



J2025-0107
PSP2025-0006
Revision #2
Received 6/13/2025

City of Rochester
Hills Planning &
Economic
Development

Site Plan Review

Reviewed for compliance with City Ordinance, Building and Fire Codes
Conditions and mark-ups noted throughout plan set must be addressed prior to final approval

Department	Reviewer	Approved
Assessing	Assessing	Yes
Building	Jason Rhoades 248-656-4615 RhoadesJa@RochesterHills.org	Yes with conditions
Engineering - Utilities	Jason Boughton 248-841-2490 BoughtonJ@RochesterHills.org	Yes
Engineering Legal	Seth Bucholz 248-841-2491 bucholzS@rochesterhills.org	YES Date:06/27/2025
Fire	Lt. Walter Murphy 248-841-2712 MurphyW@RochesterHills.org	Yes
Natural Resources	Matt Einheuser 248-841-2551 EinheuserM@RochesterHills.org	Yes w/ conditions
Planning	Chris McLeod 248-841-2572 mcleodc@RochesterHills.org	Yes
Traffic	Keith Depp 248-841-2503 DeppK@RochesterHills.org	Yes

Next Steps: Submit revised site plans addressing reviewers comments.

Maintenance. The owner, tenant, occupant or person responsible for any property which was the subject of an approved site plan shall maintain the property and the improvements thereon in accordance with the approved site plan or an approved amendment thereof. This responsibility shall include the duty to maintain in a condition substantially similar as approved, including the duty to replace, if necessary, all improvements such as, but not by way of limitation, all greenbelts, planting, walls, fences, paving, trash receptacles, handicapped parking areas, etc.

Characteristic	Existing Condition	Proposed Condition
Total Development Area (ac)	10.80	10.80
Impervious Area (ac)	2.31	4.07
Total Pervious Area (ac)	8.49	6.73
Pervious Area Breakdown by Cover Type		
Meadow/fallow/natural areas (non-cultivated)	0.00	0.00
Predominant NRCS Soil Type (A, B, C, or D)		
Improved areas (turf grass, landscape, row crops)	10.80	10.80
Predominant NRCS Soil Type (A, B, C, or D)	A	A
Wooded areas	0.00	0.00
Predominant NRCS Soil Type (A, B, C, or D)		
Proposed Pond Area (acres)		N/A
Required CPVC Volume (cubic feet)		25,435
Provided CPVC Volume (cubic feet)		25,435
Required ED Volume (cubic feet)		37,175
Provided ED Volume (cubic feet)		N/A

The Professional Engineer who signs and seals this site plan certifies that the values in this table reflect the Wayne County stormwater calculations required for this development and that geotechnical investigations were performed that provide conclusive documentation that demonstrates whether infiltration (i.e., CPVC Volume Control) is practicable.

SEE SHEET C7 FOR STORMWATER NARRATIVE.

SP

Site Plan

CU

Conditional Use

BP

Building Permit

LB

Landscape Bond

TRP

Tree Removal Permit

Land Use Summary

LIP

Land Improvement Permit

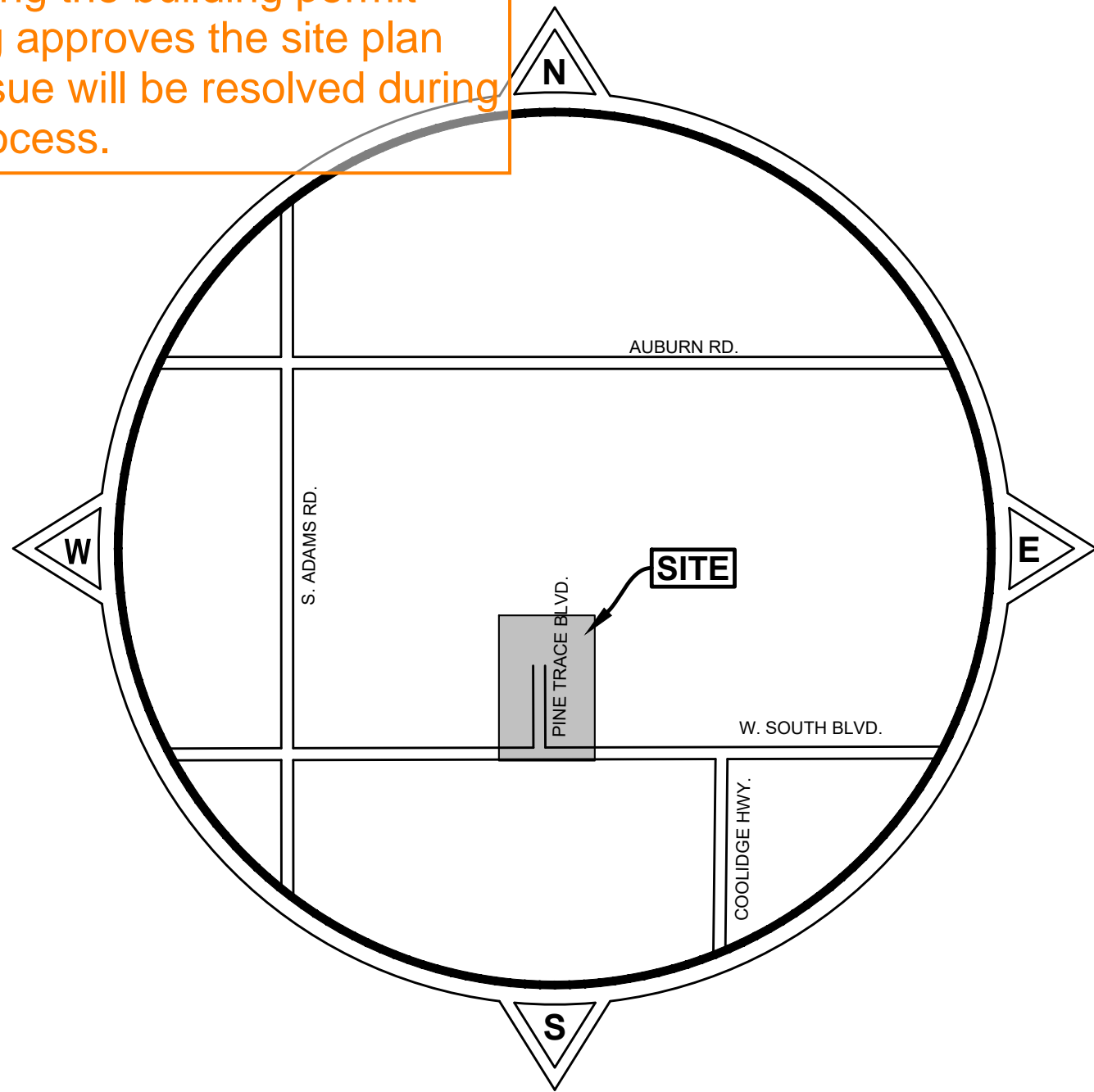
During the site plan review of the proposed building addition it has been determined that it does not comply with Table 506.2 of the 2021 Michigan Building Code for allowable area. Applicant has acknowledged they will address these requirements during building permit review with the following comment. "we are requesting the site plan package be approved contingent upon satisfying these comments during building permit review."

It will be the responsibility of the design professional to demonstrate compliance during the building permit application process. Building approves the site plan with the condition that this issue will be resolved during the building permit review process.

Replacement credits and calculations are incorrect. See comments on L101.

Provide RCOC preliminary permit requirements.

Indicate how the plans were changed to meet the RCOC preliminary comments.



OWNER/PROPRIETOR
PINE TRACE GOLF COURSE
3600 PINE TRACE BOULEVARD
ROCHESTER HILLS, MICHIGAN 48309
MICHAEL BYLEN
MICHAELBYLEN@GMAIL.COM
248-852-7100

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DESIGN AND CONSTRUCTION STANDARDS

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE STANDARD DETAIL SHEETS ATTACHED TO THIS PLAN SET UNLESS MODIFIED BY A SPECIAL PROVISION OR NOTES ELSEWHERE ON THE PLANS. SHOULD A CONFLICT ARISE BETWEEN THE AFOREMENTIONED STANDARDS, THE STANDARD DETAIL SHEETS ATTACHED TO THIS PLAN SET SHALL TAKE PRECEDENT.

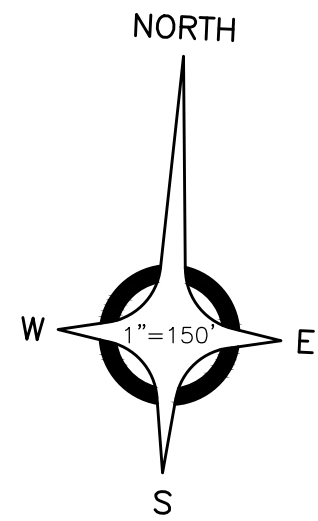


SYDNEY A. KANAN, PE
MICHIGAN REGISTRATION #6201068842

C1

CITY FILE #

ANDERSON, ECKSTEIN AND WESTRICK, INC.
CIVIL ENGINEERS, LAND SURVEYORS, ARCHITECTS
SHELBY TOWNSHIP, MICHIGAN



BENCH MARKS (NAVD88 DATUM)

BENCH MARK NO. 1
CHISELED "X" N. RIM CATCH
BASIN, 25± S. OF E. W. SOUTH
BLVD., 100± E. OF E. PINE
TRACE BLVD. ENTRANCE
ELEVATION: 861.06

BENCH MARK NO. 2 (REMOVED)
SET MAG NAIL, N.E. TOP OF
CONCRETE LIGHT POLE BASE,
W. SIDE PINE TRACE BLVD.,
335± N. OF E. W. SOUTH BLVD.
ELEVATION: 849.78

BENCH MARK NO. 3 (REMOVED)
SET MAG NAIL, S.E. TOP OF
CONCRETE LIGHT POLE BASE
W. SIDE PINE TRACE BLVD
ENTRANCE, 600± N. OF E.
SOUTH BLVD.
ELEVATION: 840.67

BENCH MARK NO. 4
CHISELED "X", S.W. RIM OF
ROAD BASIN ON N. SIDE OF
BAG DROP LOOP AT BAG DROP
ELEVATION: 834.07

BENCH MARK NO. 5
CHISELED "X", NW RIM OF
ROAD BASIN, W. ROAD BASIN
OF TWO @ S.E. CORNER OF
N.W. PARKING LOT
ELEVATION: 838.24

BENCH MARK NO. 6
SET MAG NAIL, EAST TOP OF
CONCRETE LIGHT POLE BASE,
W. SIDE N.W. PARKING LOT,
100± N. OF S.W. CORNER OF
LOT
ELEVATION: 848.39

BENCH MARK NO. 7
SET CHISELED "X" W. RIM OF
SANITARY MANHOLE, 25' S. OF
N.W. LOT, 100± E. OF S.W.
CORNER
ELEVATION: 846.87

BENCH MARK NO. 8
TOP OF HYDRANT, N. SIDE OF
W. SOUTH BLVD., 450± E. OF
PINE TRACE BLVD. ENTRANCE
ELEVATION: 863.65

PROPRIETOR

PINE TRACE GOLF COURSE
3600 PINE TRACE BOULEVARD
ROCHESTER HILLS, MICHIGAN 48309
MICHAEL BYLEN
MICHAELBYLEN@GMAIL.COM
248-852-7100

LEGAL DESCRIPTION

PARCEL 15-31-400-015

PART OF THE SOUTHEAST QUARTER OF SECTION 31, TOWN 3 NORTH,
RANGE 11 EAST, ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN,
DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT DISTANCE NORTH 00 DEGREES 06 SECONDS 00
EAST 990 FEET FROM THE SOUTH QUARTER CORNER, THENCE NORTH 00
DEGREES 06 MINUTES 00 SECONDS EAST 1457 FEET, THENCE NORTH 86
DEGREES 48 MINUTES 40 SECONDS EAST 625.89 FEET, THENCE NORTH 88
DEGREES 21 MINUTES 00 SECONDS EAST 634.93 FEET, THENCE NORTH 88
DEGREES 50 MINUTES 00 SECONDS EAST 345.40 FEET, THENCE SOUTH 08
DEGREES 33 MINUTES 45 SECONDS EAST 1306.30 FEET, THENCE WEST
500.0 FEET, THENCE SOUTH 08 DEGREES 33 MINUTES 45 SECONDS EAST
1222.70 FEET, THENCE WEST 1148.50 FEET, THENCE NORTH 01 DEGREES
57 MINUTES 00 SECONDS EAST 990.5 FEET, THENCE WEST 369.0 FEET TO
THE POINT OF BEGINNING, ALSO THE EAST HALF OF THE EAST HALF OF
SOUTHEAST QUARTER EXCLUDING THE AREA BEING DESCRIBED AS
BEGINNING AT THE SOUTHWEST CORNER THEREOF, THENCE NORTH 07
DEGREES 55 MINUTES 00 SECONDS WEST 711.62 FEET, THENCE SOUTH 88
DEGREES 25 MINUTES 00 SECONDS EAST 150.64 FEET, THENCE SOUTH 89
DEGREES 01 MINUTES 55 SECONDS EAST 150.93 FEET, THENCE SOUTH 07
DEGREES 55 MINUTES 00 SECONDS EAST 703.67 FEET, THENCE WEST
300.56 FEET TO THE POINT OF BEGINNING, ALSO EXCLUDING THE AREA
BEING DESCRIBED AS BEGINNING AT SOUTHEAST SECTION CORNER,
THENCE WEST 177.16 FEET, THENCE NORTH 07 DEGREES 55 MINUTES 00
SECONDS WEST 695.24 FEET, THENCE SOUTH 88 DEGREES 53 MINUTES 40
SECONDS EAST ALONG THE CENTER OF STREAM 144.21 FEET TO EAST
SECTION LINE, THENCE SOUTH 10 DEGREES 38 MINUTES 00 SECONDS
EAST 692.24 FEET TO THE POINT OF BEGINNING, CONTAINING
APPROXIMATELY 110.75 ACRES PLUS OR MINUS.

PARCEL 15-31-400-016

PART OF THE SOUTHEAST QUARTER OF SECTION 31, TOWN 3 NORTH,
RANGE 11 EAST, ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN,
DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTH QUARTER CORNER, THENCE NORTH 00
DEGREES 07 MINUTES 25 SECONDS WEST 990.00 FEET, THENCE NORTH 89
DEGREES 46 MINUTES 35 SECONDS EAST 369.90 FEET, THENCE SOUTH 01
DEGREES 43 MINUTES 35 SECONDS WEST 760.57 FEET, THENCE SOUTH 89
DEGREES 46 MINUTES 35 SECONDS WEST 180.00 FEET, THENCE SOUTH 01
DEGREES 43 MINUTES 35 SECONDS WEST 230.00 FEET, THENCE SOUTH 89
DEGREES 46 MINUTES 35 SECONDS WEST 157.92 FEET TO THE POINT OF
BEGINNING, CONTAINING APPROXIMATELY 7.09 ACRES PLUS OR MINUS.

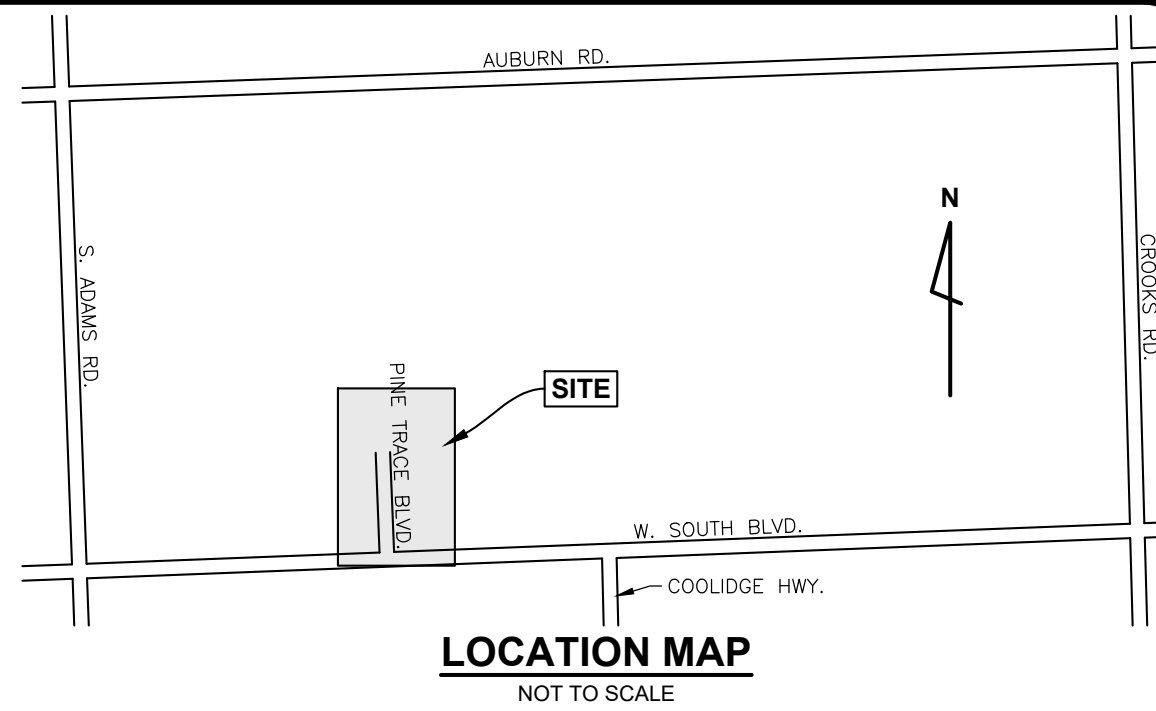
PARCEL 15-31-400-017

PART OF THE SOUTHEAST QUARTER OF SECTION 31, TOWN 3 NORTH,
RANGE 11 EAST, ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN,
DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT DISTANCE NORTH 89 DEGREES 46 MINUTES 35
SECONDS EAST 157.92 FEET FROM SOUTH QUARTER CORNER, THENCE
NORTH 89 DEGREES 46 MINUTES 35 SECONDS EAST 180.00 FEET, THENCE
NORTH 01 DEGREES 43 MINUTES 35 SECONDS EAST 230.00 FEET, THENCE
SOUTH 89 DEGREES 46 MINUTES 35 SECONDS WEST 180.00 FEET, THENCE
SOUTH 01 DEGREES 43 MINUTES 35 SECONDS WEST 230.00 FEET TO THE
POINT OF BEGINNING, CONTAINING APPROXIMATELY 0.95 ACRES PLUS OR
MINUS.

SUBJECT TO ANY AND ALL EASEMENTS AND RIGHT OF WAY OF RECORD
OR OTHERWISE.

FROM RECORDS ONLY. NO FIELD SURVEY PERFORMED.



SITE DATA

PARCEL No.: 15-31-400-015
ADDRESS: 3600 PINE TRACE BOULEVARD
ROCHESTER HILLS, MI 48309

CURRENT ZONING: R-4 RESIDENTIAL
EXISTING USE: GOLF COURSE (CONDITIONAL USE)
PROPOSED USE: GOLF COURSE (CONDITIONAL USE)

GROSS SITE AREA: 110.75 ACRES

PARKING CALCULATIONS:

REQUIRED GOLF = 6 PER GOLF HOLE @ 18 HOLES = 108 SPACES
(WASHINGTON TWP OFF-STREET PARKING STANDARD)
REQUIRED BANQUET = 1 PER 3 PERSONS PERMITTED (MAX
OCCUPANCY) = 500 PERSONS/3 = 167 SPACES
REQUIRED TOTAL = 108 + 167 = 275 SPACES

PROVIDED EXIST. = 207 SPACES
PROVIDED PROP. = 82 SPACES
PROVIDED TOTAL = 289 SPACES
REQUIRED ADA = 4 + 2.33% OF PROVIDED PARKING
= 4 + 289 * 0.0233 = 10.73 ~ 11 SPACES
PROVIDED ADA = 11 SPACES

RIGHT-OF-WAY IMPROVEMENTS

RIGHT-OF-WAY IMPROVEMENTS ARE PROPOSED. A PERMIT WILL BE
OBTAINED FROM THE ROAD COMMISSION OF OAKLAND COUNTY FOR
THESE IMPROVEMENTS.

PROJECT DESCRIPTION

THE IMPROVEMENTS PROPOSED AS PART OF THIS PLAN SET INCLUDE
A NEW HMA BOULEVARD DRIVEWAY, PARKING LOT, DRIVING RANGE
BUILDING, AND BANQUET FACILITY, ALONG WITH ASSOCIATED UTILITIES
AND APPURTENANCES.

SANITARY SEWER

THE EXISTING SANITARY SEWER SERVICING THE EXISTING BUILDING
WILL BE RE-UTILIZED. NO NEW SANITARY SEWER IS PROPOSED AS
PART OF THIS PROJECT.

WATER MAIN

A PORTION OF THE EXISTING 12 INCH WATER MAIN ON SITE IS BEING
REROUTED FOR A NEW DRIVING RANGE BUILDING. A 6 INCH HYDRANT
LEAD WILL TAP OFF OF THE REROUTED 12 INCH TO SUPPORT A SINGLE
FIRE HYDRANT WHICH PROVIDES FULL BUILDING COVERAGE FOR THE
PROPOSED BANQUET FACILITY. IN ADDITION, ANOTHER 6 INCH WATER
MAIN WILL TAP OFF OF THE REROUTED 12 INCH TO PROVIDE FIRE
SUPPRESSION FOR THE PROPOSED BANQUET FACILITY. THE 6 INCH
FIRE SUPPRESSION LINE WILL ALSO BE TAPPED FOR THE PROPOSED
BANQUET FACILITY'S WATER SERVICE.

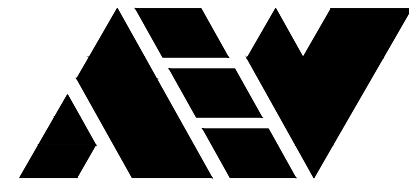
THE BUILDING WILL HAVE NFPA 13 FIRE SUPPRESSION.

STORM WATER

NEW STORM WATER IS PROPOSED TO CAPTURE THE SURFACE RUNOFF
OF THE IMPACTED AREA OF THE SITE. THIS STORM SEWER WILL BE
ROUTED TO A PROPOSED FOREBAY. STORM WATER STANDARDS FOR
THIS SITE ARE UNDER THE JURISDICTION OF THE OAKLAND COUNTY
WATER RESOURCES COMMISSION. A PERMIT WILL BE OBTAINED FROM
THEIR OFFICE FOR THESE IMPROVEMENTS.

LEGEND

---	BOUNDARY LINE
- - - - -	CENTERLINE DITCH
1500.0	SPOT ELEVATION ("*" INDICATES ELEVATION LOCATION UNLESS OTHERWISE INDICATED)
+	SIGN
0	MAILBOX
— —	BUMPER BLOCK
•	POWER POLE
*	LIGHT POLE
⊕	SANITARY MANHOLE
===	SANITARY SEWER
⊕	HYDRANT
⊗	GATE VALVE & WELL
⊗	VALVE BOX
⊕	SHUT OFF VALVE
— —	WATER MAIN
⊗	STORM CATCH BASIN (PAVT.)
⊗	STORM CATCH BASIN (FIELD)
○	STORM MANHOLE
-----	STORM SEWER
-----	GAS MAIN
-----	OVHD. UTIL.
P	UTILITY MARKER



ANDERSON, ECKSTEIN AND
WESTRICK, INC.

CIVIL ENGINEERS SURVEYORS ARCHITECTS

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

www.aewinc.com

ENGINEERING STRONG COMMUNITIES



The City does not have a
specific requirement for golf
course parking. Parking
calculations appear
appropriate. If it is
determined additional
parking is necessary due to
usage patterns, the
applicant shall work with
the City to develop
additional improved parking
areas.

06/13/2025 05/05/2025 03/18/2025	Site Plan Submittal 3 Site Plan Submittal 2 Site Plan Submittal
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

PINE TRACE GOLF COURSE

SHEET TITLE:

OVERALL SITE PLAN

CLIENT:

PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE: 1" = 150'		
0 75 150 300		



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

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

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

PROJECT NO.

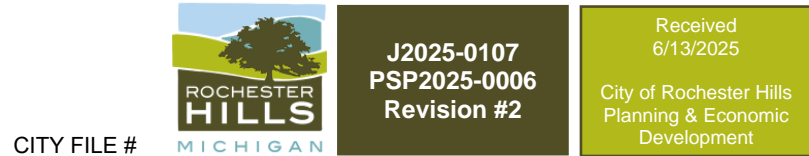
1530-0002

M:\1530\1530-0002\CADD\DRAWINGS\SITE PLAN\01_SITEPLAN PHASE 2.DWG
C2_Overall Site Plan-6/13/2025 10:08:45 AM

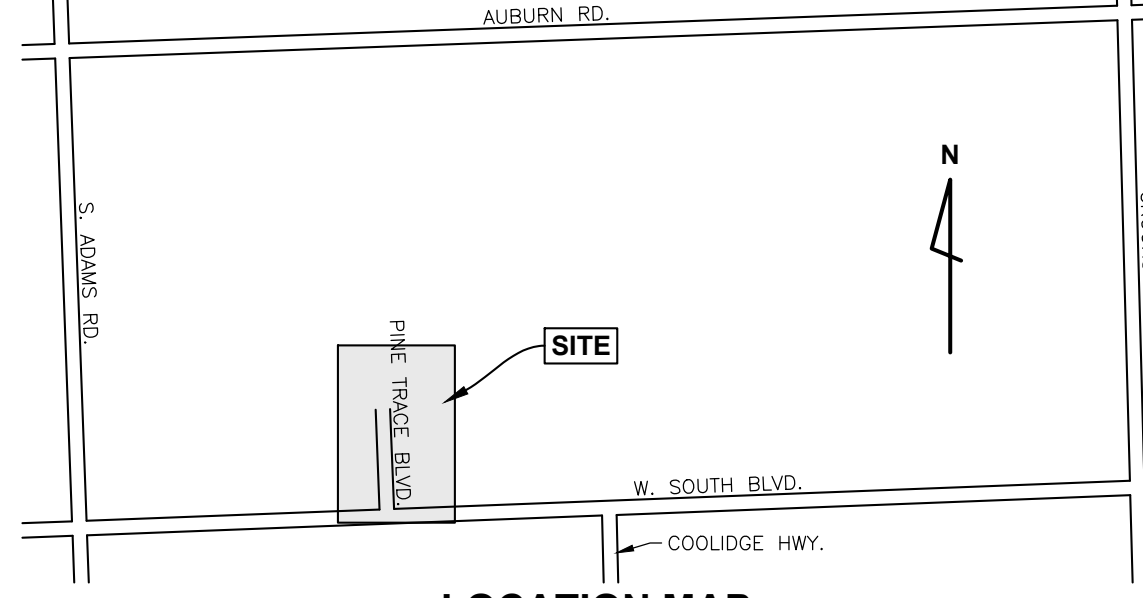
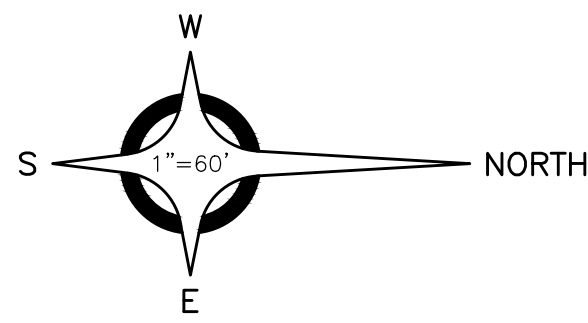
SHEET NO.

C2

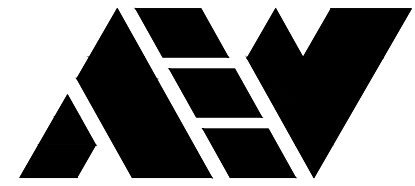
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CITY FILE #



LOCATION MAP
NOT TO SCALE



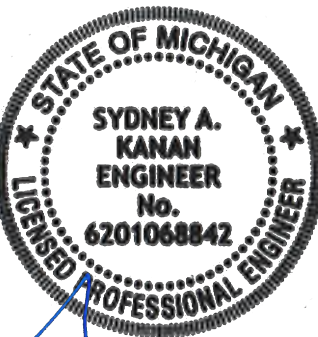
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ENGINEERING STRONG COMMUNITIES



06/13/2025	Site Plan Submittal 3
05/09/2025	Site Plan Submittal 2
03/18/2025	Site Plan Submittal
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

PINE TRACE GOLF COURSE

SHEET TITLE:

TOPOGRAPHICAL SURVEY AND REMOVAL PLAN

CLIENT:

PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE: 1" = 60'		



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

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

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

PROJECT NO.

1530-0002

M:\1530\1530-0002\CADD\DRAWINGS\SITE PLAN\01_SITE PLAN PHASE 2.DWG
C3 Topo-4/13/2025 10:00:05 AM

SHEET NO.

C3

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BENCH MARKS (NAVD88 DATUM)

BENCH MARK NO. 1
CHISELED "X" N. RIM CATCH
BASIN, 25± S. OF t W. SOUTH
BLVD., 100± E. OF t PINE
TRACE BLVD. ENTRANCE
ELEVATION: 861.06

BENCH MARK NO. 2 (REMOVED)
SET MAG NAIL, N.E. TOP OF
CONCRETE LIGHT POLE BASE,
W. SIDE PINE TRACE BLVD.,
335± N. OF t W. SOUTH BLVD.
ELEVATION: 849.78

BENCH MARK NO. 3 (REMOVED)
SET MAG NAIL, S.E. TOP OF
CONCRETE LIGHT POLE BASE
W. SIDE PINE TRACE BLVD
ENTRANCE, 600± N. OF t
SOUTH BLVD.
ELEVATION: 840.67

BENCH MARK NO. 4
CHISELED "X" S.W. RIM OF
ROAD BASIN ON N. SIDE OF
BAG DROP LOOP AT BAG DROP
ELEVATION: 834.07

BENCH MARK NO. 5
CHISELED "X", NW RIM OF
ROAD BASIN, W. ROAD BASIN
OF TWO @ S.E. CORNER OF
N.W. LOT, 100± E. OF S.W.
CORNER
ELEVATION: 838.24

BENCH MARK NO. 6
SET MAG NAIL, EAST TOP OF
CONCRETE LIGHT POLE BASE,
W. SIDE N.W. PARKING LOT,
100± N. OF S.W. CORNER OF
LOT
ELEVATION: 848.39

BENCH MARK NO. 7
SET CHISELED "X" W. RIM OF
SANITARY MANHOLE, 25' S. OF
N.W. LOT, 100± E. OF S.W.
CORNER
ELEVATION: 846.87

BENCH MARK NO. 8
TOP OF HYDRANT, N. SIDE OF
W. SOUTH BLVD., 450± E. OF
PINE TRACE BLVD. ENTRANCE
ELEVATION: 863.65

LEGEND

---	BOUNDARY LINE
- - -	CENTERLINE DITCH
+	SPOT ELEVATION (*" INDICATES ELEVATION LOCATION UNLESS OTHERWISE INDICATED)
+	SIGN
+	MAILBOX
+	BUMPER BLOCK
+	POWER POLE
+	LIGHT POLE
+	SANITARY MANHOLE
+	SANITARY SEWER
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+	VALVE BOX
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+	STORM CATCH BASIN (FIELD)
+	STORM MANHOLE
+	STORM SEWER
+	GAS MAIN
+	OVHD. UTIL.
+	UTILITY MARKER

CITY FILE #



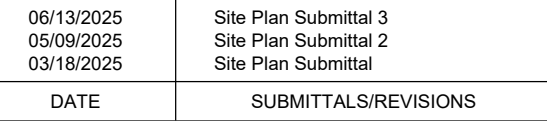
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PSP2025-0006
Revision #2

Received
6/13/2025
City of Rochester Hills
Planning & Economic
Development



www.aewinc.com

ENGINEERING STRONG COMMUNITIES



OBJECT NAME:

PINE TRACE GOLF COURSE

BET TITLE:

GENERAL PLAN

IENT:

PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025

SCALE:

1" = 50'



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

PROJECT NO.

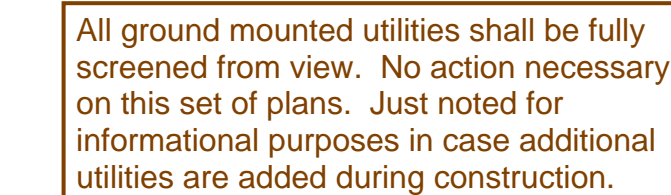
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1530\1530-0002\CAD\DRAWINGS\SITE PLAN\01_SITEPLAN PHASE 2.DWG
General Plan--6/13/2025 10:09:18 AM

















SHEET NO.

C4

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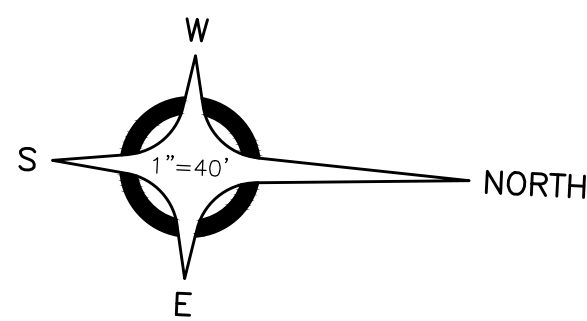
LEGEND

- | | |
|---|---------------------------|
|  | LIGHT DUTY HMA PAVT. |
|  | STANDARD DUTY HMA PAVT. |
|  | HEAVY DUTY HMA PAVT. |
|  | CONC. PAVT. |
|  | CONC. SIDEWALK |
|  | DECORATIVE PAVEMENT |
|  | CONC. CURB & GUTTER |
|  | PROP. STORM SEWER |
|  | PROP. CATCH BASIN (PAVT.) |
|  | PROP. CATCH BASIN (FIELD) |
|  | PROP. WATER MAIN |
|  | PROP. WATER LINE |
|  | PROP. GATE VALVE |
|  | PROP. HYDRANT |
|  | PROP. LIGHT POLE |
|  | PROP. LIGHTED BOLLARD |

CITY FILE #

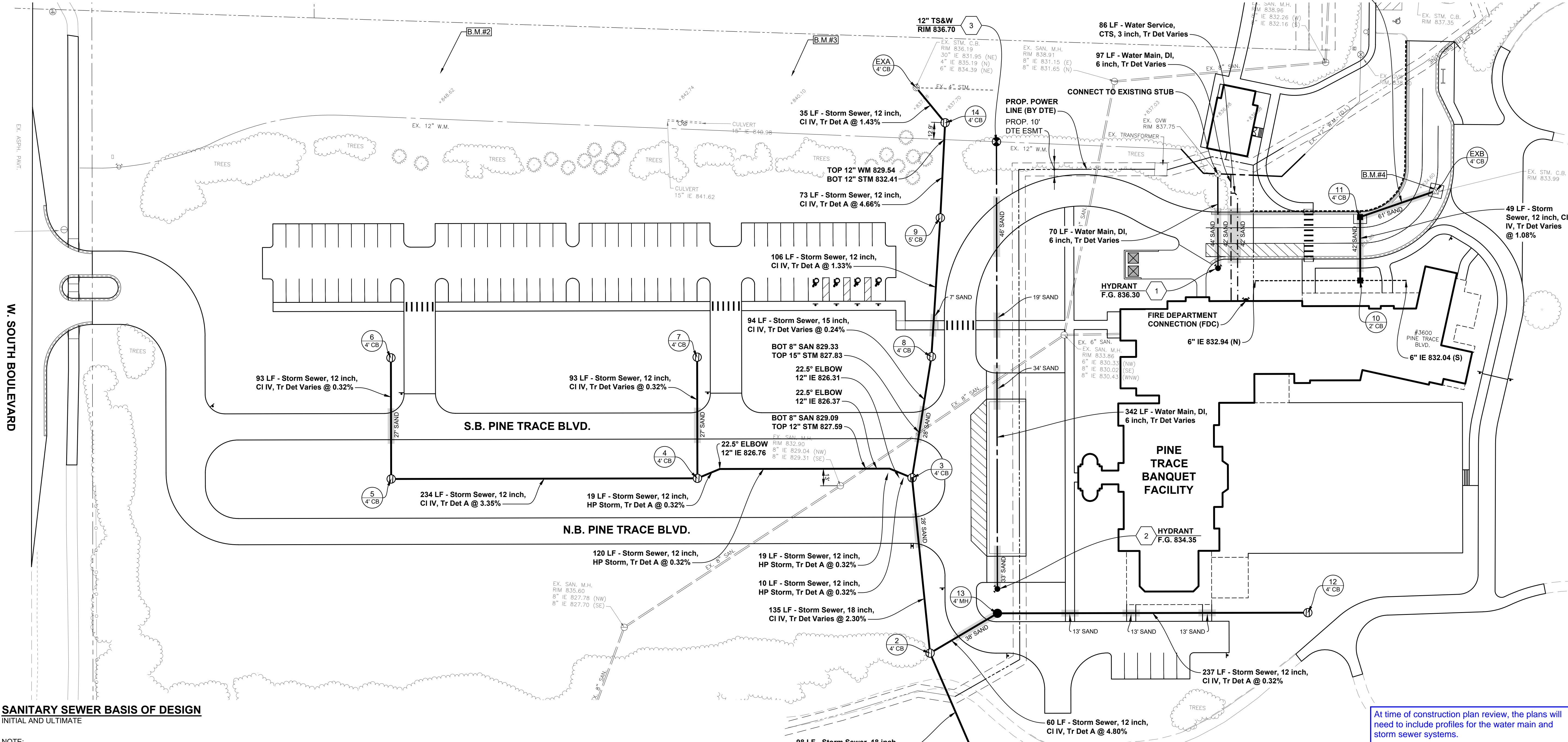


J2025-0107
PSP2025-0006
Revision #2



NOTE:
THE EXISTING STORM CATCH BASIN PROPOSED FOR REMOVAL NEAR STRUCTURE 14 MAY BE UTILIZED FOR THE PROPOSED STORM NETWORK GIVEN 10' OF HORIZONTAL SEPARATION FROM THE EXISTING 12" WATER MAIN EXISTS. FIELD VERIFICATION REQUIRED.

