City of Hart, Michigan

PLANNING COMMISSION

February 1, 2024

AGENDA

Hart Council Chambers, 407 State Street, Hart, MI 49420

4:00 PM

1. Call to order / roll call: Cunningham, Evans, Fout, Goldberg, LaPorte, Root, Rybarz,
2. Approval of agenda
3. Approval of minutes of November 2, 2024, meeting
4. Public comments
    a. Introduction and communication from the Smith Group regarding redevelopment of Ceres Solutions Property
5. Action Items
    a. Site Plan Review for proposed Dollar Tree at parcel: 64-020-818-400-14 (At or about 4128 Polk Rd.)
6. Discussion Item.
7. Other business and communications from Commission members
8. Adjourn – Next regular meeting on March 7, 2024

Access is provided through the Michigan Relay Service for individuals with speech or hearing impairments https://hamiltonrelay.com/michigan/index.html

With advance notice of seven calendar days, the City will provide interpreter services at all public meetings, including language translation and signage for the hearing impaired. Call 231-873-2488. La Ciudad proporcionará servicio de intérprete para esta reunión pública si se pide con siete días de anticipación, lo cual incluye la traducción de idioma y letreros para los con una discapacidad auditiva. Llame al 231-873-2488.

City Of Hart

407 S. State St
Hart, Mi 49420
Planning Commission
Thursday, November 2nd,2023
Minutes

MEMBERS PRESENT: Betty Root, Jim Cunningham, Cynitha Fout, Gale Goldberg, and Diane LaPorte
ABSENT: Jim Evans, Fred Rybarz
OTHERS PRESENT: City Manager – Rob Splane, City Clerk – Karla Swihart, Planning Consultant Jeff from Mckenna

B. Root called the meeting to order at 4:00 pm.

APPROVAL OF AGENDA: J. Cunningham moved to approve the agenda and supported by D. LaPorte

- Ayes: 5 Nays: 0 Absent: 2

APPROVAL OF MINUTES: D. LaPorte moved to approve minutes from May 4th, 2023, and supported by G. Goldberg

- Ayes: 5 Nays: 0 Absent: 2

PUBLIC COMMENTS, CORRESPONDENCE, EVENTS, PRESENTATIONS:

- None

ACTION ITEMS: Consider council recommendation to rezone property at 2566 N 64th Avenue as C-2 limited commercial.

- Subject: Proposed Rezoning on 2566 N 64th Avenue
  As requested by the applicant, Benjamin C. Liesberg Jr. we have reviewed the above referenced application for rezoning of 2566 N 64th Avenue the property from B-2, General Business District to C-2, Limited Commercial.
  The lot is approximately 5.4 acres in size and is currently zoned B-2, General Business District. The parcel is square in shape with a dog-eared southwest corner, likely providing right-of-way to US31 and Polk Rd. but does have a frontage on N 64th Ave on it's western boundary. The lot is currently vacant with native vegetation onsite. The parcel is outlined (approximately) on the aerial photo below,



ACTION REQUESTED
To Rezone parcel number: 007-018-300-10 from B-2 General Business District to C-2 Limited Commercial.

The applicant proposes to rezone the entire parcel to C-2 Limited Commercial and proposes the construction of a 20-unit storage condo development. The units will consist of four buildings that are 50x150; each partitioned into 5 individual units, equaling 20 total units in the development.

COMPATABILITY WITH THE AREA

The Parcel in question lies on the edge of the City of Hart. The parcel is directly west of US31 and north of Polk Rd., a commercial corridor, and the exit for Hart. There are a number of land uses west of this parcel, not in the City of Hart jurisdiction, that have similar land uses. West of parcel on Polk Rd. there is a restaurant, automotive parts store, a storage facility with what appears to be 2 outdoor storage buildings and 1 indoor storage building, a towing company, a second storage facility with 2 outdoor storage buildings with multiple units, a Dollar General, and open farmland and natural areas.

Although the above-mentioned parcels and businesses are not in the City of Hart, their uses are compatible with what the applicant is proposing to build at 2566 N 64th Ave, especially the 2 storage condo developments on west Polk Rd.

Below is the current zoning map in the area. The parcel in question is highlighted colored red and is being called-out. The parcel is currently rezoned B-2, General Business District and the applicant is proposing to rezone the property to C-2 Limited Commercial.



ZONING DISTRICT COMPARISON

The chart below compares the existing PUD District to the proposed A District. When considering a rezoning, the Planning Commission must take into account ALL potential uses under the new zoning classification, not merely the use the applicant has expressed interest in.

	Existing District *B-2, General Business District*	*C-2, Limited Commercial*
Permitted Uses	• Any use permitted as a matter of right in the B-1 Zone. • An accessory apartment as part of an owner occupied single-family home, which complies with Section 1243.25, or having an apartment(s) associated with a commercial use. • Indoor or outdoor commercial recreation facilities such as bowling centers, indoor theaters, skating rinks, racquet clubs, miniature golf, video amusement establishments, pool and billiard establishments or similar uses. • Mortuaries or funeral homes. • Retail building supply and equipment stores. • Retail nurseries and garden centers. • Printing, lithography, publishing, and photocopy establishments. • Building contractors such as painters, plumbers, electrical, cement, heating	• Truck terminals including maintenance and repair facilities. • Contractor equipment establishments including water well drilling, oil and gas drilling, road construction contractors and other similar uses. • Commercial fuel depots. • Lumberyards and other building supply establishments. • Vehicle repair or body shops, including wrecker service, provided all work is done within an enclosed building and that damaged vehicles are not kept on-site for long term storage. Any vehicles being repaired or any materials kept outside must be well screened from the view of nearby properties and roadways. • Mini warehouses and self storage facilities. • Building contractors such as painters, plumbers, electrical, cement, heating and air conditioning, fencing, and similar uses,

	Existing District *B-2, General Business District*	*C-2, Limited Commercial*
	and air conditioning, fencing, and similar uses provided that any materials or equipment kept outside shall be screened from the view of nearby properties and roadways. • Laboratory, medical or dental. • Ambulance service establishments. • Restaurants with microbreweries, brewpubs, small wineries, and/or small distilleries.	provided that any materials or equipment kept outside shall be well screened from the view of nearby properties and roadways. • Gas stations with or without repair facilities, or retail sales of food, beverages, and miscellaneous items. • Propane gas distributorships. • Open air businesses including but not limited to: the sale of motor vehicles, farm implements, lawn and garden equipment sales and service, motor homes, mobile or modular homes, and similar uses. • Customary accessory buildings and uses including limited retail sales provided such sales are accessory to the permitted use. • Other uses which are determined by the Zoning Administrator to be similar to the above uses and which meet the intent of the district.
Special Approval Uses	• Special land uses as permitted in the B-1 Zone.	• Adult businesses as regulated by Section 1256.13.

	Existing District B-2, General Business District	*C-2, Limited Commercial*
	• Gas stations with or without vehicle repair facilities. • Open air businesses including but not limited to: the sale of motor vehicles, farm implements, lawn and garden equipment sales and service, motor homes, mobile or modular homes and similar uses. • Vehicle repair or body shops provided all work is performed within an enclosed building and storage of vehicles is within an area which is well screened from the view of nearby properties and roadways. • Child day care outside of home.	
Minimum Lot Size	None required	1-acre.
Minimum Lot Width	None required	200 feet
Minimum Setbacks	Front yard: 25' for local street/20' for major street Side yard: None required except where a lot abuts a residential zone or use. In those cases,10' side yard shall be used.	Front: 50 feet Side: 25 feet Rear: 25 feet Exceptions to side and rear lot setbacks are when it meet a residential use. In those cases 50' setbacks for side and rea.
Maximum Building Height	35' maximum height 2.5 stories	35' maximum height 2.5 stories

The two districts are quite different in their allowable land uses. The B-2 district is geared more toward the public face of the services industry. The district permits low-intensity commercial uses like medical offices, entertainment venues, and retail businesses to supply the service industry. The district allows much more flexibility in site design, construction, and use, when compared to the C-2 district.

The C-2 district is envisioned to allow for a mixture of commercial uses and to allow for greater intensity. The permitted uses in this district are geared more toward the storage and logistics of the service industry. These uses could include public places like gas stations, but could also be contractors' equipment storage, heavy vehicle maintenance facilities, or mini warehouses or storage facilities. Because storage facilities are a permitted use in the C-2 district, the applicant requests the Planning Commission to rezone the property to C-2.

REVIEW CRITERIA FOR REZONINGS

When reviewing a rezoning request, the Planning Commission should consider the following criteria.

1. **Consistency with the Master Plan**

The 2017 Hart Master Plan encourages commercial growth and has designated this area as an area for potential commercial growth by designating it a Regional Commercial Corridor. The 2017 Master Plan envisions a variety of commercial uses in this area.

2. **Consistency with the Zoning Ordinance.**
   The proposal to construct a storage condo development at the site, would be consistent with the Hart Zoning Ordinance, if the rezoning to C-2 occurs.
3. **The Sit's Physical Compatibility with the Uses Permitted in the Zoning District.**
   The Planning Commission must consider whether rezoning to site to C-2 can reasonably support the proposed uses in this area.
   - **Natural Features:** The subject site is currently an undeveloped lot that contains native vegetation. The parcel is adjacent to the US 31, Polk Rd, and N. 64th Ave. The natural features of the site are consistent with open spaces and wooded areas nearby. The parcel is also primarily flat and does not appear to contain protected wetlands or other natural features that would restrict development.
   - **Road Network:** The parcel fronts N. 64thAve, which is the main east/west entry corridor in Hart. The Parcel is approximately one mile east of Downtown Hart. To the east of the parcel is Oceana Rd., a regional road which bypasses Downtown Hart. The proposed rezoning is not anticipated to have any negative impacts on the road network.
4. **Compatibility with Surrounding Uses.**
   The Planning Commission must consider whether ALL of the permitted uses in the proposed C-2, Limited Commercial District would be appropriate adjacent to the existing surroundings. The table below summarizes the land use attributes of the site and the surrounding properties.

	Current Zoning	Existing Land Uses	Future Land Use (Master Plan)
Subject Parcel	B-2	Vacant	Regional Commercial Corridor
North	B-2	Active Farmland	Regional Commercial Corridor
East	US 31	US Government	US Government
South	B-2	Active Farmland	Regional Commercial Corridor
West	Golden Township	Gift shop/Dollar General	Commercial/Industrial

The surrounding land uses to the north, east, and west are a mixture of open space, farmland, and commercial. A storage condo development would likely be appropriate and compatible with the neighborhood.

5. **Most Appropriate Zoning District.**
   The parcel's future land use designation as a Regional Commercial Corrido strongly suggests a rezoning to the C-2 Limited Commercial District could be warranted. The Golden Township Zoning map shows the area directly west of the parcel site zoned commercial/industrial.
6. **Infrastructure Capacity.**
   We are not aware of any infrastructure capacity issues that would restrict the ability to construct a storage condo development at this site. The site does not appear to have access to public water and sewer without connecting extensions to that system.

RECOMMENDATION

As the Planning Commission considers whether or not to rezone the parcel to C-2 for the permitted use of constructing a 20- unit storage condo development, they should weigh the following.

