SITE PLAN REVIEW SET

" RESIDENTIAL DEVELOPMENT"

LOCATION

12 & 18 TAYLOR STREET
STAMFORD, CONNECTICUT

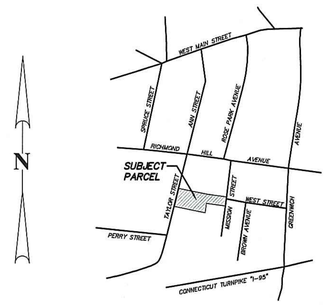
PREPARED FOR

G&T TAYLOR STREET LLC

0.5619 ACRES OR 24,478 S.F.

REFER TO MAPS No. 179 AND 12365 S.L.R.

"R-MF" ZONE



LOCATION MAP
1"=400'±

SHEET INDEX

SHEET	TITLE	REVISION	DATE
–	TOPOGRAPHIC SURVEY	0	10-6-20
1 OF 1	EXISTING CONDITIONS PLAN	0	5-2-23
1 OF 4	DEVELOPMENT PLAN	1	7-24-23
2 OF 4	UTILITY PLAN	1	7-24-23
3 OF 4	SEDIMENTATION & EROSION CONTROL PLAN	1	7-24-23
4 OF 4	NOTES & DETAILS	1	7-24-23
1 OF 1	LOW IMPACT DEVELOPMENT PLAN	1	7-24-23

PLAN SET PREPARED BY:

D'ANDREA SURVEYING & ENGINEERING, P.C. LEONARD C. D'ANDREA CT. PE No. 14869 — 7-24-23 DATE

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REV.	DATE	DESCRIPTION
1	7-24-23	MINOR REVISIONS
0	5-2-23	INITIAL SUBMISSION

PARCEL ID 001-9860

PARCEL ID 004-1371

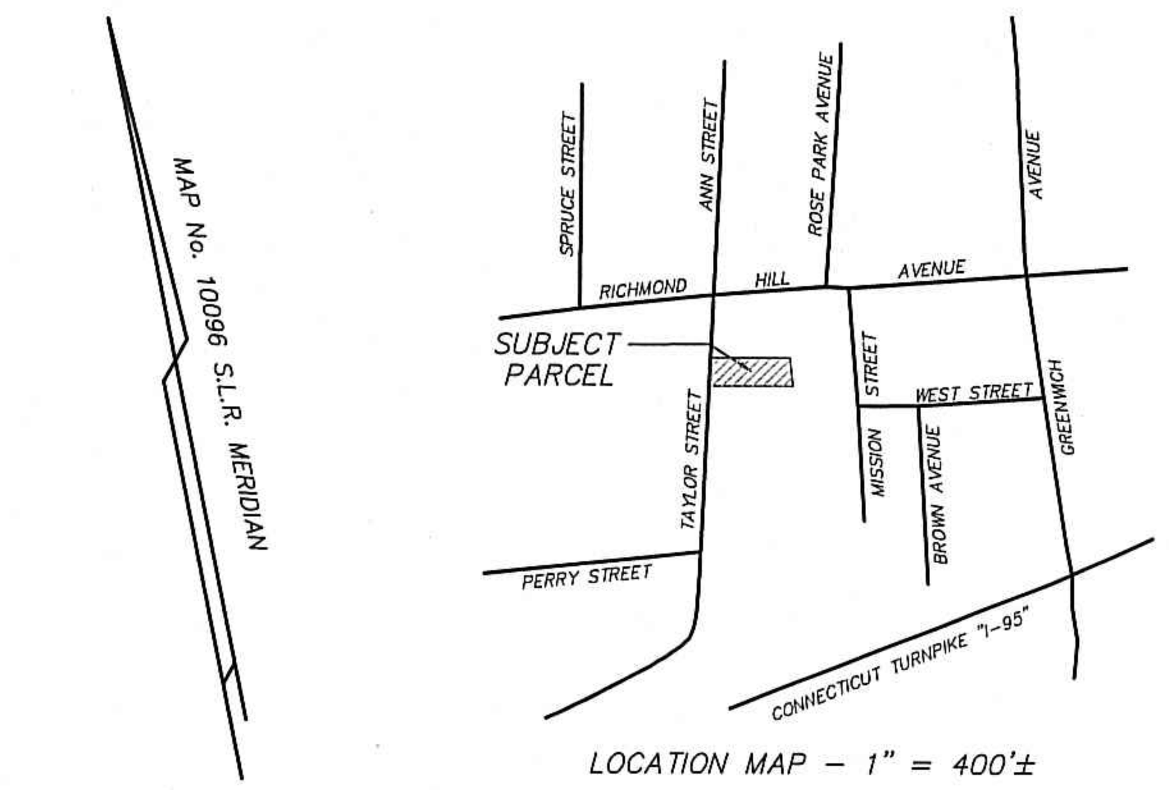
D'ANDREA SURVEYING & ENGINEERING, P.C.
• LAND PLANNERS
• ENGINEERS
• SURVEYORS
P.O. BOX 549 RIVERSIDE, CT 06878
6 NEIL LANE TEL. 637-1779

PROJECT	RESIDENTIAL DEVELOPMENT
PREPARED FOR	G&T TAYLOR STREET LLC
LOCATION	12 & 18 TAYLOR STREET STAMFORD, CONNECTICUT

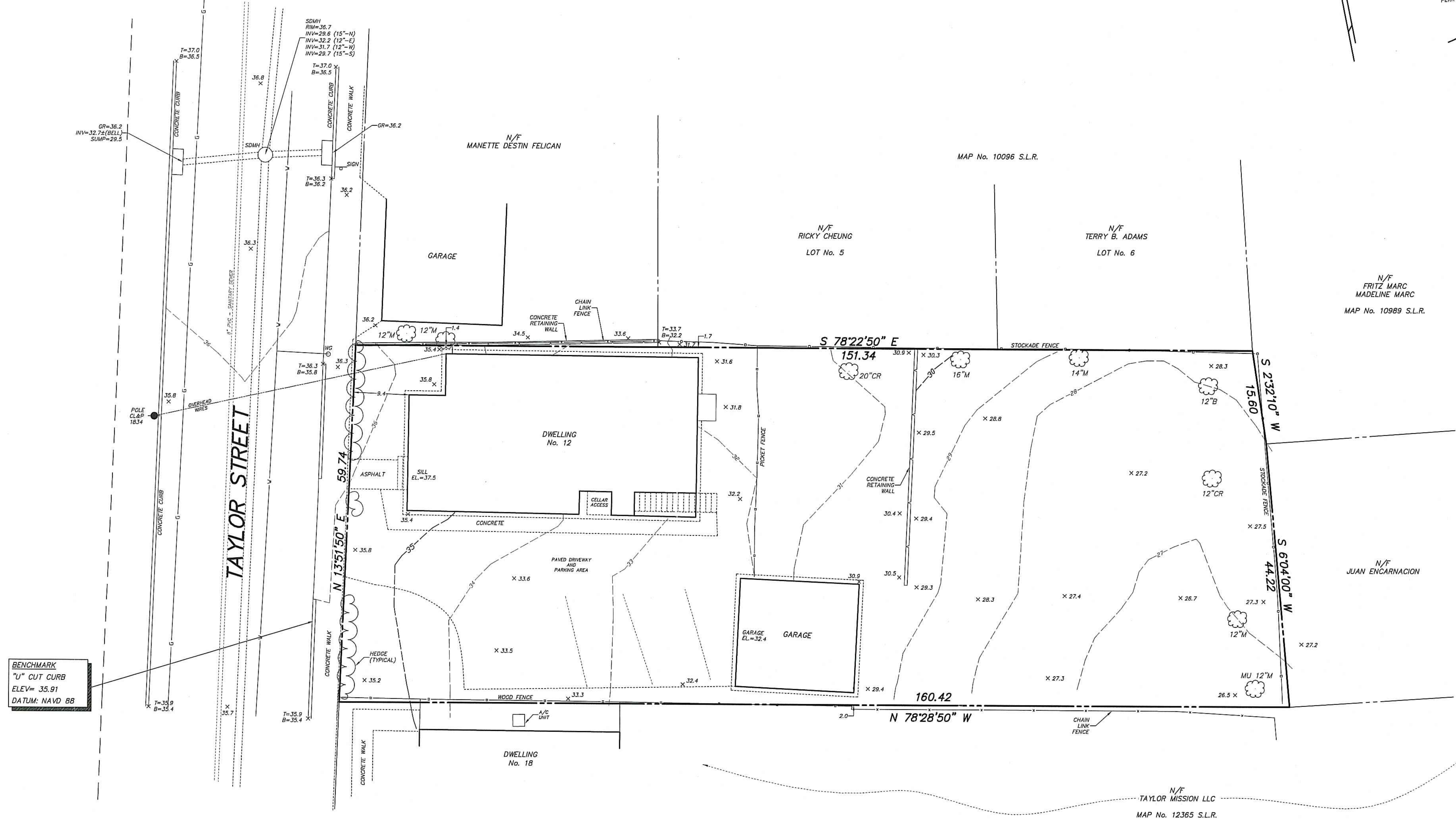
MISSRICH_20PA_CS_01_REV1.DWG (MMK)

20PA

BLOCK No. 15



LOCATION MAP – 1" = 400'±



TREE LEGEND

B – BIRCH
CR – CHERRY
M – MAPLE

MU – MULTI

SYMBOL LEGEND

SDMH – STORM DRAIN MANHOLE
SSMH – SANITARY SEWER MANHOLE
UTILITY POLE
WG – WATER GATE
ELEVATION CONTOURS
24.4 × SPOT ELEVATION
DECIDUOUS TREE
CONIFEROUS TREE
HEDGE
—G— APPROXIMATE LOCATION OF UNDERGROUND UTILITIES: W–WATER AND G–GAS

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, INCLUDING PHYSICAL EVIDENCE, AND UTILITY COMPANY SKETCHES. DEPICTED UTILITIES ARE APPROXIMATE, AND ARE INCOMPLETE. SURVEY DECLARATION OF ACCURACY DOES NOT EXTEND TO THE PLOTTING OF UDERGROUND UTILITIES. UNDERGROUND UTILITY LOCATIONS SHALL BE FIELD VERIIFIED AND MARKED PRIOR TO COMMENCING ANY EXCAVATION ACTIVITIES, "CALL BEFORE YOU DIG", 1–800–922–4455.

BUILDING COVERAGE

LOT AREA = 9,305 S.F.
DWELLING = 1,238 S.F.
GARAGE = 362 S.F.
TOTAL = 1,600 S.F.

PERCENT COVERAGE = 17.2%

CONTOURS AND ELEVATIONS DEPICTED HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

THIS MAP IS A TOPOGRAPHIC SURVEY. TOPOGRAPHIC DATA IS IN ACCORDANCE WITH CLASS "T–2" TOPOGRAPHIC ACCURACY. 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 IN THE COURSE OF MAKING THIS SURVEY.

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AREA = 9,305 S.F.

REFER TO VOLUME 12434 PAGE 170 S.L.R.

LAND LIES IN "R–MF" 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 6, 2020

MISSRICH_20PA_TS_0.DWG

CONTOUR INTERVAL = ONE FOOT

1 INCH = 10 FEET

SCALE 10 0 10 IN FEET

TOPOGRAPHIC SURVEY
OF PROPERTY AT
12 TAYLOR STREET
IN
STAMFORD, CONNECTICUT
PREPARED FOR
HAIMANOT BELLETE

GENERAL NOTES:

1. Refer to a map entitled "Existing Conditions Plan, Owner: Taylor Mission LLC, Site: 18 Taylor Street, Stamford, Connecticut, prepared by Edward J. Frattaroli, Inc. and revised to October 16, 2008.

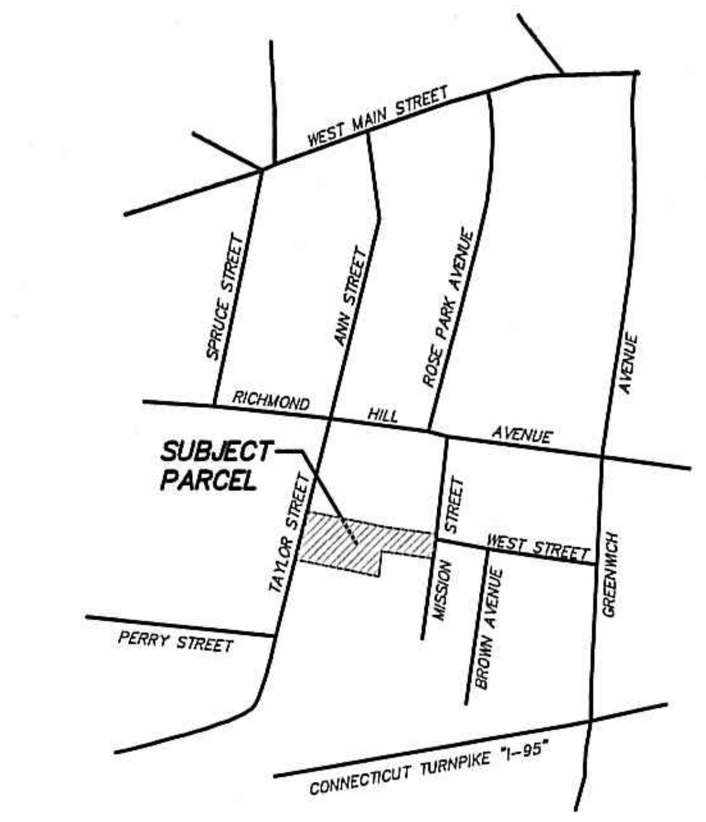
2. The limits of wetlands are taken from a map entitled "Existing Conditions Plan, Owner: Taylor Mission LLC, Site: 18 Taylor Street, Stamford, Connecticut, prepared by Edward J. Frattaroli, Inc. and revised to October 16, 2008.

3. Contours and elevations depicted hereon are referenced to the North American Vertical Datum of 1988 (NAVD88).

4. In accordance with Connecticut Public Act 87–71 and Connecticut General Statutes (CGS) Sections 16–345 through 16–359, the contractor shall 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.

5. The locations of subsurface structures and utilities as depicted hereon indicate only that the structures exist, and no responsibility is assumed by the engineer or surveyor for the accuracy of the locations shown.

6. The contractor shall dig test pits to verify the depth and location of existing utilities, sewers, and storm drains prior to installation. Any potential conflicts shall be brought to the attention of the project engineer.



LOCATION MAP
1"=400'±

1 INCH = 20 FEET
SCALE
20 0 20
IN FEET

REV.	DATE	DESCRIPTION
0	5-2-23	INITIAL SUBMISSION

LEONARD C. D'ANDREA CT. PE No. 14869
ENGINEER — DATE 5-2-23

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

PROJECT	RESIDENTIAL DEVELOPMENT
PREPARED FOR	G&T TAYLOR STREET LLC
LOCATION	18 TAYLOR STREET, STAMFORD, CONNECTICUT
1 OF 1	EXISTING CONDITIONS PLAN

20PA

SYMBOL LEGEND:

--30--	EXISTING CONTOUR	H.P.	HIGH POINT
× 25.3	EXISTING SPOT ELEVATION	RD	ROOF DRAIN
(30)	PROPOSED CONTOUR	RS	RETENTION SYSTEM
× (25.3)	PROPOSED SPOT ELEVATION	EV-C	ELECTRIC VEHICLE CHARGER
	TREE TO REMAIN	EV-R	ELECTRIC VEHICLE RESERVED
			FIRE HYDRANT
	CONIFEROUS TREE		UTILITY POLE
	STONE WALL		SIGN
		CO	CLEAN OUT
CB	CATCH BASIN	WG	WATER GATE
C.O.	CLEAN OUT	SSMH	SANITARY SEWER MANHOLE
JB	JUNCTION BOX	CB	CATCH BASIN
YD	YARD DRAIN	TEST	TEST PIT
DCB	DRIVEWAY CATCH BASIN		
PVC	POLYVINYL CHLORIDE		
CPP	CORRUGATED PLASTIC PIPE	—G——G—	UNDERGROUND UTILITY SERVICE: W=WATER, G=GAS
TW	TOP OF WALL		
RCP	REINFORCED CONCRETE PIPE		
A.O.B.E.	AS ORDERED BY ENGINEER		
V.I.F.	VERIFY IN FIELD		

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, INCLUDING PHYSICAL EVIDENCE, AND UTILITY COMPANY SKETCHES. DEPICTED UTILITIES ARE APPROXIMATE, AND ARE INCOMPLETE. 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," 1-800-922-4455.

GENERAL NOTES:

1. Refer to a map entitled "Topographic Survey of property at 12 Taylor Street in Stamford, Connecticut, prepared for Haimanot Bellete", as prepared by D'Andrea Surveying & Engineering, P.C., and dated October 6, 2020.
2. Refer to a map entitled "Existing Conditions Plan, Owner: Taylor Mission LLC, Site: 18 Taylor Street, Stamford, Connecticut", prepared by Edward J. Frattaroli, Inc. and revised to October 16, 2008.
3. The limits of wetlands are taken from a map entitled "Existing Conditions Plan, Owner: Taylor Mission LLC, Site: 18 Taylor Street, Stamford, Connecticut, prepared by Edward J. Frattaroli, Inc. and revised to October 16, 2008.
4. Contours and elevations depicted hereon are referenced to the North American Vertical Datum of 1988 (NAVD88).
5. Refer to architectural plans as prepared by Aivalis Architects and Developers for interior bicycle storage.
6. Refer to landscape plans as prepared by Environmental Land Solutions, LLC.

MISSRICH_20PA_DP_00_REV0.dwg

REV.	DATE	DESCRIPTION
1	7-24-23	MINOR REVISIONS
0	5-2-23	INITIAL SUBMISSION

LEONARD C. D'ANDREA CT. PE No. 14869

ENGINEER — DATE 7-24-23

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P.O. BOX 549 RIVERSIDE, CT 06878
6 NEIL LANE TEL. 637-1779

PROJECT	RESIDENTIAL DEVELOPMENT
PREPARED FOR	G&T TAYLOR STREET LLC
LOCATION	12 & 18 TAYLOR STREET, STAMFORD, CONNECTICUT
1 OF 4	GRADING PLAN

20PA

18 TAYLOR STREET, STAMFORD, CONNECTICUT
TEST PITS 1 THROUGH 3 CONDUCTED BY D'ANDREA SURVEYING & ENGINEERING, PC ON MARCH 26, 2016.
TEST PIT 4 CONDUCTED BY D'ANDREA SURVEYING & ENGINEERING, PC ON JULY 7, 2016.

Test Pit #1
0"–6" Topsoil
6"–36" Light Brown Silty Loam
36"–97" Light Brown Silty, Some Clay
97" Mottling @ 40", Water @ 90", No ledge

Test Pit #2
0"–6" Topsoil
6"–24" Light Brown Silty Loam
24"–82" Light Brown Silty Mixed w/ Grey Clay
82" Mottles @ 25", Water @ 30", No ledge

Test Pit #3
0"–30" Millings
30"–48" Light Brown Fine Loam
48"–64" Tan Fine w/ Some Clay
64"–92" Sandy Gravel
92" Mottles @ 48", Water @ 52", No ledge

Test Pit #4
0"–7" Topsoil
7"–24" Clean Fill: Brown, Silty Sand
24"–37" Light Brown Natural Loam
37"–72" Tan Silty Fine Soil
72" Possible Mottles @ 57", No Water, No Ledge

LAND LIES IN "R–MF" ZONING DISTRICT
AREA = 24,478 S.F.

BENCHMARK
"U" CUT CURB
ELEV= 35.91
DATUM: NAVD 88

LOCATION MAP
1"=400'±

STAMFORD DRAINAGE MAINTENANCE REQUIREMENTS AND SCHEDULE:

NOTE: THE FOLLOWING IS A BEST PRACTICE MAINTENANCE SCHEDULE FOR THE STORMWATER MANAGEMENT STRUCTURES DESIGNED HERIN ON THIS PLAN SET FOR THE OWNERS OF THE SUBJECT PARCEL TO FOLLOW. IT IS NOT INTENDED TO DESCRIBE OR SUPERSEDE THE MAINTENANCE AGREEMENT COVENANT OF THE SUBJECT PARCEL, AS REQUIRED BY THE CITY OF STAMFORD UPON COMPLETION OF WORK AND PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. REFER TO THE CITY OF STAMFORD DRAINAGE MAINTENANCE AGREEMENT COVENANT REGARDING LONG–TERM MAINTENANCE REQUIREMENTS, CITY APPROVAL, CITY RIGHTS TO INSPECTION, AND PENALTY AND LEGAL ACTION FOR FAILURE OF COMPLIANCE TO SAID AGREEMENT COVENANT.

1. OWNER shall clean the drainage facilities or cause such facilities to be cleaned by periodic removal of accumulated sediment and debris in a good and workman–like manner, at least two (2) times during every twelve (12) month period, which times shall be in the period between April and June and between October and December and more often as the City may determine to be necessary.

2. OWNER shall sweep, or cause to be swept, garage facilities, driveways and roadway surfaces located on the Property at least once per calendar quarter.

3. OWNER shall utilize any sand or calcium chloride in connection with the de–icing of areas within the Property meaning and intending that road salt (Sodium Chloride) shall not be used for said purpose.

4. OWNER shall repair or replace any defects or defective drainage facilities so as to maintain the drainage facilities, at all times, in a fully functional capacity.

5. OWNER shall file as–built drainage plans with the EPB immediately upon the completion of work. Said plans shall be prepared by a professional engineer/surveyor registered in the State of Connecticut.

PHOTO RECORD (CONTRACTOR TAKE NOTICE)

THE SITE CONTRACTOR SHALL BE RESPONSIBLE TO TAKE SITE PICTURES OF ALL THE FOLLOWING MILESTONES AND TO NOTIFY THE PROJECT ENGINEER OF EACH MILESTONE BEING REACHED. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER WITH A DIGITAL LIBRARY OF THE PHOTOGRAPHY AS THE PROJECT PROGRESSES WITH A COMPLETE LIBRARY AT THE END OF THE SITE WORK PHASE.

	PROJECT MILESTONES
1	E & S Controls at start of construction
2	Protection and/or installation of each non–structural LID BMP
3	Soils verification for each detention/retention/structural LID BMP
4	Amended soils verification for each BMP
5	Each detention/retention/structural LID BMP during construction
6	Each detention/retention/structural LID BMP prior to backfilling/completion
7	Each detention/retention/structural LID BMP at completion
8	Final site inspection throughout site

REV.	DATE	DESCRIPTION
1	7–24–23	MINOR REVISIONS
0	5–2–23	INITIAL SUBMISSION

LEONARD C. D'ANDREA CT. PE No. 14869
ENGINEER — 7–24–23 DATE

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• LAND PLANNERS • ENGINEERS • SURVEYORS
P.O. BOX 549, RIVERSIDE, CT 06878 — 6 NEIL LANE, TEL. 637–1779

PROJECT	RESIDENTIAL DEVELOPMENT
PREPARED FOR	G&T TAYLOR STREET LLC
LOCATION	12 & 18 TAYLOR STREET, STAMFORD, CONNECTICUT
2 OF 4	UTILITY PLAN

MISSION_ZEPA_UP_01_REV1.dwg
ZEPA

SEDIMENTATION AND EROSION CONTROL NOTES

1. 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.
2. Erosion and sediment control devices shall be installed in their proper sequence. No clearing or grading may be done in any area until the erosion control devices for that area, as shown on the plan, are in place and functional.
3. Natural vegetation shall be maintained and protected where practical.
4. All sediment and erosion control devices and provisions shall be maintained in operational condition by the contractor until final acceptance of the project.
5. No changes of this soil erosion and sediment control plan may be made without prior approval of the supervising engineer.
6. Land disturbance is to be kept to a minimum. Reestablishment and/or stabilization of disturbed areas shall be scheduled as soon as practical.
7. 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 by that contractor.
8. 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.
9. The contractor may provide alternate means of sediment control, but he may not eliminate placement of protection in the areas indicated hereon.
10. 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 Propex Silt Stop (TM) as manufactured by Amoco, or engineer approved equivalent.
11. The contractor shall re-grade, topsoil, and seed all disturbed areas immediately after construction has been completed.
12. Refer to Connecticut Guidelines for Soil Erosion and Sediment Control (2002) for additional details and specifications.
13. Additional protection measures shall be implemented should site conditions warrant them.
14. All designated trees shall be protected during the construction period, except those designated to be removed. Tree protection shall be in accordance with generally accepted standards. (Refer to the Connecticut Guidelines for Soil Erosion and Sediment Control (2002) for details and specifications).

CONSTRUCTION STAGING:

1. Install sedimentation and erosion controls.
2. Rough in proposed driveway and construction access.
3. Strip topsoil and stockpile it with appropriate sedimentation and erosion control measures.
4. Excavate for proposed dwelling foundations.
5. Construct proposed dwelling foundations and retaining walls.
6. Install storm drainage system, sanitary sewer system, and underground utilities.
7. Backfill and rough grade around dwelling foundations, stabilize all slopes.
8. Construct proposed dwellings.
9. Construct driveway and curbing.
10. Construct steps and walkways.
11. Fine grade and stabilize all slopes.
12. Landscape as required.
13. Remove sedimentation and erosion controls.

REV.	DATE	DESCRIPTION
1	7-24-23	MINOR REVISIONS
0	5-2-23	INITIAL SUBMISSION

LEONARD C. D'ANDREA CT. PE No. 14869

ENGINEER — DATE 7-24-23

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· LAND PLANNERS · ENGINEERS · SURVEYORS
P.O. BOX 549 RIVERSIDE, CT 06878
6 NEIL LANE TEL. 637-1779

PROJECT	RESIDENTIAL DEVELOPMENT
PREPARED FOR	G&T TAYLOR STREET LLC
LOCATION	12 & 18 TAYLOR STREET, STAMFORD, CONNECTICUT
3 OF 4	SEDIMENTATION AND EROSION CONTROL PLAN

20PA

GENERAL NOTES:

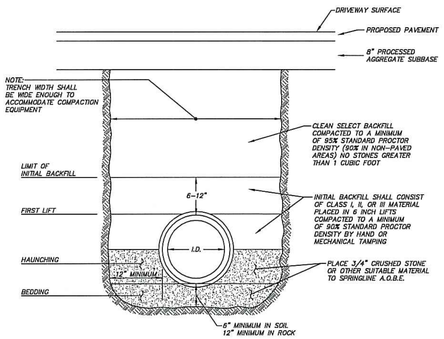
1. Refer to a map entitled "Existing Conditions" of property at 18 Taylor Street in Stamford, Connecticut, as prepared by D'Andrea Surveying & Engineering, P.C. and dated May 2, 2023.
2. The limits of wetlands are taken from a map entitled "Existing Conditions Plan, Owner: Taylor Mission LLC, Site: 18 Taylor Street, Stamford, Connecticut, prepared by Edward J. Frattaroli, Inc. and revised to October 16, 2008.
3. Contours and elevations depicted hereon are referenced to the North American Vertical Datum of 1988 (NAVD 88).
4. In accordance with Connecticut Public Act 87–71 and Connecticut General Statutes (CGS) Sections 16–345 through 16–359, the contractor shall 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.
5. The locations of subsurface structures and utilities as depicted hereon indicate only that the structures exist, and no responsibility is assumed by the engineer or surveyor for the accuracy of the locations shown.
6. A Street Opening Permit is required for all work within the City of Stamford Right–of–Way.
7. The contractor shall be responsible for securing all required permits from the City of Stamford for completion of the project.
8. 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.
9. All construction shall comply with applicable sections of the State of Connecticut, Local, and International Building codes, and those criteria shall take precedent over these plans.
10. 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 Location Plan, prepared by a licensed Land Surveyor in the State of Connecticut, will be required for submission.
11. 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.
12. THE ENGINEERING BUREAU OF THE CITY OF STAMFORD SHALL BE NOTIFIED THREE DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AFFECTING THE CITY RIGHT–OF–WAY.
13. The project engineer shall be notified a minimum of three working days prior to the commencement of construction.
14. Appropriate measure shall be taken to control any sedimentation and erosion which may result during construction. Sedimentation and erosion controls shall be maintened and repaired as necessary throughout construction until the site is stabilized.
15. All material excavated during construction must be disposed of legally off site.
16. Significantly sized trees shall be preserved to the greatest extent feasible.
17. Pavement replacement shall be bituminous concrete, placed in accordance with the City of Stamford standards and/or Connecticut State Highway specifications.
18. Shoulders and disturbed areas shall receive four inches of topsoil; fine graded and seeded as soon as practical to prevent erosion.
19. Existing inverts on sanitary sewer lateral and utility services shall be field verified where appropriate, before commencing construction. The contractor shall excavate test pits wherever design 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.
20. Trees within the City of Stamford Right–of–Way, designated to be removed, shall be posted in accordance with the Tree Ordinance.
21. All retaining walls greater than three (3) feet are required to be designed and inspected during construction by a Professional Engineer licensed in the State of Connecticut. Certification of the retaining wall shall be required prior to the issuance of a Certificate of Occupancy and/or bond release.
22. 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.
23. A Final Location Plan will be required by a professional land surveyor licensed in the State of Connecticut.
24. Granite block or other decorative stone or brick, depressed curb, driveway apron, and curbing within the City of Stamford Right–of–Way shall require a waiver from the City of Stamford Engineering Bureau.
25. All PVC pipe shall conform to ASTM D–3034 "standard specification for type PSM–Poly Vinyl Chloride (PVC) sewer pipe and fitting", or engineer approved equivalent (SDR–35).
26. Bedding and backfill material shall conform to ASTM D2321 specification "standard recommended practice for underground installations of flexible thermoplastic sewer pipe (PVC)".
27. The contractor shall provide all the equipment, tools, labor and materials necessary to satisfactorily clean and remove all visible obstructions, dirt, sand, sludge, roots, gravel, stones, etc., from the designated drains and manholes.
28. Processed aggregate shall be in accordance with the City of Stamford standards and/or Connecticut State Highway specifications.
29. A 6" layer of crushed stone shall be placed under any exterior decks and/or open stairways.
30. Contractor shall coordinate with Project Engineer and Stamford WPCA to confirm invert of existing sewer collector prior to installation of private sewer line and adjust pipe slope as required. Confirm with Project Engineer and WPCA.
31. Refer to architectural plans as prepared by Aivalis Architects & Developers.

CITY OF STAMFORD NOTES:

1) A Street Opening Permit is required for all work within the City of Stamford Right–of–Way.
2) 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.
3) The City of Stamford Engineering Bureau shall be notified three days prior to the commencement of any construction within the City of Stamford Right–of–Way.
4) Trees within the City of Stamford Right–of–Way, designated to be removed, shall be posted in accordance with the Tree Ordinance.
5) 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.
6) 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.
7) 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.
8) A Final Survey Map depicting "As–built" site conditions shall be prepared by a professional land surveyor licensed in the State of Connecticut and submitted to the Engineering Bureau.
9) 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.
10) 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.
11) Sedimentation and erosion controls shall be maintained and repaired as necessary throughout construction until the site is stabilized.
12) To obtain a Certificate of Occupancy, submital must include all items outlined in the Checklist for Certificate of Occupancy (Appendix D of the City of Stamford Drainage Manual).

WATER POLLUTION CONTROL AUTHORITY NOTES:

a. Proposed sanitary tie–in connection must be an approved saddle connection to the public sewer line if a direct connection to the sewer collector in the street is required. A chimney connection may be required to ensure the private lateral slope does not exceed 2% and it must meet either the City standard specification and/or the approved modular style chimney design requirements. Both saddle and/or chimney connections must be encased in concrete.
b. Applicant and/or Contractor needs to schedule the tie–in activity with Stamford WPCAs Collection Systems Supervisor at least 3–days in advance for scheduling WPCA personnel to witness and photograph the sewer tie–in connection. Anytime between 7:30 a.m. and 2 p.m. (Mon. thru Fri.).
c. The contractor is not to break into the public sewer line without WPCA being present.
d. The sewer tie–in distance information from at least 2–permanent stations, i.e., telephone pole and number, distance from nearest manhole cover, corner of building with address number, etc., and depth of tie–in, along with a sketched drawing depicting these monuments and distances must be submitted for final approval.
e. A connection charge may be assessed by the SWPCA in accordance with Section 200–41. Please be aware that the connection charge based on the new development and prior use of the site can be substantial. The connection charge becomes due at the time the CO is issued.
f. Upon receipt of WPCAs approval, the owner/permit applicant must coordinate and schedule the reconnection activity of the new lateral to the existing stub lateral with the City Plumbing inspector.
g. Before connecting to the stub lateral, the owner/permit applicant must videotape this stub lateral to the public sanitary sewer line to ensure there are no obstructions and the lateral is in good operational condition. A copy of this video must be provided to WPCA for review and approval.

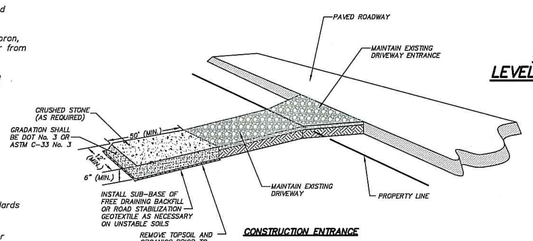


DETAIL FOR PVC SANITARY SEWER AND STORM DRAIN INSTALLATION

N.T.S.

NOTES:

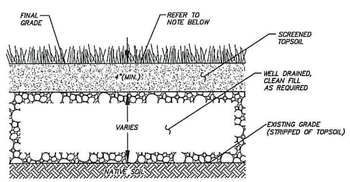
1. REFER TO ASTM D2321 (STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY–FLOW APPLICATIONS) FOR TRENCHING SPECIFICATIONS.
2. THIS SECTION IS DESIGNED TO RESIST UPLIFT FLOOD FORCES ASSOCIATED WITH THE MINIMUM ELEVATION STANDARD AS SPECIFIED IN THE ZONING REGULATIONS.



CONSTRUCTION ENTRANCE

ANTI–TRACKING PAD DETAIL

N.T.S.



LAWN RESTORATION DETAIL

N.T.S.

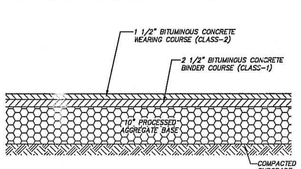
NOTE:

1. Land disturbance shall be kept to a minimum. All disturbed areas shall be planted in where permanent plantings are called for as soon as practicable. Seed and mulch disturbed areas with grass seed where permanent plantings are not called for, as soon as practicable. Prepare seedbed (4" thick minimum) with topsoil. Seed, rake, roll, water and mulch areas according to mixes below. Water as often as necessary (up to 3 times per day) to establish cover. Mulch seeded areas at 1 to 2 tons/acre with salt hay. Maintain mulch and watering until grass is 3" high with 85% cover. Reseed or overseed if necessary.

Temporary Seed Mix:
Perennial ryegrass 40 lbs/ac.

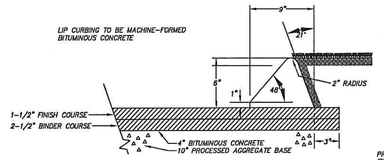
Permanent Lawns:
Kentucky Bluegrass 20 lbs/ac.
Creeping red fescue 20 lbs/ac.
Perennial ryegrass 5 lbs/ac.
(1 lb/1000 sf.)

Optimum Seeding Dates:
April 15 through June 15
August 15 through October 1 45 lbs/ac.
(1 lb/1000 sf.)



ASPHALT DRIVEWAY PATCH DETAIL

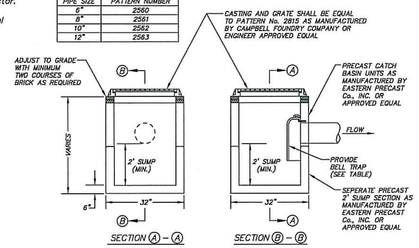
N.T.S.



ROADWAY ASPHALT CURB DETAIL

N.T.S.

TABLE FOR CATCH BASIN TRAP ASSEMBLY	
PIPE SIZE	CAMPBELL FOUNDRY PATTERN NUMBER
6"	2560
8"	2561
10"	2562
12"	2563

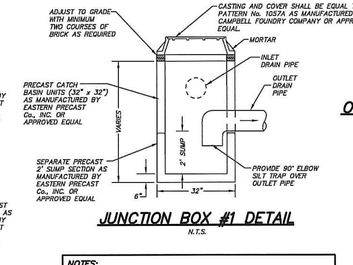


DRIVEWAY CATCH BASIN DETAIL TYPE "CL"

N.T.S.

SUMP NOTE:
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.



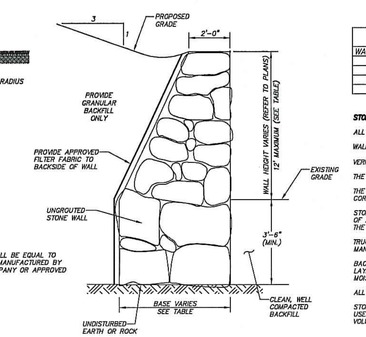
JUNCTION BOX #1 DETAIL

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.



OPEN JOINTED STONE RETAINING WALL

N.T.S.

WALL TABLE	
WALL HEIGHT	BASE
< 6'	4'–0"
8'	5'–0"
10'	6'–6"
12'	7'–0"

STONE RETAINING WALL NOTES

ALL WORK SHALL COMPLY WITH THE STATE AND LOCAL BUILDING CODES AND SPECIFICATIONS.

WALL IS DESIGNED AS UNGROUTED.

VERIFY ALL DIMENSIONS IN THE FIELD AND REPORT ANY DISCREPANCIES TO ROCCO V. D'ANDREA, INC.

THE CONTRACTOR SHALL VERIFY ALL DRAWINGS FOR COORDINATION BETWEEN TRADES.

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND ACCEPT FULL RESPONSIBILITY FOR DIMENSIONAL CORRECTNESS.

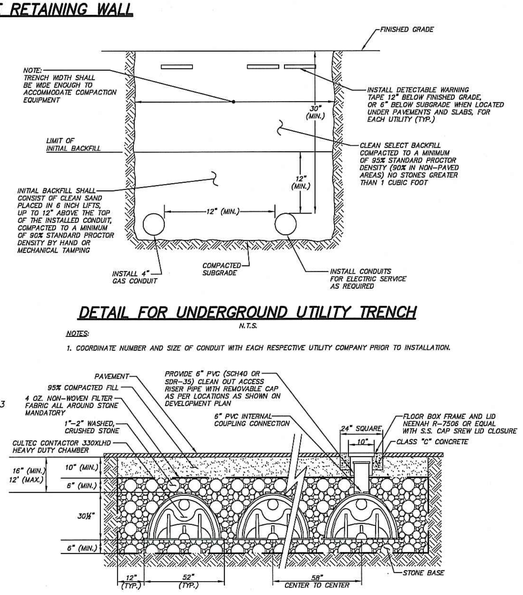
STONE WALLS SHALL BEAR ON UNDISTURBED SOIL OR ROCK HAVING A MINIMUM SAFE BEARING CAPACITY OF 2 TONS PER SQUARE FOOT. THIS VALUE SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER FOR THE SPECIFIC APPLICATION AND LOCATION.

TRUCKS, BULLDOZERS OR OTHER HEAVY EQUIPMENT SHALL BE OPERATED WITH CAUTION AND IN SUCH A MANNER AS TO CAUSE NO DAMAGE TO RETAINING WALL SYSTEMS.

BACKFILL WITH APPROVED GRANULAR MATERIAL; BACKFILLING FRONT OF WALL SHALL BE DONE IN LAYERS, NOT TO EXCEED 10 INCHES. COMPACTION SHALL BE 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT. EXCAVATION MUST BE FREE OF WATER WHILE STONE WORK IS IN PROGRESS.

ALL STONE SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 2,000 PSI.

STONE SIZES SHALL BE GRADED FROM 25% TO 100% OF THE WALL WIDTH. SMALLER STONES MAY BE USED TO LOCK THE WALL AS REQUIRED, BUT THE AMOUNT SHALL NOT EXCEED 20% OF THE TOTAL VOLUME OF THE WALL AND THESE STONES SHALL BE EVENLY DISTRIBUTED.



DETAIL FOR UNDERGROUND UTILITY TRENCH

N.T.S.

NOTES:

1. COORDINATE NUMBER AND SIZE OF CONDUIT WITH EACH RESPECTIVE UTILITY COMPANY PRIOR TO INSTALLATION.

TYPICAL CROSS SECTION DETAIL CULTEC CHAMBER SYSTEM RECHARGER 330XLHD PAVED (H–20) LOADING

N.T.S.

NOTES:
1. STORMWATER CHAMBERS SHALL BE MANUFACTURED BY CULTEC, INC. (800) 428–5832 OR ENGINEER APPROVED EQUAL.
2. ALL CHAMBERS SHALL BE INSTALLED ACCORDING TO MANUFACTURER SPECIFICATIONS.
3. THE SOILS BENEATH THE INFILTRATION SYSTEM SHALL BE SCARIFIED OR TILLED TO IMPROVE INFILTRATION.

STORM WATER LEVEL SPREADER DETAIL

N.T.S.

NOTE: STOCKPILES SHALL NOT BE PLACED OVER ANY INFILTRATION SYSTEM.

INSTALLATION DETAIL SEDIMENT CONTROL FABRIC

N.T.S.

DOWNSPOUT OVERFLOW DETAIL

N.T.S.

RESIDENTIAL SPLASH PAD DETAIL

N.T.S.

CONCRETE FOR THE SIDEWALK SHALL BE PLACED TO A UNIFORM DEPTH OF FIVE (5) INCHES UPON A SIX (6) INCH GRAVEL OR CRUSHED STONE BASE. THE SURFACE EDGES OF EACH PANEL SHALL BE ROUNDED TO A RADIUS OF 3/32 INCH.

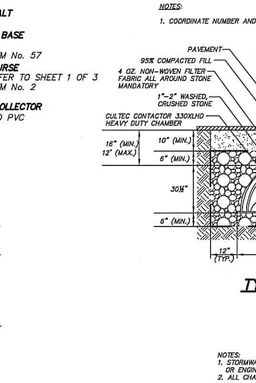
A 1/4" THICK APPROVED PRE–FORMED BITUMINOUS JOINT SHALL BE PLACED TRANSVERSELY ACROSS THE SIDEWALK IN EXPANSION JOINTS AT INTERVALS OF 60 FEET (MAXIMUM).

A MARKED OR SCORED JOINT SHALL BE MADE AT FIVE FOOT INTERVALS BETWEEN CONTRACTION JOINTS. SCORED JOINTS SHALL BE 1 1/4" DEEP.

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 WITHOUT CURB

N.T.S.

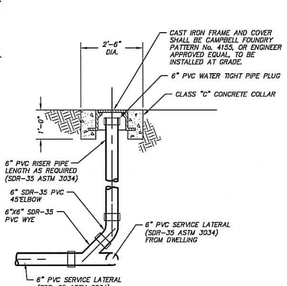


POROUS ASPHALT AND STONE RESERVOIR DETAIL

N.T.S.

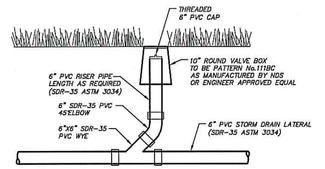
NOTES:

1. 2" STONE MEETS ASTM No. 2 STANDARDS. 3/4" STONE MEETS ASTM No. 57 STANDARDS.
2. THE UNDERLYING SOIL SHALL BE SCARIFIED OR TILLED TO IMPROVE INFILTRATION BEFORE APPLYING THE RESERVOIR COURSE.
3. WHERE THE SYSTEM IS LOCATED WITHIN 10 FEET OF A RETAINING WALL OR FOUNDATION, INSTALL UV–RESISTANT IMPERMEABLE 30 MIL POLYLINER ON BOTTOM AND SIDES OF THE STONE RESERVOIR AS ORDERED BY THE PROJECT ENGINEER.
4. NON–WOVEN GEOTEXTILE FILTER FABRIC IS RECOMMENDED ALONG THE SIDES. FILTER FABRIC SHALL NOT BE USED ALONG THE BOTTOM OR BETWEEN LAYERS.
5. EACH STONE LAYER SHALL BE COMPACTED BEFORE APPLYING THE LAYER ABOVE.
6. ADD ADDITIONAL RESERVOIR COURSE AS NECESSARY TO PARALLEL THE FINAL GRADE.
7. THE POROUS ASPHALT SHALL BE PROTECTED FROM SEDIMENTS DURING CONSTRUCTION TO PREVENT CLOGGING.



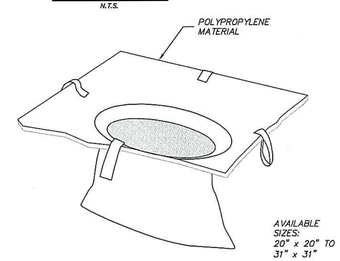
CLEAN OUT IN DRIVEWAY

N.T.S.



ROOF DRAIN CLEAN OUT TO GRADE DETAIL

N.T.S.



TEMPORARY STOCKPILE DETAIL

N.T.S.

