE CLOSED LANE AS CLOSE TO THE BEGINNING OF TAPER AS POSSIBLE.

TCD7: ADDITIONAL TYPE III BARRICADES MAY BE REQUIRED TO COMPLETELY CLOSE OFF ROAD FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT.

TCD8: WHERE THE SHIFTED SECTION IS SHORTER THAN 600 FEET, A DOUBLE REVERSE CURVE SIGN (W24-1) CAN BE USED INSTEAD OF THE FIRST REVERSE CURVE SIGN, AND THE SECOND REVERSE CURVE SIGN CAN BE OMITTED.

TCD9: RUMBLE STRIPS ARE TO BE PLACED AS SPECIFIED IN THE CONTRACT. IF NOT SPECIFIED IN THE CONTRACT, PLACE RUMBLE STRIPS AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE RUMBLE STRIP MANUFACTURER'S RECOMMENDATIONS. AN ARRAY OF RUMBLE STRIPS CONTAINS THREE RUMBLE STRIPS. PLACE THE RUMBLE STRIPS IN THE ARRAY AT A CONSISTENT DISTANCE, BETWEEN 10' AND 20' APART.

TCD10: SEE THE WORK ZONE SAFETY AND MOBILITY MANUAL, PORTABLE CHANGEABLE MESSAGE SIGN GUIDELINES FOR RECOMMENDED AND CORRECT PCMS MESSAGING. STAGGER PCMS THAT ARE ON OPPOSING SIDES OF THE ROAD 1000 FEET FROM EACH OTHER.

RAMP NOTES

RMP1: WHEN CONDITIONS ALLOW, ES-1 SIGNS MUST BE REMOVED OR COVERED AND CHANNELIZING DEVICES MUST BE POSITIONED TO ENABLE RAMP TRAFFIC TO DIVERGE IN A FREE MANNER

RMP2: STOP AND YIELD CONDITIONS SHOULD BE AVOIDED WHENEVER PRACTICAL. WHEN CONDITIONS WARRANT, R1-1 SIGNS MAY BE USED IN PLACE OF R1-2 SIGNS. WHEN R-1 SIGNS ARE USED, W3-1 SIGNS MUST BE USED IN PLACE OF W3-2 SIGNS. CONSIDERATION SHOULD BE GIVEN TO CLOSING THE RAMP TO COMPLETE WORK TO ALLOW AN ADEQUATE MERGE DISTANCE. WORK SHOULD BE EXPEDITED TO AVOID THE STOP AND/OR YIELD CONDITIONS.

THE FOLLOWING NOTES APPLY IF CALLED FOR ON THE TRAFF

SIGNAL NOTES

SIG1: EXISTING SIGNAL MUST BE EITHER 4-WAY FLASHING RED, BAGGED, OR TURNED OFF.

SIG2: SIGNAL IS IN OPERATION.

SIG3: DELINEATE THE WORK ZONE AREA WITH 28 INCH CONES FOR DAYTIME WORK, OR 42 INCH CHANNELIZING DEVICES FOR NIGHTTIME WORK.

SIG4: THE CONTRACTOR MUST HAVE A DESIGNATED SPOTTER IF THE AERIAL BUCKET TRUCK IS LOCATED OVER ACTIVE TRAVEL LANES.

SIG5: THE LOWEST POINT OF THE BUCKET MAY NOT TRAVEL BELOW 14 FOOT VERTICAL CLEARANCE. THE CONTRACTOR MUST UTILIZE ALTERNATE SET UP, OR PLACE THE INTERSECTION IN A 4 WAY STOP IF THE 14 FOOT VERTICAL CLEARANCE IS COMPROMIZED. USE TRAFFIC REGULATORS TO CONTROL TRAFFIC THROUGH THE INTERSECTION WHEN TRAFFIC IS PLACED IN A 4 WAY STOP.

SIG6: DELINEATE THE TRUCK WITH CHANNELIZING DEVICES. THE POSITION OF THE TRUCK MAY BE MOVED TO FACILITATE WORK.

