

PLANNING COMMISSION AGENDA

Regular Meeting

February 20, 2025 at 7:00 PM



- 1) **CALL TO ORDER**
- 2) **ROLL CALL**
- 3) **APPROVAL OF AGENDA** - Items can be deleted from the Agenda by board action.
- 4) **PUBLIC COMMENT ON AGENDA ITEMS** Persons addressing the board are required to give their name and address for the record when called upon by the Chair. Members of the public shall be limited to speaking for a maximum of three (3) minutes. Comments should address AGENDA ITEM topics. Public Hearing items should be addressed during the PUBLIC HEARING portion of the meeting agenda. Non-Agenda items should be addressed during the PUBLIC COMMENT-NON-AGENDA ITEMS portion of the meeting agenda.
- 5) **PUBLIC HEARINGS & SUBSEQUENT BOARD ACTION**
- 6) **OLD BUSINESS**
- 7) **REPORTS AND RECOMMENDATIONS/NEW BUSINESS**
 - A. **1154 WEST MICHIGAN AVE SITE DEVELOPMENT PLANS**
- 8) **PUBLIC COMMENT ON NON-AGENDA ITEMS** Persons addressing the board are required to give their name and address for the record when called upon by the Chair. Members of the public shall be limited to speaking for a maximum of three (3) minutes. Comments should address NON-AGENDA ITEM topics. Public Hearing items should be addressed during the PUBLIC HEARING portion of the meeting agenda. Agenda items should be addressed during the PUBLIC COMMENT-AGENDA ITEMS portion of the meeting agenda.
- 9) **BOARD REPORTS**
- 10) **ADJOURNMENT**



ITEM 7.A

TO: Planning Commission
FROM: Marcia Strange, Director of Community Development
DATE: February 20, 2025
SUBJECT: **1154 WEST MICHIGAN AVE SITE DEVELOPMENT PLANS**

Site development plans have been submitted for a new hotel at 1154 West Michigan. We introduced the project at the January Planning Commission meeting at which there were some initial questions. Since that time, staff has reviewed our review approach with the City Attorney and have communicated some clarifying items with the Engineers.

A stamped Landscape Plan has been submitted and includes screening for consideration.

Regarding the solar mounts and panel assemblies:

Most of the requirements for these assemblies will come from the Medium Density Ground Mount Solar requirements which are more specific than the accessory structure information.

The setback requirements are mostly based on the accessory building setbacks (3.1.10), but there is a 50' setback from the adjacent residential to the East at the North end of the property required by the solar section (4.53 F).

Side setbacks must be at least 10' and add up to 25' (3.1.10 D) The front setback is not an issue for the panels.

Measuring the setback distance of an accessory building is typically to the wall from the property line. Because there is no wall, it was decided that the columns could serve as the wall location.

Height limit is based on accessory structure requirements (4.53 G) in the B-4 Regional Commercial Zone (and is measured as the mid-height of the slope). A 25' (2-story) height is allowed in areas where 50% of adjacent buildings (200' radius) are at least 2 story. The proposed solar panels are within the limits of these requirements.

Area of solar panel is limited to 1/2 acre per (4.53.2 H.ii) and the total structure area is just under 21,000 sf (0.48 acre).

Building area is 17,671 sf

Property Area is 99,404 sf

Max Lot Coverage is 60% and Proposed Lot Coverage is 39%

The Fire Department's review of the plan brought up concerns about catching the corner of a panel when the fire truck accesses the North side of the building. This will be adjusted prior to construction documents to accommodate the required turning radius for the fire truck, and the final panel angles will be reviewed with the boom extension angle of the fire truck.

Stormwater onsite system has been designed to be compliant with requirements which is beyond current direct discharge approach that exists on site.

Additional items of note include:

This hotel project required a Zoning Variance (approved at ZBA 4/19/24) for a 4-story height variance. The submitted notes that the building height will be 4 stories which is as anticipated.

Parking has been designed based upon hotel recommendations for quantity. Additional parking area will be allocated, but not paved, and the City will assess the need based on adjacent property parking use. The City reserves the right to require additional parking areas (shown in dashed area) be paved at that time.

MDOT is requiring modifications to the island in Michigan Avenue immediately in front of this site access and that review by MDOT is independent of the current review..

The access drive width accommodates the Fire Department 20'.

Additional items that were a concern and have been confirmed with the design team:
(Per AR Engineering)

- Solar Items:
 - We will provide updated solar details for Fire Department coordination and provide along with other revised drawings upon approval.
- Landscaping Items:
 - We will plan to revise the plan to provide evergreen trees in lieu of deciduous trees along the East property adjacent to the apartment building property.
 - We will revise the caliper of the deciduous tree from 2" caliper to 2.5" caliper.
 - We will provide the final planting numbers in the planting schedule table with the plan.
 - We will review and comply with the zoning ordinance as it relates to required shrub sizes at time of planting. The plans will update this.
 - These minor revisions will be updated on the landscape plan after the PC meeting to confirm we account for all necessary revisions in one round of updates.
- Lighting:
 - We will work with the Architectural team to provide necessary lighting in the area along the East parking lot where the solar panel system was removed adjacent to the apartment building. Lighting at this location will comply with requirements as laid out in the zoning ordinance.
- Utilities:
 - We are currently working with the City and Spicer Group on final storm review.
 - We are working through water service and sanitary service final connection details and approvals with City staff.
- Drive:
 - We have received minor comments from MDOT for the drive and improvements in Michigan Avenue and resubmitted back to MDOT for final approval.

RECOMMENDATION:

It is staff recommendation to approve the plan contingent upon:
Final approval of stormwater management

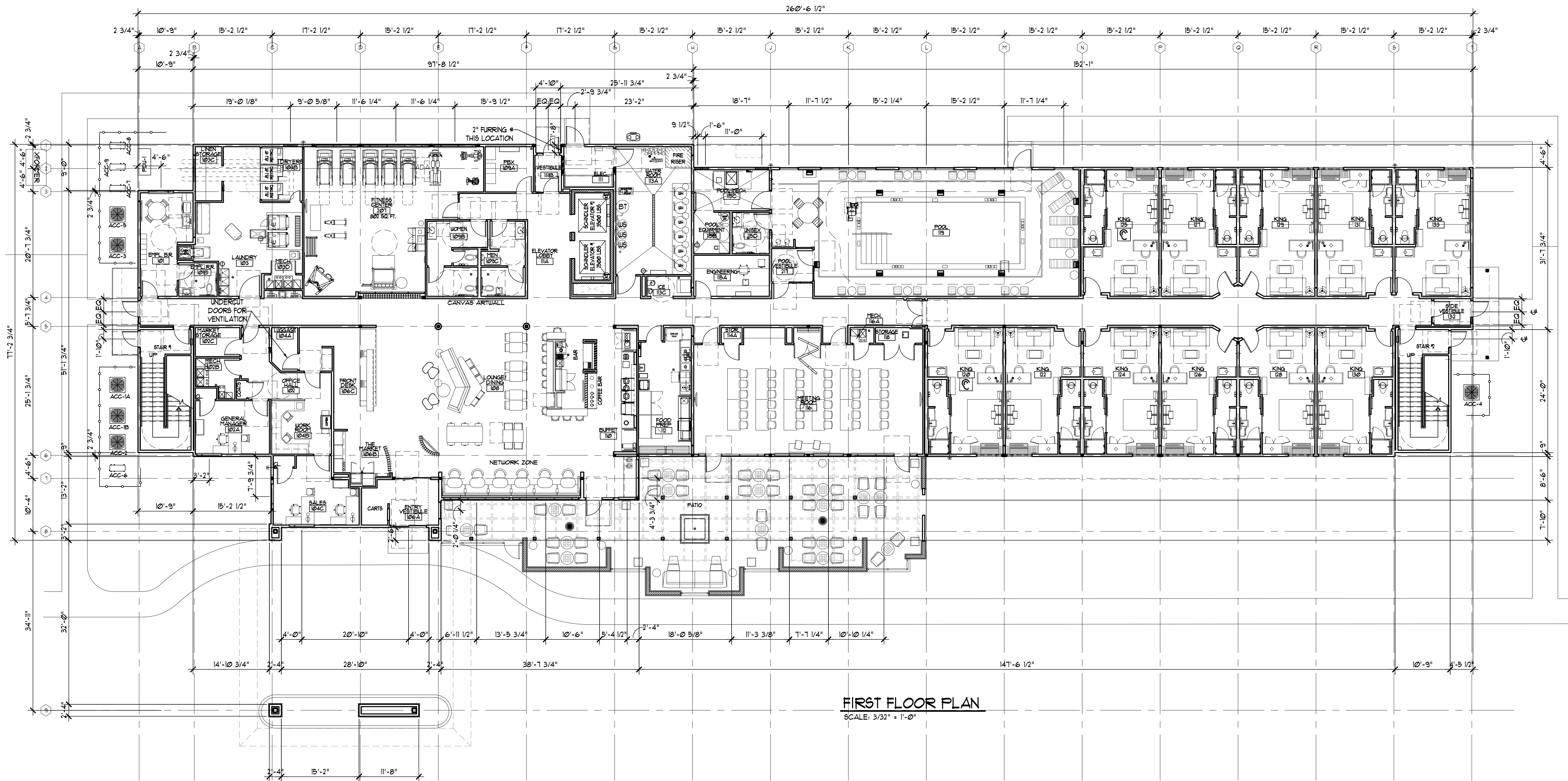
Final approval of water and wastewater utility connection plans

Final coordination between Fire Department truck requirements and panel locations

MDOT approval of revisions to the access drive

Confirmation of final column locations be required to stay beyond setback, and solar panels to extend into setback but not beyond the associated curb.

Revised drawings shall be submitted to staff and a review shall confirm resolution to the contingency items. This submittal and review shall be completed prior to submittal of documents for building permits.



ARCHITECTURAL GROUP III
201 S. Nappanee St. Elkhart Indiana 46514-1953 • 574/293-0008
architecturalgroup3.com
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SPRINGHILL SUITES
by MARRIOTT
MARRIOTT JOB #XXXX
MARSHALL, MI
A NEW 101 ROOM HOTEL

JOB NO.
24119

DATE
12/05/24

REVISIONS

**PRELIMINARY NOT
FOR CONSTRUCTION**

SHEET NO.

A1.1

FIRST FLOOR
PLAN

These design guidelines and all materials, procedures, systems and content herein contained or depicted (the "Design Guidelines") have been prepared for and/or developed by Marriott International, Inc. or its affiliate ("Marriott"), and are the sole and exclusive property of Marriott, which owns all right, title and interest therein, including all copyright, and which reserves all rights herein. All contents should be used only as authorized by Marriott and should not be copied either in whole or in part without its written consent.

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Marriott International, Inc.
7750 Wisconsin Avenue
Bethesda, MD 20814



SPRINGHILL SUITES
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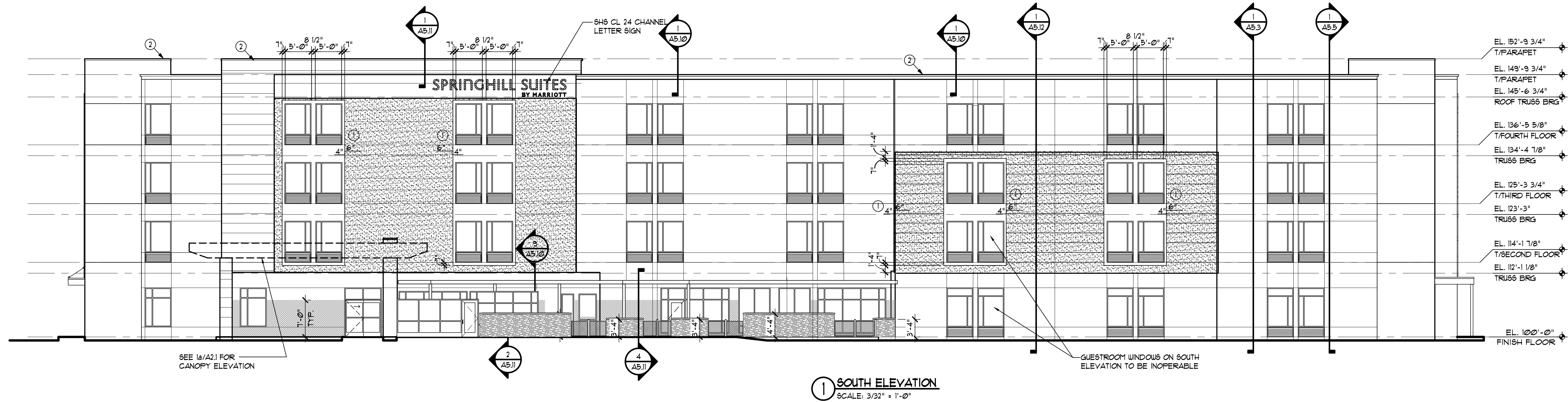
Design Guideline Drawings	
ISSUE DATE:	12/01/15
REVISION DATE:	01/31/24
GENERATION:	GEN 4.5
DECOR:	PANORAMA

EXTERIOR
PERSPECTIVES

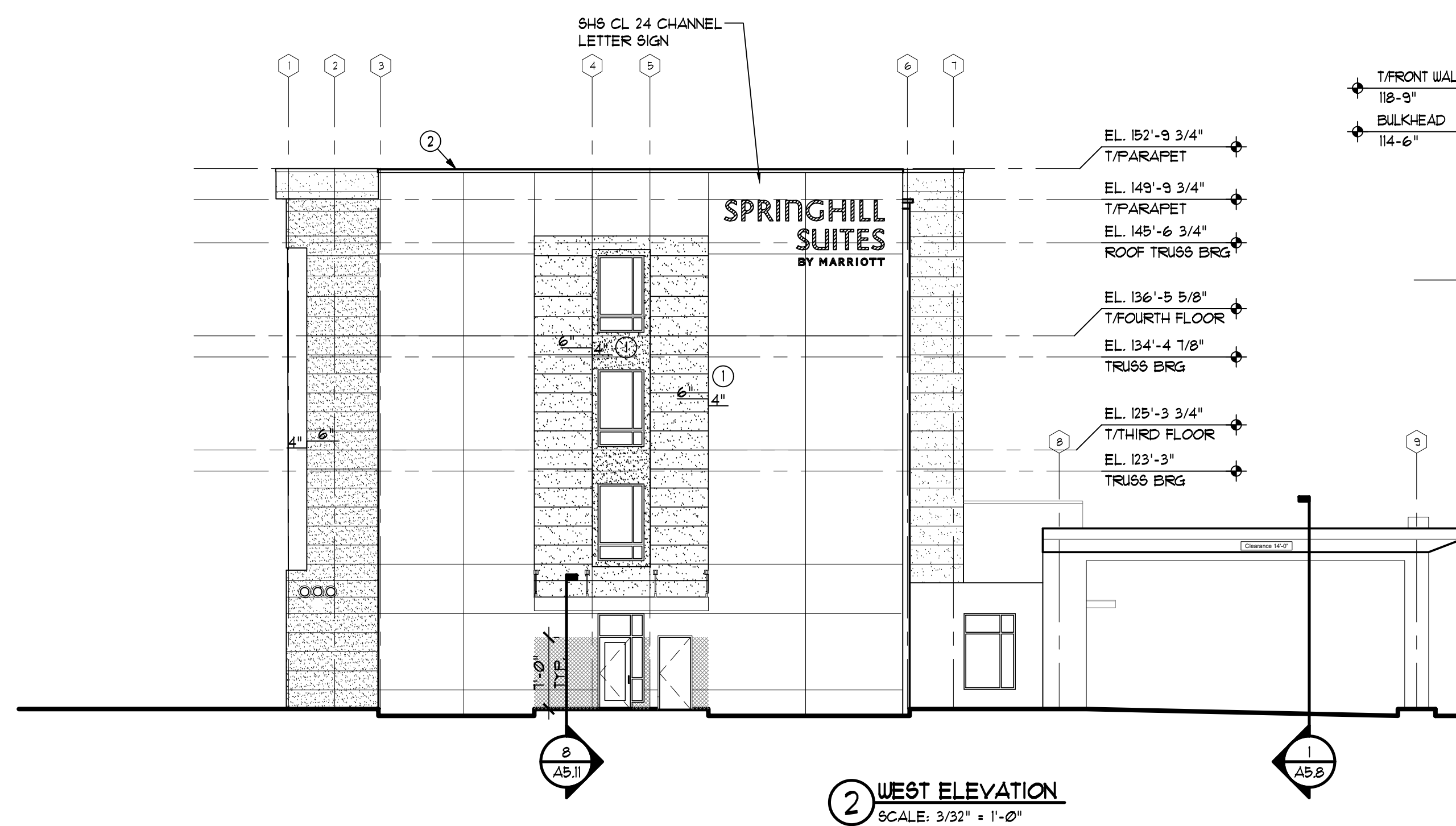
210

NOT FOR CONSTRUCTION

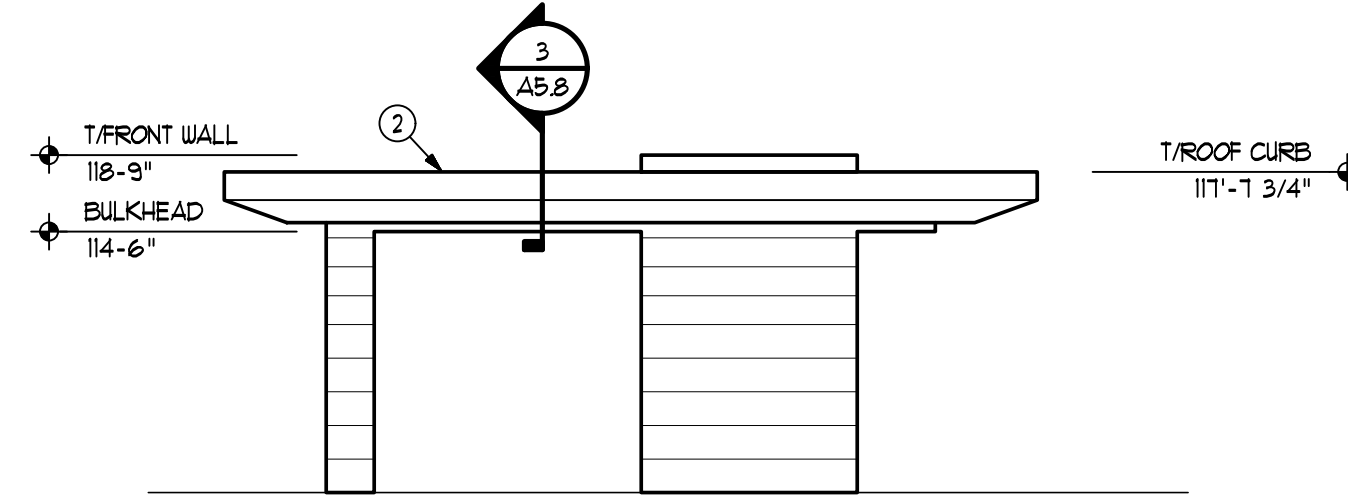
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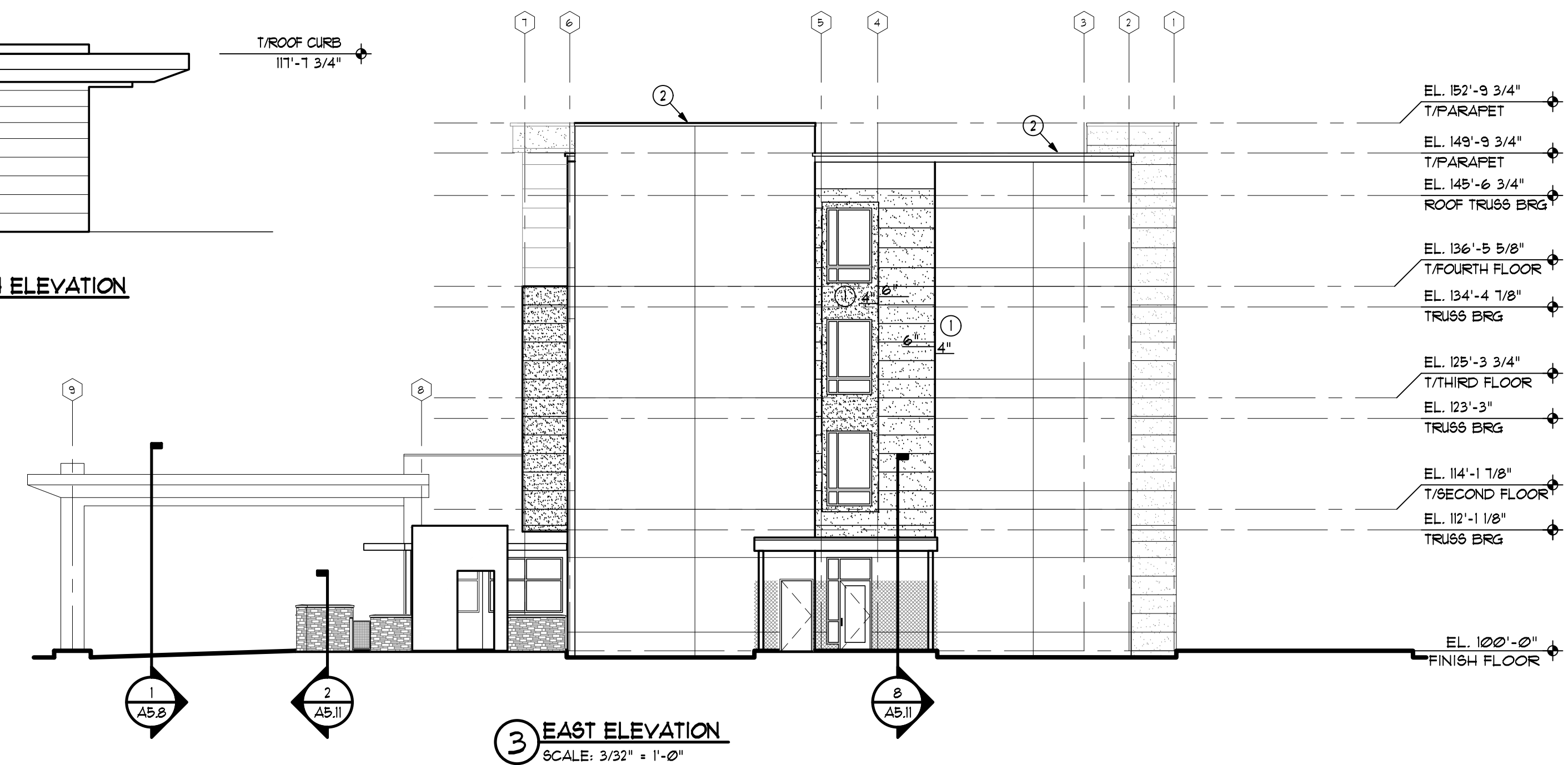
1 SOUTH ELEVATION
SCALE: 3/32" = 1'-0"



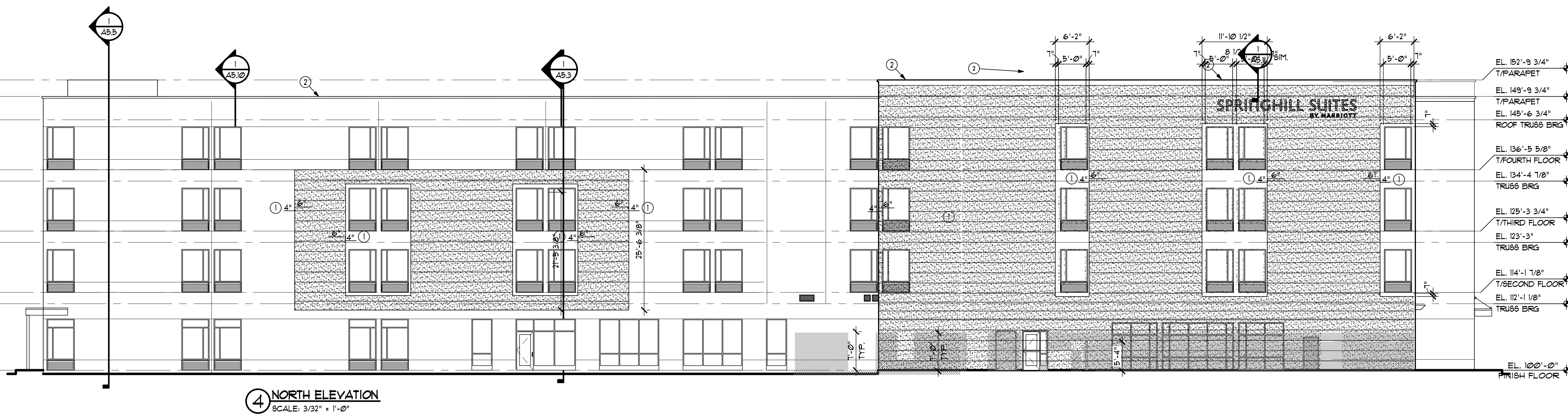
2 WEST ELEVATION
SCALE: 3/32" = 1'-0"



1a CANOPY SOUTH ELEVATION
SCALE: 3/32" = 1'-0"



3 EAST ELEVATION
SCALE: 3/32" = 1'-0"



4 NORTH ELEVATION
SCALE: 3/32" = 1'-0"

MATERIAL KEY:

- EIFS 2
COLOR: SUE022 INDIGO BATIK
- EIFS 5
COLOR: SUE030 JAYA
- EIFS 1
COLOR: SUE028 INCREDIBLE WHITE
- BORAL CULTURED STONE
COUNTRY LEDGESTONE CARMEL

NOTES:

- 1 TYPICAL EASE
EDGE ALL AROUND
- 2 ALL COPINGS AND GRAVEL STOPS TO
MATCH ADJACENT WALL/TRIM COLOR
- PROVIDE HIGH IMPACT EIFS AROUND
DOORS, PATIOS, AND WALKWAYS.
REFERENCE DETAIL 15/A5.1

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DATE
12/05/24

REVISIONS

SHEET NO.

A2.1

EXTERIOR
ELEVATIONS

PRELIMINARY NOT
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JOB TITLE

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by MARRIOTT
MARRIOTT JOB #XXXX
MARSHALL, MI
A NEW 101 ROOM HOTEL

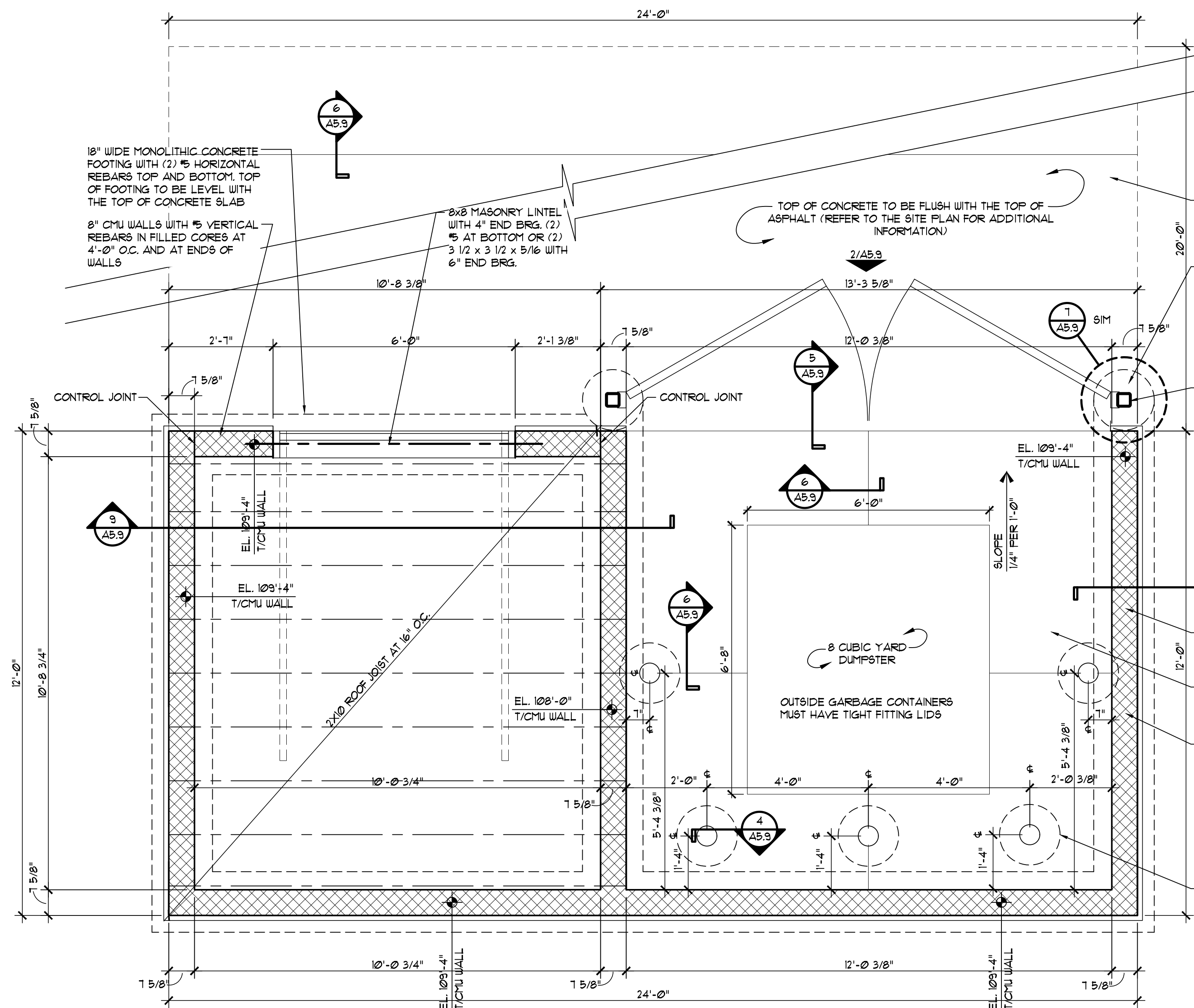
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DATE
12/05/24