PIG™– STORM DRAIN FILTER DETAIL

N.T.S. www.newpig.com

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

REV.	DATE	DESCRIPTION
1	7–24–23	MINOR REVISIONS
0	5–2–23	INITIAL SUBMISSION

LEONARD C. D'ANDREA, CT. PE No. 14869
ENGINEER — DATE 7–24–23

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

PROJECT	RESIDENTIAL DEVELOPMENT
PREPARED FOR	G&T TAYLOR STREET LLC
LOCATION	12 & 18 TAYLOR STREET, STAMFORD, CONNECTICUT
4 OF 4	NOTES AND DETAILS

MISSRICH_20PA_ED_01_REVLDWG (MMK)

20PA

LAND LIES IN "R-MF" ZONING DISTRICT
AREA = 24,492 S.F.
TAYLOR STREET
MISSION STREET
WEST STREET
BENCHMARK
"U" CUT CURB
ELEV= 35.91
DATUM: NAVD 88
EXISTING SIDEWALK TO BE REMOVED. CONSTRUCT NEW REINFORCED CONCRETE DRIVEWAY ENTRANCE (20' WIDE MAX.) IN ACCORDANCE WITH CITY OF STAMFORD STANDARDS. MATCH SLOPE OF EXISTING SIDEWALK AND ROADWAY.
N/F RICKY CHEUNG LOT No. 5
N/F TERRY B. ADAMS LOT No. 6
N/F FRITZ MARC MADELINE MARC MAP No. 10989 S.L.R.
N/F JUAN ENCARNACION
N/F OSCAR W. HOPP WILLIAM O. HOPP
N/F ROBERT AUSTIN
A/C UNIT (TO REMAIN)
INSTALL STOP BAR AND "STOP" SIGN
BUILDING B UNITS 4-5 EXISTING BUILDING TO REMAIN DWELLING No. 12
CONCRETE WALK TO BE REMOVED
BUILDING C UNITS 6-9
PROPOSED UNIT 6 FF=40.2±
PROPOSED UNIT 7 FF=39.2±
PROPOSED UNIT 8 FF=38.3±
PROPOSED UNIT 9 FF=37.4±
PROPOSED A/C UNITS (TYP.)
PROVIDE REFUSE AREA ON CONCRETE PAD SCREENED WITH VINYL FENCE AND DOUBLE GATE
MAP UNIT SYMBOL 307 URBAN LAND
A/C UNIT (TO BE RELOCATED)
BUILDING A UNITS 1-3 DWELLING No.18 EXISTING HISTORIC BUILDING TO REMAIN
BUILDING E UNITS 15-18
PROPOSED UNIT 18 FF=40.6±
PROPOSED UNIT 17 FF=39.4±
PROPOSED UNIT 16 FF=38.0±
PROPOSED UNIT 15 FF=37.6±
BUILDING D UNITS 10-14
PROPOSED UNIT 14 FF=36.3±
PROPOSED UNIT 13 FF=36.5±
PROPOSED UNIT 12 FF=36.6±
PROPOSED UNIT 11 FF=36.4±
PROPOSED UNIT 10 FF=36.0±
TWO-WAY
ONE-WAY
HC-1 VAN
EV-C
EV-R
APPROXIMATE LOCATION OF EXISTING POLE
EXISTING SIDEWALK TO BE REMOVED. CONSTRUCT NEW REINFORCED CONCRETE DRIVEWAY ENTRANCE (20' WIDE MAX.) IN ACCORDANCE WITH CITY OF STAMFORD STANDARDS. MATCH SLOPE OF EXISTING SIDEWALK AND ROADWAY.
CONCRETE RETAINING WALL DESIGNED BY OTHERS (TYP.)
INSTALL STOP BAR
PORTION OF EXISTING DRIVEWAY TO BE REMOVED AND LANDSCAPED
INSTALL EV CHARGING STATION AND SIGN
INSTALL "HANDICAPPED PARKING" SIGN
PROPOSED CLASS B BICYCLE PARKING UNDER LANDING (4 BIKES)
PROPOSED TRANSFORMER
INSTALL "STOP" AND "DO NOT ENTER" SIGNS
FENCE TO BE REMOVED
INV=18.2± (V.I.F.) CONFIRM EXISTING SANITARY SEWER COLLECTOR INVERT REFER TO GENERAL NOTE 30 ON SHEET 4 OF 4
SAWCUT PAVEMENT AND PATCH AS REQUIRED PER CITY OF STAMFORD STANDARDS AND SPECIFICATIONS
LOCATION MAP
1"=400'±
1 INCH = 10 FEET

HYDROLOGIC SOIL GROUP SUMMARY

MAP UNIT SYMBOL	MAP UNIT NAME	HYDROLOGIC SOIL GROUP (HSG)
307	URBAN LAND	D

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

SITE SUMMARY TABLE

TOTAL SITE AREA	24,492 S.F.	TOTAL DISTURBED AREA	20,600± S.F.
PRE-DEVELOPMENT IMPERVIOUS	8,705 S.F.	POST DEVELOPMENT IMPERVIOUS	19,149 S.F.
REQUIRED POLLUTANT REDUCTION VOLUME	NON-STRUCTURAL BMP	–	–

NOTES:

1. The purpose of this plan is only to hi-lite 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) The contractor shall coordinate the transfer of a control benchmark into the working area, after site preparation is complete, by a licensed surveyor.
3. Refer to Sheet 1 of 4 for a detailed depiction of the proposed site improvements.

MISSRICH_20PA_LID_01_REV1.dwg

REV.	DATE	DESCRIPTION
1	7-24-23	MINOR REVISIONS
0	5-2-23	INITIAL SUBMISSION

LEONARD C. D'ANDREA CT. PE No. 14869

ENGINEER: [signature] DATE: 7-24-23

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

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

PROJECT	RESIDENTIAL DEVELOPMENT
PREPARED FOR	G&T TAYLOR STREET LLC
LOCATION	12 & 18 TAYLOR STREET, STAMFORD, CONNECTICUT
1 OF 1	LOW IMPACT DEVELOPMENT PLAN

20PA

City of Stamford
Zoning Board · Land Use Bureau
Government Center · 888 Washington Boulevard · Stamford, CT 06904-2152
Phone: 203.977.4719 Email: stamfordlanduse@stamfordct.gov

APPLICATION FOR APPROVAL OF ADDITIONS TO THE STAMFORD CULTURAL RESOURCES INVENTORY (CRI)

Complete, notorize, and forward **nine (9) hard copies and one (1) electronic copy in PDF format** to Clerk of the Zoning Board.

NOTE: For Applicants requesting bonuses pursuant to Section 7.3.C shall be required to pay a $500 per property for enlistment on the Cultural Resources Inventory pursuant to Sec. 29-6.2.of the Stamford Code. No fee required if no bonuses are sought at the time of application for enlistment on the Cultural Resources Inventory. **LAND RECORDS RECORDING FEE**: $60.00 for First page - $5.00 for each additional page)

[ ] THIS APPLICATION IS FOR LISTING OF PROPERTIES ON THE CRI ONLY (No bonuses sought).

[x] THIS APPLICATION IS FOR LISTING OF PROPERTIES ON THE CRI IN CONJUNCTION WITH BONUSES SOUGHT UNDER SECTION 7.3.C (Please attach letter supporting the listing written by a Qualified Historic Preservation Expert.)

APPLICANT NAME (S): G&T Taylor Street LLC

APPLICANT ADDRESS: c/o Leonard Braman, Wofsey Rosen, 600 Summer Street, 7th Fl, Stamford, CT 06901

APPLICANT PHONE #: 203-354-1282 APPLICANT EMAIL: lbraman@wrkk.com

ADDRESS OF SUBJECT PROPERTY(S): 18 Taylor Street, Stamford, CT

PRESENT ZONING DISTRICT: R-MF

PRESENT HISTORIC DESIGNATION: NATIONAL _____ STATE _____ LOCAL _____

REQUESTED HISTORIC DESIGNATION ON CRI: SITE _____ STRUCTURE x DISTRICT _____

YEAR OF CONSTRUCTION OF SITE/BUILDING(S): 1890

CURRENT USE OF SITE/BUILDING 3-family house.

LOCATION: (Attach legal description of property obtained from the Tax Assessor's office including block and lot information) See attached property description.

STATEMENT OF SIGNIFICANCE & APPLICABLE CULTURAL RESOURCES INVENTORY CRITERIA

(Mark "x" in one or more boxes for the criteria qualifying the property for Cultural Resources Inventory listing.)

[X] A. PROPERTY IS ASSOCIATED WITH EVENTS THAT HAVE MADE A SIGNIFICANT CONTRIBUTION TO THE BROAD PATTERNS OF STAMFORD'S HISTORY.

[ ] B. PROPERTY IS ASSOCIATED WITH THE LIVES OF PERSONS SIGNIFICANT IN STAMFORD'S PAST.

[X] C. PROPERTY EMBODIES THE DISTINCTIVE CHARACTERISTICS OF A TYPE, PERIOD, OR METHOD OF CONSTRUCTION OR REPRESENTS THE WORK OF A MASTER, OR POSSESSES HIGH ARTISTIC VALUES, OR REPRESENTS A SIGNIFICANT AND DISTINGUISHABLE ENTITY WHOSE COMPONENTS LACK INDIVIDUAL DISTINCTION.

[ ] D. PROPERTY HAS YIELDED, OR IS LIKELY TO YIELD, INFORMATION IMPORTANT IN PREHISTORY OR HISTORY.

NARRATIVE STATEMENT OF SIGNIFICANCE (Please include/attach a Statement with at least one paragraph for each area of significance. Attach additional sheets, if necessary)

See attached narrative.

City of Stamford
Zoning Board · Land Use Bureau
Government Center · 888 Washington Boulevard · Stamford, CT 06904-2152
Phone: 203.977.4719 Email: stamfordlanduse@stamfordct.gov

ATTACH THE FOLLOWING IN SUPPORT OF THE CRI DESIGNATION:

1. Site survey
2. Site and building photographs along with a key map and description/title of photographs
3. National/State/Local historic register documentation if applicable
4. Other documents supporting architectural/cultural significance such as journal articles or news/book references if applicable.
5. Letter from Qualified Historic Preservation Expert (For CRI listing in conjunction with Section 7.3.C bonuses).

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

NAME & ADDRESS OF OWNER	**ADDRESS OF PROPERTIES IN CRI REQUEST**
G&T Taylor Street LLC, 114 Hubbard Ave., Stamford, CT 06905	18 Taylor Street

DATED AT STAMFORD, CONNECTICUT, THIS 25th DAY OF ~~April~~ July 2023

SIGNED: _____

NOTE: If applicant wishes to withdraw the application, this must be done in writing, and be received by the Land Use Bureau 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 scheduled hearing date will not be rescheduled within 90 days.

STATE OF CONNECTICUT

COUNTY OF FAIRFIELD ss STAMFORD 25th day of July 2023

Personally appeared Leonard Braman, signer of the foregoing application, who made oath to the truth of the contents thereof, before me.

ALEXANDRA POCHNA
Notary Public State of Connecticut My Commission Expires April 30, 2028

_____
Notary Public - Commissioner of the Superior Court

FOR OFFICE USE ONLY

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

Referred to Historic Preservation Advisory Commission *Date:* _____

By: _____

☐ Fee collected for CRI listing in conjunction with Section 7.3.C bonuses

☐ No Fee required for CRI listing only

03/03/21

City of Stamford
Zoning Board · Land Use Bureau
Government Center · 888 Washington Boulevard · Stamford, CT 06904-2152
Phone: 203.977.4719 · Fax: 203.977.4100

APPLICATION FOR COASTAL SITE PLAN REVIEW

Complete, notorize, and forward **thirteen (13) hard copies and one (1) electronic copy in PDF format** of all project plans and documents to Clerk of the Zoning Board with a **(see Fee Schedule Below)** payable to the City of Stamford.

An additional fee of $50 for single-family zoned property and $100 for properties with all other zoning designations is required for review by the Stamford Harbor Management Commission. Two separate checks are required with the submission of the application

NOTE: ADVERTISING COST OF THE RESULTS OF THE ZONING BOARD REVIEW IS PAYABLE BY THE APPLICANT PRIOR TO PUBLICATION.

Fee Schedule

Coastal Site Plan Review **(Commercial Projects Under 5,000 sq. ft. or Single Family Detached Home)**	**$335.00**
Coastal Site Plan Review **(Commercial Projects of 5,000 sq. ft. or more or residential projects with two or more dwellings units**	**$335.00 + $10 per 1,000 sq. ft. or per unit in excess of 5,000 sq. ft. or one unit.**

APPLICANT NAME (S): G&T Taylor Street LLC

APPLICANT ADDRESS: c/o Leonard Braman, Wofsey Rosen 600 Summer St, 7th Fl, Stamford,CT 06902

APPLICANT PHONE #: 203-354-1282

PROJECT LOCATION: 12 & 18 Taylor Street, Stamford

PROPERTY OWNER (S): G&T Taylor Street LLC

CONTACT FOR QUESTIONS: Leonard Braman, Esq.

ACREAGE OF PROJECT PARCEL: 0.56 acres (24,478 sq. ft.)

SQUARE FEET OF PROPOSED BUILDING: 6,216 sq. ft.

ZONING DISTRICT OF PROJECT PARCEL: R-MF

PROJECT DESCRIPTION:

Construct thirteen (13) residential units, renovate 5 existing units (3 of which are historic), and construct driveways and parking area, along with associated landscaping and drainage improvements.

Coastal resources on which the project is located or which will be affected by the project: (See "Index of Policies" Planning Report 30)

_____a. bluffs or escarpments
_____b. rocky shorefront
_____c. beaches and dunes
_____d. intertidal flats
_____e. tidal wetlands
__✓__f. freshwater wetlands
_____g. estuarine embayments
_____h. coastal flood hazard areas
_____i. coastal erosion hazard area
_____j. developed shorefront
_____k. islands
_____l. coastal waters
_____m. shorelands
_____n. shellfish concentration areas
_____o. general resource
_____p. air resources

Coastal policies affected by the project: (See "Index of Policies" Planning Report 30)

_____a. water dependent uses
_____b. ports and harbors
_____c. coastal structures & filing
_____d. dredging & navigation
_____e. boating
_____f. fisheries
_____g. coastal recreation access
_____h. sewer & water lines
_____i. energy facilities
_____j. fuel, chemicals & hazardous materials
_____k. transportation
_____l. solid waste
_____m. dams, dikes & reservoirs
_____n. shellfish concentration
__✓__o. general development
_____p. open space

If the project is adjacent to coastal waters, is the project water dependent? (See C.G.S. sec. 22a-93)
YES ✓ NO NOT APPLICABLE

If yes, in what manner?
Docks, piers, etc
Industrial process or cooling waters?
General public access
Other, please specify: _____

City of Stamford
Zoning Board · Land Use Bureau
Government Center · 888 Washington Boulevard · Stamford, CT 06904-2152
Phone: 203.977.4719 · Fax: 203.977.4100

What possible adverse or beneficial impacts may occur as a result of the project? (Attach additional sheet if necessary)

Runoff from the proposed improvements will be discharged to and treated by the proposed stormwater systems. No adverse impacts are expected after employing the proposed mitigation measures and stormwater treatment measures. The project will result in an improved residential property developed within the guidelines of CAM regulations.

How is the proposal consistent with all applicable goals and policies of the CAM Act?

The project conforms to all applicable City of Stamford regulations with respect to development in a CAM area. By conforming to these regulations the project seeks to minimize adverse impacts to the site and surrounding area.

What measures are being taken to mitigate adverse impacts and eliminate inconsistencies with the CAM Act? (Attach additional sheet if necessary)

Measures to mitigate adverse impacts include the installation of sedimentation and erosion control measures to minimize impacts from construction activities on the site.

Is there any deed restriction(s) that may prohibit the construction proposed in this application? No

If yes, list Town Clerk Book & Page reference: N/A

Is any injunction or other litigation pending concerning this property? No

If yes, include citation: N/A

DATED AT STAMFORD, CONNECTICUT, THIS 25th DAY OF July 20 23

SIGNED: [signature]

STATE OF CONNECTICUT
ss STAMFORD 25th day of July 20 23
COUNTY OF FAIRFIELD

Personally appeared Leonard Braman, signer of the foregoing application, who made oath to the truth of the contents thereof, before me.

[signature]
Notary Public ; Commissioner of the Superior Court

ALEXANDRA POCHNA
Notary Public State of Connecticut My Commission Expires April 30, 2028

FOR OFFICE USE ONLY

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

By: _____

Revised 04/30/20

WOFSEY
ROSEN
KWESKIN &
KURIANSKY LLP

SINCE 1915

Leonard M. Braman

Direct Dial: (203) 354-1282
Email: lbraman@wrkk.com

July 31, 2023

Via Hand Delivery and E-Mail (*RBlessing@stamfordct.gov*)
Ralph Blessing, Chief
Stamford Land Use Bureau
888 Washington Boulevard, 7th Floor
Stamford, CT 06901

Re: 12 & 18 Taylor Street -- Applications for Section 7.3 Historic Preservation Special Permit; Inclusion in Cultural Resources Inventory; Coastal Site Plan Review

Dear Mr. Blessing:

As you know, our office represents G&T Taylor Street LLC ("G&T"), the owner of the properties at 12 Taylor Street and 18 Taylor Street, Stamford. 12 Taylor Street currently contains a two-family house and 18 Taylor Street currently contains a historic three-family house originally built in 1890. G&T seeks to maintain, restore, and beautify the historic structure at 18 Taylor and infill the combined project site with 13 new units of housing and landscaped common areas, creating a cohesive planned unit development of eighteen units in all. G&T's two properties are in the R-MF zone, and G&T would be able to develop the combined site with 16 units as of right. By virtue of its historic preservation of 18 Taylor and commitment to provide a historic preservation easement for the property in perpetuity, G&T seeks a modest bonus in the allowable density via a Special Permit under Section 7.3 of the Zoning Regulations (18 units instead of 16). Due to the existing characteristics of the properties and the need to preserve historic and lawful nonconforming buildings, G&T also seeks modest relief under Section 7.3 for building coverage (37% instead of 35%), sideyard setbacks (11.18 ft. both sides instead of 18), and parking/electric vehicle parking (21.5 spaces including 1 EV charger and 1 reserved space instead of 30.75 spaces including 3 EV chargers and 3 reserved spaces). The proposed project conforms to all other as-of-right requirements of the R-MF zoning district.

The property at 18 Taylor has the distinction of being twice previously recognized by the Planning and Zoning Boards as warranting historic preservation and a development bonus under Section 7.3 of the Zoning Regulations. In 1991, and again in 2008, the Zoning Board approved a Section 7.3 Special Exception for two separate prior owners, but those owners did not ultimately move forward with the projects. G&T hopes to finally realize the vision of the Zoning Board to preserve the historic 18 Taylor and enhance the entire project site. Proposed improvements include: new, historically contextual housing units, beautified landscaping and streetscape, screening of the view of commercial high-rise buildings behind the site, a modern drainage system, and sustainability features such as bike racks and electric vehicle charging stations. Two units of workforce housing are already provided voluntarily at 12 Taylor, and G&T seeks to create two additional below-market-rate units at 18 Taylor and deed-restrict those two units for the life of the building.

In connection with its application for a Section 7.3 Special Permit, G&T seeks inclusion of the historic 18 Taylor on the Cultural Resources Inventory. Also, because the properties lie just within the Coastal Area Management boundary, G&T seeks Coastal Site Plan approval.

WOFSEY
ROSEN
KWESKIN &
KURIANSKY LLP

SINCE 1915

Enclosed please find 22 hardcopy sets of the following documents in support of the applications, as well as a comprehensive project narrative. Electronic copies of all application materials in .pdf format are being provided as well:

Cultural Resources Inventory Application

1. Signed & notarized Application Form
2. Letter from Qualified Historic Preservation Expert
3. Other documents supporting historical significance
4. Check for $500

Special Permit/Site & Architectural Plan Application

1. Signed & notarized Application Forms
2. Property descriptions
3. Site and Engineering Plans
4. Architectural Plans
5. Color Landscaping Plan
6. Historic Preservation Report
7. Drainage Report
8. Zoning Data Chart
9. Sustainability Scorecard
10. Letter in Support signed by neighbors
11. Checks for $1,000 and $610

Coastal Site Plan Application

1. Signed & notarized Application Form
2. Check for $100

These applications have received supportive feedback from neighbors following in-person outreach by the Applicant, and benefited from helpful input from Land Use Bureau Staff. We look forward to presenting the applications and discussing the benefits of G&T's project before the Historic Preservation Advisory Commission and the Planning and Zoning Boards. **Please let us know the soonest possible dates for public hearings on the applications.** If you have any questions or would like any additional information, please do not hesitate to contact me. Thank you very much for your assistance.

Very truly yours,
Wofsey, Rosen, Kweskin & Kuriansky, LLP

By: _____
Leonard M. Braman

City of Stamford
Zoning Board · Land Use Bureau
Government Center · 888 Washington Boulevard · Stamford, CT 06904-2152
Phone: 203.977.4719 · Fax: 203.977.4100

APPLICATION FOR SPECIAL PERMIT

Complete, notorize, 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): G&T Taylor Street LLC

APPLICANT ADDRESS: c/o Leonard Braman, Wofsey Rosen,600 Summer Street, 7th Fl, Stamford, CT 06901

APPLICANT PHONE #: 203-354-1282

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

LOCATION OF PROPERTY IN STAMFORD OWNED BY APPLICANT (S): 12 Taylor Street; 18 Taylor Street

ADDRESS OF SUBJECT PROPERTY: 12 Taylor Street; 18 Taylor Street, Stamford, CT 06902

PRESENT ZONING DISTRICT: R-MF

TITLE OF SITE PLANS & ARCHITECTURAL PLANS: Site Plans 5/2/2023
Architectural Plans 6/28/2023

REQUESTED SPECIAL PERMIT: (Attach written statement describing request)

See attached narrative.

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

See attached property descriptions.

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

NAME & ADDRESS	LOCATION
G&T Taylor Street LLC 114 Hubbard Ave., Stamford, CT 06905	12 Taylor Street; 18 Taylor Street

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).

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Government Center · 888 Washington Boulevard · Stamford, CT 06904-2152
Phone: 203.977.4719 · Fax: 203.977.4100

DATED AT STAMFORD, CONNECTICUT, THIS 25th DAY OF ~~April~~ July 2023

SIGNED: _____

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 25th Day of July 2023
COUNTY OF FAIRFIELD

Personally appeared Leonard Braman, signer of the foregoing application, who made oath to the truth of the contents thereof, before me.

ALEXANDRA POCHNA
Notary Public State of Connecticut My Commission Expires April 30, 2028

_____
Notary Public - Commissioner of the Superior Court

FOR OFFICE USE ONLY

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

By: _____

Revised 09/02/2020

PLANT LIST

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS	PLANTING HT.	MATURE HT.
5	DH	BETULA NIGRA 'DURA HEAT'	DURA HEAT BIRCH	9-10' HT.	B&B	MULTISTEM	9-10' HT.	25-30' HT.
2	YW	CLADRASTIS LUTEA	YELLOWWOOD	2-2 1/2" CAL.	B&B	NATIVE, WHITE FLOWERS	10-12' HT.	25-30' HT.
2	BB	MAGNOLIA GRAND. 'BRACKEN'S BEAUTY'	BRACKEN'S BEAUTY MAGNOLIA	5-6' HT.	B&B	EVERGREEN	5-6' HT.	15-18' HT.
3	IO	ILEX OPACA	AMERICAN HOLLY	5-6' HT.	B&B	EVRGREEN, NATIVE	5-6' HT.	25-30' HT.
18	TO	THUJA OCCIDENTALIS 'EMERALD GREEN'	EMERALD GREEN ARBORVITAE	4-5' HT.	B&B	EVERGREEN	4-5' HT.	18-20' HT.
5	CA	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE CLETHRA	3-4' HT.	CONT.	NATIVE, FRAGRANT	3-4' HT.	5-6' HT.
17	HA	HYDRANGEA ARBORESCENS 'ANNABELLE'	ANNABELLE HYDRANGEA	2-3' HT.	CONT.	WHITE FLOWERS	2.5' HT.	4' HT.
7	HY	HYDRANGEA 'THE ORIGINAL'	THE ORIGINAL HYDRANGEA	2-3' HT.	CONT.	BLUE FLOWERS	2.5' HT.	3-4' HT.
8	FP	HYDRANGEA 'FOREVER PINK'	FOREVER PINK HYDRANGEA	2-3' HT.	CONT.	PINK FLOWERS	2.5' HT.	4-5' HT.
22	IC	ILEX CRENATA 'CHESAPEAKE'	CHESAPEAKE HOLLY	3-4' HT.	B&B	EVERGREEN	3.5' HT.	6-7' HT.
6	LA	LEUCOTHOE AXILLARIS 'SARAH'S CHOICE'	SARAH'S CHOICE LEUCOTHOE	2-3' HT.	CONT.	NATIVE, EVERGREEN	2.5' HT.	4' HT.
11	RC	RHODODENDRON 'CHIONOIDES'	CHIONOIDES RHODODENDRON	36-42" HT.	B&B	EVERGREEN	3.5' HT.	4-5' HT.
1	RH	RHODODENDRON 'ENGLISH ROSEUM'	RHODODENDRON	42-48" HT.	B&B	EVERGREEN	4.5' HT.	7-8' HT.
5	GL	RHUS AROMATICA 'GRO-LOW'	GRO-LOW SUMAC	2-3' SPR.	CONT.	NATIVE	2.5' HT.	3-4' HT.
20	SB	SPIRAEA 'SHIROBANA'	SHIROBANA SPIREA	24-30" HT.	CONT.	PINK/WHITE FLOWERS	2' HT.	3-4' HT.
1	SV	SYRINGA VULGARIS 'CONGO'	CONGO LILAC	4-5' HT.	B&B	PURPLE FLOWERS	4-5' HT.	8-10' HT.
50	HR	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY		1 GAL.	FPERENNIAL		
500	PT	PACHYSANDRA TERMINALIS	PACHYSANDRA		BR	GROUNDCOVER		
53	SG	PANICUM VIRGATUM 'HANSE HERMS'	HANSE HERMS SWITCHGRASS		1 GAL.	NATIVE GRASS		

"CALL BEFORE YOU DIG"

LEGEND

- PROPERTY LINE
- NEW / EX. LAWN AREA
- NEW BOLLARD LIGHT
- NEW DECIDUOUS SHADE TREE
- NEW DECIDUOUS SMALL TREE
- NEW EVERGREEN TREE
- NEW SHRUB

NOTES: BOLLARD LIGHT TO BE ALUMINUM SUNLITE LED AREA LIGHT (87993), 42" HT. WITH A 6" DIAMETER, AND 3000K. BRONZE COLOR.

BOLLARD LIGHT (TYP.)

SCALE: NOT TO SCALE

NOTES:

1. EXISTING AND PROPOSED SITE INFORMATION TAKEN FROM A DIGITAL AUTOCADD SITE PLAN SUPPLIED BY ROCCO V. D'ANDREA, INC.
2. EXACT LOCATION OF PROPOSED PLANTINGS AND SPECIES TYPES MAY VARY FROM THIS PLAN BASED ON SITE PLAN REVISIONS AND/OR ACTUAL FIELD CONDITIONS.
3. PLANT SPECIES SUBSTITUTIONS MAY BE MADE WITH THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING. SUBSTITUTED PLANTS SHALL BE AT AN EQUAL OR GREATER SIZE AS NOTED USING A SIMILAR TYPE PLANT.
4. THIS PLAN FOR PLANTING PURPOSES ONLY. SEE PLANS BY OTHERS FOR ADDITIONAL INFORMATION.

NOTES (CONT.):

5. PLANTING METHODS SHALL BE IN ACCORDANCE WITH THE "AMERICAN STANDARDS FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
6. THE CONTRACTOR SHALL VERIFY WITH THE PROJECT ENGINEER THAT THE NEW PLANTINGS DO NOT INTERFERE WITH EXISTING AND/OR PROPOSED UTILITIES, SIGHT LINES, AND/OR STRUCTURES.
7. SPRAY NEW PLANTINGS IMMEDIATELY AFTER INSTALLATION WITH A WHITE-TAILED DEER REPELLENT AND CONTINUE AS NEEDED TO MAINTAIN PLANTS FREE OF SIGNIFICANT DEER BROWSING.

REVISIONS:		
1	7.28.23	REV. PARKING

DRAWING TITLE: LANDSCAPE PLAN

PROJECT: G&T TAYLOR STREET LLC
12, 16, & 18 TAYLOR STREET
STAMFORD, CONNECTICUT

ENVIRONMENTAL LAND SOLUTIONS, LLC
Landscape Architecture and Environmental Planning
8 KNIGHT STREET, SUITE 203
NORWALK, CONNECTICUT 06851
Tel: (203) 855-7879 Fax: (203) 855-7836
info@elsllc.net www.elsllc.net

SEAL: STATE OF CONNECTICUT

DATE: 6.29.23
SCALE: 1"=10'
DRAWING NO.: LP.1

18 TAYLOR STREET
STAMFORD CT
BUILDING A

EXISTING HOUSE TO BE REPAINTED AND REPAIRED. SEE PROPOSED ELEVATIONS AND RENDERINGS FOR DETAILS.

EXISTING FENCE TO BE REPLACED WITH WHITE PVC FENCE MATCHING EXISTING STYLE AND SIZE

EXISTING STREET FACADE

JIA HUA
ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING A
RESTORATION &
RENOVATION

Project Overview

DRAWINGS PROVIDED BY:

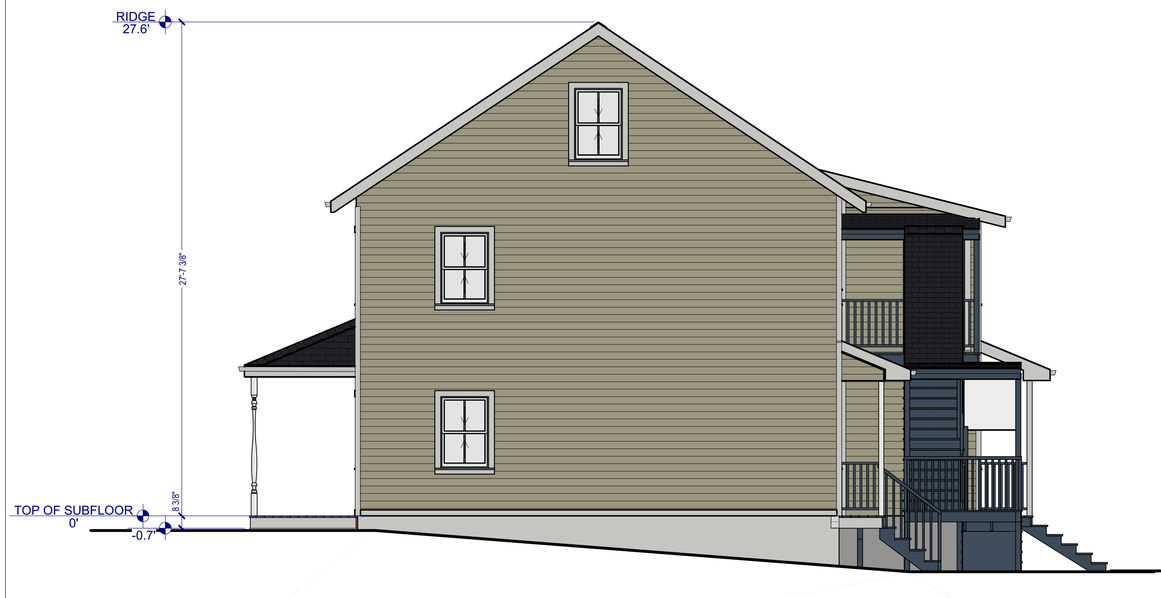
DATE:
7/19/2023

SCALE:

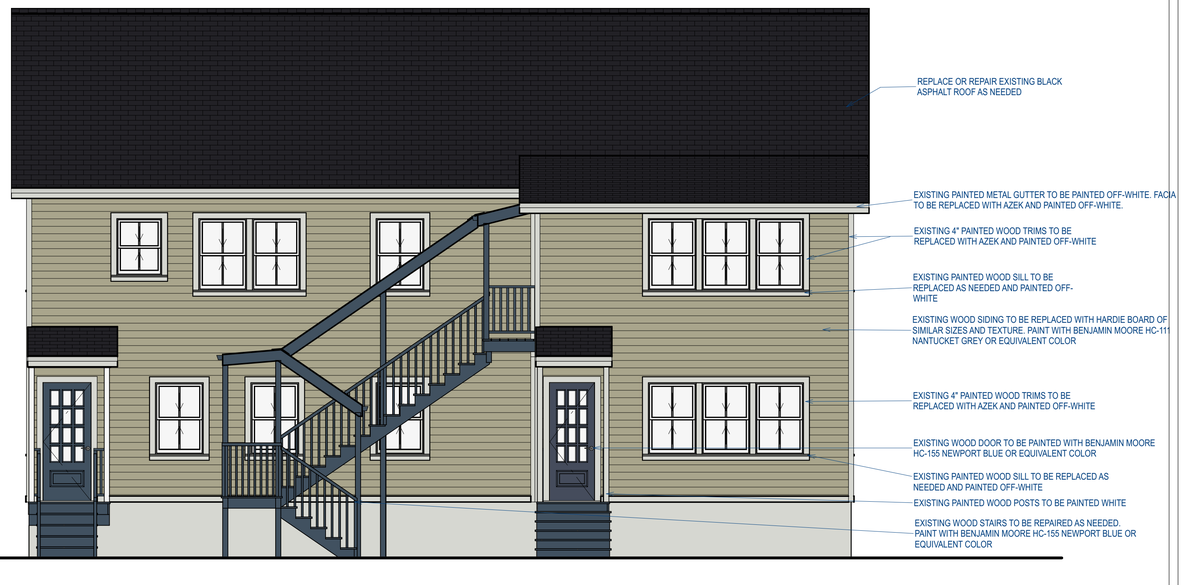
SHEET:
A000

LEFT ELEVATION

FRONT ELEVATION



RIGHT ELEVATION



FRONT ELEVATION

JIA HUA
ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING A
RESTORATION &
RENOVATION

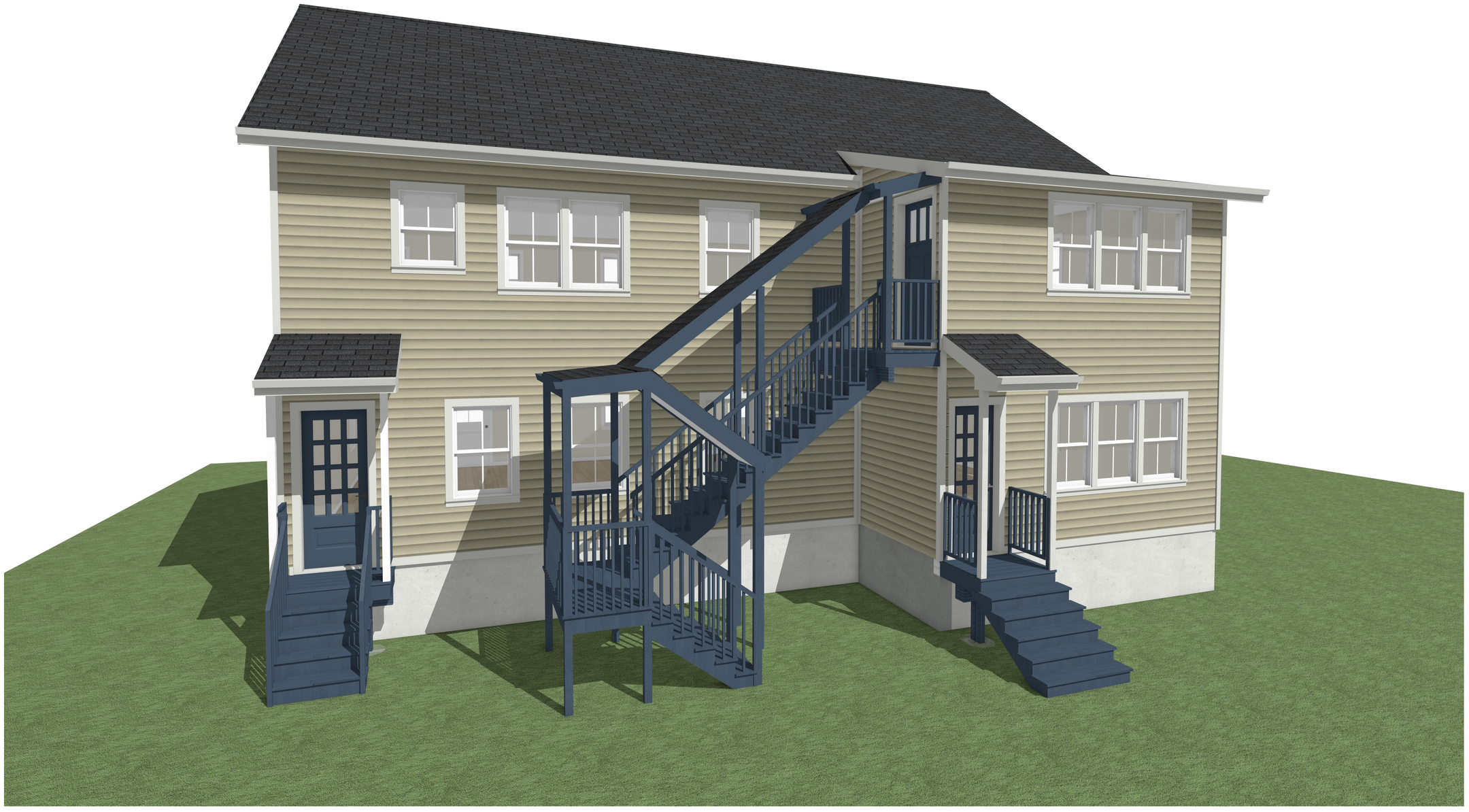
PROPOSED ELEVATIONS

DRAWINGS PROVIDED BY:

DATE:
7/19/2023

SCALE:
1/4"=1'-0"

SHEET:
A200



PROPOSED BACK RENDERING

JIA HUA
ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING A
RESTORATION &
RENOVATION

PROPOSED RENDERING

DRAWINGS PROVIDED BY:

DATE:
7/19/2023

SCALE:
NTS

SHEET:
A300

PROPOSED STREET FACADE RENDERING

JIA HUA ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET BUILDING A RESTORATION & RENOVATION

PROPOSED RENDERING

DRAWINGS PROVIDED BY:

DATE:
7/19/2023

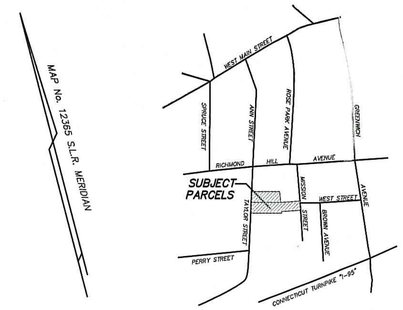
SCALE:
NTS

SHEET:
A301

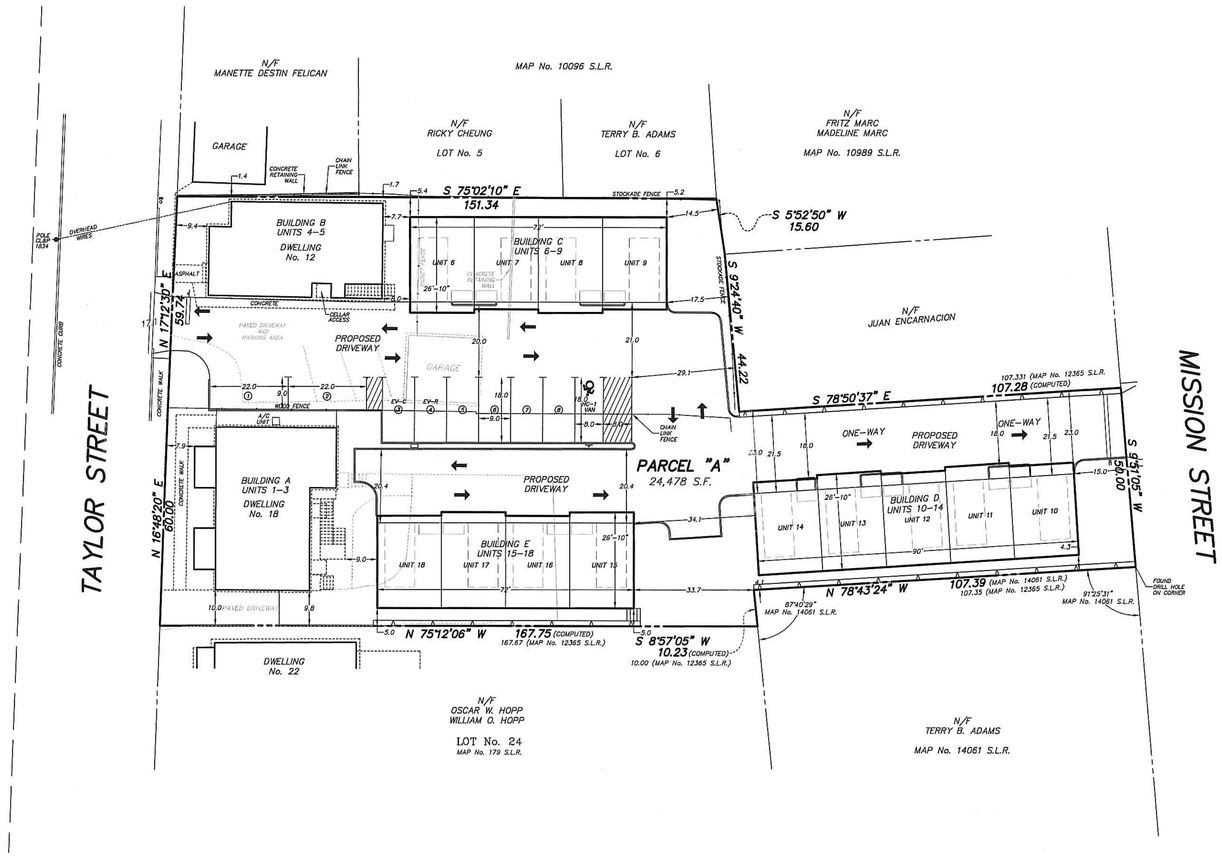
BLOCK No. 15

PARKING SUMMARY – REQUIRED		
RESIDENTIAL PARKING:		
REQUIRED (HISTORIC): 1/UNIT	18 X 1.0	= 18.0
	TOTAL REQUIRED	= 18

PARKING SUMMARY – PROVIDED		
GARAGE	= 13	SPACES
UNCOVERED PARKING	= 6	SPACES
HANDICAPPED	= 1	SPACE
EV CHARGER PARKING	= 0.5	SPACE
EV RESERVED PARKING	= 1	SPACE
TOTAL PROVIDED	= 21.5	SPACES



LOCATION MAP – 1" = 400'±



EXISTING BUILDING COVERAGE	
LOT AREA = 24,478 S.F.	
DWELLING No. 12 = 1,238 S.F.	
GARAGE No. 12 = 362 S.F.	
DWELLING No. 18 = 1,322 S.F.	
TOTAL = 2,922 S.F.	
PERCENT COVERAGE = 11.9%	

PROPOSED BUILDING COVERAGE	
LOT AREA = 24,478 S.F.	
DWELLING No. 12 = 1,238 S.F.	
DWELLING No. 18 = 1,322 S.F.	
Building C = 1,896 S.F.	
Building D = 2,361 S.F.	
Building E = 1,896 S.F.	
TOTAL = 8,713 S.F.	
PERCENT COVERAGE = 35.6%	

REFER TO A MAP ENTITLED "ZONING LOCATION SURVEY DEPICTING CONSOLIDATION OF PROPERTY AT 12 & 18 TAYLOR STREET IN STAMFORD, CONNECTICUT" DATED MAY 4, 2023, PREPARED BY D'ANDREA SURVEYING & ENGINEERING, P.C.

THIS MAP IS A ZONING LOCATION SURVEY. 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 20–300b–20.

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 = 24,478 S.F. (TOTAL)

REFER TO MAPS No. 179 AND 12365 S.L.R.

LAND LIES IN "R–MF" ZONING DISTRICT

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED.

D'ANDREA SURVEYING & ENGINEERING, PC

_____, SURVEYOR
ROBERT L. LIDDEL JR., CT LS No. 15775
RIVERSIDE, CONNECTICUT JULY 24, 2023

1 INCH = 20 FEET

SCALE
20 0 20
IN FEET

ZONING LOCATION SURVEY

DEPICTING

12 & 18 TAYLOR STREET

IN

STAMFORD, CONNECTICUT

PREPARED FOR

G&T TAYLOR STREET LLC

MISSION_20YA_ZLS_CONC_0.DWG

TRAVIS
BROCK
KENNEDY

533 East 5th Street
New York, NY 10009
(415) 269–4594
tbk2114@columbia.edu

David Stein, Chair
Stamford Zoning Board
888 Washington Boulevard
7th Floor
Stamford, CT 06901

July 11, 2023

Re: 18 Taylor Street, Stamford – Application for Listing on Cultural Resources Inventory

Dear Chairman Stein and Members of the Board,

I am a Qualified Historic Preservation Expert under the Stamford Zoning Regulations, and I write to support the listing of the historic three-family house at 18 Taylor Street on the Stamford Cultural Resources Inventory. This 1890 building is a valuable example of American architecture from that time period, and its historic preservation will benefit not only the surrounding neighborhood but Stamford as a whole.

As set forth in my attached curriculum vitae, I hold a Master of Science degree in historic preservation from Columbia University. In my work as a historic preservation consultant for the past six years, I have advised on and assisted in the preservation of numerous historic buildings, including the Onera Foundation headquarters (housed in an adaptively-reused Greek Revival mansion in New Canaan Connecticut), the Dr. Oliver Bronson House in Hudson, New York (an 1811 Federal-style house significantly renovated by Downing & Davis from 1839-1849, now becoming a house museum), and a wide range of historic properties in the U.S., the Bahamas, and the United Kingdom. I currently serve as the Director of Development at Historic Grace Church in New York City's Greenwich Village, where I oversee all preservation work. I also sit on the Board of Directors of the Victorian Society in America and have received a range of preservation-related awards, including the Ali Jawad Malik Honor Award in the History and Theory of Architecture from Columbia University in 2018.

As you may be aware, the house at 18 Taylor was twice previously recognized by this Board as a historic structure worthy of preservation. The first time was in 1991, when the Zoning Board approved a Special Exception for historic buildings under Section 7.3 of the Zoning Regulations for a project at the site proposed by a prior owner. The second was in 2008, when the Zoning Board again approved a Special Exception under Section 7.3 for a different owner's project. I have been engaged by the current owner and applicant, G&T Taylor

Street LLC, to consult on the historic preservation of 18 Taylor, and I am eager to see the applicant's project through to its fruition.

