

October 20, 2023

VIA HAND & ELECTRONIC DELIVERY

Ms. Vineeta Mathur
Principal Planner, Land Use Bureau
City of Stamford
888 Washington Boulevard
Stamford, CT 06901
VMathur@StamfordCT.gov

Re: Site Plan and Special Permit Application
375 Fairfield Avenue, Stamford, CT (Parcel ID 001-3193)
375 Fairfield Avenue Associates

Dear Ms. Mathur:

Our firm represents 375 Fairfield Avenue Associates (the “Applicant”), the owner of 375 Fairfield Avenue, Stamford, CT (the “Property”). The Property is located in the General Industrial (M-G) zone and Master Plan Category 13 (Industrial – General). It is 9.38± acres and improved with eight (8) buildings with a total of 176,714± sf of floor area.

The Applicant proposes to construct two (2) new warehouse/flex industrial/commercial buildings on the Property. Proposed Building A will consist of three (3) stories and contain approximately 54,156± square feet of warehouse/flex industrial/commercial space. Approximately 1,044± sf of additional floor area will be built to accommodate a fast casual food service tenant that is complementary to the anticipated use. Proposed Building B will consist of a one (1) story, including an optional mezzanine, and contain approximately 39,980± square feet of warehouse/flex industrial/commercial space. To facilitate this proposal, the Applicants request from the Zoning Board (1) site plan approval and (2) special permit approval of a large scale development.

In connection with the application, enclosed please find:

- Letter of Authority from the Applicant;
- Application fees in the amount of \$3,740, representing the application filing and public hearing fees;
- Twenty-one (21) copies of the following application forms and associated schedules:
 - Application for Site Plan Approval;
 - Application for Special Permit Approval;
 - Schedule A – List of Plans;

- Schedule B – Project Narrative;
- Schedule C – Statement of Findings;
- Schedule D – Property Description;
- Schedule E – Zoning Data Chart; and
- Schedule F – Existing Zoning Map and Aerial Photo of Property;
- Eight (8) full-size and thirteen (13) reduced-size copies of the following plans:
 - Architectural Plans prepared by Jason Little Architects, PLLC, dated October 4, 2023, with the plan titles listed on Schedule A;
 - Civil Plans prepared by D’Andrea Surveying & Engineering, P.C., dated October 4, 2023, with the plan titles listed on Schedule A;
 - Zoning Location Survey prepared by D’Andrea Surveying & Engineering, P.C., dated October 4, 2023, entitled “Zoning Location Survey;”
 - Average Grade Worksheet prepared by D’Andrea Surveying & Engineering, P.C., dated October 4, 2023, with the plan titles listed on Schedule A; and
 - Landscape Plan prepared by Environmental Land Solutions, LLC, dated October 9, 2023, with the plan titles listed on Schedule A;
- Three (3) copies of the Drainage Study prepared by D’Andrea Surveying & Engineering, P.C., dated October 4, 2023, entitled “Drainage Summary Report;”
- Nine (9) copies of the Traffic Impact Study prepared by SLR International Corporation, dated October 20, 2023, entitled “Traffic Impact Study;”¹ and
- Twenty-one (21) copies of the first submission of the Stamford Sustainability Scorecard.

Please let me know if you have any questions or require additional materials. As always, thank you for your time and attention regarding this matter.

Sincerely,



William J. Hennessey, Jr.

Enclosures.

cc: R. Blessing
375 Fairfield Avenue Associates
Jason Little Architects, PLLC
D’Andrea Surveying & Engineering, P.C.
Environmental Land Solutions, LLC
SLR International Corporation

¹A Parking and Traffic Demand Management Plan prepared by SLR International Corporation will be provided under separate cover.

September 28, 2023

Vineeta Mathur
Principal Planner, Land Use Bureau
City of Stamford
888 Washington Blvd.
Stamford, CT 06901

**Re: 375 Fairfield Avenue Associates
Land Use Applications
375 Fairfield Avenue (the "Property")**

Dear Ms. Mathur:

375 Fairfield Avenue Associates is the owner of the above-captioned Property. Please consider this letter as written confirmation that the undersigned has authorized the attorneys of Carmody Torrance Sandak & Hennessey, LLP, with offices located at 1055 Washington Boulevard, Stamford, Connecticut 06901, to file the enclosed land use applications with the City of Stamford on its behalf in connection with the Property. Thank you for your acknowledgement of said authority.

Sincerely,

375 Fairfield Avenue Associates

Jeff Goldblum, managing member



By:

Duly Authorized



APPLICATION FOR APPROVAL OF SITE & ARCHITECTURAL PLANS AND / OR REQUESTED USES

Complete, notarize, and forward **thirteen (13) hard copies and one (1) electronic copy in PDF format** to Clerk of the Zoning Board with a **\$1,000.00 Public Hearing Fee** and the required application filing fee (see **Fee Schedule below**), payable to the City of Stamford.

NOTE: Cost of required Public Hearing advertisements are payable by the Applicant and performance of required mailing to surrounding property owners is the sole responsibility of the applicant. **LAND RECORDS RECORDING FEE:** \$60.00 for First page - \$5.00 for each additional page)

Fee Schedule –WITHOUT GDP

Site Plans 20,000 sq. ft. or less of building area application fee –without GDP	\$460.00
Site Plans more than 20,000 sq. ft. of building area-application Fee –without GDP	\$460.00 + \$30 per 1,000 sq. ft. or portion thereof in excess of 20,000 sq. ft.

Fee Schedule –WITH GDP

Site Plans 20,000 sq. ft. or less of building area application fee –with GDP.	\$260.00
Site Plans more than 20,000 sq. ft. of building area-application Fee –with GDP.	\$260.00 + \$10 per 1,000 sq. ft. or portion thereof in excess of 20,000 sq. ft.

APPLICANT NAME (S): 375 Fairfield Avenue Associates
 c/o Agent: William J. Hennessey, Carmody Torrance Sandak & Hennessey LLP, 1055 Washington Blvd., 4th Fl., Stamford, CT 06901

APPLICANT ADDRESS: _____

APPLICANT PHONE #: c/o Agent: William J. Hennessey, Carmody Torrance Sandak & Hennessey LLP, (203) 425-4200

IS APPLICANT AN OWNER OF PROPERTY IN THE CITY OF STAMFORD? Yes

LOCATION OF PROPERTY IN STAMFORD OWNED BY APPLICANT (S): 375 Fairfield Avenue

ADDRESS OF SUBJECT PROPERTY: 375 Fairfield Avenue

PRESENT ZONING DISTRICT: M-G

TITLE OF SITE PLANS & ARCHITECTURAL PLANS: See Schedule A

REQUESTED USE: Warehouse/Industrial and Restaurant, Carry-Out, consistent with the uses allowed in the M-G Zone

LOCATION: (Give boundaries of land affected, distance from nearest intersecting streets, lot depths and Town Clerk's Block Number)

See Schedule D

NAME AND ADDRESS OF OWNERS OF ALL PROPERTY INVOLVED IN REQUEST:

<u>NAME & ADDRESS</u>	<u>LOCATION</u>
375 Fairfield Avenue Associates PO BOX 110422 STAMFORD, CT 06911-0422	375 Fairfield Avenue

DOES ANY PORTION OF THE PREMISES AFFECTED BY THIS APPLICATION LIE WITHIN 500 FEET OF THE BORDER LINE WITH GREENWICH, DARIEN OR NEW CANAAN? No (If yes, notification must be sent to Town Clerk of neighboring community by registered mail within 7 days of receipt of application – PA 87-307).

DOES THE PROJECT RESULT IN THE CREATION OF 10 OR MORE UNITS OR 10,000 SF OR MORE IN FLOOR AREA OR DISTURBANCE OF 20,000 SF OR MORE IN LAND AREA, THROUGH NEW DEVELOPMENT, RECONSTRUCTION, ENLARGEMENT OR SUBSTANTIAL ALTERATIONS? Yes (If yes, then complete the Stamford Sustainability Scorecard per Section 15.F).



DATED AT STAMFORD, CONNECTICUT, THIS 20th DAY OF October 2023

SIGNED: [Signature]
William J. Hennessey, Jr

NOTE: The application cannot be scheduled for public hearing until 35 days have elapsed from the date of referral to the Stamford Planning Board. If applicant wishes to withdraw the application, this must be done in writing, and be received by the Zoning Board at least three (3) working days prior to public hearing in order to provide sufficient time to publicize the withdrawal. Applications withdrawn less than three (3) days prior to a schedule hearing date will not be rescheduled within 90 days.

STATE OF CONNECTICUT ss STAMFORD October 20 2023
 COUNTY OF FAIRFIELD

Personally appeared William J. Hennessey, Jr., signer of the foregoing application, who made oath to the truth of the contents thereof, before me.

[Signature]
Daniel Chapple Notary Public - Commissioner of the Superior Court

FOR OFFICE USE ONLY

APPL. #: _____ Received in the office of the Zoning Board: Date: _____

By: _____



APPLICATION FOR SPECIAL PERMIT

Complete, notarize, and forward **thirteen (13) hard copies and (1) electronic copy in PDF format** to Clerk of the Zoning Board with a **\$1,000.00 Public Hearing Fee** and the required application filling fee (**see Fee Schedule below**), payable to the City of Stamford.

NOTE: Cost of required advertisements are payable by the Applicant and performance of required mailing to surrounding property owners is the sole responsibility of the applicant. **LAND RECORDS RECORDING FEE:** \$60.00 for First page - \$5.00 for each additional page)

Fee Schedule

Special Permit 20,000 sq. ft. or less	\$460.00
Special Permit more than 20,000 sq. ft.	\$460.00 + \$30 per 1,000 sq. ft. or portion thereof in excess of 20,000 sq. ft.

APPLICANT NAME (S): 375 Fairfield Avenue Associates
 c/o Agent: William J. Hennessey, Carmody Torrance Sandak & Hennessey LLP, 1055 Washington Blvd., 4th Fl., Stamford, CT 06901

APPLICANT ADDRESS: _____

APPLICANT PHONE #: c/o Agent: William J. Hennessey, Carmody Torrance Sandak & Hennessey LLP, (203) 425-4200

IS APPLICANT AN OWNER OF PROPERTY IN THE CITY OF STAMFORD? Yes

LOCATION OF PROPERTY IN STAMFORD OWNED BY APPLICANT (S): 375 Fairfield Avenue

ADDRESS OF SUBJECT PROPERTY: 375 Fairfield Avenue

PRESENT ZONING DISTRICT: M-G

TITLE OF SITE PLANS & ARCHITECTURAL PLANS: See Schedule A

REQUESTED SPECIAL PERMIT: (Attach written statement describing request)
Approval of a Large Scale Development - See Schedules B and C

LOCATION: (Give boundaries of land affected, distance from nearest intersecting streets, lot depths and Town Clerk's Block Number)
See Schedule D

NAME AND ADDRESS OF OWNERS OF ALL PROPERTY INVOLVED IN REQUEST:

<u>NAME & ADDRESS</u>	<u>LOCATION</u>
375 Fairfield Avenue Associates PO BOX 110422 STAMFORD, CT 06911-0422	375 Fairfield Avenue

DOES ANY PORTION OF THE PREMISES AFFECTED BY THIS APPLICATION LIE WITHIN 500 FEET OF THE BORDER LINE WITH GREENWICH, DARIEN OR NEW CANAAN? No (If yes, notification must be sent to Town Clerk of neighboring community by registered mail within 7 days of receipt of application – PA 87-307).

DOES THE PROJECT RESULT IN THE CREATION OF 10 OR MORE UNITS OR 10,000 SF OR MORE IN FLOOR AREA OR DISTURBANCE OF 20,000 SF OR MORE IN LAND AREA, THROUGH NEW DEVELOPMENT, RECONSTRUCTION, ENLARGEMENT OR SUBSTANTIAL ALTERATIONS? Yes (If yes, then complete the Stamford Sustainability Scorecard per Section 15.F).



DATED AT STAMFORD, CONNECTICUT, THIS 20 DAY OF October 20 23

SIGNED: [Signature]
William J. Hennessey, Jr.

NOTE: Application cannot be scheduled for Public Hearing until 35 days have elapsed from the date of referral to the Stamford Planning Board. If applicant wishes to withdraw application, please notify the Zoning Board at least three (3) days prior to Public Hearing so that the Board may have sufficient time to publicize the withdrawal.

STATE OF CONNECTICUT
 ss STAMFORD October 20 20 23
 COUNTY OF FAIRFIELD

Personally appeared William J. Hennessey, Jr. signer of the foregoing application, who made oath to the truth of the contents thereof, before me.

[Signature]
Daniel Chapple Notary Public - Commissioner of the Superior Court

FOR OFFICE USE ONLY

APPL. #: _____ Received in the office of the Zoning Board: Date: _____

By: _____

Schedule A
List of Plans

- Architectural Plans prepared by Jason Little Architects, PLLC, dated October 4, 2023, entitled:
 - “A-1: Cover Sheet;”
 - “A-2: Sketch Renderings – Building A;”
 - “A-3: Sketch Renderings – Building B;”
 - “A-4: Material Selections;”
 - “A-5: Bldg. A – Exterior Elevations;”
 - “A-6: Bldg. B – Exterior Elevations;”
 - “A-7: Building Sections;”
 - “A-8: Bldg. A – Cellar Plan;”
 - “A-9: Bldg. A – 1st Floor Plan;”
 - “A-10: Bldg. A – 2nd Floor Plan;”
 - “A-11: Bldg. A – 3rd Floor Plan;”
 - “A-12: Bldg. A – Roof Plan;”
 - “A-13: Bldg. B – 1st Floor & Mezzanine Plan;” and
 - “A-14: Bldg. B – Roof Plan;”
- Civil Plans prepared by D’Andrea Surveying & Engineering, P.C., dated October 4, 2023, entitled:
 - “Topographic Survey – ‘Existing Conditions’;”
 - “C-1.1: Building ‘A’ Site Grading Plan;”
 - “C-1.2: Building ‘B’ Site Grading Plan;”
 - “C-2.1: Building ‘A’ Drainage and Utility Plan;”
 - “C-2.2: Building ‘B’ Drainage and Utility Plan;”
 - “C-3.1: Building ‘A’ Sedimentation and Erosion Control Plan;”
 - “C-3.2: Building ‘B’ Sedimentation and Erosion Control Plan;”
 - “C-4.1: Notes and Details;”
 - “C-4.2: Details;” and
 - “C-5.0: Low-Impact Development Plan;”
- Zoning Location Survey prepared by D’Andrea Surveying & Engineering, P.C., dated October 4, 2023, entitled “Zoning Location Survey;”
- Average Grade Worksheet prepared by D’Andrea Surveying & Engineering, P.C., dated October 4, 2023, entitled:
 - “Building ‘A’ Proposed Average Grade Worksheet;” and
 - “Building ‘B’ Proposed Average Grade Worksheet;”
- Landscape Plan prepared by Environmental Land Solutions, LLC, dated October 9, 2023, entitled:
 - “LP.1 – Landscape Plan;” and
 - “LP.2 – Landscape Plan;”
- Drainage Study prepared by D’Andrea Surveying & Engineering, P.C., dated October 4, 2023, entitled “Drainage Summary Report;” and
- Traffic Impact Study prepared by SLR International Corporation, dated October 20, 2023, entitled “Traffic Impact Study;” and
- First submission of the Stamford Sustainability Scorecard.

Schedule B **Project Narrative**

375 Fairfield Avenue Associates (the “Applicant”) requests Site Plan and Special Permit approvals to facilitate the development of two (2) new buildings at 375 Fairfield Avenue (the “Property”).

I. The Applicant

The Applicant has owned the Property since 1985 and is affiliated with Waterside Property Group, a Stamford-based, family-owned real estate investment, development, and management firm. Waterside Property Group has served the Stamford community for more than 50 years and owns and manages more than 850,000 sf of property in southern Connecticut. As detailed below, for the past 38 years, the Applicant has maintained the existing structures on the Property and attracted a unique mix of industrial and mercantile tenants.

II. The Property & Existing Uses

The Property is 9.38± acres and located in the General Industrial (M-G) zone and Master Plan Category 13 (Industrial – General). It is generally bounded by the Metro-North Railroad to the west and north, Fairfield Avenue to the east, and other industrial properties to the south. The Property is improved with eight (8) buildings with a total of 176,714± sf of Floor Area. The buildings were constructed in the 1930s and have been used as warehouse/flex industrial/commercial space for a variety of tenants. Currently, the Property is home to companies in the fields of printing, truck rentals, roofing, flooring, HVAC supply, medical equipment storage, delivery, restaurant storage, and home improvement. Located in the Stamford Waterside Design District, the Property is also home to a variety of design tenants including kitchen cabinet suppliers as well as wholesale companies that sell items including carpet, fabrics, wall coverings, and furniture to builders, architects, and designers. Notably, these items are sold predominantly to-the-trade.

The eastern portion of the Property consists of a mixture of compacted gravel and paved parking areas, which is rented out to automobile dealerships to park surplus car inventory and seasonally for winter boat storage. A portion of land in the center of the Property consists of a large concrete slab surrounded by paved driveway and parking areas. A 70,000± square foot industrial warehouse once sat on this slab, which housed companies such as Union Industries, Abbot Coin, and various smaller industrial users. In the early 1990s, the building became functionally obsolete beyond repair and had to be demolished. Since then, the slab has been leased to landscapers, car dealerships, and container rental companies, and used for tractor trailer storage.

III. Description of Proposed Development

The Applicant proposes to build two (2) new warehouse/flex industrial/commercial buildings on the Property, which will be marketed toward similar industrial and design tenants. Proposed Building A will consist of three (3) stories and contain approximately 54,156± square feet of warehouse/flex industrial/commercial space. Approximately 1,044± sf of additional Floor

Area will be built to accommodate a fast casual food service tenant that is complementary to the other proposed uses. The roof will contain approximately 4,338± square feet of outdoor space that can support a terrace for use by tenants. If the roof terrace is constructed, it would be accompanied by a demountable fence to separate this space from the remainder of the roof. Proposed Building B will consist of a one (1) story, including a potential mezzanine,¹ and contain approximately 39,980± square feet of warehouse/flex industrial/commercial space.

Associated landscaping and site improvements are also proposed. An additional 52 parking spaces will be added to the Property to serve Building A and an additional 48 parking spaces will be added to serve Building B.² The area around the new buildings and parking areas will be landscaped with a variety of plants and shade trees. Sidewalk improvements are proposed along the Property's Fairfield Avenue frontage. None of the existing buildings will be demolished in connection with the proposed development.

There is a strong demand for warehouse and flex industrial space in Stamford, as well as to-the-trade wholesale spaces for builders, architects, and designers. Waterside Property Group has received numerous calls from prospective tenants looking for modern industrial space ranging from 3,000-20,000 sf. Unfortunately, the Applicant cannot accommodate these requests, as the existing buildings on the Property are almost fully occupied or not suitable for a variety of reasons. Those who frequent the businesses on the Property have noted that they need to travel out of town to purchase certain products for their clients and would like to see a bigger mix of these products here in Stamford.

IV. Requested Approvals

To facilitate this proposal, the Applicant requests the following approvals:

- (1) Final Site Plan Approval pursuant to §§ 4.B.8.b. and 19.D. of the Zoning Regulations to develop the two (2) proposed buildings, parking lot, and associated site improvements on the Property.
- (2) Special Permit Approval of a Large Scale Development pursuant to § 19.E. of the Zoning Regulations to permit the construction of a non-residential structure having a Gross Floor Area of 20,000 sf or more.

¹If constructed, the mezzanine will be approximately 2,960± square feet and contain administrative offices for the space below. The square footage of the potential mezzanine is included in all FAR and parking calculations.

²Section 12.B.4. of the regulations provides in relevant part: "*Parking Lots* in existence at the time of the adoption of these standards shall not be required to be in compliance with the standards of Sections 12.B.2. and 12.B.3. unless they are comprehensively redesigned. 'Comprehensively redesigned' for the purposes of this Section shall mean structural changes that affect at least 50% of the *Parking Lot* area, as determined by Land Use Bureau staff[.]" The total area of land disturbance for the proposed development will be approximately 41.5 percent. Although the Applicant is not required to make improvements to the existing Parking Lots on the Property, it has designed the parking areas around proposed Building A and Building B to comply with the standards of Section 12.B.3.

V. Conformity of Site Plan with Stamford Master Plan and M-G Zone

The proposed development is consistent with the goals and policies of the Master Plan and the purpose and intent of the M-G regulations. The Property is in Master Plan Category 13 (Industrial – General), which is intended to “provide for and protect existing industrial development and preserve opportunities for new industrial uses[.]”³ The proposed development would further this goal by adding more industrial space on a site containing buildings that have been used for industrial purposes for almost a century. The proposed uses are fully permitted in the M-G zone, which accommodates a wide variety of commercial, industrial, and institutional uses. Moreover, the scale and design of the buildings are in compliance with the zoning regulations and in harmony with the surrounding neighborhood, which contains other industrial properties.

VI. Conclusion

The proposed development will add warehouse, flex industrial, commercial, and fast casual restaurant space to an existing industrial site in an area that is well-suited for such uses. The proposed buildings will be constructed with a mix of high-quality materials and accompanied by attractive landscaping and parking improvements. If approved, the proposed development will serve as a gateway to Stamford’s Waterside Design District and attract a variety of new design tenants to the area.

³STAMFORD MASTER PLAN at 196 (Dec. 16, 2014).

Schedule C
Statement of Findings

The Applicant submits the proposal is consistent with the Site Plan standards (§ 19.D.4.) and Special Permit standards (§ 19.C.2.) of the Zoning Regulations as follows:

a. Site Plan Standards

In reviewing site plans the Zoning Board shall take into consideration the purpose of these Regulations, including the purpose of the applicable zoning district and the goals and policies of the Stamford Master Plan, the public health, safety and general welfare and convenience of the general public and the maintenance of property values. In its review the Board may modify a site plan or condition an approval to the extent necessary to conform the site plan to the following standards and objectives:

(1) Safe, adequate and convenient vehicular traffic circulation, operation, parking and loading, and pedestrian circulation, both within and without the site.

(a) The number, locations and dimensions of all vehicular and pedestrian access drives and walkways, parking spaces, drop-off and loading areas, and provisions for handicapped access shall conform to the standards of Section 12 of these Regulations, to the adopted design criteria and engineering practices of the Dept. of Traffic and Parking, and all other applicable standards. Such areas shall be constructed of suitable hard surface materials and maintained in good condition.

The number, locations, and dimensions of all vehicular and pedestrian access drives and walkways, parking spaces, drop-off and loading areas, and handicapped access conform to the standards of the M-G Zone and applicable provisions of Section 12 of the Zoning Regulations. The enclosed Zoning Location Survey and architectural plans provide parking details for the development. Additionally, as detailed on the enclosed plans and the zoning data chart, the Applicant will comply with the bicycle parking requirements in § 12.J. of the Zoning Regulations and electric vehicle parking requirements in § 12.L.

(b) The number of vehicle access drives shall be minimized and shall be located and designed to provide safe and convenient turning movements and safe sightline as determined in accordance with the Geometric Highway Design Standards of the Conn. Dept. of Transportation.

Vehicles will enter and exit the Property through driveways along Fairfield Avenue. There is one (1) existing driveway, which will be modified to improve access and vehicle circulation. Two (2) additional driveways are proposed. At all points where two-way flow of traffic is anticipated, the driveways are at least the required width of 24 feet. All access drives have been designed to provide safe and convenient access to the Property.

- (c) *Area streets and traffic controls shall be determined to have adequate capacity to service the site without causing undue congestion or hazardous conditions.*

The surrounding streets can adequately accommodate the traffic associated with the proposed use. For a more complete discussion of the traffic impact, please see the enclosed Traffic Impact Study prepared by SLR.

- (2) *The protection of environmental quality, landscaping of open space and harmony with existing development. The Board shall take into consideration the following features and standards:*

- (a) *The location, height, design and materials of walls, fences, hedges and plantings shall be appropriate to the vicinity and shall suitably screen parking, loading, garbage collection facilities, outside storage areas, accessway drives, utility installations and other such features; such landscaping shall be appropriate to the general character of the vicinity and consider the proximity and nature of abutting uses and the level of use of adjoining public streets and walkways.*

The proposed location, height, design and materials of walls, fences, hedges, and plantings are appropriate for the Property and the surrounding area. They also sufficiently screen parking, loading spaces, garbage collection facilities, accessway drives, and utility installations. The enclosed Landscape Plan prepared by Environmental Land Solutions, LLC depicts the proposed landscaping on the Property.

- (b) *All open space areas, exclusive of undisturbed natural areas, shall be suitably landscaped to the satisfaction of the Board. Site landscaping shall be performed at a minimum dollar value equivalent to one shade tree of 2.5 inch caliper for every two hundred (200) square feet of landscaped area. In multi-family developments, open space shall be designed to provide functional outdoor living and play areas meeting the needs of intended residents.*

Currently, there is no discernable landscaping on the Property. The Applicant proposes installing and maintaining appropriate onsite landscaping, as detailed on the enclosed Landscape Plan prepared by Environmental Law Solutions, LLC.

- (c) *Soil erosion, sediment and the release of excessive dust shall be controlled through implementation of suitable short term and long term controls in accordance with the standards and procedures of Section 15-B.*

Enclosed is a comprehensive Sedimentation and Erosion Control Plan, prepared by D'Andrea Surveying & Engineering, P.C., which ensures the standards and procedures of § 15.B. of the Zoning Regulations are satisfied.

- (d) *Site development shall seek to preserve existing specimen trees, historic structures and other significant natural features of the site. Accordingly, the premature demolition*

and site clearance of prospective development sites is specifically discouraged and may be taken into consideration in subsequent site plan reviews.

Due to its industrial use, the Property currently contains minimal landscaping and natural features. Instead, the majority of the Property that does not contain buildings consists of either paved or compacted gravel driveway with little vegetated area and few trees. The area designated for the development of proposed Building “A” currently consists of a mixture of compacted gravel and paved parking areas. The area designated for the development of proposed Building “B” currently consists of a large concrete slab surrounded by paved driveway and parking areas. As depicted on the enclosed Landscape Plan, no existing trees will be removed in connection with the proposed development, and a variety of plants and shade trees will be added to the Property. Additionally, street trees are proposed on the street frontage in front of Proposed building “A.”

As stated above, the eight (8) existing buildings on the Property date back to the 1930s. These buildings will remain undisturbed. As depicted on the enclosed architectural plans, the new buildings have been designed to complement the existing buildings.

- (e) Artificial lighting, and site generated noise, odors, particles and other disturbances shall be controlled to avoid interference with the use and enjoyment of neighboring properties. The location, height, design and arrangement of outside lighting shall be consistent with safety such as to avoid glare on any other lot and to avoid hazards to traffic on any street.*

The site is not proximate to any residential uses. All artificial lighting and site generated noise and other disturbances shall be controlled and will not interfere with the use and enjoyment of the neighboring properties. The location, height, design, and arrangement of outside lighting shall be consistent with safety so as to avoid glare on any other lot and to avoid traffic hazards on Fairfield Avenue.

- (f) Available public utilities shall be adequate in capacity to safely service the requirements of the site. Surface water drainage facilities shall be adequate to safely drain the site while minimizing the risk of downstream flooding and erosion. Where infrastructure capacity is judged not to be adequate the Board may accept a binding agreement to perform suitable improvements.*

The enclosed Drainage Summary Report prepared by D’Andrea Surveying & Engineering, P.C. indicates that the proposed improvements to the property will provide water quality treatment measures that will both mitigate stormwater runoff from the site and reduce runoff volumes and peak flow rates as compared to existing conditions. Further, the improvements will not adversely impact adjacent or downstream properties or City-owned drainage facilities.

- (g) *Adequate provision shall be made for emergency vehicle access, fire lanes, and safe fire flows, upon the recommendation of the Fire Marshall and the public water utility.*

Emergency and first responders will be able to access the Property safely and conveniently.

- (h) *The arrangement, location, apparent bulk, architectural features, materials, texture and color of proposed buildings and structures shall establish an architectural character and overall site design compatible with the scale and general character of the vicinity.*

The proposed structures will be among the nicest in the general area and will enhance the architectural character of the surrounding area.

- (i) *Building setbacks and the configuration of open space shall be appropriate to the existing structures on adjoining properties and established patterns of use of side and rear yard areas, and to the existing physical conditions of the site.*

The proposed development and site landscaping comply with the standards of the M-G Zone. As noted on the enclosed Zoning Data Chart, there is an existing legal nonconformity with regard to Building 2, which was constructed in 1930 and is located within the 10-foot front yard setback. The two (2) new proposed structures will comply with the 10-foot front yard setback requirement for the M-G Zone.

- (j) *No use shall be permitted that will cause or result in:*
-dissemination of dust, smoke, observable gas or fumes, odor, noise or vibration beyond the immediate site of the building in which such use is conducted, or
-unusual hazard of fire or explosion or other physical hazard to any adjacent buildings,
or
-harmful discharge of liquid materials, or
-unusual traffic hazard or congestion due to the type of vehicles required in the use or due to the manner in which traffic enters or leaves the site of the use.

No nuisance or hazardous conditions are anticipated.

- (k) *All buildings and grounds and other structures shall be maintained in good repair and in safe, clean and sanitary condition. All landscaping required pursuant to an approved site plan shall be installed to the satisfaction of the Director of Parks and Recreation and shall thereafter be maintained in accordance with an agreement to be made part of the application of record, which agreement shall be enforced by the Zoning Enforcement Officer, upon advice of the Director.*

The Applicants are amenable to a condition of approval requiring the execution of a Landscape Maintenance Agreement and a Drainage Maintenance Agreement prior to the issuance of a Certificate of Occupancy.

b. Special Permit Standards

Special Permits shall be granted by the reviewing board only upon a finding that the proposed use or Structure or the proposed extension or alteration of an existing use or Structure is in accord with the public convenience and welfare after taking into account, where appropriate:

- (1) the location and nature of the proposed site including its size and configuration, the proposed size, scale and arrangement of Structures, drives and Parking Areas and the proximity of existing dwellings and other Structures.*

The proposed development is appropriate for the Property. The proposed size, scale, and arrangement of the buildings are consistent with the existing buildings on the Property and with the surrounding area.

- (2) the nature and intensity of the proposed use in relation to its site and the surrounding area. Operations in connection with Special Permit uses shall not be injurious to the neighborhood, shall be in harmony with the general purpose and intent of these Regulations, and shall not be more objectionable to nearby properties by reason of noise, fumes, vibration, artificial lighting or other potential disturbances to the health, safety or peaceful enjoyment of property than the public necessity demands.*

The proposed use of the property will not be injurious to the surrounding neighborhood. The proposed uses as warehouse, flex industrial, commercial, and restaurant space are less intense than other uses permitted in the M-G zone. The activities on the Property will not cause disturbances to nearby properties in a manner that is objectionable. The purpose of the M-G is to separate the most intense industrial uses from susceptible uses to minimize potential negative impact, so the proposed use will be adequately shielded from less intense uses.

- (3) the resulting traffic patterns, the adequacy of existing Streets to accommodate the traffic associated with the proposed use, the adequacy of proposed off-street parking and loading, and the extent to which proposed driveways may cause a safety hazard, or traffic nuisance.*

As detailed in the attached Traffic Impact Study from SLR, the proposal will not result in adverse traffic conditions and no traffic mitigation is necessary. The increase in traffic caused by the proposed development can be accommodated by the surrounding roadway system. There will be an adequate amount of off-street parking and loading. The proposed driveways will not cause a safety hazard or traffic nuisance.

- (4) the nature of the surrounding area and the extent to which the proposed use or feature might impair its present and future Development.*

The proposed development will not impair the present and future development of the surrounding area, which has many other industrial sites.

(5) the Master Plan of the City of Stamford and all statements of the purpose and intent of these regulations.

The proposed development is consistent with the goals and policies of the Master Plan and the purpose and intent of these regulations. The Property is in Master Plan Category 13 (Industrial – General). This category is intended to “provide for and protect existing industrial development and preserve opportunities for new industrial uses, including the manufacture and assembly of products, wholesale storage and distribution, research and development and such other uses that are ancillary or subordinate to industrial activities.”⁴ The Applicant proposes to construct industrial buildings and a small restaurant space, for which there is market demand and need within the City of Stamford. Moreover, the Property contains buildings that have been used for industrial purposes for almost a century. Thus, the addition of new industrial space to the Property would further the goals of the Master Plan.

The M-G zone is designed to separate industrial and institutional uses from residential and other incompatible uses to minimize potential negative impacts.⁵ Thus, by virtue of the Property’s location in this zone, the proposed development will be shielded from less intense uses in accordance with the intent of the zoning regulations. Furthermore, the proposed uses are fully permitted in the M-G zone and the scale and design of the building is in compliance with the zoning regulations and is in harmony with the surrounding neighborhood, which contains other industrial and institutional properties.

⁴STAMFORD MASTER PLAN at 196 (Dec. 16, 2014).

⁵See ZONING REGULATIONS § 4.B.8.a. and MASTER PLAN at 45.

Schedule D
Property Description

ALL THAT CERTAIN plot, piece or parcel of land with the buildings and improvements erected thereon situated in the City of Stamford, County of Fairfield and State of Connecticut and shown on a map entitled, "Map Showing Property Surveyed for Norman F. Levy and Marvin L. Goidell Stamford, Conn.," dated March 3, 1977, by Parsons, Bromfield and Redniss, Engineers – Surveyors, Stamford, Connecticut; which map was filed as Map #9924 in the Stamford Land Records, and bounded and described as follows:

BEGINNING at a point formed by the intersections of the division line between the premises herein described and land now or formerly of Penn Central Railroad with the Westerly street line of Fairfield Avenue; running thence along the Westerly street line of Fairfield Avenue South 3° 38' 18" West 742.92 feet to a point at land now or formerly of the City of Stamford; thence along land now or formerly of the City of Stamford on a curve to the right with a radius of 1713.50 feet a distance of 428.67 feet to a point; thence south 45° 55' 10" West 128.83 feet to a point; thence South 50° 19' 10" West 110.00 feet to a point; thence along a curve to the right with a radius of 1728.00 feet a distance of 348.94 feet to a point at land now or formerly of Pitney Bowes Inc.; thence along land now or formerly of Pitney Bowes, Inc., North 25° 38' 30" West 93.43 feet to a point; thence North 43° 14' West 132.97 feet to a point at land now or formerly of Penn Central Railroad; thence along land now or formerly of Penn Central Railroad on a curve to the left with a radius of 3919.83 feet a distance of 1231.162 feet to a point; thence North 30° 29' East 311.04 feet to the point and place of BEGINNING.

TOGETHER WITH all right, title and interest, if any, of the Grantor in and to any strips or gores of land adjoining the above described premises;

TOGETHER WITH the appurtenances thereto.

TOGETHER WITH all right, title, and interest, if any, of Denis A. Healy and Esther K. Mason, as fully described in deed dated July 27, 1965 and recorded September 24, 1965 in Volume 1059, Page 229 at Page 231 of the Stamford Land Records. (the Lease Agreements referenced in said deed have not been recorded in said Land Records)

TOGETHER WITH the Easement from Murray Goldblum (a/k/a Murray A. Goldblum), Alex Goldblum (a/k/a Alex L. Goldblum and Alexander Goldblum), and Irving S. Goldblum to 375 Fairfield Avenue Associates, dated September 15, 1997 and recorded October 6, 1997 in Volume 4844, Page 346, and as shown on Map No. 10107, all of the Stamford Land Records.

TOGETHER WITH the Lease Agreement between State of Connecticut Department of Transportation and 375 Fairfield Avenue Associates, dated June 11, 2001 and recorded July 3, 2001 in Volume 5840, Page 149 of the Stamford Land Records.

TOGETHER WITH the benefits of the Settlement Agreement concerning property located at 23 & 50 Barry Place, dated July 17, 2012 and recorded September 6, 2012 in Volume 10525, Page 156 of the Stamford Land Records.

END OF PROPERTY DESCRIPTION

Schedule E
M-G Zoning Data Chart
375 Fairfield Avenue, Stamford, CT

	Standard/Required	Existing	Proposed	Notes
Min. Lot Area	4,000 sf	408,665 sf	408,665 sf	Complies
Min. Lot Frontage	40'	742.92'	742.92'	Complies
FAR	1.0	0.43	0.67	Complies
Building Height	4 stories / 50'	2 stories / <50'	3 stories / 48'-3.25"	Complies
Building Coverage (Interior Lot)	80%	24.7%	38.3%	Complies
Min. Front Yard (to Street Line)	10'	6.3' (Building 2)	6.3' (Building 2)	Existing nonconformity, proposed buildings comply with 10' setback requirement
Min. Side Yard	None required, but if provided, must be at least 4'	0' (Building 3)	0' (Building 3)	Complies
Min. Rear Yard	15'	15.2'	15.2'	Complies
Vehicle Parking ⁶	<i>Total Required:</i> 69 additional spaces <i>(Warehouse: 1 / 2,000 sf GFA, Restaurant: 1 / 50 sf GFA)⁷</i>	Complies	100 additional spaces	Complies
EV Charging Spaces	10 spaces ⁸ (one of which must be ADA)	N/A	10 spaces (one of which is ADA)	Complies
Bicycle Parking	<i>Class A: 19</i> <i>Class B: 38</i>	N/A	<i>Class A: 20</i> <i>Class B: 46</i>	Complies
Loading Spaces	3 additional spaces <i>(Wholesale, Manufacturing and Storage: 2 for 40,000-80,000 sf GFA plus 1 for each additional 80,000 sf GFA)</i>	N/A	3 additional spaces	Complies

⁶The parking figures relate only to the proposed Building A and Building B.

⁷For conservative purposes, the Applicant has categorized the 1,044± sf of space that it is constructing to accommodate a fast casual restaurant as "restaurant" space.

⁸This total was calculated based on the total number of parking spaces provided (100), as opposed to the number of parking spaces required (69).



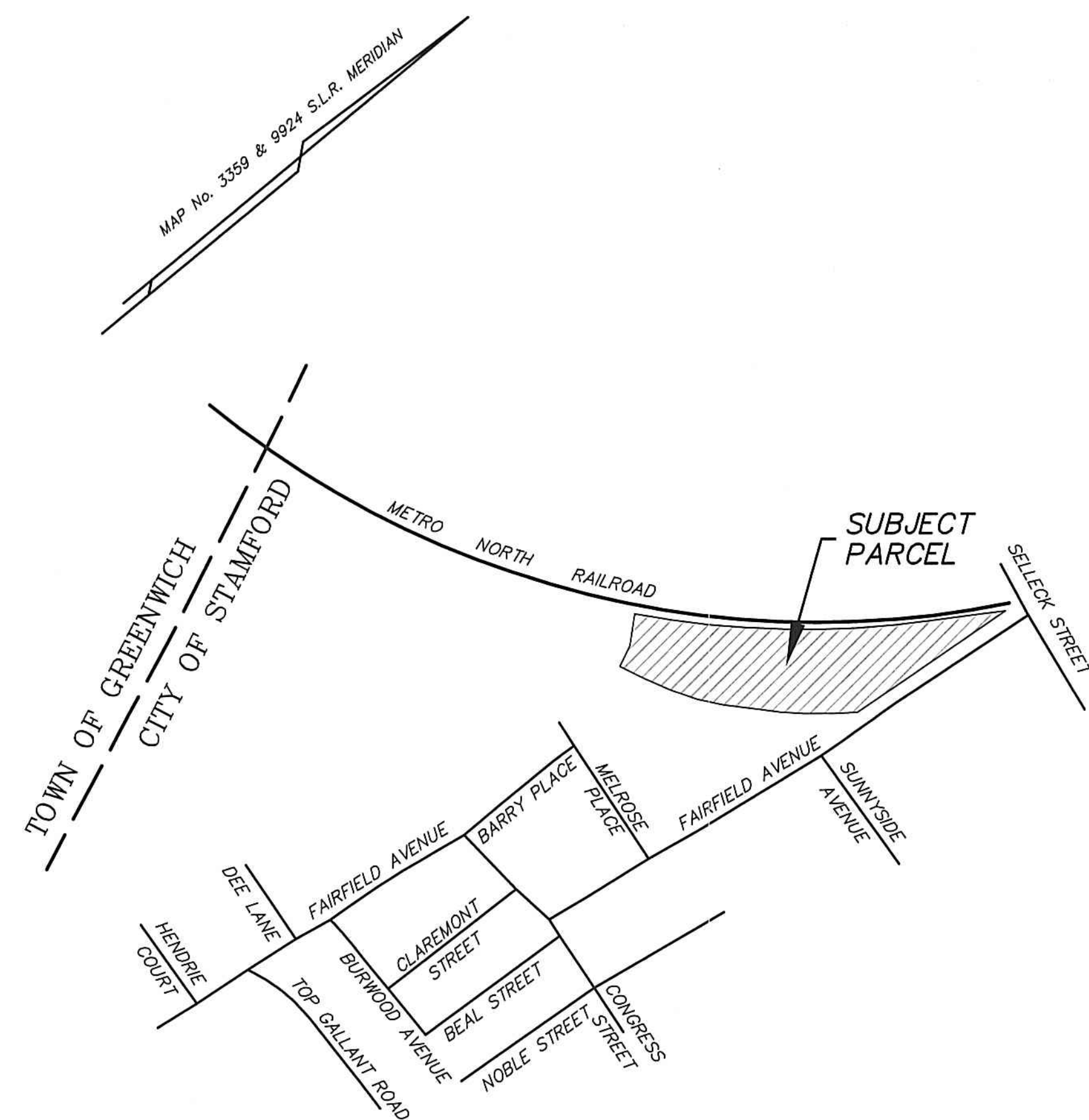
SITE PLAN REVIEW SET COMMERCIAL DEVELOPMENT

LOCATION

375 FAIRFIELD AVENUE STAMFORD, CONNECTICUT

PREPARED FOR

375 FAIRFIELD AVENUE ASSOCIATES



LOCATION MAP - 1" = 500'±

SHEET INDEX

SHEET	TITLE	REVISION	DATE
	TOPOGRAPHIC SURVEY - "EXISTING CONDITIONS"	0	10-4-23
C-1.1	BUILDING "A" SITE GRADING PLAN	0	10-4-23
C-1.2	BUILDING "B" SITE GRADING PLAN	0	10-4-23
C-2.1	BUILDING "A" DRAINAGE AND UTILITY PLAN	0	10-4-23
C-2.2	BUILDING "B" DRAINAGE AND UTILITY PLAN	0	10-4-23
C-3.1	BUILDING "A" SEDIMENTATION AND EROSION CONTROL PLAN	0	10-4-23
C-3.2	BUILDING "B" SEDIMENTATION AND EROSION CONTROL PLAN	0	10-4-23
C-4.1	NOTES AND DETAILS	0	10-4-23
C-4.2	DETAILS	0	10-4-23
C-5.0	LOW-IMPACT DEVELOPMENT PLAN	0	10-4-23

ENGINEERING PLANS PREPARED BY:

Derek E. Daunais
 D'ANDREA SURVEYING & ENGINEERING, P.C.
 DEREK E. DAUNAIS, CT. PE No. 22861

10-4-23
 DATE

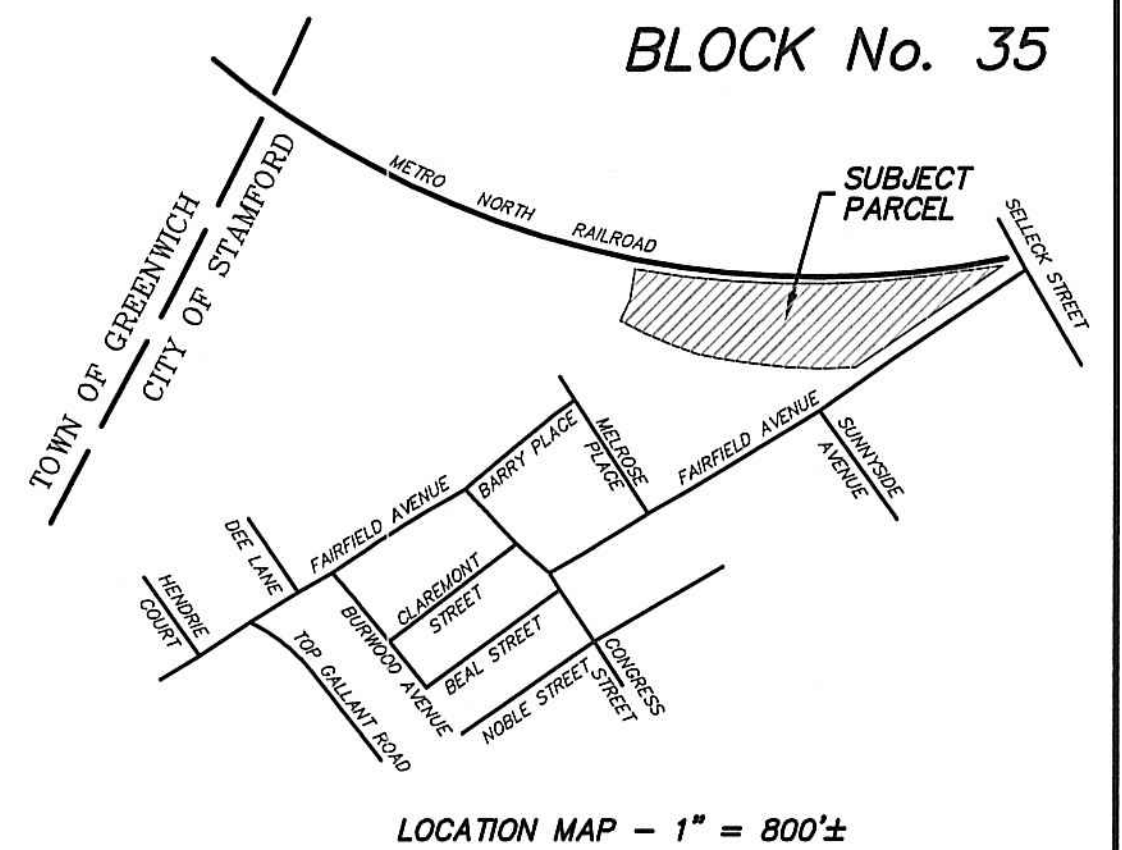
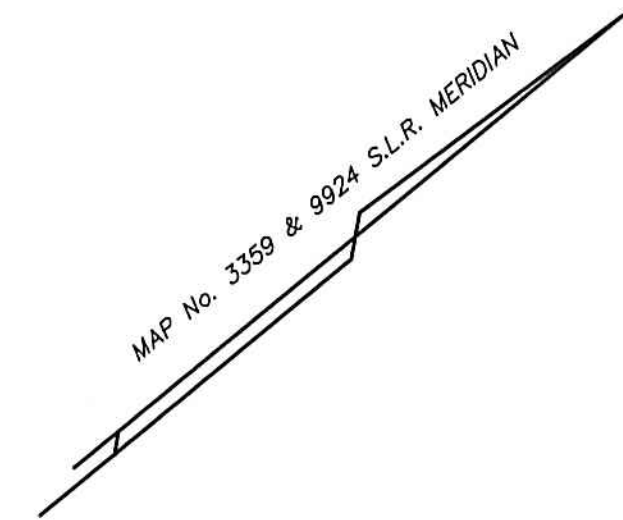


ONLY COPIES OF THIS SET, BEARING AN ORIGINAL
 IMPRINT OF THE ENGINEER'S / SURVEYOR'S EMBOSSED
 SEAL SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.

D'ANDREA SURVEYING & ENGINEERING, P.C.
 LAND PLANNERS
 ENGINEERS
 SURVEYORS
 P.O. BOX 549
 RIVERSIDE, CT 06878
 6 NEIL LANE
 TEL. 637-1779

PROJECT	COMMERCIAL DEVELOPMENT	
PREPARED FOR	375 FAIRFIELD AVENUE ASSOCIATES	
LOCATION	375 FAIRFIELD AVENUE STAMFORD, CONNECTICUT	
REV.	DATE	DESCRIPTION
0	10-4-23	ZONING SUBMISSION
		COVER SHEET

EXISTING BUILDING COVERAGE
 LOT AREA = 9,3825 ACRES
 BUILDING No. 14 = 13,121 S.F.
 BUILDING No. 17 = 1,967 S.F.
 BUILDING No. 13 = 16,154 S.F.
 BUILDING No. 4 = 12,594 S.F.
 BUILDING No. 5 = 5,779 S.F.
 BUILDING No. 3 = 22,035 S.F.
 BUILDING No. 2 = 1,049 S.F.
 BUILDING No. 1 = 28,203 S.F.
 PUMP ROOM = 109 S.F.
 TOTAL = 101,011 S.F.
 PERCENT COVERAGE = 24.7%



LEGEND

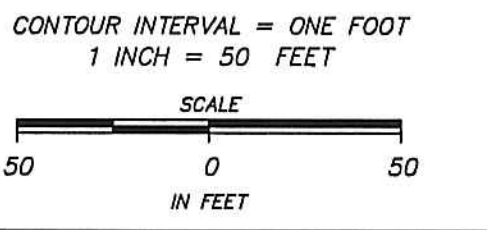
---	EXISTING CONTOUR
x 30.0	EXISTING SPOT ELEVATION
x 20.0	EXISTING TOP/BOTTOM SPOT ELEVATION
○	DECIDUOUS TREE
-	SIGN
U	UTILITY POLE
MW	MONITORING WELL
GP	GAS GATE
WP	WATER GATE
PIV	POST INDICATOR VALVE
H	HYDRANT
C	CLEANOUT
OSW	OVERHEAD SERVICE WIRES
CB	CATCH BASIN
DS	ROOF LEADER DOWNSPOUT
JB	JUNCTION BOX
SDMH	STORM DRAIN MANHOLE
SSMH	SANITARY SEWER MANHOLE
EMH	ELECTRIC MANHOLE
WMH	WATER MANHOLE
CIP	CAST IRON PIPE
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
OSW	OVERHEAD SERVICE WIRES
---	UNDERGROUND UTILITY SERVICE: E-ELECTRIC, G-GAS, W-WATER
---	PROPERTY LINE

CONTOURS AND ELEVATIONS DEPICTED HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
 TOPOGRAPHIC AND PLANNIMETRIC FEATURES DEPICTED HEREON WERE TRANSFERRED FROM A SURVEY ENTITLED "PROPERTY & TOPOGRAPHIC SURVEY DEPICTING 375 FAIRFIELD AVENUE STAMFORD, CT PREPARED FOR 375 FAIRFIELD AVENUE ASSOCIATES," PREPARED BY REDWICK & MEAD DATED APRIL 1, 2022 AND ARE IN ACCORDANCE TO CLASS "D" HORIZONTAL ACCURACY.

THIS MAP IS A TOPOGRAPHIC SURVEY. BUILDINGS AND EXISTING BOUNDARY INFORMATION IS BASED ON A RESURVEY CONDUCTED IN ACCORDANCE WITH HORIZONTAL ACCURACY CLASS "A-2" AS DEFINED IN THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH SEC. 20-300b-20.
 NEW MONUMENTATION HAS NOT BEEN SET AS A RESULT OF THIS SURVEY.
 ONLY COPIES OF THIS MAP, BEARING AN ORIGINAL IMPRINT OF THE SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.

AREA = 9.3816 ACRES (PER MAP No. 9924 S.L.R.)
 REFER TO MAP No. 9924 S.L.R.
 LAND LIES IN "M-G" ZONING DISTRICT
 TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

D'ANDREA SURVEYING & ENGINEERING, P.C.
 SURVEYOR
 ROBERT L. LODGE, JR., CT L.S. No. 15775
 RIVERSIDE, CONNECTICUT
 OCTOBER 4, 2023



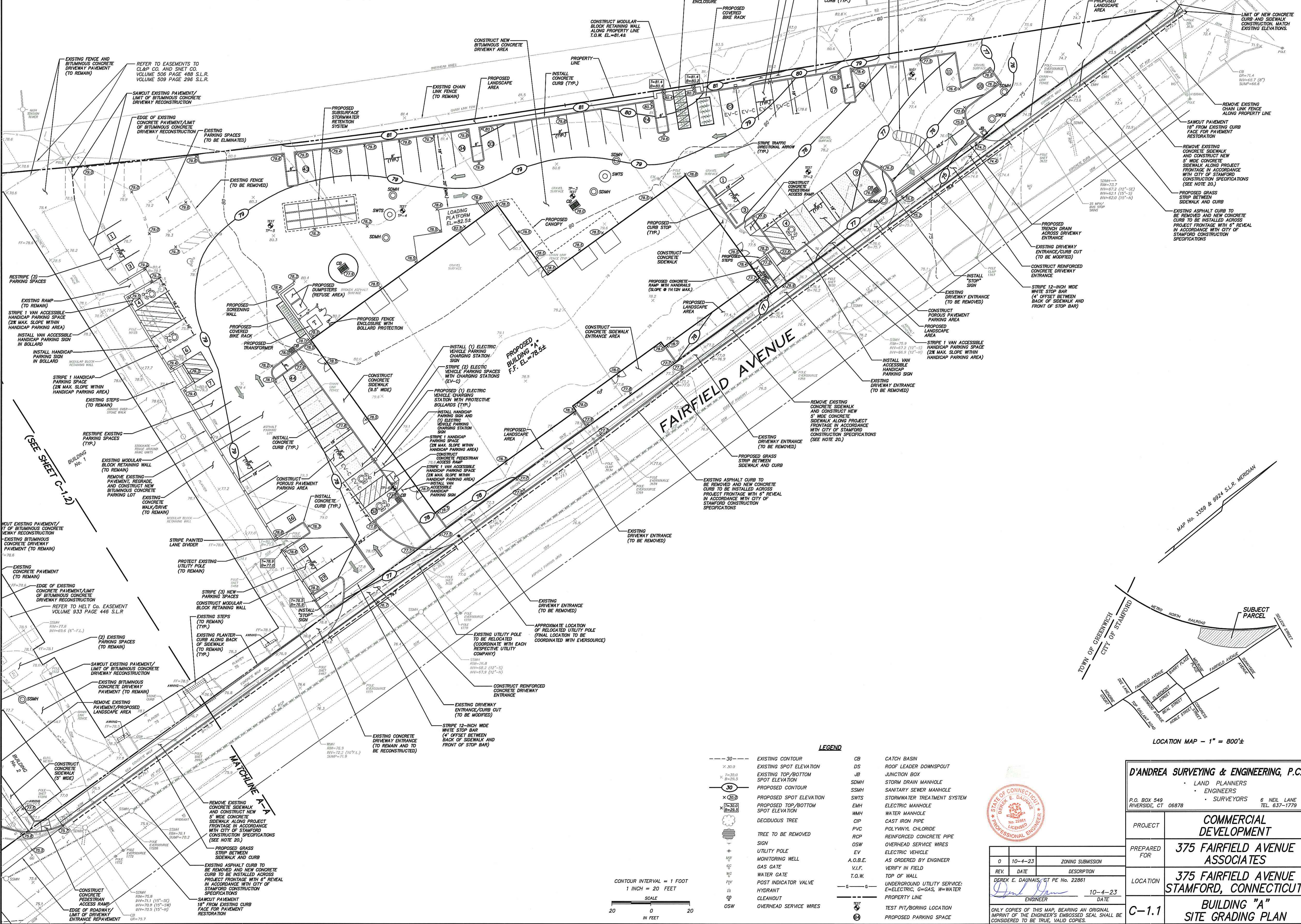
UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, INCLUDING PHYSICAL EVIDENCE AND UTILITY COMPANY SKETCHES. DEPICTED UTILITIES ARE APPROXIMATE AND ARE INCORPORATED SURVEY DECLARATION OF ACCURACY. DOES NOT EXTEND TO THE PLOTTING OF UNDERGROUND UTILITIES. UNDERGROUND UTILITY LOCATION SHALL BE FIELD VERIFIED AND MARKED PRIOR TO COMMENCING ANY EXCAVATION ACTIVITIES. CALL BEFORE YOU DIG, 1-800-922-4465.

TOPOGRAPHIC SURVEY
 OF PROPERTY AT
 375 FAIRFIELD AVENUE
 IN
 STAMFORD, CONNECTICUT
 PREPARED FOR
375 FAIRFIELD AVENUE ASSOCIATES

SELECT STREET

GENERAL NOTES:

- Boundary information, existing features, and topography were taken from a survey entitled "Topographic Survey of Property at 375 Fairfield Avenue in Stamford, Connecticut, Prepared for 375 Fairfield Avenue Associates, dated October 4, 2023, as prepared by D'Andrea Surveying & Engineering, P.C.
- The subject parcel does not lie within a Flood Hazard Zone as depicted on FIRM Community Panel 0501020516G, published by FEMA, effective date July 8, 2013.
- Elevations shown are based on the North American Vertical Datum of 1988 (NAVD 88). The contractor shall coordinate the transfer of a control benchmark into the working area, after site preparation is complete, by a licensed surveyor.
- The information given on this plan in respect to the location of subsurface structures and utilities indicates only that the structures and utilities exist and no responsibility is assumed by the engineer for the accuracy of the locations shown. Utility information is not guaranteed complete or accurate.
- In accordance with Connecticut Public Act 87-71 and Connecticut General Statutes Sections 16-345 through 16-355, the owner or the contractor shall be required to verify the depth and location of all utilities prior to commencing construction, and shall contact "Call Before You Dig, Inc." at 1-800-922-4455, 48 hours prior to commencing construction for mark out of underground utilities.
- This site is served by the City of Stamford sanitary sewer system.
- This site is served by the Aquarion Water Company, natural gas, and both overhead and underground electric and telecom services.
- The contractor shall be responsible for securing all required permits from the City of Stamford for completion of the project.
- All construction shall comply with applicable sections of the State of Connecticut, Local, and International Building Codes, and those criteria shall take precedence over these plans. Refer to Sheets C-4.1 and C-4.2 for construction notes and details.
- Upon completion of construction and prior to the issuance of a Certificate of Occupancy, an "as-built" map and certification letter shall be prepared by a professional engineer and land surveyor and submitted to the Engineering Bureau for review and approval for the purpose of certifying that construction was completed substantially in compliance with the approved plans as amended from time to time.
- Roof drains from the proposed building shall be tied into the new storm drainage system, as depicted on the plan. Final locations of the roof drain downspouts shall be coordinated between the architect, the project engineer, and the contractor.
- All existing hardscapes, driveways, and miscellaneous debris within the project area shall be removed from the site and disposed of legally. Refer to Sheet C-1.0 for general demolition notes.
- Refer to Sheets C-2.1 and C-2.2 for a depiction and description of all proposed storm drainages, sanitary sewer, and utility installations and connections.
- Refer to Sheets C-3.1 through C-3.3 for sedimentation and erosion control notes and details and general construction staging notes.
- Refer to Sheet C-4.1 for City of Stamford Standard Notes.
- The proposed building shall be designed by an architect in order to conform with current applicable zoning setback criteria and regulations, and a building permit shall be obtained prior to commencing construction.
- Refer to Architectural Plans as prepared by Jason Little Architects PLLC.
- Refer to Landscape Architectural plans as prepared by Environmental Land Solutions, LLC for final design of proposed landscaping, hardscapes, and exterior site lighting.
- All utility relocations and installations shall be coordinated with each respective utility company prior to construction. Coordinate all utility installation and connection specifications with each respective utility company.
- A "Street Opening Permit" must be obtained prior to any construction activity in the City of Stamford right-of-way. All construction within the right-of-way shall be coordinated with the City of Stamford Engineering Bureau. Approval from the City of Stamford Traffic Advisory Committee and a "Street Opening Permit" are required for closure of the sidewalk along Fairfield Avenue.
- The Contractor shall be responsible for coordinating and maintaining traffic flow on adjoining roadways throughout the project.
- Refer to Sheet C-4.1 for test pit data.
- Footings for new walls shall not extend onto adjacent properties.



D'ANDREA SURVEYING & ENGINEERING, P.C.
 LAND PLANNERS
 ENGINEERS
 SURVEYORS
 P.O. BOX 549
 RIVERSIDE, CT 06878
 6 NEIL LANE
 TEL. 637-1779

PROJECT	COMMERCIAL DEVELOPMENT
PREPARED FOR	375 FAIRFIELD AVENUE ASSOCIATES
LOCATION	375 FAIRFIELD AVENUE STAMFORD, CONNECTICUT
	BUILDING "A" SITE GRADING PLAN



0	10-4-23	ZONING SUBMISSION
REV.	DATE	DESCRIPTION
1	10-4-23	Derek E. Daunais, CT PE No. 22861
	DATE	ENGINEER

ONLY COPIES OF THIS MAP, BEARING AN ORIGINAL IMPRINT OF THE ENGINEER'S EMBOSSED SEAL, SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.

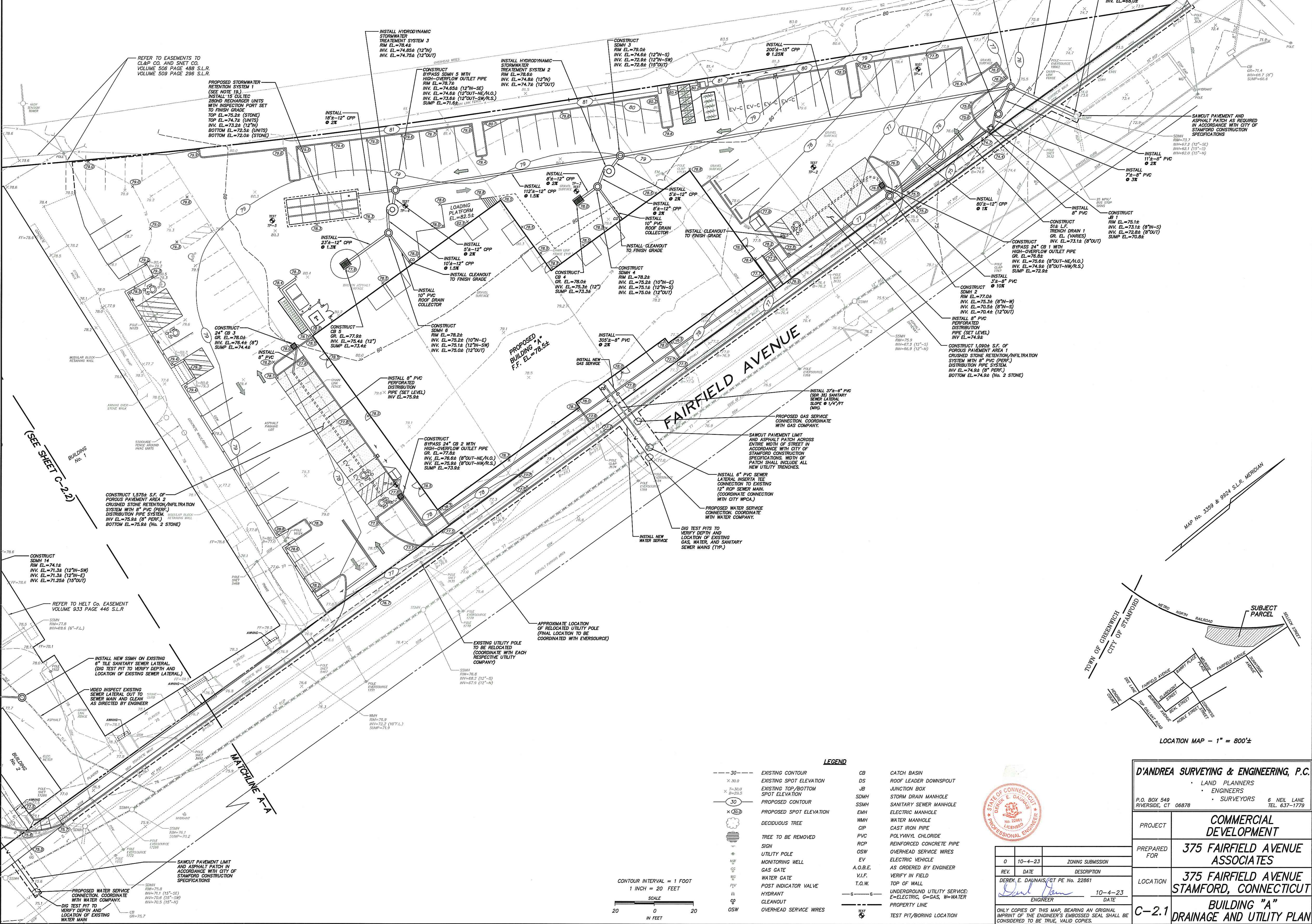
SELECT STREET

STORM DRAIN AND UTILITY NOTES:

- The purpose of this plan is only to depict the layout of the proposed storm drainage, sanitary sewer, and utility water, gas, electric, telephone and cable. This plan shall not be used for the construction of any other aspect of this project.
- Elevations shown are based on the North American Vertical Datum of 1988 (NAVD 88). The contractor shall coordinate the transfer of a control benchmark into the working area, after site preparation is complete, by a licensed surveyor.
- The information given on these plans in respect to the location of subsurface structures and utilities indicates only that the structures and utilities exist and no responsibility is assumed by the engineer or architect for the accuracy of the locations shown. Utility information is not guaranteed to be complete or accurate.
- In accordance with Connecticut Public Act 87-71 and Connecticut General Statutes Sections 16-343 through 16-359, the owner or the contractor shall be required to verify the depth and location of all utilities prior to commencing construction, and shall contact "Call Before You Dig, Inc." at 1-800-922-4455, 48 hours prior to commencing construction for mark out of underground utilities.
- This site is served by the City of Stamford sanitary sewer system.
- This site is served by the Aquarion Water Company, natural gas, and both overhead and underground electric and telephone services.
- The contractor shall be responsible for securing all required permits from the City of Stamford for completion of the project.
- All construction shall comply with applicable sections of the State of Connecticut, Local, and International Building Codes, and those criteria shall take precedence over these plans. Refer to Sheets C-4.1 and C-4.2 for construction notes and details.
- All utility relocations and installations shall be coordinated with each respective utility company prior to construction. Coordinate all utility installation and connection specifications with each respective utility company.
- Roof drains from the proposed building shall be tied into the new storm drainage system, as depicted on the plan. Final locations of the roof drain downspouts shall be coordinated between the architect, the project engineer, and the contractor.
- The locations and elevations of the proposed storm drainage system depicted hereon may be modified with the approval of the project engineer to meet field conditions.

DRAINAGE MAINTENANCE SCHEDULE

- Catch Basins & Drainage Inlets:
 - Catch basins and drainage inlets shall be completely cleaned of accumulated debris and sediments at the completion of construction.
 - For the first year, catch basins and drainage inlets shall be inspected on a quarterly basis.
 - Any accumulated debris within the catch basins/inlets shall be removed and any repairs made as required.
 - From the second year onward, visual inspections shall occur twice per year, once in the spring and once in the fall, after fall cleanup of leaves has occurred.
 - Accumulated debris within the catch basins/inlets shall be removed and repairs made as required.
 - Accumulated sediments shall be removed at which time they are within 12 inches of the invert of the outlet pipe.
 - Any additional maintenance required per the manufacturer's specifications shall also be completed.
- Storm Drainage Piping and Manholes/Junction Boxes:
 - All storm drainage piping shall be completely flushed of debris and accumulated sediment at the completion of construction.
 - Manholes/Junction Boxes shall be inspected and repaired on an annual basis.
 - Unless system performance indicates degradation of piping, comprehensive video inspection of storm drainage piping shall occur once every ten years.
 - Any additional maintenance required per the manufacturer's specifications shall also be completed.
- Drywells and Infiltration Systems:
 - All drywells/infiltrators shall be completely cleaned of accumulated debris and sediments upon the completion of construction.
 - For the first year, the drywells/infiltrators shall be inspected on a quarterly basis.
 - Any accumulated debris within the drywells/infiltrators shall be removed and any repairs made to the units as required.
 - From the second year onward, visual inspection shall occur twice per year, once in the spring and once in the fall, after fall cleanup of leaves has occurred.
 - Accumulated debris within the units shall be removed and repairs made as required.
 - Any additional maintenance required per the manufacturer's specifications shall also be completed.
- Porous Pavement:
 - Changing the porous pavement surface to an impervious surface requires the review and approval of the City of Stamford Engineering Bureau.
 - Clean and vacuum (Regenerative Air Vacuum for Permeable Pavement) the porous pavement upon the completion of construction.
 - Check for standing water on the surface of the pavement after a precipitation event. If standing water remains within 30 minutes after rainfall had ended, cleaning of porous pavement is recommended.
 - debris into or in proximity to any island or tidal wetlands.
- Roof Gutters - Remove accumulated debris and inspect for damage. Any damage should be repaired as required.



N/F
STATE OF CONNECTICUT
METRO NORTH RAILROAD

REFER TO EASEMENTS TO CLASP CO. AND SHET CO. VOLUME 506 PAGE 488 S.L.R. VOLUME 509 PAGE 296 S.L.R.

PROPOSED STORMWATER RETENTION SYSTEM
INSTALL 15' DIA. DEC 28000 RECHARGER UNITS WITH INSPECTION PORT SET TO FINISH GRADE.
TOP EL.=75.52 (STONE)
TOP EL.=74.72 (UNITS)
INV. EL.=73.22 (12"IN)
BOTTOM EL.=72.02 (UNITS)
BOTTOM EL.=72.02 (STONE)

(SEE SHEET C-2.2)

CONSTRUCT 1,575 S.F. OF POROUS PAVEMENT AREA 2 CRUSHED STONE RETENTION/INFILTRATION SYSTEM WITH 8" PVC (PERF.) DISTRIBUTION PIPE SYSTEM.
INV. EL.=75.94 (8" PERF.)
BOTTOM EL.=75.94 (No. 2 STONE)

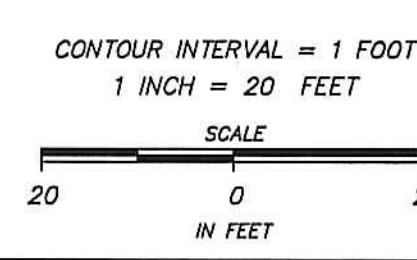
REFER TO HELL CO. EASEMENT VOLUME 533 PAGE 446 S.L.R.

INSTALL NEW SSMH ON EXISTING 6" TILE SANITARY SEWER LATERAL. DIG TEST PIT TO VERIFY DEPTH AND LOCATION OF EXISTING SEWER LATERAL.

VIDEO INSPECT EXISTING SEWER LATERAL OUT TO SEWER MAIN AND CLEAN AS DIRECTED BY ENGINEER

SAWCUT PAVEMENT LIMIT AND ASPHALT PATCH IN ACCORDANCE WITH CITY OF STAMFORD CONSTRUCTION SPECIFICATIONS

PROPOSED WATER SERVICE CONNECTION COORDINATE WITH WATER COMPANY. DIG TEST PIT TO VERIFY DEPTH AND LOCATION OF EXISTING WATER MAIN



LEGEND

- | | | | |
|------------|------------------------------------|----------|--|
| --- 30 --- | EXISTING CONTOUR | CB | CATCH BASIN |
| x 30.0 | EXISTING SPOT ELEVATION | DS | ROOF LEADER DOWNSPOUT |
| x 7-30.0 | EXISTING TOP/BOTTOM SPOT ELEVATION | JB | JUNCTION BOX |
| --- 30 --- | PROPOSED CONTOUR | SDMH | STORM DRAIN MANHOLE |
| x 30.0 | PROPOSED SPOT ELEVATION | SSMH | SANITARY SEWER MANHOLE |
| ○ | DECIDUOUS TREE | EMH | ELECTRIC MANHOLE |
| ○ | TREE TO BE REMOVED | WMH | WATER MANHOLE |
| ○ | SIGN | CIP | CAST IRON PIPE |
| ○ | UTILITY POLE | PVC | POLYVINYL CHLORIDE |
| ○ | MONITORING WELL | RCF | REINFORCED CONCRETE PIPE |
| ○ | GAS GATE | OSW | OVERHEAD SERVICE WIRES |
| ○ | WATER GATE | EV | ELECTRIC VEHICLE |
| ○ | POST INDICATOR VALVE | A.O.B.E. | AS ORDERED BY ENGINEER |
| ○ | HYDRANT | V.I.F. | VERTY IN FIELD |
| ○ | CLEANOUT | T.O.W. | TOP OF WALL |
| ○ | OVERHEAD SERVICE WIRES | --- | UNDERGROUND UTILITY SERVICE:
E=ELECTRIC, G=GAS, W=WATER |
| ○ | | --- | PROPERTY LINE |
| ○ | | ○ | TEST PIT/BORING LOCATION |

LOCATION MAP - 1" = 800'±

D'ANDREA SURVEYING & ENGINEERING, P.C.
LAND PLANNERS
ENGINEERS
SURVEYORS

P.O. BOX 549
RIVERSIDE, CT 06878

6 NEIL LANE
TEL. 637-1779

COMMERCIAL DEVELOPMENT

PREPARED FOR: **375 FAIRFIELD AVENUE ASSOCIATES**

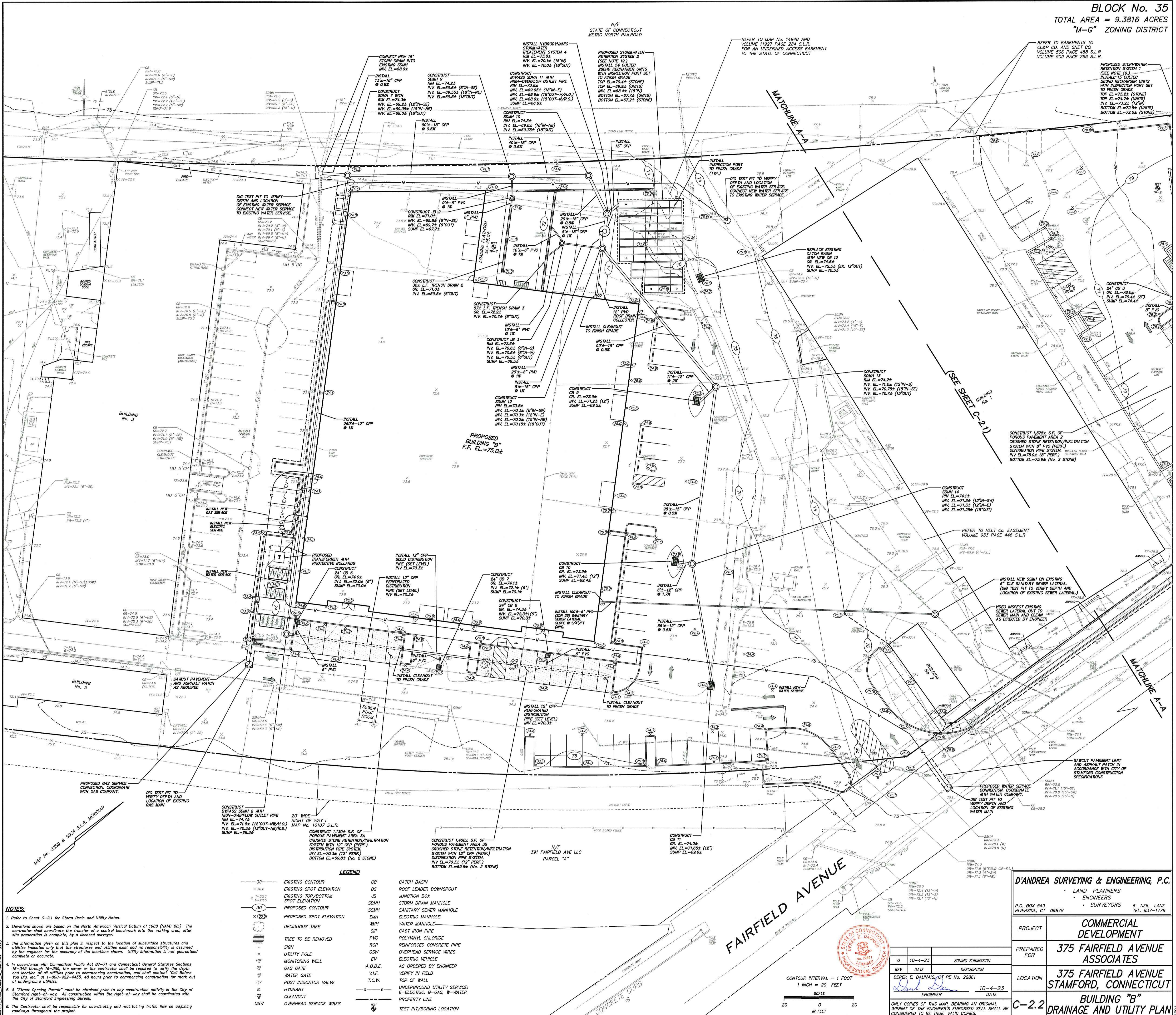
LOCATION: **375 FAIRFIELD AVENUE STAMFORD, CONNECTICUT**

C-2.1 BUILDING "A" DRAINAGE AND UTILITY PLAN

0	10-4-23	ZONING SUBMISSION
REV.	DATE	DESCRIPTION
		DEREK E. DAUNAS/CT PE No. 22861
	10-4-23	DATE

ONLY COPIES OF THIS MAP BEARING AN ORIGINAL IMPRINT OF THE ENGINEER'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.



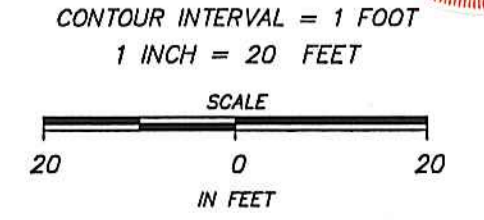


NOTES:

1. Refer to Sheet C-2.1 for Storm Drain and Utility Notes.
2. Elevations shown are based on the North American Vertical Datum of 1988 (NAVD 88). The contractor shall coordinate the transfer of a control benchmark into the working area, after site preparation is complete, by a licensed surveyor.
3. The information given on this plan in respect to the location of subsurface structures and utilities indicates only that the structures and utilities exist and no responsibility is assumed by the engineer for the accuracy of the locations shown. Utility information is not guaranteed complete or accurate.
4. In accordance with Connecticut Public Act 87-71 and Connecticut General Statutes Sections 16-345 through 16-355, the owner or the contractor shall be required to verify the depth and location of all utilities prior to commencing construction, and shall contact 'Call Before You Dig, Inc.' at 1-800-922-4455, 48 hours prior to commencing construction for mark out of underground utilities.
5. A 'Street Opening Permit' must be obtained prior to any construction activity in the City of Stamford right-of-way. All construction within the right-of-way shall be coordinated with the City of Stamford Engineering Bureau.
6. The Contractor shall be responsible for coordinating and maintaining traffic flow on adjoining roadways throughout the project.