MAINTENANCE AND SURVEYING NOTES

MS1: WHENEVER STOPPING SIGHT DISTANCE EXISTS TO THE REAR, THE SHADOW VEHICLES SHOULD MAINTAIN THE RECOMMENDED DISTANCE FROM THE WORK AREA AND PROCEED AT THE SAME SPEED. THE SHADOW VEHICLE SHOULD SLOW DOWN AND TRAVEL AT A FARTHER DISTANCE TO PROVIDE ADEQUATE SIGHT DISTANCE IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES

MS2: WORKERS OUTSIDE OF VEHICLES SHOULD WORK WITHIN 150' OF WORK VEHICLES WITH AN ACTIVATED BEACON. BETWEEN THE "BEGIN WORK CONVOY" SIGN AND THE "END WORK CONVOY" SIGN, OR BETWEEN THE "WORK ZONE BEGINS" AND "END ROAD WORK" SIGN.

MS3: WORK OR SHADOW VEHICLES WITH OR WITHOUT A TMA MAY BE USED TO SEPARATE THE WORK SPACE FROM TRAFFIC. IF USED, THE VEHICLES SHOULD BE PAIRED ACCORDING TO THE ROLL AHEAD DISTANCE TABLES.

MS4: WORK AND SHADOW VEHICLES SHALL BE APPROPRIATELY EQUIPPED WITH AN ACTIVATED AMBER BEACON.

MS5: WHEN WORKERS ARE OUTSIDE THEIR VEHICLES IN AN EXISTING LANE WHILE A MOBILE OPERATION IS OCCURRING DURING THE NIGHTTIME HOURS, CHANNELIZING DEVICES TO DELINEATE OPEN OR CLOSED LANES AT 50 FT SPACING MUST BE USED. AN EXAMPLE OF AN OPERATION (BUT NOT LIMITED TO) IS THE LAYOUT OF CONCRETE PATCHES.

MS6: W21-6 AND W20-1 SIGNS MAY BE SUBSTITUTED AS DETERMINED BY THE TYPE OF WORK TAKING PLACE AS PER THE ENGINEER.

DISTANCE BETWEEN TRAFFIC SIGNS "D"

"D" DISTANCES	POSTED SPEED LIMIT, MPH (PRIOR TO WORK AREA)										
	25	30	35	40	45	50	55	60	65	70	75
D (FEET)	250	300	350	400	450	500	550	600	650	700	750

GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE, "B"

"B" LENGTHS	SPEED* MPH (PRIOR TO WORK AREA)										
	20	25	30	35	40	45	50	55	60	65	70	75
B (FEET)	33	50	83	132	181	230	279	329	411	476	542	625

* POSTED SPEED, OFF-PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED

MINIMUM MERGING TAPER LENGTH, "L" (FEET)

OFFSET (FEET)	POSTED SPEED LIMIT, MPH (PRIOR TO WORK AREA)										
	25	30	35	40	45	50	55	60	65	70	75
1	11	15	21	27	45	50	55	60	65	70	75
2	21	30	41	54	90	100	110	120	130	140	150
3	32	45	62	80	135	150	165	180	195	210	225
4	42	60	82	107	180	200	220	240	260	280	300
5	53	75	103	134	225	250	275	300	325	350	375
6	63	90	123	160	270	300	330	360	390	420	450
7	73	105	143	187	315	350	385	420	455	490	525
8	84	120	164	214	360	400	440	480	520	560	600
9	94	135	184	240	405	450	495	540	585	630	675
10	105	150	205	267	450	500	550	600	650	700	750
11	115	165	225	294	495	550	605	660	715	770	825
12	125	180	245	320	540	600	660	720	780	840	900
13	136	195	266	347	585	650	715	780	845	910	975
14	146	210	286	374	630	700	770	840	910	980	1050
15	157	225	307	400	675	750	825	900	975	1050	1125

THE FORMULAS FOR THE MINIMUM LENGTH OF A MERGING TAPER IN DERIVING THE "L" VALUES SHOWN IN THE ABOVE TABLES ARE AS FOLLOWS:

"L" = $\frac{W \times S^2}{60}$ WHERE POSTED SPEED PRIOR TO THE WORK AREA IS 40 MPH OR LESS

"L" = W X S WHERE POSTED SPEED PRIOR TO THE WORK AREA IS 45 MPH OR GREATER

L = MINIMUM LENGTH OF MERGING TAPER
S = POSTED SPEED LIMIT IN MPH PRIOR TO WORK AREA
W = WIDTH OF OFFSET

TYPES OF TAPERS	TAPER LENGTH
UPSTREAM TAPERS	
MERGING TAPER	L - MINIMUM
SHIFTING TAPER	1/2 L - MINIMUM
SHOULDER TAPER	1/3 L - MINIMUM
2 TO 1 LANE ROAD TAPER	100' - MAXIMUM
DOWNSTREAM TAPERS (USE IS RECOMMENDED)	100' (PER LANE)

