

MDOT DETROIT GARAGE STORM SEWER RECONSTRUCTION ENGINEERING CONSTRUCTION PLANS

1500 E. FERRY STREET
DETROIT, MI

DTMB FILE NO. 591 / 22274.MNB
UNIT NO. 3080

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

LIST OF ABBREVIATIONS

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

CONTRACT ADMINISTRATOR:
DTMB
State Facilities Administration
Design and Construction Division
311 W St. Joseph Street
Lansing, Michigan 48917
Contact: Chris Bahjet
Phone: 517-749-7519

OWNER:
MDOT
Dick Gould Detroit
Maintenance Garage
1500 E. Ferry Street
Detroit, Michigan 48211
Contact: Val Woodruff
Phone: 517-204-2809

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

PROJECT DESCRIPTION:
MDOT DETROIT GARAGE STORMWATER IMPROVEMENTS CONSISTS OF:
1. REPLACEMENT OF EXISTING STORM WATER CATCH BASINS, STRUCTURES, AND PIPES
2. REPLACEMENT OF EXISTING DOWNSPOUT CONNECTIONS AROUND THE OFFICE AND MAINTENANCE BUILDING
3. REPLACEMENT OF THE GUTTERS, DOWNSPOUTS, AND CONNECTIONS ON THE COLD STORAGE AND SALT STORAGE BUILDINGS
4. CONSTRUCTION OF PROPOSED DETENTION POND AND FOREBAY
5. INSTALLATION OF PROPOSED STORMWATER LIFT STATION AND CONTROLS
6. REGRADE TO PROMOTE DRAINAGE AWAY FROM THE EAST AND WEST SIDES OF THE COLD STORAGE BUILDING
7. CONSTRUCTION OF A NEW LANDSCAPING BERM ON THE NORTH EAST EDGE OF THE PROPERTY
8. DETENTION POND OUTLET TAP TO EXISTING DWS D SEWER ON E. FERRY STREET.

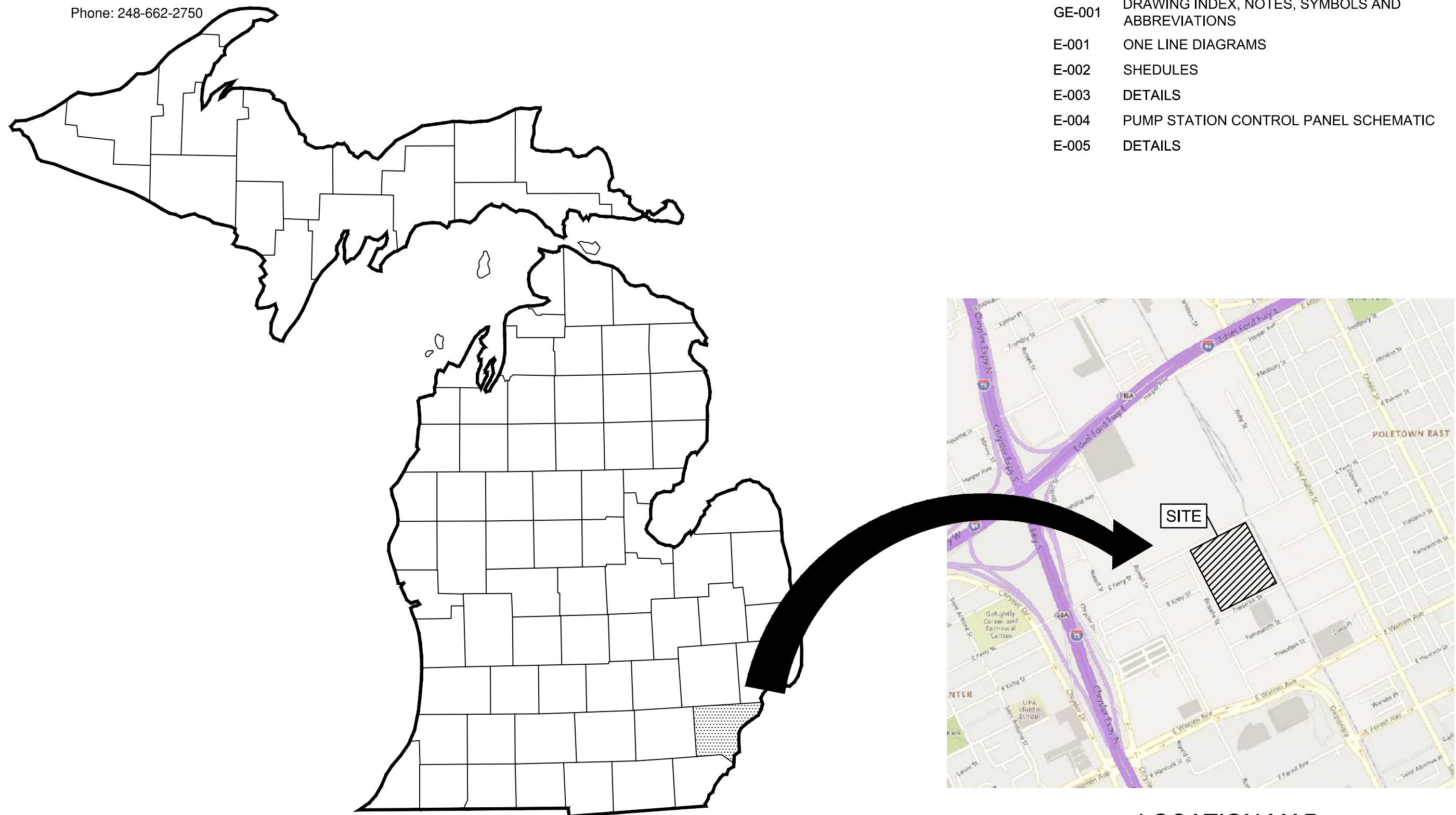
EXISTING ZONING:
M4 INTENSIVE INDUSTRIAL DISTRICT
(SEE CITY OF DETROIT ZONING ORDINANCE SECTION 61-7-4)

SHEET LIST TABLE

C-100	COVER SHEET
C-101	TOPOGRAPHIC SURVEY (1 OF 3)
C-102	TOPOGRAPHIC SURVEY (2 OF 3)
C-103	TOPOGRAPHIC SURVEY (3 OF 3)
C-104	SOIL EROSION & SEDEMENTATION CONTROL PLAN
C-105	SESC NOTES
C-106	DEMOLITION PLAN
C-107	IMPERVIOUS SURFACE CALCULATIONS
C-108	PROPOSED SITE PLAN
C-109	PROPOSED GRADING PLAN
C-110 A	PROPOSED UTILITY PLAN
C-110 B	PROPOSED UTILITY PLAN - ALTERNATE 2
C-111	PROPOSED UTILITY PROFILE (1 OF 2)
C-112	PROPOSED UTILITY PROFILES (2 OF 2)
C-113 A	PROPOSED DOWNSPOUT PLAN
C-113 B	PROPOSED DOWNSPOUT PLAN - ALTERNATE 2
C-114	PROPOSED STORMWATER MANAGEMENT PLAN
C-501	CIVIL DETAILS (SHEET 1 OF 6)
C-502	CIVIL DETAILS (SHEET 2 OF 6)
C-503	CIVIL DETAILS (SHEET 3 OF 6)
C-504	CIVIL DETAILS (SHEET 4 OF 6)
C-505	CIVIL DETAILS (SHEET 5 OF 6)
C-506	CIVIL DETAILS (SHEET 6 OF 6)
C-507	ROOFING DETAILS - ALTERNATE 2
GE-001	DRAWING INDEX, NOTES, SYMBOLS AND ABBREVIATIONS
E-001	ONE LINE DIAGRAMS
E-002	SCHEDULES
E-003	DETAILS
E-004	PUMP STATION CONTROL PANEL SCHEMATIC
E-005	DETAILS

DRAWING INDEX, NOTES, SYMBOLS AND ABBREVIATIONS

GP-001	DRAWING INDEX, NOTES, SYMBOLS AND ABBREVIATIONS
P-001	PLUMBING SITE PLAN
P-002	SCHEULDE AND DETAILS
SHEET LIST - ALTERNATE 1	
R-100	TYPICAL DEFECT PHOTOS
R-102	GENERAL NOTES
R-103	EXTERIOR ELEVATIONS DEFECT LOCATIONS (1 OF 3)
R-104	EXTERIOR ELEVATIONS DEFECT LOCATIONS (2 OF 3)
R-105	EXTERIOR ELEVATIONS DEFECT LOCATIONS (3 OF 3)
R-106	INTERIOR ELEVATIONS DEFECT LOCATIONS (1 OF 2)
R-107	INTERIOR ELEVATIONS DEFECT LOCATIONS (2 OF 2)
R-108	REPAIR DETAILS
R-109	REPAIR DETAILS



MICHIGAN
APPROX SCALE 1"= 50 MILES

LOCATION MAP
1"=100'

BID

DTMB FILE NO. 591 22274.MNB

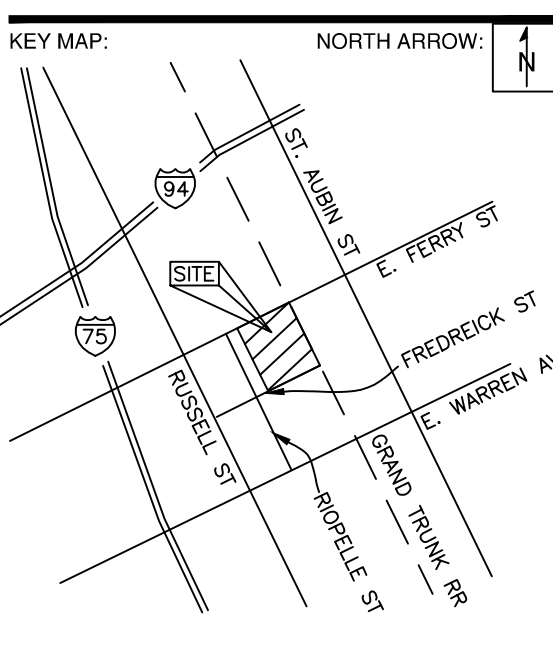
STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

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3 WORKING DAYS
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
For the location of public utility lines.
ALTERNATE NUMBER (811)
COLOR CODES FOR UTILITY LOCATING:
Yellow: Gas
Orange: Electric
Blue: Sewer
Green: Storm Drain
Red: Water
Purple: Unknown
If you are going to work near overhead wires - CALL MISS DIG

MDOT
Michigan Department of Transportation

SEAL/STAMP:



REVISION BLOCK

REV	DATE	DESCRIPTION

SUBMITTAL LOG

DATE	PACKAGE NAME
2023-12-19	75% DRAWINGS
2024-03-06	90% DRAWINGS
2025-01-31	ISSUED FOR BID

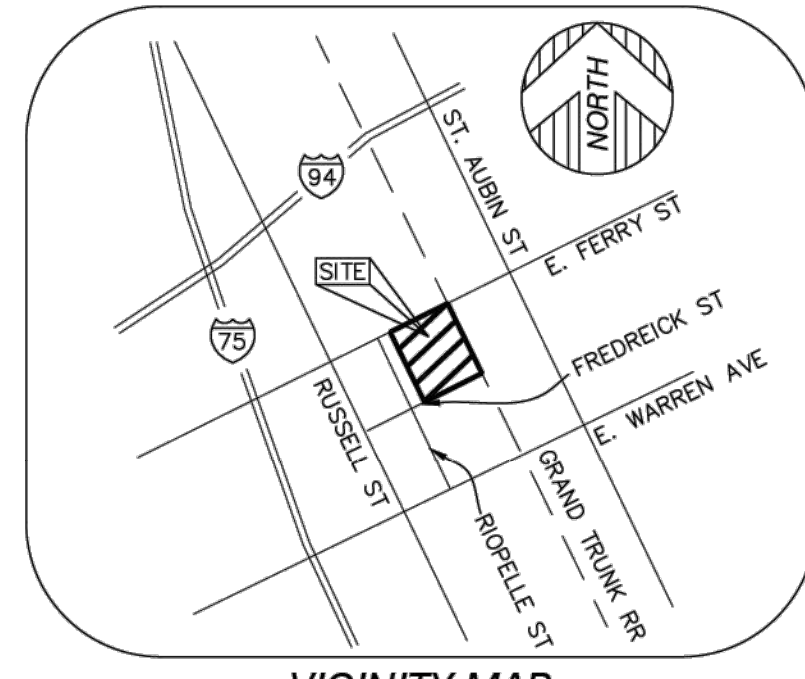
PROJECT NAME:
**MDOT DETROIT GARAGE
STORM SEWER
RECONSTRUCTION**

PROJECT LOCATION:
**1500 E. FERRY STREET
DETROIT, MICHIGAN**

DESIGNED BY:	NTH PROJECT NO.:
KBH	23001451
DRAWN BY:	SHEET SIZE:
KBH	ARCH D (24"x36")
CHECKED BY:	DATE:
SLG, DRL	1/31/2025
CAD FILE NAME:	
23001451-COVER	

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
C-100



VICINITY MAP
(NOT TO SCALE)

BENCHMARK

SITE BENCHMARK #1
CHISELED SQUARE NW SIDE OF CONCRETE BASE OF LIGHT POLE, 15± NORTH OF NW OFFICE BLDG CORNER.
ELEVATION = 636.74' (NAVD 88)

SITE BENCHMARK #2
CHISELED SQUARE SE SIDE OF CONCRETE BASE OF LIGHT POLE, 32± SOUTH OF SE BLDG CORNER.
ELEVATION = 637.83' (NAVD 88)

CONTROL

HORIZONTAL CONTROL #1
IRON ROD WITH CAP, SW CORNER OF SITE.
N=318112.246 E=13479147.934 ELEVATION = 634.36' (NAVD 88)

HORIZONTAL CONTROL #2
MAG NAIL, SE CORNER OF SITE.
N=318357.577 E=13479584.066 ELEVATION = 633.60' (NAVD 88)

HORIZONTAL CONTROL #3
IRON ROD WITH CAP, NW CORNER OF SITE.
N=318602.204 E=13478853.645 ELEVATION = 634.18' (NAVD 88)

LEGEND

X 0.00	GROUND ELEVATION
⊕	ELECTRIC MANHOLE
⊞	ELECTRIC PANEL
⊠	TRANSFORMER
○	UTILITY POLE
■	KEY PAD
⊞	GAS METER
⊞	GAS VALVE
⊞	RAIL ROAD CROSSING SIGNAL
⊞	TRAFFIC SIGNAL
⊞	CLEANOUT
⊞	SEWER MANHOLE
⊞	ROUND CATCH BASIN
⊞	SQUARE CATCH BASIN
⊞	DRAIN
⊞	DOWNSPOUT
⊞	STORM DRAIN MANHOLE
⊞	FIRE HYDRANT
⊞	FIRE DEPARTMENT CONNECTION
⊞	WATER GATE MANHOLE
⊞	WATER VALVE
⊞	AIR CONDITIONING UNIT
⊞	BOLLARD
⊞	LIGHTPOST/LAMP POST
⊞	SINGLE POST SIGN
⊞	DOUBLE POST SIGN
⊞	PLATTED LOT LINE
⊞	BUILDING
⊞	BUILDING OVERHANG
⊞	ASPHALT CURB
⊞	CONCRETE CURB
⊞	RAISED CONCRETE
⊞	EDGE OF CONCRETE (CONC.)
⊞	EDGE OF ASPHALT (ASPH.)
⊞	EDGE OF BRICK
⊞	R/R TRACK
⊞	FENCE (AS NOTED)
⊞	WALL (AS NOTED)
⊞	OVERHEAD UTILITY LINE
E	ELECTRIC LINE
C	UNDERGROUND CABLE
G	GAS LINE
S	SEWER LINE
W	WATER LINE
⊞	MINOR CONTOUR LINE
⊞	MAJOR CONTOUR LINE
■	BUILDING AREA
■	ASPHALT
■	CONCRETE

MANHOLE SCHEDULE

NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)
50082	CATCH BASIN	634.06	8	SE	632.41
50215	SUMP	632.85	4	SSW	632.10
50249	CATCH BASIN	634.04	6	SSE	630.94
		634.04	6	SSE	632.44
		634.04		T/WATER	631.34
		634.04		B/STRUCTURE	627.64
55204	CATCH BASIN	632.12		FULL OF DIRT	
55220	CATCH BASIN	631.35		FULL OF DEBRIS	
55229	CATCH BASIN	631.29		NO VISIBLE PIPES	
55256	CATCH BASIN	631.50		FULL OF DEBRIS	
55260	CATCH BASIN	631.77		FULL OF DEBRIS	
55381	CATCH BASIN	631.88	8	W	628.18
55382	CATCH BASIN	631.95	8	E	628.15
55387	CATCH BASIN	631.78	12	NW	627.68
55388	SEWER MANHOLE	632.25	12	E	625.50
		632.25	12	W	625.45
55510	SEWER MANHOLE	630.92	12	E	623.57
		630.92	12	S	623.67
55560	CATCH BASIN	630.90		FULL OF DEBRIS	
55561	CATCH BASIN	630.91	12	E	624.21
		630.91	12	S	624.16
		630.91	12	W	624.21
55563	CATCH BASIN	631.15		FULL OF DEBRIS	
55564	SEWER MANHOLE	631.78	10	SE	622.98
		631.78	10	SW	622.96
55566	CATCH BASIN	631.22		NO VISIBLE PIPES	
55570	CATCH BASIN	631.32		NO VISIBLE PIPES	
55574	SEWER MANHOLE	631.30		E	625.15
		631.30		W	624.96
55590	CATCH BASIN	630.42		FULL OF WATER	
55591	CATCH BASIN	629.06		COLLAPSED	
70000	SEWER MANHOLE	634.12	8	SE	626.62
		634.12	8	NW	625.59
70001	SEWER MANHOLE	634.52	8	NE	624.54
		634.52	8	SE	624.52
		634.52	8	SW	624.42
70084	SEWER MANHOLE	633.74	8	N	629.74
		633.74	8	NW	627.54
		633.74	8	NE	627.64
70170	CATCH BASIN	632.53	8	NE	629.93
		632.53	8	SW	629.28
		632.53	6	NW	629.65
70249	CATCH BASIN	635.55	4	NW	633.75
		635.55	4	SE	633.75
		635.55	2	SW	634.40
		635.55	6	NE	632.70
70360	CATCH BASIN	634.16	8	SE	629.51
		634.16	8	SW	630.26
		634.16	8	NW	628.71
70430	CATCH BASIN	635.50		T/WATER	633.50
70448	CATCH BASIN	635.45		T/WATER	633.20
70541	SEWER MANHOLE	632.21	8	NE	624.33
		632.21	4	S	625.97
70580	CATCH BASIN	634.15	8	SE	625.68
		634.15	8	SW	624.75
70858	SEWER MANHOLE	634.84		T/WATER	628.94

PROPERTY DESCRIPTION

THE LAND SITUATED IN THE CITY OF DETROIT, COUNTY OF WAYNE, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:

WEST DEQUINDRE ALL THAT PART OF LOTS 1 & 2 OF THE SUBDIVISION OF THE REAR OF THE ANTOINE DEQUINDRE FARM LYING WEST & ADJACENT TO DEQUINDRE STREET BETWEEN FERRY & FREDERICK AVENUES L15 P348-9 CITY RECORDS, WAYNE COUNTY RECORDS

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.

FLOOD NOTE

SUBJECT PARCEL LIES WITHIN:

OTHER AREA (ZONE X): AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

AS SHOWN ON FLOOD INSURANCE RATE MAP: MAP NUMBER 26163C0285F, DATED 10/21/2021, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

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.