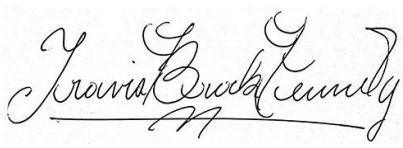
Under Section 7.3 of the Zoning Regulations, a structure may be added to the Cultural Resources Inventory ("CRI") when it meets certain criteria. Here, 18 Taylor is highly worthy of inclusion on the CRI because (1) it embodies the distinctive characteristics of a type, period, or method of construction; and (2) it is associated with events that have made a significant contribution to the broad patterns of Stamford's history.

First, the historic structure is a quintessential example of late American Queen Anne or "Stick Style" architecture, featuring the distinctive massing, proportions, and restrained ornamentation typical of houses from this period. As can be seen from the photos in my report supporting the accompanying Special Permit application, as a historic building, 18 Taylor is remarkably intact. It retains many of its original features, including timber clapboard (Fig. 1), two over two sash windows and other original windows above the front doors and at basement level (Fig. 1, Fig. 2, and Fig. 3), hand-turned veranda posts (Fig. 4), beadboard (Fig. 5), and other decorative features, such as the hand-made trelliswork under the building's porches (Fig. 6). All such distinctive materials, features, finishes, construction techniques, and examples of craftsmanship characterize the building as an exemplar of domestic architecture from this movement.

Second, as noted in Renee Kahn's letters in support of the 1991 and 2008 Special Exceptions (submitted here), 18 Taylor has significance for Stamford's history. The building was designed as residential housing, likely for working families in the industrial corridor along the nearby Rippowam River. It was one of the homes built in the latter part of the 19th century to house the large numbers of Irish immigrants moving into Stamford at the time. Taylor Street was named for Michael Taylor, who originally owned most of the land in the area. The home is an important example of the kind of housing that was built for Stamford's industrial population at the time. Unlike in larger cities such as New York, New Haven, or Springfield, where industrial workers would have been housed in crowded tenements, during this era Stamford was appealing to such workers hoping to escape the crowded and unhealthy conditions in late 19th century urban slums. It is an invaluable testament to the nature of Stamford as a live-work community at the turn of the 20th century, and the applicant is sincerely committed to preserving the building as such.

As this Board has recognized, 18 Taylor is a unique and valuable historic house that is worthy of preservation in perpetuity, and I wholeheartedly support its inclusion in the CRI. Thank you for your consideration of my comments on this application. I would be happy to answer any questions or provide any further information that may be helpful.

Sincerely,



Travis Brock Kennedy

City of Stamford
Zoning Board · Land Use Bureau
Government Center · 888 Washington Boulevard · Stamford, CT 06904-2152
Phone: 203.977.4719 · Fax: 203.977.4100

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

Complete, notorize, 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 filling 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): G&T Taylor Street LLC

APPLICANT ADDRESS: c/o Leonard Braman, Wofsey Rosen,600 Summer Street, 7th Fl, Stamford, CT 06901

APPLICANT PHONE #: 203-354-1282

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

LOCATION OF PROPERTY IN STAMFORD OWNED BY APPLICANT (S): 12 Taylor Street; 18 Taylor Street

ADDRESS OF SUBJECT PROPERTY: 12 Taylor Street; 18 Taylor Street, Stamford, CT 06902

PRESENT ZONING DISTRICT: R-MF

TITLE OF SITE PLANS & ARCHITECTURAL PLANS: Site Plans 5/2/2023
Architectural Plans 6/28/2023

REQUESTED USE: See attached narrative.

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

See attached property descriptions.

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

NAME & ADDRESS	**LOCATION**
G&T Taylor Street LLC 114 Hubbard Ave., Stamford, CT 06905	12 Taylor Street; 18 Taylor Street

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).*

City of Stamford
Zoning Board · Land Use Bureau
Government Center · 888 Washington Boulevard · Stamford, CT 06904-2152
Phone: 203.977.4719 · Fax: 203.977.4100

DATED AT STAMFORD, CONNECTICUT, THIS 25th DAY OF July 2023

SIGNED: _____

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 25th day of July 2023
COUNTY OF FAIRFIELD

Personally appeared Leonard Braman, signer of the foregoing application, who made oath to the truth of the contents thereof, before me.

_____
Notary Public - Commissioner of the Superior Court

ALEXANDRA POCHNA
Notary Public State of Connecticut My Commission Expires April 30, 2028

FOR OFFICE USE ONLY

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

By: _____

Revised 9/02/20

AUTHORIZATION

To Whom It May Concern:

Please be advised that Wofsey, Rosen, Kweskin & Kuriansky, LLP is authorized to represent G&T Taylor Street LLC in applications and proceedings before officials of the City of Stamford, including but not limited to meeting and hearings of the Planning and Zoning Boards. A fax or copy of this Authorization shall be valid as an original.

G&T Taylor Street LLC

Goitom Bellete, Managing Member

Dated: 7/11/2023

18 TAYLOR STREET
STAMFORD CT
BUILDING C & E

NEW CONSTRUCTION

JIA HUA
ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING C & E
NEW
CONSTRUCTION

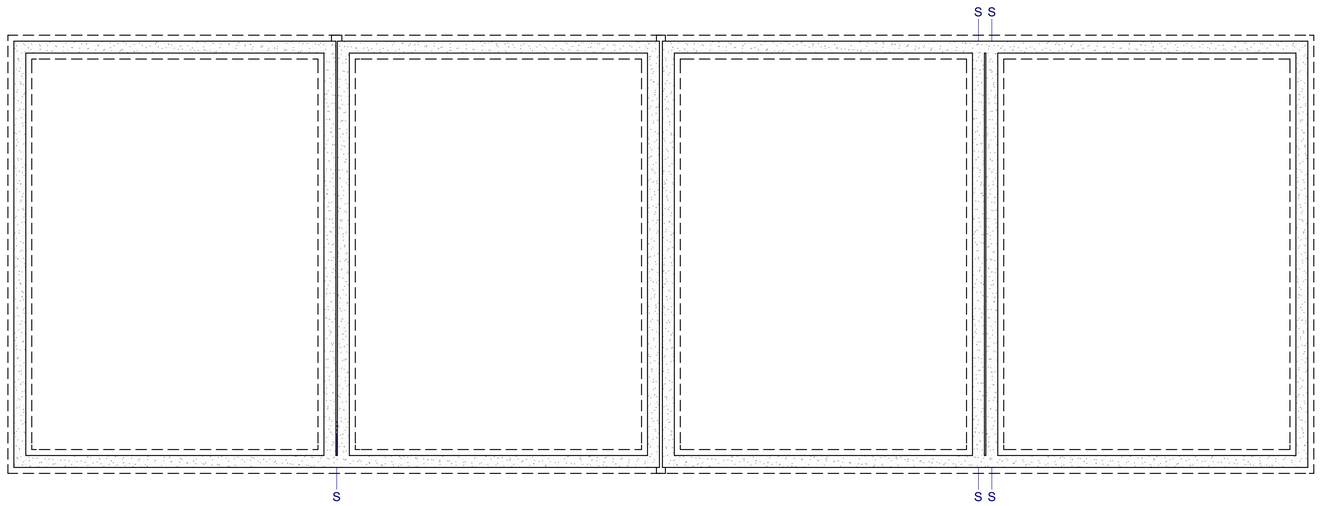
Project Overview

DRAWINGS PROVIDED BY:

DATE:
7/18/2023

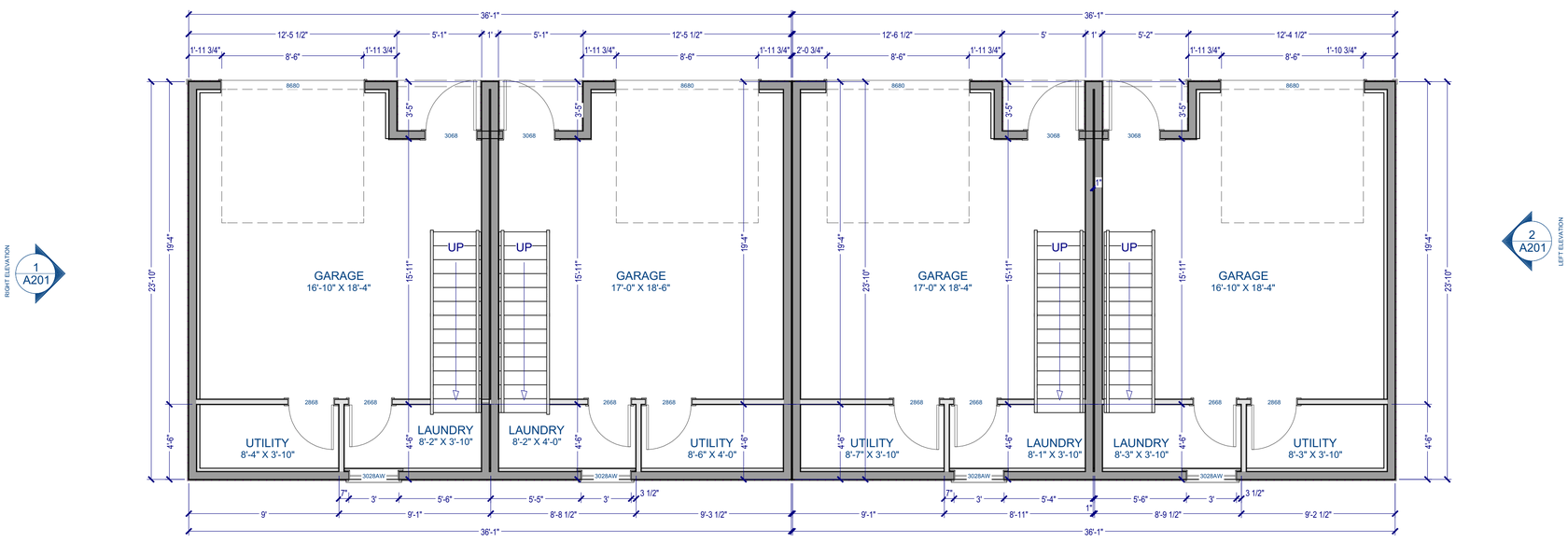
SCALE:

SHEET:
A000



FOUNDATION PLAN

1
A200



RIGHT ELEVATION
1
A201

LEFT ELEVATION
2
A201

GARAGE FLOOR PLAN

2
A200

BACK ELEVATION

JIA HUA
ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING C & E
NEW
CONSTRUCTION

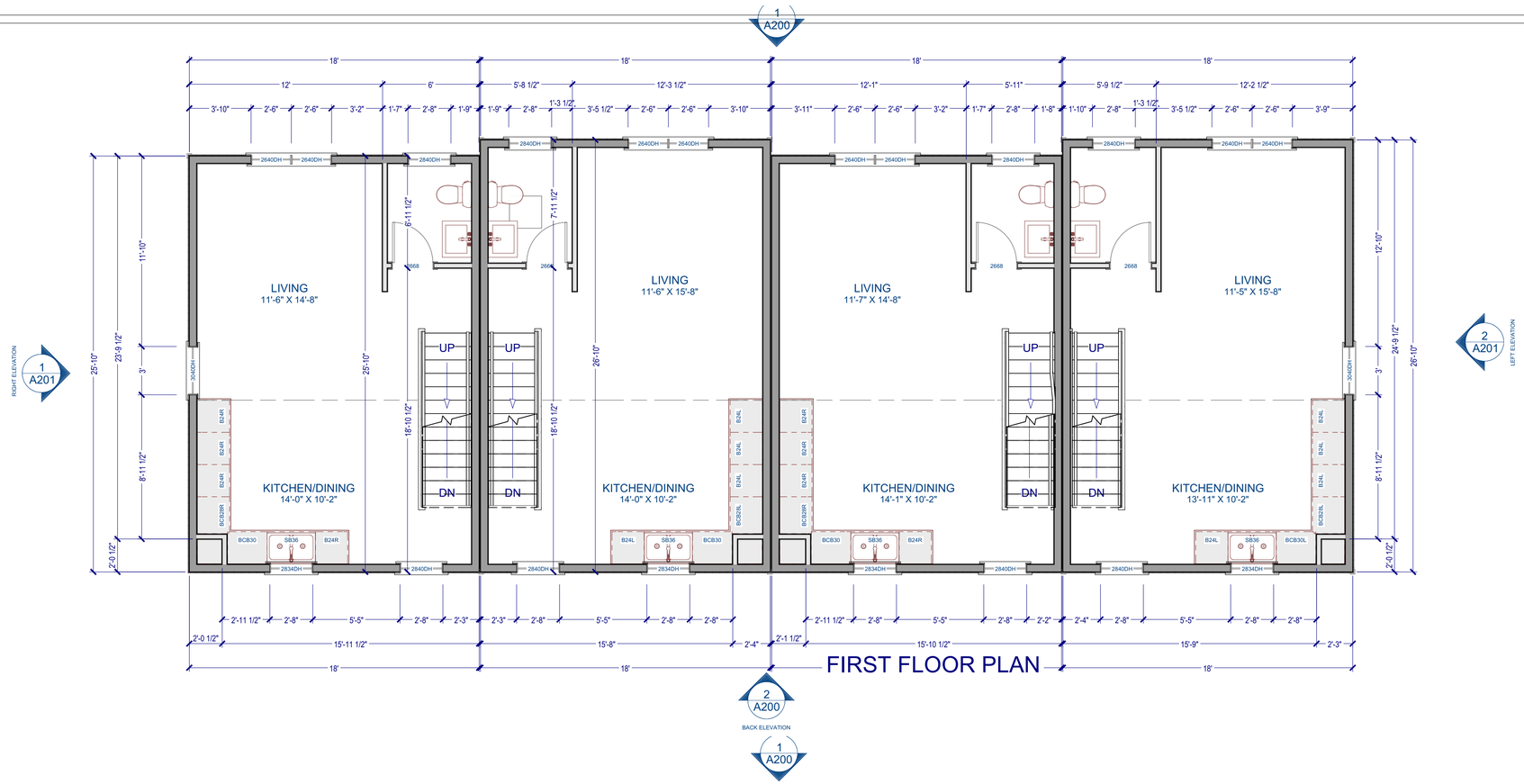
FLOOR PLANS

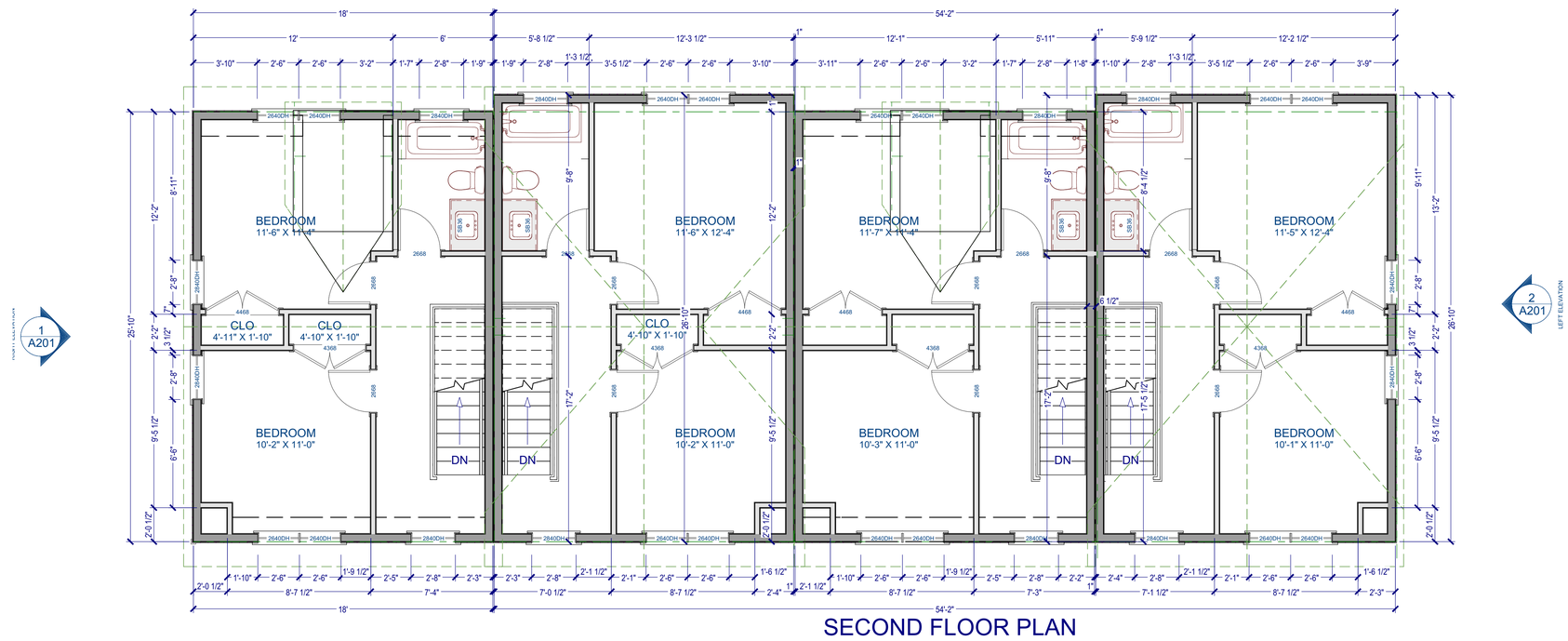
DRAWINGS PROVIDED BY:

DATE:
7/18/2023

SCALE:
1/4"=1'-0"

SHEET:
A100





JIA HUA ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING C & E
NEW
CONSTRUCTION

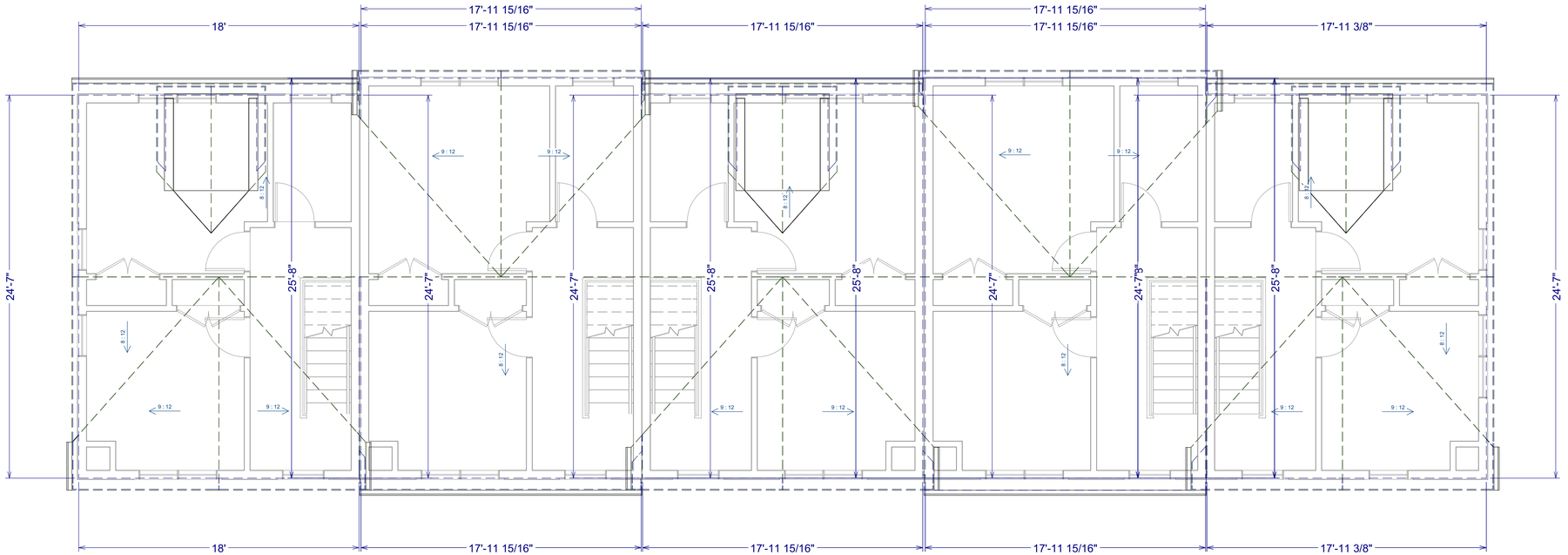
FLOOR PLANS

DRAWINGS PROVIDED BY:

DATE:
7/18/2023

SCALE:
1/4"=1'-0"

SHEET:
A101



ROOF PLAN

JIA HUA ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING C & E
NEW
CONSTRUCTION

FLOOR PLANS

DRAWINGS PROVIDED BY:

DATE:
7/18/2023

SCALE:
1/4"=1'-0"

SHEET:
A102

FRONT ELEVATION

BACK ELEVATION

JIA HUA ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING C & E
NEW
CONSTRUCTION

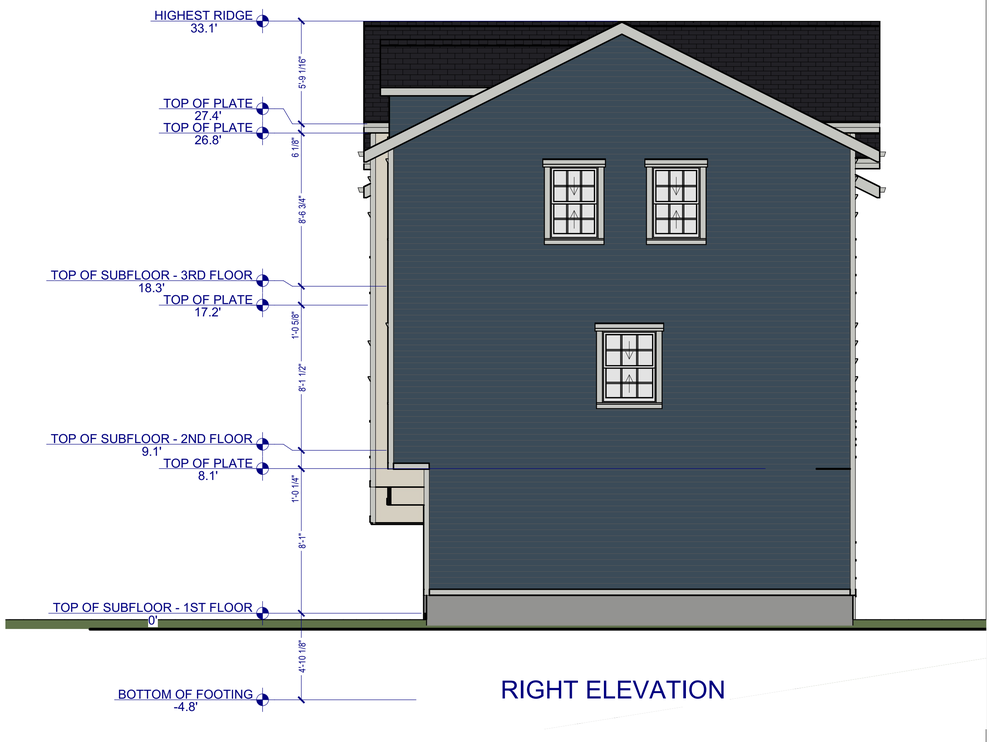
ELEVATIONS

DRAWINGS PROVIDED BY:

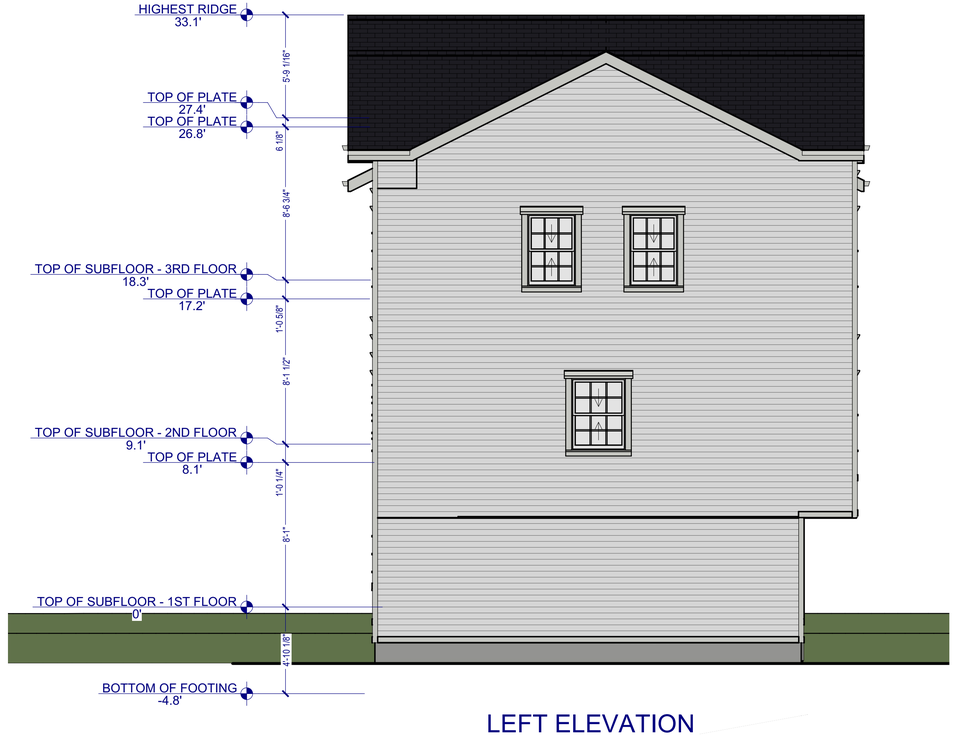
DATE:
7/18/2023

SCALE:
1/4"=1'-0"

SHEET:
A200



RIGHT ELEVATION



LEFT ELEVATION

JIA HUA ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING C & E
NEW
CONSTRUCTION

ELEVATIONS

DRAWINGS PROVIDED BY:

DATE:
7/18/2023

SCALE:
1/4"=1'-0"

SHEET:
A201

JIA HUA ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING C & E
NEW
CONSTRUCTION

RENDERING

DRAWINGS PROVIDED BY:

DATE:
7/18/2023

SCALE:
1/4"=1'-0"

SHEET:
A300

JIA HUA ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING C & E
NEW
CONSTRUCTION

RENDERING

DRAWINGS PROVIDED BY:

DATE:
7/18/2023

SCALE:
1/4"=1'-0"

SHEET:
A301

DRAINAGE SUMMARY REPORT

For

12 & 18 Taylor Street
Stamford, Connecticut

Prepared For

G&T Taylor Street LLC

May 2, 2023

Leonard C. D'Andrea, P.E.
CT License No. 14869

20PA_DSR_00

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

Table of Contents

1. Stormwater Management Standards

1.1. Runoff and Pollution Reduction

Standard 1: Runoff and Pollutant Reduction is not applicable to this project as determined by the Runoff and Pollutant Reduction Requirements Flowchart. Refer to Appendix "E" for Directly Connected Impervious Area Tracking Worksheet

1.2. Peak Flow Control

The proposed development will decrease peak runoff flow rates to less than pre-construction conditions to all points of concern. Refer to Appendices "B" and "C" for Existing and Proposed HydroCAD results, and to the HydroCAD Summary Table at the end of this introduction. The decrease in peak runoff flow rates meets the standard of reduction for all storms up to the 50-year storm.

Refer to Appendix "D" for Pipe Conveyance Calculations and refer to Appendix "A" for 72-Hour Drawdown Calculations.

1.3. Construction Erosion and Sediment Control

During the construction phase of the project, treatment of storm water runoff will be provided by temporary sedimentation and other erosion control measures as outlined within the Final Site Plan Review Set. This includes the installation of silt fencing, an anti-tracking pad, and hay bales around catch basins. Periodic on-site inspections will be performed to ensure that these measures are maintained in effective working order. Once construction is complete and all disturbed areas are properly graded, seeded and stabilized, the proposed sedimentation and erosion control measures will be removed.

1.4. Operations and Maintenance

Refer to Appendix "G" of the City of Stamford Stormwater Drainage Manual for a Standard City of Stamford Drainage Maintenance Agreement.

1.5. Stormwater Management Report

The applicant is proposing to conduct site improvements on the subject property. Currently, the parcel supports two multi-family dwellings, two asphalt driveways, and various hardscapes. Vegetative cover at the property is primarily lawn with other ornamental plantings. The proposed improvements will include the construction of three multi-family buildings totaling 13 units. Improvements also include the installation of a storm drainage system, site grading, and associated landscaping.

For a depiction of existing and proposed conditions, refer to a plan set prepared by D'Andrea Surveying and Engineering, P.C., entitled "Residential Development depicting property at 12 & 18 Taylor Street, Stamford, Connecticut, prepared for G&T Taylor Street LLC".

The subject parcel is 24,492 square feet in size and is located approximately 140 feet south of the intersection of Taylor Street and Richmond Hill Avenue. The proposed redevelopment of the parcel will increase the impervious coverage by approximately 10,444 square feet. Refer to Appendix "A" for a depiction of the proposed stormwater BMPs and drainage calculations.

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.

HydroCAD Summary

G&T Taylor Street LLC

Tyalor Street, Stamford, CT

Project ID: 20PA

POC	1 Year Storm				2 Year Storm				5 Year Storm				10 Year Storm				25 Year Storm				50 Year Storm				100 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)	q_{ex} (ft^3/s)	q_p (ft^3/s)	Δq (ft^3/s)	%Δq (ft^3/s)
A	0.85	0.61	-0.24	-28%	1.14	1.14	0.00	0%	1.63	1.56	-0.07	-4%	1.98	1.85	-0.13	-7%	2.33	2.12	-0.21	-9%	2.67	2.39	-0.28	-10%	3.06	2.69	-0.37	-12%
B	0.12	0.03	-0.09	-75%	0.17	0.04	-0.13	-76%	0.27	0.06	-0.21	-78%	0.33	0.08	-0.25	-76%	0.40	0.22	-0.18	-45%	0.47	0.37	-0.10	-21%	0.55	0.56	0.01	2%

Table 1: Comparison of Exising and Proposed Peak Flow Rates for all Points of Concern.

POC	1 Year Storm				2 Year Storm				5 Year Storm				10 Year Storm				25 Year Storm				50 Year Storm				100 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)	v_{ex} (cf)	v_p (cf)	Δv (cf)	%Δv (cf)
A	2,531	2,424	-107	-4%	3,413	3,372	-41	-1%	4,941	4,977	36	1%	6,038	6,112	74	1%	7,149	7,254	105	1%	8,271	8,401	130	2%	9,563	9,716	153	2%
B	416	86	-330	-79%	590	121	-469	-79%	901	427	-474	-53%	1,129	680	-449	-40%	1,364	934	-430	-32%	1,603	1,188	-415	-26%	1,880	1,480	-400	-21%

Table 2: Comparison of Exising and Proposed Runoff Volumes for all Points of Concern.

Exhibits "A & B"

Existing and Proposed Watershed Maps

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

1 INCH = 40 FEET

SCALE

40 0 40

IN FEET

D'ANDREA SURVEYING & ENGINEERING, P.C.

• LAND PLANNERS
• ENGINEERS
• SURVEYORS

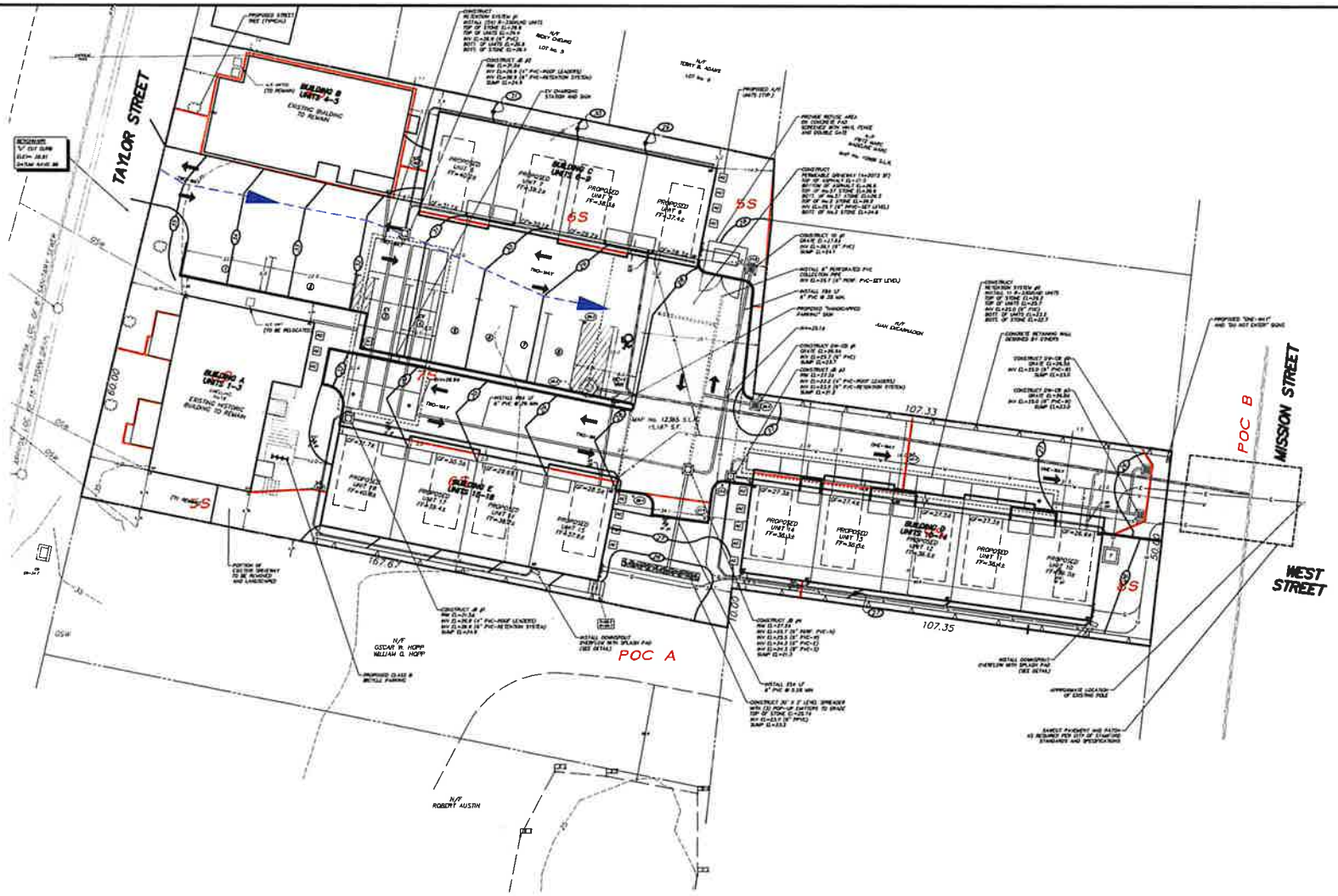
P.O. BOX 549
RIVERSIDE, CT 06878

6 NEIL LANE
TEL. 637-1779

EXHIBIT "A"
EXISTING CONDITIONS

MISSRICH_20PA_DSR_EX_0.DWG (MMK)

20PA



1 INCH = 40 FEET

SCALE

40 0 40

IN FEET

D'ANDREA SURVEYING & ENGINEERING, P.C.

- LAND PLANNERS
- ENGINEERS
- SURVEYORS

P.O. BOX 549
RIVERSIDE, CT 06878

6 NEIL LANE
TEL. 637-1779

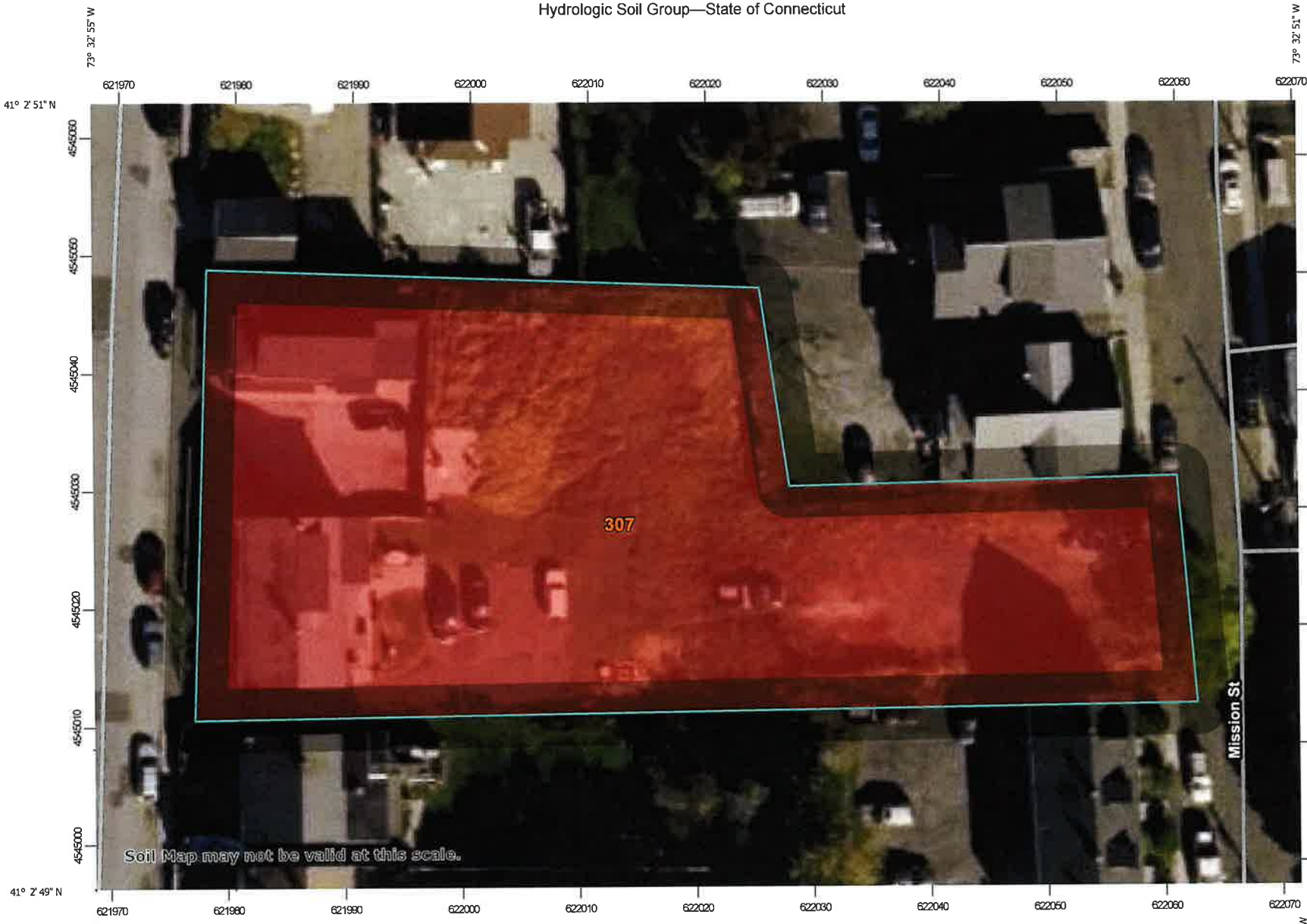
EXHIBIT "B"
PROPOSED CONDITIONS

MISSRICH_20PA_DSR_PRO_0.DWG (MMK)

20PA

Exhibit "C"

USDA Soil Delineation Map



Map Scale: 1:470 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 5 10 20 30

Feet
0 20 40 80 120

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

Soil Rating Points

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	0.6	100.0%
Totals for Area of Interest			**0.6**	**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.

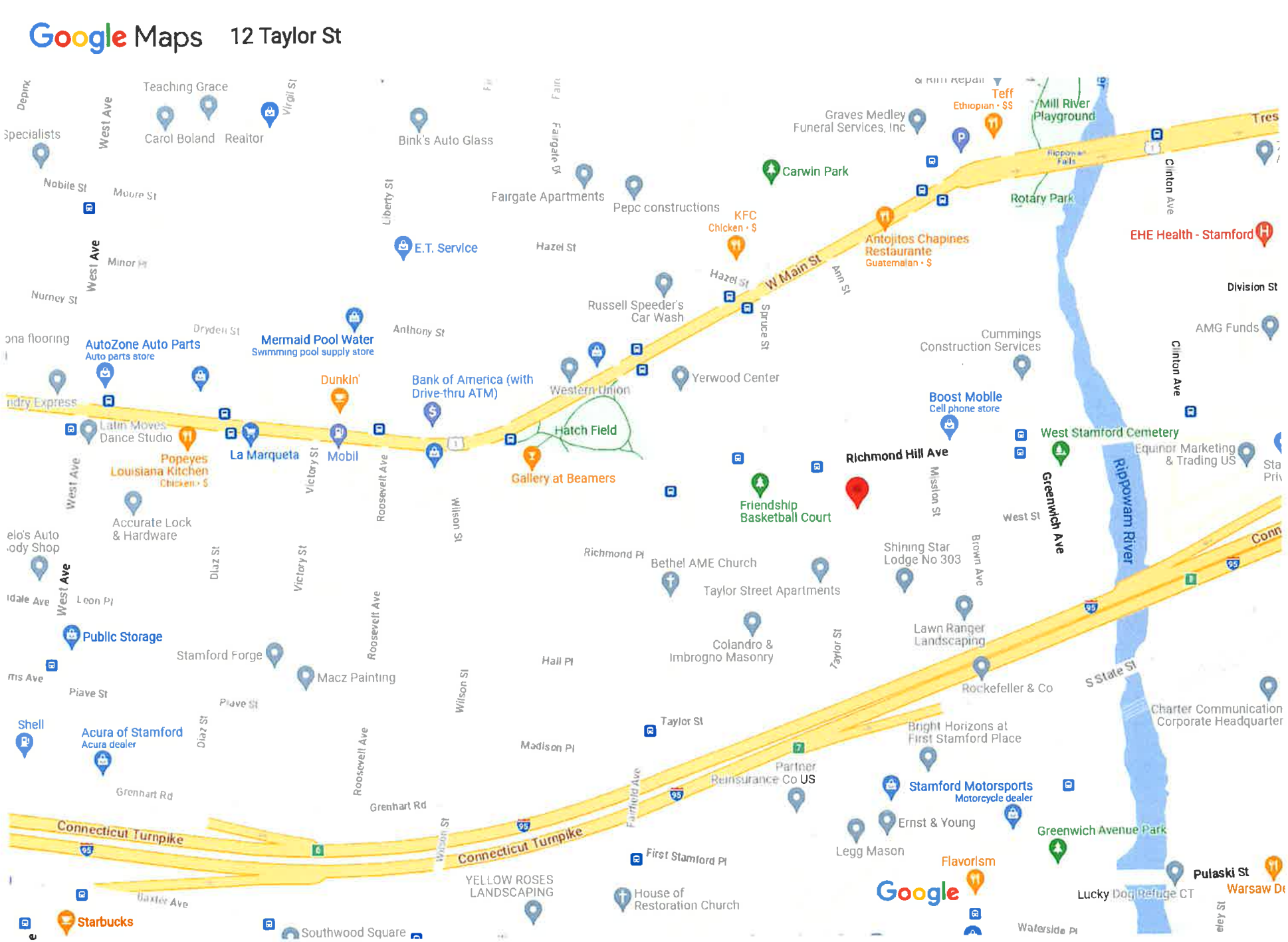
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Exhibit "D"

Site Vicinity Map


Google Maps 12 Taylor St
Teaching Grace
Carol Boland Realtor
Virgil St
West Ave
Depink
Specialists
Nobile St
Moore St
Bink's Auto Glass
Fairgate Dr
Fairgate Apartments
Pepc constructions
Liberty St
E.T. Service
Hazel St
Minor Pl
Nurney St
Dryden St
Anthony St
Mermaid Pool Water
Swimming pool supply store
AutoZone Auto Parts
Auto parts store
ona flooring
ndry Express
Latin Moves Dance Studio
Popeyes Louisiana Kitchen
Chicken · $
La Marqueta
Dunkin'
Mobil
Bank of America (with Drive-thru ATM)
Victory St
Roosevelt Ave
Wilson St
Accurate Lock & Hardware
elo's Auto ody Shop
Diaz St
Leon Pl
Public Storage
Stamford Forge
Macz Painting
Piave St
Shell
Acura of Stamford
Acura dealer
Grenhart Rd
Connecticut Turnpike
Baxter Ave
Starbucks
Southwood Square
YELLOW ROSES LANDSCAPING
Madison Pl
Hall Pl
Taylor St
First Stamford Pl
House of Restoration Church
Partner Reinsurance Co US
Legg Mason
Ernst & Ernst & Young
Flavorism
Google
Waterside Pl
Russell Speeder's Car Wash
Western Union
Yerwood Center
Hatch Field
Gallery at Beamers
Richmond Hill Ave
Friendship Basketball Court
Richmond Pl
Bethel AME Church
Taylor Street Apartments
Colandro & Imbrogno Masonry
Shining Star Lodge No 303
Lawn Ranger Landscaping
Rockefeller & Co
Bright Horizons at First Stamford Place
Stamford Motorsports
Motorcycle dealer
Greenwich Avenue Park
Graves Medley Funeral Services, Inc
Carwin Park
KFC
Chicken · $
Antojitos Chapines Restaurante
Guatemalan · $
W Main St
Spruce St
Ann St
Teff
Ethiopian · $$
Mill River Playground
Rotary Park
Clinton Ave
EHE Health - Stamford
Division St
AMG Funds
Cummings Construction Services
Boost Mobile
Cell phone store
West Stamford Cemetery
Equinor Marketing & Trading US
Mission St
Brown Ave
West St
Greenwich Ave
Riptowam River
S State St
Charter Communication Corporate Headquarter
Pulaski St
Warsaw De
Lucky Dog Refuge CT

Appendix "A"

Drainage System
Design Calculations

BMP Drawdown Calculations:

Infiltration structures must be able to drain fully within 72 hours.

