Date: 04/14/26
Introduced By: Mr. Holinga
Committee: Lands
Originated By: Plan. Comm.
Sponsor:
Emergency: ___ 30 Days: ___
Current Expense:

No.: CR-10-26
1st Reading: 04/20/26
Public Notice:
2nd Reading:
Passed: ___ Rejected: ___
Codified: ___ Code No: ___
Passage Publication: ___

RESOLUTION NO. CR-10-26

A RESOLUTION TO APPROVE THE DEVELOPMENT PLAN FOR LAQUINTA HOTEL LOCATED AT 4197 MARLANE DRIVE

WHEREAS, on April 07, 2026, the Planning Commission recommended approval of the Development Plan for LaQuinta Hotel located at 4197 Marlane Dr., with the following deviations and stipulations:

1. The evergreen hedges along the parking lot's Marlane Drive and Rumfield Drive frontages shall be a minimum height of three feet (3') at planting;
2. One (1) 2-inch caliper minimum tree shall be added to the landscape peninsula between the entrance drive from Marlane Dr. and the parking spaces to the south;
3. Parking lot lighting fixtures shall match the character of the fixtures utilized on the Comfort Suites site to the west;
4. Signs shall be posted on the site stating that No Overnight Truck Parking shall be permitted.

NOW, THEREFORE BE IT RESOLVED BY THE COUNCIL OF THE CITY OF GROVE CITY, STATE OF OHIO, THAT:

SECTION 1. This Council hereby approves the Development Plan for LaQuinta Hotel located at 4197 Marlane Dr., contingent upon the stipulations set by Planning Commission.

SECTION 2. This approval shall be good for 12 months from the date passed, or as otherwise provided in Section 1101.07(b) of the Codified Ordinances of the City of Grove City, Ohio.

SECTION 3. This resolution shall take effect at the earliest opportunity allowed by law.

Ted A. Berry, President of Council

Richard L. Stage, Mayor

Passed: 04-20-2026
Effective: 04-20-2026

Attest: Tami K. Kelly

Tami K. Kelly, MMC, Clerk of Council

I Certify that this resolution is correct as to form.

Stephen J. Smith, Director of Law

ITEM 1: 202603060011 – LaQuinta Hotel – Final Development Plan

Site Location
4197 Marlane Dr (PID 040-005538).

Proposal
A development plan to reconfigure the hotel entrance and parking area.

Current Zoning
Retail Commercial (C-2)

Future Land Use
Commercial Center

Property Owner
Manju Patel, Nanubhait Patel

Property Incentives
CRA #2

Applicant/Representative
Matthew L. Weber, Weber Engineering Services LLC

Applicable Plans, Policies, and Code Section(s)
- Zoning Code Section 1136
- Resolution CR-53-94
- Resolution CR-50-17

Public Input
None received

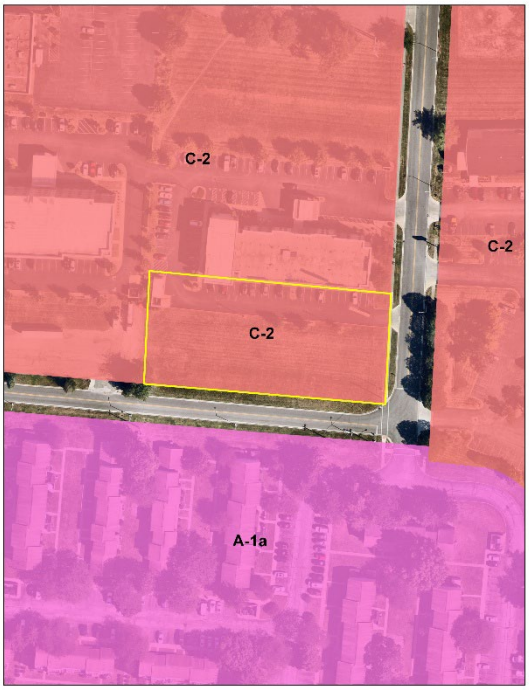
Staff Recommendation
Approval with 4 stipulations

Contents **Page**
1. Context Map 2
2. Analysis..... 3
3. GC2050 Analysis..... 5
4. Recommendation..... 6
5. Detailed History 6
6. Public Input..... 6

Case Manager
Terry Barr, AICP, Development Planner
614-277-3022
tbarr@grovecityohio.gov

Summary
This proposal is a development plan to reconfigure the hotel entrance and parking area located at 4179 Marlane Drive.

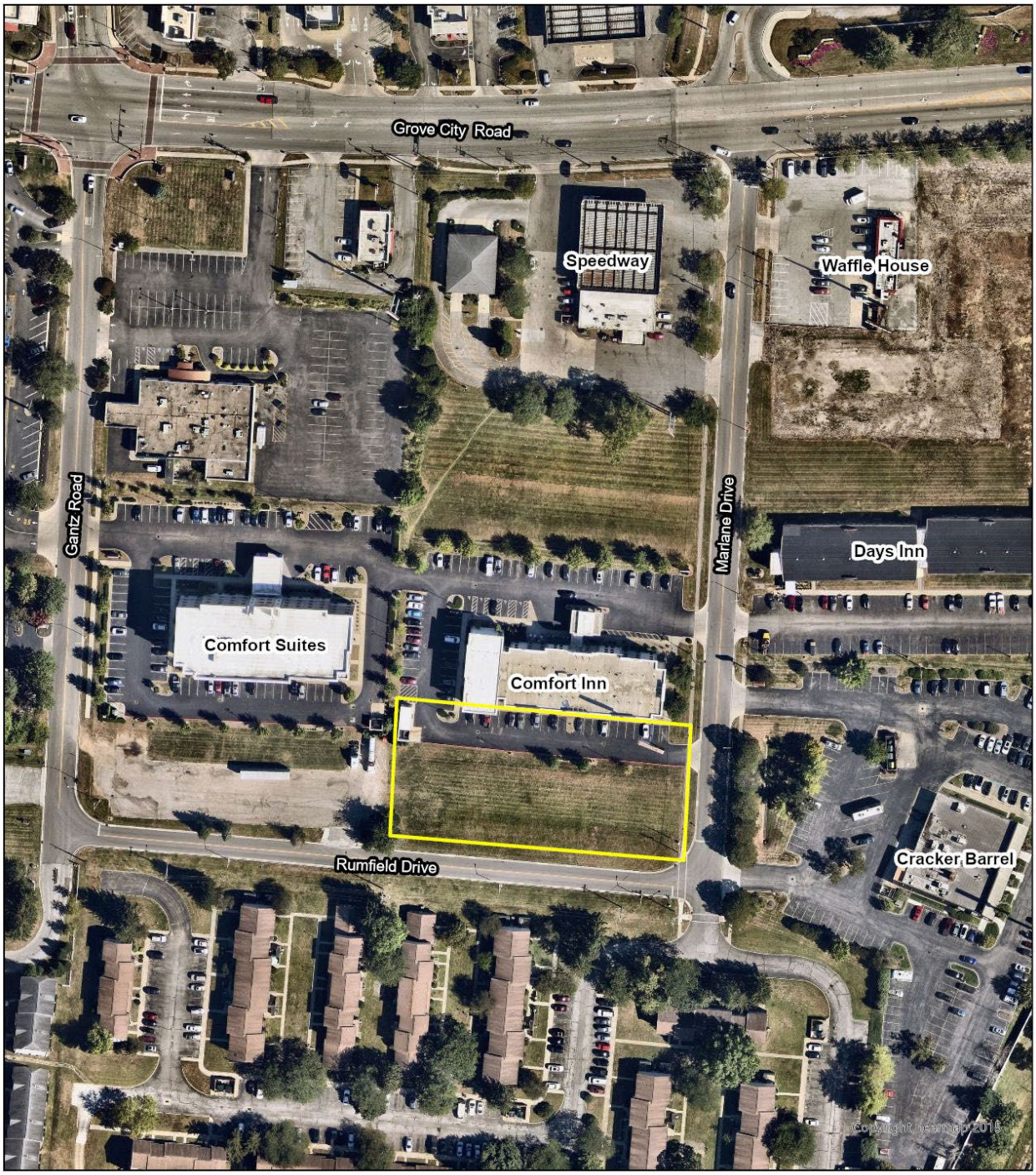
Zoning Map



Next Steps
Upon recommendation from Planning Commission, the final development plan will move forward to City Council for approval.

1. Context Map

The property is located at 4197 Marlane Drive. (PID 040-005538).



GROVE CITY 1852 OHIO

202603060011
LaQuinta Hotel
Final Development Plan
Parcel ID: 040-008773

N

0 40 80 160 240 320 400 Feet

2. Analysis

The applicant is requesting approval of a development plan to make modifications to the existing Comfort Inn building and expand the parking lot for additional parking on the south side of the structure. The 1.031-acre parcel is zoned C-2 (Retail Commercial) and is adjacent to properties zoned A-1a (Multi-Family) and other properties zoned C-2. The GroveCity2050 Community Plan and Future Land Use Map designates this site as Commercial Center, and the proposed use of hotel meets the recommended primary use of commercial for the district.

Site Plan

The proposed parking lot will be located south of the existing Comfort Inn hotel. The parking lot will have two access points, one from the existing drive south of the hotel along Marlane Drive and a proposed drive on the west side of the site off Rumfield Drive. As part of the parking lot additions, a 5-foot-wide sidewalk will be installed along the Rumfield Drive frontage of the site. The parking lot is shown with 95 spaces, which meets the code requirement of 1 space per room (78 rooms total). No changes are proposed to the parking areas along the north and west sides the hotel, although plans do show that the parking area west of the hotel will be resurfaced.



Resolution CR-50-17, approving an addition to the Comfort Inn as well as the existing parking along the south side of the structure, included a stipulation that “signs shall be posted on the site stating that no overnight truck parking shall be permitted.” In order to be consistent with this previous legislation for the parking on this lot, “No overnight truck parking” signs shall be posted in the proposed parking expansion area.

Building

The existing Comfort Inn is being rebranded as a LaQuinta Inn. The entryway to the hotel is proposed to be relocated from the north side to the south, and a porcelain panel accent will be installed along a portion of the parapet and around the new entryway. The existing stone veneer accent on the north elevation will remain.



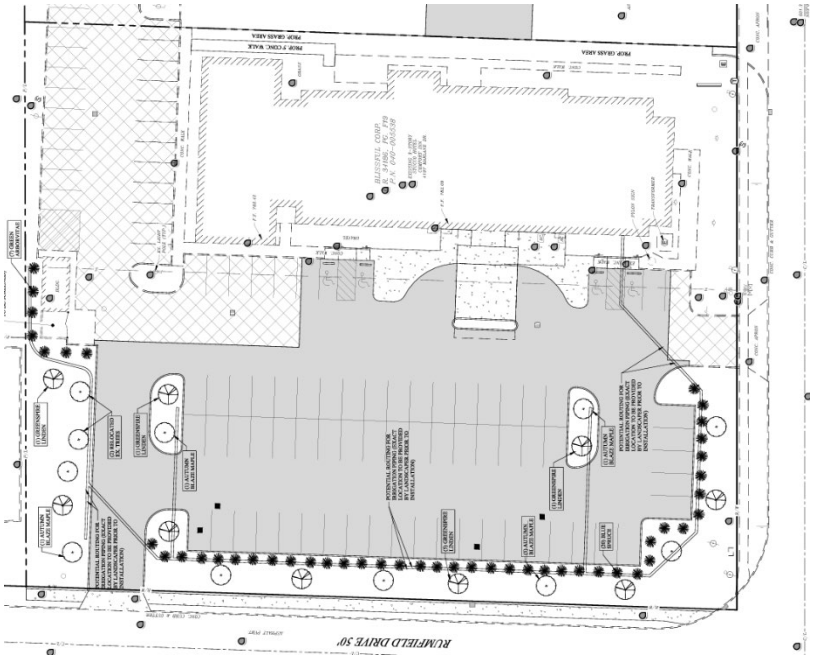
South Elevation



North Elevation

Landscaping

A landscape plan was submitted showing proposed landscaping for the site; however, modifications will need to be made to ensure compliance with code requirements in terms of quantity and size of plantings. While plans show an evergreen hedge along the parking lot's frontages on Marlane Drive and Rumfield Drive, plans indicate gallon size instead of height at planting. These evergreens will need to be a minimum height of 3 feet at installation in order to provide code-compliant screening from the roadway. Additionally, one (1) 2-inch caliper tree is required to be added to the landscape peninsula between the entrance drive from Marlane Drive and the parking spaces to the south.



Plans indicate that the existing landscaping along the building will remain, and the general location for irrigation piping is shown on the landscape plan, with a note that the exact location will be verified prior to construction.

Signage
The current site includes a monument sign, wall sign, and pylon sign. As part of the development plan, the monument sign will be relocated to the southern side of the northern access drive and will need to comply with the landscaping requirements outlined in code, including plantings around the base of the sign. All signage will require a separate sign permit from the Grove City Building Division for final approval to ensure compliance with the requirements of Chapter 1145.

Lighting
A photometric plan was provided that meets the 0.5 footcandle requirement outlined in code. The materials show that parking lot lighting will be downcast LED fixtures finished in black; however, in order to provide consistent character with recent area developments, these fixtures should match those installed on the Comfort Suites site to the west.

3. GroveCity2050 Analysis

The City of Grove City adopted the GroveCity2050 Community Plan in January 2018 which contains specific goals, objectives and actions to guide growth in the community. Five (5) guiding principles are identified that articulate Grove City's community values and direct the recommendations in the Plan. Applications submitted to Planning Commission are reviewed based on these 5 Guiding Principles.

(1) The City's small-town character is preserved while continuing to bring additional employment opportunities, residents, and amenities to the community.

Finding is Met: The proposed development plan will allow for updated amenities at an existing hotel and increase parking spaces for guests.

(2) Quality design is emphasized for all uses to create an attractive and distinctive public and private realm.

Finding is Met: The development has landscaping and a range of façade material that creates an attractive development.

(3) Places will be connected to improve the function of the street network and create safe opportunities to walk, bike, and access public transportation throughout the community.

Finding Not Applicable: Although no changes are proposed to the street network as part of this application, the additional parking lot will add a 5-foot sidewalk along Rumfield Drive that helps complete sidewalk connections in the area to connect residents and visitors to area amenities.

(4) Future development will preserve, protect, and enhance the City's natural and built character through sustainable practices, prioritizing parks and open space, and emphasizing historic preservation.

Finding not Applicable: The proposed development will not impact the city's natural character, as it is located along a commercial corridor.

(5) Development provides the City with a net fiscal benefit.

Finding Not Applicable: The scale of the proposed improvements provide negligible impacts on the City's fiscal health.

4. Recommendation

After review and consideration, the Development Department recommends Planning Commission make a recommendation of approval to City Council for the Final Development Plan, with the following stipulations:

1. The evergreen hedges along the parking lot's Marlane Drive and Rumfield Drive frontages shall be a minimum height of 3 feet at planting.

2. One (1) 2-inch caliper minimum tree shall be added to the landscape peninsula between the entrance drive from Marlane Drive and the parking spaces to the south.

3. Parking lot lighting fixtures shall match the character of the fixtures utilized on the Comfort Suites site to the west.

4. Signs shall be posted on the site stating that no overnight truck parking shall be permitted.

5. Detailed History

1994
City Council approved the final development plan for Comfort Inn on Marlane Drive with Resolution CR-53-94 at the September 20th meeting.

2017
City Council approved a development plan for an addition to the Comfort Inn with Resolution CR-50-17 at the December 18th meeting.

6. Public Input

As of the time this report was issued, Staff has received no public input on the proposed application.

GROVE CITY
DEVELOPMENT

4035 Broadway
Grove City, OH 43123
614-277-3004
grovecityohio.gov

Grove City Planning Commission

Final Development Plan Application

PROJECT / PROPERTY INFORMATION

PROJECT NAME: LaQuinta Hotel

PROJECT LOCATION: 4197 Marlene Dr.
STREET ADDRESS (OR NEAREST INTERSECTION WITH DISTANCE AND DIRECTION)

PARCEL ID NUMBER: 040-005538 **ACREAGE AFFECTED BY THIS APPLICATION:** 0.98 Acre

EXISTING ZONING: C-2 **EXISTING LAND USE:** Hotel

PROPOSED ZONING: C-2 **PROPOSED LAND USE:** Hotel

FUTURE LAND USE DESIGNATION: NA

PROPERTY OWNER INFORMATION

Note: Property ownership information should reflect how the property is held in accordance with the Franklin County Auditor's Office.

Name	Address	City, State, Zip
Blissful Corp	4197 Marlene Dr.	Grove City, OH 43123
Phone	**Fax**	**Email**
614-539-3500		Neil@imagehm.com

APPLICANT INFORMATION

Note: The applicant is the person(s) or entity seeking approval of this application.

Name	Title	Company / Organization
Nanu Patel	President	Blissful Corp
Address		**City, State, Zip**
765 Russell Strauss Rd		Cookeville, TN 38501
Phone	**Fax**	**Email**
931-284-1179		Neil@imagehm.com

AUTHORIZED REPRESENTATIVE

Check box if same as Applicant: ☐

Note: The authorized representative is the person(s) or entity representing the applicant. As the authorized representative, you must have the legal authority to speak, represent and make commitments on behalf of the applicant. The City does not take any responsibility for the lack of communication between the authorized representative, applicant or related parties.

Name	Title	Company / Organization
Matthew L. Weber	Agent/Engineer	Weber Engineering Services, LLC
Address		**City, State, Zip**
2555 Hartville Road		Rootstown, OH 44272
Phone	**Fax**	**Email**
330-329-2037		matt@webercivil.com

Engineer
Relationship to the Applicant: (e.g. legal counsel, engineer, architect, land planner, contractor, etc.)

FOR OFFICE USE ONLY

DATE RECEIVED:	RECEIVED BY:	PAYMENT AMOUNT:
TENTATIVE PC MEETING DATE:	PC RECOMMENDATION:	CHECK NUMBER:
PROJECT ID NUMBER:	CITY'S REVIEW ENGINEER:	CITY'S PLAN REVIEW ENGINEER:
PLANNER IN CHARGE:		

ADDITIONAL PROJECT INFORMATION

PROJECT NAME: LaQuinta Hotel

DEVELOPMENT TYPE: Commercial Retail ☐ Commercial Office ☐ Residential ☐ Industrial ☐ Mixed ☐ Other ■

ACREAGE DISTURBED: 0.98 Acre **TOTAL FLOOR AREA:** Existing 39,955 GSF

NUMBER OF BUILDINGS: 1 **BUILDING HEIGHT:** 3 Floors 27'-6" + Parapet

ESTIMATED NUMBER OF PERMANENT JOBS CREATED (IF APPLICABLE): _____

ESTIMATED VALUATION OF BUILDING IMPROVEMENTS: _____ **ESTIMATED VALUATION OF SITE IMPROVEMENTS:** _____

PROPERTY OWNER AUTHORIZATION OF APPLICANT SUBMITTAL AND SITE VISIT(S)

I ~~Neil Patel~~ NANU PATEL, the current property owner hereby authorize the applicant (Matthew L. Weber) to submit this application. I agree to be bound by all representations and agreements made by the applicant and/or their authorized representative.

Additionally, as the current property owner, knowing that site visits to the property may be necessary, **I hereby authorize City representatives to enter, photograph and post notices on the property described in this application.**

Signature of Current Property Owner: _____ Date: MAR. 4th 2026

STATE OF OHIO, COUNTY OF FRANKLIN

The above individual(s), being first duly sworn, deposes on oath and says that he/she has read the foregoing Affidavit subscribed by him/her, knows the contents thereof, and that the statements therein are true.

SUBSCRIBED AND SWORN TO before me this 4th day of March, 2026.

JO-ANN R FERRER STATE OF TENNESSEE NOTARY PUBLIC

_____
Official Seal and Signature of Notary Public

APPLICANT'S / AUTHORIZED REPRESENTATIVE S AFFIDAVIT

I Matthew L. Weber, the applicant or authorized representative, have read and understand the contents of this application. The information contained in this application, attached exhibits and other information submitted is complete and in all respects true and correct, to the best of my knowledge and belief.

Signature of Applicant or Authorized Representative: _____ Date: 03-06-2026

STATE OF OHIO, COUNTY OF ~~FRANKLIN~~ Portage

The above individual(s), being first duly sworn, deposes on oath and says that he/she has read the foregoing Affidavit subscribed by him/her, knows the contents thereof, and that the statements therein are true.

SUBSCRIBED AND SWORN TO before me this 6th day of March, 2026

ANGELA FAYE KOZMA, NOTARY PUBLIC COMM. EXP. FEB 05, 2029 STATE OF OHIO

_____
Official Seal and Signature of Notary Public

REVIEW FEES

INSTRUCTIONS: All blanks/boxes must be completed or checked in order for the application submittal to be considered complete. The engineering review fee and planning review fee is calculated in accordance with the City's Fee Recovery Policy. The submittal shall include the required number of copies (properly folded and collated) and contain all required supplementary documentation. Submitted materials shall be accurate, measurable and shall address all required checklist items contained within the attached supplemental requirements.

Application Processing Fee:	$ 300.00
Engineering Review Fee:	$_____
Planning Review Fee:	$ _____
Total Submittal Fee:	$ _____

GROVECITY2050 GUIDING PRINCIPLES

In January 2018, the City of Grove City adopted the GroveCity2050 Community Plan to update the City's plans and policies to proactively shape where and how the community will grow. The Plan contains specific goals, objectives and actions to guide development in Grove City as well as the following five (5) guiding principles:

1. **The City's small-town character shall be preserved while continuing to bring additional employment opportunities, residents and amenities to the community.**
2. **Quality design shall be emphasized for all uses to create an attractive and distinctive public and private realm.**
3. **Places shall be connected to improve the function of the street network and create safe opportunities to walk, bike and access public transportation throughout the community.**
4. **Future development shall preserve, protect and enhance the City's natural and built character through sustainable practices, prioritizing parks and open space and emphasizing historic preservation.**
5. **Development shall provide the City with a net fiscal benefit.**

GROVE CITY 2050
Growing Forward

THE CITY OF GROVE CITY
SUBMITTAL REQUIREMENTS: FINAL DEVELOPMENT PLAN

GROVE CITY
DEVELOPMENT

PLEASE CONTACT STAFF FOR A LINK TO SUBMIT THE FOLLOWING ELECTRONIC FILES FOR INITIAL STAFF REVIEW:

- [x] One signed and notarized application
- [x] Appropriate fee ($300 plus applicable engineering and planning review fees – see Fee Recovery Policy). **Please note that either cash, checks or credit card payments will be accepted. For credit card payments call 614-277-3004.**
- [x] A project narrative describing the nature of the project as well as how the proposed development relates to existing and future land use in the surrounding area in terms of character, street design, trail connectivity, open space and other improvements
- [x] A metes and bounds legal description and survey of the property, stamped by a certified surveyor of the proposed Development Standards Text (if applicable)
- [x] If applicable, the following scaled plans showing:

    a. Cover Page with signature block (see image below)
    b. Site Plan
    c. Grading Plan
    d. Landscape Plan
    e. Irrigation Plan
    f. Utility Plan
    g. Photometric Plan
    h. Tree Survey
    i. Demolition Plan
    j. Site Details
    k. Stormwater Management (per the Stormwater Design Manual)

City Administrator	_____
Service Director	_____
Reviewer for the City of Grove City	_____
Fire Department Jackson Township	_____

- [ ] If applicable, scaled drawings showing:

    a. Location of sign(s) and sign type (wall, ground, projecting or window)
    b. Sign dimensions, including letter sizes and proposed distance from sign to grade
    c. Copy layout and lettering styles (fonts) of signage
    d. Materials and manufacturer to be used in fabrication
    e. Total area of sign face (including frame)
    f. Type of illumination

- [ ] If applicable, architectural elevations – **in color** – with proposed colors and finish materials noted
- [ ] If applicable, the preliminary stormwater calculations stamped by a professional engineer
- [ ] A photograph of the finish material/color samples board (swatches, plans or product specifications)
- [ ] A materials detail sheet listing material, manufacturer and color for all proposed exterior materials
- [ ] If applicable, a traffic study indicating potential traffic generation for the proposed site
- [ ] If the project is located in the proximity of existing residential development, it is strongly recommended that the applicant reach out with notifications to neighboring residents.

NOTE: One (1) paper copy (8 1/2 x 11) of all final materials being presented to Planning Commission will be required, as well as one 24 x 36 copy of all plan sheets, if applicable.

For additional information, contact the Grove City Development Department at 614-277-3004 or visit our website at www.grovecityohio.gov/development.

LA QUINTA HOTEL

4197 MARLENE DRIVE
CITY OF GROVE CITY
COUNTY OF FRANKLIN
STATE OF OHIO

SITE DATA

USE DISTRICT	=	C-2
SITE AREA		
EXISTING HOTEL SITE	=	+/-1.65 AC.
EX. BUILDING AREA	=	13,616 S.F. (FOOTPRINT)

BUILDING SETBACKS:

FRONT YARD	=	30'
SIDE YARD	=	10'
REAR YARD	=	10'

REQUIRED HOTEL PARKING SPACES = 1 PER ROOM/SUITE
THE HOTEL HAS 78 ROOMS TOTAL

EXISTING HOTEL -NUMBER OF PARKING SPACES:

REGULAR PARKING SPACES	=	91
HANDICAP PARKING SPACES	=	4
TOTAL PARKING SPACES	=	95



VICINITY MAP
NO SCALE

N

CITY OF GROVE CITY
SIGNATURES BELOW ONLY SIGNIFY CONCURRENCE WITH THE GENERAL PURPOSE AND GENERAL LOCATION OF THE PROJECT AND DOES NOT CONSTITUTE ASSURANCE TO OPERATE AS INTENDED. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL CIVIL ENGINEER PREPARING THE PLANS.

CITY ADMINISTRATOR _____ DATE

SERVICE DIRECTOR _____ DATE

REVIEW FOR THE CITY OF GROVE CITY _____ DATE

FIRE DEPARTMENT JACKSON TOWNSHIP _____ DATE

THIS IS TO CERTIFY THAT GOOD ENGINEERING PRACTICES HAVE BEEN UTILIZED IN THE DESIGN OF THIS PROJECT AND THAT ALL MINIMUM STANDARDS FOR THE CITY OF REYNOLDSBURG, INCLUDING THOSE STANDARDS GREATER THAN MINIMUM WHERE, IN OUR OPINION, THEY ARE NEEDED TO PROTECT THE SAFETY OF THE PUBLIC. ANY VARIANCES TO THE ABOVE STANDARDS ARE CONSISTENT WITH SOUND ENGINEERING PRACTICES AND ARE NOT DETRIMENTAL TO THE PUBLIC SAFETY AND CONVENIENCE.

INDEX

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LANDSCAPING PLAN	C102A
LIGHTING PLAN	C102B
LIGHTING DETAILS	C102C
UTILITY PLAN	C103
GRADING PLAN	C104
SITE DETAILS	C105-C105A
SWP3	C106
SWP3 DETAILS	C107-C112

Survey by:

R M KOLE & ASSOC. CORP.
surveyors • consultants • planners • utilities • osp
5316 Ridge Road – Cleveland, Ohio 44129
Phone 440.885.7137 – Fax 440.885.7139
www.kolesurvey.com

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Rootstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com

STATE OF OHIO · MATTHEW L WEBER · 61709 · REGISTERED · PROFESSIONAL ENGINEER

Reg. No.: 61709

CLIENT:
GROSE & MANZ BUILDERS
BRAD GROSE
(419) 357-9579
3517 FOSTER ROAD
CONVOY, OHIO 45832

OWNER:
BLISSFUL CORP.
970 S. JEFFERSON AVE
COOKEVILLE, TN 38501

LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

TITLE SHEET

C100
Project No. 2025-190

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GENERAL NOTES

1. THE CONSTRUCTION OF THIS PROJECT SHALL BE GOVERNED BY THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION (O.D.O.T.) CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITION, THE O.D.O.T. STANDARD CONSTRUCTION DRAWINGS, AND THE GROVE CITY SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWINGS.
2. ALL DISTURBED GREEN AREAS SHALL BE TOP DRESSED AND RE-SEEDED.
3. CALL OHIO UTILITIES PROTECTION SERVICE BEFORE DIGGING (800-362-2764).
4. ALL STORM SEWERS SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE), SMOOTH LINED, PER O.D.O.T. ITEM 707.33.
5. ELECTRICAL CONDUIT SHALL BE AS REQUIRED BY THE UTILITY OWNER.
6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS IN THE ENGINEERING AND BUILDING DEPARTMENTS.
7. THE CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL SILTATION CONTROL MEASURES NECESSARY TO PREVENT SILT FROM LEAVING THE SITE.
8. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF DEMOLITION MATERIAL AND DEBRIS.
9. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL DISTURBED AREAS TO THEIR ORIGINAL CONDITION, OR BETTER.
10. TEMPORARY SOIL EROSION AND SEDIMENT CONTROL WILL BE REQUIRED IN ACCORDANCE WITH THE GROVE CITY ENGINEER'S OFFICE.
11. A PRE CONSTRUCTION MEETING MUST BE HELD AT THE GROVE CITY ENGINEER'S OFFICE PRIOR TO STARTING ANY CONSTRUCTION ACTIVITY. IN ADDITION, THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE TO THE GROVE CITY BEGINNING WORK TO ARRANGE FOR INSPECTION.
12. A 18 INCH. MINIMUM VERTICAL CLEARANCE SHALL BE MAINTAINED FROM THE OUTSIDE EDGE OF ALL WATER MAIN PIPE TO THE OUTSIDE EDGE OF ALL STORM SEWER PIPE.
13. A 10 FOOT MINIMUM HORIZONTAL CLEARANCE SHALL BE MAINTAINED FROM THE OUTSIDE EDGE OF ALL WATER MAIN PIPE TO THE OUTSIDE EDGE OF ALL STORM SEWER PIPE.
14. AN 18 INCH MINIMUM VERTICAL CLEARANCE SHALL BE MAINTAINED FROM THE OUTSIDE EDGE OF ALL WATER MAIN PIPE TO THE OUTSIDE EDGE OF ALL SANITARY SEWER.
15. ALL PARKING LOT PAVEMENT MARKING SHALL BE WHITE.

Survey by:

R M KOLE & ASSOC. CORP.
surveyors • consultants • planners • utilities • osp
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STATE OF OHIO · MATTHEW L. WEBER · 61709 · REGISTERED PROFESSIONAL ENGINEER

Reg. No.: 61709

CLIENT:

GROSE & MANZ BUILDERS
BRAD GROSE
(419) 357-9579
3517 FOSTER ROAD
CONVOY, OHIO 45832

OWNER:

BLISSFUL CORP.
970 S. JEFFERSON AVE
COOKEVILLE, TN 38501

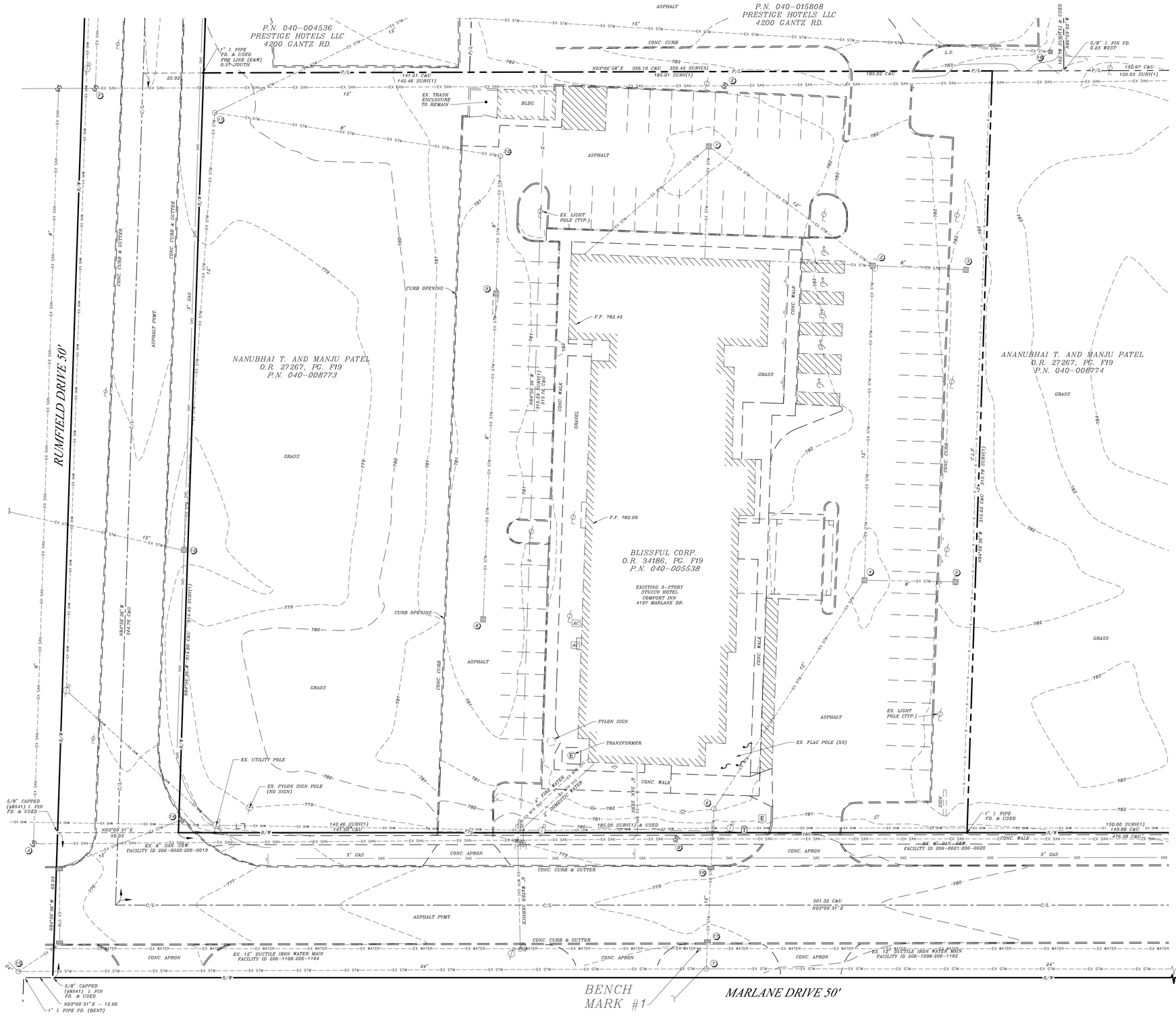
LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
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03-26-2026

GENERAL NOTES

C100A
Project No. 2025-190

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SITE BENCH MARK
BENCH MARK #1 TOP OF HYDRANT
ELEVATION = 782.26

SITE BENCH MARK
BENCH MARK #2 TOP OF HYDRANT (260' NORTH OF BENCHMARK #1 ON MARLANE DR.)
ELEVATION = 784.13

EX. STORM STRUCTURE SCHEDULE

1. EX. CATCH BASIN
   TOP 780.43
   INV. 779.03, 12" NE
   INV. 779.03, 8" E
2. EX. CATCH BASIN
   TOP 780.93
   INV. 778.32, 12" E
   INV. 778.41, 8" N
   INV. 778.43, 12" SW
3. EX. CATCH BASIN
   TOP 781.08
   INV. 779.91, 8" S
4. EX. CATCH BASIN
   TOP 780.46
   INV. 777.66, 12" SE
   INV. 777.68, 8" N
   INV. 777.68, 12" W
5. EX. CATCH BASIN
   TOP 780.90
   INV. 779.55, 8" N
6. EX. STORM MANHOLE
   TOP 782.13
   INV. 776.90, 12" E
   INV. 776.90, 12" NW
7. EX. STORM MANHOLE
   TOP 779.57
   INV. 772.37, 24" S
   INV. 772.77, 24" N
   INV. 772.37, 24" SE
   INV. 774.37, 12" W
8. EX. CATCH BASIN
   TOP 780.01
   INV. 776.48, 8" W
9. EX. CATCH BASIN
   TOP 779.93
   INV. 775.05, 8" W
   INV. 775.43, 8" E
   VERT. PIPE TOP 778.37
10. EX. STORM MANHOLE
    TOP 781.12
    INV. 774.72, 8" S
    INV. 774.92, 8" E
11. EX. STORM MANHOLE
    TOP 778.99
    INV. 773.89, 8" N
    INV. 773.79, 12" NW
12. EX. CATCH BASIN
    TOP 777.54
    INV. 772.44, 12" W
13. EX. STORM MANHOLE
    TOP 781.70
    INV. 774.30, 24" S
    INV. 774.30, 24" N
    INV. 774.70, 12" W
14. EX. CURB INLET
    TOP 776.11
    INV. 773.01, 12" SE
15. EX. STORM MANHOLE
    TOP 775.84
    INV. 769.94, 24" N
16. EX. CURB INLET
    GRATE 778.80
    NO INV. DATA
17. EX. CURB INLET
    GRATE 776.53
    NO INV. DATA
18. EX. CATCH BASIN
    TOP 781.68
    INV. 779.51, 15" S

EX. SANITARY STRUCTURE SCHEDULE

A. EX. SANITARY MANHOLE
   TOP 776.30
   INV. 770.40, 8" W
   INV. 770.50, 8" N
B. EX. SANITARY MANHOLE
   TOP 779.61
   INV. 771.54, 6" S
   INV. 771.54, 8" N
C. EX. SANITARY MANHOLE
   (NOT IN VIEW)
   TOP 781.53
   INV. 772.58, 8" S
   INV. 772.58, 8" N
D. EX. SANITARY MANHOLE
   (NOT IN VIEW)
   TOP 783.69
   INV. 771.54, 12" S
   INV. 771.54, 12" N
E. EX. SANITARY MANHOLE
   TOP 782.43
   INV. 770.03, 12" S
   INV. 770.03, 12" N
F. EX. SANITARY MANHOLE
   TOP 779.12
   INV. 768.92, 12" S
   INV. 768.92, 12" N
   INV. 769.38, 8" W

LEGEND

ITALICS TEXT REPRESENTS EXISTING CONDITION

NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION

EXISTING LEGEND

■	FOUND MONUMENT BOX AS NOTED	EX. EDGE OF WATER
◆	BENCHMARK	EX. FENCE
○S	SET IRON PIN WITH "ATWELL" CAP	EX. TREE LINE
○F	FOUND IRON ROD AS NOTED	EX. RAILROAD
(Dd.)	DEED	FENCE
(OBS.)	OBSERVED	OVERHEAD UTILITY WIRES
(R)	RECORD	GAS LINES
(FND.)	FOUND	SANITARY LINES
(U)	USED	STORM LINES
(PP)	PER PLAN	WATER LINES
DOC.	DOCUMENT	UTILITY POLE
NO.	NUMBER	MAJOR CONTOURS
UNK	UNKNOWN	MINOR CONTOURS
HDPE	HIGH-DENSITY POLYETHYLENE PIPE	EX. EASEMENT
SMP	SMOOTH METAL PIPE	EX. COMM. LINE
ELV.	ELEVATION	
UTP	UTILITY POLE	
ASPH.	EX. ASPH.	
(	EX. CULVERT END	
□○	EX. CATCH BASIN/INLET AS NOTED	
●	EX. UTILITY POLE	
⊢	EX. HYDRANT	
⊕	EX. WATER VALVE	
□G	EX. GAS RISER	
⮜	EX. SANITARY LINE MARKER	

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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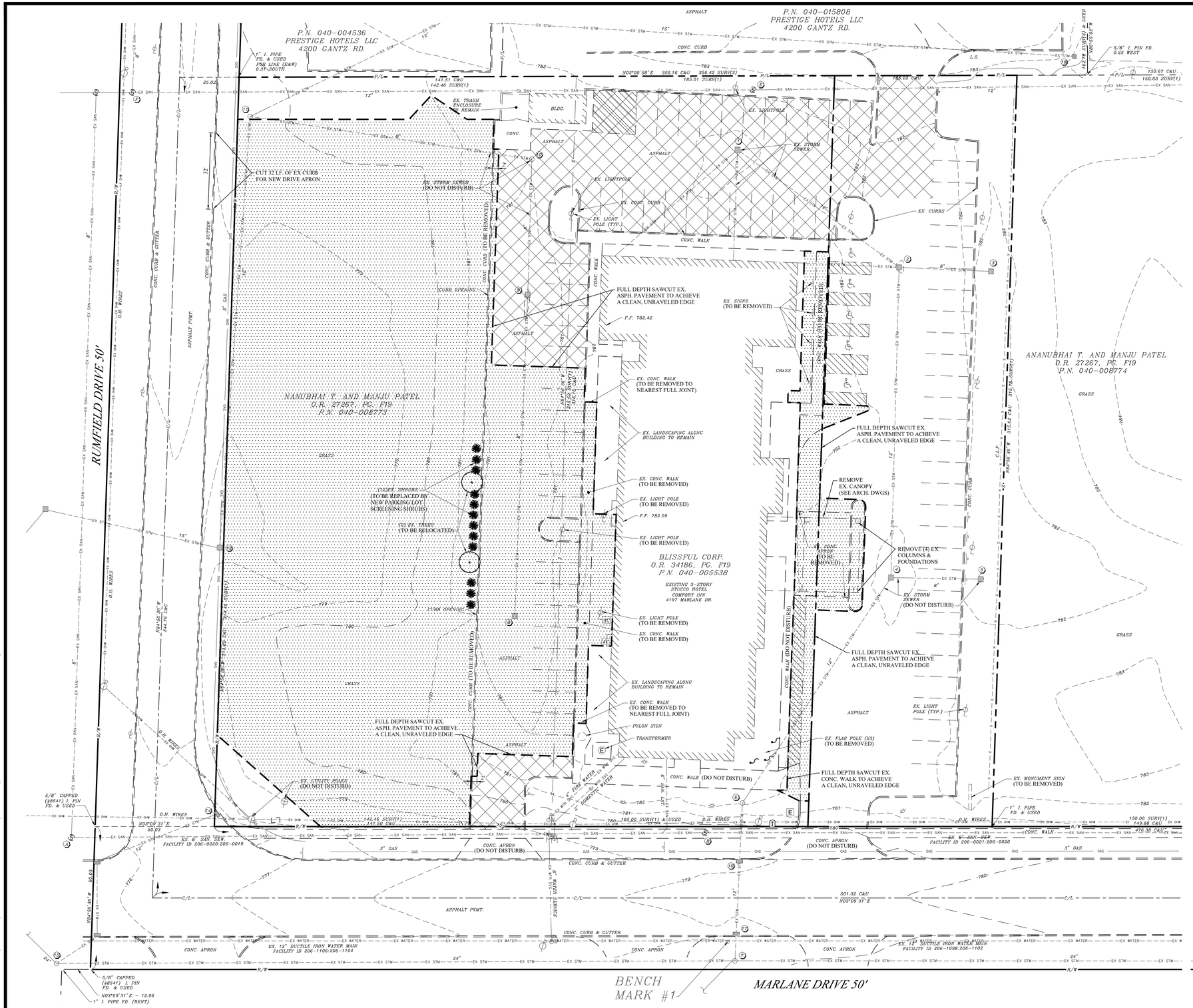
LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

EXISTING CONDITIONS PLAN

C101
Project No. 2025-190

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SITE BENCH MARK

BENCH MARK #1
TOP OF HYDRANT

ELEVATION = 782.26

SITE BENCH MARK

BENCH MARK #2
TOP OF HYDRANT
(260' NORTH OF BENCHMARK #1 ON MARLANE DR.)

