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 1520 NORTH JOHNSON STREET
 ARLINGTON, VA 22201
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 CONTACT:
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City of Detroit, Wayne County, Michigan CONSTRUCTION DOCUMENTS

Prepared For Ferry Street Ventures, LLC

PART OF THE NE 1/4 OF SECTION 31,
 CITY OF DETROIT,
 WAYNE COUNTY, MICHIGAN



REVISIONS:
 2021-12-03 ISSUED FOR OWNER REVIEW
 2022-05-11 REVISED PER OWNER
 2022-08-18 REVISED PER ROW REVIEW
 2022-08-25 REVISED PER ROW REVIEW
 2022-09-27 REVISED PER ROW REVIEW
 2022-10-25 REVISED PER CITY REVIEW
 2022-10-26 REVISED PER OWNER
 2022-11-08 REVISED PER CITY REVIEW
 2022-11-30 REVISED PER CITY REVIEW

LEGAL DESCRIPTION

PARCEL 1
 03001776
 603 E MILWAUKEE AVE

LOTS 1 AND 2, SUB OF LOTS 88-95, FRISBIE AND FOXEN'S SUB, CITY OF DETROIT, WAYNE COUNTY, MICHIGAN, AS RECORDED IN LIBER 8, PAGE 78 OF PLATS, WAYNE COUNTY RECORDS.

PARCEL 2
 03001777
 609 E MILWAUKEE AVE

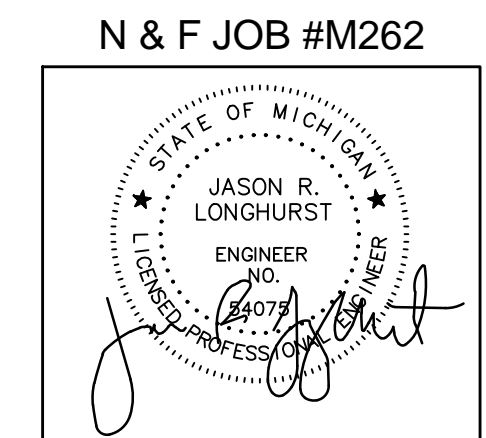
LOT 3, ALSO THE WEST 10' OF LOT 4, SUB OF LOTS 88-95, FRISBIE AND FOXEN'S SUB, CITY OF DETROIT, WAYNE COUNTY, MICHIGAN, AS RECORDED IN LIBER 8, PAGE 78 OF PLATS, WAYNE COUNTY RECORDS.

SHEET INDEX

- C0 Cover Sheet
- C1 Boundary and Topographic Survey
- C2 Demolition Plan
- C3 Engineering Plan
- C4 Storm Profile
- C5 Soil Erosion Control and Drainage Area Plan
- C6 Notes and Details
- C7 Notes and Details
- C8 Notes and Details
- L1 Landscape Plan

Project Name

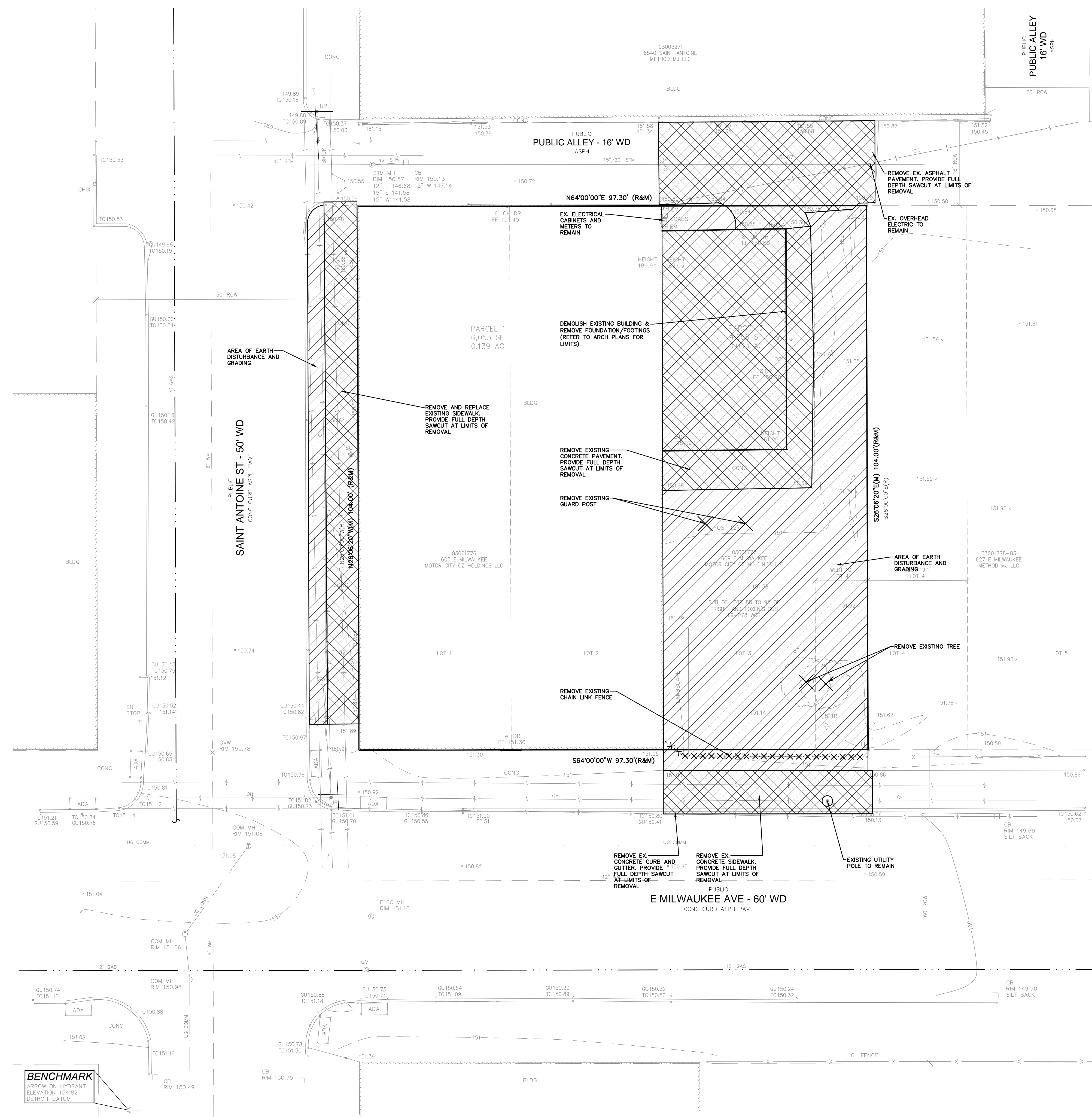
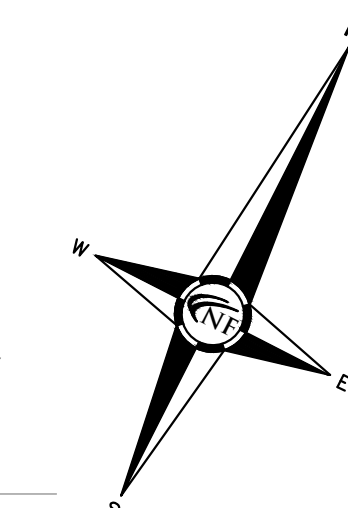
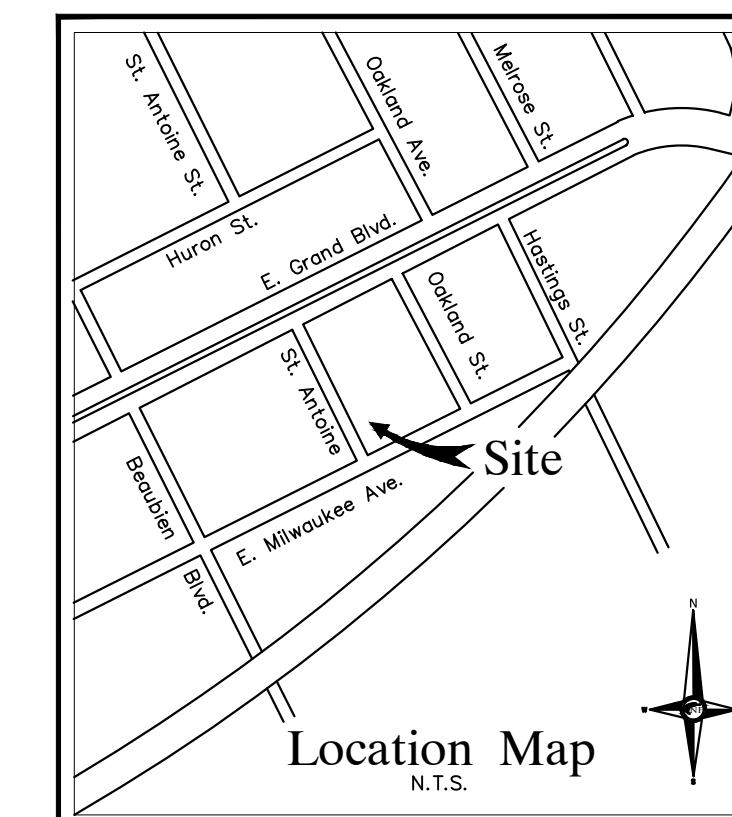
603 E MILWAUKEE AVE DETROIT MI.



NF ENGINEERS
 CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS

N & F JOB #M262

NOWAK & FRAUS ENGINEERS
 46777 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
 FAX. (248) 332-8257
 WWW.NOWAKFRAUS.COM



DEMOLITION NOTES

DEMOLITION OF SITE IMPROVEMENTS SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE PUBLIC AGENCY HAVING JURISDICTION OVER SAID DEMOLITION.

FOR ANY DEMOLITION WITHIN PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR, AND SECURE, ALL NECESSARY PERMITS AND LIKEWISE SHALL ARRANGE FOR ALL SITE INSPECTIONS.

SITE DEMOLITION INCLUDES THE COMPLETE REMOVAL OF SITE IMPROVEMENTS AND OFF-SITE DISPOSAL. DEBRIS SHALL BE TRANSPORTED TO AN APPROPRIATE DISPOSAL FACILITY THAT IS LICENSED FOR THAT TYPE OF DEBRIS.

THE CONTRACTOR SHALL COORDINATE TRUCK ROUTES WITH THE MUNICIPALITY PRIOR TO COMMENCEMENT OF SITE DEMOLITION. ALL TRUCKS SHALL BE TARPED OR PROPERLY SECURED TO CONTAIN DEMOLITION DEBRIS PRIOR TO LEAVING SITE.

EXISTING ON-SITE UNDERGROUND UTILITIES AND BUILDING SERVICES HAVE BEEN INDICATED BASED UPON THE BEST AVAILABLE UTILITY RECORDS AND/OR ON-SITE INSPECTION. NO GUARANTEE IS MADE BY THE DESIGN ENGINEER, AS TO THE COMPLETENESS OR ACCURACY OF UTILITY DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF UTILITY INFORMATION. THE DESIGN ENGINEER MAKES NO GUARANTEE NOR ASSUMES ANY LIABILITY AS TO THE COMPLETENESS AND/OR ACCURACY OF UTILITY DATA).

PRIOR TO THE REMOVAL OR ABANDONMENT OF ANY EXISTING UNDERGROUND UTILITY OR BUILDING SERVICE LINES CALLED FOR IN THE PLANS OR DISCOVERED DURING EXCAVATION, THE CONTRACTOR MUST DETERMINE IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE. IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE/ACTIVE, THE CONTRACTOR MUST TAKE ALL THE NECESSARY STEPS TO GUARANTEE THAT THE UTILITY LINE OR BUILDING SERVICE IS RECONNECTED WITHOUT AN INTERRUPTION IN SERVICE. THE RECONNECTION OF THE UTILITY LINE OR BUILDING SERVICE MUST BE IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE APPROPRIATE GOVERNMENTAL AGENCY OR PRIVATE UTILITY COMPANY.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO SITE DEMOLITION.

* THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF THE SITE DEMOLITION.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH UTILITY COMPANY. REMOVAL OF THE UTILITY COMPANIES ELECTRICAL SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF THE UTILITY COMPANY.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH UTILITY COMPANY. REMOVAL OF THE UTILITY COMPANY GAS SERVICES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE UTILITY COMPANY.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH THE UTILITY COMPANY. REMOVAL OF THE UTILITY COMPANIES COMMUNICATION SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF THE UTILITY COMPANY.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH THE APPROPRIATE CABLE MEDIA COMPANY. REMOVAL OF CABLE SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF THE CABLE COMPANY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF PRIVATE UTILITY COMPANIES AND COORDINATE UTILITY SERVICE SHUT-OFF/DISCONNECT, PRIOR TO DEMOLITION OF EXISTING STRUCTURES OR PROPERTIES.

ALL UTILITY METERS SHALL BE REMOVED BY THE APPROPRIATE UTILITY COMPANY.

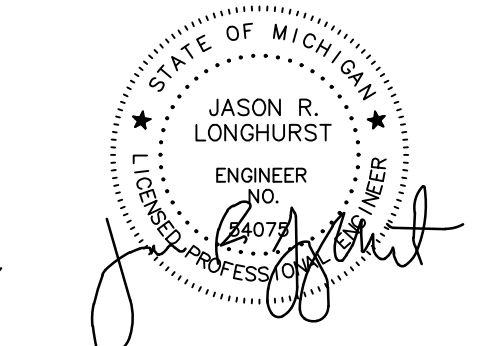
ANY ON-SITE STORM SEWER FACILITIES LOCATED DURING DEMOLITION SHALL BE REMOVED AND BULK HEADED AT THE PROPERTY LINE IF INDICATED FOR REMOVAL ON THE PLANS.

PRIOR TO BUILDING DEMOLITION, ALL HAZARDOUS MATERIAL SHALL BE REMOVED BY OTHERS. THE DEMOLITION CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD ANY SUSPICIOUS MATERIAL BE FOUND.

WATER SERVICES AND/OR STOP-BOX SHALL BE PRESERVED AND BULK HEADED AT THE PROPERTY LINE OR AS DIRECTED BY THE OWNER'S REPRESENTATION.

WHERE EXISTING BUILDINGS PLANNED FOR DEMOLITION FALL WITHIN PROPOSED BUILDING FOOTPRINTS, BASEMENT FLOOR SLABS, FOUNDATION WALLS AND FOOTINGS SHALL BE COMPLETELY REMOVED AND BACK FILLED WITH DOT CLASS II GRANULAR MATERIAL AND BE MACHINE COMPACTED TO A MINIMUM OF 98% OF MATERIALS MAXIMUM DENSITY.

SEAL



PROJECT

603 E Milwaukee Ave
Detroit, Michigan

CLIENT

Ferry Street Ventures, LLC
1520 North Johnson Street
Arlington, VA 22201

PROJECT LOCATION

Part of the Northeast 1/4
of Section 11
Town 1 South, Range 12
East
City of Detroit,
Wayne County, Michigan

SHEET

Demolition Plan



DATE ISSUED/REVISED

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DRAWN BY:

A. Panley

DESIGNED BY:

A. Panley

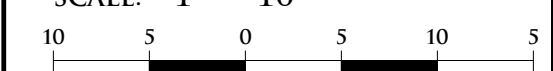
APPROVED BY:

J. Longhurst

DATE:

December 1, 2021

SCALE: 1" = 10'

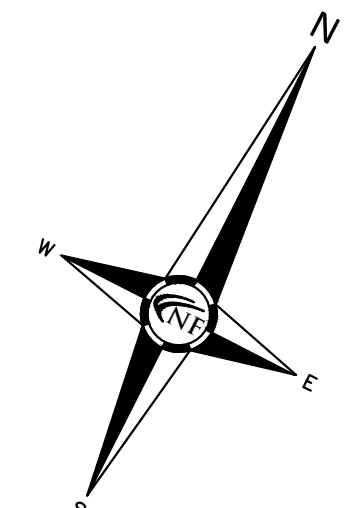
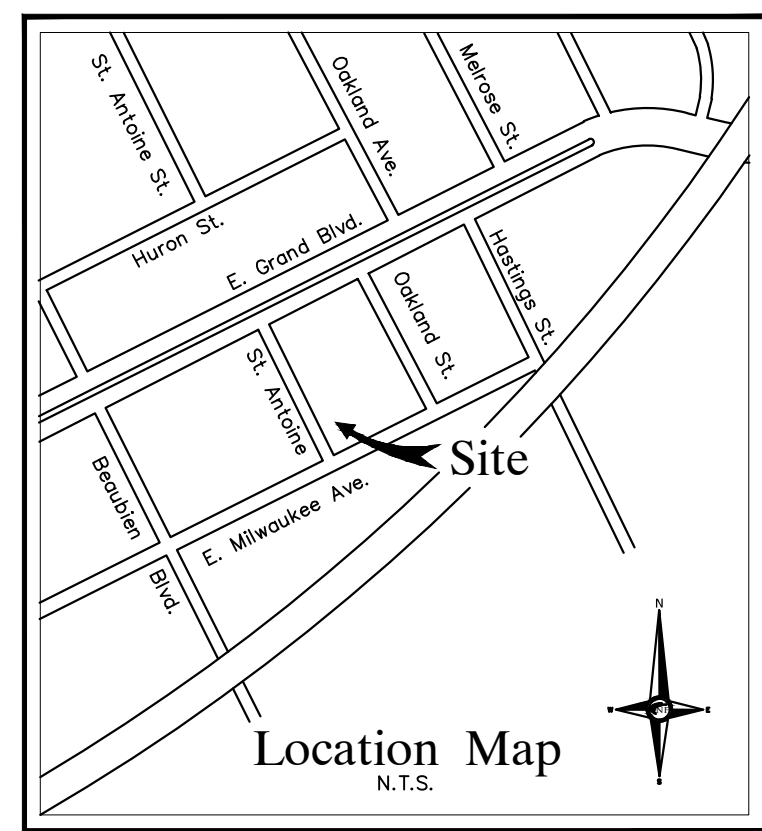


NFE JOB NO.

M262

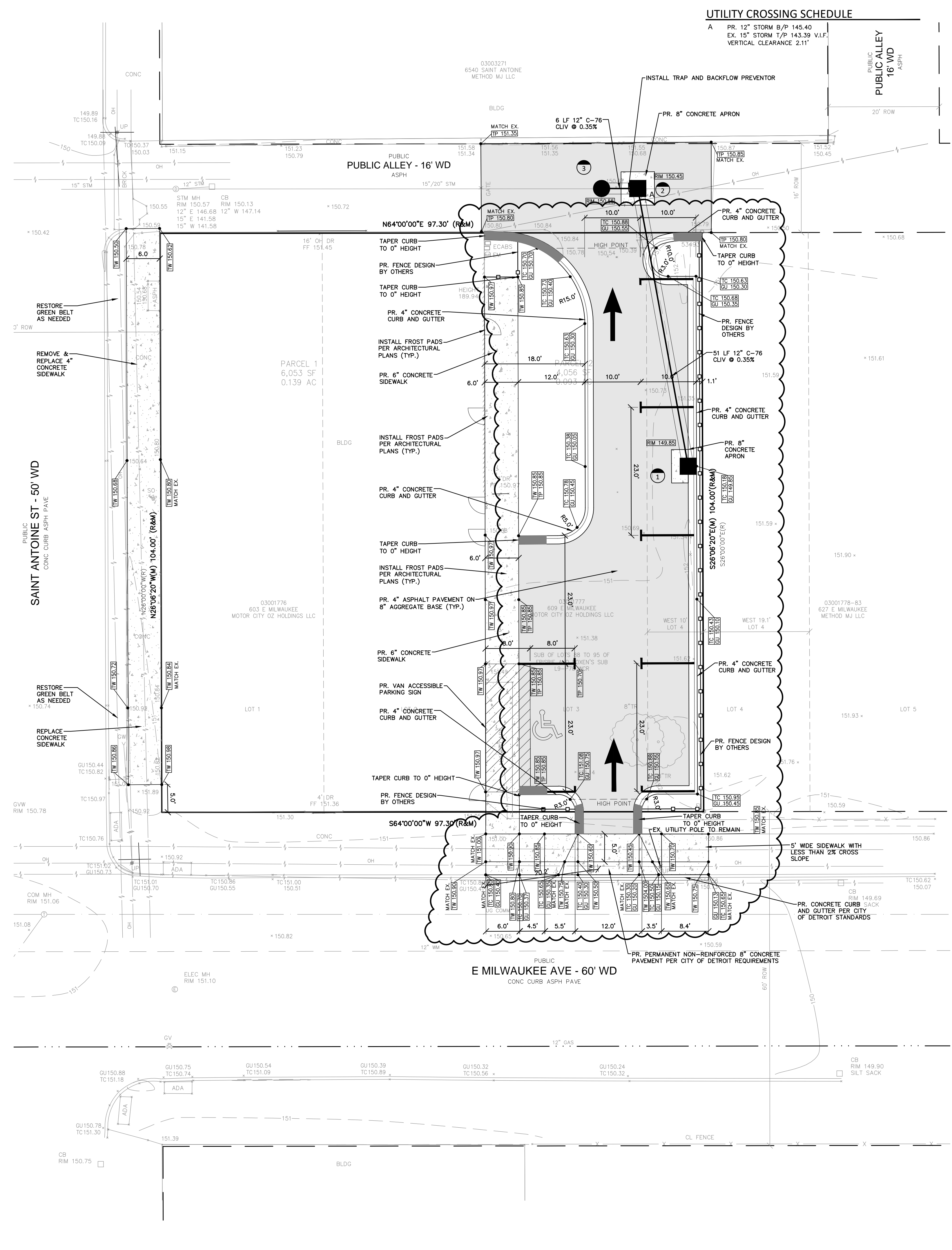
SHEET NO.

C2



UTILITY CROSSING SCHEDULE

A	PR. 12" STORM B/P 145.40
	EX. 15" STORM 7/P 143.39 V.I.F.
	VERTICAL CLEARANCE 2.11'



FENCING AND LANDSCAPING
 FENCING AND LANDSCAPING WILL BE PART OF A DEFERRED SUBMITTAL.

ROW SIDEWALK REPLACEMENT NOTE
 RESTORE DAMAGED PUBLIC SIDEWALKS ADJACENT TO THE PROPERTY PER DETAIL C-4462 AS DIRECTED BY THE CITY INSPECTOR.

UTILITY CROSSING NOTE
 AT LOCATIONS WHERE THERE ARE CROSSING WITH EXISTING UTILITIES AND THEIR DEPTHS ARE UNKNOWN, 18" VERTICAL SEPARATION WILL BE MAINTAINED WHENEVER POSSIBLE. IF THE 18" SEPARATION IS NOT OBTAINABLE, A CONCRETE ENCASUREMENT WILL BE INSTALLED AT THE CROSSING.