MAXIMUM SPACING FOR CHANNELIZING DEVICES

WORK ZONE SPEED LIMIT	DRUM AND 42" DEVICE SPACING (FT)		NIGHTTIME 42" DEVICE SPACING (FT)	
	TAPER	TANGENT	TAPER	TANGENT
< 45 MPH	1 x SPEED LIMIT	2 x SPEED LIMIT	25 FEET	50 FEET
≥ 45 MPH	50 FEET	100 FEET	25 FEET	50 FEET

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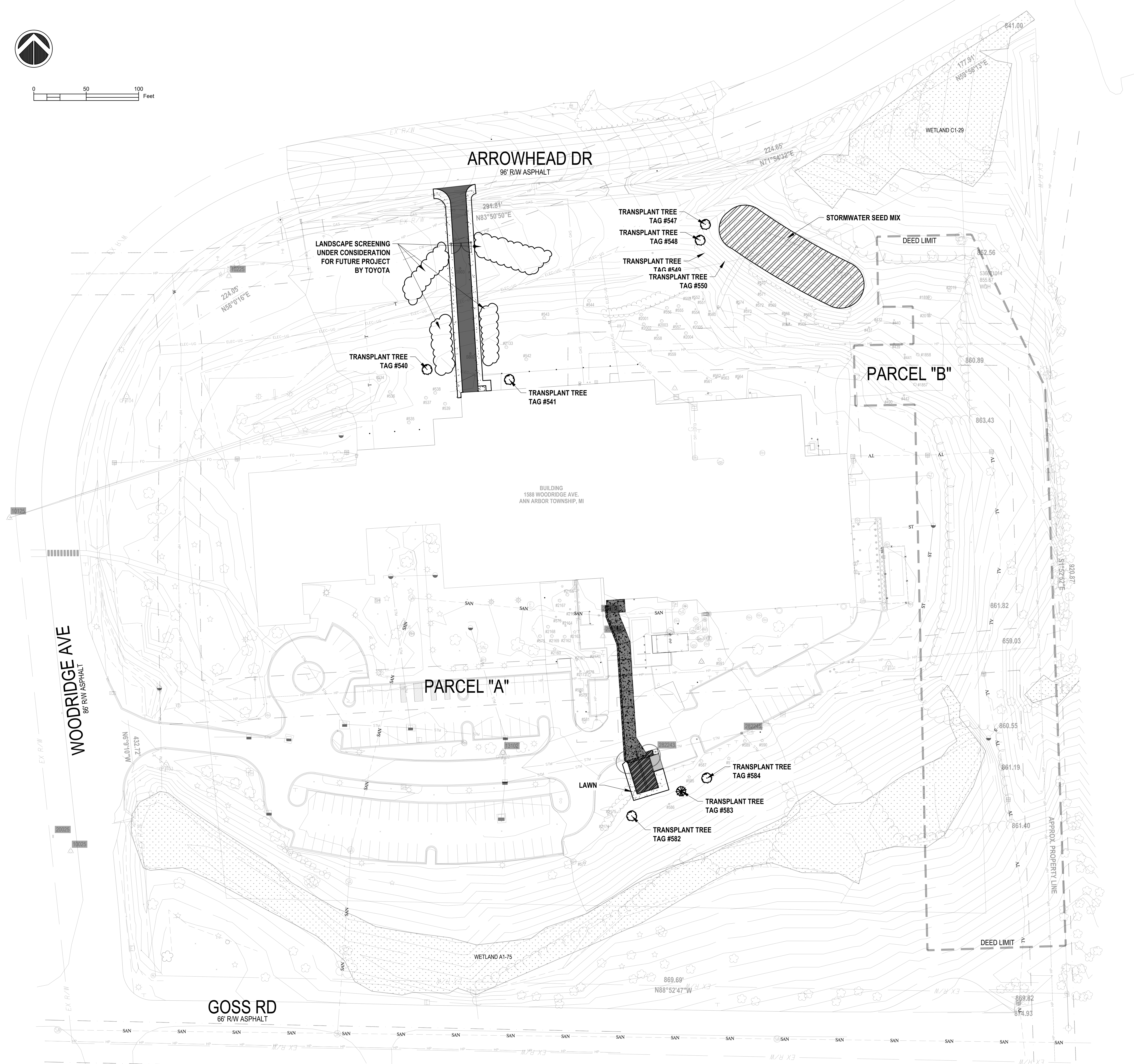
PROJECT DATE: 09/24/2025
PROJECT NO.: 401.2501172.0P0
DRAWN BY: BH
CHECKED BY: CR