ELEVATION = 784.13

EX. STORM STRUCTURE SCHEDULE

1. EX. CATCH BASIN
TOP 780.43
INV. 779.03, 12" NE
INV. 779.03, 8" E
2. EX. CATCH BASIN
TOP 780.93
INV. 778.32, 12" E
INV. 778.41, 8" N
INV. 778.43, 12" SW
3. EX. CATCH BASIN
TOP 781.08
INV. 779.91, 8" S
4. EX. CATCH BASIN
TOP 780.46
INV. 777.66, 12" SE
INV. 777.68, 8" N
INV. 777.68, 12" W
5. EX. CATCH BASIN
TOP 780.90
INV. 779.55, 8" N
6. EX. STORM MANHOLE
TOP 782.13
INV. 776.90, 12" E
INV. 776.90, 12" NW
7. EX. STORM MANHOLE
TOP 779.57
INV. 773.77, 24" S
INV. 772.77, 24" N
INV. 772.37, 24" SE
INV. 774.37, 12" W
8. EX. CATCH BASIN
(TO BE MODIFIED)
TOP 780.01
INV. 776.48, 8" W
9. EX. CATCH BASIN
TOP 779.93
INV. 775.05, 8" W
INV. 775.43, 8" E
VERT. PIPE TOP 778.37
10. EX. STORM MANHOLE
TOP 781.12
INV. 774.72, 8" S
INV. 774.92, 8" E
11. EX. STORM MANHOLE
TOP 778.99
INV. 773.69, 12" E
INV. 773.89, 8" N
INV. 773.79, 12" NW
12. EX. CATCH BASIN
(TO BE MODIFIED)
TOP 777.54
INV. 772.16, 15" S
INV. 772.44, 12" W
13. EX. STORM MANHOLE
(NOT IN VIEW)
TOP 781.70
INV. 774.30, 24" S
INV. 774.30, 24" N
INV. 774.70, 12" W
14. EX. CURB INLET
TOP 776.11
INV. 773.01, 12" SE
15. EX. STORM MANHOLE
TOP 775.84
INV. 769.91, 24" SW
INV. 769.94, 24" N
16. EX. CURB INLET
GRATE 778.80
NO INV. DATA
17. EX. CURB INLET
GRATE 778.59
NO INV. DATA
18. EX. CATCH BASIN
TOP 781.68
INV. 779.51, 15" S

EX. SANITARY STRUCTURE SCHEDULE

A. EX. SANITARY MANHOLE
TOP 776.30
INV. 770.40, 8" W
INV. 770.50, 8" N
B. EX. SANITARY MANHOLE
TOP 779.61
INV. 771.54, 8" S
INV. 771.54, 8" N
C. EX. SANITARY MANHOLE
(NOT IN VIEW)
TOP 781.53
INV. 772.58, 8" S
INV. 772.58, 8" N
D. EX. SANITARY MANHOLE
(NOT IN VIEW)
TOP 783.69
INV. 771.54, 12" S
INV. 771.54, 12" N
E. EX. SANITARY MANHOLE
TOP 782.43
INV. 770.03, 12" S
INV. 770.03, 12" N
F. EX. SANITARY MANHOLE
TOP 779.12
INV. 768.92, 12" S
INV. 768.92, 12" N
INV. 769.38, 8" W

LEGEND

0.98 AC — AREA OF DEMOLITION & CLEARING

AREA OF PAVEMENT MILL & RESURFACE

ITALICS TEXT REPRESENTS EXISTING CONDITION

NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION

EXISTING LEGEND

▣	FOUND MONUMENT BOX AS NOTED		EX. EDGE OF WATER
✠	BENCHMARK	x x	EX. FENCE
⊙S	SET IRON PIN WITH "ATWELL" CAP		EX. TREE LINE
⊙F	FOUND IRON ROD AS NOTED		EX. RAILROAD
(D&.)	DEED		FENCE
(OBS.)	OBSERVED	EX OHW	OVERHEAD UTILITY WIRES
(R)	RECORD		GAS LINES
(FND.)	FOUND	EX SAN	SANITARY LINES
(U)	USED	EX STM	STORM LINES
(PP)	PER PLAT	EX WATER	WATER LINES
DOC.	DOCUMENT	000	MAJOR CONTOURS
NO.	NUMBER	000	MINOR CONTOURS
UNK	UNKNOWN		EX. EASEMENT
HDPE	HIGH-DENSITY POLYETHYLENE PIPE	TELE	EX. COMM. LINE
SMP	SMOOTH METAL PIPE		
ELV.	ELEVATION		
UTP	UTILITY POLE		
ASPH.	EX. ASPH.		
(	EX. CULVERT END		
□○	EX. CATCH BASIN/INLET AS NOTED		
◆	EX. UTILITY POLE		
⊳	EX. HYDRANT		
●	EX. WATER VALVE		
□ □	EX. GAS RISER		
⚑	EX. SANITARY LINE MARKER		

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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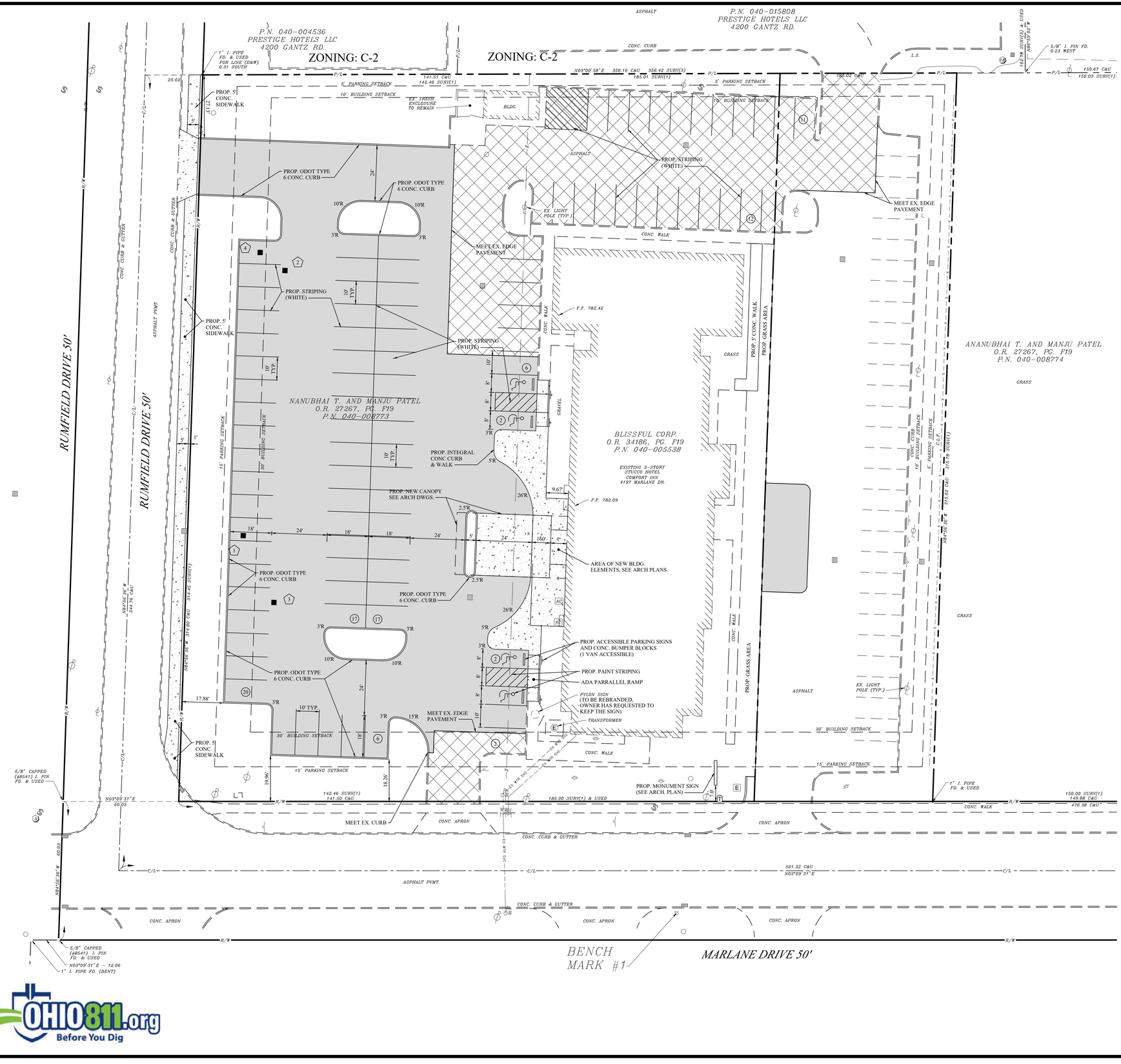
LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

DEMOLITION PLAN

C101A
Project No. 2025-190

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SITE BENCH MARK
BENCH MARK #1 TOP OF HYDRANT
ELEVATION = 782.26

SITE DATA

USE DISTRICT	=	C-2
SITE AREA		
EXISTING HOTEL SITE	=	+/- 2.41 AC.
EX. BUILDING AREA	=	13,616 S.F. (FOOTPRINT)

BUILDING SETBACKS:

FRONT YARD	=	30'
SIDE YARD	=	10'
REAR YARD	=	10'

REQUIRED HOTEL PARKING SPACES = 1 PER ROOM/SUITE
THE HOTEL HAS 78 ROOMS TOTAL

EXISTING HOTEL -NUMBER OF PARKING SPACES:

REGULAR PARKING SPACES	=	91
HANDICAP PARKING SPACES	=	4
TOTAL PARKING SPACES	=	95

FLOOD ZONE

FLOOD ZONE "X" PER FLOOD INSURANCE
RATE MAP NUMBER 39049C 0318 K
EFFECTIVE DATE JUNE 17, 2008

LEGEND

- REGULAR DUTY ASPHALT
- CONCRETE PAVING
- AREA OF PAVEMENT MILL & RESURFACE

ITALICS TEXT REPRESENTS EXISTING CONDITION

NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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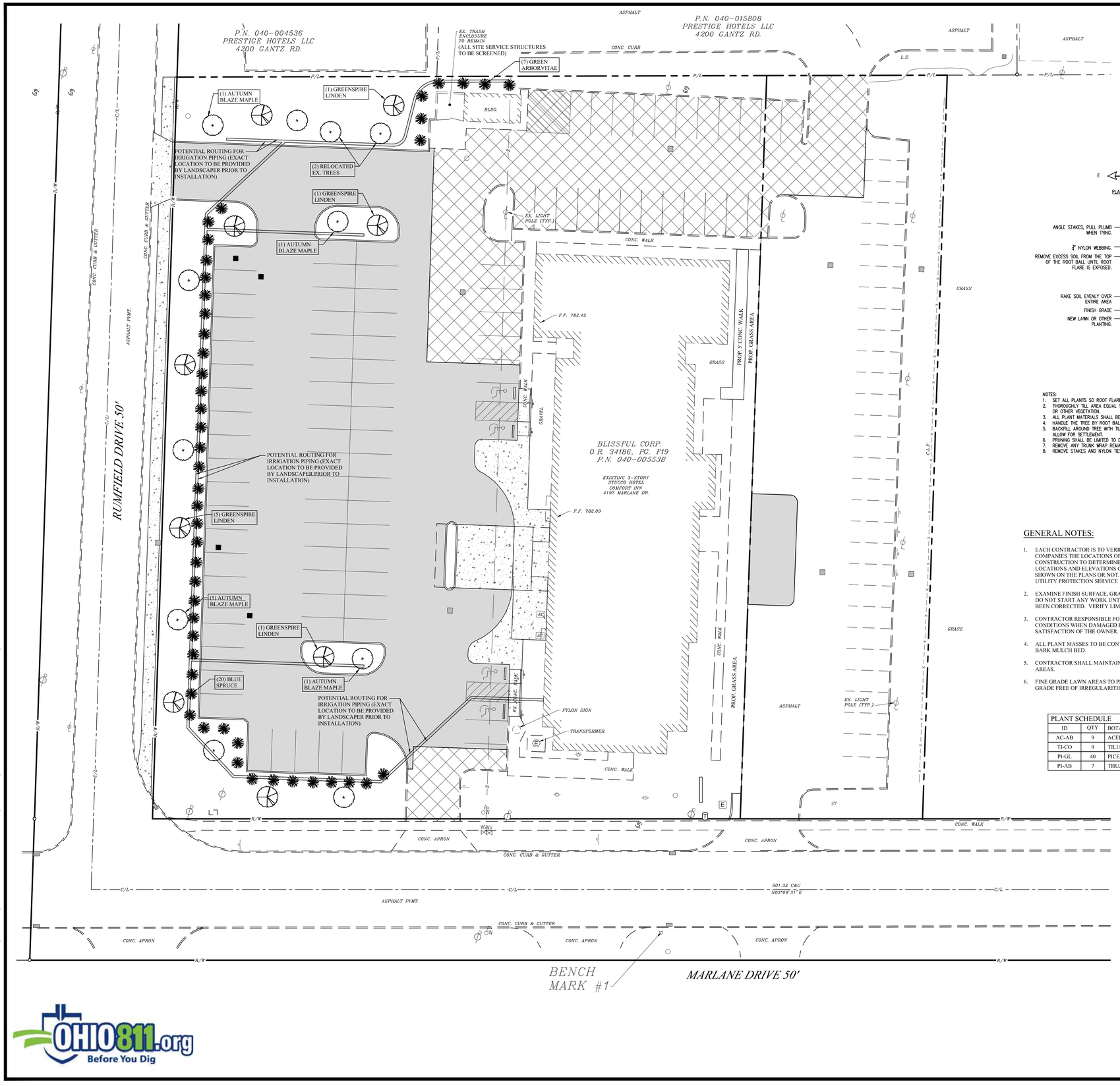
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Issue Date
02-25-2025
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SITE PLAN

C102
Project No. 2025-190

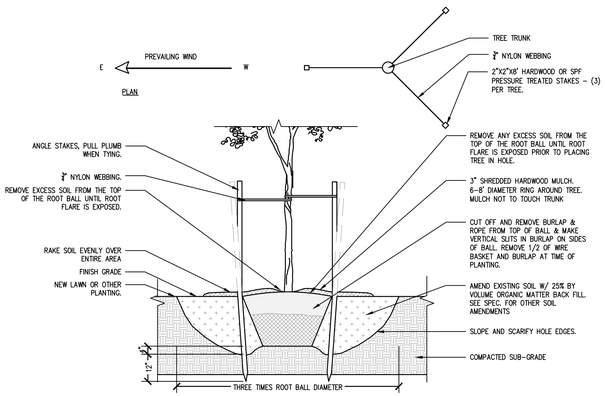
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SITE BENCH MARK

BENCH MARK #1
TOP OF HYDRANT

ELEVATION = 782.26



NOTES:
1. SET ALL PLANTS SO ROOT FLARE IS AT OR 1"-2" ABOVE FINISH GRADE.
2. THOROUGHLY TILL AREA EQUAL TO 3 TIMES THE DIAMETER OF THE ROOT BALL AND TO THE DEPTH OF THE ROOT BALL. PRIOR TO TILLING, REMOVE ANY EXISTING LAWN OR OTHER VEGETATION.
3. ALL PLANT MATERIALS SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARDS FOR NURSERY STOCK (ANSI Z60. 1-2004)
4. HANDLE THE TREE BY ROOT BALL ONLY. DO NOT LIFT USING THE TREE TRUNK AND DO NOT USE TREE TRUNK AS LEVER.
5. BACKFILL AROUND TREE WITH TILLED SOIL AND "WATER IN" BACKFILL IN LAYERS TO SETTLE IN BACKFILL. INSTALL BACKFILL 1" HIGHER THAN SURROUNDING GRADE TO ALLOW FOR SETTLEMENT.
6. PRUNING SHALL BE LIMITED TO DEAD, DISEASED, OR BROKEN LIMBS ONLY AND SHALL BE IN ACCORDANCE WITH ANSI SPECIFICATIONS.
7. REMOVE ANY TRUNK WRAP REMAINING AT TIME OF PLANTING. NO WRAPS SHALL BE PLACED ON TRUNK.
8. REMOVE STAKES AND NYLON TIES AFTER ONE YEAR UNLESS OTHERWISE DIRECTED.

TREE PLANTING DETAIL
REFERENCE ONLY NOT TO SCALE

GENERAL NOTES:

1. EACH CONTRACTOR IS TO VERIFY WITH OWNER AND UTILITY COMPANIES THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION TO DETERMINE IN THE FIELD THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL CALL UTILITY PROTECTION SERVICE 12 HOURS PRIOR TO CONSTRUCTION.
2. EXAMINE FINISH SURFACE, GRADES, TOPSOIL QUALITY AND DEPTH. DO NOT START ANY WORK UNTIL SATISFACTORY CONDITIONS HAVE BEEN CORRECTED. VERIFY LIMITS OF WORK BEFORE STARTING.
3. CONTRACTOR RESPONSIBLE FOR COST OF REPAIRS TO EXISTING SITE CONDITIONS WHEN DAMAGED BY CONTRACTOR. REPAIR TO THE SATISFACTION OF THE OWNER.
4. ALL PLANT MASSES TO BE CONTAINED WITHIN 3" DEEP HARDWOOD BARK MULCH BED.
5. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN LAWN AREAS.
6. FINE GRADE LAWN AREAS TO PROVIDE A SMOOTH AND CONTINUAL GRADE FREE OF IRREGULARITIES OR DEPRESSIONS.
7. CONTRACTOR SHALL SOD ALL AREAS DISTURBED DURING CONSTRUCTION, SEE PLAN. ALL PARKING ISLANDS TO BE TURF.
8. ALL PLANTS SHALL MEET OR EXCEED STANDARDS SET IN THE U.S.A. STANDARD FOR NURSERY STOCK.
9. ALL PLANTING OPERATIONS SHALL ADHERE TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.
10. ANY DEAD LANDSCAPING MATERIAL SHALL BE REPLACED IN PERPETUITY AND IN A TIMELY MANNER WITH APPROVED PLANTS AS NOTED ON PLANNING COMMISSION-APPROVED LANDSCAPE PLANS.
11. ANY CHANGES TO THE TYPE AND QUANTITY OF PLANTS ON THE PLANNING COMMISSION-APPROVED LANDSCAPING PLAN SHALL REQUIRE APPROVAL BY THE CITY OF GROVE CITY PLANNING AND ZONING DIRECTOR.
12. IRRIGATION PLAN SHALL BE PROVIDED BY LANDSCAPE CONTRACTOR PRIOR TO INSTALLATION OF PLANTINGS.
13. LOOSE STRAW IS NOT TO BE USED FOR ANY AREAS THAT ARE SEEDED.
14. ALL EXISTING TREES AND SHRUBS THAT ARE PLANNED TO BE REMOVED AS PART OF THIS PLAN WILL NEED TO BE REPLACED ELSEWHERE ON THE PROPERTY

PLANT SCHEDULE

ID	QTY	BOTANICAL NAME	COMMON NAME	SCHEDULED SIZE
AC-AB	9	ACER F. 'AUTUMN BLAZE'	AUTUMN BLAZE MAPLE	3"
TI-CO	9	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	3"
PI-GL	40	PICEA PUNGENS 'GLOBOSA'	GLOBOSA BLUE SPRUCE	6 GAL.
PI-AB	7	THUJA OCCIDENTALIS	EMERALD GREEN ARBORVITAE	48" HGT.

LEGEND

- REGULAR DUTY ASPHALT
- CONCRETE PAVING
- AREA OF PAVEMENT MILL & RESURFACE

ITALICS TEXT REPRESENTS EXISTING CONDITION

NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION

ALL SERVICE STRUCTURES ON SITE ARE REQUIRED TO BE SCREENED PER SECTION 1136.08 OF THE CITY OF GROVE CITY CODIFIED ORDINANCE.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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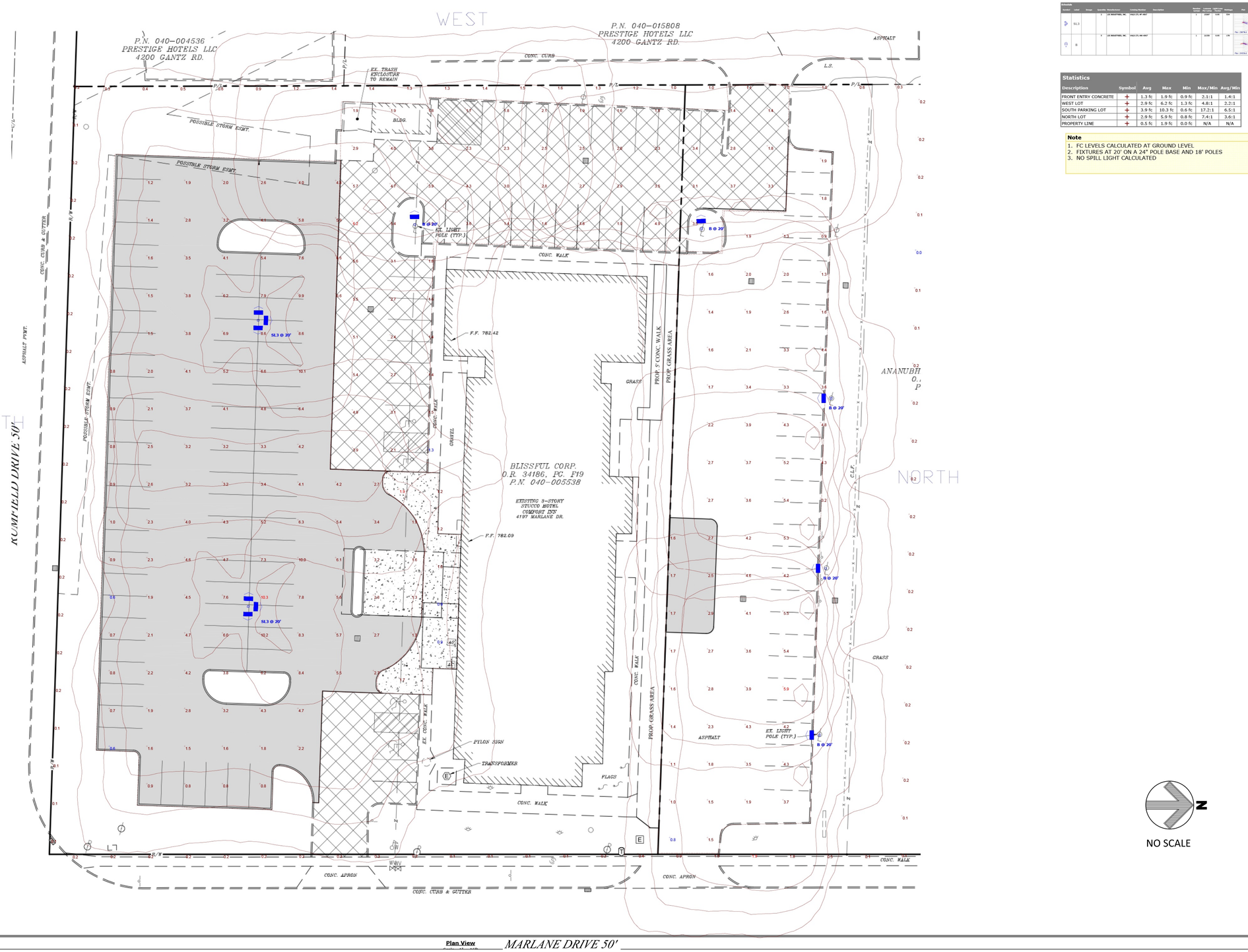
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LANDSCAPE PLAN

C102A
Project No. 2025-190

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Plan View — MARLANE DRIVE 50'

Schedule											
Number	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Number of Lamps	Initial Lamp Lumens	Light Loss Factor	Wattage	Plot
	SL3		3	LSI INDUSTRIES, INC.	WALL-FL-HP-4SA7		1	45997	0.90	278	
	B		3	LSI INDUSTRIES, INC.	WALL-FL-HP-4SA7		1	31556	0.90	178	

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
FRONT ENTRY CONCRETE	+	1.3 fc	1.9 fc	0.9 fc	2.1:1	1.4:1
WEST LOT	+	2.9 fc	6.2 fc	1.3 fc	4.8:1	2.2:1
SOUTH PARKING LOT	+	3.9 fc	10.3 fc	0.6 fc	17.2:1	6.5:1
NORTH LOT	+	2.9 fc	5.9 fc	0.8 fc	7.4:1	3.6:1
PROPERTY LINE	+	0.5 fc	1.9 fc	0.0 fc	N/A	N/A

Note
1. FC LEVELS CALCULATED AT GROUND LEVEL
2. FIXTURES AT 20' ON A 24" POLE BASE AND 18' POLES
3. NO SPILL LIGHT CALCULATED

NO SCALE

VISUAL

LA QUINTA

Designer BRIAN JONES
Date 03/23/2026
Scale Not to Scale
Drawing No. 3
Summary

1 of 1

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LIGHTING PLAN

C102B
Project No. 2025-190

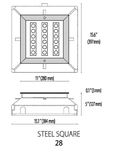
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STEEL SQUARE 28



In-ground series. Fixtures consist of:
- Copper-free die-cast aluminum housing and die-cast corrosion-resistant AISI 316 stainless steel trim.
- Extra-clear, flat, tempered silk-screened soda-lime glass diffuser.
- Custom molded, anti-aging gasket(s).
- Stainless steel external hardware.
- Custom MCPCB utilized to maximize heat dissipation and promote a long LED life.
- Standard aimable optic system (±7°).
- High-transmittance transparent optics.
- 8° x 8° beam angle (C/I).
- 10° x 45° beam angle (E/LL).
- Input voltage: 120-277 V (50 / 60 Hz), integral driver.
- Pre-wired cable connects luminaire with WATER-STOP connection system, suitable for through wiring. Included cable glands accept cables from Ø0.35" up to Ø0.63".
- Drive over rated <6 MPH, 4850 lbs weight Static load up to 4409 lbs
- Each rough-in kit is provided with a protective faceplate to avoid possible deformations during the installation in concrete to simplify installation.
- Consult factory for dimming options, custom finishes (please specify RAL color), and non-catalogued CCT (Kelvin) options.
- Consult factory for frosted or non-slip glass options.
- Thermoplastic compression-molded rough-in kit can be ordered separately.
- For outdoor inground applications, provide drainage gravel at least 12" below the rough-in or a suitable drainage system.
- Product meets Buy American Act requirements within ARRA.
- 5-year warranty.
- Marine Grade finish.
- Suitable for Natatorium applications.

FINISHES
- **INOX** / Stainless steel / Matt
- **BK-81** / Black / Textured
- **AN-96** / Iron gray / Textured
- **GR-94** / Aluminum metallic / Textured
- **WH-87** / White / Textured
- **RB-10** / Iron rust / Textured



STEEL SQUARE 28

Lumen Output	3K	4K	6K
Steel Sq 28 - 12 LED ELL	550	756	763
Steel Sq 28 - 12 LED 8°	686	929	939
Steel Sq 28 - 18 LED ELL	852	1146	1148
Steel Sq 28 - 18 LED 8°	1056	1425	1465
Steel Sq 28 Side - 6 LED ELL	277	364	368
Steel Sq 28 Side - 6 LED 8°	344	465	465

7W/15W/22W Max Wattage

Scan here for installation instructions

Revision 10
10/24

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Order Guide - Steel Square 28

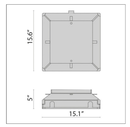
Order code example: **SS28-6-7-SS-3K-UNV-NA-NS**

Series	Light Emission	Wattage	Optics	Finish	Kelvin	Voltage	Controls	Accessories
SS28 Steel Square 28	**6** 6LED **12** 12LED **18** 18LED	**7** 7.6 watt (6LED Max) **15** 15.3 watt (12LED Max) **22** 22.4 watt (18LED Max) **XX** Specify Wattage Must be below max	**8** 8° Beam **15** 15° Beam **20** 20° Beam **30** 30° Beam **35** 35° Beam **45** 45° Beam **55** 55° Beam **75** 75° Beam **80** 80° Beam **ELL** 10°x45°	**SS** Stainless Steel **AM** Aluminum Metallic **IG** Iron Gray **IR** Iron Rust **BK** Textured Black **WH** Textured White **CC** Custom Color	**27K** 2700k **3K** 3000k **35K** 3500k **4K** 4000k **6K** 6000K **RED** Static Red **BLU** Static Blue **GRN** Static Green **AMB** Static Amber	**UNV** 120-277V	**NA** Non Dimming **ELV** ELV Dimming	**NS** Non-Slip Glass **LVR** Hex Louver **FRST** Frosted glass lens **TP** Tamper Proof hardware **BABAA** Build America Buy America Act compliant

80 CRI STANDARD - OTHER OPTIONS AVAILABLE

INCLUDED ACCESSORIES

DESCRIPTION	FINISH	PART NUMBER
STEEL SQUARE 28 Recessed Rough-in kit		310374



Performance in Lighting reserves the right to make all necessary changes without prior notice.
Performance in Lighting - 2621 Keys Pointe - Conyers, Georgia 30013 - USA - voice 770.822.2115 - info.usa@pil.lighting
www.performanceinlighting.com

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Catalog # : _____ Project : _____ Type : _____
Prepared By: _____ Date : _____

V-Locity® Small (VALS)

Outdoor LED Area Light

IP66 IK07



OVERVIEW	
Lumen Package	6,000 - 27,000
Wattage Range	36 - 178
Efficacy Range (LPW)	96 - 171
Weight lbs(kg)	20 (9.1)
Control Options	IMSBT, ALB, ALS, 7-Pin, PCI

QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction
- Rugged die-cast aluminum housing contains factory prewired driver and optical units. Cast aluminum wiring access door located underneath.
- Self-contained optic, board and heat sink assembly can be rotated or replaced in the field.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: TBD lbs in carton.

Optical System
- State-of-the-Art acrylic optics delivers industry leading optical control with an integrated gasket to provide IP66 rated seal.
- Proprietary refractor optics provide exceptional coverage and uniformity in distribution types 2, 3M, 3W, 4M, 4W, 4F, FTM, SQN, SQM, SQ, SQW, AM, WF and LC/RC.
- Available in 5000K, 4000K, 3500K, 3000K and 2700K color temperatures per ANSI C78.377 as well as phosphor converted amber.
- Minimum CRI of 80 (optional 70 CRI for 5000K, 4000K, and 3000K).
- Factory or field installable integral shielding available for enhanced spill light control.
- Zero Uplight (excludes adjustable arms).

Electrical
- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (10% - 100%) standard, must specify EXT option for dimming leads to be extended to fixture exterior.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- L70 Calculated Life: >60k Hours
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F).
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls
- Optional integral passive infrared Bluetooth™ motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- AirLink™ Blue wireless control system with technology partner Silvair incorporates Luminaire Level Lighting Controls (LLLC) and high-end trim

Installation
- REDiMount pole mount arm allows for a true one person installation.
- Side arm pole mount designed to mount to square or round poles.
- Pole mount arms can accommodate pole drill patterns from 2.4 to 5" on center and utilize LSI's reduced B3 or traditional B5 drill patterns.
- Additional mounting options are available including a mast arm or adjustable slip fitter that allow for luminaire attachment to a 2 3/8" tenon or mast arm.
- Adjustable arms allow for 65° of tilt (-5°below horizontal to +60° above horizontal) in 5° increments.

Warranty
- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.

Listings
- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- DarkSky approved with 3000K or warmer color temperature selection and fixed mounting arms / non-adjustable brackets.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- IK07 rated luminaire per IEC 66262 mechanical impact code.

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V-Locity® Small (VALS) Outdoor LED Area Light

Have questions? Call us at (800) 436-7800

Type : _____

ORDERING GUIDE

Back to Quick Links

TYPICAL ORDER EXAMPLE: **VALS 18L 4W UNV 40K8 BLK SA ALBMR2LR IS**

Prefix	Lumen Package	Distribution	Orientation[2]	Voltage	Color Temp /Rendering	Finish
VALS - V-Locity Area Light Small	**6L** - 6,000 lms, 36W **9L** - 9,000 lms, 54W **12L** - 12,000 lms, 74W **15L** - 15,000 lms, 93W **18L** - 18,000 lms, 111W **21L** - 21,000 lms, 130W **24L** - 24,000 lms, 155W **27L** - 27,000 lms, 178W Custom Lumen Packages[1]	**2** - Type 2 **3M** - Type 3 Medium **3W** - Type 3 Wide **4M** - Type 4 Medium **4W** - Type 4 Wide **FTM** - Forward Throw Medium **SQN** - Type 5 Square Narrow **SQM** - Type 5 Square Medium **SQ** - Type 5 Square **SQW** - Type 5 Square Wide **AM** - Automotive Merchandise **WF** - Full Wide Flood **LC** - Left Corner **RC** - Right Corner	**(Blank)** - Standard **L** - Optics rotated left 90° **R** - Optics rotated right 90°	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347-480V)	***5000K*** - 5000 CCT - 70 CRI ***5080*** - 5000 CCT - 80 CRI ***4070*** - 4000 CCT - 70 CRI ***4080*** - 4000 CCT - 80 CRI ***3580*** - 3500 CCT - 80 CRI *DarkSky Approved CCT's* ***3070*** - 3000 CCT - 70 CRI ***3080*** - 3000 CCT - 80 CRI ***2780*** - 2700 CCT - 80 CRI	**BLK** - Black **BRZ** - Dark Bronze **GMG** - Gun Metal Gray **GPT** - Graphite **MSV** - Metallic Silver **PLP** - Platinum Plus **SNG** - Satin Verde Green **WHT** - White

Mounting	Controls (Choose One)	Options
SA - Universal Side Arm Pole Mount **SF** - Adjustable Slip Fitter **UA** - Universal Adjustable Pole Mount Arm **MA** - Mast Arm	**(Blank)** - None **Wireless Controls System** **AILSC** - AirLink Synapse Control System **AILSC2** - AirLink Synapse Control System with 12-20' MH Motion Sensor **AILSC4** - AirLink Synapse Control System with 20-40' MH Motion Sensor **ALBMR1LR** - AirLink Blue Long Range Wireless Multi-Range Sensor Controller (8-15' MH)[3] **ALBMR2LR** - AirLink Blue Long Range Wireless Multi-Range Sensor Controller (16-40' MH)[3] **Stand-Alone Controls** **EXT** - 0-10V Dimming leads extended to housing exterior **CR7P** - 7 Pin Control Receptacle ANSI C136.41.[3] **IMSBT1** - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH)[4] **IMSBT2** - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH)[4] **PCBU** - 120-277 Button Photocell **PCSU7** - 347V Button Photocell	**IS** - Integral Shield[5] **TE** - Tooless Entry (Mast Arm Only)

Need more information? Click here for our glossary

Have additional questions? Call us at (800) 436-7800

Accessory Ordering Information[6]

CONTROLS ACCESSORIES	
Description	Order Number
Twist Lock Photocell (120V) for use with CR7P	122514
Twist Lock Photocell (208-277) for use with CR7P	122515
Twist Lock Photocell (347V) for use with CR7P	122516
Twist Lock Photocell (480V) for use with CR7P	122580
AirLink 5 Pin Twist Lock Controller	663409
AirLink 7 Pin Twist Lock Controller	663410
Shorting Cap for use with CR7P	149328
Adjustable Output Module	734263

FUSING OPTIONS[7]	
Description	Order Number
Single Fusing (120V)	See Fusing Accessory Guide
Single Fusing (277V)	
Double Fusing (208V, 240V)	
Double Fusing (480V)	
Double Fusing (547V)	

EXTERNAL SHIELDING OPTIONS	
Description	Order Number
1.5" External Shield	See Shielding Guide
3" External Shield	

1. Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
2. Not available on Type 5 or wide flood distributions.
3. Control device or shorting cap must be ordered separately. See Accessory Ordering Information.
4. Motion sensors are field configurable via the CSI app that can be downloaded from your smartphone's native app store.
5. Accessories are shipped separately and field installed.
6. "(S)" denotes finish. See Finish options.
7. Fusing must be located in hand hole of pole. See Fusing Accessory Guide for compatibility.

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V-Locity® Small (VALS) Outdoor LED Area Light

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Type : _____

ACCESSORIES

MOUNTING ACCESSORIES

Side Arm

Trailboss Bracket
Mounts onto a 2" (5mm) IP, 2.375" (60mm) O.D. tenon and allows for mounting up to 4 adjustable slip fitter mount luminaires
Part Number: BKS PTB 2 CLR / BKS PTB 52 CLR (2 Luminaires)
Part Number: BKS PTB 3-90 CLR / BKS PTB 15-90 CLR (3 Luminaires)
Part Number: BKS PTB 4 CLR / BKS PTB 14 CLR (4 Luminaires)



Flood Wall Mount Bracket
Mounts onto vertical wall surface (hardware/anchors not included)
Part Number: BKS FWM 5 CLR (5" Straight Version)
Part Number: BKS FWM 18 CLR (18" Curved Version)



Bolt on Side Tenon Mount
Bolt on Side Tenon Mount
Part Number: BKSFB0 5 CLR (5" Straight Version)
Part Number: BKSFB0 18 CLR (18" Curved Version)
Part Number: BKSFB0 35 CLR (35" Dual Tenon Version)



Inner / Slipfitter

Square Tenon Top
Allows to seamlessly integrate LSI luminaires to open top 4", 5" or 6" square poles with 11 ga. Or 7 ga. wall thickness
Part Number: BKA ISFTO _ SQ CLR



Square Inmon Top
Mounts onto a 2" (5mm) IP, 2.375" (60mm) O.D. tenon and allows for mounting up to 4 luminaires
Part Number: BKA INM *



Square Internal Slipfitter
Mounts inside 4" or 5" square pole and allows for mounting up to 4 luminaires
Part Number: BKA X_ FSF * CLR



Wall Mount / Wood Pole

Wall Mount Bracket
Mounts onto vertical wall surface (hardware/anchors not included)
Part Number: BKS BSO WM CLR
Part Number: BKS B3 WM CLR *(w/Surface Conduit Entry)*



Wood Pole Bracket
Mounts onto wooden poles (6" minimum OD, hardware/anchors not inlcuded)
Part Number: BKS BBO WP CLR



SHIELDING, POLES & MISC. ACCESSORIES

Shielding

Integral Shield for Asymmetric Distributions
Field install integral shield provides maximum backlight control by shielding each individual row of LEDS with minimal impact on Street/front side distribution (includes 2 shields)
Part Number: 839727



Integral Shield for Left and Right Corner Distributions
Field install integral shield provides cutoff from two sides for maximum spill light control when utilizing LC or RC corner distributions (includes 2 shields)
Part Number: TBD



External Shield
External shield blocks view of light source from anyside of luminaire, additional shielding configurations available
Part Number: 835696 (1.5") / 835694 (3")



Poles

Square Poles
14 - 39' steel and aluminum poles in 4", 5" and 6" sizes for retrofit and new construction
Part Number: 456/506/650



Round Poles
16 - 30' steel and aluminum poles in 4" and 5" sizes for retrofit and new construction
Part Number: 489/509



Tapered Poles
20' - 39' steel and aluminum poles for retrofit and new construction
Part Number: 870



Misc.

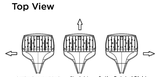
Bird Spikes
10' linear bird spike (5' recommended per luminaire) silicone adhesive (covers approximately 25' linear fee of bird spike) and application tool
Spike Part Number: 759631
Adhesive Part Number: 759652
Caulk Gun Part Number: 759636

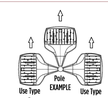


1 Replace CLR with paint finish description
2 Replace XX with SQ for square pole or RD for round pole (ø7" OD)
3 Replace * with S (Single), DBD (Double @180°), DSQ (Double @90°), TSQ (Triple), QSQ (Quad)
4 Replace _ with 4 (4" square pole) or 5 (5" square pole)

OPTICS ROTATION

Top View





ACCESSORIES/OPTIONS

Integral Shield (IS)
Integral Shield (IS) available for improved backlight control without sacrificing Streetlt side performance. LSI's Integral Shield (IS) option delivers backlight control that significantly reduces spill light behind the pole for applications with pole locations close to adjacent properties. The design maximizes forward reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Shields rotate with the optical distribution.

Integral Shield (IS)



Luminaire Shown with AirLink Blue Sensor Option



7 Pin Photoelectric Control
7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with CR7P



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PRODUCT DIMENSIONS

Back to Quick Links



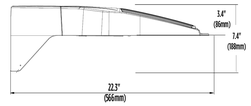
Luminaire EPA Chart - SA Side Arm		
Tilt Degree	0°	
Single	0.7	
D180°	1.3	
D90°	1.0	
T90°	1.4	
TN120°	1.5	
Q90°	1.4	

Luminaire EPA Chart - UA Universal Adjustable Arm					
Tilt Degree	0°	15°	30°	45°	60°
Single	0.8	0.8	1.3	1.8	2.1
D180°	1.5	1.9	2.5	3.2	3.8
D90°	1.5	1.9	2.5	3.2	3.8
T90°	1.8	2.1	2.7	3.2	3.8
TN120°	1.8	2.3	3.4	4.3	5.0
Q90°	1.8	2.1	2.7	3.2	3.8

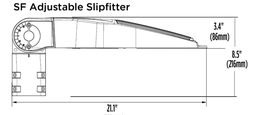
Luminaire EPA Chart - MA Mast Arm	
Tilt Degree	0°
Single	0.5

Luminaire EPA Chart - SF Adjustable Slip Fitter					
Tilt Degree	0°	15°	30°	45°	60°
Single	0.7	1.3	1.4	1.8	2.2

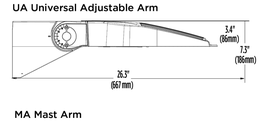
SA Universal Side Arm Mount



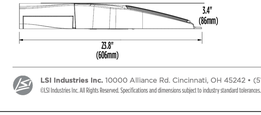
SF Adjustable Slipfitter



UA Universal Adjustable Arm



MA Mast Arm



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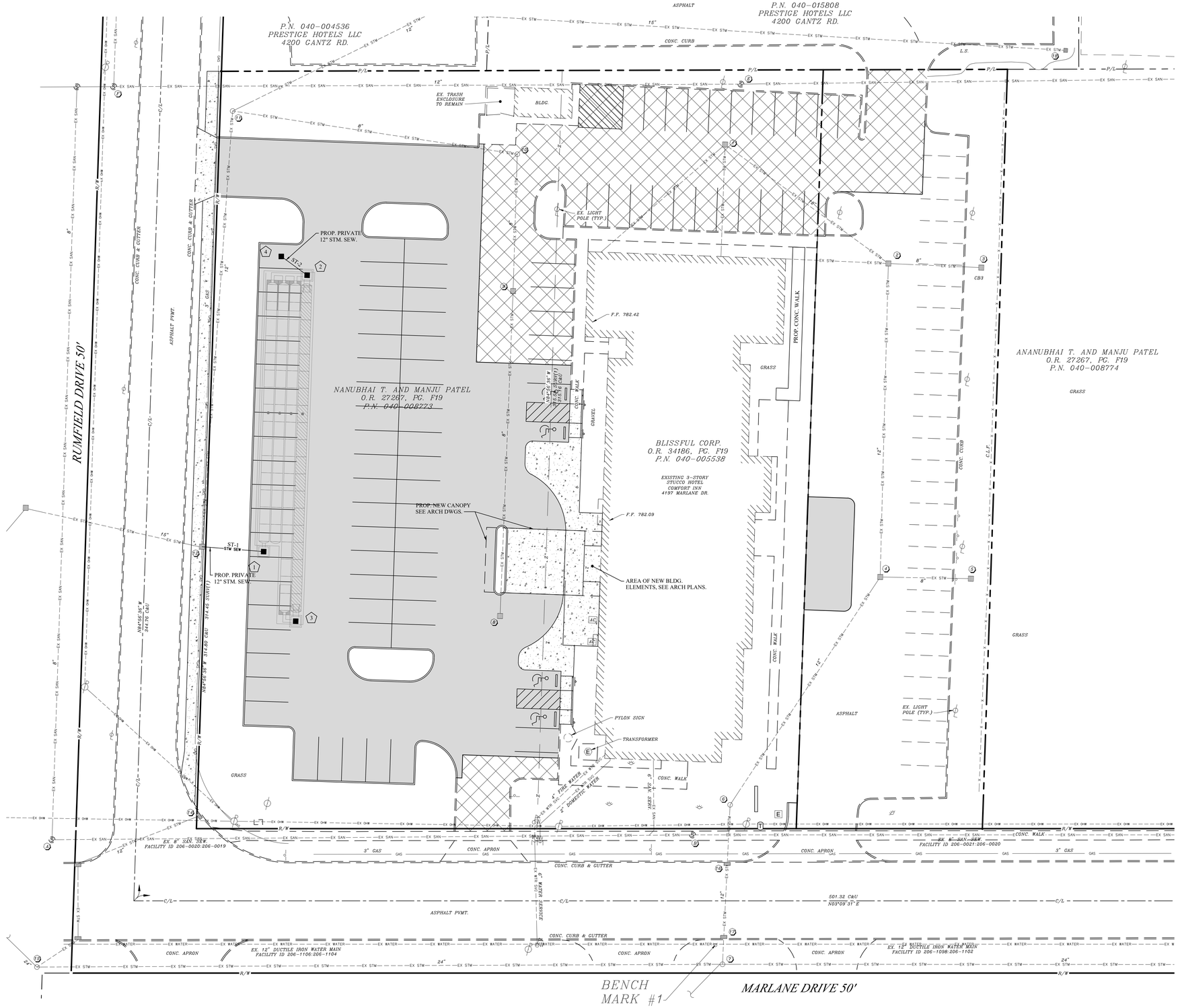
OWNER:
BLISSFUL CORP.
970 S. JEFFERSON AVE
COOKEVILLE, TN 38501

LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

LIGHTING DETAILS

C102C
Project No. 2025-190



SITE BENCH MARK

BENCH MARK #1
TOP OF HYDRANT

ELEVATION = 782.26

EX. STORM STRUCTURE SCHEDULE

1. EX. CATCH BASIN
TOP 780.43
INV. 779.03, 12" NE
INV. 779.03, 8" E
2. EX. CATCH BASIN
TOP 780.93
INV. 778.32, 12" E
INV. 778.41, 8" N
INV. 778.43, 12" SW
3. EX. CATCH BASIN
TOP 781.08
INV. 779.91, 8" S
4. EX. CATCH BASIN
TOP 780.46
INV. 777.66, 12" SE
INV. 777.68, 8" N
INV. 777.68 12" W
5. EX. CATCH BASIN
TOP 780.90
INV. 779.55, 8" N
6. EX. STORM MANHOLE
TOP 782.13
INV. 776.90, 12" E
INV. 776.90, 12" NW
7. EX. STORM MANHOLE
TOP 779.57
INV. 772.37, 24" S
INV. 772.77, 24" N
INV. 772.37, 24" SE
INV. 774.37, 12" W
8. EX. CATCH BASIN
TOP 780.01
TOP 781.30 (PROP.)
INV. 776.48, 8" W
9. EX. CATCH BASIN
TOP 779.93
INV. 775.05, 8" W
INV. 775.43, 8" E
VERT. PIPE TOP 778.37
10. EX. STORM MANHOLE
TOP 781.12
INV. 774.72, 8" S
INV. 774.92, 8" E
11. EX. STORM MANHOLE
TOP 778.89
INV. 773.69, 12" E
INV. 773.89, 8" N
INV. 773.79, 12" NW
12. EX. CATCH BASIN
TOP 777.54
INV. 772.18, 15" S
INV. 772.44, 12" W
INV. 772.44, 12" N (PROP.)
13. EX. STORM MANHOLE
(NOT IN VIEW)
TOP 781.70
INV. 774.30, 24" S
INV. 774.30, 24" N
INV. 774.70, 12" W
14. EX. CURB INLET
TOP 776.11
INV. 773.01, 12" SE
15. EX. STORM MANHOLE
TOP 775.84
INV. 769.91, 24" SW
INV. 769.94, 24" N
16. EX. CURB INLET
GRATE 778.80
NO INV. DATA
17. EX. CURB INLET
GRATE 778.59
NO INV. DATA
18. EX. CATCH BASIN
TOP 781.68
INV. 779.51, 15" S

EX. SANITARY STRUCTURE SCHEDULE

A. EX. SANITARY MANHOLE
TOP 776.30
INV. 770.40, 8" W
INV. 770.50, 8" N
B. EX. SANITARY MANHOLE
TOP 779.61
INV. 771.54, 8" S
INV. 771.54, 8" N
C. EX. SANITARY MANHOLE
(NOT IN VIEW)
TOP 781.63
INV. 772.58, 8" S
INV. 772.58, 8" N
D. EX. SANITARY MANHOLE
(NOT IN VIEW)
TOP 783.69
INV. 771.54, 12" S
INV. 771.54, 12" N
E. EX. SANITARY MANHOLE
TOP 782.43
INV. 770.03, 12" S
INV. 770.03, 12" N
F. EX. SANITARY MANHOLE
TOP 779.12
INV. 768.92, 12" S
INV. 768.98, 8" W

STORM STRUCTURE TABLE

STRUCTURE	DETAILS
1	OUTLET STRUCTURE RIM = 778.20 INV IN = 773.85, 12" W INV OUT = 773.00, 12" S
2	ODOT CB 2-2C RIM = 778.80 INV IN = 774.79, 12" SW INV OUT = 773.85, 12" E INV OUT = 774.79, 12" S
3	ODOT CB 2-2C RIM = 778.80 INV OUT = 773.85, 12" W INV OUT = 774.79, 12" S
4	ODOT CB 2-2C RIM = 778.20 INV OUT = 775.20, 12" NE

STORM PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	TYPE
ST-1	12"	25.73'	2.18%	HDPE
ST-2	12"	13.26'	3.09%	HDPE

NOTE:

THERE WILL BE NO PROPOSED SANITARY SEWER, WATER, ELECTRIC OR GAS SERVICES ON THIS PROJECT.

LEGEND

- REGULAR DUTY ASPHALT
- CONCRETE PAVING
- AREA OF PAVEMENT MILL & RESURFACE

ITALICS TEXT REPRESENTS EXISTING CONDITION

NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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REGISTERED
PROFESSIONAL ENGINEER

Reg. No.: 61709

CLIENT:

GROSE & MANZ BUILDERS
BRAD GROSE
(419) 357-9579
3517 FOSTER ROAD
CONVOY, OHIO 45832

OWNER:

BLISSFUL CORP.
970 S. JEFFERSON AVE
COOKEVILLE, TN 38501

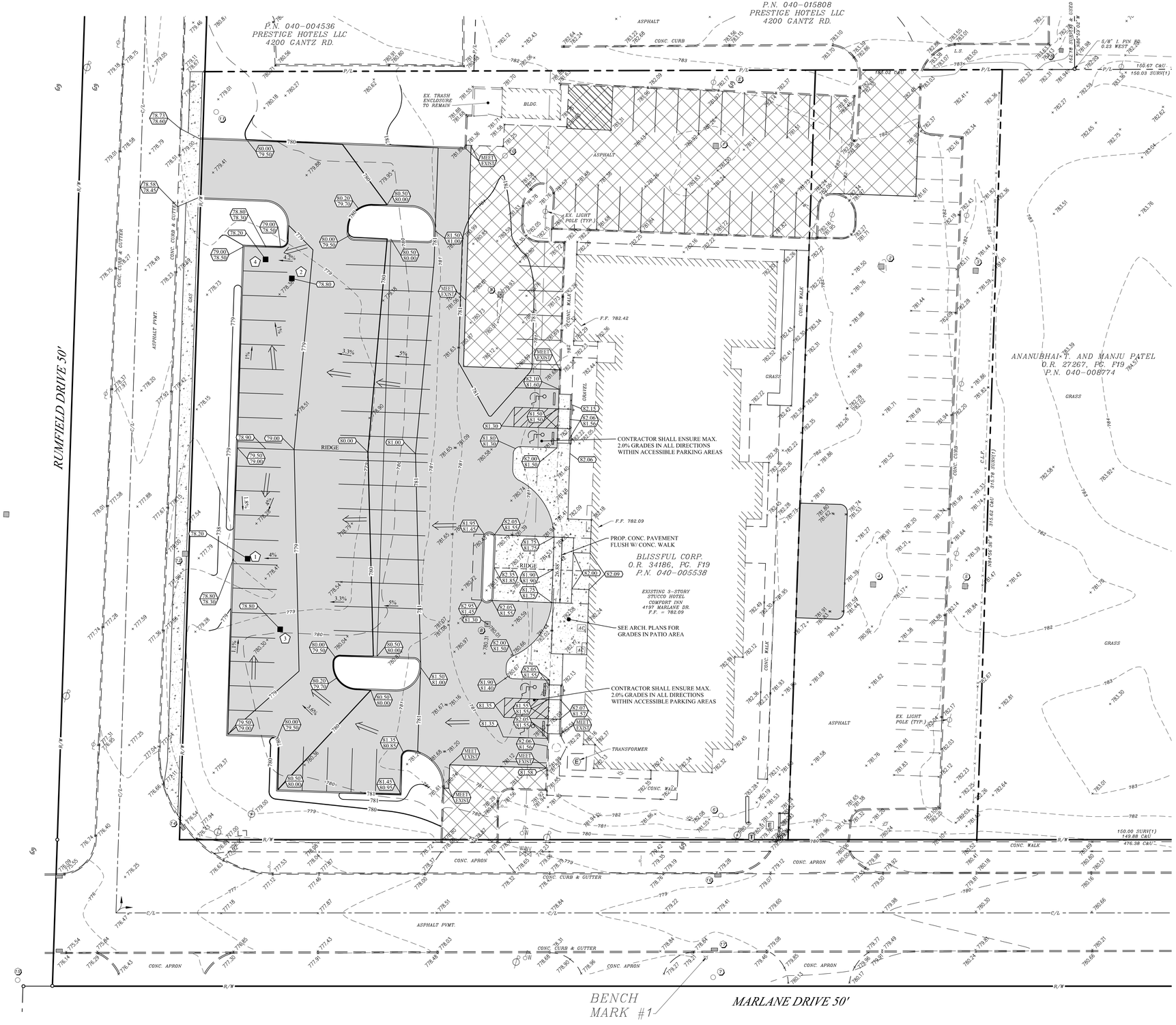
LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

UTILITY PLAN

C103
Project No. 2025-190

C:\Users\Brandon\Weber Civil\Cloud Server - Weber(A-1 Projects)\Projects\2025-190 TownePlace Suites Grove City\2025-190 Dwgs\2025-190 Site01C - 03-26-2026\2025-190 Site01C.dwg 3/26/2026 11:23:38 AM



SITE BENCH MARK

BENCH MARK #1
TOP OF HYDRANT

ELEVATION = 782.26

LEGEND

ITALICS TEXT REPRESENTS EXISTING CONDITION

NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION

- 00.00 — PROPOSED SPOT GRADE
- 00.00 / 00.00 — PROPOSED GRADE AT CURB
- MEET EXIST — MEET EXISTING GRADE LABEL
- XXX.XX — EXISTING SPOT GRADE
- X.X% — PAVEMENT SLOPE
- FLOOD PATH

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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330-329-2037
matt@webercivil.com

STATE OF OHIO
MATTHEW L. WEBER
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LA QUINTA HOTEL
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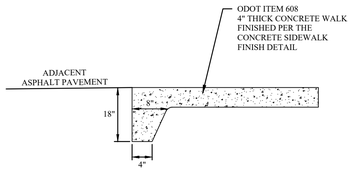
Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

GRADING PLAN

C104
Project No. 2025-190

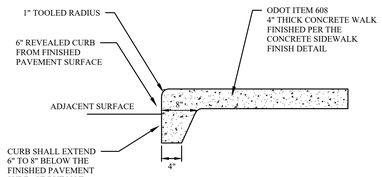
OHIO811.org Before You Dig

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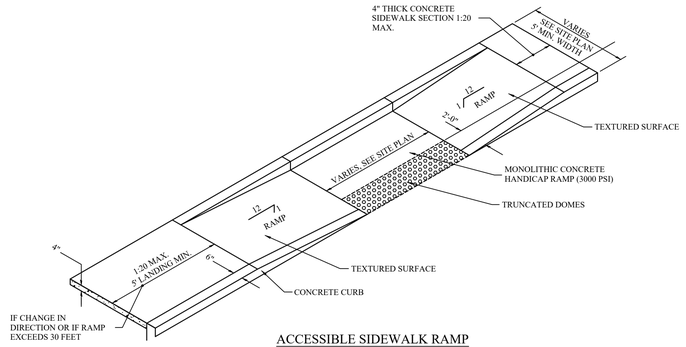
INTEGRAL CONCRETE CURB & WALK AT FLUSH W/ PAVEMENT DETAIL

REFERENCE ONLY NOT TO SCALE



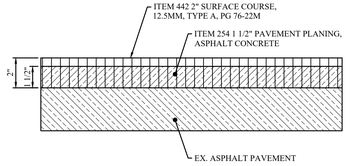
INTEGRAL CONCRETE CURB & WALK DETAIL

REFERENCE ONLY NOT TO SCALE



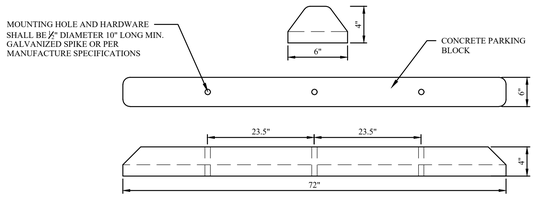
ACCESSIBLE SIDEWALK RAMP

REFERENCE ONLY NOT TO SCALE



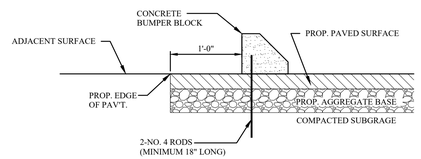
PROP. PAVEMENT MILL AND RESURFACE DETAIL

REFERENCE ONLY NOT TO SCALE



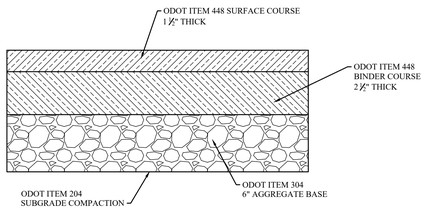
PROP. CONCRETE BUMPER BLOCK

REFERENCE ONLY NOT TO SCALE



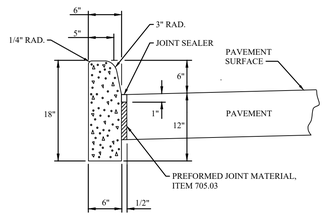
BUMPER BLOCK DETAIL

REFERENCE ONLY NOT TO SCALE



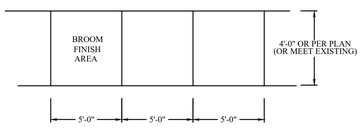
PROP. REGULAR DUTY ASPHALT PAVEMENT

REFERENCE ONLY NOT TO SCALE
(CONTRACTOR SHALL VERIFY WITH CURRENT
GEOTECHNICAL REPORT PROVIDED BY OWNER)



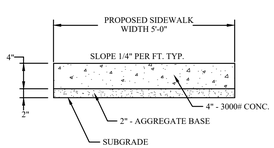
ODOT TYPE 6 CONCRETE CURB

REFERENCE ONLY NOT TO SCALE



CONCRETE SIDEWALK FINISH AND JOINTS

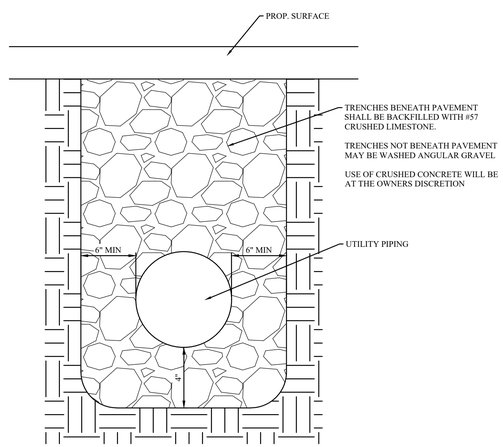
REFERENCE ONLY NOT TO SCALE



NOTE:
CRACK CONTROL SHALL BE AT FIFTEEN FOOT (15') INTERVALS AND SCORE MARKS SHALL BE AT FIVE FOOT (5') INTERVALS. CONSTRUCTION SHALL BE IN ACCORDANCE WITH O.D.O.T. ITEM 608. PRIOR TO THE START OF SIDEWALK CONSTRUCTION THE SUBGRADE MUST BE INSPECTED AND APPROVED BY THE OWNERS REPRESENTATIVE. ANY SETTLEMENT OR DEFICIENT AREAS IDENTIFIED BY THE OWNERS REPRESENTATIVE SHALL BE REPAIRED BY A A METHOD ACCEPTABLE TO THE OWNER. THE REPAIRED AREAS WILL BE SUBJECT TO COMPACTION TESTING AND APPROVAL BY THE OWNER PRIOR TO THE START OF SIDEWALK CONSTRUCTION.