Retention System #1: Cultec Drywells #1

$t_{drawdown}$ = DV/kA

Where:

DV =	Design Volume	=	190	ft^3	
k =	Infiltration Rate	=	0.09	inches/hr	Silty Loam
A =	Bottom Area	=	948	ft^2	

$t_{drawdown}$ = 26.7 hours **Drawdown Requirement Satisfied**

Retention System #2: Cultec Drywells #2

$t_{drawdown}$ = DV/kA

Where:

DV =	Design Volume	=	963	ft^3	
k =	Infiltration Rate	=	0.52	inches/hr	Tan Fines
A =	Bottom Area	=	510	ft^2	

$t_{drawdown}$ = 43.6 hours **Drawdown Requirement Satisfied**

Retention System #3: Permeable Pavement

$t_{drawdown}$ = DV/kA

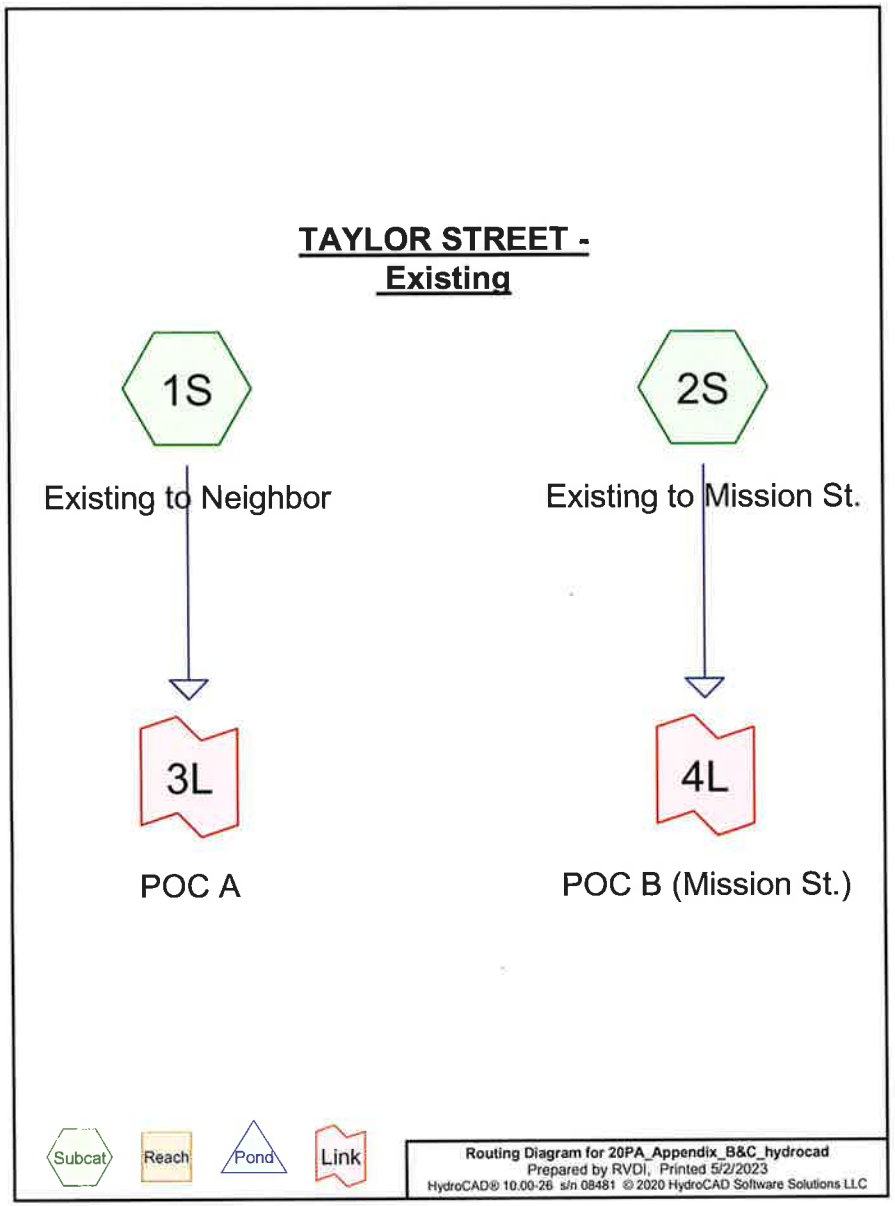
Where:

DV =	Design Volume	=	912	ft^3	
k =	Infiltration Rate	=	0.09	inches/hr	Silty Loam
A =	Bottom Area	=	2073	ft^2	

$t_{drawdown}$ = 58.7 hours **Drawdown Requirement Satisfied**

Appendix "B"

HydroCAD Analysis – Existing Conditions



Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
15,790	80.0	>75% Grass cover, Good, HSG D (1S, 2S)
4,514	98.0	Paved parking, HSG D (1S, 2S)
3,256	98.0	Roofs, HSG D (1S)
935	98.0	Unconnected pavement, HSG D (1S)
24,495	**86.4**	**TOTAL AREA**

Summary for Subcatchment 1S: Existing to Neighbor

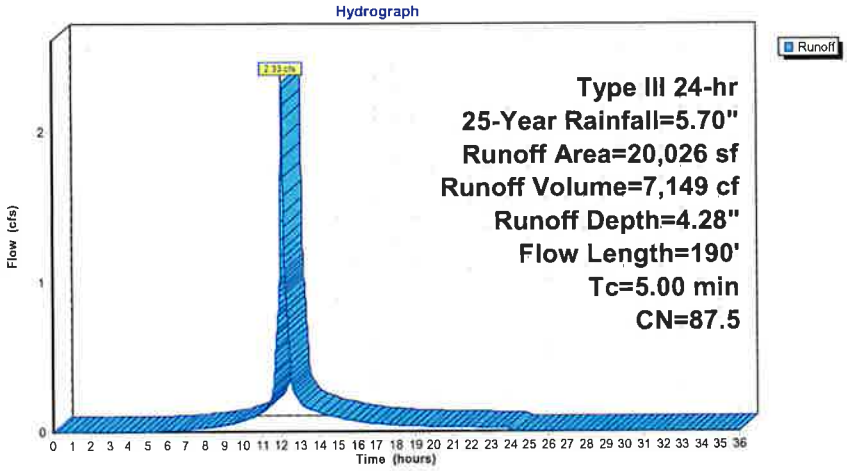
Runoff = 2.33 cfs @ 12.07 hrs, Volume= 7,149 cf, Depth= 4.28"

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=5.70"

Area (sf)	CN	Description
4,152	98.0	Paved parking, HSG D
3,256	98.0	Roofs, HSG D
935	98.0	Unconnected pavement, HSG D
11,683	80.0	>75% Grass cover, Good, HSG D
20,026	87.5	Weighted Average
11,683		58.34% Pervious Area
8,343		41.66% Impervious Area
935		11.21% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.50	70	0.0871	2.34		**Sheet Flow, Driveway** Smooth surfaces n= 0.011 P2= 3.30"
1.71	30	0.1367	0.29		**Sheet Flow, Lawn** Grass: Short n= 0.150 P2= 3.30"
0.56	90	0.0322	2.69		**Shallow Concentrated Flow, Lawn** Grassed Waterway Kv= 15.0 fps
2.77	190	Total, Increased to minimum Tc = 5.00 min			

Subcatchment 1S: Existing to Neighbor



Summary for Subcatchment 2S: Existing to Mission St.

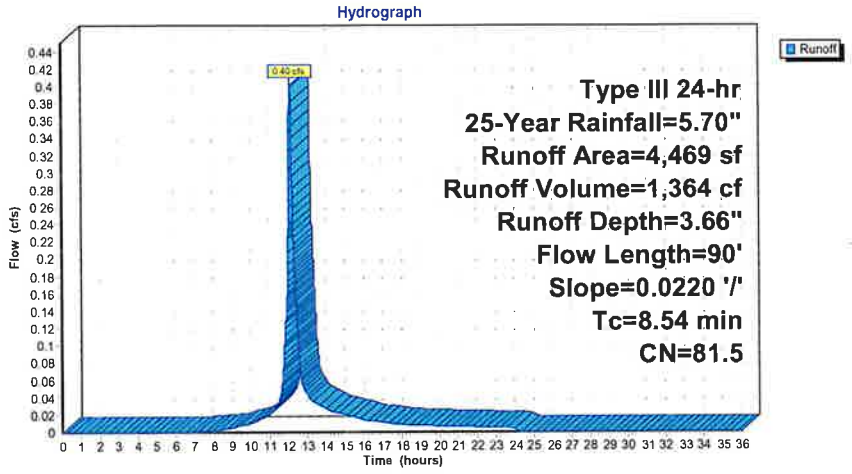
Runoff = 0.40 cfs @ 12.12 hrs, Volume= 1,364 cf, Depth= 3.66"

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=5.70"

Area (sf)	CN	Description
362	98.0	Paved parking, HSG D
4,107	80.0	>75% Grass cover, Good, HSG D
4,469	81.5	Weighted Average
4,107		91.90% Pervious Area
362		8.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.54	90	0.0220	0.18		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.30"

Subcatchment 2S: Existing to Mission St.

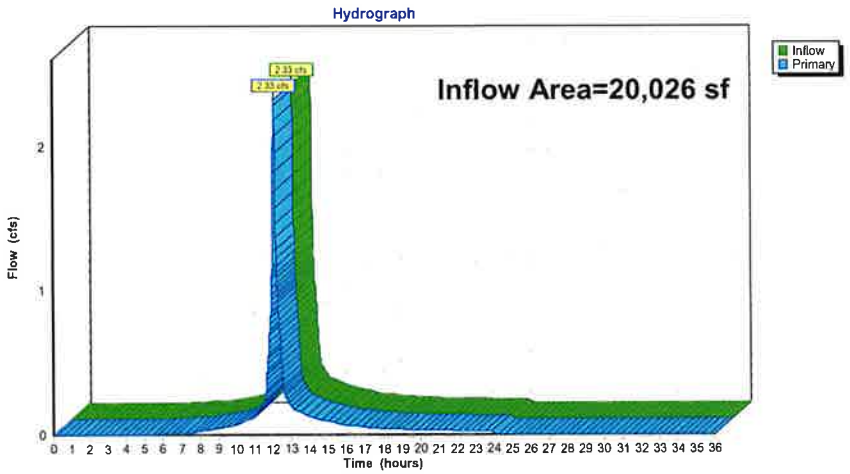


Summary for Link 3L: POC A

Inflow Area = 20,026 sf, 41.66% Impervious, Inflow Depth = 4.28" for 25-Year event
Inflow = 2.33 cfs @ 12.07 hrs, Volume= 7,149 cf
Primary = 2.33 cfs @ 12.07 hrs, Volume= 7,149 cf, Atten= 0%, Lag= 0.0 min

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

Link 3L: POC A

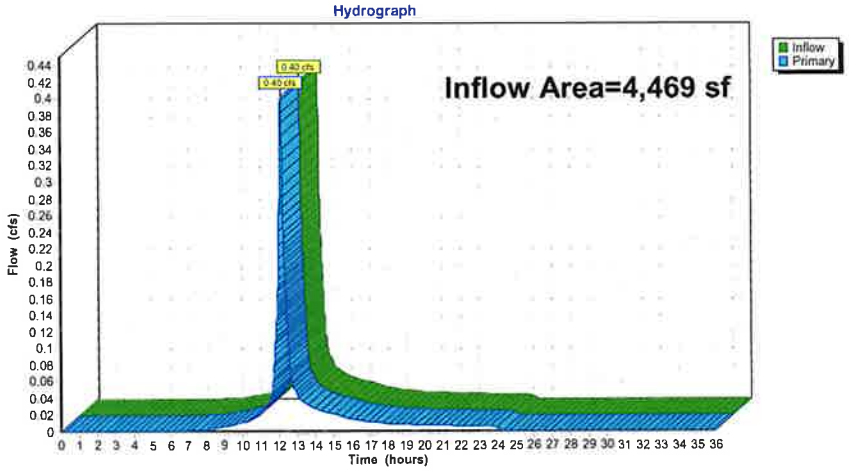


Summary for Link 4L: POC B (Mission St.)

Inflow Area = 4,469 sf, 8.10% Impervious, Inflow Depth = 3.66" for 25-Year event
Inflow = 0.40 cfs @ 12.12 hrs, Volume= 1,364 cf
Primary = 0.40 cfs @ 12.12 hrs, Volume= 1,364 cf, Atten= 0%, Lag= 0.0 min

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

Link 4L: POC B (Mission St.)



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: Existing to Neighbor Runoff Area=20,026 sf 41.66% Impervious Runoff Depth=1.52"
Flow Length=190' Tc=5.00 min CN=87.5 Runoff=0.85 cfs 2,531 cf

Subcatchment 2S: Existing to Mission St. Runoff Area=4,469 sf 8.10% Impervious Runoff Depth=1.12"
Flow Length=90' Slope=0.0220 '/' Tc=8.54 min CN=81.5 Runoff=0.12 cfs 416 cf

Link 3L: POC A Inflow=0.85 cfs 2,531 cf
Primary=0.85 cfs 2,531 cf

Link 4L: POC B (Mission St.) Inflow=0.12 cfs 416 cf
Primary=0.12 cfs 416 cf

Summary for Subcatchment 1S: Existing to Neighbor

Runoff = 0.85 cfs @ 12.07 hrs, Volume= 2,531 cf, Depth= 1.52"

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 1-Year Rainfall=2.70"

Area (sf)	CN	Description
4,152	98.0	Paved parking, HSG D
3,256	98.0	Roofs, HSG D
935	98.0	Unconnected pavement, HSG D
11,683	80.0	>75% Grass cover, Good, HSG D
20,026	87.5	Weighted Average
11,683		58.34% Pervious Area
8,343		41.66% Impervious Area
935		11.21% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.50	70	0.0871	2.34		**Sheet Flow, Driveway** Smooth surfaces n= 0.011 P2= 3.30"
1.71	30	0.1367	0.29		**Sheet Flow, Lawn** Grass: Short n= 0.150 P2= 3.30"
0.56	90	0.0322	2.69		**Shallow Concentrated Flow, Lawn** Grassed Waterway Kv= 15.0 fps
2.77	190	Total, Increased to minimum Tc = 5.00 min			

Summary for Subcatchment 2S: Existing to Mission St.

Runoff = 0.12 cfs @ 12.13 hrs, Volume= 416 cf, Depth= 1.12"

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 1-Year Rainfall=2.70"

Area (sf)	CN	Description
362	98.0	Paved parking, HSG D
4,107	80.0	>75% Grass cover, Good, HSG D
4,469	81.5	Weighted Average
4,107		91.90% Pervious Area
362		8.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.54	90	0.0220	0.18		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.30"

Summary for Link 3L: POC A

Inflow Area = 20,026 sf, 41.66% Impervious, Inflow Depth = 1.52" for 1-Year event
Inflow = 0.85 cfs @ 12.07 hrs, Volume= 2,531 cf
Primary = 0.85 cfs @ 12.07 hrs, Volume= 2,531 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 4L: POC B (Mission St.)

Inflow Area = 4,469 sf, 8.10% Impervious, Inflow Depth = 1.12" for 1-Year event
Inflow = 0.12 cfs @ 12.13 hrs, Volume= 416 cf
Primary = 0.12 cfs @ 12.13 hrs, Volume= 416 cf, Atten= 0%, Lag= 0.0 min

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

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: Existing to Neighbor Runoff Area=20,026 sf 41.66% Impervious Runoff Depth=2.05"
Flow Length=190' Tc=5.00 min CN=87.5 Runoff=1.14 cfs 3,413 cf

Subcatchment 2S: Existing to Mission St. Runoff Area=4,469 sf 8.10% Impervious Runoff Depth=1.58"
Flow Length=90' Slope=0.0220 '/' Tc=8.54 min CN=81.5 Runoff=0.17 cfs 590 cf

Link 3L: POC A Inflow=1.14 cfs 3,413 cf
Primary=1.14 cfs 3,413 cf

Link 4L: POC B (Mission St.) Inflow=0.17 cfs 590 cf
Primary=0.17 cfs 590 cf

Summary for Subcatchment 1S: Existing to Neighbor

Runoff = 1.14 cfs @ 12.07 hrs, Volume= 3,413 cf, Depth= 2.05"

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 2-Year Rainfall=3.30"

Area (sf)	CN	Description
4,152	98.0	Paved parking, HSG D
3,256	98.0	Roofs, HSG D
935	98.0	Unconnected pavement, HSG D
11,683	80.0	>75% Grass cover, Good, HSG D
20,026	87.5	Weighted Average
11,683		58.34% Pervious Area
8,343		41.66% Impervious Area
935		11.21% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.50	70	0.0871	2.34		**Sheet Flow, Driveway** Smooth surfaces n= 0.011 P2= 3.30"
1.71	30	0.1367	0.29		**Sheet Flow, Lawn** Grass: Short n= 0.150 P2= 3.30"
0.56	90	0.0322	2.69		**Shallow Concentrated Flow, Lawn** Grassed Waterway Kv= 15.0 fps
2.77	190	Total, Increased to minimum Tc = 5.00 min			

Summary for Subcatchment 2S: Existing to Mission St.

Runoff = 0.17 cfs @ 12.12 hrs, Volume= 590 cf, Depth= 1.58"

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 2-Year Rainfall=3.30"

Area (sf)	CN	Description
362	98.0	Paved parking, HSG D
4,107	80.0	>75% Grass cover, Good, HSG D
4,469	81.5	Weighted Average
4,107		91.90% Pervious Area
362		8.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.54	90	0.0220	0.18		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.30"

Summary for Link 3L: POC A

Inflow Area = 20,026 sf, 41.66% Impervious, Inflow Depth = 2.05" for 2-Year event
Inflow = 1.14 cfs @ 12.07 hrs, Volume= 3,413 cf
Primary = 1.14 cfs @ 12.07 hrs, Volume= 3,413 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 4L: POC B (Mission St.)

Inflow Area = 4,469 sf, 8.10% Impervious, Inflow Depth = 1.58" for 2-Year event
Inflow = 0.17 cfs @ 12.12 hrs, Volume= 590 cf
Primary = 0.17 cfs @ 12.12 hrs, Volume= 590 cf, Atten= 0%, Lag= 0.0 min

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

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: Existing to Neighbor Runoff Area=20,026 sf 41.66% Impervious Runoff Depth=2.96"
Flow Length=190' Tc=5.00 min CN=87.5 Runoff=1.63 cfs 4,941 cf

Subcatchment 2S: Existing to Mission St. Runoff Area=4,469 sf 8.10% Impervious Runoff Depth=2.42"
Flow Length=90' Slope=0.0220 '/' Tc=8.54 min CN=81.5 Runoff=0.27 cfs 901 cf

Link 3L: POC A Inflow=1.63 cfs 4,941 cf
Primary=1.63 cfs 4,941 cf

Link 4L: POC B (Mission St.) Inflow=0.27 cfs 901 cf
Primary=0.27 cfs 901 cf

Summary for Subcatchment 1S: Existing to Neighbor

Runoff = 1.63 cfs @ 12.07 hrs, Volume= 4,941 cf, Depth= 2.96"

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 5-Year Rainfall=4.30"

Area (sf)	CN	Description
4,152	98.0	Paved parking, HSG D
3,256	98.0	Roofs, HSG D
935	98.0	Unconnected pavement, HSG D
11,683	80.0	>75% Grass cover, Good, HSG D
20,026	87.5	Weighted Average
11,683		58.34% Pervious Area
8,343		41.66% Impervious Area
935		11.21% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.50	70	0.0871	2.34		**Sheet Flow, Driveway** Smooth surfaces n= 0.011 P2= 3.30"
1.71	30	0.1367	0.29		**Sheet Flow, Lawn** Grass: Short n= 0.150 P2= 3.30"
0.56	90	0.0322	2.69		**Shallow Concentrated Flow, Lawn** Grassed Waterway Kv= 15.0 fps
2.77	190	Total, Increased to minimum Tc = 5.00 min			

Summary for Subcatchment 2S: Existing to Mission St.

Runoff = 0.27 cfs @ 12.12 hrs, Volume= 901 cf, Depth= 2.42"

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 5-Year Rainfall=4.30"

Area (sf)	CN	Description
362	98.0	Paved parking, HSG D
4,107	80.0	>75% Grass cover, Good, HSG D
4,469	81.5	Weighted Average
4,107		91.90% Pervious Area
362		8.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.54	90	0.0220	0.18		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.30"

Summary for Link 3L: POC A

Inflow Area = 20,026 sf, 41.66% Impervious, Inflow Depth = 2.96" for 5-Year event
Inflow = 1.63 cfs @ 12.07 hrs, Volume= 4,941 cf
Primary = 1.63 cfs @ 12.07 hrs, Volume= 4,941 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 4L: POC B (Mission St.)

Inflow Area = 4,469 sf, 8.10% Impervious, Inflow Depth = 2.42" for 5-Year event
Inflow = 0.27 cfs @ 12.12 hrs, Volume= 901 cf
Primary = 0.27 cfs @ 12.12 hrs, Volume= 901 cf, Atten= 0%, Lag= 0.0 min

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

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: Existing to Neighbor Runoff Area=20,026 sf 41.66% Impervious Runoff Depth=3.62"
Flow Length=190' Tc=5.00 min CN=87.5 Runoff=1.98 cfs 6,038 cf

Subcatchment 2S: Existing to Mission St. Runoff Area=4,469 sf 8.10% Impervious Runoff Depth=3.03"
Flow Length=90' Slope=0.0220 '/' Tc=8.54 min CN=81.5 Runoff=0.33 cfs 1,129 cf

Link 3L: POC A Inflow=1.98 cfs 6,038 cf
Primary=1.98 cfs 6,038 cf

Link 4L: POC B (Mission St.) Inflow=0.33 cfs 1,129 cf
Primary=0.33 cfs 1,129 cf

Summary for Subcatchment 1S: Existing to Neighbor

Runoff = 1.98 cfs @ 12.07 hrs, Volume= 6,038 cf, Depth= 3.62"

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 10-Year Rainfall=5.00"

Area (sf)	CN	Description
4,152	98.0	Paved parking, HSG D
3,256	98.0	Roofs, HSG D
935	98.0	Unconnected pavement, HSG D
11,683	80.0	>75% Grass cover, Good, HSG D
20,026	87.5	Weighted Average
11,683		58.34% Pervious Area
8,343		41.66% Impervious Area
935		11.21% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.50	70	0.0871	2.34		**Sheet Flow, Driveway** Smooth surfaces n= 0.011 P2= 3.30"
1.71	30	0.1367	0.29		**Sheet Flow, Lawn** Grass: Short n= 0.150 P2= 3.30"
0.56	90	0.0322	2.69		**Shallow Concentrated Flow, Lawn** Grassed Waterway Kv= 15.0 fps
2.77	190	Total, Increased to minimum Tc = 5.00 min			

Summary for Subcatchment 2S: Existing to Mission St.

Runoff = 0.33 cfs @ 12.12 hrs, Volume= 1,129 cf, Depth= 3.03"

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 10-Year Rainfall=5.00"

Area (sf)	CN	Description
362	98.0	Paved parking, HSG D
4,107	80.0	>75% Grass cover, Good, HSG D
4,469	81.5	Weighted Average
4,107		91.90% Pervious Area
362		8.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.54	90	0.0220	0.18		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.30"

Summary for Link 3L: POC A

Inflow Area = 20,026 sf, 41.66% Impervious, Inflow Depth = 3.62" for 10-Year event
Inflow = 1.98 cfs @ 12.07 hrs, Volume= 6,038 cf
Primary = 1.98 cfs @ 12.07 hrs, Volume= 6,038 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 4L: POC B (Mission St.)

Inflow Area = 4,469 sf, 8.10% Impervious, Inflow Depth = 3.03" for 10-Year event
Inflow = 0.33 cfs @ 12.12 hrs, Volume= 1,129 cf
Primary = 0.33 cfs @ 12.12 hrs, Volume= 1,129 cf, Atten= 0%, Lag= 0.0 min

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

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: Existing to Neighbor Runoff Area=20,026 sf 41.66% Impervious Runoff Depth=4.28"
Flow Length=190' Tc=5.00 min CN=87.5 Runoff=2.33 cfs 7,149 cf

Subcatchment 2S: Existing to Mission St. Runoff Area=4,469 sf 8.10% Impervious Runoff Depth=3.66"
Flow Length=90' Slope=0.0220 '/' Tc=8.54 min CN=81.5 Runoff=0.40 cfs 1,364 cf

Link 3L: POC A Inflow=2.33 cfs 7,149 cf
Primary=2.33 cfs 7,149 cf

Link 4L: POC B (Mission St.) Inflow=0.40 cfs 1,364 cf
Primary=0.40 cfs 1,364 cf

Summary for Subcatchment 1S: Existing to Neighbor

Runoff = 2.33 cfs @ 12.07 hrs, Volume= 7,149 cf, Depth= 4.28"

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=5.70"

Area (sf)	CN	Description
4,152	98.0	Paved parking, HSG D
3,256	98.0	Roofs, HSG D
935	98.0	Unconnected pavement, HSG D
11,683	80.0	>75% Grass cover, Good, HSG D
20,026	87.5	Weighted Average
11,683		58.34% Pervious Area
8,343		41.66% Impervious Area
935		11.21% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.50	70	0.0871	2.34		**Sheet Flow, Driveway** Smooth surfaces n= 0.011 P2= 3.30"
1.71	30	0.1367	0.29		**Sheet Flow, Lawn** Grass: Short n= 0.150 P2= 3.30"
0.56	90	0.0322	2.69		**Shallow Concentrated Flow, Lawn** Grassed Waterway Kv= 15.0 fps
2.77	190	Total, Increased to minimum Tc = 5.00 min			

Summary for Subcatchment 2S: Existing to Mission St.

Runoff = 0.40 cfs @ 12.12 hrs, Volume= 1,364 cf, Depth= 3.66"

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=5.70"

Area (sf)	CN	Description
362	98.0	Paved parking, HSG D
4,107	80.0	>75% Grass cover, Good, HSG D
4,469	81.5	Weighted Average
4,107		91.90% Pervious Area
362		8.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.54	90	0.0220	0.18		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.30"

Summary for Link 3L: POC A

Inflow Area = 20,026 sf, 41.66% Impervious, Inflow Depth = 4.28" for 25-Year event
Inflow = 2.33 cfs @ 12.07 hrs, Volume= 7,149 cf
Primary = 2.33 cfs @ 12.07 hrs, Volume= 7,149 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 4L: POC B (Mission St.)

Inflow Area = 4,469 sf, 8.10% Impervious, Inflow Depth = 3.66" for 25-Year event
Inflow = 0.40 cfs @ 12.12 hrs, Volume= 1,364 cf
Primary = 0.40 cfs @ 12.12 hrs, Volume= 1,364 cf, Atten= 0%, Lag= 0.0 min

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

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: Existing to Neighbor Runoff Area=20,026 sf 41.66% Impervious Runoff Depth=4.96"
Flow Length=190' Tc=5.00 min CN=87.5 Runoff=2.67 cfs 8,271 cf

Subcatchment 2S: Existing to Mission St. Runoff Area=4,469 sf 8.10% Impervious Runoff Depth=4.30"
Flow Length=90' Slope=0.0220 '/' Tc=8.54 min CN=81.5 Runoff=0.47 cfs 1,603 cf

Link 3L: POC A Inflow=2.67 cfs 8,271 cf
Primary=2.67 cfs 8,271 cf

Link 4L: POC B (Mission St.) Inflow=0.47 cfs 1,603 cf
Primary=0.47 cfs 1,603 cf

Summary for Subcatchment 1S: Existing to Neighbor

Runoff = 2.67 cfs @ 12.07 hrs, Volume= 8,271 cf, Depth= 4.96"

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 50-Year Rainfall=6.40"

Area (sf)	CN	Description
4,152	98.0	Paved parking, HSG D
3,256	98.0	Roofs, HSG D
935	98.0	Unconnected pavement, HSG D
11,683	80.0	>75% Grass cover, Good, HSG D
20,026	87.5	Weighted Average
11,683		58.34% Pervious Area
8,343		41.66% Impervious Area
935		11.21% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.50	70	0.0871	2.34		**Sheet Flow, Driveway** Smooth surfaces n= 0.011 P2= 3.30"
1.71	30	0.1367	0.29		**Sheet Flow, Lawn** Grass: Short n= 0.150 P2= 3.30"
0.56	90	0.0322	2.69		**Shallow Concentrated Flow, Lawn** Grassed Waterway Kv= 15.0 fps
2.77	190	Total, Increased to minimum Tc = 5.00 min			

Summary for Subcatchment 2S: Existing to Mission St.

Runoff = 0.47 cfs @ 12.12 hrs, Volume= 1,603 cf, Depth= 4.30"

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 50-Year Rainfall=6.40"

Area (sf)	CN	Description
362	98.0	Paved parking, HSG D
4,107	80.0	>75% Grass cover, Good, HSG D
4,469	81.5	Weighted Average
4,107		91.90% Pervious Area
362		8.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.54	90	0.0220	0.18		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.30"

Summary for Link 3L: POC A

Inflow Area = 20,026 sf, 41.66% Impervious, Inflow Depth = 4.96" for 50-Year event
Inflow = 2.67 cfs @ 12.07 hrs, Volume= 8,271 cf
Primary = 2.67 cfs @ 12.07 hrs, Volume= 8,271 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 4L: POC B (Mission St.)

Inflow Area = 4,469 sf, 8.10% Impervious, Inflow Depth = 4.30" for 50-Year event
Inflow = 0.47 cfs @ 12.12 hrs, Volume= 1,603 cf
Primary = 0.47 cfs @ 12.12 hrs, Volume= 1,603 cf, Atten= 0%, Lag= 0.0 min

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

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: Existing to Neighbor Runoff Area=20,026 sf 41.66% Impervious Runoff Depth=5.73"
Flow Length=190' Tc=5.00 min CN=87.5 Runoff=3.06 cfs 9,563 cf

Subcatchment 2S: Existing to Mission St. Runoff Area=4,469 sf 8.10% Impervious Runoff Depth=5.05"
Flow Length=90' Slope=0.0220 '/' Tc=8.54 min CN=81.5 Runoff=0.55 cfs 1,880 cf

Link 3L: POC A Inflow=3.06 cfs 9,563 cf
Primary=3.06 cfs 9,563 cf

Link 4L: POC B (Mission St.) Inflow=0.55 cfs 1,880 cf
Primary=0.55 cfs 1,880 cf

Summary for Subcatchment 1S: Existing to Neighbor

Runoff = 3.06 cfs @ 12.07 hrs, Volume= 9,563 cf, Depth= 5.73"

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 100-Year Rainfall=7.20"

Area (sf)	CN	Description
4,152	98.0	Paved parking, HSG D
3,256	98.0	Roofs, HSG D
935	98.0	Unconnected pavement, HSG D
11,683	80.0	>75% Grass cover, Good, HSG D
20,026	87.5	Weighted Average
11,683		58.34% Pervious Area
8,343		41.66% Impervious Area
935		11.21% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.50	70	0.0871	2.34		**Sheet Flow, Driveway** Smooth surfaces n= 0.011 P2= 3.30"
1.71	30	0.1367	0.29		**Sheet Flow, Lawn** Grass: Short n= 0.150 P2= 3.30"
0.56	90	0.0322	2.69		**Shallow Concentrated Flow, Lawn** Grassed Waterway Kv= 15.0 fps
2.77	190	Total, Increased to minimum Tc = 5.00 min			

Summary for Subcatchment 2S: Existing to Mission St.

Runoff = 0.55 cfs @ 12.12 hrs, Volume= 1,880 cf, Depth= 5.05"

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 100-Year Rainfall=7.20"

Area (sf)	CN	Description
362	98.0	Paved parking, HSG D
4,107	80.0	>75% Grass cover, Good, HSG D
4,469	81.5	Weighted Average
4,107		91.90% Pervious Area
362		8.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.54	90	0.0220	0.18		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.30"

Summary for Link 3L: POC A

Inflow Area = 20,026 sf, 41.66% Impervious, Inflow Depth = 5.73" for 100-Year event
Inflow = 3.06 cfs @ 12.07 hrs, Volume= 9,563 cf
Primary = 3.06 cfs @ 12.07 hrs, Volume= 9,563 cf, Atten= 0%, Lag= 0.0 min

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

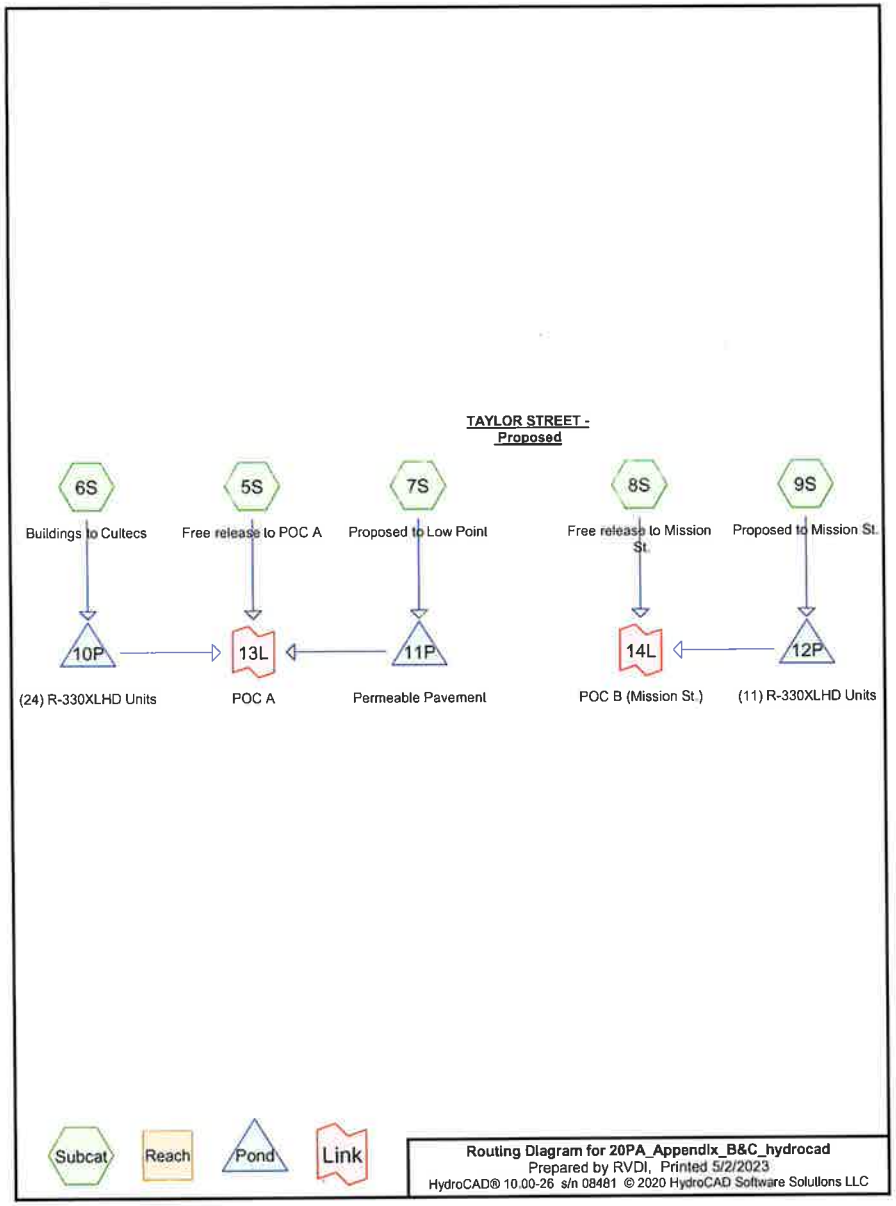
Summary for Link 4L: POC B (Mission St.)

Inflow Area = 4,469 sf, 8.10% Impervious, Inflow Depth = 5.05" for 100-Year event
Inflow = 0.55 cfs @ 12.12 hrs, Volume= 1,880 cf
Primary = 0.55 cfs @ 12.12 hrs, Volume= 1,880 cf, Atten= 0%, Lag= 0.0 min

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

Appendix "C"

HydroCAD Analysis – Proposed Conditions



Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
5,344	80.0	>75% Grass cover, Good, HSG D (5S, 7S, 8S)
10,022	98.0	Paved parking, HSG D (7S, 8S, 9S)
8,883	98.0	Roofs, HSG D (6S, 9S)
244	98.0	Unconnected pavement, HSG D (5S, 7S)
24,493	**94.1**	**TOTAL AREA**

Summary for Subcatchment 5S: Free release to POC A

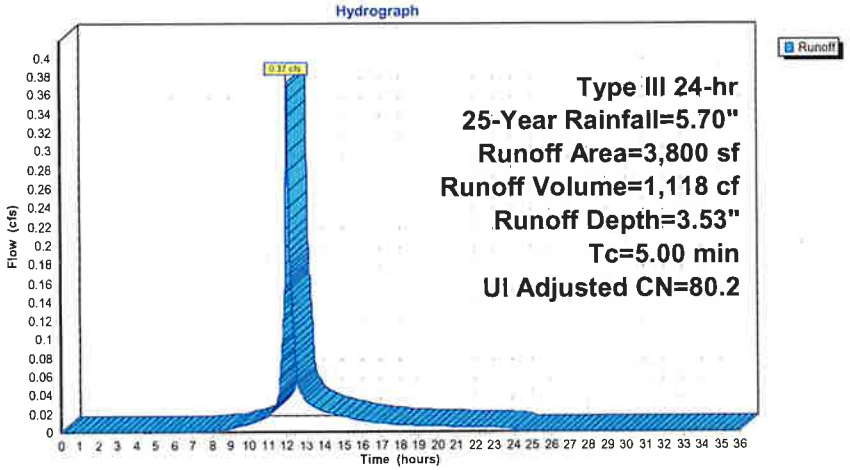
Runoff = 0.37 cfs @ 12.07 hrs, Volume= 1,118 cf, Depth= 3.53"

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=5.70"

Area (sf)	CN	Adj	Description
0	98.0		Paved parking, HSG D
3,700	80.0		>75% Grass cover, Good, HSG D
0	98.0		Roofs, HSG D
100	98.0		Unconnected pavement, HSG D
3,800	80.5	80.2	Weighted Average, UI Adjusted
3,700			97.37% Pervious Area
100			2.63% Impervious Area
100			100.00% Unconnected

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

Subcatchment 5S: Free release to POC A



Summary for Subcatchment 6S: Buildings to Cultecs

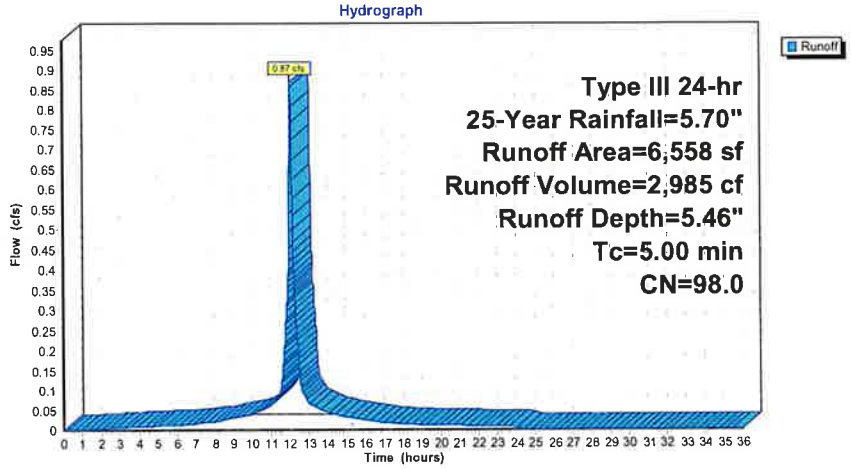
Runoff = 0.87 cfs @ 12.07 hrs, Volume= 2,985 cf, Depth= 5.46"

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=5.70"

Area (sf)	CN	Description
0	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
6,558	98.0	Roofs, HSG D
0	98.0	Unconnected pavement, HSG D
6,558	98.0	Weighted Average
6,558		100.00% Impervious Area

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

Subcatchment 6S: Buildings to Cultecs



Summary for Subcatchment 7S: Proposed to Low Point

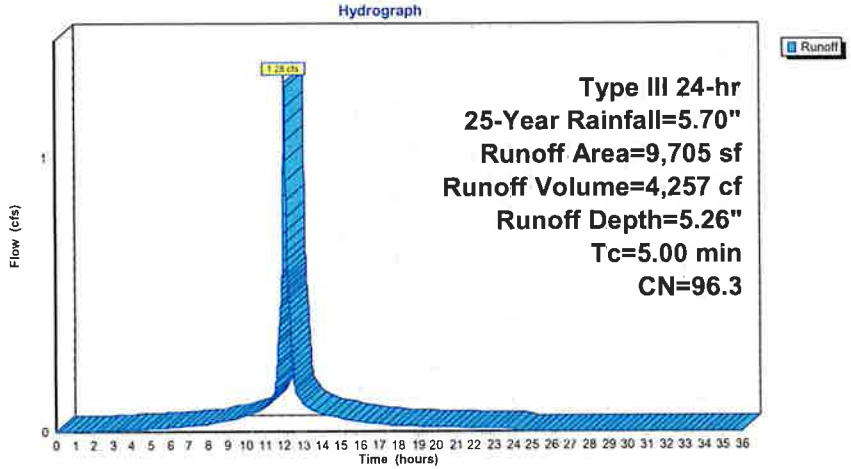
Runoff = 1.28 cfs @ 12.07 hrs, Volume= 4,257 cf, Depth= 5.26"

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=5.70"

Area (sf)	CN	Description
8,647	98.0	Paved parking, HSG D
914	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
144	98.0	Unconnected pavement, HSG D
9,705	96.3	Weighted Average
914		9.42% Pervious Area
8,791		90.58% Impervious Area
144		1.64% Unconnected

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

Subcatchment 7S: Proposed to Low Point



Summary for Subcatchment 8S: Free release to Mission St.

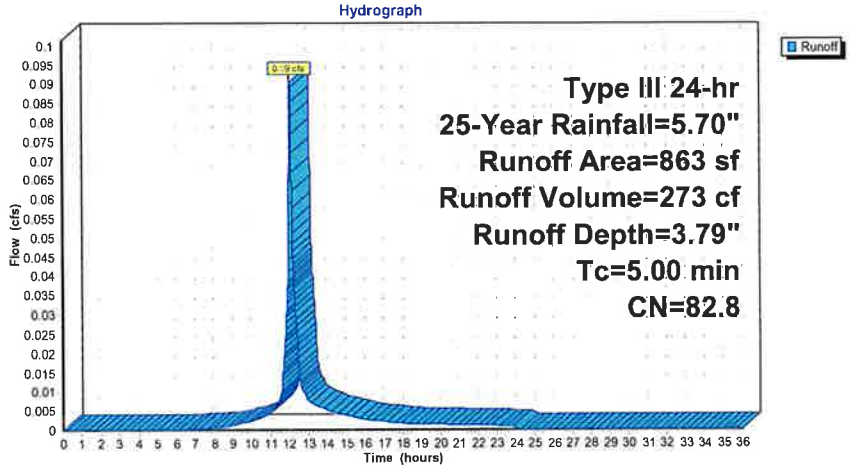
Runoff = 0.09 cfs @ 12.07 hrs, Volume= 273 cf, Depth= 3.79"

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=5.70"

Area (sf)	CN	Description
133	98.0	Paved parking, HSG D
730	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
863	82.8	Weighted Average
730		84.59% Pervious Area
133		15.41% Impervious Area

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

Subcatchment 8S: Free release to Mission St.



Summary for Subcatchment 9S: Proposed to Mission St.

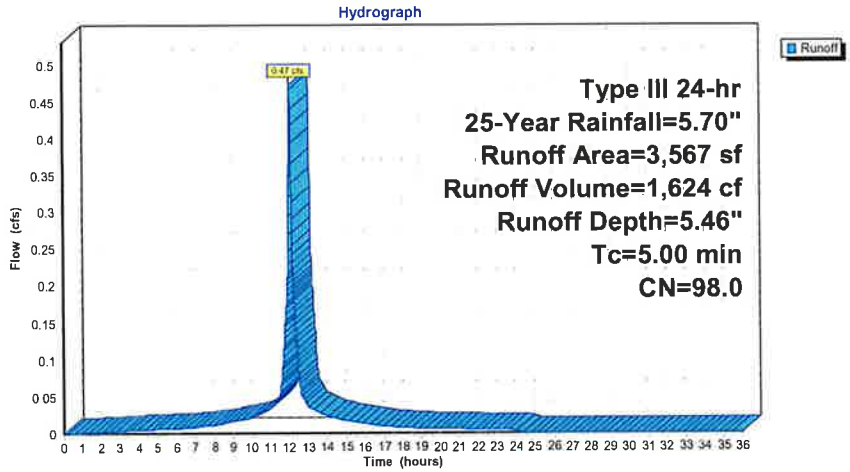
Runoff = 0.47 cfs @ 12.07 hrs, Volume= 1,624 cf, Depth= 5.46"

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=5.70"

Area (sf)	CN	Description
1,242	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
2,325	98.0	Roofs, HSG D
3,567	98.0	Weighted Average
3,567		100.00% Impervious Area

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

Subcatchment 9S: Proposed to Mission St.