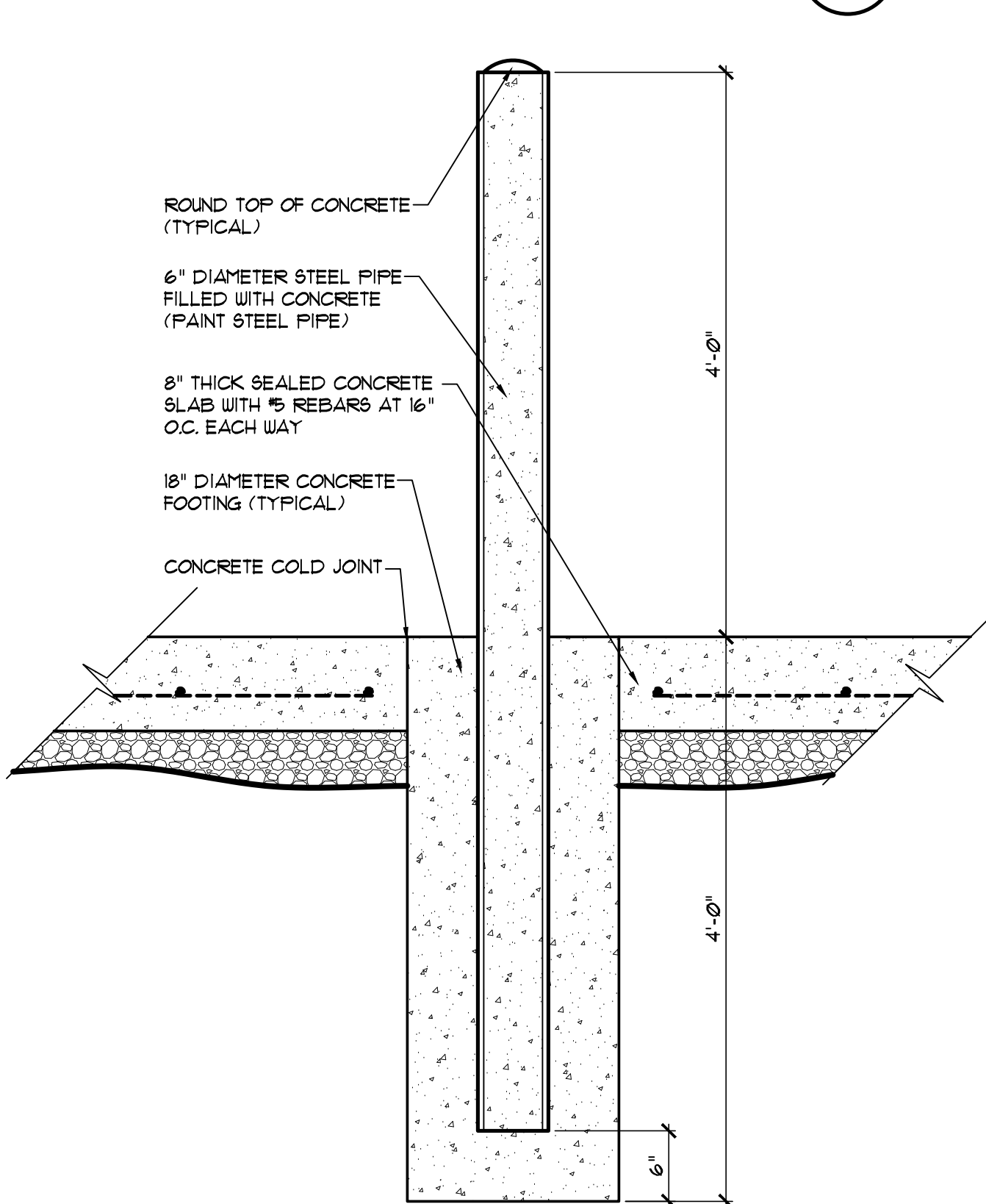
REVISIONS

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FOR CONSTRUCTION

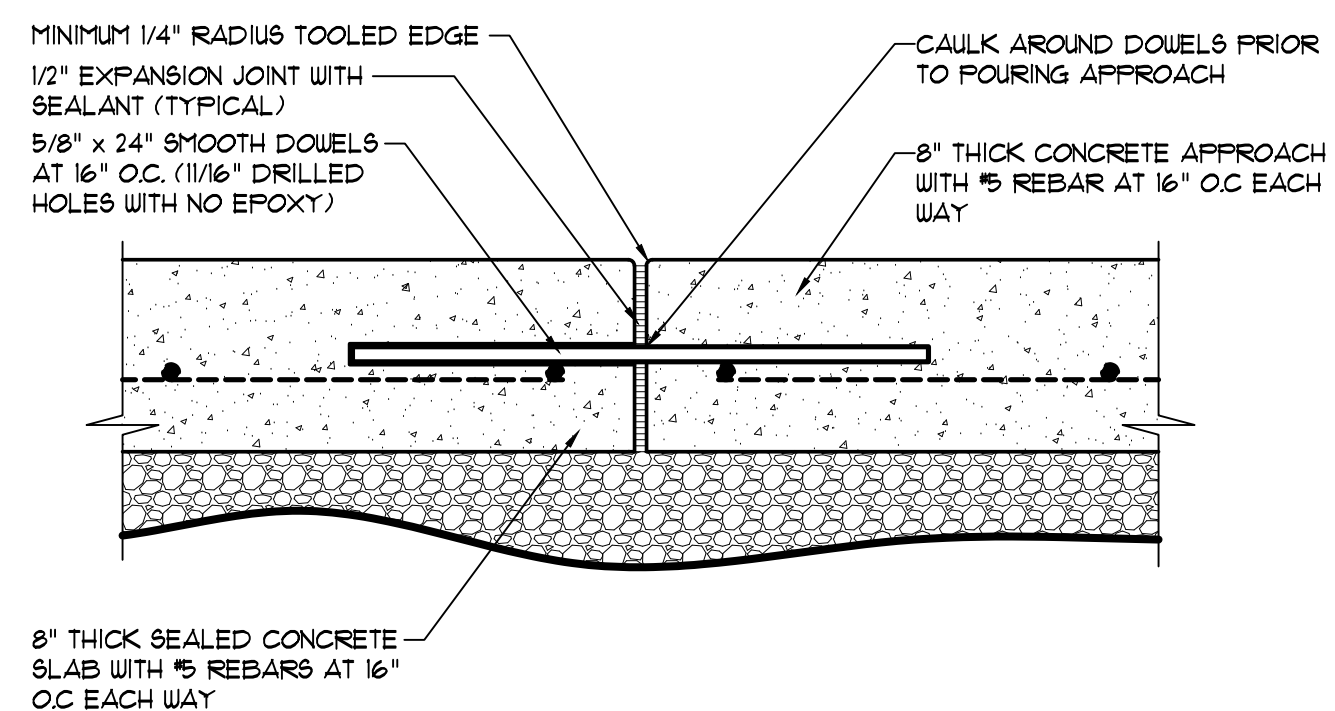
SHEET NO.
A5.9
DUMPSTER
SECTIONS AND
DETAILS



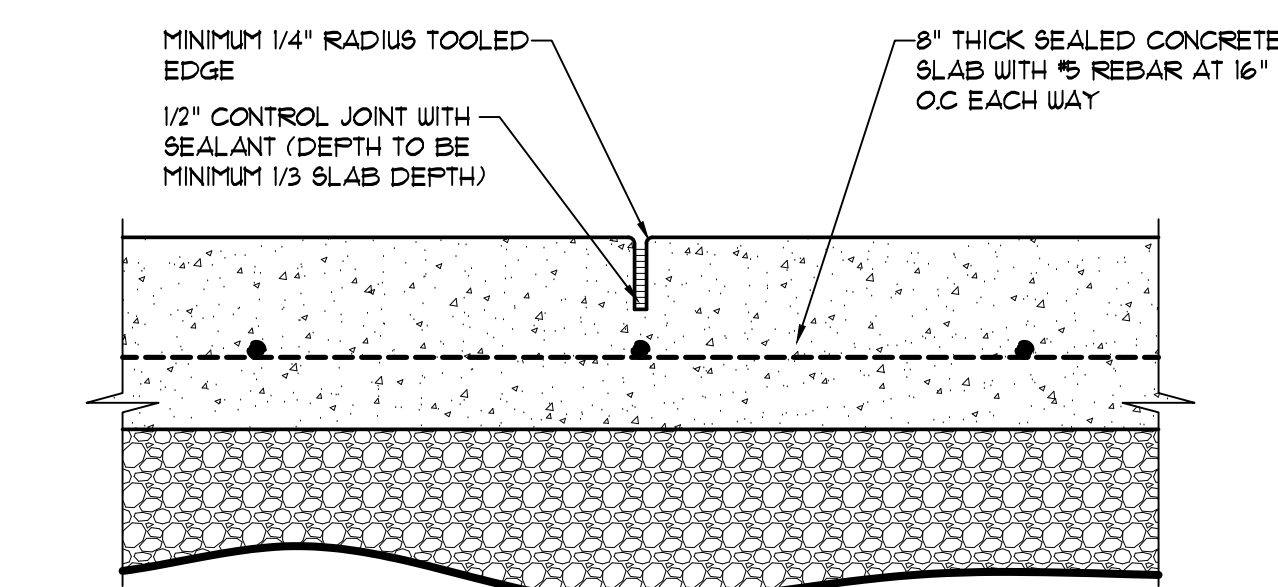
1 DUMPSTER PLAN AND FOUNDATIONS
SCALE: 1/2" = 1'-0"



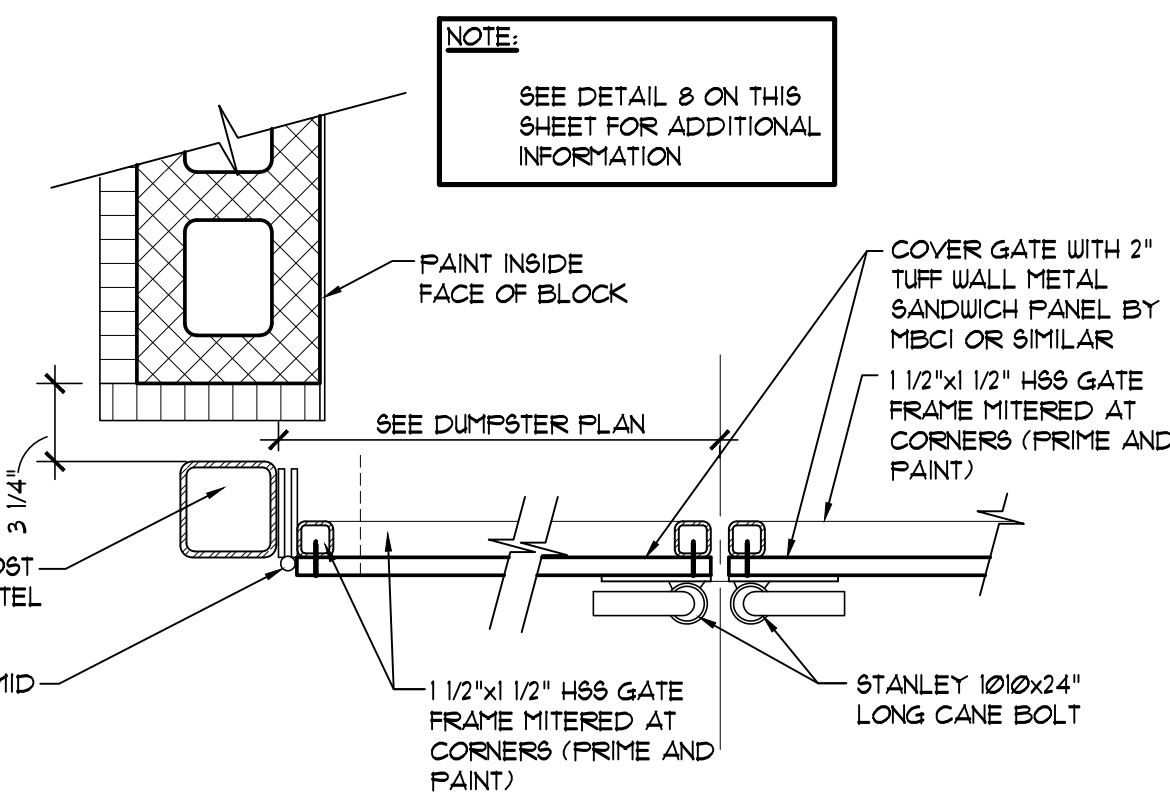
4 CONCRETE / STEEL PIPE BOLLARD
SCALE: 1/2" = 1'-0"



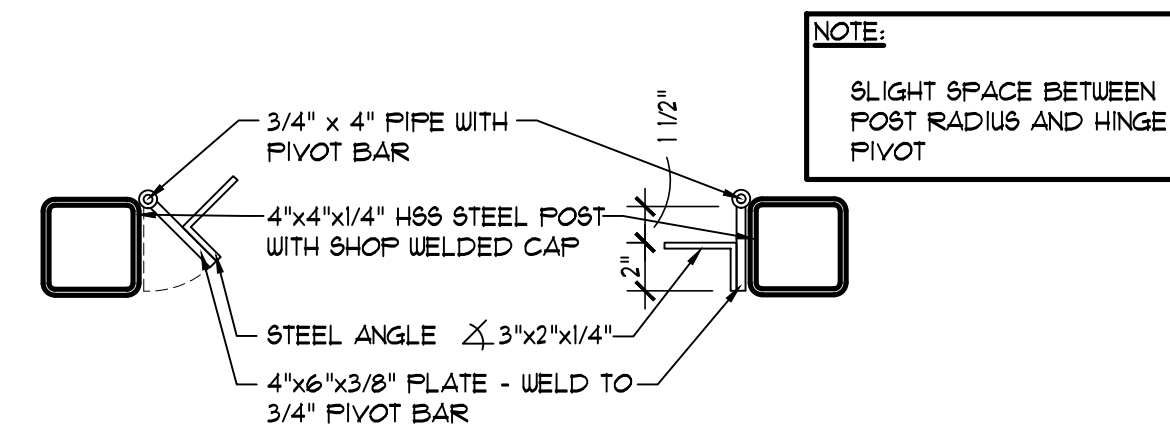
5 EXPANSION JOINT AT TRASH ENCLOSURE PAD
SCALE: 1/2" = 1'-0"



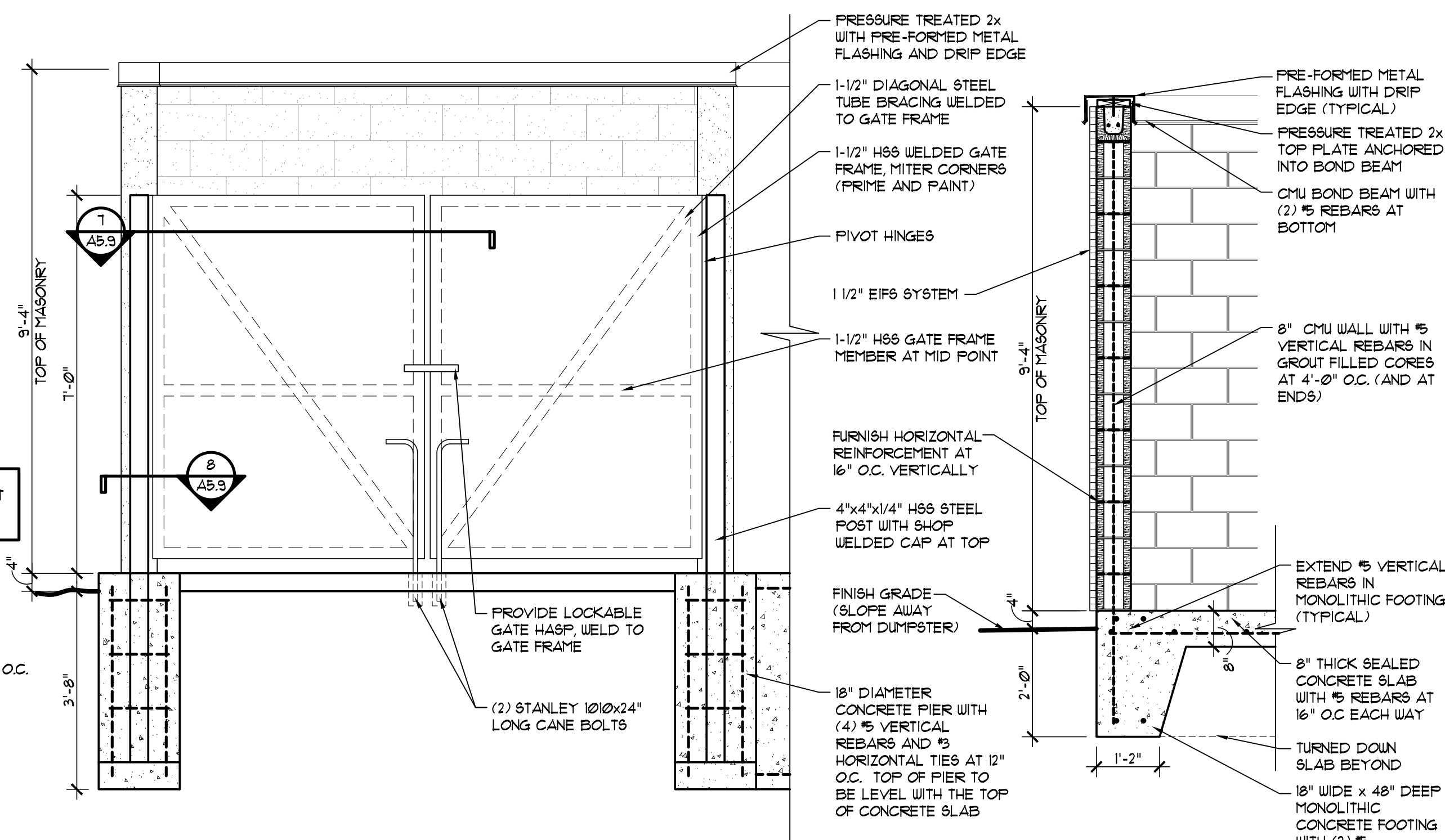
6 CONTROL JOINT AT TRASH ENCLOSURE PAD
SCALE: 1/2" = 1'-0"



7 PLAN OF GATES AT TRASH ENCLOSURE
SCALE: 1/2" = 1'-0"

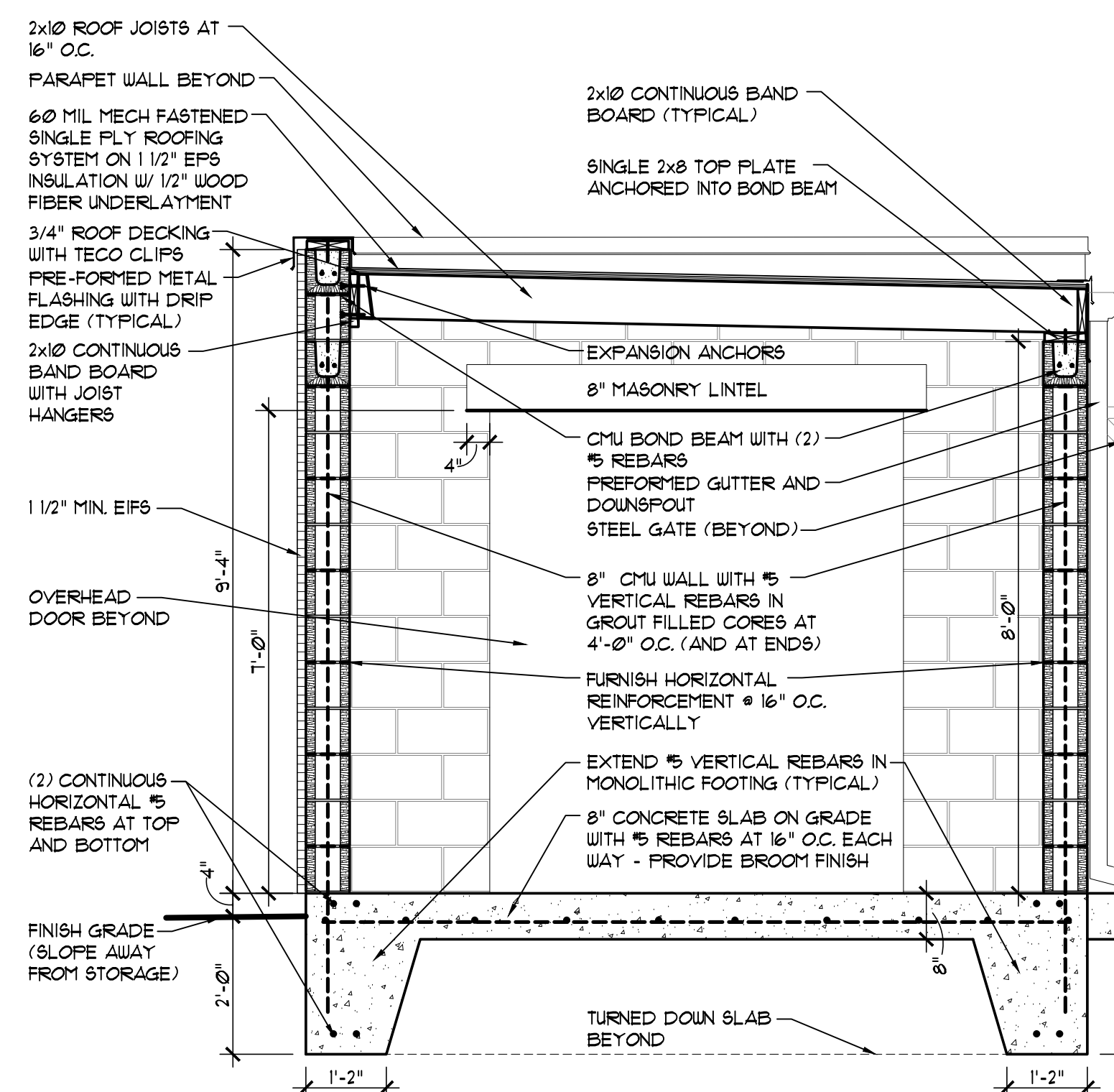


8 TRASH ENCLOSURE GATE HINGE
SCALE: 1/2" = 1'-0"



2 DUMPSTER GATE ELEVATION
SCALE: 1/2" = 1'-0"

3 DUMPSTER SECTION
SCALE: 1/2" = 1'-0"

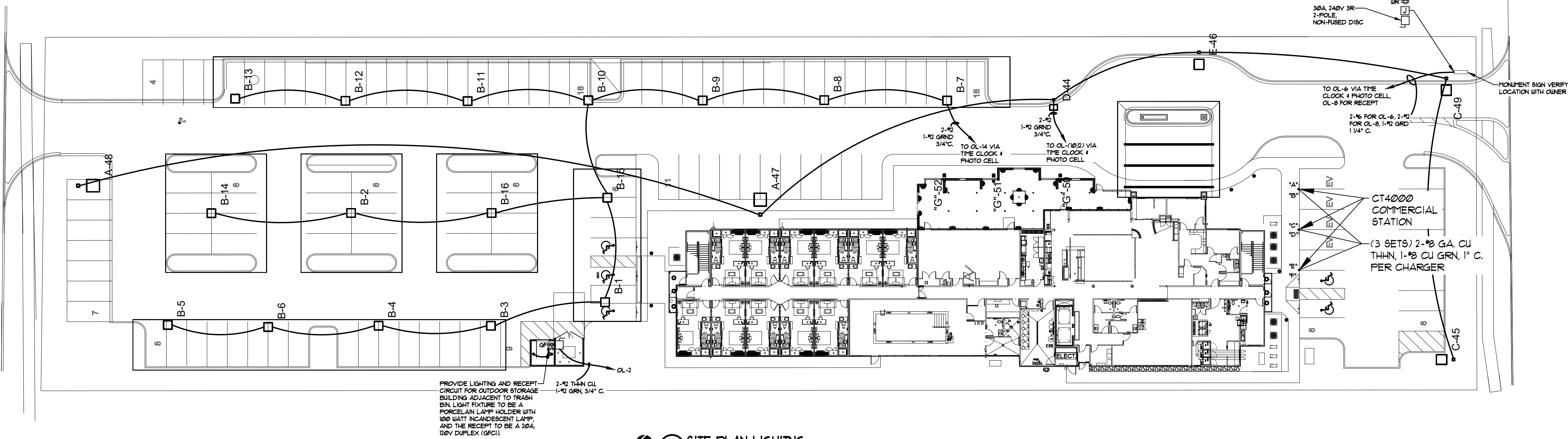
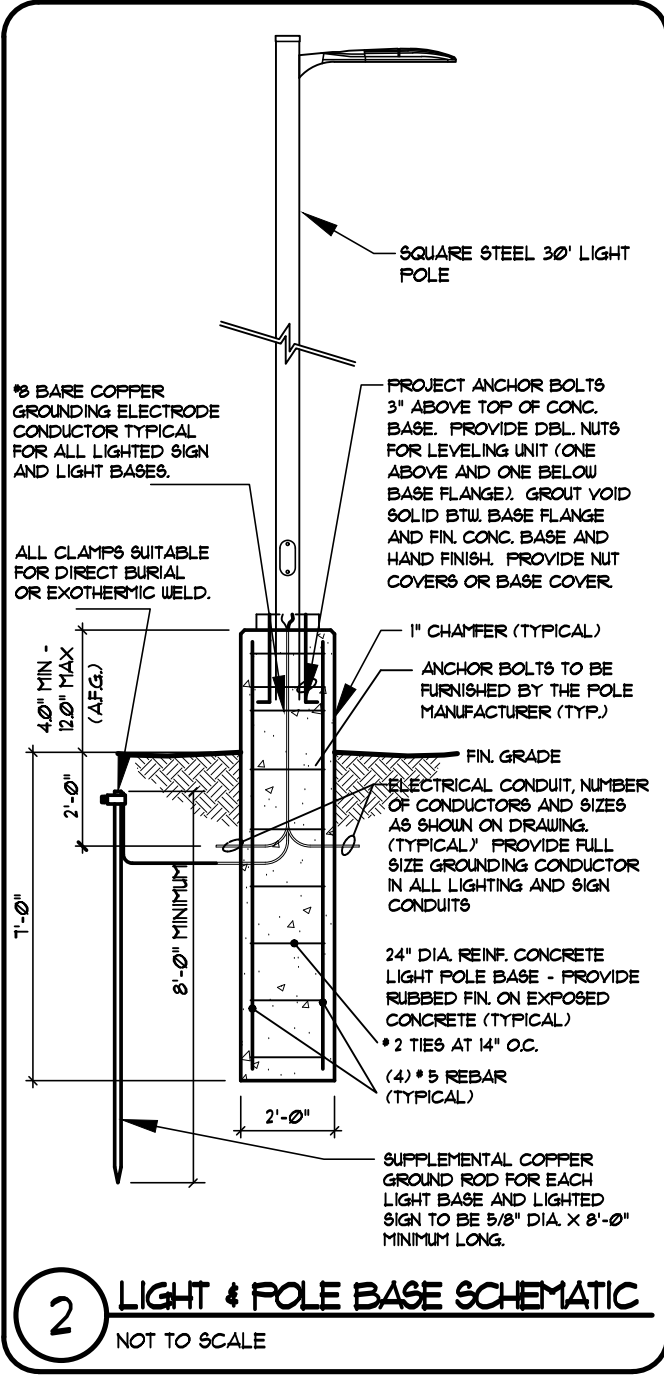


9 STORAGE SECTION
SCALE: 1/2" = 1'-0"

Luminaire Locations		
No.	Label	MH
1	B	15.75
2	B	15.75
3	B	15.75
4	B	15.75
5	B	15.75
6	B	15.75
7	B	15.75
8	B	15.75
9	B	15.75
10	B	15.75
11	B	15.75
12	B	15.75
13	B	15.75
14	B	15.75
15	B	15.75
16	B	15.75
17	ALY-022	14.50
18	ALY-022	14.50
19	ALY-022	14.50
20	ALY-022	14.50
21	ALY-022	14.50
22	ALY-022	14.50
23	ALY-022	14.50
24	ALY-022	14.50
25	ALY-022	14.50
26	ALY-022	14.50
27	ALY-022	14.50
28	ALY-022	14.50
29	ALY-022	14.50
30	ALY-022	14.50
31	ALY-022	14.50
32	ALY-007	10.00
33	ALY-007	10.00
34	ALY-007	4.00
35	ALY-007	10.00
36	ALY-007	10.00
37	ALY-007	10.00
38	ALZ-020	4.00
39	ALZ-020	4.00
40	ALZ-020	4.00
41	ALZ-020	4.00
42	ALZ-020	4.00
43	ALZ-020	4.00
44	D	30.00
45	C	30.00
46	E	30.00
47	A	30.00
48	A	30.00
49	C	30.00
50	"Q"	10.00
51	"Q"	10.00
52	"Q"	10.00
53	ALY-021	6.50
54	ALY-021	6.50
55	ALY-021	6.50
56	ALY-021	6.50
57	ALY-021	6.50
58	ALY-021	6.50
59	ALY-021	6.50
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61	ALZ-019	1.00
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63	ALZ-019	1.00
64	ALZ-019	1.00
65	ALZ-019	1.00
66	ALZ-019	1.00
67	ALZ-019	1.00
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72	ALZ-019	1.00

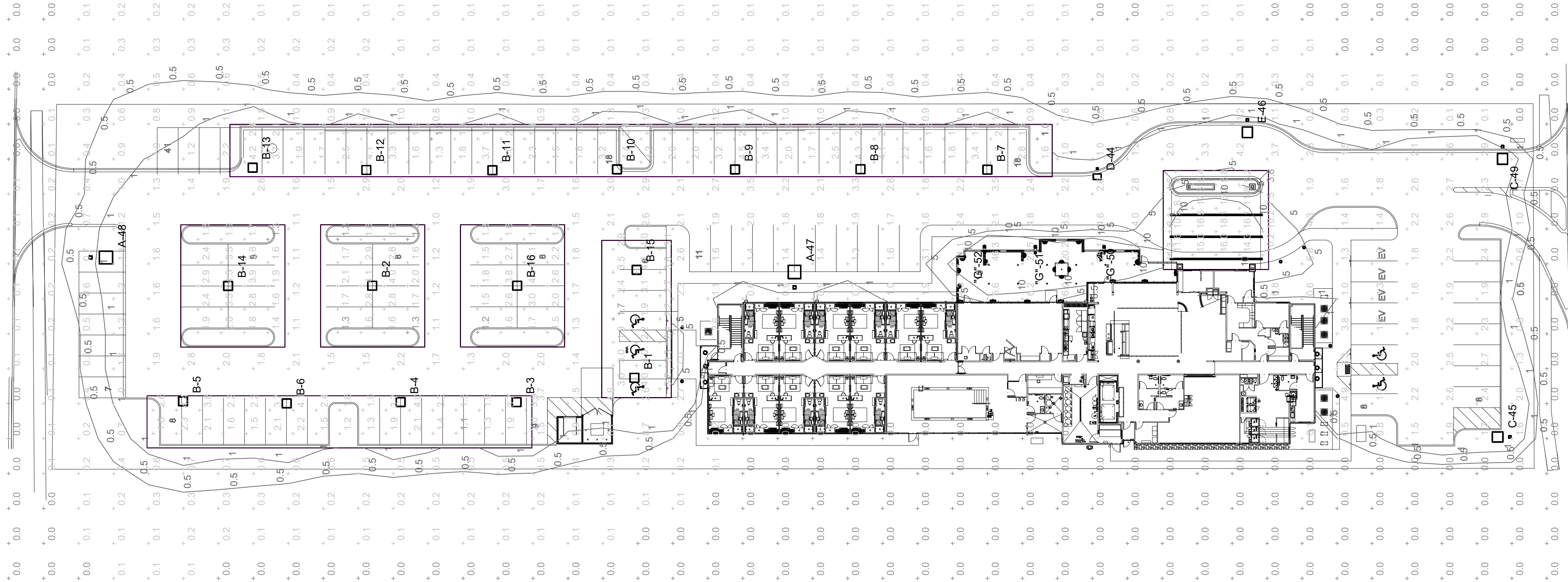
Schedule								
Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Number Lamps per Lamp	Lumens	Wattage
	A	2	Lithonia Lighting	DSX1 LED P3 30K 80CRI T2M HS	D-Series Size 1 Area Luminaire P3 Performance Package 3000K CCT 80 CRI Type 1 Medium Housewide Street	1	10293	102-1727
	B	16	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	CLCS175-40W-3000K	SELECTABLE CANOPY, 40W, 3000K	1	5322	36.6
	C	2	Lithonia Lighting	DSX1 LED P4 30K 80CRI LOCO EGG	D-Series Size 1 Area Luminaire P4 Performance Package 3000K CCT 80 CRI Left Corner Cutoff Extreme Backlight Control External Glass Shield	1	10163	123.94
	D	1	Lithonia Lighting	DSX0 LED P1 30K 80CRI T15 HS	D-Series Size 0 Area Luminaire P1 Performance Package 3000K CCT 80 CRI Type 1 Short Housewide Street	1	4091	33.21
	E	1	Lithonia Lighting	DSX1 LED P1 30K 80CRI T15 HS	D-Series Size 1 Area Luminaire P1 Performance Package 3000K CCT 80 CRI Type 1 Short Housewide Street	1	6485	50.9015

SITE PARKING LOT LIGHT FIXTURE POLE DATA		
MANUFACTURER	CATALOG NO.	DESCRIPTION
LITHONIA	555 30 4G D719A9 D719	4" x 36" SQUARE POLE 16 WALL THK, TYPED IN BRONZE, AT 30 DEG.

