A D D E N D U M N O. 2

Center Grove High School Parking Lot and Canopy

Center Grove Community School Corporation
Greenwood, Indiana

Project No. 224140.00

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Date: June 23, 2025

I hereby certify that this Addendum was prepared by me or under my direct supervision and that I am a duly registered Architect/Engineer under the Laws of the State of Indiana.

FANNING/HOWEY ASSOCIATES, INC.
ARCHITECTS/ENGINEERS/CONSULTANTS

Paul A. Miller
Registration Number AR10800161

TO: ALL BIDDERS OF RECORD

ADDENDUM NO. 2 to Drawings and Project Manual, dated June 6, 2025, for Center Grove High School Parking Lot and Canopy for Center Grove Community School Corporation, 4800 West Stones Crossing Road, Greenwood, IN 46143; as prepared by Fanning/Howey Associates, Inc., Indianapolis, Indiana.
This Addendum shall hereby be and become a part of the Contract Documents the same as if originally bound thereto.

The following clarifications, amendments, additions, revisions, changes, and modifications change the original Contract Documents only in the amount and to the extent hereinafter specified in this Addendum.

Each bidder shall acknowledge receipt of this Addendum in his proposal or bid.

NOTE: Bidders are responsible for becoming familiar with every item of this Addendum. (This includes miscellaneous items at the very end of this Addendum.)

RE: ALL BIDDERS

ITEM NO. 1. REVISED PROJECT MANUAL SECTIONS

A. 00 21 13 – Instructions to Bidders and 01 23 00 - Alternates have been revised, dated 06/23/25, and are included with and hereby made a part of this Addendum.

ITEM NO. 2. PROJECT MANUAL, SECTION 00 41 16 – BID FORM AND 00 42 00 – SUPPLEMENTARY BID FORM

A. The Bid Form and Supplementary Bid Form have been revised for this Project. This revised form, dated 6/23/25, is the applicable form to be used by all bidders and is included with and hereby made a part of this Addendum. Revision includes the addition of Alternate No. 3.

These revisions will be reflected on the Bid Forms provided for the convenience of the bidders.

ITEM NO. 3. REVISED DRAWING SHEETS

A. Drawing Sheets: GD1.1, GD1.2, GD1.3, GD1.4, G1.5, SU1.0, SU1.1, SU1.2, SU3.3, and E1.01 have been revised, dated 6/23/25 and are included with and hereby made a part of this Addendum. These Drawings supersede the original documents.

General Note: Stormwater Drainage Report as prepared by TLF Engineers provided for reference to support the delegated design of the underground detention system

END OF ADDENDUM

DOCUMENT 00 21 13 - INSTRUCTIONS TO BIDDERS

Described herein are general and specific instructions provided to assist bidders in the responsible preparations of complete bids. However, it is imperative that each bidder become familiar with all aspects of the Bidding Documents in recognition that only the detailed requirements contained therein shall serve as the basis of compliance with this project.

PART 1 GENERAL

1.1 DEFINITIONS

A. Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Advertisement or Notice to Bid, Instructions to Bidders, Supplementary Instructions to Bidders, the bid form, and other sample bidding and contract forms. The proposed Contract Documents consist of the Form of Agreement between the Owner and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, and all Addenda issued prior to the execution of the Contract.

B. Definitions set forth in the General Conditions of the Contract for Construction, AIA Document A201, or in other Contract Documents are applicable to the Bidding Documents.

C. Addenda are written or graphic instructions issued by the Architect/Engineer (A/E) prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections.

D. A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

E. The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids.

F. An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

G. A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment or services or a portion of the Work as described in the Bidding Documents.

H. A Prime Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

I. A sub-bidder is a person or entity who submits a bid to a Bidder for materials, equipment or labor for a portion of the Work.

1.2 BIDDERS EXAMINATION AND REPRESENTATION

A. Before submitting a bid, each bidder should carefully examine the documents and the construction site and inform himself of the limitations and conditions related to the Work covered by his bid, and shall include in his bid a sum to cover the cost of such items. Each bidder represents and warrants for himself any are relevant that he has observed all nature of the work, that he has had opportunity to inquire about site conditions including public right-of-ways and areas adjacent to the site which might affect the Work, and that he has prepared his proposal with the requisite understanding of the project and site conditions. Contractors will not be given extra payments for conditions which could have been determined by examining the site and documents.

B. It is the purpose and intent of the Contract Documents, that a complete job be accomplished. It shall be each bidder's responsibility to include costs necessary to provide labor and materials for that portion of the Work bid upon, including incidentals, whether or not specifically called for in the Specifications and Drawings.

C. Each bidder by making his bid represents that he has read and understands the bidding documents. Bid is made in compliance with Bidding Documents.

D. Each bidder by making his bid represents that he has visited the site and familiarized himself with the local conditions under which the Work is to be performed and has correlated the Bidder's personal observations with the requirements of the requirements of the proposed Contract Documents.

E. Each bidder shall be responsible for being completely familiar with the Work of other bid package(s) which require interface of Work with the bid package(s) the bidder is bidding on. Bid shall be based upon the materials, equipment, and systems required by the Contract Documents without exception.

F. No allowance shall be subsequently made on behalf of a bidder by reason of error or oversight on his part resulting from his failure to so examine the Construction Documents for the other trades.

G. Each bidder understands that past acceptance of products does not assure acceptance on this Project. Products not specifically specified require requests for approval prior to bid due date.

1.3 QUALIFICATIONS OF BIDDERS

A. The Owner will have the right to take such steps as he deems necessary to determine the ability of the bidder to perform the Work, and the bidder shall furnish the Owner such data for this purpose as the Owner may request. When requested, this shall clearly show the bidder's financial resources, his construction experience, his organization, and equipment available for Work contemplated.

B. In accordance with IC, 4-13-6-4 as amended, all contractors and subcontractors performing work on this Project must hold a valid Certificate of Qualifications issued by either the Indiana Department of Administration or Indiana Department of Transportation.

C. By submitting Bid on enclosed Bid Form, Bidder satisfies requirement for Indiana Form No. 96 (Revised 2013), as prescribed by State Board of Accounts of Indiana. This shall clearly show Bidder's financial resources, his construction experience, his organization, and equipment available for Work contemplated.

1.4 INTERPRETATION

A. Questions for this Project shall be directed to both contacts below:

Subject	Name of Contact	E-mail
CM:	Taylor Gregory	taylor.gregory@aecom.com
	Chad Peters	chad.peters@aecom.com

B. Pre-bid requests for interpretation for this project shall be directed to the Construction Manager (CM). All requests must be written and electronically transmitted.

C. If the Bidder finds any perceived ambiguity, conflict, error, omission, or discrepancy on or between any of the Contract Documents, including without limitation the Drawings and Specifications, or between any of the Contract Documents and any applicable provision of law, including without limitation, the Building Code, the Bidder shall submit a written request to the CM, for an interpretation or clarification.

1. In order to prevent an extension of the bid opening, the Bidder shall make all requests for interpretation or clarification a minimum of 7 days before bid opening.

D. Bidders in doubt as to the true meaning of a part of the Drawings, Specifications or other Contract Documents shall submit to the CM, not less than 7 days before closing time for bids, a written request for interpretation and clarification. Request made after 7 days may not be addressed.

E. Bidders are instructed to request interpretations and the issuing of addenda if the Contract Documents call for materials, equipment, or methods which adversely affect the cost or quality of the project or are unavailable.

F. The Bidder shall not, at any time after the execution of the Contract, be compensated for a claim alleging insufficient data, incomplete, ambiguous, conflicting, or erroneous Contract Documents, any discrepancy on or between Contract Documents, or incorrectly assumed conditions regarding the nature or character of the Work, if no request for interpretation or clarification regarding such matter was made by the Bidder prior to the bid opening.

G. Interpretations, corrections and changes of the Bidding Documents will be made by Addendum. Interpretations, corrections and changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon them.

1.5 SUBSTITUTIONS

A. The materials, products and equipment described in the Bidding Documents established a standard of required function, dimension, appearance, and quality to be met by any proposed substitution. Each bid will be based on these brands, which may be referred to in the Bid Documents as Standards. The use of another brand (referred to as a substitution or proposed equal in the Bid Documents, when the bidder or the contractor seeks to have a different brand of material or apparatus than that specified and approved by the Owner for use in the Project) may be requested as provided herein.

B. If a Contractor preparing bids for submission on the Work is in doubt as to the acceptability of a manufacturer's material or equipment, under the requirements as set forth in the Specifications, he should require that representatives of the proposed manufacturer or supplier contact the A/E and request a ruling on the acceptability of the material or equipment in question.

C. No substitution will be considered prior to receipt of Bids unless written request for approval has been received by the CM at least ten (10) days prior to the date for receipt of Bids. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for an evaluation. A statement setting forth changes in other materials, equipment or other portions of the Work, including changes in the Work of other contracts that incorporation of the proposed substitution would require, shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. The A/E's decision of approval or disapproval of a proposed substitution shall be final.
   1. Request shall be accompanied by Division 00 Document "Substitution Request Form (During Procurement)".

D. Requests for product approval shall be submitted on sample form following this Section and emailed to the A/E through the Construction Manager.

E. If the A/E approves a proposed substitution prior to receipt of Bids, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.

F. No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.

1.6 ADDENDA

A. If the A/E determines that an interpretation or clarification is warranted, the A/E shall issue an Addendum through the Construction Manager. All addenda become part of the Contract.

B. A copy of the addenda will be transmitted to each bidder of record, and to each prospective bidder requesting a copy through the printer. Bidders who request and are sent documents by the A/E or CM are considered "Bidders of Record." Copies of addenda will be available for inspection wherever Contract Documents are on file for that purpose.

C. The Owner reserves the right to issue addenda changing, altering, or supplementing the Contract Documents, at any time prior to the time set for receiving bids.

D. Bidders are responsible for acquiring each issued addenda in time to incorporate them into their proposal.

E. In the event delivery of addenda to bidders is delayed, for reasons not the fault of the bidders, the Owner may be requested to allow a reasonable extension of time for the opening of bids, to permit inclusion of such addenda.

F. Each Bidder shall ascertain prior to submitting a Bid that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.

G. If a bidder fails to indicate receipt of each addendum through the last addendum, issued by the A/E, on its Bid Form, the bid of such bidder will be deemed to be responsive only if:
   1. The bid received clearly indicates that the bidder received the addendum, such as where the addendum added another item to be bid upon and the bidder submitted a bid on that item; or
   2. The addendum involves only a matter of form or is one which has either no effect or has merely a trivial or negligible effect on price, quantity, quality, or delivery of the item bid upon.

1.7 ALTERNATES

A. Requested alternates are listed on the Bid Form and are described in detail under Division 01 Section “Alternates”. NOTE: The terms "alternate" and "alternative" are used interchangeably in this Project Manual and on the Drawings.
   1. The price of the Bid for each alternate will be the amount to be added to or deducted from the price of the Base Bid if the Owner selects the alternate.
   2. The Owner may accept alternates in any order, regardless of how they are listed, and determine the lowest responsible bidder on the basis of the sum of the base bid plus any selected alternates.

B. The cost of each alternate shall include omissions, additions, and adjustments of trades as may be necessary because of each change, substitution, addition, or omission.

C. Each bidder shall be responsible for bidding alternates which affect the Work of the base bid he is bidding, regardless of whether listed or not listed on the Bid Form. All requested Alternates shall be bid. If no change in the Base Bid is required, enter “No Change”. If an applicable alternate(s) is not listed on the Bid Form, the bidder shall submit on his letterhead the cost of said alternate(s). No additional monies will be allowed after signing of contract for failure to bid applicable alternates.

D. Bidder shall fill in the applicable blank with an increased or decreased bid amount. The Owner reserves the right to accept or reject any or all bids on Alternates, in whole or in part, and in any order.
   1. If no change in the bid amount is required, indicate “No Change”.
   2. A blank entry or an entry of “No Bid”, “N/A”, or similar entry on any Alternate will cause the bid to be rejected as nonresponsive only if that Alternate is selected.
   3. If an Alternate is not selected, an entry as listed in paragraph hereinbefore on that Alternate will not, by itself, render a bid nonresponsive.

4. In a combined bid, a blank entry, or an entry of “No Bid”, “N/A”, or similar entry on an Alternate will cause the bid to be rejected as nonresponsive only if that Alternate applies to the combined bid and that Alternate is selected.

E. The Owner retains the right to include or exclude work required by alternates for the sums established exercisable within 60 days from and including the date of signing the Contract.

1.8 UNIT PRICES

A. Not applicable.

1.9 BIDDING PROCEDURES

A. Each bid shall be submitted on the Bid Form and sealed in an envelope clearly marked as containing a bid, indicating the Project Name, the bid package (scope), and the date of the bid opening on the envelope.
   1. Any substantial change, alteration, or addition in the wording of the Bid Form may cause a bid to be rejected as not responsible for award of a Contract.
   2. Unless the Bidder withdraws the bid, the Bidder will be required to comply with all requirements of the Contract Documents, regardless of whether the Bidder had actual knowledge of requirements and regardless of any statement or omission made by the Bidder which might indicate a contrary intention.

B. Bids shall be executed upon the Bid Form provided, and relevant blank spaces in the form shall be filled in ink and not in pencil. The signature shall be in longhand and the completed form shall be without interlineation, alteration, or erasure. Each bidder is required to bid every item called for, including alternate and unit costs.
   1. The Bidder shall show all bid amounts in both words and figures. In case of a conflict between the words and figures, the amount shown in words shall govern, where such words are not ambiguous. When the Bidder's intention and the meaning of the words are clear, omissions or misspelling of words will not render the words ambiguous.
   2. Any alteration or erasure of items filled in on the Bid Form shall be initialed by the Bidder.

C. A bid is invalid if it has not been deposited at the designated location prior to the time and date for receipt of bids indicated in the Advertisement for Bids, or prior to extension thereof issued to the bidders.

D. Oral, telephonic, telegraphic, facsimile, or other electronically transmitted bids will not be considered.

E. Bids which are not signed by the individuals making them shall have attached thereto a Power of Attorney evidencing authority to sign the bid in the name of the person for whom it is signed. Bids which are signed for a partnership shall be signed by the partners, or by an attorney-in-fact. If signed by an attorney-in-fact, there shall be attached to the bid a Power of Attorney evidencing authority to sign the bid, executed by the partners.

F. Bids which are signed for a corporation shall have the authorized officer of the corporation manually written below the corporate name, following the word "By ." If such a bid is manually signed by an official other than the president of the corporation, a certified copy of a resolution by the Board of Directors evidencing the authority of such official to sign the bid shall be attached to it. The bid shall also bear the attesting signature of the secretary of the corporation and the impression of the corporate seal.

G. It is the bidder's responsibility to include in his bid costs necessary for a completed and finished job for items of Work bid upon.

H. Submit bids in duplicate with Bid Security and other requested supplemental material attached, properly and completely executed.

I. Proposals for Work shall not include the Indiana Sales Tax for materials to be incorporated into this Project. Owner will provide necessary tax exemption forms.

J. Out-of-state Contractors, which are corporations, shall submit their Certificate of Authority to transact business in the State of Indiana with their bid.

1.10 BID SECURITY

A. Each Bid shall be accompanied by a bid security in the form and amount required if so stipulated in the Advertisement for Bids. The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and will, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty.

B. The Bid Security of bidders, except the 3 selected best qualified in each category, may be returned within 3 days after the opening of bids, at the Owner's, A/E's, or CM's option.

C. Bid Security of the 3 selected qualified bidders may be held by the Owner, following the bid opening, for not more than the maximum number of days stipulated in the Advertisement for Bids, unless the Owner and the bidders agree otherwise; except that in the event a qualified bidder has been awarded the Contract and has failed to execute same and furnish Performance Bond, then the Bid Security of such bidder will be subject to forfeit and the next qualified bidder, if tendered the Contract, will be subject to the same provisions as hereinbefore set forth. Should the award fall to the third qualified bidder because of a default of the previous 2 qualified bidders, the same condition will apply to the third bidder as hereinbefore set forth.

D. The Bid Security of the 3 selected bidders will be returned within 72 hours after the Form of Agreement has been executed.

E. In the event that the Owner should decide to reject all bids, the Bid Securities will be returned within 72 hours following that decision.

F. Bid security is subject to forfeiture if a bid is withdrawn during the time period bids are to be held.

1.11 IDENTIFICATION AND SUBMISSION OF BID PROPOSAL

A. Enclose bids in opaque, sealed envelope with Bid Security and other requested exhibits. The envelope shall have clearly marked in indelible material on its face, the following:
   1. Name of Project
   2. Name of Bidder
   3. Base Bid(s) _____
      (Note: Classification of Work bid upon, e.g., Base Bid "A").
   4. Date and time of closing of bids

B. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation “SEALED BID ENCLOSED” on the face thereof.

C. Bids shall be deposited at the designated location prior to the time and date of receipt of Bids. Bid received after the time and date for receipt of Bids will be returned unopened.

D. The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

1.12 MODIFICATION OR WITHDRAWAL OF BID PROPOSAL

A. A bidder may withdraw his bid prior to the scheduled time for the receipt of bids, without forfeiture of bid security. If a postponement of the time for receiving bids is made, the new time established therein shall be the time within the meaning of this Article.

B. Bids may be modified prior to bid closing time.

C. After pronouncement of the closing of bids, no Contractor may recall his bid.

D. A Bid may not be modified, withdrawn, or concealed by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and each Bidder so agrees in submitting a Bid.

1.13 OPENING OF BIDS

A. The Advertisement to Bid indicates the time and place fixed for opening bids. If stipulated in the Advertisement, the properly identified Bids received on time will be publicly opened and will be read aloud. An abstract of the Bids may be made available to Bidders. Bids received after advertised time will be returned unopened. Bids will be stamped showing the date and time received.

B. Bids received prior to the time of opening will be securely kept, unopened. The officer whose duty it is to open them will decide when the specified time has arrived, and no bid received thereafter will be considered.

C. No responsibility will be attached to an officer for the premature opening of a bid not properly addressed and identified.

D. The amounts involved in alternates requested will be read or disclosed as part of the requirements of this Article. Voluntary alternates will not be read.

E. The Owner reserves the right to delay the time for opening of bids when, in his judgment, it is desirable or necessary.

1.14 DISQUALIFICATION

A. The Owner reserves the right to reject each and every bid, to waive formalities and informalities in bidding, to accept and reject alternates regardless of their order or sequence, unless otherwise called for on the Bid Form. The Owner has the right to reject bids not accompanied by a required bid security or by other data required by the Bidding Documents, or a Bid which is in any way incomplete, or irregular is subject to rejection.

B. The right is reserved to reject a bid where an investigation of the available evidence of information does not satisfy the Owner that the bidder is qualified to properly carry out the terms of the Contract Documents.

C. Bona fide bids in a definite stated amount, without special clauses governing price of labor and material increases, shall be the only ones that will be considered. No contract shall be entered into carrying what is commonly known as an "Escalator Clause."

D. Bids which contain qualifications or conditions that are contrary to the text or intent of the Contract Documents, and which are inserted in the bid for the purpose of limiting or otherwise qualifying the responsibility of the bidder, outside of the text or intent of the Contract Documents, will be subject to disqualification.

E. The Owner also reserves the right to reject the bid of a bidder who has previously failed to perform properly or to complete contracts of a similar nature on time, who is not in a position to perform the contract, or who has habitually, and without just cause neglected the payment of bills or otherwise disregarded his obligations to subcontractors, material suppliers, or employees.

F. The ability of the bidder to obtain or qualify for a performance bond or labor and material payment bond shall not be regarded as a sole test of such bidder's competence or responsibility.

1.15 DETERMINATION OF LOWEST RESPONSIBLE AND RESPONSIVE BID

A. Subject to the right of the Owner to reject each and every bid, the Owner will award the Contract for the Work to the bidder submitting the lowest responsible and responsive bid. In determining which bid is the lowest responsible and responsive bid, the Owner may take into consideration not only the amount of the bid but such of the following criteria as it, in its discretion, deems appropriate and may give such weight thereto as it deems appropriate:
   1. The bidder's financial ability to complete the contract successfully without resort to its Surety;
   2. The bidder's prior experience with similar work on comparable or more complex projects;
   3. The bidder's prior history for the successful and timely completion of projects;
   4. The bidder's equipment and facilities;
   5. The adequacy, in numbers and experience, of the bidder's work force to complete the contract successfully and on time;
   6. The bidder's prior experience on other projects of the owner, including the bidder's demonstrated ability to complete its Work on these projects in accordance with the Contract Documents and on time;
   7. The bidder's compliance with federal, state, and local laws, rules, and regulations including, but not limited to, the prevailing wage law.
   8. Depending upon the type of the work, other essential factors.

