



City of Plymouth Planning Commission Regular Meeting Agenda Wednesday, February 8, 2023 – 7:00 p.m. City Hall & Online Zoom Webinar

City of Plymouth
201 S. Main
Plymouth, Michigan 48170
Fax 734-455-1892

www.plymouthmi.gov
Phone 734-453-1234

<https://us02web.zoom.us/j/88173224344>

Passcode: 043301

Webinar ID: 881 7322 4344

1. **CALL TO ORDER**
 - a) Roll Call
2. **CITIZENS COMMENTS**
3. **APPROVAL OF THE MINUTES**
 - a) Approval of the January 11, 2023, meeting minutes
4. **APPROVAL OF THE AGENDA**
5. **COMMISSION COMMENTS**
6. **PUBLIC HEARINGS**
7. **OLD BUSINESS**
 - a) SP 23-01: 980 W. Ann Arbor Road, Site Plan Review
8. **NEW BUSINESS**
 - a) SP 23-02: 587 W. Ann Arbor Trail, Site Plan Review
 - b) Discussion of form based codes test case
9. **REPORTS AND CORRESPONDENCE**
10. **ADJOURNMENT**

Citizen Comments - This section of the agenda allows up to 3 minutes to present information or raise issues regarding items not on the agenda. Upon arising to address the Commission, speakers should first identify themselves by clearly stating their name and address. Comments must be limited to the subject of the item.

Persons with disabilities needing assistance with this should contact the City Clerk's office at 734-453-1234 x 234 Monday through Friday from 8:00 a.m. -4:30 p.m., at least 24 hours prior to the meeting. An attempt will be made to make reasonable accommodations.

City of Plymouth Strategic Plan 2022-2026

GOAL AREA ONE – SUSTAINABLE INFRASTRUCTURE

OBJECTIVES

1. Identify and establish sustainable financial model(s) for major capital projects, Old Village business district, 35th District Court, recreation department, and public safety
2. Incorporate eco-friendly, sustainable practices into city assets, services, and policies; including more environmentally friendly surfaces, reduced impervious surfaces, expanded recycling and composting services, prioritizing native and pollinator-friendly plants, encouraging rain gardens, and growing a mature tree canopy
3. Partner with or become members of additional environmentally aware organizations
4. Increase technology infrastructure into city assets, services, and policies
5. Continue sustainable infrastructure improvement for utilities, facilities, and fleet
6. Address changing vehicular habits, including paid parking system /parking deck replacement plan, electric vehicle (EV) charging stations, and one-way street options

GOAL AREA TWO – STAFF DEVELOPMENT, TRAINING, AND SUCCESSION

OBJECTIVES

1. Create policies and programs that support staff recruitment/retention, including a coordinated recruitment program, flexible scheduling, and an internship program
2. Increase staff levels to appropriately support city services and departments
3. Provide staff/board/volunteer trainings and programming with a focus on improving understanding on issues of diversity, equity, and inclusion and emphasizing working with and serving diverse communities

GOAL AREA THREE – COMMUNITY CONNECTIVITY

OBJECTIVES

1. Engage in partnerships with public, private, and non-profit entities
2. Increase residential/business education programs for active citizen engagement
3. Robust diversity, equity, and inclusion programs
4. Actively participate with multi-governmental lobbies (Michigan Municipal League, Conference of Western Wayne, etc.)

GOAL AREA FOUR – ATTRACTIVE, LIVABLE COMMUNITY

OBJECTIVES

1. Create vibrant commercial districts by seeking appropriate mixed-use development, marketing transitional properties, and implementing Redevelopment Ready Communities (RRC) practices
2. Improve existing and pursue additional recreational and public green space opportunities and facilities for all ages
3. Develop multi-modal transportation plan which prioritizes pedestrian and biker safety
4. Improve link between Hines Park, Old Village, Downtown Plymouth, Plymouth Township, and other regional destinations
5. Maintain safe, well-lit neighborhoods with diverse housing stock that maximizes resident livability and satisfaction
6. Modernize and update zoning ordinance to reflect community vision
7. Implement Kellogg Park master plan



Plymouth Planning Commission
Regular Meeting Minutes
Wednesday, January 11, 2023 - 7:00 p.m.
Plymouth City Hall 201 S. Main

City of Plymouth
201 S. Main
Plymouth, Michigan 48170-1637

www.plymouthmi.gov
Phone 734-453-1234
Fax 734-455-1892

1. CALL TO ORDER

Chair Karen Sisolak called the meeting to order at 7:00 p.m.

Present: Chair Sisolak, Vice Chair Silvers, Commissioners Shannon Adams, Joe Hawthorne, Tim Joy, Jennifer Mariucci, Kyle Medaugh, Hollie Saraswat, Eric Stalter

Also present: City Commissioner Kelly O'Donnell, Community Development Director Greta Bolhuis, and Planning Consultant Sally Elmiger

2. CITIZENS COMMENTS

There were no citizen comments

3. APPROVAL OF MEETING MINUTES

Joy offered a motion, seconded by Hawthorne, to approve the minutes for the December 14, 2022, meeting.

There was a voice vote.
MOTION PASSED

4. APPROVAL OF THE AGENDA

Medaugh offered a motion, seconded by Joy, to approve the agenda for January 11, 2023.

There was a voice vote.
MOTION PASSED

5. ELECTION OF OFFICERS

Bolhuis asked for nominations for the position of Chair of the Planning Commission for calendar year 2023. Hawthorne nominated Sisolak. Silvers seconded the nomination.

There was a voice vote.
MOTION PASSED

Sisolak asked for nominations for the position of Vice Chair of the Planning Commission for calendar year 2023. Saraswat nominated Silvers. Adams seconded the nomination.

There was a voice vote.
MOTION PASSED

6. COMMISSION COMMENTS

There were no Commission comments.

7. PUBLIC HEARINGS

There were no public hearings.

8. OLD BUSINESS

There was no old business.

9. NEW BUSINESS

a. SP 23-01: 980 W. Ann Arbor Rd., Site Plan Review

Sisolak explained that Iden Kalabet, the applicant's representative, was there informally for a preliminary discussion because he intends to update the drawings based on a Carlisle Wortman review. There was significant discussion regarding the placement and separation of the driveway cuts. A straw poll indicated that a majority of Commissioners support keeping two curb cuts on Harvey and eliminating the southernmost cut.

Silvers offered a motion, seconded by Adams, to table SP 23-01: 980 W. Ann Arbor Rd., until the applicant is ready to present to the Planning Commission.

There was a voice vote.

MOTION PASSED

b. 2022 Annual Report

Bolhuis reviewed the Planning Commission Annual Report, which includes goals, a master plan review, a master plan implementation matrix, zoning ordinance amendments, development reviews, variance requests, action by city commission, a zoning map, and trainings and joint meetings. There was a suggestion to add the technology training to the list.

Mariucci offered a motion, seconded by Hawthorne, to present the report to the City Commission with the noted addition of the technology training.

There was a voice vote.

MOTION PASSED

c. Discussion on February 1 Working Session

The group was reminded that there would be a working session on February 1 from 6-8 p.m. to review the zoning audit and prioritize its elements.

9. REPORTS AND CORRESPONDENCE

O'Donnell said the City Commission approved the first reading of the impervious surface ordinance as submitted. She added the City Commission's Strategic Planning session would be on February 11 from 8 a.m. to noon at the Plymouth Cultural Center.

10. ADJOURNMENT

Joy offered a motion, seconded by Medaugh, to adjourn the meeting at 8:25 p.m.

There was a voice vote.

MOTION PASSED



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Tuesday, January 31, 2023

Greta Bolhuis, AICP
Director,
Planning and Community Development,
201 S. Main
Plymouth, MI 48170
Address Line 2.

RE: : 980 West Ann Arbor Trail – Site Plan Approval Review for Soothing Dental PLLC

Dear Ms. Bolhuis,

Please find below our responses (in **bold**) to the comments received from the Plan Review Letters provided by Carlisle Wortman and Wade Trim dated January 5th and 3rd respectively.

CARLISLE WORTMAN

Area, width, height, setbacks (bulk requirements)

1. Existing Building: Site Data Table (Sheet C3.0) and label on plans are inconsistent. Site Data Table shows existing building is 3,328 s.f.; label on plans shows existing building is 3,238 s.f.
Site data table and labels on plans have been made consistent.
2. Proposed Building Addition (Phase I). Site Data Table (Sheet C3.0) and label on plans are inconsistent. Site Data Table shows proposed addition is 1,343 s.f.; label on plans shows proposed addition is 1,294 s.f.
Site data table and labels on plans have been made consistent.
3. Side Setback. Site Data Table (Sheets C3.0 and Sheet C3.1) and scaled dimensions on plans are inconsistent. Site Data table shows proposed addition located at 78-feet from east property line; but plans scale at 101-feet. Site Data table shows proposed new building located at 75.916-feet from east property line; but plans scale at 85-feet.
Site data table and labels on plans have been made consistent.
4. Side Setback. Site Data Table (Sheets C3.0 and Sheet C3.1) and scaled dimensions on plans are inconsistent. Site Data table shows proposed addition located at 78-feet from east property line; but plans scale at 101-feet. Site Data table shows proposed new building located at 75.916-feet from east property line; but plans scale at 85-feet.
Phase 1 building addition has been considered as part of the existing building. Therefore, there is no change in any of the setbacks. Setback dimensions have been labeled on the plans. Site data table has been updated and setback dimensions have been added for phase 2.



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5. Rear Setback. Sec. 78-162(5) requires a side or rear yard adjacent to a residential district be at least 75-feet wide. The rear setback of the proposed building (Phase II) needs to be increased to 75-feet
Phase 2 part of the development has been removed from the plan set and will be submitted in the future if the owner plans to proceed.
6. Provide architectural building information for new building (Phase II) to enable confirmation of all bulk requirements.
Phase 2 part of the development has been removed from the plan set and will be submitted and will be submitted in the future if the owner plans to proceed.

Parking and loading

1. The applicant should indicate if they receive delivery of materials. If so, the type and size of delivery truck typically visiting the dental office should be provided. Also, Sec. 78-163 requires one loading/unloading space, indicated on the site plan, for Phase I and Phase II of the project. This space (10' x 50') should be shown on the plans. Revise site plans to show location of one 10' x 50' loading/unloading space.
Loading area have been shown on the site plan. A vehicle turning movement for a SU-30 truck has been added to the plans. Phase 2 has been removed from the plan set.

Site access and circulation

1. Planning Commission to consider alternatives to driveway spacing from intersection/neighborhood driveway.
We respectfully request the planning commission consider the alternates to driveway spacing as proposed. Southern most driveway on Harvey Street is proposed to be removed as part of the improvements. All remaining driveways are existing, and the existing non-conformities have been significantly reduced.
2. Planning Commission to consider requiring elimination of most southerly drive on Harvey St. as part of Phase I of the project to improve compliance with ordinance requirements.
Southern most driveway on Harvey Street has been removed as part of proposed improvements.
3. Illustrate how a delivery truck will traverse the site, where it will park, and what type of truck will be used for regular deliveries.
A vehicle turning movement for a SU-30 truck has been added to the plans.

Utilities



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1. Sheet C3.0 shows that existing catch basins will be used to capture stormwater runoff from the new building addition (Phase I). For Phase II, Sheet C3.1 shows a storm line discharging stormwater directly to Tonquish Creek. We assume some type of pre-treatment will be required per the Wayne County Stormwater Standards. We defer evaluation of the proposed utilities to the City Engineer.

The City Engineer's comments with regards to stormwater management are addressed below.

2. The plans don't currently show the location of utility equipment, such as an air conditioning condenser or HVAC equipment. This should be added to the plans, along with the necessary screening.

All existing utility equipment is on the roof of the existing building.

Landscaping and screening

1. Provide landscape plan illustrating compliance with Sec. 78-165, 78-166, 78-167, 78-168, and 78-171.
A landscape plan has been added to the plan set.

Floor plan and elevations

1. Planning Commission to determine if the proposal meets the standards of the ARC District.
No Revision Needed.

WADE TRIM

General site plan comments

1. The site plan proposes a two-phase approach for the redevelopment of the site. It is unclear of the timeline for each phase. It would be helpful for the developer to provide an overall timeline for the proposed project.
Phase 2 part of the development has been removed from the plan set and will be submitted and will be submitted in the future if the owner plans to proceed.

Sanitary sewer system comments

1. The site plan does not currently show any public sanitary sewer or the sanitary sewer lead that serves the existing building.
Existing sewer lead has been shown on the plans. A note has been added stating the contractor to verify size and condition and provide a recording of the televising of the existing line to DMS.
2. We believe that the public sanitary sewer that serves this property is a 24-inch sanitary sewer on the north side of Byron Street, north of the subject property. The City does not have any public sanitary sewer on Harvey between Ann Arbor Road and Byron. The topographic survey should be expanded to include the Byron Street right of way. The site plan should be updated to show the location of the City's public sanitary sewer and the existing sanitary sewer lead that serves the existing building.
Existing sewer lead has been shown on the plans. A note has been added stating the contractor to

verify size and condition and provide a recording of the televising of the existing line to DMS. Existing Sanitary sewer main on the North side of Byron street has been shown due to viewport constraints. Since no work is proposed to the existing lead or sewer main currently, the existing main is not critical information to the revised plans (eliminating Phase 2).

3. We believe that the existing sanitary sewer lead extends from the existing building to the north under the South Branch of Tonquish Creek (commonly called the Byron Drain). Since the sewer lead has not been in use for some time, we recommend that the developer televise, and video record the condition of the sanitary sewer lead. A copy of the video inspection of the sanitary sewer lead should be shared with the City's Department of Municipal Services (DMS). Following review of the video inspection, the existing sanitary sewer lead will be required to be brought into compliance with the City's plumbing code, which at a minimum would include adding cleanouts for access. The video inspection may also identify any offset joints, infiltration location or blockages, which would then need to be corrected prior to putting it back in use.

A note has been added to the utility plan stating "The developer to televise and video record the condition of the sanitary sewer lead. A copy of the video inspection of the sanitary sewer lead should be shared with the City's Department of Municipal Services (DMS). Following review of the video inspection, the existing sanitary sewer lead will be required to be brought into compliance with the City's plumbing code, which at a minimum would include adding cleanouts for access. The video inspection may also identify any offset joints, infiltration location or blockages, which would then need to be corrected prior to putting it back in use. The results of the sewer televising and proposed corrections/improvements shall be included in the permit plans.

4. For Phase 2, the site plan does not currently show a proposed sanitary sewer lead for the 5,000 square foot new building. Once the topographic survey has been updated, the site plan should be updated to show the proposed location of the new sanitary sewer lead and how it will connect to the City's public sanitary sewer.

Phase 2 part of the development has been removed from the plan set and will be submitted in the future if the owner plans to proceed.

Water system comments

1. The City currently has a 12-inch water main along the north side of Ann Arbor Road and an 8-inch water main along Harvey.
No Revision Needed.
2. The site plan indicates that the existing building is served by a water service connecting to the 12-inch water main on Ann Arbor Road. The developer should contact the City DMS to verify the size of the existing service and add the size to the site plan.
Size of the water service has been shown on the plans as 2".
3. For Phase 2, the site plan proposes a new 1-inch water service off the City's 8-inch water main on Harvey to serve the new 5,000 square foot building. The site plan should show the proposed roadway



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repairs on Harvey Street that are required to install the new water service.

Phase 2 part of the development has been removed from the plan set and will be submitted and will be submitted in the future if the owner plans to proceed.

4. For fire coverage of commercial buildings, typically all portions of buildings should be within 250 feet of drivable pathway from a fire hydrant so that hose can be pulled to provide coverage. There is an existing hydrant on Harvey adjacent to the existing building. We would recommend that an additional hydrant be installed on Ann Arbor Road near the driveway entrance to provide coverage to the east side of the building.

Plans have been revised to show a fire hydrant near the driveway to Ann Arbor Road.

Storm water management system comments

5. The existing site does not include a storm water management (detention) system. The eastern portion of the site and lot drains north to the South Branch of the Tonquish Creek. It also appears that portions of the eastern parking area and western portion of the site flows to a low point on the north side of the northern drive entrance. We witnessed standing water in this location after the rain on January 2nd/3rd of this year.

The existing site does not provide the required detention storage. Phase 1 improvements have reduced the detention requirement and the total Stormwater load generated by the property (volume & rate). Therefore, no detention storage has been provided other than the parking lot ponding. Asphalt curb on the North has been removed allowing stormwater sheet flow over to Tonquish Creek.

6. The site plan proposes one small sump pump connection from the 2nd building to the South Branch of the Tonquish Creek.

Phase 2 part of the development has been removed from the plan set and will be submitted and will be submitted in the future if the owner plans to proceed.

7. The site plan does not currently propose a storm water detention.

The existing site does not provide the required detention storage. It provides storage by 6" of ponding in the parking lot. Phase 1 improvements have reduced the detention requirement. Therefore, no detention storage has been provided other than the parking lot ponding.

8. The site plan should be updated to include a storm water detention and management plan that meets the City's storm water ordinance.

Stormwater management plan has been included in the plan set which provides stormwater quality treatment.

9. The South Branch of the Tonquish Creek is under the jurisdiction of the Wayne County Department of Public Services (WCDPS). A permit will be required from WCDPS for any future discharge of storm water to the Byron Drain and for work within the Drain right-of-way.

Stormwater management plan has been included in the plan set. No additional discharge has been



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proposed to the Tonquish Creek. A Mechanical Pre-treatment structure is proposed to improve water quality.

10. All work within the Ann Arbor Road right of way will require a permit from the Michigan Department of Transportation. Currently, the developer is not proposing to change the access driveway to/from Ann Arbor Road.

No Revision Needed.

Please review the attached revised plans and this response letter and let us know if there are any additional comments or concerns.

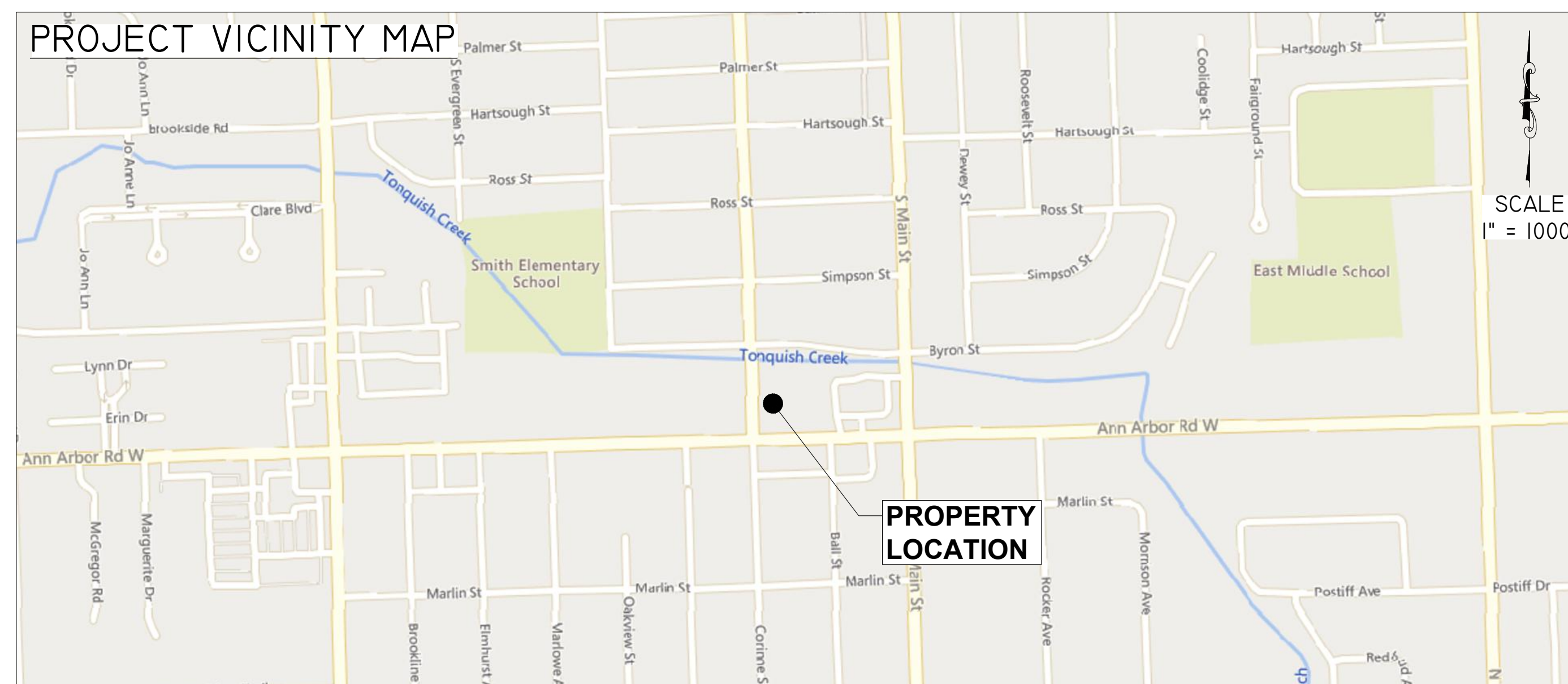
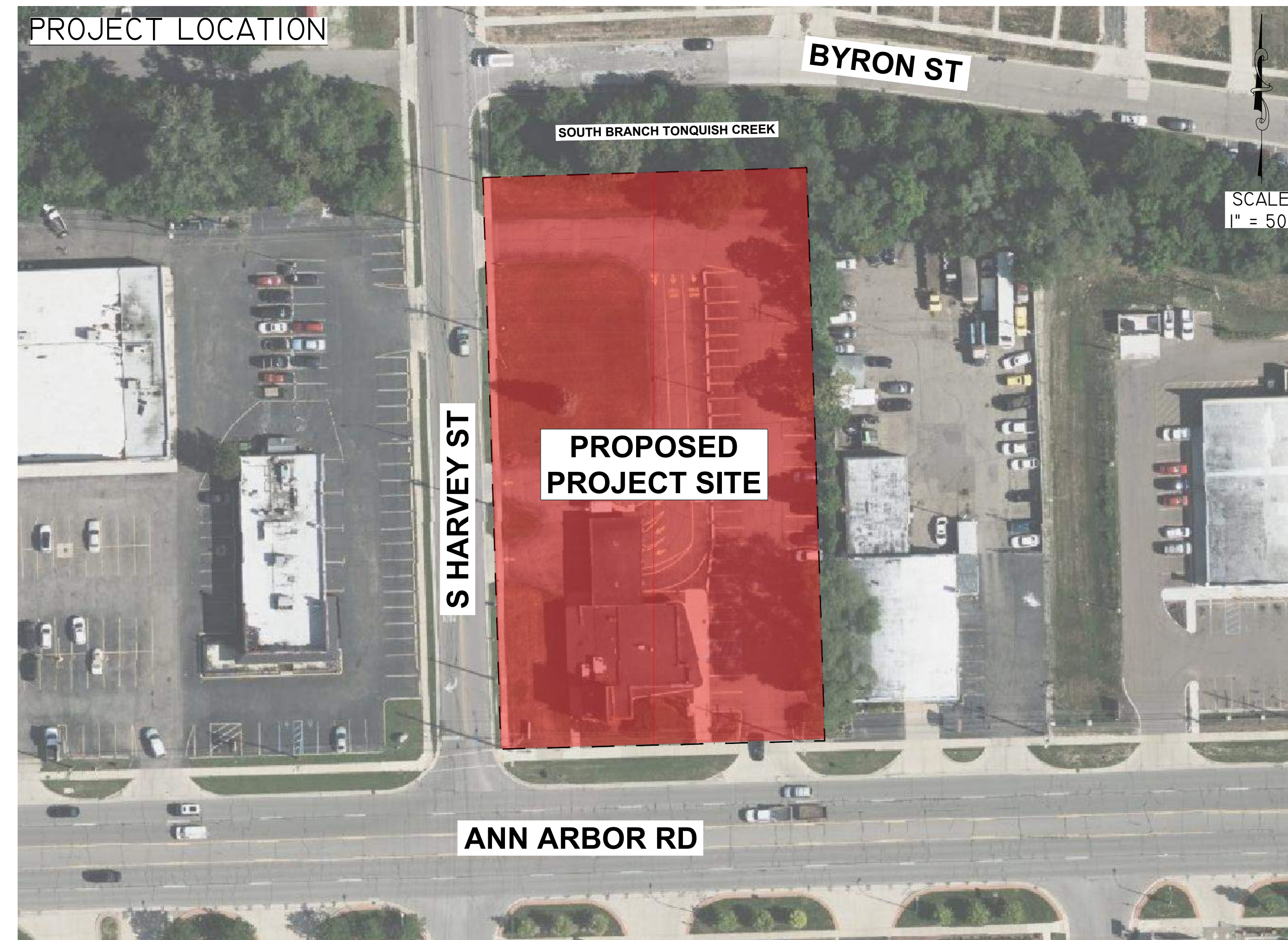
Sincerely,

Iden T. Kalabat

**Iden Kalabat P.E.
KALABAT Engineering**

DENTAL OFFICE INTERIOR BUILDOUT AND ADDITION SITE PLAN APPROVAL

PREPARED FOR
SOOTHING DENTAL PLLC



OWNER

SOOTHING DENTAL PLLC
496 W ANN ARBOR TRAIL SUITE 201
PLYMOUTH, MI 48170

ENGINEER

KALABAT ENGINEERING
31333 SOUTHFIELD RD. SUITE 250
BEVERLY HILLS, MI 48025
IDEN@KALABAT.COM
248-600-8707

ARCHITECT

MOISEEV/GORDON ASSOCIATES, INC.
4351 DELEMERE COURT
ROYAL OAK, MI 48073
INFO@MQA.ARCHITECTS.NET
248-549-4500

LEGAL DESCRIPTION

LAND SITUATED IN THE STATE OF MICHIGAN, COUNTY OF WAYNE, CITY OF PLYMOUTH, LOT 115, AND LOT 134 EXCEPT THE SOUTH 20 FEET OF LOT 134, RE-SUBDIVISION OF LOTS 3 TO 7, 14 TO 22, 24 TO 33, 40, 48 TO 52, 54 TO 55, 57 TO 66 AND PART OF LOTS 23, 47 AND 56, ALL INCLUSIVE, OF PLAT OF SUNSHINE ACRES SUBDIVISION OF PART OF NORTHEAST ¼ OF SECTION 34, TOWN 1 SOUTH, RANGE 1 EAST, PLYMOUTH TOWNSHIP, WAYNE COUNTY, MICHIGAN ACCORDING TO THE PLAT THEREOF RECORDED IN LIBER 51, PAGE 44 OF PLATS, WAYNE COUNTY RECORDS.

BUILDING USE AND FLOOR AREA

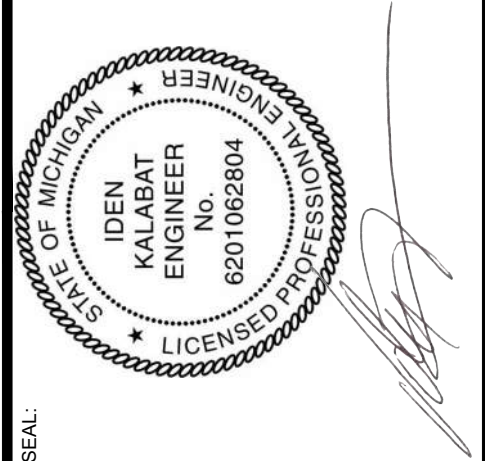
BUILDING USE - DENTAL OFFICE
EXISTING FLOOR AREA - 3,238 SF
PROPOSED FLOOR AREA - 1,343SF

SHEET INDEX	
SHEET NO.	SHEET TITLE
C0.0	TITLESHEET
I	TOPOGRAPHIC & BOUNDARY SURVEY PLAN
C2.0	SESC & DEMOLITION PLAN
I OF I	SOIL EROSION & SEDIMENTATION CONTROL DETAILS
C3.0	SITE PLAN
C4.0	GRADING PLAN
C5.0	STORMWATER MANAGEMENT & UTILITY PLAN
C6.0	PHOTOMETRIC PLAN
L1.0	LANDSCAPE PLAN
A-1	PROPOSED FLOOR PLAN
A-2	PROPOSED ELEVATIONS
A-3	PROPOSED ELEVATIONS

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KALABATENGINEERING
KE

CIVIL ENGINEERING & SITE DEVELOPMENT
31333 Southfield Road Suite 250
Beverly Hills, MI 48025
Ph 248.600.8707
F 248.594.5919
iden@kalabat.com



NO.	REVISION	DATE	NO.	REVISION	DATE
1	SITE PLAN APPROVAL	12/22/22	10		
2	SITE PLAN REVISION	01/27/23	11		
3			12		
4			13		
5			14		
6			15		
7			16		
8			17		
9			18		

CLIENT:
SOOTHING DENTAL PLLC
496 W ANN ARBOR TRAIL SUITE 201
PLYMOUTH, MI 48170

PROJECT:
DENTAL OFFICE INTERIOR BUILDOUT AND ADDITION
980 ANN ARBOR RD
PLYMOUTH, MI 48170

SHEET TITLE:
TITLESHEET

SHEET NUMBER:
C0.0

REVISIONS

CLIENT: KALABAT ENGINEERING / JSK DESIGN GROUP
 3155 SOUTHFIELD RD, SUITE 250
 BEVERLY HILLS, MICHIGAN 48025

ALTA | NSPS LAND TITLE SURVEY
 980 ANN ARBOR ROAD

These documents are instruments of service in respect of the Project and any reuse without written permission of the Surveyor (DGS) for the specific purposes intended will be at Users sole risk and without liability or legal exposure to DGS and User shall indemnify and hold DGS harmless from and against all claims, damages, costs and expenses (including attorneys' fees arising out of or resulting therefrom). Any such verification or representation of title to be agreed upon by User and DGS.

SECTION 34
 TOWN 1 SOUTH, RANGE 8 EAST
 CITY OF PLYMOUTH
 WAYNE COUNTY, MICHIGAN

DATE: 9-12-22
 Drawn By: XX
 P.E.: MD

1" = 20'
 Job No.: 220907
 Sheet No.: 1



LEGAL DESCRIPTION:
 Land Situated in the State of Michigan, County of Wayne, City of Plymouth.
 Lot 115, and Lot 134 except the South 20 feet of Lot 134, Re-Subdivision of Lots 3 to 7, 14 to 22, 24 to 33, 40, 48 to 52, 54 to 55, 57 to 66 and part of Lots 23, 47 and 56, all inclusive, of Plat of Sunshine Acres Subdivision of part of Northeast ¼ of Section 34, Town 1 South, Range 1 East, Plymouth Township, Wayne County, Michigan according to the Plat thereof recorded in Liber 51, Page 44 of Plats, Wayne County Records.

NOTES:
 BASIS OF BEARING: SET TO AS RECORDED IN THE RE-SUBDIVISION OF SUNSHINE ACRES SUBDIVISION.
 (M) FIELD MEASURED BEARINGS AND DISTANCES NECESSARY TO FORCE CLOSURE
 (R) RECORDED BEARINGS AND DISTANCES PER SUBDIVISION PLAT.

EXISTING ZONING:
 ARC ANN ARBOR ROAD CORRIDOR DISTRICT
 MINIMUM LOT AREA = NONE
 MINIMUM LOT WIDTH = NONE
 MAXIMUM BUILDING HEIGHT = 30 FT.
 MINIMUM FLOOR AREA = 800-SQ.FT.
 MAXIMUM LOT COVERAGE = NONE
 BUILDING SETBACKS:
 FRONT YARD = 10'(1)
 SIDE YARD = 10'(3)
 REAR YARD = 20'

(1) When parking is furnished between the building and the street, a front yard of not less than (75) feet shall be provided.

(3) Side yards are not required along an interior side parcel line, where all walls of buildings abutting such interior side parcel line are wholly without windows or other openings and are of fireproof construction, but if the side wall is not of fireproof construction, a side yard of not less than ten (10) feet shall be provided. When an interior business parcel abuts a residential parcel, a side yard of not less than twenty (20) feet shall be required in addition to the required screening and land use buffer. The planning commission may require additional setbacks based on its review. The planning commission shall review the aesthetic impact of such walls and may require visual enhancement.

TABLE 'A'
 10.(a) NO DIVISION OR PARTY WALLS WITH RESPECT TO ADJOINING PROPERTIES WERE OBSERVED DURING THIS SURVEY.

15. PHOTOGRAPHIC MAPPING WAS USED TO ESTABLISH FEATURES SHOWN ON ADJOINING PROPERTIES (I.E. BUILDINGS, PARKING AREAS, DRIVEWAYS)

16. NO EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WERE OBSERVED AT THE TIME OF THIS SURVEY.

18. NO WETLAND DELINEATION OR VISIBLE WETLANDS WERE OBSERVED AT THE TIME OF THIS SURVEY.

19. NO PLOTTABLE OFFSITE EASEMENTS ARE LISTED IN THE TITLE COMMITMENT.

ENCROACHMENTS - NONE

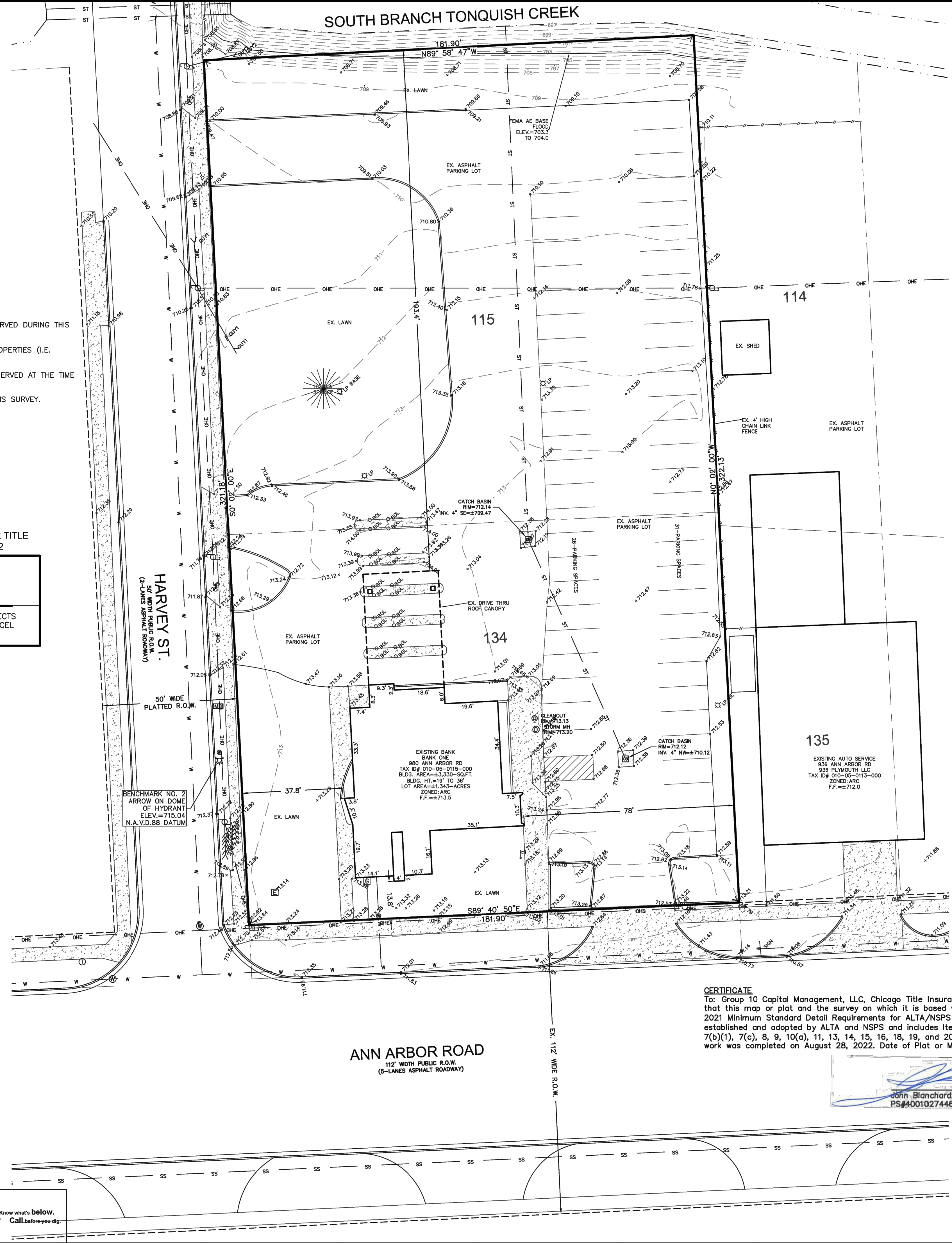
SURVEYOR'S NOTES

PERTAINING TO CHICAGO TITLE INSURANCE COMPANY, COMMITMENT FOR TITLE INSURANCE FILE NO. CCH12204773NT EFFECTIVE DATE: JUNE 10, 2022

REFERENCE NUMBER	DESCRIPTION RECORDING REFERENCE	STATUS ON PLAT	AFFECTS PARCEL
3	Covenants, conditions, restrictions Liber 2549, Page 313.	NOT PLOTTED	AFFECTS PARCEL

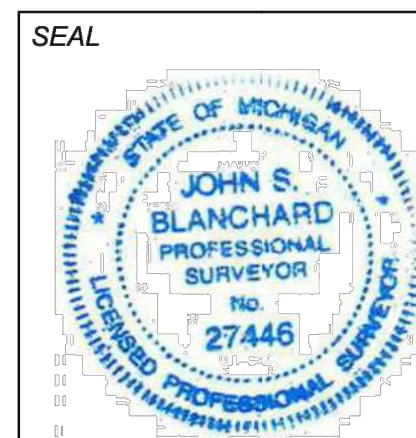
FLOODPLAIN NOTE:
 ACCORDING TO THE NATIONAL FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 26163C0201E DATED FEB. 2, 2012 THE SUBJECT PARCEL IS LOCATED IN ZONES "AE" BASE FLOOD DETERMINED TO BE 703.3 TO 704.0, "X" WHICH IS DEFINED AS AREAS OF 0.2% ANNUAL FLOOD; AREAS OF 1% ANNUAL FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD; AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