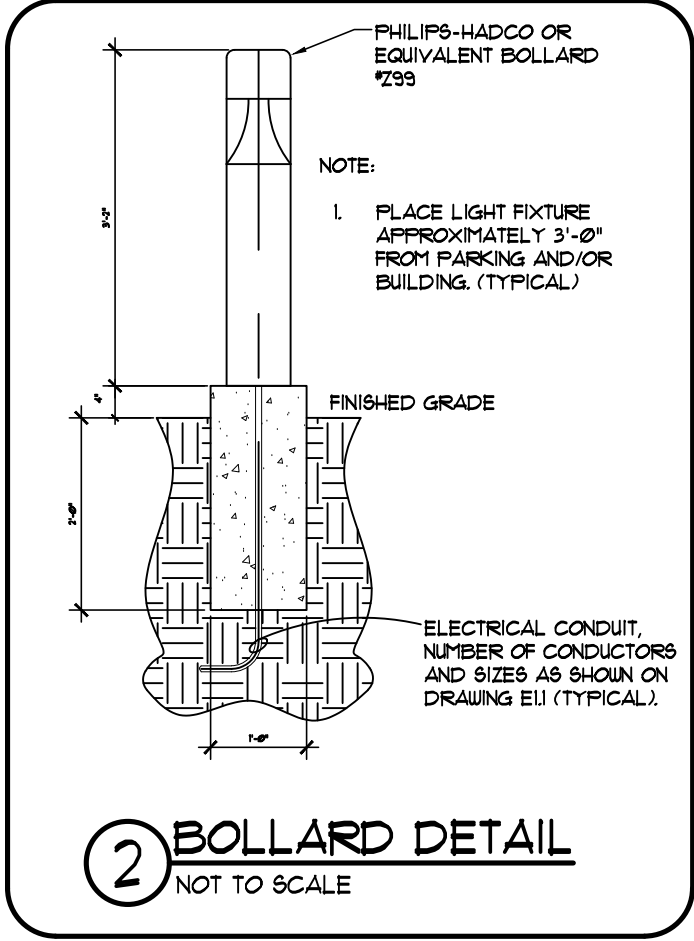


Luminaire Locations		
No.	Label	MH
1	B	15.75
2	B	15.75
3	B	15.75
4	B	15.75
5	B	15.75
6	B	15.75
7	B	15.75
8	B	15.75
9	B	15.75
10	B	15.75
11	B	15.75
12	B	15.75
13	B	15.75
14	B	15.75
15	B	15.75
16	B	15.75
17	ALY-022	14.50
18	ALY-022	14.50
19	ALY-022	14.50
20	ALY-022	14.50
21	ALY-022	14.50
22	ALY-022	14.50
23	ALY-022	14.50
24	ALY-022	14.50
25	ALY-022	14.50
26	ALY-022	14.50
27	ALY-022	14.50
28	ALY-022	14.50
29	ALY-022	14.50
30	ALY-022	14.50
31	ALY-022	14.50
32	ALY-007	10.00
33	ALY-007	10.00
34	ALY-007	4.00
35	ALY-007	10.00
36	ALY-007	10.00
37	ALY-007	10.00
38	ALZ-020	4.00
39	ALZ-020	4.00
40	ALZ-020	4.00
41	ALZ-020	4.00
42	ALZ-020	4.00
43	ALZ-020	4.00
44	D	30.00
45	C	30.00
46	E	30.00
47	A	30.00
48	A	30.00
49	C	30.00
50	"Q"	10.00
51	"Q"	10.00
52	"Q"	10.00
53	ALY-021	6.50
54	ALY-021	6.50
55	ALY-021	6.50
56	ALY-021	6.50
57	ALY-021	6.50
58	ALY-021	6.50
59	ALY-021	6.50
60	ALZ-019	1.00
61	ALZ-019	1.00
62	ALZ-019	1.00
63	ALZ-019	1.00
64	ALZ-019	1.00
65	ALZ-019	1.00
66	ALZ-019	1.00
67	ALZ-019	1.00
68	ALZ-019	1.00
69	ALZ-019	1.00
70	ALZ-019	1.00
71	ALZ-019	1.00
72	ALZ-019	1.00

Schedule									
Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Number Lamps	Lumens per Lamp	Wattage	Lamp
	A	2	Lithonia Lighting	DSX1 LED P3 30K 80CRI T2M HS	D-Series Size 1 Area Luminaire P3 Performance Package 3000K CCT 80 CRI Type 2 Medium Houseside Shield	1	10283	102.1727	
	B	16	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	CLCS17S-40W-3000K	SELECTABLE CANOPY, 40W, 3000K	1	5322	38.6	
	C	2	Lithonia Lighting	DSX1 LED P4 30K 80CRI LCCO EGS	D-Series Size 1 Area Luminaire P4 Performance Package 3000K CCT 80 CRI Left Corner Cutoff Extreme Backlight Control External Glare Shield	1	10163	123.94	
	D	1	Lithonia Lighting	DSX0 LED P1 30K 80CRI T1S HS	D-Series Size 0 Area Luminaire P1 Performance Package 3000K CCT 80 CRI Type 1 Short Houseside Shield	1	4091	33.21	
	E	1	Lithonia Lighting	DSX1 LED P1 30K 80CRI T1S HS	D-Series Size 1 Area Luminaire P1 Performance Package 3000K CCT 80 CRI Type 1 Short Houseside Shield	1	6485	50.9015	



1 SITE PLAN PHOTOMETRIC
SCALE: 1" = 20'-0"



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JOB TITLE

SPRINGHILL SUITES
by MARRIOTT
MARRIOTT JOB #72530
MARSHALL, MI
A NEW 101 ROOM HOTEL

JOB NO.
24119

DATE
01/15/25

REVISIONS

PRELIMINARY NOT
FOR CONSTRUCTION

SHEET NO.

E1.0a

SITE PLAN
PHOTOMETRIC

Proposed Stormwater Calculation Tool - Calhoun County Stormwater Management TRM

Stormwater Management Requirements

Site Name:	Marshall Hotel
Outlet ID:	1

If Restricted Outflow Rate is required by Reviewing Agency:

25-Year Allowable Peak Discharge*: cfs

* Allowable peak discharge rate shall be used when Reviewing Agency limits flow rate below existing peak flow (based on hydraulic limitations of receiving

PRE-DEVELOPMENT CONDITIONS

Sub-Drainage District ID	Area (acres)	Description/Hydrologic Group (select from list)	Runoff Coefficient (C)	A*C	Curve Number (CN)	A*CN
1	1.56	Manicured Lawn Areas (Type B)	0.20	0.312	61	95.16
2	0.72	Impervious Cover (pavement/gravel/rooftop)	0.90	0.648	98	70.56
3				0.000		0.00
4				0.000		0.00
5				0.000		0.00
6				0.000		0.00
TOTAL AREA (acres) (total area of developed site)	2.28		Weighted C	0.42	Weighted CN	73

POST-DEVELOPMENT CONDITIONS

Sub-Drainage District ID	Area (acres)	Description/Hydrologic Group (select from list)	Runoff Coefficient (C)	A*C	Curve Number (CN)	A*CN
1	1.82	Impervious Cover (pavement/gravel/rooftop)	0.90	1.638	98	178.36
2	0.46	Manicured Lawn Areas (Type A)	0.15	0.069	42	19.32
3				0.000		0.00
4				0.000		0.00
5				0.000		0.00
6				0.000		0.00
TOTAL AREA (acres) (total area of developed site)	2.28		Weighted C	0.75	Weighted CN	87

TIME OF CONCENTRATION (PRE-DEVELOPMENT)

Segment Length (L) (ft)	Segment Description (choose from list)	K	Slope % (S) (enter slope)	$S^{0.5}$	V $K*S^{0.5}$	T_c $L/(V*3600)$
150	Sheet Flow	0.5	0.10	0.316	0.152	0.275
350	Waterway	1.2	0.10	0.316	0.379	0.256
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
Total T_c (hrs)						0.531

TIME OF CONCENTRATION (POST-DEVELOPMENT)

Segment Length (L) (ft)	Segment Description (choose from list)	K	Slope % (S) (enter slope)	$S^{0.5}$	V $K*S^{0.5}$	T_c $L/(V*3600)$
250	Sheet Flow	0.5	0.10	0.316	0.152	0.458
250	Waterway	1.2	0.50	0.707	0.849	0.082
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
				0.000		0.000
Total T_c (hrs)						0.539

Summary		Notes
Outlet ID	1	
Total Acreage (ac)	2.28	
Weighted C - Proposed Conditions	0.75	
Weighted CN - Proposed Conditions	87	
Time of Concentration PRE (hr)	0.53	
Time of Concentration POST (hr)	0.54	
Water Quality (WQ) Volume (ft ³)	6,196	Volume from 1 inch of rainfall
Channel Protection (CP) Volume (ft ³)	7,693	2-yr / 24-hr rainfall event (volume difference between pre-development and post-development)
Infiltration Volume (ft ³) - Required	7,693	<u>Larger</u> of the WQ volume and CP volume
Infiltration Volume (ft ³) - Provided	16,255	Computed from the "BMP INPUT" worksheet
25-Year Peak Allowable Discharge (cfs)	2.97	
25-Year Flood Protection (FP) Volume (ft ³)	11,034	
25-Year TOTAL BASIN VOLUME (ft ³) - Pre vs Post	11,034	
25-Year TOTAL BASIN VOLUME (ft ³) - Restricted Outlet	N/A	Use the <u>larger</u> of these two values (represents net 25-year volume, including credit for Infiltration Volume)
25-Year Volume (ft ³) - REQUIRED (net of infiltration)	-5,222	
100-year RETENTION VOLUME (ft ³)	37,000	Use only for sites with approved <u>No Outlet Certification</u>

Bioretention/Rain Garden/Infiltration Basin #1	
Avg Design Infiltration Rate (in/hr)	3.20
Area of Bioretention Ponding at Max. Depth (ft ²)	2,084
Area of Bioretention at Bottom (ft ²)	2,084
Maximum Ponding Depth (ft)	2.3
BMP Area (ft ²)	2,084
Surface Storage Volume (ft ³)	4,793
Area of engineered soil media (ft)	0
Depth of engineered soil media (ft)	0.0
Void Ratio (max 0.30)	0.00
Soil Storage Volume (ft ³)	0
TOTAL STORAGE VOLUME (ft³)	4,793
TOTAL VOLUME: STORAGE + ACTIVE INFILTRATION	8,128

Bioretention/Rain Garden/Infiltration Basin #2	
Avg Design Infiltration Rate (in/hr)	3.20
Area of Bioretention Ponding at Max. Depth (ft ²)	2,084
Area of Bioretention at Bottom (ft ²)	2,084
Maximum Ponding Depth (ft)	2.3
BMP Area (ft ²)	2,084
Surface Storage Volume (ft ³)	4,793
Area of engineered soil media (ft)	0
Depth of engineered soil media (ft)	0.0
Void Ratio (max 0.30)	0.00
Soil Storage Volume (ft ³)	0
TOTAL STORAGE VOLUME (ft³)	4,793
TOTAL VOLUME: STORAGE + ACTIVE INFILTRATION	8,128

Porous Pavement #1	
Avg Design Infiltration Rate (in/hr)	
Average Bed Area (ft ²)	
Maximum Water Depth (ft)	
Void Ratio (0.30 max)	
Storage Volume (ft ³)	0

Porous Pavement #2	
Avg Design Infiltration Rate (in/hr)	
Average Bed Area (ft ²)	
Maximum Water Depth (ft)	
Void Ratio (0.30 max)	
Storage Volume (ft ³)	0

Porous Pavement #3	
Avg Design Infiltration Rate (in/hr)	
Average Bed Area (ft ²)	
Maximum Water Depth (ft)	
Void Ratio (0.30 max)	
Storage Volume (ft ³)	0

	Elevation Contour (feet)	Contour Area (Sq. ft)	Storage Volume (Cu. ft.)	Total Volume (Cu. Ft.)
(lowest)	906.5	2,523	0	0
	907.5	2,523	2,523	2,523
	908.5	2,523	2,523	5,046
	909.5	2,523	2,523	7,569
	910.3	2,523	1,892	9,461
			-	-
			-	-
			-	-
			-	-
			-	-
			-	-
			-	-
			-	-
			-	-
(highest)			-	-

1-Stage Outlet Design - INFILTRATION REQUIREMENT SATISFIED

25-Year Allowable Peak Discharge 2.97 cfs

25-Year Peak Storage Volume: -5,222 cft

Peak Storage Elevations

X _{bot} =	906.50
X ₂₅ =	908.85

25-Year Orifice and Peak Flow Calculations

25-Year Allowable Peak Discharge:	2.97 cfs
Chosen Orifice Size (25-Year Control):	6 in
Chosen Orifice Area:	0.20 sft
Number of Orifices (25-Year Control):	1
Total Opening Area of 25-Year Control Orifice(s):	0.20 sft
25-year Peak Flow:	0.62 * # _{orif} * A _{orif} ^{act} * sqrt(2 * g * h) 1.42 cfs
25-Year Peak Flow Requirement Met?	$Q_{25}^{act} < Q_{25}^{allow}$? TRUE

10 Year Storm - Storm Pipe Calculation

AR Engineering
Project: Marshall Hotel
Job #: 24193001
Date: 29-Jan-25
By: SAO

Mannings n 0.012
10-Year Intenisty 3.95 in/hr

Water Shed Area	Upstream Structure	Downstream Structure	Area (sqft)	Area (ac)	c	Required Q (cfs)	Required Q (cfs) cumulative	Pipe Size	Pipe Slope %	Velocity (fps) (flowing full) (2.5 min)	Provided Q (cfs)
1	CB-1	CB-2	4,227	0.097	0.90	0.34	0.34	12	0.30	2.70	2.12
17	YD-17	CB-2	771	0.018	0.90	0.06	0.06	8	0.30	2.06	0.72
2	CB-2	Cb-3	5,212	0.120	0.90	0.43	0.83	12	0.30	2.70	2.12
3	CB-3	CB-4	3,940	0.090	0.90	0.32	1.15	12	0.30	2.70	2.12
4	CB-4	CB-5	6,519	0.150	0.90	0.53	1.69	12	0.30	2.70	2.12
5	CB-5	CB-6	10,846	0.249	0.90	0.89	2.57	12	0.50	3.48	2.74
6	CB-6	CB-7	5,079	0.117	0.90	0.41	2.99	12	0.50	3.48	2.74
7	CB-7	STM-15	8,910	0.205	0.90	0.73	3.71	12	0.50	3.48	2.74
100	Roof	YD-18	26,338	0.605	0.90	2.15	2.15	12	0.30	2.70	2.12
18	YD-18	CB-11	807	0.019	0.90	0.07	2.22	12	0.50	3.48	2.74
10	CB-30	CB-11	6,981	0.160	0.90	0.57	0.57	12	0.60	3.82	3.00
11	CB-11	STM-14	3,318	0.076	0.90	0.27	3.06	12	0.70	4.12	3.24
12	CB-12	CB-13	3,311	0.076	0.90	0.27	0.27	12	0.30	2.70	2.12
13	CB-13	STM-15	4,104	0.094	0.90	0.33	0.61	12	0.30	2.70	2.12
8	CB-8	CB-9	5,543	0.127	0.90	0.45	0.45	12	0.30	2.70	2.12
9	CB-9	STM-15	4,381	0.101	0.90	0.36	0.81	12	0.30	2.70	2.12

Equations
 $Q\text{ (CFS)} = A(1.486/n)R^{2/3}S^{1/2}$
 $V\text{ (ft/sec)} = (0.590/n)D^{2/3}S^{1/2}$
 $Q\text{ Max (CFS)} = 2.58(D^{2.50})$

SPRINGHILL SUITES BY MARRIOTT

***1154 W. MICHIGAN AVENUE
SECTION 26, T.2S, R.6W
CITY OF MARSHALL
CALHOUN COUNTY, MI***

SITE DEVELOPMENT PLANS JANUARY 31, 2025

ISSUED FOR: SITE PLAN REVIEW

SHEET INDEX

No.	SHEET TITLE
T1.0	TITLE SHEET
C1.0	EX CONDITIONS - DEMO PLAN
C2.0	SITE LAYOUT
C2.1	SOLAR CARPORT LAYOUT
C3.0	UTILITY PLAN
C4.0	OVERALL GRADING - SESC PLAN
C4.1	GRADING NORTH PLAN
C4.2	GRADING SOUTH PLAN
C5.0	DETAILS
L1.0	LANDSCAPE PLAN
.	.
.	.

OWNER/DEVELOPER:

SUHA HOTELS, LLC
SAVINDER SINGH
3665 BANDERA LN
OKEMO, MI 48864
savoker@gmail.com
(269) 300-7489

CIVIL ENGINEER:

AR ENGINEERING, LLC.
5725 VENTURE PARK DR, SUITE A
KALAMAZOO, MI 49009
TEL. (269) 250-5991 FAX. (866) 569-0604

JASON RALEIGH P.E.

DATE

REVISIONS

No.	ISSUED FOR:	DATE:	BY:
0	PRELIMINARY REVIEW	12/26/24	eag
1	SITE PLAN REVIEW	01/20/25	jpr
2	SITE PLAN REVIEW	01/31/25	jpr
3	.	.	.
4	.	.	.
5	.	.	.
6	.	.	.
7	.	.	.
8	.	.	.
9	.	.	.

UTILITY CONTACTS:

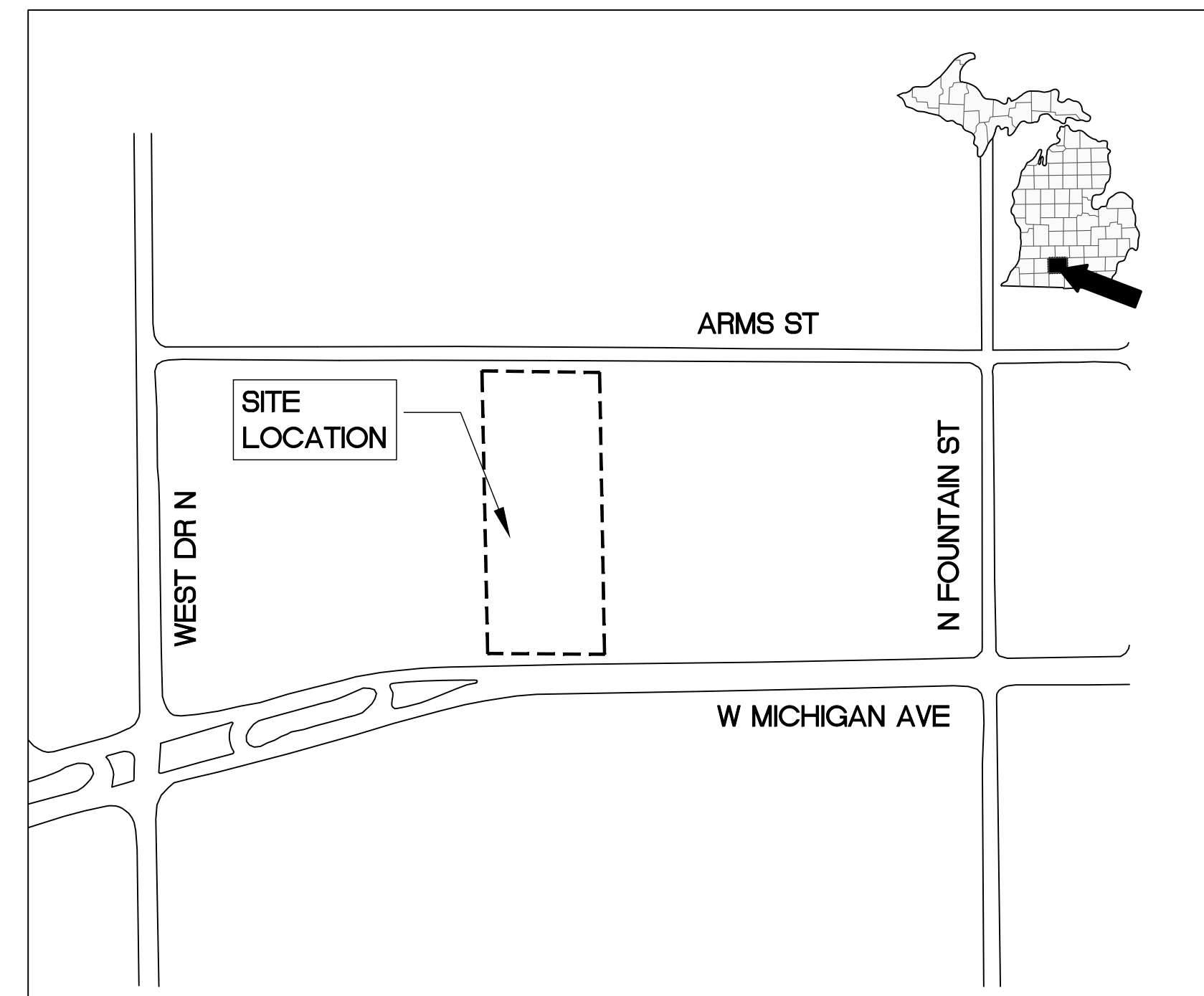
CABLE	FIBERNET CITY OF MARSHALL 900 S MARSHALL AVE MARSHALL, MI 49068 269-781-3985	TELEPHONE	AT&T 15869 W MICHIGAN AVE MARSHALL, MI 490068 269-558-8040
WATER	CITY OF MARSHALL 832 E GREEN STREET MARSHALL, MI 49068 269-781-4678	SEWER	CITY OF MARSHALL 801 INDUSTRIAL ROAD MARSHALL, MI 49068 269-781-3289
GAS	CONSUMERS ENERGY 1220 S KALAMAZOO AVE MARSHALL, MI 49068 (800) 477-5050	ELECTRIC	CITY OF MARSHALL 900 S MARSHALL AVE MARSHALL, MI 49068 269-781-3985

MISS DIG

811

LOCATION MAP

NOT TO SCALE



42°16'19.51"N 84°58'51.70"W

LEGAL DESCRIPTION:

PARCEL #: 53-004-910-00

LAND SITUATED IN THE CITY OF MARSHALL, CALHOUNCOUNTY, MICHIGAN:

PARCEL 1:
COMMENCING AT THE SOUTHWEST CORNER OF LOT 11 OF THE FARMER'S LOAN & TRUST COMPANY SUBDIVISION, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN LIBER 30 OF PLATS, PAGE 454; THENCE EAST 6 RODS; THENCE NORTH 20 RODS TO THE TRUE PLACE OF BEGINNING OF THIS DESCRIPTION; THENCE NORTH TO THE NORTH LINE OF SAID LOT 11, THENCE WEST ALONG THE NORTH LINE OF SAID LOT 11AND LOT 10, OF SAID SUBDIVISION, 7 RODS; THENCE SOUTH TO A POINT THAT IS 7 RODS WEST OF THE PLACE OF BEGINNING; THENCE EAST 7 RODS TO THE PLACE OF BEGINNING.
13-53-004-910-10

PARCEL 2:
ALL THAT CERTAIN PIECE OR PARCEL OF LAND SITUATED IN AND BEING IN THE CITY OF MARSHALL, FOUND IN LOT NO. 11 AND LYING BETWEEN THE FOLLOWING DESCRIBED PROPERTY:

PARCEL NO. 1:
COMMENCING AT THE SOUTHWEST CORNER OF LOT 11 OF THE FARMER'S LOAN & TRUST COMPANY SUBDIVISION, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN LIBER 30 OF PLATS, PAGE 454; THENCE EAST 6 RODS; THENCE NORTH 20 RODS TO THE TRUE PLACE OF BEGINNING OF THIS DESCRIPTION; THENCE NORTH TO THE NORTH LINE OF SAID LOT 11, THENCE WEST ALONG THE NORTH LINE OF SAID LOT 11 AND LOT 10, OF SAID SUBDIVISION, 7 RODS; THENCE SOUTH TO A POINT THAT IS 7 RODS WEST OF THE PLACE OF BEGINNING; THENCE EAST 7 RODS TO THE PLACE OF BEGINNING.

PARCEL NO. 2:
BEGINNING AT THE NORTHEAST CORNER OF LOT 12, FARMER'S LOAN & TRUST COMPANY SUBDIVISION, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN LIBER 30 OF PLATS, PAGE 454; THENCE WEST ALONG THE NORTH LINE OF LOTS 11 AND 12 OF SAID PLAT, 529.16 FEET; THENCE SOUTH 00 DEGREES 40 MINUTES EAST, 336.93 FEET; THENCE NORTH 89 DEGREES 05 MINUTES EAST, 529.13 FEET MORE OR LESS TO THE EAST LINE OF SAID LOT 12; THENCE NORTH ALONG SAID EAST LOT LINE 328.43 FEET TO THE PLACE OF BEGINNING.
13-53-004-910-20

PARCEL 3:
THE EAST 41 FEET OF THE WEST 140 FEET OF THE SOUTH 330 FEET OF LOT 11 OF FARMER'S LOAN & TRUST COMPANY'S SUBDIVISION, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN LIBER 30 OF PLATS, PAGE 454.
13-53-004-910-30

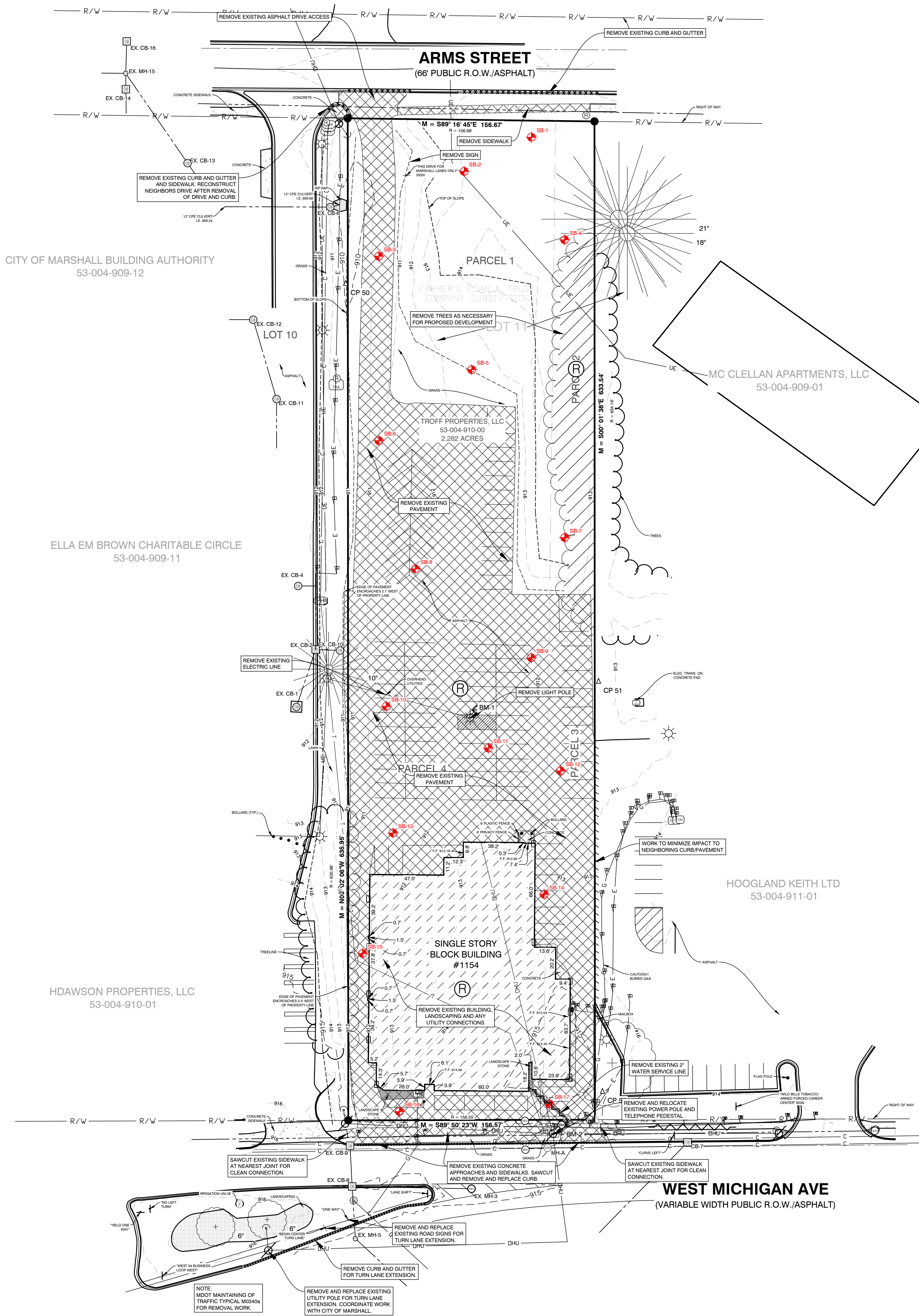
PARCEL 4:
COMMENCING AT A POINT 6 RODS EAST OF THE SOUTHWEST CORNER OF LOT 11 OF FARMER'S LOAN & TRUST COMPANY'S SUBDIVISION, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN LIBER 30 OF PLATS, PAGE 454, THENCE NORTH 20 RODS; THENCE WEST 7 RODS; THENCE SOUTH 20 RODS; THENCE EAST 7 RODS TO THE PLACE OF BEGINNING.
13-53-004-910-40

DEMOLITION NOTES

- ALL WORK SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL LAWS, RULES AND REGULATIONS IN FORCE AT TIME OF CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, TAP FEES, METER DEPOSITS, PERMANENT UTILITY APPLICATIONS, BONDS, AND OTHER FEES REQUIRED FOR PROPOSED WORK. THIS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO THOSE REQUIRED BY THE CITY OF MARSHALL, MDT AND CALHOUN COUNTY.
- CONTACT "MISS DIG 811" AT 1-800-482-7171 FOR LOCATION OF UNDERGROUND UTILITIES A MINIMUM OF 48 HOURS BEFORE COMMENCING EXCAVATION WORK. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO ARE NOT PART OF THE "811" ALERT SYSTEM. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.
- DEMOLISH & REMOVE ALL EXISTING SITE FEATURES AS REQUIRED.
- ALL SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO DEMOLITION.
- ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS AND GEOTECHNICAL REPORT.
- ALL EXISTING ELEVATIONS ARE TO BE VERIFIED AND ACCEPTED AS SHOWN PRIOR TO COMMENCEMENT OF WORK.
- CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID TRACKING SOIL ONTO ADJACENT ROADWAYS. CONTRACTOR SHALL SWEEP IMMEDIATELY IF OCCURS.
- ANY DISTURBED AREA WHICH WILL BE LEFT UNWORKED 15 DAYS OR LONGER MUST BE SEEDED TO ESTABLISH VEGETATION FOR TEMPORARY STABILIZATION. BASINS TO BE SEEDED AND MULCH BLANKETS APPLIED IMMEDIATELY TO PROVIDE A STABLE BASE AND AVOID EXCESSIVE EROSION.
- REVIEW ALL THE REMOVALS AND PROTECTION WITH OWNER PRIOR TO COMMENCING CONSTRUCTION. INSTALL TEMPORARY SNOW FENCE AROUND ALL TREES REQUIRING PROTECTION. SNOW FENCE SHALL BE PLACED AT EDGE OF DRIP LINE.
- SAWCUT ALL CURB, SIDEWALK, AND PAVEMENTS PRIOR TO REMOVAL. ADDITIONAL SAWCUT MAY BE NECESSARY PRIOR TO REPLACEMENT TO ENSURE CLEAN EDGE.
- ALL REMOVALS SHALL BE TAKEN OFF-SITE AND DISPOSED OF PROPERLY. NO STOCKPILE OR BURNING OF DEBRIS IS ALLOWED.
- ALL REMOVALS SHALL BE TO THE LIMITS INDICATED ABOVE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNAUTHORIZED REMOVALS AND SUBSEQUENT REPLACEMENT SHALL BE AT THE CONTRACTOR'S EXPENSE.
- REMOVE, STORE, AND RESET ANY EXISTING SIGNS AS DIRECTED BY THE ENGINEER/OWNER.
- REMOVE ALL TREES TO THE CLEARING LIMITS AS SHOWN. REMOVE ALL EXISTING TREES, STUMPS AND BRUSH FROM THE SITE AS NECESSARY TO CONSTRUCT THE IMPROVEMENTS.
- THE CONTRACTOR SHALL DEMOLISH AND REMOVE ANY ITEMS REMAINING FROM THE EXISTING BUILDING, IN ITS ENTIRETY, INCLUDING WALLS, FOUNDATIONS AND FOOTINGS. ALL BUILDING DRAINS AND UTILITY LEADS SHALL BE LOCATED AND PROPERLY PLUGGED. UTILITY LEAD WORK SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.
- BACKFILL EXCAVATED AREAS WITH CLEAN GRANULAR FILL COMPACTED TO 95% OF THE MATERIAL UNIT WEIGHT BY MODIFIED PROCTOR.
- CONTROL SHALL BE MAINTAINED OVER THE SITE AND OPERATION TO ELIMINATE HAZARDS TO THE PUBLIC. NAILS OR OTHER TIRE PUNCTURING ITEMS SHALL NOT BE DROPPED ON STREETS, ALLEYS AND ADJACENT PROPERTY. PUBLIC STREETS, CURBS AND SIDEWALKS SHALL BE PROTECTED FROM DAMAGE. THE PERSON ENGAGED IN THE DEMOLITION WORK SHALL BE LIABLE FOR ANY AND ALL DAMAGE TO CURBS, STREETS, SIDEWALKS AND OTHER PUBLIC OR PRIVATE PROPERTY AND FOR ANY BODILY INJURY OCCURRING AS A RESULT OF THE DEMOLITION WORK.