NOTE:
THE EX. 12" WM WAS REROUTED PREVIOUSLY AS A PART OF THE PHASE 2A LIP TO MAKE ROOM FOR THE DRIVING RANGE BUILDING PROPOSED FOR THIS PHASE



SANITARY SEWER BASIS OF DESIGN

INITIAL AND ULTIMATE

NOTE:
SCHEDULE OF UNIT FACTORS REFERENCED FROM OCWRC 2018 STANDARDS.
POPULATION FACTOR REFERENCED FROM CITY OF ROCHESTER HILLS ENGINEERING DESIGN STANDARDS 2023.

DENSITY (BANQUET HALLS) = 0.23 REU/FIXTURE
DENSITY (REST. W/ LIQUOR) = 0.35 REU/FIXTURE

FIXTURE COUNT (BANQUET HALLS) = 42 EACH
REU'S (BANQUET HALLS) = 9.66 REU'S
FIXTURE COUNT (REST. W/ LIQUOR) = 19 EACH
REU'S (REST. W/ LIQUOR) = 6.65 REU'S
TOTAL REU'S = 16.31 REU'S

POPULATION (P) = 2.44 PERSONS/REU = 39.80 PERSONS

INITIAL
DESIGN FLOW RATE = 100 GPCPD
AVERAGE DAILY FLOW = 3,980 GPD
= 0.0062 CFS

PEAK FACTOR (SAN) = $(18 + \sqrt{P}) \div (4 + \sqrt{P})$
= 2.36 * 2.50

PEAK FLOW (SAN) = 9,950 GPD (0.015 CFS)

ULTIMATE
AVERAGE DAILY FLOW = 3,980 GPD
= 0.0062 CFS

PEAK FLOW (SAN) = 9,950 GPD (0.015 CFS)

CAPACITY
EX. SANITARY SEWER SIZE = 8 INCH
CROSS-SECTIONAL AREA (A) = 0.35 CF
MANNING'S COEFFICIENT (n) = 0.013
EX. SEWER SLOPE (S) = 0.48%
CAPACITY (Q) (MANNINGS) = 0.84 CFS

STRUCTURE DATA

1 10' DIA. - WQU RIM 820.70 18" IE 815.96 (SW) EX. 24" IE 814.85 (NE)	5 5' DIA. RIM 846.13 12" IE 841.70 (W) 12" IE 841.60 (N)	10 2' DIA. RIM 834.87 6" IE 831.34 (S) 6" IE 831.34 (N) 12" IE 830.67 (W)	14 5' DIA. RIM 837.50 12" IE 833.30 (SW) 12" IE 833.20 (E)
2 4' DIA. RIM 827.00 12" IE 822.80 (NW) 18" IE 822.27 (W) 18" IE 818.71 (NE)	6 4' DIA. RIM 846.19 12" IE 842.00 (E)	11 4' DIA. RIM 834.34 12" IE 830.14 (E) 12" IE 830.04 (NW)	EXA 4' DIA. PROP. RIM 838.00 12" IE 833.80 (NE)
3 5' DIA. RIM 832.20 12" IE 826.28 (S) 15" IE 826.28 (W) 18" IE 825.88 (E)	7 4' DIA. RIM 838.28 12" IE 834.05 (E)	12 4' DIA. RIM 831.50 12" IE 827.30 (S)	EXB 4' DIA. PROP. RIM 836.15 12" IE 829.84 (SW)
4 5' DIA. RIM 837.94 12" IE 833.75 (S) 12" IE 833.75 (W) 12" IE 826.82 (N)	8 5' DIA. RIM 832.59 15" IE 828.13 (W) 15" IE 826.51 (E)	13 4' DIA. RIM 834.87 12" IE 826.54 (N) 12" IE 826.18 (SE)	1 HYDRANT F.G. 836.30
	9 4' DIA. RIM 834.00 12" IE 829.80 (W) 15" IE 829.54 (E)		2 HYDRANT F.G. 834.35

Defined as wetland on City mapping. If any work is proposed in or around wetland area, delineation will be required and appropriate wetland use permit will be required (as applicable). No action necessary at this time. Comment is informational only and shall become applicable if work is required either in the defined wetland area, within the natural features setback, etc.

BENCH MARKS (NAVD88 DATUM)

BENCH MARK NO. 1
CHISELED "X" N. RIM CATCH BASIN. 25' S. OF E. W. SOUTH BLVD., 100'± E. OF E. PINE TRACE BLVD. ENTRANCE
ELEVATION: 861.06

BENCH MARK NO. 2 (REMOVED)
SET MAG NAIL, N.E. TOP OF CONCRETE LIGHT POLE BASE, W. SIDE PINE TRACE BLVD., 335'± N. OF E. W. SOUTH BLVD.
ELEVATION: 849.78

BENCH MARK NO. 3 (REMOVED)
SET MAG NAIL, S.E. TOP OF CONCRETE LIGHT POLE BASE W. SIDE PINE TRACE BLVD ENTRANCE, 600'± N. OF E. SOUTH BLVD.
ELEVATION: 840.67

BENCH MARK NO. 4
CHISELED "X", S.W. RIM OF ROAD BASIN ON N. SIDE OF BAG DROP LOOP AT BAG DROP
ELEVATION: 834.07

BENCH MARK NO. 5
SET MAG NAIL, EAST TOP OF CONCRETE LIGHT POLE BASE, W. SIDE N.W. PARKING LOT, 100'± N. OF S.W. CORNER OF LOT
ELEVATION: 848.39

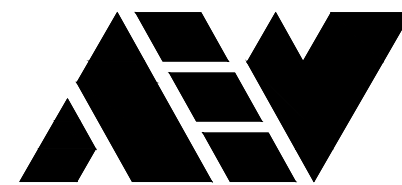
BENCH MARK NO. 6
SET MAG NAIL, S.E. TOP OF CONCRETE LIGHT POLE BASE, W. SIDE N.W. PARKING LOT, 100'± N. OF S.W. CORNER OF LOT
ELEVATION: 848.39

BENCH MARK NO. 7
SET CHISELED "X" W. RIM OF SANITARY MANHOLE, 25' S. OF N.W. LOT, 100'± E. OF S.W. CORNER
ELEVATION: 846.87

BENCH MARK NO. 8
TOP OF HYDRANT, N. SIDE OF W. SOUTH BLVD., 450'± E. OF PINE TRACE BLVD. ENTRANCE
ELEVATION: 863.65

UTILITY LEGEND

- DR STRUCTURE (FIELD)
- DR STRUCTURE (PAVT.)
- END SECTION
- STORM SEWER
- FIRE HYDRANT
- GATE WELL
- WATER MAIN
- WATER SERVICE
- MDOT CLASS II SANITARY (95% MIN. DENSITY)



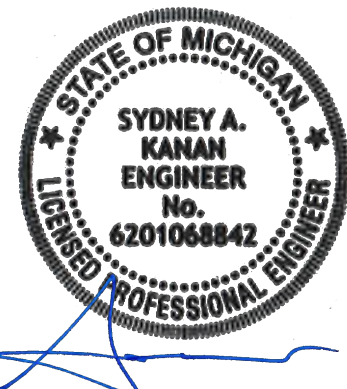
ANDERSON, ECKSTEIN AND WESTRICK, INC.

CIVIL ENGINEERS SURVEYORS ARCHITECTS

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

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ENGINEERING STRONG COMMUNITIES

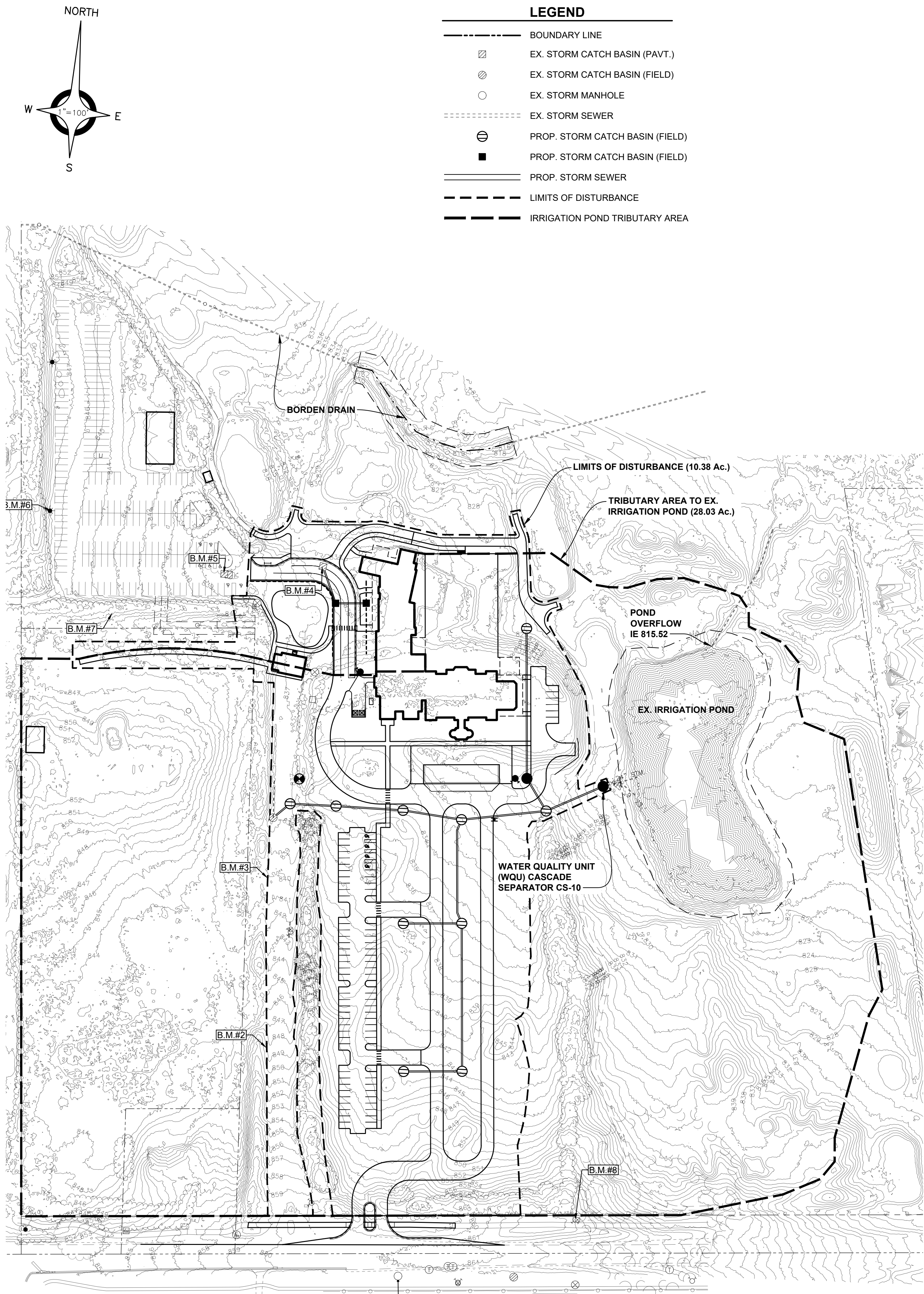


06/13/2025 05/09/2025 03/18/2025	Site Plan Submittal 3 Site Plan Submittal 2 Site Plan Submittal
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	
PINE TRACE GOLF COURSE	
SHEET TITLE:	
UTILITY PLAN	
CLIENT:	
PINE TRACE GOLF COURSE	
DRAWN BY: CBR CHECKED BY: SAK DATE: JUNE 2025	
SCALE: 1" = 40'	
811 Know what's below. Call 72 hours before you dig.	
UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY. AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.	
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DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.	
PROJECT NO. 1530-0002	
M:\1530\1530-0002\CADD\DRAWINGS\SITE PLAN\1 SITE PLAN PHASE 2.DWG CB Utilities-6/13/2025 10:09:58 AM	
SHEET NO.	

C6

CITY FILE #

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LEGEND	
---	BOUNDARY LINE
⊠	EX. STORM CATCH BASIN (PAVT.)
⊙	EX. STORM CATCH BASIN (FIELD)
○	EX. STORM MANHOLE
- - - - -	EX. STORM SEWER
⊕	PROP. STORM CATCH BASIN (FIELD)
■	PROP. STORM CATCH BASIN (FIELD)
---	PROP. STORM SEWER
- - - - -	LIMITS OF DISTURBANCE
- - - - -	IRRIGATION POND TRIBUTARY AREA

WEIGHTED C CALCULATION TRIBUTARY AREA						
Impervious Area (C = 0.95)	Water (C = 1.0)	Pervious Area				Total
		C = .20	C = .30	C = .35	C = .50	
202,976	65,237	712,693	305,440	0	0	1,221,109
						0.40

OAKLAND COUNTY DETENTION CALCULATIONS

Part A: Determination of Surface Runoff

Area - Tributary	A _t =	28.03	ac	
Runoff Coefficient	C =	0.40		
Time of Concentration	T _c =	20	min	
Rainfall Return Period (10-Yr)	p ₁₀ =	10	years	
Rainfall Return Period (100-Yr)	p ₁₀₀ =	100	years	
Rainfall Intensity (10-Yr) [Eq. III-7]	I ₁₀ =	3.26	in/hr	= 30.2p ^{0.22} / (T _c +9.17) ^{0.81}
Rainfall Intensity (100-Yr) [Eq. III-7]	I ₁₀₀ =	5.41	in/hr	= 30.2p ^{0.22} / (T _c +9.17) ^{0.81}
Peak Runoff [Eq. III-1]	Q =	61.13	cfs	= C*I*A
Volume (Det.) [Eq. III-3]	V =	221,894	cf	= 3,630*p*C*A
Volume (Ret.) [Eq. III-34]	V =	429,024	cf	= (18,985*C*A ²)

WEIGHTED C CALCULATIONS LIMITS OF DISTURBANCE

Impervious Area (C = 0.95)	Water (C = 1.0)	Pervious Area				Total	Weighted C
		C = .20	C = .30	C = .35	C = .50		
177,399	0	216,269	76,920	0	0	470,588	0.50

OAKLAND COUNTY DETENTION CALCULATIONS

Part A: Determination of Surface Runoff

Area - Limits of Disturbance	A _{LOD} =	10.80	ac	(Min. Required Area per OCWRC)
Runoff Coefficient	C =	0.50		
Time of Concentration	T _c =	20	min	
Rainfall Return Period (10-Yr)	p ₁₀ =	10	years	
Rainfall Return Period (100-Yr)	p ₁₀₀ =	100	years	
Rainfall Intensity (10-Yr) [Eq. III-7]	I ₁₀ =	3.26	in/hr	= 30.2p ^{0.22} / (T _c +9.17) ^{0.81}
Rainfall Intensity (100-Yr) [Eq. III-7]	I ₁₀₀ =	5.41	in/hr	= 30.2p ^{0.22} / (T _c +9.17) ^{0.81}
Peak Runoff [Eq. III-1]	Q =	29.16	cfs	= C*I*A
Volume (Det.) [Eq. III-3]	V =	105,851	cf	= 3,630*p*C*A
Volume (Ret.) [Eq. III-34]	V =	204,659	cf	= (18,985*C*A ²)

Part C: Channel Protection Volume Control

Required CPVC Volume [Eq. III-9]	V _{CPVC} =	25,435	cf	= 4,719*C*A
Provided CPVC Volume	V _{CPVC} =	25,435	cf	

Part D: Water Quality Control

Required Water Quality Volume [Eq. III-17]	V _{WQ} =	19,566	cf	= 3,630*C*A
--	-------------------	--------	----	-------------

Water Quality Rate (MID) [Eq. III-18]	Q _{WQ} =	10.59	cfs	= C*A*(30.20 / T _c + 9.17) ^{0.81}
---------------------------------------	-------------------	-------	-----	---

STORMWATER NARRATIVE:

THE INTENT OF THIS NARRATIVE IS TO PROVIDE INSIGHT TO THE PROPOSED PROJECT BEING SUBMITTED FOR YOUR REVIEW AND APPROVAL. THE PROJECT SCOPE IS TO CONSTRUCT A BUILDING ADDITION FOR A BANQUET FACILITY, REMOVE THE EXISTING ENTRANCE ROAD AND CONSTRUCT A NEW BOULEVARD ENTRANCE, ALONG WITH NEW PARKING, LANDSCAPING, SITE LIGHTING AND MISC. APPURTENANCES.

THE PROJECT AND ITS SITE DRAINAGE IS UNDER THE JURISDICTION OF THE OAKLAND COUNTY WATER RESOURCES COMMISSIONER, WITH THE ULTIMATE STORMWATER OUTLET TO THE BORDEN DRAIN.

PER THE OCWRC STORMWATER GUIDELINES, THE STORMWATER CALCULATIONS WERE EVALUATED BASED ON THE DISTURBED AREA OF THE PROPOSED PROJECT. THE PROJECT IS PROVIDING WATER QUALITY IN THE FORM OF A WATER QUALITY UNIT, WHICH IS TO BE INSTALLED UPSTREAM OF THE EXISTING IRRIGATION POND. THE IRRIGATION POND CURRENTLY PROVIDES ADEQUATE VOLUME TO STORE THE 200-YEAR STORM VOLUME, WHICH MEETS THE RETENTION REQUIREMENTS OF OCWRC. NO IMPROVEMENTS ARE PROPOSED TO THE EXISTING IRRIGATION POND.

CASCADE SEPARATOR MODEL SPECIFICATIONS PER NJDEP

MODEL	MTFR (CFS)
CS-4	1.80
CS-5	2.81
CS-6	4.05
CS-8	7.20
CS-10	11.30
CS-12	16.20

Provide documentation from the WRC stating that this narrative is acceptable to them. If no letter/email from WRC is provided then all storm sewer standards need to be met fully.

Existing Retention/Irrigation Pond Volume				
Elevation	Main Area (sf)	Depth (ft)	Total Volume (cf)	ΣTotal Volume (cf)
815.52	66595	0.52	34,276	572,115
815	65,237	1.00	63,252	537,839
814	61,288	1.00	59,378	474,587
813	57,489	1.00	55,614	415,208
812	53,759	1.00	51,918	359,595
811	50,099	1.00	48,262	307,676
810	46,448	1.00	44,629	259,414
809	42,834	1.00	41,031	214,786
808	39,254	1.00	37,476	173,755
807	35,726	1.00	33,967	136,278
806	32,237	1.00	30,518	102,312
805	28,830	1.00	27,160	71,794
804	25,524	1.00	23,889	44,634
803	22,290	1.00	20,745	20,745
802	19,238			

BENCH MARKS (NAVD88 DATUM)

BENCH MARK NO. 1
CHISELED "X" N. RIM CATCH BASIN, 25± S. OF E. W. SOUTH BLVD., 100± E. OF E. PINE TRACE BLVD. ENTRANCE
ELEVATION: 861.06

BENCH MARK NO. 2 (REMOVED)
SET MAG NAIL, N.E. TOP OF CONCRETE LIGHT POLE BASE, W. SIDE PINE TRACE BLVD., 335± N. OF E. W. SOUTH BLVD. ENTRANCE
ELEVATION: 849.78

BENCH MARK NO. 3 (REMOVED)
SET MAG NAIL, S.E. TOP OF CONCRETE LIGHT POLE BASE W. SIDE PINE TRACE BLVD ENTRANCE, 600± N. OF E. SOUTH BLVD.
ELEVATION: 840.67

BENCH MARK NO. 4
CHISELED "X" S.W. RIM OF ROAD BASIN ON N. SIDE OF BAG DROP LOOP AT BAG DROP
ELEVATION: 834.07

BENCH MARK NO. 5
CHISELED "X" NW RIM OF ROAD BASIN, W. ROAD BASIN OF TWO @ S.E. CORNER OF N.W. PARKING LOT
ELEVATION: 838.24

BENCH MARK NO. 6
SET MAG NAIL, EAST TOP OF CONCRETE LIGHT POLE BASE, W. SIDE N.W. PARKING LOT, 100± N. OF S.W. CORNER OF LOT
ELEVATION: 848.39

BENCH MARK NO. 7
SET CHISELED "X" W. RIM OF SANITARY MANHOLE, 25± S. OF N.W. LOT, 100± E. OF S.W. CORNER
ELEVATION: 846.87

BENCH MARK NO. 8
TOP OF HYDRANT, N. SIDE OF W. SOUTH BLVD., 450± E. OF PINE TRACE BLVD. ENTRANCE
ELEVATION: 863.65



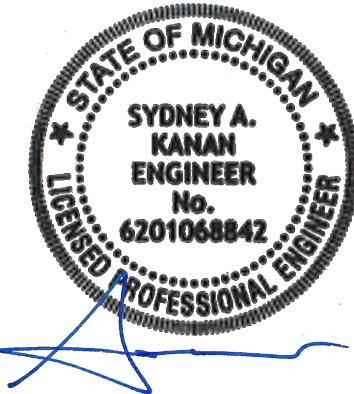
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CIVIL ENGINEERS SURVEYORS ARCHITECTS

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Shelby Township Fax 586 726 8780
Michigan 48315

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ENGINEERING STRONG COMMUNITIES



06/13/2025 05/09/2025 03/18/2025	Site Plan Submittal 3 Site Plan Submittal 2 Site Plan Submittal
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

PINE TRACE GOLF COURSE

SHEET TITLE:

STORM WATER MANAGEMENT PLAN

CLIENT:

PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE: 1" = 100'		
0 50 100 200		



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

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PROJECT NO.

1530-0002

M:\1530\1530-0002\CADD\DRAWINGS\SITE PLAN\1 SITE PLAN PHASE 2.DWG
C7 Storm-6/13/2025 10:10:36 AM

SHEET NO.

C7

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J2025-0107
PSP2025-0006
Revision #2

Received
6/13/2025
City of Rochester Hills
Planning & Economic
Development

CITY FILE #



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CIVIL ENGINEERS SURVEYORS ARCHITECTS

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

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ENGINEERING STRONG COMMUNITIES



06/13/2025 05/09/2025 03/18/2025	Site Plan Submittal 3 Site Plan Submittal 2 Site Plan Submittal
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	

PINE TRACE GOLF COURSE

SHEET TITLE:

HYDRAULIC AREAS

CLIENT:

PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE: 0 40 80 160 1" = 80'		



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PROJECT NO.

1530-0002

M:\1530\1530-0002\CADD\DRAWINGS\SITE PLAN\01 SITE PLAN PHASE 2.DWG
CB Hyd-6/13/2025 10:11:06 AM

SHEET NO.

C8

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WEIGHTED C CALCULATIONS HYDRAULIC AREAS

Drainage Area	Impervious Area (C = 0.95)	Water (C = 1.0)	Pervious Area				Total	Weighted C
			HSG A C = .20	HSG B C = .30	HSG C C = .35	HSG D C = .50		
2	17,202		74,616	0	0	0	91,818	0.34
3	28,829		20,274	0	0	0	49,103	0.64
4	4,999		14,040	0	0	0	19,039	0.40
5	6,506		15,032	0	0	0	21,538	0.43
6	10,963		30,024	0	0	0	40,987	0.40
7	14,759		29,862	0	0	0	44,621	0.45
8	17,900		34,607	0	0	0	52,507	0.46
9	2,986		0	8,651	0	0	11,637	0.47
11	13,222		0	19,515	0	0	32,737	0.56
10	12,699		0	1,696	0	0	14,395	0.87
12	23,250		0	8,313	0	0	31,563	0.78
14	1,053		53,039	0	0	0	54,092	0.21
EXA	2,715		0	344,348	0	0	347,063	0.31
Total	157,083		271,494	382,523	0	0	811,100	0.39

LEGEND

-----	BOUNDARY LINE
▣	EX. STORM CATCH BASIN (PAVT.)
⊙	EX. STORM CATCH BASIN (FIELD)
○	EX. STORM MANHOLE
-----	EX. STORM SEWER
⊖	PROP. STORM CATCH BASIN (FIELD)
■	PROP. STORM CATCH BASIN (FIELD)
-----	PROP. STORM SEWER
■■■■	HYDRAULIC AREA

BENCH MARKS (NAVD88 DATUM)

BENCH MARK NO. 1
CHISELED "X" N. RIM CATCH BASIN, 25'± S. OF & W. SOUTH BLVD., 100'± E. OF & PINE TRACE BLVD. ENTRANCE
ELEVATION: 861.06

BENCH MARK NO. 2 (REMOVED)
SET MAG NAIL, N.E. TOP OF CONCRETE LIGHT POLE BASE, W. SIDE PINE TRACE BLVD., 335'± N. OF & W. SOUTH BLVD.
ELEVATION: 849.78

BENCH MARK NO. 3 (REMOVED)
SET MAG NAIL, S.E. TOP OF CONCRETE LIGHT POLE BASE W. SIDE PINE TRACE BLVD ENTRANCE, 600'± N. OF & SOUTH BLVD.
ELEVATION: 840.67

BENCH MARK NO. 4
CHISELED "X" S.W. RIM OF ROAD BASIN ON N. SIDE OF BAG DROP LOOP AT BAG DROP
ELEVATION: 834.07

BENCH MARK NO. 5
CHISELED "X" NW RIM OF ROAD BASIN, W. ROAD BASIN OF TWO @ S.E. CORNER OF N.W. PARKING LOT
ELEVATION: 838.24

BENCH MARK NO. 6
SET MAG NAIL, EAST TOP OF CONCRETE LIGHT POLE BASE, W. SIDE N.W. PARKING LOT, 100'± N. OF S.W. CORNER OF LOT
ELEVATION: 848.39

BENCH MARK NO. 7
SET CHISELED "X" W. RIM OF SANITARY MANHOLE, 25' S. OF N.W. LOT, 100'± E. OF S.W. CORNER
ELEVATION: 846.87

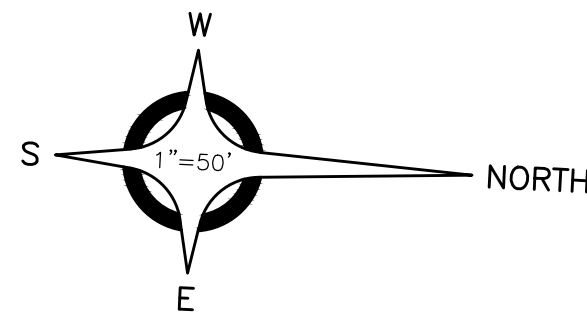
BENCH MARK NO. 8
TOP OF HYDRANT, N. SIDE OF W. SOUTH BLVD., 450'± E. OF PINE TRACE BLVD. ENTRANCE
ELEVATION: 863.65



J2025-0107
PSP2025-0006
Revision #2



CITY FILE #



BENCH MARKS (NAVD88 DATUM)

BENCH MARK NO. 1
CHISELED "X" N. RIM CATCH BASIN, 25'± S. OF ½ W. SOUTH BLVD., 100'± E. OF ½ PINE TRACE BLVD. ENTRANCE
ELEVATION: 861.06

BENCH MARK NO. 2 (REMOVED)
SET MAG NAIL, N.E. TOP OF CONCRETE LIGHT POLE BASE, W. SIDE PINE TRACE BLVD., 335'± N. OF ½ W. SOUTH BLVD.
ELEVATION: 849.78

BENCH MARK NO. 3 (REMOVED)
SET MAG NAIL, S.E. TOP OF CONCRETE LIGHT POLE BASE W. SIDE PINE TRACE BLVD ENTRANCE, 600'± N. OF ½ SOUTH BLVD.
ELEVATION: 840.67

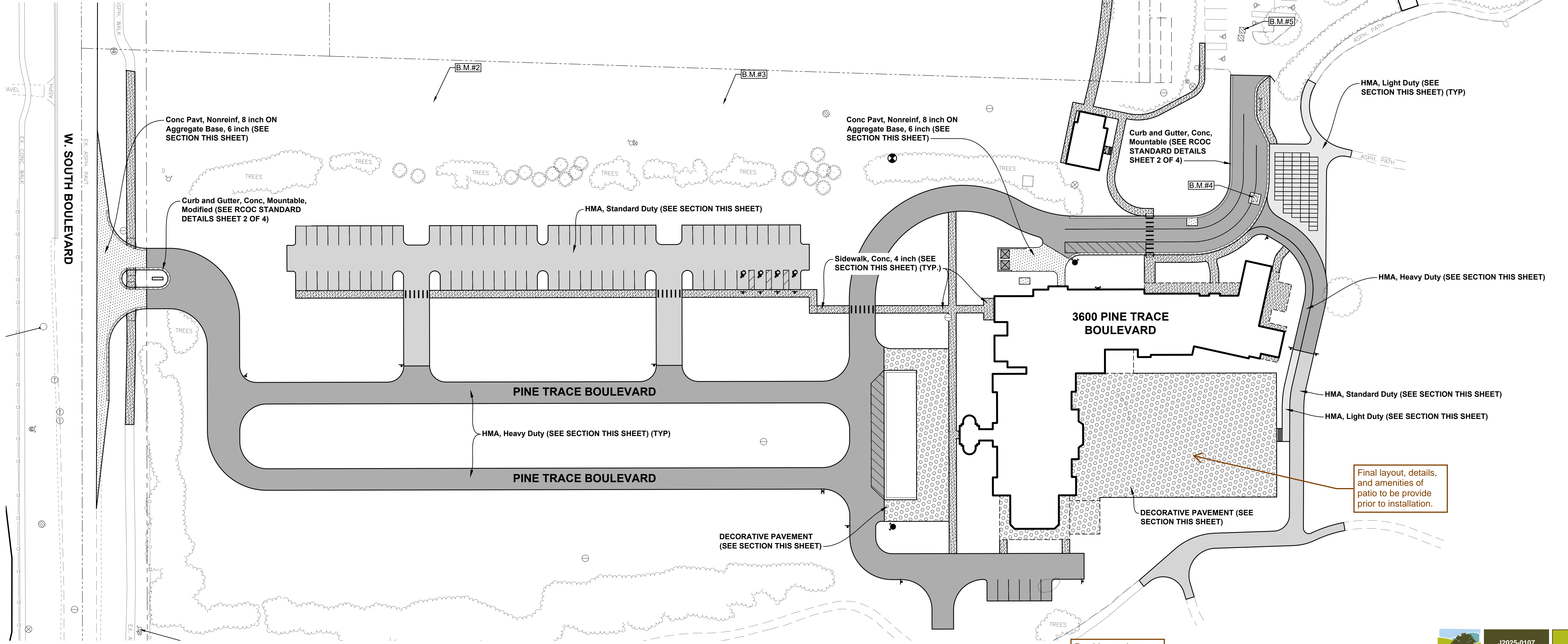
BENCH MARK NO. 4
CHISELED "X", S.W. RIM OF ROAD BASIN ON N. SIDE OF BAG DROP LOOP AT BAG DROP
ELEVATION: 834.07

BENCH MARK NO. 5
CHISELED "X", NW RIM OF ROAD BASIN, W. ROAD BASIN OF TWO @ S.E. CORNER OF N.W. PARKING LOT
ELEVATION: 838.24