NOTES
 ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF DETROIT.

GENERAL PAVING NOTES
 PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS SECTION AS INDICATED ON THE PLANS AND AS FOLLOWS:

CONCRETE: PORTLAND CEMENT TYPE IA (AIR-ENTRAINED) WITH A MINIMUM CEMENT CONTENT OF SIX SACKS PER CUBIC YARD, MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,500 PSI AND A SLUMP OF 1, 1/2 TO 3 INCHES.

ASPHALT: BASE COURSE - MDOT HMA 4E1, 20AA; SURFACE COURSE - MDOT HMA 5E1, 20AA; ASPHALT CEMENT PENETRATION GRADE 58-22, BOND COAT - MDOT SS-1H EMULSION AT 0.10 GALLON PER SQUARE YARD;

PAVEMENT BASE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT. EXISTING SUB-BASE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER TO DETERMINE STABILITY.

ALL CONCRETE PAVEMENT, DRIVEWAYS, CURB & GUTTER, ETC. SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY FOLLOWING FINISHING OPERATION.

ALL CONCRETE PAVEMENT JOINTS SHALL BE FILLED WITH HOT POURED RUBBERIZED ASPHALT JOINT SEALING COMPOUND IMMEDIATELY AFTER SAWCUT OPERATION. FEDERAL SPECIFICATION SS-S164.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY AND THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION.

CONSTRUCTION OF A NEW OR RECONSTRUCTED DRIVE APPROACH CONNECTING TO AN EXISTING STATE OR COUNTY ROADWAY SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE AGENCY HAVING JURISDICTION OVER SAID ROADWAY.

FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LICENSE ARRANGE FOR ALL INSPECTION.

EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS.

EXPANSION JOINTS SHOULD BE INSTALLED AT THE END OF ALL INTERSECTION RADII.

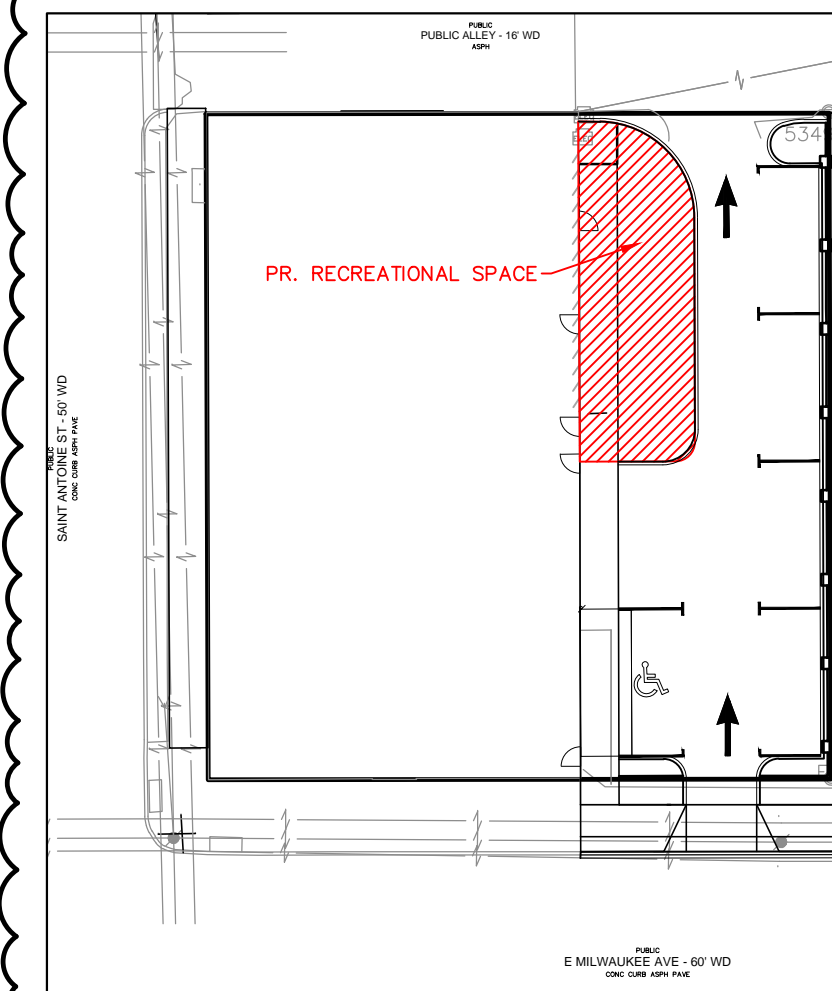
SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1973, SHALL BE INSTALLED AS SHOWN AT ALL STREET INTERSECTIONS AND AT ALL BARRIER FREE PARKING AREAS AS INDICATED ON THE PLANS.

Storm Drainage Structure Schedule

Structure Name	Structure Details
#1 PR. 2' DIA. CATCH BASIN A PER CITY OF DETROIT DETAILS	PR. RIM 149.85 PR. 12" NW. INV. 145.68
#2 PR. 4' DIA CATCH BASIN B PER CITY OF DETROIT DETAILS INSTALL TIDEFLEX BACKFLOW PREVENTOR AND TRAP ON SW LINE	PR. RIM 150.45 PR. 12" SE. INV. 145.50 PR. 12" SW. INV. 145.40
#3 4' DIA. MANHOLE BUILD OVER EX. 15" STORM SEWER PIPE V.I.F. EX. STORM INV.	PR. RIM 150.55 PR. 12" NE. INV. 145.38 EX. 15" NE. INV. 141.85 EX. 15" SW. INV. 141.85

RECREATIONAL SPACE

FIRST FLOOR IS A 6,023 S.F. MULTIFAMILY RESIDENTIAL
 SECOND FLOOR IS A 5,732 S.F. SINGLE FAMILY RESIDENTIAL
 TOTAL SQUARE FOOTAGE IS 6,023 + 5,732 = 11,755 S.F.
 REQUIRED RECREATIONAL SPACE AREA IS 0.07 * 11,755 S.F. = 823 S.F.
 PROVIDED RECREATIONAL SPACE AREA IS 907 S.F.



RECREATIONAL SPACE RATIO EXHIBIT
 SCALE 1"=30'

ESTIMATED QUANTITIES

PAVING

DESCRIPTION	QUANTITY	UNITS
4" ASPHALT ON 8" 21AA BASE	330	S.F.
4" CONCRETE SIDEWALK	600	S.F.
6" CONCRETE SIDEWALK	790	S.F.
8" NON-REINFORCED CONCRETE ROW PAVEMENT	12	S.F.
4" CONCRETE CURB & GUTTER	262	L.F.
8" CONCRETE APRON	6	S.Y.

STORM

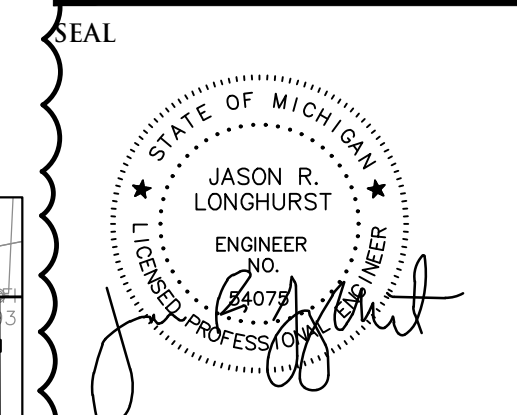
DESCRIPTION	QUANTITY	UNITS
12" DIA. CLIV C-76 STORM SEWER PIPE	57	L.F.
2' DIA. CATCH BASIN (CATCH BASIN A)	1	EA.
4' DIA. CATCH BASIN WITH TRAP AND 2' SUMP (CATCH BASIN B)	1	EA.
BUILD 4' DIA. MANHOLE OVER EX. PIPE	1	EA.

PAVING LEGEND

	PROPOSED CONCRETE PAVEMENT
	PROPOSED ASPHALT PAVEMENT

LEGEND

	EXISTING SANITARY SEWER
	SAN. CLEAN OUT
	EXISTING WATERMAIN
	EXISTING STORM SEWER
	EX. R. Y. CATCH BASIN
	EXISTING BURIED CABLES
	OVERHEAD LINES
	LIGHT POLE
	EXISTING GAS MAIN
	PR. SANITARY SEWER
	PR. WATER MAIN
	PR. STORM SEWER
	PR. R. Y. CATCH BASIN
	PROPOSED LIGHT POLE
	PR. TOP OF CURB ELEVATION
	PR. GUTTER ELEVATION
	PR. TOP OF WALK ELEVATION
	PR. TOP OF PWMT. ELEVATION
	FINISH GRADE ELEVATION



PROJECT
 603 E Milwaukee Ave
 Detroit, Michigan

CLIENT
 Ferry Street Ventures, LLC
 1520 North Johnson Street
 Arlington, VA 22201

PROJECT LOCATION
 Part of the Northeast 1/4
 of Section 31
 Town 1 South, Range 12
 East
 City of Detroit,
 Wayne County, Michigan

SHEET
 Engineering Plan



DATE ISSUED/REVISED

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2022-11-08	REVISED PER CITY REVIEW

DRAWN BY:
 A. Panley

DESIGNED BY:
 A. Panley

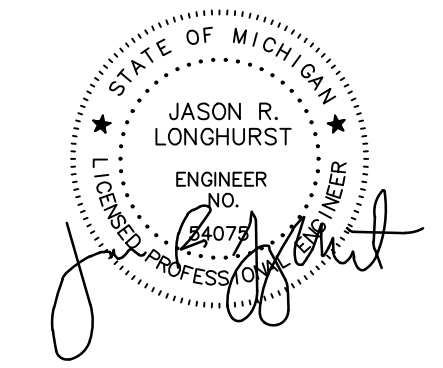
APPROVED BY:
 J. Longhurst

DATE:
 December 1, 2021

SCALE: 1" = 10' / 1" = 1'

NFE JOB NO. M262 **SHEET NO.** C3

SEAL



PROJECT
603 E Milwaukee Ave
Detroit, Michigan

CLIENT
Ferry Street Ventures, LLC
1520 North Johnson Street
Arlington, VA 22201

PROJECT LOCATION
Part of the Northeast 1/4
of Section 31
Town 1 South, Range 12
East
City of Detroit,
Wayne County, Michigan

SHEET
Storm Profile



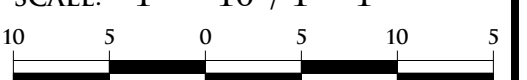
Know what's below
Call before you dig.

DATE	ISSUED/REVISED
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2022-11-08	REVISED PER CITY REVIEW

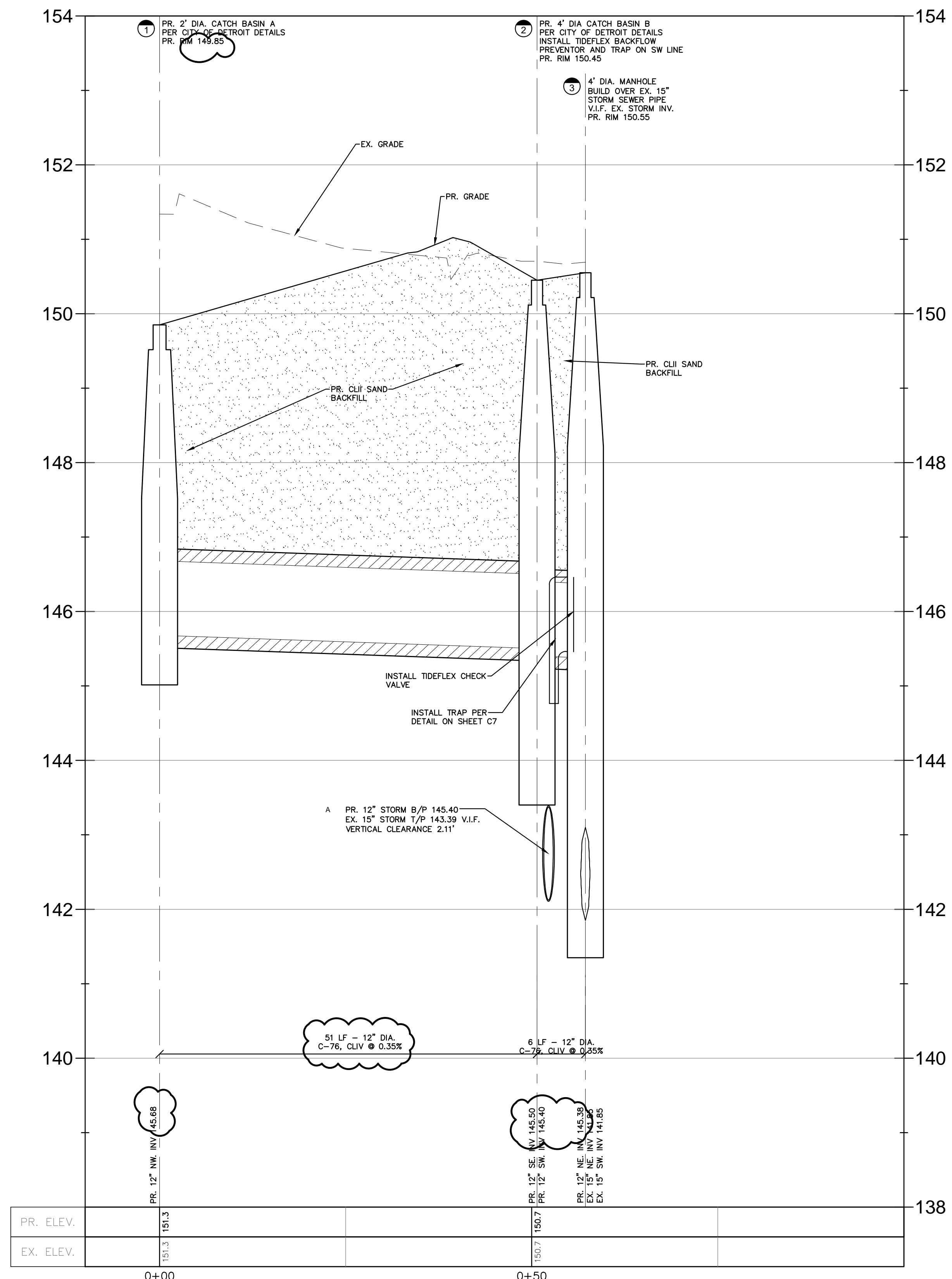
DRAWN BY:
A. Panley
DESIGNED BY:
A. Panley
APPROVED BY:
J. Longhurst

DATE:
December 1, 2021

SCALE: 1" = 10' / 1" = 1'



NFE JOB NO. M262 SHEET NO. C4



ITEM	QTY.	DESCRIPTION	MAT'L
1	1	ULTRAFLEX CHECKMATE CHECK VALVE	MUST BE SUPPLIED
2	1	CLAMP	MUST BE SUPPLIED

NOTES:
1. PIPE INSIDE DIAMETER - MUST BE SUPPLIED (MINIMUM ALLOWABLE PIPE DIAMETER - 9.50 INCHES)
2. CLAMP INSTALLED IN UPSTREAM OR DOWNSTREAM CUFF DEPENDING ON INSTALLATION ORIENTATION
3. MAXIMUM ALLOWABLE BACK PRESSURE - 71.0 FEET
4. IT IS RECOMMENDED TO BOLT OR PIN CHECKMATE TO PIPE AS SHOWN, 4 PLACES 90° APART

PRELIMINARY DRAWING
NOT FOR APPROVAL PURPOSES

OPPORTUNITY No: XXXXX SALES ORDER No: TXX-XXXX
600 N. BELL AVE. CARNEGIE, PA. 15106
info@tideflex.com 412.279.0044
A Division of Red Valve Company, Inc. fax: 412.279.5410

TT PRODUCT: 10" ULTRAFLEX CHECKMATE CHECK VALVE
TT PART No: CMCBUF-100-APPROVAL
DR. BY: TLM DATE: 1-31-17 CHKD. BY: DATE:
CAD SCALE: FULL REV
PLOT SCALE: 1 = 1 DWG No: TTS-XXXX

* PATENT PENDING *

PROPRIETARY NOTICE
THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF TIDEFLEX TECHNOLOGIES. IT IS LOANED BY TIDEFLEX TECHNOLOGIES, SUBJECT TO THE CONDITIONS THAT IT AND THE INFORMATION EMBODIED THEREIN SHALL BE USED ONLY FOR RECORD AND REFERENCE PURPOSES. IT SHALL NOT BE USED OR CAUSED TO BE USED IN ANY WAY PREJUDICIAL TO THE INTERESTS OF TIDEFLEX TECHNOLOGIES. IT SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR PART, OR DISCLOSED TO ANYONE WITHOUT THE DIRECT WRITTEN PERMISSION OF TIDEFLEX TECHNOLOGIES AND SHALL BE RETURNED UPON REQUEST.

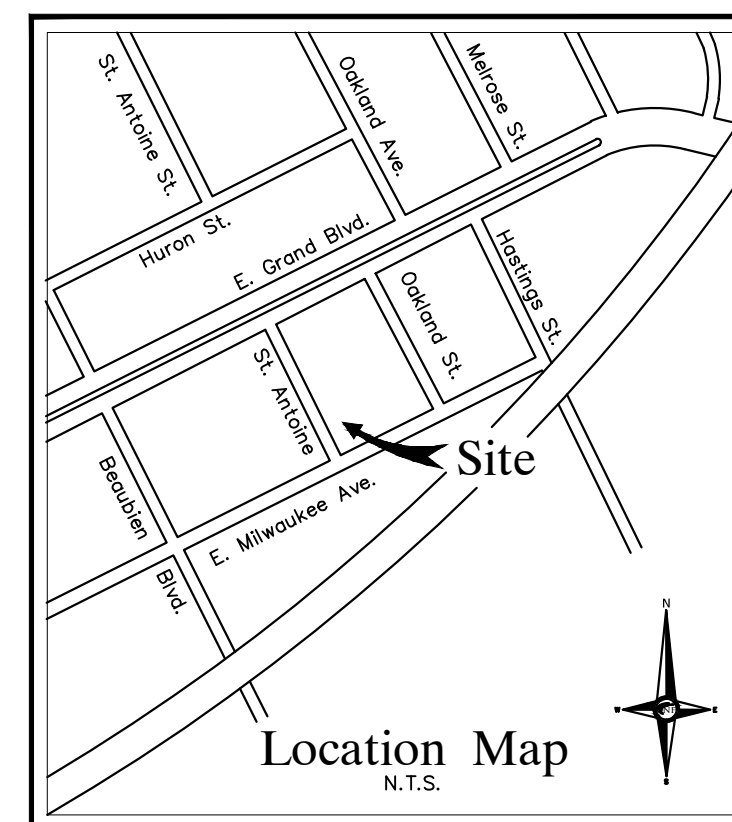
Drainage Area (Location)	From Structure Number	To Structure Number	Drainage Area (Acres)	Runoff Coefficient (C)	Equivalent Area (C * A)	Total Area (Sum C * A)	Time of Concentration (Minutes)	Rainfall (Inches/Hr.)	Actual Discharge (CFS)	Pipe Size (Inches)	Pipe Slope (% Slope)	Pipe Length (Feet)	Flow Velocity (Ft / Sec)	Time of Flow (Minutes)	Full Pipe Capacity (CFS)	H. G. Elev. Upper End (Feet)	H. G. Elev. Lower End (Feet)	H. G. Slope (% Slope)	Km	Head Loss at Str (Feet)	Head Loss Friction (Feet)	Theoretical Velocity (Ft / Sec)	Rim Elevation (Upper) (Feet)	Change in Elevation (Feet)	Invert Elev. Upper End (Feet)	Invert Elev. Lower End (Feet)	COVER (Feet)	RIM TO HG (Feet)
A	1	2	0.09	0.95	0.086	0.086	5.00	5.64	0.48	12	0.35	51	2.91	0.29	2.28	146.21	146.20	0.02	0.50	0.00	0.01	0.61	149.85	0.18	145.68	145.50	3.00	3.64
	2	3				0.086	5.29	5.57	0.48	12	0.35	6	2.91	0.03	2.28	146.19	146.18	0.02	1.50	0.01	0.00	0.61	150.45	0.02	145.40	145.38	3.88	4.26

T min= 5 Minutes
I = 38.4164*(10^0.2082)/((12.3258 + D)^0.8405)
n (Conc.) 0.013
n (Pvc) 0.012
Head Loss Friction Hf=L(Qn/(0.46D^2.67))^2
Head Loss Structure Hm=Km(V^2 / 2g)

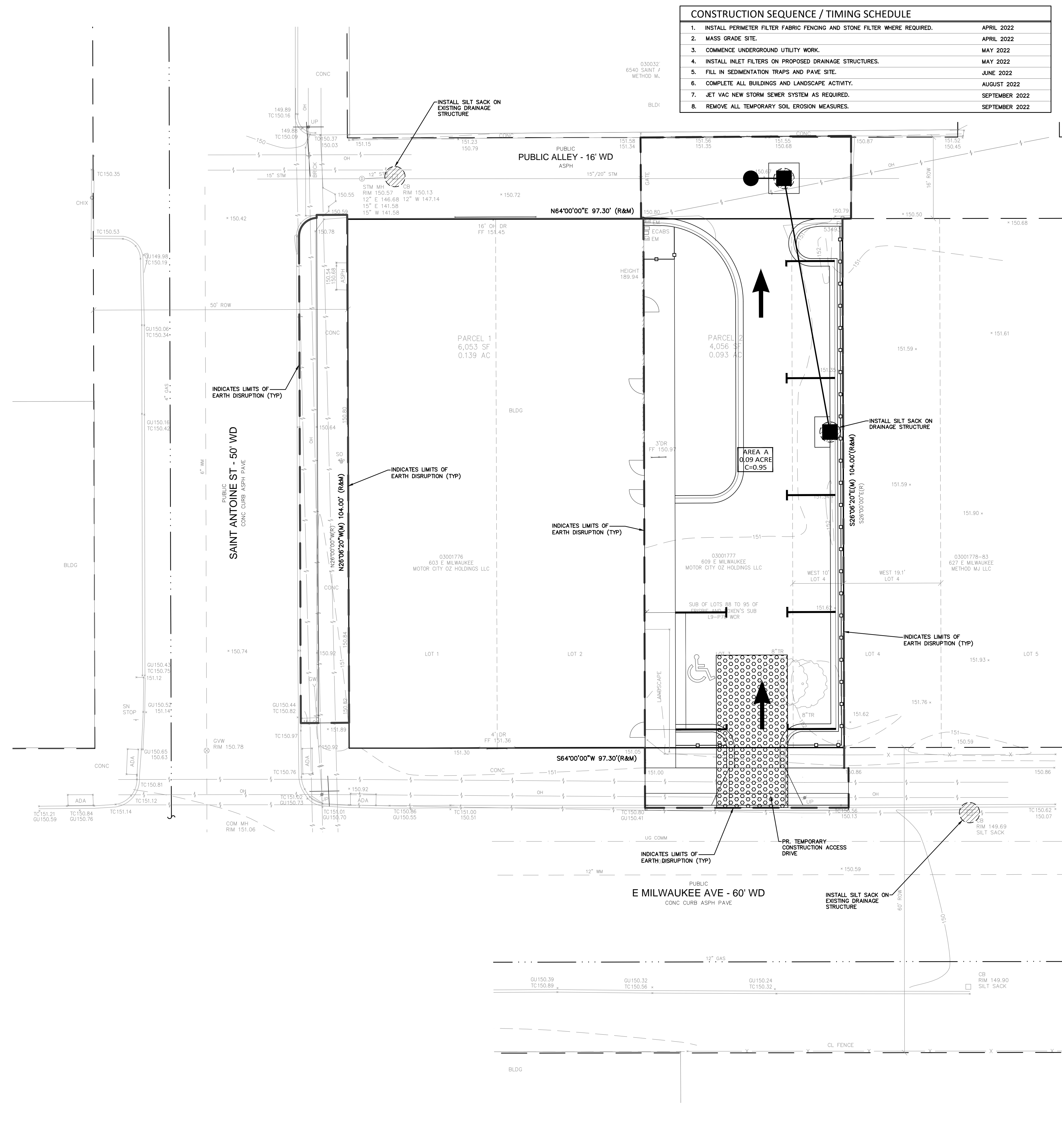
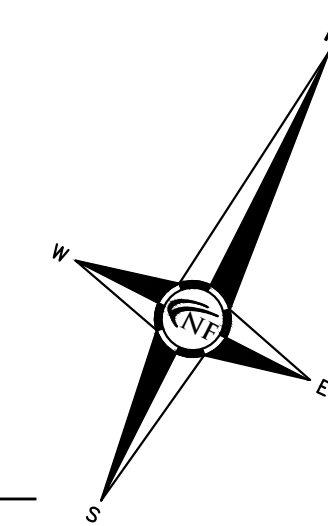
Time of Concentration
10 Year Storm Event Intensity
Manning's Roughness Coefficient

Detroit, Wayne County
Storm Sewer Calculations

Project No: M262
Project Name: 603 E Milwaukee Avenue
Location: Detroit
Dated: 12/1/2021
Revised: 11/30/2022



CONSTRUCTION SEQUENCE / TIMING SCHEDULE		
1. INSTALL PERIMETER FILTER FABRIC FENCING AND STONE FILTER WHERE REQUIRED.		APRIL 2022
2. MASS GRADE SITE.		APRIL 2022
3. COMMENCE UNDERGROUND UTILITY WORK.		MAY 2022
4. INSTALL INLET FILTERS ON PROPOSED DRAINAGE STRUCTURES.		MAY 2022
5. FILL IN SEDIMENTATION TRAPS AND PAVE SITE.		JUNE 2022
6. COMPLETE ALL BUILDINGS AND LANDSCAPE ACTIVITY.		AUGUST 2022
7. JET VAC NEW STORM SEWER SYSTEM AS REQUIRED.		SEPTEMBER 2022
8. REMOVE ALL TEMPORARY SOIL EROSION MEASURES.		SEPTEMBER 2022



NOTES AND PERFORMANCE REQUIREMENTS

ALL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CANTON TOWNSHIP AND THE WAYNE COUNTY EROSION CONTROL MANUAL.