PREPARED FOR:
TOYOTA MOTOR NORTH AMERICA R&D
1555 WOODRIDGE AVE
ANN ARBOR, MI 48105

TOYOTA NORTH AMERICA
1588 ISOLATION PAD DESIGN
ANN ARBOR, MI

TRAFFIC CONTROL DETAILS AND NOTES

C-707



GENERAL NOTES

1. MAINTAIN ALL EXISTING BELOW AND ABOVE GRADE UTILITIES. DO NOT DISTURB DURING CONSTRUCTION
2. ALL RELOCATED TREES MUST BE IN GOOD CONDITION PRIOR TO TRANSPLANTING. CONTRACTOR TO CONFIRM CONDITION OF ALL PLANT MATERIAL TO BE RELOCATED. ANY TREE THAT IS CONSIDERED UNFIT FOR TRANSPLANTING WILL BE REMOVED AND REPLACED. NEW DECIDUOUS TREES WILL BE 2.5" CALIPER (MINIMUM). NEW ORNAMENTAL TREES WILL BE 2" CALIPER (MINIMUM). NEW EVERGREEN TREES WILL BE 8' HEIGHT (MINIMUM).
3. ALL SEEDED AREAS WILL RECEIVE 4" DEPTH OF TOPSOIL (MINIMUM).
4. THERE IS NO IRRIGATION PROPOSED FOR THIS WORK.
5. PROVIDE TOPSOIL, FINE GRADING AND SEED FOR ALL DISTURBED AREAS INCLUDING CONSTRUCTION LAY DOWN AREA.

NO.	DATE	BY	DESCRIPTION
A	11/26/2025	BH	30% REVIEW
B	01/14/2026	BH	60% REVIEW
C	02/25/2026	BH	90% REVIEW/IFB
D	03/17/2026	BH	SITE PLAN REVIEW

PROGRESS PRINT
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ANN ARBOR, MI

LANDSCAPE PLAN

L-200

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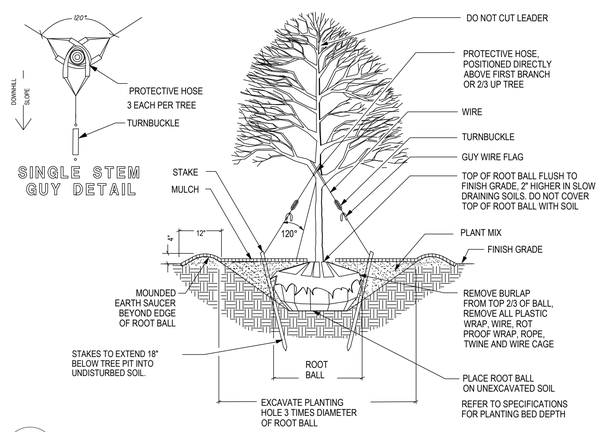
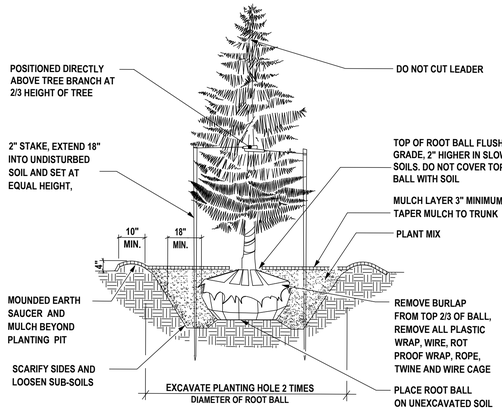
NOTES:
-STAKES TO EXTEND 18" INTO UNDISTURBED SOIL.
-SET STAKES VERTICAL AND AT EQUAL HEIGHT.
-TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE TO PREVIOUS GRADE.
-REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.