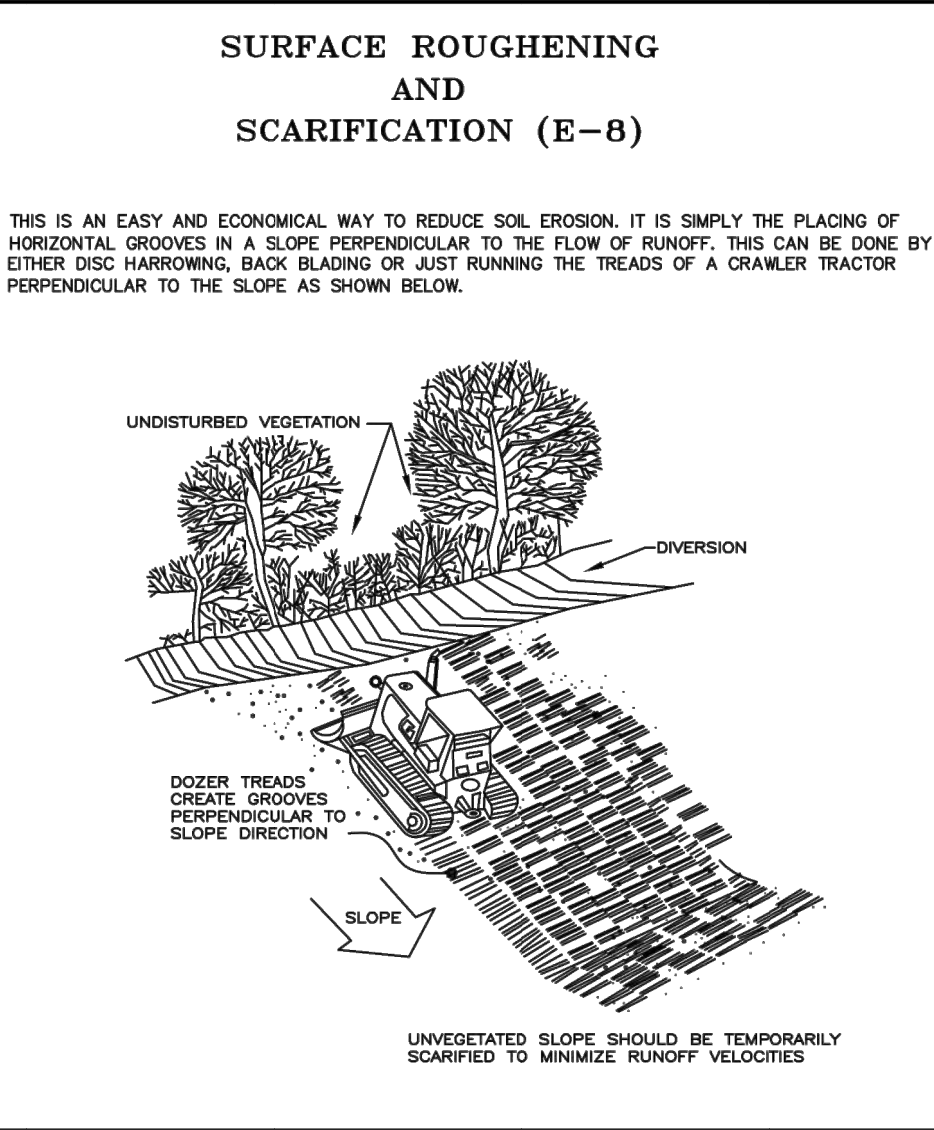
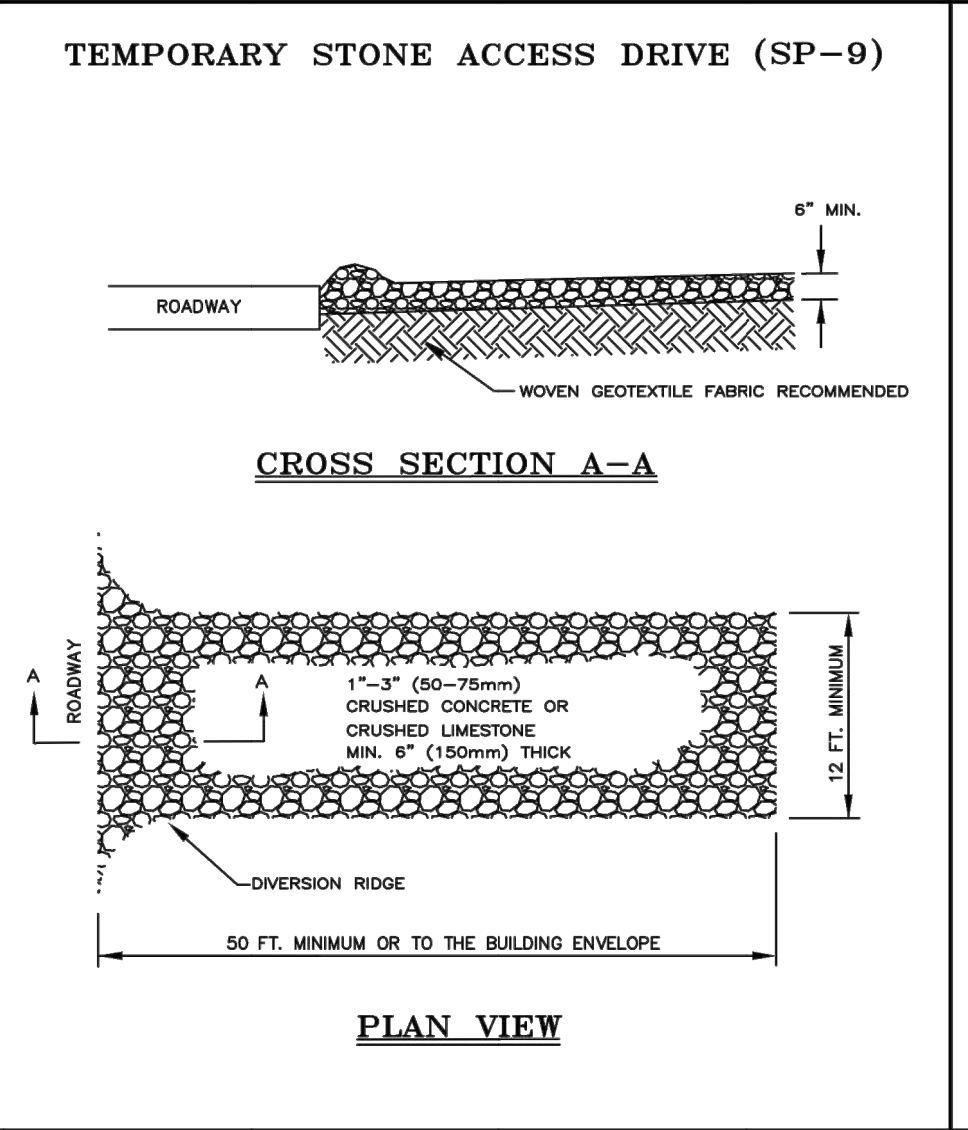
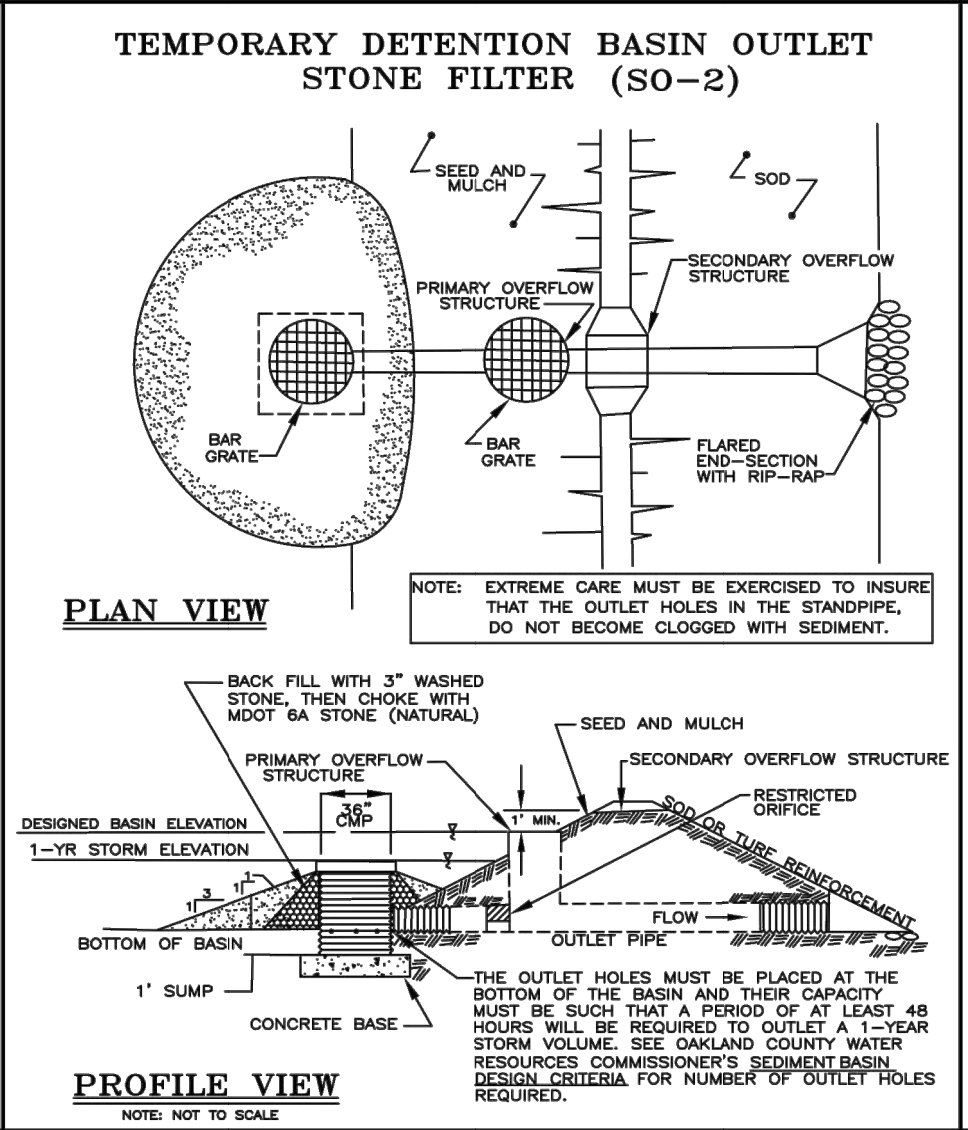
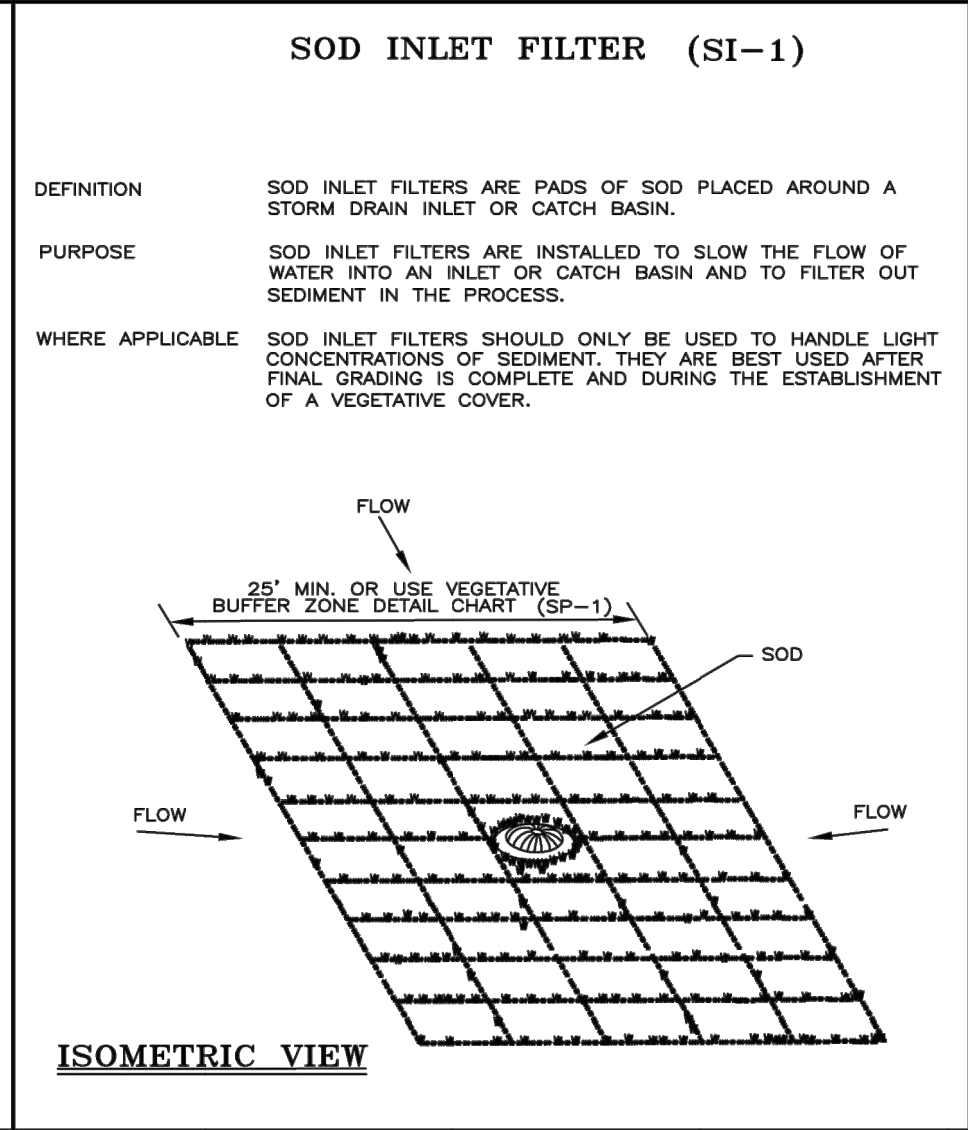
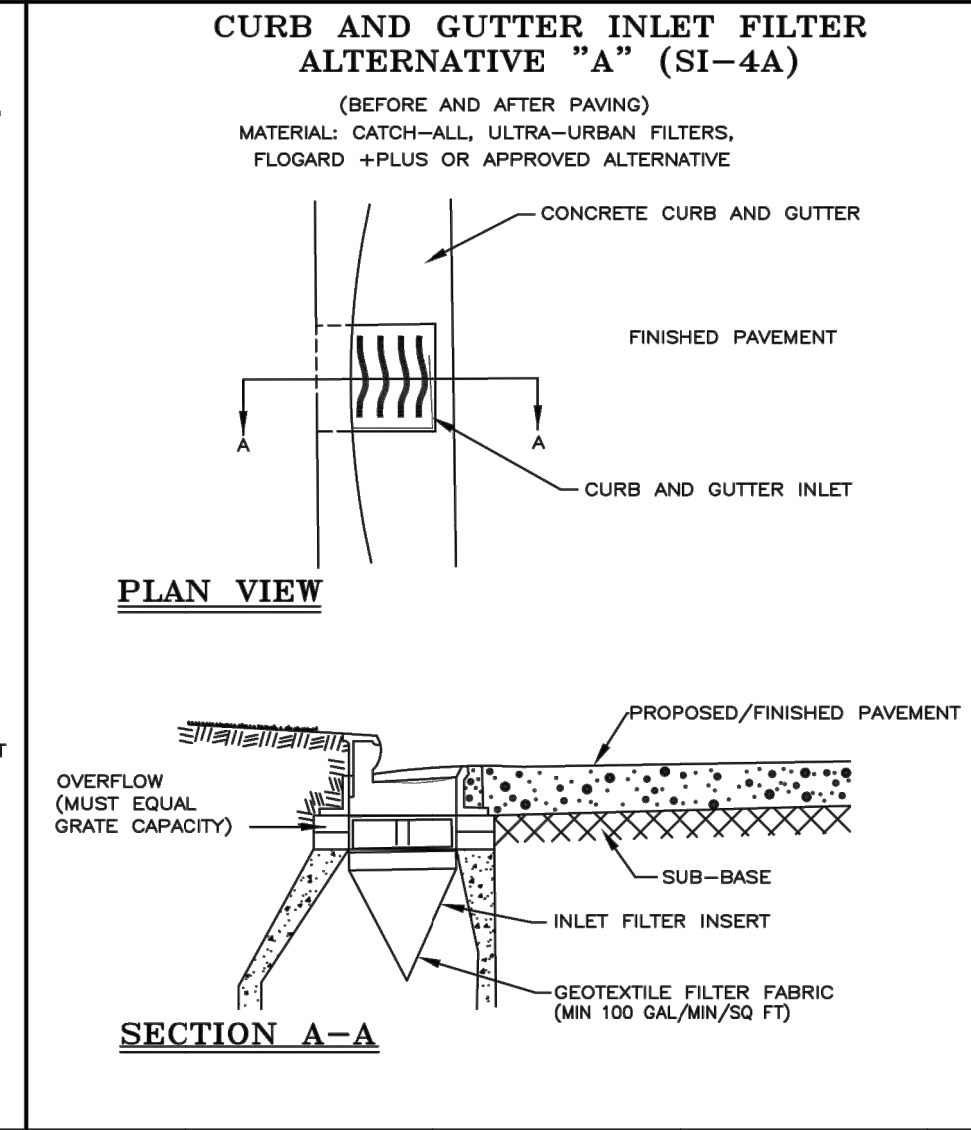
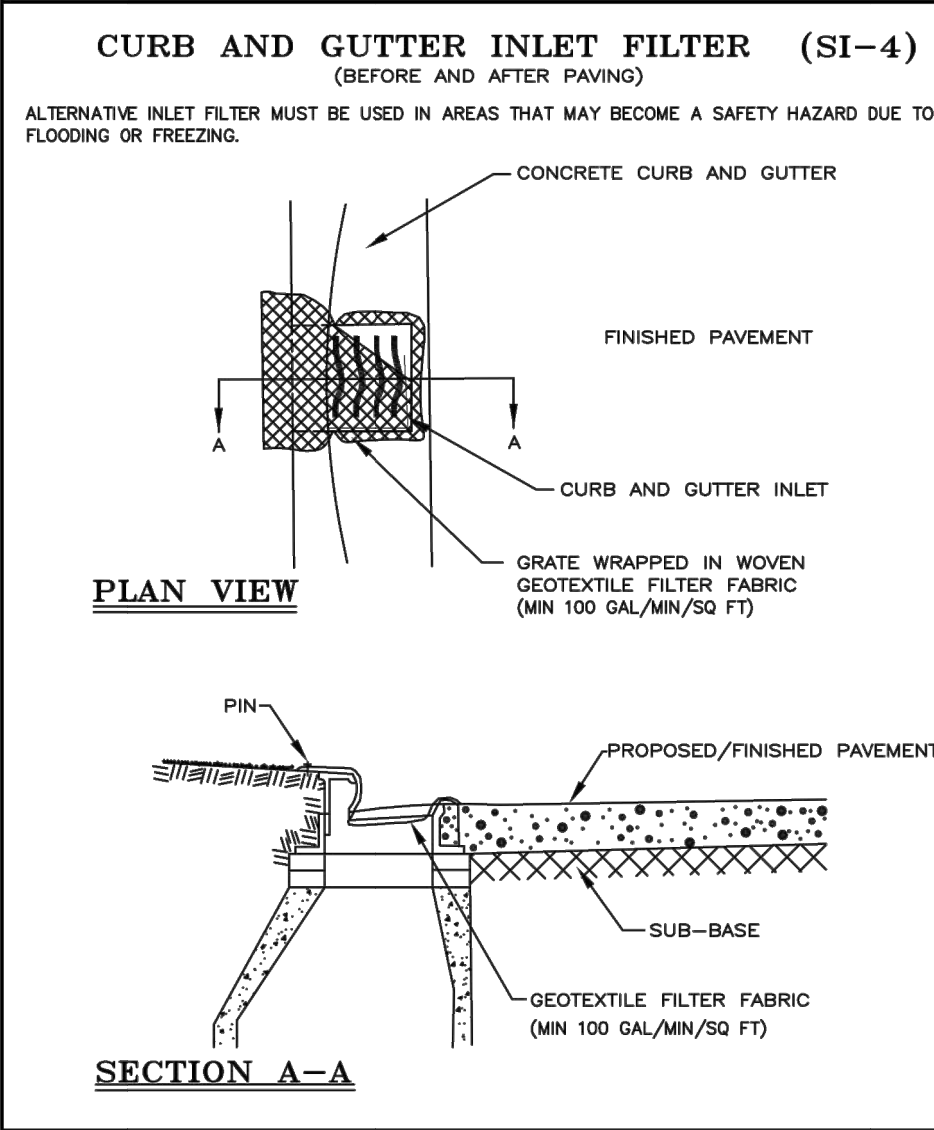
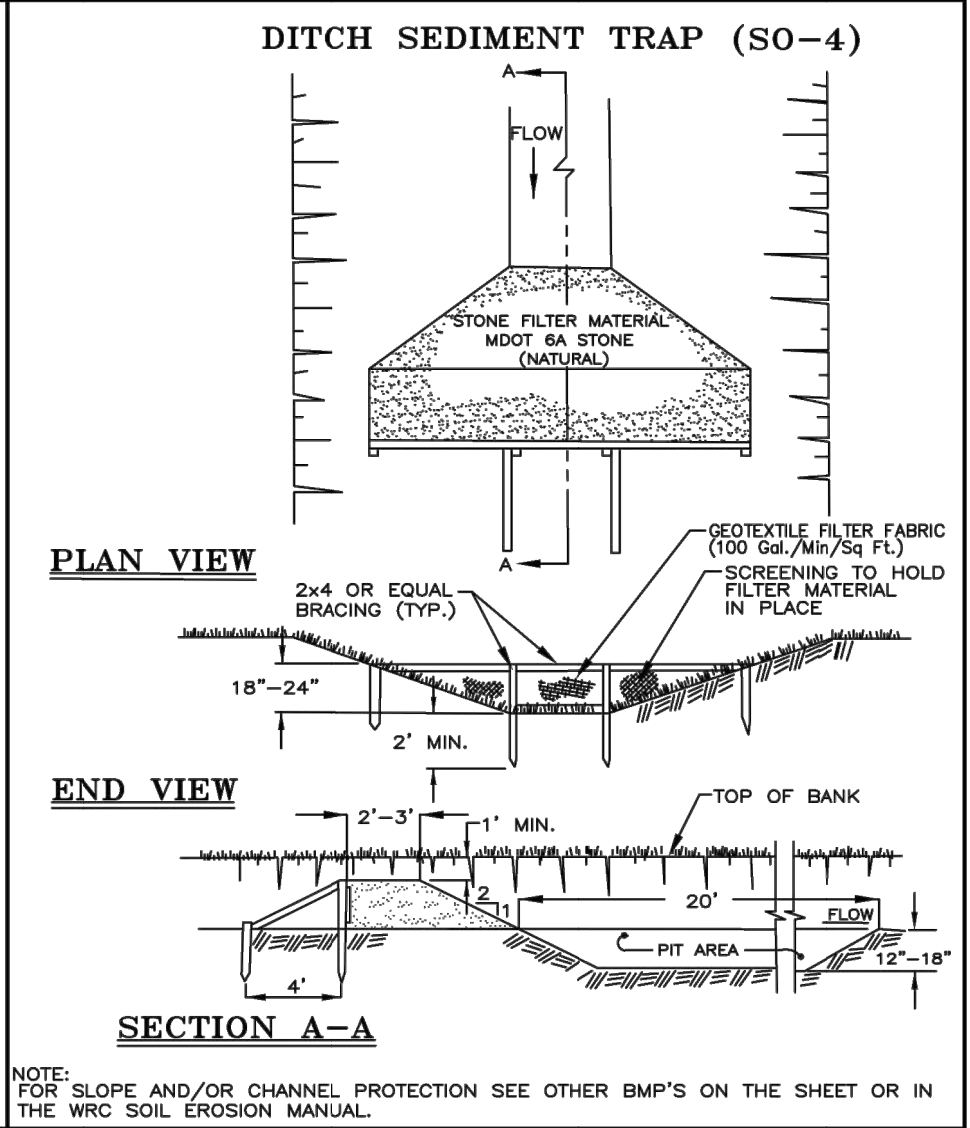
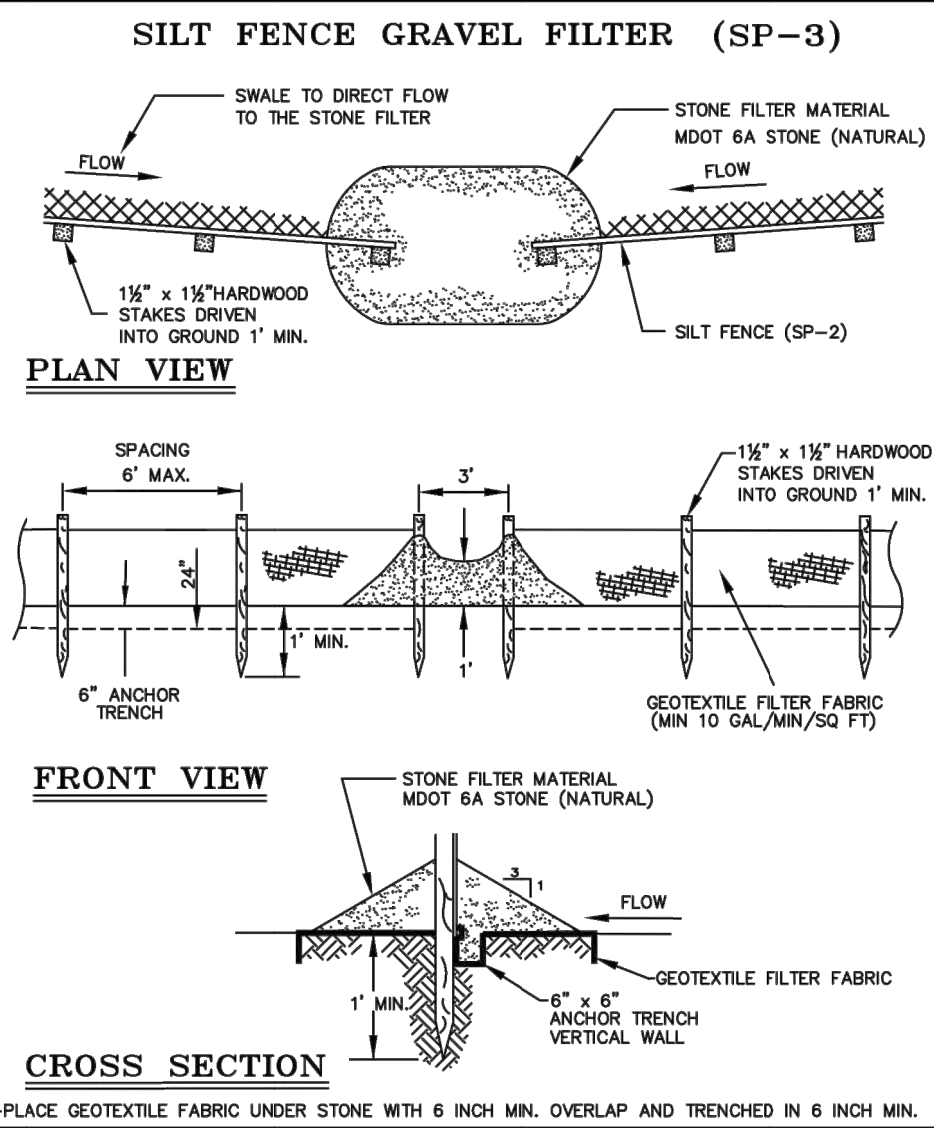
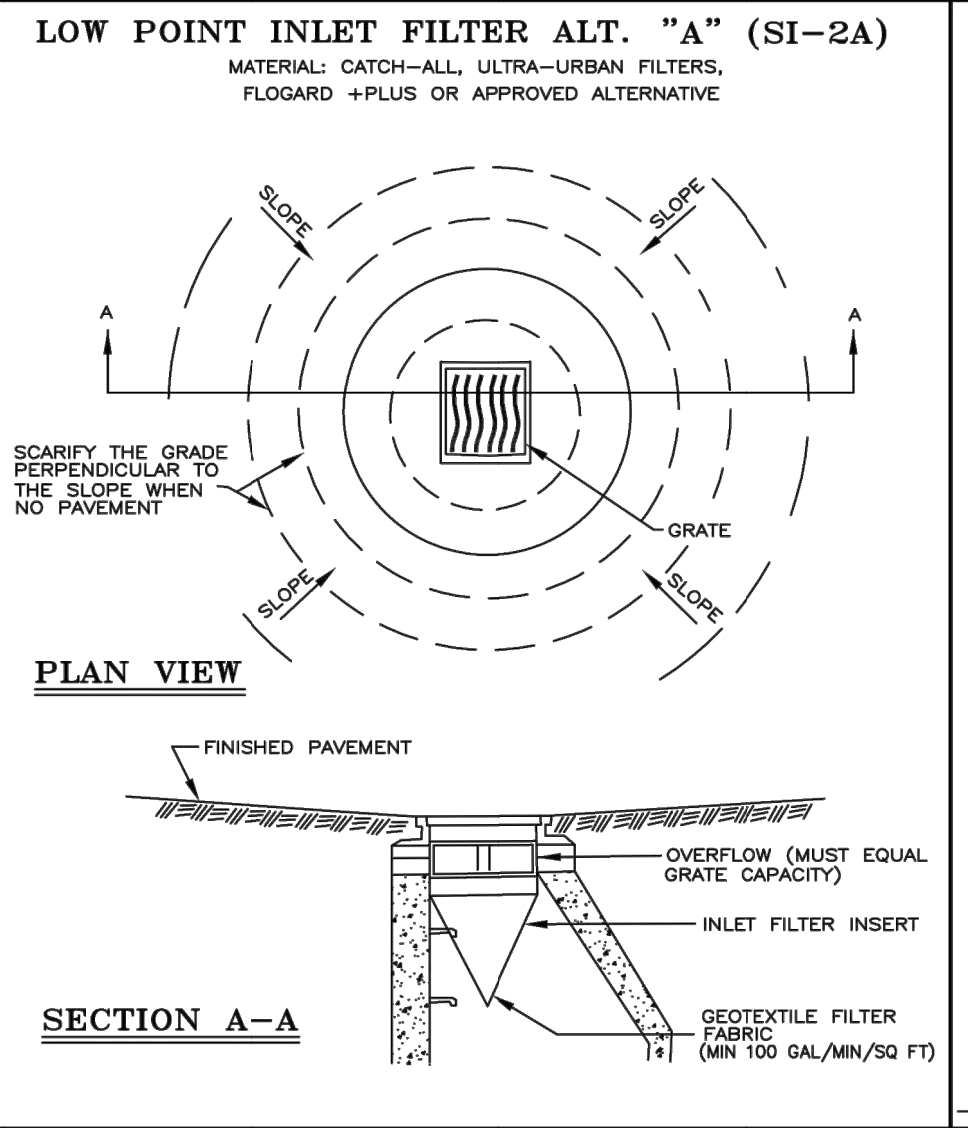
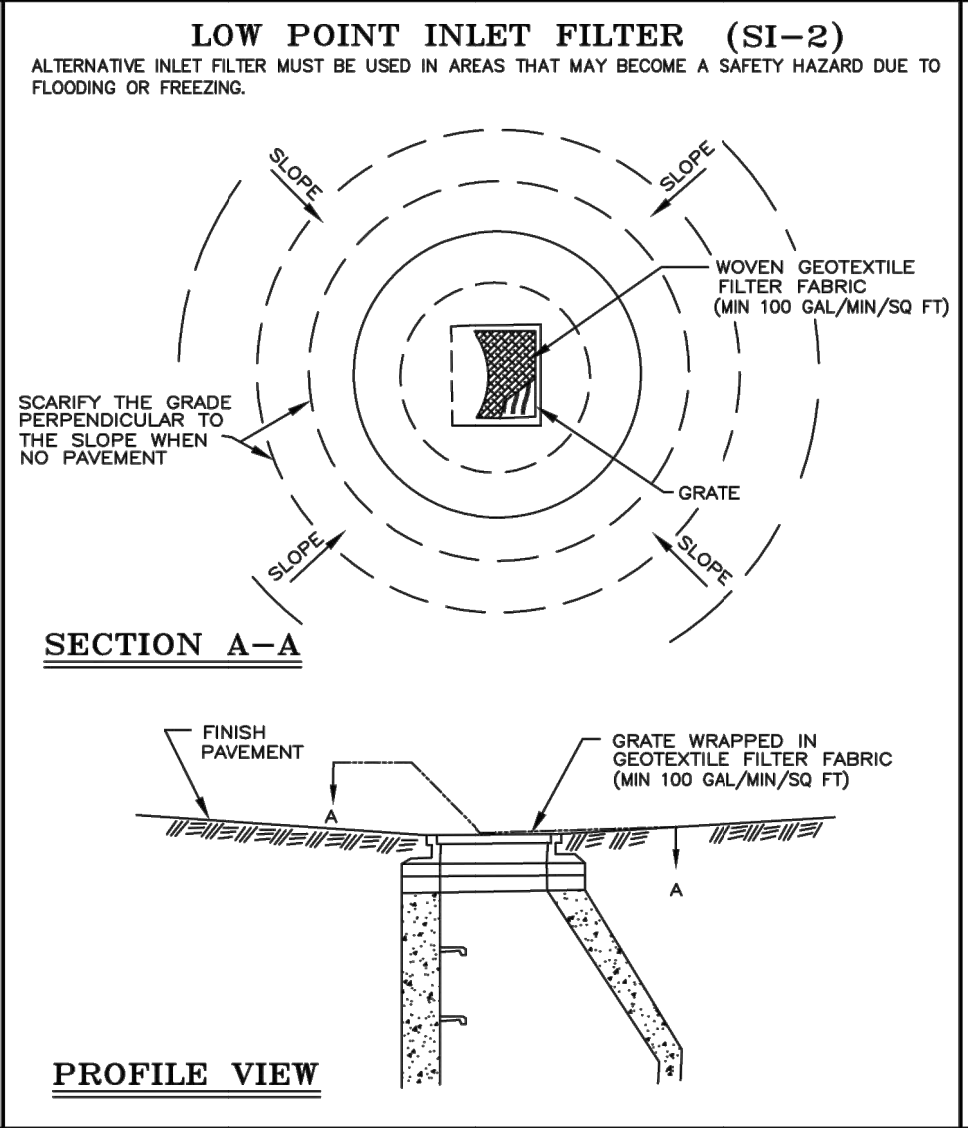
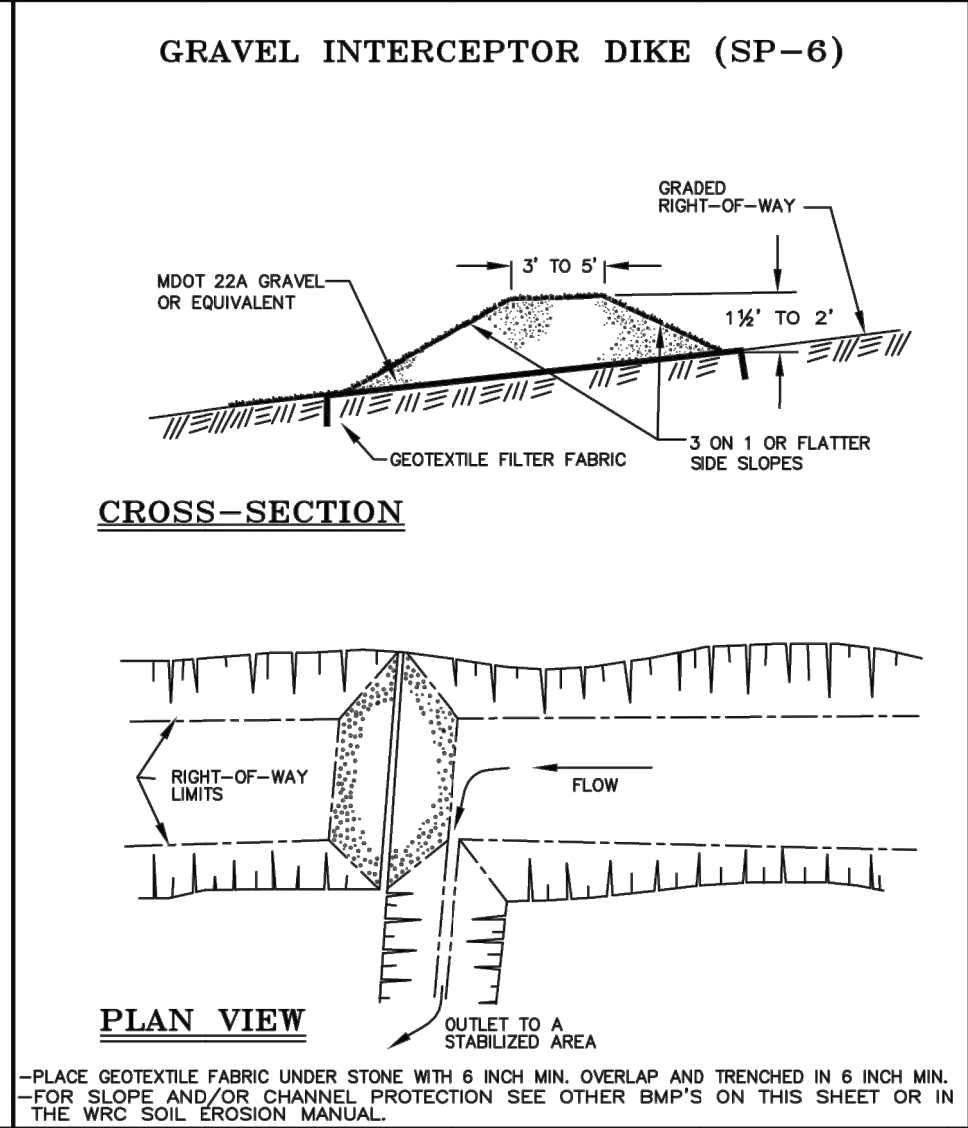
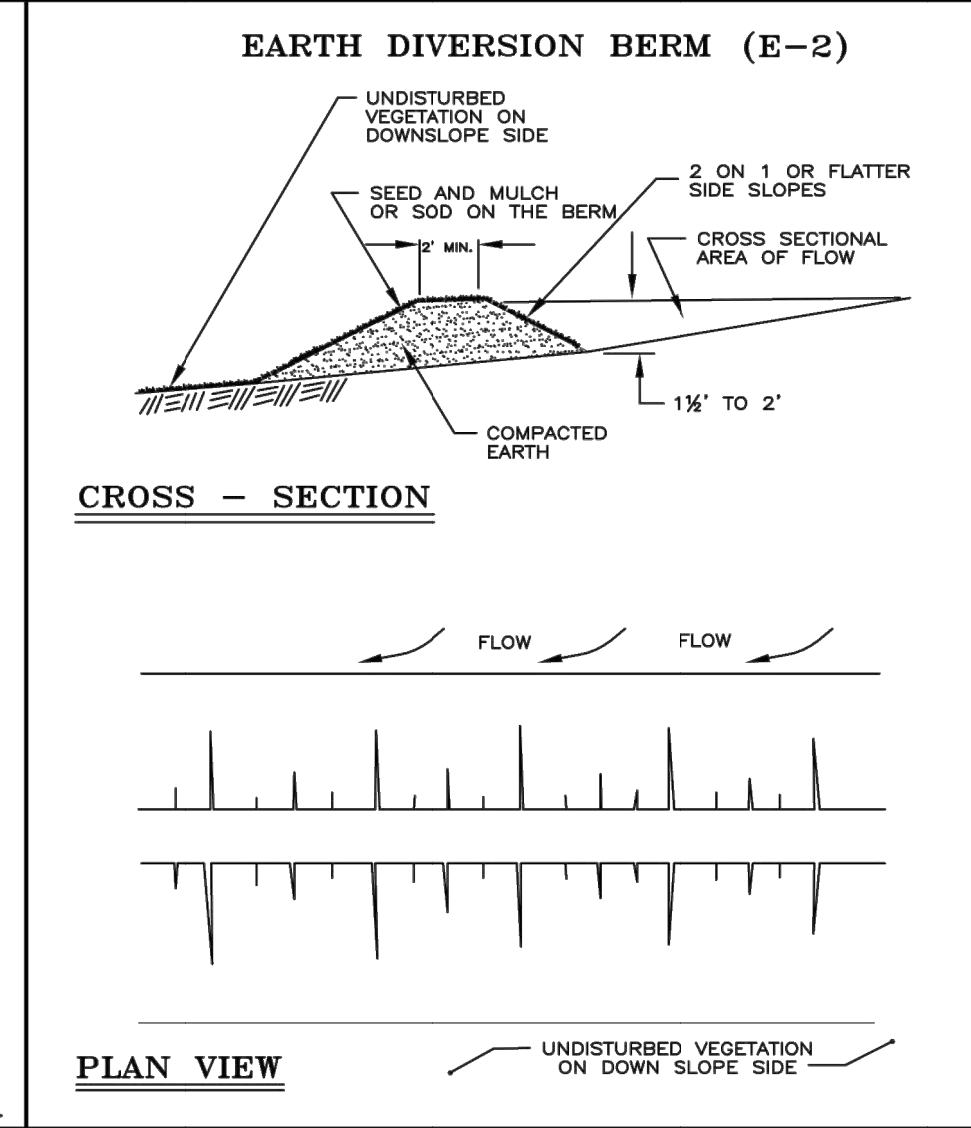
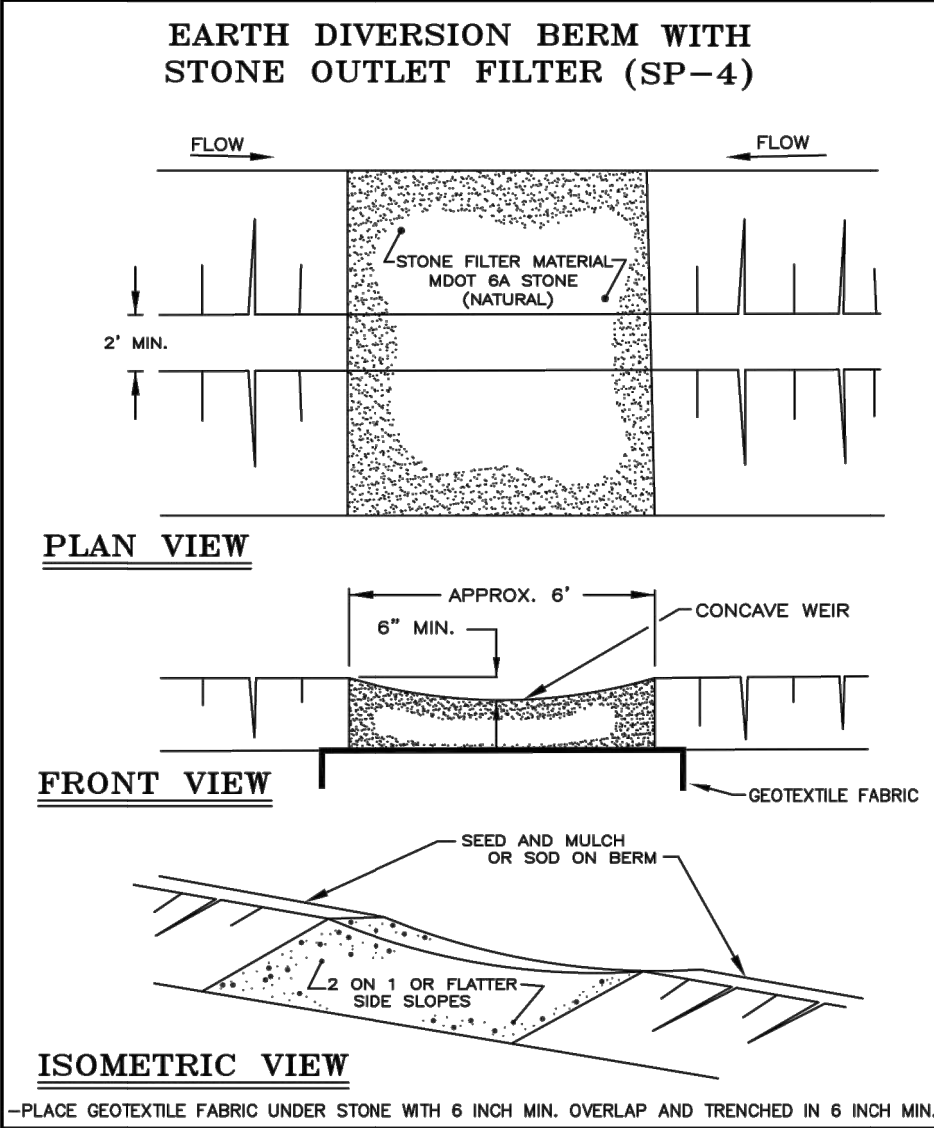
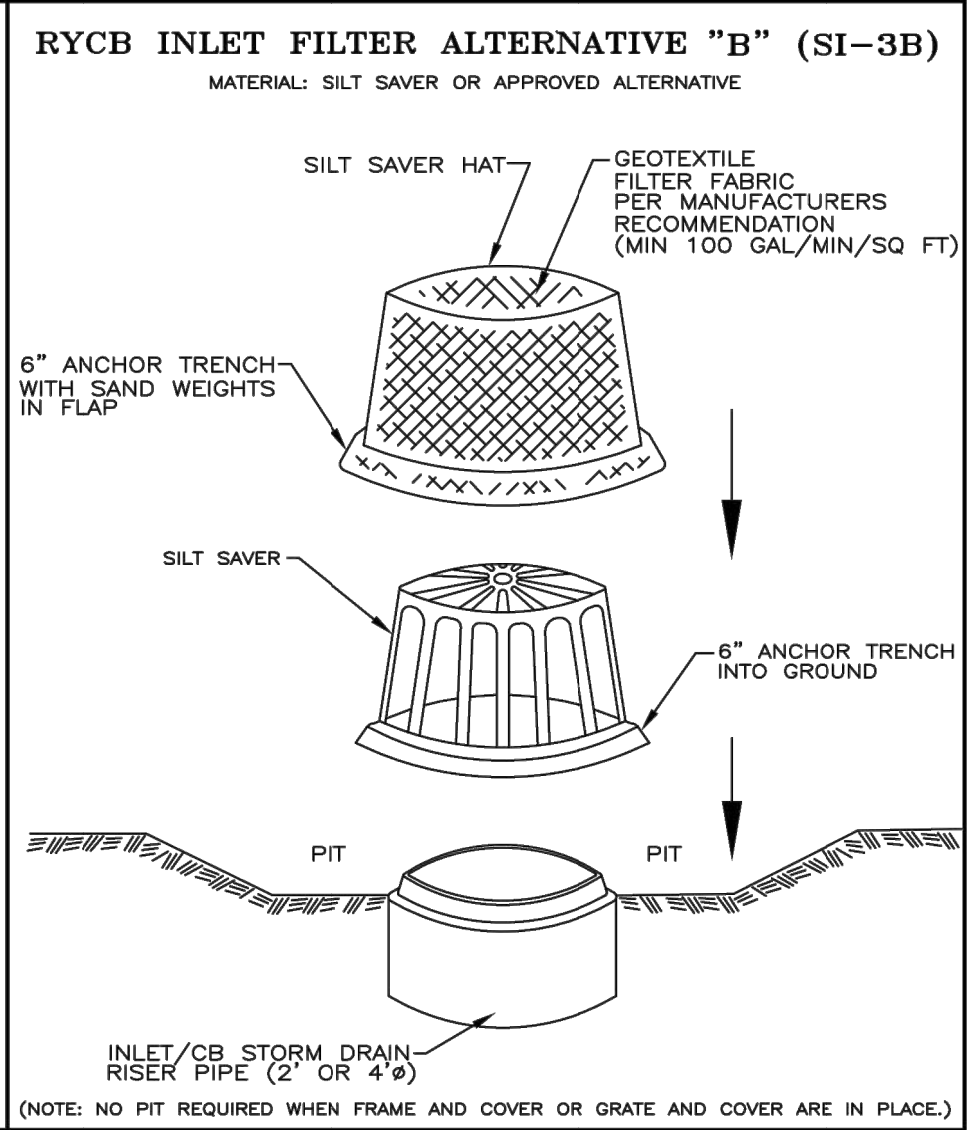
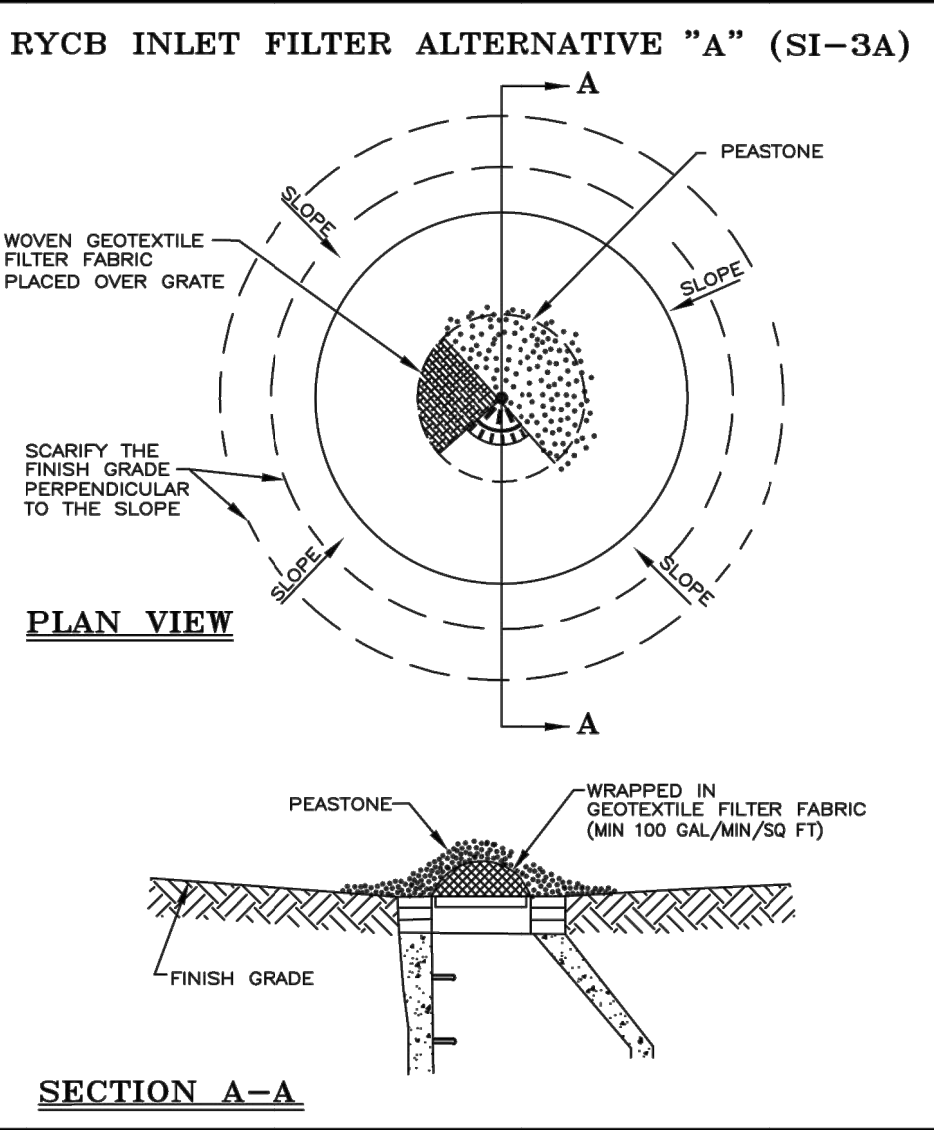
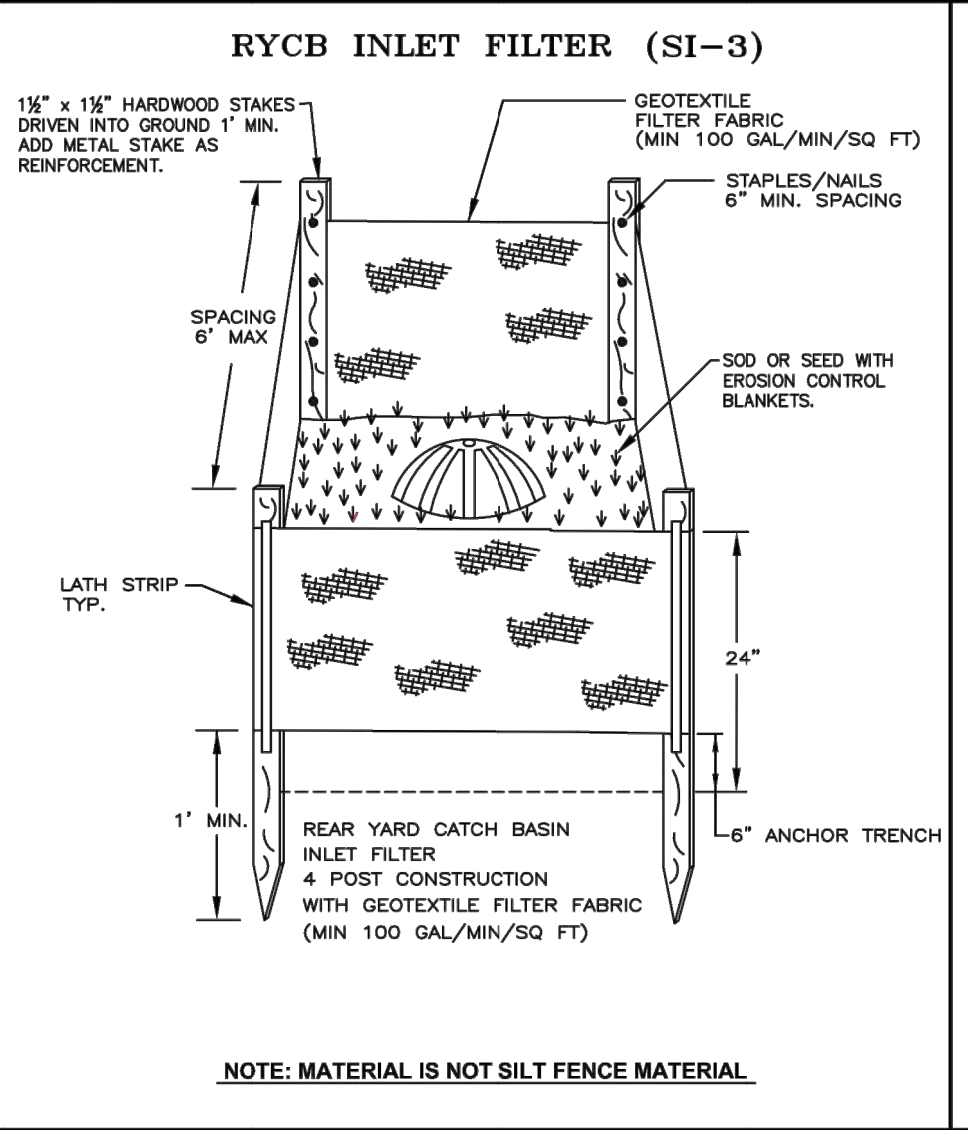
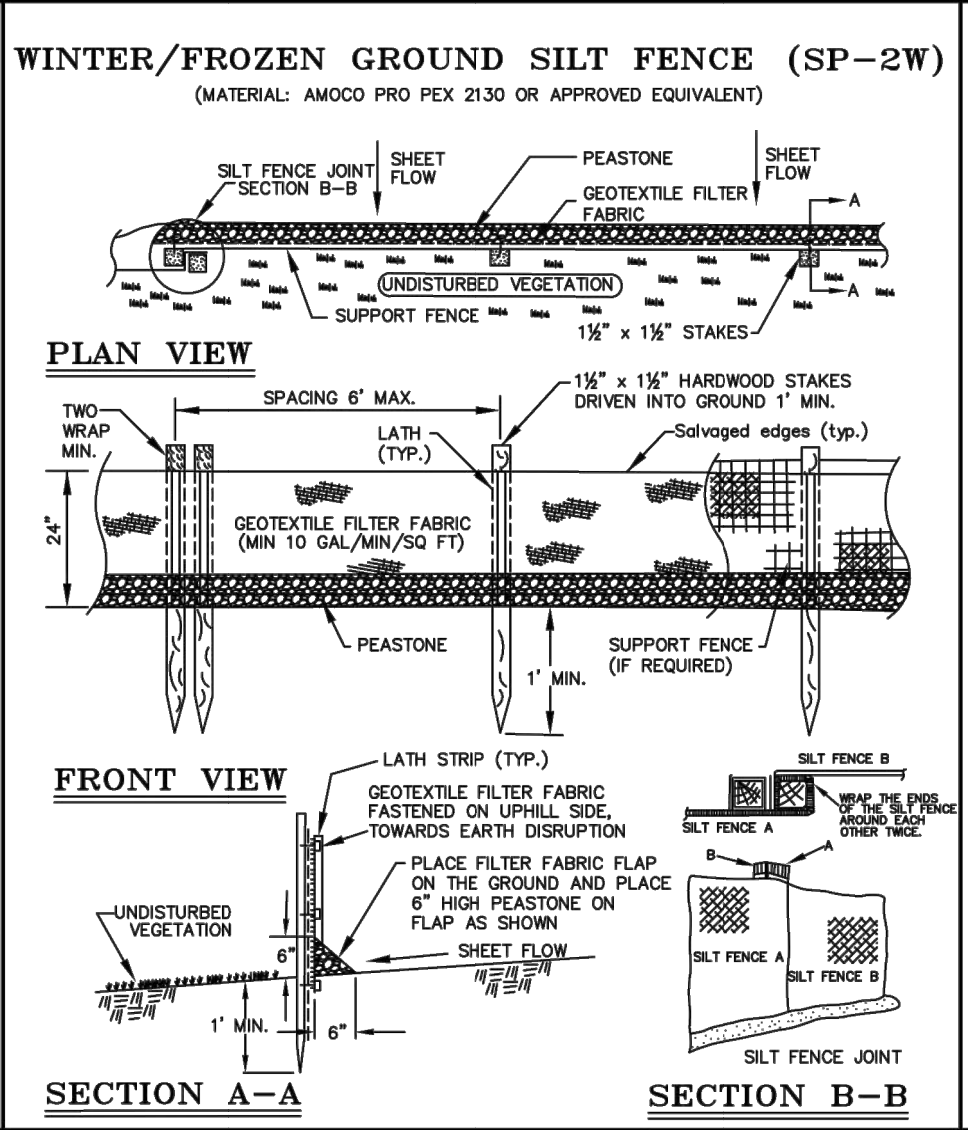
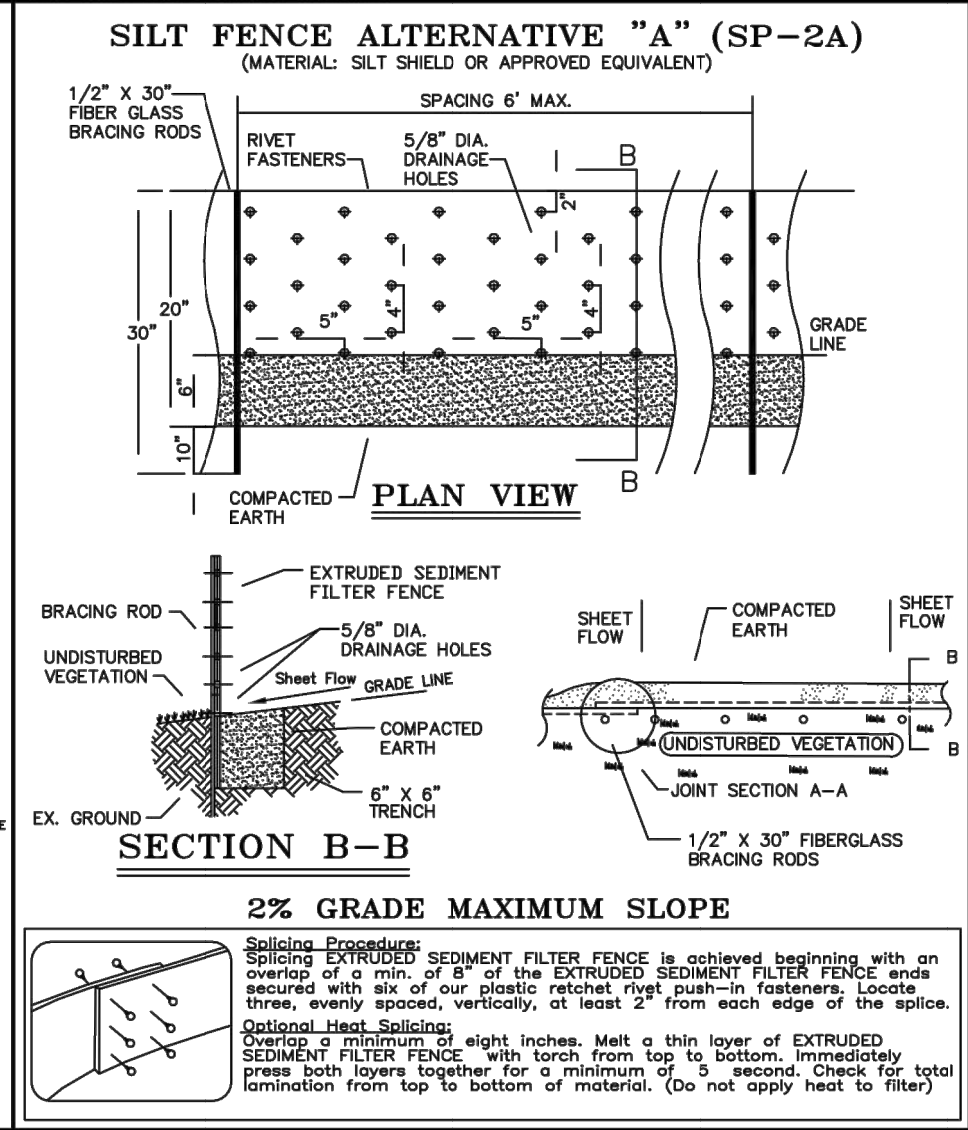
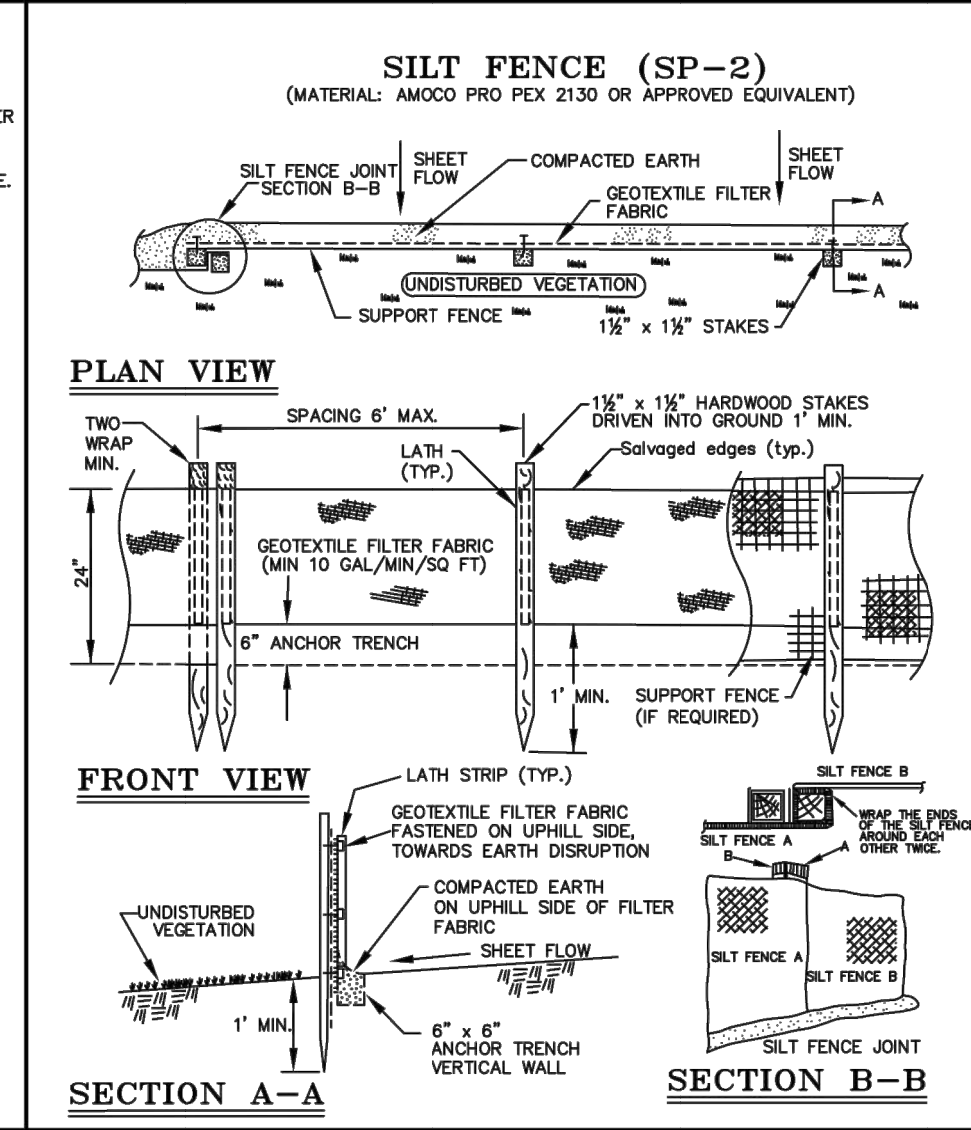
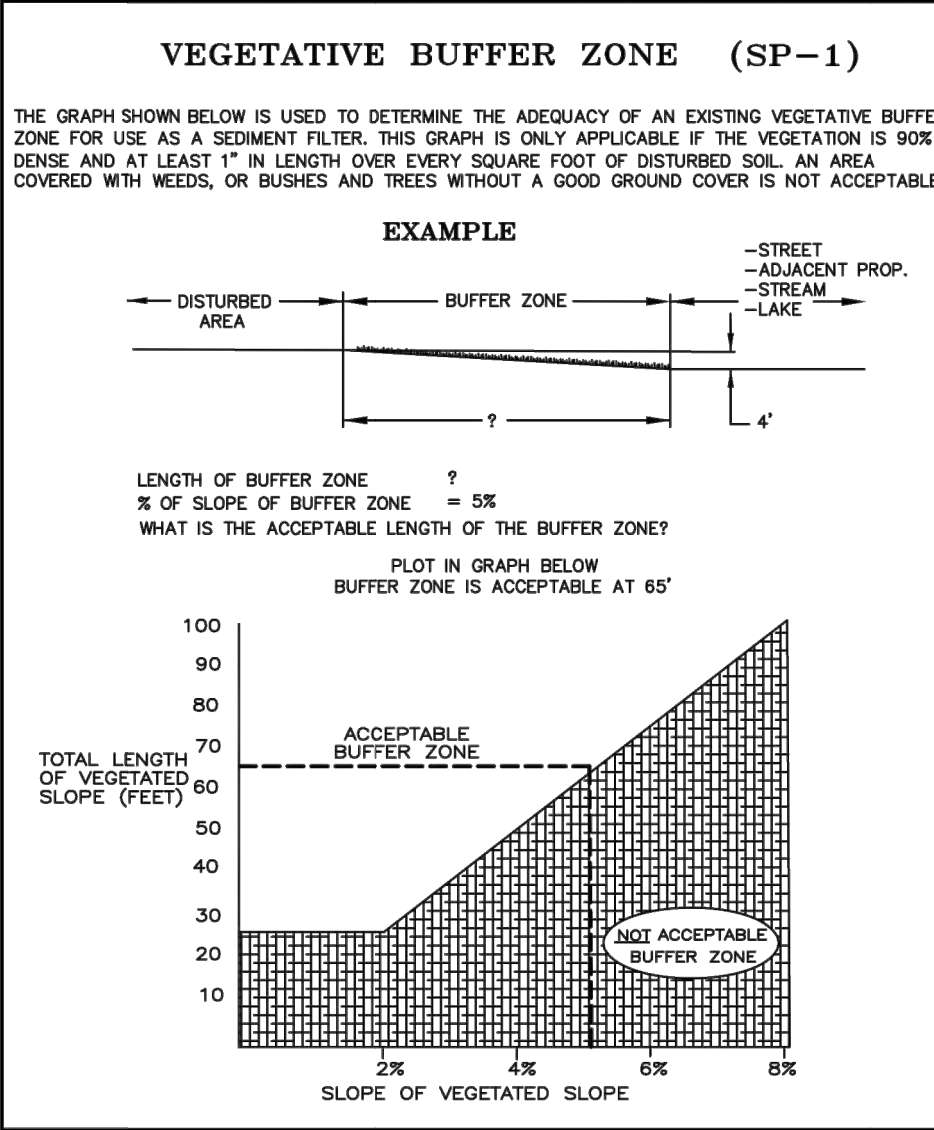
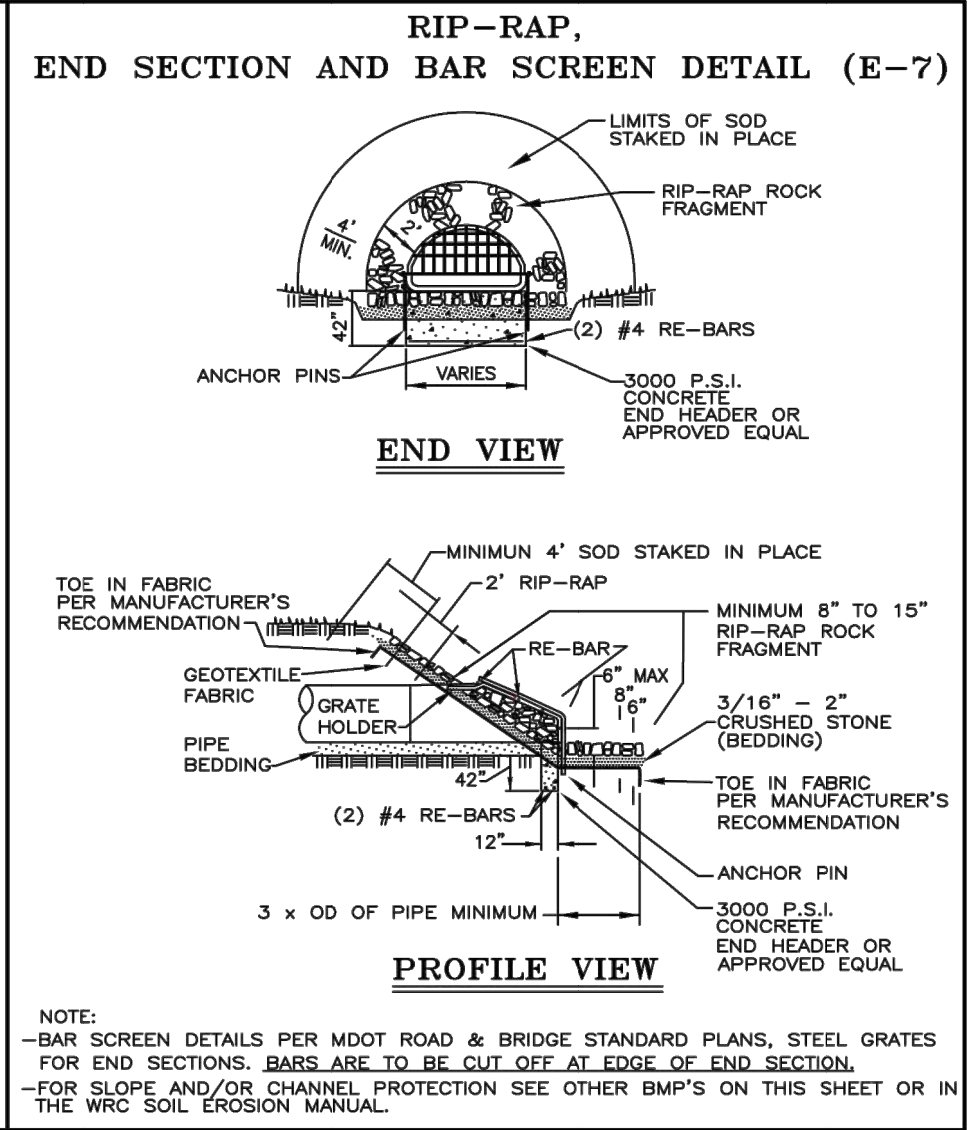
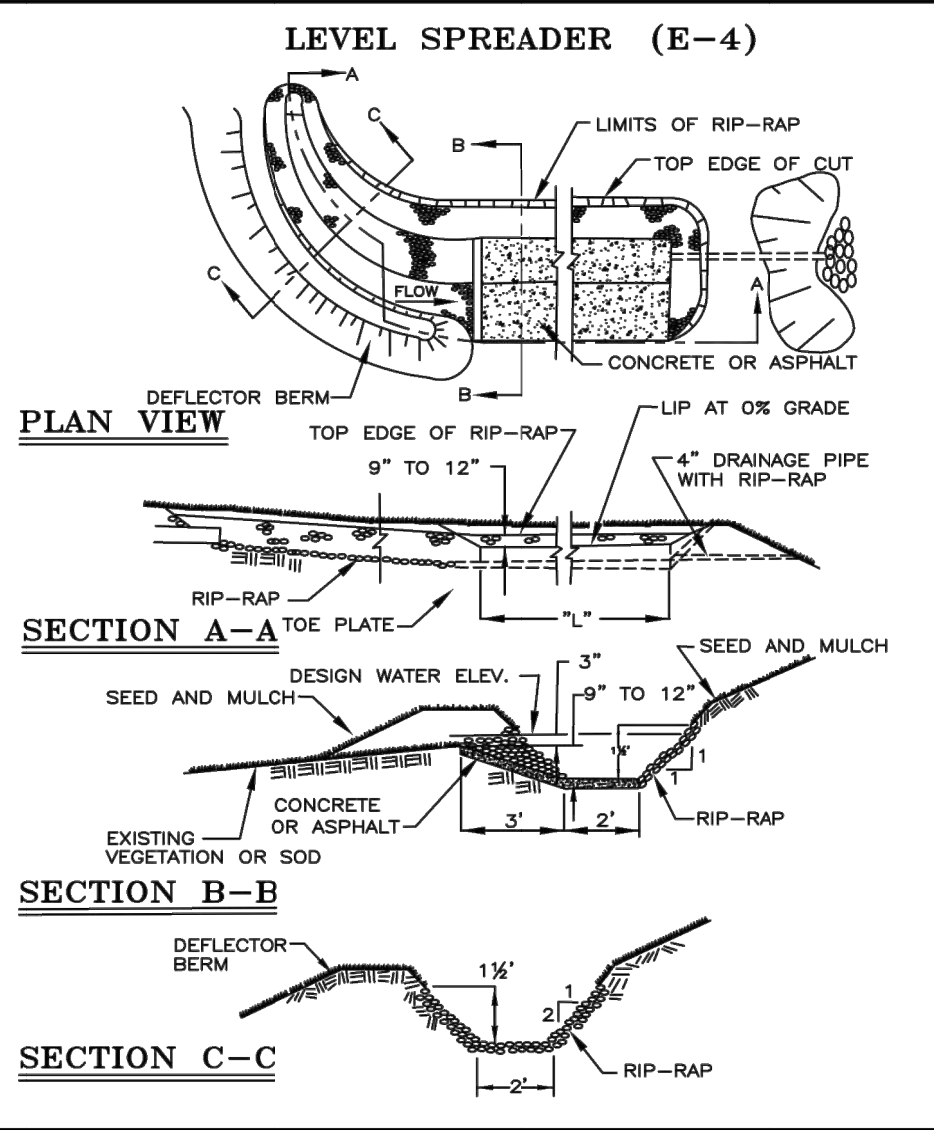
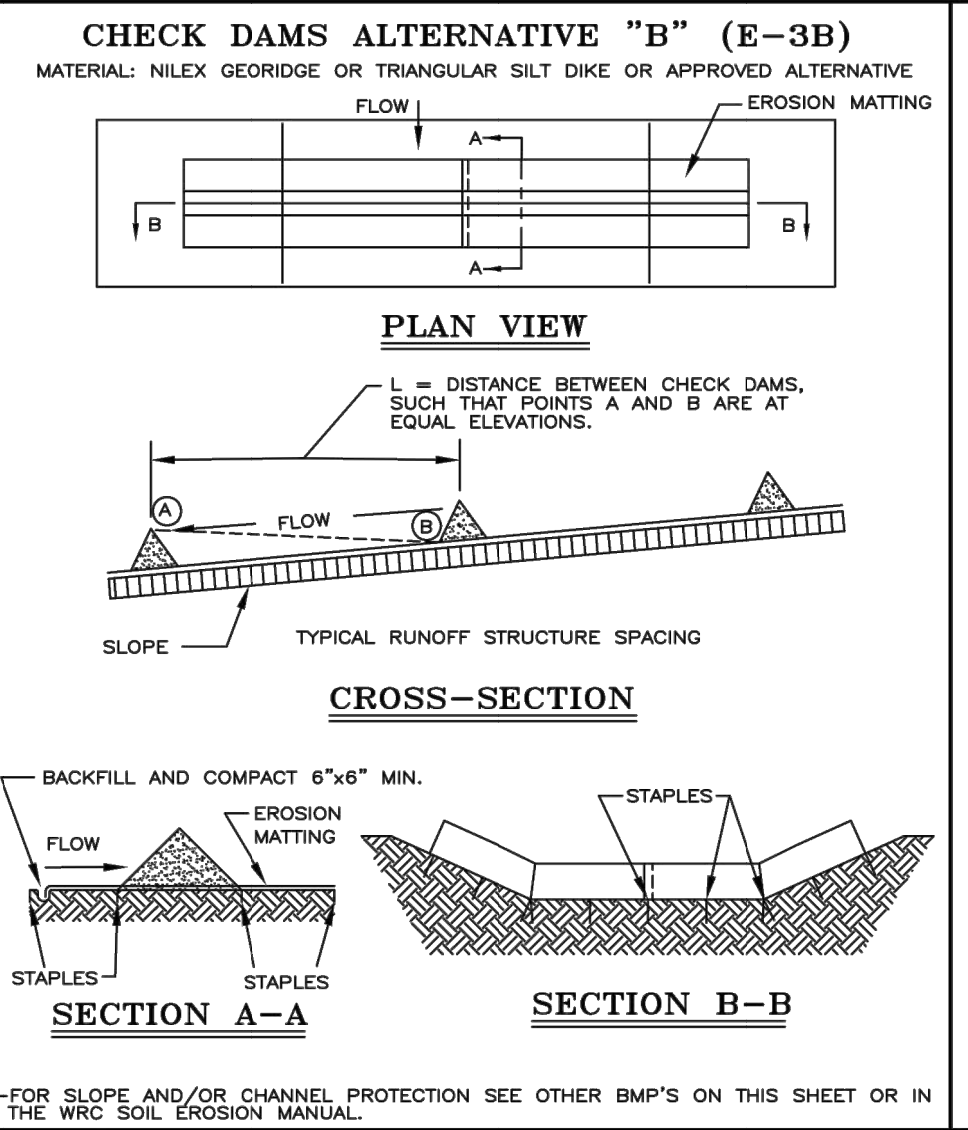
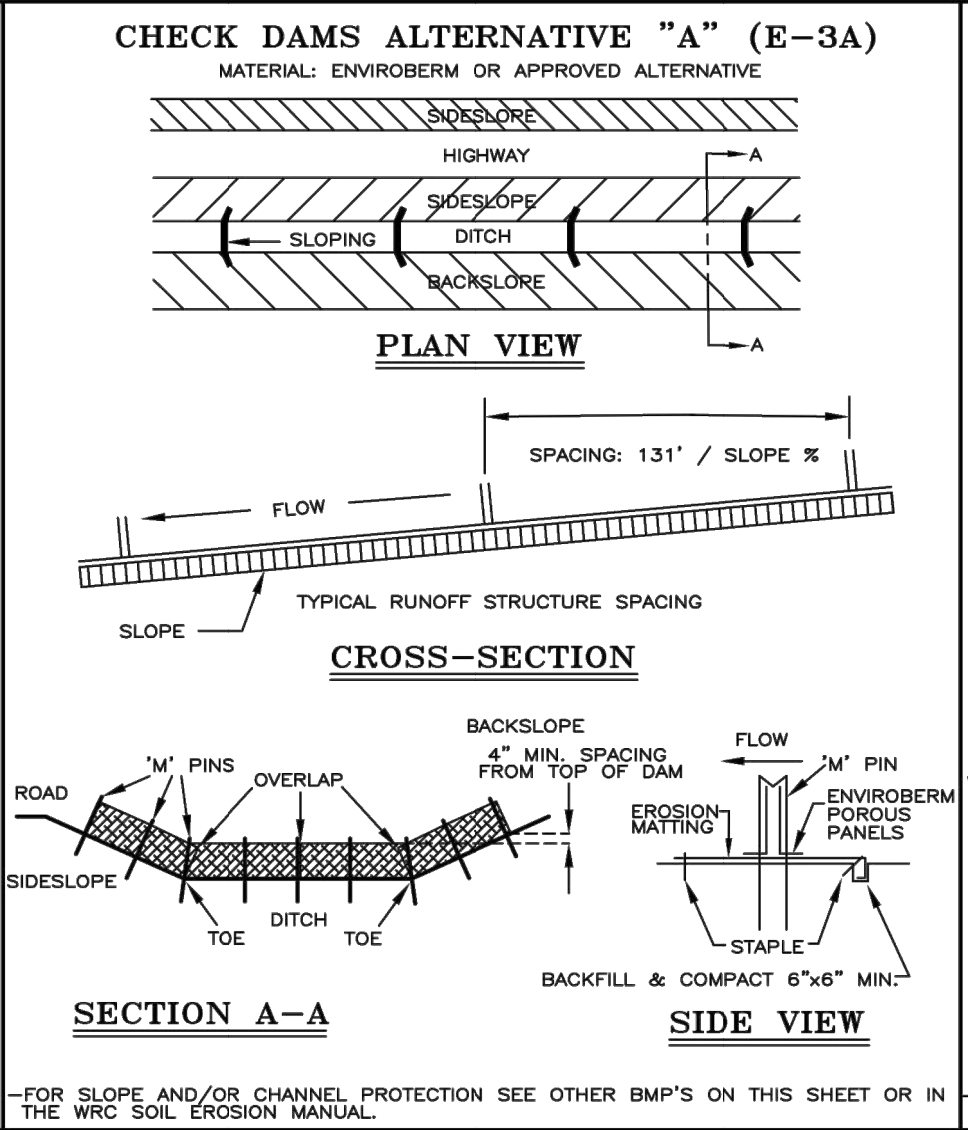
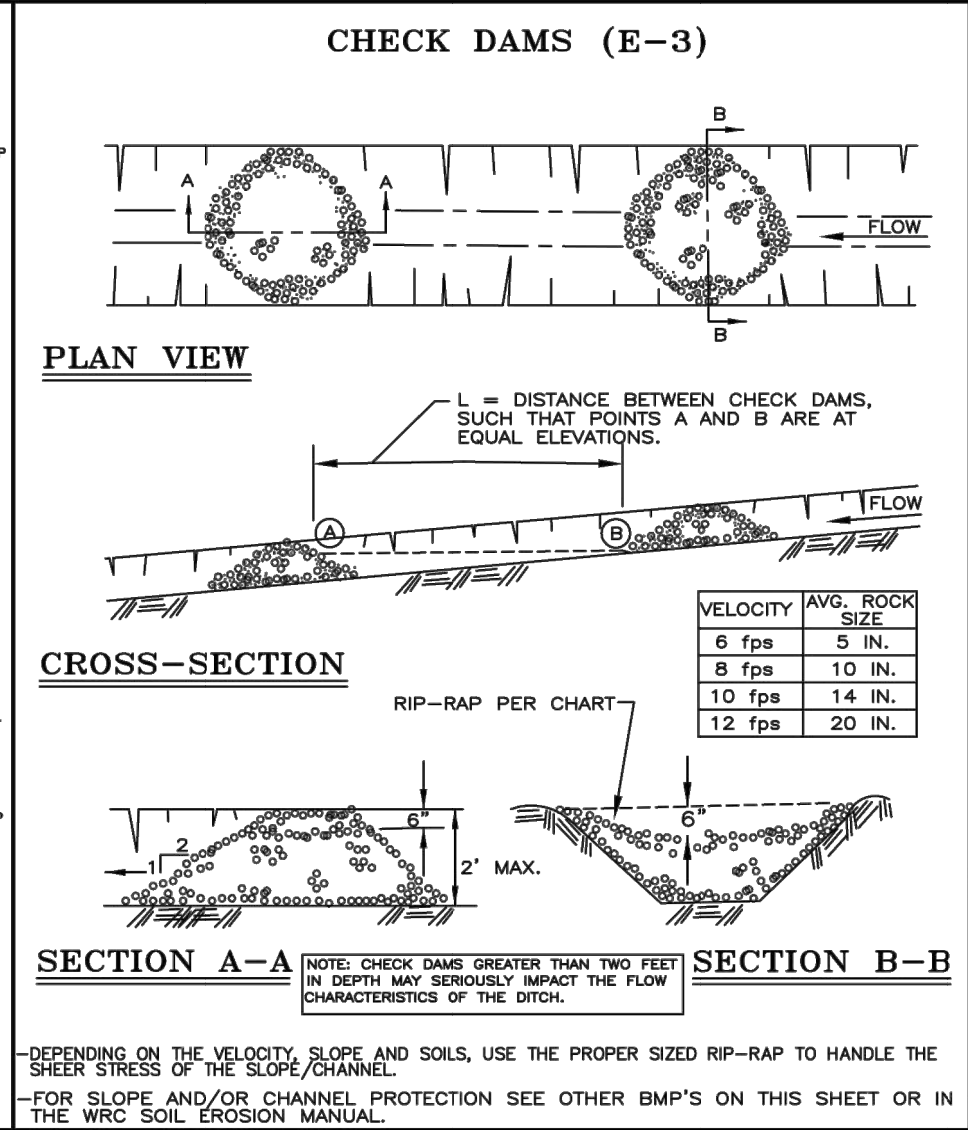
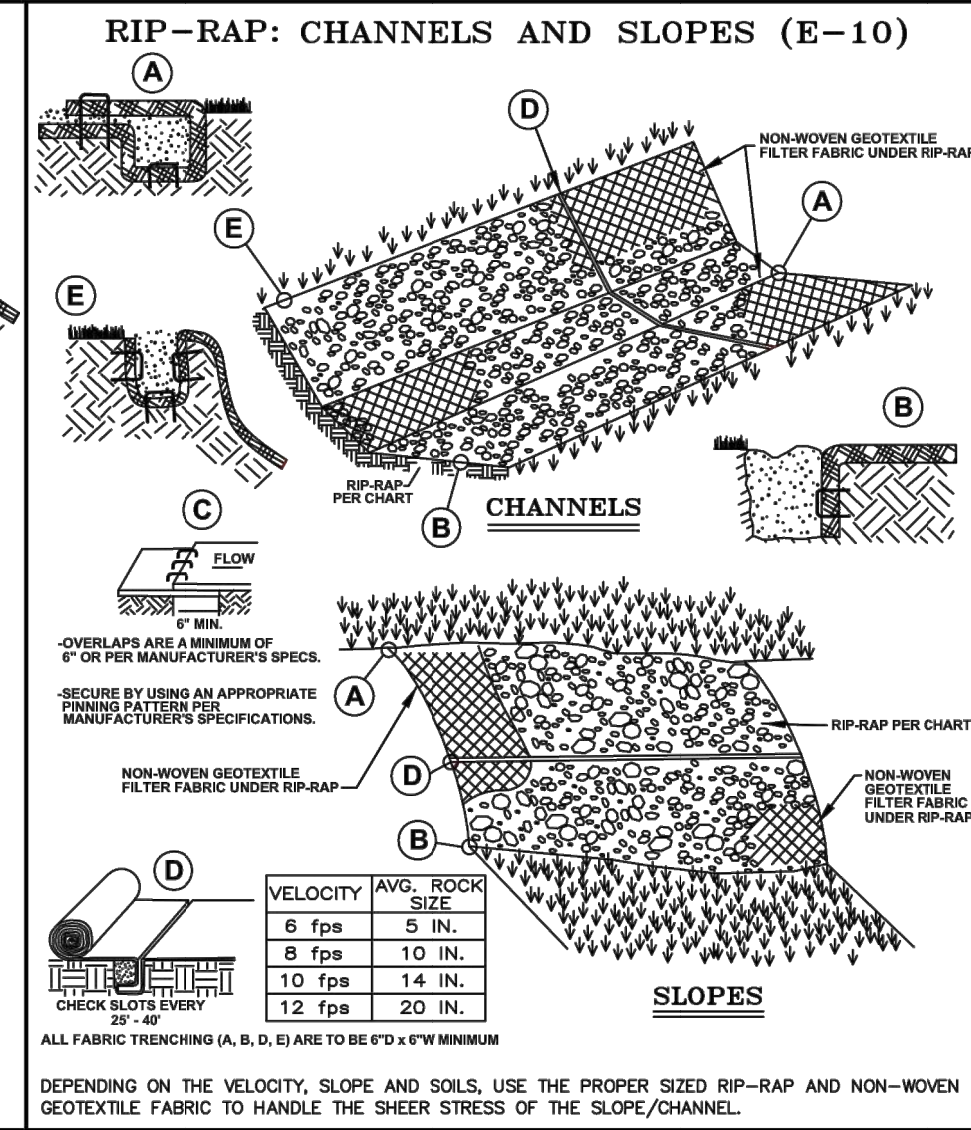
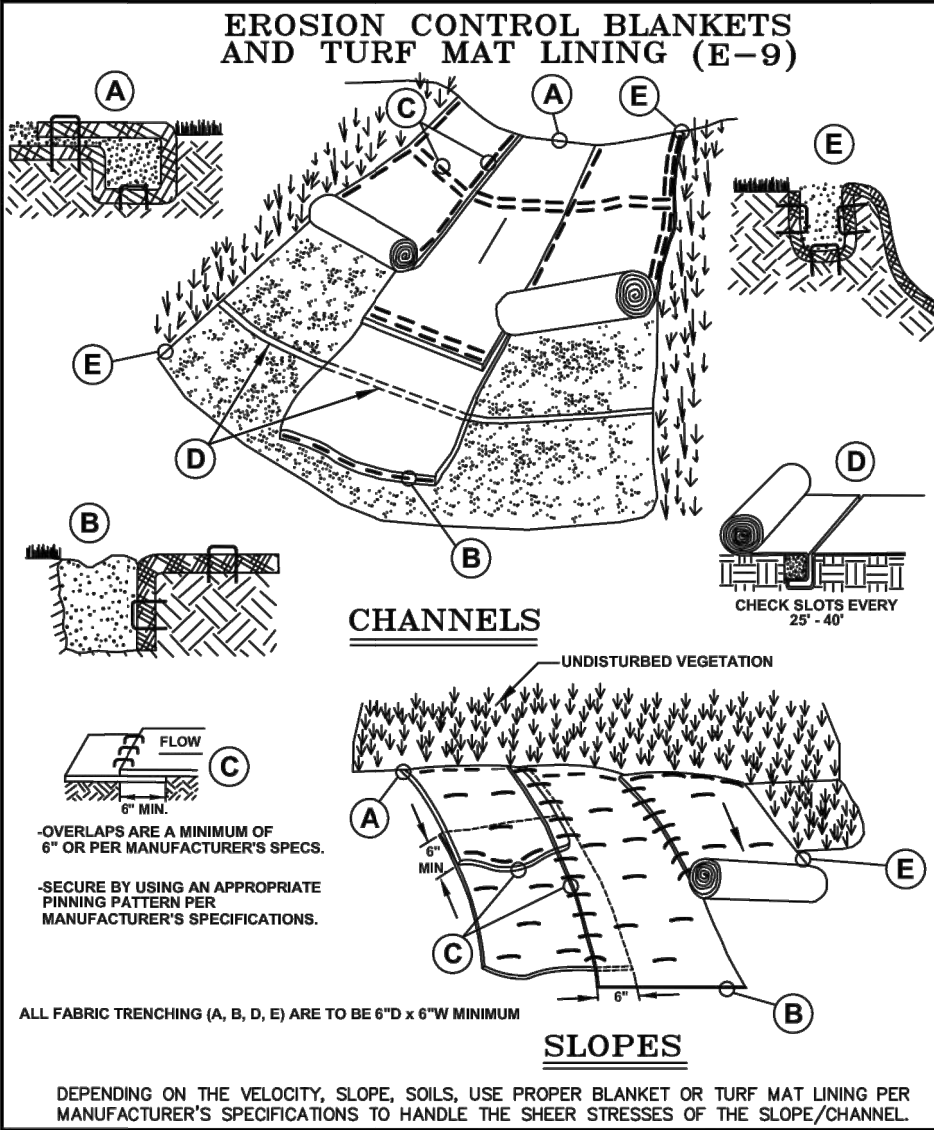
SYMBOL		DESCRIPTION	
X 656.5		EX. SPOT ELEVATION	
-852		EX. CONTOUR	
---		EX. DITCH	
---		EX. GRAVEL	
---		EX. WATER MAIN	
---		EX. WATER VALVE	
---		EX. HYDRANT	
---		EX. WATER MANHOLE	
---		EX. WATER GV	
---		EX. WATER METER	
---		EX. STORM SEWER	
---		EX. STORM INLET/CATCH BASIN	
---		EX. ROUND STORM CATCH BASIN	
---		EX. STORM MANHOLE	
---		EX. STORM END SECTION	
---		EX. SANITARY SEWER	
---		EX. SANITARY MANHOLE	
---		EX. CLEAN OUT	
---		EX. SANITARY VENT	
---		EX. UNDERGROUND GAS	
---		EX. GAS VALVE	
---		EX. GAS METER	
---		EX. UNDERGROUND TELEPHONE	
---		EX. TELEPHONE MANHOLE	
---		EX. TELEPHONE RISER	
---		EX. TELEPHONE HANDHOLE	
---		EX. UNDERGROUND ELECTRIC	
---		EX. ELECTRIC MANHOLE	
---		EX. ELECTRIC RISER	
---		EX. ELECTRIC HANDHOLE	
---		EX. ELECTRIC TRANSFORMER	
---		EX. ELECTRIC METER	
---		EX. GENERATOR	
---		EX. ASPHALT	
---		EX. CONCRETE	
---		EX. GRAVEL	
---		EX. TREELINE	
---		EX. WATER MARKER	
---		EX. GAS MARKER	
---		EX. COMM. MARKER	
---		EX. TELE. MARKER	
---		EX. FIBER MARKER	
---		EX. MEDIA MARKER	
---		EX. OVERHEAD CABLE	
---		EX. OVERHEAD FIBER	
---		EX. OVERHEAD ELECTRIC	
---		EX. UNDERGROUND CABLE	
---		EX. COMMUNICATION RISER	
---		EX. COMMUNICATION HANDHOLE	
---		EX. UTILITY POLE	
---		EX. GUY ANCHOR	
---		EX. SIGNAL POLE	
---		EX. LIGHT POLE	
---		EX. GROUND LIGHT	
---		EX. DOUBLE LIGHT POLE	
---		EX. SINGLE POLE SIGN	
---		EX. DOUBLE POLE SIGN	
---		EX. MAILBOX	
---		EX. FLAGPOLE	
---		EX. SPEAKER	
---		EX. UNKNOWN MANHOLE	
---		EX. COMBO MANHOLE	
---		EX. SECTION LINE	
---		EX. PARCELS	
---		EX. EASEMENT	
---		EX. CENTERLINE	
---		EX. WETLAND LIMITS	
---		EX. CURB/PAVEMENT	
---		EX. FENCE	
---		EX. GUARDRAIL	
---		FOUND IRON	
---		FOUND RR SPIKE	
---		FOUND PK NAIL	
---		FOUND CONC. MONUMENT	
---		SET IRON ROD	
---		SET MAG NAIL	
---		SECTION CORNER POST	
---		BOLLARD	
---		RECORDED BEARING	
---		MEASURED BEARING	
---		EX. TREE	
---		DEMO TREE	