DAILY INSPECTION SHALL BE MADE BY THE SUBCONTRACTOR TO DETERMINE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES AND ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.

EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE 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.

EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN CONSTRUCTION. SEDIMENTATION CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE.

SUBCONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED AND AS DIRECTED ON THESE PLANS. HE SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES AND OTHER EARTH CHANGES HAVE BEEN ACCOMPLISHED.

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 THE 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 MAINTAINED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED. ALL PERMANENT SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED.

ALL MUD/DIRT TRACKED ONTO EXISTING CITY/COUNTY ROADS FROM THIS SITE, DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE SUBCONTRACTOR/BUILDER.

MAINTENANCE REQUIREMENTS SHALL BE AS FOLLOWS:
STREET SCRAPING - DAILY
STREET SWEEPING - WEEKLY MINIMUM
STRUCTURAL SEDIMENT CONTROLS - 48 HOURS AFTER STORM EVENT (WEEKLY MINIMUM)
SEDIMENT BASIN CLEANOUT - ANNUALLY MINIMUM

RESTORATION REQUIREMENTS AND FINAL INSPECTION REQUIREMENTS SHALL BE AS FOLLOWS:
DISTURBED EARTH MUST BE PERMANENTLY STABILIZED WITH VEGETATION OR HARD SURFACE ACCUMULATED SEDIMENT MUST BE REMOVED FROM STORM SEWER SYSTEM
REMOVE ALL THE TEMPORARY CONTROLS AFTER GETTING APPROVAL BY THE WAYNE COUNTY SOIL EROSION INSPECTOR.

NOTIFY WAYNE COUNTY SOIL EROSION OFFICE 48 HOURS BEFORE WORK IS TO BEGIN. (734) 326-3936.

TIMING AND SEQUENCE OF CONSTRUCTION OPERATIONS

INSTALL FILTER FABRIC FENCE AS SHOWN ON THE PLANS. INSTALL CONSTRUCTION ACCESS DRIVE AS SHOWN ON THE PLANS. (DAY 1)

MASS GRADE SITE IF CALLED FOR ON THE PLANS. DETENTION OR RETENTION BASINS SHALL BE CONSTRUCTED PRIOR TO ANY OTHER CONSTRUCTION FOR ALL PROJECTS LOCATED WITHIN THE MUNICIPALITY. IMMEDIATELY FOLLOWING CONSTRUCTION OF THE BASIN, SUITABLE GROUND COVER SHALL BE ESTABLISHED. PREVIOUSLY EXISTING ALL DEGRADED AREAS ARE TO BE PROTECTED FROM EROSION BY AN APPROVED METHOD CONSISTENT WITH THE GROWING SEASON.

A. DETENTION/SEDIMENT BASIN TIMING REQUIREMENTS:
APPROVED OUTLET INSTALLED - WITHIN 5 DAYS OF EXCAVATING BASIN
PERMANENTLY STABILIZED WITH SEED AND MULCH BLANKET-WITHIN 5 DAYS OF FINAL GRADE

B. CRITICAL SLOPES/CHANNELS/SWALES TIMING REQUIREMENTS:
TEMPORARY STABILIZATION - WITHIN 15 DAYS OF EARTH DISTURBANCE
PERMANENT STABILIZATION - WITHIN 5 DAYS OF FINAL GRADE

C. COMMON AREAS - TEMPORARY STABILIZATION WITHIN 5 DAYS OF COMPLETING UTILITY WORK
D. RIPRAP - WITHIN 24 HOURS OF PLACING OUTLET/CULVERT

COMMENCE UNDERGROUND UTILITY WORK. PROMPTLY UPON BACKFILLING OF CATCH BASINS AND INLETS. INSTALL INLET FILTERS AS SHOWN ON THE PLANS.

BEGIN PAVING OPERATIONS. INLETS, CATCH BASINS, ETC. ARE TO BE PROTECTED FROM ERODING EARTH AND SEDIMENT AT ALL TIMES.

GRADE, SEED AND MULCH ALL DISTURBED AREAS OR LANDSCAPE PER LANDSCAPE PLAN.

ADDITIONAL EROSION CONTROL MEASURES WILL BE PROVIDED DURING THE COURSE OF CONSTRUCTION WHERE DETERMINED NECESSARY BY THE TOWNSHIP ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.

REMOVE ALL SOIL EROSION AND SEDIMENTATION MEASURES AFTER COMPLETION OF SITE CONSTRUCTION.

NOTES

A WAYNE COUNTY SOIL EROSION PERMIT IS REQUIRED FOR THIS PROJECT.

NO WETLANDS OR FLOODPLAINS ARE ON THE SITE.

STORAGE OF TOPSOIL MUST BE INSIDE PROJECT LIMITS.

FOR PAVED INLET PROTECTION, USE WOVEN MONOFLAMENT GEOTEXTILE/ 100 gsm PER SQUARE FT. OR APPROVED EQUAL.

NO SILT FENCE, BURLAP, OR STONE TO BE USED AS FILTERS.

SITE IS APPROXIMATELY ±3.38 MILES FROM THE DETROIT RIVER.

AREA OF DISTURBANCE IS 0.14 ACRES.

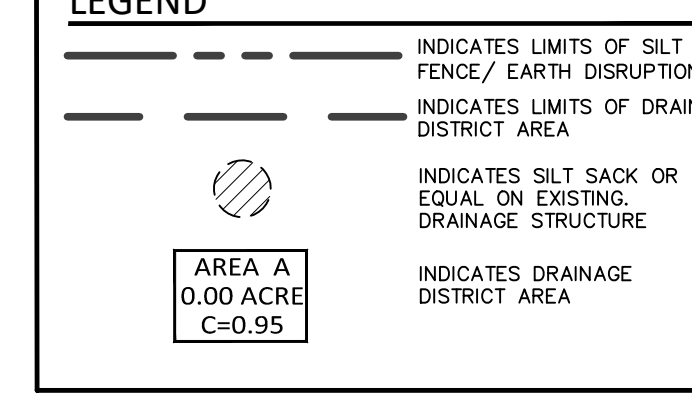
SOIL DATA

THIS SITE CONSISTS OF URBAN LAND-RIVERFRONT COMPLEX, DENSE SUBSTRATUM, 0 TO 4 PERCENT SLOPES; BASED ON DATA PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE.

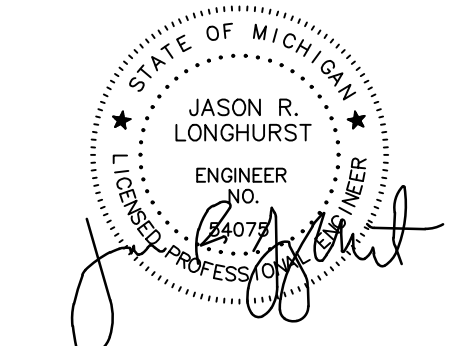
ESTIMATED QUANTITIES

SOIL EROSION	DESCRIPTION	QUANTITY	UNITS
	TEMPORARY CONSTRUCTION ACCESS DRIVE	50	EA.
	SILT SACK OR EQUAL	4	EA.

LEGEND



SEAL



PROJECT
603 E Milwaukee Ave
Detroit, Michigan

CLIENT
Ferry Street Ventures, LLC
1520 North Johnson Street
Arlington, VA 22201

PROJECT LOCATION
Part of the Northeast 1/4
of Section 31
Town 1 South, Range 12
East
City of Detroit,
Wayne County, Michigan

SHEET
Soil Erosion Control and
Drainage Area Plan



DATE	ISSUED/REVISED
2021-12-03	ISSUED FOR OWNER REVIEW
2022-05-11	REVISED PER OWNER
2022-08-18	REVISED PER ROW REVIEW
2022-08-25	REVISED PER ROW REVIEW
2022-09-27	REVISED PER ROW REVIEW
2022-10-25	REVISED PER CITY REVIEW
2022-10-26	REVISED PER OWNER
2022-11-08	REVISED PER CITY REVIEW
2022-11-30	REVISED PER CITY REVIEW