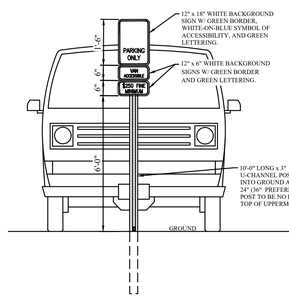
CONCRETE SIDEWALK

REFERENCE ONLY NOT TO SCALE



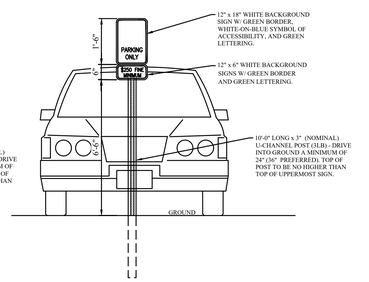
UTILITY TRENCH DETAIL

REFERENCE ONLY NOT TO SCALE



VAN ACCESSIBLE PARKING SPACE SIGN

NOT TO SCALE



HANDICAPPED PARKING DETAIL

NOT TO SCALE

HANDICAPPED PARKING DETAIL

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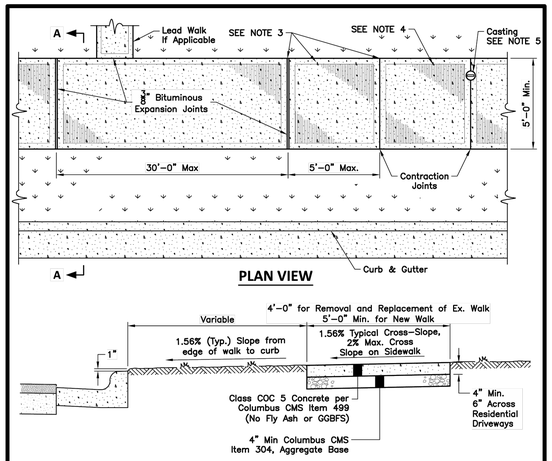
LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

SITE DETAILS

C105
Project No. 2025-190

C:\Users\Brandon.Weber Civil\Cloud Server - Weber\A-1 Projects\2025 Projects\2025-190 TownPlace Suites Grove City 2025-190 Dwg\2025-190 Site01C - 03-26-2026\2025-190 Site01C.dwg 3/26/2026 11:23:45 AM



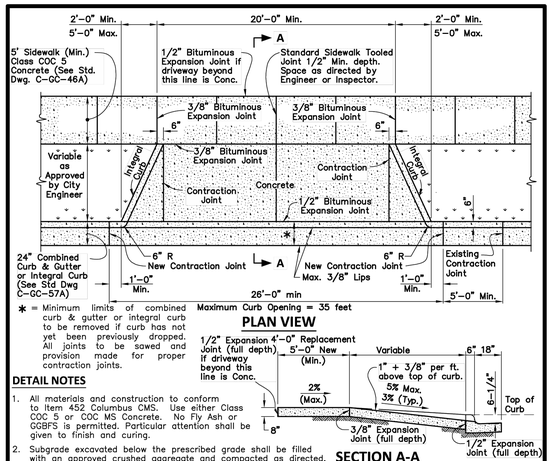
PLAN VIEW

SECTION A-A

DETAIL NOTES

1. Existing sidewalk to be replaced may be replaced at the same width as existing.
2. Sidewalks shall be constructed according to Columbus CMS Item 608.
3. All joints and edges shall be tooled after broom finish.
4. Sidewalk surface shall have a broom finish.
5. All castings shall be set to proper grade. Where feasible, tool a joint at the casting location to control cracking.
6. All concrete shall contain 6% ±2% air entrainment.
7. Contraction Joints shall be not less than 2 inches in depth.
8. Contractor shall apply a cure & seal compound, as approved by the City, to finished concrete.
9. For removal and replacement of existing sidewalk, the width shall match that of the existing walk, or be a minimum of 4 foot in width, whichever is greater. For new walk, the width shall be 5 feet.

Approved By:	STANDARD DIMENSIONS FOR	CITY OF GROVE CITY, OHIO
City Engineer, EMH&T Inc City Service Director	**TYPICAL SIDEWALK DETAIL**	STANDARD CONSTRUCTION DRAWING Revised: May 2022 — Drawing No.: C-GC-46A



* = Minimum limits of combined curb & gutter or integral curb to be removed if curb has not yet been previously dropped. All joints to be sawed and provision made for proper contraction joints.

Maximum Curb Opening = 35 feet

PLAN VIEW

SECTION A-A

DETAIL NOTES

1. All materials and construction to conform to Item 452 Columbus CMS. Use either Class COC 5 or COC MS Concrete. No Fly Ash or GGBFS is permitted. Particular attention shall be given to finish and curing.
2. Subgrade excavated below the prescribed grade shall be filled with an approved crushed aggregate and compacted as directed.
3. When directed by the City, 2 inch Sch. 40 PVC (typ.) duct for street light cable shall be laid under driveway approaches prior to pouring approaches. Duct shall be placed 4 feet behind curb & 24 inches below proposed finished grade.
4. Surfaces shall be broom finish and all joints and edges shall be tooled after broom finish. Any existing castings or valve boxes in driveway approach shall be adjusted to grade.
5. Drive apron, sidewalk across approach, integral or straight curb, and curb & gutter adjacent to street shall be included in the price bid for this item. Curb may be sawcut in lieu of removed and replaced, if approved in the field by City.
6. Contractor shall apply a cure & seal compound, as approved by the City, to finished concrete.
7. Contraction Joints shall not be less than 2 inches in depth.
8. A radial driveway approach may be installed after obtaining approval from the City.

Approved By:	STANDARD DIMENSIONS FOR	CITY OF GROVE CITY, OHIO
City Engineer, EMH&T Inc City Service Director	**COMMERCIAL DRIVEWAY APPROACH**	STANDARD CONSTRUCTION DRAWING Revised: January 2025 — Drawing No.: C-GC-42A

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STATE OF OHIO — MATTHEW L. WEBER — 61709 — REGISTERED PROFESSIONAL ENGINEER

Reg. No.: 61709

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OWNER:

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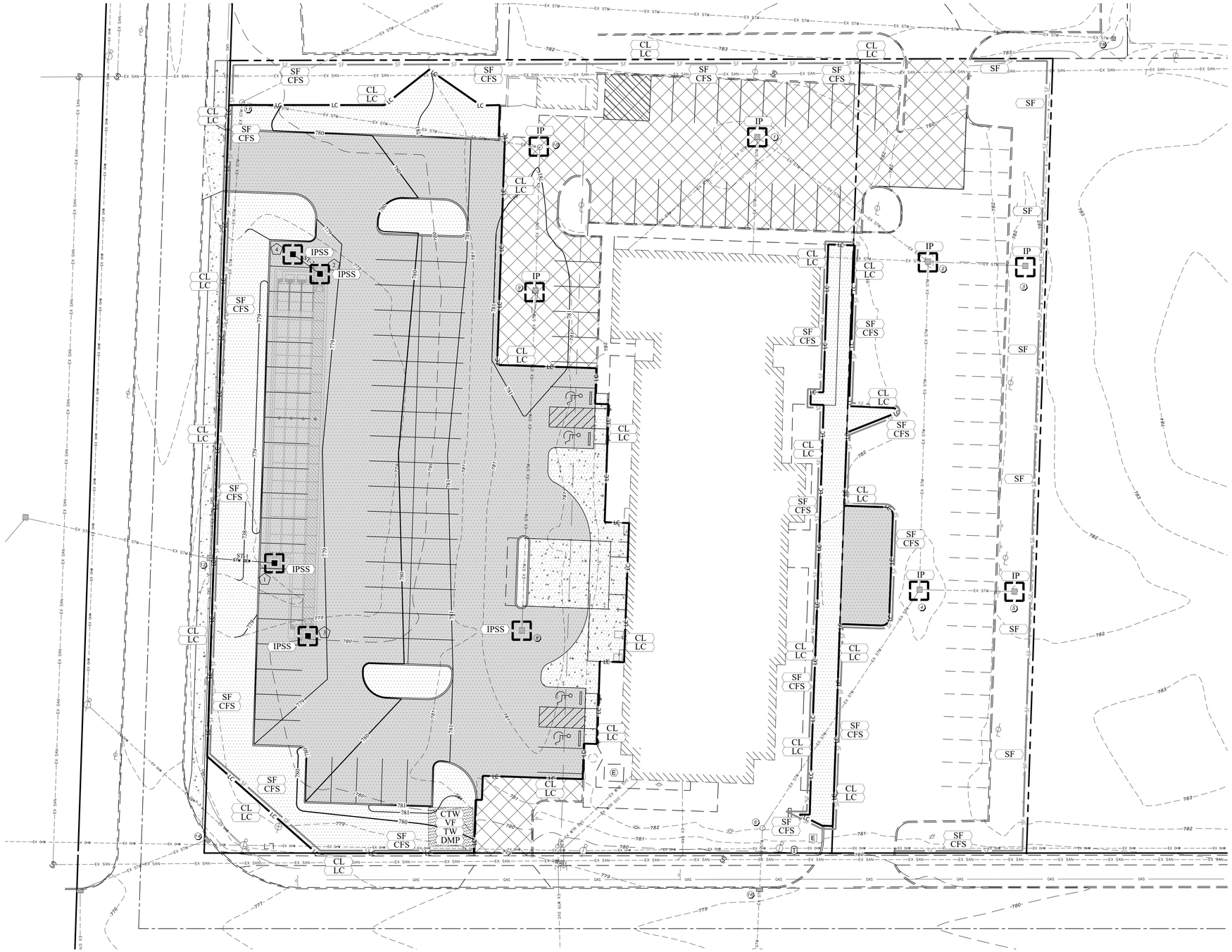
LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

SITE DETAILS

C105A
Project No. 2025-190

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INSPECTION CHECKLIST

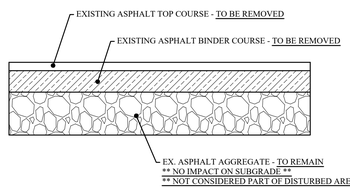
INSPECTIONS SHALL BE MADE ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVEN GREATER THAN ONE-HALF INCH OF RAIN PER 24 HOUR PERIOD

DATE	INSPECTOR	WEATHER CONDITIONS	RAINFALL AMOUNT	SEDIMENT DISCHARGE	DISCHARGE LOCATION	BMPS FAILED	ADDITIONAL BMPS NEEDED	CORRECTION MADE

LEGEND

- REGULAR DUTY ASPHALT
- CONCRETE PAVING
- AREA OF PAVEMENT MILL & RESURFACE (NO EARTHWORK)

ITALICS TEXT REPRESENTS EXISTING CONDITION
NON-ITALICS TEXT REPRESENTS PROPOSED CONDITION



PROP. PAVEMENT MILL AND RESURFACE AREA
REFERENCE ONLY NOT TO SCALE

SITE BENCH MARK

BENCH MARK #1
TOP OF HYDRANT

ELEVATION = 782.26

SITE NARRATIVE:

THIS PROJECT CONSISTS OF ADDING A NEW PARKING LOT TO THE SOUTH SIDE OF THE EXISTING HOTEL, DOING ADDITIONAL SITE IMPROVEMENTS, AND ADDING AN UNDERGROUND DETENTION SYSTEM. THE SITE PREPARE IS WEBER ENGINEERING SERVICES AND THE SITE DEVELOPER IS GROSE & MANZ BUILDERS. THIS PROJECT WILL DISTURB 0.98 ACERS OF LAND. STORMWATER RUNOFF WILL ENTER INTO THE CITY OF GROVE CITY MS4 BEFORE DISCHARGING TO REPUBLICAN RUN. THERE ARE NO FLOOD HAZARDS FOR THIS SITE AS WE ARE LOCATED IN FLOOD ZONE 'X' PER RATE MAP NUMBER 39049C 0318 K.

FLOOD ZONE

FLOOD ZONE "X" PER FLOOD INSURANCE
RATE MAP NUMBER 39049C 0318 K
EFFECTIVE DATE JUNE 17, 2008

ABBREVIATED SWP3 AMENDMENT ACTIVITIES

GRADING DATE

SITE STABILIZATION DATE

SWP3 AMENDMENT DATE

ABBREVIATED SWP3 RESPONSIBLE PARTY

GROSE & MANZ BUILDERS
BRAD GROSE
3517 FOSTER ROAD
CONVOY, OHIO 45832
(419) 357-9579

ESTIMATED CONSTRUCTION DATES

START DATE 04-20-2026
END DATE 10-01-2026

ABBREVIATED SWP3 PREPARED

DATE PREPARED: 03-03-2026

NO CONSTRUCTION ENTRANCE REQUIRED SINCE ALL CONSTRUCTION EQUIPMENT WILL ENTER / EXIT THRU EXISTING PAVEMENT.

ALL OFF-SITE BORROW OR SPOIL AREAS SHALL BE REQUIRED TO BE PERMITTED BY A SEPARATE NOI AND RELATED SWP3.

TAG	HATCH/SYMBOL	SWP3 BMP
CL LC	LC 0.98 AC. LC	CLEARING LIMITS, LIMITS OF CONSTRUCTION
CTW VF TW DMP		CEMENT TRUCK WASHOUT, VEHICLE FUELING, TOXIC WASTE AND DUMPSTER LOCATION
IP		INLET PROTECTION (SEE DETAIL ON SHT. C111)
IPSS		INLET SILT SACK PROTECTION (SEE DETAIL ON SHT. C111)

TAG	LINE	SWP3 BMP
SF	SF	SILT FENCE
CFS		12" COMPOST FILTER SOCK MAY BE SUBSTITUTED FOR SILT FENCE AT CONTRACTORS DISCRETION

SITE DATA

DISTURBED AREA	=	0.98 AC.
EXISTING IMPERVIOUS AREA	=	1.27 AC.
PROPOSED IMPERVIOUS AREA	=	1.75 AC.

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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LA QUINTA HOTEL
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03-12-2026
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SWP3 PLAN

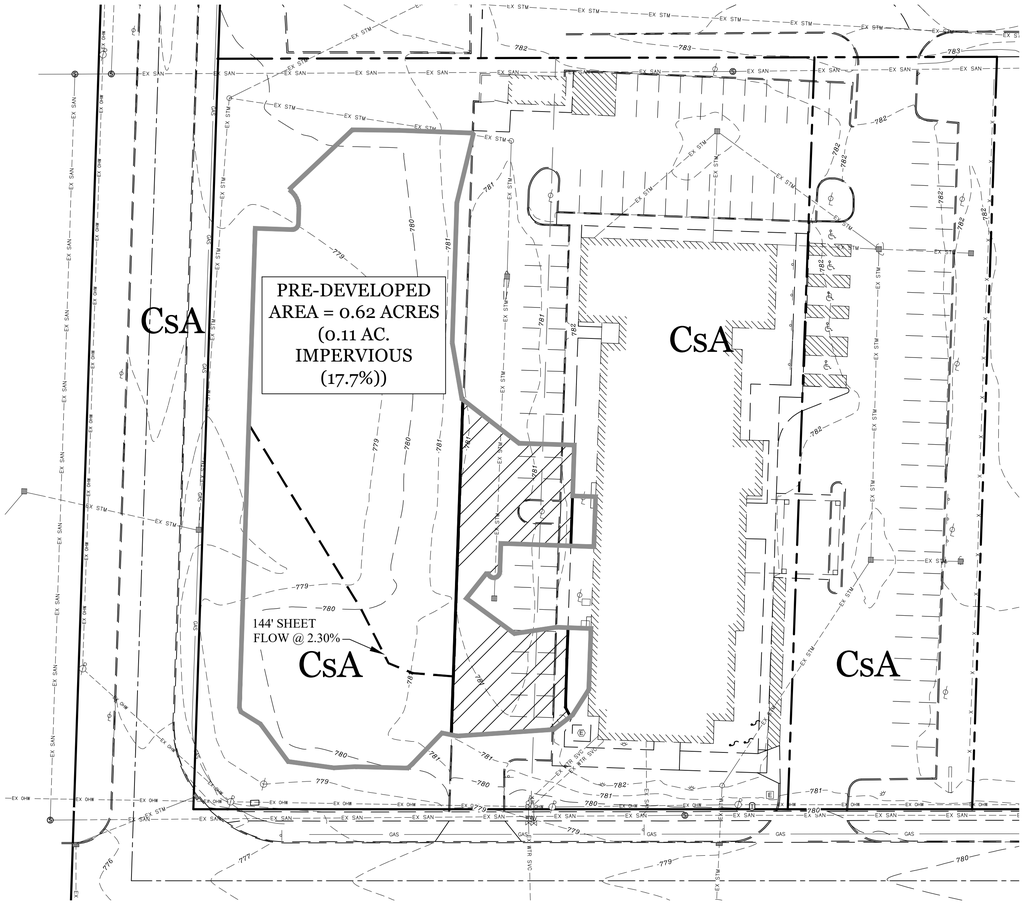
C106
Project No. 2025-190

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SITE BENCH MARK

BENCH MARK #1
TOP OF HYDRANT

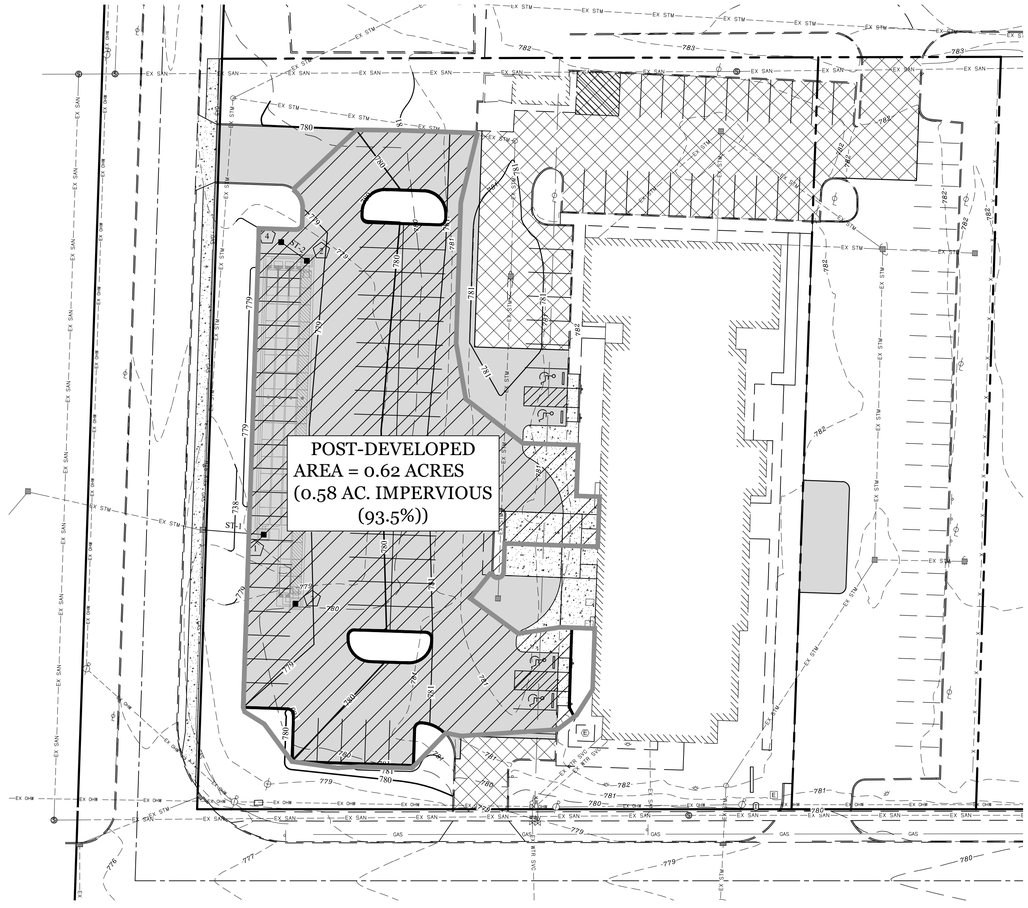
ELEVATION = 782.26



PRE-DEVELOPED DRAINAGE MAP & SOILS MAP

PRE-DEVELOPED: AREA = 0.62 AC., CN = 83, TC = 14.2 MIN.

CsA - Crosby-Urban land complex, 0 to 2 percent slopes



POST DEVELOPED DRAINAGE MAP

POST-DEVELOPED: AREA = 0.62 AC., CN = 97, TC = 10 MIN.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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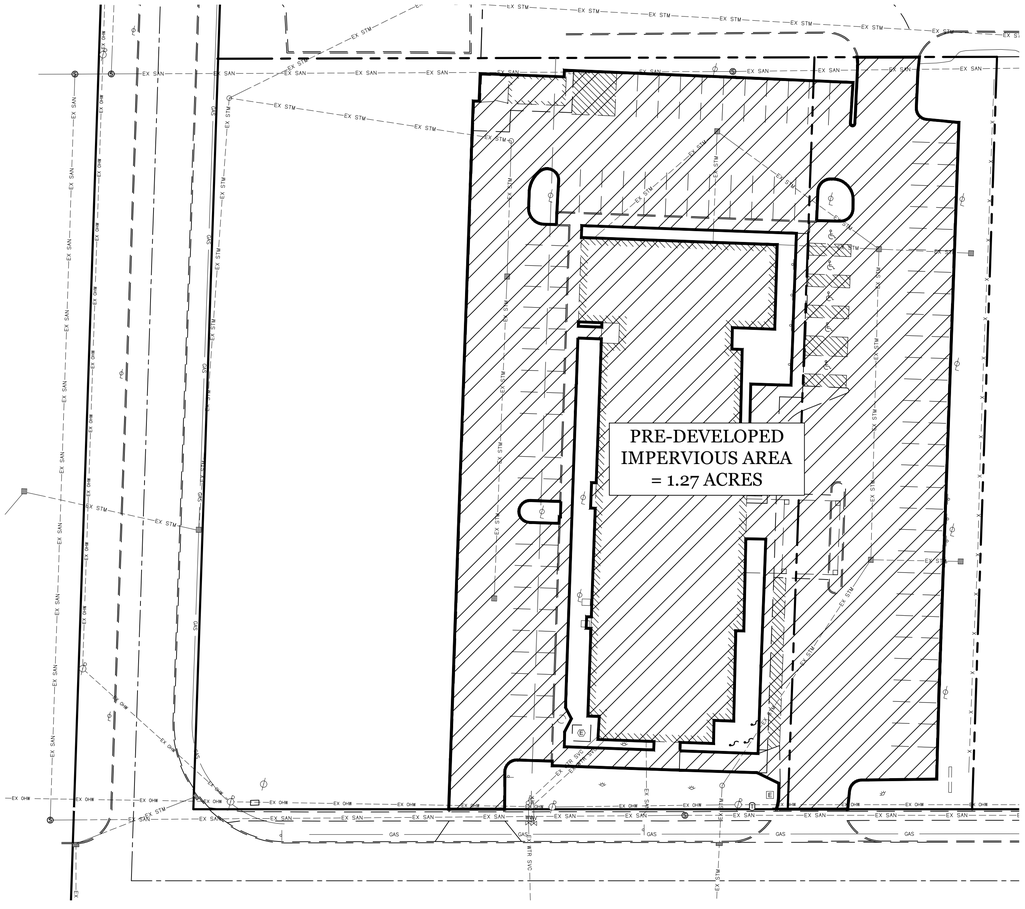
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03-26-2026

SWP3 DETAILS

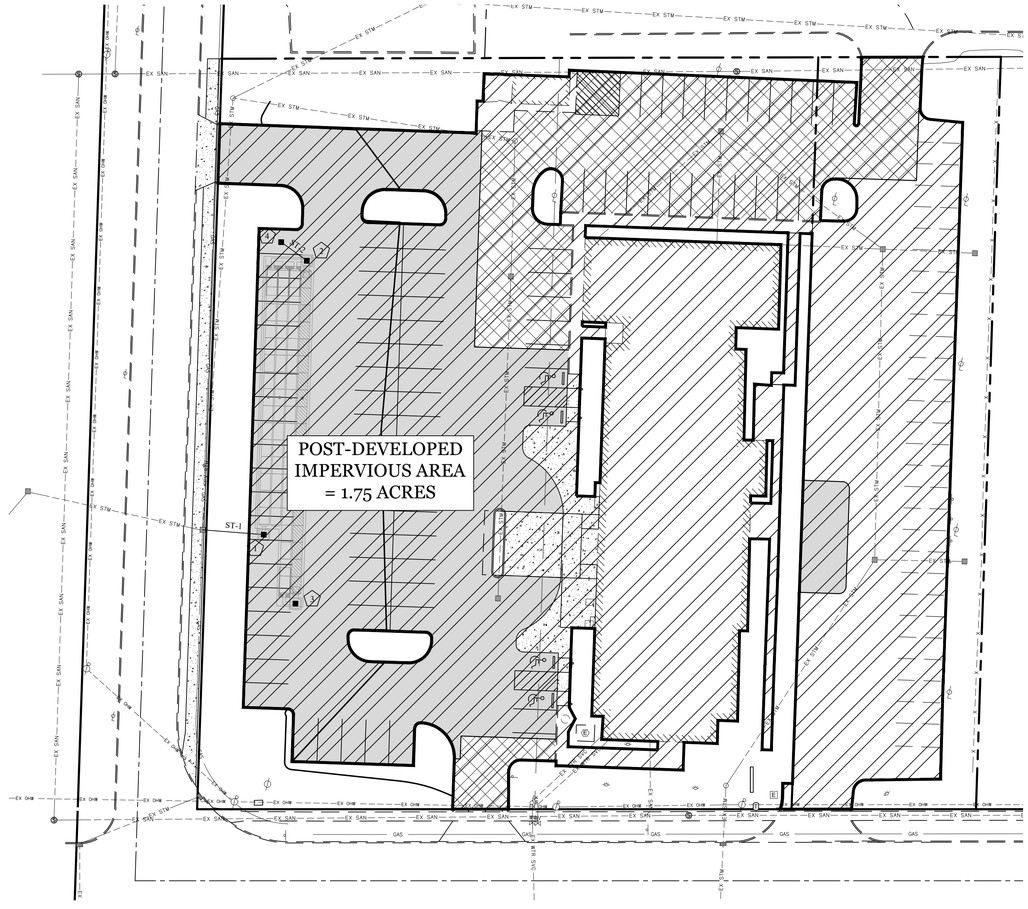
C107
Project No. 2025-190

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SITE BENCH MARK
BENCH MARK #1 TOP OF HYDRANT
ELEVATION = 782.26



PRE-DEVELOPED IMPERVIOUS AREA MAP



POST DEVELOPED IMPERVIOUS AREA MAP

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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03-26-2026

SWP3 DETAILS

C107A
Project No. 2025-190

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Project and Watershed Information; WQv Calculation

version 3.2 2020-07-07

Project Details

Project Name:	La Quinta Hotel
Project Location:	4197 Marlane Drive
	Grove City, Ohio 43123
Project Latitude:	39.876233
Project Longitude:	-83.053973
NPDES Permit Applicant:	
Submitted by:	MLW
Date:	3/25/2026

Subwatershed Details

Subwatershed ID/Label: Underground Detention Basin

Subwatershed Drainage Area, A_{total} =	0.62	acres	=	27,007 ft²
Subwatershed Impervious Area, A_{imp} =	0.58	acres	=	25,265 ft²
Imperviousness fraction, i =	0.94		=	94 %
Volumetric Runoff Coefficient, Rv =	0.89			
Water Quality Volume, WQv =	1,807	ft³	=	0.041 ac-ft

Underground Extended Detention Basin WQv Compliance Tool

version 3.2 2020-07-07

Project Summary

Project Name: La Quinta Hotel
Subwatershed ID/Label: Underground Detention Basin
Submitted by: MLW
Date: 3/25/2026

Subwatershed Drainage Area, A_{total} =	0.62	acres	=	27,007 ft2
Subwatershed Impervious Area, A_{imp} =	0.58	acres	=	25,265 ft2
Imperviousness fraction, i =	0.94			94 %
Water Quality Volume, WQv =	1,807	ft³	=	0.04 ac-ft

Step 1 - Soil Suitability

Soil Series: Crosby-Urban HSG: D

Step 2 - Underground ED Basin Volume Requirements

Extended Detention Volume, EDv =	1807 ft³	Target Value = 1,807 cf. + 361 cf. = 2,168 cf.
Minimum Sediment Storage Volume, $V_{sediment}$ =	361 ft³	The first 1/2 of the WQv or extended detention volume (EDv) must not discharge in less than 1/3 of the minimum required drain time (24 hrs).
		Target value at 8 hrs = 904 cf. + 361 cf. = 1,265 cf.

2025-190 Pond 01A *Type II 24-hr 100-year Rainfall=5.64"*

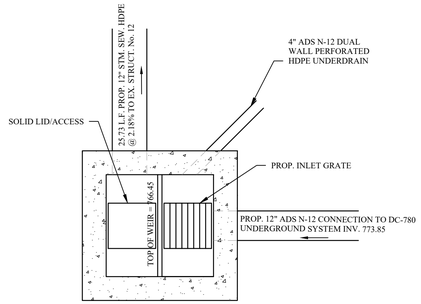
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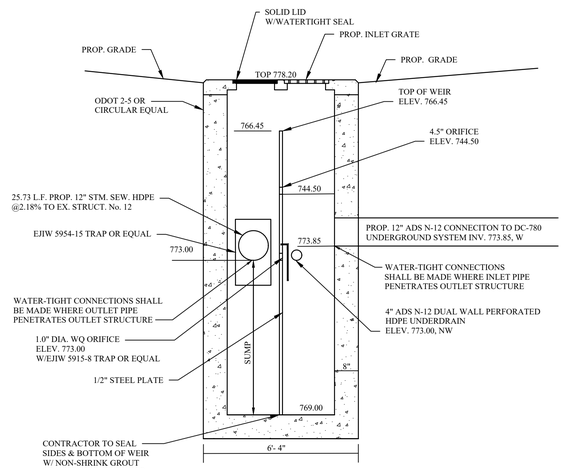
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Stage-Area-Storage for Pond 1P: Underground System

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
773.00	0	773.52	570	774.04	1,455
773.01	11	773.53	581	774.05	1,477
773.02	22	773.54	592	774.06	1,498
773.03	33	773.55	603	774.07	1,520
773.04	44	773.56	614	774.08	1,541
773.05	55	773.57	625	774.09	1,563
773.06	66	773.58	636	774.10	1,584
773.07	77	773.59	647	774.11	1,606
773.08	88	773.60	658	774.12	1,627
773.09	99	773.61	669	774.13	1,649
773.10	110	773.62	680	774.14	1,670
773.11	121	773.63	691	774.15	1,692
773.12	132	773.64	702	774.16	1,713
773.13	143	773.65	713	774.17	1,735
773.14	154	773.66	724	774.18	1,756
773.15	165	773.67	735	774.19	1,777
773.16	176	773.68	746	774.20	1,799
773.17	186	773.69	757	774.21	1,820
773.18	197	773.70	768	774.22	1,841
773.19	208	773.71	779	774.23	1,863
773.20	219	773.72	790	774.24	1,884
773.21	230	773.73	801	774.25	1,905
773.22	241	773.74	812	774.26	1,927
773.23	252	773.75	823	774.27	1,948
773.24	263	773.76	845	774.28	1,969
773.25	274	773.77	867	774.29	1,990
773.26	285	773.78	889	774.30	2,011
773.27	296	773.79	910	774.31	2,033
773.28	307	773.80	932	774.32	2,054
773.29	318	773.81	954	774.33	2,075
773.30	329	773.82	976	774.34	2,096
773.31	340	773.83	998	774.35	2,117
773.32	351	773.84	1,020	774.36	2,138
773.33	362	773.85	1,042	774.37	2,159
773.34	373	773.86	1,064	774.38	2,180
773.35	384	773.87	1,086	774.39	2,201
773.36	395	773.88	1,107	774.40	2,222
773.37	406	773.89	1,129	774.41	2,243
773.38	417	773.90	1,151	774.42	2,264
773.39	428	773.91	1,173	774.43	2,285
773.40	439	773.92	1,195	774.44	2,306
773.41	450	773.93	1,217	774.45	2,327
773.42	461	773.94	1,238	774.46	2,348
773.43	472	773.95	1,260	774.47	2,369
773.44	483	773.96	1,282	774.48	2,390
773.45	494	773.97	1,304	774.49	2,410
773.46	505	773.98	1,325	774.50	2,431
773.47	516	773.99	1,347	774.51	2,452
773.48	527	774.00	1,369	774.52	2,473
773.49	538	774.01	1,390	774.53	2,493
773.50	548	774.02	1,412	774.54	2,514
773.51	559	774.03	1,434	774.55	2,535

2,431 cf. (includes sediment storage) > 2,168 cf. Set Primary Orifice @ 774.50.





OUTLET STRUCTURE No. 1 DETAIL

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LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

SWP3 DETAILS

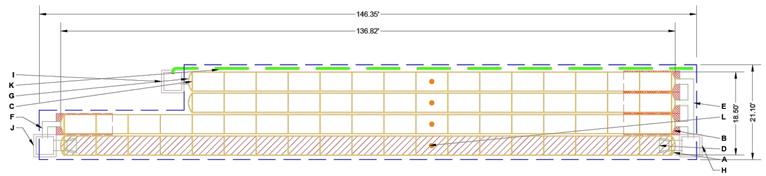
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Project No. 2025-190

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PROPOSED LAYOUT		PROPOSED ELEVATIONS	
68	STORMTECH DC-780 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	788.25
8	STORMTECH DC-780 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	778.25
6	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	777.75
9	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	777.75
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	777.75
6044	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	776.75
		TOP OF DC-780 CHAMBER:	776.25
		12" x 12" TOP MANIFOLD INVERT:	774.75
		12" BOTTOM CONNECTION INVERT:	773.85
2762	SYSTEM AREA (SF)	24" ISOLATOR ROW PLUS INVERT:	773.75
334.9	SYSTEM PERIMETER (ft)	BOTTOM OF DC-780 CHAMBER:	773.75
		UNDERDRAIN INVERT:	773.00
		BOTTOM OF STONE:	773.00

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PREFABRICATED EZ END CAP	A	24" BOTTOM PREFABRICATED EZ END CAP, PART#: SC740ECEZ / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS		
PRE-CORED END CAP	B	12" TOP PRE-CORED END CAP, PART#: SC740EPE12TPC / TYP OF ALL 12" TOP CONNECTIONS		
PRE-CORED END CAP	C	12" BOTTOM PRE-CORED END CAP, PART#: SC740EPE12BPC / TYP OF ALL 12" BOTTOM CONNECTIONS		
	D	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: SC80024RAMP (TYP 2 PLACES)		
MANIFOLD	E	12" x 12" TOP MANIFOLD, ADS N-12	12.50"	
MANIFOLD	F	12" x 12" TOP MANIFOLD, ADS N-12	12.50"	
PIPE CONNECTION	G	12" BOTTOM CONNECTION	1.20"	
CONCRETE STRUCTURE	H	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		5.7 CFS IN
CONCRETE STRUCTURE	I	OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		2.0 CFS OUT
CONCRETE STRUCTURE	J	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		2.3 CFS IN
UNDERDRAIN	K	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		
INSPECTION PORT	L	6" SEE DETAIL (TYP 4 PLACES)		



ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.50' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

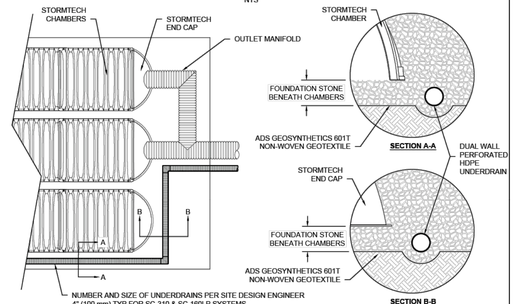
BED LIMITS

NOTES

- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- **NOT FOR CONSTRUCTION**: THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

UNDERDRAIN DETAIL

NTS

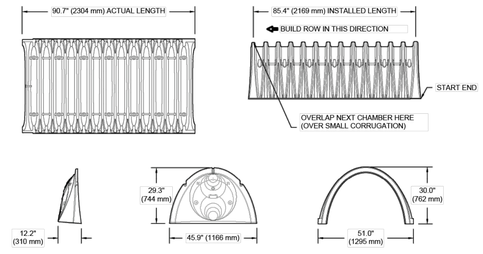


5 UNDERDRAIN DETAIL

SPACE INTENTIONALLY LEFT BLANK

DC-780 TECHNICAL SPECIFICATION

NTS



NOMINAL CHAMBER SPECIFICATIONS

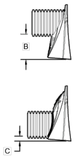
SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	46.2 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	78.4 CUBIC FEET	(2.20 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	45.9" X 29.3" X 9.6"	(1166 mm X 744 mm X 244 mm)
END CAP STORAGE	2.6 CUBIC FEET	(0.07 m³)
MINIMUM INSTALLED STORAGE**	14.4 CUBIC FEET	(0.40 m³)
WEIGHT	11.7 lbs.	(5.3 kg)

* ASSUMES 6" (152 mm) STONE ABOVE, 9" (229 mm) BELOW, AND 6" (152 mm) BETWEEN CHAMBERS.
**ASSUMES 6" (152 mm) STONE ABOVE, 9" (229 mm) BELOW END CAPS, 6" (152 mm) BETWEEN ROWS, 12" (305 mm) BEYOND END CAPS

PART #	STUB	B	C
SC740EPE06TPC	6" (150 mm)	18.5" (470 mm)	---
SC740EPE06BPC		---	0.5" (13 mm)
SC740EPE08TPC	8" (200 mm)	16.5" (419 mm)	---
SC740EPE08BPC		---	0.6" (15 mm)
SC740EPE10TPC	10" (250 mm)	14.5" (368 mm)	---
SC740EPE10BPC		---	0.7" (18 mm)
SC740EPE12TPC	12" (300 mm)	12.5" (318 mm)	---
SC740EPE12BPC		---	1.2" (30 mm)
SC740EPE15TPC	15" (375 mm)	9.0" (229 mm)	---
SC740EPE15BPC		---	1.3" (33 mm)
SC740EPE18TPC	18" (450 mm)	5.0" (127 mm)	---
SC740EPE18BPC		---	1.6" (41 mm)
SC740ECEZ*	24" (600 mm)	---	0.1" (3 mm)

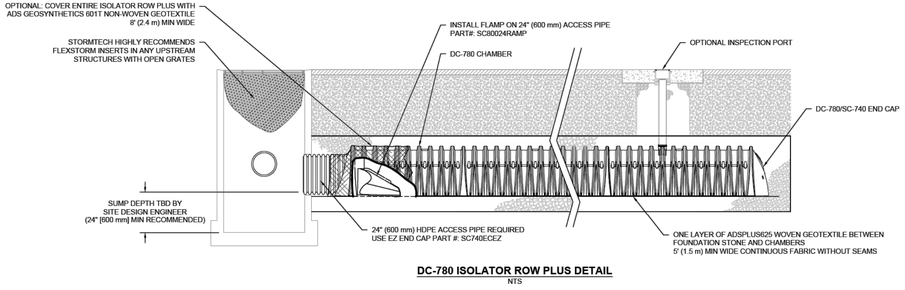


ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP.

* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

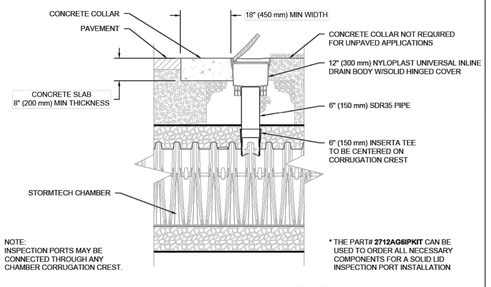
NOTE: ALL DIMENSIONS ARE NOMINAL; PRE-CORED END CAPS END WITH "PC"

2 DC-780 TECHNICAL SPECIFICATION



DC-780 ISOLATOR ROW PLUS DETAIL
NTS

3 DC-780 ISOLATOR ROW PLUS DETAIL



6" (150 mm) PVC INSPECTION PORT DETAIL (SC SERIES CHAMBER)
NTS

4 DC-780 6" INSPECTION PORT DETAIL

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

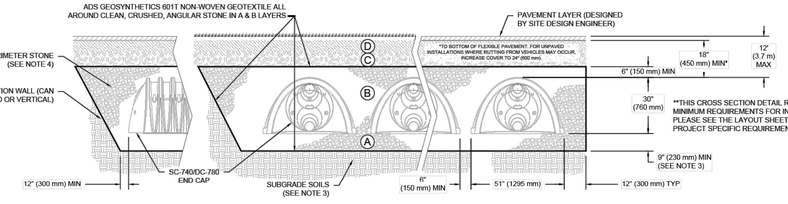
NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

ACCEPTABLE FILL MATERIALS: STORMTECH DC-780 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[2]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[2]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. DC-780 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/% . THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

1 DC-780 CROSS SECTION DETAIL

LA QUINTA HOTEL
GROVE CITY, OH, USA

DRAWN: BN | CHECKED: N/A | DATE: 03/25/2026 | PROJECT #: | REV: | NOT TO SCALE

StormTech® Chamber System

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SHEET 1 OF 1

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FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

SWP3 DETAILS

C109
Project No. 2025-190

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1. Construction personnel, including subcontractors who may use or handle hazardous or toxic materials. shall be made aware of the following general guidelines regarding disposal and handling of hazardous and construction wastes:

- •Prevent spills
- •Use products up
- •Follow label directions for disposal
- •Remove lids from empty bottles and cans when disposing in trash
- •Recycle wastes whenever possible
- •Don't pour into waterways, storm drains or onto the ground
- •Don't pour down the sink, floor drain or septic tanks
- •Don't bury chemicals or containers
- •Don't burn chemicals or containers
- •Don't mix chemicals together

2. Containers shall be provided for the proper collection of all waste material including construction debris, trash, petroleum products and any hazardous materials used on-site. Containers shall be covered and not leaking. All waste material shall be disposed of at facilities approved for that material. Construction Demolition and Debris (CD&D) waste must be disposed of at an Ohio EPA approved CD&D landfill.

3. No construction related waste materials are to be buried on-site. By exception, clean fill (bricks, hardened concrete, soil) may be utilized in a way which does not encroach upon natural wetlands, streams or floodplains or result in the contamination of waters of the state.

4. Handling Construction Chemicals. Mixing. pumping. transferring or other handling of construction chemicals such as fertilizer. lime. asyhalt. concrete drying compounds. and all other potentially hazardous materials shall be performed in an area away from any watercourse. ditch or storm drain.

5. Equipment Fueling and Maintenance, oil changing. etc .. shall be performed away from watercourses. ditches or storm drains. in an area designated for that purpose. The designated area shall be equipped for recycling oil and catching spills. Secondary containment shall be provided for all fuel oil storage tanks. These areas must be inspected every seven days and within 24 hrs. of a 0.5 inch or greater rain event to ensure there are no exposed materials which would contaminate storm water. Site operators must be aware that Spill Prevention Control and Countermeasures (SPCC) requirements may apply. An SPCC plan is required for sites with one single above ground tank of 660 gallons or more, accumulative above ground storage of 1330 gallons or more, or 42,000 gallons of underground storage. Contaminated soils must be disposed of in accordance with Item 8.

6. Concrete Wash Water shall not be allowed to flow to streams, ditches, storm drains, or any other water conveyance. A sump or pit with no potential for discharge shall be constructed if needed to contain concrete wash water. Field tile or other subsurface drainage structures within 10 ft. of the sump shall be cut and plugged.

7. Spill Reporting Requirements: Spills on pavement shall be absorbed with sawdust or kitty litter and disposed of with the trash at a licensed sanitary landfill. Hazardous or industrial wastes such as most solvents, gasoline, oil-based paints, and cement curing compounds require special handling. Spills shall be reported to Ohio EPA (1-800-282-9378). Spills of 25 gallons or more of petroleum products shall be reported to Ohio EPA, the local fire department, and the Local Emergency Planning Committee within 30 min. of the discovery of the release. All spills which contact waters of the state must be reported to Ohio EPA.

8. Contaminated Soils. If substances such as oil, diesel fuel, hydraulic fluid, antifreeze, etc. are spilled, leaked, or released onto the soil, the soil should be dug up and disposed of at licensed sanitary landfill or other approved petroleum contaminated soil remediation facility. (not a construction/demolition debris landfill). Note that storm water runoff associated with contaminated soils are not be authorized under Ohio EPA's General Storm Water Permit associated with Construction Activities.

9. Open Burning. No materials containing rubber, grease, asphalt, or petroleum products, such as tires, autoparts, plastics or plastic coated wire may be burned (OAC 3745-19). Open burning is not allowed in restricted areas, which are defined as: 1) within corporation limits; 2) within 1000 feet outside a municipal corporation having a population of 1000 to 10,000; and 3) a one mile zone outside of a corporation of 10, 000 or more. Outside of restricted areas, no open burning is allowed within a 1000 feet of an inhabited building on another property. Open burning is permissible in a restricted area for: heating tar, welding, smudge pots and similar occupational needs, and heating for warmth or outdoor barbeques. Outside of restricted areas, open burning is permissible for landscape or land-clearing wastes (plant material, with prior written permission from Ohio EPA) , and agricultural wastes, excluding buildings.

10. Dust Control or dust suppressants shall be used to prevent nuisance conditions, in accordance with the manufacturer's specifications and in a manner, which prevent a discharge to waters of the state. Sufficient distance must be provided between applications and nearby bridges, catch basins, and other waterways. Application (excluding water) may not occur when rain is imminent as noted in the short term forecast. Used oil may not be applied for dust control.

11. Other Air Permitting Requirements: Certain activities associated with construction will require air permits including but not limited to: mobile concrete batch plants, mobile asphalt plants, concrete crushers, large generators, etc. These activities will require specific Ohio EPA Air Permits for installation and operation. Operators must seek authorization from the corresponding district of Ohio EPA. For demolition of all commercial sites, a Notification for Restoration and Demolition must be submitted to Ohio EPA to determine if asbestos corrective actions are required.

12. Process Waste Water/Leachate Management. Ohio EPA's Construction General Permit only allows the discharge of storm water and does not include other waste streams/discharges such as vehicle and/or equipment washing, on-site septic leachate concrete wash outs, which are considered process wastewaters. All process wastewaters must be collected and properly disposed at an approved disposal facility. In the event, leachate or septage is discharged; it must be isolated for collection and proper disposal and corrective actions taken to eliminate the source of waste water.