Summary for Pond 10P: (24) R-330XLHD Units

Inflow Area = 6,558 sf,100.00% Impervious, Inflow Depth = 5.46" for 25-Year event
Inflow = 0.87 cfs @ 12.07 hrs, Volume= 2,985 cf
Outflow = 0.54 cfs @ 12.16 hrs, Volume= 2,791 cf, Atten= 38%, Lag= 5.3 min
Primary = 0.54 cfs @ 12.16 hrs, Volume= 2,791 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 27.48' @ 12.16 hrs Surf.Area= 948 sf Storage= 644 cf

Plug-Flow detention time= 97.3 min calculated for 2,790 cf (93% of inflow)
Center-of-Mass det. time= 61.2 min (806.2 - 745.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	26.40'	824 cf	**20.83'W x 45.50'L x 3.54'H Field A** 3,357 cf Overall - 1,296 cf Embedded = 2,061 cf x 40.0% Voids
#2A	26.90'	1,296 cf	**Cultec R-330XLHD** x 24 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 4 rows
		2,121 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32
#2	Device 1	26.90'	**6.0" Round 6" Culvert** L= 87.0' Ke= 0.500 Inlet / Outlet Invert= 26.90' / 24.20' S= 0.0310 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.54 cfs @ 12.16 hrs HW=27.48' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Passes 0.54 cfs of 136.61 cfs potential flow)
↑—**2=6" Culvert** (Inlet Controls 0.54 cfs @ 2.76 fps)

Pond 10P: (24) R-330XLHD Units - Chamber Wizard Field A

Chamber Model = Cultec R-330XLHD (Cultec Recharger® 330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf
Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 sf x 4 rows

52.0" Wide + 6.0" Spacing = 58.0" C-C Row Spacing

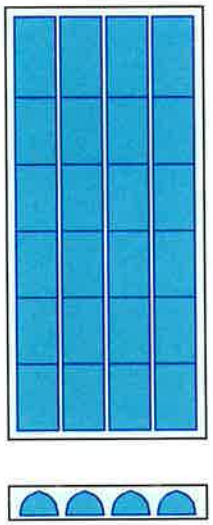
6 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 43.50' Row Length +12.0" End Stone x 2 = 45.50' Base Length
4 Rows x 52.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 20.83' Base Width
6.0" Base + 30.5" Chamber Height + 6.0" Cover = 3.54' Field Height

24 Chambers x 52.2 cf +1.50' Row Adjustment x 7.45 sf x 4 Rows = 1,296.5 cf Chamber Storage

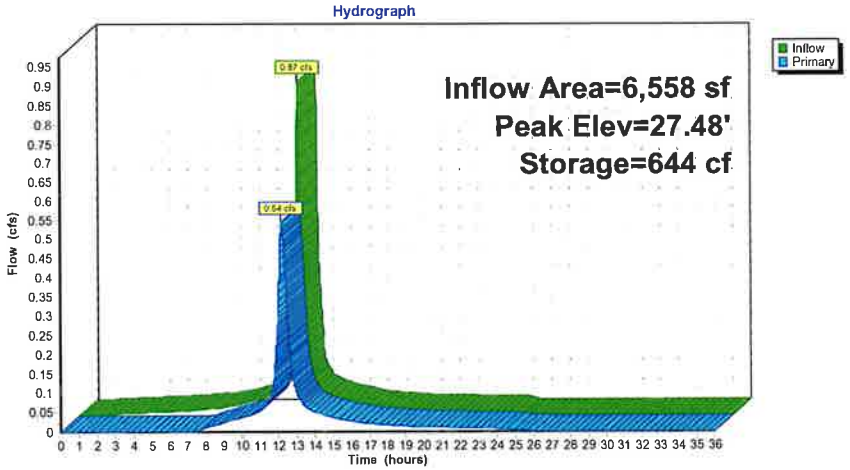
3,357.2 cf Field - 1,296.5 cf Chambers = 2,060.7 cf Stone x 40.0% Voids = 824.3 cf Stone Storage

Chamber Storage + Stone Storage = 2,120.8 cf = 0.049 af
Overall Storage Efficiency = 63.2%
Overall System Size = 45.50' x 20.83' x 3.54'

24 Chambers
124.3 cy Field
76.3 cy Stone



Pond 10P: (24) R-330XLHD Units



Summary for Pond 11P: Permeable Pavement

Inflow Area = 9,705 sf, 90.58% Impervious, Inflow Depth = 5.26" for 25-Year event
Inflow = 1.28 cfs @ 12.07 hrs, Volume= 4,257 cf
Outflow = 1.26 cfs @ 12.08 hrs, Volume= 3,345 cf, Atten= 1%, Lag= 0.6 min
Primary = 1.26 cfs @ 12.08 hrs, Volume= 3,345 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 25.79' @ 12.08 hrs Surf.Area= 2,073 sf Storage= 983 cf

Plug-Flow detention time= 144.1 min calculated for 3,345 cf (79% of inflow)
Center-of-Mass det. time= 64.9 min (821.6 - 756.7)

Volume	Invert	Avail.Storage	Storage Description
#1	24.60'	1,327 cf	**No.2 Stone (Prismatic)** Listed below (Recalc) 3,317 cf Overall x 40.0% Voids
#2	26.20'	166 cf	**No.57 Stone (Prismatic)** Listed below (Recalc) 1,658 cf Overall x 10.0% Voids
		1,493 cf	Total Available Storage

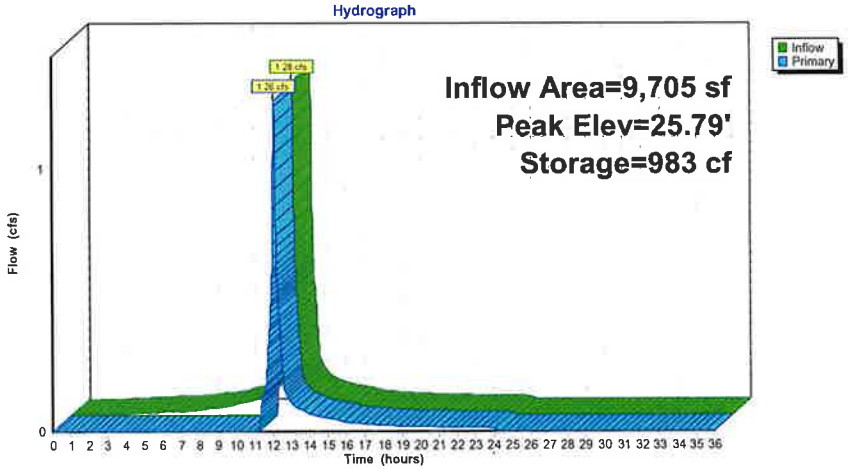
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
24.60	2,073	0	0
26.20	2,073	3,317	3,317

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
26.20	2,073	0	0
27.00	2,073	1,658	1,658

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.26 cfs @ 12.08 hrs HW=25.79' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 1.26 cfs @ 0.74 fps)

Pond 11P: Permeable Pavement



Summary for Pond 12P: (11) R-330XLHD Units

Inflow Area = 3,567 sf,100.00% Impervious, Inflow Depth = 5.46" for 25-Year event
Inflow = 0.47 cfs @ 12.07 hrs, Volume= 1,624 cf
Outflow = 0.18 cfs @ 12.28 hrs, Volume= 661 cf, Atten= 62%, Lag= 12.9 min
Primary = 0.18 cfs @ 12.28 hrs, Volume= 661 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 25.74' @ 12.28 hrs Surf.Area= 510 sf Storage= 970 cf

Plug-Flow detention time= 320.8 min calculated for 661 cf (41% of inflow)
Center-of-Mass det. time= 165.2 min (910.2 - 745.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	22.70'	488 cf	**6.33'W x 80.50'L x 3.54'H Field A** 1,806 cf Overall - 585 cf Embedded = 1,221 cf x 40.0% Voids
#2A	23.20'	585 cf	**Cultec R-330XLHD** x 11 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 1 rows
		1,073 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**24.0" x 24.0" Horiz. 2 - 2'x2' catch basins X 2.00** C= 0.600 Limited to weir flow at low heads
#2	Device 1	23.50'	**6.0" Round 6" Culvert** L= 8.0' Ke= 0.500 Inlet / Outlet Invert= 23.50' / 23.00' S= 0.0625 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.18 cfs @ 12.28 hrs HW=25.74' TW=0.00' (Dynamic Tailwater)
↑└1=2 - 2'x2' catch basins (Passes 0.18 cfs of 0.35 cfs potential flow)
↑└2=6" Culvert (Inlet Controls 0.18 cfs @ 0.91 fps)

Pond 12P: (11) R-330XLHD Units - Chamber Wizard Field A

Chamber Model = Cultec R-330XLHD (Cultec Recharger® 330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf
Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 sf x 1 rows

11 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 78.50' Row Length +12.0" End Stone x 2 = 80.50' Base Length
1 Rows x 52.0" Wide + 12.0" Side Stone x 2 = 6.33' Base Width
6.0" Base + 30.5" Chamber Height + 6.0" Cover = 3.54' Field Height

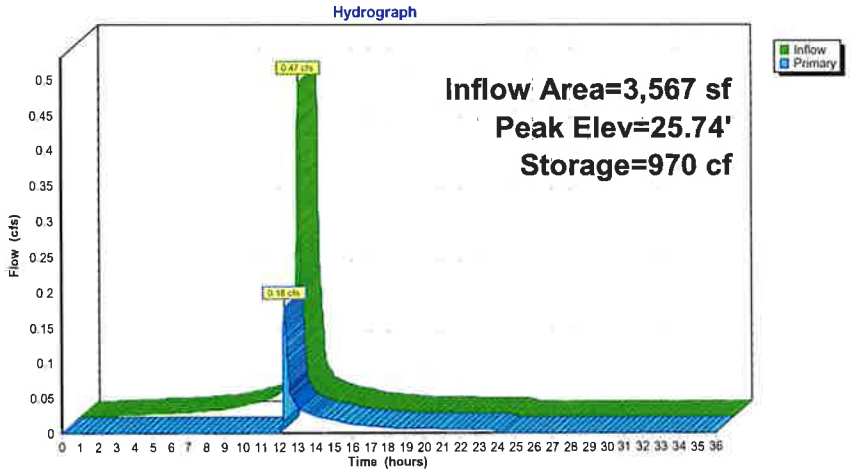
11 Chambers x 52.2 cf +1.50' Row Adjustment x 7.45 sf x 1 Rows = 584.9 cf Chamber Storage

1,805.7 cf Field - 584.9 cf Chambers = 1,220.8 cf Stone x 40.0% Voids = 488.3 cf Stone Storage

Chamber Storage + Stone Storage = 1,073.2 cf = 0.025 af
Overall Storage Efficiency = 59.4%
Overall System Size = 80.50' x 6.33' x 3.54'

11 Chambers
66.9 cy Field
45.2 cy Stone

Pond 12P: (11) R-330XLHD Units

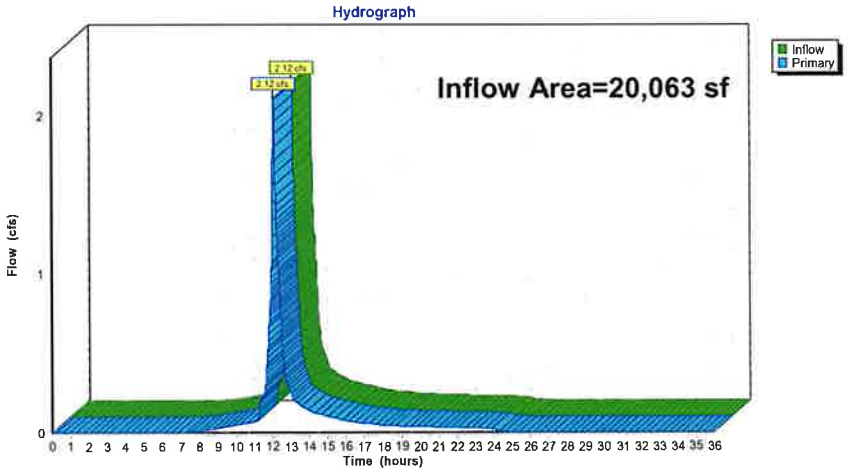


Summary for Link 13L: POC A

Inflow Area = 20,063 sf, 77.00% Impervious, Inflow Depth = 4.34" for 25-Year event
Inflow = 2.12 cfs @ 12.08 hrs, Volume= 7,254 cf
Primary = 2.12 cfs @ 12.08 hrs, Volume= 7,254 cf, Atten= 0%, Lag= 0.0 min

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

Link 13L: POC A

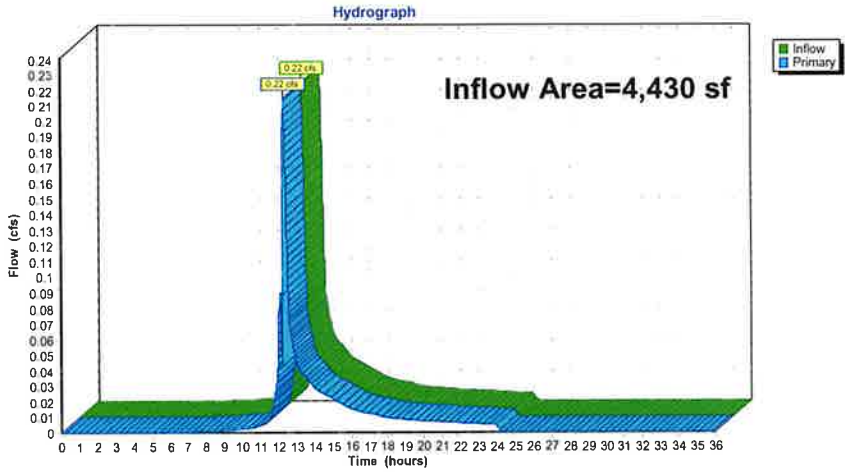


Summary for Link 14L: POC B (Mission St.)

Inflow Area = 4,430 sf, 83.52% Impervious, Inflow Depth = 2.53" for 25-Year event
Inflow = 0.22 cfs @ 12.28 hrs, Volume= 934 cf
Primary = 0.22 cfs @ 12.28 hrs, Volume= 934 cf, Atten= 0%, Lag= 0.0 min

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

Link 14L: POC B (Mission St.)



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 5S: Free release to POC A Runoff Area=3,800 sf 2.63% Impervious Runoff Depth=1.04"
Tc=5.00 min UI Adjusted CN=80.2 Runoff=0.11 cfs 330 cf

Subcatchment 6S: Buildings to Cultecs Runoff Area=6,558 sf 100.00% Impervious Runoff Depth=2.47"
Tc=5.00 min CN=98.0 Runoff=0.41 cfs 1,350 cf

Subcatchment 7S: Proposed to Low Point Runoff Area=9,705 sf 90.58% Impervious Runoff Depth=2.29"
Tc=5.00 min CN=96.3 Runoff=0.58 cfs 1,850 cf

Subcatchment 8S: Free release to Mission St. Runoff Area=863 sf 15.41% Impervious Runoff Depth=1.20"
Tc=5.00 min CN=82.8 Runoff=0.03 cfs 86 cf

Subcatchment 9S: Proposed to Mission St. Runoff Area=3,567 sf 100.00% Impervious Runoff Depth=2.47"
Tc=5.00 min CN=98.0 Runoff=0.22 cfs 734 cf

Pond 10P: (24) R-330XLHD Units Peak Elev=27.22' Storage=443 cf Inflow=0.41 cfs 1,350 cf
Outflow=0.26 cfs 1,156 cf

Pond 11P: Permeable Pavement Peak Elev=25.73' Storage=939 cf Inflow=0.58 cfs 1,850 cf
Outflow=0.30 cfs 938 cf

Pond 12P: (11) R-330XLHD Units Peak Elev=24.89' Storage=734 cf Inflow=0.22 cfs 734 cf
Outflow=0.00 cfs 0 cf

Link 13L: POC A Inflow=0.61 cfs 2,424 cf
Primary=0.61 cfs 2,424 cf

Link 14L: POC B (Mission St.) Inflow=0.03 cfs 86 cf
Primary=0.03 cfs 86 cf

Summary for Subcatchment 5S: Free release to POC A

Runoff = 0.11 cfs @ 12.08 hrs, Volume= 330 cf, Depth= 1.04"

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 1-Year Rainfall=2.70"

Area (sf)	CN	Adj	Description
0	98.0		Paved parking, HSG D
3,700	80.0		>75% Grass cover, Good, HSG D
0	98.0		Roofs, HSG D
100	98.0		Unconnected pavement, HSG D
3,800	80.5	80.2	Weighted Average, UI Adjusted
3,700			97.37% Pervious Area
100			2.63% Impervious Area
100			100.00% Unconnected

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

Summary for Subcatchment 6S: Buildings to Cultecs

Runoff = 0.41 cfs @ 12.07 hrs, Volume= 1,350 cf, Depth= 2.47"

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 1-Year Rainfall=2.70"

Area (sf)	CN	Description
0	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
6,558	98.0	Roofs, HSG D
0	98.0	Unconnected pavement, HSG D
6,558	98.0	Weighted Average
6,558		100.00% Impervious Area

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

Summary for Subcatchment 7S: Proposed to Low Point

Runoff = 0.58 cfs @ 12.07 hrs, Volume= 1,850 cf, Depth= 2.29"

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 1-Year Rainfall=2.70"

Area (sf)	CN	Description
8,647	98.0	Paved parking, HSG D
914	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
144	98.0	Unconnected pavement, HSG D
9,705	96.3	Weighted Average
914		9.42% Pervious Area
8,791		90.58% Impervious Area
144		1.64% Unconnected

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

Summary for Subcatchment 8S: Free release to Mission St.

Runoff = 0.03 cfs @ 12.08 hrs, Volume= 86 cf, Depth= 1.20"

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 1-Year Rainfall=2.70"

Area (sf)	CN	Description
133	98.0	Paved parking, HSG D
730	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
863	82.8	Weighted Average
730		84.59% Pervious Area
133		15.41% Impervious Area

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

Summary for Subcatchment 9S: Proposed to Mission St.

Runoff = 0.22 cfs @ 12.07 hrs, Volume= 734 cf, Depth= 2.47"

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 1-Year Rainfall=2.70"

Area (sf)	CN	Description
1,242	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
2,325	98.0	Roofs, HSG D
3,567	98.0	Weighted Average
3,567		100.00% Impervious Area

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

Summary for Pond 10P: (24) R-330XLHD Units

Inflow Area = 6,558 sf,100.00% Impervious, Inflow Depth = 2.47" for 1-Year event
Inflow = 0.41 cfs @ 12.07 hrs, Volume= 1,350 cf
Outflow = 0.26 cfs @ 12.16 hrs, Volume= 1,156 cf, Atten= 37%, Lag= 5.2 min
Primary = 0.26 cfs @ 12.16 hrs, Volume= 1,156 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 27.22' @ 12.16 hrs Surf.Area= 948 sf Storage= 443 cf

Plug-Flow detention time= 151.0 min calculated for 1,156 cf (86% of inflow)
Center-of-Mass det. time= 88.3 min (847.5 - 759.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	26.40'	824 cf	**20.83'W x 45.50'L x 3.54'H Field A** 3,357 cf Overall - 1,296 cf Embedded = 2,061 cf x 40.0% Voids
#2A	26.90'	1,296 cf	**Cultec R-330XLHD** x 24 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 4 rows
		2,121 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32
#2	Device 1	26.90'	**6.0" Round 6" Culvert** L= 87.0' Ke= 0.500 Inlet / Outlet Invert= 26.90' / 24.20' S= 0.0310 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.26 cfs @ 12.16 hrs HW=27.22' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Passes 0.26 cfs of 106.71 cfs potential flow)
↑—**2=6" Culvert** (Inlet Controls 0.26 cfs @ 1.93 fps)

Summary for Pond 11P: Permeable Pavement

Inflow Area = 9,705 sf, 90.58% Impervious, Inflow Depth = 2.29" for 1-Year event
Inflow = 0.58 cfs @ 12.07 hrs, Volume= 1,850 cf
Outflow = 0.30 cfs @ 12.19 hrs, Volume= 938 cf, Atten= 49%, Lag= 7.4 min
Primary = 0.30 cfs @ 12.19 hrs, Volume= 938 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 25.73' @ 12.19 hrs Surf.Area= 2,073 sf Storage= 939 cf

Plug-Flow detention time= 232.8 min calculated for 938 cf (51% of inflow)
Center-of-Mass det. time= 117.4 min (893.1 - 775.7)

Volume	Invert	Avail.Storage	Storage Description
#1	24.60'	1,327 cf	**No.2 Stone (Prismatic)** Listed below (Recalc) 3,317 cf Overall x 40.0% Voids
#2	26.20'	166 cf	**No.57 Stone (Prismatic)** Listed below (Recalc) 1,658 cf Overall x 10.0% Voids
		1,493 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
24.60	2,073	0	0
26.20	2,073	3,317	3,317

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
26.20	2,073	0	0
27.00	2,073	1,658	1,658

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.30 cfs @ 12.19 hrs HW=25.73' TW=0.00' (Dynamic Tailwater)
↳**1=Broad-Crested Rectangular Weir** (Weir Controls 0.30 cfs @ 0.46 fps)

Summary for Pond 12P: (11) R-330XLHD Units

Inflow Area = 3,567 sf,100.00% Impervious, Inflow Depth = 2.47" for 1-Year event
Inflow = 0.22 cfs @ 12.07 hrs, Volume= 734 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 24.89' @ 24.29 hrs Surf.Area= 510 sf Storage= 734 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	22.70'	488 cf	**6.33'W x 80.50'L x 3.54'H Field A** 1,806 cf Overall - 585 cf Embedded = 1,221 cf x 40.0% Voids
#2A	23.20'	585 cf	**Cultec R-330XLHD** x 11 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap

Row Length Adjustment= +1.50' x 7.45 sf x 1 rows
1,073 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**24.0" x 24.0" Horiz. 2 - 2'x2' catch basins X 2.00** C= 0.600 Limited to weir flow at low heads
#2	Device 1	23.50'	**6.0" Round 6" Culvert** L= 8.0' Ke= 0.500 Inlet / Outlet Invert= 23.50' / 23.00' S= 0.0625 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=22.70' TW=0.00' (Dynamic Tailwater)
↳**1=2 - 2'x2' catch basins** (Controls 0.00 cfs)
↳**2=6" Culvert** (Controls 0.00 cfs)

Summary for Link 13L: POC A

Inflow Area = 20,063 sf, 77.00% Impervious, Inflow Depth > 1.45" for 1-Year event
Inflow = 0.61 cfs @ 12.19 hrs, Volume= 2,424 cf
Primary = 0.61 cfs @ 12.19 hrs, Volume= 2,424 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 14L: POC B (Mission St.)

Inflow Area = 4,430 sf, 83.52% Impervious, Inflow Depth = 0.23" for 1-Year event
Inflow = 0.03 cfs @ 12.08 hrs, Volume= 86 cf
Primary = 0.03 cfs @ 12.08 hrs, Volume= 86 cf, Atten= 0%, Lag= 0.0 min

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

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 5S: Free release to POC A Runoff Area=3,800 sf 2.63% Impervious Runoff Depth=1.49"
Tc=5.00 min UI Adjusted CN=80.2 Runoff=0.16 cfs 473 cf

Subcatchment 6S: Buildings to Cultecs Runoff Area=6,558 sf 100.00% Impervious Runoff Depth=3.07"
Tc=5.00 min CN=98.0 Runoff=0.50 cfs 1,676 cf

Subcatchment 7S: Proposed to Low Point Runoff Area=9,705 sf 90.58% Impervious Runoff Depth=2.88"
Tc=5.00 min CN=96.3 Runoff=0.72 cfs 2,329 cf

Subcatchment 8S: Free release to Mission St. Runoff Area=863 sf 15.41% Impervious Runoff Depth=1.68"
Tc=5.00 min CN=82.8 Runoff=0.04 cfs 121 cf

Subcatchment 9S: Proposed to Mission St. Runoff Area=3,567 sf 100.00% Impervious Runoff Depth=3.07"
Tc=5.00 min CN=98.0 Runoff=0.27 cfs 912 cf

Pond 10P: (24) R-330XLHD Units Peak Elev=27.27' Storage=483 cf Inflow=0.50 cfs 1,676 cf
Outflow=0.33 cfs 1,482 cf

Pond 11P: Permeable Pavement Peak Elev=25.76' Storage=960 cf Inflow=0.72 cfs 2,329 cf
Outflow=0.70 cfs 1,417 cf

Pond 12P: (11) R-330XLHD Units Peak Elev=25.48' Storage=912 cf Inflow=0.27 cfs 912 cf
Outflow=0.00 cfs 0 cf

Link 13L: POC A Inflow=1.14 cfs 3,372 cf
Primary=1.14 cfs 3,372 cf

Link 14L: POC B (Mission St.) Inflow=0.04 cfs 121 cf
Primary=0.04 cfs 121 cf

Summary for Subcatchment 5S: Free release to POC A

Runoff = 0.16 cfs @ 12.08 hrs, Volume= 473 cf, Depth= 1.49"

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 2-Year Rainfall=3.30"

Area (sf)	CN	Adj	Description
0	98.0		Paved parking, HSG D
3,700	80.0		>75% Grass cover, Good, HSG D
0	98.0		Roofs, HSG D
100	98.0		Unconnected pavement, HSG D
3,800	80.5	80.2	Weighted Average, UI Adjusted
3,700			97.37% Pervious Area
100			2.63% Impervious Area
100			100.00% Unconnected

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

Summary for Subcatchment 6S: Buildings to Cultecs

Runoff = 0.50 cfs @ 12.07 hrs, Volume= 1,676 cf, Depth= 3.07"

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 2-Year Rainfall=3.30"

Area (sf)	CN	Description
0	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
6,558	98.0	Roofs, HSG D
0	98.0	Unconnected pavement, HSG D
6,558	98.0	Weighted Average
6,558		100.00% Impervious Area

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

Summary for Subcatchment 7S: Proposed to Low Point

Runoff = 0.72 cfs @ 12.07 hrs, Volume= 2,329 cf, Depth= 2.88"

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 2-Year Rainfall=3.30"

Area (sf)	CN	Description
8,647	98.0	Paved parking, HSG D
914	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
144	98.0	Unconnected pavement, HSG D
9,705	96.3	Weighted Average
914		9.42% Pervious Area
8,791		90.58% Impervious Area
144		1.64% Unconnected

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

Summary for Subcatchment 8S: Free release to Mission St.

Runoff = 0.04 cfs @ 12.08 hrs, Volume= 121 cf, Depth= 1.68"

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 2-Year Rainfall=3.30"

Area (sf)	CN	Description
133	98.0	Paved parking, HSG D
730	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
863	82.8	Weighted Average
730		84.59% Pervious Area
133		15.41% Impervious Area

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

Summary for Subcatchment 9S: Proposed to Mission St.

Runoff = 0.27 cfs @ 12.07 hrs, Volume= 912 cf, Depth= 3.07"

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 2-Year Rainfall=3.30"

Area (sf)	CN	Description
1,242	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
2,325	98.0	Roofs, HSG D
3,567	98.0	Weighted Average
3,567		100.00% Impervious Area

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

Summary for Pond 10P: (24) R-330XLHD Units

Inflow Area = 6,558 sf,100.00% Impervious, Inflow Depth = 3.07" for 2-Year event
Inflow = 0.50 cfs @ 12.07 hrs, Volume= 1,676 cf
Outflow = 0.33 cfs @ 12.15 hrs, Volume= 1,482 cf, Atten= 35%, Lag= 5.0 min
Primary = 0.33 cfs @ 12.15 hrs, Volume= 1,482 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 27.27' @ 12.15 hrs Surf.Area= 948 sf Storage= 483 cf

Plug-Flow detention time= 134.9 min calculated for 1,482 cf (88% of inflow)
Center-of-Mass det. time= 80.1 min (835.0 - 754.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	26.40'	824 cf	**20.83'W x 45.50'L x 3.54'H Field A** 3,357 cf Overall - 1,296 cf Embedded = 2,061 cf x 40.0% Voids
#2A	26.90'	1,296 cf	**Cultec R-330XLHD** x 24 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 4 rows
		2,121 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32
#2	Device 1	26.90'	**6.0" Round 6" Culvert** L= 87.0' Ke= 0.500 Inlet / Outlet Invert= 26.90' / 24.20' S= 0.0310 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.33 cfs @ 12.15 hrs HW=27.27' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Passes 0.33 cfs of 113.26 cfs potential flow)
↑—**2=6" Culvert** (Inlet Controls 0.33 cfs @ 2.08 fps)

Summary for Pond 11P: Permeable Pavement

Inflow Area = 9,705 sf, 90.58% Impervious, Inflow Depth = 2.88" for 2-Year event
Inflow = 0.72 cfs @ 12.07 hrs, Volume= 2,329 cf
Outflow = 0.70 cfs @ 12.09 hrs, Volume= 1,417 cf, Atten= 3%, Lag= 1.3 min
Primary = 0.70 cfs @ 12.09 hrs, Volume= 1,417 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 25.76' @ 12.09 hrs Surf.Area= 2,073 sf Storage= 960 cf

Plug-Flow detention time= 195.7 min calculated for 1,417 cf (61% of inflow)
Center-of-Mass det. time= 91.9 min (861.9 - 770.0)

Volume	Invert	Avail.Storage	Storage Description
#1	24.60'	1,327 cf	**No.2 Stone (Prismatic)** Listed below (Recalc) 3,317 cf Overall x 40.0% Voids
#2	26.20'	166 cf	**No.57 Stone (Prismatic)** Listed below (Recalc) 1,658 cf Overall x 10.0% Voids
		1,493 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
24.60	2,073	0	0
26.20	2,073	3,317	3,317

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
26.20	2,073	0	0
27.00	2,073	1,658	1,658

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.70 cfs @ 12.09 hrs HW=25.76' TW=0.00' (Dynamic Tailwater)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 0.70 cfs @ 0.61 fps)

Summary for Pond 12P: (11) R-330XLHD Units

Inflow Area = 3,567 sf,100.00% Impervious, Inflow Depth = 3.07" for 2-Year event
Inflow = 0.27 cfs @ 12.07 hrs, Volume= 912 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 25.48' @ 24.29 hrs Surf.Area= 510 sf Storage= 912 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	22.70'	488 cf	**6.33'W x 80.50'L x 3.54'H Field A** 1,806 cf Overall - 585 cf Embedded = 1,221 cf x 40.0% Voids
#2A	23.20'	585 cf	**Cultec R-330XLHD** x 11 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap

Row Length Adjustment= +1.50' x 7.45 sf x 1 rows
1,073 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**24.0" x 24.0" Horiz. 2 - 2'x2' catch basins X 2.00** C= 0.600 Limited to weir flow at low heads
#2	Device 1	23.50'	**6.0" Round 6" Culvert** L= 8.0' Ke= 0.500 Inlet / Outlet Invert= 23.50' / 23.00' S= 0.0625 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=22.70' TW=0.00' (Dynamic Tailwater)
└**1=2 - 2'x2' catch basins** (Controls 0.00 cfs)
└**2=6" Culvert** (Controls 0.00 cfs)

Summary for Link 13L: POC A

Inflow Area = 20,063 sf, 77.00% Impervious, Inflow Depth = 2.02" for 2-Year event
Inflow = 1.14 cfs @ 12.09 hrs, Volume= 3,372 cf
Primary = 1.14 cfs @ 12.09 hrs, Volume= 3,372 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 14L: POC B (Mission St.)

Inflow Area = 4,430 sf, 83.52% Impervious, Inflow Depth = 0.33" for 2-Year event
Inflow = 0.04 cfs @ 12.08 hrs, Volume= 121 cf
Primary = 0.04 cfs @ 12.08 hrs, Volume= 121 cf, Atten= 0%, Lag= 0.0 min

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

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 5S: Free release to POC A Runoff Area=3,800 sf 2.63% Impervious Runoff Depth=2.31"
Tc=5.00 min UI Adjusted CN=80.2 Runoff=0.24 cfs 731 cf

Subcatchment 6S: Buildings to Cultecs Runoff Area=6,558 sf 100.00% Impervious Runoff Depth=4.06"
Tc=5.00 min CN=98.0 Runoff=0.65 cfs 2,221 cf

Subcatchment 7S: Proposed to Low Point Runoff Area=9,705 sf 90.58% Impervious Runoff Depth=3.87"
Tc=5.00 min CN=96.3 Runoff=0.95 cfs 3,131 cf

Subcatchment 8S: Free release to Mission St. Runoff Area=863 sf 15.41% Impervious Runoff Depth=2.53"
Tc=5.00 min CN=82.8 Runoff=0.06 cfs 182 cf

Subcatchment 9S: Proposed to Mission St. Runoff Area=3,567 sf 100.00% Impervious Runoff Depth=4.06"
Tc=5.00 min CN=98.0 Runoff=0.36 cfs 1,208 cf

Pond 10P: (24) R-330XLHD Units Peak Elev=27.35' Storage=547 cf Inflow=0.65 cfs 2,221 cf
Outflow=0.43 cfs 2,027 cf

Pond 11P: Permeable Pavement Peak Elev=25.77' Storage=970 cf Inflow=0.95 cfs 3,131 cf
Outflow=0.94 cfs 2,219 cf

Pond 12P: (11) R-330XLHD Units Peak Elev=25.70' Storage=964 cf Inflow=0.36 cfs 1,208 cf
Outflow=0.02 cfs 245 cf

Link 13L: POC A Inflow=1.56 cfs 4,977 cf
Primary=1.56 cfs 4,977 cf

Link 14L: POC B (Mission St.) Inflow=0.06 cfs 427 cf
Primary=0.06 cfs 427 cf

Summary for Subcatchment 5S: Free release to POC A

Runoff = 0.24 cfs @ 12.08 hrs, Volume= 731 cf, Depth= 2.31"

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 5-Year Rainfall=4.30"

Area (sf)	CN	Adj	Description
0	98.0		Paved parking, HSG D
3,700	80.0		>75% Grass cover, Good, HSG D
0	98.0		Roofs, HSG D
100	98.0		Unconnected pavement, HSG D
3,800	80.5	80.2	Weighted Average, UI Adjusted
3,700			97.37% Pervious Area
100			2.63% Impervious Area
100			100.00% Unconnected

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

Summary for Subcatchment 6S: Buildings to Cultecs

Runoff = 0.65 cfs @ 12.07 hrs, Volume= 2,221 cf, Depth= 4.06"

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 5-Year Rainfall=4.30"

Area (sf)	CN	Description
0	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
6,558	98.0	Roofs, HSG D
0	98.0	Unconnected pavement, HSG D
6,558	98.0	Weighted Average
6,558		100.00% Impervious Area

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

Summary for Subcatchment 7S: Proposed to Low Point

Runoff = 0.95 cfs @ 12.07 hrs, Volume= 3,131 cf, Depth= 3.87"

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 5-Year Rainfall=4.30"

Area (sf)	CN	Description
8,647	98.0	Paved parking, HSG D
914	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
144	98.0	Unconnected pavement, HSG D
9,705	96.3	Weighted Average
914		9.42% Pervious Area
8,791		90.58% Impervious Area
144		1.64% Unconnected

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

Summary for Subcatchment 8S: Free release to Mission St.

Runoff = 0.06 cfs @ 12.07 hrs, Volume= 182 cf, Depth= 2.53"

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 5-Year Rainfall=4.30"

Area (sf)	CN	Description
133	98.0	Paved parking, HSG D
730	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
863	82.8	Weighted Average
730		84.59% Pervious Area
133		15.41% Impervious Area

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

Summary for Subcatchment 9S: Proposed to Mission St.

Runoff = 0.36 cfs @ 12.07 hrs, Volume= 1,208 cf, Depth= 4.06"

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 5-Year Rainfall=4.30"

Area (sf)	CN	Description
1,242	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
2,325	98.0	Roofs, HSG D
3,567	98.0	Weighted Average
3,567		100.00% Impervious Area

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

Summary for Pond 10P: (24) R-330XLHD Units

Inflow Area = 6,558 sf,100.00% Impervious, Inflow Depth = 4.06" for 5-Year event
Inflow = 0.65 cfs @ 12.07 hrs, Volume= 2,221 cf
Outflow = 0.43 cfs @ 12.15 hrs, Volume= 2,027 cf, Atten= 34%, Lag= 4.9 min
Primary = 0.43 cfs @ 12.15 hrs, Volume= 2,027 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 27.35' @ 12.15 hrs Surf.Area= 948 sf Storage= 547 cf

Plug-Flow detention time= 115.4 min calculated for 2,027 cf (91% of inflow)
Center-of-Mass det. time= 70.4 min (820.1 - 749.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	26.40'	824 cf	**20.83'W x 45.50'L x 3.54'H Field A** 3,357 cf Overall - 1,296 cf Embedded = 2,061 cf x 40.0% Voids
#2A	26.90'	1,296 cf	**Cultec R-330XLHD** x 24 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 4 rows
		2,121 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32
#2	Device 1	26.90'	**6.0" Round 6" Culvert** L= 87.0' Ke= 0.500 Inlet / Outlet Invert= 26.90' / 24.20' S= 0.0310 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.43 cfs @ 12.15 hrs HW=27.35' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Passes 0.43 cfs of 122.80 cfs potential flow)
↑—**2=6" Culvert** (Inlet Controls 0.43 cfs @ 2.29 fps)

Summary for Pond 11P: Permeable Pavement

Inflow Area = 9,705 sf, 90.58% Impervious, Inflow Depth = 3.87" for 5-Year event
Inflow = 0.95 cfs @ 12.07 hrs, Volume= 3,131 cf
Outflow = 0.94 cfs @ 12.08 hrs, Volume= 2,219 cf, Atten= 1%, Lag= 0.7 min
Primary = 0.94 cfs @ 12.08 hrs, Volume= 2,219 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 25.77' @ 12.08 hrs Surf.Area= 2,073 sf Storage= 970 cf

Plug-Flow detention time= 166.7 min calculated for 2,219 cf (71% of inflow)
Center-of-Mass det. time= 75.1 min (838.2 - 763.1)

Volume	Invert	Avail.Storage	Storage Description
#1	24.60'	1,327 cf	**No.2 Stone (Prismatic)** Listed below (Recalc) 3,317 cf Overall x 40.0% Voids
#2	26.20'	166 cf	**No.57 Stone (Prismatic)** Listed below (Recalc) 1,658 cf Overall x 10.0% Voids
		1,493 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
24.60	2,073	0	0
26.20	2,073	3,317	3,317

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
26.20	2,073	0	0
27.00	2,073	1,658	1,658

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.94 cfs @ 12.08 hrs HW=25.77' TW=0.00' (Dynamic Tailwater)
↳**1=Broad-Crested Rectangular Weir** (Weir Controls 0.94 cfs @ 0.67 fps)

Summary for Pond 12P: (11) R-330XLHD Units

Inflow Area = 3,567 sf,100.00% Impervious, Inflow Depth = 4.06" for 5-Year event
Inflow = 0.36 cfs @ 12.07 hrs, Volume= 1,208 cf
Outflow = 0.02 cfs @ 14.07 hrs, Volume= 245 cf, Atten= 95%, Lag= 120.1 min
Primary = 0.02 cfs @ 14.07 hrs, Volume= 245 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 25.70' @ 14.07 hrs Surf.Area= 510 sf Storage= 964 cf

Plug-Flow detention time= 559.9 min calculated for 245 cf (20% of inflow)
Center-of-Mass det. time= 305.7 min (1,055.4 - 749.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	22.70'	488 cf	**6.33'W x 80.50'L x 3.54'H Field A** 1,806 cf Overall - 585 cf Embedded = 1,221 cf x 40.0% Voids
#2A	23.20'	585 cf	**Cultec R-330XLHD** x 11 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap

Row Length Adjustment= +1.50' x 7.45 sf x 1 rows
1,073 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**24.0" x 24.0" Horiz. 2 - 2'x2' catch basins X 2.00** C= 0.600 Limited to weir flow at low heads
#2	Device 1	23.50'	**6.0" Round 6" Culvert** L= 8.0' Ke= 0.500 Inlet / Outlet Invert= 23.50' / 23.00' S= 0.0625 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.02 cfs @ 14.07 hrs HW=25.70' TW=0.00' (Dynamic Tailwater)
↳**1=2 - 2'x2' catch basins** (Weir Controls 0.02 cfs @ 0.23 fps)
↳**2=6" Culvert** (Passes 0.02 cfs of 0.07 cfs potential flow)

Summary for Link 13L: POC A

Inflow Area = 20,063 sf, 77.00% Impervious, Inflow Depth = 2.98" for 5-Year event
Inflow = 1.56 cfs @ 12.09 hrs, Volume= 4,977 cf
Primary = 1.56 cfs @ 12.09 hrs, Volume= 4,977 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 14L: POC B (Mission St.)

Inflow Area = 4,430 sf, 83.52% Impervious, Inflow Depth = 1.16" for 5-Year event
Inflow = 0.06 cfs @ 12.07 hrs, Volume= 427 cf
Primary = 0.06 cfs @ 12.07 hrs, Volume= 427 cf, Atten= 0%, Lag= 0.0 min

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

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 5S: Free release to POC A Runoff Area=3,800 sf 2.63% Impervious Runoff Depth=2.91"
Tc=5.00 min UI Adjusted CN=80.2 Runoff=0.31 cfs 922 cf

Subcatchment 6S: Buildings to Cultecs Runoff Area=6,558 sf 100.00% Impervious Runoff Depth=4.76"
Tc=5.00 min CN=98.0 Runoff=0.76 cfs 2,603 cf

Subcatchment 7S: Proposed to Low Point Runoff Area=9,705 sf 90.58% Impervious Runoff Depth=4.57"
Tc=5.00 min CN=96.3 Runoff=1.11 cfs 3,693 cf

Subcatchment 8S: Free release to Mission St. Runoff Area=863 sf 15.41% Impervious Runoff Depth=3.15"
Tc=5.00 min CN=82.8 Runoff=0.08 cfs 227 cf

Subcatchment 9S: Proposed to Mission St. Runoff Area=3,567 sf 100.00% Impervious Runoff Depth=4.76"
Tc=5.00 min CN=98.0 Runoff=0.41 cfs 1,416 cf

Pond 10P: (24) R-330XLHD Units Peak Elev=27.41' Storage=594 cf Inflow=0.76 cfs 2,603 cf
Outflow=0.49 cfs 2,409 cf

Pond 11P: Permeable Pavement Peak Elev=25.78' Storage=977 cf Inflow=1.11 cfs 3,693 cf
Outflow=1.10 cfs 2,781 cf

Pond 12P: (11) R-330XLHD Units Peak Elev=25.71' Storage=965 cf Inflow=0.41 cfs 1,416 cf
Outflow=0.06 cfs 453 cf

Link 13L: POC A Inflow=1.85 cfs 6,112 cf
Primary=1.85 cfs 6,112 cf

Link 14L: POC B (Mission St.) Inflow=0.08 cfs 680 cf
Primary=0.08 cfs 680 cf

Summary for Subcatchment 5S: Free release to POC A

Runoff = 0.31 cfs @ 12.07 hrs, Volume= 922 cf, Depth= 2.91"

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 10-Year Rainfall=5.00"

Area (sf)	CN	Adj	Description
0	98.0		Paved parking, HSG D
3,700	80.0		>75% Grass cover, Good, HSG D
0	98.0		Roofs, HSG D
100	98.0		Unconnected pavement, HSG D
3,800	80.5	80.2	Weighted Average, UI Adjusted
3,700			97.37% Pervious Area
100			2.63% Impervious Area
100			100.00% Unconnected

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

Summary for Subcatchment 6S: Buildings to Cultecs

Runoff = 0.76 cfs @ 12.07 hrs, Volume= 2,603 cf, Depth= 4.76"

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 10-Year Rainfall=5.00"

Area (sf)	CN	Description
0	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
6,558	98.0	Roofs, HSG D
0	98.0	Unconnected pavement, HSG D
6,558	98.0	Weighted Average
6,558		100.00% Impervious Area

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

Summary for Subcatchment 7S: Proposed to Low Point

Runoff = 1.11 cfs @ 12.07 hrs, Volume= 3,693 cf, Depth= 4.57"

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 10-Year Rainfall=5.00"

Area (sf)	CN	Description
8,647	98.0	Paved parking, HSG D
914	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
144	98.0	Unconnected pavement, HSG D
9,705	96.3	Weighted Average
914		9.42% Pervious Area
8,791		90.58% Impervious Area
144		1.64% Unconnected

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

Summary for Subcatchment 8S: Free release to Mission St.

Runoff = 0.08 cfs @ 12.07 hrs, Volume= 227 cf, Depth= 3.15"

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 10-Year Rainfall=5.00"

Area (sf)	CN	Description
133	98.0	Paved parking, HSG D
730	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
863	82.8	Weighted Average
730		84.59% Pervious Area
133		15.41% Impervious Area

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

Summary for Subcatchment 9S: Proposed to Mission St.