CERTIFICATE
 To: Group 10 Capital Management, LLC, Chicago Title Insurance Company. This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS and includes items 1, 2, 3, 4, 6(a), 6(b), 7(a), 7(b)(1), 7(c), 8, 9, 10(a), 11, 13, 14, 15, 16, 18, 19, and 20 of Table A thereof. The field work was completed on August 28, 2022. Date of Plat or Map: September 12, 2022.

John Blanchard, Professional Surveyor
 PS#4001027446





NOTE: WHILE PERFORMING WORK INVOLVING GROUNDS MAINTENANCE AND/OR THE CONSTRUCTION/MAINTENANCE OF ANY INFRASTRUCTURE, INCLUDING ROADS, WATER MAINS, SANITARY SEWERS, STORM DRAINS AND STORM WATER BEST MANAGEMENT PRACTICES (BMPs), CONTRACTORS SHALL MINIMIZE POLLUTION FROM STORM WATER RUNOFF THAT CAN AFFECT WATER QUALITY RELATED TO WORK ACTIVITIES. POLLUTANTS THAT COULD IMPAIR WATER QUALITY MAY INCLUDE FUEL, GREASE AND OIL, NUTRIENTS, BACTERIA AND PATHOGENS, LITTER AND DEBRIS, AND SOIL EROSION AND SEDIMENTATION. APPLICABLE BMPs SHALL BE IMPLEMENTED BY THE CONTRACTOR TO THE MAXIMUM EXTENT PRACTICABLE TO PROTECT WATER QUALITY AND WILDLIFE HABITAT.

SOIL EROSION AND SEDIMENTATION CONTROL DETAILS

REVISION BLOCK

Rev.	By	Date	Description
1	WRC	01/01/01	ISSUED FOR CONSTRUCTION
2	WRC	01/01/01	PROPOSED DETAIL REVISIONS
3	WRC	01/01/01	FORWARD COMMITTEE APPROVAL, NAME CHANGES
4	WRC	01/01/01	FORWARD COMMITTEE APPROVAL, NAME CHANGES
5	WRC	01/01/01	FORWARD COMMITTEE APPROVAL, NAME CHANGES

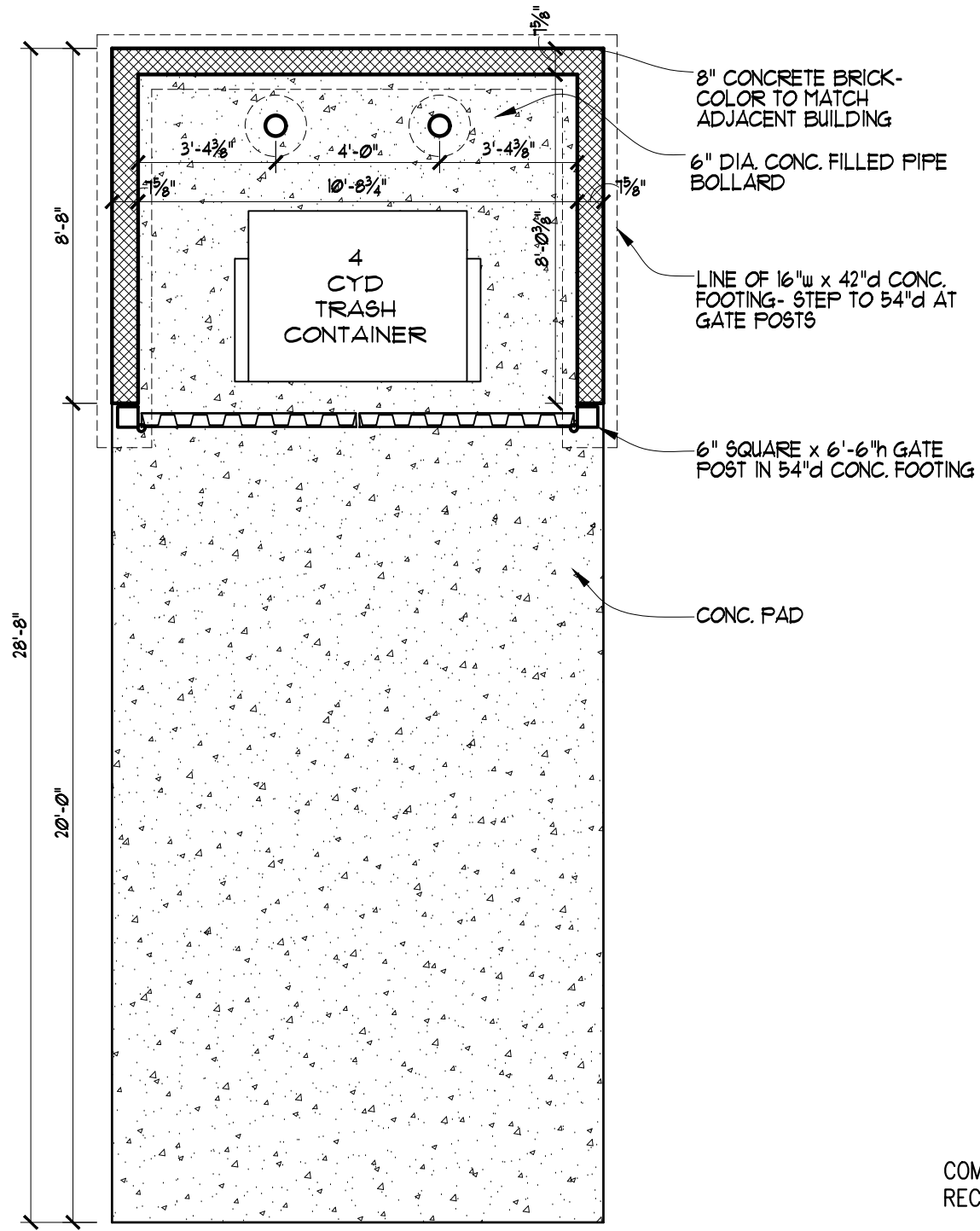
ORIG. DATE: 01/01/01
SCALE: NONE
DESIGNED BY: WRC
DRAWN BY: Mapping

ONE PUBLIC WORKS DRIVE, BLDG 95 WEST WATERSFORD, MICHIGAN 48328-1907

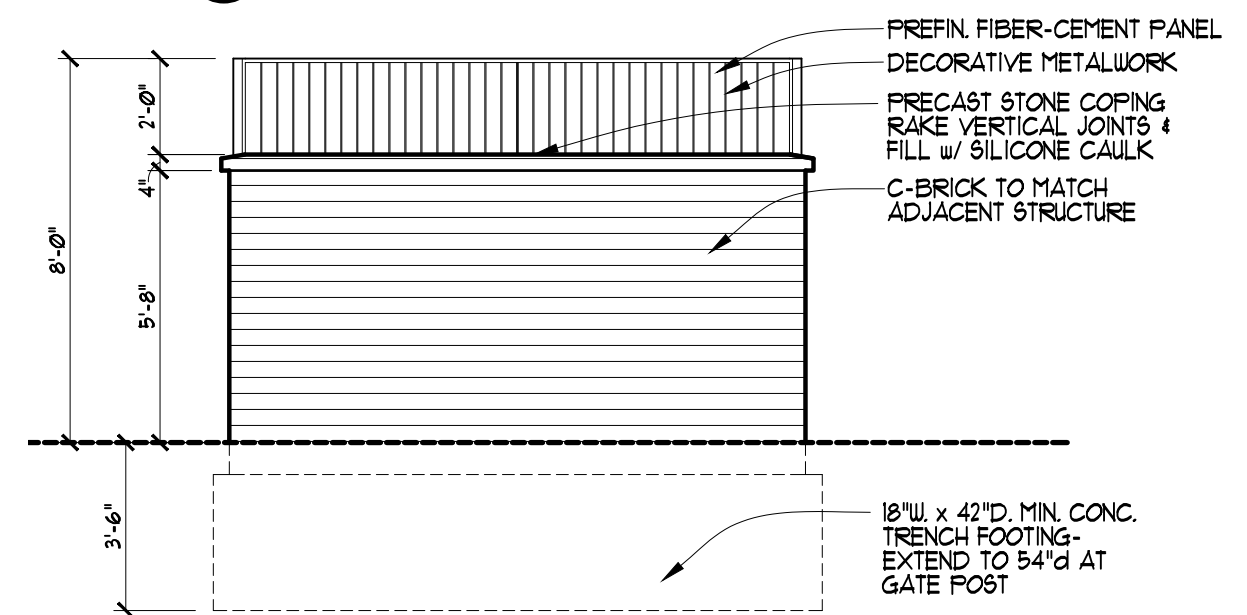
WRC WATER RESOURCES COMMISSIONER

SHEET NO.: 1 of 1

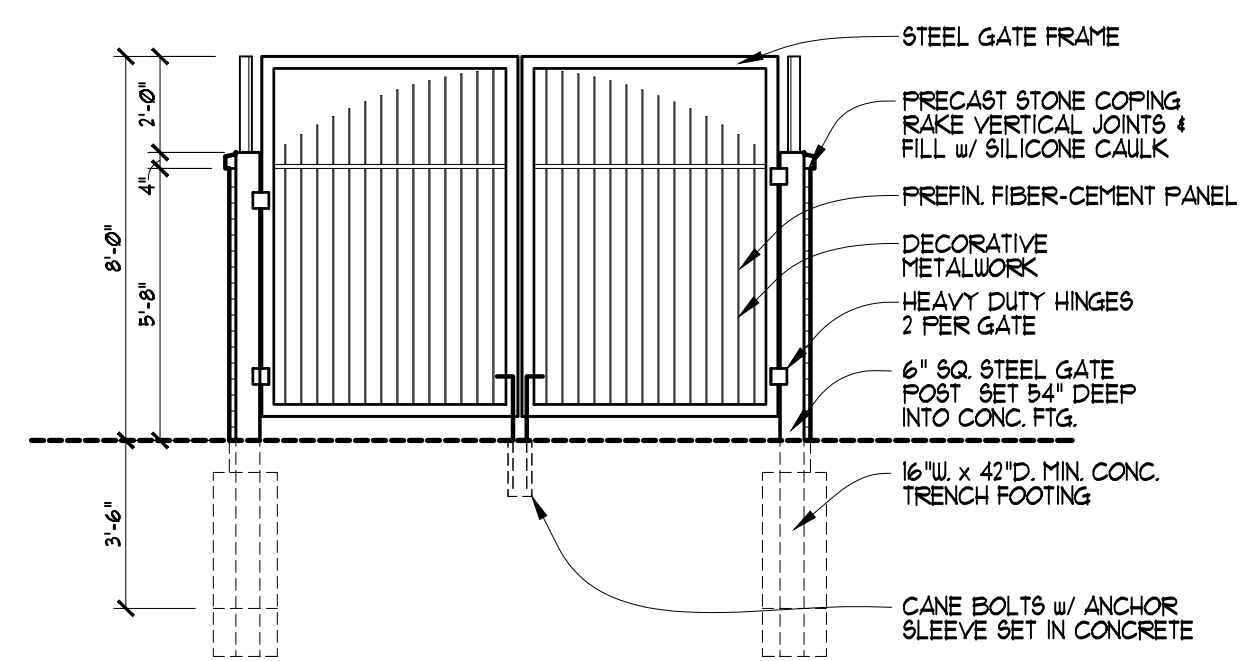
SITE DETAILS



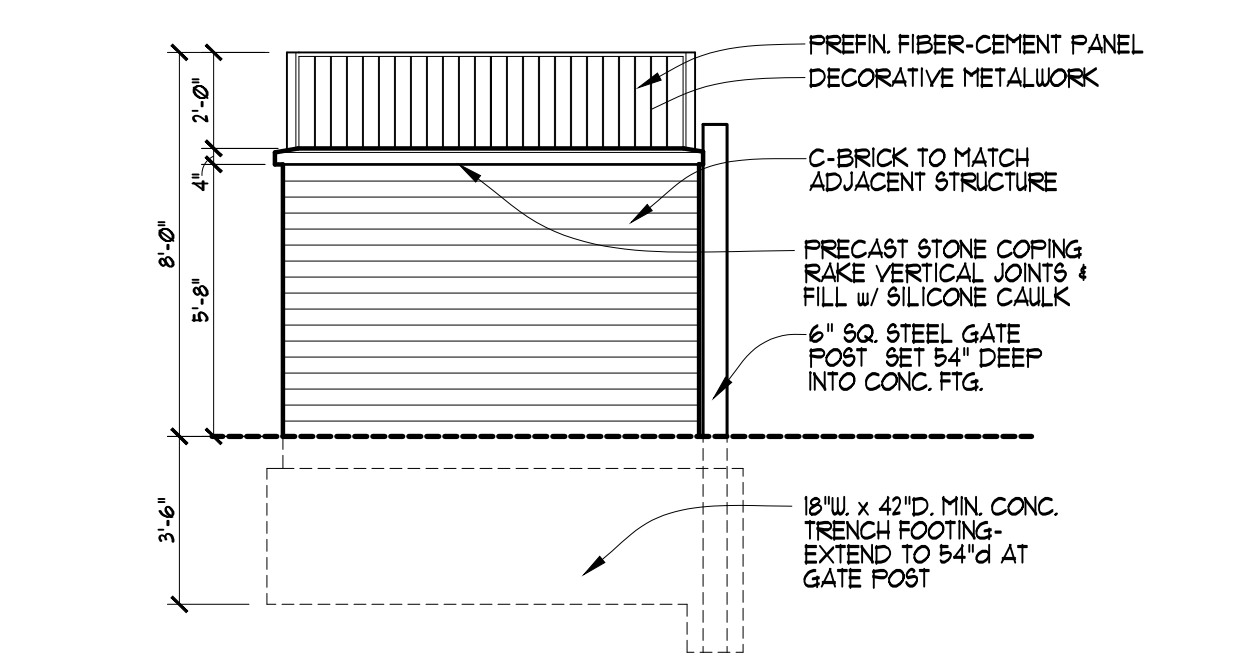
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SCALE: 1/4" = 1'-0"



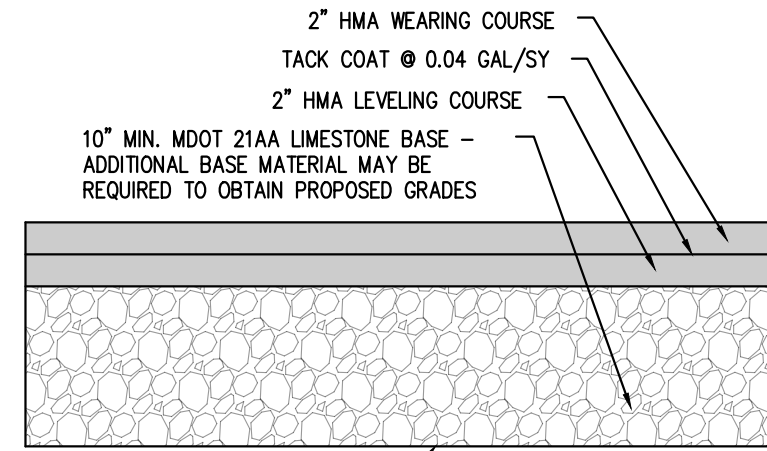
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SCALE: 1/4" = 1'-0"



REFUSE ENCLOSURE ELEVATION
SCALE: 1/4" = 1'-0"

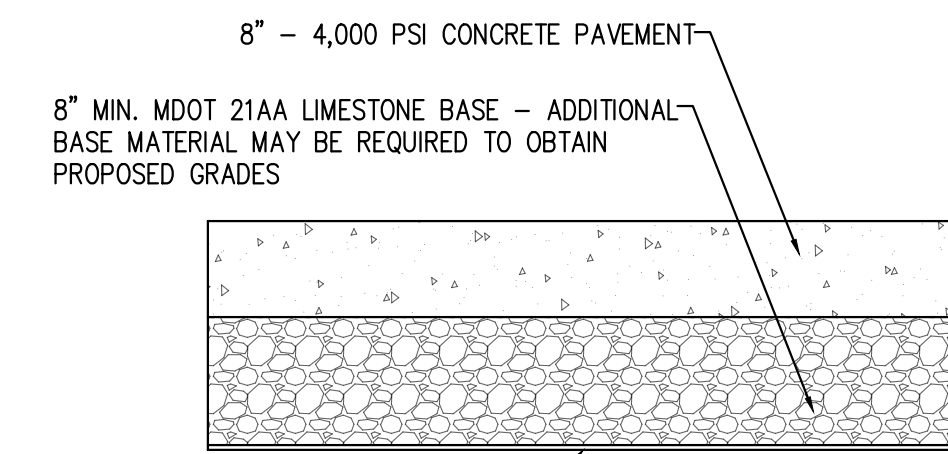


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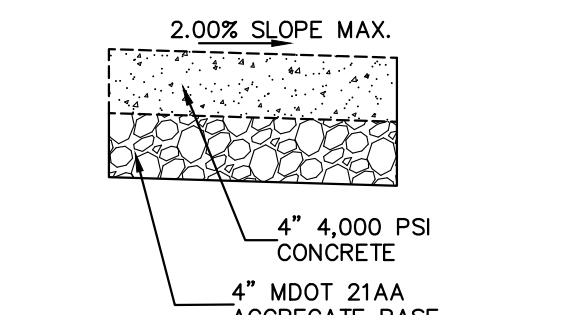


NOTES:
PAVING CONTRACTOR TO SUBMIT HMA PAVEMENT MIX SELECTION TO DESIGN ENGINEER OR MUNICIPAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

STANDARD DUTY ASPHALT PAVEMENT SECTION
SCALE: N.T.S.

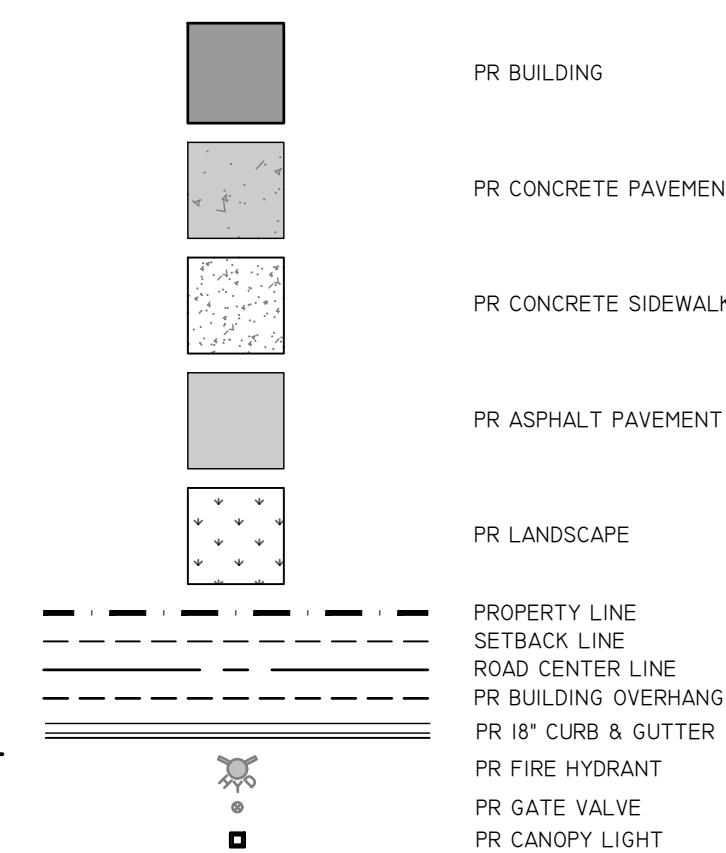


8\"/>



TYPICAL SIDEWALK SECTION
SCALE: N.T.S.

LEGEND



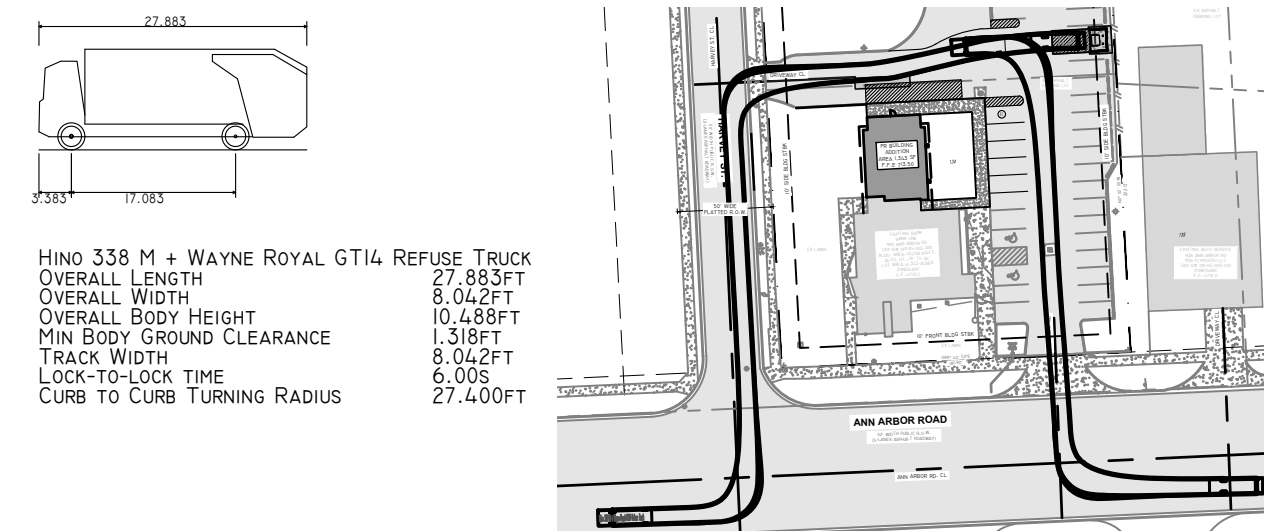
SITE DATA

TOTAL LAND AREA:	1.343 ACRES (58,507 S.F.)
CURRENT ZONING:	ARC
PROPOSED ZONING:	ARC
CURRENT USE:	BANK
PROPOSED USE:	MEDICAL OFFICE
EXISTING FLOOR AREA:	3,238 SF
PROPOSED FLOOR AREA ADDITION:	1,343 SF
TOTAL FLOOR AREA:	4,581 SF
BUILDING SETBACKS:	REQUIRED PROVIDED
FRONT YARD SETBACK (ANN ARBOR ROAD)	10' 13'-10"
REAR YARD SETBACK	20' 193'-4"
WEST SIDE YARD SETBACK	10' 37'-10"
EAST SIDE YARD SETBACK	10' 78'-0"
PARKING REQUIREMENTS:	REQUIRED PROVIDED
PROFESSIONAL OFFICE (G.F.A. = 4,581 S.F.)	27 50
WAITING AREA - 227 SF	
EXAMINING ROOMS - 8	
EMPLOYEES AT MAX SHIFT - 8	
1 PER 20 S.F. AREA OF WAITING ROOM PLUS	
1 PER EXAMINING ROOM PLUS	
1 PER EACH EMPLOYEE AT MAX SHIFT	
ACCESSIBLE PARKING - VAN	1 1
ACCESSIBLE PARKING - CAR	1 1
EXISTING DRIVEWAY SPACING:	REQUIRED PROVIDED
BETWEEN NORTH AND SOUTH DRIVEWAYS ON HARVEY ST	155' 137'-1"
BETWEEN DRIVEWAY ON ANN ARBOR ST AND NEIGHBORING DRIVEWAY	300' 88'-1"
BETWEEN INTERSECTION AND SOUTH DRIVEWAY ON HARVEY ST	175' 161'-4"
BETWEEN INTERSECTION AND DRIVEWAY ON ANN ARBOR RD	175' 136'-9"

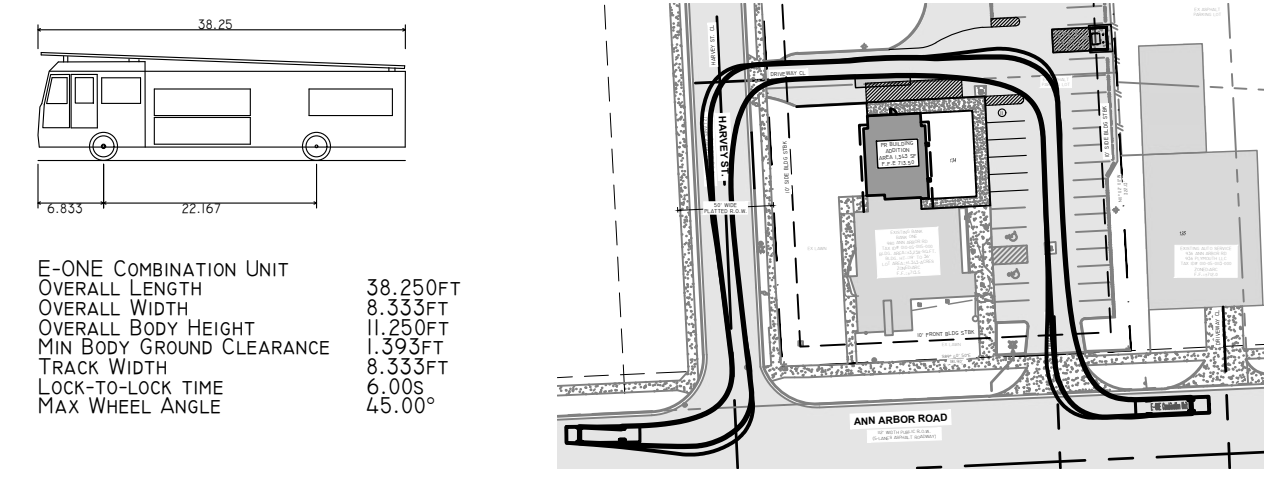
SOUTHERNMOST DRIVEWAY HAS BEEN REMOVED REDUCING THE NONCONFORMITY OF DRIVEWAY SPACING FROM THE INTERSECTION. SPACING OF DRIVEWAY HAS BEEN INCREASED FROM 117'-5" TO 161'-4".

VEHICLE TURNING MOVEMENT PLAN

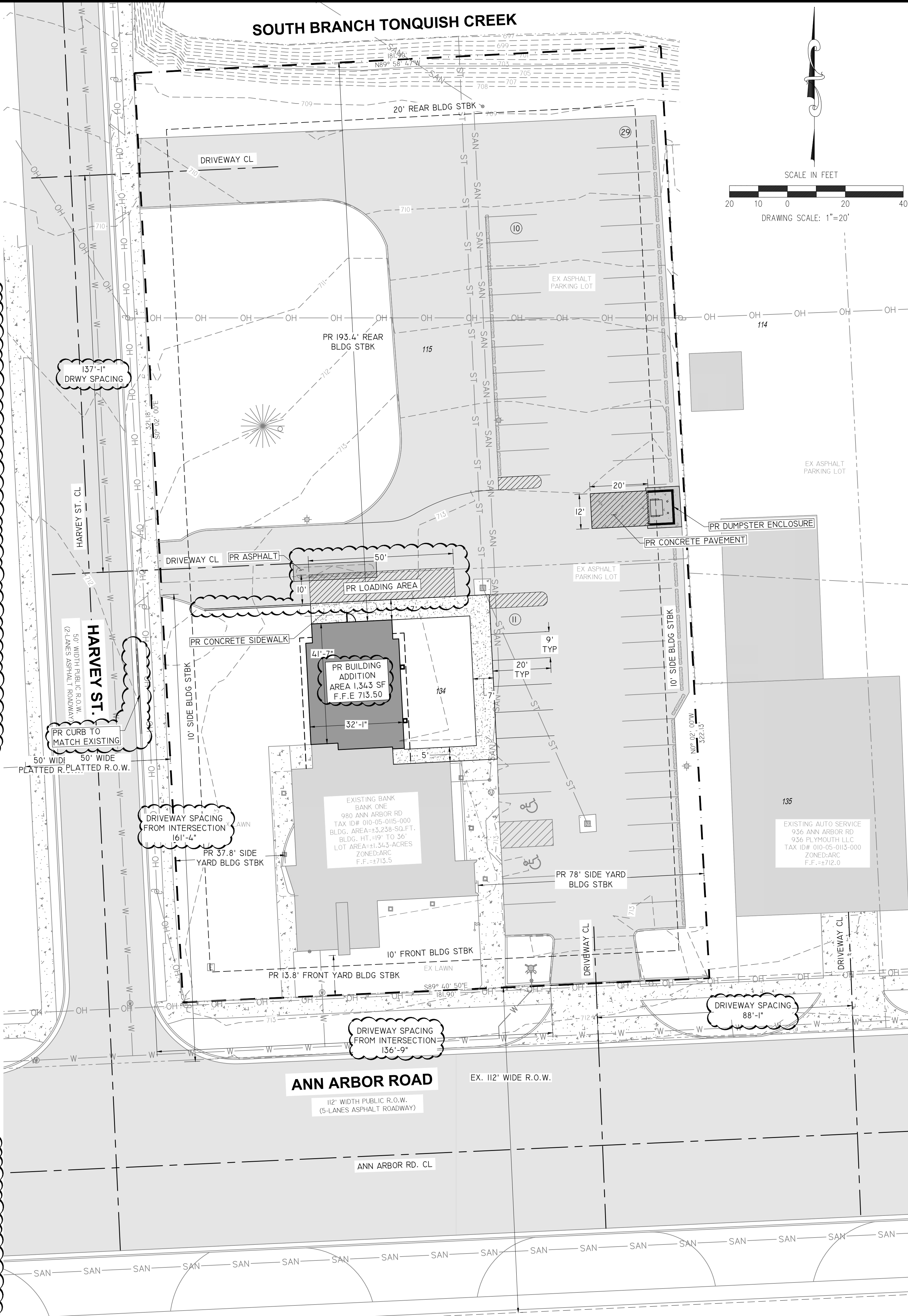
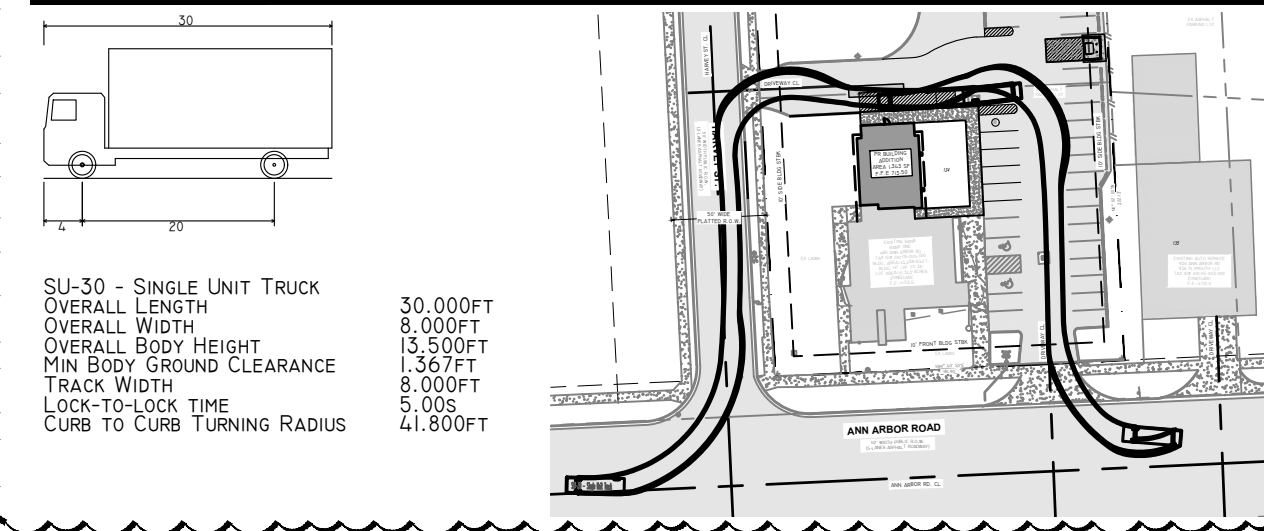
DUMPSTER TRUCK



FIRE TRUCK



DELIVERY TRUCK



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KALABATENGINEERING

KE

CIVIL ENGINEERING & SITE DEVELOPMENT
31333 Southfield Road Suite 250
Beverly Hills, MI 48025
Ph 248.600.8707
F 248.594.5919
iden@kalabat.com

NO.	REVISION	DATE	NO.	REVISION	DATE
1	REVISION APPROVAL		10		
2	SITE PLAN REVISION		11		
3			12		
4			13		
5			14		
6			15		
7			16		
8			17		
9			18		

CLIENT: **SOOTHING DENTAL PLLC**
496 W ANN ARBOR TRAIL SUITE 201
PLYMOUTH, MI 48170

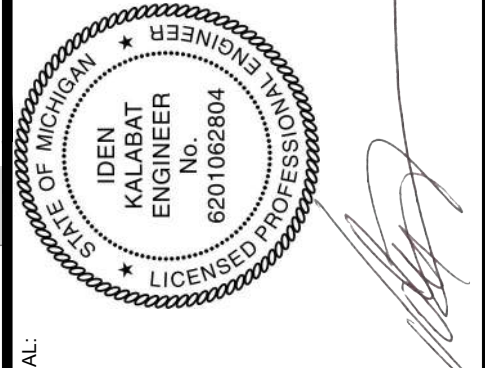
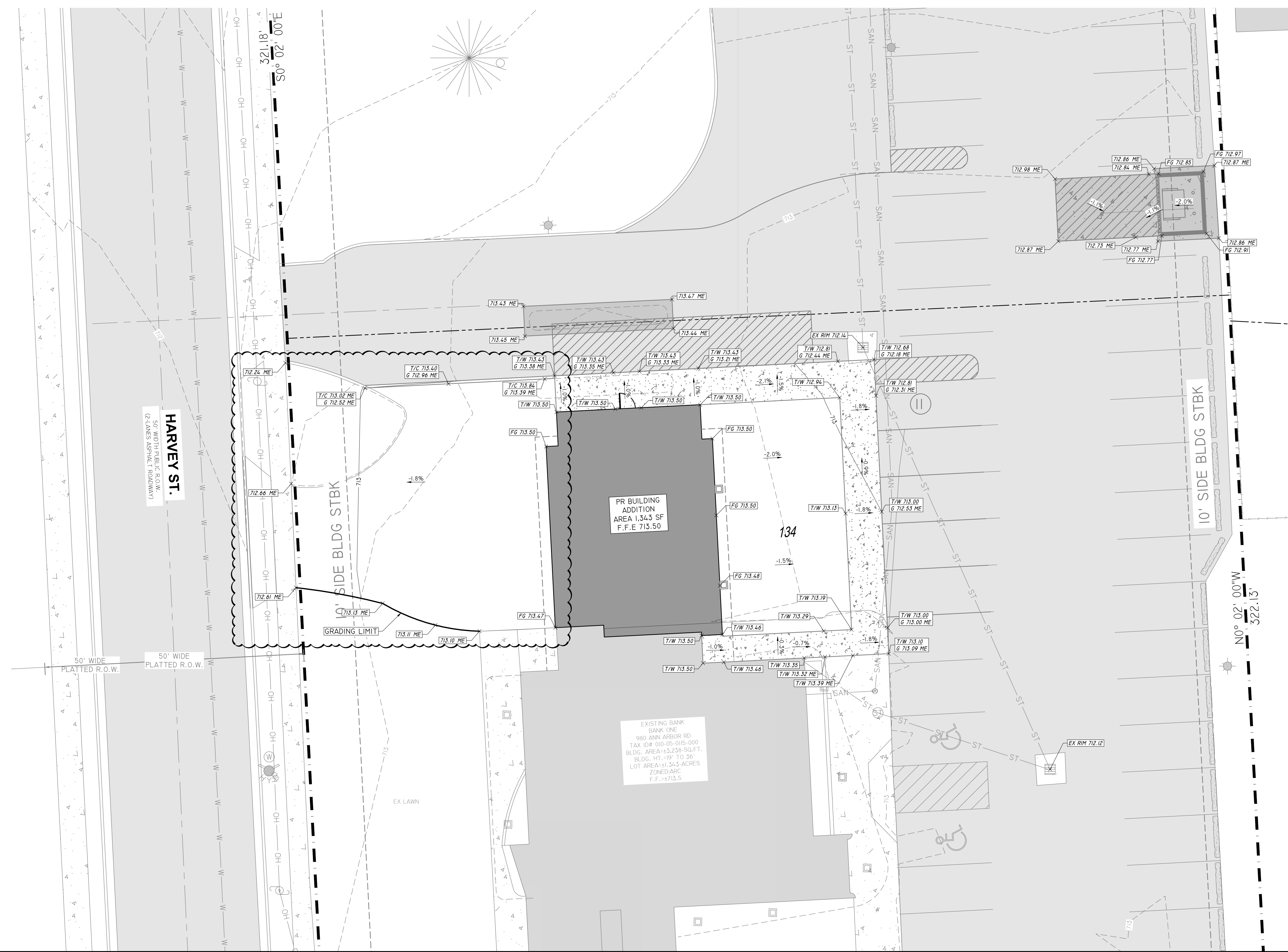
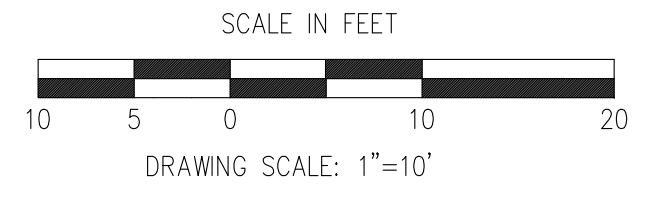
PROJECT: **DENTAL OFFICE INTERIOR BUILDOUT AND ADDITION**
980 ANN ARBOR RD
PLYMOUTH, MI 48170

SHEET TITLE: **SITE PLAN**

SHEET NUMBER: **C3.0**

LEGEND

- XXX --- PR MAJOR CONTOUR LINE
- XXX --- PR MINOR CONTOUR LINE
- XXX --- EX MAJOR CONTOUR LINE
- XXX --- EX MINOR CONTOUR LINE
- FG XXX.XX PR FINISH GRADE ELEVATION LABEL
- T/C XXX.XX PR TOP OF CURB ELEVATION LABEL
- T/W XXX.XX PR TOP OF SIDEWALK ELEVATION LABEL
- XXX.X ME MATCH EXISTING ELEVATION LABEL
- EX RIM XXX.XX EXISTING RIM ELEVATION LABEL
- G XXX.XX PR GUTTER ELEVATION LABEL



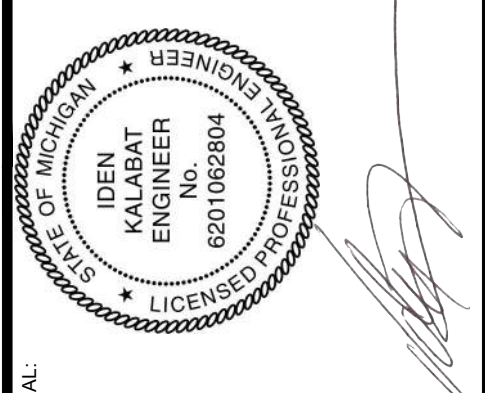
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3			12	NO. REVISION	
4			13	NO. REVISION	
5			14	NO. REVISION	
6			15	NO. REVISION	
7			16	NO. REVISION	
8			17	NO. REVISION	
9			18	NO. REVISION	

