LIVONIA PUBLIC SCHOOLS 2025 PAVING PROGRAM
CENTRAL OFFICE PHASE 2

ENGINEERING PLANS

15125 FARMINGTON RD.
LIVONIA, MI 48150

NTH PROJECT NO. 23001951-03

PERMITTING	
PERMIT TYPE	INFORMATION
CITY OF LIVONIA SOIL EROSION AND SEDIMENT CONTROL (SESC)	SEND THREE SETS OF PLANS, SIGNED AND SEALED, TO CITY OF LIVONIA DEPARTMENT OF ENGINEERING WITH APPLICATION AND FEE CHECK

NOTE:
CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING FEES ASSOCIATED WITH THIS PROJECT

LIST OF ABBREVIATIONS

@	AT	
℄	CENTERLINE	
°	DEGREE OR DEGREES	
ø	DIAMETER	
'	FOOT, FEET	
"	INCH, INCHES	
#	NUMBER OR POUND	
±	PLUS OR MINUS	
A		
AB	ANCHOR BOLT	
AC	ACRE(S)	
APPOX.	APPROXIMATE	
ARCH	ARCHITECTURAL	
ASPH	ASPHALT	
ASTM	AMERICAN STANDARDS AND TESTING MATERIALS	
AVG	AVERAGE	
B		
B	BOTTOM	
BIT	BITUMINOUS	
BLDG	BUILDING	
BM	BENCHMARK	
B.O.	BLOW OFF	
BOF	BOTTOM OF FOUNDATION	
BP	BASE PLATE	
BRG	BEARING	
BRKT	BRACKET	
BSMT	BASEMENT	
BW	BOTTOM OF WALL	
C		
CB	CATCH BASIN	
C–C	CENTER TO CENTER	
CF	CUBIC FEET	
CFS	CUBIC FEET PER SECOND	
CI	CAST IRON	
CIP	CAST–IN–PLACE	
CJ	CONTROL JOINT	
CLR	CLEAR	
CMP	CORRUGATED METAL PIPE	
CMU	CONCRETE MASONRY UNIT	
CNJ	CONSTRUCTION JOINT	
CO	CLEAN OUT	
COL	COLUMN	
CONC	CONCRETE	
CONT	CONTINUOUS	
CONST	CONSTRUCTION	
COV	COVER	
CP	CAP PLATE	
CSO	COMBINED SEWER OUTFALL	
CTV	CABLE TELEVISION	
D		
DET	DETAIL	
DI	DUCTILE IRON	
DIA	DIAMETER	
DIAG	DIAGONAL	
DIM	DIMENSION	
DIP	DUCTILE IRON PIPE	
DWG	DRAWING	
DWL	DOWELS	
E		
E	EAST	
EA	EACH	
EGL	ENERGY GRADE LINE	
EJ	EXPANSION JOINT	
EJIW	EAST JORDAN IRON WORKS	
EL	ELEVATION	
ELEC	ELECTRICAL	
ENG	ENGINEERED	
EX	EXISTING	
EXCAV	EXCAVATE(D)	
EXP	EXPANSION	
F		
FF	FINISH FLOOR	
FG	FINISHED GRADE	
FH	FIRE HYDRANT	
FL	FLOOR	
FM	FORCEMAIN	
FNDN	FOUNDATION	
FO	FIBER OPTIC	
FT	FOOT OR FEET	
FTG	FOOTING	
FWY	FREEWAY	
G		
GA	GAUGE	
GALV	GALVANIZED	
GMP	GROUND MONITORING POINT	
GB	GRADE BEAM	
GP	GUSSET PLATE	
GS	GROUND SURFACE	
GR	GRADE	
GV	GATE VALVE	
GV&W	GATE VALVE AND WELL	
GW	GATE WELL	
H		
H	HIGH/HORIZONTAL	
HGL	HYDRAULIC GRADE LINE	
HOR	HORIZONTAL	
HP	HIGH PRESSURE	
HT	HEIGHT	
I		
i	INCLINOMETER	
ID	INNER DIAMETER	
I.E.	INVERT ELEVATION	
IN	INCH(ES)	
INV	INVERT	
J		
JST	JOIST	
JT	JOINT	
L		
L	LENGTH/LONG	
LBS	POUNDS	
LF	LINEAR FEET	
LVL	LEVEL	
M		
m	METER	
MAS	MASONRY	
MATL	MATERIAL	
MAX	MAXIMUM	
MDOT	MICHIGAN DEPARTMENT OF TRANSPORTATION	
MECH	MECHANICAL	
MH	MANHOLE	
MJ	MECHANICAL JOINT	
MTD	MANUFACTURED TREATMENT DEVICE	
MTL	METAL	
MIN	MINIMUM	
mm	MILLIMETER	
MW	MONITORING WELL	
N		
N	NORTH	
NB	NORTHBOUND	
NE	NORTHEAST	
NIC	NOT IN CONTRACT	
NO	NUMBER	
NTS	NOT TO SCALE	
NW	NORTHWEST	
O		
O.C.	ON CENTER	
O.D.	OUTERDIAMETER	
OPNG	OPENING	
OPP	OPPOSITE	
P		
PC	POINT OF CURVATURE	
PERM	PERMANENT	
PL	PLATE	
P/L	PROPERTY LINE	
POB	POINT OF BEGINNING	
POE	POINT OF ENDING	
PR	PROPOSED	
PSF	POUNDS PER SQUARE FOOT	
PSI	POUNDS PER SQUARE INCH	
PT	POINT	
POT	POINT OF TANGENCY	
PVC	POLYVINYL CHLORIDE	
PVMT	PAVEMENT	
PZ	PNEUMATIC PIEZOMETER	
R		
R	RADIUS	
RCP	REINFORCED CONCRETE PIPE	
RD	ROAD	
REINF	REINFORCED/ REINFORCEMENT	
REQD	REQUIRED	
R.O.W.	RIGHT OF WAY	
RR	RAILROAD	
RTNG	RETAINING	
S		
S	SOUTH	
SAN	SANITARY	
SB	SOIL BORING	
SC	SHEAR CONNECTOR/ SHEAR CONNECTION	
SCH	SCHEDULE	
SE	SOUTHEAST	
SEC	SECTION	
SESC	SOIL EROSION AND SEDIMENT CONTROL	
SF	SQUARE FOOT	
SHT	SHEET	
SIM	SIMILAR	
SPA	SPACE/SPACING	
SL	SPLICE LENGTH	
SOG	SLAB ON GRADE	
SQ	SQUARE	
SS	STAINLESS STEEL	
SSP	STEEL SHEET PILE	
STA	STATION	
STD	STANDARD	
STIFF	STIFFENER	
STL	STEEL	
STM	STORM	
STRUC	STRUCTURAL	
SUP	SUPPORT	
SW	SOUTHWEST	
S/W	SIDEWALK	
SWM	STORMWATER MANAGEMENT	
SY	SQUARE YARDS	
T		
T	TOP	
TB	TEST BORING	
T&B	TOP AND BOTTOM	
TC	TOP OF CONCRETE	
TEMP	TEMPORARY	
THK	THICK OR THICKNESS	
TP	TURNING POINT	
TO	TOP OF	
TOF	TOP OF FOUNDATION	
TOPO	TOPOGRAPHIC	
TOS	TOP OF STEEL	
TOW	TOP OF WALL	
TYP	TYPICAL	
TW	TOP OF WALL	
TYP.	TYPICAL	
U		
UNO	UNLESS NOTED OTHERWISE	
V		
V	VERTICAL	
VCP	VITREOUS CLAY PIPE	
VERT	VERTICAL	
VIF	VERIFY IN FIELD	
W		
W	WEST	
W/	WITH	
WD	WIDE	
WM	WATERMAIN	
WWF	WELDED WIRE FABRIC	
Y		
YR	YEAR	

OWNER:
Livonia Public Schools
15125 Farmington Road
Livonia, Michigan 48154
Contact: Harry Lau
Phone: 734-812-8537

ENGINEER:
NTH Consultants, LTD.
41780 Six Mile Road
Suite 200
Northville, Michigan 48168
Contact: David R. Lutz, P.E.
Phone: 248-662-2750

PROJECT DESCRIPTION:

LIVONIA PUBLIC SCHOOLS 2025 PAVING PROGRAM - CENTRAL OFFICE PHASE 2 CONSISTS OF PAVEMENT IMPROVEMENT AT THE LIVONIA PUBLIC SCHOOLS CENTRAL OFFICE LOCATION, INCLUDING FULL-DEPTH PAVEMENT REMOVAL AND GRADING, CRACK FILLING, AND RESEALING. THE PROJECT SCOPE INCLUDES, BUT IS NOT LIMITED TO:

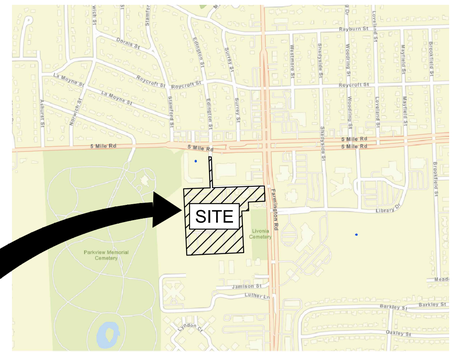
- 59,000 SQUARE FEET OF FULL DEPTH REMOVAL & REPLACEMENT (STANDARD DUTY ASPHALT)
- 79,000 SQUARE FEET OF FULL DEPTH REMOVAL & REPLACEMENT(HEAVY DUTY ASPHALT)
- INSTALLATION OF NEW CONCRETE BOX OUTS AND DRAIN TILES AROUND EXISTING DRAINAGE STRUCTURES ACROSS PHASE II PAVEMENT AREA, AND ADDITION OF 6 CONCRETE BOX OUTS FROM 2024 PHASE I.
- EXCAVATION AND REPLACEMENT OF SUBGRADE SOIL WITH COMPACTED STONE FILL TO A MAXIMUM DEPTH OF 18-INCHES BELOW THE BOTTOM OF THE PAVEMENT PROFILE, FOR A MAXIMUM OF 13,800 SQUARE-FEET OF THE FULL-DEPTH ASPHALT REPLACEMENT AREA.

Sheet List

NOTES

1. TOPOGRAPHIC SURVEY WAS PERFORMED BY KEM-TEC & ASSOCIATES ON FEBRUARY 26, 2024.
2. LOCATION OF UTILITIES OR OTHER STRUCTURES SHOWN ON PLANS ARE TAKEN FROM SURVEY OF RECORD. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY OMISSIONS OR VARIATIONS. THE CONTRACTOR SHALL CONTACT MISS DIG A MINIMUM OF THREE WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION IN THE AREA OF WORK AND SHALL VERIFY ALL UNDERGROUND UTILITIES ON-SITE, PRIOR TO CONSTRUCTION.
3. FULL-DEPTH REMOVAL IS DEFINED AS REMOVING 100 PERCENT OF THE BITUMINOUS CONCRETE AND BASE WHERE NECESSARY TO ACHIEVE THE REQUIRED DESIGN PROFILE, AND PROOF ROLLING THE EXISTING AGGREGATE BASE OR SUBBASE. IF THE AGGREGATE BASE IS SOUND, INSTALL NEW BITUMINOUS CONCRETE PROFILE AS SPECIFIED (HEAVY-DUTY OR STANDARD-DUTY PROFILE). IF AGGREGATE BASE YIELDS UNDER PROOF ROLLING LOAD, AT THE DIRECTION OF THE OWNERS ENGINEER, REMOVE AGGREGATE BASE AND EXPOSE SUBGRADE SOILS. PROOF ROLL; IF THEY YIELD UNDER LOAD, REMOVE UP TO 18-INCHES OF SUBGRADE AND BACKFILL WITH COMPACTED STONE IN LIFTS NO GREATER THAN 6-INCHES. INSTALL NEW PAVEMENT OVER THE STONE (AGGREGATE BASE AND BITUMINOUS CONCRETE SECTION) AT DIRECTION OF THIRD PARTY TESTING FIRM.
4. THE CONTRACTOR SHALL AVOID DAMAGE TO THE EXISTING PAVEMENTS DESIGNATED TO REMAIN. ANY PAVEMENT DAMAGE THAT OCCURS AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. CONTRACTOR TO INSPECT ALL MANHOLE STRUCTURES DURING CONSTRUCTION AND INFORM THE OWNER OF ANY STRUCTURES IN POOR CONDITION.
6. CONTRACTOR SHALL NOTIFY THE CITY OF LIVONIA'S ENGINEERING DEPARTMENT 48 HOURS PRIOR TO ANY WORK IN THE RIGHT-OF-WAY. INSPECTION AND APPROVAL IS REQUIRED AFTER SETTLING FORMS, BUT PRIOR TO POURING CONCRETE, WITHIN THE CITY'S RIGHT-OF-WAY.