Runoff = 0.41 cfs @ 12.07 hrs, Volume= 1,416 cf, Depth= 4.76"

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 10-Year Rainfall=5.00"

Area (sf)	CN	Description
1,242	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
2,325	98.0	Roofs, HSG D
3,567	98.0	Weighted Average
3,567		100.00% Impervious Area

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

Summary for Pond 10P: (24) R-330XLHD Units

Inflow Area = 6,558 sf,100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.76 cfs @ 12.07 hrs, Volume= 2,603 cf
Outflow = 0.49 cfs @ 12.16 hrs, Volume= 2,409 cf, Atten= 36%, Lag= 5.1 min
Primary = 0.49 cfs @ 12.16 hrs, Volume= 2,409 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 27.41' @ 12.16 hrs Surf.Area= 948 sf Storage= 594 cf

Plug-Flow detention time= 105.7 min calculated for 2,409 cf (93% of inflow)
Center-of-Mass det. time= 65.3 min (812.4 - 747.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	26.40'	824 cf	**20.83'W x 45.50'L x 3.54'H Field A** 3,357 cf Overall - 1,296 cf Embedded = 2,061 cf x 40.0% Voids
#2A	26.90'	1,296 cf	**Cultec R-330XLHD** x 24 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 4 rows
		2,121 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32
#2	Device 1	26.90'	**6.0" Round 6" Culvert** L= 87.0' Ke= 0.500 Inlet / Outlet Invert= 26.90' / 24.20' S= 0.0310 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.49 cfs @ 12.16 hrs HW=27.41' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Passes 0.49 cfs of 129.46 cfs potential flow)
↑—**2=6" Culvert** (Inlet Controls 0.49 cfs @ 2.47 fps)

Summary for Pond 11P: Permeable Pavement

Inflow Area = 9,705 sf, 90.58% Impervious, Inflow Depth = 4.57" for 10-Year event
Inflow = 1.11 cfs @ 12.07 hrs, Volume= 3,693 cf
Outflow = 1.10 cfs @ 12.08 hrs, Volume= 2,781 cf, Atten= 1%, Lag= 0.7 min
Primary = 1.10 cfs @ 12.08 hrs, Volume= 2,781 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 25.78' @ 12.08 hrs Surf.Area= 2,073 sf Storage= 977 cf

Plug-Flow detention time= 154.1 min calculated for 2,781 cf (75% of inflow)
Center-of-Mass det. time= 69.2 min (828.7 - 759.6)

Volume	Invert	Avail.Storage	Storage Description
#1	24.60'	1,327 cf	**No.2 Stone (Prismatic)** Listed below (Recalc) 3,317 cf Overall x 40.0% Voids
#2	26.20'	166 cf	**No.57 Stone (Prismatic)** Listed below (Recalc) 1,658 cf Overall x 10.0% Voids
		1,493 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
24.60	2,073	0	0
26.20	2,073	3,317	3,317

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
26.20	2,073	0	0
27.00	2,073	1,658	1,658

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.10 cfs @ 12.08 hrs HW=25.78' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 1.10 cfs @ 0.71 fps)

Summary for Pond 12P: (11) R-330XLHD Units

Inflow Area = 3,567 sf,100.00% Impervious, Inflow Depth = 4.76" for 10-Year event
Inflow = 0.41 cfs @ 12.07 hrs, Volume= 1,416 cf
Outflow = 0.06 cfs @ 12.56 hrs, Volume= 453 cf, Atten= 86%, Lag= 29.1 min
Primary = 0.06 cfs @ 12.56 hrs, Volume= 453 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 25.71' @ 12.56 hrs Surf.Area= 510 sf Storage= 965 cf

Plug-Flow detention time= 396.7 min calculated for 453 cf (32% of inflow)
Center-of-Mass det. time= 210.0 min (957.1 - 747.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	22.70'	488 cf	**6.33'W x 80.50'L x 3.54'H Field A** 1,806 cf Overall - 585 cf Embedded = 1,221 cf x 40.0% Voids
#2A	23.20'	585 cf	**Cultec R-330XLHD** x 11 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap

Row Length Adjustment= +1.50' x 7.45 sf x 1 rows
1,073 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**24.0" x 24.0" Horiz. 2 - 2'x2' catch basins X 2.00** C= 0.600 Limited to weir flow at low heads
#2	Device 1	23.50'	**6.0" Round 6" Culvert** L= 8.0' Ke= 0.500 Inlet / Outlet Invert= 23.50' / 23.00' S= 0.0625 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.06 cfs @ 12.56 hrs HW=25.71' TW=0.00' (Dynamic Tailwater)
↑—**1=2 - 2'x2' catch basins** (Weir Controls 0.06 cfs @ 0.34 fps)
↑—**2=6" Culvert** (Passes 0.06 cfs of 0.10 cfs potential flow)

Summary for Link 13L: POC A

Inflow Area = 20,063 sf, 77.00% Impervious, Inflow Depth = 3.66" for 10-Year event
Inflow = 1.85 cfs @ 12.09 hrs, Volume= 6,112 cf
Primary = 1.85 cfs @ 12.09 hrs, Volume= 6,112 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 14L: POC B (Mission St.)

Inflow Area = 4,430 sf, 83.52% Impervious, Inflow Depth = 1.84" for 10-Year event
Inflow = 0.08 cfs @ 12.07 hrs, Volume= 680 cf
Primary = 0.08 cfs @ 12.07 hrs, Volume= 680 cf, Atten= 0%, Lag= 0.0 min

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

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 5S: Free release to POC A Runoff Area=3,800 sf 2.63% Impervious Runoff Depth=3.53"
Tc=5.00 min UI Adjusted CN=80.2 Runoff=0.37 cfs 1,118 cf

Subcatchment 6S: Buildings to Cultecs Runoff Area=6,558 sf 100.00% Impervious Runoff Depth=5.46"
Tc=5.00 min CN=98.0 Runoff=0.87 cfs 2,985 cf

Subcatchment 7S: Proposed to Low Point Runoff Area=9,705 sf 90.58% Impervious Runoff Depth=5.26"
Tc=5.00 min CN=96.3 Runoff=1.28 cfs 4,257 cf

Subcatchment 8S: Free release to Mission St. Runoff Area=863 sf 15.41% Impervious Runoff Depth=3.79"
Tc=5.00 min CN=82.8 Runoff=0.09 cfs 273 cf

Subcatchment 9S: Proposed to Mission St. Runoff Area=3,567 sf 100.00% Impervious Runoff Depth=5.46"
Tc=5.00 min CN=98.0 Runoff=0.47 cfs 1,624 cf

Pond 10P: (24) R-330XLHD Units Peak Elev=27.48' Storage=644 cf Inflow=0.87 cfs 2,985 cf
Outflow=0.54 cfs 2,791 cf

Pond 11P: Permeable Pavement Peak Elev=25.79' Storage=983 cf Inflow=1.28 cfs 4,257 cf
Outflow=1.26 cfs 3,345 cf

Pond 12P: (11) R-330XLHD Units Peak Elev=25.74' Storage=970 cf Inflow=0.47 cfs 1,624 cf
Outflow=0.18 cfs 661 cf

Link 13L: POC A Inflow=2.12 cfs 7,254 cf
Primary=2.12 cfs 7,254 cf

Link 14L: POC B (Mission St.) Inflow=0.22 cfs 934 cf
Primary=0.22 cfs 934 cf

Summary for Subcatchment 5S: Free release to POC A

Runoff = 0.37 cfs @ 12.07 hrs, Volume= 1,118 cf, Depth= 3.53"

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=5.70"

Area (sf)	CN	Adj	Description
0	98.0		Paved parking, HSG D
3,700	80.0		>75% Grass cover, Good, HSG D
0	98.0		Roofs, HSG D
100	98.0		Unconnected pavement, HSG D
3,800	80.5	80.2	Weighted Average, UI Adjusted
3,700			97.37% Pervious Area
100			2.63% Impervious Area
100			100.00% Unconnected

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

Summary for Subcatchment 6S: Buildings to Cultecs

Runoff = 0.87 cfs @ 12.07 hrs, Volume= 2,985 cf, Depth= 5.46"

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=5.70"

Area (sf)	CN	Description
0	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
6,558	98.0	Roofs, HSG D
0	98.0	Unconnected pavement, HSG D
6,558	98.0	Weighted Average
6,558		100.00% Impervious Area

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

Summary for Subcatchment 7S: Proposed to Low Point

Runoff = 1.28 cfs @ 12.07 hrs, Volume= 4,257 cf, Depth= 5.26"

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=5.70"

Area (sf)	CN	Description
8,647	98.0	Paved parking, HSG D
914	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
144	98.0	Unconnected pavement, HSG D
9,705	96.3	Weighted Average
914		9.42% Pervious Area
8,791		90.58% Impervious Area
144		1.64% Unconnected

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

Summary for Subcatchment 8S: Free release to Mission St.

Runoff = 0.09 cfs @ 12.07 hrs, Volume= 273 cf, Depth= 3.79"

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=5.70"

Area (sf)	CN	Description
133	98.0	Paved parking, HSG D
730	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
863	82.8	Weighted Average
730		84.59% Pervious Area
133		15.41% Impervious Area

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

Summary for Subcatchment 9S: Proposed to Mission St.

Runoff = 0.47 cfs @ 12.07 hrs, Volume= 1,624 cf, Depth= 5.46"

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=5.70"

Area (sf)	CN	Description
1,242	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
2,325	98.0	Roofs, HSG D
3,567	98.0	Weighted Average
3,567		100.00% Impervious Area

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

Summary for Pond 10P: (24) R-330XLHD Units

Inflow Area = 6,558 sf,100.00% Impervious, Inflow Depth = 5.46" for 25-Year event
Inflow = 0.87 cfs @ 12.07 hrs, Volume= 2,985 cf
Outflow = 0.54 cfs @ 12.16 hrs, Volume= 2,791 cf, Atten= 38%, Lag= 5.3 min
Primary = 0.54 cfs @ 12.16 hrs, Volume= 2,791 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 27.48' @ 12.16 hrs Surf.Area= 948 sf Storage= 644 cf

Plug-Flow detention time= 97.3 min calculated for 2,790 cf (93% of inflow)
Center-of-Mass det. time= 61.2 min (806.2 - 745.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	26.40'	824 cf	**20.83'W x 45.50'L x 3.54'H Field A** 3,357 cf Overall - 1,296 cf Embedded = 2,061 cf x 40.0% Voids
#2A	26.90'	1,296 cf	**Cultec R-330XLHD** x 24 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 4 rows
		2,121 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32
#2	Device 1	26.90'	**6.0" Round 6" Culvert** L= 87.0' Ke= 0.500 Inlet / Outlet Invert= 26.90' / 24.20' S= 0.0310 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.54 cfs @ 12.16 hrs HW=27.48' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Passes 0.54 cfs of 136.61 cfs potential flow)
↑—**2=6" Culvert** (Inlet Controls 0.54 cfs @ 2.76 fps)

Summary for Pond 11P: Permeable Pavement

Inflow Area = 9,705 sf, 90.58% Impervious, Inflow Depth = 5.26" for 25-Year event
Inflow = 1.28 cfs @ 12.07 hrs, Volume= 4,257 cf
Outflow = 1.26 cfs @ 12.08 hrs, Volume= 3,345 cf, Atten= 1%, Lag= 0.6 min
Primary = 1.26 cfs @ 12.08 hrs, Volume= 3,345 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 25.79' @ 12.08 hrs Surf.Area= 2,073 sf Storage= 983 cf

Plug-Flow detention time= 144.1 min calculated for 3,345 cf (79% of inflow)
Center-of-Mass det. time= 64.9 min (821.6 - 756.7)

Volume	Invert	Avail.Storage	Storage Description
#1	24.60'	1,327 cf	**No.2 Stone (Prismatic)** Listed below (Recalc) 3,317 cf Overall x 40.0% Voids
#2	26.20'	166 cf	**No.57 Stone (Prismatic)** Listed below (Recalc) 1,658 cf Overall x 10.0% Voids
		1,493 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
24.60	2,073	0	0
26.20	2,073	3,317	3,317

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
26.20	2,073	0	0
27.00	2,073	1,658	1,658

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.26 cfs @ 12.08 hrs HW=25.79' TW=0.00' (Dynamic Tailwater)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 1.26 cfs @ 0.74 fps)

Summary for Pond 12P: (11) R-330XLHD Units

Inflow Area = 3,567 sf,100.00% Impervious, Inflow Depth = 5.46" for 25-Year event
Inflow = 0.47 cfs @ 12.07 hrs, Volume= 1,624 cf
Outflow = 0.18 cfs @ 12.28 hrs, Volume= 661 cf, Atten= 62%, Lag= 12.9 min
Primary = 0.18 cfs @ 12.28 hrs, Volume= 661 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 25.74' @ 12.28 hrs Surf.Area= 510 sf Storage= 970 cf

Plug-Flow detention time= 320.8 min calculated for 661 cf (41% of inflow)
Center-of-Mass det. time= 165.2 min (910.2 - 745.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	22.70'	488 cf	**6.33'W x 80.50'L x 3.54'H Field A** 1,806 cf Overall - 585 cf Embedded = 1,221 cf x 40.0% Voids
#2A	23.20'	585 cf	**Cultec R-330XLHD** x 11 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap

Row Length Adjustment= +1.50' x 7.45 sf x 1 rows
1,073 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**24.0" x 24.0" Horiz. 2 - 2'x2' catch basins X 2.00** C= 0.600 Limited to weir flow at low heads
#2	Device 1	23.50'	**6.0" Round 6" Culvert** L= 8.0' Ke= 0.500 Inlet / Outlet Invert= 23.50' / 23.00' S= 0.0625 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.18 cfs @ 12.28 hrs HW=25.74' TW=0.00' (Dynamic Tailwater)
└**1=2 - 2'x2' catch basins** (Passes 0.18 cfs of 0.35 cfs potential flow)
└**2=6" Culvert** (Inlet Controls 0.18 cfs @ 0.91 fps)

Summary for Link 13L: POC A

Inflow Area = 20,063 sf, 77.00% Impervious, Inflow Depth = 4.34" for 25-Year event
Inflow = 2.12 cfs @ 12.08 hrs, Volume= 7,254 cf
Primary = 2.12 cfs @ 12.08 hrs, Volume= 7,254 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 14L: POC B (Mission St.)

Inflow Area = 4,430 sf, 83.52% Impervious, Inflow Depth = 2.53" for 25-Year event
Inflow = 0.22 cfs @ 12.28 hrs, Volume= 934 cf
Primary = 0.22 cfs @ 12.28 hrs, Volume= 934 cf, Atten= 0%, Lag= 0.0 min

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

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 5S: Free release to POC A Runoff Area=3,800 sf 2.63% Impervious Runoff Depth=4.17"
Tc=5.00 min UI Adjusted CN=80.2 Runoff=0.44 cfs 1,319 cf

Subcatchment 6S: Buildings to Cultecs Runoff Area=6,558 sf 100.00% Impervious Runoff Depth=6.16"
Tc=5.00 min CN=98.0 Runoff=0.98 cfs 3,367 cf

Subcatchment 7S: Proposed to Low Point Runoff Area=9,705 sf 90.58% Impervious Runoff Depth=5.96"
Tc=5.00 min CN=96.3 Runoff=1.44 cfs 4,821 cf

Subcatchment 8S: Free release to Mission St. Runoff Area=863 sf 15.41% Impervious Runoff Depth=4.44"
Tc=5.00 min CN=82.8 Runoff=0.11 cfs 319 cf

Subcatchment 9S: Proposed to Mission St. Runoff Area=3,567 sf 100.00% Impervious Runoff Depth=6.16"
Tc=5.00 min CN=98.0 Runoff=0.53 cfs 1,831 cf

Pond 10P: (24) R-330XLHD Units Peak Elev=27.54' Storage=695 cf Inflow=0.98 cfs 3,367 cf
Outflow=0.59 cfs 3,173 cf

Pond 11P: Permeable Pavement Peak Elev=25.79' Storage=989 cf Inflow=1.44 cfs 4,821 cf
Outflow=1.42 cfs 3,909 cf

Pond 12P: (11) R-330XLHD Units Peak Elev=25.80' Storage=984 cf Inflow=0.53 cfs 1,831 cf
Outflow=0.30 cfs 869 cf

Link 13L: POC A Inflow=2.39 cfs 8,401 cf
Primary=2.39 cfs 8,401 cf

Link 14L: POC B (Mission St.) Inflow=0.37 cfs 1,188 cf
Primary=0.37 cfs 1,188 cf

Summary for Subcatchment 5S: Free release to POC A

Runoff = 0.44 cfs @ 12.07 hrs, Volume= 1,319 cf, Depth= 4.17"

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 50-Year Rainfall=6.40"

Area (sf)	CN	Adj	Description
0	98.0		Paved parking, HSG D
3,700	80.0		>75% Grass cover, Good, HSG D
0	98.0		Roofs, HSG D
100	98.0		Unconnected pavement, HSG D
3,800	80.5	80.2	Weighted Average, UI Adjusted
3,700			97.37% Pervious Area
100			2.63% Impervious Area
100			100.00% Unconnected

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

Summary for Subcatchment 6S: Buildings to Cultecs

Runoff = 0.98 cfs @ 12.07 hrs, Volume= 3,367 cf, Depth= 6.16"

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 50-Year Rainfall=6.40"

Area (sf)	CN	Description
0	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
6,558	98.0	Roofs, HSG D
0	98.0	Unconnected pavement, HSG D
6,558	98.0	Weighted Average
6,558		100.00% Impervious Area

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

Summary for Subcatchment 7S: Proposed to Low Point

Runoff = 1.44 cfs @ 12.07 hrs, Volume= 4,821 cf, Depth= 5.96"

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 50-Year Rainfall=6.40"

Area (sf)	CN	Description
8,647	98.0	Paved parking, HSG D
914	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
144	98.0	Unconnected pavement, HSG D
9,705	96.3	Weighted Average
914		9.42% Pervious Area
8,791		90.58% Impervious Area
144		1.64% Unconnected

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

Summary for Subcatchment 8S: Free release to Mission St.

Runoff = 0.11 cfs @ 12.07 hrs, Volume= 319 cf, Depth= 4.44"

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 50-Year Rainfall=6.40"

Area (sf)	CN	Description
133	98.0	Paved parking, HSG D
730	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
863	82.8	Weighted Average
730		84.59% Pervious Area
133		15.41% Impervious Area

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

Summary for Subcatchment 9S: Proposed to Mission St.

Runoff = 0.53 cfs @ 12.07 hrs, Volume= 1,831 cf, Depth= 6.16"

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 50-Year Rainfall=6.40"

Area (sf)	CN	Description
1,242	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
2,325	98.0	Roofs, HSG D
3,567	98.0	Weighted Average
3,567		100.00% Impervious Area

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

Summary for Pond 10P: (24) R-330XLHD Units

Inflow Area = 6,558 sf,100.00% Impervious, Inflow Depth = 6.16" for 50-Year event
Inflow = 0.98 cfs @ 12.07 hrs, Volume= 3,367 cf
Outflow = 0.59 cfs @ 12.16 hrs, Volume= 3,173 cf, Atten= 39%, Lag= 5.5 min
Primary = 0.59 cfs @ 12.16 hrs, Volume= 3,173 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 27.54' @ 12.16 hrs Surf.Area= 948 sf Storage= 695 cf

Plug-Flow detention time= 90.8 min calculated for 3,173 cf (94% of inflow)
Center-of-Mass det. time= 57.7 min (801.0 - 743.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	26.40'	824 cf	**20.83'W x 45.50'L x 3.54'H Field A** 3,357 cf Overall - 1,296 cf Embedded = 2,061 cf x 40.0% Voids
#2A	26.90'	1,296 cf	**Cultec R-330XLHD** x 24 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 4 rows
		2,121 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32
#2	Device 1	26.90'	**6.0" Round 6" Culvert** L= 87.0' Ke= 0.500 Inlet / Outlet Invert= 26.90' / 24.20' S= 0.0310 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.59 cfs @ 12.16 hrs HW=27.54' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Passes 0.59 cfs of 143.93 cfs potential flow)
↑**2=6" Culvert** (Inlet Controls 0.59 cfs @ 3.02 fps)

Summary for Pond 11P: Permeable Pavement

Inflow Area = 9,705 sf, 90.58% Impervious, Inflow Depth = 5.96" for 50-Year event
Inflow = 1.44 cfs @ 12.07 hrs, Volume= 4,821 cf
Outflow = 1.42 cfs @ 12.08 hrs, Volume= 3,909 cf, Atten= 1%, Lag= 0.6 min
Primary = 1.42 cfs @ 12.08 hrs, Volume= 3,909 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 25.79' @ 12.08 hrs Surf.Area= 2,073 sf Storage= 989 cf

Plug-Flow detention time= 135.4 min calculated for 3,908 cf (81% of inflow)
Center-of-Mass det. time= 61.4 min (815.6 - 754.2)

Volume	Invert	Avail.Storage	Storage Description
#1	24.60'	1,327 cf	**No.2 Stone (Prismatic)** Listed below (Recalc) 3,317 cf Overall x 40.0% Voids
#2	26.20'	166 cf	**No.57 Stone (Prismatic)** Listed below (Recalc) 1,658 cf Overall x 10.0% Voids
		1,493 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
24.60	2,073	0	0
26.20	2,073	3,317	3,317

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
26.20	2,073	0	0
27.00	2,073	1,658	1,658

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.42 cfs @ 12.08 hrs HW=25.79' TW=0.00' (Dynamic Tailwater)
↳**1=Broad-Crested Rectangular Weir** (Weir Controls 1.42 cfs @ 0.77 fps)

Summary for Pond 12P: (11) R-330XLHD Units

Inflow Area = 3,567 sf,100.00% Impervious, Inflow Depth = 6.16" for 50-Year event
Inflow = 0.53 cfs @ 12.07 hrs, Volume= 1,831 cf
Outflow = 0.30 cfs @ 12.17 hrs, Volume= 869 cf, Atten= 43%, Lag= 6.1 min
Primary = 0.30 cfs @ 12.17 hrs, Volume= 869 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 25.80' @ 12.17 hrs Surf.Area= 510 sf Storage= 984 cf

Plug-Flow detention time= 278.7 min calculated for 869 cf (47% of inflow)
Center-of-Mass det. time= 140.9 min (884.2 - 743.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	22.70'	488 cf	**6.33'W x 80.50'L x 3.54'H Field A** 1,806 cf Overall - 585 cf Embedded = 1,221 cf x 40.0% Voids
#2A	23.20'	585 cf	**Cultec R-330XLHD** x 11 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap

Row Length Adjustment= +1.50' x 7.45 sf x 1 rows
1,073 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**24.0" x 24.0" Horiz. 2 - 2'x2' catch basins X 2.00** C= 0.600 Limited to weir flow at low heads
#2	Device 1	23.50'	**6.0" Round 6" Culvert** L= 8.0' Ke= 0.500 Inlet / Outlet Invert= 23.50' / 23.00' S= 0.0625 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.30 cfs @ 12.17 hrs HW=25.80' TW=0.00' (Dynamic Tailwater)
↳**1=2 - 2'x2' catch basins** (Passes 0.30 cfs of 1.73 cfs potential flow)
↳**2=6" Culvert** (Inlet Controls 0.30 cfs @ 1.54 fps)

Summary for Link 13L: POC A

Inflow Area = 20,063 sf, 77.00% Impervious, Inflow Depth = 5.02" for 50-Year event
Inflow = 2.39 cfs @ 12.08 hrs, Volume= 8,401 cf
Primary = 2.39 cfs @ 12.08 hrs, Volume= 8,401 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 14L: POC B (Mission St.)

Inflow Area = 4,430 sf, 83.52% Impervious, Inflow Depth = 3.22" for 50-Year event
Inflow = 0.37 cfs @ 12.16 hrs, Volume= 1,188 cf
Primary = 0.37 cfs @ 12.16 hrs, Volume= 1,188 cf, Atten= 0%, Lag= 0.0 min

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

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 5S: Free release to POC A Runoff Area=3,800 sf 2.63% Impervious Runoff Depth=4.90"
Tc=5.00 min UI Adjusted CN=80.2 Runoff=0.51 cfs 1,552 cf

Subcatchment 6S: Buildings to Cultecs Runoff Area=6,558 sf 100.00% Impervious Runoff Depth=6.96"
Tc=5.00 min CN=98.0 Runoff=1.10 cfs 3,804 cf

Subcatchment 7S: Proposed to Low Point Runoff Area=9,705 sf 90.58% Impervious Runoff Depth=6.76"
Tc=5.00 min CN=96.3 Runoff=1.62 cfs 5,466 cf

Subcatchment 8S: Free release to Mission St. Runoff Area=863 sf 15.41% Impervious Runoff Depth=5.19"
Tc=5.00 min CN=82.8 Runoff=0.12 cfs 374 cf

Subcatchment 9S: Proposed to Mission St. Runoff Area=3,567 sf 100.00% Impervious Runoff Depth=6.96"
Tc=5.00 min CN=98.0 Runoff=0.60 cfs 2,069 cf

Pond 10P: (24) R-330XLHD Units Peak Elev=27.62' Storage=756 cf Inflow=1.10 cfs 3,804 cf
Outflow=0.65 cfs 3,610 cf

Pond 11P: Permeable Pavement Peak Elev=25.80' Storage=995 cf Inflow=1.62 cfs 5,466 cf
Outflow=1.61 cfs 4,554 cf

Pond 12P: (11) R-330XLHD Units Peak Elev=25.94' Storage=1,011 cf Inflow=0.60 cfs 2,069 cf
Outflow=0.46 cfs 1,106 cf

Link 13L: POC A Inflow=2.69 cfs 9,716 cf
Primary=2.69 cfs 9,716 cf

Link 14L: POC B (Mission St.) Inflow=0.56 cfs 1,480 cf
Primary=0.56 cfs 1,480 cf

Summary for Subcatchment 5S: Free release to POC A

Runoff = 0.51 cfs @ 12.07 hrs, Volume= 1,552 cf, Depth= 4.90"

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 100-Year Rainfall=7.20"

Area (sf)	CN	Adj	Description
0	98.0		Paved parking, HSG D
3,700	80.0		>75% Grass cover, Good, HSG D
0	98.0		Roofs, HSG D
100	98.0		Unconnected pavement, HSG D
3,800	80.5	80.2	Weighted Average, UI Adjusted
3,700			97.37% Pervious Area
100			2.63% Impervious Area
100			100.00% Unconnected

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

Summary for Subcatchment 6S: Buildings to Cultecs

Runoff = 1.10 cfs @ 12.07 hrs, Volume= 3,804 cf, Depth= 6.96"

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 100-Year Rainfall=7.20"

Area (sf)	CN	Description
0	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
6,558	98.0	Roofs, HSG D
0	98.0	Unconnected pavement, HSG D
6,558	98.0	Weighted Average
6,558		100.00% Impervious Area

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

Summary for Subcatchment 7S: Proposed to Low Point

Runoff = 1.62 cfs @ 12.07 hrs, Volume= 5,466 cf, Depth= 6.76"

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 100-Year Rainfall=7.20"

Area (sf)	CN	Description
8,647	98.0	Paved parking, HSG D
914	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
144	98.0	Unconnected pavement, HSG D
9,705	96.3	Weighted Average
914		9.42% Pervious Area
8,791		90.58% Impervious Area
144		1.64% Unconnected

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

Summary for Subcatchment 8S: Free release to Mission St.

Runoff = 0.12 cfs @ 12.07 hrs, Volume= 374 cf, Depth= 5.19"

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 100-Year Rainfall=7.20"

Area (sf)	CN	Description
133	98.0	Paved parking, HSG D
730	80.0	>75% Grass cover, Good, HSG D
0	98.0	Roofs, HSG D
863	82.8	Weighted Average
730		84.59% Pervious Area
133		15.41% Impervious Area

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

Summary for Subcatchment 9S: Proposed to Mission St.

Runoff = 0.60 cfs @ 12.07 hrs, Volume= 2,069 cf, Depth= 6.96"

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 100-Year Rainfall=7.20"

Area (sf)	CN	Description
1,242	98.0	Paved parking, HSG D
0	80.0	>75% Grass cover, Good, HSG D
2,325	98.0	Roofs, HSG D
3,567	98.0	Weighted Average
3,567		100.00% Impervious Area

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

Summary for Pond 10P: (24) R-330XLHD Units

Inflow Area = 6,558 sf,100.00% Impervious, Inflow Depth = 6.96" for 100-Year event
Inflow = 1.10 cfs @ 12.07 hrs, Volume= 3,804 cf
Outflow = 0.65 cfs @ 12.17 hrs, Volume= 3,610 cf, Atten= 41%, Lag= 5.8 min
Primary = 0.65 cfs @ 12.17 hrs, Volume= 3,610 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 27.62' @ 12.17 hrs Surf.Area= 948 sf Storage= 756 cf

Plug-Flow detention time= 84.2 min calculated for 3,609 cf (95% of inflow)
Center-of-Mass det. time= 54.4 min (796.0 - 741.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	26.40'	824 cf	**20.83'W x 45.50'L x 3.54'H Field A** 3,357 cf Overall - 1,296 cf Embedded = 2,061 cf x 40.0% Voids
#2A	26.90'	1,296 cf	**Cultec R-330XLHD** x 24 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 4 rows
		2,121 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32
#2	Device 1	26.90'	**6.0" Round 6" Culvert** L= 87.0' Ke= 0.500 Inlet / Outlet Invert= 26.90' / 24.20' S= 0.0310 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.65 cfs @ 12.17 hrs HW=27.62' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Passes 0.65 cfs of 152.68 cfs potential flow)
↑**2=6" Culvert** (Inlet Controls 0.65 cfs @ 3.31 fps)

Summary for Pond 11P: Permeable Pavement

Inflow Area = 9,705 sf, 90.58% Impervious, Inflow Depth = 6.76" for 100-Year event
Inflow = 1.62 cfs @ 12.07 hrs, Volume= 5,466 cf
Outflow = 1.61 cfs @ 12.08 hrs, Volume= 4,554 cf, Atten= 1%, Lag= 0.6 min
Primary = 1.61 cfs @ 12.08 hrs, Volume= 4,554 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 25.80' @ 12.08 hrs Surf.Area= 2,073 sf Storage= 995 cf

Plug-Flow detention time= 126.9 min calculated for 4,553 cf (83% of inflow)
Center-of-Mass det. time= 58.0 min (809.8 - 751.9)

Volume	Invert	Avail.Storage	Storage Description
#1	24.60'	1,327 cf	**No.2 Stone (Prismatic)** Listed below (Recalc) 3,317 cf Overall x 40.0% Voids
#2	26.20'	166 cf	**No.57 Stone (Prismatic)** Listed below (Recalc) 1,658 cf Overall x 10.0% Voids
		1,493 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
24.60	2,073	0	0
26.20	2,073	3,317	3,317

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
26.20	2,073	0	0
27.00	2,073	1,658	1,658

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**20.0' long x 2.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=1.61 cfs @ 12.08 hrs HW=25.80' TW=0.00' (Dynamic Tailwater)
↳**1=Broad-Crested Rectangular Weir** (Weir Controls 1.61 cfs @ 0.80 fps)

Summary for Pond 12P: (11) R-330XLHD Units

Inflow Area = 3,567 sf,100.00% Impervious, Inflow Depth = 6.96" for 100-Year event
Inflow = 0.60 cfs @ 12.07 hrs, Volume= 2,069 cf
Outflow = 0.46 cfs @ 12.13 hrs, Volume= 1,106 cf, Atten= 23%, Lag= 3.7 min
Primary = 0.46 cfs @ 12.13 hrs, Volume= 1,106 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Peak Elev= 25.94' @ 12.13 hrs Surf.Area= 510 sf Storage= 1,011 cf

Plug-Flow detention time= 249.5 min calculated for 1,106 cf (53% of inflow)
Center-of-Mass det. time= 124.3 min (865.9 - 741.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	22.70'	488 cf	**6.33'W x 80.50'L x 3.54'H Field A** 1,806 cf Overall - 585 cf Embedded = 1,221 cf x 40.0% Voids
#2A	23.20'	585 cf	**Cultec R-330XLHD** x 11 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap

Row Length Adjustment= +1.50' x 7.45 sf x 1 rows
1,073 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	25.70'	**24.0" x 24.0" Horiz. 2 - 2'x2' catch basins X 2.00** C= 0.600 Limited to weir flow at low heads
#2	Device 1	23.50'	**6.0" Round 6" Culvert** L= 8.0' Ke= 0.500 Inlet / Outlet Invert= 23.50' / 23.00' S= 0.0625 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.46 cfs @ 12.13 hrs HW=25.94' TW=0.00' (Dynamic Tailwater)
↳**1=2 - 2'x2' catch basins** (Passes 0.46 cfs of 6.00 cfs potential flow)
↳**2=6" Culvert** (Inlet Controls 0.46 cfs @ 2.34 fps)

Summary for Link 13L: POC A

Inflow Area = 20,063 sf, 77.00% Impervious, Inflow Depth = 5.81" for 100-Year event
Inflow = 2.69 cfs @ 12.08 hrs, Volume= 9,716 cf
Primary = 2.69 cfs @ 12.08 hrs, Volume= 9,716 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link 14L: POC B (Mission St.)

Inflow Area = 4,430 sf, 83.52% Impervious, Inflow Depth = 4.01" for 100-Year event
Inflow = 0.56 cfs @ 12.12 hrs, Volume= 1,480 cf
Primary = 0.56 cfs @ 12.12 hrs, Volume= 1,480 cf, Atten= 0%, Lag= 0.0 min

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

Stage-Area-Storage for Pond 10P: (24) R-330XLHD Units

Elevation (feet)	Storage (cubic-feet)
26.40	0
26.45	19
26.50	38
26.55	57
26.60	76
26.65	95
26.70	114
26.75	133
26.80	152
26.85	171
26.90	190
26.95	229
27.00	269
27.05	308
27.10	348
27.15	387
27.20	426
27.25	466
27.30	505
27.35	544
27.40	583
27.45	622
27.50	661
27.55	699
27.60	738
27.65	776
27.70	814
27.75	852
27.80	890
27.85	928
27.90	966
27.95	1,003
28.00	1,041
28.05	1,078
28.10	1,116
28.15	1,153
28.20	1,190
28.25	1,226
28.30	1,262
28.35	1,298
28.40	1,333
28.45	1,368
28.50	1,403
28.55	1,437
28.60	1,471
28.65	1,504
28.70	1,537
28.75	1,570
28.80	1,601
28.85	1,633
28.90	1,663
28.95	1,693
29.00	1,723
29.05	1,751
29.10	1,778
29.15	1,804
29.20	1,829
29.25	1,853
29.30	1,875
29.35	1,896
29.40	1,915
29.45	1,934
29.50	1,953
29.55	1,972
29.60	1,991
29.65	2,010
29.70	2,029
29.75	2,048
29.80	2,067
29.85	2,086
29.90	**2,105**

Stage-Area-Storage for Pond 11P: Permeable Pavement

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
24.60	0	25.64	862	26.68	1,426
24.62	17	25.66	879	26.70	1,430
24.64	33	25.68	896	26.72	1,435
24.66	50	25.70	912	26.74	1,439
24.68	66	25.72	929	26.76	1,443
24.70	83	25.74	945	26.78	1,447
24.72	100	25.76	962	26.80	1,451
24.74	116	25.78	978	26.82	1,455
24.76	133	25.80	995	26.84	1,459
24.78	149	25.82	1,012	26.86	1,464
24.80	166	25.84	1,028	26.88	1,468
24.82	182	25.86	1,045	26.90	1,472
24.84	199	25.88	1,061	26.92	1,476
24.86	216	25.90	1,078	26.94	1,480
24.88	232	25.92	1,095	26.96	1,484
24.90	249	25.94	1,111	26.98	1,488
24.92	265	25.96	1,128	27.00	**1,493**
24.94	282	25.98	1,144		
24.96	299	26.00	1,161		
24.98	315	26.02	1,177		
25.00	332	26.04	1,194		
25.02	348	26.06	1,211		
25.04	365	26.08	1,227		
25.06	381	26.10	1,244		
25.08	398	26.12	1,260		
25.10	415	26.14	1,277		
25.12	431	26.16	1,294		
25.14	448	26.18	1,310		
25.16	464	26.20	1,327		
25.18	481	26.22	1,331		
25.20	498	26.24	1,335		
25.22	514	26.26	1,339		
25.24	531	26.28	1,343		
25.26	547	26.30	1,347		
25.28	564	26.32	1,352		
25.30	580	26.34	1,356		
25.32	597	26.36	1,360		
25.34	614	26.38	1,364		
25.36	630	26.40	1,368		
25.38	647	26.42	1,372		
25.40	663	26.44	1,376		
25.42	680	26.46	1,381		
25.44	697	26.48	1,385		
25.46	713	26.50	1,389		
25.48	730	26.52	1,393		
25.50	746	26.54	1,397		
25.52	763	26.56	1,401		
25.54	779	26.58	1,405		
25.56	796	26.60	1,410		
25.58	813	26.62	1,414		
25.60	829	26.64	1,418		
25.62	846	26.66	1,422		

Stage-Area-Storage for Pond 12P: (11) R-330XLHD Units

Elevation (feet)	Storage (cubic-feet)
22.70	0
22.75	10
22.80	20
22.85	31
22.90	41
22.95	51
23.00	61
23.05	71
23.10	82
23.15	92
23.20	102
23.25	122
23.30	141
23.35	160
23.40	180
23.45	199
23.50	219
23.55	238
23.60	257
23.65	277
23.70	296
23.75	315
23.80	334
23.85	353
23.90	372
23.95	391
24.00	410
24.05	429
24.10	447
24.15	466
24.20	485
24.25	504
24.30	522
24.35	541
24.40	559
24.45	578
24.50	596
24.55	614
24.60	632
24.65	650
24.70	667
24.75	685
24.80	702
24.85	719
24.90	736
24.95	753
25.00	769
25.05	785
25.10	801
25.15	817
25.20	833
25.25	848
25.30	863
25.35	877
25.40	891
25.45	904
25.50	917
25.55	929
25.60	941
25.65	952
25.70	963 OUT
25.75	973
25.80	983
25.85	993
25.90	1,004
25.95	1,014
26.00	1,024
26.05	1,034
26.10	1,044
26.15	1,055
26.20	**1,065**

Appendix "D"

Pipe Conveyance Calculations

Project ID: 20PA_Appendix_D_Conveyance_&_Outlet_Protection_00.xlsx **Date:** 5/2/2023

The following is a summary of the computations performed to design the proposed storm drainage system drain sizes. The proposed watershed flows were taken from the results of the HyrdoCAD storm drainage analysis performed on the site. Refer to Appendix "C" for HydroCAD model input data, computations, and results. Refer to Exhibit "B" for a depiction of the proposed on-site watershed areas. HydroCAD runoff computations are based on the 25-year design storm frequency event. Culvert conveyance computations are based on the Manning's Equation.

Watershed Analysis Results

Drainage Area	Area (S.F.)	Impervious Area (S.F.)	CN	25-Year Peak Flow Rate (cfs)
5S	3,800	100	80.5	0.37
6S	6,558	6,558	98.0	0.87
7S	9,705	8,791	96.3	1.28
8S	863	133	82.8	0.09
9S	3,567	3,567	98.0	0.47
10P	-	-	-	0.54
11P	-	-	-	1.26
12P	-	-	-	0.18

Culvert Capacity Summary Table

Maximum pipe capacities were calculated using the Manning equation for full flow conditions. The proposed pipe information, 25-year peak design flows, and corresponding maximum capacities are summarized in the following table. Refer to the Development Plan for pipe and structure locations. All pipes have been sized to convey the flow rates for at least the 25-year design storm frequency event.

Pipe #	Diameter (*inches*)	Rougness (*n*)	Slope (%)	Contributing Watershed	25-Year Peak Design Flow (*cfs*)	Max Capacity (*cfs*)
1	6	0.011	2.0%	10P	0.18	0.94
2	6	0.011	3.0%	5S	0.37	1.15
3	8	0.011	2.5%	5S+10P+11P	2.17	2.26

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*

Part 1: General Information

Project Name	Residential Development
Project Address	12, 16 & 18 Taylor Street
Project Applicant	G&T Taylor Street LLC
Date of Submittal	5/2/2023
Tax Account Number	001-9860

Part 2: Project Details

1. What type of development is this? (choose from dropdown)	Redevelopment	
2. What is the total area of the project site?	24,492	ft^2
3. What is the total area of land disturbance for this project?	20,600	ft^2
4. Does project site drain to High Quality Waters, a Direct Waterfront, or within 500 ft. of Tidal Wetlands? (Yes/No)	No	
5. What is the current ***DCIA*** for the site?	0	ft^2
6. Will the proposed development increase ***DCIA*** (without consideration of proposed stormwater management)? (Yes/No)	No	
7. What is the proposed-development ***total impervious area*** for the site?	19,149	ft^2

Part 3: Water Quality Target Total

Does Standard 1 apply based on information above?	No, Skip to Part 4	
Water Quality Volume (WQV)	N/A	ft^3
Standard 1 requirement	N/A	
Required treatment/retention volume	N/A	ft^3
Provided treatment/retention volume for proposed development	N/A	ft^3

Part 4: Proposed DCIA Tracking

Pre-development ***total impervious area***	8,705	ft^2
Current ***DCIA***	0	ft^2
Proposed-development ***total impervious area***	19,149	ft^2
Proposed-development ***DCIA*** (after stormwater management)	0	ft^2
Net change in ***DCIA*** from pre-development to proposed-development	0	ft^2

Part 5: Post-Development (As-Built Certified) DCIA Tracking

Post-development (per as-built) ***total impervious area***		ft^2
Post-development (per as-built) ***DCIA*** (after stormwater management)		ft^2
Net change in ***DCIA*** from pre-development to post-development		ft^2

Certification Statement

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

Engineer's Signature _____ Date 5/2/23 Engineer's Seal

STATE OF CONNECTICUT * LEONARD C. D'ANDREA * No. 14869 LICENSED PROFESSIONAL ENGINEER

Appendix "F"

Soil Results Forms

SOIL EVALUATION TEST RESULTS

Project Name: **Residential Development**

Project Address: **12, 16 & 18 Taylor Street**

Engineering Firm's Name: **D'Andrea Surveying & Engineering, P.C.**

Engineer's Name: **Leonard C. D'Andrea**

Test Pit or Soil Boring #: 1 **Ground Elevation: 31.5**

Elevation	Soil Texture (Percent Sand, Silt and Clay)	Depth Range in Inches
31.5		0
	Topsoil	
31.0		6
	Light Brown Silty Loam	
28.5		36
	Light Brown Silty Clay	
23.4		97

Elevation		Depth in Inches
28.2	Mottling (Seasonally High Groundwater)	40
24.0	Groundwater	90
N/A	Ledge	N/A

* All test pits or soil borings shall be excavated to an elevation four feet below the proposed bottom elevation of the infiltration system.

Saturated Hydraulic Conductivity Test Location #:

Ground Elevation: _____

Top Elevation of Proposed Infiltration System: _____

Bottom Elevation of Proposed Infiltration System: _____

Elevation of Test*: _____

Test Method (check one of the following acceptable methods**):

_____ Borehole infiltration test (NHDES, 2008)

_____ Guelph permeameter - ASTM D5126-90 Method

_____ Falling head permeameter – ASTM D5126-90 Method

_____ Double ring permeameter or infiltrometer - ASTM D3385-03, D5093-02, D5126-90 Methods

_____ Amoozemeter or Amoozegar (constant head) permeameter – Amoozegar 1992

Attach field data forms for the respective infiltration test method.

Calculated Saturated Hydraulic Conductivity Rate: _____

**A percolation test, performed in accordance with the guidelines of the Connecticut State Health Code or otherwise, is not an acceptable test for saturated hydraulic conductivity. Percolation tests overestimate the saturated hydraulic conductivity rate.

* All field infiltration tests must be conducted in the actual location and soil layer where stormwater infiltration is proposed.

TEST CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED IN THIS REPORT IS TRUE AND CORRECT.

Matthew M. Kivijarv
Name of Test Conductor

Signature of Test Conductor

5-2-2023
Date

Project Name: **Residential Development**

Project Address: **12, 16 & 18 Taylor Street**

Engineering Firm's Name: **D'Andrea Surveying & Engineering, P.C.**

Engineer's Name: **Leonard C. D'Andrea**

Test Pit or Soil Boring #: 2 **Ground Elevation:** 25.6

Elevation	Soil Texture (Percent Sand, Silt and Clay)	Depth Range in Inches
25.6		0
	Topsoil	
25.1		6
	Light Brown Silty Loam	
23.6		24
	Light Brown Silt with Grey Clay	
18.8		82

Elevation		Depth in Inches
23.5	Mottling (Seasonally High Groundwater)	25
23.1	Groundwater	30
N/A	Ledge	N/A

* All test pits or soil borings shall be excavated to an elevation four feet below the proposed bottom elevation of the infiltration system.

Saturated Hydraulic Conductivity Test Location #:

Ground Elevation: _____

Top Elevation of Proposed Infiltration System: _____

Bottom Elevation of Proposed Infiltration System: _____

Elevation of Test*: _____

Test Method (check one of the following acceptable methods**):

_____ Borehole infiltration test (NHDES, 2008)

_____ Guelph permeameter - ASTM D5126-90 Method

_____ Falling head permeameter – ASTM D5126-90 Method

_____ Double ring permeameter or infiltrometer - ASTM D3385-03, D5093-02, D5126-90 Methods

_____ Amoozemeter or Amoozegar (constant head) permeameter – Amoozegar 1992

Attach field data forms for the respective infiltration test method.

Calculated Saturated Hydraulic Conductivity Rate: _____

**A percolation test, performed in accordance with the guidelines of the Connecticut State Health Code or otherwise, is not an acceptable test for saturated hydraulic conductivity. Percolation tests overestimate the saturated hydraulic conductivity rate.

* All field infiltration tests must be conducted in the actual location and soil layer where stormwater infiltration is proposed.

TEST CERTIFICATION

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Matthew M. Kivijarv
Name of Test Conductor

Signature of Test Conductor

5-2-2023
Date

Project Name: **Residential Development**

Project Address: **12, 16 & 18 Taylor Street**

Engineering Firm's Name: **D'Andrea Surveying & Engineering, P.C.**

Engineer's Name: **Leonard C. D'Andrea**

Test Pit or Soil Boring #: 3 **Ground Elevation:** 26.3

Elevation	Soil Texture (Percent Sand, Silt and Clay)	Depth Range in Inches
26.3		0
	Millings	
23.8		30
	Light Brown Fine Loam	
22.3		48
	Tan Fine Sand with Clay	
21.0		64
	Sandy Gravel	
18.6		92

Elevation		Depth in Inches
22.3	Mottling (Seasonally High Groundwater)	48
22.0	Groundwater	52
N/A	Ledge	N/A

* All test pits or soil borings shall be excavated to an elevation four feet below the proposed bottom elevation of the infiltration system.

Saturated Hydraulic Conductivity Test Location #:

Ground Elevation: _____

Top Elevation of Proposed Infiltration System: _____

Bottom Elevation of Proposed Infiltration System: _____

Elevation of Test*: _____

Test Method (check one of the following acceptable methods**):

_____ Borehole infiltration test (NHDES, 2008)

_____ Guelph permeameter - ASTM D5126-90 Method

_____ Falling head permeameter – ASTM D5126-90 Method

_____ Double ring permeameter or infiltrometer - ASTM D3385-03, D5093-02, D5126-90 Methods

_____ Amoozemeter or Amoozegar (constant head) permeameter – Amoozegar 1992

Attach field data forms for the respective infiltration test method.

Calculated Saturated Hydraulic Conductivity Rate: _____

**A percolation test, performed in accordance with the guidelines of the Connecticut State Health Code or otherwise, is not an acceptable test for saturated hydraulic conductivity. Percolation tests overestimate the saturated hydraulic conductivity rate.

* All field infiltration tests must be conducted in the actual location and soil layer where stormwater infiltration is proposed.

TEST CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED IN THIS REPORT IS TRUE AND CORRECT.