1 / L-700 DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE



2 / L-700 EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

STORMWATER SEED MIX

APPLY THE SEED MIX BELOW AT THE RATE OF 36.38 PLS POUNDS PER ACRE. 60 DAYS BEFORE SEEDING, PROVIDE A WRITTEN DESCRIPTION OF THE STORMWATER SEED MIXTURE SHOWING THE PERCENTAGE BY WEIGHT OF EACH KIND OF SEED FOR THE ENGINEER'S APPROVAL. INCLUDE THE FOLLOWING WITH THE DESCRIPTION:		
-NAME AND LOCATION OF SEED SUPPLIER		
-ORIGIN AND DATE OF HARVEST OF EACH KIND OF SEED		
-A STATEMENT OF THE PURITY AND GERMINATION OF EACH SEED TYPE		
-TESTING DATE FOR EACH SEED TYPE		
-HOW AND WHEN THE SEEDS WERE MIXED		
STORMWATER SEED MIX (VENDOR JFNEW OR EQUIV.)		
BOTANICAL NAME	COMMON NAME	PLS OZ./ACRE
PERMANENT GRASSES		
Boboshoenus fluviatilis	River Bulrush	4.00
Carex cristatella	Crested Oval Sedge	0.50
Carex lurida	Bottlebrush Sedge	2.00
Carex vulpinoidea	Brown Fox Sedge	2.00
Eleocharis obtusa	Blunt Spike Rush	0.50
Elymus virginicus	Virginia Wild Rye	24.00
Glyceria striata	Folw Manna Grass	1.00
Juncus effusus	Common Rush	1.00
Leersia oryzoides	Rice Cut Grass	1.00
Panicum virgatum	Switch Grass	2.00
Schoenoplectus tabernaemontani	Great Bulrush	3.00
Scirpus atrovirens	Dark Green Rush	2.00
Scirpus cyperinus	Wool Grass	1.00
	TOTAL	44.00
TEMPORARY COVER		
Avena sativa	Common Oat	512.00
	TOTAL	512.00
FORBS		
Alisma subcordatum	Common Water Plantain	2.50
Asclepias incarnata	Swamp Milkweed	2.00
Bidens spp.	Bidens Species	2.00
eupatorium perfoliatum	Common Boneset	1.00
Helenium autumnale	Sneezeweed	2.00
Iris spp.	Blue Flag Species	4.00
Lycopus americanus	common Water Horehound	0.50
Mimulus ringens	Monkey Flower	1.00
Penthorum sedoides	Ditch Stonecrop	0.50
Persicaria spp.	Pinkweed Species	2.00
Rudbeckia subtomentosa	Sweet Black-Eyed Susan	1.00
Rudbeckia triloba	Brown-Eyed Susan	1.50
Sagittaria latifolia	Common Arrowhead	1.00
Senna hebecarpa	Wild Senna	2.00
Symphyotrichum lanceolatum	Panicled Aster	0.50
Symphyotrichum novae-angliae	New England Aster	0.50
Thalicturm dasycarpum	Purple Meadow Rue	2.00
	TOTAL	26.00

GENERAL LANDSCAPE NOTES

THE WORK CONSISTS OF PROVIDING ALL NECESSARY MATERIALS, LABOR, EQUIPMENT, TOOLS AND SUPERVISION REQUIRED TO COMPLETE THE WORK AS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL PERTINENT UTILITY COMPANIES 3 WORKING DAYS IN ADVANCE OF ANY DIGGING TO FAMILIARIZE THEMSELVES WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE TO ANY UTILITIES.

THE CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH THE CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND FIELD ENGINEER. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE NOTIFICATION.

DISCREPANCIES BETWEEN DIMENSIONED LAYOUT AND ACTUAL FIELD CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.

ALL UNPAVED PORTIONS OF THE SITE SHALL BE PLANTED WITH GRASS, GROUNDCOVER, SHRUBS OR OTHER LIVE PLANT MATERIAL.

ALL LAWN AREAS SHALL HAVE 4" MINIMUM OF TOPSOIL.

ALL PLANTING BEDS SHALL HAVE 12" MINIMUM OF PLANT MIX AND 3" OF SHREDDED HARDWOOD BARK MULCH AS SPECIFIED ON THIS SHEET.

ALL TOPSOIL SHALL BE SCREENED, FERTILE, SANDY LOAM. PH RANGE SHALL BE 6.5%-7%. ORGANIC CONTENT SHALL RANGE BETWEEN 4%-6%. AMEND SOIL AS NECESSARY TO ACHIEVE SOIL PARAMETERS.

PLANT MATERIAL
THE CONTRACTOR SHALL PROVIDE A ONE YEAR WARRANTY ON ALL PLANTS AND VEGETATION PROPOSED ON THE PLANTING PLAN. ANY TREES, SHRUBS, GROUND COVER OR OTHER VEGETATION PLANTED AS PART OF THIS PROJECT THAT DO NOT SURVIVE ONE YEAR FROM PLANTING SHALL BE REPLACED AT THE THE EXPENSE OF THE CONTRACTOR. THE LANDSCAPE ARCHITECT SHALL BE THE SOLE JUDGE OF REQUIRED REPLACEMENTS.