1. The use will be similar to many of the heavy commercial uses on Polk Rd. in Golden Township, directly West of the subject parcel. There are currently 2 existing storage condo developments on Pold Rd. to the west. There are other similar uses that would fit with the proposal.

2. The parcel is essentially the front door to the community of Hart. As the Planning Commission Weighs the rezoning, are heavy commercial uses what the City wants on this parcel? The Master Plan envisions this area are a Regional Commercial Corridor. The Planning Commission should weigh this use against that standard.
    - J. Cunningham recommends that City Council rezoning 2566 N. 64th Ave from B-2 General Business District to C-2 Limited Commercial and supported by D. Laporte
        - Ayes: 5 Nays: 0 Absent: 2

DISCUSSION ITEMS:

- Upcoming Projects/tasks
- Establish regular meetings
- Revisit food trucks
- Discuss short term rentals
- Discuss 2024 City Council retreat (planning commission joining)

OTHER BUSINESS:

- Christmas Parade Nov 24th

ADJOURN:

- There being no further business to come before the Planning Commission, the meeting adjourned at 4:51pm upon a motion by D. LaPorte and supported by C. Fout the next scheduled meeting will be held on December 7th, 2023.

Karla Swihart

Karla Swihart
City Clerk

MCKENNA

January 19, 2024

Planning Commission
City of Hart
407 State Street
Hart, Michigan 49420

Subject: **Dollar Tree**
Site Plan Review and Zoning Review

Dear Commissioners:

The applicant, Cole Stadler, is requesting a Site Plan Review of a proposed 9,876 square foot Dollar Tree commercial store, and 37 parking spaces, on 1.75 acres of vacant land on West Polk Rd. The property is on the north side of W. Polk Rd. between the current locations of Excel Propane and AutoZone. Other land uses on the north side of W. Polk Rd. are a gas station and Biggby Coffee store, Big Hart Brewing Company, McDonald's, and Memorial Health Care Center. The south side of W. Polk Rd. also has a mixture of commercial uses. The parcel does not currently have an address, but it is approximately 4128 W. Polk Rd.

CONSISTENCY WITH THE HART ZONING MAP AND ZONING ORDINANCE

The parcel is zoned B-2 General Business District on the Hart Zoning Map. The Hart Zoning Ordinance states the purpose of the B-2 district as, is primarily intended to provide for orderly and concentrated development of business outside the Central Business District in areas designated in the City Master Plan in order to serve the needs of the motoring public and local residents. A wide range of retail service, office governmental, institutional and limited residential uses are permitted. According to the Hart zoning ordinance and zoning map, the proposed Dollar Tree store would fit the zoning district as a permitted use at this location.

CONSISTENCY WITH THE HART MASTER PLAN AND FUTURE LAND USE MAP

The 2017 Hart Master Plan and Future Land Use Map envision the area of W. Polk Rd. as a Regional Commercial Corridor. This district has a Commercial Corridor Overlay that regulates access management, landscaping design, architecture, signs, and sidewalks along the Regional Commercial Corridor. The proposed Dollar Tree store design would be required to meet these standards. If the design of the Dollar Tree fits the Commercial Corridor Overlay District, the store would fit the goals of this district in the Master Plan.

CONSISTENCY WITH THE DISTRICT DESIGN STANDARDS

Section 1250.04 of the Hart Zoning Ordinance outlines the following site guidelines for the B-2 General Business District:

Buildings and structures shall not be erected or enlarged unless the following requirements are met and maintained.

(a) Minimum lot area and width - None required. – **CONSISTENT**

(b) Minimum required building setbacks.
(1) Front yard - 25 feet for local street and 20 feet on any major city street or State Highway. - **CONSISTENT**
(2) Side yard and rear yard - None required except where a lot abuts a residential zone or use, a 10-foot side and rear yard shall be provided. **– CONSISTENT**

(c) Maximum building height - 35 feet. – **CONSISTENT (25')**

GRAND RAPIDS
124 East Fulton Street
6th Floor, Suite B
Grand Rapids, Michigan 49503
O 616.226.6375
F 248.596.0930
MCKA.COM

(d) Dumpsters shall not be located within the front yard and shall be screened as required by Section 1258.07(l). - **CONSISTENT**

The applicant submitted a 4-page site plan that include the front elevation, sign design and height, building color scheme, parking areas, stormwater retention and runoff, truck turning radius, placement of parking spaces and non-motorized pathways, and location of the dumpster corral, among other items. The submitted site plan does appear to be consistent with the district standards listed above. The applicant did not appear to submit a lighting plan showing zero lumens at the property's edges.

RECOMMENDATION

We believe that the proposed 9,876 sq. ft. Dollar Tree store on W. Polk Rd. is consistent with the B-2 zoning district, the Hart zoning map, the 2017 Hart Master Plan and the Future Land use Map. As a result, we are recommending that the Hart Planning Commission approve the project with the following conditions:

- The Planning Commission should determine if the applicant should submit a lighting plan showing zero lumens at the property's edges as a condition of approval.
- The Hart City Engineer should review the stormwater runoff and retention areas of the plan for consistency with the city standards as a condition of approval.
- Any other conditions that the Planning Commission feels are relevant.

We recommend that the Hart Planning Commission make the decision to approve the construction of a Dollar Tree store on W. Polk Rd. or approve when the conditions listed above are met.

Respectfully submitted,
McKENNA ASSOCIATES
DS

Christopher Khorey, AICP
West Michigan Manager

Jeff Keesler
Associate Planner

Wolgast CORPORATION

4835 Towne Center Road, Suite 203
SAGINAW, Michigan 48604
989/790-9120 FAX 989/790-9053

LETTER OF TRANSMITTAL

DATE: 12/8/2023 JOB NO.: D23503

ATTENTION: Planning & Zoning

RE.: Dollar Tree

From: Wolgast Corporation - Cole Stadler

TO: City of Hart
407 State St.
Hart, MI 49420
231-873-2488

	WE ARE SENDING YOU:		TEST REPORT
	SHOP DRAWINGS		OTHER
	PRINTS		
X	CONSTRUCTION DRWGS.	X	ATTACHED
	SAMPLES		

Copies	Date	Division	Description
3	12/8/2023	-----	Site Plans
1	12/8/2023		Zoning Application
1	12/8/2023		Check for Fee Payment
2	12/8/2023		Soils Report
2	12/8/2023		Storm Calculations

	FOR APPROVAL		APPROVED AS SUBMITTED
X	FOR YOUR USE		APPROVED AS NOTED
	AS REQUESTED		NOT APPROVED
	FOR REVIEW & COMMENT		

REMARKS: Please find the attached information for the Dollar Tree in Hart, MI. Should you have any questions please let me know. My phone number is 989-245-4900 and my email is cstadler@wolgast.com

COPY TO:

SIGNED: Cole Stadler

Shipping Method: **Ground**

03/20/12

City of Hart, 407 State Street, Hart, Michigan 49420

Planning & Zoning Application

231-873-2488 231-873-0100 (fax) www.ci.hart.mi.us

Apply at Oceana County Annex, 210 Johnson, for your *Building Permit* (231-873-5355).

Address/Location of Subject Property: V/L Polk Road Hart, MI 49420 **Date:** 12/7/23

Parcel # of Subject Property: 64-020-818-400-14

Current Zoning & Use of Subject Property: B-2 General Business

Applicant Information:

Name: Cole Stadler **Organization:** Wolgast Corporation

Address: 4835 Towne Centre Rd. Suite 203 **City/State/Zip:** Saginaw, MI 48604

Phone: 989-245-4900 **Email:** cstadler@wolgast.com **Fax:** 989-393-5321

I hereby attest that all information on this application is, to the best of my knowledge, true and accurate.

Signature: [signature] **Date:** 12/7/23

I hereby grant permission for members of the City of Hart (Planning Commission) (Zoning Board of Appeals) (City Council) (Staff) to enter the property described below (or as described in the attached) for the purpose of gathering information related to this application. (Note to applicant: This is optional and will not affect any decision on your application.)

Signature of Owner: [signature] **Date:** 12/7/2023

Applicant is the: ☒ Owner ☐ Lessee ☐ Optionee ☐ Contractor/Architect

If the applicant is not the owner of the property, complete the following:

Owner's Name:

Address: **City/State/Zip:**

Phone: **Signature:**

Proposed Use: Commercial **Proposed Zoning:** B-2

Explanation of Request: Site Plan approval for new 9,876sf Dollar Tree store with 37 parking spaces

If application is for a variance, please attach one (1) copy of a site plan. If application is for a Site Plan Review, please attach twelve (12) copies of a complete site plan.

☐ **Approved** ☐ **Approved with following conditions:**

☐ **Denied for the following reasons:**

TO BE COMPLETED BY CITY

Date received: __/__/__ **Fees:** $10 (Res) (**$25 (Com)**) $825 (Wat) $1200 (Sew) Escrow: $1000 (**$500**) $250 Variance: $50

Receipt Number: **Staff:**

Zoning Administrator: **Date:**

Note: Information contained in this application, as well as supporting documentation, may be subject to review by the public if a Freedom of Information Act Request is filed.
s:sharedhart1/planning&zoning/forms&handouts/zoningapplicationform.doc

Hart, Michigan Dollar Tree Drainage Calculations

SITE ANALYSIS

The site is underlain with Benona sands, with a deep water table, per attached soil report.
Land slopes uniformly to the north at an average slope of 4% and the site is mostly wooded.
Quantities of the proposed improvements are:

Area	sq. ft.	runoff C	AxC	Avg C
roof	9876	1.00	9876	
concrete	3298	1.00	3298	
asphalt	25191	1.00	25191	
basin	6355	1.00	6355	
greenspace	16165	0.25	4041	
total	60885		48761	0.80

Conservative runoff coefficients were utilized to add safety to the calculations.
An additional 17,743 square feet of greenspace land will runoff undetained.