SOOTHING DENTAL PLLC
 496 W ANN ARBOR TRAIL SUITE 201
 PLYMOUTH, MI 48170

DENTAL OFFICE INTERIOR BUILDOUT AND ADDITION
 980 ANN ARBOR RD
 PLYMOUTH, MI 48170

GRADING PLAN

C4.0



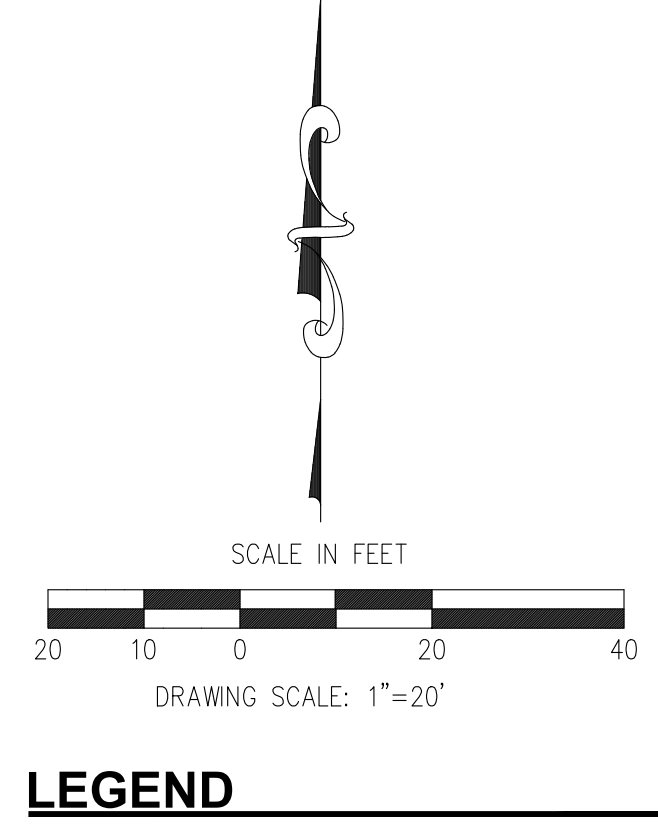
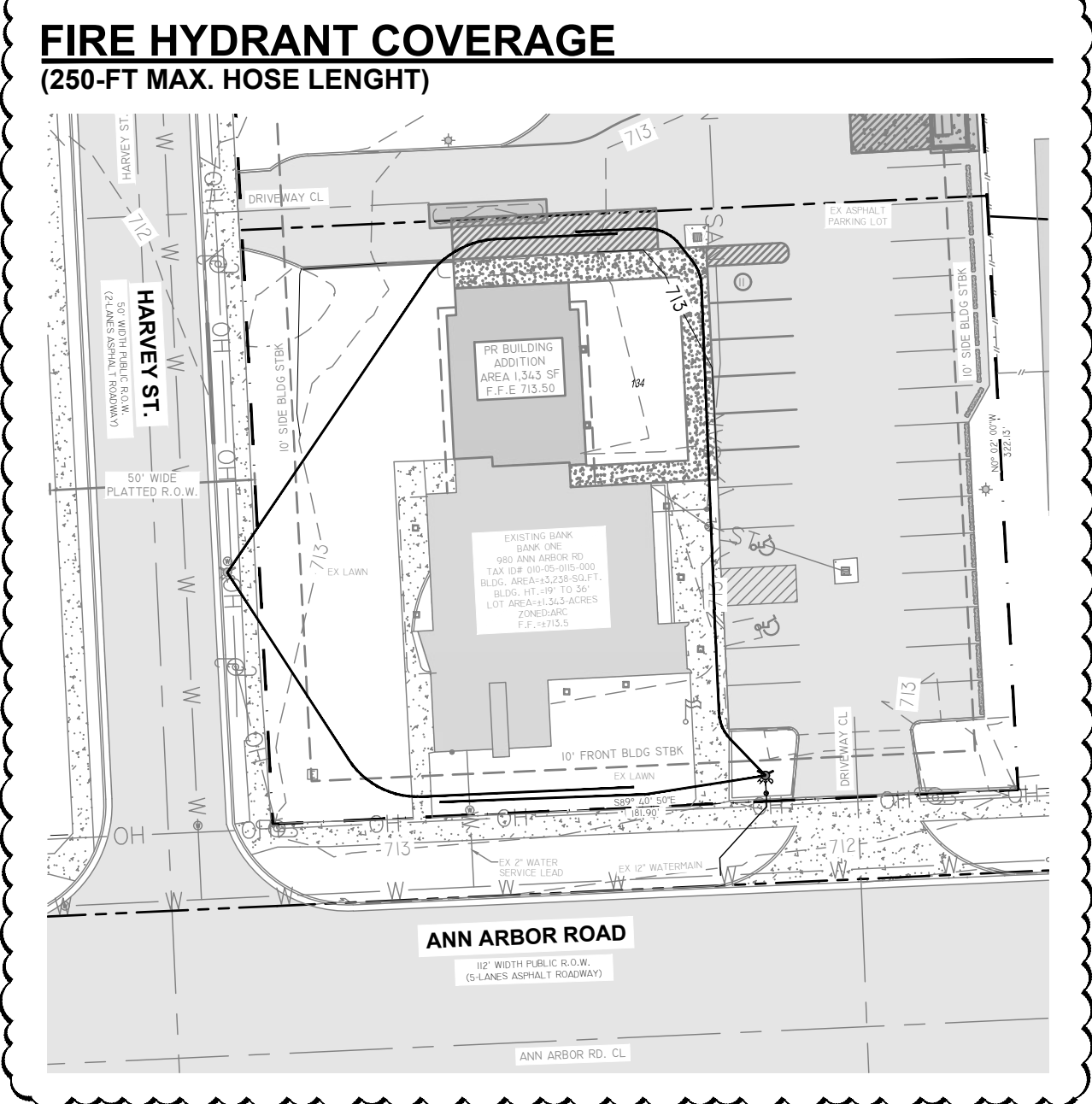
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7			16		
8			17		
9			18		

SOOTHING DENTAL PLLC
 496 W ANN ARBOR TRAIL SUITE 201
 PLYMOUTH, MI 48170

DENTAL OFFICE INTERIOR BUILDOUT AND ADDITION
 980 ANN ARBOR RD
 PLYMOUTH, MI 48170

STORMWATER MANAGEMENT & UTILITY PLAN

C5.0



WEIGHTED RUNOFF CO-EFFICIENT CALCULATION

EXISTING DRAINAGE AREA				PROPOSED DRAINAGE AREA			
Land cover	C	Area	C x Area	Land cover	C	Area	C x Area
Asphalt	0.95	32071	30467.45	Asphalt	0.95	27775	26386.25
Concrete	0.95	1755	1667.25	Concrete	0.95	2695	2560.25
Roof	0.95	4656	4423.20	Roof	0.95	4826	4584.70
Landscape	0.45	20109	9049.05	Landscape	0.45	23295	10482.75
Σ (C x Area)			45606.95	Σ (C x Area)			44013.95
Σ (Area)			58591.00 ft ²	Σ (Area)			58591.00 ft ²
Weighted run-off co-efficient (C)			0.78	Weighted run-off co-efficient (C)			0.75

DETENTION STORAGE CALCULATION

10 YEAR DETENTION STORAGE REQUIREMENT PER EXISTING CONDITION
 COMPOSITE RUN-OFF COEFFICIENT (C) = 0.78
 AREA (A) = 58,591 SF = 1.345 ACRES
 $Q_0 = 0.15 \text{ CFS/ACRE} \times A = 0.15 \times 1.345 = 0.202 \text{ CFS}$
 $Q_0 = Q_0 / (A \times C) = 0.202 / (1.345 \times 0.78) = 0.192 \text{ CFS/ACRE IMPERVIOUSNESS}$
 $T_{10} = -19.9 + \text{SQRT}(4,530/Q_0) = -19.9 + \text{SQRT}(4,530/0.192) = 133.70 \text{ MIN}$
 $V_{S10} = 9,108 \times T_{10} / (T_{10} + 19.9) - 40 \times Q_0 \times T_{10}$
 $= 9,108 \times 133.70 / (133.70 + 19.9) - 40 \times 0.192 \times 133.70 = 6,901.78 \text{ CF}$
 $V_{T10} = V_{S10} \times A \times C = 6,901.78 \times 1.345 \times 0.78 = 7,240.66 \text{ CF}$
 DETENTION STORAGE PROVIDED = 763.56 CF (6" OF PONDING IN PARKING LOT)
 $I_0 = 151.8 / (T + 19.9) = 151.8 / (15 + 19.9) = 4.35 \text{ INCH/HR}$
 10 YR PEAK FLOW - $Q_0 = C \times I \times A = 0.78 \times 4.35 \times 1.345 = 4.56 \text{ CFS}$

10 YEAR DETENTION STORAGE REQUIREMENT PER PROPOSED CONDITION
 COMPOSITE RUN-OFF COEFFICIENT (C) = 0.75
 AREA (A) = 58,591 SF = 1.345 ACRES
 $Q_0 = 0.15 \text{ CFS/ACRE} \times A = 0.15 \times 1.345 = 0.202 \text{ CFS}$
 $Q_0 = Q_0 / (A \times C) = 0.202 / (1.345 \times 0.75) = 0.200 \text{ CFS/ACRE IMPERVIOUSNESS}$
 $T_{10} = -19.9 + \text{SQRT}(4,530/Q_0) = -19.9 + \text{SQRT}(4,530/0.200) = 130.60 \text{ MIN}$
 $V_{S10} = 9,108 \times T_{10} / (T_{10} + 19.9) - 40 \times Q_0 \times T_{10}$
 $= 9,108 \times 130.60 / (130.60 + 19.9) - 40 \times 0.200 \times 130.60 = 6,858.89 \text{ CF}$
 $V_{T10} = V_{S10} \times A \times C = 6,858.89 \times 1.345 \times 0.75 = 6,918.91 \text{ CF}$
 DETENTION STORAGE PROVIDED = 730.08 CF (6" OF PONDING IN PARKING LOT)
 $I_0 = 151.8 / (T + 19.9) = 151.8 / (15 + 19.9) = 4.35 \text{ INCH/HR}$
 10 YR PEAK FLOW - $Q_0 = C \times I \times A = 0.75 \times 4.35 \times 1.345 = 4.39 \text{ CFS}$

ALTHOUGH, DETENTION STORAGE PROVIDED AS 6" OF PONDING IN PARKING LOT HAS BEEN REDUCED BY 33.48 CF, THE DETENTION REQUIREMENT HAS BEEN REDUCED BY 321.75 CF AS THE RUN-OFF COEFFICIENT HAS BEEN REDUCED FROM 0.78 TO 0.75. THE 10-YEAR PEAK FLOW HAS BEEN REDUCED BY 0.17 CFS. THERE IS NO SIGNIFICANT CHANGE DUE TO PROPOSED IMPROVEMENTS WITH RESPECT TO STORMWATER OUTFLOW FROM THE SITE. THEREFORE, NO STORMWATER IMPROVEMENTS HAVE BEEN PROPOSED AS PHASE 1 IMPROVEMENTS.

NOTE
 THE DEVELOPER TO TELEVISION AND VIDEO RECORD THE CONDITION OF THE SANITARY SEWER LEAD. A COPY OF THE VIDEO INSPECTION OF THE SANITARY SEWER LEAD SHOULD BE SHARED WITH THE CITY'S DEPARTMENT OF MUNICIPAL SERVICES (DMS). FOLLOWING REVIEW OF THE VIDEO INSPECTION, THE EXISTING SANITARY SEWER LEAD WILL BE REQUIRED TO BE BROUGHT INTO COMPLIANCE WITH THE CITY'S PLUMBING CODE, WHICH AT A MINIMUM WOULD INCLUDE ADDING CLEANOUTS FOR ACCESS. THE VIDEO INSPECTION MAY ALSO IDENTIFY ANY OFFSET JOINTS, INFILTRATION LOCATION OR BLOCKAGES, WHICH WOULD THEN NEED TO BE CORRECTED PRIOR TO PUTTING IT BACK IN USE.



LUMINAIRE DETAILS

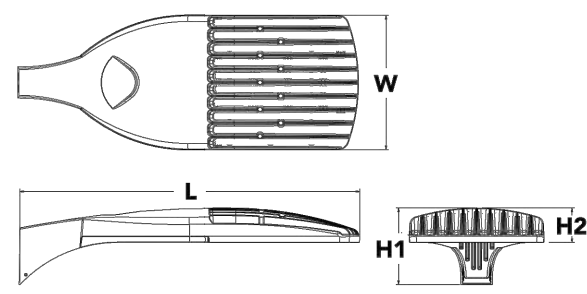
EX AL1



D-Series Size 1 LED Area Luminaire



Specifications
 EPA: 1.01 ft² (0.09 m²)
 Length: 33" (83.8 cm)
 Width: 13" (33.0 cm)
 Height H1: 7-1/2" (19.0 cm)
 Height H2: 3-1/2" (9.1 cm)
 Weight (max): 27 lbs (12.3 kg)



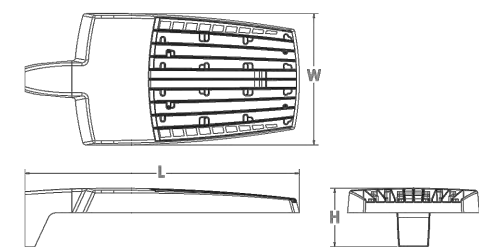
EX AL2



RSX3 LED Area Luminaire



Specifications
 EPA (ft²@7'): 0.70 ft² (0.07 m²)
 Length: 33.8" (85.9 cm) (SPA mount)
 Width: 16.1" (40.9 cm)
 Height: 3.0" (7.6 cm) Main Body
 7.2" (18.3 cm) Arm
 Weight (max): 48.0 lbs (21.8 kg)



EX CL1 / PR CL1



CNY LED LED Canopy/Ceiling Luminaire

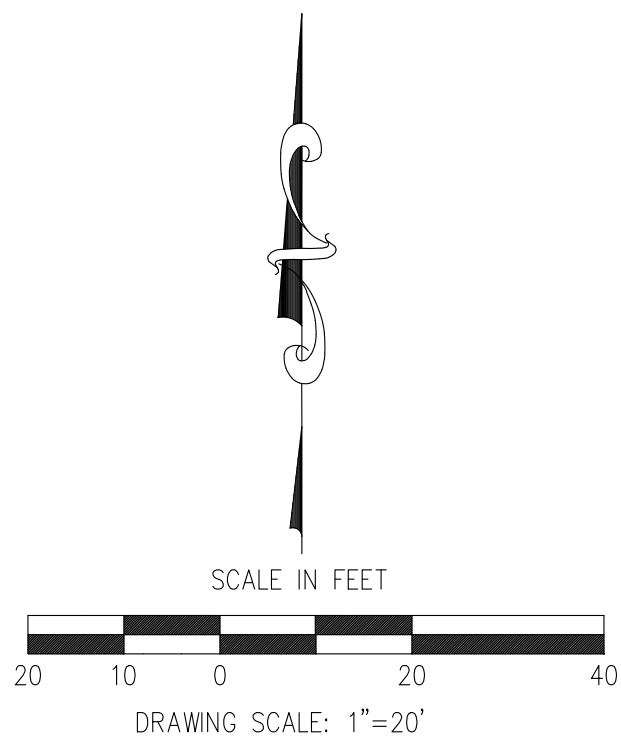


Specifications

CNY LED P0/P1/P2
 Width: 10"
 Height: 4.7"
 Depth: 10"
 Weight: 6.5lbs

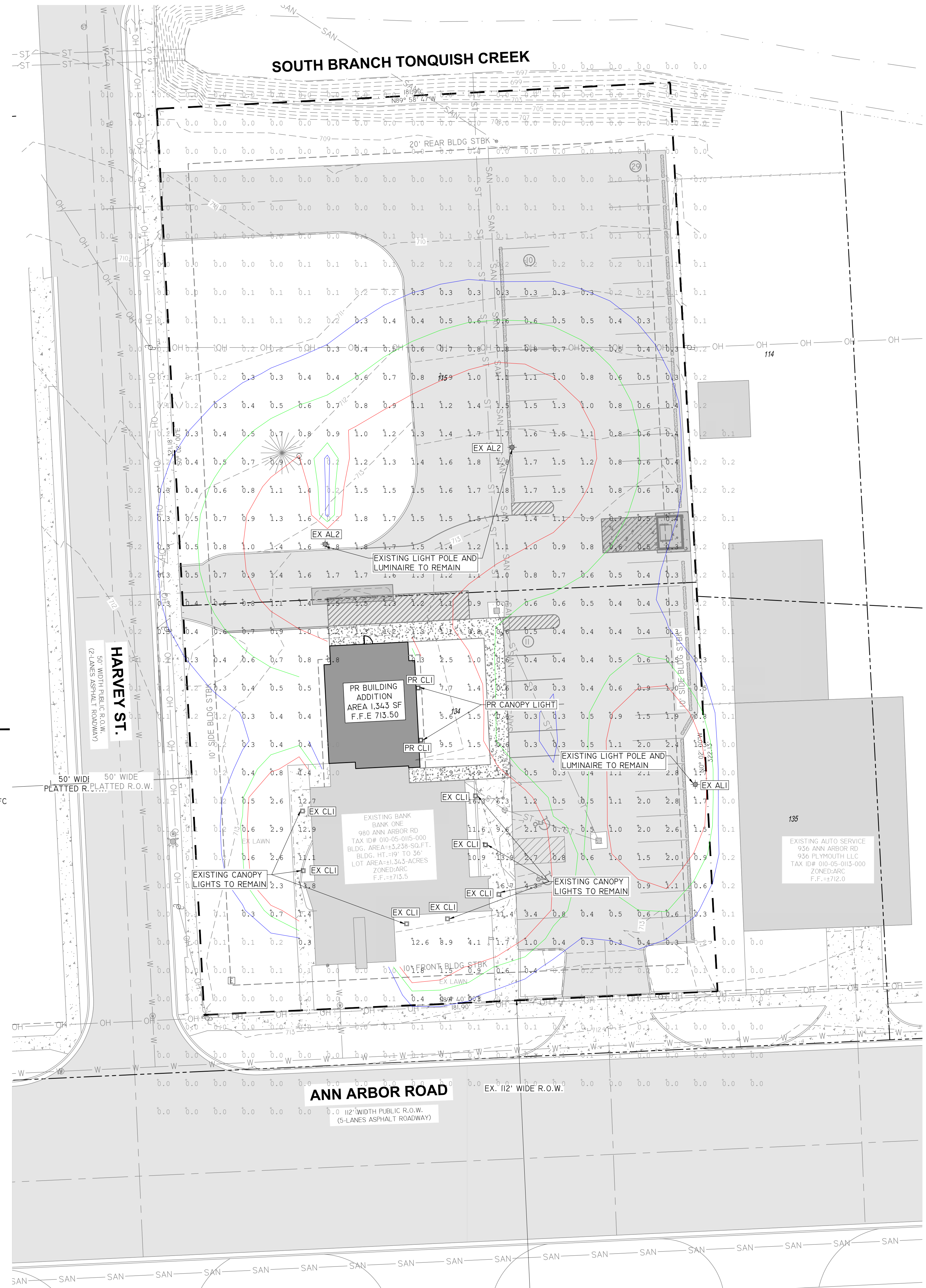
LUMINAIRE SCHEDULE

LABEL	QTY	MOUNT HEIGHT (FT)	MANUFACTURER	MODEL #	DESCRIPTION	LUMINAIRE LUMENS	LUMINAIRE WATTS	ARRANGEMENT
EX AL1	1	20	LITHONIA LIGHTING	DSX1-LED-PI-50K-BLC-MVOLT	D SERIES SIZE 1 LED AREA LUMINAIRE	5781	54	SINGLE POLE-MOUNT
EX AL2	2	20	LITHONIA LIGHTING	RSX3-LED-PI-50K-R5	RSX LED SERIES	11283	72	SINGLE POLE-MOUNT
EX CLI	7	9	LITHONIA LIGHTING	CNY-LED-PI-50K-MVOLT	LED CANOPY/CEILING LUMINAIRE	4486	35.19	CANOPY MOUNT
PR CLI	2	9	LITHONIA LIGHTING	CNY-LED-PI-50K-MVOLT	LED CANOPY/CEILING LUMINAIRE	4486	35.19	CANOPY MOUNT



LEGEND

- 1.0 FOOT CANDLE (Fc) ISOLINE
- 0.6 FOOT CANDLE (Fc) ISOLINE
- 0.3 FOOT CANDLE (Fc) ISOLINE
- 0.3 ILLUMINANCE CALC POINT LESS THAN 0.3 Fc
- 1.0 ILLUMINANCE CALC POINT GREATER THAN 0.3 FC
- ☼ EX POLE MOUNTED AREA LIGHT
- ☐ EX CANOPY LIGHT
- ☐ PR CANOPY LIGHT



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NO.	REVISION	DATE	NO.	REVISION	DATE
1	SITE PLAN APPROVAL	12/22/22	10		
2	SITE PLAN REVISION	01/11/23	11		
3			12		
4			13		
5			14		
6			15		
7			16		
8			17		
9			18		

CLIENT:

SOOTHING DENTAL PLLC
 496 W ANN ARBOR TRAIL SUITE 201
 PLYMOUTH, MI 48170

PROJECT:

DENTAL OFFICE INTERIOR BUILDOUT AND ADDITION
 980 ANN ARBOR RD
 PLYMOUTH, MI 48170

SHEET TITLE:

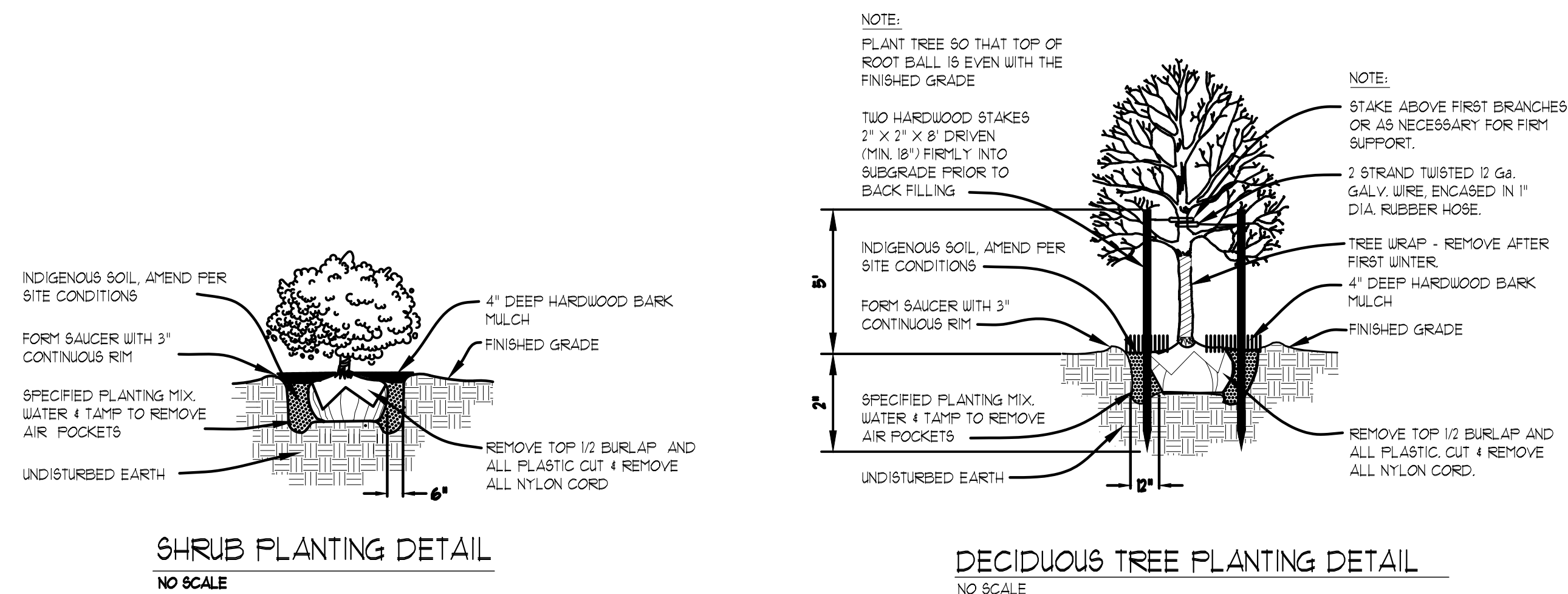
PHOTOMETRIC PLAN

SHEET NUMBER:

C6.0

PLANT MATERIAL LIST				
KEY	QTY	BOTANICAL NAME	COMMON NAME	MIN. SIZE
DECIDUOUS TREES				
TCG	4	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	3"-3 1/2" CAL.
AF	6	ACER X FREEMANI 'JEFFERSRED'	AUTUMN BLAZE RED MAPLE	3"-3 1/2" CAL.
GTIS	4	GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE'	SKYLINE THORNLESS HONEY LOCUST	3"-3 1/2" CAL.
SHRUBS				
EMJ	38	BUXUS MICROPHYLLA JAPONICA 'WINTER GEM'	WINTERGEM BOXWOOD	30" HIGH
EA	93	EUONYMUS ALATUS	BURNING BUSH	30" HIGH

NOTE: TO ENSURE ADEQUATE VARIETY, AND TO AVOID MONOTONY AND UNIFORMITY WITHIN THE SITE, THE OVERALL LANDSCAPE PLAN SHALL COMPLY WITH TABLE SHOWN ON SEC 18-165 (C) (1)



GENERAL LANDSCAPE PLANTING NOTES

- THE CONTRACTOR SHALL PROVIDE A ONE YEAR WARRANTY ON ALL PLANTS AND VEGETATION PROPOSED ON THE LANDSCAPING PLAN. ANY TREES, SHRUBS, GROUND COVER OR OTHER VEGETATION PLANTED AS PART OF THIS PROJECT THAT DO NOT SURVIVE ONE YEAR FROM PLANTING SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL PERTINENT UTILITY COMPANIES THREE WORKING DAYS IN ADVANCE OF ANY DIGGING. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF ANY UTILITIES.
- REFER TO THE LANDSCAPE SCHEMATIC PLAN FOR ADDITIONAL NOTES. LANDSCAPE IMPROVEMENTS SHALL CONFORM TO THE LATEST EDITION OF ODOT CONSTRUCTION.
- ALL PLANTING MATERIALS SHALL BE PLANTED PER ODOT SPECIFICATIONS. EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE BROKEN, LOW HANGING AND OTHER UNDESIRABLE GROWTH TO ENSURE HEALTHY AND SYMMETRICAL NEW GROWTH.
- PLANTING BEDS, ONE MONTH BEFORE CULTIVATION AND AFTER DAYTIME TEMPERATURES HAVE WARMED TO 60° CONSISTENTLY, TREAT ALL PLANTING BEDS THAT ARE TO BE DEVELOPED IN AREAS OF EXISTING TURF WITH PRE-EMERGENT AND POST-EMERGENT TYPE HERBICIDES. USE A STATE-LICENSED PESTICIDE APPLICATOR TO APPLY THE HERBICIDE. REPEAT HERBICIDE APPLICATION TWO WEEKS LATER AND UNTIL ALL HERBACEOUS MATERIALS HAVE BEEN KILLED. BEFORE PLANTING, TOP DRESS ALL PLANTING BEDS WITH A MINIMUM OF 6 INCHES OF BACKFILL MIX, THEN CULTIVATE PLANTING AREA TO A DEPTH OF 6 INCHES USING A PLOW, DISC, OR ROTO-TILLER.
- BACKFILL MIX, FOR ALL PLANTINGS, USE BACKFILL MIX CONSISTING OF THE FOLLOWING:
 - ONE PART EXCAVATED SOIL.
 - ONE PART EPA RATED CLASS IV COMPOST.
 - A SLOW RELEASE COMMERCIAL FERTILIZER (0-20-20 OR EQUAL) ADDED AT A RATE OF 5 POUNDS PER CUBIC YARD TO THE BACKFILL MIX.
 - IF SOIL AREAS ARE OF HIGH PH (GREATER THAN 6.5), APPLY 125 POUNDS OF ELEMENTAL SULFUR PER CUBIC YARD OF BACKFILL MIX.
 NOTE: CONTRACTOR SHALL SUPPLY A DETAILED SOIL ANALYSIS PRIOR TO ALL PLANT BED PREPARATION. ANALYSIS SHALL INDICATE SOIL PH, TEXTURE, MAJOR NUTRIENTS, SALTS, ETC. SOIL ANALYSIS SHALL BE FROM A REPUTABLE, INDEPENDENT LAB. SOIL AMENDMENTS SHALL BE INCORPORATED INTO BACKFILL/PLANT MIX AS RECOMMENDED BY THE INDEPENDENT LAB.
- MULCH, SMOOTH AND SHAPE THE BACKFILL MIX TO FORM A SHALLOW BASIN SLIGHTLY LARGER THAN THE PLANTING HOLE. MULCH ALL PLANTING AREAS WITH A LAYER OF FINELY SHREDDED HARDWOOD BARK OF UNIFORM TEXTURE & SIZE. USE SHREDDED HARDWOOD BARK AGED MIN ONE YEAR. RAKE AND SMOOTH THE ENTIRE AREA OF THE PLANTING BEDS. MULCH TO A DEPTH OF 3 INCHES. AFTER MULCHING AND BEFORE WATERING, ADD A SLOW RELEASE COMMERCIAL FERTILIZER (12-12-12 OR EQUAL), IN GRANULAR FORM, TO THE TOP OF THE MULCH AT A RATE OF 5 POUNDS PER 1000 SQUARE FEET. DO NOT ALLOW FERTILIZER TO CONTACT THE STEMS, BRANCHES, ROOTS OR LEAVES.
- PERIOD OF ESTABLISHMENT. BEFORE FINAL INSPECTION, PLACE ALL PLANTS AND CARE FOR THEM FOR A PERIOD OF ESTABLISHMENT. THE PERIOD OF ESTABLISHMENT BEGINS IMMEDIATELY UPON COMPLETION OF THE PLANTING OPERATIONS AND CONTINUES UNTIL OCTOBER 1. THE MINIMUM PERIOD OF ESTABLISHMENT IS ONE GROWING SEASON, JUNE 1 THROUGH OCTOBER 1. DURING THE PERIOD OF ESTABLISHMENT, FOLLOW STANDARD HORTICULTURAL PRACTICES TO ENSURE THE VIGOR AND GROWTH OF THE TRANSPLANTED MATERIAL. WATER, REMULCH, RESTAKE, GUY, AND CULTIVATE AS NECESSARY. PERFORM AT LEAST TWO WEEDING AND MOWING OPERATIONS (AROUND TREES, SHRUBS, AND BURNING BUSH) OF SUCH INTENSITY AS TO COMPLETELY RID THE PLANTED AND MULCHED AREAS OF WEEDS AND GRASSES. BEGIN THE FIRST PROGRAM ON OR ABOUT JUNE 15 AND THE SECOND APPROXIMATELY 8 WEEKS LATER ON OR ABOUT AUGUST 15. THE ENGINEER WILL INSPECT THE PLANTING AND SUPPLY THE CONTRACTOR WITH A LIST OF MISSING AND DEAD PLANTS AND THOSE THAT HAVE DIED BACK BEYOND NORMAL PRUNING LINES. REPLANT AS REQUIRED ACCORDING TO THE SPECIFICATIONS OF THE ORIGINAL MATERIAL. REPLACEMENT PLANTS ARE SUBJECT TO A NEW PERIOD OF ESTABLISHMENT. IMMEDIATELY REPLACE PLANTS PLANTED INITIALLY IN THE FALL THAT HAVE DIED BEFORE THE SPRING PLANTING SEASON. CARE FOR THE REPLACEMENT PLANTS DURING THE NEW ESTABLISHMENT PERIOD.
- RESTORATION OF DISTURBED AREAS. ALL DISTURBED AREAS NOT COVERED BY BUILDING, PAVEMENT OR LANDSCAPE PLANTING BEDS SHALL BE PREPARED FOR GRASS SEED AND SEED. LOOSEN RUTS AND WORK THE SOIL. AREAS TO A MINIMUM OF 6" DEEP PRIOR TO FINE GRADING AND SEEDING WORK. AREAS TO RECEIVE GRASS SEED SHALL HAVE A MIN. 4" TOPSOIL PLACED, SEEDED AND A STRAW/MULCH BLANKET COVER PLACED OVER THE SEEDED AREAS PER ODOT SPECIFICATIONS.
- LANDSCAPE TREES, SHRUBS AND PERENNIAL WATERING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, DELIVERING, APPLYING, MEASURING AND SCHEDULING A SUFFICIENT AMOUNT OF WATER NECESSARY TO KEEP EACH PLANT IN A HEALTHY GROWING CONDITION THROUGHOUT THE PERIOD OF ESTABLISHMENT. THE CONTRACTOR SHALL APPLY 1" OF WATER PER WEEK TO ALL NEW PLANTS. THE CONTRACTOR SHALL INSTALL & MAINTAIN SUPPLEMENTAL DRIP WATERING TREE BAGS (SUCH AS 20 GALLON TREE GATOR WATER BAG) TO PROVIDE ADEQUATE, SLOW RELEASE OF WATER. WATER BAGS SHALL BE REMOVED AT THE END OF THE SECOND GROWING SEASON.
- TURF GROUND COVER (BODDING, SEEDING AND SEED MULCHING). ALL SEEDING INSTALLATION SHALL CONFORM TO ODOT SPECIFICATIONS. SEED AT 6 LBS/1000 SF WITH THE FOLLOWING SEED MIXTURE:

TITAN TALL-TYPE TURF FESCUE	10%
SR 4100 PERENNIAL RYEGRASS	20%
HERIT KENTUCKY BLUEGRASS	10%

LANDSCAPING REQUIREMENT

- STREET FRONTAGE REQUIREMENT**
 10 FOOT LANDSCAPING BUFFER
 1 DECIDUOUS TREE PER 40' OF STREET FRONTAGE
 10 SHRUBS PER 30' OF STREET FRONTAGE
- ANN ARBOR ROAD FRONTAGE = 182'-31" = 151 FT
 DECIDUOUS TREES - 4 EA
 SHRUBS - 50 EA
- HARVEY STREET FRONTAGE = 321'-19-24" = 278 FT
 DECIDUOUS TREES - 7 EA
 SHRUBS - 93 EA
- PARKING LOT LANDSCAPING REQUIREMENT**
 25-100 PARKING SPACES
 1 DECIDUOUS TREE PER 10 SPACES
 100 SF OF LANDSCAPED AREA PER 10 SPACES
- DECIDUOUS TREES - 5 EA
 LANDSCAPED AREA - 500 SF



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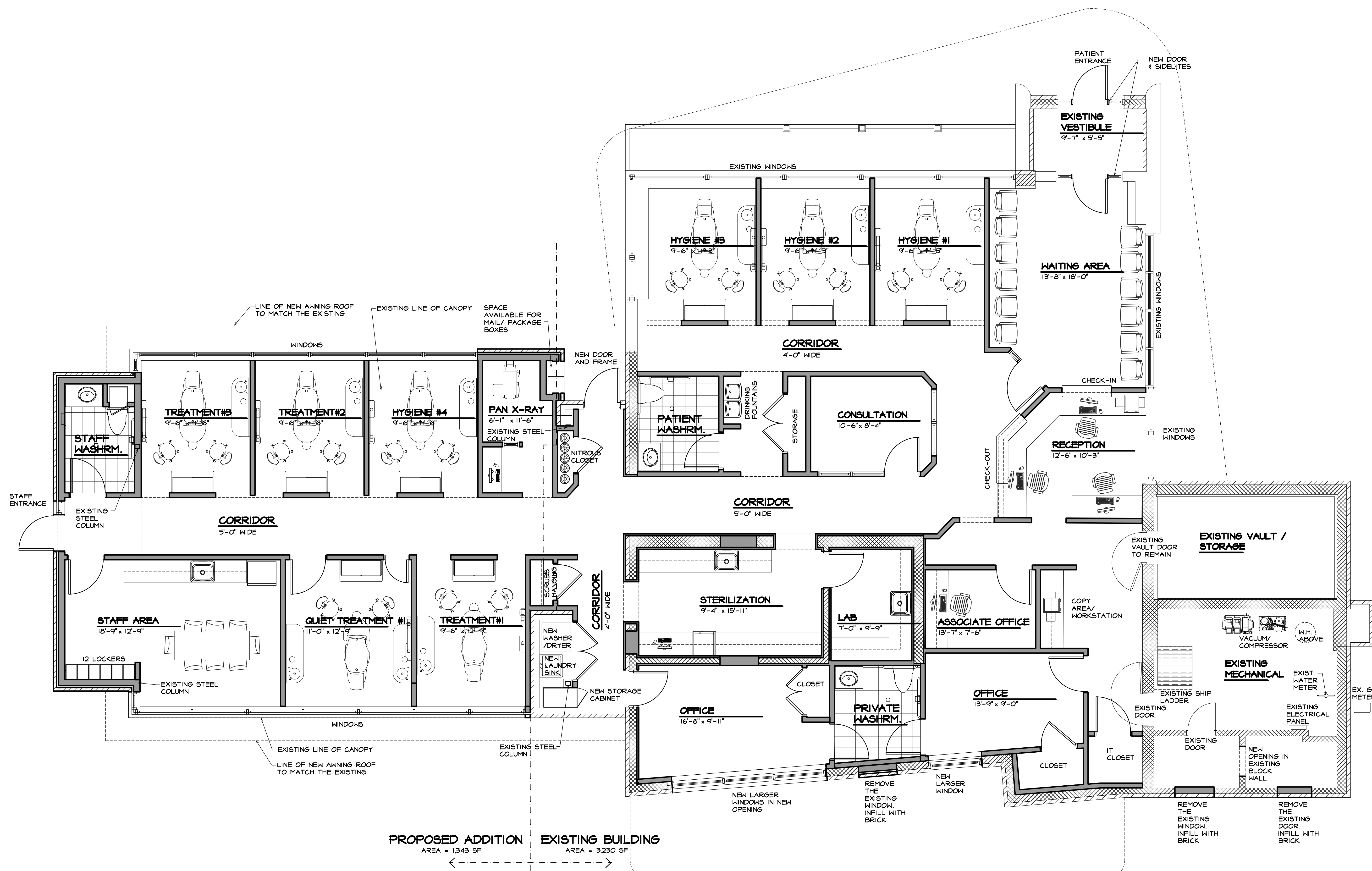
STATE OF MICHIGAN
 PROFESSIONAL ENGINEER
 IDEN KALABAT
 C. GUNASEKARA
 820102804
 LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	DATE	NO.	REVISION	DATE
1	SITE PLAN APPROVAL	01/31/23	10		
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CLIENT:
SOOTHING DENTAL PLLC
 496 W ANN ARBOR TRAIL SUITE 201
 PLYMOUTH, MI 48170

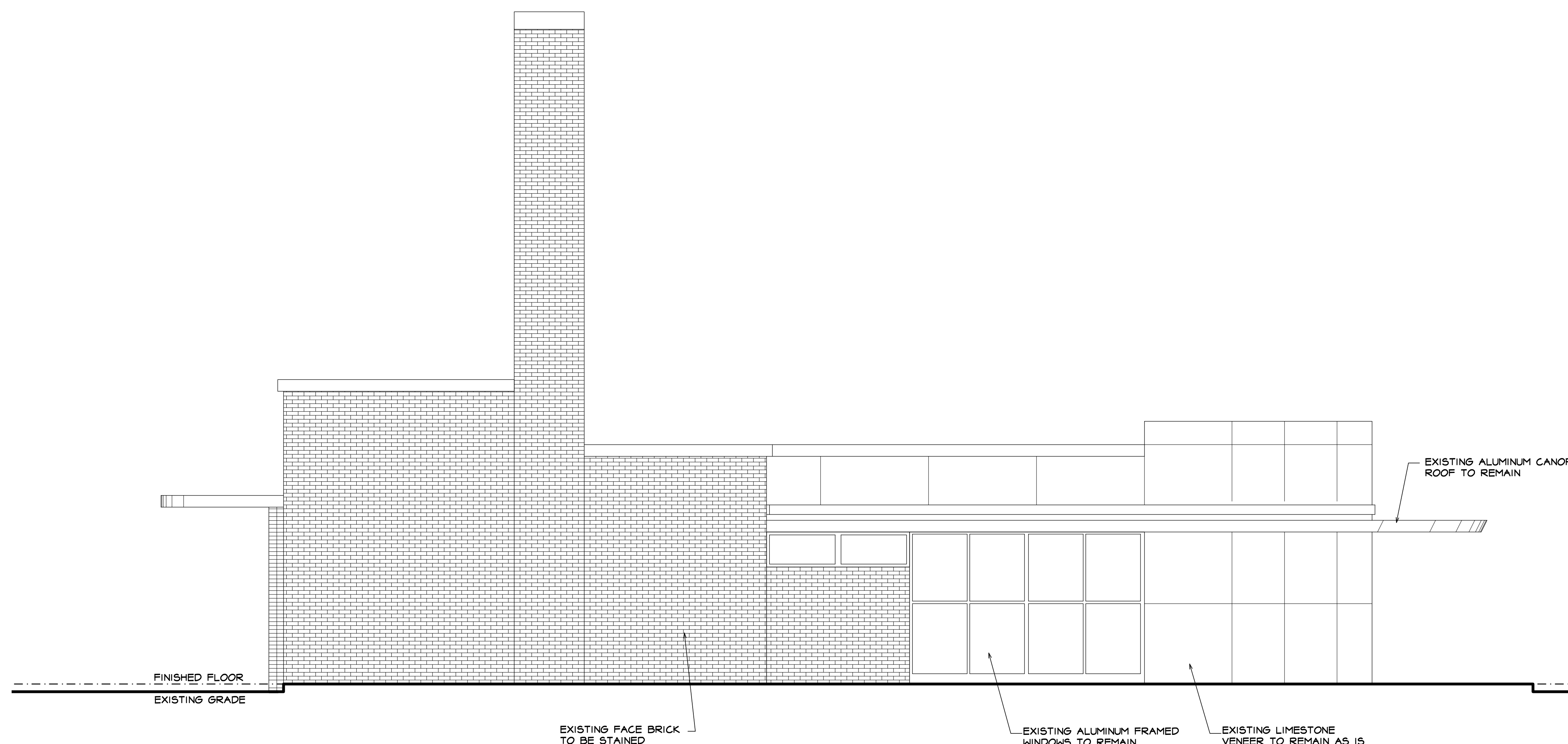
PROJECT:
DENTAL OFFICE INTERIOR BUILDOUT AND ADDITION
 980 ANN ARBOR RD
 PLYMOUTH, MI 48170

SHEET TITLE:
LANDSCAPE PLAN
 SHEET NUMBER:
L1.0



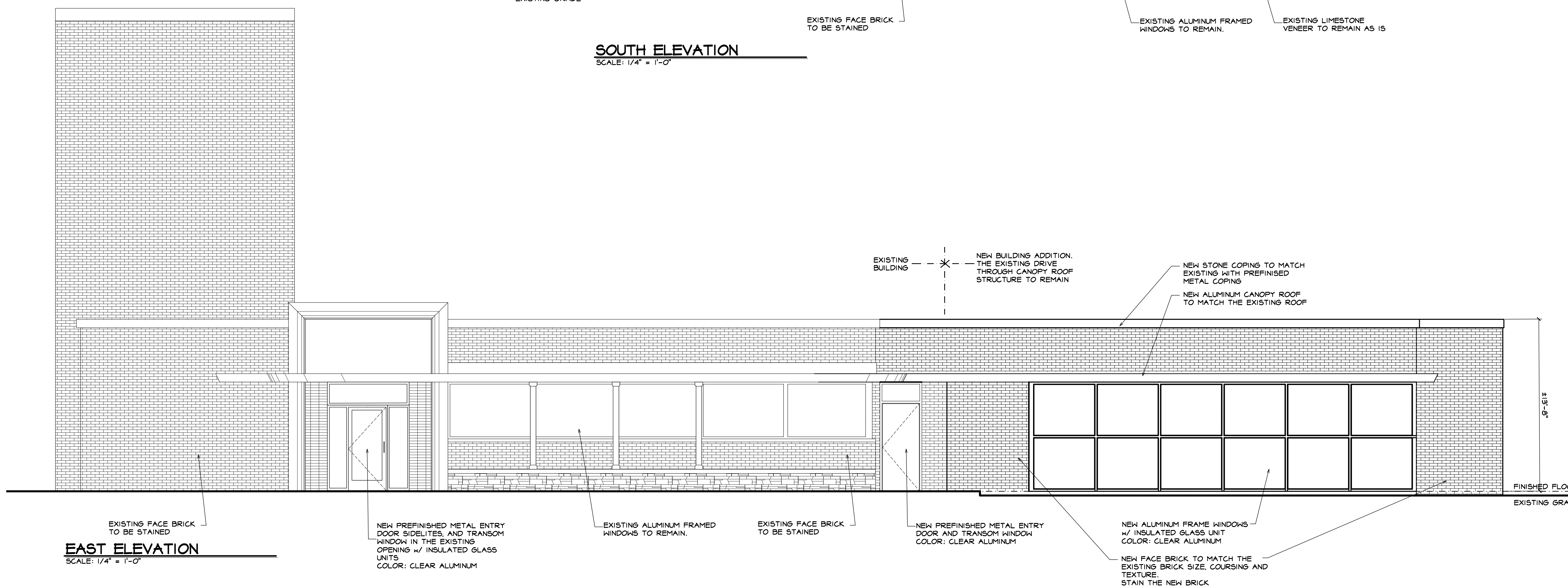
North **PROPOSED FLOOR PLAN**
SCALE: 1/4" = 1'-0"

PROPOSED ADDITION AREA = 1,343 SF
EXISTING BUILDING AREA = 3,230 SF



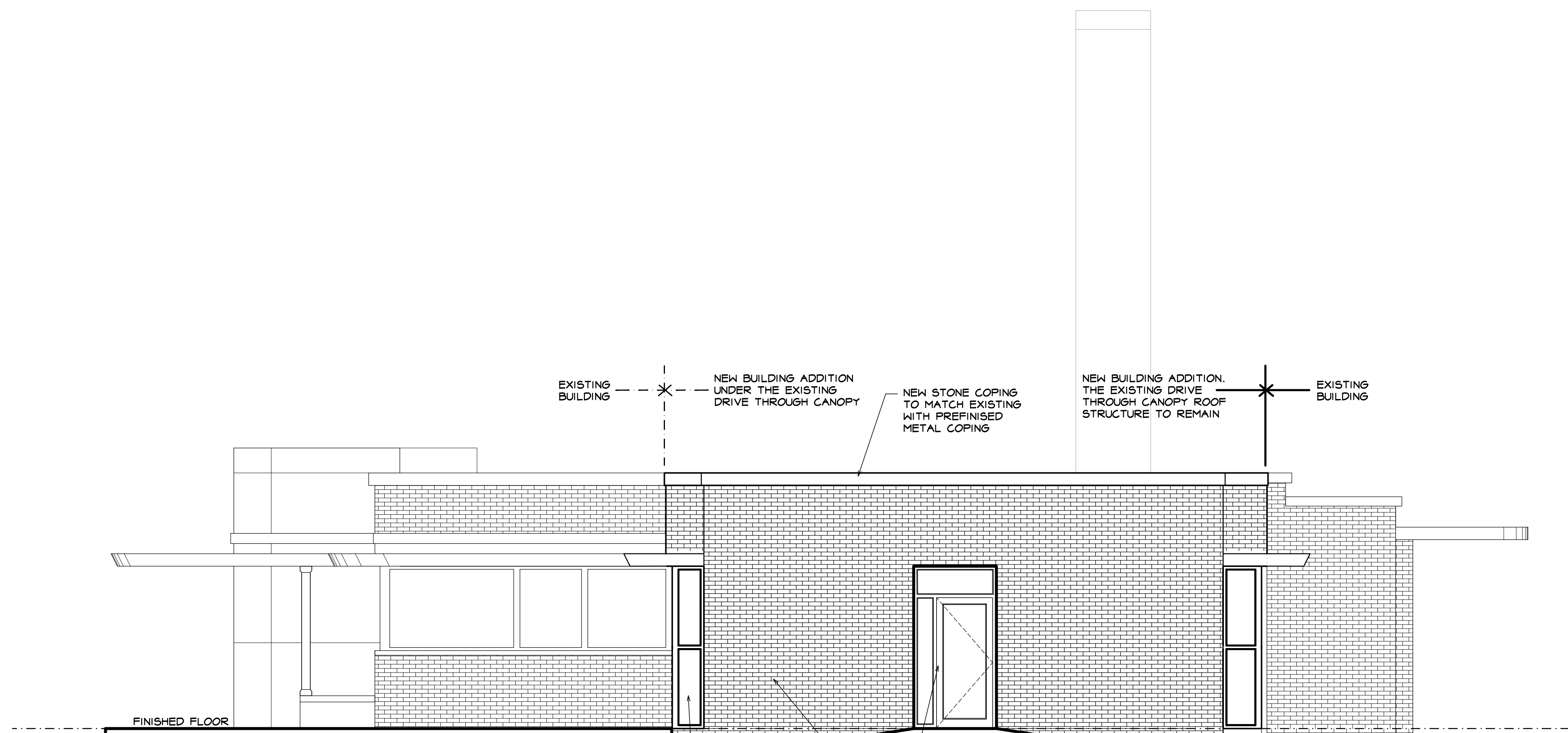
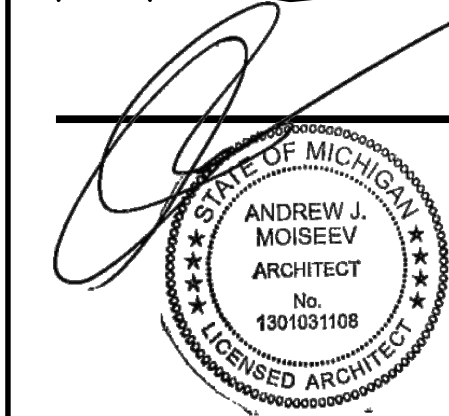
SOUTH ELEVATION

SCALE: 1/4" = 1'-0"

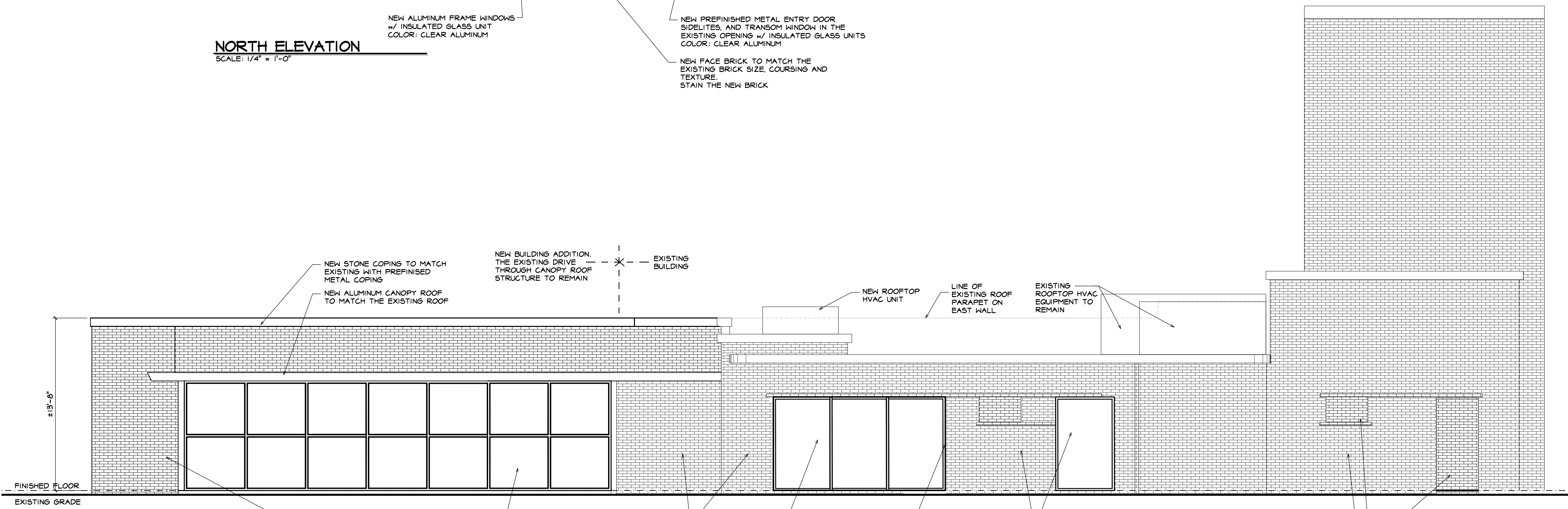


EAST ELEVATION

SCALE: 1/4" = 1'-0"



NORTH ELEVATION
SCALE: 1/4" = 1'-0"



WEST ELEVATION
SCALE: 1/4" = 1'-0"



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: January 5, 2023
Rev.: February 2, 2023

**Site Plan Review
For
Plymouth, Michigan**

Applicant:	Soothing Dental PLLC 496 W. Ann Arbor Trail Suite 201 Plymouth, MI 48170
Project Name:	Soothing Dental
Plan Date:	December 12, 2022
Latest Revision:	January 27, 2023
Location:	980 W. Ann Arbor Road
Zoning:	ARC – Ann Arbor Road Corridor District
Action Requested:	Site Plan Approval
Required Information:	Any deficiencies are noted in the report.

PROJECT AND SITE DESCRIPTION

The applicant is proposing to add a 1,343 square foot addition onto the existing building, and convert the entire building from a bank to a dental office. The previous submission included another phase to site development, including a new building on the property. However, the applicant is withdrawing that idea for now. The site will have vehicular access off of Ann Arbor Road and Harvey Street.

An aerial of the subject site is shown in **Figure 1** on the next page.

Figure 1. Subject Site



Source: Google Maps

ANN ARBOR ROAD CORRIDOR DISTRICT

The Ann Arbor Road Corridor (ARC) District lists dental offices and other professional offices as permitted uses.

Items to be Addressed: None.

AREA, WIDTH, HEIGHT, SETBACKS (Bulk Requirements)

The site must meet the minimum standards for the ARC District, as stated in Section 78-162 and summarized in **Table 1** below:

Table 1. ARC Schedule of Regulations Summary

	Required	Provided
Lot Area	NA	1.343 ac. (58,507 s.f.)
Lot Width	NA	181.90 ft. (Ann Arbor Rd.) 321.18 ft. (Harvey St.)
Lot Coverage	NA	7.8%
Setbacks		
Front	10 ft. ¹	13.8 ft. (Ann Arbor Rd.) 48 ft. (Harvey St.)
Side		
Minimum	10 ft.	101 ft.
Total of Two	20 ft.	NA
Rear	75 ft.	193.4 ft.
Building Height	30 ft. / 2 stories	13.67 feet / 1 story

Because this is a corner lot it has two “front” yards adjacent to a street. Either yard opposite a front yard may be the “rear” yard; the remaining yard is considered a “side” yard. The plans show that they consider the northern property line to be the “rear” yard; therefore, the eastern property line is a “side” yard. We have determined how the project meets the setback requirements with these yards in mind, as shown in the following table:

North: Rear Yard	East: Side Yard	South: Front Yard (Ann Arbor Road)	West: Front Yard (Harvey St.)
----------------------------	---------------------------	---	--

The footnote to the table above is provided below:

¹When parking is furnished between the building and the street, a front yard of not less than 75 feet shall be provided. There are no proposed parking spaces located in either front yard; therefore, the proposed front yard setbacks are sufficient.

The proposal meets all bulk requirements.

Items to be Addressed: None.

PARKING, LOADING

Section 78-163 lists parking requirements for the ARC District. Parking space requirements are summarized in **Table 2** below.

Table 2. ARC Parking Requirements – Phase I

ARC DISTRICT	REQUIRED	PROVIDED
Professional Office of Doctors and Dentists – Existing Building with Addition	1 per 20 s.f. waiting room floor area 1 per exam room 1 per employee at greatest shift 246 s.f./20 = 12 spaces 8 exam rooms = 8 spaces 8 employees at greatest shift = 8 spaces 28 spaces	50 spaces
Barrier-Free	2 spaces	2 spaces (included in 50 spaces)

The site plan meets the parking requirement for the number of spaces to serve the existing building and building addition.

Layout of the Phase I parking lot meets dimensional requirements for maneuvering lane width, parking space width/length, and barrier-free space width/length.

The ordinance requires concrete curbing or other features as approved by the Planning Commission to protect adjoining properties and planting areas. It appears that the existing parking lot has bumper blocks on the ends of most parking spaces.

See the “Landscaping” section of this review for information regarding parking lot landscaping requirements.

Loading/Unloading

As requested, the plans state that delivery trucks to this site will typically be van-style trucks (i.e. UPS) 30-foot in length. A loading space (10' x 50') is shown on the plans next to the rear door of the addition.

Items to be Addressed: None.

SITE ACCESS AND CIRCULATION

Section 78-164 outlines access management and driveway standards for the ARC District.

The site plans do not show any proposed work within the Ann Arbor Road right-of-way. If the plans change, any work within this right-of-way will require a permit from the Michigan Department of

Transportation (MDOT). The plans so show work within the Harvey St. right-of-way, which will require a Building Permit from the City.