SOIL BORING DATA

SOIL BORING SB #1 SURFACE ELEVATION 0.0' - 1.3' SAND 1.3' - 4.5' SAND 4.5' - 5.0' SAND END OF BORING	913.35 WATER ELEVATION: NOT ENCOUNTERED SAND, VERY LOOSE, DARK BROWN, FINE GRAINED, MOIST CLAYEY SAND, VERY LOOSE TO LOOSE, BROWN, FINE GRAINED, TRACE GRAVEL, MOIST SAND, LOOSE, BROWN, FINE TO MEDIUM GRAINED, MOIST END OF BORING	SOIL BORING SB #10 SURFACE ELEVATION 0.0' - 0.3' ASPHALT 0.3' - 1.0' GRAVEL 1.0' - 4.0' CLAY 4.0' - 6.5' SAND 6.5' - 9.0' SAND 9.0' - 20.0' SAND 20.0' - 25.0' SAND END OF BORING	911.23 WATER ELEVATION: 11.5' ASPHALT 4 INCHES GRAVEL 10 INCHES CLAY, STIFF, BROWN, MOIST CLAYEY SAND, LOOSE TO MEDIUM DENSE, BROWN, FINE GRAINED, TRACE SILT, MOIST CLAYEY SAND, MEDIUM DENSE, BROWN, MEDIUM TO COARSE GRAINED, TRACE GRAVEL, TRACE COBBLE, MOIST SAND, MEDIUM DENSE, BROWN, MEDIUM TO COARSE GRAINED, TRACE GRAVEL, TRACE COBBLE, MOIST TO WET SAND, MEDIUM DENSE, BROWN, FINE TO MEDIUM GRAINED, TRACE GRAVEL, WET END OF BORING
SOIL BORING SB #2 SURFACE ELEVATION 0.0' - 0.6' SAND 0.6' - 5.0' SAND 5.0' - 7.8' SAND 7.8' - 20.0' SAND GRAINED, END OF BORING	913.05 WATER ELEVATION: 14.0' SAND, LOOSE, DARK BROWN, FINE GRAINED, MOIST CLAYEY SAND, LOOSE TO MEDIUM DENSE, BROWN, FINE TO MEDIUM GRAINED, TRACE GRAVEL, MOIST SAND, DENSE, BROWN, FINE GRAINED, MOIST SAND, MEDIUM DENSE TO DENSE, BROWN, MEDIUM TO COARSE TRACE GRAVEL, TRACE COBBLE, MOIST TO WET END OF BORING	SOIL BORING SB #11 SURFACE ELEVATION 0.0' - 0.2' ASPHALT 0.2' - 1.1' GRAVEL 1.1' - 4.5' SAND 4.5' - 21.0' SAND 21.0' - 25.0' SAND END OF BORING	911.73 WATER ELEVATION: 11.5' ASPHALT 3 INCHES GRAVEL 11 INCHES CLAYEY SAND, LOOSE, BROWN, FINE TO MEDIUM GRAINED, TRACE GRAVEL, MOIST SAND LOOSE TO VERY DENSE, BROWN, MEDIUM TO COARSE GRAINED, A LITTLE GRAVEL, TRACE COBBLE, MOIST TO WET SAND, MEDIUM DENSE, BROWN, MEDIUM TO COARSE GRAINED, TRACE GRAVEL, TRACE COBBLE, WET END OF BORING
SOIL BORING SB #3 SURFACE ELEVATION 0.0' - 1.0' SAND 1.0' - 8.0' SAND 8.0' - 12.5' SAND 12.5' - 20.0' SAND END OF BORING	910.41 WATER ELEVATION: 11.5' SAND, LOOSE, DARK BROWN, FINE GRAINED, TRACE GRAVEL, MOIST SILTY SAND, LOOSE BROWN, FINE GRAINED, TRACE CLAY, MOIST SAND, MEDIUM DENSE, BROWN, FINE TO COARSE GRAINED, A LITTLE GRAVEL, TRACE COBBLE, MOIST TO WET SAND, MEDIUM DENSE, BROWN, FINE GRAINED, TRACE GRAVEL, WET END OF BORING	SOIL BORING SB #12 SURFACE ELEVATION 0.0' - 0.2' ASPHALT 0.2' - 1.5' GRAVEL 1.5' - 5.0' SAND 5.0' - 6.5' SAND 6.5' - 20.0' SAND END OF BORING	912.49 WATER ELEVATION: 12.5' ASPHALT 2 INCHES GRAVEL 16 INCHES CLAYEY SAND, LOOSE BROWN, FINE TO MEDIUM GRAINED, MOIST SAND, MEDIUM DENSE, BROWN, FINE TO MEDIUM GRAINED, MOIST SAND, LOOSE TO MEDIUM DENSE, BROWN, MEDIUM TO COARSE GRAINED, TRACE GRAVEL, TRACE COBBLE, MOIST TO WET END OF BORING
SOIL BORING SB #4 SURFACE ELEVATION 0.0' - 0.3' SAND 0.3' - 4.5' SAND 4.5' - 6.5' SAND 6.5' - 20.0' SAND END OF BORING	913.35 WATER ELEVATION: 12.5' SAND DARK BROWN, FINE GRAINED, MOIST SAND, LOOSE, BROWN, FINE GRAINED, TRACE GRAVEL, TRACE CLAY, MOIST SAND, MEDIUM DENSE TO DENSE, BROWN, FINE GRAINED, MOIST SAND, MEDIUM DENSE TO DENSE, BROWN, FINE GRAINED, MOIST SAND, LOOSE TO MEDIUM DENSE, BROWN, MEDIUM TO COARSE GRAINED, A LITTLE GRAVEL, TRACE COBBLE, MOIST TO WET END OF BORING	SOIL BORING SB #13 SURFACE ELEVATION 0.0' - 0.3' ASPHALT 0.3' - 1.0' GRAVEL 1.0' - 4.5' CLAY 4.5' - 7.0' SAND 7.0' - 25.0' SAND END OF BORING	911.32 WATER ELEVATION: 12.0' ASPHALT 4 INCHES GRAVEL 8 INCHES SANDY CLAY, STIFF, BROWN, MOIST SAND, LOOSE, BROWN, FINE TO MEDIUM GRAINED, MOIST SAND, LOOSE TO MEDIUM DENSE, BROWN, MEDIUM TO COARSE GRAINED, TRACE GRAVEL, TRACE COBBLE, MOIST TO WET END OF BORING
SOIL BORING SB #5 SURFACE ELEVATION 0.0' - 0.3' SAND 0.3' - 4.0' SAND 4.0' - 5.0' SAND END OF BORING	912.32 WATER ELEVATION: NOT ENCOUNTERED SAND, DARK BROWN, FINE GRAINED, MOIST SAND, LOOSE TO MEDIUM DENSE, BROWN, FINE GRAINED, TRACE GRAVEL, MOIST SAND, MEDIUM DENSE, BROWN, FINE GRAINED, MOIST END OF BORING	SOIL BORING SB #14 SURFACE ELEVATION 0.0' - 0.4' ASPHALT 0.4' - 1.1' GRAVEL 1.1' - 5.5' SAND 5.5' - 25.0' SAND END OF BORING	913.41 WATER ELEVATION: 12.0' ASPHALT 5 INCHES GRAVEL 10 INCHES CLAYEY SAND, LOOSE BROWN TO DARK BROWN, FINE TO MEDIUM GRAINED, TRACE GRAVEL, MOIST SAND, MEDIUM DENSE, BROWN, MEDIUM TO COARSE GRAINED, TRACE GRAVEL, TRACE COBBLE, MOIST TO WET END OF BORING
SOIL BORING SB #6 SURFACE ELEVATION 0.0' - 0.4' ASPHALT 0.4' - 1.0' GRAVEL 1.0' - 3.0' SAND 3.0' - 8.0' SAND 8.0' - 13.5' SAND 13.5' - 20.0' SAND END OF BORING	911.03 WATER ELEVATION: 11.0' ASPHALT 4.5 INCHES GRAVEL 8.5 INCHES SAND, MEDIUM DENSE, BROWN, FINE GRAINED, MOIST SAND, MEDIUM DENSE, BROWN, FINE TO MEDIUM GRAINED, TRACE SILT, TRACE GRAVEL, MOIST SAND, MEDIUM DENSE, BROWN, FINE TO COARSE GRAINED, TRACE GRAVEL, TRACE COBBLE, MOIST TO WET SAND, MEDIUM DENSE, BROWN, FINE GRAINED, TRACE GRAVEL, WET END OF BORING	SOIL BORING SB #15 SURFACE ELEVATION 0.0' - 0.4' ASPHALT 0.4' - 1.0' GRAVEL 1.0' - 4.0' CLAY 4.0' - 8.0' SAND 8.0' - 25.0' SAND TRACE GRAVEL, TRACE COBBLE, MOIST TO WET END OF BORING	911.85 WATER ELEVATION: 11.5' ASPHALT 5 INCHES GRAVEL 7 INCHES SANDY CLAY, STIFF, BROWN, TRACE WOOD, MOIST SAND LOOSE, BROWN, FINE GRAINED, MOIST SAND, MEDIUM DENSE, BROWN, MEDIUM TO COARSE GRAINED, TRACE GRAVEL, TRACE COBBLE, MOIST TO WET END OF BORING
SOIL BORING SB #7 SURFACE ELEVATION 0.0' - 1.3' SAND 1.3' - 3.0' SAND 3.0' - 7.5' SILT 7.5' - 14.5' SAND 14.5' - 20.0' SAND END OF BORING	913.59 WATER ELEVATION: 12.5' SAND, LOOSE, DARK BROWN, FINE TO MEDIUM GRAINED, TRACE GRAVEL, MOIST CLAYEY SAND, LOOSE, BROWN, FINE TO MEDIUM GRAINED, TRACE SILT, MOIST CLAYEY SILT, LOOSE, BROWN, MOIST SAND, MEDIUM DENSE, BROWN, MEDIUM TO COARSE GRAINED, TRACE GRAVEL, MOIST TO WET SILTY SAND, MEDIUM DENSE, BROWN, FINE GRAINED, WET END OF BORING	SOIL BORING SB #16 SURFACE ELEVATION 0.0' - 0.2' ASPHALT 0.2' - 1.3' SAND 1.3' - 3.5' SAND 3.5' - 6.5' SAND 6.5' - 9.0' SAND 9.0' - 13.0' SAND 13.0' - 15.0' SAND 15.0' - 20.0' SAND END OF BORING	914.35 WATER ELEVATION: 16.0' ASPHALT 4.5 INCHES GRAVEL 7.5 INCHES CLAYEY SAND, LOOSE, BROWN TO DARK BROWN, FINE TO MEDIUM GRAINED, TRACE GRAVEL, MOIST CLAYEY SAND, LOOSE BROWN, FINE TO MEDIUM GRAINED, TRACE GRAVEL, MOIST SAND LOOSE TO MEDIUM DENSE, FINE TO MEDIUM GRAINED, TRACE GRAVEL, MOIST SAND MEDIUM DENSE, BROWN, MEDIUM TO COARSE GRAINED, A LITTLE GRAVEL, TRACE COBBLE, MOIST SAND, DENSE, LIGHT BROWN, FINE TO MEDIUM GRAINED, MOIST SAND, DENSE, BROWN, MEDIUM TO COARSE GRAINED, A LITTLE GRAVEL, TRACE COBBLE, MOIST TO WET END OF BORING
SOIL BORING SB #8 SURFACE ELEVATION 0.0' - 0.3' ASPHALT 0.3' - 1.3' GRAVEL 1.3' - 3.0' SAND 3.0' - 5.5' SAND 5.5' - 15.0' SAND 15.0' - 20.0' SAND END OF BORING	911.55 WATER ELEVATION: 12.0' ASPHALT 3.5 INCHES GRAVEL 11.5 INCHES SAND, MEDIUM DENSE, BROWN, FINE GRAINED, MOIST CLAYEY SAND, LOOSE, BROWN, FINE GRAINED, MOIST CLAYEY SAND, MEDIUM DENSE TO DENSE, BROWN, MEDIUM TO COARSE GRAINED, TRACE GRAVEL, TRACE COBBLE, MOIST TO WET SAND, MEDIUM DENSE, BROWN, MEDIUM TO COARSE GRAINED, A LITTLE GRAVEL, WET SAND, MEDIUM DENSE, BROWN, FINE TO MEDIUM GRAINED, WET END OF BORING	SOIL BORING SB #17 SURFACE ELEVATION 0.0' - 0.4' ASPHALT 0.4' - 1.2' GRAVEL 1.2' - 3.0' SAND 3.0' - 5.0' SAND END OF BORING	914.85 WATER ELEVATION: NOT ENCOUNTERED ASPHALT 4 INCHES GRAVEL 10 INCHES CLAYEY SAND LOOSE BROWN TO DARK BROWN, FINE TO MEDIUM GRAINED, TRACE GRAVEL, MOIST CLAYEY SAND LOOSE BROWN FINE TO MEDIUM GRAINED, TRACE GRAVEL, MOIST END OF BORING
SOIL BORING SB #9 SURFACE ELEVATION 0.0' - 0.2' ASPHALT 0.2' - 0.8' GRAVEL 0.8' - 4.0' SAND 4.0' - 5.0' SAND END OF BORING	911.85 WATER ELEVATION: NOT ENCOUNTERED ASPHALT 1.5 INCHES GRAVEL 6.5 INCHES CLAYEY SAND, LOOSE, BROWN, FINE GRAINED, MOIST CLAYEY SAND, LOOSE, BROWN, FINE TO MEDIUM GRAINED, TRACE GRAVEL, MOIST END OF BORING		



BENCHMARKS
BM-1: ELEV: 912.84 SET 'X' IN THE NORTHWEST SIDE OF LIGHT POLE BASE LOCATED ±10' SOUTH OF CENTERLINE OF ARMS ST AND ±150' EAST OF EDGE OF BIT OF PRIVATE DRIVE TO THE WEST OF PROPERTY.
BM-2: ELEV: 916.32 SET NAIL IN NORTHEAST SIDE OF POWER POLE LOCATED ±30' NORTH OF MEDIAN LINE OF WEST MICHIGAN AVE AND ±150' WEST OF EDGE OF BIT OF DRIVE ENTRANCE EAST OF PROPERTY.

EX. STORM STRUCTURE INFORMATION	
EX. CB-1, 2' CONC. STRUCTURE RIM = 911.34' NE 8" PVC (INV. = 908.39) SUMP = 907.89'	EX. CB-10, 2' CONC. STRUCTURE RIM = 911.11' W 6" PVC (INV. 909.81) SUMP = 909.21'
EX. CB-2, 4' CONC. STRUCTURE RIM = 911.32' SW 8" PVC (INV. = 907.87) E 6" PVC (INV. 908.42) N 12" CONC (INV. 907.47) SUMP = 906.02	EX. CB-11, 4' CONC. STRUCTURE RIM = 910.97' NNW 15" CONC (INV. 906.97) S 15" CONC (INV. 906.77) SUMP = 905.32'
EX. MH-3, 2' CONC. STRUCTURE RIM = 915.11' W 12" CONC (INV. = 911.41) SUMP = 908.46'	EX. CB-12, 4' CONC. STRUCTURE RIM = 911.03 SSE 15" CONC (INV. 906.33) W 15" CONC (INV. 905.08) SUMP = 905.03
EX. CB-4, 2' CONC. STRUCTURE RIM = 911.50' SSE 8" PVC (INV. = 908.85) SUMP = 907.75'	EX. CB-13, 4' CONC. STRUCTURE RIM = 910.07' SE 8" PVC (INV. 908.67) NW 6" CLAY (INV. 905.87) NE 15" CPE (INV. 907.37) SUMP = 905.87'
EX. MH-5, 4' BLOCK STRUCTURE RIM = 914.88' N 12" CONC (INV. = 909.13) SE 12" CONC (INV. 909.08) SUMP = 906.73	EX. CB-14, 4' CONC. STRUCTURE RIM = 911.10 N 12" CONC (INV. 904.60) S 12" CONC (INV. 903.85) SUMP = 903.75'
EX. CB-6, 4' CONC. STRUCTURE RIM = 911.57' E 12" CPE (INV. = 908.62) W 12" CPE (INV. 906.52) SUMP = 907.37'	EX. MH-14, 4' CONC. STRUCTURE RIM = 911.48 N 12" CONC (INV. 904.38) S 12" CONC (INV. 904.33) W 15" CONC (INV. 904.28) SE 15" CPE (INV. 907.03) SE 6" CLAY (INV. 904.78) SUMP = 903.88'
EX. CB-7, 4' BLOCK STRUCTURE RIM = 914.38' SW 12" CONC (INV. = 910.83) SUMP = 908.18'	EX. CB-16, 4' CONC. STRUCTURE RIM = 910.89 S 12" CONC (INV. 904.09) SUMP = 904.09'
EX. CB-8, 4' BLOCK STRUCTURE RIM = 914.96' N 12" CONC (INV. = 910.66) S 12" CONC (INV. 910.01) E 12" CONC (INV. 911.16) SUMP = 908.36'	
EX. CB-9, 2' BLOCK STRUCTURE RIM = 915.31' S 12" CONC (INV. 911.31) SUMP = 909.31'	

EX SANITARY STRUCTURE INFORMATION
MH-A, 2' BRICK STRUCTURE RIM = 915.00' N 4" PVC (INV. = 910.90) E 8" CLAY (INV. = 910.00) W 8" CLAY (INV. = 910.05)

LEGEND

- [Hatched Box] PAVEMENT REMOVAL
- [Diagonal Lines Box] BUILDING REMOVAL
- [Dashed Line] SAWCUT
- [Wavy Line] UTILITY LINE REMOVAL
- [Circle with X] TREE REMOVAL
- [Circle with B] REMOVE
- [Circle with P] PROTECT
- [Dotted Line] LIMITS OF CONSTRUCTION
- [Cross-hatched Box] CURB & GUTTER REMOVAL

PLANS PREPARED BY:

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CIVIL ENGINEERING & SURVEYING
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No.	DATE	BY	ISSUED FOR:
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3			
4			

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EXISTING CONDITIONS AND DEMO

PROJECT: MARSHALL HOTEL
CLIENT: SAVINDER SINGH
SITE ADDRESS: 1154 W MICHIGAN AVE, MARSHALL, MI
SITE SECTION: SECTION 26, T02S, R05W.

JOB NUMBER
24193001

DATE
01/31/2025

SHEET NUMBER
C1.0

811
Know what's below.
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ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA. FIELD WORK PERFORMED BY: AR ENGINEERING

1. PROPERTY INFORMATION:
 PARCEL #: 53-004-910-00
 SITE AREA: 99,404 SF (2.282AC)

OWNER/DEVELOPER: SUHA HOTELS, LLC
 SAVINDER SINGH
 EMAIL: savoker@gmail.com
 PHONE: (269) 300-7489

2. ZONING:
 PROPERTY CURRENTLY ZONED: B-4 REGIONAL COMMERCIAL

ABUTTING PROPERTY CURRENTLY ZONED:
 NORTH: MFRD-MULTIPLE FAMILY RESIDENTIAL
 SOUTH: PSP PUBLIC / SEMI-PUBLIC SERVICES
 EAST: B-4 REGIONAL COMMERCIAL & MFRD-MULTIPLE FAMILY RESIDENTIAL
 WEST: B-4 REGIONAL COMMERCIAL

PROPOSED LAND USE = HOTEL
 *PERMITTED USE IN B-4 REGIONAL COMMERCIAL

3. SETBACKS
 FRONT = 20'
 SIDES = 10' (TOTAL OF 2 SIDES: 25')
 REAR = 25'
 PARKING = 10' (FROM RESIDENTIALLY USE/ZONE)

4. PARKING:
 REQUIRED = (1) SPACE PER OCCUPANCY UNITS
 + 5 EMPLOYEES

101 ROOMS + 5 EMPLOYEES	106
PROVIDED = STANDARD 9'x20' SPACES =	105
BARRIER FREE SPACES =	5
TOTAL PROVIDED	110*

*ADDITIONAL 11 FUTURE PARKING SPACES TO BE CONSTRUCTED IN THE FUTURE, IF NEEDED.

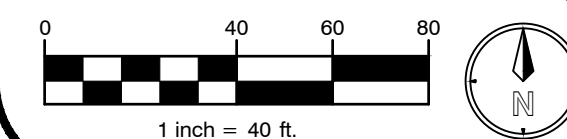
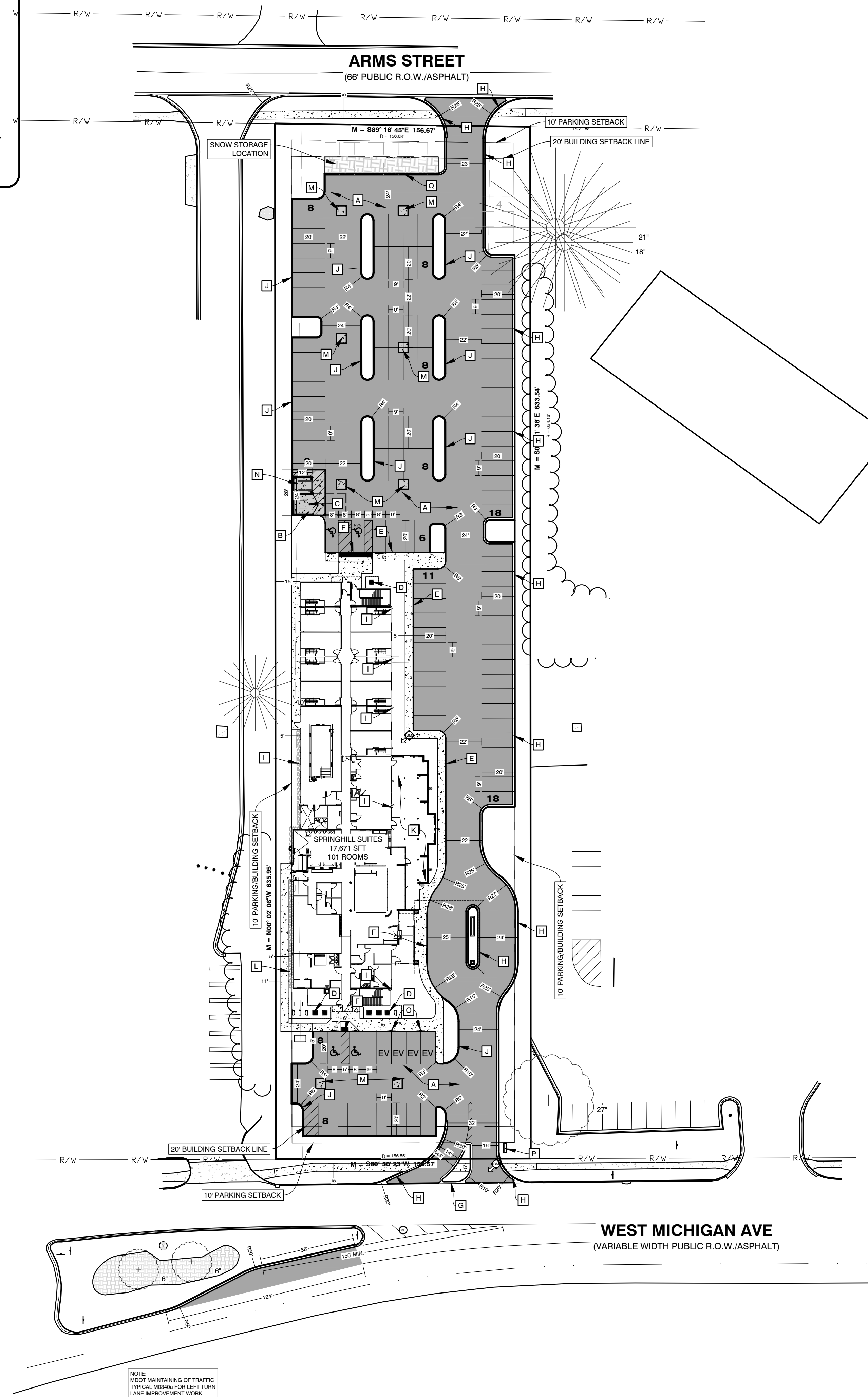
5. BUILDING:
 FOUR STORY
 MAXIMUM HEIGHT: 35' / 2.5 STORIES*
 *VARIANCE OBTAINED 04-19-2024
 TOTAL AREA OF 17,671 SFT. (SEE FLOOR PLAN AND ELEVATIONS FOR MORE DETAIL.)
 PROPOSED BUILDING COVERAGE: 12%
 MAXIMUM BUILDING COVERAGE: N/A

6. LOT:
 MINIMUM LOT SIZE: 2,500 SFT
 MINIMUM LOT WIDTH: 100 FT
 LOT SIZE: 99,404 SF / 2.282 ACRES
 LOT DIMENSIONS: IRREGULAR

A	ASPHALT PAVEMENT (SEE DETAIL ON SHEET C5.0)	I	DOWNSPOUT (TYP)
B	CONCRETE PAD	J	E2 CURB (SEE DETAIL ON SHEET C5.0)
C	28x18" (MIN.) - 6" CONCRETE DUMPS/TER PAD (PROVIDE 12"x12" CONCRETE ENCLOSURE FOR (1) STD DUMPS/TER WITH 5 TOTAL BOLLARDS (SEE ARCH PLANS)	K	PATIO WITH FENCE / WALL ENCLOSURE. (SEE ARCH PLANS)
D	PROPOSED HVAC UNITS WITH FENCING (SEE ARCH PLANS)	L	2" WIDE STONE MAINTENANCE STRIP
E	INTEGRAL CURB/WALK (SEE DETAIL ON SHEET C5.0)	M	CONCRETE COLLAR AROUND STORM STRUCTURE
F	AT-GRADE RAMP (SEE GRADING PLAN)	N	STORAGE BUILDING (SEE ARCH PLANS)
G	MDOT B2 CONCRETE CURB AND GUTTER, (SEE DETAIL ON SHEET C5.0)	O	EV CHARGING STATIONS (2 TOTAL). (SEE ELECTRICAL PLANS)
H	MDOT F4 CURB AND GUTTER (SEE DETAIL ON SHEET C5.0)	P	MONUMENT SIGN
		Q	CONCRETE VALLEY CURB (SEE DETAIL ON SHEET C5.0)

1. DIMENSIONS TAKE PRECEDENCE OVER SCALE.
CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.
2. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS
BECOME APPARENT, THESE SHALL BE BROUGHT TO
THE ATTENTION OF THE ARCHITECT/ ENGINEER PRIOR
TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT
CLARIFICATION OR REDESIGN MAY OCCUR.
3. ALL CURB RADI AND DIMENSIONS ARE TO FACE OF
CURB. CURB TO BE PROVIDED WHERE SHOWN AND
INTERGAL WITH SIDEWALK AT PAVING EDGE.
4. SLOPE GRADERS UNIFORMLY FROM ELEVATIONS
SHOWN. NOMINAL GRADING, SLOPE SIDEWALKS AWAY
FROM BUILDING AT 1/4" PER FOOT ON ENTRY WALK.
5. SNOW TO BE STORED ON SIDE.

	ASPHALT PAVEMENT (SEE DETAIL ON SHEET C5.0)
	CONCRETE SIDEWALK (SEE DETAIL ON SHEET C5.0)
	CONCRETE PAVEMENT (SEE DETAIL ON SHEET C5.0)
	SNOW STORAGE LOCATION



BM-1: ELEV: 912.84
SET "X" IN THE NORTHWEST SIDE OF LIGHT POLE BASE LOCATED
±410' SOUTH OF CENTERLINE OF ARMS ST AND ±100' EAST OF EDGE
OF BIT OF PRIVATE DRIVE TO THE WEST OF PROPERTY.