INFILTRATION BASIN SIZING

Basin areas and volumetrics are:

Basin Areas	e-w	n-s	area	volume (c.f.)
697	134	20	2680	
698	140	26	3640	3160
699	146	32	4672	4156
700	152	38	5776	5224
700.5	155	41	6355	3033
			total volume:	15573

We utilize the mass balance equation for infiltration basin sizing: Vol. In = Vol. Out + Vol. Stored:
Vin = C*A*d/12; C= runoff Coef, A= drainage area (sf), d = 100 year rain depth y (in) at time z (hr)
Vin = 0.80*60,885*d/12 = 4059d

Vout = K/12*As*D, where K = infil. rate (in/hr), As = seepage area (sf), D = 100 yr rain duration (hr)
Vout = K/12*4518*D = 376DK

Vstored = 15,573 cf

4059d = 376DK + 15,573 Rearranging terms: Kmin = (4059d - 15573)/376D

Using 100 year rainfall for Hart, Michigan:

D (hr)	d (in)	Kmin (in/hr)	
0.083	0.893	-382.9	negative value ==> excess available storage w/o infil.
0.167	1.31	-163.3	
0.25	1.60	-96.6	
0.5	2.23	-34.7	
1	2.96	-9.5	
2	3.68	-0.8	
3	4.2	1.3	
6	5.12	2.3	critical case: 6hr, 100 yr rain requires Kmin = 2.3 in/hr
12	6.08	2.0	
24	7.06	1.4	

On-site percolation test results = 66 in/hr (field notes available upon request)
Benona sand **saturated** hydraulic conductivity = 6 to 20 in/hr, per USDA Soil Survey
Therefore, design is adequate; factor of safety = 2.6 over worst case infil rate estimate of 6 in/hr

STORM SEWER DESIGN

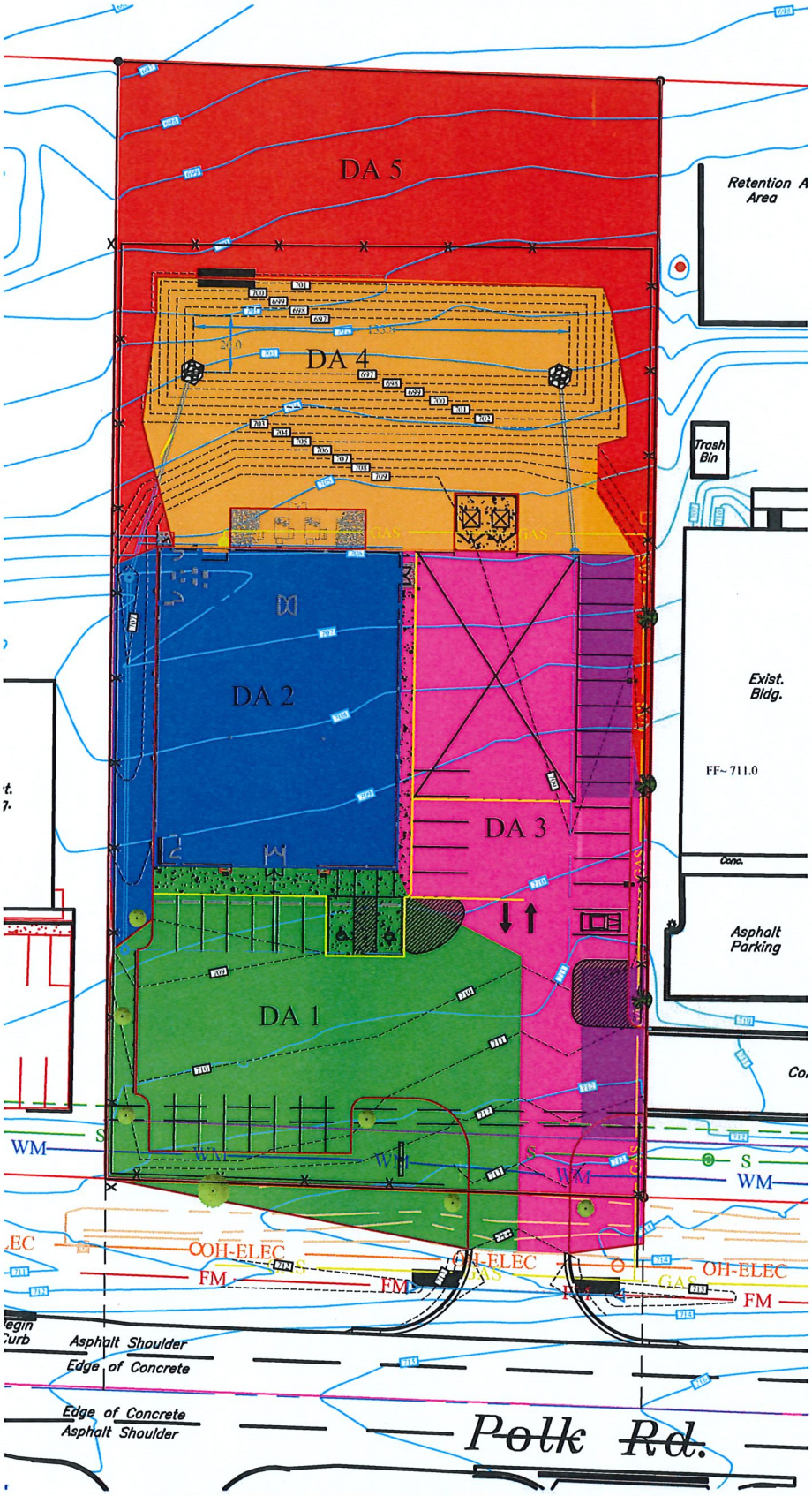
Impervious C: 1.00 Pervious C: 0.25 tc = 15 min: i10 5 in/hr

Drainage Area	Total A	Impervious	Pervious	Avg C	Q10 (cfs)	
1	17030	12632	4398	0.81	1.58	
2	16334	14606	1728	0.92	1.73	
3	11916	9833	2083	0.87	1.19	2.76
4	15605	7483	8122	0.61	1.09	
Total to basin	60885	44554	16331	0.80	5.58	
undetained	17743					

$D_{min} = (Q/(38.65S^{0.5}))^{0.375}$

DA1: Q = 1.58, S = 2.6% ==> Dmin = 0.6'
DA2: Q = 2.76, S = 5.0% ==> Dmin = 0.7'
DA3: Q = 1.73, S = 6.7% ==> Dmin = 0.5'
Therefore 12" diameter storm pipes are good througout

DRAINAGE AREA MAP



Drainage Areas				
#	Color	Area	Impervious	Pervious
DA1	Green	17030	12632	4398
DA2	Blue	11916	9833	2083
DA3	Magenta	16334	14606	1728
DA4	Orange	15605	7483	8122
DA5	Red	17743	0	17743

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.302 (0.238-0.389)	0.357 (0.281-0.460)	0.454 (0.356-0.586)	0.541 (0.421-0.702)	0.671 (0.508-0.911)	0.778 (0.574-1.07)	0.893 (0.635-1.26)	1.02 (0.691-1.47)	1.19 (0.777-1.77)	1.33 (0.841-2.00)
10-min	0.442 (0.348-0.569)	0.523 (0.411-0.673)	0.665 (0.521-0.859)	0.792 (0.617-1.03)	0.982 (0.744-1.34)	1.14 (0.840-1.57)	1.31 (0.929-1.84)	1.49 (1.01-2.15)	1.74 (1.14-2.59)	1.95 (1.23-2.92)
15-min	0.539 (0.424-0.694)	0.637 (0.501-0.821)	0.811 (0.635-1.05)	0.966 (0.752-1.25)	1.20 (0.907-1.63)	1.39 (1.02-1.91)	1.60 (1.13-2.25)	1.81 (1.23-2.63)	2.12 (1.39-3.16)	2.37 (1.50-3.56)
30-min	0.749 (0.589-0.964)	0.887 (0.697-1.14)	1.13 (0.885-1.46)	1.35 (1.05-1.75)	1.68 (1.27-2.28)	1.95 (1.43-2.68)	2.23 (1.59-3.15)	2.54 (1.73-3.68)	2.98 (1.95-4.43)	3.33 (2.11-5.00)
60-min	0.982 (0.773-1.26)	1.15 (0.905-1.48)	1.46 (1.14-1.88)	1.74 (1.36-2.26)	2.18 (1.66-2.96)	2.56 (1.89-3.53)	2.96 (2.11-4.16)	3.40 (2.32-4.94)	4.03 (2.64-6.01)	4.54 (2.88-6.82)
2-hr	1.22 (0.968-1.54)	1.42 (1.12-1.80)	1.79 (1.42-2.26)	2.14 (1.68-2.74)	2.69 (2.07-3.65)	3.16 (2.37-4.33)	3.68 (2.66-5.17)	4.26 (2.94-6.14)	5.08 (3.36-7.54)	5.76 (3.68-8.59)
3-hr	1.38 (1.10-1.74)	1.59 (1.27-2.00)	1.99 (1.59-2.53)	2.39 (1.90-3.04)	3.02 (2.35-4.09)	3.58 (2.70-4.89)	4.20 (3.05-5.88)	4.88 (3.39-7.03)	5.88 (3.92-8.70)	6.71 (4.32-9.97)
6-hr	1.66 (1.35-2.07)	1.90 (1.54-2.37)	2.37 (1.91-2.96)	2.85 (2.28-3.58)	3.63 (2.87-4.89)	4.33 (3.32-5.88)	5.12 (3.77-7.13)	6.01 (4.23-8.61)	7.32 (4.94-10.8)	8.41 (5.47-12.4)
12-hr	1.96 (1.61-2.41)	2.23 (1.83-2.74)	2.78 (2.27-3.43)	3.34 (2.71-4.15)	4.28 (3.43-5.71)	5.13 (3.97-6.90)	6.08 (4.53-8.41)	7.17 (5.10-10.2)	8.77 (5.98-12.8)	10.1 (6.64-14.8)
24-hr	2.25 (1.87-2.73)	2.57 (2.13-3.12)	3.21 (2.65-3.91)	3.87 (3.18-4.74)	4.96 (4.02-6.54)	5.94 (4.66-7.91)	7.06 (5.32-9.66)	8.32 (5.99-11.7)	10.2 (7.02-14.8)	11.7 (7.80-17.1)
2-day	2.56 (2.16-3.07)	2.91 (2.45-3.49)	3.63 (3.04-4.37)	4.36 (3.63-5.28)	5.58 (4.58-7.28)	6.68 (5.30-8.79)	7.92 (6.04-10.7)	9.32 (6.78-13.0)	11.4 (7.94-16.4)	13.1 (8.81-19.0)
3-day	2.80 (2.38-3.33)	3.14 (2.66-3.74)	3.85 (3.25-4.60)	4.59 (3.85-5.51)	5.82 (4.82-7.55)	6.95 (5.55-9.10)	8.22 (6.32-11.1)	9.67 (7.09-13.5)	11.8 (8.30-17.0)	13.6 (9.21-19.7)
4-day	3.02 (2.57-3.57)	3.34 (2.84-3.95)	4.03 (3.42-4.78)	4.76 (4.01-5.68)	5.99 (4.98-7.73)	7.12 (5.72-9.28)	8.41 (6.49-11.3)	9.87 (7.28-13.7)	12.1 (8.50-17.3)	13.9 (9.43-20.0)
7-day	3.59 (3.09-4.19)	3.89 (3.34-4.55)	4.56 (3.90-5.35)	5.27 (4.48-6.22)	6.48 (5.44-8.26)	7.60 (6.17-9.81)	8.88 (6.93-11.8)	10.4 (7.70-14.3)	12.5 (8.93-17.9)	14.4 (9.85-20.6)
10-day	4.08 (3.53-4.73)	4.41 (3.81-5.12)	5.11 (4.40-5.96)	5.84 (5.00-6.84)	7.05 (5.94-8.88)	8.16 (6.65-10.4)	9.41 (7.37-12.4)	10.8 (8.10-14.8)	13.0 (9.26-18.3)	14.7 (10.1-21.0)
20-day	5.42 (4.75-6.19)	5.95 (5.21-6.81)	6.90 (6.02-7.94)	7.77 (6.74-8.98)	9.06 (7.63-11.1)	10.1 (8.31-12.6)	11.3 (8.90-14.6)	12.6 (9.43-16.8)	14.3 (10.3-19.9)	15.8 (11.0-22.3)

Oceana County, Michigan

59B—Benona sand, 0 to 6 percent slopes

Map Unit Setting

National map unit symbol: 6bqv
Elevation: 600 to 1,200 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 120 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Benona and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Benona

Setting

Landform: Moraines, lake plains, outwash plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy glaciofluvial deposits

Typical profile

H1 - 0 to 8 inches: sand
H2 - 8 to 46 inches: sand
H3 - 46 to 60 inches: sand

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Ecological site: F096XB019MI - Rich Sandy Drift
Hydric soil rating: No

Minor Components

Covert

Percent of map unit: 3 percent
Landform: Moraines, lake plains, outwash plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Spinks

Percent of map unit: 3 percent
Landform: Moraines, lake plains, outwash plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Pipestone

Percent of map unit: 2 percent
Landform: Moraines, lake plains, outwash plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Granby

Percent of map unit: 2 percent
Landform: Depressions on outwash plains, depressions on moraines, depressions on lake plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Oceana County, Michigan
Survey Area Data: Version 18, Aug 25, 2023

SOIL EVALUATION
FOR
PROPOSED DOLLAR TREE STORE
HART, MICHIGAN

November 15, 2023

Prepared For:

Wolgast Corporation
4835 Towne Centre Road
Suite 203
Saginaw, Michigan 48604

Prepared By:

Snyder & Staley Engineering, PLC
824 Tittabawassee Road
Saginaw, Michigan 48604

Project Number 23-009-267

I. INTRODUCTION

We have completed the requested soil evaluation for the proposed Dollar Tree store to be located in Hart, Michigan. This report presents the results of our evaluation, our interpretation of the soil and groundwater conditions at the soil boring locations, and our geotechnical recommendations for design and construction of the proposed development. Our evaluation was performed under the direction of a registered Professional Engineer in the State of Michigan.