13. A Permit To Install (PTn is required prior to the construction of all centralized sanitary systems, including sewer extensions, and sewerage systems (except those serving one, two, and three family dwellings) and potable water lines. Plans must be submitted and approved by Ohio EPA. Issuance of an Ohio EPA Construction General Storm Water Permit does not authorize the installation of any sewerage system where Ohio EPA has not approved a PTI.

OHIO EPA PERMIT NO. OHC000006

PART III G. SWP3 REQUIREMENTS

a. COMMERCIAL BUILDING EXPANSION

b. TOTAL SITE AREA - 2.41 AC. - DISTURBED AREA = 0.98 AC.

c. PRE-CONSTRUCTION RUNOFF COEFFICIENT - C=0.71; POST-CONSTRUCTION RUNOFF COEFFICIENT C=0.79

d. IMPERVIOUS AREA = 1.75 AC. (ENTIRE SITE), PERCENT IMPERVIOUS = 72.6%.

e. SOIL TYPES:

- CsA- Crosby-Urban land complex, 0 to 2 percent slopes

f. PRIOR LAND USE: COMMERCIAL

g. CONSTRUCTION SEQUENCE - SEE IMPROVEMENT PLANS

h. UNNAMED TRIBUTARY TO REPUBLICAN RUN

- NO WETLANDS

i. NOT SUBDIVIDED (MEASURES IDENTIFIED ON PLANS)

j. NOT APPLICABLE

k. PERMIT REQUIREMENTS ATTACHED. (FIELD COPY)

l. IDENTIFIED ON SHEET C106

m. IDENTIFIED ON SHEET C106

n. SITE MAP SHOWN ON PLANS

(i) LIMITS OF CONSTRUCTION IDENTIFIED ON THE PLANS (LC).

(ii) SOIL TYPES IDENTIFIED ON THE PLANS

(iii) DRAINAGE WATER SHEDS IDENTIFIED ON THE PLANS.

(iv) THERE ARE NO WETLANDS ON THE SITE. NO SPRINGS, LAKES OR WATER WELLS WITHIN 200 FEET OF THE SITE.

(v) EXISTING & PLANNED LOCATIONS OF BUILDINGS, ROADS, PARKING FACILITIES AND UTILITIES ARE IDENTIFIED ON THE PLANS.

(vi) EROSION AND SEDIMENT CONTROL PRACTICES ARE IDENTIFIED ON THE PLANS.

(vii) SEDIMENT & STORM WATER MANAGEMENT DATA IS IDENTIFIED ON THE PLANS.

(viii) PERMANENT STORM WATER MANAGEMENT PRACTICES ARE IDENTIFIED ON THE PLANS.

(ix) CEMENT TRUCK WASHOUT, DUMPSTER & VEHICLE FUELING AREA ARE IDENTIFIED ON THE PLANS.

(x) CONSTRUCTION ENTRANCE IS IDENTIFIED ON THE PLANS.

(xi) NOT APPLICABLE

2. A. NOT APPLICABLE.

B. TEMPORARY SEEDING AND PERMANENT SEEDING MEASURES ARE IDENTIFIED ON THE PLANS.

(I) TABLE 1 & TABLE 2 HAVE BEEN IDENTIFIED ON THE PLANS.

(II)NOT APPLICABLE.

C. SHEET FLOW RUNOFF HAS BEEN CONTROLLED BY MEANS OF SILT FENCE AND DIRECTED TOWARDS UNDISTURBED SOILS. POINT DISCHARGES HAVE BEEN CONTAINED WITHIN STORM SEWERS.

D. SEDIMENT CONTROL HAS BEEN MANAGED BY MEANS OF SILT FENCE.

(I) NOTED THROUGHOUT THE PLANS.

(II) SILT FENCE UTILIZED.

(III) SILT FENCE IS IDENTIFIED ON THE PLANS.

(IV) INLET PROTECTION IS IDENTIFIED ON THE PLANS.

(V) NOT APPLICABLE.

(VI) NOTED ON THE IMPROVEMENT PLANS.

E. POST-CONSTRUCTION MAINTENANCE AND INSPECTION IS IDENTIFIED ON THE PLANS.

LARGE CONSTRUCTION ACTIVITIES - NOT APPLICABLE

SMALL CONSTRUCTION ACTIVITIES - RATIONALE IDENTIFIED ON PLANS

F. SURFACE WATER PROTECTION - NOT APPLICABLE

G. OTHER CONTROLS

(I) CEMENT TRUCK WASHOUT AREA IS IDENTIFIED ON THE PLANS.

(II)DUST CONTROL MEASURES AND VEHICLE TRACKING ARE IDENTIFIED ON THE PLANS.

(III) ADDITIONAL NOTES ARE IDENTIFIED ON THE PLANS.

(IV) NOTED ON THE PLANS.

(V) NOTED ON THE PLANS.

H. NOTED THROUGHOUT THE PLANS.

I. INSPECTION FREQUENCY AND INSPECTION CHECKLIST IS NOTED ON THE PLANS.

(I) NOTED ON THE PLANS.

(II) NOTED ON THE PLANS.

(III) STATEMENT NOTED.

3. APPROVED STATE OR LOCAL PLANS

STATEMENT NOTED.

4. EXCEPTIONS

STATEMENT NOTED.

CONSTRUCTION SEQUENCE

(ALL ITEMS ARE TO BE THE RESPONSIBILITY OF THE GENERAL SITE CONTRACTOR)

SITE PREPARATION

NOTE:

PROVIDE SAFE AND SECURE PEDESTRIAN AND VEHICULAR TRAFFIC CIRCULATION THROUGHOUT THE ENTIRETY OF THE CONSTRUCTION SEQUENCE WITH WELL DEFINED CONSTRUCTION BOUNDARIES TO BE ACCESSED BY CONSTRUCTION PERSONNEL ONLY. ALL EROSION CONTROLS ARE TO BE THOROUGHLY INSPECTED BY THE CONTRACTOR UPON THE COMPLETION OF EACH WORK DAY AND MAINTAINED THROUGHOUT THE REQUIRED LIFE OF THE CONTROL AS SPECIFIED BY THE APPROVED EROSION AND SEDIMENTATION CONTROL PLANS AND NARRATIVE. THE CONTRACTOR MUST REVIEW THE APPROVED EROSION AND SEDIMENTATION CONTROL PLANS AND NARRATIVE. THE CONTRACTOR MUST REVIEW THE APPROVED NPDES PERMIT AND SIGN THE PERMIT TO ACCEPT RESPONSIBILITIES AS THE CO-PERMITEE.

INITIAL PHASE (WITHIN 7 DAYS OF START OF GRUBBING)

1. INSTALL A TEMPORARY CONSTRUCTION ENTRANCE FOR ACCESS TO CONSTRUCTION AREAS OF SITE.
2. SETUP CONSTRUCTION TRAILER ON SITE AND ESTABLISH TEMPORARY POWER AND TELEPHONE SERVICE AS NECESSARY.
3. ALL TEMPORARY UTILITY SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. STAKEOUT LIMITS OF DISTURBANCE.
5. INSTALL TEMPORARY INLET PROTECTION ON ALL EXISTING CATCH BASINS WITHIN LIMITS OF CONSTRUCTION. REMOVE SILT PROTECTION FROM DESIGNATED INLETS ONLY WHEN INLET STRUCTURE IS TO BE REMOVED AS REQUIRED BY PROGRESSION OF CONSTRUCTION. REFER TO PLANS FOR IDENTIFICATION OF INLET STRUCTURES TO BE REMOVED.
6. INSTALL ALL FILTER FABRIC FENCE WHERE SHOWN ON PLANS.
7. BEGIN SITE CLEARING.
8. REMOVE TOPSOIL FROM AREAS OF BUILDING AND PAVEMENT.
9. BEGIN EARTHWORK OPERATIONS.
10. CONSTRUCT STORM WATER BASIN.
11. IN THE EVENT OF RAIN, ALLOW STANDING WATER TO SETTLE PRIOR TO PUMPING. UTILIZE THE PUMPING SYSTEMS TO PUMP POLLUTED WATER PER E.P.A. REQUIREMENTS. ALLOW ONLY CLEAN WATER TO BE DISCHARGED TO THE EXISTING DRAINAGE SYSTEM. REMOVE SILT FROM BASINS AS NECESSARY PRIOR TO CONTINUING EARTHWORK. MATERIAL SHOULD BE MECHANICALLY SPREAD AND DRIED PRIOR TO INCORPORATION INTO THE EARTHWORK PROCEDURES. ADEQUACY OF THE DRIED MATERIAL IS TO BE DETERMINED BY A GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE AND ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDES, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC., THAT COULD ADVERSELY IMPACT WATER QUALITY. MEASURES SHALL BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL.

INTERIM PHASE GENERAL CONSTRUCTION

1. MAINTAIN TEMPORARY CONTROLS UNTIL REMOVAL IS WARRANTED DUE TO PROGRESSION OF WORK.
2. BEGIN EARTHMOVING OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE COUNTY CONSERVATION DISTRICT OF LOCATION AND EROSION AND SEDIMENTATION CONTROL MEASURES IMPLEMENTED AT BORROW OR SPOIL SITE OF IMPORT/EXPORT MATERIAL. THE CONTRACTOR IS TO COORDINATE WITH OWNER THE PLACEMENT OF SUCH MEASURES.
3. STORM SEWER, SANITARY SEWER, WATER LINE AND UTILITY LINE CONSTRUCTION MAY BEGIN IMMEDIATELY FOLLOWING ESTABLISHMENT OF GRADE AND WITH THE PERMISSION OF THE OWNER.
4. STABILIZE ALL UTILITY TRENCHES AT THE END OF EACH WORKDAY BY MEANS OF GRAVEL BACKFILL TO SURFACE, REPAVING OR MULCHING.
5. REPLACE TOPSOIL, FINE GRADE AND SEED AS REQUIRED.
6. STABILIZE ALL DISTURBED AREAS WITH PERMANENT SEED AND MULCHING OR CROWNVETCH SEEDING IMMEDIATELY UPON REACHING FINAL GRADE.
7. INSTALL PAVEMENT SUBBASE.
8. BEGIN BITUMINOUS PAVING, REMOVING TEMPORARY CONSTRUCTION ENTRANCE ONLY WHEN NECESSARY.
9. RESEED AND REDRESS ANY AREAS THAT MAY REQUIRE ATTENTION IMMEDIATELY. NOTE THAT LAWN AREAS WILL NOT BE DEEMED STABLE UNTIL A UNIFORM 80% COVERAGE IS ACHIEVED.
10. ALL EROSION MEASURES SHALL REMAIN IN PLACE UNTIL THE SITE IS STABILIZED. ALL AREAS OF VEGETATIVE SURFACE STABILIZATION, WHETHER TEMPORARY OR PERMANENT, SHALL BE CONSIDERED TO BE IN PLACE AND FUNCTIONAL WHEN THE REQUIRED UNIFORM RATE OF COVERAGE (80%) IS OBTAINED.

FINAL PHASE POST-PAVING BASIN CONVERSION

1. IF, FOR ANY REASON, THE PROJECT IS SUSPENDED, THE CONTRACTOR SHALL INSURE THAT ALL INSTALLED EROSION MEASURES ARE FUNCTIONING AND PROPERLY MAINTAINED DURING THIS PERIOD, AND THAT ALL BARED SOILS ARE SEEDED AND MULCHED WITH TEMPORARY SEED MIXTURE.
2. THE FOLLOWING ITEMS MUST BE COMPLETED BY THE CONTRACTOR, IN ORDER, ONCE THE SITE HAS BEEN DEEMED STABLE:
   - A. REMOVE SEDIMENT CONTROL DEVICES.
   - B. SITE CLEAN UP.
   - C. RESEED ANY AREAS THAT REQUIRE ADDITIONAL SEED
   - D. FILTER FENCES ARE TO BE CLEANED, REMOVED, BACKFILLED AND SEEDED WITH PERMANENT SEEDING.
   - E. VERIFY POSITIVE CONVEYANCE FLOW IN ALL DRAINAGE STRUCTURES.

SPECIFICATIONS FOR TEMPORARY SEEDING

TEMPORARY SEEDING SPECIES SELECTION

SEEDING DATES	SPECIES	LB/100 FT^2	LB/ACRE
MARCH 1 TO AUGUST 15	OATS	3	128 (4 BUSHEL)
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYEGRASS	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	ANNUAL RYEGRASS	1.25	55
	PERENNIAL RYEGRASS	3.25	142
	CREEPING RED FESCUE	0.4	17
	KENTUCKY BLUEGRASS	0.4	17
	OATS	3	128 (3 BUSHELS)
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
AUGUST 16TH TO NOVEMBER	RYE	3	112 (2 BUSHEL)
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	WHEAT	3	120 (BUSHEL)
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYE	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYEGRASS CREEPING	1.25	40
	RED FESCUE	3.25	40
	KENTUCKY BLUEGRASS	0.4	40
		0.4	
NOVEMBER 1 TO FEB. 29	USE MULCH ONLY FOR DORMANT SEEDING		

NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED

1. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION-SITE.
2. TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 14 DAYS OR MORE. THESE IDLE AREAS SHOULD BE SEEDED AS SOON AS POSSIBLE AFTER GRADING OR SHALL BE SEEDED WITHIN 7 DAYS. SEVERAL APPLICATIONS OF TEMPORARY SEEDING ARE NECESSARY ON TYPICAL CONSTRUCTION PROJECTS.
3. THE SEEDBED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. HOWEVER, TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.
4. SOIL AMENDMENTS--APPLICATIONS OF TEMPORARY VEGETATION SHALL ESTABLISHED ADEQUATE STANDS OF VEGETATION WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. SOIL TESTS SHOULD BE TAKEN ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.
5. SEEDING METHOD--SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

MULCHING TEMPORARY SEEDING

1. APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES AND WITH FAVORABLE SOIL CONDITIONS AND ON VERY FLAT SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.
2. MATERIALS: STRAW--IF STRAW IS USED, IT SHALL BE UNROTTED SMALL-GRAIN APPLIED AT 2 TONS/AC. OR 90 LB. / 1,000 SQ. FT. (TWO TO THREE BALES). THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF DIVIDE AREA INTO APPROXIMATELY 1,000-SQ.-FT. HAND-SPREAD MULCH, SECTIONS AND SPREAD TWO 45-LB. BALES OF STRAW IN EACH SECTION. HYDROSEEDERS--IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB. / AC. OR 46 LB. / 1,000 SQ. FT. OTHER--OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS / AC.
3. STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER. ANCHORING METHODS: MECHANICAL--A DISK, CRIMPER OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT, GENERALLY BE LEFT LONGER THAN 6 IN. MULCH NETTINGS--NETTINGS SHALL BE USED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES. SYNTHETIC BINDERS--SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA-TACK OR EQUIVALENT MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER. WOOD-CELLULOSE FIBER--WOOD CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB. /AC. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB. / 100 GAL.

ADDITIONAL SWP3 CONSIDERATIONS

NO OPEN BURNING

DUST CONTROL SHALL BE ACHIEVED BY USE OF WATERING TRUCKS. USE OF OIL IS STRICTLY PROHIBITED. INLET PROTECTION MUST BE IMPLEMENTED PRIOR TO DUST CONTROL MEASURES.

IN THE EVENT OF A PETROLEUM SPILL (>25 GALLONS) OR THE PRESENCE OF OIL SHEEN, THE CONTRACTOR SHALL CONTACT THE OHIO E.P.A. AT 800-282-9378, THE LOCAL FIRE DEPARTMENT.

SMALL SPILLS (<25 GALLONS) SHALL BE CLEANED UP USING AN ABSORBING AGENT, THE ABSORBING AGENT REMOVED AND DISPOSED OF ACCORDING TO FEDERAL REGULATIONS.

ALL TRENCH DEWATERING MEASURES SHALL BE DISCHARGED INTO SETTLING BASINS PRIOR TO DISCHARGE FROM SITE. BMP'S THAT REQUIRE REPAIR SHALL BE REPAIRED WITHIN 3 DAYS OF INSPECTION. SETTLING PONDS MUST BE REPAIRED WITHIN 10 DAYS OF INSPECTION.

STREETS ADJACENT TO SITE SHALL BE CLEANED AT THE END OF EACH WORK DAY.

POST-CONSTRUCTION BMP RATIONALE

STORM WATER MANAGEMENT AND POST CONSTRUCTION WATER QUALITY BMP'S ARE NOT REQUIRED DUE TO NATURE OF THE PROJECT.

MAINTENANCE FOR PERMANENT SEEDINGS FERTILIZATION AND MOWING

MIXTURE	FORMULA	LBS./ACRE	LBS./1,000 SQ. FT	TIME	MOWING
CREEPING RE FESCUE RYEGRASS KEENTCKY BLUEGRASS	10-10-10	500	12	FALL, YEARLY AS NEEDED	NOT CLOSER THAN 3"
TALL FESCUE	10-10-10	500	12		NOT CLOSER THAN 4"
TURF-TYPE FESCUE	10-10-10	500	12		
CROWN VETCH FESCUE	0-20-20	400	10	SPRING, YEARLY FOLLOWING ESTABLISHMENT AND EVERY 4-7 YEARS THEREAFTER	DO NOT MOW
FLAT PEA FESCUE	0-20-20	400	10		DO NOT MOW

NOTE: FOLLOWING SOIL TEST RECOMMENDATIONS IS PREFERRED TO FERTILIZER RATES SHOWN ABOVE.

SPECIFICATIONS FOR PERMANENT SEEDING

SITE PREPARATION

1. A SUBSOILER, PLOW OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. (MAXIMIZING INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY.) SUBSOILING SHOULD BE DONE WHEN THE SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING SHALL NOT BE DONE ON SLIP-PRONE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED TO WHAT IS NECESSARY FOR ESTABLISHING VEGETATION.
2. THE SITE SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.
3. TOPSOIL SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION. SEEDBED PREPARATION
   - a. LIME--AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACID SOIL AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, LIME SHALL BE APPLIED AT THE RATE OF 100 LB./1,000 SQ. FT. OR 2 TONS/ACRE.
   - b. FERTILIZER--FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, FERTILIZER SHALL BE APPLIED AT A RATE OF 25 LB./1,000 SQ. FT. OR 1000 LB./ACRE OF 10-10-10 OR 12-12-12 ANALYSES.
   - c. THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING-TOOTH HARROW OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOUR.

EROSION PREVENTION PRACTICES

SEEDING DATES AND SOIL CONDITIONS

SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUG 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THE ABOVE SPECIFIED DATES, ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED TO ENSURE A MINIMUM OF 80% GERMINATION. TILLAGE FOR SEEDBED PREPARATION SHOULD BE DONE WHEN SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. FOR WINTER SEEDING, SEE THE FOLLOWING SECTION ON DORMANT SEEDING.

DORMANT SEEDING

1. SEEDINGS SHOULD NOT BE MADE FROM OCTOBER 1 THROUGH NOVEMBER 20, DURING THIS PERIOD, THE SEEDS ARE LIKELY TO GERMINATE BUT PROBABLY WILL NOT BE ABLE TO SURVIVE THE WINTER.
2. THE FOLLOWING METHODS MAY BE USED FOR "DORMANT SEEDING":
   - FROM OCTOBER 1 THROUGH NOVEMBER 20, PREPARE THE SEEDBED, ADD THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR. AFTER NOVEMBER 20, BROADCAST THE SELECTED SEED MIXTURE AT A 50% INCREASE IN THE SEEDING RATE.
   - FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEEDBED, LIME AND FERTILIZE, APPLY THE SELECTED SEED MIXTURE, MULCH AND ANCHOR. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.
   - APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER OR HYDRO-SEEDER (SLURRY MAY INCLUDE SEED AND FERTILIZER) ON A FIRM, MOIST SEEDBED.
   - WHERE FEASIBLE, EXCEPT WHEN A CULTIPACKER TYPE SEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A CULTIPACKER, ROLLER OR LIGHT DRAG. ON SLOPING LAND, SEEDING OPERATIONS SHOULD FOLLOW THE CONTOUR WHERE FEASIBLE.

MULCHING

1. MULCH MATERIAL SHALL BE APPLIED IMMEDIATELY AFTER SEEDING. DORMANT SEEDING SHALL BE MULCHED. 100% OF THE GROUND SURFACE SHALL BE COVERED WITH AN APPROVED MATERIAL.
2. MATERIALS

   STRAW--IF STRAW IS USED IT SHALL BE UNROTTED SMALL-GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/ACRE OR 90 LB./1,000 SQ. FT., (TWO TO THREE BALES). THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF DIVIDE AREA INTO APPROXIMATELY 1,000-SQ.-FT. HAND-SPREAD MULCH, SECTIONS AND SPREAD TWO 45-LB. BALES OF STRAW IN EACH SECTION.

   HYDROSEEDERS--IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB./ACRE OR 46 LB./1,000 SQ. FT.

   OTHER--OTHER ACCEPTABLE MULCHES INCLUDE ROLLED EROSION CONTROL MATTINGS OR BLANKETS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS/ACRE.
3. STRAW AND MULCH ANCHORING METHODS

   STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER.

   MECHANICAL--A DISK, CRIMPER OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT, GENERALLY BE LEFT LONGER THAN 6 IN. MULCH NETTINGS--NETTINGS SHALL BE USED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES. SYNTHETIC BINDERS--SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA-TACK OR EQUIVALENT MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER. WOOD-CELLULOSE FIBER--WOOD CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB. /AC. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB. / 100 GAL.

EROSION PREVENTION PRACTICES

WOOD CELLULOSE FIBER--WOOD CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LBS./ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER WITH THE MIXTURE CONTAINING A MAXIMUM OF 50 LBS. CELLULOSE/100 GALLONS OF WATER.

IRRIGATION

1. PERMANENT SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY WEATHER OR ON ADVERSE SITE CONDITIONS, WHICH REQUIRE ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH.
2. IRRIGATION RATES SHALL BE MONITORED TO PREVENT EROSION AND DAMAGE TO SEEDED AREAS FROM EXCESSIVE RUNOFF.

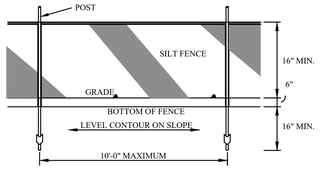
PERMANENT SEEDING

SEED MIX	SEEDING RATE LBS./ACRE	SEEDING RATE LBS/1,000 SQ. FEET	NOTES
GENERAL USE			
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20-40 10-20 20-40	1/2-1 1/4-1/2 1/2-1	FOR CLOSE MOWING & FOR WATERWAYS WITH<2.0 FT/SEC VELOCITY
TALL FESCUE	40-50	1-1 1/4	
TURF- TYPE (DWARF) FESCUE	90	2 1/4	
STEEP BANKS OR CUT SLOPES			
TALL FESCUE	40-50	1-1/4	
CROWN VETCH TALL FESCUE	10-20 20-30	1/4-1/2 1/2-3/4	DO NOT SEED LATER THAN AUGUST
FLAT PEA TALL FESCUE	20-25 20-30	1/2-3/4 1/2-3/4	DO NOT SEED LATER THAN AUGUST
ROAD DITCHES AND SWALES			
TALL FESCUE	40-50	1-1 1/4	
TURF-TYPE (DWARF) FESCUE KENTUCKY BLUEGRASS	90 5	2 1/4 0.1	
LAWNS			
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100-120	2 2	
KENTUCKY BLUEGRASS CREEPING RED FESCUE	100-120	2 1-1/2	FOR SHADED AREAS

NOTE: OTHER APPROVAL SEED SPECIES MAY BE SUBSTITUTED.

TABLE 1: PERMANENT STABILIZATION

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS TH

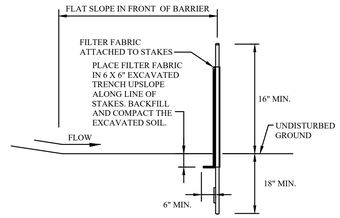


SF SILT FENCE DETAIL
REFERENCE ONLY NOT TO SCALE

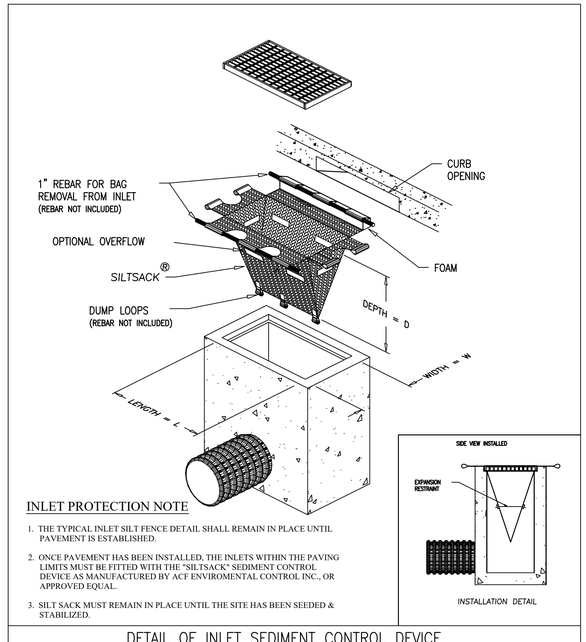


JOINING SECTIONS OF SILT FENCE DETAIL
REFERENCE ONLY NOT TO SCALE

SF



SF SILT FENCE SECTION
REFERENCE ONLY NOT TO SCALE



INLET PROTECTION NOTE

1. THE TYPICAL INLET SILT FENCE DETAIL SHALL REMAIN IN PLACE UNTIL PAVEMENT IS ESTABLISHED.
2. ONCE PAVEMENT HAS BEEN INSTALLED, THE INLETS WITHIN THE PAVING LIMITS MUST BE FITTED WITH THE "SILTSACK" SEDIMENT CONTROL DEVICE AS MANUFACTURED BY ACF ENVIROMENTAL CONTROL INC., OR APPROVED EQUAL.
3. SILT SACK MUST REMAIN IN PLACE UNTIL THE SITE HAS BEEN SEEDED & STABILIZED.

DETAIL OF INLET SEDIMENT CONTROL DEVICE WITH CURB DEFLECTOR

IPSS SILTSACK DETAIL

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
4. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
6. THE HEIGHT OF THE SILT FENCE SHALL BE A MIN. OF 16 IN. ABOVE THE ORIGINAL GROUND SURFACE.
7. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MIN. OF 6 IN. DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWN SLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 IN. OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6 IN. DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED ON BOTH SIDES OF THE FABRIC.
9. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM 6-IN. OVERLAP PRIOR TO DRIVING INTO THE GROUND.
10. MAINTENANCE--SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.

SEDIMENT DEPOSITS SHALL BE ROUTINELY REMOVED WHEN THE DEPOSIT REACHES APPROXIMATILY ONE-HALF OF THE HEIGHT OF THE SILT FENCE.

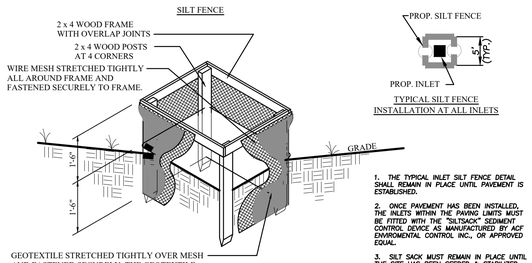
SILT FENCES SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING A PROLONGED RAINFALL. THE LOCATION OF EXISTING SILT FENCE SHALL BE REVIEWED DAILY TO ENSURE ITS PROPER LOCATION AND EFFECTIVENESS. IF DAMAGED, THE SILT FENCE SHALL BE REPAIRED IMMEDIATELY.

CRITERIA FOR SILT FENCE MATERIALS

1. FENCE POSTS-- THE LENGTH SHALL BE A MINIMUM OF 32 IN. LONG. WOOD POSTS WILL BE 2-BY-2 IN. HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT.
2. SILT FENCE FABRIC (SEE CHART BELOW):

MINIMUM CRITERIA FOR SILT FENCE FABRIC (ODOT, 2002)		
FABRIC PROPERTIES	VALUES	TEST METHOD
MINIMUM TENSILE STRENGTH	120 LBS. (535 N)	ASTM D 4362
MAXIMUM ELONGATION AT 60 LBS	50%	ASTM D 4632
MINIMUM PUNCTURE STRENGTH	50 LBS (220 N)	ASTM D 4833
MINIMUM TEAR STRENGTH	40 LBS (180 N)	ASTM D 4533
APPARENT OPENING SIZE	<.84 MM	ASTM D 4751
MINIMUM PERMITTIVITY	1X10^2 SEC^-1	ASTM D 4491
UV EXPOSURE STRNEGTH RETENTION	70%	ASTM D 4355

SF SPECIFICATIONS FOR SILT FENCE



TYPICAL SILT FENCE
INSTALLATION AT ALL INLETS

1. THE TYPICAL INLET SILT FENCE DETAIL SHALL REMAIN IN PLACE UNTIL PAVEMENT IS ESTABLISHED.
2. ONCE PAVEMENT HAS BEEN INSTALLED, THE INLETS WITHIN THE PAVING LIMITS MUST BE FITTED WITH THE "SILTSACK" SEDIMENT CONTROL DEVICE AS MANUFACTURED BY ACF ENVIROMENTAL CONTROL INC., OR APPROVED EQUAL.
3. SILT SACK MUST REMAIN IN PLACE UNTIL THE SITE HAS BEEN SEEDED & STABILIZED.

1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM INLET BECOMES FUNCTIONAL
2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 INCHES.
3. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2-BY-4-IN. CONSTRUCTION-GRADE LUMBER. THE 2-BY-4-IN. POSTS SHALL BE DRIVEN 1 FT. INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2-BY-4-IN. FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
5. GEOTEXTILE MATERIAL SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM TOP OF THE FRAME TO 18 INCHES BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAP ACROSS ON SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
6. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6-IN. LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
7. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION AND IF RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTLING POND. THE TOP OF EARTH DIKES SHALL BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.

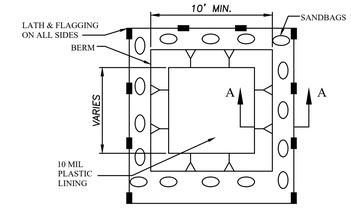
MAINTENANCE

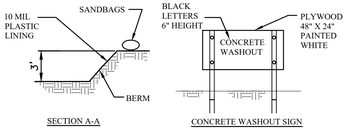
EFFECTIVE STORM DRAIN INLET PROTECTION COLLECTS SEDIMENT AND THEREFORE MUST BE CLEANED REGULARLY TO PREVENT CLOGGING AND SUBSEQUENT FLOODING CONDITIONS, PIPING, OR OVERTOPPING OF THE CONTROL STRUCTURES. SEDIMENT BARRIERS THAT SAG, FALL OVER, OR ARE NOT PROPERLY SECURED, MUST BE PROMPTLY REPAIRED OR REPLACED.

INLET PROTECTION SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL EVENT. AREAS WHERE THERE IS ACTIVE TRAFFIC SHALL BE INSPECTED DAILY. REPAIRS SHALL BE MADE AS NEEDED TO ASSURE THE PRACTICE IS PERFORMING AS INTENDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION IS ONE-HALF THE HEIGHT OF THE TRAP. SEDIMENT SHALL NOT BE WASHED INTO THE INLET. SEDIMENT SHALL BE REMOVED AND PLACED IN A LOCATION WHERE IT IS STABLE AND NOT SUBJECT TO EROSION.

ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, ALL FILTER MATERIAL AND COLLECTED SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED.

IP SPECIFICATIONS FOR GEOTEXTILE INLET PROTECTION
REFERENCE ONLY NOT TO SCALE





SECTION A-A

CONCRETE WASHOUT SIGN

1. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE LOCATED A MINIMUM OF 50 FT FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES. FACILITY SHALL BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS AREAS TO PREVENT DISTURBANCE OR TRACKING.
2. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED AS SHOWN ON THE DETAIL WITH A MINIMUM LENGTH AND MINIMUM WIDTH OF 10'.
3. LATH AND FLAGGING SHALL BE COMMERCIAL TYPE.
4. PLASTIC LINING MATERIAL SHALL BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHALL BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
5. A SIGN SHALL BE INSTALLED ADJACENT TO WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.
6. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL HAVE A TEMPORARY PIT OR BERMED AREAS OF SUFFICIENT VOLUME TO COMPLETELY CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT PROCEDURES.
7. WASHOUT OF CONCRETE TRUCKS SHALL BE PERFORMED IN DESIGNATED AREAS ONLY.
8. ONLY CONCRETE FROM MIXER TRUCK CHUTES SHOULD BE WASHED INTO CONCRETE WASHOUT.
9. CONCRETE WASHOUT FROM CONCRETE PUMPER BINS CAN BE WASHED INTO CONCRETE PUMPER TRUCKS AND DISCHARGED INTO DESIGNATED WASHOUT AREA OR PROPERLY DISPOSED OF OFFSITE.
10. CONCRETE WASTES SHALL BE ALLOWED TO HARDEN THEN BROKEN UP, REMOVED, AND PROPERLY DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATION ON A REGULAR BASIS.
11. WHEN TEMPORARY WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHALL BE REMOVED AND DISPOSED OF. MATERIALS USED TO CONSTRUCT THE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF.

TCW TEMP. CONCRETE WASHOUT FACILITY

WEBER ENGINEERING SERVICES
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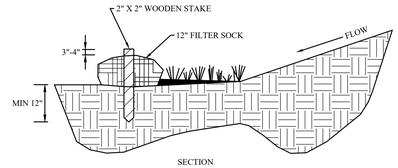
LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

SWP3 DETAILS

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Project No. 2025-190

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SECTION

1. MATERIALS-COMPOST USED FOR FILTER SOCKS SHALL BE WEED, PATHOGEN AND INSECT FREE AND FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. THEY SHALL BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER AND CONSIST OF PARTICLES RANGING FROM $\frac{3}{4}$" TO 2"
2. FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE $\frac{3}{4}$" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST PASSING THE ABOVE SPECIFICATIONS FOR COMPOST PRODUCTS.

INSTALLATION:

3. FILTER SOCKS WILL BE PLACED ON A LEVEL LINE ACROSS SLOPES, GENERALLY PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREA. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND AS NEEDED MID-SLOPE.
4. FILTER SOCKS INTENDED TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE SHALL BE SEEDED AT THE TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION.
5. FILTER SOCKS ARE NOT TO BE USED IN CONCENTRATE FLOW SITUATIONS OR IN RUNOFF CHANNELS.

MAINTENANCE:

6. ROUTINELY INSPECT FILER SOCKS AFTER EACH SIGNIFICANT RAIN. MAINTAINING FILTER SOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES.
7. REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES.
8. WHERE THE FILTER SOCK DETERIORATES OR FAILS, IT WILL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE ALTERNATIVE.
9. REMOVAL-FILTER SOCKS WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED IN SUCH A WAY AS TO FACILITATE AN NO OBSTRUCT SEEDINGS.

CFS **COMPOST FILTER SOCK DETAIL**

REFERENCE ONLY NOT TO SCALE

SPECIFICATIONS FOR DUST CONTROL

ADHESIVES FOR DUST CONTROL			
ADHESIVE	WATER DILUTION (ADHESIVE WATER)	NOZZLE TYPE	APPLICATION RATE GAL./AC.
LATEX EMULSION	12.5:1	FINE	235
TESIN IN WATER ACRYLIC EMULSION (NO-TRAFFIC)	4:1	FINE	300
ACRYLIC EMULSION (NO-TRAFFIC)	7:1	COARSE	450
ACRYLIC EMULSION (TRAFFIC)	3.5:1	COARSE	350

1. VEGETATIVE COVER AND/MULCH- APPLY TEMPORARY OR PERMANENT SEEDING AND MULCH TO AREAS THAT WILL REMAIN IDLE FOR OVER 21 DAYS. SAVING EXISTING TREES AND LARGE SHRUBS WILL ALSO REDUCE SOIL AND AIR MOVEMENT ACROSS DISTURBED AREAS. SEE TEMPORARY SEEDING; PERMANENT SEEDING; MULCHING PRACTICES; AND TREE AND NATURAL AREA PROTECTION PRACTICES.
2. WATERING- SPRAY SITE WITH WATER UNTIL THE SURFACE IS WET BEFORE AND DURING GRADING AND REPEAT AS NEED, ESPECIALLY ON HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES. WATERING SHALL BE DONE AT A RATE THAT PREVENTS DUST BUT DOES NOT CAUSE SOIL EROSION. WETTING AGENTS SHALL BE UTILIZED ACCORDING TO MANUFACTURERS INSTRUCTIONS.
3. SPRAY-ON ADHESIVES-APPLY ADHESIVE ACCORDING TO THE FOLLOWING TABLE OR MANUFACTURERS' INSTRUCTIONS
4. STONE - GRADED ROADWAYS AND OTHER SUITABLE AREAS WILL BE STABILIZED USING CRUSHED STONE OR COARSE GRAVEL AS SOON AS PRACTICABLE AFTER REACHING AN INTERIM OR FINAL GRADE. CRUSHED STONE OR COARSE GRAVEL CAN BE USED AS A PERMANENT COVER TO PROVIDE CONTROL OF SOIL EMISSIONS.
5. BARRIERS- EXISTING WINDBREAK VEGETATION SHALL BE MARKED AND PRESERVED. SNOW FENCING OR OTHER SUITABLE BARRIER MAY BE PLACED PERPENDICULAR TO PREVAILING AIR CURRENTS AT INTERVALS OF ABOUT 15 TIMES THE BARRIER HEIGHT TO CONTROL AIR CURRENTS AND BLOWING SOIL
6. CALCIUM CHLORIDE - THIS CHEMICAL MAY BE APPLIED BY MECHANICAL SPREADER AS LOOSE, DRY GRANULES OR FLAKES AT A RATE THAT KEEPS THE SURFACE MOIST BUT NOT SO HIGH AS TO CAUSE WATER POLLUTION OR PLANT DAMAGE. APPLICATION RATES SHOULD BE STRICTLY IN ACCORDANCE WITH SUPPLIERS' SPECIFIED RATES.
7. OPERATION AND MAINTENANCE - WHEN TEMPORARY DUST CONTROL MEASURES ARE USED; REPETITIVE TREATMENT SHOULD BE APPLIED AS NEEDED TO ACCOMPLISH CONTROLS.

   STREET CLEANING- PAVED ARES THAT HAVE ACCUMULATED SEDIMENT FROM CONSTRUCTION SHOULD BE CLEANED DAILY, OR AS NEED, UTILIZING A STREET SWEEPER OR BUCKET-TYPE ENDLOADER OR SCRAPER.

SPECIFICATIONS FOR MULCHING

1. MULCH AND OTHER APPROPRIATE VEGETATIVE PRACTICES SHALL BE APPLIED TO DISTURBED AREAS WITHIN 7 DAYS OF GRADING IF THE AREA IS TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN 21 DAYS OR ON AREAS AND PORTIONS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.
2. MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
   - STRAW - SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/AC. OR 90 LB./1,000 SQ. FT. (TWO TO THREE BALES). THE STRAW MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000-SQ.-FT. SECTIONS AND PLACE TWO 45-LB. BALES OF STRAW IN EACH SECTION.
   - HYDROSEEDERS - WOOD CELLULOSE FIBER SHOULD BE USED AT 2,000 LB./AC. OR 46 LB./1,000 SQ. FT.
   - OTHER - ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS AND ROLLED EROSION CONTROL PRODUCTS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD MULCHECHIPS APPLIED AT 10-20 TONS/AC.
3. MULCH ANCHORING - MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. THE FOLLOWING ARE ACCEPTABLE METHODS FOR ANCHORING MULCH:
   - MECHANICAL - USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT BE LEFT GENERALLY LONGER THAN 6 INCHES.
   - MULCH NETTINGS - USE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, FOLLOWING ALL PLACEMENT AND ANCHORING REQUIREMENTS. USE IN AREAS OF WATER CONCENTRATION AND STEEP SLOPES TO HOLD MULCH IN PLACE.
   - SYNTHETIC BINDERS - FOR STRAW MULCH, SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK, OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER. ALL APPLICATIONS OF SYNTHETIC BINDERS MUST BE CONDUCTED IN SUCH A MANNER WHERE THERE IS NO CONTACT WITH WATER OF THE STATE.
   - WOOD CELLULOSE FIBER - WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LBS./AC. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB./100 GAL. OF WOOD CELLULOSE FIBER.

SPECIFICATIONS FOR SODDING

MATERIALS

1. SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 48 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD SHALL BE INSPECTED AND APPROVED PRIOR TO INSTALLATION.
2. THE SOD SHALL BE KEPT MOIST AN COVERED DURING HAULING AND PREPARATION FOR PLACEMENT.
3. SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 0.75 INCHES, PLUS OR MINUS 0.25 INCHES, AT THE TIME OF CUTTING. MEASUREMENTS FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH.

SITE PREPARATION

1. A SUBSOILER, PLOW OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. MAXIMIZING INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY. SUBSOILING SHALL NOT BE CONDUCTED ON SLIP-PRONE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED ONLY TO WHAT IS NECESSARY FOR ESTABLISHING VEGETATION.
2. THE AREA SHALL BE GRADED AND TOPSOIL SPREAD WHERE NEEDED.
3. SOIL AMENDMENTS

   LIME- AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACIDIC SOILS AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, LIME SHALL BE APPLIED AT THE RATE OF 100 LB./1,000 SQ. FT OR 2 TONS/AC.

   FERTILIZER- FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A 2 SOIL TEST FERTILIZER SHALL BE APPLIED AT A RATE OF 12 LB./1,000 SQ. FT OR 500 LB./AC. OF 10-10-10 OR 12-12-12 ANALYSIS

   THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING-TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES.
4. BEFORE LAYING SOD, THE SURFACE SHALL BE UNIFORMLY GRADED AND CLEARED OF ALL DEBRIS, STONES AND CLODS LARGER THAN 3-IN. DIAMETER.

SOD INSTALLATION

1. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURES, THE SOIL SHALL BE LIGHTLY IRRIGATED IMMEDIATELY BEFORE LAYING THE SOD.
2. SOD SHALL NOT BE PLACED ON FROZEN SOIL.
3. THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY WEDGED AGAINST EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED IN A BRICK-LIKE PATTERN. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS THAT WOULD DRY THE ROOTS.
4. ON SLOPING AREAS WHERE EROSION MAY BE A PROBLEM, SOD SHALL BE LAID WITH THE LONG EDGE PARALLEL TO THE CONTOUR AND STAGGERED JOINTS. THE SOD SHALL BE SECURED WITH PEGS OR STAPLES.
5. AS SODDING IS COMPLETED IN ANY ONE SECTION, THE ENTIRE AREA SHALL BE ROLLED OR TAMPED TO ENSURE SOLID CONTACT OF ROOTS WITH THE SOIL SURFACE. SOD SHALL BE WATERED IMMEDIATELY AFTER ROLLING OR TAMPING UNTIL THE SOD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. THE OPERATIONS OF LAYING TAMPING AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN 8 HOURS.

MAINTENANCE

1. IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK WITH SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A DEPTH OF 4-6 INCHES.
2. AFTER THE FIRST WEEK, SOD SHALL BE WATERED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE AND ENSURE ESTABLISHMENT.
3. THE FIRST MOWING SHALL NOT BE ATTEMPTED UNTIL SOD IS FIRMLY ROOTED.

WEBER ENGINEERING SERVICES
Where Strong Relationships & Superior Service Guide Your Project

2555 Hartville Rd., Suite B
Rootstown, OH 44272
www.WeberEngineeringServices.com
330-329-2037
matt@webercivil.com

STATE OF OHIO
MATTHEW L. WEBER
61709
REGISTERED
PROFESSIONAL ENGINEER

Reg. No.: 61709

CLIENT:

GROSE & MANZ BUILDERS
BRAD GROSE
(419) 357-9579
3517 FOSTER ROAD
CONVOY, OHIO 45832

OWNER:

BLISSFUL CORP.
970 S. JEFFERSON AVE
COOKEVILLE, TN 38501

LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

SWP3 DETAILS

C112
Project No. 2025-190

C:\Users\Brandon Weber\Civil\Cloud Server - Weber\A-1 Projects\2025 Projects\2025-190 TownPlace Suites Grove City\2025-190 Dwg\2025-190 Sitx01C - 03-26-2026\2025-190 Sitx01C.dwg 3/26/2026 11:24:09 AM

The City of Grove City, Ohio

4035 Broadway • Grove City, Ohio 43123
(614) 277-3000

WES Response in Red 03-26-2026

3/17/26

Matthew L. Weber
Weber Engineering Services, LLC

Dear Mr. Weber

Staff has reviewed your final development plan application for LaQuinta Hotel, Grove City. The control number for this application is #202603060011 and should be referenced in any future correspondence concerning this matter.

Having compiled the comments/recommendations provided to the Development Department from our various departments, we request the following information or corrections at this time.

General Comments

1. An access point should be added to Rumfield Dr to allow for additional ingress and egress from the site. Revised as requested, an additional access point has been added.

2. A 5-foot-wide sidewalk should be installed along the entirety of the property's Rumfield Drive frontage that connects to the existing sidewalk along Marlane Drive. Revised as requested, sidewalk has been added to the plans.

3. Update the photometric plan to show all the parking spaces along the southern parking area of the hotel, including the existing spaces along the hotel. All spaces will need to be illuminated to a minimum of 0.5 footcandles, and two spaces along Rumfield Dr currently show 0.4 footcandles. Please adjust or add additional lighting to meet code requirements. Additionally, the existing spaces along the hotel should be included in the photometric plan. Photometric has been updated.

4. The site data table on sheet C102 should note the number of rooms in the hotel to show that proposed parking meets code requirements. Revised as requested

5. Parking space dimensions do not meet the minimum size requirements of 180 square feet.
   Parking space sizes have been revised.

Landscaping

6. Per section 1136.06(d) of code, there cannot be more than 21 consecutive parking spaces without an island or peninsula containing a 2" caliper minimum tree. As currently configured, the southern parking row along Rumfield Drive does not comply with this requirement. However, when the curb cut noted in comment #1 is added, the peninsulas framing the curb cut can be used to fulfill this requirement.
   Landscaping plan has been revised.
7. A 3-foot evergreen hedge row will need to be installed along Marlane Dr and Rumfield Dr to screen the parking lot.
   Landscaping plan has been revised.
8. Update note on tree planting typical on sheet C102A to state that 50% of the wire basket and burlap will be removed at the time of planting. Note has been revised.

9. All areas adjacent to Marlane Drive and Rumfield Drive disturbed during construction will need to be sod, not seed. Update General Note #7 to reflect this requirement. Additionally, if seed is used elsewhere on site, no loose straw can be used to cover grass seed.
   Note revised as requested
10. Please note that an irrigation plan will need to be approved prior to the approval of the landscaping plan. An irrigation plan can be submitted with the revised material or as part of the Site Improvement Plan. Potential routing for the irrigation lines have been added, it was also noted that the the exact location is to be provided by landscaper priot to installation.

11. The Urban Forester recommends using at least two different species of trees to increase diversity and avoid having to replace all trees at once in the event of a disease or insect issue.
    Landscaping has been revised to have multiple species.
12. All existing trees and shrubs that are planned to be removed as part of this plan will need to be replaced elsewhere on the property. This includes plantings along the hotel removed for construction of the new entrance way. Indicate on the plans where these plants are proposed to be relocated or replanted.
    This has been indicated on sheet C101A.
13. All service structures on site are required to be screened per section 1136.08 of code. A note should be added to the plan sheets stating such. Note added to the landscape plan.

14. Indicate on the demolition plan trees being removed and preserved as part of the project.
    This has been indicated on sheet C101A.

Engineering

15. Grove City's WebGIS indicates a 12" storm sewer along Rumfield Drive, but plans show a 15" diameter pipe. Pipe size corrected to 12".

16. Remove proposed Storm Sewer ST-1 and ST-2 from the existing conditions plan and the demolition plan. Revised as requested.

17. Label Storm Sewer ST-1 and ST-2 as "Proposed Private 12" STM SEW" on the utility plan.
    Revised as requested.
18. Provide clarification on the easement labeled as "possible storm esmt" along Rumfield Drive, as the city has no record of such an easement. Provide the easement record information (deed, book, page, instrument number) for this easement if applicable.
    Easement has been removed, it is not there.
19. Provide the record plan number and pipe diameter for the existing sanitary sewer and water main along Marlane Drive. This information can be found on the City's WebGIS.
    Revised as requested.
20. On grading plan provide the following:

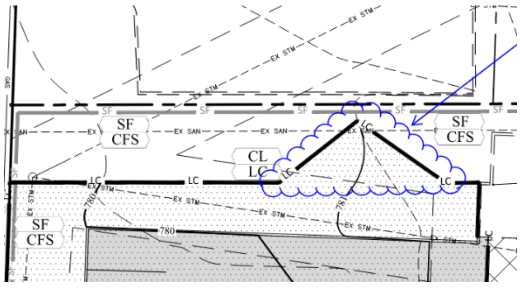
    a. Provide all existing and proposed storm structure numbers on site.
    b. Include surface flow and flood route arrows on site. Include slopes on all new pavement and sidewalks.
    c. Include Surface Flow Arrows as well as Flood Route Arrows in legend and on plan sheet.

    These have been added to the grading plan.

Stormwater

21. Provide a site narrative for the SWP3 that includes contact information (site, preparer and developer), total earth disturbed area (EDA), project description, critical areas, receiving stream. This should include flood zone information in the table on page C106.
    Site narrative provded on sheet C106.
22. While the EDA appears to be 0.98 ac, an SWP3 should be provided for construction since the total EDA is so close to 1 acre.
    Full SWP3 provided on sheets C106 - C112. Stormwater report has been completed.
23. Provide a Site Data Table that includes the earth disturbed area and existing/proposed impervious area.
    Site data table added to sheet C106.
24. Site data information on page C102 should be shown on the title sheet. Revised as requsted.

25. Provide storm water calculations stamped by a professional engineer.
    Stormwater management report has been created.
26. Clarify why the area west of the parking lot is included in the Limits of Construction, as this area is not shown on the demolition plan. See the image to the right for the location.
    The limits of construction has been revised to match the limits of demolition on sheet C101A.