BM-2: ELEV: 916.32
SET NAIL IN NORTHEAST SIDE OF POWER POLE LOCATED ±30' NORTH
OF MEDIAN LINE OF WEST MICHIGAN AVE AND ±150' WEST OF EDGE
OF BIT OF DRIVE ENTRANCE EAST OF PROPERTY.



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4	.	.	.

SITE LAYOUT
MARSHALL HOTEL
SAVINDER SINGH
1154 W MICHIGAN AVE, MARSHALL
SECTION 26, T02S, R05E

PROJECT:
CLIENT:
SITE ADDRESS:
SITE SECTION:

JOB NUMBER
24193001

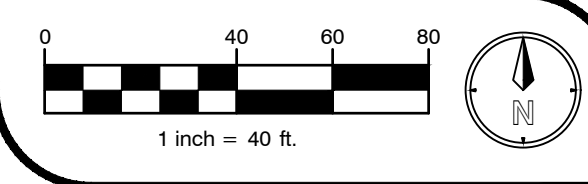
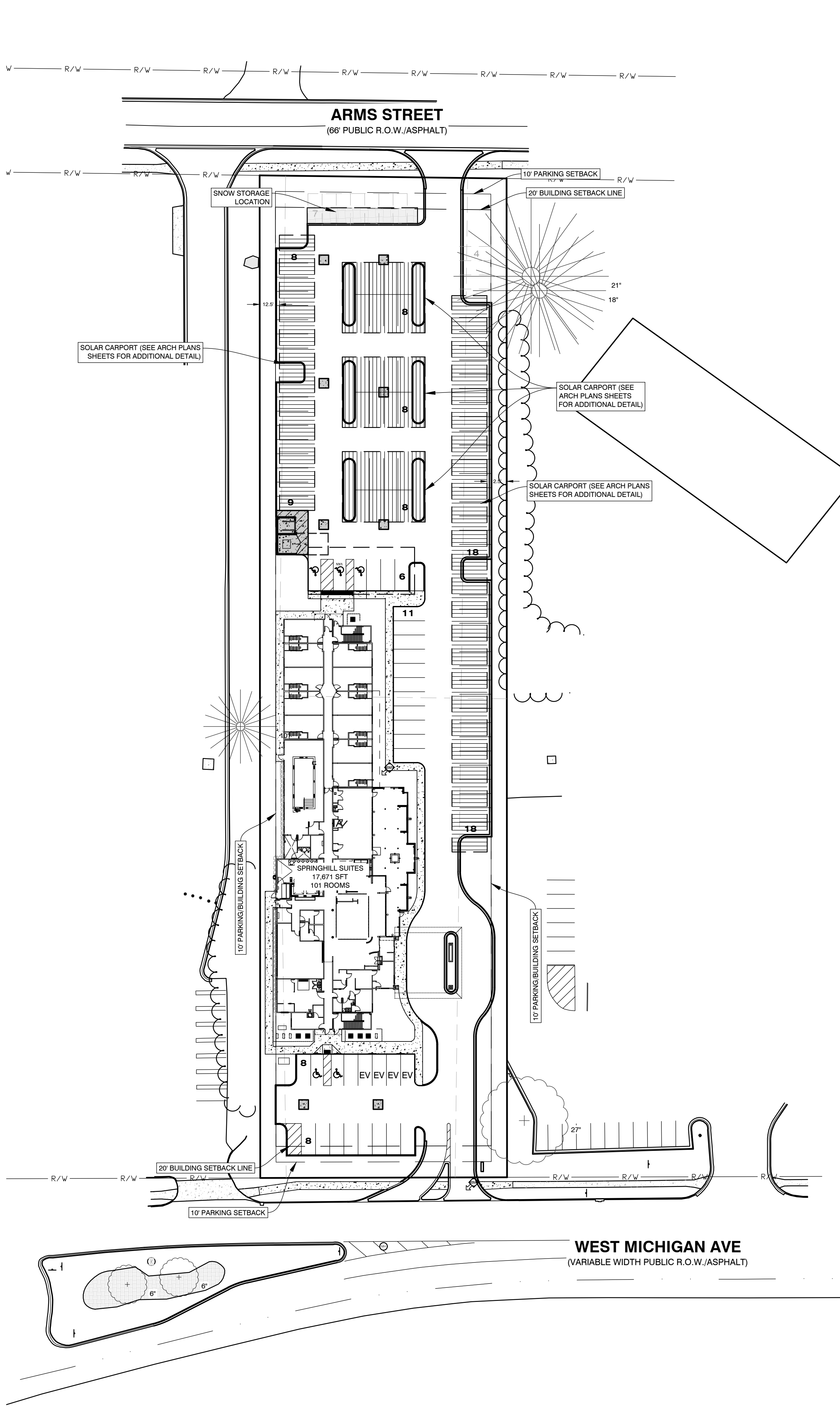
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01/31/2025

SHEET NUMBER

C2.0



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SOLAR CARPORT LAYOUT

MARSHALL HOTEL

SAVINDER SINGH

1154 W MICHIGAN AVE, MARSHALL, MI
SECTION 26, T02S, R05W.

PROJECT:
CLIENT:
SITE ADDRESS:
SITE SECTION:

JOB NUMBER
24193001

DATE
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SHEET NUMBER
C2.1

SITE MATERIALS & CONSTRUCTION NOTES

- SOILS EXPOSED IN THE BASE OF ALL SATISFACTORY FOUNDATION EXCAVATIONS SHOULD BE PROTECTED AGAINST ANY DETRIMENTAL CHANGES IN CONDITION SUCH AS FROM DISTURBANCE, RAIN AND FREEZING. SURFACE RUN-OFF WATER SHOULD BE DRAINED AWAY FROM THE EXCAVATION AND NOT ALLOWED TO POND. IF POSSIBLE, ALL FOOTING CONCRETE SHOULD BE POURED THE SAME DAY THE EXCAVATION IS MADE. IF THIS IS NOT PRACTICAL, THE FOOTING EXCAVATIONS SHOULD BE ADEQUATELY PROTECTED.
- REMOVE ALL SUBGRADE GRADE MATERIAL THAT MAY BE SOFTENED BY RAINS, FREEZING, OR CONSTRUCTION TRAFFIC, ETC. AND REPLACE WITH COMPACTED GRANULAR FILL.
- STORM SEWER SHALL BE CORRUGATED HDPE PIPE WITH SMOOTH INTERIOR WALL. BY ADS OR EQUAL. LEACHING BASINS AND MANHOLES ARE TO BE REINFORCED CONCRETE WITH RIM AND SLOTTED GRATING (AS SHOWN). STORM SEWER & LEACHING BASINS ARE TO BE WRAPPED WITH FILTER FABRIC.
- SANITARY SEWER PIPE MAY BE PVC SDR 3034 MATERIAL.
- PROVIDE MINIMUM 5' COVER FROM FINISHED GRADE FOR ALL WATER SERVICE LINES. IF COVER CANNOT BE MAINTAINED DUE TO SITE CONDITIONS OR INVERT ELEVATIONS THE ENTIRE LENGTH OF THE EXTERIOR PIPE MUST BE PROTECTED WITH 2" RIGID INSULATION BOARD ON THE TOP AND SIDES.
- PROVIDE MINIMUM 5' COVER FROM FINISHED GRADE FOR ALL SANITARY SEWER LINES. IF COVER CANNOT BE MAINTAINED DUE TO SITE CONDITIONS OR INVERT ELEVATIONS THE ENTIRE LENGTH OF THE EXTERIOR PIPE MUST BE PROTECTED WITH 2" RIGID INSULATION BOARD ON THE TOP AND SIDES.
- MAINTAIN 10 FOOT MINIMUM HORIZONTAL SEPARATION BETWEEN THE SEWER AND WATER MAIN UTILITIES. PROVIDE 18" MINIMUM VERTICAL SEPARATION WHERE UTILITIES CROSS.
- THE CONTRACTOR SHALL INSTALL A PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
- EXTERIOR CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI AND SHALL HAVE LIMESTONE AGGREGATE AND SHALL HAVE 4 - 6 % AIR ENTRAINMENT WITH A BROOM FINISH.
- EXPANSION JOINTS IN CONCRETE PAVEMENT AND WALLS SHALL BE 1/2" ASPHALT IMPREGNATED FULL DEPTH 40" O.C. MAXIMUM & AT SIDEWALK INTERSECTIONS. CRACK CONTROL SCORING AT SIDEWALK WIDTH DIMENSION AND @ 10'-0" O.C. IN DRIVES.

GENERAL NOTES

- ALL WORK SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL LAWS, RULES AND REGULATIONS IN FORCE AT TIME OF CONSTRUCTION.
- ELECTRICAL WORK SHALL BE PERFORMED BY A STATE OF MICHIGAN LICENSED ELECTRICIAN ACCORDING TO THE N.E.P.A. NATIONAL ELECTRICAL CODE AS MODIFIED BY THE STATE OF MICHIGAN. FURNISH AND INSTALL ALL MATERIALS AND LABOR TO PROVIDE A COMPLETE WORKING SYSTEM.
- ALL PLUMBING WORK SHALL BE PERFORMED BY A STATE OF MICHIGAN LICENSED PLUMBER ACCORDING TO THE INTERNATIONAL PLUMBING CODE AS MODIFIED BY THE STATE OF MICHIGAN AND LOCAL HEALTH DEPARTMENT. FURNISH AND INSTALL ALL MATERIALS AND LABOR TO PROVIDE A FULL WORKING SYSTEM.
- ALL MECHANICAL WORK SHALL BE PERFORMED ACCORDING TO THE INTERNATIONAL MECHANICAL CODE AS MODIFIED BY THE STATE OF MICHIGAN AND THE MICHIGAN ENERGY CODE. FURNISH AND INSTALL ALL MATERIALS AND LABOR TO PROVIDE A FULL WORKING SYSTEM.
- ALL WORK SHALL CONFORM TO THE MICHIGAN HANDICAPPED ACCESSIBILITY CODE AND THE AMERICANS WITH DISABILITIES ACT.
- WATER SERVICE PRESSURE TESTING AND CHLORINATION SHALL BE PER EGLE AND CITY OF MARSHALL REQUIREMENTS.
- SANITARY SEWER INSTALLATION AND TESTING MUST MEET THE REQUIREMENTS OF CITY OF MARSHALL AND EGLE.
- ALL REGULATORY SIGNAGE (IF SPECIFIED) SHALL BE PER THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT).
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, TAP FEES, METER DEPOSITS, PERMANENT UTILITY APPLICATIONS, BONDS, AND OTHER FEES REQUIRED FOR PROPOSED WORK.
- CONTACT "MISS DIG 811" AT 1-800-482-7171 FOR LOCATION OF UNDERGROUND UTILITIES A MINIMUM OF 48 HOURS BEFORE COMMENCING EXCAVATION WORK. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO ARE NOT PART OF THE "MISS DIG" ALERT SYSTEM. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.
- ANY SANITARY SEWER, SANITARY SEWER SERVICE LEADS, WATER MAIN, WATER SERVICES, OR STORM SEWER WHICH IS DAMAGED BY THE CONTRACTOR DURING HIS OPERATIONS SHALL BE REPAIRED TO THE OWNERS SATISFACTION, AND AT THE CONTRACTORS EXPENSE. IF ANY ELEMENTS OF THE SANITARY SEWER SYSTEM ARE DAMAGED AND NEED REPAIRED, IT MUST MEET CITY OF MARSHALL SPECIFICATIONS.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE ELECTRICAL TRANSFORMER PAD PER THE UTILITY COMPANY SPECIFICATIONS.
- THE TELEPHONE UTILITY COMPANY SHALL PROVIDE UNDERGROUND TELEPHONE TO THE BUILDING AT THE OWNERS EXPENSE.
- REFER TO ELECTRICAL DRAWINGS FOR UNDERGROUND ELECTRICAL REQUIREMENTS FOR SITE LIGHTING & SITE DETAILS SHEETS FOR THE FIXTURE AND & POLE SPECIFICATIONS.
- DESIGN, INSTALLATION AND SPECIFICATION FOR IMPROVEMENTS RELATED TO GAS, TELEPHONE, ELECTRIC AND CABLE TELEVISION SERVICES SHALL BE COORDINATED BY THE CONTRACTOR.
- CONTRACTOR SHALL COORDINATE TELEPHONE, ELECTRIC, AND CABLE TELEVISION CONDUITS WITH THE APPROPRIATE UTILITY PRIOR TO PAVEMENT INSTALLATION.
- CONTRACTOR IS TO UNCOVER AND CONFIRM ALL TAP LOCATIONS. LOCATION DISCREPANCIES ARE TO BE BROUGHT TO THE ENGINEERS ATTENTION FOR RESOLUTION.
- THE CONTRACTOR IS TO PROVIDE THE WATER SERVICE PIPING FROM THE BUILDING TO THE EXISTING MAIN. THE CONTRACTOR SHALL MAKE THE CONNECTION TO THE SHUT OFF VALVE, THE CONTRACTOR SHALL COORDINATE SERVICES WITH THE VILLAGE.
- CONTRACTOR/OWNER SHALL OBTAIN UTILITY CONNECTION PERMITS AND SETTLE APPLICABLE UTILITY ASSESSMENTS PRIOR TO EXTENSION OF PUBLIC UTILITIES ONSITE.
- MANHOLE AND CATCH BASIN STRUCTURES SHALL BE PRECAST AND HAVE A MAXIMUM OF 2 ADJUSTING RINGS FOR FINISH GRADE ADJUSTMENT. STORM STRUCTURES MUST ALL HAVE A SUMP OF TWO FEET.
- ALL WATER MAIN TO HAVE A BURIAL DEPTH AS REQUIRED BY EGLE FOR THE SPECIFIC REGION OF WORK IN CALHOUN COUNTY.
- DEMOLISH & REMOVE ALL EXISTING SITE FEATURES AS REQUIRED.
- THE CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT PREPARED BY DRIESENKA.
- DRIVEWAY LAYOUT AND CONNECTION TO WEST MICHIGAN AVE SHALL COMPLY WITH ALL ASPECTS OF THE MDOT DRIVE PERMITS, RESPECTIVELY.
- GEOTEXTILE FABRIC SHALL BE PLACED UNDER ALL APPLICATIONS OF RIP RAP OUTFALLS AND SPILLWAYS.

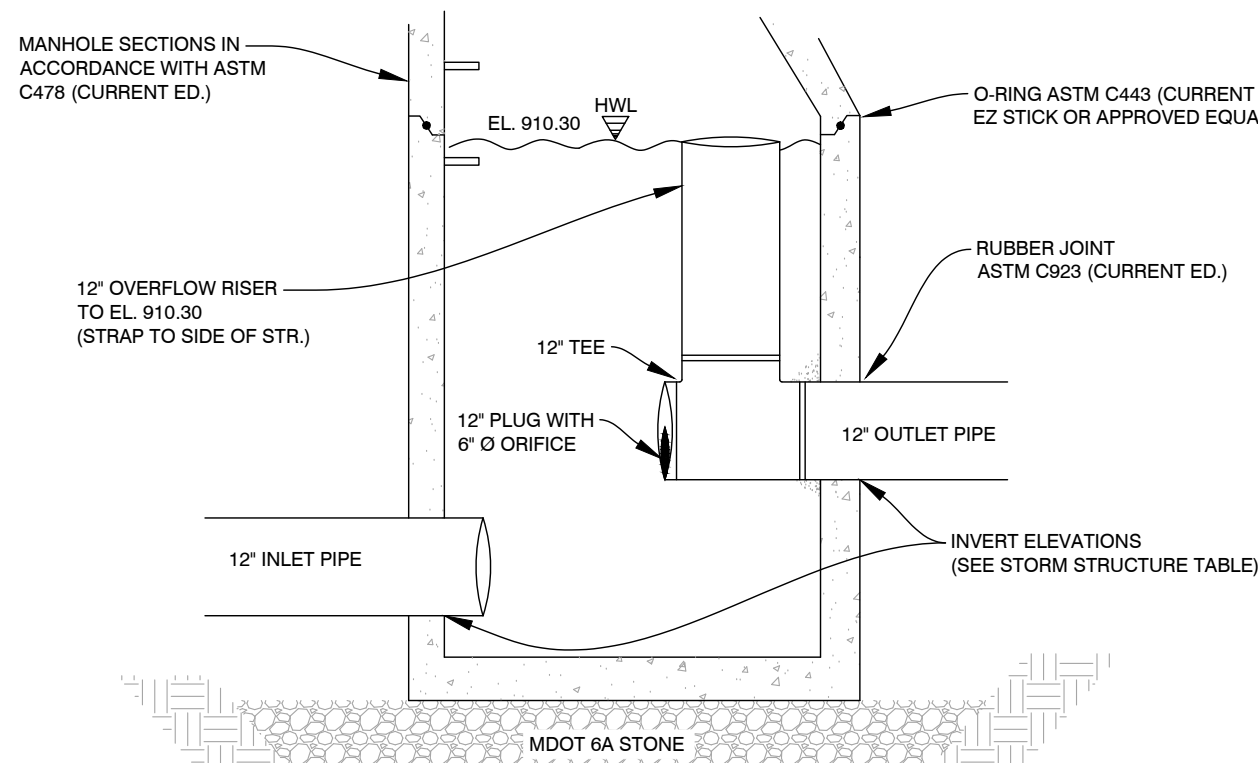
UTILITY PLAN NOTES

- WATER SERVICE. COORDINATE CONNECTION WITH PLUMBING PLANS.
- 6" WATER SERVICE (FIRE & DOMESTIC). CONNECT TO EXISTING WATER MAIN IN MICHIGAN AVE. COORDINATE WITH CITY OF MARSHALL.
- SEWER LATERAL. COORDINATE CONNECTION WITH PLUMBING PLANS.
- CONNECT TO EXISTING SANITARY STUB. COORDINATE WITH CITY OF MARSHALL.
- ELECTRIC METER AND SERVICE.
- GAS METER AND SERVICE.
- DOWNSPOUT (TYP). HARD PIPE DOWNSPOUT UNDERGROUND TO HEADERPIPE. (SEE DETAIL SHEET)
- STORM WATER CLEAN OUT
- FDC CONNECTION
- CONTROLLED RELEASE STRUCTURE (SEE DETAIL THIS SHEET)

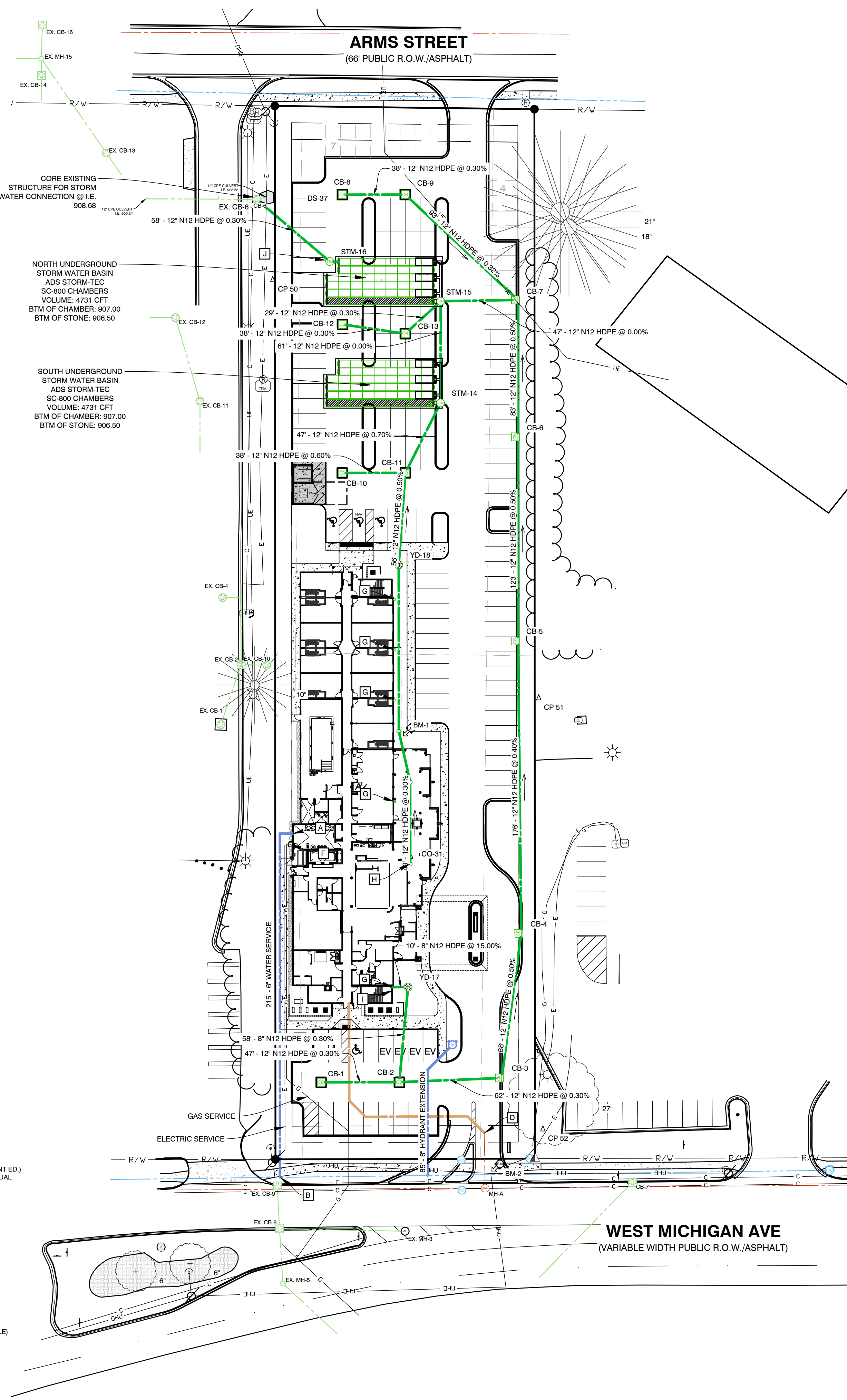
STORM STRUCTURE DATA

CB-1, 4' DIA. EJIW 5105 RIM = 912.13 12" HDPE E	909.53	CB-11, 4' DIA. EJIW 5105 RIM = 911.79 12" HDPE W 12" HDPE NE 12" HDPE S	909.01 909.01 909.01
CB-2, 4' DIA. EJIW 5105 RIM = 912.01 12" HDPE W 12" HDPE E 8" HDPE N	909.39 909.39 909.39	STM-14, 4' DIA. EJIW 1040 SOLID RIM = 912.69 12" HDPE SW 12" HDPE N	908.68 908.68 907.78
CB-3, 4' DIA. EJIW 7045 RIM = 912.04 12" HDPE W 12" HDPE N	909.20 909.20	CB-12, 4' DIA. EJIW 5105 RIM = 912.05 12" HDPE E	909.45
CB-4, 4' DIA. EJIW 7045 RIM = 911.49 12" HDPE S 12" HDPE N	908.76 908.76	CB-13, 4' DIA. EJIW 5105 RIM = 912.10 12" HDPE W 12" HDPE NE	909.33 909.33
CB-5, 4' DIA. EJIW 7045 RIM = 910.79 12" HDPE S 12" HDPE N	908.06 908.06	STM-15, 4' DIA. EJIW 1040 SOLID RIM = 912.91 12" HDPE E 12" HDPE SW 12" HDPE S	907.03 909.24 907.78
CB-6, 4' DIA. EJIW 7045 RIM = 911.38 12" HDPE S 12" HDPE N	907.44 907.44	STM-16, 4' DIA. EJIW 1040 SOLID RIM = 912.73 12" HDPE NW 12" HDPE E	908.85 908.56
CB-7, 4' DIA. EJIW 7045 RIM = 911.67 12" HDPE S 12" HDPE W 12" HDPE NW	907.03 907.03 909.17	YD-17, 2' DIA. BEEHIVE RIM = 912.61 8" HDPE W 8" HDPE S	908.75 908.56
CB-8, 4' DIA. EJIW 5105 RIM = 912.19 12" HDPE E	909.59	YD-18, 2' DIA. BEEHIVE RIM = 912.42 12" HDPE S 12" HDPE N	909.29 909.29
CB-9, 4' DIA. EJIW 5105 RIM = 912.33 12" HDPE W 12" HDPE SE	909.47 909.47		
CB-10, 4' DIA. EJIW 5105 RIM = 911.84 12" HDPE E	909.24		

*ALL STRUCTURES HAVE 2' SUMPS



OUTLET STRUCTURE (STM-16)
C3.0 - 050008 NOT TO SCALE

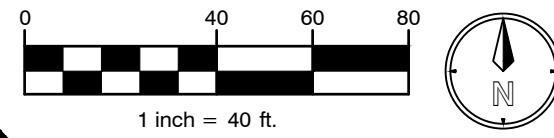
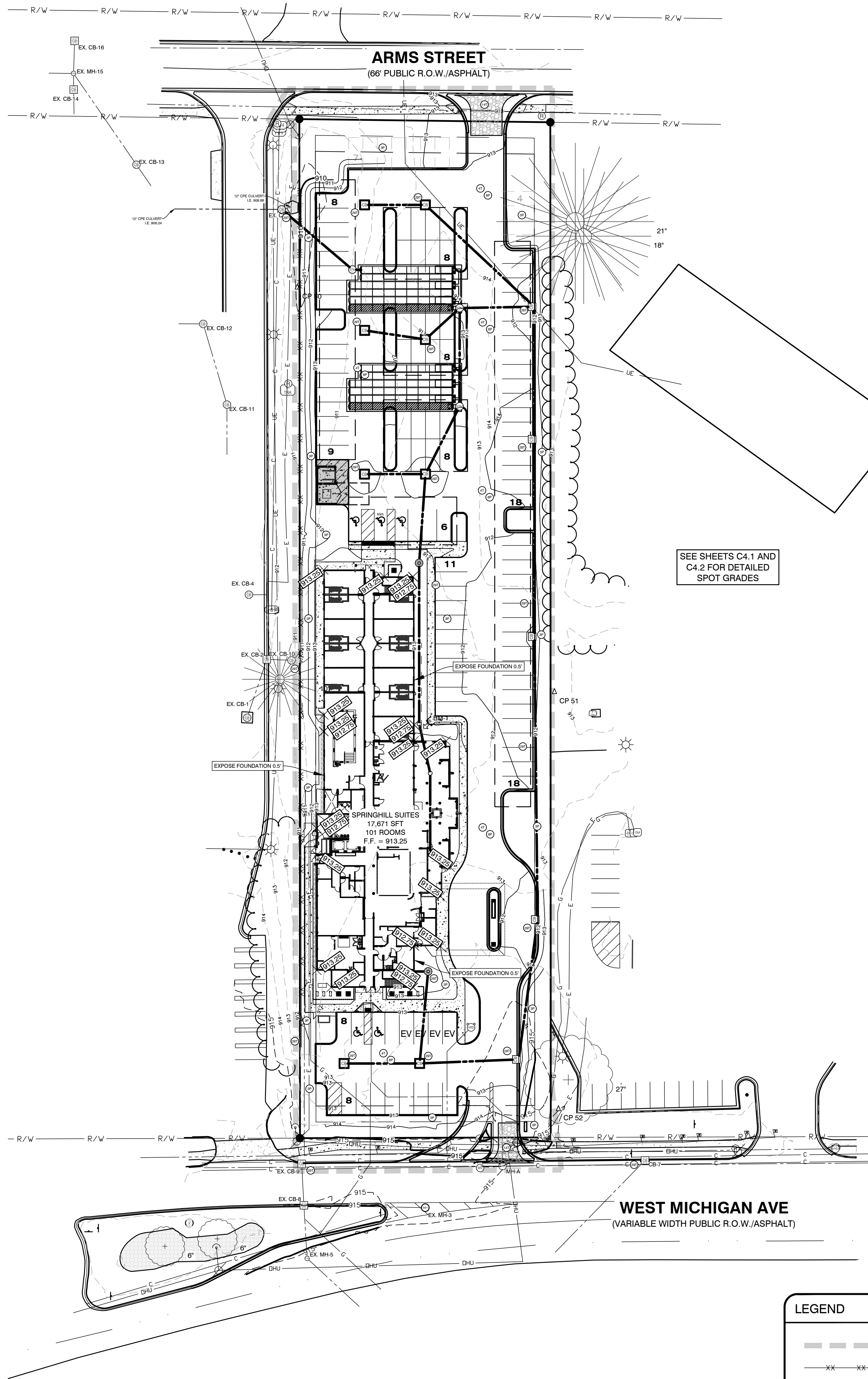
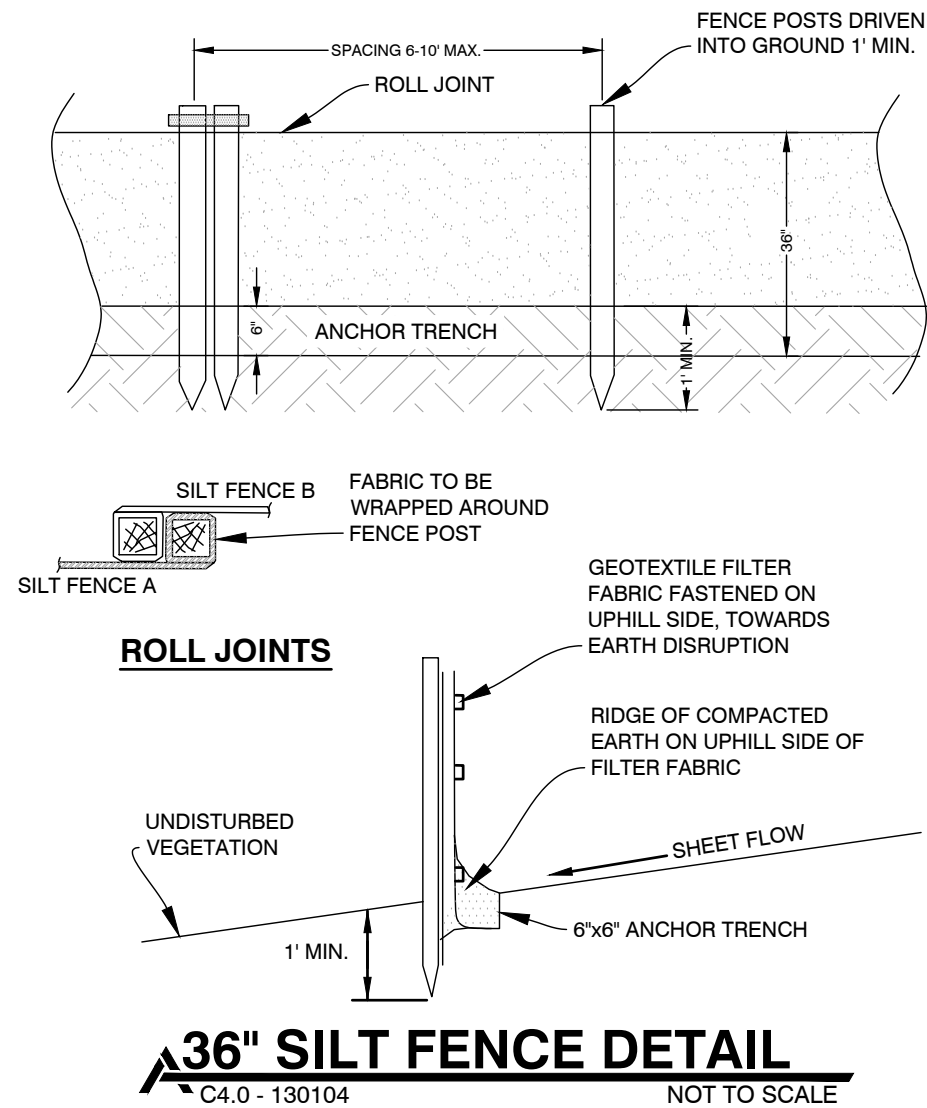