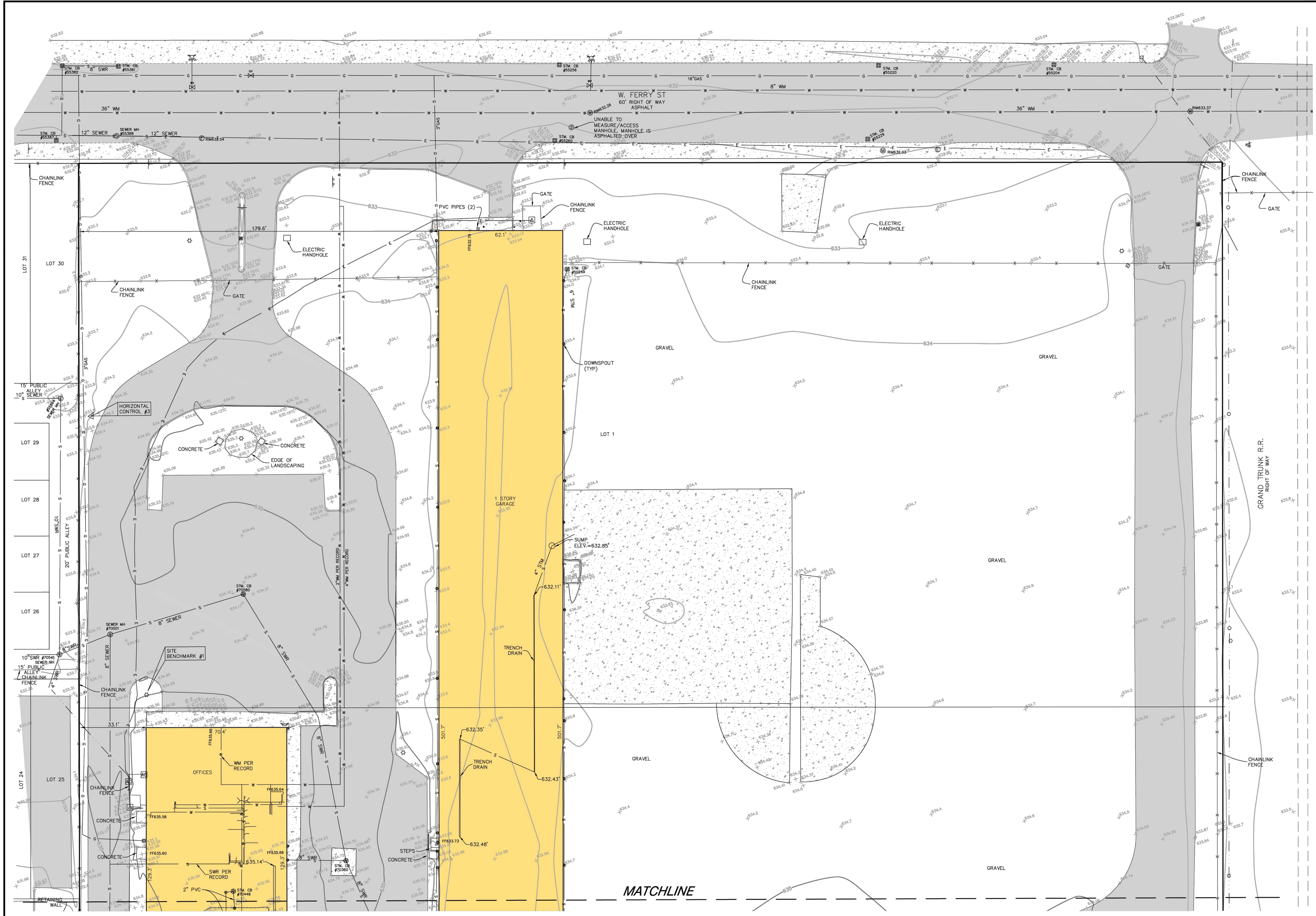
Anthony T. Sycko, Jr.
ANTHONY T. SYCKO, JR.
PROFESSIONAL SURVEYOR



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

DATE	BY	REVISION	DESCRIPTION
06/12/23	MRJ	1	ADDED UTILITIES PER RECORD
07/19/23	MRJ	2	REVISED UTILITIES
08/25/23	MRJ	1	DESCRIPTION

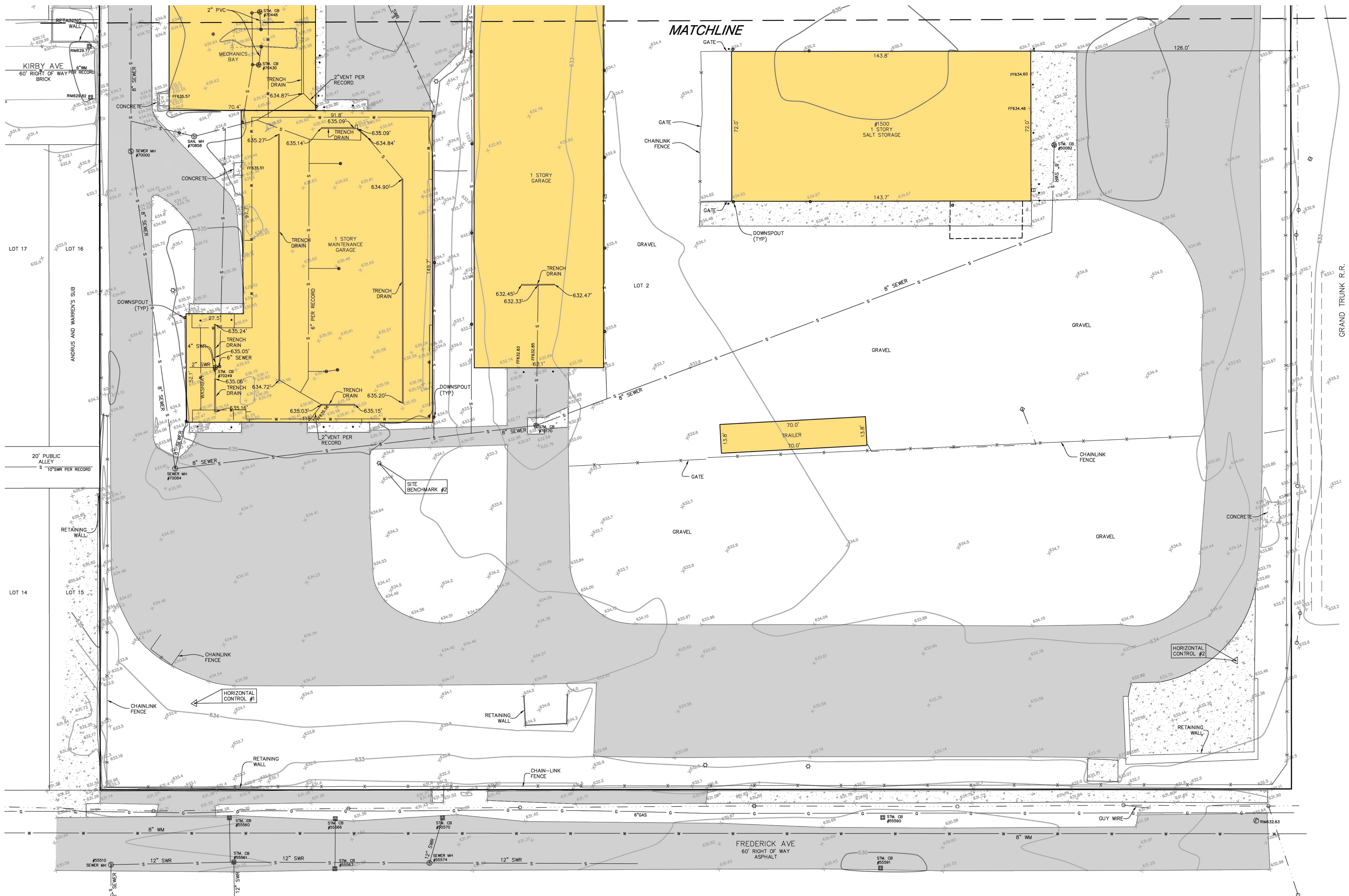
DATE	06/12/23
CHECKED BY	ATS
DATE	JUNE 12, 2023
SCALE	N/A
PROJECT NO.	23-01027



DATE	BY	REVISION	DESCRIPTION
06/12/23	MRJ	1	ADDED UTILITIES PER RECORD
06/12/23	ATS	2	REVISED UTILITIES
08/25/23	MRJ	1	REVISED UTILITIES
07/19/23	MRJ	1	DESCRIPTION

SCALE: 1" = 20'

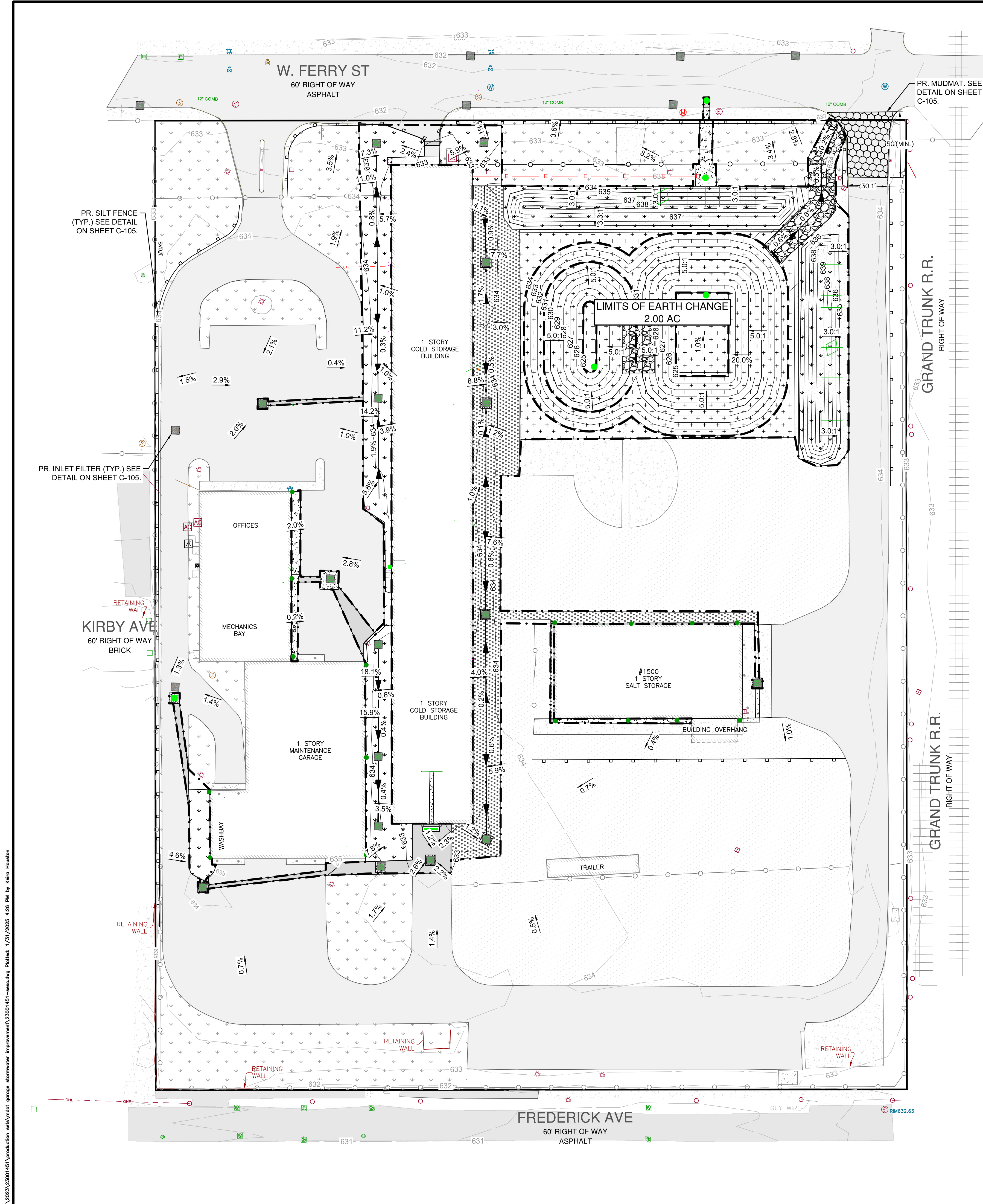
C-102
2 OF 3 SHEETS



MATCHLINE

NO.	DATE	BY	REVISION	DESCRIPTION
2	08/25/23	MRJ		ADDED UTILITIES PER RECORD
1	07/18/23	MRJ		REVISED UTILITIES

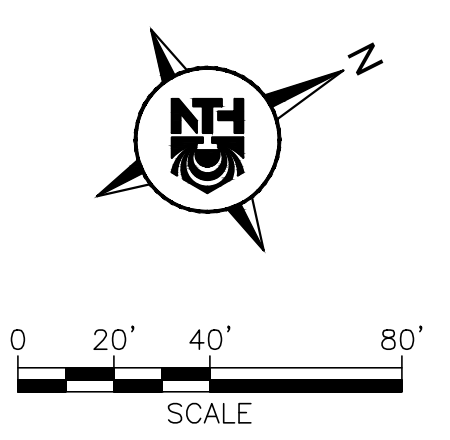
DRAWN BY:	JG/MRJ	DATE:	06/12/23
CHECKED BY:	ATS	DATE:	06/12/23
DATE:	JUNE 12, 2023	SCALE:	1" = 20'
PROJECT NO.:	23-01027		



NOTE:
1. SITE SOILS CONSIST OF SAND, CLAY, AND GRAVEL FILL

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING
- EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING GRAVEL
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING BOLLARD POST
- EXISTING LIGHT POLE
- EXISTING RAILROAD
- EXISTING HYDRANT
- EXISTING WATER MAIN
- EXISTING GAS
- EXISTING UNDERGROUND ELECTRIC
- EXISTING ELECTRICAL STRUCTURES
- EXISTING STORM STRUCTURE
- EXISTING SANITARY SEWER
- EXISTING SANITARY MANHOLE
- FLOOR DRAINS
- PROPOSED CONTOURS
- PROPOSED SLOPE ARROW
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED GRAVEL
- PROPOSED LANDSCAPING/LAWN AREA
- PROPOSED DETENTION AREA
- PROPOSED RIP-RAP/LARGE STONE
- PROPOSED FENCE
- PROPOSED BOLLARD
- PROPOSED STORM STRUCTURES
- PROPOSED MUDMAT
- PROPOSED SILT FENCE
- PROPOSED INLET FILTER
- PROPOSED LIMITS OF EARTH CHANGE



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

BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171

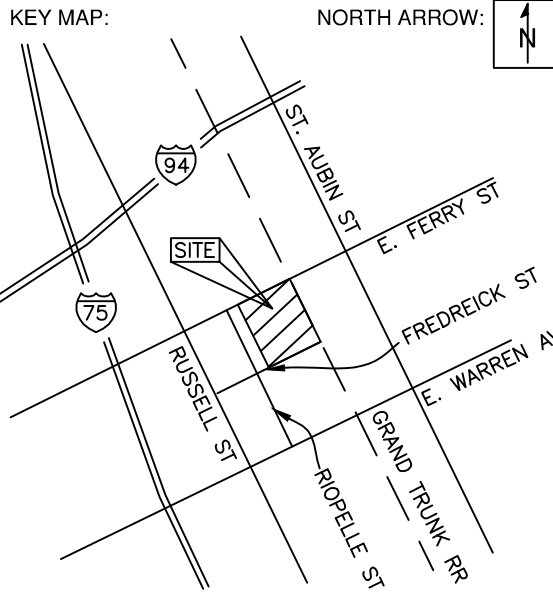
3 WORKING DAYS
For the location of public utility lines.
ALTERNATE NUMBER (811)
TOLL FREE FOR UTILITY LOCATING

Yellow: Gas Blue: Water
Orange: Electric Green: Sewer
Red: Fire Purple: Storm Drain

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

MDOT
Michigan Department of Transportation

SEAL/STAMP:



REVISION BLOCK

REV	DATE	DESCRIPTION

SUBMITTAL LOG

DATE	PACKAGE NAME
2023-12-19	75% DRAWINGS
2024-03-06	90% DRAWINGS
2025-01-31	ISSUED FOR BID

PROJECT NAME:
**MDOT DETROIT GARAGE
STORM SEWER
RECONSTRUCTION**

PROJECT LOCATION:
**1500 E. FERRY STREET
DETROIT, MICHIGAN**

DESIGNED BY: KBH	NTH PROJECT NO.: 23001451
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG, DRL	DATE: 1/31/2025
CAD FILE NAME: 23001451-SESC	

SHEET TITLE:
**SOIL EROSION &
SEDEMENTATION CONTROL
PLAN**

SHEET NUMBER:
C-104

BID

DTMB FILE NO. 591 22274.MNB

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

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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

- KEEP DISTURBED AREA AS SMALL AS POSSIBLE.
- STABILIZE AND/OR PROTECT DISTURBED AREAS AS SOON AS POSSIBLE.
- KEEP STORM WATER RUNOFF VELOCITIES LOW.
- 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.

- WET WEATHER SEASON (MARCH, APRIL, MAY) - 5 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.
- DRY WEATHER SEASON (JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER) - 10 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.
- COLD WEATHER SEASON (DECEMBER, JANUARY, FEBRUARY) - 15 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.

SOIL EROSION SEQUENCE OF CONSTRUCTION

- INSTALL SILT FENCE AND INLET FILTERS ON EXISTING CATCH BASINS. ESTIMATED DATE: 05/2025
- CONSTRUCT SITE FEATURES PER THE PLANS ESTIMATED DATE: 5/2025 to 11/2025
- STABILIZE DISTURBED AREAS AS NOTED ON THE PLANS WITHIN 5 DAYS OF FINAL GRADING. ESTIMATED DATE: 11/2025
- RESTORE ALL OFF-SITE AREAS TO PRE-CONSTRUCTION CONDITION FOLLOWING SITE CONSTRUCTION.
- 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.
- REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS FOLLOWING SITE CONSTRUCTION, FINAL STABILIZATION OF WORK, AND FINAL INSPECTION. ESTIMATED DATE: 11/2025