MICHIGAN
APPROX SCALE 1"= 50 MILES



WAYNE COUNTY
NO SCALE

BULLETIN NO. 1

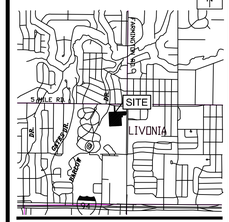
BID

NTH Consultants, Ltd.
Infrastructure Engineering
Environmental Services
Facilities Engineering
www.nthconsultants.com

Northville, MI Lansing, MI
Detroit, MI Grand Rapids, MI
Livonia, MI (Laboratory)

SEAL/STAMP:

KEY MAP: NORTH ARROW:



REVISION BLOCK

REV	DATE: DESCRIPTION
⚠1	2025-02-13: REVISIONS TO PAVEMENT LIMITS PER PRE-BID WALKTHROUGH COMMENTS

SUBMITTAL LOG

DATE	PACKAGE NAME

PROJECT NAME:
LIVONIA PUBLIC SCHOOLS 2025 PAVING PROGRAM- CENTRAL OFFICE PHASE 2

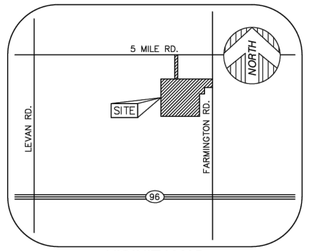
PROJECT LOCATION:
15125 FARMINGTON ROAD
LIVONIA, MICHIGAN 48150

DESIGNED BY: KBH	NTH PROJECT NO.: 23001951
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: DRL	DATE: 2/13/2025
CAD FILE NAME: 23001951-02-COV	

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
C-100

J:\2023\23001951\production set\pw pavement phase 2\central office\23001951-02-cov.dwg Plotted: 2/13/2025 3:04 PM by Kate Houston



VICINITY MAP

(NOT TO SCALE)

MANHOLE SCHEDULE

NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)
10116	STORM CB	662.78	B/STRUCTURE		656.88
		662.78	T/WATER		656.98
10182	STORM CB	660.71	B/STRUCTURE		657.11
		660.71	T/WATER		658.21
10368	STORM CB	663.89	30	SW	659.15
		663.89	B/STRUCTURE		658.19
10387	STORM CB	663.85	30	NE	659.05
		663.85	30	E	659.05
		663.85	30	W	658.80
		663.85	15	W	658.35
10301	SANITARY MH	664.86	6	N	658.86
		664.86	6	E	658.76
		664.86	6	W	658.86
		664.86	6	S	661.26
		664.86	6	S	658.81
10426	SANITARY MH	665.47	6	W	654.77
		665.47	6	W	654.87
10943	STORM CB	664.39	8	SW	660.66
		664.39	4	SW	662.54
		664.39	B/STRUCTURE		659.69
10872	STORM CB	663.30	10	NW	660.52
		663.30	B/STRUCTURE		660.50
11065	STORM CB	663.32	4	N	661.85
		663.32	12	W	659.30
		663.32	4	NW	659.94
		663.32	B/STRUCTURE		657.89
11190	STORM CB	663.01	24	N	653.71
		663.01	24	S	653.81
		663.01	20	S	653.96
		663.01	B/STRUCTURE		654.06
11365	STORM CB	665.29	4	W	661.45
		665.23	B/STRUCTURE		660.35
11286	STORM CB	663.55	6	NE	OFFSET
		663.55	36	W	654.35
		663.55	10	SE	656.55
		663.55	T/WATER		656.45
		663.55	B/STRUCTURE		656.85
11307	STORM CB	663.89	21	N	656.74
		663.89	36	S	656.64
		663.89	36	S	656.04
		663.89	4	W	657.59
		663.89	B/STRUCTURE		655.86
11330	STORM CB	664.86	6	SE	662.94
		664.86	4	NW	662.76
		664.86	B/STRUCTURE		662.41
55022	STORM CB	664.68	15	W	659.63
		664.68	B/STRUCTURE		659.63
55124	STORM CB	664.25	15	E	659.22
		664.25	15	W	659.19
		664.25	B/STRUCTURE		659.15
55305	STORM CB	664.96	4	E	662.00
		664.96	4	W	662.00
		664.96	B/STRUCTURE		661.83
75004	STORM MH	662.96	30	N	658.86
		662.96	10	NE	657.96
		662.96	15	E	656.31
		662.96	10	SE	658.16
		662.96	24	S	654.66
		662.96	30	SW	657.29
95047	STORM CB	664.92	12	W	660.52
95065	STORM CB	664.78	12	NE	660.02
		664.78	12	E	660.08
		664.78	12	W	659.88
95086	SANITARY MH	666.77	6	E	655.37
		666.77	6	N	666.67
		666.77	6	S	658.57

LEGEND

- FOUND MONUMENT (AS NOTED)
- FOUND SECTION CORNER (AS NOTED)
- (R&M) RECORD AND MEASURED DIMENSION
- (R) RECORD DIMENSION
- (M) MEASURED DIMENSION
- +0.00 GROUND ELEVATION
- ELECTRIC PANEL
- ELECTRIC RISER
- TRANSFORMER
- GENERATOR
- UTILITY POLE
- GAS METER
- GAS VALVE
- CLEANOUT
- SANITARY MANHOLE
- ROUND CATCH BASIN
- SQUARE CATCH BASIN
- STORM DRAIN MANHOLE
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- WATER GATE MANHOLE
- WATER VALVE
- MONITOR WELL
- UNKNOWN MANHOLE
- AC AIR CONDITIONING UNIT
- BOLLARD
- FLAGPOLE
- GAS FILL
- LIGHTPOST/LAMP POST
- SINGLE POST SIGN
- TREE (AS NOTED)
- PARCEL BOUNDARY LINE
- ADJOINER PARCEL LINE
- SECTION LINE
- EASEMENT (AS NOTED)
- BUILDING
- BUILDING OVERHANG
- ASPHALT CURB
- CONCRETE CURB
- RAISED CONCRETE
- PARKING
- EDGE OF CONCRETE (CONC.)
- EDGE OF ASPHALT (ASPH.)
- EDGE OF BRICK
- FENCE (AS NOTED)
- WALL (AS NOTED)
- TREE / BRUSH LINE (AS NOTED)
- OVERHEAD UTILITY LINE
- G GAS LINE
- S SANITARY LINE
- D STORM LINE
- W WATER LINE
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
- BUILDING AREA
- ASPHALT
- CONCRETE

PROPERTY DESCRIPTION

PARCEL 1:
THE LAND SITUATED IN THE LIVONIA, COUNTY OF WAYNE, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:

THAT PART OF THE N E 1/4 OF SEC 21 DES AS BEG A POINT ON THE E LINE OF SAID SECTION DISTANT S 0D 31M 30SEC E 478.50 FT FROM THE N E CORNER OF SEC 21 AND PROCEEDING TH S 0D 31M 30SEC E ALONG SAID E LINE 194.0 FT TH S 88D 22M 40SEC W 210.50 FT TH S 0D 31M 30SEC E 106.0 FT TH S89D 47M 30SEC W 87.50 FT TH S 0D 31M 30SEC E 527.34 FT TH S 89D 22M 50SEC W 719.52 FT TH N 0D 41M 30SEC W 841.42 FT TH E 1020.03 FT TO THE POB.

PARCEL 2:
THE LAND SITUATED IN THE LIVONIA, COUNTY OF WAYNE, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:

PT OF THE NE 1/4 SEC 21 T1SR9E BEG AT A PTE DIST DUE W 653.42FT AND S0DEG 31M 30S E 88.86FT FROM THE NE COR OF SEC 21 TH S0DEG 31M 30S E 389.64FT TH DUE W 30FT TH N0DEG 31M 30S W 393.93FT TH S81DEG 52M 56S E 30.34FT POB 0.27 AC.

PARKING

HANDICAP PARKING = 13 STALLS
STANDARD PARKING = 340 STALLS
BUS PARKING = 166 STALLS

BASIS OF BEARING

SOUTH 00°31'30" EAST, BEING THE EAST LINE OF SECTION 21, AS DESCRIBED.

TITLE REPORT NOTE

A CURRENT TITLE POLICY HAS NOT BEEN FURNISHED AT TIME OF SURVEY, THEREFORE EASEMENTS AND/OR ENCUMBRANCES AFFECTING SUBJECT PARCEL MAY NOT BE SHOWN.

SURVEYOR'S NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURE INVENTORY SHOWN HEREON.

BENCHMARK

SITE BENCHMARK #1
RAILROAD SPIKE IN EAST SIDE OF UTILITY POLE APPROXIMATELY 5'± NORTH OF PARKING LOT AND APPROXIMATELY 42'± WEST OF CENTERLINE OF WILLIAMS WAY STREET.
ELEVATION = 665.46' (NAVD 88)

SITE BENCHMARK #2
ARROW ON HYDRANT APPROXIMATELY 70'± EAST OF WAREHOUSE BUILDING AND APPROXIMATELY 60'± NORTHWEST OF BUS MAINTENANCE BUILDING.
ELEVATION = 666.57' (NAVD 88)

SITE BENCHMARK #3
RAILROAD SPIKE IN EAST SIDE OF UTILITY POLE IN BUS PARKING LOT.
ELEVATION = 667.00' (NAVD 88)

SITE BENCHMARK #4
RAILROAD SPIKE IN WEST SIDE OF UTILITY POLE APPROXIMATELY 5'± WEST OF FARMINGTON ROAD AND NORTH APPROXIMATE 27'± FROM CENTERLINE OF DRIVE.
ELEVATION = 667.34' (NAVD 88)

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THAT I HAVE SURVEYED THE PROPERTY HEREIN DESCRIBED. THE ELEVATIONS SHOWN HEREON ARE BASED ON A FIELD SURVEY AND THE DRAWING HEREON DELINEATED IS A CORRECT REPRESENTATION OF THE SAME.

ANTHONY T. SYCKO, JR., P.S.
PROFESSIONAL SURVEYOR
MICHIGAN LICENSE NO. 47976
22556 GRATIOT AVE., EASTPOINTE, MI 48021
TSycko@kemtec-survey.com

STATE OF MICHIGAN — ANTHONY T. SYCKO, JR PROFESSIONAL SURVEYOR No. 4001047976 — LICENSED PROFESSIONAL SURVEYOR

KEM-TEC
PROFESSIONAL ENGINEERING, SURVEYING & ENVIRONMENTAL SERVICES
Eastpointe (800) 262.7222
Ann Arbor (734) 994.9888
Detroit (313) 759.0877
Grand Blanc (888) 694.0001
www.kemtecgroupofcompanies.com

TOPOGRAPHIC SURVEY

PREPARED FOR: LIVONIA PUBLIC SCHOOLS
15125 FARMINGTON ROAD, LIVONIA, MICHIGAN,
PART OF SECTION 21,
TOWN 1 SOUTH, RANGE 9 EAST

REVISION	DATE	BY	DESCRIPTION
2	02/26/24	JO	ADDED PARKING STRIPES ADDED PER REVIEW COMMENTS
1	02/19/24	MRJ	ADDED WALL DIMENSIONS

DRAWN BY: MRJ — 06/30/22
CHECKED BY: ATS — 06/30/22
DATE: JUNE 30, 2022
PROJECT NO. 22-01413
SCALE: 1" = 40'

1
1 OF 1 SHEETS

BULLETIN NO. 1

BID

NTH Consultants, Ltd.
Infrastructure Engineering
Environmental Services
Facilities Engineering
www.nthconsultants.com

Northville, MI Lansing, MI
Detroit, MI Grand Rapids, MI
Livonia, MI (Laboratory)

3 WORKING DAYS
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
For free location of public utility lines.
ALTERNATE NUMBER (811)
COLOR CODES FOR UTILITY LOCATING:

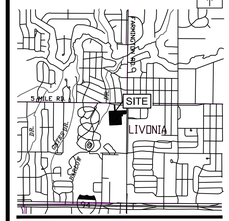
Yellow	OIL & GAS	Blue	WATER
Orange	PHONE & CATV	Green	STORM DRAIN
Red	ELECTRIC	Brown	SEWER
		Pink	SURVEYING

IF YOU ARE GOING TO WORK NEAR OVERHEAD WIRES — CALL MISS DIG

LIVONIA PUBLIC SCHOOLS

SEAL/STAMP:

KEY MAP: NORTH ARROW:



REVISION BLOCK

REV	DATE: DESCRIPTION
1	2025-02-13: REVISIONS TO PAVEMENT LIMITS PER PRE-BID WALKTHROUGH COMMENTS

SUBMITTAL LOG

DATE	PACKAGE NAME

PROJECT NAME:
LIVONIA PUBLIC SCHOOLS
2025 PAVING PROGRAM-
CENTRAL OFFICE PHASE 2

PROJECT LOCATION:
15125 FARMINGTON ROAD
LIVONIA, MICHIGAN 48150

DESIGNED BY: KBH	NTH PROJECT NO.: 23001951
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: DRL	DATE: 2/13/2025
CAD FILE NAME:	

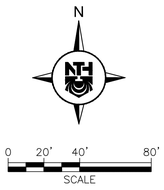
SHEET TITLE:
PAVEMENT SEQUENCING PLAN

SHEET NUMBER:
C-102

J:\2025\23001951\production data\bje pavement phase 2\central office\23001951-pav.dwg Plotted: 2/13/2025 3:07 PM by Kara Houston

NOTES:

1. THIS PLAN ILLUSTRATES THE MINIMUM SOIL EROSION AND SEDIMENTATION CONTROLS NEEDED TO PREVENT SILTS FROM LEAVING THE SITE AND IS SUBJECT TO CHANGE AS CONDITIONS IN THE FIELD WARRANT.
2. SITE SOIL GENERALLY CONSISTS OF GRAVELLY SAND.
3. TOPOGRAPHIC SURVEY PERFORMED BY KEM-TEC DATED 02/26/24.
4. SOIL BORINGS PERFORMED BY G2 CONSULTING GROUP, LLC.



LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING
- 580 — EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- OHE — EXISTING OVERHEARD ELECTRIC
- EXISTING BOLLARD POST
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING HYDRANT
- 580 — PROPOSED CONTOURS
- 1.0% — PROPOSED SLOPE ARROW
- PROPOSED ASPHALT PAVEMENT
- PROPOSED ASPHALT PAVEMENT (HEAVY-DUTY)
- PROPOSED CONCRETE PAVEMENT
- PROPOSED TRAFFIC STRIPING
- PROPOSED INLET FILTER
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED SILT FENCE
- LIMITS OF EARTH CHANGE
- P-00 — SOIL BORING
- MATCHLINE

SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

CONTRACTOR SHALL ENSURE THAT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES PROTECT AGAINST LOSS OF SOIL BY THE ACTION OF WATER, ICE, GRAVITY AND WIND.

SUMMARY OF BASIC PRINCIPLES

1. KEEP DISTURBED AREA AS SMALL AS POSSIBLE.
2. STABILIZE AND/OR PROTECT DISTURBED AREAS AS SOON AS POSSIBLE.
3. KEEP STORM WATER RUNOFF VELOCITIES LOW.
4. RETAIN SEDIMENT WITHIN IMMEDIATE CONSTRUCTION AREA.

THE PURPOSE OF THIS PLAN IS TO SPECIFY METHODS FOR TEMPORARY EROSION CONTROL DURING CONSTRUCTION. IT IS INTENDED THAT MEASURES CALLED FOR IN THE SPECIFICATIONS AND SHOWN ON THESE PLANS BE STRICTLY ADHERED TO. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT CONSTRUCTION PROCEDURES UNDERTAKEN ARE IN CONFORMANCE WITH PART 91 OF ACT 451 OF 1994 THE STATE OF MICHIGAN'S SOIL EROSION AND SEDIMENTATION CONTROL ACT.

ALL SOIL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE REGULARLY MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT. COLLECTED SILT AND SEDIMENTATION SHALL BE REMOVED PERIODICALLY TO MAINTAIN THE EFFECTIVENESS OF THE SILT TRAPS OR SEDIMENTATION CONTROL DEVICES. WHERE REQUIRED, THE CONTRACTOR SHALL REMOVE AND REPLACE FILTER MATERIALS WHICH HAVE BECOME INEFFECTIVE DUE TO CONTAMINATION OR PHYSICAL DETERIORATION.

ALL TEMPORARY EROSION CONTROL FACILITIES SHALL BE REMOVED BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION UNLESS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE. CARE SHALL BE TAKEN DURING REMOVAL TO MINIMIZE SILTATION IN NEARBY DRAINAGE COURSES.

SURFACE DISRUPTION IN ADVANCE OF CONSTRUCTION INCLUDING CLEARING, GRADING OR SIGNIFICANT SOD REMOVAL SHALL BE PROCEEDED BY INSTALLATION OF SOIL EROSION AND SEDIMENTATION CONTROL DEVICES AS FOLLOWS, UNLESS PERMISSION IS OTHERWISE OBTAINED FROM THE GOVERNING AGENCY.

A. WET WEATHER SEASON (MARCH, APRIL, MAY) - 5 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.

B. DRY WEATHER SEASON (JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER) - 10 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.

C. COLD WEATHER SEASON (DECEMBER, JANUARY, FEBRUARY) - 15 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.

BULLETIN NO. 1

BID

NTH Consultants, Ltd.
Infrastructure Engineering
Environmental Services
Facilities Engineering
www.nthconsultants.com

Northville, MI Lansing, MI
Detroit, MI Grand Rapids, MI
Livonia, MI (Laboratory)

LIVONIA PUBLIC SCHOOLS

SEAL/STAMP:

KEY MAP: NORTH ARROW:

REVISION BLOCK

REV	DATE: DESCRIPTION
1	2025-02-13: REVISIONS TO PAVEMENT LIMITS PER PRE-BID WALKTHROUGH COMMENTS

SUBMITTAL LOG

DATE	PACKAGE NAME

PROJECT NAME:
LIVONIA PUBLIC SCHOOLS
2025 PAVING PROGRAM-
CENTRAL OFFICE PHASE 2

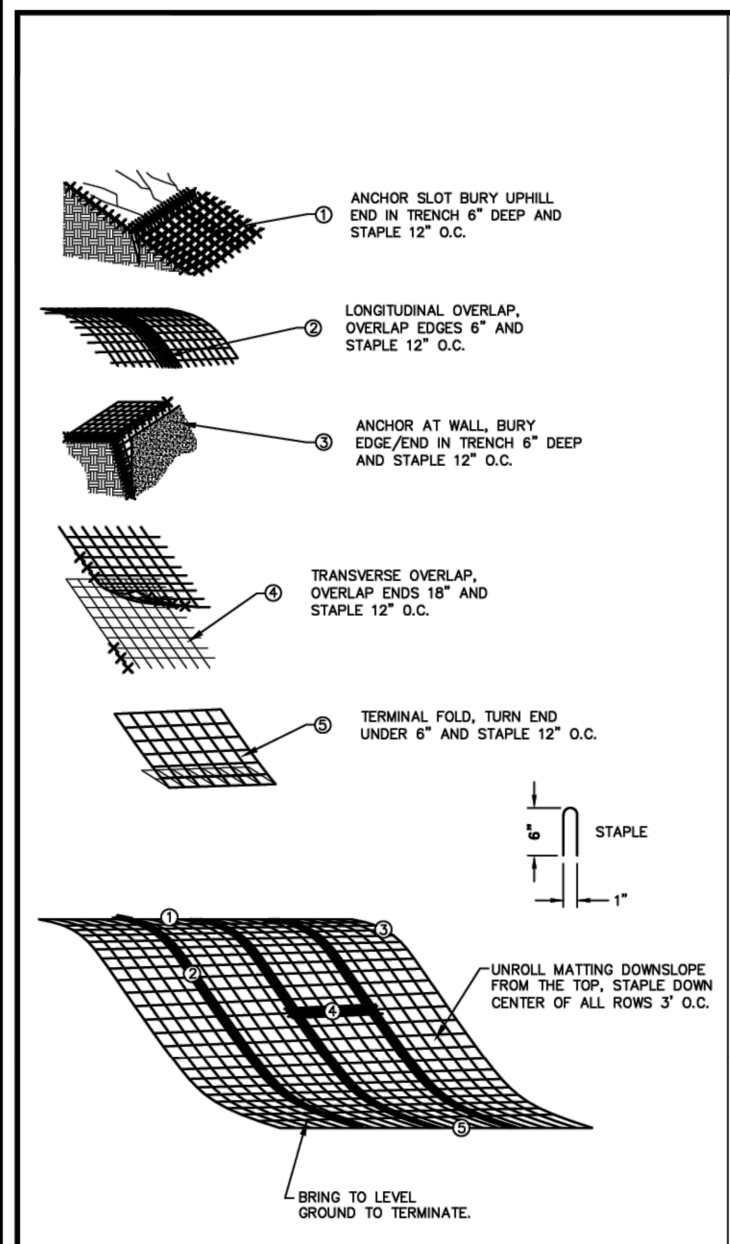
PROJECT LOCATION:
15125 FARMINGTON ROAD
LIVONIA, MICHIGAN 48150

DESIGNED BY: KBH	NTH PROJECT NO.: 23001951
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: DRL	DATE: 2/13/2025
CAD FILE NAME:	