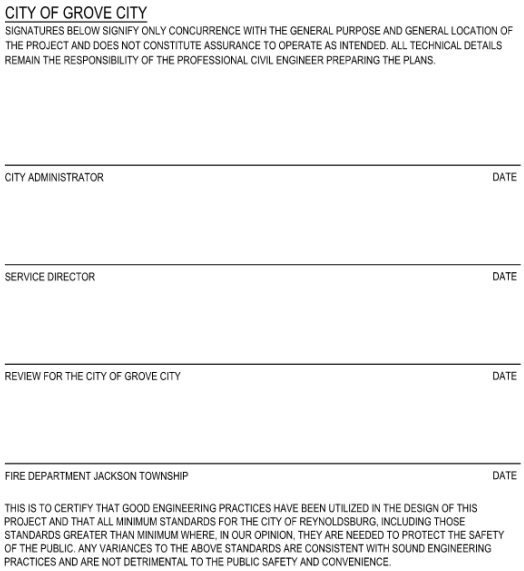


27. Provide all existing and proposed storm structure numbers on site.
    All existing and proposed storm structure numbers are provided on sheets C103, C104, & C106.
28. It is recommended that additional catch basins be added to the site, as the large area of surface flow (approx. 0.46 acres) as shown is proposed to run into a single catch which could become overwhelmed and result in drainage issues on site. Storm routing has been revised, additional inlets added.

29. The sheet index on the cover sheet state page numbers for SWP3 details as C107-C110, however plan sheets only go up to C-109. Please clarify the number or provide the missing sheet.
    Sheet index has been updated.

Additional Comments

30. The highway sign will need to be removed as part of the final development plan as they are not permitted in zoning code. Please note or show the sign removed on the revised plans.
    Comment noted, the owner would like to keep the sign. Callout has been revised to indicate this.
31. Clarify if the monument sign located on the northern access point will remain or be moved to the southern access point. This existing sign is to be removed, a proposed monument sign has been added just south of the northern access point.
32. Update spelling of "Ohio" on the side bar on all sheets.
    Spellings of Ohio have been updated.
33. Update the side bar title from "Site Improvement Plan" to "Final Development Plan" on all pages.
    Revised as requested
34. The General Notes included on title sheet should be located on a separate page.
    General notes moved to sheet C100A.
35. Add a note that all parking lot pavement markings will be white. Callouts have been revised to mention that they are to be white.
36. Add address under LaQuinta Hotel on cover sheet title.
    Address has been added.
37. Add signature block to the plan cover sheet. The City's current signature block can be found in the image to the right. Signature block added to sheet C100.


CITY OF GROVE CITY

SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSE AND GENERAL LOCATION OF THE PROJECT AND DOES NOT CONSTITUTE ASSURANCE TO OPERATE AS INTENDED. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL CIVIL ENGINEER PREPARING THE PLANS.

CITY ADMINISTRATOR DATE

SERVICE DIRECTOR DATE

REVIEW FOR THE CITY OF GROVE CITY DATE

FIRE DEPARTMENT JACKSON TOWNSHIP DATE

THIS IS TO CERTIFY THAT GOOD ENGINEERING PRACTICES HAVE BEEN UTILIZED IN THE DESIGN OF THIS PROJECT AND THAT ALL MINIMUM STANDARDS FOR THE CITY OF REYNOLDSBURG, INCLUDING THOSE STANDARDS GREATER THAN MINIMUM WHERE, IN OUR OPINION, THEY ARE NEEDED TO PROTECT THE SAFETY OF THE PUBLIC. ANY VARIANCES TO THE ABOVE STANDARDS ARE CONSISTENT WITH SOUND ENGINEERING PRACTICES AND ARE NOT DETRIMENTAL TO THE PUBLIC SAFETY AND CONVENIENCE.

38. Include a list of standard drawings that will be used during construction on the plan sheets.
    Standard drawings on sheets C105 & C105A.

Please revise your materials accordingly and resubmit with a response letter indicating how each issue noted was addressed by 12:00pm on March 26th, 2026. **Additionally, with the resubmission, 8 full sets of all application materials (application, plan sheets, narrative etc.) to be reviewed by Planning Commission must be submitted, including one full size (24"x36") set of all plan sheets.**

This will allow us time to review the revisions prior to finalizing the agenda for the April Planning Commission meeting. If for any reason you feel a meeting with staff is warranted prior to the meeting, please contact me as soon as possible to arrange a date and time. If revisions cannot be submitted by the above deadline, the Development Department will recommend that this application be postponed until the May Planning Commission meeting; however, if the above deadline is met, staff will recommend that your application be heard as described below.

Planning Commission will hear your request on Tuesday, April 7th, 2026, in Council Chambers of City Hall at 1:30 p.m. The staff report for your application will be sent out by the end of the day on Friday, April 3rd, 2026. Your request will be postponed to a future date if you are unable to attend the meeting.

If you have any questions or need additional information, please call me at (614) 277-3022 or email.

Sincerely,



Terry Barr, AICP
Development Planner

Sincerely,



Matthew L. Weber, P.E.
Weber Engineering Services

NARRATIVE FORM

Grove City Building Division • 4035 Broadway, Grove City, OH 43123 • 614-277-3075 • 614-277-3090 (Fax) • GroveCityOhio.gov

ATTACH THIS FORM TO ANY OTHERS when providing additional information. If more space is needed, please complete a second Narrative Form.

Project Name	Name of person completing Narrative
LaQuinta Hotel	Matthew L. Weber/Greg Mayo

This Narrative accompanies what other Form(s)?

Site Development Plans, Building Plans and Elevations

The scope of the project is to reconfigure the existing hotel entrance from the north side of the building to the south side of the building and construct a new building entry/canopy on the south side. New auto parking will be constructed on the south side of the building to accommodate better pedestrian flow into the building.

The north side parking will remain for future use and development.

APPLICANT ACKNOWLEDGMENT & SIGNATURE

Once submitted, this application becomes a public document. Falsification of a public document is a violation of Ohio Revised Code 2921.13(a)(3), a misdemeanor of the first degree, punishable by up to six months imprisonment, or a fine of $1,000, or both. By signing below, I acknowledge I have read and understand the above notice and confirm the information provided is true and complete to the best of my ability.

[redacted]

SURVIVORSHIP DEED

Nanubhai T. Patel, husband of Grantee

name(s) and marital or organizational status of grantor(s)

for valuable consideration paid, grant(s), with general warranty covenants, to Nanubhai T. Patel and Manju Patel, husband and wife MAIL

for their joint lives, remainder to the survivor of them, whose tax mailing address is 765 Russell Strausse Road, Cookeville, Tennessee 38506,

the following described real property:

Situated in the State of Ohio, County of Franklin,

and City of Grove City:

* See reverse side for legal description

TIME 11 35 A.M. M
RECORDED FRANKLIN CO., OHIO

154512

AUG 23 1994

RICHARD B. METCALF, RECORDER

Tax district number and parcel number: 40-5538 RECORDER'S FEE $ 22.00

Street address of property: Marlane Drive

Prior instrument reference: Volume 25297, page A-01, 02 & 03 of the Official Records of Franklin County, Ohio.

~~All rights of dower in the premises of the grantor are released.~~

Signed this 23rd day of August, 19 94.

Signed and acknowledged in the presence of:

witness ANDREA B. KRICK

witness JAMIE L. KITCHEN

Nanubhai T. Patel

STATE OF OHIO
COUNTY OF Franklin

The foregoing instrument was acknowledged before me this 23rd day of August, 19 94 by Nanubhai T. Patel, husband of Grantee

Complete pursuant to ORC §147.55

Notary Public

NOTARIAL SEAL STATE OF OHIO

ANDREA B. KRICK
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES JULY 19, 1998

This instrument prepared by: Thomas R. Clark, 3083 Columbus Street, Grove City, Ohio 43123, Attorney at Law

Auditor's and Recorder's Stamps

Approved by Planning Commission August 16, 1994

Charles W. Boso, Jr.
City Administrator, Planning Commision Member

TRANSFERRED
AUG 23 1994
JOSEPH W. TESTA
AUDITOR
FRANKLIN COUNTY, OHIO

907661
CONVEYANCE TAX
EXEMPT
JOSEPH W. TESTA
FRANKLIN COUNTY AUDITOR

After recording, return to:

*Insert legal description of real property and interest therein

Published by Columbus Bar Association 1985

2726/H20

PARCEL I

EXHIBIT "A"

DESCRIPTION OF A 1.031 ACRE TRACT WEST OF MARLANE DRIVE, SOUTH OF STRINGTOWN ROAD IN THE CITY OF GROVE CITY, FRANKLIN COUNTY, OHIO.

Situated in the State of Ohio, County of Franklin, and in the City of Grove City, and being part of Survey No. 8231, Virginia Military Lands, also being part of a 3.458 acre tract conveyed from Marathon Oil Company to Nanubhai T. Patel by deed shown of record in Official Record 25297-A-01, Recorder's Office, Franklin County, Ohio.

Beginning at a Pony Spike, found, at the southeasterly corner of said 3.458 acre tract and at the point of intersection of the westerly right of way line of Marlane Drive as shown in Plat Book 46, Page 5 with the northerly right of way line of Rumfield Drive as shown in Official Record 17269-F-04;

thence N 81° 33' 56" W, along the southerly line of said 3.458 acre tract and the northerly right of way line of Rumfield Drive, a distance of 315.45 feet to an iron pin, found, at the southwesterly corner of said tract;

thence N 6° 17' 19" E, along the westerly line of said 3.458 acre tract, a distance of 142.46 feet to an iron pin, set;

thence S 81° 33' 56" E, parallel to the northerly right of way line of Rumfield Drive, a distance of 315.59 feet, to an iron pin, set, in the easterly line of said 3.458 acre tract and in the westerly right of way line of Marlane Drive;

thence S 6° 20' 45" W, along the easterly line of said 3.458 acre tract and the westerly right of way line of Marlane Drive, a distance of 142.46 feet to the place of beginning;

containing 1.031 acres, more or less, subject to all easements and restriction shown of record.

The preceding description was prepared by Roland L. Edwards, Registered Surveyor No. 4224, and was based on a survey performed under his supervision. The bearings used in this description are based on the outside boundaries of the 3.458 acre tract being the same as shown in the deed from Marathon Oil Company to Nanubhai T. Patel of record in Official Record 25297-A-01, Recorder's Office, Franklin County, Ohio which was based on a survey by Carl E. Turner, Jr., Registered Surveyor No. 6702.

0-32-F
1.031Ac.
SPLIT FROM
040-5538

Description Verified
John Circle P.E., P.S.
Franklin County Engineer
Date: 8-23-04

Roland L. Edwards
Registered Surveyor No. 4224

Cont'd.----------

PARCEL II

EXHIBIT "A"

DESCRIPTION OF A 1.340 ACRE TRACT WEST OF MARLANE DRIVE, SOUTH OF STRINGTOWN ROAD IN THE CITY OF GROVE CITY, FRANKLIN COUNTY, OHIO.

Situated in the State of Ohio, County of Franklin, and in the City of Grove City, and being part of Survey No. 8231, Virginia Military Lands, also being part of a 3.458 acre tract conveyed from Marathon Oil Company to Nanubhai T. Patel by deed shown of record in Official Record 25297-A-01, Recorder's Office, Franklin County, Ohio.

Beginning at an iron pin, set, in the easterly line of said 3.458 acre tract and in the westerly right of way line of Marlane Drive as shown in Plat Book 46, Page 5, N 6° 20' 45" E a distance of 142.46 feet from a Pony Spike, found, at the southeasterly corner of said 3.458 acre tract and at the point of intersction of the westerly right of way line of Marlane Drive with the northerly right of way line of Rumfield Drive as shown in Official Record 17269-F-04;

thence N 81° 33' 56" W, parallel to the northerly right of way line of Rumfield Drive, a distance of 315.59 feet to an iron pin, set, in the westerly line of said 3.458 acre tract, said iron pin being N 6° 17' 19" E a distane of 142.46 feet from and iron pin, found, at the southwesterly corner of said tract and in the northerly right of way line of Rumfield Drive;

thence N 6° 17' 19" E, along the westerly line of said 3.458 acre tract, a distance of 185.00 feet to an iron pin, set;

thence S 81° 33' 56" E, parallel to the northerly right of way line of Rumfield Drive, a distance of 315.78 feet, to an iron pin, set, in the easterly line of said 3.458 acre tract and in the westerly right of way line of Marlane Drive;

thence S 6° 20' 45" W, along the easterly line of said 3.458 acre tract and the westerly right of way line of Marlane Drive, a distance of 185.00 feet to the place of beginning;

containing 1.340 acres, more or less, subject to all easements and restriction shown of record.

The preceding description was prepared by Roland L. Edwards, Registered Surveyor No. 4224, and was based on a survey performed under his supervision. The bearings used in this description are based on the outside boundaries of the 3.458 acre tract being the same as shown in the deed from Marathon Oil Company to Nanubhai T. Patel of record in Official Record 25297-A-01, Recorder's Office, Franklin County, Ohio which was based on a survey by Carl E. Turner, Jr., Registered Surveyor No. 6702.

O-32-F
~~1.340 AC.~~
~~SPLIT FROM~~
ALL THE BAL.
OF
040-5538

Description Verified
John Clarke P.E., P.S.
Franklin County Engineer
Date 6-23-94
JC

Roland L Edwards

Roland L. Edwards
Registered Surveyor No. 4224

cont'd.--------
(on reverse side)

L7207002 1.087Ac. SPLIT FROM 040-5538

Description Verified
John Circle P.E., P.S.
Franklin County Engineer
Date: 8-23-94
JC

PARCEL III EXHIBIT "A"

DESCRIPTION OF A 1.087 ACRE TRACT WEST OF MARLANE DRIVE, SOUTH OF STRINGTOWN ROAD IN THE CITY OF GROVE CITY, FRANKLIN COUNTY, OHIO.

Situated in the State of Ohio, County of Franklin, and in the City of Grove City, and being part of Survey No. 8231, Virginia Military Lands, also being part of a 3.458 acre tract conveyed from Marathon Oil Company to Nanubhai T. Patel by deed shown of record in Official Record 25297-A-01, Recorder's Office, Franklin County, Ohio.

Beginning at an iron pin, set, in the easterly line of said 3.458 acre tract and in the westerly right of way line of Marlane Drive as shown in Plat Book 46, Page 5, N 6° 20' 45" E a distance of 327.46 feet from a Pony Spike, found, at the southeasterly corner of said 3.458 acre tract and at the point of intersction of the westerly right of way line of Marlane Drive with the northerly right of way line of Rumfield Drive as shown in Official Record 17269-F-04;

thence N 81° 33' 56" W, parallel to the northerly right of way line of Rumfield Drive, a distance of 315.78 feet to an iron pin, set, in the westerly line of said 3.458 acre tract, said iron pin being N 6° 17' 19" E a distane of 327.47 feet from and iron pin, found, at the southwesterly corner of said tract and in the northerly right of way line of Rumfield Drive;

thence N 6° 17' 19" E, along the westerly line of said 3.458 acre tract, a distance of 150.04 feet to an iron pin, found, at the northwesterly corner of said tract;

thence S 81° 33' 37" E, along the northerly line of said 3.458 acre tract, a distance of 315.93 feet, to an iron pin, found, at the northeasterly corner of said tract and in the westerly right of way line of Marlane Drive;

thence S 6° 20' 45" W, along the easterly line of said 3.458 acre tract and the westerly right of way line of Marlane Drive, a distance of 150.00 feet to the place of beginning;

containing 1.087 acres, more or less, subject to all easements and restriction shown of record.

The preceding description was prepared by Roland L. Edwards, Registered Surveyor No. 4224, and was based on a survey performed under his supervision. The bearings used in this description are based on the outside boundaries of the 3.458 acre tract being the same as shown in the deed from Marathon Oil Company to Nanubhai T. Patel of record in Official Record 25297-A-01, Recorder's Office, Franklin County, Ohio which was based on a survey by Carl E. Turner, Jr., Registered Surveyor No. 6702.

Roland L. Edwards

Roland L. Edwards
Registered Surveyor No. 4224

Subject to all conditions, restrictions and easements, if any, of record contained in all former conveyances of record for said premises.

LaQuinta Inn Conversion

BY WYNDHAM

4197 MARLANE DR.

GROVE CITY, OH

BRAND PROJECT #60041



2 3D View Proposed Front



1 3D View Proposed Rear

STATE OF OHIO
1-26-26
GREGORY MAYO
2520011
REGISTERED ARCHITECT

LaQuinta Inn Conversion
BY WYNDHAM
4197 MARLANE DR.
GROVE CITY, OH

Mayo Architecture
1015 Shillingshire Dr., Hendersonville, TN 37075
Telephone: 615-832-5504 - info@mayoarchitecture.com

REVISIONS

No.	Description	Date

SHEET TITLE

COVER

SHEET NUMBER

A000

SCALE:

JOB NUMBER: 251001

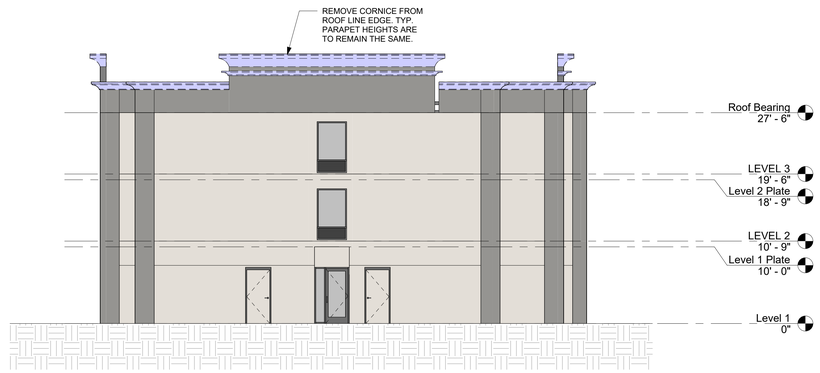
DATE: 1-26-26



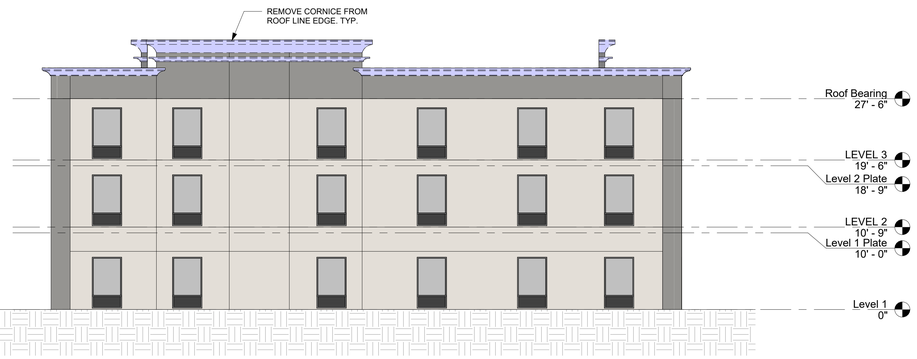
1 FRONT ELEVATION-DEMO
1/8" = 1'-0"



2 REAR ELEVATION-DEMO
1/8" = 1'-0"



3 LEFT ELEVATION-DEMO
1/8" = 1'-0"



4 RIGHT ELEVATION-DEMO
1/8" = 1'-0"

STATE OF OHIO
1-26-26
GREGORY MAYO
2520011
REGISTERED ARCHITECT

LaQuinta Inn Conversion BY WYNDHAM

4197 MARLANE DR.
GROVE CITY, OH

Mayo Architecture
1015 Shiringhrie Dr. Hendersonville, TN 37075
Telephone: 615-852-5504 · info@mayoarchitecture.com

REVISIONS

No.	Description	Date

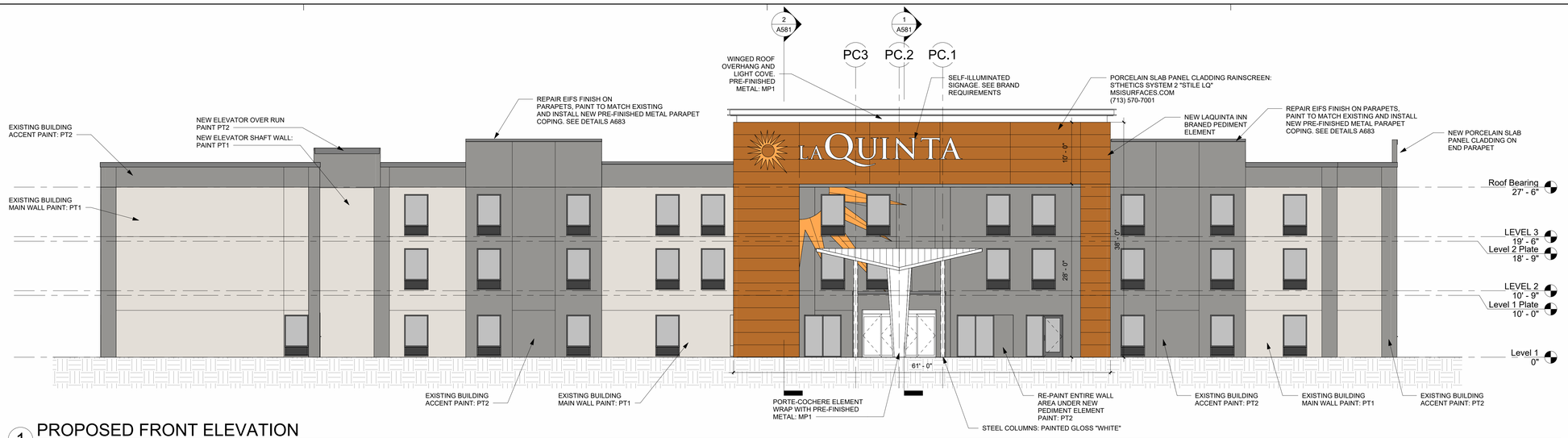
SHEET TITLE

EXTERIOR ELEVATIONS-DEMO

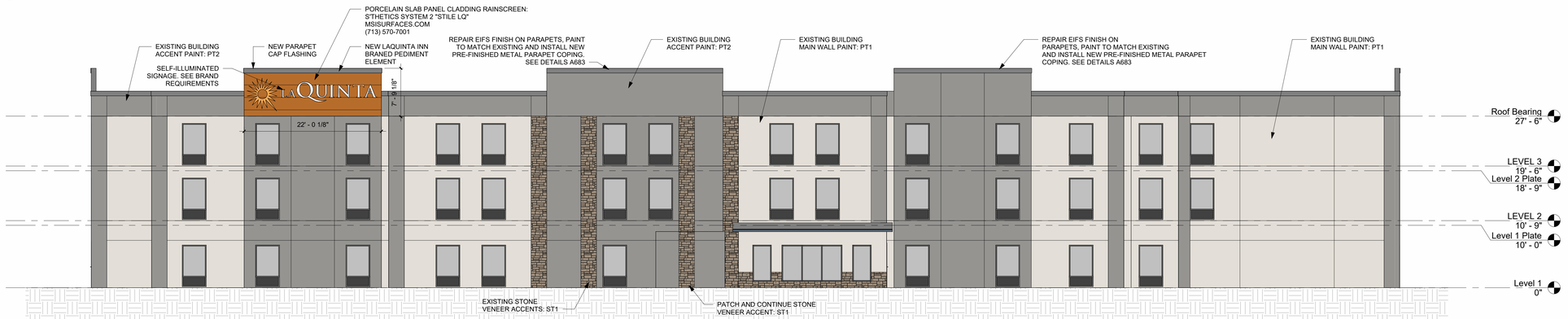
SHEET NUMBER

D401

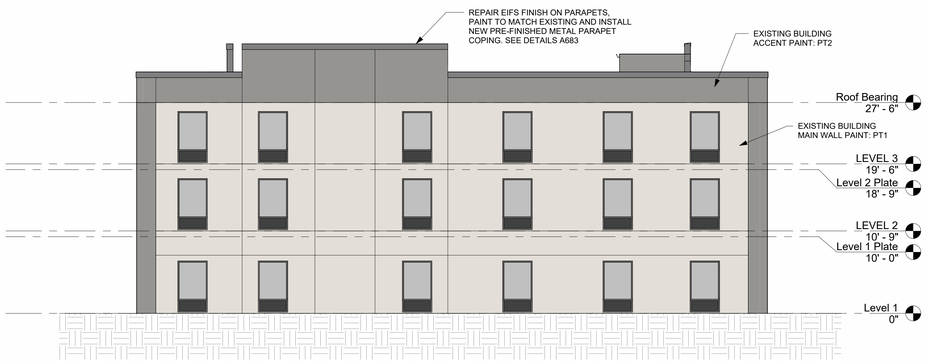
SCALE:	1/8" = 1'-0"
JOB NUMBER:	251001
DATE:	1-26-26



1 PROPOSED FRONT ELEVATION
1/8" = 1'-0"



2 PROPOSED REAR ELEVATION
1/8" = 1'-0"



3 PROPOSED LEFT ELEVATION
1/8" = 1'-0"



4 PROPOSED RIGHT ELEVATION
1/8" = 1'-0"

EXTERIOR COLOR FINISHES

PAINT PT1: SHERWIN WILLIAMS SW 7028 INCREDIBLE WHITE	STONE ST1: PROVIA "COUNTRY LEDGESTONE"	METAL PANEL MP1: KYNAR FINISH "STONE WHITE"
PAINT PT2: SHERWIN WILLIAMS SW 7669 SUMMIT GRAY	LARGE FORMAT TILE: MSI SURFACES "STYLE LQ"	

SHEET NOTES

1. CONTRACTOR SHALL PROVIDE SUPPORT STRUCTURE, 5/8" PLYWOOD BACKING FOR MOUNTING OF SIGN AND CONNECT ELECTRICAL CIRCUITS FOR OWNER FURNISHED AND INSTALLED FACADE-MOUNTED SIGNS. NO EXPOSED ELECTRICAL CONDUIT OR BOXES ALLOWED.
2. ALL EXTERIOR CLADDING MATERIALS ARE TO HAVE AN AIR SPACE OR DRAINAGE PLANE BETWEEN THE CLADDING MATERIAL AND THE SUBSTRATE FOAM AND/OR SHEATHING. ANY REQUIRED SETTING MATERIALS, MESH OR ADDITIONAL SUBSTRATES REQUIRED TO ACHIEVE DRAINAGE PLANE ARE TO BE PROVIDED AND INSTALLED PER CLADDING MANUFACTURERS RECOMMENDATIONS AND MANUFACTURERS STANDARD DETAILS. NOT ALL INSTALLATION DETAILS ARE PROVIDED IN THIS PLAN SET.
3. PROVIDE 3/8" WIDE TRANSITION GAP BETWEEN DIFFERENT EXTERIOR CLADDING MATERIALS. GAP IS TO BE PROVIDED BETWEEN IN-PLANE TRANSITIONS, INTERIOR CORNER TRANSITIONS AND EXTERIOR CORNER TRANSITIONS. GAP IS TO BE SEALED WITH BACKER ROD AND SEALANT MATCHING COLOR OF ADJACENT WALL FINISH MATERIAL. COORDINATE TRANSITION GAP SEALANT COLOR WITH ARCHITECT.
4. SEAL ALL PENETRATIONS THROUGH EXTERIOR WALLS WITH SEALANT MATCHING COLOR OF ADJACENT WALL FINISH MATERIAL.
3. SEAL DOOR AND WINDOW FRAMES WITH SEALANT MATCHING COLOR OF FRAME.
4. FIELD PAINT THE FOLLOWING:
   A. HOLLOW METAL DOORS AND FRAMES
   B. GAS PIPES AND SPRINKLER TEST DRAINS (ON ROOF ALSO)
   C. AIR INTAKE AND EXHAUST GRILLES

STATE OF OHIO
1-26-26
GREGORY MAYO
2520011
REGISTERED ARCHITECT

LaQuinta Inn Conversion BY WYNDHAM

4197 MARLANE DR.
GROVE CITY, OH

Mayo Architecture
1015 Shringshire Dr. Hendersonville, TN 37075
Telephone: 615-852-5504 · info@mayoarchitecture.com

REVISIONS

No.	Description	Date

SHEET TITLE

EXTERIOR ELEVATIONS

SHEET NUMBER

A401

SCALE:	As indicated
JOB NUMBER:	251001
DATE:	1-26-26

Storm Water Management Report

For

LA QUINTA HOTEL

4197 Marlane Drive,
Grove City, Ohio 43123

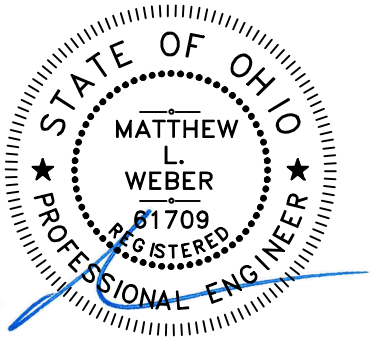
Prepared For

Grose & Manz Builders
3517 Foster Road,
Convoy, Ohio 45832

Design Engineer

WEBER ENGINEERING SERVICES

2555 Hartville Road, Suite B
Rootstown, OH 44272
Phone: 330-329-2037
www.weberengineeringservices.com



WES Job No.: 2025-190 **Date: 03-26-2026**

PROJECT DESCRIPTION AND DESIGN CRITERIA

The project has been based on the City of Grove City design requirements for stormwater management, whereas the Critical Storm method of analysis was utilized in determining the required runoff retention rate. Post-developed outflows up to and including the Critical Storm shall be detained to the pre-developed runoff rate for the 1-year storm event. Post-developed runoff will be managed via an on-site underground stormwater management system. This system will discharge to the existing storm sewer within an existing sewer easement on the parcel to the north.

This site area drains to the City of Grove City MS4 which ultimately is a tributary to Republican Run. Runoff from this system has been designed to meet the water quality and water quantity release rates.

The pre-developed area is shown below:

-The pre-developed site drainage area subcatchment "1S" is 0.62 Acres (CN = 83 & Tc = 14.2 min.)

The post-developed areas are shown below:

-The post developed site drainage area subcatchment "2S" is 0.62 Acres (CN = 97 & Tc = 10 min.)

STORM ROUTING

HydroCAD Stormwater Modeling was used to perform the storm routing calculations.

STORM WATER QUALITY

Water Quality (WQ) will be addressed by means of an underground StormTech DC-780 Isolator Plus rows in addition to an outlet structure fitted with the appropriate WQ orifice. Water Quality is provided via a 1.0" orifice for the underground system. Calculations have been designed to adhere to the Ohio EPA General Permit No. OHC000006 effective April 23, 2023.

STORM ROUTING THROUGH THE UNDERGROUND STORM WATER MANAGEMENT SYSTEM (1P)

The following table is a summary of the storm routing for the proposed site's system.

Storm Event	Pre-Developed Runoff from Site (1S) c.f.s.	Allowable Outflow from Site c.f.s.	Post-Developed Runoff to System (2S) c.f.s.	Post-Developed Outflow from Basin (1P) c.f.s.	Peak Elevation	Peak Storage, c.f.
1	0.68	**0.68**	1.63	**0.09**	774.66	2,764
2	0.95	**0.68**	1.98	**0.24**	774.83	3,113
5	1.36	**0.68**	2.47	**0.40**	775.15	3,749
10	1.70	**0.68**	2.87	**0.51**	775.47	4,307
25	2.19	**0.68**	3.42	**0.64**	775.95	5,094
50	2.61	**2.61**	3.88	**0.88**	776.49	5,711
100	3.06	**3.06**	4.37	**2.46**	776.67	5,913

The following table summarizes the new storm water management system design information.

Underground Storm Water Management System

100-year high water elevation	776.67
Top of DC-780 System Stone	776.75
Inv. of DC-780 Chambers	773.75
Bottom of DC-780 System Stone	773.00
Inv. 1.0" SWM Water Quality Orifice	773.00
Water Quality Elevation	774.38
Inv. 4.5" SWM Primary Orifice	774.50
Weir Elevation	776.45
Inv. Outlet Storm Sewer (12")	773.00

CRITICAL STORM CALCULATIONS

FOR

LA QUINTA HOTEL

Volume of Runoff from 1 Year – 24 hr Storm

Pre-Developed = 1,879 CF

Post-Developed = 4,204 CF

$$\frac{\text{Post-Developed Total} - \text{Pre-Developed Total}}{\text{Pre-Developed Total}} \times 100 =$$

$$\frac{4{,}204 - 1{,}879}{1{,}879} \times 100\% = 123.74\%$$

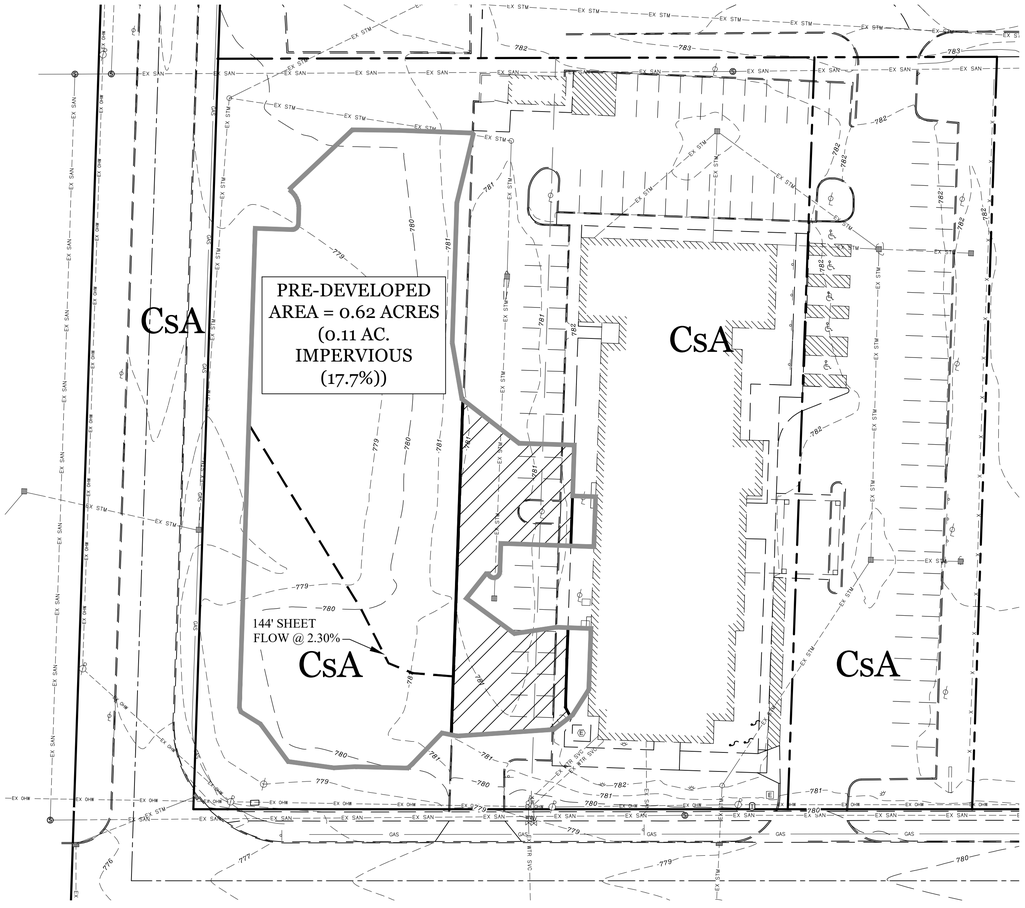
The **Critical Storm Event** for Discharge Limitation for an increase in volume less than 100% and 250% is the **25-Year Storm.**

DRAINAGE MAPS

SITE BENCH MARK

BENCH MARK #1
TOP OF HYDRANT

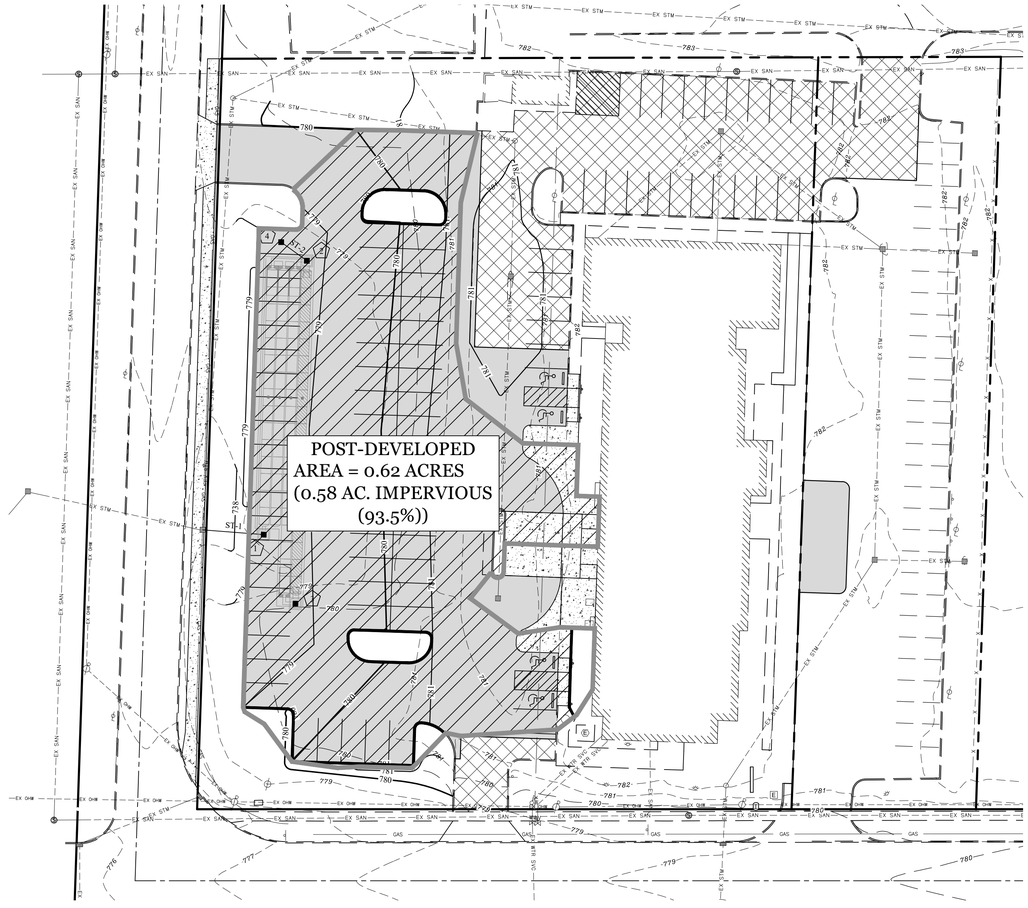
ELEVATION = 782.26



PRE-DEVELOPED DRAINAGE MAP & SOILS MAP

PRE-DEVELOPED: AREA = 0.62 AC., CN = 83, TC = 14.2 MIN.

CsA - Crosby-Urban land complex, 0 to 2 percent slopes



POST DEVELOPED DRAINAGE MAP

POST-DEVELOPED: AREA = 0.62 AC., CN = 97, TC = 10 MIN.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

WEBER ENGINEERING SERVICES

Where Strong Relationships & Superior Service Guide Your Project

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330-329-2037
matt@webercivil.com

STATE OF OHIO
MATTHEW L. WEBER
61709
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PROFESSIONAL ENGINEER

Reg. No.: 61709

CLIENT:

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BRAD GROSE
(419) 357-9579
3517 FOSTER ROAD
CONVOY, OHIO 45832

OWNER:

BLISSFUL CORP.
970 S. JEFFERSON AVE
COOKEVILLE, TN 38501

LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

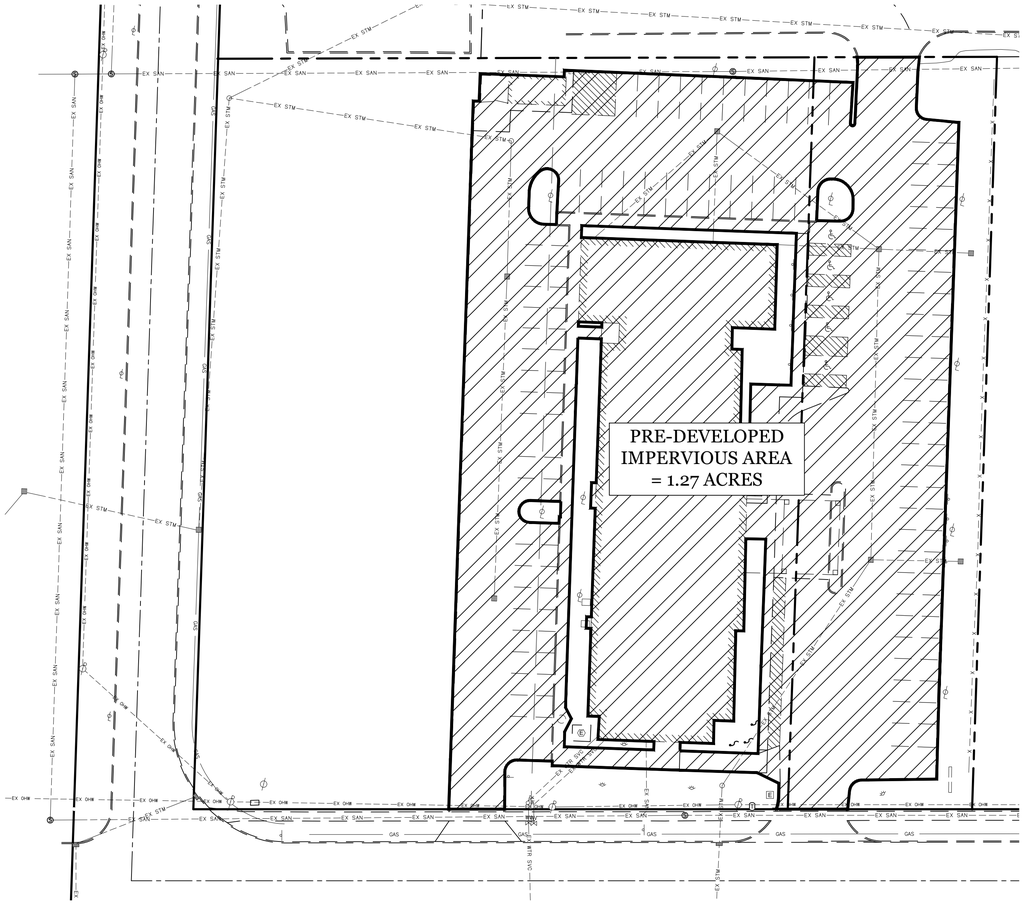
Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

SWP3 DETAILS

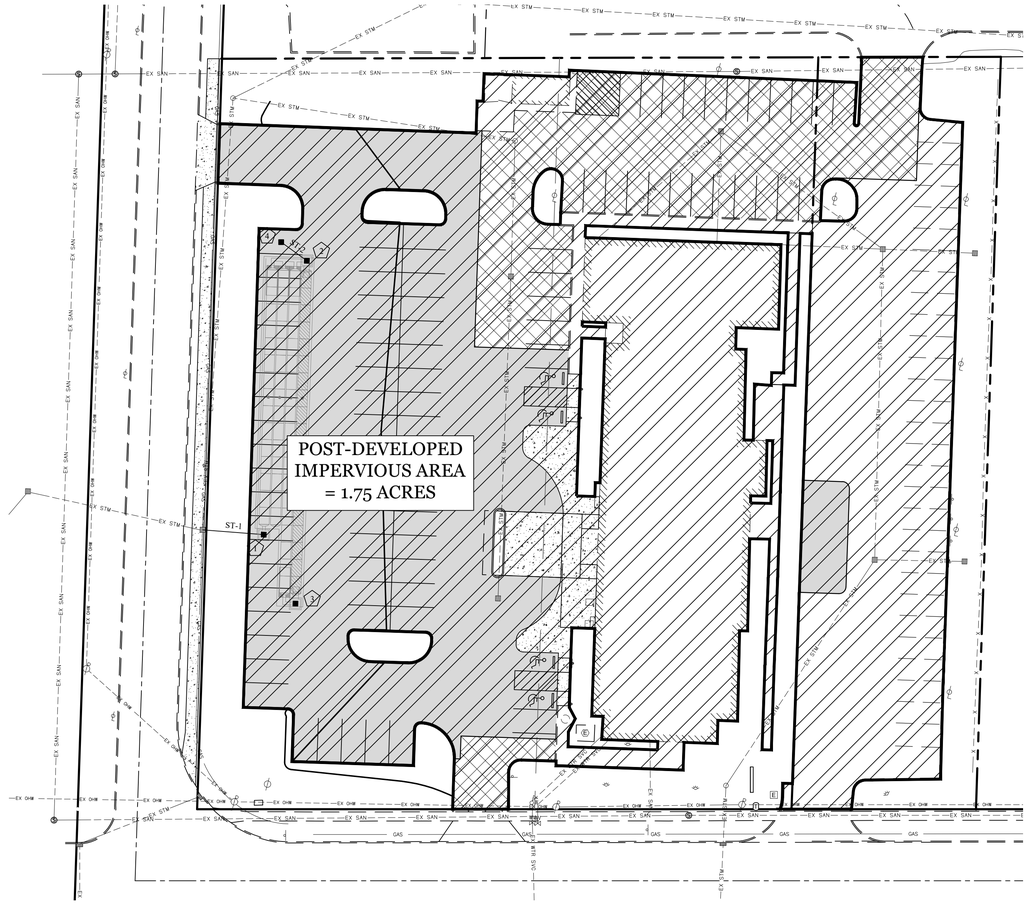
C107
Project No. 2025-190

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SITE BENCH MARK
BENCH MARK #1 TOP OF HYDRANT
ELEVATION = 782.26



PRE-DEVELOPED IMPERVIOUS AREA MAP



POST DEVELOPED IMPERVIOUS AREA MAP

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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LA QUINTA HOTEL
FINAL DEVELOPMENT PLAN
4197 MARLANE DRIVE, GROVE CITY, OHIO

Issue Date
02-25-2025
03-03-2026
03-12-2026
03-26-2026

SWP3 DETAILS

C107A
Project No. 2025-190

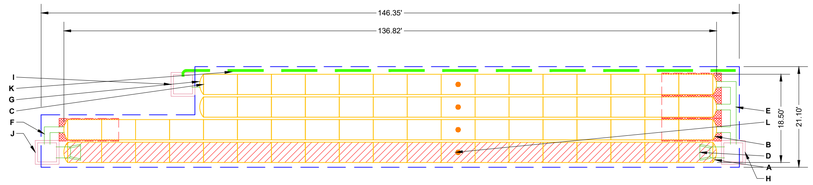
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STORMTECH DC-780 DETAILS

PROPOSED LAYOUT		PROPOSED ELEVATIONS	
68	STORMTECH DC-780 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	788.25
8	STORMTECH DC-780 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	778.25
6	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	777.75
9	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	777.75
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	777.75
6044	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	776.75
		TOP OF DC-780 CHAMBER:	776.25
		12" x 12" TOP MANIFOLD INVERT:	774.75
		12" BOTTOM CONNECTION INVERT:	773.85
2762	SYSTEM AREA (SF)	24" ISOLATOR ROW PLUS INVERT:	773.76
334.9	SYSTEM PERIMETER (ft)	BOTTOM OF DC-780 CHAMBER:	773.75
		UNDERDRAIN INVERT:	773.00
		BOTTOM OF STONE:	773.00

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PREFABRICATED EZ END CAP	A	24" BOTTOM PREFABRICATED EZ END CAP. PART#: SC740ECEZ / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS		
PRE-CORED END CAP	B	12" TOP PRE-CORED END CAP. PART#: SC740EPE12TPC / TYP OF ALL 12" TOP CONNECTIONS		
PRE-CORED END CAP	C	12" BOTTOM PRE-CORED END CAP. PART#: SC740EPE12BPC / TYP OF ALL 12" BOTTOM CONNECTIONS		
FLAMP	D	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: SC80024RAMP (TYP 2 PLACES)		
MANIFOLD	E	12" x 12" TOP MANIFOLD, ADS N-12	12.50"	
MANIFOLD	F	12" x 12" TOP MANIFOLD, ADS N-12	12.50"	
PIPE CONNECTION	G	12" BOTTOM CONNECTION	1.20"	
CONCRETE STRUCTURE	H	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		5.7 CFS IN
CONCRETE STRUCTURE	I	OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		2.0 CFS OUT
CONCRETE STRUCTURE	J	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		2.3 CFS IN
UNDERDRAIN	K	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		
INSPECTION PORT	L	6" SEE DETAIL (TYP 4 PLACES)		

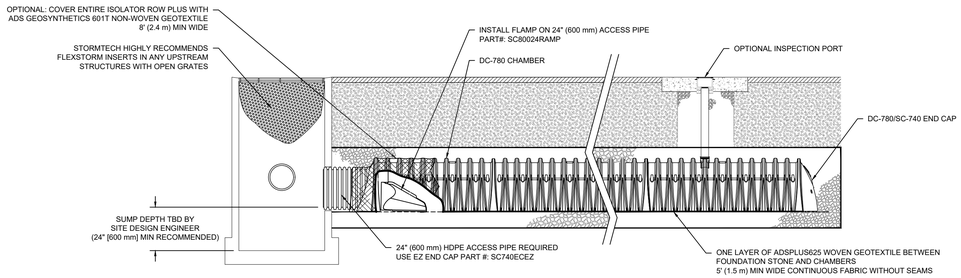


ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.50' OF ADSPLUS625 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

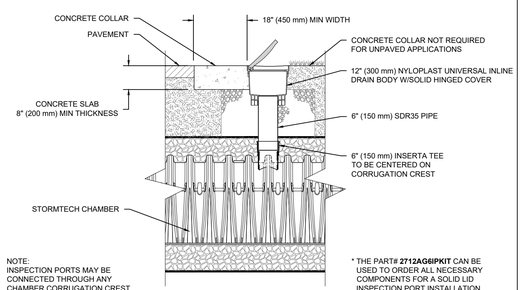
BED LIMITS

NOTES
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- **NOT FOR CONSTRUCTION**: THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.