LEGEND

--- 30 ---	EXISTING CONTOUR	CB	CATCH BASIN
x 30.0	EXISTING SPOT ELEVATION	DS	ROOF LEADER DOWNSPOUT
x 30.9	EXISTING TOP/BOTTOM SPOT ELEVATION	JB	JUNCTION BOX
x 30.0	PROPOSED CONTOUR	SMH	STORM DRAIN MANHOLE
x 30.0	PROPOSED SPOT ELEVATION	SMH	SANITARY SEWER MANHOLE
(Tree Symbol)	DECIDUOUS TREE	EMH	ELECTRIC MANHOLE
(Tree Symbol)	TREE TO BE REMOVED	WMH	WATER MANHOLE
(Sign Symbol)	SIGN	CP	CAST IRON PIPE
(Pole Symbol)	UTILITY POLE	RCP	POLYVINYL CHLORIDE REINFORCED CONCRETE PIPE
(Well Symbol)	MONITORING WELL	CSW	OVERHEAD CONCRETE PIPE
(Gate Symbol)	GAS GATE	EV	ELECTRIC VEHICLE
(Water Gate Symbol)	WATER GATE	A.O.B.E.	AS ORDERED BY ENGINEER
(Valve Symbol)	POST INDICATOR VALVE	V.I.F.	VERIFY IN FIELD
(Hydrant Symbol)	HYDRANT	T.O.W.	TOP OF WALL
(Wires Symbol)	OVERHEAD SERVICE WIRES	U.U.S.	UNDERGROUND UTILITY SERVICE
		E-ELECTRIC, G-GAS, W-WATER	
		--- P ---	PROPERTY LINE
		(X)	TEST PIT/BORING LOCATION



D'ANDREA SURVEYING & ENGINEERING, P.C.
 LAND PLANNERS
 ENGINEERS
 SURVEYORS
 6 NEIL LANE
 RIVERSIDE, CT 06878
 TEL. 637-1779

PROJECT: COMMERCIAL DEVELOPMENT

PREPARED FOR: 375 FAIRFIELD AVENUE ASSOCIATES

LOCATION: 375 FAIRFIELD AVENUE STAMFORD, CONNECTICUT

C-2.2 BUILDING "B" DRAINAGE AND UTILITY PLAN

REV.	DATE	DESCRIPTION
0	10-4-23	ZONING SUBMISSION
1	10-4-23	DEREK E. DAUNAS, CT PE No. 22861
2	10-4-23	DATE

ONLY COPIES OF THIS MAP, BEARING AN ORIGINAL IMPRINT OF THE ENGINEER'S EMBOSSED SEAL, SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.

SELECT STREET

SEDIMENTATION AND EROSION CONTROL NOTES:

- Temporary soil and erosion control measures inclusive of filter barriers, water breaks, check dams, and anti-tracking areas shall remain in place for as long as necessary to permanently stabilize developed areas.
- Erosion and sediment control devices shall be installed in their proper sequence. No clearing or grading may be done in any area until the devices for that area, as shown on the plan, are in place and functional.
- Natural vegetation shall be maintained and protected to the greatest extent practical.
- All sediment and erosion control devices and provisions shall be maintained in operational condition by the contractor until final acceptance of the project.
- No changes of this soil erosion and sediment control plan may be made without approval of the project engineer.
- Land disturbance is to be kept to a minimum and reestablishment and/or stabilization of disturbed areas shall be scheduled as soon as practical.
- Erosion controls shall be monitored periodically to verify that they are maintained in effective working order. If, during construction, additional control measures are necessary, they shall be installed.
- Sediment or debris shall be removed from the drainage pipes and structures as it accumulates during construction. It shall be disposed of in a manner which is consistent with the intent of this plan.
- Sediment fencing shall be installed where required prior to commencing construction and shall remain in place for the duration of the project. Fencing shall be Proplex Silt Stop (TM) as manufactured by Amoco or approved equal.
- The contractor may provide alternate means of sediment control, but he may not eliminate placement of protection in the areas indicated herein.
- The contractor shall regrade, topsoil, and seed all disturbed areas immediately after construction has been completed.
- Copies of the Sedimentation and Erosion Control Plan are to be maintained at the site and provided to the project foreman and subcontractors prior to the start of work.
- Additional protection measures shall be implemented as site conditions warrant.
- An additional 10% of trap rock, hay bales, snowfencing, fabric fencing, and other control materials are to be stockpiled on site for use as necessary.
- Refer to Erosion and Sedimentation Control Handbook - Connecticut for additional details and specifications for sedimentation control.

- Groundwater may be encountered during the construction of the proposed development. If any groundwater is encountered during excavation, then sump pits will be installed and the groundwater shall be pumped into either an on-site temporary crushed stone dewatering pit or a nearby storm drainage system.
- Prior to any discharge of wastewater into the sanitary sewer as a result of construction dewatering, a Miscellaneous Discharge Permit Application shall be completed and submitted to the City of Stamford Water Pollution Control Authority for review and approval. In the event construction dewatering into the sanitary sewer is approved, a flow meter shall be installed capable of recording, saving, and reporting the daily volume from the pumps.

GENERAL CONSTRUCTION PHASING:

PHASE 1: DEMOLITION

- Access site using existing driveway entrance along Fairfield Avenue. Contractor parking and stockpiling to be on-site.
- Remove vegetation.
- Remove existing structures, hardscapes, and site features.
- Install sedimentation and erosion controls.

PHASE 2: SITE GRADING/FOUNDATION CONSTRUCTION

- Rough site proposed driveway and construction access.
- Rough grade site.
- Excavate for proposed building foundation.
- Construct proposed building foundation.
- Backfill and rough grade around building foundation.

PHASE 3: SITE UTILITIES

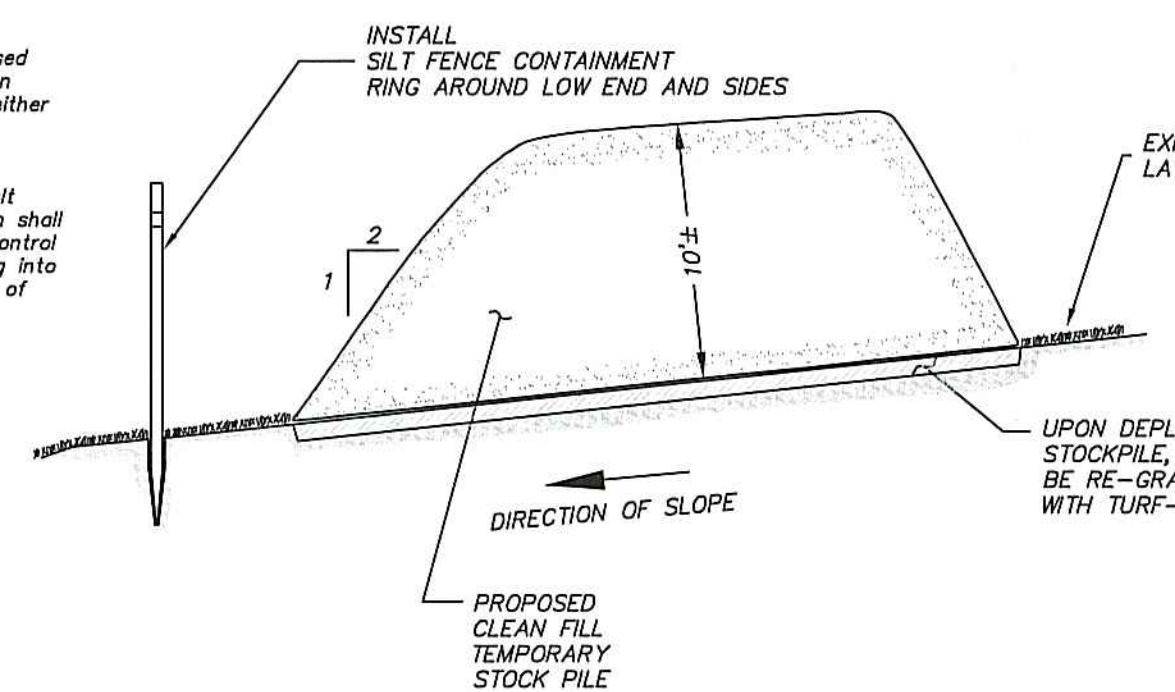
- Install storm drainage system.
- Install utilities and sewer lateral connection.

PHASE 4: BUILDING CONSTRUCTION

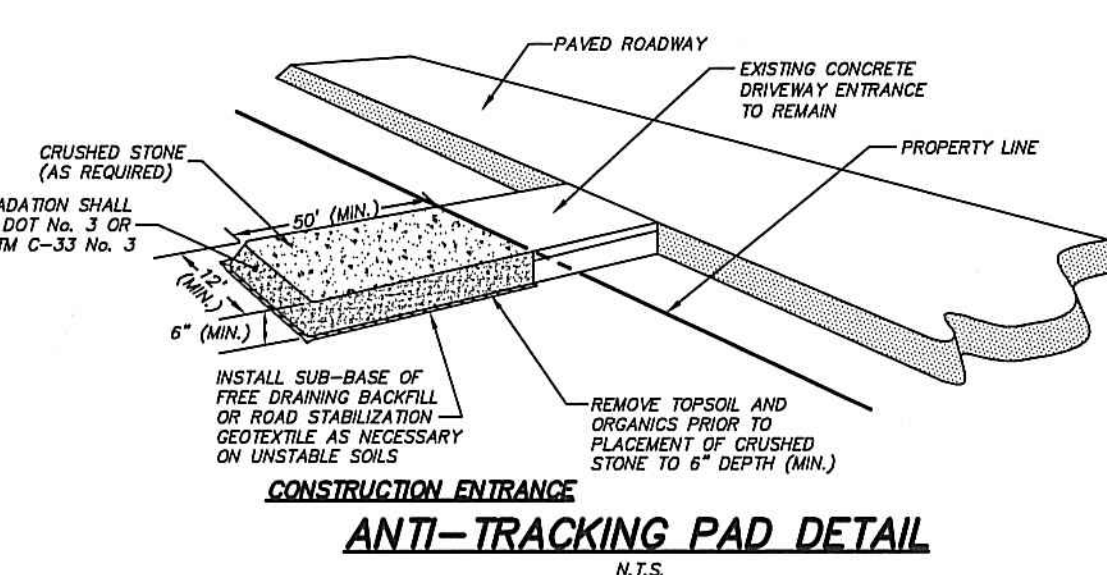
- Construct proposed building.

PHASE 5: SITE FEATURES

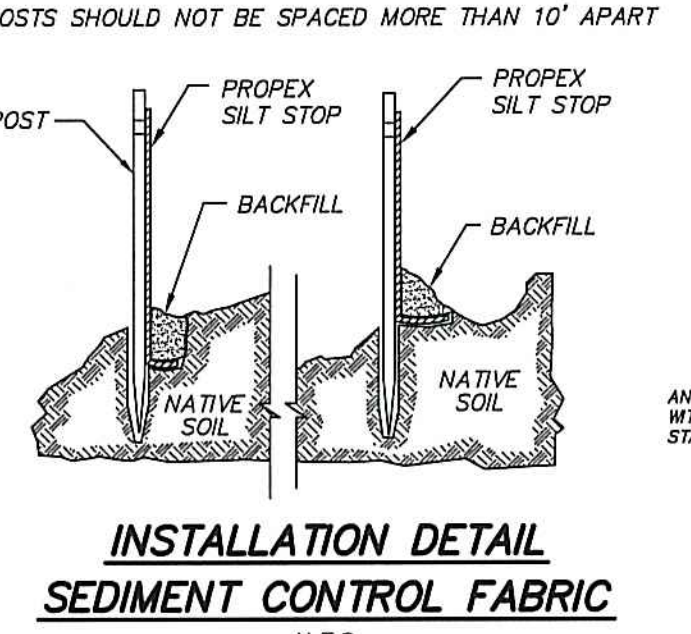
- Construct retaining walls.
- Construct curbing and hardscapes.
- Construct driveway.
- Final grade and stabilize all slopes.
- Landscaping as required.
- Remove sedimentation and erosion controls.



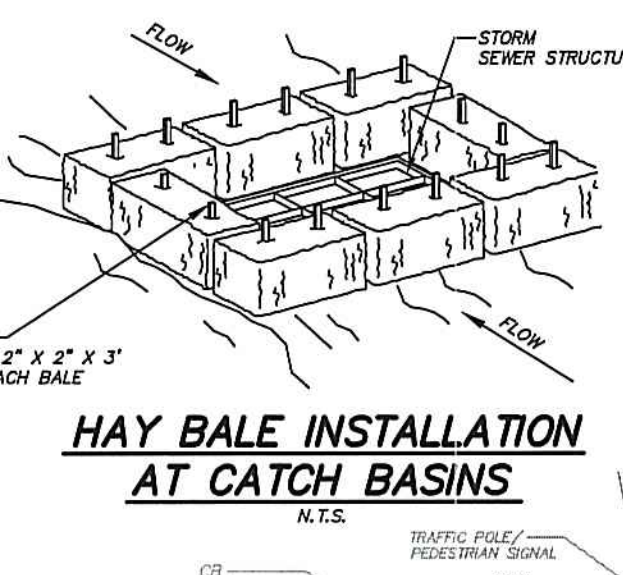
TEMPORARY STOCKPILE DETAIL
 N.T.S.
 NOTE: STOCKPILES SHALL NOT BE PLACED OVER ANY INFILTRATION SYSTEM.



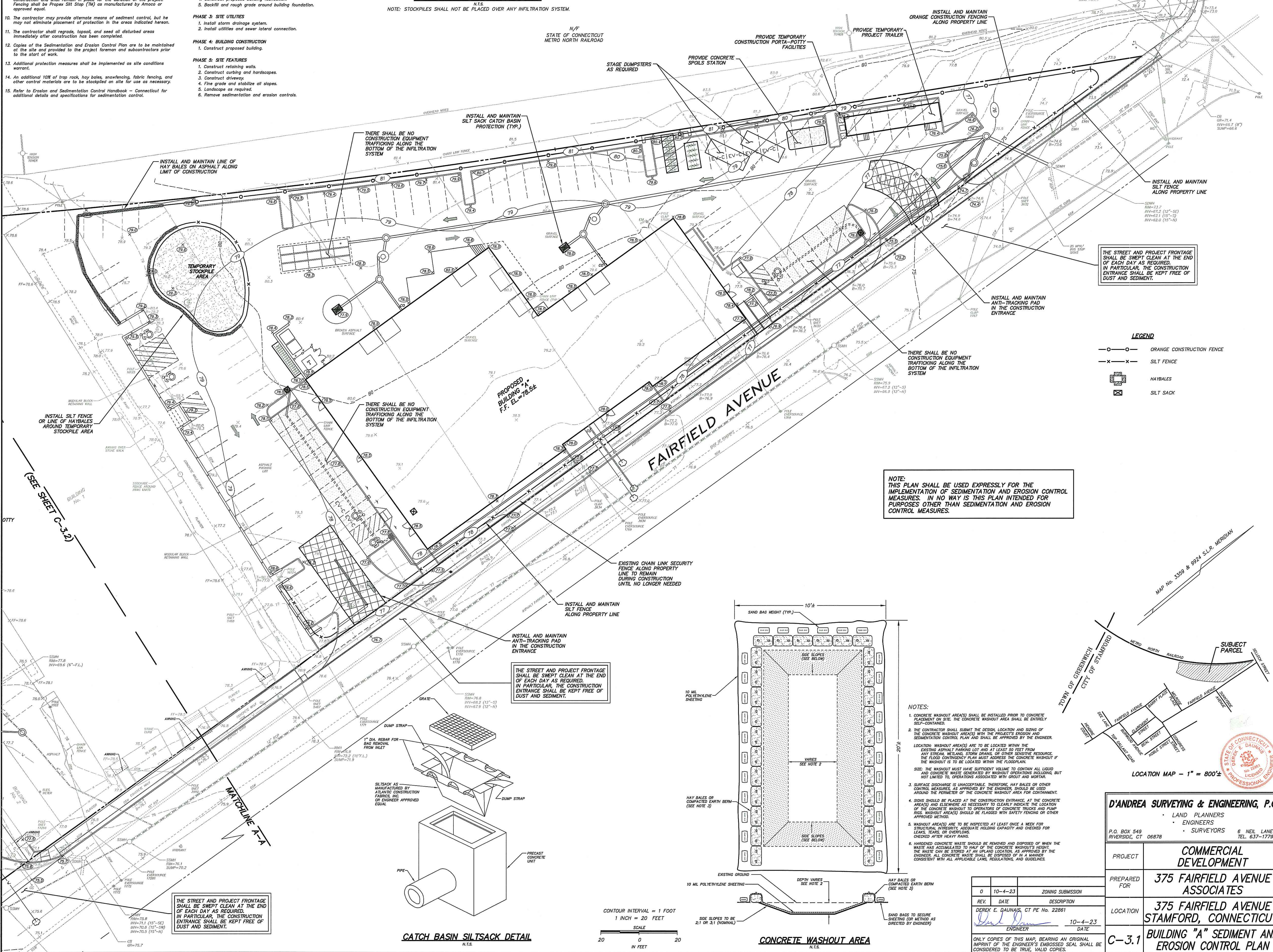
ANTI-TRACKING PAD DETAIL
 N.T.S.



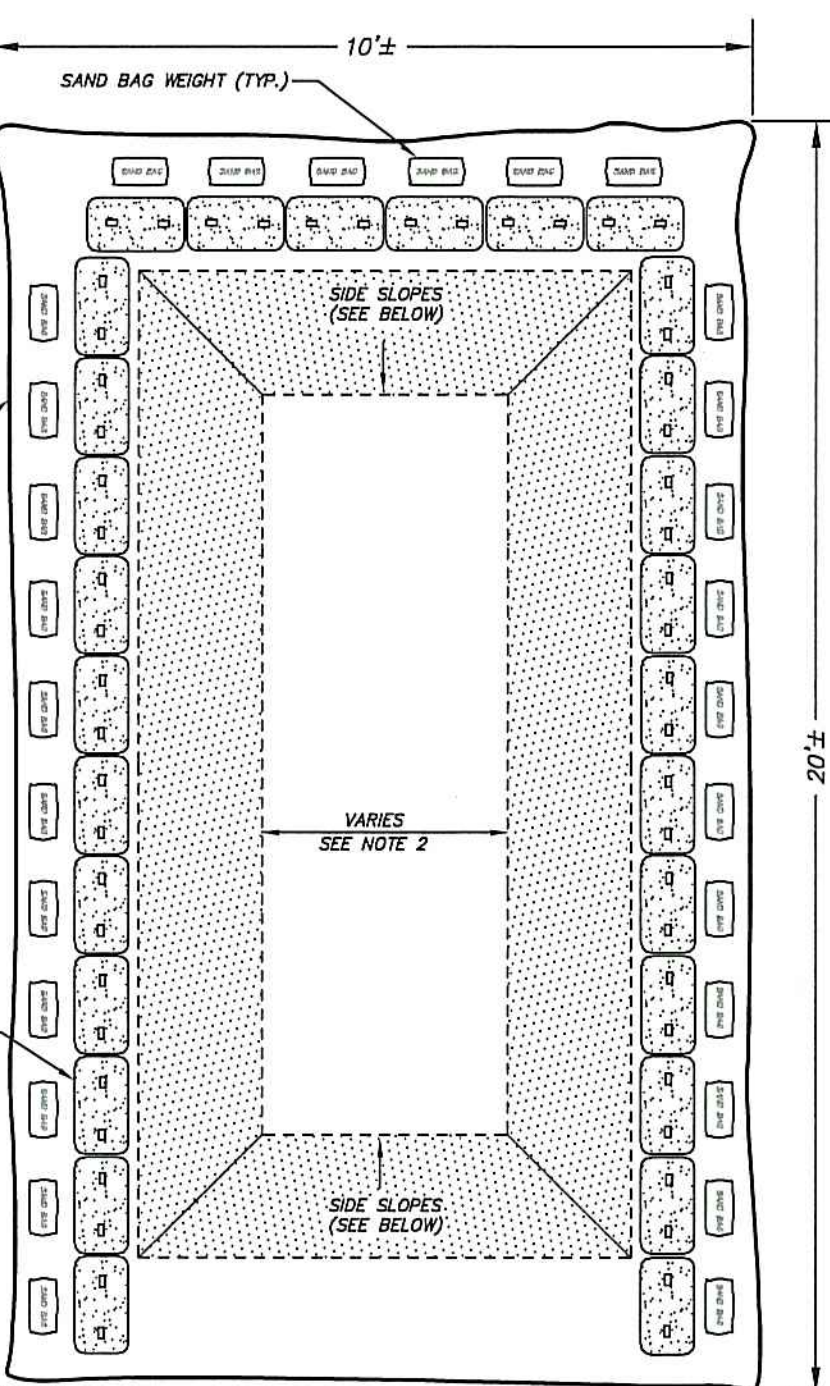
INSTALLATION DETAIL SEDIMENT CONTROL FABRIC
 N.T.S.



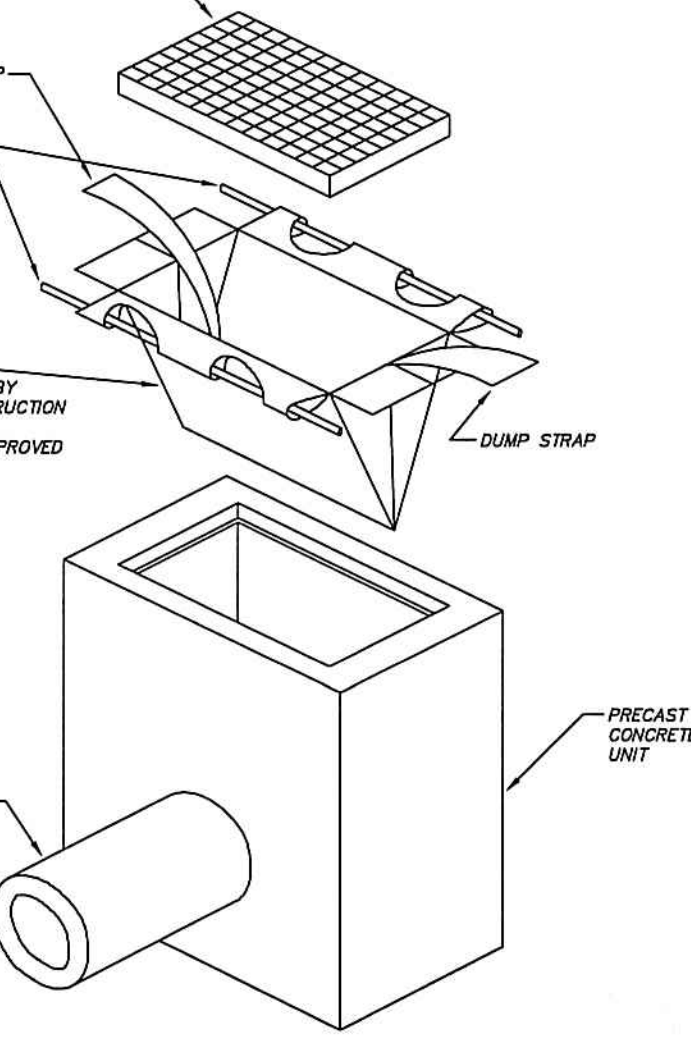
HAY BALE INSTALLATION AT CATCH BASINS
 N.T.S.



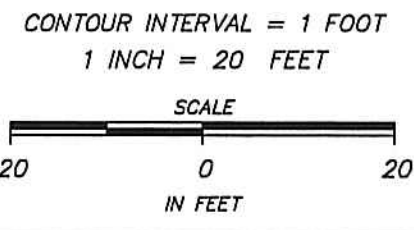
NOTE:
 THIS PLAN SHALL BE USED EXPRESSLY FOR THE IMPLEMENTATION OF SEDIMENTATION AND EROSION CONTROL MEASURES. IN NO WAY IS THIS PLAN INTENDED FOR PURPOSES OTHER THAN SEDIMENTATION AND EROSION CONTROL MEASURES.



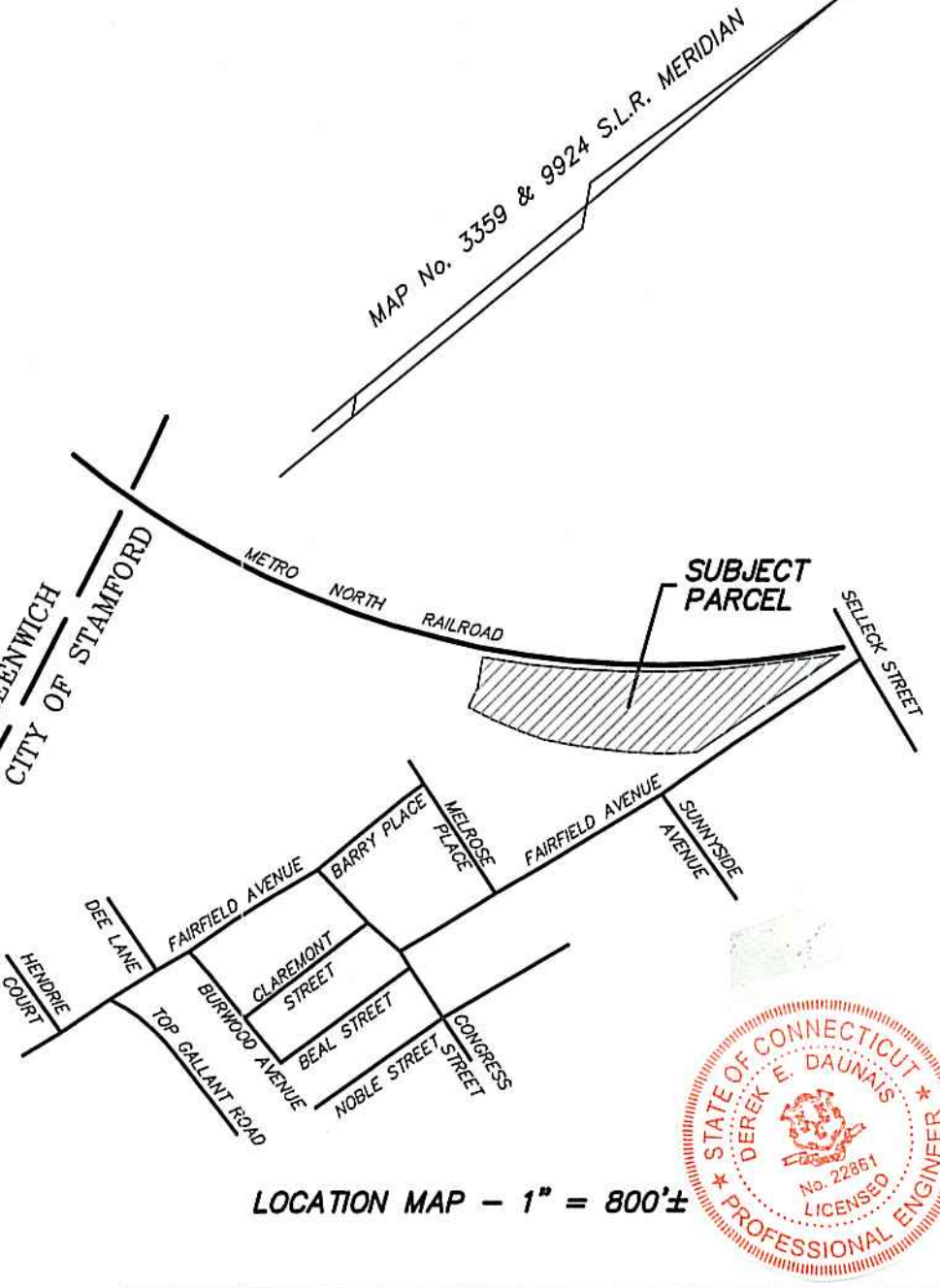
- NOTES:**
- CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. THE CONCRETE WASHOUT AREA SHALL BE ENTIRELY SELF-CONTAINED.
 - THE CONTRACTOR SHALL SUBMIT THE DESIGN, LOCATION AND SIZING OF THE CONCRETE WASHOUT AREA(S) WITH THE PROJECT'S EROSION AND SEDIMENTATION CONTROL PLAN AND SHALL BE APPROVED BY THE ENGINEER.
 - LOCATION: WASHOUT AREA(S) ARE TO BE LOCATED WITHIN THE EXISTING ASPHALT PARKING LOT AND AT LEAST 50 FEET FROM ANY STREAM, WETLAND, STORM DRAINS, OR OTHER SENSITIVE RESOURCE. THE FLOOD CONTINGENCY PLAN MUST ADDRESS THE CONCRETE WASHOUT IF THE WASHOUT IS TO BE LOCATED WITHIN THE FLOODPLAIN.
 - SIZE: THE WASHOUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS INCLUDING, BUT NOT LIMITED TO, OPERATIONS ASSOCIATED WITH GROUT AND MORTAR.
 - SURFACE FINISHING IS UNACCEPTABLE. THEREFORE, HAY BALES OR OTHER CONTROL MEASURES, AS APPROVED BY THE ENGINEER, SHOULD BE USED AROUND THE PERIMETER OF THE CONCRETE WASHOUT AREA FOR CONTAINMENT.
 - SIGNS SHOULD BE PLACED AT THE CONSTRUCTION ENTRANCE AT THE CONCRETE AREA(S) AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT TO OPERATORS OF CONCRETE TRUCKS AND PUMP TRUCKS. WASHOUT AREA(S) SHOULD BE PLACED WITH SAFETY FENCING OR OTHER APPROVED METHODS.
 - WASHOUT AREA(S) ARE TO BE INSPECTED AT LEAST ONCE A WEEK FOR STRUCTURAL INTEGRITY, ADEQUATE HOLDING CAPACITY AND CHECKED FOR LEAKS, TEARS, OR OVERFLOWS.
 - HARDENED CONCRETE WASTE SHOULD BE REMOVED AND DISPOSED OF WHEN THE WASTE HAS ACCUMULATED TO HALF OF THE CONCRETE WASHOUT'S HEIGHT. THE WASTE CAN BE STORED AT AN UPLAND LOCATION AS APPROVED BY THE ENGINEER. ALL CONCRETE WASTE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH ALL APPLICABLE LAWS, REGULATIONS, AND GUIDELINES.



CATCH BASIN SILTSACK DETAIL
 N.T.S.



CONCRETE WASHOUT AREA
 N.T.S.



D'ANDREA SURVEYING & ENGINEERING, P.C.
 LAND PLANNERS
 ENGINEERS
 SURVEYORS
 P.O. BOX 549 RIVERSIDE, CT 06878
 6 NEIL LANE TEL. 637-1779

COMMERCIAL DEVELOPMENT

375 FAIRFIELD AVENUE ASSOCIATES

375 FAIRFIELD AVENUE STAMFORD, CONNECTICUT

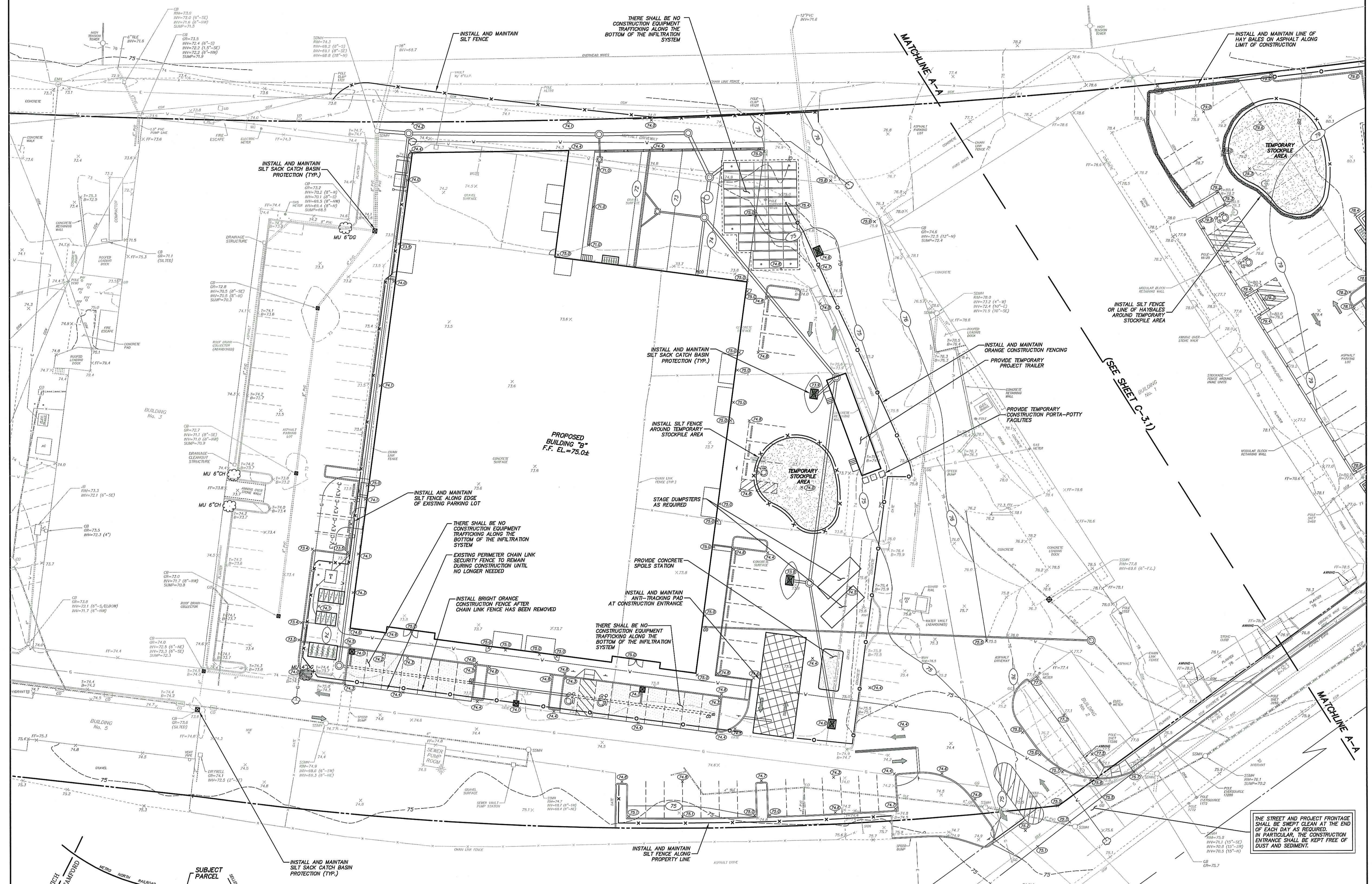
BUILDING "A" SEDIMENT AND EROSION CONTROL PLAN

C-3.1

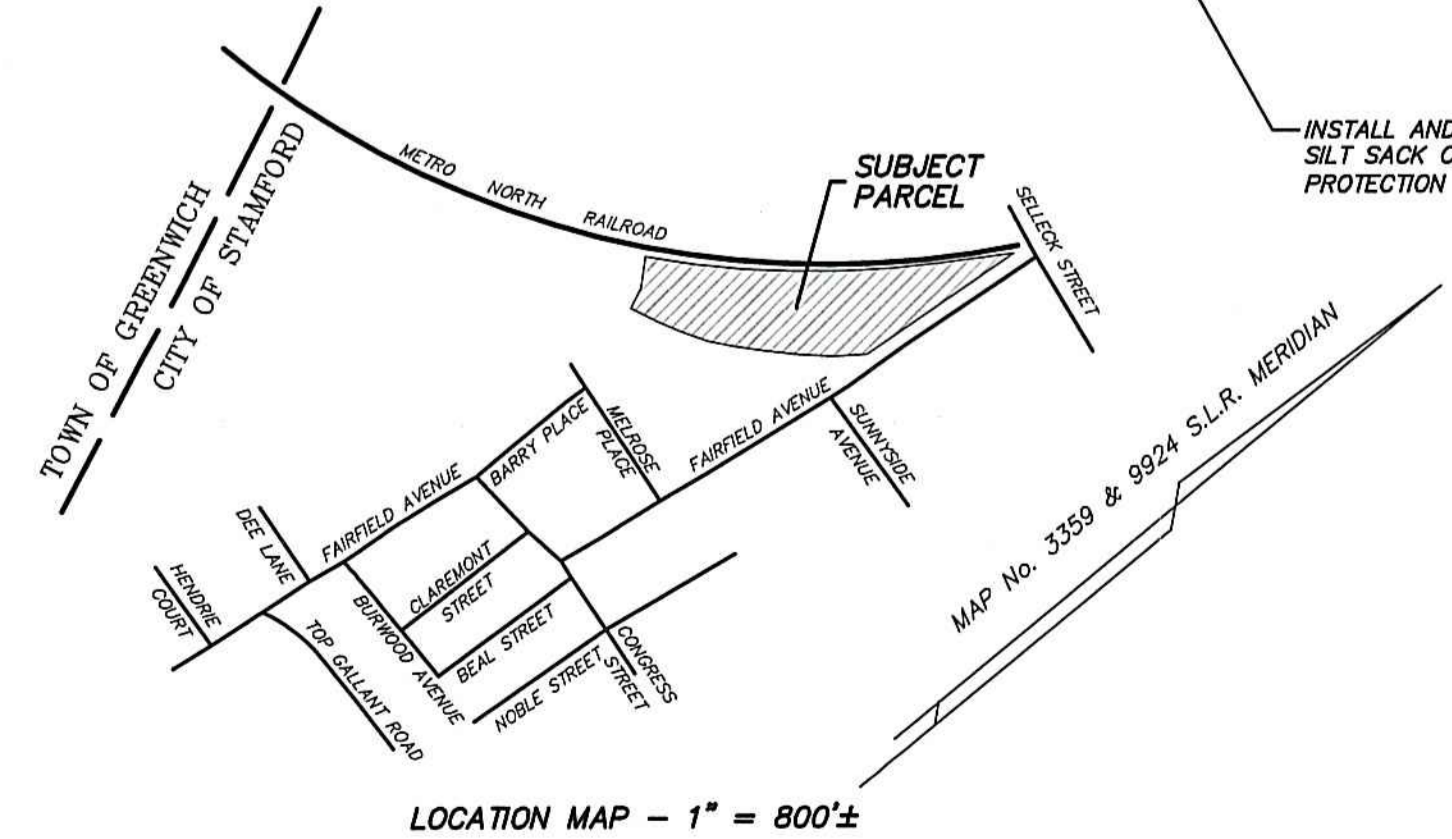
0	10-4-23	ZONING SUBMISSION
REV.	DATE	DESCRIPTION
		DEREK E. DAUNAS, CT PE No. 22861
	10-4-23	DATE
		ENGINEER

ONLY COPIES OF THIS MAP BEARING AN ORIGINAL IMPRINT OF THE ENGINEER'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.

N/F
 STATE OF CONNECTICUT
 METRO NORTH RAILROAD

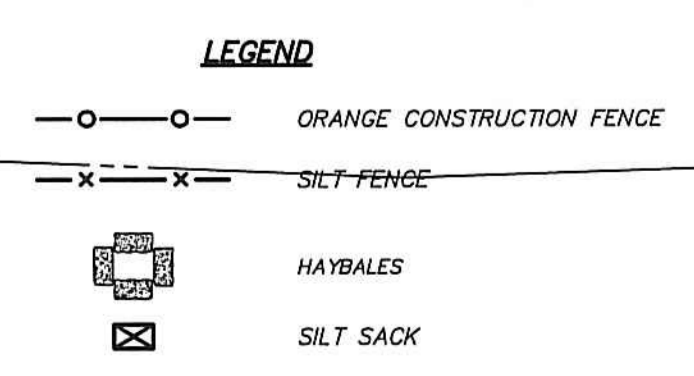


THE STREET AND PROJECT FRONTAGE SHALL BE SWEEP CLEAN AT THE END OF EACH DAY AS REQUIRED. IN PARTICULAR, THE CONSTRUCTION ENTRANCE SHALL BE KEPT FREE OF DUST AND SEDIMENT.

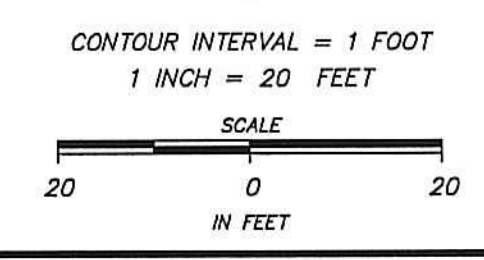


- GENERAL CONSTRUCTION PHASING:**
- PHASE 1: DEMOLITION**
1. Access site using existing driveway entrance along Fairfield Avenue. Contractor parking and stockpiling to be on-site.
 2. Remove vegetation.
 3. Remove existing structures, hardscapes, and site features.
 4. Install sedimentation and erosion controls.
- PHASE 2: SITE GRADING/FOUNDATION CONSTRUCTION**
1. Rough in proposed driveway and construction access.
 2. Rough grade site.
 3. Excavate for proposed building foundation.
 4. Construct proposed building foundation.
 5. Backfill and rough grade around building foundation.
- PHASE 3: SITE UTILITIES**
1. Install storm drainage system.
 2. Install utilities and sewer lateral connection.
- PHASE 4: BUILDING CONSTRUCTION**
1. Construct proposed building.
- PHASE 5: SITE FEATURES**
1. Construct retaining walls.
 2. Construct curbing and hardscapes.
 3. Construct driveway.
 4. Fine grade and stabilize all slopes.
 5. Landscape as required.
 6. Remove sedimentation and erosion controls.

NOTE:
 THIS PLAN SHALL BE USED EXPRESSLY FOR THE IMPLEMENTATION OF SEDIMENTATION AND EROSION CONTROL MEASURES. IN NO WAY IS THIS PLAN INTENDED FOR PURPOSES OTHER THAN SEDIMENTATION AND EROSION CONTROL MEASURES.



- NOTES:**
1. Refer to Sheet C-3.1 for Sedimentation and Erosion Control Notes and Details.
 2. Elevations shown are based on the North American Vertical Datum of 1988 (NAVD 88). The contractor shall coordinate the transfer of a control benchmark into the working area, after site preparation is complete, by a licensed surveyor.
 3. The information given on this plan in respect to the location of subsurface structures and utilities indicates only that the structures and utilities exist and no responsibility is assumed by the engineer for the accuracy of the locations shown. Utility information is not guaranteed complete or accurate.
 4. This plan shall be used expressly for the implementation of sedimentation and erosion control measures. In no way is this plan intended for purposes other than sedimentation and erosion control measures.



D'ANDREA SURVEYING & ENGINEERING, P.C.
 LAND PLANNERS
 ENGINEERS
 SURVEYORS
 P.O. BOX 549
 RIVERSIDE, CT 06878
 6 NEIL LANE
 TEL. 837-1779

PROJECT COMMERCIAL DEVELOPMENT

PREPARED FOR 375 FAIRFIELD AVENUE ASSOCIATES

LOCATION 375 FAIRFIELD AVENUE STAMFORD, CONNECTICUT

C-3.2 BUILDING "B" SEDIMENT AND EROSION CONTROL PLAN

REV. DATE DESCRIPTION
 0 10-4-23 ZONING SUBMISSION
 DEREK E. DAUNAS, CT PE No. 22861
 10-4-23
 DATE
 ENGINEER

ONLY COPIES OF THIS MAP, BEARING AN ORIGINAL IMPRINT OF THE ENGINEER'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.

CONSTRUCTION NOTES:

- The contractor shall obtain all appropriate permits prior to commencing construction.
- The contractor shall be solely responsible to coordinate his work with the work being done by others. The contractor shall likewise bear the responsibility for delays or other factors related to the work by others. No claims shall be allowed due to the contractor's failure to adequately coordinate such work.
- All construction shall be inspected by a professional engineer prior to backfill and as the work progresses.
- The project engineer shall be notified a minimum of three working days prior to the commencement of each phase of construction.
- Appropriate measures shall be taken to control any sedimentation and erosion which may result during construction.
- All specimen trees shall be protected during the construction period, except those specifically designated to be removed, in accordance with generally accepted standards.
- There shall be no dumping of construction debris and/or excess excavated material into or in proximity to any inland or tidal wetland areas. All excavated material shall be stockpiled and contained on-site within silt fencing. The contractor shall be responsible for the removal of all excess material excavated during construction. All excess material shall be removed in a careful and environmentally sound manner and shall be disposed of legally off-site.
- The proposed building shall be designed by the architect in order to conform with current applicable zoning setback criteria and regulations, and a building permit shall be obtained prior to commencing construction.
- Existing utilities in conflict through or above this parcel shall be relocated as directed by the appropriate utility company or the owner. The contractor shall excavate test pits to verify the location and depth of utilities where conflicts may exist.
- Pavement replacement shall be bituminous concrete, placed in accordance with the City of Stamford standards and/or Connecticut State Highway specifications.
- Shoulders and disturbed areas shall receive four inches of topsoil, fine graded and seeded as soon as practical to prevent erosion.
- The contractor shall not commence any paving until the grading and shaping of the compacted gravel base has been approved by the project engineer.
- Regrading, filling, and other such alterations to the site shall be restricted to the minimum level necessary to complete the project as shown on the plan.
- Existing inverts on storm drains, sanitary sewers, and utility conduits shall be field verified where appropriate, before commencing construction. The contractor shall excavate test pits where indicated herein or wherever conflicts may occur. The contractor shall notify the project engineer of the test pit schedule. Design conflicts if any, shall be brought to the immediate attention of the project engineer. Plate or backfill and patch test pits as directed by the project engineer.
- Manhole structures shall be precast concrete with gaskets as manufactured by Eastern Precast Co., Inc. or engineer approved equal, unless noted otherwise.
- Precast concrete cone section to be eccentric. Flat slab tops to have eccentric openings. Eccentric cone sections shall be used when the vertical distance between manhole frame and top of highest pipe is six (6) feet or greater, otherwise flat slab tops shall be used. Aluminum manhole steps (one (1) per foot) shall be provided in all manholes at 12 inch intervals. Each step shall be capable of supporting a minimum load of 1,000 pounds. Wall joints to be "O-ring" rubber gasket type with the interior and exterior faces of joints to be sealed with waterproof non-shrink grout.
- Connection between manholes and PVC sanitary sewer or storm drain pipes shall be made with flexible rubber gasket type connections sealed water tight with a stainless steel clamp. The contractor shall make sure that all connections of new sanitary sewers to manholes are water tight. Connections to manholes for reinforced concrete storm and sanitary sewer pipe shall be made with concrete brick masonry and non-shrink grout. The contractor shall make sure that all connections of new sanitary sewers to manholes are water tight.
- All gravity PVC storm drain and sanitary sewer pipes shall conform to ASTM D 3034 "Standard Specification for type PSM Poly Vinyl Chloride (PVC) Sewer Pipe and Fittings" or approved equal (SDR35).
- Corrugated plastic pipe (CPP) shall be HDPE, N=12, smooth interior pipe as manufactured by Advanced Drainage Systems, Inc. or engineer approved equal and shall comply with AASHTO M294-94 Type S (smooth inner liner).
- All reinforced concrete pipe (RCP) shall be Class IV.
- Where unsuitable foundation is encountered during construction of storm drains or sanitary sewers, the contractor shall remove the unsuitable material and replace it with other material approved by the project engineer.
- Bedding and backfill material shall conform to ASTM D3231 specification "standard recommended practice for underground installations of flexible thermoplastic sewer pipe (PVC)".
- All drainage and sewer conduits within the City right-of-way shall have 2 foot minimum cover or be encased in concrete if located under a paved or traveled way.
- All storm drainage and sewer connections shall be sloped at 2% (minimum) or as otherwise noted.
- The contractor shall provide all equipment, tools, labor and materials necessary to satisfactorily clean and remove all visible obstructions, dirt, sand, sludge, roots, gravel, stones, etc., from the storm drains, sanitary sewers, and structures.
- Processed aggregate shall be in accordance with the City of Stamford standards and/or Connecticut State Highway specifications.
- Roadway pavement shall be 2 course bituminous concrete placed in accordance with the City of Stamford standards and/or Connecticut State Highway specifications.
- All existing manhole frames, catch basin grates, and utility structures shall be adjusted to new finish grade as required. Contractor to coordinate with existing utility companies to ensure their facilities are adjusted to finish grade.
- Curbs and sidewalks in the City right-of-way shall be constructed in accordance with the City of Stamford specifications. The contractor shall pay specific attention to the location of construction joints.
- All traffic control devices including traffic signs and pavement markings shall be installed in conformance with the Manual on Uniform Traffic Control Devices for Streets and Highways, U.S. Department of Transportation, Federal Highway Administration, Millennium Edition, as amended to date.

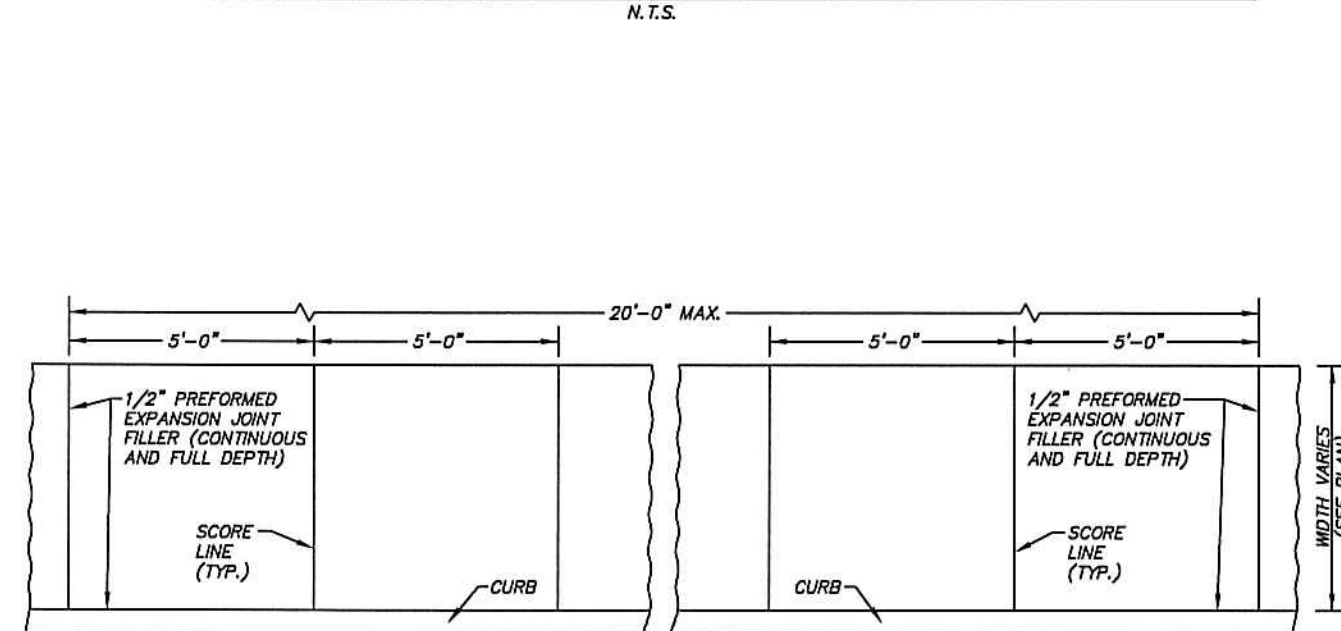
STANDARD CITY OF STAMFORD NOTES:

- A Street Opening Permit is required for all work within the City of Stamford Right-of-Way.
- All work within the City of Stamford Right-of-Way shall be constructed to City of Stamford requirements, the State of Connecticut Basic Building Code and the Connecticut Guidelines for Soil Erosion and Sedimentation Control.
- The Engineering Bureau of the City of Stamford shall be notified three days prior to any commencement of construction or work within the City of Stamford Right-of-Way.
- Trees within the City of Stamford Right-of-Way to be removed shall be posted in accordance with the Tree Ordinance.
- Prior to any excavation the Contractor and/or Applicant/Owner, in accordance with Public Act 77-350, shall be required to contact "Call Before You Dig" at 1-800-922-4455 for mark out of underground utilities.
- All retaining walls three (3) feet or higher measured from finished grade at the bottom of the wall to finished grade at the top of the wall and retaining walls supporting a surcharge or impounding Class I, II or III-A liquids are required to have a Building Permit. Retaining walls shall be designed and inspected during construction by a Professional Engineer licensed in the State of Connecticut. Prior to the issuance of a Certificate of Occupancy, retaining walls shall be certified by a Professional Engineer licensed in the State of Connecticut.
- Certification will be required by a professional engineer licensed in the State of Connecticut that work has been completed in compliance with the approved drawings.
- A Final Improvement Location Survey will be required by a professional land surveyor licensed in the State of Connecticut.
- Connection to a city-owned storm sewer shall require the Waiver Covering Storm Sewer Connection to be filed with the City of Stamford Engineering Bureau.
- Granite block or other decorative stone or brick, depressed curb, driveway apron and curbing within the City of Stamford Right-of-Way shall require the Waiver Covering Granite Block Depressed Curb and Driveway Aprons to be filed with the City of Stamford Engineering Bureau.
- Sediment and erosion controls shall be maintained and repaired as necessary throughout construction until the site is stabilized.
- To obtain a Certificate of Occupancy, submit all items outlined in the Checklist for Certificate of Occupancy (Appendix D of the City of Stamford Drainage Manual).

NOTES:

- DETAIL SHOWING TYPICAL MODULAR BLOCK WALL ACTUAL CONSTRUCTION TECHNIQUES WILL VARY DEPENDENT ON MANUFACTURER. IN ALL CASES, THE CONTRACTOR MUST PROVIDE STALLING DIMENSIONS BEARING THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT.
- COLOR AND TEXTURE OF WALL FACE SHALL BE APPROVED BY THE OWNER.

TYPICAL SECTION - UNREINFORCED LOW-PROFILE MODULAR CONCRETE BLOCK RETAINING WALL



CONCRETE FOR THE SIDEWALK SHALL BE PLACED TO A UNIFORM DEPTH OF FIVE (5) INCHES UNLESS A SIX (6) INCH 3/4" CRUSHED STONE BASE, THE SURFACE EDGES OF EACH PANEL SHALL BE ROUNDED TO A RADIUS OF 1/4" INCH.

CONCRETE SHALL BE PORTLAND CLASS "1" CEMENT TYPE II (4,400 PSI MIN) AND SHALL HAVE BETWEEN 6-7% AIR ENTRAINMENT.

WIRE SHALL BE INSTALLED AND DEPTH OF SIDEWALK SHALL BE SUPPORTED ON CONCRETE BLOCK OR OTHER APPROVED MATERIAL.

A 1/2" THICK APPROVED PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED TRANSVERSELY EVERY 20' FT. MAX. AND BETWEEN NEW CONCRETE CURBING AND SIDEWALKS.

A 1/2" THICK APPROVED PREFORMED EXPANSION JOINT FILLER SHALL BE UTILIZED BETWEEN BITUMINOUS JOINTS. CONTROL JOINTS SHALL BE 1" DEEP.

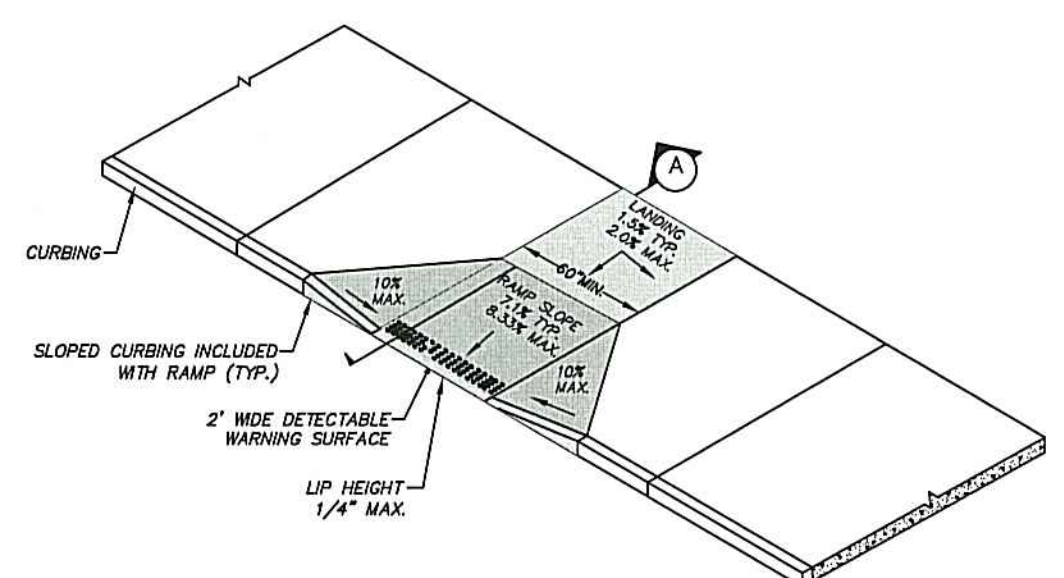
ADDITIONAL CONTROL JOINTS SHALL BE PLACED AS REQUIRED TO ELIMINATE ANY CONDITION WHICH WILL CAUSE STRESS CRACKS (EXAMPLE AT CORNERS OF STRUCTURES). JOINTS SHALL BE ORIENTED AS DIRECTED BY THE PROJECT ENGINEER.

SURFACE SHALL BE GIVEN A BROOM FINISH ORIENTED PERPENDICULAR TO DIRECTION OF PEDESTRIAN TRAFFIC FLOW.

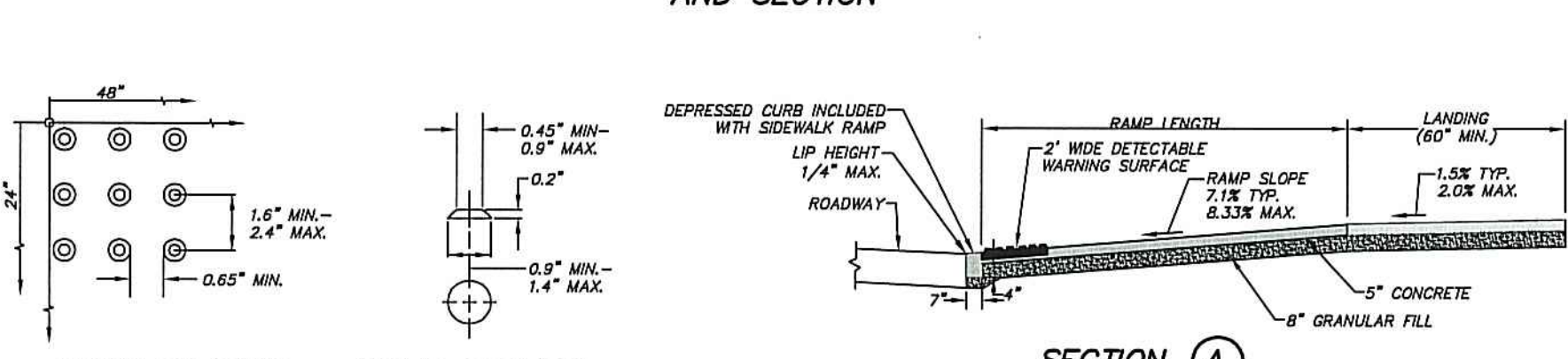
ANY CHANGES REQUIRED BY LOCAL FIELD CONDITIONS SHALL BE MADE ONLY BY ORDER OF THE PROJECT ENGINEER OR THE CITY ENGINEER.

PLAN OF A SECTION OF CONCRETE SIDEWALK

N.T.S.



PERPENDICULAR SIDEWALK RAMP AND SECTION



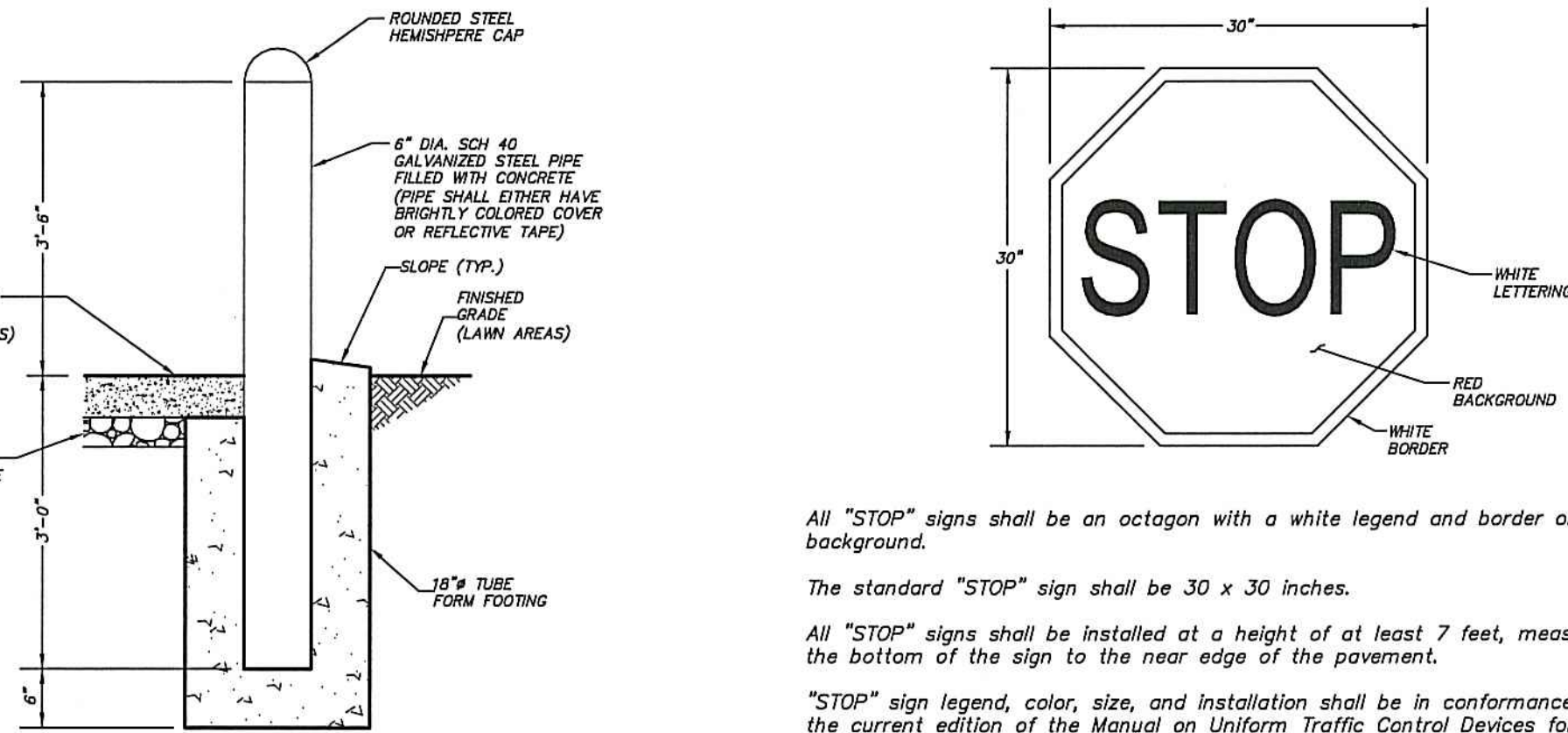
DETAILS FOR PEDESTRIAN ACCESS RAMPS

N.T.S.

- MINIMUM SLOPES OF ADJACENT GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE SIDEWALK RAMP OF ACCESSIBLE ROUTE SHOULD NOT EXCEED 20:1.
- CARE SHALL BE TAKEN TO ASSURE UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND ABRUPT GRADE CHANGES.
- ALL RAMPS SHALL BE CONSTRUCTED BY EXISTING CONCRETE IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS ARTICLE 16.01.01.
- SIDEWALK RAMPS SHALL HAVE A COARSE BROWN FINISH TRANSVERSE TO THE SLOPE OF THE RAMP. THE SURFACE ALONG ACCESSIBLE ROUTES SHALL BE STABLE, FIRM AND SLIP RESISTANT.
- DIAGONAL SIDEWALK RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
- REMOVAL OF EXISTING SIDEWALK FOR NEW RAMP INSTALLATIONS SHALL BE TO THE NEAREST EXPANSION/CONTRACTION JOINT OR GRABIT JOINT. 12" MAY NOT BE ACHIEVABLE DUE TO SIDEWALK GRADE. IN RECOGNITION OF THIS A MINIMUM LIMIT OF 18" FOR A PARALLEL RAMP SHALL BE USED. REMOVAL SHALL NOT BE FURTHER THAN 2' FROM THE PROPOSED RAMP UNLESS DIRECTED BY THE ENGINEER. SHIP CUT REQUIRED FOR CURBY SURF SHALL BE INCLUDED IN THE COST OF "CONCRETE SIDEWALK".
- EXPANSION JOINTS IN CONCRETE SHALL MATCH THOSE IN ADJACENT SIDEWALKS BUT IN NO CASE SHALL THE SPACING BETWEEN EXPANSION JOINTS EXCEED 12' UNLESS OTHERWISE NOTED.
- RAISED ISLANDS IN MARKED CROSSINGS SHALL HAVE SIDEWALK RAMPS AT BOTH SIDES AND A LEVEL AREA AT LEAST 4' LONG BETWEEN THE RAMPS. IF THIS CANNOT BE ACHIEVED, THE RAISED ISLAND SHALL BE CUT THROUGH LEVEL WITH THE ROADWAY AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- SIDEWALK RAMPS SHALL BE CONSTRUCTED AND PAID FOR UNDER THE ITEM "CONCRETE SIDEWALK" INCLUDING CURBING WITHIN THE LIMITS OF THE NEW SIDEWALK RAMP AND DETECTABLE WARNING STRIPS.
- CURBING WITHIN THE LIMITS OF NEW SIDEWALK RAMP SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE REQUIREMENTS OF FORM R17 SECTIONS 8.11 AND 8.13.
- HANDICAP RAMPS CONFORMING WITH CONNECTICUT GENERAL STATUTES, SEC. 7-118A, SHALL BE INCORPORATED IN ALL PROPOSED SIDEWALKS AT ALL STREET INTERSECTIONS AND AT ALL OTHER LOCATIONS WHERE THE GRADE OF A DRIVEWAY OR OTHER FACILITY TAKES PRECEDENCE OVER THE GRADE OF THE PROPOSED SIDEWALK.
- TRANSITION TO FULL HEIGHT CURB. INSTALL STONE CURBING IF ADJACENT CURBING IS STONE. INSTALL CONCRETE CURBING IF ADJACENT CURBING IS CONCRETE OR BITUMINOUS.
- INSTALL THE EDGE OF THE DETECTABLE WARNING 6" FROM THE EDGE OF ROAD.
- TO PERMIT WHEELCHAIR WHEELS TO ROLL BETWEEN DOMES, ALIGN DOMES ON A SQUARE GRID IN THE DIRECTION OF PEDESTRIAN TRAVEL.

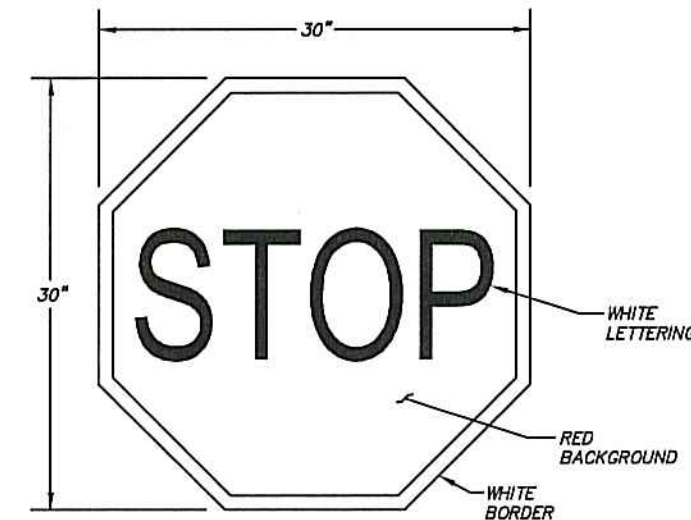
CONCRETE CURB DETAIL

N.T.S.



BOLLARD/PIPE GUARD DETAIL

N.T.S.



"STOP" SIGN DETAIL (R1-1)

N.T.S.

All "STOP" signs shall be on octagon with a white legend and border on a red background.

The standard "STOP" sign shall be 30 x 30 inches.

All "STOP" signs shall be installed at a height of at least 7 feet, measured from the bottom of the sign to the top edge of the pavement.

"STOP" sign legend, color, size, and installation shall be in conformance with the current edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, U.S. Department of Transportation, Federal Highway Administration.



RESERVED PARKING SPACE SIGN DETAIL

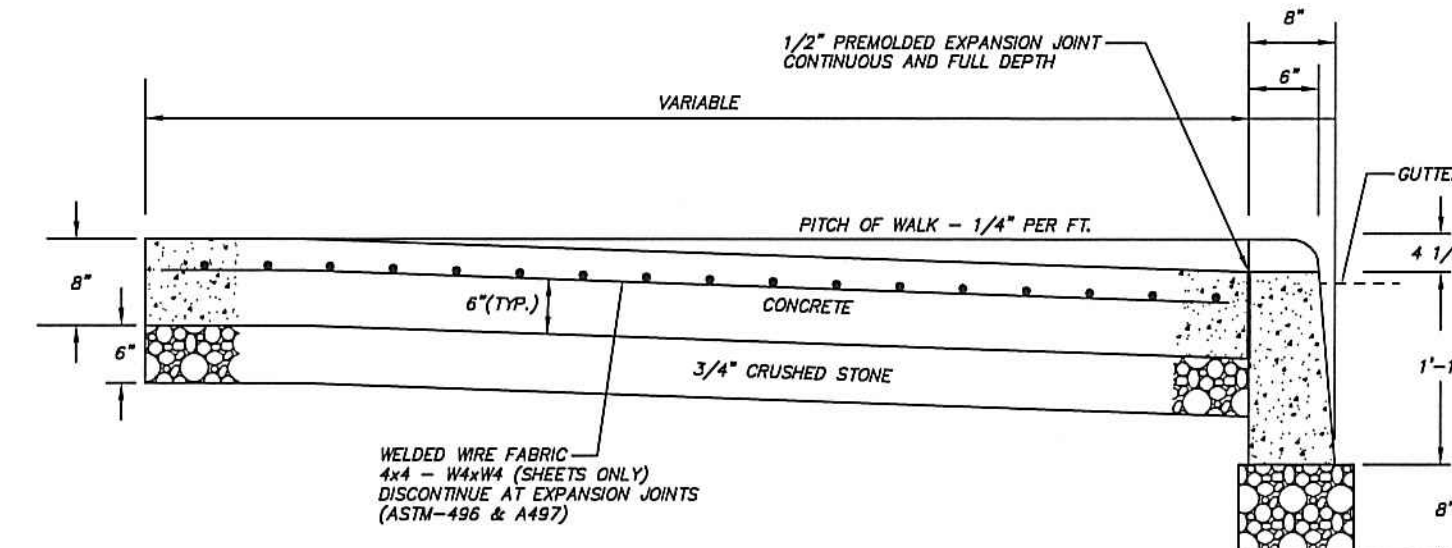
N.T.S.

"RESERVED PARKING PERMIT REQUIRED" & "VAN ACCESSIBLE" signs shall have white lettering against a blue background.

All accessible signage sizes, lettering, and symbols shall comply with federal and state specifications.

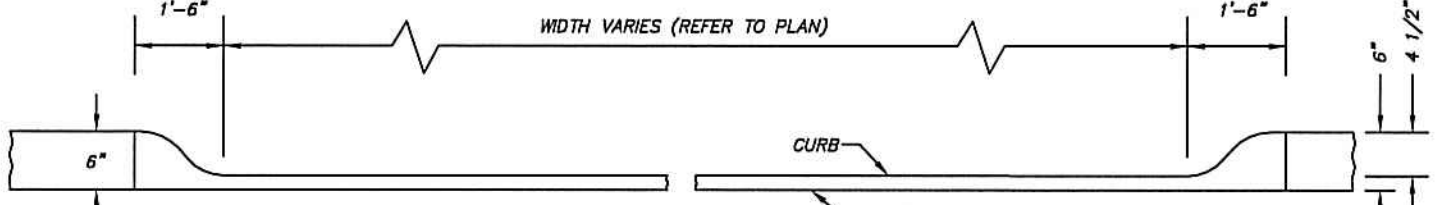
All accessible signage shall be installed 60" (minimum) above the floor or ground surface of the parking space, measured to the bottom of the sign.

Confirm fine amount prior to sign fabrication.



STANDARD DRIVEWAY & HEAVY DUTY DRIVEWAY

N.T.S.



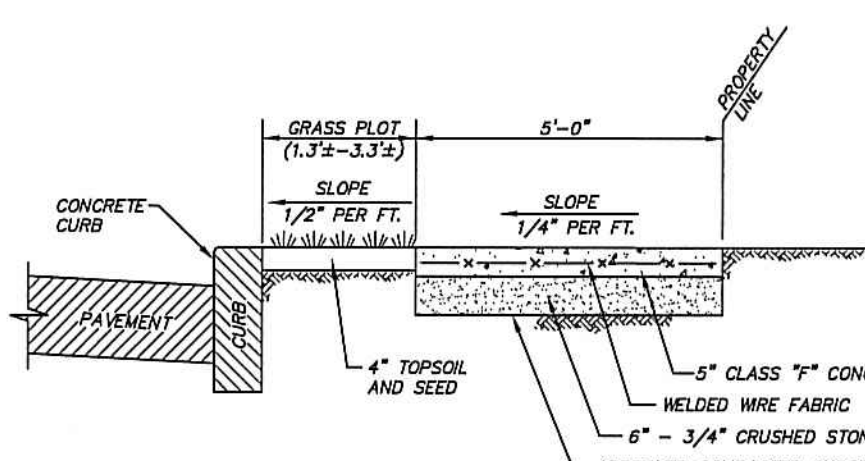
TYPICAL CONSTRUCTION OF CURB AT DRIVEWAY

N.T.S.

- ALL REINFORCING SHALL BE SUPPORTED ON CHAIRS OR OTHER POSITIVE TYPE SUPPORTS APPROXIMATELY ONE PER 25 SQ. FT.
- CONCRETE SHALL BE CLASS "1", 4400 PSI.
- AIR ENTRAINMENT SHALL BE BETWEEN 6 - 7%.

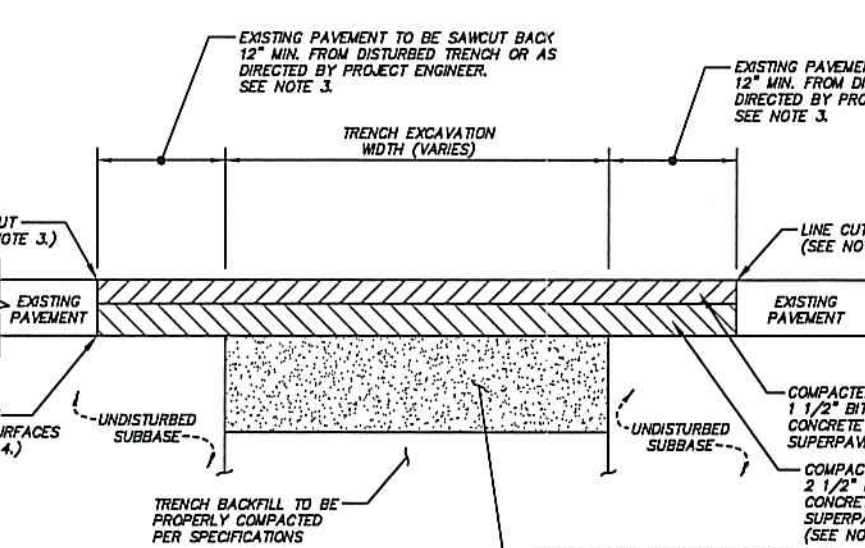
REINFORCED CONCRETE DRIVEWAY ENTRANCE

N.T.S.



CONCRETE SIDEWALK WITH PLANTING STRIP IN CITY R.O.W.

N.T.S.



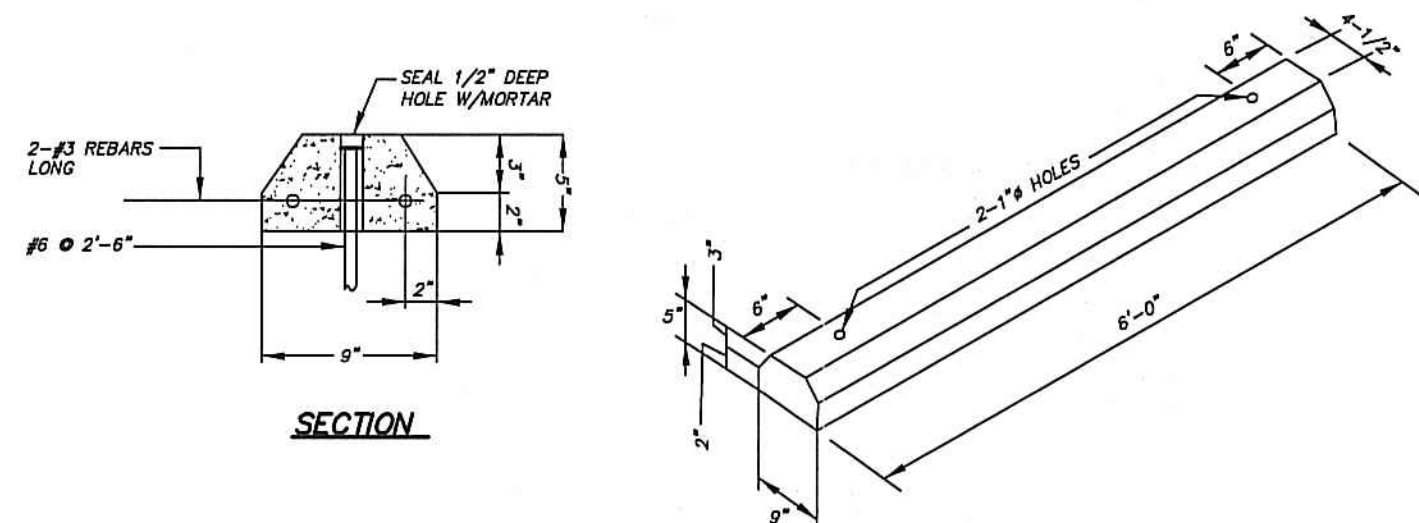
DETAIL FOR TRENCH REPAIR

N.T.S.