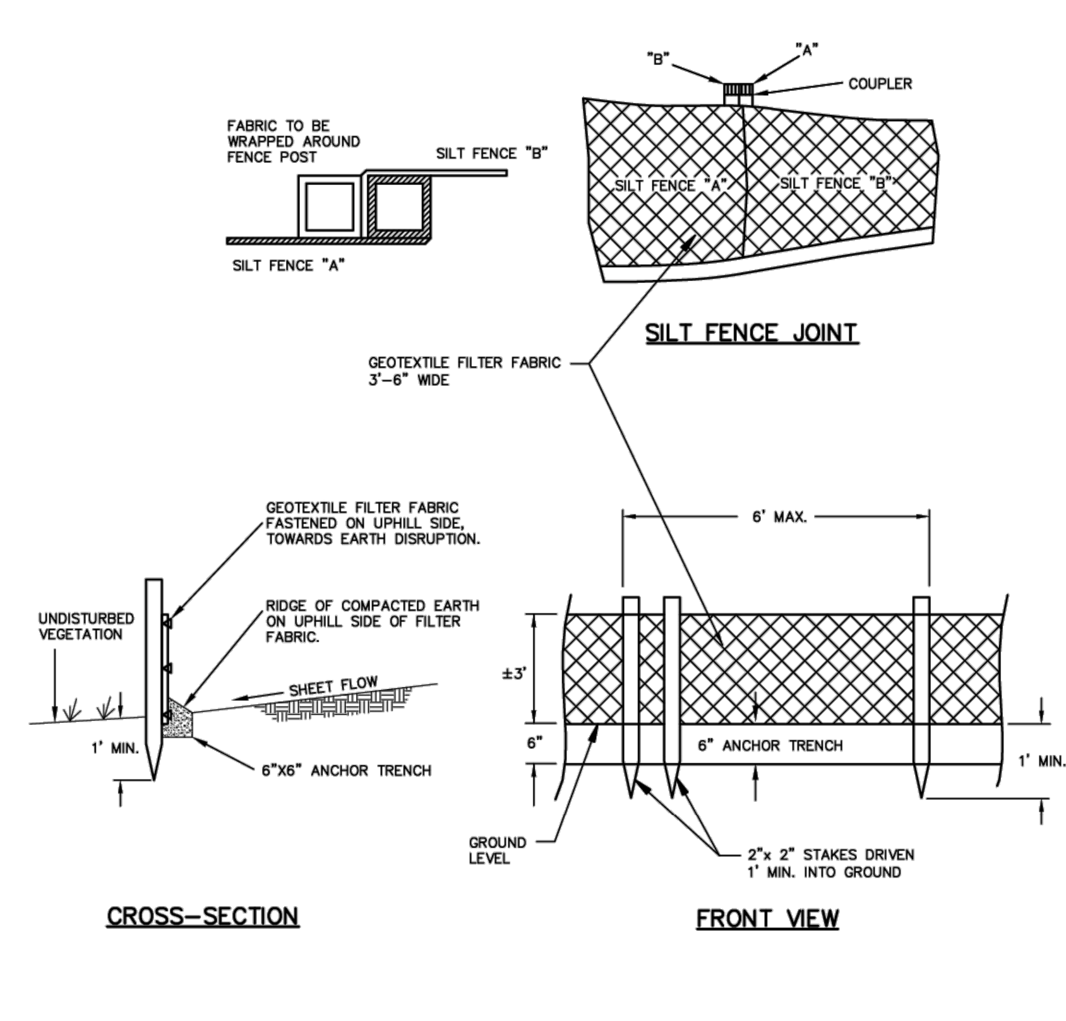
SHEET TITLE:
SOIL EROSION AND SEDIMENTATION CONTROL PLAN

SHEET NUMBER:
C-103

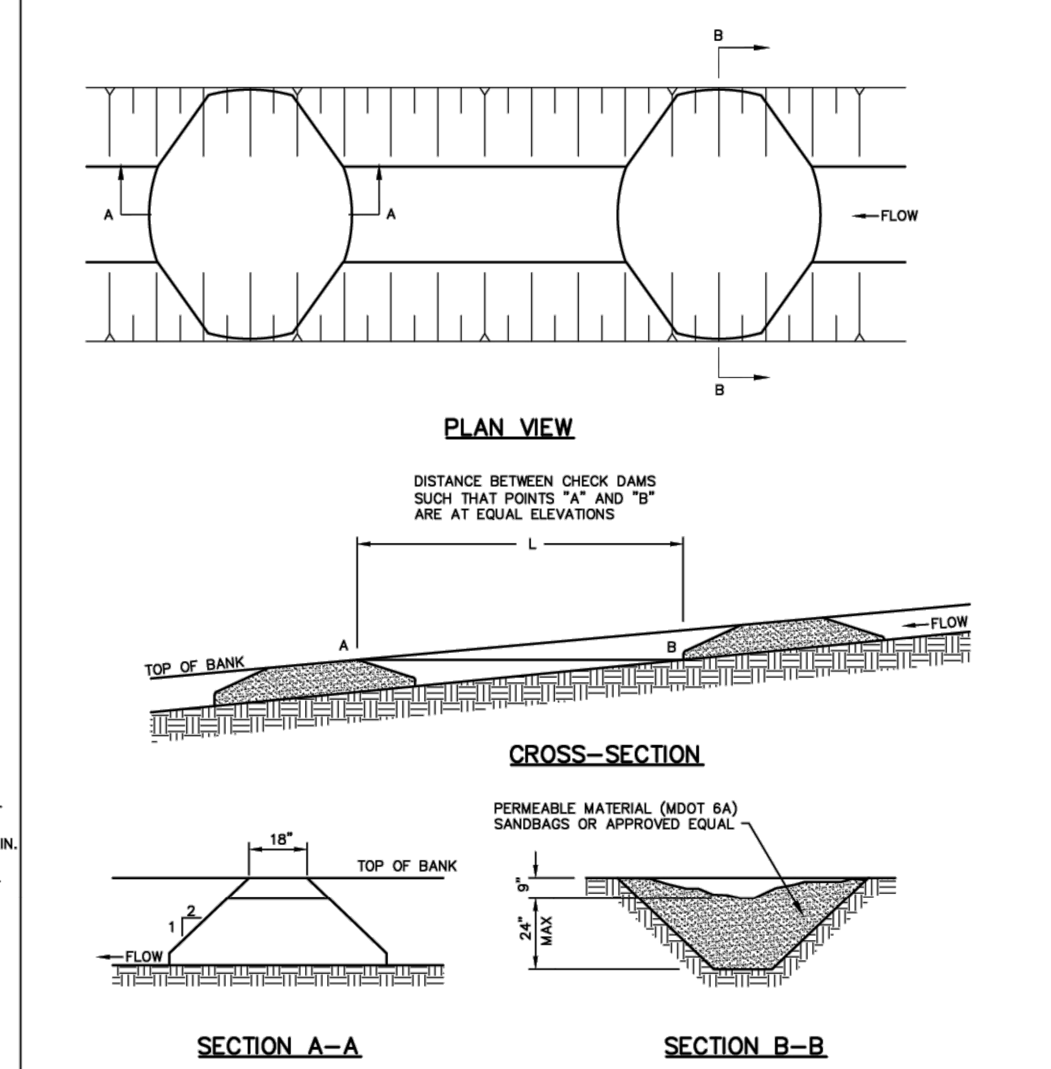
J:\2023\23001951\production sets\pw pavement phase 2\control office\23001951-02-esc.dwg Plotted: 2/13/2025 3:09 PM by Kara Houston