DRAWN BY:
A. Panley

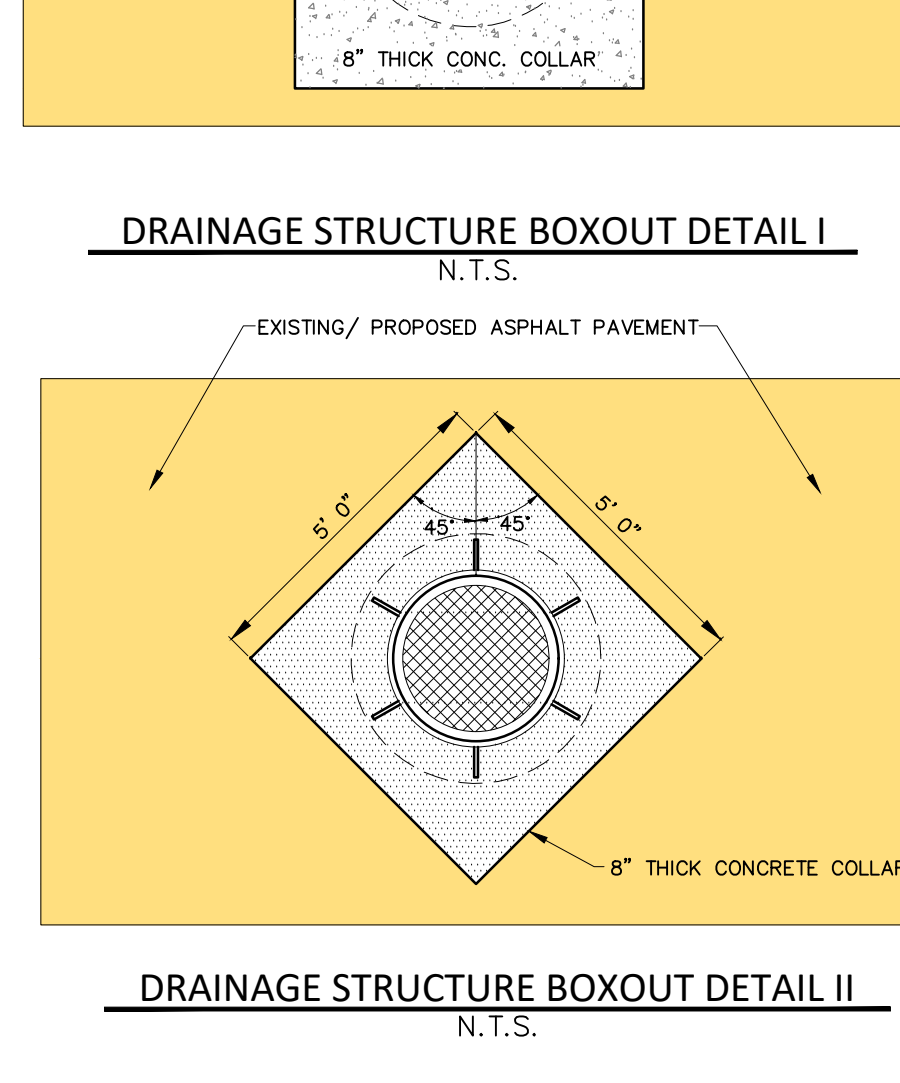
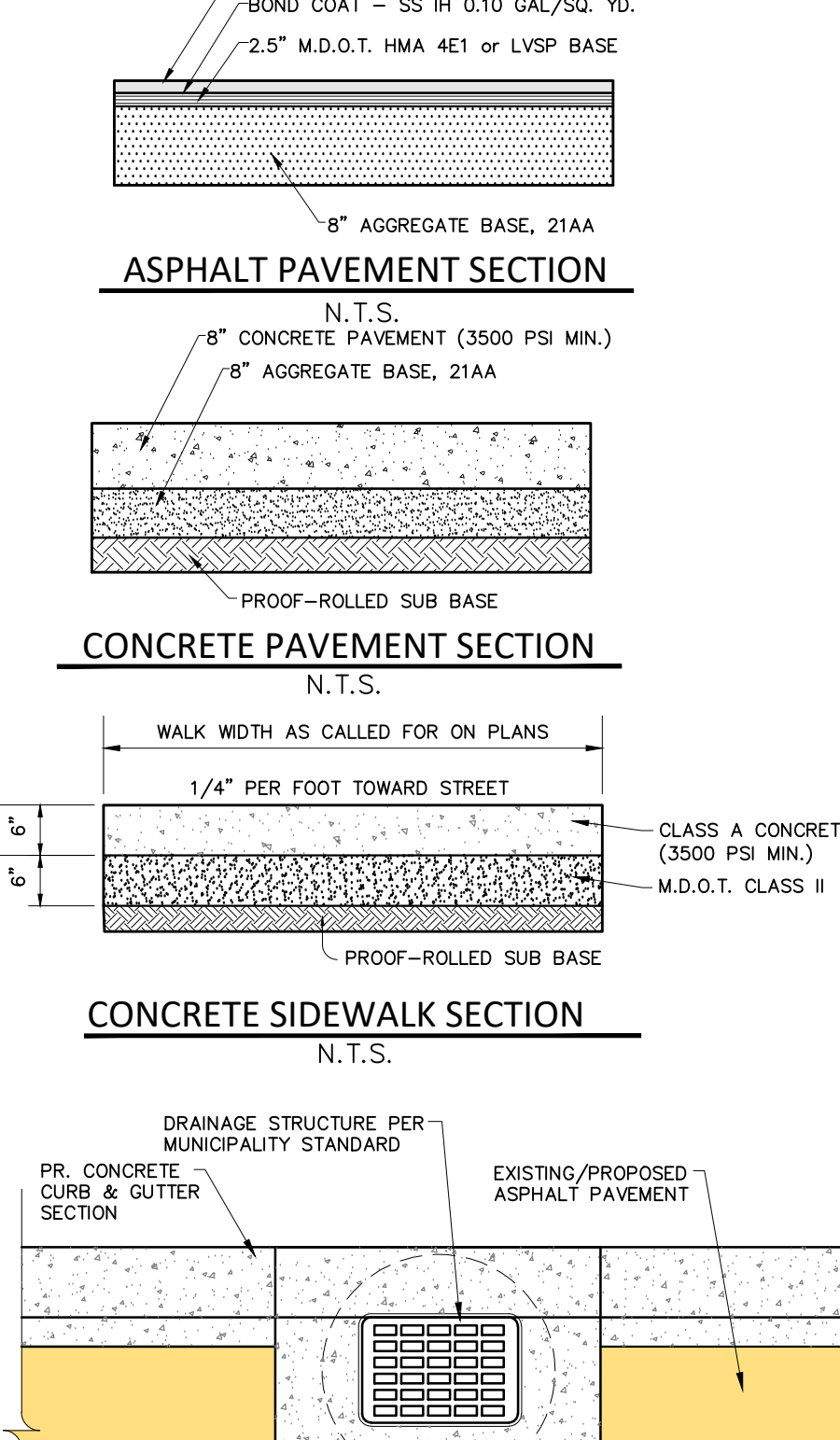
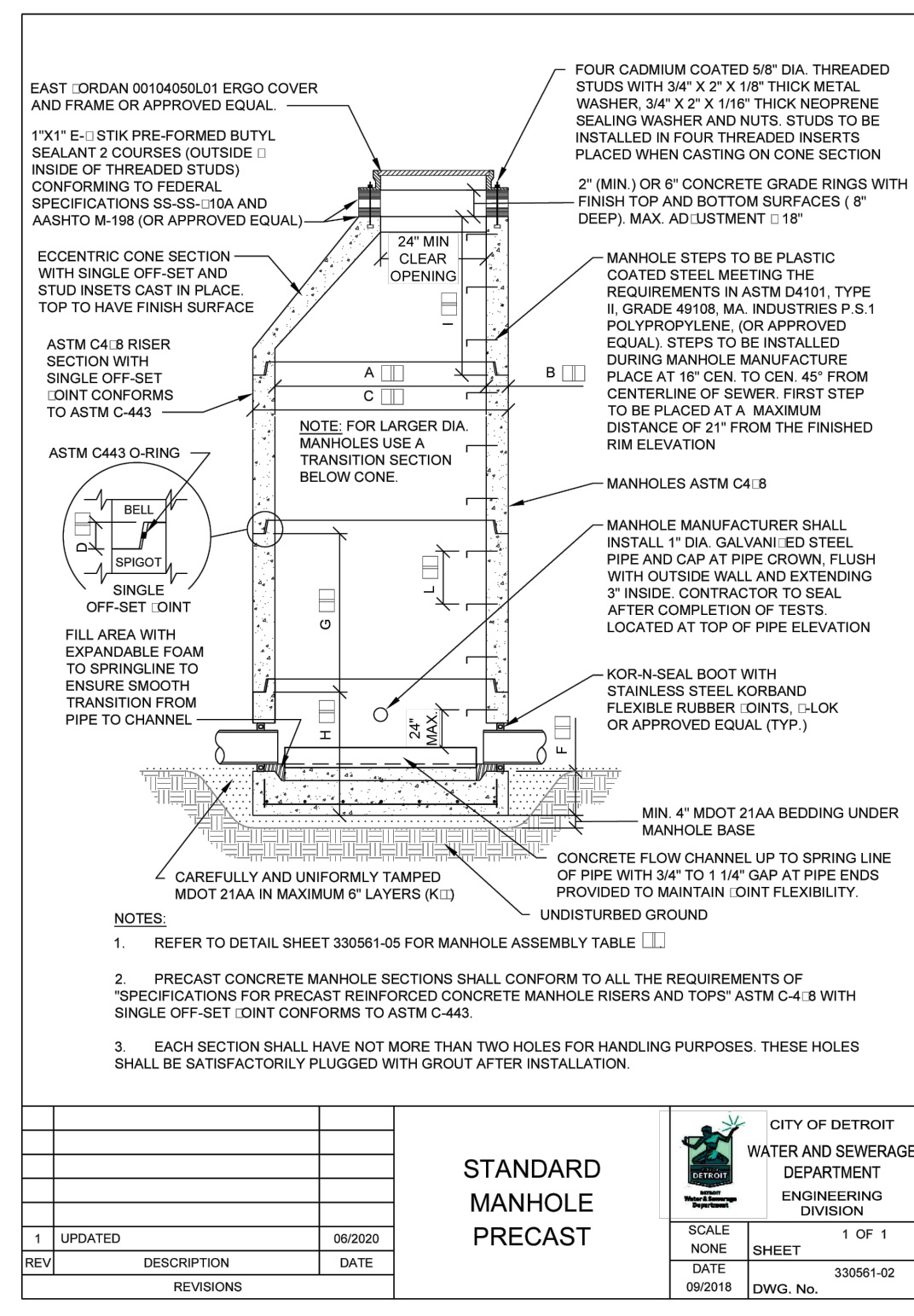
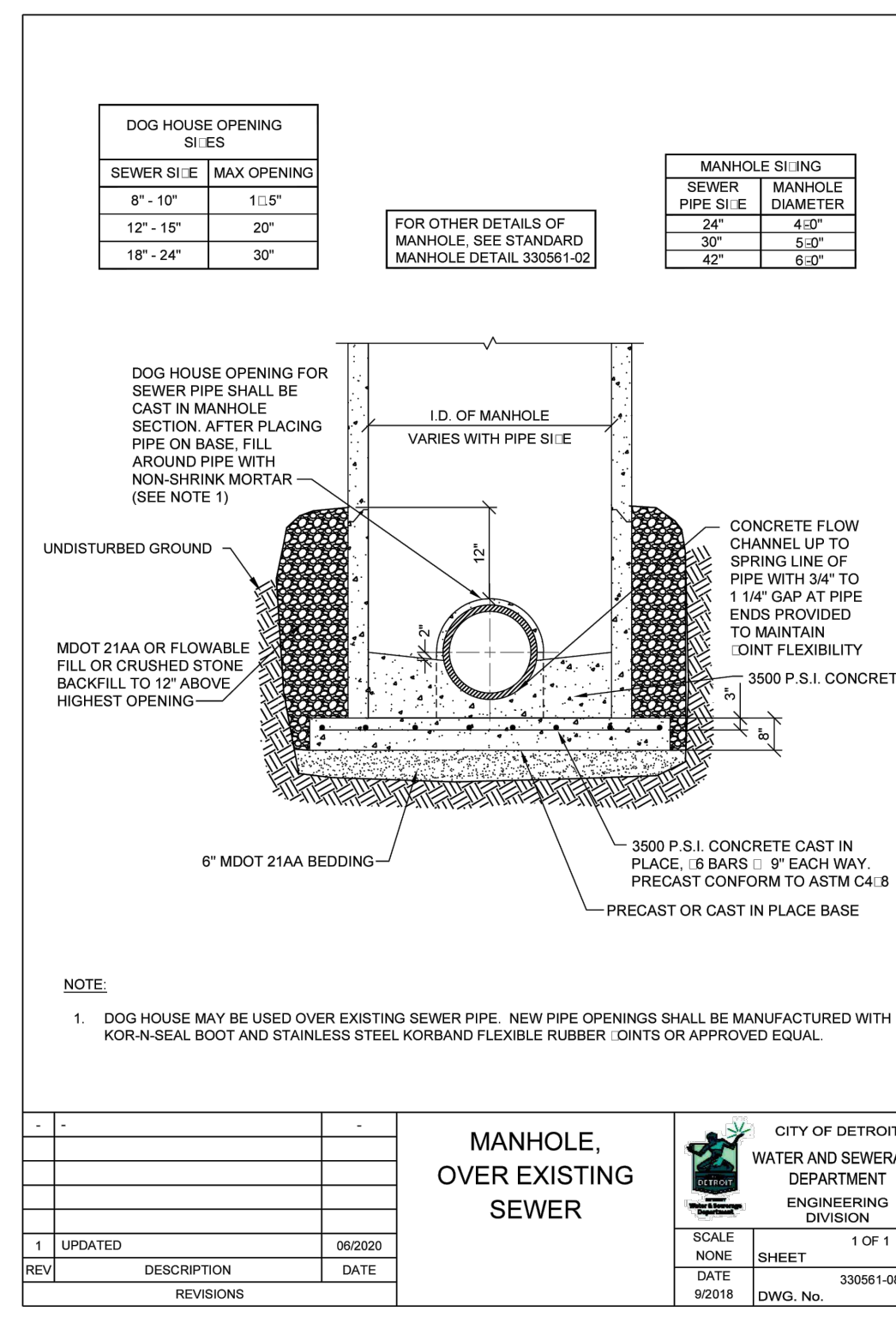
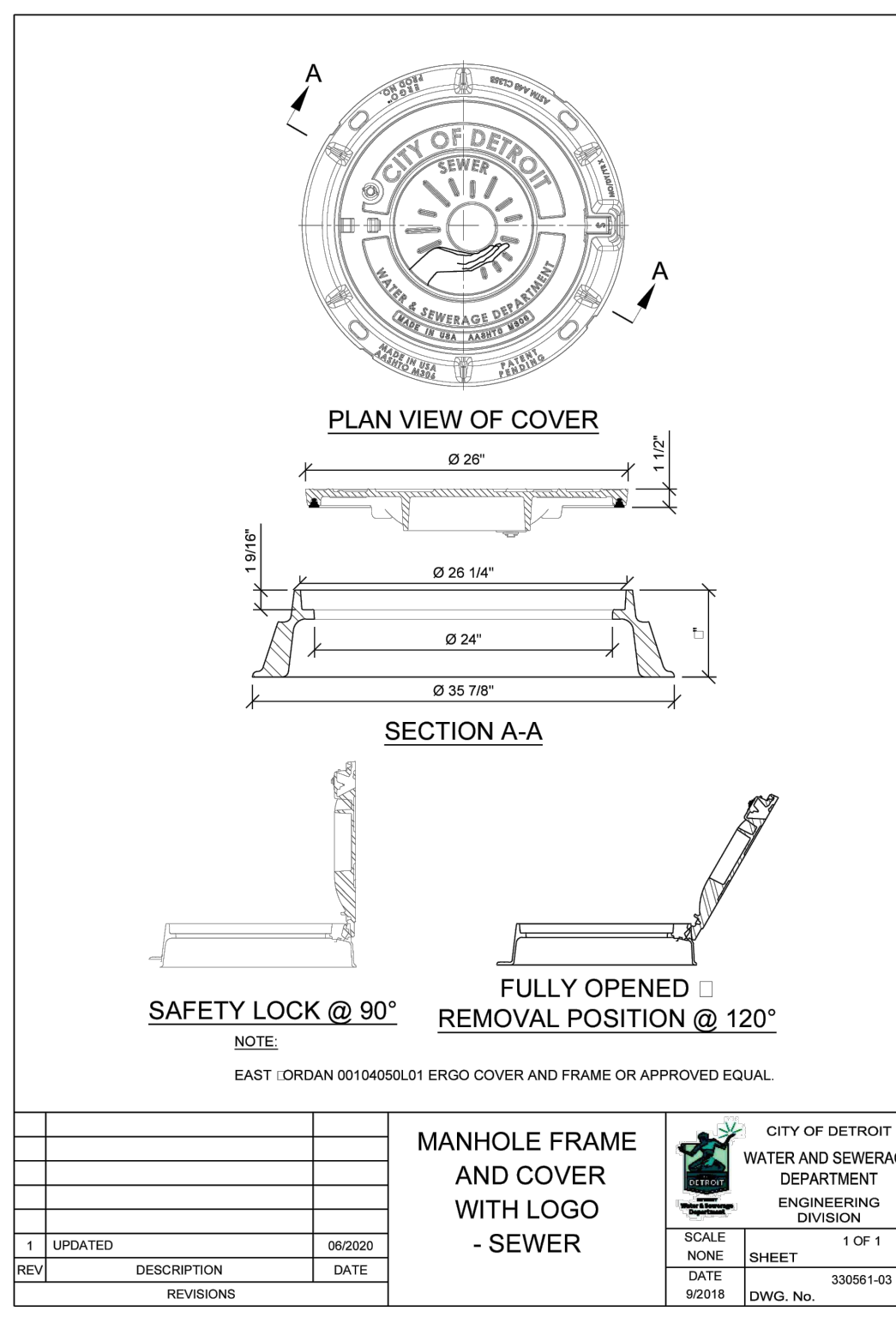
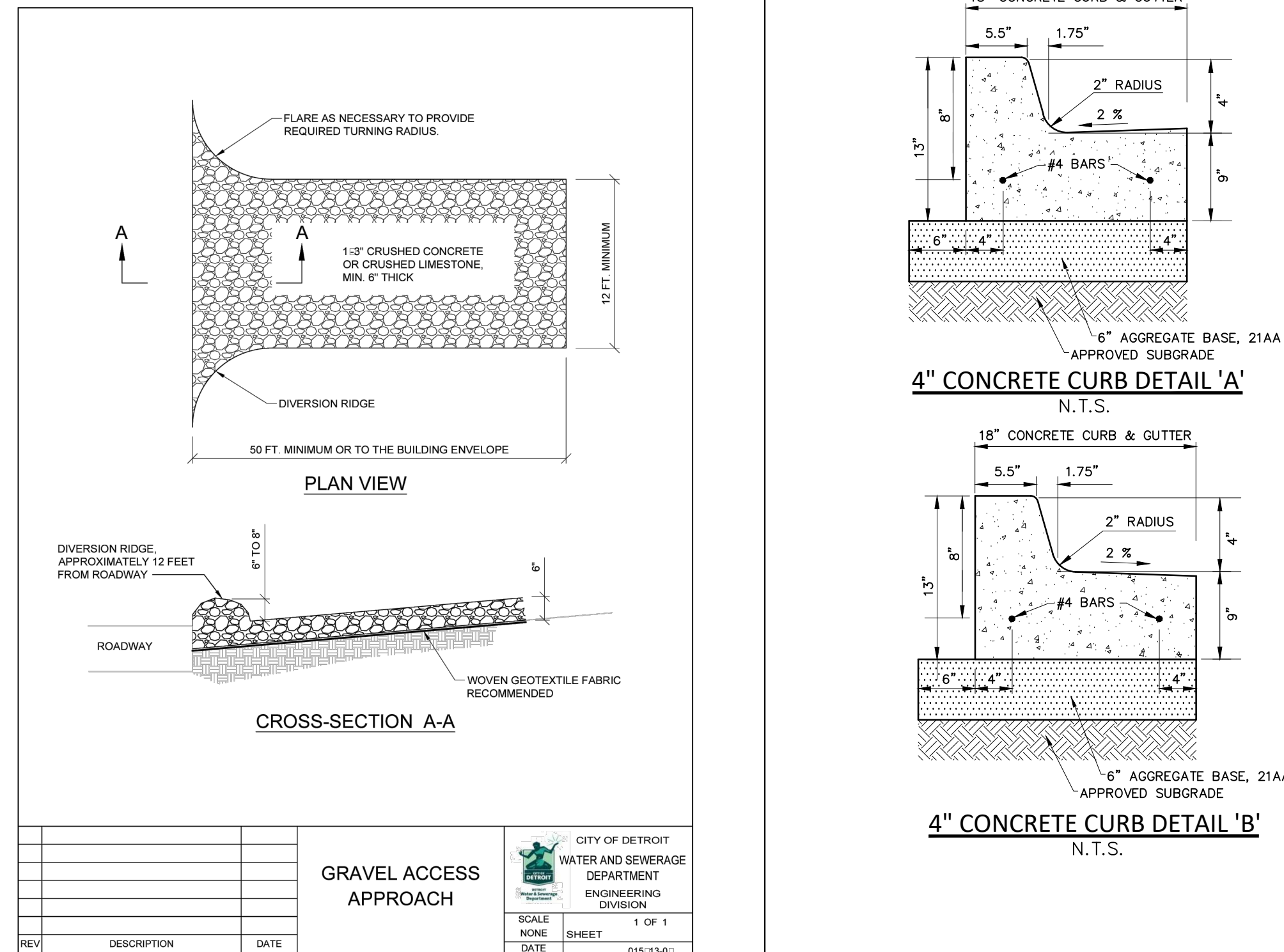
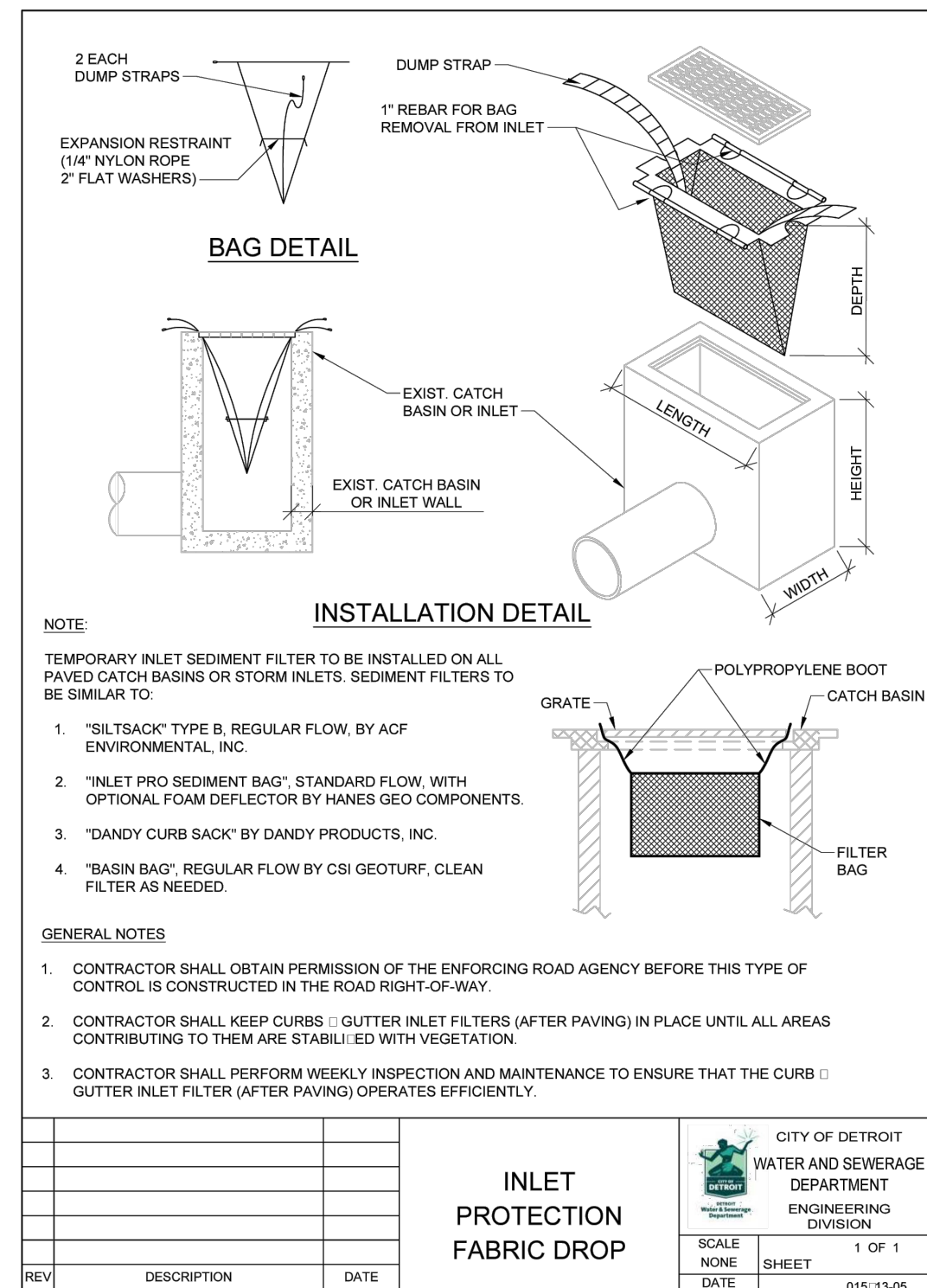
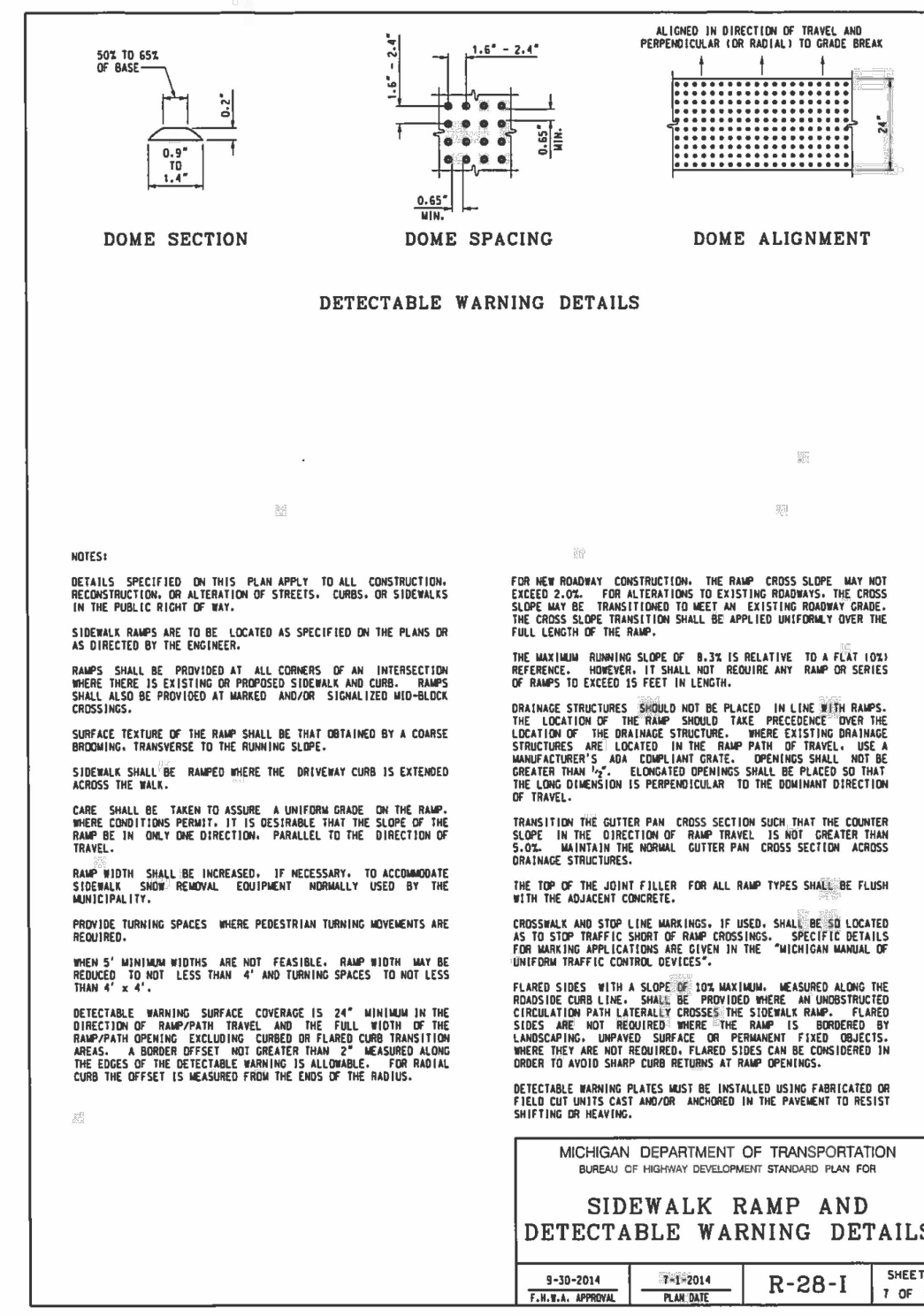
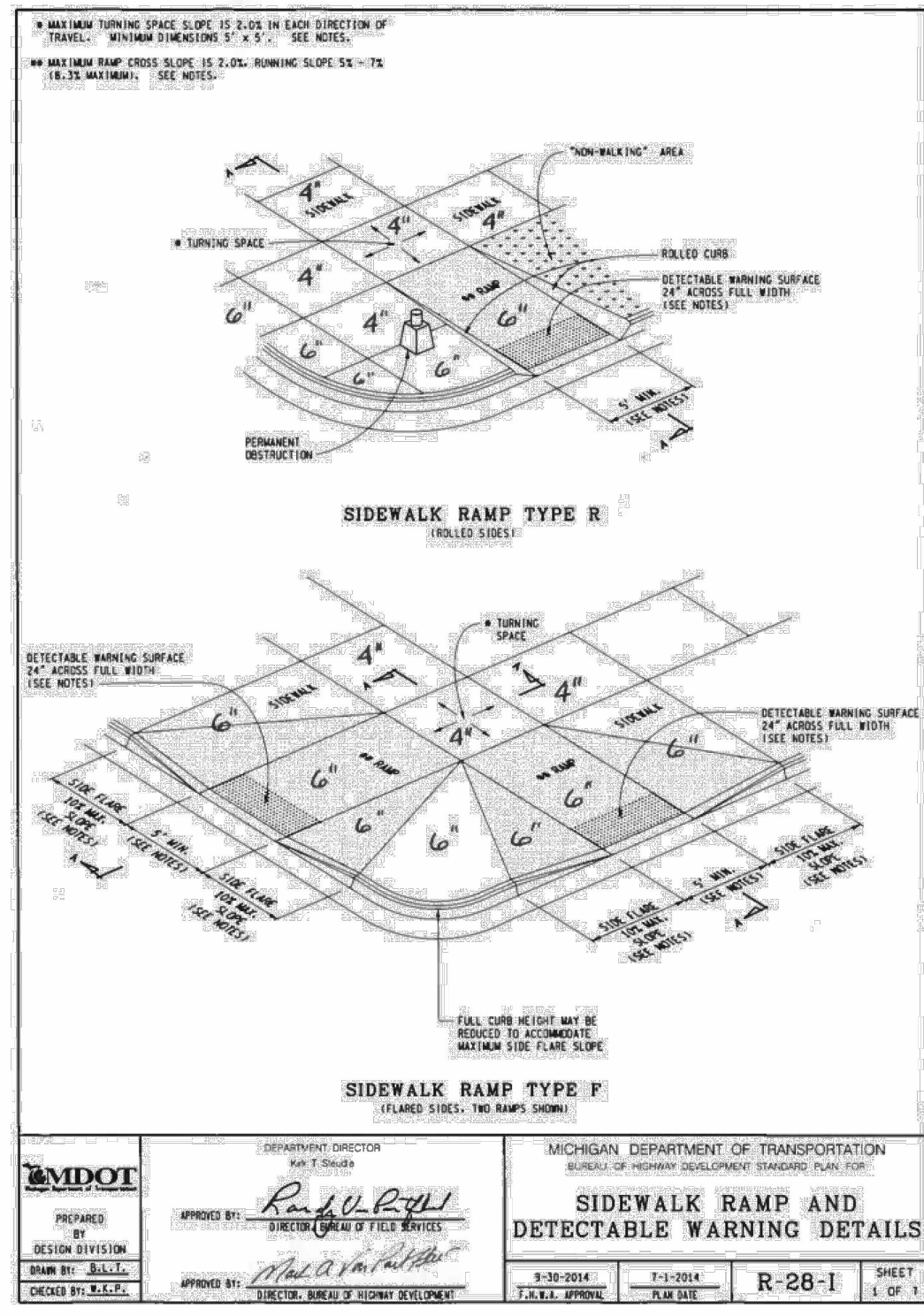
DESIGNED BY:
A. Panley

APPROVED BY:
J. Longhurst

DATE:
December 1, 2021

SCALE: 1" = 10'

NFE JOB NO. M262 SHEET NO. C5



BY-PASS PUMPING
 FROM TIME TO TIME IT MAY BE NECESSARY FOR THE CONTRACTOR TO BY-PASS PUMP TO COMPLETE THE WORK INDICATED ON THE PLANS. THE COST OF BY-PASS PUMPING, THE METHODS, EQUIPMENT AND MEANS OF PROVIDING THAT WORK ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE CONSIDERED PART OF THE WORK WHETHER SPECIFICALLY CALLED OUT ON THE PLANS OR NOT.

