

Applicant: Peter Wentzel; Seagate Technology

Consultant: Trevor Gruys; Loucks, Inc.

Project: Seagate Technology Normandale Wafer South Building Addition and Parking Lot Improvements

Location: 7801 Computer Avenue, Bloomington, MN

Applicable Rule(s): 2, 4, 5, 11 and 12

Reviewer(s): Louise Heffernan and Bob Obermeyer; Barr Engineering Co.

General Background & Comments

The applicant proposes replacement of bituminous pavement parking areas, utility improvements, site improvements, and construction of a building addition and stormwater management facilities at the Seagate Technology Normandale Wafer South (Seagate) site located at 7801 Computer Ave in Bloomington. The 34.1-acre three-parcel site is occupied by several buildings with associated site elements and surface parking within the cities of Bloomington and Edina. The proposed work includes land-disturbing activities at the southern portion of the Seagate complex within the City of Bloomington (Bloomington). No work within the City of Edina (Edina) is proposed.

The project site is adjacent to the Border Basin, a constructed stormwater basin along the municipalities' border, which receives runoff from a large tributary upstream watershed in both Edina and Bloomington and portions of the Seagate site via storm sewer and surface conveyances. The Border Basin and adjacent properties, including the Seagate property, become inundated during large storm events, affecting the requirements on the project as discussed below.

Two permits have previously been issued by the NMCWD for work at the Seagate site. Relevant project site information is provided in the table below.

Site Information	Permit 2012-037	Permit 2017-007	Permit 2022-001	Site Aggregate Total (Includes Three Projects)
Total Site Area (acres)	34.05	34.05	34.05	34.05 ¹
Existing Site Impervious Area (acres)	26.00	26.00	26.00	26.00 ²
Change (increase/decrease) in Site Impervious Area	0	0	0	0
Percent Increase/Decrease in Impervious Surface	0	0	0	0

Disturbed & Replaced Site Impervious Area (acres)	1.20	0.01	2.66	3.87
Percent Disturbance of Existing Impervious Surface	4.62	0.04	10.24	14.89 ³
Total Disturbed Area (acres)	1.20	0.09	3.92	5.21

¹Seagate Technology Normandale Wafer includes three adjacent parcels under common or related ownership within the cities of Edina and Bloomington

²Pre-2012 project existing conditions

³Calculated based on pre-2012 project existing conditions (Rule 4.2.5)

Exhibits Reviewed:

1. Permit Application dated December 22, 2021, received January 2, 2022. Email correspondence dated January 25, 2022, outlining seven items required to complete the application. Email correspondence dated March 14, 2022, identifying two additional items required to complete the application.
2. Plans dated November 12, 2021, with the most recent revision dated February 18, 2022, prepared by Loucks, Inc.
3. Geotechnical Evaluation Report dated August 6, 2020, prepared by Braun Intertec.
4. Stormwater Management Report dated December 8, 2021, revised February 18, 2022, prepared by Loucks, Inc.
5. Electronic HydroCAD models received on January 3, 2022 (revised February 21, 2022).
6. MIDS Calculator models received on January 3, 2022 (revised February 21, 2022).
7. Market Value Analysis Email Correspondence dated December 30, 2021, prepared by Minneapolis Capital Markets Group. Email Correspondence dated March 31, 2022 and April 4, 2022, prepared by Loucks, Inc. indicating the construction cost of the proposed addition.
8. Comment Response Memorandum dated February 21, 2022, prepared by Loucks, Inc.

The application with the submittal items above is complete.

2.0 Floodplain Management and Drainage Alterations

Proposed earth work and grading for replacement of bituminous pavement parking areas, utility improvements, and construction of the building addition will take place below the 822.7 M.S.L. 100-year frequency flood elevation of the Border Basin, a constructed stormwater facility. Because the project will involve land-altering activities below the 100-year frequency flood elevation of the Border Basin, the project must conform to the requirements of the District's Floodplain Management and Drainage Alterations Rule 2.0 in accordance with Rule 2.2.1.

The Border Basin, located directly east of the site, receives runoff originating from the direct contributing area and from storm sewer inflows from adjacent subwatersheds. Surface water is detained in the basin and interconnected surface stormwater conveyances, allowing the basin

and adjacent areas to equalize to elevation 822.7 M.S.L., resulting in the inundation of surrounding areas and a portion of the site during high-water conditions.