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

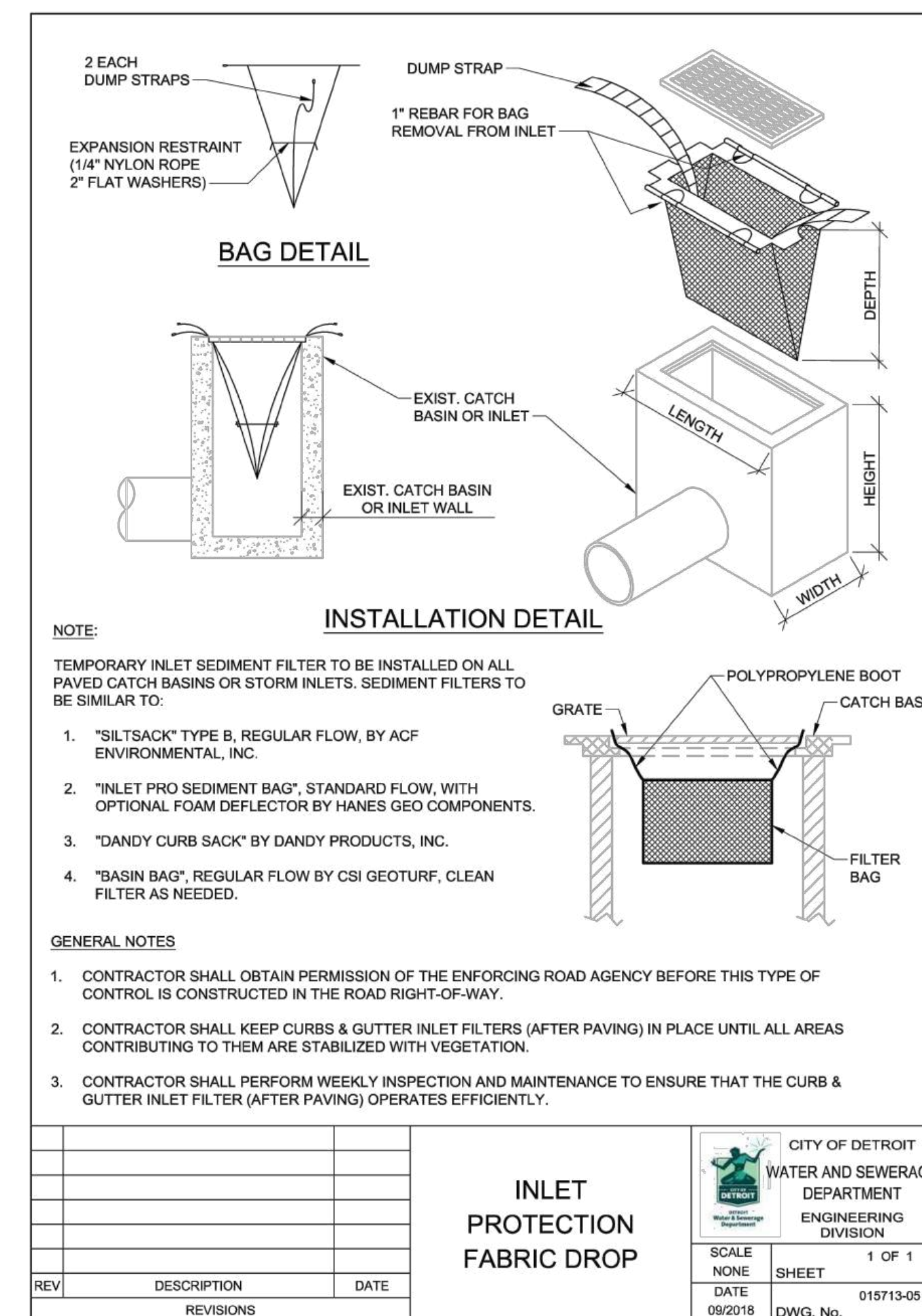
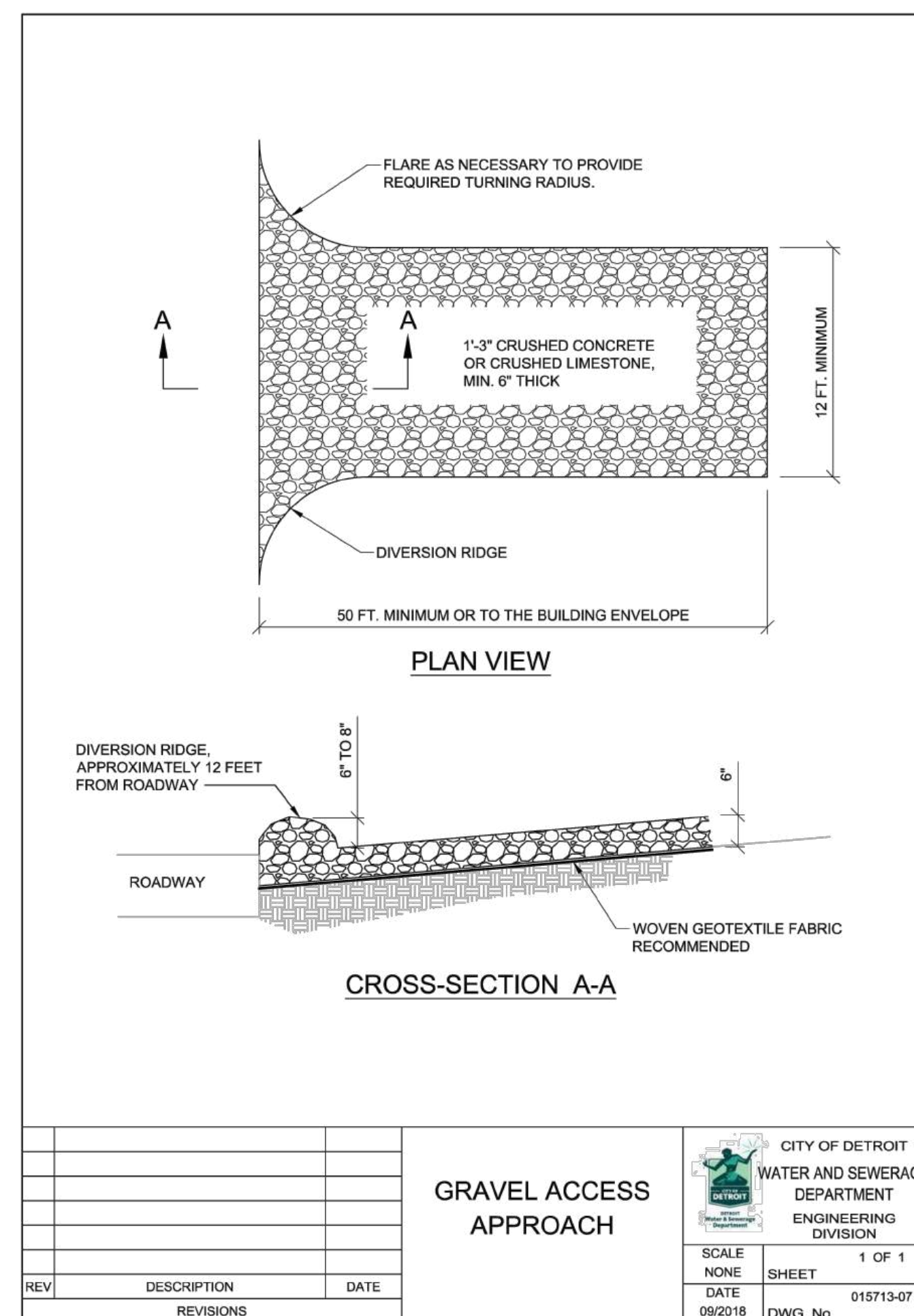
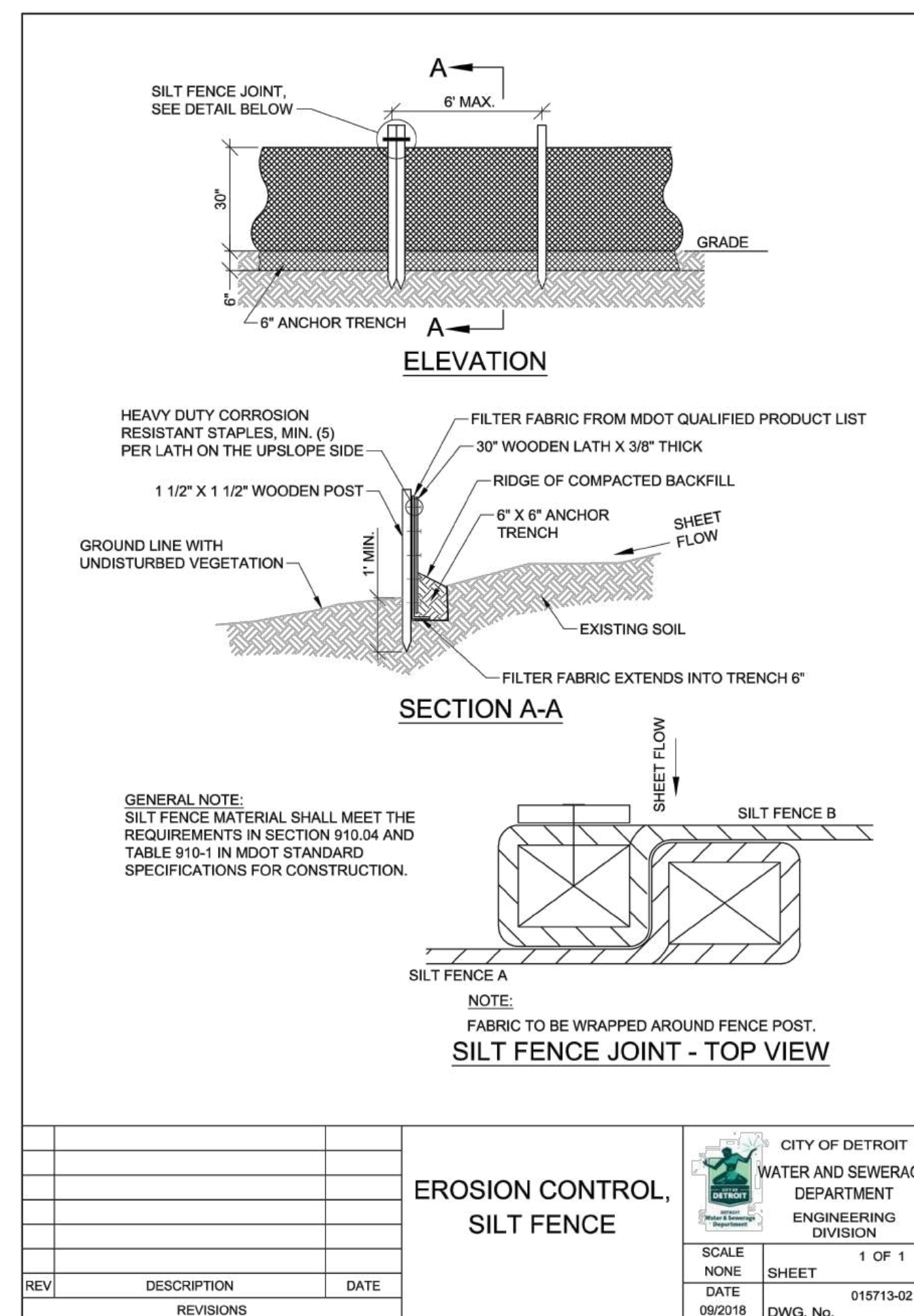
THE CONTRACTOR SHALL CONSTRUCT THIS PROJECT IN COMPLIANCE WITH PART 91 OF ACT NO. 451 OF 1994, OF THE MICHIGAN COMPILED LAWS ENTITLED "SOIL EROSION AND SEDIMENTATION CONTROL" UNDER THE CONTROL OF THE LOCAL PERMIT AGENCY CHARGED WITH ADMINISTERING THE PROVISIONS OF THIS ACT. THE CONTRACTOR SHALL FOLLOW 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.



BID

DTMB FILE NO. 591 22274.MNB

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ALTERNATE NUMBER (811)
TOLL FREE FOR UTILITY LOCATING

Yellow Drive Pole & Gas Blue Water
Red Frame & City Blue Storm Drain
Electric Pole Green Sewer
If you are going to work near overhead wires - call MISS DIG

MDOT
Michigan Department of Transportation

SEAL/STAMP:

KEY MAP: NORTH ARROW: N

REVISION BLOCK

REV	DATE	DESCRIPTION

SUBMITTAL LOG

DATE	PACKAGE NAME
2023-12-19	75% DRAWINGS
2024-03-06	90% DRAWINGS
2025-01-31	ISSUED FOR BID

PROJECT NAME:
**MDOT DETROIT GARAGE
STORM SEWER
RECONSTRUCTION**

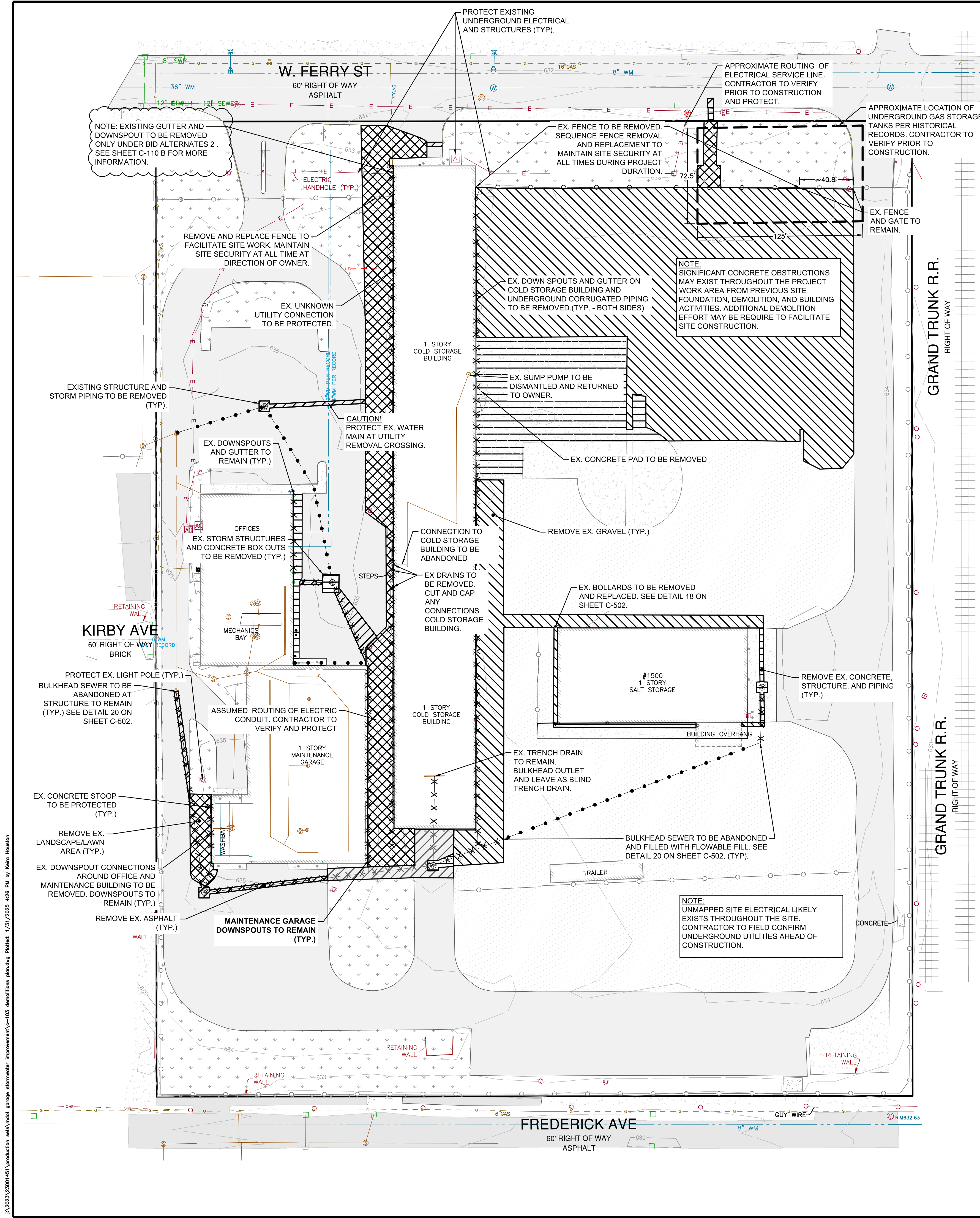
PROJECT LOCATION:
**1500 E. FERRY STREET
DETROIT, MICHIGAN**

DESIGNED BY:	NTH PROJECT NO.:
KBH	23001451
DRAWN BY:	SHEET SIZE:
KBH	ARCH D (24"x36")
CHECKED BY:	DATE:
SLG, DRL	1/31/2025
CAD FILE NAME:	
23001451-SESC	

SHEET TITLE:
SESC NOTES

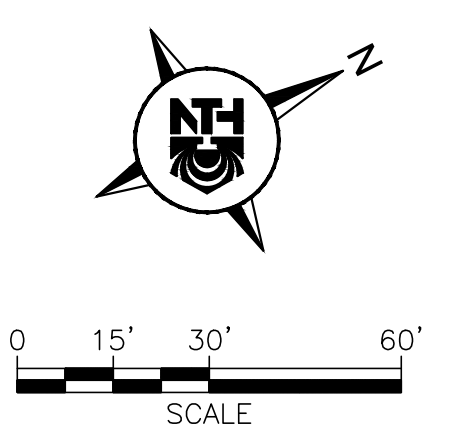
SHEET NUMBER:
C-105

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LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING GRAVEL
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING BOLLARD POST
- EXISTING SIGN
- EXISTING LIGHT POLE
- EXISTING RAILROAD
- EXISTING HYDRANT
- EXISTING WATERMAIN
- EXISTING UNDERGROUND ELECTRIC
- EXISTING ELECTRICAL STRUCTURES
- EXISTING GAS STRUCTURES
- EXISTING GAS LINE
- EXISTING STORM SEWER
- EXISTING STORM STRUCTURES
- EXISTING SANITARY SEWER
- EXISTING SANITARY MANHOLE
- EXISTING FLOOR DRAINS
- EXISTING ASPHALT PAVEMENT TO BE REMOVED
- EXISTING CONCRETE PAVEMENT TO BE REMOVED
- EXISTING GRAVEL TO BE REMOVED
- EXISTING LANDSCAPING/LAWN AREA TO BE REMOVED
- EXISTING FENCE TO BE REMOVED
- EXISTING BOLLARD POST TO BE REMOVED
- EXISTING STORM PIPE TO BE REMOVED
- EXISTING STORM PIPE TO BE ABANDONED
- EXISTING STORM STRUCTURES TO BE REMOVED
- EXISTING FLOOR DRAINS TO BE REMOVED
- APPROXIMATE LOCATION OF UNDERGROUND STORAGE TANK



DEMOLITION NOTES

1. TOPOGRAPHIC SURVEY WAS PERFORMED BY KEM-TEC DATED AUGUST 25, 2023. ALL EXISTING INFORMATION SHOWN IS FROM THIS SURVEY OF RECORD OR WAS SUPPLEMENTED BY INFORMATION FROM SITE VISITS, PREVIOUSLY-SUBMITTED SITE PLANS, OR HISTORICAL DRAWINGS.
2. ALL SITE FEATURES AND UTILITIES TO BE DEMOLISHED ARE SHOWN IN BOLD. CONTRACTOR TO PROTECT ALL EXISTING ITEMS TO REMAIN.
3. PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED BY AUTHORITIES HAVING JURISDICTION (AHJ).
4. PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL PHOTOGRAPH OR VIDEOTAPE ALL EXISTING CONDITIONS OF NEARBY PUBLIC AND PRIVATE PROPERTY, INCLUDING STRUCTURES, ROADS, EASEMENTS, SIDEWALKS, ETC.
5. PRIOR TO DEMOLITION, ALL REQUIRED SOIL EROSION AND SEDIMENT CONTROL DEVICES ARE TO BE INSTALLED AND REQUISITE PART 91 PERMIT OBTAINED.
6. CONTRACTOR SHALL MAINTAIN ALL EXISTING ROADS, SIDEWALKS, DRIVES, ETC. CLEAR AND FREE FROM ANY CONSTRUCTION ACTIVITY AND/OR MATERIAL TO ENSURE EASY AND SAFE PEDESTRIAN AND VEHICULAR TRAFFIC AT ALL TIMES.
7. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, TRAFFIC CONTROL, ETC. CONFORMING TO BEST PRACTICES AND LOCAL REQUIREMENTS.
8. THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THIS PLAN ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE OWNER AND OWNERS REPRESENTATIVE ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS AND INFORMING THE OWNER AND ENGINEER OF ANY DEVIATIONS PRIOR TO BEGINNING DEMOLITION WORK.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL OF ALL STRUCTURES, WALLS, ASPHALT AND CONCRETE AND OTHER ITEMS SHOWN FOR DEMOLITION. ALL EXISTING ASPHALT AND CONCRETE TO BE REMOVED SHALL BE DISPOSED IN AN ENVIRONMENTALLY LEGAL MANNER.
10. SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE ANY EXISTING STRUCTURE AND/OR ITEM PROPOSED TO REMAIN ON ADJACENT PROPERTIES, THEN THE CONTRACTOR SHALL MAKE ALL NECESSARY REPAIRS AT THEIR OWN EXPENSE. ALL CONSTRUCTION MATERIALS SHALL BE OF EQUAL OR HIGHER QUALITY AND SHALL BE APPROVED BY THE ENGINEER.