- ALL WORK TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONNECTICUT DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION, LATEST EDITION, OR AS DIRECTED BY PROJECT ENGINEER.
- SHOULD THE TOTAL THICKNESS OF EXISTING PAVEMENT EXCEED THICKNESS OF PROPOSED BINDER FILLER WEARING COURSE, THE THICKNESS OF BINDER COURSE SHALL BE INCREASED SUCH THAT THE TOTAL THICKNESS OF REPAIR BITUMINOUS PAVEMENT MATCHES EXISTING.
- CURBWORK SHALL BE MADE IMMEDIATELY PRIOR TO BINDER REPAIR AND NOT WHEN TRENCH IS EXCAVATED. CURBWORK SHALL BE STRAIGHT AND EVEN TO ELIMINATE IRREGULAR EDGES.
- TACK COAT SHALL BE APPLIED TO THE FULL DEPTH OF EXISTING PAVEMENT ALONG THE PERIMETER EDGES OF THE TRENCH AND ALL CONTACT SURFACES SUCH AS CURBING AND STRUCTURES (MANHOLES AND CATCH BASINS). TACK COAT SHALL BE APPLIED BETWEEN LIFTS/COURSES THAT HAVE BEEN IN PLACE LONGER THAN FIVE (5) DAYS.
- MIN. 5/8" SDR BINDER COURSE SHALL NOT BE PLACED IN LIFTS GREATER THAN 2 1/2" COMPACTED THICKNESS.

BITUMINOUS CONCRETE DRIVEWAY AND PARKING LOT DETAIL

N.T.S.



PRECAST CONCRETE CURB STOP DETAIL

N.T.S.

Test Pits	TP-1 to TP-7	TP-1 to TP-7	TP-1 to TP-7	TP-1 to TP-7	TP-1 to TP-7	TP-1 to TP-7	TP-1 to TP-7
375 Fairfield Avenue Stamford, Connecticut TP-1 to TP-7 were conducted by Rocco V. D'Andrea, Inc., on June 28, 2023.	0" Processed Aggregate	0" Processed Aggregate	0" Processed Aggregate	0" Processed Aggregate	0" Processed Aggregate	0" Processed Aggregate	0" Processed Aggregate
	15" Brown Silty Sand	15" Brown Silty Sand	10" Brown Silty Sand	10" Fill/Silty Sand w/ Bricks	10" Grey Gravel Fill	10" Tan Brown Silty Sand w/ Cobbles	4" Construction Debris Fill (Concrete, Bricks, Metal, Etc.)
	52" Silty Sand w/ Cobbles / Weathered Rock	15" Brown Silty Sand	24" Brown Silty Sand	28" Brown Silty Sand	28" Brown Silty Sand	65" Silty Sand & Weathered Rock	30" Old Concrete
	78" No Matting / No GW / Ledge @ 78" / Restrictive @ 78"	42" No Matting / No GW / Ledge @ 42" / Restrictive @ 40"	60" Silty Sand w/ Cobbles / Weathered Rock	52" Silty Sand w/ Cobbles / Weathered Rock	42" Brown Silty Sand w/ Grey Silt Clumps / No Matting / Ledge @ 78" / Restrictive @ 68"	78" No Matting / No GW / Ledge @ 78" / Restrictive @ 65"	30" No Matting / No GW / Ledge @ 78" / Restrictive @ 118"



D'ANDREA SURVEYING & ENGINEERING, P.C.
LAND PLANNERS
ENGINEERS
P.O. BOX 549
RIVERSIDE, CT 06878

6 NELL LANE
TEL. 637-1779

PROJECT: **COMMERCIAL DEVELOPMENT**

PREPARED FOR: **375 FAIRFIELD AVENUE ASSOCIATES**

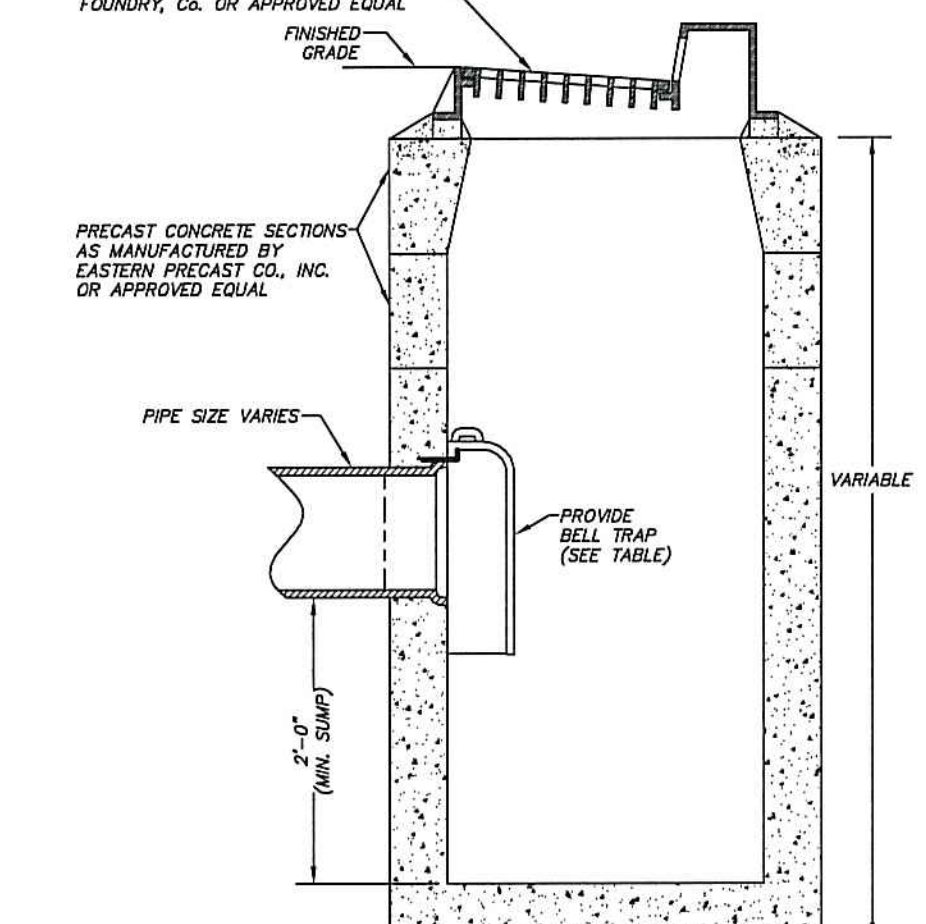
LOCATION: **375 FAIRFIELD AVENUE STAMFORD, CONNECTICUT**

C-4.1 **NOTES AND DETAILS**

REV.	DATE	DESCRIPTION
0	10-4-23	ZONING SUBMISSION
1	10-4-23	DEREK E. DAUNAIS-CT PE No. 22881
2	10-4-23	ENGINEER DATE

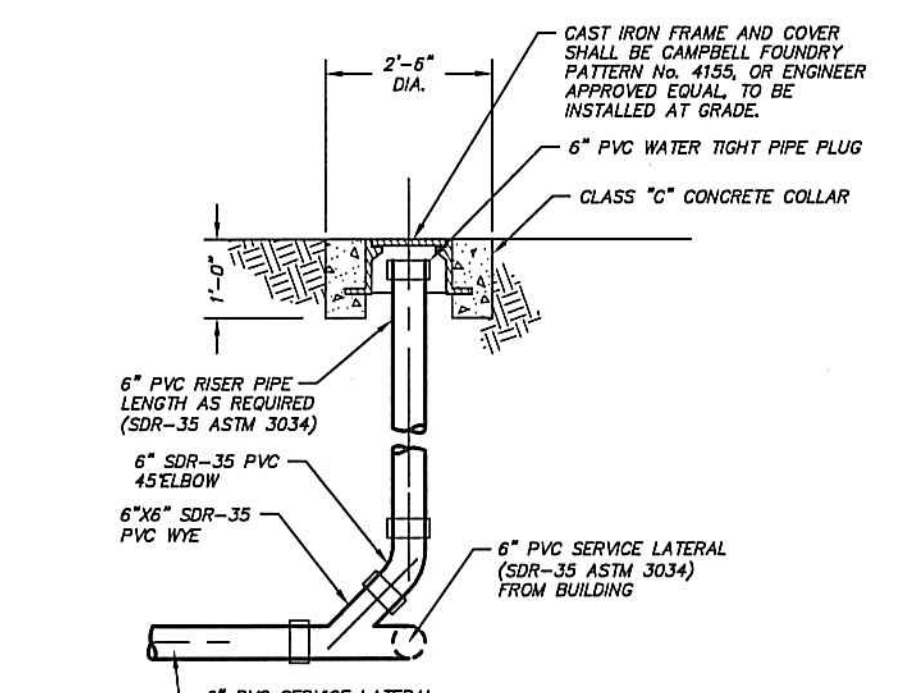
ONLY COPIES OF THIS MAP, BEARING AN ORIGINAL IMPRINT OF THE ENGINEER'S EMBOSSED SEAL, SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.

PIPE SIZE	PATTERN NUMBER
6"	2563
8"	2563
10"	2563
12"	2564
15"	2564
18"	2565

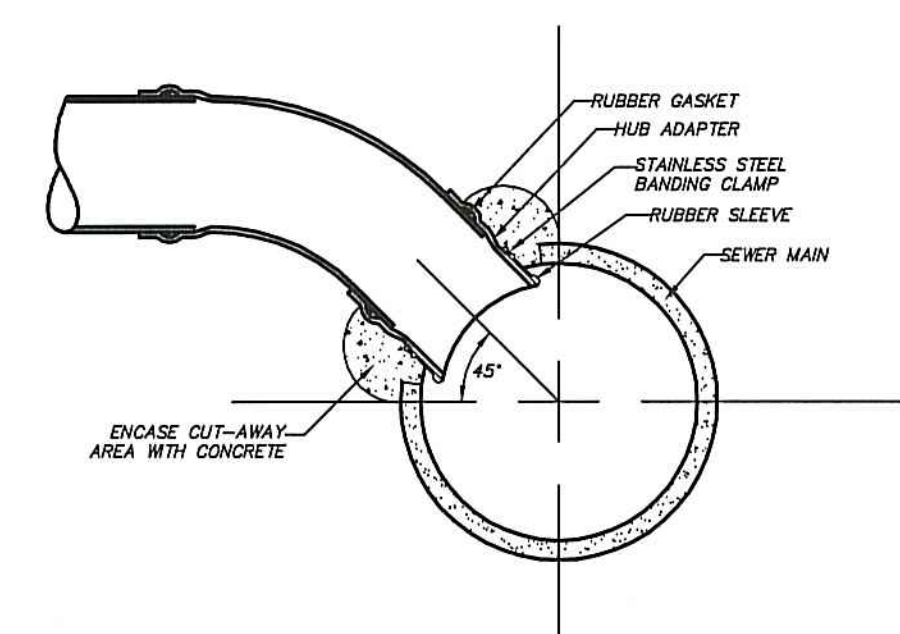


SINGLE CATCH BASIN DETAIL (TYPE "C")
N.T.S.

NOTES:
CATCH BASIN SHALL HAVE A MINIMUM SUMP OF 2 FEET AS MEASURED FROM THE LOWEST PIPE INVERT ELEVATION TO THE INTERIOR BOTTOM OF THE STRUCTURE.
CONTRACTOR SHALL PURCHASE AND INSTALL A SEPARATE SUMP SECTION, NO OUTLET OR INLET PIPES SHALL PENETRATE THE BOTTOM SUMP SECTION.
REFER TO DEVELOPMENT PLAN FOR SIZES, LOCATIONS, AND INVERT ELEVATIONS OF ALL PIPES.

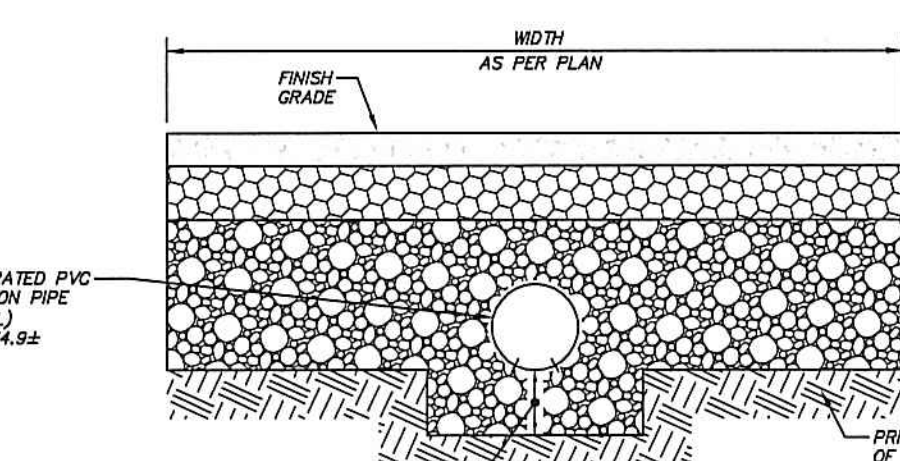


CLEANOUT IN PAVEMENT
N.T.S.



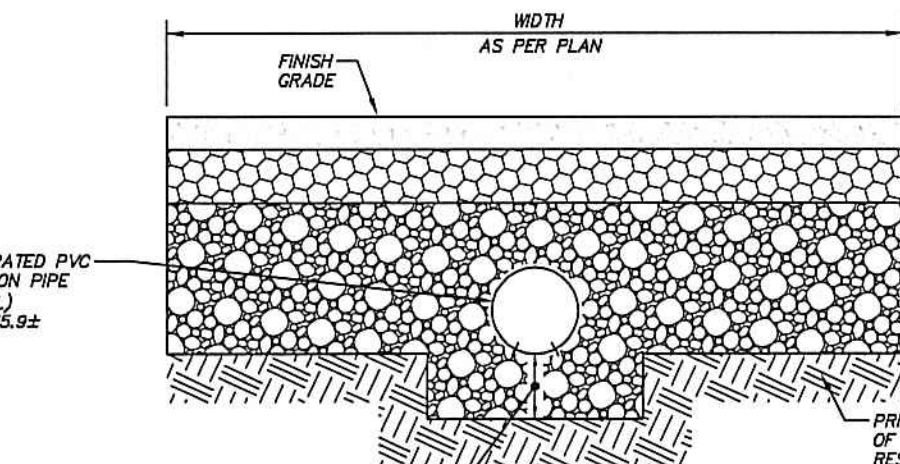
PVC PIPE LATERAL CONNECTION
N.T.S.

NOTES:
1. COORDINATE INSTALLATION WITH CITY OF STAMFORD MPCA.
2. COMPONENTS SHALL BE PROVIDED BY INSERTA TEE, PHONE NO. 503-537-2110, OR ENGINEER APPROVED EQUAL.



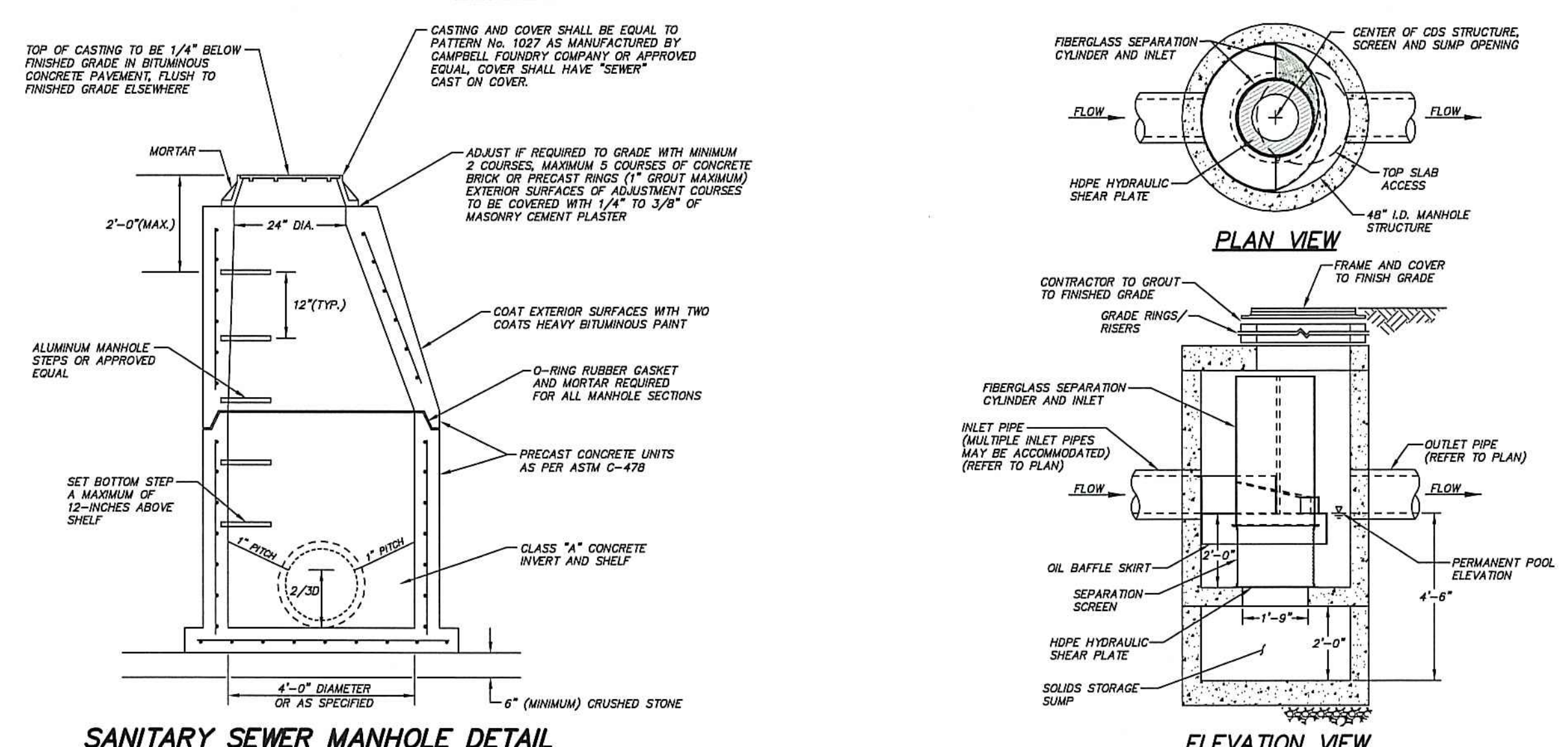
(POROUS PAVEMENT AREA 1) ABOVE CRUSHED STONE RESERVOIR WITH DISTRIBUTION PIPE DETAIL
N.T.S.

NOTES:
1. THE UNDERLYING SOIL SHALL BE SCARIFIED OR TILLED TO IMPROVE INFILTRATION BEFORE APPLYING THE RESERVOIR COURSE.
2. EACH STONE LAYER SHALL BE COMPACTED BEFORE APPLYING THE LAYER ABOVE.
3. THE POROUS ASPHALT SHALL BE PROTECTED FROM SEDIMENTS DURING CONSTRUCTION TO PREVENT CLOGGING.



(POROUS PAVEMENT AREA 2) ABOVE CRUSHED STONE RESERVOIR WITH DISTRIBUTION PIPE DETAIL
N.T.S.

NOTES:
1. THE UNDERLYING SOIL SHALL BE SCARIFIED OR TILLED TO IMPROVE INFILTRATION BEFORE APPLYING THE RESERVOIR COURSE.
2. EACH STONE LAYER SHALL BE COMPACTED BEFORE APPLYING THE LAYER ABOVE.
3. THE POROUS ASPHALT SHALL BE PROTECTED FROM SEDIMENTS DURING CONSTRUCTION TO PREVENT CLOGGING.

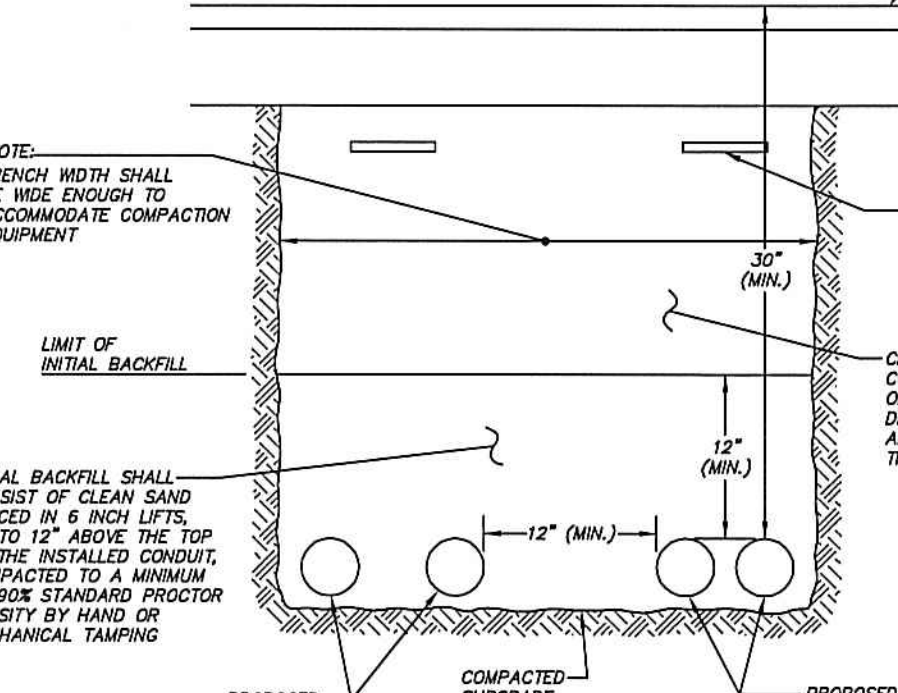


STORMWATER TREATMENT SYSTEM TYPICAL CONTECH CDS2015-4 DETAIL
N.T.S.

NOTES:
1. FINAL SIZE AND DIMENSIONS OF STORMWATER TREATMENT SYSTEM SHALL BE DETERMINED BY THE SYSTEM MANUFACTURER AND APPROVED BY THE SUPERVISING ENGINEER. A TYPICAL STORMWATER TREATMENT SYSTEM STRUCTURE AND DESIGN SHALL BE APPROVED BY THE SUPERVISING ENGINEER.
2. STORMWATER TREATMENT SYSTEM COMPONENTS MANUFACTURED BY CONTECH ENGINEERED SOLUTIONS LLC, 1-800-338-2042.
3. DESIGN OF TREATMENT SYSTEM PIPING AND Baffles WILL BE PROVIDED BY CONTECH ENGINEERED SOLUTIONS LLC.
4. LOCATION AND SIZE OF MANHOLE OPENINGS MAY BE ADJUSTED BY LICENSED MANUFACTURER.
5. STRUCTURE SHALL MEET AASHTO H20D AND CASTINGS SHALL MEET H20D (AASHTO M208) LOAD RATING.

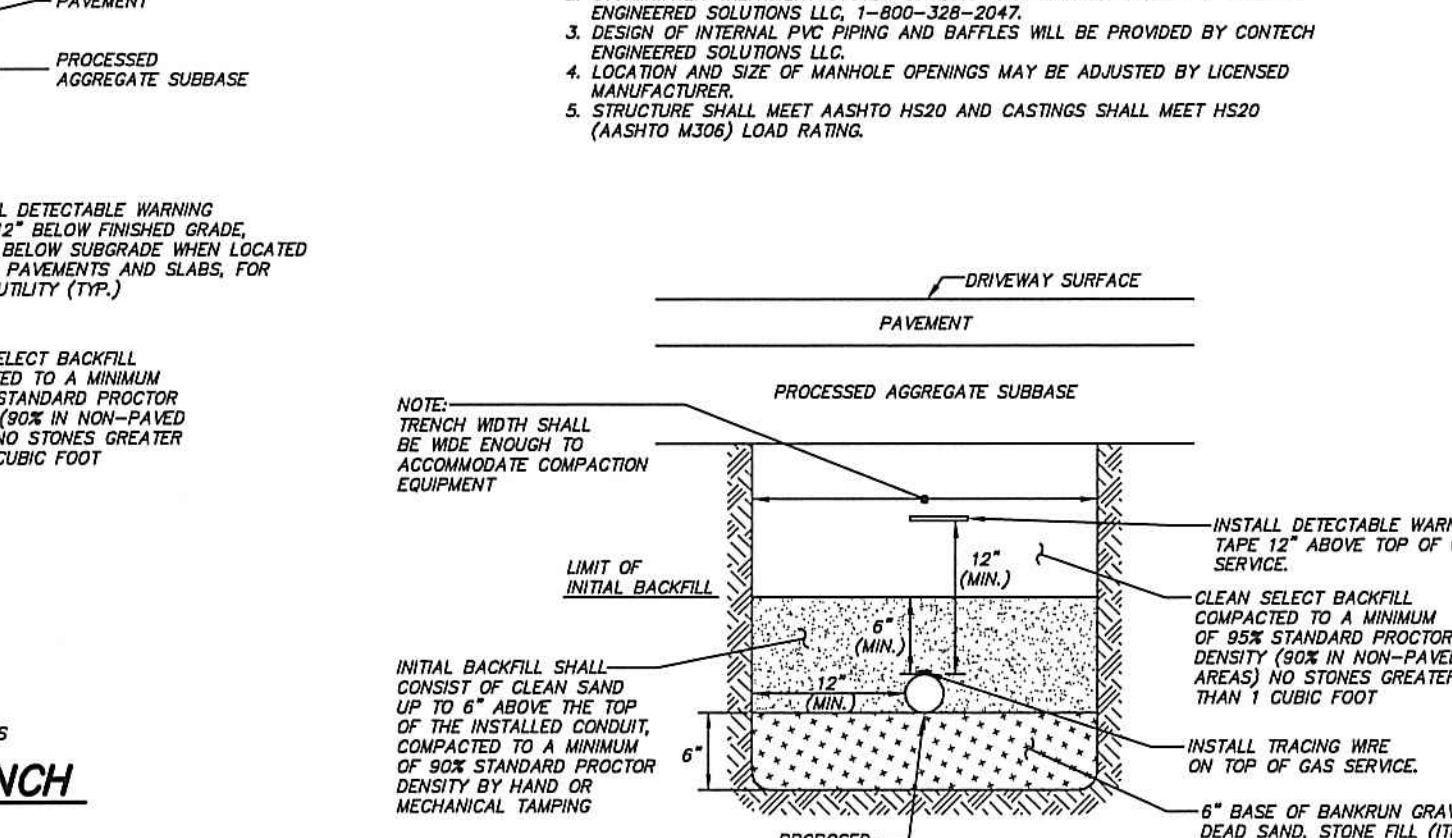
SANITARY SEWER MANHOLE DETAIL
N.T.S.

NOTE: REFER TO DEVELOPMENT PLAN FOR SIZES, LOCATIONS, AND INVERT ELEVATIONS OF ALL PIPES.



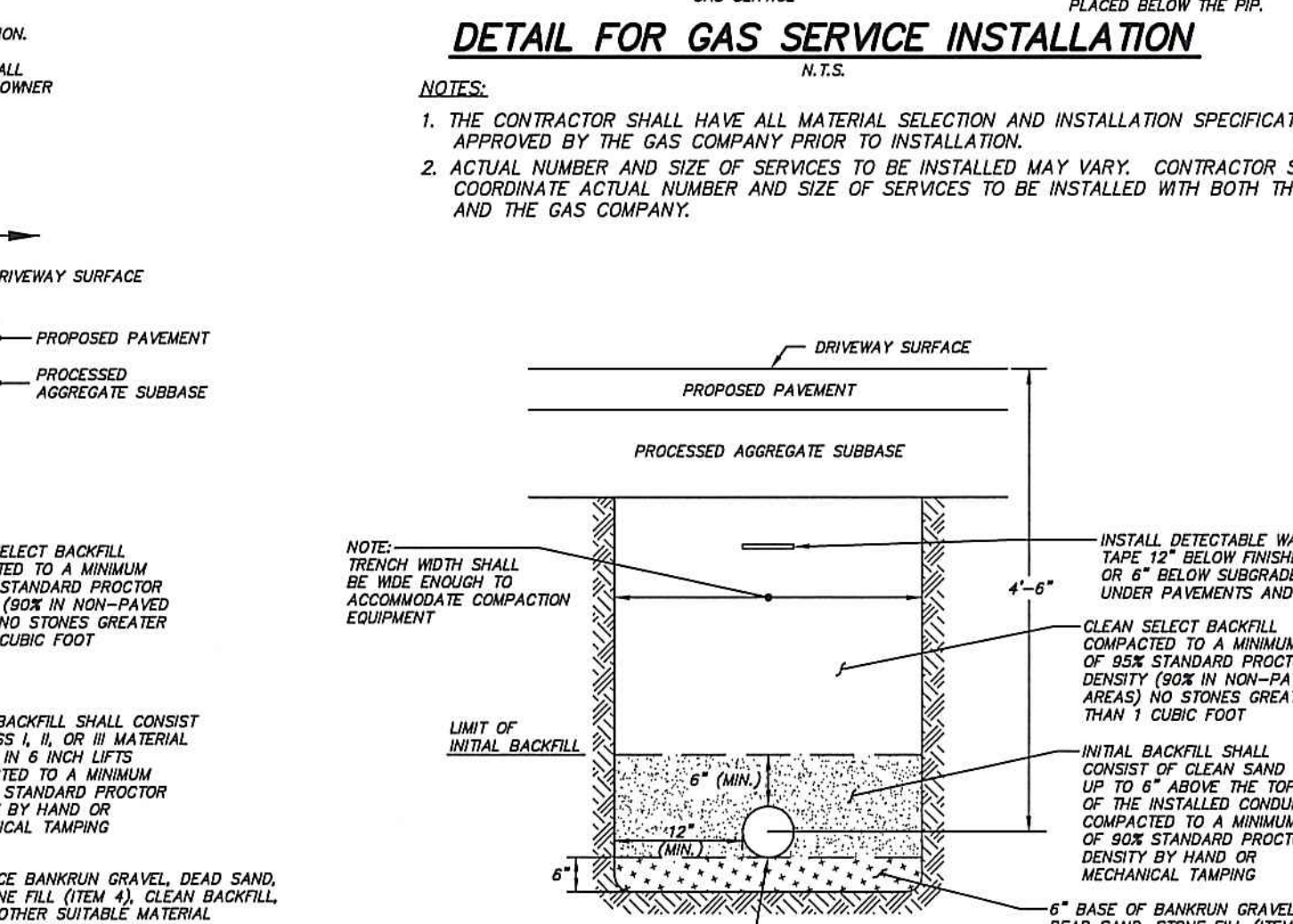
DETAIL FOR UNDERGROUND UTILITY TRENCH
N.T.S.

NOTES:
1. COORDINATE INSTALLATION WITH EACH RESPECTIVE UTILITY COMPANY PRIOR TO INSTALLATION.
2. ACTUAL NUMBER AND SIZE OF CONDUITS TO BE INSTALLED MAY VARY. CONTRACTOR SHALL COORDINATE ACTUAL NUMBER AND SIZE OF CONDUITS TO BE INSTALLED WITH BOTH THE OWNER AND EACH RESPECTIVE UTILITY COMPANY.



DETAIL FOR GAS SERVICE INSTALLATION
N.T.S.

NOTES:
1. THE CONTRACTOR SHALL HAVE ALL MATERIAL SELECTION AND INSTALLATION SPECIFICATIONS APPROVED BY THE GAS COMPANY PRIOR TO INSTALLATION.
2. ACTUAL NUMBER AND SIZE OF SERVICES TO BE INSTALLED MAY VARY. CONTRACTOR SHALL COORDINATE ACTUAL NUMBER AND SIZE OF SERVICES TO BE INSTALLED WITH BOTH THE OWNER AND THE GAS COMPANY.

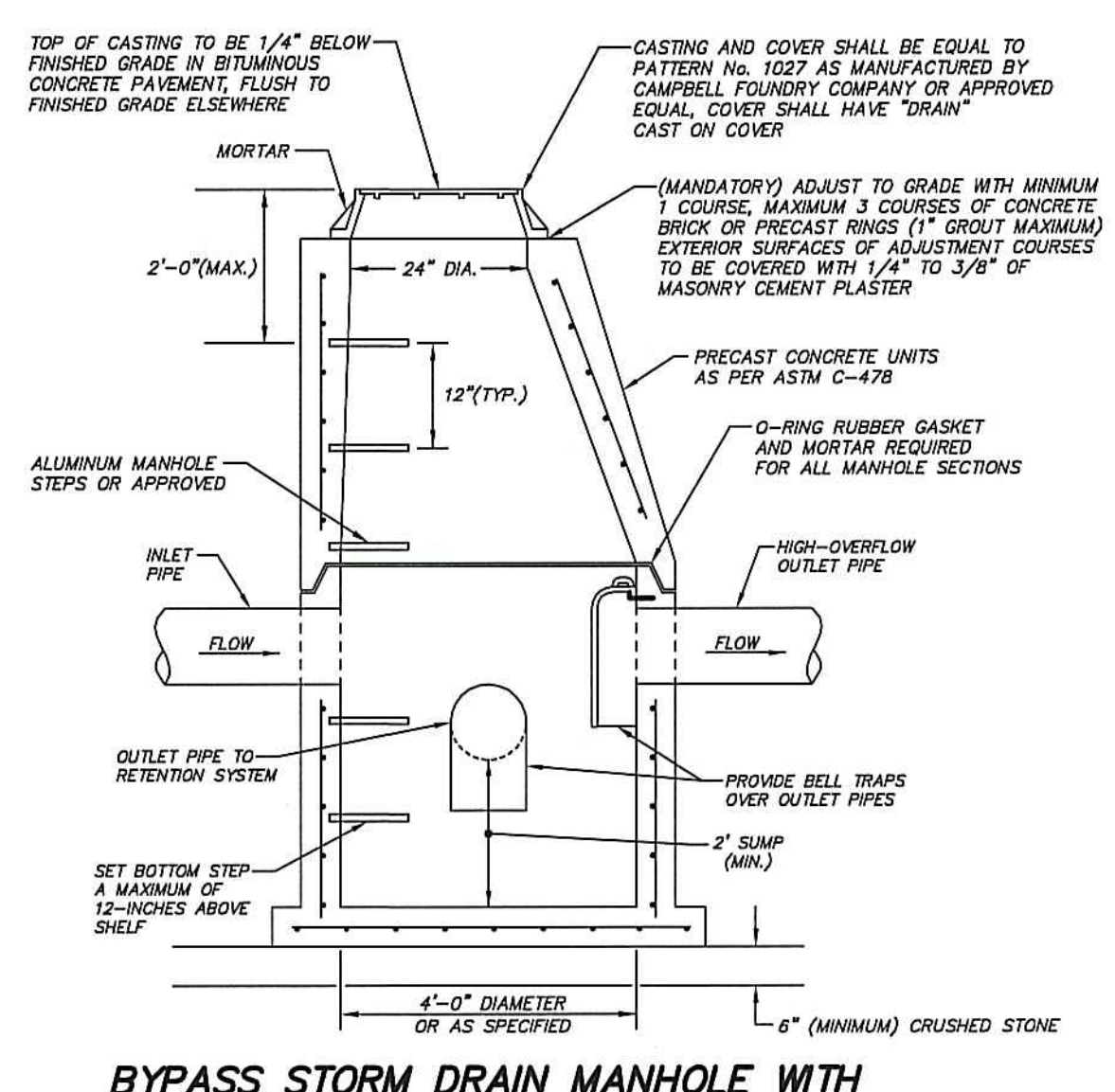


DETAIL FOR WATER SERVICE INSTALLATION
N.T.S.

NOTES:
1. THE CONTRACTOR SHALL HAVE ALL MATERIAL SELECTION AND INSTALLATION SPECIFICATIONS APPROVED BY THE AQUARIUM WATER COMPANY PRIOR TO INSTALLATION.
2. ACTUAL NUMBER AND SIZE OF SERVICES TO BE INSTALLED MAY VARY. CONTRACTOR SHALL COORDINATE ACTUAL NUMBER AND SIZE OF SERVICES TO BE INSTALLED WITH BOTH THE OWNER AND THE AQUARIUM WATER COMPANY.

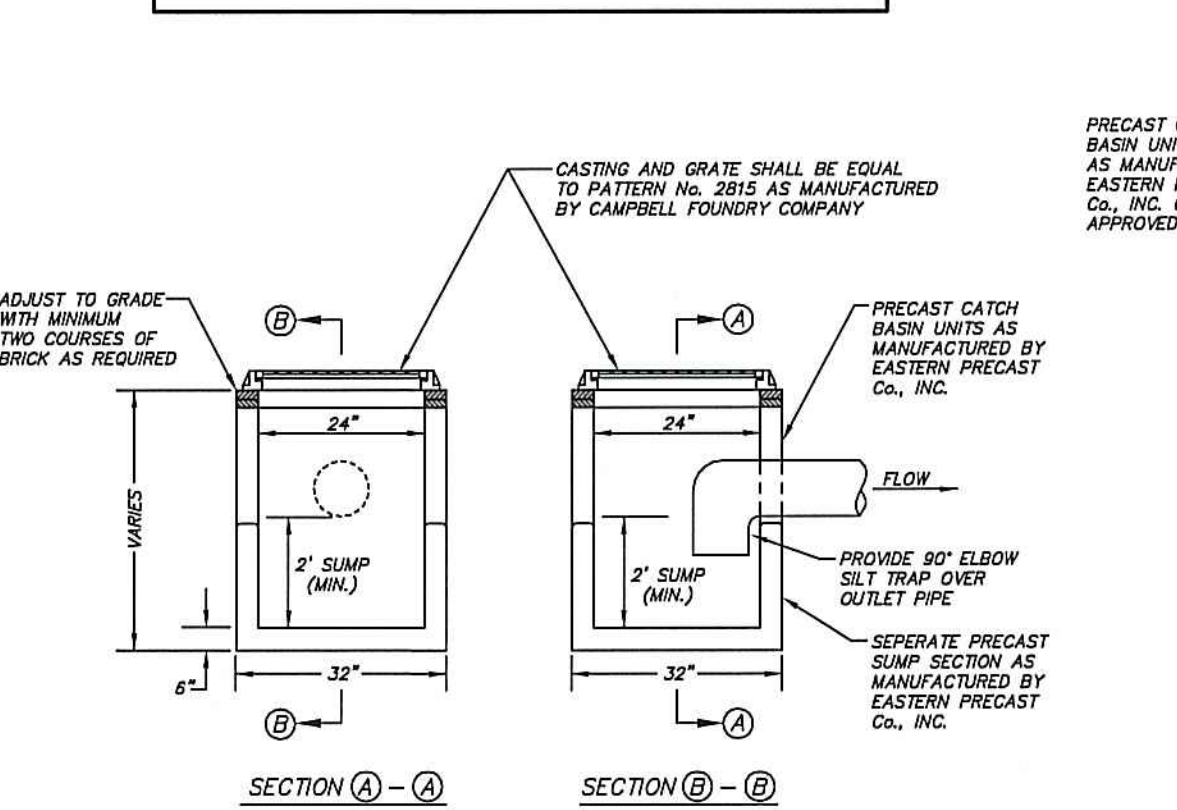
DETAIL FOR PVC SANITARY SEWER AND PVC/CPP STORM DRAIN INSTALLATION
N.T.S.

NOTES:
1. REFER TO ASTM D2321 (STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS) FOR TRENCH SPECIFICATIONS.



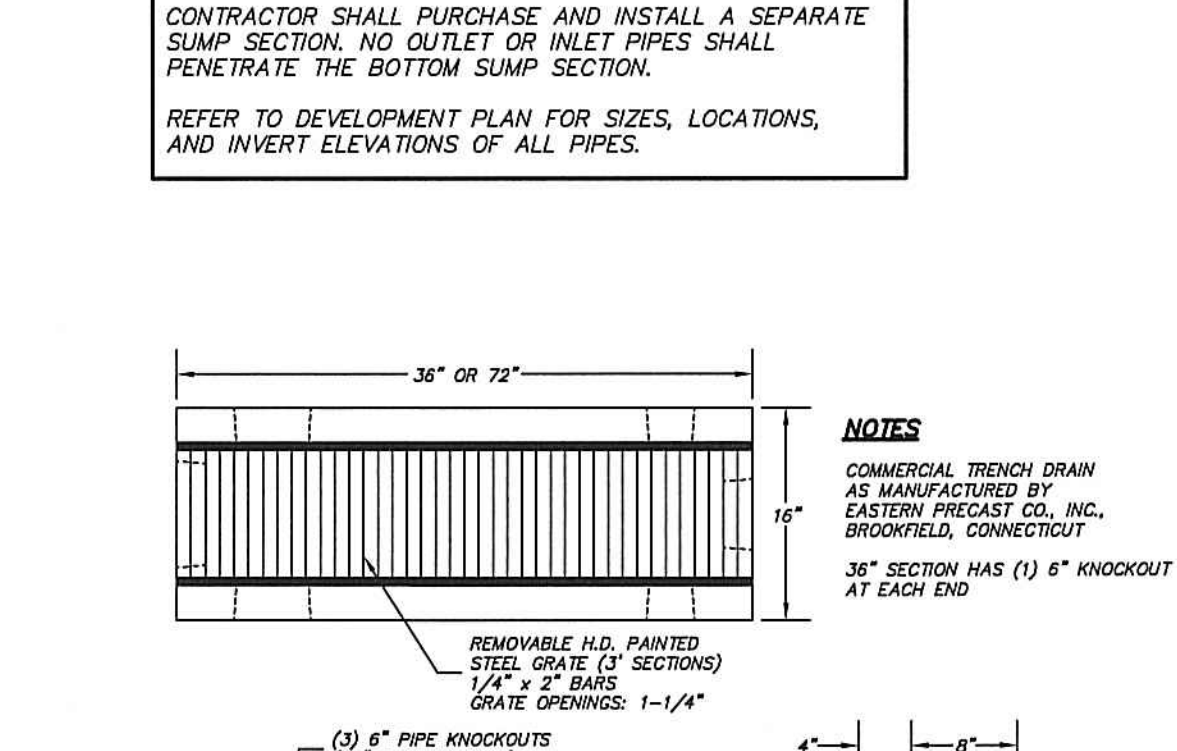
BYPASS STORM DRAIN MANHOLE WITH HIGH-OVERFLOW OUTLET DETAIL
N.T.S.

NOTES:
MANHOLE SHALL HAVE A MINIMUM SUMP OF 2 FEET AS MEASURED FROM THE LOWEST PIPE INVERT ELEVATION TO THE INTERIOR BOTTOM OF THE STRUCTURE.
REFER TO DEVELOPMENT PLAN FOR SIZES, LOCATIONS, AND INVERT ELEVATION OF ALL PIPES.



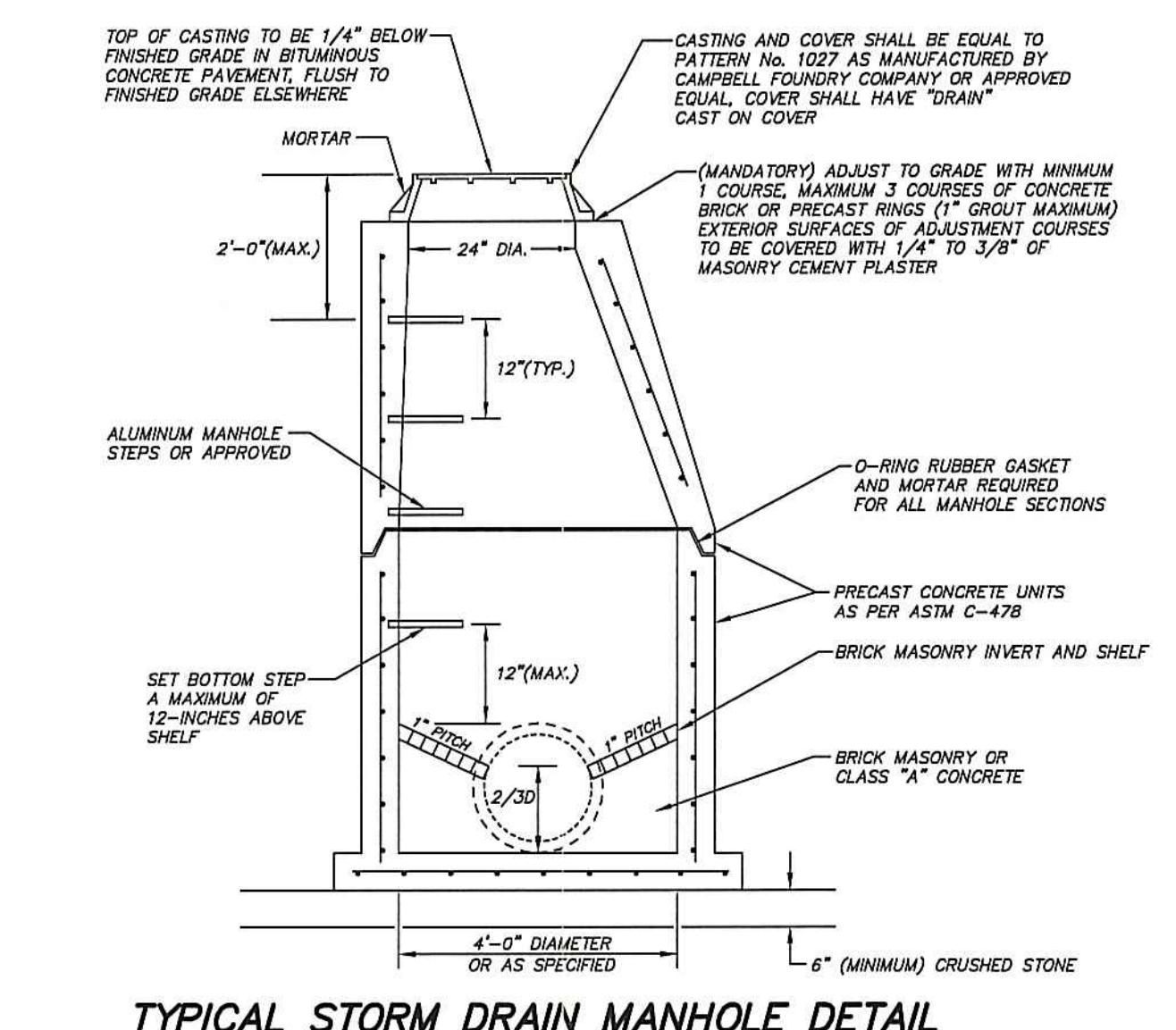
24"x24" YD/CB DETAIL TYPE "CL"
N.T.S.

NOTES:
CATCH BASIN SHALL HAVE A MINIMUM SUMP OF 2 FEET AS MEASURED FROM THE LOWEST PIPE INVERT ELEVATION TO THE INTERIOR BOTTOM OF THE STRUCTURE.
CONTRACTOR SHALL PURCHASE AND INSTALL A SEPARATE SUMP SECTION, NO OUTLET OR INLET PIPES SHALL PENETRATE THE BOTTOM SUMP SECTION.
REFER TO DEVELOPMENT PLAN FOR SIZES, LOCATIONS, AND INVERT ELEVATIONS OF ALL PIPES.



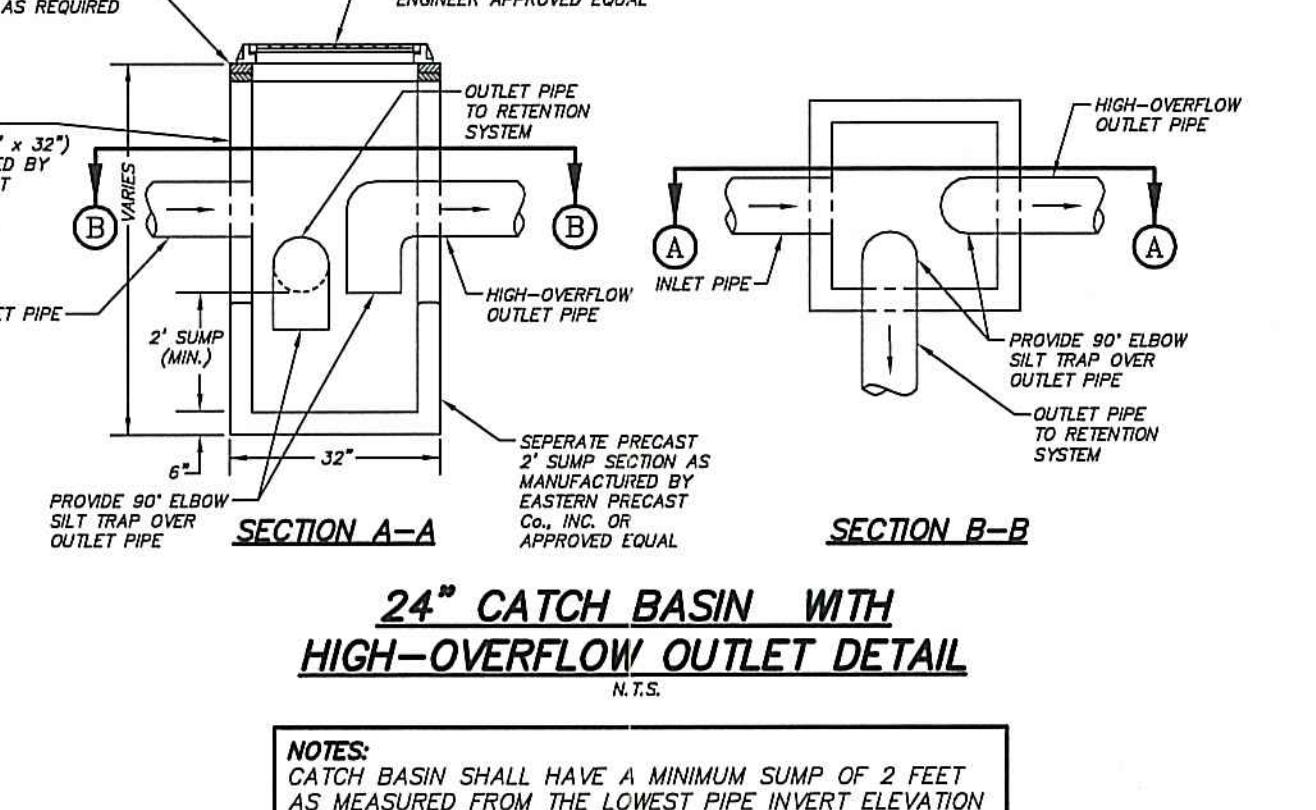
HEAVY DUTY TRENCH DRAIN SYSTEM DETAIL
N.T.S.

NOTES:
1. THE CONTRACTOR SHALL HAVE ALL MATERIAL SELECTION AND INSTALLATION SPECIFICATIONS APPROVED BY THE AQUARIUM WATER COMPANY PRIOR TO INSTALLATION.
2. ACTUAL NUMBER AND SIZE OF SERVICES TO BE INSTALLED MAY VARY. CONTRACTOR SHALL COORDINATE ACTUAL NUMBER AND SIZE OF SERVICES TO BE INSTALLED WITH BOTH THE OWNER AND THE AQUARIUM WATER COMPANY.



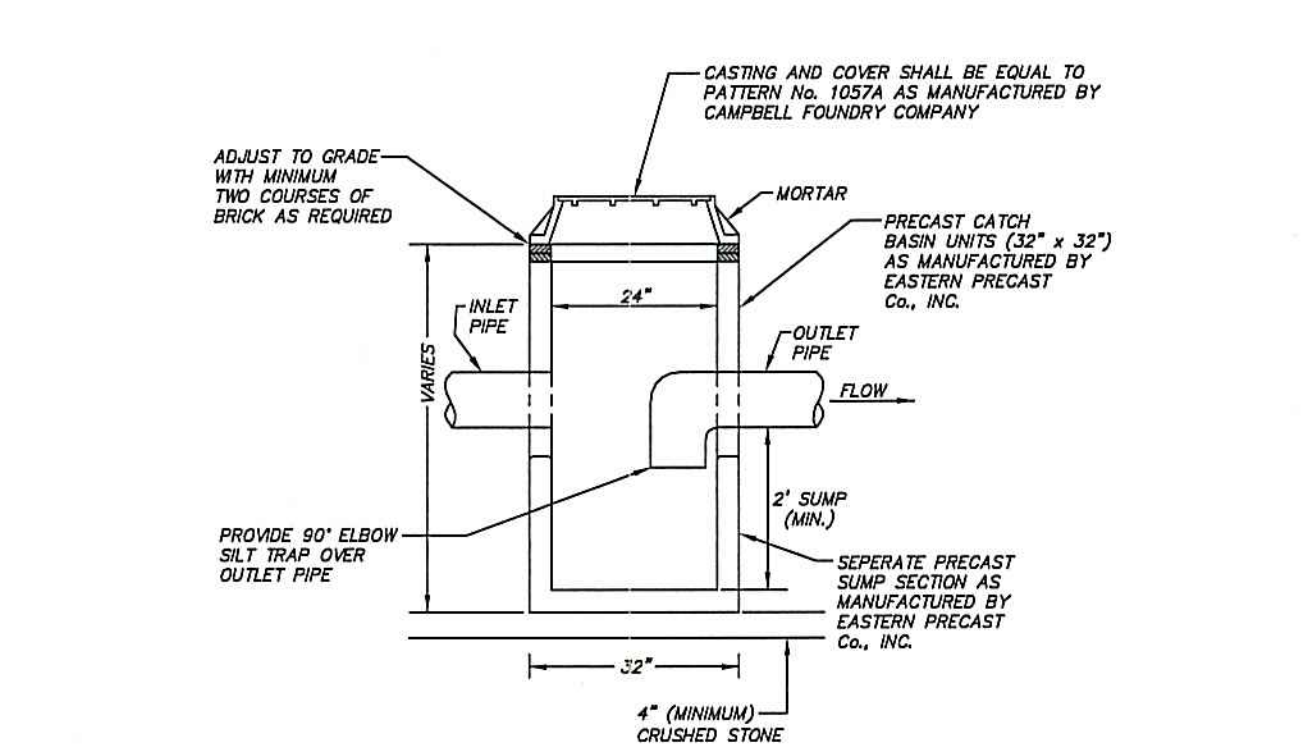
TYPICAL STORM DRAIN MANHOLE DETAIL
N.T.S.

NOTE: REFER TO DEVELOPMENT PLAN FOR SIZES, LOCATIONS, AND INVERT ELEVATIONS OF ALL PIPES.



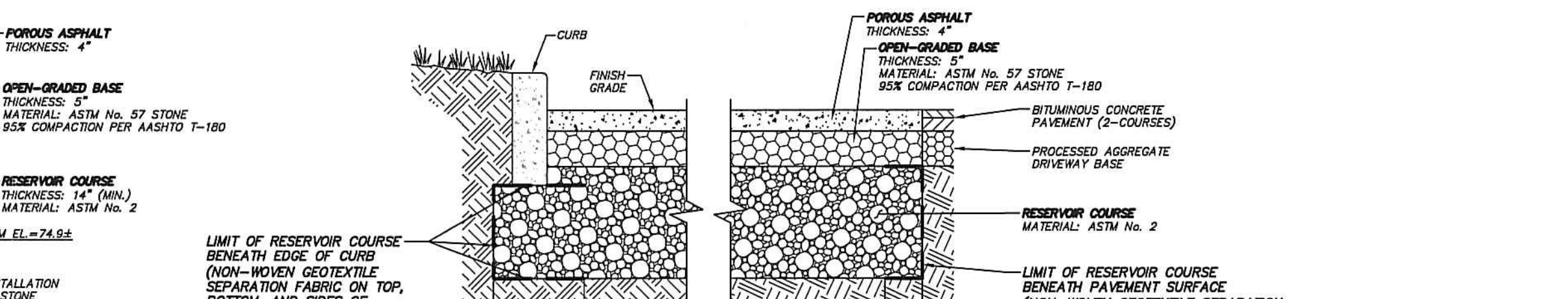
24"x24" CATCH BASIN WITH HIGH-OVERFLOW OUTLET DETAIL
N.T.S.

NOTES:
CATCH BASIN SHALL HAVE A MINIMUM SUMP OF 2 FEET AS MEASURED FROM THE LOWEST PIPE INVERT ELEVATION TO THE INTERIOR BOTTOM OF THE STRUCTURE.
CONTRACTOR SHALL PURCHASE AND INSTALL A SEPARATE SUMP SECTION, NO OUTLET OR INLET PIPES SHALL PENETRATE THE BOTTOM SUMP SECTION.
REFER TO DEVELOPMENT PLAN FOR SIZES, LOCATIONS, AND INVERT ELEVATION OF ALL PIPES.

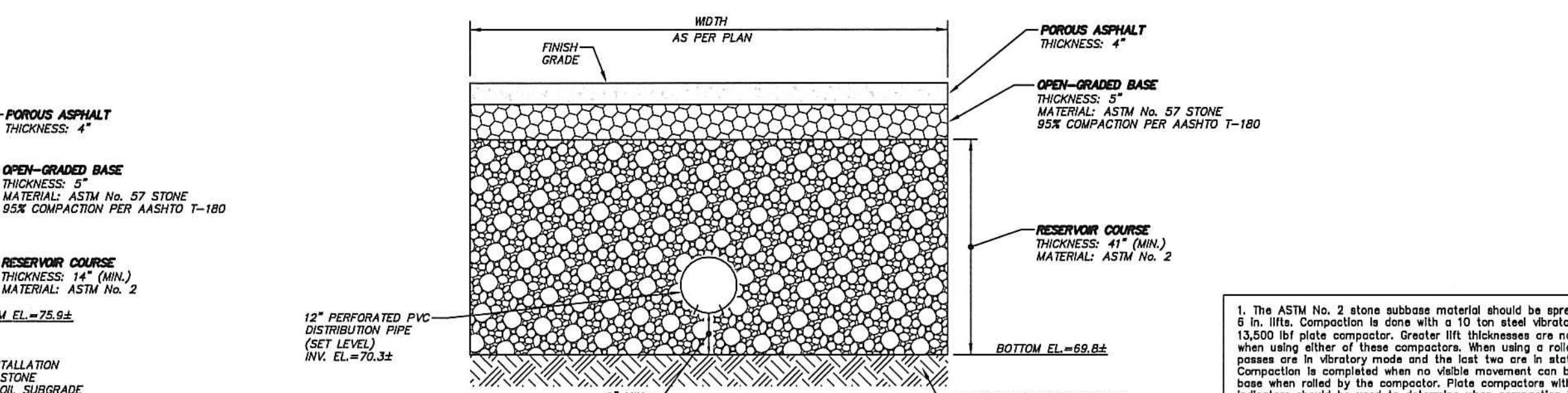


JUNCTION BOX DETAIL
N.T.S.

NOTES:
JUNCTION BOX SHALL HAVE A MINIMUM SUMP OF 2 FEET AS MEASURED FROM THE LOWEST PIPE INVERT ELEVATION TO THE INTERIOR BOTTOM OF THE STRUCTURE.
CONTRACTOR SHALL PURCHASE AND INSTALL A SEPARATE SUMP SECTION, NO OUTLET OR INLET PIPES SHALL PENETRATE THE BOTTOM SUMP SECTION.
REFER TO DEVELOPMENT PLAN FOR SIZES, LOCATIONS, AND INVERT ELEVATION OF ALL PIPES.

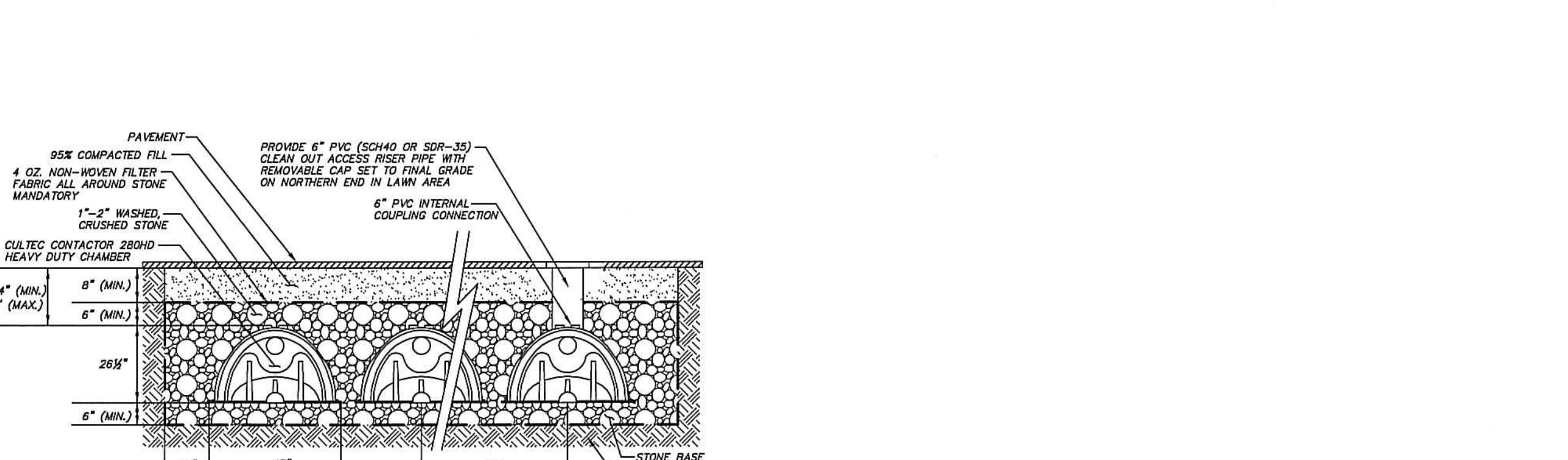


TYPICAL EDGE OF POROUS ASPHALT CRUSHED STONE RESERVOIR COURSE DETAIL
N.T.S.



(POROUS PAVEMENT AREA 3) ABOVE CRUSHED STONE RESERVOIR WITH DISTRIBUTION PIPE DETAIL
N.T.S.

NOTES:
1. THE UNDERLYING SOIL SHALL BE SCARIFIED OR TILLED TO IMPROVE INFILTRATION BEFORE APPLYING THE RESERVOIR COURSE.
2. EACH STONE LAYER SHALL BE COMPACTED BEFORE APPLYING THE LAYER ABOVE.
3. THE POROUS ASPHALT SHALL BE PROTECTED FROM SEDIMENTS DURING CONSTRUCTION TO PREVENT CLOGGING.



(RETENTION SYSTEMS 1 & 2) TYPICAL CROSS SECTION DETAIL
N.T.S.

RECHARGER 280HD PAVED (H-20) LOADING
N.T.S.

NOTES:
1. THE ASTM No. 3 stone subbase material should be spread in minimum 8 in. lifts. Compaction is done with a 10 ton steel vibratory roller or a 13,500 lb plate compactor. Greater lift thicknesses are permitted (i.e. 12 in.) when using either of these compactors, then using a roller, the first two passes on the vibratory roller must be the last two lifts of the lift made. Compaction is complete when the roller resistance can be seen in the base when rolled by the compactor. Plates compactors with vibration indicators should be used to determine when compaction is complete. Stones will compact more completely if moistened during compaction. Aggregate shall not be crushed by the compactor.
2. The ASTM No. 57 base layer is spread and compacted as one 4 in. lift. The stone material should be moist during compaction for better consolidation. Like the subbase aggregate, the 57 base is rolled with the roller can be with vibration to consolidate the base material. The final passes should be without vibration. A 13,500 lb plate compactor area can be used to compact the ASTM No. 57 base layer.
3. After installation of the No. 57 base layer, the porous asphalt should be placed on this layer. Porous asphalt installation can be by hand or with mechanical equipment.

CONSTRUCTION INSTALLATION NOTES FOR POROUS ASPHALT PAVEMENT

D'ANDREA SURVEYING & ENGINEERING, P.C.
LAND PLANNERS
ENGINEERS
SURVEYORS

P.O. BOX 549
RIVERSIDE, CT 06878

6 NEIL LANE
TEL. 637-1779

COMMERCIAL DEVELOPMENT

375 FAIRFIELD AVENUE ASSOCIATES

375 FAIRFIELD AVENUE STAMFORD, CONNECTICUT

DETAILS

PROJECT

PREPARED FOR

LOCATION

C-4.2

10-4-23 ZONING SUBMISSION

REV. DATE DESCRIPTION

10-4-23 DATE

ENGINEER

DEREK E. DAUNAS, CT PE No. 22861

10-4-23 DATE

ENGINEER

ONLY COPIES OF THIS MAP, BEARING AN ORIGINAL IMPRINT OF THE ENGINEER'S EMBOSSED SEAL, SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.



NOTES:

1. The purpose of this plan is only to highlight the Low Impact Development portions of the project, as per City requirements. This plan shall not be used for any other portion of construction.
2. Elevations shown are based on the North American Vertical Datum of 1988 (NAVD 88).
3. Refer to Sheets C-1.1 through C-2.2 for a detailed depiction of the proposed site development and storm drainage improvements.
4. Refer to Sheet C-4.1 for test pit data.

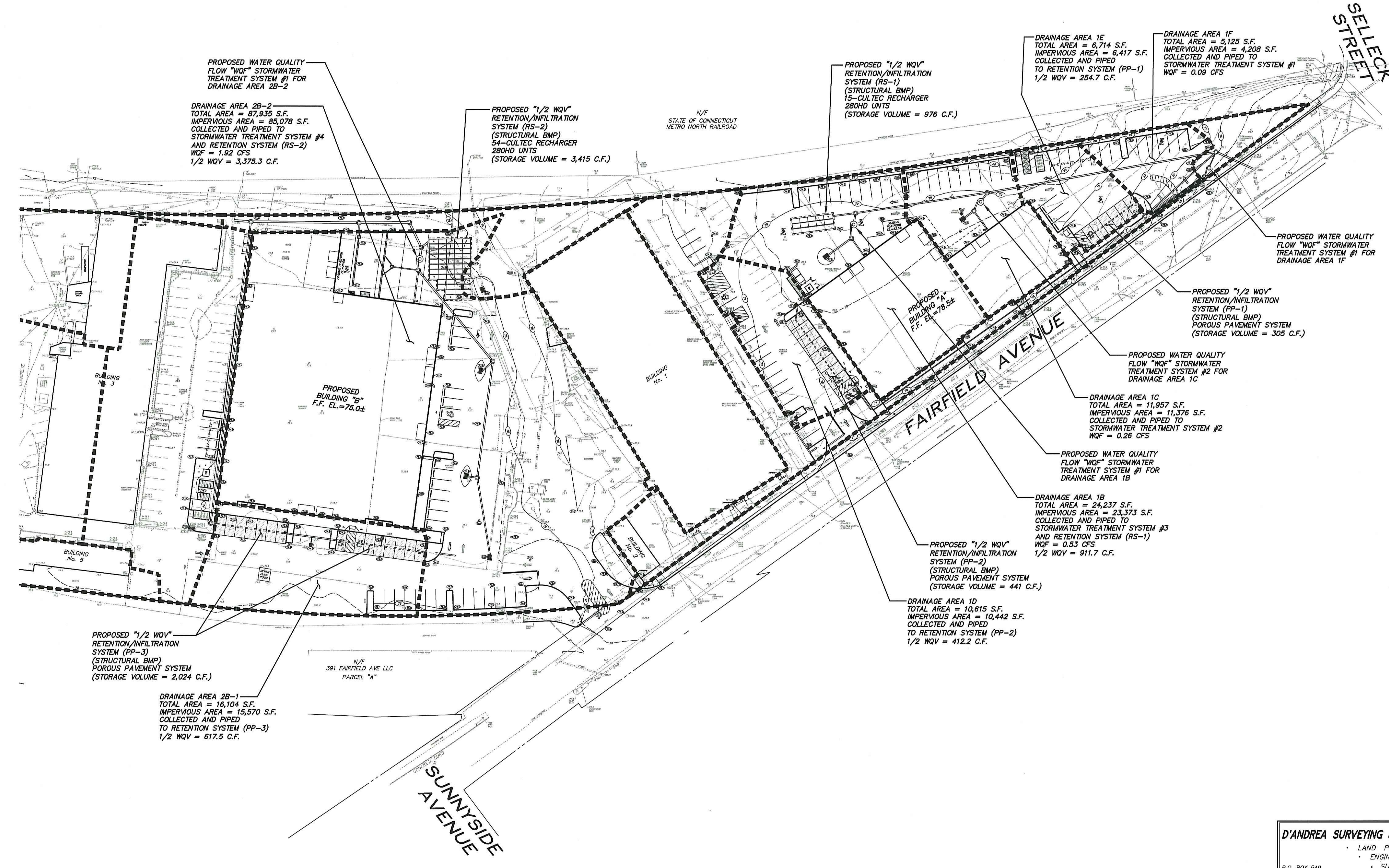
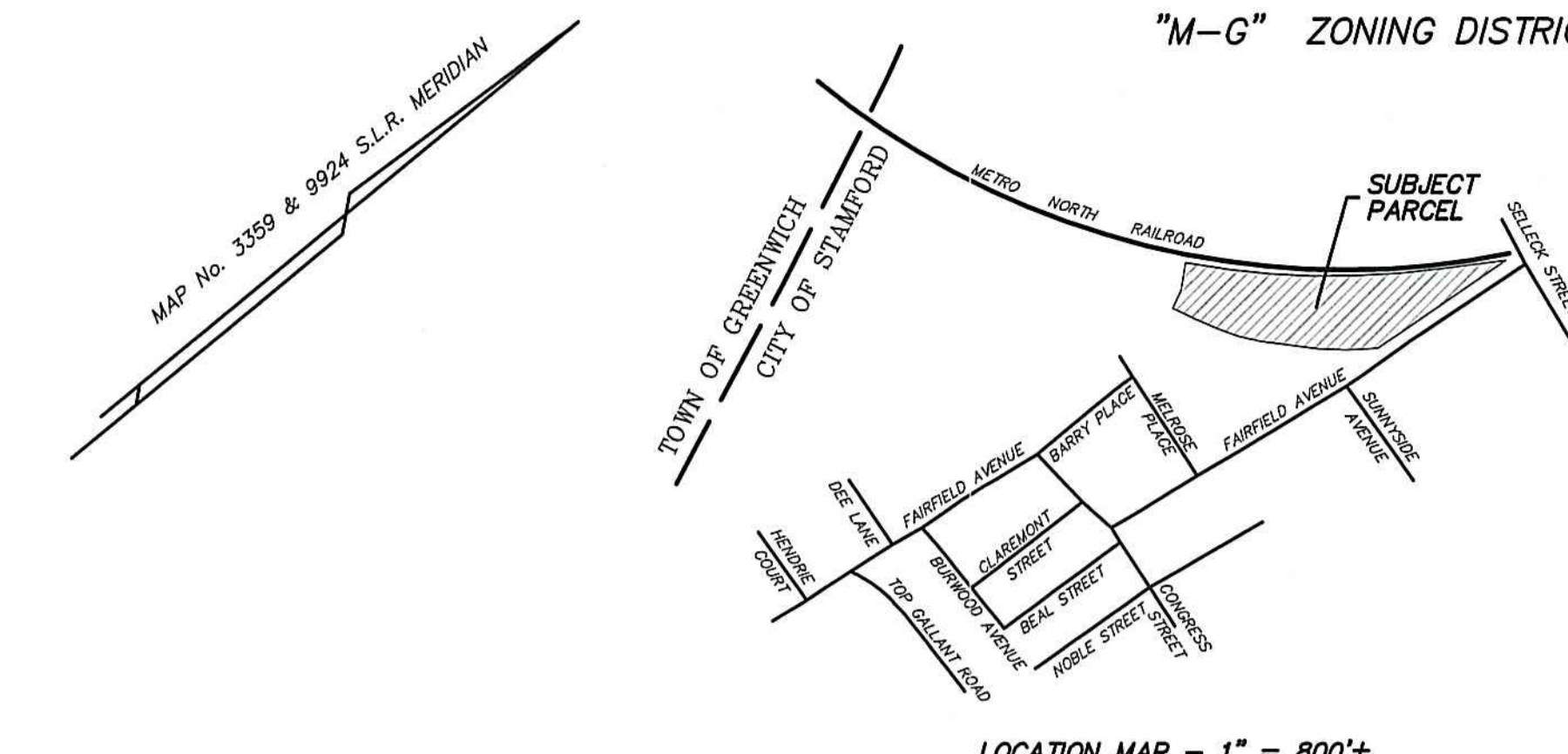
HYDROLOGIC SOIL GROUP SUMMARY

THE PROPERTY IS COMPOSED OF URBAN LAND (HSQ-D)

SOIL INFORMATION TAKEN FROM THE NATURAL RESOURCES CONSERVATION SERVICE (NRCS).

TOTAL SITE AREA	408,703 SQ.FT.
DISTURBED AREA	170,240 SQ.FT.
PRE-DEVELOPMENT IMPERVIOUS AREA	396,183 SQ.FT.
POST-DEVELOPMENT IMPERVIOUS AREA	388,070 SQ.FT.
REQUIRED 1/2 WQV*	5,586.3 CUBIC FEET
PROVIDED RET. VOL.	7,161 CUBIC FEET

*The required 1/2 WQV has been calculated for the proposed development strategy areas being collected by the proposed stormwater retention/infiltration systems (DA's 1B, 1D, 1E, 2B-1, & 2B-2).



PROPOSED "1/2 WQV" RETENTION/INFILTRATION SYSTEM (PP-3) (STRUCTURAL BMP) POROUS PAVEMENT SYSTEM (STORAGE VOLUME = 2,024 C.F.)

DRAINAGE AREA 2B-1
TOTAL AREA = 16,104 S.F.
IMPERVIOUS AREA = 15,570 S.F.
COLLECTED AND PIPED TO RETENTION SYSTEM (PP-3)
1/2 WQV = 617.5 C.F.

DRAINAGE AREA 2B-2
TOTAL AREA = 87,935 S.F.
IMPERVIOUS AREA = 85,078 S.F.
COLLECTED AND PIPED TO STORMWATER TREATMENT SYSTEM #4 AND RETENTION SYSTEM (RS-2)
WQF = 1.92 CFS
1/2 WQV = 3,375.3 C.F.

PROPOSED "1/2 WQV" RETENTION/INFILTRATION SYSTEM (RS-2) (STRUCTURAL BMP) 54-CULTEC RECHARGER 280HD UNITS (STORAGE VOLUME = 3,415 C.F.)

PROPOSED "1/2 WQV" RETENTION/INFILTRATION SYSTEM (RS-1) (STRUCTURAL BMP) 15-CULTEC RECHARGER 280HD UNITS (STORAGE VOLUME = 976 C.F.)

DRAINAGE AREA 1E
TOTAL AREA = 6,714 S.F.
IMPERVIOUS AREA = 6,417 S.F.
COLLECTED AND PIPED TO RETENTION SYSTEM (PP-1)
1/2 WQV = 254.7 C.F.

DRAINAGE AREA 1F
TOTAL AREA = 5,125 S.F.
IMPERVIOUS AREA = 4,208 S.F.
COLLECTED AND PIPED TO STORMWATER TREATMENT SYSTEM #1
WQF = 0.09 CFS

PROPOSED "1/2 WQV" RETENTION/INFILTRATION SYSTEM (PP-1) (STRUCTURAL BMP) POROUS PAVEMENT SYSTEM (STORAGE VOLUME = 305 C.F.)

PROPOSED WATER QUALITY FLOW "WQF" STORMWATER TREATMENT SYSTEM #2 FOR DRAINAGE AREA 1C

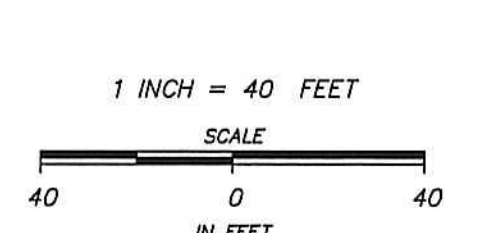
DRAINAGE AREA 1C
TOTAL AREA = 11,957 S.F.
IMPERVIOUS AREA = 11,376 S.F.
COLLECTED AND PIPED TO STORMWATER TREATMENT SYSTEM #2
WQF = 0.26 CFS

PROPOSED WATER QUALITY FLOW "WQF" STORMWATER TREATMENT SYSTEM #1 FOR DRAINAGE AREA 1B

DRAINAGE AREA 1B
TOTAL AREA = 24,237 S.F.
IMPERVIOUS AREA = 23,373 S.F.
COLLECTED AND PIPED TO STORMWATER TREATMENT SYSTEM #3 AND RETENTION SYSTEM (RS-1)
WQF = 0.53 CFS
1/2 WQV = 911.7 C.F.

PROPOSED "1/2 WQV" RETENTION/INFILTRATION SYSTEM (PP-2) (STRUCTURAL BMP) POROUS PAVEMENT SYSTEM (STORAGE VOLUME = 441 C.F.)

DRAINAGE AREA 1D
TOTAL AREA = 10,615 S.F.
IMPERVIOUS AREA = 10,442 S.F.
COLLECTED AND PIPED TO RETENTION SYSTEM (PP-2)
1/2 WQV = 412.2 C.F.



D'ANDREA SURVEYING & ENGINEERING, P.C.
LAND PLANNERS
ENGINEERS
P.O. BOX 549 RIVERSIDE, CT 06878
6 NEIL LANE TEL. 637-1779

PROJECT	COMMERCIAL DEVELOPMENT
PREPARED FOR	375 FAIRFIELD AVENUE ASSOCIATES
LOCATION	375 FAIRFIELD AVENUE STAMFORD, CONNECTICUT
DATE	10-4-23
ENGINEER	Derek E. Daunais

ONLY COPIES OF THIS MAP, BEARING AN ORIGINAL IMPRINT OF THE ENGINEER'S EXPOSED SEAL, SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.