Matthew M. Kivijarv
Name of Test Conductor

Signature of Test Conductor

5-2-2023
Date

Project Name: **Residential Development**

Project Address: **12, 16 & 18 Taylor Street**

Engineering Firm's Name: **D'Andrea Surveying & Engineering, P.C.**

Engineer's Name: **Leonard C. D'Andrea**

Test Pit or Soil Boring #: 4 **Ground Elevation: 32.8**

Elevation	Soil Texture (Percent Sand, Silt and Clay)	Depth Range in Inches
32.8		0
	Topsoil	
32.2		7
	Clean Fill; Brown Silty Sand	
30.8		24
	Light Brown Natural Loam	
29.7		37
	Tan Silty Fine Soil	
26.8		72

Elevation		Depth in Inches
28.1	Mottling (Seasonally High Groundwater)	57
N/A	Groundwater	N/A
N/A	Ledge	N/A

* All test pits or soil borings shall be excavated to an elevation four feet below the proposed bottom elevation of the infiltration system.

Saturated Hydraulic Conductivity Test Location #:

Ground Elevation: _____

Top Elevation of Proposed Infiltration System: _____

Bottom Elevation of Proposed Infiltration System: _____

Elevation of Test*: _____

Test Method (check one of the following acceptable methods**):

_____ Borehole infiltration test (NHDES, 2008)

_____ Guelph permeameter - ASTM D5126-90 Method

_____ Falling head permeameter – ASTM D5126-90 Method

_____ Double ring permeameter or infiltrometer - ASTM D3385-03, D5093-02, D5126-90 Methods

_____ Amoozemeter or Amoozegar (constant head) permeameter – Amoozegar 1992

Attach field data forms for the respective infiltration test method.

Calculated Saturated Hydraulic Conductivity Rate: _____

**A percolation test, performed in accordance with the guidelines of the Connecticut State Health Code or otherwise, is not an acceptable test for saturated hydraulic conductivity. Percolation tests overestimate the saturated hydraulic conductivity rate.

* All field infiltration tests must be conducted in the actual location and soil layer where stormwater infiltration is proposed.

TEST CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED IN THIS REPORT IS TRUE AND CORRECT.

Matthew M. Kivijarv
Name of Test Conductor


Signature of Test Conductor

5-2-2023
Date

A Report on the Historical Appropriateness of the Proposal to Preserve 18 Taylor Street in Stamford, Connecticut as Part of a Contextual Infill Development Project – 6/30/2023

By Travis Brock Kennedy, MS in Historic Preservation

Fig. 1: Current photo of 18 Taylor Street in Stamford Connecticut

This report reviews and comments on Taylor Street LLC's (the "Applicant") proposal to preserve 18 Taylor Street in Stamford, Connecticut as part of a broader program of redevelopment.

As noted in the U.S. Secretary of the Interior's Guidelines for historic preservation, "Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property," and this project will do precisely that.

In terms of the historic building on the site, the objective of this project is to restore the exterior, preserving virtually all of the extant historic fabric, with a focus on maintaining and repairing historic materials and features. Any interventions into the historic fabric of the building will be done only if and as needed, and they will be limited exclusively to areas where the building's fabric deteriorated under previous owners. Any such interventions will be done with historically-sensitive materials that will maintain the visual effect of the building while honoring contemporary sustainability and other environmental concerns. To this end, the Applicant proposes to use HardiePlank siding for any replacement to the building's timber clapboard, Azek for any replacement to the building's trim, and Trex decking for any replacement to the building's two deteriorated porch floors.

The Applicant is committed to undertaking this project with the greatest respect for industry standards for historic preservation, including the Secretary of the Interior's guidelines.

First, the property will be used as it was historically. The existing historic building at 18 Taylor Street was constructed in 1890. The building was designed as residential housing, likely for working families in the industrial corridor along the nearby Rippowam River. The applicant's plan to preserve the historic building as residential housing, keeping the present tenants in residence, will maintain its historic usage.

Further, the Applicant's design will retain and preserve the historic character of the property. As a historic building, 18 Taylor Street is remarkably intact, retaining many of its original features, including timber clapboard (Fig. 1), two over two sash windows and other original windows above the front doors and at basement level (Fig. 1, Fig. 2, and Fig. 3), hand-turned veranda posts (Fig. 4), beadboard (Fig. 5), and other decorative features, such as the hand-made trelliswork under the building's porches (Fig. 6). The historic structure is a quintessential example of American Queen Anne or "Stick Style" architecture, featuring the distinctive massing, proportions, and restrained ornamentation typical of houses from this period. All such distinctive materials, features, finishes, construction techniques, and examples of craftsmanship that characterize the building as an exemplar of domestic architecture from this movement will be retained and carefully preserved.

Fig. 2 (left) and Fig. 3 (right) original, in situ windows above front doors and at basement level

Fig. 4 (left) and Fig. 5 (right) in situ veranda posts and beadboard on the porches of 18 Taylor Street. Period-appropriate colors and finishes will be used in the restoration of the building's original porches.

Fig. 6 Intact original decorative features such as this trelliswork under the front porches will be preserved and restored.

The first component of the Applicant's project is to restore and preserve the historic building on site at 18 Taylor Street. The second component is to build infill development behind the historic building, creating a new residential enclave within the community. The architect and the Applicant strove to create a design that harmonizes with 18 Taylor Street's historic context while also honoring the industry standard to clearly differentiate between historic architecture and new construction.

We did this by designing the infill development in the language of the Craftsman architectural style. In the history of American architecture, the styles progress from Stick Style (beginning around 1870), to Queen Anne (which reached the apex of its influence in the last decade of the 19th century), to Craftsman, which became ascendant in the first decade of the twentieth century. Craftsman-style architecture retains many of the elements of the preceding styles,

such as its massing, the use of clapboard siding, A-frame roof lines, and the punctuation of those roof lines with gables to create visual interest, all while gesturing towards what we today would recognize as a more modern architectural mode.

Likewise, the form of the Applicant's design for infill residential development is recognizably modern, but the form has been shaped and expressed in the language of the historic continuum described above. The massing of the applicant's design was calculated to correspond to that of the historic building. Prominent A-frame rooflines, punctuated with gables, respond to the precedent set by the 1890 building, and the use of clapboard siding harmonizes with the façades of all of the historic buildings in the surrounding area. To further the effect of continuity, the Applicant proposes to paint the historic house using Benjamin Moore's historical colors collection, specifically HC-155 (Newburyport Blue) and HC-111 (Nantucket Grey), which correspond to the original color scheme evident in the historic fabric of the building. The proposed infill development will be painted with the same colors, amplifying the sense of continuity between the historic building and new construction. Rather than juxtapose a stark, modern building with the historic building on the site, we have striven to create a design that is both sympathetic and contextual but at the same time not an inauthentic "faux historical" addition.

Just as the proposed infill development was designed to create a contextual residential enclave within the site at 18 Taylor Street, it will likewise create such an effect at the level of the broader street, with its surrounding buildings, as its own residential enclave. When first built in 1890, the house at 18 Taylor Street would have enjoyed a commanding prospect, looking over the town and down the hillside toward Long Island Sound beyond. As the 20th century progressed, and especially in the era of Urban Renewal, this view was negatively impacted by the development of highways and the construction of large industrial and corporate parks. At present, the historic character of Taylor Street is reduced by the massive UBS (now WWE) and Charter Communications buildings looming above the A-frame roofline of the historic homes in the immediate vicinity. The proposed infill development will help screen this unhistorical visual intrusion into the traditional character and quality of the street, restoring the quieter, more residential appearance that once existed here.

In conclusion, 18 Taylor Street is an important physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly preserved for future research and appreciation. This project will preserve 18 Taylor Street as an important and irreplaceable part of Stamford's cultural heritage while also preserving and creating much-needed affordable housing. It is a win for the character and quality of the West Side community and it is a win for historic preservation and heritage conservation in Stamford.

THE HISTORIC NEIGHBORHOOD PRESERVATION PROGRAM, INC.

78 Webb's Hill Rd. Stamford, Ct. 06903 (203) 322-6671

Renee Kahn, Director

TO: Norman Cole, Planning Department

FROM: Renee Kahn

DATE: May 7, 1991

RE: Application for Special Exception Uses for Historic Buildings
Section 7.3.
Claybourne Property: 16-18 Taylor Street

I would like to most heartily endorse the above application. It is in keeping with the Zoning Board's expressed intent to provide incentives to encourage the preservation of Stamford's historic housing stock. Mrs. Claybourne's project not only preserves and restores the building, but enables additional, contextual housing units to be added to the rear and along Mission Street.

#16-18 Taylor Street was one of a row of modest but attractive dwelling units built in the 1870s and '80s to house the large numbers of immigrant Irish moving into Stamford at that time. Originally designed for two families, the double porches added a note of architectural interest. The present plan calls for the removal of non-historic siding and a second-story porch, and the return of the building to its original, late 19th century appearance.

Just as a note of additional interest, Taylor Street was named for Michael Taylor who originally owned most of the land in the area. A hundred years ago, the street was little more than an unmarked dirt path, but by 1889 almost twenty families, mostly working-class Irish, had homes on the street. Most of the inhabitants worked as servants to the large mansions along Fairfield Avenue, or on the railroad, or in local factories. Owning a home on Taylor Street was undoubtedly the first move up the social ladder in America.

Renee Kahn

The Stamford Historical Society Inc.

1508 HIGH RIDGE ROAD
STAMFORD, CONNECTICUT 06903
(203) 329-1183/322-1565

RUSSELL BASTEDO
EXECUTIVE DIRECTOR

May 21, 1991

Mr. Norman Cole
City of Stamford Planning Department
Government Center
888 Washington Boulevard
Stamford, CT 06904-2152

Re: Claybourne Property, 16-18 Taylor Street;
Application for Special Exception Uses for Historic Buildings, Section 7.3.

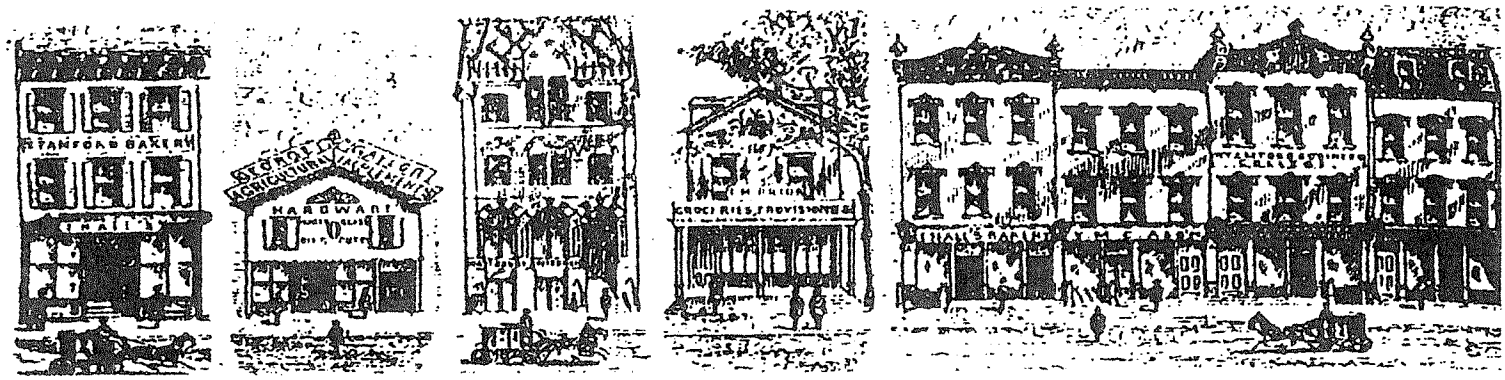
Dear Mr. Cole:

This Society endorses this application. The restoration of the late 19th century appearance of this structure should encourage nearby homeowners to think about their own properties' historic appearance.

Sincerely,

Russell Bastedo

Russell Bastedo



THE HISTORIC NEIGHBORHOOD PRESERVATION PROGRAM, INC.

78 Webb's Hill Road, Stamford, CT 06903 Renee Kahn, Director

Rkahnhnpp@optonline.net ph/f 203 322-6671

TO: Norman Cole
Land Use Boards, City of Stamford

FROM: Renee Kahn

DATE: June 6, 2008

re: Application for Special Exception Uses for Historic Buildings: Section 7.3
Taylor-Mission LLC, 18 Taylor Street

I would like to heartily endorse the above application. It is in keeping with the Zoning Board's expressed intent to provide incentives to encourage the preservation of Stamford's historic housing stock. Tom Mills, current owner of the former Claybourne property is not only preserving the existing building, but enabling additional, contextual housing units to be added to the rear and along Mission Street.

18 Taylor Street is a double house, one of several modest but attractive dwellings built at the end of the 19th century to house the large number of immigrant Irish families seeking to "move up in the world" by buying a two-family house in the area Taylor Street was named for Michael Taylor who originally owned most of the land In the 1870s, the street was little more than an unmarked dirt path, but by 1889 almost twenty families, mostly working class Irish had homes there. Most of the inhabitants worked as servants in the large mansions along Fairfield Avenue or on the railroad or in nearby factories. Owning a home on Taylor Street was a move up the social ladder in America

Current plans call for restoring the original double porches and other architectural features. I plan to work with Mr. Mills to ensure that new construction is in keeping with the historic character of the Taylor Street property.

Respectfully submitted,

Renee Kahn

SCHEDULE A – LEGAL DESCRIPTION

All that certain piece or parcel of land with the improvements thereon, situated in the City of Stamford, County of Fairfield and State of Connecticut, bounded and described as follows:

NORTHERLY: By land now or formerly of John T. Downey and Jane Downey;

EASTERLY: By land now or formerly of Philip H. Brown;

SOUTHERLY: By land nor or formerly of Catherine Howell;

WESTERLY: By Taylor Street.

SAID premises are known as 12 Taylor Street, Stamford, Connecticut.

Book 12916/Page 148

18 TAYLOR STREET
STAMFORD CT
BUILDING D

NEW CONSTRUCTION

JIA HUA
ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING D
NEW
CONSTRUCTION

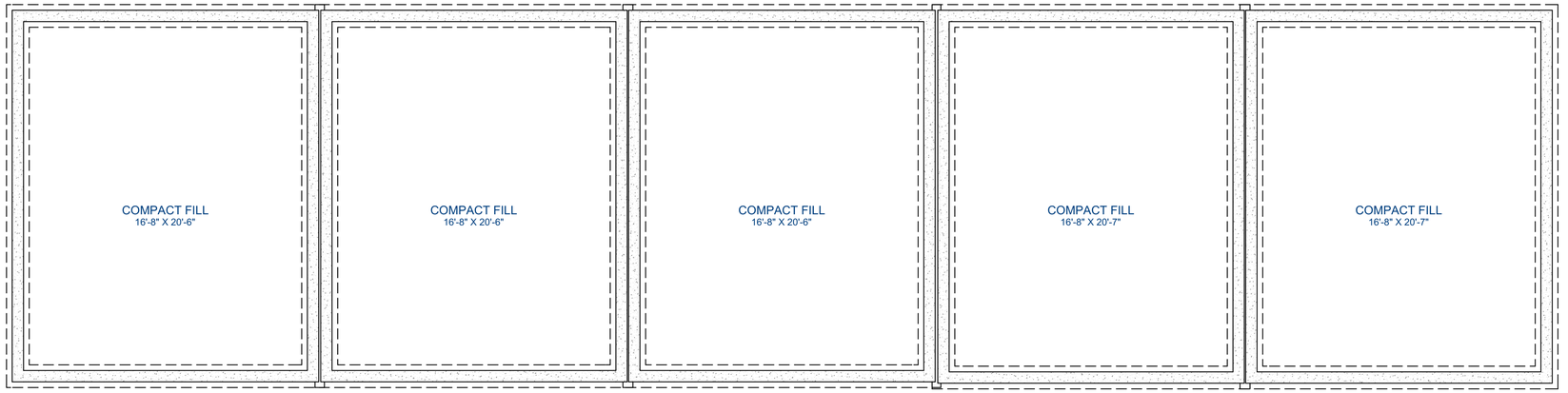
Project Overview

DRAWINGS PROVIDED BY:

DATE:
7/28/2023

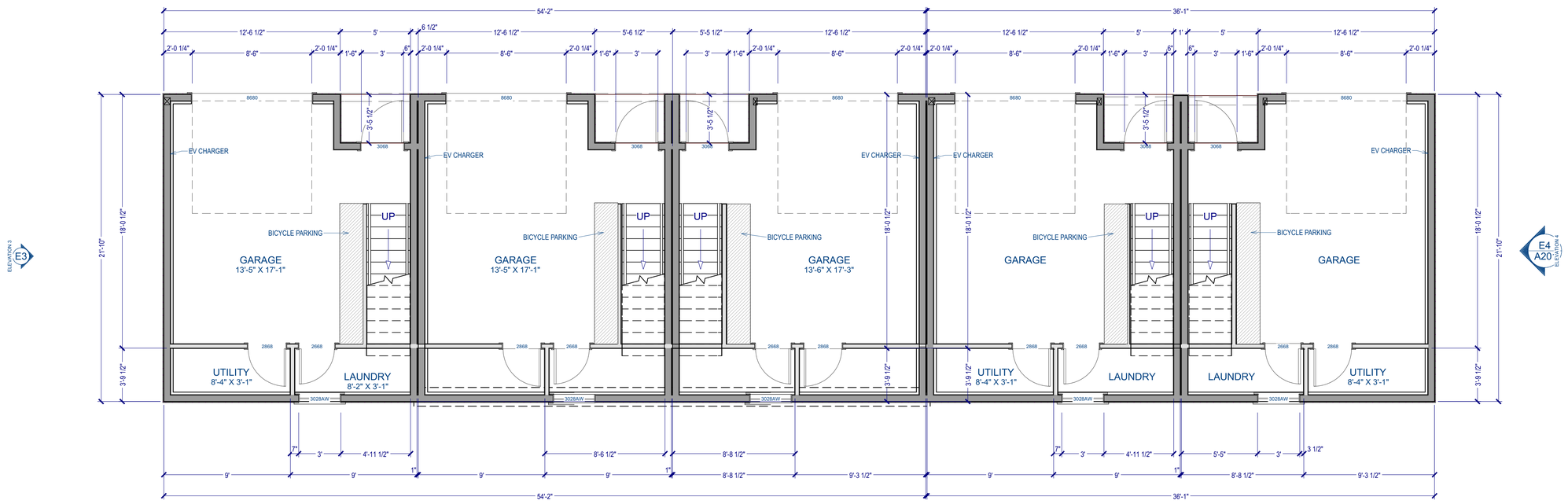
SCALE:

SHEET:
A000



BASEMENT FLOOR PLAN

E2
A200



GARAGE FLOOR PLAN

JIA HUA ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING D
NEW
CONSTRUCTION

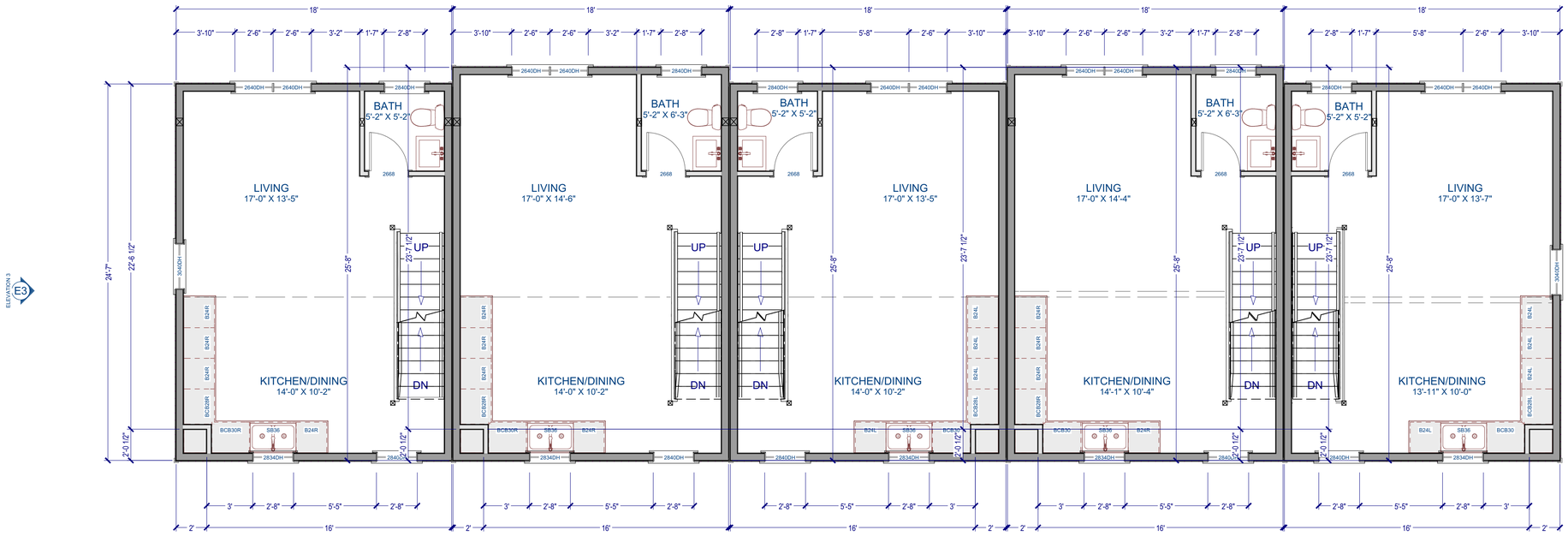
FLOOR PLANS

DRAWINGS PROVIDED BY:

DATE:
7/28/2023

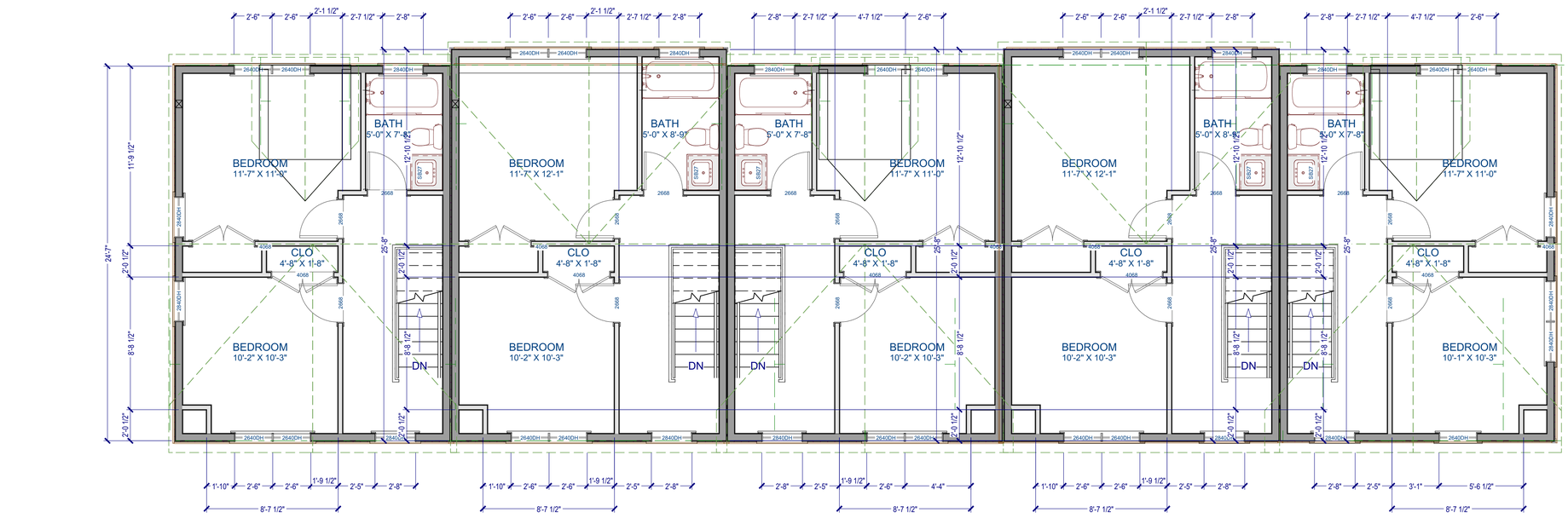
SCALE:
1/4"=1'-0"

SHEET:
A100



E1
A200
ELEVATION 1

FIRST FLOOR PLAN



SECOND FLOOR PLAN

JIA HUA ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING D
NEW CONSTRUCTION

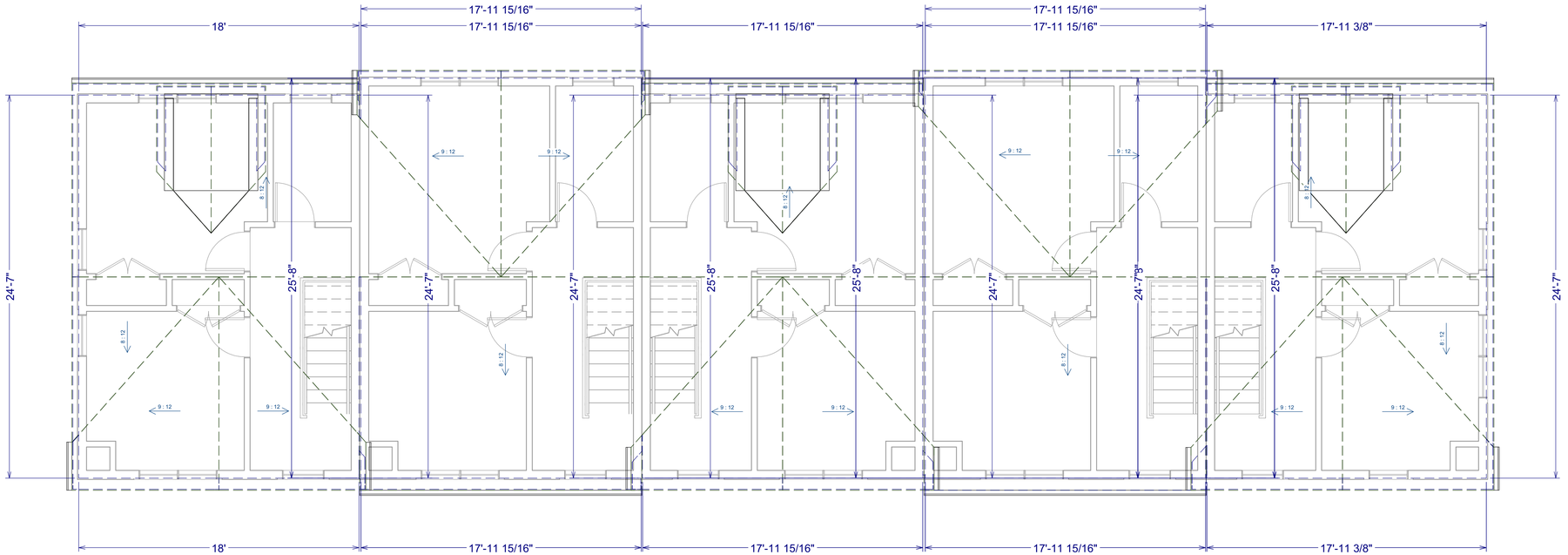
FLOOR PLANS

DRAWINGS PROVIDED BY:

DATE:
7/28/2023

SCALE:
1/4"=1'-0"

SHEET:
A101



ROOF PLAN

JIA HUA
ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING D
NEW
CONSTRUCTION

FLOOR PLANS

DRAWINGS PROVIDED BY:

DATE:
7/28/2023

SCALE:
1/4"=1'-0"

SHEET:
A102

FRONT ELEVATION

BACK ELEVATION

JIA HUA
ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING D
NEW
CONSTRUCTION

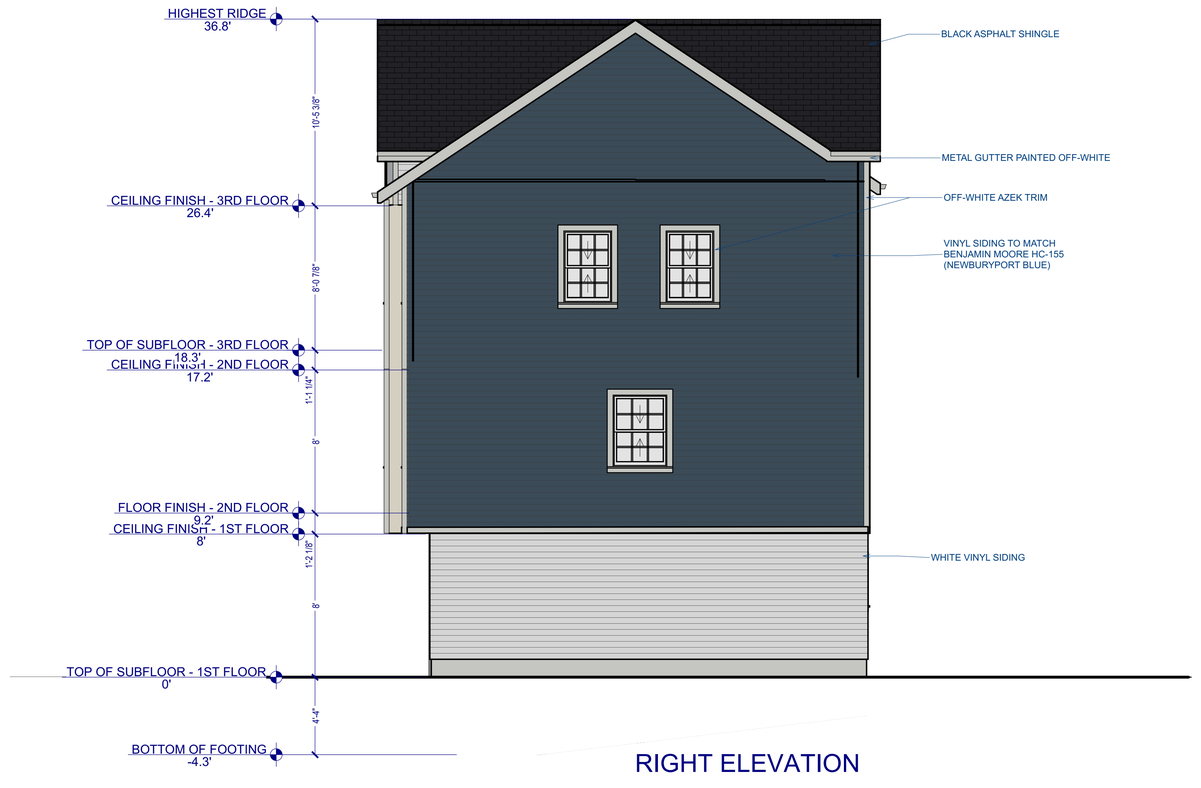
ELEVATIONS

DRAWINGS PROVIDED BY:

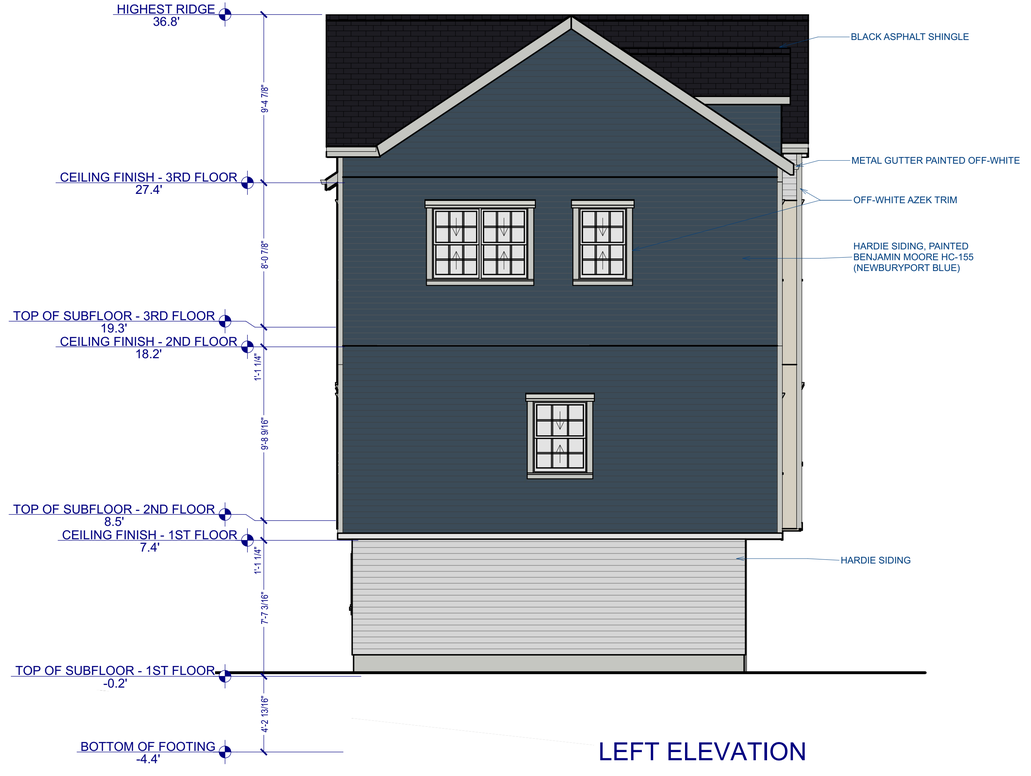
DATE:
7/28/2023

SCALE:
1/4"=1'-0"

SHEET:
A200



RIGHT ELEVATION



LEFT ELEVATION

JIA HUA ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING D
NEW
CONSTRUCTION

ELEVATIONS

DRAWINGS PROVIDED BY:

DATE:
7/28/2023

SCALE:
1/4"=1'-0"

SHEET:
A201

JIA HUA ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING D
NEW
CONSTRUCTION

RENDERING

DRAWINGS PROVIDED BY:

DATE:
7/28/2023

SCALE:
1/4"=1'-0"

SHEET:
A300

JIA HUA ARCHITECT

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

TAYLOR STREET
BUILDING D
NEW
CONSTRUCTION

RENDERING

DRAWINGS PROVIDED BY:

DATE:
7/28/2023

SCALE:
1/4"=1'-0"

SHEET:
A301

SCHEDULE A – LEGAL DESCRIPTION

ALL THAT CERTAIN piece, parcel or tract of land, with the buildings thereon, situated in the City of Stamford, County of Fairfield and State of Connecticut, shown and designated on that certain map entitled, "MAP SHOWING A CONSOLIDATION OF PROPERTIES PREPARED FOR HATTIE P. CLAYBURN STAMFORD, CONNECTICUT" on file in the Office of the Town Clerk of the City of Stamford as shown on Map No. 12365, reference thereto made for a more particular description.

Property is known as 18 Taylor Street, Stamford, Connecticut

Book 12865/Page 333

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STATEMENT OF FINDINGS UNDER SECTIONS 19.C.2 & 7.3.C.1

12 & 18 Taylor Street

G&T Taylor Street LLC (the "Applicant") respectfully requests that the Stamford Zoning Board grant its requested Special Permit pursuant to Section 7.3 of the Zoning Regulations (Historic Preservation), and make the following required findings under that Section as well as Section 19.C.2 of the Zoning Regulations governing Special Permits:

"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:

Section 19.C.2

1. The location and nature of the proposed site at 12-18 Taylor Street, as a through-lot in the R-MF zoning district between Taylor Street and Mission Street, proximate to the main road of Richmond Hill Avenue and nearby to other medium-density multifamily developments, make the site suitable for the medium-density multifamily housing units proposed by the Applicant, which are only two more units than permitted as of right in the zone (pursuant to the historic preservation Special Permit). The size, scale, and arrangement of the proposed dwelling units on the lot, as well as the proposed drives, parking areas, and green space, are appropriate, particularly given the lot's pre-existing lawful nonconforming setbacks and the preservation of a pre-existing historic structure.

2. The nature and intensity of the proposed use is appropriate in relation to the site and the surrounding area. The Applicant proposes to maintain the site as residential housing, and to create and deed-restrict two units of below-market-rate housing to preserve

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it as affordable for the life of the building. The Applicant proposes to restore and preserve in perpetuity a valuable historic building that would not otherwise be preserved. The density of the proposed development is comparable to what could be built as-of-right in the zone and is less dense than what could have been proposed in connection with a Special Permit under Section 7.3 and/or Section 7.4.

3. The traffic likely to be generated by the proposed development is substantially the same as would be generated by an as-of-right housing development on the site. The existing roadway at Taylor Street and nearby main road of Richmond Hill Avenue are more than adequate to accommodate the likely traffic patterns. The proposed parking is also more than adequate, as Section 7.3 historic preservation bonuses allow a parking ratio of as little as one space per unit in this zone, and the proposed development has 21.5 spaces for 18 units. The City of Stamford's Sustainability Scorecard (Element MO8) encourages providing the minimum number of surface parking spaces necessary, in order to minimize impervious surface and reduce vehicle miles traveled.

4. The nature of the surrounding area, which is a medium-density multifamily residential neighborhood interspersed with historic houses, will in no way be impaired by the proposed project. Rather, preserving the historic structure at 18 Taylor Street and its significant architectural style will enhance the neighborhood and protect the area's cultural heritage. The enhancement of the site with historically-sensitive and complementary infill housing will likewise further the area's valuable characteristics as a historic residential neighborhood, as will the addition of new and attractive buildings, an enhanced streetscape with new landscaping, a modern drainage system, visual screening of the nearby high-rise

commercial buildings, and sustainability features such as bike racks and electric vehicle charging stations.

5. The City of Stamford's Master Plan and the Zoning Regulations strongly encourage the preservation and redevelopment of historic structures:[1]

- "As redevelopment occurs at an increasingly rapid pace, it is now more important than ever for Stamford to maintain the character of historic districts and structures and ensure that new development is in keeping with the City's historic character." (159)

- "Because redevelopment in all areas of Stamford is occurring at an increasingly rapid rate, the protection of the City's valuable architectural resources is critical. The City must embark upon a concerted effort to preserve the historic architectural and landscape heritage that remains. This can be achieved by the implementation of policies that preserve the character and viability of historic resources to ensure that new development respects the established traditions of scale, massing, setbacks and pedestrian-friendly streetscapes and plazas." (159-60)

- "Several zoning incentives that promote the historic preservation of properties exist. Section 7.3…for example, provides a development density bonus for projects that will result in the appropriate restoration and preservation of buildings of historic significance in the community." (163)

The Master Plan also strongly supports the creation of infill housing on existing residential sites – as opposed to the demolition of existing housing and it replacements with new large-scale development – in order to better preserve the fabric of existing neighborhoods. (*See, e.g.*, 7.)

- "As Stamford continues to attract new market-rate multifamily housing, it will be important for the City to maintain its existing housing policies and balance new residential development with preservation of existing neighborhoods." (133)

- Policy Recommendation 6A.1: "Balance new development with preservation of existing residential communities…. As new development occurs, the City should

[1] This finding is substantially the same as the finding required under Section 7.3.C.1.a, that the "[p]roposed use and site plan are compatible with and implement the objectives and policies of Stamford's *Master Plan*." Therefore, the Applicant does not list a separate proposed finding below for that factor.

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encourage preservation of existing residential streets and the rehabilitation of structures." (*Id.*)

Section 7.3.C.1

b. The proposed use and site plan are superior to a plan conforming to the standard dimensional requirements and use standards of the underlying zoning district. The Applicant seeks to do a modest infill development on a through-lot, in a district where multifamily housing is currently allowed as of right and there are abundant multifamily developments nearby. The Applicant would be allowed 16 units on the subject parcel as of right, and only seeks to build an additional 2 units under a Section 7.3 historic density bonus. The Applicant currently rents out two of the existing units (at 12 Taylor) as workforce housing voluntarily, and seeks create two additional below-market-rate units (at 18 Taylor) and deed-restrict those two units as affordable for the life of the building, thus preserving valuable workforce housing in perpetuity. The Applicant has strived to design the proposed infill units in an architectural style that is complementary to the existing historic house. The new units will help to screen the high-rise skyline that currently predominates in the site's viewscape, and thus will help restore more of the residential neighborhood feel to this area. The proposed project will not in any way impair the future development of the surrounding area. To the contrary, it will improve and beautify the area.

c. The proposed use and site and architectural plans serve to rehabilitate, restore, and preserve the historic structure at 18 Taylor, in accordance with industry standards for preservation, including the Secretary of the Interior's guidelines. The distinctive Stick Style/Queen-Anne features of the house will be preserved, and where repairs are needed due to deterioration, they will be made with materials that, while durable, are historically sensitive and designed to maintain the building's visual aesthetic.

The loss of the historic building at 18 Taylor would be detrimental to the neighborhood and to Stamford as a whole, because a prime example of a valuable style of architecture and a piece of Stamford's industrial heritage would be irretrievably lost.

THE APPLICANT,
G&T TAYLOR STREET LLC

By: /s/ Leonard M. Braman

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Juris No.: 068550

LAND LIES IN "R-MF" ZONING DISTRICT
AREA = 24,478 S.F.

PARKING SUMMARY – REQUIRED

RESIDENTIAL PARKING:		
REQUIRED (HISTORIC): 1/UNIT	18 X 1.0	= 18.0
TOTAL REQUIRED		= 18

PARKING SUMMARY – PROVIDED

GARAGE	=	13 SPACES
UNCOVERED PARKING	=	6 SPACES
HANDICAPPED	=	1 SPACE
EV CHARGER PARKING	=	1 SPACE
EV RESERVED PARKING	=	0.5 SPACE
TOTAL PROVIDED	=	21.5 SPACES

GENERAL NOTES:

1. Refer to a map entitled "Topographic Survey of property at 12 Taylor Street in Stamford, Connecticut, prepared for Haimanot Bellete", as prepared by D'Andrea Surveying & Engineering, P.C., and dated October 6, 2020.
2. Refer to a map entitled "Existing Conditions Plan, Owner: Taylor Mission LLC, Site: 18 Taylor Street, Stamford, Connecticut", prepared by Edward J. Frattaroli, Inc. and revised to October 16, 2008.
3. The limits of wetlands are taken from a map entitled "Existing Conditions Plan, Owner: Taylor Mission LLC, Site: 18 Taylor Street, Stamford, Connecticut, prepared by Edward J. Frattaroli, Inc. and revised to October 16, 2008.
4. Contours and elevations depicted hereon are referenced to the North American Vertical Datum of 1988 (NAVD88).
5. Refer to architectural plans as prepared by Aivalis Architects and Developers for interior bicycle storage.
6. Refer to landscape plans as prepared by Environmental Land Solutions, LLC.

MISSRICH_20PA_DP_00_REV0.dwg

SYMBOL LEGEND:

--30--	EXISTING CONTOUR	H.P.	HIGH POINT
× 25.3	EXISTING SPOT ELEVATION	RD	ROOF DRAIN
30	PROPOSED CONTOUR	RS	RETENTION SYSTEM
× (25.3)	PROPOSED SPOT ELEVATION	EV–C	ELECTRIC VEHICLE CHARGER
	TREE TO REMAIN	EV–R	ELECTRIC VEHICLE RESERVED
	CONIFEROUS TREE		FIRE HYDRANT
	STONE WALL		UTILITY POLE
CB	CATCH BASIN		SIGN
C.O.	CLEAN OUT	CO	CLEAN OUT
JB	JUNCTION BOX	WG	WATER GATE
YD	YARD DRAIN	SSMH	SANITARY SEWER MANHOLE
DCB	DRIVEWAY CATCH BASIN	CB	CATCH BASIN
PVC	POLYVINYL CHLORIDE	TEST	TEST PIT
CPP	CORRUGATED PLASTIC PIPE	—G——G—	UNDERGROUND UTILITY SERVICE: W=WATER, G=GAS
TW	TOP OF WALL		
RCP	REINFORCED CONCRETE PIPE		
A.O.B.E.	AS ORDERED BY ENGINEER		
V.I.F.	VERIFY IN FIELD		

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION, INCLUDING PHYSICAL EVIDENCE, AND UTILITY COMPANY SKETCHES. DEPICTED UTILITIES ARE APPROXIMATE, AND ARE INCOMPLETE. 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," 1-800-922-4455.

REV.	DATE	DESCRIPTION
0	5-2-23	INITIAL SUBMISSION

LEONARD C. D'ANDREA CT. PE No. 14869

ENGINEER ______ DATE 5-2-23

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

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

PROJECT	RESIDENTIAL DEVELOPMENT
PREPARED FOR	G&T TAYLOR STREET LLC
LOCATION	12 & 18 TAYLOR STREET, STAMFORD, CONNECTICUT
1 OF 4	GRADING PLAN

20PA

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APPLICATION NARRATIVE - 12 & 18 Taylor Street

Introduction & Background

G&T Taylor Street LLC (the "Applicant") owns the properties located at 12 and 18 Taylor Street, Stamford in the R-MF Multiple Family Residence District (the "Properties"). The Applicant purchased the Properties in 2021. 18 Taylor Street is improved with a historic three-family house constructed in 1890 in the late-American "Stick Style" that retains many of its original distinctive historical features.[1] Accordingly, 18 Taylor has twice previously been recognized by the Zoning Board as having historical significance worthy of preservation: first in 1991 and again in 2008, when the Zoning Board granted historic preservation Special Exceptions under Section 7.3 of the Zoning Regulations for different projects at the site proposed by two separate prior owners.[2]

Neither of the two prior projects was ultimately constructed, however, due to the previous owners' changing plans for the site. Accordingly, 18 Taylor has not yet been the subject of a historic preservation easement, and no redevelopment of the Properties has taken place that includes preservation of 18 Taylor. The current Applicant would now like to finally finish what prior owners admirably started – a redevelopment of the Properties to infill them with much-needed housing while improving and beautifying both Properties, historically preserving 18 Taylor, and providing a historic preservation easement to safeguard it in perpetuity. To do so, the Applicant seeks a Special Exception under Section 7.3, inclusion of 18 Taylor on the Cultural Resources Inventory, and CAM approval.

[1] Adjoining 12 Taylor Street is improved with a recently-renovated two-family house.

[2] Enclosed in the current application materials are 1991 and 2008 letters from the well-known historic preservation architect Renee Kahn supporting the applications and setting forth her reasons, as well as a 1991 letter in support from the Stamford Historical Society.

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Inclusion on Cultural Resources Inventory

The first step toward seeking a Section 7.3 Special Exception is inclusion of 18 Taylor on the City's Cultural Resources Inventory ("CRI") pursuant to Section 7.3.B.2(c). That section provides that a Structure shall be listed on the CRI in accordance with the following requirements, among others: (1) that the application has been reviewed by Land Use Bureau staff based on review criteria for historic or architectural significance established by the Land Use Bureau in consultation with HPAC; and (2) that HPAC has recommended that the structure to be added to the CRI is historically or architecturally significant.