SOIL EROSION & SEDIMENTATION CONTROL NOTES

- ALL CONSTRUCTION METHODS SHALL BE DONE IN COMPLIANCE WITH MDOT-MDEQ. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING A "SOIL EROSION PERMIT" FROM THE COUNTY AND A "PERMIT BY RULE/NOTICE OF COVERAGE" FROM MDEQ, IF APPLICABLE, PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS OF THE COUNTY "SOIL EROSION PERMIT" AND FOR ALL CERTIFIED STORM WATER INSPECTION SERVICE REQUIRED BY THE "PERMIT BY RULE." EROSION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS AND SHALL NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR PROVIDING ALL REQUIRED EROSION CONTROL MEASURES.
 - AVOID UNNECESSARY DISTURBING OR REMOVING OF EXISTING VEGETATED TOPSOIL OR EARTH COVER. THESE COVER AREAS ACT AS SEDIMENT FILTERS.
 - ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL REMOVAL IS REQUIRED FOR FINAL CLEAN UP AND APPROVAL.
 - GEOTEXTILE SILT FENCE SHALL BE INSTALLED AS REQUIRED WHEN CROSSING CREEKS OR WHEN ADJACENT TO WETLANDS OR SURFACE WATER BODIES TO PREVENT SILTATION AND ELSEWHERE AS DIRECTED BY THE ENGINEER. SEEDING AND/OR SODDING SHALL BE INSTALLED ON CREEK BANKS IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.
 - MAINTENANCE, CLEANING, AND REMOVAL OF THE VARIOUS SEDIMENT CONTROL MEASURES SHALL BE INCLUDED IN THE VARIOUS EROSION CONTROL ITEMS.
- NUMBER IN CIRCLE REFERS TO NUMBERED DETAILS ON MDOT STANDARD PLAN R-96-D. SOIL EROSION & SEDIMENTATION CONTROL MEASURES. "P" DENOTES PERMANENT MEASURE AND "T" DENOTES TEMPORARY MEASURE. SOIL EROSION CONTROL PLANS DENOTE MINIMUM EROSION MEASURES REQUIRED AS DESCRIBED BELOW.
- 3P DENOTES PERMANENT SEEDING. ALL DISTURBED AREAS NOT PAVED OR GRAVELED SHALL BE RESTORED. PLACE TOPSOIL SURFACE, SALV. 3 INCH, MDOT SEEDING, MIXTURE TUF APPLIED AT A RATE OF 220 LB/ACRE, FERTILIZER, CHEMICAL NUTRIENT, CLA APPLIED AT A RATE OF 228 LB/ACRE, MULCH AT A RATE OF 2 TON/ACRE AND MULCH ANCHORING. (APPLIES TO ENTIRE PROJECT)
- 3T DENOTES TEMPORARY SEEDING. TEMPORARY SEEDING SHALL BE PLACED AT LOCATIONS DETERMINED BY THE ENGINEER IN THE FIELD AND SHALL INCLUDE CEREAL RYE SEED APPLIED AT A RATE OF 70 LB/ACRE AND MULCH.
- 4T DENOTES DUST CONTROL. DUST CONTROL MAY BE REQUIRED ON THE SUBGRADE CONSTRUCTION AND WILL INCLUDE APPLYING FRESH WATER TO BE INCLUDED IN THE ITEM OF EMBANKMENT. DUST CONTROL ON THE AGGREGATE BASE COURSE WILL BE ACCOMPLISHED BY APPLYING FRESH WATER (INCLUDED IN THE ITEM OF AGGREGATE BASE, 6 INCH) AND APPLYING DUST PALLIATIVE, APPLIED, CACLO, (TON) AS DIRECTED BY THE PROJECT ENGINEER.
- 8P DENOTES AGGREGATE COVER/PERMANENT PAVEMENT RESTORATION
- 14T DENOTES GRAVEL ACCESS APPROACH. APPROACH SHALL BE INSTALLED TO PROVIDE STABLE ACCESS TO ROADWAYS AND MINIMIZE DUST AND TRACKING OF MATERIALS ONTO PUBLIC STREETS AND HIGHWAYS. THE APPROACH SHALL BE A MINIMUM OF 12' WIDE, 6" DEEP, AND CONSIST OF 2"-4" AGGREGATE
- 20T DENOTES TEMPORARY SILT FENCE. SILT FENCE SHALL BE INSTALLED AT CREEK CROSSINGS, ADJACENT TO ALL WETLANDS AND SURFACE WATERS, AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. EACH SILT FENCE SHALL BE INSTALLED GENERALLY ALONG THE SAME CONTOUR ELEVATION.
- 20T DENOTES INLET PROTECTION FABRIC DROP. SHALL BE INSTALLED AT EXISTING AND PROPOSED STORM SEWER INLETS TO PROVIDE SETTLING AND FILTERING OF SILT LADEN WATER PRIOR TO ENTRY INTO THE DRAINAGE SYSTEM.
- 33T DENOTES MULCH BLANKET OR MATTING. SHALL BE NORTH AMERICAN GREEN DS150, OR APPROVED EQUAL. MULCH BLANKETS SHALL BE PLACED ON ALL 1:3 SLOPES OR GREATER, IN AND AROUND DITCH BOTTOMS WHERE THERE IS NO BIOSWALE BY CONTRACTOR RESPONSIBLE FOR RESTORING THAT AREA.

GRADING NOTES

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- CONTACT "MISS DIG 811" AT 1-800-482-7171 FOR LOCATION OF UNDERGROUND UTILITIES A MINIMUM OF 48 HOURS BEFORE COMMENCING EXCAVATION WORK. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO ARE NOT PART OF THE "811" ALERT SYSTEM. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.
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BENCHMARKS

BM-1: ELEV: 912.84
SET "X" IN THE NORTHWEST SIDE OF LIGHT POLE BASE LOCATED ±10' SOUTH OF CENTERLINE OF ARMS ST AND ±100' EAST OF EDGE OF BIT OF PRIVATE DRIVE TO THE WEST OF PROPERTY.

BM-2: ELEV: 916.32
SET NAIL IN NORTHEAST SIDE OF POWER POLE LOCATED ±30' NORTH OF MEDIAN LINE OF WEST MICHIGAN AVE AND ±150' WEST OF EDGE OF BIT OF DRIVE ENTRANCE EAST OF PROPERTY.

PLANS PREPARED BY:



DRAWN: EAG
CHECKED: JPR

No.	ISSUED FOR:	DATE	BY
0	PRELIMINARY PLAN	12/26/2024	EAG
1	SITE PLAN REVIEW	01/20/2025	JPR
2	SITE PLAN REVIEW	01/31/2025	JPR
3			
4			

OVERALL GRADING - SESC PLAN

MARSHALL HOTEL
SAVINDER SINGH

1154 W MICHIGAN AVE, MARSHALL, MI
SECTION 26, T02S, R05W.

PROJECT:
CLIENT:
SITE ADDRESS:
SITE SECTION:

JOB NUMBER
24193001

DATE
01/31/2025

SHEET NUMBER

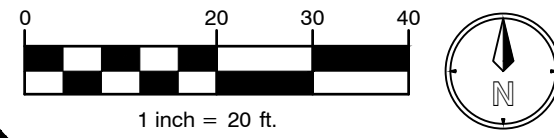
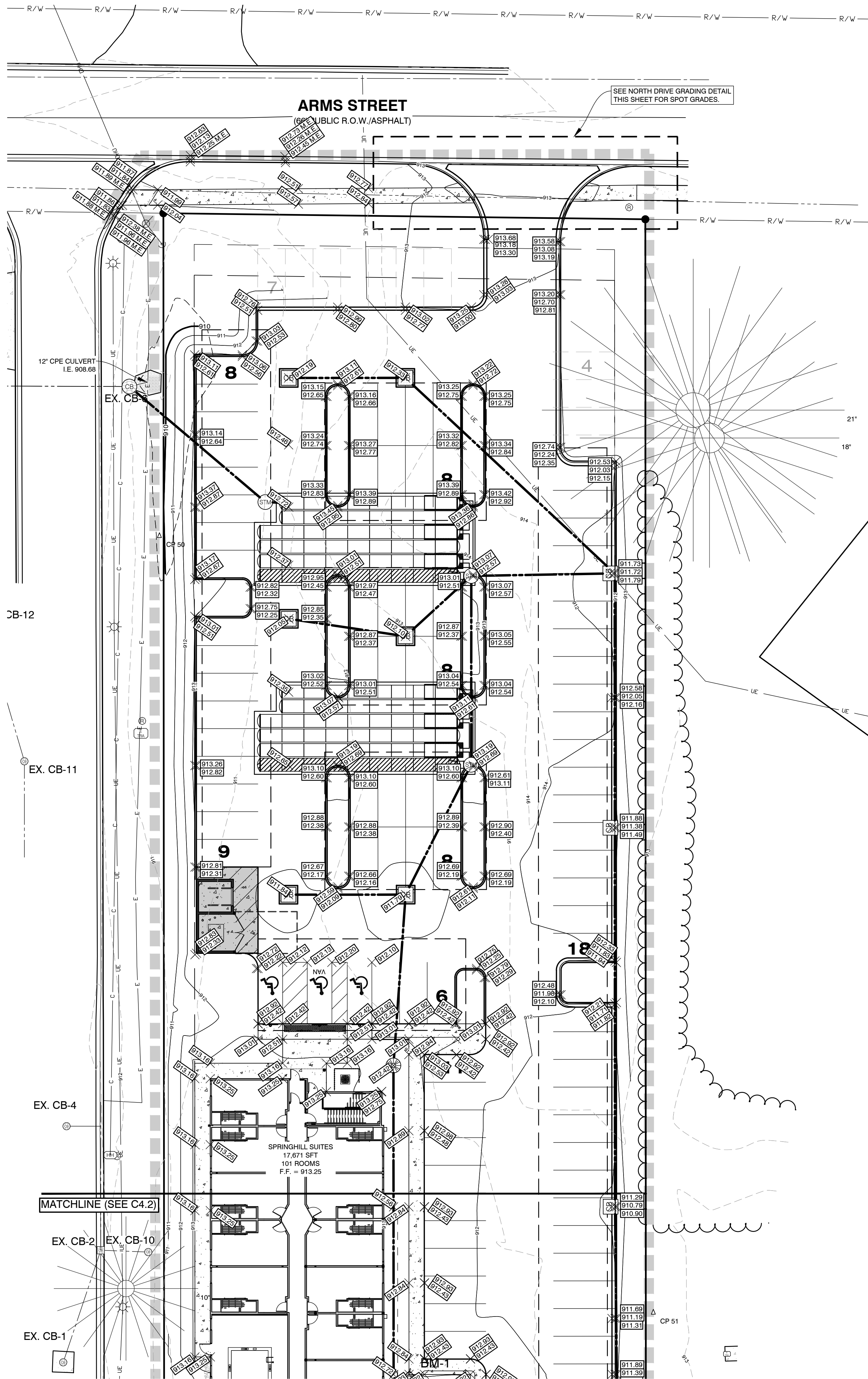
C4.0



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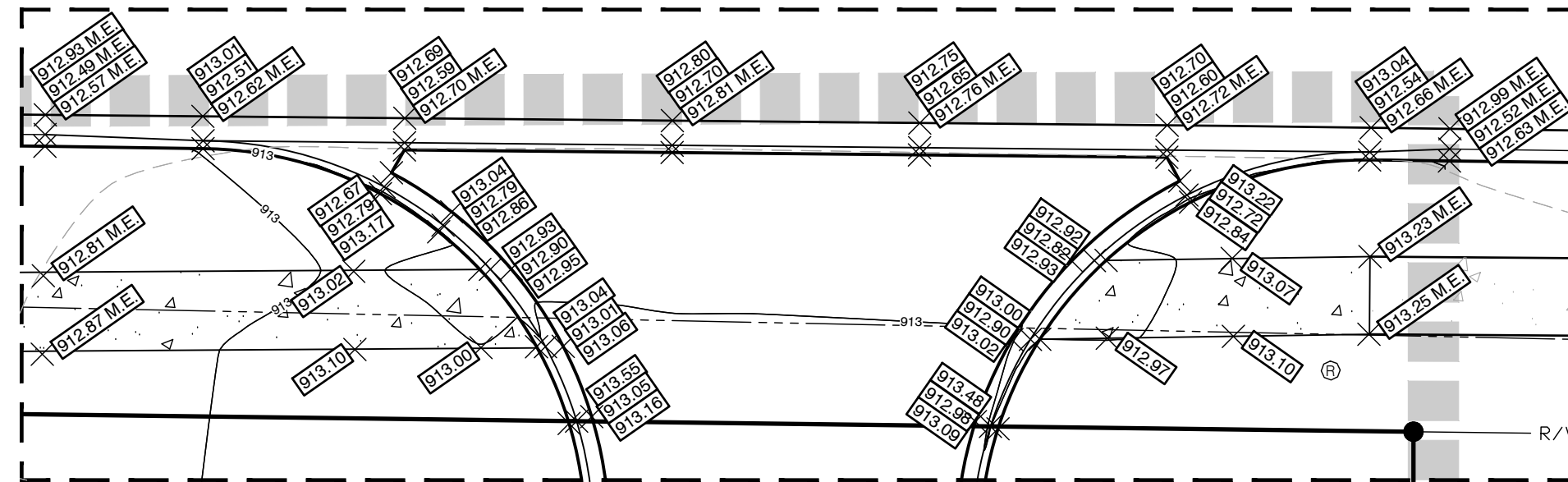
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SET NAIL IN NORTHEAST SIDE OF POWER POLE LOCATED ±30' NORTH
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OF BIT OF DRIVE ENTRANCE EAST OF PROPERTY.



NORTH DRIVE GRADING DETAIL
C4.1
SCALE: 1" = 10'

LEGEND

- LIMITS OF CONSTRUCTION
- XX --- SILT FENCE



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PLANS PREPARED BY:



DRAWN: EAG
CHECKED: JPR

No.	ISSUED FOR:	DATE	BY
0	PRELIMINARY PLAN	12/26/2024	EAG
1	SITE PLAN REVIEW	01/20/2025	JPR
2	SITE PLAN REVIEW	01/31/2025	JPR
3			
4			

GRADING NORTH PLAN

MARSHALL HOTEL
SAVINDER SINGH

1154 W MICHIGAN AVE, MARSHALL, MI
SECTION 26, T02S, R05W.

PROJECT:
CLIENT:
SITE ADDRESS:
SITE SECTION:

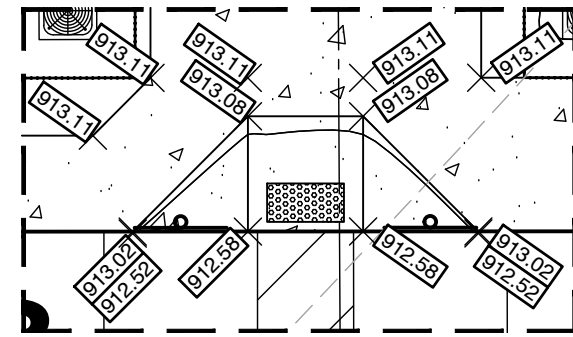
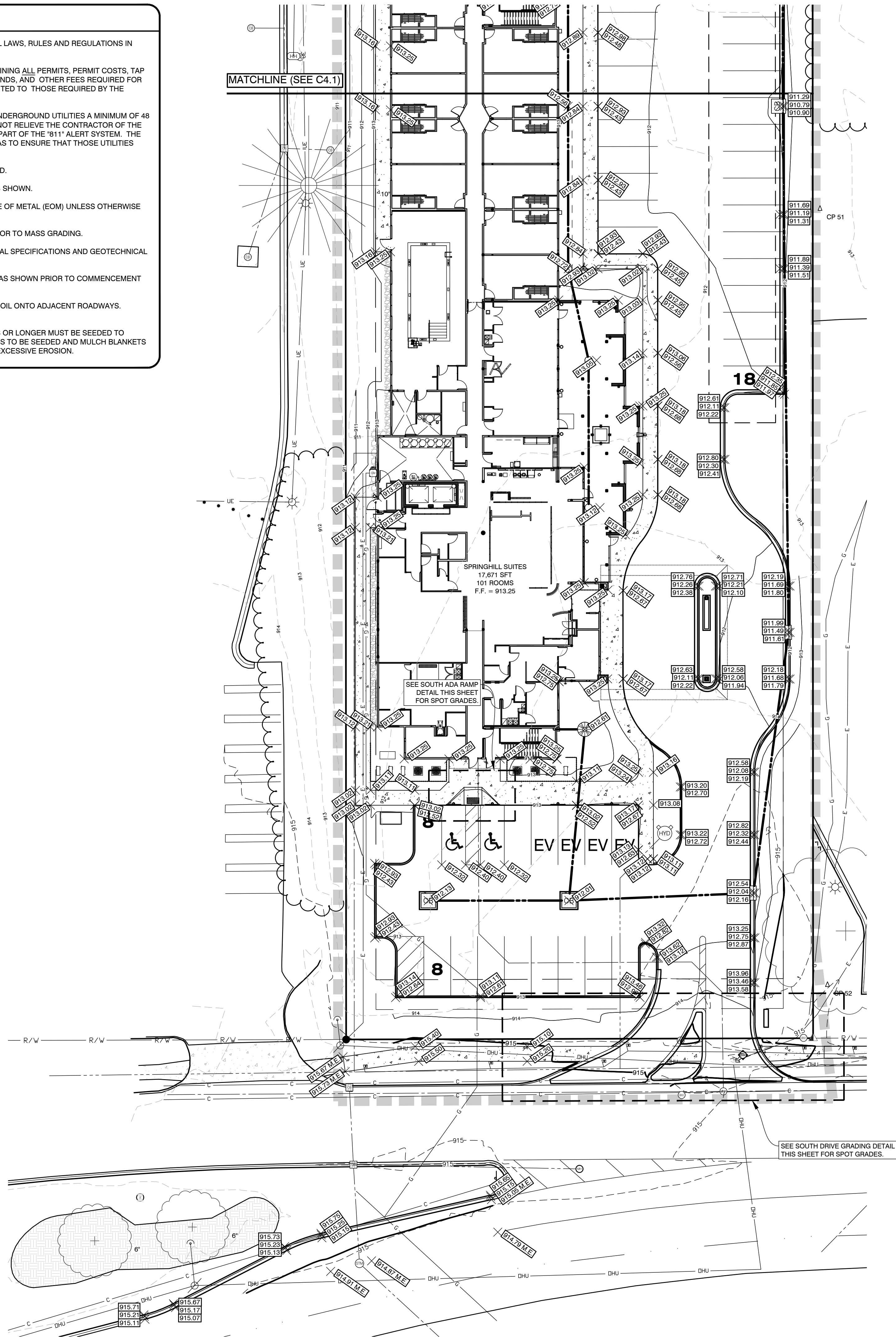
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DATE
01/31/2025

SHEET NUMBER
C4.1

GRADING NOTES

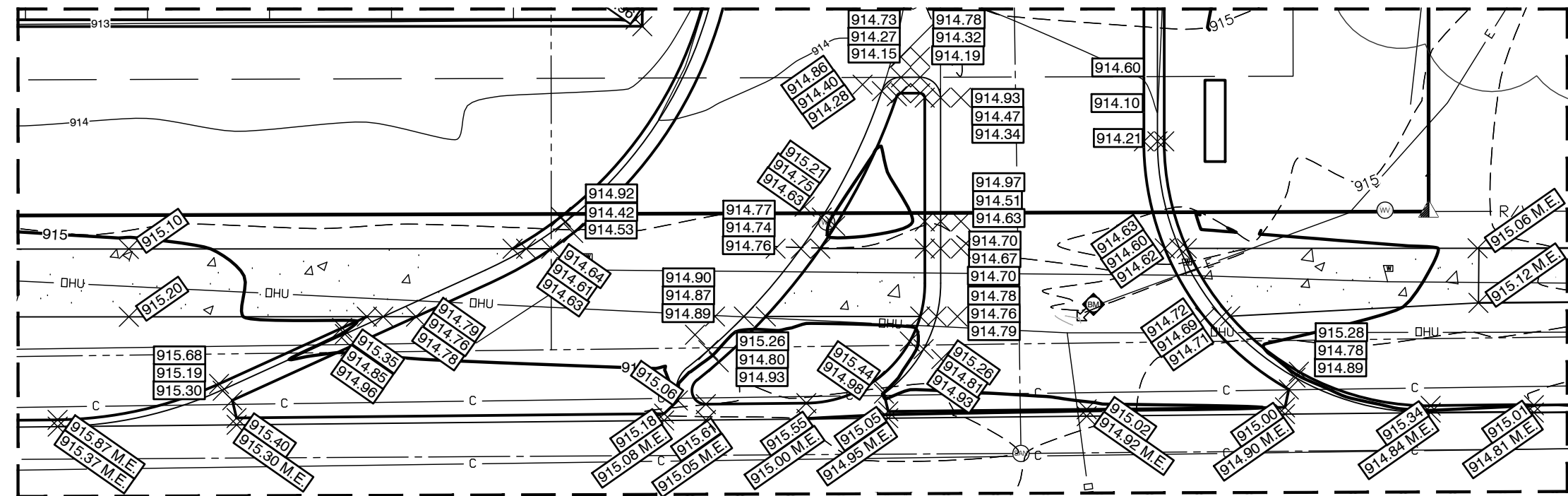
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SOUTH ADA RAMP DETAIL
C4.2 SCALE: 1" = 10'

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SOUTH DRIVE GRADING DETAIL
C4.2 SCALE: 1" = 10'

LEGEND

- LIMITS OF CONSTRUCTION
- SILT FENCE



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PLANS PREPARED BY:



DRAWN: EAG
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3			
4			

GRADING SOUTH PLAN

MARSHALL HOTEL
SAVINDER SINGH
1154 W MICHIGAN AVE, MARSHALL, MI
SECTION 26, T02S, R05W.

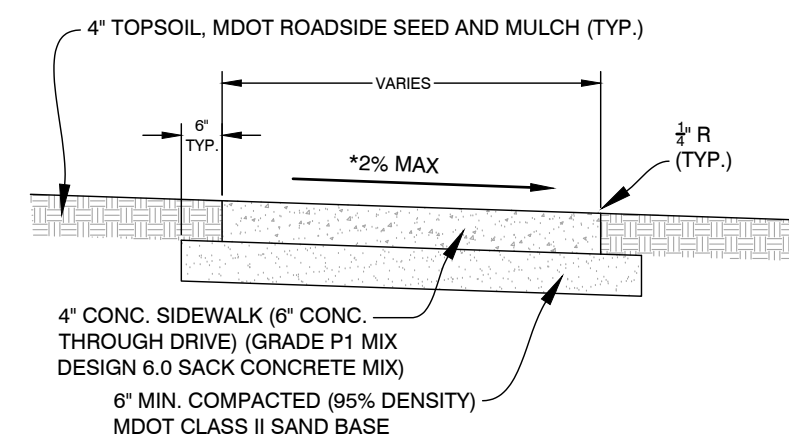
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JOB NUMBER
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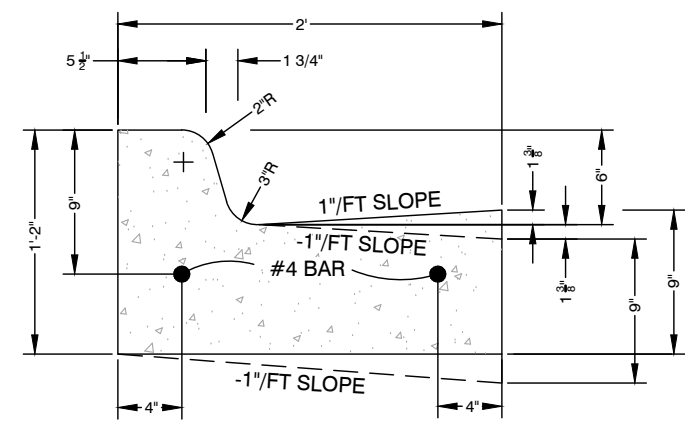
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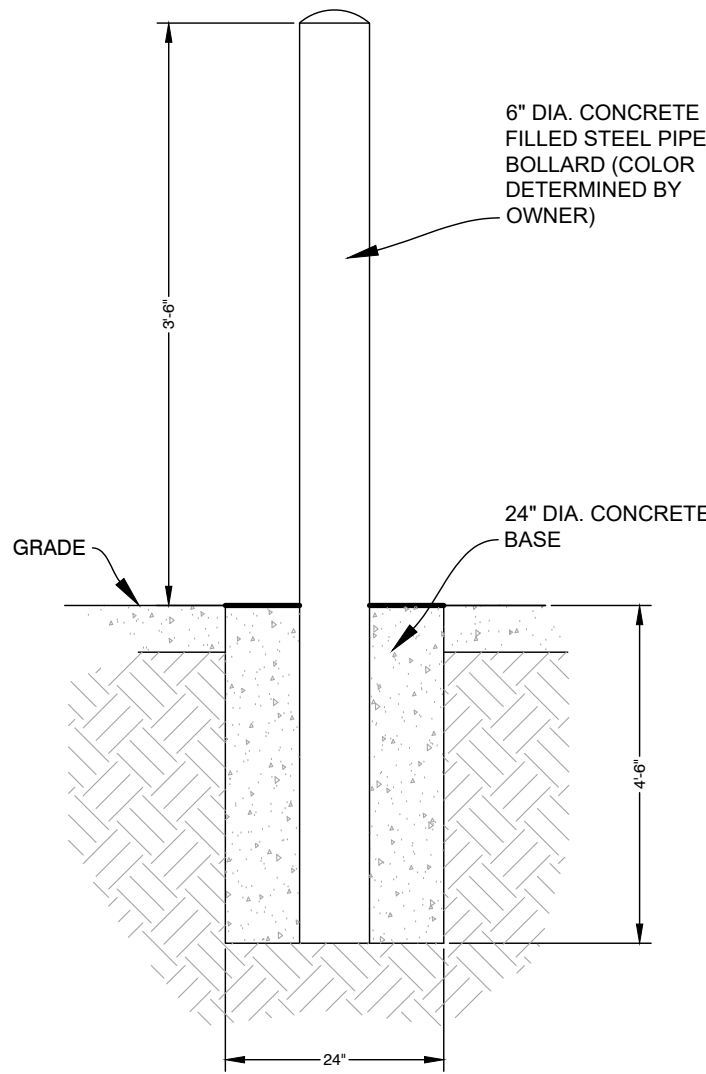
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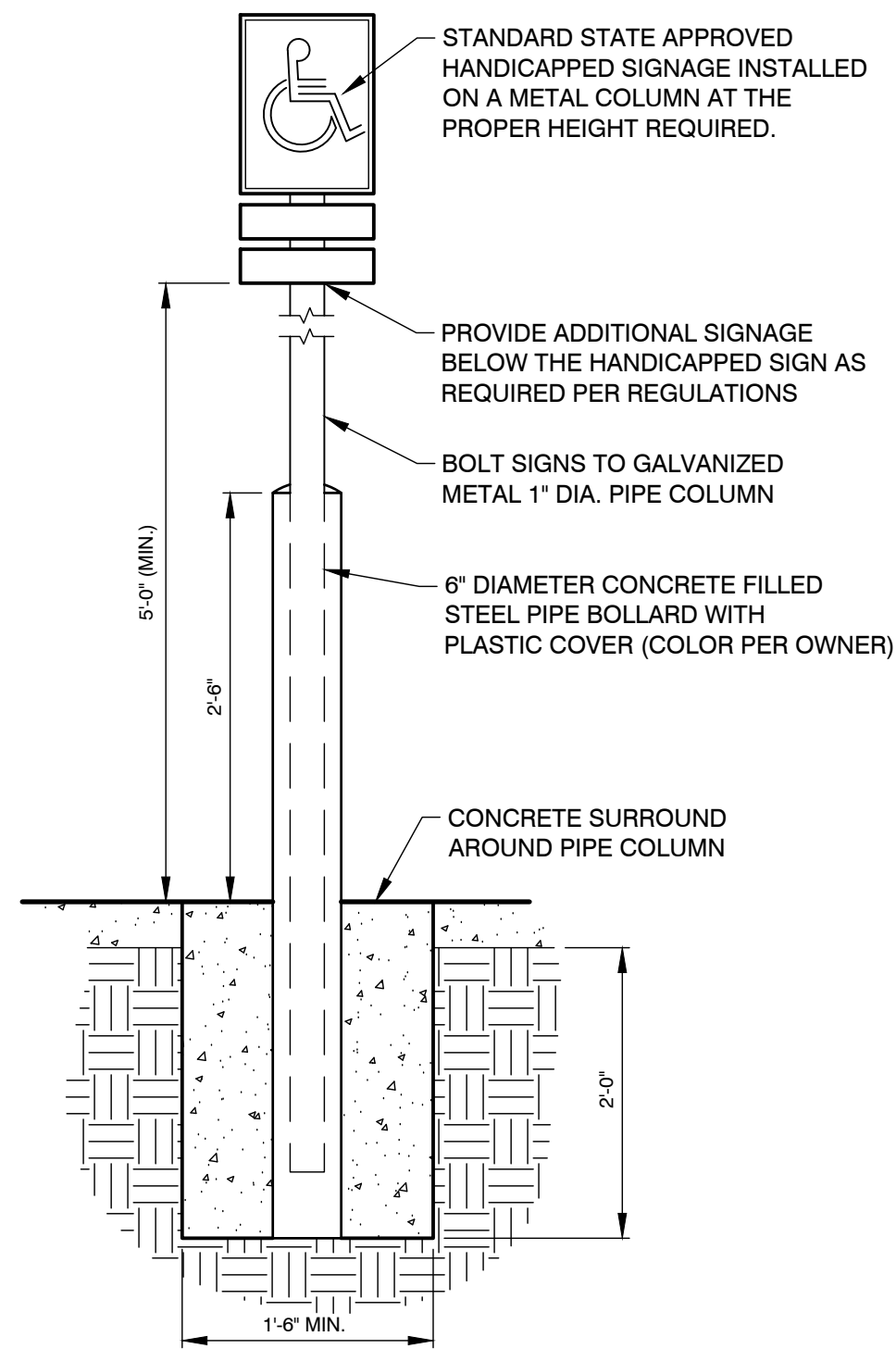
MDOT F4 CONC. CURB & GUTTER
C5.0 - 030109
NOT TO SCALE