Rule 2 criteria for floodplain and drainage alterations includes the following:

2.3.1: The low floor elevation of all new and reconstructed structures must be constructed in accordance with the NMCWD Stormwater Rule, subsection 4.3.3

The Border Basin inundates a portion of the site during the 100-year, 24-hour frequency storm event at elevation 822.7 M.S.L. Subsection 2.3.1 criteria requires at least two feet of separation between all new and reconstructed structures and the 100-year frequency flood elevation of a constructed stormwater facility.

NMCWD defines reconstruction for non-linear projects as changes, including normal maintenance and repair, addition or other improvement of building, in which the cost equals or exceeds 50 percent of the market value of the structure. The market value analysis completed by Minneapolis Capital Markets Group (MCMG) dated December 30, 2021, indicates the broker valuation of the Seagate property is estimated at approximately \$65,970,000. Loucks, Inc. provided a construction cost of \$32,000,000 for the building addition (excluding interior components specialized to Seagate's semiconductor manufacturing, and specialized mechanical, electrical and plumbing systems), an estimated 48.5% of the market value of the existing structure. Loucks, Inc. indicated the interior components excluded from the cost are operational items that are specific solely to Seagate's processes and not to be utilized by the subsequent property owner. The reconstruction cost does not equal or exceed 50 percent of the market value of the existing structure. Therefore, the project does not qualify as "reconstruction" of a building such as would subject the project to the low-floor requirement in subsection 2.3.1/4.3.3. Low floor elevation information for the proposed building addition in relation to the 100-year high water elevation on-site is discussed in the **Findings** section of this report.

The project does not include other structures (bridges or boardwalks pursuant to NMCWD Resolution No. 22-02) adjacent to the Border Basin.

2.3.2: Placement of fill below the 100-year flood elevation is prohibited unless fully compensatory flood storage is provided within the floodplain and:

- a. at the same elevation +/- 1 foot for fill in the floodplain; or*
- b. at or below the same elevation for fill in the floodplain of a water basin or constructed stormwater facility.*

The project will result in approximately 453 cubic yards of fill material placed below elevation 822.7 M.S.L., the Border Basin flood elevation. The 453 cubic yards of flood volume to be filled will be offset by 530 cubic yards of material removed from the site, creating 77 cubic yards of additional flood storage volume. Compensatory storage will be provided by underground storage pipes and two above-ground stormwater basins at the same elevation or +/- 1 foot for fill in the floodplain. Underground compensatory storage pipes range from elevations of approximately 817 M.S.L.- 818 M.S.L., and the above-ground stormwater basins for compensatory storage range from elevations of approximately 816 M.S.L.- 822.7 M.S.L. The project is in conformance with subsection 2.3.2 criteria.

2.3.3. The District will issue a permit to alter surface flows only if it finds that the alteration is not reasonably likely to have a significant adverse impact on any upstream or downstream landowner and is not reasonably likely to have a significant adverse effect on flood risk, basin or channel stability, groundwater hydrology, stream base-flow, water quality or aquatic or riparian habitat.

The project will result in an increase in the Border Basin flood storage volume on-site, thereby not adversely affecting flood risk or transferring flood risk to upstream or downstream landowners, meeting subsection 4.3.3 criteria. Currently, surface water detained in several off-site stormwater management facilities results in inundation of the northern, western, eastern, and southern portions of the site during high-water conditions. This condition will be maintained in post-development conditions, but the project will not cause these high-water conditions to be expanded onto neighboring (downstream/upstream) properties. High-water conditions will not be expanded onto neighboring properties, as the off-site drainage patterns will be maintained, the Border Basin flood storage volume will be maintained, and post-project discharge rates from the site will be less than existing for all points of collection where stormwater leaves the site (i.e. discharge from the site will not be expanded to neighboring properties).

Ultimately, stormwater runoff from the site is and will continue to be conveyed via storm sewer and surface overland flow paths to Nine Mile Creek. Channel stability, stream base-flow, water quality and aquatic or riparian habitat within the creek will not be changed and/or altered because stream baseflow conditions will not be increased as a result of the project. Post-project discharge rates from the site will be less than the existing discharge rates for all collection points where stormwater leaves the site (see Rule 4.3.1b analysis in **Section 4.0** of this report), drainage patterns will not be altered on-site, and flood storage volumes on-site will be maintained, avoiding increased flood risk to downstream landowners. The applicant provided pre- and post-project water quality modeling to demonstrate no adverse impact to water quality. The water quality modeling results demonstrate that the post-project total suspended solids (TSS) and total phosphorus (TP) pollutant loads leaving the site will be less than the existing load leaving the site (see Rule 4.3.1c analysis in **Section 4.0** of this report). Groundwater hydrology will not be changed and/or altered as part of the project. The engineer finds that the project is not reasonably likely to have significant offsite adverse impacts in conformance with Rule 2.3.3 criteria.