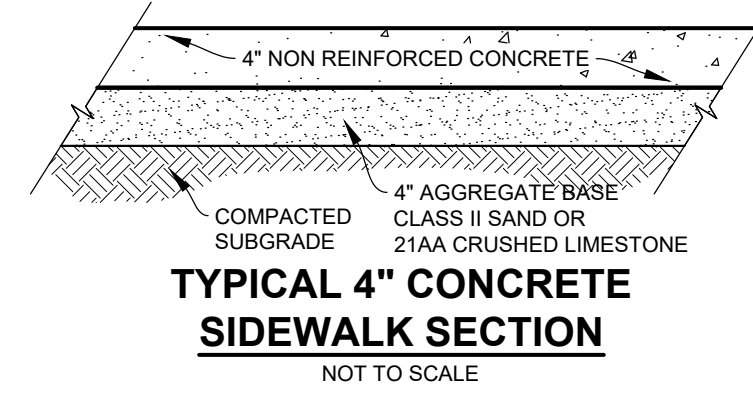
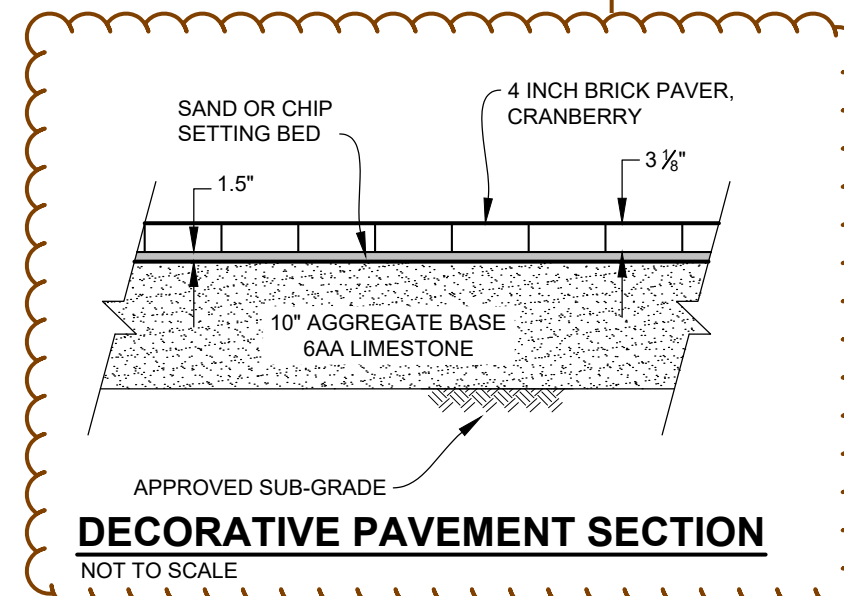
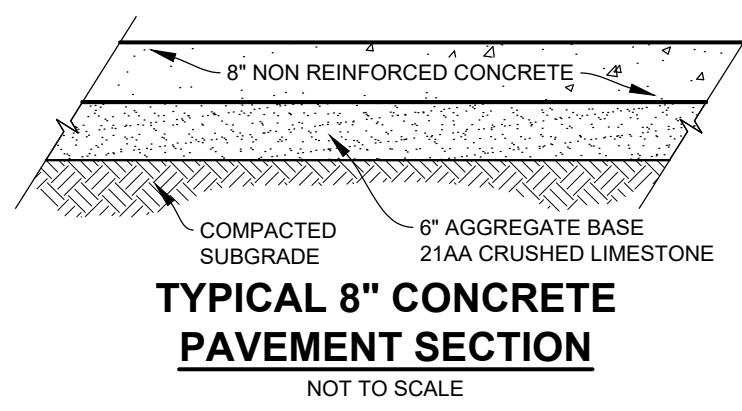
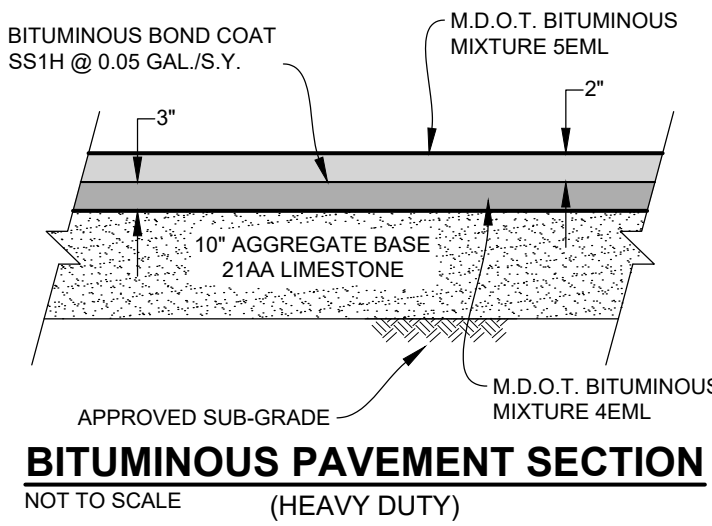
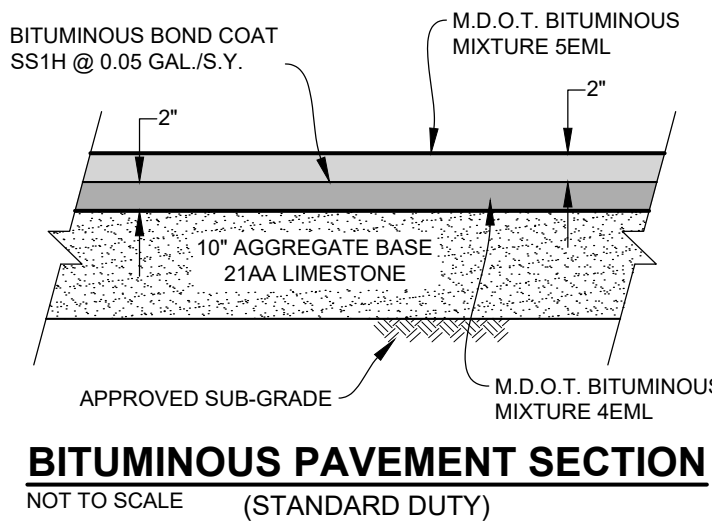
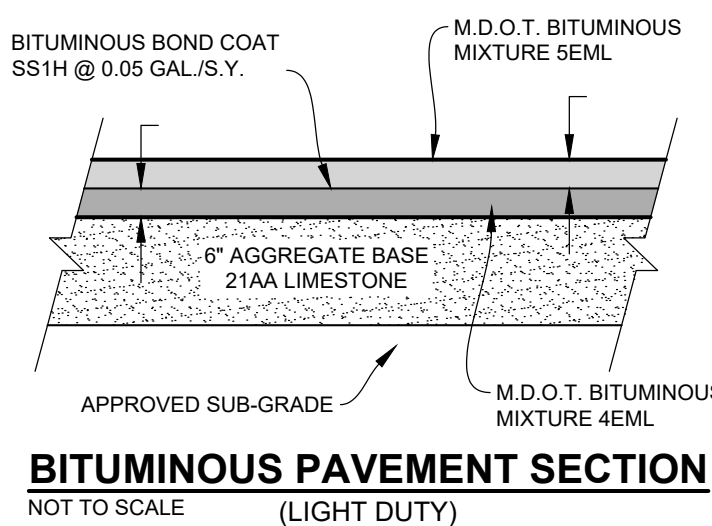
BENCH MARK NO. 6
SET MAG NAIL, EAST TOP OF CONCRETE LIGHT POLE BASE, W. SIDE N.W. PARKING LOT, 100'± N. OF S.W. CORNER OF LOT
ELEVATION: 848.39

BENCH MARK NO. 7
SET CHISELED "X" W. RIM OF SANITARY MANHOLE, 25' S. OF N.W. LOT, 100'± E. OF S.W. CORNER
ELEVATION: 846.87

BENCH MARK NO. 8
TOP OF HYDRANT, N. SIDE OF W. SOUTH BLVD., 450'± E. OF PINE TRACE BLVD. ENTRANCE
ELEVATION: 863.65



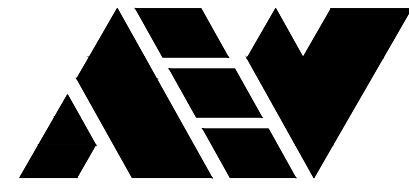
Provide cut sheet showing type of brick paver, color, layout, etc.



PAVING LEGEND

- LIGHT DUTY HMA PAVT.
- STANDARD DUTY HMA PAVT.
- HEAVY DUTY HMA PAVT.
- CONC. PAVT.
- CONC. SIDEWALK
- DECORATIVE PAVT.
- CONC. CURB AND GUTTER
- CONC. CURB AND GUTTER, MODIFIED

CITY FILE #



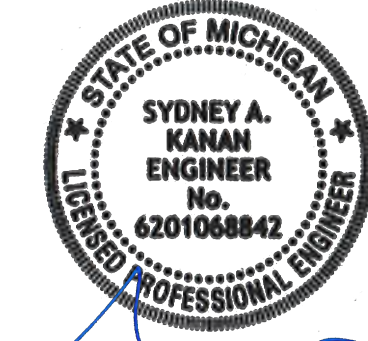
ANDERSON, ECKSTEIN AND
WESTRICK, INC.

CIVIL ENGINEERS SURVEYORS ARCHITECTS

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Shelby Township Fax 586 726 8780
Michigan 48315

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ENGINEERING STRONG COMMUNITIES



06/13/2025	Site Plan Submittal 3
05/09/2025	Site Plan Submittal 2
03/18/2025	Site Plan Submittal
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

PINE TRACE GOLF COURSE

SHEET TITLE:

PAVING PLAN

CLIENT:

PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE: 0 25 50 100	1" = 50'	



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

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

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

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PROJECT NO.

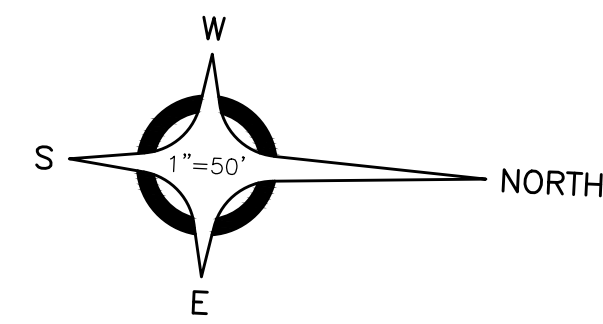
1530-0002

M:\1530\1530-0002\CADD\DRAWINGS\SITE PLAN\01_SITE PLAN PHASE 2.DWG
C9_Paving-6/13/2025 10:11:27 AM

SHEET NO.

C9

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NOTE:
SEE SHEET C11 FOR DETAILED
SIDEWALK RAMP GRADES

BENCH MARKS (NAVD88 DATUM)

BENCH MARK NO. 1
CHISELED "X" N. RIM CATCH BASIN, 25'± S. OF ½ W. SOUTH BLVD., 100'±
E. OF ½ PINE TRACE BLVD. ENTRANCE
ELEVATION: 861.06

BENCH MARK NO. 2 (REMOVED)
SET MAG NAIL, N.E. TOP OF CONCRETE LIGHT POLE BASE, W. SIDE
PINE TRACE BLVD., 335'± N. OF ½ W. SOUTH BLVD.
ELEVATION: 849.78

BENCH MARK NO. 3 (REMOVED)
SET MAG NAIL, S.E. TOP OF CONCRETE LIGHT POLE BASE W. SIDE
PINE TRACE BLVD ENTRANCE, 600'± N. OF ½ SOUTH BLVD.
ELEVATION: 840.67

BENCH MARK NO. 4
CHISELED "X", S.W. RIM OF ROAD BASIN ON N. SIDE OF BAG DROP
LOOP AT BAG DROP
ELEVATION: 834.07

BENCH MARK NO. 5
CHISELED "X", NW RIM OF ROAD BASIN, W. ROAD BASIN OF TWO @ S.E.
CORNER OF N.W. PARKING LOT
ELEVATION: 838.24

BENCH MARK NO. 6
SET MAG NAIL, EAST TOP OF CONCRETE LIGHT POLE BASE, W. SIDE
N.W. PARKING LOT, 100'± N. OF S.W. CORNER OF LOT
ELEVATION: 848.39

BENCH MARK NO. 7
SET CHISELED "X" W. RIM OF SANITARY MANHOLE, 25' S. OF N.W. LOT,
100'± E. OF S.W. CORNER
ELEVATION: 846.87

BENCH MARK NO. 8
TOP OF HYDRANT, N. SIDE OF W. SOUTH BLVD., 450'± E. OF PINE
TRACE BLVD. ENTRANCE
ELEVATION: 863.65

SEE CITY FILE #24-0209
FOR PHASE 1 GRADING

LIMITS OF GRADING

PINE TRACE BOULEVARD

PINE TRACE BOULEVARD

RETAINING WALL
(SEE DETAIL SHEET L201)

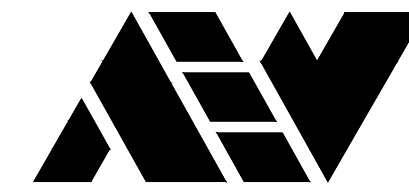
RETAINING WALLS
(SEE DETAIL SHEET L201)

RETAINING WALLS
(SEE DETAIL SHEET L201)

GRADING LEGEND

- LIGHT DUTY HMA PAVT.
- STANDARD DUTY HMA PAVT.
- HEAVY DUTY HMA PAVT.
- CONC. PAVT.
- CONC. SIDEWALK
- DECORATIVE PAVT.
- CONC. CURB AND GUTTER
- CONC. CURB AND GUTTER, MODIFIED
- PROPOSED GRADE
- FLOW ARROW
- EXIST. GRADE
- T/C TOP CONC. CURB
- T/W TOP CONC. WALK
- G. TOP CONC. GUTTER
- T/P TOP PAVEMENT
- HIGH-POINT RIDGELINE
- LOW-POINT RIDGE LINE
- SWALE

CITY FILE #



ANDERSON, ECKSTEIN AND
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CIVIL ENGINEERS SURVEYORS ARCHITECTS

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

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ENGINEERING STRONG COMMUNITIES



06/13/2025	Site Plan Submittal 3
05/09/2025	Site Plan Submittal 2
03/18/2025	Site Plan Submittal 1
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	

PINE TRACE GOLF COURSE

SHEET TITLE:

OVERALL GRADING PLAN

CLIENT:

PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE: 1" = 50'		



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

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

PROJECT NO.

1530-0002

M:\1530\1530-0002\CADD\DRAWINGS\SITE PLAN\01_SITEPLAN PHASE 2.DWG
C10 Grading-6/13/2025 10:11:48 AM

SHEET NO.

C10

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J2025-0107
PSP2025-0006
Revision #2

Received
6/13/2025
City of Rochester Hills
Planning & Economic
Development



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CIVIL ENGINEERS SURVEYORS ARCHITECTS

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Michigan 48315

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ENGINEERING STRONG COMMUNITIES



06/13/2025 05/09/2025	Site Plan Submittal 3 Site Plan Submittal 2
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

PINE TRACE GOLF COURSE

SHEET TITLE:

DETAILED GRADES

CLIENT:

PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE: 1" = 10' 0 5 10 20		



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

PROJECT NO.

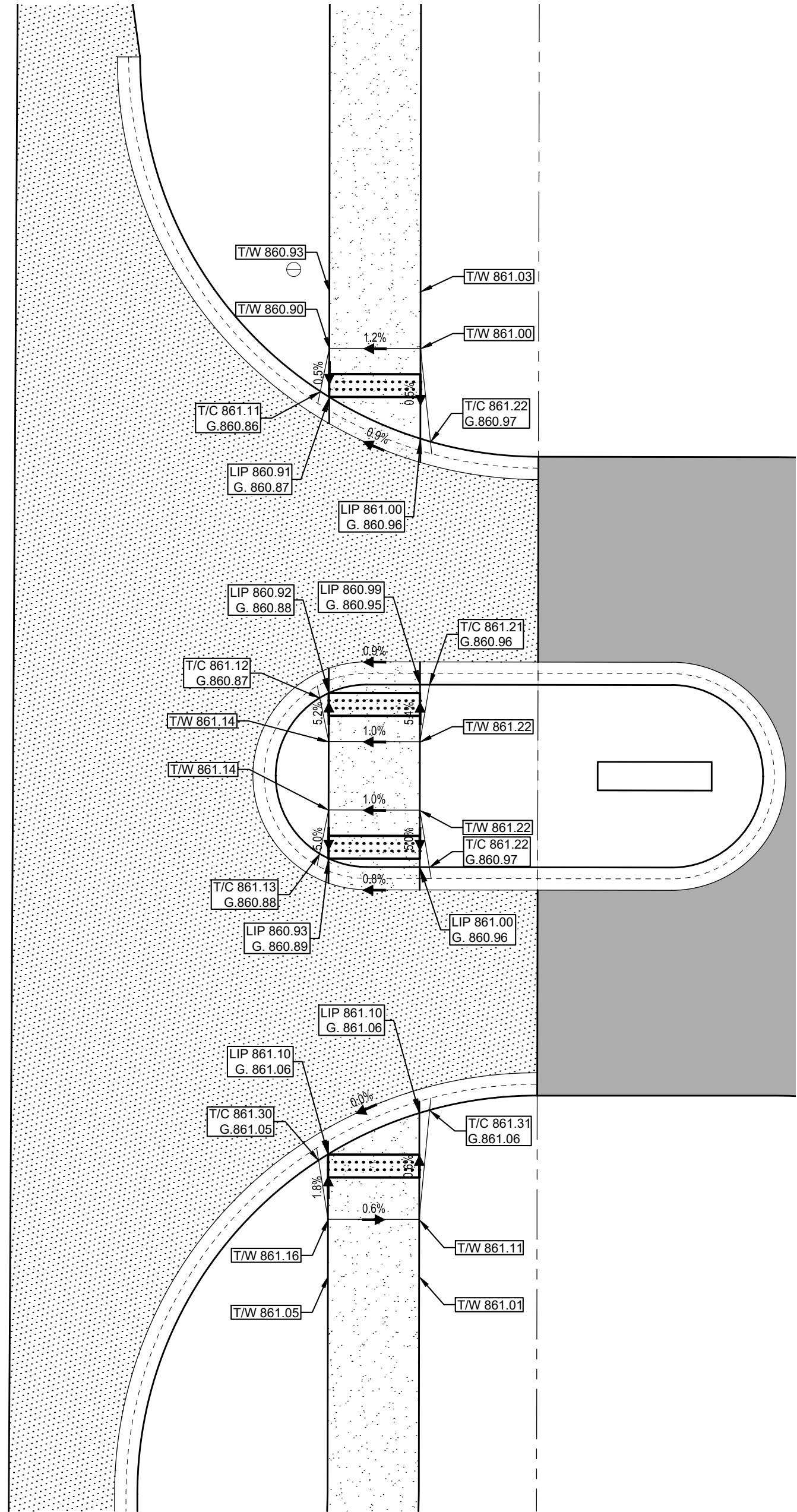
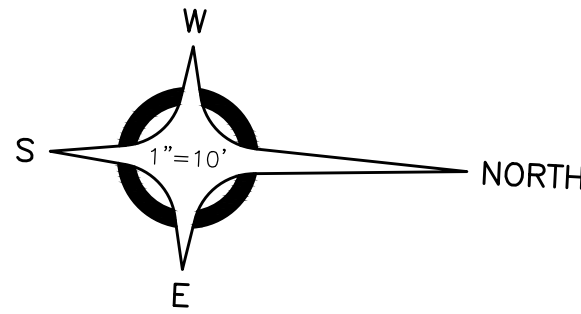
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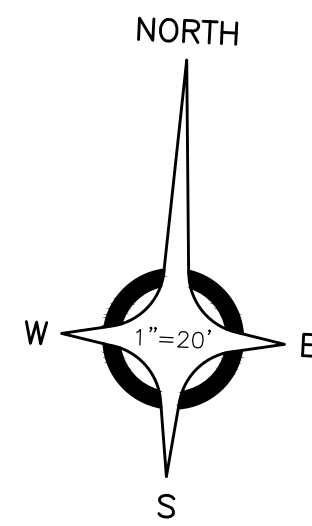
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SHEET NO.

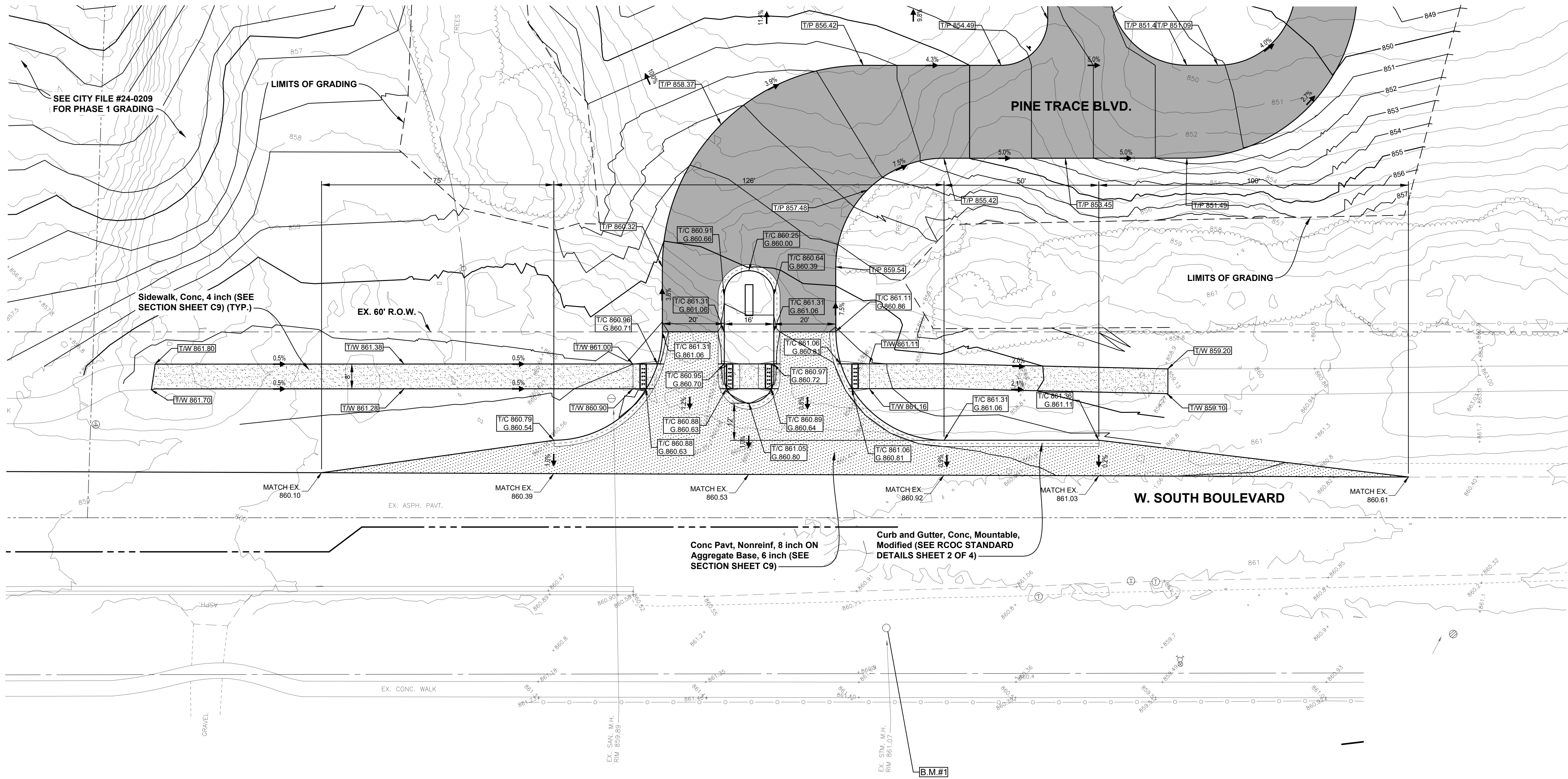
C11

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NOTE:
WORK IN SOUTH BOULEVARD ROW
REQUIRES RCOC PERMIT.
ALL WORK SHALL BE CONSTRUCTED IN
ACCORDANCE WITH RCOC STANDARD
DETAILS FOR PAVING



BENCH MARKS (NAVD88 DATUM)

- BENCH MARK NO. 1
CHISELED "X" N. RIM CATCH
BASIN, 25± S. OF E. W. SOUTH
BLVD., 100± E. OF E. PINE
TRACE BLVD. ENTRANCE
ELEVATION: 861.06
- BENCH MARK NO. 2 (REMOVED)
SET MAG NAIL, N.E. TOP OF
CONCRETE LIGHT POLE BASE,
W. SIDE PINE TRACE BLVD.,
335± N. OF E. W. SOUTH BLVD.
ELEVATION: 849.78
- BENCH MARK NO. 3 (REMOVED)
SET MAG NAIL, S.E. TOP OF
CONCRETE LIGHT POLE BASE
W. SIDE PINE TRACE BLVD
ENTRANCE, 600± N. OF E.
SOUTH BLVD.
ELEVATION: 840.67
- BENCH MARK NO. 4
CHISELED "X", S.W. RIM OF
ROAD BASIN ON N. SIDE OF
BAG DROP LOOP AT BAG DROP
ELEVATION: 834.07
- BENCH MARK NO. 5
CHISELED "X", NW RIM OF
ROAD BASIN, W. ROAD BASIN
OF TWO @ S.E. CORNER OF
N.W. PARKING LOT
ELEVATION: 838.24
- BENCH MARK NO. 6
SET MAG NAIL, EAST TOP OF
CONCRETE LIGHT POLE BASE,
W. SIDE N.W. PARKING LOT,
100± N. OF S.W. CORNER OF
LOT
ELEVATION: 848.39
- BENCH MARK NO. 7
SET CHISELED "X" W. RIM OF
SANITARY MANHOLE, 25± S. OF
N.W. LOT, 100± E. OF S.W.
CORNER
ELEVATION: 846.87
- BENCH MARK NO. 8
TOP OF HYDRANT, N. SIDE OF
W. SOUTH BLVD., 450± E. OF
PINE TRACE BLVD. ENTRANCE
ELEVATION: 863.65

PAVING & GRADING LEGEND

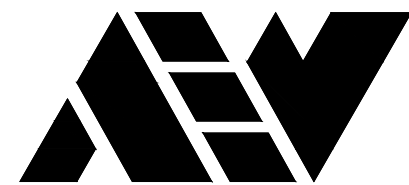
- CONCRETE PAVEMENT, 8 INCH
- CURB AND GUTTER, MOUNTABLE
- PROPOSED GRADE
- FLOW ARROW
- EXIST. GRADE
- PAVEMENT ELEVATION
- TOP CONC. WALK
- CENTER LINE OF SWALE
- HIGH POINT RIDGE LINE
- LOW POINT RIDGE LINE



J2025-0107
PSP2025-0006
Revision #2

Received
6/13/2025
City of Rochester Hills
Planning & Economic
Development

CITY FILE #



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Shelby Township Fax 586 726 8780
Michigan 48315

www.aewinc.com

ENGINEERING STRONG COMMUNITIES



06/13/2025	Site Plan Submittal 3
05/09/2025	Site Plan Submittal 2
03/18/2025	Site Plan Submittal
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

PINE TRACE GOLF COURSE

SHEET TITLE:

ENTRANCE PLAN

CLIENT:

PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE: 1" = 20' 0 10 20 40		



UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE
LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS
DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE
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THAT UTILITY).

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

PROJECT NO.

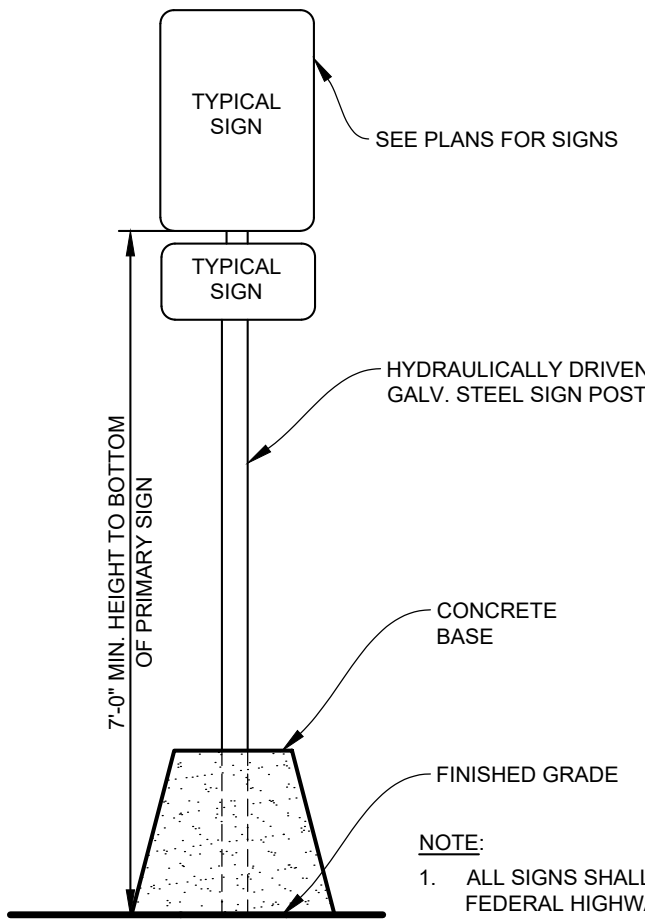
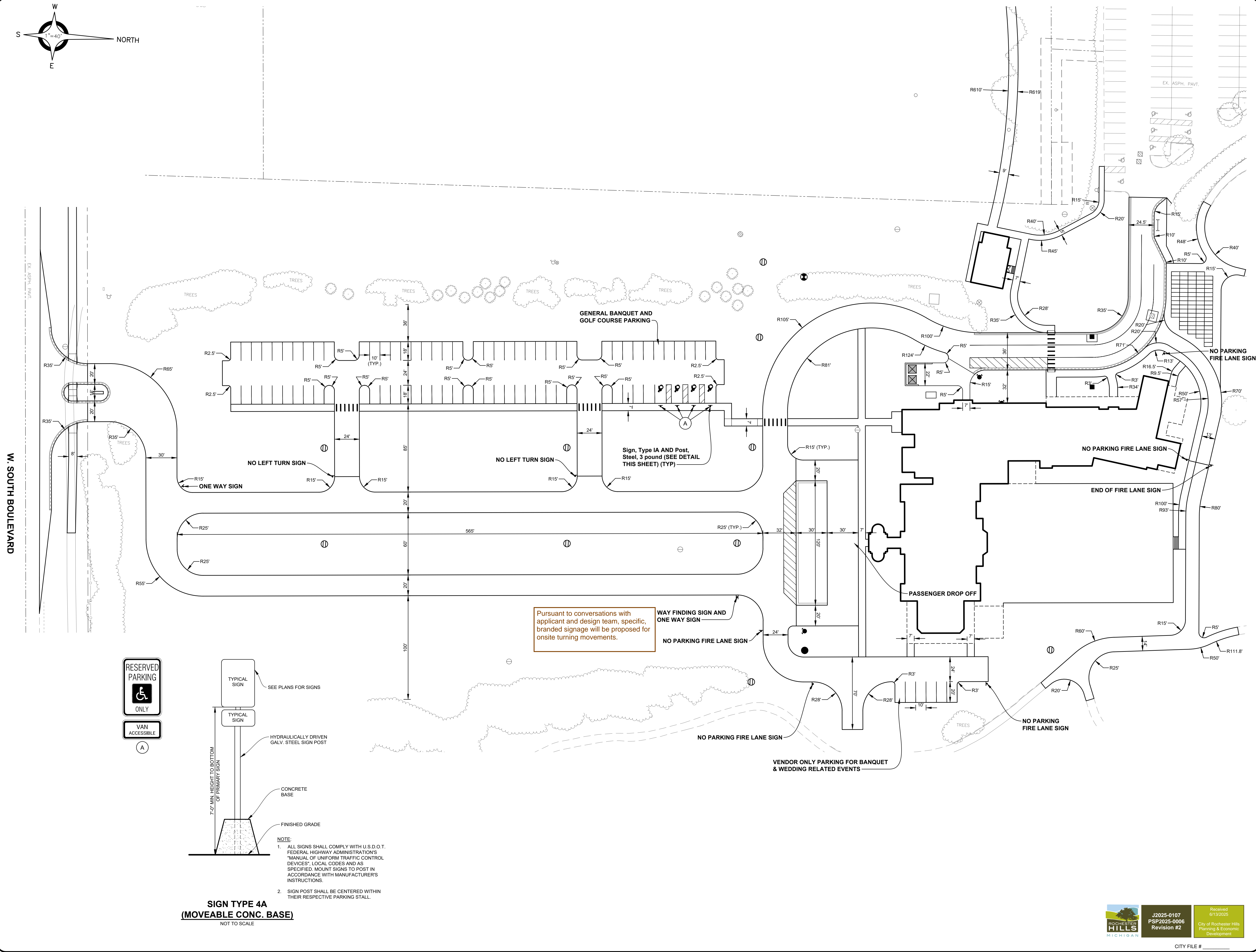
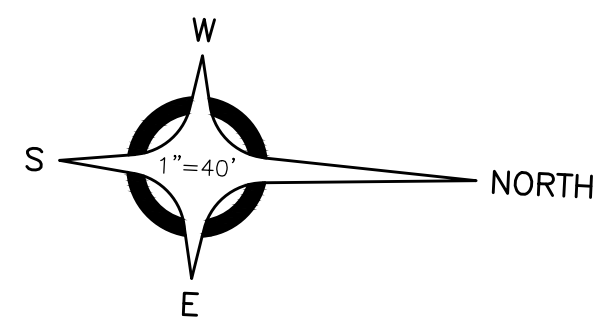
1530-0002

M:\1530\1530-0002\CADD\DRAWINGS\SITE PLAN\01_SITEPLAN PHASE 2.DWG
C12 Entrance-01/13/2025 10:13:07 AM

SHEET NO.

C12

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**SIGN TYPE 4A
(MOVEABLE CONC. BASE)**
NOT TO SCALE

- NOTE:**
1. ALL SIGNS SHALL COMPLY WITH U.S.D.O.T. FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 2. SIGN POST SHALL BE CENTERED WITHIN THEIR RESPECTIVE PARKING STALL.



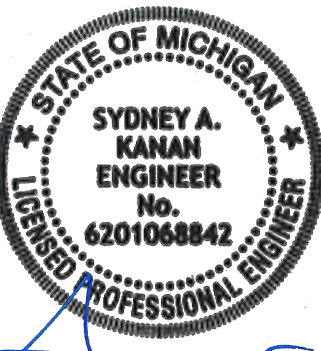
**ANDERSON, ECKSTEIN AND
WESTRICK, INC.**

CIVIL ENGINEERS SURVEYORS ARCHITECTS

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

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ENGINEERING STRONG COMMUNITIES



06/13/2025	Site Plan Submittal 3
05/09/2025	Site Plan Submittal 2
03/18/2025	Site Plan Submittal
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

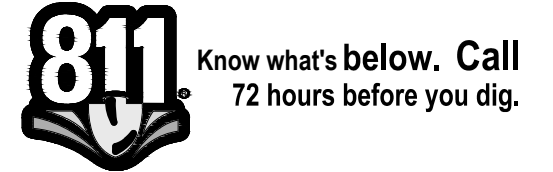
PINE TRACE GOLF COURSE

SHEET TITLE:

GEOMETRICS, STRIPING & SIGNAGE PLAN

CLIENT:
PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE: 1" = 40'		



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PROJECT NO.
1530-0002

M:\1530\1530-0002\CADD\DRAWINGS\SITE PLAN\1 SITE PLAN PHASE 2.DWG
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SHEET NO.