A. Site and Project Description

The project consists of a new Dollar Tree store to be located at north side of West Polk Road, on parcel of property between the Excel Propane and Auto Zone Auto Parts facilities, in Hart, Michigan. The site is currently a forest and was not be cleared prior to our drill crew's arrival.

It has been indicated the anticipated construction of this building will consist of single story, 9,828 square foot, pre-engineered metal building structure supported on spread type foundations with concrete slab on grade. There will be asphalt drives/parking areas on the south and west sides of the proposed building. At this time, the planned finish floor of the proposed building has not been determined. Based on our visual observations of the existing grades relative to the existing roads and the adjacent building floor elevations and for the purpose of this report, we estimate the proposed building finish floor elevation will be at or slightly above the existing site grades.

B. General

The recommendations submitted in this report have been based on the available soil boring information and the preliminary design details furnished for the proposed development. Any revisions in the noted location or design details for the proposed structures should be brought to our immediate attention so we may evaluate the extent to which our recommendations may be impacted by the changes. When final plans and specifications are available, we should be given the opportunity to review them to verify our understanding of the anticipated project and to verify our recommendations have been properly interpreted. The conclusions, recommendations and considerations presented herein have been based on the information obtained from the soil borings performed at this site. This report does not reflect changes in subsurface conditions that may occur between these soil boring locations. If significant variations from our reported subsurface conditions are noted during construction, we should be notified immediately to determine if modifications to our recommendations are needed. We have strived to conduct this soil evaluation in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the locality of this project. No other warranties, implied or expressed, are made. The recommendations presented herein are intended solely for the use of National Retail Development, LLC and their design consultants in evaluating this site for the specific development being proposed.

III. DESCRIPTION OF SUBSURFACE CONDITIONS

The soil profile description and groundwater observations discussed herein are intended to provide a brief and general summary of the typical subsurface conditions encountered at this site. For a more detailed description of the soil and groundwater conditions encountered at the respective boring locations, please refer to the attached Soil Boring Logs and Soil Boring Location Diagram. The stratification lines of the boring logs are intended to indicate a general transition between soil types and the actual transition may vary between boring locations.

A. Soil Conditions

A relatively uniform soil profile was encountered in each of the soil borings performed for this evaluation. Each major component of the generalized soil profile observed at this site, beginning from the ground surface, is described below:

Soil Group 1 – Surficial Materials

At all the boring locations, the driller noted up to approximately 12 to 14 inches of sandy topsoil materials at the ground surface.

Soil Group 2 – Fine Sand (SP)

Beneath these surficial materials, deposits of natural, fine sands were observed to explored depths of all the soil borings. Standard penetration (N-values) results in the granular deposits ranged between 3 and 15 blows per linear foot, which indicates these materials are very loose to medium dense in relative density.

B. Groundwater Observations

Groundwater seepage was noted in Borings B1 through B3 during the drilling and/or sampling operations at depths of about 13½ feet below the existing ground surface and no groundwater seepage was noted in Boring B4 and B5. Upon completion of the drilling operations and removal of the augers from the ground, The boreholes at Borings B1 through B3, were observed to have collapsed with no visible signs of groundwater seepage at depths of 5½ to 6½ feet below the existing ground surface and no visible signs of groundwater seepage in Borings B4 and B5. All of the boreholes were backfilled with natural soils upon their completion.

Due to the relatively pervious nature of granular soils, such as those generally encountered at this site, the water level in an open bore hole usually stabilizes with the prevailing hydrostatic groundwater level fairly quickly. Therefore, the short-term groundwater level observations recorded in our borings, as noted above, are judged to be indicative of the long-term groundwater level at this site. On this basis, we estimate the long-term hydrostatic groundwater level in the immediate vicinity of the soil borings to be at a depth of about 13½ feet below the existing ground surface.

moisture, we recommend it be done be disking and harrowing the soil, as the water is added by spraying, to provide a relatively uniform moisture content throughout the soil mass. Alternately, if the soil is too wet at the time of placement, we recommend it be disked and aerated to allow it to dry to the desired moisture content prior to compaction, weather conditions permitting. In open areas, granular fill materials should be compacted using heavy vibratory smooth drummed rollers, however in confined or limited access areas, vibratory plate compactors are recommended.

C. Foundations

We recommend the proposed structure at this site be supported on spread type foundations. A maximum net allowable design soil pressure of 1,500 pounds per square foot (psf) may be used to proportion the footings where they are placed on the loose to medium dense, granular materials encountered in our soil borings. Suitable bearing materials at this site for the recommended design bearing pressure is anticipated to be present at nominal frost depths. **Prior to placing foundation concrete upon these soils, the top 12 inches of the exposed granular bearing materials shall be compacted to at least 95 percent of the maximum dry density value determined by ASTM Standard D-1557 (Modified Proctor). A sufficient number of field density tests should be performed during placement to verify proper compaction is achieved.**

Interior building foundations which are not subject to the effects of frost heave could be placed at any convenient depth below the floor slab where they bear either on the suitable natural soils described above or on engineered fill which has been placed directly on suitable natural soils. These foundations bearing on the natural soil or engineered fill placed on natural soil can be designed using a maximum net allowable soil pressure of 1,500 psf, provided the specific floor slab-on-grade subgrade preparation activities recommended earlier in this report are implemented prior to placing any new engineered fill material and the top 12 inches of exposed granular bearing materials are densified (see above paragraph). To verify adequate foundation bearing where engineered fill is used, we recommend close monitoring and testing of the earthwork contractor's work is performed during construction.

For bearing capacity and settlement considerations, we recommend all individual columns footings have a minimum lateral dimension (or a minimum diameter) of 30 inches and all continuous wall footings be at least 16 inches wide. To provide protection against the effects of frost heave during normal winters, we recommend all foundations be embedded a minimum of 42 inches below the final exterior site grade along the outside perimeter walls or in areas that will not be permanently heated.

With regard to settlement, we estimate total post-construction settlement for building foundations designed and constructed in accordance with the recommendations presented in this report will be on the order of 1/2 inch or less for any of the design alternatives given. This estimate is based on the anticipated loading conditions and our experience with similar soils.

Based on the anticipated environmental load and the foregoing AASHTO design parameters for a 20-year service life, we recommend the following flexible and rigid pavement sections presented below. If any of our stated assumptions are grossly in error, we should be contacted so we may re-evaluate our pavement design recommendations in light of any additional information.

Table 1
Recommended Flexible Pavement Sections

Layer	Specified Material*	Recommended Minimum Thickness	
		Light-Duty (Parking)	Heavy-Duty (Drives)
Bituminous Wearing Course	36A or LVSP	1-1/2 in.	2 in.
Bituminous Leveling Course	13A or LVSP	1-1/2 in.	2 in.
Aggregate Base Course	21-AA (or equal)	6 in.	8 in.
Sand Subbase	In-Situ	In-Situ	In-Situ

* Note: Material designations refer to Michigan D.O.T. "Standard Specifications for Construction" and all supplemental specifications. Construction of the pavement and the related earthwork should also be performed in accordance with M.D.O.T. Specifications unless otherwise noted herein

Table 2
Recommended Rigid Pavement Sections

Layer	Specified Material*	Recommended Minimum Thickness	
		Light-Duty (Parking)	Heavy-Duty (Drives)
Concrete	4,000 psi	5 in.	6 in.
Aggregate Base Course	21-AA (or equal)	6 in.	6 in.
Sand Subbase	In-Situ	In-Situ	In-Situ

* Note: Material designations refer to Michigan D.O.T. "Standard Specifications for Construction" and all supplemental specifications. Construction of the pavement and the related earthwork should also be performed in accordance with M.D.O.T. Specifications unless otherwise noted herein

VI. GENERAL COMMMENTS

Samples taken in the field will be retained in our laboratory for a period of sixty days from the date of this report and will then be disposed of, unless otherwise requested. Samples stored over an extended time period, even in sealed jars, are subject to moisture loss and are then no longer representative of the in-situ condition in which they were sampled.

During the course of the soil evaluation, procedures were followed which represent accepted practices in the field of geotechnical engineering. Therefore, discrepancies may exist between the driller's field logs and the final Soil Boring Logs submitted operations and describe field occurrences, sampling locations and other relevant information. The engineer preparing the report reviews the field logs as well as the laboratory soil classifications and laboratory test data. The final Soil Boring Logs are then promulgated based on all the information available from the field and laboratory operations.

The services of a qualified, independent construction testing firm should be engaged during construction to monitor the earthwork and foundation activities and to verify the use of proper materials, equipment and procedures. An appropriate number of field density tests should be preformed during the earthwork operations to verify proper compaction is achieved where engineered fill is used. Foundation bearing surfaces should also be tested and observed to verify conditions are similar to those anticipated at the time our recommendations were formulated.

GENERAL NOTES

Drilling and Sampling Symbols

SS – Split-spoon Sample – 1 1/2" I.D., 2" O.D. except where noted.
ST – Shelby Tube Sample – 3" O.D. except where noted.
AS – Auger Sample
BS – Bag Sample
WS – Wash Sample
RC – Rock Core with Diamond Bit–NX Size except where noted.
NR – No Recovery
PS – Probe Sample
DR – Drove Rock
DS – Disturbed Sample

Water Level Measurement Symbols

WL – Water Level
WD – While Drilling
AB – After Boring
WC – Wet Cave–In
DC – Dry Cave–In
WS – While Sampling

NOTE:
Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. With impervious Soils, short term observations of water level may not be an accurate indication of the long term ground water level. These levels may also fluctuate throughout the year with variations in precipitation, evaporation, and runoff.