B. The failure to submit requested information on a timely basis may result in the determination that the bidder is not responsible.

1.16 PERFORMANCE BOND AND PAYMENT BOND

A. The successful Contractor, awarded the Contract on this Project and prior to the execution of the Form of Agreement, shall be required to provide a Performance Bond and Payment Bond, covering the faithful performance of the Contract and the payment of obligations arising thereunder in a penal sum equal to 100 percent of the amount of the contract sum. Said bonds shall remain in effect for 12 months after date established as start of one year guarantee period. Premiums shall be included and paid for by the Contractor.
   1. Bonds shall be submitted on AIA Doc. A312; or adequate and proper Surety Company form acceptable to Project Owner.
   2. Surety Company shall meet the requirements of C. following.
   3. The bidder shall deliver the required bonds to the Owner not later than the date of execution of the Contract.

B. The bidder shall require the attorney-in-fact who executes the required bonds on behalf of the Surety to affix thereto a certified and current copy of his Power of Attorney indicating the monetary limit of such power.

C. It is required that the Surety Company comply with the following:

1. Insurance and Surety companies shall be deemed qualified and acceptable to the Owner in connection with Contractor bonding and insurance requirements under said contracts only if such companies have a policy holder's rating of "A+", "A", or "A-", a financial category not less than Class XII, and policy holder surplus of not less than $25,000,000.00, all as shown on Best's Key Rating guide, latest edition; provided, however, that the bond furnished is furnished by one of the aforesaid qualified Sureties who is also listed in the Department of the Treasury Circular 570, Volume 41, No. 132 Part V (Federal Register) and is licensed in the State of Indiana and the penal sum of the bond does not extend the underwriting limitation set forth in the subject Circular, unless the excess, if any, is reinsured with the approval of the Owner.

D. Bonds shall be executed and be in force on the date of the execution of the Contract.

E. The bonds shall be made out for not less than 100 percent of entire amounts due under the Contract and shall make provisions to cover additional amounts which may be authorized as provided for under changes in the work; and authorized extensions of time by either making provisions for such additional items in the text of the bond or by the issuance of an amendment or rider to provide for such additional coverage.

1.17 SUBMITTALS

A. The apparent lowest responsible bidder shall provide at the scheduled De-Scope Meeting, after notification of selection for the award of the Contract, furnish to the Owner through the CM in writing:
1. Names of the subcontractors, manufacturers, products, and the suppliers of principal items or systems of materials and equipment proposed for the Work.
   a. If Bidder fails to indicate a specific product or manufacturer, the awardee shall be held to provide the first listed product and manufacturer within the Specifications.
2. Names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.
3. A designation of the Work to be performed with the Bidder's own force.
4. In absence of form within the Project Manual, provide on Bidder's letterhead a listing of the Specifications Sections applicable to the Work of the Contract with the Subcontractor and products to be utilized for each Specification Section indicated.

B. The Bidder will be required to establish to the satisfaction of the A/E, CM, and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

C. Prior to the execution of the Contract, the CM will notify the Bidder in writing if either the Owner, A/E, or CM after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner, A/E, or CM has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, 1) withdraw the Bid or 2) submit an acceptable substitute person or entity with an adjustment in the Base Bid or Alternate Bid to cover the difference in cost occasioned by such substitution. The Owner may accept the adjusted bid price or disqualify the Bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited, if information is submitted within required time.

D. Persons and entities proposed by the Bidder and to whom the Owner, A/E, and CM have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner, A/E, and CM.

E. The apparent lowest responsible bidder shall provide at the scheduled De-Scope Meeting. A Submittal Schedule to the CM per section 00 43 35.

1.18 EXECUTION OF THE CONTRACT

A. Subsequent to the award, and within 10 days after the prescribed Form of Agreement is presented for his signature, the Awardee shall execute and deliver them to the Owner through the CM, in such number of counterparts as the Owner may require.

B. The failure of the Awardee to execute the Contract and to supply the required bonds when the Agreement is presented for signature, or within such extended period as the Owner may grant, based upon reasons determined adequate by the Owner, shall constitute a default; and the Owner may either award the Contract to the next responsible bidder or readvertise for bids. In the event of a default, the Owner shall have the right to declare the amount of the Bid Security forfeited. It shall be a further condition that the Owner shall not collect more on a defaulted bid than the difference between the defaulted bid amount and the bid of the firm to which the award is made, after giving due weight and consideration to alternates accepted.

C. The Contractor shall deliver the required bonds with the executed Contracts to the CM no later than 3 days before the cutoff date established by the Owner for the execution of the Contract. If Work is to be commenced, in response to a letter of intent, prior to execution of Contract, the Contractor shall, prior to commencement of Work, submit evidence satisfactory to the Owner that such bonds will be issued.

D. A Contract shall be considered as awarded when the bidder receives a letter of intent to enter into a Contract or when Contract is received by the Contractor for execution.

E. A Contractor receiving an award will be required to furnish and execute the following within 10 days after the form of the Contract is presented for signature.
   1. Performance Bond and Payment Bond (refer to Article 1.17).
   2. Insurance requirements specified in shall be properly executed on ACORD 25-S, Certificate of Insurance or other acceptable form, in duplicate.
   3. Within 10 days after execution of the Contract, the awarding Contractor shall provide Schedule of Values to the CM for application of progress payment on forms provided by CM for approval. The prices indicated shall be total erected and installed prices with overhead and profit prorated on each item.
   4. Valid Certificate of Qualifications issued by either the Indiana Department of Administration (IC-8-23-10) or Indiana Department of Transportation (IC 4-13-6-4).
   5. Indiana Public Works Law, Indiana Code 5-16-13 submittals:
      a. Drug Testing requirements and plan in accordance with Indiana Code 4-13-18-5 or 4-13-18-6.
      b. E-Verify compliance in compliance with Indiana Code 22-5-1.7.
         1) Execute affidavit affirming the Contractor does not knowingly employ an unauthorized alien and confirming Contractor's enrollment in the E-Verify program.
      c. Insurance certificates for Contractor and subcontractors down to Fourth Tier.
      d. Training Program documents dependent on Contractor and subcontractor size.

1.19 TIME OF COMMENCEMENT AND COMPLETION

A. The Contractor shall commence Work within 10 days after the effective date of the Contract, or when notified in writing to proceed, and shall complete the Work within the time limitations established in the Form of Agreement, these Instructions To Bidders, and in Division 1, Multiple Contract Summary.

1.20 OUT-OF-STATE CONTRACTOR REQUIREMENTS

A. Out-of-state Contractors, which are corporations, shall obtain a Certificate of Authority from the Secretary of State, State of Indiana, Indianapolis, Indiana prior to transacting business in the State of Indiana in accordance with Indiana Code 23-1-49-1.

B. Proof of payment by out-of-state Contractors of Indiana Gross Income Tax, as provided in Chapter 370, Section 2, Subsection E, Acts of 1947, shall be submitted before final payment will be approved.

C. If the out-of-state Contractor is not a corporation or is a corporation but does not obtain authorization to do business in the State of Indiana, taxes will be withheld by the Owner.

1.21 NON-DISCRIMINATION

A. The Contractor hereby assures that it will comply with all Federal and Indiana Civil Rights laws including, but not limited to, I.C. 22-9-1-10. The Contractor by submitting a bid certifies and agrees that if he is the successful bidder and is awarded and executes a Contract, he and his subcontractor or subcontractors, if any, shall not discriminate against any employee or applicant for employment, to be employed in the performance of this Contract, with respect said employee's or applicant's hire, tenure, terms, conditions, or privileges employment or any matter directly or indirectly related to employment because said employee's or applicant's race, color, religion, sex, age, handicap, national origin, or ancestry. Also, in this regard and pursuant to I.C. 36-1-12-15(b), the Contractor agrees that the provisions of I.C. 5-16-6-1 are hereby incorporated by reference into these Contract Documents as if they were fully set forth herein and shall be binding upon the Contractor. Breach of this covenant may be regarded as a material breach of the Contract.

1.22 NO-LIEN CONTRACTS

A. The Owner and Contractors shall agree that no lien shall attach to the real estate by the Contractor, subcontractor, mechanics, journeymen, laborers, or persons performing labor upon or furnishing materials or machinery for the Work provided for under the terms of this Contract, and for the purpose of complying with the provisions of Chapter 116 of the Acts of the Indiana General Assembly for the year 1909; Chapter 41 of said Acts of 1911; Chapter 50 of said Acts 1915; Chapter 56 of said Acts 1921; Chapter 187 of said Acts 1943; Chapter 76 of said Acts of 1963; Section 1, P.L. 424 of said Acts 1971; the parties agree that this Contract may be recorded with the Recorder of County where project is located.

1.23 INDIANA BIDDER REQUIREMENTS

A. Each Bidder and subcontractors included in submitted bid shall have mandatory drug testing requirements and testing plan covering all employees of the bidder and subcontractors who will perform work on the public work project. Plan shall meet or exceed the requirements set forth in IC 4-13-18-5 or IC 4-13-18-6.

B. Bidder shall enroll and verify work eligibility status of all employees through the E-Verify Program pursuant to IC 22-54-1.7. Separate reporting requirements for all contractors and subcontractors is required.

C. Comply with Indiana Public Works Law pursuant to Indiana Code 5-16-13.
   1. Refer to Division 01, Section “Summary” for additional detailed requirements.

END OF DOCUMENT 00 21 13

DOCUMENT 00 41 16 - CONTRACTOR'S BID FOR PUBLIC WORKS – FORM 96

PART I

(To be completed for all bids. Please type or print)

Date: _____

1. Governmental Unit (Owner): _____
2. County: _____
3. Bidder (Firm): _____

   Address: _____

   City/State/Zip: _____
4. Telephone Number: _____
5. Agent of Bidder (if applicable): _____

Pursuant to notices given, the undersigned offers to furnish labor and materials necessary to complete the public works project of Center Grove High School – Parking Lot Extension for Center Grove Community School Corporation, 4800 Stones Crossing Road, Greenwood, Indiana 46143 (Governmental Unit) in accordance with plans and specifications prepared by Fanning/Howey Associates, Inc., Indianapolis, Indiana and dated May 30, 2025, for the sum of:

_____ $_____

(sum in words) (sum in numbers)

PROPOSAL TIME

Bidder agrees that this Bid shall remain in force for a period of sixty (60) consecutive calendar days from the due date, and Bids may be accepted or rejected during this period. Bids not accepted within said 60 consecutive calendar days shall be deemed rejected.

The undersigned acknowledges receipt of the following Addenda:

Receipt of Addenda No(s). _____

Attended pre-bid conference	YES	NO
Has visited the jobsite	YES	NO

The undersigned further agrees to furnish a bond or certified check with this Bid for an amount specified in the notice of the letting. If alternate bids apply, the undersigned submits a proposal for each in accordance with the notice. Any addenda attached will be specifically referenced at the applicable page.

If additional units of material included in the contract are needed, the cost of units must be the same as that shown in the original contract if accepted by the governmental unit. If the bid is to be awarded on a unit basis, the itemization of the units shall be shown on a separate attachment.

The contractor and his subcontractors, if any, shall not discriminate against or intimidate any employee, or applicant for employment, to be employed in the performance of this contract, with respect to any matter directly or indirectly related to employment because of race, religion, color, sex, national origin or ancestry. Breach of this covenant may be regarded as a material breach of the contract.

CERTIFICATION OF USE OF UNITED STATES STEEL PRODUCTS
(If applicable)

I, the undersigned Bidder or agent as a Contractor on a public works project, understand my statutory obligation to use steel products made in the United States (I.C. 5-16-8-2). I hereby certify that I and all subcontractors employed by me for this Project will use U.S. steel products on this Project if awarded. I understand that violations hereunder may result in forfeiture of contractual payments.

ACCEPTANCE

The above bid is accepted this _____ day of _____, _____, subject to the following conditions: _____

_____

Contracting Authority Members:

_____ _____

_____ _____

_____ _____

PART II

(For projects of $300,000 or more – IC 36-1-12-4)

Governmental Unit: _____

Bidder (Firm): _____

Date: _____

These statements to be submitted under oath by each Bidder with and as a part of his bid. Attach additional pages for each section as needed.

SECTION I - EXPERIENCE QUESTIONNAIRE

1. What public works projects has your organization completed for the period of one (1) year prior to the date of the current bid?

Contract Amount	Class of Work	Completion Date	Name and Address of Owner

2. What public works projects are now in process of construction by your organization?

Contract Amount	Class of Work	Expected Completed Date	Name and Address of Owner

3. Have you ever failed to complete anywork awarded to you?_____If so, where and why?

_____

_____

_____

_____

4. List references from private firms for which you have performed work.

_____

_____

_____

_____

_____

SECTION II - PLAN AND EQUIPMENT QUESTIONNAIRE

1. Explain your plan or layout for performing proposed Work. (Examples could include a narrative of when you could begin work, complete the project, number of workers, etc. and any other information which you believe would enable the governmental unit to consider your bid.)

2. Please list the names and addresses of all subcontractors (i.e. persons or firms outside your own firm who have performed part of the work) that you have used on public works projects during the past five (5) years along with a brief description of the work done by each subcontractor.

3. If you intend to sublet any portion of the Work, state the name and address of each subcontractor, equipment to be used by the subcontractor, and whether you will require a bond. However, if you are unable to currently provide a listing, please understand a listing must be provided prior to contract approval. Until the completion of the proposed project, you are under a continuing obligation to immediately notify all governmental unit in the event that you subsequently determine that you will use a subcontractor on the proposed project.

4. What equipment do you have available to use for the proposed project? Any equipment to be used by subcontractors may also be required to be listed by the governmental unit.

5. Have you entered into contracts or received offers for all materials which substantiate the prices used in preparing your proposal? If not, please explain the rationale used which would corroborate the prices listed.

SECTION III CONTRACTOR'S FINANCIAL STATEMENT

Attachment of Bidder's financial statement is mandatory. Any Bid submitted without said financial statement as required by statute shall thereby be rendered invalid. The financial statement provided hereunder to the governing body awarding the Contract must be specific enough in detail so that said governing body can make a proper determination of the Bidder's capability for completing the Project if awarded.

SECTION IV – CONTRACTOR'S NON-COLLUSION AFFIDAVIT

The undersigned bidder or agent, being duly sworn on oath, says that he has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by him, entered into any combination, collusion or agreement with any person relative to the price to be bid by anyone at such letting nor to prevent any person from bidding nor to include anyone to refrain from bidding, and that this bid is made without reference to any other bid and without any agreement, understanding or combination with any other person in reference to such bidding.

He further says that no person or persons, firms or corporation has, have or will receive directly or indirectly, any rebate, fee, gift, commission or thing of value on account of such sale.

SECTION V OATH AND AFFIRMATION

I HEREBY AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE FACTS AND INFORMATION CONTAINED IN THE FOREGOING BID FOR PUBLIC WORKS ARE TRUE AND CORRECT.

Dated at_____this_____day of_____, _____

_____
(Name of Organization)

By _____

_____
(Title of Person Signing)

ACKNOWLEDGEMENT

STATE OF_____)
)SS:
COUNTY OF_____)

Before me, a Notary Public, personally appeared the above-named _____

and swore that the statements contained in the foregoing document are true and correct.

Subscribed and sworn to before me this_____day of_____, 20_____.

_____
Notary Public

My Commission Expires: _____

County of Residence: _____

BIDDER REMINDER LIST TO BE COMPLETED AND INCLUDED
IN BID PACKAGE FOR REVIEW AT BID OPENING

	YES	NO
Have you indicated the Project Name, Bid Category No., and Description on the outside of your Bid envelope?		
Have you included the Supplementary Bid Form and completed all sections?		
Have you properly and completely executed the Form No. 96 (Format) Bid Form (Section 004116)?		
Have you included and completed the AIA Document A305.		
Have you included your company's Financial Statement (Part II, Sect. III)?		
Note that the Non-Collusion Affidavit is part of the new Bid Form and is to be notarized.		

NOTE: IF ANY OF THE REQUIRED BIDDING DOCUMENTS ARE NOT INCLUDED, DATED, PROPERLY EXECUTED, THE CONTRACTOR'S BID MAY NOT BE ACCEPTED.

END OF DOCUMENT 00 41 16

SECTION 00 42 00 - SUPPLEMENTARY BID FORM

FOR (PROJECT): Center Grove High School – Parking Lot Extension

TO (OWNER): Center Grove Community School Corporation
Education Services Center
4800 West Stones Crossing Road
Greenwood, IN. 46143
Attn: Jason Taylor, Assistant Superintendent, Center Grove School Corporation

BY (CONTRACTOR): Company Name: _____

Address Line 1: _____

Address Line 2: _____

Person Submitting and Title: _____

Phone Number: _____

Pursuant to notices given, the undersigned proposes to complete the Work of the Project according to Bidding Documents prepared by Fanning/Howey, 350 East New York Street, Suite 300, Indianapolis, Indiana 46204, for the sum of:

Center Grove High School – Parking Lot Extension

BID PACKAGE: _____

BASE BID:

_____ $ _____
(Amount in words) *prevails in case of irregularity (numbers)

ALLOWANCES:

The undersigned acknowledges that the base bid amount includes the following allowances applicable to its Contract in accordance with Division 01 Section “Allowances”:

BP-01 Allowance No. 1 – $200,000.00 Initial:_____ (Earthwork and Paving)
BP-02 Allowance No. 2 – $40,000.00 Initial:_____ (Electrical and Technology)

NAMES AND EXPERIENCE:

List names of the following and the years of experience in work comparable to the size and scope of Work of this Project. It is expected that those listed below will be the daily onsite representation and emergency contact for successful bidder.

Bidding Contractor’s Job Superintendent:_____

Years Experience:_____

ALTERNATE BIDS:

The undersigned also proposes to furnish or omit all labor and material necessary to complete work as required by the “Alternate Bids”, as provide for in the drawings and specifications as follows:

Alternate #1 – Structural Foundations for Canopy

_____ Add $_____
(Amount in Words) *prevails in case of irregularity (numbers)

Alternate #2 – Canopy

_____ Add $_____
(Amount in Words) *prevails in case of irregularity (numbers)

Alternate #3 – Polymer Underground Detention

_____Deduct $_____
(Amount in Words) *prevails in case of irregularity (numbers)

ADDENDA:

The undersigned acknowledges receipt of the following Addenda and agrees that this proposal includes all items mentioned in such Addenda:

No. _____ Date _____

No. _____ Date _____

No. _____ Date _____

No. _____ Date _____

No. _____ Date _____

COMPLETION OF WORK:

The undersigned guarantees, if awarded the contract, to complete their scope of Work by the milestone dates set forth in the published project schedule.

Attended Pre-bid Conference: YES NO

Has visited the Jobsite: YES NO

BIDDER’S SIGNATURE:

IN TESTIMONY WHEREOF, the Bidder (an individual) has hereunto set his hand this

_____day of _____, 202__.

_____
(Individual)

IN TESTIMONY WHEREOF, the Bidder (a firm) have hereunto set their hands this

_____day of _____, 202__.

Firm Name:_____

By _____

By _____

IN TESTIMONY WHEREOF, the Bidder (a Corporation) has caused this proposal to be signed by its President and Secretary and affixed its corporate seal this

_____day of _____, 202__.

Name of Corporation:_____

President _____

Secretary _____

OATH AND AFFIRMATION:

I affirm under the penalties of perjury that the foregoing facts and information are true and correct to the best of my knowledge and belief.

Subscribed and sworn to before me by _____

this _____day of _____, 202__.

My Commission expires _____.

_____
Notary Public

END OF SECTION 00 42 00

SECTION 01 23 00 - ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on Bid Form for certain work defined in Bidding Requirements that may be added to or deducted from Base Bid amount if Owner decides to accept a corresponding change either in quantity of construction to be completed or in products, materials, equipment, systems, or installation methods described in Contract Documents.
   1. The cost or credit for each alternate is net addition to or deduction from Contract Sum to incorporate alternate into Work. No other adjustments are made to Contract Sum.
   2. Alternates described in this Section are part of Work only if enumerated in Agreement.