The ordinance has specific standards for driveway number, location, and spacing, as follows:

- **Number of Driveways.** Each site is permitted one (1) driveway. The site plan shows one driveway on Ann Arbor Road and two driveways on Harvey. The third, existing driveway on Harvey St. has been eliminated, as discussed during the last Planning Commission meeting. We consider this a positive change. See below.
- **Location of Driveways from Intersection.** The location of a driveway must be at least 175 feet from the Ann Arbor Road/Harvey St. intersection. The driveway closest to the Ann Arbor Rd. intersection on Harvey St. has been eliminated, making the closest driveway to the intersection 161-feet from the intersection. This driveways current exists, and it is not physically possible to provide the spacing from the intersection called for in the ordinance. See below.
- **Spacing of Driveways.** Spacing between two commercial driveways on the same side of the road is based on posted speed limits.
 - a. **Harvey St.:** The posted speed limit on Harvey St. is 25 mph, which requires a distance of 155 feet between driveways. The two remaining driveways are only 139-feet apart (centerline to centerline). See below.
 - b. **Ann Arbor Rd.:** Spacing between the Ann Arbor Rd. driveway on this site, and the driveway on the neighboring site to the east is 90-feet. Based on the 45 mph speed limit on Ann Arbor Road, the ordinance requires a distance of 300 feet. However, this project is re-using an existing driveway. Also, the width of this property (181 feet) doesn't allow for such a substantial distance between driveways. See below.

The ordinance allows the Planning Commission to consider alternatives to the above requirements for redevelopment/reuse of a site if the Commissioners think that compliance with the standards is unreasonable. However, to make this determination, the applicant must demonstrate that all of the following criteria apply. We have provided a comment after each criterion. In our opinion, the project meets the standards with the proposed changes to Harvey St., enabling the Planning Commission to allow alternatives to the ordinance requirements:

- a. **Size of the parcel is insufficient to meet the dimensional standards.** *CWA Comment: The width/length of the site is too small to accommodate some of the requirements above, such as distance from intersection and distance from neighboring driveways. Eliminating the most southerly drive on Harvey St. increases conformity with these requirements.*
- b. **The spacing of existing, adjacent driveways or environmental constraints prohibits adherence to the access standards at a reasonable cost.** *CWA Comment: The location of the neighboring driveway to the east doesn't allow the required distance between driveways on Ann Arbor Rd., given the width of the subject site and its location on a corner. However, for Harvey St., removing the most southerly driveway has increased distance between driveways.*
- c. **The use will generate less than five hundred (500) total vehicle trips per day or less than seventy-five (75) total vehicle trips in the peak hour of travel on the adjacent street, based on rates developed by the Institute of Transportation Engineers.** *CWA Comment: Per the ITE Trip Generation Manual (11th Edition), a medical-dental office building of this size generates 168 trips per day, and 14.5 – 18.3 trips per peak hour, meeting this standard.*

- d. **There is no other reasonable means of access.** *CWA Comment: We would consider re-using the existing pavement/driveway locations to be reasonable. In addition, the applicant has eliminated the most southerly drive on Harvey St. making the project more compliant with the ordinance standards.*

Regarding traffic circulation on site, the existing pavement provides ample space for safe vehicular circulation in both directions.

As requested, Sheet C3.0 illustrates how a delivery truck will traverse the site, and also shows a loading/unloading zone. In addition, Sheet C3.0 shows how a trash hauler will access the dumpster and traverse the site, as well as fire truck access.

Regarding pedestrian circulation, the site plan shows a sidewalk connection between the public walk along Ann Arbor Road to the sidewalk adjacent to the building. There should also be a sidewalk between the Harvey St. sidewalk and the building.

Items to be Addressed: 1. Planning Commission to consider alternatives to driveway spacing from intersection/neighboring driveway. 2. Add sidewalk between Harvey St. sidewalk and building.

UTILITIES

Sec. 78-163 requires that parking lots be graded with proper drainage facilities provided to dispose of all surface water, per approval of the City Engineer. Sheet C3.0 shows that existing catch basins will be used to capture stormwater runoff from the new building addition. We defer evaluation of the proposed utilities to the City Engineer.

In our previous review, we asked about the location of utility equipment, such as an air conditioning condenser or HVAC equipment. The narrative states that all of this equipment will be on the roof of the building. Screening of this equipment is an ordinance requirement, and should be illustrated on the building elevations. Since no new elevations were provided with this resubmittal, we would recommend that the Building Official confirm that the necessary screening is provided during the Building Permit process.

Items to be Addressed: 1. Defer evaluation of stormwater system to City Engineer. 2. Recommend that Building Official confirm HVAC roof-top screening during Building Permit process.

LANDSCAPING AND SCREENING

A landscape plan has been submitted.

Plant Species and Sizes:

1. The plant list calls for Burning Bush; this is an invasive species and should be substituted with a non-invasive alternative, such as Black Chokeberry (*Aronia melanocarpa*) or Redtwig Dogwood (*Cornus stolonifera*).

2. The ARC District requires that plant sizes consist of the minimum size plants, but to avoid monotony, that some of the plants be larger than the minimum. This requirement needs to be implemented in this plan.

ARC District Streetscape Prototype:

Along the Ann Arbor Road corridor, Sec. 78-171 identifies specific hardscape components required as part of landscaping sites in the ARC District. These features, including brick masonry pillars, black fencing, and a concrete verge along the road curb line, are not shown on the plans. Re-use of this site is a good opportunity to bring the site into compliance with these requirements. The Planning Commission has the ability to: *“...approve alternatives it determines to be necessary to accommodate peculiar circumstances or unforeseen problems, or to carry out the spirit, intent, and purposes of this article. Further, where streetscape elements have been accomplished along Ann Arbor Road by means of earlier development which substantially accomplish the overall design objectives, the planning commission may modify the requirements to reflect those earlier improvements.”* This includes compliance with the Ann Arbor Road Streetscape Prototype, Sec. 78-171. In our opinion, there are no problems along the front of this property to waive this requirement. In addition, the existing landscaping does not accomplish the overall design objectives of this requirement. Therefore, in our opinion, these features should be required for this project.

Plant materials are also required in addition to the hardscape features along Ann Arbor Rd. The requirements for this site equal five (5) trees along Ann Arbor Rd. frontage. There is one (1) existing tree one site, and three (3) proposed trees on the plan. One (1) more tree needs to be added to this frontage. The requirements for this site also equal sixty-one (61) shrubs. The plans show 10 existing shrubs to remain, and thirty-nine (39) new shrubs along the Ann Arbor Rd. frontage, for a shortage of twelve (12) shrubs. This number of shrubs could be accommodated in two rows across the frontage, in coordination with the brick pillars/fencing described above.

Screening of Residential Districts:

The ordinance requires installation of a solid, six-foot tall wall in 6-8-foot wide planting strip, planted with one (1) tree per 35-lineal feet along all boundaries adjacent to residential properties. The northern boundary is adjacent to residential zoning; however, it is also along Tonquish Creek, which provides a buffer between this property and the residential neighborhood to the north. The ordinance allows the Planning Commission to modify this requirement to address unusual circumstances. We would consider this situation to be unusual, and that a masonry wall along the creek to be detrimental to the creek. Therefore, we would consider this requirement to be unnecessary.

Parking Lot Screening:

The ordinance requires one (1) tree per 40 lineal feet, and ten (10) shrubs per 30 lineal feet be planted between the edge of the vehicle use area and the front setback line where a parking lot is visible from the street. The plans show trees/shrubs along entire Harvey St. frontage at the sidewalk. We have the following comments:

1. The width of driveways cannot be subtracted from the road frontage for these calculations.
2. The trees and shrubs shown on the Landscape plan along Harvey St. between the Ann Arbor Rd. corridor and the first driveway are not required by the ordinance. We understand that it creates a more cohesive design.
3. The location of this planting (along the sidewalk) doesn't meet the intent of this requirement to screen the parking lot, because the shrubs are too far away from the vehicle use area. The requirement is

to screen the vehicle use area; therefore, this planting should be within a few feet of the vehicle use area.

4. The required number of trees is calculated along that portion of the site where the vehicle use area is visible from the street. We calculate this distance at 156 feet. Therefore, this site requires four (4) trees and fifty-two (52) shrubs to screen the vehicle use area. In this area, the plans show seven (7) trees and forty-six (46) shrubs. The number of shrubs needs to be increased.

Interior Parking Lot Landscaping:

1. This requirement is referring to landscaped islands, that are in addition to buffers or street frontage landscaping, within the parking lot pavement to direct traffic flow, and provide relief and shading of the pavement. The proposed lot has no landscape islands.
2. The ordinance requires 1 deciduous shade tree and 100 s.f. of landscaping per 10 parking spaces. The lot has 50 spaces; therefore, 5 shade trees and 500 s.f. of interior landscaping is required. This requirement needs to be met.

A dumpster screen that completely screens this area from the view of the street is required. Details of the proposed dumpster screen are shown on Sheet C3.0. The outside façade of the screen is 5.67-foot of brick to match the building, topped with coping, and then a 2-foot tall decorative fiber-cement fiberboard and decorative metalwork.

Items to be Addressed: 1) Provide alternative species to Burning Bush. 2) Provide variation in plant sizes. 3) Add hardscape elements to Ann Arbor Rd. corridor, per prototype details in Sec. 78-171. 4) Add one (1) additional tree along Ann Arbor Rd. corridor. 5) Planning Commission to consider waiving wall requirement along northern property line. 6) Modify location, and number of shrubs for parking lot screening. 7) Add parking lot islands to install interior parking lot trees/landscaping as required.

LIGHTING

Lighting information has been provided. Per Sec. 78-163, existing/proposed light fixtures need to be shown on the plans to confirm that the site is sufficiently lit for safe movement of vehicles and pedestrians at night. The ARC District references the requirements in Sec. 78-204.

The existing pole-mounted fixtures are downward directed, and are 20-foot tall, meeting the ordinance requirements. The photometric plan shows that the light levels are within ordinance standards.

Items to be Addressed: None.

SIGNS

No signage information has been provided. The plans should describe/illustrate the type/size of signs proposed for this site.

Items to be Addressed: Signage details provided in plan set.

FLOOR PLAN AND ELEVATIONS

Sec. 78-161 states that any exterior façade which faces a street or is adjacent to property zoned or used for residential purposes shall be finished in a uniform manner consistent with the exterior of the front of the building. This section also requires that any building additions shall be designed to complement the Ann Arbor Road streetscape with use of brick, stone, black wrought iron accents, peaked roof elements, building architectural detail to enhance door and window openings, and other elements approved by the Planning Commission.

The project is proposing a building addition on the back of the building, in the same location as the awning for the drive-thru teller kiosks. The roof-line of the new addition is flat; however, it matches the design of the existing building, which we consider appropriate. The west facade of the new addition incorporates large windows that are very similar in configuration to the existing windows on this side of the building. The east façade of the new addition is similar to the west façade; however, the existing east façade incorporates a stone foundation feature, and pillars between the windows. The new addition lacks these architectural details. However, this elevation does have a brick façade, and an aluminum canopy roof to match the existing roof over the main pedestrian entrance. The north elevation of the proposed addition uses face brick and stone coping to match the existing metal coping on the rest of the building. It also includes a pedestrian door with side and transom windows.

The Planning Commission will need to determine if the proposal meets the standards of the ARC District.

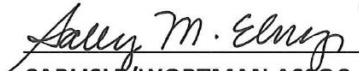
Items to be Addressed: *Planning Commission to determine if the proposal meets the standards of the ARC District.*

RECOMMENDATIONS

The plans include a number of updates and additional information. There are several issues that the Planning Commission will need to decide on. Most of the plan deficiencies include the Ann Arbor Road Corridor District landscaping requirements. The issues identified in this review are summarized below:

- A. **Site Access and Circulation:** 1. Planning Commission to consider alternatives to driveway spacing from intersection/neighboring driveway. 2. Add sidewalk between Harvey St. sidewalk and building.
- B. **Utilities:** 1. Defer evaluation of stormwater system to City Engineer. 2. Recommend that Building Official confirm HVAC roof-top screening during Building Permit process
- C. **Landscaping and Screening:** 1) Provide alternative species to Burning Bush. 2) Provide variation in plant sizes. 3) Add hardscape elements to Ann Arbor Rd. corridor, per prototype details in Sec. 78-171. 4) Add one (1) additional tree along Ann Arbor Rd. corridor. 5) Planning Commission to consider waiving wall requirement along northern property line. 6) Modify location, and number of shrubs for parking lot screening. 7) Add parking lot islands to install interior parking lot trees/landscaping as required.
- D. **Signs:** Signage details provided in plan set.

- E. **Floor Plans and Elevations:** Planning Commission to determine if the proposed architecture meets the standards of the ARC District.
-



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

152-2210

cc: Greta Bolhuis
Marleta Barr

RECEIVED

JAN 19 2023

CITY OF PLYMOUTH
COMMUNITY DEVELOPMENT

CITY OF PLYMOUTH
SITE PLAN REVIEW APPLICATION

Community Development Department
201 S. Main Street Plymouth, MI 48170
Ph. 734-453-1234 ext. 232
www.plymouthmi.gov

Parking Lot
SP 23-02 587 W. Ann Arbor Tr
Site Plan Review
PC Mtg 2/8/23

ITEM 8) a

I. Site/Project Information

Site Address Former Saxton's Parking Lot (587 W. Ann Arbor Trail)	Current Zoning Classification B-2 Central Business	Date of Application January 13, 2023
--	---	---

Name of Property Owner City of Plymouth	Phone Number (734) 453-1234	
Mailing Address 201 South Main Street	Email Address (Required) nmoroz@plymouthmi.gov	
City Plymouth	State Michigan	Zip Code 48170

II. Applicant and Contact Information

Indicate Who the Applicant Is. If Property Owner, Skip to Section III.	Architect	Developer	Engineer	Lessee
Applicant/Company Name Same as Property Owner	Phone Number			
Applicant/Company Address	City	State	Zip Code	
Email Address (Required)				

III. Site Plan Designer and Contact Information

Site Plan Designer Company Name Shawn Keough/Wade Trim	Phone Number (313) 363-1434		
Company Address 25251 Northline Road	City Taylor	State Michigan	Zip Code 48180
Registration Number 42619	Expiration Date April 29, 2024	Email Address (Required) skeough@wadetrim.com	

IV. Type of Project (Please Select All that Apply)

V. Historic District

<input type="checkbox"/> Commercial	<input type="checkbox"/> Multi-Family	<input checked="" type="checkbox"/> New	<input type="checkbox"/> Remodel	<input type="checkbox"/> Change of Use	Is this project located in the Historic District? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Mixed Use	<input type="checkbox"/> Industrial	<input type="checkbox"/> Addition	<input type="checkbox"/> Interior Finish	<input type="checkbox"/> Special Land Use	

VI. Description of Work

Removal of existing asphalt parking lot and reconstruction of new parking lot with decorative lighting that will match the City's downtown lighting style. The new parking lot will include an underground storm water detention system, 4 electric vehicle charging stations, and landscape buffer and landscaping consistent with the City's ordinances. The old Saxton's sign will be removed. This project is being completed in accordance with the City's PUD agreement to provide ingress and egress to support the Jewel Maple Condominium project.

VII. Applicant Signature

Signature of Applicant <div style="text-align: center; font-size: 24pt; font-weight: bold;">Shawn Keough PE</div> <small>Digitally signed by Shawn Keough PE DN: cn=Shawn Keough PE, o=Wade Trim, ou, email=skeough@wadetrim.com, c=US Date: 2023.01.09 08:47:19 -05'00'</small>	Date
--	------

VIII. Property Owner Signature

Signature of Property Owner 	Date <div style="font-size: 24pt;">1/25/2023</div>
--	---

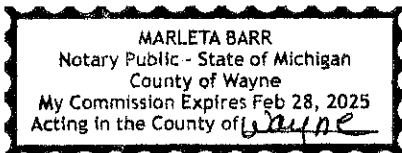
Subscribed and sworn before me this 26th day of January, 2023

Notary Public: Marleta Barr

My Commission expires: 2/28/25

For Office Use Only

		YES/DATE	NO	N/A
1.	Pre-Application Meeting			
2.	Digital Copy of Application Package			
3.	Public Hearing Notice			
4.	CWA Review			
5.	Municipal Services Review			
6.	Fire Department Review			
7.	Engineering Review			



IX. Site Plan Review Checklist

Please include the following applicable information on the site plan.		YES	NO	N/A
1.	Correct scale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Name of person preparing plan*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Date, north point	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Property line dimension	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Street right-of-way widths	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Existing utilities (sewer, water, gas, etc.) and easements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Show adjacent property and buildings, including zoning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Existing topography, trees and other features	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Off-site ground, parking lot, roadway, driveway and/or structure elevations for minimum distance of 50 feet	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	On-site grid of maximum 100 feet intervals each way (closer where rolling terrain warrants) and minimum 2.0 feet contours	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Location of new structures including side and front yard setbacks and building length and width (show a general floor plan)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12.	Number of dwelling units per building	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13.	Height of structure	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14.	Percent one room apartments (efficiencies)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15.	Total number of rooms if multiple-family	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16.	Parking requirements met (See Section 78-720) Section 78-272 Space Layout	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	Number of units and bedrooms each building	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18.	Parking lot layout (showing paved area) including ingress and egress and service area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.	Parking lot space dimensions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.	Loading and unloading space	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21.	Site grading and drainage plan (on-site elevations for pavements, drives, parking lots, curbs, sidewalks and finish grade at bldg.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22.	Utility connections (sanitary sewer, water, storm sewers)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.	On-site storm water retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24.	Fire hydrants within 300 feet (on- and off-site)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25.	Sidewalks and elevations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.	Sedimentation and erosion control plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27.	Landscape plan showing plant materials to be used	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28.	Sign requirements met	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29.	Require walls and fences or greenbelts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30.	Corner clearance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
31.	Service drive needed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32.	Acceleration lanes and traffic pattern	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33.	Trash receptacle locations including screening type and height	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
34.	Mail box locations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please include the following applicable information on the site plan.		YES	NO	N/A
35.	Air conditioner unit locations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
36.	Special site features (play areas, pools, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37.	Handicapped facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38.	Building elevation drawings	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*Where property line surveys, topography, sewer, water or storm drains are shown, the name of the registered engineer or land surveyor preparing such elements of the plan shall be indicated on the plan.



Along Ann Arbor Trail looking West



At SE corner of Existing Parking Lot looking North/Northwest (toward AA Trail)



At the Corner of Ann Arbor Trail and Deer Looking South East across Wira Property



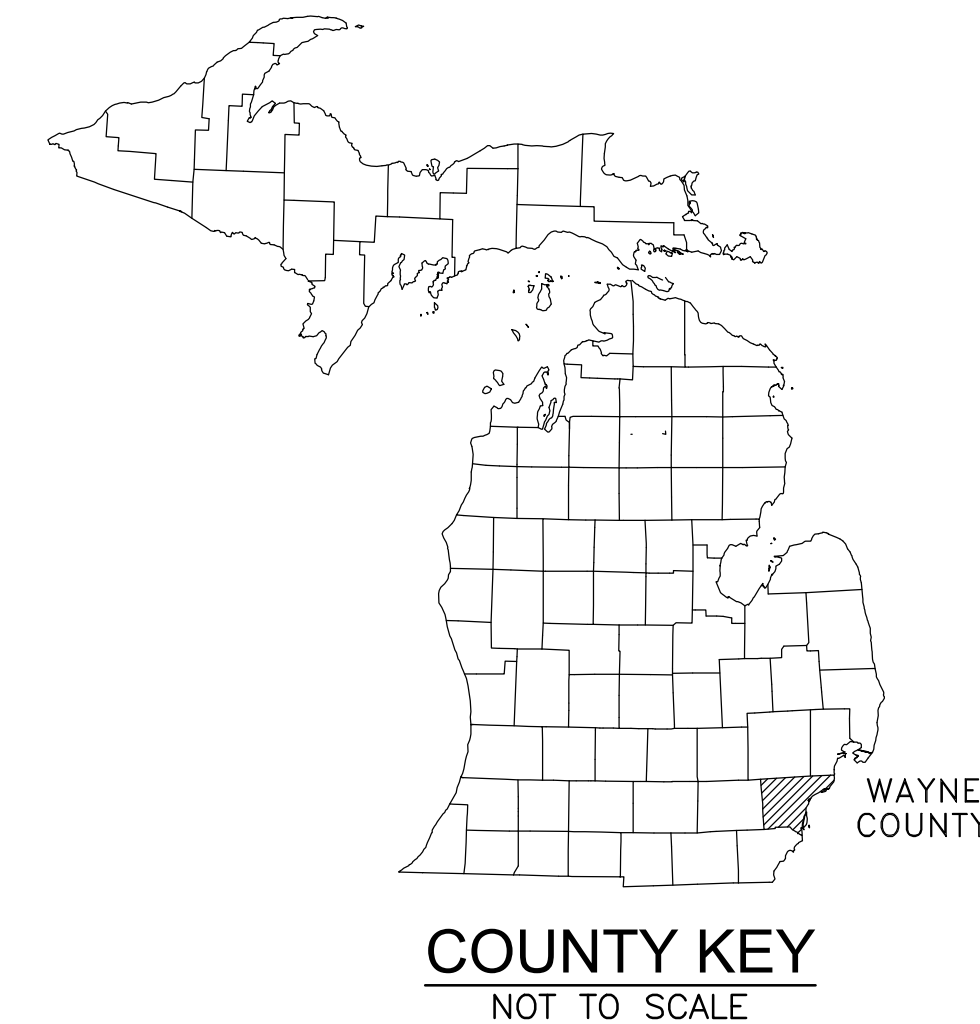
At the Corner of Ann Arbor Trail and Deer Looking South



Example Charging Station Fixtures



CITY OF PLYMOUTH WAYNE COUNTY, MICHIGAN SAXTON PROPERTY PARKING LOT



CITY HALL
201 S. MAIN ST.
PLYMOUTH, MI 48170
(734) 453-1234

DEPARTMENT OF MUNICIPAL SERVICES
1231 GOLDSMITH
PLYMOUTH, MI 48170
(734) 453-7737

NICK MOROZ
MAYOR

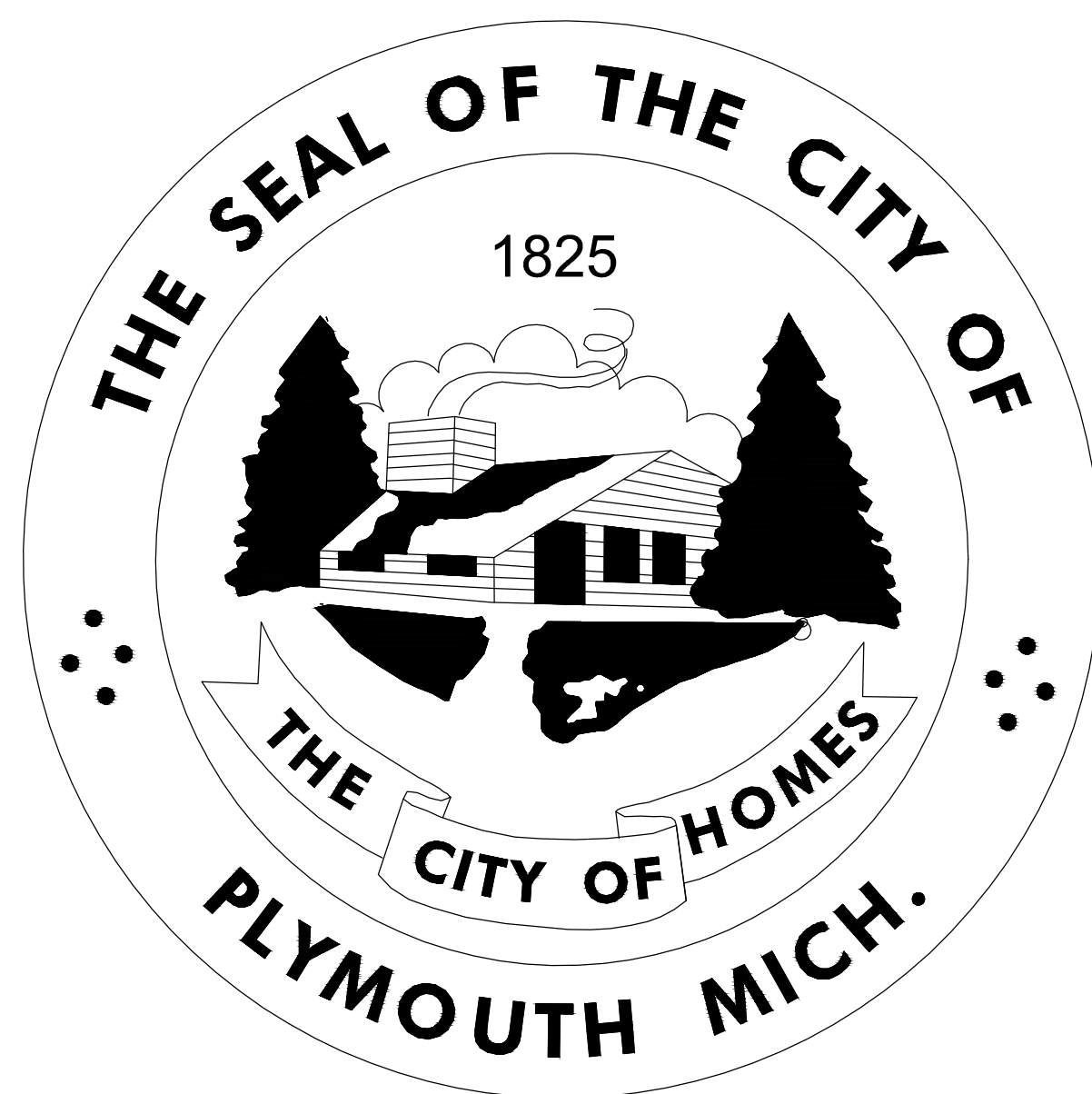
MAUREEN BRODIE
CITY CLERK

PAUL SINCOCK
CITY MANAGER

CITY COMMISSION

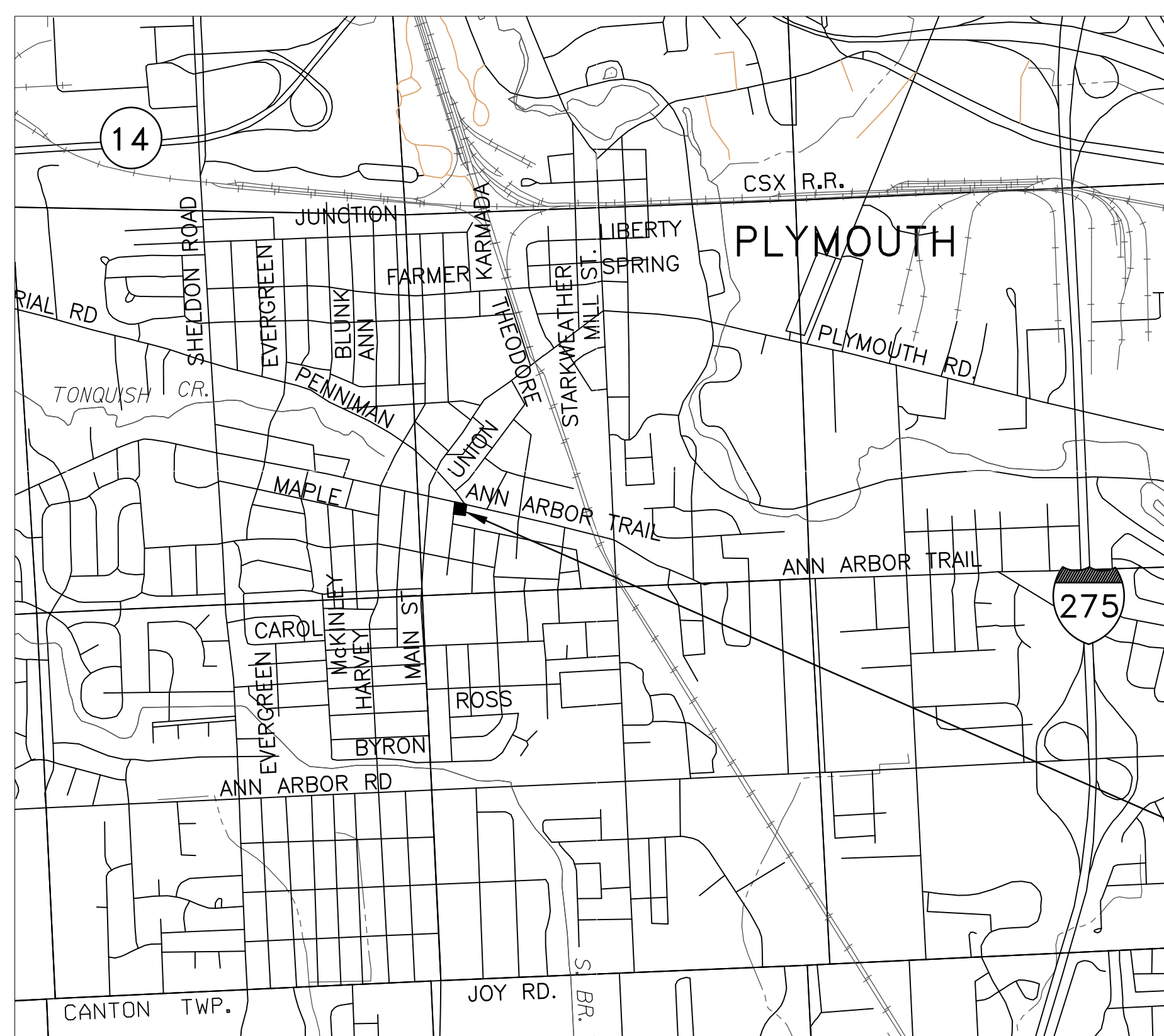
SUZI DEAL, MAYOR PRO TEM
LINDA FILIPCZAK, COMMISSIONER
JENNIFER KEHOE, COMMISSIONER
ALANNA MAGUIRE, COMMISSIONER
KELLY O'DONNELL, COMMISSIONER
MARQUES THOMEY, COMMISSIONER

CHRIS PORMAN
DIRECTOR, DEPARTMENT OF MUNICIPAL SERVICES
ADAM GERLACH
ASSISTANT DIRECTOR, PUBLIC UTILITIES



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PROJECT LOCATION

JOB NO. PLY2101-02T	SHEET 1
-------------------------------	-------------------



PREPARED UNDER THE SUPERVISION OF:

SHAWN W. KEOUGH, PE

42619
REGISTRATION NO.

SITE PLAN SUBMITTAL 1/18/23

PROJECT MANAGER: SHAWN W. KEOUGH
C:\P\WORK\WELAGRA\LD\240820\GCS-PLTS-COVER.DWG - LAYOUT1 - PLOTTED 1/18/2023 8:38 AM BY: ELANAGAL, MARTIN

© Wade Trim Group, Inc. SAXTON PROPERTY PARKING LOT

EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED
CABLE TV CABLE TV POLE CABLE TV PEDESTAL OVERHEAD CABLE TELEVISION UNDERGROUND CABLE TELEVISION		SANITARY SEWER CLEAN OUT PUMPSTATION MANHOLE SANITARY MANHOLE SEPTIC TANK SEWER VENT SEWER VALVE FORCEMAIN SANITARY SEWER		TOPOGRAPHIC FEATURES (CONT.) HIGHWAY DELINEATOR LIGHT POLE BASE MAIL BOX MERRY-GO-ROUND MONITORING WELL NEWSPAPER BOX OIL WELL PARKING METER PIER PILING POST (ROUND) POST (SQUARE) ROCK RAILROAD SIGNAL SATELLITE DISH SIGN POST SLIDE (SPIRAL) SLIDE (STRAIGHT) SLIDE END SLIDE STEPS SPRINKLER HEAD SPRINKLER JUNCTION BOX STATUE SWING SET END TETHER BALL POLE TRAFFIC SIGNAL UNDERGROUND MARKER U/G MARKER CABLE U/G MARKER ELECTRIC U/G MARKER FIBER OPTIC U/G MARKER GAS U/G MARKER TELEPHONE VOLLEY BALL POST WOOD STAKE		WATER (DOMESTIC) BACKFLOW PREVENTER BLOW-OFF VALVE FAUCET FIRE DEPARTMENT CONNECTION FIRE HYDRANT GATE VALVE & BOX GATE VALVE & WELL GATE VALVE & WELL (DETROIT) INDICATOR VALVE POST METER METER PIT VALVE WATER LINE STUB WATER TOWER BASE WELL SHUT OFF VALVE DOMESTIC WATER		PATTERNS CONCRETE GRAVEL PAVEMENT HEAVY DUTY PAVEMENT EARTH (CROSS SECTION) ADA DETECTABLE WARNING ADA RAMP CONCRETE REMOVAL PAVEMENT REMOVAL	
ELECTRICAL CIRCUIT BREAKER PANEL HANDHOLE MANHOLE OUTLET PEDESTAL TRANSFORMER BOX METER POWER POLE TRANSFORMER TOWER OVERHEAD ELECTRIC UNDERGROUND ELECTRIC		SITE (MISCELLANEOUS) ABANDON ITEM ACCESSIBLE SYMBOL ADJUST ITEM FINISH GRADE FLOW ARROW PARKING COUNT RECONSTRUCT ITEM RELOCATE ITEM REMOVE ITEM SLOPE LABEL SPOT GRADE FLOOD LIGHT LAMP POLE LIGHT POLE (SINGLE LAMP) LIGHT POLE (DOUBLE LAMP 180°) LIGHT POLE (DOUBLE LAMP 90°) LIGHT POLE (THREE LAMP) LIGHT POLE (FOUR LAMP) ORNAMENTAL LIGHT POLE METAL LIGHT POLE		UNDERGROUND UTILITIES UTILITY MANHOLE FIBER OPTIC OIL UNDERGROUND CTV & TELEPHONE UNDERGROUND ELEC. & CABLE TV UNDERGROUND ELEC. & TELEPHONE UNDERGROUND ELECTRIC, CABLE TV AND TELEPHONE		WATER (MISCELLANEOUS) RECLAIM WATER GATE VALVE SPRINKLER HEAD SPRINKLER JUNCTION BOX RECLAIM WATER		LINE WORK BOUNDARY LINE BUILDING BUILDING SETBACK CHAIN LINK FENCE FIELD GARDEN GRAVEL GUARDRAIL LANDSCAPE ORNAMENTAL FENCE PROPERTY LINE RAILROAD TRACK CENTERLINE RIGHT OF WAY SECTION LINE SHORE LINE SILT FENCE TO BE DEMOLISHED TOP OF BANK UTILITY/DRAINAGE EASEMENT WALL WETLAND WOOD FENCE	
GAS VENT BLOW OFF FILLER PIPE MANHOLE METER STOP BOX SHUTOFF VALVE GAS		STORM SEWER/DRAINAGE CATCH BASIN (ROUND GRATE) CATCH BASIN (SQUARE GRATE) CISTERN BOX CULVERT CULVERT HEADWALL CULVERT END SECTION DOWN SPOUT ROUND INLET SQUARE INLET STORM MANHOLE STORM SEWER STUB DITCH CENTERLINE FLOOD PLAIN STORM SEWER		VEGETATION CONIFEROUS BUSH CONIFEROUS TREE DECIDUOUS BUSH DECIDUOUS TREE MULTI-STEM CONIFEROUS TREE MULTI-STEM DECIDUOUS TREE PALM TREE STUMP BRUSH LINE EDGE OF WOODS HEDGE TREE ROW		OVERHEAD UTILITIES DEADMAN ANCHOR FLOOD LIGHT GUY WIRE ANCHOR GUY POLE LAMP POLE METAL LIGHT POLE ORNAMENTAL LIGHT POLE BOX POWER & LIGHT POLE POWER & TELEPHONE POLE TELE, CTV, PWR & LIGHT POLE TELE, CTV, & POWER POLE TELE, & CTV POLE TELE, CTV, & LIGHT POLE TELE, & LIGHT POLE TELE, POWER, & LIGHT POLE UTILITY POLE OVERHEAD CABLE TV & TELEPHONE OVERHEAD ELECTRIC & CABLE TV OVERHEAD ELECTRIC, CABLE TV AND TELEPHONE		TELEPHONE TELEPHONE POLE TELEPHONE MANHOLE TELEPHONE PEDESTAL COMMUNICATIONS HANDHOLE FIRE CALL POLICE CALL PHONE BOOTH OVERHEAD TELEPHONE UNDERGROUND TELEPHONE	
MONUMENTS IRON (FOUND) IRON (SET) BENCH MARK BRASS PLATE CONCRETE NAIL DRILL HOLE GOVERNMENT CORNER GPS MONUMENT IRON PIPE MONUMENT BOX MONUMENT MERE STONE NGS MONUMENT NAIL & TAG PINCH IRON PK NAIL RAILROAD SPIKE RIGHT-OF-WAY MARKER SPIKE SHIPS SPIKE T-IRON USGS MONUMENT CROSS CUT CROSS CUT IN MONUMENT WOOD STAKE		TOPOGRAPHIC FEATURES AIR CONDITION UNIT ANTENNA BASKET BALL POST BATTERY BOX BILLBOARD SIGN BASE CAMERA TOWER CLIMBING BARS COLUMN FENCE CORNER FILL PORT FLAG POLE FOUNTAIN GAS PUMP GAS TANK (UNDERGROUND) HEAT PUMP							

ISSUED FOR: SUBMITTAL	DATE: 1/18/23	BY: SWK
JOB NO: PLY2101-02T	SHEET	
3		

20251 Northline Rd.
 Taylor, MI 48180
 www.wadetrims.com



CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
 SAXTON PROPERTY PARKING LOT
 LEGEND

REV#	DATE	DESCRIPTION

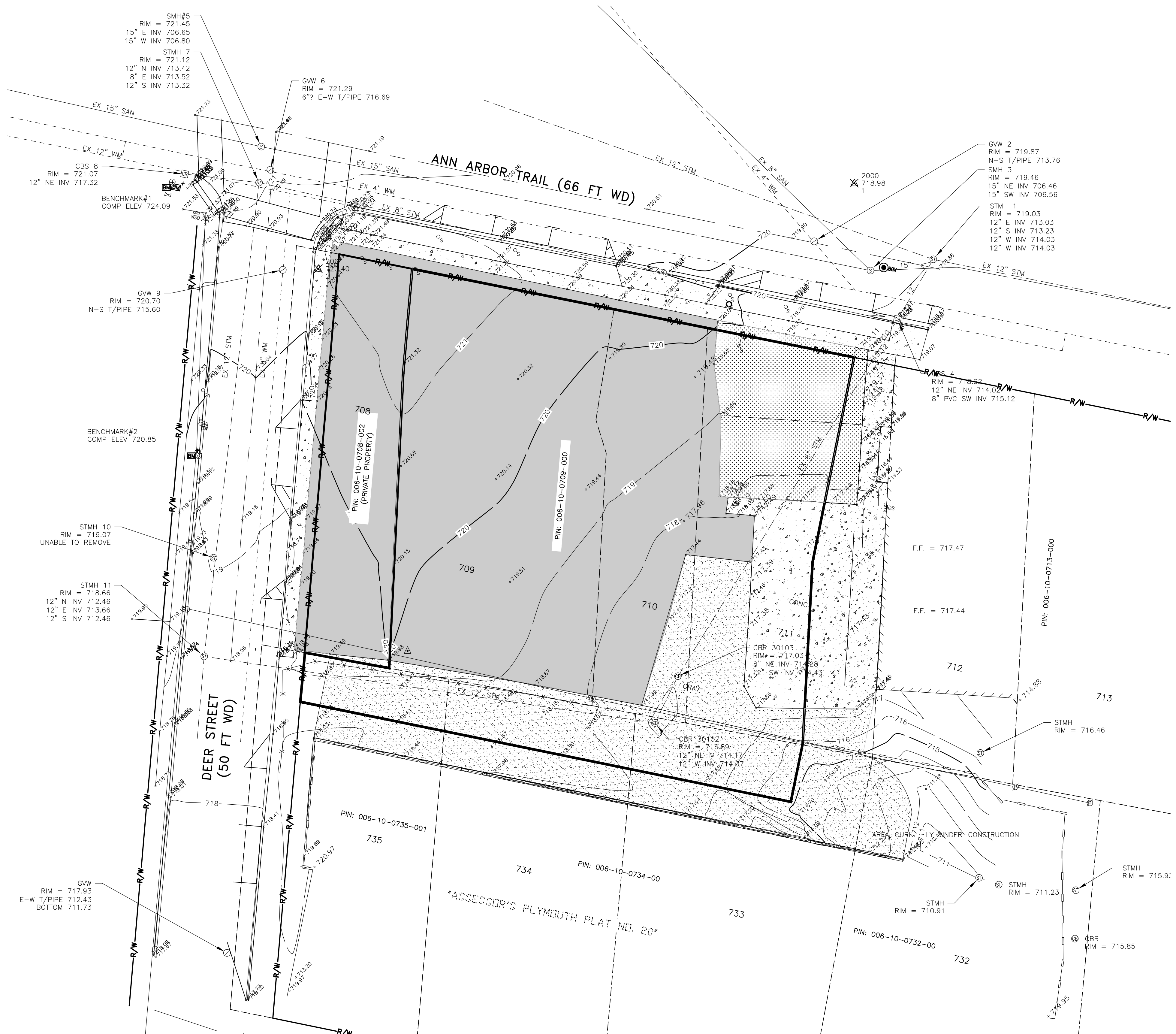
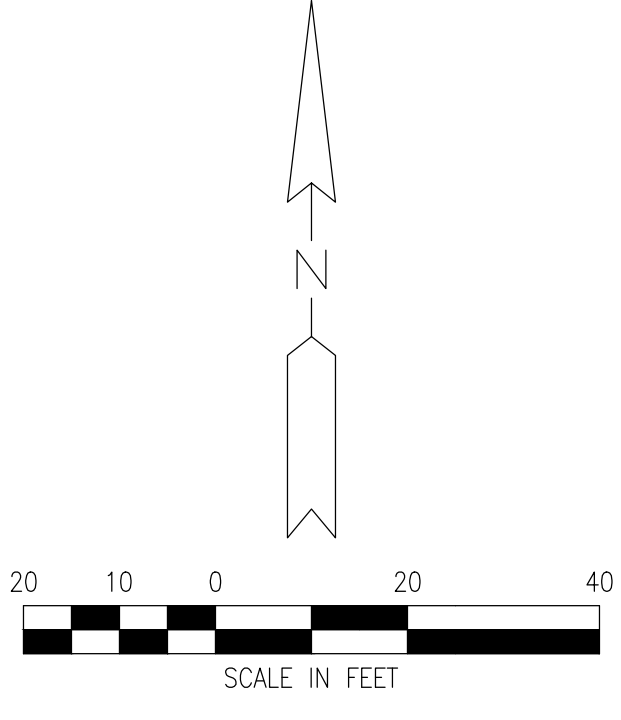
© Wade Trim Group, Inc. SAXTON PROPERTY PARKING LOT

BENCHMARK#1 ELEV. 721.67


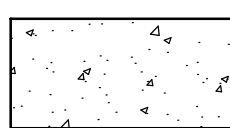
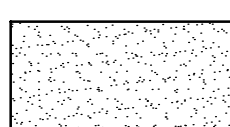
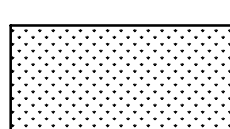
ARROW TOP OF HYDRANT AT SOUTHWEST CORNER OF ANN ARBOR TRAIL AND DEER.

BENCHMARK#2 ELEV. 720.85

BM "TIE" IN EAST SIDE UTILITY POLE ON WEST SIDE OF DEER, 115± SOUTH OF CENTERLINE OF ANN ARBOR TRAIL



LEGEND

-  EXISTING ASPHALT
-  EXISTING CONCRETE
-  EXISTING GRAVEL
-  EXISTING GRASS

PROJECT MANAGER: SHAWN KEOUGH
C:\P_LORA\WFCAROLA\240800\VSP-PLT-EXISTING CONDITIONS.DWG - CADDIT - PLOTTED 1/18/2023 8:03 AM BY FLANAGAN, MARTIN



REV#	DATE	DESCRIPTION	BY

20251 Northline Rd.
Taylor, MI 48180
Saxton
www.saxton.com



CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
SAXTON PROPERTY PARKING LOT
EXISTING CONDITIONS PLAN

ISSUED FOR: DATE: BY:
SITE PLAN SUBMITTAL 1/18/23 SWK

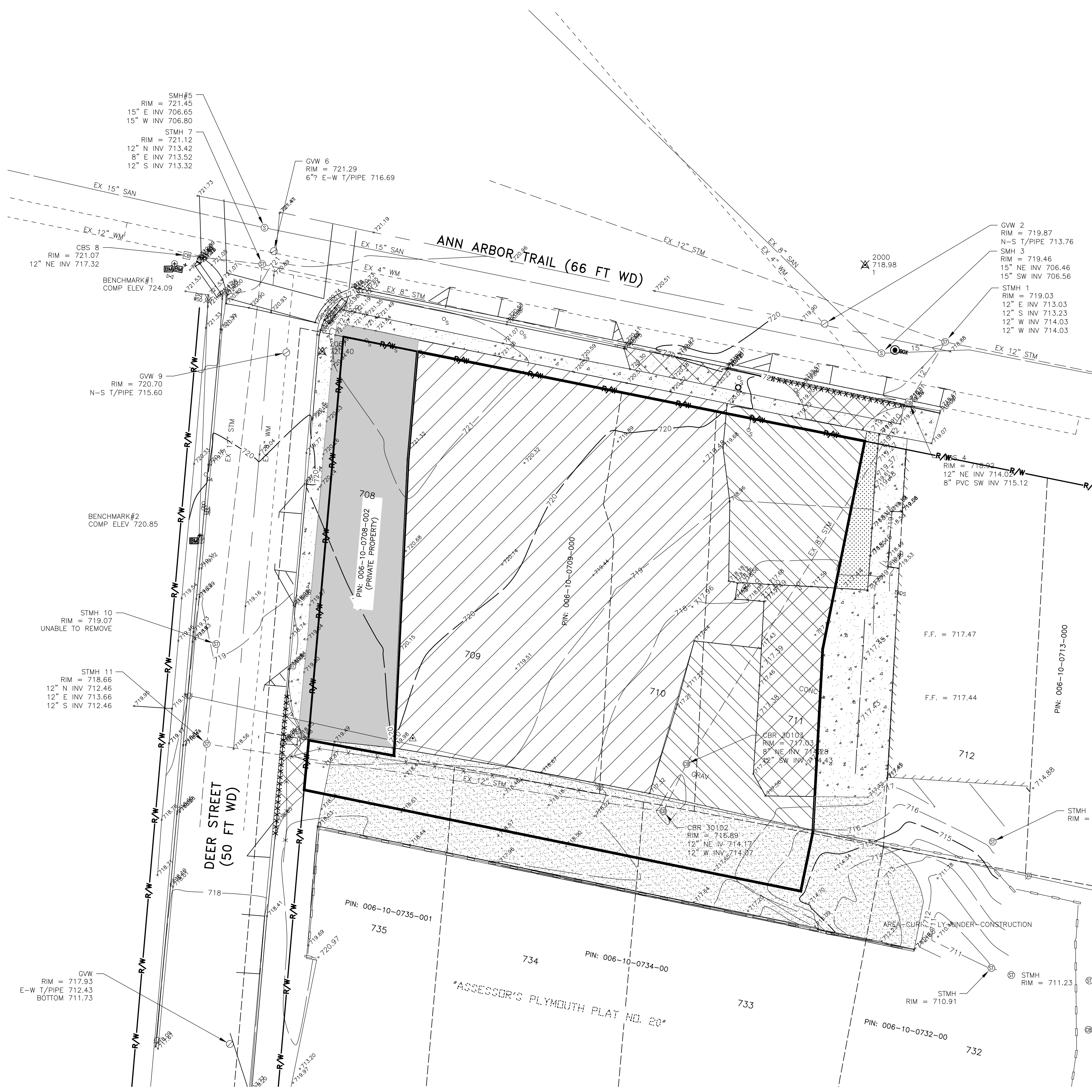
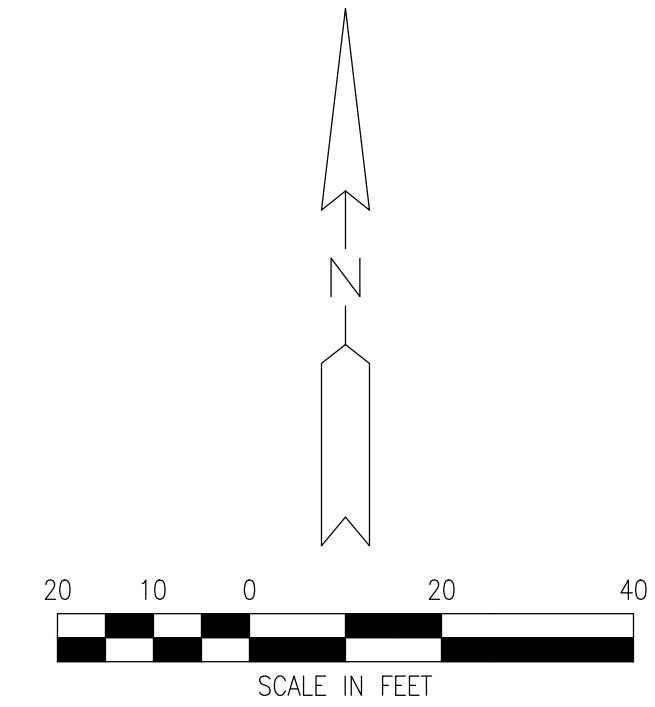
JOB NO.
PLY2101-02T

SHEET
4

© Wade Trim Group, Inc. SAXTON PROPERTY PARKING LOT

BENCHMARK#1 ELEV. 721.67
 ARROW TOP OF HYDRANT AT SOUTHWEST CORNER OF
 ANN ARBOR TRAIL AND DEER.

BENCHMARK#2 ELEV. 720.85
 BM "TIE" IN EAST SIDE UTILITY POLE ON WEST SIDE OF
 DEER, 115± SOUTH OF CENTERLINE OF ANN ARBOR TRAIL



LEGEND

	REMOVE BITUMINOUS PAVEMENT
	REMOVE CONCRETE PAVEMENT
	EARTH EXCAVATION
	REMOVE CURB

PROJECT MANAGER: SHAWN KEOUGH
 C:\P\WORK\W\240800\CRM-PLS-REMOVAL PLAN.DWG - REMOVAL - PLOTTED 1/18/2023 11:25 AM BY: FLANGAN, MARTIN



REV#	DATE	DESCRIPTION	BY

20251 Northline Rd.
 Taylor, MI 48180
 313.480.1100
 www.wadetrim.com

CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
 SAXTON PROPERTY PARKING LOT
 REMOVAL PLAN

ISSUED FOR: SITE PLAN SUBMITTAL	DATE: 1/18/23	BY: SWK
JOB NO: PLY2101-02T	SHEET	
6		

© Wade Trim Group, Inc. SAXTON PROPERTY PARKING LOT



MC-3500 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-3500.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS' CHAMBER CLASSIFICATION 45/76 DESIGNATION SS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS' CHAMBER CLASSIFICATION 45/76 DESIGNATION SS.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBTSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS TO THE CHAMBERS.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (1 MIN) HASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) HASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.55 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

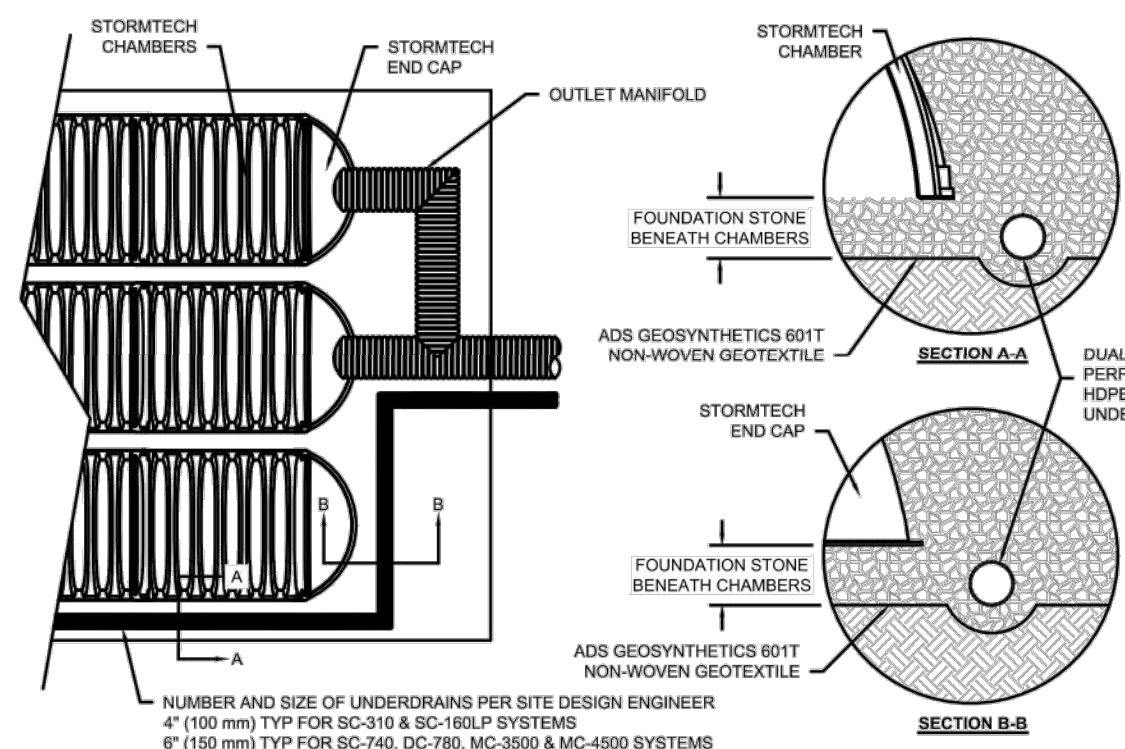
- STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE 'STORMTECH MC-3500/4500 CONSTRUCTION GUIDE'.
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONES/ROCKERS LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM SPACING BETWEEN THE CHAMBER ROWS.
- INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
- STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF 'FLEXSTORM GATE IT' INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

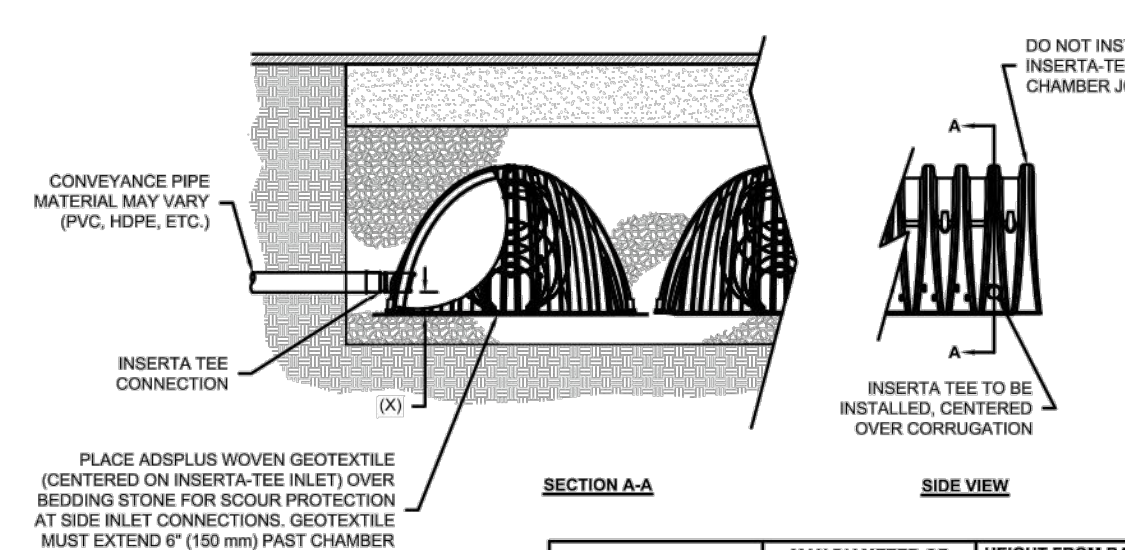
- STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE 'STORMTECH MC-3500/4500 CONSTRUCTION GUIDE'.
- THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER Tired LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTH IS REACHED IN ACCORDANCE WITH THE 'STORMTECH MC-3500/4500 CONSTRUCTION GUIDE'.
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE 'STORMTECH MC-3500/4500 CONSTRUCTION GUIDE'.
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2684 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



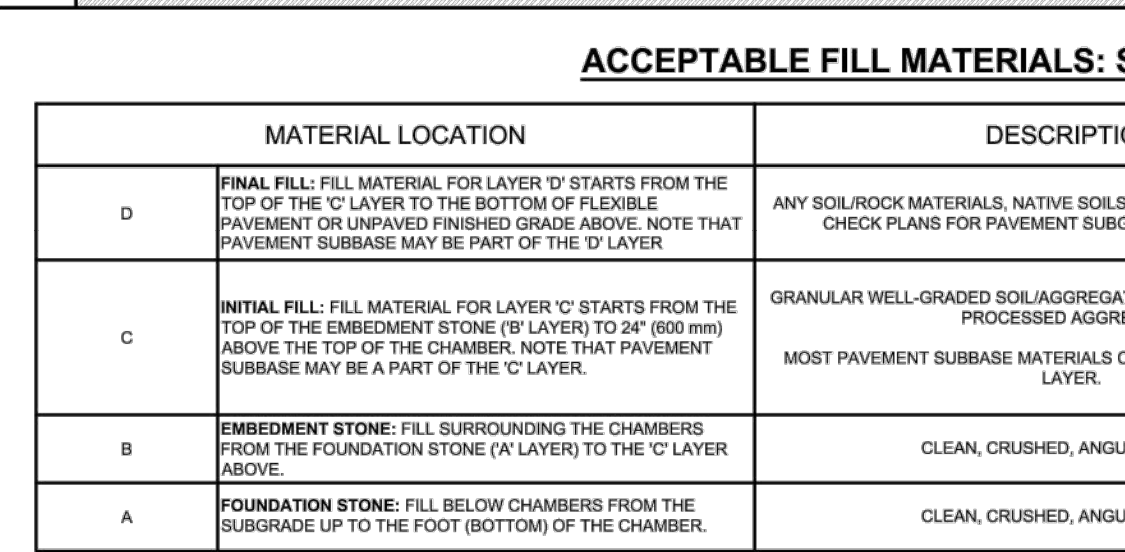
5 UNDERDRAIN DETAIL



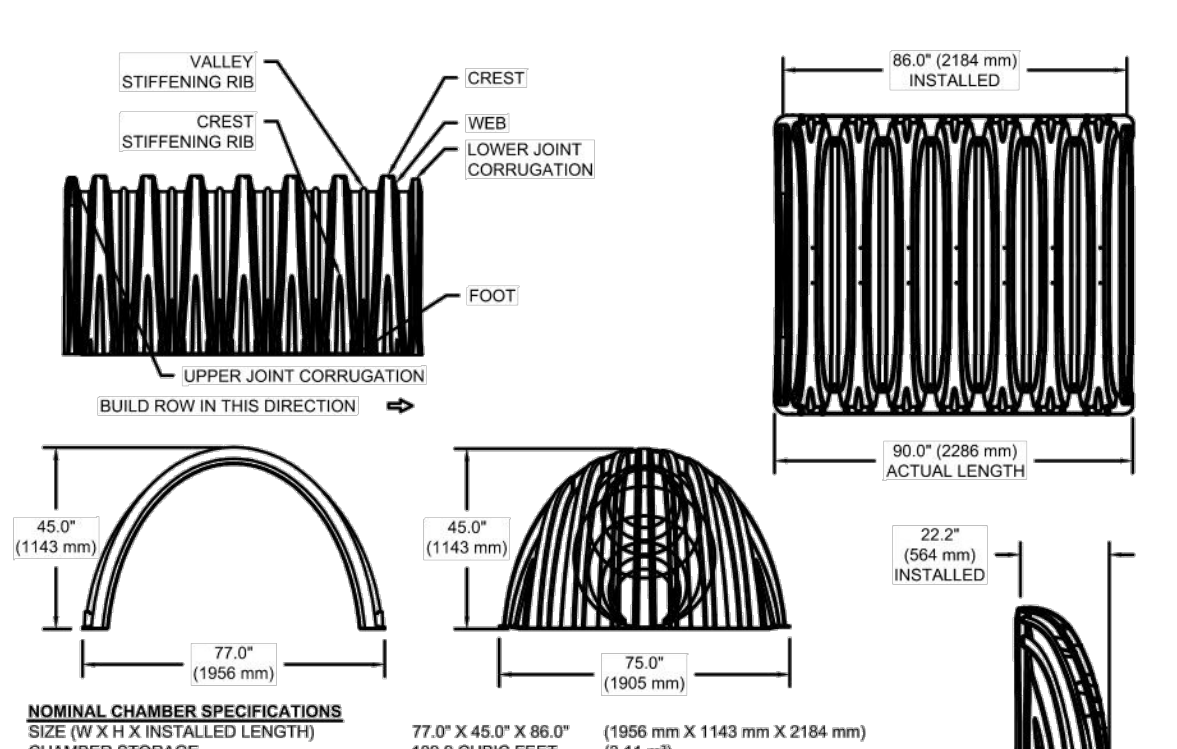
CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM BASE OF CHAMBER (A)
SC-310	6" (150 mm)	4" (100 mm)
SC-740	10" (250 mm)	4" (100 mm)
DC-780	10" (250 mm)	4" (100 mm)
MC-3500	12" (300 mm)	6" (150 mm)
MC-4500	12" (300 mm)	8" (200 mm)

NOTE: PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS. CONTACT STORMTECH FOR MORE INFORMATION.