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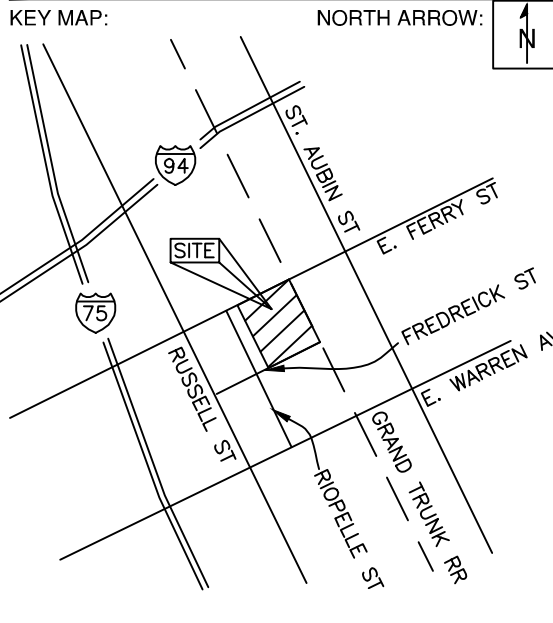
For the location of public utility lines, consult the following color codes for utility locating:
 ALTERNATE NUMBER (811) COLOR CODES FOR UTILITY LOCATING:

Yellow	Oil & Gas	Blue	Water
Orange	Electric	Green	Storm Drain
Red	Fire	Black	Sewer
Grey	Other	White	Unknown

IF YOU ARE GOING TO WORK NEAR OVERHEAD WIRES - CALL MGS DC



SEAL/STAMP:



REVISION BLOCK

REV	DATE	DESCRIPTION

SUBMITTAL LOG

DATE	PACKAGE NAME
2023-12-19	75% DRAWINGS
2024-03-06	90% DRAWINGS
2025-01-31	ISSUED FOR BID

PROJECT NAME:
MDOT DETROIT GARAGE STORM SEWER RECONSTRUCTION

PROJECT LOCATION:
**1500 E. FERRY STREET
 DETROIT, MICHIGAN**

DESIGNED BY: KBH	NTH PROJECT NO.: 23001451
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG, DRL	DATE: 1/31/2025
CAD FILE NAME: C-103 DEMOLITIONS PLAN	

SHEET TITLE:
DEMOLITION PLAN

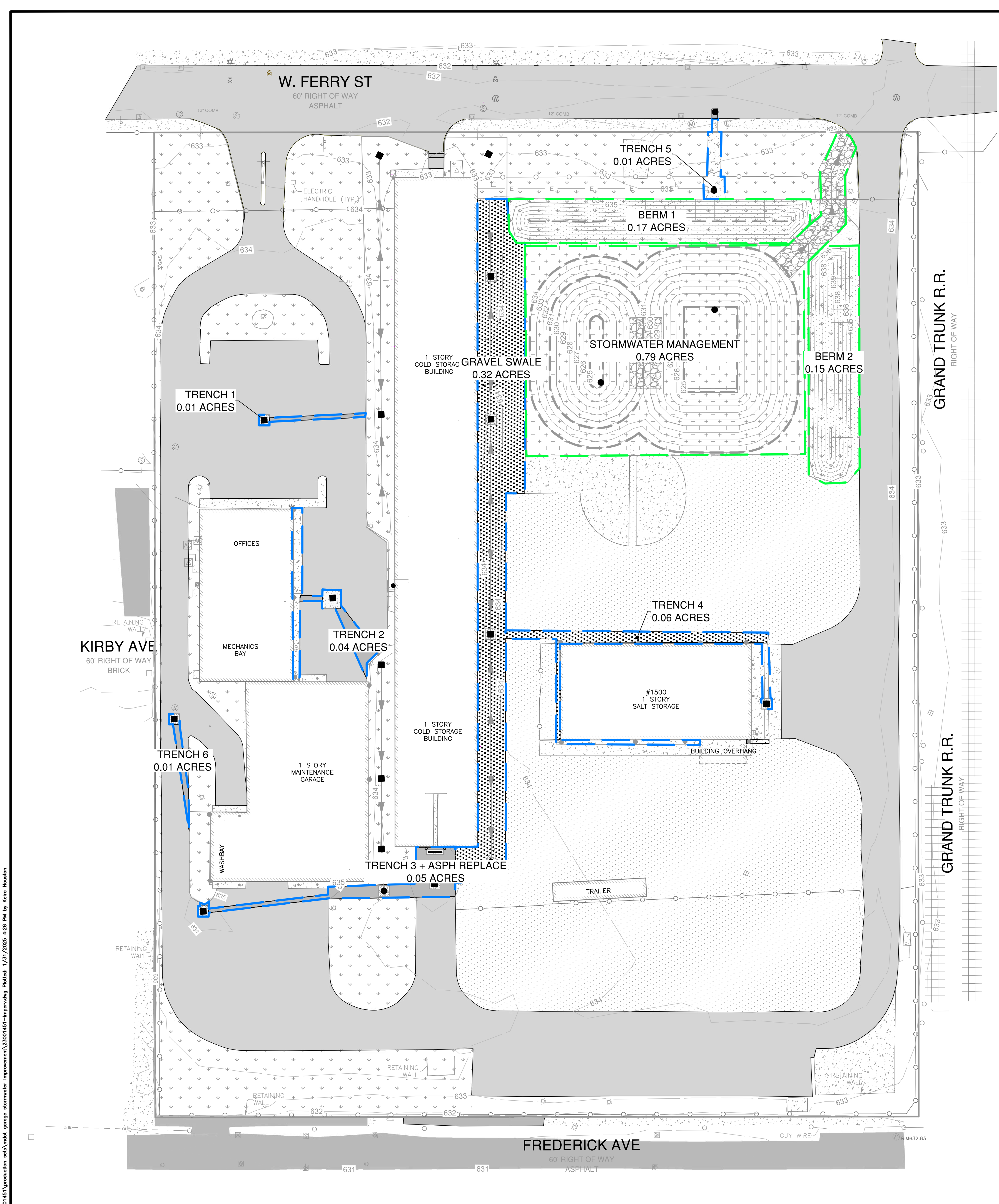
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C-106

BID

DTMB FILE NO. 591.22274.MNB

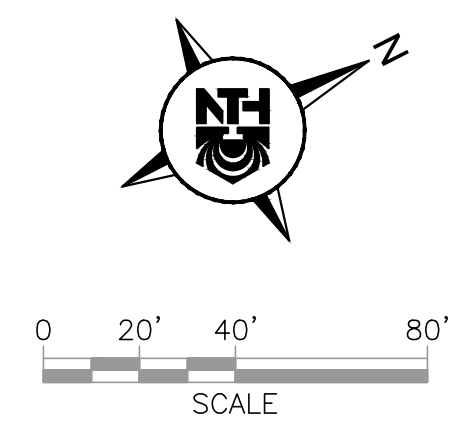
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 DESIGN AND CONSTRUCTION DIVISION
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LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING
- EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING GRAVEL
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING BOLLARD POST
- EXISTING LIGHT POLE
- EXISTING RAILROAD
- EXISTING HYDRANT
- EXISTING WATER MAIN
- EXISTING GAS
- EXISTING UNDERGROUND ELECTRIC
- EXISTING ELECTRICAL STRUCTURES
- EXISTING STORM STRUCTURE
- EXISTING SANITARY SEWER
- EXISTING SANITARY MANHOLE
- FLOOR DRAINS
- PROPOSED CONTOURS
- PROPOSED SLOPE ARROW
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED GRAVEL
- PROPOSED LANDSCAPING/LAWN AREA
- PROPOSED DETENTION AREA
- PROPOSED RIP-RAP/LARGE STONE
- PROPOSED FENCE
- PROPOSED BOLLARD
- PROPOSED STORM STRUCTURES
- PROPOSED LIMITS OF IMPERVIOUS SURFACE REPAIR/REPLACEMENT
- PROPOSED LIMITS STORMWATER MANAGEMENT & IMPERVIOUS REMOVAL



DWSD Parcel Summary	
Total Parcel Area:	9.63 AC
Existing Total Impervious Area:	8.04 AC
Proposed Total Impervious Area:	6.91 AC
Impervious Repair/Replace	
Trench 1:	0.01 AC
Trench 2:	0.04 AC
Trench 3:	0.05 AC
Trench 4:	0.06 AC
Trench 5:	0.01 AC
Trench 6:	0.01 AC
Gravel Swale:	0.32 AC
Total:	0.5 Acres
Impervious Removal & Stormwater Management	
Pond, Forebay & Emergency Spillway:	0.81 AC
Landscaping Berm:	0.32 AC
Total:	1.13 Acres

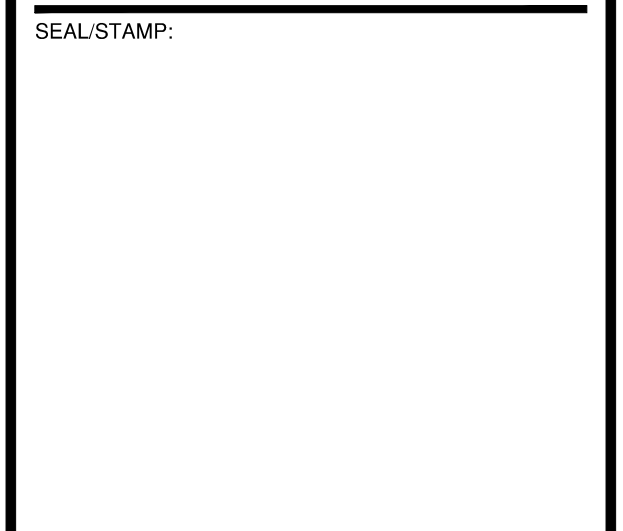
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For the location of public utility lines.
 ALTERNATE NUMBER (811)
 COLOR CODES FOR UTILITY LOCATING:
 Yellow: Gas
 Orange: Electric
 Blue: Water
 Green: Sewer
 Red: Storm Drain
 Purple: Other

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



REV	DATE	DESCRIPTION

DATE	PACKAGE NAME
2023-12-19	75% DRAWINGS
2024-03-06	90% DRAWINGS
2025-01-31	ISSUED FOR BID

DATE	PACKAGE NAME
2023-12-19	75% DRAWINGS
2024-03-06	90% DRAWINGS
2025-01-31	ISSUED FOR BID

PROJECT NAME:
**MDOT DETROIT GARAGE
 STORM SEWER
 RECONSTRUCTION**

PROJECT LOCATION:
**1500 E. FERRY STREET
 DETROIT, MICHIGAN**

DESIGNED BY: KBH	NTH PROJECT NO.: 23001451
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG	DATE: 1/31/2025
CAD FILE NAME: 23001451-IMPV	

SHEET TITLE:
**IMPERVIOUS SURFACE
 CALCULATIONS**

SHEET NUMBER:
C-107

BID

DTMB FILE NO. 591_22274.MNB

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TOLL FREE CODES FOR UTILITY LOCATING:

Yellow	Oil & Gas	Blue	Water
Orange	Phone & Cable	Green	Storm Drain
Red	Electric	Brown	Sewer
Black	Other	Purple	Sanitary

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SEAL/STAMP:



REVISION BLOCK	
REV	DATE: DESCRIPTION

SUBMITTAL LOG	
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STORM SEWER
RECONSTRUCTION**

PROJECT LOCATION:
**1500 E. FERRY STREET
DETROIT, MICHIGAN**

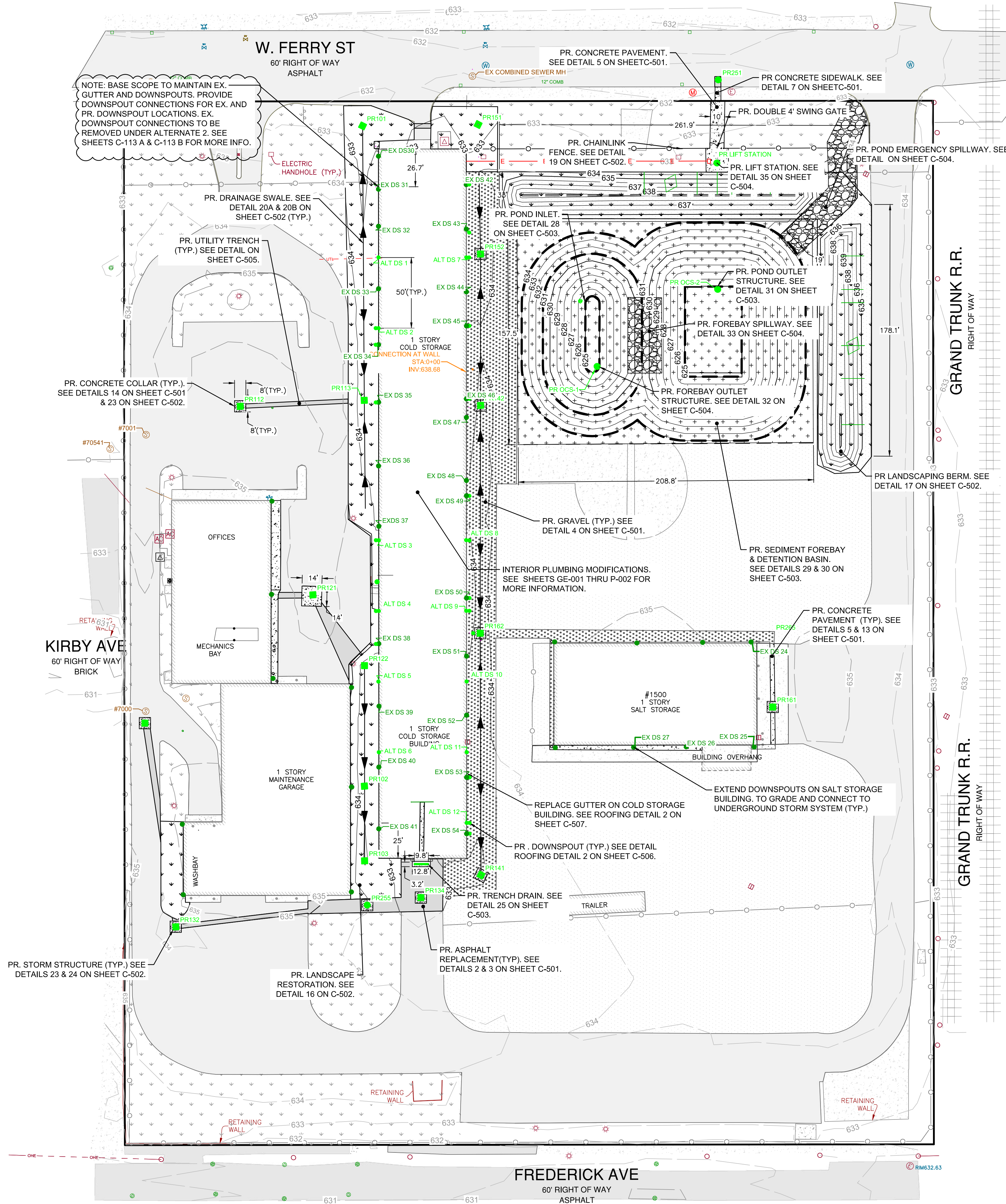
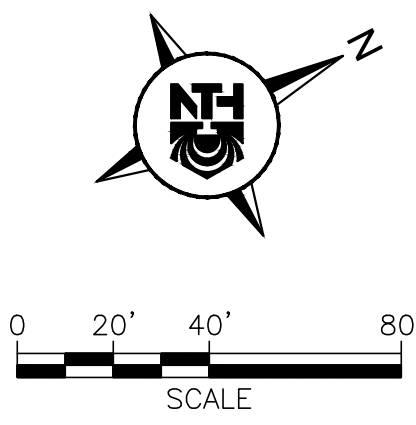
DESIGNED BY: KBH	NTH PROJECT NO.: 23001451
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG, DRL	DATE: 1/31/2025
CAD FILE NAME: 23001451-SITE	

SHEET TITLE:
PROPOSED SITE PLAN

SHEET NUMBER:
C-108

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING GRAVEL
- EXISTING RIP-RAP/LARGE STONE
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING RAILROAD
- EXISTING BOLLARD POST
- EXISTING LIGHT POLE
- EXISTING HYDRANT
- EXISTING STORM STRUCTURE
- EXISTING SANITARY MANHOLE
- EXISTING FLOOR DRAINS
- EXISTING ELECTRICAL STRUCTURES
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED GRAVEL
- PROPOSED STORM WATER DETENTION AREA
- PROPOSED RIPRAP
- PROPOSED LANDSCAPING/LAWN AREA
- PROPOSED FENCE
- PROPOSED BOLLARD
- PROPOSED DRAINAGE SWALE
- PROPOSED STORM STRUCTURES
- PROPOSED TRENCH DRAIN



NOTE: SEE SHEETS R-101 TO R-109 FOR COLD STORAGE BUILDING FOUNDATION AND WATERPROOFING DESIGN PROPOSED UNDER BID ALTERNATE 1.

GENERAL NOTES

- TOPOGRAPHIC SURVEY WAS PERFORMED BY KEM-TEC DATED AUGUST 25, 2023. ALL EXISTING INFORMATION SHOWN IS FROM THIS SURVEY OF RECORD OR WAS SUPPLEMENTED BY INFORMATION FROM SITE VISITS, PREVIOUSLY-SUBMITTED SITE PLANS, OR HISTORICAL DRAWINGS.
- ALL UTILITY LOCATIONS ARE APPROXIMATE. VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. CONTACT MISS DIG A MINIMUM OF 3 WORKING DAYS PRIOR TO CONSTRUCTION.
- 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.
- THE CONTRACTOR SHALL AVOID DAMAGE TO THE EXISTING ITEMS DESIGNATED TO REMAIN. ANY DAMAGE THAT OCCURS AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL NECESSARY CONSTRUCTION STAKING AND ALIGNMENT CONTROLS.
- ALL EXISTING SITE FEATURES SHALL BE PROTECTED UNLESS OTHERWISE INDICATED ON PLANS.
- ALL EXISTING AND PROPOSED STORMWATER/SANITARY DRAINAGE STRUCTURES WITHIN PAVED AREAS SHALL HAVE CONCRETE BOXOUTS ADDED, PER CIVIL DETAILS SHEETS.
- 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.
- CONFIRM UTILITY STRUCTURE FRAME AND GRATE WITH ENGINEER PRIOR TO INSTALLATION.
- NON-SHRINK GROUT SHALL NOT CONTAIN ANY GYPSUM MATERIAL.

BID

DTMB FILE NO. 591 22274.MNB

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

E:\2023\23001451\production\set\mxd\garage_stormwater_reconstruction.dwg Plotfile: 1/31/2025 4:27 PM by Koro Houston



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

For the location of public utility lines,
ALTERNATE NUMBER (811)
OR CALL MISS DIG

YOUR CODES FOR UTILITY LOCATING:

Yellow	Oil & Gas	Blue	Water
Orange	Fire	Green	Storm Drain
Red	Electric	Purple	Sewer
Black	Other	White	Surfing

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



SEAL/STAMP:



REVISION BLOCK	
REV	DATE DESCRIPTION

SUBMITTAL LOG	
DATE	PACKAGE NAME
2023-12-19	75% DRAWINGS
2024-03-06	90% DRAWINGS
2025-01-31	ISSUED FOR BID

PROJECT NAME:
**MDOT DETROIT GARAGE
STORM SEWER
RECONSTRUCTION**

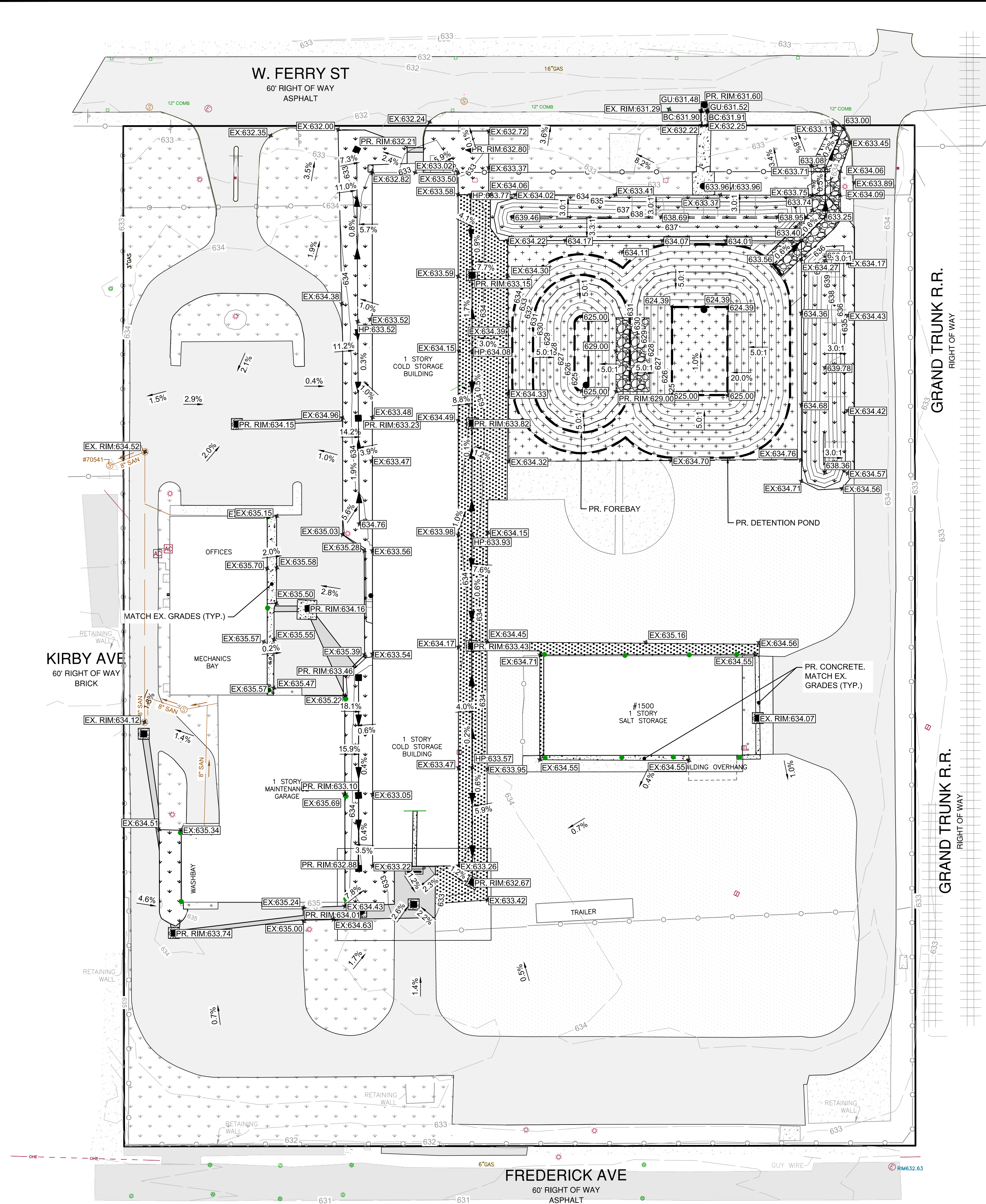
PROJECT LOCATION:
**1500 E. FERRY STREET
DETROIT, MICHIGAN**