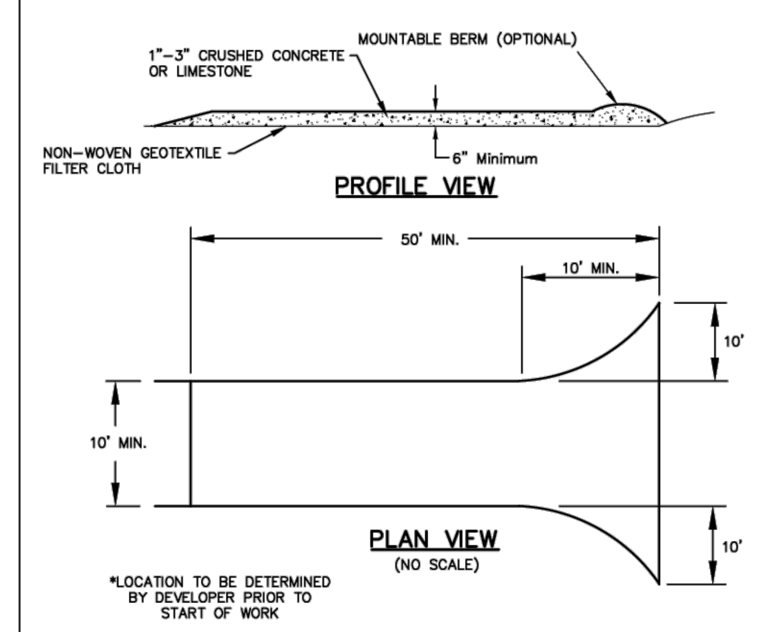
STRAW MULCH EROSION CONTROL BLANKET



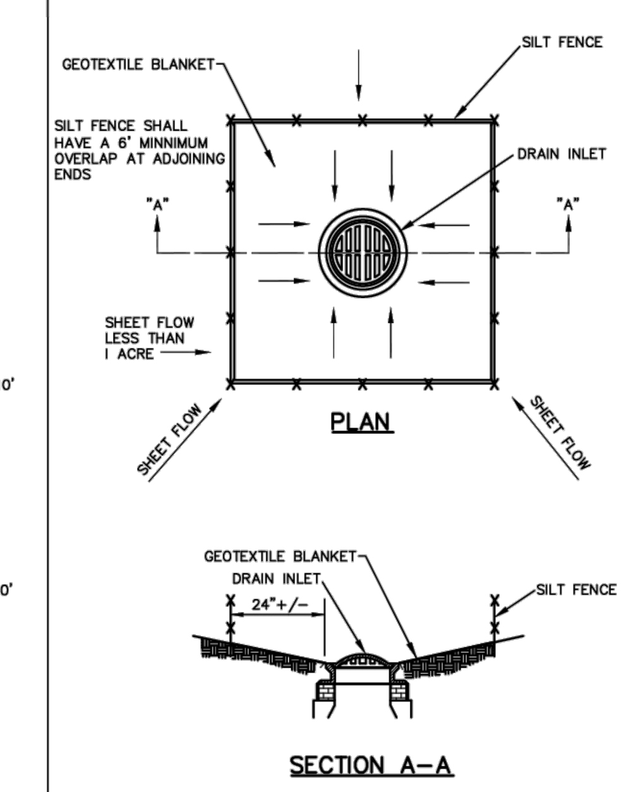
FABRIC SILT FENCE DETAIL



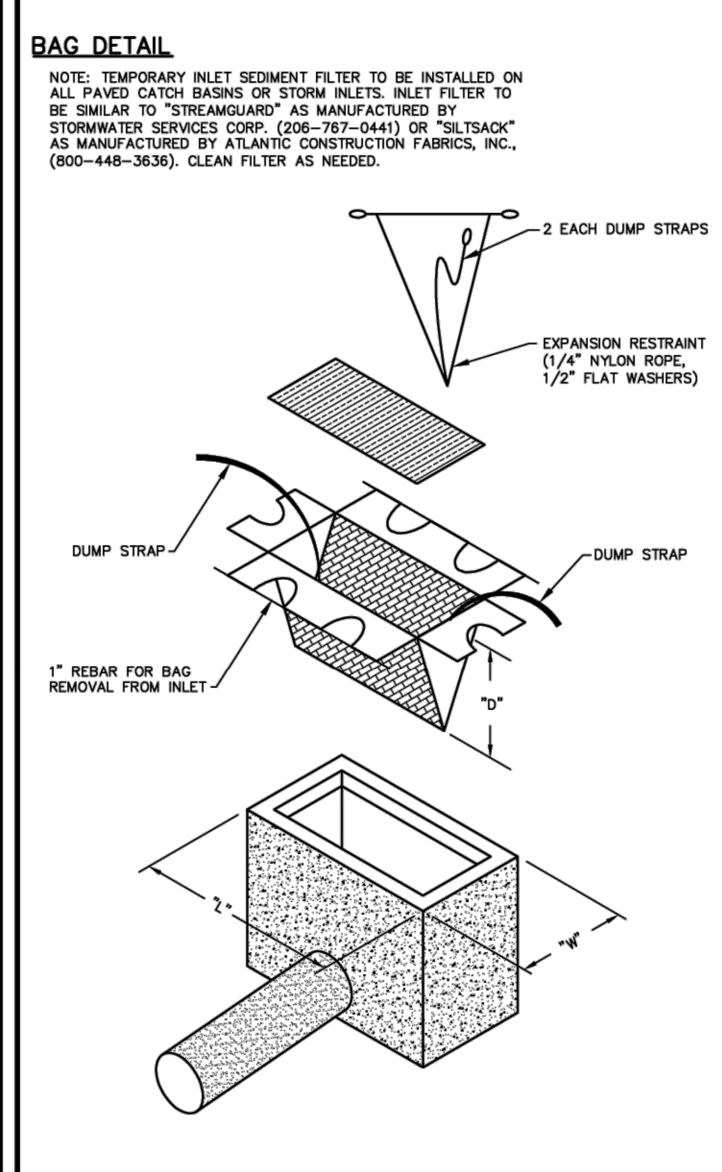
TEMPORARY CHECK DAM DETAIL



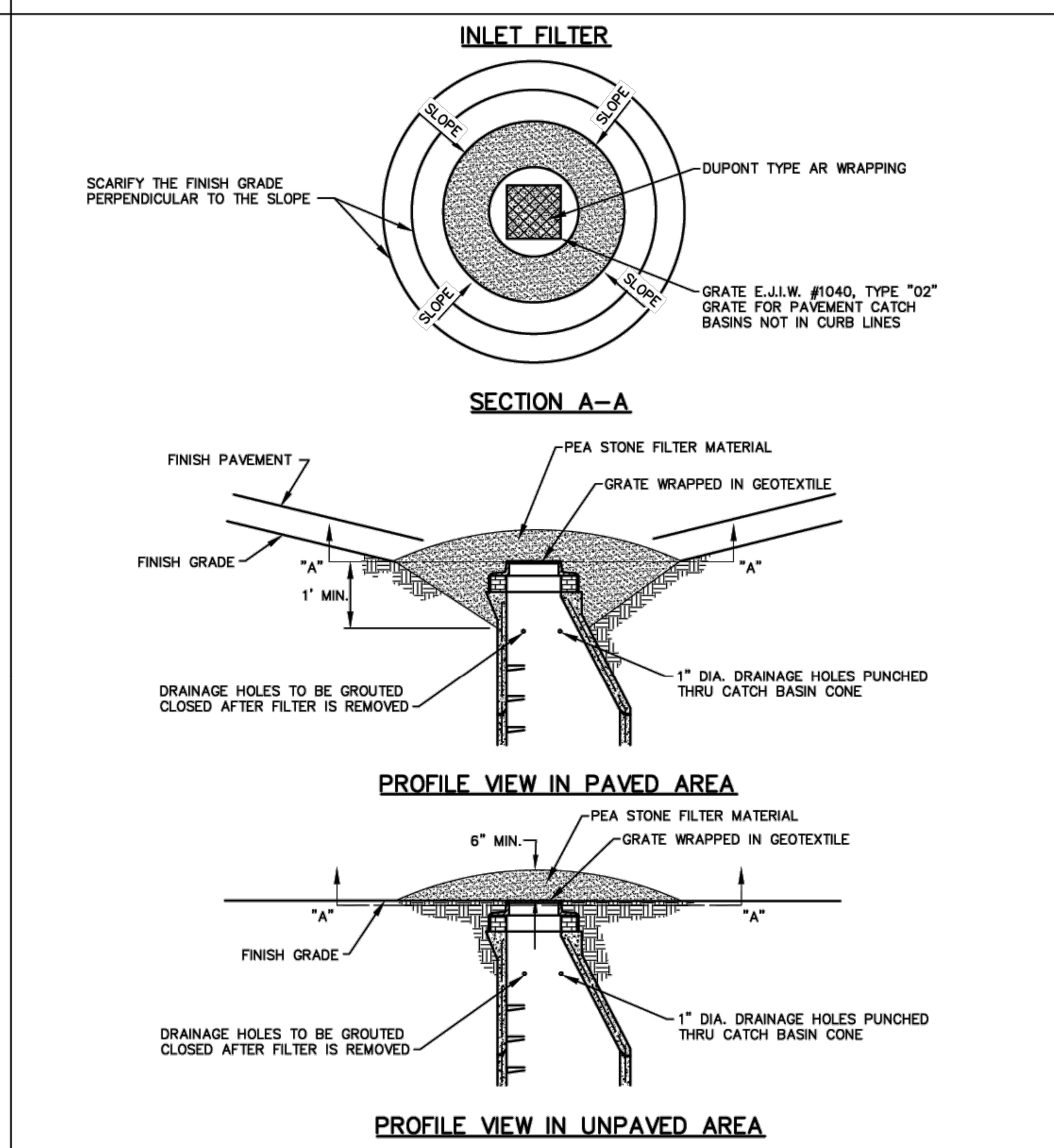
CONSTRUCTION ACCESS DRIVE DETAIL



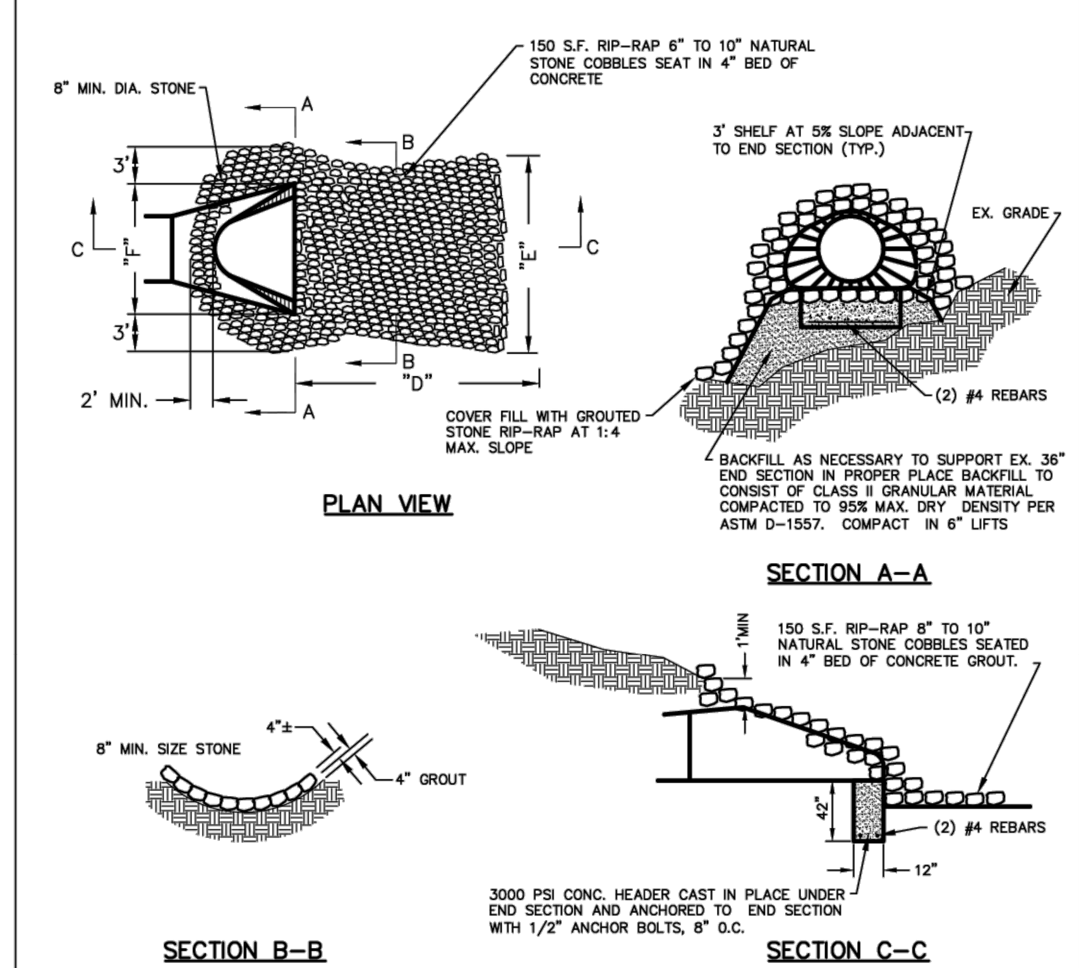
REAR YARD INLET SILT FENCE BARRIER



SILTSACK SEDIMENT FILTER DETAIL



INLET FILTER DETAILS FOR SOIL EROSION & SEDIMENTATION CONTROL



PIPE ø	"D"	"E"	"F"	SYD
12"	5'-0"	6'-6"	3'-0"	3.7
15"	5'-0"	7'-0"	3'-0"	4.1
18"	5'-0"	7'-6"	3'-6"	4.3
21"	5'-6"	8'-0"	4'-0"	5.4
24"	6'-0"	8'-6"	4'-6"	6.3
27"	6'-6"	9'-0"	5'-0"	7.3
30"	7'-0"	9'-9"	5'-6"	8.4
36"	8'-0"	10'-9"	6'-0"	10.3
42"	9'-0"	11'-9"	6'-6"	12.0
48"	10'-0"	13'-0"	7'-0"	14.2
54"	11'-0"	13'-6"	7'-6"	15.9
60"	12'-0"	14'-0"	8'-0"	17.6

STORM OUTLET DETAIL WITH GROUTED STONE RIP-RAP

SOIL EROSION AND SEDIMENTATION CONTROL MAINTENANCE SCHEDULE AND NOTES:

1. ALL MUD, DIRT, AND/OR DEBRIS TRACKED OR SPILLED ONTO ANY PAVED AREAS SHALL BE REMOVED/CLEANED DAILY IN A PROMPT MANNER BY THE CONTRACTOR AND/OR BUILDER. SCRAPING AND/OR SWEEPING OF PAVED AREAS TO REMOVE DEBRIS WILL BE REQUIRED WEEKLY.
2. SILT FENCE MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY BUILT-UP SEDIMENT WHEN THE HEIGHT OF THE SEDIMENT ACCUMULATES TO ⅓ TO ½ OF THE HEIGHT OF THE FENCE OR IF THE FABRIC BEGINS TO SAG. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL, REPLACEMENT, RETRENCHING AND BACKFILLING OF THE SILT FENCE SHOULD IT FALL OR BE DAMAGED DURING CONSTRUCTION.
3. SILT SACK MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY ACCUMULATED SEDIMENTATION OR OTHER DEBRIS FROM THE SILT SACK. THE REMOVAL OF SEDIMENTATION SHOULD BE ACCOMPLISHED BY USING A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IF SILT SACKS CANNOT BE CLEANED, OR ARE DAMAGED, THEY MUST BE REPLACED ACCORDING TO THE PLANS.
4. PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR FINAL EARTH CHANGES HAVE BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED, OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASED, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED WITHIN 5 CALENDAR DAYS. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND /OR ESTABLISHED. ALL PERMANENT SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED. ALL DRAIN BANKS DISTURBED BY CONSTRUCTION SHALL BE RESTORED WITHIN 5 CALENDAR DAYS AND SOD PEGGED IN PLACE.
5. FILTER BARRIERS AND LOW POINT INLET FILTERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
6. IF ANY FILTER FABRIC DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, AND THE BARRIER IS STILL REQUIRED, THE FABRIC SHALL BE REPLACED PROMPTLY. FILTER FENCING WHICH SAGS, FALLS OVER OR IS NOT STAKED IN, SHOULD PROMPTLY REPAIRED OR REPLACED.
7. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.
8. ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES BOTH PERMANENT AND TEMPORARY SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER, UNLESS OTHERWISE NOTED. THESE MAINTENANCE RESPONSIBILITIES SHALL BE PART OF ANY FUTURE SALES AGREEMENT.
9. EXCAVATED MATERIALS SHALL REMAIN ON-SITE. PARTICULAR CARE SHOULD BE TAKEN WHEN WORKING ALONG THE PERIMETER OF THE SITE. IN NO EVENT SHALL THE WORK AREA EXTEND BEYOND THE LIMITS INDICATED ON THE PLANS.
10. ALL SOIL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF WAYNE COUNTY AND THE CITY OF LIVONIA.
11. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR TO DETERMINE EFFECTIVENESS OF THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
12. EROSION AND/OR SEDIMENT FROM ON-SITE WORK SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS, OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES, AND PONDS.
13. SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO, OR AS THE FIRST STEP IN CONSTRUCTION. SESC PRACTICES SHALL BE APPLIED AS A PERIMETER DEFENSE AGAINST THE TRANSPORTING OF SILT OFF-SITE.
14. THE CONTRACTOR SHALL APPLY TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED, AND AS DIRECTED ON THESE PLANS. TEMPORARY MEASURES SHALL BE REMOVED AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER EARTH CHANGES HAVE BEEN ACCOMPLISHED AND APPROVED BY THE CITY OF LIVONIA ENGINEERING DIVISION.
15. DEBRIS FROM THE PROJECT SITE SHALL BE LEFT ON-SITE BY DELIVERY OR CONSTRUCTION VEHICLES THROUGH THE USE OF CLEAN STONE EXIT(S). SHOULD THE STONE BECOME LESS EFFECTIVE AND/OR EFFICIENT IT SHALL BE REPLACED. ALL CONSTRUCTION TRAFFIC MUST USE THE CLEAN STONE EXIT(S).
16. DUST CONTROL SHALL BE EXERCISED AT ALL TIMES WITHIN THE PROJECT BY THE DEVELOPER AND/OR HIS CONTRACTORS, SPRINKLING TANK TRUCKS MUST BE AVAILABLE AT ALL TIMES TO BE USED ON HAUL ROUTES OR OTHER PLACES WHERE DUST MAY BECOME A PROBLEM.
17. EARTH EMBANKMENT BRIDGES PLACED OVER NEW PAVEMENT SHALL BE LOCATED ONLY AT PAVEMENT HIGH-POINTS AND SHALL HAVE STRAW BALES PLACED ALONG EACH SIDE OF THE BRIDGE FOR THE WIDTH OF PAVEMENT.
18. IMMEDIATELY AFTER SEEDING, ALL SEEDED AREAS SHALL BE MULCHED WITH UNWEATHERED SMALL GRAIN STRAW OR HAY, SPREAD UNIFORMLY AT THE RATE OF 1½ TONS TO 2 TONS PER ACRE OR 100 POUNDS PER 1000 SQUARE FEET. ANCHOR MULCH WITH DISC-TYPE ANCHORING TOOL OR OTHER MEANS APPROVED BY THE CITY OF LIVONIA ENGINEERING DIVISION.

CITY OF LIVONIA

Department of Public Works, Engineering Division
33000 Civic Center Drive
Livonia, Michigan 48154
(734) 466-2570, (734) 466-2195 Fax

SOIL EROSION & SEDIMENTATION CONTROL
Standard Detail Sheet

1

DATE: 1/23/2003 | SHEET 1 OF 1 | CADD: dl

JOB No. | REVISIONS: Landowner Responsibility Note | REV. DATE 5/2004

SOIL EROSION SEQUENCE OF CONSTRUCTION

1. INSTALL SILT FENCE, MUD MAT AND INLET FILTERS ON EXISTING CATCH BASINS. ESTIMATED DATE: 06/2025
2. DEMOLISH THE SITE PER THE PLANS. ESTIMATED DATE: 06/2025 THRU 09/2025
3. CONSTRUCT SITE FEATURES PER THE PLANS. ESTIMATED DATE: 06/2025 to 09/2025
4. STABILIZE DISTURBED AREAS AS NOTED ON THE PLANS WITHIN 5 DAYS OF FINAL GRADING. ESTIMATED DATE: 09/2025
5. RESTORE ALL OFF-SITE AREAS TO PRE-CONSTRUCTION CONDITION FOLLOWING SITE CONSTRUCTION.
6. CLEAN PAVEMENT AND SEWERS AS NECESSARY (SCRAPE DAILY, SWEEP MIN. 1 PER WEEK). A CERTIFIED STORM WATER OPERATOR SHALL INSPECT ALL SESC MEASURES ON A WEEKLY BASIS AND AFTER SIGNIFICANT RAIN EVENTS TO ENSURE THE SESC MEASURES ARE ADEQUATE.
7. REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS FOLLOWING SITE CONSTRUCTION, FINAL STABILIZATION OF WORK, AND FINAL INSPECTION. ESTIMATED DATE: 09/2025

MAINTENANCE NOTES

THE CONTRACTOR SHALL INSPECT SOIL EROSION AND SEDIMENTATION CONTROL DEVICES WEEKLY AND WITHIN 24 HOURS OF A SIGNIFICANT RAIN EVENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SOIL EROSION AND SEDIMENTATION CONTROL DEVICES.