1.3 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of alternate into Project.
   1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of Contract, notify each entity involved, in writing, of status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

C. Execute accepted alternates under same conditions as other work of Contract.

D. Schedule: A Schedule of Alternates is included at end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

Alternate No. 1: Provide Structural Foundations for Canopy

Alternate No. 2: Provide Canopy per 10 73 26 Walkway Coverings

Alternate No. 3: Provide polymer underground detention system sized equivalently and of sufficient strength to accommodate bus traffic in lieu of Storm Trap concrete chamber system.
(Engineer and Drainage Board Approval Required)

END OF SECTION 01 23 00

No.	Drawing/Spec Reference	Question/Issue	Response
1	N/A	Can Allowance funds be used to cover exclation costs?	Exclation costs must be estimated and factored into the bid price. This is a Lump Sum Bid.
2	Exhibit E	Are we doing soil stabilization?	Soil stabilization has not been designed into the project, any unsuitble soils will be determined by Owner's Engineering Testing Consultant
3	01 12 00	Does the owner want to retain soil on site?	No, all excess spoils need to be removed from the site as part of the base bid.
4	01 12 00	Is site fence required and will it have to be reconfigured?	Yes site fence is required as depicted on Exhibit B Site Logistics, and will need to be reconfigured as Phases are turned over.
5	N/A	How does a contractor obtain the CAD files?	Contractors will need to sign the Civil Engineer's Data Waiver, email AECOM Hunt and we will forward the waiver and the design team will supply the CAD files.
6	N/A	Is binder and temporary striping acceptable to turn phases over to the owner for temporary use, with final paving to be completed at a later date?	Yes at no additional cost to the owner.
7	33 46 00	What is the process for backfilling the underground detention structures?	Contractor must follow manufacturers recommendations and applicable specifications
8	G105	Detail A for standard duty pavement shows using InDOT Type A 9.5 mm surface, Detail B for the overlay pavement shows #11 Surface with PG76-22. Shouldn't Detail B also be Type A 9.5 mm?	Yes. Detail B has been updated.
9	G105	Details do not show the milling depth.. are we to mill 1.5" for the 1.5" surface placement?	Yes, 1.5" surface mill. Demolition Plan keynotes updated.
10	G105	Detail F shows 22" stand up curb - common sizes are 20" and 18" - can one of those be used? 20" would allow for trimming subgrade appx 1.5", would this be acceptable?	Stand up curb changed to 20".
11	G105	Detail F shows 4" granular material under the curb? Is the owner really wanting a trench that will hold water underneath all of the curbs? With the current 22" curb, the bottom of this stone will be 7.5" below the pavement subgrade elevations.	Keep 4" granular base.
12	G105	Detail E - would it be acceptable to use Detail F curb for the monolithic and dowel the sidewalk to it? or will we have to place as shown?	No, place monolithic walk as shown.
13	G105	Detail E shows 3.36" thickness for the sidewalk - is this correct?	No, detail has been updated to show 4" thickness.
14	G105	Detail G - for the Expansion Joint shows 3/4" dowels - this seems a little oversized for 4" (or even 3.36") sidewalk.	Dowels size changed to 1/2".
15	E1.01	VIP Parking Lot entrance requires gate arms on each side with 120 power and a fiber feed, correct?	Correct, there are new gate operators at the VIP lot entrance that will require power and data to each operator.
16	E1.01	Entrance off of Pennington requires a gate arm with 120 power and fiber, correct?	Correct, there will be a gate arm on the entrance from Pennington road heading to the north that will require 120 and fiber.
17	E1.01	The existing light on the radius in the trustees yard will need to be relocated also, due to a conflict with the new storm sewer connecting to the structure in the grass, correct?	Correct, the light pole on the radius is in conflict with the new storm sewer and will be required to be relocated.
18	E1.01	All gate are operators will need to have a fiber run in addition to 120 power.	Correct, all gate arms will require a fiber feed in addition to 120 power.
19	E1.01	Are poured in place bases acceptable for the light pole bases?	Yes, they will have to be finished with the sono tube removed and finished.
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TLF, Inc.

3901 West 86th Street
Indianapolis, IN 46268
Phone (317) 334-1500; Fax (317) 334-1552

Drainage Report

For
Center Grove Community School Corporation
2717 South Morgantown Road
Greenwood, IN 46143

Parking Lot Expansion

TLF Project #2024-367

May 30, 2025

Prepared by:
Chad Kincaid P.E.
Jimmy Laureano

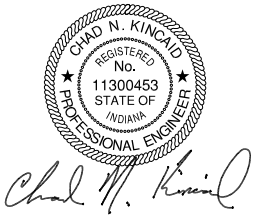


Table of Contents

1.0 Overview:

The site location is on the Center Grove High School campus at 2717 S Morgantown Rd, Greenwood, IN 46143 (see exhibit A1). A portion of the project involves asphalt maintenance with a section of parking lot having its surface milled then resurface and an asphalt drive being seal coated. The other portion of the project is a new parking lot with sidewalks. There will be two underground storage units and two mechanical BMPs.

2.0 Existing Conditions:

The 151-acre school campus Storm Water Master Plan was developed in 2009, dividing the site into 7 watershed areas A through G which eventually drain to Honey Creek. The Master Plan has undergone modifications including in 2015 and 2016 with parking lot additions and modifications in the high school (TLF projects 2015-837 and 2016-050; See exhibit A6). In 2015, watershed “D” (specifically sub watershed “D1”) was expanded, encompassing Pennington drive area west of the practice fields. Watershed “D” drains to a 24” CMP culvert that passes underneath Morgantown Road. The 2016 project changed existing asphalt pavement to roof top in sub watershed “F2” and these areas are conveyed by storm sewer and drain to the north pond by the Elementary School. Refer to Appendix E for previous reports.

The existing soil consists of Fox loam-Urban land complex and the site is not in a flood zone (See exhibit A2 and A4). NOAA rainfall data that was used (See exhibit A3).

Watershed “D” generally sheet drains southwest. It discharges in the east Right-of-Way of Morgantown Road near the Trustee Building, please see exhibit A6.The majority of this project is within Watershed “D”.

Watershed “F” encompasses the Elementary, Middle school areas to the north and a portion of the High School campus including an area surrounding the building. There is a masonry retaining wall with concrete walk on the north side adjacent to the Athletic Center. There is a 24” RCP storm sewer parallel to the building and flows east. A portion of this project is within Watershed “F”.

3.0 Proposed Conditions:

The project consists of installing a new parking lot with sidewalks, resurfacing existing parking, and seal coating an existing drive. New stormwater inlets, manholes, pipes, underground detention, and stormwater quality units will be added. The project area is approximately 6.91 acres, with 4.52 acres in Watershed “D” and 2.39 acres in Watershed “F”, see exhibit A5. The required detention calculations are based off the allowable peak discharge summarized below:

Project Area (A) - South Watershed “D”	4.52 acres
10 yr allowable release rate (A* 0.1)	0.45 cfs
100 yr allowable release rate (A* 0.3)	1.36 cfs

Project Area (B) - North Watershed “F”	2.39 acres
10 yr allowable release rate (A* 0.1)	0.24 cfs
100 yr allowable release rate (A* 0.3)	0.72 cfs

Two underground detention basins with outlet structures are proposed. The south project portion within Watershed “D” will discharge from the detention with a 24” storm pipe to an outlet control structure, to a 12” storm pipe, and will connect to an existing downstream 15” storm pipe. There are rectangular openings in the outlet control structure of 2” x 3.5” for 10-yr storm event and 3” x 7.5” for the 100-yr event and were sized for such allowable discharge requirements. The north project portion within Watershed “F” will discharge from the detention with a 24” storm pipe to an outlet control structure, to a 12” storm pipe, and will connect to an existing downstream 24” storm pipe. There are rectangular openings in the outlet control structure of 1” x 3.25” for 10-yr storm event and 3” x 3.5” for the 100-yr event and were sized for such allowable discharge requirements. Calculations for discharge rates are as follows:

Project Area (A) – South Watershed “D”			
Return Period	Stage (ft)	Release rate (cfs)	Storage Used (cf)
2 yr	770.01	0.35	27,003
10 yr	771.23	0.44	41,271
100 yr	772.58	1.33	57,111

Project Area (B) – North Watershed “F”			
Return Period	Stage (ft)	Release rate (cfs)	Storage Used (cf)
2 yr	764.98	0.18	14,339
10 yr	766.46	0.22	21,951
100 yr	768.08	0.68	30,330

The detention will result in reduced discharge and will not affect downstream. The upstream area runoffs will be conveyed to the proposed storm sewer structures and will flow from structures through proposed pipes to the underground detention basin.

4.0 Storm Sewer:

The storm sewers were sized using the 10-year storm event and the Rational Method. Calculations for storm sewers are shown in exhibit C2.

5.0 Stormwater Quality:

The water quality volumes calculated are:

Project Area (A) – South Watershed "D"
From 1" Rain Depth Hydrograph = 12.30 cfs – See appendix D

Project Area (B) – North Watershed "F"
From 1" Rain Depth Hydrograph = 7.58 CFS – See appendix D

This project is utilizing flow through BMPs. Per the Johnson County Standard the 10-yr storm flow entering in the BMP is used if it's larger than the calculated WQv.

Project Area (A) – South Watershed "D"
WQv = 12.30
10-yr flow (prior to detention) = 23.20 cfs – See appendix B
Using the larger 10yr flow and the chart below the unit selected is the StormTrap SSet-12

Project Area (B) – North Watershed "F"
WQv = 7.58 cfs
10-yr flow (prior to detention) = 12.27 cfs – See appendix B
Using the larger 10yr flow and the chart below the unit selected is the StormTrap SSet-10

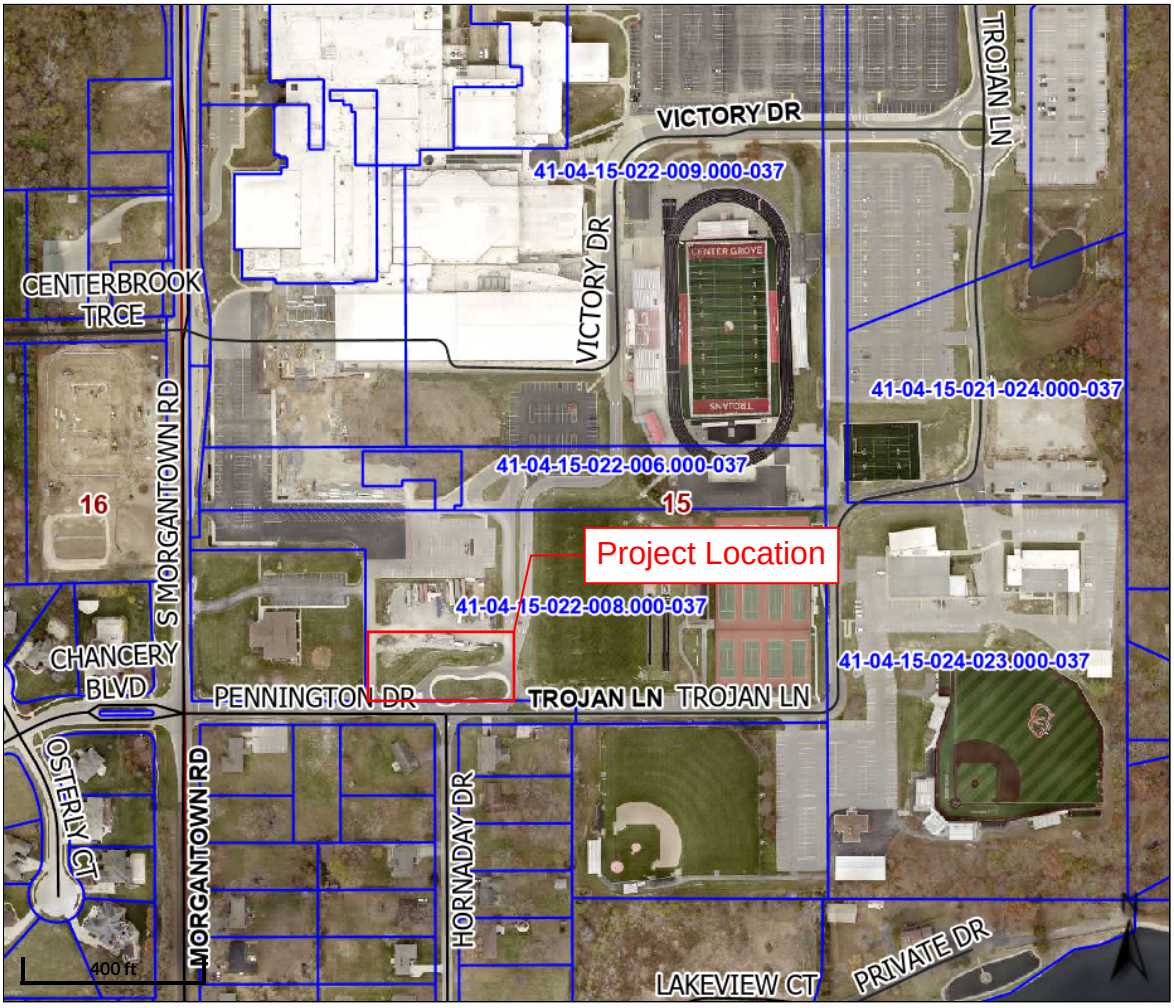
Table 1. Approved Rate Based SQUs

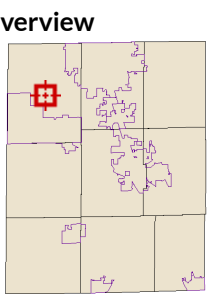
Manufactured SQU	SQU System Model	Max Treatment Flow (cfs)	Max 10-yr On-Line Flow Rate (cfs)	Cleanout Depth (Inches)
StormTrap StormSettler	SSet-3	0.79	1.58	7
	SSet-4	1.41	2.83	7
	SSet-5	2.19	4.4	7
	SSet-6	3.17	6.36	7
	SSet-7	4.3	8.6	7
	SSet-8	5.63	11.26	7
	SSet-10	8.78	17.56	7
	SSet-12	12.7	25.4	7
Upstream Technologies Inc. SAFL Baffle	60 x36	0.27	2.74	18
	72 x 36	0.39	3.96	18
	84 x 46	0.53	5.38	18
	96 x 46	0.69	7.00	18
	108 x 46	0.87	8.83	18
	120 x 57	1.08	10.96	18

Beacon™ Johnson County, IN

Project Location

Exhibit A-1





Legend

- Cities
- Parcels
- Sections

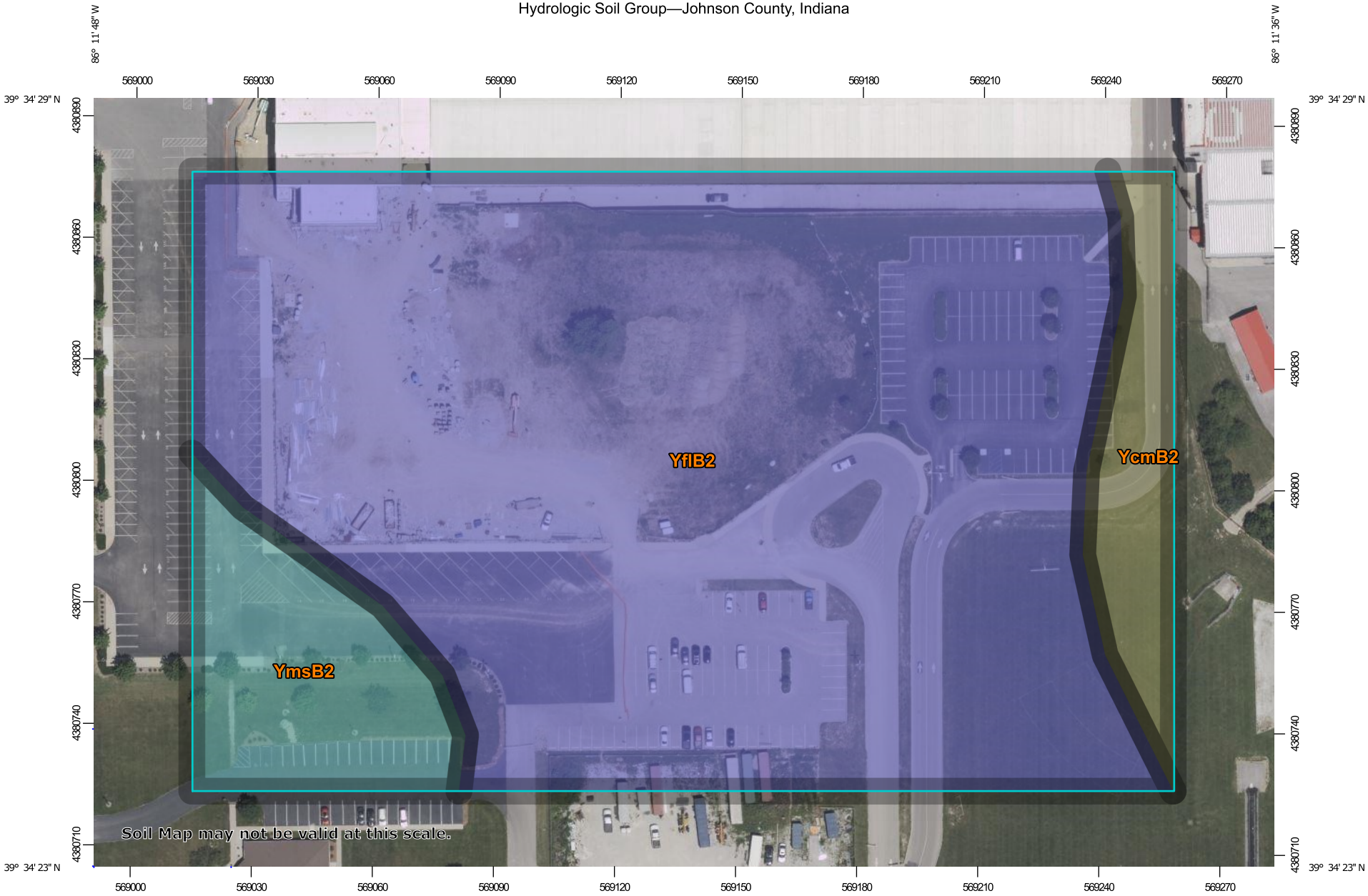
Roads

- ACCESS RAMP
- HIGHWAY
- INTERSTATE
- LOCAL
- MAJOR ARTERIAL
- MAJOR COLLECTOR
- MINOR ARTERIAL
- MINOR COLLECTOR
- PRIVATE ROAD

Parcel ID	41-04-16-012-039.000-037	**Alternate ID**	41-04-16-012-039.000-037	**Owner Address**	SATKAMP JACK G & DIANA M 5301 W STONES CROSSING RD GREENWOOD, IN 46143
Sec/Twp/Rng	n/a	**Class**	RESIDENTIAL - 1 Family Dwell - Unplatted (0 to 9.99 Acres)		
Property Address	5301 W STONES CROSSING RD GREENWOOD	**Acreage**	5.0		
District	WHITE RIVER TWP-BFPD				
Brief Tax Description	NW NE S16 T13 R3 (Note: Not to be used on legal documents)				

Date created: 4/4/2025
Last Data Uploaded: 4/4/2025 5:19:56 AM

Developed by SCHNEIDER GEOSPATIAL



Map Scale: 1:1,340 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

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

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

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

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

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

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

Soil Survey Area: Johnson County, Indiana
Survey Area Data: Version 32, Aug 26, 2024

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

Date(s) aerial images were photographed: Mar 1, 2024—Jul 1, 2024

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
YcmB2	Crosby-Urban land-Miami silt loams complex, 2 to 4 percent slopes, eroded	C/D	0.6	6.4%
YflB2	Fox loam-Urban land complex, 2 to 6 percent slopes, eroded	B	7.7	83.8%
YmsB2	Miami silt loam-Urban land complex, 2 to 6 percent slopes, eroded	C	0.9	9.8%
Totals for Area of Interest			**9.2**	**100.0%**

Description

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

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

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

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

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

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

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

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

NOAA Atlas 14, Volume 2, Version 3
Location name: Greenwood, Indiana, USA*
Latitude: 39.5759°, Longitude: -86.1946°
Elevation: 758 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