Soil Property Symbols

N – Standard Penetration Resistance (ASTM D–1586. Blows of a 140 lb hammer falling 30 inches req'd to drive a 2 inch O.D. split–spoon sampler (except where otherwise noted) 1 ft into the soil).
qp – Calibrated hand penetrometer unconfined compressive strength, tsf.
qu – Controlled strain unconfined compressive strength, tsf (ASTM D–2166)
cs – Calibrated Torvane shear strength, tsf.
w – Water content, % (ASTM D–2216)
γ – Natural unit weight, pcf.
LL – Liquid Limit, % (ASTM D–4318)
PL – Plastic Limit, % (ASTM D–4318)
PI – Plasticity Index, % (ASTM D–4318)

Sample Classification

All Samples are visually classified in general accordance with ASTM Standard D–2487 (Unified Soil Classification System), unless otherwise noted.

PARTICLE SIZE

Boulders:	Greater than 12" (305mm)
Cobbles:	3" to 12" (76mm to 305mm)
Coarse Gravel:	3/4" to 3" (19mm to 76mm)
Fine Gravel:	#4 to 3/4" (4.75mm to 19mm)
Coarse Sand:	#10 to #4 (2.00mm to 4.75mm)
Medium Sand:	#40 to #10 (0.425mm to 2.00mm)
Fine Sand:	#200 to #40 (0.074mm to 0.425mm)
Silt:	0.005mm to 0.074mm
Clay:	Less than 0.005mm

CONSTITUENT TERMS

Few/Trace:	Less than 10%
Occasional/Trace to Some:	10% to 20%
Frequent/Some:	20% to 35%
And:	35% for each type of soil identified.

NOTE:
Soil constiutents area based on visually estimated quantities.

RELATIVE DENSITY OF GRANULAR SOILS

	STANDARD PENETRATION (N) VALUE, BLOWS / FOOT
Very Loose	Less than 4
Loose	4 – 9
Medium Dense	10 – 29
Dense	30 – 49
Very Dense	50 – 80
Extremely Dense	Greater than 80

CONSISTENCY OF COHESIVE SOILS

	UNCONFINED COMPRESSIVE STRENGTH (qu or qp), tsf
Very Soft	Less than 0.25
Soft	0.25 – 0.49
Firm	0.50 – 0.99
Stiff	1.00 – 1.99
Very Stiff	2.00 – 3.99
Hard	Greater than 4.00

SNYDER & STALEY ENGINEERING, P.L.C.

SOIL BORING LOG

Boring No: B1

Project: Dollar Tree Project No: 23 – 009 – 267

Location: West Polk Road, Hart, MI. Client: Wolgast Corporation

Description of Material	DEPTH (ft)	Sample Length	Sample I.D.	Sample Type	Standard Penetration 'N' Blows Per Ft.	Hand Penetrometer qp (tsf)	Unconfined compression qu (tsf)	Torvane Shear cs (tsf)	Moisture Content w (%)	Natural Unit Weight γ (pcf)
Driller reported 12 inches of sandy TOPSOIL – dark brown										
Fine SAND; trace silt and gravel – browns – moist to wet – loose (SP)			S1	SS	6					
	5		S2	SS	10					
			S3	SS	8					
	10		S4	SS	7					
	15		S5	SS	7					
Boring Terminated at 15 feet										

NOTE: Changes in soil stratification indicated by lines are approximate. In situ, the transition between materials maybe gradual unless otherwise noted. The bored hole was backfilled with natural soil.

WATER LEVEL OBSERVATIONS

13 ½' While Sampling or Drilling

DC 6 ½' Immediately After Completion

. @ . After Completion

BORING

Rig: AFT Drilling Foreman: B. BELLOWS

Started: 11/12/2023 Drawn By: A. POTTS

Completed: 11/12/2023 Approved: M. STALEY

SHEET

1 of 5

SNYDER & STALEY ENGINEERING, P.L.C.

SOIL BORING LOG

Boring No: B3

Project: Dollar Tree Project No: 23 - 009 - 267

Location: West Polk Road, Hart, MI. Client: Wolgast Corporation

Description of Material	DEPTH (ft)	Sample Length	Sample I.D.	Sample Type	Standard Penetration 'N' Blows Per Ft.	Hand Penetrometer qp (tsf)	Unconfined compression qu (tsf)	Torvane Shear cs (tsf)	Moisture Content w (%)	Natural Unit Weight γ (pcf)
Driller reported 12 inches of sandy TOPSOIL – dark brown										
Fine SAND; trace silt and gravel – browns – moist to wet – very loose to loose to very loose (SP)			S1	SS	4					
	5		S2	SS	8					
			S3	SS	8					
	10		S4	SS	3					
	15		S5	SS	4					
Boring Terminated at 15 feet										

NOTE: Changes in soil stratification indicated by lines are approximate. In situ, the transition between materials maybe gradual unless otherwise noted. The bored hole was backfilled with natural soil.

WATER LEVEL OBSERVATIONS

13 ½' While Sampling or Drilling

DC 6 ½' Immediately After Completion

. @ . After Completion

BORING

Rig: AFT Drilling Foreman: B. BELLOWS

Started: Drawn By: A. POTTS

Completed: Approved: M. STALEY

SHEET 3 of 5

SNYDER & STALEY ENGINEERING, P.L.C.

SOIL BORING LOG

Boring No: B5

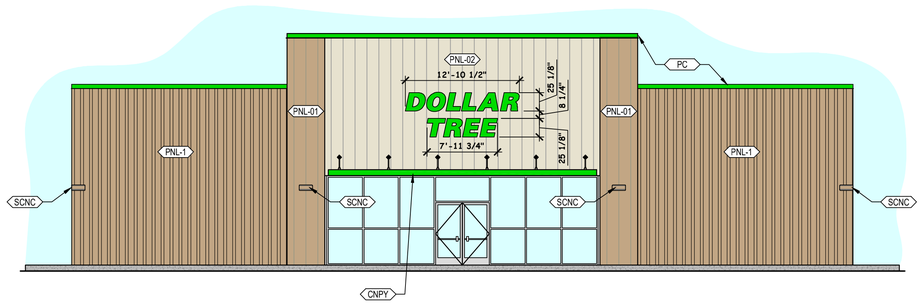
Project: Dollar Tree Project No: 23 – 009 – 267

Location: West Polk Road, Hart, MI. Client: Wolgast Corporation

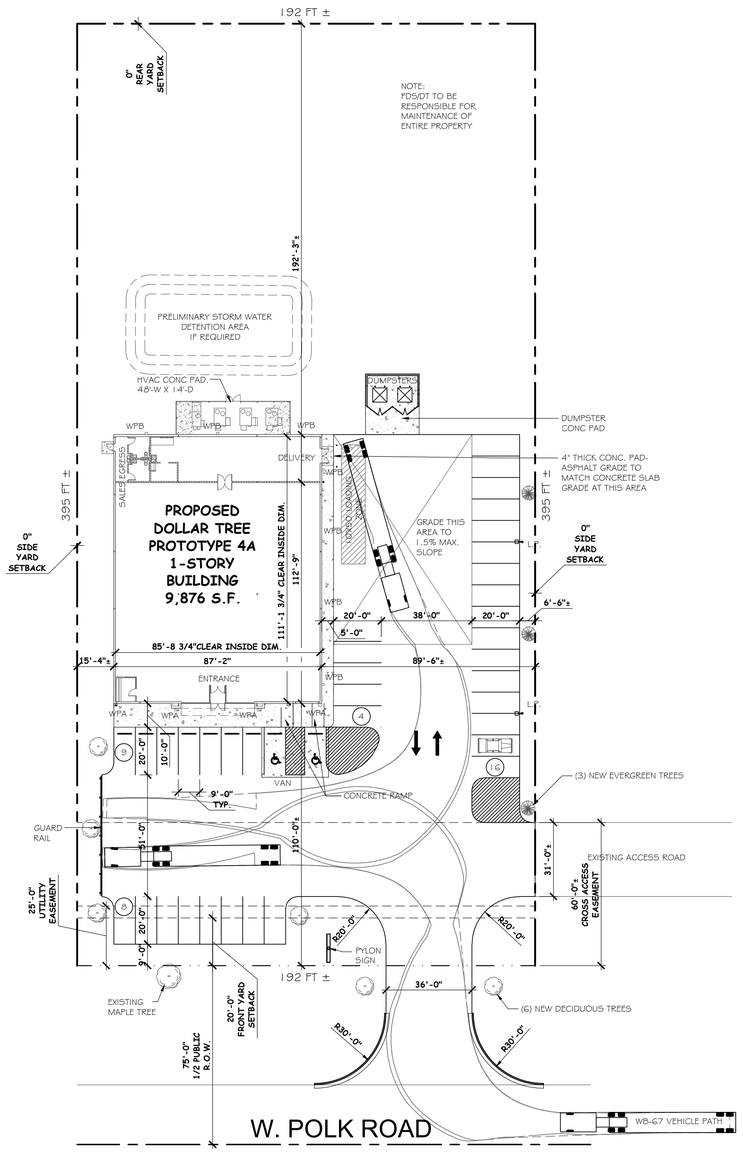
Description of Material	DEPTH (ft)	Sample Length	Sample I.D.	Sample Type	Standard Penetration 'N' Blows Per Ft.	Hand Penetrometer qp (tsf)	Unconfined compression qu (tsf)	Torvane Shear cs (tsf)	Moisture Content w (%)	Natural Unit Weight γ (pcf)
Driller reported 14 inches of sandy TOPSOIL – dark brown										
Fine SAND; trace silt and gravel – browns – moist – loose (SP)			S1	SS	7					
	5		S2	SS	6					
Boring Terminated at 5 feet	10									

NOTE: Changes in soil stratification indicated by lines are approximate. In situ, the transition between materials maybe gradual unless otherwise noted. The bored hole was backfilled with natural soil.

WATER LEVEL OBSERVATIONS	BORING	SHEET
NONE While Sampling or Drilling	Rig: AFT Drilling Foreman: B. BELLOWS	
NONE Immediately After Completion	Started: 11/12/2023 Drawn By: A. POTTS	5 of 5
. @ . After Completion	Completed: 11/12/2023 Approved: M. STALEY	



2 / C1.00 **FRONT ELEVATION**
SCALE: 1/8" = 1'0" - 0"



1 / C1.00 **PROPOSED SITE PLAN**
SCALE: 1" = 30' - 0"

EXTERIOR FINISH SCHEDULE

KEYNOTE	HATCH	DESCRIPTION	COLOR
PNL-1		16 FLUTED DESIGNER SERIES CONCEALED FASTENER METAL SIDING PANELS- 24 GAUGE	'LIGHT STONE'
PNL-01		12" PW-120-0 CONCEALED FASTENER METAL SIDING PANELS- 24 GAUGE	'LIGHT STONE'
PNL-02		12" PW-120-0 CONCEALED FASTENER METAL SIDING PANELS- 24 GAUGE	'ALMOND'
PC	N/A	24 GAUGE KYNAR COATED METAL COPING (PROVIDED BY METAL BUILDING MANF.)	SHERWIN WILLIAMS 'ENVY'
SCNC		LSI LED PATRIOT WALL SCONCE @ 8'-8" A.F.F. (SEE ELECTRICAL)	BRZ - 'BRONZE'
CNPY		CANOPY BY TENANT	SHERWIN WILLIAMS 'ENVY'

PAINTING NOTES:

CMU - (1) COAT OF S-W LOXON BLOCK SURFACER A24W200 (OR EQUAL).

