

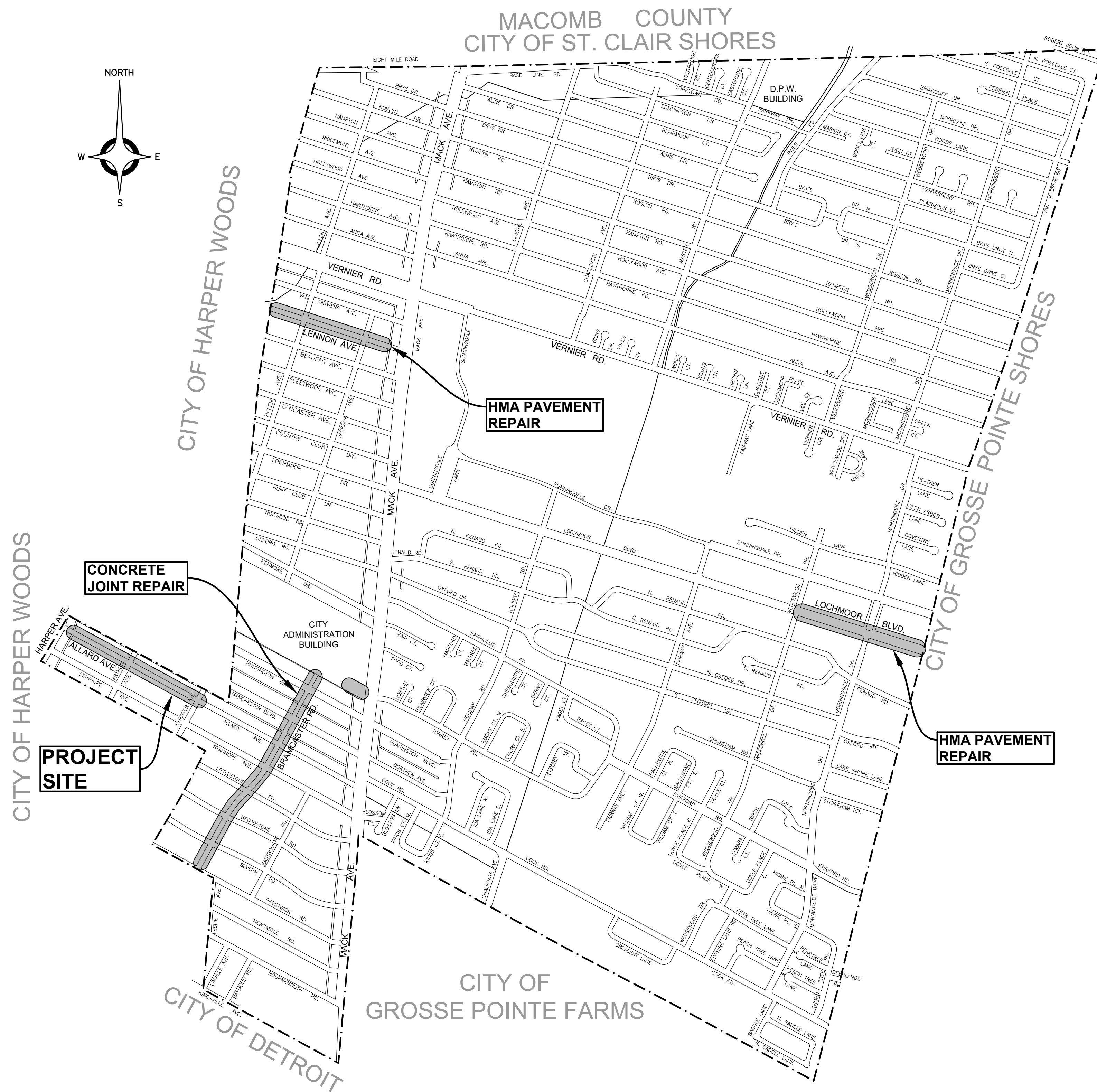
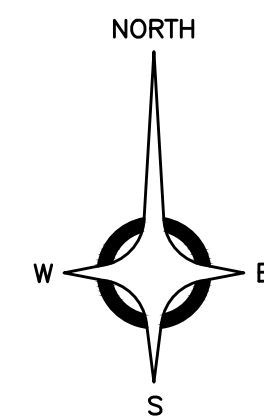
City of Grosse Pointe Woods

Wayne County, Michigan

Allard Avenue Reconstruction
Harper Ave. to Chester Ave.



ANDERSON, ECKSTEIN AND
WESTRICK, INC.
CIVIL ENGINEERS SURVEYORS ARCHITECTS



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LOCAL AUTHORITY APPROVAL
GROSSE POINTE WOODS

FRANK SCHULTE,
DIRECTOR OF PUBLIC SERVICES

DATE

"I HEREBY CERTIFY THESE PLANS HAVE BEEN PREPARED UNDER MY
DIRECT SUPERVISION IN ACCORDANCE WITH ACT 240, PUBLIC ACTS
OF 1937 AS AMENDED- STATE OF MICHIGAN."

ROSS T. WILBERDING, P.E. No. 6201068836

DATE

GENERAL NOTES

UTILITIES

MISS DIG/UNDERGROUND UTILITY NOTIFICATION

For the protection of underground utilities and in conformance with Public Act 174 of 2013, the Contractor shall contact MISS DIG System, Inc. by phone at 811 or 800-482-7171 or via the web at either elocate.missdig.org for single address or rte.missdig.org, a minimum of 3 work days prior to excavating, excluding weekends and holidays.

ROW / REAL ESTATE

LAWN SPRINKLER SYSTEMS AND LANDSCAPING

Owners of existing lawn sprinkler systems and/or landscaping shall be notified in advance of any work to be done that will affect those systems and/or landscaping. If the property owner fails to relocate the lawn sprinkler system prior to the Contractor beginning work, the Contractor shall carefully salvage the landscaping items and stockpile them on the property owner's property for the property owner. If the Contractor cuts the system during the construction, the Contractor shall cap the system pipe and witness the location of the cap with a wooden stake.

SURVEY

ADJUSTING MONUMENT BOXES

All government corners on this project shall be preserved, whether shown or not. It may be necessary to place or adjust monument boxes, as required.

DRAINAGE

ILLICIT CONNECTIONS TO STORM WATER SYSTEM

Connections to existing storm conveyance systems not shown on the plans must be reconnected with minimal interruption in service. Size, type and location by station and offset of any suspect illicit discharge observed shall be reported to the Engineer prior to reconnecting. Contractor shall proceed as directed by the Engineer.

TEMPORARY BULKHEADS

Temporary bulkheads may be required for the part width construction of the sewers. All costs associated with constructing temporary bulkheads are included in the unit prices bid for the storm sewer items of work.

EARTHWORK

SOIL EROSION MEASURES

Appropriate soil erosion and sedimentation control measures shall be in place prior to earth-disturbing activities. Place turf establishment items as soon as possible on potential erodable slopes as directed by the Engineer.

BASES

AGGREGATE BASE

Aggregate bases shall be 21AA in accordance with the MDOT 2012 Standard Specifications for Construction.

PAVEMENT

SOIL BORINGS AND/OR PAVEMENT CORES

The soil boring logs and/or pavement cores represent point information. No inference should be made that subsurface or pavement conditions are the same at other locations.

CONCRETE

The type of concrete to be used on this project is Type P1.

LANDSCAPING

All equipment to be used must be approved by the Engineer prior to beginning work.

Storage of equipment and materials will be restricted to areas designated by the Owner.

Branches of all trees to be saved shall not be removed, or damaged by construction equipment. If removal of lower branches is necessary, contact DPW for proper methods.

Contractor shall promptly restore any property damage at no expense to the Owner.

All excavated material will become the property of the Contractor. Any excavated material not used on the project shall be removed from the site and disposed of in accordance with Section 205.03.P. of the 2012 Standard Specification for Construction and any applicable state and/or local ordinances.

No cereal rye seeding shall be used on this project.

SIGNS

GENERAL

All signs shall be installed, removed and/or salvaged according to the current edition of "Michigan Manual on Uniform Traffic Control Devices" and the current edition of Michigan Department of Transportation (MDOT) "Standard Specifications for Construction."

All signs on the plans or in the log that do not have a recommendation are to be retained.

EXISTING SIGN RELOCATION

Any permanent signs requiring relocation due to Contractor operations shall be salvaged and reset by the Contractor at locations designated by the Engineer. Signs and posts damaged during the removal and storage operations shall be replaced with new signs and posts. The cost of this work shall be borne by the Contractor.

NOTES APPLYING TO STANDARD PLANS

Where the following items are called for on plans, they are to be constructed according to the standard plan series given below opposite each item unless otherwise indicated.

Title	Plan Series
ROAD	
DRAINAGE STRUCTURES	R-1*
SIDEWALK RAMP AND DETECTABLE WARNING DETAILS	R-28*
DRIVEWAY OPENINGS & APPROACHES AND CONCRETE SIDEWALK	R-29
CONCRETE CURB AND CONCRETE CURB & GUTTER	R-30
GRANULAR BLANKET, UNDERDRAINS, OUTLET ENDINGS FOR UNDERDRAINS, AND SEWER BULKHEADS	R-80
UTILITY TRENCHES	R-83
SOIL EROSION & SEDIMENTATION CONTROL MEASURES	R-96

* Denotes Special Detail

PUBLIC UTILITIES

The existing utilities listed below and locations of utilities as shown on the plans represent the best information available at the time these plans were prepared. This information does not relieve the contractor of the responsibility to satisfy himself as to their accuracy or of his responsibility to verify all existing utilities within the C.I.A. In case utilities have been constructed or removed since the topographic survey was prepared.

NAME OF OWNER	UTILITY
---------------	---------

DETROIT EDISON CO. TOM KOCH ONE ENERGY PLAZA 2045 WEB DETROIT, MI 48226 (313) 235-4432	POWER & ELECTRIC
---	------------------

D.T.E. COMMUNITY LIGHTING DEBRA CAIN (313) 618-6996	STREET LIGHTS
---	---------------

D.T.E. GAS COMPANY LAURIE FORRESTER 17150 ALLEN ROAD MELVINDALE, MICHIGAN 48122 (313) 389-7261	GAS
--	-----

A.T.&T. ENGINEERING DEPARTMENT 100 S. MAIN ST., SUITE 314 MT. CLEMENS, MICHIGAN 48043 (586) 466-1024	TELEPHONE & OTHER COMMUNICATION SYSTEMS
--	---

COMCAST CABLE WARREN SETTY 6095 WALL STREET STERLING HEIGHTS, MICHIGAN 48312 (586) 883-7253	CABLE TV
---	----------

WAYNE COUNTY DEPARTMENT OF SERVICES PETE MILENKOVICH 29900 GODDARD ROAD DETROIT, MICHIGAN 48241 (734) 955-2154	TRAFFIC SIGNALS
---	-----------------

CITY OF GROSSE POINTE WOODS DEPARTMENT OF PUBLIC WORKS JIM KOWALSKI 1200 PARKWAY GROSSE POINTE WOODS, MICHIGAN 48236	WATER / SEWER
---	---------------



ANDERSON, ECKSTEIN AND
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CIVIL ENGINEERS SURVEYORS ARCHITECTS

51301 Schoenherr Road Phone 586 726 1234
Shelby Township Fax 586 726 8780
Michigan 48315

www.aewinc.com

ENGINEERING STRONG COMMUNITIES

DATE	SUBMITTALS/REVISIONS

PROJECT NAME:


ALLARD AVENUE
RECONSTRUCTION
HARPER TO CHESTER

SHEET TITLE:

NOTE SHEET

CLIENT:
GROSSE POINTE WOODS

<input checked="" type="checkbox"/> PRELIMINARY	<input checked="" type="checkbox"/> CONSTRUCTION 12/10/21	<input type="checkbox"/> RECORD
DRAWN BY: KJP	CHECKED BY: RTW	DATE: AUGUST 2021
SCALE: NO SCALE		



Know what's below. Call
72 hours before you dig.

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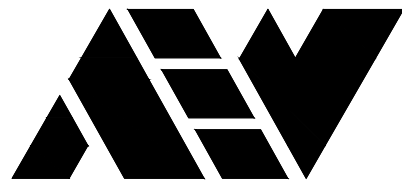
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PROJECT NO.
0160-0433

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SHEET NO.



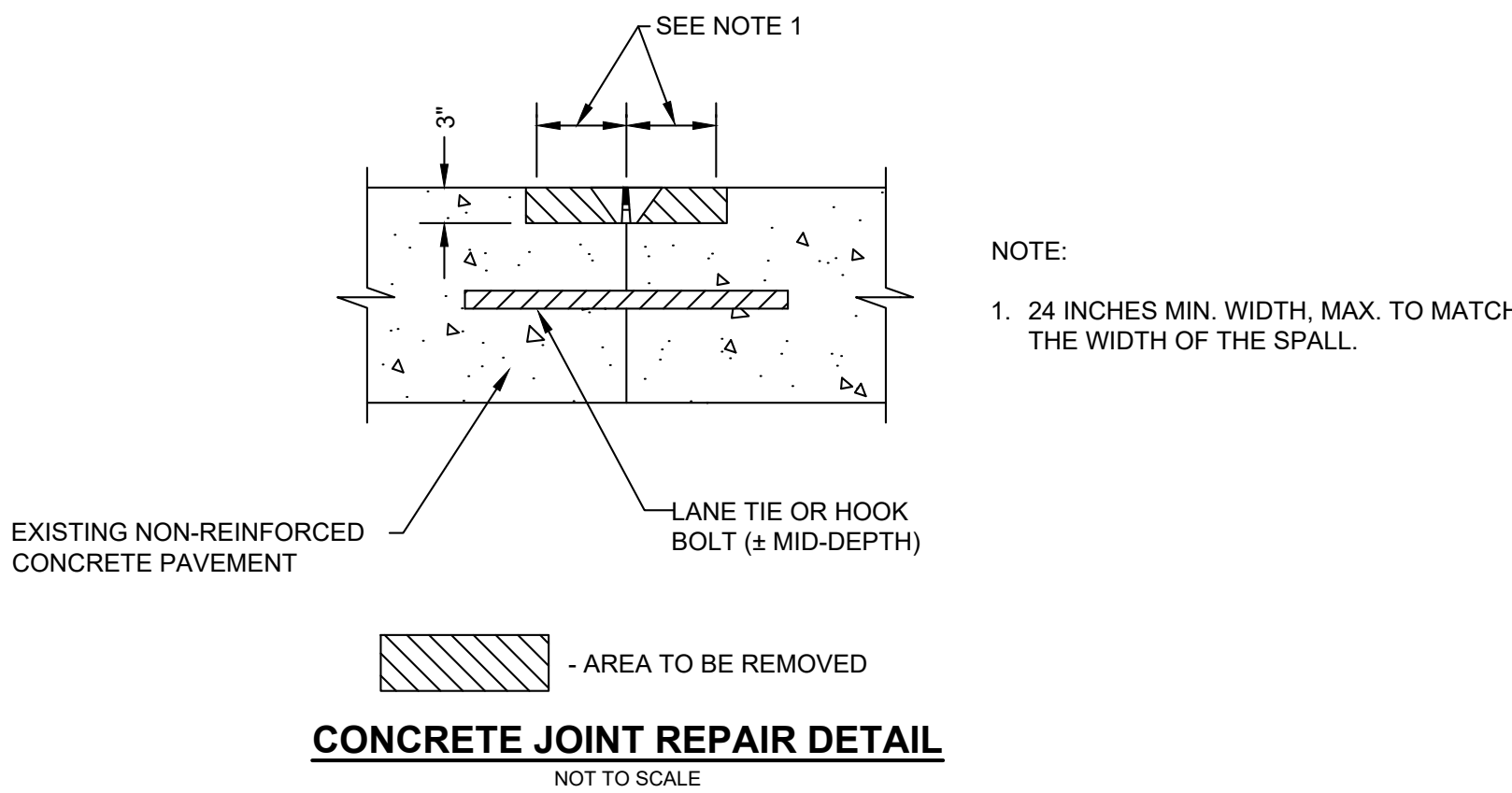
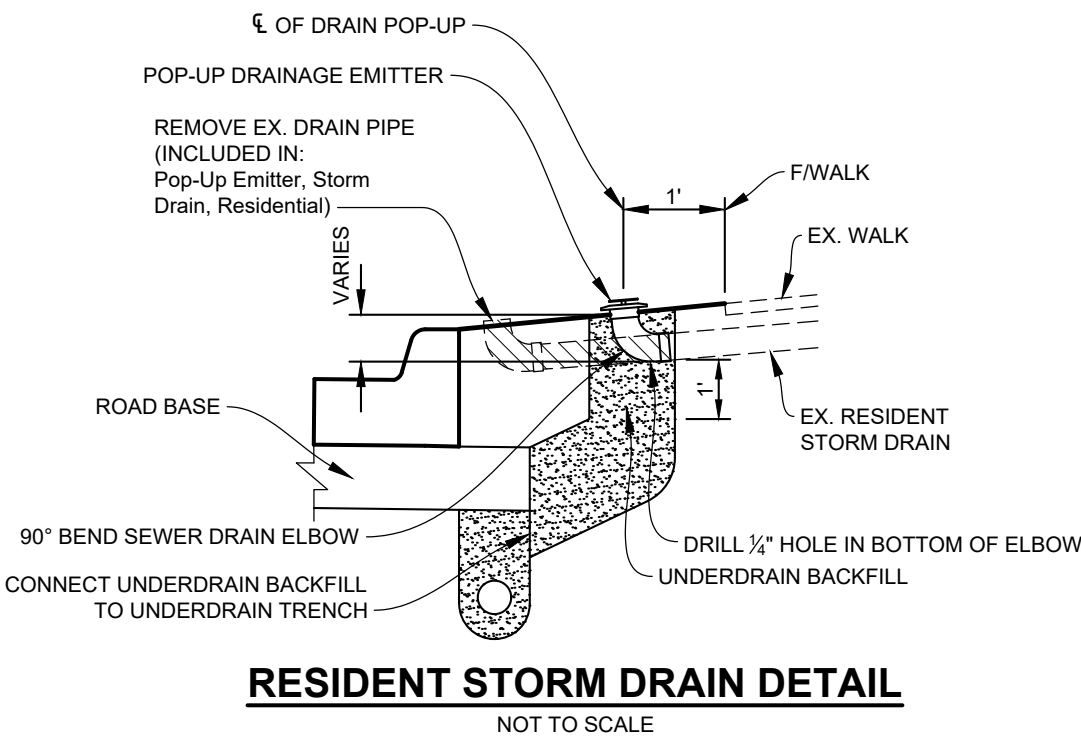
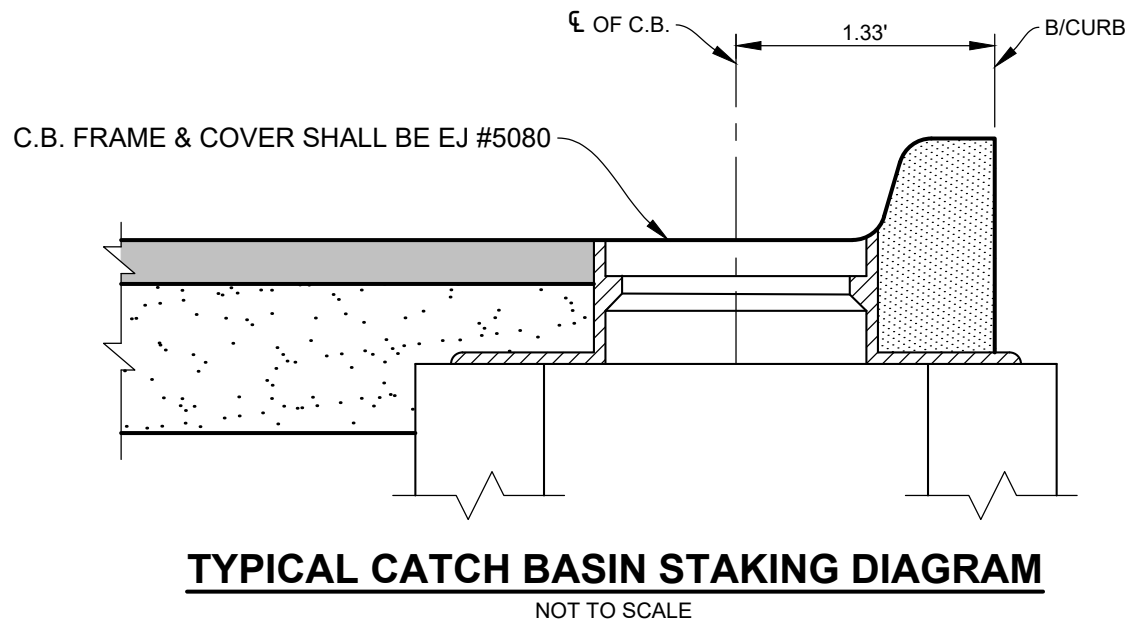
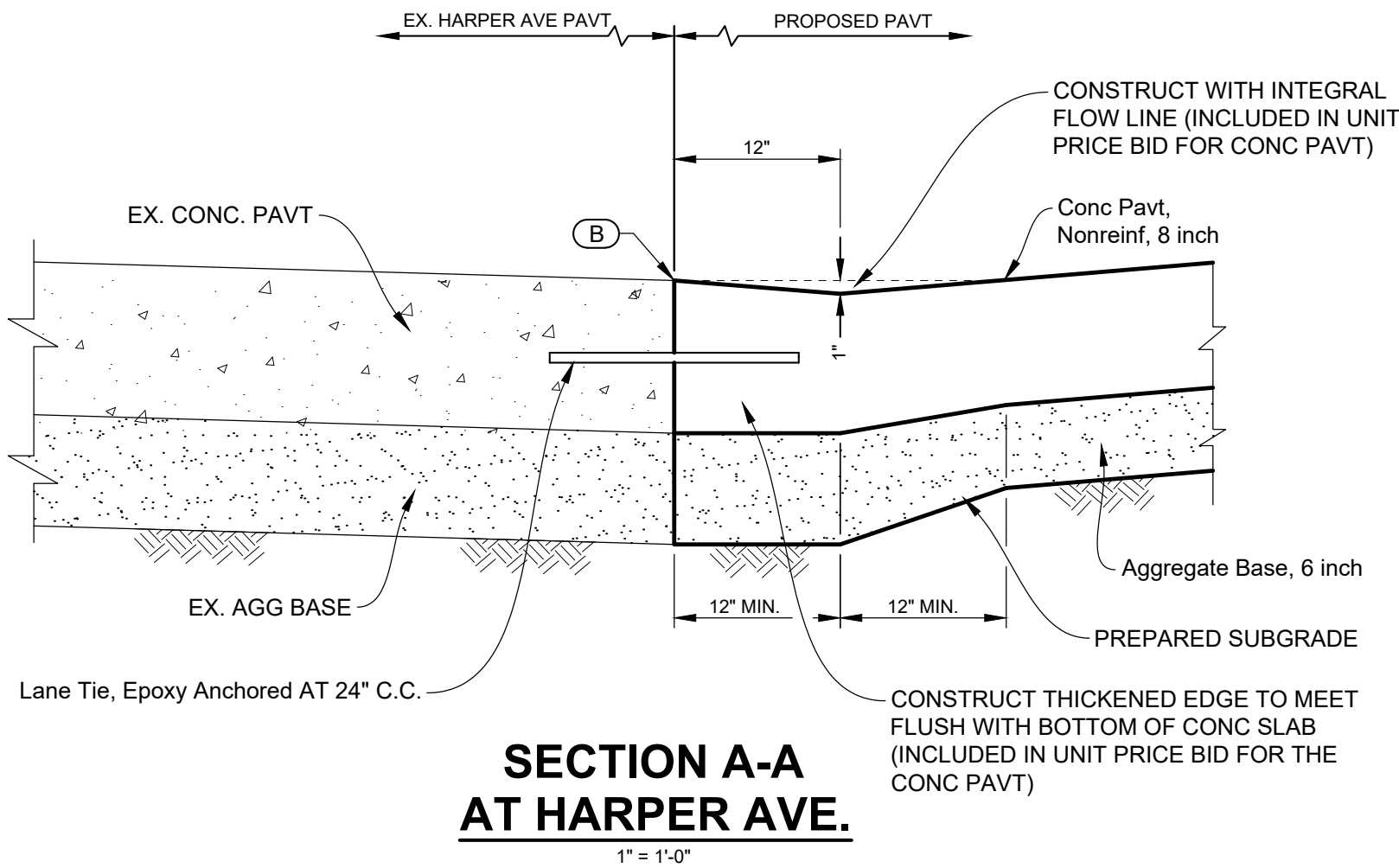
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Michigan 48315

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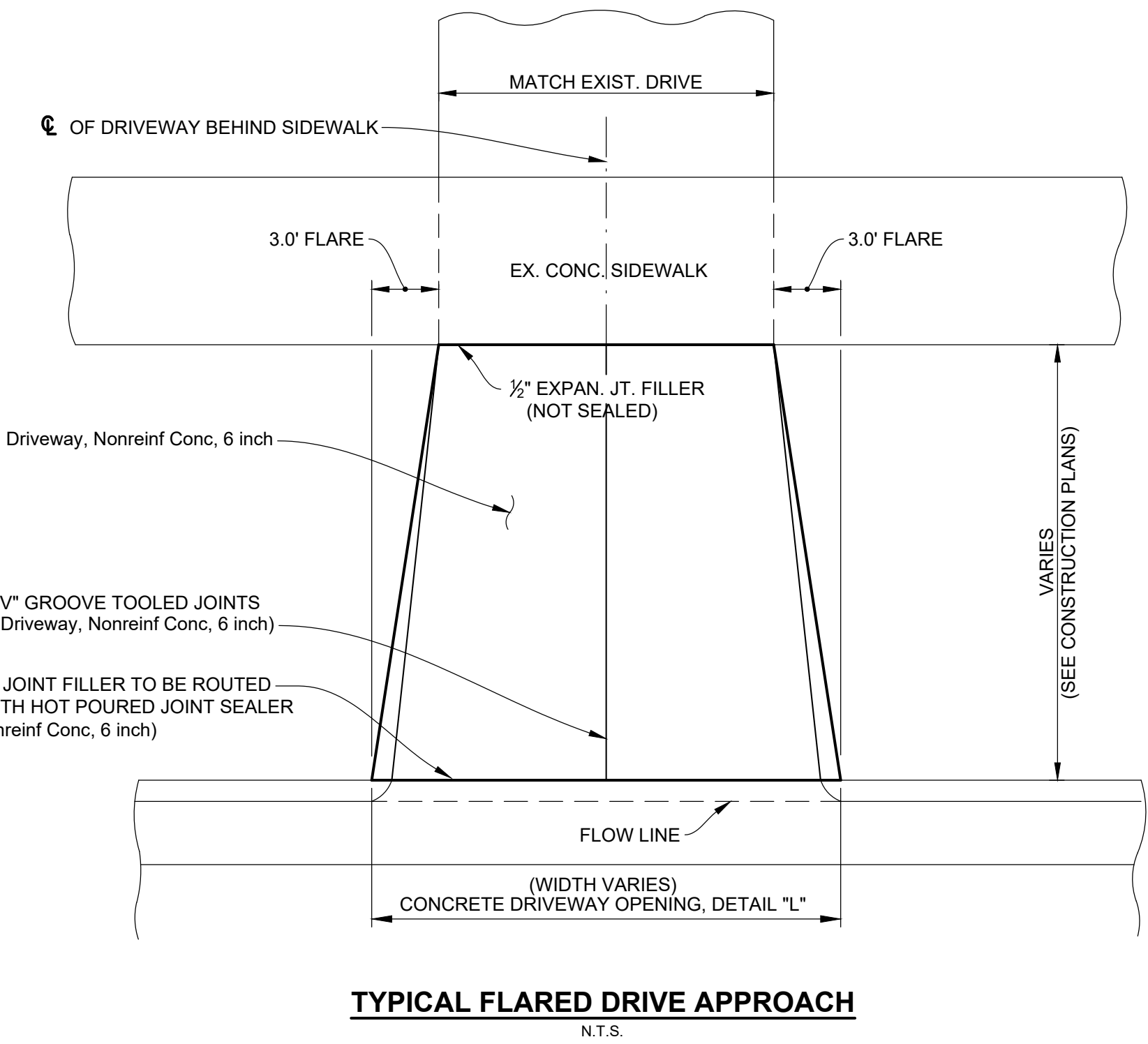
ENGINEERING STRONG COMMUNITIES