MEANS AND METHODS FOR PIPE CONSTRUCTION
 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MEANS AND METHODS FOR CONSTRUCTING THE UNDERGROUND PIPES IN THE PLANS, INCLUDING BUT NOT LIMITED TO THE NEED FOR SHORING/BRACING OF TRENCHES, DEWATERING OF TRENCHES, SCHEDULING THE WORK AT OFF PEAK HOURS, AND/OR MAINTAINING EXISTING FLOWS THAT MAY BE ENCOUNTERED VIA WAY-LEAVING, BY-PASS OR OTHER MEANS. THE CONTRACTOR SHALL NOT BE PAID ANY ADDITIONAL COMPENSATION TO IMPLEMENT ANY MEANS AND METHODS TO SATISFACTORILY COMPLETE THE CONSTRUCTION.

PAVEMENT REMOVAL
 THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE THICKNESS OF THE PAVEMENT REMOVAL. PAVEMENT CORE SAMPLES ARE FOR INFORMATIONAL PURPOSES ONLY AS TO THE THICKNESS OF THE PAVEMENT AT THE LOCATION OF THE SAMPLE. THE OWNER AND ENGINEER MAKE NO REPRESENTATION, WARRANTY OR GUARANTEE THAT THE SAMPLES ACCURATELY REFLECT THE PAVEMENT THICKNESS ON THE PROJECT.

MAINTENANCE OF TRAFFIC
 DURING THE PROGRESS OF THE WORK THE CONTRACTOR SHALL ACCOMMODATE BOTH VEHICULAR AND PEDESTRIAN TRAFFIC IN THE ROAD RIGHTS OF WAY. THE CONTRACTOR'S EQUIPMENT AND OPERATIONS ON PUBLIC STREETS SHALL BE GOVERNED BY ALL APPLICABLE LOCAL, COUNTY AND STATE ORDINANCES, REGULATIONS AND LAWS. THE CONTRACTOR SHALL OBTAIN AND SATISFY ANY AND ALL PERMIT REQUIREMENTS BY THE LOCAL, COUNTY AND STATE GOVERNMENTAL AGENCIES.

IN ADDITION, WHERE THE WORK REQUIRES THE CLOSURE OF ONE OR MORE LANES OR IS WITHIN THE INFLUENCE OF THE ROAD OR PEDESTRIAN RIGHT OF WAY, THE CONTRACTOR SHALL PROVIDE ALL SIGNS, BARRICADES, FLAG PERSONS AND OTHER TRAFFIC CONTROL MEASURES AS REQUIRED BY MDOT, THE COUNTY, OR THE COMMUNITY HAVING JURISDICTION OF THE ROAD AND IN CONFORMANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

COMPENSATION FOR TRAFFIC CONTROL SHALL BE CONSIDERED INCLUDED IN THE CONTRACT PRICE(S) UNLESS SPECIFIC TRAFFIC CONTROL ITEMS ARE INCLUDED IN THE ACCEPTED BID PROPOSAL.

IRRIGATION
 THE CONTRACTOR SHALL MAINTAIN OR REPAIR ANY EXISTING IRRIGATION SYSTEMS WITHIN THE PROJECT AREA UNLESS THE DRAWINGS CALL FOR THE IRRIGATION SYSTEM TO BE REMOVED. THE OWNER AND NFE MAKE NO REPRESENTATIONS, WARRANTY OR GUARANTEE AS TO THE LOCATION OF THE IRRIGATION SYSTEM. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT THE IRRIGATION SYSTEM DURING CONSTRUCTION ACTIVITIES. COMPENSATION FOR MAINTAINING OR REPAIRING EXISTING IRRIGATION SYSTEMS SHALL BE CONSIDERED INCLUDED IN THE CONTRACT PRICE(S) UNLESS SPECIFIC IRRIGATION SYSTEM REPAIR ITEMS ARE INCLUDED IN THE ACCEPTED BID PROPOSAL.

SUB-SOIL CONDITIONS
 ANY SOIL BORING PROVIDED BY THE OWNER AND/OR ENGINEER IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THIS INFORMATION IS NOT OFFERED AS EVIDENCE OF GROUND CONDITIONS THROUGHOUT THE PROJECT AND ONLY REFLECT THE GROUND CONDITIONS AT THE LOCATION OF THE BORING ON THE DATE THEY WERE TAKEN.

THE ACCURACY AND RELIABILITY OF THE SOIL LOGS AND REPORT ARE NOT WARRANTED OR GUARANTEED BY THE ENGINEER AS TO THE SUB-SOIL CONDITIONS FOUND ON THE SITE. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION AND SUB-SOIL INVESTIGATION AND SECURE OTHER SUCH INFORMATION AS THE CONTRACTOR CONSIDERS NECESSARY TO DO THE WORK PROPOSED AND IN PREPARATION OF THEIR BID.

SUBGRADE UNDERCUTTING AND PREPARATION
 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY AND ALL SOILS WHICH DO NOT CONFORM TO THE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A SUBGRADE IN CONFORMANCE WITH THE PROJECT PLANS AND/OR SPECIFICATIONS. THE MEANS AND METHODS USED TO ACHIEVE THE REQUIRED RESULT SHALL REST SOLELY WITH THE CONTRACTOR.

ANY AREAS OF UNDERCUTTING THAT RESULT IN ADDITIONAL OR EXTRA WORK BECAUSE THEY COULD NOT BE IDENTIFIED BY THE CONTRACTOR'S PRE-BID SITE OBSERVATION OR ARE NOT SET FORTH IN THE PLANS AND SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE ANY EXTRA WORK IS PERFORMED. THE CONTRACTOR SHALL MAKE A REQUEST FOR ANY ADDITIONAL COMPENSATION FOR THE UNDERCUTTING IN WRITING AND THE REQUEST SHALL CONFORM TO THE CONTRACT'S CHANGE ORDER PROVISIONS.

STRUCTURE BACKFILL
 STRUCTURAL BACKFILL SHALL BE PLACED IN CONFORMANCE WITH THE PROJECT PLANS, SPECIFICATIONS OR AS REQUIRED BY THE COMMUNITY, GOVERNMENT AGENCY OR UTILITY THAT HAS JURISDICTION OVER THE WORK.

TRENCH BACKFILL
 TRENCH BACKFILL SHALL BE PLACED IN CONFORMANCE WITH THE PLANS AND/OR SPECIFICATIONS. TRENCH BACKFILL SHALL ALSO BE INSTALLED IN CONFORMANCE WITH THE COMMUNITY REQUIREMENTS OR AGENCY/UTILITY GOVERNING SAID TRENCH CONSTRUCTION. IN THE CASE OF CONFLICTING REQUIREMENTS, THE MORE STRINGENT SHALL APPLY.

EARTH BALANCE / GRADING
 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHETHER THE SITE EARTHWORK BALANCES OR NOT. ANY EXCESS CUT MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR. IN A LIKE MANNER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO IMPORT APPROVED FILL MATERIAL AND PLACE IT AS REQUIRED TO ATTAIN THE SITE GRADE AND CONFORMANCE WITH THE ENGINEER'S PLAN AND ALL APPLICABLE GOVERNMENTAL STANDARDS. THE ENGINEER AND OWNER MAKE NO REPRESENTATION AS TO THE QUANTITIES THAT MAY BE NEEDED TO CREATE A BALANCED EARTHWORK CONDITION OR THAT THE SITE EARTHWORK IS BALANCED.

SOIL EROSION / SEDIMENTATION CONTROL
 THE CONTRACTOR SHALL OBTAIN THE REQUIRED SOIL EROSION PERMIT AND SATISFY ALL REGULATORY REQUIREMENTS FOR CONTROLLING SOIL EROSION AND SEDIMENT TRANSPORT. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR INSPECTION OR APPROVAL OF THE CONTRACTOR'S WORK IN CONFORMANCE WITH SATISFYING THE SOIL EROSION PERMIT REQUIREMENTS UNLESS SPECIFICALLY STATED IN THE CONTRACT DOCUMENTS.

DAMAGE TO PRIVATE PROPERTY
 ALL SIDEWALKS, DRIVEWAYS, LAWNS, FENCING, TREES, SHRUBS, SPRINKLERS, LANDSCAPING, ETC., THAT ARE DAMAGED DURING CONSTRUCTION MUST BE REPAIRED OR REPLACED, IN KIND OR BETTER, BY THE CONTRACTOR. ALL STREET SIGNS, MAIL BOXES, ETC., REMOVED SHALL BE REPLACED IN KIND OR BETTER, BY THE CONTRACTOR. ALL THE REPAIRS OR REPLACEMENTS DUE TO THE CONTRACTOR'S WORK ARE TO BE INCLUDED IN THE CONTRACT PRICE(S) AND SHALL NOT BE AN EXTRA TO THE CONTRACT.

THE CONTRACTOR SHALL SECURE PERMISSION IN WRITING FROM ADJACENT PROPERTY OWNERS PRIOR TO ENTERING UPON ANY ADJOINING PROPERTIES, UNLESS OFFSITE PERMITS HAVE ALREADY BEEN OBTAINED BY THE OWNER AND ARE PART OF THE CONTRACT DOCUMENTS.

DEWATERING OF TRENCH AND EXCAVATIONS
 IF NOT SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION DESIGN DOCUMENTS, THE DESIGN OR QUALITATIVE ANALYSIS OF GROUND WATER DEWATERING SYSTEMS IS BEYOND THE SCOPE OF DESIGN FOR THESE DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING AND PROVIDING APPROPRIATE EXCAVATION DEWATERING SYSTEMS FOR USE DURING CONSTRUCTION.

THE DEWATERING METHOD SELECTED BY THE CONTRACTOR WILL NOT ADVERSELY AFFECT ADJACENT PAVEMENTS OR STRUCTURES PRIOR TO BEGINNING DEWATERING CONDITIONS. MEANS AND METHODS OF DEWATERING ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF DEWATERING WILL BE CONSIDERED INCLUDED IN THE WORK OF CONSTRUCTING THE UNDERGROUND UTILITIES UNLESS SPECIFICALLY INDICATED OTHERWISE.

UTILITIES
 AT LEAST 72 HOURS (3 WORKING DAYS) PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY MISS DIG AND THE LOCAL COMMUNITY (WHERE APPLICABLE) TO STAKE LOCATIONS OF EXISTING UTILITIES.

THE CONTRACTOR SHALL EXPOSE AND VERIFY EXISTING UTILITIES FOR LOCATION, SIZE, DEPTH, MATERIAL, AND CONFIGURATION PRIOR TO COMMENCING WORK. ANY FIELD CHANGES OF EXCAVATION IS AN INCIDENTAL COST AND SHALL NOT BE CONSIDERED AN EXTRA TO THE CONTRACT.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY EXISTING UTILITIES WHICH DO NOT MATCH THE PLANS AND SPECIFICATIONS PRIOR TO COMMENCING WORK. ANY FIELD CHANGES OF EXCAVATION IS AN INCIDENTAL COST AND SHALL NOT BE CONSIDERED AN EXTRA TO THE CONTRACT.

THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES FROM DAMAGE. ANY SERVICE OR UTILITY DAMAGED OR REMOVED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR, IN CONFORMANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY PROVIDER.

NF ENGINEERS
 CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS

NOWAK & FRAUS ENGINEERS
 4677 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
 FAX. (248) 332-8257
 WWW.NOWAKFRAUS.COM

SEAL

CITY OF MICHIGAN
 JASON LONGHURST
 ENGINEER
 NO. 04071
 LICENSED PROFESSIONAL ENGINEER

PROJECT
 603 E Milwaukee Ave
 Detroit, Michigan

CLIENT
 Ferry Street Ventures, LLC
 1520 North Johnson Street
 Arlington, VA 22201

PROJECT LOCATION
 Part of the Northeast 1/4
 of Section 31
 Town 1 South, Range 12
 East
 City of Detroit,
 Wayne County, Michigan

SHEET
 Notes and Details

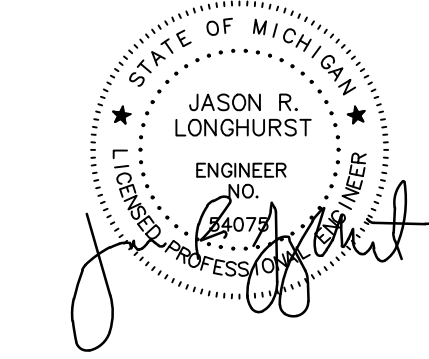
811
 Know what's below
 Call before you dig.

DATE	ISSUED/REVISED
2021-12-03	ISSUED FOR OWNER REVIEW
2022-05-11	REVISED PER OWNER
2022-08-18	REVISED PER ROW REVIEW
2022-08-25	REVISED PER ROW REVIEW
2022-09-27	REVISED PER ROW REVIEW
2022-10-25	REVISED PER CITY REVIEW
2022-10-26	REVISED PER OWNER
2022-11-08	REVISED PER CITY REVIEW
2022-11-30	REVISED PER CITY REVIEW

DRAWN BY:
 DESIGNED BY:
 APPROVED BY:
 J. Longhurst
 DATE:
 December 1, 2021
 SCALE: N.T.S.

NFE JOB NO. SHEET NO.
M262 C6

SEAL



PROJECT
603 E Milwaukee Ave
Detroit, Michigan

CLIENT
Ferry Street Ventures, LLC
1520 North Johnson Street
Arlington, VA 22201

PROJECT LOCATION
Part of the Northeast 1/4
of Section 31
Town 1 South, Range 12
East
City of Detroit,
Wayne County, Michigan

SHEET
Notes and Details



Know what's below
Call before you dig.