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

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.378** (0.337-0.425)	**0.449** (0.401-0.506)	**0.538** (0.480-0.606)	**0.609** (0.540-0.685)	**0.701** (0.617-0.789)	**0.773** (0.676-0.872)	**0.843** (0.730-0.954)	**0.917** (0.787-1.04)	**1.02** (0.857-1.16)	**1.09** (0.907-1.26)
10-min	**0.587** (0.524-0.661)	**0.702** (0.626-0.790)	**0.837** (0.746-0.942)	**0.940** (0.834-1.06)	**1.07** (0.944-1.21)	**1.17** (1.02-1.32)	**1.27** (1.10-1.44)	**1.37** (1.17-1.56)	**1.50** (1.26-1.71)	**1.59** (1.32-1.83)
15-min	**0.719** (0.643-0.810)	**0.858** (0.766-0.966)	**1.03** (0.915-1.16)	**1.16** (1.03-1.30)	**1.32** (1.17-1.49)	**1.45** (1.27-1.64)	**1.58** (1.36-1.78)	**1.70** (1.46-1.94)	**1.87** (1.57-2.13)	**1.98** (1.65-2.29)
30-min	**0.952** (0.850-1.07)	**1.15** (1.02-1.29)	**1.41** (1.25-1.58)	**1.61** (1.42-1.80)	**1.87** (1.65-2.10)	**2.07** (1.81-2.34)	**2.28** (1.97-2.58)	**2.49** (2.13-2.83)	**2.76** (2.33-3.16)	**2.98** (2.47-3.43)
60-min	**1.16** (1.04-1.31)	**1.41** (1.26-1.59)	**1.76** (1.57-1.99)	**2.04** (1.81-2.30)	**2.42** (2.14-2.73)	**2.73** (2.39-3.08)	**3.04** (2.64-3.44)	**3.37** (2.89-3.83)	**3.82** (3.22-4.37)	**4.18** (3.47-4.82)
2-hr	**1.36** (1.22-1.54)	**1.65** (1.47-1.86)	**2.07** (1.85-2.33)	**2.41** (2.14-2.71)	**2.89** (2.54-3.24)	**3.28** (2.86-3.68)	**3.69** (3.18-4.16)	**4.13** (3.51-4.65)	**4.74** (3.96-5.38)	**5.25** (4.30-6.00)
3-hr	**1.44** (1.29-1.63)	**1.74** (1.56-1.97)	**2.20** (1.96-2.48)	**2.56** (2.28-2.89)	**3.09** (2.72-3.47)	**3.52** (3.07-3.96)	**3.99** (3.43-4.49)	**4.48** (3.80-5.06)	**5.18** (4.30-5.90)	**5.76** (4.68-6.61)
6-hr	**1.71** (1.53-1.94)	**2.07** (1.85-2.34)	**2.61** (2.33-2.95)	**3.06** (2.71-3.44)	**3.70** (3.24-4.16)	**4.23** (3.68-4.76)	**4.81** (4.12-5.41)	**5.42** (4.57-6.12)	**6.32** (5.20-7.17)	**7.05** (5.68-8.05)
12-hr	**2.05** (1.84-2.30)	**2.47** (2.22-2.78)	**3.06** (2.75-3.45)	**3.56** (3.18-3.99)	**4.24** (3.76-4.75)	**4.81** (4.22-5.38)	**5.41** (4.69-6.06)	**6.04** (5.16-6.79)	**6.93** (5.80-7.84)	**7.64** (6.29-8.71)
24-hr	**2.44** (2.25-2.66)	**2.92** (2.70-3.19)	**3.58** (3.30-3.90)	**4.09** (3.77-4.46)	**4.79** (4.39-5.22)	**5.34** (4.87-5.82)	**5.90** (5.35-6.44)	**6.46** (5.83-7.07)	**7.23** (6.46-7.93)	**7.82** (6.94-8.80)
2-day	**2.86** (2.65-3.08)	**3.42** (3.17-3.69)	**4.17** (3.86-4.50)	**4.75** (4.39-5.13)	**5.53** (5.09-5.98)	**6.15** (5.63-6.64)	**6.77** (6.17-7.32)	**7.40** (6.71-8.02)	**8.24** (7.40-8.96)	**8.89** (7.93-9.71)
3-day	**3.06** (2.86-3.28)	**3.66** (3.41-3.92)	**4.43** (4.14-4.75)	**5.04** (4.69-5.39)	**5.84** (5.43-6.26)	**6.48** (6.00-6.94)	**7.12** (6.56-7.64)	**7.77** (7.13-8.34)	**8.63** (7.87-9.29)	**9.30** (8.42-10.0)
4-day	**3.27** (3.07-3.48)	**3.89** (3.66-4.15)	**4.69** (4.41-5.00)	**5.32** (4.99-5.66)	**6.16** (5.76-6.55)	**6.81** (6.36-7.24)	**7.47** (6.96-7.95)	**8.14** (7.55-8.66)	**9.03** (8.33-9.62)	**9.71** (8.91-10.4)
7-day	**3.87** (3.62-4.13)	**4.59** (4.31-4.90)	**5.51** (5.16-5.88)	**6.24** (5.84-6.65)	**7.23** (6.74-7.70)	**8.01** (7.45-8.52)	**8.80** (8.16-9.37)	**9.60** (8.88-10.2)	**10.7** (9.83-11.4)	**11.5** (10.6-12.3)
10-day	**4.40** (4.14-4.70)	**5.23** (4.92-5.58)	**6.26** (5.88-6.68)	**7.06** (6.64-7.53)	**8.16** (7.65-8.69)	**9.02** (8.43-9.61)	**9.89** (9.22-10.5)	**10.8** (10.0-11.5)	**12.0** (11.0-12.8)	**12.9** (11.8-13.8)
20-day	**6.03** (5.69-6.41)	**7.13** (6.73-7.58)	**8.41** (7.93-8.93)	**9.40** (8.85-9.98)	**10.7** (10.1-11.4)	**11.7** (11.0-12.4)	**12.7** (11.9-13.5)	**13.7** (12.8-14.6)	**15.0** (14.0-16.0)	**16.0** (14.8-17.0)
30-day	**7.42** (7.01-7.86)	**8.74** (8.26-9.25)	**10.2** (9.60-10.8)	**11.3** (10.6-11.9)	**12.7** (12.0-13.5)	**13.8** (13.0-14.6)	**14.9** (14.0-15.8)	**15.9** (14.9-16.9)	**17.3** (16.1-18.4)	**18.3** (17.0-19.5)
45-day	**9.40** (8.89-9.93)	**11.0** (10.4-11.7)	**12.7** (12.0-13.4)	**14.0** (13.2-14.8)	**15.7** (14.8-16.5)	**16.9** (15.9-17.9)	**18.1** (17.0-19.1)	**19.3** (18.0-20.3)	**20.7** (19.3-21.9)	**21.8** (20.2-23.0)
60-day	**11.2** (10.6-11.9)	**13.2** (12.4-13.9)	**15.1** (14.3-15.9)	**16.6** (15.6-17.5)	**18.5** (17.4-19.5)	**19.9** (18.7-21.0)	**21.2** (20.0-22.4)	**22.5** (21.1-23.8)	**24.2** (22.6-25.6)	**25.4** (23.7-26.9)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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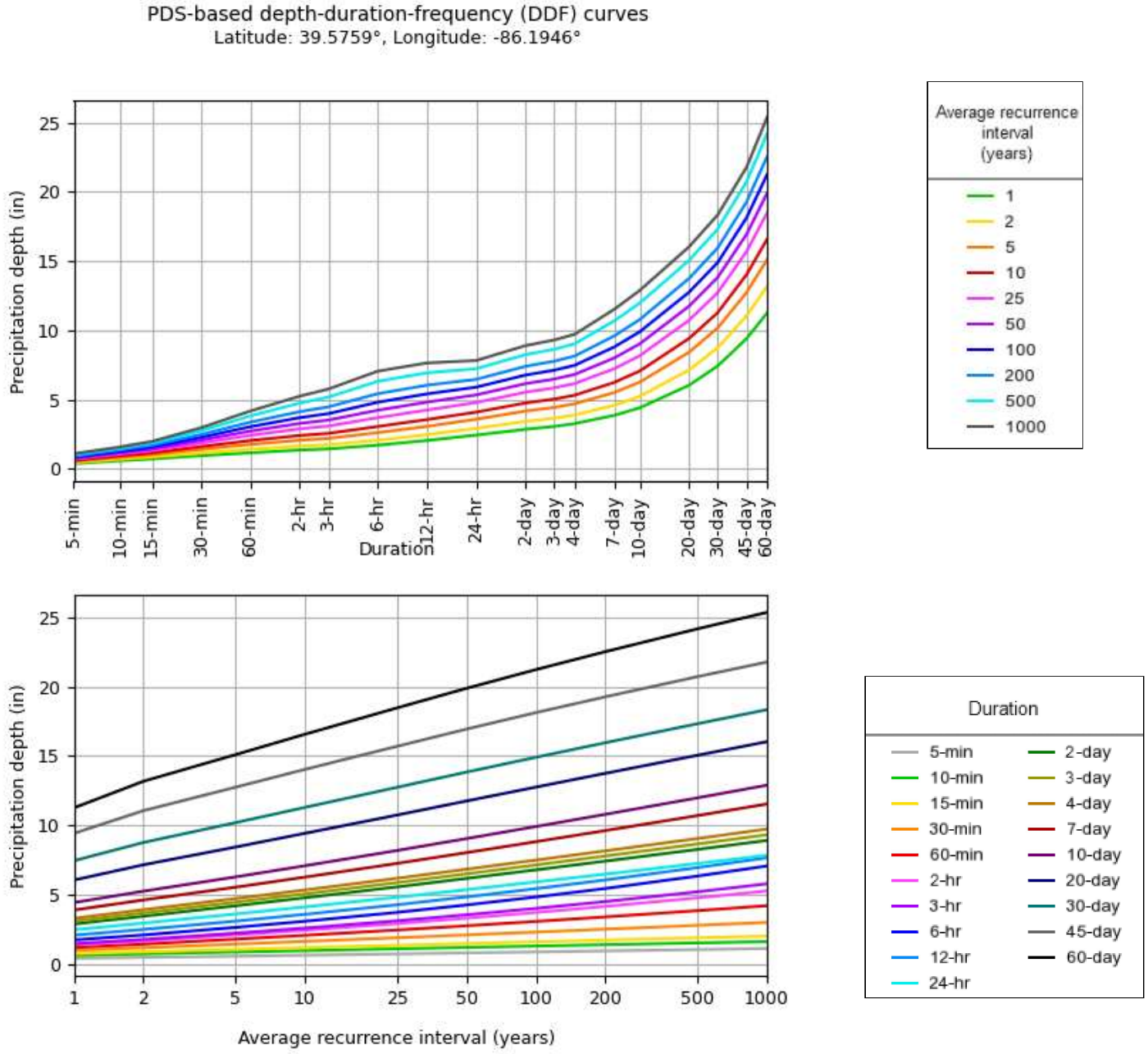
PF graphical



NOAA Atlas 14, Volume 2, Version 3

Created (GMT): Wed Mar 12 16:08:08 2025

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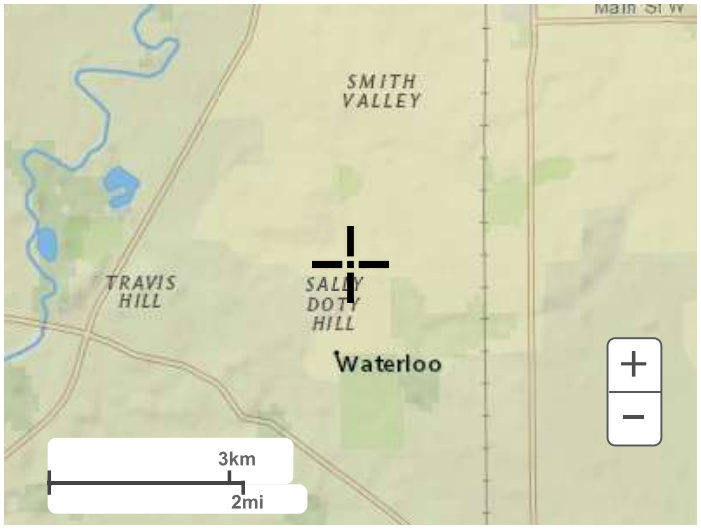
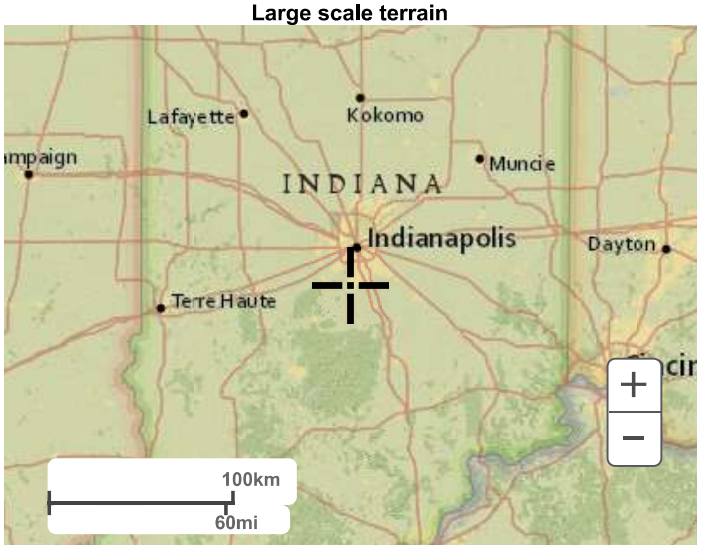
Maps & aerials

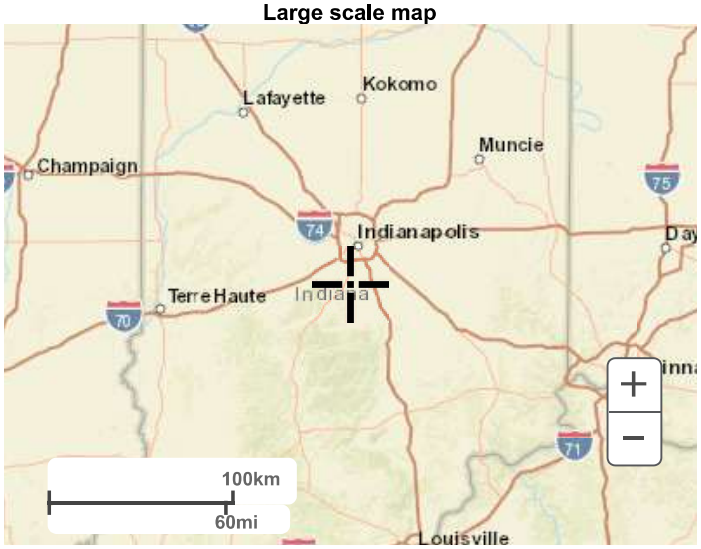
Small scale terrain



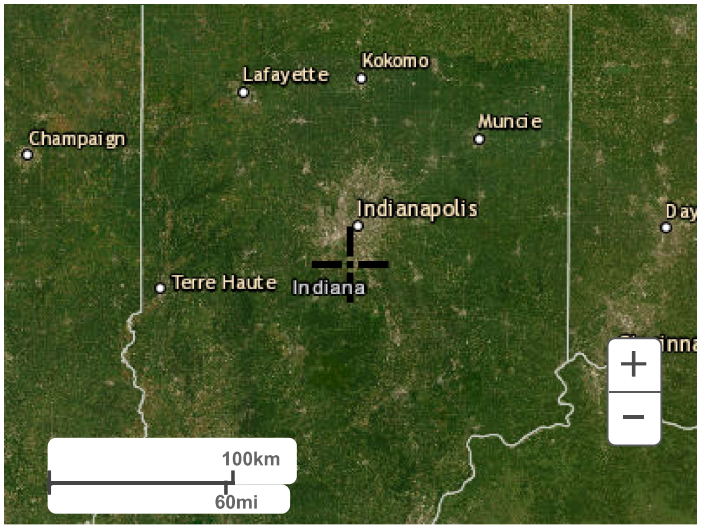
Large scale terrain



Large scale map



Large scale aerial



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National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
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Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

NOAA Atlas 14, Volume 2, Version 3
Location name: Greenwood, Indiana, USA*
Latitude: 39.5759°, Longitude: -86.1946°
Elevation: 758 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