HMA APPLICATION ESTIMATE FOR JOINT REPAIR

IDENT.	PAY ITEM	RATE PER SQ. YD.	PERFORMANCE GRADE	COMMENTS
HP	Hand Patching, Modified	330 LBS.	64-22	HMA, 5E1
*	*HMA BOND COAT	0.10 GAL.		REDUCE APPLICATION RATE AS DIRECTED BY THE ENGINEER

*FOR INFORMATION ONLY (PAYMENT FOR BOND COATS SHALL BE INCLUDED IN HMA MIXTURES)



DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

ALLARD AVENUE
RECONSTRUCTION
HARPER TO CHESTER

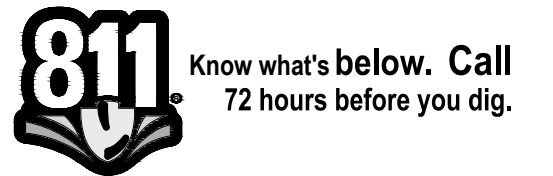
SHEET TITLE:

MISCELLANEOUS
PROJECT DETAILS

CLIENT:

GROSSE POINTE WOODS

<input checked="" type="checkbox"/> PRELIMINARY	<input checked="" type="checkbox"/> CONSTRUCTION 12/10/21	<input type="checkbox"/> RECORD
DRAWN BY: KJP	CHECKED BY: RTW	DATE: AUGUST 2021
SCALE: AS NOTED		



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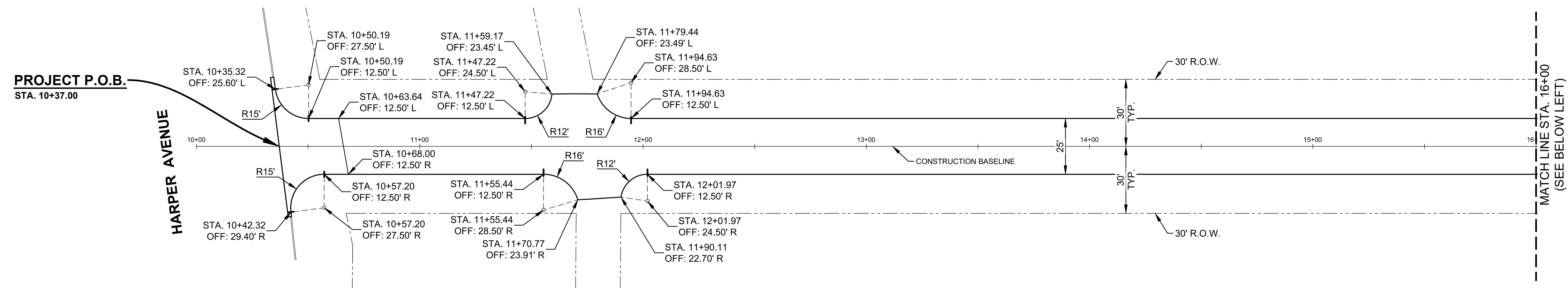
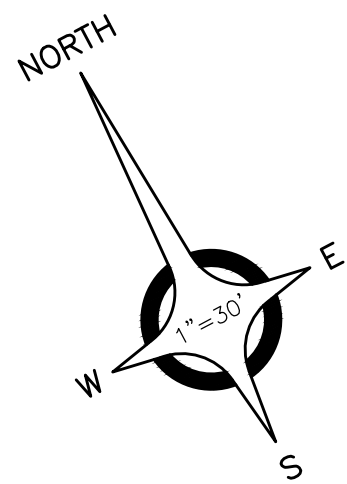
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PROJECT NO.

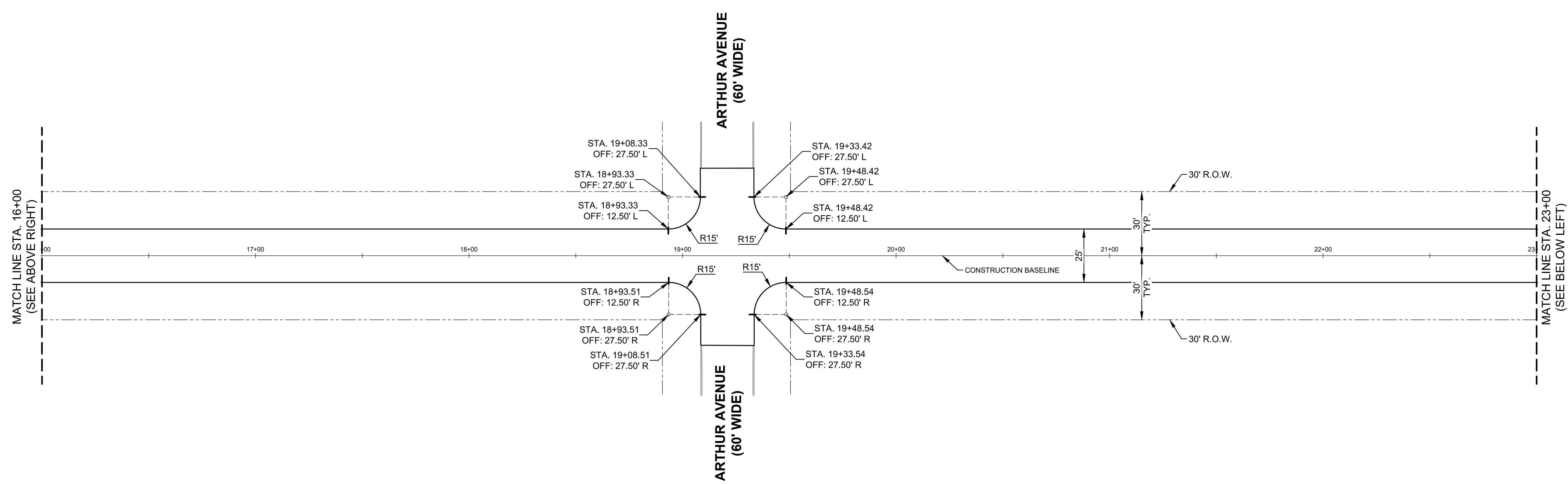
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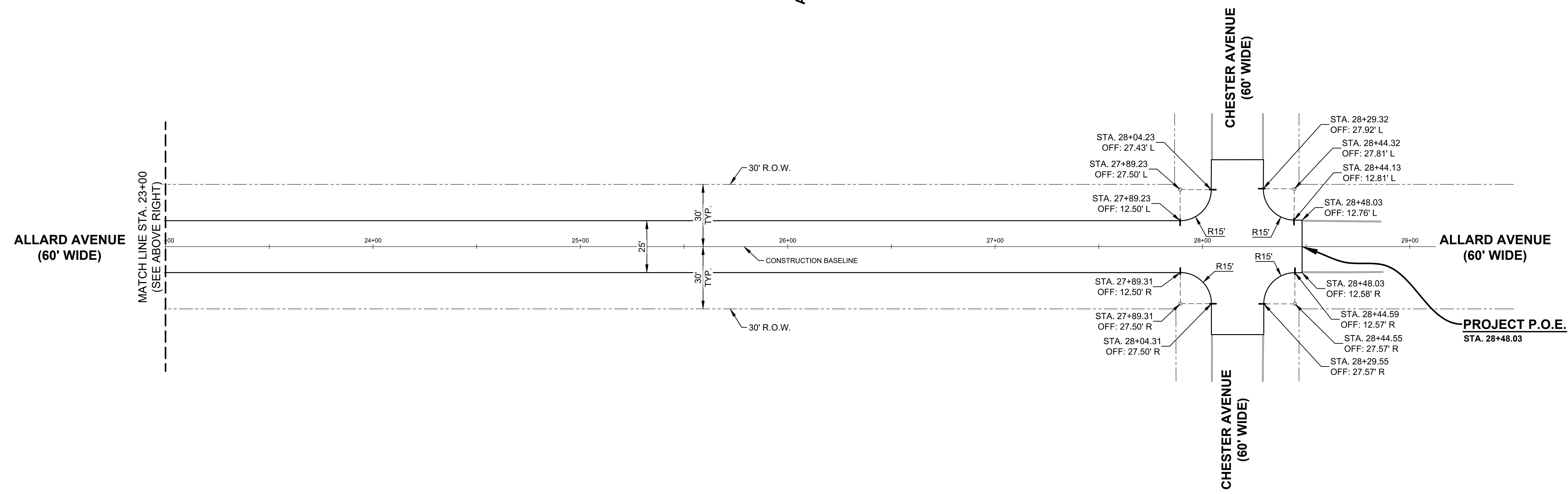
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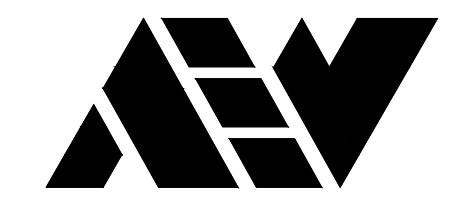
ALLARD AVENUE
(60' WIDE)



ALLARD AVENUE
(60' WIDE)



ALLARD AVENUE
(60' WIDE)



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ENGINEERING STRONG COMMUNITIES

DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

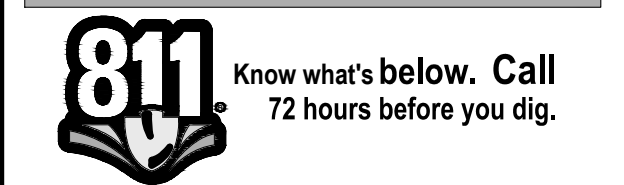
ALLARD AVENUE
RECONSTRUCTION
HARPER TO CHESTER

SHEET TITLE:

ALIGNMENT
SHEET

CLIENT:
GROSSE POINTE WOODS

<input checked="" type="checkbox"/> PRELIMINARY	<input checked="" type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: KJP	CHECKED BY: RTW	DATE: AUGUST 2021
SCALE: 1" = 30'		



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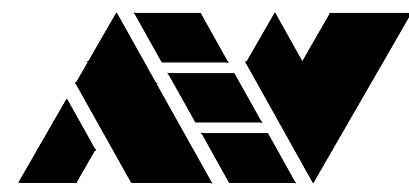
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PROJECT NO.
0160-0433

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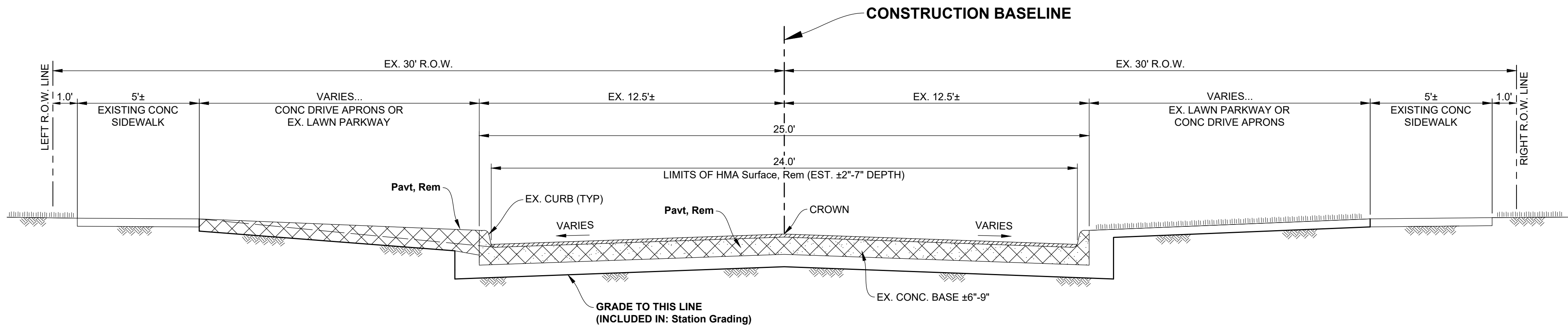
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CIVIL ENGINEERS SURVEYORS ARCHITECTS

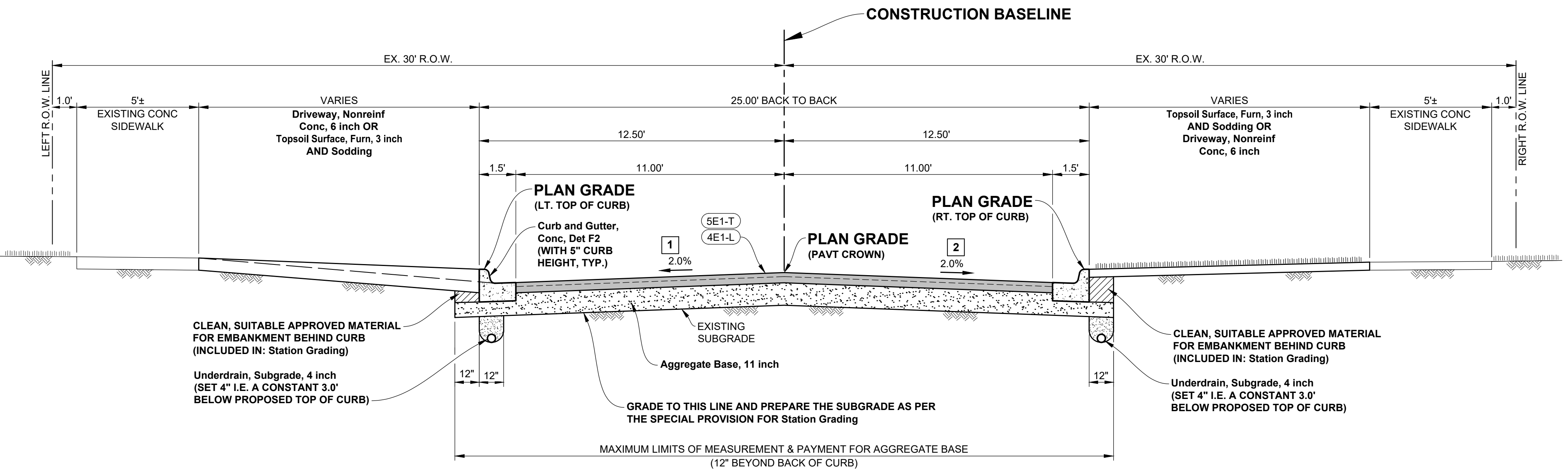
51301 Schoenherr Road Phone 586 726 1234
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Michigan 48315 Fax 586 726 8780

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ENGINEERING STRONG COMMUNITIES



EXISTING PAVEMENT SECTION
STA. 10+65.82 TO STA. 28+48.03 (P.O.E.)
SCALE: 1" = 3'



TYPICAL PAVEMENT SECTION TO APPLY
STA. 10+65.82 TO STA. 28+48.03 (P.O.E.)
SCALE: 1" = 3'

- 1 VARIABLE CROWN FROM 1.25% AT
STA 10+63.64 TO 2% AT STA 11+00.00
- 2 VARIABLE CROWN FROM 1.00% AT
STA 10+68.00 TO 2% AT STA 11+00.00

HMA APPLICATION ESTIMATE

IDENT. NO.	PAY ITEM	RATE PER SQ. YD.	ESTIMATED THICKNESS	PERFORMANCE GRADE	COMMENTS
5E1-T	HMA, 5E1	220 LBS	2"	58-22	TOP COURSE (AWI = 220 MIN.)
4E1-L	HMA, 4E1	330 LBS	3"	58-22	LEVELING COURSE
	* HMA BOND COAT	0.05-0.10 GAL.	N/A	N/A	REDUCE APPLICATION RATE AS DIRECTED BY THE ENGINEER

*FOR INFORMATION ONLY. PAYMENT FOR HMA BOND COAT IS INCLUDED IN UNIT PRICE BID FOR HMA MIXTURES.

NOTE: HMA MIXTURES SHALL BE PLACED IN LIFTS WHICH DO NOT EXCEED THE MAXIMUM HMA APPLICATION RATES IN THE CURRENT MDOT HMA SELECTION GUIDELINES

DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	

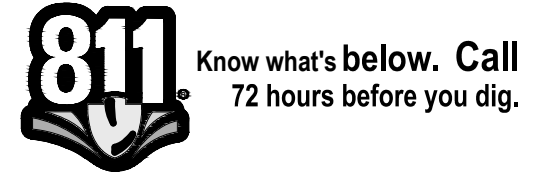
**ALLARD AVENUE
RECONSTRUCTION
HARPER TO CHESTER**

SHEET TITLE:

**TYPICAL
CROSS SECTIONS**

CLIENT: GROSSE POINTE WOODS

<input checked="" type="checkbox"/> PRELIMINARY	<input checked="" type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: KJP	CHECKED BY: RTW	DATE: AUGUST 2021
SCALE: 1" = 3'		



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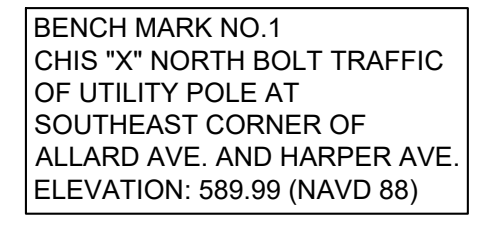
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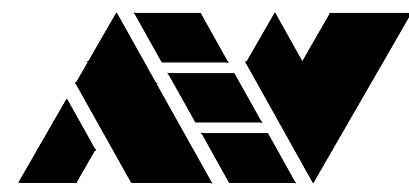
PROJECT NO. 0160-0433

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SHEET NO.



BENCH MARK NO.2
TOP OF HYDRANT OF SOUTH
SIDE OF ALLARD AT HSE. #2315.
ELEVATION: 589.34 (NAVD 88)



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Michigan 48315

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ENGINEERING STRONG COMMUNITIES

DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	
SHEET TITLE:	

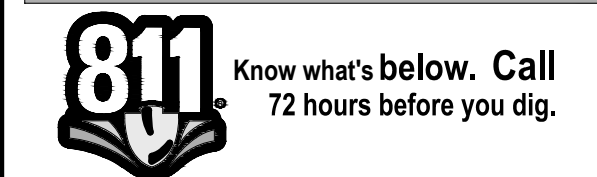
ALLARD AVENUE
RECONSTRUCTION
HARPER TO CHESTER

SHEET TITLE:

CONSTRUCTION
PLAN
HARPER AVE. TO STA. 16+00

CLIENT:
GROSSE POINTE WOODS

<input checked="" type="checkbox"/> PRELIMINARY	<input checked="" type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: KJP	CHECKED BY: RTW	DATE: AUGUST 2021
SCALE: 0 15 30 60 1" = 30'		



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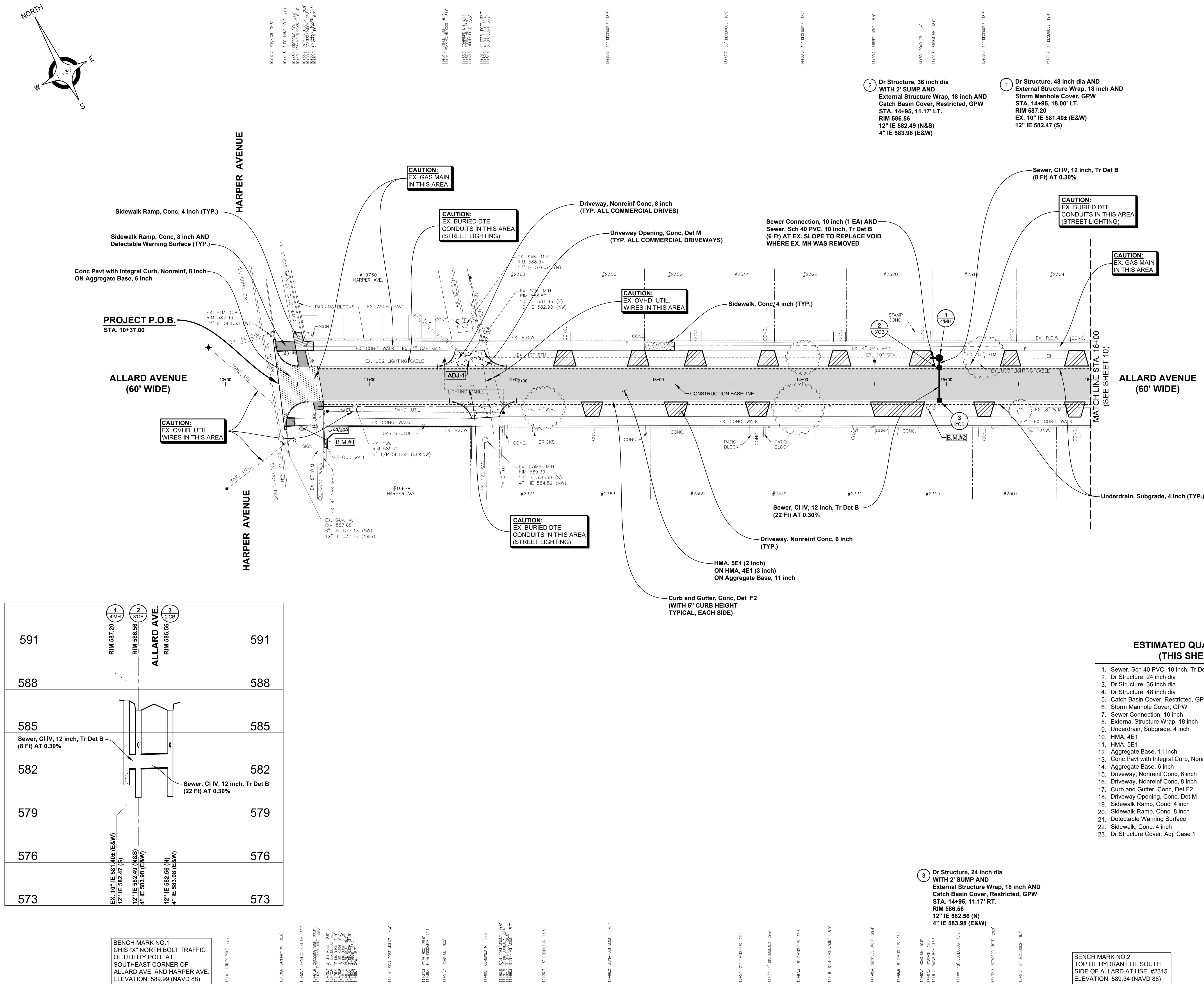
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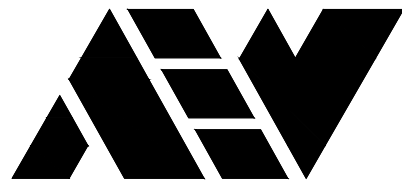
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SHEET NO.

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Michigan 48315

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ENGINEERING STRONG COMMUNITIES

DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

ALLARD AVENUE
RECONSTRUCTION
HARPER TO CHESTER

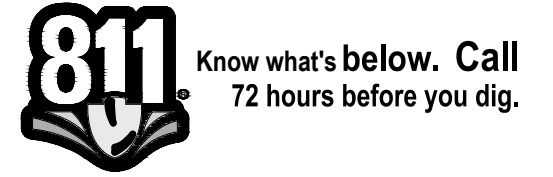
SHEET TITLE:

CONSTRUCTION
PROFILES
HARPER AVE. TO STA. 16+00

CLIENT:

GROSSE POINTE WOODS

<input checked="" type="checkbox"/> PRELIMINARY	<input checked="" type="checkbox"/> CONSTRUCTION 12/10/21	<input type="checkbox"/> RECORD
DRAWN BY: KJP	CHECKED BY: RTW	DATE: AUGUST 2021
SCALE: 1" = 3' VERT. 1" = 30' HORIZ.		



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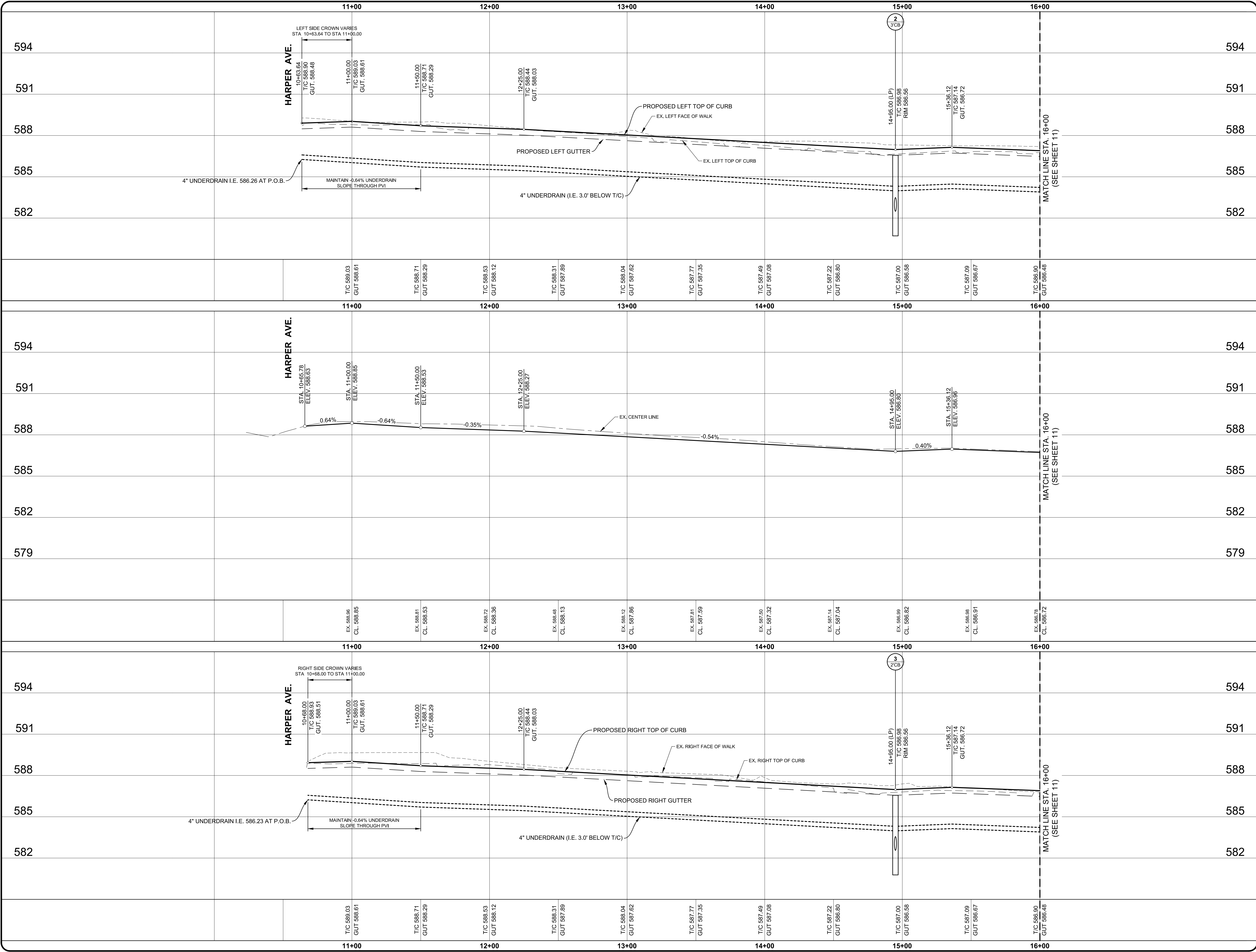
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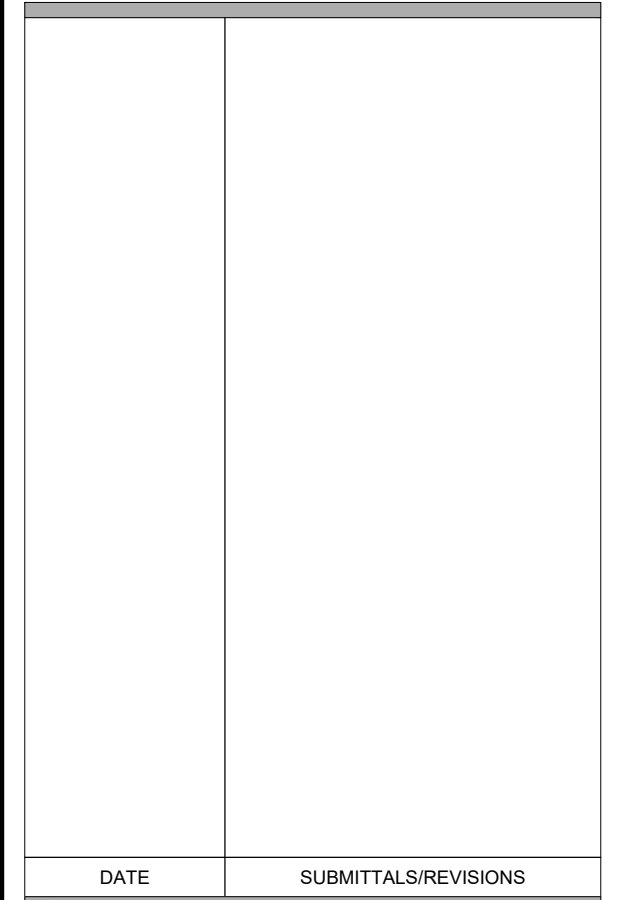
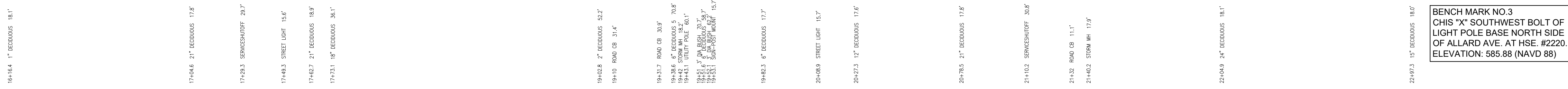
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SHEET NO.