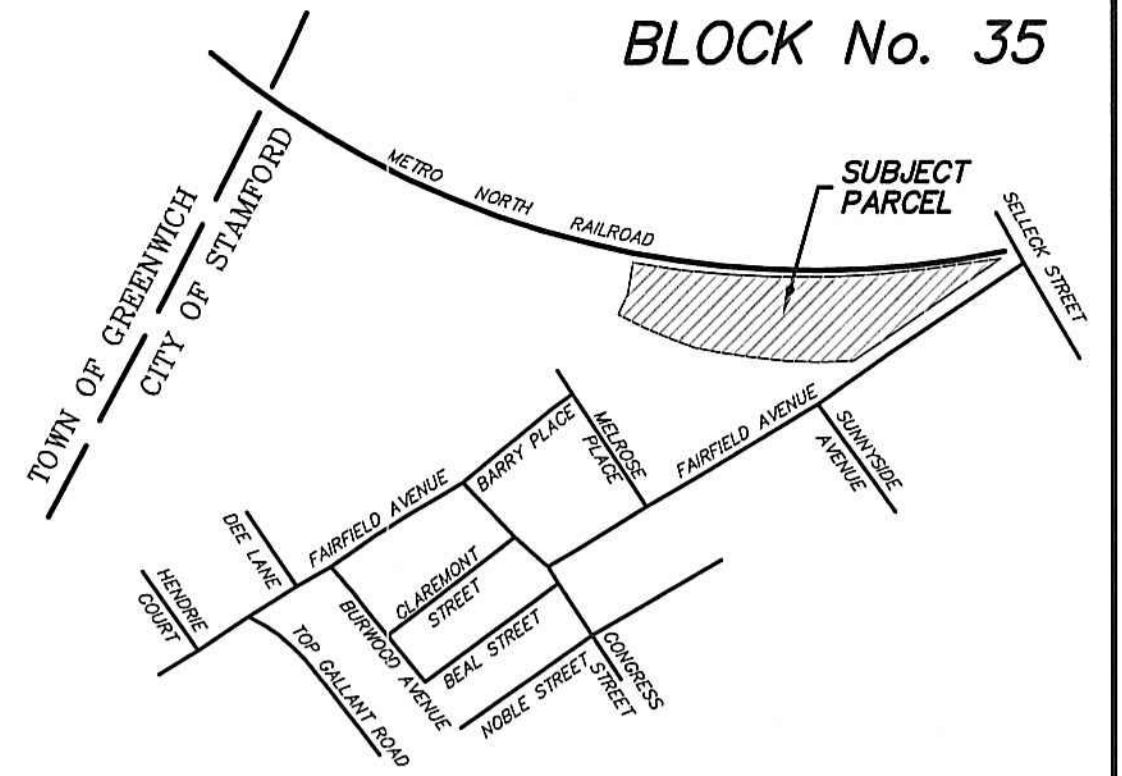
FAIRFIELD, STAMFORD, AND STORRS, CT

EXISTING BUILDING COVERAGE

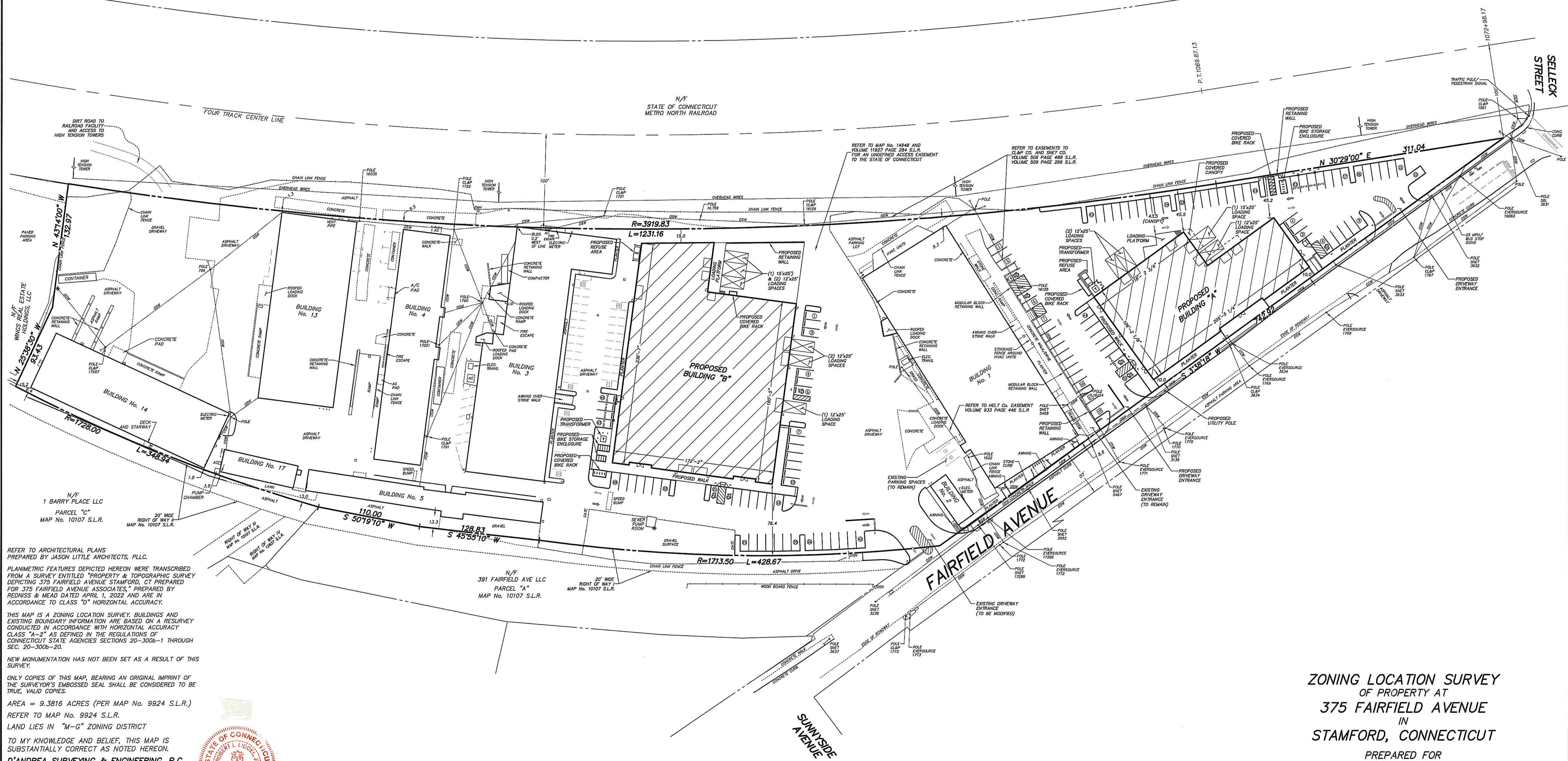
LOT AREA = 9.3825 ACRES
BUILDING No. 14 = 13,121 S.F.
BUILDING No. 17 = 1,967 S.F.
BUILDING No. 13 = 16,154 S.F.
BUILDING No. 4 = 12,594 S.F.
BUILDING No. 5 = 5,779 S.F.
BUILDING No. 3 = 22,035 S.F.
BUILDING No. 2 = 1,049 S.F.
BUILDING No. 1 = 28,203 S.F.
PUMP ROOM = 109 S.F.
TOTAL = 101,011 S.F.
PERCENT COVERAGE = 24.7%

PROPOSED BUILDING COVERAGE

LOT AREA = 9.3825 ACRES
BUILDING No. 14 = 13,121 S.F.
BUILDING No. 17 = 1,967 S.F.
BUILDING No. 13 = 16,154 S.F.
BUILDING No. 4 = 12,594 S.F.
BUILDING No. 5 = 5,779 S.F.
BUILDING No. 3 = 22,035 S.F.
BUILDING No. 2 = 1,049 S.F.
BUILDING No. 1 = 28,203 S.F.
PUMP ROOM = 109 S.F.
PR. BLDG. "A" = 18,399 S.F.
PR. BLDG. "B" = 37,114 S.F.
TOTAL = 156,524 S.F.
PERCENT COVERAGE = 38.3%



LOCATION MAP - 1" = 800'±

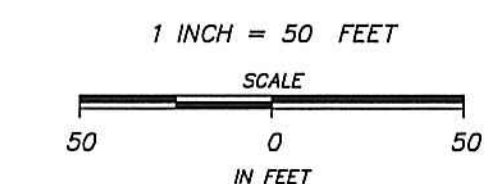


REFER TO ARCHITECTURAL PLANS PREPARED BY JASON LITTLE ARCHITECTS, PLLC.
PLANIMETRIC FEATURES DEPICTED HEREON WERE TRANSCRIBED FROM A SURVEY ENTITLED 'PROPERTY & TOPOGRAPHIC SURVEY DEPICTING 375 FAIRFIELD AVENUE STAMFORD, CT PREPARED FOR 375 FAIRFIELD AVENUE ASSOCIATES, ' PREPARED BY REDNICK & MEAD DATED APRIL 1, 2022 AND ARE IN ACCORDANCE TO CLASS 'D' HORIZONTAL ACCURACY.
THIS MAP IS A ZONING LOCATION SURVEY. BUILDINGS AND EXISTING BOUNDARY INFORMATION ARE BASED ON A RESURVEY CONDUCTED IN ACCORDANCE WITH HORIZONTAL ACCURACY CLASS 'A-2' AS DEFINED IN THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH SEC. 20-300b-20.
NEW MONUMENTATION HAS NOT BEEN SET AS A RESULT OF THIS SURVEY.

ONLY COPIES OF THIS MAP, BEARING AN ORIGINAL IMPRINT OF THE SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.
AREA = 9.3816 ACRES (PER MAP No. 9924 S.L.R.)
REFER TO MAP No. 9924 S.L.R.
LAND LIES IN "M-G" ZONING DISTRICT

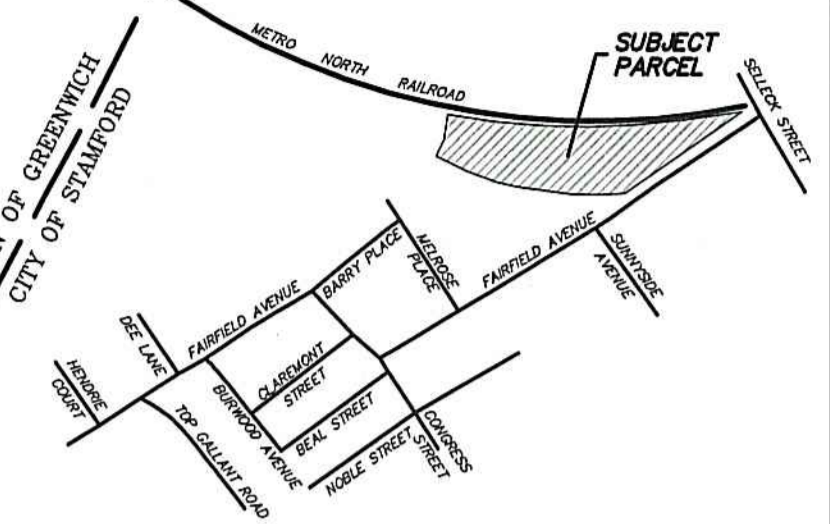
TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.
D'ANDREA SURVEYING & ENGINEERING, P.C.

SURVEYOR
ROBERT L. LIDDEL JR., CT LS No. 15775
RIVERSIDE, CONNECTICUT
OCTOBER 4, 2023



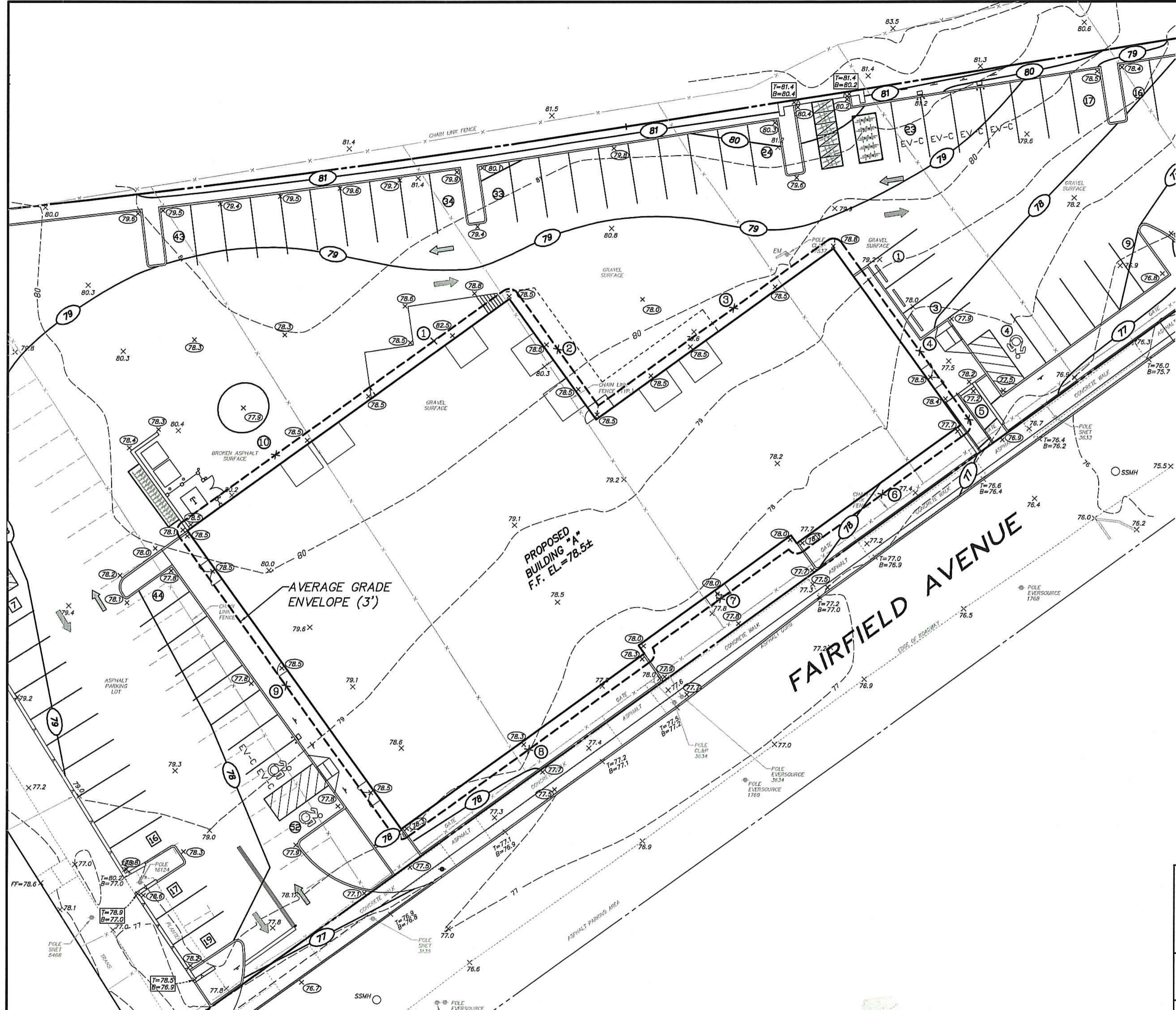
ZONING LOCATION SURVEY
OF PROPERTY AT
375 FAIRFIELD AVENUE
IN
STAMFORD, CONNECTICUT
PREPARED FOR
375 FAIRFIELD AVENUE ASSOCIATES

BLOCK No. 35
TOTAL AREA = 9.3816 ACRES
"M-G" ZONING DISTRICT



LOCATION MAP - 1" = 1000'±

MAP No. 3359 & 9924 S.L.R. MERIDIAN



GRADE PLANE ANALYSIS			
3 Ft Envelope O/S Line			
Segment	Length (ft) (L)	Average Grade (ft) (Z)	Length x Grade (L) x (Z)
1	41.5	82.5	3,423.8
2	53.5	78.4	4,194.4
3	86.6	78.4	6,789.4
4	59.3	78.4	4,649.1
5	14.6	77.7	1,134.4
6	58.4	77.9	4,549.4
7	59.5	77.9	4,635.1
8	89.2	78.2	6,975.4
9	113.9	78.4	8,929.8
10	73.9	78.4	5,793.8
Total	650.4		51,074.6
Average Grade: $\frac{\sum(L \times Z)}{\sum L}$			78.5

LEGEND

- 30 --- EXISTING CONTOUR
- x 30.0 EXISTING SPOT ELEVATION
- T=30.0 B=29.5 EXISTING TOP/BOTTOM SPOT ELEVATION
- (30) PROPOSED CONTOUR
- x (30.0) PROPOSED SPOT ELEVATION
- T=78.5 B=76.9 PROPOSED TOP/BOTTOM SPOT ELEVATION

D'ANDREA SURVEYING & ENGINEERING, P.C.
 • LAND PLANNERS
 • ENGINEERS
 • SURVEYORS
 P.O. BOX 549 RIVERSIDE, CT 06878
 6 NEIL LANE TEL. 637-1779

PROJECT	COMMERCIAL DEVELOPMENT
PREPARED FOR	375 FAIRFIELD AVENUE ASSOCIATES
LOCATION	375 FAIRFIELD AVENUE STAMFORD, CONNECTICUT
1 OF 1	BUILDING "A" PROPOSED AVERAGE GRADE WORKSHEET

- NOTES:**
- The purpose of this plan is only for the calculation of the average grade for the proposed building. It shall not be used for any other aspect of construction.
 - Proposed grades were taken from the Site Grading Plan, Sheet C-1.1 of the Civil plan set.
 - Elevations shown are based on the North American Vertical Datum of 1988 (NAVD 88).

CONTOUR INTERVAL = ONE FOOT
 1 INCH = 20 FEET
 SCALE
 20 0 20
 IN FEET



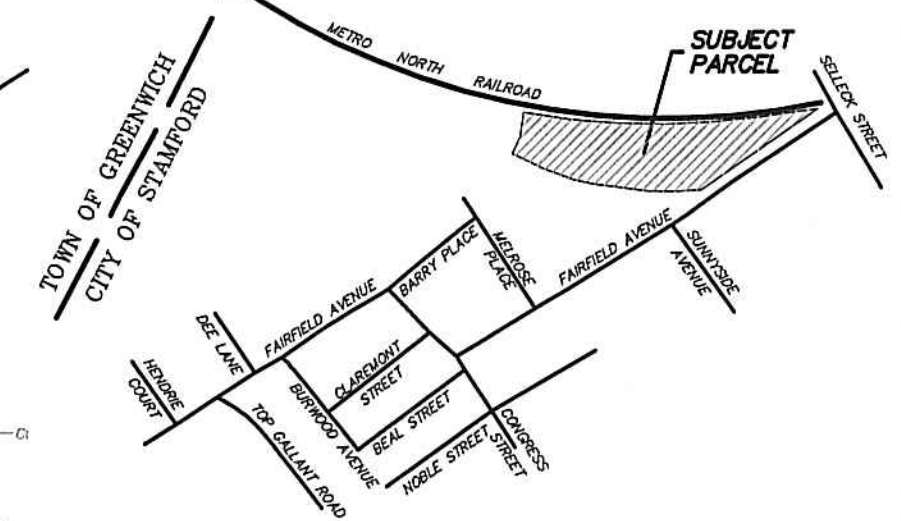
REV.	DATE	DESCRIPTION
0	10-4-23	ZONING SUBMISSION
DEREK E. DAUNAIS CT. PE No. 22861		
Derek E. Daunais		10-4-23
ENGINEER		DATE

ONLY COPIES OF THIS MAP, BEARING AN ORIGINAL IMPRINT OF THE ENGINEER'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.

FAIRFIELD_2320A_PRO_Grade_Worksheet (REV)

230A

BLOCK No. 35
TOTAL AREA = 9.3816 ACRES
"M-G" ZONING DISTRICT



LOCATION MAP - 1" = 1000'±

MAP No. 3359 & 9924 S.L.R. MERIDIAN

GRADE PLANE ANALYSIS			
3 Ft Envelope O/S Line			
Segment	Length (ft) (L)	Average Grade (ft) (Z)	Length x Grade (L) x (Z)
1	84.1	74.3	6,248.6
2	60.4	75.0	4,530.0
3	82.9	73.0	6,051.7
4	201.5	74.9	15,092.4
5	161.1	74.9	12,066.4
6	22.6	74.7	1,688.2
7	68.2	74.0	5,046.8
8	6.0	75.0	450.0
9	101.6	74.0	7,518.4
10	20.4	73.4	1,497.4
11	44.8	74.0	3,315.2
Total	853.6		63,505.1
Average Grade: $\frac{\sum(L \cdot Z)}{\sum L}$			74.4

LEGEND

- 30 --- EXISTING CONTOUR
- x 30.0 EXISTING SPOT ELEVATION
- x T=30.0
B=29.5 EXISTING TOP/BOTTOM SPOT ELEVATION
- 30 --- PROPOSED CONTOUR
- x 30.0 PROPOSED SPOT ELEVATION
- x T=78.5
B=78.9 PROPOSED TOP/BOTTOM SPOT ELEVATION

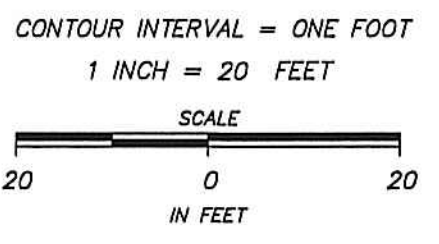
D'ANDREA SURVEYING & ENGINEERING, P.C.
 LAND PLANNERS
 ENGINEERS
 SURVEYORS
 P.O. BOX 549
 RIVERSIDE, CT 06878
 6 NEIL LANE
 TEL. 637-1779

PROJECT	COMMERCIAL DEVELOPMENT
PREPARED FOR	375 FAIRFIELD AVENUE ASSOCIATES
LOCATION	375 FAIRFIELD AVENUE STAMFORD, CONNECTICUT
1 OF 1	BUILDING "B" PROPOSED AVERAGE GRADE WORKSHEET



PROPOSED BUILDING "B"
F.F. EL. = 75.0±

AVERAGE GRADE ENVELOPE (3')



REV.	DATE	DESCRIPTION
0	10-4-23	ZONING SUBMISSION
DEREK E. DAUNAIS, CT. PE No. 22861		
Derek E. Daunais		10-4-23
ENGINEER		DATE

ONLY COPIES OF THIS MAP, BEARING AN ORIGINAL IMPRINT OF THE ENGINEER'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE TRUE, VALID COPIES.

- NOTES:**
- The purpose of this plan is only for the calculation of the average grade for the proposed building. It shall not be used for any other aspect of construction.
 - Proposed grades were taken from the Site Grading Plan, Sheet C-1.2 of the Civil plan set.
 - Elevations shown are based on the North American Vertical Datum of 1988 (NAVD 88).

BARFIELD_23DA_PRO_GP_GDING (DED)

23DA

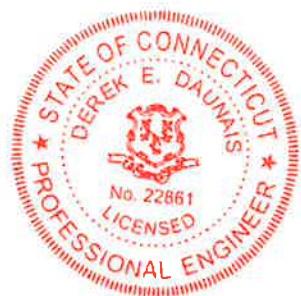
DRAINAGE SUMMARY REPORT

**FOR
“COMMERCIAL DEVELOPMENT”**

**LOCATED AT
375 FAIRFIELD AVENUE
STAMFORD, CONNECTICUT**

**PREPARED FOR
375 FAIRFIELD AVENUE ASSOCIATES**

October 4, 2023



A handwritten signature in blue ink that reads "Derek Daunais". The signature is written over a horizontal line.

Derek E. Daunais, PE
CT License No. 22861

23DA_DSR_0

D'ANDREA SURVEYING & ENGINEERING, PC
LAND PLANNERS • ENGINEERS • SURVEYORS

Applicant / Site Information:

Applicant: 375 Fairfield Avenue Associates
Jeff Goldblum
375 Fairfield Avenue, Stamford, CT 06902
(203) 967-8367
jeff@swcoffice.com

Engineer: D'Andrea Surveying & Engineering, PC
Derek E. Daunais, PE
6 Neil Lane Riverside, CT 06878
(203) 637-1779
derek@rvdi.com

Site Information:

375 Fairfield Avenue
Block 35, Tax Account #001-3193
Existing / Proposed Zone: M-G Zoning District
Existing / Proposed Use: Commercial

Table of Contents

Introduction	1
Existing Conditions	2
Proposed Conditions	2
Narrative of Impacts to State Drainage Facilities	4
Conclusion	5
Existing Conditions – Watershed Map	Exhibit A
Proposed Conditions – Watershed Map	Exhibit B
NRCS Soil Map & Hydrologic Soil Group Rating	Exhibit C
FIRM Map	Exhibit D
Site Vicinity Map	Exhibit E
USGS Topographic Quad Map	Exhibit F
Rainfall Depths and Intensity	Exhibit G
Stormwater Calculations	Appendix A
HydroCAD Summary Table – Existing & Proposed Conditions	Appendix B
HydroCAD Analysis – Existing Conditions	Appendix C
HydroCAD Analysis – Proposed Conditions	Appendix D
DCIA Worksheet	Appendix E

Introduction:

The Owner of the property located at 375 Fairfield Avenue in Stamford, Connecticut, is proposing to construct two new commercial buildings along with associated improvements at the already developed site. The purpose of this report is to summarize the proposed stormwater treatment improvements for the site as part of the proposed commercial redevelopment. The property is located along the western side of Fairfield Avenue, just south of the intersection with Selleck Street. The property is bordered by Metro-North railroad to the west, Fairfield Avenue to the east, and commercial properties to the south and southeast. It is located in the M-G zoning district and has a total area of 9.3816 acres. The property is located outside all Flood Hazard Areas (refer to Exhibit D).

The property currently contains seven other existing commercial buildings. These building will remain in operation and will not be removed. The construction of the two new buildings will take place in areas that are currently used as surface parking. The total area of land disturbance for the proposed project will be approximately 3.9 acres or 41.5% of the property. The remaining 58.5% of the property will remain the same as under existing conditions.

The proposed improvements will include the removal of the hardscape/compacted gravel surfaces within the limits of disturbance, the construction of two new commercial buildings (Buildings "A" and "B"), the construction of new bituminous concrete driveways and parking lot areas with curbing, retaining walls, sidewalks, the installation of a stormwater collection, retention and conveyance system, installation of various underground utilities, and the implementation of a planting plan. There are currently nine existing driveway entrances to the site. The proposed improvements will eliminate five of these entrances and modify four of them, so there will be a total of only four driveway entrances to the property after construction has been completed. Refer to the Site Plan Review Set, prepared by D'Andrea Surveying & Engineering, P.C. for a depiction of existing conditions and the proposed site improvements.

The proposed development will decrease the total amount of impervious coverage from 396,183 square feet (S.F.) (or 96.9%) to 388,070 S.F. (or 95.0%), which is a decrease of approximately 8,113 S.F. or (1.9%), as compared to existing conditions. Existing compacted gravel parking area surfaces have been considered as impervious surfaces for the purpose of this total impervious coverage comparison. A proposed storm drainage system, including catch basins with deep sumps and traps, cyclonic hydrodynamic oil/grit removal treatment systems, porous pavement systems, and subsurface retention/infiltration systems, will be installed to treat Water Quality Flow (WQF), infiltrate a minimum of the half Water Quality Flow (WQF), and reduce both peak flow discharge rates and runoff volume to off-site areas, as compared to existing conditions. There are currently no stormwater retention or infiltration treatment measures on the site within the areas of proposed development. Drainage patterns and discharge points will be similar as under existing conditions.

The on-site watershed drainage basins for existing and proposed conditions were modeled using HydroCAD 10.0 developed by HydroCAD Software Solutions LLC. The software was used

to generate peak stormwater runoff flow rates for the 1-year to 100-year storm events, using the National Resources Conservation Services (NRCS) method.

Existing Conditions:

Currently, the entire property supports seven commercial buildings. The majority of the remainder of the property consists of either paved or compacted gravel driveway and parking area surfaces with very little vegetated areas and very few trees. The entire property has been previously developed and there are no natural areas remaining. The area designated for the development of proposed Building “A” currently consists of a mixture of compacted gravel and paved parking areas. The area designated for the development of proposed Building “B” currently consists of a large concrete slab surrounded by paved driveway/parking areas. The concrete slab is what remains of a foundation slab from a previously existing building that was removed many years ago. This concrete slab is currently used as a parking area.

Stormwater runoff from the entire site flows to different Points of Concern (POC). The stormwater runoff from Drainage Area 1 (DA-1) flows overland toward Fairfield Avenue where it is collected by street catch basins and discharged into the City of Stamford storm drainage system, POC-A. The stormwater runoff from DA-2A, DA-2B, DA-2C, DA-2D, and DA-2E is collected by the existing on-site storm drainage system and pipe discharged onto the Metro-North property to the west, POC-B. DA-3 consists of existing Building #1. The stormwater runoff from this building is piped to an unknown location, POC-F. The stormwater runoff from the southern end of the property, DA-4, flows onto the adjoining property to the east, POC-C. DA-5A consists of the existing Building #13. The stormwater runoff from this building is piped into an existing on-site infiltration drywell, POC-D. The stormwater runoff from DA-5B is also piped into another existing on-site infiltration drywell, POC-E. Refer to Exhibit “A” for a depiction of existing conditions stormwater runoff flow patterns and watershed areas.

Proposed Conditions:

Under proposed conditions, drainage patterns and discharge points will be similar as under existing conditions. However, new storm drainage treatment and retention facilities have been proposed to help control and treat stormwater runoff before it is discharged off-site. The proposed drainage analysis includes the division of the property into multiple sub-watershed areas discharging to the same points of concern as under existing conditions. Refer to Exhibit “B” for a depiction of proposed conditions stormwater runoff flow patterns and watershed areas.

Drainage Areas 2D, 2E, 3, 4, 5A, and 5B will not be impacted by the proposed development and neither will the stormwater runoff flow or volume to points of concern C, D, and E. These drainage areas will remain the same as under existing conditions. Only existing drainage areas, DA-1, DA-2A, DA-2B, and DA-2C will be impacted by the proposed development and therefore they have been renumbered and remodeled to accommodate the proposed development improvements.

Proposed drainage areas DA-1A through DA-1F are associated with the development of proposed Building “A”. Stormwater runoff from DA-1A will flow overland onto Fairfield Avenue where it will be collected by existing street catch basins and discharged into the City of Stamford storm drainage system, POC-A, similar as under existing conditions. The stormwater runoff from DA-1D and DA-1E will be collected by proposed porous pavement parking areas (PP-1 & PP-2). These systems have been sized to both retain and infiltrate a minimum of the one-half water quality volume for their associated watershed areas. The overflow from these systems will be piped to the City storm drainage system in Fairfield Avenue, POC-A. The stormwater runoff from DA-1B will be collected by the proposed storm drainage system and first routed through a hydrodynamic oil/grit separator stormwater treatment system and then discharged into a subsurface retention/infiltration system (RS-1). This subsurface retention/infiltration system has been designed to retain a minimum of the one-half water quality volume from its contributing watershed area. The overflow from this system will be piped to the City storm drainage system in Fairfield Avenue, POC-A. Due to restrictive soil conditions the one-half water quality volume stormwater runoff from DA-1C and DA-1F cannot be retained and infiltrated. Instead, the stormwater runoff from these two areas will be treated through the use of a hydrodynamic oil/grit separator stormwater treatment systems prior to being discharged into the City storm drainage system in Fairfield Avenue, POC-A.

Proposed drainage areas DA-2A, DA-2B-1, DA-2B-2, and DA-2C are associated with the development of proposed Building “B”. Stormwater runoff from DA-2A will be collected by a new replacement driveway catch basin prior to being piped to the Metro-North property, POC-B. This drainage area will have similar surface conditions as under existing conditions and therefore water quality volume infiltration is not warranted. However, the new catch basin will contain both a deep sump and silt trap, which will assist in stormwater runoff pretreatment and will be an improvement over existing conditions. The stormwater runoff from DA-2B-1 will be collected by a proposed porous pavement parking area (PP-3). This system has been sized to both retain and infiltrate a minimum of the one-half water quality volume for its associated watershed area. The overflow from this system will be piped to the Metro-North property, POC-B. The stormwater runoff from DA-2B-2 will be collected by the proposed storm drainage system and first routed through a hydrodynamic oil/grit separator stormwater treatment system and then discharged into a subsurface retention/infiltration system (RS-2). This subsurface retention/infiltration system has been designed to retain a minimum of the one-half water quality volume from its contributing watershed area. The overflow from this system will be piped to the Metro-North property, POC-B. DA-2C will consist mostly of the existing parking lot located to the southwest of proposed Building “B”. The stormwater runoff from DA-2C will continue to be collected by the existing parking lot storm drainage system and piped to the Metro-North property, POC-B, in a similar manner as under existing conditions.

Refer to Appendix “A” for half water quality volume calculations and retention system/porous pavement stage-storage data. The proposed cyclonic hydrodynamic oil/grit removal treatment systems will be designed to treat a minimum of the water quality flow rate from their contributing watershed areas. Refer to Appendix “A” for water quality flow rate calculations.

All proposed catch basins will be equipped with deep sumps and hooded traps over the outlet pipes, which will be used to pretreat the stormwater runoff prior to discharge downstream.

The bottoms of the proposed subsurface retention/infiltration systems have been designed to be set a minimum of 1-foot above any underlying restrictive layer in accordance with the City of Stamford Drainage Manual standards. The Soil Survey of Fairfield County, Connecticut, as developed by the United States Department of Agriculture (USDA) and the Soil Conservation Service (SCS) classifies the majority of the on-site soil group as Urban Land with a hydrologic soil group rating of D. Refer to Exhibit "C" for the NRCS soil delineation map and hydrologic soil group rating. However, on-site test pits were performed, which have characterized the soils as predominately silty sand, which generally have good infiltration characteristics. Due to the existing uses of the property and the presence of existing concrete slabs, test pits were currently unable to be performed in all of the proposed porous pavement and subsurface retention system locations. Therefore, additional deep test pits and hydraulic conductivity tests will be performed in the areas of the proposed retention systems prior to the issuance of a building permit to verify the infiltration rates of the existing soils and if any restrictive soil conditions are present. If any design changes are required due to the results of this additional soil testing, both the results of the additional soil testing and the revised storm drainage design will be submitted to the City Engineering Bureau for review prior to the issuance of a building permit.

Based on the HydroCAD model, both the volume and peak rate of stormwater runoff exiting the site will be decreased for all storm events to POC A and B. Refer to Appendix "B" for a summary and comparison of the peak flow and volume discharge from the subject property for both existing and proposed conditions. In addition to reducing the peak flows, infiltrating one-half the Water Quality Volume and treating the Water Quality Flow from the proposed improvements will help pretreat stormwater runoff from the proposed asphalt parking lot areas and building roofs prior to discharging downstream.

During the construction phase of the project, pretreatment of stormwater runoff will be provided by the use of temporary soil and erosion controls as outlined on the "Sedimentation and Erosion Control Plan," prepared by D'Andrea Surveying & Engineering, P.C. This includes the stockpiling of excess materials for control of sediment and periodic on-site inspections to ensure that the development of the site remains "tight" and stable throughout the construction phase.

Narrative of Impacts to State Drainage Facilities

The Metro-North railroad right-of-way lies adjacent to the western property line of the proposed development. There are no new proposed direct stormwater runoff connections from the proposed development to the railroad right-of-way from any of the proposed building or driveway improvements. There are currently four existing storm drainage pipes that discharge stormwater runoff from the subject property onto the Metro-North property. These existing drainage pipes will remain in use under proposed conditions.

Under existing conditions, the stormwater runoff from the subject property that is discharged onto the railroad right-of-way is untreated. Under proposed conditions, the stormwater

runoff from the area of proposed development on the subject property will first be treated through water quality measures, such as porous pavement areas, subsurface retention/infiltration systems, and cyclonic hydrodynamic oil/grit removal treatment systems. These proposed stormwater treatment measures plus the overall reduction in the peak rate of runoff and volume will result in an overall improvement, as compared to existing conditions. Therefore, there will be no adverse impacts to any existing storm drainage systems that may lie within the railroad right-of-way, as a result of the proposed development.

There is currently an undefined access easement over the subject property to the Metro-North property in favor of the State of Connecticut. An access route through the subject property will be provided and maintained throughout construction and under proposed conditions.

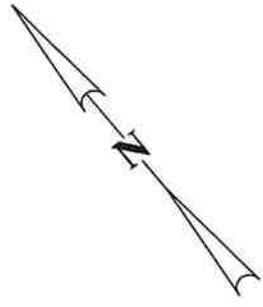
Conclusion

The proposed improvements will reduce the total amount of overall impervious surfaces on the subject property and have been designed to provide water quality treatment measures that will both mitigate stormwater runoff from the site and reduce runoff volumes and peak flow rates, as compared to existing conditions.

Based on the above information, the proposed improvements are designed in accordance with the City of Stamford Stormwater Drainage Manual and will not adversely impact adjacent or downstream properties or City-owned drainage facilities

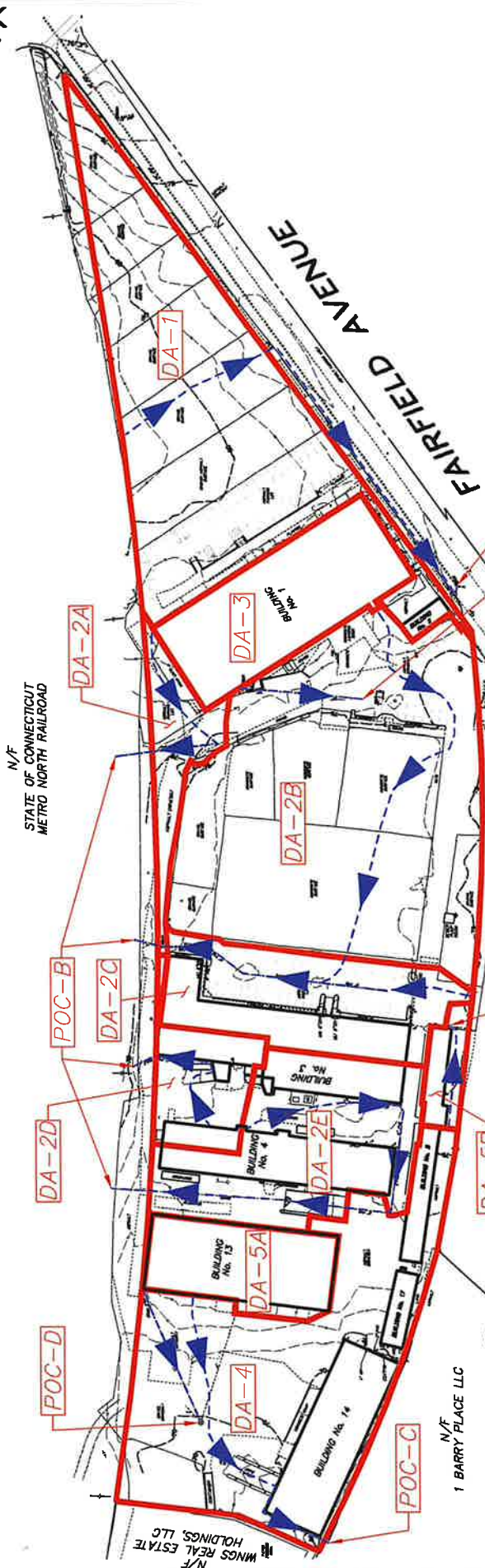
Exhibits “A” & “B”

Watershed Maps
Existing & Proposed Conditions



SELLECK STREET

N/F
STATE OF CONNECTICUT
METRO NORTH RAILROAD



FAIRFIELD AVENUE

1 INCH = 170 FEET



SUNNYSIDE AVENUE

D'ANDREA SURVEYING & ENGINEERING, P.C.
 LAND PLANNERS
 ENGINEERS
 SURVEYORS

P.O. BOX 549
 RIVERSIDE, CT 06878

6 NEE LANE
 TEL. 837-1778

EXHIBIT "A"
EXISTING CONDITIONS

Exhibit “C”

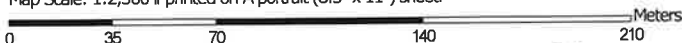
**NRCS Soil Map &
Hydraulic Soil Group Rating**

Hydrologic Soil Group—State of Connecticut
(375 Fairfield Avenue, Stamford, CT)



Soil Map may not be valid at this scale.

Map Scale: 1:2,560 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84



MAP LEGEND

- Area of Interest (AOI)**
 - Area of Interest (AOI)
- Soils**
 - Soil Rating Polygons
 - A
 - A/D
 - B
 - B/D
 - C
 - C/D
 - D
 - Not rated or not available
 - Soil Rating Lines
 - A
 - A/D
 - B
 - B/D
 - C
 - C/D
 - D
 - Not rated or not available
- Water Features**
 - Streams and Canals
- Transportation**
 - Rails
 - Interstate Highways
 - US Routes
 - Major Roads
 - Local Roads
- Background**
 - Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 22, Sep 12, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 21, 2022—Oct 27, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
307	Urban land	D	10.5	100.0%
Totals for Area of Interest			10.5	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Exhibit “D”

FIRM Map

National Flood Hazard Layer FIRMette

73°33'26"W 41°02'29"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)
Zone A, V, AE9
- With BFE or Depth
Zone AE, AO, AH, VE, AP
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard. Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. *Zone 2*
- Future Conditions 1% Annual Chance Flood Hazard. *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee. *Zone 0*

OTHER AREAS

- NO SCREEN
- Area of Minimal Flood Hazard. *Zone X*
- Effective LOMRS
- Area of Undetermined Flood Hazard. *Zone*

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

CROSS SECTIONS WITH 1% ANNUAL CHANCE WATER SURFACE ELEVATION

- 20.2
- 17.5
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

OTHER FEATURES

- Digital Data Available
- No Digital Data Available
- Unmapped

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/20/2023 at 11:31 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

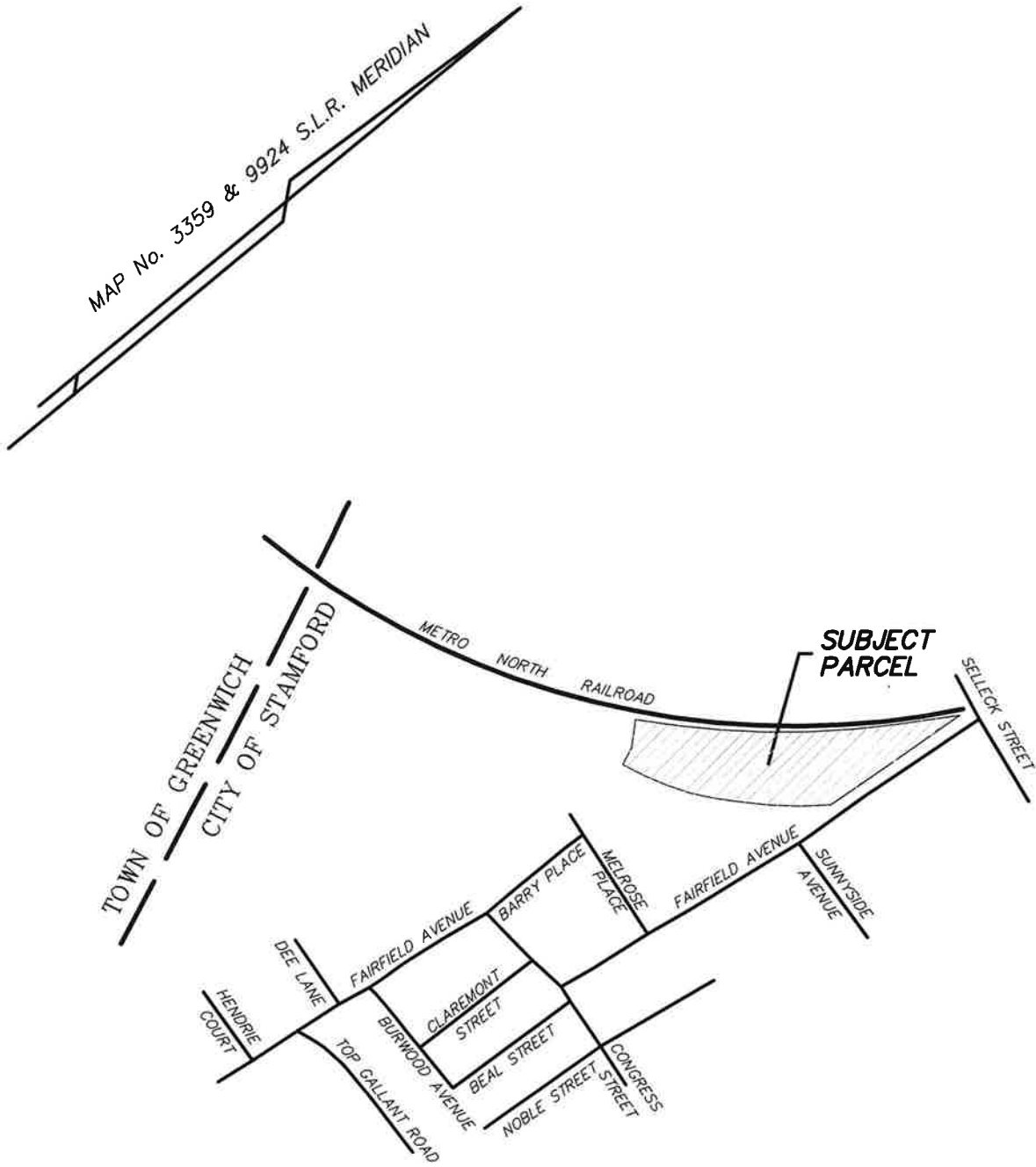
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



73°33'26"W 41°02'29"N

Exhibit “E”

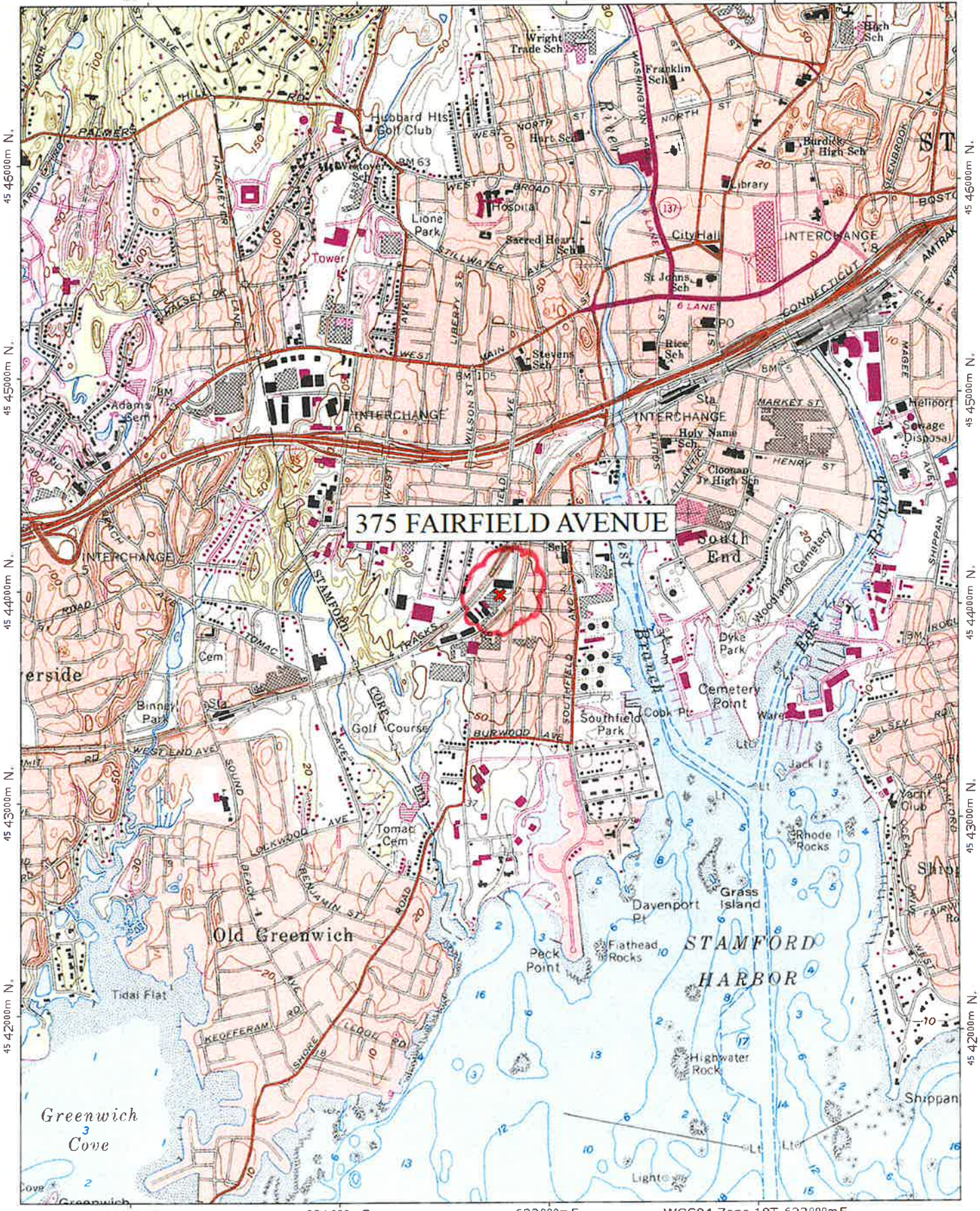
Site Vicinity Map



LOCATION MAP - 1" = 800'±

Exhibit “F”

USGS Topographic Quad Map



375 FAIRFIELD AVENUE

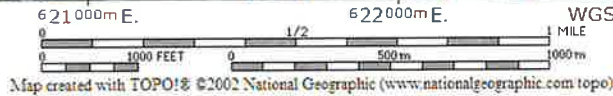


Exhibit “G”

Rainfall Depths and Intensity



NOAA Atlas 14, Volume 10, Version 3
 Location name: Stamford, Connecticut, USA*
 Latitude: 41.0375°, Longitude: -73.5521°
 Elevation: 75 ft**



* source: ESRI Maps
 ** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps & aerials](#)

PF tabular

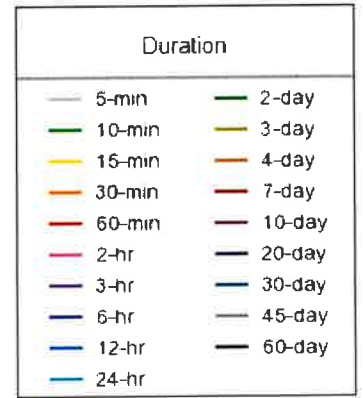
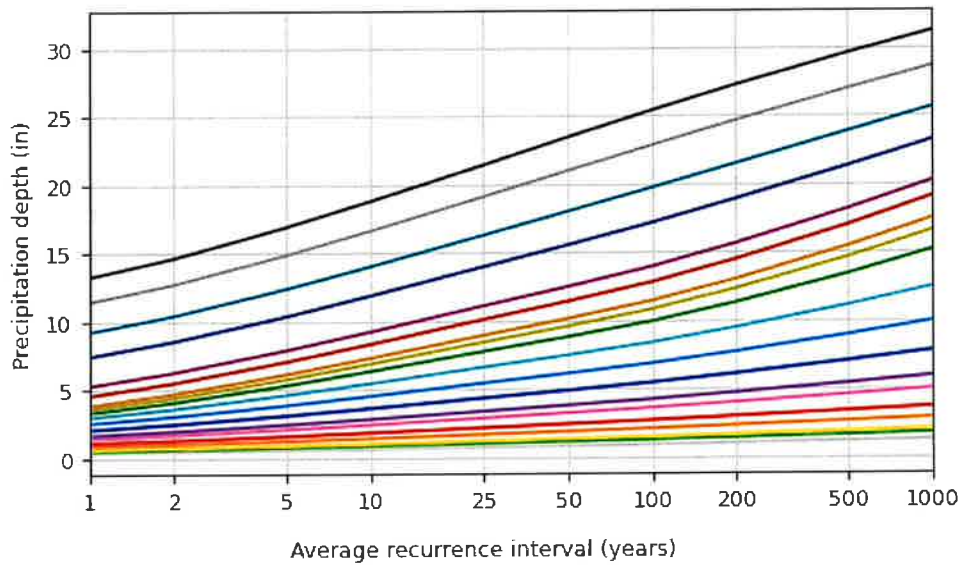
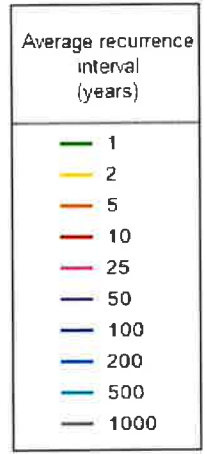
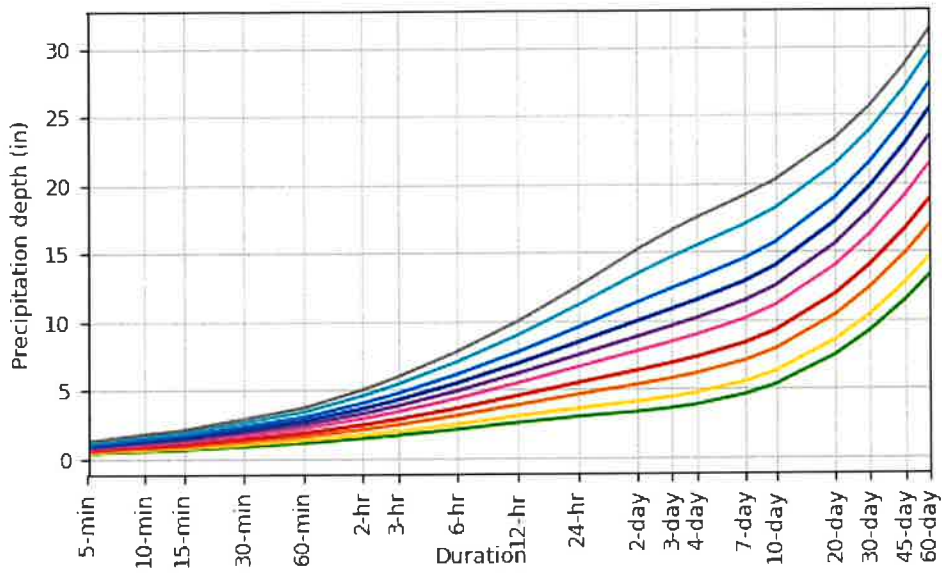
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.365 (0.280-0.466)	0.425 (0.327-0.543)	0.524 (0.401-0.672)	0.606 (0.462-0.781)	0.719 (0.531-0.958)	0.805 (0.583-1.09)	0.893 (0.629-1.24)	0.990 (0.665-1.41)	1.12 (0.728-1.65)	1.23 (0.781-1.84)
10-min	0.516 (0.397-0.660)	0.602 (0.463-0.770)	0.742 (0.569-0.953)	0.859 (0.654-1.11)	1.02 (0.753-1.36)	1.14 (0.826-1.54)	1.27 (0.891-1.76)	1.40 (0.941-2.00)	1.59 (1.03-2.33)	1.75 (1.11-2.60)
15-min	0.608 (0.467-0.776)	0.708 (0.544-0.906)	0.873 (0.669-1.12)	1.01 (0.770-1.30)	1.20 (0.886-1.60)	1.34 (0.971-1.82)	1.49 (1.05-2.08)	1.65 (1.11-2.35)	1.88 (1.21-2.74)	2.06 (1.30-3.06)
30-min	0.850 (0.653-1.08)	0.992 (0.762-1.27)	1.22 (0.938-1.57)	1.42 (1.08-1.83)	1.68 (1.24-2.24)	1.88 (1.36-2.55)	2.09 (1.47-2.91)	2.31 (1.55-3.29)	2.62 (1.70-3.83)	2.86 (1.81-4.25)
60-min	1.09 (0.840-1.40)	1.28 (0.980-1.63)	1.58 (1.21-2.02)	1.82 (1.39-2.35)	2.17 (1.60-2.88)	2.43 (1.76-3.28)	2.70 (1.89-3.74)	2.98 (2.00-4.23)	3.36 (2.18-4.92)	3.66 (2.32-5.44)
2-hr	1.42 (1.10-1.80)	1.67 (1.29-2.12)	2.08 (1.60-2.64)	2.42 (1.85-3.09)	2.88 (2.14-3.81)	3.24 (2.36-4.35)	3.60 (2.54-4.99)	4.00 (2.70-5.65)	4.55 (2.96-6.61)	4.99 (3.17-7.38)
3-hr	1.63 (1.27-2.07)	1.93 (1.50-2.44)	2.42 (1.87-3.07)	2.82 (2.17-3.59)	3.37 (2.51-4.45)	3.79 (2.77-5.09)	4.23 (3.00-5.84)	4.70 (3.18-6.62)	5.38 (3.50-7.79)	5.92 (3.76-8.72)
6-hr	2.06 (1.61-2.58)	2.44 (1.91-3.07)	3.08 (2.40-3.88)	3.61 (2.79-4.57)	4.33 (3.25-5.68)	4.88 (3.58-6.51)	5.45 (3.89-7.50)	6.09 (4.13-8.52)	7.01 (4.58-10.1)	7.77 (4.96-11.4)
12-hr	2.53 (1.99-3.15)	3.02 (2.37-3.77)	3.83 (3.00-4.80)	4.50 (3.50-5.67)	5.43 (4.10-7.09)	6.12 (4.53-8.14)	6.85 (4.93-9.40)	7.69 (5.23-10.7)	8.92 (5.84-12.8)	9.93 (6.36-14.4)
24-hr	2.95 (2.34-3.66)	3.57 (2.82-4.43)	4.59 (3.61-5.71)	5.43 (4.25-6.79)	6.59 (5.00-8.56)	7.45 (5.55-9.87)	8.38 (6.08-11.5)	9.46 (6.46-13.1)	11.1 (7.28-15.7)	12.4 (7.98-18.0)
2-day	3.30 (2.62-4.06)	4.06 (3.23-5.00)	5.30 (4.20-6.55)	6.33 (4.98-7.86)	7.74 (5.92-10.0)	8.79 (6.60-11.6)	9.93 (7.26-13.6)	11.3 (7.74-15.5)	13.4 (8.81-18.9)	15.2 (9.76-21.7)
3-day	3.56 (2.85-4.37)	4.39 (3.51-5.40)	5.75 (4.57-7.08)	6.88 (5.44-8.50)	8.42 (6.46-10.9)	9.57 (7.21-12.6)	10.8 (7.94-14.7)	12.3 (8.46-16.8)	14.6 (9.64-20.5)	16.6 (10.7-23.7)
4-day	3.82 (3.06-4.67)	4.69 (3.75-5.74)	6.12 (4.88-7.51)	7.30 (5.79-9.01)	8.93 (6.87-11.5)	10.1 (7.65-13.3)	11.4 (8.41-15.5)	13.0 (8.95-17.8)	15.4 (10.2-21.6)	17.5 (11.3-24.9)
7-day	4.55 (3.66-5.53)	5.49 (4.42-6.69)	7.04 (5.64-8.60)	8.32 (6.63-10.2)	10.1 (7.78-12.9)	11.4 (8.62-14.8)	12.8 (9.42-17.2)	14.5 (9.99-19.6)	17.0 (11.3-23.7)	19.1 (12.4-27.0)
10-day	5.26 (4.25-6.38)	6.25 (5.05-7.59)	7.88 (6.34-9.59)	9.23 (7.38-11.3)	11.1 (8.57-14.1)	12.5 (9.44-16.1)	13.9 (10.2-18.6)	15.6 (10.8-21.1)	18.1 (12.1-25.2)	20.2 (13.1-28.5)
20-day	7.41 (6.03-8.93)	8.53 (6.93-10.3)	10.4 (8.38-12.5)	11.9 (9.54-14.4)	13.9 (10.8-17.5)	15.5 (11.8-19.8)	17.1 (12.6-22.5)	18.9 (13.2-25.3)	21.3 (14.2-29.3)	23.2 (15.1-32.5)
30-day	9.20 (7.51-11.0)	10.4 (8.48-12.5)	12.4 (10.0-14.9)	14.0 (11.3-16.9)	16.2 (12.6-20.2)	18.0 (13.6-22.7)	19.7 (14.4-25.6)	21.5 (15.0-28.6)	23.8 (16.0-32.7)	25.6 (16.7-35.7)
45-day	11.4 (9.34-13.6)	12.7 (10.4-15.2)	14.8 (12.1-17.8)	16.6 (13.5-20.0)	19.1 (14.9-23.6)	21.0 (15.9-26.3)	22.8 (16.7-29.3)	24.6 (17.3-32.7)	26.9 (18.1-36.8)	28.6 (18.7-39.8)
60-day	13.2 (10.9-15.8)	14.6 (12.0-17.4)	16.9 (13.8-20.2)	18.8 (15.3-22.6)	21.4 (16.7-26.4)	23.4 (17.8-29.3)	25.4 (18.6-32.5)	27.2 (19.1-36.0)	29.6 (19.9-40.2)	31.2 (20.4-43.2)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).
 Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.
 Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

PF graphical

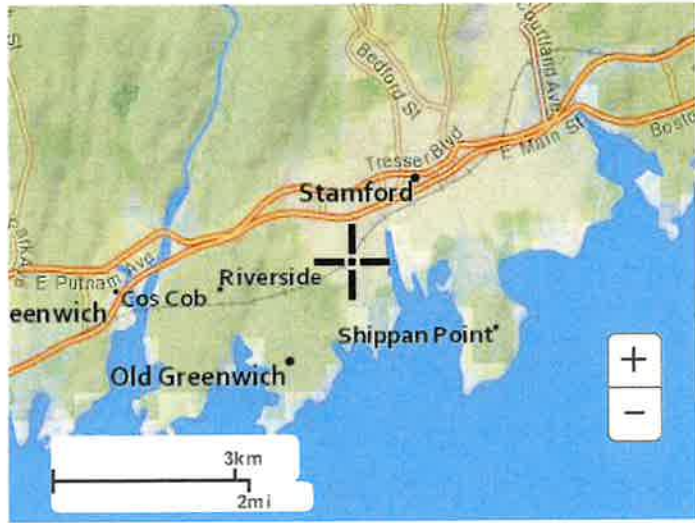
PDS-based depth-duration-frequency (DDF) curves
 Latitude: 41.0375°, Longitude: -73.5521°



[Back to Top](#)

Maps & aeriels

Small scale terrain



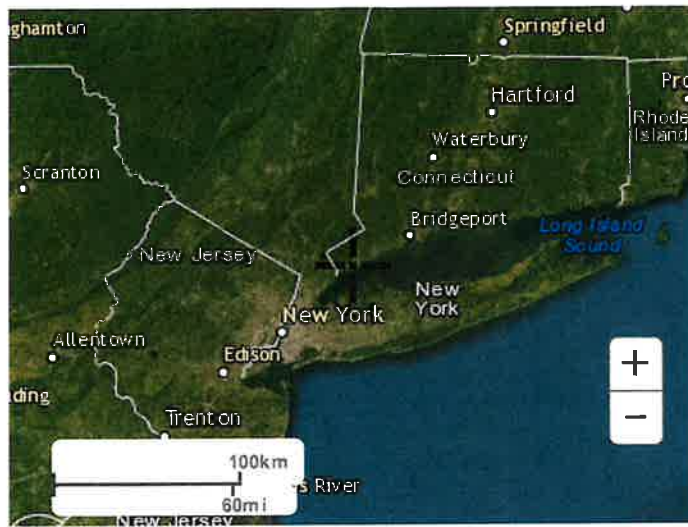
Large scale terrain



Large scale map



Large scale aerial



[Back to Top](#)

[US Department of Commerce](#)
[National Oceanic and Atmospheric Administration](#)
[National Weather Service](#)
[National Water Center](#)
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

[Disclaimer](#)

Appendix "A"
Stormwater Calculations

Water Quality Volume (WQV) Calculations

Name: 375 Fairfield Avenue Associates
 Address: 375 Fairfield Avenue, Stamford, Connecticut
 Project: Commercial Development

$$WQV = \left(\frac{1 \text{ in}}{12 \frac{\text{in}}{\text{ft}}} \right) RA$$

Where,

R= Volumetric Runoff Coefficient = 0.05+0.009I

I= Percent Impervious Coverage

A= Watershed Area (sf)

Drainage Area	Total Area (sf)	Impervious Coverage		R (Runoff Coefficient)	WQV (cf)	½ WQV (cf)
		Area (sf)	% Coverage			
Pr. Area #1B	24,237	23,373	96.4	0.9176	1853.3	911.7
Pr. Area #1C	11,957	11,376	95.1	0.9059	902.7	451.4
Pr. Area #1D	10,615	10,408	98.0	0.9320	824.4	412.2
Pr. Area #1E	6,714	6,417	95.6	0.9104	509.4	254.7
Pr. Area #1F	5,125	4,208	82.1	0.7889	336.9	168.5
Pr. Area #2B-1	16,104	15,570	96.7	0.9203	1,235.0	617.5
Pr. Area #2B-2	87,935	85,078	96.8	0.9212	6,750.5	3,375.3

Pr. Area #1B: The ½ WQV for this drainage area will first be pretreated by hydrodynamic Stormwater Treatment System #3 and then it will be collected and infiltrated by Retention System #1. The storage volume of Retention System #1 below the 12" high-overflow outlet orifice will be approximately 976 cubic feet. Refer to attached Stage-Area Storage Table for RS-1.

Pr. Area #1C: The ½ WQV for this drainage area will be pretreated by hydrodynamic Stormwater Treatment System #2.

Pr. Area #1D: The $\frac{1}{2}$ WQV for this drainage area will be collected and infiltrated by Pervious Pavement System #2. The storage volume of Pervious Pavement System #2 below the 8" high-overflow outlet orifice will be approximately 441 cubic feet. Refer to attached Stage-Area Storage Table for PP-2.

Pr. Area #1E: The $\frac{1}{2}$ WQV for this drainage area will be collected and infiltrated by Pervious Pavement System #1. The storage volume of Pervious Pavement System #1 below the 8" high-overflow outlet orifice will be approximately 305 cubic feet. Refer to attached Stage-Area Storage Table for PP-1.

Pr. Area #1F: The $\frac{1}{2}$ WQV for this drainage area will be pretreated by hydrodynamic Stormwater Treatment System #1.

Pr. Area #2B-1: The $\frac{1}{2}$ WQV for this drainage area will be collected and infiltrated by Pervious Pavement System #3. The storage volume of Pervious Pavement System #3 below the 12" high-overflow outlet orifice will be approximately 2,024 cubic feet. Refer to attached Stage-Area Storage Table for PP-3.

Pr. Area #2B-2: The $\frac{1}{2}$ WQV for this drainage area will first be pretreated by hydrodynamic Stormwater Treatment System #4 and then it will be collected and infiltrated by Retention System #2. The storage volume of Retention System #2 below the 18" high-overflow outlet orifice will be approximately 3,415 cubic feet. Refer to attached Stage-Area Storage Table for RS-2.

Stage-Area-Storage for Pond 17P: RS-1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
72.00	0	<u>74.60</u>	976
72.05	11	74.65	987
72.10	22	74.70	999
72.15	34	74.75	1,010
72.20	45	74.80	1,021
72.25	56	74.85	1,032
72.30	67	74.90	1,044
72.35	78	74.95	1,055
72.40	90	75.00	1,066
72.45	101	75.05	1,077
72.50	112	75.10	1,088
72.55	136	75.15	1,100
72.60	160	75.20	1,111
72.65	183	75.25	1,116
72.70	206	75.30	1,118
72.75	230	75.35	1,121
72.80	253	75.40	1,124
72.85	276	75.45	1,127
72.90	299	75.50	1,130
72.95	322	75.55	1,132
73.00	345	75.60	1,135
73.05	368	75.65	1,138
73.10	390	75.70	1,141
73.15	413	75.75	1,144
73.20	435	75.80	1,146
73.25	458	75.85	1,149
73.30	480	75.90	1,152
73.35	502	75.95	1,155
73.40	524	76.00	1,158
73.45	546	76.05	1,160
73.50	567	76.10	1,163
73.55	589	76.15	1,166
73.60	610	76.20	1,169
73.65	632	76.25	1,172
73.70	653	76.30	1,174
73.75	674	76.35	1,177
73.80	694	76.40	1,180
73.85	715	76.45	1,183
73.90	735	76.50	1,186
73.95	755	76.55	1,188
74.00	775	76.60	1,191
74.05	794	76.65	1,194
74.10	813	76.70	1,197
74.15	832	76.75	1,200
74.20	850	76.80	1,202
74.25	868	76.85	1,205
74.30	886	76.90	1,208
74.35	903	76.95	1,211
74.40	919	77.00	1,214
74.45	935		
74.50	949		
74.55	963		

← HIGH - OVERFLOW OUTLET

23DA_Pr-0

Prepared by RVDI

HydroCAD® 10.00-26 s/n 07356 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 1-Year Rainfall=2.95"

Printed 9/22/2023

Stage-Area-Storage for Pond 23P: RS-2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
67.20	0	72.40	4,163
67.30	74	72.50	4,182
67.40	149	72.60	4,200
67.50	223	72.70	4,219
67.60	297	72.80	4,237
67.70	371	72.90	4,256
67.80	535	73.00	4,275
67.90	697	73.10	4,293
68.00	857	73.20	4,312
68.10	1,017	73.30	4,330
68.20	1,175	73.40	4,349
68.30	1,332	73.50	4,367
68.40	1,487	73.60	4,386
68.50	1,640	73.70	4,405
68.60	1,791	73.80	4,423
68.70	1,941	73.90	4,442
68.80	2,090	74.00	4,460
68.90	2,236	74.10	4,479
69.00	2,378	74.20	4,497
69.10	2,518	74.30	4,516
69.20	2,654	74.40	4,534
69.30	2,786	74.50	4,553
69.40	2,913		
69.50	3,034		
69.60	3,148		
69.70	3,250		
69.80	3,338		
69.90	3,415		
70.00	3,489		
70.10	3,563		
70.20	3,637		
70.30	3,712		
70.40	3,786		
70.50	3,811		
70.60	3,829		
70.70	3,848		
70.80	3,866		
70.90	3,885		
71.00	3,903		
71.10	3,922		
71.20	3,941		
71.30	3,959		
71.40	3,978		
71.50	3,996		
71.60	4,015		
71.70	4,033		
71.80	4,052		
71.90	4,070		
72.00	4,089		
72.10	4,108		
72.20	4,126		
72.30	4,145		

← HIGH-OVERFLOW OUTLET

Stage-Area-Storage for Pond 20P: PP-1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
74.90	0	75.94	453
74.92	9	75.96	462
74.94	17	75.98	471
74.96	26	76.00	480
74.98	35	76.02	488
75.00	44	76.04	497
75.02	52	76.06	505
75.04	61	76.08	511
75.06	70	76.10	518
75.08	78	76.12	524
75.10	87	76.14	531
75.12	96	76.16	537
75.14	105	76.18	544
75.16	113	76.20	550
75.18	122	76.22	557
75.20	131	76.24	564
75.22	140	76.26	570
75.24	148	76.28	577
75.26	157	76.30	583
75.28	166	76.32	590
75.30	174	76.34	596
75.32	183	76.36	603
75.34	192	76.38	609
75.36	201	76.40	616
75.38	209	76.42	622
75.40	218	76.44	629
75.42	227	76.46	635
75.44	235	76.48	642
75.46	244	76.50	649
75.48	253	76.52	655
75.50	262	76.54	662
75.52	270	76.56	668
75.54	279	76.58	675
75.56	288	76.60	681
75.58	296	76.62	688
<u>75.60</u>	<u>305</u>	76.64	694
75.62	314	76.66	701
75.64	323	76.68	707
75.66	331	76.70	714
75.68	340	76.72	720
75.70	349	76.74	727
75.72	358	76.76	734
75.74	366	76.78	740
75.76	375	76.80	747
75.78	384		
75.80	392		
75.82	401		
75.84	410		
75.86	419		
75.88	427		
75.90	436		
75.92	445		

**HIGH-OVERFLOW
OUTLET**

Stage-Area-Storage for Pond 19P: PP-2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
75.90	0	76.94	655
75.92	13	76.96	668
75.94	25	76.98	680
75.96	38	77.00	693
75.98	50	77.02	706
76.00	63	77.04	718
76.02	76	77.06	729
76.04	88	77.08	739
76.06	101	77.10	748
76.08	113	77.12	758
76.10	126	77.14	767
76.12	139	77.16	776
76.14	151	77.18	786
76.16	164	77.20	795
76.18	176	77.22	805
76.20	189	77.24	814
76.22	202	77.26	824
76.24	214	77.28	833
76.26	227	77.30	843
76.28	239	77.32	852
76.30	252	77.34	862
76.32	265	77.36	871
76.34	277	77.38	880
76.36	290	77.40	890
76.38	302	77.42	899
76.40	315	77.44	909
76.42	328	77.46	918
76.44	340	77.48	928
76.46	353	77.50	937
76.48	365	77.52	947
76.50	378	77.54	956
76.52	391	77.56	965
76.54	403	77.58	975
76.56	416	77.60	984
76.58	428	77.62	994
<u>76.60</u>	<u>441</u>	77.64	1,003
76.62	454	77.66	1,013
76.64	466	77.68	1,022
76.66	479	77.70	1,032
76.68	491	77.72	1,041
76.70	504	77.74	1,051
76.72	517	77.76	1,060
76.74	529	77.78	1,069
76.76	542	77.80	1,079
76.78	554		
76.80	567		
76.82	580		
76.84	592		
76.86	605		
76.88	617		
76.90	630		
76.92	643		

Handwritten red text:
 HIGH-OVERFLOW
 OUTLET

Stage-Area-Storage for Pond 22P: PP-3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
69.80	0	72.40	2,631
69.85	51	72.45	2,682
69.90	101	72.50	2,732
69.95	152	72.55	2,783
70.00	202	72.60	2,834
70.05	253	72.65	2,884
70.10	304	72.70	2,935
70.15	354	72.75	2,985
70.20	405	72.80	3,036
70.25	455	72.85	3,087
70.30	506	72.90	3,137
70.35	557	72.95	3,188
70.40	607	73.00	3,238
70.45	658	73.05	3,289
70.50	708	73.10	3,340
70.55	759	73.15	3,390
70.60	810	73.20	3,441
70.65	860	73.25	3,491
70.70	911	73.30	3,529
70.75	961	73.35	3,567
70.80	1,012	73.40	3,605
70.85	1,063	73.45	3,643
70.90	1,113	73.50	3,681
70.95	1,164	73.55	3,719
71.00	1,214	73.60	3,757
71.05	1,265	73.65	3,795
71.10	1,316	73.70	3,833
71.15	1,366	73.75	3,871
71.20	1,417	73.80	3,909
71.25	1,467	73.85	3,947
71.30	1,518	73.90	3,985
71.35	1,569	73.95	4,023
71.40	1,619	74.00	4,061
71.45	1,670		
71.50	1,720		
71.55	1,771		
71.60	1,822		
71.65	1,872		
71.70	1,923		
71.75	1,973		
<u>71.80</u>	<u>2,024</u>		
71.85	2,075		
71.90	2,125		
71.95	2,176		
72.00	2,226		
72.05	2,277		
72.10	2,328		
72.15	2,378		
72.20	2,429		
72.25	2,479		
72.30	2,530		
72.35	2,581		

← HIGH-OVERFLOW OUTLET

Infiltration System Drawdown Calculations

Name: 375 Fairfield Avenue Associates
 Address: 375 Fairfield Avenue, Stamford, Connecticut
 Project: Commercial Development

□ Drawdown Calculations

According to the NRCS Web Soil Survey in Exhibit "C", the site lies within a mapped area of HSG-D soils. The following drawdown calculations are based on the soils observed in each test pit in the vicinity of the respective best management practice. The test pits predominately consisted of silt and sand with some cobbles. A Rawls Infiltration Rate of 0.52 (in/hr) (Loam) was used as an estimate in these calculations. These calculations will be updated, prior to installation, after infiltration tests are performed in the areas of the proposed retention systems.

□ Retention System #1 (RS-1)

$$Time_{drawdown} = \frac{DV}{(K)(A)}$$

DV	= Design Volume	=	976 ft ³
K	= Infiltration Rate	=	0.52 in/hr
A	= Bottom Area	=	560 ft ²

$$Time_{drawdown} = \frac{976 \text{ ft}^3}{(0.52 \text{ in/hr})(\frac{1 \text{ ft}}{12 \text{ in}})(560 \text{ ft}^2)} = 40.2 \text{ hrs}$$

The proposed Retention System will draw down within 40.2 hours.

□ Retention System #2 (RS-2)

$$Time_{drawdown} = \frac{DV}{(K)(A)}$$

DV	= Design Volume	=	3,415 ft ³
K	= Infiltration Rate	=	0.52 in/hr
A	= Bottom Area	=	1,856 ft ²

$$Time_{drawdown} = \frac{3,415 \text{ ft}^3}{(0.52 \text{ in/hr})(\frac{1 \text{ ft}}{12 \text{ in}})1,856 \text{ ft}^2} = 42.5 \text{ hr}$$

The proposed Retention System will draw down within 42.5 hours.

□ **Porous Pavement #1 (PP-1)**

$$Time_{drawdown} = \frac{DV}{(K)(A)}$$

$$\begin{aligned} DV = \text{Design Volume} &= 305 \text{ ft}^3 \\ K = \text{Infiltration Rate} &= 0.52 \text{ in/hr} \\ A = \text{Bottom Area} &= 1,090 \text{ ft}^2 \end{aligned}$$

$$Time_{drawdown} = \frac{305 \text{ ft}^3}{(0.52 \text{ in/hr})(\frac{1 \text{ ft}}{12 \text{ in}})(1,090 \text{ ft}^2)} = 6.5 \text{ hrs}$$

The proposed Porous Pavement retention volume will drawdown within 6.5 hours.

□ **Porous Pavement #2 (PP-2)**

$$Time_{drawdown} = \frac{DV}{(K)(A)}$$

$$\begin{aligned} DV = \text{Design Volume} &= 441 \text{ ft}^3 \\ K = \text{Infiltration Rate} &= 0.52 \text{ in/hr} \\ A = \text{Bottom Area} &= 1,575 \text{ ft}^2 \end{aligned}$$

$$Time_{drawdown} = \frac{441 \text{ ft}^3}{(0.52 \text{ in/hr})(\frac{1 \text{ ft}}{12 \text{ in}})(1,575 \text{ ft}^2)} = 6.5 \text{ hr}$$

The proposed Porous Pavement retention volume will drawdown within 6.5 hours.

□ **Porous Pavement #3 (PP-3)**

$$Time_{drawdown} = \frac{DV}{(K)(A)}$$

$$\begin{aligned} DV = \text{Design Volume} &= 2,024 \text{ ft}^3 \\ K = \text{Infiltration Rate} &= 0.52 \text{ in/hr} \\ A = \text{Bottom Area} &= 2,530 \text{ ft}^2 \end{aligned}$$

$$Time_{drawdown} = \frac{2,024 \text{ ft}^3}{(0.52 \text{ in/hr})(\frac{1 \text{ ft}}{12 \text{ in}})(2,530 \text{ ft}^2)} = 18.5 \text{ hr}$$

The proposed Porous Pavement retention volume will drawdown within 18.5 hours.

Water Quality Volume and Flow Calculations For Proposed Stormwater Treatment Systems

The following calculations have been performed for Drainage Area 1B to SWTS #3.