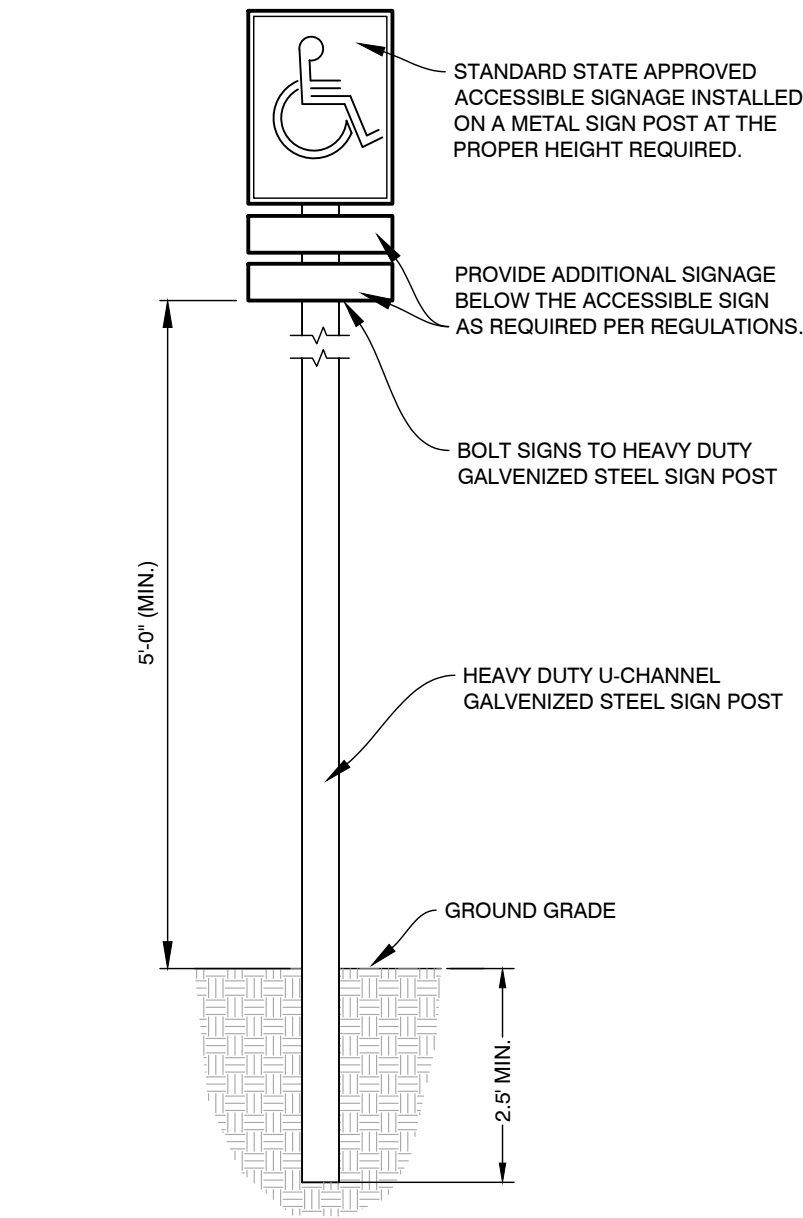
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C5.0 - 030107
NOT TO SCALE



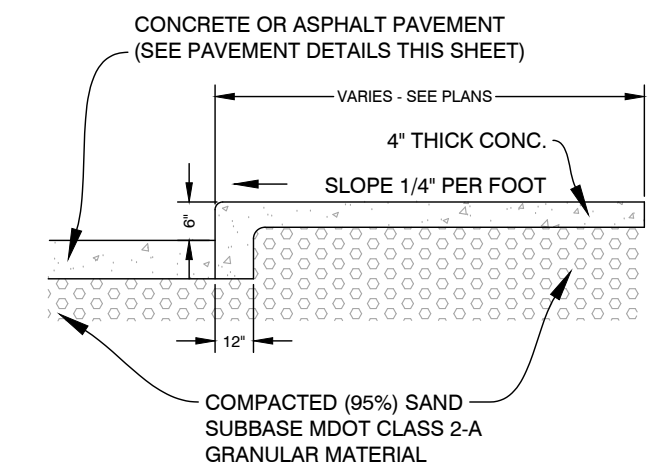
6" DIA. BOLLARD DETAIL
C5.0 - 140101
NOT TO SCALE



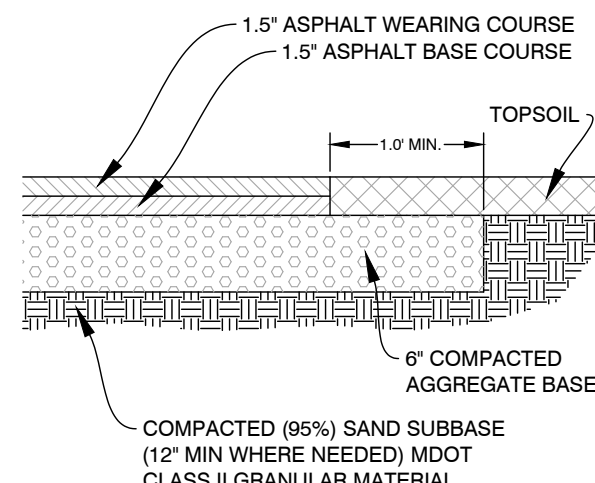
HANDICAP PARKING SIGN DETAIL
C5.0 - 090102
NOT TO SCALE



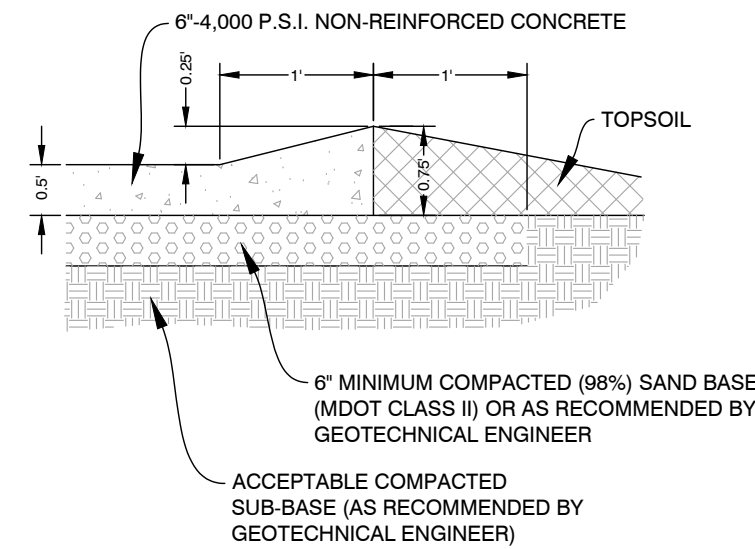
ACCESSIBLE PARKING SIGN DETAIL
C5.0 - 090101
NOT TO SCALE



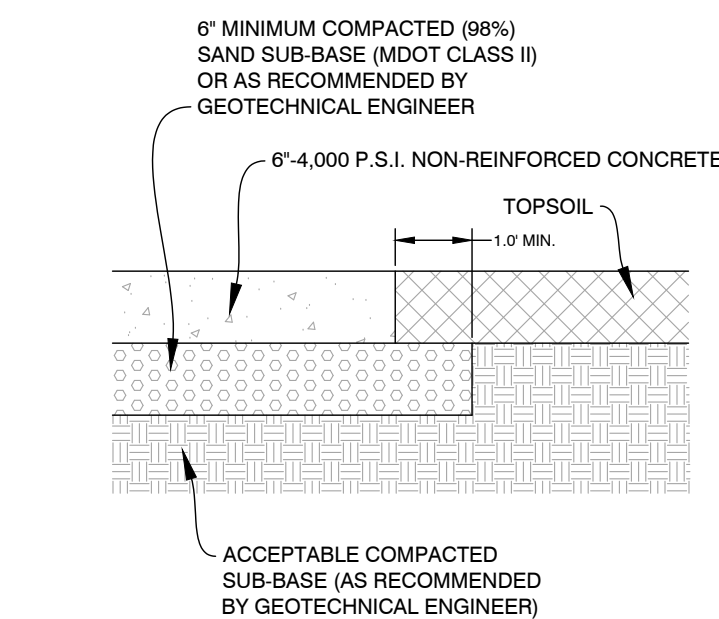
RAISED WALK SECTION
C5.0 - 030303
NOT TO SCALE



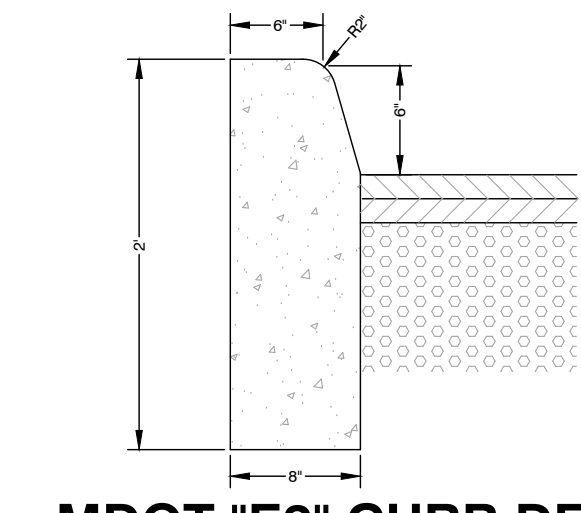
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C5.0 - 030401
NOT TO SCALE



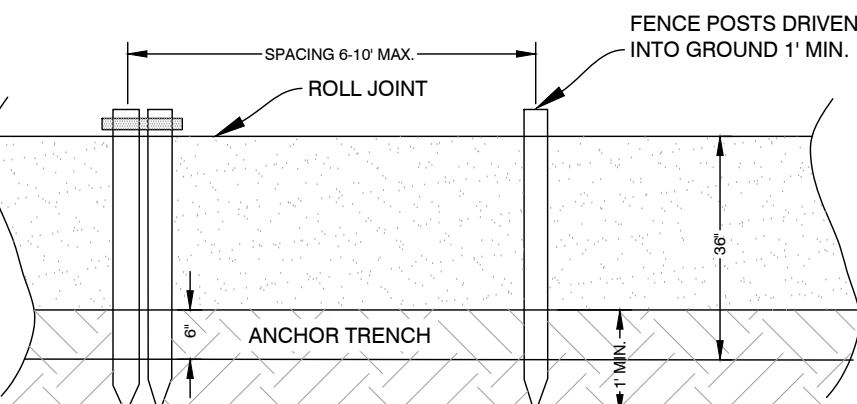
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C5.0 - 030104
NOT TO SCALE



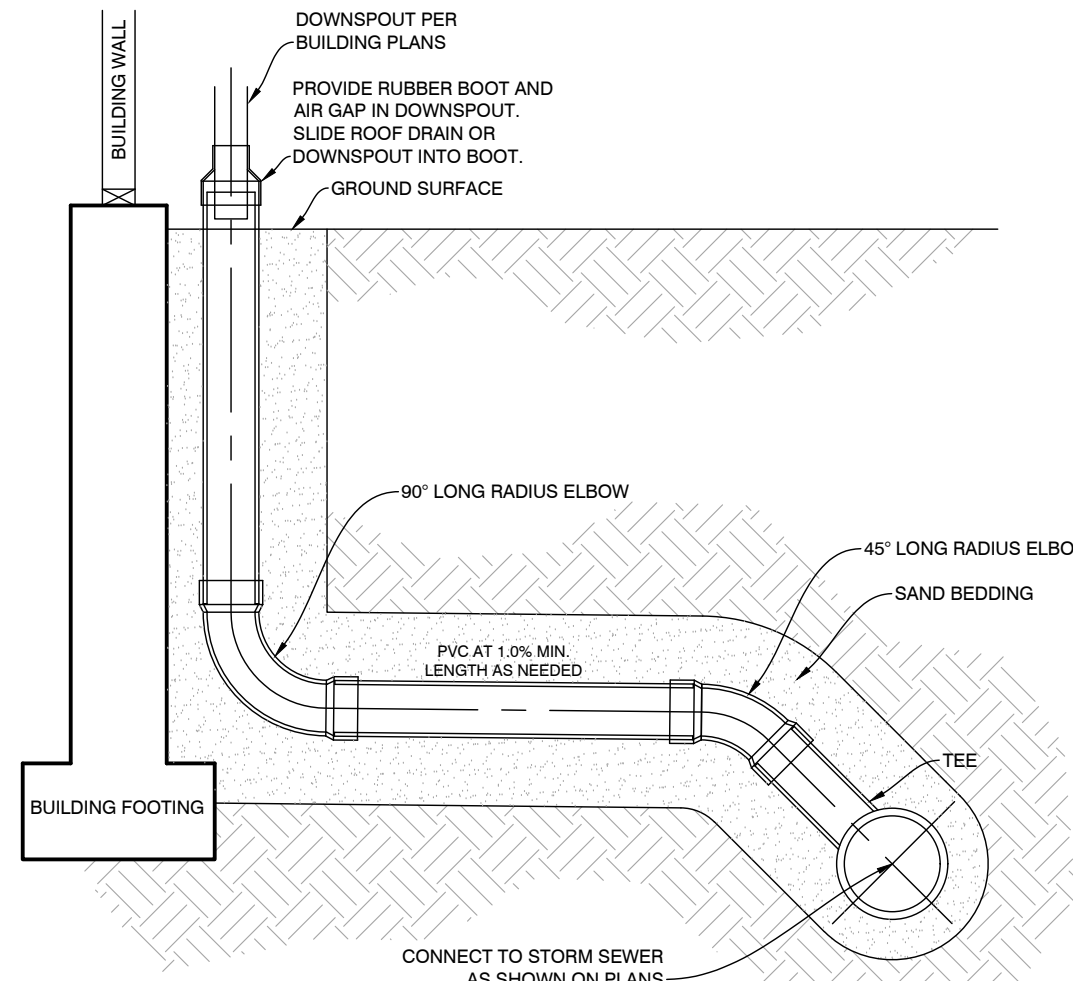
CONC. PAVEMENT SECTION
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NOT TO SCALE



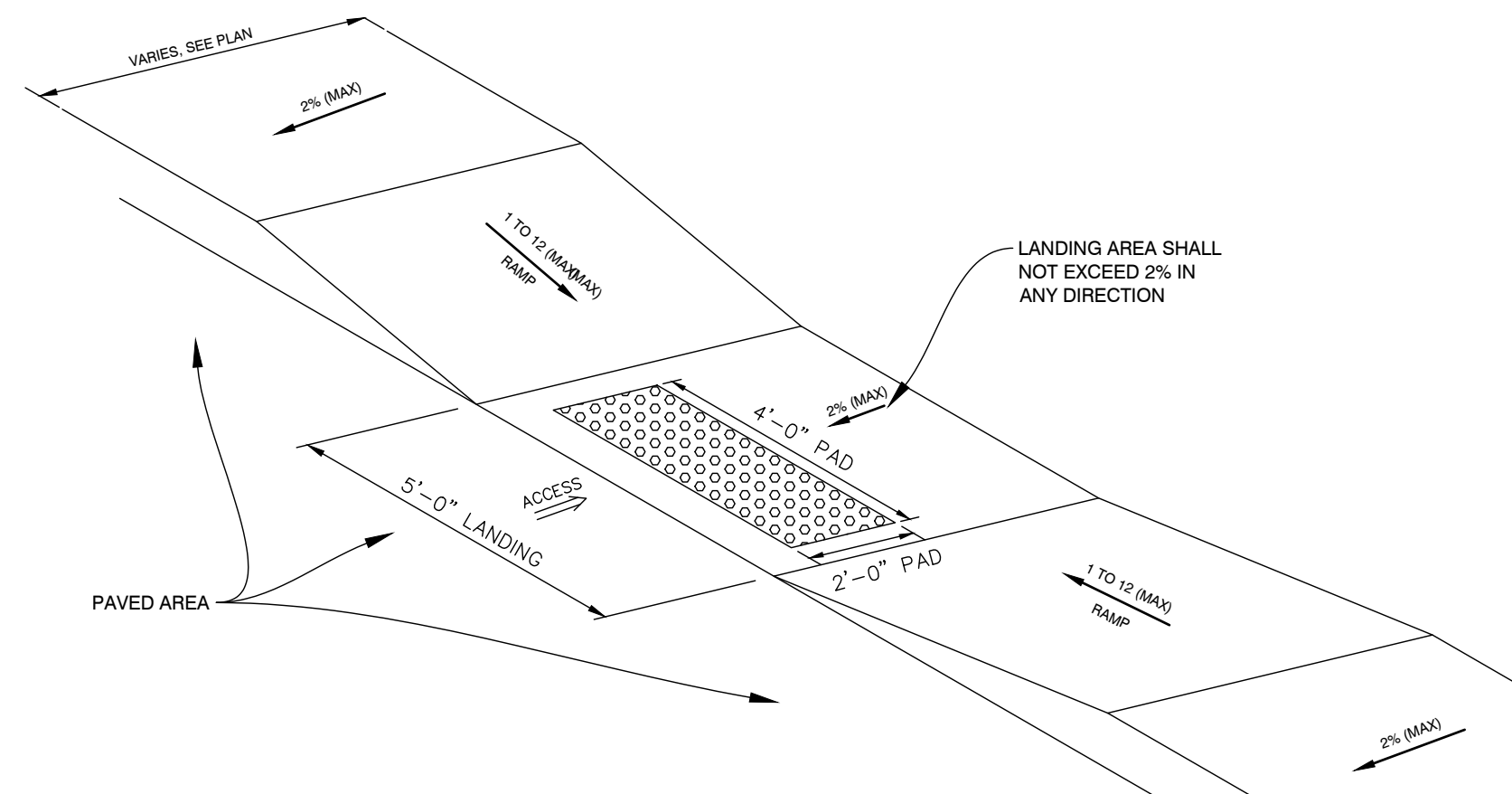
MDOT "E2" CURB DETAIL
C5.0 - 030111
NOT TO SCALE



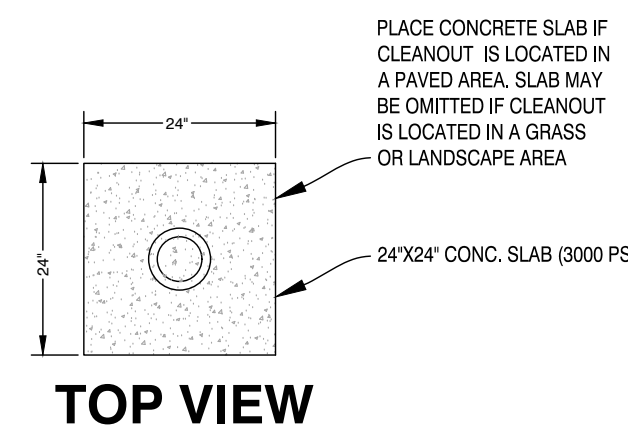
36" SILT FENCE DETAIL
C5.0 - 130104
NOT TO SCALE



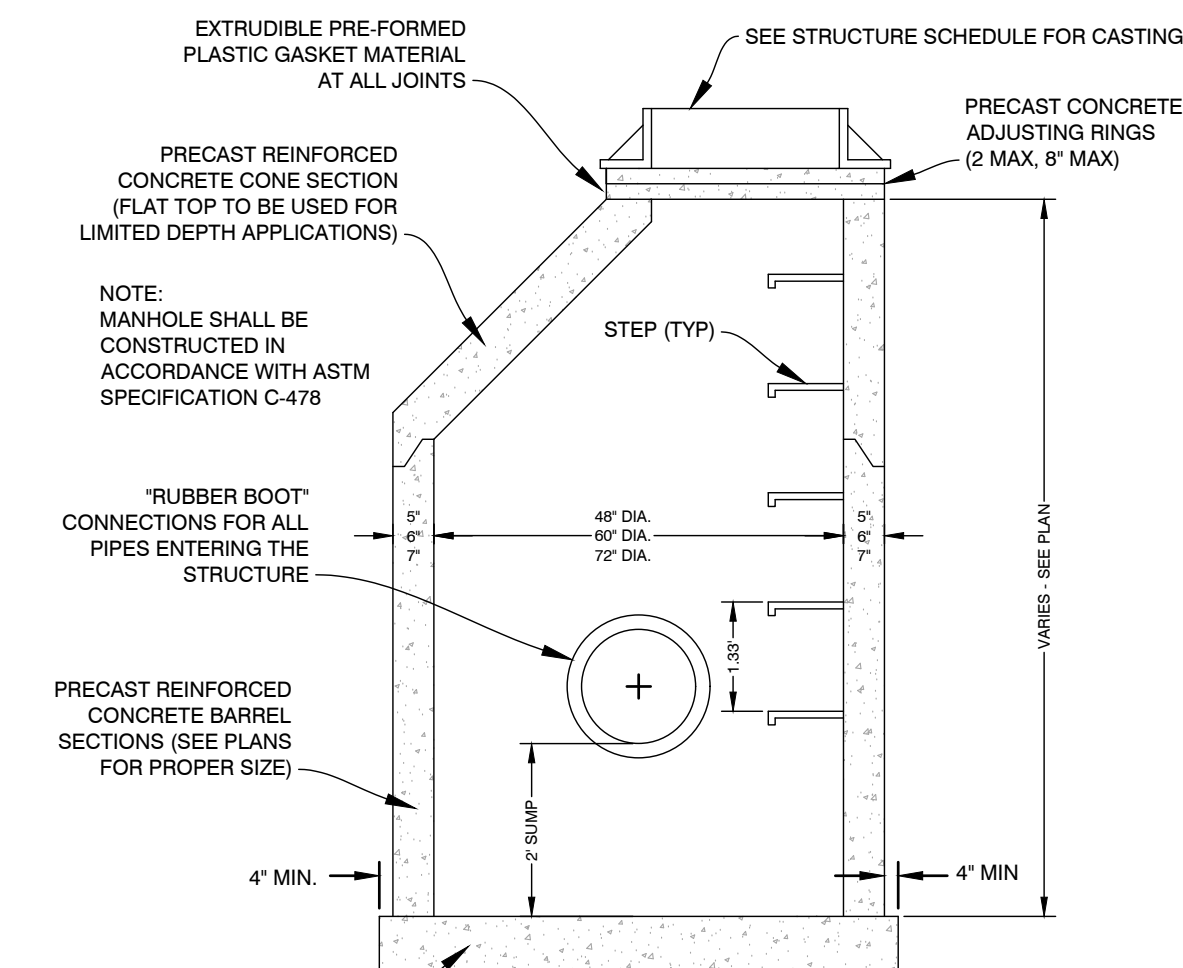
ROOF LEAD/DOWNSPOUT DETAIL
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NOT TO SCALE



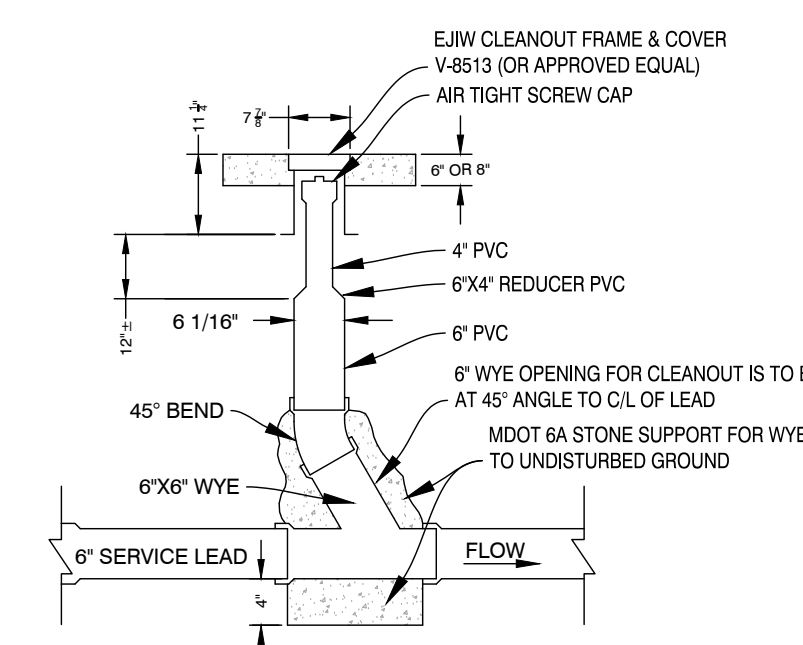
BARRIER FREE ACCESS RAMP
C5.0
NOT TO SCALE



TOP VIEW



STORM CATCH BASIN DETAIL
C5.0 - 050003
NOT TO SCALE



ELEVATION

SANITARY SEWER CLEANOUT DETAIL
C5.0 - 090109
NOT TO SCALE

PLANS PREPARED BY:



DRAWN: EAG
CHECKED: JPR

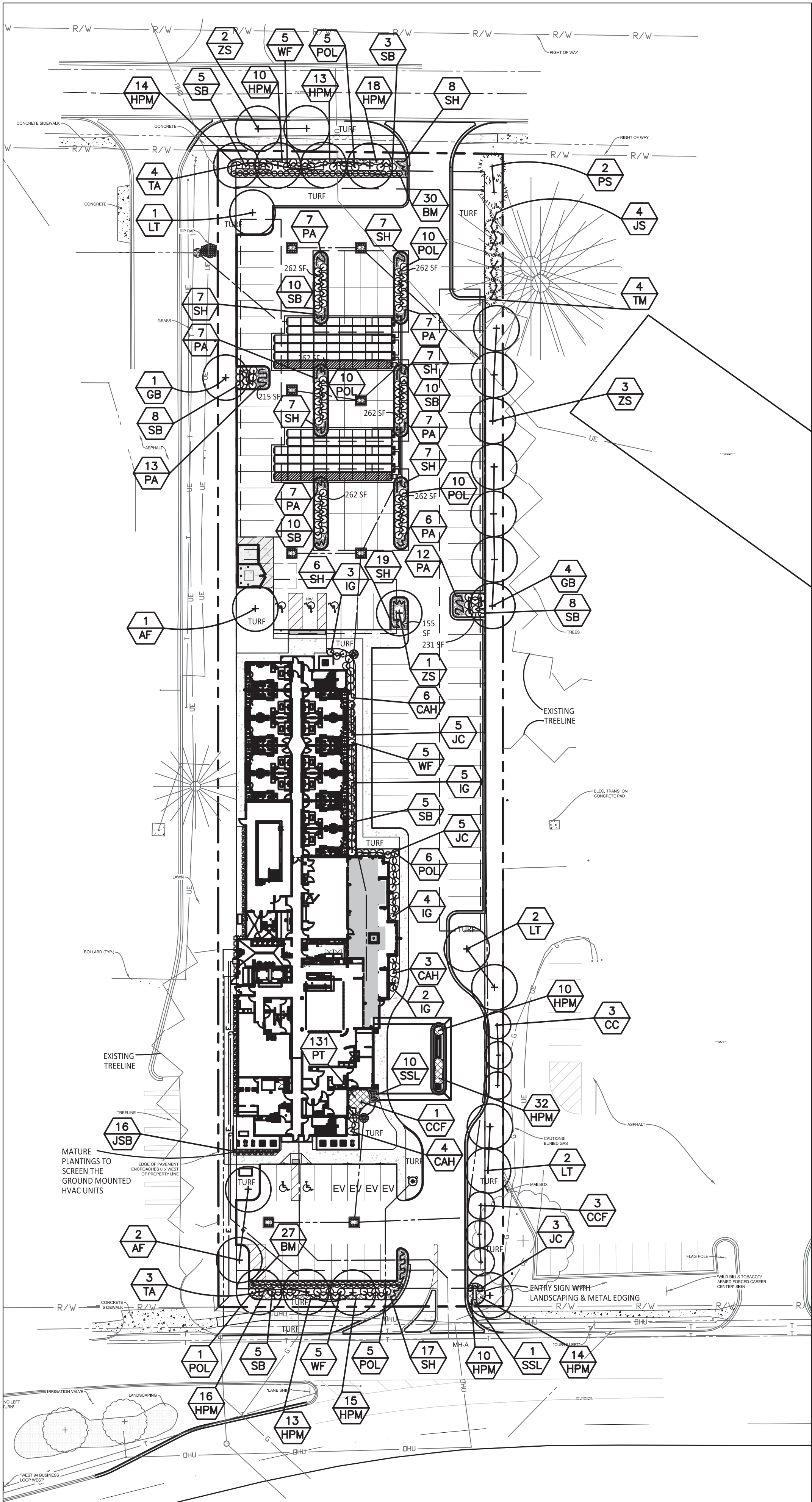
No.	ISSUED FOR:	DATE	BY
0	PRELIMINARY PLAN	12/26/2024	EAG
1	SITE PLAN REVIEW	01/20/2025	JPR
2	SITE PLAN REVIEW	01/31/2025	JPR
3			
4			

DETAILS
MARSHALL HOTEL
SAVINDER SINGH
1154 W MICHIGAN AVE, MARSHALL, MI
SECTION 26, T02S, R05W.