8

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SHEET TITLE: _____

CLIENT: **GROSSE POINTE WOODS**

811 Know what's below. Call
72 hours before you dig.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

PROJECT NO.

0160-0433

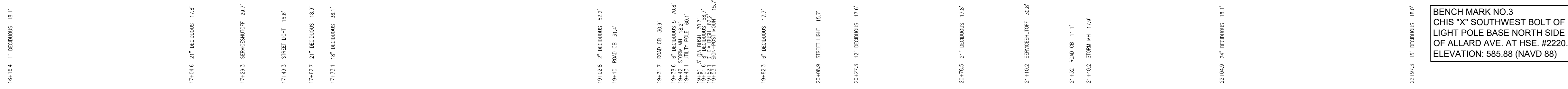
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SHEET NO.

9

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1. Tree, Rem, 19 inch to 36 inch	2 Ea
2. Tree, Rem, 6 inch to 18 inch	4 Ea
3. Dr Structure, Rem	6 Ea
4. Sewer, Rem, Less than 24 inch	143 Ft
5. HMA Surface, Rem	1,865 Syd
6. Pavt, Rem	2,366 Syd
7. Sidewalk Rem	112 Syd



66+15.2 7" RECORDS 16.5"
66+36.9 1" DIA BOULDER 13.0"
66+45.2 14" RECORDS 17.3"
66+45.5 2" DIA BOULDER 20.9"
66+74.29 18" RECORDS 17.3"

200-14.8	SPKSCSHUFF	30.3'
200-15.7	12' DECDIOUS	17.9'
200-16.5	4" DECDIOUS	17.5'
200-16.6	SPKSCSHUFF	30.3'
200-18.1	7" DECDIOUS	17.2'
200-18.2	SPKSCSHUFF	23.2'
201-16.6	SAN CLENDIT	29.9'
201-18.9	SPECIAL CB	31.3'

Z21+L1.6 WOOD 1051 29.9' 53°25'24.00" 10.5' 162.1 9" 162000015 16.20

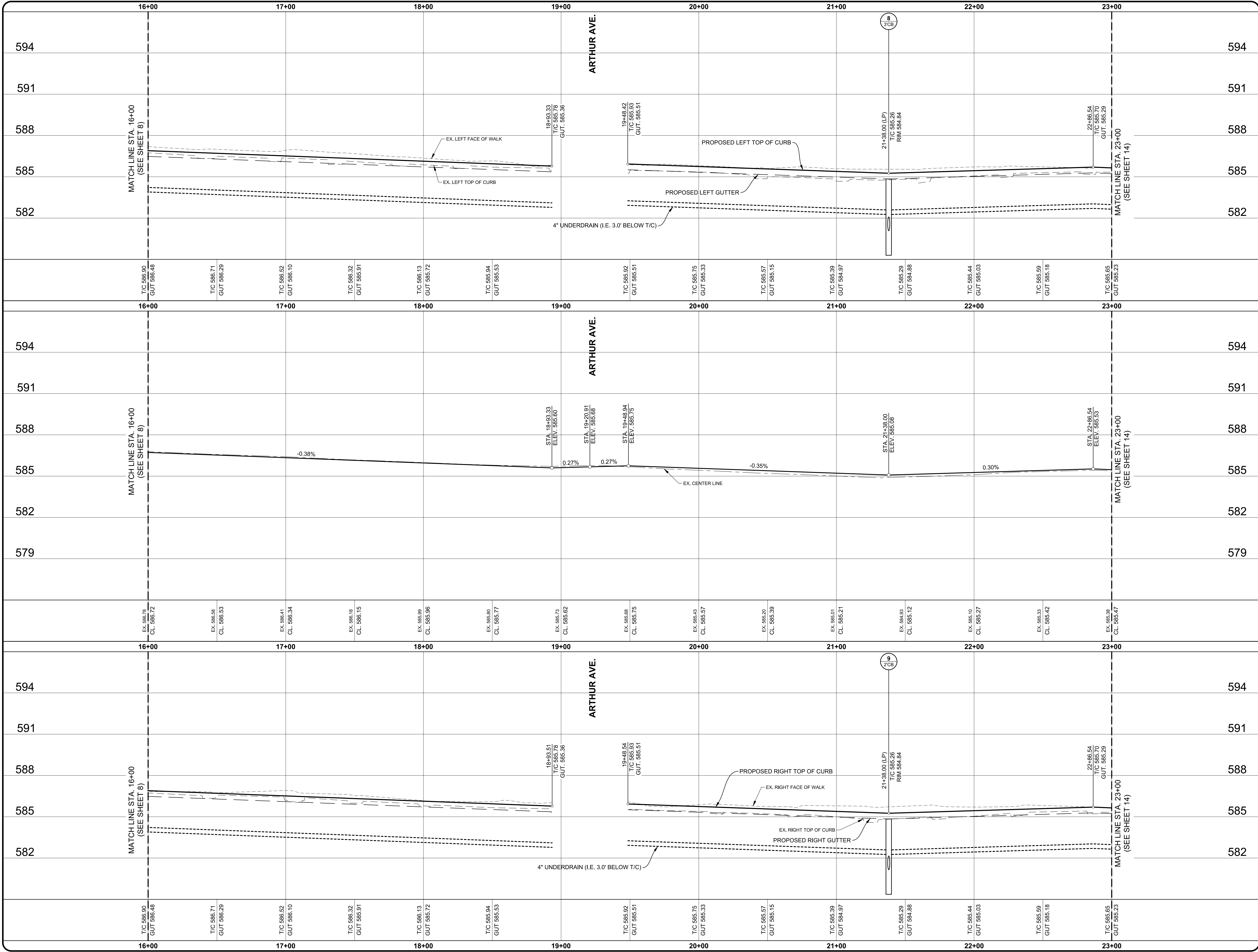
CONSTRUCTION PLAN

STA. 16+00 TO STA. 23+00

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PROJECT NO. 0160-0433





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Michigan 48315

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ENGINEERING STRONG COMMUNITIES

PROJECT NAME:	
DATE	
SUBMITTALS/REVISIONS	

ALLARD AVENUE
RECONSTRUCTION
HARPER TO CHESTER

CONSTRUCTION
PROFILES
STA. 16+00 TO STA. 23+00

CLIENT:
GROSSE POINTE WOODS

PRELIMINARY

CONSTRUCTION

RECORD

DRAWN BY:

CHECKED BY:

DATE:

KJP

RTW

AUGUST 2021

SCALE:


1" = 3' VERT.
1" = 30' HORIZ.

0

15

30

60



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72 hours before you dig.

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PROJECT NO. 0160-0433

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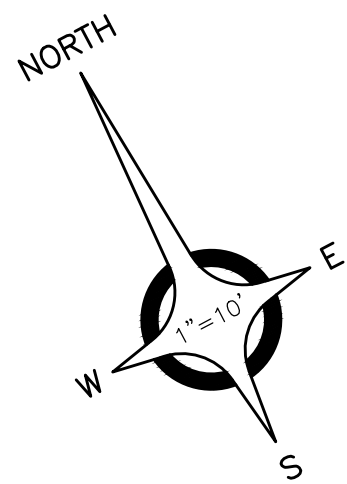


BENCH MARK NO.4
TOP OF HYDRANT OF SOUTH SIDE
OF ALLARD AVE. AT HSE. # 2139.
ELEVATION: 587.75 (NAVD 88)

EX. 54" GIRARD DRAIN
(WAYNE COUNTY PUBLIC WORKS OFFICE)

15 Dr Structure, 36 inch dia
WITH 2' SUMP AND
External Structure Wrap, 18 inch AND
Catch Basin Cover, Restricted, GPW
STA. 28+28.22, 31.53' RT.
RIM 583.75
12" IE 579.47 (NE&W)
4" IE 581.17 (N&S)

BENCH MARK NO.5
TOP OF HYDRANT AT SOUTHEAST
CORNER ALLARD AVE. AND
CHESTER AVE.
ELEVATION: 586.79 (NAVD 88)



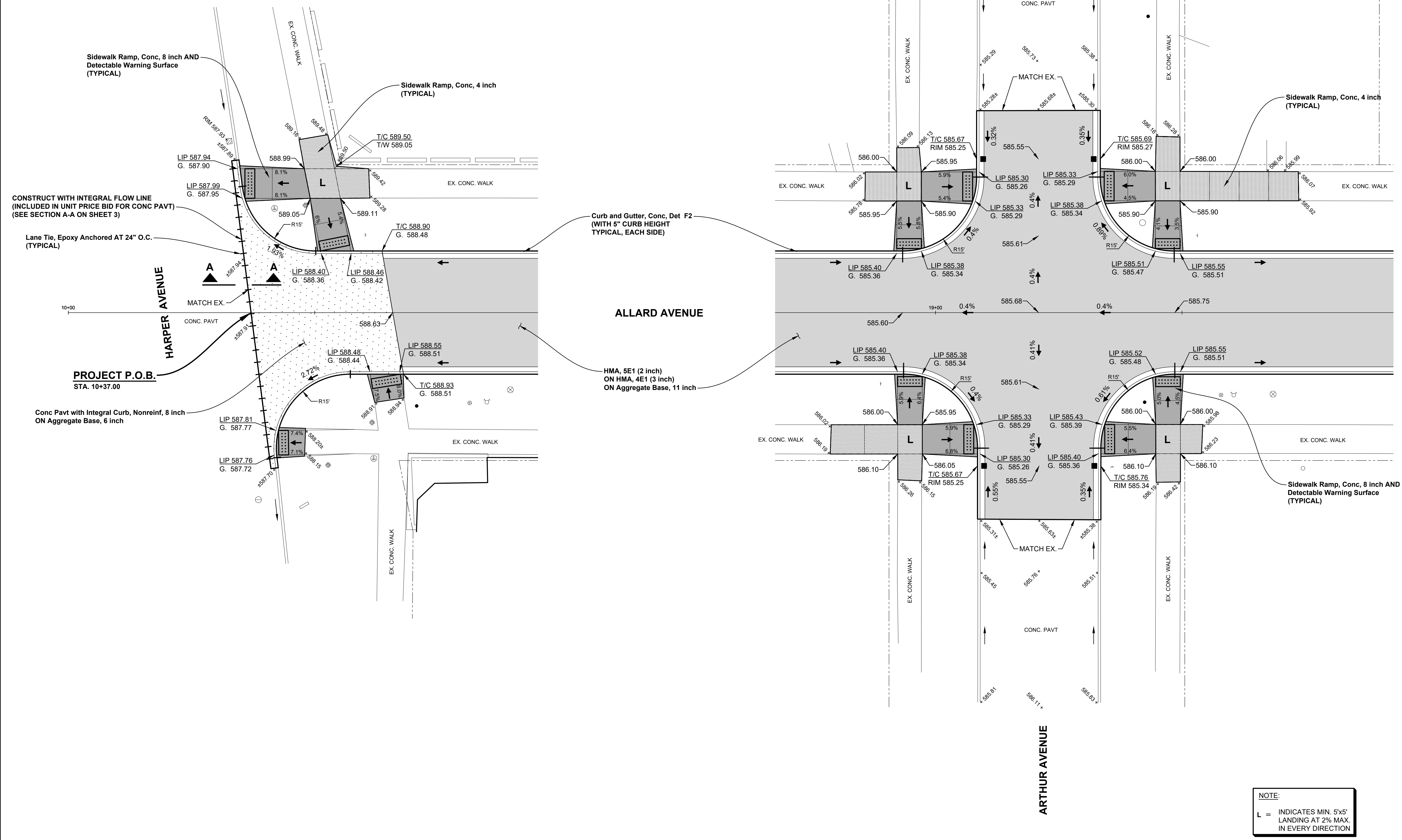
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DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

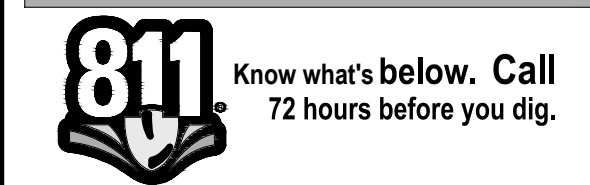
ALLARD AVENUE RECONSTRUCTION HARPER TO CHESTER

SHEET TITLE:

INTERSECTION GEOMETRICS & SIDEWALK RAMP SCHEMATICS

CLIENT:
GROSSE POINTE WOODS

<input checked="" type="checkbox"/> PRELIMINARY	<input checked="" type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
12/10/21		
DRAWN BY:	CHECKED BY:	DATE:
KJP	RTW	AUGUST 2021
SCALE:		
1" = 10'		
0 5 10 20		



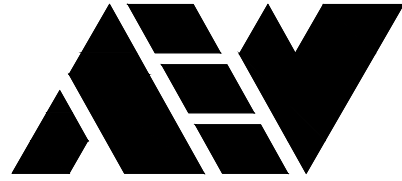
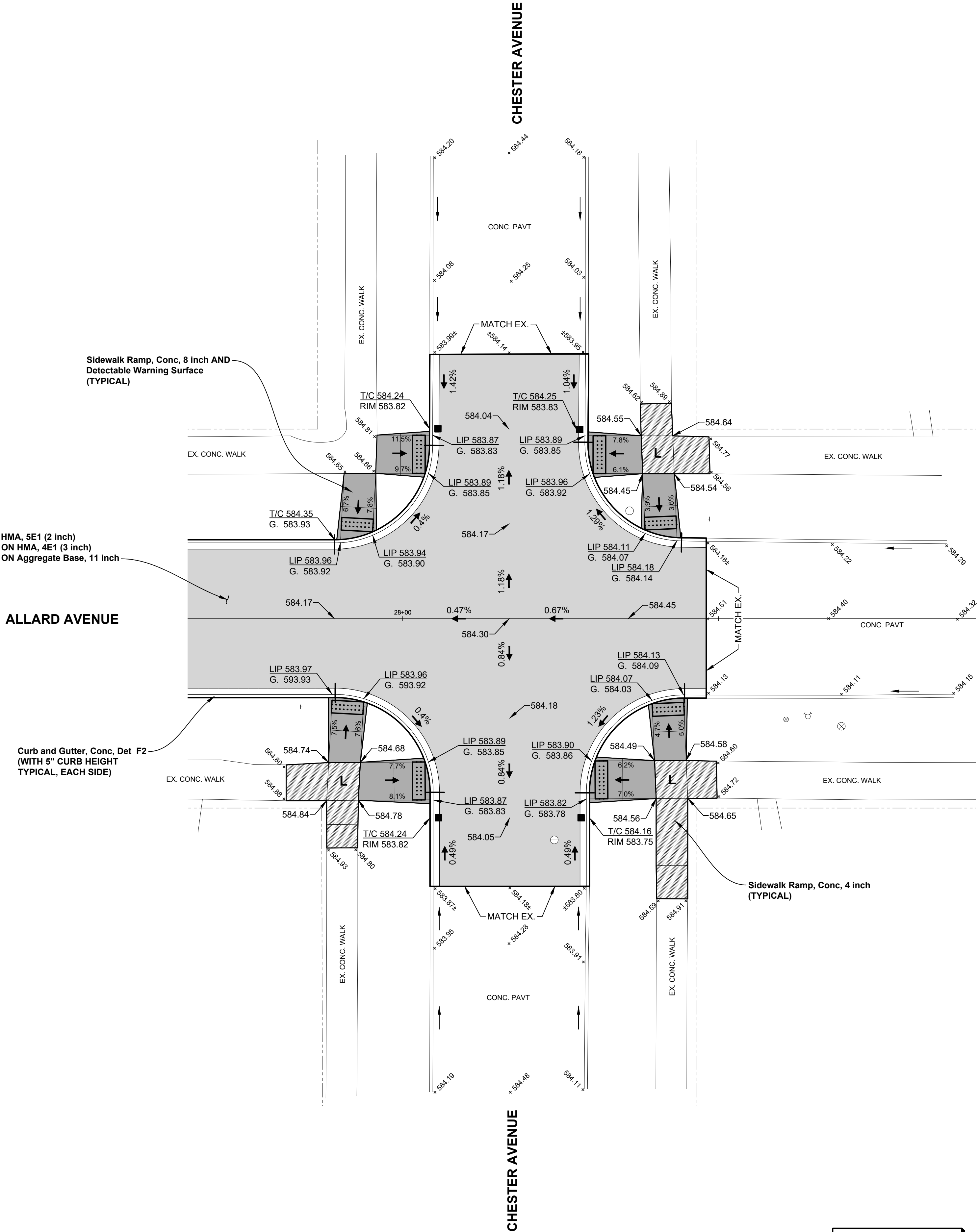
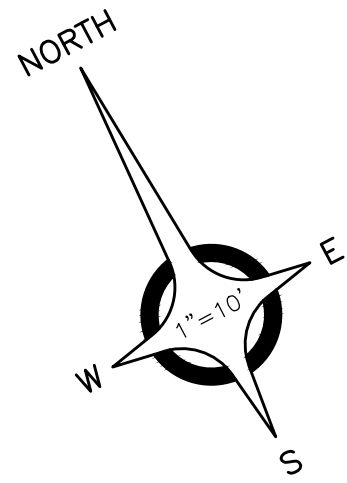
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PROJECT NO.
0160-0433

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SHEET NO.



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ENGINEERING STRONG COMMUNITIES

DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

ALLARD AVENUE
RECONSTRUCTION
HARPER TO CHESTER

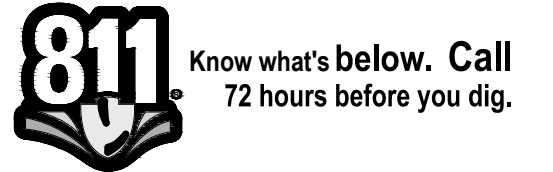
SHEET TITLE:

INTERSECTION
GEOMETRICS &
SIDEWALK RAMP
SCHEMATICS

CLIENT:

GROSSE POINTE WOODS

<input checked="" type="checkbox"/> PRELIMINARY	<input checked="" type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: KJP	CHECKED BY: RTW	DATE: AUGUST 2021
SCALE: 1" = 10' 0 5 10 20		



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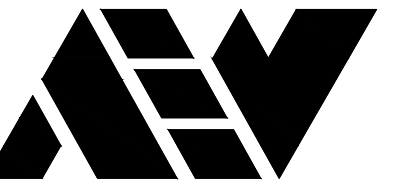
PROJECT NO.

0160-0433

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SHEET NO.

16



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ENGINEERING STRONG COMMUNITIES

DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	
SHEET TITLE:	

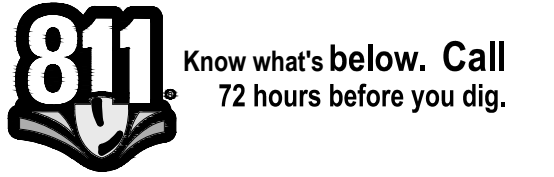
ALLARD AVENUE RECONSTRUCTION HARPER TO CHESTER

SHEET TITLE:

MAINTAINING TRAFFIC PLAN

CLIENT:
GROSSE POINTE WOODS

<input checked="" type="checkbox"/> PRELIMINARY	<input checked="" type="checkbox"/> CONSTRUCTION 12/10/21	<input type="checkbox"/> RECORD
DRAWN BY: KJP	CHECKED BY: RTW	DATE: AUGUST 2021
SCALE: NOT TO SCALE		



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PROJECT NO.

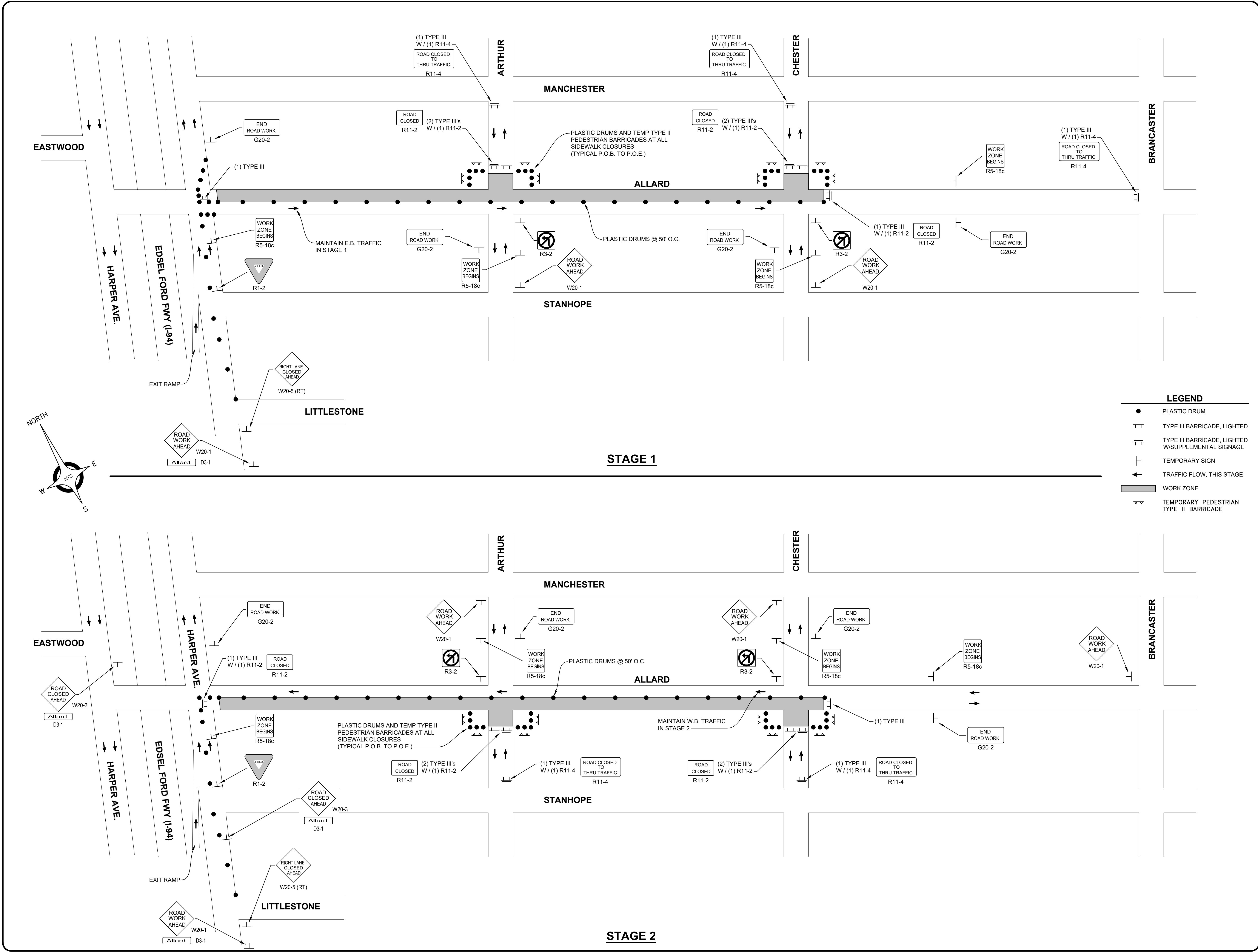
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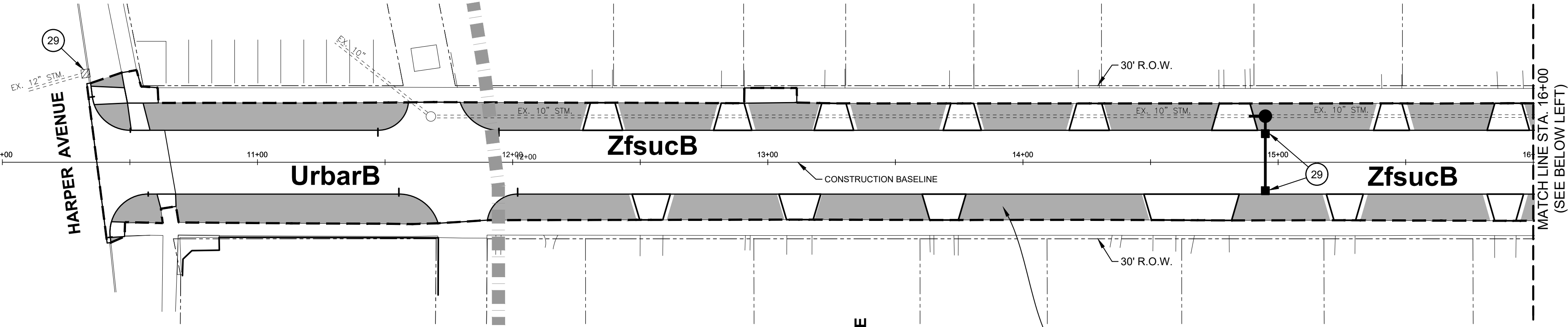
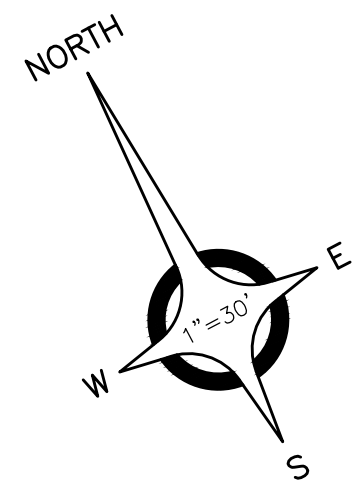
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SHEET NO.