DESIGNED BY:	NTH PROJECT NO.:
KBH	23001451
DRAWN BY:	SHEET SIZE:
KBH	ARCH D (24"x36")
CHECKED BY:	DATE:
SLG, DRL	1/31/2025
CAD FILE NAME:	
23001451-GRADE	

SHEET TITLE:
**PROPOSED GRADING
PLAN**

SHEET NUMBER:

C-109

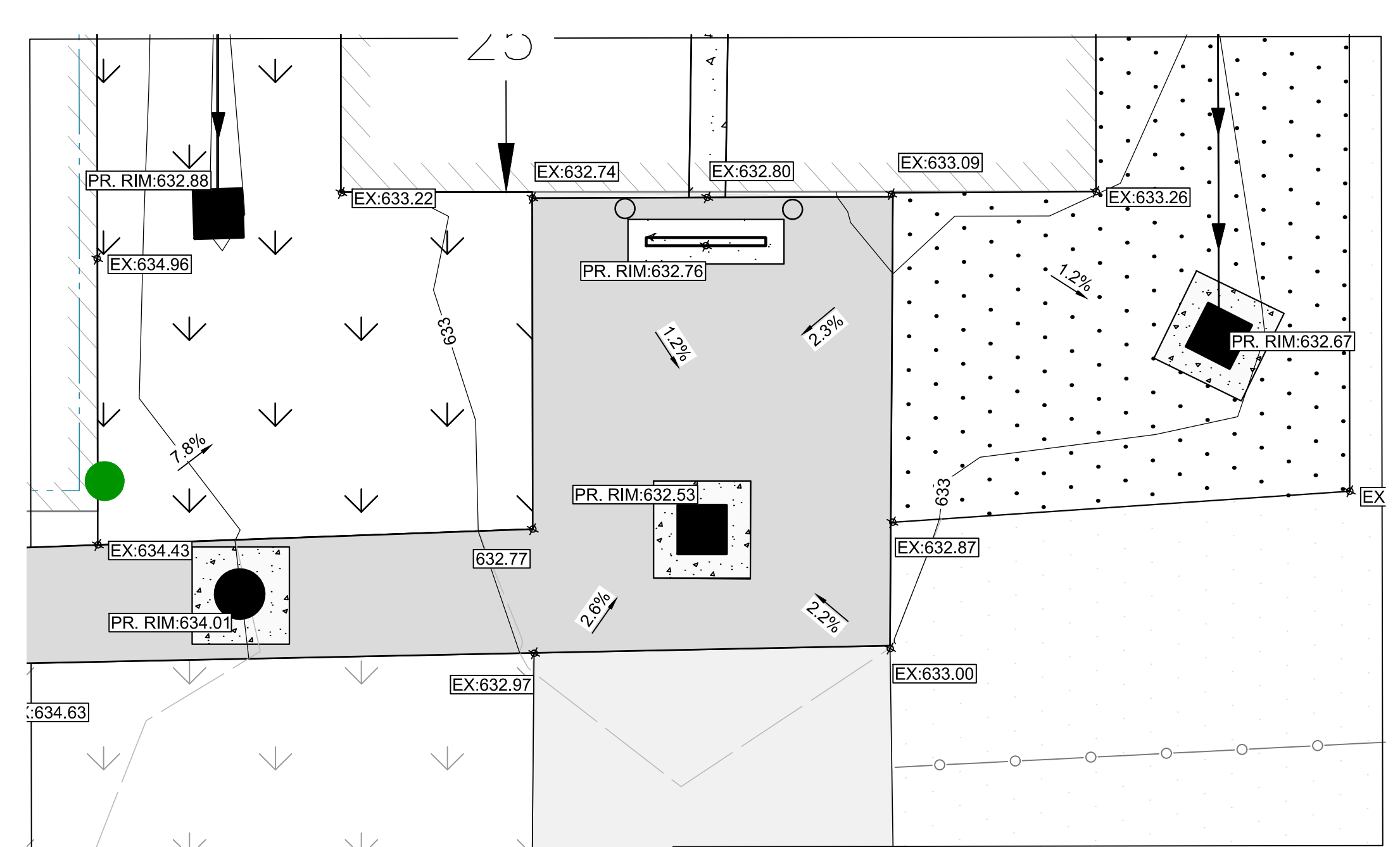
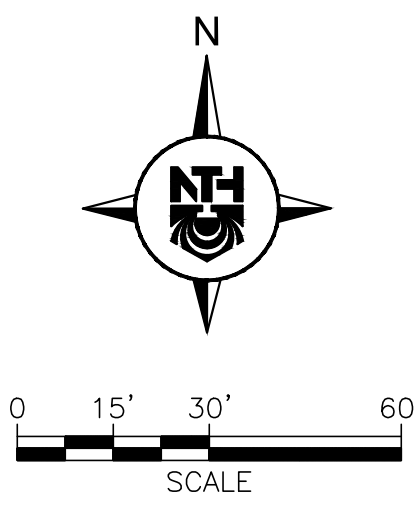


GENERAL NOTES

- TOPOGRAPHIC SURVEY WAS PERFORMED BY KEM-TEC DATED AUGUST 25, 2023. ALL EXISTING INFORMATION SHOWN IS FROM THIS SURVEY OF RECORD OR WAS SUPPLEMENTED BY INFORMATION FROM SITE VISITS, PREVIOUSLY-SUBMITTED SITE PLANS, OR HISTORICAL DRAWINGS.
- ALL UTILITY LOCATIONS ARE APPROXIMATE. VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. CONTACT MISS DIG A MINIMUM OF 3 WORKING DAYS PRIOR TO CONSTRUCTION.
- 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.
- THE CONTRACTOR SHALL AVOID DAMAGE TO THE EXISTING ITEMS DESIGNATED TO REMAIN. ANY DAMAGE THAT OCCURS AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL NECESSARY CONSTRUCTION STAKING AND GRADE AND ALIGNMENT CONTROLS.
- ALL EXISTING SITE FEATURES SHALL BE PROTECTED UNLESS OTHERWISE INDICATED ON PLANS.
- ALL EXISTING AND PROPOSED STORMWATER/SANITARY DRAINAGE STRUCTURES WITHIN PAVED AREAS SHALL HAVE CONCRETE BOXOUTS ADDED, PER CIVIL DETAILS SHEETS.
- ALL GREEN AREAS DISTURBED DURING CONSTRUCTION SHALL BE SEEDED AND MULCHED WITH 3" TOPSOIL AND MDT CLASS A SEED WHERE FINAL EARTH STABILIZATION MEASURES ARE NOT SPECIFICALLY DESIGNATED.
- CONFIRM UTILITY STRUCTURE FRAME AND GRATE WITH ENGINEER PRIOR TO INSTALLATION.
- NON-SHRINK GROUT SHALL NOT CONTAIN ANY GYPSUM MATERIAL.

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING
- EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING GRAVEL
- EXISTING RIP-RAP/LARGE STONE
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING BOLLARD
- EXISTING RAILROAD
- EXISTING BOLLARD POST
- EXISTING LIGHT POLE
- EXISTING HYDRANT
- EXISTING STORM STRUCTURE
- EXISTING SANITARY MANHOLE
- EXISTING FLOOR DRAINS
- EXISTING ELECTRICAL STRUCTURES
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED GRAVEL
- PROPOSED STORM WATER DETENTION AREA
- PROPOSED LANDSCAPING/LAWN AREA
- PROPOSED RIP-RAP/LARGE STONE
- PROPOSED FENCE
- PROPOSED BOLLARD
- PROPOSED RIDGE LINE
- PROPOSED DRAINAGE DITCH
- PROPOSED STORM STRUCTURES
- PROPOSED DOWNSPOUT
- PROPOSED STORM CLEANOUT
- PROPOSED CONTOURS
- PROPOSED SLOPE ARROW
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING RIM SPOT ELEVATION
- PROPOSED RIM SPOT ELEVATION
- PROPOSED HIGH POINT



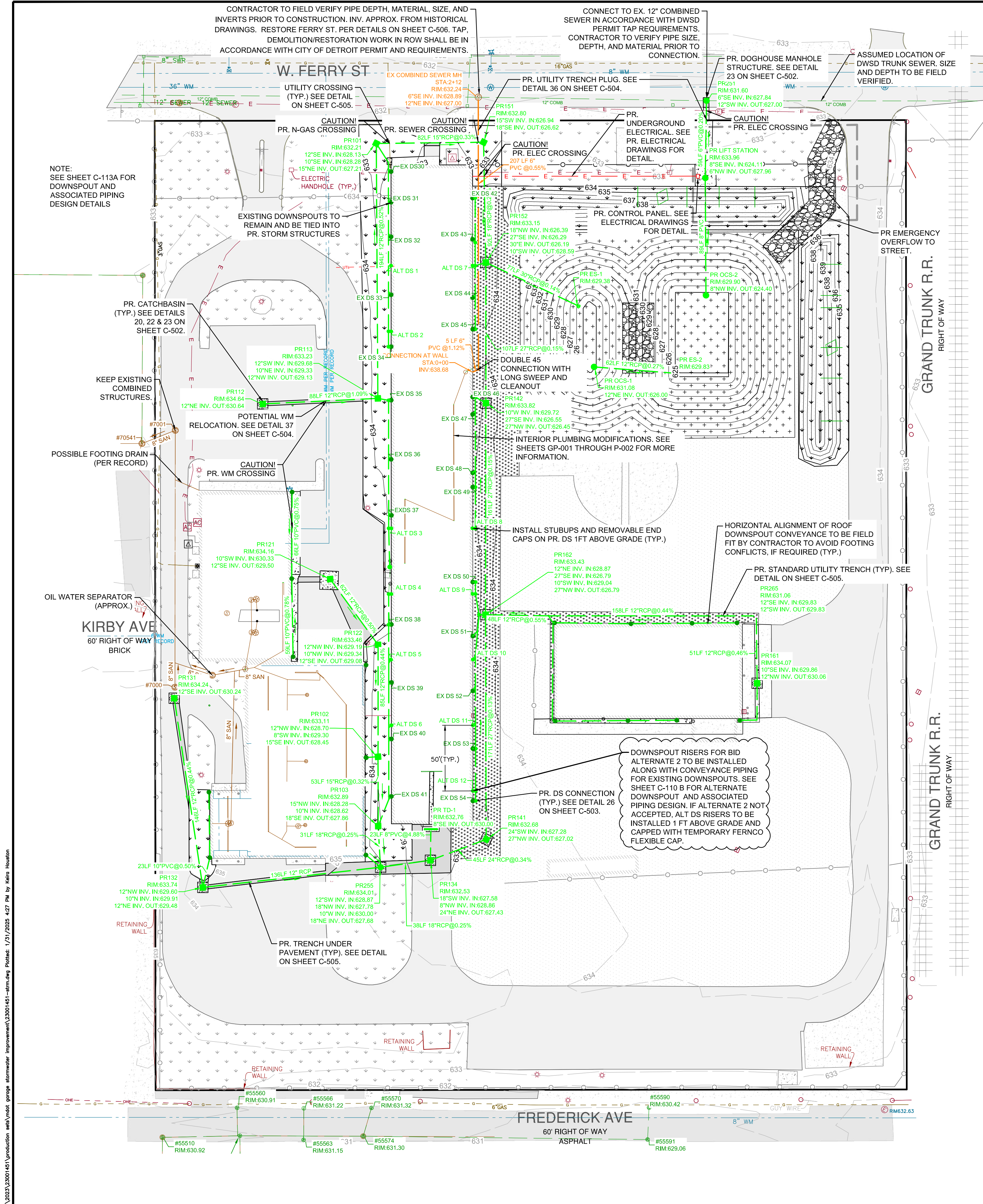
SCALE: 1" = 20'

BID

DTMB FILE NO. 591 22274.MNB

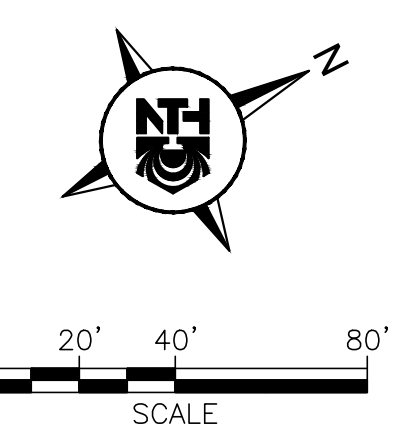
STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

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LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING GRAVEL
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING RAILROAD
- EXISTING BOLLARD POST
- EXISTING LIGHT POLE
- EXISTING HYDRANT
- EXISTING WATERMAIN
- EXISTING STORM STRUCTURE
- EXISTING STORM SEWER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY SEWER
- EXISTING FLOOR DRAINS
- EXISTING ELECTRICAL STRUCTURES
- EXISTING ELECTRICAL UNDERGROUND
- EXISTING GAS LINE
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED GRAVEL
- PROPOSED STORM WATER DETENTION AREA
- PROPOSED RIPRAP
- PROPOSED LANDSCAPING/LAWN AREA
- PROPOSED FENCE
- PROPOSED BOLLARD
- PROPOSED CONTOURS
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED DRAINAGE DITCH
- PROPOSED STORM SEWER
- PROPOSED STORM STRUCTURES
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY CLEANOUT



GENERAL NOTES

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BID

DTMB FILE NO. 591 22274.MNB



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DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
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1-800-482-7171

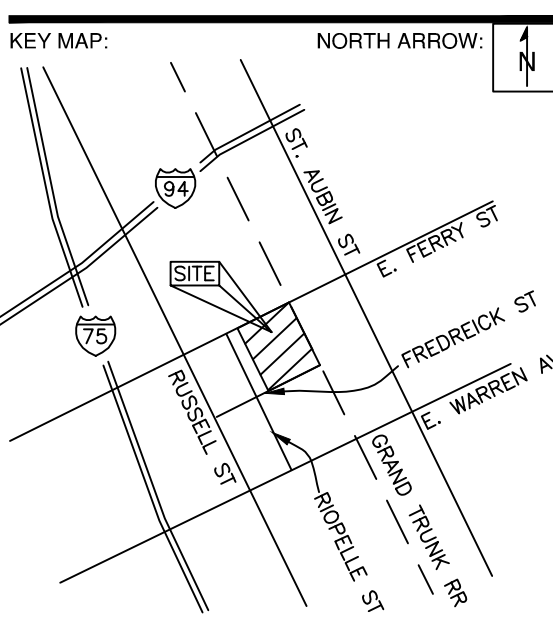
For the location of public utility lines, ALTERNATE NUMBER (811) TOLL FREE FOR UTILITY LOCATING.

Color Call & Dig Blue MISS DIG
Dig Probe & Cut Green Storm Drain
Elec Electric Red Sewer
Gas Gas Yellow Sanitary

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



SEAL/STAMP:



REVISION BLOCK	
REV	DATE/DESCRIPTION

SUBMITTAL LOG	
DATE	PACKAGE NAME
2023-12-19	75% DRAWINGS
2024-03-06	90% DRAWINGS
2025-01-31	ISSUED FOR BID

PROJECT NAME:
**MDOT DETROIT GARAGE
STORM SEWER
RECONSTRUCTION**

PROJECT LOCATION:
**1500 E. FERRY STREET
DETROIT, MICHIGAN**

DESIGNED BY: KBH	NTH PROJECT NO.: 23001451
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG, DRL	DATE: 1/31/2025
CAD FILE NAME: 23001451-STRM	

SHEET TITLE:
PROPOSED UTILITY PLAN

SHEET NUMBER:
C-110 A

I:\2023\23001451\production\set\mtd\groups\stormwater_in\improvement\23001451-storm Sewer.dwg Plotted: 1/31/2025 4:27 PM by Helen Houston



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3 WORKING DAYS
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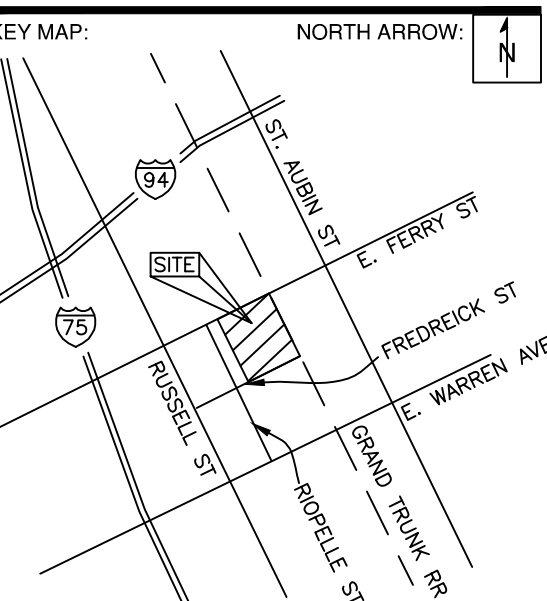
For the location of public utility lines, ALTERNATE NUMBER (811) YOUR CODES FOR UTILITY LOCATING.

Yellow	Oil & Gas	Blue	Water
Orange	Phone & Cable	Green	Storm Drain
Red	Electric	Brown	Sanitary Sewer
Black	Other	White	Surfing

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SEAL/STAMP:



REVISION BLOCK

REV	DATE	DESCRIPTION

SUBMITTAL LOG

DATE	PACKAGE NAME
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2025-01-31	ISSUED FOR BID

PROJECT NAME:

**MDOT DETROIT GARAGE
STORM SEWER
RECONSTRUCTION**

PROJECT LOCATION:

**1500 E. FERRY STREET
DETROIT, MICHIGAN**

DESIGNED BY:

KBH NTH PROJECT NO.: 23001451

DRAWN BY:

KBH SHEET SIZE: ARCH D (24"x36")

CHECKED BY:

SLG DATE: 1/31/2025

CAD FILE NAME:

23001451-STRM

SHEET TITLE:

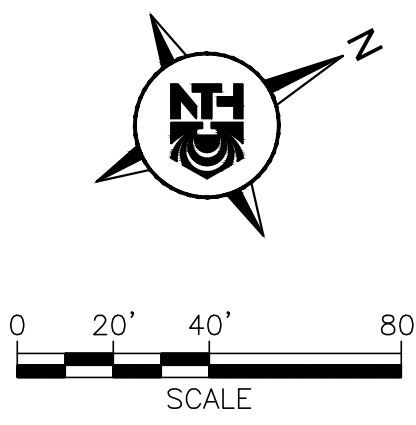
**PROPOSED UTILITY PLAN -
ALTERNATE 2**

SHEET NUMBER:

C-110 B

LEGEND

	EXISTING PROPERTY BOUNDARY
	EXISTING CONTOURS
	EXISTING ASPHALT PAVEMENT
	EXISTING CONCRETE PAVEMENT
	EXISTING GRAVEL
	EXISTING LANDSCAPING/LAWN AREA
	EXISTING FENCE
	EXISTING RAILROAD
	EXISTING BOLLARD POST
	EXISTING LIGHT POLE
	EXISTING HYDRANT
	EXISTING WATERMAIN
	EXISTING STORM STRUCTURE
	EXISTING STORM SEWER
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY SEWER
	EXISTING FLOOR DRAINS
	EXISTING ELECTRICAL STRUCTURES
	EXISTING ELECTRICAL UNDERGROUND
	EXISTING GAS LINE
	PROPOSED ASPHALT PAVEMENT
	PROPOSED CONCRETE PAVEMENT
	PROPOSED GRAVEL
	PROPOSED STORM WATER DETENTION AREA
	PROPOSED RIPRAP
	PROPOSED LANDSCAPING/LAWN AREA
	PROPOSED FENCE
	PROPOSED BOLLARD
	PROPOSED CONTOURS
	PROPOSED UNDERGROUND ELECTRIC
	PROPOSED DRAINAGE DITCH
	PROPOSED STORM SEWER
	PROPOSED STORM STRUCTURES