MAINTENANCE INCLUDES ALL WORK NECESSARY FOR PROPER OPERATION OF THE DEVICES. DEVICES WHICH CAN NOT BE REPAIRED SHALL BE REPLACED. MAINTENANCE OF THE DEVICES SHALL BE PERFORMED WITHIN 24 HOURS OF INSPECTION.

SEDIMENT SHALL BE REMOVED AS NECESSARY TO MAINTAIN THE EFFECTIVENESS OF SOIL EROSION AND SEDIMENTATION CONTROL DEVICES.

SEDIMENT DEPOSITED ALONG SILT FENCE SHALL BE REMOVED WHEN IT REACHES 1/3 TO 1/2 THE HEIGHT OF THE FENCE AND PRIOR TO REMOVAL AT THE END OF THE PROJECT OR TIME OF FINAL REMOVAL.

TURF ESTABLISHMENT MEASURES SHALL BE MAINTAINED AS WOULD ANY OTHER DEVICES PRIOR TO ESTABLISHMENT OF PERMANENT TURF.

ALL MUD, DIRT AND DEBRIS TRACKED ONTO EXISTING ROADS FROM THIS SITE SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.

TEMPORARY FACILITIES

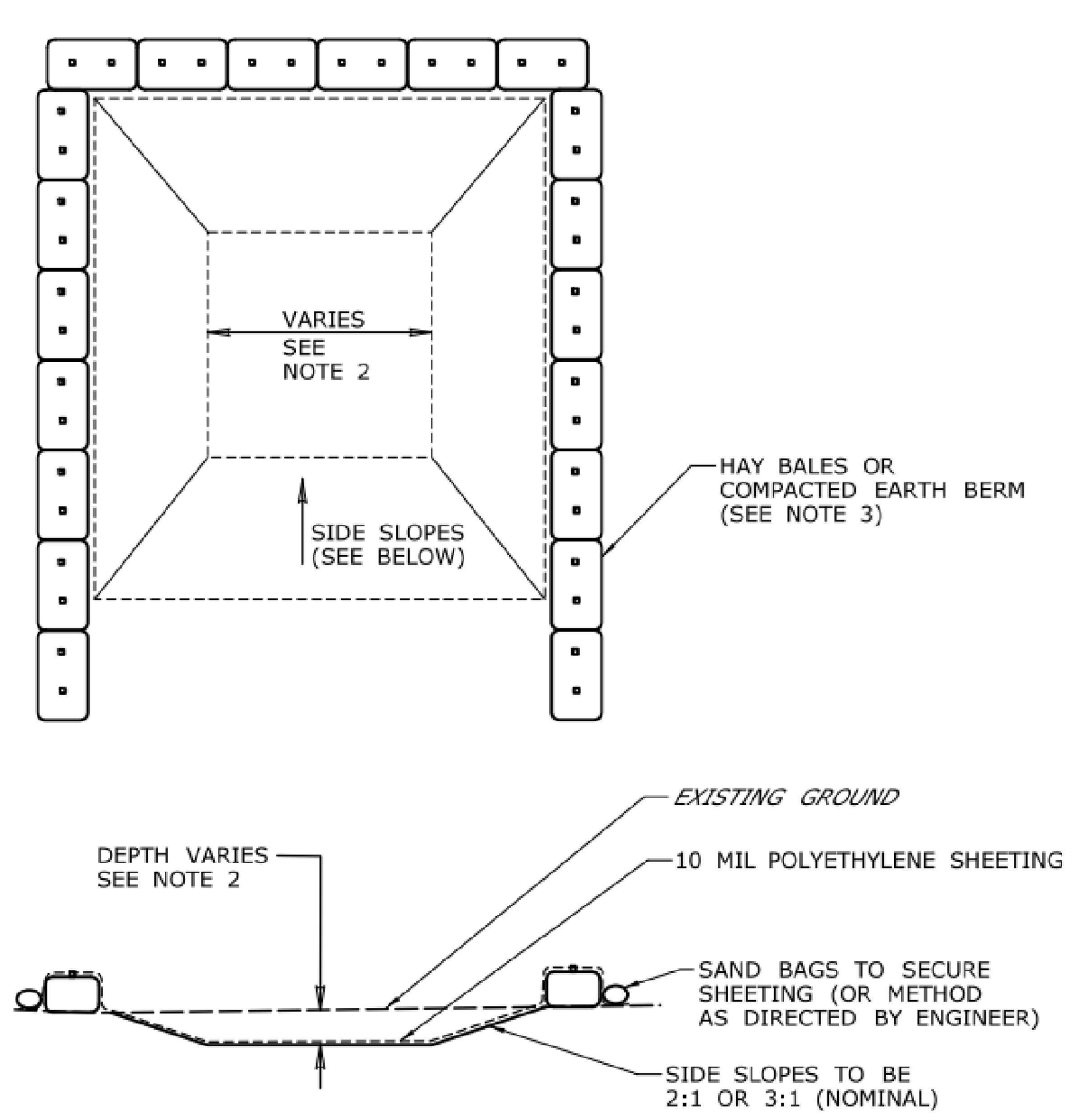
THE CONTRACTOR SHALL CONSTRUCT THIS PROJECT IN COMPLIANCE WITH PART 91 OF ACT NO. 451 OF 1994, OF THE MICHIGAN COMPILED LAWS ENTITLED "SOIL EROSION AND SEDIMENTATION CONTROL" UNDER THE CONTROL OF THE LOCAL PERMIT AGENCY CHARGED WITH ADMINISTERING THE PROVISIONS OF THIS ACT. THE CONTRACTOR SHALL FOLLOW THE PROCEDURES DELINEATED BELOW AND IN THE PROJECT SPECIFICATIONS AND CONSTRUCT AND MAINTAIN THE FACILITIES SHOWN ON THE DRAWINGS TO CONTROL WATER AND WIND EROSION DURING CONSTRUCTION OF THIS PROJECT.

ALL DISTURBED SURFACE AREA (INCLUDING UTILITY TRENCHES) SHALL BE TEMPORARILY GRADED AND/OR DITCHED TO DIRECT ALL WATER RUNOFF FROM SUCH AREAS TO SEDIMENTATION CONTROL DEVICES WHICH WILL PREVENT WATER CARRYING ERODED SOIL FROM ENTERING A WATERCOURSE, SEWER, ADJACENT LANDS, AND ROADWAYS. SUCH SEDIMENTATION CONTROL DEVICES SHALL INCLUDE, BUT NOT BE LIMITED TO, PROTECTIVE DITCHES, SEDIMENT TRAPS, SEDIMENT FILTERS, DITCH TRAPS, PIPE BARRIERS, AND FILTERS AS DETAILED AND REQUIRED AND WHERE INDICATED ON THE DRAWINGS. AFTER THE PROJECT WORK HAS BEEN COMPLETED, INSPECTED, AND APPROVED, THE CONTRACTOR SHALL REMOVE ALL SEDIMENTATION CONTROL DEVICES, MATERIAL, AND THEIR COLLECTED SILT AND DEBRIS AND RESTORE THE AREA IN ACCORDANCE WITH THE DRAWINGS.

TEMPORARY AGGREGATE SURFACING SHALL BE PLACED IN ROADWAY AREAS IMMEDIATELY AFTER THE BACKFILLING OPERATION HAS BEEN COMPLETED. POSITIVE DUST CONTROL MEASURES SHALL BE TAKEN AT ALL TIMES.

PERMANENT STABILIZATION SHALL BE COMPLETED WITHIN 5 DAYS OF FINAL EARTH CHANGE. FINAL CLEANUP AND RESTORATION WILL CONSIST OF FINAL GRADING, TOPSOILING, SEEDING AND MULCHING AND/OR SODDING OF ALL DISTURBED AREAS OF THE PROJECT.

IF SEASONAL CONDITIONS PREVENT FINAL CLEANING AND RESTORATION, THE CONTRACTOR SHALL PROCEED WITH TEMPORARY STABILIZATION OF THE DISTURBED AREA. TEMPORARY STABILIZATION SHALL CONSIST OF ROUGH GRADING THE DISTURBED AREA IN ACCORDANCE WITH THESE SPECIFICATIONS AND INSTALLING THE SPECIFIED SOIL EROSION AND SEDIMENTATION CONTROL DEVICES. TEMPORARY STABILIZATION MATERIALS SHALL BE REMOVED AND DISPOSED OF AND FINAL CLEANUP AND RESTORATION SHALL BE COMPLETED NOT LATER THAN 5 DAYS AFTER SEASONAL CONDITIONS ALLOW PERFORMANCE OF THE REQUIRED WORK.



CONCRETE WASHOUT AREA

NOT TO SCALE
(SEE NOTE 2)

CONCRETE WASHOUT AREA NOTES:

1. CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. THE CONCRETE WASHOUT AREA SHALL BE ENTIRELY SELF-CONTAINED.
2. THE CONTRACTOR SHALL SUBMIT THE DESIGN, LOCATION AND SIZING OF THE CONCRETE WASHOUT AREA(S) WITH THE PROJECT'S EROSION AND SEDIMENTATION CONTROL PLAN AND SHALL BE APPROVED BY THE ENGINEER.
3. SURFACE DISCHARGE IS UNACCEPTABLE. THEREFORE, HAY BALES OR OTHER CONTROL MEASURES, AS APPROVED BY THE ENGINEER, SHOULD BE USED AROUND THE PERIMETER OF THE CONCRETE WASHOUT AREA FOR CONTAINMENT.
4. LOCATION: WASHOUT AREA(S) ARE TO BE LOCATED AT LEAST 50 FEET FROM ANY STREAM, WETLAND, STORM DRAINS, OR OTHER SENSITIVE R3ECOURCE. THE CONCRETE WASHOUT SHALL NOT BE LOCATED WITHIN FLOODPLAIN.
5. SIGNS SHOULD BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CONCRETE AREA(S) AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE WASHOUT TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS. WASHOUT AREA(S) SHOULD BE FLAGGED WITH SAFETY FENCING OR OTHER APPROVED METHOD, AS NECESSARY.
6. WASHOUT AREA(S) ARE TO BE INSPECTED AT LEAST ONCE A WEEK FOR STRUCTURAL INTEGRITY, ADEQUATE HOLDING CAPACITY AND CHECKED FOR LEAKS, TEARS, OR OVERFLOWS. (AS REQUIRED BY THE CONSTRUCTION SITE ENVIRONMENTAL INSPECTION REPORT) WASHOUT AREA(S) SHOULD BE CHECKED AFTER HEAVY RAINS.
7. HARDENED CONCRETE WASTE SHOULD BE REMOVED AND DISPOSED OF WHEN THE WASTE HAS ACCUMULATED TO HALF OF THE CONCRETE WASHOUT'S HEIGHT. THE WASTE CAN BE STORED AT AN UPLAND LOCATION, AS APPROVED BY THE ENGINEER. ALL CONCRETE WASTE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH ALL APPLICABLE LAWS, REGULATIONS, AND GUIDELINES.
8. PAYMENT FOR THIS ITEM IS TO BE INCLUDED UNDER THE GENERAL COST OF THE WORK FOR THE PROJECT, INCLUDING SITE RESTORATION.
9. CONCRETE WASHOUT AREA(S) ARE TO BE REMOVED UPON COMPLETION OF THE JOB AND THE AREA RESTORED TO PREVIOUS SITE CONDITIONS, IN-KIND.