6 INSERTA-TEE SIDE INLET DETAIL



PLEASE NOTE:
 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) MAX LIFTS USING TWO FULL COVERSAGES WITH A VIBRATORY COMPACTOR.
 3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITH COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
 4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



2 MC-3500 TECHNICAL SPECIFICATIONS

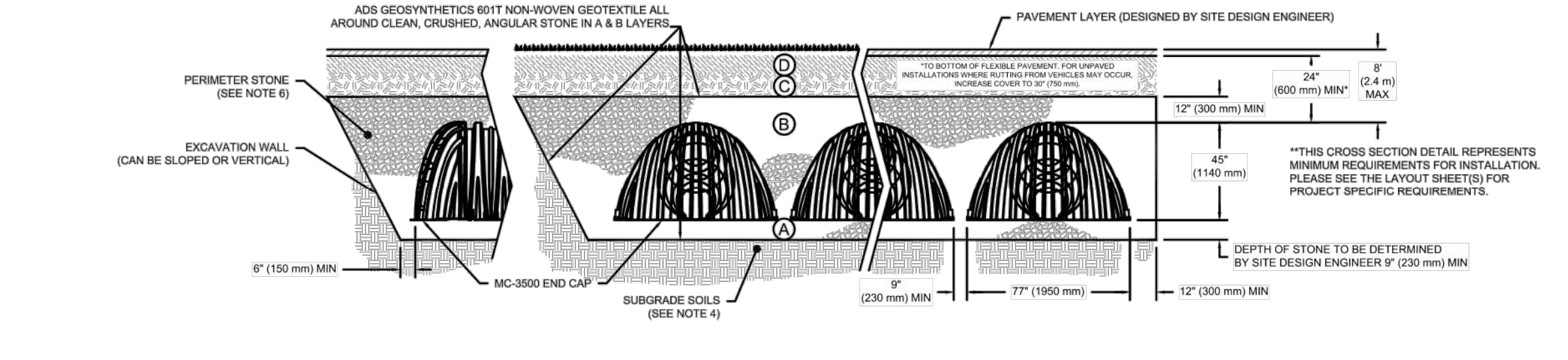
PART #	STUB	B	C
MC3500EPP081	6" (150 mm)	33.21" (844 mm)	0.66" (17 mm)
MC3500EPP082	8" (200 mm)	31.16" (791 mm)	—
MC3500EPP083	10" (250 mm)	29.04" (738 mm)	0.81" (21 mm)
MC3500EPP084	12" (300 mm)	26.36" (670 mm)	—
MC3500EPP108	10" (250 mm)	—	0.93" (24 mm)
MC3500EPP127	12" (300 mm)	—	1.38" (34 mm)
MC3500EPP128	12" (300 mm)	23.39" (594 mm)	—
MC3500EPP151	16" (375 mm)	—	1.50" (38 mm)
MC3500EPP152	16" (375 mm)	20.03" (509 mm)	—
MC3500EPP181C	18" (450 mm)	—	1.77" (45 mm)
MC3500EPP181W	18" (450 mm)	—	—
MC3500EPP241C	24" (600 mm)	14.48" (368 mm)	—
MC3500EPP241W	24" (600 mm)	—	—
MC3500EPP242C	30" (750 mm)	—	2.08" (52 mm)
MC3500EPP242W	30" (750 mm)	—	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

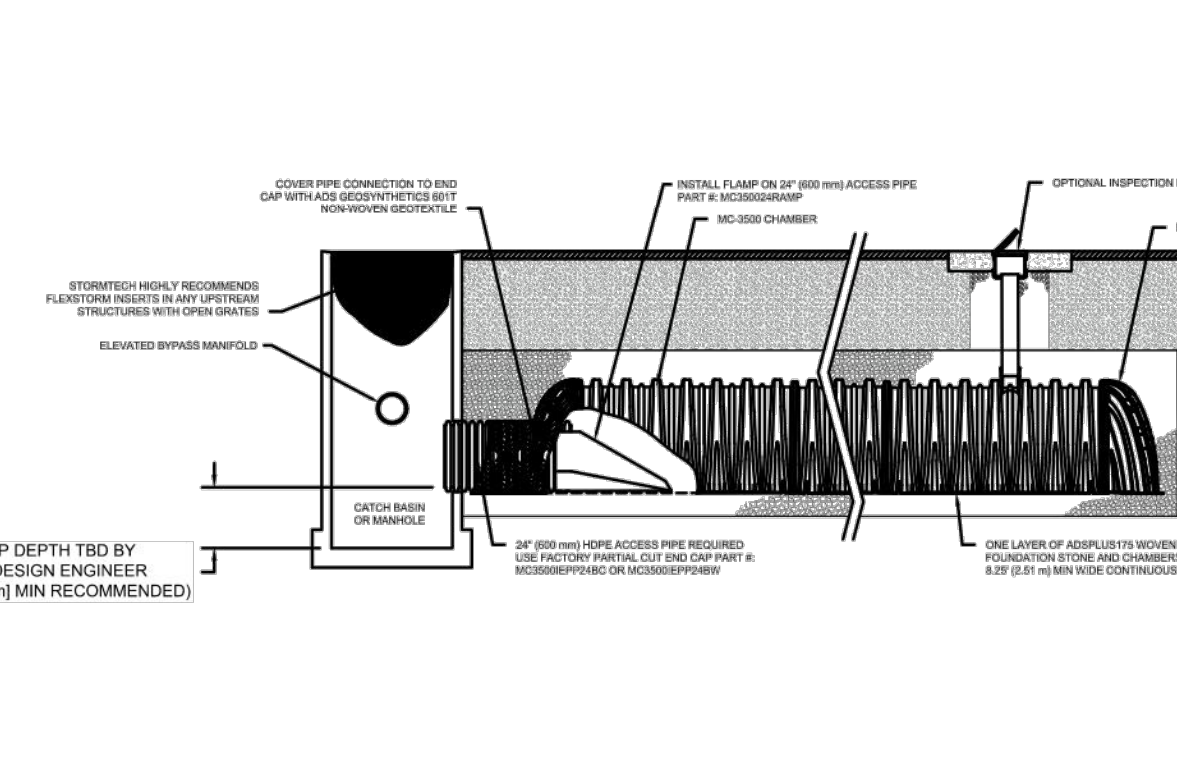
MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (E) LAYER TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 ¹ A-1, A-2, A-3 OR AASHTO M43 ² 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 34" (860 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A) LAYER TO THE 'C' LAYER ABOVE.	AASHTO M43 ³ 3, 4	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 ³ 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{4,5}

PLEASE NOTE:
 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) MAX LIFTS USING TWO FULL COVERSAGES WITH A VIBRATORY COMPACTOR.
 3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITH COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
 4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

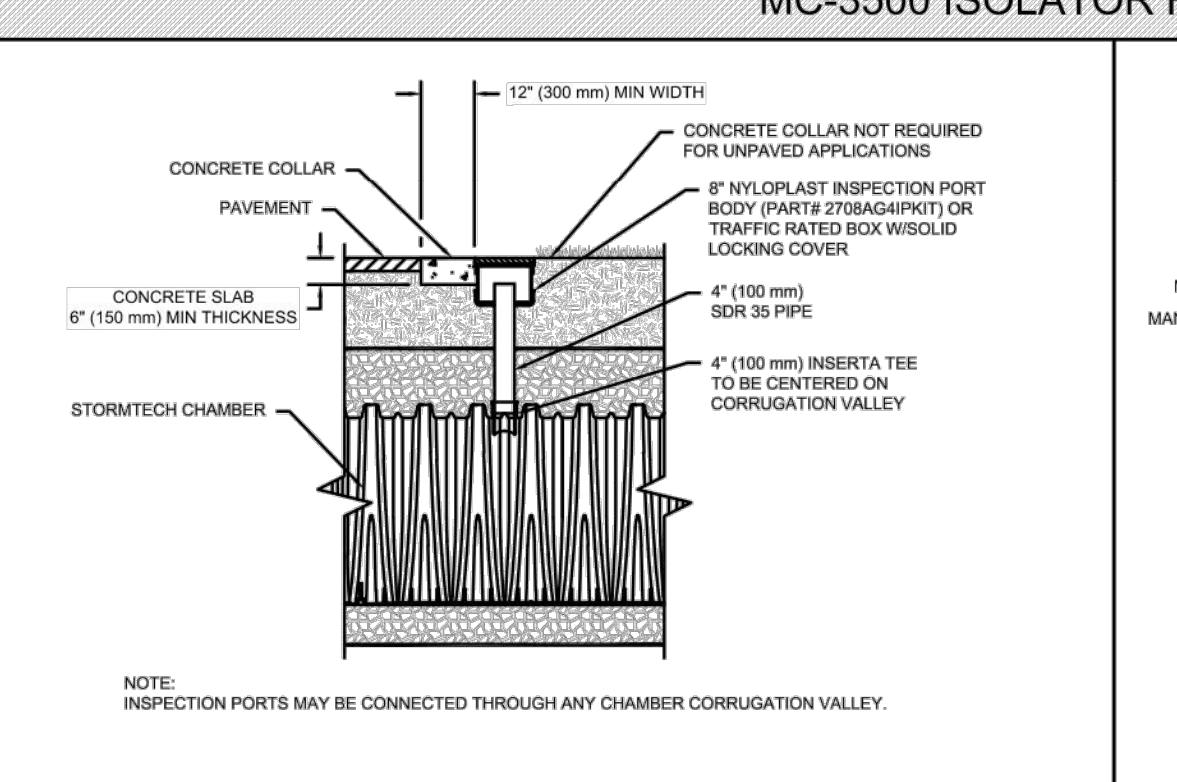


1 MC-3500 CROSS SECTION DETAIL

- NOTES:
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS' CHAMBER CLASSIFICATION 45/76 DESIGNATION SS."
 - MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 - THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
 - PERMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
 - REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.



3 MC-3500 ISOLATOR ROW PLUS DETAIL

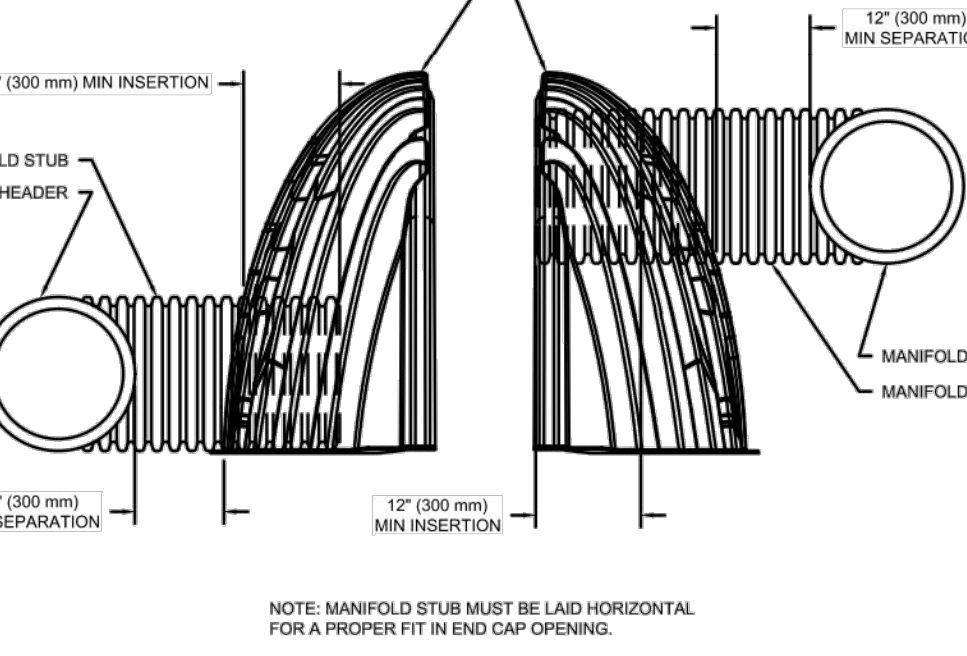


4 4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)

- ### INSPECTION & MAINTENANCE
- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- INSPECTION PORTS (IF PRESENT)
 - REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - ALL ISOLATOR PLUS ROWS
 - REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - FOLLOW CASH REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - SEDIMENT AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
 - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKLUSH WATER IS CLEAN
 - VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



7 MC-SERIES END CAP INSERTION DETAIL

DATE: PROJECT NO: NOT TO SCALE

DRAWN: REVIEWED: REV:

MC-3500 STANDARD DETAILS

Stormtech

4640 TRUEMAN BLVD
HILLIARD, OH 43026

ADS

ADVANCED DRAINAGE SYSTEMS, INC.

ADVANCED DRAINAGE SYSTEMS, INC. (ADS) HAS PREPARED THIS DETAIL BASED ON REFERENCED STANDARDS. ADS HAS AS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. UNLESS THE PLANS ARE SIGNED AND SEALED BY THE SITE DESIGN ENGINEER, THE SITE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION AND SEALING THE DOCUMENT. IT IS THE SITE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEET OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

PROJECT MANAGER: SHAWN KEOUGH
C:\P\WORK\W\LANAGAN\124030\GDT-PLUS-DETAILS.DWG - LAYOUT - PLOTTED 1/18/2023 8:11 AM BY: LANAGAN, MARTIN

ISSUED FOR: DATE: BY:
SITE PLAN SUBMITTAL 1/18/23 SWK

JOB NO: PLY2101-02T

SHEET 9

CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
SAXTON PROPERTY PARKING LOT
ADS MC3500 DETAILS

WADE TRIM

25251 Northline Rd.
Taylor, MI 48180
Saxton Property
www.saxtonmi.com

DATE DESCRIPTION

BENCHMARK#1 ELEV. 721.67

ARROW TOP OF HYDRANT AT SOUTHWEST CORNER OF ANN ARBOR TRAIL AND DEER.

BENCHMARK#2 ELEV. 720.85

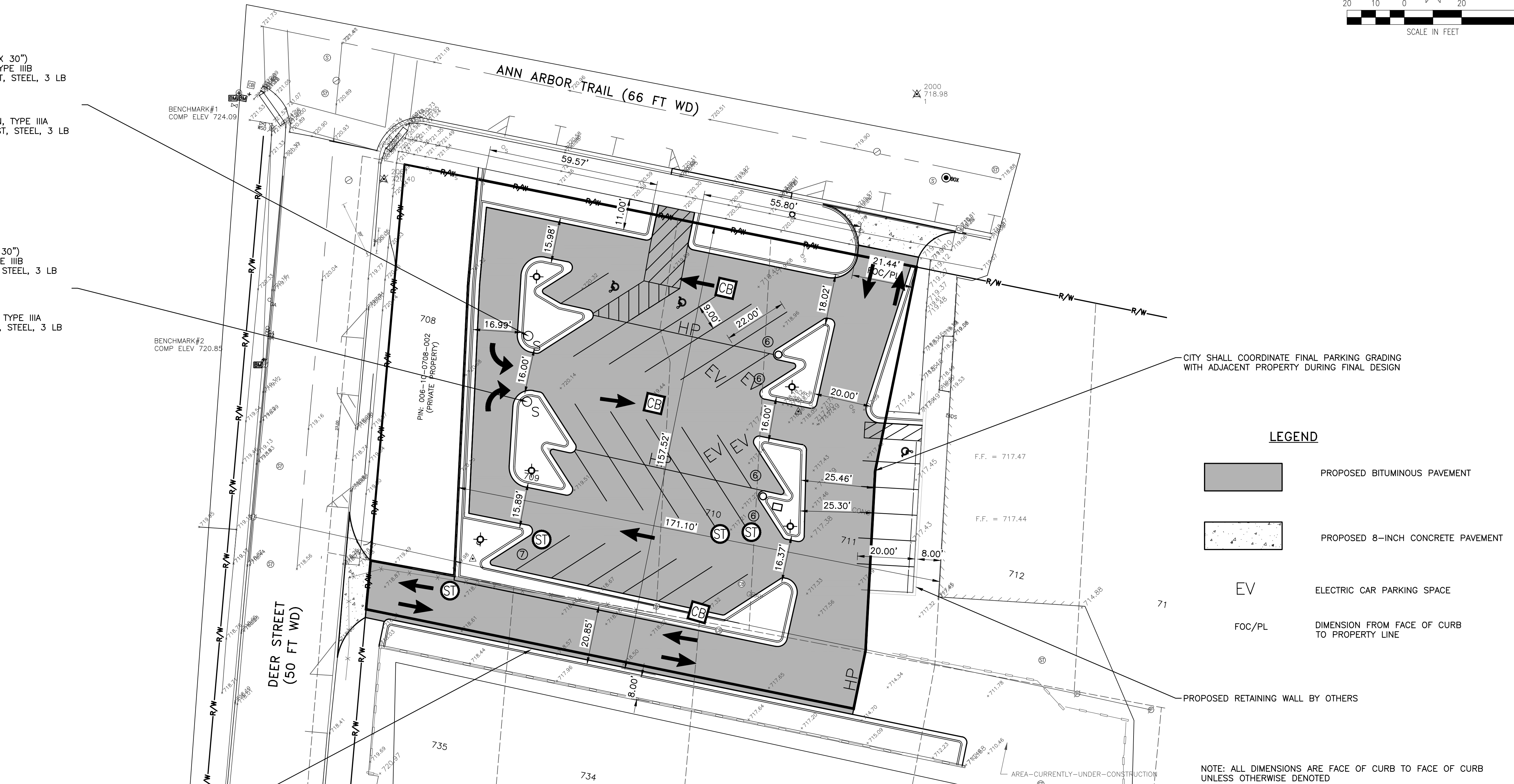
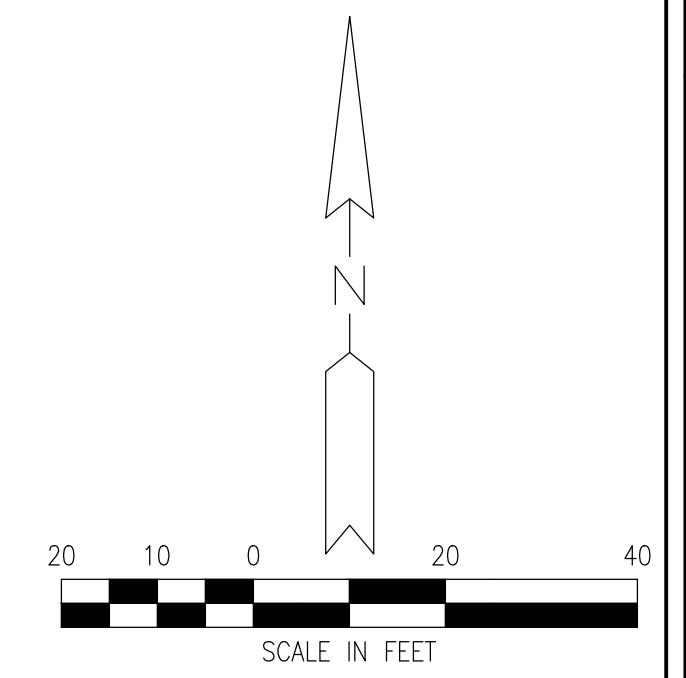
BM "TIE" IN EAST SIDE UTILITY POLE ON WEST SIDE OF DEER, 115± SOUTH OF CENTERLINE OF ANN ARBOR TRAIL

TURN LEFT ONLY R3-31L (24" X 30") 5 SFT SIGN, TYPE IIIIB FT 1-POST, STEEL, 3 LB


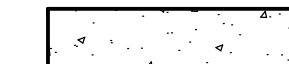

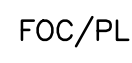
DO NOT ENTER R5-1 (30") 6.25 SFT SIGN, TYPE IIIA FT 1-POST, STEEL, 3 LB

TURN RIGHT ONLY R3-31R (24" X 30") 5 SFT SIGN, TYPE IIIIB FT 1-POST, STEEL, 3 LB

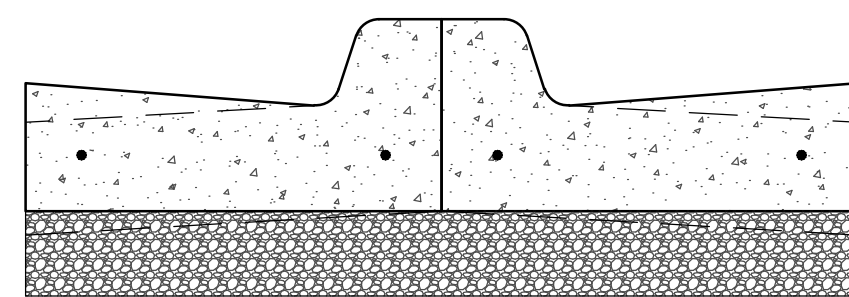
DO NOT ENTER R5-1 (30") 6.25 SFT SIGN, TYPE IIIA FT 1-POST, STEEL, 3 LB



LEGEND

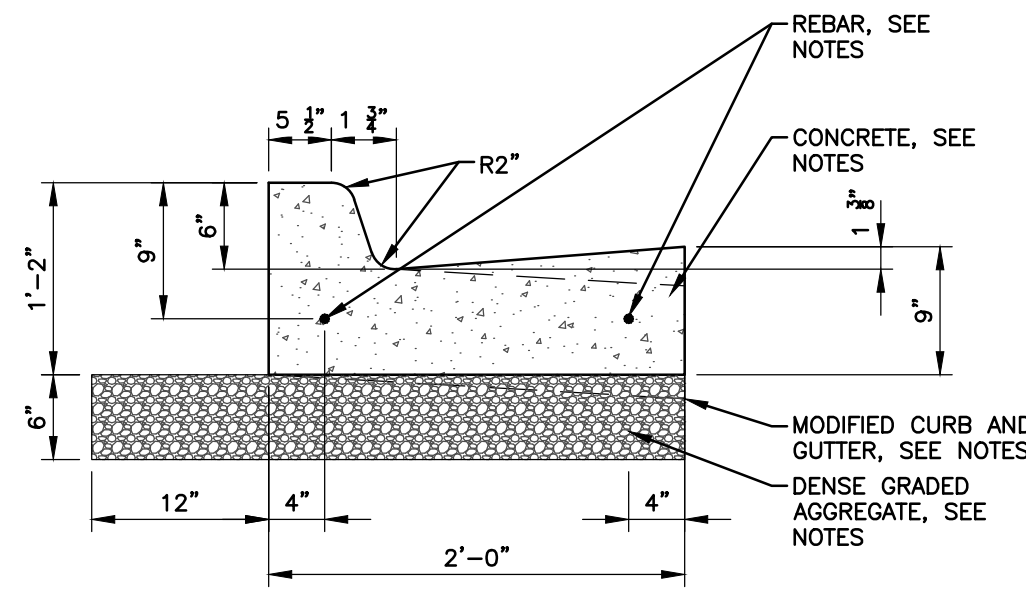
-  PROPOSED BITUMINOUS PAVEMENT
-  PROPOSED 8-INCH CONCRETE PAVEMENT
-  ELECTRIC CAR PARKING SPACE
-  DIMENSION FROM FACE OF CURB TO PROPERTY LINE

CITY OF PLYMOUTH SHALL OBTAIN 2 - FOOT INGRESS/EGRESS EASEMENT FROM THE ADJACENT PROPERTY



48" STANDARD BACK - BACK CURB & GUTTER DETAIL

NOT TO SCALE



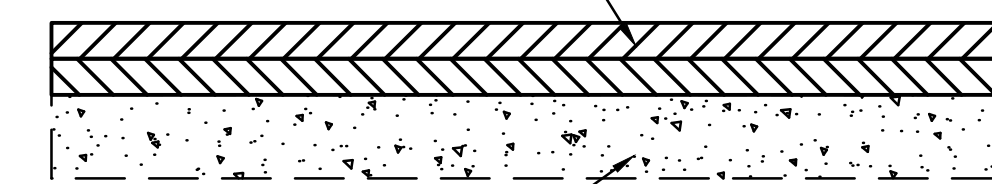
24" STANDARD CURB & GUTTER DETAIL

NOT TO SCALE

CURB AND GUTTER NOTES

- ISLAND CURB AND GUTTER SHALL BE 24" STANDARD CURB AND GUTTER WITH SPILL OUT GUTTER PER DETAIL.
- PERIMETER CURB AND GUTTER SHALL BE 24" STANDARD CURB AND GUTTER WITH SPILL OUT GUTTER PER DETAIL.
- CURB AND GUTTER ALONG WESTERN PROPERTY LINE SHALL BE 48" STANDARD BACK TO BACK CURB AND GUTTER WITH SPILL OUT GUTTER PER DETAIL.

1.5-INCHES BITUMINOUS PAVEMENT, WEARING COURSE, 1300T



8-INCH 21AA AGGREGATE

PROPOSED PAVEMENT CROSS SECTION

NOTE: ALL DIMENSIONS ARE FACE OF CURB TO FACE OF CURB UNLESS OTHERWISE DENOTED

PROPOSED RETAINING WALL BY OTHERS

PROJECT MANAGER: SHAWN KEOUGH C:\P_L\WORK\MICHIGAN\48170\CSP-PLTS-PROPOSED PARKING.DWG - SHEET 10 - PLOTTED 1/18/2023 2:55 PM BY FLANAGAN, MARTIN



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313.481.1800
www.wadetrims.com

CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
SAXTON PROPERTY PARKING LOT
PROPOSED PARKING LOT PLAN

ISSUED FOR: DATE: BY: SITE PLAN SUBMITTAL 1/18/23 SWK

JOB NO: PLY2101-02T

SHEET 10

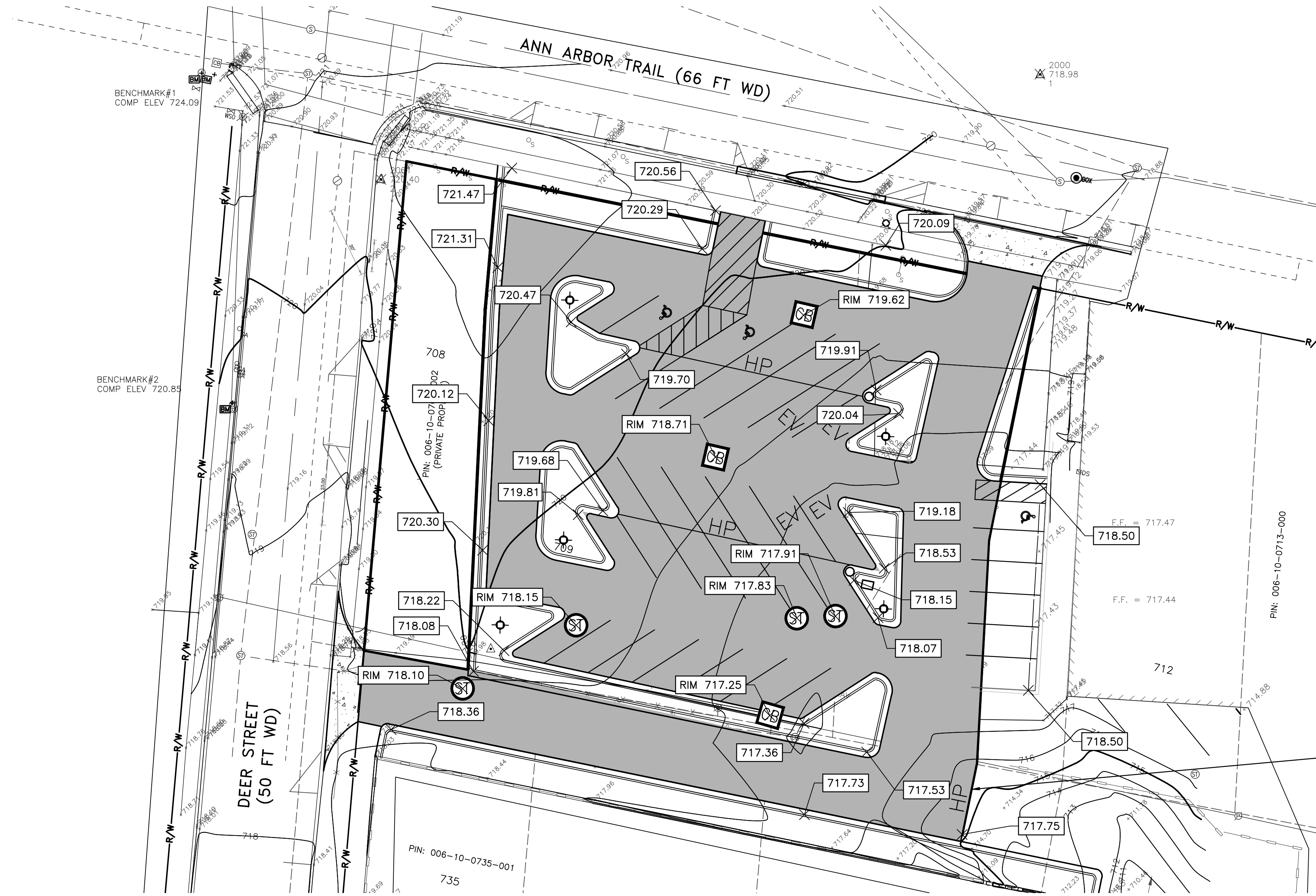
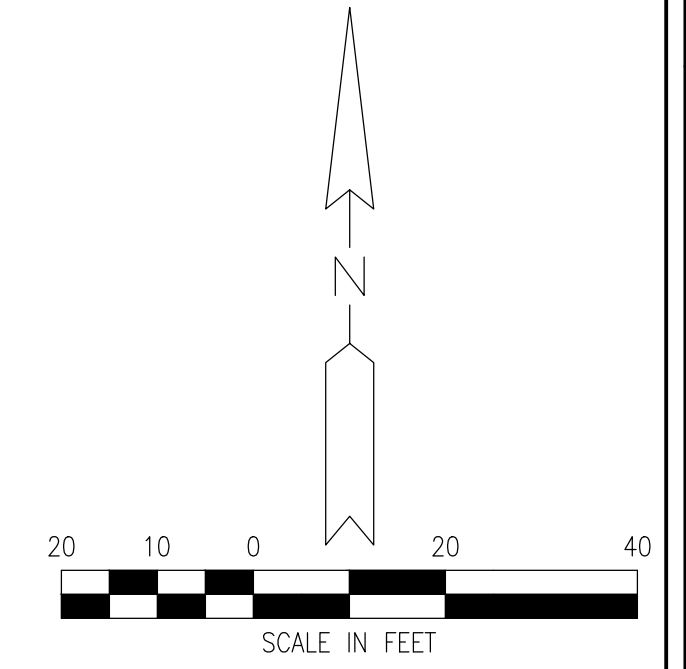
SAXTON PROPERTY PARKING LOT

BENCHMARK#1 ELEV. 721.67

ARROW TOP OF HYDRANT AT SOUTHWEST CORNER OF ANN ARBOR TRAIL AND DEER.

BENCHMARK#2 ELEV. 720.85

BM "TIE" IN EAST SIDE UTILITY POLE ON WEST SIDE OF DEER, 115± SOUTH OF CENTERLINE OF ANN ARBOR TRAIL



FINAL GRADE WILL BE COORDINATED WITH JEWEL MAPLE CONDO PROJECT DURING FINAL DESIGN

PROJECT MANAGER: SHAWN KEOUGH
 CIVIL ENGINEER (LICENSE NO. 24000) (COP-PLS-PROP GRADING.DWG - LAYOUT) - FLOTTED 1/18/2023 2:59 PM BY FLANAGAN, MARTIN



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 SAXTON PROPERTY PARKING LOT
 PRELIMINARY GRADING PLAN

ISSUED FOR:	DATE:	BY:
SITE PLAN	1/18/23	SWK
SUBMITAL		
JOB NO.	PLY2101-02T	
SHEET	12	

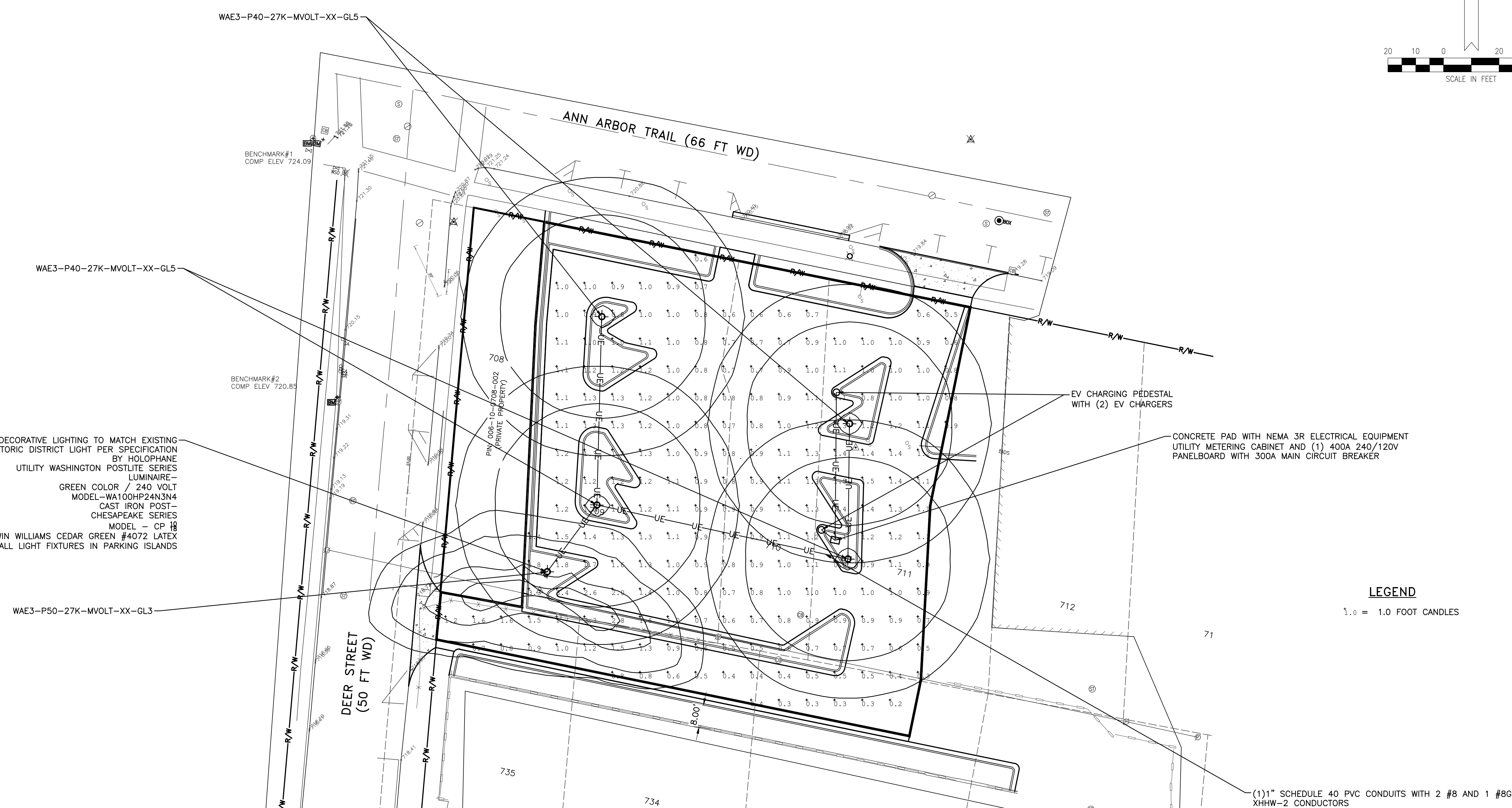
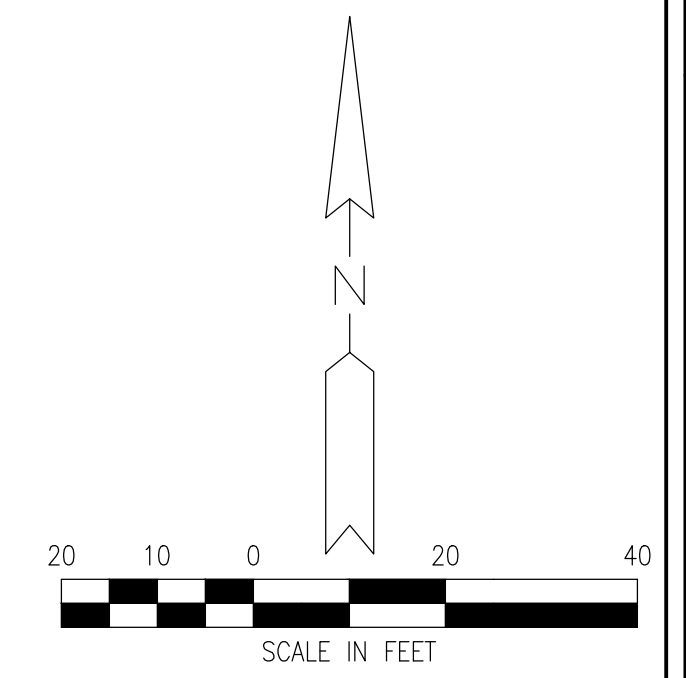
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BENCHMARK#1 ELEV. 721.67

ARROW TOP OF HYDRANT AT SOUTHWEST CORNER OF ANN ARBOR TRAIL AND DEER.

BENCHMARK#2 ELEV. 720.85

BM "TIE" IN EAST SIDE UTILITY POLE ON WEST SIDE OF DEER, 115± SOUTH OF CENTERLINE OF ANN ARBOR TRAIL



DECORATIVE LIGHTING TO MATCH EXISTING HISTORIC DISTRICT LIGHT PER SPECIFICATION BY HOLOPHANE UTILITY WASHINGTON POSTLITE SERIES LUMINAIRE - GREEN COLOR / 240 VOLT MODEL - WA100HP24N3N4 CAST IRON POST - CHESAPEAKE SERIES MODEL - CP 18 PAINTED SHERWIN WILLIAMS CEDAR GREEN #4072 LATEX TYPICAL FOR ALL LIGHT FIXTURES IN PARKING ISLANDS

EV CHARGING PEDESTAL WITH (2) EV CHARGERS

CONCRETE PAD WITH NEMA 3R ELECTRICAL EQUIPMENT UTILITY METERING CABINET AND (1) 400A 240/120V PANELBOARD WITH 300A MAIN CIRCUIT BREAKER

LEGEND
1.0 = 1.0 FOOT CANDLES

- LIGHT POLE INFORMATION
- POLE = CPC 10 FTN 18D C03 GN LABRP110A FGIUS NASSY6222
 - ANCHOR BOLTS = AB-31-4
 - FIXTURE = WAE3 P40 27K MVOLT EN GL3 GN SK TGN AO
 - BANNER ARMS = BA 22IN 1A CO F4J HB 100P GN

PROJECT MANAGER: SHAWN KEOUGH
C:\P\WORK\WELAGAN\124030\CLIP-PLS-PROPOSED_LIGHTING.DWG - SHEET 13 - PLOTTED 1/18/2023 3:47 PM BY ELANAGAN, MARTIN



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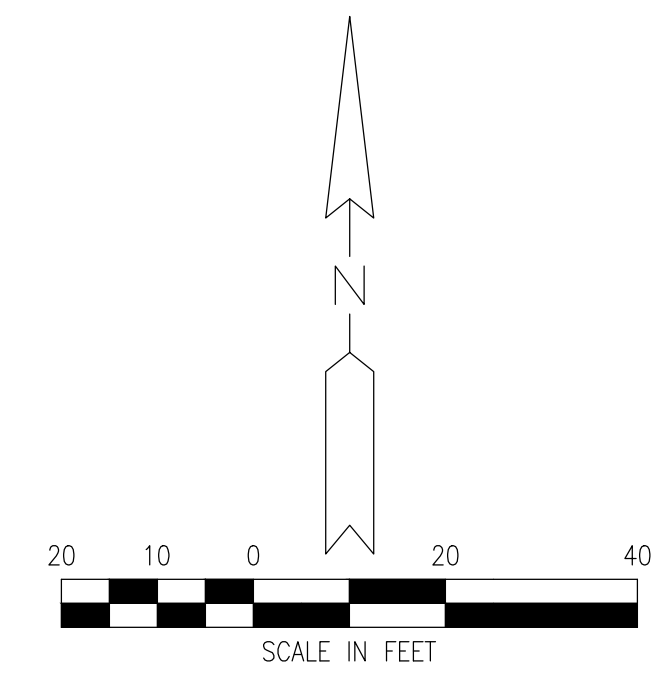
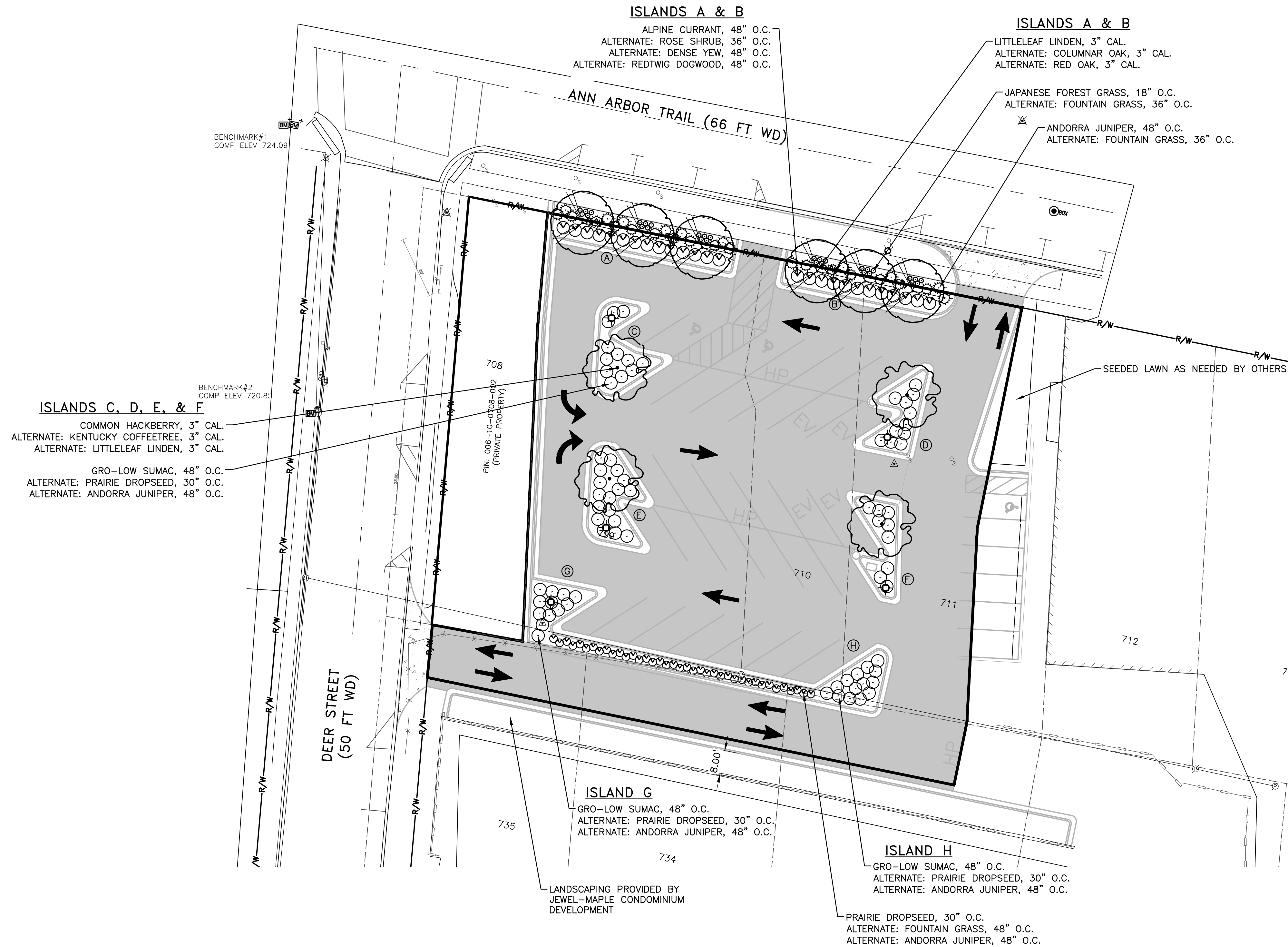
CITY OF PLYMOUTH
201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
SAXTON PROPERTY PARKING LOT
PROPOSED LIGHTING AND PHOTOMETRIC PLAN

ISSUED FOR:	DATE:	BY:
SITE PLAN	1/18/23	SWK
SUBMITAL		
JOB NO.	PLY2101-02T	
SHEET	13	

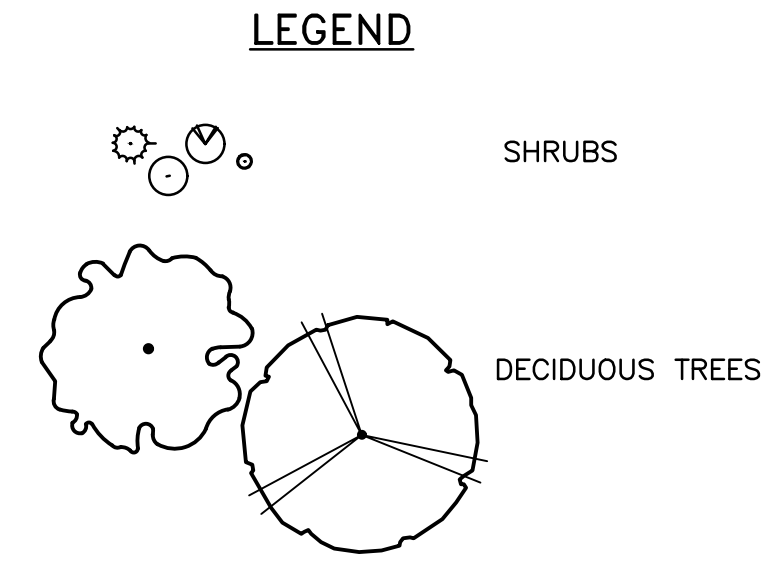
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ISLAND	AREA (SFT)	PROPOSED TREES	PROPOSED SHRUBS AND PLANTING
(A)	651	3	45
(B)	600	3	38
(C)	298	1	12
(D)	236	1	11
(E)	370	1	17
(F)	229	1	9
(G)	247	NO TREE DUE TO LIGHT	12
(H)	279	NO TREE DUE TO POWER LINE	14



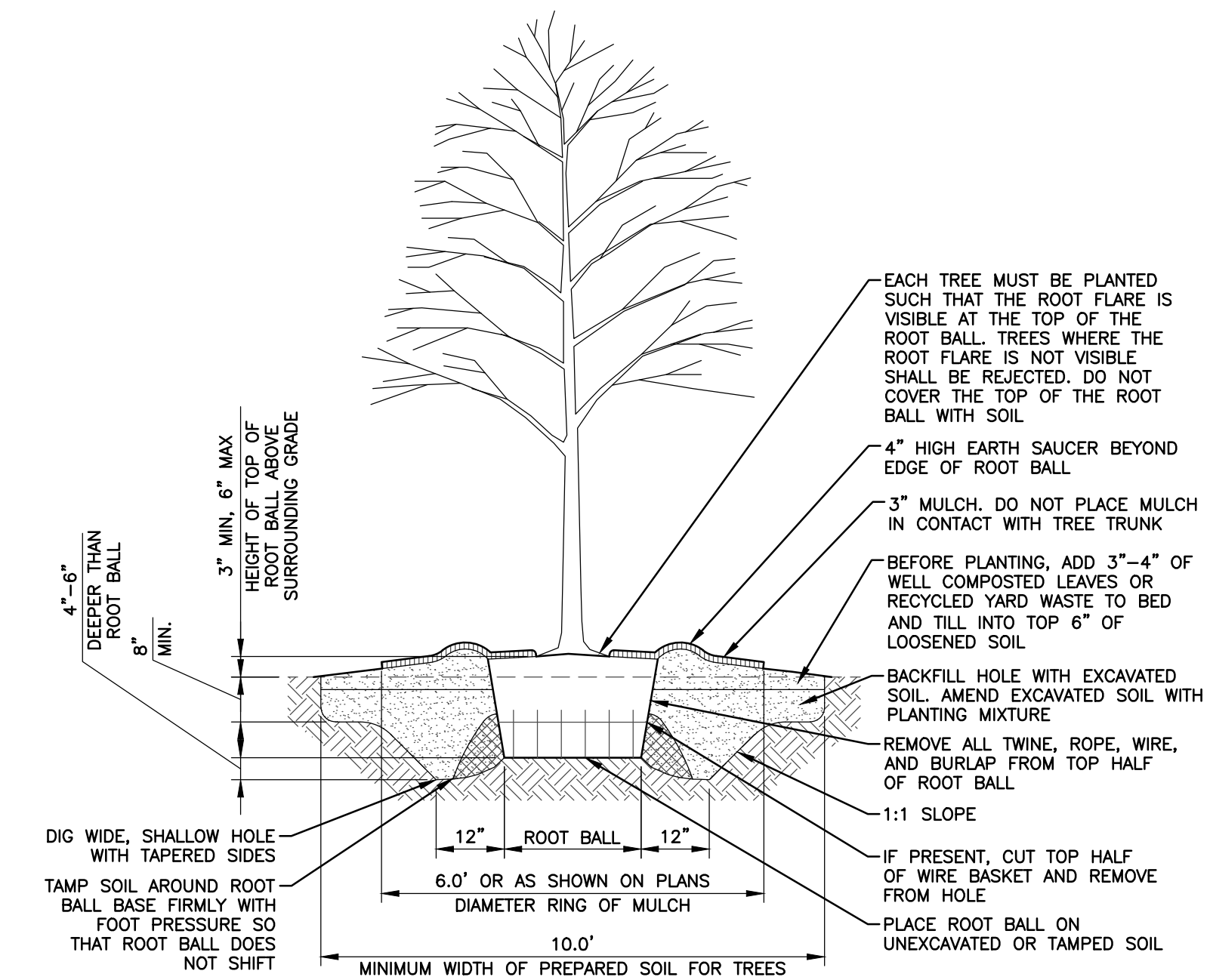
NOTE: PLEASE SEE NOTE ON SHEET 11 FOR MINIMUM PLANTING REQUIREMENTS

REV#	DATE	DESCRIPTION	BY

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 313.481.8800
 www.waade-trim.com

CITY OF PLYMOUTH
 201 S MAIN ST
WAYNE COUNTY, MICHIGAN 48170
 SAXTON PROPERTY PARKING LOT
 PROPOSED LANDSCAPE PLAN

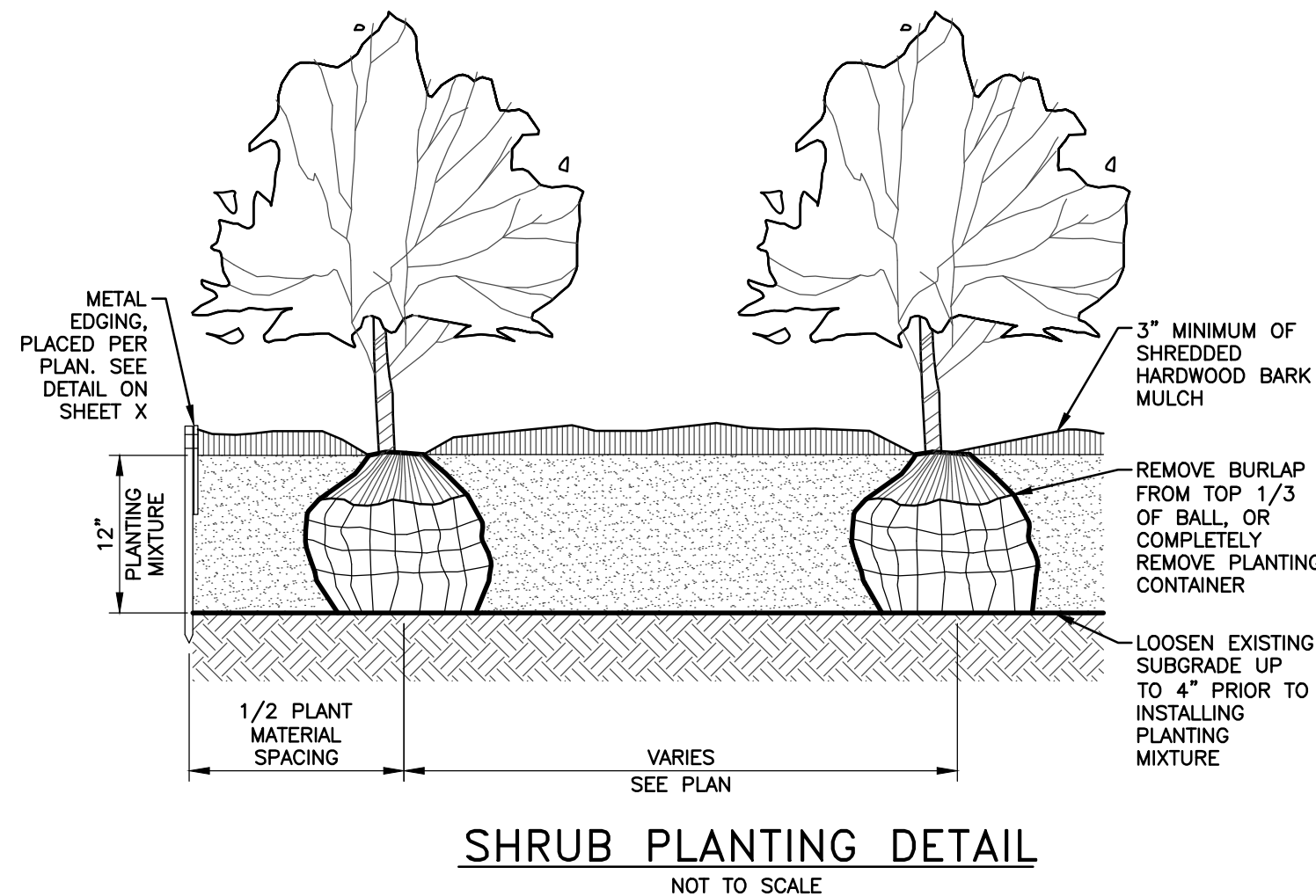
ISSUED FOR: SITE PLAN SUBMITTAL	DATE: 1/18/23	BY: SWK
JOB NO. PLY2101-02T		
SHEET 14		



NOTES:

1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OR THE CONTAINER.
2. AFTER DIGGING HOLE, FILL WITH WATER TO CONFIRM THAT WATER DRAINS OUT OF THE SOIL. IF HOLE DOES NOT PERC, DO NOT PLANT TREE. NOTIFY LANDSCAPE ARCHITECT FOR DIRECTION.
3. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL IMMEDIATELY AFTER PLANTING.
4. THE PLANTING PROCESS IS SIMILAR FOR DECIDUOUS AND EVERGREEN TREES.
5. PURCHASE TREE WITH ONE CENTRAL LEADER. DO NOT PRUNE TREE AT PLANTING EXCEPT AS DIRECTED BY LANDSCAPE ARCHITECT.
6. SET TREE PLUMB WITH VERTICAL TRUNK.
7. STAKE TREES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT SEE DETAIL ON SHEET X.
8. WRAP TREES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT.