GENERAL NOTES

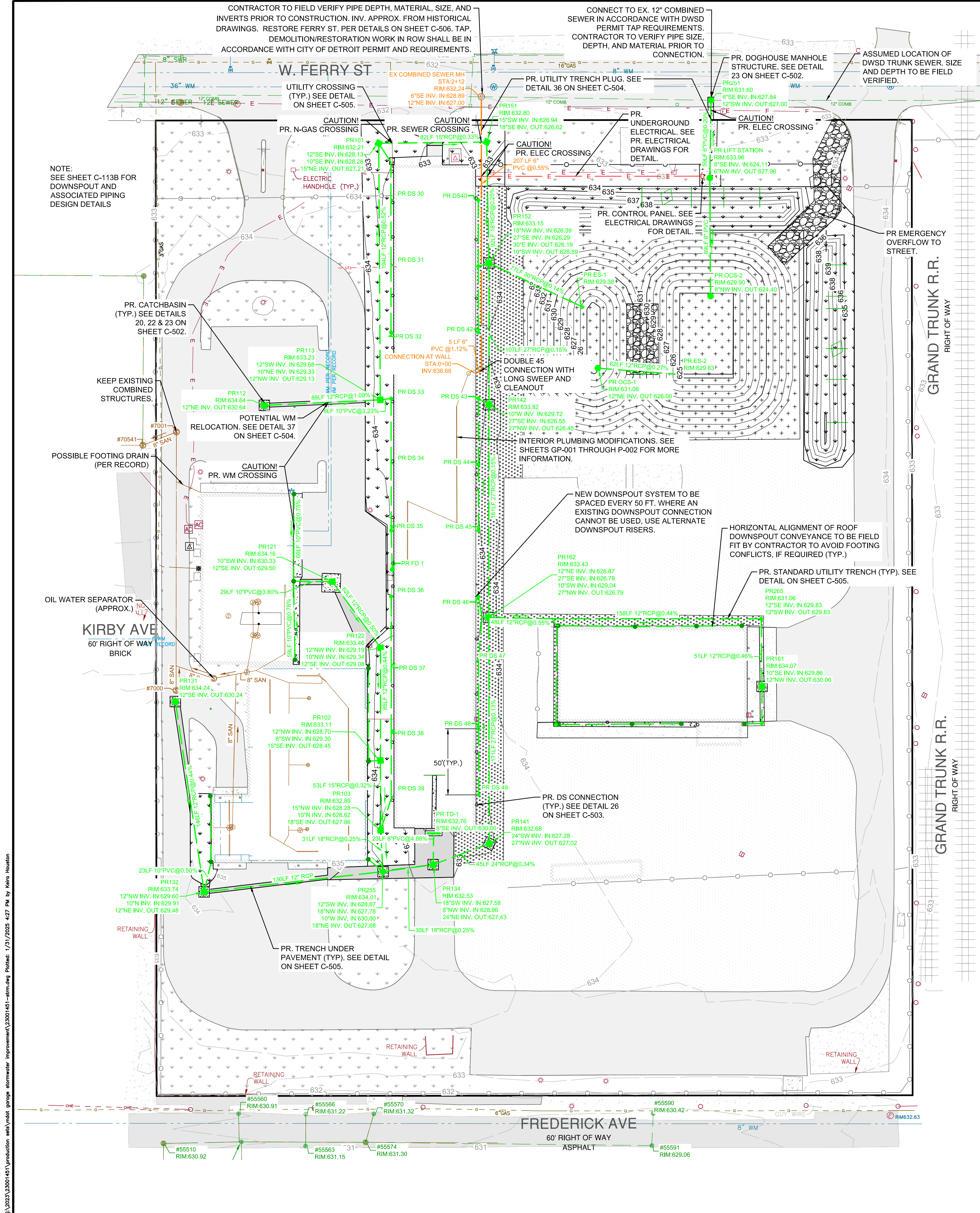
1. TOPOGRAPHIC SURVEY WAS PERFORMED BY KEM-TEC DATED AUGUST 25, 2023. ALL EXISTING INFORMATION SHOWN IS FROM THIS SURVEY OF RECORD OR WAS SUPPLEMENTED BY INFORMATION FROM SITE VISITS, PREVIOUSLY-SUBMITTED SITE PLANS, OR HISTORICAL DRAWINGS.
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ALTERNATE 2

DTMB FILE NO. 591_22274.MNB



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ADAM P. LACH, RA, DIRECTOR



1/31/2025 2:00:45 PM Production: neth\mike_group\stormwater_improvement\23001451-stormdig Plotfile: 1/31/2025 4:27 PM by: Mike Houston



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3 WORKING DAYS
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1-800-482-7171

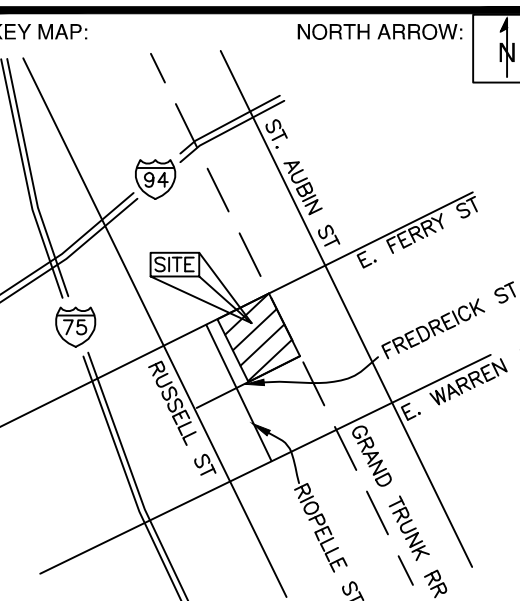
For the location of public utility lines,
YOUR CODES FOR UTILITY LOCATING:

Yellow	Gas	Blue	Water
Orange	Electric	Green	Storm Drain
Red	Telephone	Black	Sewer
White	Other	Grey	Other

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



SEAL/STAMP:



REVISION BLOCK	
REV	DATE/DESCRIPTION

SUBMITTAL LOG	
DATE	PACKAGE NAME
2023-12-19	75% DRAWINGS
2024-03-06	90% DRAWINGS
2025-01-31	ISSUED FOR BID

PROJECT NAME:
**MDOT DETROIT GARAGE
STORM SEWER
RECONSTRUCTION**

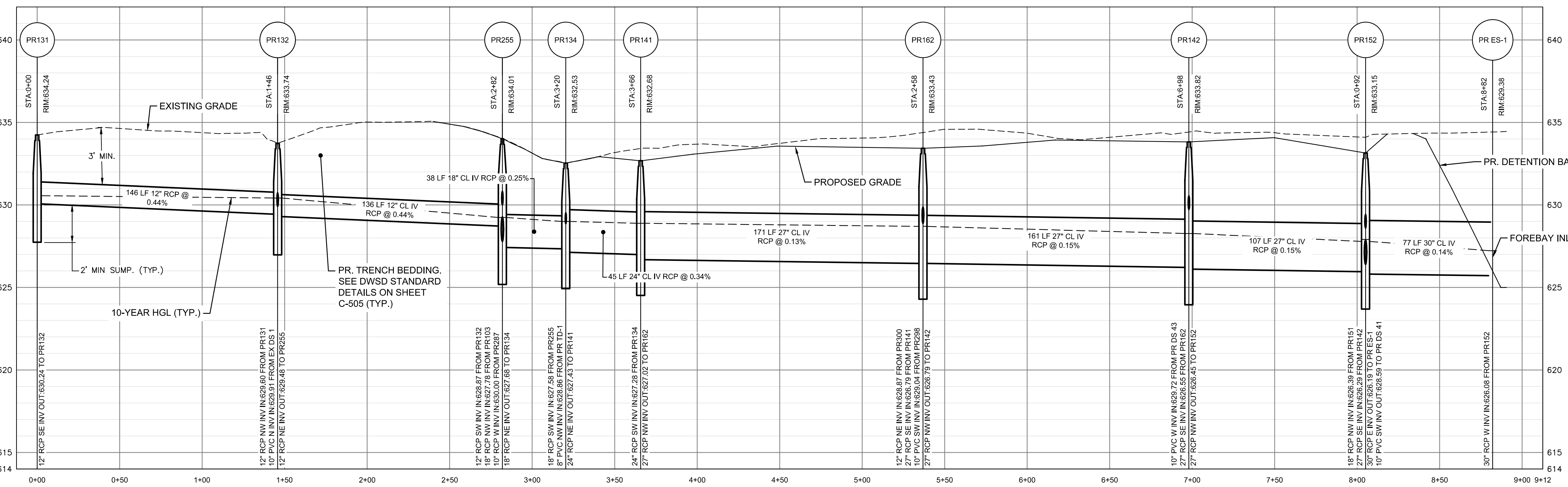
PROJECT LOCATION:
**1500 E. FERRY STREET
DETROIT, MICHIGAN**

DESIGNED BY:	NTH PROJECT NO.:
KBH	23001451
DRAWN BY:	SHEET SIZE:
KBH	ARCH D (24"x36")
CHECKED BY:	DATE:
SLG	1/31/2025
CAD FILE NAME:	
23001451-STRM	

SHEET TITLE:
**PROPOSED UTILITY
PROFILE (1 OF 2)**

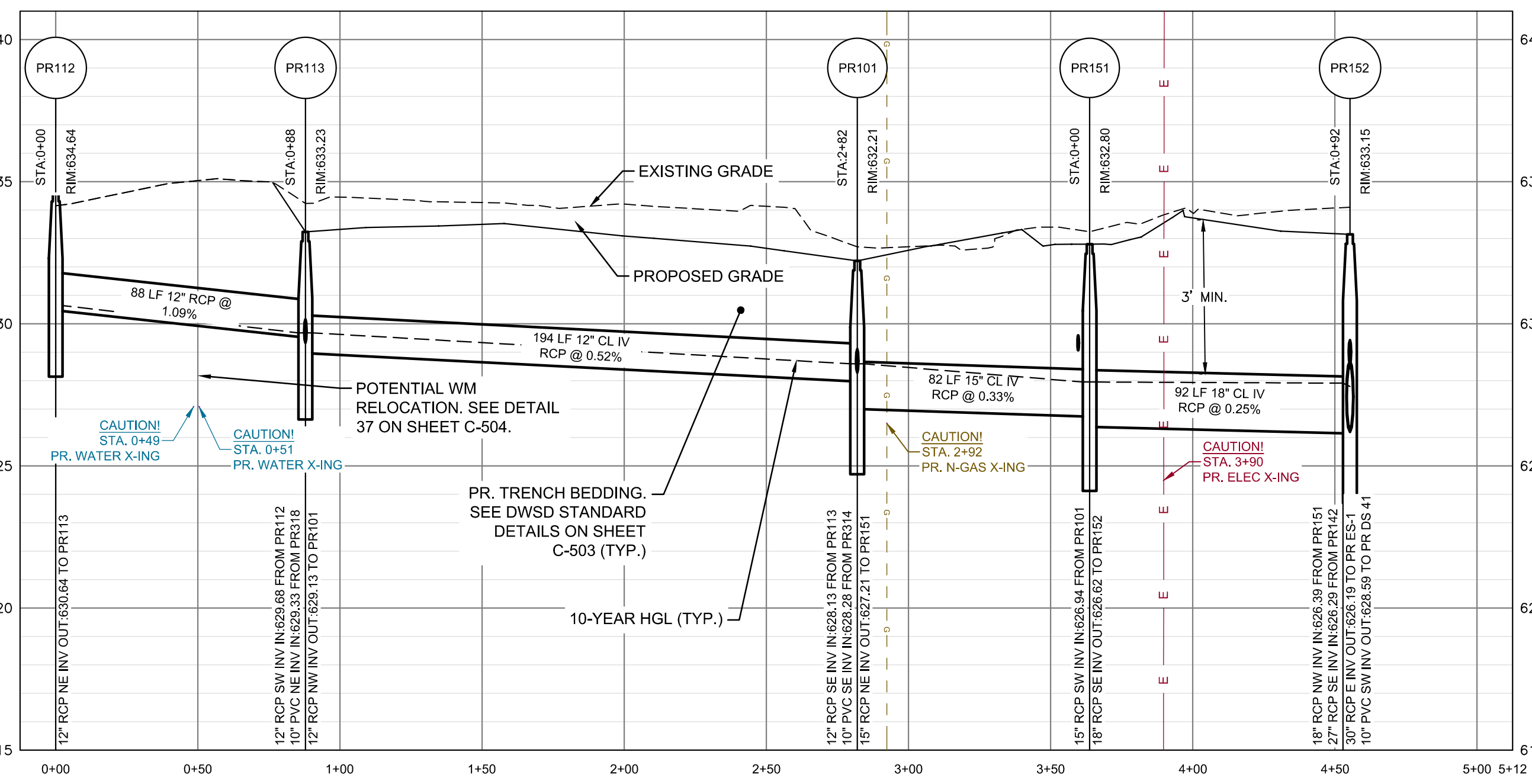
SHEET NUMBER:

C-111



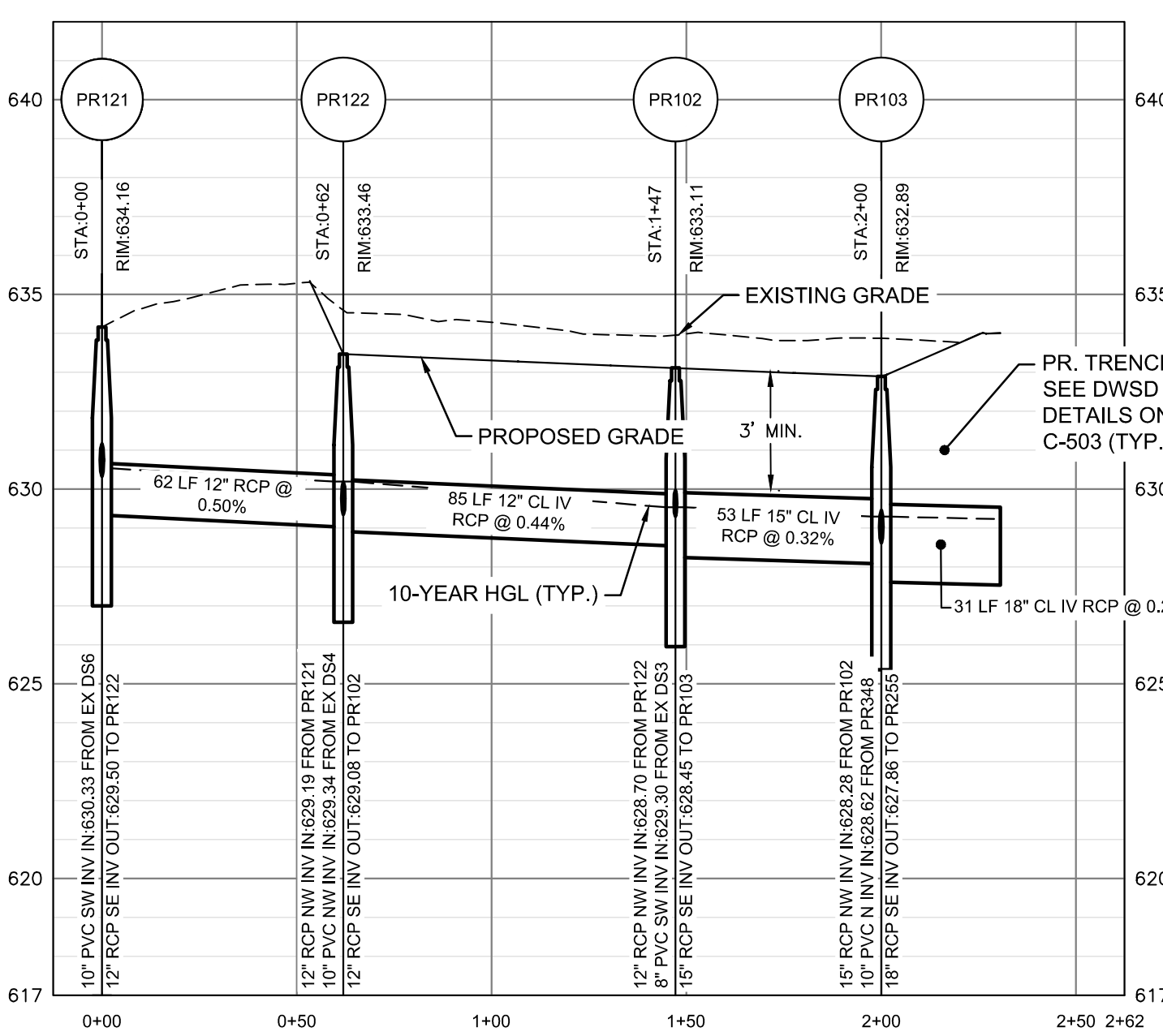
PR 131 TO PR ES-1 PROFILE

HORIZ SCALE: 1" = 20'
VERT SCALE: 1" = 2'



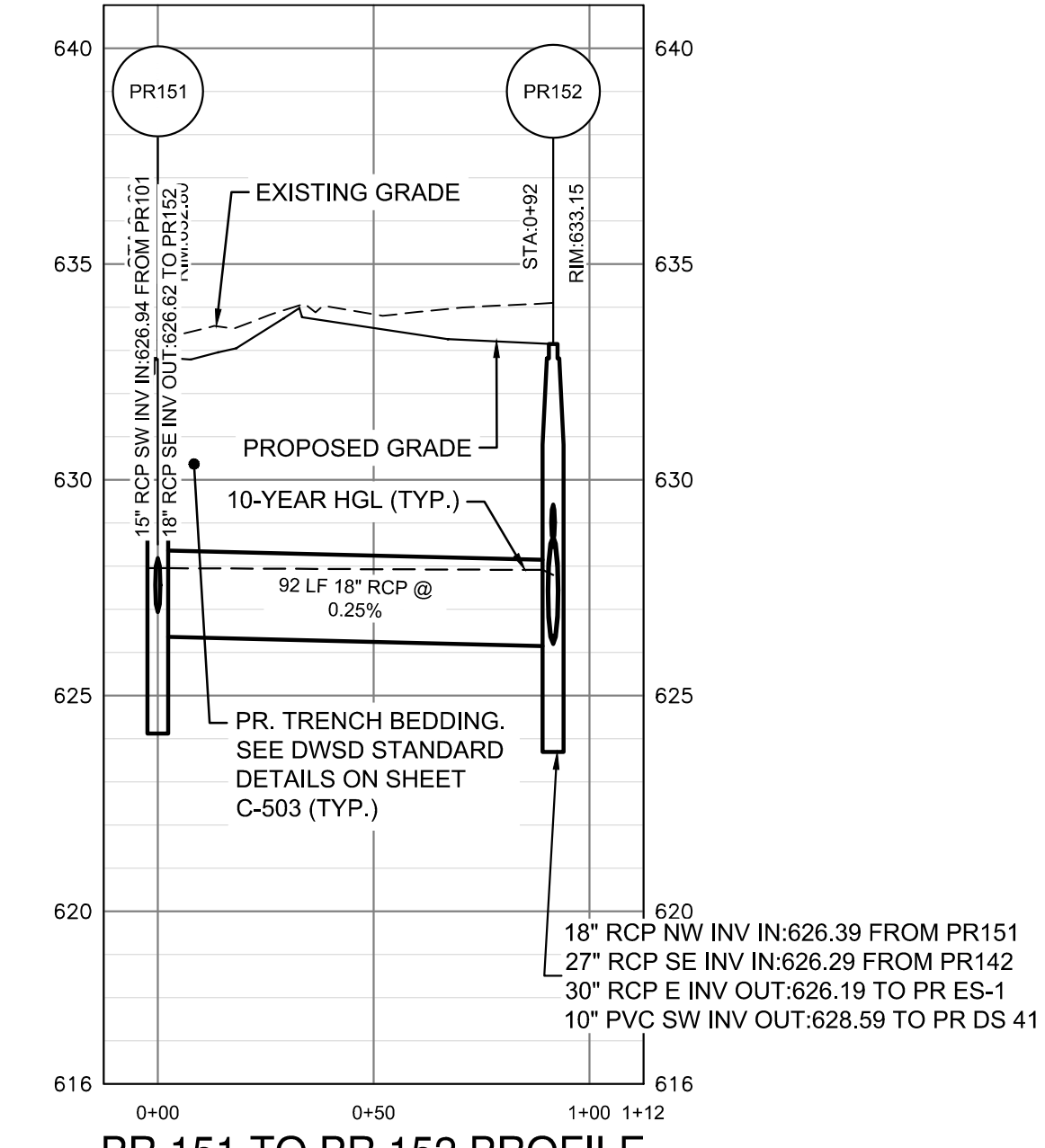
PR 112 TO PR 152 PROFILE

HORIZ SCALE: 1" = 20'
VERT SCALE: 1" = 2'