REFER TO THE DRAWING AND PLANTING DETAILS FOR PLANTING REQUIREMENTS, MATERIALS AND EXECUTION. IF THERE IS A DISCREPANCY BETWEEN THE DRAWINGS AND THE PLANT LIST, THE DRAWINGS SHALL GOVERN.

PLANT SHRUBS IN A DORMANT CONDITION, BEFORE NEW GROWTH APPEARS. PLANTING AT TIMES OTHER THAN THOSE INDICATED MUST OBTAIN PRIOR APPROVAL FROM THE LANDSCAPE ARCHITECT.

PLANTS SHALL BE OBTAINED FROM REGISTERED PLANT NURSERIES, AND NOT OBTAINED FROM THE WILD.

ALL PLANTS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT UPON DELIVERY TO THE SITE. PLANTS DELIVERED TO THE SITE THAT DO NOT MEET THE ABOVE CRITERIA MAY BE REJECTED AND ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

THE OWNER RESERVES THE RIGHT TO SELECT AND/OR APPROVE PLANT SELECTIONS AT THE NURSERY WHERE GROWN, PRIOR TO ACCEPTANCE OF MATERIALS.

CONTRACTOR SHALL FIELD STAKE TREES AND SHRUBS TO BE APPROVED BY THE LANDSCAPE ARCHITECT.

THE LANDSCAPE ARCHITECT SHALL APPROVE ALL BED LAYOUTS, PRIOR TO INSTALLATION BY THE CONTRACTOR
BACKFILL MIX FOR ALL PLANTINGS, USE BACKFILL MIX CONSISTING OF THE FOLLOWING:
1. ONE PART EXCAVATED SOIL.
2. ONE PART EPA RATED CLASS IV COMPOST.
3. A SLOW RELEASE COMMERCIAL FERTILIZER (20-20-20 OR EQUAL) ADDED AT A RATE OF 5 POUNDS PER CUBIC YARD TO THE BACKFILL MIX.
4. IF SOIL AREAS ARE OF HIGH PH (GREATER THAN 6.5) APPLY 1.25 POUNDS OF ELEMENTAL SULFUR PER CUBIC YARD OF BACKFILL MIX.

NOTE: CONTRACTOR SHALL SUPPLY A DETAILED SOIL ANALYSIS PRIOR TO ALL PLANT BED PREPARATION. ANALYSIS SHALL INDICATE SOIL PH, TEXTURE, MAJOR NUTRIENTS, SALTS, ETC. SOIL ANALYSIS SHALL BE FROM A REPUTABLE, INDEPENDENT LAB. SOIL AMENDMENTS SHALL BE INCORPORATED INTO BACKFILL/PLANT MIX AS RECOMMENDED BY THE INDEPENDENT LAB.

SMOOTH AND SHAPE THE BACKFILL MIX TO FORM A SHALLOW BASIN SLIGHTLY LARGER THAN THE PLANTING HOLE. MULCH ALL PLANTING AREAS WITH A LAYER OF FINELY SHREDDED HARDWOOD BARK OF UNIFORM TEXTURE AND SIZE. USE SHREDDED HARDWOOD BARK AGED MIN. OF ONE YEAR. RAKE AND SMOOTH THE ENTIRE AREA OF THE PLANTING BEDS. MULCH TO A DEPTH OF 3 INCHES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, DELIVERING, APPLYING, MEASURING AND SCHEDULING A SUFFICIENT AMOUNT OF WATER NECESSARY TO KEEP EACH PLANT IN A HEALTHY GROWING CONDITION THROUGHOUT THE PERIOD OF ESTABLISHMENT. THE CONTRACTOR SHALL APPLY 1" OF WATER PER WEEK TO ALL NEW PLANTS.

RESTORATION OF DISTURBED AREAS FOR NEW LAWN. ALL DISTURBED AREAS NOT COVERED BY BUILDING, PAVEMENT OR LANDSCAPE PLANTING BEDS SHALL BE PREPARED FOR GRASS AND SEEDED. LOOSEN RUTS AND WORK THE SOIL AREAS TO A MINIMUM OF 6" DEEP PRIOR TO FINE GRADING AND SEEDING WORK.

STRAW MULCH SHALL BE APPLIED 3" IN DEPTH. ALL MULCHING MUST HAVE A TIE DOWN.