2.3.4 No structure may be placed, constructed, or reconstructed and no surface may be paved within 50 feet of the centerline of any water course, except that this provision does not apply to:

a. Bridges, culverts, and other structures and associated impervious surface regulated under Rule 6.0;

b. Trails 10 feet wide or less, designed primarily for nonmotorized use.

There is no water course within 50 feet of the proposed land-disturbing activities.

4.0 Stormwater Management

The District's requirements for stormwater management apply to the project because more than 50 cubic yards of material will be disturbed and 5,000 square feet or more of surface area is altered, Rules 4.2.1a and b.

The NMCWD's Rule for Redevelopment, Rule 4.2.3, states, if a proposed activity will disturb more than 50% of the existing impervious surface on the site or will increase the imperviousness of the site by more than 50%, stormwater management will apply to the entire project site. Otherwise, the stormwater requirements will apply only to the disturbed, replaced and net additional impervious surface on the project site. Because two projects have been permitted since Rule 4.2.5 took effect in 2008 (NMCWD Permits 2012-037 and 2017-007), the proposed work under the current application is considered in aggregate with activities subject to Rule 4.2.5 Common Scheme of Development.

The project activities under the current application (Permit 2022-001), considered in aggregate with the two previous projects permitted at the site, will result in a 14.9% combined disturbance, less than 50% of the existing impervious at the site, and will not increase the imperviousness at the site by more than 50% (0% combined increase). Therefore, stormwater management is required only for the disturbed areas under the current permit application, including the 2.66 acres of disturbed and reconstructed impervious surface.

Stormwater management for compliance with subsection 4.3.1 will be provided by five best management practices (BMP's), including three underground stormwater management facilities (UGSWMF's) and two surface stormwater basins to provide rate control, volume retention and water quality management for the disturbed areas of the current project.

Rule 4.3.1b requires the 2-, 10-, and 100-year post development peak runoff rates be equal to or less than the existing discharge rates for all collection points where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates. The existing and proposed 2-, 10- and 100-year frequency discharge rates from the site are summarized in the tables below.

Existing Conditions			
Drainage Area	2- year (c.f.s.)	10- year (c.f.s.)	100- year (c.f.s.)
To South: Drainage Conveyance	11.1	16.6	28.7
To West: Computer Ave	8.8	11.5	48.7
Total	19.9	28.1	77.4

Proposed Conditions			
Drainage Area	2- year (c.f.s.)	10- year (c.f.s.)	100- year (c.f.s.)
To South: Drainage Conveyance	8.8	14.0	25.3
To West: Computer Ave	4.1	5.9	8.9
Total	12.9	19.9	34.2

The proposed stormwater management plan provides rate control in compliance with the NMCWD requirements for the 2-, 10-, and 100-year events. Rule 4.3.1b is met.

The applicant has requested that the site be considered restricted under subsection 4.3.2 of the NMCWD rules. The Geotechnical Evaluation Report prepared by Braun Intertec identifies high on-site groundwater conditions, as shallow as two feet below existing grade. The geotechnical report indicates 11 borings were completed on-site in 2021 to elevations ranging from approximately 797.0 M.S.L. to 816.5 M.S.L. Groundwater was observed at various elevations within all 11 of the borings taken on the site. Soil classification from the borings indicate approximately 1 to 3 feet of fill underlain predominately by sandy lean clay (CL), peat (PT), swamp deposit and/or organic soil. Isolated locations throughout the site are underlain by silty sand (SM). The engineer concurs with the soil boring analysis identifying the presence of high groundwater and soils predominately comprised of low permeability throughout the site, supporting a determination that the site is 'restricted.'