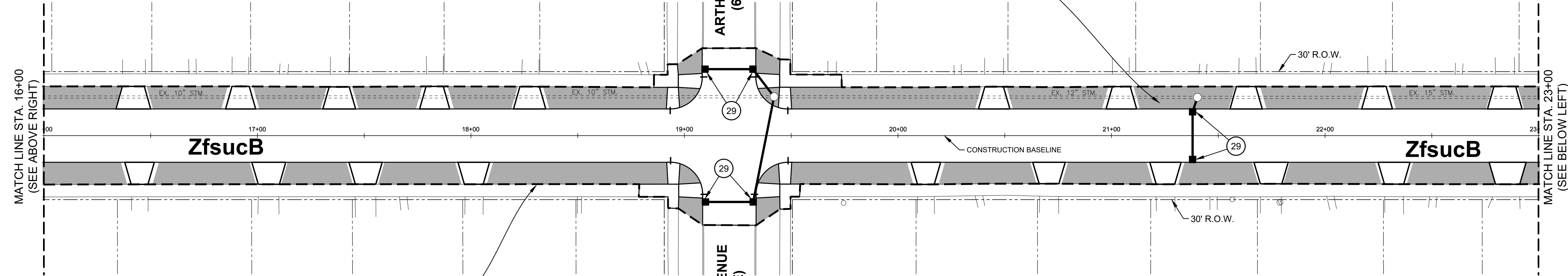
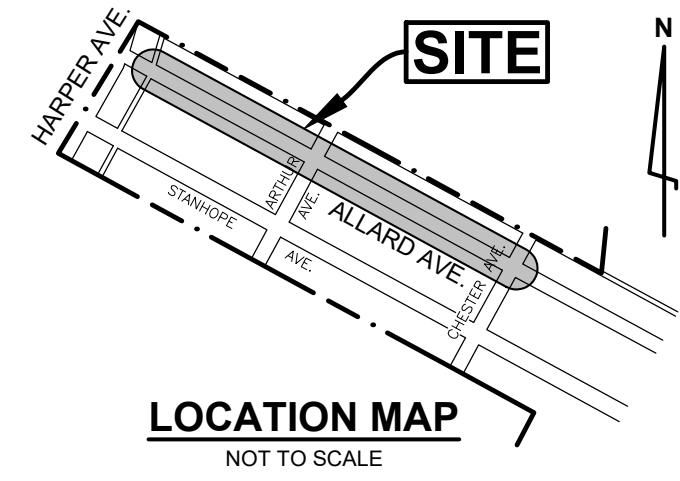
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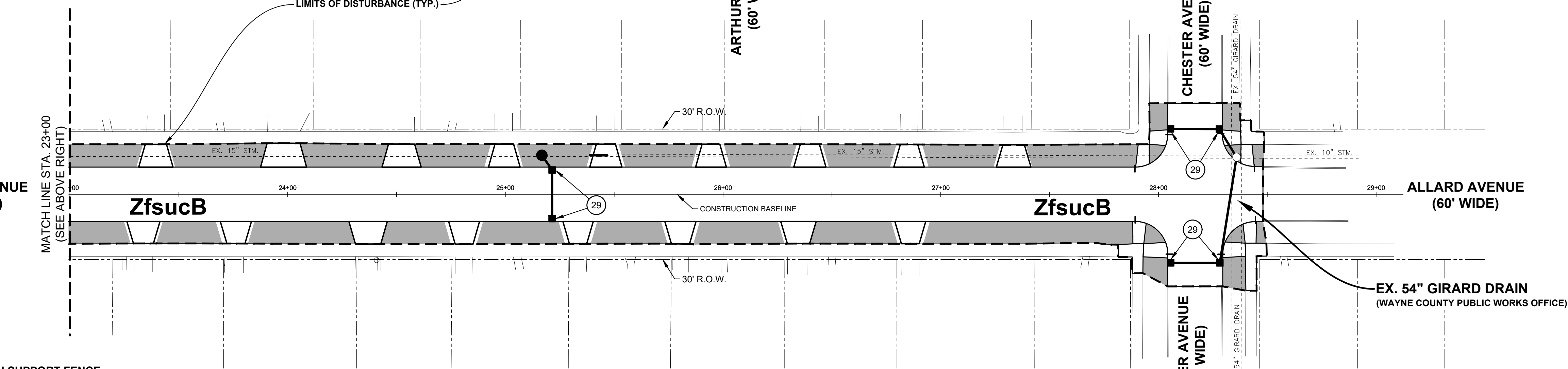




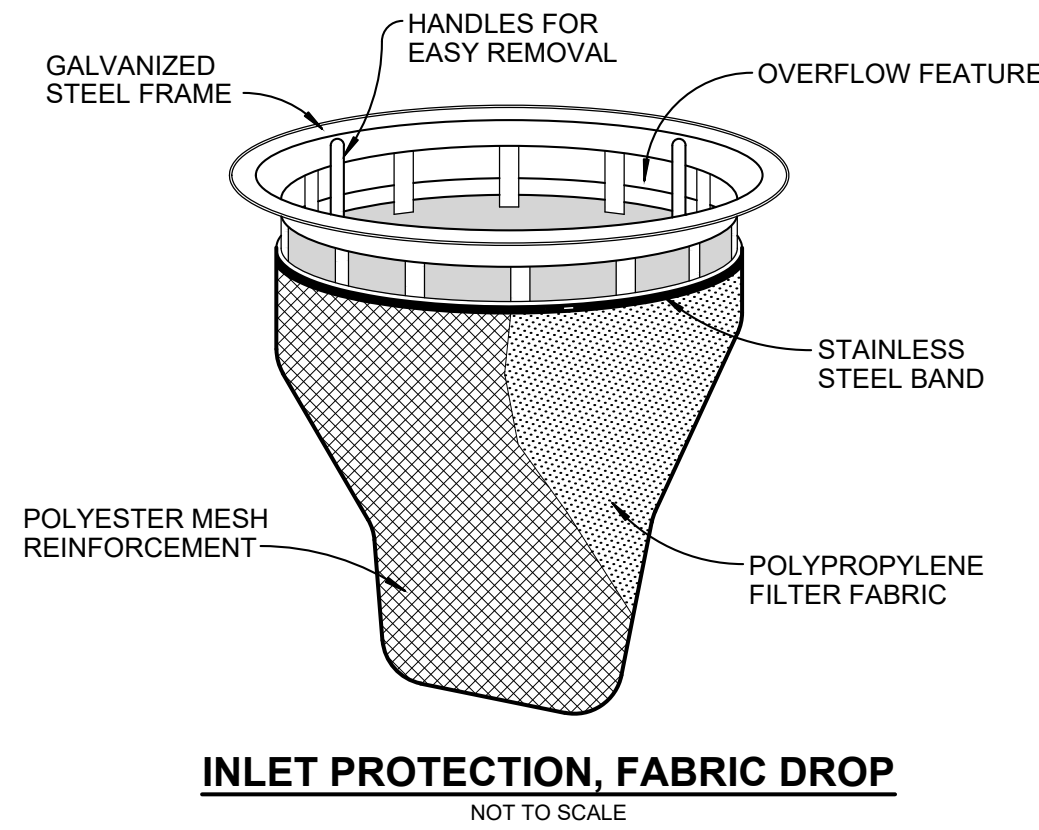
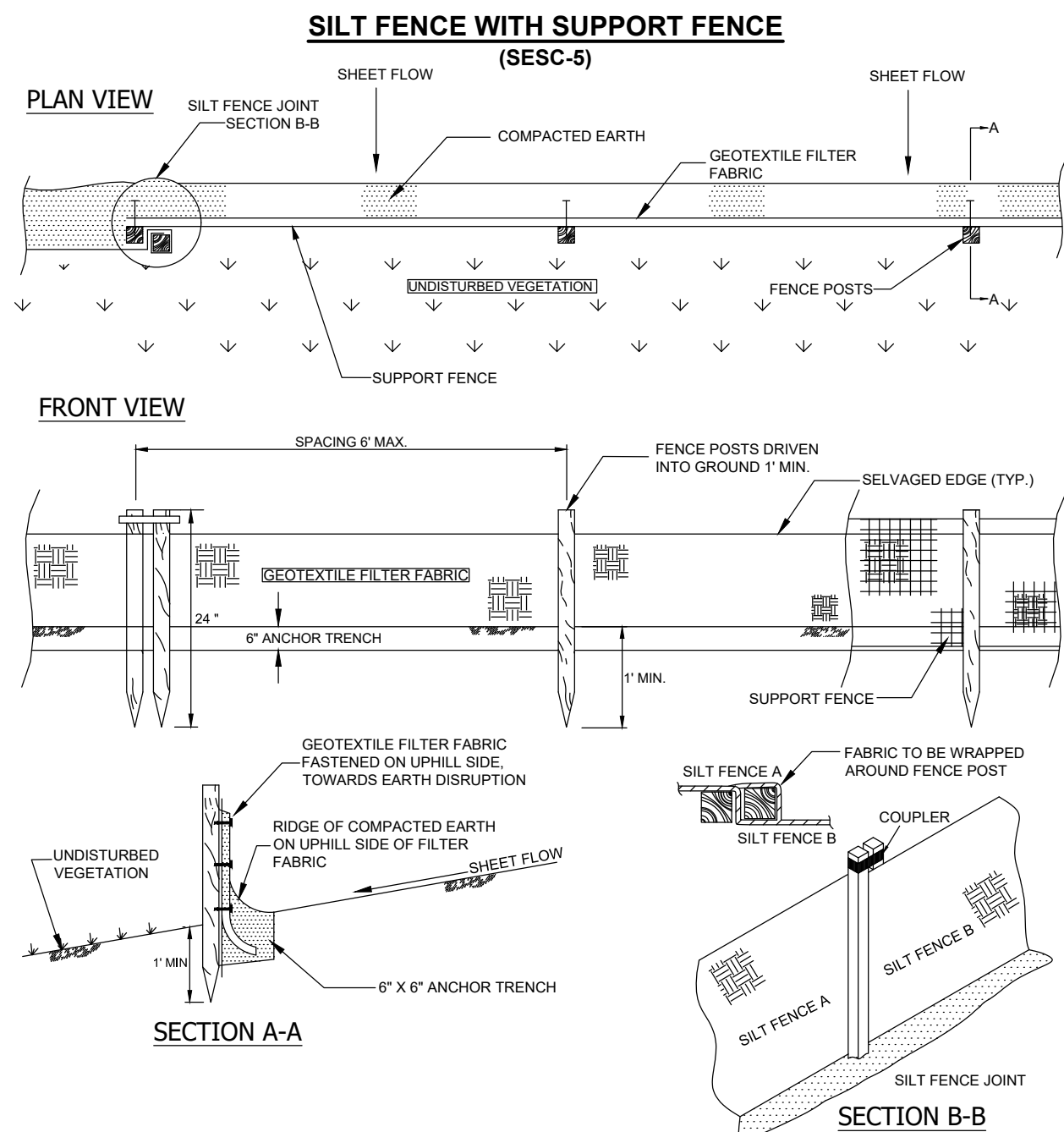
ALLARD AVENUE
(60' WIDE)



ALLARD AVENUE
(60' WIDE)



EX. 54" GIRARD DRAIN
(WAYNE COUNTY PUBLIC WORKS OFFICE)



- NOTES:**
- THIS PROJECT SHALL BE CONSTRUCTED IN COMPLIANCE WITH PART 91 OF ACT 451 OF 1994, AS AMENDED, "THE SOIL EROSION AND SEDIMENT CONTROL ACT"
 - NO WETLANDS OR FLOOD PLAINS WITHIN CONSTRUCTION AREA.
 - PHYSICAL LIMITS OF EARTH DISTURBANCE SHALL REMAIN WITH THE ROAD RIGHT OF WAYS.
 - IF NECESSARY, SILT FENCE SHALL BE USED AND INSTALLED AS SHOWN IN THE DETAIL ON THIS SHEET.
 - GROSS ACREAGE DISTURBED IS 2.01 ACRES.
 - NEAREST WATERCOURSE: 54" GIRARD DRAIN IS ON SITE AT EAST OF WORK AREA.

SOIL EROSION CONTROL LEGEND	
KEY #	ITEM
29	INLET PROTECTION, FABRIC DROP

Map Unit Symbol	Map Unit Name
UrbanB	Urban land-Riverfront complex, dense substratum, 0 to 4 percent slopes
ZfsucB	Ziegenfuss-Urban land Blount, 0 to 4 percent slopes

PARCEL I.D.
14-29-999-999
(WITHIN CITY R.O.W.)

SEQUENCE OF CONSTRUCTION

- REMOVE PAVEMENT - DROP-IN INLET FILTERS
- ROAD PAVING - DROP-IN INLET FILTERS
- FINAL CLEANUP AND REMOVE DROP-IN INLET FILTERS

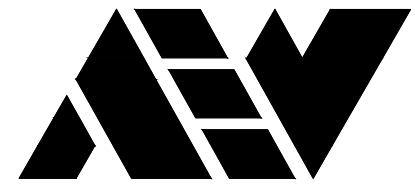
- MAINTENANCE REQUIREMENTS:**
- STREET SCRAPING - DAILY
 - STREET SWEEPING - WEEKLY MINIMUM
 - STRUCTURAL SEDIMENT CONTROLS - INSPECT AND MAINTAIN ON A WEEKLY BASIS

QUANTITIES (THIS SHEET)

Erosion Control, Inlet Filter	15 EA
Sodding	3,082 Sy

LEGEND

	Turf Establishment, Performance
	LIMITS OF DISTURBANCE



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ENGINEERING STRONG COMMUNITIES

DATE SUBMITTALS/REVISIONS

PROJECT NAME:

ALLARD AVENUE RECONSTRUCTION HARPER TO CHESTER

SHEET TITLE:

SOIL EROSION PLAN

CLIENT:

GROSSE POINTE WOODS

PRELIMINARY	CONSTRUCTION	RECORD
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DRAWN BY: KJP	CHECKED BY: RTW	DATE: AUGUST 2021
SCALE: 1" = 30'		
0 15 30 60		



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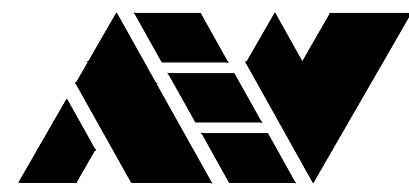
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SHEET NO.

18

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PROJECT NAME:

ALLARD AVENUE RECONSTRUCTION HARPER TO CHESTER

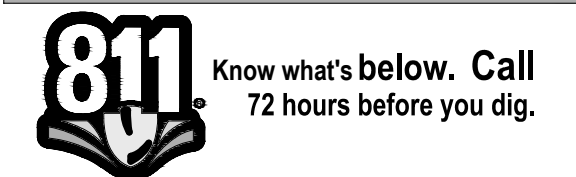
SHEET TITLE:

SOIL BORING LOGS

CLIENT:

GROSSE POINTE WOODS

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DRAWN BY: KJP	CHECKED BY: RTW	DATE: AUGUST 2021
SCALE: NO SCALE		



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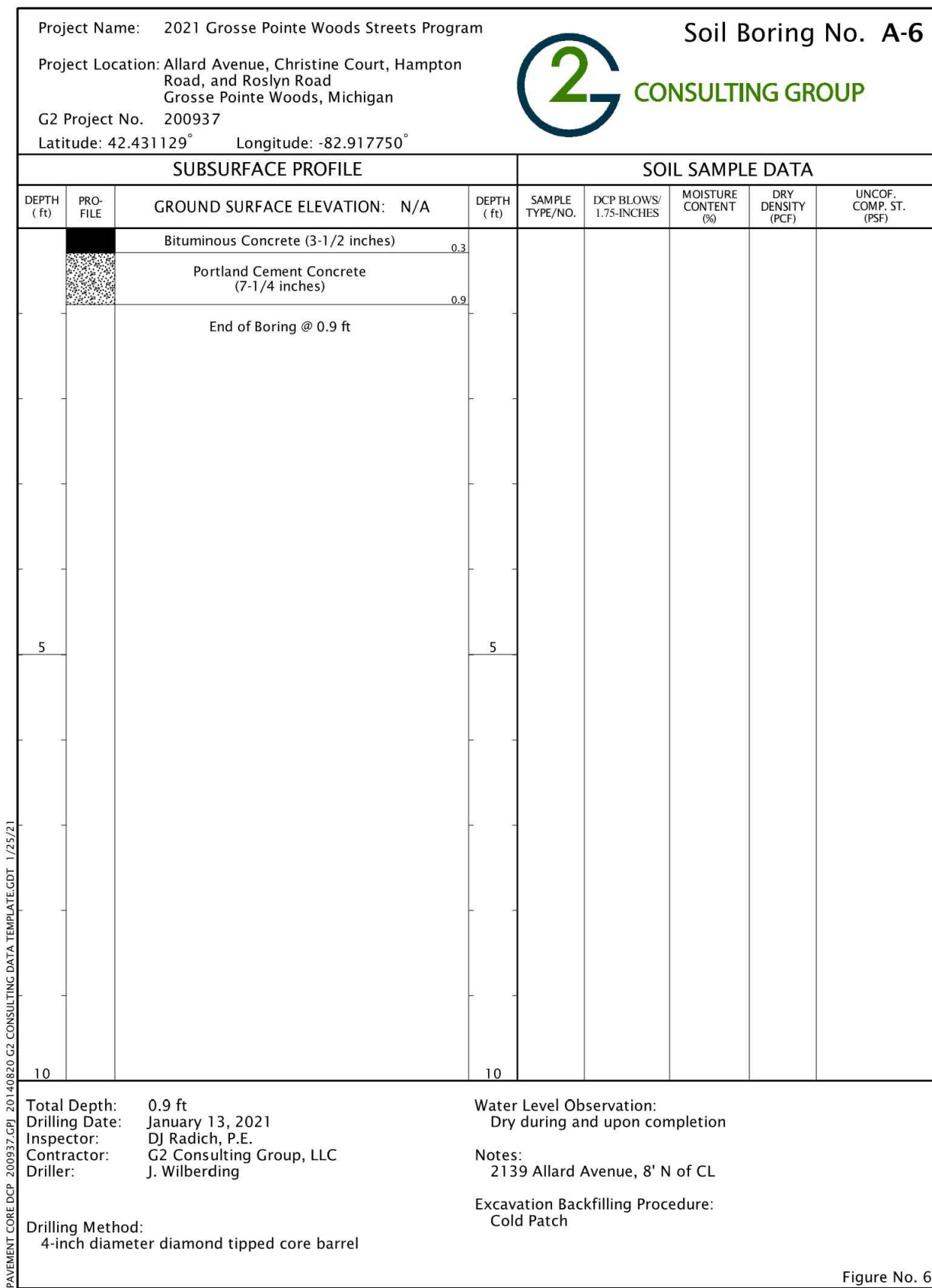
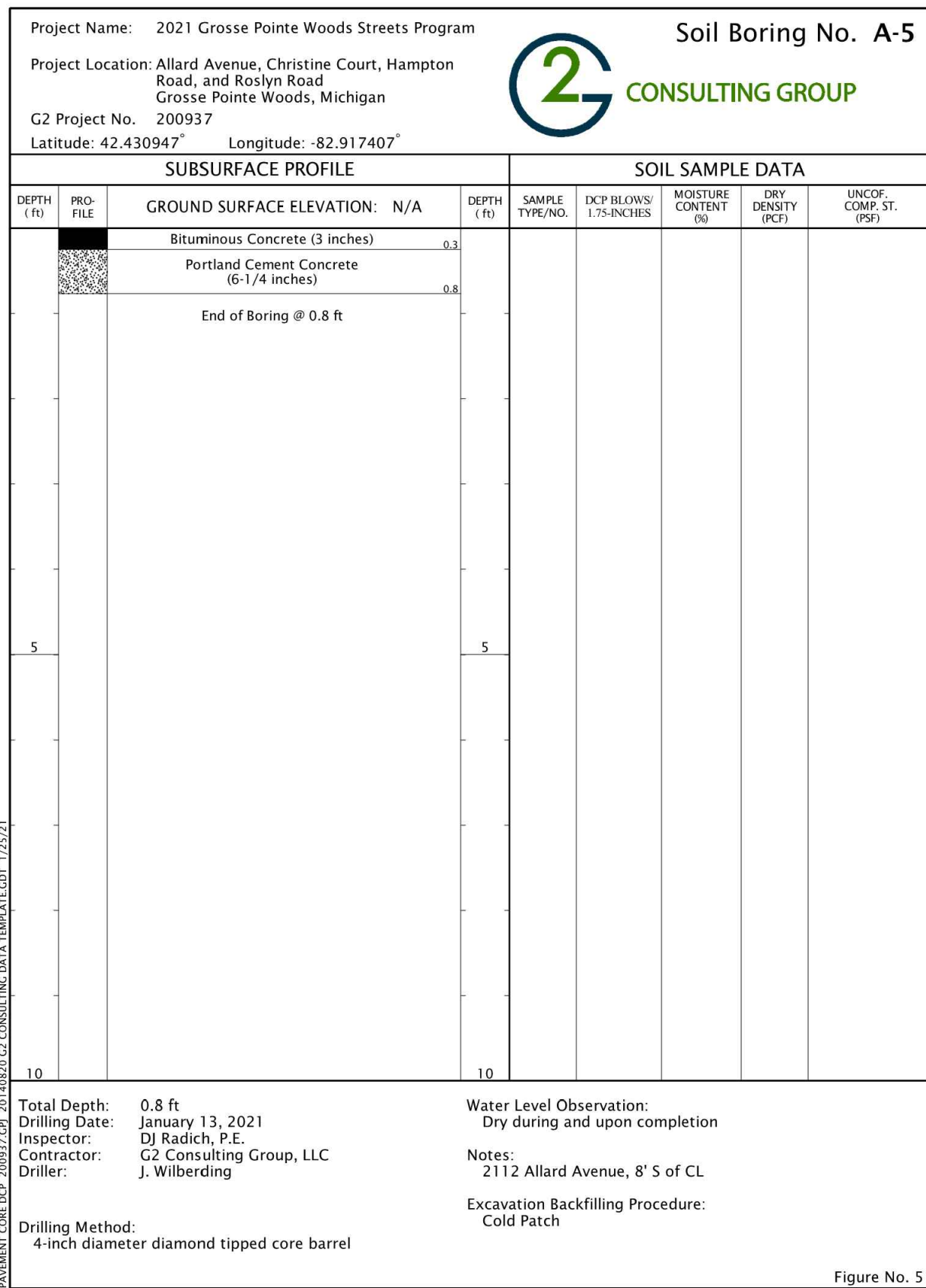
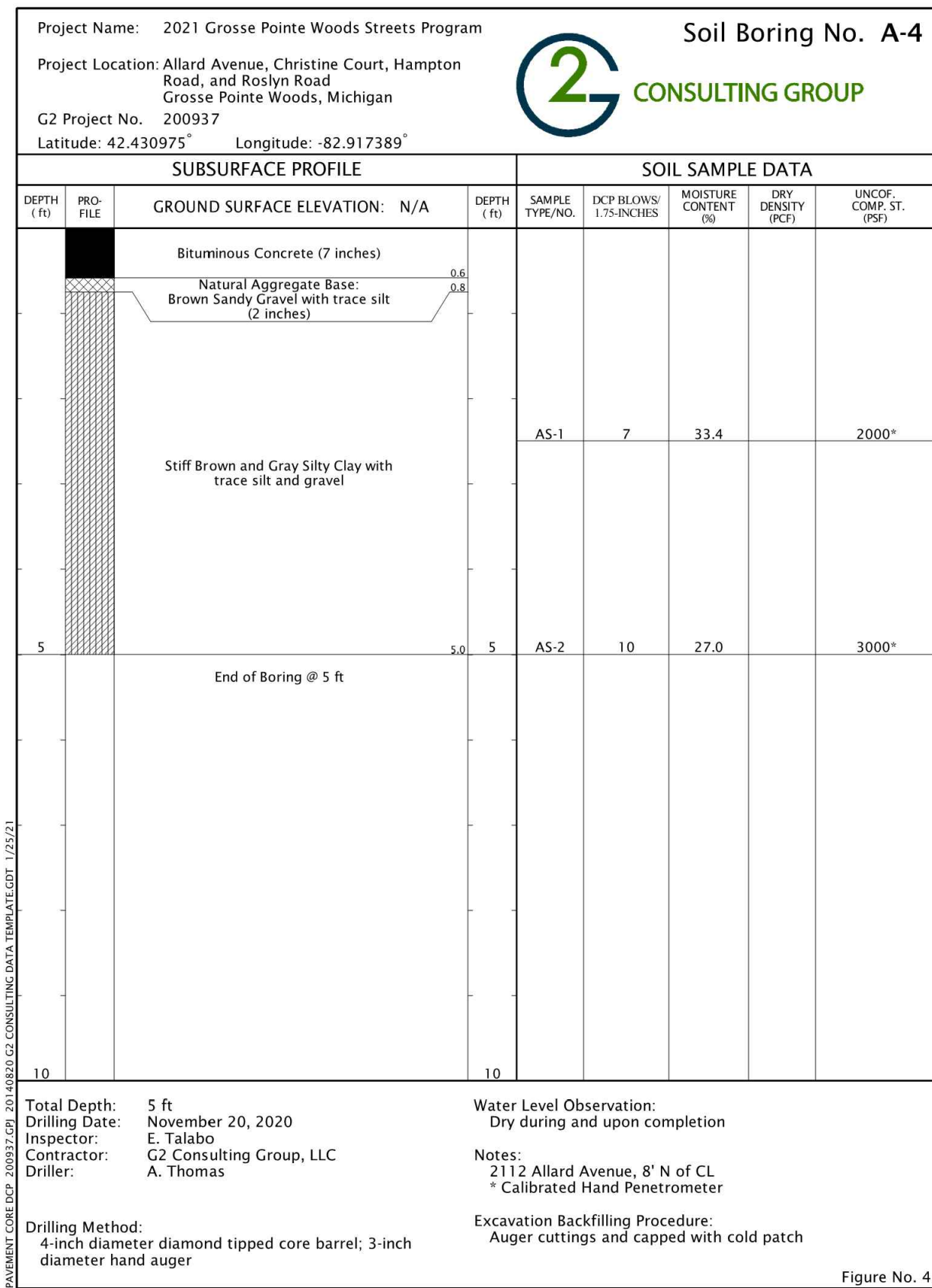
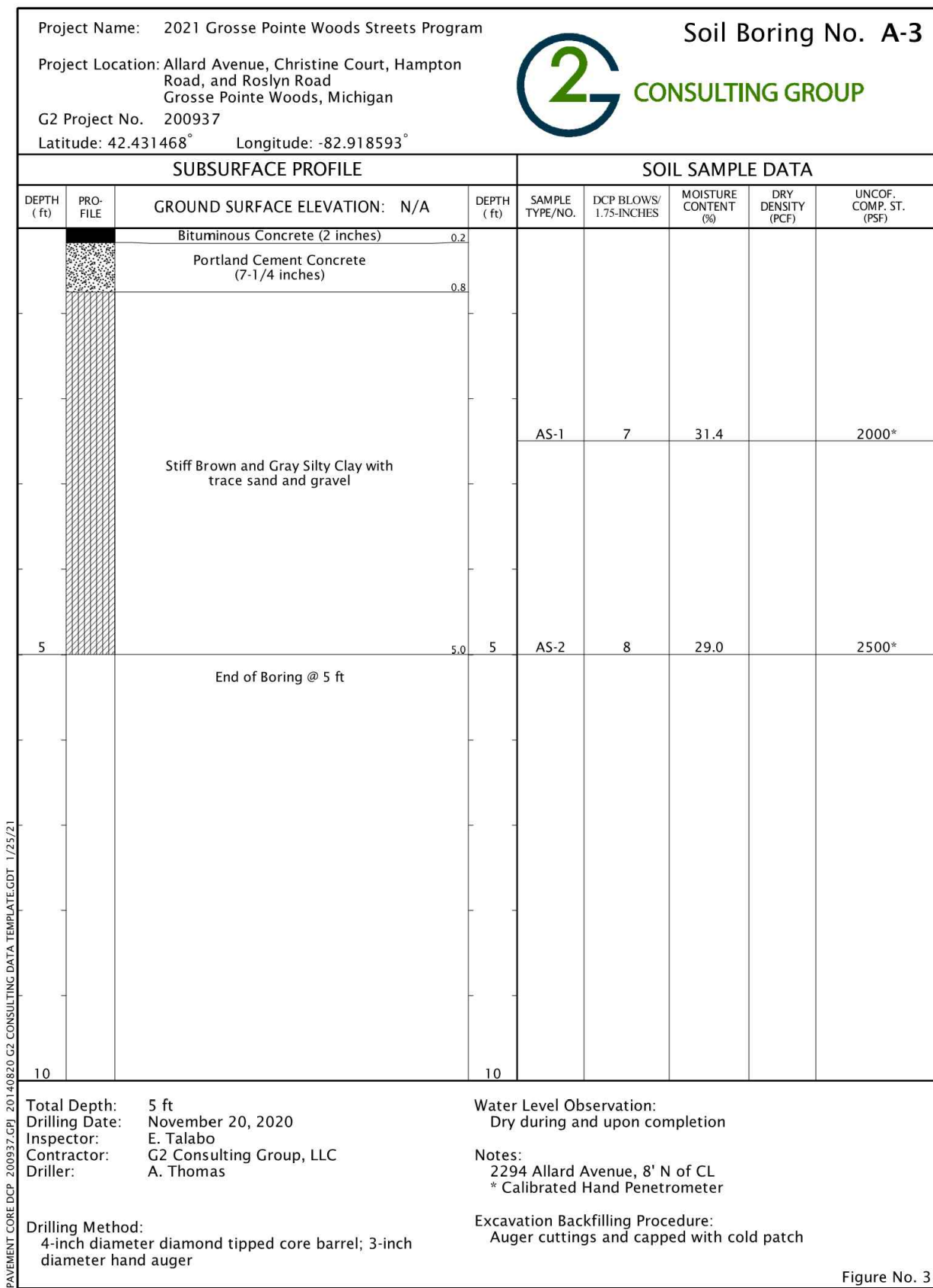
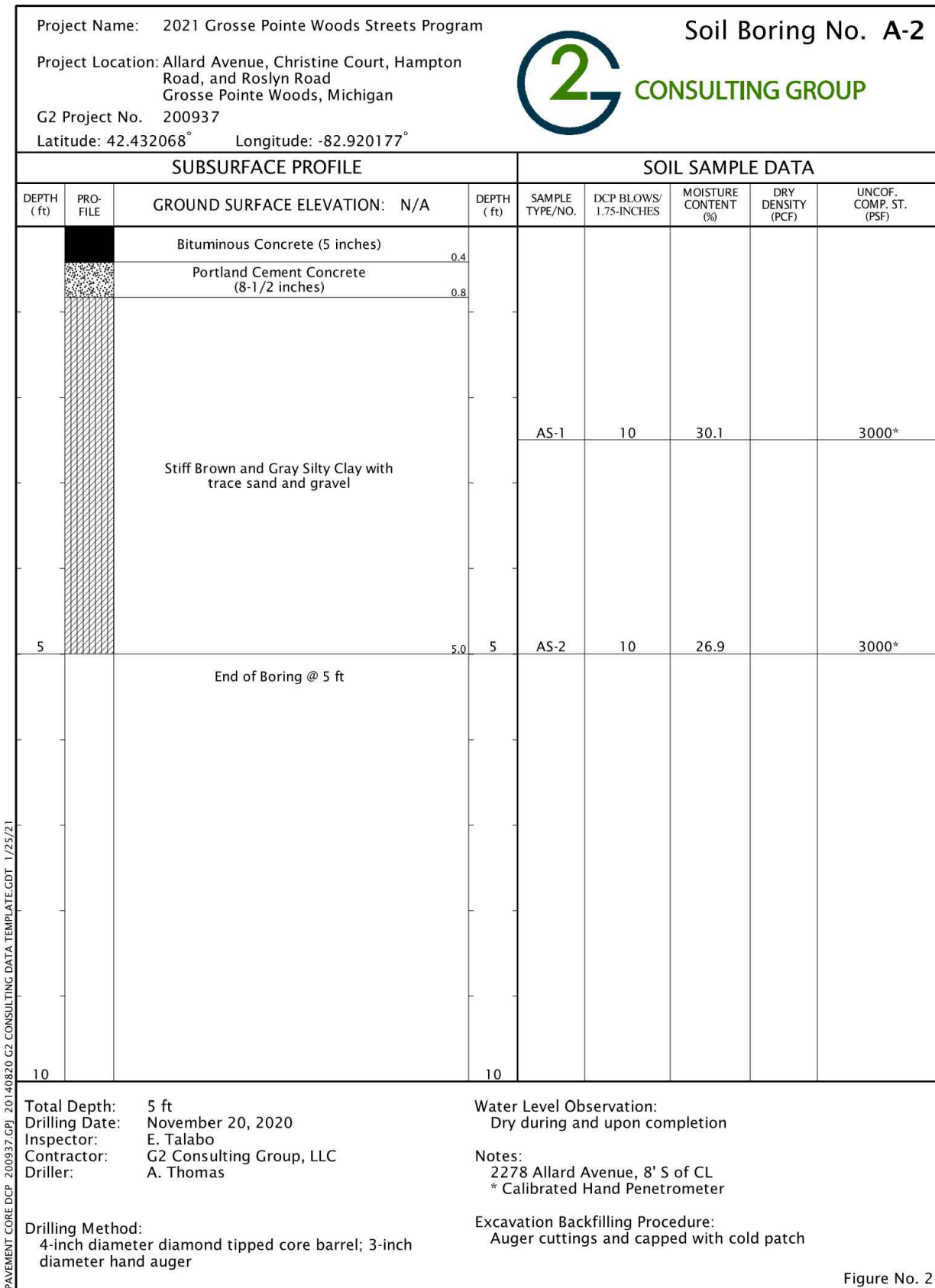
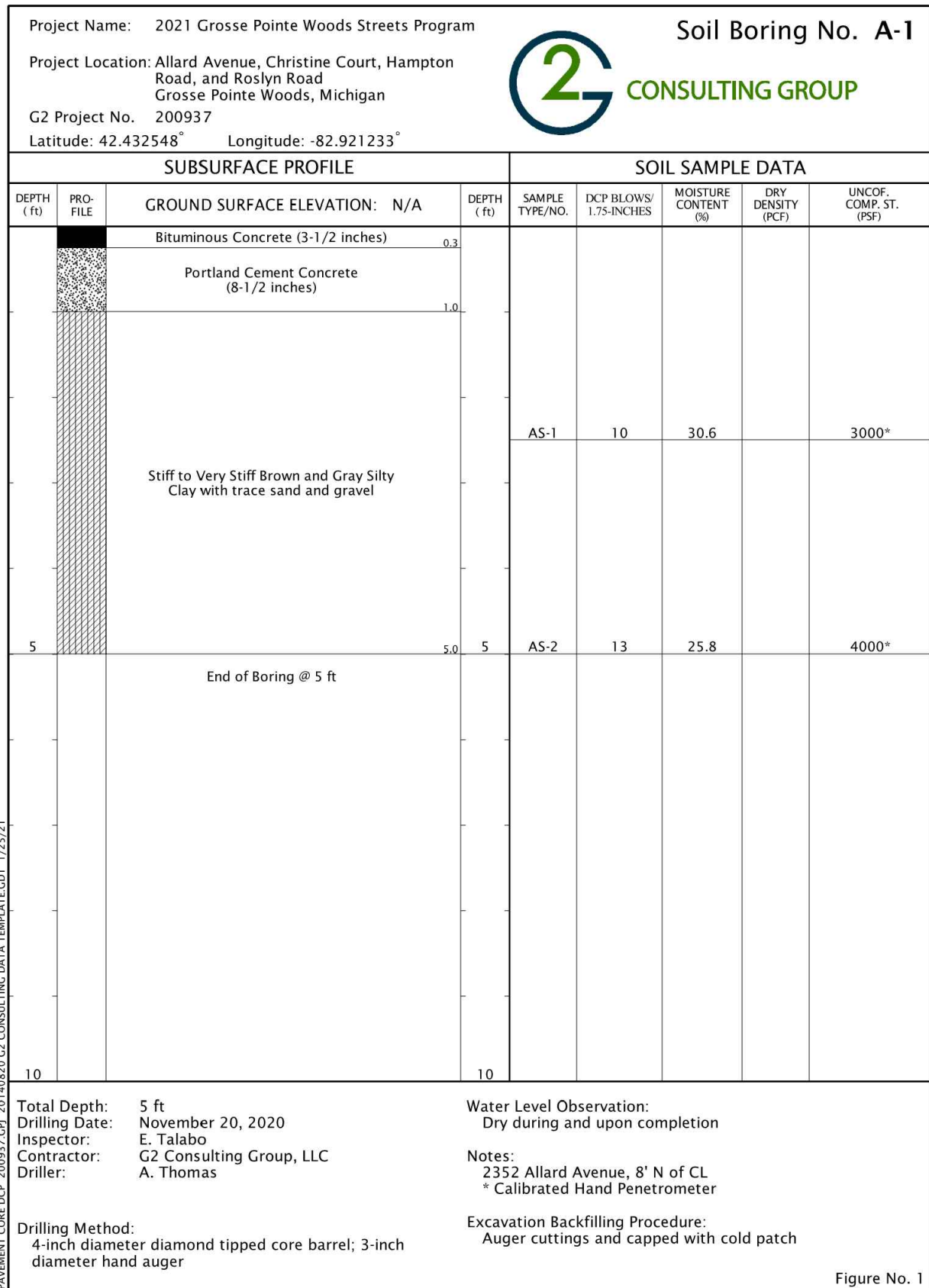
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SHEET NO.