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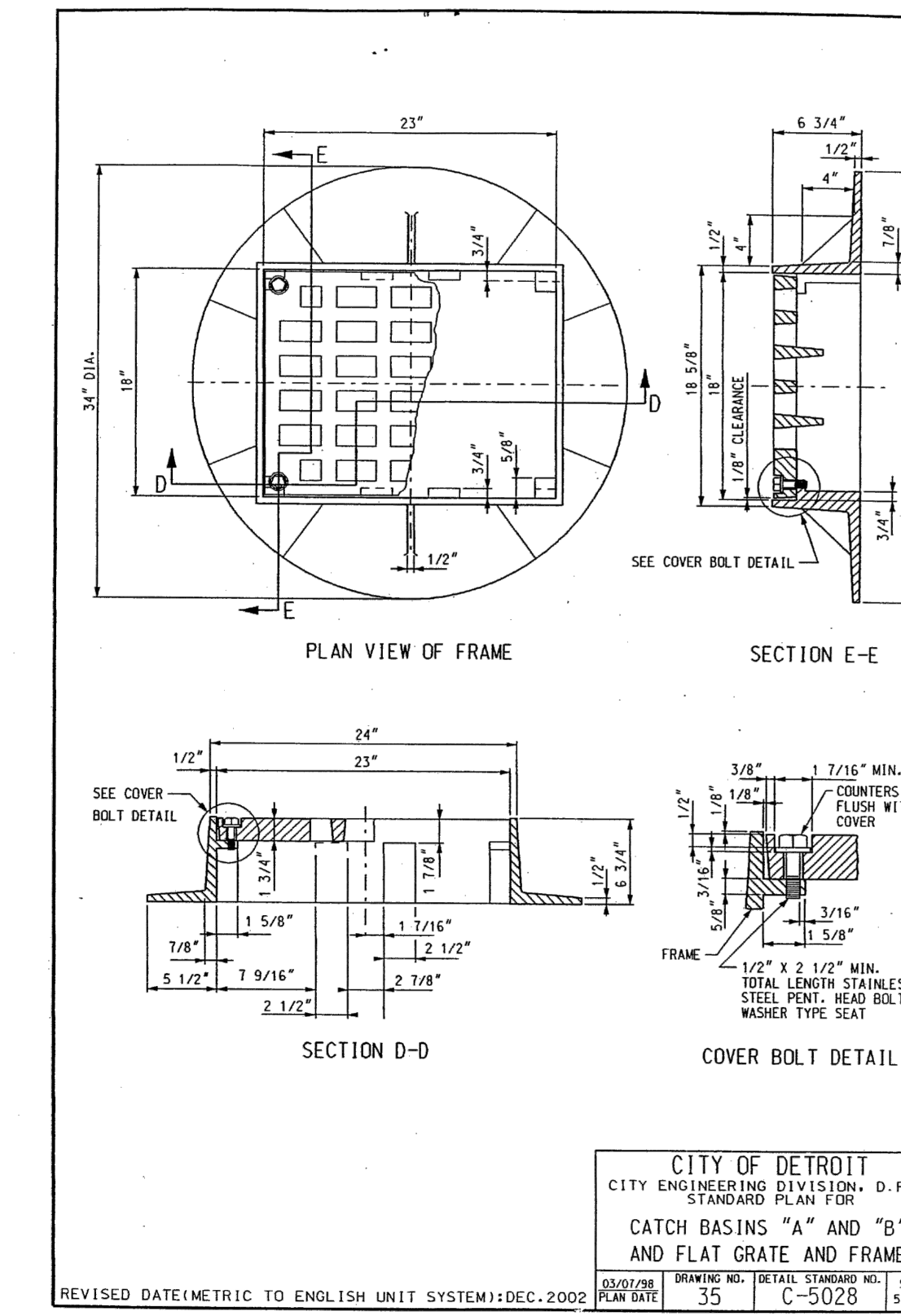
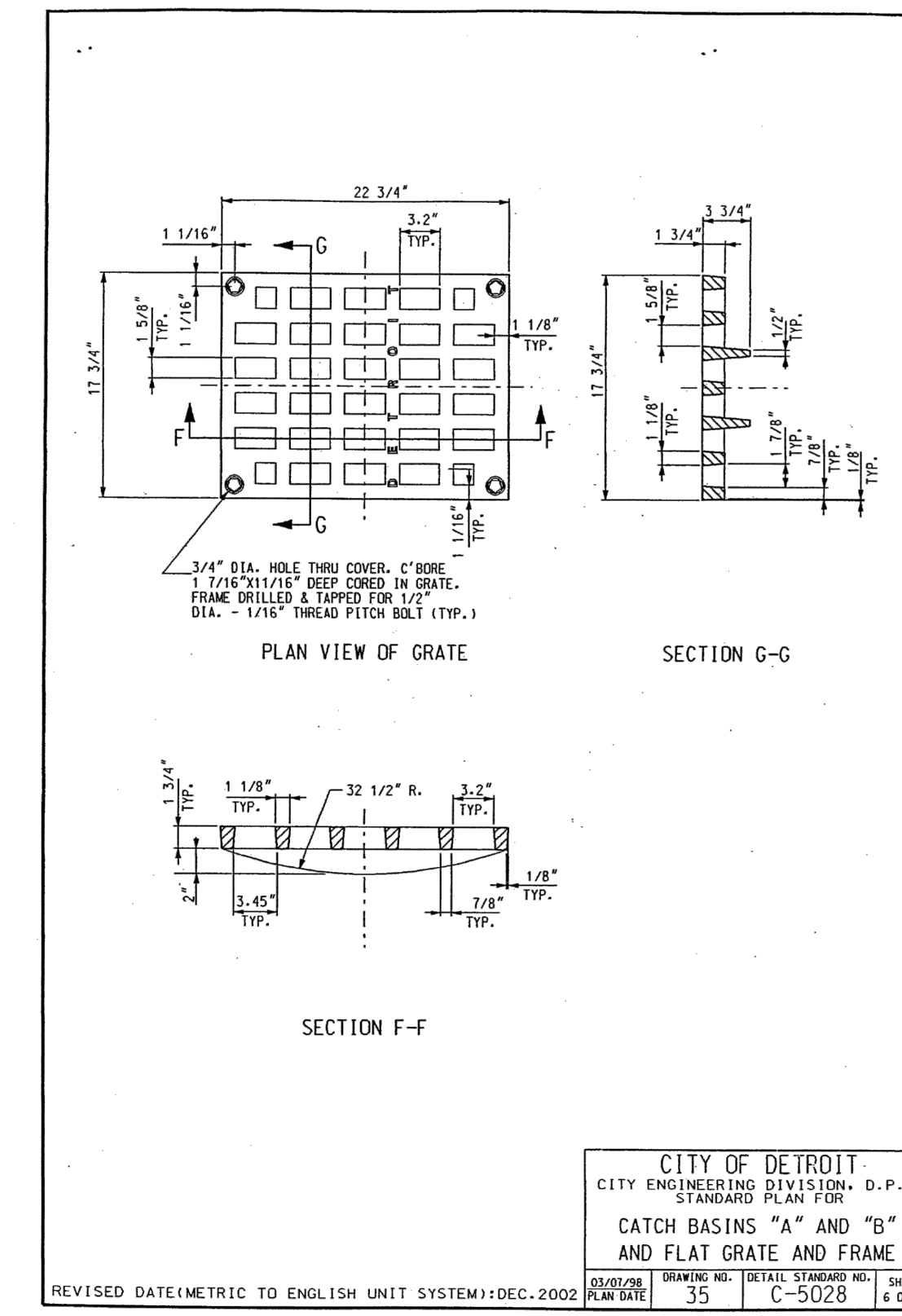
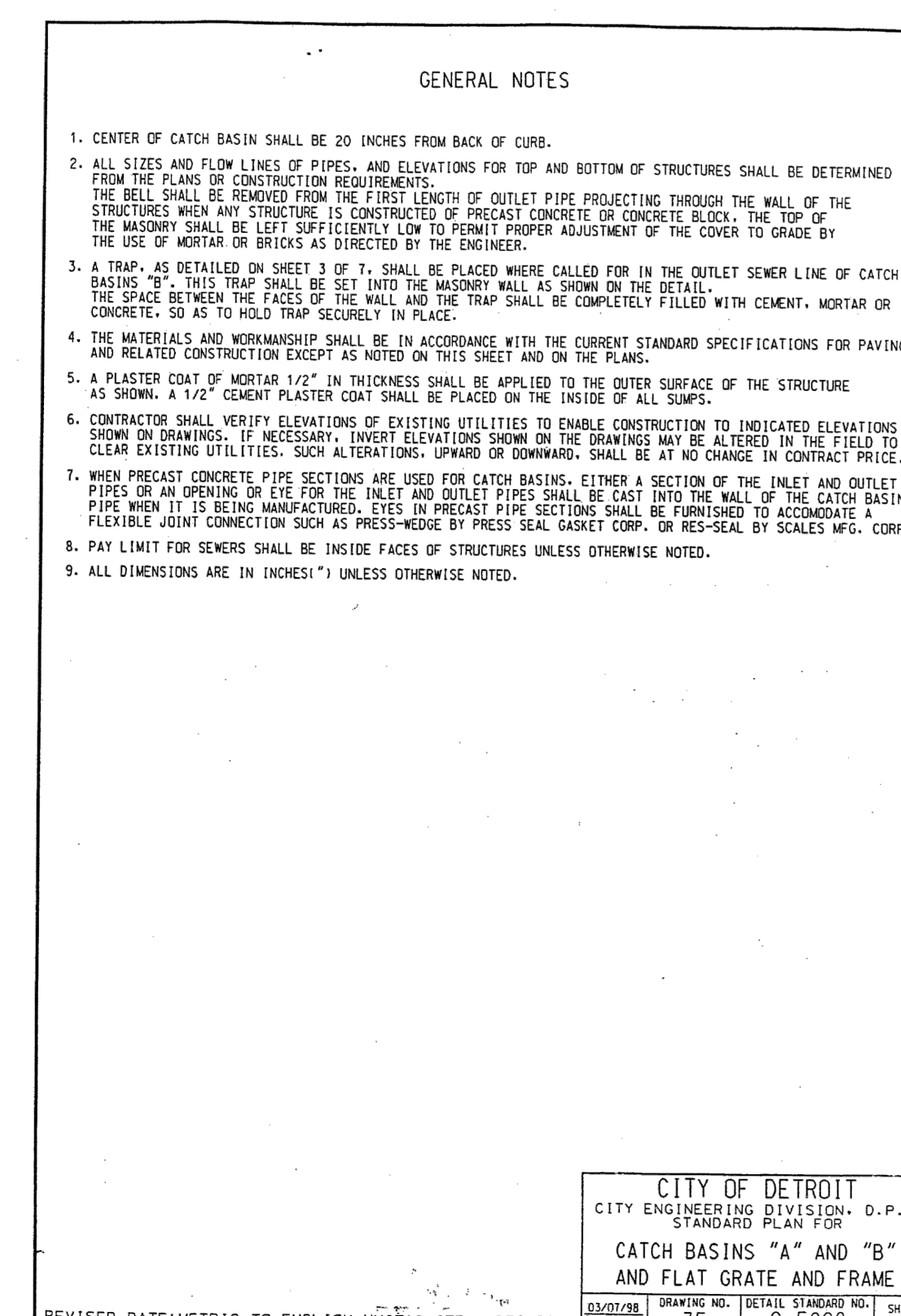
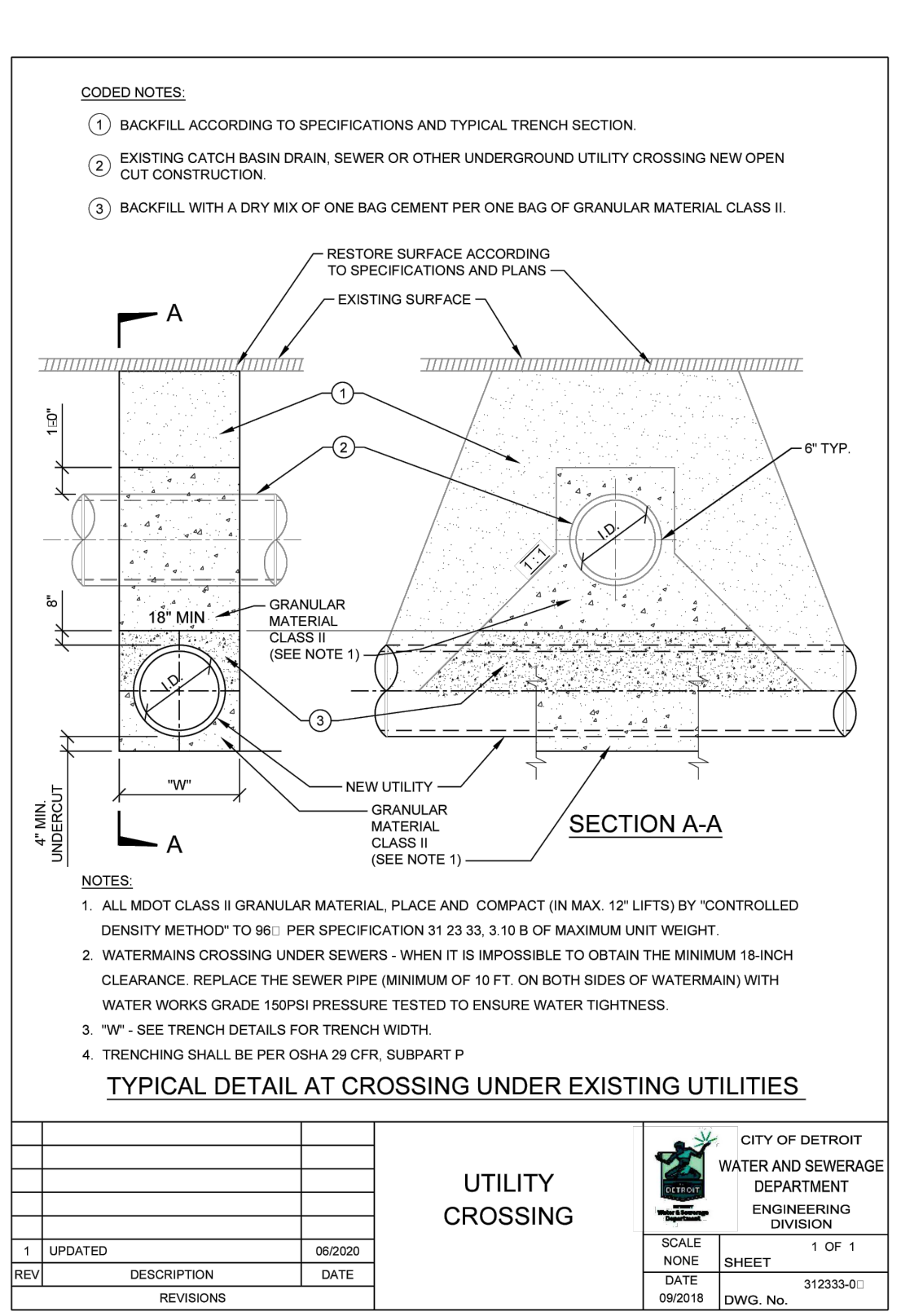
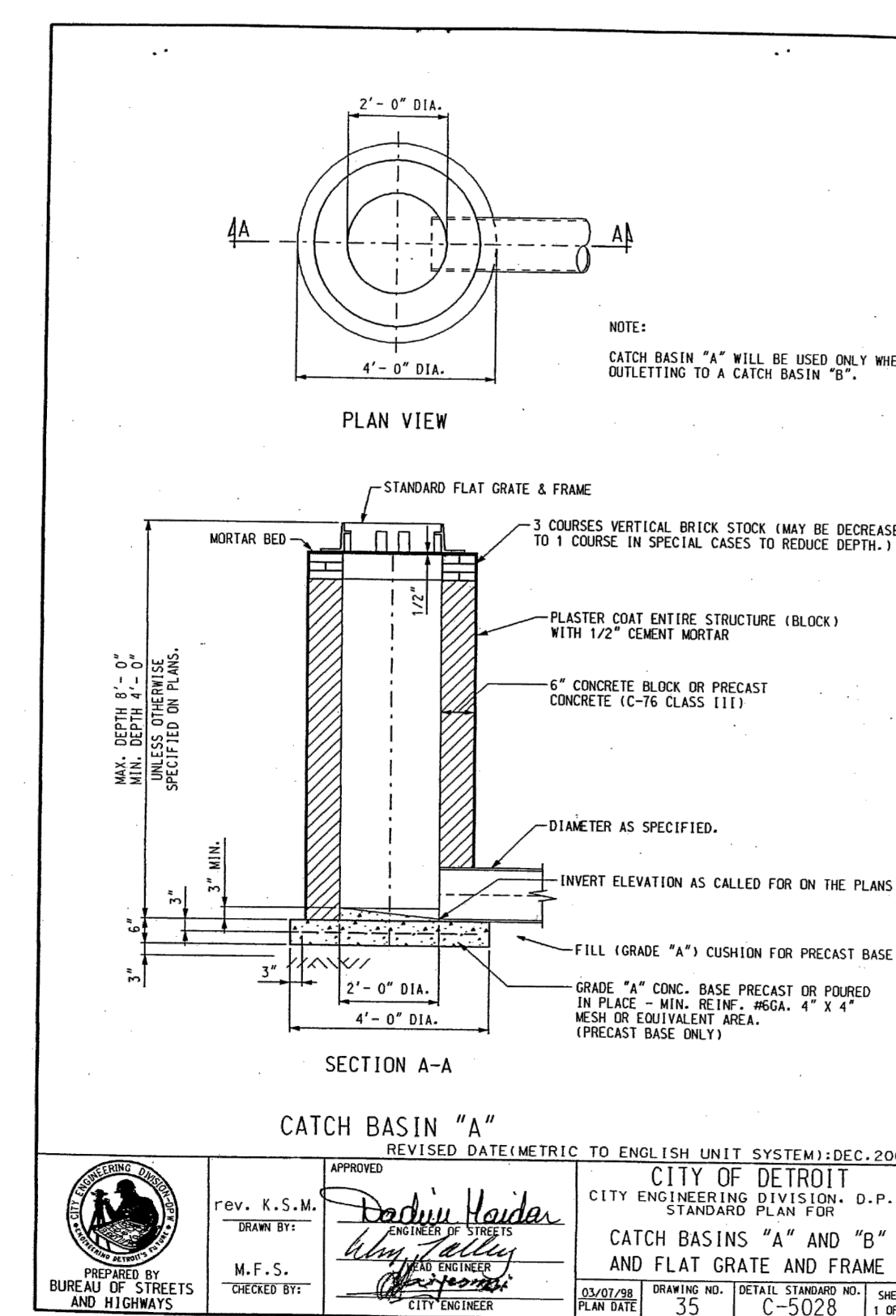
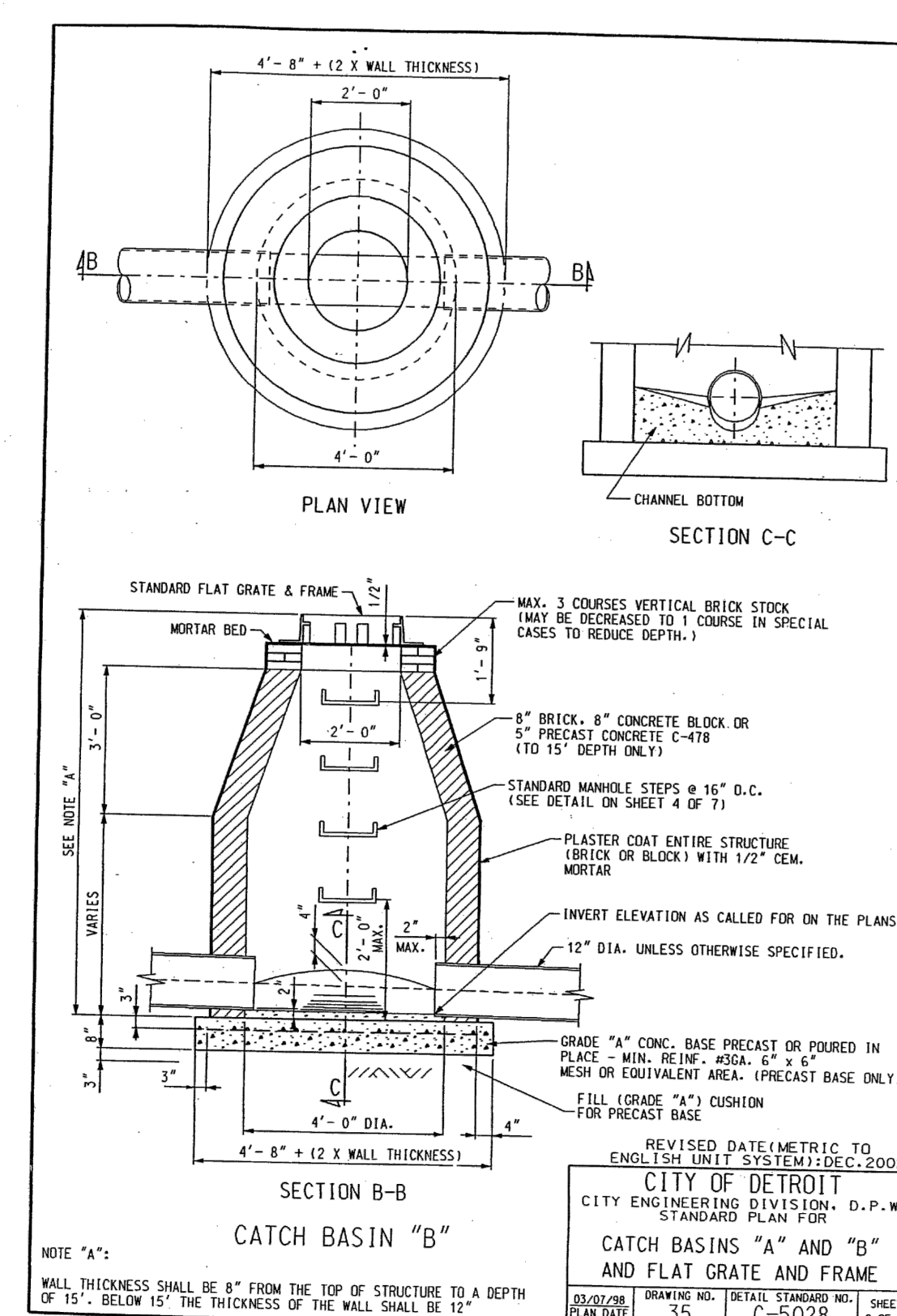
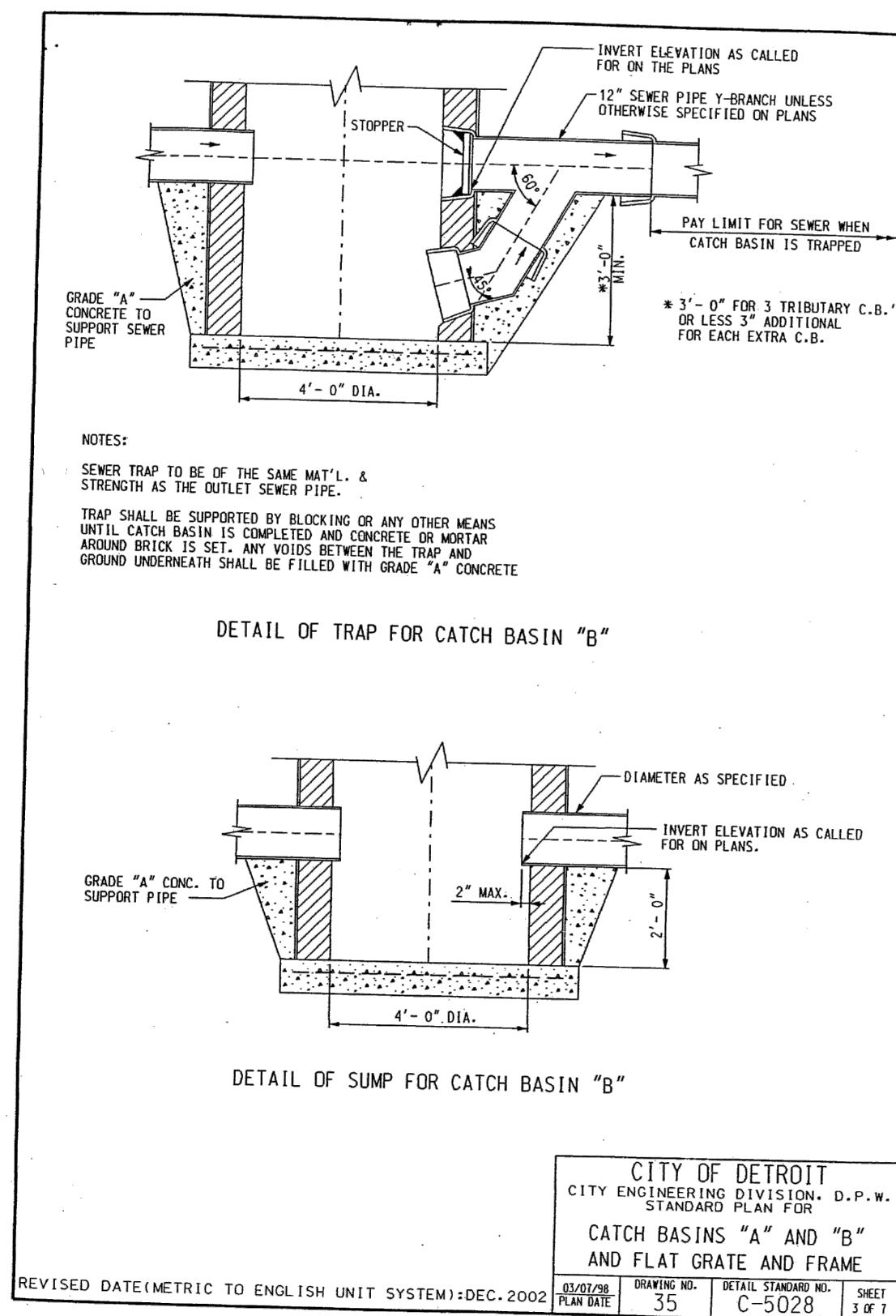
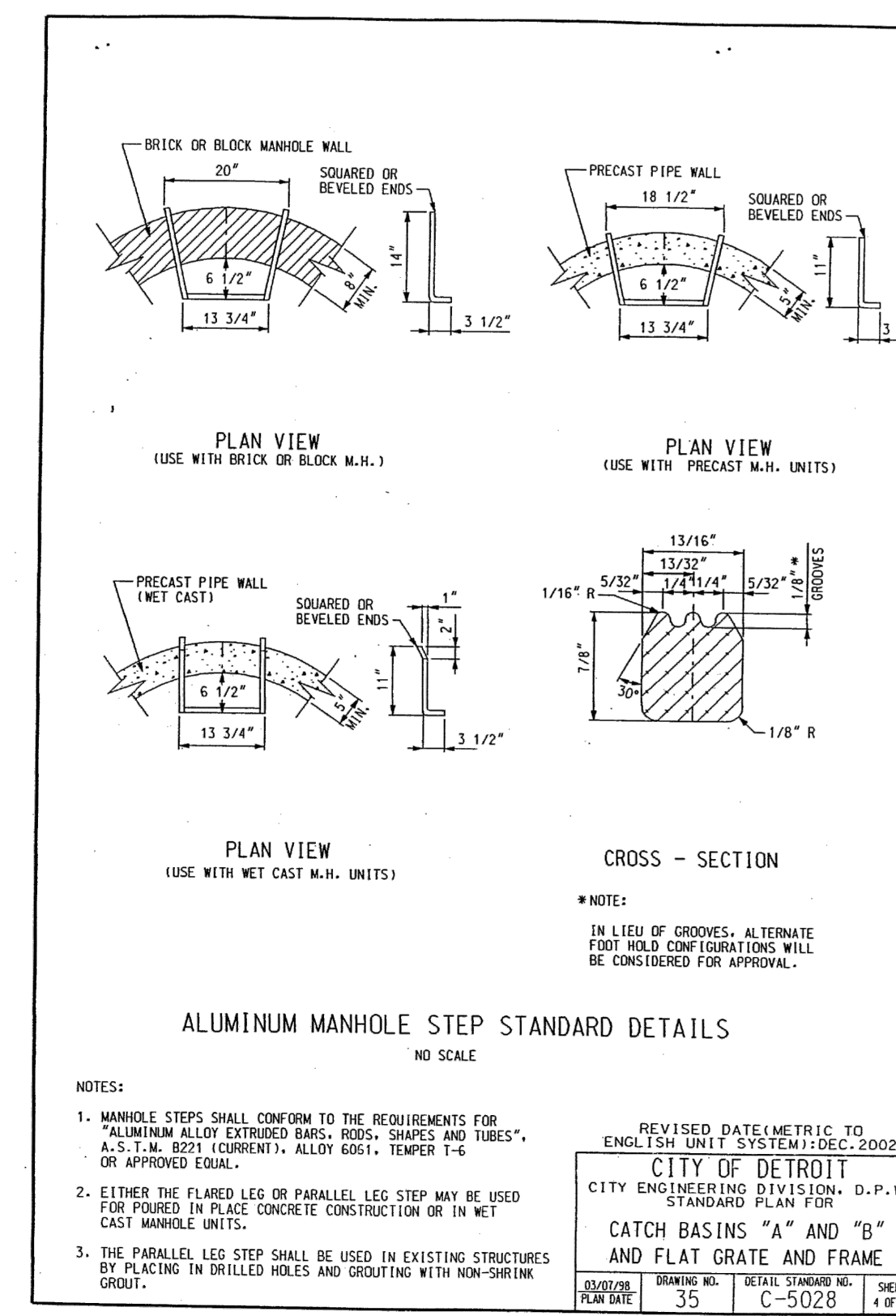
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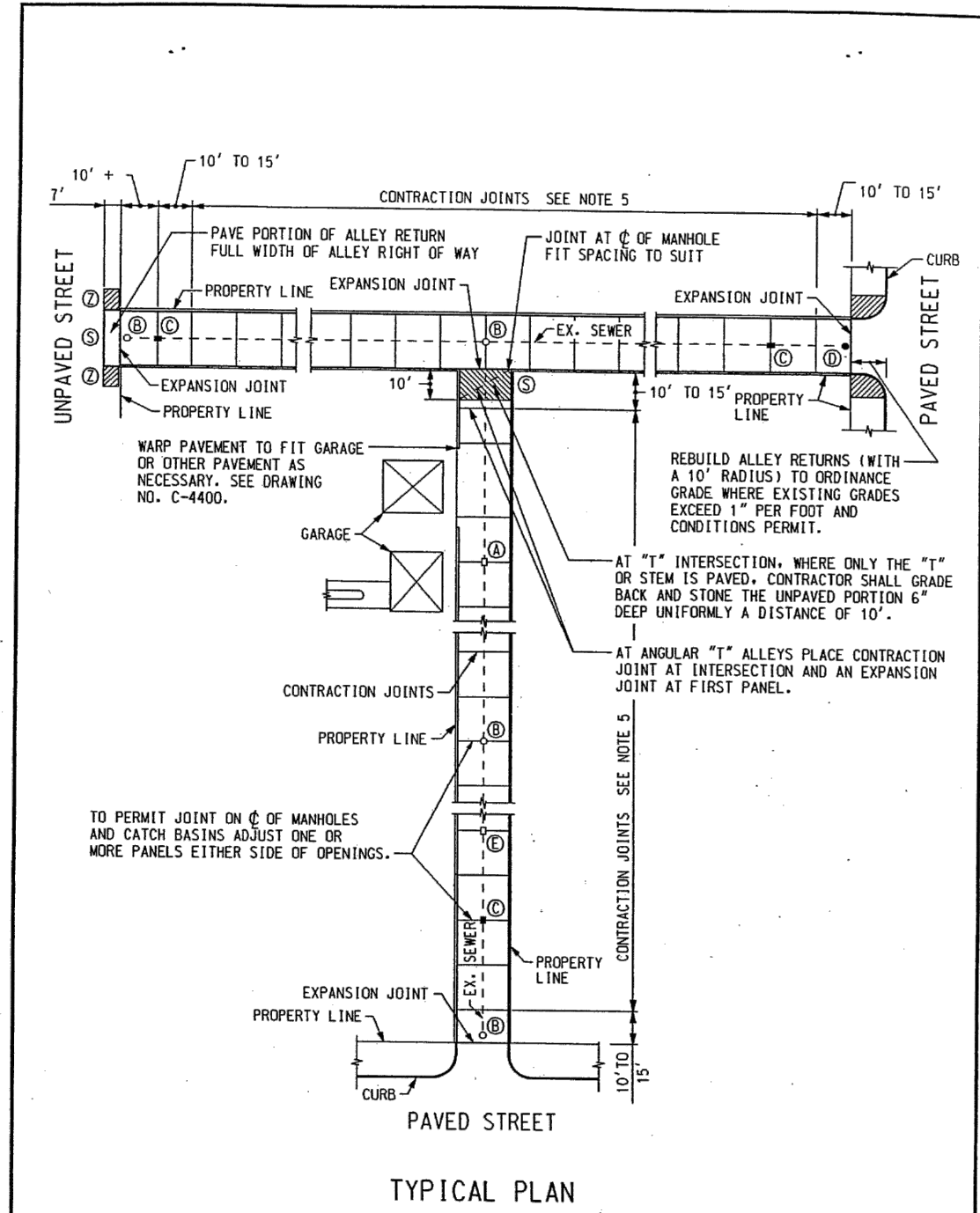
DESIGNED BY:

APPROVED BY:
J. Longhurst

DATE:
December 1, 2021

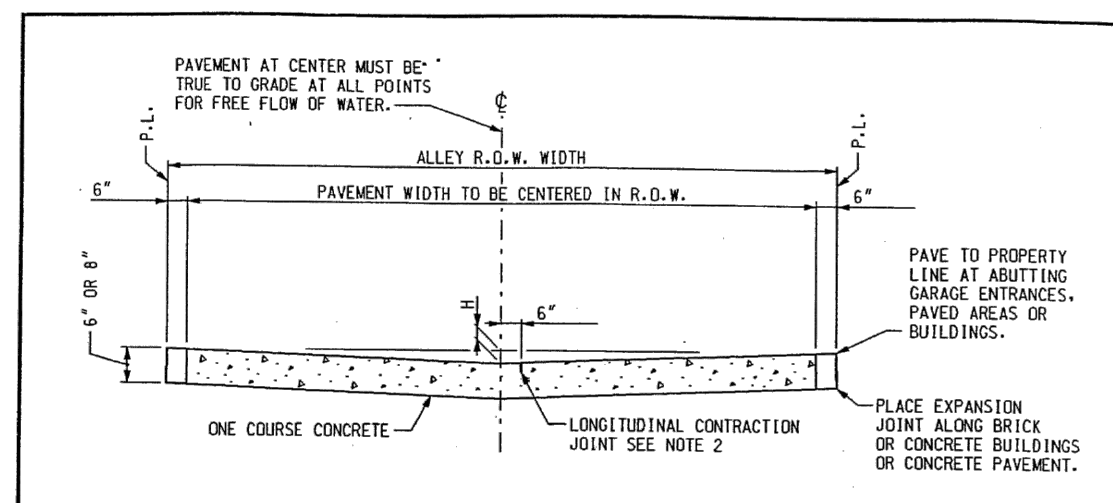
SCALE: N.T.S.





TYPICAL PLAN

REVISED DATE(METRIC TO ENGLISH UNIT SYSTEM) DEC. 2002
 CITY OF DETROIT
 CITY ENGINEERING DIVISION, D.P.W.
 STANDARD PLAN FOR
 CONCRETE ALLEY PAVEMENT
 DRAWING NO. [DETAIL STANDARD NO.] SHEET 1 OF 2
 C-4396



TYPICAL SECTION

ELEMENTS	
ALLEY WIDTH	H
15'	5'
17'	4'
15'	3'

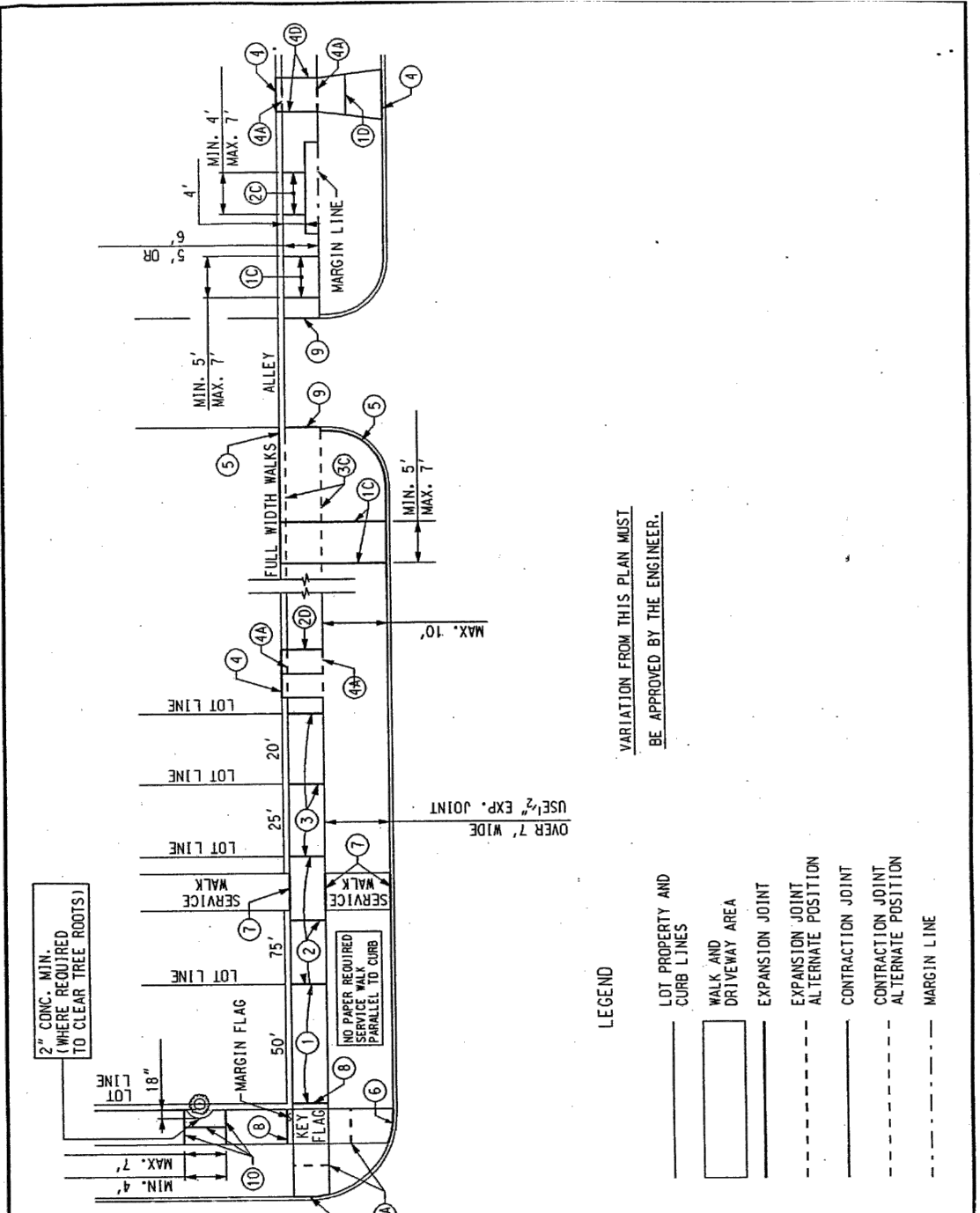
NOTES:

- PLACE EXPANSION JOINTS AT ALL STREET PROPERTY LINES AND ALLEY INTERSECTIONS.
- LONGITUDINAL CONTRACTION JOINT TO BE CONSTRUCTED IN PARALLELS 1' AND OVER IN WIDTH UNLESS OTHERWISE NOTED ON PAVING PLAN.
- MAXIMUM SPACING BETWEEN EXPANSION JOINTS SHOULD NOT EXCEED 100 FEET.
- IF STREET IS ECONOMY PAVED THE AREA BETWEEN THE WALK AND EDGE OF PAVEMENT SHALL BE PAVED WITH 6" STONE BASE PLUS 2" OF COLD PATCH MATERIAL. THE WALK FLAG SHALL BE 6" THICK.
- CONTRACTION JOINTS SHALL BE SPACED AT 15' C. TO C. TOP SLAB AGGREGATE AND 6.0 m C. TO C. FOR NATURAL AGGREGATE.

CONSTRUCTION SYMBOLS LEGEND

- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- ⊕ ADJUST EXISTING CATCH BASIN
- ⊖ ADJUST EXISTING MANHOLE
- ⊙ CONSTRUCT CATCH BASIN
- ⊘ CONSTRUCT MANHOLE
- ⊚ ABANDON EXISTING CATCH BASIN
- ⊛ STONING AND GRADING
- ⊜ CONSTRUCT STANDARD 4" CONCRETE SIDEWALK

REVISED DATE(METRIC TO ENGLISH UNIT SYSTEM) DEC. 2002
 CITY OF DETROIT
 CITY ENGINEERING DIVISION, D.P.W.
 STANDARD PLAN FOR
 CONCRETE ALLEY PAVEMENT
 DRAWING NO. [DETAIL STANDARD NO.] SHEET 2 OF 2
 C-4396



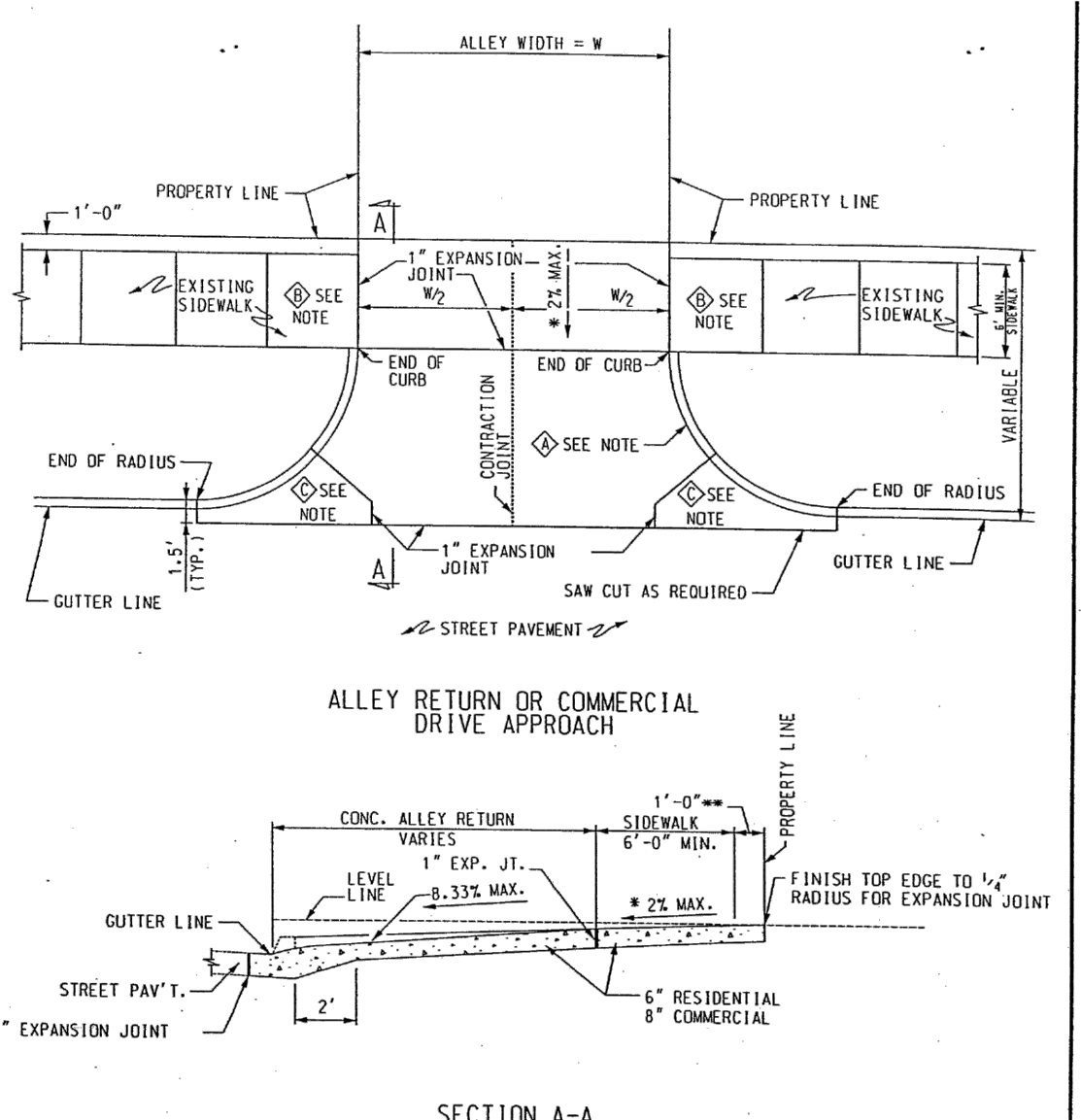
LEGEND

- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- ⊕ ADJUST EXISTING CATCH BASIN
- ⊖ ADJUST EXISTING MANHOLE
- ⊙ CONSTRUCT CATCH BASIN
- ⊘ CONSTRUCT MANHOLE
- ⊚ ABANDON EXISTING CATCH BASIN
- ⊛ STONING AND GRADING
- ⊜ CONSTRUCT STANDARD 4" CONCRETE SIDEWALK

REVISED DATE(METRIC TO ENGLISH UNIT SYSTEM) DEC. 2002
 CITY OF DETROIT
 CITY ENGINEERING DIVISION, D.P.W.
 STANDARD PLAN FOR
 SIDEWALK JOINTING
 STANDARD
 DRAWING NO. [DETAIL STANDARD NO.] SHEET 1 OF 2
 C-4462

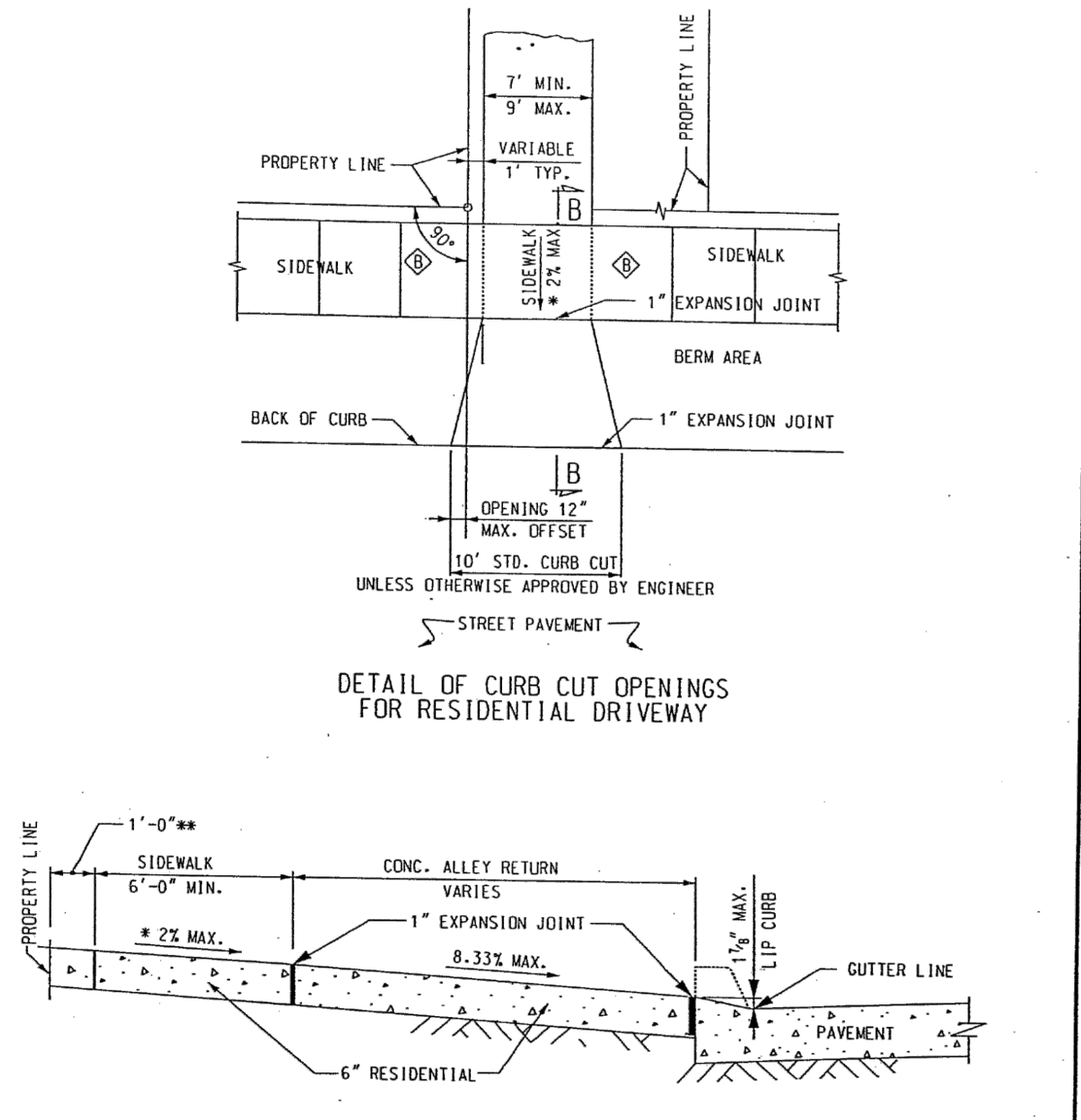
- ### EXPANSION JOINTS
- ALL EXPANSION JOINT PAPER SHALL EXTEND 1" BELOW THE BOTTOM OF THE THINNER OF ADJOINING PAVEMENT SECTIONS.
 - PLACE 1/2" PAPER EXPANSION JOINTS AT LOT LINES WHEN LOT LINES ARE BETWEEN 25' AND 50' APART.
 - PLACE ADDITIONAL 1/2" PAPER EXPANSION JOINTS SO THAT THE DISTANCE BETWEEN JOINTS DOES NOT EXCEED 15.2 m WHEN LOT LINES ARE OVER 15.240 m APART.
 - PLACE 1/2" PAPER EXPANSION JOINTS AT EVERY SECOND LOT LINE AND CONTRACTION JOINT AT INTERVENING LOT LINE WHEN LOT LINES ARE LESS THAN 25' APART.
 - PLACE 1" PAPER EXPANSION JOINTS AT CURB AND BUILDING OR PROPERTY LINE OR AT ALTERNATE POSITION (A) AS SHOWN FOR DRIVEWAY.
 - PLACE 1" PAPER EXPANSION JOINTS AT CURB AND BUILDING OR PROPERTY LINE FOR FULL WIDTH SIDEWALK EXCEEDING 7' IN WIDTH.
 - PLACE 1" PAPER EXPANSION JOINTS AT CURB CIRCLES OR AT ALTERNATE POSITION (B) AS SHOWN.
 - PLACE 1" PAPER EXPANSION JOINTS AT INTERSECTIONS OF SERVICE WALKS AND SIDEWALKS AND SERVICE WALKS AND CURBS.
 - PLACE 1" PAPER EXPANSION JOINTS AT CURB AND BUILDING OR PROPERTY LINE FOR FULL WIDTH SIDEWALK EXCEEDING 7' IN WIDTH.
 - PLACE 1" PAPER EXPANSION JOINTS AT CURB CIRCLES OR AT ALTERNATE POSITION (B) AS SHOWN.
 - PLACE 1" PAPER EXPANSION JOINTS AT INTERSECTIONS OF SERVICE WALKS AND SIDEWALKS AND SERVICE WALKS AND CURBS.
 - PLACE 1" PAPER EXPANSION JOINTS AT CURB AND BUILDING OR PROPERTY LINE FOR FULL WIDTH SIDEWALK EXCEEDING 7' IN WIDTH.
 - PLACE 1" PAPER EXPANSION JOINTS AT CURB CIRCLES OR AT ALTERNATE POSITION (B) AS SHOWN.
 - PLACE 1/2" PAPER EXPANSION JOINT BOTH SIDES OF SIDEWALK FLAG ABUTTING TREE AND ON CENTERLINE JOINT.
- ### CONTRACTION JOINTS
- PLACE CONTRACTION JOINTS AT INTERVALS OF NOT LESS THAN 5' NOR MORE THAN 7' ON WALKS 5' WIDE OR WIDER, INCLUDING FULL WIDTH WALKS.
 - PLACE CONTRACTION JOINTS AT INTERVALS OF NOT LESS THAN 4' NOR MORE THAN 7' ON WALKS 4' WIDE.
 - PLACE CONTRACTION JOINTS AT THE MARGIN LINE ON FULL WIDTH WALKS (OPTIONAL).
- ### DRIVEWAYS
- PLACE CONTRACTION JOINTS IN DRIVEWAYS SO THAT NO SLAB WILL EXCEED THE DIMENSIONS OF 15' BY 15'.
 - PLACE 1" PAPER EXPANSION JOINTS ON ALL SIDES OF COMMERCIAL DRIVES.
 - PLACE CONTRACTION OR CONTRACTION JOINT ON CENTERLINE WHEN WIDTH OF DRIVEWAY EXCEEDS 15'.
 - PLACE 1/2" PAPER EXPANSION JOINTS ON BOTH SIDES OF RESIDENTIAL DRIVEWAYS. IF DRIVEWAY EDGE IS WITHIN 2' OF LOT LINE, PLACE THIS EXPANSION PAPER AT PROPERTY LINE.