PR 121 TO PR 255 PROFILE

HORIZ SCALE: 1" = 20'
VERT SCALE: 1" = 2'



PR 151 TO PR 152 PROFILE

HORIZ SCALE: 1" = 20'
VERT SCALE: 1" = 2'

BID

DTMB FILE NO. 591 22274.MNB



STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

I:\2023\23001451\production\set\midst_garage_stormsewer_improvement\23001451-strm.dwg Plotfile: 1/31/2025 4:28 PM by Helen Houston



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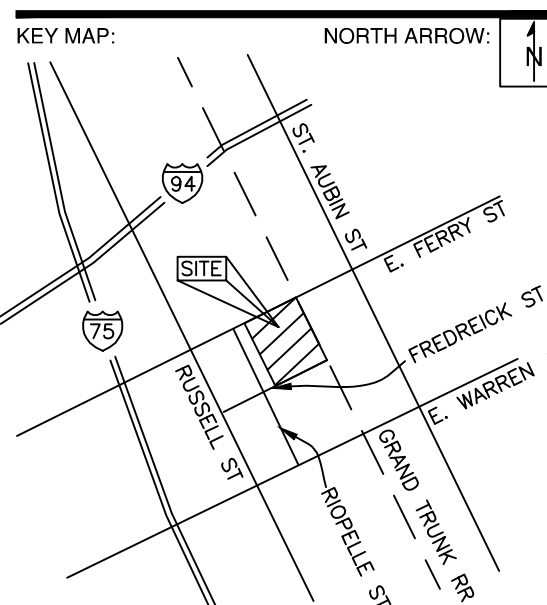
Northville, MI Lansing, MI
Detroit, MI Grand Rapids, MI
Livonia, MI (Laboratory)

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For the location of public utility lines.
ALTERNATE NUMBER (811)
FOR THE LOCATION OF PUBLIC UTILITY LINES:
Color Code for Utility Location:
Yellow: Gas
Orange: Electric
Red: Fire
Blue: Water
Green: Sewer
Purple: Storm Drain
Pink: Surveying
If you are going to work near overhead wires - call MISS DIG



Michigan Department of Transportation

SEAL/STAMP:



REVISION BLOCK

REV	DATE	DESCRIPTION

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PROJECT NAME:

MDOT DETROIT GARAGE
STORM SEWER
RECONSTRUCTION

PROJECT LOCATION:

1500 E. FERRY STREET
DETROIT, MICHIGAN

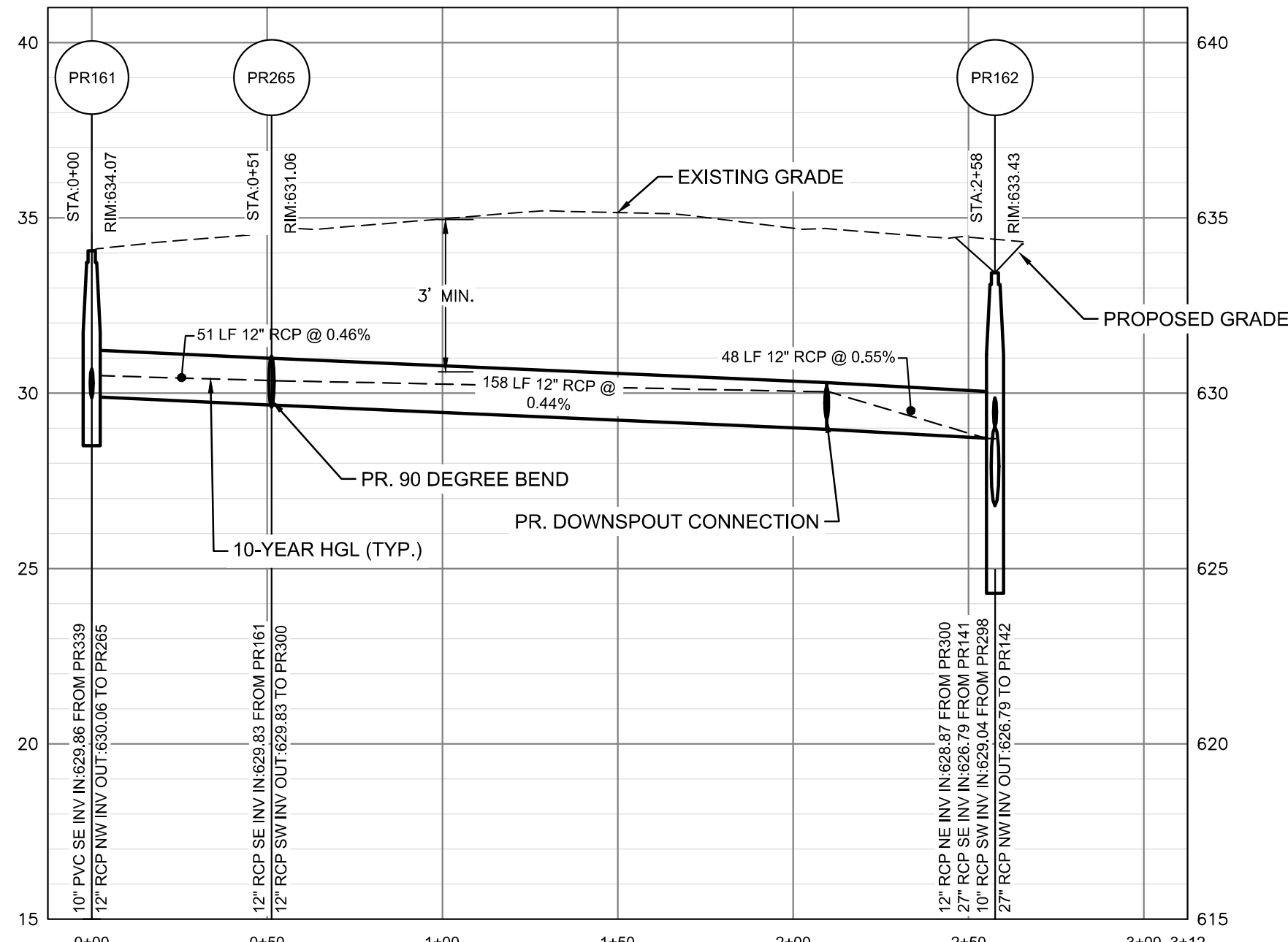
DESIGNED BY: KBH	NTH PROJECT NO.: 23001451
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG	DATE: 1/31/2025
CAD FILE NAME: 23001451-STRM	

SHEET TITLE:

PROPOSED UTILITY
PROFILES (2 OF 2)

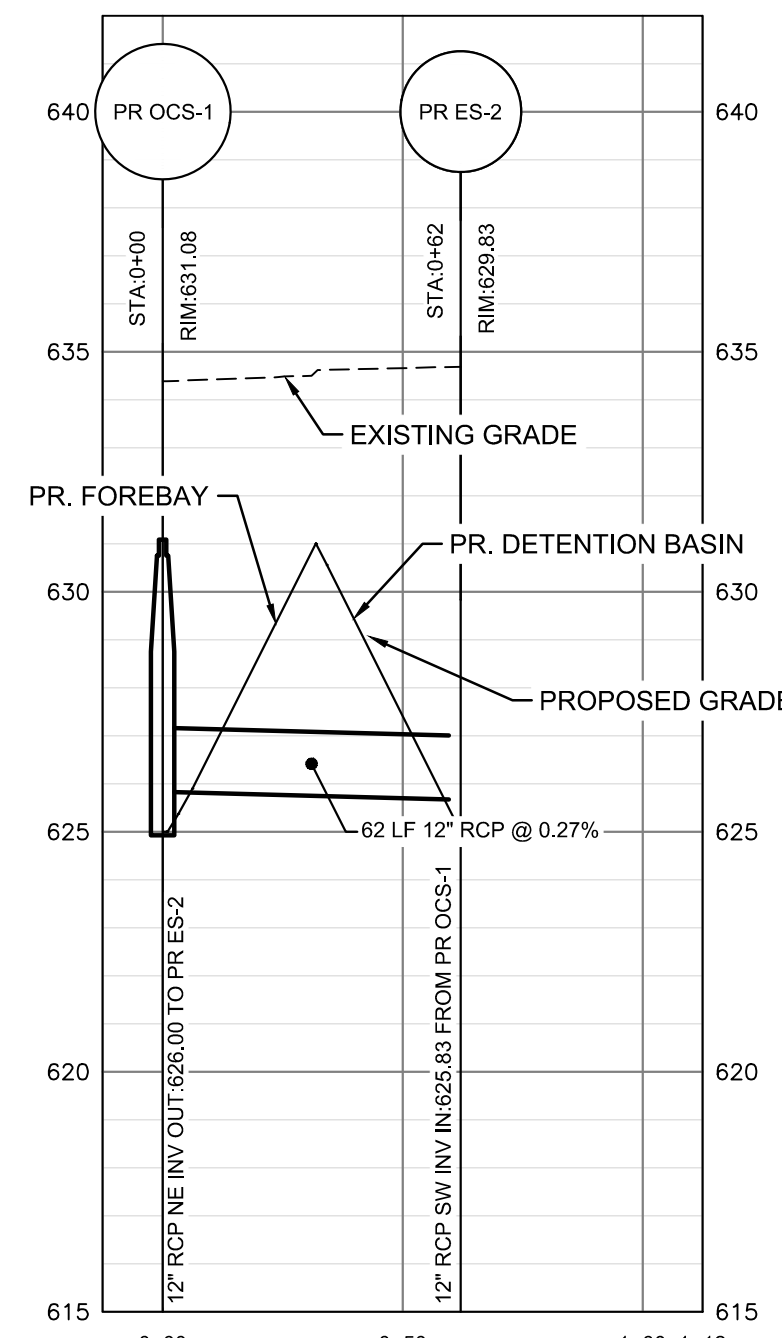
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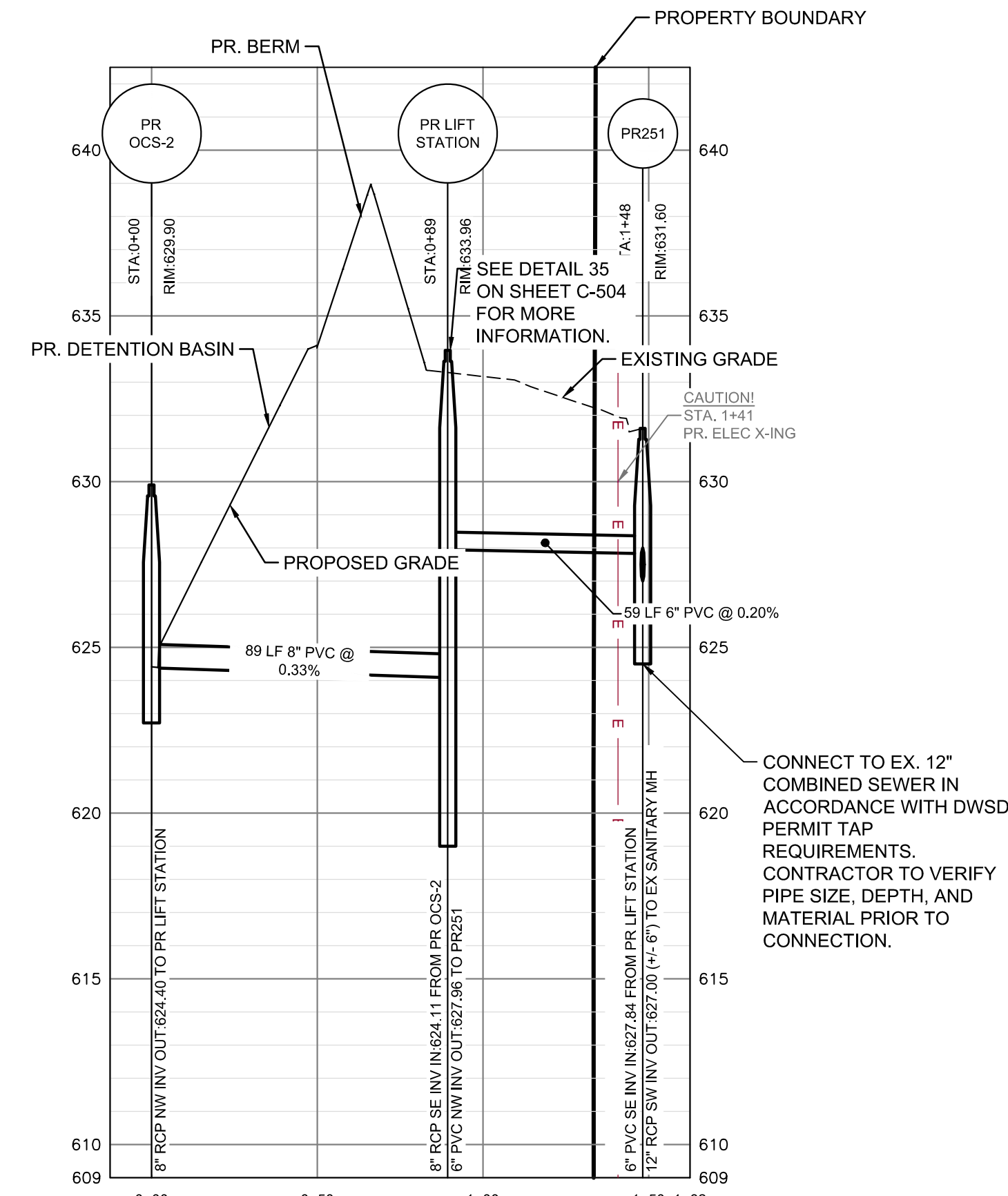
PR. 161 TO PR. 162 PROFILE

HORIZ SCALE: 1" = 20'
VERT SCALE: 1" = 2'



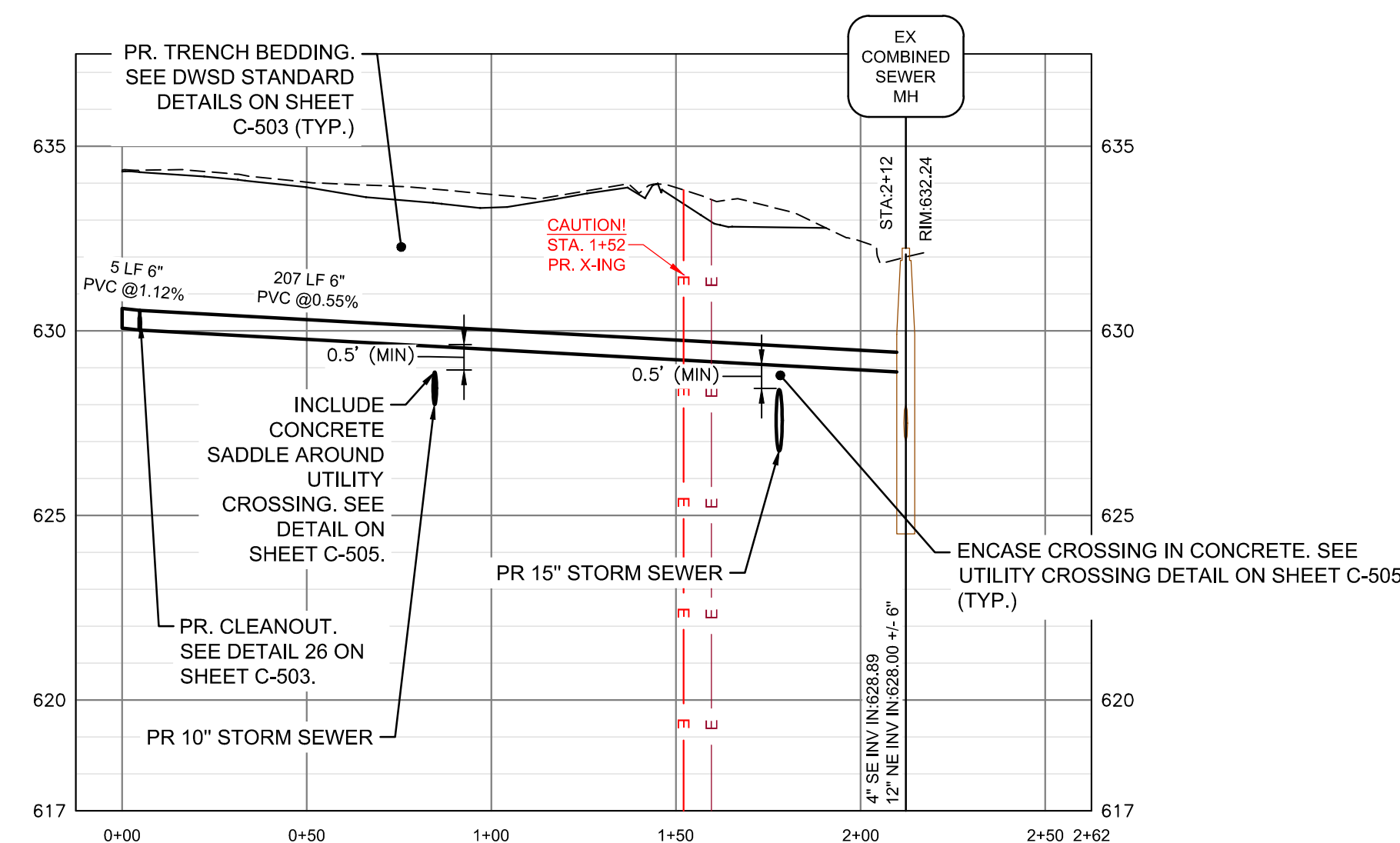
PR. OCS-1 TO PR. ES-2 PROFILE

HORIZ SCALE: 1" = 20'
VERT SCALE: 1" = 2'



PR OCS-2 TO PR 250 PROFILE

HORIZ SCALE: 1" = 20'
VERT SCALE: 1" = 2'



PR SANITARY PROFILE

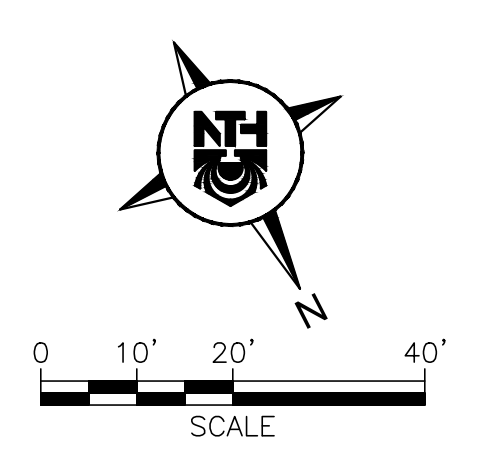
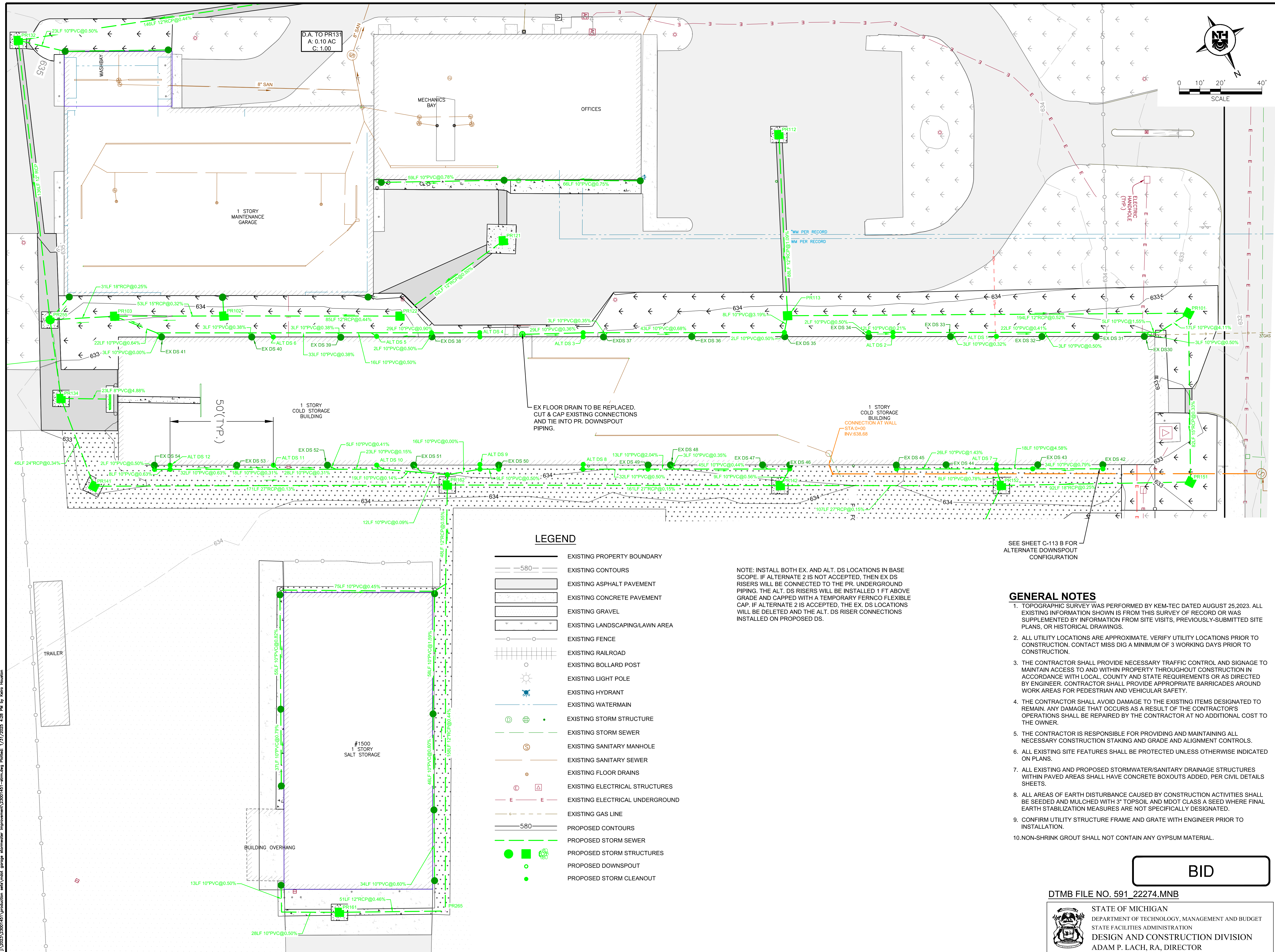
HORIZ SCALE: 1" = 20'
VERT SCALE: 1" = 2'