Here, 18 Taylor more than meets the criteria for inclusion in the CRI. The CRI application lists several alternative grounds for inclusion, two of which particularly apply here: (1) 18 Taylor embodies the distinctive characteristics of a type, period, or method of construction; and (2) it is associated with events that have made a significant contribution to the broad patterns of Stamford's history.

First, as can be seen in the accompanying photos and as set forth in the supporting letter from Qualified Historic Preservation Expert Travis Brock Kennedy, 18 Taylor embodies the distinctive characteristics of the late-American "Stick Style" or Queen Anne style, featuring the massing, proportions, and restrained ornamentation typical of houses from this period. Its features are remarkably well preserved, and include timber clapboard (Fig. 1), two-over-two sash windows and other original windows above the front doors and at basement level (Fig. 1, Fig. 2, and Fig. 3), hand-turned veranda posts (Fig. 4), beadboard (Fig. 5), and other decorative features, such as the hand-made trelliswork under the building's porches (Fig. 6). All such materials, features, finishes, construction techniques, and examples of craftsmanship characterize the building as an exemplar of domestic

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architecture from the "Stick Style"/Queen Anne movement. Listing 18 Taylor on the CRI will facilitate these distinctive historic features being preserved and not lost.

Second, 16-18 Taylor is associated with events that have made a significant contribution to the broad patterns of Stamford's history. As Ms. Kahn recognized in connection with the prior applications and Mr. Kennedy re-emphasizes here, the 1890 house at 18 Taylor is a prime example of the type of workforce housing associated with this formative period in Stamford's history, when immigrant communities swelled the ranks of the city's industrial workers. As Ms. Kahn puts it, "18 Taylor Street was one of a row of modest but attractive dwelling units built" in the late 19th century "to house the large numbers of immigrant Irish moving into Stamford at that time." She further notes that "Taylor Street was named for Michael Taylor who originally owned most of the land in the area. A hundred years ago, the street was little more than an unmarked dirt path, but by 1889 almost twenty families, mostly working-class Irish, had homes on the street…. Owning a home on Taylor Street was undoubtedly the first move up the social ladder in America." Preserving this part of Stamford's history will allow it to be studied by scholars and appreciated by the public. Listing 18 Taylor on the CRI will enable that preservation.

Special Exception Under Section 7.3

Under Section 7.3 of the Zoning Regulations (Historic Preservation), the Zoning Board "may modify by *Special Permit* use, bulk, height, *Light and Air*, setback, coverage, density and parking standards based on the standards listed in this Section." The criteria for obtaining a Special Exception under Section 7.3 are:

> a. Proposed use and site plan are compatible with and implement the objectives and policies of Stamford's *Master Plan*;

b. Proposed use and site plan are superior to a plan conforming to the standard dimensional requirements and use standards of the underlying zoning district and will not impair the future development of the surrounding area;

c. Proposed use and site and architectural plans serve to rehabilitate, restore, *Critically Reconstruct*, or preserve *Historic Structures* or *Sites*, and meet the *HPAC* guidelines for Historic Preservation (once they are recommended by *HPAC* and adopted by the Zoning Board), or the appropriate Standards and Guidelines of the Secretary of the Interior, as amended from time to time and published on the National Park Service website, as applied by *HPAC* and the Zoning Board; and

d. The loss of said *Historic Structure* or *Historic Site* would be detrimental to the neighborhood character, *Local Historic District* or the cultural and historical heritage and identity of the City of Stamford.

Here, the project more than meets these criteria.

First, under (d), as shown above, the loss of the historic building at 18 Taylor would be detrimental to the neighborhood and to Stamford as a whole, because a prime example of a valuable style of architecture and a piece of Stamford's industrial heritage would be irretrievably lost.

Second, under (c), the proposed use and site and architectural plans serve to rehabilitate, restore, and preserve the historic structure at 18 Taylor. As discussed in Mr. Kennedy's report, 18 Taylor will be preserved and restored in accordance with industry standards for preservation, including the Secretary of the Interior's guidelines. The distinctive Stick Style/Queen-Anne features of the house will be preserved intact, and where repairs are needed due to deterioration, they will be made with materials that, while durable, are historically sensitive and designed to maintain the building's visual aesthetic.

Third, under (b), the proposed use and site plan are superior to a plan conforming to the standard dimensional requirements and use standards of the underlying zoning district. The Applicant seeks to do a modest infill development on a through-lot between Taylor and Mission Streets, in the R-MF district where multifamily housing is currently allowed as of right and there are abundant multifamily developments nearby. The Applicant would be

allowed 16 units on the subject parcel as of right, and only seeks to build an additional 2 units under a Section 7.3 historic density bonus.[3] The Applicant currently rents out two of the existing units (at 12 Taylor) under the Section 8 Housing Choice Voucher Program voluntarily, and seeks to create two additional below-market-rate units at 18 Taylor in connection with the Project. The Applicant intends to deed-restrict these two units as affordable for the life of the building, thus preserving valuable workforce housing in perpetuity. As explained by Mr. Kennedy, the Applicant has strived to design the proposed infill units in an architectural style that is complementary to the existing historic house. The new units will help to screen the high-rise skyline that currently predominates in the site's viewscape, and thus will help restore more of the residential neighborhood feel to this area. Due to the characteristics of the properties and the preservation of the lawful nonconforming buildings (including historic 18 Taylor), the Applicant seeks modest Section 7.3 relief from the underlying zoning district's requirements for:

- Density: 18 units instead of 16 units maximum;
- Building coverage: 37% (9,054 sft.) instead of 35% (8,567 sft.) maximum;
- Sideyard setbacks: 11.18 ft. both sides instead of 18 ft. both sides minimum;[4]
- Parking and electric vehicle parking: 21.5 spaces, including 1 EV charger and 1 reserved space, instead of 30.75 spaces minimum, including 3 EV chargers and 3 reserved spaces.[5]

All of these requests for zoning relief are well within the parameters allowed to the Board

[3] The Applicant could have sought a density bonus of up to 3 units under Section 7.3. The Applicant also could have sought an even higher density bonus under Sections 9.N.6(h) and 7.4, for providing all required below-market-rate units on site. By limiting the units on site to 18, the Applicant hopes to strike the right balance between appropriate density, space for parking and landscaping, affordable housing, and historic preservation.

[4] The current sideyard setback of 12 Taylor Street is 1.4 feet, which is pre-existing lawfully nonconforming.

[5] The Applicant respectfully requests that the Zoning Board reduce the required parking to 19 spaces (higher than the one space per unit that may be permitted under a Section 7.3 bonus, which would be 18 spaces). In that case, Section 12.L of the Regulations would only require one EV charger and one EV reserved space, which are provided. A total of 21.5 parking spaces are provided on site – 13 garage, 8 uncovered, and 1 EV charger (which counts as .5 spaces).

for historic development bonuses under Section 7.3. In all other respects the proposed project conforms to the R-MF zone requirements for what the Applicant could do as of right.

The proposed project will not in any way impair the future development of the surrounding area. To the contrary, it will improve and beautify the area through new and attractive buildings, preservation of the historic 18 Taylor Street, an enhanced streetscape with new landscaping, a modern drainage system, visual screening of the nearby high-rise commercial buildings from the residential neighborhood, and sustainability features such as bike racks and electric vehicle charging stations.

Fourth, under (a), the project is entirely consistent with the Master Plan, and in fact embodies many of the planning techniques that the Master Plan specifically encourages. The Master Plan clearly supports historic preservation of Stamford's residential neighborhoods:

- "As redevelopment occurs at an increasingly rapid pace, it is now more important than ever for Stamford to maintain the character of historic districts and structures and ensure that new development is in keeping with the City's historic character." (159)

- "Because redevelopment in all areas of Stamford is occurring at an increasingly rapid rate, the protection of the City's valuable architectural resources is critical. The City must embark upon a concerted effort to preserve the historic architectural and landscape heritage that remains. This can be achieved by the implementation of policies that preserve the character and viability of historic resources to ensure that new development respects the established traditions of scale, massing, setbacks and pedestrian-friendly streetscapes and plazas." (159-60)

- "Several zoning incentives that promote the historic preservation of properties exist. Section 7.3…for example, provides a development density bonus for projects that will result in the appropriate restoration and preservation of buildings of historic significance in the community." (163)

Moreover, the Master Plan encourages the preservation of existing housing and the organic addition of new housing within existing neighborhoods, rather than demolition of current housing and replacement by new large-scale development. (*See, e.g.*, 7 (goals include

"neighborhood preservation, revitalization, and growth"; "Balance new development with preservation of existing residential communities"; "Preserve existing housing and create affordable housing"; "Preserve historic buildings and districts"). Therefore, the Applicant's proposed infill development (in a property within Master Plan Category #4, Residential – Medium Density Multifamily) is clearly supported by the Master Plan as well:

- "As Stamford continues to attract new market-rate multifamily housing, it will be important for the City to maintain its existing housing policies and balance new residential development with preservation of existing neighborhoods." (133)

- Policy Recommendation 6A.1: "Balance new development with preservation of existing residential communities…. As new development occurs, the City should encourage preservation of existing residential streets and the rehabilitation of structures." (*Id.*)

CAM Approval

Lastly, as the project lies just within the Coastal Area Management (CAM) boundary that extends roughly 1000 feet from the Coastal Jurisdiction Line, the Applicant also seeks CAM site plan approval. As set forth in the accompanying CAM application, the project is nowhere near the coast, and the only coastal resource nearby is freshwater wetlands[6]; the only coastal policy implicated is "general development." There will be no adverse effects on coastal resources from this residential project. To the contrary, the accompanying Drainage Report demonstrates that the Applicant will be greatly improving stormwater runoff and drainage from the site, which will benefit coastal resources.

Conclusion

For all of the above reasons, the Applicant respectfully asks that you include the historic three-family house at 18 Taylor Street on the Cultural Resources Inventory, grant

[6] No portion of the project is located in inland wetlands or the upland review area.

the requested Special Exception under Section 7.3 of the Zoning Regulations, and grant CAM site plan approval.

THE APPLICANT,
G&T TAYLOR STREET LLC

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LAND LIES IN "R–MF" ZONING DISTRICT
AREA = 24,478 S.F.

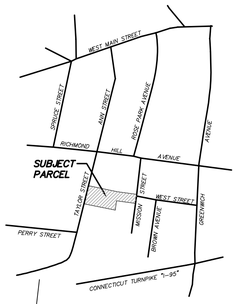
18 TAYLOR STREET, STAMFORD, CONNECTICUT
TEST PITS 1 THROUGH 3 CONDUCTED BY D'ANDREA SURVEYING & ENGINEERING, PC ON MARCH 26, 2016.
TEST PIT 4 CONDUCTED BY D'ANDREA SURVEYING & ENGINEERING, PC ON JULY 7, 2016.

Test Pit #1
0"–Topsoil
6"–Light Brown Silty Loam
36"–Light Brown Silty. Some Clay
97"–Mottling @ 40"
Water @ 90"
No ledge

Test Pit #2
0"–Topsoil
6"–Light Brown Silty Loam
24"–Light Brown Silty Mixed w/ Grey Clay
82"–Mottles @ 25"
Water @ 30"
No ledge

Test Pit #3
0"–Millings
30"–Light Brown Fine Loam
48"–Tan Fine w/ Some Clay
64"–Sandy Gravel
92"–Mottles @ 48"
Water @ 52"
No ledge

Test Pit #4
0"–Topsoil
7"–Clean Fill: Brown, Silty Sand
24"–Light Brown Natural Loam
37"–Tan Silty Fine Soil
72"–Possible Mottles @ 57"
No Water
No Ledge



LOCATION MAP
1"=400'±

BENCHMARK
"U" CUT CURB
ELEV= 35.91
DATUM: NAVD 88

UOS-A
181± sf

UOS-B
483± sf

UOS-C
557± sf

UOS-D
294± sf

UOS-E
875± sf

UOS-F
382± sf

TAYLOR STREET

BUILDING A
UNITS 1–3
DWELLING
No.18
EXISTING HISTORIC
BUILDING TO REMAIN

BUILDING B
UNITS 4–5
EXISTING BUILDING
TO REMAIN
DWELLING
No. 12

BUILDING C
UNITS 6–9
PROPOSED UNIT 6 FF=40.2±
PROPOSED UNIT 7 FF=39.2±
PROPOSED UNIT 8 FF=38.3±
PROPOSED UNIT 9 FF=37.4±

BUILDING D
UNITS 10–14
PROPOSED UNIT 14 FF=36.3±
PROPOSED UNIT 13 FF=36.5±
PROPOSED UNIT 12 FF=36.6±
PROPOSED UNIT 11 FF=36.4±
PROPOSED UNIT 10 FF=36.0±

BUILDING E
UNITS 15–18
PROPOSED UNIT 18 FF=40.6±
PROPOSED UNIT 17 FF=39.4±
PROPOSED UNIT 16 FF=38.1±
PROPOSED UNIT 15 FF=37.6±

CONSTRUCT RETENTION SYSTEM #1
INSTALL (24) R–330XLHD UNITS
TOP OF STONE EL=29.9
TOP OF UNITS EL=29.4
INV EL=26.9 (6" PVC)
BOTT. OF UNITS EL=26.9
BOTT. OF STONE EL=26.4

CONSTRUCT JB #2
RIM EL=31.5±
INV EL=26.9 (4" PVC–ROOF LEADERS)
INV EL=26.9 (6" PVC–RETENTION SYSTEM)
SUMP EL=24.9

N/F RICKY CHEUNG LOT No. 5

N/F TERRY B. ADAMS LOT No. 6

EV CHARGING STATION AND SIGN

PROPOSED A/C UNITS (TYP.)

PROVIDE REFUSE AREA ON CONCRETE PAD SCREENED WITH VINYL FENCE AND DOUBLE GATE

N/F FRITZ MARC MADELINE MARC MAP No. 10989 S.L.R.

CONSTRUCT PERMEABLE DRIVEWAY (A=2073 SF)
TOP OF ASPHALT EL=27.0
BOTTOM OF ASPHALT EL=26.6
TOP OF No.57 STONE EL=26.6
BOTT. OF No.57 STONE EL=26.2
TOP OF No.2 STONE EL=26.2
INV EL=25.7 (6" PPVC–SET LEVEL)
BOTT. OF No.2 STONE EL=24.6

CONSTRUCT YD #1
GRATE EL=27.6±
INV EL=26.1 (6" PVC)
SUMP EL=24.1

INSTALL 6" PERFORATED PVC COLLECTION PIPE
INV EL=25.7 (6" PERF. PVC–SET LEVEL)

INSTALL 78± LF
6" PVC @ 3% MIN.

PROPOSED "HANDICAPPED PARKING" SIGN

INV=25.1±

N/F JUAN ENCARNACION

CONSTRUCT DW–CB #1
GRATE EL=26.9±
INV EL=25.7 (6" PVC)
SUMP EL=23.7

CONSTRUCT JB #3
RIM EL=27.3±
INV EL=23.2 (4" PVC–ROOF LEADERS)
INV EL=23.2 (6" PVC–RETENTION SYSTEM)
SUMP EL=21.2

CONSTRUCT RETENTION SYSTEM #2
INSTALL 11 R–330XLHD UNITS
TOP OF STONE EL=26.2
TOP OF UNITS EL=25.7
INV EL=25.0 (6" PVC)
BOTT. OF UNITS EL=23.2
BOTT. OF STONE EL=22.7

CONCRETE RETAINING WALL DESIGNED BY OTHERS

CONSTRUCT DW–CB #2
GRATE EL=26.5±
INV EL=25.0 (6" PVC–W)
SUMP EL=23.0

CONSTRUCT DW–CB #3
GRATE EL=26.8±
INV EL=25.0 (6" PVC–W)
SUMP EL=23.0

INSTALL 69± LF
6" PVC @ 3% MIN

INV=26.9±

CONSTRUCT JB #1
RIM EL=31.5±
INV EL=26.9 (4" PVC–ROOF LEADERS)
INV EL=26.9 (6" PVC–RETENTION SYSTEM)
SUMP EL=24.9

INSTALL DOWNSPOUT OVERFLOW WITH SPLASH PAD (SEE DETAIL)

PORTION OF EXISTING DRIVEWAY TO BE REMOVED AND LANDSCAPED

PROPOSED CLASS B BICYCLE PARKING (4 BIKES)

N/F OSCAR W. HOPP WILLIAM O. HOPP

CONSTRUCT JB #4
RIM EL=27.2±
INV EL=25.7 (6" PERF. PVC–N)
INV EL=25.5 (6" PVC–W)
INV EL=24.3 (6" PVC–E)
INV EL=24.3 (8" PVC–S)
SUMP EL=21.3

INSTALL 25± LF
8" PVC @ 2.5% MIN.

CONSTRUCT 20' X 2' LEVEL SPREADER WITH (3) POP–UP EMITTERS TO GRADE
TOP OF STONE EL=25.7±
INV EL=23.7 (6" PPVC)
SUMP EL=23.2

INSTALL DOWNSPOUT OVERFLOW WITH SPLASH PAD (SEE DETAIL)

APPROXIMATE LOCATION OF EXISTING POLE

SAWCUT PAVEMENT AND PATCH AS REQUIRED PER CITY OF STAMFORD STANDARDS AND SPECIFICATIONS

MISSION STREET

WEST STREET

GAS METERS

A/C UNIT (TO REMAIN)

A/C UNIT (TO BE RELOCATED)

ASPHALT DRIVE (TO REMAIN)

CHAIN LINK FENCE

WOOD FENCE

CONCRETE RETAINING WALL

CONCRETE WALK

ASPHALT

PAVED DRIVEWAY PARKING AREA

COVERED PORCH

WOOD DECK

DWELLING No.22

DWELLING No.24/25

FLAG POLE

14" TREE

20" TREE

HC–1 VAN

ONE–WAY

TWO–WAY

167.67

107.33

107.35

60.00

50.00

Required Usable Open Space (UOS)
150 sf / Dwelling Unit x 18 units
2,700 sf UOS required

Proposed Usable Open Space (UOS)
UOS-A: 181 sf
UOS-B: 483 sf
UOS-C: 557 sf
UOS-D: 294 sf
UOS-E: 875 sf
UOS-F: 382 sf
Total UOS Provided: 2,772 sf

1 INCH = 10 FEET
SCALE
10 0 10
IN FEET

STAMFORD DRAINAGE MAINTENANCE REQUIREMENTS AND SCHEDULE:

NOTE: THE FOLLOWING IS A BEST PRACTICE MAINTENANCE SCHEDULE FOR THE STORMWATER MANAGEMENT STRUCTURES DESIGNED HERIN ON THIS PLAN SET FOR THE OWNERS OF THE SUBJECT PARCEL TO FOLLOW. IT IS NOT INTENDED TO DESCRIBE OR SUPERSEDE THE MAINTENANCE AGREEMENT COVENANT OF THE SUBJECT PARCEL, AS REQUIRED BY THE CITY OF STAMFORD UPON COMPLETION OF WORK AND PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. REFER TO THE CITY OF STAMFORD DRAINAGE MAINTENANCE AGREEMENT COVENANT REGARDING LONG–TERM MAINTENANCE REQUIREMENTS, CITY APPROVAL, CITY RIGHTS TO INSPECTION, AND PENALTY AND LEGAL ACTION FOR FAILURE OF COMPLIANCE TO SAID AGREEMENT COVENANT.

1. OWNER shall clean the drainage facilities or cause such facilities to be cleaned by periodic removal of accumulated sediment and debris in a good and workman–like manner, at least two (2) times during every twelve (12) month period, which times shall be in the period between April and June and between October and December and more often as the City may determine to be necessary.

2. OWNER shall sweep, or cause to be swept, garage facilities, driveways and roadway surfaces located on the Property at least once per calendar quarter.

3. OWNER shall utilize only sand or calcium chloride in connection with the de–icing of areas within the Property meaning and intending that road salt (Sodium Chloride) shall not be used for said purpose.

4. OWNER shall repair or replace any defects or defective drainage facilities so as to maintain the drainage facilities, at all times, in a fully functional capacity.

5. OWNER shall file as–built drainage plans with the EPB immediately upon the completion of work. Said plans shall be prepared by a professional engineer/surveyor registered in the State of Connecticut.

PHOTO RECORD
(CONTRACTOR TAKE NOTICE)

THE SITE CONTRACTOR SHALL BE RESPONSIBLE TO TAKE SITE PICTURES OF ALL THE FOLLOWING MILESTONES AND TO NOTIFY THE PROJECT ENGINEER OF EACH MILESTONE BEING REACHED. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER WITH A DIGITAL LIBRARY OF THE PHOTOGRAPHY AS THE PROJECT PROGRESSES WITH A COMPLETE LIBRARY AT THE END OF THE SITE WORK PHASE.

	PROJECT MILESTONES
1	E & S Controls at start of construction
2	Protection and/or installation of each non–structural LID BMP
3	Soils verification for each detention/retention/structural LID BMP
4	Amended soils verification for each BMP
5	Each detention/retention/structural LID BMP during construction
6	Each detention/retention/structural LID BMP prior to backfilling/completion
7	Each detention/retention/structural LID BMP at completion
8	Final site inspection throughout site

REV.	DATE	DESCRIPTION
0	5–2–23	INITIAL SUBMISSION

LEONARD C. D'ANDREA CT. PE No. 14869
5–2–23
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.

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

PROJECT	RESIDENTIAL DEVELOPMENT
PREPARED FOR	G&T TAYLOR STREET LLC
LOCATION	12 & 18 TAYLOR STREET, STAMFORD, CONNECTICUT
2 OF 4	UTILITY PLAN

MISSION_20PA_UP_02_REV0.dwg
20PA

LAND LIES IN "R-MF" ZONING DISTRICT
AREA = 24,478 S.F.

TAYLOR STREET

BUILDING B
UNITS 4–5
EXISTING BUILDING TO REMAIN
DWELLING No. 12

BUILDING A
UNITS 1–3
DWELLING No.18
EXISTING HISTORIC BUILDING TO REMAIN

BUILDING C
UNITS 6–9
PROPOSED UNIT 6 FF=40.2±
PROPOSED UNIT 7 FF=39.2±
PROPOSED UNIT 8 FF=38.3±
PROPOSED UNIT 9 FF=37.4±

BUILDING E
UNITS 15–18
PROPOSED UNIT 18 FF=40.6±
PROPOSED UNIT 17 FF=39.4±
PROPOSED UNIT 16 FF=38.1±
PROPOSED UNIT 15 FF=37.6±

BUILDING D
UNITS 10–14
PROPOSED UNIT 14 FF=36.3±
PROPOSED UNIT 13 FF=36.5±
PROPOSED UNIT 12 FF=36.6±
PROPOSED UNIT 11 FF=36.4±
PROPOSED UNIT 10 FF=36.0±

N/F RICKY CHEUNG LOT No. 5
N/F TERRY B. ADAMS LOT No. 6
N/F FRITZ MARC MADELINE MARC MAP No. 10989 S.L.R.
N/F JUAN ENCARNACION
N/F OSCAR W HOPP

A/C UNIT (TO REMAIN)
A/C UNIT (TO BE RELOCATED)
EV CHARGING STATION AND SIGN
PROPOSED A/C UNITS (TYP.)
PROVIDE REFUSE AREA ON CONCRETE PAD SCREENED WITH VINYL FENCE AND DOUBLE GATE
PROPOSED "HANDICAPPED PARKING" SIGN
FIRETRUCK (TYPICAL)
CONCRETE RETAINING WALL DESIGNED BY OTHERS
PROPOSED "ONE-WAY" AND "DO NOT ENTER" SIGNS
GAS METERS
HC-1 VAN
PORTION OF EXISTING DRIVEWAY TO BE REMOVED AND LANDSCAPED
ASPHALT DRIVE (TO REMAIN)
TWO-WAY
ONE-WAY
180°
30°
42 FT. MIN.
MISSION STREET
WEST STREET

LOCATION MAP
1"=400±

1 INCH = 20 FEET
SCALE
20 0 20
IN FEET

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

PROJECT	RESIDENTIAL DEVELOPMENT
PREPARED FOR	G&T TAYLOR STREET LLC
LOCATION	12 & 18 TAYLOR STREET, STAMFORD, CONNECTICUT
1 OF 1	FIRE TRUCK TURNING RADIUS

REV.	DATE	DESCRIPTION
0	7-18-23	INITIAL SUBMISSION

LEONARD C. D'ANDREA CT. PE No. 14869
ENGINEER 7-18-23 DATE

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MISSRICH_20PA_TR_00_REV0.dwg (MMK)

20PA

Tom Bellete
G&T Taylor st assoc, LLC

Dear Tom,

As residents Taylor street community, We are Writing in support of your proposed development of housing on Taylor street to Mission street, After meeting with you and reviewing the plans, We are comfortable with the design and proposed Landscaping. We feel that multi family homes be an improvement to the neighborhood and hope that the application will be favorably received by the reviewing boards.

Sincerely

ABDUL KAISER
21 Taylor Ave, LLC
122 Richmond Hill Ave
Stamford, CT
Tel 203-223-0009
Kaiser129a@yahoo.com

ALICE CHRISTIE
13 TAYLOR ST, STAMFORD
TEL- 203-883-1070 alice Christie

TERRY ADAM
112 Richmond Hill, Stamford
21-27 Mission St, Stamford
Tel - 203-249-7638
TERRYADAMS@optonline.net

MAIL 15 Lipton Place
Stamford, CT 06902

AA

VERSION 4

Project Name
Project Address

Category	Max Points	Points achieved
Building Health	**8**	6
Energy Use	**23**	5
Landscaping and Open Space	**11**	4
Land Use	**17**	3
Mobility	**29**	9
Resiliency	**11**	6
Resource Management	**9**	4
Urban Design	**11**	9
Water Use	**7**	2
TOTAL	**126**	**48**

Rating & Alternative Path to Compliance

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	

VERSION 4

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**	1
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**	1
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**	1
Daylighting	BH4	Provide adequate daylight through windows, skylights, and other means	Promotes a space and saves energy healthier living/working	**1**	1
Window shading	BH5	Provide protection from excessive light exposure	Promotes a space and saves energy healthier living/working	**1**	1
Operable windows	BH6	Each regularly occupied space has operable windows	Increases indoor air quality, access to natural light, and user comfort	**1**	1
Active design	BH7	Integration of pathways and stairs within the built environment in projects with 2 to 4 floors	Promotes exercise and health	**1**	
Fitness equipment	BH8	Convenient and free access to fitness equipment	Promotes exercise and health	**1**	
			TOTAL	**8**	**6**

Alternative Path to Compliance

VERSION 4

IWBI Well Platinum Rating - 10 Points
IWBI Well Gold Rating - 8 Points
IWBI Well Silver Rating - 6 Points
IWBI Well Bronze Rating - 4 Points

Alternative

VERSION 4

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**	
Efficient appliances	EU2	All appliances are Energy Star rated	Reduce energy use	**1**	1
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 per tenant	Submeters encourage conservation by monitoring and allocating costs to end users	**2**	2
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**	
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**	1

VERSION 4

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 generation system	Off-sets demand for electricity from carbon-producing energy sources (coal, oil, etc.) or reduces enery use	**7**	
			TOTAL	**23**	**5**

VERSION 4

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**	
Redevelop-ment	LU2	Redevelopment of previously developed sites	Makes use of existing infrastructure and reduces development pressure on undeveloped lands	**1**	1
Adaptive reuse	LU3	Adaptive reuse of existing building	Saves resources	**2**	
Historic preservation	LU4	Historic preservation	Saves resources	**2**	2
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**	
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**	
			TOTAL	**17**	**3**

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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**	
Tree preservation	LA2	Preservation of 80% or more of mature trees	Environmental benefits, reduces energy use, enhances property values	**1**	
Tree canopy	LA3	At maturity, tree canopy will cover 50% or more of undeveloped surface (at least 20% of the site)	Environmental benefits, reduces the "heat island" effect	**1**	1
Additional landscaping	LA4	Landscaping that exceeds required Zoning Regulations by 25% or more	Reduces the "heat island" effect, reduces stormwater runoff	**1**	
Native plants	LA5	Landscaping that is 80% or more native and drought-resistant by area of plantings	Supports native habitats	**2**	2
Join Stamford Pollinator Pathway	LA6	Add the parcel to the Stamford Polinator Pathway	Supports native habitats	**1**	1
Organic land care	LA7	Signed pledge to manage property according to NOFA Standards for organic land care	Environmental and health benefits	**1**	
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**	
			TOTAL	**11**	**4**

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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 base ITE estimate	Reduces carbon emissions and pollutants by reducing travel to and from a site	**2**	
Transit Score	M2	Transit Score 50-69 1 Point Transit Score 70-89 2 Points Transit Score 90+ 3 Points	Reduces carbon emmissions	**3**	2
Incentivize transit use	M3	Participate in TransitChek or similar program	Reduces car dependency	**2**	
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**	
Shared Parking	M7	At least 10% reduction in total parking needs due	Maximizes use of parking facilities	**3**	

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Parking availability	M8	Provided parking is no more than 105% of minimum required parking (1 point) OR approved parking reduction per Zoning (2 points)		**2**	2
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**	
Electric vehicles	M10	Exceed zoning requirement for EV parking and charging by at least 50%	Encourages use of zero-emission electric vehicles	**2**	2
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**	
			TOTAL	**29**	**9**

VERSION 4

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 elevation	Makes buildings more resilient to flooding	**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**	
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**	1
			TOTAL	**11**	**6**

VERSION 4

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 by weight was recycled (1point)	Preserves natural resources, saves energy, reduces greenhouse gas production, saves money, creates jobs	**3**	3
Recycling	RM2	Compliant recycling system that includes collection of electronics and textiles	Preserves natural resources, saves energy, reduces greenhouse gas production, saves money, creates jobs	**1**	1
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**	
Reusable materials	RM4	Dishwashing facility and collection station for used utensils sized to accommodate the building's population capacity	Reduces solid waste	**1**	
Sustainable Building Materials	RM5	At least 15% of the building materials (by value) meet the Materials and Resources Criteria of LEED v4.1 or later (1 point); 3 points for 30%		**3**	
			TOTAL	**9**	**4**

VERSION 4

ELEMENTS ID CRITERIA

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**	1
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	**3**	3
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 horizontally	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	**2**	
Building proximity	UD6	Front façade built to minimum allowed setback line	Creates increased activity at the street and visual integrity	**1**	1
			TOTAL	**11**	**9**

VERSION 4

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**	
Outdoor water management	W2	Landscape irrigation systems are EPA WaterSense rated	Reduces use of treated potable water	**1**	1
Stormwater management	W3	Exceed requirements of Stamford Drainage Manual for stormwater retention by at least 20% and increase impervious surface by more than is required by zoning	Reduces amount of stormwater and associated pollutants draining into the municipal system	**3**	1
			TOTAL	**7**	**2**

Zoning Data Chart

7/27/2023

Project Name - G&T Taylor Street LLC - 12 & 18 Taylor Street
Application number - _____
Address - 12 & 18 Taylor Street
Zoning District(s) - If multiple Zoning Districts, provide requirement and compliance for each portion of site under the different district - R-MF

Zoning Section		Current Required/ Permitted (R-MF)	Proposed Permitted (R-MF w/ historic bonus)	Existing Conditions	Proposed Conditions	Notes (Indicate compliance or Zoning Section for Special Permit if applicable)
9-N-6	**Lot Size**	Min. 5,000 sf.	N/A	24,478 sf. combined	24,478 sf. combined	Compliant
	Gross Floor Area	N/A	N/A			
	Zoning Floor Area					
	Residential	N/A	N/A			
	Commercial					
	Community Facility					
	Industrial					
	Total	N/A	N/A			
	F.A.R.					
	Residential	N/A	N/A			
	Commercial					
	Community Facility					
	Industrial					
	Total	N/A	N/A			
	Number of units	16 (or more under Sec. 7.4 since all BMR units provided onsite)	18	5	18	Compliant if 7.3 historic bonus
7.4	**Below Market Rate Units (#, %, and AMI level)**	10% of total # of dwelling units @ 50% AMI	1.8	N/A	2 two-bedroom apts. @ <$1,928/mo. (<50% of AMI)	Compliant
	Number of seats/ beds / employees if applicable	N/A	N/A			
	Density (Units/Acre)	1500 sft. of Lot Area per Dwelling Unit	1359 sft. of Lot Area per Dwelling Unit	Compliant	1359 sft. of Lot Area per Dwelling Unit	Compliant if 7.3 historic bonus
	Street Frontage	Min. 100 ft.	N/A	169.74 ft. combined	169.74 ft. combined	Compliant
	Building Coverage (Area and %)	35%	37%	11.6% (2,838 sf.)	37% (9,054 sf.)	Compliant if 7.3 historic bonus
	Lot coverage (Area and %)	N/A	N/A			
	Building Height (Feet)	40 ft.	N/A	30.3 ft.	33.1 ft.	Compliant
	Number of floors (Stories)	4 Stories	N/A	2 Stories	3 Stories	Compliant
	Active ground floor (sq.ft. and %) if applicable	N/A	N/A			

	Yards					
	Front yard (Streetline)	Min. 15 ft.	9.4 ft.	9.4 ft.	9.4 ft.	Pre-existing lawful non-conforming
	Rear yard	Min. 30 ft.	No rear yard; through lot	N/A	N/A	
	Side yard	Min. one side 8 ft., both sides 18 ft. (since all BMR units provided onsite)	1.4 ft. one side, 5.5 ft. both sides	1.4 ft. one side, 11.18 ft. both sides	1.4 ft. one side, 5.5 ft. both sides	Pre-existing lawful non-conforming; Compliant if 7.3 historic bonus
Definitions	**Light & Air**	20 ft.	20 ft.	20 ft.	20 ft.	Compliant
	Parking					
12.D	Residential parking	30.75 spaces (2 per 3BR unit, 1.25 per BMR 3BR)	19 spaces	N/A	21.5 spaces	Compliant if 7.3 historic bonus
	Commercial parking					
	Community Facility parking					
	Industrial parking					
	Public open space parking					
	Bike parking					
	# of levels of parking garage (if applicable)					
	Square footage of parking area					
	Parking setback					
3	**Usable Open Space (Area and %)**	150 sf. per unit (2700 sf.)	N/A	~8,700 sf.	2,772 sf.	Compliant
	Active (If separate)					
	Passive (If separate)					
12.K; Tree Manual	**Sidewalk & Street Trees**	1 med. street tree required per 30 ft. of frontage; 1 sm. tree required per 20 ft. of frontage	N/A	0	2 med. & 3 sm. trees on Taylor St (119.74 ft. frontage); 1 med. & 1 sm. tree on Mission St (50 ft. frontage)	Compliant
	Existing	0				
	Proposed	3				
	Total	3				
12.L	**EV Charging & Reserved Spaces**	3	1 (because only 19 parking spaces required)	0	1	Compliant if 7.3 historic bonus
7.G	**Fence height**	Max. 6 ft. front & side yards	Max. 6 ft. front & side yards	Compliant	Compliant	Compliant

Office use only	
Date received	
Application Nr (e.g., ZB, ZBA, TB)	

Location

*Address of Development Number & Street	12 & 18 Taylor Street
*Stamford, CT ZIP Code	Stamford, CT 06902

Applicant Information

*Applicant full name	G&T Taylor Street LLC
Applicant Company	
*Applicant Street Address	c/o Leonard Braman, Wofsey Rosen, 600 Summer St., 7th Fl
*Applicant City, State, ZIP	Stamford, CT 06901
*Applicant Email	lbraman@wrkk.com
*Applicant Phone	203-354-1282

Property Owner Information

*Is the property owner the same as the applicant?	YES

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 1st Sumbission (Zoning Board, ZBA or Building Permit application)	X
the 2nd Submission (CO sign-off)	

SCORECARD RATING

Category	Max Points	Points achieved
Building Health	8	6
Energy Use	25	5
Landscaping and Open Space	11	4
Land Use	17	3
Mobility	29	9
Resiliency	11	6
Resource Management	9	4
Urban Design	10	9
Water Use	7	2
TOTAL	**127**	**48**

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
Indoor air quality	BH1	After construction ends and before occupancy, conduct indoor air quality testing
Low emitting materials	BH2	Reduce concentrations of chemical contaminants from building interior paints and coatings, interior adhesives and sealants, flooring and insulation
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
Daylighting	BH4	Provide adequate daylight through windows, skylights, and other means
Window shading	BH5	Provide protection from excessive light exposure
Operable windows	BH6	Each regularly occupied space has operable windows
Active design	BH7	Integration of pathways and stairs within the built environment in projects with 2 to 4 floors
Fitness equipment	BH8	Convenient and free access to fitness equipment

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

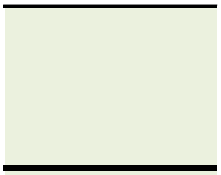
PURPOSE	MAX. POINTS	POINTS ACHIEVED
Promotes a healthier living/work space	**1**	1
Limits exposure to volatile organic compounds (VOCs), which are linked to many short- and long-term health problems	**1**	1
Limits exposure to mold	**1**	1
Promotes a space and saves energy healthier living/working	**1**	1
Promotes a space and saves energy healthier living/working	**1**	1
Increases indoor air quality, access to natural light, and user comfort	**1**	1
Promotes exercise and health	**1**	
Promotes exercise and health	**1**	
TOTALS	**8**	**6**

ENERGY USE

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS
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**
Efficient appliances	EU2	All appliances are Energy Star rated	Reduce energy use	**1**
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 per tenant	Submeters encourage conservation by monitoring and allocating costs to end users	**2**
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**
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**
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**
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 generation system	Off-sets demand for electricity from carbon-producing energy sources (coal, oil, etc.) or reduces enery use	**7**

Passive heating	EU9	Development employs strategies to maximize solar gain in winter and prevent solar gain in summer	Reduces energy use	**2**
			TOTALS	**25**

POINTS ACHIEVED
1
2
1
1



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LANDSCAPING & OPEN SPACE

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS
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**
Tree preservation	LA2	Preservation of 80% or more of mature trees	Environmental benefits, reduces energy use, enhances property values	**1**
Tree canopy	LA3	At maturity, tree canopy will cover 50% or more of undeveloped surface (at least 20% of the site)	Environmental benefits, reduces the "heat island" effect	**1**
Additional landscaping	LA4	Landscaping that exceeds required Zoning Regulations by 25% or more	Reduces the "heat island" effect, reduces stormwater runoff	**1**
Native plants	LA5	Landscaping that is 80% or more native and drought-resistant by area of plantings	Supports native habitats	**2**
Join Stamford Pollinator Pathway	LA6	Add the parcel to the Stamford Polinator Pathway	Supports native habitats	**1**
Organic land care	LA7	Signed pledge to manage property according to NOFA Standards for organic land care	Environmental and health benefits	**1**
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**
			TOTALS	**11**

POINTS ACHIEVED
1
2
1
4

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**	
Redevelopment	LU2	Redevelopment of previously developed sites	Makes use of existing infrastructure and reduces development pressure on undeveloped lands	**1**	1
Adaptive reuse	LU3	Adaptive reuse of existing building	Saves resources	**2**	
Historic preservation	LU4	Historic preservation	Saves resources	**2**	2
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**	

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	
			TOTALS	**17**	**3**

MOBILITY

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS
Reduce single occupancy vehicle travel	M1	Submit Parking and Transportation Demand Management plan (PTDM) that reduces vehicle trips 20% from base ITE estimate	Reduces carbon emissions and pollutants by reducing travel to and from a site	2
Transit Score	M2	Transit Score 50-69 1 Point Transit Score 70-89 2 Points Transit Score 90+ 3 Points	Reduces carbon emmissions	3
Incentivize transit use	M3	Participate in TransitChek or similar program	Reduces car dependency	**2**
Walk Score	M4	Walk Score 50-69 1 Point Walk Score 70-89 2 Points Walk Score 90+ 3 Points	Reduces car dependency	3
Bike Score	M5	Transit Score 50-69 1 Point Transit Score 70-89 2 Points Transit Score 90+ 3 Points	Reduces car dependency	3
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**
Shared Parking	M7	At least 10% reduction in total parking needs due	Maximizes use of parking facilities	3
Parking availability	M8	Provided parking is no more than 105% of minimum required parking (1 point) OR approved parking reduction per Zoning (2 points)		2
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

Electric vehicles	M10	Exceed zoning requirement for EV parking and charging by at least 50%	Encourages use of zero-emission electric vehicles	2
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
			TOTALS	**29**

POINTS ACHIEVED
2
2
1
2

2
9

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 elevation	Makes buildings more resilient to flooding	**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**	
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**	**1**
			TOTALS	**11**	**6**

RESOURCE MANAGEMENT

ELEMENTS	ID	CRITERIA	PURPOSE	MAX. POINTS
Construction and demolition debris	RM1	50% of demolition waste by weight was recycled (2 points) 50% of construction waste by weight was recycled (1point)	Preserves natural resources, saves energy, reduces greenhouse gas production, saves money, creates jobs	**3**
Recycling	RM2	Compliant recycling system that includes collection of electronics and textiles	Preserves natural resources, saves energy, reduces greenhouse gas production, saves money, creates jobs	**1**
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**
Reusable materials	RM4	Dishwashing facility and collection station for used utensils sized to accommodate the building's population capacity	Reduces solid waste	**1**
Sustainable Building Materials	RM5			**3**
			TOTALS	**9**

POINTS ACHIEVED
3
1
4

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**	1
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**	3
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 horizontally	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**	
Building proximity	UD6	Front façade built to minimum allowed setback line	Creates increased activity at the street and visual integrity	**1**	1
			TOTAL	**10**	**9**

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**	
Outdoor water management	W2	Landscape irrigation systems are EPA WaterSense rated	Reduces use of treated potable water	**1**	1
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**	1
			TOTALS	**7**	**2**

Zoning Data Chart

7/27/2023

Project Name - G&T Taylor Street LLC - 12 & 18 Taylor Street
Application number - _____
Address - 12 & 18 Taylor Street
Zoning District(s) - If multiple Zoning Districts, provide requirement and compliance for each portion of site under the different district - R-MF

Zoning Section		Current Required/ Permitted (R-MF)	Proposed Permitted (R-MF w/ historic bonus)	Existing Conditions	Proposed Conditions	Notes (Indicate compliance or Zoning Section for Special Permit if applicable)
9-N-6	**Lot Size**	Min. 5,000 sf.	N/A	24,478 sf. combined	24,478 sf. combined	Compliant
	Gross Floor Area	N/A	N/A			
	Zoning Floor Area					
	Residential	N/A	N/A			
	Commercial					
	Community Facility					
	Industrial					
	Total	N/A	N/A			
	F.A.R.					
	Residential	N/A	N/A			
	Commercial					
	Community Facility					
	Industrial					
	Total	N/A	N/A			
	Number of units	16 (or more under Sec. 7.4 since all BMR units provided onsite)	18	5	18	Compliant if 7.3 historic bonus
7.4	**Below Market Rate Units (#, %, and AMI level)**	10% of total # of dwelling units @ 50% AMI	1.8	N/A	2 two-bedroom apts. @ <$1,928/mo. (<50% of AMI)	Compliant
	Number of seats/ beds / employees if applicable	N/A	N/A			
	Density (Units/Acre)	1500 sft. of Lot Area per Dwelling Unit	1359 sft. of Lot Area per Dwelling Unit	Compliant	1359 sft. of Lot Area per Dwelling Unit	Compliant if 7.3 historic bonus
	Street Frontage	Min. 100 ft.	N/A	169.74 ft. combined	169.74 ft. combined	Compliant
	Building Coverage (Area and %)	35%	37%	11.6% (2,838 sf.)	37% (9,054 sf.)	Compliant if 7.3 historic bonus
	Lot coverage (Area and %)	N/A	N/A			
	Building Height (Feet)	40 ft.	N/A	30.3 ft.	33.1 ft.	Compliant
	Number of floors (Stories)	4 Stories	N/A	2 Stories	3 Stories	Compliant
	Active ground floor (sq.ft. and %) if applicable	N/A	N/A			

	Yards					
	Front yard (Streetline)	Min. 15 ft.	9.4 ft.	9.4 ft.	9.4 ft.	Pre-existing lawful non-conforming
	Rear yard	Min. 30 ft.	No rear yard; through lot	N/A	N/A	
	Side yard	Min. one side 8 ft., both sides 18 ft. (since all BMR units provided onsite)	1.4 ft. one side, 5.5 ft. both sides	1.4 ft. one side, 11.18 ft. both sides	1.4 ft. one side, 5.5 ft. both sides	Pre-existing lawful non-conforming; Compliant if 7.3 historic bonus
Definitions	**Light & Air**	20 ft.	20 ft.	20 ft.	20 ft.	Compliant
	Parking					
12.D	Residential parking	30.75 spaces (2 per 3BR unit, 1.25 per BMR 3BR)	19 spaces	N/A	21.5 spaces	Compliant if 7.3 historic bonus
	Commercial parking					
	Community Facility parking					
	Industrial parking					
	Public open space parking					
	Bike parking					
	# of levels of parking garage (if applicable)					
	Square footage of parking area					
	Parking setback					
3	**Usable Open Space (Area and %)**	150 sf. per unit (2700 sf.)	N/A	~8,700 sf.	2,772 sf.	Compliant
	Active (If separate)					
	Passive (If separate)					
12.K; Tree Manual	**Sidewalk & Street Trees**	1 med. street tree required per 30 ft. of frontage; 1 sm. tree required per 20 ft. of frontage	N/A	0	2 med. & 3 sm. trees on Taylor St (119.74 ft. frontage); 1 med. & 1 sm. tree on Mission St (50 ft. frontage)	Compliant
	Existing	0				
	Proposed	3				
	Total	3				
12.L	**EV Charging & Reserved Spaces**	3	1 (because only 19 parking spaces required)	0	1	Compliant if 7.3 historic bonus
7.G	**Fence height**	Max. 6 ft. front & side yards	Max. 6 ft. front & side yards	Compliant	Compliant	Compliant