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

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**4.54** (4.04-5.10)	**5.39** (4.81-6.07)	**6.46** (5.76-7.27)	**7.31** (6.48-8.22)	**8.41** (7.40-9.47)	**9.28** (8.11-10.5)	**10.1** (8.76-11.4)	**11.0** (9.44-12.5)	**12.2** (10.3-14.0)	**13.1** (10.9-15.1)
10-min	**3.52** (3.14-3.97)	**4.21** (3.76-4.74)	**5.02** (4.48-5.65)	**5.64** (5.00-6.34)	**6.43** (5.66-7.24)	**7.03** (6.14-7.93)	**7.62** (6.59-8.62)	**8.21** (7.04-9.34)	**8.97** (7.56-10.3)	**9.53** (7.92-11.0)
15-min	**2.88** (2.57-3.24)	**3.43** (3.06-3.86)	**4.11** (3.66-4.62)	**4.63** (4.10-5.20)	**5.30** (4.66-5.96)	**5.80** (5.07-6.55)	**6.31** (5.46-7.14)	**6.81** (5.84-7.74)	**7.46** (6.29-8.54)	**7.94** (6.60-9.15)
30-min	**1.90** (1.70-2.14)	**2.30** (2.05-2.59)	**2.81** (2.51-3.17)	**3.21** (2.85-3.61)	**3.74** (3.29-4.21)	**4.15** (3.62-4.68)	**4.56** (3.94-5.15)	**4.97** (4.26-5.65)	**5.53** (4.66-6.32)	**5.95** (4.95-6.86)
60-min	**1.16** (1.04-1.31)	**1.41** (1.26-1.59)	**1.76** (1.57-1.99)	**2.04** (1.81-2.30)	**2.42** (2.14-2.73)	**2.73** (2.39-3.08)	**3.04** (2.64-3.44)	**3.37** (2.89-3.83)	**3.82** (3.22-4.37)	**4.18** (3.47-4.82)
2-hr	**0.680** (0.608-0.767)	**0.823** (0.735-0.930)	**1.04** (0.923-1.17)	**1.20** (1.07-1.36)	**1.44** (1.27-1.62)	**1.64** (1.43-1.84)	**1.85** (1.59-2.08)	**2.06** (1.76-2.33)	**2.37** (1.98-2.69)	**2.62** (2.15-3.00)
3-hr	**0.479** (0.429-0.542)	**0.580** (0.519-0.655)	**0.731** (0.654-0.825)	**0.854** (0.759-0.961)	**1.03** (0.904-1.16)	**1.17** (1.02-1.32)	**1.33** (1.14-1.49)	**1.49** (1.26-1.68)	**1.73** (1.43-1.97)	**1.92** (1.56-2.20)
6-hr	**0.285** (0.255-0.323)	**0.345** (0.309-0.391)	**0.436** (0.389-0.492)	**0.510** (0.452-0.575)	**0.617** (0.541-0.694)	**0.706** (0.613-0.794)	**0.803** (0.687-0.903)	**0.905** (0.763-1.02)	**1.06** (0.867-1.20)	**1.18** (0.948-1.34)
12-hr	**0.170** (0.152-0.191)	**0.204** (0.184-0.230)	**0.254** (0.228-0.286)	**0.295** (0.263-0.331)	**0.352** (0.311-0.394)	**0.399** (0.350-0.446)	**0.449** (0.389-0.502)	**0.501** (0.428-0.563)	**0.575** (0.481-0.651)	**0.634** (0.521-0.722)
24-hr	**0.101** (0.093-0.110)	**0.121** (0.112-0.132)	**0.149** (0.137-0.162)	**0.170** (0.156-0.185)	**0.199** (0.182-0.217)	**0.222** (0.202-0.242)	**0.245** (0.222-0.268)	**0.269** (0.243-0.294)	**0.301** (0.269-0.330)	**0.325** (0.289-0.366)
2-day	**0.059** (0.055-0.064)	**0.071** (0.066-0.076)	**0.086** (0.080-0.093)	**0.099** (0.091-0.106)	**0.115** (0.106-0.124)	**0.128** (0.117-0.138)	**0.140** (0.128-0.152)	**0.154** (0.139-0.167)	**0.171** (0.154-0.186)	**0.185** (0.165-0.202)
3-day	**0.042** (0.039-0.045)	**0.050** (0.047-0.054)	**0.061** (0.057-0.066)	**0.069** (0.065-0.074)	**0.081** (0.075-0.086)	**0.090** (0.083-0.096)	**0.098** (0.091-0.106)	**0.107** (0.098-0.115)	**0.119** (0.109-0.129)	**0.129** (0.116-0.139)
4-day	**0.034** (0.031-0.036)	**0.040** (0.038-0.043)	**0.048** (0.045-0.052)	**0.055** (0.051-0.058)	**0.064** (0.060-0.068)	**0.070** (0.066-0.075)	**0.077** (0.072-0.082)	**0.084** (0.078-0.090)	**0.094** (0.086-0.100)	**0.101** (0.092-0.107)
7-day	**0.023** (0.021-0.024)	**0.027** (0.025-0.029)	**0.032** (0.030-0.035)	**0.037** (0.034-0.039)	**0.043** (0.040-0.045)	**0.047** (0.044-0.050)	**0.052** (0.048-0.055)	**0.057** (0.052-0.060)	**0.063** (0.058-0.067)	**0.068** (0.062-0.073)
10-day	**0.018** (0.017-0.019)	**0.021** (0.020-0.023)	**0.026** (0.024-0.027)	**0.029** (0.027-0.031)	**0.034** (0.031-0.036)	**0.037** (0.035-0.040)	**0.041** (0.038-0.043)	**0.044** (0.041-0.047)	**0.049** (0.046-0.053)	**0.053** (0.049-0.057)
20-day	**0.012** (0.011-0.013)	**0.014** (0.014-0.015)	**0.017** (0.016-0.018)	**0.019** (0.018-0.020)	**0.022** (0.020-0.023)	**0.024** (0.022-0.025)	**0.026** (0.024-0.028)	**0.028** (0.026-0.030)	**0.031** (0.029-0.033)	**0.033** (0.030-0.035)
30-day	**0.010** (0.009-0.010)	**0.012** (0.011-0.012)	**0.014** (0.013-0.014)	**0.015** (0.014-0.016)	**0.017** (0.016-0.018)	**0.019** (0.018-0.020)	**0.020** (0.019-0.021)	**0.022** (0.020-0.023)	**0.024** (0.022-0.025)	**0.025** (0.023-0.027)
45-day	**0.008** (0.008-0.009)	**0.010** (0.009-0.010)	**0.011** (0.011-0.012)	**0.012** (0.012-0.013)	**0.014** (0.013-0.015)	**0.015** (0.014-0.016)	**0.016** (0.015-0.017)	**0.017** (0.016-0.018)	**0.019** (0.017-0.020)	**0.020** (0.018-0.021)
60-day	**0.007** (0.007-0.008)	**0.009** (0.008-0.009)	**0.010** (0.009-0.011)	**0.011** (0.010-0.012)	**0.012** (0.012-0.013)	**0.013** (0.013-0.014)	**0.014** (0.013-0.015)	**0.015** (0.014-0.016)	**0.016** (0.015-0.017)	**0.017** (0.016-0.018)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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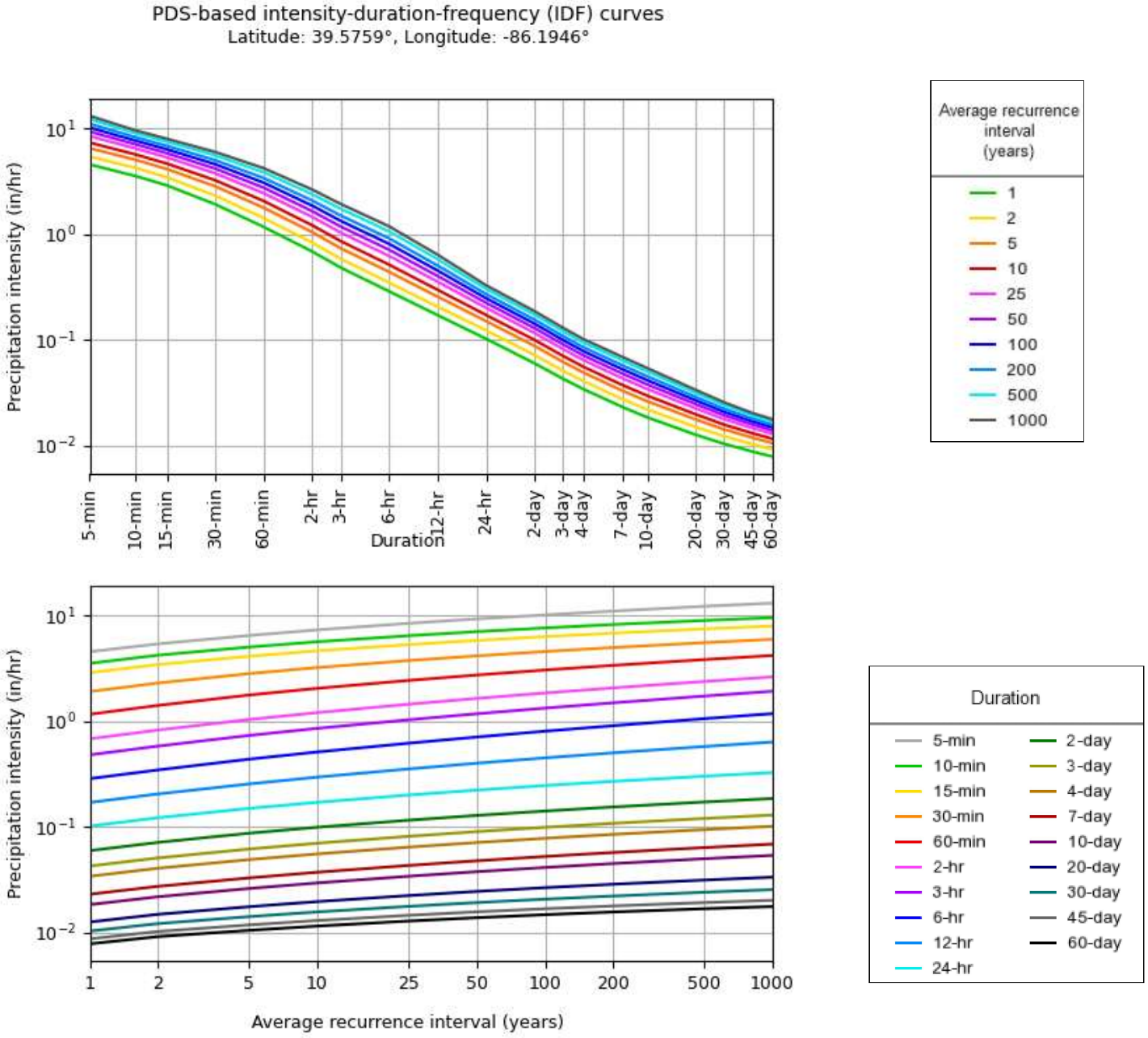
PF graphical



NOAA Atlas 14, Volume 2, Version 3

Created (GMT): Wed Mar 12 16:06:28 2025

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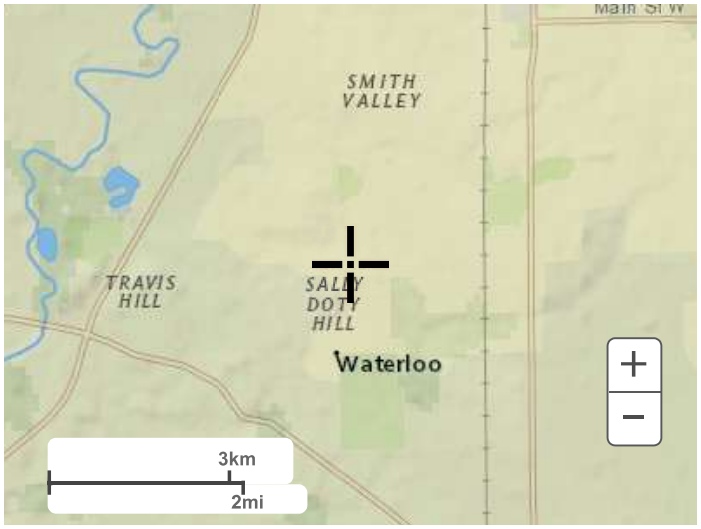
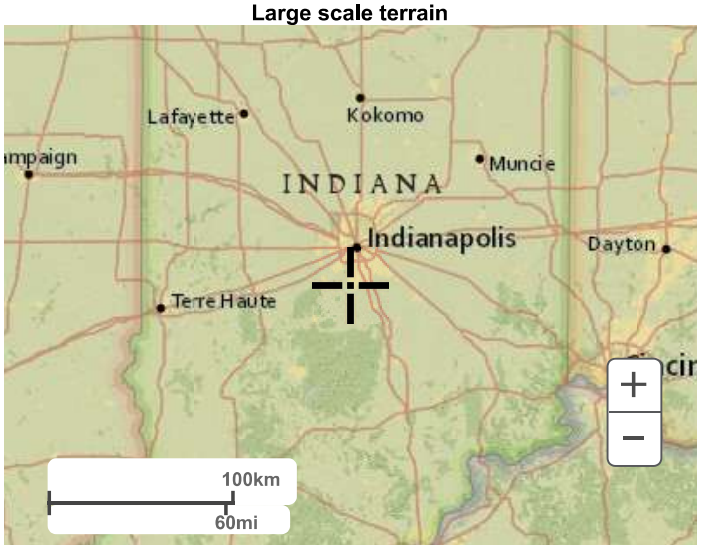
Maps & aerials

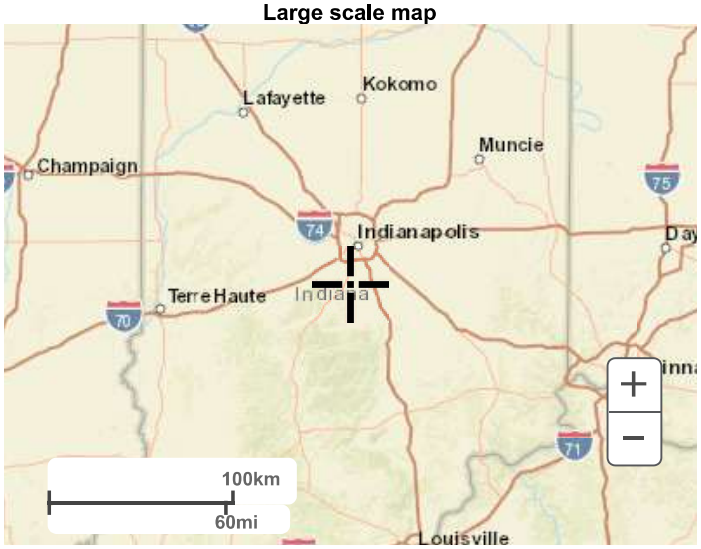
Small scale terrain



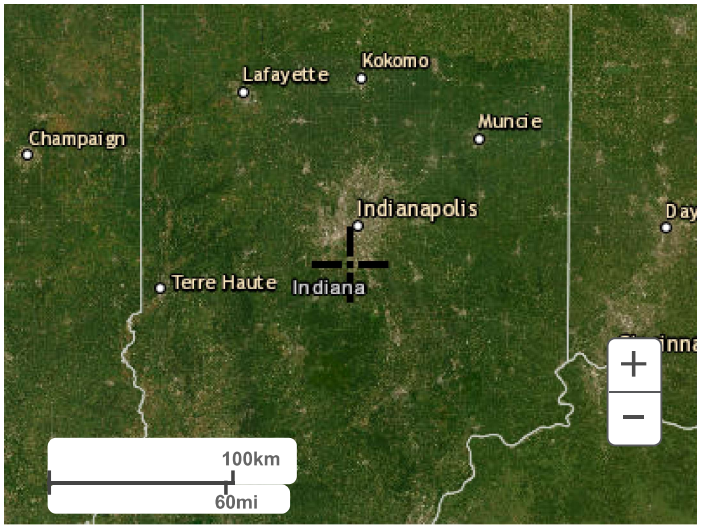
Large scale terrain



Large scale map



Large scale aerial



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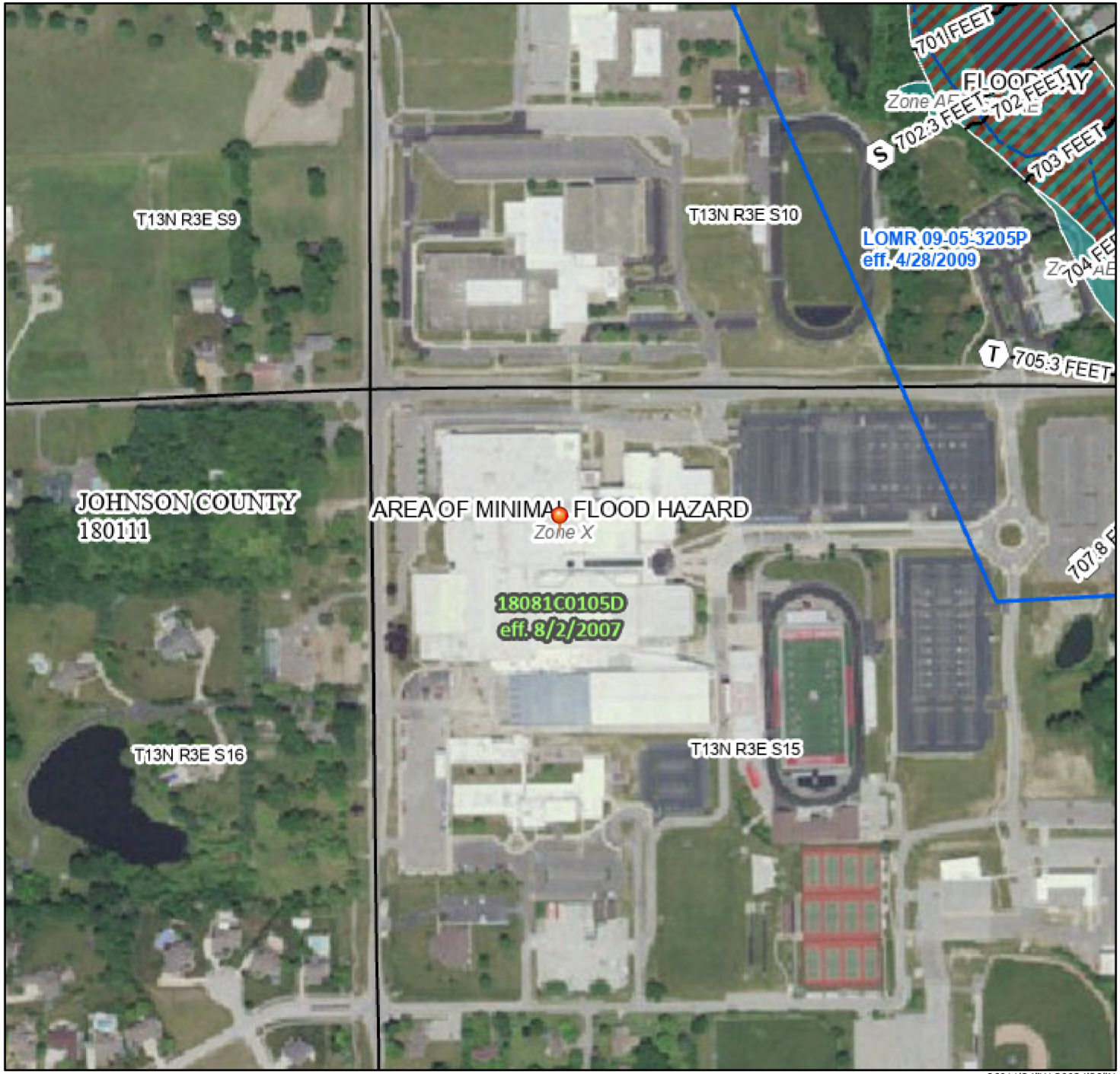
US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

National Flood Hazard Layer FIRMette

FEMA

86°12'1"W 39°34'48"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

86°11'24"W 39°34'20"N

Basemap Imagery Source: USGS National Map 2023

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

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

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/30/2025 at 1:15 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

NORTH WATERSHED PROJECT AREA = 2.39 AC
10 YR ALLOWABLE RELEASE RATE = .239 CFS
100 YR ALLOWABLE RELEASE RATE = .717 CFS

REQUIRED DETENTION VOLUME = 29,398 CU. FT
CN = 95, TC = 10 MIN

TOTAL PROJECT AREA = 8.94AC
TOTAL MILL SURFACE AREA = 2.02AC

SURFACE MILLING AND STRIPING ONLY

SOUTH WATERSHED PROJECT AREA = 4.52 AC
10 YR ALLOWABLE RELEASE RATE = 0.452 CFS
100 YR ALLOWABLE RELEASE RATE = 1.356 CFS