C13

CITY FILE #

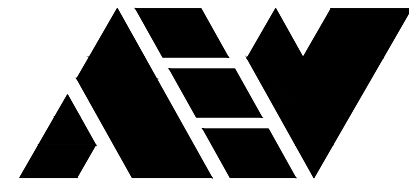
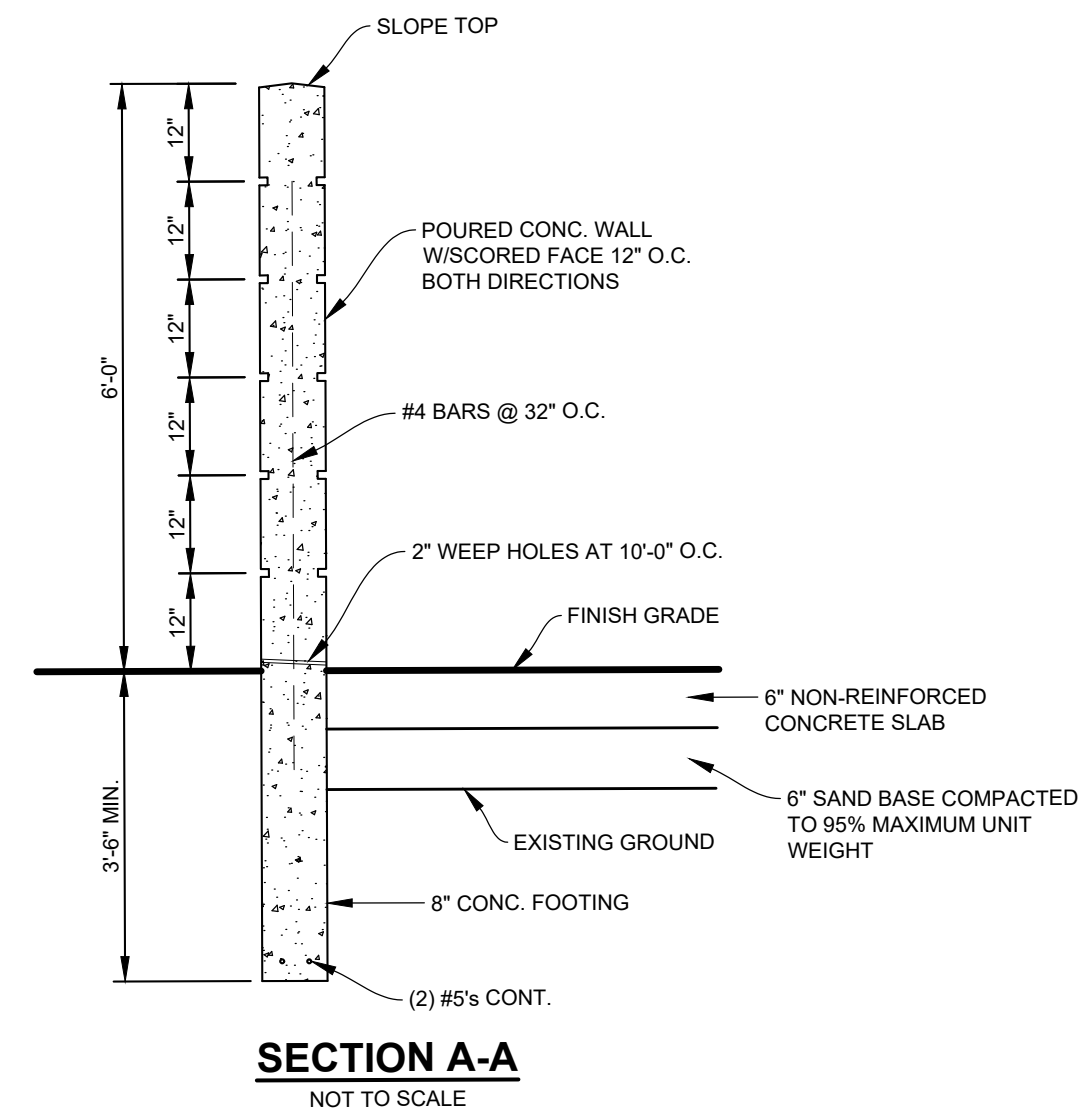
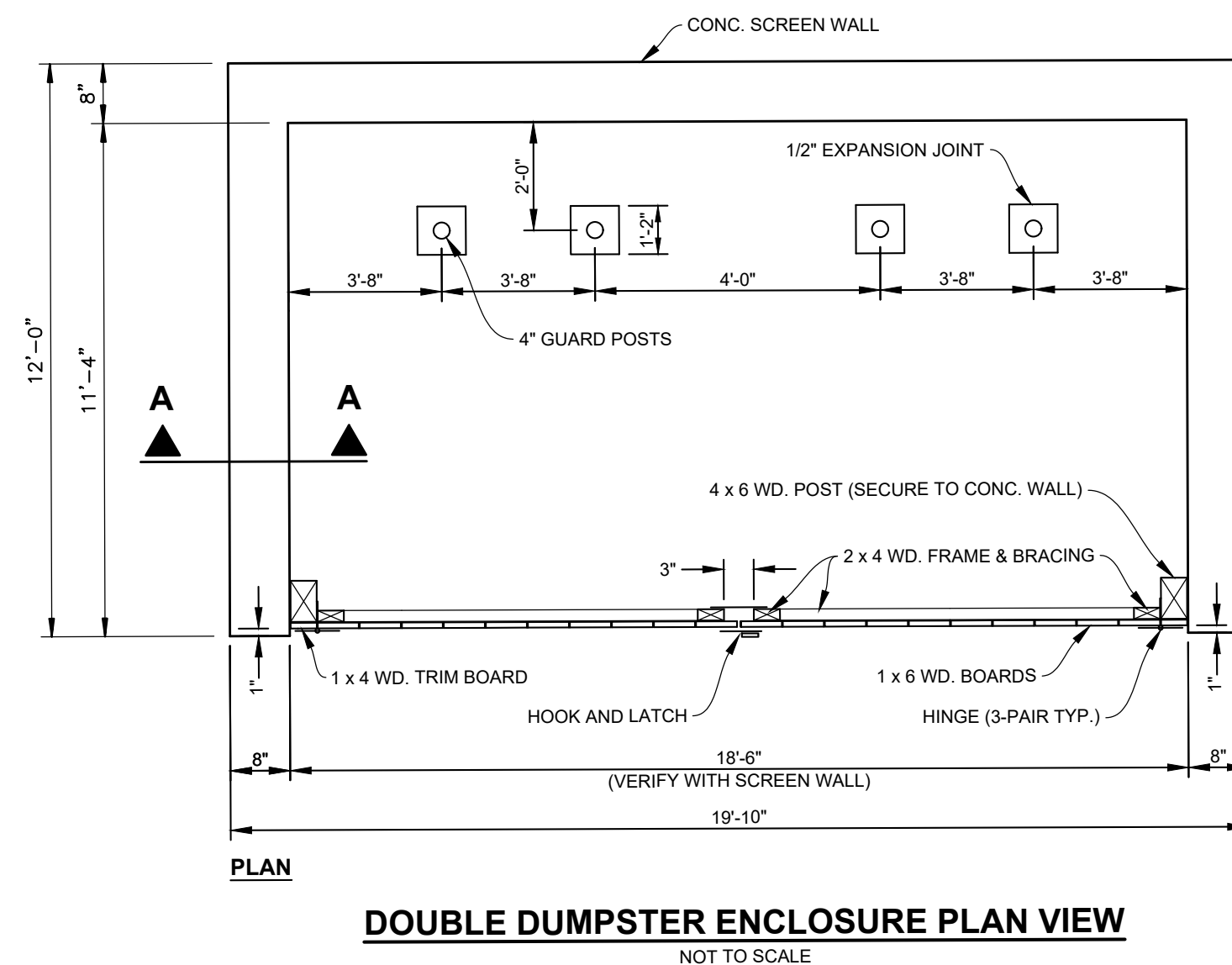
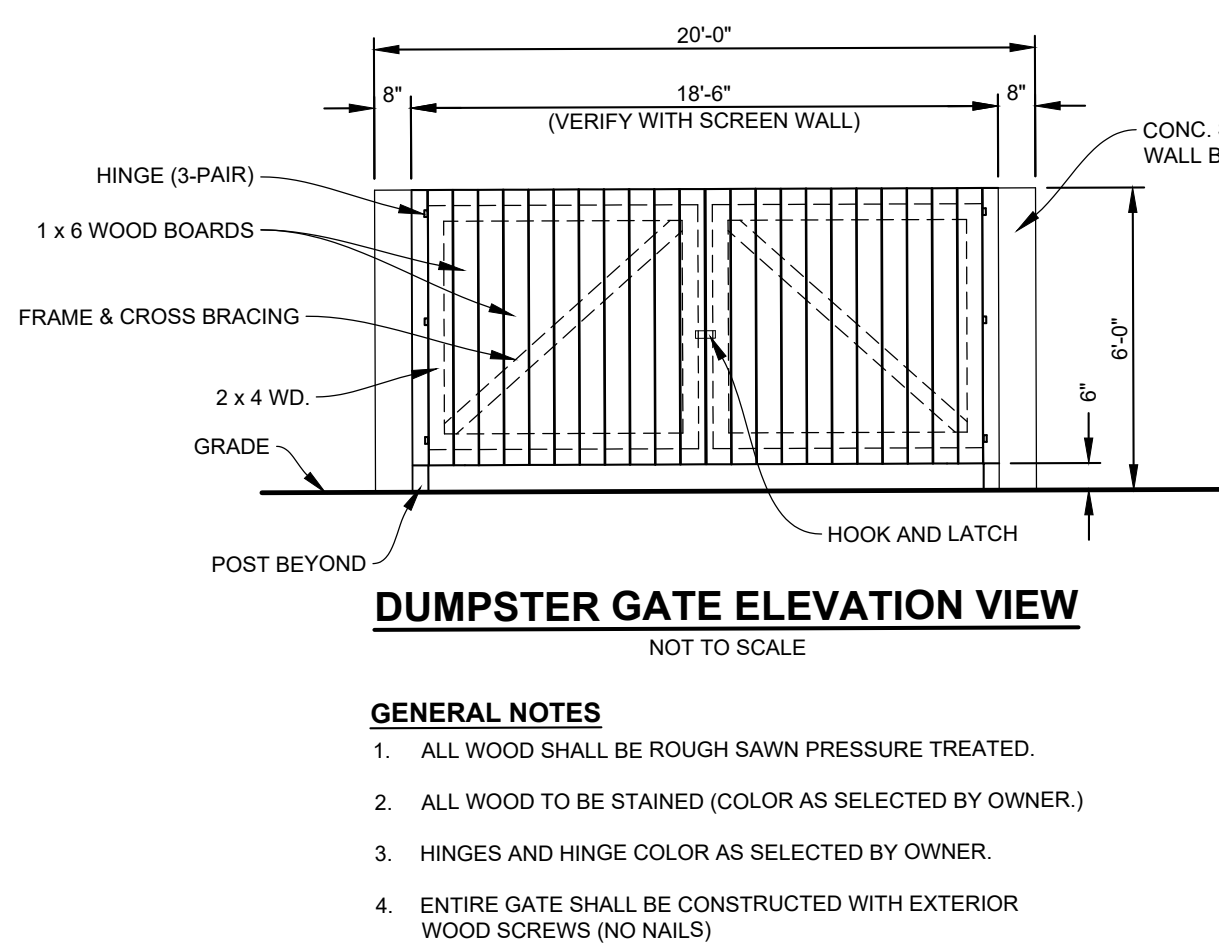
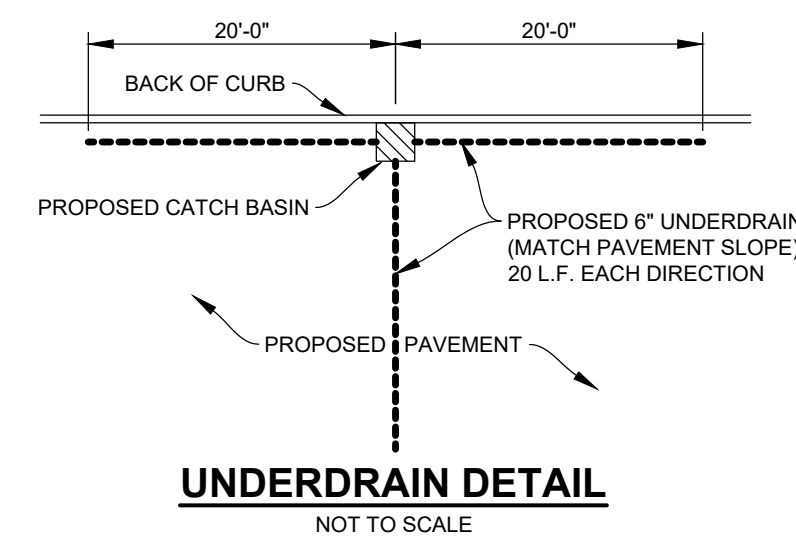
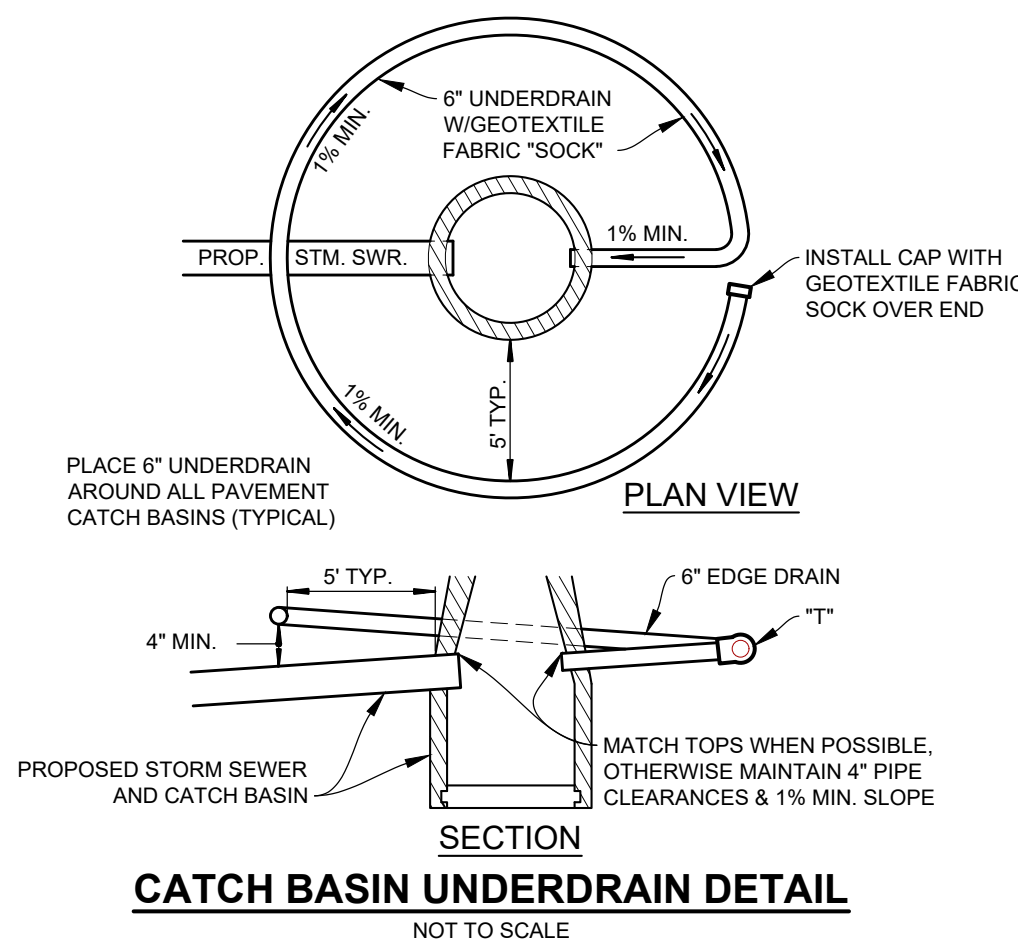
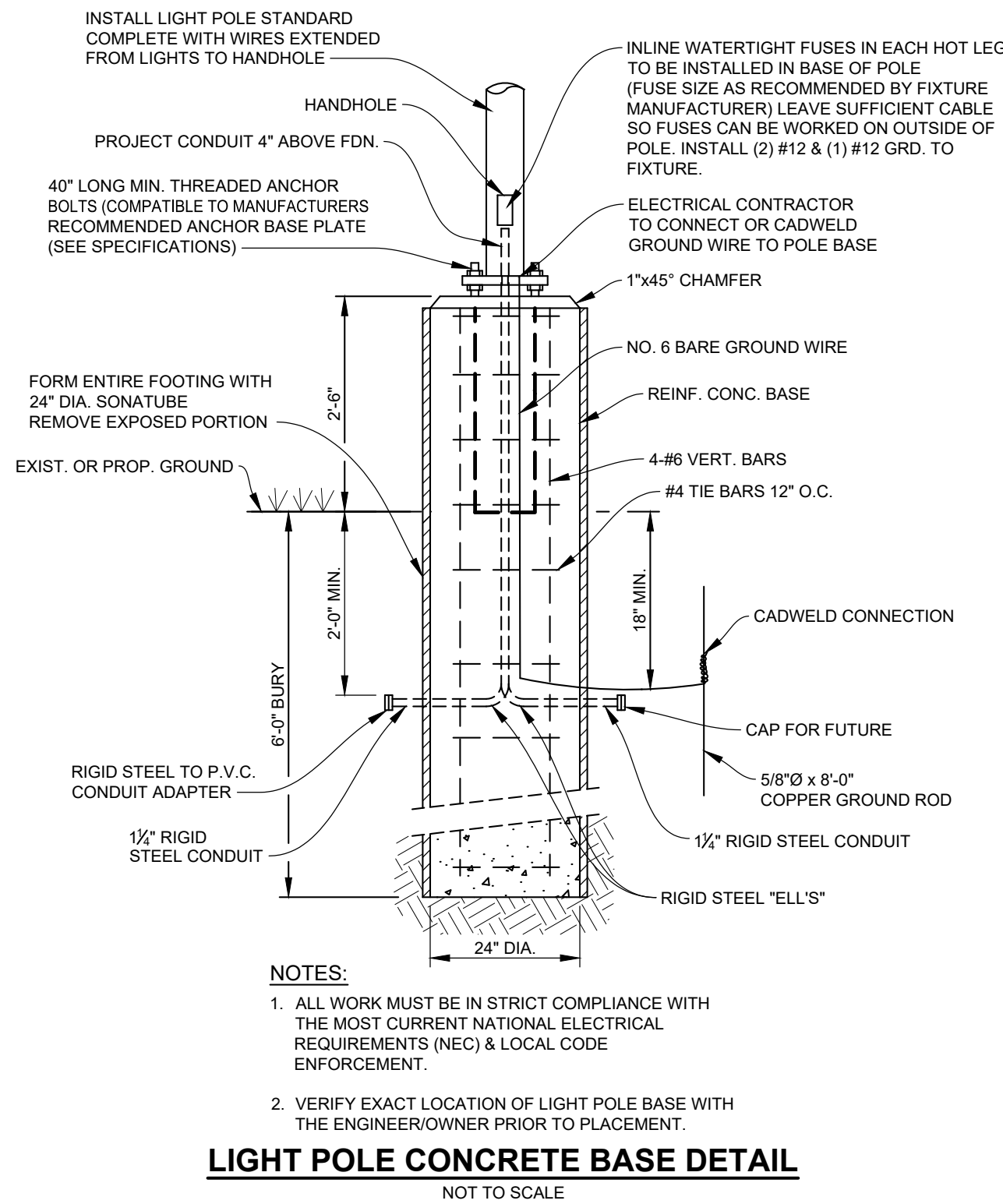
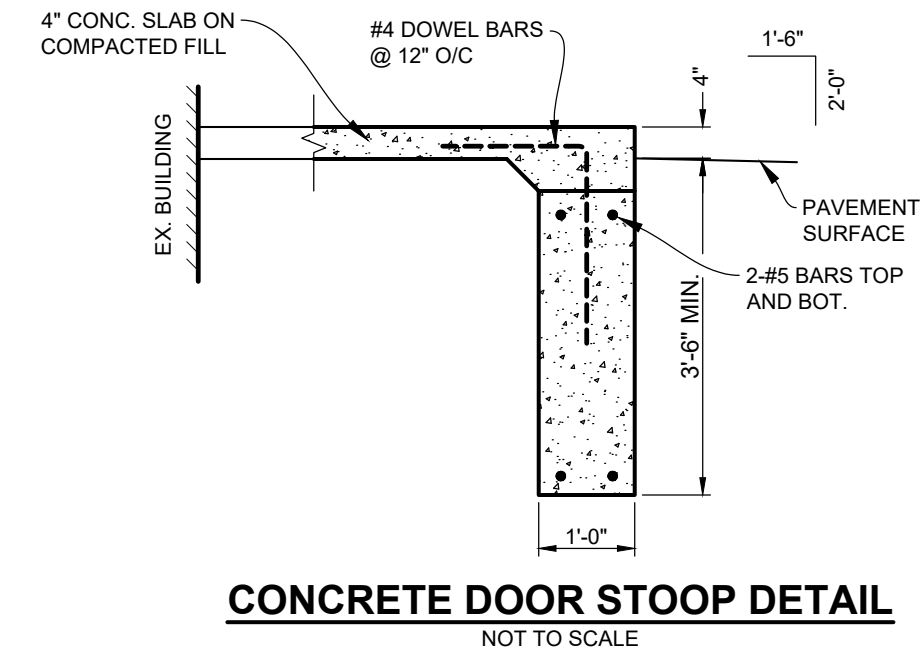
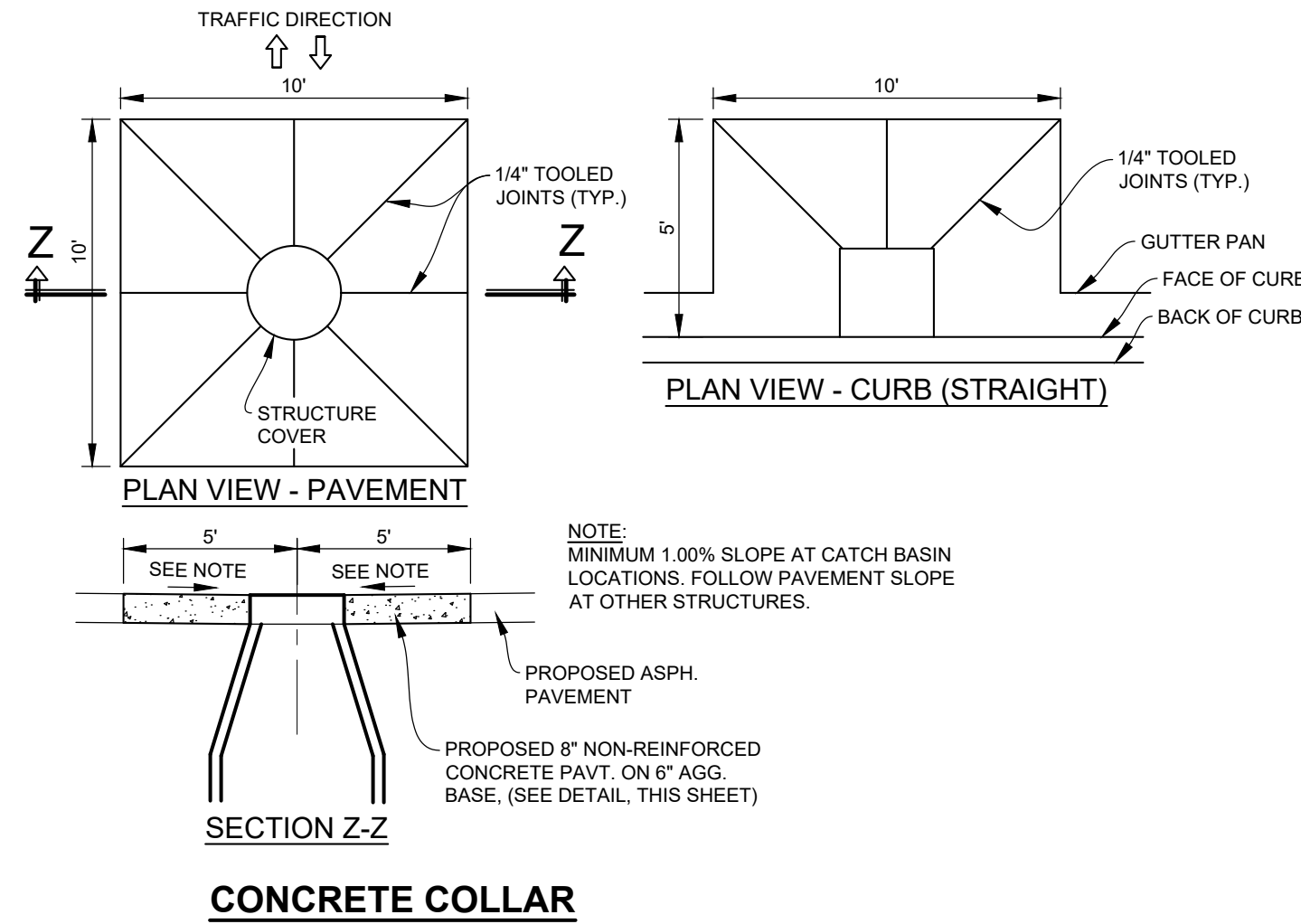
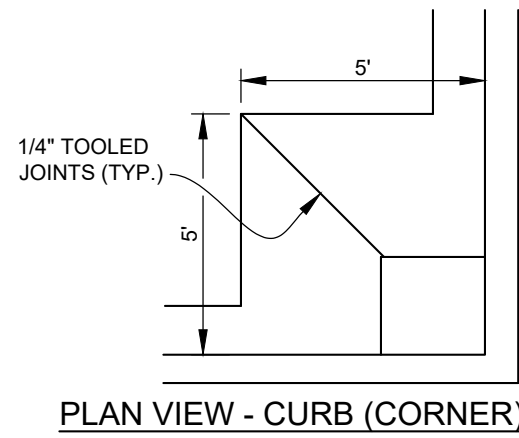


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Revision #2

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6/13/2025
City of Rochester Hills
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GENERAL CONSTRUCTION NOTES:

- THE CONTRACTOR AT ALL TIMES SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS DURING CONSTRUCTION OF THIS PROJECT. SPECIAL CARE SHALL BE TAKEN DURING ALL TRENCHING OPERATIONS. SHEETING AND BRACING, CRIBBING, ETC., MUST BE INSTALLED AS REQUIRED TO PROVIDE MAXIMUM SAFETY TO THE CONTRACTOR'S WORKERS IN FULL COMPLIANCE WITH OSHA REGULATIONS.
- ALL CONSTRUCTION SHALL BE CONDUCTED SUCH THAT THERE WILL BE MINIMAL INTERFERENCE WITH STREETS, DRIVES OR WALKS. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF TRAFFIC. DO NOT CLOSE OR OBSTRUCT STREETS, DRIVES OR WALKS OR USER FACILITIES WITHOUT PERMISSION FROM THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL KEEP EXISTING STREETS, ROADS AND DRIVES CLEAR OF DIRT, DEBRIS AND EQUIPMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING AND FOR DEWATERING TO ACCOMPLISH ALL WORK INDICATED ON PLANS AND TO PERFORM REQUIRED COMPACTION OPERATIONS.
- REVIEW CONSTRUCTION AND PROVIDE TRAFFIC SEQUENCE AND SCHEDULE AT THE PRECONSTRUCTION MEETING WITH OWNER.
- THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE ENGINEER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO CONSTRUCTION. ANY CONFLICT BETWEEN DRAWINGS AND THE SPECIFICATIONS SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO BIDDING.
- THE CONTRACTOR SHALL ABIDE BY ALL OSHA, FEDERAL, STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT THE POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS.
- THE OWNER AT ITS DISCRETION RESERVES THE RIGHT TO MODIFY THE DETAILS AND STANDARDS OF CONSTRUCTION FOR ALL PRIVATE FACILITIES FROM THAT INDICATED ON THE APPROVED PLAN, PROVIDED THAT THE ALTERNATE STANDARD COMPLIES WITH LOCAL CODE AND/OR UTILITY COMPANY REQUIREMENTS AND THE GENERAL DESIGN INTENT OF THE PROJECT IS NOT COMPROMISED.
- CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS AT ALL TIMES UNLESS WRITTEN APPROVAL FROM THE STATE DOT, LOCAL MUNICIPALITY, COUNTY, OR OTHER GOVERNING AUTHORITY IS RECEIVED.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER SHOULD ANY DISCREPANCY REGARDING THE PROPOSED WORK OR UNFORESEEN CONDITIONS ARISE PRIOR TO PROCEEDING FURTHER WITH THE AFFECTED WORK.
- THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE ENGINEER AND OWNER FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES.
- ALL PAVING AND AGGREGATE MATERIALS AND WORK COMPLETED SHALL BE IN STRICT ACCORDANCE WITH THE STATE DOT SPECIFICATIONS AND STANDARD DETAILS UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS FOR BUILDING, WALLS, CONCRETE SLABS, AND UTILITY SERVICE POINT CONNECTIONS AND NOTIFYING THE OWNER AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS AND MATERIALS TO THE OWNER AND LOCAL UTILITY COMPANIES AS REQUIRED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 7 DAYS FOR REVIEW.
- THE CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND CONSTRUCTION DETAILS OF BUILDING, CANOPY, AND UTILITY CONNECTIONS.
- TRAFFIC CONTROL SIGNAGE SHALL CONFORM TO THE STATE DOT STANDARD DETAIL SHEETS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SIGNS SHALL BE INSTALLED PLUMB.
- FIRE LANES SHALL BE ESTABLISHED AND PROPERLY DESIGNATED IN ACCORDANCE WITH THE LOCAL MUNICIPALITY AND LOCAL FIRE DEPARTMENT REQUIREMENTS.
- THE CONTRACTOR SHALL REMOVE CONFLICTING PAVEMENT MARKINGS IN A METHOD APPROVED BY THE STATE DOT.
- AGGREGATES AND BITUMINOUS PAVEMENT MATERIAL AND INSTALLATION SPECIFICATIONS SHALL BE IN ACCORDANCE WITH STATE DOT SPECS. THE CONTRACTOR SHALL SUBMIT AGGREGATE SIEVE ANALYSIS AND A JOB-MIX FORMULA FOR THE BITUMINOUS PAVEMENT TO THE CONSTRUCTION MANAGER FOR REVIEW AND APPROVAL AT LEAST 14 DAYS PRIOR TO THE PLACEMENT OF BITUMINOUS PAVEMENTS.
- ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, ENGINEER, AND APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUTS AND SURVEYS REQUIRED TO PERFORM CONSTRUCTION. CADD FILE INFORMATION IS PROVIDED FOR REFERENCE ONLY.
- PROVIDE ADEQUATE BARRICADES AT DRIVES, ENTRANCES, EXCAVATIONS AND OTHER OPENINGS TO KEEP OUT UNAUTHORIZED PERSONS AND FOR PUBLIC SAFETY AND TRAFFIC CONTROL. SAFETY PROVISIONS OF APPLICABLE LAWS SHALL BE OBSERVED AT ALL TIMES. BARRICADES LEFT IN PLACE AT NIGHT SHALL BE LIGHTED.
- NO EQUIPMENT OR MATERIAL STORAGE IS PERMITTED WITHIN THE ROAD RIGHT-OF-WAY.
- CONTRACTOR'S MANNER AND METHOD OF INGRESS AND EGRESS WITH RESPECT TO THE PROJECT AREA SHALL IN NO WAY PROHIBIT OR DISTURB NORMAL PEDESTRIAN OR VEHICULAR TRAFFIC IN THE VICINITY AND IS SUBJECT TO REGULATION AND WRITTEN APPROVAL OF APPROPRIATE GOVERNING AGENCIES.
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH A.D.A. REGULATIONS AS APPLICABLE.



ANDERSON, ECKSTEIN AND
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CIVIL ENGINEERS SURVEYORS ARCHITECTS

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

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ENGINEERING STRONG COMMUNITIES



PROJECT NAME:	
PINE TRACE GOLF COURSE	
SHEET TITLE:	
CONSTRUCTION DETAILS	
CLIENT:	
PINE TRACE GOLF COURSE	
DRAWN BY: PRELIMINARY	
CHECKED BY: CONSTRUCTION	
DATE: 6/13/2025	
SCALE: CBR	
N/A	
811 Know what's below. Call 72 hours before you dig.	
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PROJECT NO. 1530-0002	
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SHEET NO.	

PINE TRACE GOLF COURSE

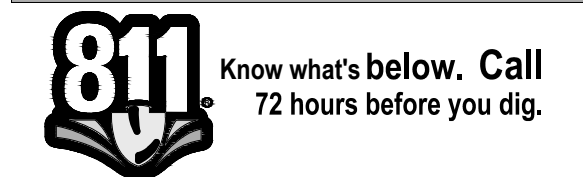
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CONSTRUCTION
DETAILS

CLIENT:

PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE: N/A		
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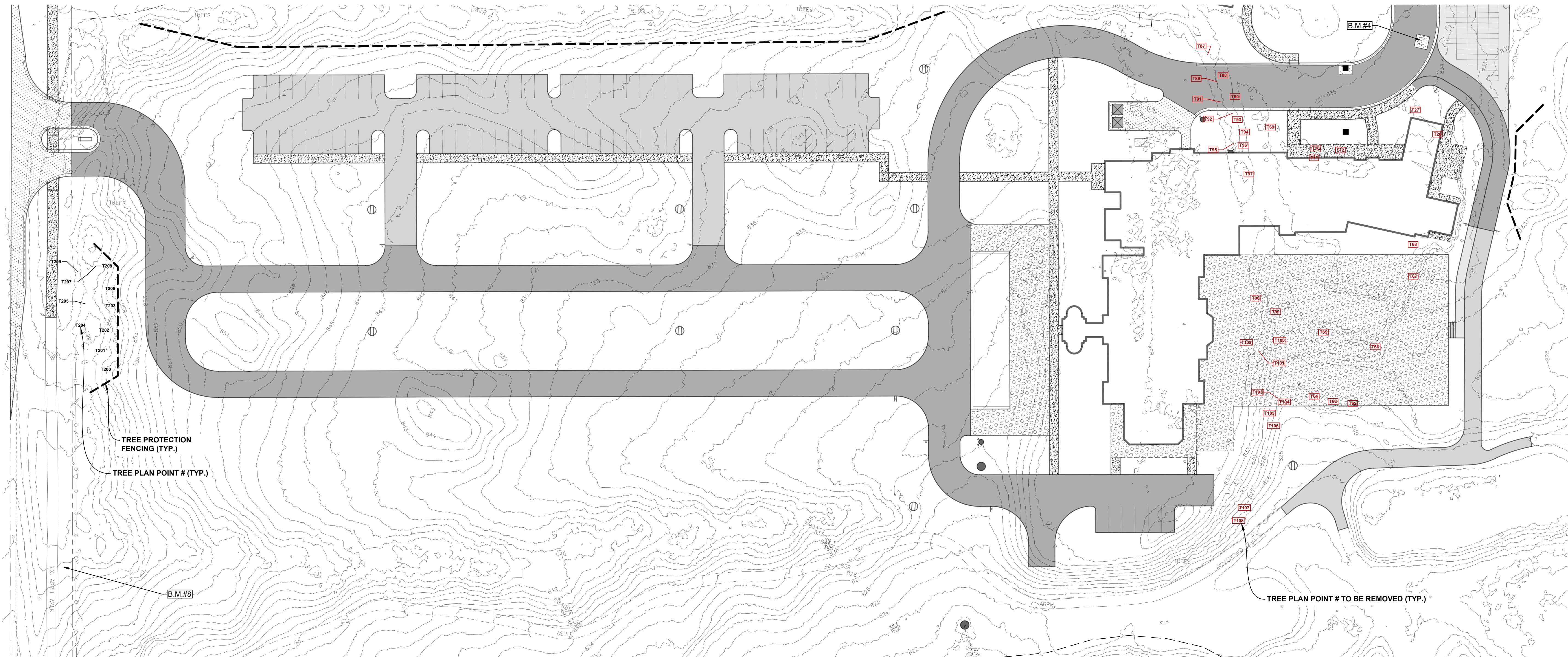
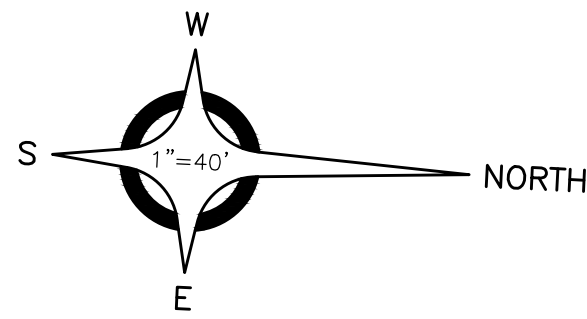


J2025-0107
PSP-2025-0006
Revision #2

Received
6/13/2025
City of Rochester Hills
Planning & Economic
Development

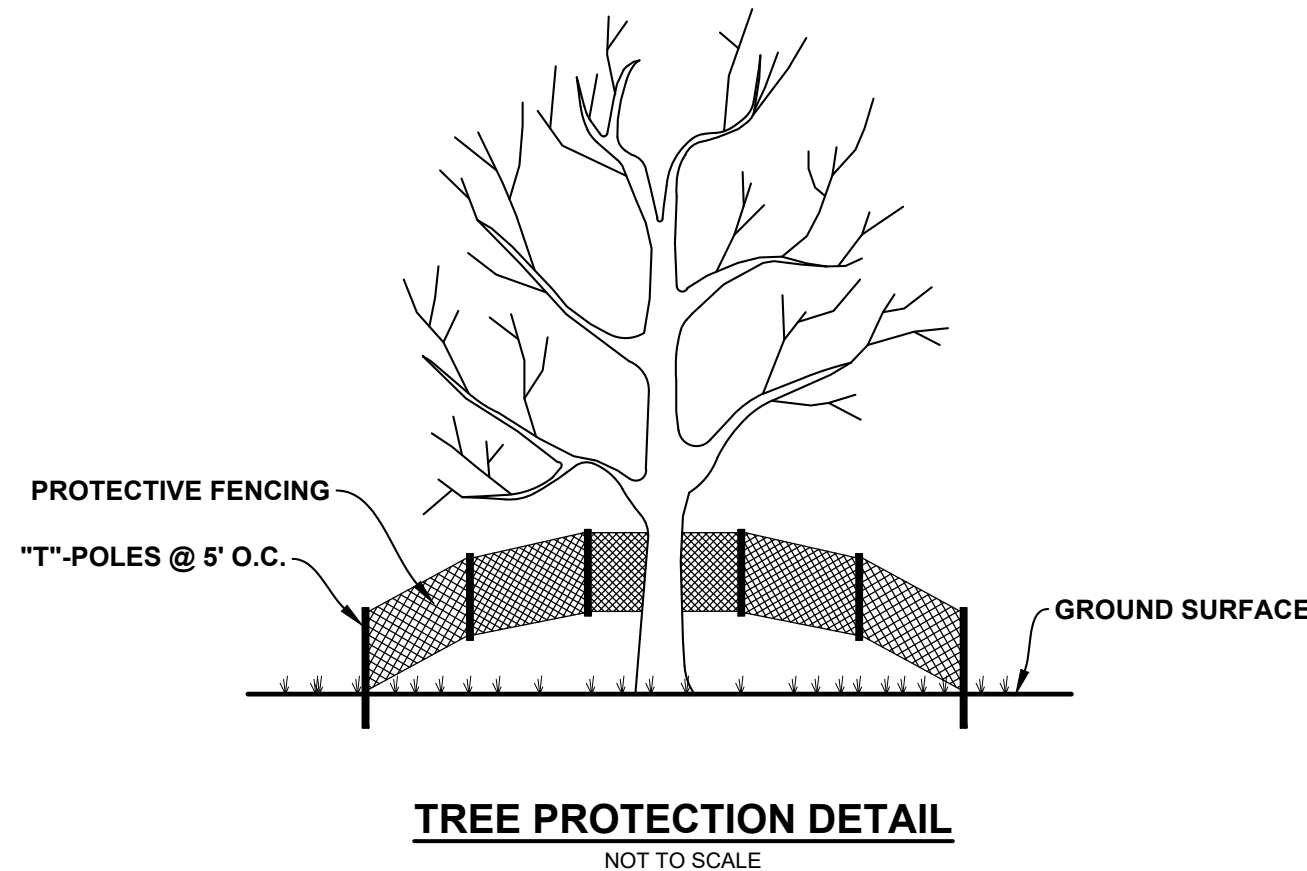
C14

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NOTES:

1. EITHER PLASTIC OR WOOD ORANGE SNOW FENCING SHALL BE INSTALLED AT OR BEYOND THE DRIPLINE, UNLESS MORE SUBSTANTIAL FENCING IS REQUIRED.
2. STAKES SHALL BE METAL "T" POLES SPECED NO FURTHER THAN 5' ON CENTER.
3. FENCING SHALL NOT BE INSTALLED CLOSER TO THE TREE THAN THE CRITICAL ROOT ZONE OF THOSE TREES TO BE SAVED. THE CRITICAL ROOT ZONE IS DEFINED AS A CIRCLE WITH 1 FOOT RADIUS FOR EACH 1 INCH D.B.H. FOR THE TREE. SPECIAL CIRCUMSTANCES SHALL BE REVIEWED BY THE CITY.
4. FENCING SHALL BE ERECTED PRIOR TO CONSTRUCTION. THE CITY SHALL BE NOTIFIED ONCE THE FENCING IS INSTALLED FOR INSPECTION.
5. UNDER NO CIRCUMSTANCES SHALL THE PROTECTIVE FENCING BE REMOVED WITHOUT PROPER APPROVAL FROM THE CITY.
6. NO PERSON SHALL CONDUCT ANY ACTIVITY WITHIN THE AREAS PROPOSED TO REMAIN. THIS SHALL INCLUDE, BUT NOT LIMITED TO:
 - A. NO SOLVENTS OR CHEMICALS WITHIN THE PROTECTED AREAS.
 - B. NO BUILDING MATERIALS OR CONSTRUCTION EQUIPMENT WITHIN THE PROTECTED AREAS.
 - C. NO GRADE CHANGES, INCLUDING FILL, WITHIN THE PROTECTED AREAS.
 - D. NO REMOVAL OF VEGETATION FROM THE GROUND UP WITHOUT PERMISSION FROM THE PROPER REVIEWING AUTHORITY, INCLUDING THE WOODLAND REVIEW BOARD.
 - E. ANY REQUIRED SWALE NEEDS TO BE DIRECTED AROUND THE PROTECTED AREAS. IN INSTANCES WHERE SWALES ARE APPROVED THROUGH A PROTECTED AREA, THE SWALES NEED TO BE HAND DUG. MACHINERY OF ANY KIND IS PROHIBITED.
7. REGULATED WETLANDS OR REGULATED TREES ADJACENT TO THE PROPERTY ARE ALSO REQUIRED TO BE PROTECTED WHETHER OR NOT THEY ARE SHOWN ON THE PLAN.
8. THE LOCATION OF TREE PROTECTION FENCES WILL BE INSPECTED AND APPROVED IN THE FIELD BY THE TOWNSHIP PRIOR TO ANY TREE REMOVAL, GRADING OR LAND BALANCING OCCURRING ON THE SITE.
9. ANY TREE WITHIN 10 FEET OF A SEWER OR STORMWATER PIPE MUST BE DESIGNATED FOR REMOVAL.