For restricted sites, subsection 4.3.2 of requires rate control in accordance with subsection 4.3.1.a and that volume retention and water-quality protection be provided in accordance with the following priority sequence: (a) Retention of at least 0.55 inches of runoff from the regulated impervious surface and treatment of all runoff to the standard in paragraph 4.3.1c; or (b) Retention of runoff on-site to the maximum extent practicable (MEP) and treatment of all runoff to the standard in paragraph 4.3.1c; or (c) Off-site retention and treatment within the watershed to the standards in paragraph 4.3.1a and 4.3.1c. Given physical site limitations including the presence of high groundwater, predominately clayey and organic soils throughout the property, and limited existing greenspace, it is not feasible to provide retention on-site of 1.1 inches of runoff from the regulated impervious surface. Based on the site limitations, the applicant proposes underground volume retention beneath the footprint of the reconstructed parking area. The volume retention achieved by the proposed underground stormwater management facility was determined based on an iterative evaluation process and assessment of the effectiveness of the system in relation to the permeability of the soils and the footprint available within the construction limits to achieve at least 0.55 inches of runoff from the regulated impervious surface. The iterative process included evaluation of specific locations with lower groundwater elevations and soils with higher permeability within the construction limits.

In accordance with Rule 4.3.2a criteria, a retention volume of 5,315 cubic feet is required from the proposed 2.66 acres (115,970 square feet) of regulated impervious surface. The Braun Intertec geotechnical report identifies poorly graded sand with silt (SP-SM) approximately 18 feet below the parking lot surface elevation near the Computer Ave entrance (ST-101), the location of the proposed UGSWMF. The submittal indicates the soils with low permeability in area of the UGSWMF will be excavated to the depth of the SP-SM soils, removed, and backfilled with material suitable for infiltration. An infiltration rate of 0.8 inches per hour has been used for design, using infiltration rates identified in the Minnesota Storm Water Manual.

The table below summarizes the volume retention required and volume retention achieved. The proposed project is in conformance with subsection 4.3.2a.

Volume Retention Summary

Required Volume Retention Depth (inches)	Required Volume (cubic feet)	Provided Volume Retention Depth (inches)	Provided Volume (cubic feet)
0.55	5,315	0.56	5,433

With an infiltration area of 7,438 square feet provided, the volume retention is drawn down within the required 48-hours, complying with Rule 4.3.1a (ii).

Rule 4.5.4d (i) requires three feet of separation between the bottom of an infiltration facility and groundwater. The following table provides a comparison of the bottom elevation of the infiltration facility in relation to groundwater table identified near the location of the proposed UGSWMF (as identified by boring ST-101).

Stormwater Management Facility	Bottom Elevation of UGSWMF M.S.L.	Groundwater Elevation (boring ST-201) M.S.L.	Separation Provided (feet)
Infiltration Facility	819	810.5	8.5

The required three (3) feet of separation is provided between the bottom of the infiltration area and groundwater.

The District's water quality criterion requires 60% annual removal efficiency for TP and 90% annual removal efficiency for TSS from site runoff. Five BMP's will be provided to achieve the required TP and TSS removals, including two above-ground stormwater basins, two UGSWMFs for stormwater detention and one UGSWMF for infiltration. A MIDS model was used to evaluate the BMP's annual removal efficiencies. The results of this modeling are summarized in table below showing the annual TSS and TP removal requirements are achieved. We agree with the modeling results and the project is in conformance with Rule 4.3.1c criteria.

Annual TSS and TP Removal Summary

Pollutant of Interest	Regulated Site Loading (lbs./year)	Required Load Removal (lbs./year)	Provided Load Reduction (lbs./year)
Total Suspended Solids (TSS)	1,097	987 (90%)	2,136 (>100%)
Total Phosphorus (TP)	6.1	3.7 (60%)	7.5 (>100%)

Rule 4.3.3 states that all new and reconstructed buildings must be constructed such that the low floor is at least two feet above the 100-year high-water elevation or one foot above the emergency overflow of a constructed facility. Additionally, Rule 4.3.3 states that all new and reconstructed buildings must be constructed such that no opening where surface flow can enter the structure is less than two feet above the 100-year high-water elevation of an adjacent facility. As identified in **Section 2.0 Floodplain Management and Drainage Alterations** of this report, the project does not qualify as constructing new or reconstructed buildings because of the cost of the work relative to the value of the property. Additional information has been

provided in relation to the proposed building addition low floor elevation, as discussed in the **Findings** section of this report.