REQUIRED DETENTION VOLUME = 55,598 CU. FT
CN = 95, TC = 10 MIN

50 0 50 100 150

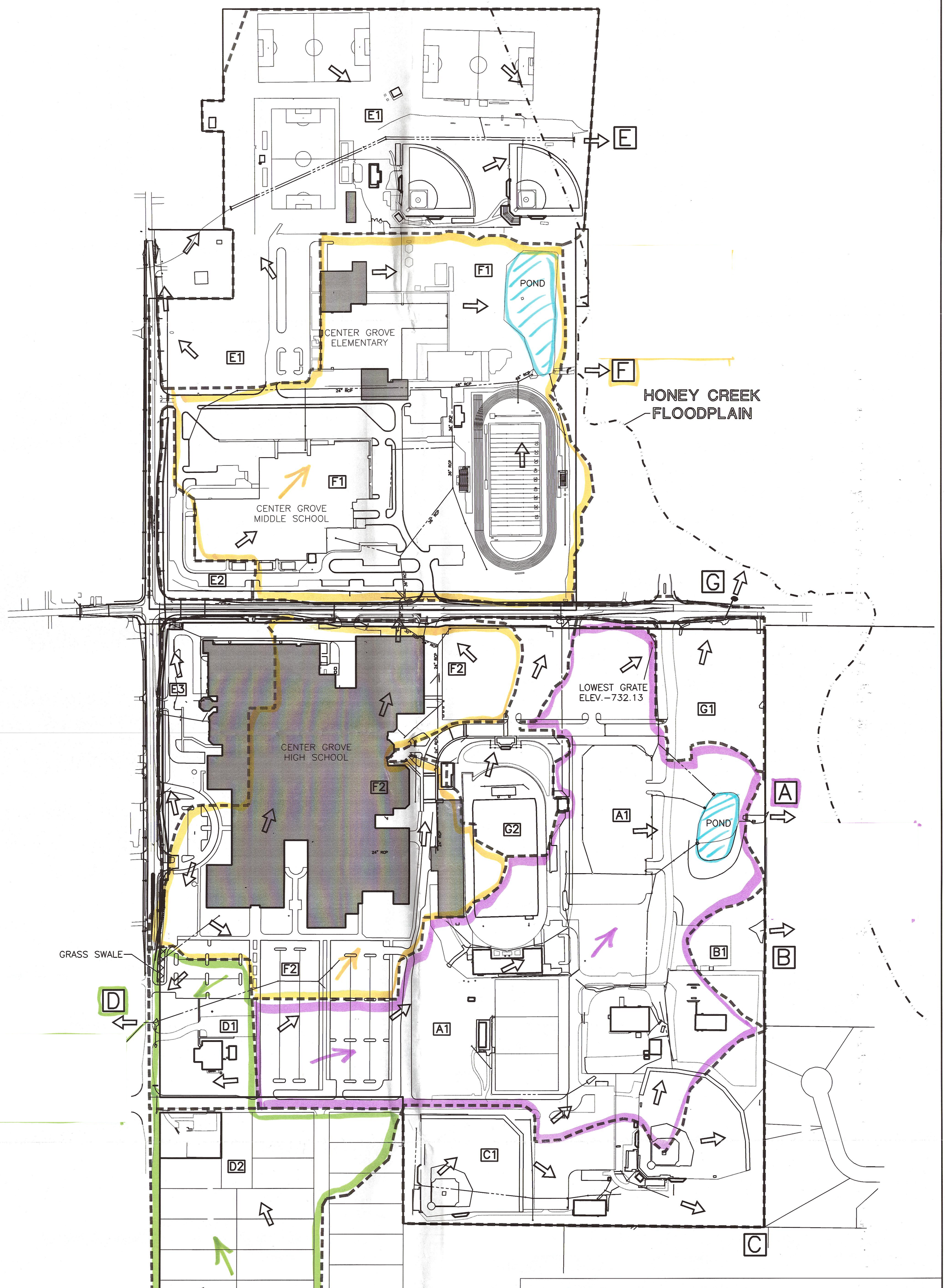
N

PROJECT AREA
CENTER GROVE HS PARKING LOT

03/03/25

TLF

5/13/2025 P:\2024\300\367\ENGR\CALCS_CIVIL\PROJECT AREAS\2024-367_PROJECT AREA.DWG



CENTER GROVE HIGH SCHOOL

JOHNSON COUNTY

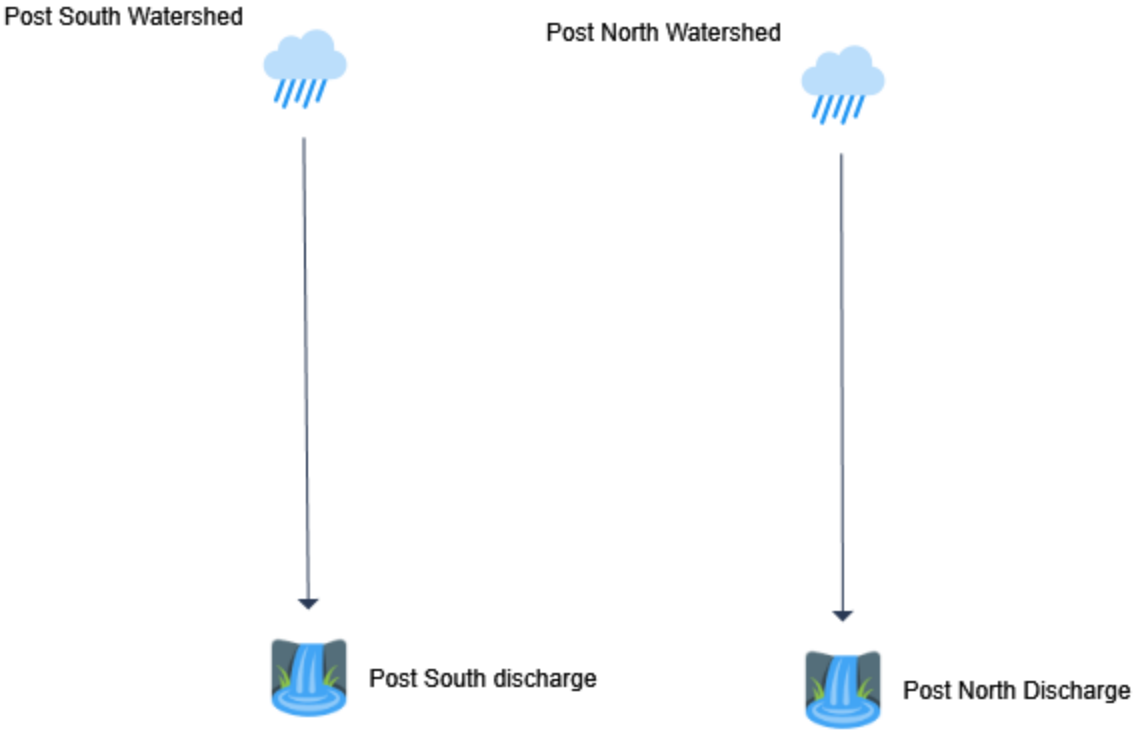
INDIANA

2009 Overall Master Plan Basin Map

Basin Model

Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025



Hydrograph by Return Period

Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Outflow (cfs)							
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
1	NRCS Runoff	Post South Watershed		16.04			23.20			34.19
2	NRCS Runoff	Post North Watershed		8.483			12.27			18.08
3	Pond Route	Post South discharge		0.349			0.444			1.331
4	Pond Route	Post North Discharge		0.175			0.222			0.684

Hydrograph Report

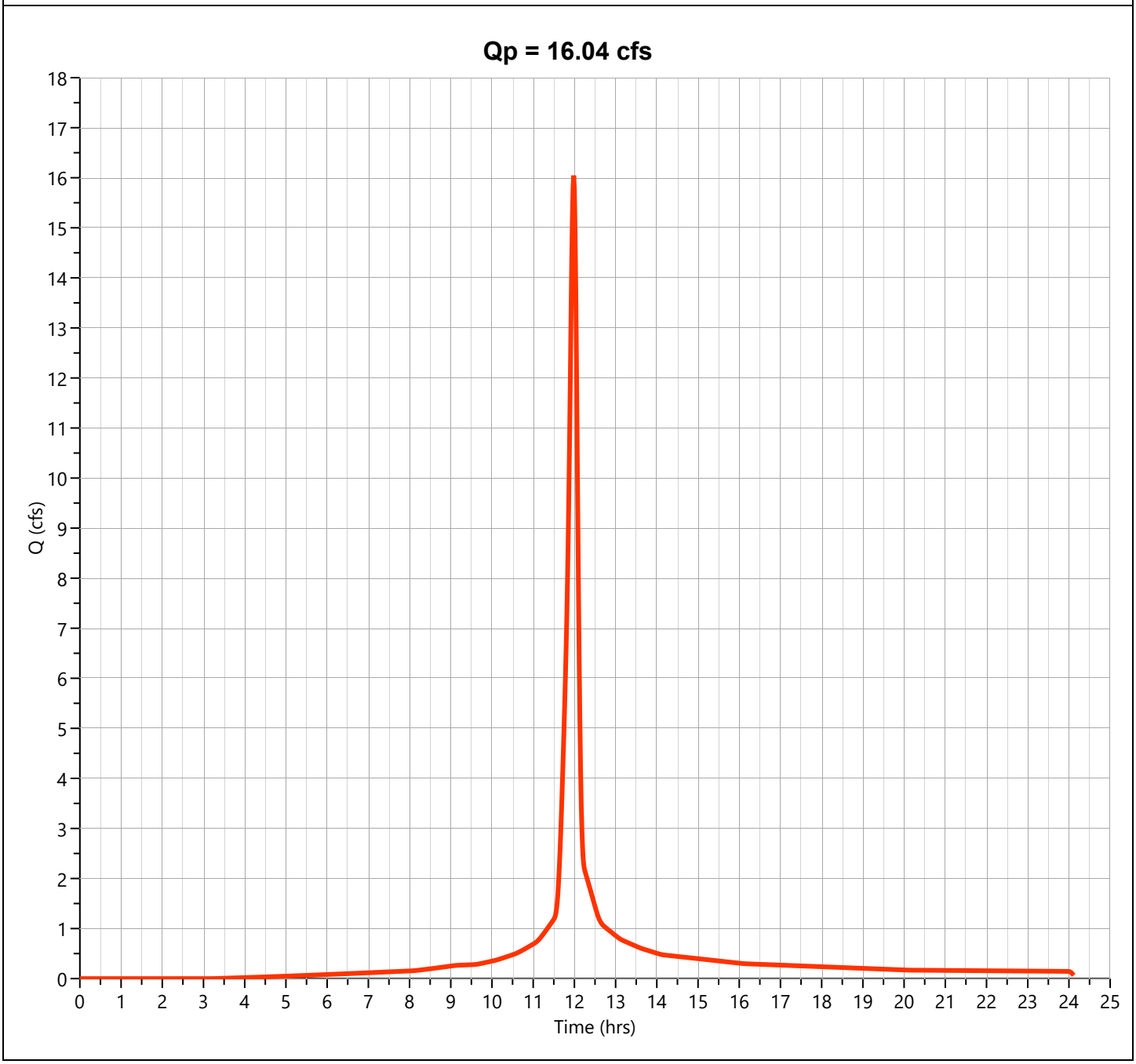
Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

Post South Watershed

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 16.04 cfs
Storm Frequency	= 2-yr	Time to Peak	= 11.98 hrs
Time Interval	= 1 min	Runoff Volume	= 39,068 cuft
Drainage Area	= 4.52 ac	Curve Number	= 95.00
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 2.93 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

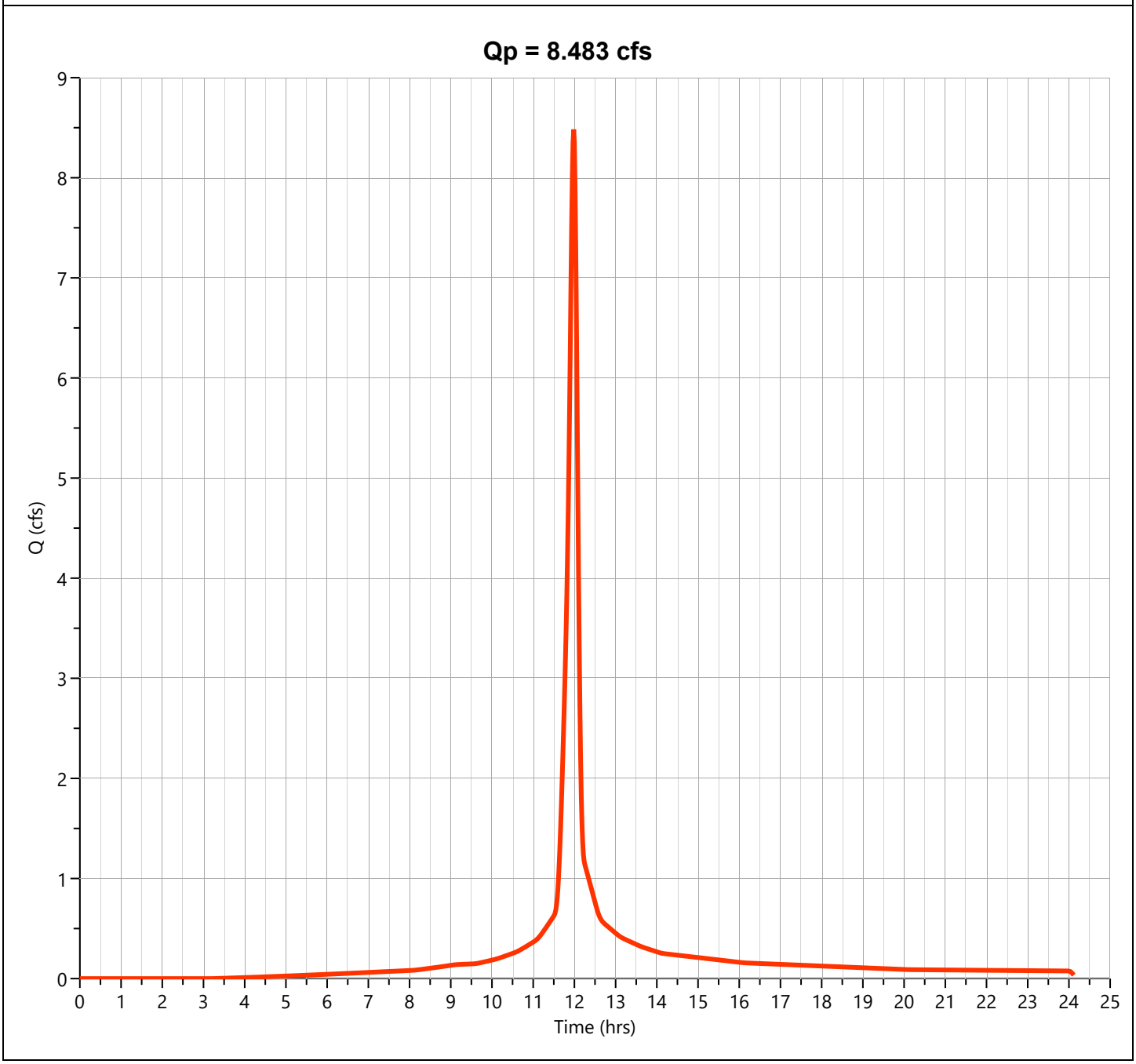
Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

Post North Watershed

Hyd. No. 2

Hydrograph Type	= NRCS Runoff	Peak Flow	= 8.483 cfs
Storm Frequency	= 2-yr	Time to Peak	= 11.98 hrs
Time Interval	= 1 min	Runoff Volume	= 20,658 cuft
Drainage Area	= 2.39 ac	Curve Number	= 95.00
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 2.93 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

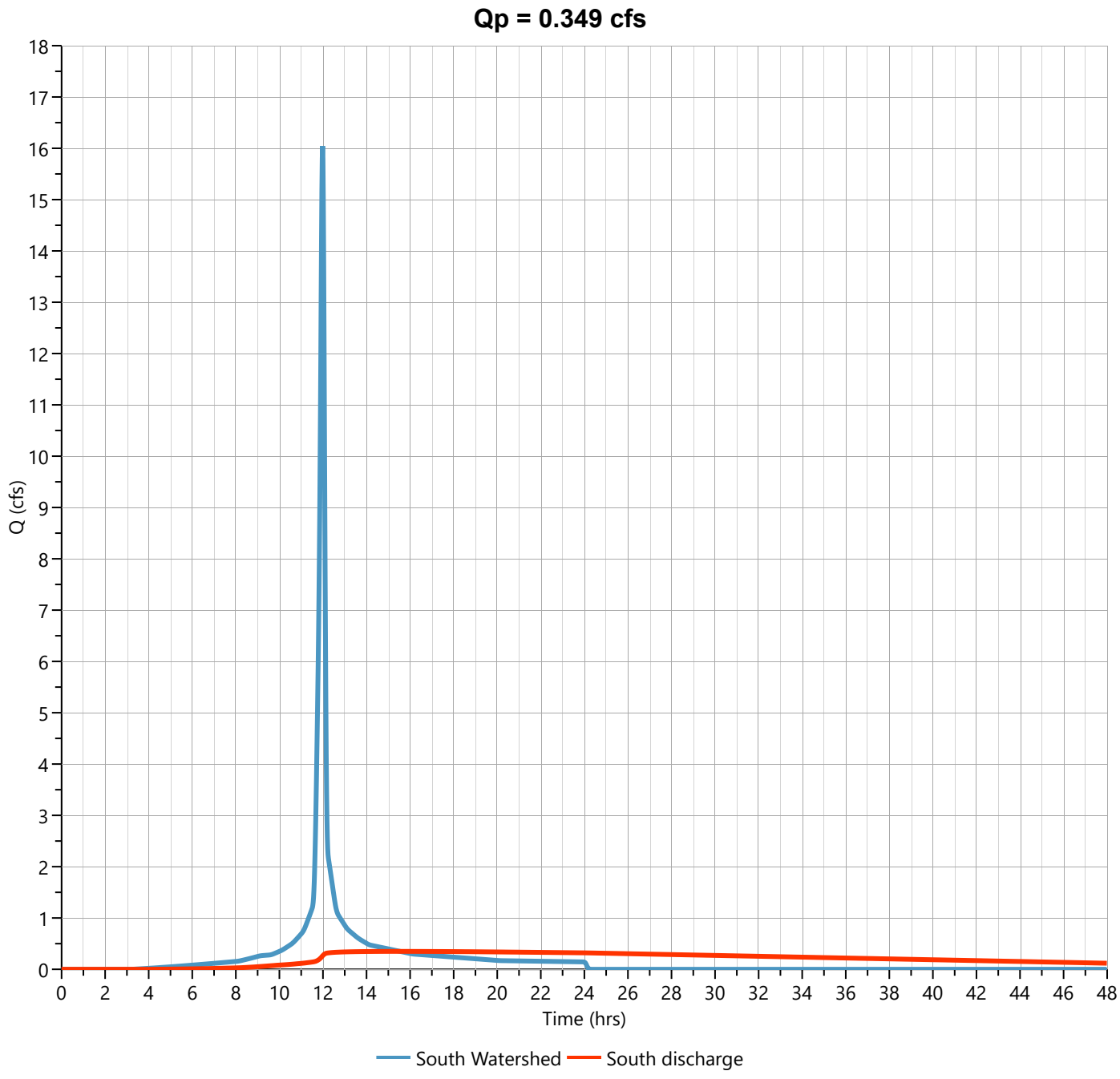
Post South discharge

Hyd. No. 3

Hydrograph Type	= Pond Route	Peak Flow	= 0.349 cfs
Storm Frequency	= 2-yr	Time to Peak	= 15.55 hrs
Time Interval	= 1 min	Hydrograph Volume	= 35,068 cuft
Inflow Hydrograph	= 1 - South Watershed	Max. Elevation	= 770.01 ft
Pond Name	= South Storm Trap	Max. Storage	= 27,003 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 13.76 hrs



Pond Report

File: CGrove Parking Lot.hys

Hydrology Studio v 3.0.0.38

05-30-2025

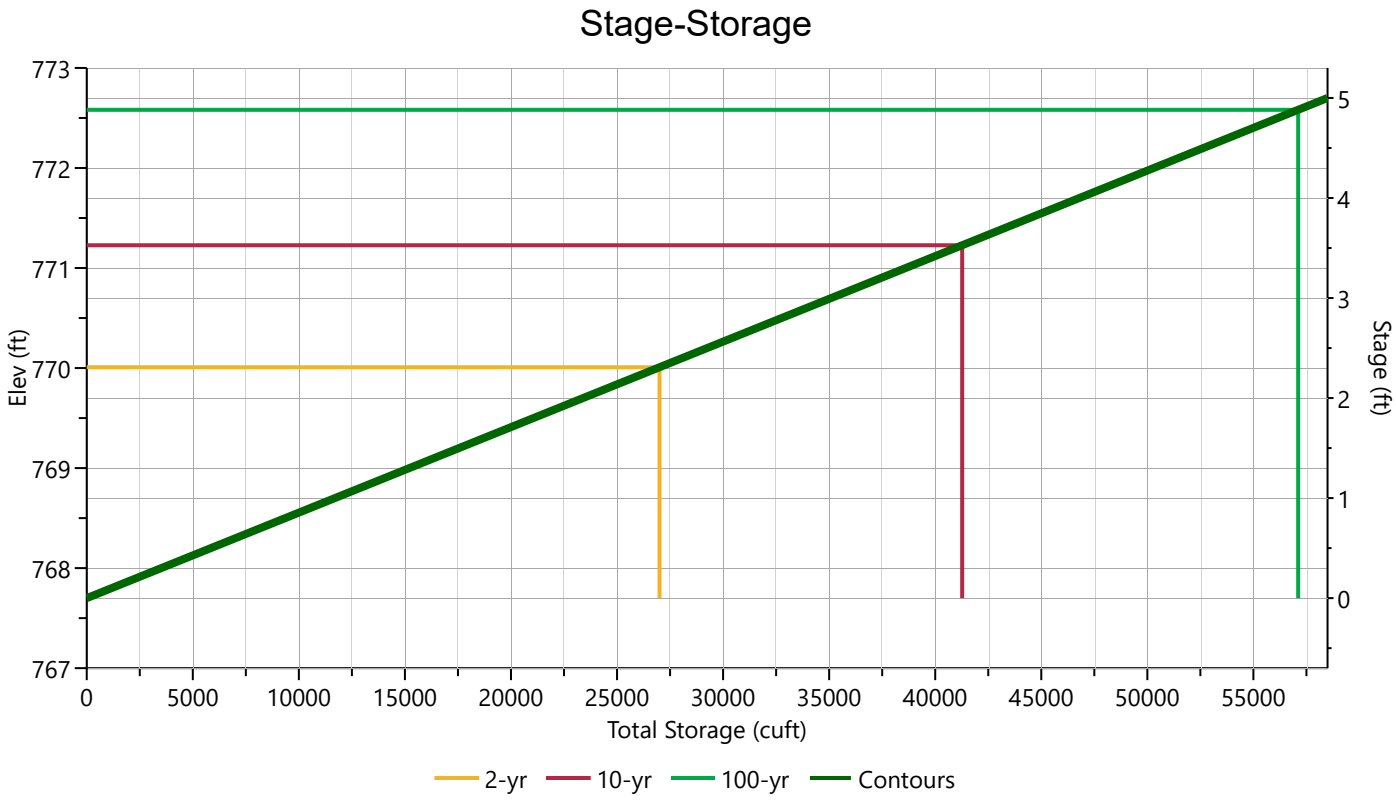
South Storm Trap

Stage-Storage

User Defined Contours	
Description	**Input**
Bottom Elevation, ft	767.70
Voids (%)	100.00
Volume Calc	None