DUMPSTER ENCLOSURE - (2) COATS OF S-W CONFLEX XL ELASTOMERIC HIGH BUILD COATING, A5-400 SERIES (OR EQUAL).

METAL - (2) COATS OF S-W METALATEX ACRYLIC SEMI-GLOSS (B42 SERIES).

LINTELS - PAINT STOREFRONT LINTELS PER 'METAL' NOTE ABOVE WITH SHERWIN WILLIAMS 'BALANCED BEIGE' SW7037 AFTER PRIMING WITH (1) COAT OF S-W PRO INDUSTRIAL PRO-CRYL UNIVERSAL PRIMER (B66-310 SERIES).

PARKING

PARKING REQUIREMENT: 1 SPACE REQUIRED FOR EACH 300 SQUARE FEET OF FLOOR SPACE.
9,876 S.F. / 300 SF = 33 SPACES.
37 SPACES PROVIDED

ZONING

ZONED: B-2 GENERAL BUSINESS

SETBACKS: FRONT - 20'
SIDE - NONE REQUIRED EXCEPT WHERE A LOT ABUTS A RESIDENTIAL
& ZONE OR USE, A 10 FOOT SIDE AND REAR YARD SHALL BE
REAR - PROVIDED

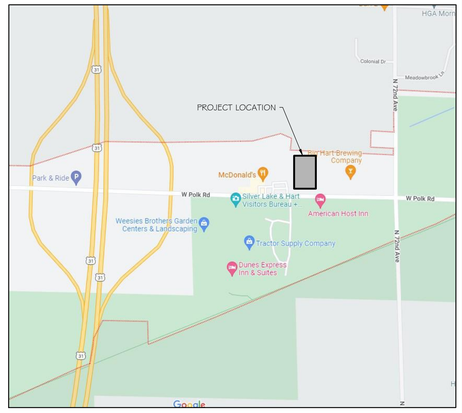
MIN. LOT AREA: N/A
MIN. LOT WIDTH: N/A
MAX. BLDG. HT.: 35'
MAX. COVERAGE: N/A

FLOOD PLAIN INFORMATION

CITY OF HART
OCEANA COUNTY, MICHIGAN
COMMUNITY NUMBER: 260484
MAP NUMBER: 26127C0150D
EFFECTIVE DATE: AUGUST 24, 2021
ZONE X

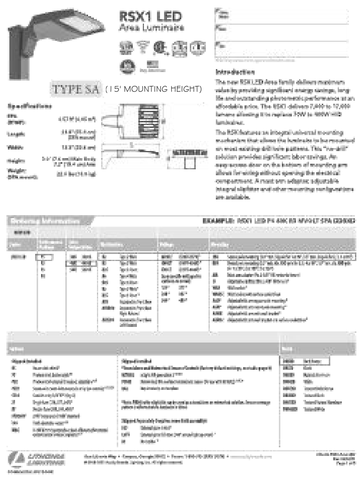
UTILITY NOTE

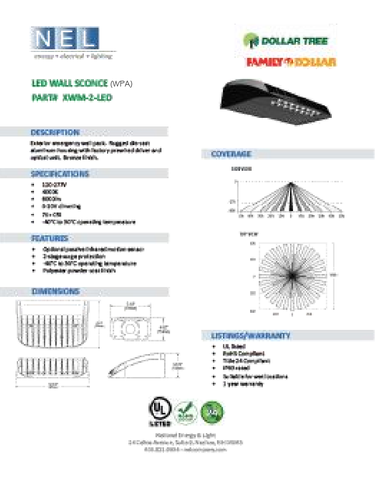
THE UTILITY LOCATIONS AS HEREON SHOWN ARE BASED ON FIELD OBSERVATIONS AND A CAREFUL REVIEW OF MUNICIPAL AND UTILITY RECORDS. HOWEVER, IT IS NOT POSSIBLE TO DETERMINE THE PRECISE SIZE, LOCATION, DEPTH, PRESSURE, OR ANY OTHER CHARACTERISTICS OF UNDERGROUND UTILITIES, TANKS OR SEPTIC FIELDS WITHOUT EXCAVATION. THEREFORE, WE CANNOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE BURIED UTILITY INFORMATION HEREON SHOWN. THE CONTRACTOR SHALL CALL MISS DIGG (1-800-482-7171) A MINIMUM OF THREE WORKING DAYS PRIOR TO ANY EXCAVATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THESE UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND MAKE EVERY EFFORT TO PROTECT AND/OR RELOCATE THEM AS REQUIRED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER/SURVEYOR AS SOON AS POSSIBLE IN THE EVENT A DISCREPANCY IS FOUND.



LOCATION MAP
SCALE: NONE









Wolgast DESIGN GROUP, LLC
ARCHITECTS • ENGINEERS
DESIGN BUILD
1494 N. GRAHAM RD. • FREELAND, MI 48623 • PH (989) 790-9120

PROPOSED NEW BUILDING FOR: DOLLAR TREE
W. POLK ROAD
HART, MICHIGAN

PRELIMINARY
NOT FOR CONSTRUCTION

REVISIONS:

DRAWN BY: N.A.F.

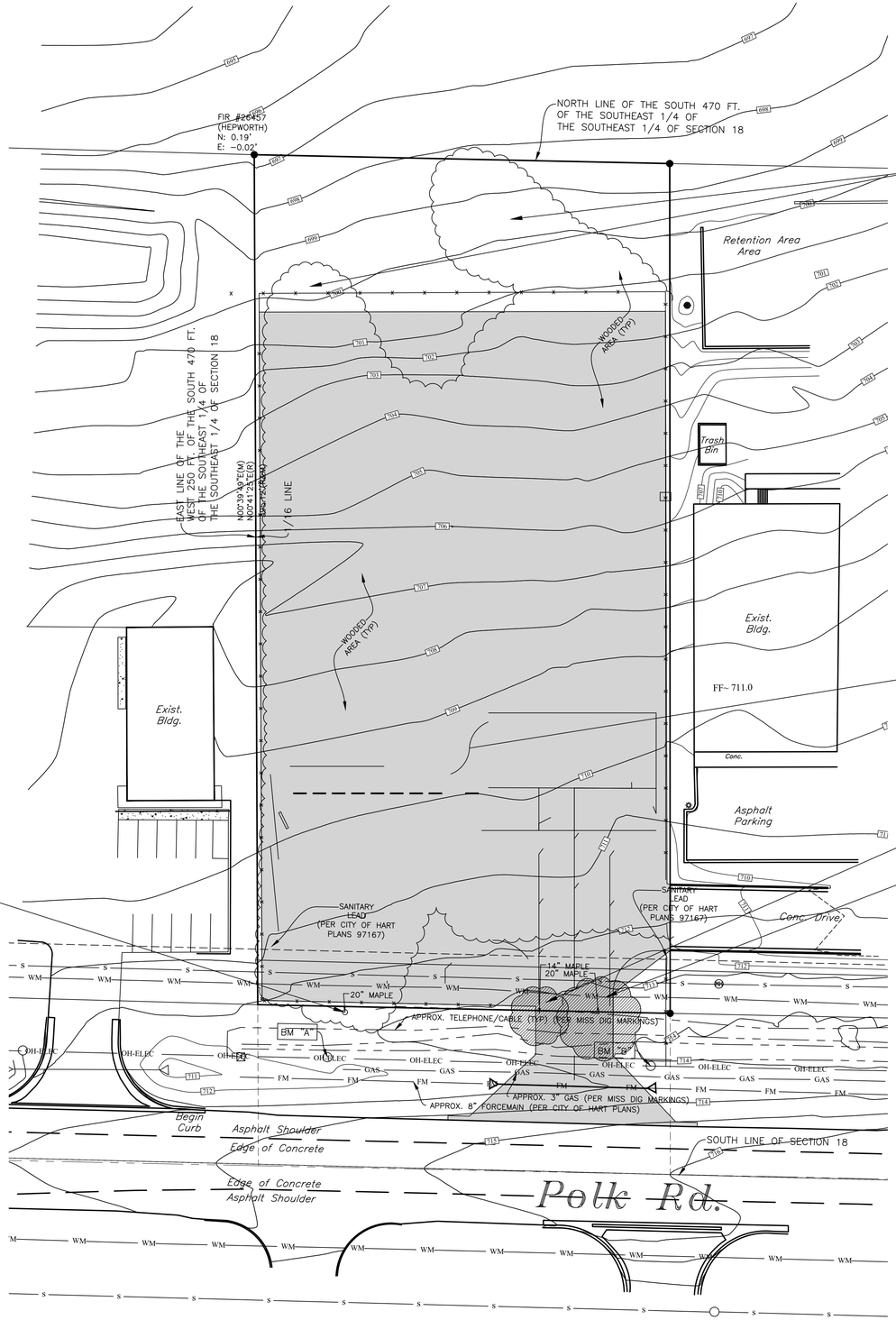
DATE: 01-24-24

PROJECT NUMBER: D23400

SHEET NUMBER: C1.00

COPYRIGHT 2024 WOLGAST DESIGN GROUP, LLC UNAUTHORIZED USE, TRANSMISSION OR REPRODUCTION OF THIS DRAWING IS PROHIBITED

Wolgast Dollar Tree
Topographic Survey & Removals



VEGETATION OUTSIDE OF BUILDING FOOTPRINT SHALL REMAIN.

CLEAR, GRUB AND REMOVE TOPSOIL OVER 63,470 S.F. TO FACILITATE CONSTRUCTION. (SHADED)

REMOVE 14" MAPLE

REMOVE 20" MAPLE

PRESERVE 20" MAPLE

0 30 60 90

WOLGAST DESIGN GROUP, LLC
ARCHITECTS • ENGINEERS
DESIGN BUILD
1494 N. GRAHAM RD. • FREELAND, MI 48623 • PH [989] 790-9120

PROPOSED NEW BUILDING FOR:
DOLLAR TREE
HART, MICHIGAN
W. POLK ROAD

PRELIMINARY
NOT FOR CONSTRUCTION

REVISIONS:

DRAWN BY: A.D.V.