Rule 4.3.3 also states, a stormwater management facility must be constructed at an elevation that ensures no adjacent habitable building will be brought into noncompliance with a standard in subsection 4.3.3. The low floor elevations of the existing habitable building in relation to the proposed stormwater management facilities' 100-year high-water elevations is summarized in the table below. The proposed stormwater management facilities are in conformance with Rule 4.3.3 criteria.

Stormwater Management Facility	100-year Frequency Flood Elevation of Facility (M.S.L.)	Low Floor Elevation of Habitable Building (M.S.L.)	Low Floor Elevation Freeboard (feet)
North Stormwater Basin	818.8	823.7	4.8
South Stormwater Basin	818.9	823.7	4.8
UGSWMF for infiltration	820.8	823.7	2.9
UGSWMF for stormwater detention (west)	816.6	823.7	7.1
UGSWMF for stormwater detention (east)	816.2	823.7	7.5

In accordance with Rule 4.3.1a (i), where infiltration or filtration facilities, practices or systems are proposed, pre-treatment of runoff must be provided. Sump manholes will provide the required pretreatment of runoff, complying with Rule 4.3.1a (i).

In accordance with Rule 4.3.4, a post-project chloride management plan must be provided that will, 1) designate an individual authorized to implement the chloride-use plan and 2) designate a MPCA certified salt applicator engaged in the implementation of the chloride-use plan for the site.

Subsection 4.3.5 requires the submission of a maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed. The applicant must provide a receipt showing recordation of a maintenance declaration for the operation and maintenance of the stormwater management facilities.

5.0 Erosion and Sediment Control

The District's requirements for erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and 5,000 square feet or more of surface area is altered, Rules 5.2.1a and b.

The erosion control plan prepared by Loucks, Inc. includes installation of perimeter control (silt fence and sediment control logs), a stabilized rock construction entrance and storm sewer inlet protection.

The contractor for the project will need to designate a contact who will remain liable to the district for performance under the District's Erosion and Sediment Control Rule 5.0 from the time the permitted activities commence until vegetative cover is established, in accordance with subsection 5.4.1e. NMCWD must be notified if the responsible individual changes during the permit term.

11.0 Fees

Fees for the project are:

Rules 2.0, 4.0 and 5.0 \$4,500

12.0 Financial Assurances

Financial Assurances for the project are:

Rules 5: Perimeter Control: 2,620 L.F. x \$2.50/L.F. = \$6,550

Inlet Protection: 15 x \$100 = \$1,500

Site Restoration: 3.9 acres x \$2,500/acre = \$9,750

Rule 4: Stormwater Management Facilities: 1,661 S.F. X \$12/S.F.= \$19,932

Chloride Management Plan: \$5,000..... \$5,000

Contingency and Administration \$16,268

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rules 4 and 5 with the fulfillment of the conditions identified below.
3. The proposed stormwater management facilities will provide rate control and water quality management in accordance with subsections 4.3.1b and 4.3.1c criteria, and volume retention in accordance with subsection 4.3.2a criteria.
4. In accordance with NMCWD Rule 4.3.5, the applicant must provide a maintenance and inspection plan that identifies and protects the design, capacity and functionality of the stormwater management facilities, and record the plan in a declaration on the property title.
5. The Border Basin, located directly east of the Seagate Technology Normandale Wafer site, receives runoff originating from the direct contributing area and from storm sewer inflows from adjacent subwatersheds. Surface water is detained in the basin and interconnected surface stormwater conveyance paths, allowing the basin and adjacent areas to equalize during flood events, elevation 822.7 M.S.L. The 100-year high-water elevation of the Border Basin inundates a portion of the site during high-water conditions. The project proposes a building addition with a low floor elevation. Because information submitted by Louck's Inc. indicates the cost of the building addition does not equal or exceed 50 percent of the market value of the structure, there are no new or reconstructed structures requiring compliance with the low floor elevation requirements pursuant to Rule 2.3.1 or 4.3.3 criteria. The project will not provide two feet of separation between the on-site 100-year high water elevation (822.7 M.S.L.) and the low floor elevation of the proposed addition (823.7 M.S.L.) or low opening elevations. The submittal indicates that flood risk reduction for the building addition will be provided by the following measures:
 - a) The low opening door entrances on the south side of the proposed addition will incorporate entrance ramps to raise the low openings to elevation 824.7 M.S.L., approximately two feet above the 100-year high water elevation on-site.