DC-780 ISOLATOR ROW PLUS DETAIL
NTS

3 DC-780 ISOLATOR ROW PLUS DETAIL



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

* THE PART# **2712AG6IPKIT** CAN BE USED TO ORDER ALL NECESSARY COMPONENTS FOR A SOLID LID INSPECTION PORT INSTALLATION

6" (150 mm) PVC INSPECTION PORT DETAIL (SC SERIES CHAMBER)
NTS

4 DC-780 6" INSPECTION PORT DETAIL

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

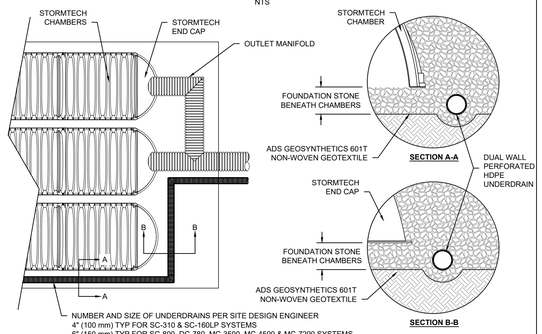
STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

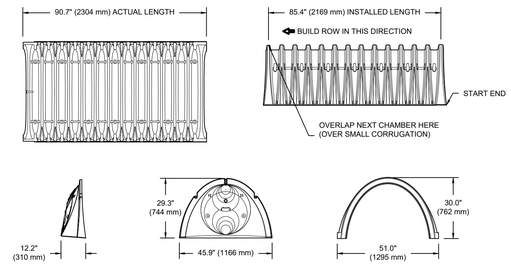
UNDERDRAIN DETAIL
NTS



5 UNDERDRAIN DETAIL

SPACE INTENTIONALLY LEFT BLANK

DC-780 TECHNICAL SPECIFICATION
NTS



NOMINAL CHAMBER SPECIFICATIONS

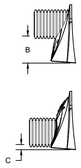
SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	46.2 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	78.4 CUBIC FEET	(2.20 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	45.9" X 29.3" X 9.6"	(1166 mm X 744 mm X 244 mm)
END CAP STORAGE	2.6 CUBIC FEET	(0.07 m³)
MINIMUM INSTALLED STORAGE**	14.4 CUBIC FEET	(0.40 m³)
WEIGHT	11.7 lbs.	(5.3 kg)

* ASSUMES 6" (152 mm) STONE ABOVE, 9" (229 mm) BELOW, AND 6" (152 mm) BETWEEN CHAMBERS
**ASSUMES 6" (152 mm) STONE ABOVE, 9" (229 mm) BELOW END CAPS, 6" (152 mm) BETWEEN ROWS, 12" (305 mm) BEYOND END CAPS

PART #	STUB	B	C
SC740EPE06TPC	6" (150 mm)	18.5" (470 mm)	---
SC740EPE06BPC		---	0.5" (13 mm)
SC740EPE08TPC	8" (200 mm)	16.5" (419 mm)	---
SC740EPE08BPC		---	0.6" (15 mm)
SC740EPE10TPC	10" (250 mm)	14.5" (368 mm)	---
SC740EPE10BPC		---	0.7" (18 mm)
SC740EPE12TPC	12" (300 mm)	12.5" (318 mm)	---
SC740EPE12BPC		---	1.2" (30 mm)
SC740EPE15TPC	15" (375 mm)	9.0" (229 mm)	---
SC740EPE15BPC		---	1.3" (33 mm)
SC740EPE18TPC	18" (450 mm)	5.0" (127 mm)	---
SC740EPE18BPC		---	1.6" (41 mm)
SC740ECEZ*	24" (600 mm)	---	0.1" (3 mm)



ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP.

* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

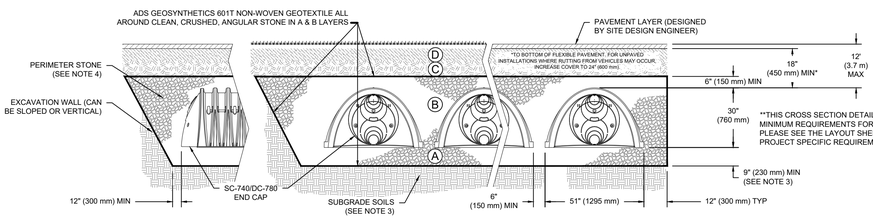
NOTE: ALL DIMENSIONS ARE NOMINAL; PRE-CORED END CAPS END WITH "PC"

2 DC-780 TECHNICAL SPECIFICATION

ACCEPTABLE FILL MATERIALS: STORMTECH DC-780 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[4] A-1, A-2-4, A-3 OR AASHTO M43[4] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[4] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[4] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. DC-780 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

1 DC-780 CROSS SECTION DETAIL

DRAWN: BN | DATE: 03/25/2026
CHECKED: N/A | PROJECT #:
REV: | NOT TO SCALE

LA QUINTA HOTEL
GROVE CITY, OH, USA

StormTech® Chamber System
WWW.ADSPIPE.COM
ADS

SHEET
1 OF 1

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS/STORMTECH UNDER THE DIRECTION OF THE PROJECT'S ENGINEER OF RECORD ("EOR") FOR USE IN BIDDING OR CONSTRUCTION WITHOUT THE EOR'S PRIOR APPROVAL. EOR SHALL REVIEW THIS DRAWING PRIOR TO BIDDING AND/OR CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE EOR TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

WATER QUALITY CALCULATIONS

Project and Watershed Information; WQv Calculation

version 3.2 2020-07-07

Project Details

Project Name:	La Quinta Hotel
Project Location:	4197 Marlane Drive
	Grove City, Ohio 43123
Project Latitude:	39.876233
Project Longitude:	-83.053973
NPDES Permit Applicant:	
Submitted by:	MLW
Date:	3/25/2026

Subwatershed Details

Subwatershed ID/Label: Underground Detention Basin

Subwatershed Drainage Area, A_{total} =	**0.62**	**acres**	**=**	**27,007**	**ft^2**
Subwatershed Impervious Area, A_{imp} =	**0.58**	**acres**	**=**	**25,265**	**ft^2**
Imperviousness fraction, i =	**0.94**		**=**	**94**	**%**
Volumetric Runoff Coefficient, Rv =	**0.89**				
Water Quality Volume, WQv =	**1,807**	**ft^3**	**=**	**0.041**	**ac-ft**

Underground Extended Detention Basin WQv Compliance Tool

version 3.2 2020-07-07

Project Summary

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Subwatershed ID/Label:	Underground Detention Basin
Submitted by:	MLW
Date:	3/25/2026

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Subwatershed Impervious Area, A_{imp} =	0.58	acres	=	25,265	ft2
Imperviousness fraction, i =	0.94			94	%
Water Quality Volume, WQv =	1,807	ft^3	=	0.04	ac-ft

Step 1 - Soil Suitability

Soil Series: Crosby-Urban HSG: D

Step 2 - Underground ED Basin Volume Requirements

Extended Detention Volume, EDv =	1807	ft^3
Minimum Sediment Storage Volume, $V_{sediment}$ =	361	ft^3

Target Value = 1,807 cf. + 361 cf. = 2,168 cf.

The first 1/2 of the WQv or extended detention volume (EDv) must not discharge in less than 1/3 of the minimum required drain time (24 hrs).

Target value at 8 hrs = 904 cf. + 361 cf.
= 1,265 cf.

Stage-Area-Storage for Pond 1P: Underground System

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
773.00	0	773.52	570	774.04	1,455
773.01	11	773.53	581	774.05	1,477
773.02	22	773.54	592	774.06	1,498
773.03	33	773.55	603	774.07	1,520
773.04	44	773.56	614	774.08	1,541
773.05	55	773.57	625	774.09	1,563
773.06	66	773.58	636	774.10	1,584
773.07	77	773.59	647	774.11	1,606
773.08	88	773.60	658	774.12	1,627
773.09	99	773.61	669	774.13	1,649
773.10	110	773.62	680	774.14	1,670
773.11	121	773.63	691	774.15	1,692
773.12	132	773.64	702	774.16	1,713
773.13	143	773.65	713	774.17	1,735
773.14	154	773.66	724	774.18	1,756
773.15	165	773.67	735	774.19	1,777
773.16	176	773.68	746	774.20	1,799
773.17	186	773.69	757	774.21	1,820
773.18	197	773.70	768	774.22	1,841
773.19	208	773.71	779	774.23	1,863
773.20	219	773.72	790	774.24	1,884
773.21	230	773.73	801	774.25	1,905
773.22	241	773.74	812	774.26	1,927
773.23	252	773.75	823	774.27	1,948
773.24	263	773.76	845	774.28	1,969
773.25	274	773.77	867	774.29	1,990
773.26	285	773.78	889	774.30	2,011
773.27	296	773.79	910	774.31	2,033
773.28	307	773.80	932	774.32	2,054
773.29	318	773.81	954	774.33	2,075
773.30	329	773.82	976	774.34	2,096
773.31	340	773.83	998	774.35	2,117
773.32	351	773.84	1,020	774.36	2,138
773.33	362	773.85	1,042	774.37	2,159
773.34	373	773.86	1,064	774.38	2,180
773.35	384	773.87	1,086	774.39	2,201
773.36	395	773.88	1,107	774.40	2,222
773.37	406	773.89	1,129	774.41	2,243
773.38	417	773.90	1,151	774.42	2,264
773.39	428	773.91	1,173	774.43	2,285
773.40	439	773.92	1,195	774.44	2,306
773.41	450	773.93	1,217	774.45	2,327
773.42	461	773.94	1,238	774.46	2,348
773.43	472	773.95	1,260	774.47	2,369
773.44	483	773.96	1,282	774.48	2,390
773.45	494	773.97	1,304	774.49	2,410
773.46	505	773.98	1,325	774.50	2,431
773.47	516	773.99	1,347	774.51	2,452
773.48	527	774.00	1,369	774.52	2,473
773.49	538	774.01	1,390	774.53	2,493
773.50	548	774.02	1,412	774.54	2,514
773.51	559	774.03	1,434	774.55	2,535

2,431 cf. (includes sediment storage) > 2,168 cf. Set Primary Orifice @ 774.50.

Stage-Area-Storage for Pond 1P: Underground System (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
774.56	2,555	775.08	3,594	775.60	4,538
774.57	2,576	775.09	3,613	775.61	4,555
774.58	2,597	775.10	3,632	775.62	4,572
774.59	2,617	775.11	3,652	775.63	4,589
774.60	2,638	775.12	3,671	775.64	4,605
774.61	2,658	775.13	3,690	775.65	4,622
774.62	2,679	775.14	3,709	775.66	4,639
774.63	2,699	775.15	3,728	775.67	4,655
774.64	2,720	775.16	3,747	775.68	4,672
774.65	2,740	775.17	3,765	775.69	4,688
774.66	2,761	775.18	3,784	775.70	4,704
774.67	2,781	775.19	3,803	775.71	4,721
774.68	2,801	775.20	3,822	775.72	4,737
774.69	2,822	775.21	3,841	775.73	4,753
774.70	2,842	775.22	3,859	775.74	4,769
774.71	2,862	775.23	3,878	775.75	4,785
774.72	2,883	775.24	3,897	775.76	4,801
774.73	2,903	775.25	3,915	775.77	4,817
774.74	2,923	775.26	3,934	775.78	4,833
774.75	2,943	775.27	3,952	775.79	4,848
774.76	2,963	775.28	3,971	775.80	4,864
774.77	2,984	775.29	3,989	775.81	4,880
774.78	3,004	775.30	4,008	775.82	4,895
774.79	3,024	775.31	4,026	775.83	4,910
774.80	3,044	775.32	4,045	775.84	4,926
774.81	3,064	775.33	4,063	775.85	4,941
774.82	3,084	775.34	4,081	775.86	4,956
774.83	3,104	775.35	4,099	775.87	4,971
774.84	3,124	775.36	4,117	775.88	4,986
774.85	3,144	775.37	4,136	775.89	5,001
774.86	3,164	775.38	4,154	775.90	5,015
774.87	3,184	775.39	4,172	775.91	5,030
774.88	3,203	775.40	4,190	775.92	5,044
774.89	3,223	775.41	4,207	775.93	5,059
774.90	3,243	775.42	4,225	775.94	5,073
774.91	3,263	775.43	4,243	775.95	5,087
774.92	3,283	775.44	4,261	775.96	5,101
774.93	3,302	775.45	4,279	775.97	5,114
774.94	3,322	775.46	4,296	775.98	5,128
774.95	3,342	775.47	4,314	775.99	5,141
774.96	3,361	775.48	4,332	776.00	5,155
774.97	3,381	775.49	4,349	776.01	5,168
774.98	3,400	775.50	4,367	776.02	5,181
774.99	3,420	775.51	4,384	776.03	5,194
775.00	3,439	775.52	4,401	776.04	5,206
775.01	3,459	775.53	4,419	776.05	5,219
775.02	3,478	775.54	4,436	776.06	5,231
775.03	3,498	775.55	4,453	776.07	5,244
775.04	3,517	775.56	4,470	776.08	5,256
775.05	3,536	775.57	4,487	776.09	5,268
775.06	3,556	775.58	4,504	776.10	5,280
775.07	3,575	775.59	4,521	776.11	5,292

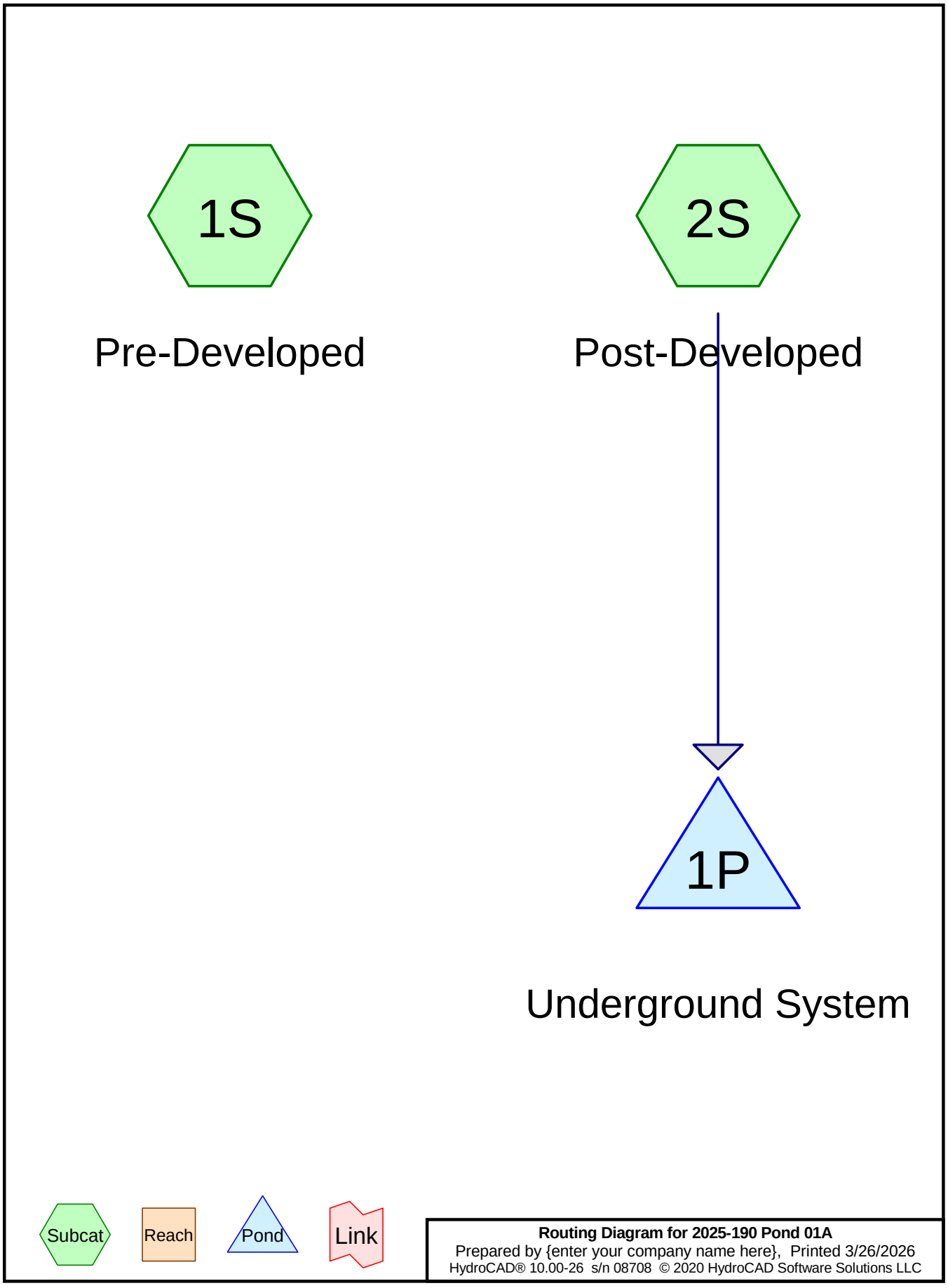
Stage-Area-Storage for Pond 1P: Underground System (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
776.12	5,304	776.64	5,880	777.16	6,000
776.13	5,315	776.65	5,891	777.17	6,000
776.14	5,327	776.66	5,901	777.18	6,000
776.15	5,339	776.67	5,912	777.19	6,000
776.16	5,350	776.68	5,923	777.20	6,000
776.17	5,362	776.69	5,934	777.21	6,000
776.18	5,373	776.70	5,945	777.22	6,000
776.19	5,385	776.71	5,956	777.23	6,000
776.20	5,396	776.72	5,967	777.24	6,000
776.21	5,407	776.73	5,978	777.25	6,000
776.22	5,418	776.74	5,989	777.26	6,000
776.23	5,430	776.75	**6,000**	777.27	6,000
776.24	5,441	776.76	6,000	777.28	6,000
776.25	5,452	776.77	6,000	777.29	6,000
776.26	5,463	776.78	6,000	777.30	6,000
776.27	5,474	776.79	6,000	777.31	6,000
776.28	5,485	776.80	6,000	777.32	6,000
776.29	5,496	776.81	6,000	777.33	6,000
776.30	5,507	776.82	6,000	777.34	6,000
776.31	5,518	776.83	6,000	777.35	6,000
776.32	5,529	776.84	6,000	777.36	6,000
776.33	5,539	776.85	6,000	777.37	6,000
776.34	5,550	776.86	6,000	777.38	6,000
776.35	5,561	776.87	6,000	777.39	6,000
776.36	5,572	776.88	6,000	777.40	6,000
776.37	5,583	776.89	6,000	777.41	6,000
776.38	5,594	776.90	6,000	777.42	6,000
776.39	5,605	776.91	6,000	777.43	6,000
776.40	5,616	776.92	6,000	777.44	6,000
776.41	5,627	776.93	6,000	777.45	6,000
776.42	5,638	776.94	6,000	777.46	6,000
776.43	5,649	776.95	6,000	777.47	6,000
776.44	5,660	776.96	6,000	777.48	6,000
776.45	5,671	776.97	6,000	777.49	6,000
776.46	5,682	776.98	6,000	777.50	6,000
776.47	5,693	776.99	6,000	777.51	6,000
776.48	5,704	777.00	6,000	777.52	6,000
776.49	5,715	777.01	6,000	777.53	6,000
776.50	5,726	777.02	6,000	777.54	6,000
776.51	5,737	777.03	6,000	777.55	6,000
776.52	5,748	777.04	6,000	777.56	6,000
776.53	5,759	777.05	6,000	777.57	6,000
776.54	5,770	777.06	6,000	777.58	6,000
776.55	5,781	777.07	6,000	777.59	6,000
776.56	5,792	777.08	6,000	777.60	6,000
776.57	5,803	777.09	6,000	777.61	6,000
776.58	5,814	777.10	6,000	777.62	6,000
776.59	5,825	777.11	6,000	777.63	6,000
776.60	5,836	777.12	6,000	777.64	6,000
776.61	5,847	777.13	6,000	777.65	6,000
776.62	5,858	777.14	6,000	777.66	6,000
776.63	5,869	777.15	6,000	777.67	6,000

Stage-Area-Storage for Pond 1P: Underground System (continued)

Elevation (feet)	Storage (cubic-feet)
777.68	6,000
777.69	6,000
777.70	6,000
777.71	6,000
777.72	6,000
777.73	6,000
777.74	6,000
777.75	6,000
777.76	6,000
777.77	6,000
777.78	6,000
777.79	6,000
777.80	6,000
777.81	6,000
777.82	6,000
777.83	6,000
777.84	6,000
777.85	6,000
777.86	6,000
777.87	6,000
777.88	6,000
777.89	6,000
777.90	6,000
777.91	6,000
777.92	6,000
777.93	6,000
777.94	6,000
777.95	6,000
777.96	6,000
777.97	6,000
777.98	6,000
777.99	6,000
778.00	6,000

STORM ROUTING



Routing Diagram for 2025-190 Pond 01A
Prepared by {enter your company name here}, Printed 3/26/2026
HydroCAD® 10.00-26 s/n 08708 © 2020 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
23,958	80	>75% Grass cover, Good, HSG D (1S, 2S)
30,056	98	Paved parking, HSG D (1S, 2S)
54,014	**90**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
54,014	HSG D	1S, 2S
0	Other	
54,014		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Su Nu
0	0	0	23,958	0	23,958	>75% Grass cover, Good	
0	0	0	30,056	0	30,056	Paved parking	
0	**0**	**0**	**54,014**	**0**	**54,014**	**TOTAL AREA**	

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Pre-Developed Runoff Area=0.620 ac 17.74% Impervious Runoff Depth=0.84"
Flow Length=144' Slope=0.0230 '/' Tc=14.2 min CN=83 Runoff=0.68 cfs 1,879 cf

Subcatchment 2S: Post-Developed Runoff Area=0.620 ac 93.55% Impervious Runoff Depth=1.87"
Tc=10.0 min CN=97 Runoff=1.63 cfs 4,204 cf

Pond 1P: Underground System Peak Elev=774.66' Storage=2,764 cf Inflow=1.63 cfs 4,204 cf
Outflow=0.09 cfs 3,615 cf

Total Runoff Area = 54,014 sf Runoff Volume = 6,083 cf Average Runoff Depth = 1.35"
44.35% Pervious = 23,958 sf 55.65% Impervious = 30,056 sf

Summary for Subcatchment 1S: Pre-Developed

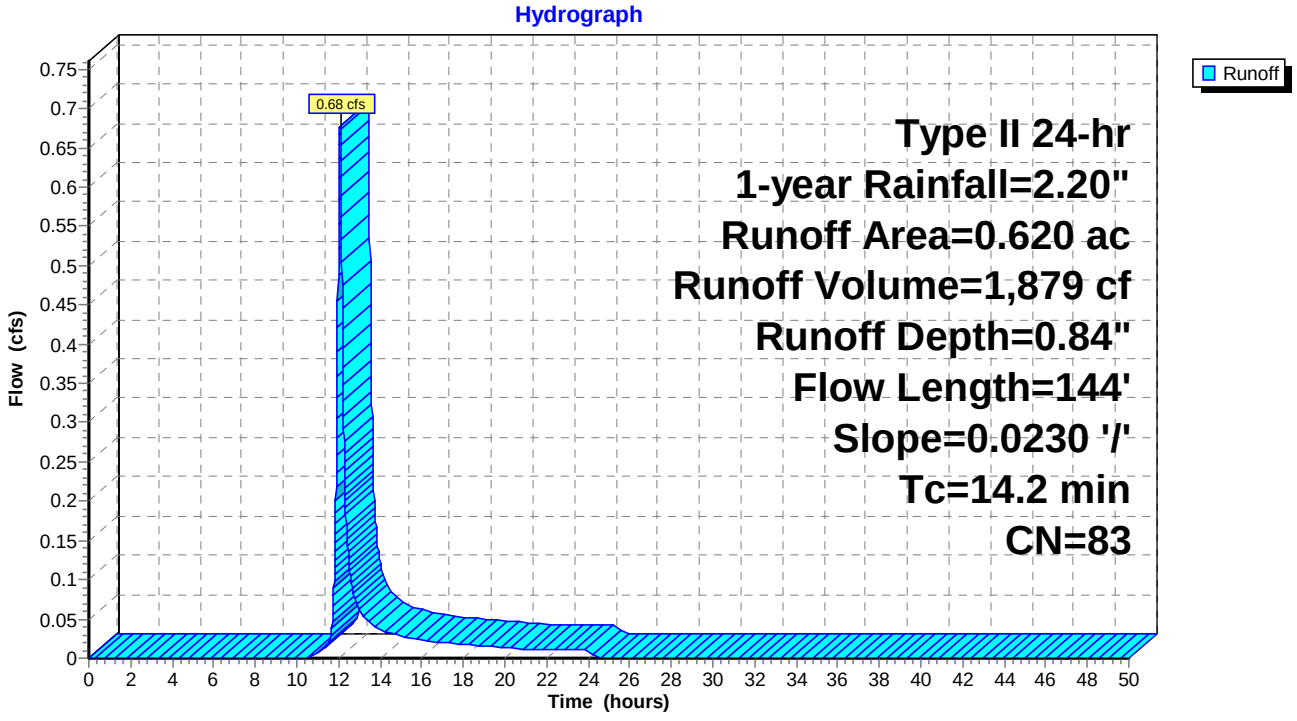
Runoff = 0.68 cfs @ 12.07 hrs, Volume= 1,879 cf, Depth= 0.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-year Rainfall=2.20"

Area (ac)	CN	Description
0.110	98	Paved parking, HSG D
0.510	80	>75% Grass cover, Good, HSG D
0.620	83	Weighted Average
0.510		82.26% Pervious Area
0.110		17.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	144	0.0230	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.45"

Subcatchment 1S: Pre-Developed



Summary for Subcatchment 2S: Post-Developed

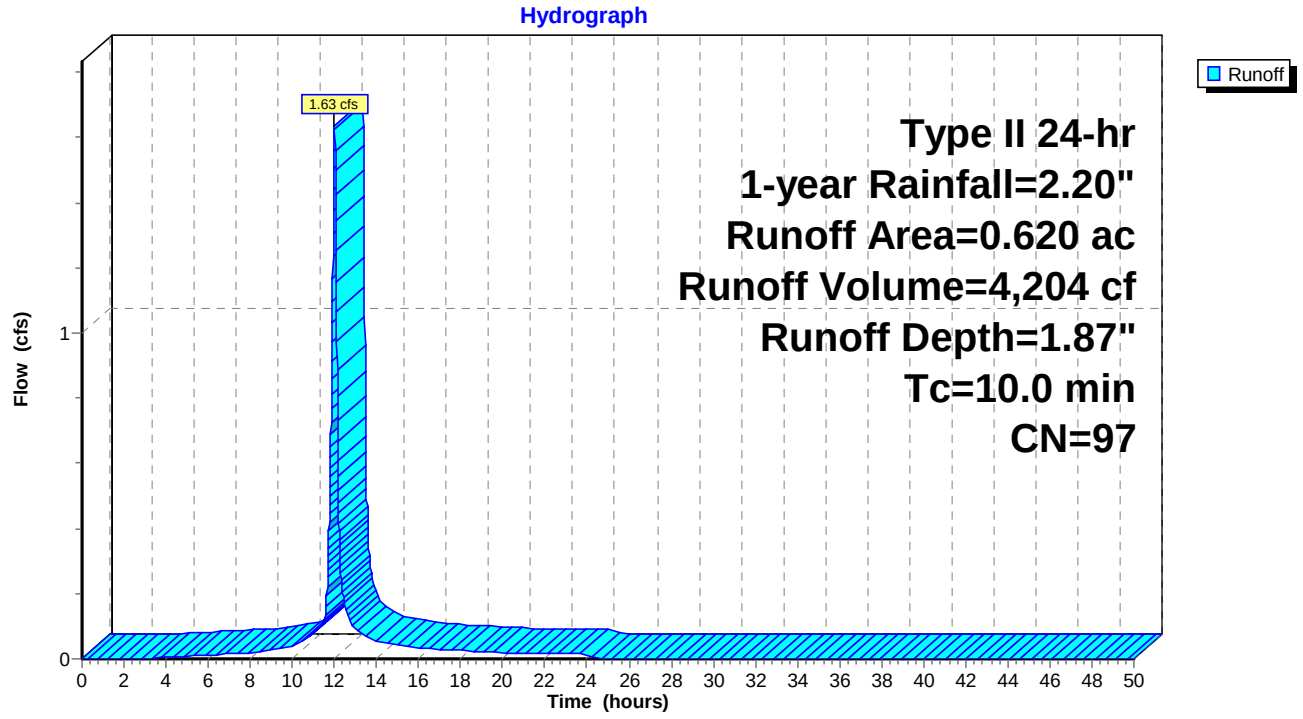
Runoff = 1.63 cfs @ 12.01 hrs, Volume= 4,204 cf, Depth= 1.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-year Rainfall=2.20"

Area (ac)	CN	Description
0.580	98	Paved parking, HSG D
0.040	80	>75% Grass cover, Good, HSG D
0.620	97	Weighted Average
0.040		6.45% Pervious Area
0.580		93.55% Impervious Area

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

Subcatchment 2S: Post-Developed



Summary for Pond 1P: Underground System

Inflow Area = 27,007 sf, 93.55% Impervious, Inflow Depth = 1.87" for 1-year event
Inflow = 1.63 cfs @ 12.01 hrs, Volume= 4,204 cf
Outflow = 0.09 cfs @ 13.01 hrs, Volume= 3,615 cf, Atten= 94%, Lag= 60.1 min
Primary = 0.09 cfs @ 13.01 hrs, Volume= 3,615 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 774.66' @ 13.01 hrs Surf.Area= 2,742 sf Storage= 2,764 cf

Plug-Flow detention time= 809.8 min calculated for 3,615 cf (86% of inflow)
Center-of-Mass det. time= 744.9 min (1,521.4 - 776.5)

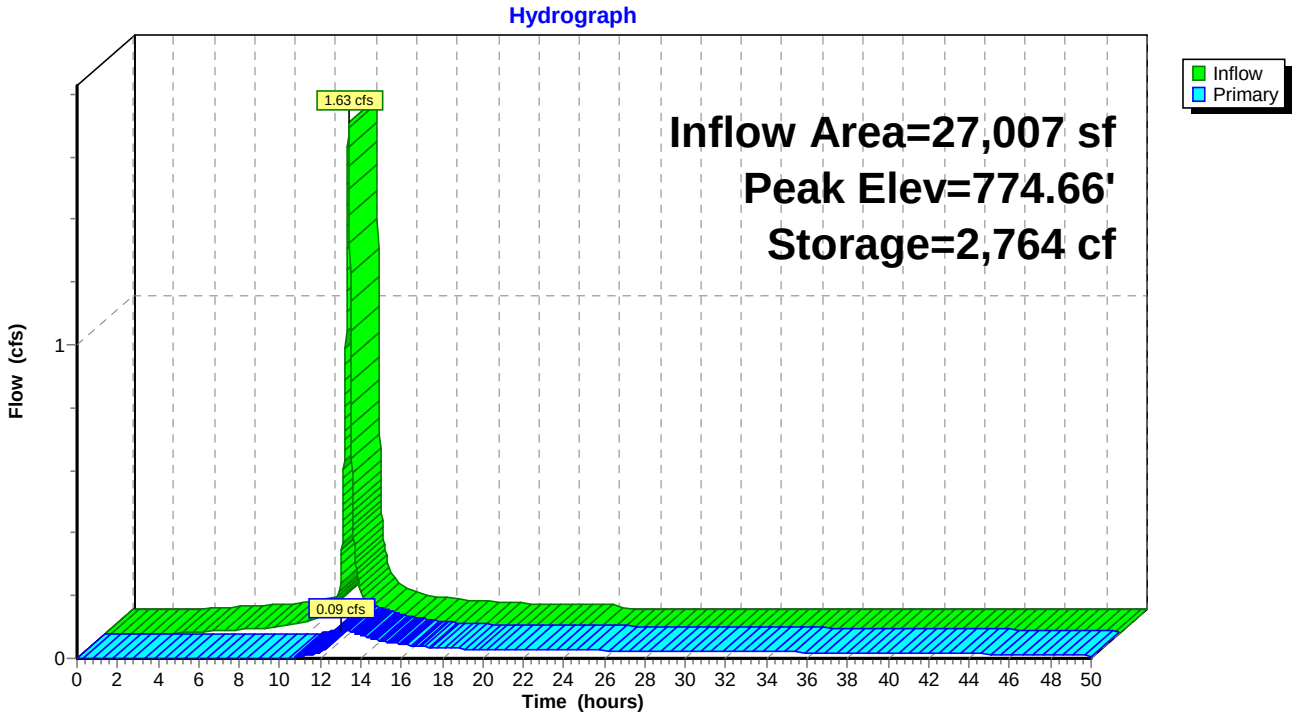
Volume	Invert	Avail.Storage	Storage Description
#1A	773.00'	1,589 cf	**11.00'W x 138.90'L x 3.75'H Field A** 5,729 cf Overall - 1,757 cf Embedded = 3,972 cf x 40.0% Voids
#2A	773.75'	1,757 cf	**ADS_StormTech DC-780 +Cap** x 38 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 38 Chambers in 2 Rows
#3B	773.00'	1,267 cf	**11.00'W x 110.42'L x 3.75'H Field B** 4,555 cf Overall - 1,387 cf Embedded = 3,168 cf x 40.0% Voids
#4B	773.75'	1,387 cf	**ADS_StormTech DC-780 +Cap** x 30 Inside #3 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 30 Chambers in 2 Rows
		6,000 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

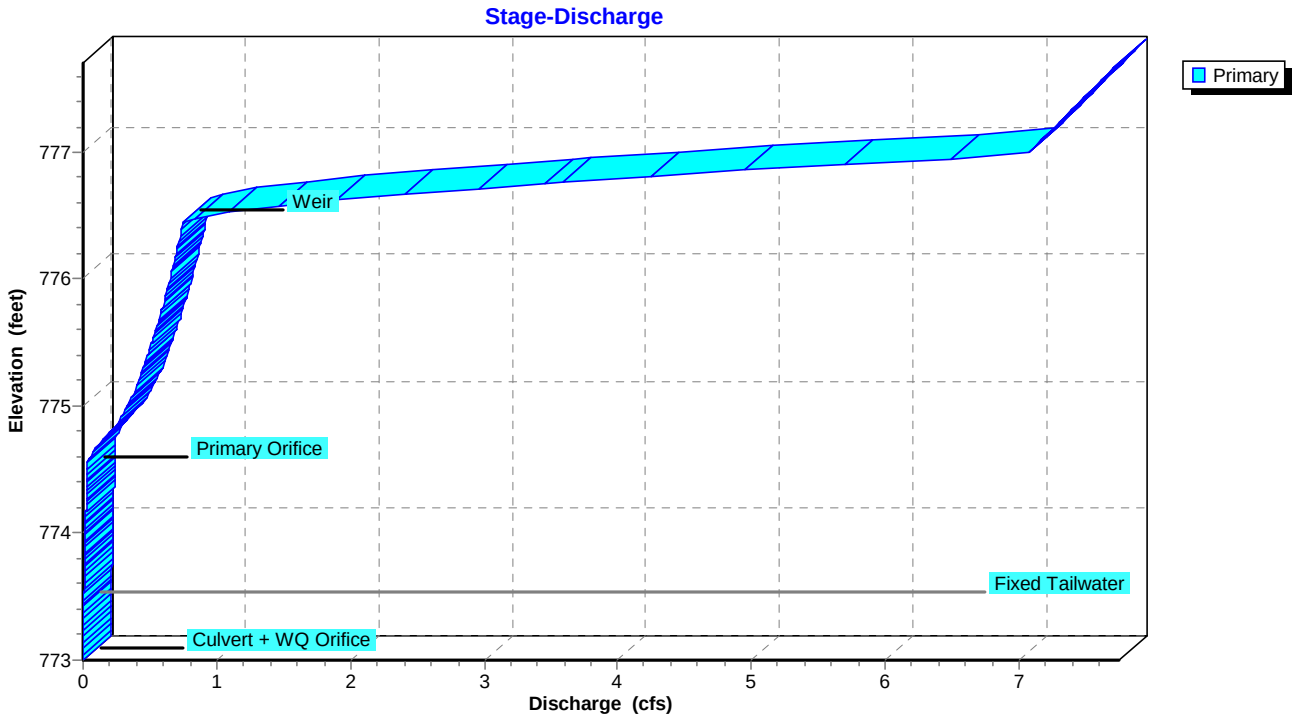
Device	Routing	Invert	Outlet Devices
#1	Primary	773.00'	**12.0" Round Culvert** L= 25.7' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 773.00' / 772.44' S= 0.0218 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	773.00'	**1.0" Vert. WQ Orifice** C= 0.600
#3	Device 1	774.50'	**4.5" Vert. Primary Orifice** C= 0.600
#4	Device 1	776.45'	**60.0" W x 15.0" H Vert. Weir** C= 0.600

Primary OutFlow Max=0.09 cfs @ 13.01 hrs HW=774.66' TW=773.44' (Fixed TW Elev= 773.44')
└─**1=Culvert** (Passes 0.09 cfs of 4.08 cfs potential flow)
  ├─**2=WQ Orifice** (Orifice Controls 0.03 cfs @ 5.32 fps)
  ├─**3=Primary Orifice** (Orifice Controls 0.06 cfs @ 1.37 fps)
  └─**4=Weir** (Controls 0.00 cfs)

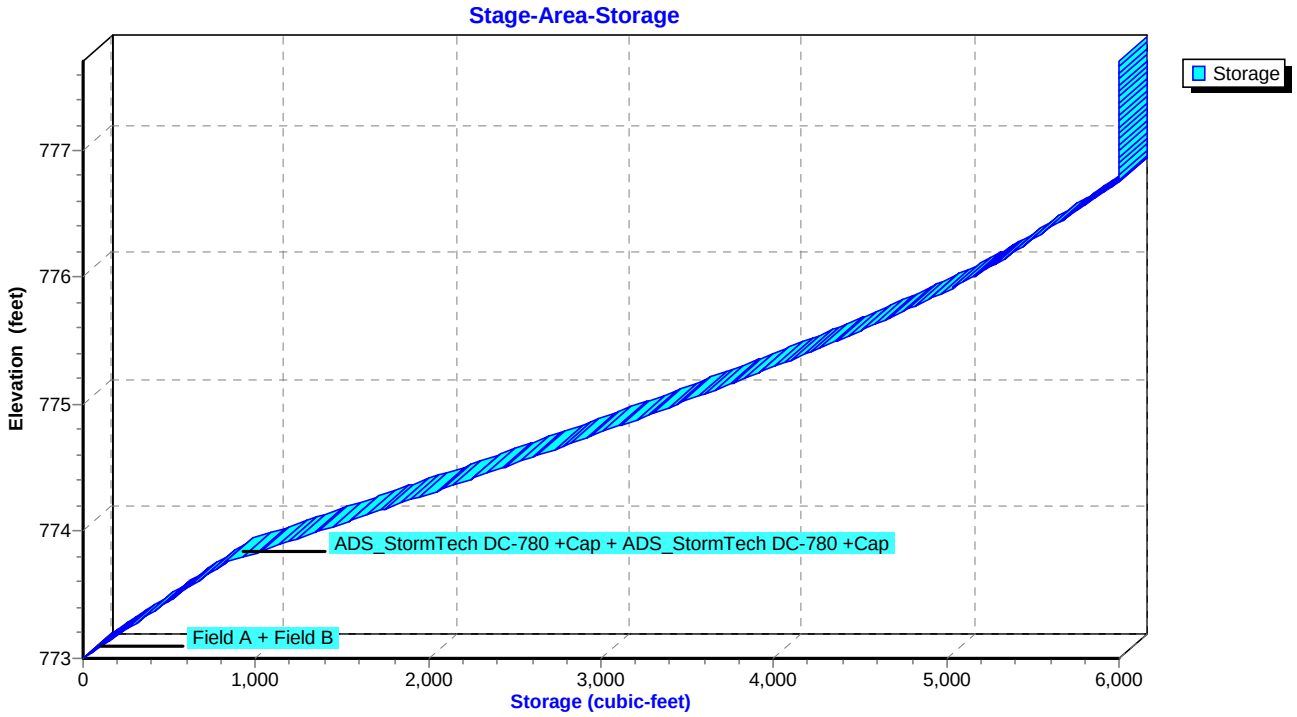
Pond 1P: Underground System



Pond 1P: Underground System



Pond 1P: Underground System



Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Pre-Developed Runoff Area=0.620 ac 17.74% Impervious Runoff Depth=1.15"
Flow Length=144' Slope=0.0230 '/' Tc=14.2 min CN=83 Runoff=0.95 cfs 2,599 cf

Subcatchment 2S: Post-Developed Runoff Area=0.620 ac 93.55% Impervious Runoff Depth=2.29"
Tc=10.0 min CN=97 Runoff=1.98 cfs 5,159 cf

Pond 1P: Underground System Peak Elev=774.83' Storage=3,113 cf Inflow=1.98 cfs 5,159 cf
Outflow=0.24 cfs 4,546 cf

Total Runoff Area = 54,014 sf Runoff Volume = 7,758 cf Average Runoff Depth = 1.72"
44.35% Pervious = 23,958 sf 55.65% Impervious = 30,056 sf

Summary for Subcatchment 1S: Pre-Developed

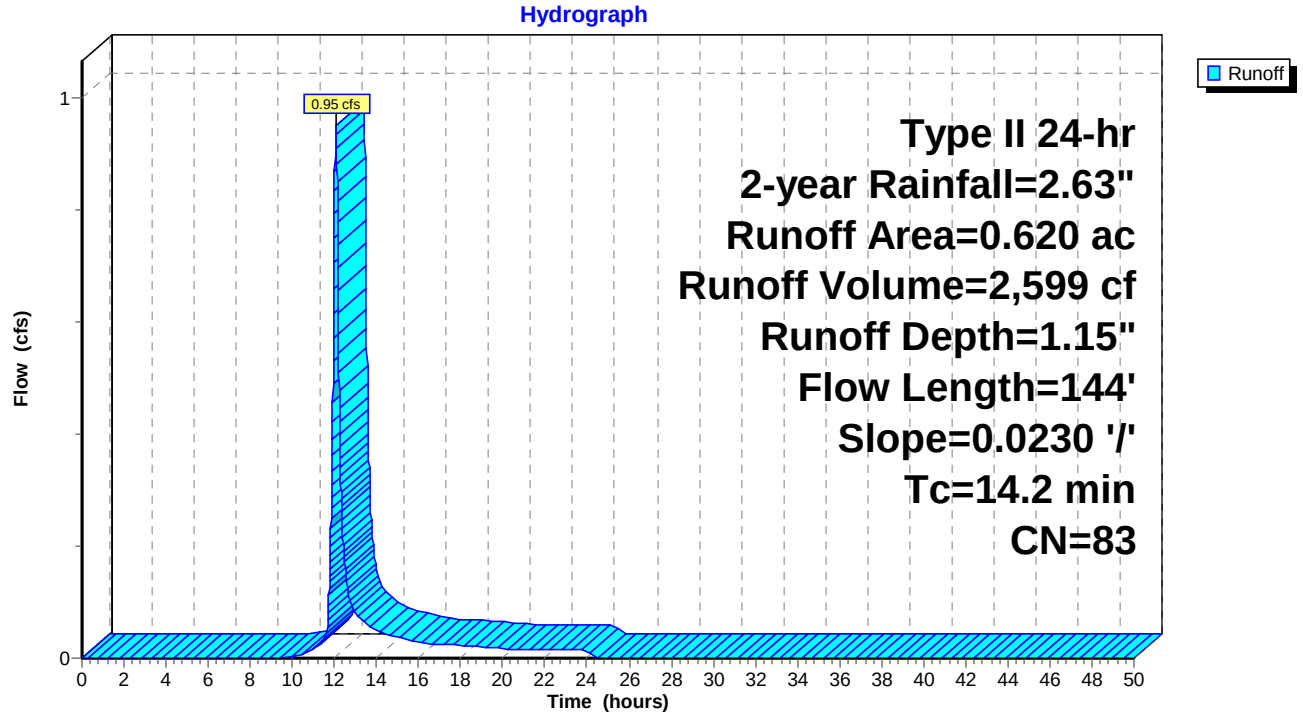
Runoff = 0.95 cfs @ 12.07 hrs, Volume= 2,599 cf, Depth= 1.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-year Rainfall=2.63"

Area (ac)	CN	Description
0.110	98	Paved parking, HSG D
0.510	80	>75% Grass cover, Good, HSG D
0.620	83	Weighted Average
0.510		82.26% Pervious Area
0.110		17.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	144	0.0230	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.45"

Subcatchment 1S: Pre-Developed



Summary for Subcatchment 2S: Post-Developed

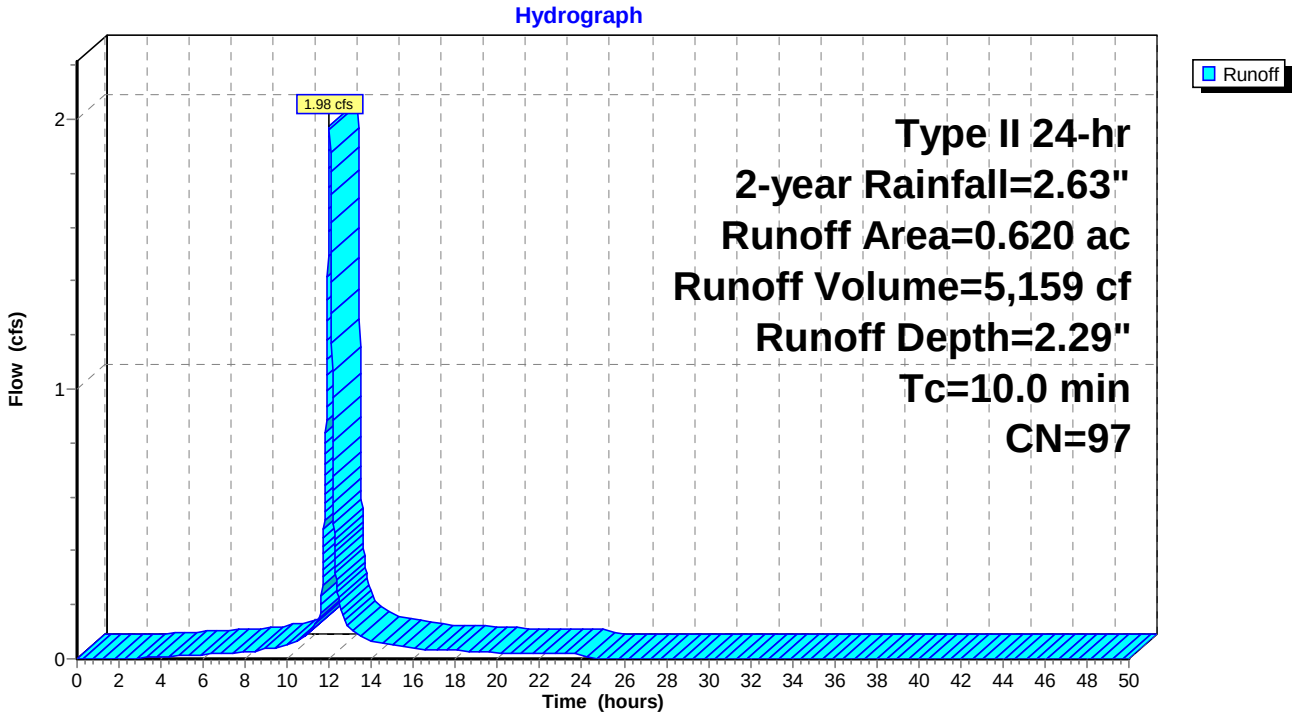
Runoff = 1.98 cfs @ 12.01 hrs, Volume= 5,159 cf, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-year Rainfall=2.63"

Area (ac)	CN	Description
0.580	98	Paved parking, HSG D
0.040	80	>75% Grass cover, Good, HSG D
0.620	97	Weighted Average
0.040		6.45% Pervious Area
0.580		93.55% Impervious Area

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

Subcatchment 2S: Post-Developed



Summary for Pond 1P: Underground System

Inflow Area = 27,007 sf, 93.55% Impervious, Inflow Depth = 2.29" for 2-year event
Inflow = 1.98 cfs @ 12.01 hrs, Volume= 5,159 cf
Outflow = 0.24 cfs @ 12.42 hrs, Volume= 4,546 cf, Atten= 88%, Lag= 24.3 min
Primary = 0.24 cfs @ 12.42 hrs, Volume= 4,546 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 774.83' @ 12.42 hrs Surf.Area= 2,742 sf Storage= 3,113 cf

Plug-Flow detention time= 678.6 min calculated for 4,546 cf (88% of inflow)
Center-of-Mass det. time= 620.5 min (1,391.9 - 771.3)

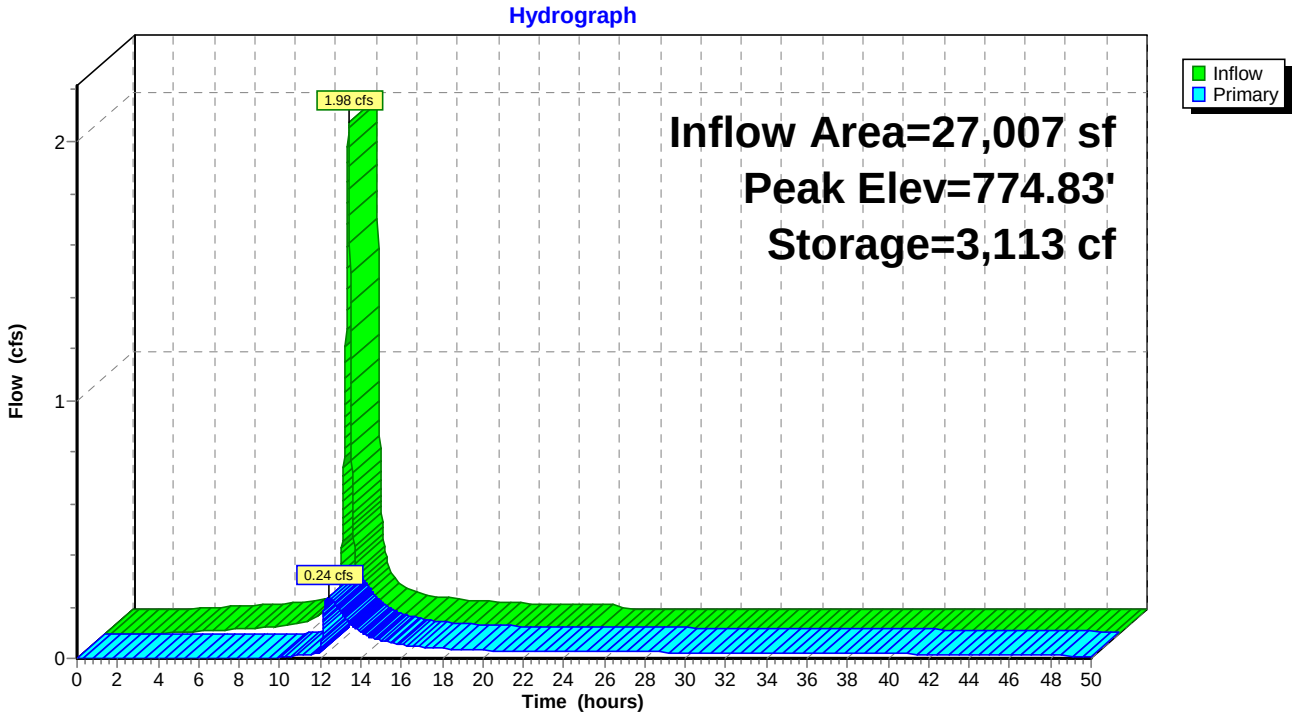
Volume	Invert	Avail.Storage	Storage Description
#1A	773.00'	1,589 cf	**11.00'W x 138.90'L x 3.75'H Field A** 5,729 cf Overall - 1,757 cf Embedded = 3,972 cf x 40.0% Voids
#2A	773.75'	1,757 cf	**ADS_StormTech DC-780 +Cap** x 38 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 38 Chambers in 2 Rows
#3B	773.00'	1,267 cf	**11.00'W x 110.42'L x 3.75'H Field B** 4,555 cf Overall - 1,387 cf Embedded = 3,168 cf x 40.0% Voids
#4B	773.75'	1,387 cf	**ADS_StormTech DC-780 +Cap** x 30 Inside #3 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 30 Chambers in 2 Rows
		6,000 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