BID

DTMB FILE NO. 591 22274.MNB



STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR



LEGEND

- EXISTING PROPERTY BOUNDARY
- 580 EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING GRAVEL
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING RAILROAD
- EXISTING BOLLARD POST
- EXISTING LIGHT POLE
- EXISTING HYDRANT
- EXISTING WATERMAIN
- EXISTING STORM STRUCTURE
- EXISTING STORM SEWER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY SEWER
- EXISTING FLOOR DRAINS
- EXISTING ELECTRICAL STRUCTURES
- EXISTING ELECTRICAL UNDERGROUND
- EXISTING GAS LINE
- 580 PROPOSED CONTOURS
- PROPOSED STORM SEWER
- PROPOSED STORM STRUCTURES
- PROPOSED DOWNSPOUT
- PROPOSED STORM CLEANOUT

NOTE: INSTALL BOTH EX. AND ALT. DS LOCATIONS IN BASE SCOPE. IF ALTERNATE 2 IS NOT ACCEPTED, THEN EX DS RISERS WILL BE CONNECTED TO THE PR. UNDERGROUND PIPING. THE ALT. DS RISERS WILL BE INSTALLED 1 FT ABOVE GRADE AND CAPPED WITH A TEMPORARY FERROCEMENT FLEXIBLE CAP. IF ALTERNATE 2 IS ACCEPTED, THE EX. DS LOCATIONS WILL BE DELETED AND THE ALT. DS RISER CONNECTIONS INSTALLED ON PROPOSED DS.

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9. CONFIRM UTILITY STRUCTURE FRAME AND GRATE WITH ENGINEER PRIOR TO INSTALLATION.
10. NON-SHRINK GROUT SHALL NOT CONTAIN ANY GYPSUM MATERIAL.

SEE SHEET C-113 B FOR ALTERNATE DOWNSPOUT CONFIGURATION

BID

DTMB FILE NO. 591 22274.MNB



STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
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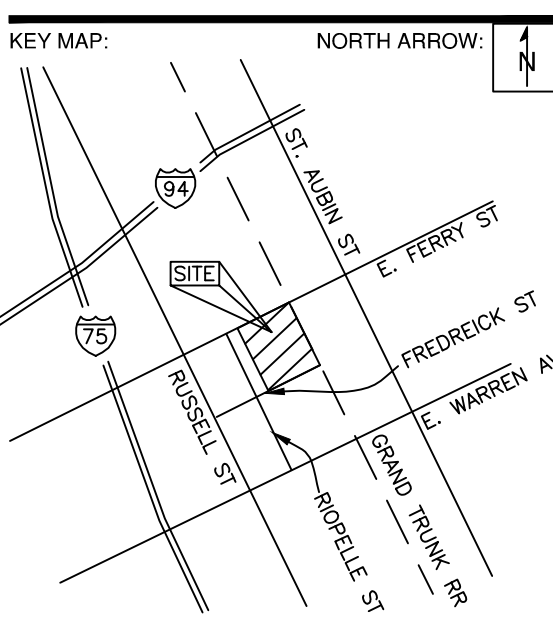
3 WORKING DAYS
**BEFORE YOU DIG
CALL MISS DIG**
1-800-482-7171
For the location of public utility lines.
ALTERNATE NUMBER (811)
COLOR CODES FOR UTILITY LOCATIONS:

Yellow	Oil & Gas	Blue	Water
Orange	Phone & Cable	Green	Storm Drain
Red	Electric	Brown	Sanitary
Purple	Gas	Black	Sanitary

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

MDOT
Michigan Department of Transportation

SEAL/STAMP:



REVISION BLOCK

REV	DATE	DESCRIPTION

SUBMITTAL LOG

DATE	PACKAGE NAME
2023-12-19	75% DRAWINGS
2024-03-06	90% DRAWINGS
2025-01-31	ISSUED FOR BID

PROJECT NAME:
**MDOT DETROIT GARAGE
STORM SEWER
RECONSTRUCTION**

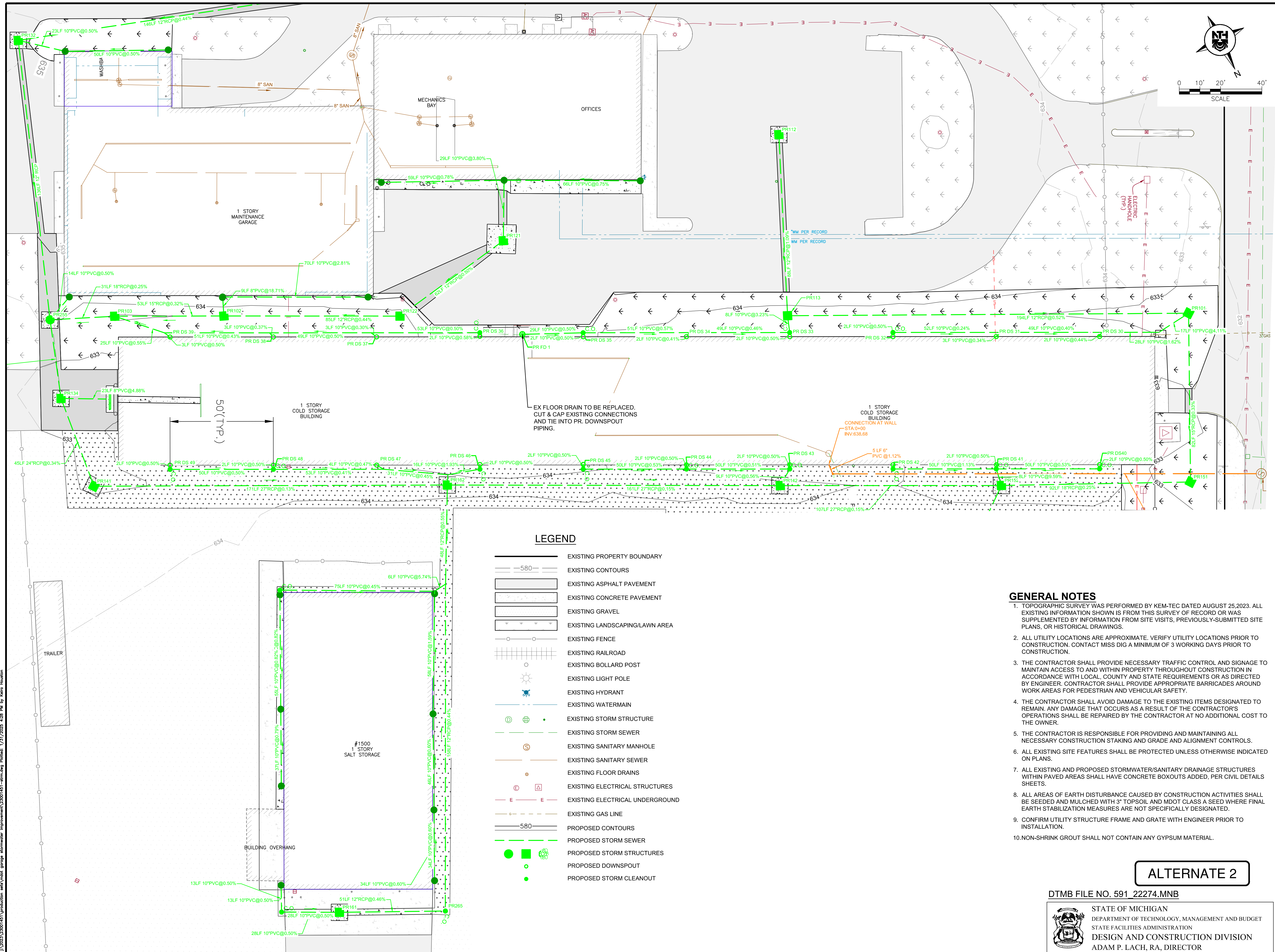
PROJECT LOCATION:
**1500 E. FERRY STREET
DETROIT, MICHIGAN**

DESIGNED BY: KBH	NTH PROJECT NO.: 23001451
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG	DATE: 1/31/2025
CAD FILE NAME: 23001451-STRM	

SHEET TITLE:
**PROPOSED DOWNSPOUT
PLAN**

SHEET NUMBER:
C-113 A

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LEGEND

- EXISTING PROPERTY BOUNDARY
- 580 EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING GRAVEL
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING RAILROAD
- EXISTING BOLLARD POST
- EXISTING LIGHT POLE
- EXISTING HYDRANT
- EXISTING WATERMAIN
- EXISTING STORM STRUCTURE
- EXISTING STORM SEWER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY SEWER
- EXISTING FLOOR DRAINS
- EXISTING ELECTRICAL STRUCTURES
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ALTERNATE 2

DTMB FILE NO. 591 22274.MNB

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 STATE FACILITIES ADMINISTRATION
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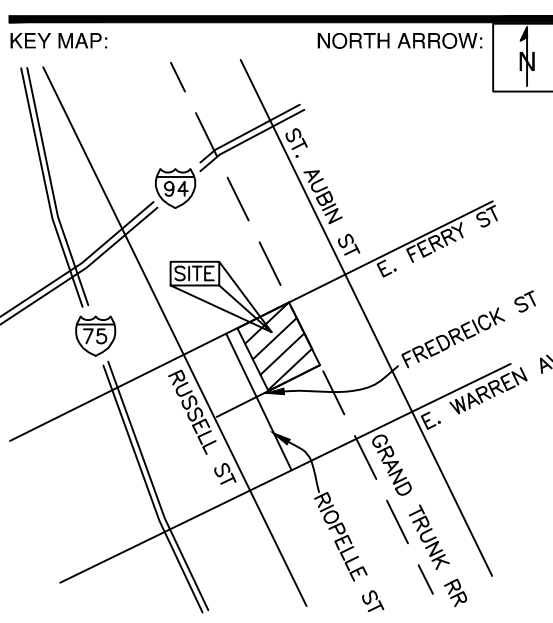
For the location of public utility lines, ALTERNATE NUMBER (811) YOUR CODES FOR UTILITY LOCATIONS:

Yellow: OIL & GAS Blue: WATER
 Orange: FIRE & CITY Green: SEWER
 Red: ELECTRIC Purple: SURVEYING

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

MDOT
 Michigan Department of Transportation

SEAL/STAMP:



REVISION BLOCK	
REV	DATE: DESCRIPTION

SUBMITTAL LOG	
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PROJECT NAME:
**MDOT DETROIT GARAGE
 STORM SEWER
 RECONSTRUCTION**

PROJECT LOCATION:
**1500 E. FERRY STREET
 DETROIT, MICHIGAN**

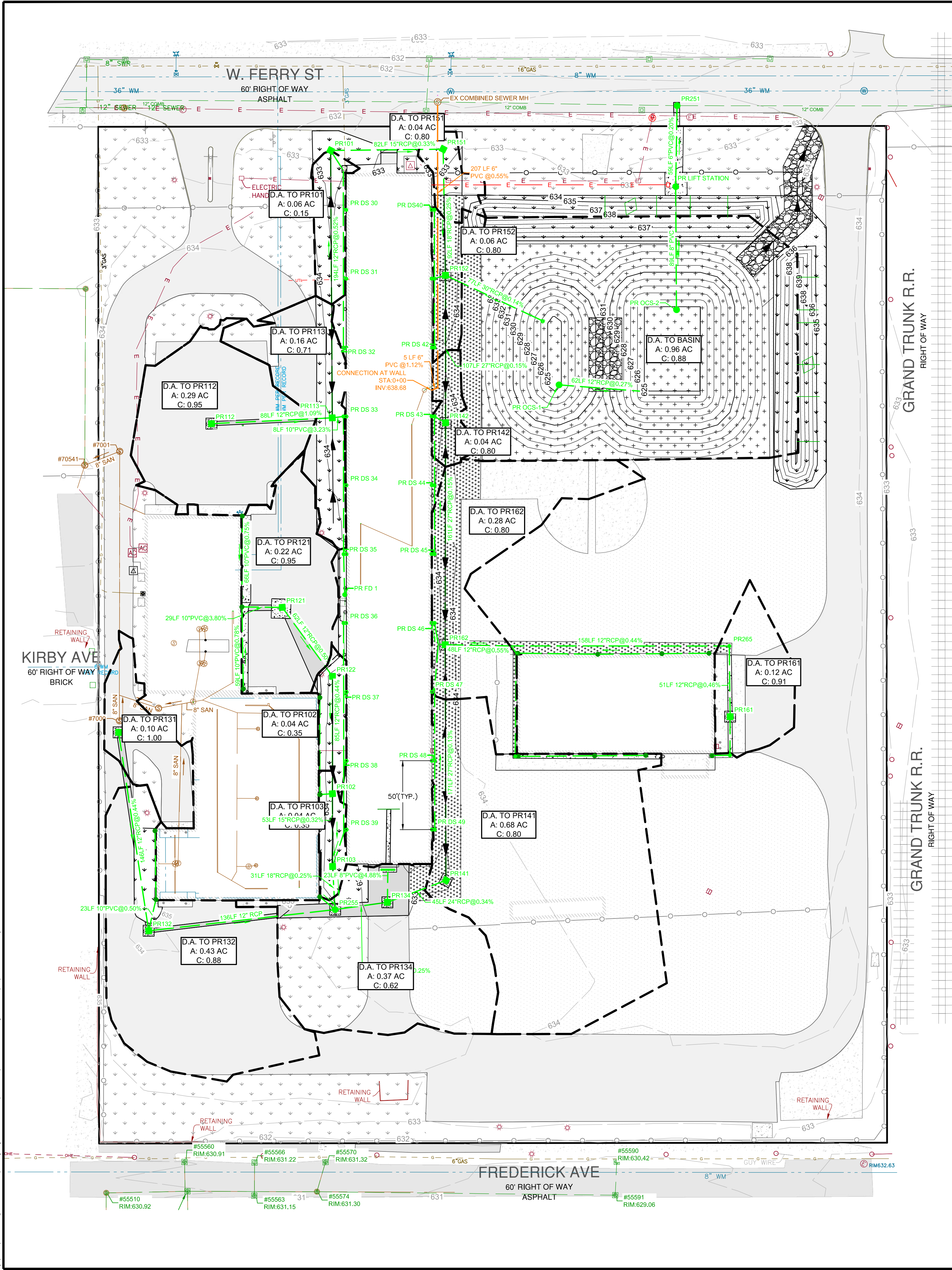
DESIGNED BY: KBH	NTH PROJECT NO.: 23001451
DRAWN BY: KBH	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG	DATE: 1/31/2025

CAD FILE NAME:
23001451-STRM

SHEET TITLE:
**PROPOSED DOWNSPOUT
 PLAN - ALTERNATE 2**

SHEET NUMBER:
C-113 B

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STORMWATER NARRATIVE

- RUNOFF RUNS FROM THE SITE GENERALLY NORTH AND WEST TOWARDS E. FERRY STREET VIA SHEET FLOW, CATCH BASINS, STORMWATER CONVEYANCE PIPING, AND GRADED LOW LINES.
- THE PROPOSED STORMWATER PIPE CONVEYANCE SYSTEM HAS BEEN DESIGNED TO CONVEY THE 10-YEAR DESIGN STORM AND DRAIN RUNOFF FROM THE PROJECT AREA TO THE DWSD SEWER SYSTEM.
- A DETENTION POND FOREBAY HAS BEEN PROVIDED TO SATISFY WATER QUALITY REQUIREMENTS FOR THE DEVELOPED PROJECT AREA.
- SITE RUNOFF IS RELEASED TO THE DWSD SEWER SYSTEM THROUGH EXTENDED DETENTION VIA AN ABOVE GROUND DETENTION POND. A LIFT STATION HAS BEEN PROVIDED TO RELEASE STORMWATER AT THE APPROPRIATE RATE FOR EXTENDED DETENTION.

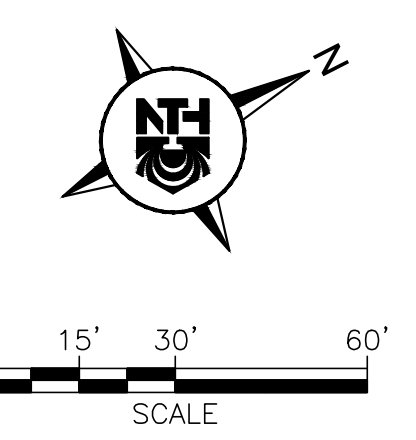
WATER QUALITY VOLUME: 15,967 CF
 1 INCH OF RAINFALL OVER DRAINAGE AREA

100-YR FLOOD CONTROL VOLUME: 51,454 CF
 $V_{100} = 60.5 \cdot D_{100} \cdot C \cdot A \cdot 1 - 60 \cdot D_{100} \cdot Q_e \cdot A$

SEE FULL STORMWATER CALCULATIONS ON SHEET C-115.

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING GRAVEL
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- PROPOSED GRAVEL
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- PROPOSED RIPRAP
- PROPOSED LANDSCAPING/LAWN AREA
- PROPOSED FENCE
- PROPOSED BOLLARD
- PROPOSED CONTOURS
- PROPOSED DRAINAGE AREAS
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- PROPOSED STORM STRUCTURES



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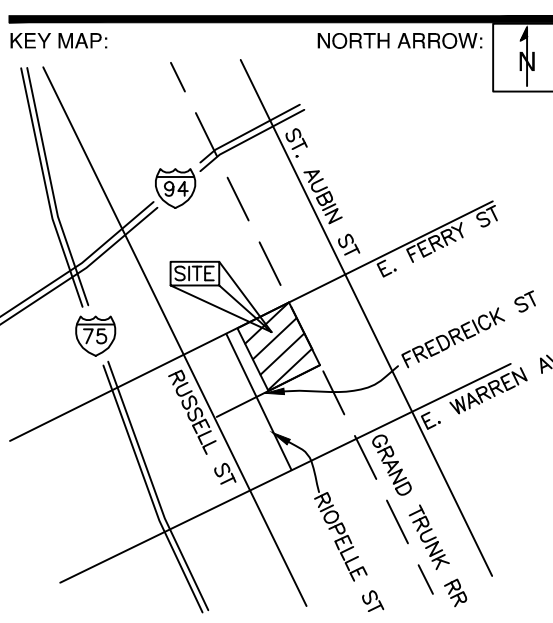
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CAD FILE NAME: 23001451-STRM	

SHEET TITLE:
**PROPOSED STORMWATER
 MANAGEMENT PLAN**

SHEET NUMBER:
C-114

1/31/2025 2:00:45 PM Production: neth\micki_groupa Stormwater Improvement\23001451-Storming Plotted: 1/31/2025 4:28 PM by Helen Houston