LAWN SEED SHALL BE FRESH, CLEAN, DRY NEW-CROP SEED COMPOSED OF VARIETIES, MIXED IN PROPORTIONS, AND TESTED FOR MINIMUM PERCENTAGES OF PURITY AND GERMINATION AS FOLLOWS BY WEIGHT.

VARIETY	PROPORTION BY WEIGHT	PURITY	GERMINATION
BARON KENTUCKY BLUEGRASS	20	90	80
VANTAGE KENTUCKY BLUEGRASS	20	90	80
PARK KENTUCKY BLUEGRASS	20	90	80
PENNFINE PERENNIAL RYEGRASS	20	90	80
CREEPING RED FESCUE	20	90	80

TREAT TREES TO BE RELOCATED, WITH WILT PRUF, OR EQUAL, PRIOR TO TRANSPLANTING. FOLLOW MANUFACTURER'S DIRECTIONS

NO.	DATE	BY	DESCRIPTION
A	11/26/2025	BH	30% REVIEW
B	01/16/2026	BH	60% REVIEW
C	02/20/26	BH	90% REVIEW
D	03/27/26	BH	100% REVIEW

PROGRESS PRINT
NOT FOR CONSTRUCTION

2365 HAGGERTY ROAD SOUTH
CANTON, MI 48188
TEL: 734.397.3100
FAX: 734.397.3131

PROJECT DATE: 09/24/2025
PROJECT NO.: 401.2501172.OP0
DRAWN BY: BH
CHECKED BY: CR

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PREPARED FOR:
TOYOTA MOTOR NORTH AMERICA R&D
1555 WOODRIDGE AVE
ANN ARBOR, MI 48105

TOYOTA NORTH AMERICA
1588 ISOLATION PAD DESIGN
ANN ARBOR, MI

LANDSCAPE DETAILS

L-700

March 16, 2026

Ann Arbor Charter Township
3792 Pontiac Trail
Ann Arbor, MI 48105

Re: Site Plan Amendment
Toyota 1588 Isolation Pad
1588 Woodridge Road, Ann Arbor Township

Toyota Motor Engineering and Manufacturing of North America is requesting a Site Plan Amendment determination for installing an isolation pad structure and emergency access drive at 1588 Woodridge in the Ann Arbor Tech Park.

In summary, the project includes making necessary site improvements to have an acceptable means of emergency response needed for EV Lithium-Ion Battery safety procedures. These improvements include:

1. A new exterior door and associated fire lane/access drive to Arrowhead Dr. This door and drive are to be used for emergency ingress/egress purposes only. Emergency ingress/egress operations would be warranted in this location in the event a battery vehicle was compromised, and the Fire Department needed to extract the vehicle from the building. We have reviewed ingress/egress pathways with the Township and Fire Chief, and this location is preferred as there are no current ingress/egress options on the north side of the building.
2. An observation structure will be added to the south of the existing building. The purpose of this structure is to safely stage any suspect batteries or vehicles for monitoring. This method has previously been reviewed and approved by Ann Arbor Township & Fire Chief.

A permit application will be submitted to WCRC for the drive addition/tie-in to Arrowhead Dr.

Preliminary plans have been sent to the Ann Arbor Tech Park for feedback.

Any trees impacted by the new alignment or construction limits will be either transplanted or replaced per Ann Arbor Township Ordinance. The alignment of the trail is selected to minimize tree impacts.

All state and federal regulations will be adhered to. The project is to be constructed in one phase.

It is our understanding that the Planning Commission has the authority to determine if the proposed changes are a minor or major amendment to an approved site plan.

Per section 74-179(b) of the zoning ordinance a major change includes:

1. Change in concept of the project.
   There is NO change in concept of this site.
2. Change in use or character of the project.
   There is NO change in use or character of the site.
3. Change in type of dwelling unit as identified on the approved site plan.

There is NO change in type of dwelling unit.

4. Change in number of dwelling units.
   There is NO change in number of dwelling units.
5. Change in non-residential floor area of over five percent.
   There is NO change in floor area.
6. Change in GFC, FAR or stormwater impact surface of the project over one percentage point.
   There is NO change in GFC or FAR.
7. Rearrangement of lots, blocks, or building tracts.
   There is NO change in rearrangement of lots, blocks or building tracts.
8. Change in character or function of any street.
   There is NO change in character or function of any street.
9. Reduction in land area set aside for common open space or the relocation of such area.
   There is NO reduction in land area set aside for common open space or the relocation of such area.
10. Increase in building height.
    There is NO increase in building height.