TREE PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE

LANDSCAPE NOTES

1. ALL PLANTS TO BE INSTALLED IN ACCORDANCE WITH AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS.
2. CONTRACTOR SHALL PROVIDE A PLANTING MIXTURE MEETING THE FOLLOWING REQUIREMENTS. IF THE ENGINEER HAS ANY CONCERNS WITH THE QUALITY OF THE PLANTING MIXTURE, THE ENGINEER SHALL BE ALLOWED TWO WEEKS TO OBTAIN SOIL TEST TO DETERMINE SPECIFICATION COMPLIANCE. NO PLANT MATERIAL SHALL BE PLANTED PRIOR TO ENGINEER APPROVAL OF PLANTING MIXTURE. ALL PLANT MATERIAL SHALL BE MAINTAINED BY THE CONTRACTOR IN A VIGOROUS GROWING CONDITION DURING THIS TIME AT NO ADDITIONAL COST.
3. SPACING OF PLANT MATERIALS SHALL BE AS SHOWN ON DRAWING OR ON PLANT LIST. THE ENGINEER SHALL REVIEW THE PLACEMENT OF PLANT MATERIAL PRIOR TO AND AFTER INSTALLATION, AND RESERVES THE RIGHT TO ADJUST LAYOUT TO ACCOMMODATE SITE CONDITIONS AND DESIGN INTENT.
4. ALL PLANT MATERIALS SHALL CONFORM TO PLANT SCHEDULES. SIZES SHALL BE THE MINIMUM STATED ON THE PLANT LIST OR LARGER. ALL MEASUREMENTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "A.A.N. STANDARDS FOR NURSERY STOCK."
5. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN FINISHED AND REVIEWED BY THE ENGINEER.
6. FINAL PLANT LOCATIONS SHALL BE MARKED BY CONTRACTOR THREE WORKING DAYS PRIOR TO PLANTING FOR ENGINEER REVIEW.
7. ALL PLANTED PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANTS ORIGINAL GRADE BEFORE DIGGING.
8. PLANT MATERIAL, ESPECIALLY EVERGREENS, TO BE PLANTED HIGHER THAN NORMAL WHEN HEAVY SOIL CONDITIONS (CLAY, ETC.) PREVAIL.
9. IF FOR ANY REASON ANY BALLED AND BURLAPED PLANT MATERIALS NEED TO BE STORED ON SITE LONGER THAN A 24-HOUR PERIOD, THEIR ROOT BALLS SHALL BE PROTECTED. ALL PLANTS SHALL BE THOROUGHLY WATERED EACH DAY THEY ARE STORED ON SITE. PLANTS MAY BE STORED ON SITE FOR A MAXIMUM OF TWO (2) WEEKS, OR 14 DAYS. ANY PLANTS ALLOWED TO DRY OUT AS DETERMINED BY THE ENGINEER WILL BE REJECTED.
10. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL WRAPPING MATERIALS MADE OF SYNTHETIC OR PLASTICS SHALL BE COMPLETELY REMOVED AT TIME OF PLANTING.
11. THE CONTRACTOR SHALL FILL PLANT PIT WITH PREPARED PLANT MIX TO 1/2 DEPTH OF ROOT BALL OR ROOT MASS, PACK FIRMLY, PUDDLE WITH WATER; THEN FOR BALLED AND BURLAPED MATERIAL, THE BURLAP AND ALL LACING (INCLUDING WIRE BASKET IF NECESSARY) SHALL BE REMOVED FROM THE UPPER 1/3 OF ROOTBALL, THEN FINISH BACKFILLING ADDING SOLID FERTILIZER TO THE PLANT MIX, PACK FIRMLY AND WATER. A SAUCER SHALL BE PLACED AROUND EVERY PLANT AND SHALL BE APPROVED PRIOR TO PLACEMENT OF ANY MULCH.
12. ALL DISTURBED LAWN AREAS SHALL BE RESTORED WITH 4-INCHES OF TOPSOIL, SPREAD, FINE GRADED, AND SEEDED/SODDED AS SPECIFIED. PRIOR TO INSTALLATION OF TOPSOIL, LOOSEN SUBGRADE TO A DEPTH OF 2 INCHES. THIS WORK SHALL BE INCIDENTAL TO THE PROJECT.
13. TOPSOIL SHALL CONSIST OF FRIABLE, SHREDDED, AND SCREENED SOIL REASONABLY FREE OF GRASS, ROOTS, WEEDS, STICKS, STONES OR OTHER FOREIGN MATERIALS. THE TOPSOIL MATERIAL SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. SOIL COMPOSITION SHOULD CONTAIN AN ORGANIC CONTENT OF 2 TO 6 PERCENT AND BE CLASSIFIED AS A LOAM OR SANDY LOAM AS SPECIFIED IN THE "GUIDE FOR U.S.D.A. SOIL TEXTURAL CLASSIFICATION".
14. ALL TREES AND SHRUBS ARE TO BE FERTILIZED ONCE ROOTS SYSTEM IS ESTABLISHED WITH AGRIFORM 21-GRAM FERTILIZER TABLETS AT RATES RECOMMENDED BY MANUFACTURER.
15. ALL PLANTS AND STAKES SHALL BE SET PLUMB UNLESS OTHERWISE SPECIFIED.
16. AT PLANTING TIME, ALL DEAD AND BROKEN BRANCHES SHALL BE PRUNED ON ALL DECIDUOUS TREES.
17. CONTRACTOR SHALL APPLY ENGINEER APPROVED PRE-EMERGENT HERBICIDE, "PREEN" OR EQUAL, TO SHRUB AND GROUND COVER PLANTING AREAS AT THE TIME OF PLANTING (IF SPRING PLANTED) OR THE FOLLOWING SPRING. CONTRACTOR SHALL ENSURE THE PLANT MATERIALS ARE RESISTANT TO THE HERBICIDES PROPERTIES. HERBICIDE SHALL BE APPLIED ACCORDING TO MANUFACTURERS SPECIFICATIONS AND IN ACCORDANCE WITH SOUND HORTICULTURAL PRACTICES.
18. ALL TREES, SHRUBS AND PERENNIAL GROUND COVER SHALL RECEIVE A MINIMUM DEPTH OF THREE INCHES DOUBLE SHREDDED HARDWOOD BARK MULCH. WHERE PLANT BEDS MEET PAVEMENTS, LAWN, OR STEEL EDGING CUT THE GRADE TO ALLOW FOR MULCH AND THREE-INCH DROP FROM ADJOINING FINISH GRADE.
19. ALL PLANT BEDS SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8-INCHES AND BACKFILLED WITH SPECIFIED PLANT MIX AS PER PLANTING BED DETAILS. BEDS SHALL BE EDGED WITH METAL EDGING AROUND PERIMETER. ALL EDGING SHALL BE 4" WIDE - 12 GAUGE STEEL, COLOR BLACK. CONTRACTOR SHALL LAYOUT EDGING FOR APPROVAL AND INSTALL PER MANUFACTURERS RECOMMENDATIONS.
20. 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) FULL YEAR FOLLOWING PLANTING. ALL DISEASED, DAMAGED, OR DEAD MATERIAL SHOWN ON THE SITE PLAN SHALL BE REPLACED BY THE END OF THE FOLLOWING GROWING SEASON.
21. APPLICATIONS OF FERTILIZER BEYOND THE INITIAL TOPSOIL AND SEEDING SHALL BE A FERTILIZER WITH NO PHOSPHOROUS.

PLANTING MIXTURE NOTES

1. MIXTURE SHALL BE A MIXTURE OF 6 PARTS TOPSOIL, 4 PARTS MEDIUM-COARSE SAND, AND 1 PART COMPOST. ADD FERTILIZER AT THE QUANTITY AS RECOMMENDED BY THE MANUFACTURER. PLANTING MIXTURE SHALL BE FREE FROM, STICK, STONES, SOD CLODS, OR OTHER MATERIAL WHICH MIGHT LEAVE POCKETS AROUND THE ROOTS.

pH 5.0 TO 7.5
SOLUBLE SALTS 500 PPM MAX
ORGANIC CONTENT 5% TO 30%
SILT CONTENT 35% TO 50%
CLAY CONTENT 5% TO 10%
DELETERIOUS MAT'L* 5% MAX
*ROCK, GRAVEL, STONE, STICKS, ROOTS, SOD, ETC.
2. TOPSOIL
2.1. TOPSOIL SHALL BE FERTILE, FRIABLE, SANDY CLAY LOAM WITHOUT ADMIXTURE OF SUBSOIL. TOPSOIL IS TO BE FREE OF GLASS, STONES GREATER THAN ONE (1) INCH IN ANY DIMENSION, WEEDS, UNDESIRABLE GRASSES AND OTHER EXTRANEOUS MATERIALS. TOPSOIL SHALL HAVE THE FOLLOWING RANGE OF VALUES:

pH 5.0 TO 7.5
SOLUBLE SALTS 500 PPM MAX
ORGANIC CONTENT 5% TO 30%
SILT CONTENT 35% TO 50%
CLAY CONTENT 5% TO 10%
DELETERIOUS MAT'L* 5% MAX
*ROCK, GRAVEL, STONE, STICKS, ROOTS, SOD, ETC.
- 2.2. TOPSOIL IS TO BE FINAL SCREENED THRU A 5/8" MAXIMUM MESH SCREEN PRIOR TO DELIVERY TO THE PROJECT SITE. ENGINEER SHALL REVIEW SOURCE AND FINAL SCREEN RESULTS PRIOR TO RELEASE OF TOPSOIL. CONTRACTOR SHALL SUBMIT A CERTIFIED ANALYSIS OF THE TOPSOIL FROM EACH SOURCE TO THE ENGINEER. TOPSOIL SHALL BE PLACED IN 4-INCH MINIMUM THICKNESS THROUGHOUT.
3. SAND FOR PLANTING MIXTURE SHALL BE CLEAN, MEDIUM-COARSE, UNGRADED SAND CONFORMING TO ASTM C3 FOR FINE AGGREGATES.
4. COMPOST SHALL BE COMPOSTED PINE BARK FINES OR OTHER HIGH-LIGNIN BARK FROM SPRUCE, FIR, OR OTHER CONIFERS.



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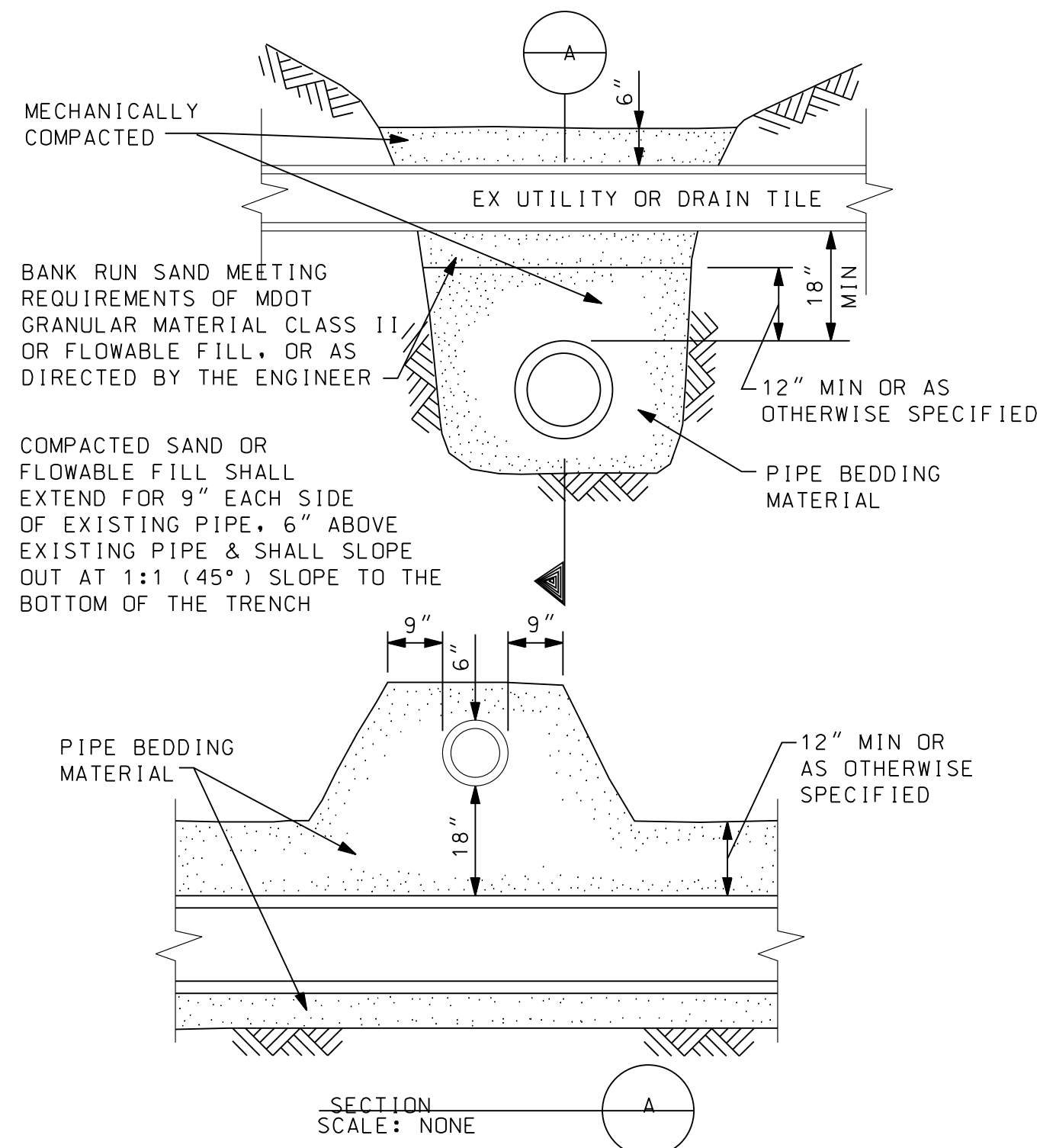
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WAYNE COUNTY, MICHIGAN 48170
SAXTON PROPERTY PARKING LOT
LANDSCAPE DETAILS

ISSUED FOR: DATE: BY:
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SUBMITTAL

JOB NO.
PLY2101-02T

SHEET
15

NOTE:
WHERE CONCRETE ENCASEMENT IS SPECIFIED FOR NEW UTILITY A 6" MINIMUM LAYER OF MECHANICALLY COMPACTED SAND SHALL BE MAINTAINED BETWEEN EXISTING UTILITY & TOP OF CONCRETE ENCASEMENT.



STANDARD PIPE SUPPORT
N.T.S.

GENERAL NOTES

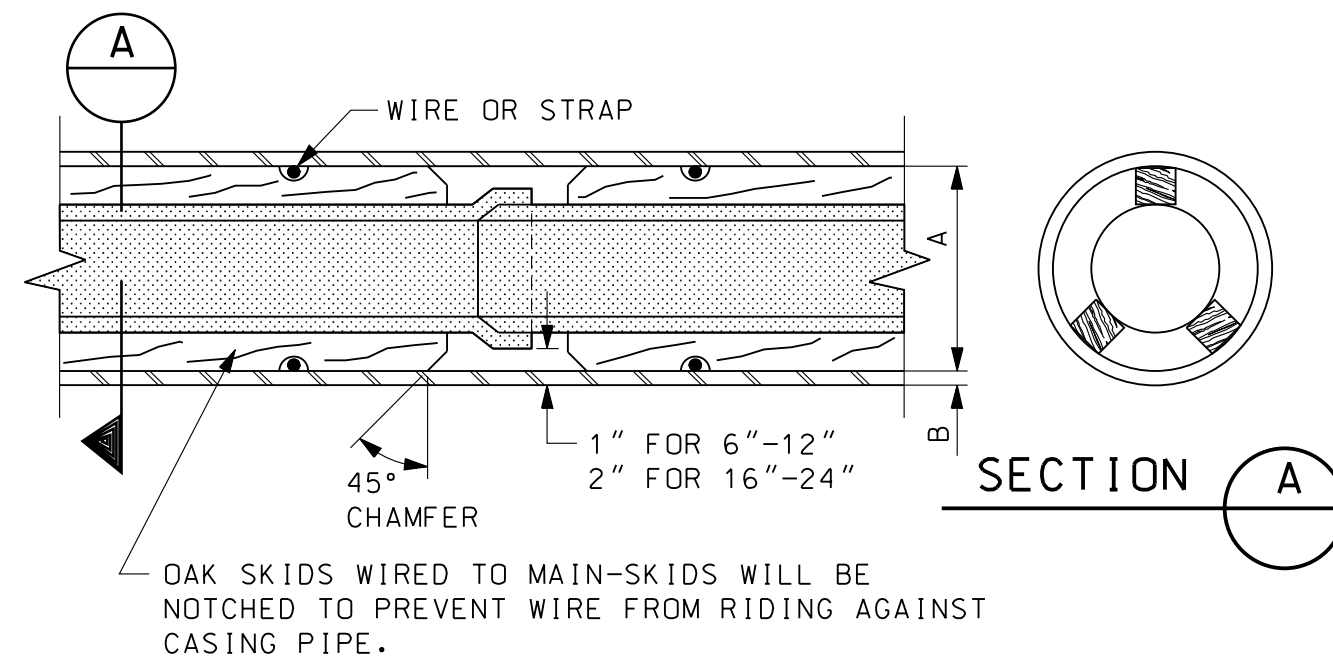
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL ATTEND A RECONSTRUCTION MEETING, AT A TIME AND PLACE AS ARRANGED BY THE COMMUNITY, IN WHICH VARIOUS UTILITY COMPANIES AND GOVERNMENTAL AGENCY REPRESENTATIVES WILL BE PRESENT.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST HAVE IN HIS POSSESSION A COPY OF ALL PERMITS NECESSARY TO CONSTRUCT A CONNECTION TO, OR AN EXTENSION OF, THE WATER SUPPLY, SANITARY SEWER, OR STORM SEWER SYSTEMS.
- THE CONTRACTOR SHALL MAINTAIN HIS CONSTRUCTION OPERATIONS WITHIN THE PRESENTLY EXISTING ROAD RIGHTS-OF-WAY AND EASEMENTS AS NOTED ON THE PLANS THROUGHOUT THE PROJECT. IN THE EVENT THAT THE CONTRACTOR DEEMS IT NECESSARY OR ADVISABLE TO OPERATE BEYOND THE LIMITS OF THE EXISTING RIGHTS-OF-WAY OR EASEMENTS, HE SHALL BE RESPONSIBLE FOR MAKING SPECIAL WRITTEN AGREEMENTS WITH THE PROPERTY OWNERS AND SHALL FURNISH SUCH COPIES OF AGREEMENTS TO THE COMMUNITY AND ENGINEER.
- THE CONTRACTOR SHALL NOTIFY "MISS DIG" (800-482-7171) 3 DAYS (NOT INCLUDING HOLIDAYS OR WEEKENDS) BEFORE STARTING CONSTRUCTION. HE SHALL MAKE ANY NECESSARY ARRANGEMENTS WITH UTILITY COMPANIES FOR RELOCATION OF EXISTING UTILITIES. THESE ARRANGEMENTS SHALL BE MADE IN SUFFICIENT TIME TO ALLOW THE RELOCATION WORK TO BE COMPLETED WITHOUT INTERFERING WITH OR DELAYING THE SEWER CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND THE ENGINEER 48 HOURS PRIOR TO UNCOVERING ANY EXISTING UTILITIES.
- ON ALL WORK WITHIN THE WAYNE COUNTY RIGHT-OF-WAY, THE CONTRACTOR SHALL NOTIFY THE COUNTY ENGINEER AND THE COMMUNITY 72 HOURS PRIOR TO THE START OF ANY CONSTRUCTION.
- THE CONTRACTOR SHALL MAINTAIN ALL TRAFFIC AT ALL TIMES AS PER THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- THE CONTRACTOR SHALL AT ALL TIMES PROVIDE EMERGENCY ACCESS TO PROPERTY IN THE VICINITY OF THE CONSTRUCTION FOR POLICE AND FIRE EQUIPMENT, AMBULANCES OR OTHER EMERGENCY VEHICLES TO PROTECT LIFE, HEALTH AND PROPERTY.
- THE CONTRACTOR SHALL MAINTAIN PUBLIC ROADS AFFECTED BY THE CONSTRUCTION OPERATIONS IN A PASSABLE CONDITION UNTIL SUCH TIME AS FINAL RESTORATION OF THESE IMPROVEMENTS CAN BE MADE. IF THE PUBLIC SAFETY IS IN DANGER OR THE NECESSITY EXISTS FOR MAINTAINING TRAFFIC, BACKFILLING MUST BE COMPLETED IMMEDIATELY. IN THE EVENT THAT THE NECESSARY BACKFILL MATERIAL AND EQUIPMENT ARE NOT AVAILABLE WHEN DIRECTION IS GIVEN FOR IMMEDIATE BACKFILL, THE TRENCH SHALL BE BACKFILLED WITH NATIVE MATERIAL TO PROVIDE FOR THE NECESSARY MAINTENANCE OF TRAFFIC AND SAFETY; HOWEVER, THE NATIVE MATERIAL SHALL BE REMOVED WITHIN 48 HOURS AND THE TRENCH PROPERLY BACKFILLED.

GENERAL NOTES CONTINUED

- NO STREET, ROAD OR SECTION THEREOF SHALL BE CLOSED TO THROUGH TRAFFIC UNLESS AUTHORIZED BY THE AGENCY WITH JURISDICTION OVER THE ROADS. PRIOR TO CLOSING A STREET, ROAD, OR SECTION THEREOF, THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A COPY OF A DETOUR PLAN APPROVED BY THE AGENCY HAVING JURISDICTION OVER THE ROADS.
- IN THE EVENT ROADS ARE TO BE CLOSED, THE CONTRACTOR SHALL NOTIFY THE LOCAL FIRE DEPARTMENT, POLICE DEPARTMENT, LOCAL ROAD AUTHORITY, AMBULANCE AND EMERGENCY SERVICES, DEPARTMENT OF PUBLIC WORKS, PUBLIC TRANSIT AUTHORITY, PUBLIC SCHOOL SYSTEM, LOCAL TRASH PICKUP AUTHORITY, AND PUBLIC AND PRIVATE UTILITIES DAILY AS TO WHAT STREETS WILL BE PARTLY BLOCKED OR CLOSED, THE LENGTH OF TIME THE STREETS WILL BE BLOCKED OR CLOSED AND WHEN THE STREETS WILL BE REOPENED TO TRAFFIC.
- PAVED STREETS AND DRIVEWAYS SHALL BE MAINTAINED IN A REASONABLE STATE OF CLEANLINESS AND THE CONTRACTOR SHALL REMOVE ACCUMULATIONS OF DEBRIS CAUSED BY HIS OPERATIONS. THE CONTRACTOR SHALL HAVE, AS A MINIMUM, AN OPERATING SWEEPER BROOM ON THE SITE AT ALL TIMES. THE PAVEMENT SHALL BE CLEANED AT THE CLOSE OF EACH DAYS OPERATION AND AS OFTEN AS NECESSARY BEFORE THAT TIME. FAILURE TO COMPLY SHALL BE CAUSE TO STOP CONSTRUCTION. CONTRACTOR SHALL ALSO COMPLY WITH THE LOCAL AIR POLLUTION CONTROL ORDINANCE.
- ALL GRAVEL AND DIRT ROADS, STREETS OR DRIVEWAYS USED SHALL BE MAINTAINED BY GRADING, PLACING DUST PALLIATIVES, AND MAINTENANCE GRAVEL IN SUFFICIENT QUANTITIES TO ELIMINATE DUST AND MAINTAIN TRAFFIC AS DIRECTED BY THE AGENCY.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY SHEETING, SHORING, DEWATERING, BRACING, TRENCH BOXES, ETC., TO PERFORM WORK SAFELY AND PROTECT EXISTING UTILITIES AND IMPROVEMENTS.
- THE FLOW IN THE EXISTING SEWERS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. 16. CULVERTS, DITCHES, DRAIN TILES, TILE FIELD, DRAINAGE STRUCTURES, ETC., THAT ARE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE IMMEDIATELY RESTORED.
- CULVERT, DITCHES, DRAIN TILES, TILE FIELDS, DRAINAGE STRUCTURES, ETC. THAT ARE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE IMMEDIATELY RESTORED.
- ALL PROPERTY IRONS AND MONUMENTS, IF DISTURBED OR DESTROYED BY THE CONTRACTOR'S OPERATION, SHALL BE REPLACED BY A LICENSED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- AFTER ALL THE PIPE, STRUCTURES, ETC., HAVE BEEN LAID, CONSTRUCTED, AND BACKFILLED, THE SYSTEM SHALL BE TESTED AND FINAL INSPECTED. THE INSPECTION AND TESTING SHALL CONSIST OF A FIRST INSPECTION, TELEVISION INSPECTION (IF APPLICABLE) TESTING, AND FINAL INSPECTION AND MEASUREMENT. THE CONTRACTOR SHALL PROVIDE THE NECESSARY SUPERVISION, LABOR, TOOLS, EQUIPMENT, AND THE MATERIALS NECESSARY FOR THE TESTS WHICH SHALL BE CONDUCTED IN THE PRESENCE OF THE ENGINEER. HE ENGINEER SHALL BE NOTIFIED TWO (2) WORKING DAYS IN ADVANCE OF ALL TESTING.

GENERAL NOTES CONTINUED

- THE FIRST INSPECTION SHALL BE COMPLETED AND ALL REPAIRS MADE IN AMPLE TIME SO THAT THE TELEVISION INSPECTION OF THE UNDERGROUND PORTION OF THE SYSTEM CAN BE COMPLETED WITHIN FOUR (4) WEEKS OF THE COMPLETION OF THE CONSTRUCTION. WHEN RE-TELEVISION IS NECESSARY, AN ADDITIONAL TWO (2) WEEKS WILL BE ALLOWED FOR COMPLETION. TESTING OF THE SYSTEM AS HEREIN DESCRIBED SHALL IMMEDIATELY FOLLOW THE TELEVISION INSPECTION AND SHALL BE COMPLETED WITHIN A TWO (2) WEEK PERIOD.
- FAILURE TO MAINTAIN A SCHEDULE IN COMPLIANCE WITH THESE TERMS WILL AUTOMATICALLY CAUSE THE STOPPAGE OF OTHER WORK AT THE PARTICULAR SITE IN QUESTION UNTIL SUCH TIME AS THE FINAL INSPECTION OF THE COMPLETED UNDERGROUND PORTION OF THE SYSTEM HAS PROGRESSED TO ACCEPTABLE LIMITS.
- THE CONTRACTOR SHALL HAVE THE UNDERGROUND PORTION OF THE SEWER SYSTEM READY FOR THE FIRST INSPECTION WITHIN TWO (2) WEEKS AFTER THE COMPLETION OF UTILITY.
- THE FIRST INSPECTION SHALL CONSIST OF A VISIBLE AND AUDIBLE CHECK OF SEWERS, MANHOLES, GATE WELLS, AND OTHER STRUCTURES TO ASCERTAIN THAT THE STRUCTURE STEPS HAVE BEEN PLACED, ALL LIFT HOLES PLUGGED, THE CHANNELING OF THE MANHOLE BOTTOMS COMPLETED, ALL VISIBLE OR AUDIBLE LEAKS STOPPED, ALL PIPE HAS BEEN PLACED STRAIGHT AND TRUE TO THE PROPER GRADES AND ELEVATION, THE REQUIRED ADJUSTING RINGS AND FRAME AND COVER PROPERTY INSTALLED, ALL TRENCHES AND STRUCTURES BACKFILLED IN AN ACCEPTABLE MANNER AND THAT THE SYSTEM HAS BEEN THOROUGHLY CLEANED.
- THE FIRST INSPECTION SHALL BE CONSIDERED COMPLETED WHEN ALL TREE PAIRS HAVE BEEN MADE AND THE SYSTEM IS READY FOR A TELEVISION INSPECTION AND SUBSEQUENT TESTING.
- TRENCH BACKFILL UNDER ROAD SURFACES, PAVEMENTS, CURBS, DRIVEWAY, SIDEWALK AND WHERE THE TRENCH EDGE IS WITHIN 3- FEET OF THE PAVEMENT SHALL BE TRENCH B (SAND) PER SPECIFICATIONS SECTION 312333. TRENCHING AND BACKFILLING.
- AFTER ALL TESTING, TELEVISION INSPECTION, FINAL RESTORATION AND CLEAN-UP HAS BEEN COMPLETED, A FINAL INSPECTION AND MEASUREMENT WILL BE DONE. THE FINAL INSPECTION SHALL BE REQUESTED BY THE CONTRACTOR AND CONSIST OF, BUT IS NOT LIMITED TO, CHECKING FOR PROPER ALIGNMENT, PROPER GRADE, CLEANLINESS, LEAKS, CONFORMANCE TO THE PLANS AND SPECIFICATION, PROPER STRUCTURAL AND MECHANICAL ADJUSTMENTS, AND RESTORATION. FINAL MEASUREMENT INCLUDES STRUCTURE ELEVATIONS, DISTANCES BETWEEN STRUCTURES, AND CONFIRMATION UTILITIES ARE LOCATED WITHIN EASEMENT AND RIGHT-OF-WAY AREAS.
- SUCCESSFUL COMPLETION OF ANY TEST OR INSPECTION SHALL NOT RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITY TO CORRECT ANY DEFICIENCY OR NONCONFORMANCE TO THE PLANS OR SPECIFICATIONS WHICH MAY THEREAFTER BECOME KNOWN.

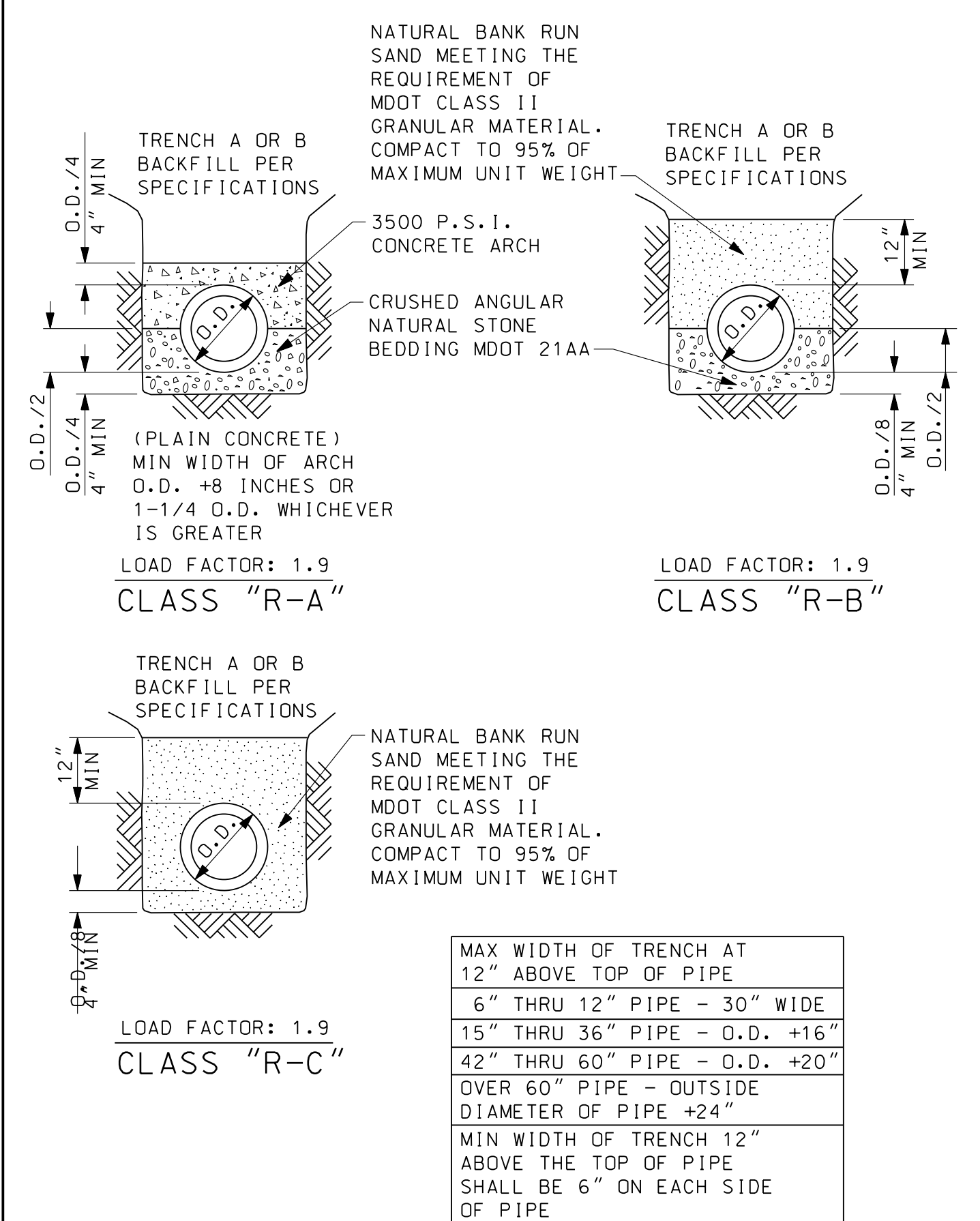


DIA OF SEWER	DIA OF MAIN	MIN "A"	ROAD CROSSING MIN "B"	RAILROAD CROSSING MIN "B"
6"	16"	.375	.375	.375
8"	16"	.375	.375	.375
10"	12"	.375	.438	.438
12" & 15"	16"	.375	.500	.500
18"	20"	.375	.500	.500
	24"	.375	.500	.500

CASING PIPE SHALL BE WELDED STEEL PIPE A.S.T.M. A-252, GR 2 UNLESS OTHERWISE SPECIFIED.

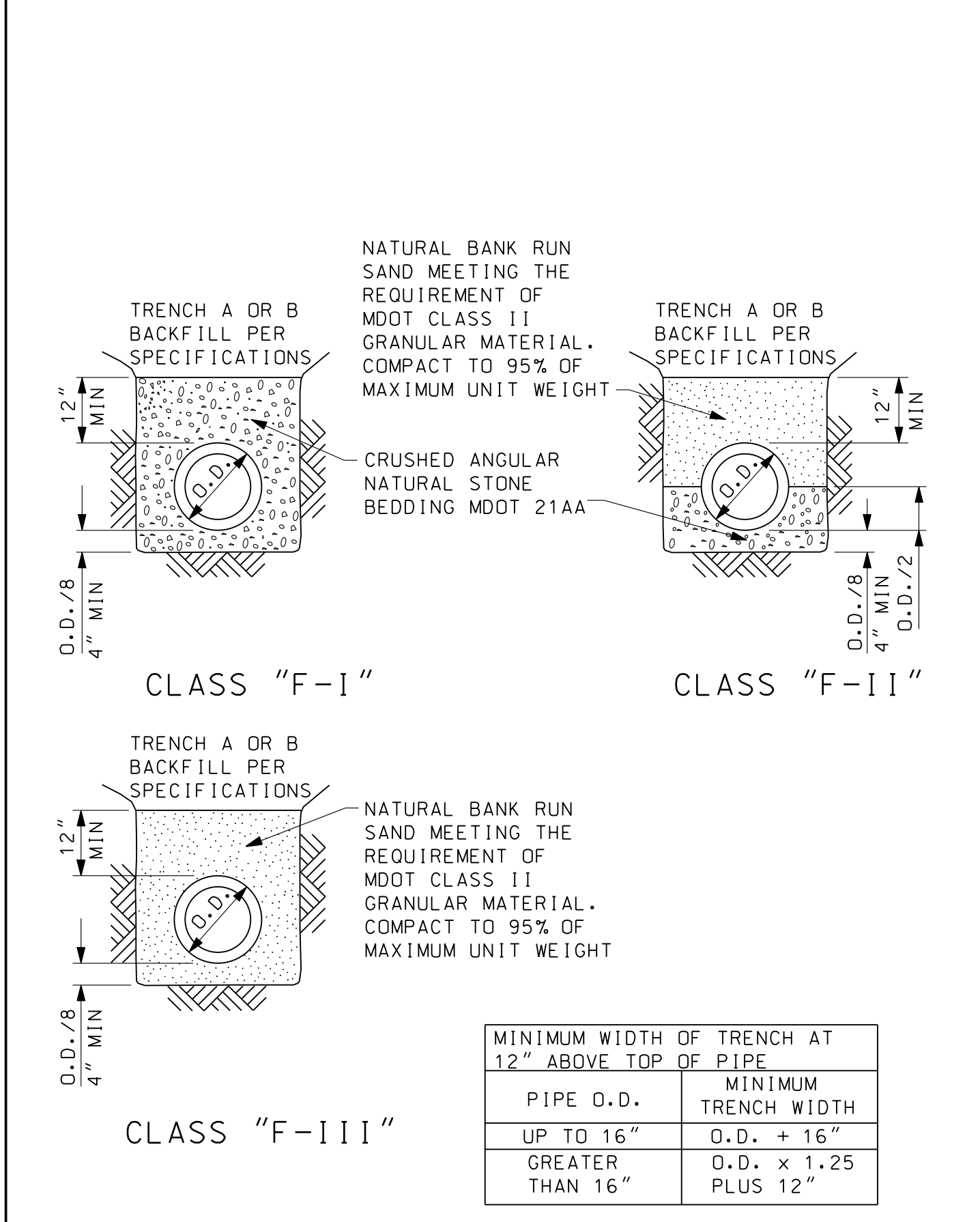
- NOTES:
- NO WATER SHALL BE USED IN BORING UNDER RAILROADS.
 - MAINTAIN MINIMUM OF 5'-6" OF COVER BETWEEN BASE OF RAIL AND TOP OF CASING.
 - THE ENDS OF THE CASING SHALL BE SUITABLY PROTECTED AGAINST THE ENTRANCE OF FOREIGN MATERIAL, BUT SHALL NOT BE TIGHTLY SEALED.
 - WHEN BORING ALL VOIDS OUTSIDE OF CASING PIPE SHALL BE FILLED BY MEANS OF PRESSURE GROUTING WITH 1:3 CEMENT-SAND MORTAR. THIS WORK MUST BE ACCOMPLISHED WITHIN 24 HOURS AFTER THE CROSSING HAS BEEN COMPLETED. BORING SHALL EXTEND A MINIMUM OF 10 FEET OUTSIDE THE EDGES OF THE PAVEMENT.
 - SKIDS ARE TO BE MINIMUM OF 80% OF PIPE LENGTH.
 - CASING SPACERS AS ALLOWED BY THE ENGINEER.

STANDARD CASING SECTION



MAX WIDTH OF TRENCH AT 12" ABOVE TOP OF PIPE
6" THRU 12" PIPE - 30" WIDE
15" THRU 36" PIPE - O.D. +16"
42" THRU 60" PIPE - O.D. +20"
OVER 60" PIPE - OUTSIDE DIAMETER OF PIPE +24"
MIN WIDTH OF TRENCH 12" ABOVE THE TOP OF PIPE SHALL BE 6" ON EACH SIDE OF PIPE

RIGID PIPE BEDDING DETAILS



MINIMUM WIDTH OF TRENCH AT 12" ABOVE TOP OF PIPE	
PIPE O.D.	MINIMUM TRENCH WIDTH
UP TO 16"	O.D. + 16"
GREATER THAN 16"	O.D. x 1.25 PLUS 12"

FLEXIBLE PIPE BEDDING DETAILS

PROJECT MANAGER: FIELD BOOK INFORMATION: NOT VALID FOR CONSTRUCTION UNLESS SIGNED AND DATED: 20251 Northline Rd. PO Box 10 Taylor, MI 48180 www.wadetrtrim.com

REV.	DATE	DESCRIPTION

20251 Northline Rd.
PO Box 10
Taylor, MI 48180
www.wadetrtrim.com

WADE TRIM

CITY OF PLYMOUTH
201 SOUTH MAIN STREET
PLYMOUTH, MICHIGAN 48170

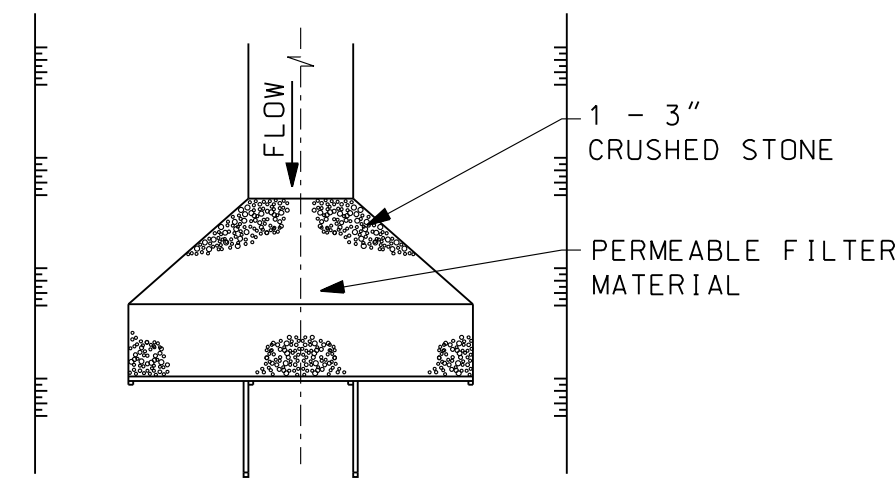
MISCELLANEOUS DETAILS (MD-1)

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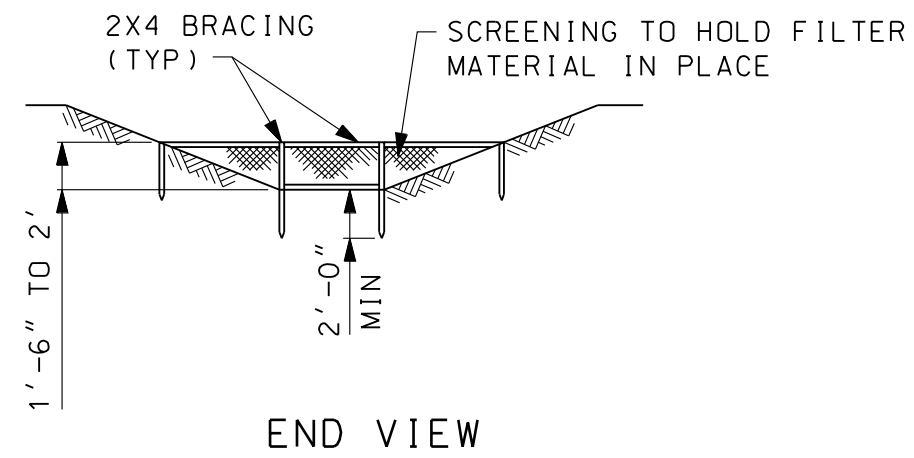
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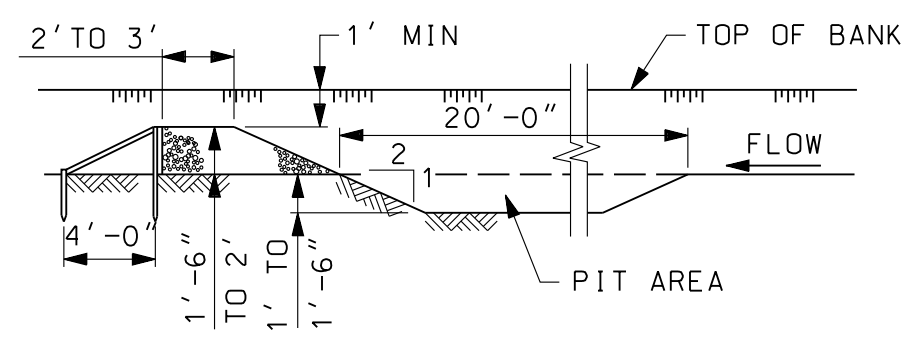
MD-1



PLAN VIEW



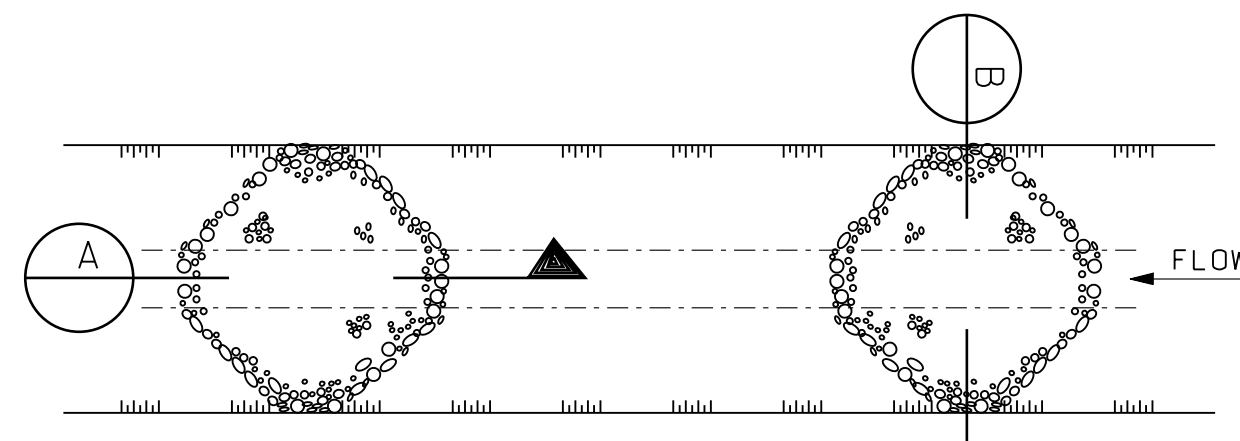
END VIEW



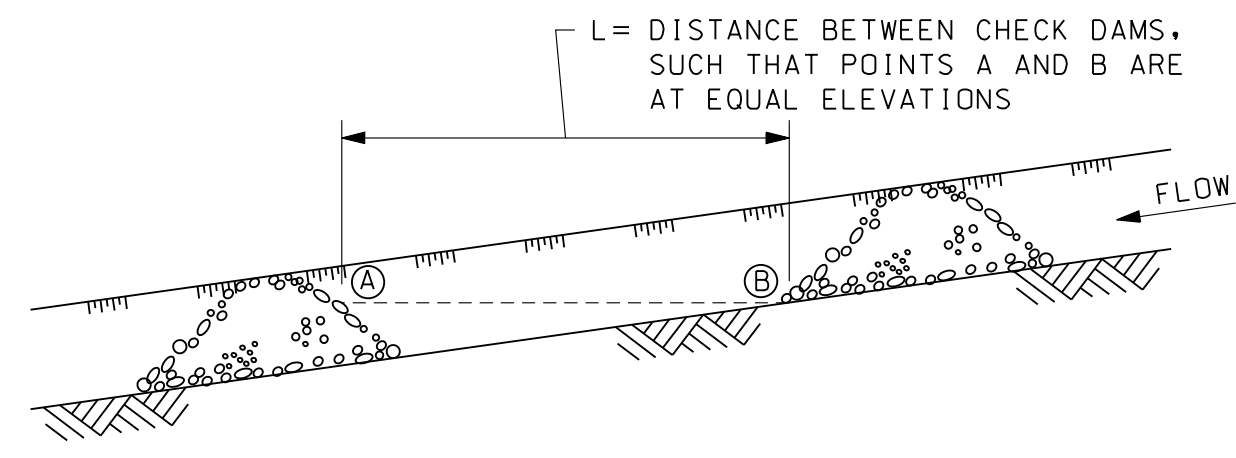
SECTION

- NOTES:
1. PLACE DITCH SEDIMENT TRAP PRIOR TO ON-SITE CONSTRUCTION WORK.
 2. MAINTAIN DITCH SEDIMENT TRAP IN GOOD OPERATION DURING PROJECT & REMOVE AT END OF PROJECT.
 3. CHANNEL TO BE RESTORED TO ORIGINAL CONDITION OR BETTER AS DIRECTED BY THE ENGINEER.
 4. CRUSHED STONE INCLUDED WITH DITCH SEDIMENT TRAP.

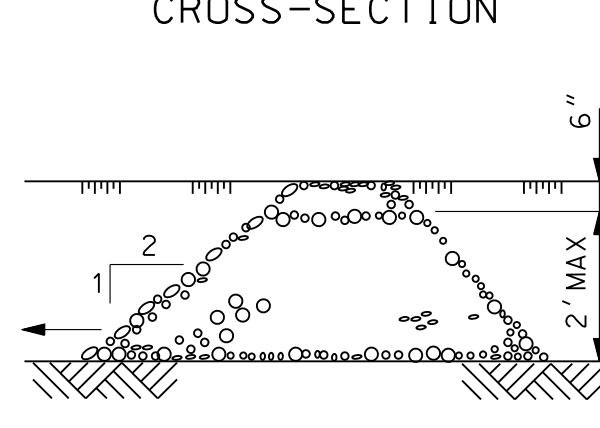
DITCH SEDIMENT TRAP
NOT TO SCALE



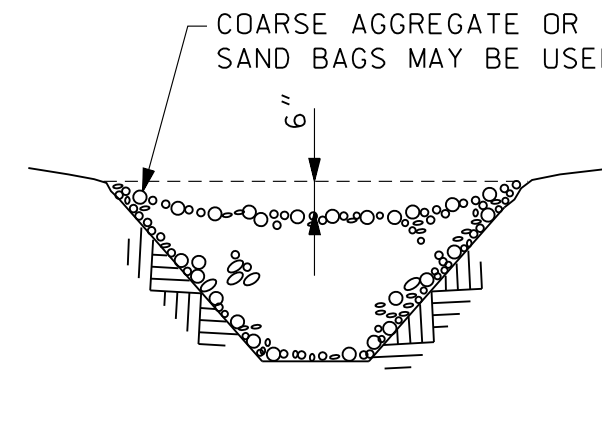
PLAN VIEW



CROSS-SECTION



SECTION A-A



SECTION B-B

NOTE:
CHECK DAMS GREATER THAN TWO FEET IN DEPTH MAY SERIOUSLY IMPACT THE FLOW CHARACTERISTICS OF THE DITCH.

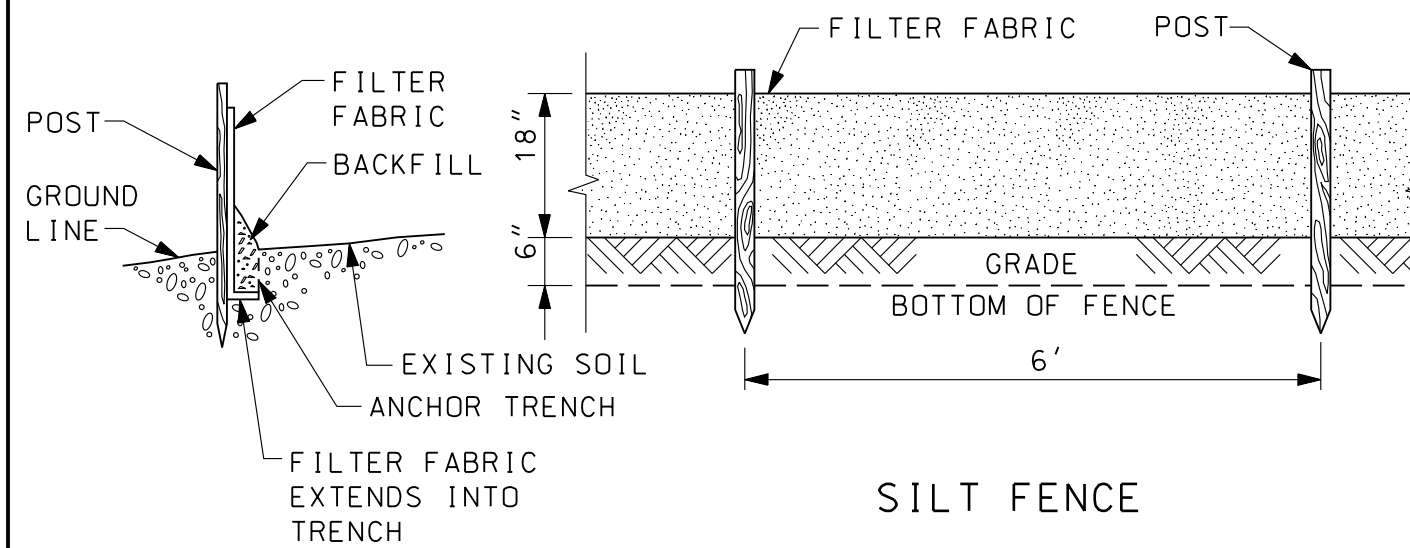
CHECK DAMS
NOT TO SCALE

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE AGENCY HAVING JURISDICTION.
2. ALL SOIL EROSION CONTROL MEASURES SHALL BE CHECKED A MINIMUM OF ONCE PER WEEK AND WITHIN A MINIMUM OF 24 HOURS AFTER EVERY RAINFALL. ANY SOIL EROSION CONTROL MEASURES DAMAGED OR RENDERED INEFFECTIVE SHALL BE IMMEDIATELY REPAIRED OR REMOVED AND REPLACED AT NO ADDITIONAL COST.
3. EROSION AND ANY SEDIMENT 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 MANMADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES, AND PONDS.
4. ALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) DEVICES SHALL BE INSTALLED PRIOR TO CONTRACTOR BEGINNING ANY WORK. ALL SESC DEVICES SHALL BE MAINTAINED IN AN EFFECTIVE, FUNCTIONING CONDITION AT ALL TIMES DURING THE COURSE OF THE WORK. ALL TEMPORARY SESC DEVICES SHALL BE REMOVED AND THE AREA RESTORED AFTER THE PERMANENT SESC MEASURES ARE INSTALLED AND FUNCTIONING.
5. DEBRIS FROM THE PROJECT SHALL BE LEFT ON THE SITE BY DELIVERY OR CONSTRUCTION VEHICLES THROUGH THE USE OF CLEAN STONE EXITS. SHOULD THE STONE BECOME INEFFECTIVE IT WILL BE REPLACED. ALL CONSTRUCTION TRAFFIC WILL USE THE CLEAN STONE EXITS.
6. EARTH EMBANKMENT BRIDGES PLACED OVER NEW PAVEMENT SHALL BE LOCATED ONLY AT PAVEMENT HIGH-POINTS AND SHALL HAVE STRAW BALES PLACED ALONG EACH SIDE OF THE BRIDGE FOR THE WIDTH OF THE PAVEMENT.
7. IMMEDIATELY AFTER SEEDING, MULCH ALL SEEDER AREAS WITH UNWEATHERED SMALL GRAIN STRAW OR HAY SPREAD UNIFORMLY AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE. ANCHOR MULCH WITH DISC-TYPE MULCH ANCHORING TOOL OR OTHER MEANS AS APPROVED BY THE AGENCY WITH JURISDICTION.
8. ALL MUD, DIRT, AND DEBRIS TRACKED OR SPILLED ONTO EXISTING ROADS FROM THIS SITE SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
9. PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING OR FINAL EARTH CHANGES HAVE BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY EASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IMMEDIATELY. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE ESTABLISHED. ALL PERMANENT SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED. ALL DRAIN BANKS DISTURBED BY CONSTRUCTION SHALL BE RESTORED WITHIN FIVE CALENDAR DAYS AND SOD PEGGED IN PLACE.