Tree Removal Replacement Calculations

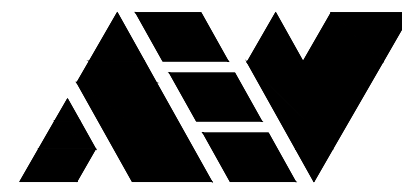
Total Number of Trees	390	each	
Total DBH (all trees)	5,244	inches	
Total DBH (all healthy trees)	5,058	inches	
Number of Trees Being Removed	35	each	
Number of Specimen Trees Being Removed	3	each	(Replacement Rate = 50% of Specimen Tree DBH)
Number of Regulated Trees being Removed	32	each	(Replacement Rate = 1:1, min. 2" deciduous or 8' conifer)
Total Specimen DBH Being Removed	63	inches	(Replacement Rate = 50% of Specimen Tree DBH)
Number of Specimen Trees Being Saved	89	each	(*Already credited in Phase 1)
Percent Trees Being Removed	9%		
Percent of Trees Being Saved	91%		
Specimen Tree Replacement	16	each	
Regulated Tree Replacement	32	each	
Total Tree Reapcement (2-inch)	48	each	

Parking Lot Calculations

Parking Area	26,611	sf	
Landscape Area Required	1,331	sf	(Rate = 5%)
Trees Required	8	each	(Rate = 1 - 2" tree Per 150 sf)
Terminal Trees Required	4	each	

Tree Replacement/Required Summary

Required Replacement Trees	48	each
Required Parking Lot Trees	12	each
Total Required Trees	60	each



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Shelby Township Fax 586 726 8780
Michigan 48315

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ENGINEERING STRONG COMMUNITIES



06/13/2025 05/09/2025 03/18/2025	Site Plan Submittal 3 Site Plan Submittal 2 Site Plan Submittal
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

PINE TRACE GOLF COURSE

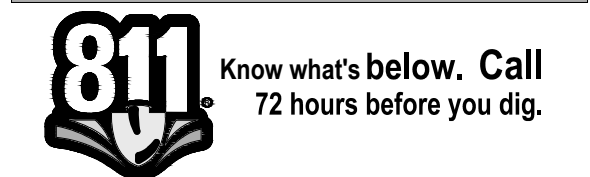
SHEET TITLE:

TREE SURVEY PLAN

CLIENT:

PINE TRACE GOLF COURSE

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DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE:	1" = 40'	



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1530-0002

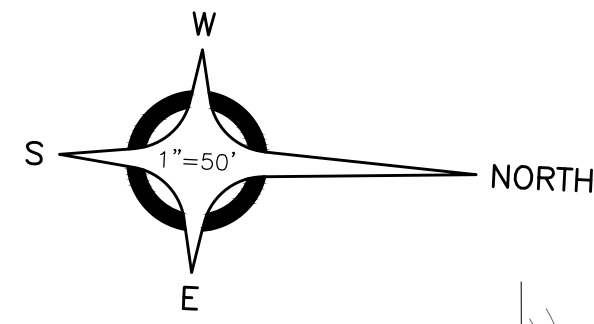
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SHEET NO.

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CITY FILE #

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W SOUTH BOULEVARD

NOTE:
FINAL GRADE, SEED AND
MULCH, AND/OR LANDSCAPE
ALL DISTURBED AREAS
INCLUDING OPEN SPACE
AREAS AND ALL OFF SITE
AREAS NOT BUILT OR PAVED
UPON.

THIS PROJECT SHALL BE
CONSTRUCTED IN
COMPLIANCE WITH PART 91 OF
ACT 451 OF 1994, AS AMENDED,
"THE SOIL EROSION AND
SEDIMENT CONTROL ACT".

GROSS ACREAGE DISTURBED
IS 10.80 ACRES.

BENCH MARKS (NAVD88 DATUM)

BENCH MARK NO. 1
CHISELED "X" N. RIM CATCH
BASIN, 25'± S. OF E. W. SOUTH
BLVD., 100'± E. OF E. PINE
TRACE BLVD. ENTRANCE
ELEVATION: 861.06

BENCH MARK NO. 2 (REMOVED)
SET MAG NAIL, N.E. TOP OF
CONCRETE LIGHT POLE BASE,
W. SIDE PINE TRACE BLVD.,
335'± N. OF E. W. SOUTH BLVD.
ELEVATION: 849.78

BENCH MARK NO. 3 (REMOVED)
SET MAG NAIL, S.E. TOP OF
CONCRETE LIGHT POLE BASE
W. SIDE PINE TRACE BLVD
ENTRANCE, 600'± N. OF E.
SOUTH BLVD.
ELEVATION: 840.67

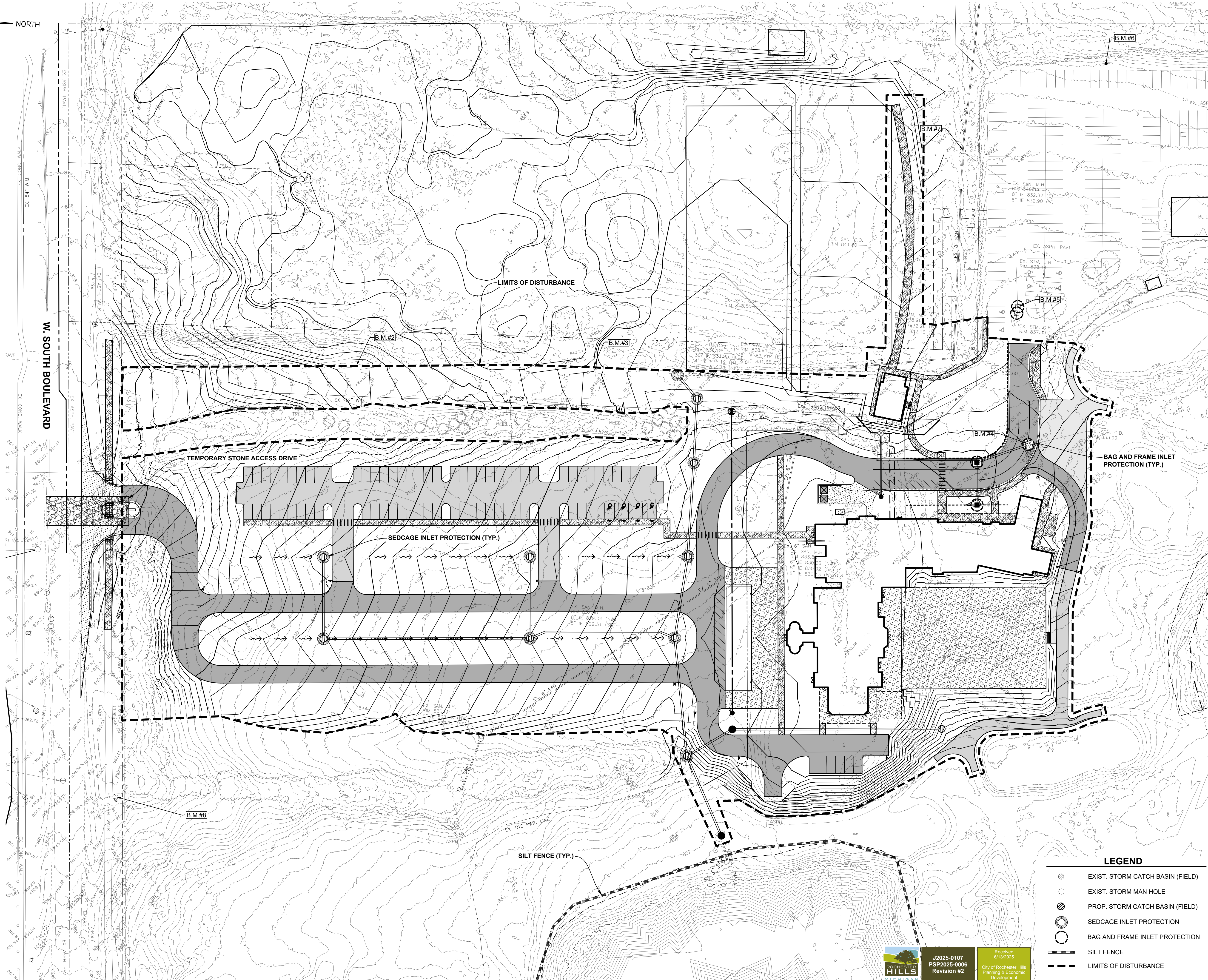
BENCH MARK NO. 4
CHISELED "X", S.W. RIM OF
ROAD BASIN ON N. SIDE OF
BAG DROP LOOP AT BAG DROP
ELEVATION: 834.07

BENCH MARK NO. 5
CHISELED "X", NW RIM OF
ROAD BASIN, W. ROAD BASIN
OF TWO @ S.E. CORNER OF
N.W. LOT, 100'± E. OF S.W.
CORNER
ELEVATION: 838.24

BENCH MARK NO. 6
SET MAG NAIL, EAST TOP OF
CONCRETE LIGHT POLE BASE,
W. SIDE N.W. PARKING LOT,
100'± N. OF S.W. CORNER OF
LOT
ELEVATION: 848.39

BENCH MARK NO. 7
SET CHISELED "X" W. RIM OF
SANITARY MANHOLE, 25' S. OF
N.W. LOT, 100'± E. OF S.W.
CORNER
ELEVATION: 846.87

BENCH MARK NO. 8
TOP OF HYDRANT, N. SIDE OF
W. SOUTH BLVD., 450'± E. OF
PINE TRACE BLVD. ENTRANCE
ELEVATION: 863.65



LEGEND

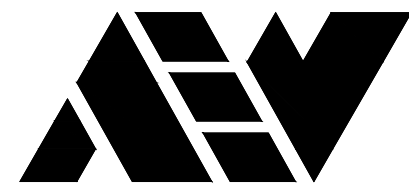
- EXIST. STORM CATCH BASIN (FIELD)
- EXIST. STORM MAN HOLE
- PROP. STORM CATCH BASIN (FIELD)
- SEDGAGE INLET PROTECTION
- BAG AND FRAME INLET PROTECTION
- SILT FENCE
- LIMITS OF DISTURBANCE



J2025-0107
PSP2025-0006
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Development

CITY FILE #



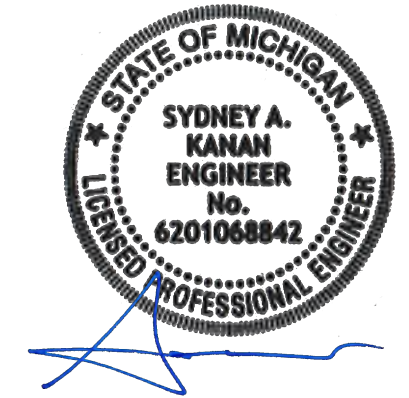
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ENGINEERING STRONG COMMUNITIES



06/13/2025	Site Plan Submittal 3
05/09/2025	Site Plan Submittal 2
03/18/2025	Site Plan Submittal
DATE	SUBMITTALS/REVISIONS
PROJECT NAME:	

PINE TRACE GOLF COURSE

SHEET TITLE:

SOIL EROSION AND SEDIMENTATION CONTROL PLAN

CLIENT:
PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE: 1" = 50'		
0 25 50 100		



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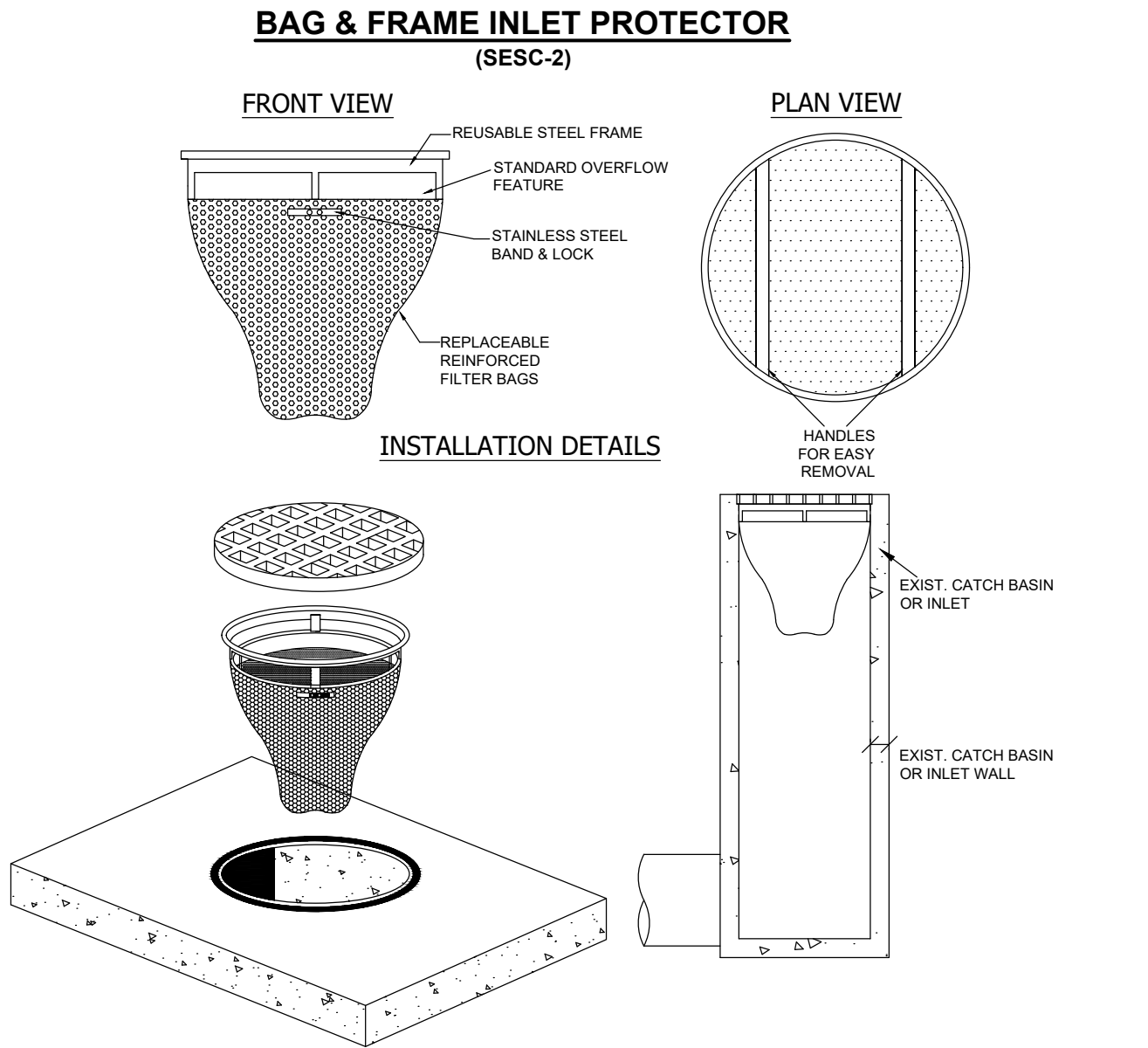
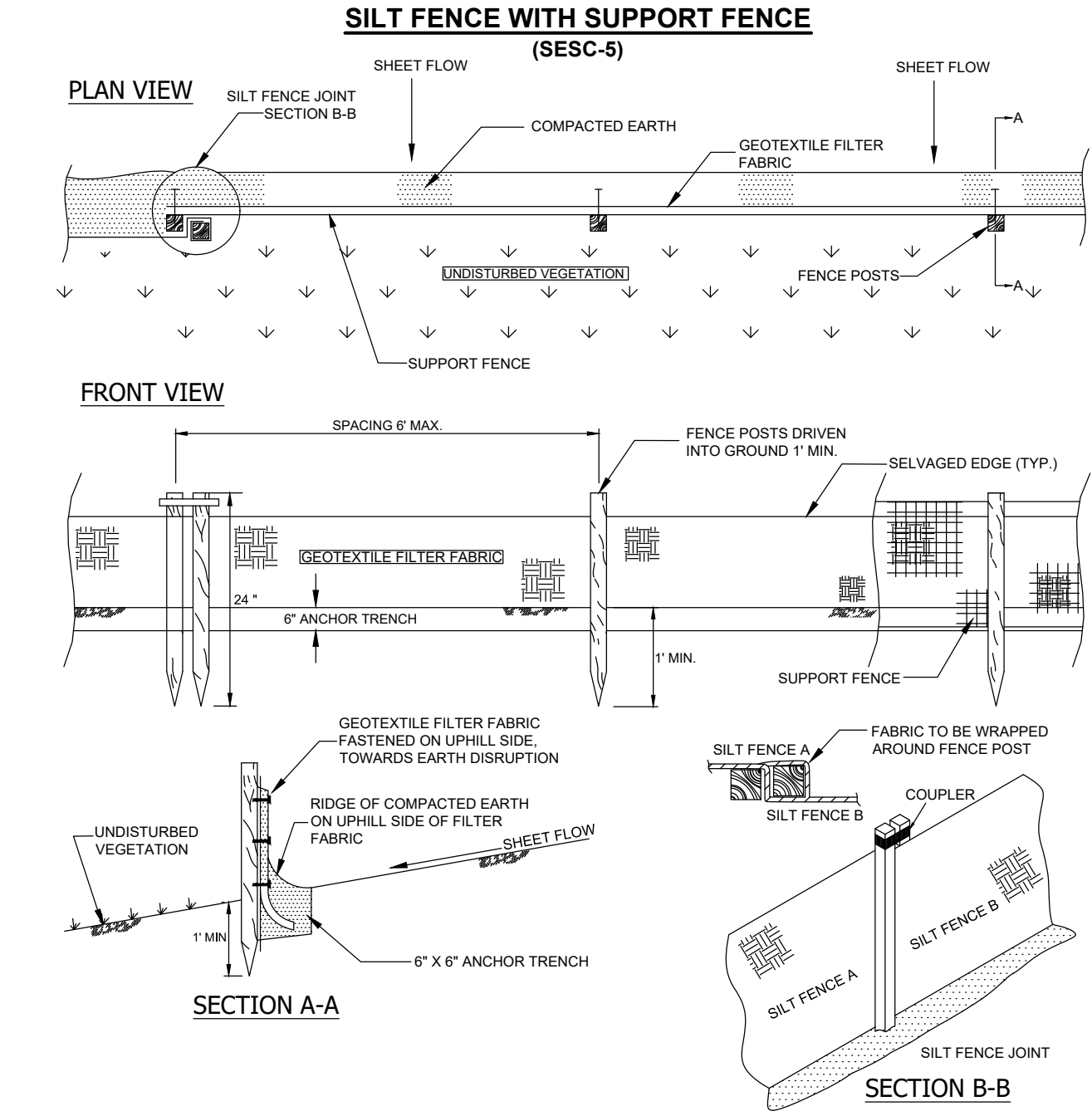
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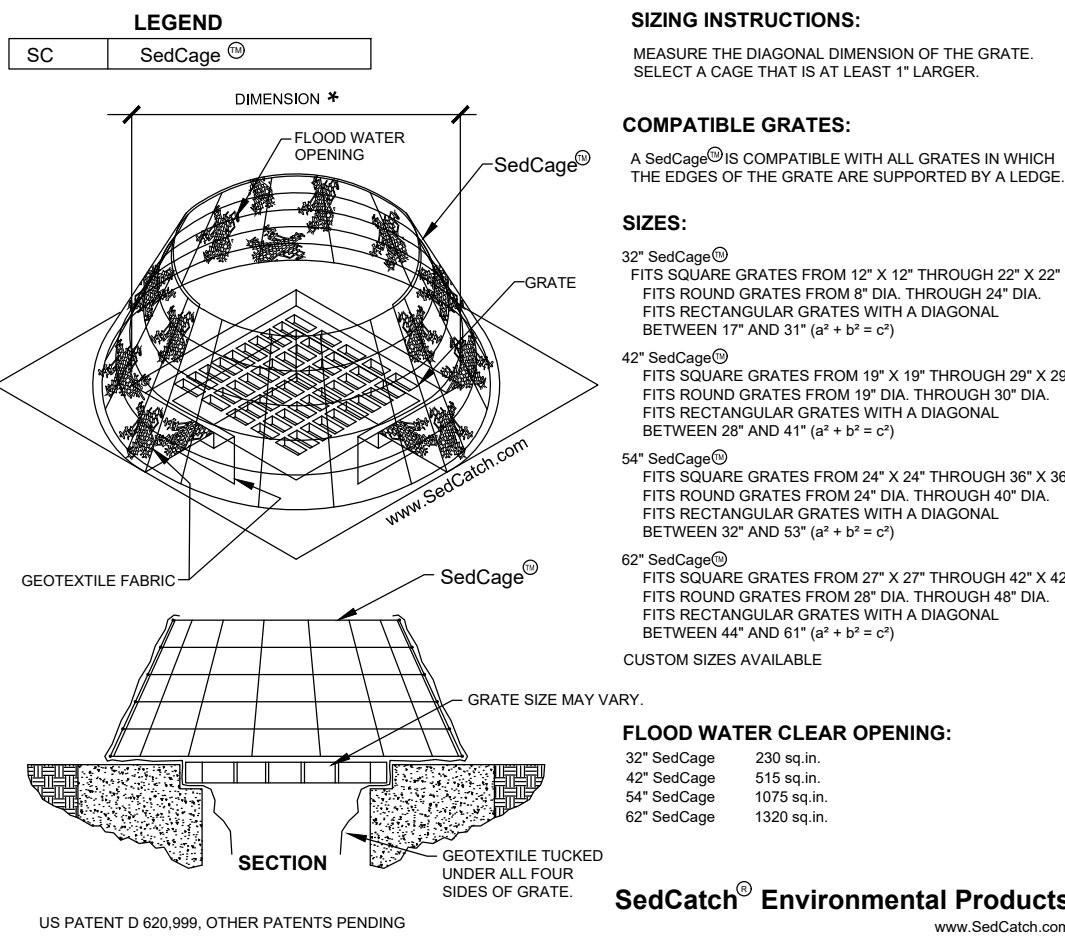
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SOIL EROSION AND SEDIMENTATION CONTROL NOTES AND MAINTENANCE NOTES

- THIS PROJECT SHALL BE CONSTRUCTED IN COMPLIANCE WITH PART 91 OF ACT 451 OF 1994, AS AMENDED, THE SOIL EROSION AND SEDIMENTATION CONTROL ACT AND THE OAKLAND COUNTY SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.
- ALL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF OAKLAND COUNTY WATER RESOURCES COMMISSION.
- EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES, AND PONDS.
- STAGING THE WORK WILL BE DONE BY THE CONTRACTOR AS DIRECTED IN THESE PLANS AND AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH CHANGE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF SOIL EROSION AND SEDIMENTATION CONTROL DEVICES.
- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE SOIL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS BEFORE AND AT ALL TIMES DURING CONSTRUCTION ON THIS PROJECT. ANY MODIFICATIONS OR ADDITIONS TO SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE COMPLIED WITH AS REQUIRED OR DIRECTED BY OAKLAND COUNTY WATER RESOURCES COMMISSION.
- IF ANY OF THE SESC MEASURES ON THE SITE ARE DEEMED INADEQUATE OR INEFFECTIVE, THE OAKLAND COUNTY WATER RESOURCES COMMISSION HAS THE RIGHT TO REQUIRE ADDITIONAL SESC MEASURES AT THE EXPENSE OF THE LANDOWNER.
- INSTALL CRUSHED CONCRETE ACCESS DRIVE PLACED ON GEOTEXTILE FABRIC AS INDICATED ON THE PLAN. THE ACCESS DRIVE MUST BE A MINIMUM OF 12' X 50' X 8".
 - NEW LAYERS OF CRUSHED CONCRETE WILL BE ADDED AS OLD LAYERS BECOME COMPACTED.
- INSTALL SILT FENCE AS INDICATED ON THE PLAN AND AT ADDITIONAL AREAS AS NECESSARY.
 - SILT FENCE SHALL BE INSTALLED PER DETAIL.
 - BUILD UP OF SEDIMENT SHALL BE REMOVED WHEN SEDIMENT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE SILT FENCE.
 - IF SILT FENCE FABRIC DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF EXPECTED USABLE LIFE AND THE BARRIER IS STILL REQUIRED, THE SILT FENCE SHALL BE REPLACED PROMPTLY.
- SILT FENCE SHALL BE INSPECTED WEEKLY UNDER NORMAL CONDITIONS, WITHIN 24 HOURS OF RAINFALL AND DAILY DURING A PROLONGED RAIN EVENT. REQUIRED MAINTENANCE SHALL BE PROVIDED PROMPTLY.
- INSTALL INLET FILTER ON ALL PAVEMENT CATCH BASINS PER DETAIL.
 - INLET FILTERS SHALL BE INSPECTED WEEKLY UNDER NORMAL CONDITIONS, WITHIN 24 HOURS OF A RAINFALL, AND DAILY DURING A PROLONGED RAIN EVENT.
 - BUILDUP OF SEDIMENT AND DEBRIS SHALL BE REMOVED PROMPTLY.
 - IF FABRIC DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF EXPECTED USABLE LIFE AND THE BARRIER IS STILL REQUIRED, THE FABRIC SHALL BE REPLACED PROMPTLY.
- INSTALL SILT FENCE ON ALL YARD CATCH BASINS PER DETAIL. SEED OR SOD THE AREA BETWEEN THE SILT FENCE AND THE INLET.
 - SILT FENCE SHALL BE INSPECTED WEEKLY UNDER NORMAL CONDITIONS, WITHIN 24 HOURS OF RAINFALL, AND DURING A PROLONGED RAIN EVENT.
 - BUILD UP OF SEDIMENT SHALL BE REMOVED WHEN SEDIMENT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE SILT FENCE.
 - IF FABRIC DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF EXPECTED USABLE LIFE AND THE BARRIER IS STILL REQUIRED, THE SILT FENCE SHALL BE REPLACED PROMPTLY.
- INLET SEDIMENT TRAPS AND ALL DITCH SEDIMENT TRAPS SHALL BE INSPECTED DAILY. THE SEDIMENT PITS SHALL BE CLEANED OUT WHEN HALF FULL OR AS DIRECTED BY OAKLAND COUNTY WATER RESOURCES COMMISSION.
- ALL STOCKPILED SOILS SHALL BE MAINTAINED IN SUCH A WAY AS TO PREVENT EROSION FROM LEAVING THE SITE. IF THE STOCKPILE WILL BE ON SITE FOR MORE THAN 30 DAYS, THE STOCKPILE MUST BE SEEDED. SILT FENCE MUST BE INSTALLED AROUND THE PERIMETER OF THE STOCKPILE.
- IMMEDIATELY AFTER SEEDING, MULCH ALL SEEDED AREAS WITH UNWEATHERED SMALL GRAIN STRAW, SPREAD UNIFORMLY AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE OR 100 POUNDS (2-3 BALES) PER 1000 SQUARE FEET. THIS MULCH SHOULD BE ANCHORED WITH DISC TYPE MULCH ANCHORING TOOL OR OTHER MEANS AS APPROVED BY OAKLAND COUNTY WATER RESOURCES COMMISSION. MULCH MATTING MAY BE USED IN LIEU OF LOOSE MULCH.
- IF ANY DEWATERING IS NEEDED, IT SHALL BE DISCHARGED THROUGH A FILTER BAG OVER A WELL VEGETATED AREA. THE PUMP MUST DISCHARGE AT A NON-EROSIVE VELOCITY. IF NECESSARY, AN APPROVED ENERGY DISSIPATER MAY BE USED.
- ALL DIRT TRACKED ONTO ANY ROADWAY SHALL BE REMOVED IMMEDIATELY.
- STREETS AND OR PARKING AREAS WILL BE SCRAPED ON A DAILY BASIS AND SWEEP AT A MINIMUM OF ONCE PER WEEK BY THE CONTRACTOR.
- DURING DRY PERIODS, ALL DISTURBED AREAS SHALL BE WATERED FOR DUST CONTROL.
- PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGES ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IMMEDIATELY. ALL TEMPORARY SOIL EROSION CONTROL SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED. ALL PERMANENT SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED.
- FINAL GRADE, ESTABLISH VEGETATION, AND OR LANDSCAPE ALL DISTURBED AREAS NOT BUILT OR PAVED UPON.
- REMOVE ALL TEMPORARY SOIL EROSION DEVICES AFTER PERMANENT STABILIZATION IS ESTABLISHED.