19

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DATE SUBMITTALS/REVISIONS

PROJECT NAME:

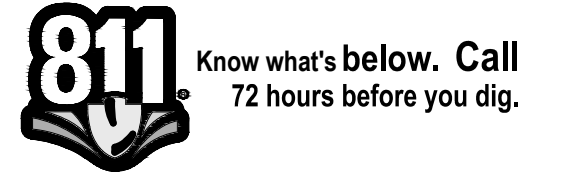
ALLARD AVENUE RECONSTRUCTION HARPER TO CHESTER

SHEET TITLE:

SOIL BORING LOGS

CLIENT:
GROSSE POINTE WOODS

<input checked="" type="checkbox"/> PRELIMINARY	<input checked="" type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
12/10/21		
DRAWN BY: KJP	CHECKED BY: RTW	DATE: AUGUST 2021
SCALE: NO SCALE		



UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY. AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

PROJECT NO.

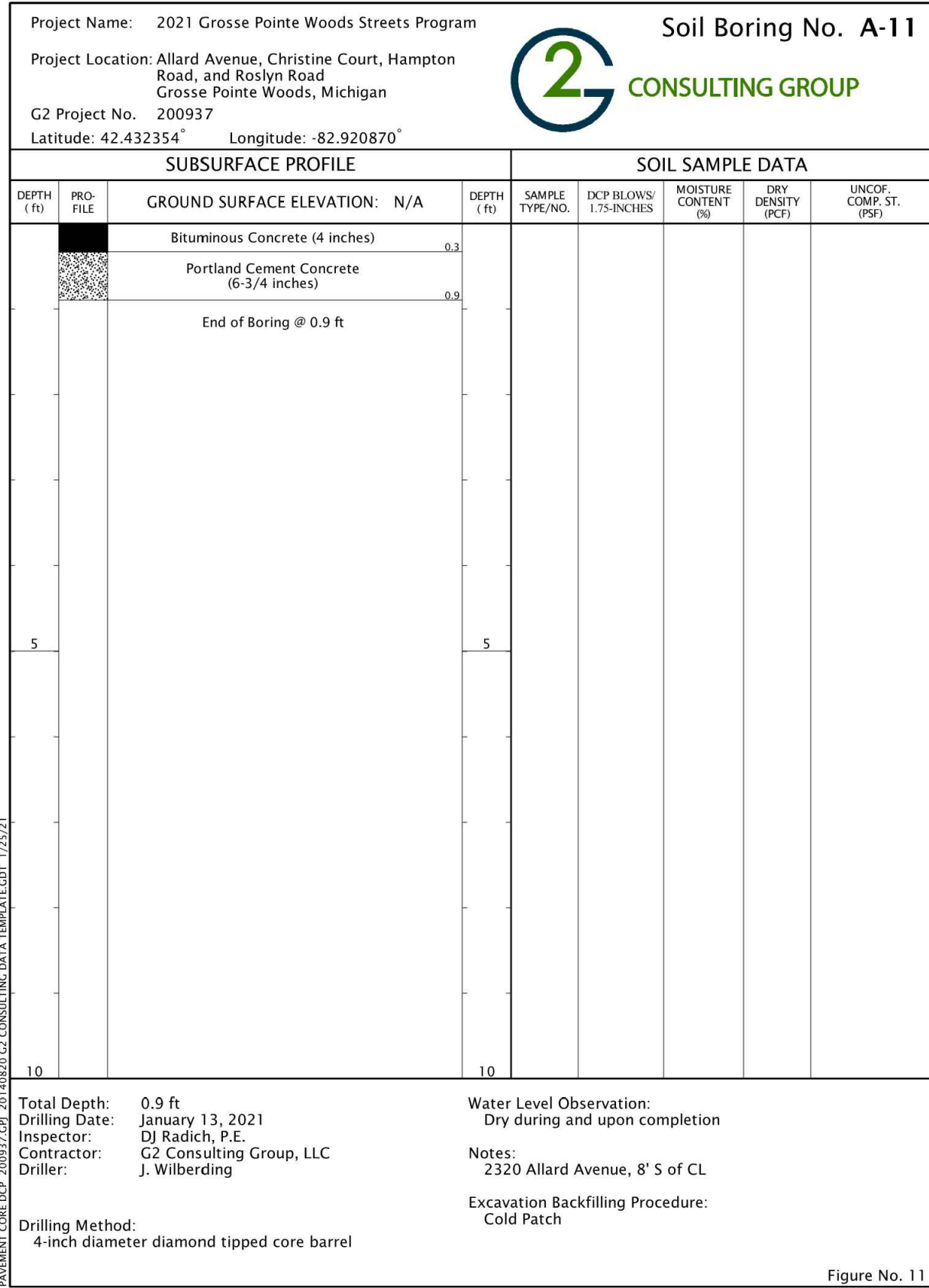
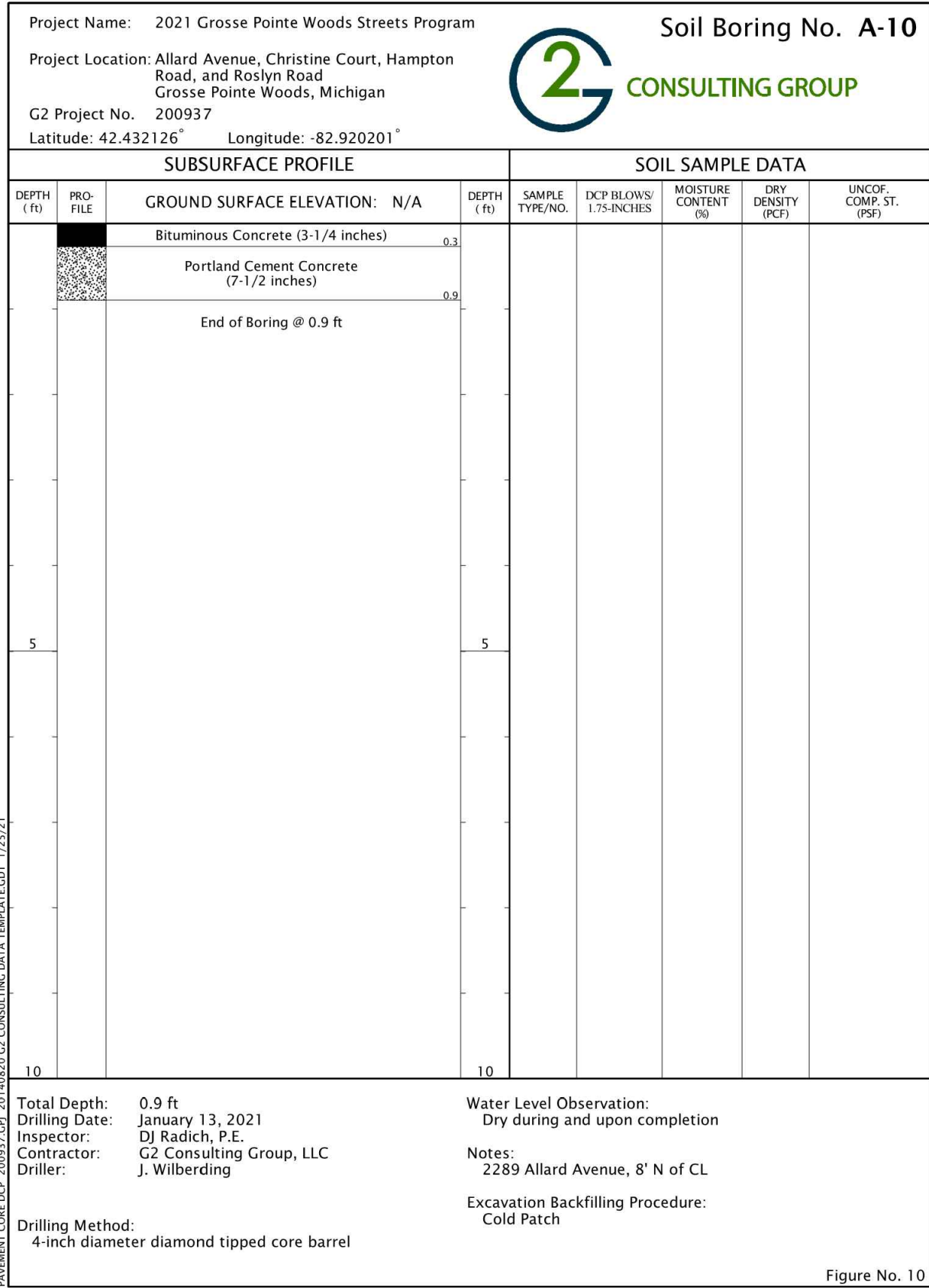
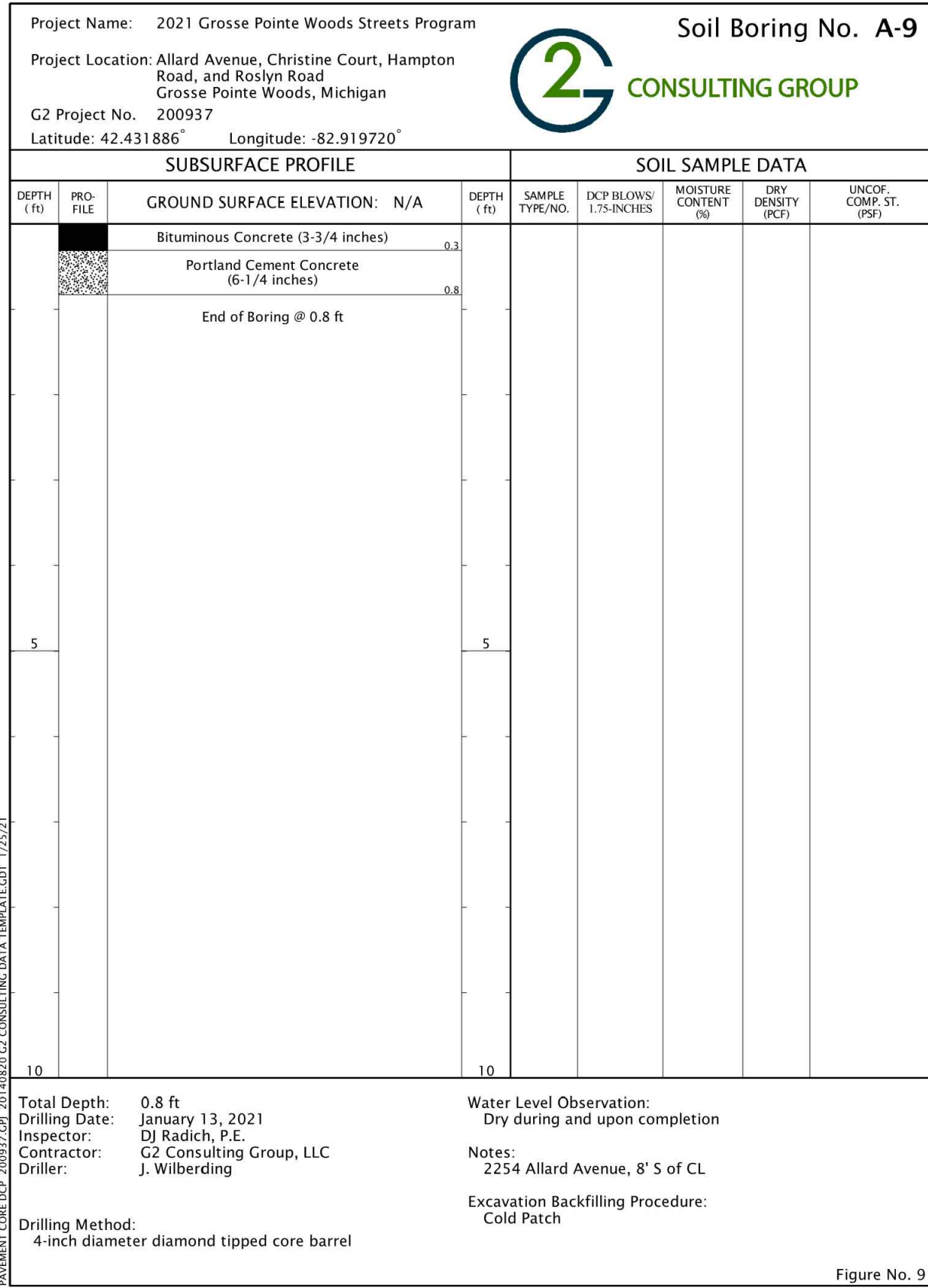
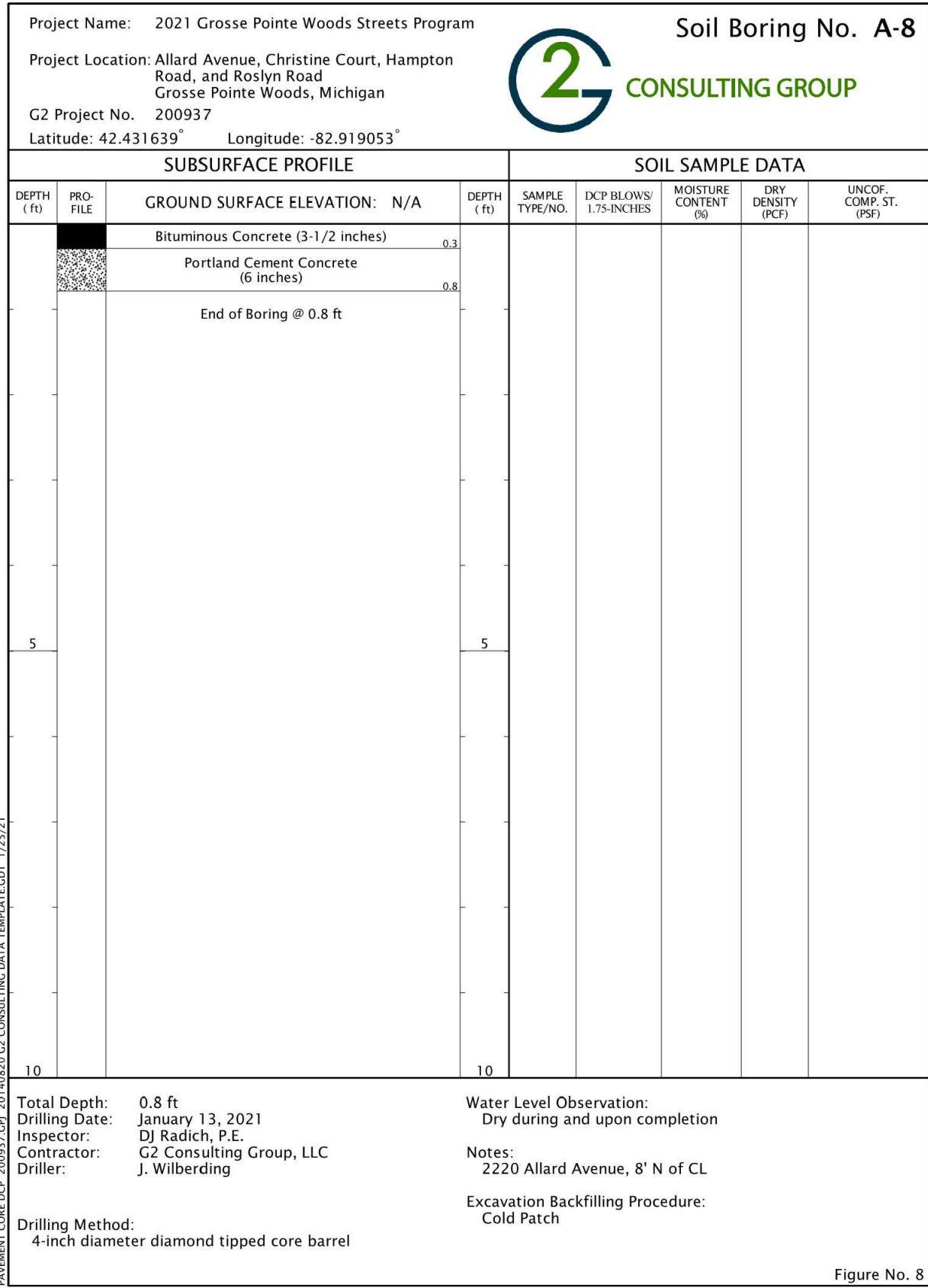
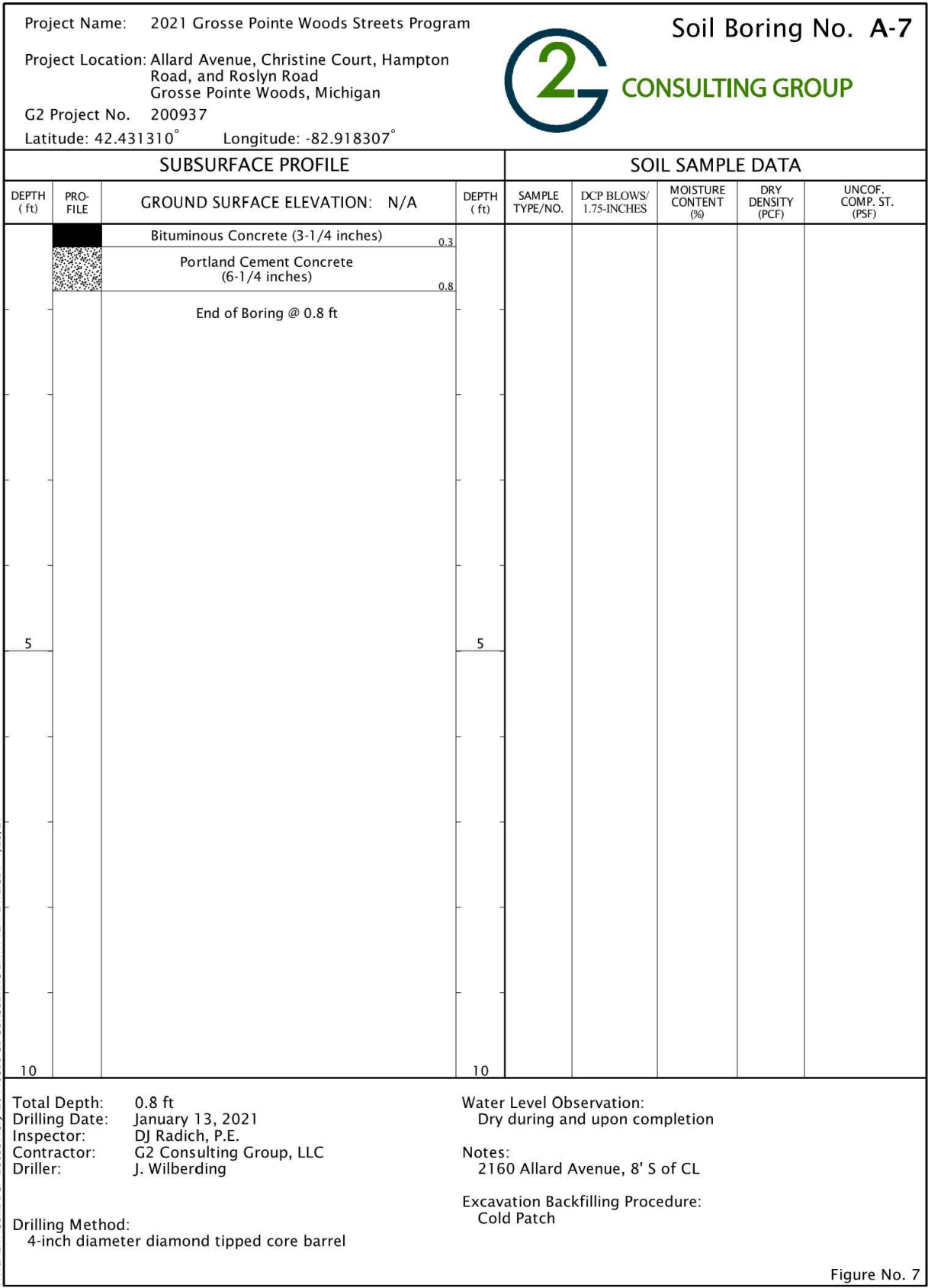
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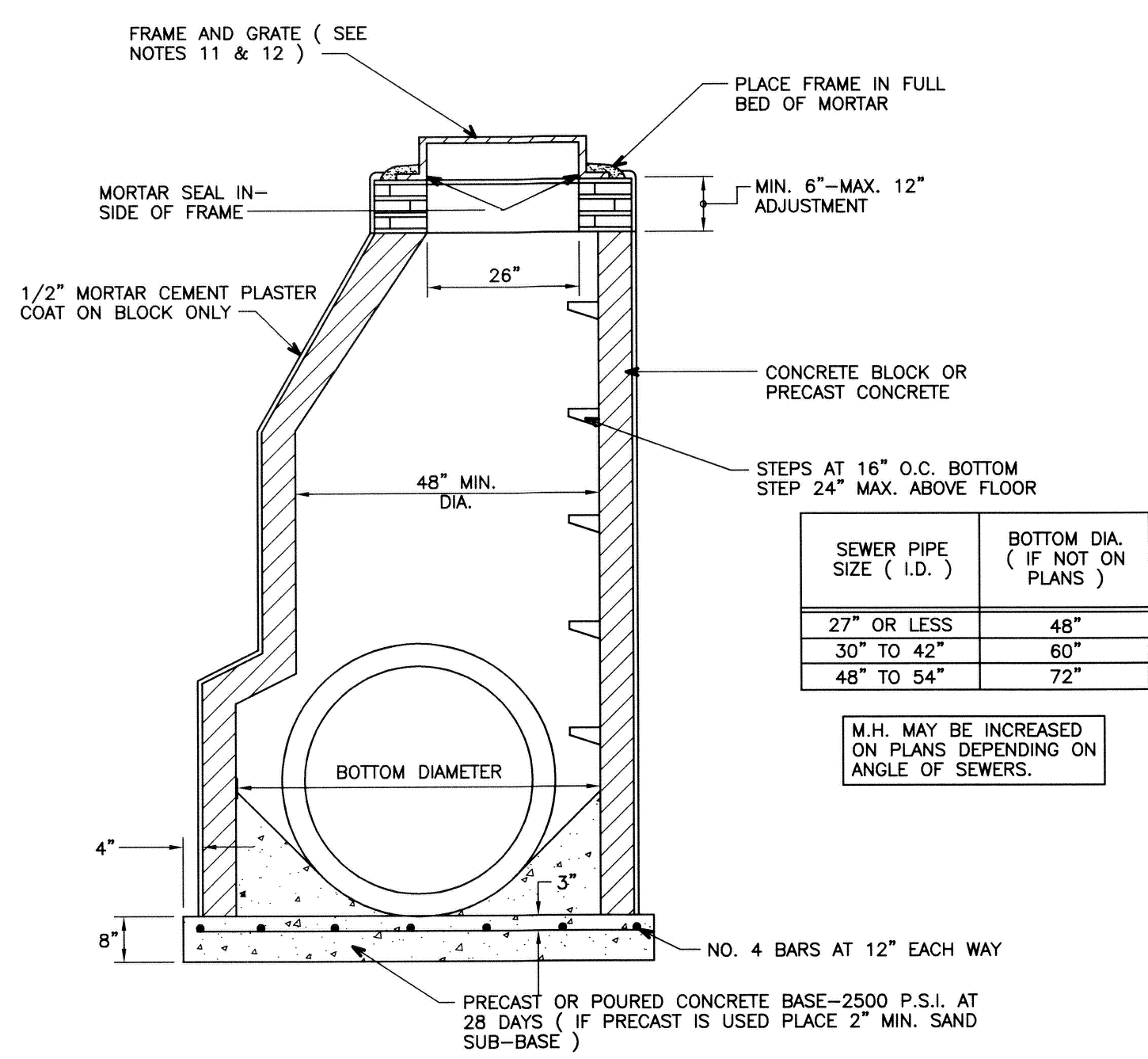
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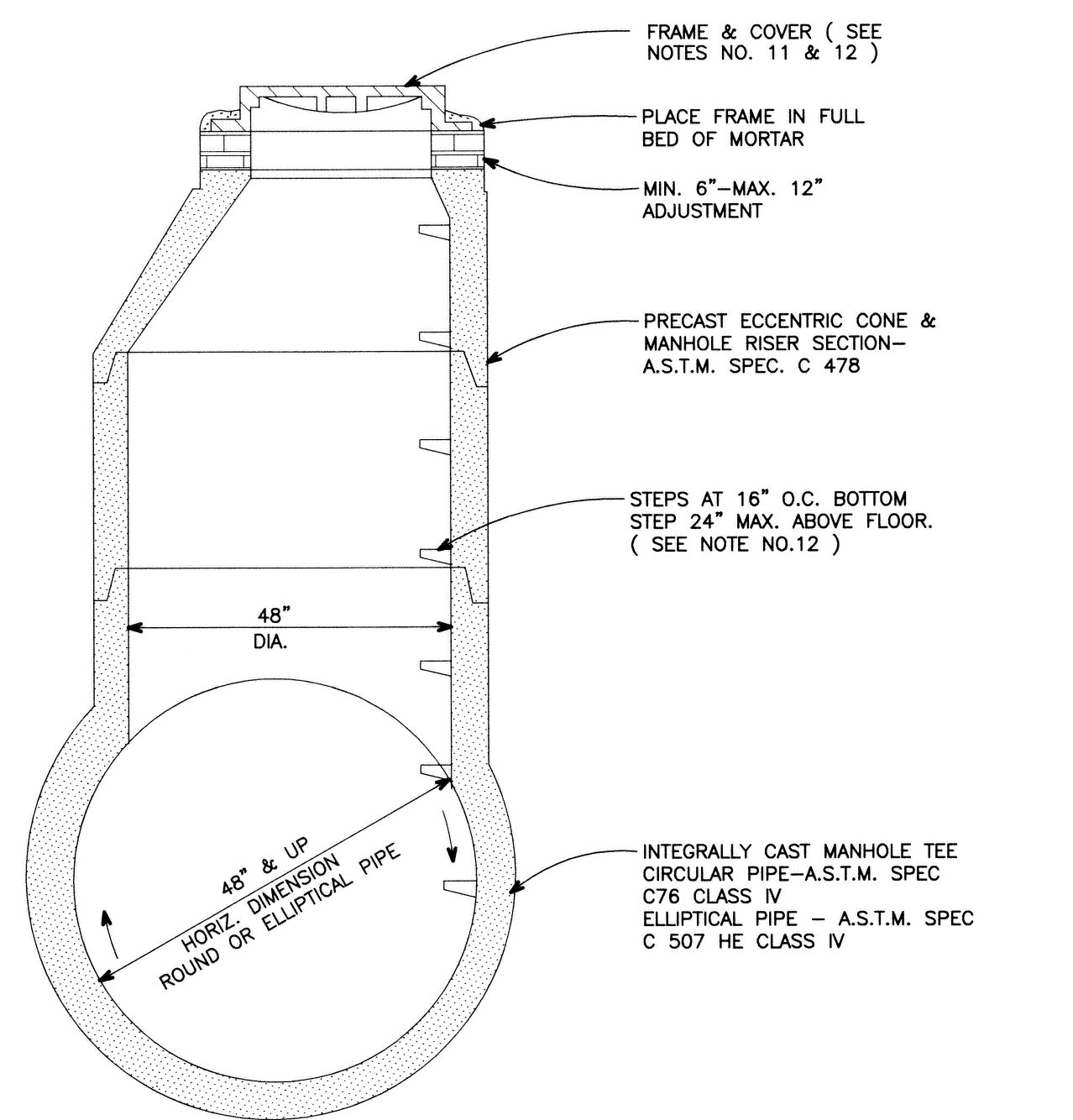