- b) The low opening entrances on the east and west sides of the proposed addition will not provide two feet of separation between the low opening elevations and the 100-year high water elevation on-site. The east entrance doors will be protected by a retaining wall and/or a flood barrier (to be deployed in the event of a flood).
- c) All low opening entrances proposed at the building addition will incorporate exterior doors fitted with enhanced door hardware to minimize seepage into the building addition during a flood event.

Recommendation

Approval, contingent upon:

Continued compliance with the General Provisions (attached).

Financial Assurance in the amount of \$59,000, \$54,000 for stormwater management, erosion control, and site restoration, and \$5,000 for compliance with the chloride management requirements.

The applicant providing a name and contact information for the individual responsible for the erosion and sediment control at the site. NMCWD must be notified if the responsible individual changes during the permit term.

Per Rule 4.3.5, a receipt showing recordation of a maintenance declaration for the operation and maintenance of the stormwater management facilities. A draft of the declaration must be approved by the District prior to recordation.

By accepting the permit, when issued, the applicant agrees to the following stipulations for closeout of the permit and release of the financial assurance after the project:

Per Rule 4.5.6, an as-built drawing of the floodplain mitigation areas conforming to the design specifications as approved by the District.

Per Rule 4.5.8, an as-built drawing of the stormwater management facilities conforming to the design specifications is required to be provided, including stage volume relationships in tabular form.

The work for the Seagate Technology Normandale Wafer building addition and site improvements project under the terms of Permit 2022-001, if issued, must have an impervious surface area and configuration materially consistent with the approved plans. Design that differs materially from the approved plans (e.g., in terms of the total impervious area, stormwater management or floodplain storage volume) will need to be the subject of a request for a permit modification or new permit, which will be subject to review for compliance with all applicable regulatory requirements.

Submission of a plan for post-project management of Chloride use on the site. The plan must include 1) the designation of an individual authorized to implement the chloride use plan and 2) the designation of a Minnesota Pollution Control Agency certified salt applicator engaged in the implementation of the chloride-use plan for the site. The release of the \$5,000 of the financial assurance required for the chloride-management plan requires that chloride-management plan has been provided and approved by the District's Administrator.

Per Rule 12.4.1b, demonstration and confirmation that the underground stormwater management facility for volume retention has been constructed or installed and is functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing the stormwater management facility used for volume retention has drawn down within 48 hours from the completion of two 0.55-inch (approximate) separate rainfall events.



CALL BEFORE YOU DIG
Gopher State One Call
TWIN CITY AREA: 651-454-0002
TOLL FREE: 1-800-252-1166

WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND / OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

SITE DATA

CURRENT ZONING: IT - INNOVATION AND TECHNOLOGY
PROPOSED ZONING: IT - INNOVATION AND TECHNOLOGY

DISTURBED AREA: 4.010 AC
EXISTING IMPERVIOUS AREA: 3.102 AC
PROPOSED IMPERVIOUS AREA: 2.662 AC

DEVELOPMENT AND DESIGN STANDARDS

YARD (BUILDING) SETBACKS:
FRONT 20 FT MINIMUM
SIDE 25 FT MINIMUM
SIDE (RESIDENTIAL) 50 FT MINIMUM
REAR 25 FT MINIMUM

OFF-STREET PARKING AND DESIGN STANDARD REQUIREMENTS

OFF-STREET PARKING SETBACKS:
FRONT 20 FT MINIMUM
SIDE 5 FT MINIMUM

MINIMUM PARKING LAYOUT DIMENSIONS (90 DEGREE PATTERN):