BULLETIN NO. 1

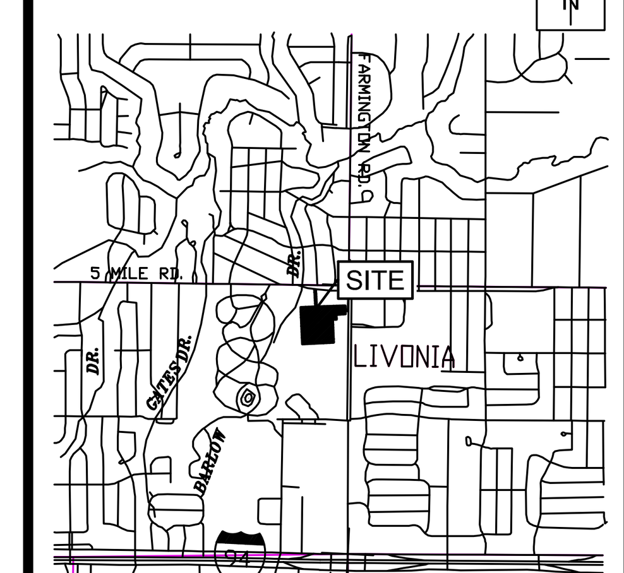
BID

NTH Consultants, Ltd.
Infrastructure Engineering
Environmental Services
Facilities Engineering
www.nthconsultants.com
Northville, MI | Lansing, MI
Detroit, MI | Grand Rapids, MI
Livonia, MI (Laboratory)

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171

SEAL/STAMP:

KEY MAP: NORTH ARROW:



REVISION BLOCK

REV	DATE: DESCRIPTION
1	2025-02-13: REVISIONS TO PAVEMENT LIMITS PER PRE-BID WALKTHROUGH COMMENTS

SUBMITTAL LOG

DATE	PACKAGE NAME

PROJECT NAME:
LIVONIA PUBLIC SCHOOLS 2025 PAVING PROGRAM- CENTRAL OFFICE PHASE 2

PROJECT LOCATION:
15125 FARMINGTON ROAD LIVONIA, MICHIGAN 48150

DESIGNED BY: KBH	NTH PROJECT NO.: 23001951
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: DRL	DATE: 2/13/2025
CAD FILE NAME:	

SHEET TITLE:
SOIL EROSION AND SEDIMENTATION CONTROL STANDARD DETAILS

SHEET NUMBER:
C-104

J:\2023\23001951\production sets\lps pavement phase 2\central office\23001951-02-sesc.dwg Plotted: 2/13/2025 3:09 PM by Keira Houston

N

0 20' 40' 80'
SCALE

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING
- 580 EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING GUARDRAIL
- EXISTING BOLLARD POST
- OHE EXISTING ELECTRICAL OVERHEAD
- EXISTING LIGHT POLE
- EXISTING STORM CATCH BASIN
- EXISTING STORM MANHOLE
- EXISTING SANITARY STRUCTURE
- EXISTING UNKNOWN UTILITY MANHOLE
- EXISTING HYDRANT
- 580 PROPOSED CONTOURS
- 1.0% PROPOSED SLOPE ARROW
- 100.00 PROPOSED SPOT ELEVATION
- EX:100.00 EXISTING SPOT ELEVATION
- EX. RIM:100.00 EXISTING RIM SPOT ELEVATION
- PROPOSED ASPHALT PAVEMENT (STANDARD-DUTY)
- PROPOSED ASPHALT PAVEMENT (HEAVY-DUTY)
- PROPOSED CONCRETE PAVEMENT
- PROPOSED TRAFFIC STRIPING
- MATCHLINE

DEMOLITION NOTES

1. LANDSCAPING SHALL NOT BE REMOVED UNLESS SPECIFIED ON PLANS. CONTRACTOR SHALL PROTECT AS NECESSARY DURING DURATION OF CONSTRUCTION.
2. LOCATION OF UTILITIES OR OTHER STRUCTURES SHOWN ON PLANS ARE TAKEN FROM SURVEY OF RECORD. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY OMISSIONS OR VARIATIONS. THE CONTRACTOR SHALL CONTACT MISS DIG A MINIMUM OF THREE WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION IN THE AREA OF WORK AND SHALL VERIFY ALL UNDERGROUND UTILITIES ON -SITE, PRIOR TO CONSTRUCTION.
3. UTILITIES AND ASSOCIATED STRUCTURES SHALL NOT BE REMOVED UNLESS SPECIFIED ON PLANS. CONTRACTOR SHALL FIELD VERIFY AND PROTECT ALL EXISTING UTILITY STRUCTURES AN SEWERAGE DURING THE DURATION OF CONSTRUCTION. PROVIDE FOR TEMPORARY BYPASS OF SEWERAGE AS REQUIRED TO FACILITATE CONSTRUCTION.
4. ALL STORM AND SANITARY SEWERAGE AND ASSOCIATED STRUCTURES SHALL BE CLEANED AND OPERABLE PRIOR TO CONSTRUCTION AND AGAIN AFTER CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL PROVIDE A LETTER DETAILING THAT ALL STORM AND SANITARY STRUCTURES AND SEWERS HAVE BEEN CLEANED AND ARE FREE FLOWING.
5. ALL EXISTING ASPHALT TO BE REMOVED SHALL BE MILLED AND TRANSPORTED OFF-SITE TO LOCATIONS SUITABLE FOR PROPER DISPOSAL IN ACCORDANCE WITH ALL APPLICABLE ENVIRONMENTAL REGULATIONS.
6. ALL EXCESS MATERIALS ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS.
7. ALL EXISTING SIGNAGE SHALL BE PROTECTED UNLESS OTHERWISE INDICATED ON PLANS.
8. AT LEAST ONE ENTRY AND EXIT TO PARKING LOTS TO REMAIN OPEN DURING CONSTRUCTION AT ALL TIMES.

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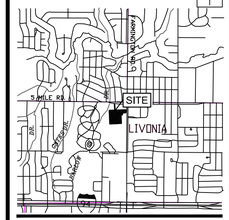
3 WORKING DAYS
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
For free location of public utility lines.
ALTERNATE NUMBER (811)
COLOR CODES FOR UTILITY LOCATING:
Yellow OIL & GAS
Orange PHONE & CATV
Red ELECTRIC
Blue WATER
Green STORM DRAIN
Brown SEWER
Pink SURVEYING
IF YOU ARE GOING TO WORK NEAR OVERHEAD WIRES — CALL MISS DIG

SEAL/STAMP:

KEY MAP: NORTH ARROW:



REVISION BLOCK

REV	DATE: DESCRIPTION
1	2025-02-13: REVISIONS TO PAVEMENT LIMITS PER PRE-BID WALKTHROUGH COMMENTS

SUBMITTAL LOG

DATE	PACKAGE NAME

PROJECT NAME:
LIVONIA PUBLIC SCHOOLS
2025 PAVING PROGRAM-
CENTRAL OFFICE PHASE 2

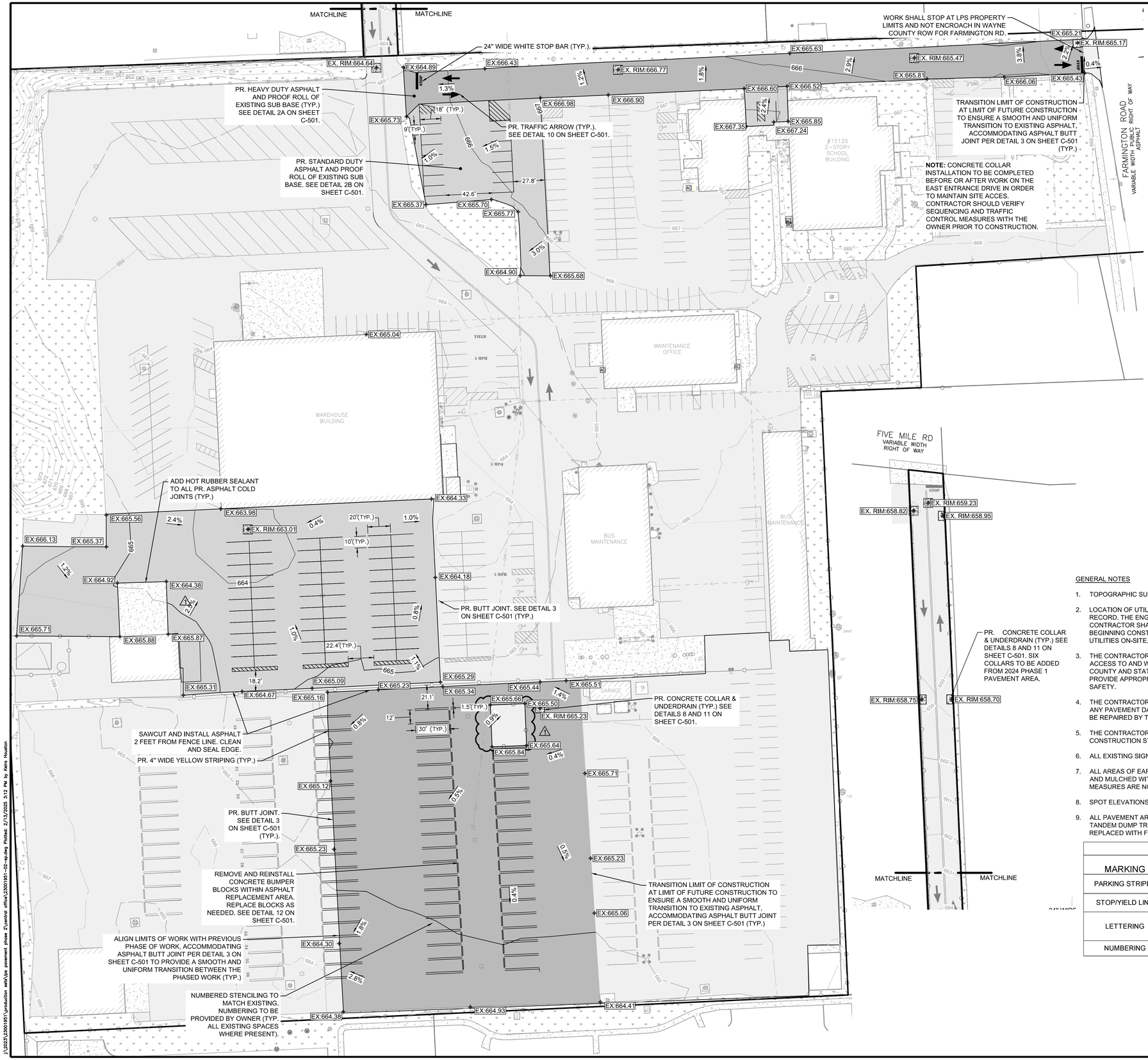
PROJECT LOCATION:
15125 FARMINGTON ROAD
LIVONIA, MICHIGAN 48150

DESIGNED BY: KBH	NTH PROJECT NO.: 23001951
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: DRL	DATE: 2/13/2025
CAD FILE NAME:	

SHEET TITLE:
DEMOLITION PLAN

SHEET NUMBER:
C-105

J:\2023\23001951\production sets\pw pavement phase 2\central office\23001951-02-dem.dwg Plotted: 2/13/2025 3:11 PM by Kara Houston



LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING
- EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING GUARDRAIL
- EXISTING BOLLARD POST
- EXISTING ELECTRICAL OVERHEAD
- EXISTING LIGHT POLE
- EXISTING STORM CATCH BASIN
- EXISTING STORM MANHOLE
- EXISTING SANITARY STRUCTURE
- EXISTING UNKNOWN UTILITY MANHOLE
- EXISTING HYDRANT
- PROPOSED CONTOURS
- PROPOSED SLOPE ARROW
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING RIM SPOT ELEVATION
- PROPOSED ASPHALT PAVEMENT (STANDARD-DUTY)
- PROPOSED ASPHALT PAVEMENT (HEAVY-DUTY)
- PROPOSED CONCRETE PAVEMENT
- PROPOSED TRAFFIC STRIPING
- MATCHLINE

GENERAL NOTES

1. TOPOGRAPHIC SURVEY WAS PERFORMED BY KEM-TEC & ASSOCIATES ON FEBRUARY 26, 2024.
2. LOCATION OF UTILITIES OR OTHER STRUCTURES SHOWN ON PLANS ARE TAKEN FROM SURVEY OF RECORD. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY OMISSIONS OR VARIATIONS. THE CONTRACTOR SHALL CONTACT MISS DIG A MINIMUM OF THREE WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION IN THE AREA OF WORK AND SHALL VERIFY ALL UNDERGROUND UTILITIES ON-SITE, PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE NECESSARY TRAFFIC CONTROL AND SIGNAGE TO MAINTAIN ACCESS TO AND WITHIN PROPERTY THROUGHOUT CONSTRUCTION IN ACCORDANCE WITH LOCAL, COUNTY AND STATE REQUIREMENTS OR AS DIRECTED BY ENGINEER. CONTRACTOR SHALL PROVIDE APPROPRIATE BARRICADES AROUND WORK AREAS FOR PEDESTRIAN AND VEHICULAR SAFETY.
4. THE CONTRACTOR SHALL AVOID DAMAGE TO THE EXISTING PAVEMENTS DESIGNATED TO REMAIN. ANY PAVEMENT DAMAGE THAT OCCURS AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL NECESSARY CONSTRUCTION STAKING AND GRADE AND ALIGNMENT CONTROLS.
6. ALL EXISTING SIGNAGE SHALL BE PROTECTED UNLESS OTHERWISE INDICATED ON PLANS.
7. ALL AREAS OF EARTH DISTURBANCE CAUSED BY CONSTRUCTION ACTIVITIES SHALL BE SEEDED AND MULCHED WITH 3" TOPSOIL AND MDOT CLASS A SEED WHERE FINAL EARTH STABILIZATION MEASURES ARE NOT SPECIFICALLY DESIGNATED. SEE DETAIL 5 ON SHEET C-501.
8. SPOT ELEVATIONS SHOWN ARE TOP OF PAVEMENT UNLESS OTHERWISE INDICATED.
9. ALL PAVEMENT AREAS, EXISTING AND PROPOSED SHALL BE PROOF ROLLED WITH A FULLY LOADED TANDEM DUMP TRUCK PRIOR TO PAVING. ANY UNSTABLE SUBGRADE SHALL BE REMOVED AND REPLACED WITH FILL COMPACTED TO 95% MAXIMUM DRY DENSITY OF MODIFIED PROCTOR.