STORM SEWER NOTES

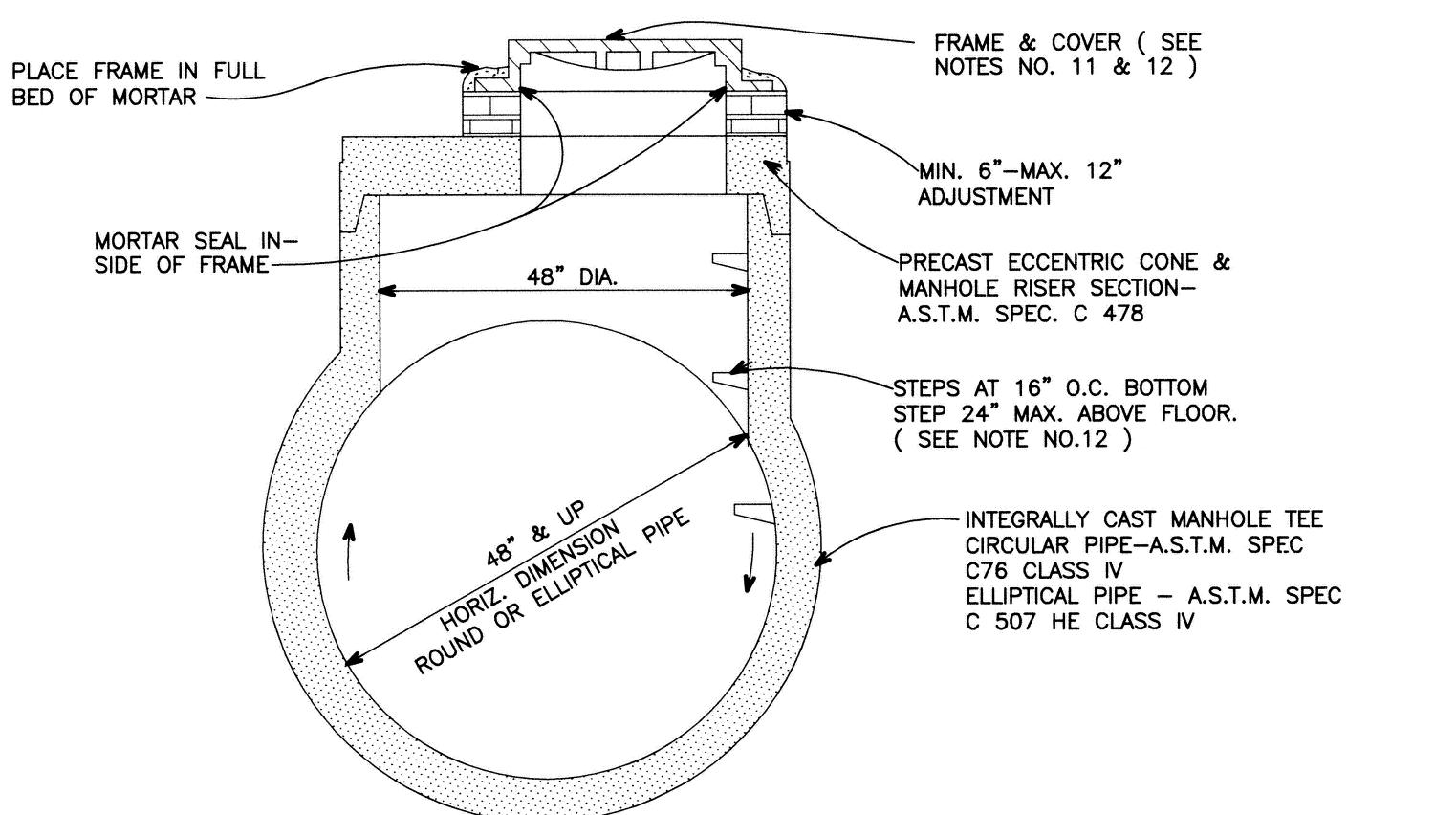
- AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL GIVE NOTIFICATION OF HIS INTENTION TO BEGIN CONSTRUCTION TO THE CITY OF GROSSE POINTE WOODS ENGINEERING DEPARTMENT, THE WAYNE COUNTY PUBLIC WORKS COMMISSION OR THE ROAD COMMISSION OF WAYNE COUNTY WHEN INSPECTIONS ARE NEEDED BY THAT AGENCY.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST HAVE IN HIS POSSESSION A COPY OF A VALID PERMIT TO CONSTRUCT A CONNECTION TO, OR AN EXTENSION OF, THE STORM WATER DRAINAGE SYSTEM, FROM REQUIRED AGENCY ON THE JOB AT ALL TIMES OF CONSTRUCTION.
- THE CONTRACTOR SHALL SECURE PERMITS FROM THE WAYNE COUNTY PUBLIC WORKS COMMISSION FOR ALL TAPS AND CROSSINGS OF COUNTY DRAINS AND SHALL PAY THE COSTS OF SAID PERMITS AND THE COST OF ANY INSPECTION CHARGES BY THAT AGENCY FOR WORK DONE UNDER THE PERMITS.
- PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL TELEPHONE MISS DIG (1-800-482-7171) FOR LOCATION OF UNDERGROUND FACILITIES, AND SHALL ALSO NOTIFY REPRESENTATIVES OF ANY OTHER FACILITIES, LOCATED IN THE VICINITY OF THE WORK, WHICH MAY NOT BE HANDLED BY MISS DIG.
- ALL STORM WATER DRAINAGE SYSTEM CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY, COUNTY ROAD COMMISSION AND/OR COUNTY PUBLIC WORKS COMMISSION AS APPLICABLE.
- ALL REINFORCED CONCRETE SEWER PIPE SHALL CONFORM TO ASTM SPECIFICATION C76 WITH CLASS DESIGNATION ON PLANS.
- UNLESS OTHERWISE INDICATED ON THE PLANS, ALL STORM SEWER JOINTS SHALL BE TONGUE AND GROOVE WITH RUBBER "O" RING GASKETS.
- UNLESS OTHERWISE INDICATED ON THE PLANS, ALL STORM SEWER BEDDING SHALL BE STANDARD BEDDING.
- ALL WYES AND BUILDING SERVICE CONNECTIONS SHALL BE 3" POLY VINYL CHLORIDE (PVC) SEWER PIPE SCH.40 OR SDR 23.5.
- ALL STORM SEWER WYE OPENINGS SHALL BE FACTORY INSTALLED EXCEPT WHEN USING ABS TRUSS PIPE FOR SUMP PUMP DISCHARGE OUTLET. WHEREVER POSSIBLE SERVICE CONNECTIONS SHOULD DISCHARGE DIRECTLY INTO A CATCH BASIN.
- UNLESS OTHERWISE NOTED ON THE PLANS, STRUCTURE FRAME AND COVERS SHALL BE AS FOLLOWS:
MANHOLE
E.J.I.W. 1040 FRAME, TYPE A, SOLID COVER OR APPROVED EQUAL.
CATCH BASIN OR INLET (PAVEMENT TYPE)
E.J.I.W. 5080 FRAME, TYPE M-3 (2, 4 OR 6 HOLE) RESTRICTED COVER OR APPROVED EQUAL.
CATCH BASIN (YARD TYPE)
E.J.I.W. 1045 FRAME, TYPE C (2 OR 4 SLOT) VENTED COVER OR APPROVED EQUAL.
- ALL CATCH BASIN COVERS SHALL BE RESTRICTED PER THE CITY OF GROSSE POINTE WOODS ENGINEER'S REQUIREMENTS.
- STEPS TO BE INSTALLED DURING MANUFACTURING OF MANHOLE SECTION. STEPS MUST BE E.J.I.W. NO. 8503 M.A. INDUSTRIES P.S.I. POLYPROPYLENE OR APPROVED EQUAL.
- UNLESS OTHERWISE AUTHORIZED BY THE CITY ENGINEER, EACH STRUCTURE SHALL BE CONSTRUCTED TOTALLY OF EITHER PRE-CAST CONCRETE SEGMENTS OR BUILT-UP MORTAR & BLOCK.
- PRIVATE DEVELOPMENTS:
BEFORE FINAL ACCEPTANCE, A FINAL INSPECTION MUST BE MADE BY THE OWNER AND (1) SET OF AS-BUILT SEPIA MYLARS AND (2) SETS OF BLUELINE PRINTS MUST BE SUBMITTED TO THE CITY OF GROSSE POINTE WOODS BUILDING DEPARTMENT.



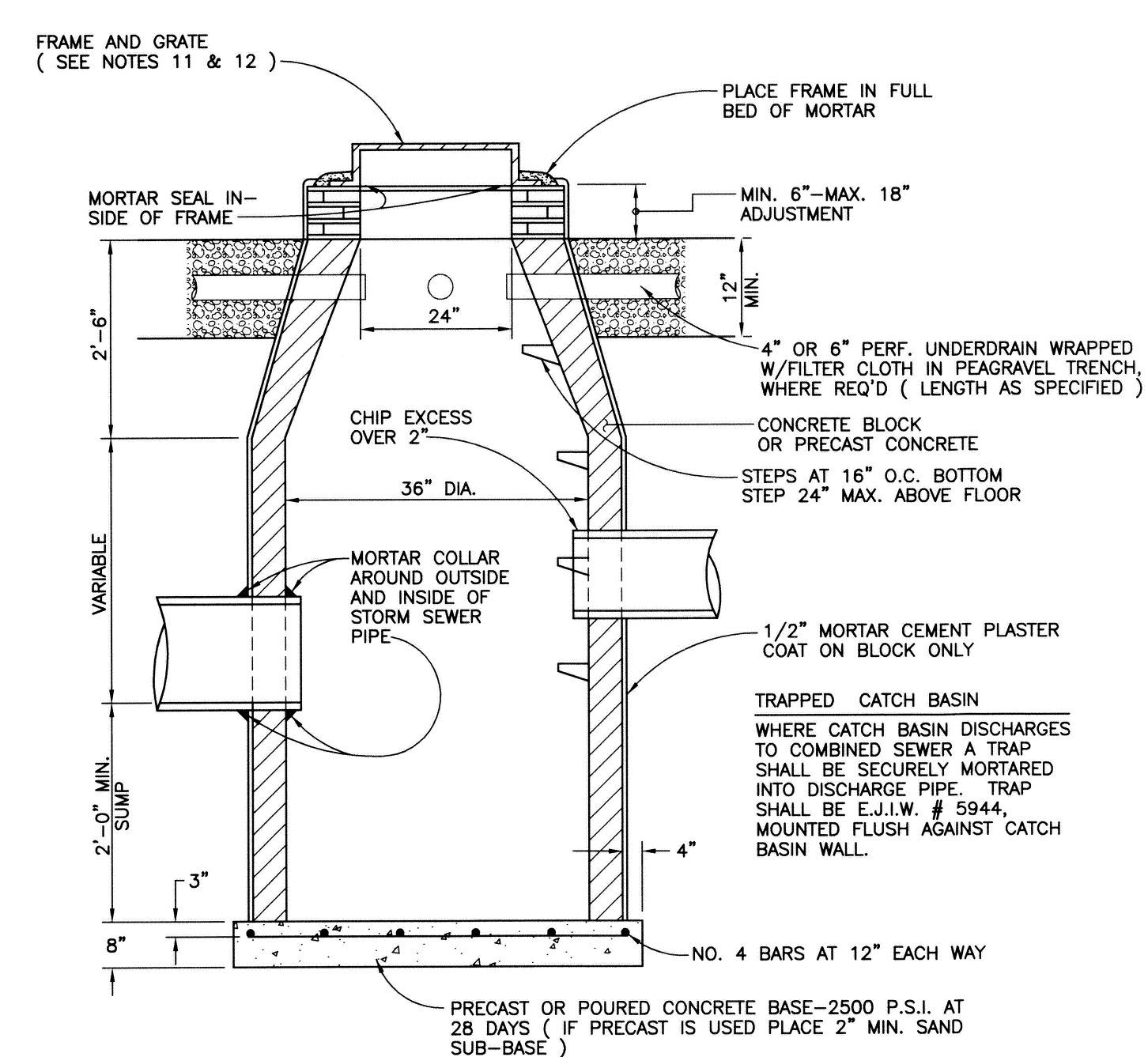
STORM SEWER MANHOLE "A"



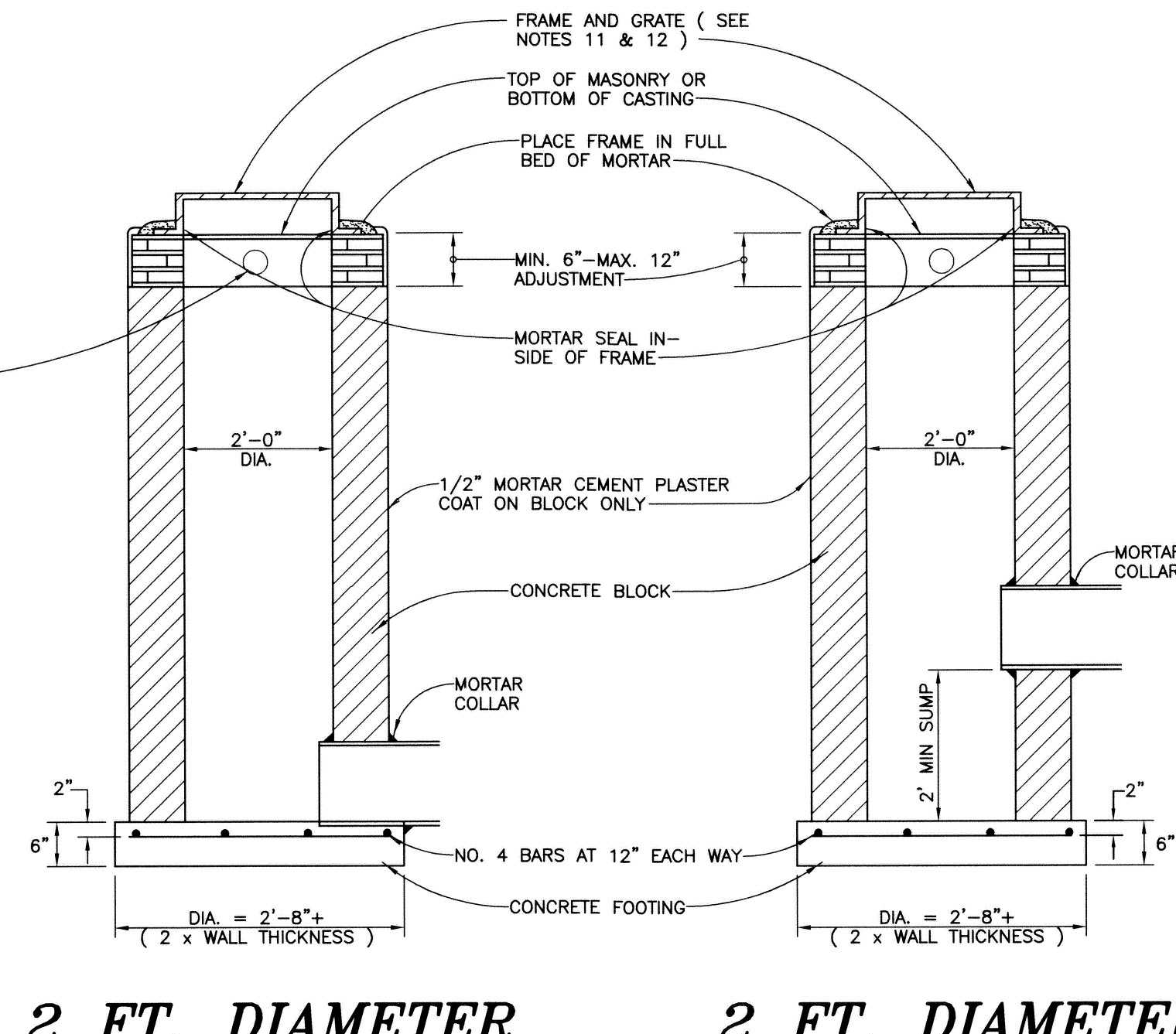
STORM SEWER TEE MANHOLE "B"



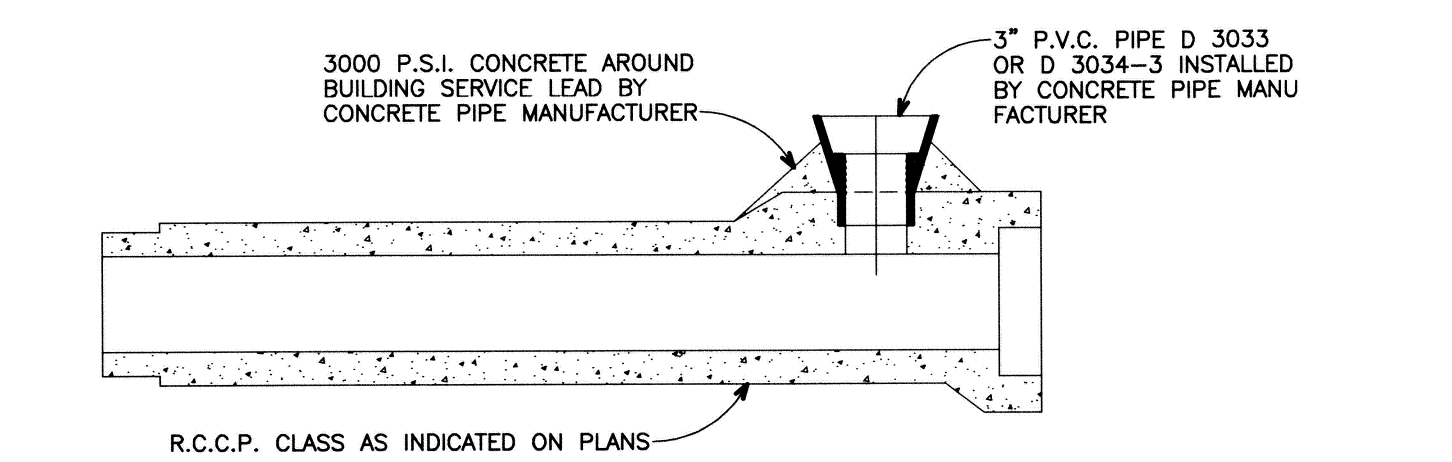
STORM SEWER TEE MANHOLE "B" WITH FLAT SLAB