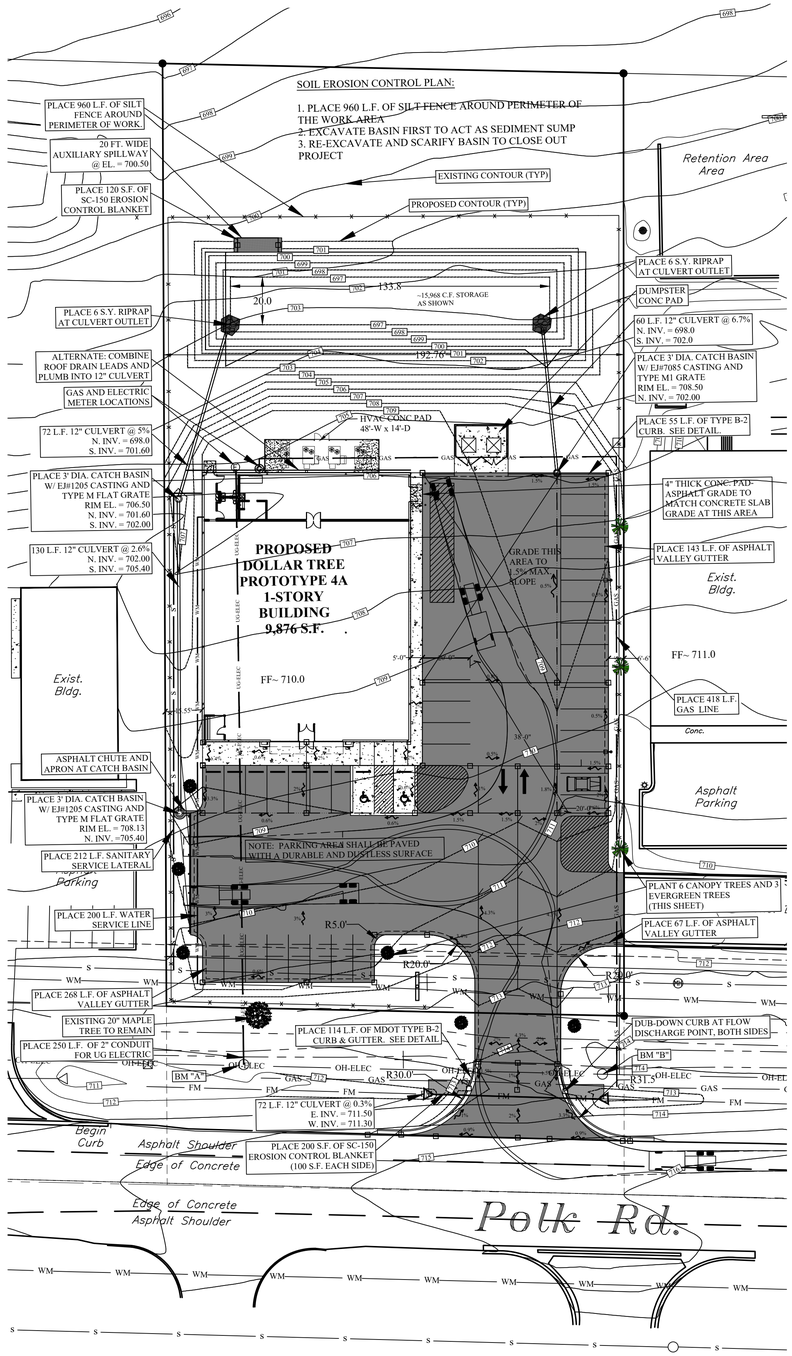
DATE: 01-24-24

PROJECT NUMBER: D23400

SHEET NUMBER: **C2.00**

© COPYRIGHT 2024 WOLGAST DESIGN GROUP, LLC UNAUTHORIZED USE, TRANSMISSION OR REPRODUCTION OF THIS DRAWING IS PROHIBITED

Wolgast Dollar Tree
Grading & Drainage Plan



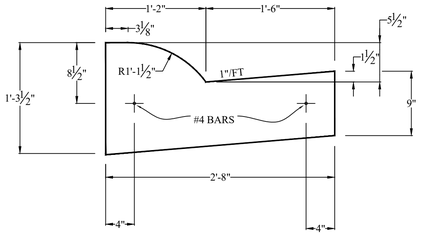
BENCHMARKS

DATUM: NAVD88
(BENCHMARKS ARE BASED OFF A CONTROL POINT THAT WAS ESTABLISHED WITH RTK GPS TIED TO MI CORS.)

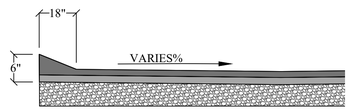
BM A:
BENCH TIE E/SIDE UTILITY POLE, 50'± NORTH FROM CENTERLINE W POLK ROAD & 33' ± EAST FROM SUBJECT'S SOUTHWEST PROPERTY CORNER.
ELEV = 713.71

BM B:
BENCH TIE E/SIDE UTILITY POLE, 50'± NORTH FROM CENTERLINE W POLK ROAD & 145' ± WEST FROM SUBJECT'S SOUTHEAST PROPERTY CORNER.
ELEV = 714.98

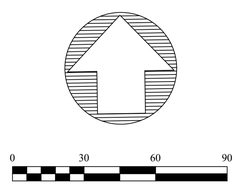
	Sq. Ft.	Acres	% AREA
TOTAL PARCEL AREA	76098	1.75	100%
BUILDING	9876	0.23	13%
ASPHALT	25208	0.58	33%
CONCRETE	2950	0.07	4%
GREENSPACE	38064	0.87	50%



MDOT TYPE B-2 CURB & GUTTER
MDOT TYPE B-2 CURB AND GUTTER



ASPHALT VALLEY GUTTER CURB / THICKENED EDGE
N.T.S.



0 30 60 90

DESIGN GROUP, LLC
ARCHITECTS • ENGINEERS
DESIGN BUILD
Wolgast
1494 N. GRAHAM RD. • FREELAND, MI 48623 • PH (989) 790-9120

DOLLAR TREE
HART, MICHIGAN

PROPOSED NEW BUILDING FOR:
W. POLK ROAD

PRELIMINARY
NOT FOR CONSTRUCTION

REVISIONS:

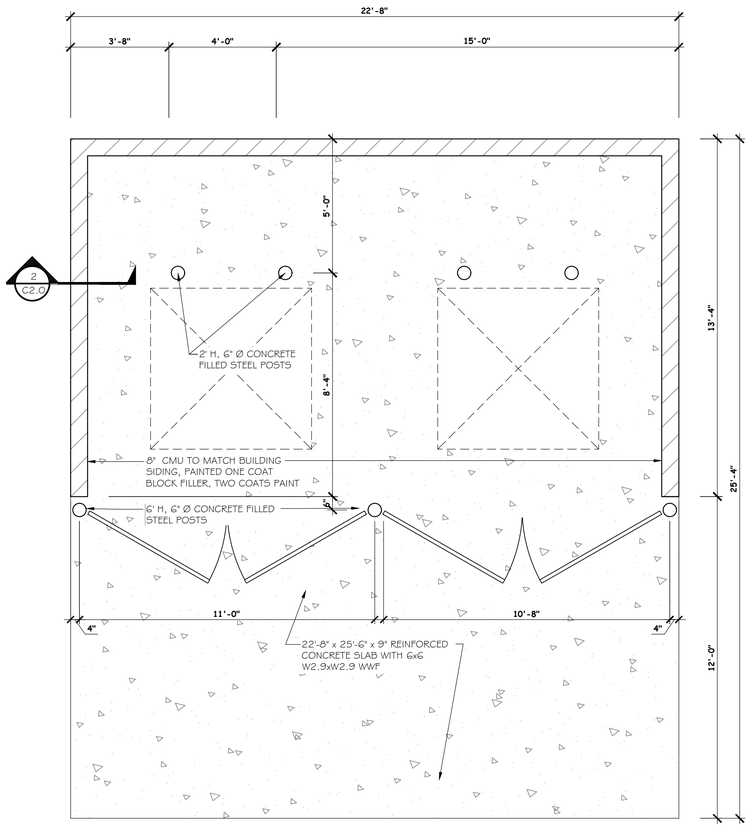
DRAWN BY: A.D.V.

DATE: 01-24-24

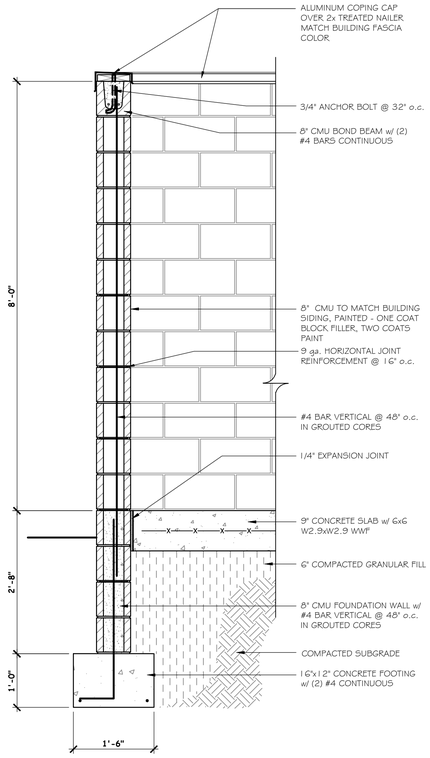
PROJECT NUMBER: D23400

SHEET NUMBER: C3.00

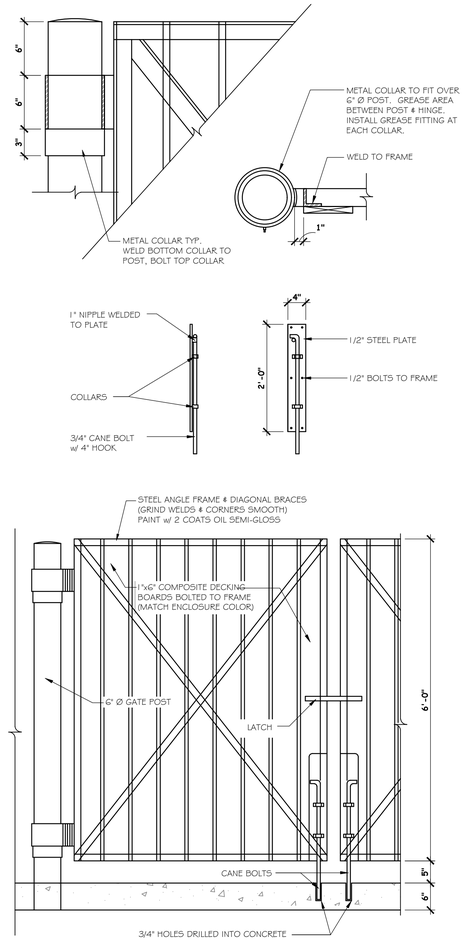
© COPYRIGHT 2024 WOLGAST DESIGN GROUP, LLC UNAUTHORIZED USE, TRANSMISSION, OR REPRODUCTION OF THIS DRAWING IS PROHIBITED



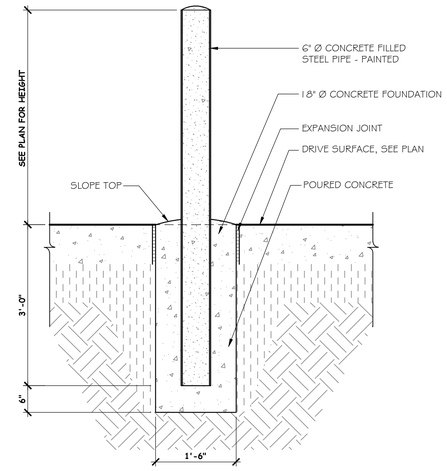
1 C2.0 **DUMPSTER ENCLOSURE PLAN**
SCALE: 3/8" = 1' - 0"



2 C2.0 **DUMPSTER ENCLOSURE SECTION**
SCALE: 3/4" = 1' - 0"



3 C2.0 **TYPICAL GATE DETAILS**
SCALE: 3/4" = 1' - 0"



4 C2.0 **TYPICAL GATE / BUMP POST DETAIL**
SCALE: 3/4" = 1' - 0"

WOLGAST DESIGN GROUP, LLC
ARCHITECTS - ENGINEERS
DESIGN BUILD
1494 N. GRAHAM RD. • FREELAND, MI 48623 • PH (989) 790-9120

PROPOSED NEW DOLLAR TREE BUILDING FOR:
W. POLK ROAD
HART, MICHIGAN

PRELIMINARY
NOT FOR CONSTRUCTION

REVISIONS:

DRAWN BY: N.A.F.