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.00	767.70	11,699	0.000	0.000
1.00	768.70	11,699	11,699	11,699
2.00	769.70	11,699	11,699	23,398
3.00	770.70	11,699	11,699	35,097
4.00	771.70	11,699	11,699	46,796
5.00	772.70	11,699	11,699	58,495



Pond Report

File: CGrove Parking Lot.hys

Hydrology Studio v 3.0.0.38

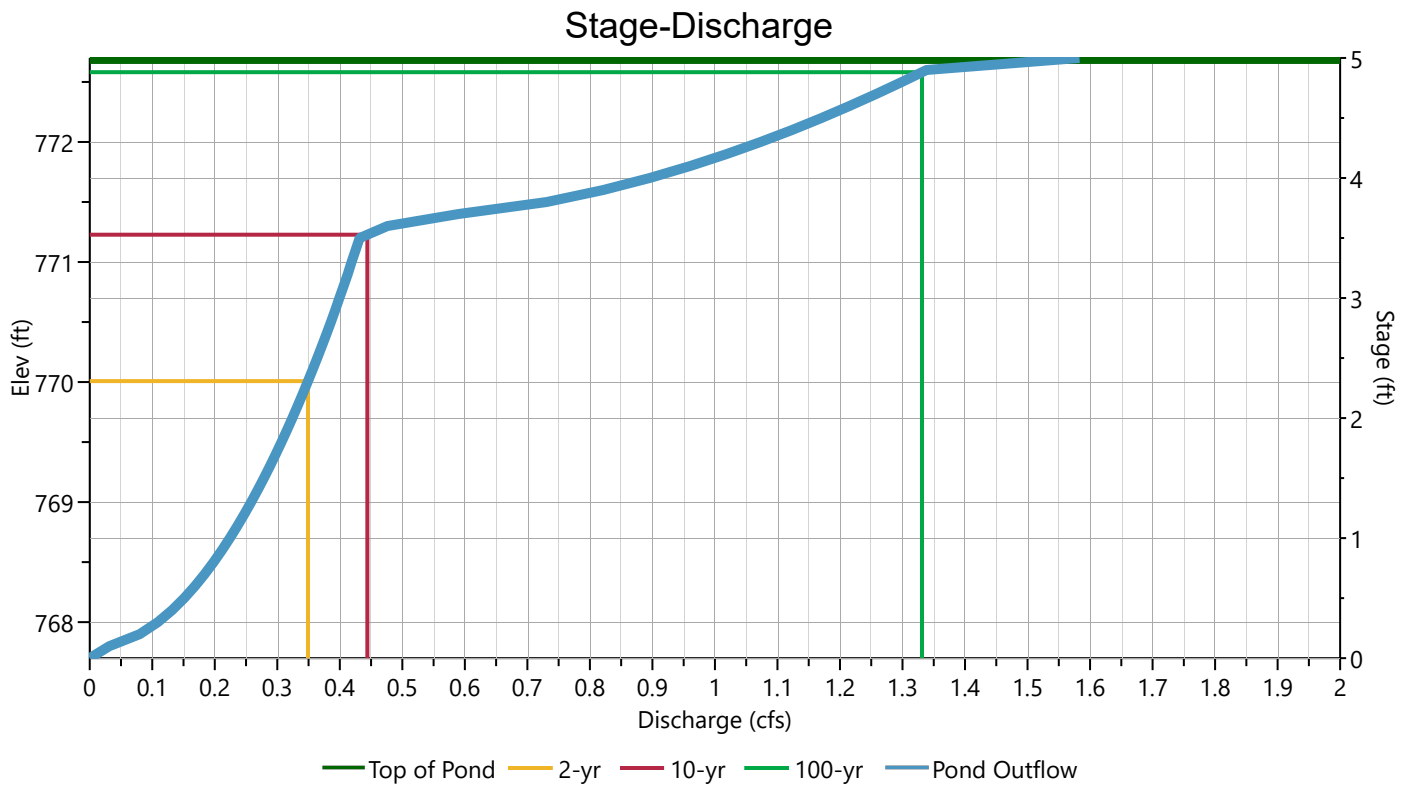
05-30-2025

South Storm Trap

Stage-Discharge

Culvert / Orifices	Cir Culvert	Orifice			Orifice Plate	
		1 (m)	2 (m)	3		
Rise, in	15	2	3		Orifice Dia, in	
Span, in	15	3.5	7.5		No. Orifices	
No. Barrels	1	1	1		Invert Elevation, ft	
Invert Elevation, ft	767.50	767.70	771.23		Height, ft	
Orifice Coefficient, Co	0.60	0.60	0.60		Orifice Coefficient, Co	
Length, ft	220.2					
Barrel Slope, %	.5					
N-Value, n	0.013					
Weirs	**Riser**	**Weir**			**Ancillary**	
		1 (m)	2	3		
Shape / Type	Circular	Rectangular			Exfiltration, in/hr	
Crest Elevation, ft	773	772.6				
Crest Length, ft	6.28	2				
Angle, deg						
Weir Coefficient, Cw	3.3	3.3				

m = Flows through Culvert, i = Independent



Pond Report

File: CGrove Parking Lot.hys

Hydrology Studio v 3.0.0.38

05-30-2025

South Storm Trap

Stage-Storage-Discharge Summary

Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	767.70	0.000	0.000	0.000	0.000		0.000	0.000						0.000
1.00	768.70	11,699	0.224 ic	0.224	0.000		0.000	0.000						0.224
2.00	769.70	23,398	0.324 ic	0.324	0.000		0.000	0.000						0.324
3.00	770.70	35,097	0.399 ic	0.399	0.000		0.000	0.000						0.399
4.00	771.70	46,796	0.896 ic	0.454	0.442		0.000	0.000						0.896
5.00	772.70	58,495	1.583 ic	0.502	0.873		0.000	0.209						1.583

Suffix key: ic = inlet control, oc = outlet control, s = submerged weir

Hydrograph Report

Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

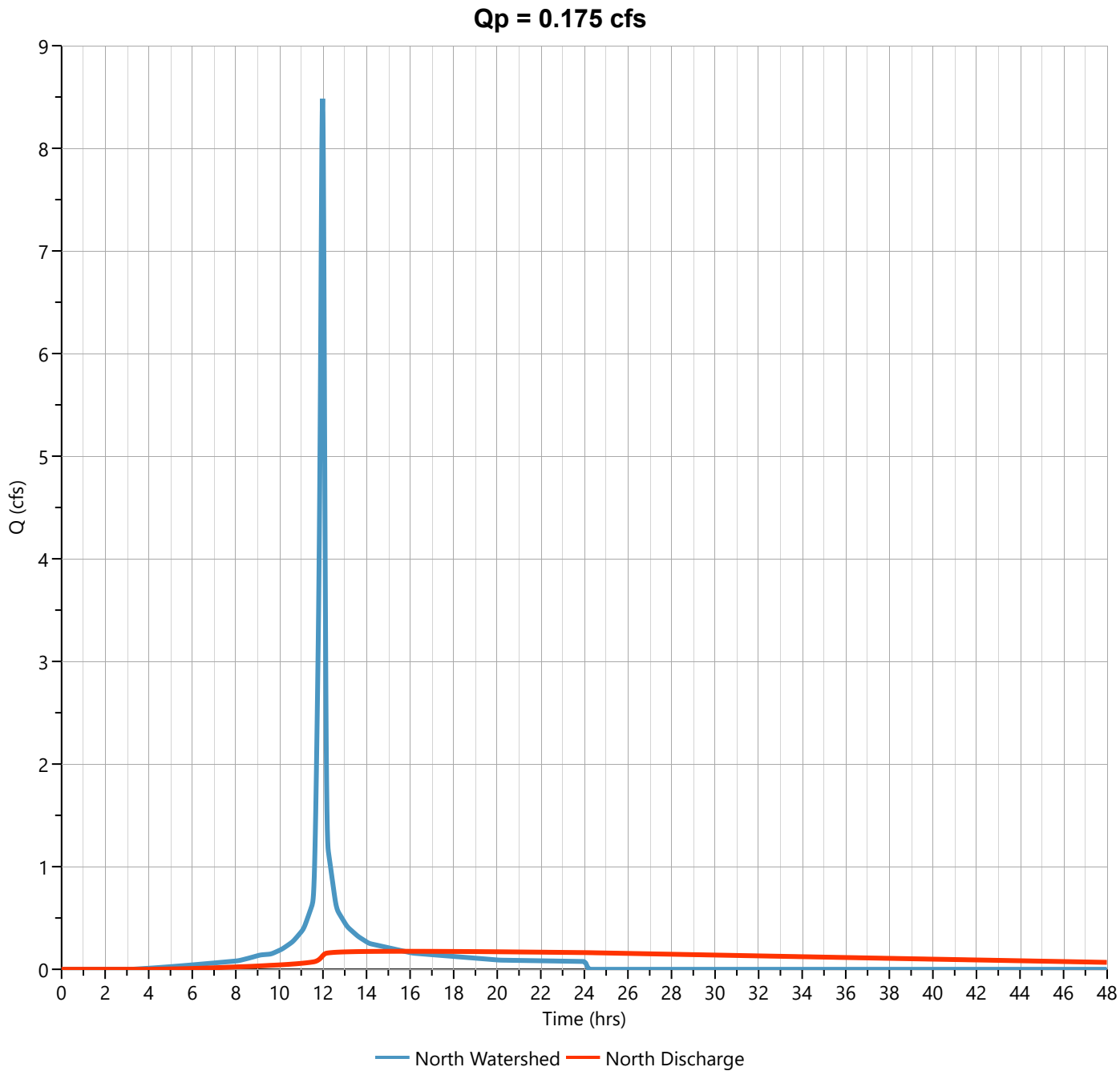
Post North Discharge

Hyd. No. 4

Hydrograph Type	= Pond Route	Peak Flow	= 0.175 cfs
Storm Frequency	= 2-yr	Time to Peak	= 15.73 hrs
Time Interval	= 1 min	Hydrograph Volume	= 18,124 cuft
Inflow Hydrograph	= 2 - North Watershed	Max. Elevation	= 764.98 ft
Pond Name	= North Storm Trap	Max. Storage	= 14,339 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 13.92 hrs



Pond Report

File: CGrove Parking Lot.hys

Hydrology Studio v 3.0.0.38

05-30-2025

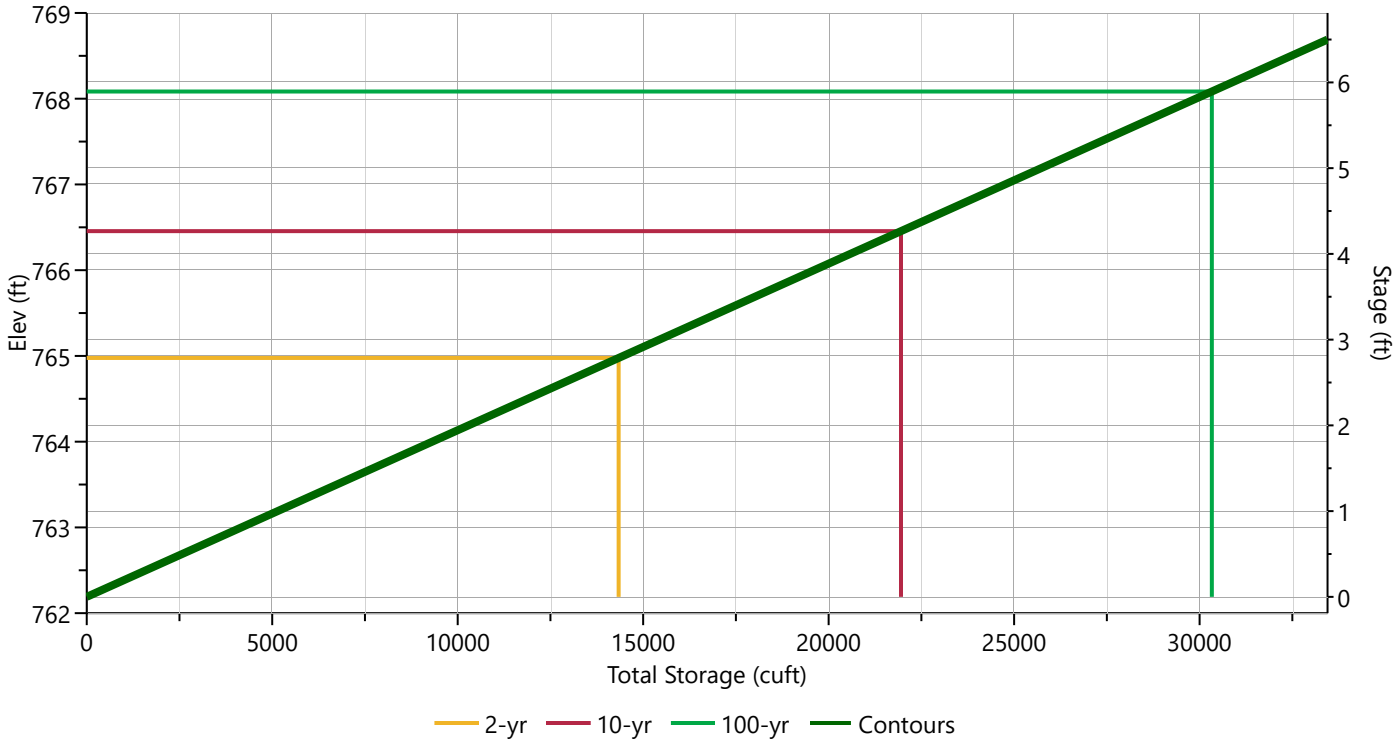
North Storm Trap

Stage-Storage

User Defined Contours	
Description	**Input**
Bottom Elevation, ft	762.19
Voids (%)	100.00
Volume Calc	Ave End Area

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
0.00	762.19	5,146	0.000	0.000
1.00	763.19	5,146	5,146	5,146
2.00	764.19	5,146	5,146	10,292
3.00	765.19	5,146	5,146	15,438
4.00	766.19	5,146	5,146	20,584
5.00	767.19	5,146	5,146	25,730
6.00	768.19	5,146	5,146	30,876
6.50	768.69	5,146	2,573	33,449



Pond Report

File: CGrove Parking Lot.hys

Hydrology Studio v 3.0.0.38

05-30-2025

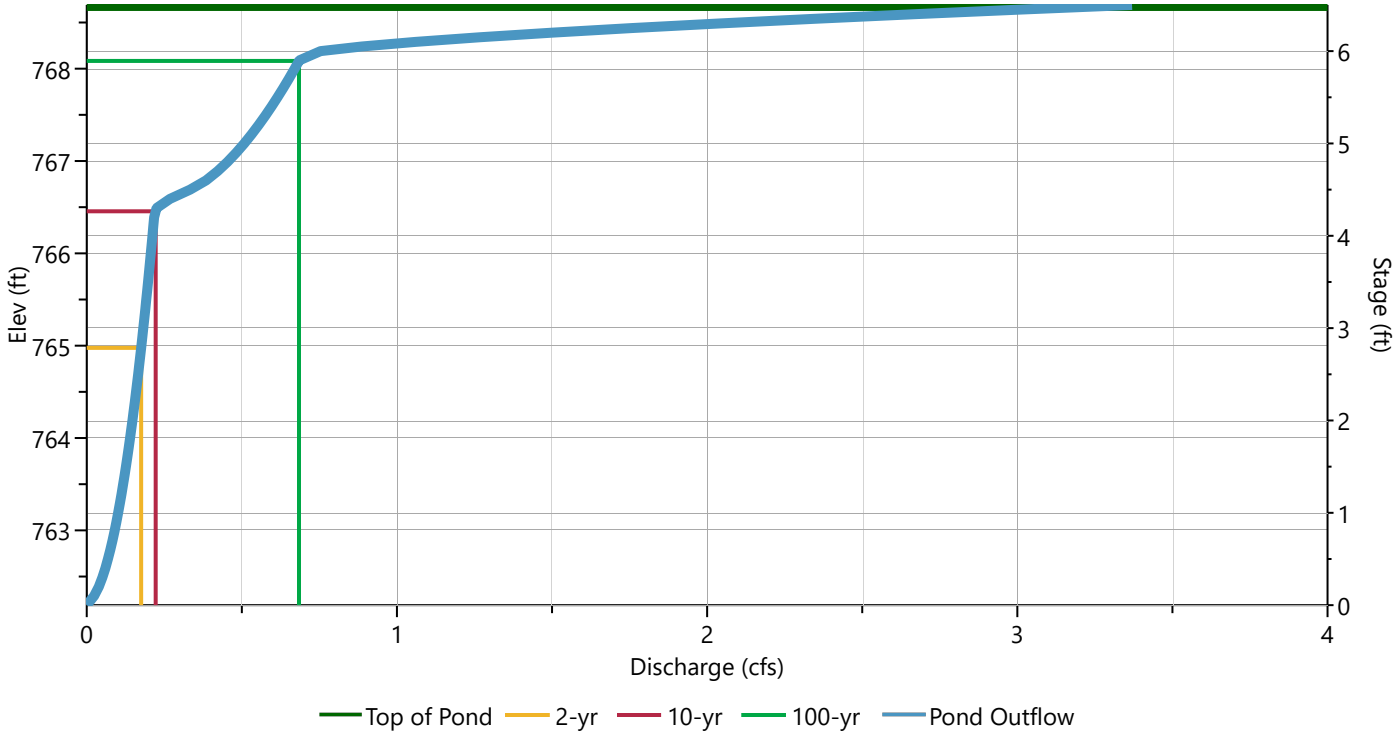
North Storm Trap

Stage-Discharge

Culvert / Orifices	Cir Culvert	Orifice			Orifice Plate	
		1 (m)	2 (m)	3		
Rise, in	12	1	3		Orifice Dia, in	
Span, in	12	3.25	3.5		No. Orifices	
No. Barrels	1	1	1		Invert Elevation, ft	
Invert Elevation, ft	762.17	762.19	766.46		Height, ft	
Orifice Coefficient, Co	0.60	0.60	0.60		Orifice Coefficient, Co	
Length, ft	39					
Barrel Slope, %	.5					
N-Value, n	0.013					

Weirs	Riser	Weir			Ancillary	
		1 (m)	2	3		
Shape / Type	Circular	Rectangular			Exfiltration, in/hr	
Crest Elevation, ft	769	768.15				
Crest Length, ft	6.28	2				
Angle, deg						
Weir Coefficient, Cw	3.3	3.3				

m = Flows through Culvert, i = Independent



Pond Report

File: CGrove Parking Lot.hys

Hydrology Studio v 3.0.0.38

05-30-2025

North Storm Trap

Stage-Storage-Discharge Summary

Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	762.19	0.000	0.000	0.000	0.000		0.000	0.000						0.000
1.00	763.19	5,146	0.101 ic	0.101	0.000		0.000	0.000						0.101
2.00	764.19	10,292	0.147 ic	0.147	0.000		0.000	0.000						0.147
3.00	765.19	15,438	0.182 ic	0.182	0.000		0.000	0.000						0.182
4.00	766.19	20,584	0.212 ic	0.212	0.000		0.000	0.000						0.212
5.00	767.19	25,730	0.508 oc	0.235	0.273		0.000	0.000						0.508
6.00	768.19	30,876	0.754 oc	0.256	0.445		0.000	0.053						0.754
6.50	768.69	33,449	3.370 oc	0.242	0.509		0.000	2.619						3.370