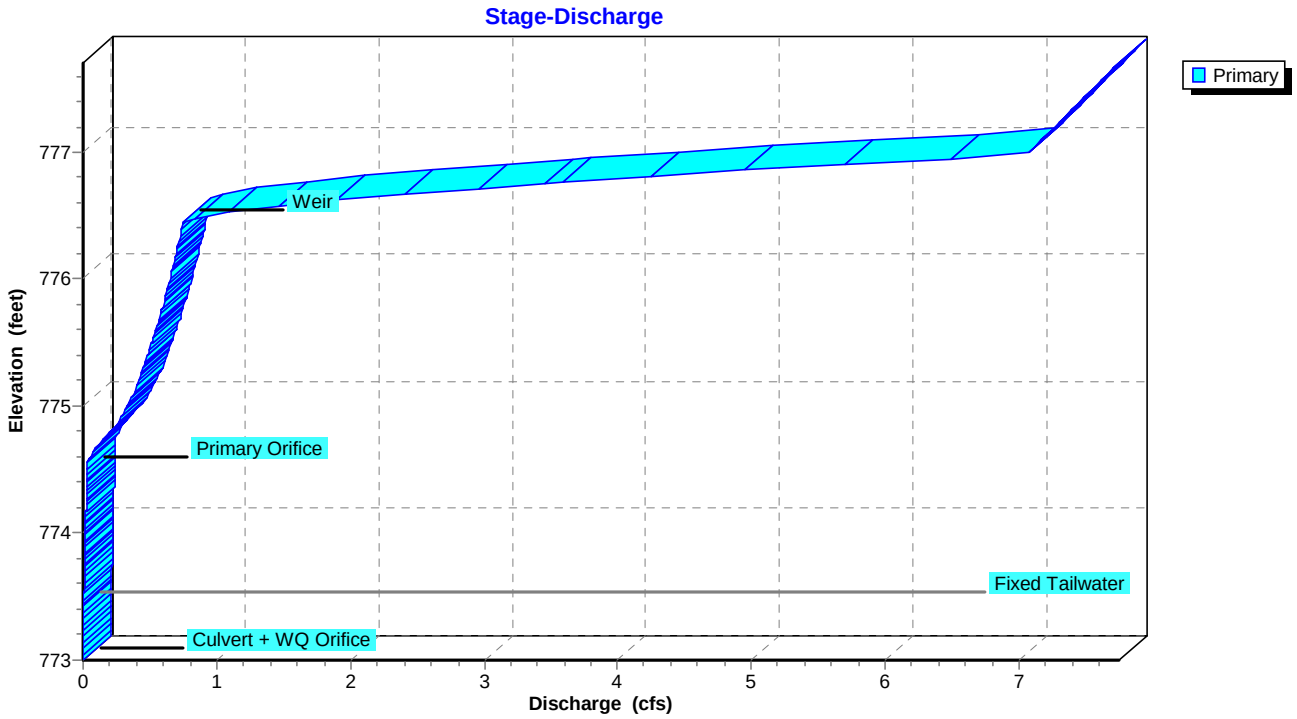
Device	Routing	Invert	Outlet Devices
#1	Primary	773.00'	**12.0" Round Culvert** L= 25.7' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 773.00' / 772.44' S= 0.0218 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	773.00'	**1.0" Vert. WQ Orifice** C= 0.600
#3	Device 1	774.50'	**4.5" Vert. Primary Orifice** C= 0.600
#4	Device 1	776.45'	**60.0" W x 15.0" H Vert. Weir** C= 0.600

Primary OutFlow Max=0.24 cfs @ 12.42 hrs HW=774.83' TW=773.44' (Fixed TW Elev= 773.44')
└─**1=Culvert** (Passes 0.24 cfs of 4.37 cfs potential flow)
  ├─**2=WQ Orifice** (Orifice Controls 0.03 cfs @ 5.69 fps)
  ├─**3=Primary Orifice** (Orifice Controls 0.20 cfs @ 1.97 fps)
  └─**4=Weir** (Controls 0.00 cfs)

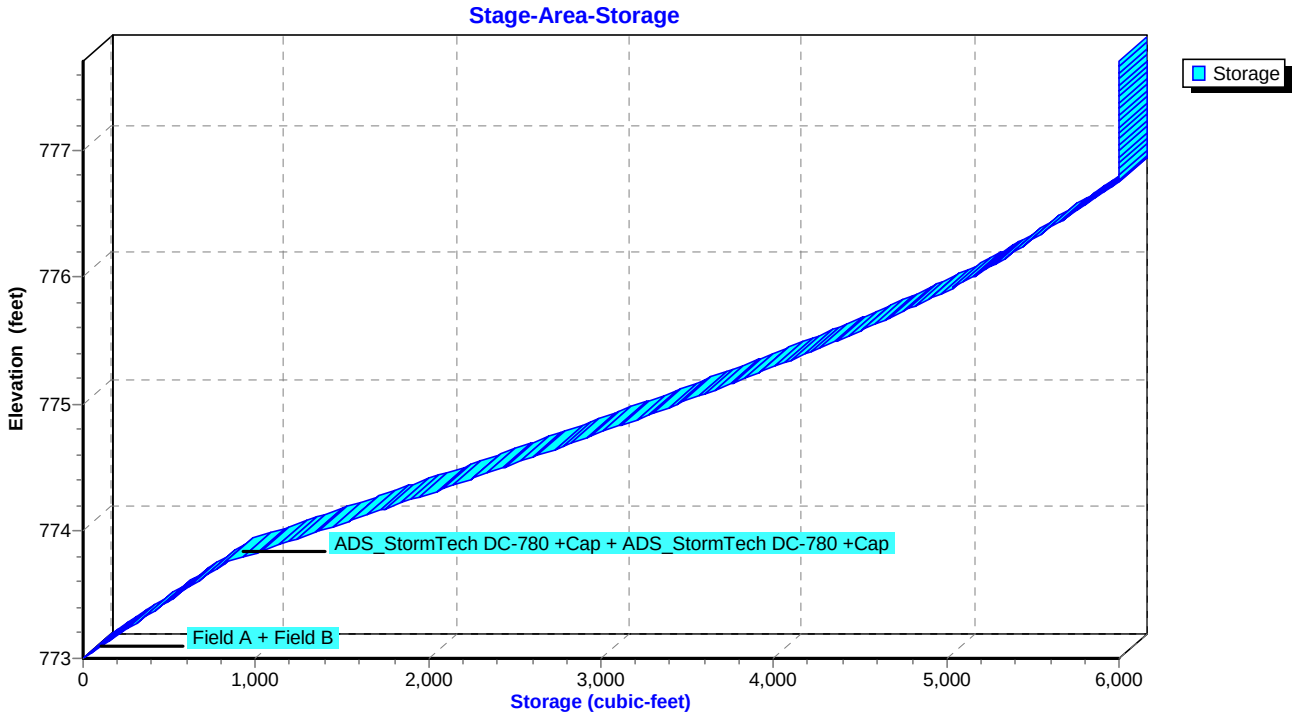
Pond 1P: Underground System



Pond 1P: Underground System



Pond 1P: Underground System



Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Pre-Developed Runoff Area=0.620 ac 17.74% Impervious Runoff Depth=1.64"
Flow Length=144' Slope=0.0230 '/' Tc=14.2 min CN=83 Runoff=1.36 cfs 3,696 cf

Subcatchment 2S: Post-Developed Runoff Area=0.620 ac 93.55% Impervious Runoff Depth=2.90"
Tc=10.0 min CN=97 Runoff=2.47 cfs 6,518 cf

Pond 1P: Underground System Peak Elev=775.16' Storage=3,749 cf Inflow=2.47 cfs 6,518 cf
Outflow=0.40 cfs 5,882 cf

Total Runoff Area = 54,014 sf Runoff Volume = 10,214 cf Average Runoff Depth = 2.27"
44.35% Pervious = 23,958 sf 55.65% Impervious = 30,056 sf

Summary for Subcatchment 1S: Pre-Developed

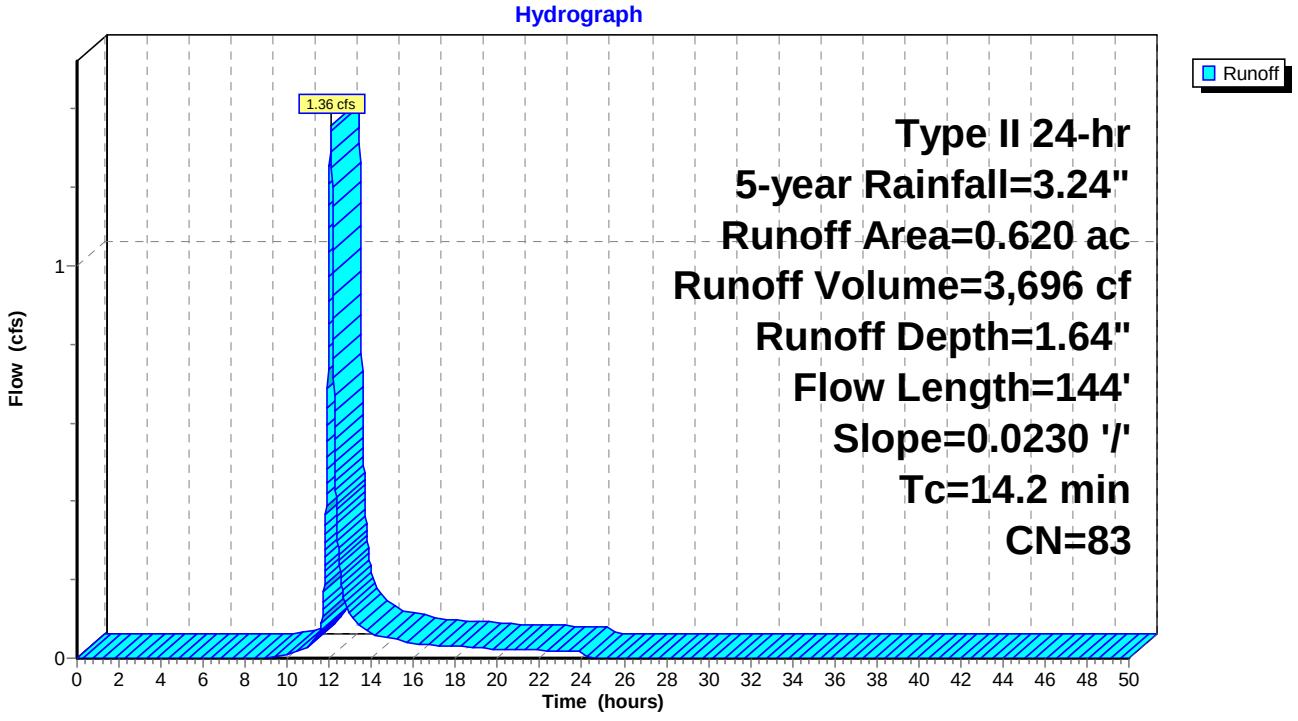
Runoff = 1.36 cfs @ 12.07 hrs, Volume= 3,696 cf, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-year Rainfall=3.24"

Area (ac)	CN	Description
0.110	98	Paved parking, HSG D
0.510	80	>75% Grass cover, Good, HSG D
0.620	83	Weighted Average
0.510		82.26% Pervious Area
0.110		17.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	144	0.0230	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.45"

Subcatchment 1S: Pre-Developed



Summary for Subcatchment 2S: Post-Developed

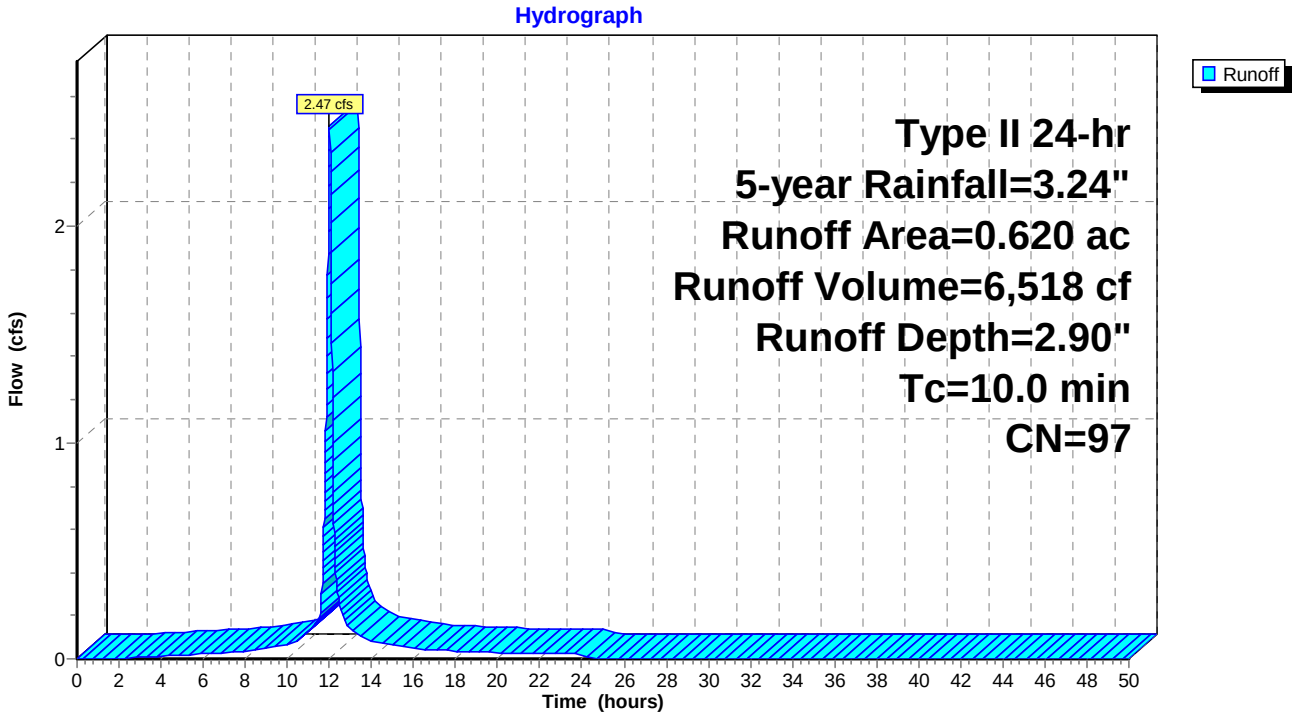
Runoff = 2.47 cfs @ 12.01 hrs, Volume= 6,518 cf, Depth= 2.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-year Rainfall=3.24"

Area (ac)	CN	Description
0.580	98	Paved parking, HSG D
0.040	80	>75% Grass cover, Good, HSG D
0.620	97	Weighted Average
0.040		6.45% Pervious Area
0.580		93.55% Impervious Area

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

Subcatchment 2S: Post-Developed



Summary for Pond 1P: Underground System

Inflow Area = 27,007 sf, 93.55% Impervious, Inflow Depth = 2.90" for 5-year event
Inflow = 2.47 cfs @ 12.01 hrs, Volume= 6,518 cf
Outflow = 0.40 cfs @ 12.30 hrs, Volume= 5,882 cf, Atten= 84%, Lag= 17.4 min
Primary = 0.40 cfs @ 12.30 hrs, Volume= 5,882 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 775.16' @ 12.30 hrs Surf.Area= 2,742 sf Storage= 3,749 cf

Plug-Flow detention time= 557.9 min calculated for 5,881 cf (90% of inflow)
Center-of-Mass det. time= 507.3 min (1,273.0 - 765.7)

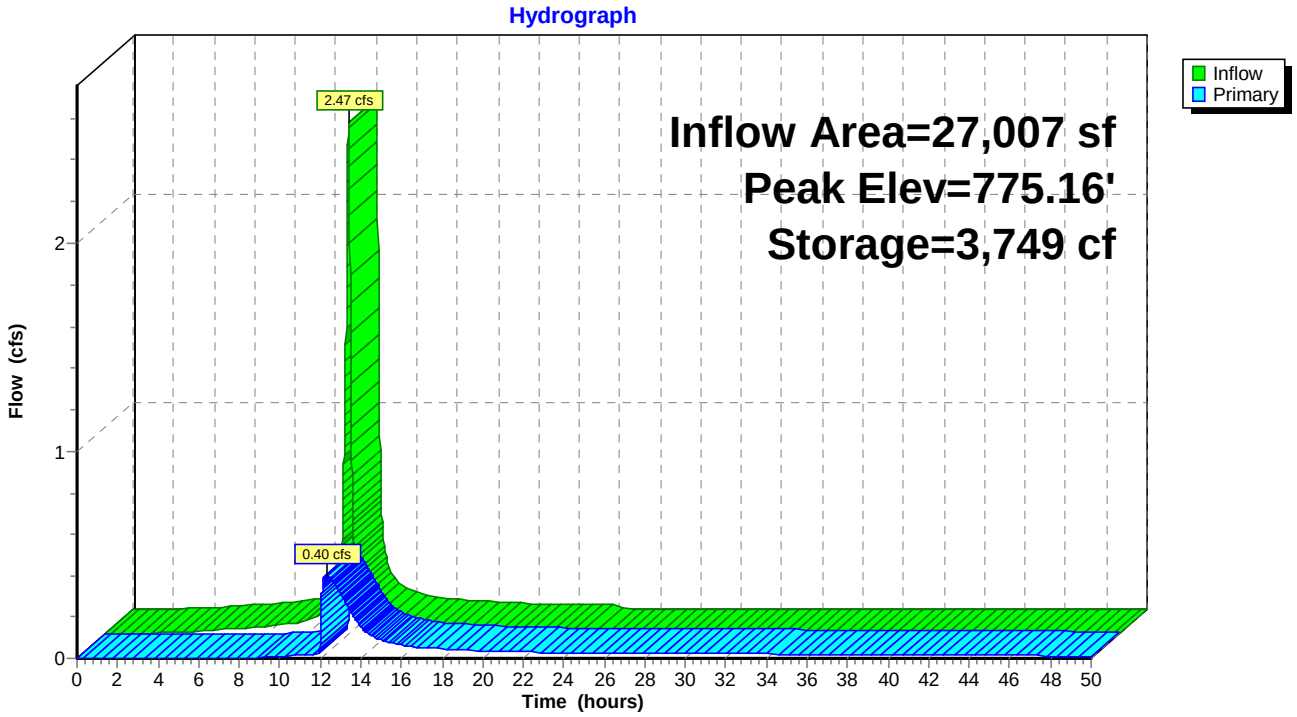
Volume	Invert	Avail.Storage	Storage Description
#1A	773.00'	1,589 cf	**11.00'W x 138.90'L x 3.75'H Field A** 5,729 cf Overall - 1,757 cf Embedded = 3,972 cf x 40.0% Voids
#2A	773.75'	1,757 cf	**ADS_StormTech DC-780 +Cap** x 38 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 38 Chambers in 2 Rows
#3B	773.00'	1,267 cf	**11.00'W x 110.42'L x 3.75'H Field B** 4,555 cf Overall - 1,387 cf Embedded = 3,168 cf x 40.0% Voids
#4B	773.75'	1,387 cf	**ADS_StormTech DC-780 +Cap** x 30 Inside #3 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 30 Chambers in 2 Rows
		6,000 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

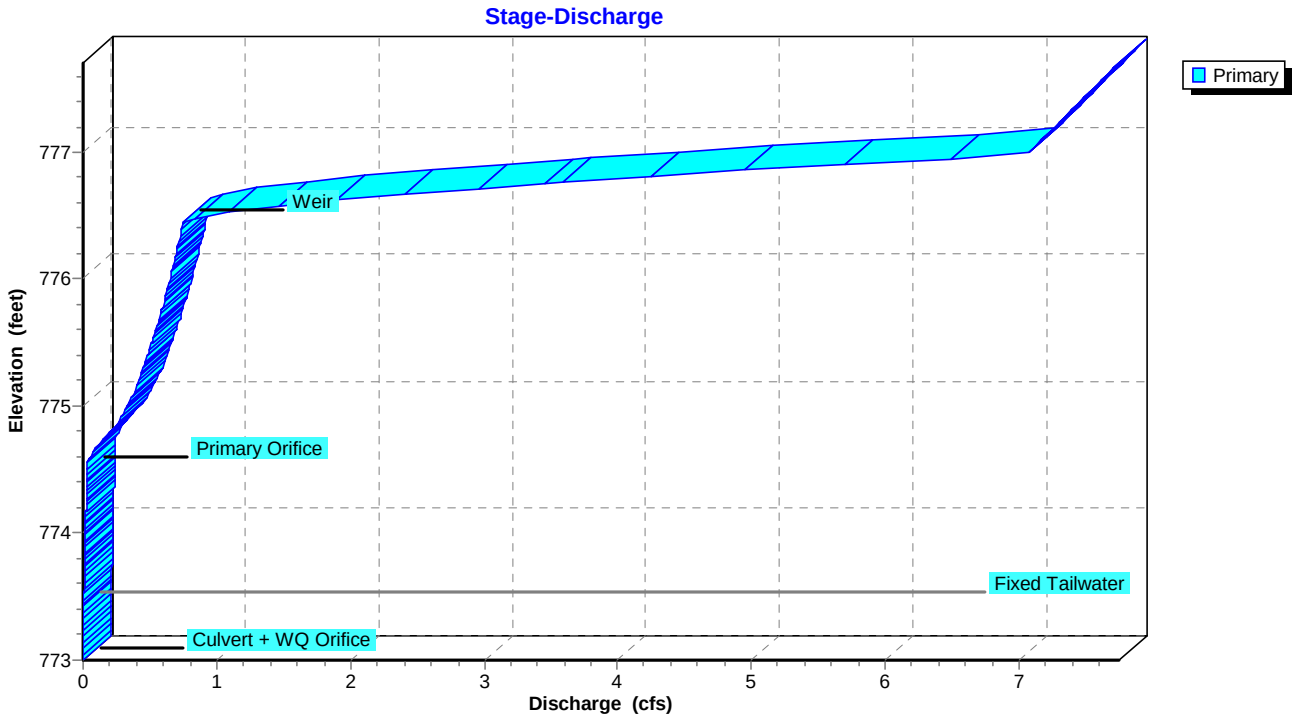
Device	Routing	Invert	Outlet Devices
#1	Primary	773.00'	**12.0" Round Culvert** L= 25.7' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 773.00' / 772.44' S= 0.0218 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	773.00'	**1.0" Vert. WQ Orifice** C= 0.600
#3	Device 1	774.50'	**4.5" Vert. Primary Orifice** C= 0.600
#4	Device 1	776.45'	**60.0" W x 15.0" H Vert. Weir** C= 0.600

Primary OutFlow Max=0.40 cfs @ 12.30 hrs HW=775.16' TW=773.44' (Fixed TW Elev= 773.44')
└─**1=Culvert** (Passes 0.40 cfs of 4.87 cfs potential flow)
  ├─**2=WQ Orifice** (Orifice Controls 0.03 cfs @ 6.32 fps)
  ├─**3=Primary Orifice** (Orifice Controls 0.37 cfs @ 3.31 fps)
  └─**4=Weir** (Controls 0.00 cfs)

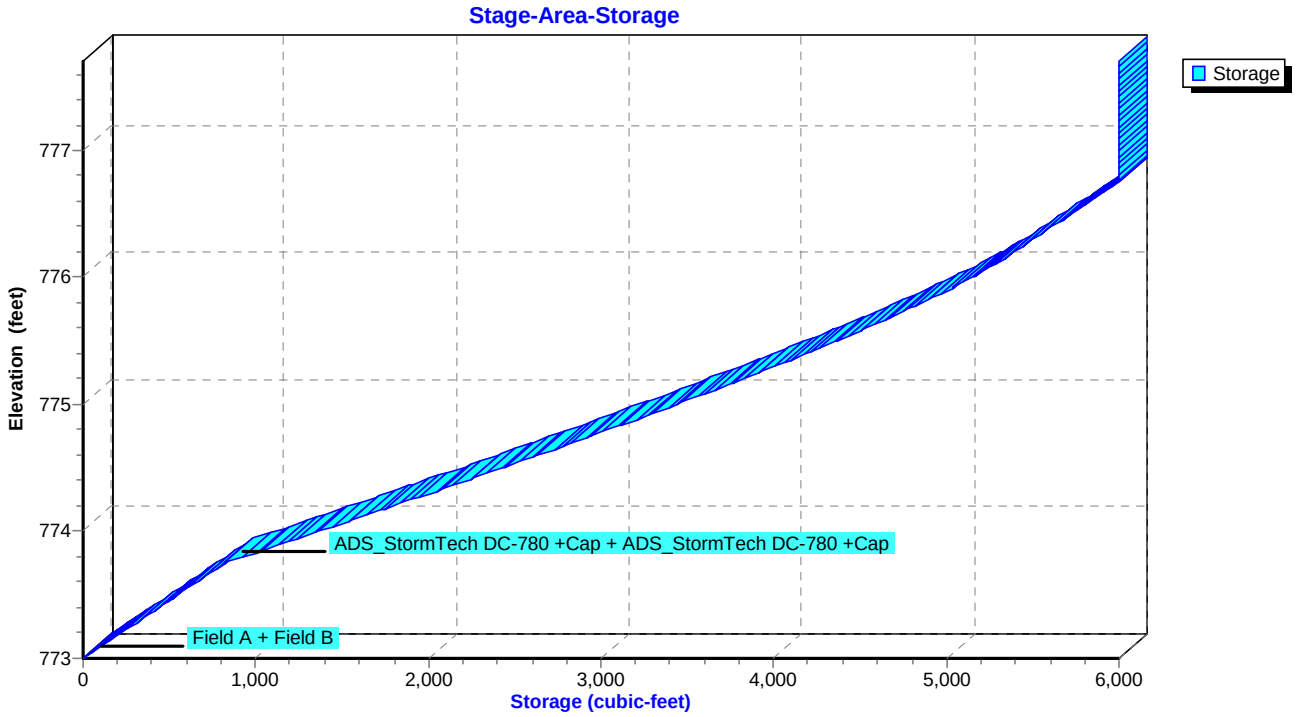
Pond 1P: Underground System



Pond 1P: Underground System



Pond 1P: Underground System



Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Pre-Developed Runoff Area=0.620 ac 17.74% Impervious Runoff Depth=2.06"
Flow Length=144' Slope=0.0230 '/' Tc=14.2 min CN=83 Runoff=1.70 cfs 4,641 cf

Subcatchment 2S: Post-Developed Runoff Area=0.620 ac 93.55% Impervious Runoff Depth=3.39"
Tc=10.0 min CN=97 Runoff=2.87 cfs 7,636 cf

Pond 1P: Underground System Peak Elev=775.47' Storage=4,307 cf Inflow=2.87 cfs 7,636 cf
Outflow=0.51 cfs 6,985 cf

Total Runoff Area = 54,014 sf Runoff Volume = 12,277 cf Average Runoff Depth = 2.73"
44.35% Pervious = 23,958 sf 55.65% Impervious = 30,056 sf

Summary for Subcatchment 1S: Pre-Developed

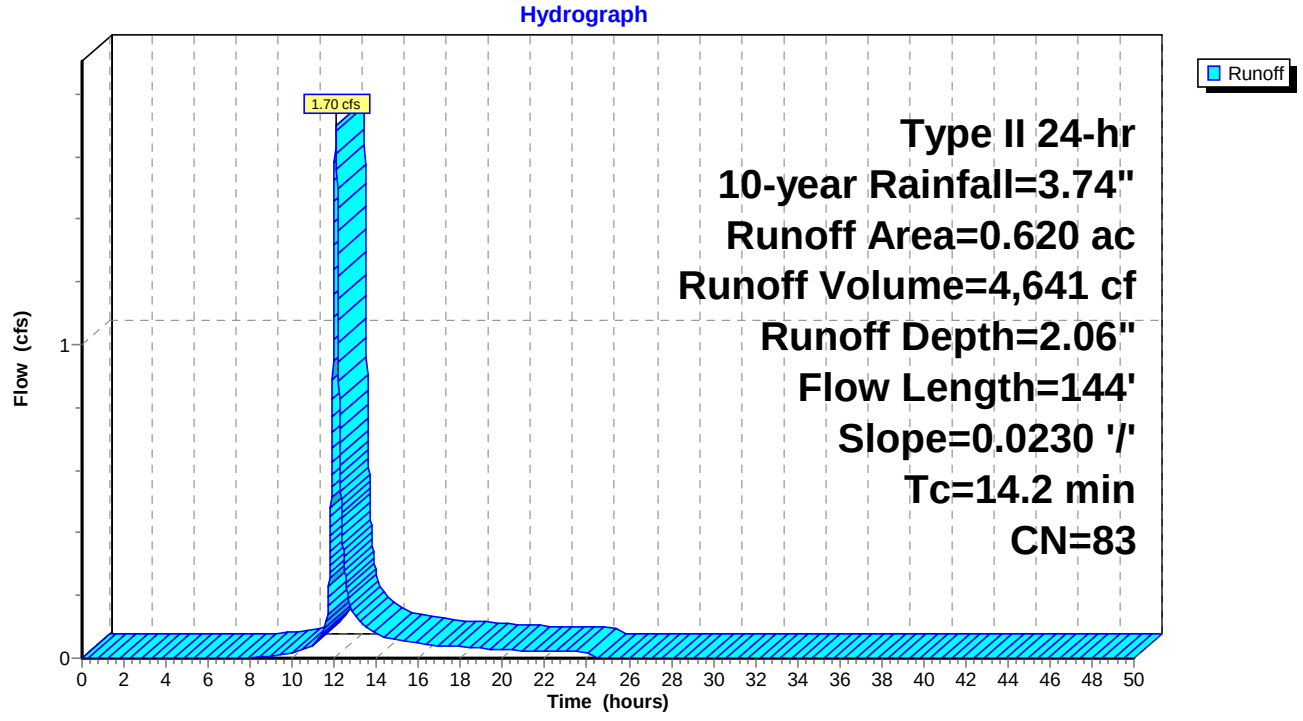
Runoff = 1.70 cfs @ 12.06 hrs, Volume= 4,641 cf, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-year Rainfall=3.74"

Area (ac)	CN	Description
0.110	98	Paved parking, HSG D
0.510	80	>75% Grass cover, Good, HSG D
0.620	83	Weighted Average
0.510		82.26% Pervious Area
0.110		17.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	144	0.0230	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.45"

Subcatchment 1S: Pre-Developed



Summary for Subcatchment 2S: Post-Developed

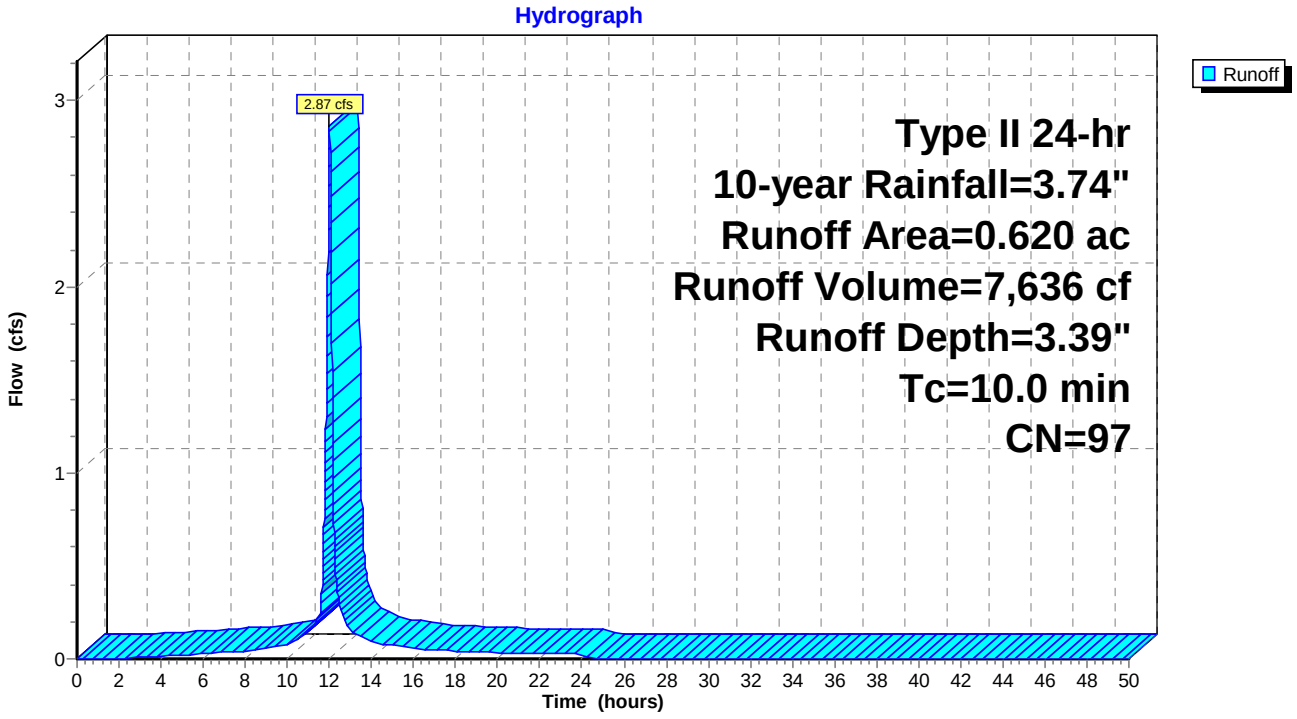
Runoff = 2.87 cfs @ 12.01 hrs, Volume= 7,636 cf, Depth= 3.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-year Rainfall=3.74"

Area (ac)	CN	Description
0.580	98	Paved parking, HSG D
0.040	80	>75% Grass cover, Good, HSG D
0.620	97	Weighted Average
0.040		6.45% Pervious Area
0.580		93.55% Impervious Area

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

Subcatchment 2S: Post-Developed



Summary for Pond 1P: Underground System

Inflow Area = 27,007 sf, 93.55% Impervious, Inflow Depth = 3.39" for 10-year event
Inflow = 2.87 cfs @ 12.01 hrs, Volume= 7,636 cf
Outflow = 0.51 cfs @ 12.28 hrs, Volume= 6,985 cf, Atten= 82%, Lag= 16.1 min
Primary = 0.51 cfs @ 12.28 hrs, Volume= 6,985 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 775.47' @ 12.28 hrs Surf.Area= 2,742 sf Storage= 4,307 cf

Plug-Flow detention time= 492.3 min calculated for 6,985 cf (91% of inflow)
Center-of-Mass det. time= 446.2 min (1,208.3 - 762.2)

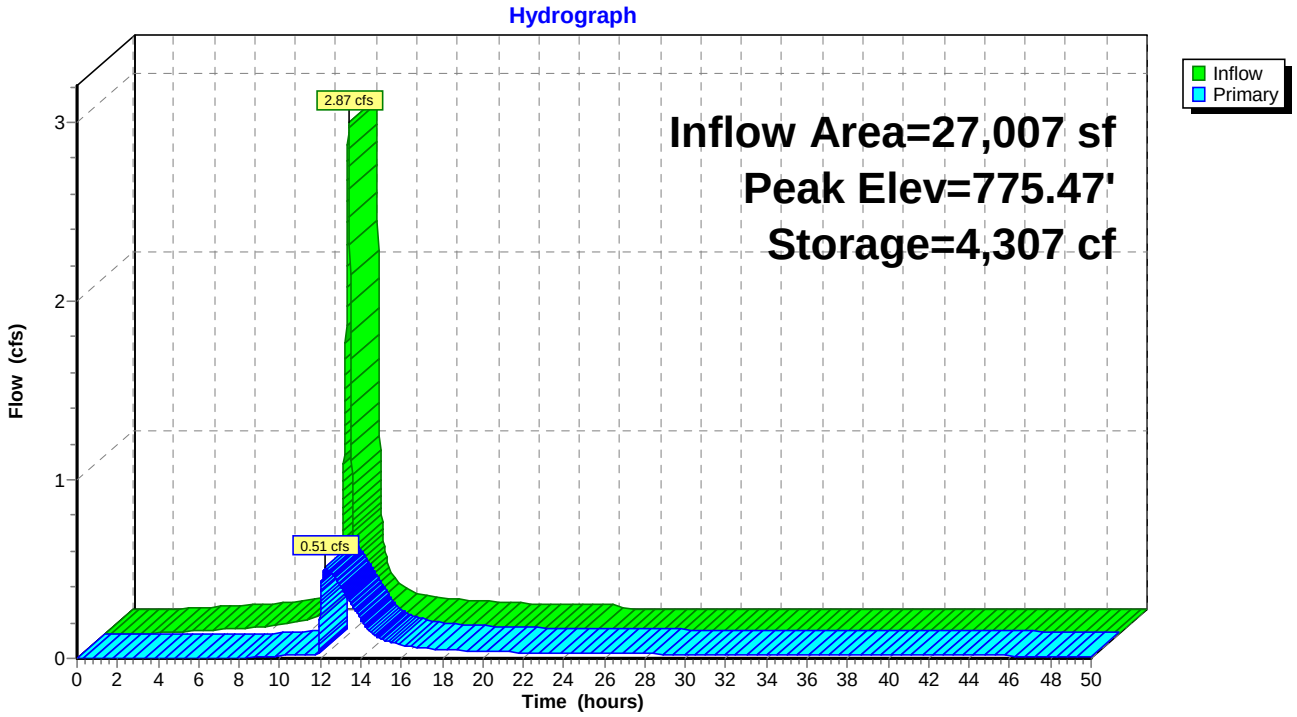
Volume	Invert	Avail.Storage	Storage Description
#1A	773.00'	1,589 cf	**11.00'W x 138.90'L x 3.75'H Field A** 5,729 cf Overall - 1,757 cf Embedded = 3,972 cf x 40.0% Voids
#2A	773.75'	1,757 cf	**ADS_StormTech DC-780 +Cap** x 38 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 38 Chambers in 2 Rows
#3B	773.00'	1,267 cf	**11.00'W x 110.42'L x 3.75'H Field B** 4,555 cf Overall - 1,387 cf Embedded = 3,168 cf x 40.0% Voids
#4B	773.75'	1,387 cf	**ADS_StormTech DC-780 +Cap** x 30 Inside #3 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 30 Chambers in 2 Rows
		6,000 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

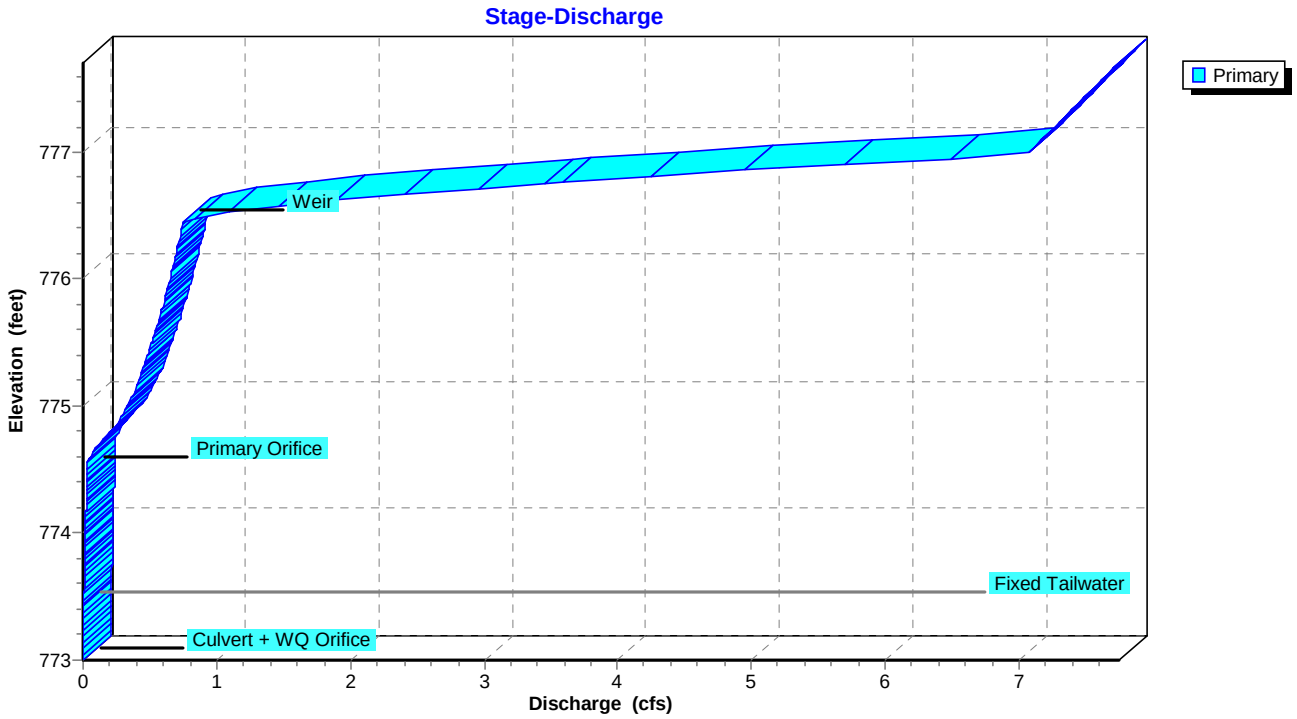
Device	Routing	Invert	Outlet Devices
#1	Primary	773.00'	**12.0" Round Culvert** L= 25.7' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 773.00' / 772.44' S= 0.0218 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	773.00'	**1.0" Vert. WQ Orifice** C= 0.600
#3	Device 1	774.50'	**4.5" Vert. Primary Orifice** C= 0.600
#4	Device 1	776.45'	**60.0" W x 15.0" H Vert. Weir** C= 0.600

Primary OutFlow Max=0.51 cfs @ 12.28 hrs HW=775.47' TW=773.44' (Fixed TW Elev= 773.44')
└─**1=Culvert** (Passes 0.51 cfs of 5.30 cfs potential flow)
  ├─**2=WQ Orifice** (Orifice Controls 0.04 cfs @ 6.85 fps)
  ├─**3=Primary Orifice** (Orifice Controls 0.47 cfs @ 4.25 fps)
  └─**4=Weir** (Controls 0.00 cfs)

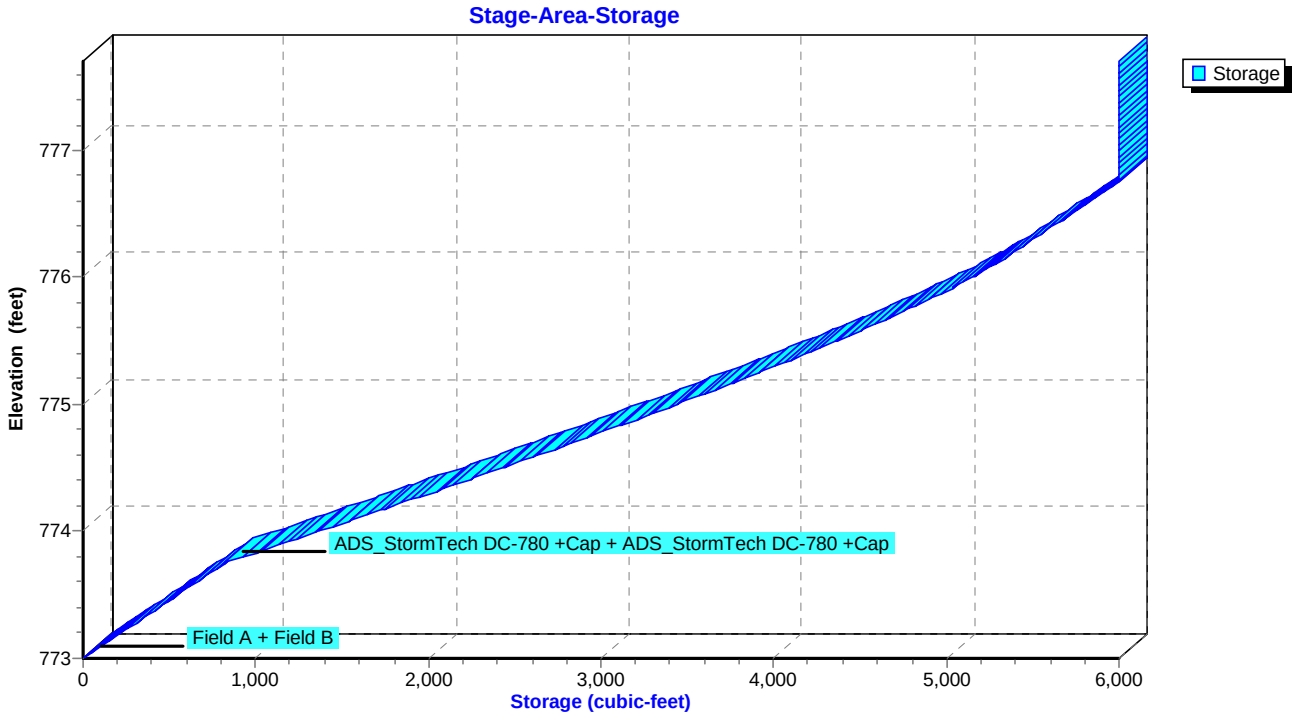
Pond 1P: Underground System



Pond 1P: Underground System



Pond 1P: Underground System



Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Pre-Developed Runoff Area=0.620 ac 17.74% Impervious Runoff Depth=2.67"
Flow Length=144' Slope=0.0230 '/' Tc=14.2 min CN=83 Runoff=2.19 cfs 6,014 cf

Subcatchment 2S: Post-Developed Runoff Area=0.620 ac 93.55% Impervious Runoff Depth=4.09"
Tc=10.0 min CN=97 Runoff=3.42 cfs 9,203 cf

Pond 1P: Underground System Peak Elev=775.95' Storage=5,094 cf Inflow=3.42 cfs 9,203 cf
Outflow=0.64 cfs 8,538 cf

Total Runoff Area = 54,014 sf Runoff Volume = 15,218 cf Average Runoff Depth = 3.38"
44.35% Pervious = 23,958 sf 55.65% Impervious = 30,056 sf

Summary for Subcatchment 1S: Pre-Developed

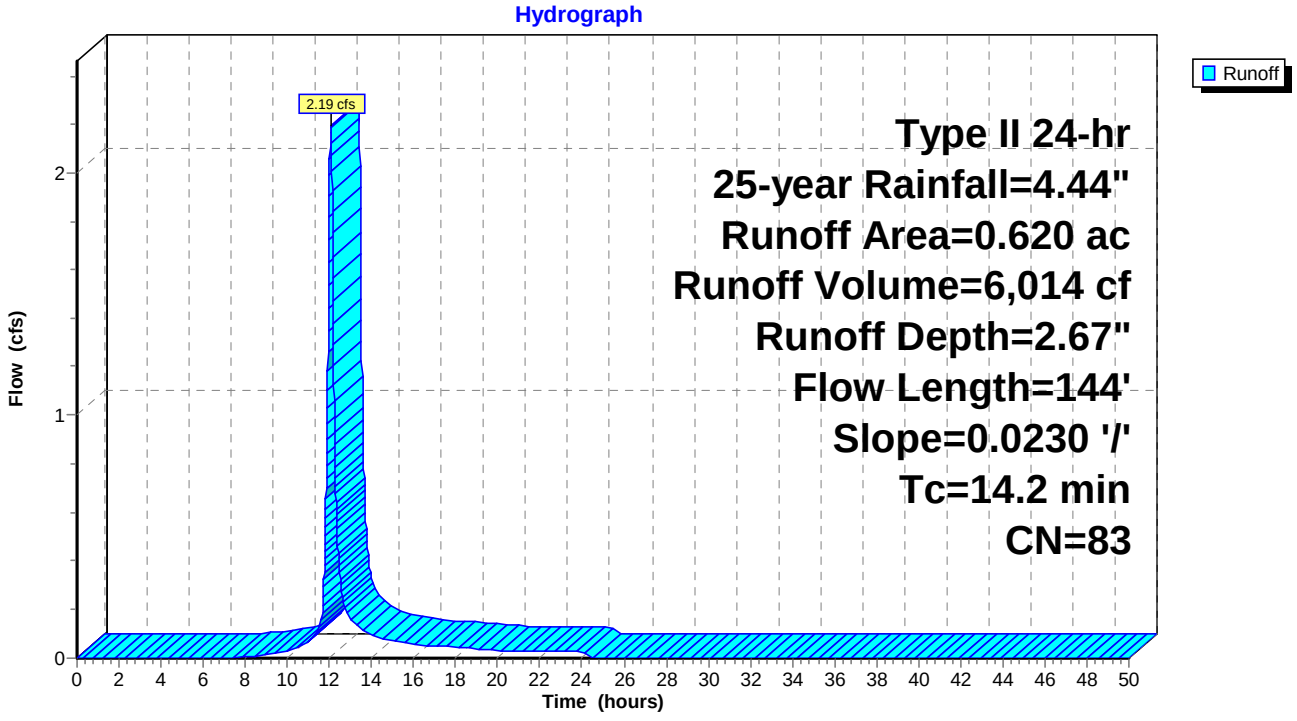
Runoff = 2.19 cfs @ 12.06 hrs, Volume= 6,014 cf, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-year Rainfall=4.44"