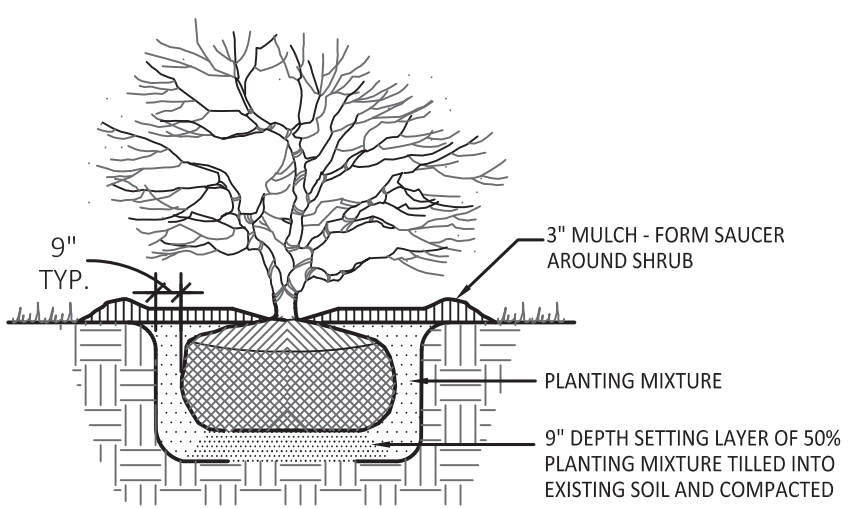
PROJECT:
CLIENT:
SITE ADDRESS:
SITE SECTION:

JOB NUMBER
24193001
DATE
01/31/2025

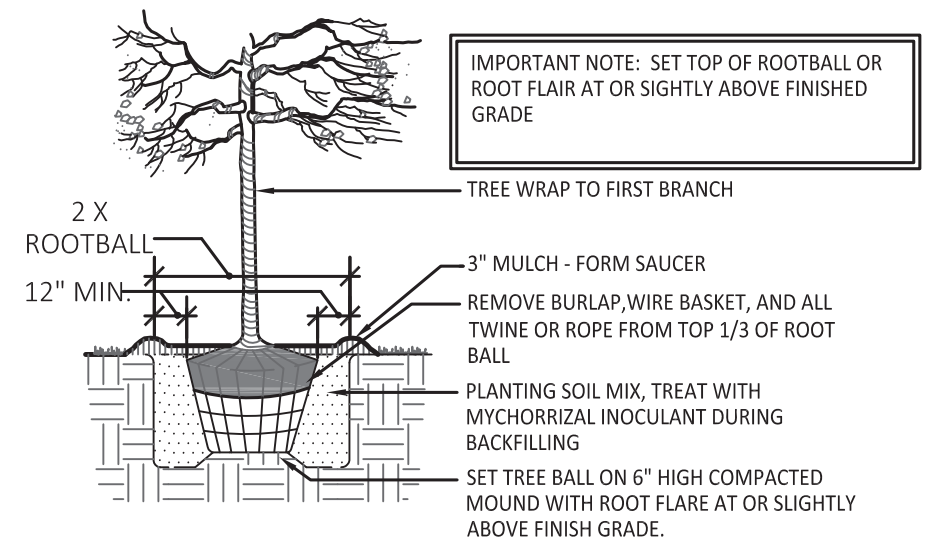
SHEET NUMBER
C5.0



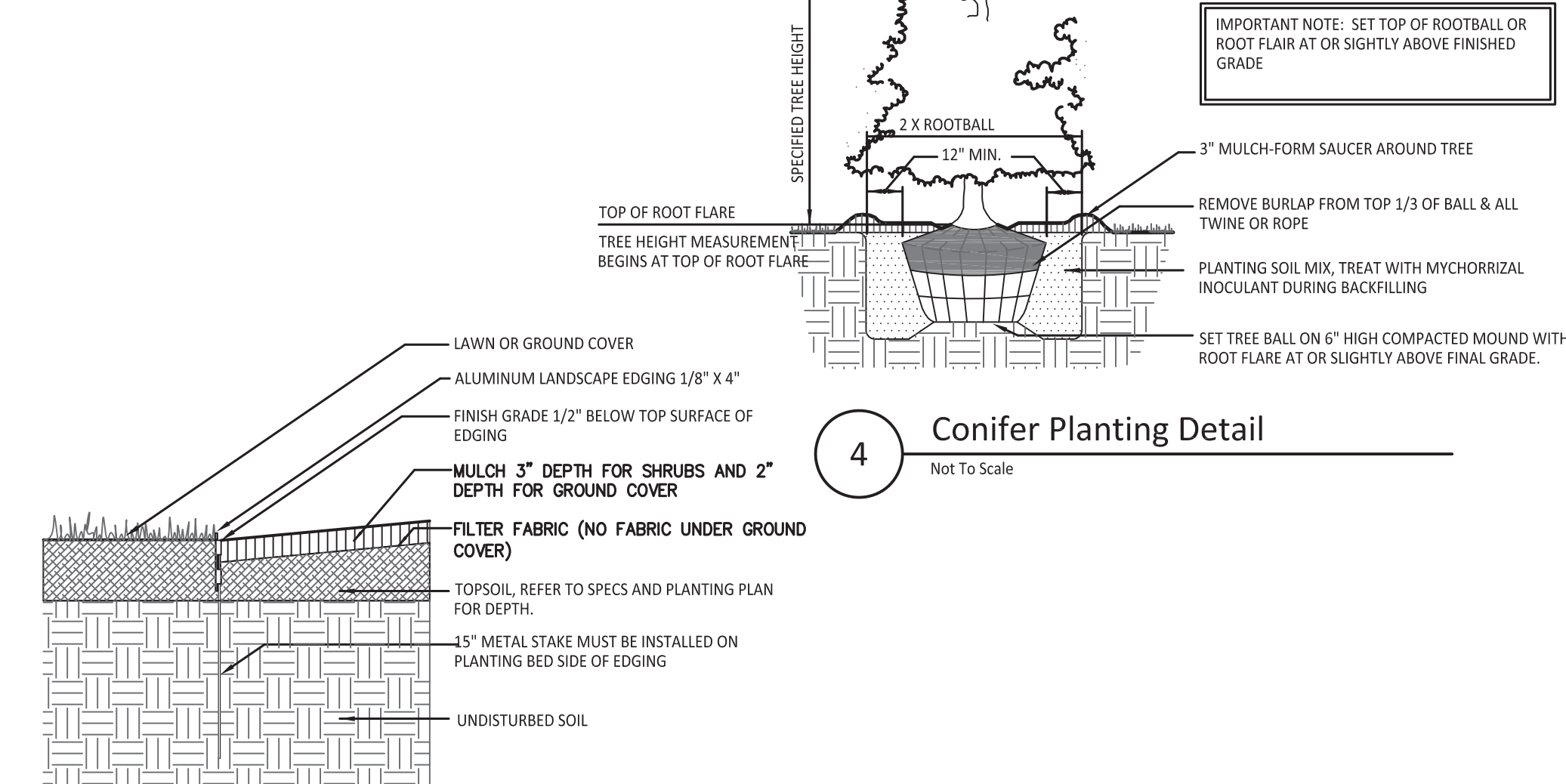
1 Site Landscape Plan
Scale: 1" = 40'-0"



2 Shrub Planting Detail
Not To Scale



3 Tree Planting Detail
Not To Scale



4 Conifer Planting Detail
Not To Scale

5 Metal Edging Detail
Not To Scale

PLANT LIST:

	SYM.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING
TREES	AF	Acer x freemanii 'Marmo'	Marmo Freeman Maple	2" CAL.	B&B	PER PLANS
	CC	Carpinus caroliniana	Hornbeam	2" CAL.	B&B	PER PLANS
	CCF	Cercis canadensis 'Forest Pansy'	Forest Pansy Eastern Redbud	2" CAL.	B&B	PER PLANS
	GB	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Columnar Ginkgo	4" CAL.	B&B	PER PLANS
	JS	Juniperus scopulorum 'Wichita'	Wichita Blue Juniper	6' HT.	B&B	PER PLANS
	LT	Liriodendron tulipifera	Tulip Tree	2" CAL.	B&B	PER PLANS
	PS	Pinus strobus	Eastern White Pine	6' HT.	B&B	PER PLANS
	TA	Tilia americana 'Redmond'	Redmond Linden	2" CAL.	B&B	PER PLANS
	ZS	Zelkova serrata 'Green Vase'	Green Vase Zelkova	2" CAL.	B&B	PER PLANS
	BM	Buxus microphylla 'Sprinter'	Sprinter Boxwood	#3	CONT.	4' O.C.
SHRUBS	CAH	Clethra alnifolia 'Hummingbird'	Hummingbird Sweet Pepperbush	#3	CONT.	4' O.C.
	IG	Ilex glabra 'Gem Box'	Gem Box Inkberry	#3	CONT.	4' O.C.
	IV	Itea virginica 'Little Henry'	Little Henry Itea	#3	CONT.	4' O.C.
	JC	Juniperus communis 'Tortuga'	Tortuga Juniper	#3	CONT.	4' O.C.
	JSB	Juniperus scopulorum 'Blue Arrow'	Blue Arrow Juniper	6' HT.	CONT.	2' O.C.
	POL	Physocarpus opulifolius 'Little Devil'	Little Devil Ninebark	#3	CONT.	4' O.C.
	SB	Spiraea x bumalda 'Little Princess'	Little Princess Spiraea	#3	CONT.	4' O.C.
	TM	Taxus x media 'Stonehenge'	Stonehenge Yew	6' HT.	CONT.	5' O.C.
	WF	Weigela florida 'Minuet'	Minuet Weigela	#3	CONT.	4' O.C.
	PA	Pennisetum alopecuroides 'Hamelin'	Dwarf Fountain Grass	#1	CONT.	30" O.C.
GRASSES	SH	Sporobolus heterolepis 'Tara'	Tara Prairie Dropseed	#1	CONT.	30" O.C.
	SSL	Schizachyrium scoparium 'Little Arrow' 'Nowwrrar'	Little Arrow Little Bluestem	#1	CONT.	24" O.C.
PERENNIALS	HPM	Heimerocallis 'Pardon Me'	Pardon Me Daylily	#1	CONT.	18" O.C.
	PT	Pachysandra terminalis 'Green Gem'	Green Gem Pachysandra	Flat	CONT.	12" O.C.

LANDSCAPE ZONING ORDINANCE:

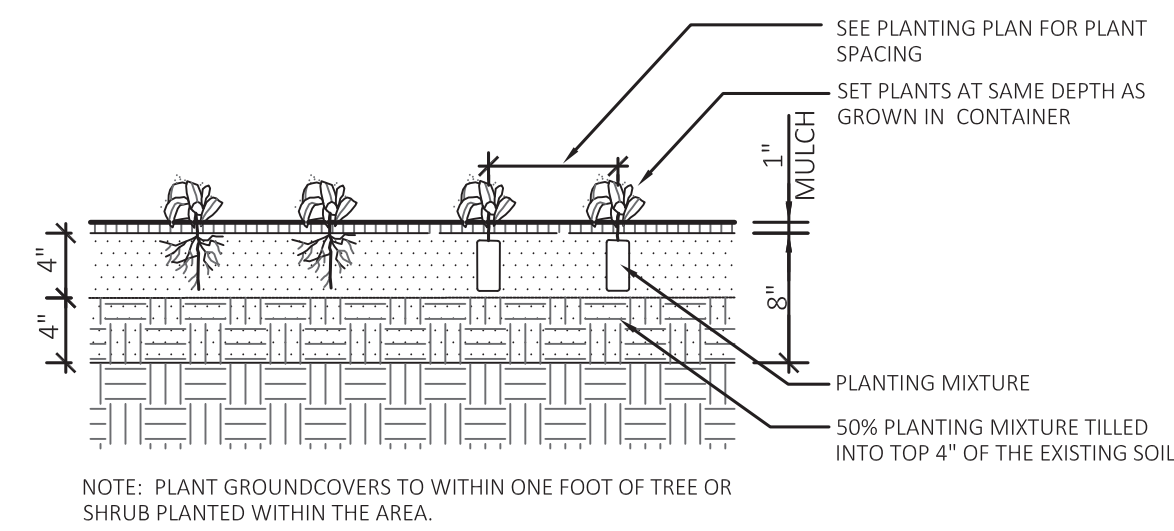
- PROPERTY ZONE: B-4
- ORDINANCE 99.06 - STREET TREE REQUIREMENTS: (2) TREES REQUIRED AS PROPERTY IS OVER 80' IN WIDTH.
a. PROJECT TOTAL: (2) TREES FOR FRONTAGE ON ARMS STREET. STREET TREES ALONG WEST MICHIGAN AVENUE WERE WAIVED BY PLANNING STAFF FOR MOOT AND UTILITIES CONFLICTS.
- ORDINANCE 156-5.15.6 - OVERALL PROPERTY LANDSCAPING REQUIREMENTS: 5% OF TOTAL LOT AREA IS REQUIRED AS LANDSCAPED AREA. (1) TREE IS REQUIRED FOR EVERY 400 SF OF TOTAL LOT AREA.
(1) SHRUB FOR EVERY 250 SF OF TOTAL LOT AREA.
a. TOTAL LOT AREA: 99,411 SF x 5% = 4,971 SF OF LANDSCAPING REQUIRED
b. TREES: 99,411 SF / 400 SF = 12 TREES REQUIRED
c. SHRUBS: 99,411 SF / 250 SF = 20 SHRUBS REQUIRED
- ORDINANCE 156-5.15.9 - ZONING SCREENING REQUIRED BETWEEN B-4 PROPERTY AND RESIDENTIAL PROPERTY. 6'-8" TALL EVERGREEN TREES PLANTED IN STAGGERED SPACING. BUFFER TO BE A MINIMUM OF 10' WIDE. MIXTURE OF SPECIES SO NO MORE THAN 33% IS THE SAME SPECIES.
- ORDINANCE 156-5.15.7 - PARKING LOT LANDSCAPING: 20 SF OF LANDSCAPING AREA REQUIRED FOR EACH PARKING SPACE. PARKING LOT ISLANDS TO BE 10' WIDE MINIMUM, 180 SF MINIMUM IN AREA AND 2' SHORTER THAN ADJACENT PARKING SPACE.
a. LANDSCAPING AREA: 110 PARKING SPACES x 20 SF = 2,200 SF REQUIRED
b. TREES: 1 TREE PER 10 PARKING SPACES: 110 / 10 = 11 TREES REQUIRED
- ORDINANCE 156-5.15.8A - GREENBELT LANDSCAPING: MINIMUM 10' WIDE, ALONG STREET FRONTAGE
a. TREES: 1 TREE PER 40 LF OF FRONTAGE = 157 LF / 40 LF = 4 TREES
b. SHRUBS: 4 SHRUBS PER 40 LF OF FRONTAGE = (157 LF / 40 LF) x 4 = 16 SHRUBS
- ORDINANCE 156-5.15.8B - PARKING LOT SCREENING: SOLID EVERGREEN HEDGEROW REQUIRED BETWEEN PARKING LOT AND STREET FRONTAGE.

LANDSCAPE NOTES:

- SURVEY OF EXISTING CONDITIONS PROVIDED BY AR ENGINEERING, 5725 VENTURE PARK DRIVE, SUITE A, KALAMAZOO, MICHIGAN 49009, (269)250-5991.
- CALL "MISS DIG" AND VERIFY ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK. 72 HOURS BEFORE YOU DIG CALL "MISS DIG" AT 1-800-482-7171. ANY UTILITIES DISTURBED BY CONSTRUCTION SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
- ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHOULD BE REPORTED TO THE CONSTRUCTION MANAGER IMMEDIATELY FOR RESOLUTION.
- IN AREAS OF NEW TURF PLACE 4" MINIMUM TOPSOIL, FINE GRADE & ESTABLISH TURF WITHIN SEED LIMIT LINES.
- PLACE SHREDDED HARDWOOD MULCH TO A 3" DEPTH IN ALL TREE & SHRUB BEDS & TO A 2" DEPTH IN ALL GROUND COVER BEDS.
- UNLESS OTHERWISE NOTED, TOPSOIL, FINE GRADE AND SEED ALL DISTURBED AREAS WITHIN THE SEEDING LIMIT SHOWN AND AREAS DISTURBED BY CONSTRUCTION.
- REPAIR AND RESTORE ANY DAMAGE OUTSIDE OF LIMIT OF WORK LINE TO ORIGINAL CONDITION.
- PROTECT ALL TREES AND EXISTING FEATURES TO REMAIN AS SPECIFIED.
- ALL TOPSOIL AND EXCESS FILL MATERIAL SHALL BE STOCKPILED ON SITE SEPARATELY FOR LATER RE-USE. LOCATE STOCKPILES IN AREAS AS DIRECTED BY CONSTRUCTION MANAGER AND PROTECT FROM EFFECTS OF EROSION.
- ALL NURSERY STOCK SHALL BE TRUE TO TYPE AND NAME. ALL STOCK SHALL BE FIRST CLASS QUALITY WITH WELL DEVELOPED BRANCH SYSTEMS AND VIGOROUS HEALTHY ROOT SYSTEMS. ALL STOCK SHALL BE WELL FORMED AND THE TRUNKS OF TREES SHALL BE UNIFORM AND STRAIGHT.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR IRRIGATION SCHEDULING FOR THE ENTIRE MAINTENANCE PERIOD UNLESS OTHERWISE NOTED.
- CONTRACTOR RESPONSIBLE TO LOCATE SITE LIGHTING SERVICES. CONTRACTOR RESPONSIBLE TO NOTIFY CONSTRUCTION MANAGER IF DAMAGE TO LIGHTING ELECTRICAL DISTRIBUTION OCCURS.
- ALL AREAS OF TREE CLEARING SHALL BE STAKED FOR ARCHITECTS APPROVAL PRIOR TO CLEARING.
- UNLESS OTHERWISE SPECIFIED, ALL PERENNIALS, GRASSES AND GROUNDCOVERS SHALL BE GROWN IN THEIR CONTAINER FOR ONE YEAR PRIOR TO INSTALLATION.

PROPOSED FEATURES LEGEND:

SYMBOL	DESCRIPTION	DETAIL
+	PROPOSED DECIDUOUS TREE	3 / 1.0
+	PROPOSED EVERGREEN TREE	5 / 1.0
+	PROPOSED SHRUB	2 / 1.0
+	PROPOSED GRASSES	6 / 1.0
+	PROPOSED GROUNDCOVER AND/OR PERENNIALS	6 / 1.0
---	PROPOSED BED LINE/ METAL EDGING	4 / 1.0
---	PROPERTY LINE	
6 Bn	PLANT TAG- REFERS TO TYPE AND NUMBER OF PLANTINGS TO BE PROVIDED AND MAINTAINED BY CONTRACTOR.	



6 Upright Groundcover Planting
Not to Scale

For Review Only -
Not For Construction

HARD COPY IS INTENDED TO BE 24"x36" WHEN PLOTTED. SCALE(S) INDICATED AND GRAPHIC QUALITY MAY NOT BE ACCURATE FOR ANY OTHER SIZES.

Issued For:	Date
FOR REVIEW	01-23-25
SPR SUBMISSION	02-03-25

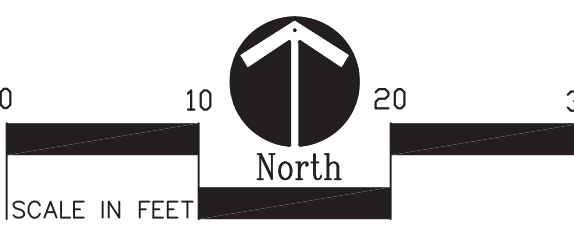
Project:

Marshall Hotel
Project

Marshall, Michigan

Sheet Title

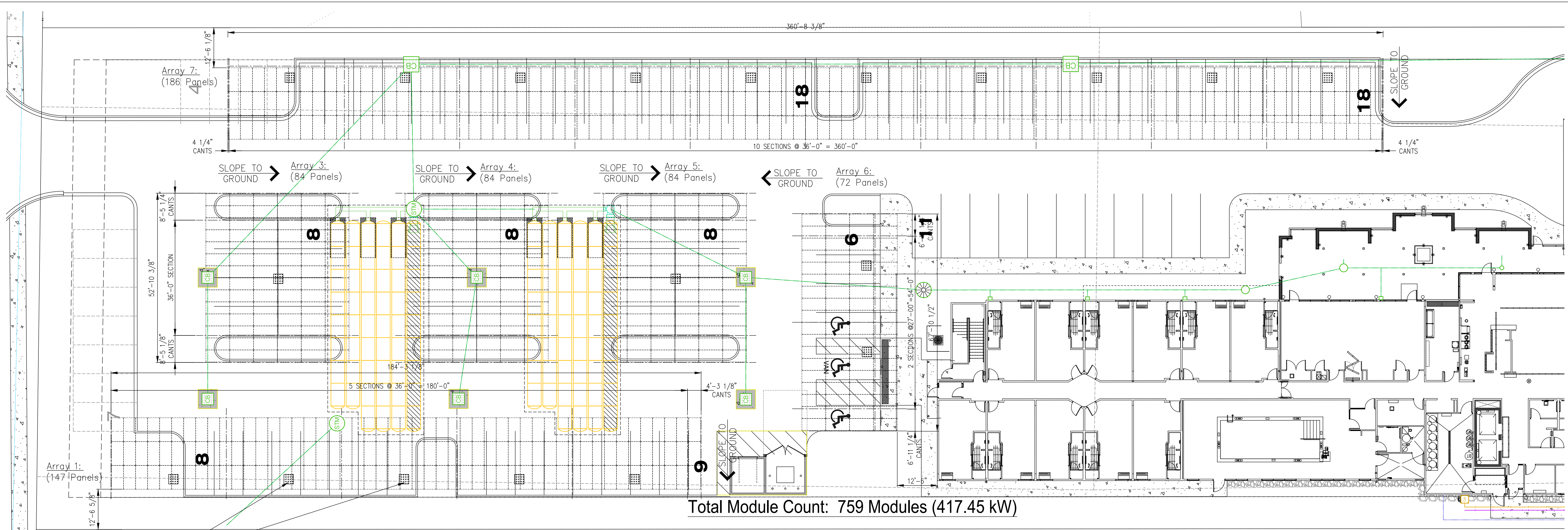
Landscape Plan



Job No. Sheet No.

XXXXXX L1.0





1 LIGHT PER BAY

Total Module Count: 759 Modules (417.45 kW)

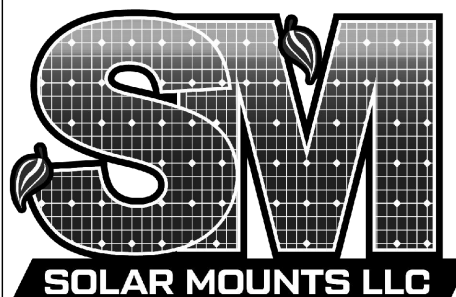
 Carport Module Layout
SCALE: 1/16"=1'-0"



 Map
NO SCALE

NOTES: Marshall Marriott									
Project Information			Array 1	Array 3	Array 4	Array 5	Array 6	Array 7	Totals
Foundation Selection	Spread		-	-	-	-	-	-	-
Panel Brand:	HT-SAAE		-	-	-	-	-	-	-
Panel Model:	HT72-18X		-	-	-	-	-	-	-
Panel Length (inches):	89.72"		-	-	-	-	-	-	-
Panel Width (inches):	44.65"		-	-	-	-	-	-	-
Panel Thickness (inches):	1.38"		-	-	-	-	-	-	-
Panel Weight (pounds):	62.83 lbs.		-	-	-	-	-	-	-
Panel Wattage			550	550	550	550	550	550	-
Panel Qty Across Entire Array (one row)			49	14	14	14	18	96	-
# Panels High			3	6	6	6	4	3	-
Total Panel Quantity			147	84	84	84	72	288	759
System Size (watts)			80,850	46,200	46,200	46,200	39,600	158,400	417,450
Configuration			L-Frame	T-Frame	T-Frame	T-Frame	T-Frame	L-Frame	-
# Standard Sections (# Sections between Posts)			6	1	1	1	2	10	21
# Cantilever Ends (Length per Plan)			2	2	2	2	2	1	11
Starts			1	1	1	1	1	1	6
Adds			5	0	0	0	1	9	15

Revision:	Date:	Engineer:	Revision Description:
A	01/31/2025	MReynolds	Initial Preliminary Design
MATERIAL:			
FINISH:	Solar Mounts setbacks are received from a third party and not responsible for third party surveys and electrical drawings. All CAD related files are approximations and only to be used as a reference.		
WEIGHT:	INTERPRET GEOMETRIC TOLERANCING PER: ANSI/ASME Y14.5M-1994 TOLERANCES: UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES ANGULAR: +/- .1° X = +/- .05 XX = +/- .025 XXX = +/- .005		
DO NOT SCALE DRAWING		SOLAR MOUNTS LLC	
		TITLE:	
		SIZE: D PART NUMBER:	
		SCALE:	



Phone: 844-757-7225

Address: 300 Woolley Drive
Marshall, MI 49068

Product: Solar Carports

Company: AR Engineering

Project Name / Title: Marshall Marriott

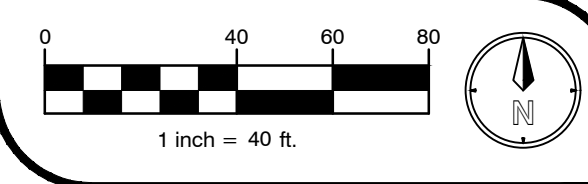
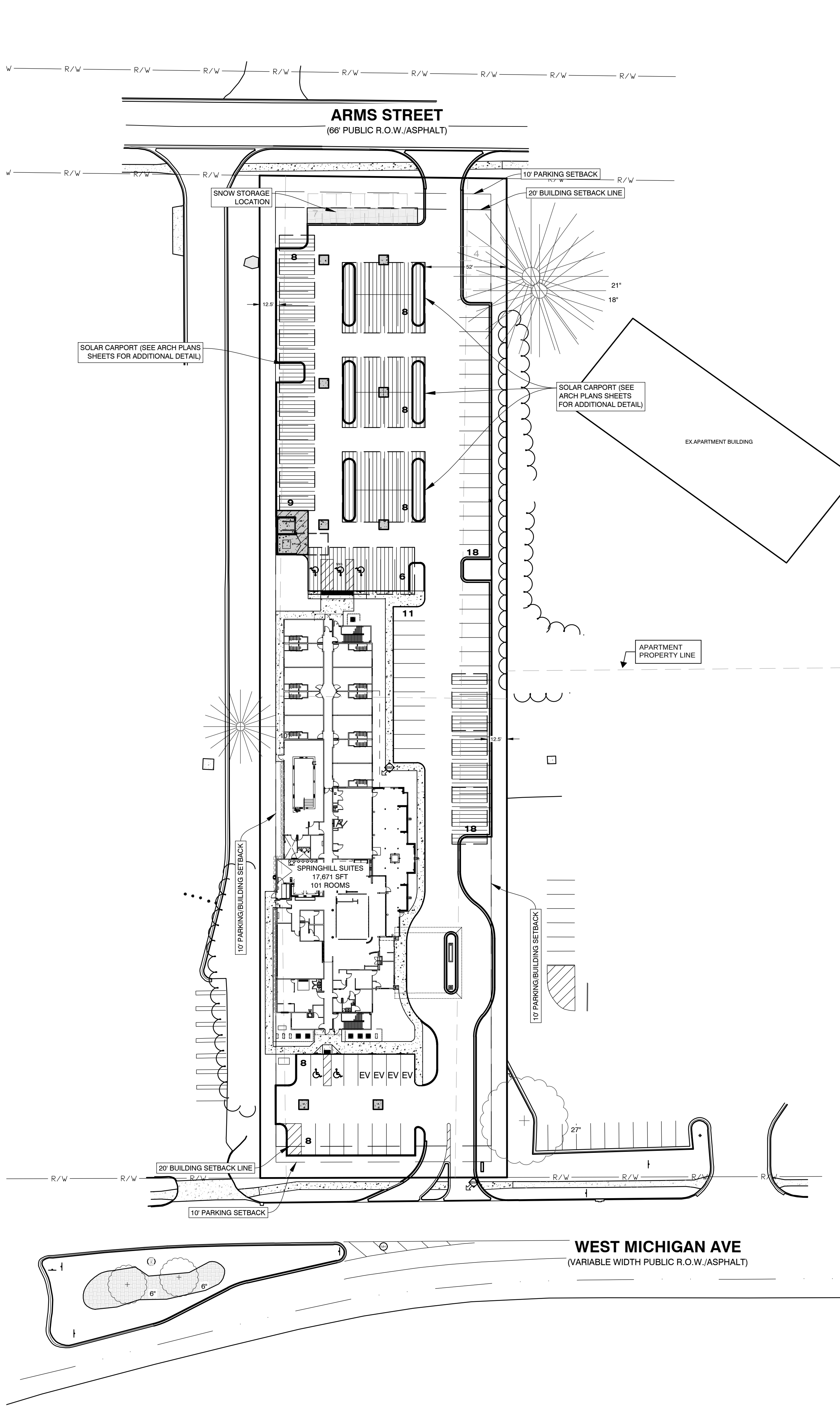
Location: 1154 W. Michigan Avenue
Marshall, MI

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Date: 01/31/2025

Solar Carport Detail: 1

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**Know what's below.
Call before you dig.**

ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA. FIELD WORK PERFORMED BY: AR ENGINEERING

PLANS PREPARED BY:



AR ENGINEERING
CIVIL ENGINEERING & SURVEYING
MICHIGAN | INDIANA | ILLINOIS | OHIO
269.250.5591 PHONE | 866.560.0604 FAX
www.arengineeringllc.com

DRAWN: EAG

CHECKED: JPR

No.	ISSUED FOR:	DATE	BY
0	PRELIMINARY PLAN	12/26/2024	EAG
1	SITE PLAN REVIEW	01/20/2025	JPR
2	SITE PLAN REVIEW	01/31/2025	JPR
3			
4			

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SOLAR CARPORT LAYOUT

MARSHALL HOTEL

SAVINDER SINGH

1154 W MICHIGAN AVE, MARSHALL, MI

SECTION 26, T02S, R05W.

PROJECT:

CLIENT:

SITE ADDRESS:

SITE SECTION:

JOB NUMBER

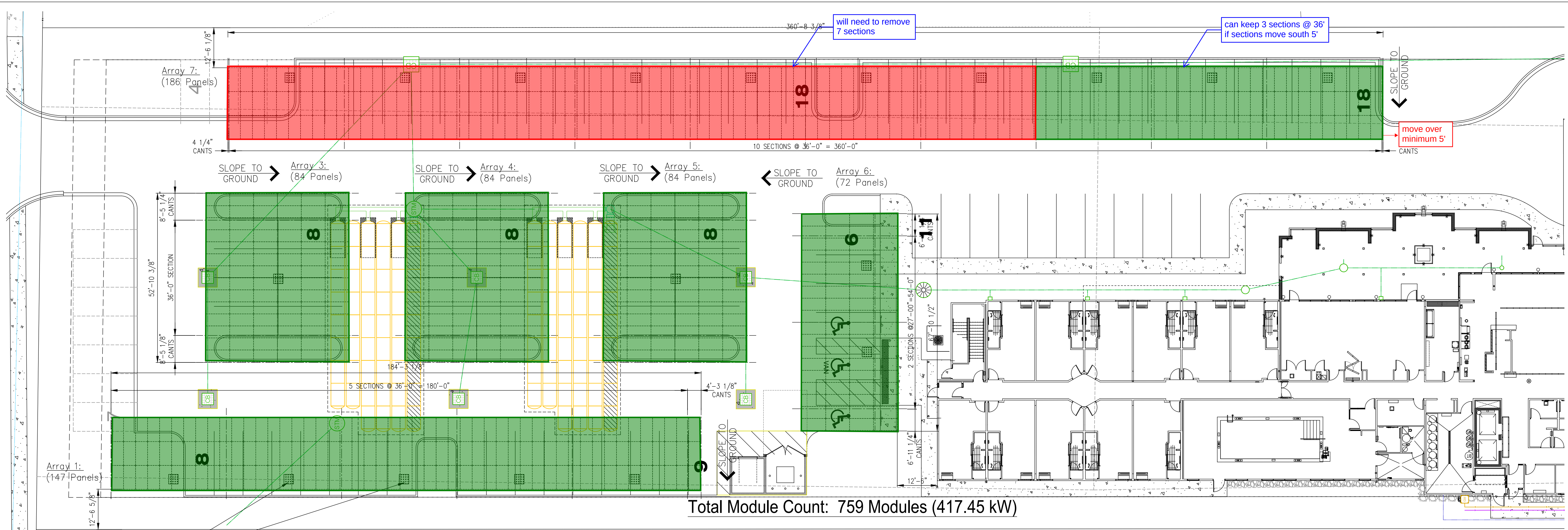
24193001

DATE

01/31/2025

SHEET NUMBER

C2.1



1 LIGHT PER BAY

Total Module Count: 759 Modules (417.45 kW)

Carport Module Layout
SCALE: 1/16"=1'-0"

- panels to keep
- panels to remove



Map
NO SCALE

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MATERIAL:		Solar Mounts setbacks are received from a third party and not responsible for third party surveys and electrical drawings. All CAD related files are approximations and only to be used as a reference.		SOLAR MOUNTS LLC	
FINISH:				TITLE:	
WEIGHT:				INTERPRET GEOMETRIC TOLERANCING: PER: ANSI/ASME Y14.5M-1994 TOLERANCES: UNLESS OTHERWISE SPECIFIED:	
 DO NOT SCALE DRAWING				DRAWING ARE IN INCHES ANGULAR: +/- .1° X = +/- .05 XX = +/- .025 XXX = +/- .005	
				SIZE	PART NUMBER:
				D	
				SCALE:	

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Date: 01/31/2025

Solar Carport Detail: 1

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