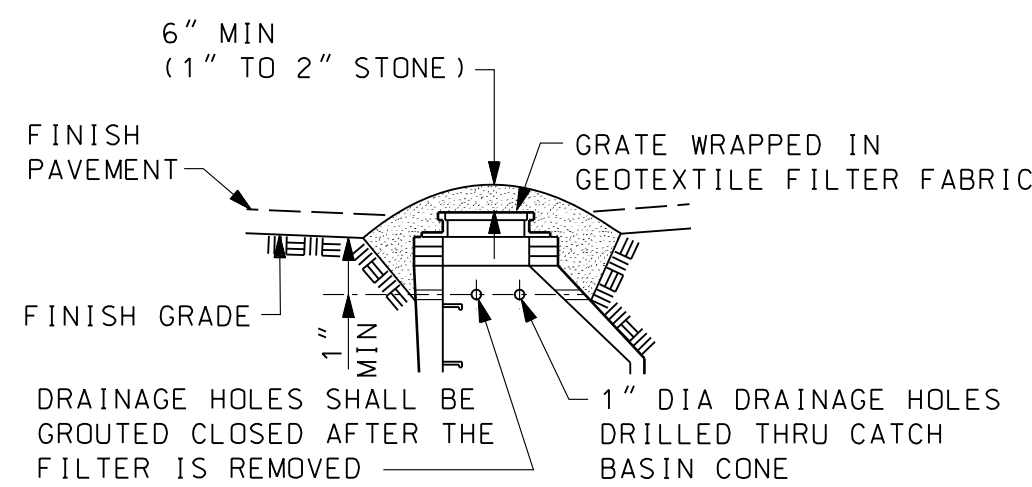
SOIL EROSION AND SEDIMENTATION CONTROL NOTES

10. PARTICULAR CARE SHOULD BE TAKEN WHEN WORKING ALONG THE PERIMETER OF THE SITE. IN NO EVENT SHALL WORK AREA EXTEND BEYOND THE LIMITS INDICATED ON THE PLANS.
11. SHOULD IT BE NECESSARY FOR THE CONTRACTOR TO DEWATER THE GROUND IN THE COURSE OF CONSTRUCTING THE PROPOSED UTILITY, THE CONTRACTOR SHALL CONSTRUCT A TEMPORARY SOIL EROSION CONTROL DEVICE IN A MANNER THAT WILL FILTER ALL DISCHARGED WATER FROM THE DEWATERING OPERATION. IN NO INSTANCE SHALL THE DEWATERING DISCHARGE BE PERMITTED TO FLOW UNFILTERED FROM THE CONSTRUCTION SITE.
12. THE CONTRACTOR SHALL CONTROL THE DUST ON THE SITE DURING THE LIFE OF THE CONTRACT. IN ACCORDANCE WITH THE SPECIFICATIONS AND THE REQUIREMENTS OF THE COMMUNITY THIS DUST CONTROL SHALL BE ACCOMPLISHED BY THE APPLICATION OF A POSITIVE DUST PICK-UP METHOD WITH WATER ON HARD SURFACES. SUCH DUST CONTROL MATERIALS SHALL BE APPLIED AS OFTEN AS IS NECESSARY IN THE OPINION OF THE COMMUNITY TO CONTROL THE DUST.
13. SHOULD THE SOIL EROSION CONTROL REQUIREMENTS BE NEGLECTED OR NOT ADEQUATELY FOLLOWED, THE COMMUNITY MAY REQUIRE THE CONTRACTOR TO CEASE CONSTRUCTION OPERATIONS AND TO APPLY HIS ENTIRE FORCE TO MEET THE REQUIREMENTS BEFORE PROCEEDING FURTHER WITH THE PROJECT.
14. SOIL EROSION AND SEDIMENTATION CONTROL SHALL BE IN ACCORDANCE WITH PART 91 SOIL EROSION AND SEDIMENTATION CONTROL (SESC), OF THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT, 1994 PA 451, AS AMENDED (NREPA).
15. AS SOON AS POSSIBLE, COMPLETE FINAL GRADING AND PLACING OF PERMANENT SOIL EROSION CONTROL DEVICES. AFTER ESTABLISHMENT OF PERMANENT VEGETATION, REMOVE ALL TEMPORARY SOIL EROSION CONTROL MEASURES.
16. SOIL EROSION AND SEDIMENTATION CONTROL IS UNDER THE JURISDICTION OF THE CITY OF PLYMOUTH.

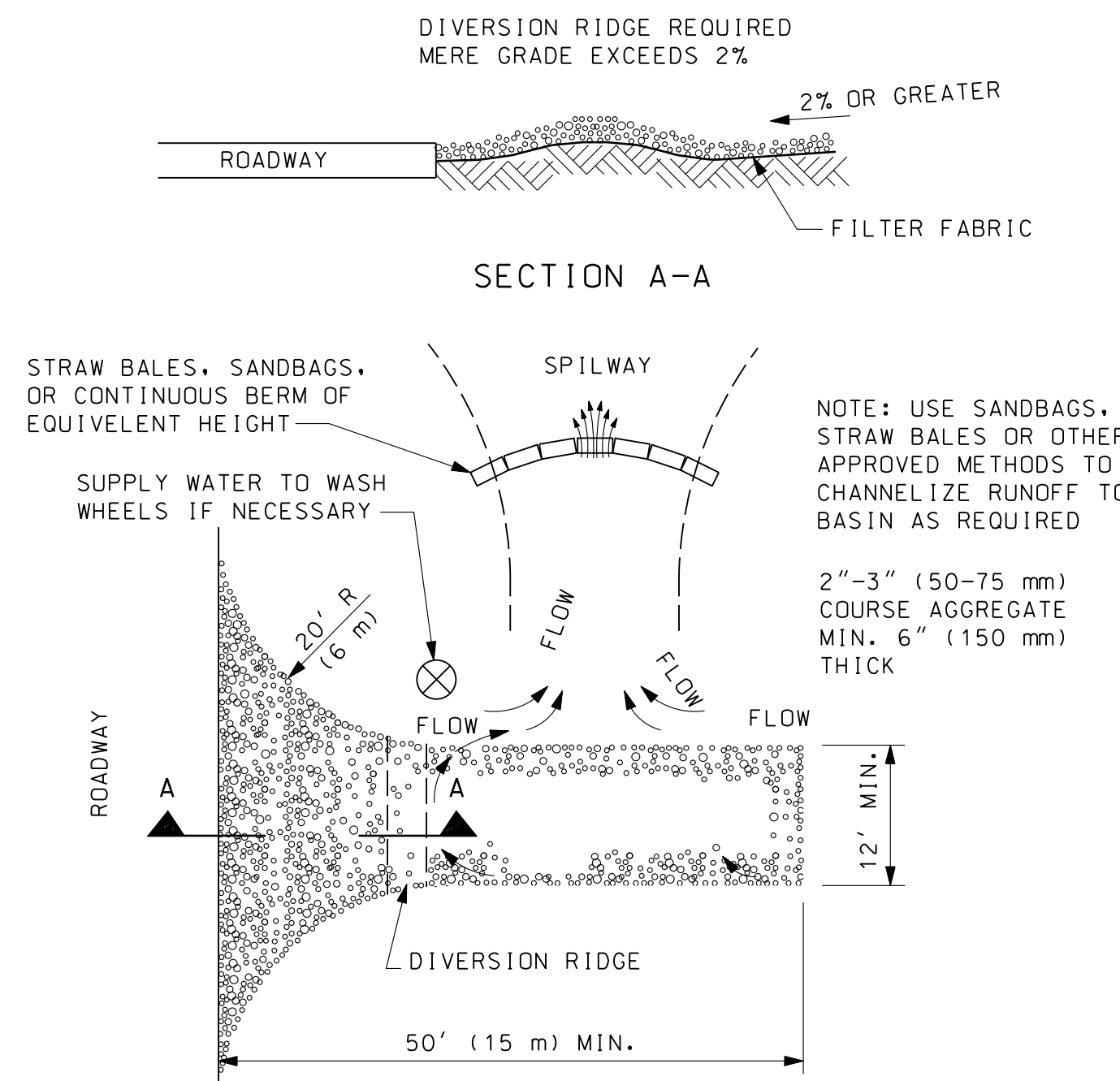


SILT FENCE

SILT FENCE
NOT TO SCALE



DRAINAGE STRUCTURE FILTER
NOT TO SCALE



- NOTE:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT
NOT TO SCALE

SEQUENCE OF CONSTRUCTION - SESC

1. INSTALL ALL TEMPORARY SOIL EROSION CONTROL MEASURES PRIOR TO DISTURBING ANY EARTH ON THE SITE.
2. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT DRIVE PRIOR TO DISTURBING ANY EARTH ON SITE. ALL TRUCKS LEAVING THE CONSTRUCTION SITE SHALL PASS THROUGH A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT DRIVE TO REMOVE DIRT AND SEDIMENT. ANY DIRT AND ACCUMULATED SEDIMENT ON ROADS AND STREETS IN THE VICINITY OF THE PROJECT SHALL BE SWEEPED CLEAN AT LEAST TWICE DAILY WITH A VACUUM TYPE PICKUP BROOM.
3. STABILIZE SLOPES STEEPER THAN 1 ON 4, CHANNELS AND SWALES WITHIN 7 DAYS OF EARTH DISTURBANCE. INSTALL PERMANENT STABILIZATION MEASURES WITHIN 5 DAYS OF FINAL GRADING.
4. DURING STORM SEWER INSTALLATION, ALL NEWLY CONSTRUCTED DRAINAGE STRUCTURES SHALL BE PROTECTED WITH A DRAINAGE STRUCTURE FILTER. THIS WORK WILL BE INCLUDED IN THE DRAINAGE COST.
5. INSTALL TOPSOIL, SEED AND MULCH / TOPSOIL AND SOD HYDROSEED ON DISTURBED RIGHT-OF-WAY WITHIN 5 DAYS OF COMPLETING UTILITY INSTALLATION.
6. PLACE RIPRAP WITHIN 24 HOURS OF PLACING CULVERTS, HEADWALLS OR OTHER DRAINAGE INLETS/OUTLETS.
7. CLEAN ALL ACCUMULATED SEDIMENT FROM CATCH BASINS, SEWERS AND PAVEMENT AREAS AS REQUIRED FOLLOWING COMPLETION OF CONSTRUCTION.
8. THE EXACT SCHEDULE OF SOIL EROSION AND SEDIMENTATION CONTROL EVENTS (WITH DAYS AND/OR DATES OF THE VARIOUS ACTIVITIES) SHALL BE SUBMITTED TO (WAYNE COUNTY DEPARTMENT OF ENVIRONMENT, AND LAND RESOURCE MANAGEMENT DIVISION) BY THE CONTRACTOR, FOR REVIEW AND APPROVAL, PRIOR TO OBTAINING A PERMIT.

PROJECT MANAGER: FIELD BOOK INFORMATION: PROJECT: 201 SOUTH MAIN STREET PLYMOUTH, MICHIGAN 48170

REV.	DATE	DESCRIPTION	BY

26251 Northline Rd.
PO Box 10
Taylor, MI 48180
www.wadefirm.com

WADE TRIM

NOT VALID FOR CONSTRUCTION UNLESS SIGNED AND DATED.

CITY OF PLYMOUTH
201 SOUTH MAIN STREET
PLYMOUTH, MICHIGAN 48170

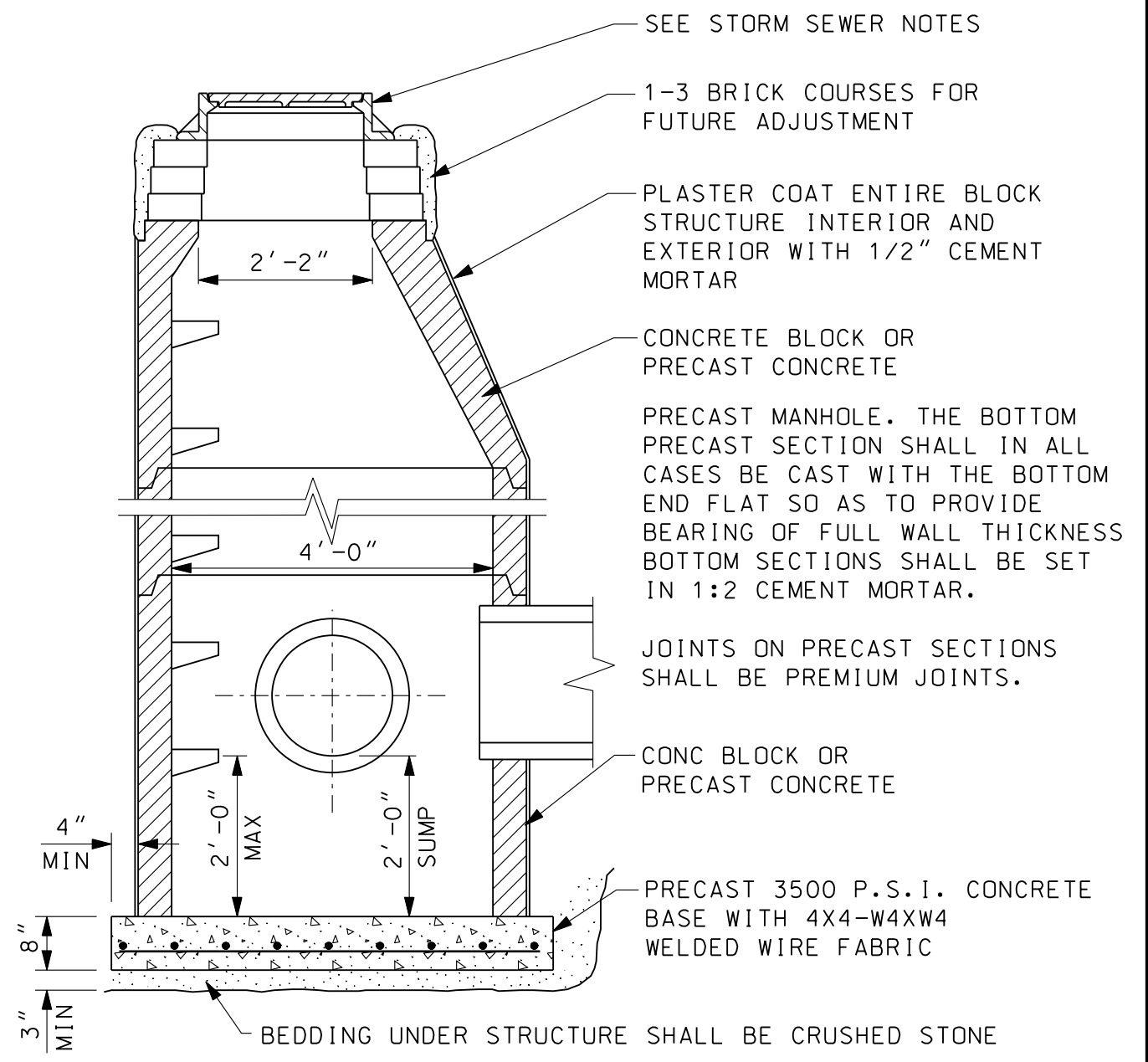
STANDARD SOIL EROSION AND SEDIMENTATION CONTROL DETAILS (SE-1)

ISSUED FOR: DATE: BY:

JOB NO:
PLY2101-02T

SHEET
SE-1

© Wade Trim Group, Inc. STANDARD SOIL EROSION AND SEDIMENTATION CONTROL DETAILS (SE-1) OF 1



SEE STORM SEWER NOTES

1-3 BRICK COURSES FOR FUTURE ADJUSTMENT

PLASTER COAT ENTIRE BLOCK STRUCTURE INTERIOR AND EXTERIOR WITH 1/2" CEMENT MORTAR

CONCRETE BLOCK OR PRECAST CONCRETE

PRECAST MANHOLE. THE BOTTOM PRECAST SECTION SHALL IN ALL CASES BE CAST WITH THE BOTTOM END FLAT SO AS TO PROVIDE BEARING OF FULL WALL THICKNESS. BOTTOM SECTIONS SHALL BE SET IN 1:2 CEMENT MORTAR.

JOINTS ON PRECAST SECTIONS SHALL BE PREMIUM JOINTS.

CONC BLOCK OR PRECAST CONCRETE

PRECAST 3500 P.S.I. CONCRETE BASE WITH 4X4-W4XW4 WELDED WIRE FABRIC

BEDDING UNDER STRUCTURE SHALL BE CRUSHED STONE

M.H. STEPS SHALL BE SPACED AS FOLLOWS:
 CONC BLK. M.H. 18" CENTERS
 PRECAST M.H. 16" CENTERS

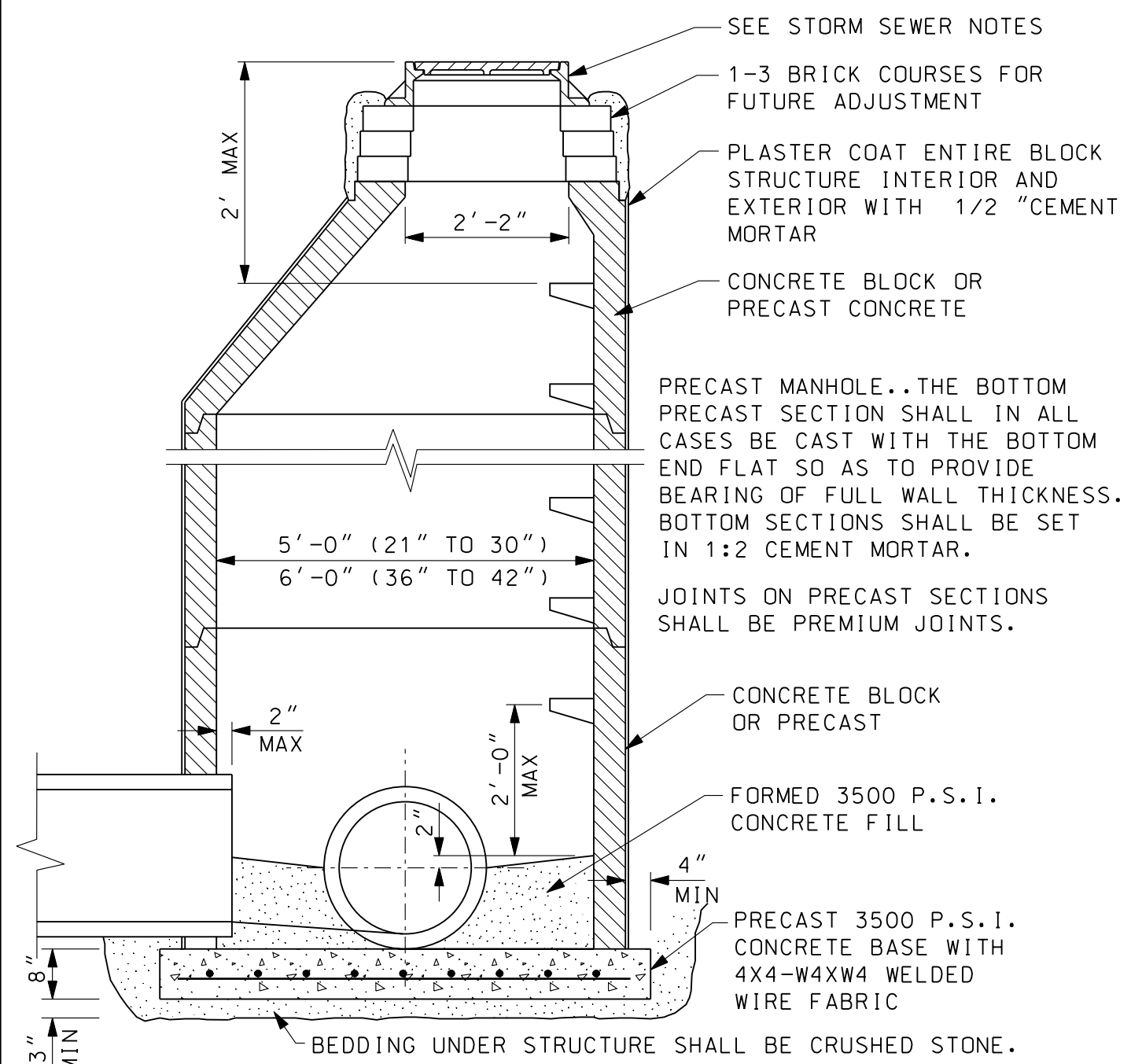
TOP STEP TO BE 24" MAX BELOW TOP OF FRAME

MIN CONE HEIGHTS AS FOLLOWS:
 BLOCK CONCENTRIC 3'-0"
 PRECAST ECCENTRIC 2'-8" OR 3'-4"

CONC BLOCK MANHOLE:
 APPROVED CONC BLOCK
 USE 6" OR 8" MIN THICK BLOCK TO 16' DEPTH USE 12" MIN THICK BLOCK TO 24' DEPTH 16" MIN BLOCK WALL BELOW 24' DEPTH

PRECAST MANHOLE:
 ASTM C-478 UP TO 32' DEEP WITH 5" MIN THICK WALL

STANDARD STORM MANHOLE FOR SEWERS WITH OUTLETS OF 18" & UNDER
N.T.S.



SEE STORM SEWER NOTES

1-3 BRICK COURSES FOR FUTURE ADJUSTMENT

PLASTER COAT ENTIRE BLOCK STRUCTURE INTERIOR AND EXTERIOR WITH 1/2" CEMENT MORTAR

CONCRETE BLOCK OR PRECAST CONCRETE

PRECAST MANHOLE. THE BOTTOM PRECAST SECTION SHALL IN ALL CASES BE CAST WITH THE BOTTOM END FLAT SO AS TO PROVIDE BEARING OF FULL WALL THICKNESS. BOTTOM SECTIONS SHALL BE SET IN 1:2 CEMENT MORTAR.

JOINTS ON PRECAST SECTIONS SHALL BE PREMIUM JOINTS.

CONCRETE BLOCK OR PRECAST

FORMED 3500 P.S.I. CONCRETE FILL

PRECAST 3500 P.S.I. CONCRETE BASE WITH 4X4-W4XW4 WELDED WIRE FABRIC

BEDDING UNDER STRUCTURE SHALL BE CRUSHED STONE.

M.H. STEPS SHALL BE SPACED AS FOLLOWS:
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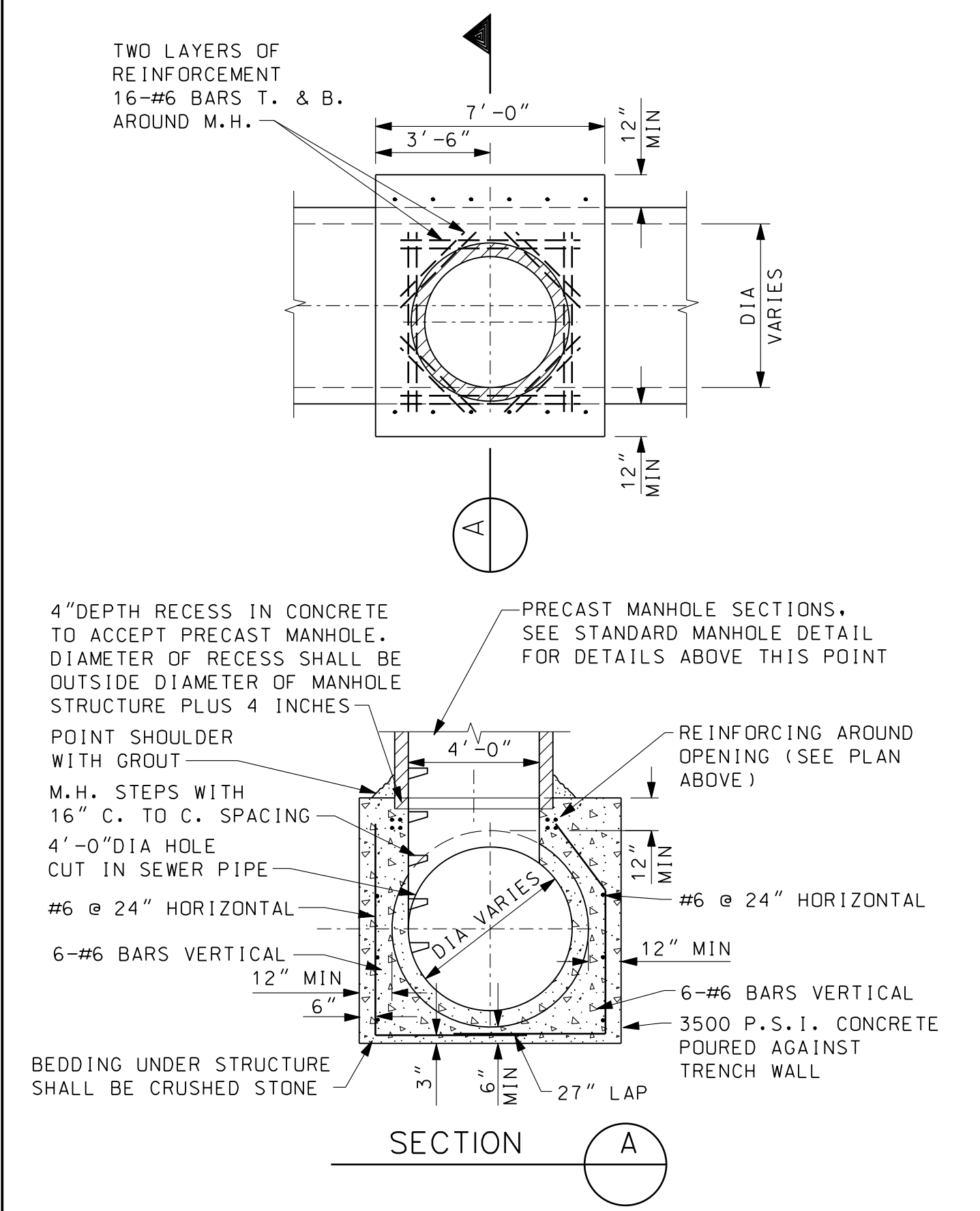
TOP STEP TO BE 24" MAX BELOW TOP OF FRAME

MIN CONE HEIGHTS AS FOLLOWS:
 BLOCK CONCENTRIC 3'-0"
 PRECAST ECCENTRIC 2'-8" OR 3'-4"

CONC BLOCK MANHOLE:
 APPROVED CONC BLOCK
 USE 6" OR 8" MIN THICK BLOCK TO 16' DEPTH USE 12" MIN THICK BLOCK TO 24' DEPTH 16" MIN BLOCK WALL BELOW 24' DEPTH

PRECAST MANHOLE:
 ASTM C-478 UP TO 32' DEEP WITH 5" MIN THICK WALL

STANDARD STORM MANHOLE FOR SEWERS 21" TO 42"
N.T.S.



SEE STORM SEWER NOTES

1-3 BRICK COURSES FOR FUTURE ADJUSTMENT

PLASTER COAT ENTIRE BLOCK STRUCTURE INTERIOR AND EXTERIOR WITH 1/2" CEMENT MORTAR

CONCRETE BLOCK OR PRECAST CONCRETE

PRECAST MANHOLE. THE BOTTOM PRECAST SECTION SHALL IN ALL CASES BE CAST WITH THE BOTTOM END FLAT SO AS TO PROVIDE BEARING OF FULL WALL THICKNESS. BOTTOM SECTIONS SHALL BE SET IN 1:2 CEMENT MORTAR.

JOINTS ON PRECAST SECTIONS SHALL BE PREMIUM JOINTS.

CONCRETE BLOCK OR PRECAST

FORMED 3500 P.S.I. CONCRETE FILL

PRECAST 3500 P.S.I. CONCRETE BASE WITH 4X4-W4XW4 WELDED WIRE FABRIC

BEDDING UNDER STRUCTURE SHALL BE CRUSHED STONE.

M.H. STEPS SHALL BE SPACED AS FOLLOWS:
 CONC BLK. M.H. 18" CENTERS
 PRECAST M.H. 16" CENTERS

TOP STEP TO BE 24" MAX BELOW TOP OF FRAME

MIN CONE HEIGHTS AS FOLLOWS:
 BLOCK CONCENTRIC 3'-0"
 PRECAST ECCENTRIC 2'-8" OR 3'-4"

CONC BLOCK MANHOLE:
 APPROVED CONC BLOCK
 USE 6" OR 8" MIN THICK BLOCK TO 16' DEPTH USE 12" MIN THICK BLOCK TO 24' DEPTH 16" MIN BLOCK WALL BELOW 24' DEPTH

PRECAST MANHOLE:
 ASTM C-478 UP TO 32' DEEP WITH 5" MIN THICK WALL

4" DEPTH RECESS IN CONCRETE TO ACCEPT PRECAST MANHOLE. DIAMETER OF RECESS SHALL BE OUTSIDE DIAMETER OF MANHOLE STRUCTURE PLUS 4 INCHES

POINT SHOULDER WITH GROUT

M.H. STEPS WITH 16" C. TO C. SPACING

CUT IN SEWER PIPE

#6 @ 24" HORIZONTAL

6-#6 BARS VERTICAL

12" MIN

6" MIN

27" LAP

PRECAST MANHOLE SECTIONS. SEE STANDARD MANHOLE DETAIL FOR DETAILS ABOVE THIS POINT

REINFORCING AROUND OPENING (SEE PLAN ABOVE)

#6 @ 24" HORIZONTAL

6-#6 BARS VERTICAL

3500 P.S.I. CONCRETE POURED AGAINST TRENCH WALL

12" MIN

6" MIN

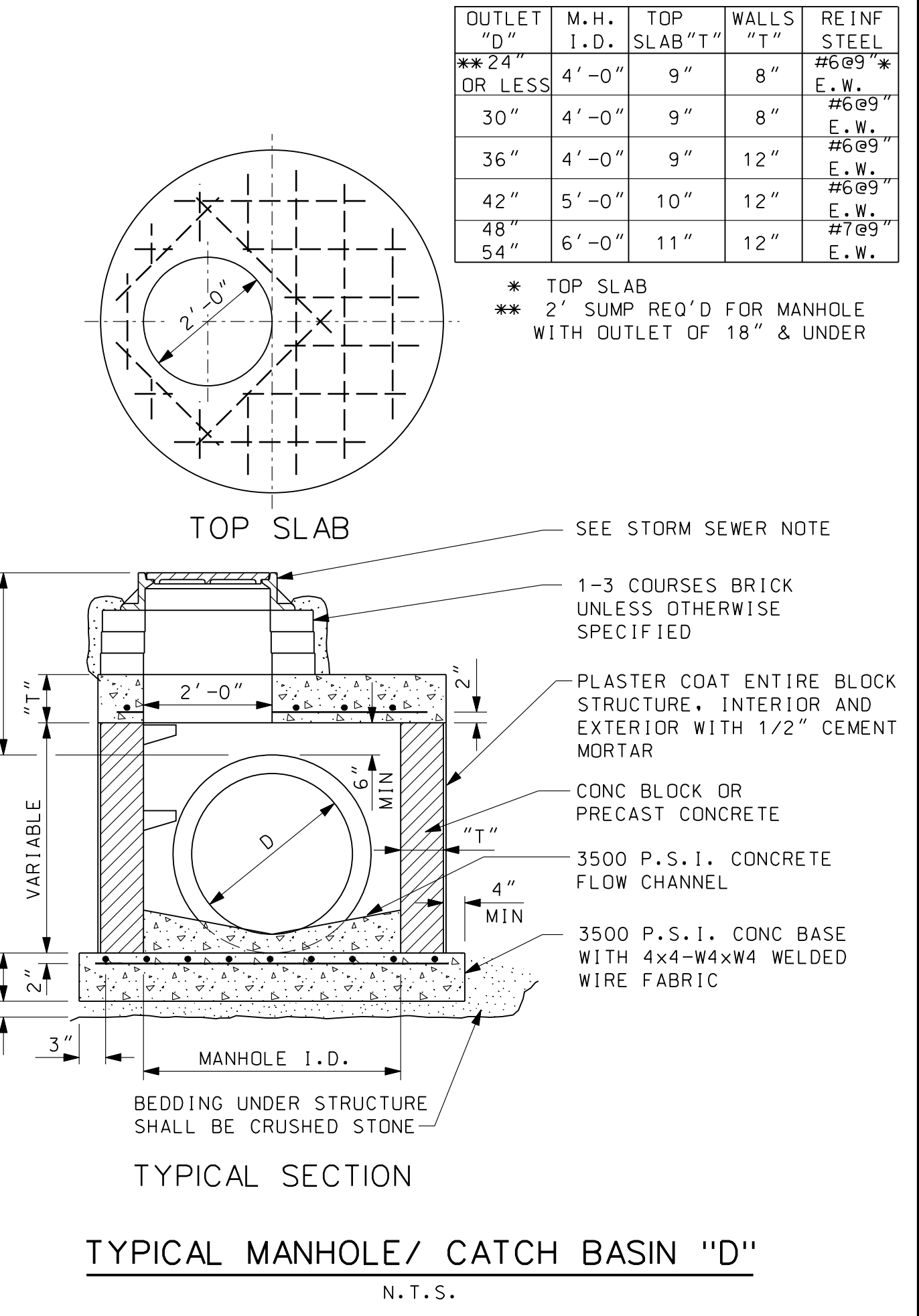
27" LAP

BEDDING UNDER STRUCTURE SHALL BE CRUSHED STONE

STANDARD STORM MANHOLE FOR 48" & LARGER SEWERS
N.T.S.

- STORM SEWER NOTES**
- ALL STORM SEWER CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND GENERAL SPECIFICATION OF THE AGENCY OR AGENCIES HAVING JURISDICTION OF THE STORM SEWER AND CONSTRUCTION AREA.
 - DETAILS ARE FOR STRUCTURES WITH NO MORE THAN TWO PIPES. 180° APART. LARGER DIAMETER STRUCTURES MAY BE REQUIRED FOR DIFFERENT CONFIGURATIONS.
 - ALL STRUCTURES REQUIRE A MINIMUM OF 8-INCHES OF WALL BETWEEN PIPE OPENINGS. LARGER DIAMETER STRUCTURES MAY BE REQUIRED WHERE PIPE ENTERING THE STRUCTURE ARE LESS THAN 90° APART IN ANY DIRECTION.
 - ALL CASTING RIMS SHALL BE SET TO GRADE OR AS SHOWN ON THE PLANS.
 - NO MANHOLES OR OTHER STRUCTURES MAY BE INSTALLED WITHIN DRIVEWAYS, DRIVE APPROACHES, OR SIDEWALKS.
 - ALL CATCH BASIN STORM PIPE SHALL BE 12-INCH DIAMETER C76, CL-IV CONCRETE UNLESS OTHERWISE NOTED.
 - MANHOLE STEPS TO BE GRAY IRON OR STEEL REINFORCED POLYPROPYLENE ASTM 2146, TYPE II, GRADE 49108.
 - CATCH BASIN AND INLET FRAME AND COVERS SHALL BE SPECIFIED AS FOLLOWS:
 - WHEN LOCATED IN PAVEMENT GUTTER LINE, FRAME AND COVER SHALL BE E.J.I.W. NO. 5080, NEENAH R-3448-C TYPE "A" (RECTANGULAR), OR EQUIV.
 - WHEN LOCATED IN PAVED AREAS OTHER THAN GUTTER LINE, FRAME SHALL BE E.J.I.W. NO. 1040 WITH TYPE "M1" COVER, NEENAH R-2370 TYPE "G" COVER, OR EQUIV.
 - WHEN LOCATED IN YARD AREAS, FRAMES SHALL BE E.J.I.W. NO. 1000 WITH TYPE "N" OR "M" COVER, NEENAH R-2370 TYPE "D" OR "B" COVER, OR EQUIV.
 - MANHOLE FRAME AND COVER SHALL BE E.J.I.W. NO. 1040 OR NEENAH R-1642 WITH SOLID COVER OR EQUAL.
 - DIFFERENTIAL OF EXCAVATION AROUND EXISTING MANHOLES SHALL NOT EXCEED SIX FEET.
 - PLACE SAND BACKFILL WITHIN THREE FEET OF ALL STRUCTURES.
 - ALL STORM SEWER PIPE SHALL HAVE CLASS "R-B" BEDDING UNLESS OTHERWISE NOTED ON THE PLANS. SEE SHEET MD1 FOR BEDDING DETAILS.
 - ALL PRECAST PRODUCTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
 - ALL DRAINAGE STRUCTURES LOCATED WITHIN PAVEMENT MUST HAVE UNDER DRAIN AS SHOWN.

- PLYMOUTH NOTES**
- STORM SEWER THAT IS 12 INCHES AND LARGER SHALL BE C-76 R.C.P. WITH PREMIUM JOINTS.
 - THE REAR YARD STORM PIPE WHICH DOES NOT TRAVERSE PAVED AREAS MAY BE 8-INCH DIAMETER SOLID WALL, PVC OR ABS TRUSS OR PVC TRUSS PIPE.
 - BACKFILL FOR ALL REAR YARD STORM IS TO BE NATURAL BANK RUN SAND MDOT CL-II GRANULAR MATERIAL OR 3/4 INCH CRUSHED STONE TO A MINIMUM OF 12 INCHES OVER PIPE.
 - EVERY LOT IS TO HAVE DIRECT ACCESS TO A DRAINAGE STRUCTURE.
 - THE STORM SEWER WILL NOT BE CONSIDERED SUBSTANTIALLY COMPLETE UNTIL THE DETENTION POND HAS BEEN COMPLETED. THIS INCLUDES FINAL GRADING OF THE POND AND STABILIZATION OF THE SIDE SLOPES. THE SIDE SLOPES MUST BE STABILIZED BY SODDING OR BY PLACING A MULCH BLANKET PEGGED IN PLACE OVER SEED.
 - COVER FOR ON-LINE CATCH BASIN SHALL BE EJIW 1000 SERIES WITH TYPE N COVER OR NEENAH 2077-B WITH TYPE B COVER.
 - SUMP PUMP LEADS ARE TO BE A MINIMUM OF 3-INCH SCHEDULE 30 PVC.



SEE STORM SEWER NOTE

1-3 COURSES BRICK UNLESS OTHERWISE SPECIFIED

PLASTER COAT ENTIRE BLOCK STRUCTURE, INTERIOR AND EXTERIOR WITH 1/2" CEMENT MORTAR

CONC BLOCK OR PRECAST CONCRETE

3500 P.S.I. CONCRETE FLOW CHANNEL

3500 P.S.I. CONC BASE WITH 4X4-W4XW4 WELDED WIRE FABRIC

BEDDING UNDER STRUCTURE SHALL BE CRUSHED STONE

MANHOLE I.D.

TOP SLAB

* TOP SLAB 2' SUMP REQ'D FOR MANHOLE WITH OUTLET OF 18" & UNDER

OUTLET "D" OR LESS	M.H. I.D.	TOP SLAB "T"	WALLS "T"	REINF STEEL
**24"	4'-0"	9"	8"	#6@9" E.W.
30"	4'-0"	9"	8"	#6@9" E.W.
36"	4'-0"	9"	12"	#6@9" E.W.
42"	5'-0"	10"	12"	#6@9" E.W.
48"	6'-0"	11"	12"	#7@9" E.W.
54"	6'-0"	11"	12"	#7@9" E.W.

SEE STORM SEWER NOTES

3-5 BRICK COURSES FOR FUTURE ADJUSTMENT

PLASTER COAT ENTIRE BLOCK STRUCTURE INTERIOR AND EXTERIOR WITH 1/2" CEMENT MORTAR

6" CONCRETE BLOCK OR PRECAST CONCRETE

DIA AS SPECIFIED

SUMPS NOT REQUIRED WHEN OUTLET PIPE IS 21" OR LARGER

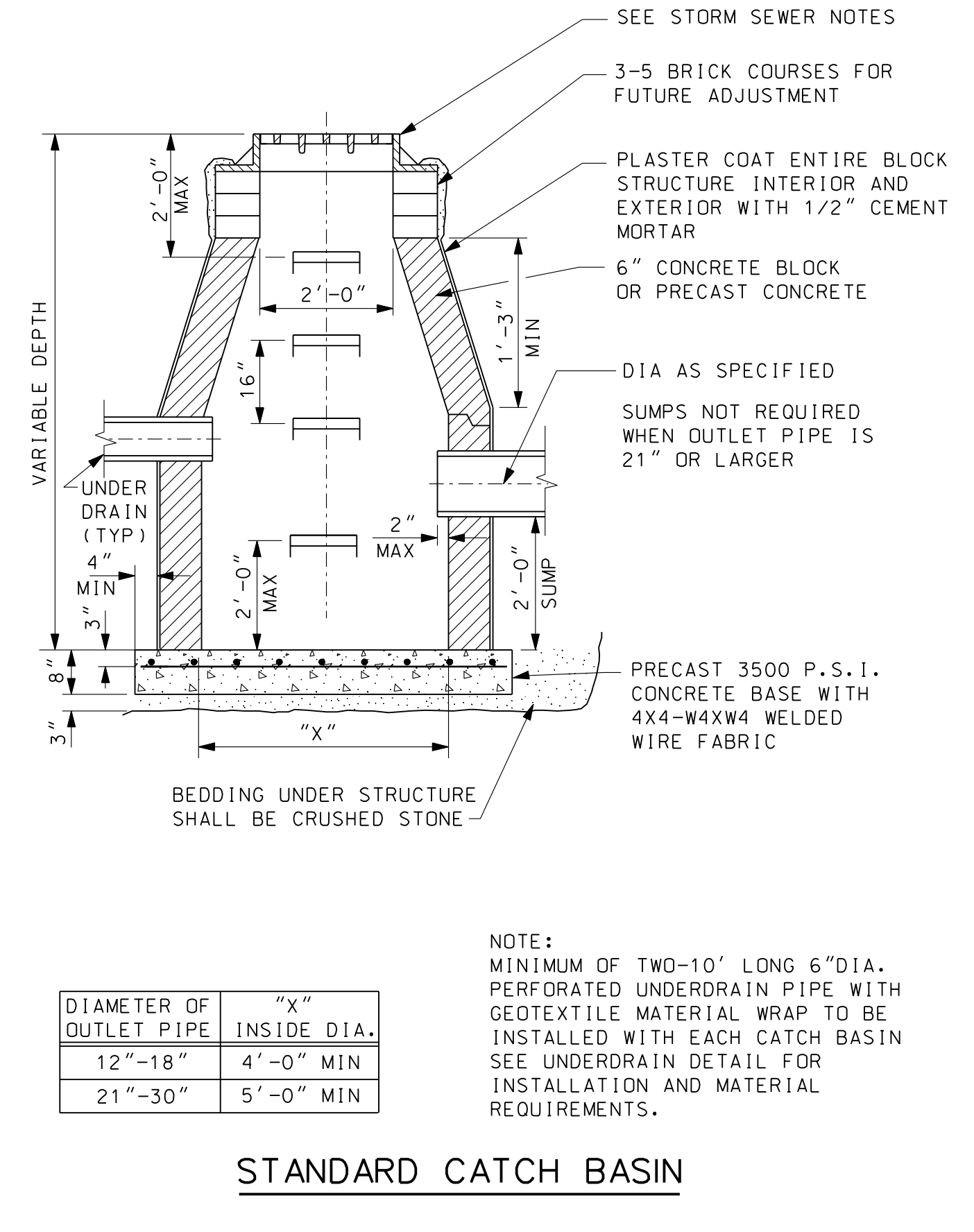
PRECAST 3500 P.S.I. CONCRETE BASE WITH 4X4-W4XW4 WELDED WIRE FABRIC

BEDDING UNDER STRUCTURE SHALL BE CRUSHED STONE

NOTE:
 MINIMUM OF TWO-10' LONG 6"DIA. PERFORATED UNDERDRAIN PIPE WITH GEOTEXTILE MATERIAL WRAP TO BE INSTALLED WITH EACH CATCH BASIN SEE UNDERDRAIN DETAIL FOR INSTALLATION AND MATERIAL REQUIREMENTS.

DIAMETER OF OUTLET PIPE	"X" INSIDE DIA.
12"-18"	4'-0" MIN
21"-30"	5'-0" MIN

TYPICAL MANHOLE/ CATCH BASIN "D"
N.T.S.



SEE STORM SEWER NOTES

3-5 BRICK COURSES FOR FUTURE ADJUSTMENT

PLASTER COAT ENTIRE BLOCK STRUCTURE INTERIOR AND EXTERIOR WITH 1/2" CEMENT MORTAR

6" CONCRETE BLOCK OR PRECAST CONCRETE

DIA AS SPECIFIED

SUMPS NOT REQUIRED WHEN OUTLET PIPE IS 21" OR LARGER

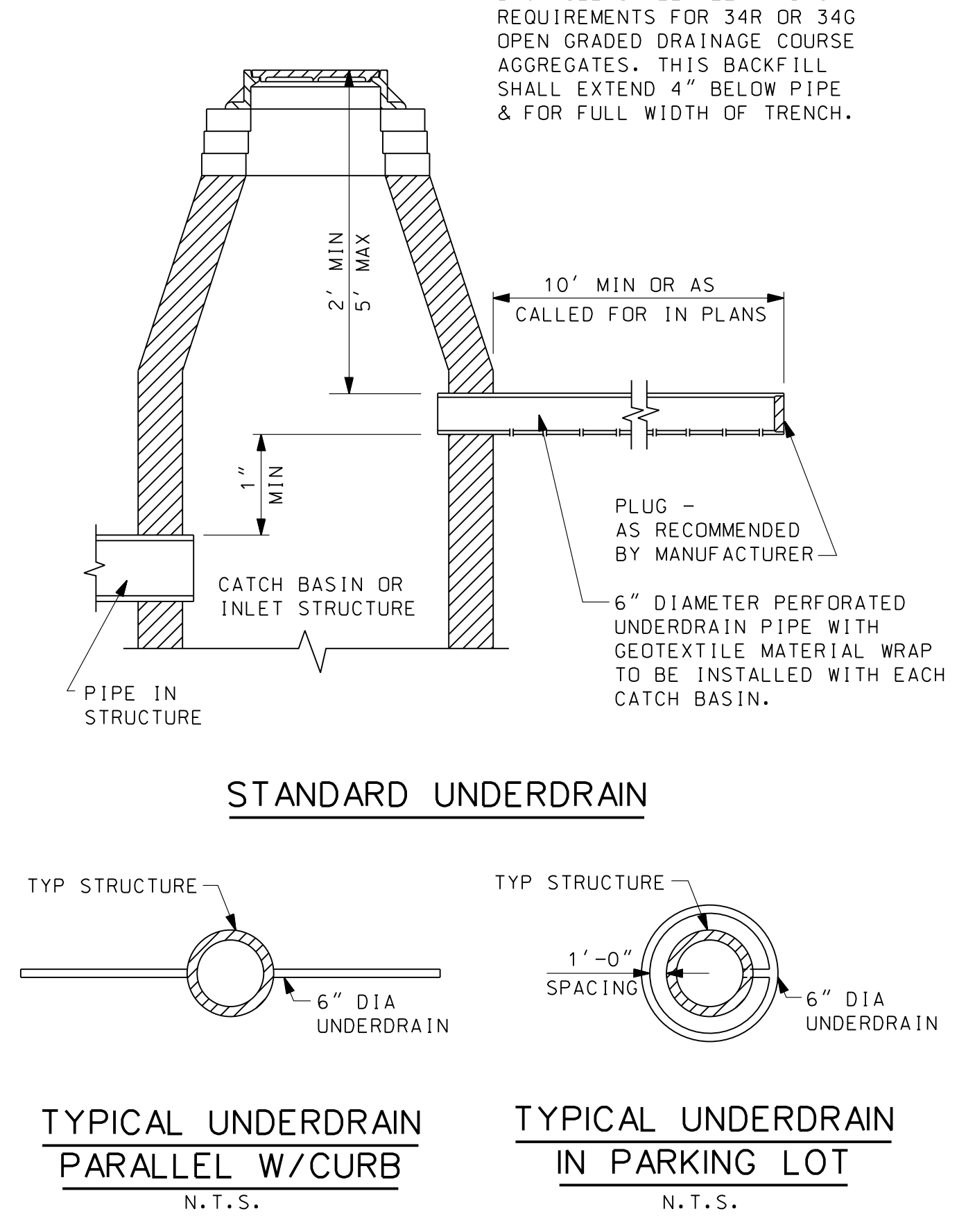
PRECAST 3500 P.S.I. CONCRETE BASE WITH 4X4-W4XW4 WELDED WIRE FABRIC

BEDDING UNDER STRUCTURE SHALL BE CRUSHED STONE

NOTE:
 MINIMUM OF TWO-10' LONG 6"DIA. PERFORATED UNDERDRAIN PIPE WITH GEOTEXTILE MATERIAL WRAP TO BE INSTALLED WITH EACH CATCH BASIN SEE UNDERDRAIN DETAIL FOR INSTALLATION AND MATERIAL REQUIREMENTS.

DIAMETER OF OUTLET PIPE	"X" INSIDE DIA.
12"-18"	4'-0" MIN
21"-30"	5'-0" MIN

STANDARD CATCH BASIN
N.T.S.



BACKFILL SHALL MEET M.D.O.T. REQUIREMENTS FOR 34R OR 34G OPEN GRADED DRAINAGE COURSE AGGREGATES. THIS BACKFILL SHALL EXTEND 4" BELOW PIPE & FOR FULL WIDTH OF TRENCH.

CATCH BASIN OR INLET STRUCTURE

PIPE IN STRUCTURE

PLUG - AS RECOMMENDED BY MANUFACTURER

6" DIAMETER PERFORATED UNDERDRAIN PIPE WITH GEOTEXTILE MATERIAL WRAP TO BE INSTALLED WITH EACH CATCH BASIN.

10' MIN OR AS CALLED FOR IN PLANS

2' MIN

5' MAX

1" MIN

6" DIA UNDERDRAIN

1'-0" SPACING

6" DIA UNDERDRAIN

TYP STRUCTURE

TYP STRUCTURE

TYPICAL UNDERDRAIN PARALLEL W/CURB
N.T.S.

TYPICAL UNDERDRAIN IN PARKING LOT
N.T.S.

PROJECT MANAGER: ...
 FIELD BOOK INFORMATION: ...
 STANDARD STORM SEWER DETAILS (ST-1) OF (2)

26251 Northline Rd.
 PO Box 10
 Taylor, MI 48180
 www.wadefirm.com

UNLESS SIGNED AND DATED:

WADE TRIM

CITY OF PLYMOUTH
 201 SOUTH MAIN STREET
 PLYMOUTH, MICHIGAN 48170

STANDARD STORM SEWER DETAILS (ST-1)

ISSUED FOR: DATE: BY:

JOB NO.
 PLY2101-02T

SHEET
 ST-1



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: December 12, 2022
Rev.: February 2, 2023

**Site Plan Review
For
City of Plymouth, Michigan**

GENERAL INFORMATION

Applicant:	City of Plymouth Represented by Shawn Keough/Wade Trim 201 S. Main St. Plymouth, MI 48170
Project Name:	Public Parking Lot Redesign
Plan Date:	No date
Location:	587 W. Ann Arbor Trail (Parcel abuts south side of Ann Arbor Trail, and west side of 585 W. Ann Arbor Trail)
Zoning:	B-2, Central Business District
Action Requested:	Administrative review of Site Plan

PROJECT DESCRIPTION

This lot was created in January, 2021 as a result of a land division with the adjacent parcel to the east at 585 W. Ann Arbor Trail. (Note that this site plan does not include the separate parcel (ID #006-10-0708-002) that is located at the very southeast corner of Ann Arbor Trail and Deer St.) Public parking facilities are a permitted use in the B-2 District.

This land has been previously used as a city-owned public parking lot. The City is proposing to renovate the lot to accommodate 31 parking spaces. The lot will also provide maneuvering lanes to access the private parking spaces at 585 W. Ann Arbor Trail, and the lower level garages for the townhomes along Maple St. to the south.

An aerial of the proposed project site is shown on the next page.



PARKING

Parking Lot/Space Dimensions and Configuration

Parking Spaces: Each regular parking space must be at least 9-feet wide and 20-feet long. The parking spaces shown on the Site Plan meets this requirement. The barrier-free spaces, and aisle, also meet the required dimensions.

Maneuvering Lanes: The minimum maneuvering lane width, with angled spaces, is 15-feet. The maneuvering lanes are dimensioned on the plans, and meet this requirement. The two-way maneuvering lane on the east side of the lot (traveling north/south) is 24-feet wide, which is 4-feet wider than required.

Curb/Bumper Blocks: Sec. 78-272 requires curbing or bumper blocks where parking spaces abut landscaping or sidewalks. The most southern row of parking spaces abuts a maneuvering lane that also serves the townhomes. The curbing in this location will keep the parked cars from encroaching into this maneuvering lane. The curb also helps to keep vehicles exiting the townhomes from hitting parked cars.

Parking Lot islands

Sec. 78-203(3)(b) requires that each interior landscape area be a minimum of 150 square feet. The contiguous planting/growing area of the islands meets this requirement.

Parking Lot Setback/ Obscuring Wall

Parking Lot Setback: Per Sec. 78-270(3), no off-street parking shall be permitted in any required or non-required front yard, and shall provide a minimum five-foot setback between off-street parking and the side and rear lot lines of all adjoining properties.

The B-2 District does not have a front yard setback (creating a required yard), and since there is no building on site, there is no un-required front yard. However, the five-foot setback between off-street parking and the side/rear lot lines of all adjoining properties applies to this site. The proposed parking configuration does not provide for these setbacks primarily because the maneuvering lanes on the outside of the lot also serve the adjacent building (585 Ann Arbor Trail), and the townhomes along Maple to the south. The ordinance allows waiving or modifying this requirement by the Planning Commission for sites where there is limited land area available to meet the strict requirements, or where it is possible to provide additional landscaping to buffer parking from adjoining uses. It would not be logical to provide a landscape buffer along the east boundary of the lot, as this boundary is adjacent to the neighbor's parking spaces. The townhomes to the south provide a landscape screen along their retaining wall, which in our opinion meets the intent of this ordinance provision.

Obscuring Wall: Sec. 78-272(6) requires a continuous and obscuring wall not less than four feet, six inches in height where the next zoning district is designated as a residential district. We consider the PUD district to the east and south of this site to be a mixed-use district that contains commercial and residential uses. Therefore, this provision could be applied to the southern boundary. However, the ordinance does allow the Planning Commission to modify the wall requirement where, in unusual circumstances, no good purpose would be served by compliance with this section. In our opinion, the fact that the parking lot maneuvering lane also serves the townhome development to the south is an unusual circumstance, and the townhome development contains a substantial landscape screen, which serves the same buffering purpose of a wall.

Items to be Addressed: 1 Planning Commission to consider waiving the parking lot setback requirement, as the B-2 District doesn't have a front setback requirement, and the site doesn't contain any non-required yards. 2. Planning Commission to consider modifying the wall requirement along the east and south sides of the parking lot, given the unusual circumstances of this site.

SITE ACCESS AND CIRCULATION

This site has direct vehicular access from Ann Arbor Trail and Deer Street.

The circulation pattern in the lot is coordinated with the angle of the spaces. There is a conflict point where the direction of the single-lane maneuvering lanes meet head on (west side of lot). However, the plans show installation of "Left/Right Turn Only" signs, and "Do Not Enter" signs, which will direct the traffic appropriately.

Pedestrian access is provided via the sidewalks along Ann Arbor Trail and Deer Street. The site also contains a barrier-free aisle between the barrier-free spaces and the Ann Arbor Trail sidewalk.

Items to be Addressed: None.

LANDSCAPING

Landscape Buffer: Sec. 78-203(3) requires parking lots that are visible from a public right-of-way to have landscaping between the parking lot and the right-of-way, including a landscape strip at least 10-feet wide, one tree/30 lineal feet of street frontage of parking lot, and five shrubs/30 lineal feet of street frontage of parking lot. A landscape buffer 11-feet wide is proposed along the Ann Arbor Trail frontage. The frontage requires five trees ($157 / 30 = 5.2$ trees), and 26 shrubs ($157 / 30 \times 5 = 26$ shrubs).

The Landscape Plan shows six (6) trees and 49 shrubs. It also proposes to plant ornamental grasses to fill the bed. The plans also propose a number of alternative species. We would consider all of the species appropriate, but would recommend using either Oak, as they will ultimately grow taller and provide more shade.

Interior Parking Lot Landscaping: Parking lots greater than 5,000 square feet shall provide one (1) square foot of landscaped area for each 15 square foot of parking lot. The interior landscape areas are located in a manner that breaks up the expanse of paving. There shall be at least one (1) deciduous tree per 300 square feet of interior landscape area. Greenbelt areas required by other ordinance provisions don't count toward the interior parking lot landscaping requirement.

Sheet 11 provides the total parking lot pavement (23,622 s.f.). Given the size of this lot, it requires 1,575 s.f. of interior landscaping. Sheet 11 indicates that the plans provide 1,659 s.f. / 7% of interior landscaping, meeting this requirement. We consider the arrangement of parking lot islands to break up the expanse of pavement. With 1,575 interior landscape area required, this will then require five (5) interior trees in landscape islands ($1,575 / 300 = 5$ trees). The plans show four (4) trees in landscape islands. The plans indicate why a tree isn't proposed in islands "G" and "H" at the southern end of the site. Island "G" has a light standard, and island "H" has power lines. This section of the ordinance doesn't permit the Planning Commission to modify these standards; therefore, a variance will be required.

Landscape Plan Requirements: The landscape plan shows the proposed species and size of the plant material. It shows the spacing of the shrubs, but not their proposed size at planting. This should be added to the plans. Provision of water for the buffer bed along Ann Arbor Trail and the landscape islands should also be shown on the plans.

Items to be Addressed: 1) Add one (1) more tree to landscape islands, or obtain variance. 2) Add required information to landscape plan, including size of shrubs upon planting, and provision of water for buffer planting along Ann Arbor Trail and interior landscape islands.

LIGHTING

The Proposed Parking Lot Plan shows new decorative light fixtures located in interior parking lot islands. These fixtures match the existing street light fixtures within the Historic District. These fixtures are pedestrian-scaled fixtures, and are within the maximum height requirement.

The ordinance limits illumination light levels in parking lots to 0.1 footcandles along property lines that abut residential properties. The photometric plan (Sheet 15) shows footcandles along the southern

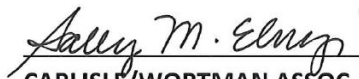
property line slightly above this number (between 0.8 – 0.4). It may be possible to add a shield to the light fixtures in this vicinity to bring the illumination levels down.

Items to be Addressed: Reduce illumination levels to 0.1 adjacent to the residential uses along the south property line.

RECOMMENDATIONS

Regarding the Site Plan, there are several outstanding items:

- A. **Parking:** 1 Planning Commission to consider waiving the parking lot setback requirement, as the B-2 District doesn't have a front setback requirement, and the site doesn't contain any non-required yards. 2. Planning Commission to consider modifying the wall requirement along the east and south sides of the parking lot, given the unusual circumstances of this site.
- B. **Landscaping:** 1) Add one (1) more tree to landscape islands, or obtain variance. 2) Add required information to landscape plan, including size of shrubs upon planting, and provision of water for buffer planting along Ann Arbor Trail and interior landscape islands.
- C. **Lighting:** Reduce illumination levels to 0.1 adjacent to the residential uses along the south property line.


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

cc: Greta Bolhuis
John Buzuvis
Marleta Barr
Shawn Keough – Wade Trim (skeough@wadetrim.com)