• **Calculate the Water Quality Volume (WQV)**

$$WQV = \left(\frac{1 \text{ in}}{12 \frac{\text{in}}{\text{ft}}} \right) RA$$

$$A = \text{Drainage Area 1B} = 24,237 \text{ ft}^2$$

$$A_{\text{impervious}} = 23,373 \text{ ft}^2$$

$$I = \% \text{ Impervious} = \frac{A_{\text{impervious}}}{A} = \frac{23,373 \text{ ft}^2}{24,237 \text{ ft}^2} (100) = 96.4 \%$$

$$R = \text{Runoff Coefficient} = 0.05 + 0.009 I = 0.05 + 0.009 (96.4 \%) = 0.9176$$

$$WQV = \left(\frac{1 \text{ in}}{12 \frac{\text{in}}{\text{ft}}} \right) (0.9176) (24,237 \text{ ft}^2) = 1,853.3 \text{ ft}^3$$

Compute the Water Quality Flow Rate (WQF)

$$WQF = q_u A Q$$

$$Q = \frac{WQV \left(12 \frac{\text{in}}{\text{ft}} \right)}{A} = \frac{1,853.3 \text{ ft}^3 \left(12 \frac{\text{in}}{\text{ft}} \right)}{24,237 \text{ ft}^2} = 0.9176 \text{ in}$$

$$P = \text{Design Precipitation} = 1 \text{ inch}$$

$$CN = \frac{1000}{10 + 5(1 \text{ in}) + 10(0.9176 \text{ in}) - 10((0.9176 \text{ in})^2 + 1.25(0.9176 \text{ in})(1 \text{ in}))^{1/2}} = 99.3$$

$$T_c = 0.167 \text{ hr} = 10 \text{ min} \quad (\text{Minimum value used in calculation})$$

$$I_a = 0.014 \text{ in} \quad (\text{extrapolated from Table 4-1 2004 CT Stormwater Quality Manual})$$

$$\frac{I_a}{P} = 0.014 \rightarrow q_u \approx 660 \frac{\text{csm}}{\text{in}} \quad (\text{From Exhibit 4-111 2004 CT Stormwater Quality Manual})$$

$$WQF = q_u A Q = \left(660 \frac{\text{csm}}{\text{in}} \right) \left(\frac{24,237 \text{ ft}^2}{\left(5,280 \frac{\text{mi}}{\text{ft}} \right)^2} \right) (0.9176 \text{ in}) = 0.53 \frac{\text{ft}^3}{\text{s}} \quad WQF = 0.53 \frac{\text{ft}^3}{\text{s}}$$

The following calculations have been performed for Drainage Area 1C to SWTS #2.

• **Calculate the Water Quality Volume (WQV)**

$$WQV = \left(\frac{1 \text{ in}}{12 \frac{\text{in}}{\text{ft}}} \right) R A$$

$$A = \text{Drainage Area 1C} = 11,957 \text{ ft}^2$$

$$A_{\text{impervious}} = 11,376 \text{ ft}^2$$

$$I = \% \text{ Impervious} = \frac{A_{\text{impervious}}}{A} = \frac{11,376 \text{ ft}^2}{11,957 \text{ ft}^2} (100) = 95.1 \%$$

$$R = \text{Runoff Coefficient} = 0.05 + 0.009 I = 0.05 + 0.009 (95.1 \%) = 0.9059$$

$$WQV = \left(\frac{1 \text{ in}}{12 \frac{\text{in}}{\text{ft}}} \right) (0.9059) (11,957 \text{ ft}^2) = 902.7 \text{ ft}^3$$

Compute the Water Quality Flow Rate (WQF)

$$WQF = q_u A Q$$

$$Q = \frac{WQV \left(12 \frac{\text{in}}{\text{ft}} \right)}{A} = \frac{902.7 \text{ ft}^3 \left(12 \frac{\text{in}}{\text{ft}} \right)}{11,957 \text{ ft}^2} = 0.9059 \text{ in}$$

$$P = \text{Design Precipitation} = 1 \text{ inch}$$

$$CN = \frac{1000}{10 + 5(1 \text{ in}) + 10(0.9059 \text{ in}) - 10 \left((0.9059 \text{ in})^2 + 1.25(0.9059 \text{ in})(1 \text{ in}) \right)^{1/2}} = 99.2$$

$$T_c = 0.167 \text{ hr} = 10 \text{ min (Minimum value used in calculation)}$$

$$I_a = 0.016 \text{ in (extrapolated from Table 4-1 2004 CT Stormwater Quality Manual)}$$

$$\frac{I_a}{P} = 0.016 \rightarrow q_u \approx 650 \frac{\text{csm}}{\text{in}} \text{ (From Exhibit 4-111 2004 CT Stormwater Quality Manual)}$$

$$WQF = q_u A Q = \left(650 \frac{\text{csm}}{\text{in}} \right) \left(\frac{11,957 \text{ ft}^2}{\left(5,280 \frac{\text{mi}}{\text{ft}} \right)^2} \right) (0.9059 \text{ in}) = 0.26 \frac{\text{ft}^3}{\text{s}} \quad WQF = 0.26 \frac{\text{ft}^3}{\text{s}}$$

LAND PLANNERS • ENGINEERS • SURVEYORS

The following calculations have been performed for Drainage Area 1F to SWTS #1.

• **Calculate the Water Quality Volume (WQV)**

$$WQV = \left(\frac{1 \text{ in}}{12 \frac{\text{in}}{\text{ft}}} \right) RA$$

$$A = \text{Drainage Area 1F} = 5,125 \text{ ft}^2$$

$$A_{\text{impervious}} = 4,208 \text{ ft}^2$$

$$I = \% \text{ Impervious} = \frac{A_{\text{impervious}}}{A} = \frac{4,208 \text{ ft}^2}{5,125 \text{ ft}^2} (100) = 82.1 \%$$

$$R = \text{Runoff Coefficient} = 0.05 + 0.009 I = 0.05 + 0.009 (82.1\%) = 0.7889$$

$$WQV = \left(\frac{1 \text{ in}}{12 \frac{\text{in}}{\text{ft}}} \right) (0.7889) (5,125 \text{ ft}^2) = 336.9 \text{ ft}^3$$

Compute the Water Quality Flow Rate (WQF)

$$WQF = q_u A Q$$

$$Q = \frac{WQV \left(12 \frac{\text{in}}{\text{ft}} \right)}{A} = \frac{336.9 \text{ ft}^3 \left(12 \frac{\text{in}}{\text{ft}} \right)}{5,125 \text{ ft}^2} = 0.7889 \text{ in}$$

$$P = \text{Design Precipitation} = 1 \text{ inch}$$

$$CN = \frac{1000}{10 + 5(1 \text{ in}) + 10(0.7889 \text{ in}) - 10 \left((0.7889 \text{ in})^2 + 1.25(0.7889 \text{ in})(1 \text{ in}) \right)^{1/2}} = 98.0$$

$$T_c = 0.167 \text{ hr} = 10 \text{ min (Minimum value used in calculation)}$$

$$I_a = 0.041 \text{ in (extrapolated from Table 4-1 2004 CT Stormwater Quality Manual)}$$

$$\frac{I_a}{P} = 0.041 \rightarrow q_u \approx 630 \frac{\text{csm}}{\text{in}} \text{ (From Exhibit 4-111 2004 CT Stormwater Quality Manual)}$$

$$WQF = q_u A Q = \left(630 \frac{\text{csm}}{\text{in}} \right) \left(\frac{5,125 \text{ ft}^2}{\left(5,280 \frac{\text{mi}}{\text{ft}} \right)^2} \right) (0.7889 \text{ in}) = 0.09 \frac{\text{ft}^3}{\text{s}} \quad WQF = 0.09 \frac{\text{ft}^3}{\text{s}}$$

The following calculations have been performed for Drainage Area 2B-2 to SWTS #4.

• **Calculate the Water Quality Volume (WQV)**

$$WQV = \left(\frac{1 \text{ in}}{12 \frac{\text{in}}{\text{ft}}} \right) RA$$

$$A = \text{Drainage Area 2B-2} = 87,935 \text{ ft}^2$$

$$A_{\text{impervious}} = 85,078 \text{ ft}^2$$

$$I = \% \text{ Impervious} = \frac{A_{\text{impervious}}}{A} = \frac{85,078 \text{ ft}^2}{87,935 \text{ ft}^2} (100) = 96.8\%$$

$$R = \text{Runoff Coefficient} = 0.05 + 0.009 I = 0.05 + 0.009 (96.8\%) = 0.9212$$

$$WQV = \left(\frac{1 \text{ in}}{12 \frac{\text{in}}{\text{ft}}} \right) (0.9212) (87,935 \text{ ft}^2) = 6,750.5 \text{ ft}^3$$

Compute the Water Quality Flow Rate (WQF)

$$WQF = q_u A Q$$

$$Q = \frac{WQV \left(12 \frac{\text{in}}{\text{ft}} \right)}{A} = \frac{6,750.5 \text{ ft}^3 \left(12 \frac{\text{in}}{\text{ft}} \right)}{87,935 \text{ ft}^2} = 0.9212 \text{ in}$$

$$P = \text{Design Precipitation} = 1 \text{ inch}$$

$$CN = \frac{1000}{10 + 5(1 \text{ in}) + 10(0.9212 \text{ in}) - 10 \left((0.9212 \text{ in})^2 + 1.25(0.9212 \text{ in})(1 \text{ in}) \right)^{1/2}} = 99.3$$

$$T_c = 0.167 \text{ hr} = 10 \text{ min (Minimum value used in calculation)}$$

$$I_a = 0.014 \text{ in (extrapolated from Table 4-1 2004 CT Stormwater Quality Manual)}$$

$$\frac{I_a}{P} = 0.014 \rightarrow q_u \approx 660 \frac{\text{csm}}{\text{in}} \text{ (From Exhibit 4-111 2004 CT Stormwater Quality Manual)}$$

$$WQF = q_u A Q = \left(660 \frac{\text{csm}}{\text{in}} \right) \left(\frac{87,935 \text{ ft}^2}{\left(5,280 \frac{\text{mi}}{\text{ft}} \right)^2} \right) (0.9212 \text{ in}) = 1.92 \frac{\text{ft}^3}{\text{s}} \quad WQF = 1.92 \frac{\text{ft}^3}{\text{s}}$$

2. Compute the time of concentration (t_c) based on the methods described in Chapter 3 of TR-55. A minimum value of 0.167 hours (10 minutes) should be used. For sheet flow, the flow path should not be longer than 300 feet.
3. Using the computed CN, t_c , and drainage area (A) in acres, compute the peak discharge for the water quality storm (i.e., the water quality flow [WQF]), based on the procedures described in Chapter 4 of TR-55.
 - Read initial abstraction (I_a) from Table 4-1 in Chapter 4 of TR-55 (reproduced below); compute I_a/P

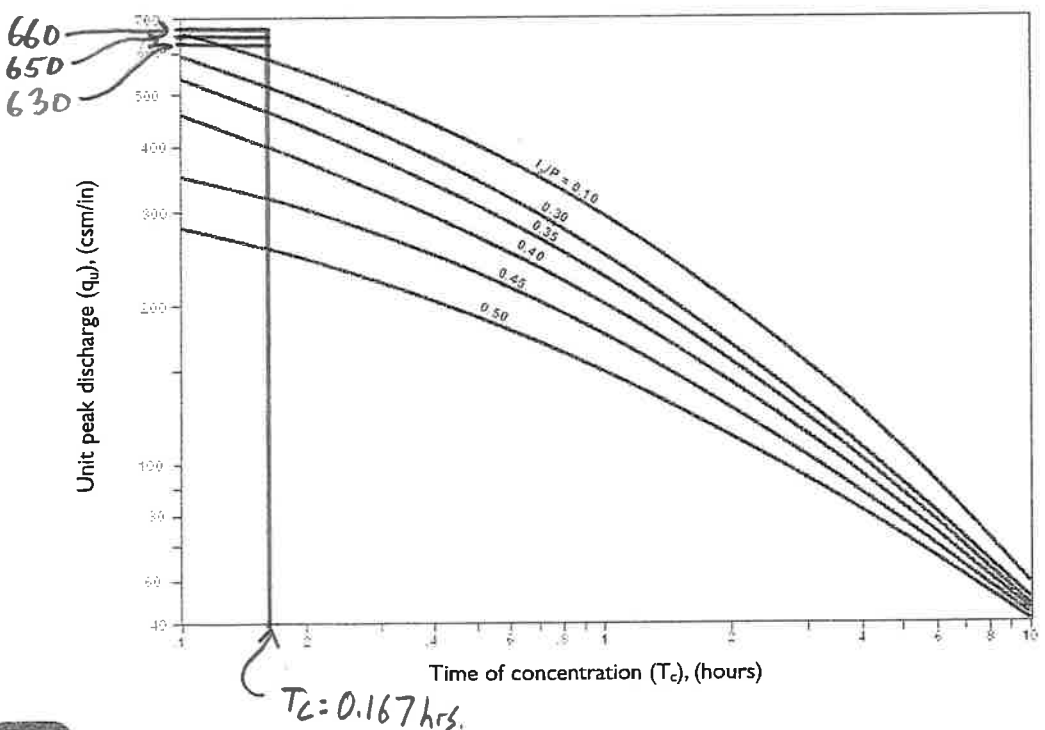
Table 4-1 I_a values for runoff curve numbers

Curve number	I_a (in)	Curve number	I_a (in)	Curve number	I_a (in)	Curve number	I_a (in)
40	3.000	55	1.636	70	0.857	85	0.353
41	2.878	56	1.571	71	0.817	86	0.326
42	2.762	57	1.509	72	0.778	87	0.299
43	2.651	58	1.448	73	0.740	88	0.273
44	2.545	59	1.390	74	0.703	89	0.247
45	2.444	60	1.333	75	0.667	90	0.222
46	2.348	61	1.279	76	0.632	91	0.198
47	2.255	62	1.226	77	0.597	92	0.174
48	2.167	63	1.175	78	0.564	93	0.151
49	2.082	64	1.125	79	0.532	94	0.128
50	2.000	65	1.077	80	0.500	95	0.105
51	1.922	66	1.030	81	0.469	96	0.083
52	1.846	67	0.985	82	0.439	97	0.062
53	1.774	68	0.941	83	0.410	98	0.041
54	1.704	69	0.899	84	0.381		

- Read the unit peak discharge (q_u) from Exhibit 4-III in Chapter 4 of TR-55 (reproduced below) for appropriate t_c

99.2 ----- 0.016 ←
 99.3 ----- 0.014 ←

Exhibit 4-III Unit peak discharge (q_u) for NRCS (SCS) type III rainfall distribution



Appendix “B”

**HydroCAD Summary Table
Existing & Proposed Conditions**

HydroCAD Summary
 375 Fairfield Avenue Associates
 375 Fairfield Avenue, Stamford, CT
 Project ID: 23DA

POC	1 Year Storm				2 Year Storm				5 Year Storm				10 Year Storm				25 Year Storm				50 Year Storm			
	q _{ex} (ft ³ /s)	q _p (ft ³ /s)	Δq (ft ³ /s)	%Δq (ft ³ /s)	q _{ex} (ft ³ /s)	q _p (ft ³ /s)	Δq (ft ³ /s)	%Δq (ft ³ /s)	q _{ex} (ft ³ /s)	q _p (ft ³ /s)	Δq (ft ³ /s)	%Δq (ft ³ /s)	q _{ex} (ft ³ /s)	q _p (ft ³ /s)	Δq (ft ³ /s)	%Δq (ft ³ /s)	q _{ex} (ft ³ /s)	q _p (ft ³ /s)	Δq (ft ³ /s)	%Δq (ft ³ /s)	q _{ex} (ft ³ /s)	q _p (ft ³ /s)	Δq (ft ³ /s)	%Δq (ft ³ /s)
A	5.14	4.87	-0.27	-5%	6.32	6.05	-0.27	-4%	8.24	7.97	-0.27	-3%	9.81	9.51	-0.30	-3%	11.98	11.60	-0.38	-3%	13.57	13.11	-0.46	-3%
B	12.93	12.22	-0.71	-5%	15.79	14.89	-0.90	-6%	20.47	20.14	-0.33	-2%	24.31	24.31	0.00	0%	29.59	29.47	-0.12	0%	33.50	33.23	-0.27	-1%

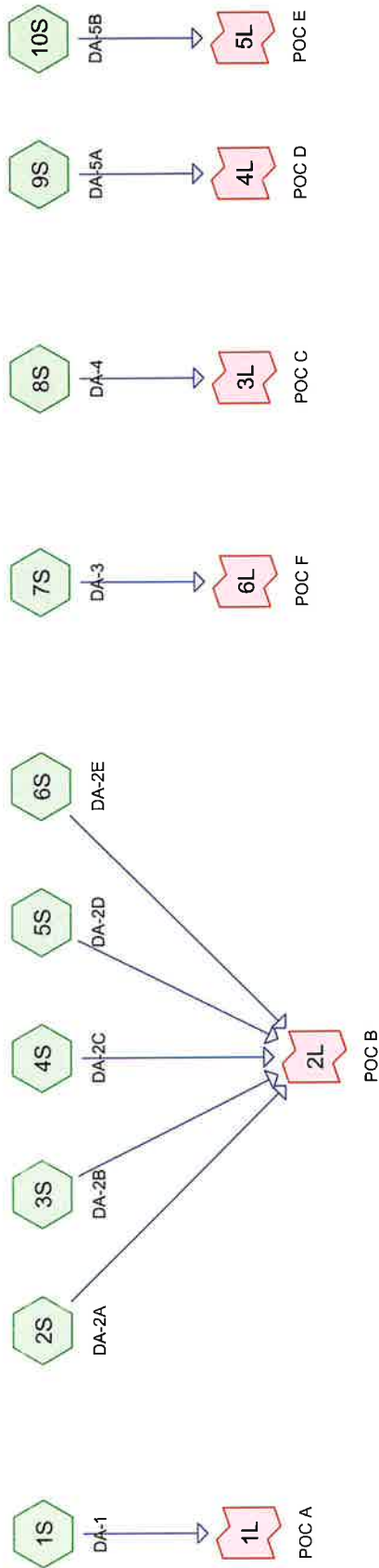
Table 1: Comparison of Existing and Proposed Peak Flow Rates for all Points of Concern pertaining to the Proposed Development.

POC	1 Year Storm				2 Year Storm				5 Year Storm				10 Year Storm				25 Year Storm				50 Year Storm			
	v _{ex} (cf)	v _p (cf)	Δv (cf)	%Δv (cf)	v _{ex} (cf)	v _p (cf)	Δv (cf)	%Δv (cf)	v _{ex} (cf)	v _p (cf)	Δv (cf)	%Δv (cf)	v _{ex} (cf)	v _p (cf)	Δv (cf)	%Δv (cf)	v _{ex} (cf)	v _p (cf)	Δv (cf)	%Δv (cf)	v _{ex} (cf)	v _p (cf)	Δv (cf)	%Δv (cf)
A	16,938	14,986	-1,952	-12%	21,077	19,095	-1,982	-9%	27,917	25,897	-2,020	-7%	33,567	31,522	-2,045	-6%	41,383	39,309	-2,074	-5%	47,184	45,092	-2,092	-4%
B	43,528	38,293	-5,235	-12%	53,737	48,513	-5,224	-10%	70,574	65,366	-5,208	-7%	84,463	79,266	-5,197	-6%	103,660	98,478	-5,182	-5%	117,901	112,729	-5,172	-4%

Table 2: Comparison of Existing and Proposed Runoff Volumes for all Points of Concern pertaining to the Proposed Development.

Appendix "C"

**HydroCAD Analysis -
Existing Conditions**



Legend:

- Subcat (Green hexagon)
- Reach (Red rectangle)
- Pond (Blue triangle)
- Link (Red trapezoid)

Routing Diagram for 23DA_Ex-0
 Prepared by RVDI, Printed 9/21/2023
 HydroCAD® 10.00-26 s/n 07356 © 2020 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
12,520	80	>75% Grass cover, Good, HSG D (1S, 2S, 3S, 4S, 5S, 6S, 8S)
79,217	96	Gravel surface, HSG D (1S, 3S, 4S, 8S, 10S)
35,869	98	Paved parking, HSG C (1S)
281,097	98	Paved parking, HSG D (2S, 3S, 4S, 5S, 6S, 7S, 8S, 9S, 10S)
408,703	97	TOTAL AREA

23DA_Ex-0

Prepared by RVDI

HydroCAD® 10.00-26 s/n 07356 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 1-Year Rainfall=2.95"

Printed 9/21/2023

Page 2

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: DA-1	Runoff Area=81,209 sf 44.17% Impervious Runoff Depth=2.50" Flow Length=518' Tc=5.9 min CN=96 Runoff=5.14 cfs 16,938 cf
Subcatchment 2S: DA-2A	Runoff Area=11,511 sf 90.29% Impervious Runoff Depth=2.50" Tc=5.0 min CN=96 Runoff=0.75 cfs 2,401 cf
Subcatchment 3S: DA-2B	Runoff Area=103,810 sf 83.25% Impervious Runoff Depth=2.61" Flow Length=620' Tc=6.3 min CN=97 Runoff=6.63 cfs 22,568 cf
Subcatchment 4S: DA-2C	Runoff Area=31,123 sf 95.54% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=2.08 cfs 6,766 cf
Subcatchment 5S: DA-2D	Runoff Area=13,610 sf 96.47% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=0.91 cfs 2,959 cf
Subcatchment 6S: DA-2E	Runoff Area=38,997 sf 98.03% Impervious Runoff Depth=2.72" Tc=5.0 min CN=98 Runoff=2.65 cfs 8,834 cf
Subcatchment 7S: DA-3	Runoff Area=28,009 sf 100.00% Impervious Runoff Depth=2.72" Tc=5.0 min CN=98 Runoff=1.90 cfs 6,345 cf
Subcatchment 8S: DA-4	Runoff Area=77,989 sf 70.01% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=5.21 cfs 16,955 cf
Subcatchment 9S: DA-5A	Runoff Area=17,400 sf 100.00% Impervious Runoff Depth=2.72" Tc=5.0 min CN=98 Runoff=1.18 cfs 3,942 cf
Subcatchment 10S: DA-5B	Runoff Area=5,045 sf 63.13% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=0.34 cfs 1,097 cf
Link 1L: POC A	Inflow=5.14 cfs 16,938 cf Primary=5.14 cfs 16,938 cf

Link 2L: POC B

Inflow=12.93 cfs 43,528 cf
Primary=12.93 cfs 43,528 cf

Link 3L: POC C

Inflow=5.21 cfs 16,955 cf
Primary=5.21 cfs 16,955 cf

Link 4L: POC D

Inflow=1.18 cfs 3,942 cf
Primary=1.18 cfs 3,942 cf

Link 5L: POC E

Inflow=0.34 cfs 1,097 cf
Primary=0.34 cfs 1,097 cf

Link 6L: POC F

Inflow=1.90 cfs 6,345 cf
Primary=1.90 cfs 6,345 cf

Total Runoff Area = 408,703 sf Runoff Volume = 88,805 cf Average Runoff Depth = 2.61"
22.45% Pervious = 91,737 sf 77.55% Impervious = 316,966 sf

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: DA-1

Runoff Area=81,209 sf 44.17% Impervious Runoff Depth=3.11"
Flow Length=518' Tc=5.9 min CN=96 Runoff=6.32 cfs 21,077 cf

Subcatchment 2S: DA-2A

Runoff Area=11,511 sf 90.29% Impervious Runoff Depth=3.11"
Tc=5.0 min CN=96 Runoff=0.92 cfs 2,988 cf

Subcatchment 3S: DA-2B

Runoff Area=103,810 sf 83.25% Impervious Runoff Depth=3.22"
Flow Length=620' Tc=6.3 min CN=97 Runoff=8.09 cfs 27,890 cf

Subcatchment 4S: DA-2C

Runoff Area=31,123 sf 95.54% Impervious Runoff Depth=3.22"
Tc=5.0 min CN=97 Runoff=2.54 cfs 8,362 cf

Subcatchment 5S: DA-2D

Runoff Area=13,610 sf 96.47% Impervious Runoff Depth=3.22"
Tc=5.0 min CN=97 Runoff=1.11 cfs 3,656 cf

Subcatchment 6S: DA-2E

Runoff Area=38,997 sf 98.03% Impervious Runoff Depth=3.34"
Tc=5.0 min CN=98 Runoff=3.22 cfs 10,842 cf

Subcatchment 7S: DA-3

Runoff Area=28,009 sf 100.00% Impervious Runoff Depth=3.34"
Tc=5.0 min CN=98 Runoff=2.31 cfs 7,787 cf

Subcatchment 8S: DA-4

Runoff Area=77,989 sf 70.01% Impervious Runoff Depth=3.22"
Tc=5.0 min CN=97 Runoff=6.36 cfs 20,953 cf

Subcatchment 9S: DA-5A

Runoff Area=17,400 sf 100.00% Impervious Runoff Depth=3.34"
Tc=5.0 min CN=98 Runoff=1.44 cfs 4,838 cf

Subcatchment 10S: DA-5B

Runoff Area=5,045 sf 63.13% Impervious Runoff Depth=3.22"
Tc=5.0 min CN=97 Runoff=0.41 cfs 1,355 cf

Link 1L: POC A

Inflow=6.32 cfs 21,077 cf
Primary=6.32 cfs 21,077 cf

Link 2L: POC B	Inflow=15.79 cfs 53,737 cf Primary=15.79 cfs 53,737 cf
Link 3L: POC C	Inflow=6.36 cfs 20,953 cf Primary=6.36 cfs 20,953 cf
Link 4L: POC D	Inflow=1.44 cfs 4,838 cf Primary=1.44 cfs 4,838 cf
Link 5L: POC E	Inflow=0.41 cfs 1,355 cf Primary=0.41 cfs 1,355 cf
Link 6L: POC F	Inflow=2.31 cfs 7,787 cf Primary=2.31 cfs 7,787 cf

Total Runoff Area = 408,703 sf Runoff Volume = 109,747 cf Average Runoff Depth = 3.22"
22.45% Pervious = 91,737 sf 77.55% Impervious = 316,966 sf

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: DA-1	Runoff Area=81,209 sf 44.17% Impervious Runoff Depth=4.13" Flow Length=518' Tc=5.9 min CN=96 Runoff=8.24 cfs 27,917 cf
Subcatchment 2S: DA-2A	Runoff Area=11,511 sf 90.29% Impervious Runoff Depth=4.13" Tc=5.0 min CN=96 Runoff=1.21 cfs 3,957 cf
Subcatchment 3S: DA-2B	Runoff Area=103,810 sf 83.25% Impervious Runoff Depth=4.24" Flow Length=620' Tc=6.3 min CN=97 Runoff=10.50 cfs 36,668 cf
Subcatchment 4S: DA-2C	Runoff Area=31,123 sf 95.54% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=3.29 cfs 10,993 cf
Subcatchment 5S: DA-2D	Runoff Area=13,610 sf 96.47% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=1.44 cfs 4,807 cf
Subcatchment 6S: DA-2E	Runoff Area=38,997 sf 98.03% Impervious Runoff Depth=4.35" Tc=5.0 min CN=98 Runoff=4.16 cfs 14,149 cf
Subcatchment 7S: DA-3	Runoff Area=28,009 sf 100.00% Impervious Runoff Depth=4.35" Tc=5.0 min CN=98 Runoff=2.99 cfs 10,162 cf
Subcatchment 8S: DA-4	Runoff Area=77,989 sf 70.01% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=8.25 cfs 27,547 cf
Subcatchment 9S: DA-5A	Runoff Area=17,400 sf 100.00% Impervious Runoff Depth=4.35" Tc=5.0 min CN=98 Runoff=1.86 cfs 6,313 cf
Subcatchment 10S: DA-5B	Runoff Area=5,045 sf 63.13% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=0.53 cfs 1,782 cf
Link 1L: POC A	Inflow=8.24 cfs 27,917 cf Primary=8.24 cfs 27,917 cf

Link 2L: POC B	Inflow=20.47 cfs 70,574 cf Primary=20.47 cfs 70,574 cf
Link 3L: POC C	Inflow=8.25 cfs 27,547 cf Primary=8.25 cfs 27,547 cf
Link 4L: POC D	Inflow=1.86 cfs 6,313 cf Primary=1.86 cfs 6,313 cf
Link 5L: POC E	Inflow=0.53 cfs 1,782 cf Primary=0.53 cfs 1,782 cf
Link 6L: POC F	Inflow=2.99 cfs 10,162 cf Primary=2.99 cfs 10,162 cf

Total Runoff Area = 408,703 sf Runoff Volume = 144,297 cf Average Runoff Depth = 4.24"
22.45% Pervious = 91,737 sf 77.55% Impervious = 316,966 sf

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: DA-1	Runoff Area=81,209 sf 44.17% Impervious Runoff Depth=4.96" Flow Length=518' Tc=5.9 min CN=96 Runoff=9.81 cfs 33,567 cf
Subcatchment 2S: DA-2A	Runoff Area=11,511 sf 90.29% Impervious Runoff Depth=4.96" Tc=5.0 min CN=96 Runoff=1.44 cfs 4,758 cf
Subcatchment 3S: DA-2B	Runoff Area=103,810 sf 83.25% Impervious Runoff Depth=5.08" Flow Length=620' Tc=6.3 min CN=97 Runoff=12.47 cfs 43,909 cf
Subcatchment 4S: DA-2C	Runoff Area=31,123 sf 95.54% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=3.91 cfs 13,164 cf
Subcatchment 5S: DA-2D	Runoff Area=13,610 sf 96.47% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=1.71 cfs 5,757 cf
Subcatchment 6S: DA-2E	Runoff Area=38,997 sf 98.03% Impervious Runoff Depth=5.19" Tc=5.0 min CN=98 Runoff=4.93 cfs 16,874 cf
Subcatchment 7S: DA-3	Runoff Area=28,009 sf 100.00% Impervious Runoff Depth=5.19" Tc=5.0 min CN=98 Runoff=3.54 cfs 12,120 cf
Subcatchment 8S: DA-4	Runoff Area=77,989 sf 70.01% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=9.80 cfs 32,987 cf
Subcatchment 9S: DA-5A	Runoff Area=17,400 sf 100.00% Impervious Runoff Depth=5.19" Tc=5.0 min CN=98 Runoff=2.20 cfs 7,529 cf
Subcatchment 10S: DA-5B	Runoff Area=5,045 sf 63.13% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=0.63 cfs 2,134 cf
Link 1L: POC A	Inflow=9.81 cfs 33,567 cf Primary=9.81 cfs 33,567 cf

23DA_Ex-0

Prepared by RVDI

HydroCAD® 10.00-26 s/n 07356 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=5.43"

Printed 9/21/2023

Page 9

Link 2L: POC B

Inflow=24.31 cfs 84,463 cf
Primary=24.31 cfs 84,463 cf

Link 3L: POC C

Inflow=9.80 cfs 32,987 cf
Primary=9.80 cfs 32,987 cf

Link 4L: POC D

Inflow=2.20 cfs 7,529 cf
Primary=2.20 cfs 7,529 cf

Link 5L: POC E

Inflow=0.63 cfs 2,134 cf
Primary=0.63 cfs 2,134 cf

Link 6L: POC F

Inflow=3.54 cfs 12,120 cf
Primary=3.54 cfs 12,120 cf

Total Runoff Area = 408,703 sf Runoff Volume = 172,800 cf Average Runoff Depth = 5.07"
22.45% Pervious = 91,737 sf 77.55% Impervious = 316,966 sf

23DA_Ex-0

Prepared by RVDI

HydroCAD® 10.00-26 s/n 07356 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.59"

Printed 9/21/2023

Page 10

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: DA-1

Runoff Area=81,209 sf 44.17% Impervious Runoff Depth=6.12"
Flow Length=518' Tc=5.9 min CN=96 Runoff=11.98 cfs 41,383 cf

Subcatchment 2S: DA-2A

Runoff Area=11,511 sf 90.29% Impervious Runoff Depth=6.12"
Tc=5.0 min CN=96 Runoff=1.75 cfs 5,866 cf

Subcatchment 3S: DA-2B

Runoff Area=103,810 sf 83.25% Impervious Runoff Depth=6.23"
Flow Length=620' Tc=6.3 min CN=97 Runoff=15.18 cfs 53,919 cf

Subcatchment 4S: DA-2C

Runoff Area=31,123 sf 95.54% Impervious Runoff Depth=6.23"
Tc=5.0 min CN=97 Runoff=4.76 cfs 16,165 cf

Subcatchment 5S: DA-2D

Runoff Area=13,610 sf 96.47% Impervious Runoff Depth=6.23"
Tc=5.0 min CN=97 Runoff=2.08 cfs 7,069 cf

Subcatchment 6S: DA-2E

Runoff Area=38,997 sf 98.03% Impervious Runoff Depth=6.35"
Tc=5.0 min CN=98 Runoff=5.99 cfs 20,640 cf

Subcatchment 7S: DA-3

Runoff Area=28,009 sf 100.00% Impervious Runoff Depth=6.35"
Tc=5.0 min CN=98 Runoff=4.30 cfs 14,824 cf

Subcatchment 8S: DA-4

Runoff Area=77,989 sf 70.01% Impervious Runoff Depth=6.23"
Tc=5.0 min CN=97 Runoff=11.94 cfs 40,508 cf

Subcatchment 9S: DA-5A

Runoff Area=17,400 sf 100.00% Impervious Runoff Depth=6.35"
Tc=5.0 min CN=98 Runoff=2.67 cfs 9,209 cf

Subcatchment 10S: DA-5B

Runoff Area=5,045 sf 63.13% Impervious Runoff Depth=6.23"
Tc=5.0 min CN=97 Runoff=0.77 cfs 2,620 cf

Link 1L: POC A

Inflow=11.98 cfs 41,383 cf
Primary=11.98 cfs 41,383 cf

23DA_Ex-0

Prepared by RVDI

HydroCAD® 10.00-26 s/n 07356 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.59"

Printed 9/21/2023

Page 11

Link 2L: POC BInflow=29.59 cfs 103,660 cf
Primary=29.59 cfs 103,660 cf**Link 3L: POC C**Inflow=11.94 cfs 40,508 cf
Primary=11.94 cfs 40,508 cf**Link 4L: POC D**Inflow=2.67 cfs 9,209 cf
Primary=2.67 cfs 9,209 cf**Link 5L: POC E**Inflow=0.77 cfs 2,620 cf
Primary=0.77 cfs 2,620 cf**Link 6L: POC F**Inflow=4.30 cfs 14,824 cf
Primary=4.30 cfs 14,824 cf**Total Runoff Area = 408,703 sf Runoff Volume = 212,205 cf Average Runoff Depth = 6.23"**
22.45% Pervious = 91,737 sf 77.55% Impervious = 316,966 sf**23DA_Ex-0**

Prepared by RVDI

HydroCAD® 10.00-26 s/n 07356 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 50-Year Rainfall=7.45"

Printed 9/21/2023

Page 12

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method**Subcatchment 1S: DA-1**Runoff Area=81,209 sf 44.17% Impervious Runoff Depth=6.97"
Flow Length=518' Tc=5.9 min CN=96 Runoff=13.57 cfs 47,184 cf**Subcatchment 2S: DA-2A**Runoff Area=11,511 sf 90.29% Impervious Runoff Depth=6.97"
Tc=5.0 min CN=96 Runoff=1.99 cfs 6,688 cf**Subcatchment 3S: DA-2B**Runoff Area=103,810 sf 83.25% Impervious Runoff Depth=7.09"
Flow Length=620' Tc=6.3 min CN=97 Runoff=17.19 cfs 61,346 cf**Subcatchment 4S: DA-2C**Runoff Area=31,123 sf 95.54% Impervious Runoff Depth=7.09"
Tc=5.0 min CN=97 Runoff=5.39 cfs 18,392 cf**Subcatchment 5S: DA-2D**Runoff Area=13,610 sf 96.47% Impervious Runoff Depth=7.09"
Tc=5.0 min CN=97 Runoff=2.36 cfs 8,043 cf**Subcatchment 6S: DA-2E**Runoff Area=38,997 sf 98.03% Impervious Runoff Depth=7.21"
Tc=5.0 min CN=98 Runoff=6.78 cfs 23,433 cf**Subcatchment 7S: DA-3**Runoff Area=28,009 sf 100.00% Impervious Runoff Depth=7.21"
Tc=5.0 min CN=98 Runoff=4.87 cfs 16,830 cf**Subcatchment 8S: DA-4**Runoff Area=77,989 sf 70.01% Impervious Runoff Depth=7.09"
Tc=5.0 min CN=97 Runoff=13.52 cfs 46,087 cf**Subcatchment 9S: DA-5A**Runoff Area=17,400 sf 100.00% Impervious Runoff Depth=7.21"
Tc=5.0 min CN=98 Runoff=3.03 cfs 10,455 cf**Subcatchment 10S: DA-5B**Runoff Area=5,045 sf 63.13% Impervious Runoff Depth=7.09"
Tc=5.0 min CN=97 Runoff=0.87 cfs 2,981 cf**Link 1L: POC A**Inflow=13.57 cfs 47,184 cf
Primary=13.57 cfs 47,184 cf

Link 2L: POC B	Inflow=33.50 cfs 117,901 cf Primary=33.50 cfs 117,901 cf
Link 3L: POC C	Inflow=13.52 cfs 46,087 cf Primary=13.52 cfs 46,087 cf
Link 4L: POC D	Inflow=3.03 cfs 10,455 cf Primary=3.03 cfs 10,455 cf
Link 5L: POC E	Inflow=0.87 cfs 2,981 cf Primary=0.87 cfs 2,981 cf
Link 6L: POC F	Inflow=4.87 cfs 16,830 cf Primary=4.87 cfs 16,830 cf

Total Runoff Area = 408,703 sf Runoff Volume = 241,439 cf Average Runoff Depth = 7.09"
22.45% Pervious = 91,737 sf 77.55% Impervious = 316,966 sf

Summary for Subcatchment 1S: DA-1

Runoff = 11.98 cfs @ 12.08 hrs, Volume= 41,383 cf, Depth= 6.12"

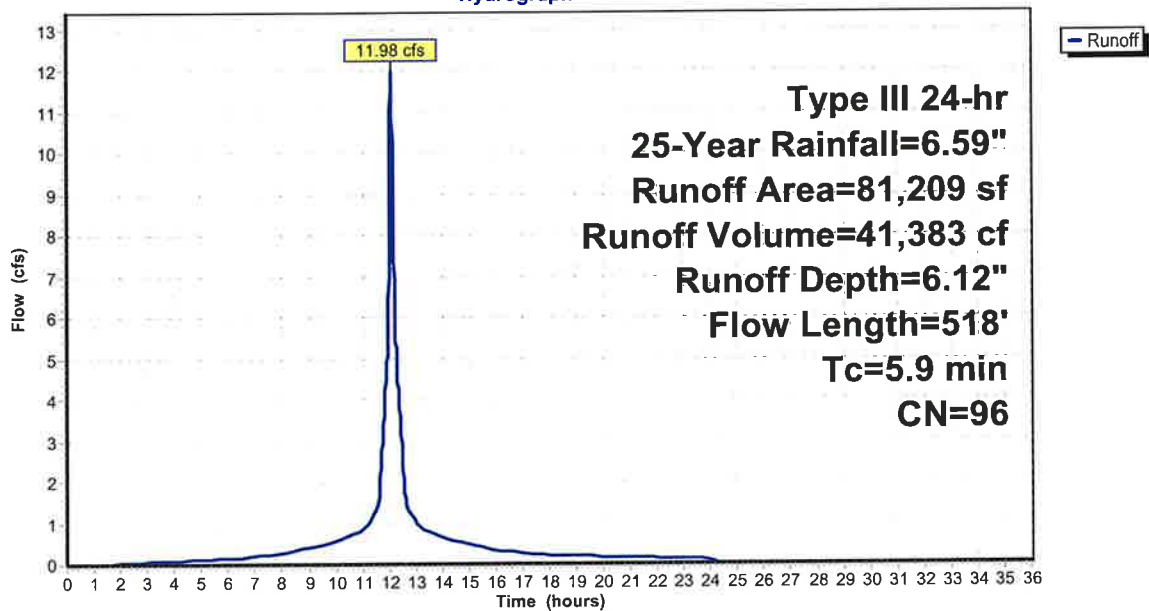
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
35,869	98	Paved parking, HSG C
42,357	96	Gravel surface, HSG D
2,983	80	>75% Grass cover, Good, HSG D
81,209	96	Weighted Average
45,340		55.83% Pervious Area
35,869		44.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	188	0.0190	1.61		Sheet Flow, 1 Smooth surfaces n= 0.011 P2= 3.57"
4.0	330	0.0045	1.36		Shallow Concentrated Flow, 2 Paved Kv= 20.3 fps
5.9	518	Total			

Subcatchment 1S: DA-1

Hydrograph



Summary for Subcatchment 2S: DA-2A

Runoff = 1.75 cfs @ 12.07 hrs, Volume= 5,866 cf, Depth= 6.12"

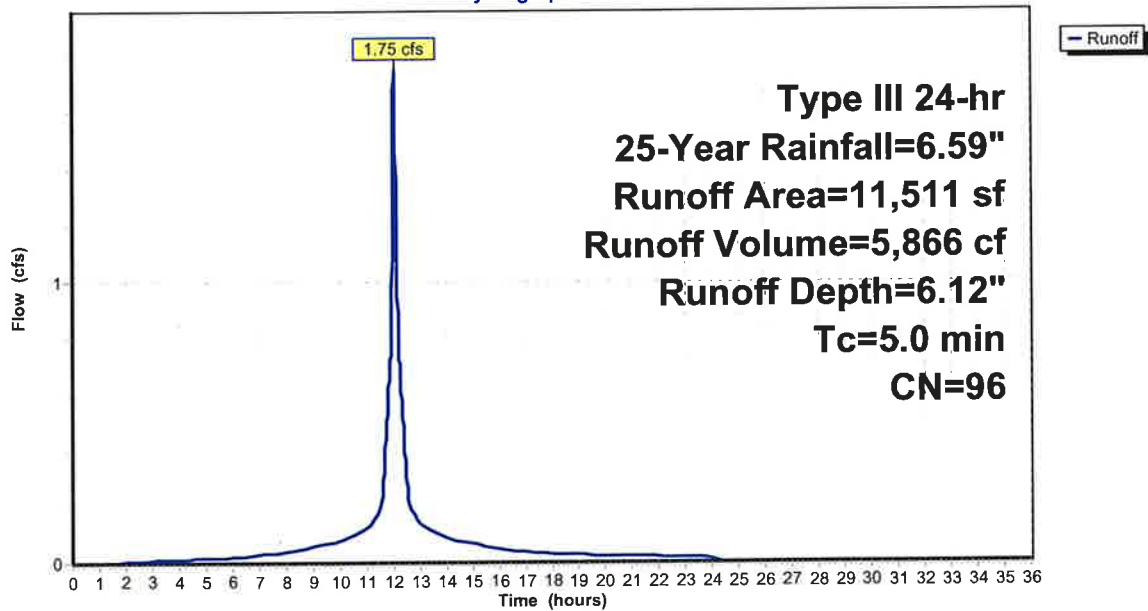
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
10,393	98	Paved parking, HSG D
1,118	80	>75% Grass cover, Good, HSG D
11,511	96	Weighted Average
1,118		9.71% Pervious Area
10,393		90.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 2S: DA-2A

Hydrograph



Summary for Subcatchment 3S: DA-2B

Runoff = 15.18 cfs @ 12.09 hrs, Volume= 53,919 cf, Depth= 6.23"

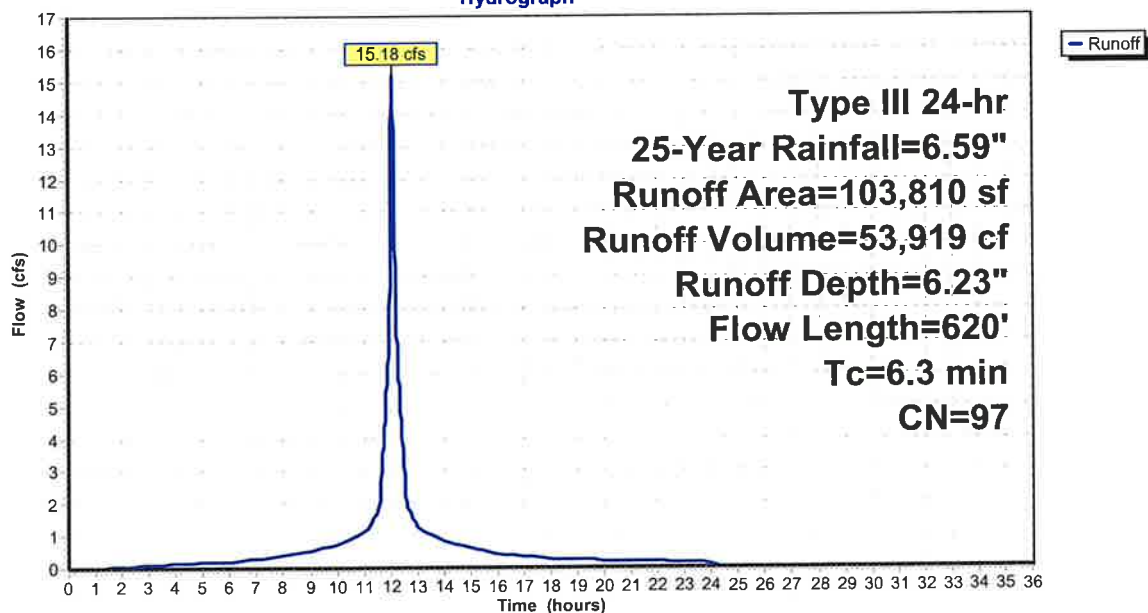
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
86,420	98	Paved parking, HSG D
13,949	96	Gravel surface, HSG D
3,441	80	>75% Grass cover, Good, HSG D
103,810	97	Weighted Average
17,390		16.75% Pervious Area
86,420		83.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	45	0.0220	1.29		Sheet Flow, 1 Smooth surfaces n= 0.011 P2= 3.57"
4.5	250	0.0040	0.92		Sheet Flow, 2 Smooth surfaces n= 0.011 P2= 3.57"
0.2	40	0.0200	2.87		Shallow Concentrated Flow, 3 Paved Kv= 20.3 fps
0.9	255	0.0100	4.50	1.57	Pipe Channel, 5 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
0.1	30	0.0030	3.85	6.80	Pipe Channel, 6 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011 Concrete pipe, straight & clean
6.3	620	Total			

Subcatchment 3S: DA-2B

Hydrograph



Summary for Subcatchment 4S: DA-2C

Runoff = 4.76 cfs @ 12.07 hrs, Volume= 16,165 cf, Depth= 6.23"

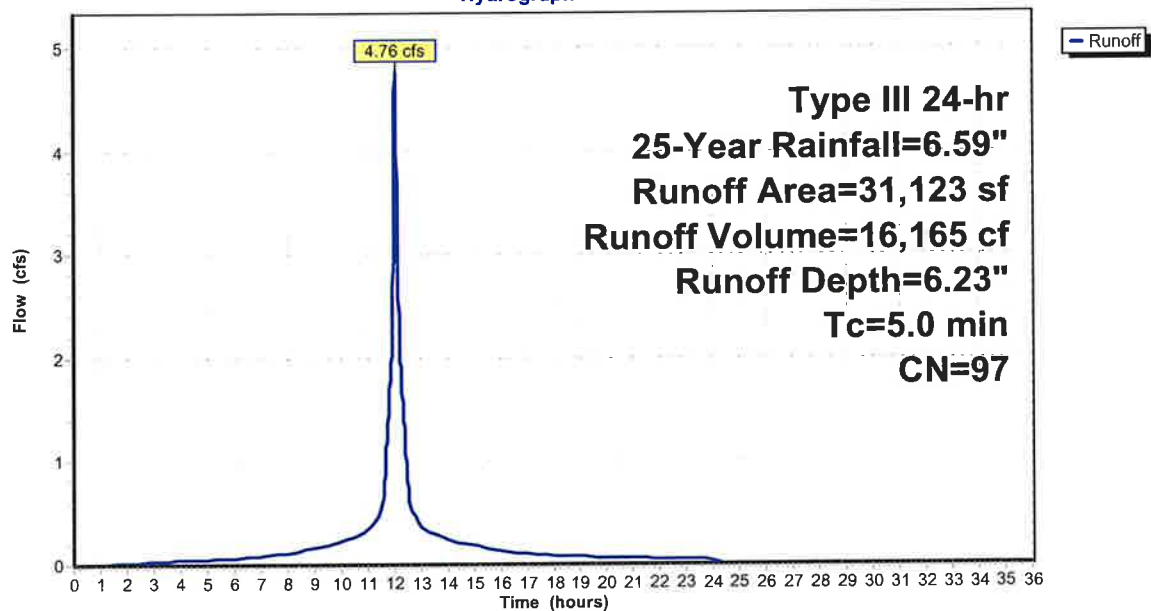
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
29,734	98	Paved parking, HSG D
158	96	Gravel surface, HSG D
1,231	80	>75% Grass cover, Good, HSG D
31,123	97	Weighted Average
1,389		4.46% Pervious Area
29,734		95.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 4S: DA-2C

Hydrograph



Summary for Subcatchment 5S: DA-2D

Runoff = 2.08 cfs @ 12.07 hrs, Volume= 7,069 cf, Depth= 6.23"

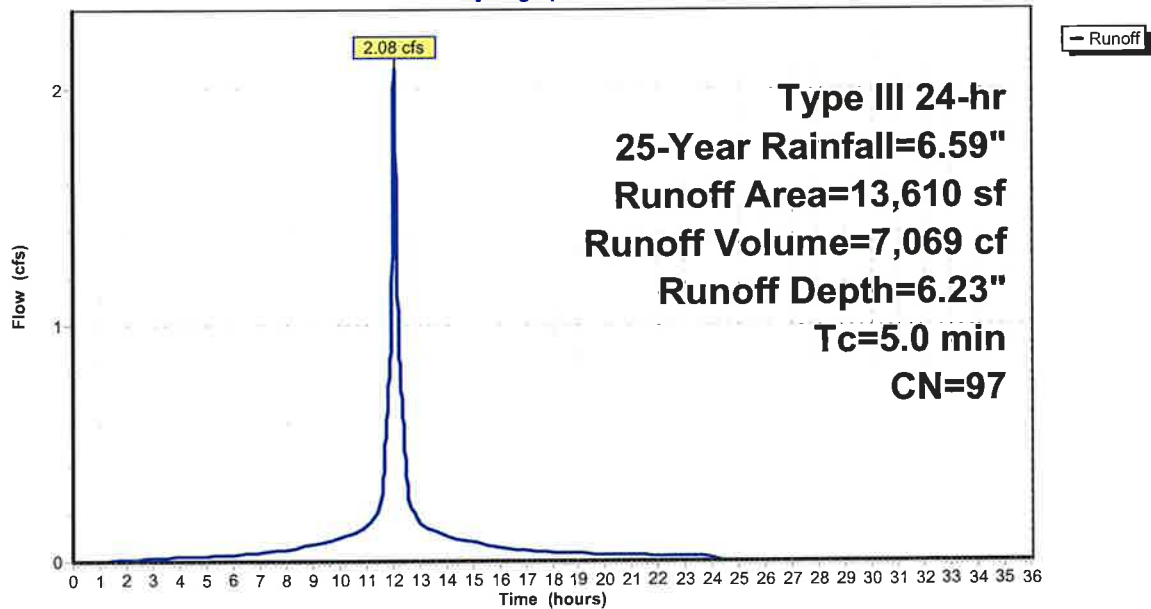
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
13,130	98	Paved parking, HSG D
480	80	>75% Grass cover, Good, HSG D
13,610	97	Weighted Average
480		3.53% Pervious Area
13,130		96.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 5S: DA-2D

Hydrograph



Summary for Subcatchment 6S: DA-2E

Runoff = 5.99 cfs @ 12.07 hrs, Volume= 20,640 cf, Depth= 6.35"

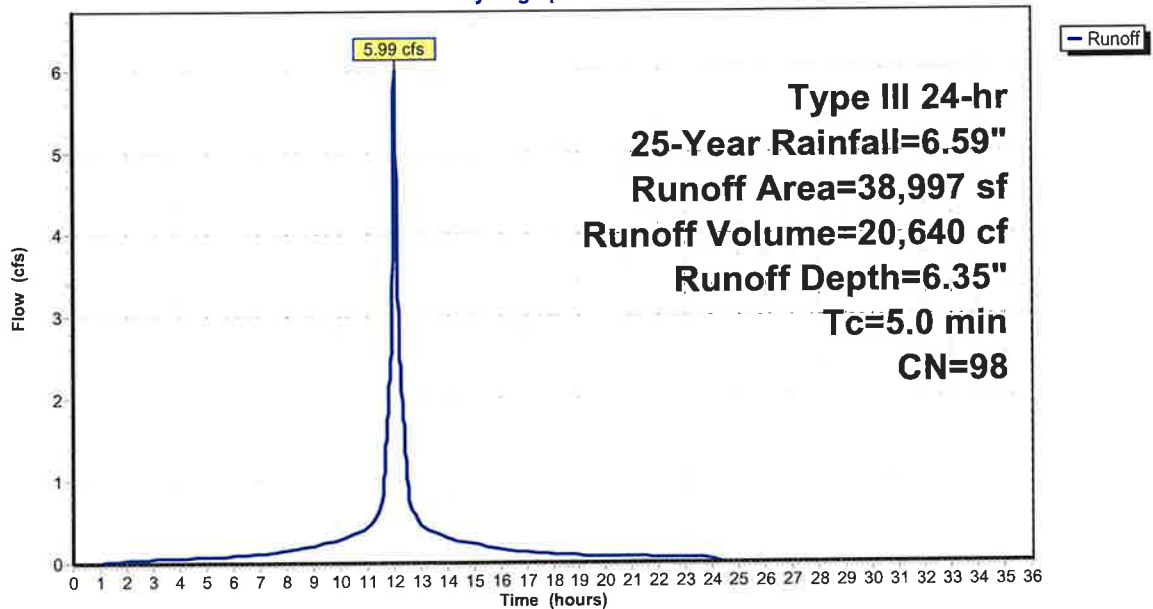
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
38,227	98	Paved parking, HSG D
770	80	>75% Grass cover, Good, HSG D
38,997	98	Weighted Average
770		1.97% Pervious Area
38,227		98.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 6S: DA-2E

Hydrograph



Summary for Subcatchment 7S: DA-3

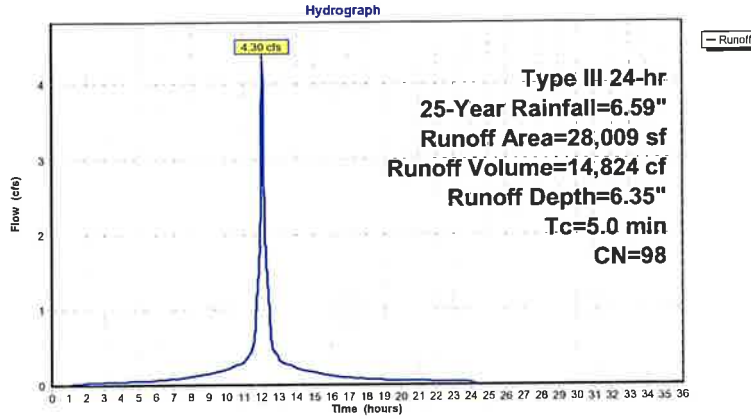
Runoff = 4.30 cfs @ 12.07 hrs, Volume= 14,824 cf, Depth= 6.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
28,009	98	Paved parking, HSG D
28,009		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 7S: DA-3



Summary for Subcatchment 8S: DA-4

Runoff = 11.94 cfs @ 12.07 hrs, Volume= 40,508 cf, Depth= 6.23"

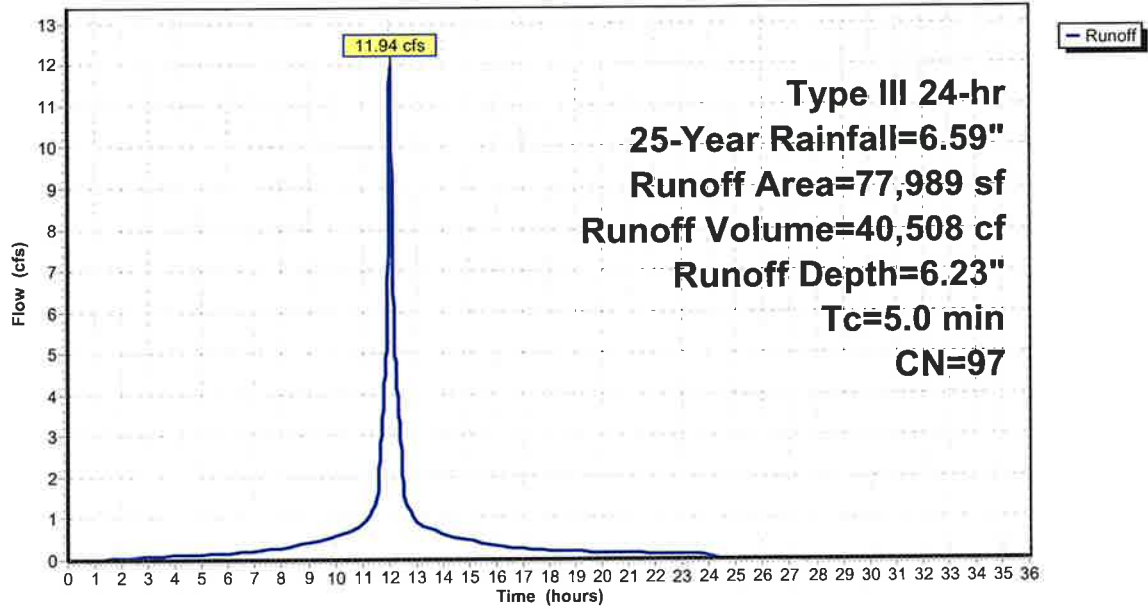
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
54,599	98	Paved parking, HSG D
20,893	96	Gravel surface, HSG D
2,497	80	>75% Grass cover, Good, HSG D
77,989	97	Weighted Average
23,390		29.99% Pervious Area
54,599		70.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 8S: DA-4

Hydrograph



Summary for Subcatchment 9S: DA-5A

Runoff = 2.67 cfs @ 12.07 hrs, Volume= 9,209 cf, Depth= 6.35"

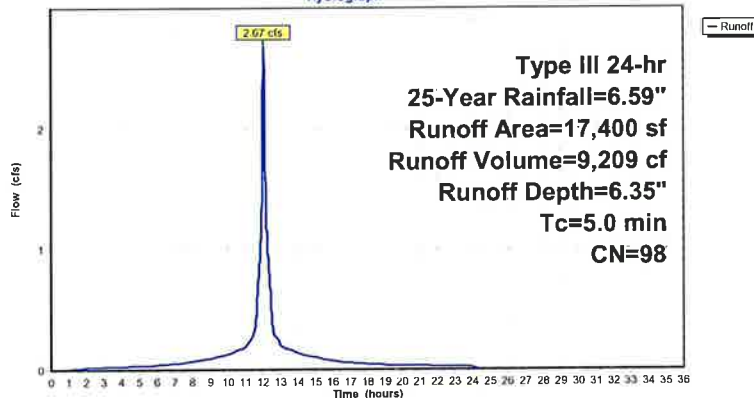
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
17,400	98	Paved parking, HSG D
17,400		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 9S: DA-5A

Hydrograph



Summary for Subcatchment 10S: DA-5B

Runoff = 0.77 cfs @ 12.07 hrs, Volume= 2,620 cf, Depth= 6.23"

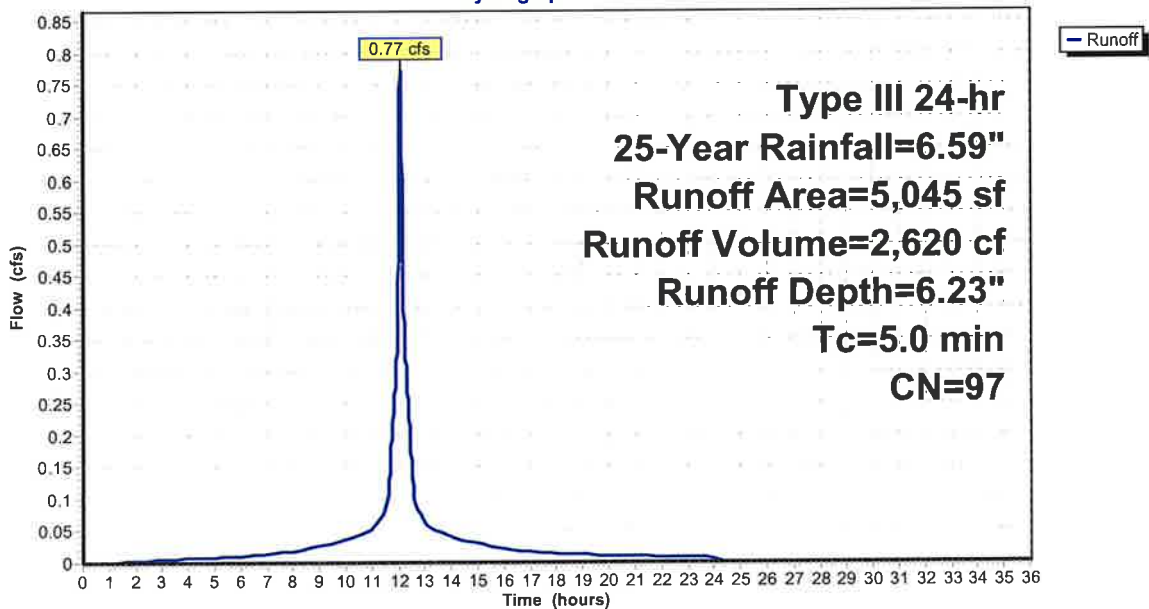
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
3,185	98	Paved parking, HSG D
1,860	96	Gravel surface, HSG D
5,045	97	Weighted Average
1,860		36.87% Pervious Area
3,185		63.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 10S: DA-5B

Hydrograph



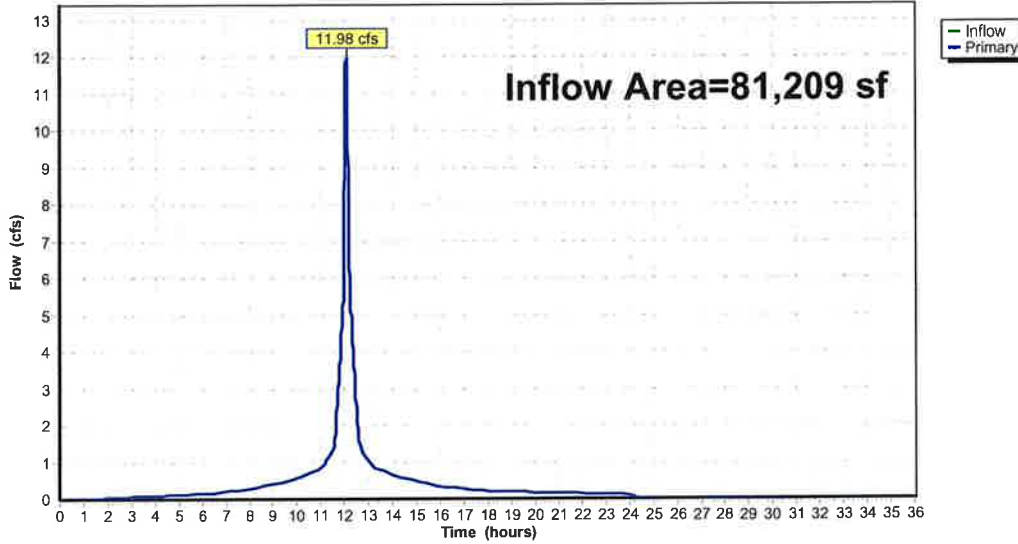
Summary for Link 1L: POC A

Inflow Area = 81,209 sf, 44.17% Impervious, Inflow Depth = 6.12" for 25-Year event
 Inflow = 11.98 cfs @ 12.08 hrs, Volume= 41,383 cf
 Primary = 11.98 cfs @ 12.08 hrs, Volume= 41,383 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 1L: POC A

Hydrograph



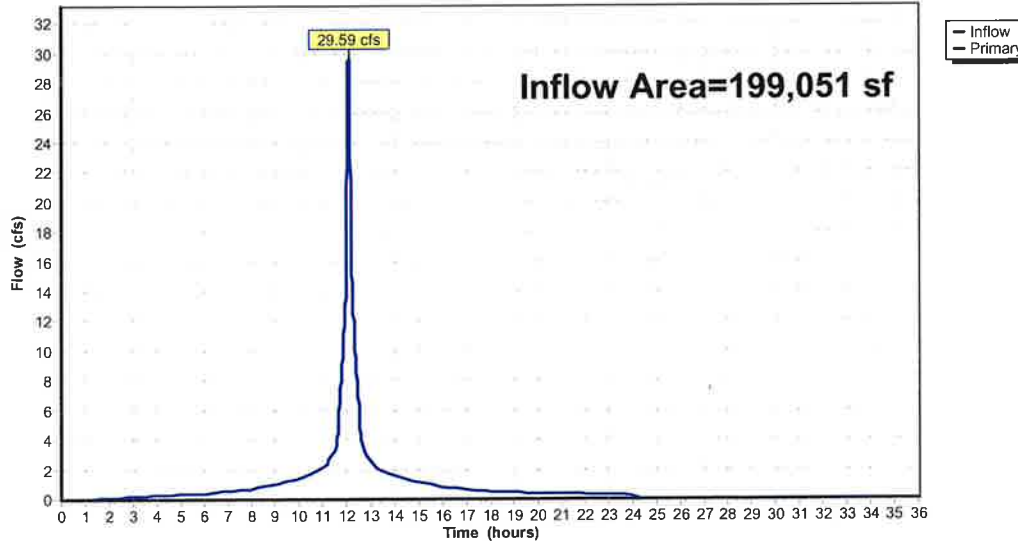
Summary for Link 2L: POC B

Inflow Area = 199,051 sf, 89.38% Impervious, Inflow Depth = 6.25" for 25-Year event
 Inflow = 29.59 cfs @ 12.08 hrs, Volume= 103,660 cf
 Primary = 29.59 cfs @ 12.08 hrs, Volume= 103,660 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 2L: POC B

Hydrograph



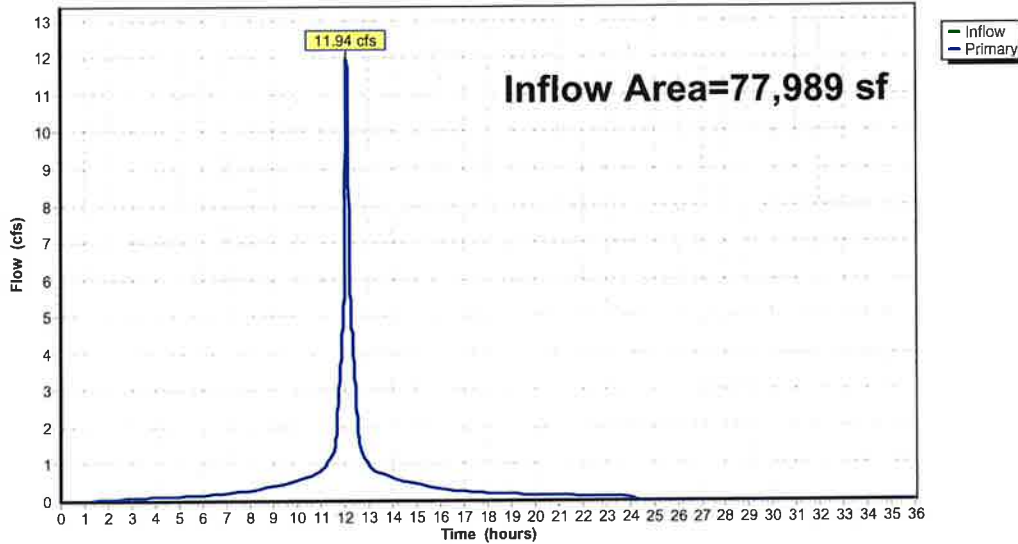
Summary for Link 3L: POC C

Inflow Area = 77,989 sf, 70.01% Impervious, Inflow Depth = 6.23" for 25-Year event
Inflow = 11.94 cfs @ 12.07 hrs, Volume= 40,508 cf
Primary = 11.94 cfs @ 12.07 hrs, Volume= 40,508 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 3L: POC C

Hydrograph



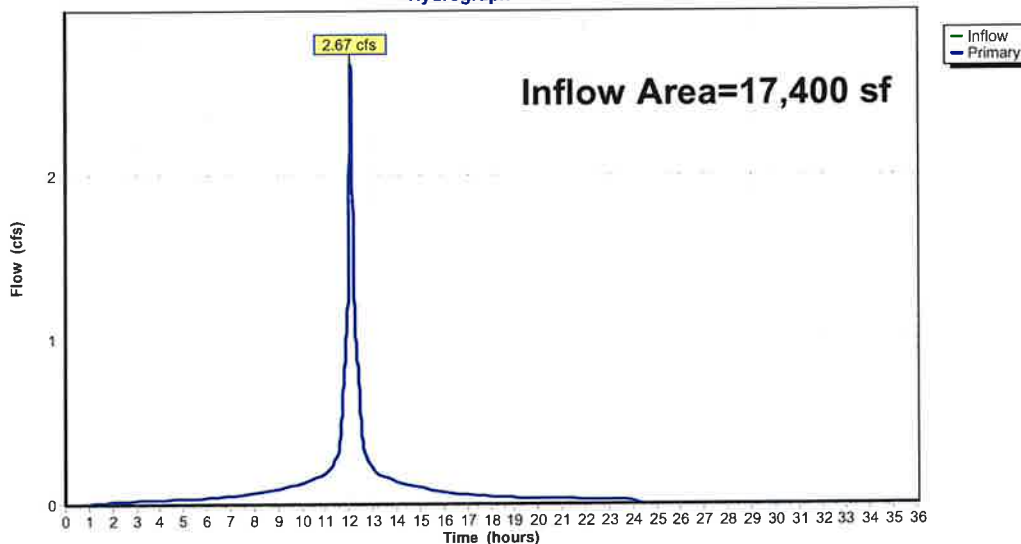
Summary for Link 4L: POC D

Inflow Area = 17,400 sf, 100.00% Impervious, Inflow Depth = 6.35" for 25-Year event
Inflow = 2.67 cfs @ 12.07 hrs, Volume= 9,209 cf
Primary = 2.67 cfs @ 12.07 hrs, Volume= 9,209 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 4L: POC D

Hydrograph



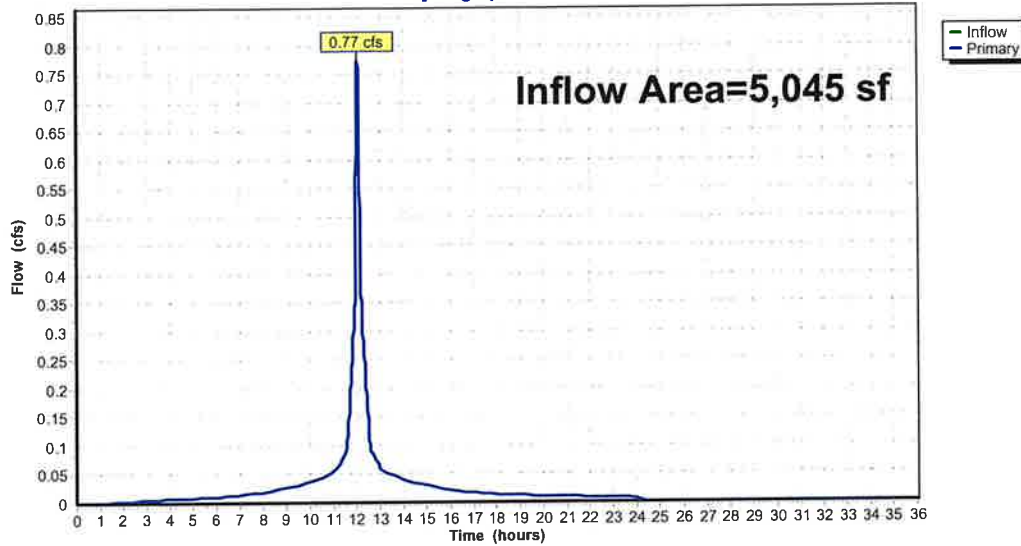
Summary for Link 5L: POC E

Inflow Area = 5,045 sf, 63.13% Impervious, Inflow Depth = 6.23" for 25-Year event
Inflow = 0.77 cfs @ 12.07 hrs, Volume= 2,620 cf
Primary = 0.77 cfs @ 12.07 hrs, Volume= 2,620 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 5L: POC E

Hydrograph



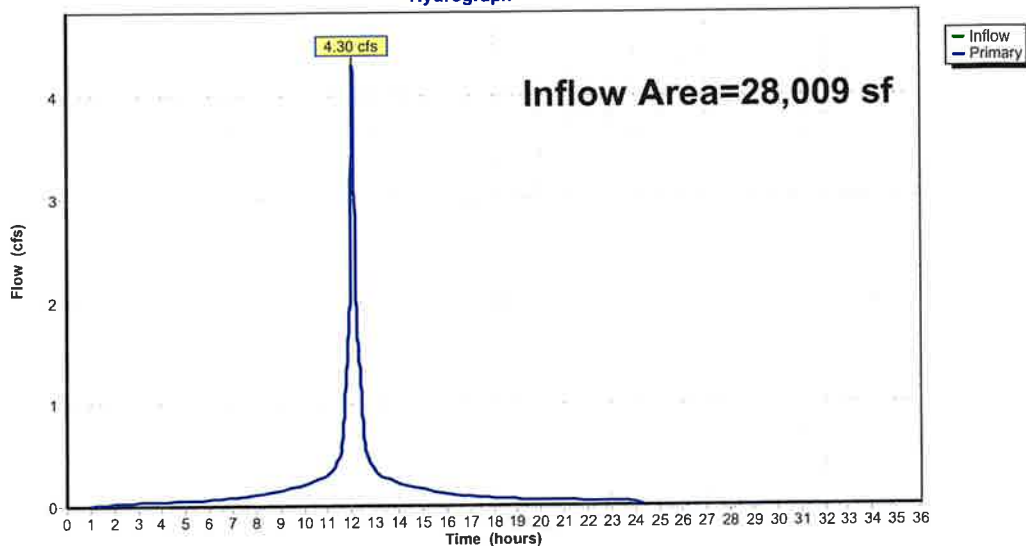
Summary for Link 6L: POC F

Inflow Area = 28,009 sf, 100.00% Impervious, Inflow Depth = 6.35" for 25-Year event
Inflow = 4.30 cfs @ 12.07 hrs, Volume= 14,824 cf
Primary = 4.30 cfs @ 12.07 hrs, Volume= 14,824 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

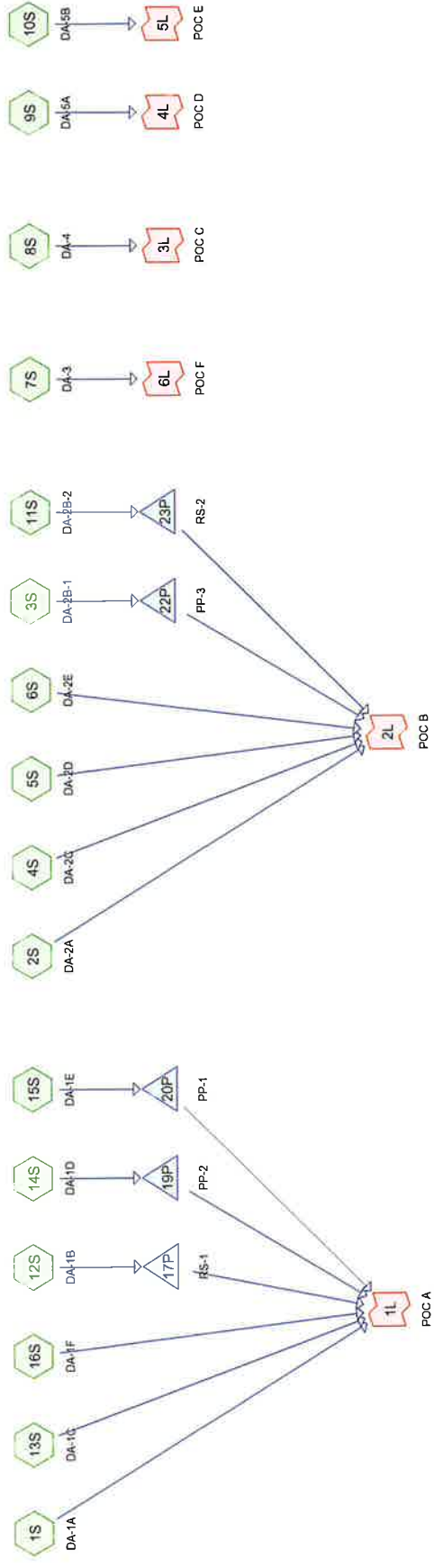
Link 6L: POC F

Hydrograph



Appendix “D”

HydroCAD Analysis - Proposed Conditions



Legend:

- Subcat
- Reach
- Pond
- Link

Routing Diagram for 23DA_Pr-0
 Prepared by RVDI, Printed 10/4/2023
 HydroCAD® 10.00-26 s/n 07356 © 2020 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
20,633	80	>75% Grass cover, Good, HSG D (1S, 3S, 4S, 5S, 6S, 8S, 11S, 12S, 13S, 14S, 15S, 16S)
28,146	96	Gravel surface, HSG D (3S, 4S, 8S, 10S)
14,480	98	Paved parking, HSG C (1S)
345,444	98	Paved parking, HSG D (2S, 3S, 4S, 5S, 6S, 7S, 8S, 9S, 10S, 11S, 12S, 13S, 14S, 15S, 16S)
408,703	97	TOTAL AREA

23DA_Pr-0

Prepared by RVDI

HydroCAD® 10.00-26 s/n 07356 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 1-Year Rainfall=2.95"

Printed 10/4/2023

Page 2

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: DA-1A	Runoff Area=22,445 sf 64.51% Impervious Runoff Depth=2.11" Tc=5.0 min CN=92 Runoff=1.30 cfs 3,954 cf
Subcatchment 2S: DA-2A	Runoff Area=9,611 sf 100.00% Impervious Runoff Depth=2.72" Tc=5.0 min CN=98 Runoff=0.65 cfs 2,177 cf
Subcatchment 3S: DA-2B-1	Runoff Area=16,104 sf 65.67% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=1.08 cfs 3,501 cf
Subcatchment 4S: DA-2C	Runoff Area=32,910 sf 90.69% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=2.20 cfs 7,155 cf
Subcatchment 5S: DA-2D	Runoff Area=13,610 sf 96.47% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=0.91 cfs 2,959 cf
Subcatchment 6S: DA-2E	Runoff Area=38,997 sf 98.03% Impervious Runoff Depth=2.72" Tc=5.0 min CN=98 Runoff=2.65 cfs 8,834 cf
Subcatchment 7S: DA-3	Runoff Area=28,009 sf 100.00% Impervious Runoff Depth=2.72" Tc=5.0 min CN=98 Runoff=1.90 cfs 6,345 cf
Subcatchment 8S: DA-4	Runoff Area=77,989 sf 70.01% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=5.21 cfs 16,955 cf
Subcatchment 9S: DA-5A	Runoff Area=17,400 sf 100.00% Impervious Runoff Depth=2.72" Tc=5.0 min CN=98 Runoff=1.18 cfs 3,942 cf
Subcatchment 10S: DA-5B	Runoff Area=5,045 sf 63.13% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=0.34 cfs 1,097 cf
Subcatchment 11S: DA-2B-2	Runoff Area=87,935 sf 96.75% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=5.87 cfs 19,117 cf