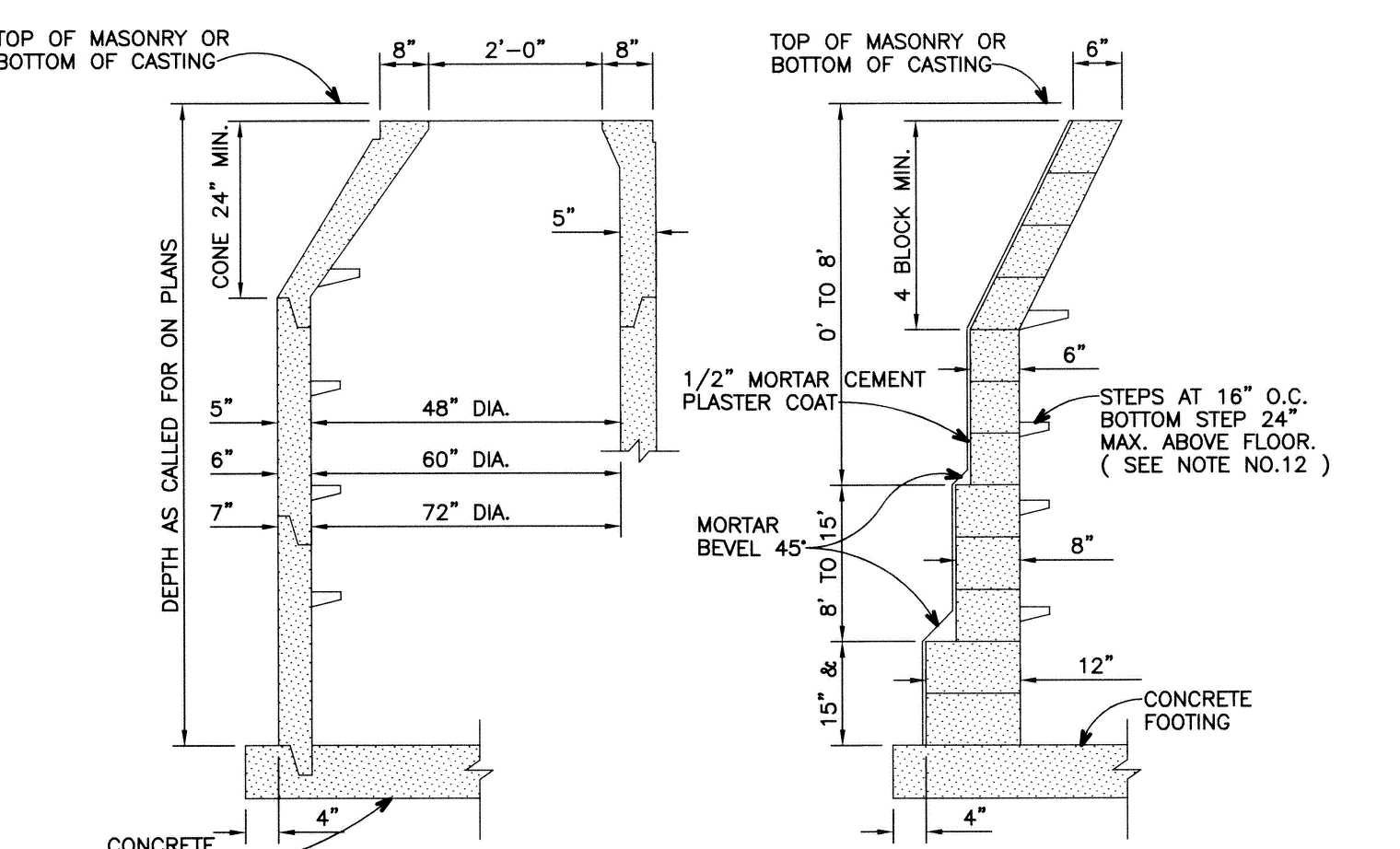
3 FT. DIAMETER CATCH BASIN



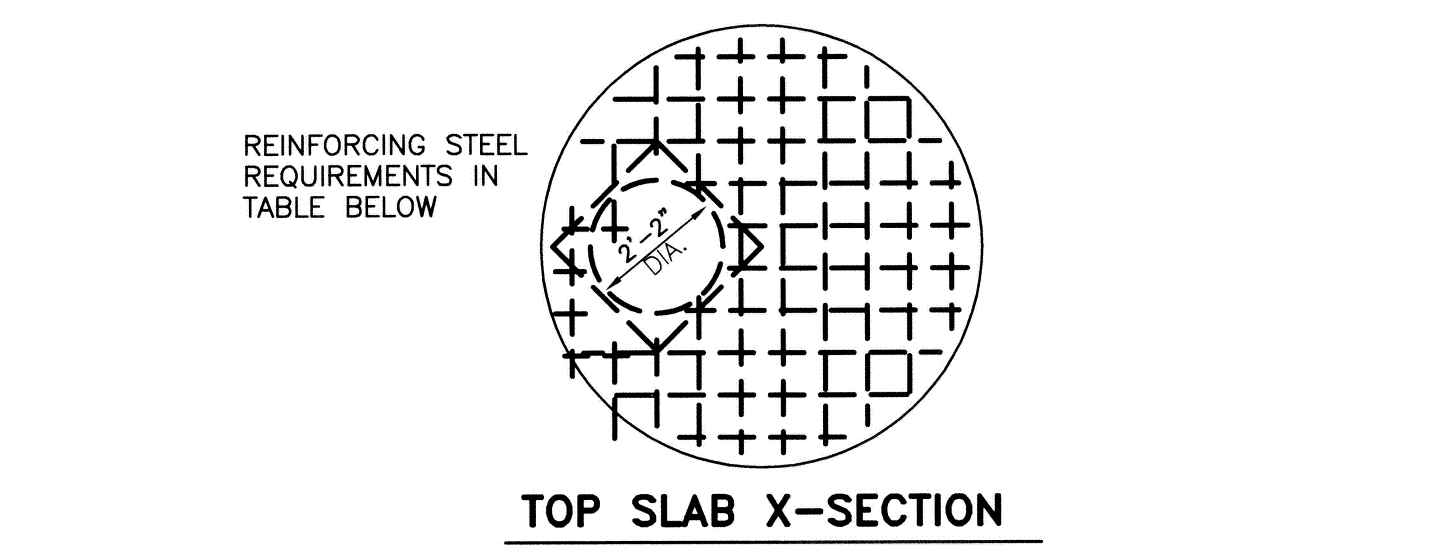
2 FT. DIAMETER INLET
2 FT. DIAMETER CATCH BASIN



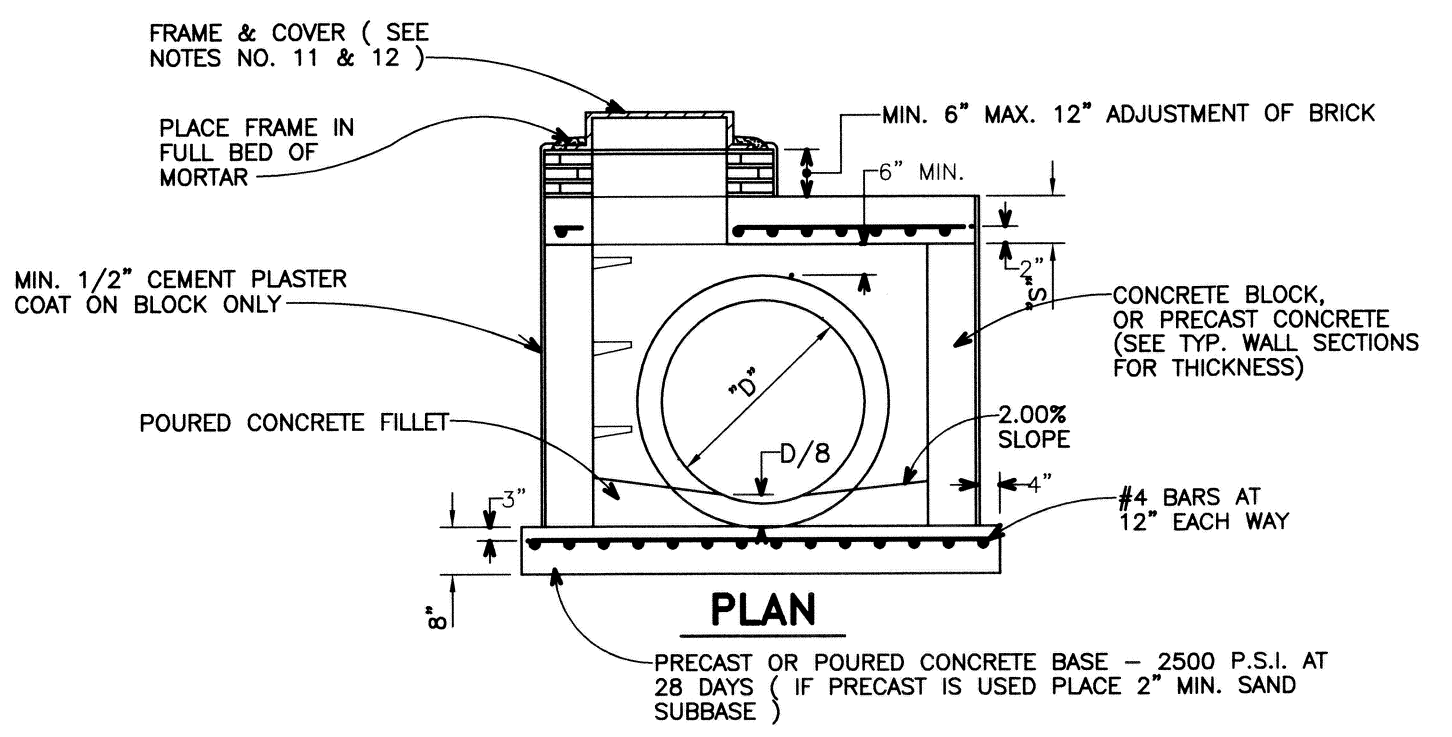
STANDARD WYE DETAIL IN CONCRETE PIPE FOR SUMP PUMP CONNECTION



TYPICAL WALL SECTIONS FOR ALL DRAINAGE STRUCTURES



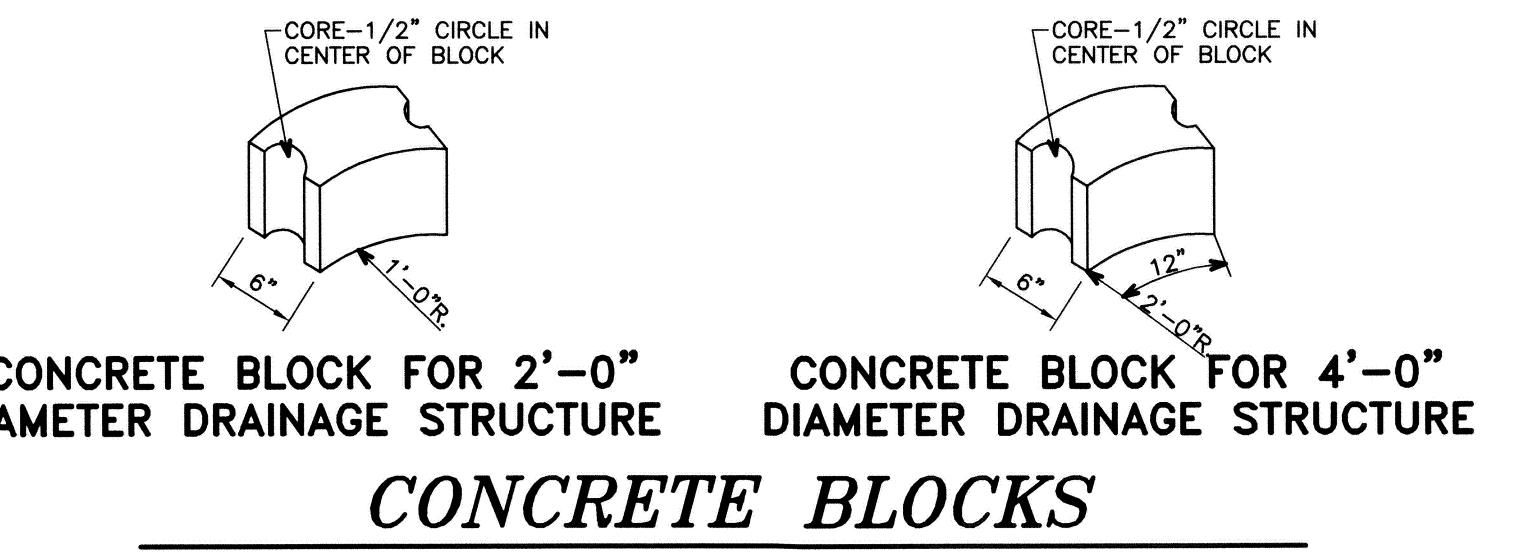
TOP SLAB X-SECTION



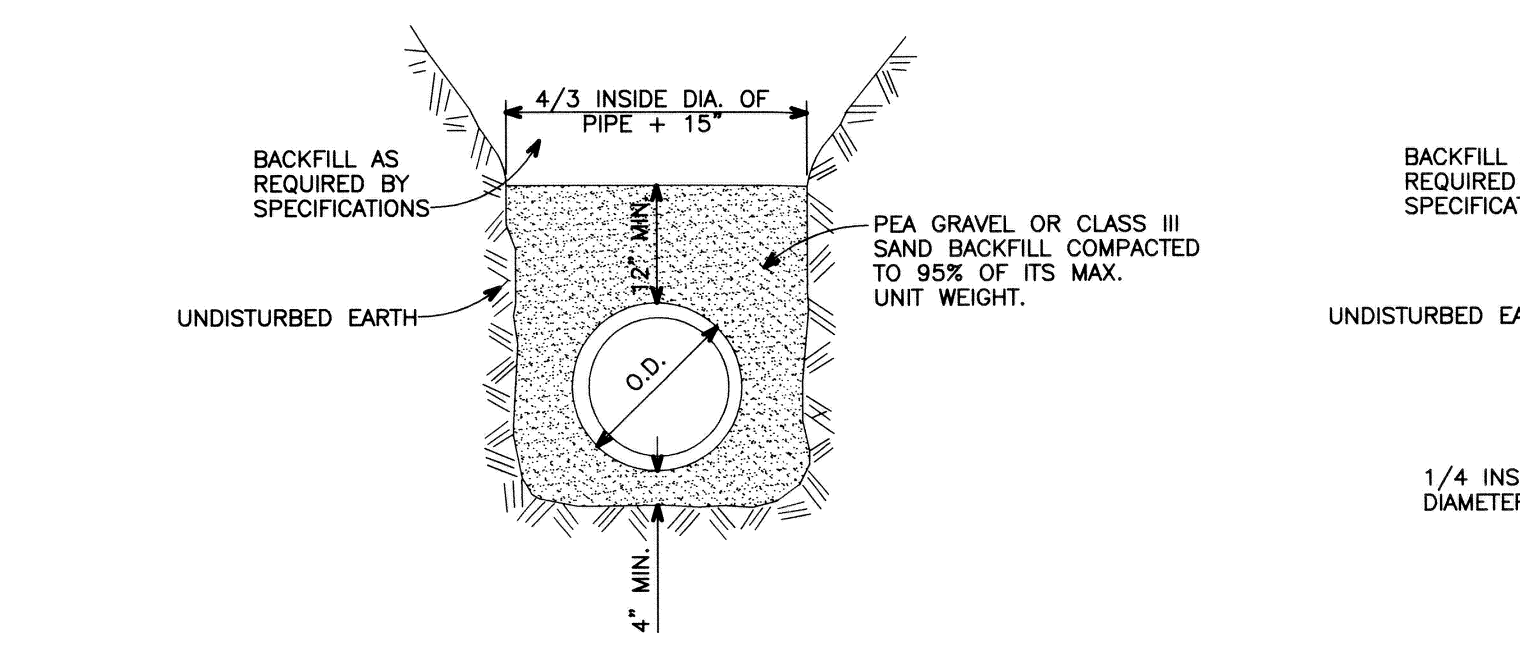
OUTLET "D"	M.H. I.D. #	TOP SLAB "S"	REINFORCING STEEL (T.S.)
27" OR LESS	4	9"	3/4" @ 9" EA. WAY
42"	5	10"	3/4" @ 9" EA. WAY
48"-54"	6	11"	7/8" @ 9" EA. WAY
	7	12"	1" @ 9" EA. WAY
	8	12"	1" @ 9" EA. WAY

* DIAMETER OF MANHOLE SHALL BE INCREASED AS SHOWN ON THE PLANS DEPENDING ON THE ANGLE OF SEWERS

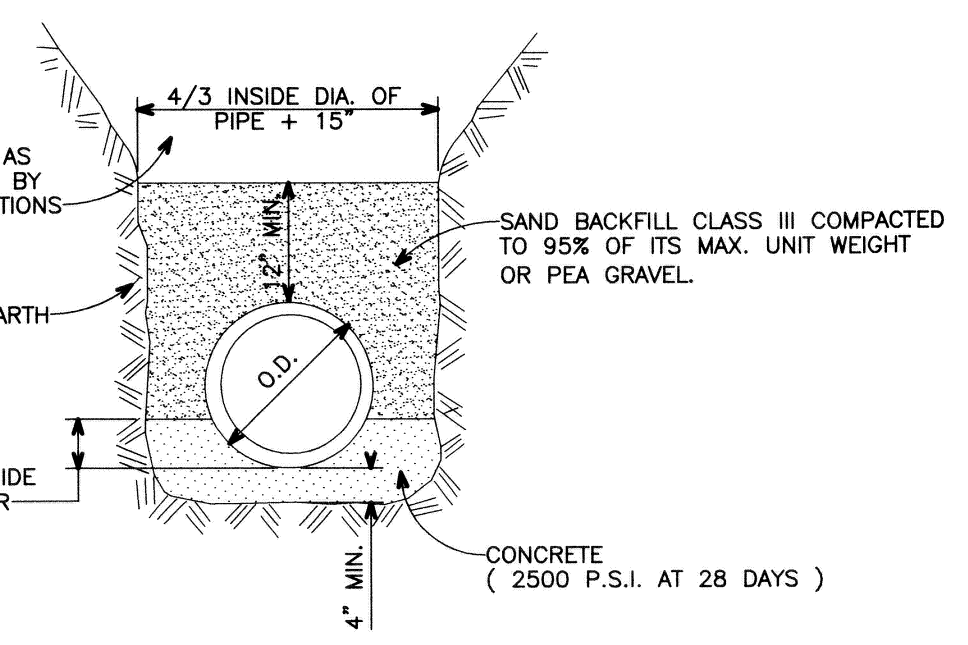
STORM SEWER MANHOLE "A" WITH FLAT SLAB TOP



CONCRETE BLOCK FOR 2'-0" DIAMETER DRAINAGE STRUCTURE
CONCRETE BLOCK FOR 4'-0" DIAMETER DRAINAGE STRUCTURE
CONCRETE BLOCKS



STANDARD BEDDING



CONCRETE BEDDING

CITY OF GROSSE POINTE WOODS
STORM SEWER DETAILS

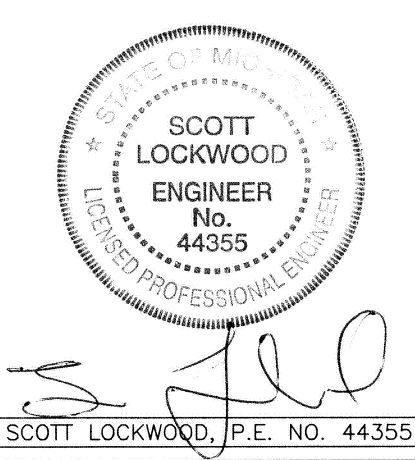
DEPARTMENT OF PUBLIC WORKS

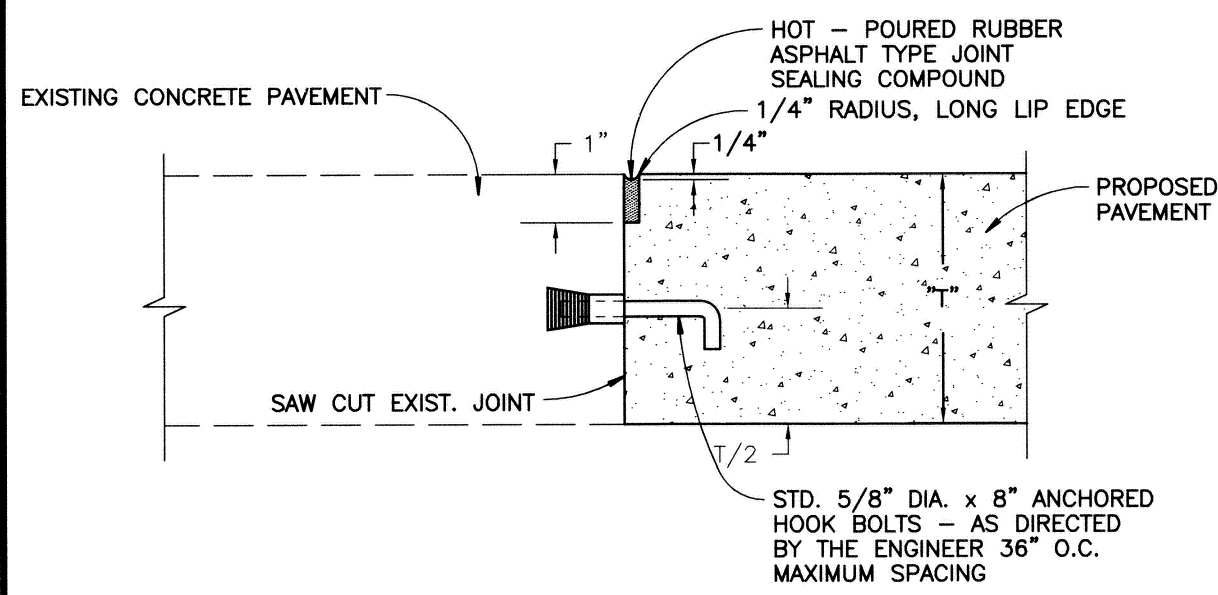
APPROVED BY : JOSEPH J. ALEE JR. : DPW DIRECTOR

DATE: 2/6/07

ANDERSON, ECKSTEIN AND WESTRICK, INC.
Civil Engineers • Surveyors • Architects
51301 Schoenherr Road, Shelby Township, Michigan 48315
Phone 586*726*1234 Fax 586*726*8780

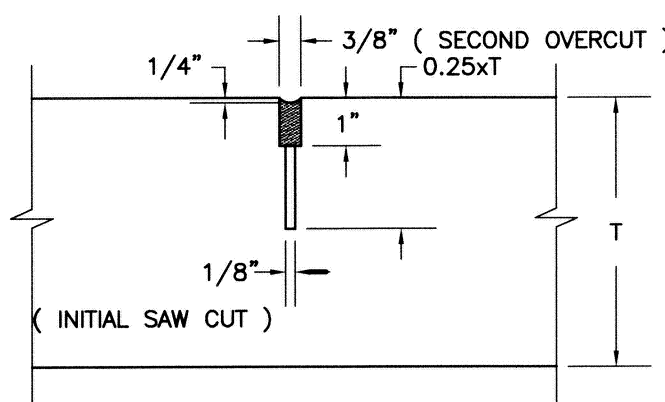
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DATE FEBRUARY, 2007
DRAWN BY D.M.S. CHECKED BY GFL



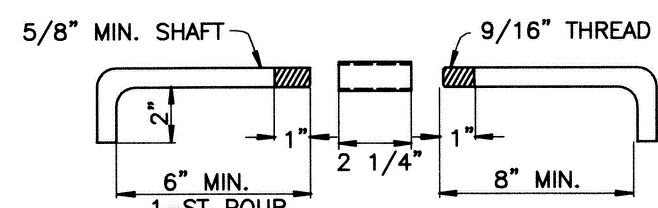


A CONSTRUCTION JOINTS

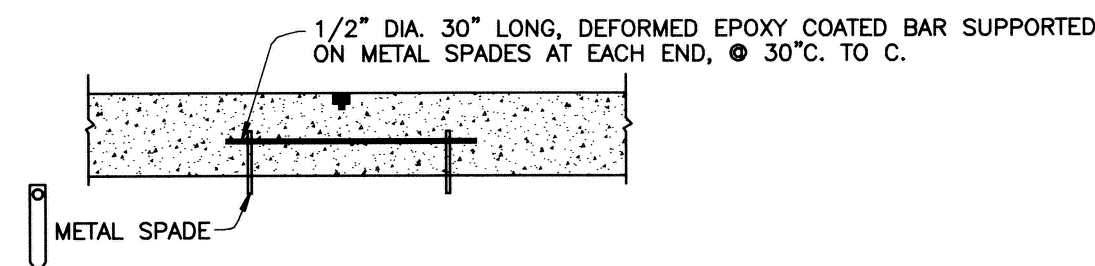
USE JOINT (A) OR (B) IF REPLACEMENT CONCRETE EXTENDS BEYOND EXPANSION ANCHOR HOOK BOLTS.