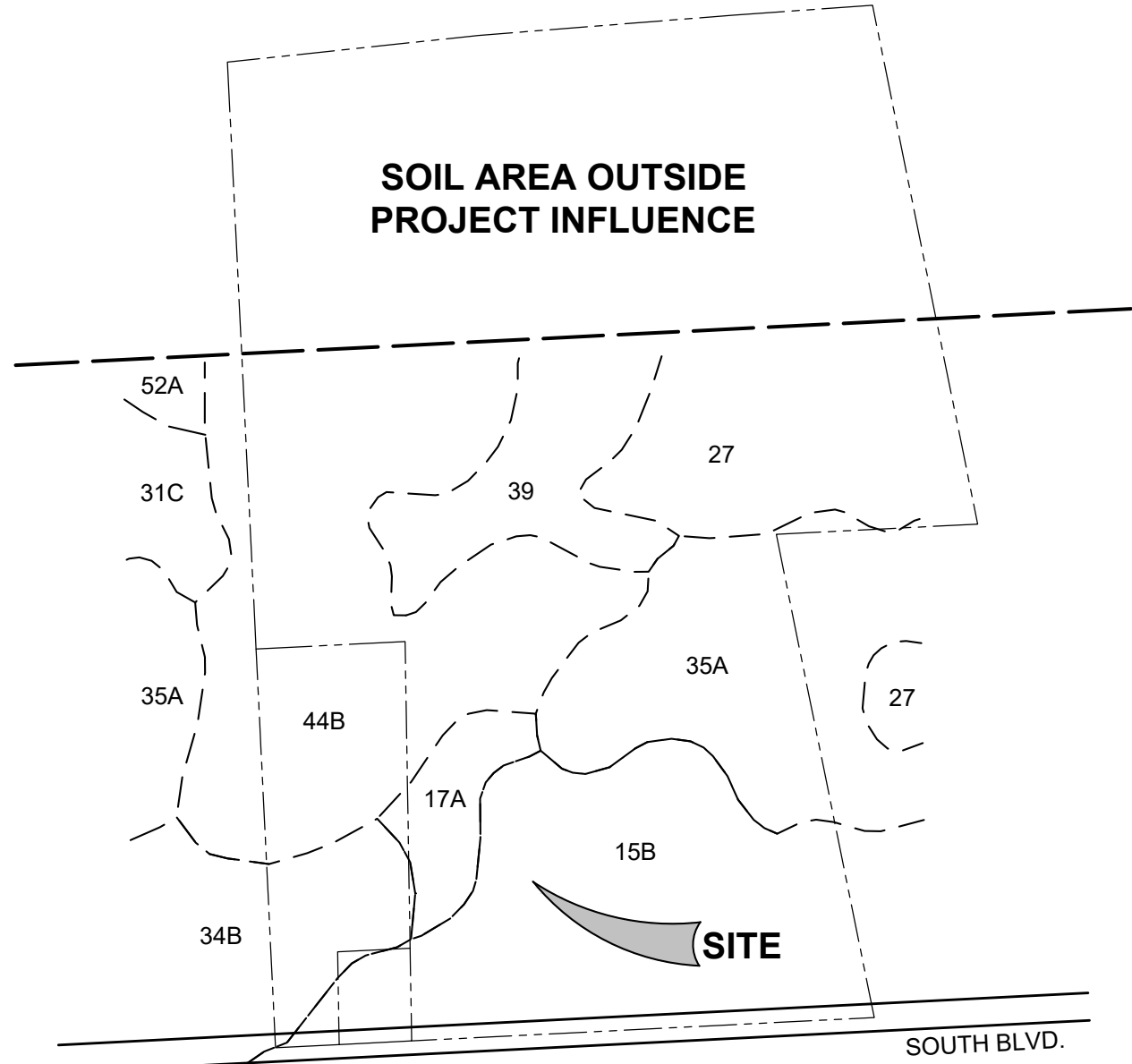


SedCatch® SedCage® - Yard Inlet Protection



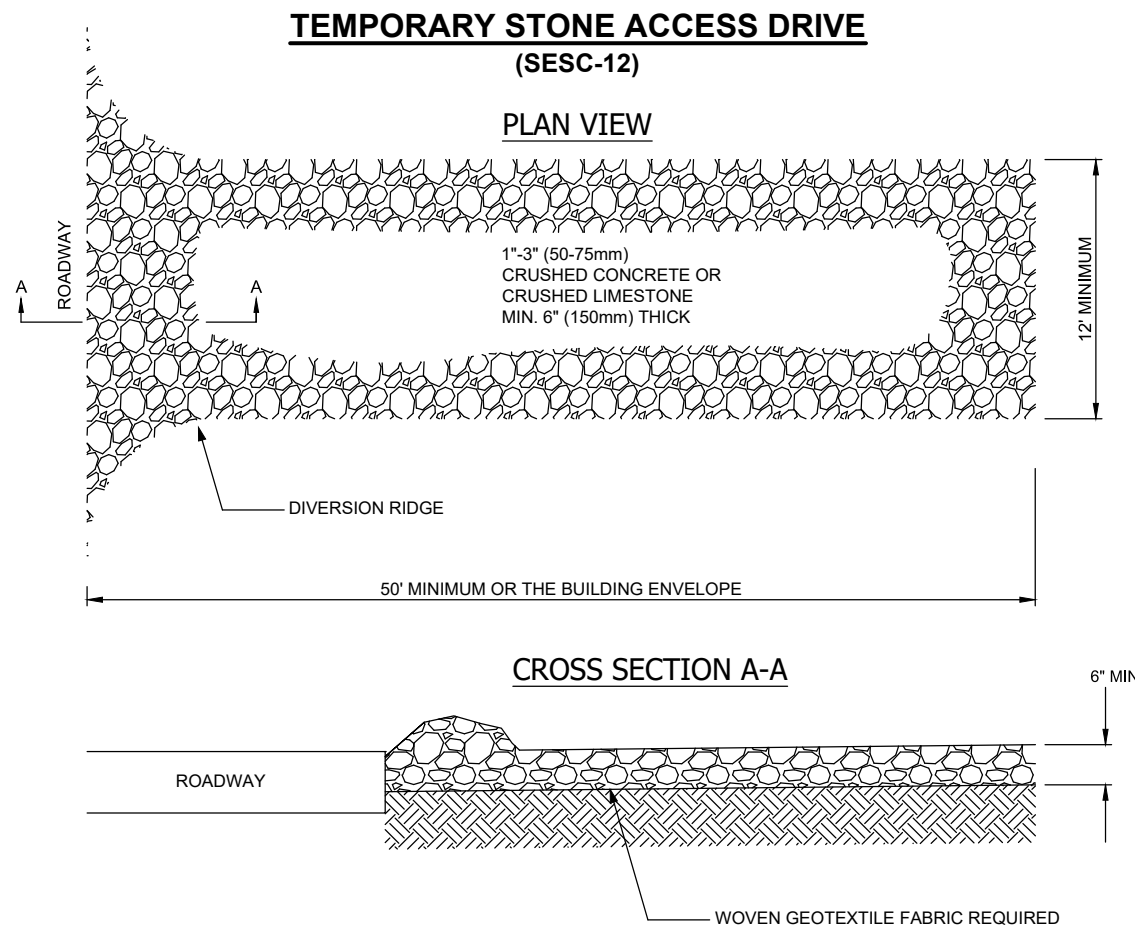
- INLET PROTECTION SHALL BE INSTALLED AT THE TIME THE STRUCTURE IS SET.
- TO INSTALL, TUCK FABRIC UNDER GRATE.
- REMOVE SEDIMENT IF IT ACCUMULATES TO ONE HALF THE HEIGHT OF THE SedCage®.
- THE AREA AROUND THE SedCage® SHOULD BE AS FLAT AS POSSIBLE TO INCREASE EFFECTIVENESS AND REDUCE MAINTENANCE REQUIREMENTS.
- AS WITH ALL INLET PROTECTION DEVICES, CHECK TO SEE HOW DEEP THE WATER COULD RISE IF THE INLET WERE BLOCKED ENTIRELY. DO NOT INSTALL IN LOCATIONS THAT COULD CAUSE PROPERTY DAMAGE OR POSE A SAFETY HAZARD TO TRAFFIC.

SOIL AREA OUTSIDE PROJECT INFLUENCE



- 15B Sprinks loamy sand, 0 to 6 percent slopes
- 17A Wasepi sandy loam, 0 to 3 percent slopes
- 27 Houghton and Adrian mucks
- 31C Metea loamy sand, 6 to 12 percent slopes
- 34B Kibbie fine sandy loam, 0 to 4 percent slopes
- 35A Thetford loamy fine sand, 0 to 3 percent slopes
- 39 Granby loamy sand
- 44B Riddles sandy loam, 1 to 6 percent slopes
- 52A Selfridge loamy sand, 0 to 3 percent slopes

SOILS INFORMATION



OPERATION TIME SCHEDULE	2025		2026	
	JUL		JUL	
INSTALL EROSION CONTROL MEASURES				
TREE AND SHRUB REMOVAL				
EARTHWORK				
PAVING				
RESTORATION				
REMOVE TEMPORARY EROSION CONTROL MEASURES				

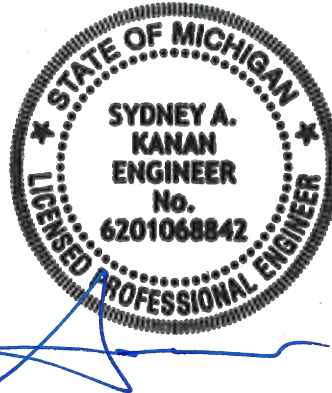
ANDERSON, ECKSTEIN AND WESTRICK, INC.

CIVIL ENGINEERS SURVEYORS ARCHITECTS

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

www.aewinc.com

ENGINEERING STRONG COMMUNITIES



06/13/2025 05/09/2025 03/18/2025	Site Plan Submittal 3 Site Plan Submittal 2 Site Plan Submittal
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

PINE TRACE GOLF COURSE

SHEET TITLE:

SOIL EROSION AND SEDIMENTATION CONTROL DETAILS

CLIENT:
PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE:	N/A	

0 10 20 30 40 50 60 70 80 90 100



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

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PROJECT NO. 1530-0002

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SHEET NO.



J2025-0107
PSP2025-0006
Revision #2

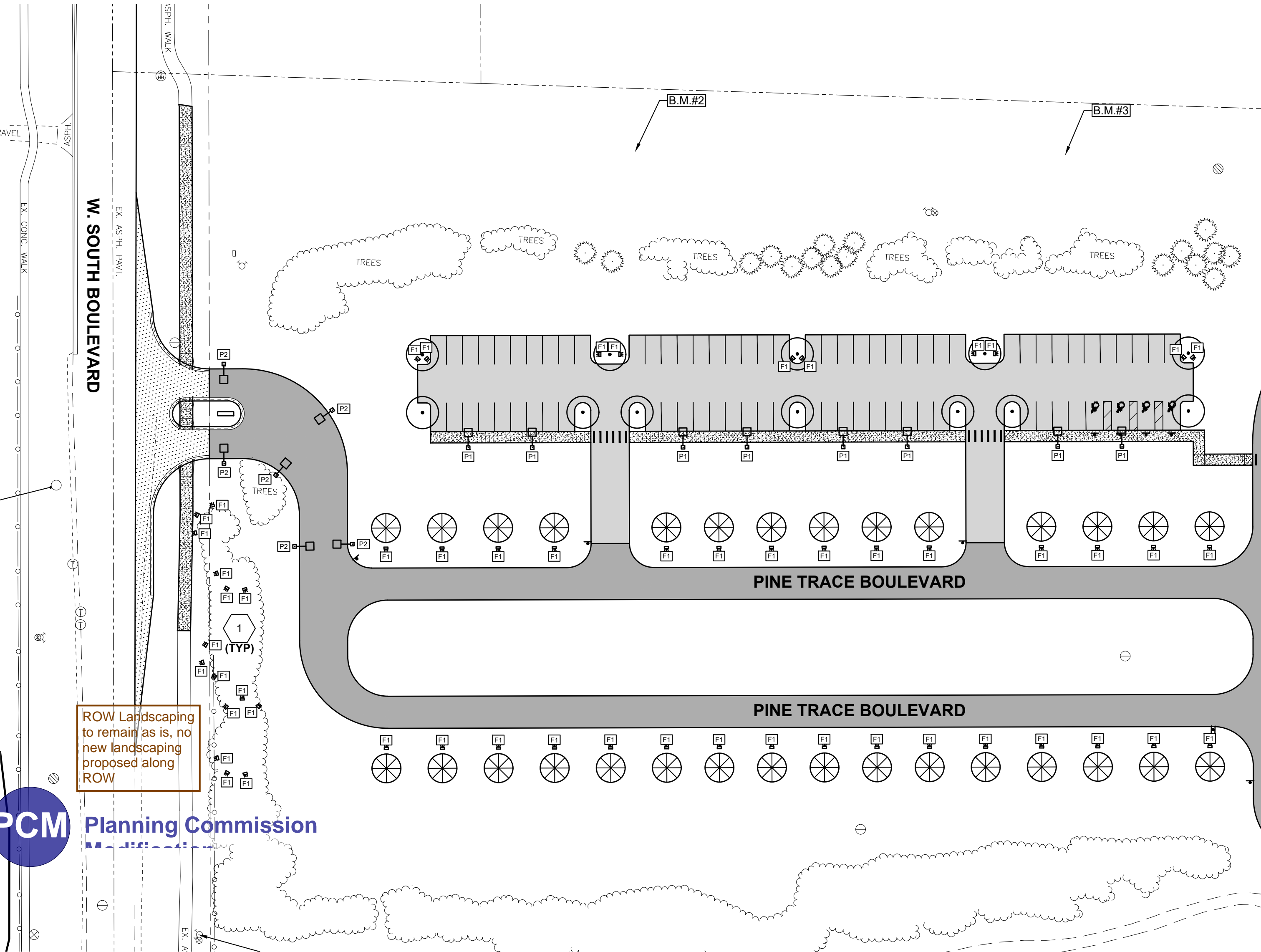
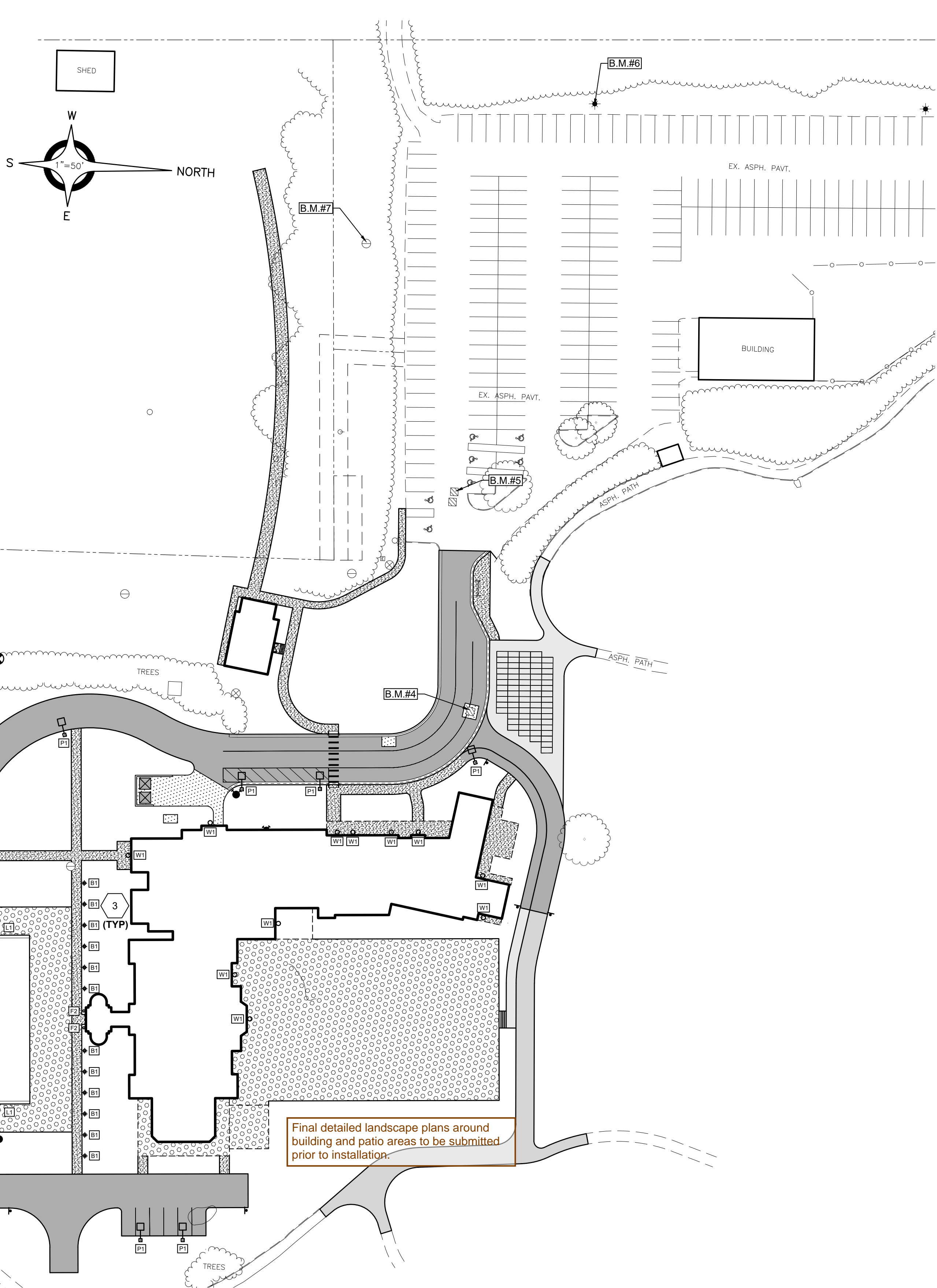
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C18

CITY FILE #

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LUMINAIRE SCHEDULE								
PINE TRACE GOLF COURSE								
TYPE	DESCRIPTION	MANUFACTURER(S)	PRODUCT CODE	WATTS	VOLTAGE	LIGHT CHARACTERISTICS	CONTROLS	REMARKS
B1	LANDSCAPE BOLLARD	AAL	PROB-Y3-2030-LDL	25	UNV	TYPE 3 DISTRIBUTION, 1200 LUMENS, 3000 CCT, 70 CRI	0-10V DIMMING	
F1	LANDSCAPE BOLLARD	SISTEMALUX	S2141-W-SU-UNV-D10	14	UNV	1084 LUMENS, 3000K CCT, 90 CRI	0-10V DIMMING	
F2	BUILDING MOUNTED LIGHT	LUMENPULSE	BLDN-WM-120-CSL-XS25-30K-CRI 80-3-DIM	30	120	2668 LUMENS, 3000K CCT, 80+ CRI	0-10V DIMMING	
L1	LINE VOLTAGE FLEXIBLE LINEAR TAPE LIGHT	JESCO	DL-AC-FLEX2-LNTB; DL-AC-FLEX2-LNTB-3090; DL-AC-FLEX2-LNTB-EC; DL-AC-FLEX2-LNTB-CHM322	4.2 W/FT	120	240 LUMENS/FOOT, 3000K CCT, 90+ CRI	TRIAC DIMMING TO 10%	
P1	POLE MOUNTED AREA LIGHT, 14' HEIGHT	LANDSCAPE FORMS	AP301-SO-30K-T4-FRS-20K AP-14-A-NR-NMS	51	UNV	TYPE 4 DISTRIBUTION, 3700 LUMENS, 3000 CCT, 80+ CRI	0-10V DIMMING	
P2	POLE MOUNTED AREA LIGHT, 15' HEIGHT	LANDSCAPE FORMS	AP301-SO-30K-T3-FRS-20K AP-15-A-NR-NMS	32	UNV	TYPE 3 DISTRIBUTION, 2500 LUMENS, 3000 CCT, 80+ CRI	0-10V DIMMING	
W1	WALL MOUNTED LUMINAIRE	LUMENPULSE	BLDN-WM-120-FSL-XS15-30K-CRI 80-3-DIM	17	120	1500 LUMENS, 3000K CCT, 80+ CRI	0-10V DIMMING	10'-0" MOUNTING HEIGHT
GENERAL NOTES: 1. Refer to specifications for detailed light fixture cut sheets. 2. Finish to be approved by interior designer, architect or client. 3. All luminaires to be as specified or equal approved by PBA and/or Illuminat. 4. Full dimming compatibility as outlined in design intent to be verified by contractor and electrical engineer. 5. When reporting lifetime ratings (ex: L70 @ 50,000 hours), lumen maintenance should be demonstrated in adherence to DLC Requirements. 6. For low voltage track, line voltage track, and LED tape light where applicable: a. Electrical Contractor to determine and specify all required mounting hardware. b. Power feeds and remote power supply locations and quantities to be coordinated by electrical contractor and architect. c. For non-field-cuttable fixtures, exact lengths to be determined by contractor with manufacturer. Shop drawing approval required. d. Lengths to be field measured by contractor.								





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DATE	SUBMITTALS/REVISIONS

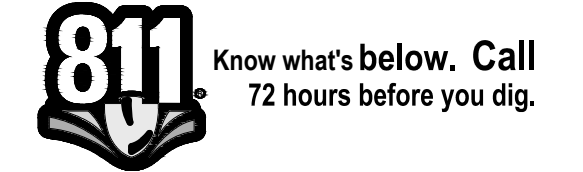
PINE TRACE GOLF COURSE

SHEET TITLE:

LIGHTING PLAN

CLIENT:
PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: CBR	CHECKED BY: SAK	DATE: JUNE 2025
SCALE: 1" = 50'		



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PROJECT NO. 1530-0002

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SHEET NO.

C20

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LIGHTING CONSTRUCTION KEY NOTES

- TYPE F1 LANDSCAPE BOLLARDS FINAL LOCATIONS TO BE COORDINATED WITH EXISTING TREE LOCATIONS
- TYPE L1 LINEAR LIGHT TO BE INTEGRATED INTO TOP CAP OF RETAINING WALL
- TYPE B1 BOLLARDS TO BE OFFSET FROM PATH/DRIVE LANE TO AVOID CONFLICT WITH VEHICULAR TRAFFIC AND MAINTENANCE EQUIPMENT

NOTE:
REFER TO SHEET C21 FOR LIGHTING FIXTURE DETAILS



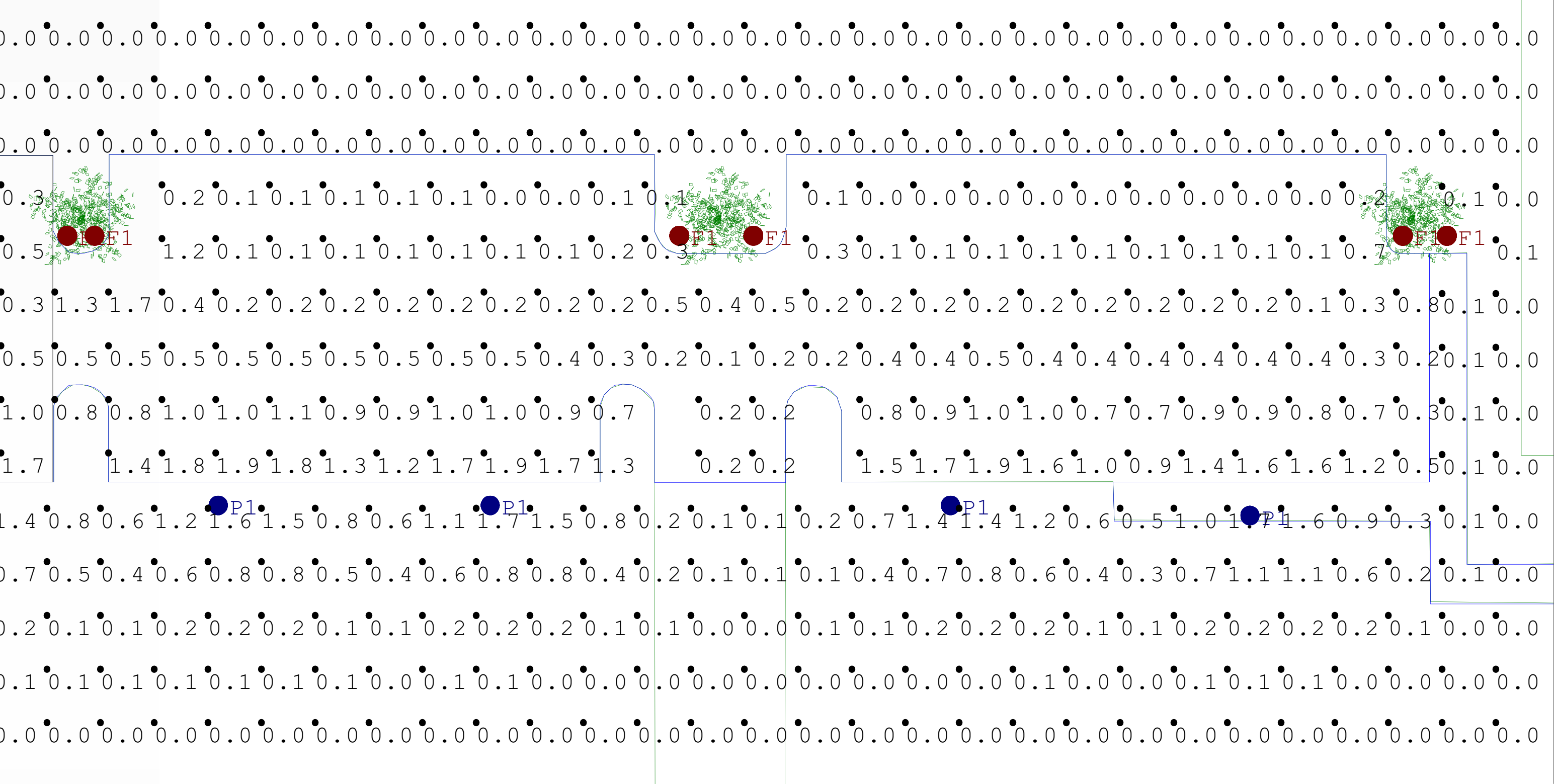
J2025-0107
PSP2025-0006
Revision #2

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6/13/2025
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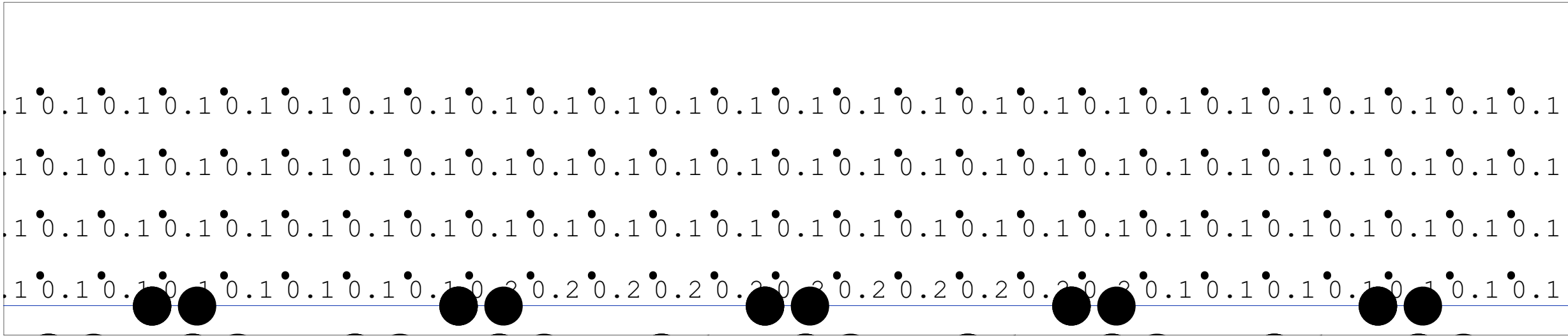
PARKING
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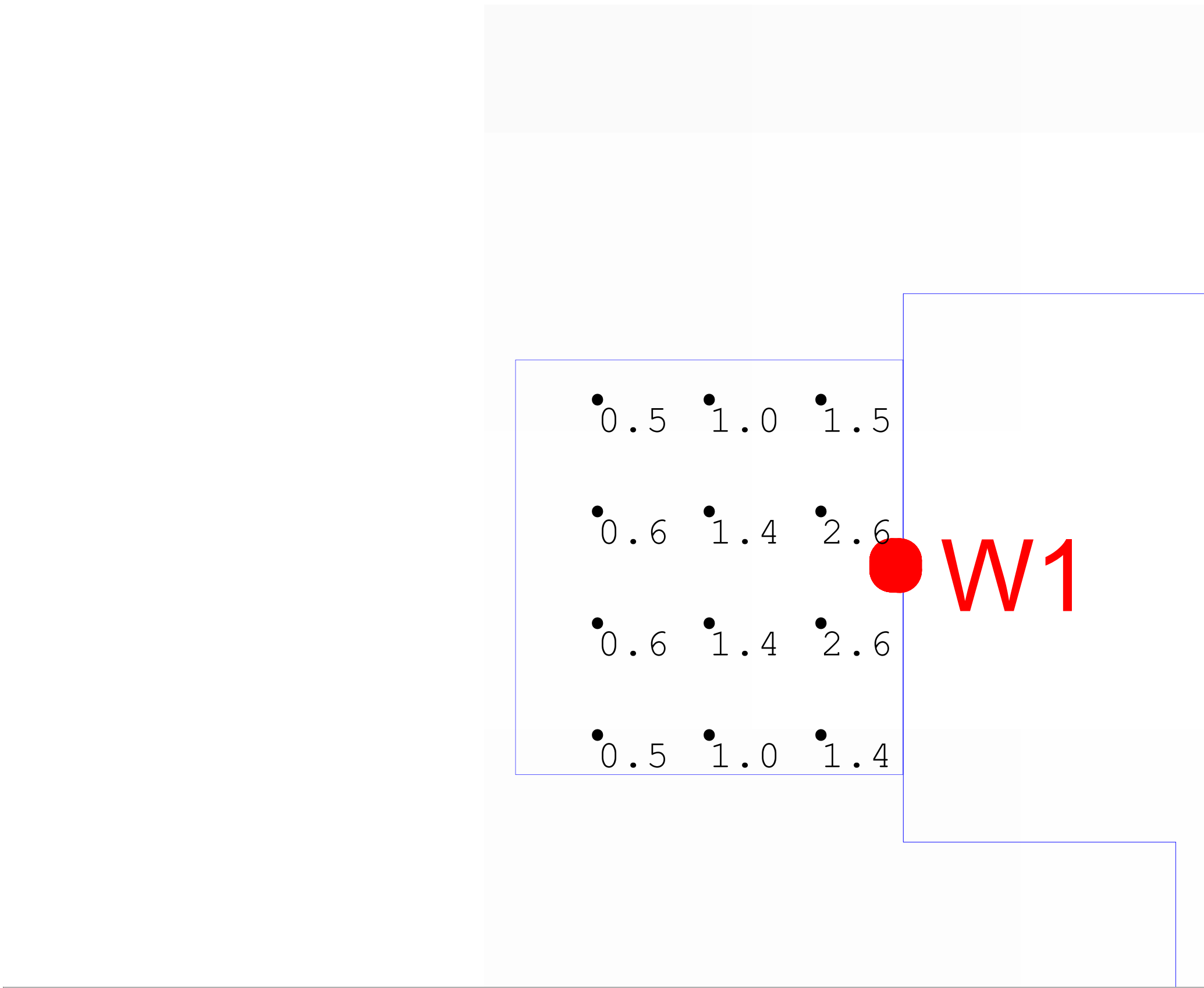
PARKING
Scale: 1 inch= 18 Ft.

CALCULATION SUMMARY					
LABEL	UNITS	AVG	MAX	MIN	AVG/MIN
Egress Door_Planar	Fc	1.26	2.6	0.5	2.52
Entry Maneuver Lane	Fc	1.23	3.6	0.2	6.15
Parking Lot Extents	Fc	0.19	1.9	0.0	N.A.
Parking Lot_Parking Lot	Fc	0.54	1.9	0.0	N.A.
Parking Vertical	Fc	0.11	0.2	0.1	1.10
25' Drop Off Zone	Fc	2.18	3.6	1.0	2.18
Parking Typical	Fc	0.56	1.9	0.0	N.A.

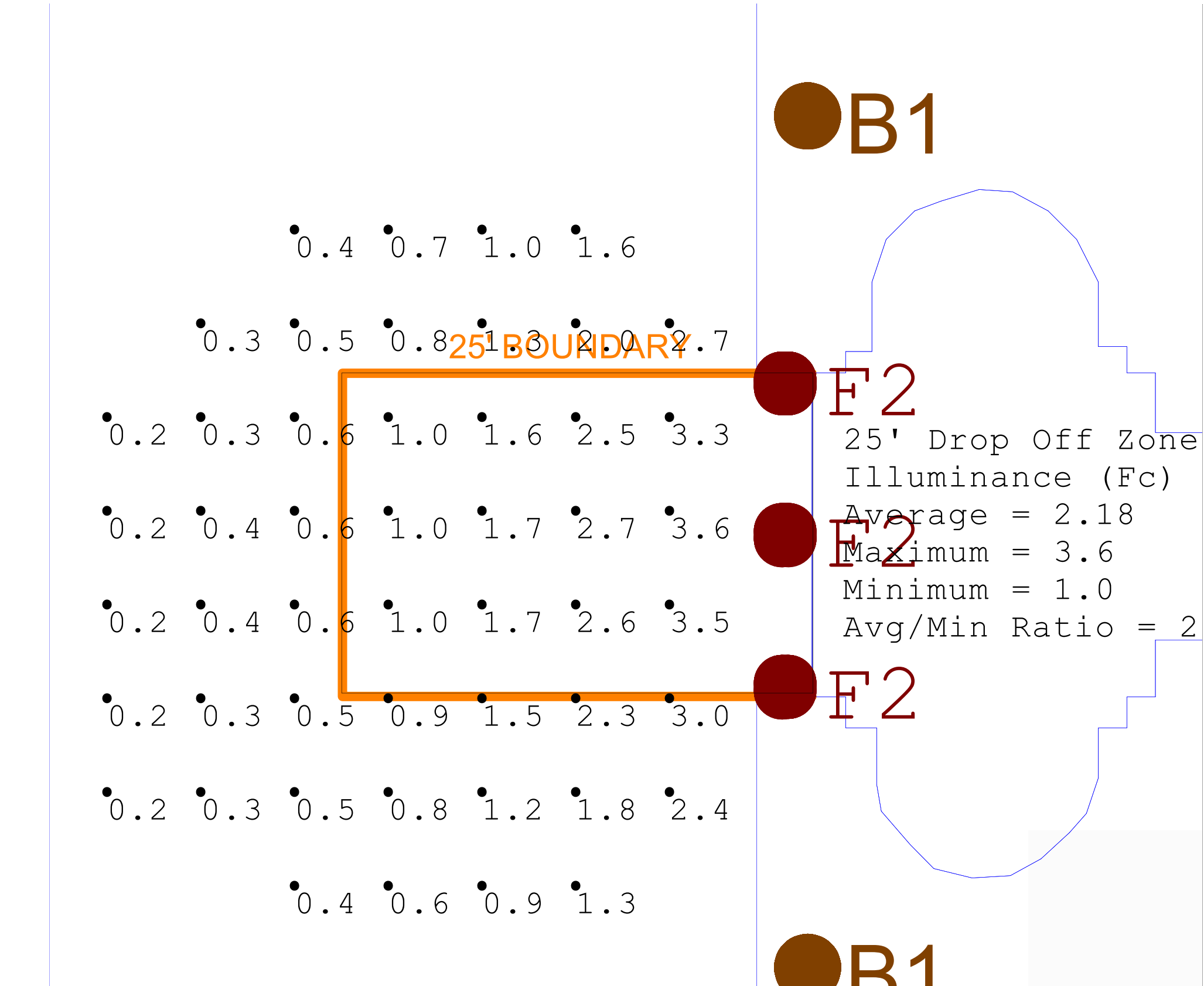
LIGHTING FIXTURE SCHEDULE					
Tag	Symbol	QTY	WATTS	LUMENS	DESCRIPTION
B1	○	10	24.9	1210	PROB-Y3-2030-LDL
W1	□	1	17	1026	BLDN-SD_WM-120_277-FSL-XS15-30K-CRI 90-3
F2	□	3	30	1612	BLDN-SD_WM-120_277-FSL-XS25-35K-CRI 90-3
P1	○	8	32	2501	AP301_302-SO-35K-T4-FRS
F1	○	10	14.1	1085	S_2141W_24



PARKING VERTICAL CALCULATION
Scale: 1 inch= 4 Ft.



EGRESS DOOR
Scale: 1 inch= 5 Ft.



MANEUVER LANE
Scale: 1 inch= 6 Ft.

date

REVISION
X

5145 Livernois, Suite 100
Troy, Michigan 48068-3275
T: 248-879-5666 F: 248-879-007
www.PeterBassoAssociates.com
PBA Project #



PROJECT TITLE
PINE TRACE GOLF COURSE

2024.0176.00

SHEET TITLE
PARKING LOT & BUILDING
PHOTOMETRIC PLAN

DATE
2025-05-12
BY:
ANS
SHEET No.