MSG and Toyota representatives have discussed the project with Ann Arbor Township officials and subsequently held a Pre-Application meeting. At that time, Ann Arbor Township provided initial feedback, which indicates that this work will constitute a minor site plan amendment and an administrative Township review. We request that the Planning Commission determine this project to be a Minor Amendment to an approved Site Plan.

Enclosed please find the following:

- Toyota 1588 Isolation Pad Preliminary Site Plan
  - Three (3) full-sized sets
  - Four (4) 11x17 sets
- Site Plan Amendment Application
- Fee (Check for $1,700)

Thank you in advance for your consideration. We look forward to hearing from you and we are asking to be placed on the April 6, 2026, Planning Commission agenda.

Respectfully,

Christopher A. Riharb

Christopher A. Riharb, PE
Senior Project Manager | Vice President

Carlisle | Wortman
ASSOCIATES, INC.
117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

MEMORANDUM

TO: Ann Arbor Township Planning Commission

FROM: Sally M. Elmiger, AICP

DATE: March 27, 2026

RE: Toyota at 1588 Woodridge – Observation Pad and Fire Lane – Major/Minor Determination

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The project submission proposes to add an Electric Vehicle observation pad with gate and associated stormwater pit, a fire lane from Arrowhead Drive, and re-grading of an existing stormwater pond near the fire lane to add 150 cubic feet of storage. This project will require some existing trees to be transplanted to other locations on this site.

Section 74-178 requires that all improvements must be made per the approved final site plan. In cases where changes are to be made to a development for which a preliminary or final site plan has been approved, the Planning Commission must first determine if the proposal constitutes a major or minor amendment to the existing plan, and if the applicant should be required to submit a full set of plans to seek a formal amendment to the approved site plan. If the Planning Commission determines that the proposal is a minor change to the approved plan, the changes can be approved administratively by the Zoning Official, and the Planning Commission may request that a revised final site plan drawing be provided to the Township for its records. Section 74-179 establishes the procedures for site plan amendment:

Sec. 74-179. Amendment of approved site plan.

(a) When changes are to be made to a development for which a preliminary or final site plan has been approved, the Planning Commission shall have the authority to determine if the proposed change is a minor or major amendment to the site plan. An applicant may apply for such a determination by filing with the Township a completed application for amendment, the required fee, and 17 copies of an 11 x 17 scaled plan of the site showing:

(1) The proposed changes;
(2) Any increases or decreases in stormwater impact surface;
(3) Dimensions (including height) of any proposed structures or buildings;
(4) Changes to existing structures or buildings;
(5) Any earth change or tree removal;
(6) Any change in the floor area ratio or ground floor coverage; and,
(7) Any additional information necessary for the Planning Commission to make a determination.

(b) Minor changes to a preliminary site plan may be incorporated into a final site plan, at the discretion of the Planning Commission. The Planning Commission may require, in case of minor changes in an approved preliminary or final site plan, that revised preliminary or final site plan drawings be submitted showing such minor changes, for purposes of record. If the Planning Commission determines that the proposed change is a major change, a site plan submittal and review, as provided in section 74-175 for a preliminary site plan and in section 74-176 for a final site plan, will be required. An applicant may elect in writing to acknowledge that the proposed change is a major change without a formal determination from the Planning Commission and upon such written acknowledgement may proceed directly to site plan submittal and review as a major change. A major change shall include a:

(1) Change in concept of the project;
(2) Change in use or character of the project;
(3) Change in type of dwelling unit as identified on the approved site plan;
(4) Change in the number of dwelling units;
(5) Change in non-residential floor area of over five percent;
(6) Change in GFC, FAR or stormwater impact surface of the project of over one percentage point;
(7) Rearrangement of lots, blocks, or building tracts;
(8) Change in the character or function of any street;
(9) Reduction in land area set aside for common open space or the relocation of such area; or
(10) Increase in building height.

This change does not meet any of the criteria for a "major" change. Therefore, we recommend that the Planning Commission find that the proposed change constitutes a minor amendment, requiring the applicant to receive administrative approval of the revised Final Site Plan.

Sally M. Elmiger

CARLISLE/WORTMAN ASSOC., INC.
Sally M. Elmiger, AICP, LEED AP
Principal

cc: Eric Humesky, Township Engineer (Townshipeng@aatwp.org)
Sarah Gabis, Township Attorney (SGabis@bodmanlaw.com)