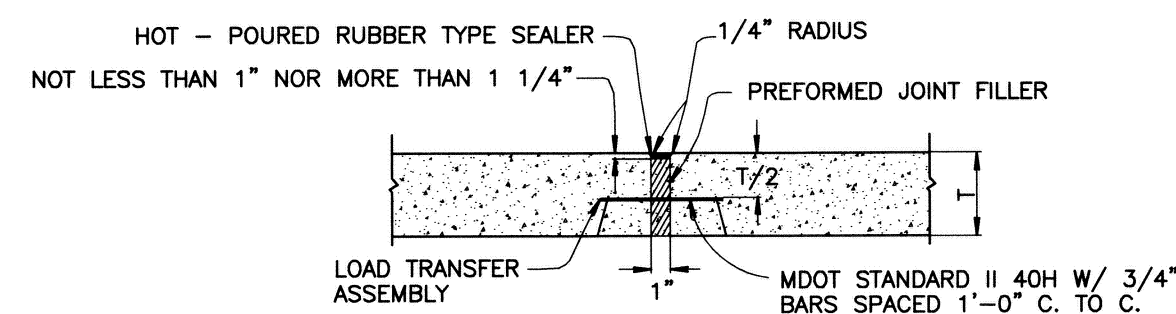
B TRANSVERSE / LONGITUDINAL PLANE OF WEAKNESS JOINT



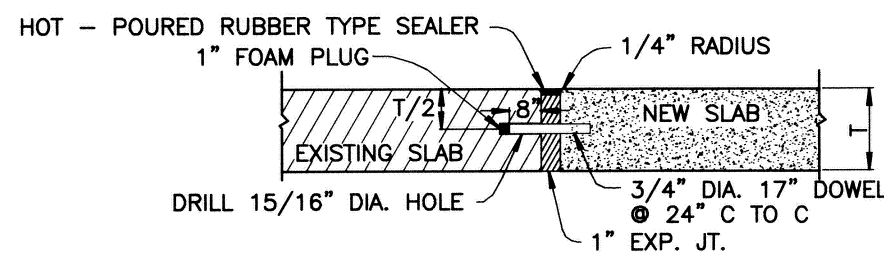
C HOOK BOLT DETAIL



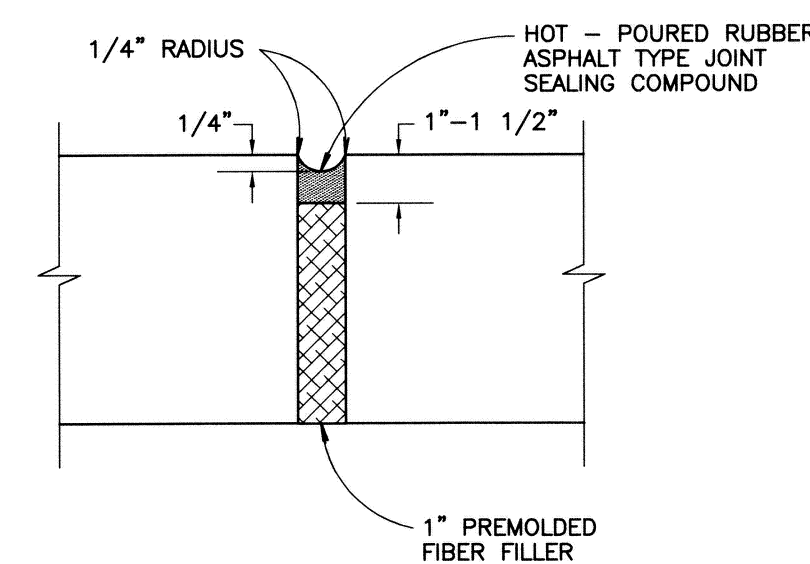
D TIEBAR DETAIL



E LOAD TRANSFER ASSEMBLY WITH PREFORMED EXPANSION JOINT FILLER



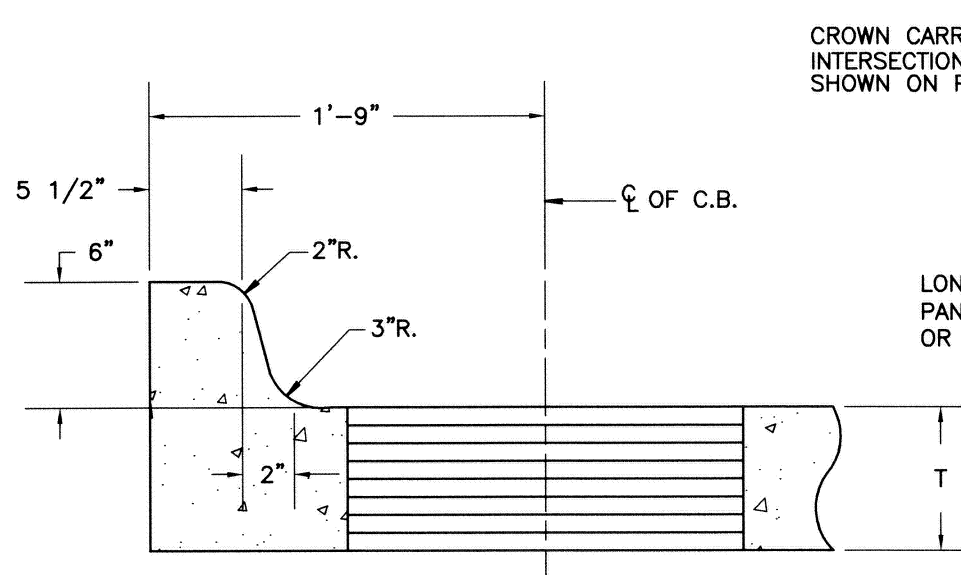
F EXPANSION JOINT WITH 3/4\"/>



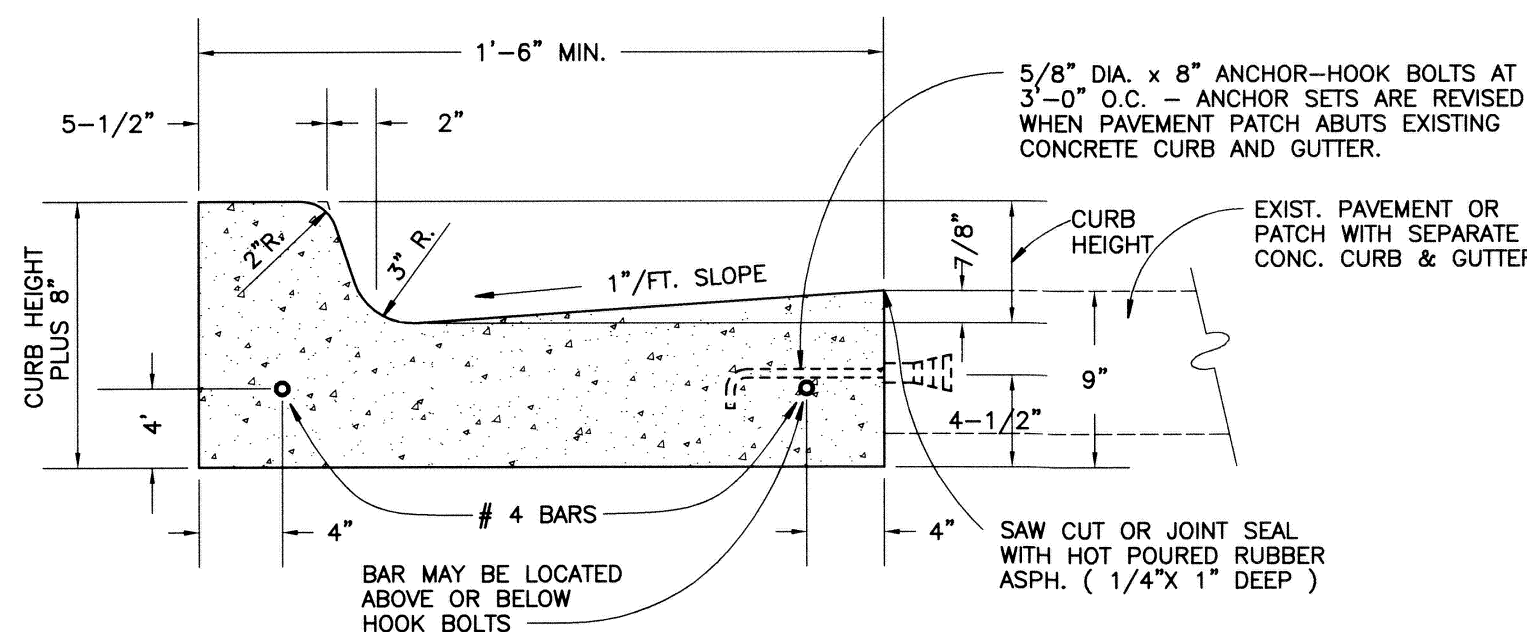
G EXPANSION JOINT

4 EXPANSION JOINT SPACING

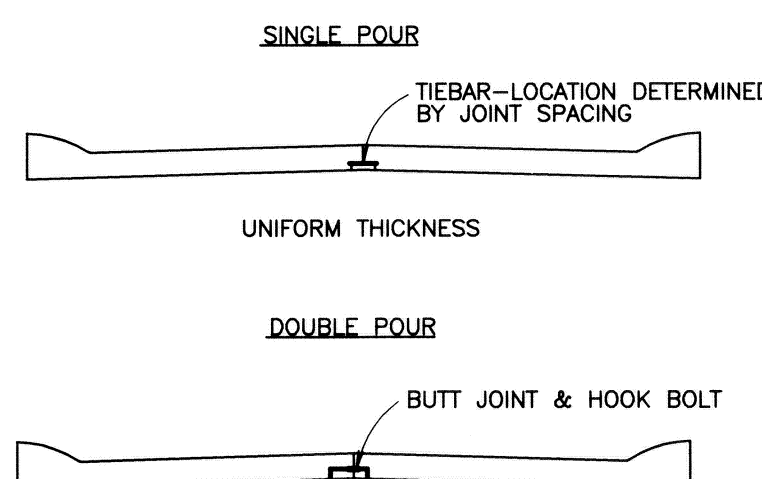
DAYTIME TEMPERATURES 50°F AND ABOVE:
AT ALL INTERSECTIONS; MAXIMUM SPACING 700 FEET; AS SHOWN ON PLANS.
DAYTIME TEMPERATURES BELOW 50°F:
AT ALL INTERSECTIONS; MAXIMUM SPACING 450 FEET; AS SHOWN ON PLANS.



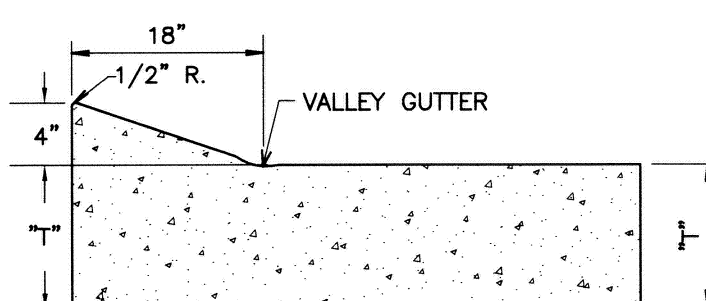
H 6\"/>



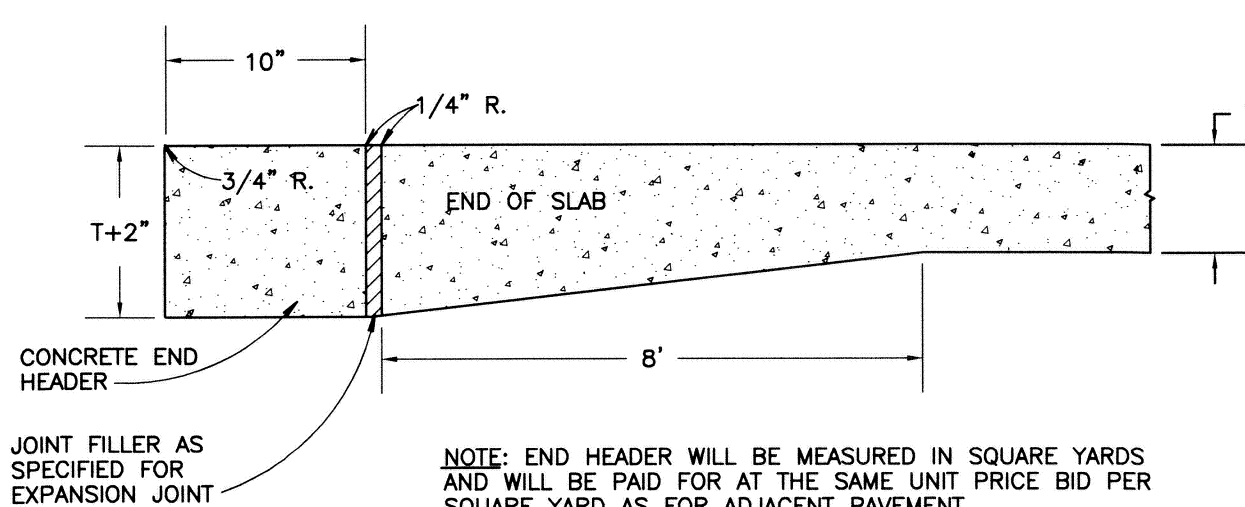
I TYPICAL CONCRETE CURB AND GUTTER DETAIL



J PAVEMENT SECTION



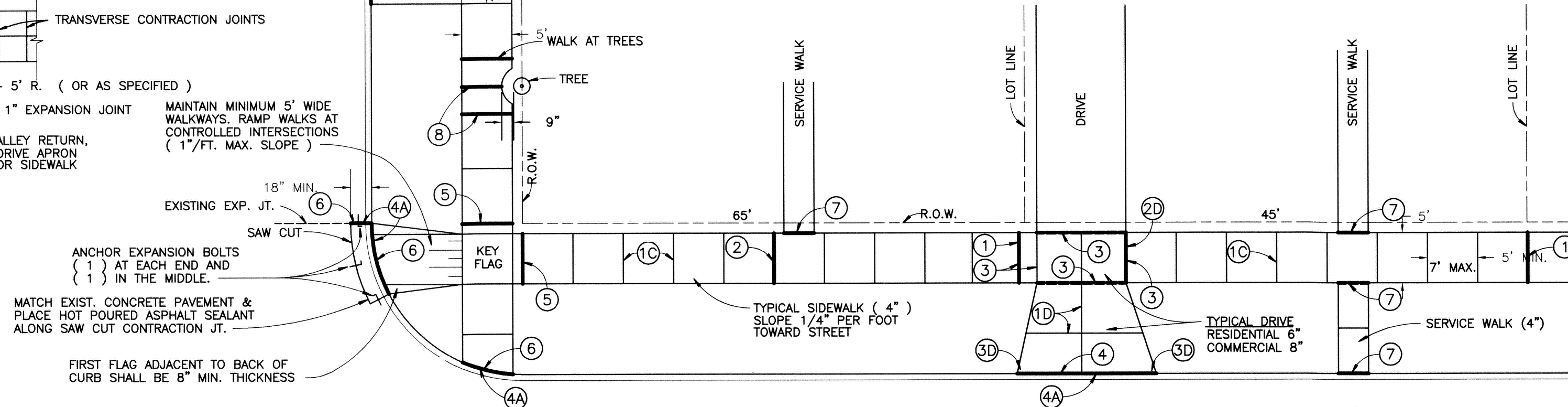
K 4\"/>



L END HEADER

5 JOINTING DETAIL

1. BUTT JOINT OR
2. PREFORMED STRIP
3. SAWED WEAKENED PLANE JOINT



* EXPANSION JOINTS

1. PLACE 1/2" FIBER EXP. JOINT FILLERS AT LOT LINES WHEN LOTS ARE 50' OR LESS.
2. ADDITIONAL 1/2" FIBER EXP. JOINT FILLERS FOR LOTS GREATER THAN 50', NOT TO EXCEED 50' INTERVALS.
3. PLACE 1/2" FIBER EXP. JOINT FILLERS EACH SIDE, IF EDGE OF DRIVE IS WITHIN 2' OF LOT LINES PLACE EXPANSION PAPER AT PROPERTY LINE.
4. PLACE 1" FIBER EXP. JOINT FILLERS AT CURB AND BUILDING OR R.O.W. LINE.
- 4A. AT CURB LINE, EXPANSION JOINTS SHALL BE SEALED WITH HOT RUBBERIZED SEALANT.
5. PLACE 1/2" FIBER EXP. JOINT FILLERS AT R.O.W. LINES OF CROSS - WALKS.
6. PLACE 1" FIBER EXP. JOINT FILLERS AT INTERSECTIONS OF CURB RADIUS AND IN LINE WITH EXISTING JOINTS.
7. PLACE 1/2" FIBER EXP. JOINT FILLER AT INTERSECTION OF SERVICE WALK & CURB ALSO AT SERVICE WALK & WALK.

8. PLACE 1/2" FIBER EXP. JOINT FILLERS AT EITHER SIDE OF SIDEWALK ABUTTING TREE AND AT CENTERLINE JOINT.

CONTRACTION JOINTS

10. PLACE CONTRACTION JOINTS AT INTERVALS NOT LESS THAN 5' OR GREATER THAN 7'. FULL WIDTH OF WALK. JOINT DEPTH SHALL BE 1/2 THICKNESS OF CONCRETE.
20. PLACE CONTRACTION JOINTS AT WALK LINES FOR FULL WIDTH SIDEWALK.

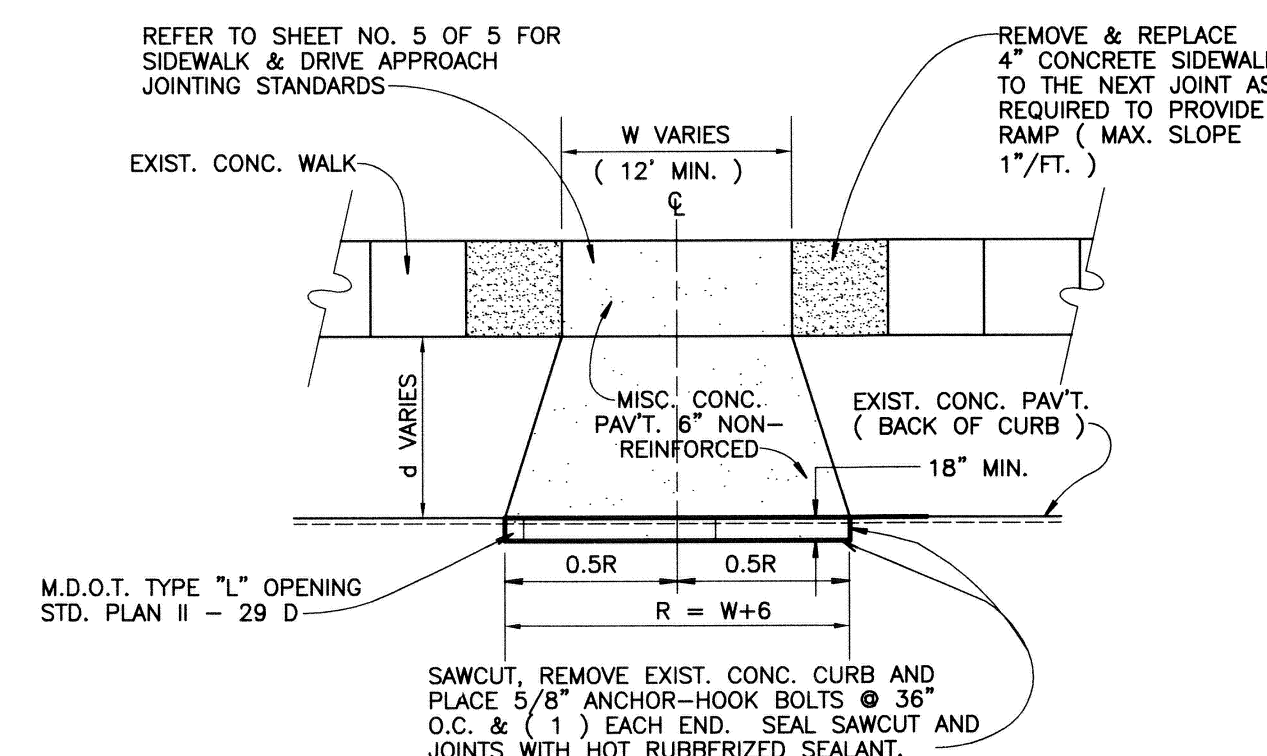
DRIVEWAYS

10. PLACE CONTRACTION JOINTS SO THAT NO SECTION OF THE CONCRETE DRIVEWAY EXCEEDS A DIMENSION OF 15'x15'.
20. PLACE 1" FIBER EXPANSION FILLER AT ALL SIDES OF A COMMERCIAL DRIVE.
30. WIDTH OF APPROACH AT STREET SHOULD BE MIN. 2' WIDER THAN WIDTH AT SIDEWALK, EACH SIDE.

* FIBER EXPANSION JOINT FILLERS SHALL BE FULL DEPTH

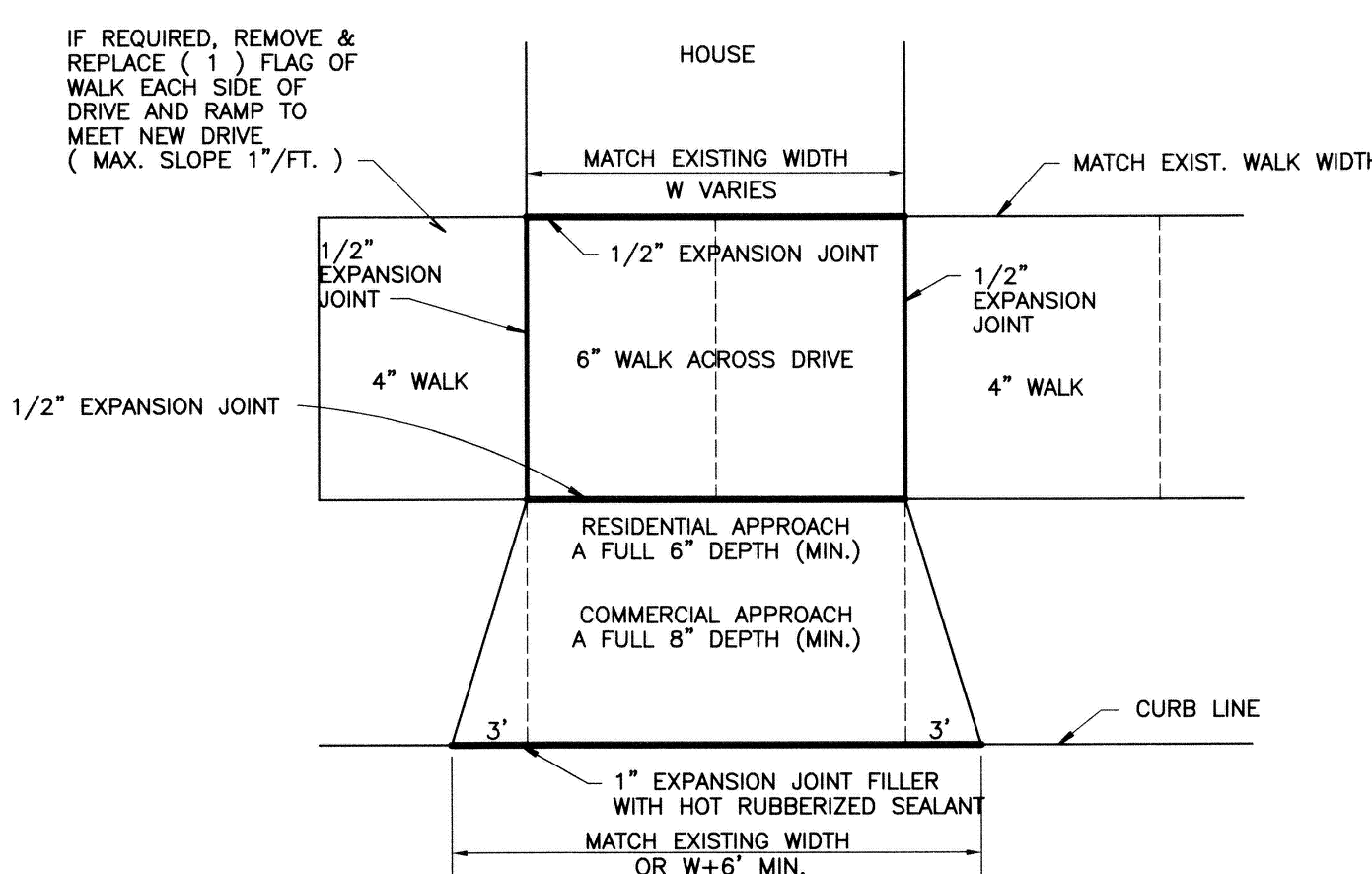
NOTES

1. CONCRETE WORK NOT CONSTRUCTED UNDER THE CITY'S CONTRACTOR, MUST BE DONE UNDER A PERMIT, SECURED THROUGH THE CITY'S ENGINEERING DEPARTMENT.
2. NO CONCRETE SHALL BE PLACED UNTIL A PRE-CHECK HAS BEEN REQUESTED BY THE CONTRACTOR OR HOME-OWNER AND APPROVED BY THE CITY'S ENGINEERING DEPARTMENT AT LEAST (8) HOURS IN ADVANCE. FINAL INSPECTION IS ALSO REQUIRED AT PLACEMENT OF CONCRETE.
3. ALL WORK SHALL CONFORM TO THE CITY'S STANDARDS & SPECIFICATIONS AVAILABLE THROUGH THE ENGINEERING DEPARTMENT.
4. HANDICAP RAMP SHALL MEET PAVEMENT GUTTER ELEVATION. NO LIP PERMITTED.



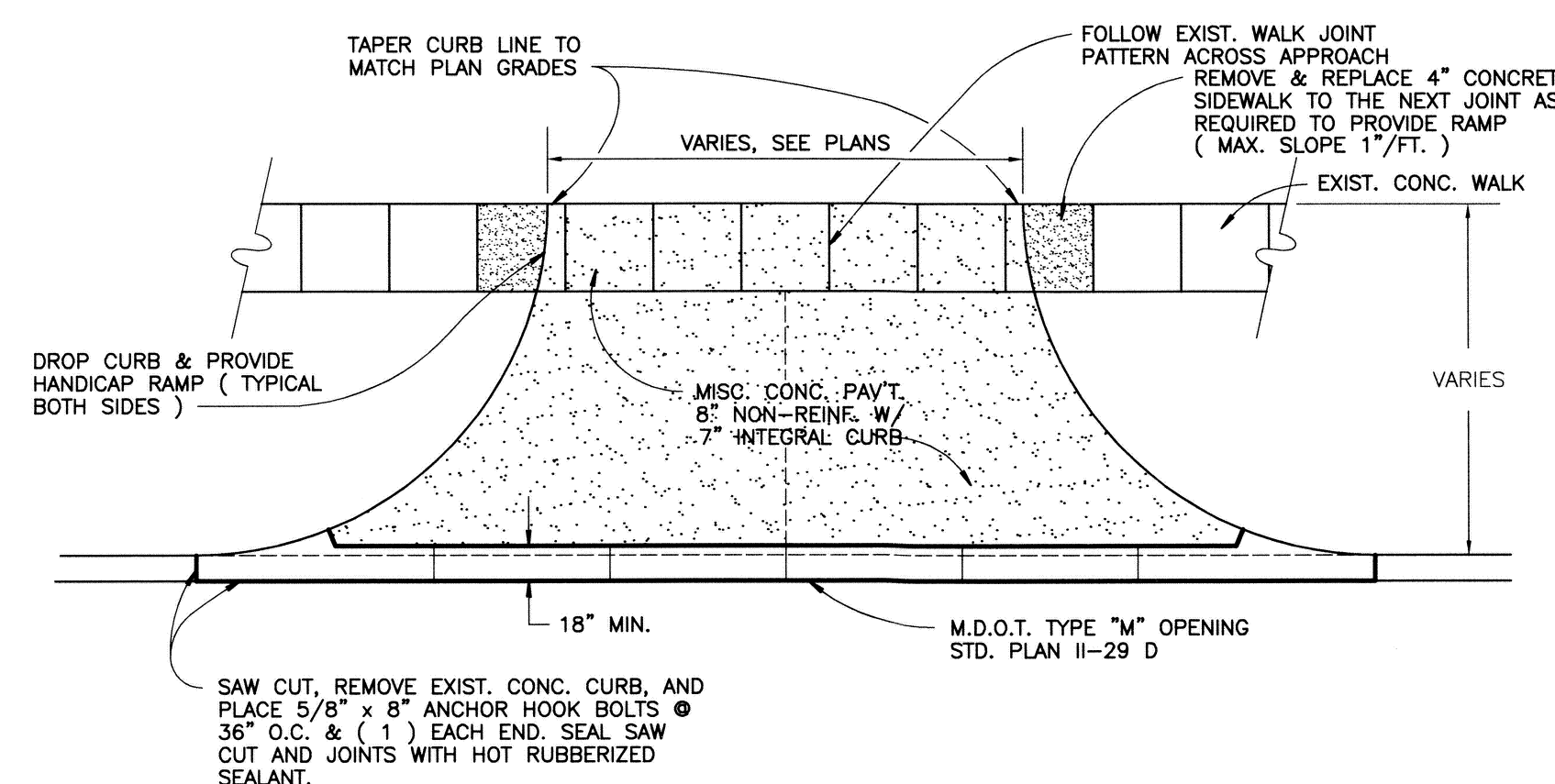
N NEW RESIDENTIAL DRIVEWAY LAYOUT FOR EXISTING PAVEMENT CONDITION

NOT TO SCALE



O REMOVAL AND REPLACEMENT OF EXISTING DRIVE APPROACH FOR EXISTING OR NEW PAVEMENT CONDITION

NOT TO SCALE



P NEW COMMERCIAL DRIVEWAY LAYOUT FOR EXISTING PAVEMENT CONDITION

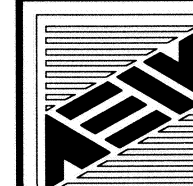
NOT TO SCALE

CITY OF GROSSE POINTE WOODS STANDARD PAVING DETAILS

DEPARTMENT OF PUBLIC WORKS

APPROVED BY: *Joseph J. Allen Jr.*
JOSEPH J. ALLEN JR., DPW DIRECTOR

DATE: 2/6/07



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Phone 586-726-1234 Fax 586-726-8780

PROJECT NO.
DATE: FEBRUARY, 2007
DRAWN BY: DMS
CHECKED BY: FDV

SHEET NO.
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