Subcatchment 12S: DA-1B	Runoff Area=24,237 sf 96.44% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=1.62 cfs 5,269 cf
Subcatchment 13S: DA-1C	Runoff Area=11,957 sf 95.14% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=0.80 cfs 2,599 cf
Subcatchment 14S: DA-1D	Runoff Area=10,615 sf 98.05% Impervious Runoff Depth=2.72" Tc=5.0 min CN=98 Runoff=0.72 cfs 2,405 cf
Subcatchment 15S: DA-1E	Runoff Area=6,714 sf 95.58% Impervious Runoff Depth=2.61" Tc=5.0 min CN=97 Runoff=0.45 cfs 1,460 cf
Subcatchment 16S: DA-1F	Runoff Area=5,125 sf 82.11% Impervious Runoff Depth=2.40" Tc=5.0 min CN=95 Runoff=0.33 cfs 1,025 cf
Pond 17P: RS-1	Peak Elev=75.29' Storage=1,118 cf Inflow=1.62 cfs 5,269 cf 12.0" Round Culvert n=0.013 L=112.0' S=0.0152 '/' Outflow=1.62 cfs 4,293 cf
Pond 19P: PP-2	Peak Elev=77.05' Storage=723 cf Inflow=0.72 cfs 2,405 cf 8.0" Round Culvert n=0.010 L=305.0' S=0.0200 '/' Outflow=0.57 cfs 1,961 cf
Pond 20P: PP-1	Peak Elev=75.95' Storage=458 cf Inflow=0.45 cfs 1,460 cf 8.0" Round Culvert n=0.010 L=3.0' S=0.1000 '/' Outflow=0.37 cfs 1,153 cf
Pond 22P: PP-3	Peak Elev=72.00' Storage=2,223 cf Inflow=1.08 cfs 3,501 cf 12.0" Round Culvert n=0.013 L=260.0' S=0.0100 '/' Outflow=0.17 cfs 1,470 cf
Pond 23P: RS-2	Peak Elev=71.39' Storage=3,976 cf Inflow=5.87 cfs 19,117 cf 18.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/' Outflow=5.83 cfs 15,698 cf
Link 1L: POC A	Inflow=4.87 cfs 14,986 cf Primary=4.87 cfs 14,986 cf
Link 2L: POC B	Inflow=12.22 cfs 38,293 cf Primary=12.22 cfs 38,293 cf

Link 3L: POC C	Inflow=5.21 cfs 16,955 cf Primary=5.21 cfs 16,955 cf
Link 4L: POC D	Inflow=1.18 cfs 3,942 cf Primary=1.18 cfs 3,942 cf
Link 5L: POC E	Inflow=0.34 cfs 1,097 cf Primary=0.34 cfs 1,097 cf
Link 6L: POC F	Inflow=1.90 cfs 6,345 cf Primary=1.90 cfs 6,345 cf

Total Runoff Area = 408,703 sf Runoff Volume = 88,793 cf Average Runoff Depth = 2.61"
11.94% Pervious = 48,779 sf 88.06% Impervious = 359,924 sf

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: DA-1A	Runoff Area=22,445 sf 64.51% Impervious Runoff Depth=2.70" Tc=5.0 min CN=92 Runoff=1.64 cfs 5,057 cf
Subcatchment 2S: DA-2A	Runoff Area=9,611 sf 100.00% Impervious Runoff Depth=3.34" Tc=5.0 min CN=98 Runoff=0.79 cfs 2,672 cf
Subcatchment 3S: DA-2B-1	Runoff Area=16,104 sf 65.67% Impervious Runoff Depth=3.22" Tc=5.0 min CN=97 Runoff=1.31 cfs 4,327 cf
Subcatchment 4S: DA-2C	Runoff Area=32,910 sf 90.69% Impervious Runoff Depth=3.22" Tc=5.0 min CN=97 Runoff=2.69 cfs 8,842 cf
Subcatchment 5S: DA-2D	Runoff Area=13,610 sf 96.47% Impervious Runoff Depth=3.22" Tc=5.0 min CN=97 Runoff=1.11 cfs 3,656 cf
Subcatchment 6S: DA-2E	Runoff Area=38,997 sf 98.03% Impervious Runoff Depth=3.34" Tc=5.0 min CN=98 Runoff=3.22 cfs 10,842 cf
Subcatchment 7S: DA-3	Runoff Area=28,009 sf 100.00% Impervious Runoff Depth=3.34" Tc=5.0 min CN=98 Runoff=2.31 cfs 7,787 cf
Subcatchment 8S: DA-4	Runoff Area=77,989 sf 70.01% Impervious Runoff Depth=3.22" Tc=5.0 min CN=97 Runoff=6.36 cfs 20,953 cf
Subcatchment 9S: DA-5A	Runoff Area=17,400 sf 100.00% Impervious Runoff Depth=3.34" Tc=5.0 min CN=98 Runoff=1.44 cfs 4,838 cf
Subcatchment 10S: DA-5B	Runoff Area=5,045 sf 63.13% Impervious Runoff Depth=3.22" Tc=5.0 min CN=97 Runoff=0.41 cfs 1,355 cf
Subcatchment 11S: DA-2B-2	Runoff Area=87,935 sf 96.75% Impervious Runoff Depth=3.22" Tc=5.0 min CN=97 Runoff=7.17 cfs 23,625 cf

Subcatchment 12S: DA-1B	Runoff Area=24,237 sf 96.44% Impervious Runoff Depth=3.22" Tc=5.0 min CN=97 Runoff=1.98 cfs 6,512 cf
Subcatchment 13S: DA-1C	Runoff Area=11,957 sf 95.14% Impervious Runoff Depth=3.22" Tc=5.0 min CN=97 Runoff=0.98 cfs 3,212 cf
Subcatchment 14S: DA-1D	Runoff Area=10,615 sf 98.05% Impervious Runoff Depth=3.34" Tc=5.0 min CN=98 Runoff=0.88 cfs 2,951 cf
Subcatchment 15S: DA-1E	Runoff Area=6,714 sf 95.58% Impervious Runoff Depth=3.22" Tc=5.0 min CN=97 Runoff=0.55 cfs 1,804 cf
Subcatchment 16S: DA-1F	Runoff Area=5,125 sf 82.11% Impervious Runoff Depth=3.01" Tc=5.0 min CN=95 Runoff=0.40 cfs 1,285 cf
Pond 17P: RS-1	Peak Elev=75.38' Storage=1,123 cf Inflow=1.98 cfs 6,512 cf 12.0" Round Culvert n=0.013 L=112.0' S=0.0152 '/' Outflow=1.97 cfs 5,535 cf
Pond 19P: PP-2	Peak Elev=77.12' Storage=759 cf Inflow=0.88 cfs 2,951 cf 8.0" Round Culvert n=0.010 L=305.0' S=0.0200 '/' Outflow=0.72 cfs 2,508 cf
Pond 20P: PP-1	Peak Elev=76.00' Storage=478 cf Inflow=0.55 cfs 1,804 cf 8.0" Round Culvert n=0.010 L=3.0' S=0.1000 '/' Outflow=0.46 cfs 1,497 cf
Pond 22P: PP-3	Peak Elev=72.14' Storage=2,368 cf Inflow=1.31 cfs 4,327 cf 12.0" Round Culvert n=0.013 L=260.0' S=0.0100 '/' Outflow=0.47 cfs 2,296 cf
Pond 23P: RS-2	Peak Elev=71.63' Storage=4,020 cf Inflow=7.17 cfs 23,625 cf 18.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/' Outflow=7.11 cfs 20,206 cf
Link 1L: POC A	Inflow=6.05 cfs 19,095 cf Primary=6.05 cfs 19,095 cf
Link 2L: POC B	Inflow=14.89 cfs 48,513 cf Primary=14.89 cfs 48,513 cf

Link 3L: POC C	Inflow=6.36 cfs 20,953 cf Primary=6.36 cfs 20,953 cf
Link 4L: POC D	Inflow=1.44 cfs 4,838 cf Primary=1.44 cfs 4,838 cf
Link 5L: POC E	Inflow=0.41 cfs 1,355 cf Primary=0.41 cfs 1,355 cf
Link 6L: POC F	Inflow=2.31 cfs 7,787 cf Primary=2.31 cfs 7,787 cf

**Total Runoff Area = 408,703 sf Runoff Volume = 109,717 cf Average Runoff Depth = 3.22"
 11.94% Pervious = 48,779 sf 88.06% Impervious = 359,924 sf**

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: DA-1A	Runoff Area=22,445 sf 64.51% Impervious Runoff Depth=3.69" Tc=5.0 min CN=92 Runoff=2.20 cfs 6,901 cf
Subcatchment 2S: DA-2A	Runoff Area=9,611 sf 100.00% Impervious Runoff Depth=4.35" Tc=5.0 min CN=98 Runoff=1.03 cfs 3,487 cf
Subcatchment 3S: DA-2B-1	Runoff Area=16,104 sf 65.67% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=1.70 cfs 5,688 cf
Subcatchment 4S: DA-2C	Runoff Area=32,910 sf 90.69% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=3.48 cfs 11,624 cf
Subcatchment 5S: DA-2D	Runoff Area=13,610 sf 96.47% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=1.44 cfs 4,807 cf
Subcatchment 6S: DA-2E	Runoff Area=38,997 sf 98.03% Impervious Runoff Depth=4.35" Tc=5.0 min CN=98 Runoff=4.16 cfs 14,149 cf
Subcatchment 7S: DA-3	Runoff Area=28,009 sf 100.00% Impervious Runoff Depth=4.35" Tc=5.0 min CN=98 Runoff=2.99 cfs 10,162 cf
Subcatchment 8S: DA-4	Runoff Area=77,989 sf 70.01% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=8.25 cfs 27,547 cf
Subcatchment 9S: DA-5A	Runoff Area=17,400 sf 100.00% Impervious Runoff Depth=4.35" Tc=5.0 min CN=98 Runoff=1.86 cfs 6,313 cf
Subcatchment 10S: DA-5B	Runoff Area=5,045 sf 63.13% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=0.53 cfs 1,782 cf
Subcatchment 11S: DA-2B-2	Runoff Area=87,935 sf 96.75% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=9.30 cfs 31,060 cf

Subcatchment 12S: DA-1B	Runoff Area=24,237 sf 96.44% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=2.56 cfs 8,561 cf
Subcatchment 13S: DA-1C	Runoff Area=11,957 sf 95.14% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=1.27 cfs 4,223 cf
Subcatchment 14S: DA-1D	Runoff Area=10,615 sf 98.05% Impervious Runoff Depth=4.35" Tc=5.0 min CN=98 Runoff=1.13 cfs 3,851 cf
Subcatchment 15S: DA-1E	Runoff Area=6,714 sf 95.58% Impervious Runoff Depth=4.24" Tc=5.0 min CN=97 Runoff=0.71 cfs 2,372 cf
Subcatchment 16S: DA-1F	Runoff Area=5,125 sf 82.11% Impervious Runoff Depth=4.01" Tc=5.0 min CN=95 Runoff=0.53 cfs 1,714 cf
Pond 17P: RS-1	Peak Elev=75.55' Storage=1,132 cf Inflow=2.56 cfs 8,561 cf 12.0" Round Culvert n=0.013 L=112.0' S=0.0152 ' /' Outflow=2.56 cfs 7,585 cf
Pond 19P: PP-2	Peak Elev=77.24' Storage=814 cf Inflow=1.13 cfs 3,851 cf 8.0" Round Culvert n=0.010 L=305.0' S=0.0200 ' /' Outflow=0.94 cfs 3,408 cf
Pond 20P: PP-1	Peak Elev=76.07' Storage=509 cf Inflow=0.71 cfs 2,372 cf 8.0" Round Culvert n=0.010 L=3.0' S=0.1000 ' /' Outflow=0.62 cfs 2,065 cf
Pond 22P: PP-3	Peak Elev=72.37' Storage=2,599 cf Inflow=1.70 cfs 5,688 cf 12.0" Round Culvert n=0.013 L=260.0' S=0.0100 ' /' Outflow=1.18 cfs 3,657 cf
Pond 23P: RS-2	Peak Elev=72.09' Storage=4,106 cf Inflow=9.30 cfs 31,060 cf 18.0" Round Culvert n=0.013 L=20.0' S=0.0050 ' /' Outflow=9.24 cfs 27,641 cf
Link 1L: POC A	Inflow=7.97 cfs 25,897 cf Primary=7.97 cfs 25,897 cf
Link 2L: POC B	Inflow=20.14 cfs 65,366 cf Primary=20.14 cfs 65,366 cf

Link 3L: POC C	Inflow=8.25 cfs 27,547 cf Primary=8.25 cfs 27,547 cf
Link 4L: POC D	Inflow=1.86 cfs 6,313 cf Primary=1.86 cfs 6,313 cf
Link 5L: POC E	Inflow=0.53 cfs 1,782 cf Primary=0.53 cfs 1,782 cf
Link 6L: POC F	Inflow=2.99 cfs 10,162 cf Primary=2.99 cfs 10,162 cf

Total Runoff Area = 408,703 sf Runoff Volume = 144,244 cf Average Runoff Depth = 4.24"
11.94% Pervious = 48,779 sf 88.06% Impervious = 359,924 sf

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: DA-1A	Runoff Area=22,445 sf 64.51% Impervious Runoff Depth=4.51" Tc=5.0 min CN=92 Runoff=2.66 cfs 8,436 cf
Subcatchment 2S: DA-2A	Runoff Area=9,611 sf 100.00% Impervious Runoff Depth=5.19" Tc=5.0 min CN=98 Runoff=1.22 cfs 4,159 cf
Subcatchment 3S: DA-2B-1	Runoff Area=16,104 sf 65.67% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=2.02 cfs 6,812 cf
Subcatchment 4S: DA-2C	Runoff Area=32,910 sf 90.69% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=4.14 cfs 13,920 cf
Subcatchment 5S: DA-2D	Runoff Area=13,610 sf 96.47% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=1.71 cfs 5,757 cf
Subcatchment 6S: DA-2E	Runoff Area=38,997 sf 98.03% Impervious Runoff Depth=5.19" Tc=5.0 min CN=98 Runoff=4.93 cfs 16,874 cf
Subcatchment 7S: DA-3	Runoff Area=28,009 sf 100.00% Impervious Runoff Depth=5.19" Tc=5.0 min CN=98 Runoff=3.54 cfs 12,120 cf
Subcatchment 8S: DA-4	Runoff Area=77,989 sf 70.01% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=9.80 cfs 32,987 cf
Subcatchment 9S: DA-5A	Runoff Area=17,400 sf 100.00% Impervious Runoff Depth=5.19" Tc=5.0 min CN=98 Runoff=2.20 cfs 7,529 cf
Subcatchment 10S: DA-5B	Runoff Area=5,045 sf 63.13% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=0.63 cfs 2,134 cf
Subcatchment 11S: DA-2B-2	Runoff Area=87,935 sf 96.75% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=11.05 cfs 37,194 cf

Subcatchment 12S: DA-1B	Runoff Area=24,237 sf 96.44% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=3.05 cfs 10,252 cf
Subcatchment 13S: DA-1C	Runoff Area=11,957 sf 95.14% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=1.50 cfs 5,058 cf
Subcatchment 14S: DA-1D	Runoff Area=10,615 sf 98.05% Impervious Runoff Depth=5.19" Tc=5.0 min CN=98 Runoff=1.34 cfs 4,593 cf
Subcatchment 15S: DA-1E	Runoff Area=6,714 sf 95.58% Impervious Runoff Depth=5.08" Tc=5.0 min CN=97 Runoff=0.84 cfs 2,840 cf
Subcatchment 16S: DA-1F	Runoff Area=5,125 sf 82.11% Impervious Runoff Depth=4.85" Tc=5.0 min CN=95 Runoff=0.63 cfs 2,070 cf
Pond 17P: RS-1	Peak Elev=75.74' Storage=1,143 cf Inflow=3.05 cfs 10,252 cf 12.0" Round Culvert n=0.013 L=112.0' S=0.0152 '/' Outflow=3.03 cfs 9,276 cf
Pond 19P: PP-2	Peak Elev=77.35' Storage=866 cf Inflow=1.34 cfs 4,593 cf 8.0" Round Culvert n=0.010 L=305.0' S=0.0200 '/' Outflow=1.09 cfs 4,150 cf
Pond 20P: PP-1	Peak Elev=76.14' Storage=529 cf Inflow=0.84 cfs 2,840 cf 8.0" Round Culvert n=0.010 L=3.0' S=0.1000 '/' Outflow=0.75 cfs 2,534 cf
Pond 22P: PP-3	Peak Elev=72.49' Storage=2,718 cf Inflow=2.02 cfs 6,812 cf 12.0" Round Culvert n=0.013 L=260.0' S=0.0100 '/' Outflow=1.62 cfs 4,781 cf
Pond 23P: RS-2	Peak Elev=72.41' Storage=4,166 cf Inflow=11.05 cfs 37,194 cf 18.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/' Outflow=10.95 cfs 33,775 cf
Link 1L: POC A	Inflow=9.51 cfs 31,522 cf Primary=9.51 cfs 31,522 cf
Link 2L: POC B	Inflow=24.31 cfs 79,266 cf Primary=24.31 cfs 79,266 cf

Link 3L: POC C

Inflow=9.80 cfs 32,987 cf
 Primary=9.80 cfs 32,987 cf

Link 4L: POC D

Inflow=2.20 cfs 7,529 cf
 Primary=2.20 cfs 7,529 cf

Link 5L: POC E

Inflow=0.63 cfs 2,134 cf
 Primary=0.63 cfs 2,134 cf

Link 6L: POC F

Inflow=3.54 cfs 12,120 cf
 Primary=3.54 cfs 12,120 cf

Total Runoff Area = 408,703 sf Runoff Volume = 172,734 cf Average Runoff Depth = 5.07"
 11.94% Pervious = 48,779 sf 88.06% Impervious = 359,924 sf

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: DA-1A

Runoff Area=22,445 sf 64.51% Impervious Runoff Depth=5.65"
 Tc=5.0 min CN=92 Runoff=3.29 cfs 10,568 cf

Subcatchment 2S: DA-2A

Runoff Area=9,611 sf 100.00% Impervious Runoff Depth=6.35"
 Tc=5.0 min CN=98 Runoff=1.48 cfs 5,087 cf

Subcatchment 3S: DA-2B-1

Runoff Area=16,104 sf 65.67% Impervious Runoff Depth=6.23"
 Tc=5.0 min CN=97 Runoff=2.46 cfs 8,364 cf

Subcatchment 4S: DA-2C

Runoff Area=32,910 sf 90.69% Impervious Runoff Depth=6.23"
 Tc=5.0 min CN=97 Runoff=5.04 cfs 17,094 cf

Subcatchment 5S: DA-2D

Runoff Area=13,610 sf 96.47% Impervious Runoff Depth=6.23"
 Tc=5.0 min CN=97 Runoff=2.08 cfs 7,069 cf

Subcatchment 6S: DA-2E

Runoff Area=38,997 sf 98.03% Impervious Runoff Depth=6.35"
 Tc=5.0 min CN=98 Runoff=5.99 cfs 20,640 cf

Subcatchment 7S: DA-3

Runoff Area=28,009 sf 100.00% Impervious Runoff Depth=6.35"
 Tc=5.0 min CN=98 Runoff=4.30 cfs 14,824 cf

Subcatchment 8S: DA-4

Runoff Area=77,989 sf 70.01% Impervious Runoff Depth=6.23"
 Tc=5.0 min CN=97 Runoff=11.94 cfs 40,508 cf

Subcatchment 9S: DA-5A

Runoff Area=17,400 sf 100.00% Impervious Runoff Depth=6.35"
 Tc=5.0 min CN=98 Runoff=2.67 cfs 9,209 cf

Subcatchment 10S: DA-5B

Runoff Area=5,045 sf 63.13% Impervious Runoff Depth=6.23"
 Tc=5.0 min CN=97 Runoff=0.77 cfs 2,620 cf

Subcatchment 11S: DA-2B-2

Runoff Area=87,935 sf 96.75% Impervious Runoff Depth=6.23"
 Tc=5.0 min CN=97 Runoff=13.46 cfs 45,674 cf

Subcatchment 12S: DA-1B	Runoff Area=24,237 sf 96.44% Impervious Runoff Depth=6.23" Tc=5.0 min CN=97 Runoff=3.71 cfs 12,589 cf
Subcatchment 13S: DA-1C	Runoff Area=11,957 sf 95.14% Impervious Runoff Depth=6.23" Tc=5.0 min CN=97 Runoff=1.83 cfs 6,211 cf
Subcatchment 14S: DA-1D	Runoff Area=10,615 sf 98.05% Impervious Runoff Depth=6.35" Tc=5.0 min CN=98 Runoff=1.63 cfs 5,618 cf
Subcatchment 15S: DA-1E	Runoff Area=6,714 sf 95.58% Impervious Runoff Depth=6.23" Tc=5.0 min CN=97 Runoff=1.03 cfs 3,487 cf
Subcatchment 16S: DA-1F	Runoff Area=5,125 sf 82.11% Impervious Runoff Depth=6.00" Tc=5.0 min CN=95 Runoff=0.77 cfs 2,562 cf
Pond 17P: RS-1	Peak Elev=76.05' Storage=1,160 cf Inflow=3.71 cfs 12,589 cf 12.0" Round Culvert n=0.013 L=112.0' S=0.0152 '/ Outflow=3.69 cfs 11,613 cf
Pond 19P: PP-2	Peak Elev=77.51' Storage=944 cf Inflow=1.63 cfs 5,618 cf 8.0" Round Culvert n=0.010 L=305.0' S=0.0200 '/ Outflow=1.28 cfs 5,175 cf
Pond 20P: PP-1	Peak Elev=76.22' Storage=558 cf Inflow=1.03 cfs 3,487 cf 8.0" Round Culvert n=0.010 L=3.0' S=0.1000 '/ Outflow=0.91 cfs 3,181 cf
Pond 22P: PP-3	Peak Elev=72.59' Storage=2,827 cf Inflow=2.46 cfs 8,364 cf 12.0" Round Culvert n=0.013 L=260.0' S=0.0100 '/ Outflow=2.03 cfs 6,333 cf
Pond 23P: RS-2	Peak Elev=73.04' Storage=4,283 cf Inflow=13.46 cfs 45,674 cf 18.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/ Outflow=13.17 cfs 42,255 cf
Link 1L: POC A	Inflow=11.60 cfs 39,309 cf Primary=11.60 cfs 39,309 cf
Link 2L: POC B	Inflow=29.47 cfs 98,478 cf Primary=29.47 cfs 98,478 cf

Link 3L: POC C	Inflow=11.94 cfs 40,508 cf Primary=11.94 cfs 40,508 cf
Link 4L: POC D	Inflow=2.67 cfs 9,209 cf Primary=2.67 cfs 9,209 cf
Link 5L: POC E	Inflow=0.77 cfs 2,620 cf Primary=0.77 cfs 2,620 cf
Link 6L: POC F	Inflow=4.30 cfs 14,824 cf Primary=4.30 cfs 14,824 cf

Total Runoff Area = 408,703 sf Runoff Volume = 212,125 cf Average Runoff Depth = 6.23"
11.94% Pervious = 48,779 sf 88.06% Impervious = 359,924 sf

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: DA-1A	Runoff Area=22,445 sf 64.51% Impervious Runoff Depth=6.50" Tc=5.0 min CN=92 Runoff=3.76 cfs 12,156 cf
Subcatchment 2S: DA-2A	Runoff Area=9,611 sf 100.00% Impervious Runoff Depth=7.21" Tc=5.0 min CN=98 Runoff=1.67 cfs 5,775 cf
Subcatchment 3S: DA-2B-1	Runoff Area=16,104 sf 65.67% Impervious Runoff Depth=7.09" Tc=5.0 min CN=97 Runoff=2.79 cfs 9,517 cf
Subcatchment 4S: DA-2C	Runoff Area=32,910 sf 90.69% Impervious Runoff Depth=7.09" Tc=5.0 min CN=97 Runoff=5.70 cfs 19,448 cf
Subcatchment 5S: DA-2D	Runoff Area=13,610 sf 96.47% Impervious Runoff Depth=7.09" Tc=5.0 min CN=97 Runoff=2.36 cfs 8,043 cf
Subcatchment 6S: DA-2E	Runoff Area=38,997 sf 98.03% Impervious Runoff Depth=7.21" Tc=5.0 min CN=98 Runoff=6.78 cfs 23,433 cf
Subcatchment 7S: DA-3	Runoff Area=28,009 sf 100.00% Impervious Runoff Depth=7.21" Tc=5.0 min CN=98 Runoff=4.87 cfs 16,830 cf
Subcatchment 8S: DA-4	Runoff Area=77,989 sf 70.01% Impervious Runoff Depth=7.09" Tc=5.0 min CN=97 Runoff=13.52 cfs 46,087 cf
Subcatchment 9S: DA-5A	Runoff Area=17,400 sf 100.00% Impervious Runoff Depth=7.21" Tc=5.0 min CN=98 Runoff=3.03 cfs 10,455 cf
Subcatchment 10S: DA-5B	Runoff Area=5,045 sf 63.13% Impervious Runoff Depth=7.09" Tc=5.0 min CN=97 Runoff=0.87 cfs 2,981 cf
Subcatchment 11S: DA-2B-2	Runoff Area=87,935 sf 96.75% Impervious Runoff Depth=7.09" Tc=5.0 min CN=97 Runoff=15.24 cfs 51,964 cf

Subcatchment 12S: DA-1B	Runoff Area=24,237 sf 96.44% Impervious Runoff Depth=7.09" Tc=5.0 min CN=97 Runoff=4.20 cfs 14,323 cf
Subcatchment 13S: DA-1C	Runoff Area=11,957 sf 95.14% Impervious Runoff Depth=7.09" Tc=5.0 min CN=97 Runoff=2.07 cfs 7,066 cf
Subcatchment 14S: DA-1D	Runoff Area=10,615 sf 98.05% Impervious Runoff Depth=7.21" Tc=5.0 min CN=98 Runoff=1.85 cfs 6,378 cf
Subcatchment 15S: DA-1E	Runoff Area=6,714 sf 95.58% Impervious Runoff Depth=7.09" Tc=5.0 min CN=97 Runoff=1.16 cfs 3,968 cf
Subcatchment 16S: DA-1F	Runoff Area=5,125 sf 82.11% Impervious Runoff Depth=6.85" Tc=5.0 min CN=95 Runoff=0.88 cfs 2,927 cf
Pond 17P: RS-1	Peak Elev=76.32' Storage=1,175 cf Inflow=4.20 cfs 14,323 cf 12.0" Round Culvert n=0.013 L=112.0' S=0.0152 '/' Outflow=4.17 cfs 13,347 cf
Pond 19P: PP-2	Peak Elev=77.64' Storage=1,005 cf Inflow=1.85 cfs 6,378 cf 8.0" Round Culvert n=0.010 L=305.0' S=0.0200 '/' Outflow=1.42 cfs 5,935 cf
Pond 20P: PP-1	Peak Elev=76.30' Storage=583 cf Inflow=1.16 cfs 3,968 cf 8.0" Round Culvert n=0.010 L=3.0' S=0.1000 '/' Outflow=1.02 cfs 3,661 cf
Pond 22P: PP-3	Peak Elev=72.67' Storage=2,902 cf Inflow=2.79 cfs 9,517 cf 12.0" Round Culvert n=0.013 L=260.0' S=0.0100 '/' Outflow=2.29 cfs 7,485 cf
Pond 23P: RS-2	Peak Elev=73.68' Storage=4,401 cf Inflow=15.24 cfs 51,964 cf 18.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/' Outflow=14.81 cfs 48,545 cf
Link 1L: POC A	Inflow=13.11 cfs 45,092 cf Primary=13.11 cfs 45,092 cf
Link 2L: POC B	Inflow=33.23 cfs 112,729 cf Primary=33.23 cfs 112,729 cf

Link 3L: POC C

Inflow=13.52 cfs 46,087 cf
Primary=13.52 cfs 46,087 cf

Link 4L: POC D

Inflow=3.03 cfs 10,455 cf
Primary=3.03 cfs 10,455 cf

Link 5L: POC E

Inflow=0.87 cfs 2,981 cf
Primary=0.87 cfs 2,981 cf

Link 6L: POC F

Inflow=4.87 cfs 16,830 cf
Primary=4.87 cfs 16,830 cf

Total Runoff Area = 408,703 sf Runoff Volume = 241,351 cf Average Runoff Depth = 7.09"
11.94% Pervious = 48,779 sf 88.06% Impervious = 359,924 sf

Summary for Subcatchment 1S: DA-1A

Runoff = 3.29 cfs @ 12.07 hrs, Volume= 10,568 cf, Depth= 5.65"

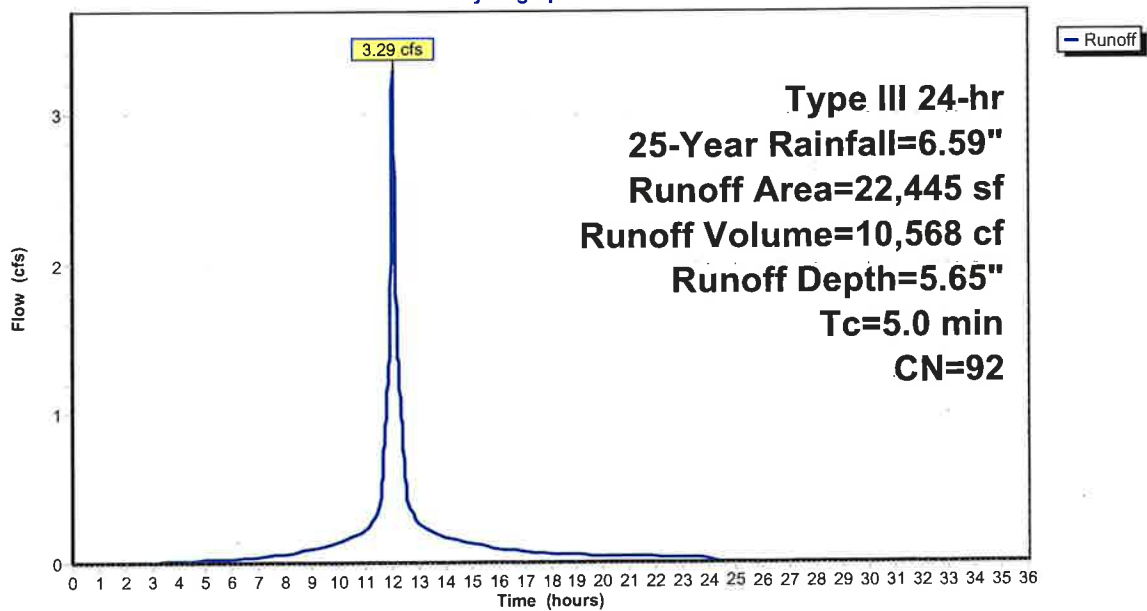
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
14,480	98	Paved parking, HSG C
7,965	80	>75% Grass cover, Good. HSG D
22,445	92	Weighted Average
7,965		35.49% Pervious Area
14,480		64.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 1S: DA-1A

Hydrograph



Summary for Subcatchment 2S: DA-2A

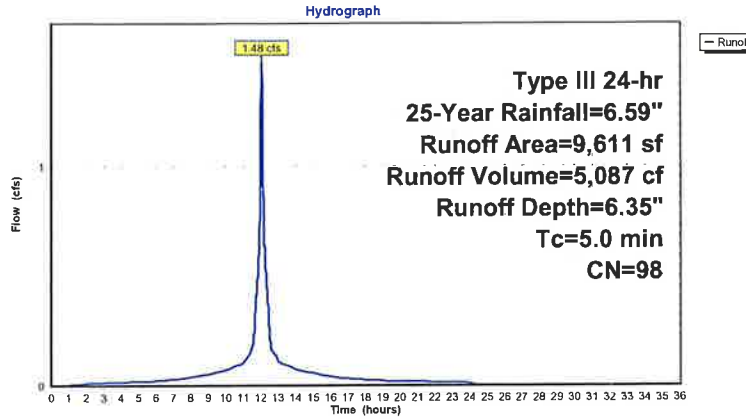
Runoff = 1.48 cfs @ 12.07 hrs, Volume= 5,087 cf, Depth= 6.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
9,611	98	Paved parking, HSG D
9,611		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 2S: DA-2A



Summary for Subcatchment 3S: DA-2B-1

Runoff = 2.46 cfs @ 12.07 hrs, Volume= 8,364 cf, Depth= 6.23"

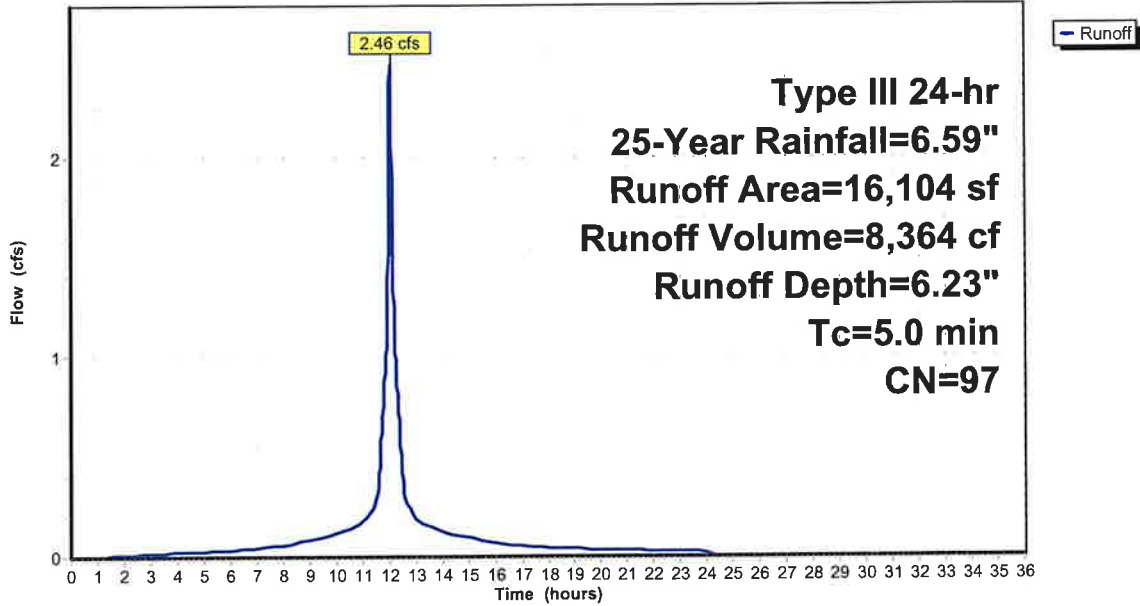
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
10,576	98	Paved parking, HSG D
4,994	96	Gravel surface, HSG D
534	80	>75% Grass cover, Good, HSG D
16,104	97	Weighted Average
5,528		34.33% Pervious Area
10,576		65.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 3S: DA-2B-1

Hydrograph



Summary for Subcatchment 4S: DA-2C

Runoff = 5.04 cfs @ 12.07 hrs, Volume= 17,094 cf, Depth= 6.23"

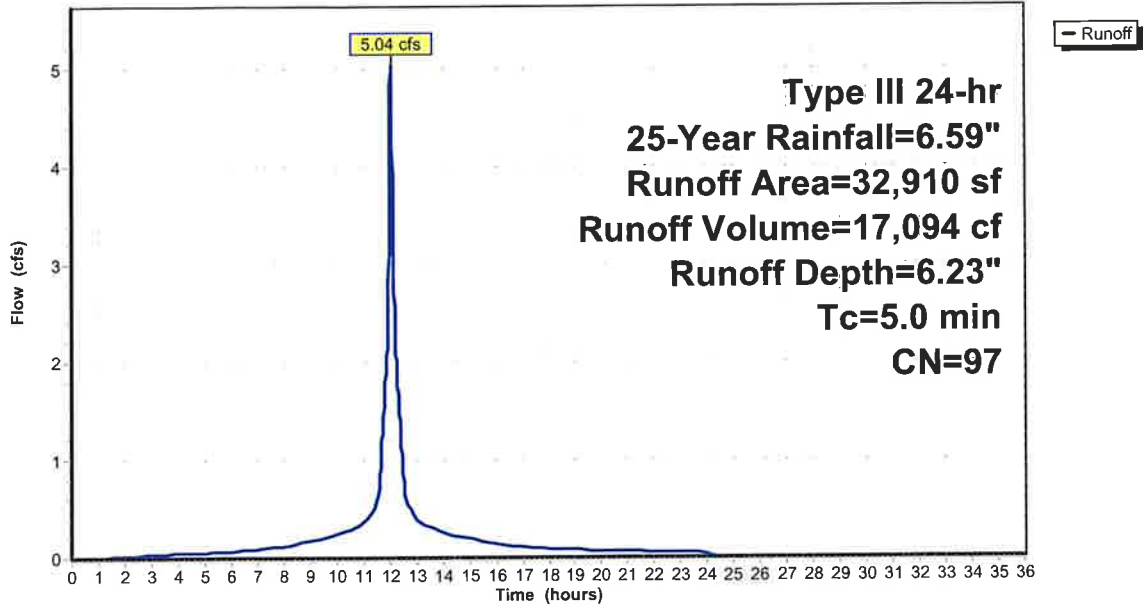
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
29,847	98	Paved parking, HSG D
399	96	Gravel surface, HSG D
2,664	80	>75% Grass cover, Good, HSG D
32,910	97	Weighted Average
3,063		9.31% Pervious Area
29,847		90.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 4S: DA-2C

Hydrograph



Summary for Subcatchment 5S: DA-2D

Runoff = 2.08 cfs @ 12.07 hrs, Volume= 7,069 cf, Depth= 6.23"

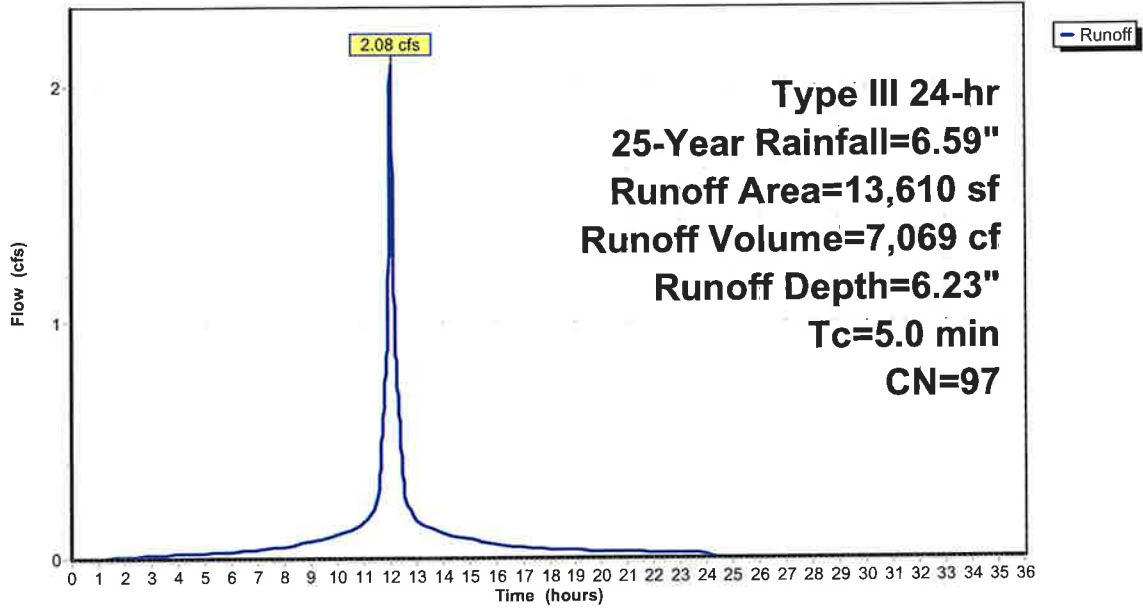
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
13,130	98	Paved parking, HSG D
480	80	>75% Grass cover, Good, HSG D
13,610	97	Weighted Average
480		3.53% Pervious Area
13,130		96.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 5S: DA-2D

Hydrograph



Summary for Subcatchment 6S: DA-2E

Runoff = 5.99 cfs @ 12.07 hrs, Volume= 20,640 cf, Depth= 6.35"

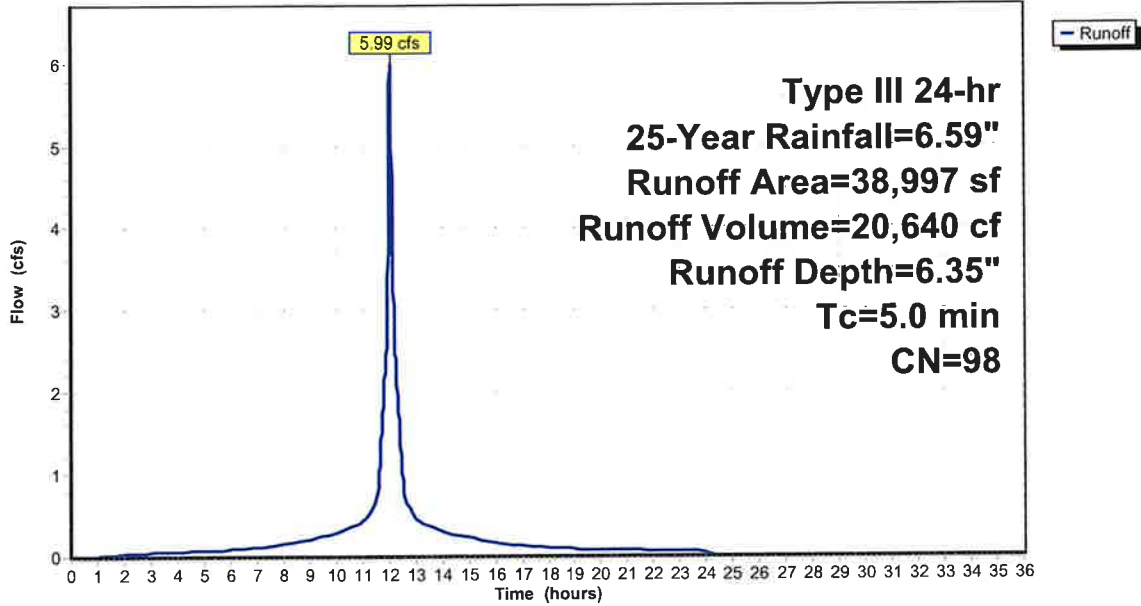
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
38,227	98	Paved parking, HSG D
770	80	>75% Grass cover, Good, HSG D
38,997	98	Weighted Average
770		1.97% Pervious Area
38,227		98.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 6S: DA-2E

Hydrograph



Summary for Subcatchment 7S: DA-3

Runoff = 4.30 cfs @ 12.07 hrs, Volume= 14,824 cf, Depth= 6.35"

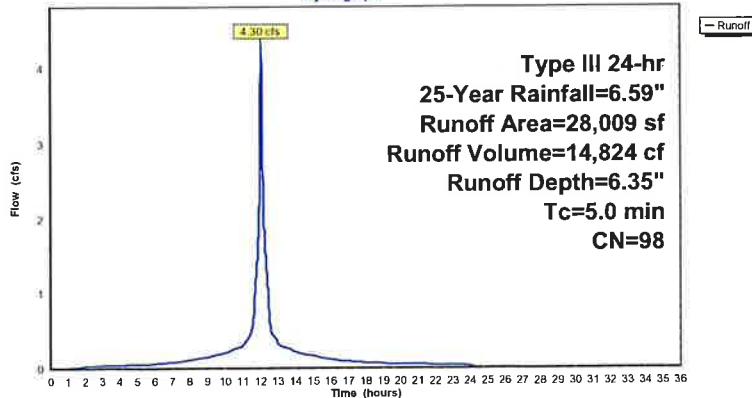
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
28,009	98	Paved parking, HSG D
28,009		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 7S: DA-3

Hydrograph



Summary for Subcatchment 8S: DA-4

Runoff = 11.94 cfs @ 12.07 hrs, Volume= 40,508 cf, Depth= 6.23"

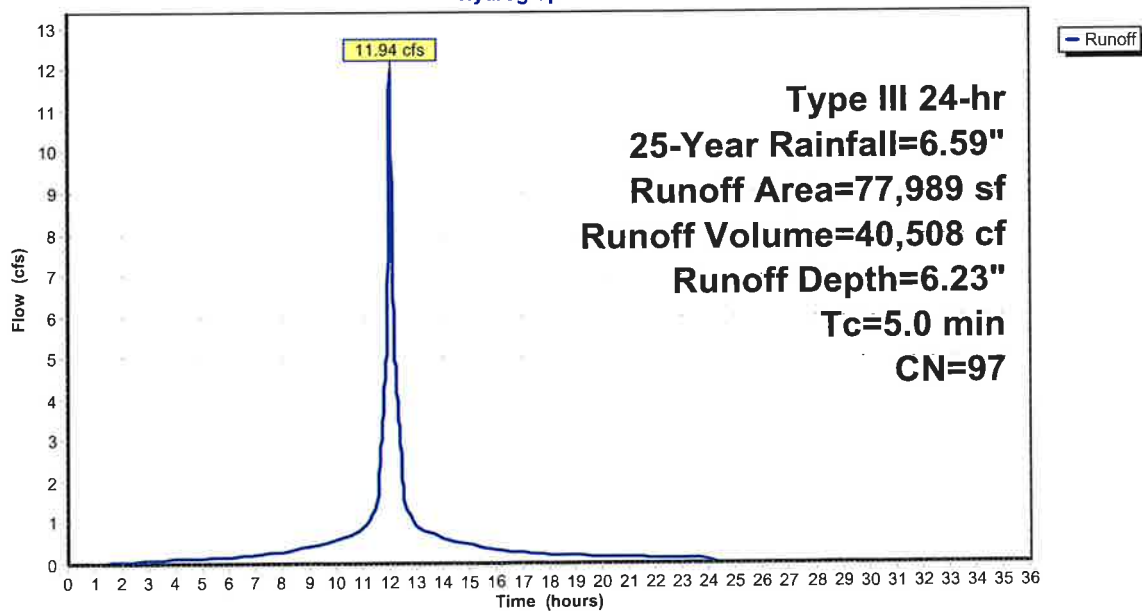
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
54,599	98	Paved parking, HSG D
20,893	96	Gravel surface, HSG D
2,497	80	>75% Grass cover, Good, HSG D
77,989	97	Weighted Average
23,390		29.99% Pervious Area
54,599		70.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 8S: DA-4

Hydrograph



Summary for Subcatchment 9S: DA-5A

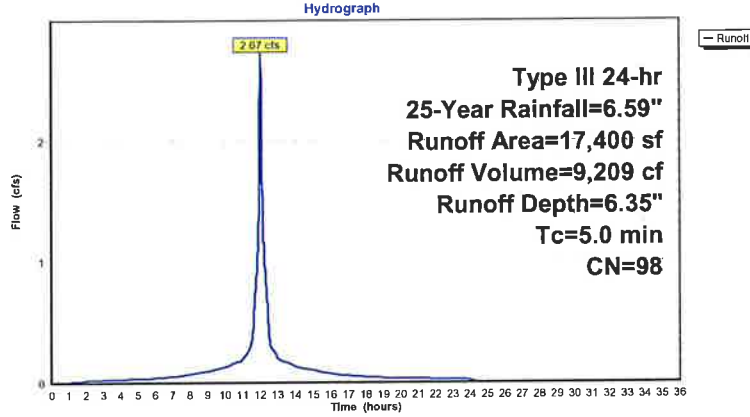
Runoff = 2.67 cfs @ 12.07 hrs, Volume= 9,209 cf, Depth= 6.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
17,400	98	Paved parking, HSG D
17,400		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 9S: DA-5A



Summary for Subcatchment 10S: DA-5B

Runoff = 0.77 cfs @ 12.07 hrs, Volume= 2,620 cf, Depth= 6.23"

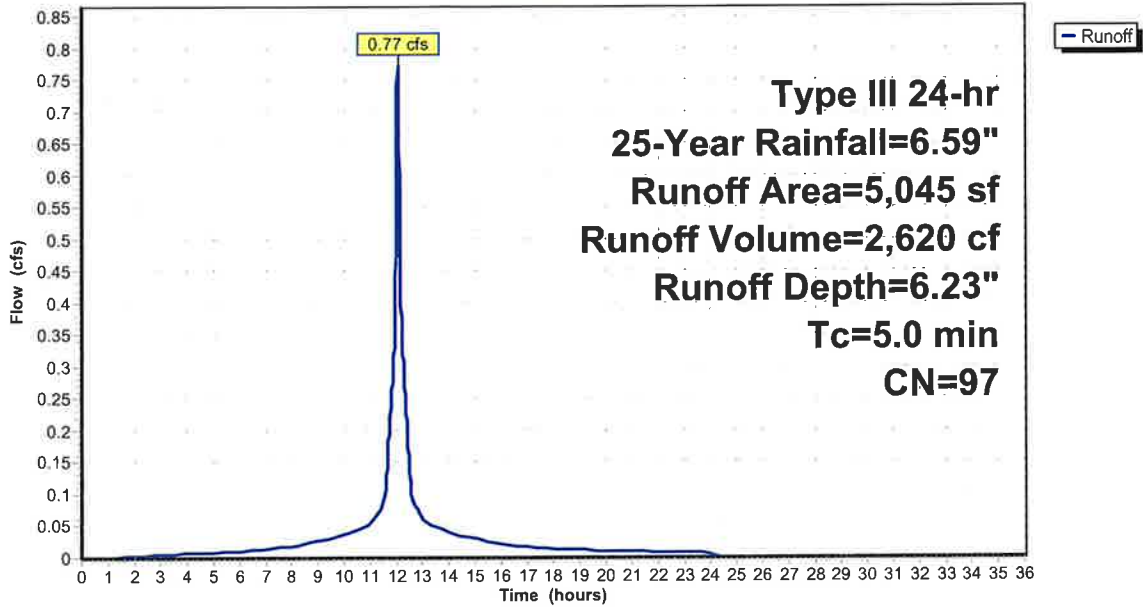
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
3,185	98	Paved parking, HSG D
1,860	96	Gravel surface, HSG D
5,045	97	Weighted Average
1,860		36.87% Pervious Area
3,185		63.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 10S: DA-5B

Hydrograph



Summary for Subcatchment 11S: DA-2B-2

Runoff = 13.46 cfs @ 12.07 hrs, Volume= 45,674 cf, Depth= 6.23"

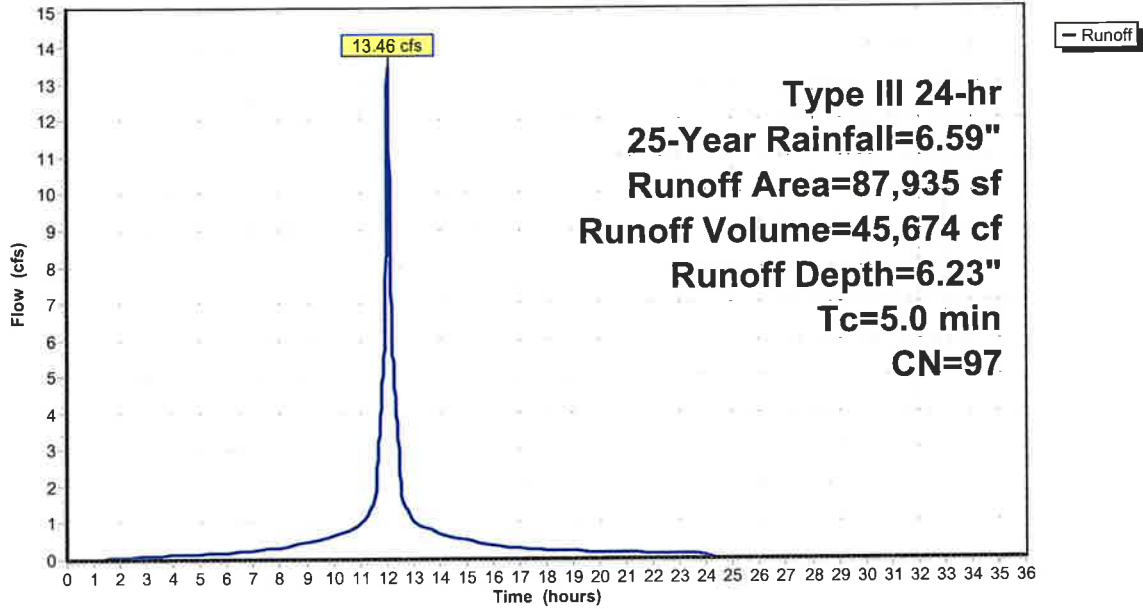
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
85,078	98	Paved parking, HSG D
2,857	80	>75% Grass cover, Good, HSG D
87,935	97	Weighted Average
2,857		3.25% Pervious Area
85,078		96.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 11S: DA-2B-2

Hydrograph



Summary for Subcatchment 12S: DA-1B

Runoff = 3.71 cfs @ 12.07 hrs, Volume= 12,589 cf, Depth= 6.23"

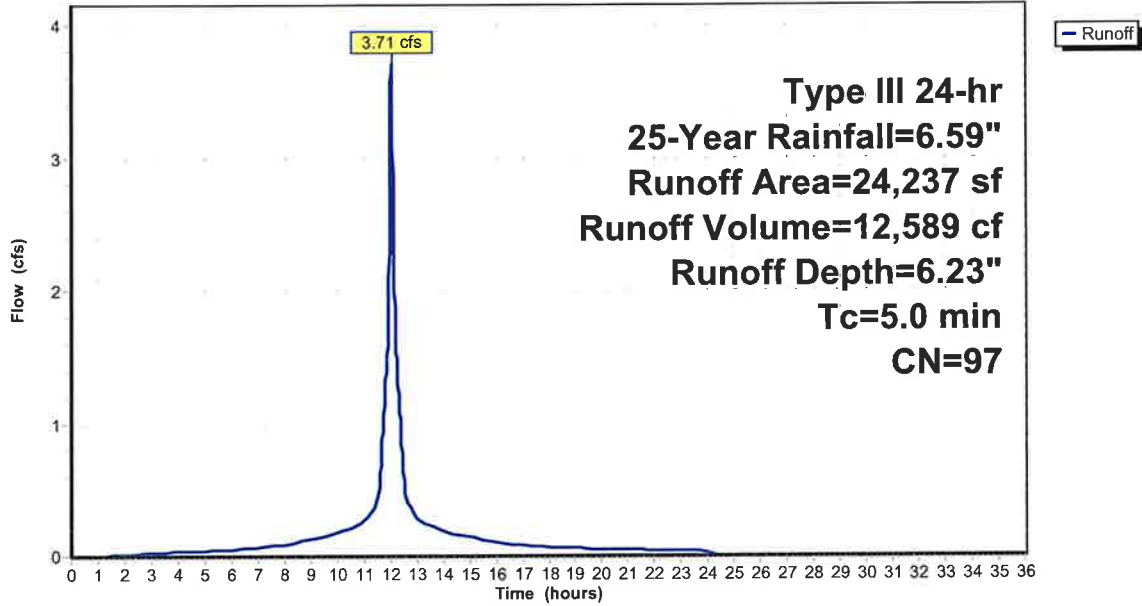
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
23,373	98	Paved parking, HSG D
864	80	>75% Grass cover, Good, HSG D
24,237	97	Weighted Average
864		3.56% Pervious Area
23,373		96.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 12S: DA-1B

Hydrograph



Summary for Subcatchment 13S: DA-1C

Runoff = 1.83 cfs @ 12.07 hrs, Volume= 6,211 cf, Depth= 6.23"

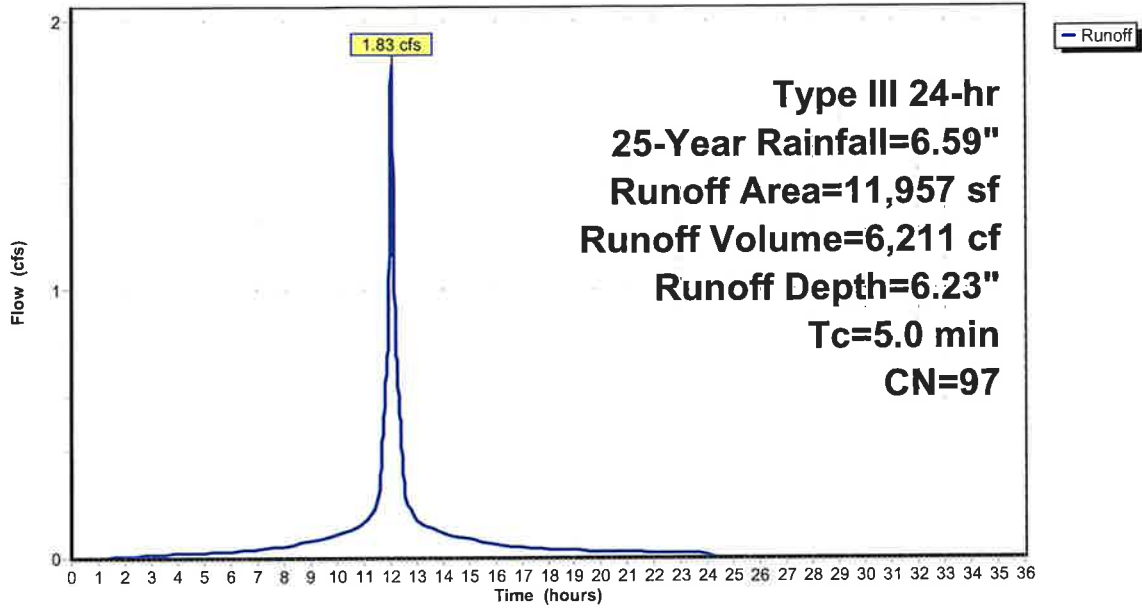
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
11,376	98	Paved parking, HSG D
581	80	>75% Grass cover, Good, HSG D
11,957	97	Weighted Average
581		4.86% Pervious Area
11,376		95.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 13S: DA-1C

Hydrograph



Summary for Subcatchment 14S: DA-1D

Runoff = 1.63 cfs @ 12.07 hrs, Volume= 5,618 cf, Depth= 6.35"

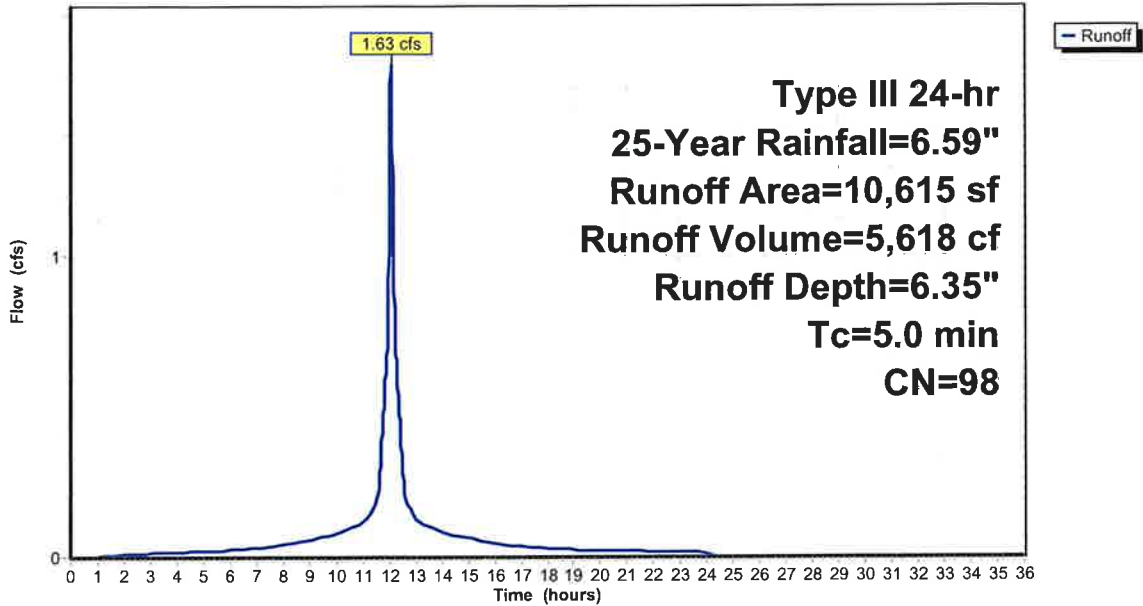
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
10,408	98	Paved parking, HSG D
207	80	>75% Grass cover, Good, HSG D
10,615	98	Weighted Average
207		1.95% Pervious Area
10,408		98.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 14S: DA-1D

Hydrograph



Summary for Subcatchment 15S: DA-1E

Runoff = 1.03 cfs @ 12.07 hrs, Volume= 3,487 cf, Depth= 6.23"

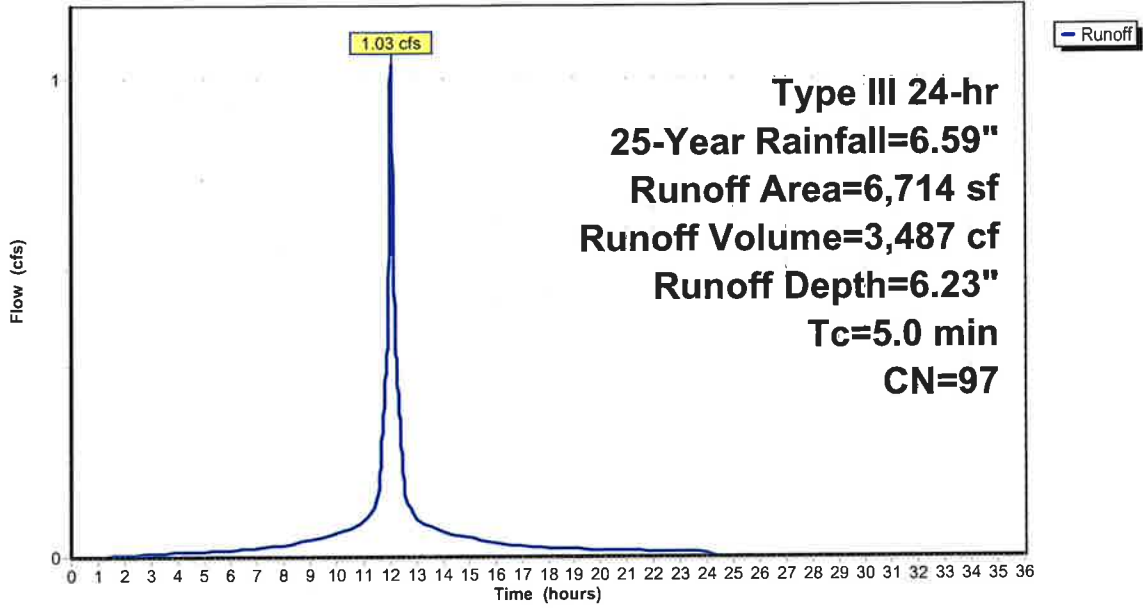
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
6,417	98	Paved parking, HSG D
297	80	>75% Grass cover, Good, HSG D
6,714	97	Weighted Average
297		4.42% Pervious Area
6,417		95.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 15S: DA-1E

Hydrograph



Summary for Subcatchment 16S: DA-1F

Runoff = 0.77 cfs @ 12.07 hrs, Volume= 2,562 cf, Depth= 6.00"

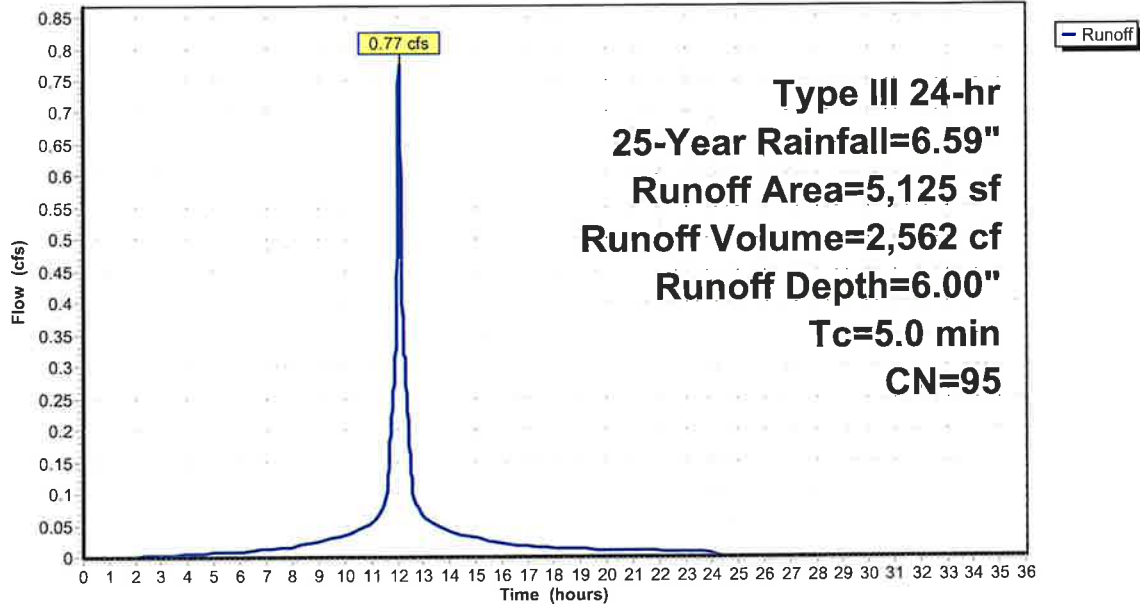
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Rainfall=6.59"

Area (sf)	CN	Description
4,208	98	Paved parking, HSG D
917	80	>75% Grass cover, Good, HSG D
5,125	95	Weighted Average
917		17.89% Pervious Area
4,208		82.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 1

Subcatchment 16S: DA-1F

Hydrograph



Summary for Pond 17P: RS-1

Inflow Area = 24,237 sf, 96.44% Impervious, Inflow Depth = 6.23" for 25-Year event
 Inflow = 3.71 cfs @ 12.07 hrs, Volume= 12,589 cf
 Outflow = 3.69 cfs @ 12.08 hrs, Volume= 11,613 cf, Atten= 1%, Lag= 0.5 min
 Primary = 3.69 cfs @ 12.08 hrs, Volume= 11,613 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 76.05' @ 12.08 hrs Surf.Area= 1,121 sf Storage= 1,160 cf

Plug-Flow detention time= 78.5 min calculated for 11,610 cf (92% of inflow)
 Center-of-Mass det. time= 37.2 min (786.7 - 749.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	72.00'	457 cf	14.75'W x 38.00'L x 3.21'H Field A 1,798 cf Overall - 656 cf Embedded = 1,143 cf x 40.0% Voids
#2A	72.50'	656 cf	Cultec R-280HD x 15 Inside #1 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 3 rows
#3	75.20'	101 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 1,008 cf Overall x 10.0% Voids
		1,214 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
75.20	560	0	0
77.00	560	1,008	1,008

Device	Routing	Invert	Outlet Devices
#1	Primary	74.60'	12.0" Round Culvert L= 112.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 74.60' / 72.90' S= 0.0152 ' /' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.68 cfs @ 12.08 hrs HW=76.05' TW=0.00' (Dynamic Tailwater)
↑1=Culvert (Inlet Controls 3.68 cfs @ 4.69 fps)

Pond 17P: RS-1 - Chamber Wizard Field A

Chamber Model = Cultec R-280HD (Cultec Recharger® 280HD)

Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf

Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap

Row Length Adjustment= +1.00' x 6.07 sf x 3 rows

47.0" Wide + 6.0" Spacing = 53.0" C-C Row Spacing

5 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 36.00' Row Length +12.0" End Stone x 2 = 38.00' Base Length

3 Rows x 47.0" Wide + 6.0" Spacing x 2 + 12.0" Side Stone x 2 = 14.75' Base Width

6.0" Base + 26.5" Chamber Height + 6.0" Cover = 3.21' Field Height

15 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 3 Rows = 655.7 cf Chamber Storage

1,798.3 cf Field - 655.7 cf Chambers = 1,142.5 cf Stone x 40.0% Voids = 457.0 cf Stone Storage

Chamber Storage + Stone Storage = 1,112.8 cf = 0.026 af

Overall Storage Efficiency = 61.9%

Overall System Size = 38.00' x 14.75' x 3.21'

15 Chambers

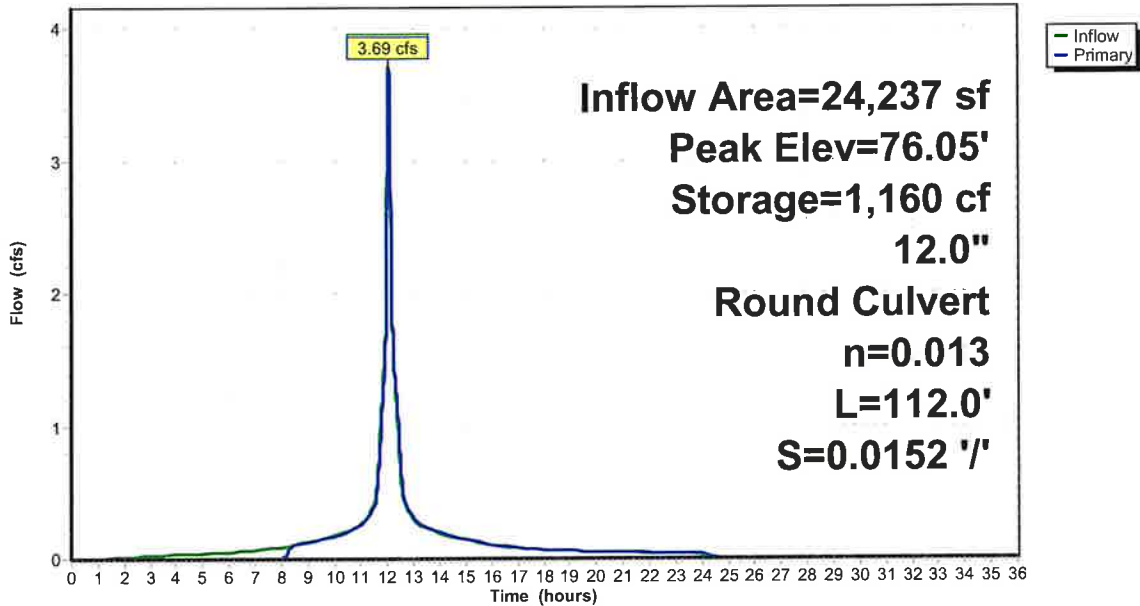
66.6 cy Field

42.3 cy Stone



Pond 17P: RS-1

Hydrograph



Summary for Pond 19P: PP-2

Inflow Area = 10,615 sf, 98.05% Impervious, Inflow Depth = 6.35" for 25-Year event
 Inflow = 1.63 cfs @ 12.07 hrs, Volume= 5,618 cf
 Outflow = 1.28 cfs @ 12.13 hrs, Volume= 5,175 cf, Atten= 22%, Lag= 3.5 min
 Primary = 1.28 cfs @ 12.13 hrs, Volume= 5,175 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 77.51' @ 12.13 hrs Surf.Area= 3,150 sf Storage= 944 cf

Plug-Flow detention time= 94.8 min calculated for 5,173 cf (92% of inflow)
 Center-of-Mass det. time= 52.8 min (795.6 - 742.9)

Volume	Invert	Avail.Storage	Storage Description
#1	75.90'	724 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 1,811 cf Overall x 40.0% Voids
#2	77.05'	354 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 1,181 cf Overall x 30.0% Voids
		1,079 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
75.90	1,575	0	0
77.05	1,575	1,811	1,811

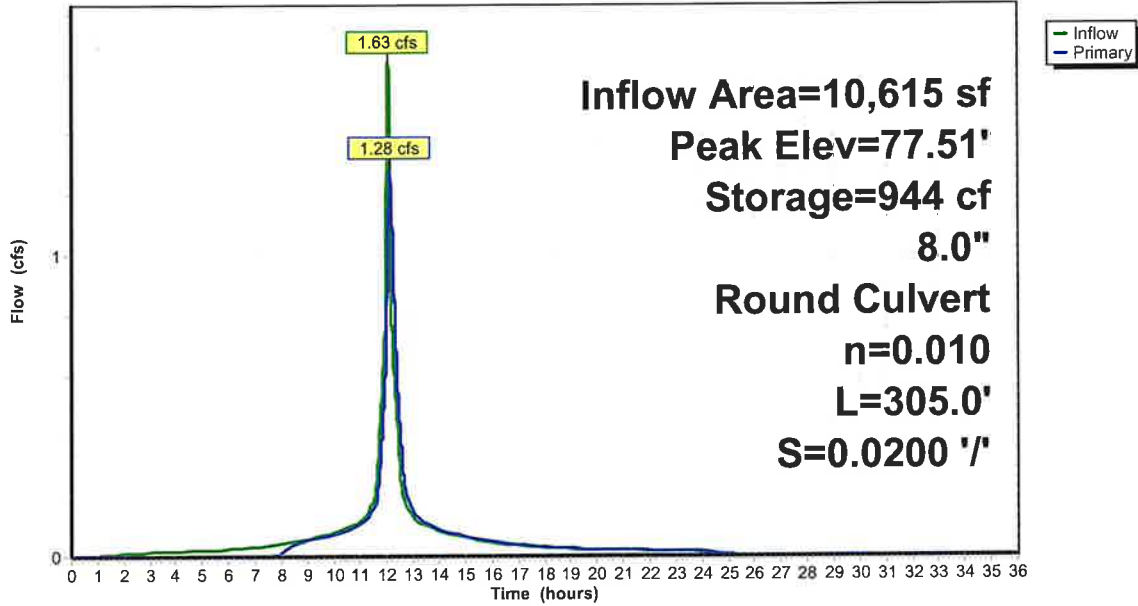
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
77.05	1,575	0	0
77.80	1,575	1,181	1,181

Device	Routing	Invert	Outlet Devices
#1	Primary	76.60'	8.0" Round Culvert L= 305.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 76.60' / 70.50' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.28 cfs @ 12.13 hrs HW=77.51' TW=0.00' (Dynamic Tailwater)
 1=Culvert (Inlet Controls 1.28 cfs @ 3.67 fps)

Pond 19P: PP-2

Hydrograph



Summary for Pond 20P: PP-1

Inflow Area = 6,714 sf, 95.58% Impervious, Inflow Depth = 6.23" for 25-Year event
 Inflow = 1.03 cfs @ 12.07 hrs, Volume= 3,487 cf
 Outflow = 0.91 cfs @ 12.11 hrs, Volume= 3,181 cf, Atten= 11%, Lag= 2.3 min
 Primary = 0.91 cfs @ 12.11 hrs, Volume= 3,181 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 76.22' @ 12.11 hrs Surf.Area= 2,180 sf Storage= 558 cf

Plug-Flow detention time= 96.0 min calculated for 3,180 cf (91% of inflow)
 Center-of-Mass det. time= 50.8 min (800.3 - 749.5)

Volume	Invert	Avail.Storage	Storage Description
#1	74.90'	501 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 1,253 cf Overall x 40.0% Voids
#2	76.05'	245 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 818 cf Overall x 30.0% Voids
		747 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
74.90	1,090	0	0
76.05	1,090	1,253	1,253

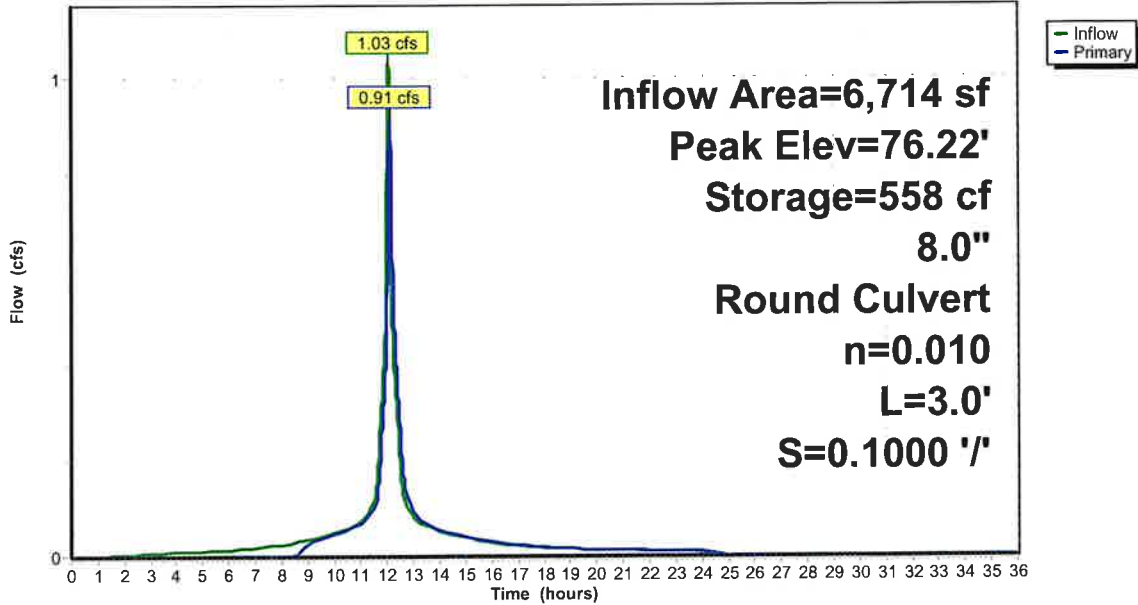
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.05	1,090	0	0
76.80	1,090	818	818

Device	Routing	Invert	Outlet Devices
#1	Primary	75.60'	8.0" Round Culvert L= 3.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 75.60' / 75.30' S= 0.1000 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.91 cfs @ 12.11 hrs HW=76.22' TW=0.00' (Dynamic Tailwater)
 1=Culvert (Inlet Controls 0.91 cfs @ 2.69 fps)

Pond 20P: PP-1

Hydrograph



Summary for Pond 22P: PP-3

Inflow Area = 16,104 sf, 65.67% Impervious, Inflow Depth = 6.23" for 25-Year event
 Inflow = 2.46 cfs @ 12.07 hrs, Volume= 8,364 cf
 Outflow = 2.03 cfs @ 12.12 hrs, Volume= 6,333 cf, Atten= 18%, Lag= 3.1 min
 Primary = 2.03 cfs @ 12.12 hrs, Volume= 6,333 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 72.59' @ 12.12 hrs Surf.Area= 2,530 sf Storage= 2,827 cf

Plug-Flow detention time= 175.8 min calculated for 6,332 cf (76% of inflow)
 Center-of-Mass det. time= 90.8 min (840.3 - 749.5)