Area (ac)	CN	Description
0.110	98	Paved parking, HSG D
0.510	80	>75% Grass cover, Good, HSG D
0.620	83	Weighted Average
0.510		82.26% Pervious Area
0.110		17.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	144	0.0230	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.45"

Subcatchment 1S: Pre-Developed



Summary for Subcatchment 2S: Post-Developed

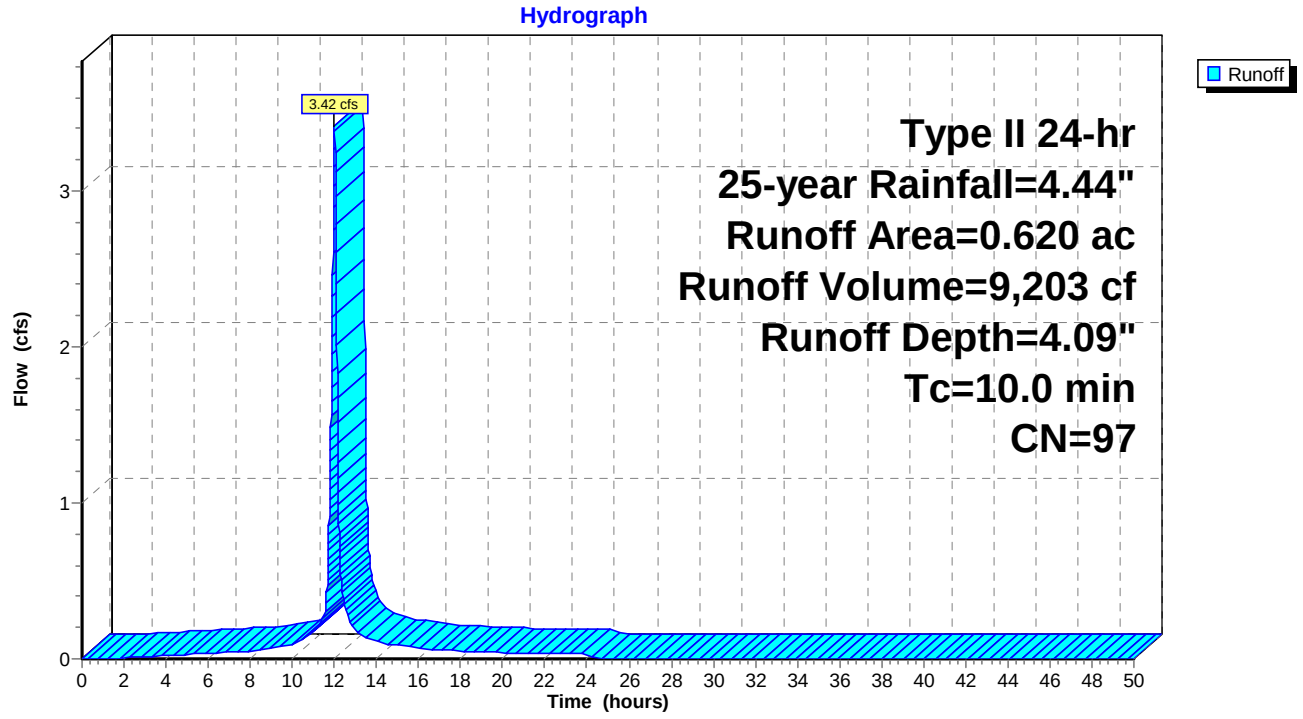
Runoff = 3.42 cfs @ 12.01 hrs, Volume= 9,203 cf, Depth= 4.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-year Rainfall=4.44"

Area (ac)	CN	Description
0.580	98	Paved parking, HSG D
0.040	80	>75% Grass cover, Good, HSG D
0.620	97	Weighted Average
0.040		6.45% Pervious Area
0.580		93.55% Impervious Area

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

Subcatchment 2S: Post-Developed



Summary for Pond 1P: Underground System

Inflow Area = 27,007 sf, 93.55% Impervious, Inflow Depth = 4.09" for 25-year event
Inflow = 3.42 cfs @ 12.01 hrs, Volume= 9,203 cf
Outflow = 0.64 cfs @ 12.26 hrs, Volume= 8,538 cf, Atten= 81%, Lag= 15.2 min
Primary = 0.64 cfs @ 12.26 hrs, Volume= 8,538 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 775.95' @ 12.26 hrs Surf.Area= 2,742 sf Storage= 5,094 cf

Plug-Flow detention time= 427.9 min calculated for 8,538 cf (93% of inflow)
Center-of-Mass det. time= 387.2 min (1,145.3 - 758.1)

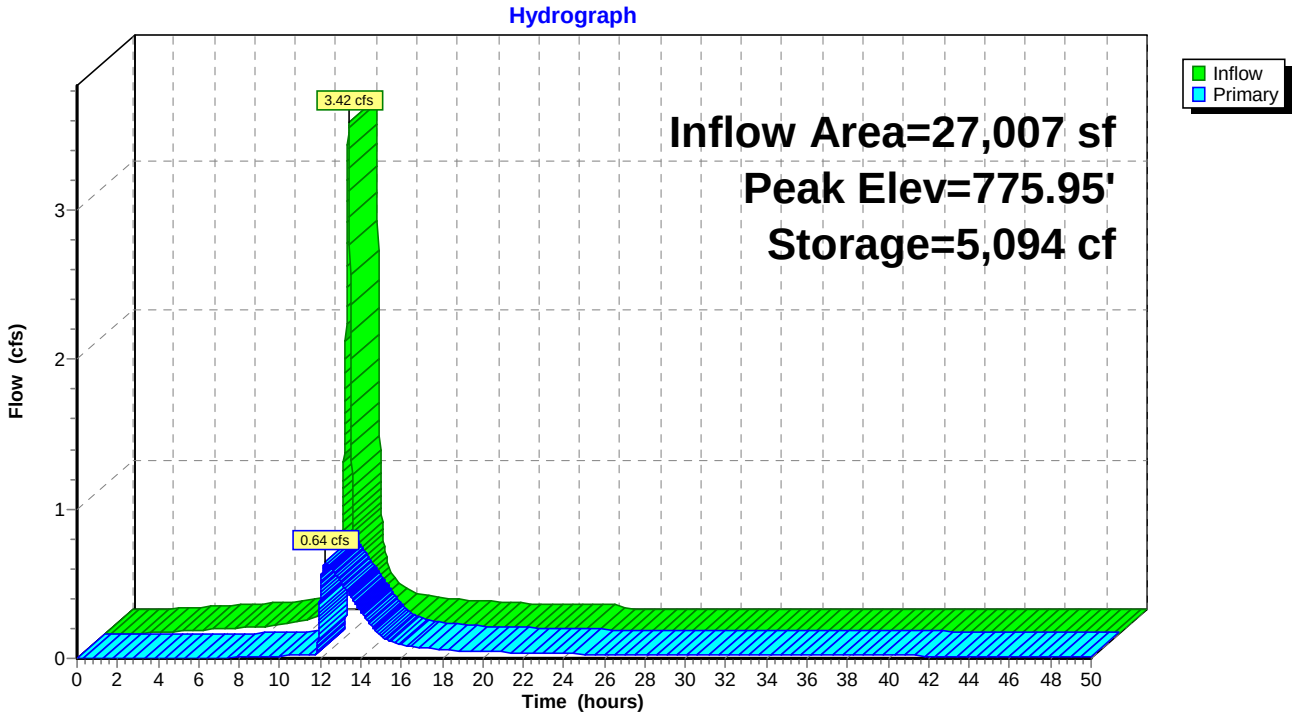
Volume	Invert	Avail.Storage	Storage Description
#1A	773.00'	1,589 cf	**11.00'W x 138.90'L x 3.75'H Field A** 5,729 cf Overall - 1,757 cf Embedded = 3,972 cf x 40.0% Voids
#2A	773.75'	1,757 cf	**ADS_StormTech DC-780 +Cap** x 38 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 38 Chambers in 2 Rows
#3B	773.00'	1,267 cf	**11.00'W x 110.42'L x 3.75'H Field B** 4,555 cf Overall - 1,387 cf Embedded = 3,168 cf x 40.0% Voids
#4B	773.75'	1,387 cf	**ADS_StormTech DC-780 +Cap** x 30 Inside #3 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 30 Chambers in 2 Rows
		6,000 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

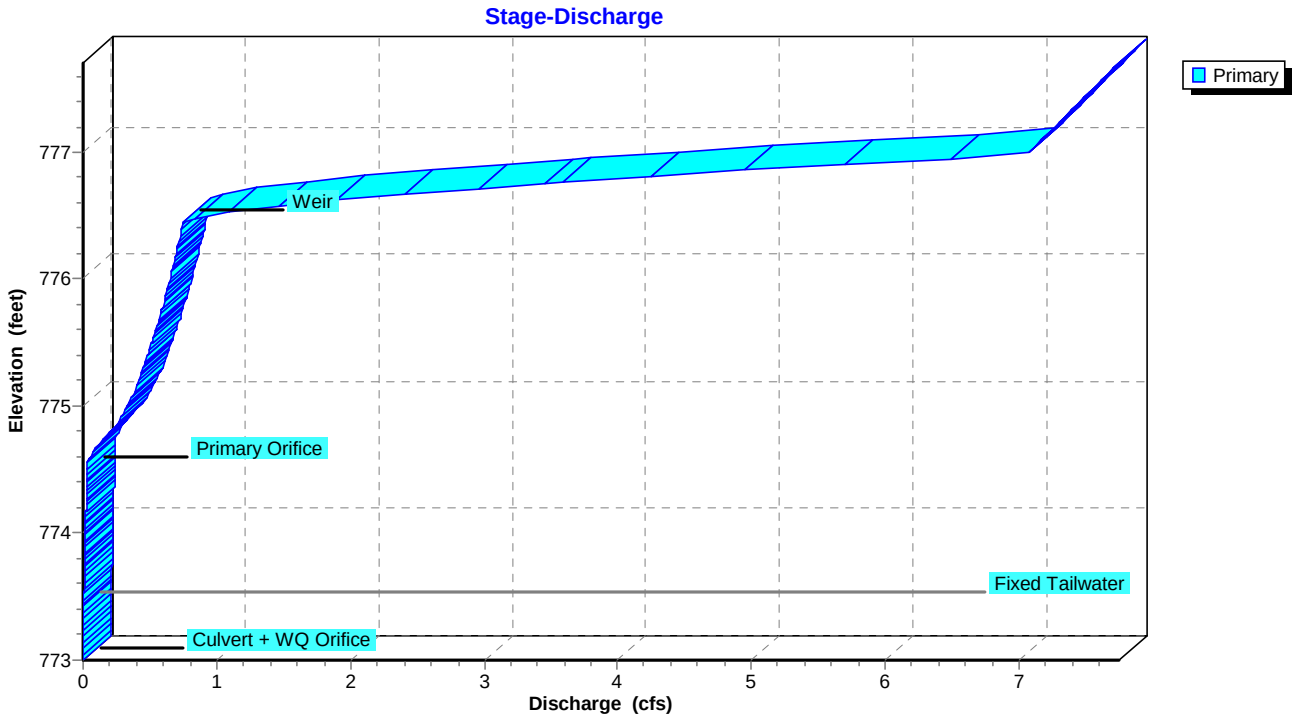
Device	Routing	Invert	Outlet Devices
#1	Primary	773.00'	**12.0" Round Culvert** L= 25.7' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 773.00' / 772.44' S= 0.0218 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	773.00'	**1.0" Vert. WQ Orifice** C= 0.600
#3	Device 1	774.50'	**4.5" Vert. Primary Orifice** C= 0.600
#4	Device 1	776.45'	**60.0" W x 15.0" H Vert. Weir** C= 0.600

Primary OutFlow Max=0.64 cfs @ 12.26 hrs HW=775.95' TW=773.44' (Fixed TW Elev= 773.44')
└─**1=Culvert** (Passes 0.64 cfs of 5.93 cfs potential flow)
  ├─**2=WQ Orifice** (Orifice Controls 0.04 cfs @ 7.64 fps)
  ├─**3=Primary Orifice** (Orifice Controls 0.60 cfs @ 5.42 fps)
  └─**4=Weir** (Controls 0.00 cfs)

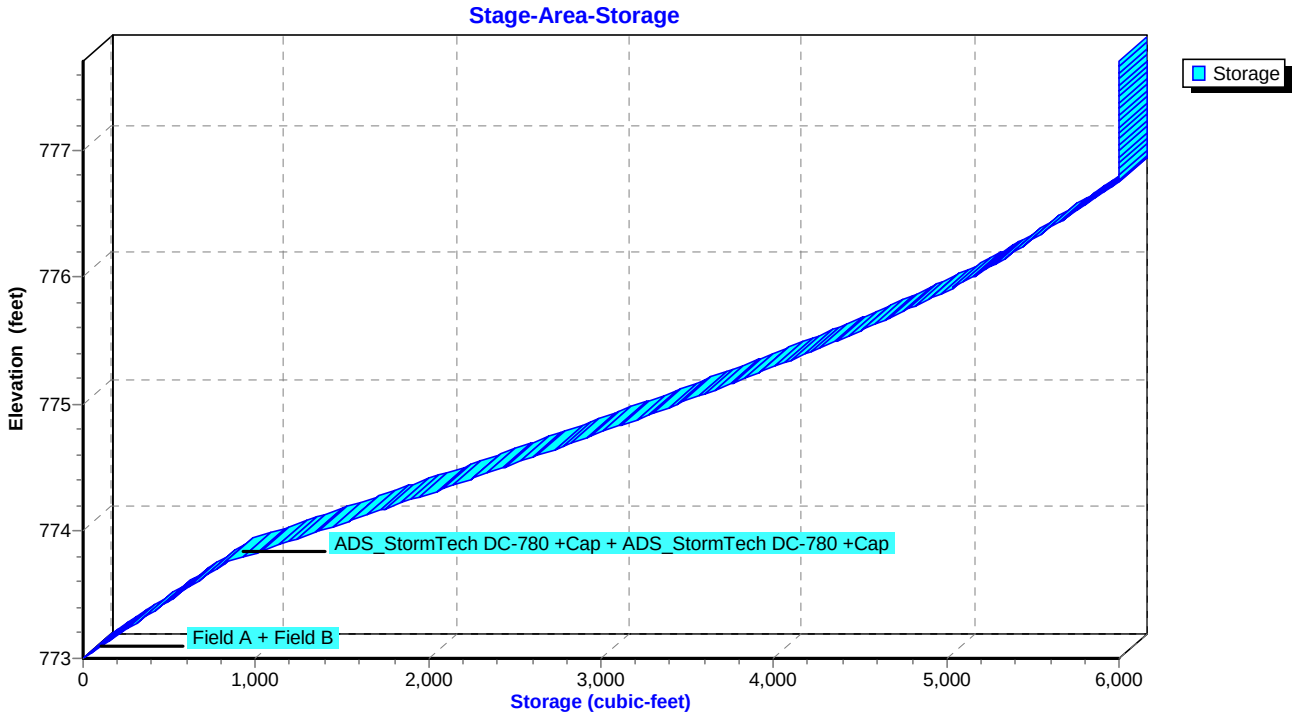
Pond 1P: Underground System



Pond 1P: Underground System



Pond 1P: Underground System



Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Pre-Developed Runoff Area=0.620 ac 17.74% Impervious Runoff Depth=3.19"
Flow Length=144' Slope=0.0230 '/' Tc=14.2 min CN=83 Runoff=2.61 cfs 7,184 cf

Subcatchment 2S: Post-Developed Runoff Area=0.620 ac 93.55% Impervious Runoff Depth=4.67"
Tc=10.0 min CN=97 Runoff=3.88 cfs 10,504 cf

Pond 1P: Underground System Peak Elev=776.49' Storage=5,711 cf Inflow=3.88 cfs 10,504 cf
Outflow=0.88 cfs 9,830 cf

Total Runoff Area = 54,014 sf Runoff Volume = 17,688 cf Average Runoff Depth = 3.93"
44.35% Pervious = 23,958 sf 55.65% Impervious = 30,056 sf

Summary for Subcatchment 1S: Pre-Developed

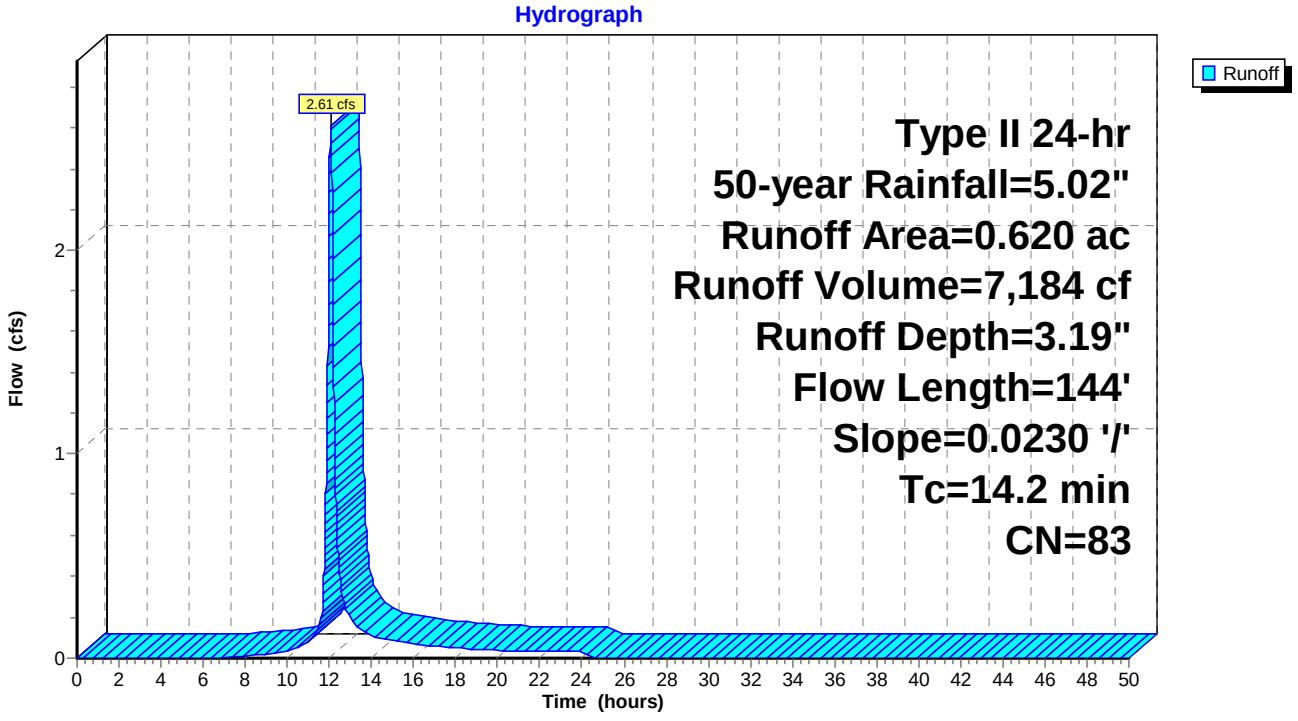
Runoff = 2.61 cfs @ 12.06 hrs, Volume= 7,184 cf, Depth= 3.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-year Rainfall=5.02"

Area (ac)	CN	Description
0.110	98	Paved parking, HSG D
0.510	80	>75% Grass cover, Good, HSG D
0.620	83	Weighted Average
0.510		82.26% Pervious Area
0.110		17.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	144	0.0230	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.45"

Subcatchment 1S: Pre-Developed



Summary for Subcatchment 2S: Post-Developed

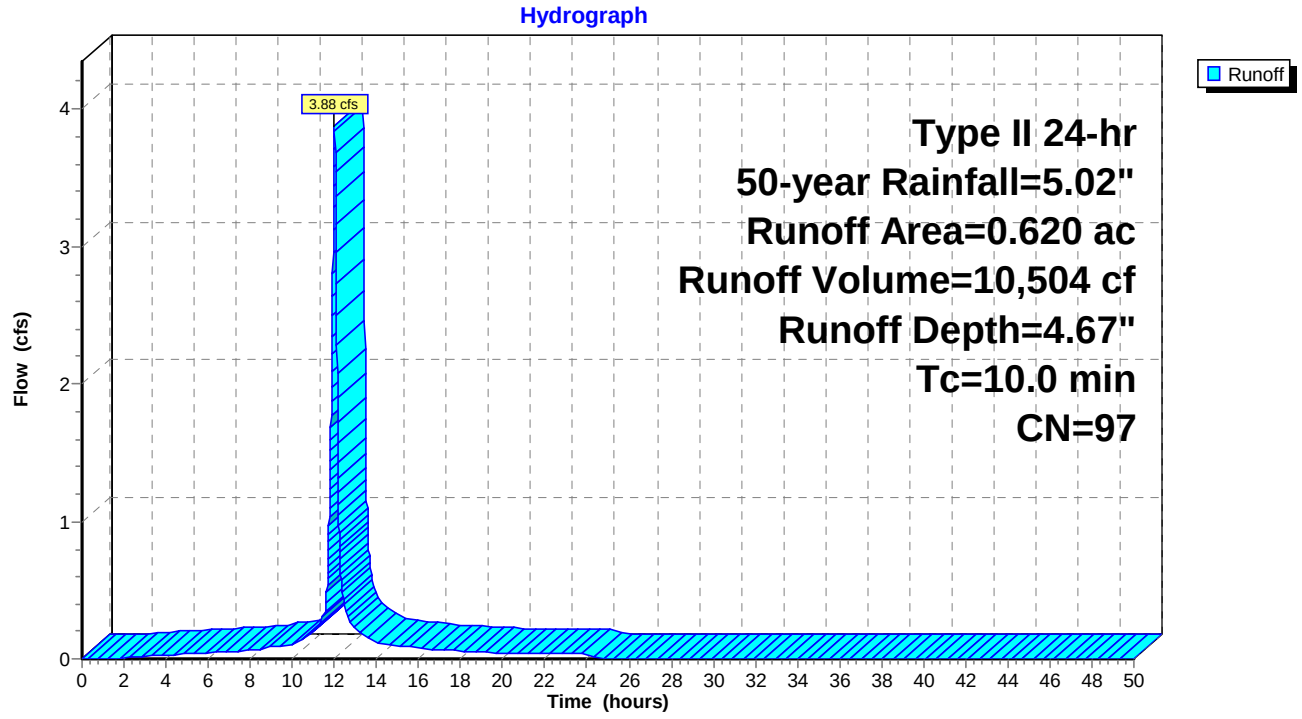
Runoff = 3.88 cfs @ 12.01 hrs, Volume= 10,504 cf, Depth= 4.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-year Rainfall=5.02"

Area (ac)	CN	Description
0.580	98	Paved parking, HSG D
0.040	80	>75% Grass cover, Good, HSG D
0.620	97	Weighted Average
0.040		6.45% Pervious Area
0.580		93.55% Impervious Area

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

Subcatchment 2S: Post-Developed



Summary for Pond 1P: Underground System

Inflow Area = 27,007 sf, 93.55% Impervious, Inflow Depth = 4.67" for 50-year event
Inflow = 3.88 cfs @ 12.01 hrs, Volume= 10,504 cf
Outflow = 0.88 cfs @ 12.23 hrs, Volume= 9,830 cf, Atten= 77%, Lag= 13.1 min
Primary = 0.88 cfs @ 12.23 hrs, Volume= 9,830 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 776.49' @ 12.23 hrs Surf.Area= 2,742 sf Storage= 5,711 cf

Plug-Flow detention time= 388.9 min calculated for 9,830 cf (94% of inflow)
Center-of-Mass det. time= 351.7 min (1,107.2 - 755.5)

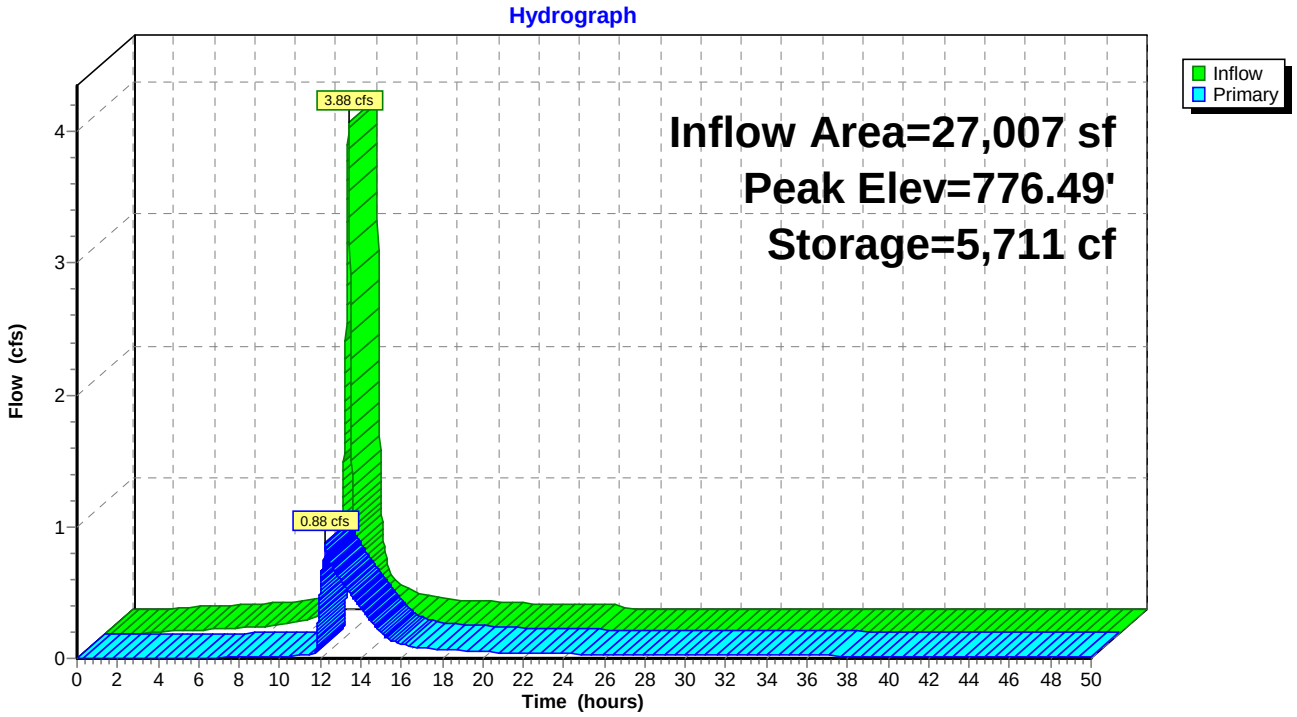
Volume	Invert	Avail.Storage	Storage Description
#1A	773.00'	1,589 cf	**11.00'W x 138.90'L x 3.75'H Field A** 5,729 cf Overall - 1,757 cf Embedded = 3,972 cf x 40.0% Voids
#2A	773.75'	1,757 cf	**ADS_StormTech DC-780 +Cap** x 38 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 38 Chambers in 2 Rows
#3B	773.00'	1,267 cf	**11.00'W x 110.42'L x 3.75'H Field B** 4,555 cf Overall - 1,387 cf Embedded = 3,168 cf x 40.0% Voids
#4B	773.75'	1,387 cf	**ADS_StormTech DC-780 +Cap** x 30 Inside #3 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 30 Chambers in 2 Rows
		6,000 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

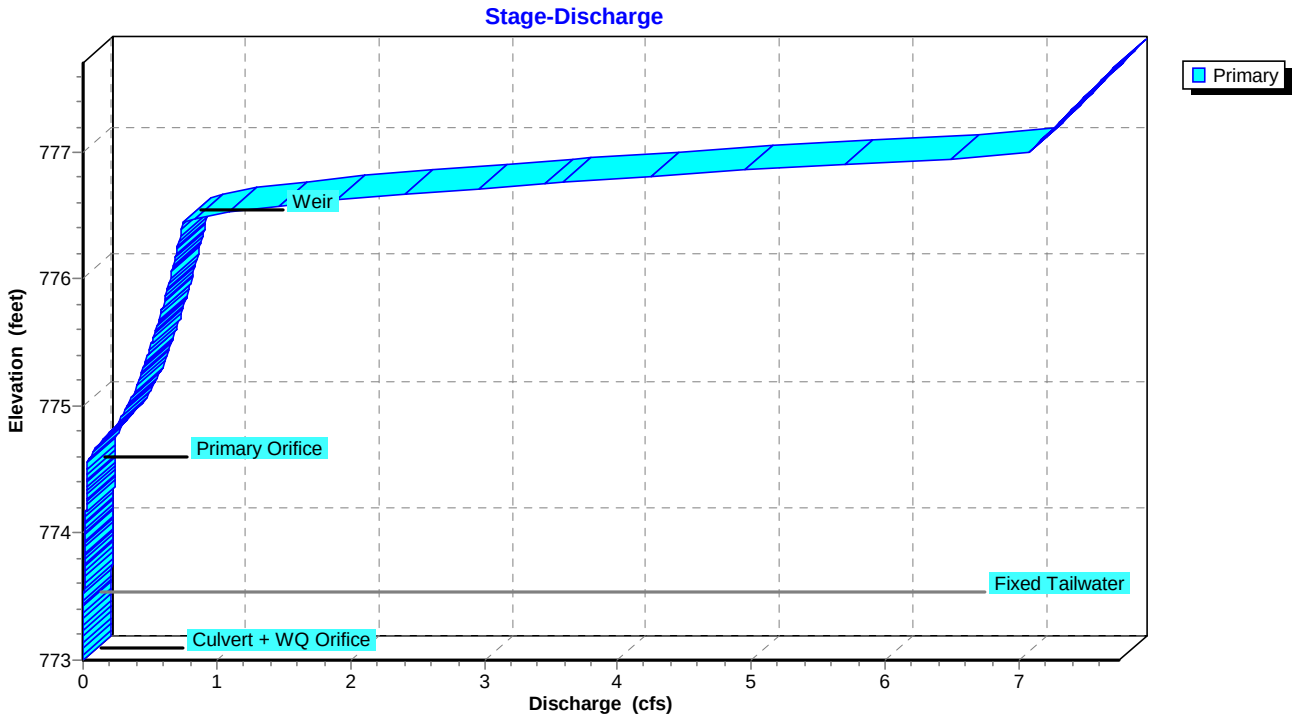
Device	Routing	Invert	Outlet Devices
#1	Primary	773.00'	**12.0" Round Culvert** L= 25.7' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 773.00' / 772.44' S= 0.0218 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	773.00'	**1.0" Vert. WQ Orifice** C= 0.600
#3	Device 1	774.50'	**4.5" Vert. Primary Orifice** C= 0.600
#4	Device 1	776.45'	**60.0" W x 15.0" H Vert. Weir** C= 0.600

Primary OutFlow Max=0.87 cfs @ 12.23 hrs HW=776.49' TW=773.44' (Fixed TW Elev= 773.44')
└─**1=Culvert** (Passes 0.87 cfs of 6.53 cfs potential flow)
  ├─**2=WQ Orifice** (Orifice Controls 0.05 cfs @ 8.40 fps)
  ├─**3=Primary Orifice** (Orifice Controls 0.71 cfs @ 6.46 fps)
  └─**4=Weir** (Orifice Controls 0.11 cfs @ 0.61 fps)

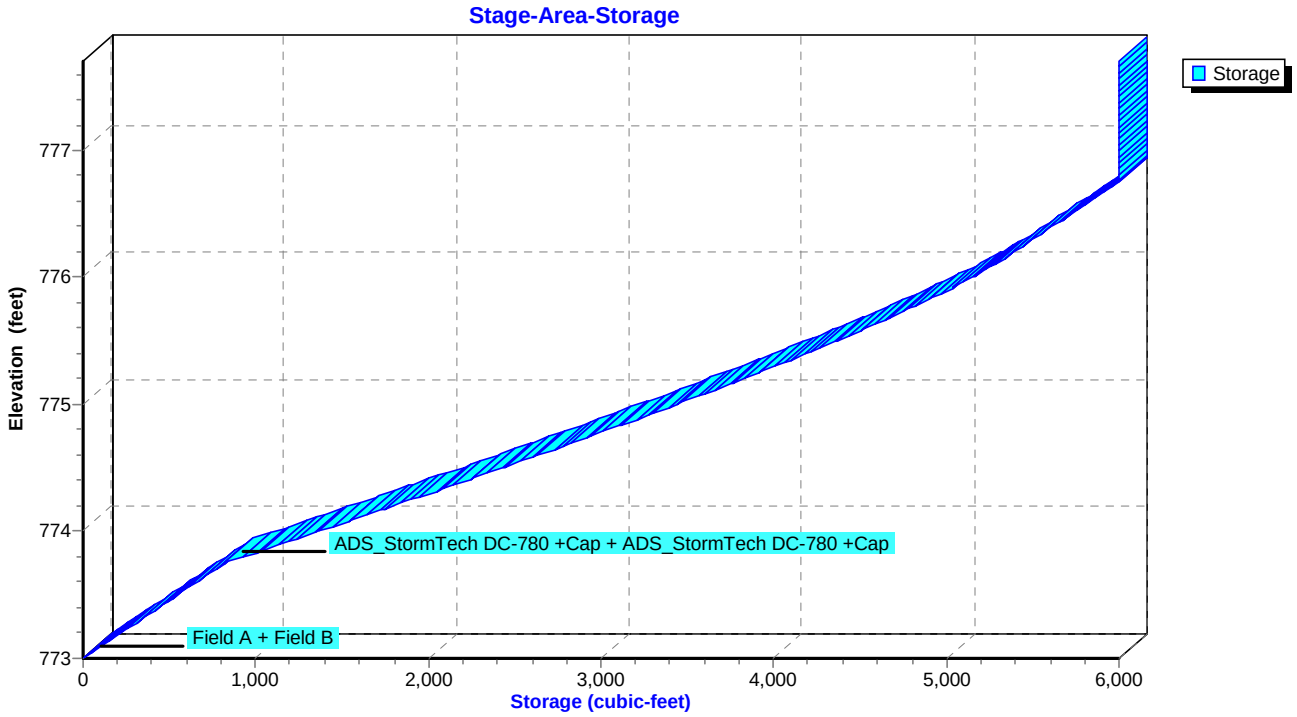
Pond 1P: Underground System



Pond 1P: Underground System



Pond 1P: Underground System



Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Pre-Developed Runoff Area=0.620 ac 17.74% Impervious Runoff Depth=3.76"
Flow Length=144' Slope=0.0230 '/' Tc=14.2 min CN=83 Runoff=3.06 cfs 8,459 cf

Subcatchment 2S: Post-Developed Runoff Area=0.620 ac 93.55% Impervious Runoff Depth=5.29"
Tc=10.0 min CN=97 Runoff=4.37 cfs 11,895 cf

Pond 1P: Underground System Peak Elev=776.67' Storage=5,913 cf Inflow=4.37 cfs 11,895 cf
Outflow=2.46 cfs 11,214 cf

Total Runoff Area = 54,014 sf Runoff Volume = 20,354 cf Average Runoff Depth = 4.52"
44.35% Pervious = 23,958 sf 55.65% Impervious = 30,056 sf

Summary for Subcatchment 1S: Pre-Developed

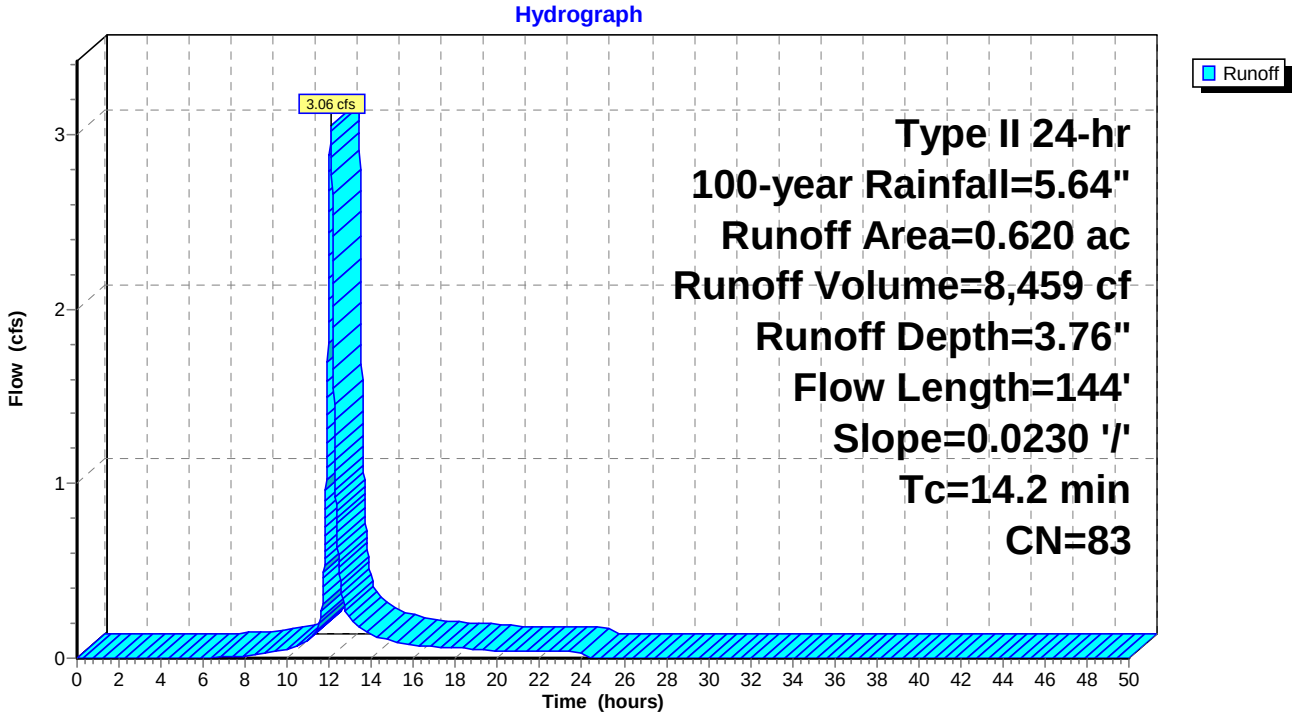
Runoff = 3.06 cfs @ 12.06 hrs, Volume= 8,459 cf, Depth= 3.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-year Rainfall=5.64"

Area (ac)	CN	Description
0.110	98	Paved parking, HSG D
0.510	80	>75% Grass cover, Good, HSG D
0.620	83	Weighted Average
0.510		82.26% Pervious Area
0.110		17.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	144	0.0230	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.45"

Subcatchment 1S: Pre-Developed



Summary for Subcatchment 2S: Post-Developed

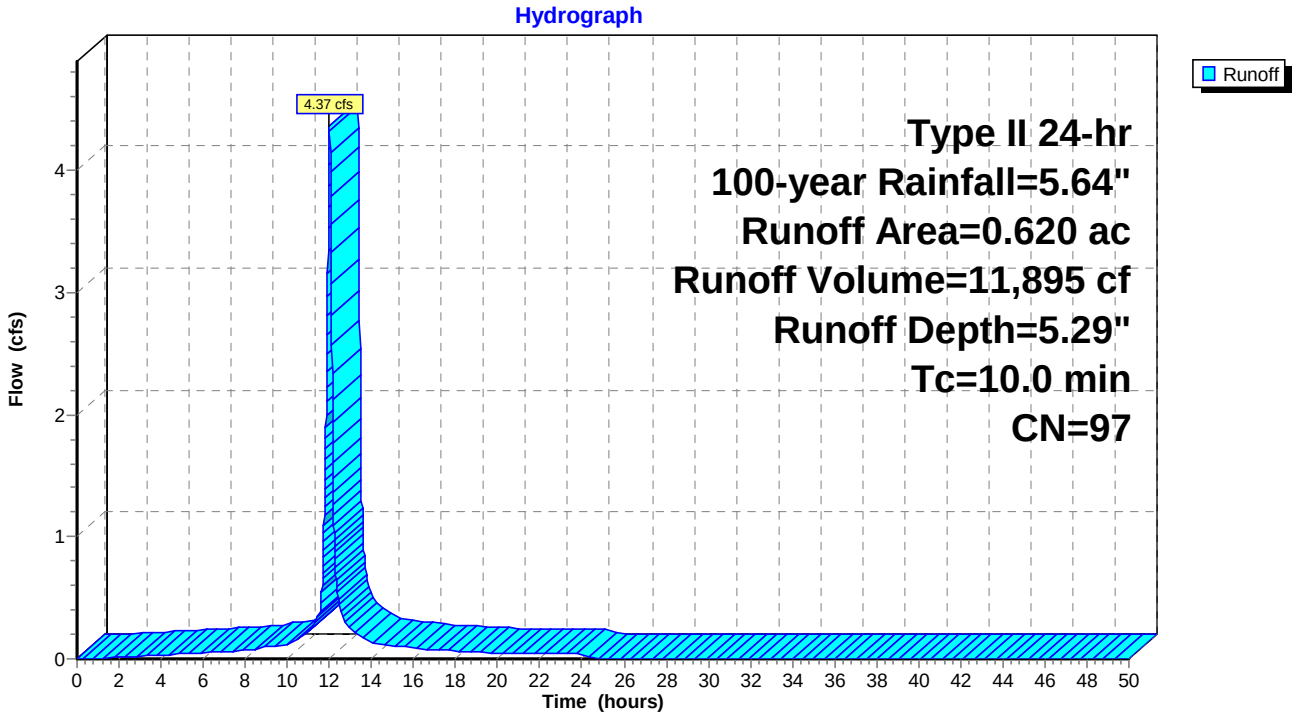
Runoff = 4.37 cfs @ 12.01 hrs, Volume= 11,895 cf, Depth= 5.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-year Rainfall=5.64"

Area (ac)	CN	Description
0.580	98	Paved parking, HSG D
0.040	80	>75% Grass cover, Good, HSG D
0.620	97	Weighted Average
0.040		6.45% Pervious Area
0.580		93.55% Impervious Area

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

Subcatchment 2S: Post-Developed



Summary for Pond 1P: Underground System

Inflow Area = 27,007 sf, 93.55% Impervious, Inflow Depth = 5.29" for 100-year event
Inflow = 4.37 cfs @ 12.01 hrs, Volume= 11,895 cf
Outflow = 2.46 cfs @ 12.12 hrs, Volume= 11,214 cf, Atten= 44%, Lag= 6.4 min
Primary = 2.46 cfs @ 12.12 hrs, Volume= 11,214 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 776.67' @ 12.12 hrs Surf.Area= 2,742 sf Storage= 5,913 cf

Plug-Flow detention time= 351.6 min calculated for 11,212 cf (94% of inflow)
Center-of-Mass det. time= 318.0 min (1,071.1 - 753.1)

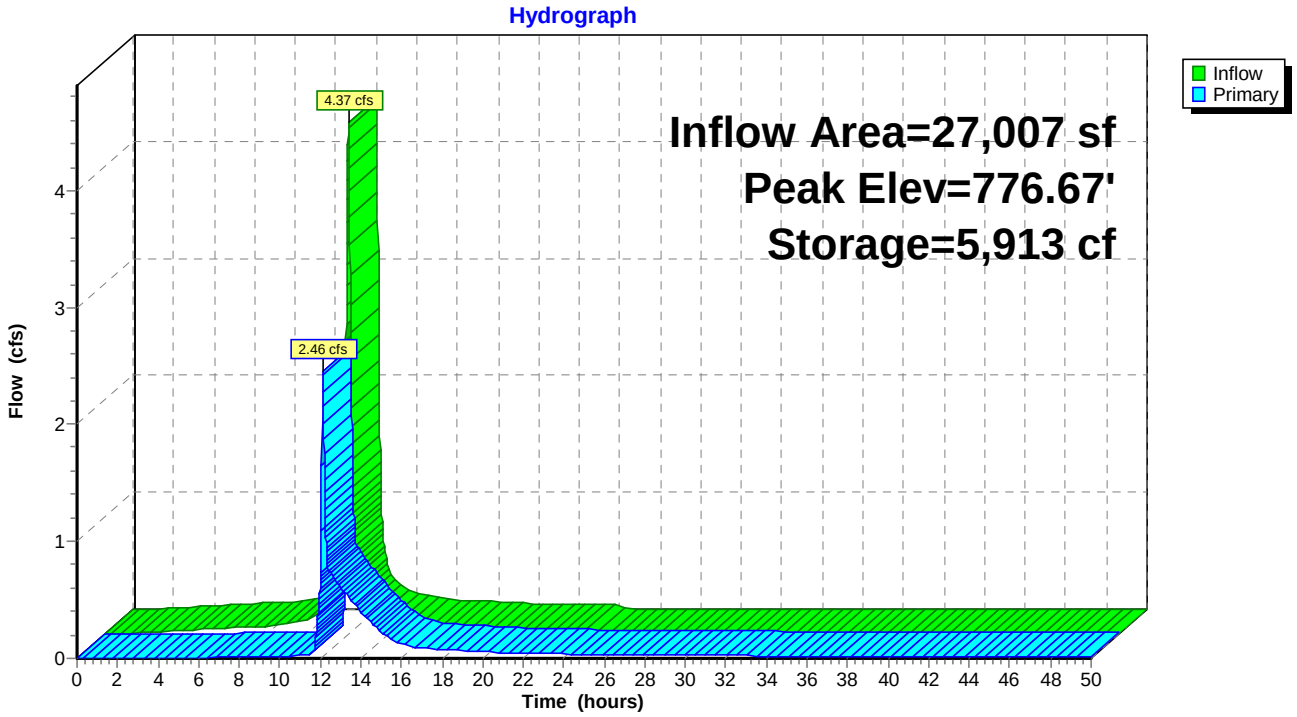
Volume	Invert	Avail.Storage	Storage Description
#1A	773.00'	1,589 cf	**11.00'W x 138.90'L x 3.75'H Field A** 5,729 cf Overall - 1,757 cf Embedded = 3,972 cf x 40.0% Voids
#2A	773.75'	1,757 cf	**ADS_StormTech DC-780 +Cap** x 38 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 38 Chambers in 2 Rows
#3B	773.00'	1,267 cf	**11.00'W x 110.42'L x 3.75'H Field B** 4,555 cf Overall - 1,387 cf Embedded = 3,168 cf x 40.0% Voids
#4B	773.75'	1,387 cf	**ADS_StormTech DC-780 +Cap** x 30 Inside #3 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 30 Chambers in 2 Rows
		6,000 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

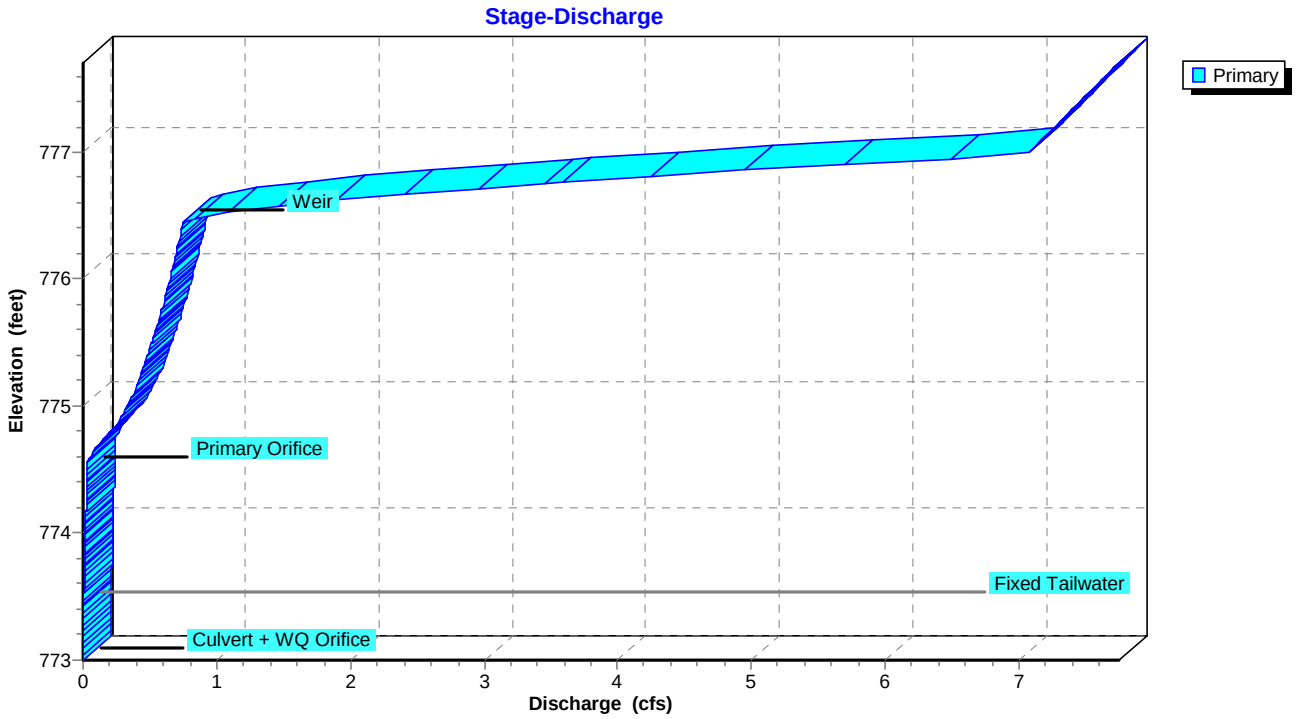
Device	Routing	Invert	Outlet Devices
#1	Primary	773.00'	**12.0" Round Culvert** L= 25.7' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 773.00' / 772.44' S= 0.0218 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	773.00'	**1.0" Vert. WQ Orifice** C= 0.600
#3	Device 1	774.50'	**4.5" Vert. Primary Orifice** C= 0.600
#4	Device 1	776.45'	**60.0" W x 15.0" H Vert. Weir** C= 0.600

Primary OutFlow Max=2.45 cfs @ 12.12 hrs HW=776.67' TW=773.44' (Fixed TW Elev= 773.44')
└─**1=Culvert** (Passes 2.45 cfs of 6.73 cfs potential flow)
  ├─**2=WQ Orifice** (Orifice Controls 0.05 cfs @ 8.65 fps)
  ├─**3=Primary Orifice** (Orifice Controls 0.75 cfs @ 6.78 fps)
  └─**4=Weir** (Orifice Controls 1.65 cfs @ 1.50 fps)

Pond 1P: Underground System



Pond 1P: Underground System



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