L201



J2025-0107
PSP2025-0006
Revision #2

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6/13/2025
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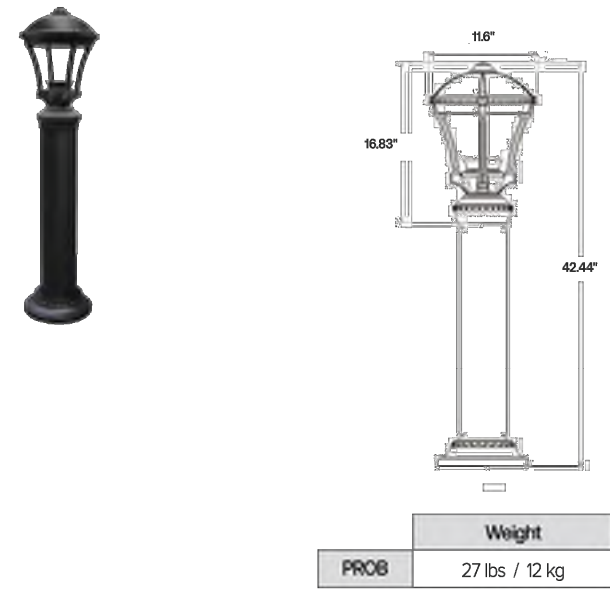


FEATURES

- Reliable uniform illumination
- True IES Type 2, 3, 4, and 5 distributions
- 3000K, 4000K, 5000K CCT
- 0-10V dimmable
- 20kV/10kA surge suppression
- Thermal protection



Providence® Bollard



SPECIFICATIONS

HOUSING

- Luminaire shall have discrete optical and gear compartments that do not share any physical housings
- All housing components shall be die-cast aluminum, sealed with continuous silicone rubber gaskets
- Standard configurations shall have a clear flat tempered glass lens
- All internal and external hardware shall be stainless steel
- Optical bezel finish shall match the luminaire housing
- Luminaire finish shall consist of a five stage pretreatment regimen with a polymer primer sealed, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish
- Luminaire finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance

LED/OPTICS

- LEDs shall be mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features
- LED optics shall be clear injection molded PMMA acrylic
- MCPCB and optic shall be sealed to a die-cast anodized aluminum heat sink with an injection molded silicone rubber gasket, IP65

INSTALLATION

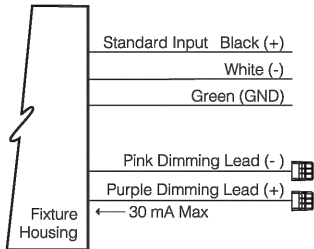
- Fixture shall slip over two 12" x 10" x 2" anchor bolts supported by hex nuts and washers to level fixture. Provision for water drainage at footing is recommended
- One-piece cast aluminum arms accept the standard 3" slip filter on the Providence fixture
- Arms are prewired with quick disconnects
- Wall mounted arms do not include wall mounting hardware
- Pole mounted arms use 3/8-16 hardware bolts for attaching to the pole
- Driver assembly shall be mounted to a prewired internal tray with quick disconnects for removal
- Luminaire shall have tool-less service access to the gear compartment. Driver and surge suppressor shall be mounted to a prewired tray with quick disconnects that may be removed from the gear compartment

ELECTRICAL

- Luminaires shall have integral surge protection that shall be UL recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J
- Drivers shall be UL recognized with an inrush current maximum of <200 Amps maximum at 230VAC
- Drivers shall not be compatible with current sourcing dimmers, consult factory for current list of known compatible dimming systems, approved dimmers include Lutron Diva AVTV, Lutron Nova NDTV and NTFV

ELECTRICAL (CONTINUED)

- Luminaires not configured with an optional control system shall be provided with 0-10V purple and pink dimming leads



CERTIFICATIONS

- Luminaire shall be listed with ETL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250
- IDA approved, 3000K and warmer CCTs only

WARRANTY

- 5 year warranty

TOMORROW BOLLARD



SPECIFICATION SHEET

Collection of outdoor bollards for commercial and institutional applications. Available in 2 mounting heights and elegantly proportioned for various applications, scales and designs. Robust aluminum alloy construction with stainless steel fasteners, factory sealed diffuser and lens, with corrosion resistant finish. The wide uniform distribution allows greater luminaire spacing while maintaining good visual comfort and eliminate light pollution.

Luminaire characteristic:	Power input: 14.1W (system wattage) Lumens: 1084lm (for 3000K, 90CRI) Luminaire efficacy: 76lm/W
Source:	White LED (LM-80 tested), 2700K: 90CRI, 3000K: 90CRI, 4000K: 90CRI, 70% of initial lumens at 50 000 hours (L70/LM-79)
Lumen maintenance:	
Optic:	360° symmetrical diffuse light with zero uplight emission.
Material:	Body, head and base: Die cast aluminum. Diffuser: Micro etched prismatic glass.
Mounting:	Install with flange accessory or fasten to ground.
Electrical:	Integral high efficiency dimmable LED driver, rated at 50 000 hours, 120V-277V.
Dimming:	0-10V (120-277V), down to ±10%.
Finish:	Anthracoate gray. Painted finish follows a double powder paint in 3 step process: surface treatment containing ceramic nano particles (Bonderite). Epoxy primer paint. Polyester powder paint with high resistance against UV rays and harsh weather conditions.
Weight:	S2140: 11.9lbs (5.4kg) S2141: 14.8lbs (6.7kg)
Warranty:	5 year limited warranty.
Ratings:	IP65, IK08
Certification:	cULus listed for wet location.

DM - R0 Last update: November 05, 2021

SISTEMALUX

Due to continuous improvements, the information herein may be changed without notice
9320 Boul. St-Laurent, suite 110, Montreal (Quebec) Canada H2N 1N7, P: 514.523.1339 F: 514.525.6107 www.sistemalux.com

Ashbery

Specification Sheet | AP100/200/300



Housing & Materials

Cast aluminum construction. LED light engine attached to aluminum cartridge housing using magni-coated steel screws. Housing features an acrylic frosted or clear lens and an LED center element. All hardware is magni-coated steel which features an anti-corrosion coating. Assembly is IP65 rated.

Electrical

120V through 277V 50/60 Hz electronic driver. 0-10V dimming. -40°C start temperature. LED cartridge with weatherproof quick disconnect provides ease of installation and serviceability. Cast aluminum driver housing assembly located at base of luminaire. Available with optional ANSI C136.41 twist lock receptacle and/or pole-mounted photo/ motion sensor. Ashbery area light ships prewired with center element having a separate circuit from main light engine.

Light Engine

High powered LEDs mounted to a RoHS compliant circuit board with PMMA optics affixed to each LED on the board. Available in 2700K, 3000K, and 4000K. >80 CRI across all available color temperatures. Center element available in 2000K color temperature. Luminaires meet or exceed TM21 L70: >80,000 hrs.

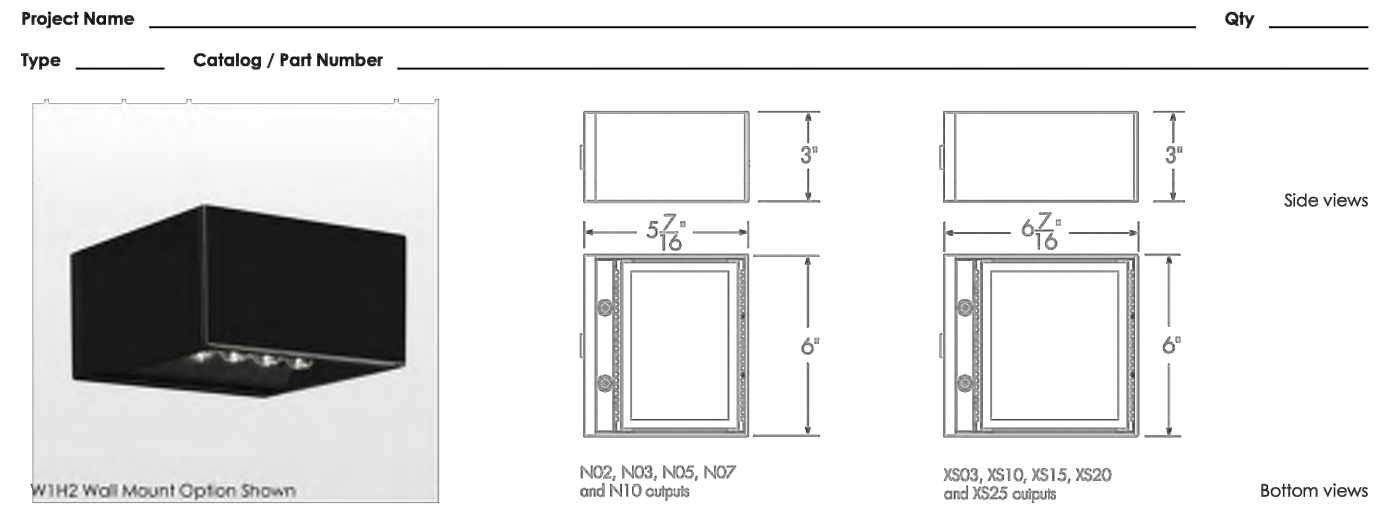
Featured in the 100 and 200 series luminaires, the visual comfort light engine brings to the forefront attributes of human-centric optical design in pedestrian centric spaces. It reduces high angle glare and contrast ratio, eliminates "lens image" of LEDs, and has distributions that aid to a first class visual experience for pedestrians.

Featured in the 300 series luminaire, the performance light engine delivers high output with up to 8400 lumens through a wide selection of roadway distribution types. Capable of meeting footcandle minimum and uniformity requirements at taller pole heights and wider spacing, the 300 series addresses lighting needs in vehicular and other environments where design criteria includes non-pedestrian needs. The 300 series is the ideal accompaniment to the 100 and 200 series in meeting all lighting needs on a site, both pedestrian and vehicular.

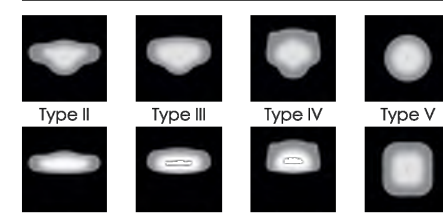
1 Revised October 21, 2024 | Landscape Forms Inc. | 800.521.2546 | F 269.381.3455 | 7800 E. Michigan Ave., Kalamazoo, MI 49048

Specification Sheet

TYPE F2 Lumenblade Nano BLN



Distributions



Description

The Lumenpulse Lumenblade Nano is an outdoor LED luminaire that uses a rectilinear version of the Lumencentric light engine to create a continuous line of light. Side Mount or Wall Mount options are available. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architecture, provides a high level of security, and is sensitive to the natural environment with DarkSky approval, low outputs, and with a BUG rating of 0.

Features

Mounting	Side Mounting, Wall Mounting
Color and Color Temperature	True Amber 585nm-595nm (Turtle-Friendly), 2200K, 2700K, 3000K, 3500K, 4000K
Distributions	Type II, Type IV or Type IV (with or without backlight shield), Type V, type Y square
Optical Option (factory installed)	Louver
Vibration Rating	Meets ANSI C136.31-2018 vibration rating for Bridge & Overpass applications
Option	Vibration Rated for Bridge and Overpass Corrosion-resistant Coating for Harsh Environments
Warranty	5-year limited warranty
Performance	
Output (Nominal Lumens)	Minimum 200lm/ Maximum 2500lm
Efficacy	Up to 127 lm/W (XS10 lumen output, 4000K, CRI 70+, Type VS)
Color Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
Lumen Maintenance	TM21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C [77 - 122 °F])
Darksky	Darksky Approved (2200K, 2700K, 3000K and Amber color temperatures, BUG rating of 0)

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BX - 84

Current

currentlighting.com/sal

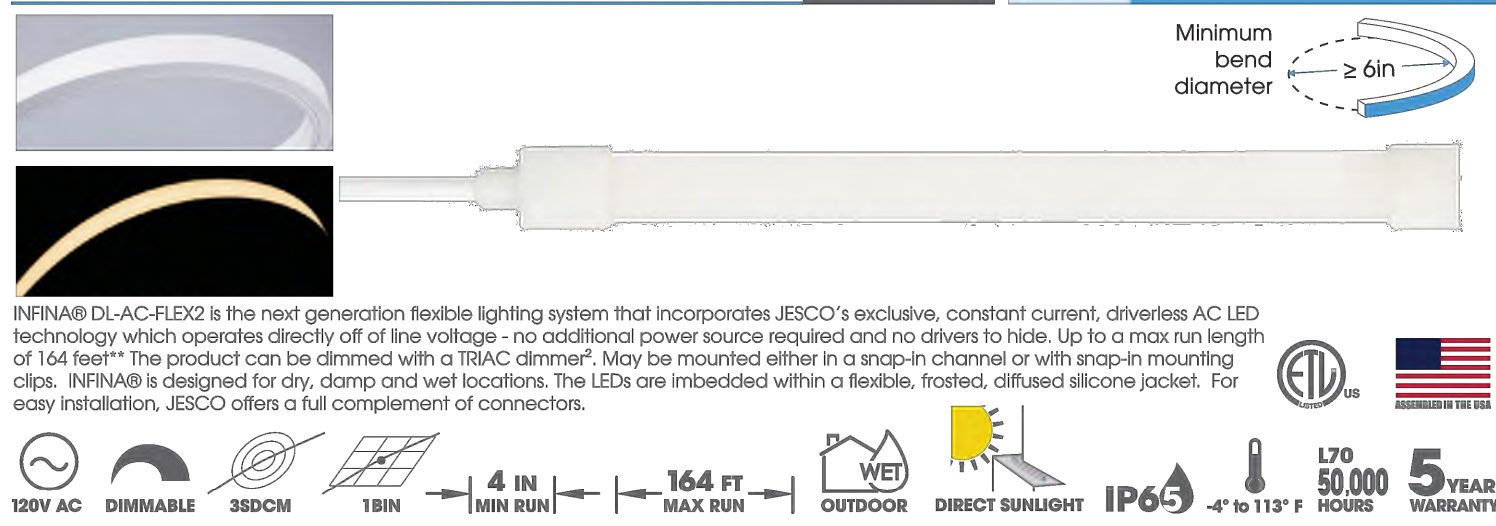
Page 1 of 4

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Rev 10/20/23
sal_probed_leds_N02

DL-AC-FLEX2-LNTB

INFINA® 2 AC LED NEO SERIES
DRIVERLESS TOP WHITE STATIC BENDING LED NEON



SPECIFICATIONS

INPUT VOLTAGE¹	120V AC ²
WATTAGE	4.2 W/ft
LUMENS	See performance chart below
LED / Ft.	36 LEDs /ft.
COLOR RENDERING INDEX	90+
COLOR CONSISTENCY	3 Steps MacAdam
BEAM ANGLE	120°
DIMMING³	TRIAC ⁴
DIMENSIONS	1/2" W x 1/2" H (15mm W x 12mm H)
MAX RUN⁵ / MIN RUN	164 feet ⁶ / 4 inch
ENVIRONMENT	Indoor / Outdoor ⁷ - dry, damp and wet
CERTIFICATIONS	ETLus
LUMEN MAINTENANCE⁸	50,000 hours ⁹
WARRANTY¹⁰	5 years ¹¹

¹ 277V AC requires a step-down transformer with 120V AC output
² Never exceed dimmer max wattage. Effectively dim down to 10%
³ Connecting cable to be taken into consideration when calculating total length
⁴ Hardwire only, see page 2 for all caution
⁵ TM21 Calculation based on LM80 report
⁶ 120V INFINA 2.0, and INFINA 2.0 have a 164 foot limited warranty from the date of shipment. INFINA 2.0, and INFINA 2.0 are deemed defective if there is a failure of 10% or more of the LED component. See specific R.O.T. and installation instructions for more information. Where a replacement is warranted, custom ordered INFINA 2.0, and INFINA 2.0 will only be replaced as originally ordered.



PERFORMANCE

COLOR TEMPERATURE	LUMEN	WATTAGE	EFFICACY	CRI
2700K	218 Lm	4.2 W	51.9 lm/W	90+
3000K	242 Lm	4.2 W	57.7 lm/W	90+
3500K	242 Lm	4.2 W	57.7 lm/W	90+
4000K	255 Lm	4.2 W	60.7 lm/W	90+
5000K	255 Lm	4.2 W	60.7 lm/W	90+

¹⁰ CCT within +/- 10%

BASIC ORDERING INFO

MOUNTING AND POWER ACCESSORIES TO BE COORDINATED BY CONTRACTOR

STEP 1 TERMINATIONS	INPUT SIDE	INPUT TYPE
DL-AC-FLEX2-LNTB	TS - Tail Side	HWSPM-08 - Hardwire 8ft cord w/ surge protection
	BS - Edge Side*	HWSPM-20 - Hardwire 20ft cord w/ surge protection
	TOP BOTTOM	PC02 - Plug-in 2ft cord
		PC04 - Plug-in 4ft cord

* When BS is selected, must choose TOP or BOTTOM Input

REFER TO LIGHTING PLAN FOR LENGTHS

STEP 2 CCT / LENGTH	COLOR	LENGTH
DL-AC-FLEX2-LNTB	2700 - 2700K 90CRI 218 Lm/ft	12' increments
	3090 - 3000K 90CRI 242 Lm/ft	
	4090 - 4000K 90CRI 242 Lm/ft	
	6090 - 5000K 90CRI 225 Lm/ft	

STEP 3 END CAP

DL-AC-FLEX2-LNTB-EC

Installed and sealed from factory

STEP 4 MOUNTING ACCESSORIES

See page 4

* Required one per each run



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Port Washington, NY 11050 Fax 855.265.6768 City of Industry, CA 91746 Fax 855.265.6768
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ENGINEERING STRONG COMMUNITIES

06/12/2025	Site Plan Submittal 3
05/09/2025	Site Plan Submittal 2
03/18/2025	Site Plan Submittal
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

PINE TRACE GOLF COURSE

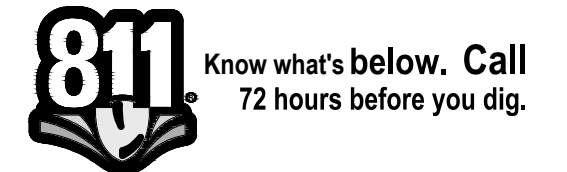
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LIGHTING FIXTURE DETAILS

CLIENT:

PINE TRACE GOLF COURSE

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DRAWN BY: CBR	CHECKED BY: SAK	DATE: MAY 2025
SCALE:	N/A	



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PROJECT NO.

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ENGINEERING STRONG COMMUNITIES

Specification Sheet

TYPE W1

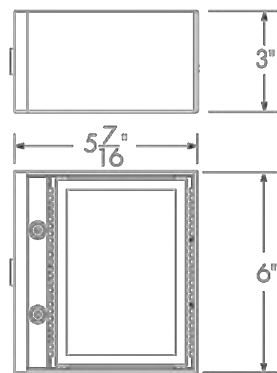
Lumenblade
Nano
BLDN

Project Name _____ Qty _____

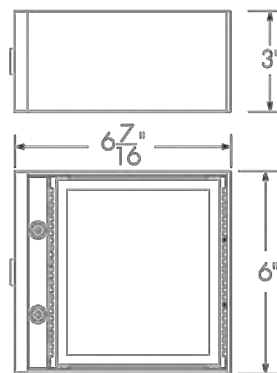
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W1H2 Wall Mount Option Shown



N02, N03, N05, N07
and N10 output

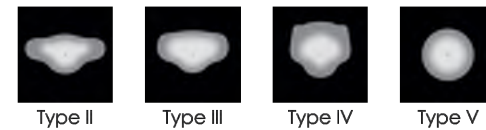


XS03, XS10, XS15, XS20
and XS25 output

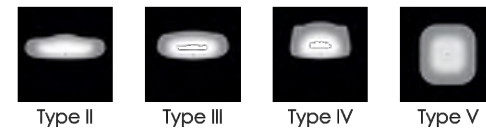
Side views

Bottom views

Distributions



Type II Type III Type IV Type V



Type II Backlight Shield Type III Backlight Shield Type IV Backlight Shield Type V Square

Color and Color Temperature



Control

ON/OFF 0-10V

Ratings

IP66 [optical chamber] IK06 [lens] IK10 [frame]

*IK10 polycarbonate lens option available, consult factory.

Description

The Lumenpulse Lumenblade Nano is an outdoor LED luminaire that uses a rectilinear version of the Lumencento light engine to create a continuous line of light. Side Mount or Wall Mount options are available. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architectures, provides a high level of security, and is sensitive to the natural environment with DarkSky approval, low outputs, and with a BUG rating of 0.

Features

Mounting	Side Mounting, Wall Mounting
Color and Color Temperature	True Amber 585nm-595nm (Turtle-Friendly), 2200K, 2700K, 3000K, 3500K, 4000K
Distributions	Type II, Type III or Type IV (with or without backlight shield), Type V, Type V square
Optical Option (factory installed)	Louver
Vibration Rating	Meets ANSI C136.31-2018 vibration rating for Bridge & Overpass applications
Option	Vibration Rated for Bridge and Overpass Corrosion-resistant Coating for Hostile Environments
Warranty	5-year limited warranty
Performance	
Output (Nominal Lumens)	Minimum 200lm/ Maximum 2500lm
Efficacy	Up to 127 lm/W (XS10 lumen output, 4000K, CRI 70+, Type VS)
Color Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
Lumen Maintenance	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C [77 - 122 °F])
DarkSky	DarkSky Approved (2200K, 2700K, 3000K and Amber color temperatures, BUG rating of 0)

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6/13/2025
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CITY FILE # _____

PINE TRACE GOLF
COURSE

SHEET TITLE:

LIGHTING FIXTURE
DETAILS 2

CLIENT:

PINE TRACE GOLF COURSE

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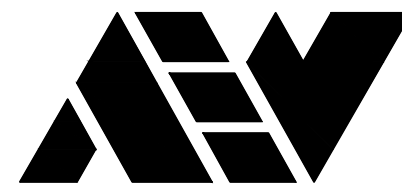
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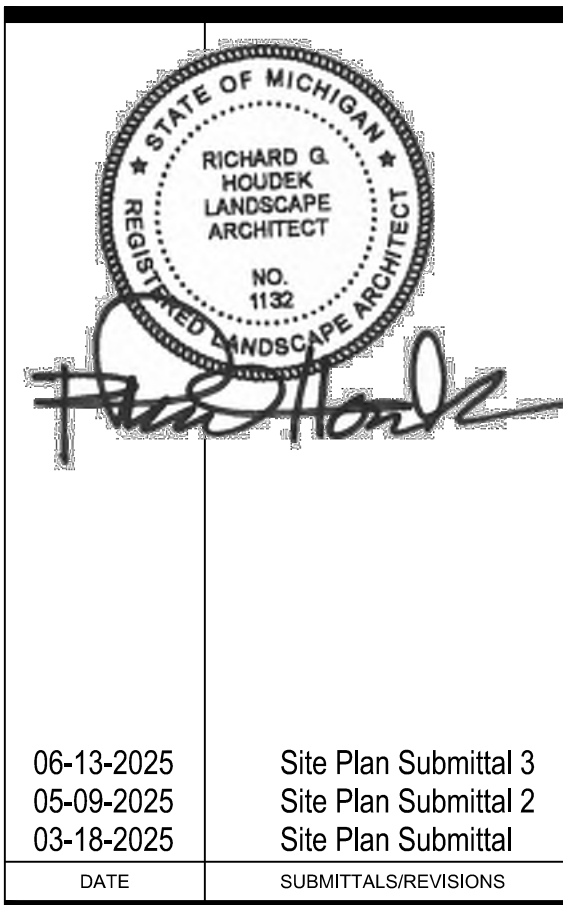
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ANDRIESE

Landscape Architecture

15000 Edward N. Hines Dr., Suite A
Plymouth, MI 48170

Ph: 248-347-7010



06-13-2025 Site Plan Submittal 3
05-09-2025 Site Plan Submittal 2
03-18-2025 Site Plan Submittal
DATE SUBMITTALS/REVISIONS

PROJECT NAME:

PINE TRACE GOLF COURSE

SHEET TITLE:

LANDSCAPE PLAN

CLIENT:

PINE TRACE GOLF COURSE

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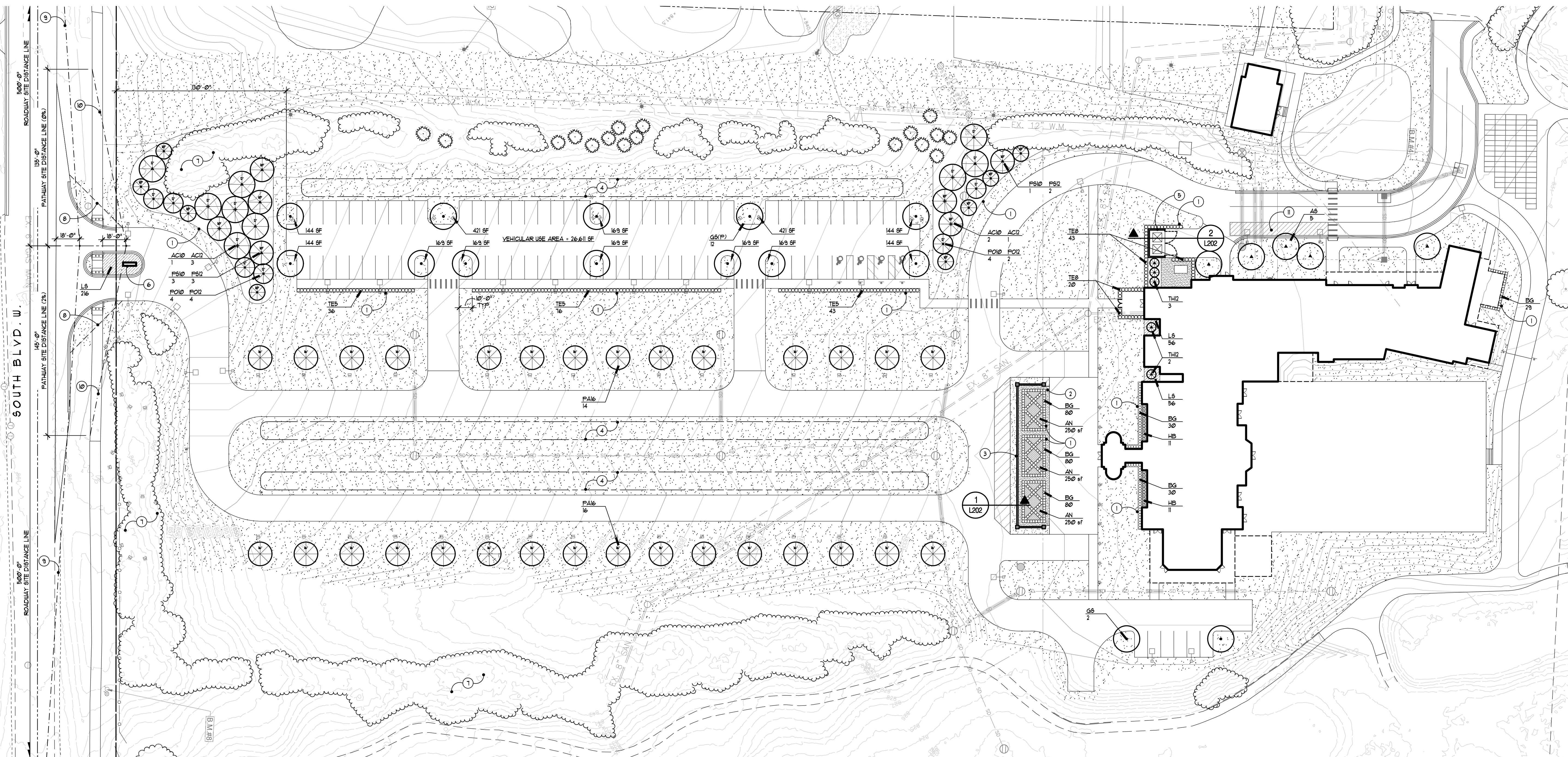
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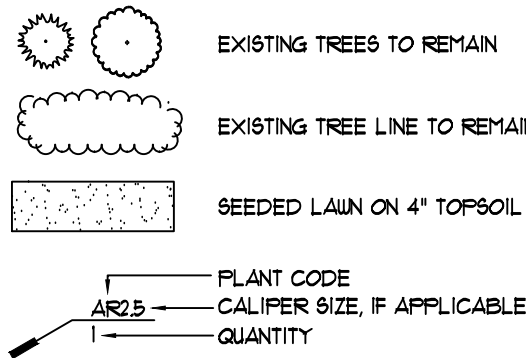
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Legend:



Note Key:

- STEEL EDGING BETWEEN PLANT BED AND LAWN OR CRUSHED STONE PATHWAY, TYP.
- CRUSHED STONE PATHWAY OVER GEO-TEXTILE FABRIC PINNED TO SUB-GRADE
- LOW MASONRY RETAINING WALL, TYP. - REFER TO TYPICAL DETAIL
- SNOW STORAGE AREA
- DUMPSTER SCREEN WALL - REFER TO TYPICAL DETAIL
- ENTRANCE SIGN
- EXISTING VEGETATIVE BUFFER TO REMAIN
- 15' CORNER CLEARANCE
- ROADWAY SITE DISTANCE LINE
- PATHWAY SITE DISTANCE LINE
- LOADING AREA FOR COMMERCIAL DELIVERY VEHICLES

Landscape Estimate of Probable Cost

Description	Qty.	Unit	Unit Price	Total
Deciduous Trees	19	ea	\$ 850.00	\$ 16,150.00
Evergreen Trees	65	ea	\$ 700.00	\$ 45,500.00
Tall Evergreen Shrubs	63	ea	\$ 500.00	\$ 31,500.00
Low Evergreen Shrubs	484	ea	\$ 150.00	\$ 72,600.00
Deciduous Shrubs	22	ea	\$ 80.00	\$ 1,760.00
Perennials	328	ea	\$ 15.00	\$ 4,920.00
Annuals	750	sf	\$ 12.00	\$ 9,000.00
Seeded Lawn	24,922	sy	\$ 3.00	\$ 74,766.00
Topsoil for Lawn (4" Depth)	2,750	cy	\$ 30.00	\$ 82,500.00
Plant Mix (12" Depth)	185	cy	\$ 50.00	\$ 9,250.00
Mulch (4" Depth Trees/Shrubs, 2" Perennials/GC)	190	cy	\$ 80.00	\$ 15,200.00
Metal Edging	2,290	lf	\$ 11.00	\$ 25,190.00
Crushed Stone on Landscape Fabric (3" Depth)	55	cy	\$ 50.00	\$ 2,750.00
Irrigation System		lump sum	\$ 210,000.00	\$ 210,000.00

Total Landscape Opinion of Probable Cost \$ 601,086.00

Parking Lot Landscape Requirements:

- INTERIOR LANDSCAPING REQUIREMENTS
PARKING SPACES = 83
VEHICULAR USE AREA = 26,611 sf
INTERIOR LANDSCAPE AREA REQUIRED = 26,611 sf + 5% = 1331 sf
INTERIOR LANDSCAPE AREA PROVIDED = 1256 sf
NT. DECIDUOUS SHADE TREES REQUIRED = 1331 sf / 150 sf = 8 TREES
NT. DECIDUOUS SHADE TREES PROVIDED = 8 TREES
TERMINAL LANDSCAPE AREA REQUIRED = 144 sf MIN. (4) = 576 sf
TERMINAL LANDSCAPE AREA PROVIDED = 576 sf
- PERIMETER LANDSCAPING REQUIREMENTS
NOT APPLICABLE DUE TO DISTANCE FROM PARKING LOT TO PUBLIC ROW EXCEEDING 100' AND PARKING LOT SUFFICIENTLY SCREENED BY PROPOSED EVERGREEN TREES

NOTE: THE PARKING LOT EAST OF THE PROPOSED BUILDING CONTAINING 6 SPACES HAS NO PERIMETER OR INTERIOR LANDSCAPE REQUIRED BY ORDINANCE, BUT TWO (2) REPLACEMENT TREES ARE PROPOSED TO FLANK THE NORTH AND SOUTH END OF THAT PARKING BAY.

General Landscape Notes:

- ALL DISTURBED AREAS DUE TO CONSTRUCTION OPERATIONS SHALL BE RESTORED WITH SEEDDED LAWN ON 4" OF TOPSOIL. REFER TO TOPSOIL SPECIFICATIONS.
- ALL BED LINES AND MOW EDGES SHALL BE STAKED OUT BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
- PROTECT ALL NEW AND EXISTING UTILITIES, LIGHTS, PAVEMENT, POLES, ETC. DURING CONSTRUCTION AS INDICATED ON THE PLANS.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITION INFORMATION PRIOR TO CONSTRUCTION NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONCERNS PRIOR TO PROCEEDING.
- PROPOSED UTILITIES SHOWN FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFYING THE LANDSCAPE ARCHITECT OF ANY CONCERNS PRIOR TO PROCEEDING.
- ALL LANDSCAPE TO BE IRRIGATED FROM A FULLY AUTOMATED IRRIGATION SYSTEM. REFER TO IRRIGATION DOCUMENTS.
- ALL PLANT MATERIALS ARE TO BE INSTALLED IN A SOUND, WORKMAN-LIKE MANNER IN ACCORDANCE WITH ACCEPTED PLANTING PROCEDURES AND THE CITY'S PLANTING REQUIREMENTS.
- THE PLANTING SEASON FOR DECIDUOUS PLANTS SHALL BE BETWEEN MARCH 1 AND JUNE 1 AND FROM OCTOBER 1 UNTIL THE PREPARED SOIL BECOMES FROZEN. THE PLANTING SEASON FOR EVERGREEN PLANTS SHALL BE BETWEEN MARCH 1 AND JUNE 1.
- ALL PLANT MATERIALS ARE TO BE NORTHERN NURSERY GROWN NO.1 GRADE, HARDY TO THE CLIMATE OF MICHIGAN, APPROPRIATE FOR THE SOIL, CLIMATIC, AND ENVIRONMENTAL CONDITIONS, AND RESISTANT TO DISEASE AND INSECT ATTACK. ALL PLANT MATERIALS SHALL CONFORM TO THE CURRENT JAN STANDARDS FOR NURSERY STOCK AND SHALL COMPLY WITH THE CITY'S PLANT MATERIAL STANDARDS.
- ALL TREES SHALL HAVE A CENTRAL LEADER AND A RADIAL BRANCHING STRUCTURE. PARK GRADE TREES ARE NOT ACCEPTABLE. ALL TREES SHALL BE BALLED AND BURLAPPED. (B&B)
- ANY DECIDUOUS CANOPY TREES WITH BRANCHES THAT MIGHT TEND TO DEVELOP INTO 'Y' CROTCHES SHALL BE SUBORDINATED SO AS NOT TO BECOME DOMINANT BRANCHES.
- MULCH SHALL BE NATURAL COLOR, FINELY SHREDDED HARDWOOD BARK FOR ALL PLANTINGS. 4" THICK FOR TREES IN 4-FOOT DIAMETER CIRCLE WITH 3" PULLED AWAY FROM TRUNK. 4" THICK FOR SHRUBS AND SHRUB BEDS AND 2" THICK BARK FOR PERENNIALS.
- ALL PLANT MATERIAL SHALL BE WARRANTIED FOR TWO (2) FULL YEARS AFTER DATE OF ACCEPTANCE BY THE CITY. ALL UNHEALTHY AND DEAD MATERIAL SHALL BE REMOVED IMMEDIATELY AND REPLACED WITHIN SIX (6) MONTHS OR THE NEXT APPROPRIATE PLANTING PERIOD WHICHEVER COMES FIRST. REPLACEMENT MATERIAL SHALL CLOSELY MATCH THE SIZE OF THE MATERIAL IT IS INTENDED TO REPLACE.
- ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION, INCLUDING WATERING, CULTIVATION, WEED CONTROL AND SOIL ENRICHMENTS AS MAY BE NECESSARY.
- ALL TREE WRAP, STAKES, AND GUYS MUST BE REMOVED BY JULY 1ST FOLLOWING THE FIRST WINTER SEASON AFTER INSTALLATION.
- ALL LANDSCAPE AREAS ARE TO BE MAINTAINED IN HEALTHY GROWING CONDITION FREE OF WEEDS, DEBRIS AND REFUSE AND IN CONFORMANCE WITH THE APPROVED LANDSCAPE PLAN. ALL LAWN AREAS ARE TO BE MAINTAINED AT A UNIFORM HEIGHT AND CUT ON A WEEKLY BASIS.
- CONTRACTOR TO REMOVE ALL CONSTRUCTION DEBRIS AND EXCESS MATERIALS FROM THE SITE PRIOR TO FINAL ACCEPTANCE.
- THE PROVIDER OF THE FINANCIAL GUARANTEE FOR THE LANDSCAPE INSTALLATION SHALL BE FULLY RESPONSIBLE FOR COMPLETION OF THE LANDSCAPE INSTALLATION AND MAINTENANCE PER THE APPROVED LANDSCAPE PLAN AND APPLICABLE CITY ORDINANCES.