Volume	Invert	Avail.Storage	Storage Description
#1	69.80'	3,491 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 8,729 cf Overall x 40.0% Voids
#2	73.25'	569 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 1,898 cf Overall x 30.0% Voids
		4,061 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
69.80	2,530	0	0
73.25	2,530	8,729	8,729

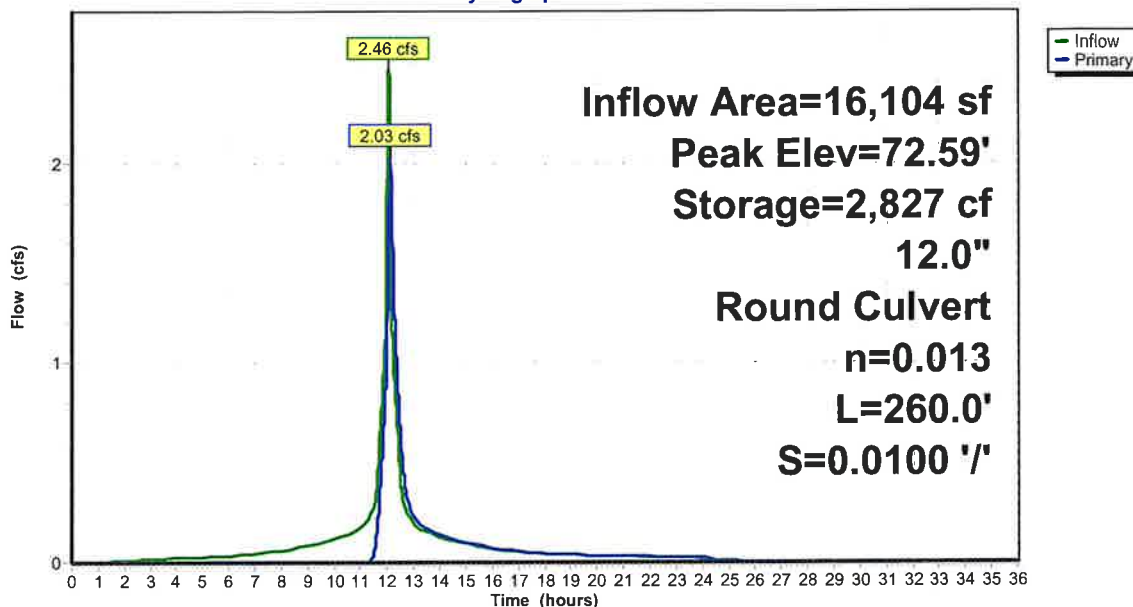
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
73.25	2,530	0	0
74.00	2,530	1,898	1,898

Device	Routing	Invert	Outlet Devices
#1	Primary	71.80'	12.0" Round Culvert L= 260.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 71.80' / 69.20' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.03 cfs @ 12.12 hrs HW=72.59' TW=0.00' (Dynamic Tailwater)
 1=Culvert (Inlet Controls 2.03 cfs @ 3.03 fps)

Pond 22P: PP-3

Hydrograph



Summary for Pond 23P: RS-2

Inflow Area = 87,935 sf, 96.75% Impervious, Inflow Depth = 6.23" for 25-Year event
 Inflow = 13.46 cfs @ 12.07 hrs, Volume= 45,674 cf
 Outflow = 13.17 cfs @ 12.09 hrs, Volume= 42,255 cf, Atten= 2%, Lag= 0.9 min
 Primary = 13.17 cfs @ 12.09 hrs, Volume= 42,255 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 73.04' @ 12.09 hrs Surf.Area= 3,712 sf Storage= 4,283 cf

Plug-Flow detention time= 79.0 min calculated for 42,243 cf (92% of inflow)
 Center-of-Mass det. time= 38.8 min (788.3 - 749.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	67.20'	1,442 cf	41.25'W x 45.00'L x 3.21'H Field A 5,955 cf Overall - 2,350 cf Embedded = 3,606 cf x 40.0% Voids
#2A	67.70'	2,350 cf	Cultec R-280HD x 54 Inside #1 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 9 rows
#3	70.40'	761 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 7,610 cf Overall x 10.0% Voids
		4,553 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
70.40	1,856	0	0
74.50	1,856	7,610	7,610

Device	Routing	Invert	Outlet Devices
#1	Primary	69.90'	18.0" Round Culvert L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 69.90' / 69.80' S= 0.0050 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=13.14 cfs @ 12.09 hrs HW=73.04' TW=0.00' (Dynamic Tailwater)
↑1=Culvert (Inlet Controls 13.14 cfs @ 7.44 fps)

Pond 23P: RS-2 - Chamber Wizard Field A

Chamber Model = Cultec R-280HD (Cultec Recharger® 280HD)

Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 9 rows

47.0" Wide + 6.0" Spacing = 53.0" C-C Row Spacing

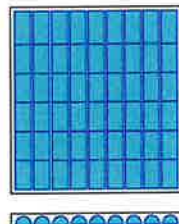
6 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 43.00' Row Length +12.0" End Stone x 2 = 45.00' Base Length
9 Rows x 47.0" Wide + 6.0" Spacing x 8 + 12.0" Side Stone x 2 = 41.25' Base Width
6.0" Base + 26.5" Chamber Height + 6.0" Cover = 3.21' Field Height

54 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 9 Rows = 2,349.8 cf Chamber Storage

5,955.5 cf Field - 2,349.8 cf Chambers = 3,605.7 cf Stone x 40.0% Voids = 1,442.3 cf Stone Storage

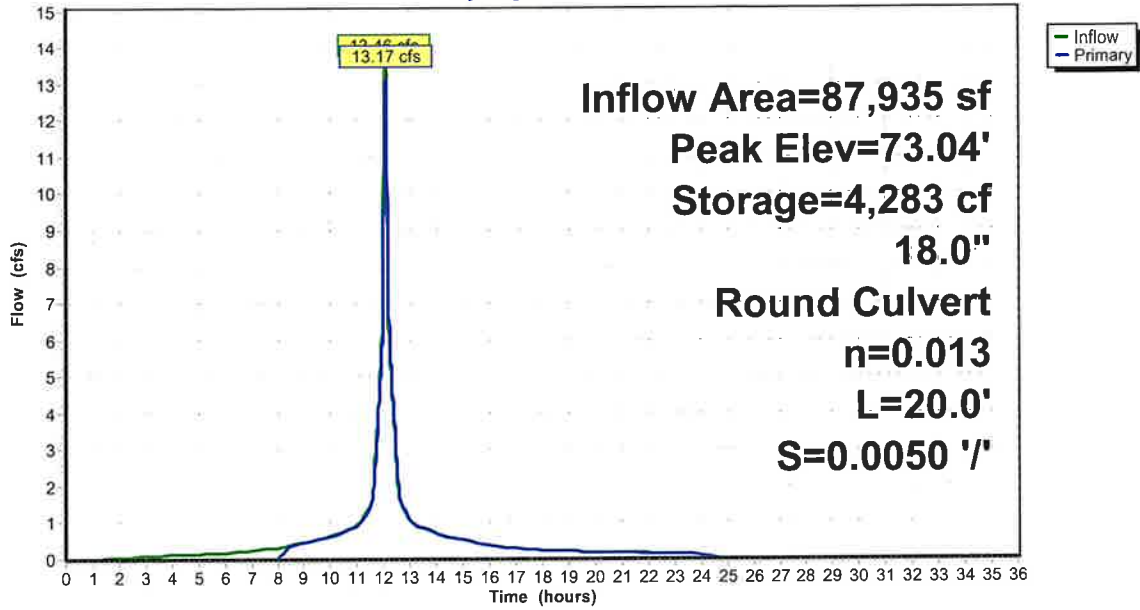
Chamber Storage + Stone Storage = 3,792.0 cf = 0.087 af
Overall Storage Efficiency = 63.7%
Overall System Size = 45.00' x 41.25' x 3.21'

54 Chambers
220.6 cy Field
133.5 cy Stone



Pond 23P: RS-2

Hydrograph



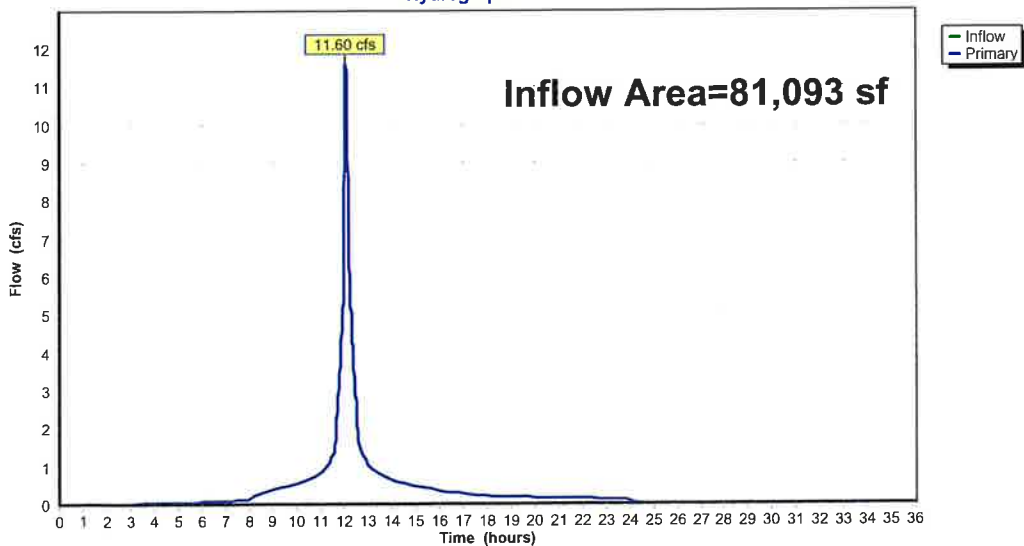
Summary for Link 1L: POC A

Inflow Area = 81,093 sf, 86.64% Impervious, Inflow Depth = 5.82" for 25-Year event
 Inflow = 11.60 cfs @ 12.08 hrs, Volume= 39,309 cf
 Primary = 11.60 cfs @ 12.08 hrs, Volume= 39,309 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 1L: POC A

Hydrograph



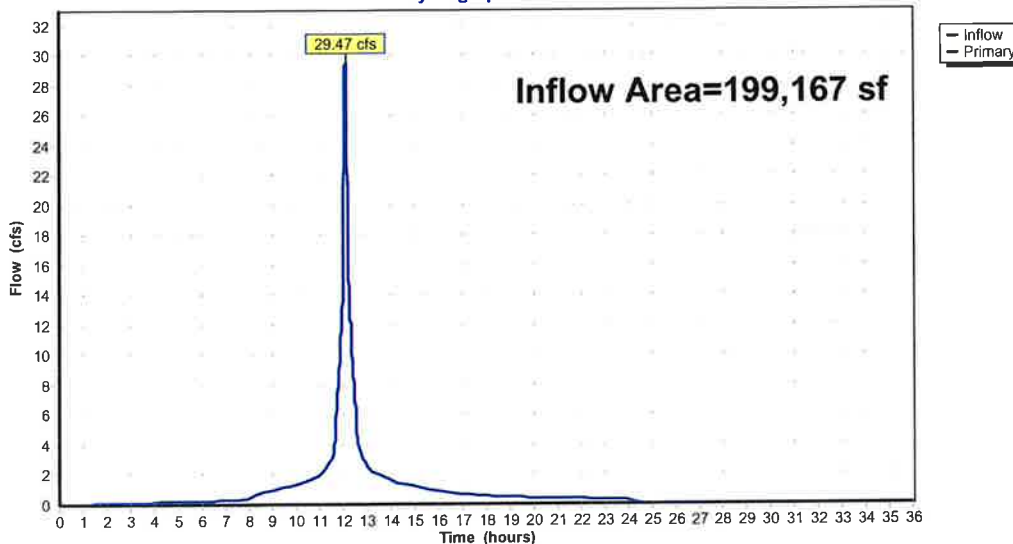
Summary for Link 2L: POC B

Inflow Area = 199,167 sf, 93.62% Impervious, Inflow Depth = 5.93" for 25-Year event
Inflow = 29.47 cfs @ 12.08 hrs, Volume= 98,478 cf
Primary = 29.47 cfs @ 12.08 hrs, Volume= 98,478 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 2L: POC B

Hydrograph



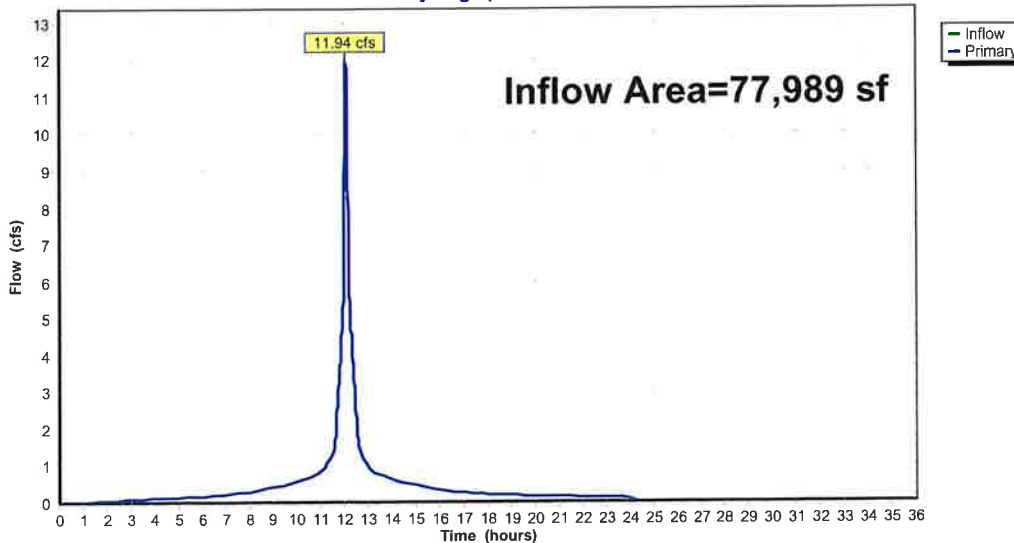
Summary for Link 3L: POC C

Inflow Area = 77,989 sf, 70.01% Impervious, Inflow Depth = 6.23" for 25-Year event
Inflow = 11.94 cfs @ 12.07 hrs, Volume= 40,508 cf
Primary = 11.94 cfs @ 12.07 hrs, Volume= 40,508 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 3L: POC C

Hydrograph



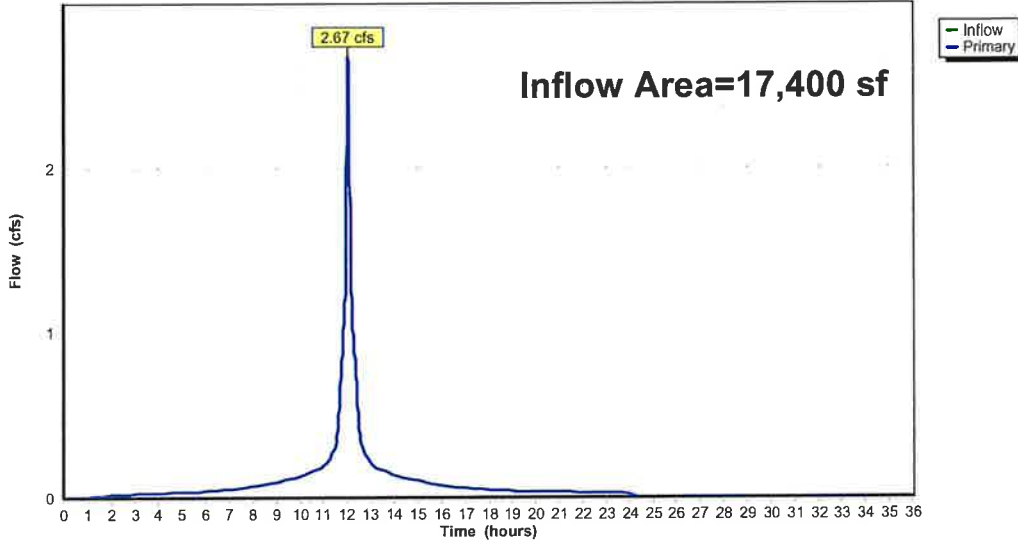
Summary for Link 4L: POC D

Inflow Area = 17,400 sf, 100.00% Impervious, Inflow Depth = 6.35" for 25-Year event
Inflow = 2.67 cfs @ 12.07 hrs, Volume= 9,209 cf
Primary = 2.67 cfs @ 12.07 hrs, Volume= 9,209 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 4L: POC D

Hydrograph



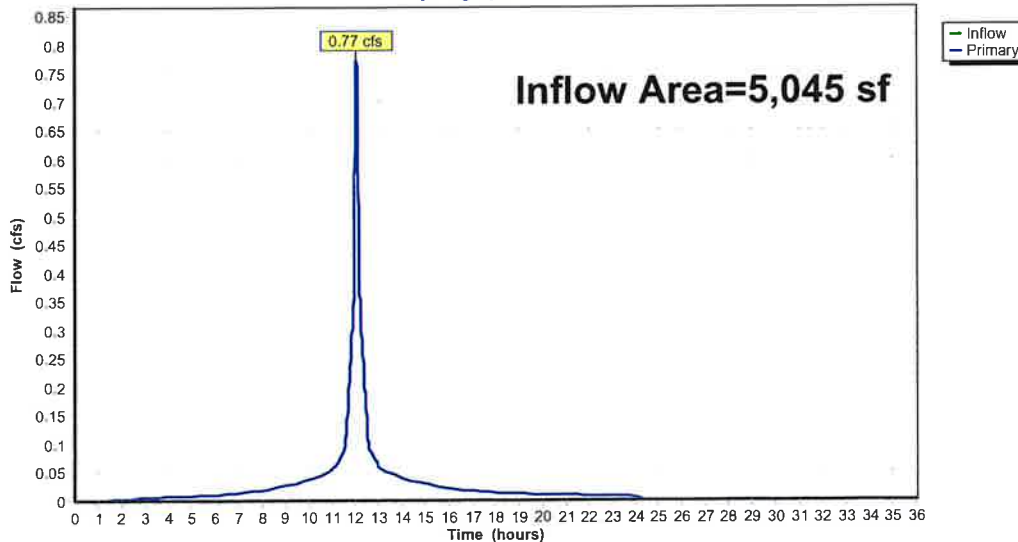
Summary for Link 5L: POC E

Inflow Area = 5,045 sf, 63.13% Impervious, Inflow Depth = 6.23" for 25-Year event
Inflow = 0.77 cfs @ 12.07 hrs, Volume= 2,620 cf
Primary = 0.77 cfs @ 12.07 hrs, Volume= 2,620 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 5L: POC E

Hydrograph



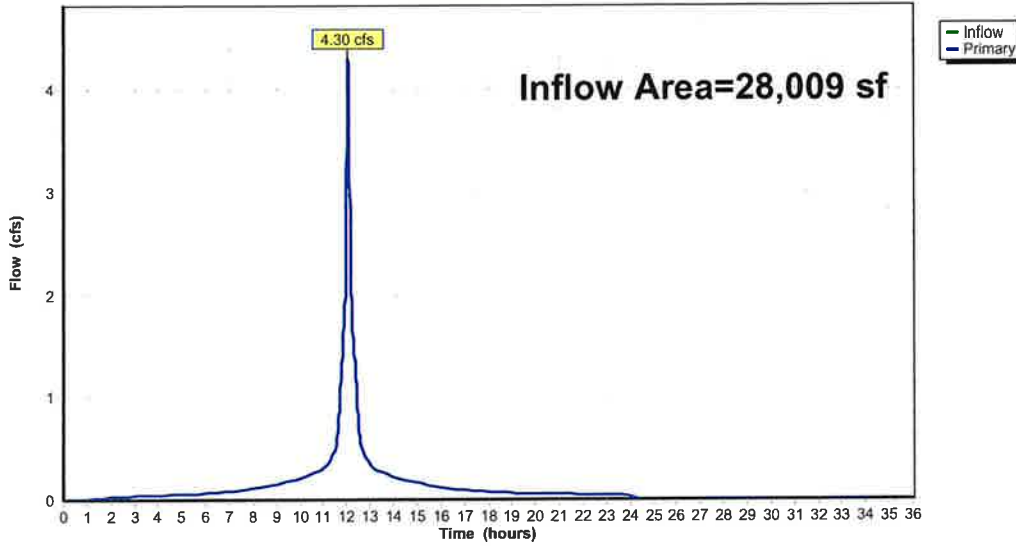
Summary for Link 6L: POC F

Inflow Area = 28,009 sf, 100.00% Impervious, Inflow Depth = 6.35" for 25-Year event
Inflow = 4.30 cfs @ 12.07 hrs, Volume= 14,824 cf
Primary = 4.30 cfs @ 12.07 hrs, Volume= 14,824 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 6L: POC F

Hydrograph



Appendix “E”
DCIA Worksheet

Directly Connected Impervious Area Tracking Worksheet
City of Stamford Drainage Manual



Note to user: complete all cells of this color only, as indicated by section headings

Part 1: General Information (All Projects)

Project Name	Commercial Development
Project Address	375 Fairfield Avenue
Project Applicant	375 Fairfield Avenue Associates
Title of Plan	Site Plan Review Set
Revision Date of Plan	4-Oct-23
Tax Account Number	001-3193

Part 2: Project Details (All Projects)

1. What type of development is this? (choose from dropdown)	Redevelopment	
2. What is the total area of the project site?	408,703	ft ²
3. What is the total area of land disturbance for this project?	170,240	ft ²
4. Does project site drain to High Quality Waters, a Direct Waterfront, or within 500 ft. of Tidal Wetlands? (Yes/No)	No	
Does Standard 1 apply based on information above?	Yes	

Part 3: Water Quality Target Total (Only for Standard 1 Projects)

5. What is the <u>current (pre-development) DCIA</u> for the site?	373,738	ft ²
6. Will the proposed development increase DCIA (without consideration of proposed stormwater management)? (Yes/No)	No	
7. What is the <u>proposed-development total impervious area</u> for the site?	388,070	ft ²
Water Quality Volume (WQV) (DAs 1B, 1D, 1E, 2B-1, & 2B-2 Only)	11172.6	ft ³
Standard 1 requirement	Retain 1/2 WQV on-site	
Required retention volume	5586.3	ft ³
Provided retention volume for proposed development	7,161.0	ft ³

Part 4: Proposed DCIA Tracking (Only for Standard 1 Projects)

<u>Pre-development total impervious area</u>	396,183	ft ²
<u>Current DCIA</u>	373,738	ft ²
<u>Proposed-development total impervious area</u>	388,070	ft ²
<u>Proposed-development DCIA</u> (after stormwater management)	224,779	ft ²
<u>Net change in DCIA</u> from <u>current</u> to <u>proposed-development</u>	-148,959	ft ²

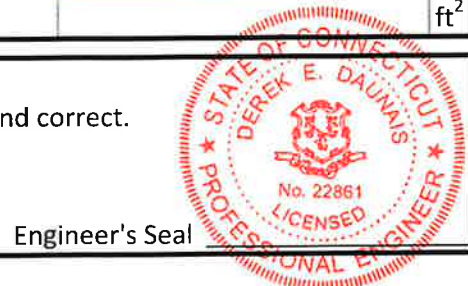
Part 5: Post-Development (As-Built Certified) DCIA Tracking (Only for Standard 1 Projects)

<u>Post-development (per as-built) total impervious area</u>		ft ²
<u>Post-development (per as-built) DCIA</u> (after stormwater management)		ft ²
<u>Net change in DCIA</u> from <u>current</u> to <u>post-development</u>		ft ²

Certification Statement

I hereby certify that the information contained in this worksheet is true and correct.

Engineer's Signature Derek Daum Date 10/4/23



Office use only

Date received	
Application Nr (e.g., ZB, ZBA,	

Location

*Address of Development Number & Street	375 Fairfield Avenue
*Stamford, CT ZIP Code	06902

Applicant Information

*Applicant full name	375 Fairfield Associates
Applicant Company	
*Applicant Street Address	P.O. Box 110422
*Applicant City, State, ZIP	Stamford, CT 06911-0422
*Applicant Email	c/o Agent: WHennessey@carmodylaw.com
*Applicant Phone	c/o Agent: (203) 425-4200

Property Owner Information

*Is the property owner the same as the applicant?	<input checked="" type="checkbox"/> YES / NO
--	--

If NO please answer the following

*Owner full name	
Owner Company	
*Owner Street Address	
*Owner City, State, ZIP	
*Owner Email	
*Owner Phone	

Is this ... (check one)

the 1 st Submission (Zoning Board, ZBA or Building Permit application)	<input checked="" type="checkbox"/>
the 2 nd Submission (CO sign-off)	<input type="checkbox"/>

SCORECARD RATING

Category	Max Points	Points achieved
Building Health	8	0
Energy Use	25	2
Landscaping and Open Space	11	2
Land Use	17	1
Mobility	29	3
Resiliency	11	7
Resource Management	9	0
Urban Design	10	8
Water Use	7	1
TOTAL	127	24

95 or more Points	A+	LEED Platinum
80-94 Points	A	LEED Gold
65-79 Points	B	LEED Silver
50-64 Points	C	LEED Certified
0-49 Points	NR	

BUILDING HEALTH

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS	POINTS ACHIEVED
Indoor air quality	BH1	After construction ends and before occupancy, conduct indoor air quality testing	Promotes a healthier living/work space	1	0
Low emitting materials	BH2	Reduce concentrations of chemical contaminants from building interior paints and coatings, interior adhesives and sealants, flooring and insulation	Limits exposure to volatile organic compounds (VOCs), which are linked to many short- and long-term health problems	1	0
Moisture management	BH3	Provide heating, ventilating and air conditioning systems and controls designed to limit relative humidity to 60% or less during all load conditions, both occupied and not occupied	Limits exposure to mold	1	0
Daylighting	BH4	Provide adequate daylight through windows, skylights, and other means	Promotes a space and saves energy healthier living/working	1	0
Window shading	BH5	Provide protection from excessive light exposure	Promotes a space and saves energy healthier living/working	1	0
Operable windows	BH6	Each regularly occupied space has operable windows	Increases indoor air quality, access to natural light, and user comfort	1	0
Active design	BH7	Integration of pathways and stairs within the built environment in projects with 2 to 4 floors	Promotes exercise and health	1	0
Fitness equipment	BH8	Convenient and free access to fitness equipment	Promotes exercise and health	1	0
TOTALS				8	0

Alternative Path to Compliance

IWBI Well Platinum Rating - 10 Points

IWBI Well Gold Rating - 8 Points

IWBI Well Silver Rating - 6 Points

IWBI Well Bronze Rating - 4 Points

ENERGY USE

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS	POINTS ACHIEVED
Building efficiency	EU1	Energy Star rating of 50+ (3 points), 75+ (6 points) or 85+ (9 points)	Buildings committed to high-performance goals use	9	0
Efficient appliances	EU2	All appliances are Energy Star	Reduce energy use	1	0
Submetering	EU3	Residential: submetering by unit Commercial/mixed-use: submetering of space to maximum extent—at least one meter per floor, per 10,000 sf. or	Submeters encourage conservation by monitoring and allocating costs to end users	2	1
Cool surfaces	EU4	Achieve threshold percentages of reflectance and/or shade (see “Overview” for details), or green roof	Reflective and shaded exterior surfaces reduce contribution to urban heat island warming	2	0
Exterior lighting	EU5	Exterior lighting is full-cutoff or dark-sky compliant, and automatically turns off when natural light is sufficient	Reduces energy use and light pollution	1	1
Interior lighting	EU6	Interior lighting turns off automatically when not in use (for residential buildings: in common or amenity areas only)	Reduces energy use	1	0
Renewable energy production production OR combined heat and power	EU7	Building incorporates solar photovoltaic, solar thermal, micro-wind, or other renewable sources to meet at least 10% of the design energy load (3 points), 25% (5 points), or 40% plus (7 points); OR Project will use that captures waste heat for use power	Off-sets demand for electricity from carbon-producing energy sources (coal, oil, etc.) or reduces energy use	7	0
Passive heating	EU9	Development employs strategies to maximize solar gain in winter and prevent solar gain in summer	Reduces energy use	2	0
TOTALS				25	2

LANDSCAPING & OPEN SPACE

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS	POINTS ACHIEVED
Green roof	LA1	Vegetated roof that covers 50% or more of the roof area (also qualifies for EU4 - cool roof)	Reduces the “heat island” effect and reduces stormwater runoff	2	0
Tree preservation	LA2	Preservation of 80% or more of mature trees	Environmental benefits, reduces energy use, enhances property values	1	1
Tree canopy	LA3	At maturity, tree canopy will cover 50% or more of undeveloped surface (at least	Environmental benefits, reduces the “heat island” effect	1	0
Additional landscaping	LA4	Landscaping that exceeds required Zoning Regulations by 25% or more	Reduces the “heat island” effect, reduces stormwater runoff	1	0
Native plants	LA5	Landscaping that is 80% or more native and drought-resistant by area of plantings	Supports native habitats	2	1
Join Stamford Pollinator Pathway	LA6	Add the parcel to the Stamford Polinator Pathway	Supports native habitats	1	0
Organic land care	LA7	Signed pledge to manage property according to NOFA Standards for organic land care	Environmental and health benefits	1	0
New publicly accessible open space	LA8	Create publically available open space of 5,000 or more square feet; or exceed PAAS requirement by at least 25%	Increases public open space	2	0
TOTALS				11	2

LAND USE

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS	POINTS ACHIEVED
Brownfields	LU1	Redevelopment of brownfield site	Makes use of existing infrastructure, reduces development pressure on undeveloped lands and removes or safely encapsulates contamination	3	0
Redevelopment	LU2	Redevelopment of previously developed sites	Makes use of existing infrastructure and reduces development pressure on undeveloped	1	1
Adaptive reuse	LU3	Adaptive reuse of existing building	Saves resources	2	0
Historic preservation	LU4	Historic preservation	Saves resources	2	0
Mixed-use	LU5	60% or more of ground floor area on retail streets contain active uses at the street level (2 Points) Primary entrances with 1/4 mile of at least three neighborhood services (2 Points)	Mixes housing, work and services to reduce transportation needs and promotes constant activity at street level Services within walking distance reduce transportation needs	4	0
Transit-supportive density	LU6	Residential: 50 or more dwelling units per acre Commercial/mixed use: FAR of 3.0 or greater Within 1/2 mile of Stamford Transportation Center: 60 or more dwelling units per acre or FAR of 0.8 or greater	Higher density neighborhoods will result in more riders; this enables more frequent transit service	5	0
TOTALS				17	1

MOBILITY

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS	POINTS ACHIEVED
Reduce single occupancy vehicle travel	M1	Submit Parking and Transportation Demand Management plan (PTDM) that reduces vehicle trips 20% from	Reduces carbon emissions and pollutants by reducing travel to and from a	2	0
Transit Score	M2	Transit Score 50-69 1 Point Transit Score 70-89 2 Points Transit Score 90+ 3 Points	Reduces carbon emissions	3	0
Incentivize transit use	M3	Participate in TransitChek or similar program	Reduces car dependency	2	0
Walk Score	M4	Walk Score 50-69 1 Point Walk Score 70-89 2 Points Walk Score 90+ 3 Points	Reduces car dependency	3	2
Bike Score	M5	Transit Score 50-69 1 Point Transit Score 70-89 2 Points Transit Score 90+ 3 Points	Reduces car dependency	3	1
Car share	M6	On-site car-sharing program (such as ZipCar) at rate of at least 2 cars per 100 dwelling units (residential) or 2 car per 100 parking spaces (commercial) (2 points). Exclusive use of low or zero emission vehicles for car share (2 points)	Provides flexibility to transit users and zero-car households, minimizing business fleets	4	0
Shared Parking	M7	At least 10% reduction in total parking needs due	Maximizes use of parking facilities	3	0
Parking availability	M8	Provided parking is no more than 105% of minimum required parking (1 point) OR approved parking reduction per Zoning (2		2	0
Unbundled parking fees	M9	Residential: parking spaces sold or rented separately from dwelling units Commercial: daily or monthly end-user parking	Encourages households to reduce vehicle ownership	2	0
Electric vehicles	M10	Exceed zoning requirement for EV parking and charging by at least 50%	Encourages use of zero-emission electric vehicles	2	0
Contributions to transportation infrastructure	M11	Development provides \$50,000 to City transportation infrastructure improvements 1 point \$100,000 - 2 points \$200,000 - 3 points		3	0
TOTALS				29	3

RESILIENCY

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS	POINTS ACHIEVED
Floodplain	R1	Development is outside of the 100-year floodplain (1 point) Development is outside of the 500-year floodplain (3 points)	Makes buildings more resilient to flooding	3	3
Flood resiliency	R2	Structure(s) is elevated 2 feet above base flood elevation, and mechanical systems are on top floor and/or 2 feet above base	Makes buildings more resilient to flooding	2	2
Building resiliency	R3	Structure(s) is equipped with back-up generators or renewable systems, such as solar panels, for core building functions (light, heat, ventilation/cooling)	Promotes safety and preserves building functions	3	0
Sea level rise	R4	Development is outside of the projected 2085 sea level rise areas	Reduces future flood risk	2	2
Emergency plan	R5	Emergency preparation and continuation of operations plan	Promotes safety and preserves building functions	1	0
TOTALS				11	7

RESOURCE MANAGEMENT

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS	POINTS ACHIEVED
Construction and demolition debris	RM1	50% of demolition waste by weight was recycled (2 points) 50% of construction waste	Preserves natural resources, saves energy, reduces greenhouse gas production, saves money,	3	0
Recycling	RM2	Compliant recycling system that includes collection of electronics and textiles	Preserves natural resources, saves energy, reduces greenhouse gas production, saves money,	1	0
Organic waste	RM3	Organic waste is collected separately, and composted either on- or off-site On-site food waste dehydrator or on-site aerobic digester	Reduces the waste stream and creates compost	1	0
Reusable materials	RM4	Dishwashing facility and collection station for used utensils sized to accommodate the building's population capacity	Reduces solid waste	1	0
Sustainable Building Materials	RM5			3	0
TOTALS				9	0

URBAN DESIGN

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS	POINTS ACHIEVED
Block size	UD1	Public street or public pedestrian walkway at no less than 400-foot intervals	Small blocks enable shorter walking distances between destinations and promote walking	1	0
Minimal visual impact of parking	UD2	Garage wrapped by other uses at the pedestrian level for at least 80% of garage frontage Surface spaces are blocked from view by structures along frontage of main entrance	Visible parking lots deaden street life and discourage walking	1	0
Building orientation	UD3	Principle functional entrance opens to sidewalk adjacent to public street	Main entrance at street promotes frequent pedestrian trips to nearby destinations and transit use	1	1
Building façade	UD4	Building entrances are no more than 100 feet apart, and mass of building is broken up vertically and/or	Creates increased activity at the street and visual interest	3	3
Building materials	UD5	No use of EIFS, vinyl, or aluminum in façade	High quality building materials improve the pedestrian environment	3	3
Building proximity	UD6	Front façade built to minimum allowed setback line	Creates increased activity at the street and visual integrity	1	1
TOTAL				10	8

WATER USE

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS	POINTS ACHIEVED
Indoor water management	W1	All fixtures are EPA WaterSense rated (1 point) Development uses greywater for irrigation and/or cooling towers (2 points)	Reduces use of treated potable water	3	1
Outdoor water management	W2	Landscape irrigation systems are EPA WaterSense rated	Reduces use of treated potable water	1	0
Stormwater management	W3	Exceed requirements of Stamford Drainage Manual for stormwater retention by at least 20%	Reduces amount of stormwater and associated pollutants draining into the municipal system	3	0
			TOTALS	7	1

375 Fairfield Avenue

Stamford (/CT/Stamford), Connecticut, 06901

Commute to **Downtown Stamford (/compare#edit-commutes)**

5 min 22 min 9 min 31 min

Favorite

Map

Nearby Stamford Apartments on Redfin (<https://www.redfin.com/city/18605/CT/Stamford/apartments-for-rent>)

Looking for a home for sale in Stamford? (<https://www.redfin.com/city/18605/CT/Stamford>)



Very Walkable

Most errands can be accomplished on foot.



Some Transit

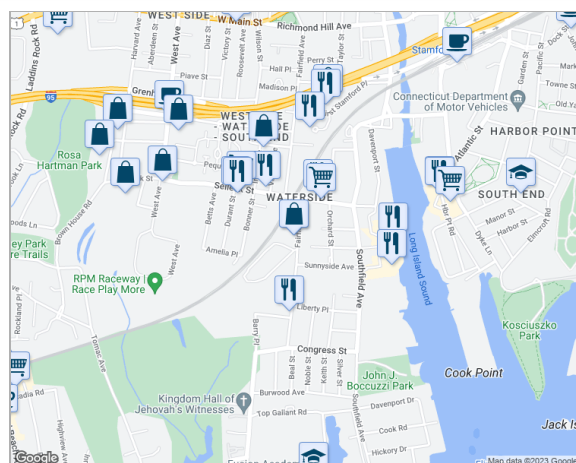
A few nearby public transportation options.



Bikeable

Some bike infrastructure.

About your score



About this Location

October 20, 2023

VIA HAND & ELECTRONIC DELIVERY

Ms. Lindsey Cohen
Associate Planner, Land Use Bureau
City of Stamford
888 Washington Boulevard
Stamford, CT 06901
LCohen@StamfordCT.gov

**Re: Request to be Heard by Planning Board
Site Plan and Special Permit Application
375 Fairfield Avenue, Stamford, CT (Parcel ID 001-3193)
375 Fairfield Avenue Associates**

Dear Ms. Cohen:

Our firm represents 375 Fairfield Avenue Associates (the “Applicant”), the owner of 375 Fairfield Avenue, Stamford, CT (the “Property”). The Property is located in the General Industrial (M-G) zone and Master Plan Category 13 (Industrial – General). It is 9.38± acres and improved with eight (8) buildings with a total of 176,714± sf of floor area.

The Applicant proposes to construct two (2) new warehouse/flex industrial/commercial buildings on the Property. Proposed Building A will consist of three (3) stories and contain approximately 54,156± square feet of warehouse/flex industrial/commercial space. Approximately 1,044± sf of additional floor area will be built to accommodate a fast casual food service tenant that is complementary to the anticipated use. Proposed Building B will consist of a one (1) story, including an optional mezzanine, and contain approximately 39,980± square feet of warehouse/flex industrial/commercial space. To facilitate this proposal, the Applicants request from the Zoning Board (1) site plan approval and (2) special permit approval of a large scale development.

Enclosed please find additional copies of the following application materials to provide to the Planning Board:

- Eight (8) copies of the following application forms and associated schedules:
 - Application for Site Plan Approval;
 - Application for Special Permit Approval;
 - Schedule A – List of Plans;
 - Schedule B – Project Narrative;
 - Schedule C – Statement of Findings;
 - Schedule D – Property Description;
 - Schedule E – Zoning Data Chart; and

- Schedule F – Existing Zoning Map and Aerial Photo of Property;
- Eight (8) reduced-size copies of the following plans:
 - Architectural Plans prepared by Jason Little Architects, PLLC, dated October 4, 2023, with the plan titles listed on Schedule A;
 - Civil Plans prepared by D’Andrea Surveying & Engineering, P.C., dated October 4, 2023, with the plan titles listed on Schedule A;
 - Zoning Location Survey prepared by D’Andrea Surveying & Engineering, P.C., dated October 4, 2023, entitled “Zoning Location Survey;”
 - Average Grade Worksheet prepared by D’Andrea Surveying & Engineering, P.C., dated October 4, 2023, with the plan titles listed on Schedule A; and
 - Landscape Plan prepared by Environmental Land Solutions, LLC, dated October 9, 2023, with the plan titles listed on Schedule A.

I have also submitted electronic copies of the following materials:

- Drainage Study prepared by D’Andrea Surveying & Engineering, P.C., dated October 4, 2023, entitled “Drainage Summary Report;”
- Traffic Impact Study prepared by SLR International Corporation, dated October 20, 2023, entitled “Traffic Impact Study;”¹ and
- The first submission of the Stamford Sustainability Scorecard.

We look forward to advice as to when the Planning Board will consider this proposal. At that time, I kindly ask that members of our development team and I be given an opportunity to briefly describe the proposal. Please contact me should you have any questions. As always, thank you for your time and attention regarding this matter.

Sincerely,



William J. Hennessey, Jr.

Enclosures.

cc: R. Blessing
375 Fairfield Avenue Associates
Jason Little Architects, PLLC
D’Andrea Surveying & Engineering, P.C.
Environmental Land Solutions, LLC
SLR International Corporation

¹A Parking and Traffic Demand Management Plan prepared by SLR International Corporation will be provided under separate cover.

SLR International Corporation

195 Church Street, 7th Floor, New Haven, Connecticut, 06510



October 20, 2023

Attention: Mr. Jeff Goldblum
SWC Office Furniture Outlet, Inc.
375 Fairfield Avenue Associates
Stamford, CT 06902

SLR Project No.: 141.21576.00001

RE: Traffic Impact Study 375 Fairfield Avenue

SLR International Corporation (SLR) has prepared this study to evaluate the traffic-related impacts of the proposed warehouse, flex-industrial, and commercial facility to be located at 375 Fairfield Avenue in Stamford, Connecticut. A location map of the study area is provided in **Figure 1**. Two new buildings are proposed as part of the proposed development.

This Traffic Impact Study includes a summary of existing and proposed roadway and traffic conditions, estimation of site-generated traffic volumes, and assessment of future traffic operations. For this study, the following intersections were evaluated during the weekday morning and afternoon peak periods:

1. Selleck Street at Fairfield Avenue
2. North Site Driveway at Fairfield Avenue
3. South Site Driveway at Fairfield Avenue
4. Congress Street at Fairfield Avenue

Existing Conditions

The study area information discussed in this section includes existing roadway characteristics, speed limit, roadway functional classification, Connecticut Crash Data Repository crash history, and traffic counts.

Roadway Network

Fairfield Avenue is a major collector with a speed limit of 25 miles per hour (mph). The area around the Fairfield Avenue has multiple intersecting side streets and a mixture of residential, commercial, and industrial land uses. There is a sidewalk on the west side of Fairfield Avenue. To the north, Fairfield Avenue intersects with Selleck Street, a minor arterial with a speed limit of 25 mph. This intersection is signalized. To the south Fairfield Avenue intersects with Congress Street, which also has a speed limit of 25 mph. This intersection is under all-way stop control. Current access to building 1 (375 Fairfield Avenue) is currently available via two driveways on the north and south sides of the building. There are several additional driveways to six fenced in parking areas north of building 1, where the proposed building A would be located. In addition to building 1, the southern driveway also provides access to several mixed industrial/warehouse

buildings. Proposed building B will be added to this mix of buildings. Directly adjacent to this driveway is a driveway to another multi-tenanted industrial area.

Crash Data Summary

Crash data was obtained from the Connecticut Crash Data Repository for the most recent 5-year period (2018 to 2022) for the study intersections, as summarized in **Table 1**. In this 5-year period, the majority of collisions resulted in property damage only at all study intersections.

Table 1: Crash Data Summary

Criteria	Study Intersection			
	Selleck Street at Fairfield Avenue	North Site Driveway at Fairfield Avenue	South Site Driveway at Fairfield Avenue	Congress Street at Fairfield Avenue
Type of Collision				
Angle	0	0	0	1
Head-on	0	0	0	0
Rear-End	5	0	1	0
Sideswipe, Same Direction	0	1	0	0
Sideswipe, Opposite Direction	0	0	0	0
Non-motorist	0	0	0	0
Single Vehicle	0	0	0	0
Other/Unknown	0	0	0	0
Total	5	1	1	1
Collision Severity				
Suspected Serious Injury	0	0	0	0
Suspected Minor Injury	1	0	0	0
Possible Injury	0	0	0	0
Property Damage Only	4	1	1	1
Unknown	0	0	0	0
Total	5	1	1	1

Source: Connecticut Crash Data Repository 2018 through 2022.

Turning Movement Counts

SLR International Corporation (SLR) conducted turning movement counts during the weekday afternoon peak period of 4 pm to 6 pm at the intersections of Selleck Street at Fairfield Avenue and Congress Street at Fairfield Avenue on Wednesday October 26, 2022. To supplement these counts turning movement counts were collected during the morning peak period of 7 am to 9 am at all study intersections and during the afternoon peak period of 4 pm to 6 pm at the site driveways. The observed peak hours were 7:30 am to 8:30 am in the weekday morning peak period and 5:00 pm to 6:00 pm in the weekday afternoon peak period. The



existing/baseline peak-hour traffic volumes are shown on **Figures 2 & 3**. Complete turning movement counts can be found in **Appendix A**.

Sight Lines

Intersection Sight Distance (ISD) was measured at the site driveways in accordance with criteria set forth in the CTDOT *Highway Design Manual*. The proposed project will eliminate five of the nine existing curb cuts and rebuild the remaining four curb cuts. All driveways are two-way and under stop-control and the Fairfield Avenue approaches are free.

ISD accounts for a driver’s ability to identify an appropriate gap in oncoming traffic. The length of the gap, which is dependent on speed of approaching traffic and number of lanes a motorist needs to cross to make a turn, should allow a vehicle to safely turn without necessitating a significant change in the speed of vehicles already traveling on the roadway. ISD is measured using a line of sight across the corners of the intersection.

ISD measurements were taken at the existing driveway locations and the location of the proposed driveway. For a road with a speed limit of 25 miles per hour the CTDOT *Highway Design Manual* recommends a sight line of at least 280 feet. Sight lines are clear well beyond the recommended 280 feet at all three site driveways. It should be noted that vegetation may partially obstruct sightlines looking north (left) from the southernmost driveway. This observation was made assuming the vehicle exiting the site driveway would be 15 feet from the edge of the travel lane. When the sight distance was measured assuming the vehicle was closer to the edge of the travel lane, in front of the shrubs, the sight line was clear well beyond the recommended 280 feet. It is therefore recommended that all vegetation is trimmed and maintained as necessary to assure adequate visibility.

Site Development

As stated previously, the proposed project includes two new buildings as part of the development. The site-generated peak-hour trips associated with this development were estimated using statistical data published by the latest edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. **Table 2** summarizes the site-generated traffic estimated for the proposed buildings at 375 Fairfield Avenue during the weekday morning and afternoon peak hours.

Table 2: Trip Generation Summary

Type	Use	ITE Land Use Code	Size	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Proposed Building A	Manufacturing	140	54,156 SF	32	11	43	18	25	43
	Fast Casual Restaurant	930	1,044 SF	4	2	6	12	7	19
Proposed Building B	Manufacturing	140	37,020 SF	22	8	30	12	18	30
TOTAL			92,220 SF	58	21	79	42	50	92

Source: *Trip Generation*, 11th Edition, Institute of Transportation Engineers



As shown in Table 2, a total of 79 vehicle trips are estimated to be generated by the proposed development during the weekday AM peak hour (58 vehicles entering and 21 vehicles exiting), and a total of 92 vehicle trips are estimated to be generated by the proposed development during the weekday PM peak hour (42 vehicles entering and 50 vehicles exiting).

Site Development Trip Distribution

The distribution of the site-generated traffic was estimated based on review of the roadway traffic patterns in the vicinity of the site, as well as the number of trips anticipated per building. **Figure 4** illustrates the distribution for the proposed site-generated traffic of building A through the study area, and **Figure 5** illustrates the distribution for the proposed site-generated traffic of building B through the study area. Based on the proposed development trip generation and trip distribution, the proposed development site-generated trips were assigned to the study area intersections. **Figure 6** and **Figure 7** display the resulting proposed development trip assignment.

Background Conditions

The background traffic scenario is reflective of Future Conditions if the proposed development was not built. Background Conditions include traffic associated with other nearby, expected, upcoming developments, as well as traffic volumes adjusted using a calculated annual growth rate. Currently, there is an ice-skating rink approved for construction within the study area. Trips generated by the ice-skating rink were estimated using the statistical data published by the latest edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. **Table 3** summarizes the site-generated traffic estimated for the background development during the weekday afternoon peak hour. There is no statistical data published by ITE for ice skating rinks during the weekday morning peak hour. To be conservative, the estimated background trip generation for the weekday afternoon peak hour was utilized during the morning peak hour as well.

Table 3: Background Trip Generation Summary

Type	Use	ITE Land Use Code	Size (Number of Rinks)	PM Peak Hour		
				In	Out	Total
Background	Ice Skating Rink	465	1	28	17	45

Source: *Trip Generation*, 11th Edition, Institute of Transportation Engineers

Background development trips are added to future traffic volumes to represent the no-build future condition. To calculate future (2024) traffic volumes, an annual growth rate of 0.75% was applied to the collected traffic volumes at the advice of the Connecticut Department of Transportation (CTDOT). The Background (2024) Conditions peak-hour traffic volumes are shown in **Figure 8** and **Figure 9**.

Intersection Capacity Analysis – Background Conditions

Intersection capacity analysis was performed at the study intersections under Background Conditions to evaluate the intersection's ability to process traffic volumes. Intersection capacity results are expressed as a level of service (LOS) letter. LOS is used to provide a qualitative evaluation of the efficiency of operations of an intersection in terms of delay and inconvenience



based on certain quantitative calculations. LOS A describes operations with very low average control delay per vehicle while LOS F describes operations with long average delays. The study intersections were evaluated using Synchro 11 (Trafficware) traffic analysis software package.

Table 4 summarizes the capacity analysis findings under Future (2024) Conditions for weekday morning and weekday afternoon peak hours. The Synchro analysis worksheets are included in **Appendix B**.

Combined Conditions

The combined traffic scenario is reflective of future (2024) conditions once the proposed development is opened. Future (2024) conditions peak-hour traffic volumes were estimated by adding the calculated development trip assignment (shown on Figures 6 and 7) to the Background Conditions traffic volumes (shown on Figures 8 and 9). The resultant Combined Conditions peak-hour traffic volumes are shown on **Figure 10** and **Figure 11**.

Intersection Capacity Analysis – Combined Conditions

Intersection capacity analysis was performed at the study intersections under the Combined Conditions to evaluate the intersection's ability to process traffic volumes after the proposed development is built. These evaluations were used to determine possible traffic impacts from the proposed expansion based on a comparison of background and future traffic operations. **Table 4** summarizes the capacity analysis output under future conditions for weekday morning and weekday afternoon peak hours. The Synchro analysis worksheets are included in **Appendix B**.

Table 4: Capacity Analysis Summary Future (2024) Conditions

Intersection/Lane Group	Level of Service			
	Morning Peak Hour		Afternoon Peak Hour	
	Background	Combined	Background	Combined
Selleck Street at Fairfield Avenue				
Eastbound Thorough/Right	A	A	A	A
Westbound Left/Through	C	C	B	B
Northbound Left/Right	C	C	B	B
Overall	C	C	B	A
Building A Site Driveway at Fairfield Avenue				
Eastbound Left/Right	-	B	-	B
Northbound Left	-	A	-	A
Building 1 Site Driveway at Fairfield Avenue				
Eastbound Left/Right	A	B	B	B
Northbound Left	A	A	A	A
Building B Site Driveway at Fairfield Avenue				
Eastbound Left/Right	B	B	B	B
Northbound Left	A	A	A	A



Intersection/Lane Group	Level of Service			
	Morning Peak Hour		Afternoon Peak Hour	
	Background	Combined	Background	Combined
The Loading Dock Driveway at Fairfield Avenue				
Eastbound Left/Right	B	B	B	B
Northbound Left	A	A	A	A
Congress Street at Fairfield Avenue				
Eastbound Left/Through	A	A	A	A
Westbound Though/Right	A	A	A	A
Southbound Left/Right	A	A	A	A

Notes: LOS calculations were performed using *Synchro 11*

As shown in Table 4, it is expected that all of the approaches at all of the study intersections will continue to operate at a LOS of C or better and none of the existing LOSs will be diminished.

Access and Circulation

As part of the proposed site expansion, five existing curb cuts will be eliminated, and four curb cuts will be rebuilt. Two of the driveways to be rebuilt will provide access to the building A parking area. Both site driveways provide entry and exit access for passenger cars, single-unit trucks, and fire trucks. Tractor-trailers and semi-trailers will travel to and from the site via Selleck Street to the north. These trucks will enter the building A parking area via the north driveway, back into the building A loading area, and exit through the south driveway.

One of the driveways to be rebuilt will provide access to the building B parking lot. All vehicles can enter and exit the parking area through this driveway. Tractor-trailers and semi-trailers will utilize the drive aisle between building B and building 1 and pull behind building 1 to back into the building B loading area. Passenger cars, single-unit trucks, and fire trucks can circulate throughout the building B parking area. Directly adjacent to the existing driveway at this location is a driveway to another multi-tenanted industrial area. The proposed geometry separates these driveways to improve site access and internal circulation for both facilities.

Conclusions and Recommendations

This traffic impact study was conducted to evaluate the impact of the proposed project on the adjacent roadway network and study intersections. The results of this assessment indicate that the trips generated by the proposed development will have minimal impact on the surrounding roadway network traffic flows. It is recommended that clearing of vegetation be done as necessary to maintain a clear sightline adjacent to the site driveways, particularly looking left from the southernmost site driveway.

The proposed project will eliminate five of the nine existing curb cuts and rebuild the remaining four curb cuts into safer, truck-accessible driveways with site lines exceeding the minimum standards. The proposed site plan also organizes the internal vehicle circulation and parking within the site. Overall, the proposed site plan improvements to site access and internal circulation will be safer and more practical.



We hope this report is useful to you and the City of Stamford. If you have any questions or need anything further, please do not hesitate to contact the undersigned.

Regards,

SLR International Corporation

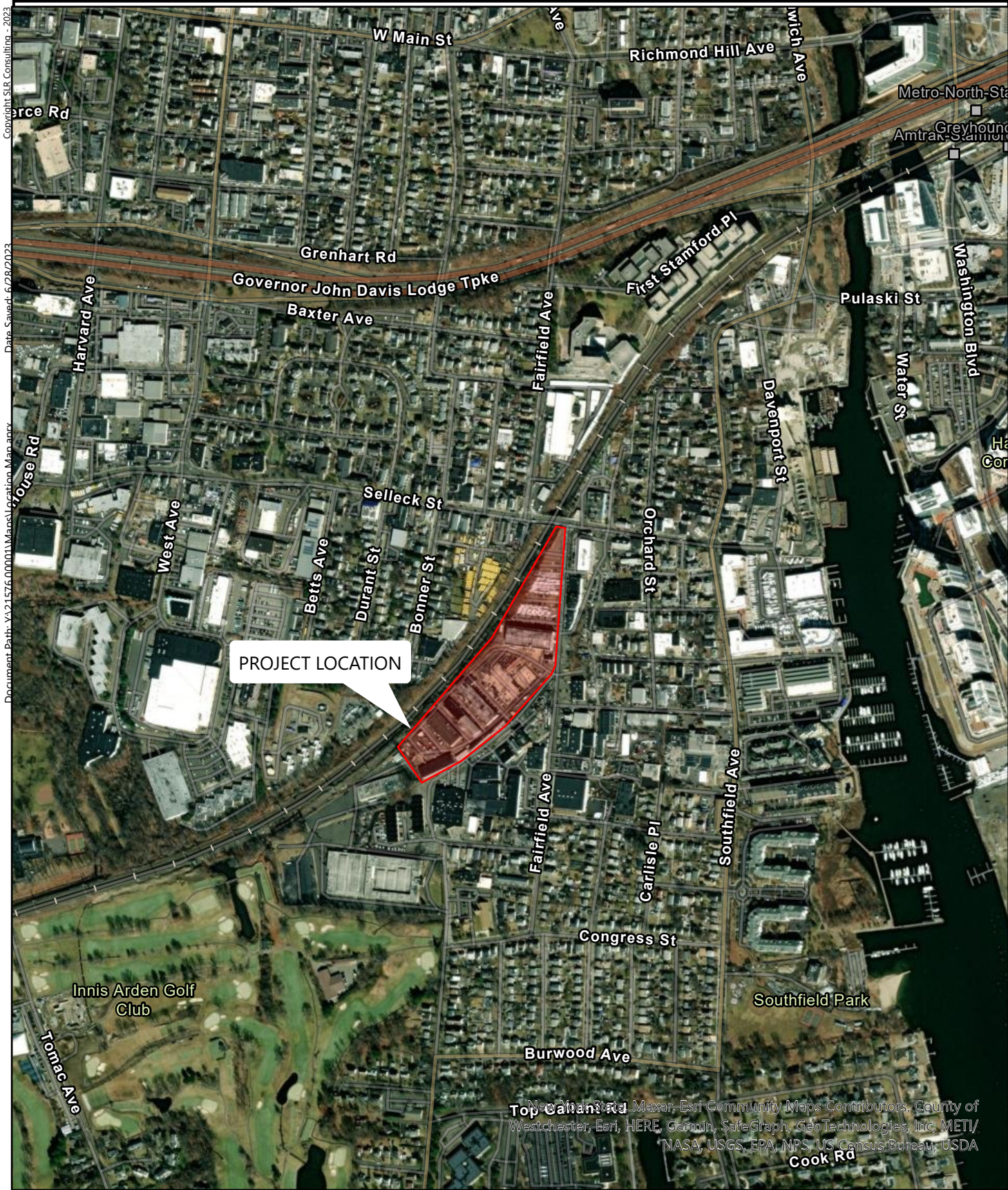


David G. Sullivan, PE
U.S. Manager of Traffic & Transportation Planning
dsullivan@slrconsulting.com



Kimberly Guthrie
Project Transportation Engineer
kguthrie@slrconsulting.com


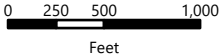




Copyright SLR Consulting - 2023
 Date Saved: 6/28/2023
 Document Path: Y:\21576.0001\Maps\Location Map.aprx


 195 CHURCH STREET
 7TH FLOOR
 NEW HAVEN, CT 06511
 203.344.7887

LOCATION MAP
 PROPOSED WAREHOUSE AND DISTRIBUTION FACILITY
 375 FAIRFIELD AVENUE ASSOCIATES
 375 FAIRFIELD AVENUE
 STAMFORD, CONNECTICUT

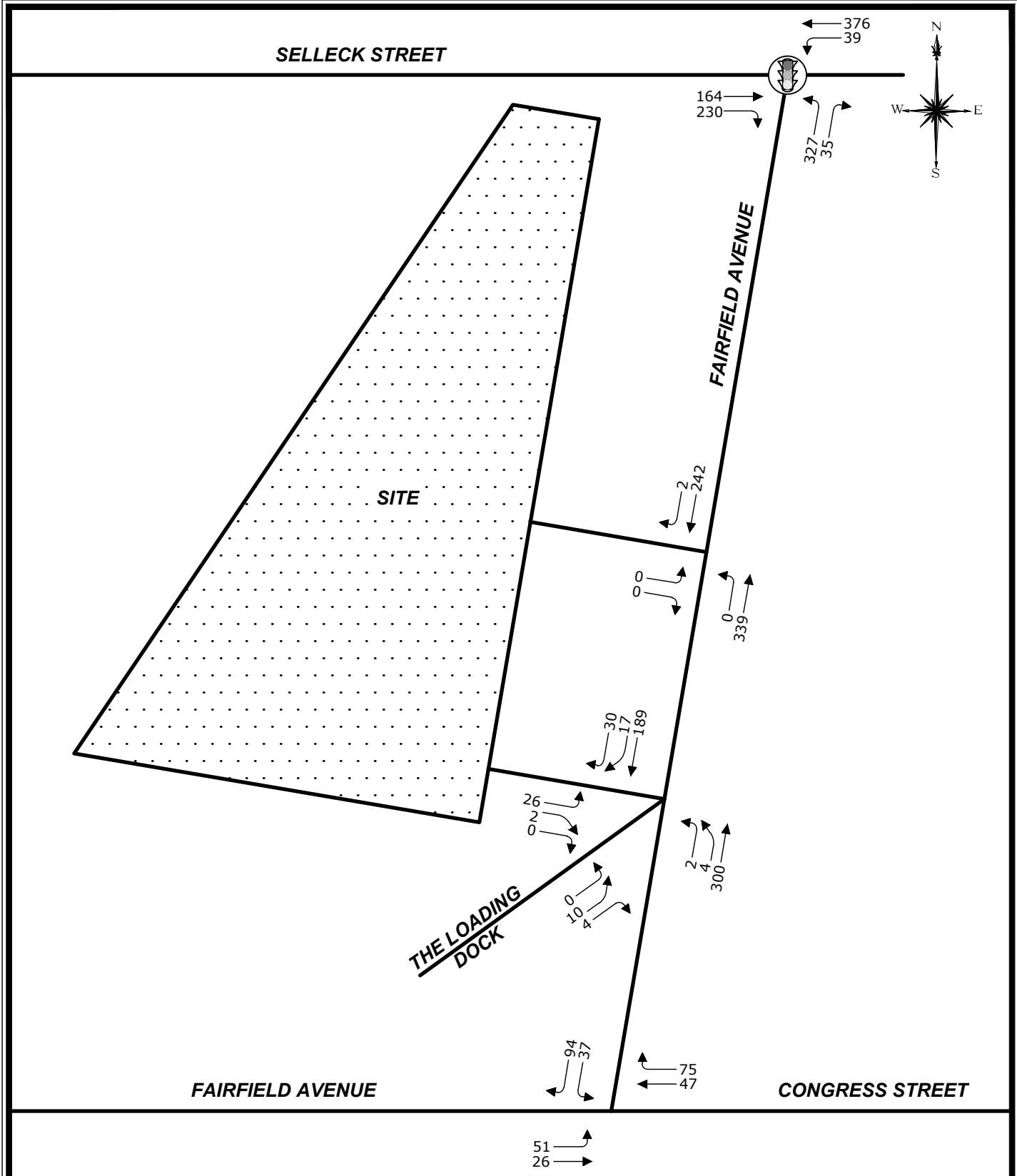



SCALE 1" = 1,000'
 DATE 6/28/2023
 141.21576.00001
 PROJ. NO.
FIG. 1

New York State, Maxar, Esri Community Maps Contributors, County of Westchester, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/ NASA, USGS, EPA, NPS, US Census Bureau, USDA

Drawing: W:\CADDESIGN\21576.00001-DE\CAD\TRAFFIC FLOW DIAGRAMS.DWG Layout TabA.MX

Plotted by: KJUTHRIE On this date: Thu, 2023 September 28 - 1:00pm

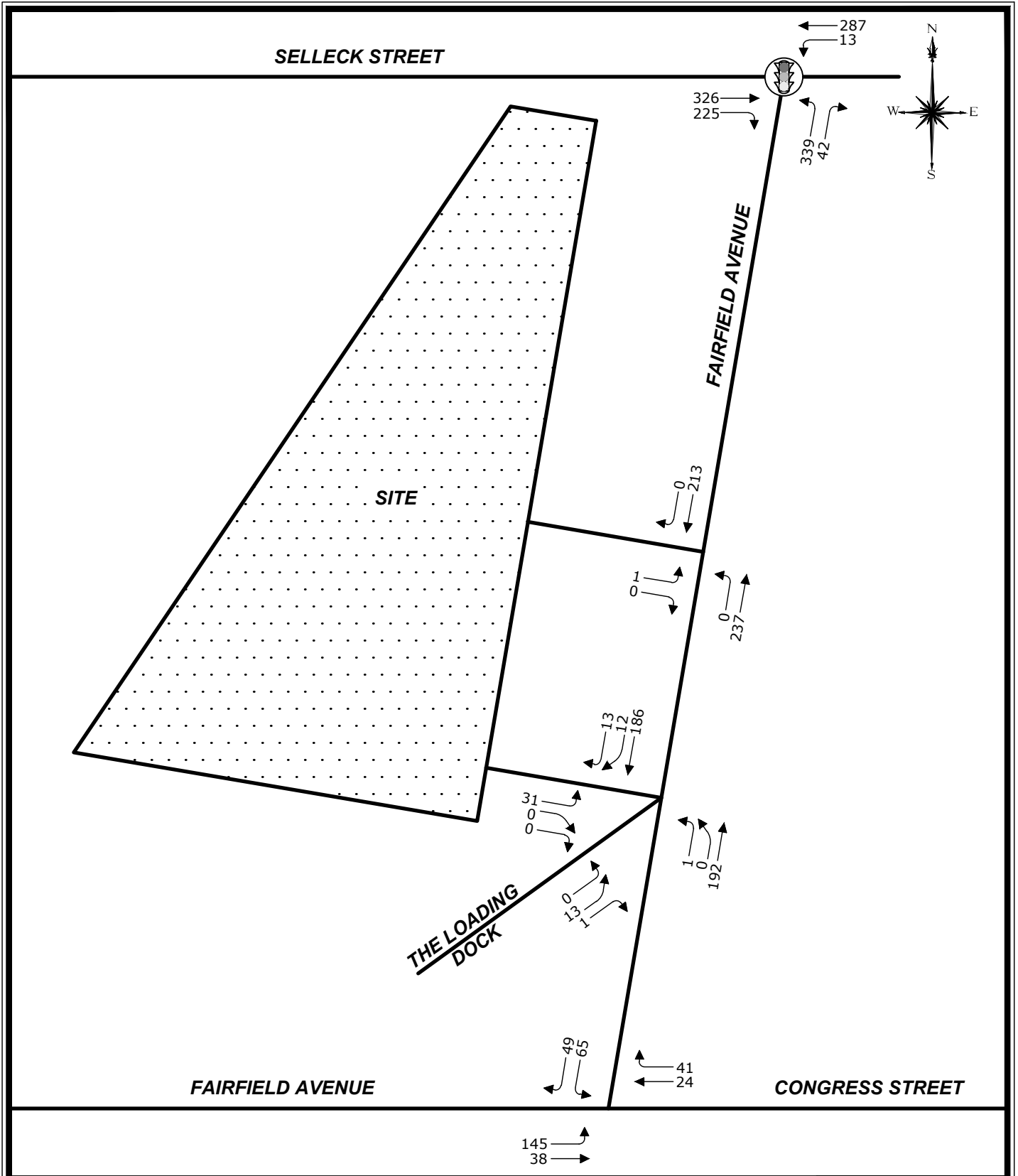


195 CHURCH STREET, 7TH FLOOR
 NEW HAVEN, CT 06510
 203.344.7887
 WWW.MMINC.COM

375 FAIRFIELD AVENUE
WEEKDAY MORNING PEAK HOUR
2023 EXISTING TRAFFIC CONDITIONS
 STAMFORD, CONNECTICUT

DATE	JULY 2023	
SCALE	N.T.S.	
PROJ. NO.	21576.00001	
DESIGNED	DRAWN	CHECKED
	KPG	DGS

DRAWING NAME:
FIG. 2



195 CHURCH STREET, 7TH FLOOR
 NEW HAVEN, CT 06510
 203.344.7887
 WWW.MMINC.COM

375 FAIRFIELD AVENUE

**WEEKDAY AFTERNOON PEAK HOUR
 2023 EXISTING TRAFFIC CONDITIONS**

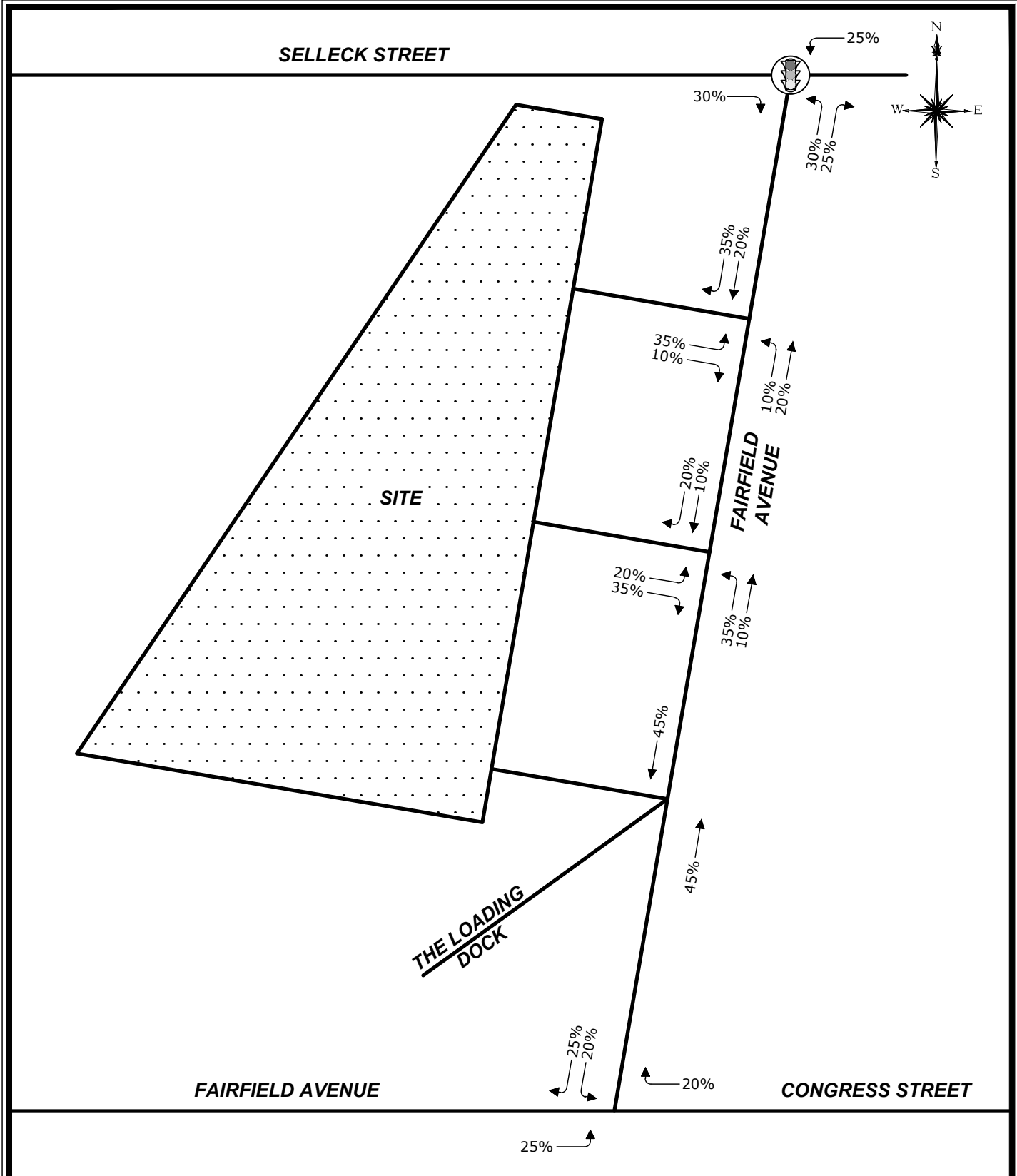
STAMFORD, CONNECTICUT

DATE	JULY 2023	
SCALE	N.T.S.	
PROJ. NO.	21576.00001	
DESIGNED	DRAWN	CHECKED
	KPG	DGS

DRAWING NAME:
FIG. 3

Drawing: W:\CADDESIGN\21576.00001-DE\CAD\TRAFFIC FLOW DIAGRAMS.DWG Layout Tab:DIS1.A

Plotted by: KJUTHRIE On this date: Thu, 2023 September 28 - 1:00pm



195 CHURCH STREET, 7TH FLOOR
 NEW HAVEN, CT 06510
 203.344.7887
 WWW.MMINC.COM

375 FAIRFIELD AVENUE

**SITE GENERATED TRAFFIC - BUILDING A
 ARRIVAL & DEPARTURE DISTRIBUTION**

STAMFORD, CONNECTICUT

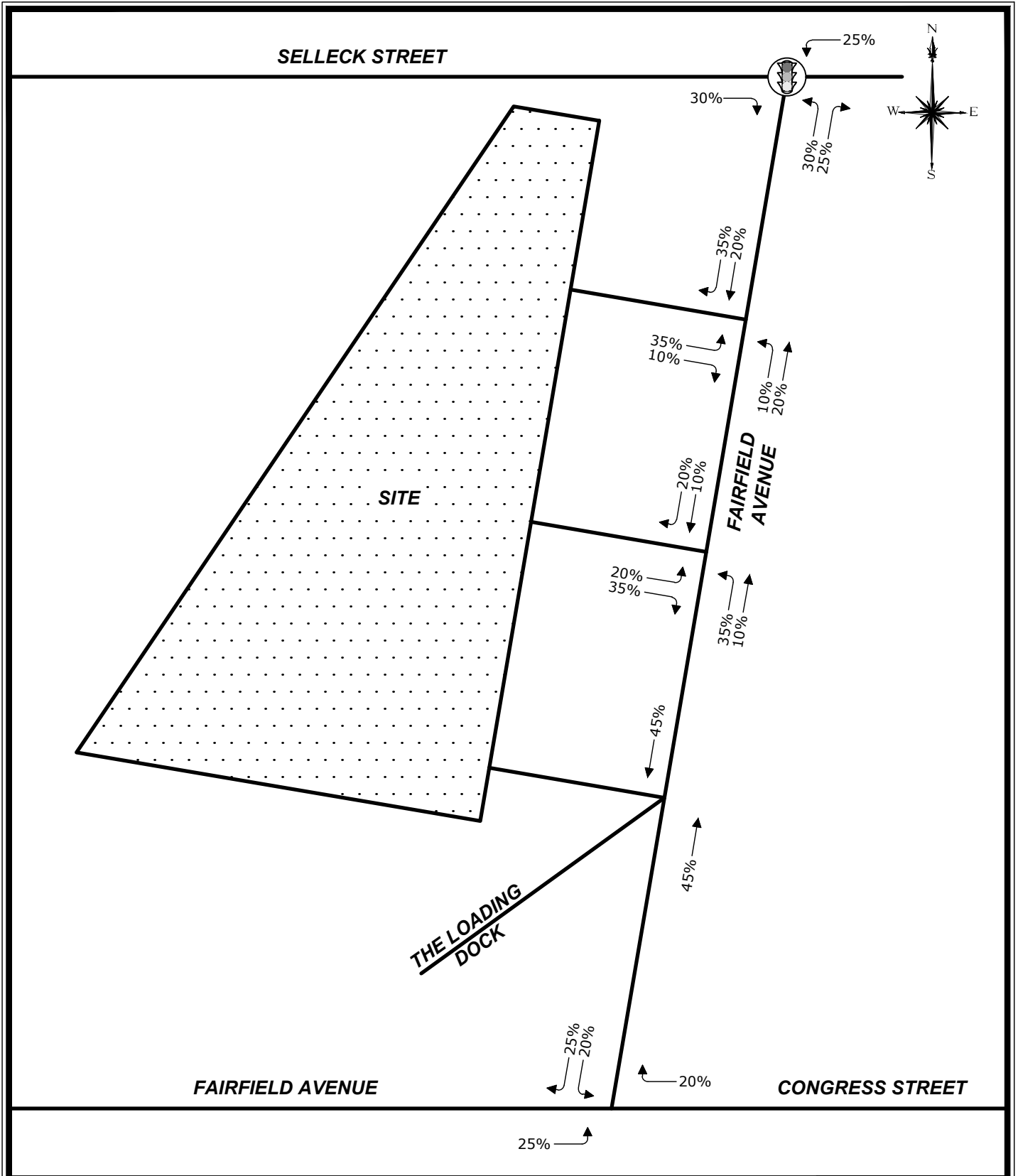
DATE	JULY 2023	
SCALE	N.T.S.	
PROJ. NO.	21576.00001	
DESIGNED	DRAWN	CHECKED
	KPG	DGS

DRAWING NAME:

FIG. 4

Drawing: W:\CADDESIGN\21576.00001-DE\CAD\TRAFFIC FLOW DIAGRAMS.DWG Layout Tab01.DIST. B

Plotted by: KGHJHRE On this date: Thu, 2023 September 28 - 1:00pm



195 CHURCH STREET, 7TH FLOOR
 NEW HAVEN, CT 06510
 203.344.7887
 WWW.MMINC.COM

375 FAIRFIELD AVENUE

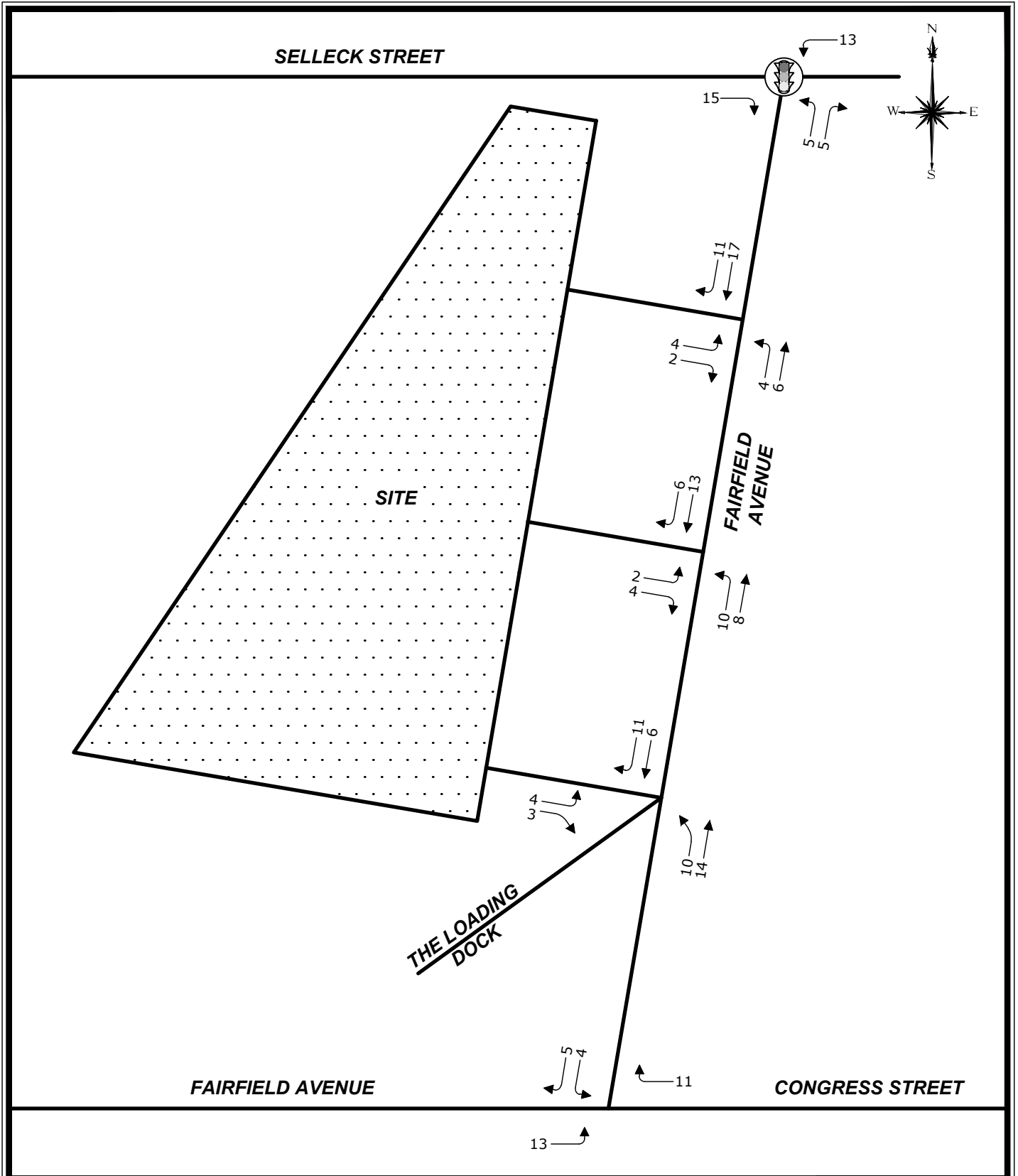
**SITE GENERATED TRAFFIC - BUILDING B
 ARRIVAL & DEPARTURE DISTRIBUTION**

STAMFORD, CONNECTICUT

DATE	JULY 2023		
SCALE	N.T.S.		
PROJ. NO.	21576.00001		
DESIGNED	DRAWN	CHECKED	
	KPG	DGS	

DRAWING NAME:

FIG. 5



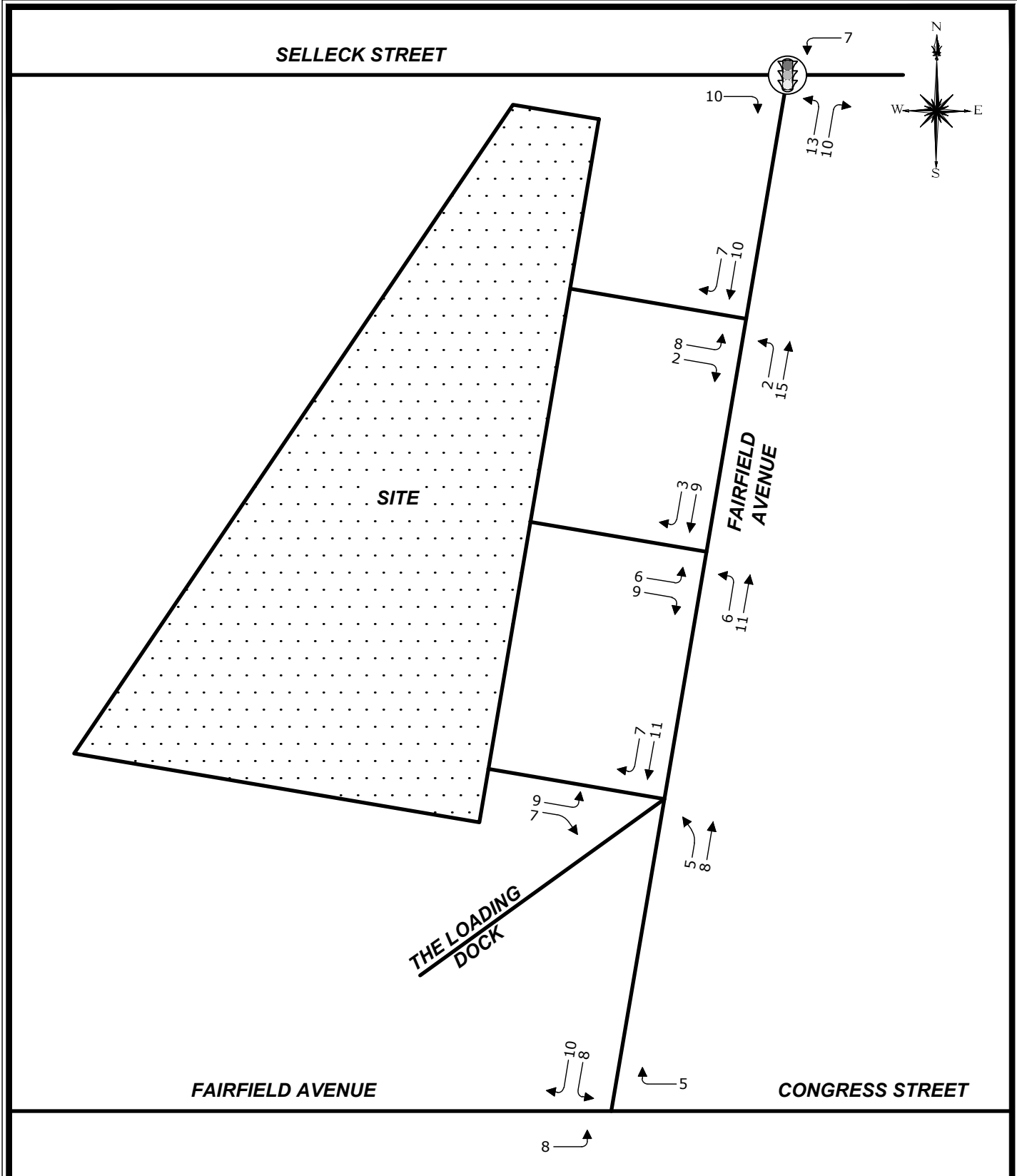
195 CHURCH STREET, 7TH FLOOR
 NEW HAVEN, CT 06510
 203.344.7887
 WWW.MMINC.COM

375 FAIRFIELD AVENUE

**WEEKDAY MORNING PEAK HOUR
 SITE GENERATED TRAFFIC VOLUMES**

STAMFORD, CONNECTICUT

DATE	JULY 2023		
SCALE	N.T.S.		
PROJ. NO.	21576.00001		
DESIGNED	DRAWN	CHECKED	
	KPG	DGS	
DRAWING NAME:			
FIG. 6			



195 CHURCH STREET, 7TH FLOOR
 NEW HAVEN, CT 06510
 203.344.7887
 WWW.MMINC.COM

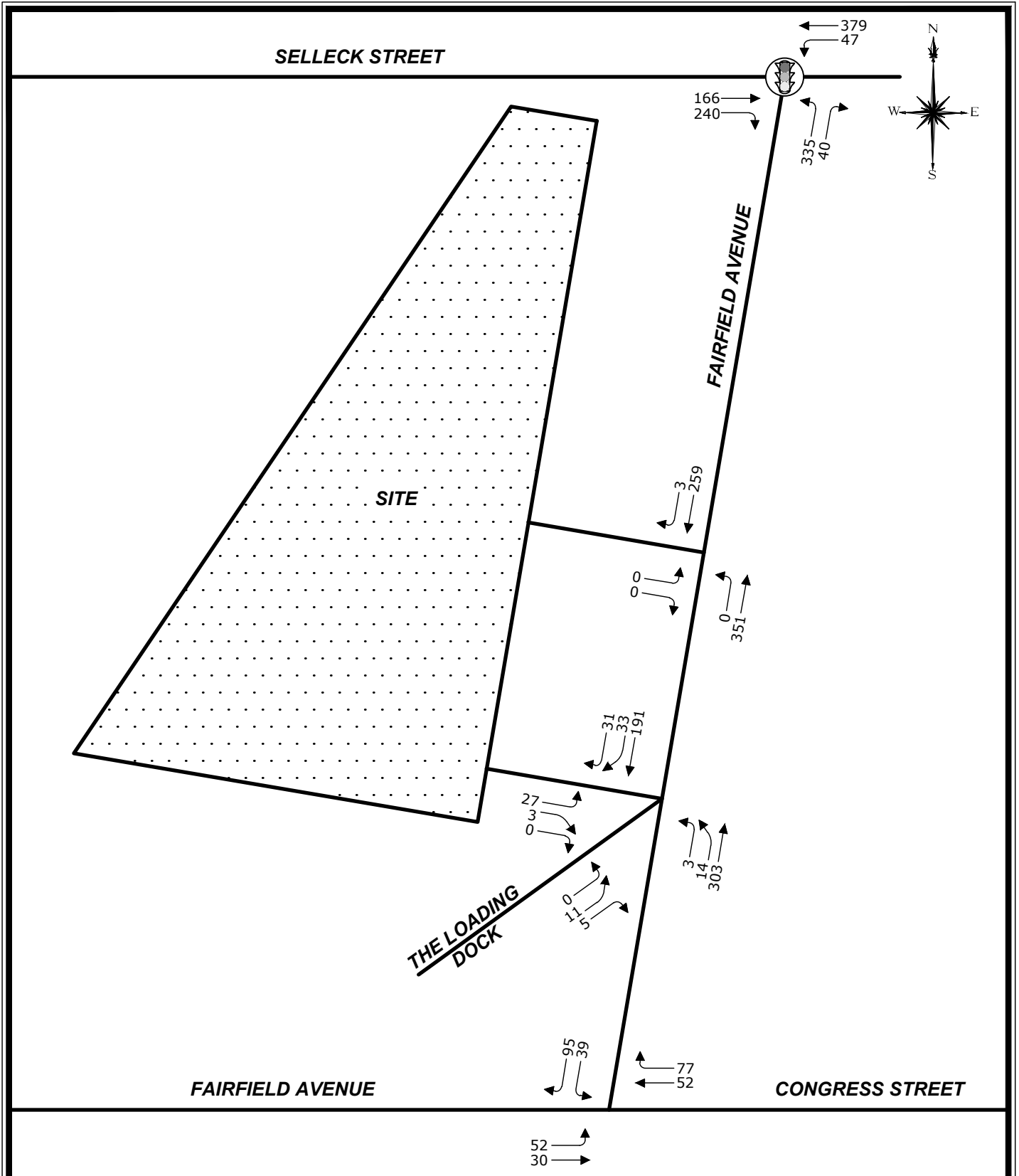
375 FAIRFIELD AVENUE

**WEEKDAY AFTERNOON PEAK HOUR
 SITE GENERATED TRAFFIC VOLUMES**

STAMFORD, CONNECTICUT

DATE	JULY 2023		
SCALE	N.T.S.		
PROJ. NO.	21576.00001		
DESIGNED	DRAWN	CHECKED	
	KPG	DGS	

DRAWING NAME:
FIG. 7



195 CHURCH STREET, 7TH FLOOR
 NEW HAVEN, CT 06510
 203.344.7887
 WWW.MMINC.COM

375 FAIRFIELD AVENUE

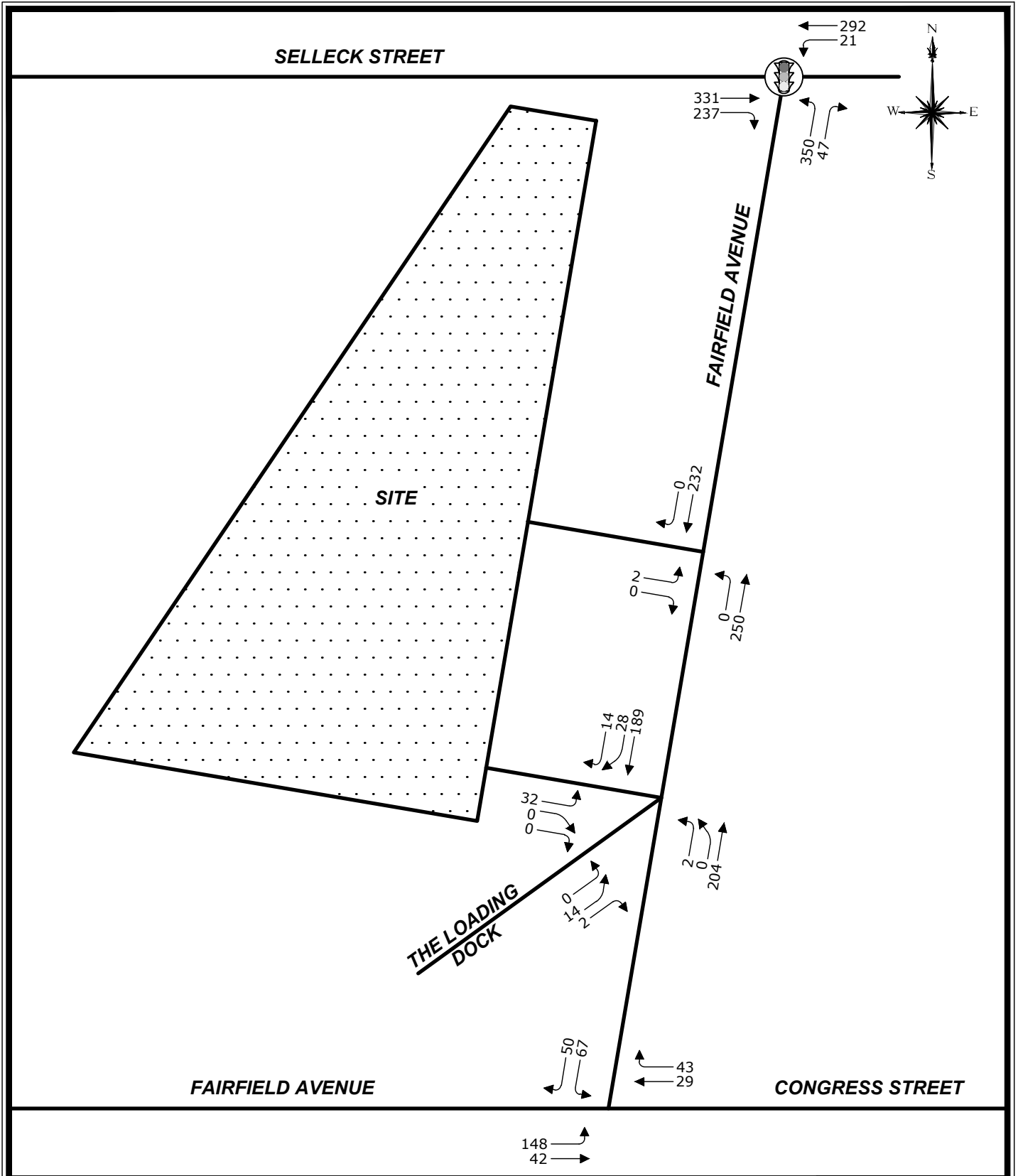
**WEEKDAY MORNING PEAK HOUR
 2024 BACKGROUND TRAFFIC CONDITIONS**

STAMFORD, CONNECTICUT

DATE	JULY 2023	
SCALE	N.T.S.	
PROJ. NO.	21576.00001	
DESIGNED	DRAWN	CHECKED
	KPG	DGS

DRAWING NAME:

FIG. 8



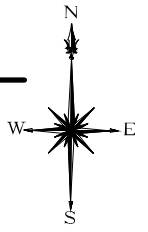
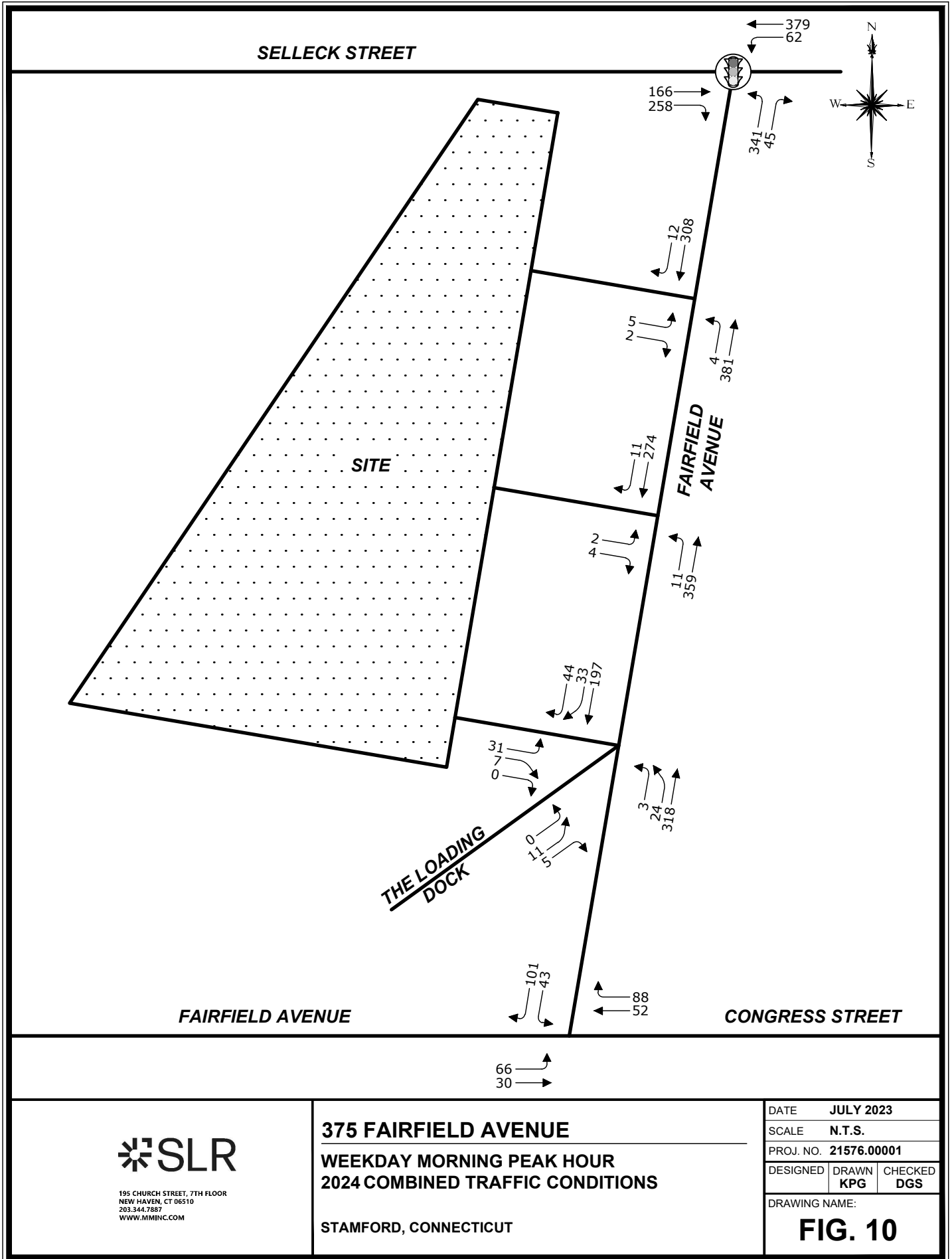
195 CHURCH STREET, 7TH FLOOR
 NEW HAVEN, CT 06510
 203.344.7887
 WWW.MMINC.COM

375 FAIRFIELD AVENUE

**WEEKDAY AFTERNOON PEAK HOUR
 2024 BACKGROUND TRAFFIC CONDITIONS**

STAMFORD, CONNECTICUT

DATE	JULY 2023	
SCALE	N.T.S.	
PROJ. NO.	21576.00001	
DESIGNED	DRAWN	CHECKED
	KPG	DGS
DRAWING NAME:		
FIG. 9		



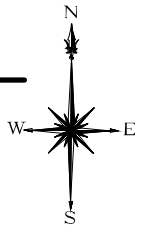
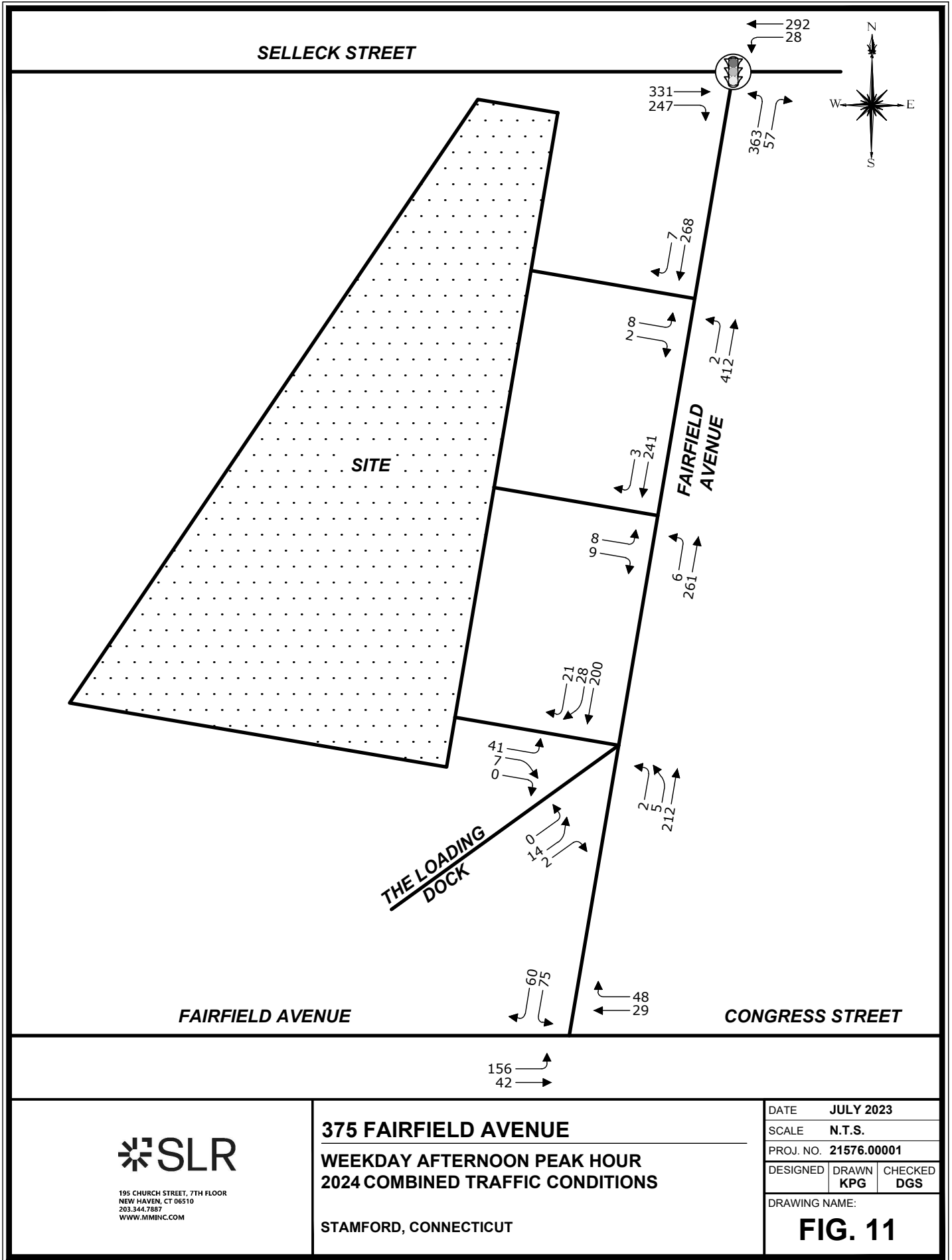
195 CHURCH STREET, 7TH FLOOR
 NEW HAVEN, CT 06510
 203.344.7887
 WWW.MMINC.COM

375 FAIRFIELD AVENUE
WEEKDAY MORNING PEAK HOUR
2024 COMBINED TRAFFIC CONDITIONS
STAMFORD, CONNECTICUT

DATE	JULY 2023		
SCALE	N.T.S.		
PROJ. NO.	21576.00001		
DESIGNED	DRAWN	CHECKED	
	KPG	DGS	
DRAWING NAME:			
FIG. 10			

Drawing: C:\AUTOSWES\AC\PUBLISH\14276\TRAFFIC FLOW DIAGRAMS.DWG Layout 1a.rvt PM CC

Plotted by: KJUTHRIE On this date: Thu, 2023 October 19 - 12:20pm



195 CHURCH STREET, 7TH FLOOR
 NEW HAVEN, CT 06510
 203.344.7887
 WWW.MMINC.COM

375 FAIRFIELD AVENUE

**WEEKDAY AFTERNOON PEAK HOUR
 2024 COMBINED TRAFFIC CONDITIONS**

STAMFORD, CONNECTICUT

DATE	JULY 2023		
SCALE	N.T.S.		
PROJ. NO.	21576.00001		
DESIGNED	DRAWN	CHECKED	
	KPG	DGS	

DRAWING NAME:

FIG. 11



Appendix A Data Collection

Traffic Impact Study

375 Fairfield Avenue
Stamford, CT

Mr. Jeff Goldblum
SWC Office Furniture Outlet, Inc.

SLR Project No.: 141.21576.00001

File Name: E:\1465-1TH.ppd

Start Date: 6/15/2023

Start Time: 7:00:00 AM

Site Code: 00000001

Comment 1: TRAFFIC COUNTS

Comment 2: PEAK HOUR

Comment 3: 7:30 TO 8:30 A.M.

Comment 4: TOTAL

Start Time	SOUTHBOUND					SELLECK ST. WESTBOUND				FAIRFIELD AVE. NORTHBOUND					SELLECK ST. EASTBOUND					
	Right	Thru	Left	Peds		Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
7:00:00 AM	0	0	1	4		0	63	7	0	2	0	55	2	50	40	0	3			
7:15:00 AM	0	0	0	3		0	68	9	0	7	0	77	6	65	49	0	0			
7:30:00 AM	0	0	0	11		0	89	10	0	2	0	80	5	61	44	0	0			
7:45:00 AM	0	0	0	3		0	84	7	0	8	0	93	1	62	40	0	1			
8:00:00 AM	0	0	0	3		0	117	11	0	8	0	77	1	52	54	0	2			
8:15:00 AM	0	0	0	2		0	86	11	0	17	0	77	2	55	26	0	0			
8:30:00 AM	0	0	0	5		0	63	11	0	11	0	64	0	57	53	0	0			
8:45:00 AM	0	0	0	2		0	69	16	0	8	0	66	1	64	42	0	0			

File Name: E:\1465-1TH.ppd

Start Date: 6/15/2023

Start Time: 7:00:00 AM

Site Code: 00000001

Comment 1: TRAFFIC COUNTS

Comment 2: PEAK HOUR

Comment 3: 7:30 TO 8:30 A.M.

Comment 4: CARS

Start Time	SOUTHBOUND					SELLECK ST. WESTBOUND				FAIRFIELD AVE. NORTHBOUND					SELLECK ST. EASTBOUND					
	Right	Thru	Left	Peds		Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
7:00:00 AM	0	0	1	4		0	61	7	0	2	0	54	2	50	37	0	3			
7:15:00 AM	0	0	0	3		0	67	9	0	5	0	72	6	61	46	0	0			
7:30:00 AM	0	0	0	11		0	87	10	0	1	0	76	5	59	42	0	0			
7:45:00 AM	0	0	0	3		0	80	6	0	8	0	92	1	59	40	0	1			
8:00:00 AM	0	0	0	3		0	115	10	0	8	0	76	1	51	52	0	2			
8:15:00 AM	0	0	0	2		0	85	11	0	16	0	75	2	53	26	0	0			
8:30:00 AM	0	0	0	5		0	61	10	0	11	0	63	0	56	51	0	0			
8:45:00 AM	0	0	0	2		0	67	16	0	7	0	64	1	63	41	0	0			

File Name: E:\1465-1TH.ppd

Start Date: 6/15/2023

Start Time: 7:00:00 AM

Site Code: 00000001

Comment 1: TRAFFIC COUNTS

Comment 2: PEAK HOUR

Comment 3: 7:30 TO 8:30 A.M.

Comment 4: TRUCKS

Start Time	SOUTHBOUND					SELLECK ST. WESTBOUND				FAIRFIELD AVE. NORTHBOUND					SELLECK ST. EASTBOUND					
	Right	Thru	Left	Peds		Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
7:00:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	1	0	0	0
7:15:00 AM	0	0	0	0	0	0	0	0	0	2	0	5	0	2	2	0	0	0	0	0
7:30:00 AM	0	0	0	0	0	0	2	0	0	1	0	3	0	0	1	0	0	0	0	0
7:45:00 AM	0	0	0	0	0	0	2	1	0	0	0	1	0	3	0	0	0	0	0	0
8:00:00 AM	0	0	0	0	0	0	2	1	0	0	0	1	0	0	2	0	0	0	0	0
8:15:00 AM	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	0	0	0	0	0
8:30:00 AM	0	0	0	0	0	0	1	1	0	0	0	1	0	0	2	0	0	0	0	0
8:45:00 AM	0	0	0	0	0	0	2	0	0	1	0	2	0	1	1	0	0	0	0	0

File Name: E:\1465-1TH.ppd
 Start Date: 6/15/2023
 Start Time: 7:00:00 AM
 Site Code: 00000001
 Comment 1: TRAFFIC COUNTS
 Comment 2: PEAK HOUR
 Comment 3: 7:30 TO 8:30 A.M.
 Comment 4: BUSES

Start Time	SOUTHBOUND					SELLECK ST. WESTBOUND					FAIRFIELD AVE. NORTHBOUND					SELLECK ST. EASTBOUND				
	Right	Thru	Left	Peds		Right	Thru	Left	Peds		Right	Thru	Left	Peds		Right	Thru	Left	Peds	
7:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
7:15:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	1	0	0	0
7:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	0	0	0
7:45:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
8:15:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
8:30:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
8:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

File Name: e:\1465-2th.ppd
 Start Date: 6/15/2023
 Start Time: 7:00:00 AM
 Site Code: 00000002
 Comment 1: TRAFFIC COUNTS
 Comment 2: PEAK HOUR
 Comment 3: 4:30 TO 5:30 P.M.
 Comment 4: TOTAL

Start Time	FAIRFIELD AVE. SOUTHBOUND				WESTBOUND				FAIRFIELD AVE. NORTHBOUND				NORTH SITE DRIVEWAY EASTBOUND				
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
7:00:00 AM	0	63	0	0	0	0	0	0	0	0	62	0	0	0	0	0	0
7:15:00 AM	0	68	0	0	0	0	0	0	0	0	92	0	0	0	0	0	0
7:30:00 AM	0	61	0	0	0	0	0	0	0	0	90	0	0	0	0	0	0
7:45:00 AM	0	61	0	0	0	0	0	0	0	0	84	0	0	0	0	0	0
8:00:00 AM	1	64	0	0	0	0	0	0	0	0	79	0	0	0	0	0	0
8:15:00 AM	1	56	0	0	0	0	0	0	0	0	86	0	0	0	0	0	0
8:30:00 AM	0	62	0	0	0	0	0	0	0	0	75	0	0	0	0	0	0
8:45:00 AM	1	77	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0
9:00:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
9:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00:00 PM	1	55	0	0	0	0	0	0	0	0	78	0	0	0	0	1	0
4:15:00 PM	0	48	0	0	0	0	0	0	0	0	74	0	0	0	0	2	0
4:30:00 PM	0	59	0	0	0	0	0	0	0	0	77	0	0	0	0	2	0
4:45:00 PM	0	48	0	0	0	0	0	0	0	0	61	0	0	0	0	2	0
5:00:00 PM	0	58	0	0	0	0	0	0	0	0	67	0	0	0	0	1	0
5:15:00 PM	0	54	0	0	0	0	0	0	0	0	66	0	0	0	0	0	0
5:30:00 PM	0	53	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0
5:45:00 PM	0	48	0	0	0	0	0	0	0	0	49	0	0	0	0	0	0

File Name: e:\1465-2th.ppd
 Start Date: 6/15/2023
 Start Time: 7:00:00 AM
 Site Code: 00000002
 Comment 1: TRAFFIC COUNTS
 Comment 2: PEAK HOUR
 Comment 3: 4:30 TO 5:30 P.M.
 Comment 4: CARS

Start Time	FAIRFIELD AVE. SOUTHBOUND				WESTBOUND				FAIRFIELD AVE. NORTHBOUND				NORTH SITE DRIVEWAY EASTBOUND			
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
7:00:00 AM	0	62	0	0	0	0	0	0	0	0	60	0	0	0	0	0
7:15:00 AM	0	66	0	0	0	0	0	0	0	0	90	0	0	0	0	0
7:30:00 AM	0	57	0	0	0	0	0	0	0	0	89	0	0	0	0	0
7:45:00 AM	0	61	0	0	0	0	0	0	0	0	83	0	0	0	0	0
8:00:00 AM	1	63	0	0	0	0	0	0	0	0	79	0	0	0	0	0
8:15:00 AM	1	55	0	0	0	0	0	0	0	0	85	0	0	0	0	0
8:30:00 AM	0	60	0	0	0	0	0	0	0	0	74	0	0	0	0	0
8:45:00 AM	1	77	0	0	0	0	0	0	0	0	60	0	0	0	0	0
9:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00:00 PM	1	52	0	0	0	0	0	0	0	0	78	0	0	0	0	1
4:15:00 PM	0	46	0	0	0	0	0	0	0	0	73	0	0	0	0	2
4:30:00 PM	0	57	0	0	0	0	0	0	0	0	77	0	0	0	0	2
4:45:00 PM	0	46	0	0	0	0	0	0	0	0	60	0	0	0	0	2
5:00:00 PM	0	58	0	0	0	0	0	0	0	0	67	0	0	0	0	1
5:15:00 PM	0	52	0	0	0	0	0	0	0	0	65	0	0	0	0	0
5:30:00 PM	0	53	0	0	0	0	0	0	0	0	55	0	0	0	0	0
5:45:00 PM	0	48	0	0	0	0	0	0	0	0	49	0	0	0	0	0

File Name: E:\1465-4TH.ppd
 Start Date: 6/15/2023
 Start Time: 7:00:00 AM
 Site Code: 00000004
 Comment 1: TRAFFIC COUNTS
 Comment 2: PEAK HOUR
 Comment 3: 8:00 TO 9:00 A.M.
 Comment 4: TOTAL

Start Time	FAIRFIELD AVE. SOUTHBOUND				CONGRESS ST. WESTBOUND				NORTHBOUND				FAIRFIELD AVE. EASTBOUND				
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
7:00:00 AM	19	0	3	0	22	4	0	0	0	0	0	0	0	0	3	10	0
7:15:00 AM	15	0	8	0	14	3	0	0	0	0	0	4	0	2	13	0	
7:30:00 AM	19	0	7	0	21	9	0	0	0	0	0	1	0	5	9	0	
7:45:00 AM	26	0	7	0	22	11	0	0	0	0	0	1	0	8	12	0	
8:00:00 AM	26	0	9	1	19	11	0	0	0	0	0	0	0	6	11	0	
8:15:00 AM	23	0	14	0	13	16	0	0	0	0	0	0	0	7	19	0	
8:30:00 AM	24	0	8	0	17	15	0	0	0	0	0	0	0	5	14	0	
8:45:00 AM	43	0	3	0	12	22	0	1	0	0	0	0	0	7	13	0	

File Name: E:\1465-4TH.ppd
 Start Date: 6/15/2023
 Start Time: 7:00:00 AM
 Site Code: 00000004
 Comment 1: TRAFFIC COUNTS
 Comment 2: PEAK HOUR
 Comment 3: 8:00 TO 9:00 A.M.
 Comment 4: CARS

Start Time	FAIRFIELD AVE. SOUTHBOUND					CONGRESS ST. WESTBOUND					NORTHBOUND					FAIRFIELD AVE. EASTBOUND				
	Right	Thru	Left	Peds		Right	Thru	Left	Peds		Right	Thru	Left	Peds		Right	Thru	Left	Peds	
7:00:00 AM	18	0	3	0	0	21	4	0	0	0	0	0	0	0	0	0	3	9	0	
7:15:00 AM	14	0	7	0	0	14	3	0	0	0	0	0	4	0	0	2	13	0		
7:30:00 AM	18	0	6	0	0	21	9	0	0	0	0	0	1	0	0	5	8	0		
7:45:00 AM	25	0	7	0	0	22	11	0	0	0	0	0	1	0	0	8	12	0		
8:00:00 AM	25	0	9	1	0	19	11	0	0	0	0	0	0	0	0	6	11	0		
8:15:00 AM	21	0	14	0	0	13	16	0	0	0	0	0	0	0	0	7	18	0		
8:30:00 AM	24	0	8	0	0	17	15	0	0	0	0	0	0	0	0	5	14	0		
8:45:00 AM	42	0	3	0	0	12	22	0	1	0	0	0	0	0	0	7	13	0		

File Name: e:\1465-23all.ppd
 Start Date: 6/15/2023
 Start Time: 7:00:00 AM
 Site Code: 00000003
 Comment 1: TRAFFIC COUNTS
 Comment 2: PEAK HOUR
 Comment 3: 4:30 TO 5:30 P.M.
 Comment 4: TOTAL

Start Time	FAIRFIELD AVE SOUTHBOUND				FAIRFIELD AVE NORTHBOUND				ABIGIAL KIRSCH DRIVEWAY From Southwest				SOUTH SITE DRIVEWAY EASTBOUND			
	Right	Bear Right	Thru	Peds	Thru	Left	Hard Left	Peds	Hard Right	Bear Left	Hard Left	Peds	Hard Right	Right	Left	Peds
7:00:00 AM	6	6	50	0	58	1	0	0	0	0	0	0	0	0	2	0
7:15:00 AM	8	3	55	0	88	1	0	0	0	1	0	0	0	0	1	0
7:30:00 AM	6	5	46	0	84	1	1	0	1	2	0	0	0	0	3	0
7:45:00 AM	11	5	45	0	71	2	1	0	2	2	0	0	0	1	10	0
8:00:00 AM	6	3	54	0	73	0	0	0	1	2	0	0	0	0	4	0
8:15:00 AM	7	4	44	0	72	1	0	0	0	4	0	0	0	1	9	0
8:30:00 AM	5	2	53	0	70	2	0	0	0	2	0	0	0	2	2	0
8:45:00 AM	7	4	66	0	55	1	0	0	0	2	0	0	0	0	3	0
9:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00:00 PM	2	1	49	0	72	0	1	0	1	1	0	0	0	1	5	0
4:15:00 PM	0	4	42	0	67	0	0	0	1	2	0	0	0	0	4	0
4:30:00 PM	4	5	48	0	66	1	1	0	0	8	0	0	0	0	3	0
4:45:00 PM	3	2	41	0	54	0	0	0	0	4	0	0	0	0	2	0
5:00:00 PM	4	1	53	0	57	0	0	0	0	4	0	0	0	0	6	0
5:15:00 PM	3	4	45	0	57	0	1	0	1	2	0	0	0	0	6	0
5:30:00 PM	3	4	46	0	40	0	0	0	0	4	0	0	0	0	11	0
5:45:00 PM	3	3	42	0	38	0	0	0	0	3	0	0	0	0	8	0

File Name: e:\1465-23all.ppd
 Start Date: 6/15/2023
 Start Time: 7:00:00 AM
 Site Code: 00000003
 Comment 1: TRAFFIC COUNTS
 Comment 2: PEAK HOUR
 Comment 3: 4:30 TO 5:30 P.M.
 Comment 4: CARS

Start Time	FAIRFIELD AVE SOUTHBOUND				WESTBO	FAIRFIELD AVE NORTHBOUND				ABIGIAL KIRSCH DRIVEWAY From Southwest					SOUTH SITE DRIVEWAY EASTBOUND			
	Right	Bear Right	Thru	Peds	Peds	Thru	Left	Hard Left	Peds	Hard Right	Bear Left	Hard Left	Peds	Peds	Hard Right	Right	Left	Peds
7:00:00 AM	6	6	49	0	0	56	1	0	0	0	0	0	0	0	0	0	2	0
7:15:00 AM	7	3	53	0	0	86	1	0	0	0	1	0	0	0	0	0	1	0
7:30:00 AM	6	5	44	0	0	82	1	1	0	1	2	0	0	0	0	0	2	0
7:45:00 AM	10	4	43	0	0	70	1	1	0	2	2	0	0	0	0	1	10	0
8:00:00 AM	6	3	53	0	0	73	0	0	0	1	2	0	0	0	0	0	4	0
8:15:00 AM	7	4	43	0	0	71	1	0	0	0	4	0	0	0	0	1	9	0
8:30:00 AM	4	2	52	0	0	69	1	0	0	0	2	0	0	0	0	2	2	0
8:45:00 AM	7	3	65	0	0	55	1	0	0	0	2	0	0	0	0	0	2	0
9:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00:00 PM	2	1	46	0	0	72	0	0	0	1	1	0	0	0	0	1	5	0
4:15:00 PM	0	4	40	0	0	67	0	0	0	1	2	0	0	0	0	0	4	0
4:30:00 PM	4	5	46	0	0	66	1	0	0	0	7	0	0	0	0	0	3	0
4:45:00 PM	3	2	40	0	0	54	0	0	0	0	4	0	0	0	0	0	2	0
5:00:00 PM	4	1	52	0	0	57	0	0	0	0	4	0	0	0	0	0	6	0
5:15:00 PM	3	4	44	0	0	57	0	0	0	1	2	0	0	0	0	0	6	0
5:30:00 PM	3	4	46	0	0	40	0	0	0	0	4	0	0	0	0	0	10	0
5:45:00 PM	3	3	42	0	0	38	0	0	0	0	3	0	0	0	0	0	8	0

File Name: G:\RTC ALL COUNTS 2016\JAN 2022\1409-2W.ppd

Start Date: 10/26/2022

Start Time: 4:00:00 PM

Site Code: 00000002

Comment 1: TRAFFIC COUNTS

Comment 2: PEAK HOUR

Comment 3: 5:00 TO 6:00 P.M.

Comment 4: TOTAL

Start Time	FAIRFIELD AVE. SOUTHBOUND					CONGRESS ST. WESTBOUND				NORTHBOUND					FAIRFIELD AVE. EASTBOUND				
	Right	Thru	Left	Peds		Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
4:00:00 PM	12	0	9	0	0	7	1	0	0	0	0	0	0	0	0	8	15	0	
4:15:00 PM	14	0	16	2	0	13	4	0	0	0	0	0	0	0	11	13	0		
4:30:00 PM	9	0	10	0	0	6	5	0	0	0	0	0	0	0	6	17	0		
4:45:00 PM	15	0	10	1	0	7	5	0	0	0	0	0	0	0	17	21	0		
5:00:00 PM	7	0	19	2	0	15	6	0	1	0	0	0	0	1	15	42	0		
5:15:00 PM	14	0	12	1	0	11	6	0	1	0	0	0	0	0	7	31	0		
5:30:00 PM	16	0	11	1	0	10	4	0	0	0	0	0	0	0	12	34	0		
5:45:00 PM	12	0	23	1	0	5	8	1	0	0	0	0	1	0	4	38	0		

File Name: G:\RTC ALL COUNTS 2016\JAN 2022\1409-2W.ppd

Start Date: 10/26/2022

Start Time: 4:00:00 PM

Site Code: 00000002

Comment 1: TRAFFIC COUNTS

Comment 2: PEAK HOUR

Comment 3: 5:00 TO 6:00 P.M.

Comment 4: CARS

Start Time	FAIRFIELD AVE. SOUTHBOUND					CONGRESS ST. WESTBOUND				NORTHBOUND					FAIRFIELD AVE. EASTBOUND				
	Right	Thru	Left	Peds		Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
4:00:00 PM	12	0	9	0	0	7	1	0	0	0	0	0	0	0	0	8	15	0	
4:15:00 PM	14	0	16	2	0	13	4	0	0	0	0	0	0	0	11	13	0		
4:30:00 PM	9	0	10	0	0	6	5	0	0	0	0	0	0	0	6	17	0		
4:45:00 PM	14	0	10	1	0	7	5	0	0	0	0	0	0	0	17	21	0		
5:00:00 PM	7	0	19	2	0	15	6	0	1	0	0	0	0	1	15	42	0		
5:15:00 PM	13	0	12	1	0	11	6	0	1	0	0	0	0	0	7	31	0		
5:30:00 PM	15	0	11	1	0	10	4	0	0	0	0	0	0	0	12	34	0		
5:45:00 PM	11	0	23	1	0	5	8	1	0	0	0	0	1	0	4	38	0		

File Name: G:\RTC ALL COUNTS 2016\JAN 2022\1409-4W.ppd

Start Date: 10/26/2022

Start Time: 4:00:00 PM

Site Code: 00000004

Comment 1: TRAFFIC COUNTS

Comment 2: PEAK HOUR

Comment 3: 5:00 TO 6:00 P.M.

Comment 4: TOTAL

Start Time	SOUTHBOUND					SELLECK ST. WESTBOUND				FAIRFIELD AVE. NORTHBOUND					SELLECK ST. EASTBOUND				
	Right	Thru	Left	Peds		Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
4:00:00 PM	0	0	0	1		0	64	1	0	11	0	59	1	49	55	0	0		
4:15:00 PM	0	0	0	9		0	48	3	0	13	0	71	2	43	72	0	1		
4:30:00 PM	0	0	0	6		0	52	4	0	10	0	67	5	44	67	0	0		
4:45:00 PM	0	0	0	5		0	54	4	0	13	0	63	0	47	73	0	1		
5:00:00 PM	0	0	0	8		0	63	4	0	13	0	86	4	56	79	0	0		
5:15:00 PM	0	0	0	4		0	92	3	0	10	0	83	2	56	84	0	0		
5:30:00 PM	0	0	0	7		0	78	4	0	8	0	83	6	62	61	0	0		
5:45:00 PM	0	0	0	10		0	54	2	0	11	0	87	3	51	102	0	0		

File Name: G:\RTC ALL COUNTS 2016\JAN 2022\1409-4W.ppd

Start Date: 10/26/2022

Start Time: 4:00:00 PM

Site Code: 00000004

Comment 1: TRAFFIC COUNTS

Comment 2: PEAK HOUR

Comment 3: 5:00 TO 6:00 P.M.

Comment 4: CARS

Start Time	SOUTHBOUND					SELLECK ST. WESTBOUND				FAIRFIELD AVE. NORTHBOUND					SELLECK ST. EASTBOUND				
	Right	Thru	Left	Peds		Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
4:00:00 PM	0	0	0	1		0	60	1	0	10	0	58	1	49	52	0	0		
4:15:00 PM	0	0	0	9		0	47	3	0	13	0	71	2	42	72	0	1		
4:30:00 PM	0	0	0	6		0	52	4	0	10	0	67	5	43	66	0	0		
4:45:00 PM	0	0	0	5		0	54	4	0	13	0	63	0	45	72	0	1		
5:00:00 PM	0	0	0	8		0	63	4	0	13	0	86	4	54	79	0	0		
5:15:00 PM	0	0	0	4		0	92	3	0	10	0	81	2	55	84	0	0		
5:30:00 PM	0	0	0	7		0	78	4	0	8	0	81	6	60	61	0	0		
5:45:00 PM	0	0	0	10		0	54	2	0	11	0	87	3	50	101	0	0		

File Name: G:\RTC ALL COUNTS 2016\JAN 2022\1409-4W.ppd

Start Date: 10/26/2022

Start Time: 4:00:00 PM

Site Code: 00000004

Comment 1: TRAFFIC COUNTS

Comment 2: PEAK HOUR

Comment 3: 5:00 TO 6:00 P.M.

Comment 4: TRUCKS

Start Time	SOUTHBOUND				SELLECK ST. WESTBOUND				FAIRFIELD AVE. NORTHBOUND				SELLECK ST. EASTBOUND					
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
4:00:00 PM	0	0	0	0	0	0	2	0	0	1	0	1	0	0	0	1	0	0
4:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0
5:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0
5:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0

File Name: G:\RTC ALL COUNTS 2016\JAN 2022\1409-4W.ppd

Start Date: 10/26/2022

Start Time: 4:00:00 PM

Site Code: 00000004

Comment 1: TRAFFIC COUNTS

Comment 2: PEAK HOUR

Comment 3: 5:00 TO 6:00 P.M.

Comment 4: BUSES

Start Time	SOUTHBOUND				SELLECK ST. WESTBOUND				FAIRFIELD AVE. NORTHBOUND				SELLECK ST. EASTBOUND				
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
4:00:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
4:15:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
4:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
5:15:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
5:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
5:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0



Appendix B Capacity Analysis

Traffic Impact Study

375 Fairfield Avenue
Stamford, CT

Mr. Jeff Goldblum
SWC Office Furniture Outlet, Inc.

SLR Project No.: 141.21576.00001

Lanes, Volumes, Timings
1: Fairfield Ave & Selleck St

07/25/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4
Lane Configurations	↑	↑		↑↑	↑	↑		
Traffic Volume (vph)	166	240	47	379	335	40		
Future Volume (vph)	166	240	47	379	335	40		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Storage Length (ft)		0	0		0	100		
Storage Lanes		1	0		1	1		
Taper Length (ft)			25		25			
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00		
Ped Bike Factor		0.97		1.00	0.99	0.96		
Frt		0.850				0.850		
Flt Protected				0.995	0.950			
Satd. Flow (prot)	1827	1495	0	3153	1671	1583		
Flt Permitted				0.898	0.950			
Satd. Flow (perm)	1827	1456	0	2841	1654	1525		
Right Turn on Red		No				No		
Satd. Flow (RTOR)								
Link Speed (mph)	25			25	25			
Link Distance (ft)	230			247	289			
Travel Time (s)	6.3			6.7	7.9			
Confl. Peds. (#/hr)		9	9		9	9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Heavy Vehicles (%)	4%	8%	2%	9%	8%	2%		
Parking (#/hr)				0				
Adj. Flow (vph)	180	261	51	412	364	43		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	180	261	0	463	364	43		
Number of Detectors	0	0	1	1	1	1		
Detector Template			Left					
Leading Detector (ft)	0	0	20	45	45	45		
Trailing Detector (ft)	0	0	0	-5	5	5		
Detector 1 Position(ft)	0	0	0	-5	5	5		
Detector 1 Size(ft)	50	50	20	50	40	40		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Turn Type	NA	pm+ov	Perm	NA	Prot	Perm		
Protected Phases	2 4	5		2	5		3	4
Permitted Phases		2 4	2			5		
Detector Phase	2	2	2	2	5	5		
Switch Phase								
Minimum Initial (s)		5.0	15.0	15.0	5.0	5.0	7.0	5.0
Minimum Split (s)		10.3	20.6	20.6	10.3	10.3	25.0	9.7
Total Split (s)		40.3	35.6	35.6	40.3	40.3	25.0	34.6
Total Split (%)		29.7%	26.3%	26.3%	29.7%	29.7%	18%	26%
Maximum Green (s)		35.0	30.0	30.0	35.0	35.0	21.0	29.9
Yellow Time (s)		3.0	3.6	3.6	3.0	3.0	4.0	3.6
All-Red Time (s)		2.3	2.0	2.0	2.3	2.3	0.0	1.1

Lanes, Volumes, Timings
1: Fairfield Ave & Selleck St

07/25/2023

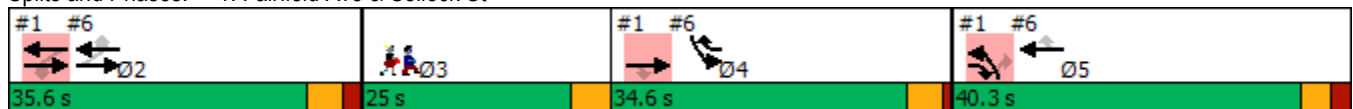


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4
Lost Time Adjust (s)		0.0		0.0	0.0	0.0		
Total Lost Time (s)		5.3		5.6	5.3	5.3		
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	Yes
Vehicle Extension (s)		2.5	2.0	2.0	2.5	2.5	3.0	2.5
Recall Mode		None	Min	Min	None	None	None	None
Walk Time (s)							7.0	
Flash Dont Walk (s)							14.0	
Pedestrian Calls (#/hr)							44	
Act Effct Green (s)	26.0	51.1		26.0	24.8	24.8		
Actuated g/C Ratio	0.35	0.68		0.35	0.33	0.33		
v/c Ratio	0.29	0.26		0.47	0.66	0.09		
Control Delay	5.2	4.6		25.0	32.0	22.9		
Queue Delay	0.1	0.1		0.0	0.0	0.0		
Total Delay	5.2	4.7		25.0	32.0	22.9		
LOS	A	A		C	C	C		
Approach Delay	4.9			25.0	31.1			
Approach LOS	A			C	C			
Queue Length 50th (ft)	8	21		111	186	18		
Queue Length 95th (ft)	12	81		178	295	43		
Internal Link Dist (ft)	150			167	209			
Turn Bay Length (ft)						100		
Base Capacity (vph)	834	1078		1298	891	813		
Starvation Cap Reductn	106	218		0	0	0		
Spillback Cap Reductn	0	0		0	0	0		
Storage Cap Reductn	0	0		0	0	0		
Reduced v/c Ratio	0.25	0.30		0.36	0.41	0.05		

Intersection Summary

Area Type:	Other
Cycle Length:	135.5
Actuated Cycle Length:	75.3
Natural Cycle:	90
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	20.1
Intersection LOS:	C
Intersection Capacity Utilization:	57.3%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 1: Fairfield Ave & Selleck St



HCM 6th TWSC
 2: Fairfield Ave & Building 1 Site Drive

07/25/2023

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	0	0	0	351	259	3
Future Vol, veh/h	0	0	0	351	259	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	3	6	0
Mvmt Flow	0	0	0	382	282	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	666	284	285	0	0
Stage 1	284	-	-	-	-
Stage 2	382	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	428	760	1289	-	-
Stage 1	769	-	-	-	-
Stage 2	694	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	428	760	1289	-	-
Mov Cap-2 Maneuver	428	-	-	-	-
Stage 1	769	-	-	-	-
Stage 2	694	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1289	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th TWSC
 3: Fairfield Ave & Building B Site Drive

07/25/2023

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	27	3	14	303	191	31
Future Vol, veh/h	27	3	14	303	191	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	0	6	1
Mvmt Flow	29	3	15	329	208	34

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	584	225	242	0	0
Stage 1	225	-	-	-	-
Stage 2	359	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-
Pot Cap-1 Maneuver	477	819	1313	-	-
Stage 1	817	-	-	-	-
Stage 2	711	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	470	819	1313	-	-
Mov Cap-2 Maneuver	470	-	-	-	-
Stage 1	806	-	-	-	-
Stage 2	711	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1313	-	491	-	-
HCM Lane V/C Ratio	0.012	-	0.066	-	-
HCM Control Delay (s)	7.8	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 6th TWSC
 4: Fairfield Ave & The Loading Dock Drive

07/25/2023




Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	11	5	0	306	194	0
Future Vol, veh/h	11	5	0	306	194	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	5	0	333	211	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	544	211	211	0	-
Stage 1	211	-	-	-	-
Stage 2	333	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	500	829	1360	-	-
Stage 1	824	-	-	-	-
Stage 2	726	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	500	829	1360	-	-
Mov Cap-2 Maneuver	500	-	-	-	-
Stage 1	824	-	-	-	-
Stage 2	726	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1360	-	571	-	-
HCM Lane V/C Ratio	-	-	0.03	-	-
HCM Control Delay (s)	0	-	11.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	52	30	52	77	39	95
Future Vol, veh/h	52	30	52	77	39	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	0	0	0	1	5
Mvmt Flow	57	33	57	84	42	103
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.1	7.7	7.8
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	63%	0%	29%
Vol Thru, %	37%	40%	0%
Vol Right, %	0%	60%	71%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	82	129	134
LT Vol	52	0	39
Through Vol	30	52	0
RT Vol	0	77	95
Lane Flow Rate	89	140	146
Geometry Grp	1	1	1
Degree of Util (X)	0.11	0.151	0.164
Departure Headway (Hd)	4.427	3.865	4.047
Convergence, Y/N	Yes	Yes	Yes
Cap	798	910	891
Service Time	2.521	1.963	2.047
HCM Lane V/C Ratio	0.112	0.154	0.164
HCM Control Delay	8.1	7.7	7.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.5	0.6

Lanes, Volumes, Timings
1: Fairfield Ave & Selleck St

07/25/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4
Lane Configurations	↑	↑		↑↑	↑	↑		
Traffic Volume (vph)	331	237	21	292	350	47		
Future Volume (vph)	331	237	21	292	350	47		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Storage Length (ft)		0	0		0	100		
Storage Lanes		1	0		1	1		
Taper Length (ft)			25		25			
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00		
Ped Bike Factor		0.97		1.00	0.98			
Fr _t		0.850				0.850		
Fl _t Protected				0.997	0.950			
Satd. Flow (prot)	1863	1583	0	3352	1770	1583		
Fl _t Permitted				0.917	0.950			
Satd. Flow (perm)	1863	1534	0	3080	1738	1583		
Right Turn on Red		No				No		
Satd. Flow (RTOR)								
Link Speed (mph)	25			25	25			
Link Distance (ft)	230			247	289			
Travel Time (s)	6.3			6.7	7.9			
Confl. Peds. (#/hr)		15	15		15			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Parking (#/hr)				0				
Adj. Flow (vph)	360	258	23	317	380	51		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	360	258	0	340	380	51		
Number of Detectors	0	0	1	1	1	1		
Detector Template			Left					
Leading Detector (ft)	0	0	20	45	45	45		
Trailing Detector (ft)	0	0	0	-5	5	5		
Detector 1 Position(ft)	0	0	0	-5	5	5		
Detector 1 Size(ft)	50	50	20	50	40	40		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Turn Type	NA	pm+ov	Perm	NA	Prot	Perm		
Protected Phases	2 4	5		2	5		3	4
Permitted Phases		2 4	2			5		
Detector Phase	2	2	2	2	5	5		
Switch Phase								
Minimum Initial (s)		5.0	15.0	15.0	5.0	5.0	7.0	5.0
Minimum Split (s)		10.3	20.6	20.6	10.3	10.3	25.0	9.7
Total Split (s)		34.3	28.6	28.6	34.3	34.3	25.0	28.7
Total Split (%)		29.4%	24.5%	24.5%	29.4%	29.4%	21%	25%
Maximum Green (s)		29.0	23.0	23.0	29.0	29.0	21.0	24.0
Yellow Time (s)		3.0	3.6	3.6	3.0	3.0	4.0	3.6
All-Red Time (s)		2.3	2.0	2.0	2.3	2.3	0.0	1.1
Lost Time Adjust (s)		0.0		0.0	0.0	0.0		

Lanes, Volumes, Timings
1: Fairfield Ave & Selleck St

07/25/2023

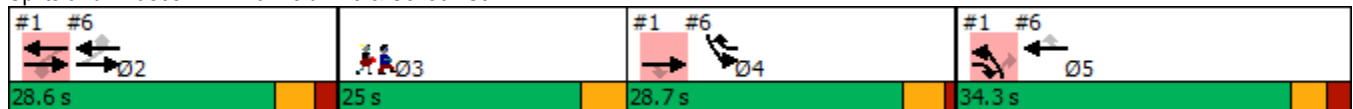


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4
Total Lost Time (s)		5.3		5.6	5.3	5.3		
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	Yes
Vehicle Extension (s)		2.5	2.0	2.0	2.5	2.5	3.0	2.5
Recall Mode		None	Min	Min	None	None	None	None
Walk Time (s)							7.0	
Flash Dont Walk (s)							14.0	
Pedestrian Calls (#/hr)							0	
Act Effct Green (s)	17.4	33.5		17.4	15.8	15.8		
Actuated g/C Ratio	0.39	0.76		0.39	0.36	0.36		
v/c Ratio	0.49	0.22		0.28	0.60	0.09		
Control Delay	13.4	1.2		10.3	16.8	10.6		
Queue Delay	0.2	0.0		0.0	0.0	0.0		
Total Delay	13.6	1.2		10.3	16.8	10.6		
LOS	B	A		B	B	B		
Approach Delay	8.4			10.3	16.1			
Approach LOS	A			B	B			
Queue Length 50th (ft)	65	0		29	70	8		
Queue Length 95th (ft)	136	0		58	166	28		
Internal Link Dist (ft)	150			167	209			
Turn Bay Length (ft)							100	
Base Capacity (vph)	983	1327		1626	1178	1054		
Starvation Cap Reductn	190	200		0	0	0		
Spillback Cap Reductn	0	0		0	0	0		
Storage Cap Reductn	0	0		0	0	0		
Reduced v/c Ratio	0.45	0.23		0.21	0.32	0.05		

Intersection Summary

Area Type: Other
 Cycle Length: 116.6
 Actuated Cycle Length: 44.3
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 11.3
 Intersection LOS: B
 Intersection Capacity Utilization 52.5%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 1: Fairfield Ave & Selleck St



HCM 6th TWSC
2: Fairfield Ave & Building 1 Site Drive

07/25/2023

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	250	232	0
Future Vol, veh/h	2	0	0	250	232	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	0	272	252	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	524	252	252	0	0
Stage 1	252	-	-	-	-
Stage 2	272	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	514	787	1313	-	-
Stage 1	790	-	-	-	-
Stage 2	774	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	514	787	1313	-	-
Mov Cap-2 Maneuver	514	-	-	-	-
Stage 1	790	-	-	-	-
Stage 2	774	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1313	-	514	-	-
HCM Lane V/C Ratio	-	-	0.004	-	-
HCM Control Delay (s)	0	-	12	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
 3: Fairfield Ave & Building B Site Drive

07/25/2023

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	32	0	0	204	189	14
Future Vol, veh/h	32	0	0	204	189	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	0	0	222	205	15

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	435	213	220	0	0
Stage 1	213	-	-	-	-
Stage 2	222	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	578	827	1349	-	-
Stage 1	823	-	-	-	-
Stage 2	815	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	578	827	1349	-	-
Mov Cap-2 Maneuver	578	-	-	-	-
Stage 1	823	-	-	-	-
Stage 2	815	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1349	-	578	-	-
HCM Lane V/C Ratio	-	-	0.06	-	-
HCM Control Delay (s)	0	-	11.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 6th TWSC
4: Fairfield Ave & The Loading Dock Drive

07/25/2023

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	2	0	190	189	0
Future Vol, veh/h	14	2	0	190	189	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	2	0	207	205	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	412	205	205	0	-	0
Stage 1	205	-	-	-	-	-
Stage 2	207	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	596	836	1366	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	828	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	596	836	1366	-	-	-
Mov Cap-2 Maneuver	596	-	-	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	828	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1366	-	618	-	-
HCM Lane V/C Ratio	-	-	0.028	-	-
HCM Control Delay (s)	0	-	11	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	148	42	29	43	67	50
Future Vol, veh/h	148	42	29	43	67	50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	46	32	47	73	54
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	9	7.5	8.3
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	78%	0%	57%
Vol Thru, %	22%	40%	0%
Vol Right, %	0%	60%	43%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	190	72	117
LT Vol	148	0	67
Through Vol	42	29	0
RT Vol	0	43	50
Lane Flow Rate	207	78	127
Geometry Grp	1	1	1
Degree of Util (X)	0.257	0.089	0.157
Departure Headway (Hd)	4.48	4.097	4.435
Convergence, Y/N	Yes	Yes	Yes
Cap	808	876	810
Service Time	2.48	2.115	2.452
HCM Lane V/C Ratio	0.256	0.089	0.157
HCM Control Delay	9	7.5	8.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1	0.3	0.6

Lanes, Volumes, Timings
1: Fairfield Ave & Selleck St

10/19/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4
Lane Configurations	↑	↑		↑↑	↑	↑		
Traffic Volume (vph)	166	258	62	379	341	45		
Future Volume (vph)	166	258	62	379	341	45		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Storage Length (ft)		0	0		0	100		
Storage Lanes		1	0		1	1		
Taper Length (ft)			25		25			
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00		
Ped Bike Factor		0.97		1.00	0.99	0.96		
Frt		0.850				0.850		
Flt Protected				0.993	0.950			
Satd. Flow (prot)	1827	1495	0	3153	1671	1583		
Flt Permitted				0.878	0.950			
Satd. Flow (perm)	1827	1456	0	2782	1654	1525		
Right Turn on Red		No				No		
Satd. Flow (RTOR)								
Link Speed (mph)	25			25	25			
Link Distance (ft)	230			247	185			
Travel Time (s)	6.3			6.7	5.0			
Confl. Peds. (#/hr)		9	9		9	9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Heavy Vehicles (%)	4%	8%	2%	9%	8%	2%		
Parking (#/hr)				0				
Adj. Flow (vph)	180	280	67	412	371	49		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	180	280	0	479	371	49		
Number of Detectors	0	0	1	1	1	1		
Detector Template			Left					
Leading Detector (ft)	0	0	20	45	45	45		
Trailing Detector (ft)	0	0	0	-5	5	5		
Detector 1 Position(ft)	0	0	0	-5	5	5		
Detector 1 Size(ft)	50	50	20	50	40	40		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Turn Type	NA	pm+ov	Perm	NA	Prot	Perm		
Protected Phases	2 4	5		2	5		3	4
Permitted Phases		2 4	2			5		
Detector Phase	2	2	2	2	5	5		
Switch Phase								
Minimum Initial (s)		5.0	15.0	15.0	5.0	5.0	7.0	5.0
Minimum Split (s)		10.3	20.6	20.6	10.3	10.3	25.0	9.7
Total Split (s)		40.3	35.6	35.6	40.3	40.3	25.0	34.6
Total Split (%)		29.7%	26.3%	26.3%	29.7%	29.7%	18%	26%
Maximum Green (s)		35.0	30.0	30.0	35.0	35.0	21.0	29.9
Yellow Time (s)		3.0	3.6	3.6	3.0	3.0	4.0	3.6
All-Red Time (s)		2.3	2.0	2.0	2.3	2.3	0.0	1.1

Lanes, Volumes, Timings
1: Fairfield Ave & Selleck St

10/19/2023

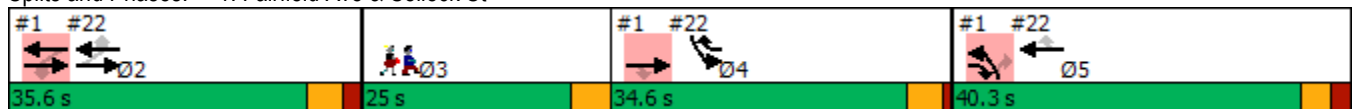


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4
Lost Time Adjust (s)		0.0		0.0	0.0	0.0		
Total Lost Time (s)		5.3		5.6	5.3	5.3		
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	Yes
Vehicle Extension (s)		2.5	2.0	2.0	2.5	2.5	3.0	2.5
Recall Mode		None	Min	Min	None	None	None	None
Walk Time (s)							7.0	
Flash Dont Walk (s)							14.0	
Pedestrian Calls (#/hr)							44	
Act Effct Green (s)	27.1	53.1		27.1	25.7	25.7		
Actuated g/C Ratio	0.35	0.69		0.35	0.33	0.33		
v/c Ratio	0.28	0.28		0.49	0.67	0.10		
Control Delay	5.1	5.4		25.6	32.6	23.0		
Queue Delay	0.1	0.1		0.0	0.0	0.0		
Total Delay	5.2	5.6		25.6	32.6	23.0		
LOS	A	A		C	C	C		
Approach Delay	5.4			25.6	31.5			
Approach LOS	A			C	C			
Queue Length 50th (ft)	8	31		118	199	21		
Queue Length 95th (ft)	12	94		188	301	47		
Internal Link Dist (ft)	150			167	105			
Turn Bay Length (ft)						100		
Base Capacity (vph)	806	1074		1228	860	785		
Starvation Cap Reductn	121	226		0	0	0		
Spillback Cap Reductn	0	0		0	0	0		
Storage Cap Reductn	0	0		0	0	0		
Reduced v/c Ratio	0.26	0.33		0.39	0.43	0.06		

Intersection Summary

Area Type:	Other
Cycle Length:	135.5
Actuated Cycle Length:	77.3
Natural Cycle:	90
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	20.6
Intersection LOS:	C
Intersection Capacity Utilization:	57.6%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 1: Fairfield Ave & Selleck St



HCM 6th TWSC
2: Fairfield Ave & Building 1 Site Drive

10/19/2023

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	2	4	11	359	274	11
Future Vol, veh/h	2	4	11	359	274	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	3	6	0
Mvmt Flow	2	4	12	390	298	12

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	718	304	310	0	-	0
Stage 1	304	-	-	-	-	-
Stage 2	414	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	399	740	1262	-	-	-
Stage 1	753	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	394	740	1262	-	-	-
Mov Cap-2 Maneuver	394	-	-	-	-	-
Stage 1	744	-	-	-	-	-
Stage 2	671	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1262	-	572	-	-
HCM Lane V/C Ratio	0.009	-	0.011	-	-
HCM Control Delay (s)	7.9	0	11.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
3: Fairfield Ave & Building B Site Drive

10/19/2023

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	31	7	24	318	197	44
Future Vol, veh/h	31	7	24	318	197	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	4	0	6	1
Mvmt Flow	34	8	26	346	214	48

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	636	238	262	0	0
Stage 1	238	-	-	-	-
Stage 2	398	-	-	-	-
Critical Hdwy	6.4	6.2	4.14	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.236	-	-
Pot Cap-1 Maneuver	445	806	1291	-	-
Stage 1	806	-	-	-	-
Stage 2	683	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	434	806	1291	-	-
Mov Cap-2 Maneuver	434	-	-	-	-
Stage 1	786	-	-	-	-
Stage 2	683	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1291	-	474	-	-
HCM Lane V/C Ratio	0.02	-	0.087	-	-
HCM Control Delay (s)	7.8	0	13.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

HCM 6th TWSC
4: Fairfield Ave & The Loading Dock Drive

10/19/2023

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	5	3	331	171	33
Future Vol, veh/h	11	5	3	331	171	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	5	3	360	186	36

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	570	204	222	0	0
Stage 1	204	-	-	-	-
Stage 2	366	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	483	837	1347	-	-
Stage 1	830	-	-	-	-
Stage 2	702	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	482	837	1347	-	-
Mov Cap-2 Maneuver	482	-	-	-	-
Stage 1	828	-	-	-	-
Stage 2	702	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1347	-	556	-	-
HCM Lane V/C Ratio	0.002	-	0.031	-	-
HCM Control Delay (s)	7.7	0	11.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	66	30	52	88	43	101
Future Vol, veh/h	66	30	52	88	43	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	0	0	0	1	5
Mvmt Flow	72	33	57	96	47	110
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.3	7.8	8
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	69%	0%	30%
Vol Thru, %	31%	37%	0%
Vol Right, %	0%	63%	70%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	96	140	144
LT Vol	66	0	43
Through Vol	30	52	0
RT Vol	0	88	101
Lane Flow Rate	104	152	157
Geometry Grp	1	1	1
Degree of Util (X)	0.133	0.168	0.179
Departure Headway (Hd)	4.578	3.981	4.112
Convergence, Y/N	Yes	Yes	Yes
Cap	788	904	875
Service Time	2.578	1.995	2.127
HCM Lane V/C Ratio	0.132	0.168	0.179
HCM Control Delay	8.3	7.8	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.6	0.6

HCM 6th TWSC
6: Fairfield Ave & Proposed Site Drive

10/19/2023

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	2	4	381	308	12
Future Vol, veh/h	5	2	4	381	308	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	2	4	414	335	13

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	764	342	348	0	-	0
Stage 1	342	-	-	-	-	-
Stage 2	422	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	372	701	1211	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	662	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	371	701	1211	-	-	-
Mov Cap-2 Maneuver	371	-	-	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	662	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.5	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1211	-	429	-	-
HCM Lane V/C Ratio	0.004	-	0.018	-	-
HCM Control Delay (s)	8	0	13.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lanes, Volumes, Timings
1: Fairfield Ave & Selleck St

10/19/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4
Lane Configurations	↑	↑		↑↑	↑	↑		
Traffic Volume (vph)	331	247	28	292	363	57		
Future Volume (vph)	331	247	28	292	363	57		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Storage Length (ft)		0	0		0	100		
Storage Lanes		1	0		1	1		
Taper Length (ft)			25		25			
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00		
Ped Bike Factor		0.97		1.00	0.98			
Frt		0.850				0.850		
Flt Protected				0.996	0.950			
Satd. Flow (prot)	1863	1583	0	3349	1770	1583		
Flt Permitted				0.905	0.950			
Satd. Flow (perm)	1863	1534	0	3038	1738	1583		
Right Turn on Red		No				No		
Satd. Flow (RTOR)								
Link Speed (mph)	25			25	25			
Link Distance (ft)	230			247	185			
Travel Time (s)	6.3			6.7	5.0			
Confl. Peds. (#/hr)		15	15		15			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Parking (#/hr)				0				
Adj. Flow (vph)	360	268	30	317	395	62		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	360	268	0	347	395	62		
Number of Detectors	0	0	1	1	1	1		
Detector Template			Left					
Leading Detector (ft)	0	0	20	45	45	45		
Trailing Detector (ft)	0	0	0	-5	5	5		
Detector 1 Position(ft)	0	0	0	-5	5	5		
Detector 1 Size(ft)	50	50	20	50	40	40		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Turn Type	NA	pm+ov	Perm	NA	Prot	Perm		
Protected Phases	2 4	5		2	5		3	4
Permitted Phases		2 4	2			5		
Detector Phase	2	2	2	2	5	5		
Switch Phase								
Minimum Initial (s)		5.0	15.0	15.0	5.0	5.0	7.0	5.0
Minimum Split (s)		10.3	20.6	20.6	10.3	10.3	25.0	9.7
Total Split (s)		34.3	28.6	28.6	34.3	34.3	25.0	28.7
Total Split (%)		29.4%	24.5%	24.5%	29.4%	29.4%	21%	25%
Maximum Green (s)		29.0	23.0	23.0	29.0	29.0	21.0	24.0
Yellow Time (s)		3.0	3.6	3.6	3.0	3.0	4.0	3.6
All-Red Time (s)		2.3	2.0	2.0	2.3	2.3	0.0	1.1
Lost Time Adjust (s)		0.0		0.0	0.0	0.0		

Lanes, Volumes, Timings
1: Fairfield Ave & Selleck St

10/19/2023

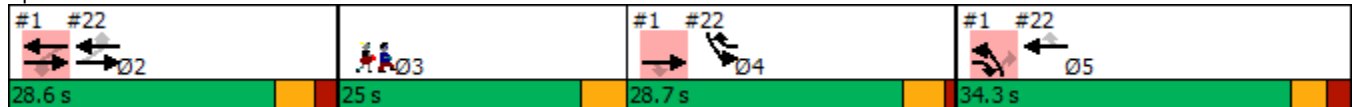


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4
Total Lost Time (s)		5.3		5.6	5.3	5.3		
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	Yes
Vehicle Extension (s)		2.5	2.0	2.0	2.5	2.5	3.0	2.5
Recall Mode		None	Min	Min	None	None	None	None
Walk Time (s)							7.0	
Flash Dont Walk (s)							14.0	
Pedestrian Calls (#/hr)							0	
Act Effct Green (s)	21.0	39.0		21.0	17.7	17.7		
Actuated g/C Ratio	0.42	0.78		0.42	0.36	0.36		
v/c Ratio	0.46	0.22		0.27	0.63	0.11		
Control Delay	5.6	1.0		10.3	18.9	11.8		
Queue Delay	0.0	0.1		0.0	0.0	0.0		
Total Delay	5.6	1.0		10.3	18.9	11.8		
LOS	A	A		B	B	B		
Approach Delay	3.7			10.3	18.0			
Approach LOS	A			B	B			
Queue Length 50th (ft)	16	0		33	99	13		
Queue Length 95th (ft)	24	8		61	173	32		
Internal Link Dist (ft)	150			167	105			
Turn Bay Length (ft)							100	
Base Capacity (vph)	873	1273		1424	1046	935		
Starvation Cap Reductn	32	206		0	0	0		
Spillback Cap Reductn	0	0		0	0	0		
Storage Cap Reductn	0	0		0	0	0		
Reduced v/c Ratio	0.43	0.25		0.24	0.38	0.07		

Intersection Summary

Area Type: Other
 Cycle Length: 116.6
 Actuated Cycle Length: 49.7
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 9.8
 Intersection LOS: A
 Intersection Capacity Utilization 58.9%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 1: Fairfield Ave & Selleck St



HCM 6th TWSC
2: Fairfield Ave & Building 1 Site Drive

10/19/2023

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	9	6	261	241	3
Future Vol, veh/h	8	9	6	261	241	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	10	7	284	262	3

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	562	264	265	0	-	0
Stage 1	264	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	488	775	1299	-	-	-
Stage 1	780	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	485	775	1299	-	-	-
Mov Cap-2 Maneuver	485	-	-	-	-	-
Stage 1	775	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1299	-	605	-	-
HCM Lane V/C Ratio	0.005	-	0.031	-	-
HCM Control Delay (s)	7.8	0	11.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 6th TWSC
3: Fairfield Ave & Building B Site Drive

10/19/2023

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	41	7	5	212	200	21
Future Vol, veh/h	41	7	5	212	200	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	8	5	230	217	23

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	469	229	240	0	-	0
Stage 1	229	-	-	-	-	-
Stage 2	240	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	553	810	1327	-	-	-
Stage 1	809	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	551	810	1327	-	-	-
Mov Cap-2 Maneuver	551	-	-	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	800	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1327	-	578	-	-
HCM Lane V/C Ratio	0.004	-	0.09	-	-
HCM Control Delay (s)	7.7	0	11.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

HCM 6th TWSC
4: Fairfield Ave & The Loading Dock Drive

10/19/2023




Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	2	2	203	179	28
Future Vol, veh/h	14	2	2	203	179	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	2	2	221	195	30

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	435	210	225	0	0
Stage 1	210	-	-	-	-
Stage 2	225	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	578	830	1344	-	-
Stage 1	825	-	-	-	-
Stage 2	812	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	577	830	1344	-	-
Mov Cap-2 Maneuver	577	-	-	-	-
Stage 1	823	-	-	-	-
Stage 2	812	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1344	-	600	-	-
HCM Lane V/C Ratio	0.002	-	0.029	-	-
HCM Control Delay (s)	7.7	0	11.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	156	42	29	48	75	60
Future Vol, veh/h	156	42	29	48	75	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	170	46	32	52	82	65
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	9.2	7.6	8.5
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	79%	0%	56%
Vol Thru, %	21%	38%	0%
Vol Right, %	0%	62%	44%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	198	77	135
LT Vol	156	0	75
Through Vol	42	29	0
RT Vol	0	48	60
Lane Flow Rate	215	84	147
Geometry Grp	1	1	1
Degree of Util (X)	0.27	0.096	0.182
Departure Headway (Hd)	4.522	4.143	4.458
Convergence, Y/N	Yes	Yes	Yes
Cap	796	866	807
Service Time	2.539	2.163	2.475
HCM Lane V/C Ratio	0.27	0.097	0.182
HCM Control Delay	9.2	7.6	8.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.1	0.3	0.7

HCM 6th TWSC
6: Fairfield Ave & Proposed Site Drive

10/19/2023

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	8	2	2	412	268	7
Future Vol, veh/h	8	2	2	412	268	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	2	2	448	291	8

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	747	295	299	0	0
Stage 1	295	-	-	-	-
Stage 2	452	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	381	744	1262	-	-
Stage 1	755	-	-	-	-
Stage 2	641	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	380	744	1262	-	-
Mov Cap-2 Maneuver	380	-	-	-	-
Stage 1	753	-	-	-	-
Stage 2	641	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1262	-	421	-	-
HCM Lane V/C Ratio	0.002	-	0.026	-	-
HCM Control Delay (s)	7.9	0	13.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-