DATE: 01-24-24

PROJECT NUMBER: D23400

SHEET NUMBER: C4.00

COPYRIGHT 2024 WOLGAST DESIGN GROUP, LLC UNAUTHORIZED USE, TRANSMISSION OR REPRODUCTION OF THIS DRAWING IS PROHIBITED



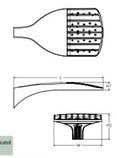
D-Series Size 0
LED Area Luminaire

Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements

Specifications

EPA: 0.44 ft² (0.04 m²)
Length: 26.18" (66.5 cm)
Width: 14.06" (35.7 cm)
Height H1: 2.26" (5.7 cm)
Height H2: 7.46" (18.9 cm)
Weight: 23 lbs (10.4 kg)



Design Select options indicated by this color background.

Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details

Ordering Information

EXAMPLE: DSX0 LED P6 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX0 LED

Series	LEDs	Color temperature*	Color Rendering Index*	Distribution	Voltage	Mounting
DSX0 LED	**Forward optics** P1 P5 P2 P6 P3 P7 P4 **Rotated optics** P10¹ P12¹ P11¹ P13¹	(this section 70CRI only) 30K 3000K 40K 4000K 50K 5000K (this section 80CRI only, extended lead times apply) 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	70CRI 70CRI 70CRI 80CRI 80CRI 80CRI 80CRI 80CRI	AFR Automotive front row T1S Type I short T2M Type II medium T3M Type III medium T3LG Type III low glare² T4M Type IV medium T4LG Type IV low glare² T5FTM Forward throw medium T5M Type V medium T5LG Type V low glare T5W Type V wide BLC3 Type III backlight control BLC4 Type IV backlight control LCCO Left corner cutoff² RCCO Right corner cutoff²	MVOLT (120V-277V)³⁴⁵ HVOLT (347V-480V)³⁴⁵ XVOLT (277V-480V)³⁴ 120 ⁴⁵⁶ 208 ⁴⁵⁶ 240 ⁴⁵⁶ 277 ⁴⁵⁶ 347 ⁴⁵⁶ 480 ⁴⁵⁶	**Shipped included** SPA Square pole mounting (4ft drilling, 3.5" min. 5Q pole) RPA Round pole mounting (4ft drilling, 3" min. RND pole) SPA5 Square pole mounting (5ft drilling, 3" min. 5Q pole) RPA5 Round pole mounting (5ft drilling, 3" min. RND pole)⁷ SPA8N Square narrow pole mounting (4ft drilling, 3" min. 5Q pole) WBA Wall bracket ⁸ MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)

Control options		Other options		Finish (required)	
Shipped installed		**Shipped installed**		DDBXD	Dark Bronze
NLTAIR2 PIRHN	nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40' mounting height, ambient sensor enabled at 25fc ⁹ ¹⁰ ¹¹	HS Houseside shield (black finish standard) ¹²		DBLXD	Black
PIR	High/low, motion/ambient sensor, 8-40' mounting height, ambient sensor enabled at 3fc ⁹ ¹⁰ ¹¹	LWA Left-rotated optics ¹		DNAXD	Natural Aluminum
PER	NEMA twist-lock receptacle only (controls ordered separate) ¹³	RWA Right-rotated optics ¹		DWHXD	White
PER5	Five-pin receptacle only (controls ordered separate) ¹³ ¹⁴	CCE Coastal Construction ¹²		DDBTXD	Textured dark bronze
		HA 50°C ambient operation ¹²		DBLBXD	Textured black
		BAA Buy American Act Compliant		DNATXD	Textured natural aluminum
		SF Single fuse (120, 277, 347V) ¹⁵		DWHGXD	Textured white
		DF Double fuse (208, 240, 480V) ¹⁵		DSSTXD	Textured sandstone
		Shipped separately			
PEST Seven-pin receptacle only (controls ordered separate) ¹³ ¹⁴		ELCW External Glare Shield (reversible, field install required, matches housing finish)			
FAO Field adjustable output ¹⁶ ¹⁷		BSDB Bird Spikes (field install required)			
BL30 Bi-level switched dimming, 30% ¹⁶ ¹⁷					
BL50 Bi-level switched dimming, 50% ¹⁶ ¹⁷					
DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ¹⁷					

© 2011-2023 Acuity Brands Lighting, Inc. All rights reserved.



ARC2 LED
Architectural Wall Luminaire

Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements

Specifications

Depth (D1): 9.25"
Depth (D2): 7.5"
Height: 5"
Width: 14"
Weight: (without options) 11 lbs

Introduction

The Lithonia Lighting ARC LED wall-mounted luminaires provide both architectural styling and visually comfortable illumination while providing the high energy savings and low initial costs for quick financial payback.

ARC2 delivers up to 6,500 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. It offers integrated emergency battery backup options, including an BW cold temperature option, making it suitable for pedestrian scale applications in any environment.

ARC LED Family Overview

Luminaire	Standard ESM, 0°C	Cold ESM, -20°C	Approximate Lumens (4000K)				
			P1	P2	P3	P4	P5
ARC1 LED	4W	--	1,500	2,000	3,000	--	--
ARC2 LED	4W	8W	1,500	2,000	3,000	4,000	6,500

Ordering Information

EXAMPLE: ARC2 LED P2 40K MVOLT PE DDBXD

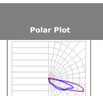
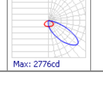
Series	Package	Color Temperature	Voltage	Options	Finish
ARC2 LED	P1 1,500 Lumens P2 2,000 Lumens P3 3,000 Lumens P4 4,000 Lumens P5 6,500 Lumens	30K 3000K 40K 4000K 50K 5000K	MVOLT 347⁴	E4WH Emergency battery backup, CEC compliant (4W, 0°C min)¹ E8WC Emergency battery backup, CEC compliant (8W, -20°C min)¹ PE Button type photocell for dusk-to-dawn operation DMG 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)² SPDMOV 6kV surge protection³ FAO Field adjustable light output device. Allows for easy adjustment to the desired light levels, from 20% to 100%⁵	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSND Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

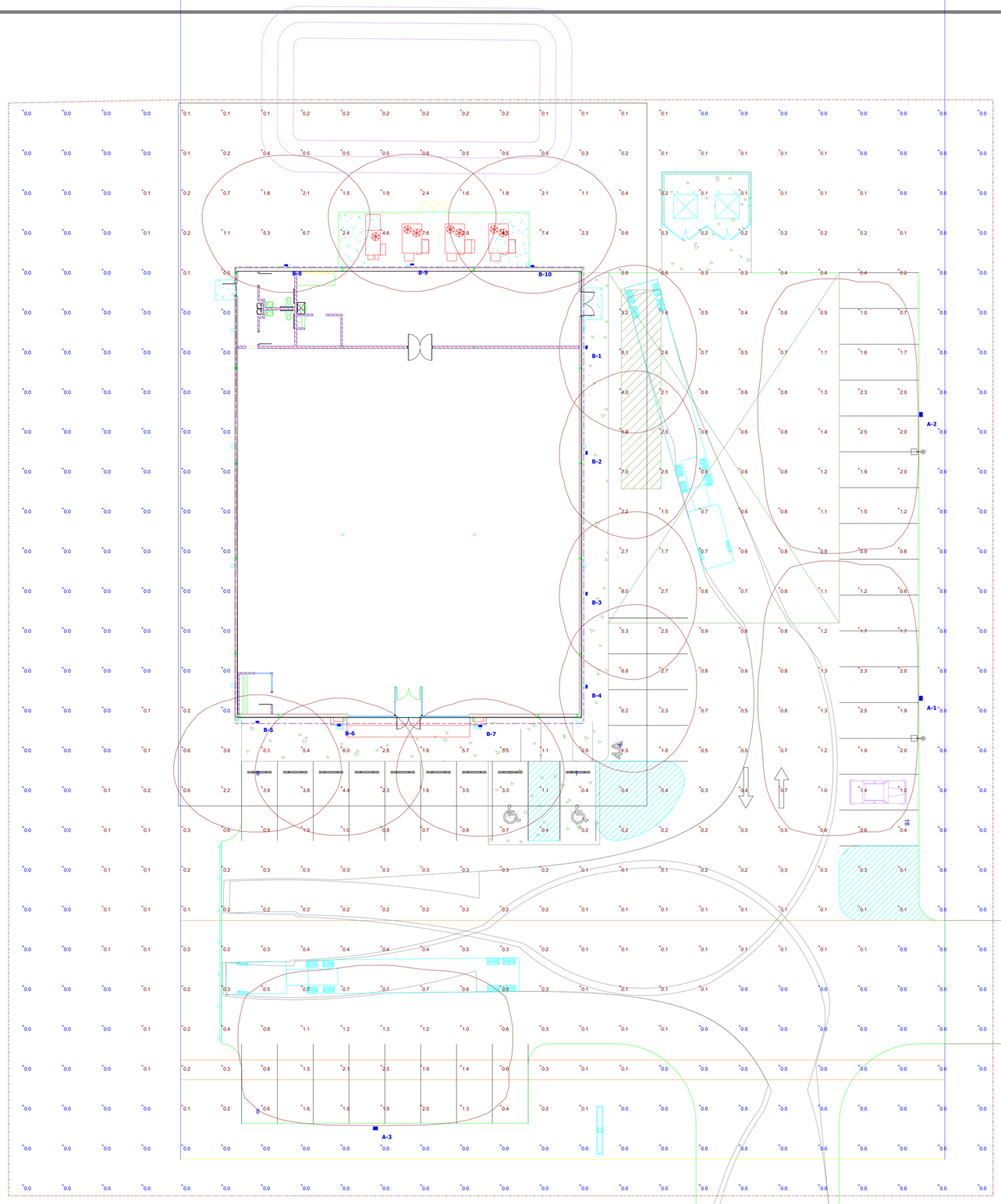
Accessories
Ordered and shipped separately.
WSBBW DDBXD U Surface - mounted back box (specify finish)

NOTES
1 347V not available with E4WH, E8WC and SPDMOV.
2 FAO not available with DMG.

© 2020-2022 Acuity Brands Lighting, Inc. All rights reserved.

Schedule

Symbol	Label	Image	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power	Polar Plot	MTG HT
	A		3	Lithonia Lighting	DSX0 LED P2 40K 70CRI BLC4	D-Series Size 0 Area Luminaire P2 Performance Package 4000K CCT 70 CRI Type 4 Extreme Backlight Control	1	4643	0.9	45.14	 Max: 4373cd	15'
	B		10	Lithonia Lighting	ARC2 LED P3 40K	ARC2 LED WITH P3 - PERFORMANCE PACKAGE, 4000K	1	3388	0.9	23.7345	 Max: 2776cd	11'



Designer

Date
01/23/2024
Scale
Not to Scale
Drawing No.

Summary