Plant List

CODE	QTY.	DESCRIPTION	SIZE	COMMENTS
AN	750 sf	Annuals		by owner
Perennials				
LS	328	Liriope spicata	1 gal.	space 30" o.c.
Shrubs				
BG	329	Buxus 'Green Mountain'	30" ht. x 24" spnd.	hedge to 24" ht.
HB	22	Hydrangea p. 'Ivobor'	5 gal.	space 30" o.c.
TE5	155	Thuja occidentalis 'Smaragd'	9" ht.	single main leader, matched, unsheared, full to ground, hedge to 4" ht., space 30" o.c.
TE8	63	Thuja occidentalis 'Smaragd'	8" ht.	single main leader, matched, unsheared, full to ground, hedge to 7" ht., space 30" o.c.
Ordinance Required Parking Lot Trees (P)				
GS(P)	12	Gleditsia Li. 'Skyline'	3" cal.	unsheared, full to ground
		Skyline Honeylocust	B&B	

This is referencing an old version of the tree conservation code. This is not accurate. 1b and 2b does not exist as of 2019. Please make sure you are referencing current ordinance. As previously specified: 2" trees are the standard used for replacement trees. Larger caliper deciduous trees can, however, be used to account for specimen tree replacement, which is based on DBH. In those cases 3" tree would account for 3" of replacement (not 2 trees). Evergreen replacement are to be 8". No Credit is given based on taller evergreens (unless you are proposing 16' evergreens, in which case we have allowed those to account for 2 trees in the case of specimen tree replacement.

Replacement Trees Plant List

CODE	QTY.	DESCRIPTION	SIZE	COMMENTS	REPL. FACTOR	REPL. CREDITS
AC10	3	Abies concolor	10" ht.	unsheared, full to ground	2	3
AC12	4	Abies concolor	12" ht.	unsheared, full to ground	2	4
AS	5	Acer saccharum 'Green Mountain'	3" cal.	unsheared, full to ground	2	5 or 15"
GS	2	Gleditsia Li. 'Skyline'	3" cal.	unsheared, full to ground	2	2 or 6"
PA16	30	Picea abies	16" ht.	unsheared, full to ground	2	60
PO10	8	Picea canadensis 'Bonsai'	10" ht.	unsheared, full to ground	2	8
PO12	6	Picea canadensis 'Bonsai'	12" ht.	unsheared, full to ground	2	6
PS10	4	Pinus strobus	10" ht.	unsheared, full to ground	2	8
PS12	5	Pinus strobus	12" ht.	unsheared, full to ground	2	5
TH12	5	Thuja occidentalis 'Hetz Wintergreen'	12" ht.	single main leader, matched, unsheared, full to ground	2	5

Total Replacement Tree Credits: 144

NOTE: ALL PROPOSED TREES EXCEPT THOSE REQUIRED BY ORDINANCE ARE INTENDED AS REPLACEMENT TREES TO SATISFY PHASE 2 REPLACEMENT REQUIREMENTS AND APPLY TOWARDS THE BALANCE OF THE PHASE 1 TREE REPLACEMENT AGREEMENT. REFER TO SHEETS C15 & C16 FOR ADDITIONAL INFORMATION.

REPLACEMENT TREE CREDITS HAVE BEEN CALCULATED ACCORDING TO SECTION 106-391 (1b) AND 21b) OF THE GENERAL CODE OF ORDINANCES, WHEREBY EACH 3" CAL. DECIDUOUS TREE AND EACH 10" HT. CONIFEROUS TREE SHALL BE CREDITED TO THE PERMIT HOLDER AS REPLACING 2 TREES.

144 REPLACEMENT TREES PROVIDED (SEE TOTAL REPLACEMENT TREE CREDITS ABOVE)

48 PHASE 2 REPLACEMENT TREES REQUIRED (SEE SHEET C15)

96 TOTAL TREES APPLIED TOWARDS PHASE 1 TREE REPLACEMENT AGREEMENT (144-48=96)


update based on comments



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

ENGINEERING STRONG COMMUNITIES

Landscape Architecture
15000 Edward N. Hines Dr., Suite A
Plymouth, MI 48170

	<p>Richard G. Houder Landscape Architect No. 1132 Registered Professional Landscape Architect</p>
<p>06-13-2025 05-09-2025 03-18-2025</p>	<p>Site Plan Submittal 3 Site Plan Submittal 2 Site Plan Submittal</p>
<p>DATE</p>	<p>SUBMITTALS/REVISIONS</p>

PROJECT NAME

SHEET TITLE

CLIENT: PINE TRACE GOLF COURSE

CLIENT

☒ PRELIMINARY ☐ CONSTRUCTION ☐ RECORD

DRAWN BY:	CHECKED BY:	DATE:
SAE	RGH	March 2025
SCALE: AS NOTED		

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

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

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PROJECT NO. _____

1530-0002

C:\USERS\STEVE\DWG\PROJECTS - PROJECTS\P23-341 PINE TRACE\DWG\SHS\P23-341_L201_LANDSCAPE DETAILS.DWG
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SHEET NO.

L201

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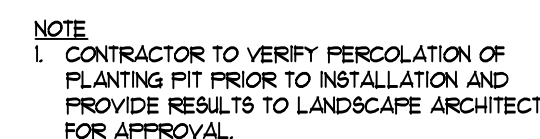


- ① SHOVEL CUT EDGE OR METAL EDGING, SEE PLANS AND SPECS
- ② SHRUB PLANTS
- ③ DOUBLE PROCESSED SHREDDED BARK MULCH 4" DEPTH TYPICAL, DO NOT PLACE MULCH UP AGAINST TRUNK
- ④ REMOVE BURLAP & CUT TURF FROM TOP 15" OF BALL
- ⑤ MASS EXCAVATE PLANT BED TO 12" DEPTH & BACKFILL WITH APPROVED PLANT MIX AND FERTILIZER
- ⑥ 6" MIN. BETWEEN ROOTBALL AND EDGE OF PLANT PIT
- ⑦ UNDISTURBED SUBGRADE
- ⑧ SCARIFY BOTTOM AND SIDES OF PLANT BED
- ⑨ 4" TOPSOIL AND LAWN. RETURN TO PLANS AND SPECS.
- ⑩ SEE PLAN FOR SPACING

SCALE: 1" = 1'-0"

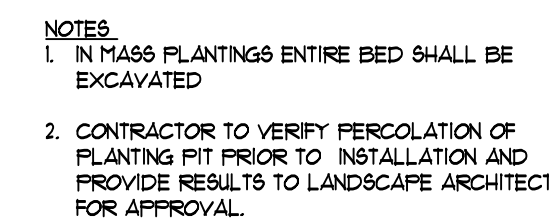


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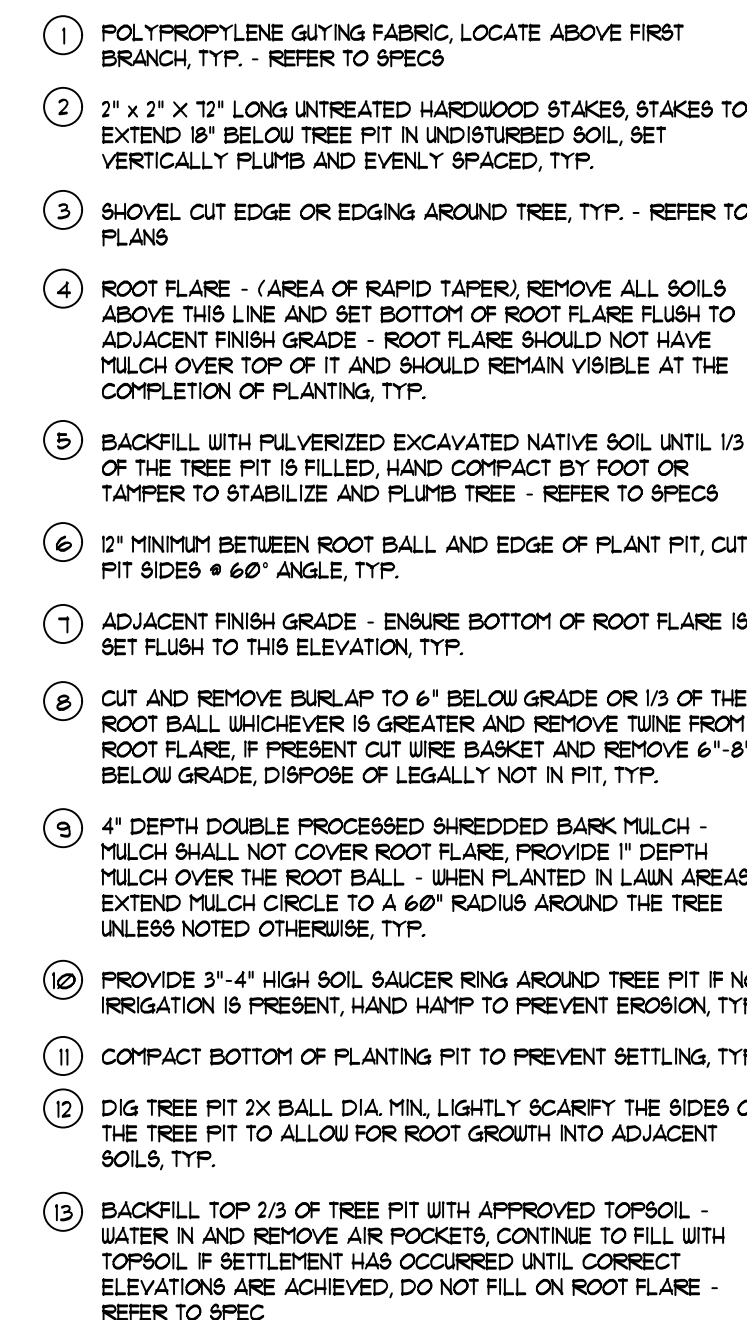
- ① SHOVEL CUT EDGE OR METAL EDGING,
SEE PLANS AND SPECS
- ② SHRUB PLANTS
- ③ DOUBLE PROCESSED SHREDED
BARK MULCH 4" DEPTH TYPICAL DO
NOT PLACE MULCH UP AGAINST TRUNK
- ④ REMOVE BURLAP & CUT TUINE
FROM TOP 1/3 OF BALL
- ⑤ MASS EXCAVATE PLANT BED TO 12"
DEPTH AND BACKFILL WITH APPROVED
PLANT MEDIA AND FERTILIZER.
- ⑥ 4" DIA. PER DRANTILINE IN FEASTONE
BASKET, WRAP TRENCH WITH
NON-WOVEN CLOTH FILTER FABRIC.
SLOPE 4 MIN. 5% TO STORM. SEE PLANS
- ⑦ UNDISTURBED SUBGRADE
- ⑧ FITCH SUBGRADE TO DRAIN
- ⑨ SCARIFY BOTTOM AND SIDES OF PLANT
BED
- ⑩ DEPTH VARIES, SEE PLANT 12" DEPTH

SCALE: 1" = 1'-0"

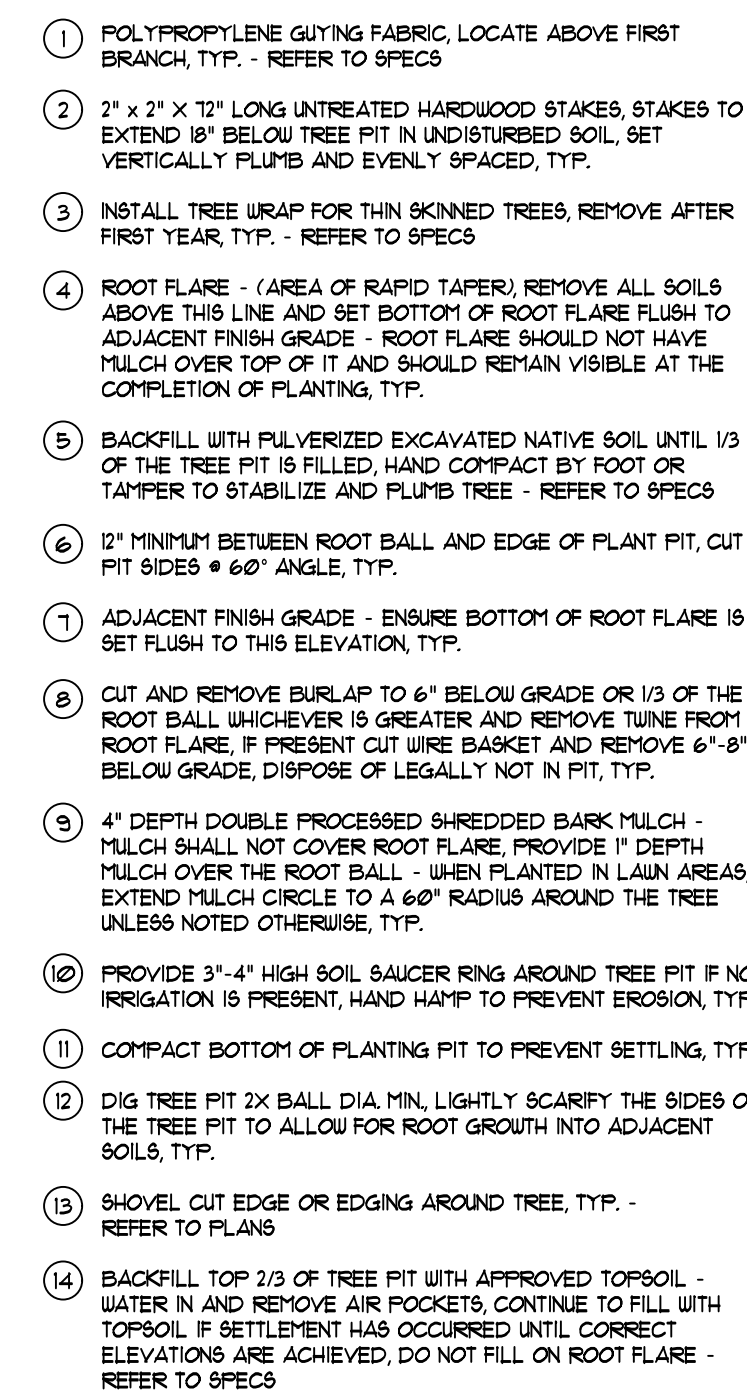


- ① SEE PLANS FOR SPACING
- ② 2" DEPTH DOUBLE PROCESSED SHREDDED BARK MULCH, DO NOT PLACE MULCH UP AGAINST THE BASE OF THE PLANT
- ③ SHOVEL CUT EDGE, SEE PLAN
- ④ EXCAVATE EXISTING SOIL, 6" DEEP BACKFILL WITH APPROVED PLANT MIX AND FERTILIZER (SEE SPECS) TILL TO A DEPTH OF 12". CUT PLANTING PIT SIDES @ 60° ANGLE
- ⑤ UNDISTURBED SUBGRADE
- ⑥ PLANT, REMOVE FROM CONTAINER

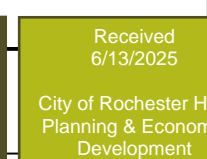
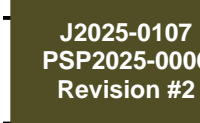
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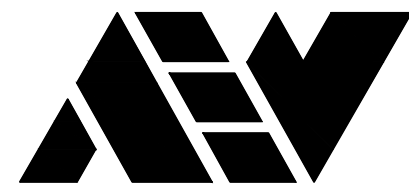
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CIVIL ENGINEERS SURVEYORS ARCHITECTS

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

www.aewinc.com

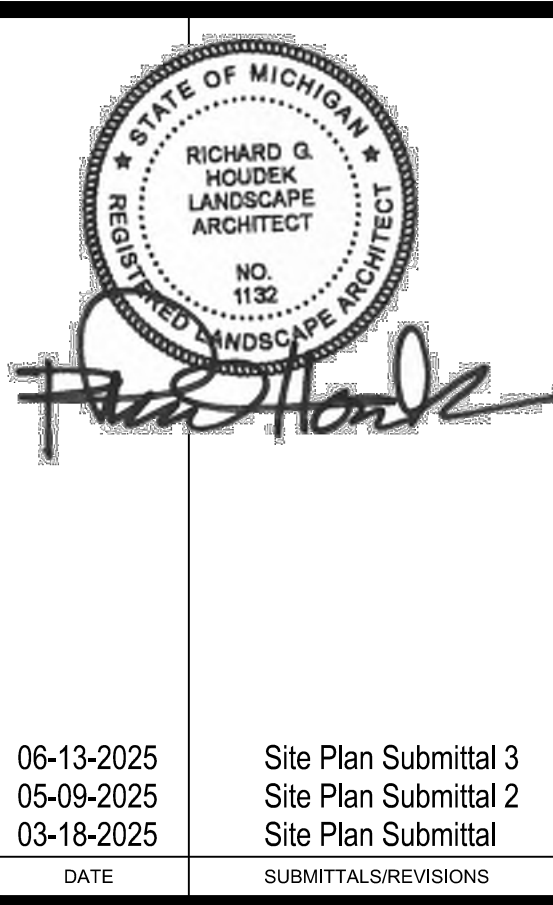
ENGINEERING STRONG COMMUNITIES

GRISSIM
METZ ASSOCIATES
ANDRIESE

Landscape Architecture

15000 Edward N. Hines Dr., Suite A
Plymouth, MI 48170

Ph: 248-347-7010



06-13-2025	Site Plan Submittal 3
05-09-2025	Site Plan Submittal 2
03-18-2025	Site Plan Submittal
DATE	SUBMITTALS/REVISIONS

PROJECT NAME:

PINE TRACE GOLF COURSE

SHEET TITLE:

LANDSCAPE DETAILS

CLIENT:

PINE TRACE GOLF COURSE

<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> RECORD
DRAWN BY: SAE	CHECKED BY: RGH	DATE: March 2025
SCALE: AS NOTED		



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PROJECT NO.

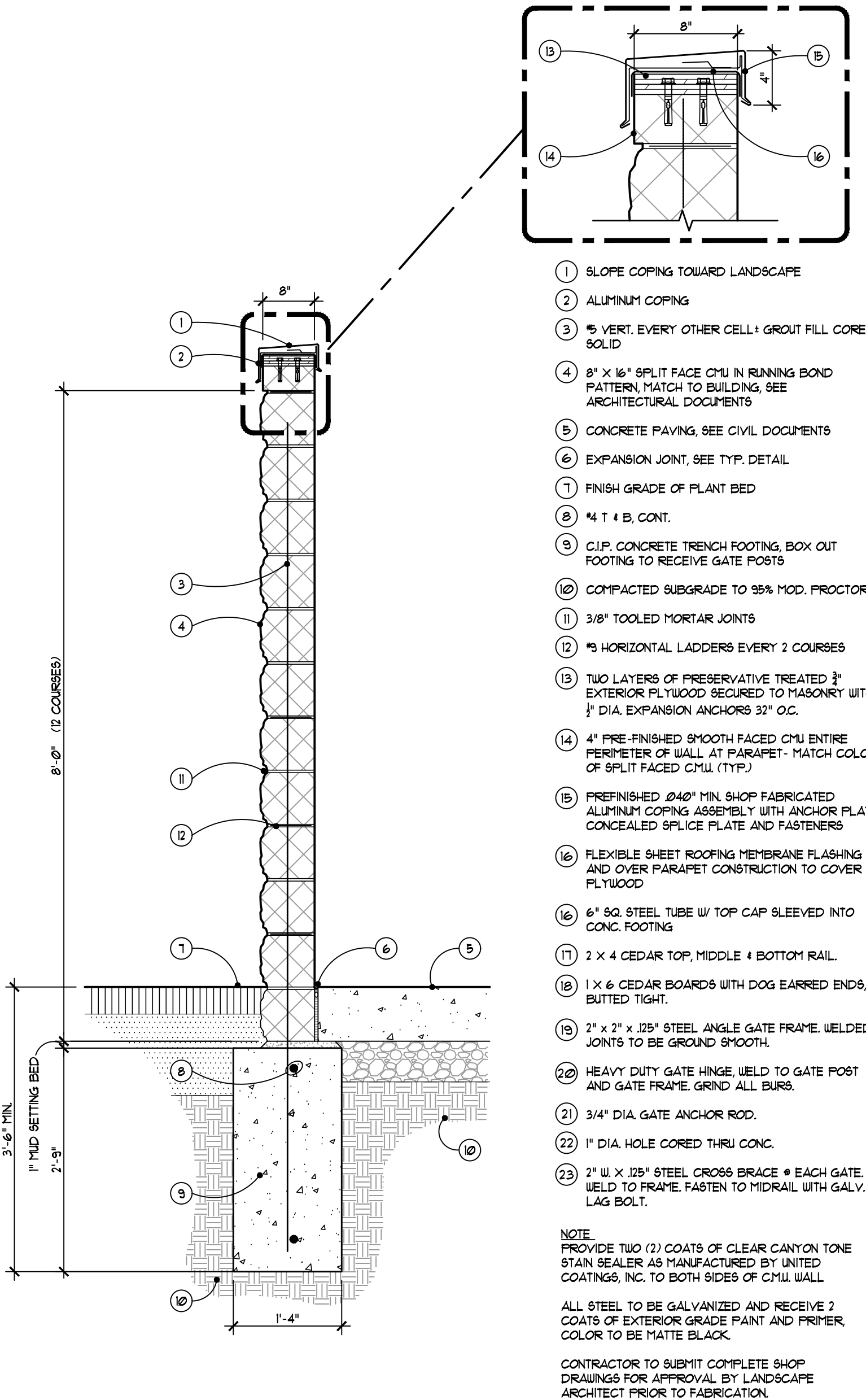
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SHEET NO.

L202

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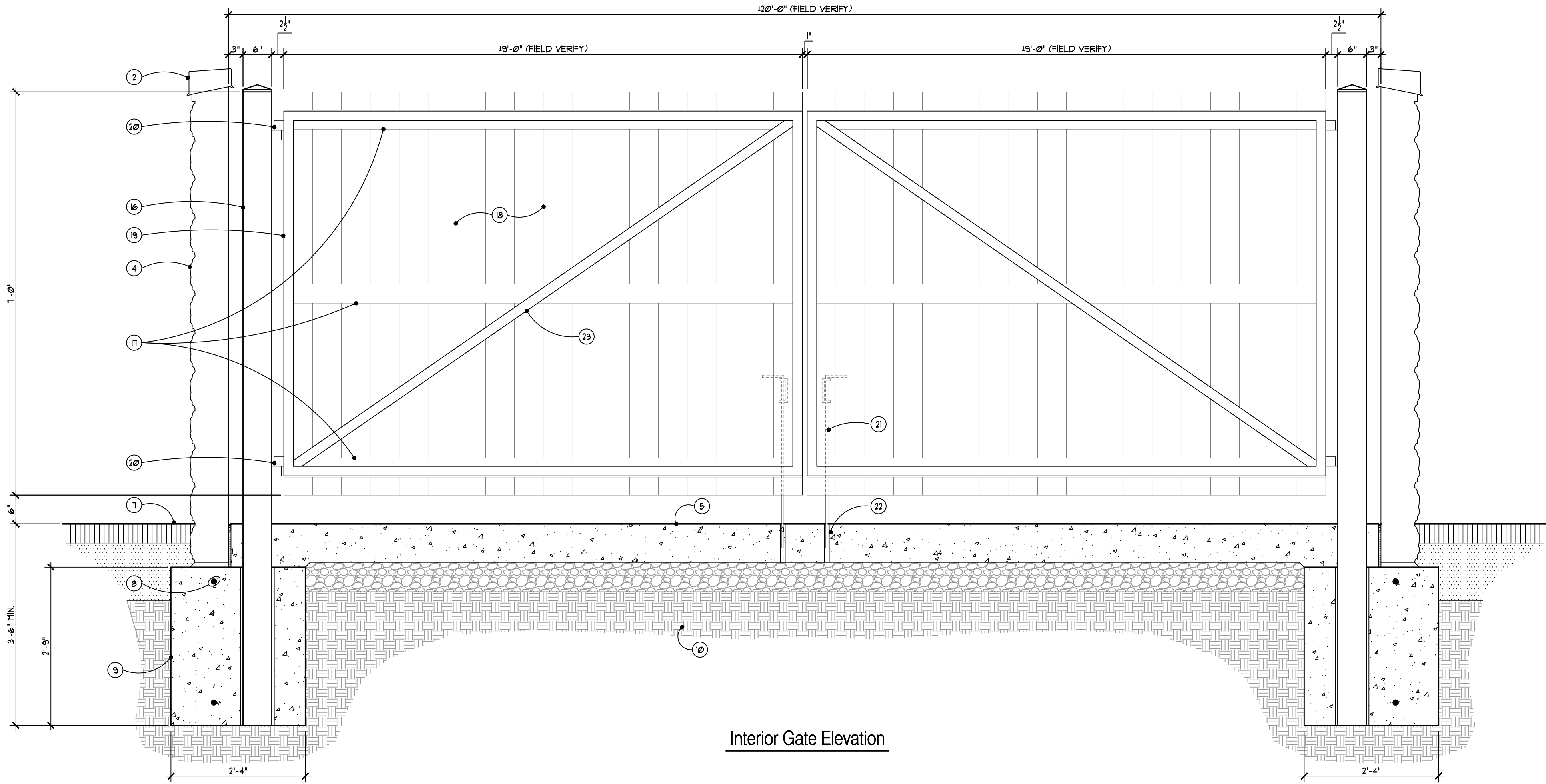


- 1 SLOPE COPING TOWARD LANDSCAPE
- 2 ALUMINUM COPING
- 3 5" VERT. EVERY OTHER CELL: GROUT FILL CORE SOLID
- 4 8" X 16" SPLIT FACE CMU IN RUNNING BOND PATTERN, MATCH TO BUILDING, SEE ARCHITECTURAL DOCUMENTS
- 5 CONCRETE PAVING, SEE CIVIL DOCUMENTS
- 6 EXPANSION JOINT, SEE TYP. DETAIL
- 7 FINISH GRADE OF PLANT BED
- 8 #4 T & B, CONT.
- 9 C.I.P. CONCRETE TRENCH FOOTING, BOX OUT FOOTING TO RECEIVE GATE POSTS
- 10 COMPACTED SUBGRADE TO 95% MOD. PROCTOR
- 11 3/8" TOOLED MORTAR JOINTS
- 12 5" HORIZONTAL LADDERS EVERY 2 COURSES
- 13 TWO LAYERS OF PRESERVATIVE TREATED 3" EXTERIOR PLYWOOD SECURED TO MASONRY WITH 1" DIA. EXPANSION ANCHORS 32" O.C.
- 14 4" PRE-FINISHED SMOOTH FACED CMU ENTIRE PERIMETER OF WALL. AT PARAPET- MATCH COLOR OF SPLIT FACED CMU. (TYP.)
- 15 PREFINISHED 3/4" MIN. SHOP FABRICATED ALUMINUM COPING ASSEMBLY WITH ANCHOR PLATE, CONCEALED SPLICE PLATE AND FASTENERS
- 16 FLEXIBLE SHEET ROOFING MEMBRANE FLASHING UP AND OVER PARAPET CONSTRUCTION TO COVER PLYWOOD
- 16 6" SQ. STEEL TUBE W/ TOP CAP SLEEVED INTO CONC. FOOTING
- 11 2 X 4 CEDAR TOP, MIDDLE & BOTTOM RAIL.
- 18 1 X 6 CEDAR BOARDS WITH DOG EARED ENDS, BUTTED TIGHT.
- 19 2" X 2" X 125" STEEL ANGLE GATE FRAME WELDED JOINTS TO BE GRIND SMOOTH.
- 20 HEAVY DUTY GATE HINGE, WELD TO GATE POST AND GATE FRAME, GRIND ALL BURRS.
- 21 3/4" DIA. GATE ANCHOR ROD.
- 22 1" DIA. HOLE CORED THRU CONC.
- 23 2" W. X 1/2" STEEL CROSS BRACE # EACH GATE. WELD TO FRAME, FASTEN TO MIDRAIL WITH GALV. LAG BOLT.

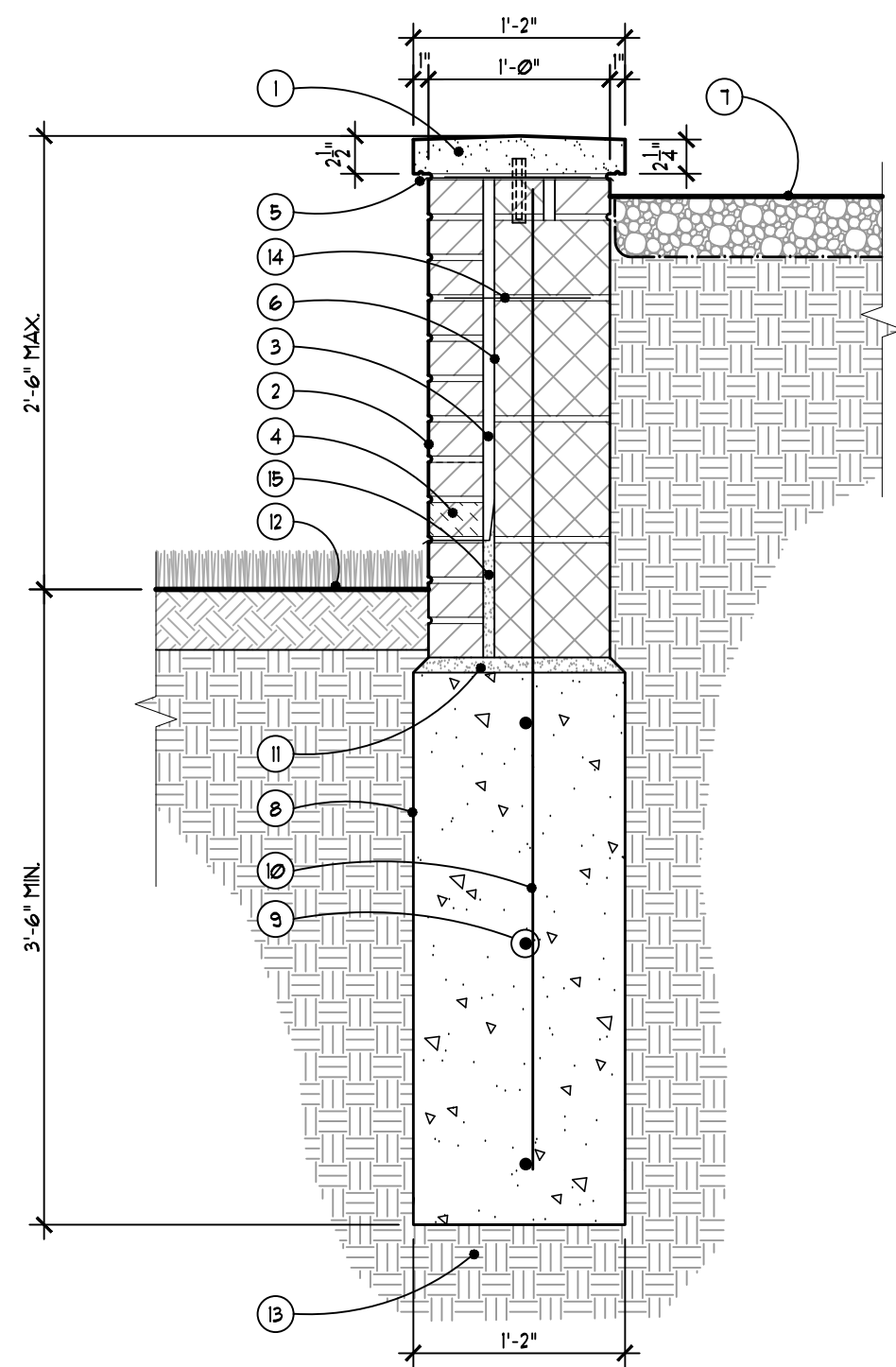
NOTE:
PROVIDE TWO (2) COATS OF CLEAR CANYON TONE STAIN SEALER AS MANUFACTURED BY UNITED COATINGS, INC. TO BOTH SIDES OF CMU WALL.

ALL STEEL TO BE GALVANIZED AND RECEIVE 2 COATS OF EXTERIOR GRADE PAINT AND PRIMER, COLOR TO BE MATTE BLACK.

CONTRACTOR TO SUBMIT COMPLETE SHOP DRAWINGS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO FABRICATION.



Interior Gate Elevation



- 1 DOLEMITIC LESTONE CAP, SIZE AS SHOWN, EQUAL LENGTHS PER RUN (1'-36") WITH 3/8" HORIZ. AND VERT. BACKER ROD AND SEALANT JOINTS, SEALANT COLOR TO MATCH LESTONE, PROVIDE (1) COAT TOPSEAL BY EUGOLD CHEMICAL TO UNDERSIDE OF CAP, PROVIDE 5.8. FINS FOR CONNECTION TO WALL, MIN. (2) FINS PER CAP SECTION. SUBMIT SHOP DRAWINGS CONSISTING OF ALL DETAILS, DIMENSIONS, AND CAP LAYOUT FOR REVIEW.
- 2 MASONRY FACE BRICK IN RUNNING BOND PATTERN WITH WHITE WASH FINISH, 3/8" MORTAR JOINTS RAKED BACK, TYP.
- 3 1" VOID SPACE, TYP.
- 4 CLEAR CELL VENT WEEPS, 24" O.C. FIRST COURSE ABOVE GRADE, TYP.
- 5 5 OZ COPPER FLASHING, TYP.
- 6 CMU BACKING WITH 3/8" MORTAR JOINTS, GROUT FILL FULL ALL CORES, CUT BLOCKS AS REQUIRED, TYP.
- 7 4" DEPTH CRUSHED STONE OVER GEO-TEXTILE FABRIC FINED TO SUB-GRADE
- 8 CONCRETE TRENCH FOUNDATION, DEPTH TO FROST
- 9 NO 5 HORIZ. BARS CONT. 12" O.C. 3" MIN. COVERAGE, LAP SPLICE AS REQUIRED, TYP.
- 10 NO. 4 VERT. BARS 36" O.C. TYP.
- 11 1" GROUT LEVELING BED, TYP.
- 12 LAWN ON 4" DEPTH TOPSOIL
- 13 EXISTING SUBGRADE, COMPACT TOP 12" OF SUBGRADE TO 95% MODIFIED PROCTOR IN PLANTED AREAS, 95% MODIFIED PROCTOR AT WALL AND PAVING, TYP.
- 14 METAL LADDERS EACH COURSE, TYP.
- 15 GROUT FILL FULL VOID SPACE BELOW FLASHING AND WEEP, TYP.

1 Typical Masonry Retaining Wall Detail
SCALE: 1" = 1'-0"



J2025-0107
PSP2025-0006
Revision #2

Received
6/13/2025
City of Rochester Hills
Planning & Economic
Development



IRRIGATION SYSTEM - FRONT ENTRY & CLUBHOUSE AREA
PINE TRACE GOLF CLUB IRRIGATION DESIGN

Delivery Address: 3600 Pine Trace Blvd, Rochester Hills, MI 48309 Ph. (248) 852-7100

JOB No. 2024-01
DRAWN BY: GSK
APPROVED:
DATE: 02/19/2025

REVISIONS		
11/7/2024	GAS LINE AVOIDANCE CHANGES	GSK
2/19/2025	FRONT ENTRY DESIGN ADDED	GSK

SHEET
IR-1