PAVEMENT MARKING TABLE

MARKING	PAINT SPEC	SIZE	COATS/COLOR
PARKING STRIPES	SECTION 32 1723.13	4"	2/YELLOW
STOP/YIELD LINE		24"	2/WHITE
LETTERING		12" WIDTH X 18" TALL, 4" SPACING BETWEEN NUMBERS	2/YELLOW
NUMBERING		12" WIDTH X 18" TALL	2/YELLOW

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LIVONIA PUBLIC SCHOOLS

SEAL/STAMP:

KEY MAP: NORTH ARROW:

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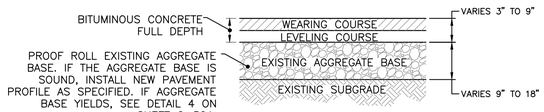
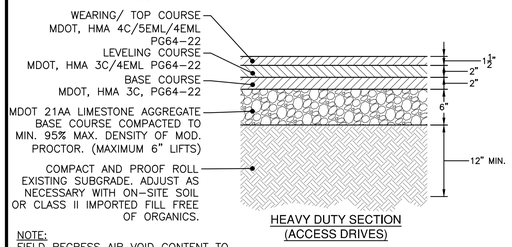
CHECKED BY: DRL	DATE: 2/13/2025
CAD FILE NAME:	

SHEET TITLE:
PROPOSED SITE AND GRADING PLAN

SHEET NUMBER:
C-106



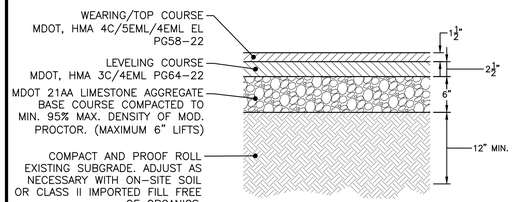
1 FULL DEPTH ASPHALT REMOVAL DETAIL
NOT TO SCALE



HEAVY DUTY SECTION
(ACCESS DRIVES)

NOTE:
FIELD REGRESS AIR VOID CONTENT TO 3.5% FOR TOP AND LEVELING COURSE AND TO 3% FOR BASE COURSE.

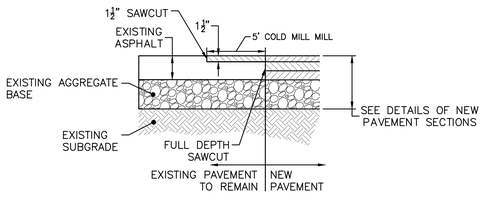
2A HEAVY DUTY ASPHALT PAVEMENT DETAIL
NOT TO SCALE



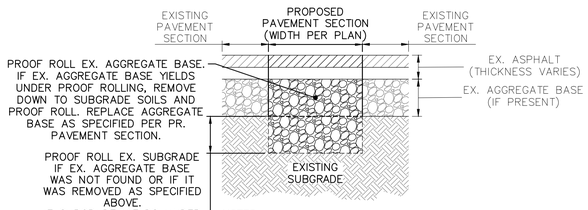
STANDARD DUTY SECTION
(PARKING LOT)

NOTE:
FIELD REGRESS AIR VOID CONTENT TO 3.5% FOR TOP AND LEVELING COURSE AND TO 3% FOR BASE COURSE.

2B ASPHALT PAVEMENT DETAIL
NOT TO SCALE

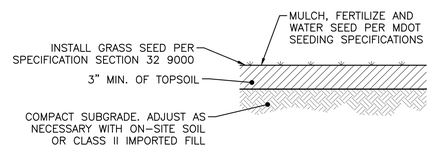


3 BUTT JOINT
NOT TO SCALE

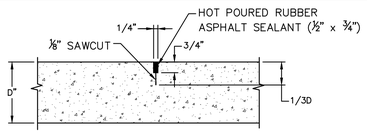


NOTES:
1. COORDINATE ALL UNDERCUTS WITH ENGINEER AND THIRD-PARTY TESTING FIRM.
2. SEE PROPOSED PAVEMENT SECTION DETAILS ON THIS SHEET.

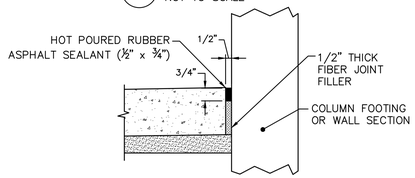
4 UNDERCUT DETAIL
NOT TO SCALE



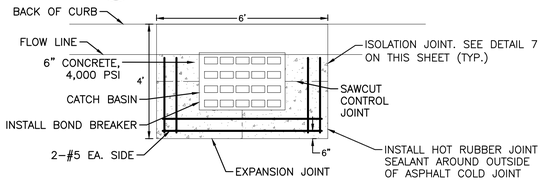
5 LANDSCAPE RESTORATION DETAIL
NOT TO SCALE



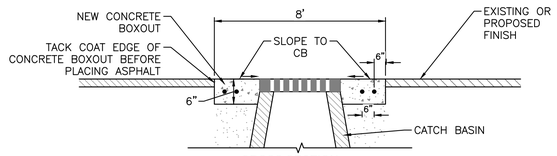
6 SAWCUT CONTROL JOINT
NOT TO SCALE



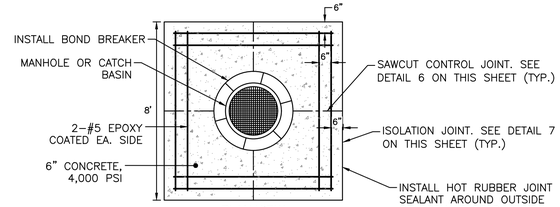
7 ISOLATION JOINT-STRUCTURE
NOT TO SCALE



PLAN VIEW



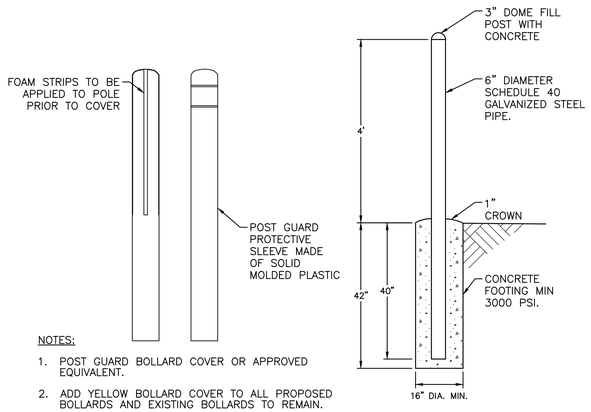
CROSS SECTION



PLAN VIEW

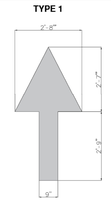
NOTES
1. BOXOUT SHOULD BE CONSTRUCTED PARALLEL TO THE EXISTING TRAFFIC FLOW DIRECTION. ADD UNDERDRAIN IF NONE PRESENT.
2. HOT-POURED SEALANT SHALL BE PLACED AROUND OUTSIDE OF CATCH BASIN/MANHOLE RIM AND EXTENTS OF CONCRETE FOR EX. AND PR. CONCRETE BOXOUTS.

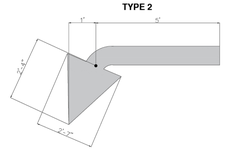
8 CONCRETE BOXOUT
NOT TO SCALE

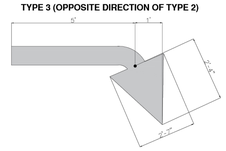


NOTES:
1. POST GUARD BOLLARD COVER OR APPROVED EQUIVALENT.
2. ADD YELLOW BOLLARD COVER TO ALL PROPOSED BOLLARDS AND EXISTING BOLLARDS TO REMAIN.

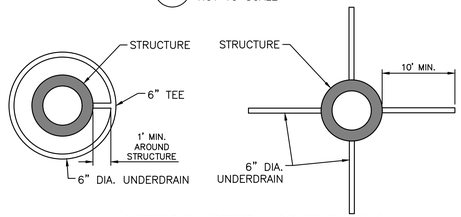
9 BOLLARD AND SLEEVE
NOT TO SCALE



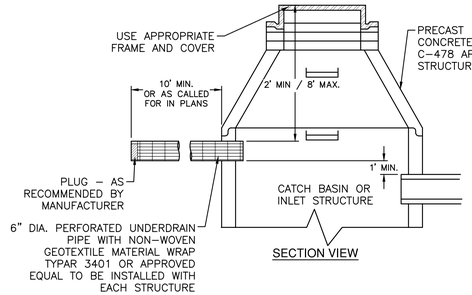




10 ARROW STRIPING DETAIL
NOT TO SCALE



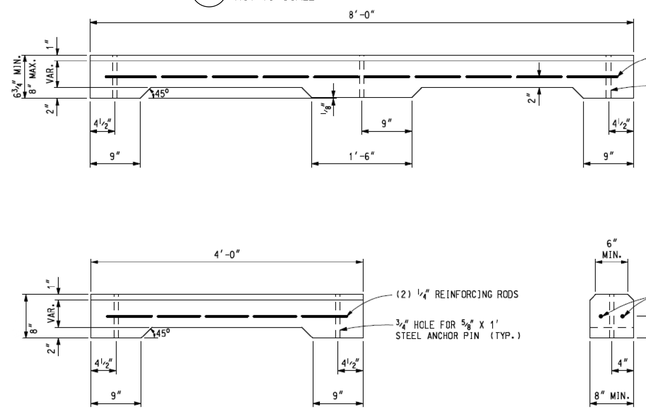
ACCEPTABLE UNDERDRAIN CONFIGURATIONS
PLAN VIEW



SECTION VIEW

NOTE:
UNDERDRAIN BACKFILL SHALL MEET MDOT REQUIREMENTS FOR 34R OPEN GRADED DRAINAGE COURSE AGGREGATES. THIS BACKFILL SHALL EXTEND 4" BELOW PIPE TO LEVEL OF 21AA LIMESTONE, AND FOR FULL WIDTH OF TRENCH.

11 STRUCTURE UNDERDRAIN
NOT TO SCALE



NOTES:
1. DETAIL FROM MDOT ROAD AND BRIDGE STANDARDS R-74-D.
2. CONCRETE PARKING RAIL SHALL BE CONSTRUCTED IN 8'-0" LENGTHS, UNLESS OTHERWISE INDICATED ON THE PLANS.
3. THIS DETAIL INCLUDES ⅝" x 1'-0" STAINLESS STEEL ANCHOR PINS TO FASTEN INTO CONCRETE PAVEMENT. (4" MIN. EMBED; 6" MAX. EMBED)
4. PARKING BARRICADE SHALL BE PAINTED YELLOW.

12 CONCRETE PARKING BARRICADE
NOT TO SCALE

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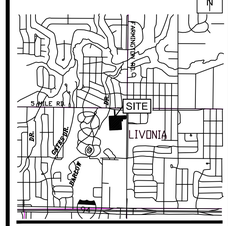
KEY MAP: NORTH ARROW:



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CAD FILE NAME: 23001951-02-DET	

SHEET TITLE:
CIVIL DETAILS

SHEET NUMBER:
C-501

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