PARKING SPACE WIDTH = 9 FT
PARKING SPACE LENGTH = 18 FT
DRIVE LANE WIDTH = 24 FT

SITE NOTES

- ALL PAVING, CONCRETE CURB, GUTTER AND SIDEWALK SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DETAILS SHOWN PER THE DETAIL SHEET(S) AND STATE/LOCAL JURISDICTION REQUIREMENTS.
- ACCESSIBLE PARKING AND ACCESSIBLE ROUTES SHALL BE PROVIDED PER CURRENT ADA STANDARDS AND LOCAL/STATE REQUIREMENTS.
- ALL CURB DIMENSIONS SHOWN ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF WALL UNLESS OTHERWISE NOTED.
- TYPICAL FULL SIZED PARKING STALL IS 9' X 18' UNLESS OTHERWISE NOTED.
- ALL CURB RADI SHALL BE 5.0' UNLESS OTHERWISE NOTED.
- BITUMINOUS IMPREGNATED FIBER BOARD TO BE PLACED AT FULL DEPTH OF CONCRETE ADJACENT TO EXISTING STRUCTURES AND BEHIND CURB ADJACENT TO DRIVEWAYS AND SIDEWALKS.
- SEE SITE ELECTRICAL PLAN FOR SITE LIGHTING.
- REFER TO THE GEOTECHNICAL EVALUATION REPORT (REPORT NO. B2004036), DATED AUGUST 6, 2020, AS PREPARED BY BRAUN INTERTEC FOR AN EXISTING SUBSURFACE SITE CONDITION ANALYSIS AND CONSTRUCTION RECOMMENDATIONS INCLUDING BUT NOT LIMITED TO:
 - REUSE OF ON-SITE SOILS.
 - GROUNDWATER REMOVAL IS ANTICIPATED.
 - SITE GRADING AND SUBGRADE PREPARATION.
 - PAVEMENTS AND EXTERIOR SLABS.
 - TRENCH EXCAVATION AND BACKFILL.
 - FROST PROTECTION.

SIGNAGE AND STRIPING NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SITE SIGNAGE AND STRIPING AS SHOWN ON THIS PLAN.
- CONTRACTOR SHALL PAINT ALL ACCESSIBLE STALLS, LOGOS AND CROSS HATCH LOADING AISLES WITH WHITE PAVEMENT MARKING PAINT, 4" IN WIDTH.
- CONTRACTOR SHALL PAINT ANY/ALL DIRECTIONAL TRAFFIC ARROWS, AS SHOWN, IN WHITE PAINT.
- ALL SIGNAGE SHALL INCLUDE POST, CONCRETE FOOTING AND STEEL CASING WHERE REQUIRED.
- ALL SIGNAGE NOT PROTECTED BY CURB, LOCATED IN PARKING LOT OR OTHER PAVED AREAS TO BE PLACED IN STEEL CASING, FILLED WITH CONCRETE AND PAINTED YELLOW. REFER TO DETAIL.
- ANY/ALL STOP SIGNS TO INCLUDE A 24" WIDE PAINTED STOP BAR IN WHITE PAINT, PLACED AT THE STOP SIGN LOCATION, A MINIMUM OF 4' FROM CROSSWALK IF APPLICABLE. ALL STOP BARS SHALL EXTEND FROM DIRECTIONAL TRANSITION BETWEEN LANES TO CURB.
- ALL SIGNS TO BE PLACED 18" BEHIND BACK OF CURB UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION AND POST-CONSTRUCTION PARKING AND STORAGE OF EQUIPMENT AND MATERIALS MUST BE ON-SITE. USE OF PUBLIC STREETS FOR PRIVATE CONSTRUCTION PARKING, LOADING/UNLOADING, AND STORAGE WILL NOT BE ALLOWED.



0 50 100
SCALE IN FEET

NOTE:
EXISTING CONDITIONS
INFORMATION SHOWN IS FROM
A TOPO SURVEY PREPARED BY
SEH AND DATED DECEMBER, 2021.

PAVEMENT TYPES

CONCRETE SIDEWALK
CONCRETE PAVEMENT
HEAVY DUTY BITUMINOUS PAVEMENT
MILL & OVERLAY BITUMINOUS PAVEMENT

NOTE:
SEE PAVEMENT SECTIONS ON SHEET 250.CD AND 251.CD
FOR TYPE AND DEPTH INFORMATION.

CIVIL LEGEND

EXISTING	PROPOSED



SEAGATE
TECHNOLOGY -
NORMANDEALE
WAVER SOUTH
ADDITION

B | W | B | R

380 St. Peter Street, Ste. 600
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Name: *Tommy D. Gray, PE*

Date: 12-15-2021 Lic./Reg. No. 53706

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Item	Date
SD ISSUE	11-01-2021
PRE-APPLICATION DRC ISSUE	11-17-2021
PROGRESS SET	11-24-2021
CITY SUBMITTAL	12-08-2021
BP-01 CD ISSUE	12-15-2021
BP-01 AD-01	12-23-2021
WATERSHED SUBMITTAL	01-03-2022
CITY RESUBMITTAL	01-10-2022
BP-01 PERMIT SET	02-18-2022

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