REVISED DATE(METRIC TO ENGLISH UNIT SYSTEM) DEC. 2002
 CITY OF DETROIT
 CITY ENGINEERING DIVISION, D.P.W.
 STANDARD PLAN FOR
 SIDEWALK JOINTING
 STANDARD
 DRAWING NO. [DETAIL STANDARD NO.] SHEET 2 OF 2
 C-4462



SECTION A-A

REVISED DATE(METRIC TO ENGLISH UNIT SYSTEM) DEC. 2002
 CITY OF DETROIT
 CITY ENGINEERING DIVISION, D.P.W.
 STANDARD PLAN FOR
 DETAIL OF ALLEY RETURN AND DRIVE APPROACH
 DRAWING NO. [DETAIL STANDARD NO.] SHEET 1 OF 2
 C-4384

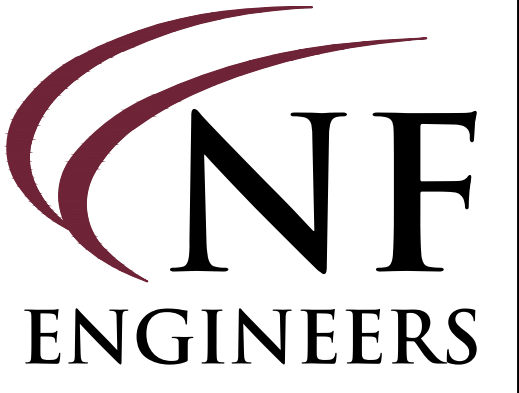


SECTION B-B

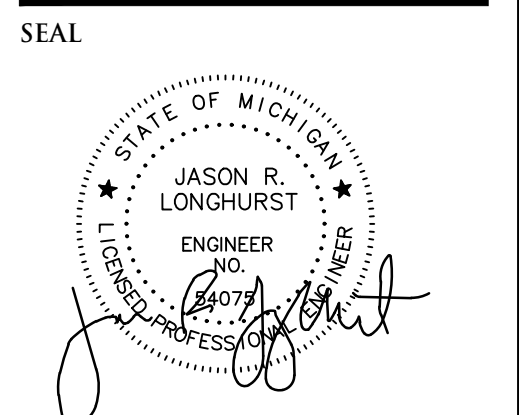
REVISED DATE(METRIC TO ENGLISH UNIT SYSTEM) DEC. 2002
 CITY OF DETROIT
 CITY ENGINEERING DIVISION, D.P.W.
 STANDARD PLAN FOR
 DETAIL OF ALLEY RETURN AND DRIVE APPROACH
 DRAWING NO. [DETAIL STANDARD NO.] SHEET 2 OF 2
 C-4384

APPROVED: *Sam Patel*
 K.S.M. ENGINEER OF STREETS
 J.J.J. CHECKED BY: *Sam Patel*
 M.F.S. CITY ENGINEER

APPROVED: *Sam Patel*
 K.S.M. ENGINEER OF STREETS
 J.J.J. CHECKED BY: *Sam Patel*
 M.F.S. CITY ENGINEER



CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS
 NOWAK & FRAUS ENGINEERS
 4677 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
 FAX. (248) 332-8257
 WWW.NOWAKFRAUS.COM



PROJECT
 603 E Milwaukee Ave
 Detroit, Michigan

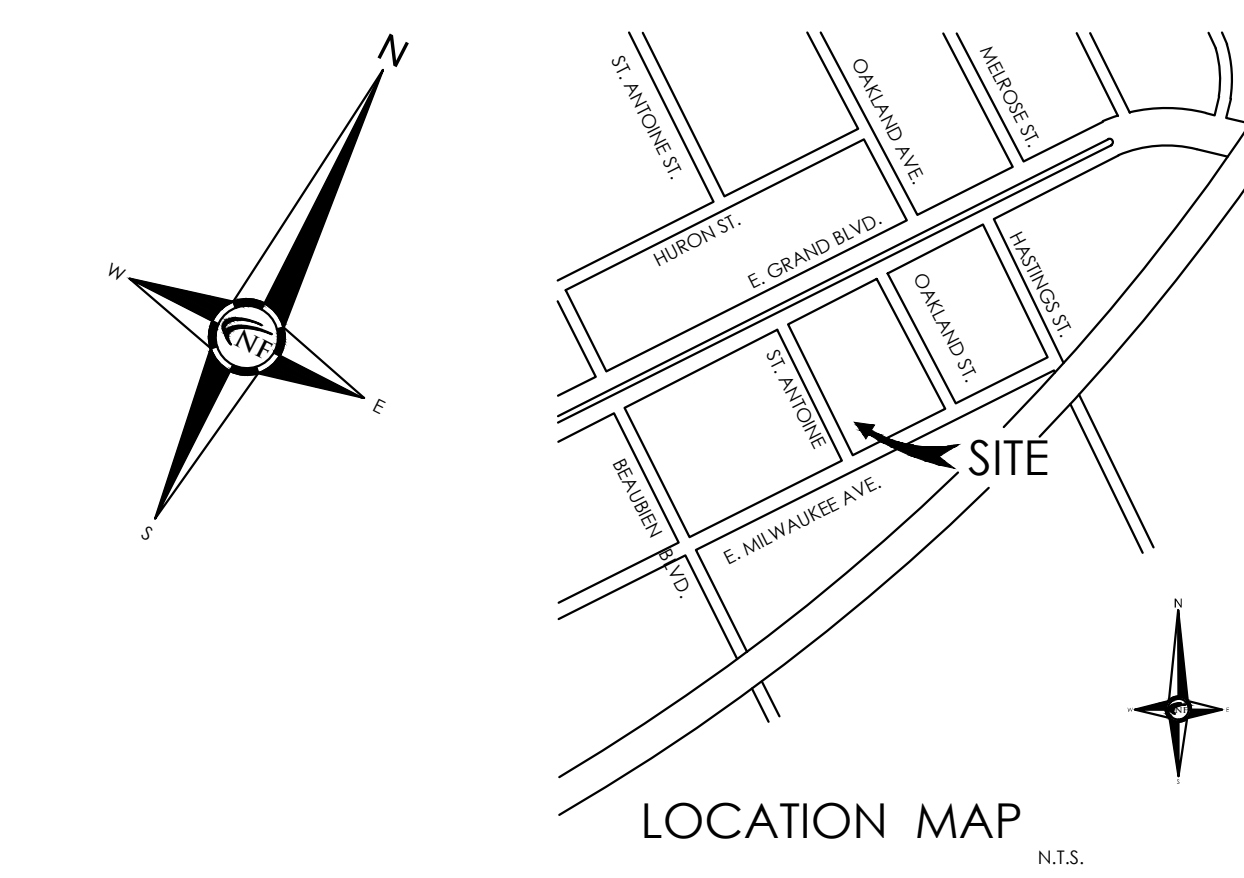
CLIENT
 Ferry Street Ventures, LLC
 1520 North Johnson Street
 Arlington, VA 22201

PROJECT LOCATION
 Part of the Northeast 1/4
 of Section 31
 Town 1 South, Range 12
 East
 City of Detroit,
 Wayne County, Michigan



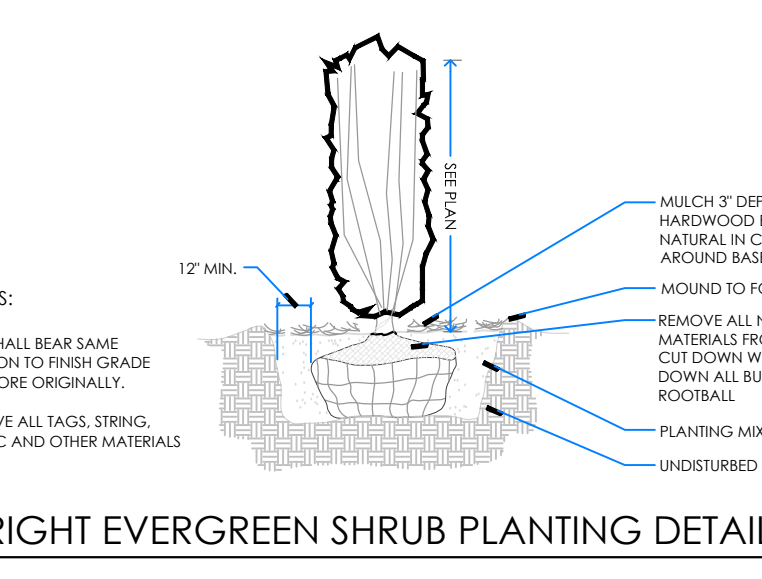
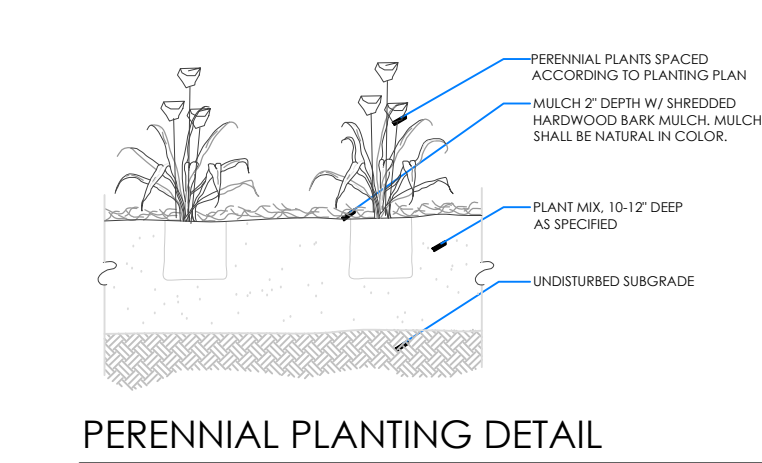
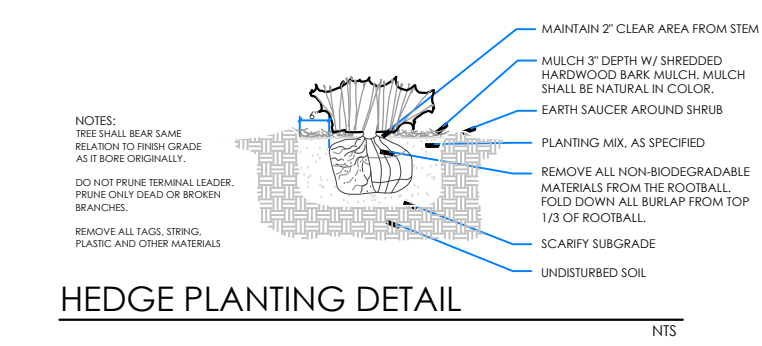
DATE	ISSUED/REVISED
2021-12-03	ISSUED FOR OWNER REVIEW
2022-05-11	REVISED PER OWNER
2022-08-18	REVISED PER ROW REVIEW
2022-08-25	REVISED PER ROW REVIEW
2022-09-27	REVISED PER ROW REVIEW
2022-10-25	REVISED PER CITY REVIEW
2022-10-26	REVISED PER OWNER
2022-11-08	REVISED PER CITY REVIEW
2022-11-30	REVISED PER CITY REVIEW

DRAWN BY:
 DESIGNED BY:
 APPROVED BY:
J. Longhurst
 DATE:
 December 1, 2021
 SCALE: N.T.S.



GENERAL LANDSCAPE NOTES

- LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, THE PLAN SHALL GOVERN QUANTITIES. CONTACT THE LANDSCAPE ARCHITECT WITH ANY CONCERNS.
- THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON ANY PHASE OF WORK. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES, AND SHALL REPORT ANY UNACCEPTABLE SITE CONDITIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF PLANTING.
- PLANTS SHALL BE FULLY WELL-BRANCHED, AND IN HEALTHY VIGOROUS GROWING CONDITION.
- PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE. ALL TREES MUST BE STAKED, FERTILIZED AND MULCHED AND SHALL BE GUARANTEED TO EXHIBIT A NORMAL GROWTH CYCLE FOR AT LEAST ONE (1) YEAR FOLLOWING PLANTING.
- ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE "AMERICAN STANDARDS FOR NURSERY STOCK".
- CONTRACTOR WILL SURPLY FINISHED GRADE AND EXCAVATE AS NECESSARY TO SUPPLY PLANT BEDS WITH ALL PLANTING BEDS AS INDICATED IN PLANT DETAILS AND A DEPTH OF 4" IN ALL LAWN AREAS.
- PROVIDE CLEAN BACKFILL SOIL, USING MATERIAL STOCKPILED ON-SITE. SOIL SHALL BE SCREENED AND FREE OF DEBRIS, FOREIGN MATERIAL, AND STONE. SLOW-RELEASE FERTILIZER SHALL BE ADDED TO THE PLANT BEDS BEFORE BEING BACKFILLED. APPLICATION SHALL BE AT THE MANUFACTURER'S RECOMMENDED RATES.
- AMENDED PLANT MIX (PREPARED TOPSOIL) SHALL CONSIST OF 1/3 SCREENED TOPSOIL, 1/3 SAND, AND 1/3 "DIRTY" SOFT "COMPOST". MIXED WELL AND SPREAD TO A DEPTH AS INDICATED IN PLANTING DETAILS.
- ALL PLANTINGS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK. SPREAD TO A DEPTH OF 3" FOR TREES AND SHRUBS, AND 2" ON ANNUALS, PERENNIALS, AND CROPOVER PLANTINGS. MULCH SHALL BE FREE FROM DEBRIS AND FOREIGN MATERIAL, AND PILES ON INCONSISTENT SIZE.
- NO SUBSTITUTIONS OR CHANGES OF LOCATION, OR PLANT TYPE SHALL BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A VERTICAL CONDITION THROUGHOUT THE GUARANTEED PERIOD.
- THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE SHALL HAVE THE RIGHT TO REFLECT ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS AND/OR SPECIFICATIONS.
- THE LANDSCAPE CONTRACTOR SHALL SEED AND MULCH OR SOD (AS INDICATED ON PLANS) ALL AREAS DESIGNATED AS SUCH ON THE PLANS THROUGHOUT THE CONTRACT LIMITS. FURTHER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING AREAS DISTURBED DURING CONSTRUCTION, NOT IN THE CONTRACT LIMITS, TO EQUAL OR GREATER CONDITION.
- ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESSIVE WATER FROM PONDING ON LAWN AREAS OR AROUND TREES AND SHRUBS.
- ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND SYSTEM.



GENERAL SEED NOTE:

ALL LAWN AREAS DESIGNATED TO BE SEEDED, SHALL BE HYDRO-SEEDED WITH SPECIFIED BLENDS, AND STABILIZED WITH WOOD CELLULOSE FIBER MULCH (2,000 LBS PER ACRE). IN AREAS SUBJECT TO EROSION, SEEDED LAWN SHALL BE FURTHER STABILIZED WHERE NECESSARY WITH BIODEGRADABLE EROSION BLANKET AND STAKED UNTIL ESTABLISHED. ALL SEED SHALL BE APPLIED OVER A MINIMUM 3" PREPARED TOPSOIL, AND SHALL BE KEPT MOIST AND WATERED DAILY UNTIL ESTABLISHED. SEEDING INSTALLATION SHALL OCCUR ONLY: SPRING: APRIL 1 TO JUNE FALL: AUGUST 15 TO OCTOBER 15

TYPICAL SEEDED LAWN MIX:
ALL LAWN AREAS DESIGNATED TO BE SEEDED, SHALL BE HYDROSEEDED WITH TYPICAL DROUGHT TOLERANT, DURABLE BLENDED SEED MIX, AT A RATE OF 220 LBS PER ACRE
MIX IS COMPRISED OF:
30% NITE HAWK PERENNIAL RYE
30% KENTUCKY BLUEGRASS
20% CREEPING RED FESCUE
10% MERIT KENTUCKY BLUEGRASS
10% NEWPORT KENTUCKY BLUEGRASS

GROUNDCOVER KEY

- TYPICAL SOD LAWN AREAS, SOWN ON 3" TOPSOIL
- RESTORE EXISTING LAWN AREAS W/ HYDROSEED AND MULCH
- 3-4" DIA SPADE CUT EDGE W/ 3" SHREDDED BARK MULCH
- 3" DEPTH DOUBLE SHREDDED HARDWOOD BARK MULCH
- 3/4" - 1 1/2" STONE MULCH, 3-4" DEPTH ON WEED BARRIER
- POSSIBLE SNOW DEPOSITION AREA, TO BE COORDINATED WITH REMOVAL SERVICE

IRRIGATION NOTE:

ALL LANDSCAPE AREAS, INCLUDING THOSE WITHIN THE R.O.W. SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. THE SYSTEM SHALL OPERATE IN COMPLIANCE WITH LOCAL STANDARDS AND SEASONAL RESTRICTIONS. SEPARATE ZONES SHALL BE PROVIDED FOR LAWN AREAS AND PLANTING BEDS. IRRIGATION SHALL BE DESIGNED IN THE MOST EFFICIENT MANNER NECESSARY TO FULLY IRRIGATE ALL PLANTING AREAS.

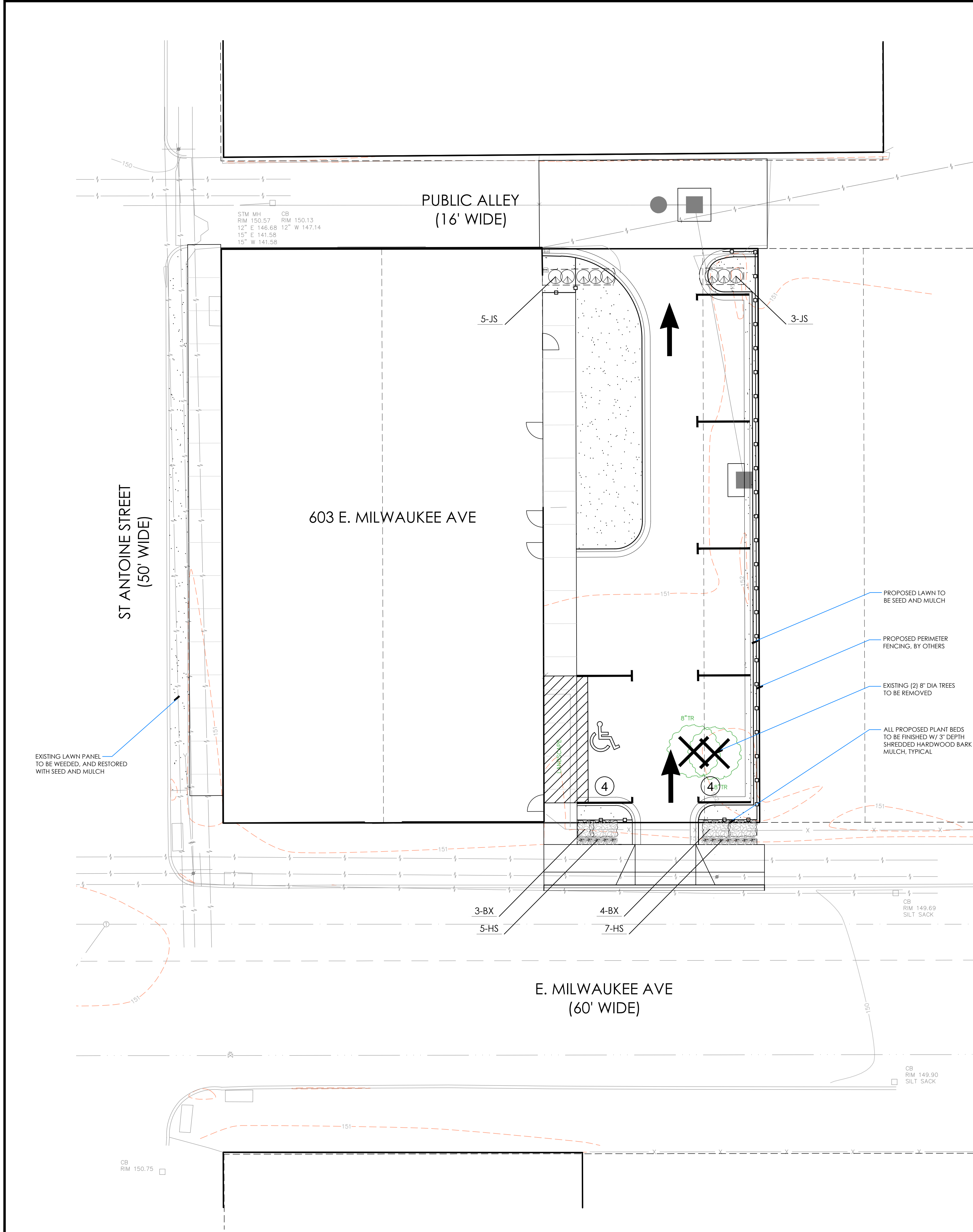
LANDSCAPE REQUIREMENTS

LANDSCAPE ABUTTING A R.O.W.
1. DECIDUOUS TREE PER 30' L.F. AND HEDGE VAN DYKE AVE: 111.04 L.F.
REQUIRED: 111.04 L.F. / 30' L.F. = 3.7 OR 4 TREES REQUIRED
PROVIDED: 4 TREES & EVERGREEN HEDGE (ORNAMENTAL TREES PROVIDED DUE TO OVERHEAD UTILITY LINES) (CORNWELL AVENUE): 118.18 L.F.
REQUIRED: 118.18 L.F. / 30' L.F. = 3.9 OR 4 TREES REQUIRED
PROVIDED: 4 TREES & EVERGREEN HEDGE (ORNAMENTAL TREES PROVIDED DUE TO OVERHEAD UTILITY LINES)

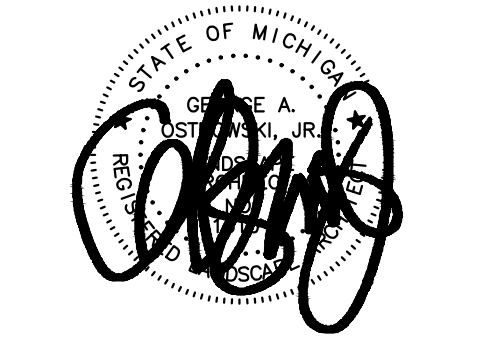
PARKING LOT LANDSCAPE REQUIREMENTS
18 SPACES REQUIRE NO INTERIOR PARKING LANDSCAPE

PLANT SCHEDULE

KEY	QTY	BOTANICAL/COMMON NAME	SIZE	SPACING	ROOT	COMMENT
SHRUBS						
BX	7	Buxus 'Green Mountain' Green Mountain Boxwood	30" HT	30" OC	B&B	MAINTAIN AS HEDGE
JS	8	Juniperus chinensis 'Spartan' Spartan Juniper	5' HT	30" OC	B&B	
GROUNDCOVERS/PERENNIALS						
HS	12	Hemerocallis 'Stella D'Oro' Stella D'Oro Daylily	2 GAL	18" OC	CONT	



SEAL



PROJECT
603 E Milwaukee Ave
Detroit, Michigan

CLIENT
Ferry Street Ventures, LLC
1520 North Johnson Street
Arlington, VA 22201

PROJECT LOCATION
Part of the Northeast 1/4 of Section 31
Town 1 South, Range 12 East
City of Detroit, Wayne County, Michigan

SHEET
Landscape Plan



REVISIONS
22-11-30 Revised Per City Review

DRAWN BY:
G. Ostrowski
DESIGNED BY:
G. Ostrowski
APPROVED BY:
G. Ostrowski

DATE:
11-28-2022

SCALE: 1" = 10'

NFE JOB NO. M262 **SHEET NO.** L1