Suffix key: ic = inlet control, oc = outlet control, s = submerged weir

Hydrograph Report

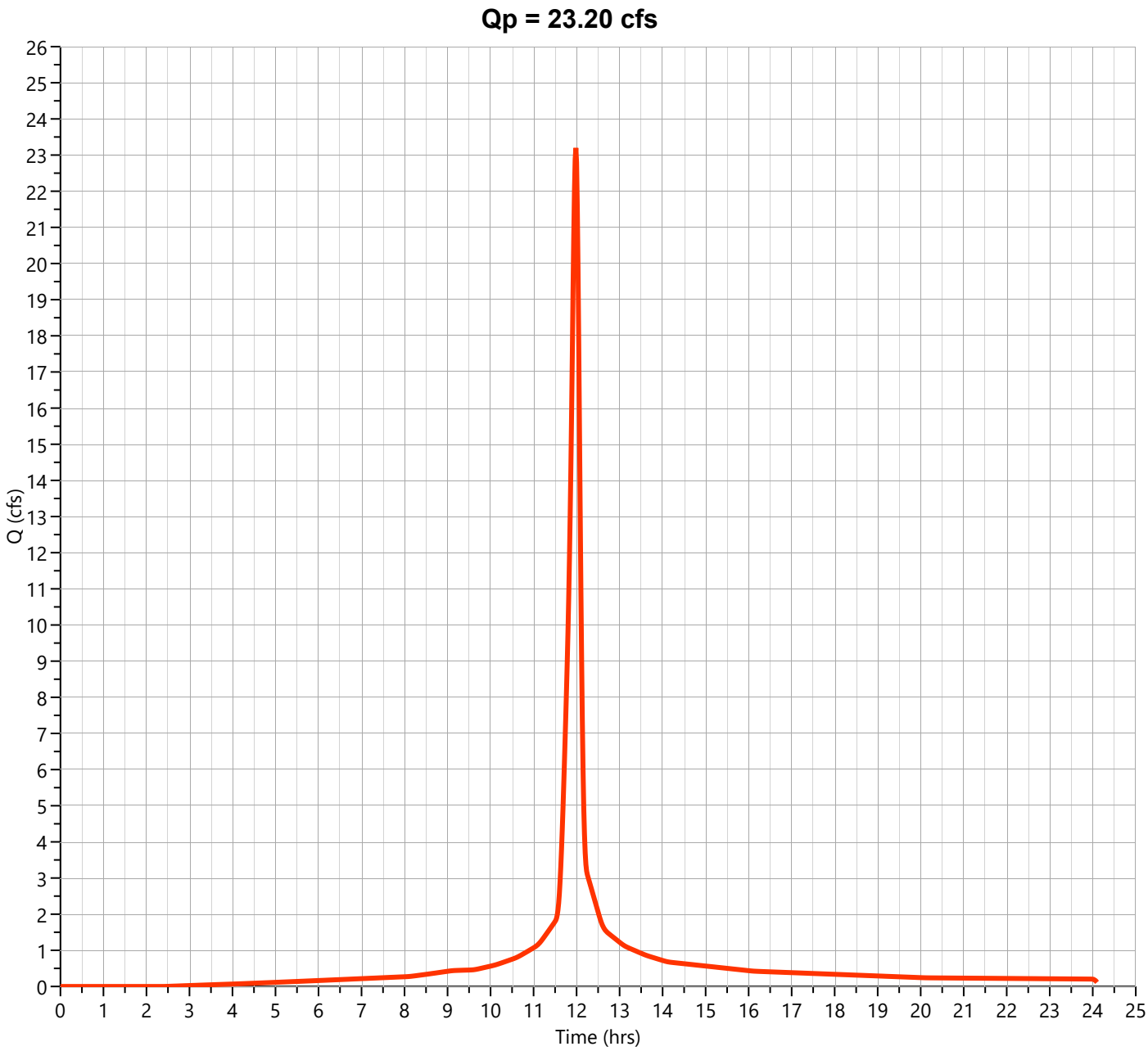
Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

Post South Watershed

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 23.20 cfs
Storm Frequency	= 10-yr	Time to Peak	= 11.98 hrs
Time Interval	= 1 min	Runoff Volume	= 57,914 cuft
Drainage Area	= 4.52 ac	Curve Number	= 95.00
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 4.10 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

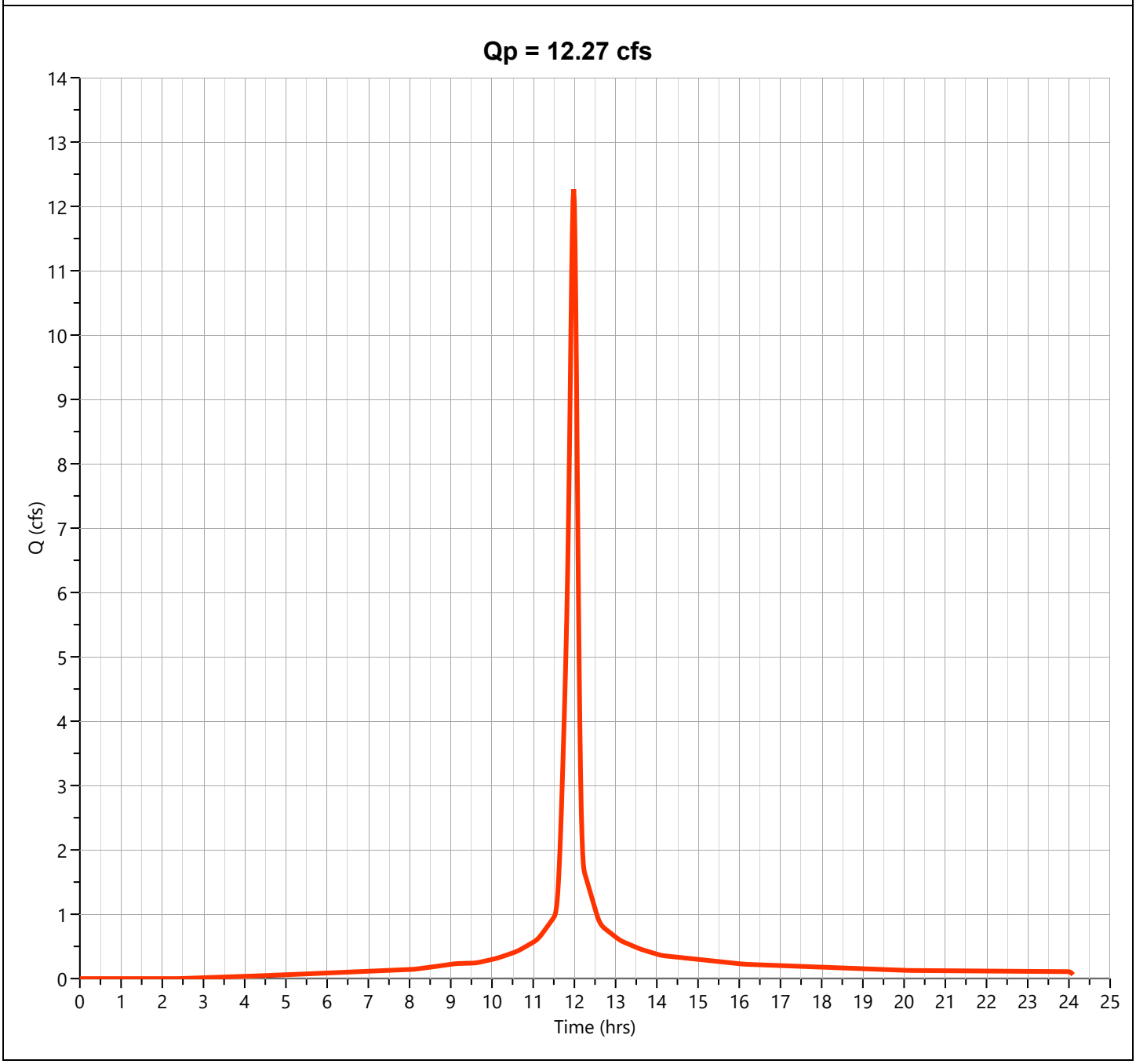
Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

Post North Watershed

Hyd. No. 2

Hydrograph Type	= NRCS Runoff	Peak Flow	= 12.27 cfs
Storm Frequency	= 10-yr	Time to Peak	= 11.98 hrs
Time Interval	= 1 min	Runoff Volume	= 30,623 cuft
Drainage Area	= 2.39 ac	Curve Number	= 95.00
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 4.10 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

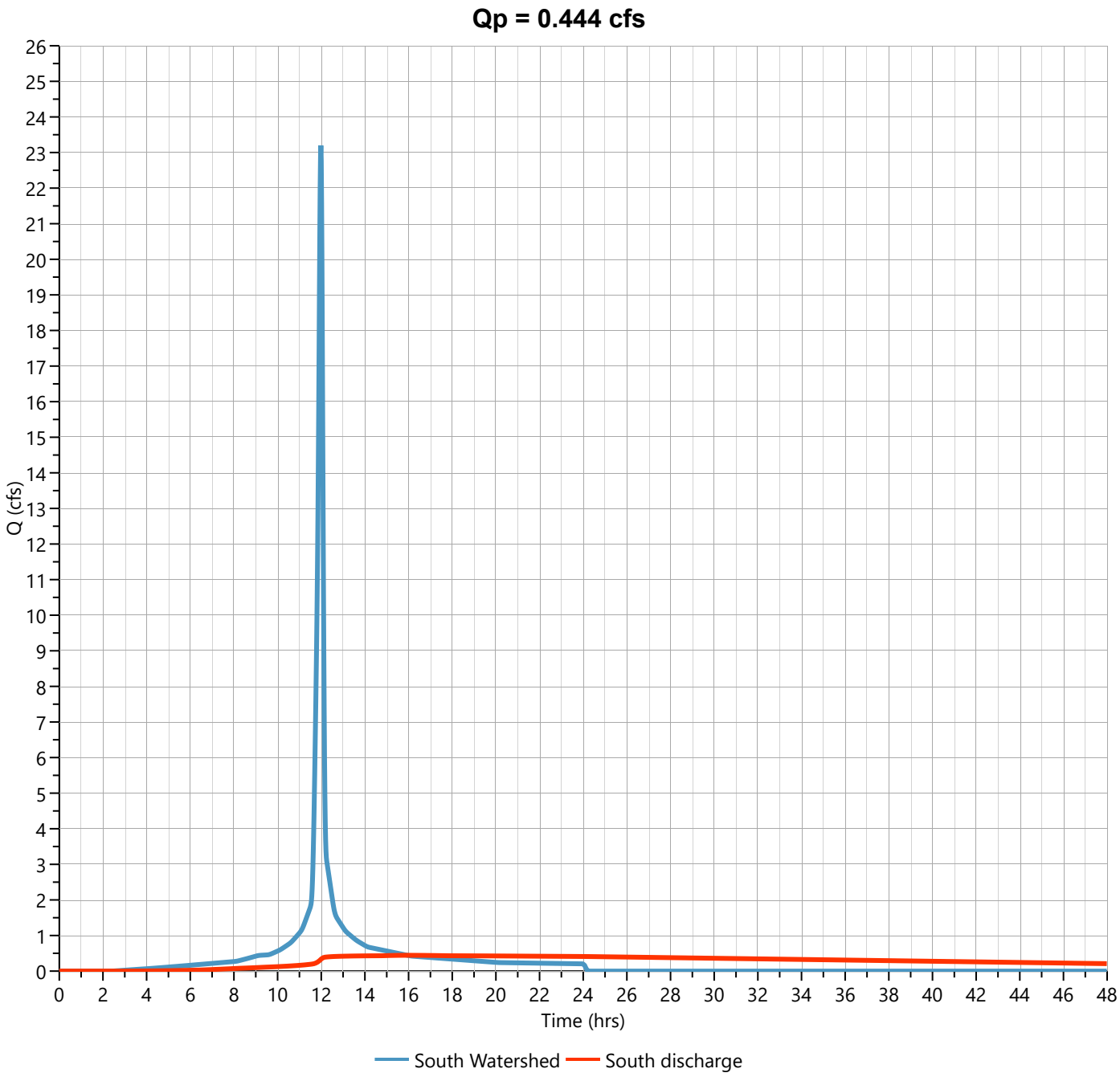
Post South discharge

Hyd. No. 3

Hydrograph Type	= Pond Route	Peak Flow	= 0.444 cfs
Storm Frequency	= 10-yr	Time to Peak	= 15.95 hrs
Time Interval	= 1 min	Hydrograph Volume	= 47,585 cuft
Inflow Hydrograph	= 1 - South Watershed	Max. Elevation	= 771.23 ft
Pond Name	= South Storm Trap	Max. Storage	= 41,271 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 14.56 hrs



Hydrograph Report

Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

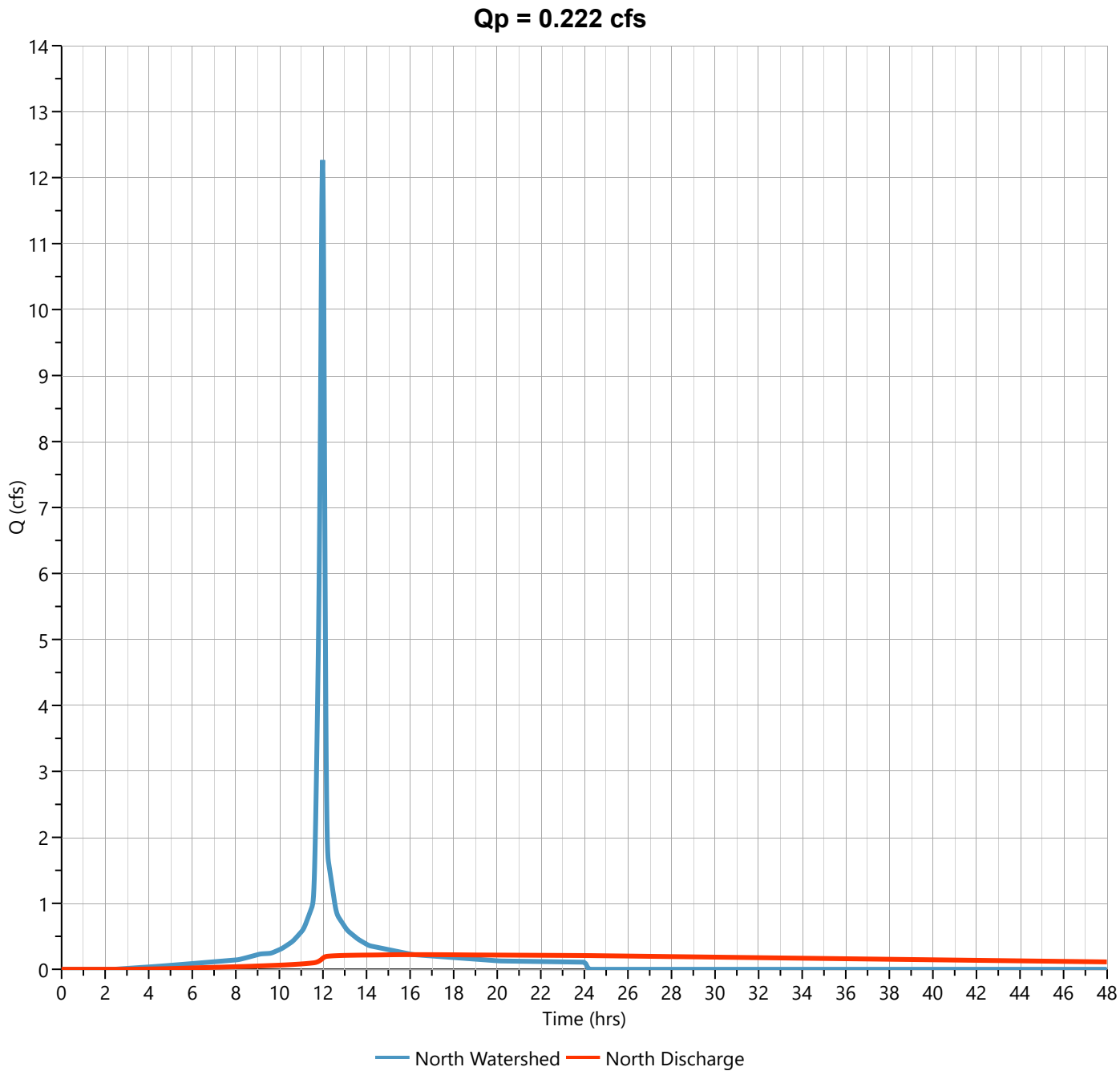
Post North Discharge

Hyd. No. 4

Hydrograph Type	= Pond Route	Peak Flow	= 0.222 cfs
Storm Frequency	= 10-yr	Time to Peak	= 16.17 hrs
Time Interval	= 1 min	Hydrograph Volume	= 24,437 cuft
Inflow Hydrograph	= 2 - North Watershed	Max. Elevation	= 766.46 ft
Pond Name	= North Storm Trap	Max. Storage	= 21,951 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 14.64 hrs



Hydrograph Report

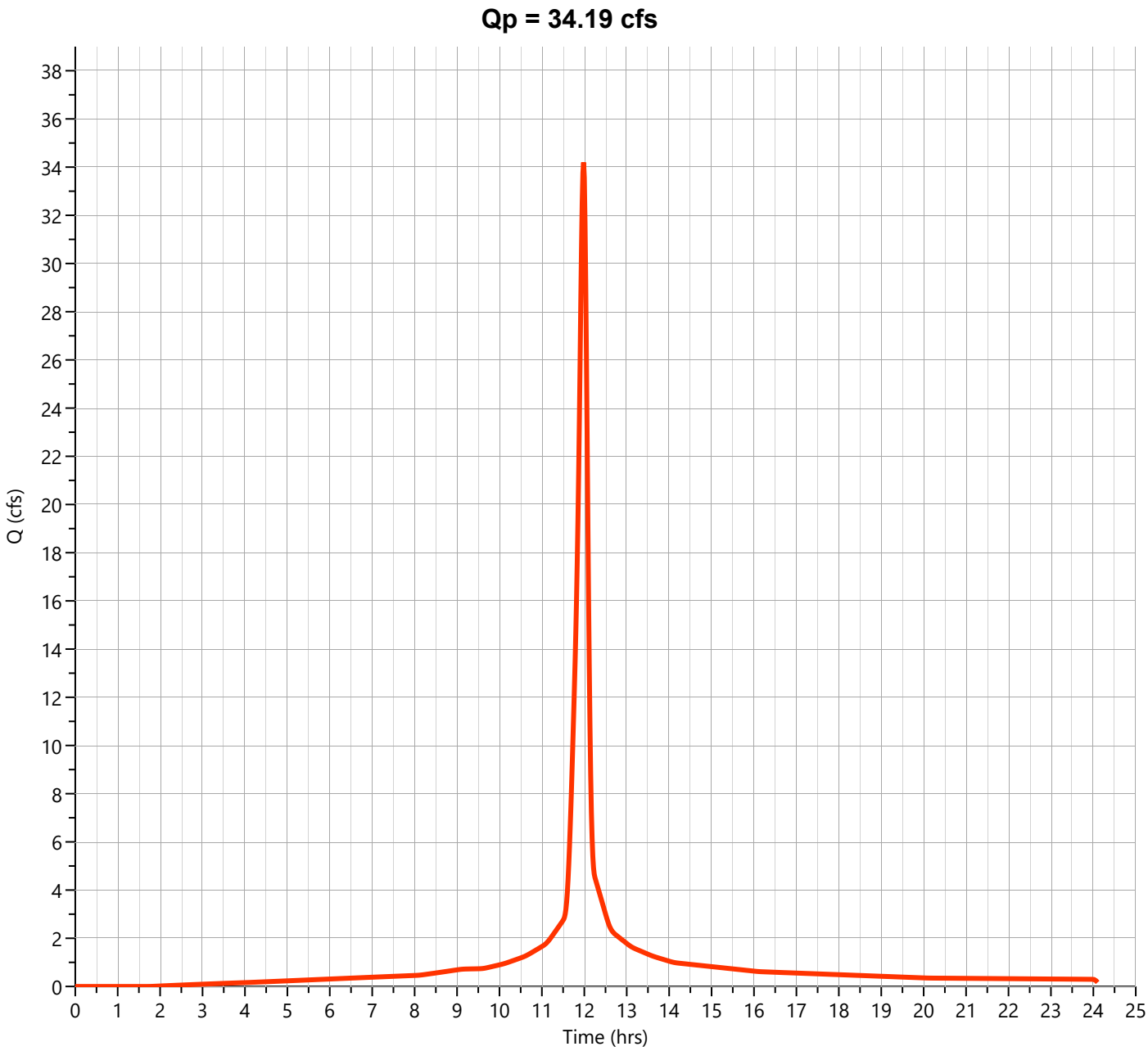
Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

Post South Watershed

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 34.19 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.98 hrs
Time Interval	= 1 min	Runoff Volume	= 87,487 cuft
Drainage Area	= 4.52 ac	Curve Number	= 95.00
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 5.92 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

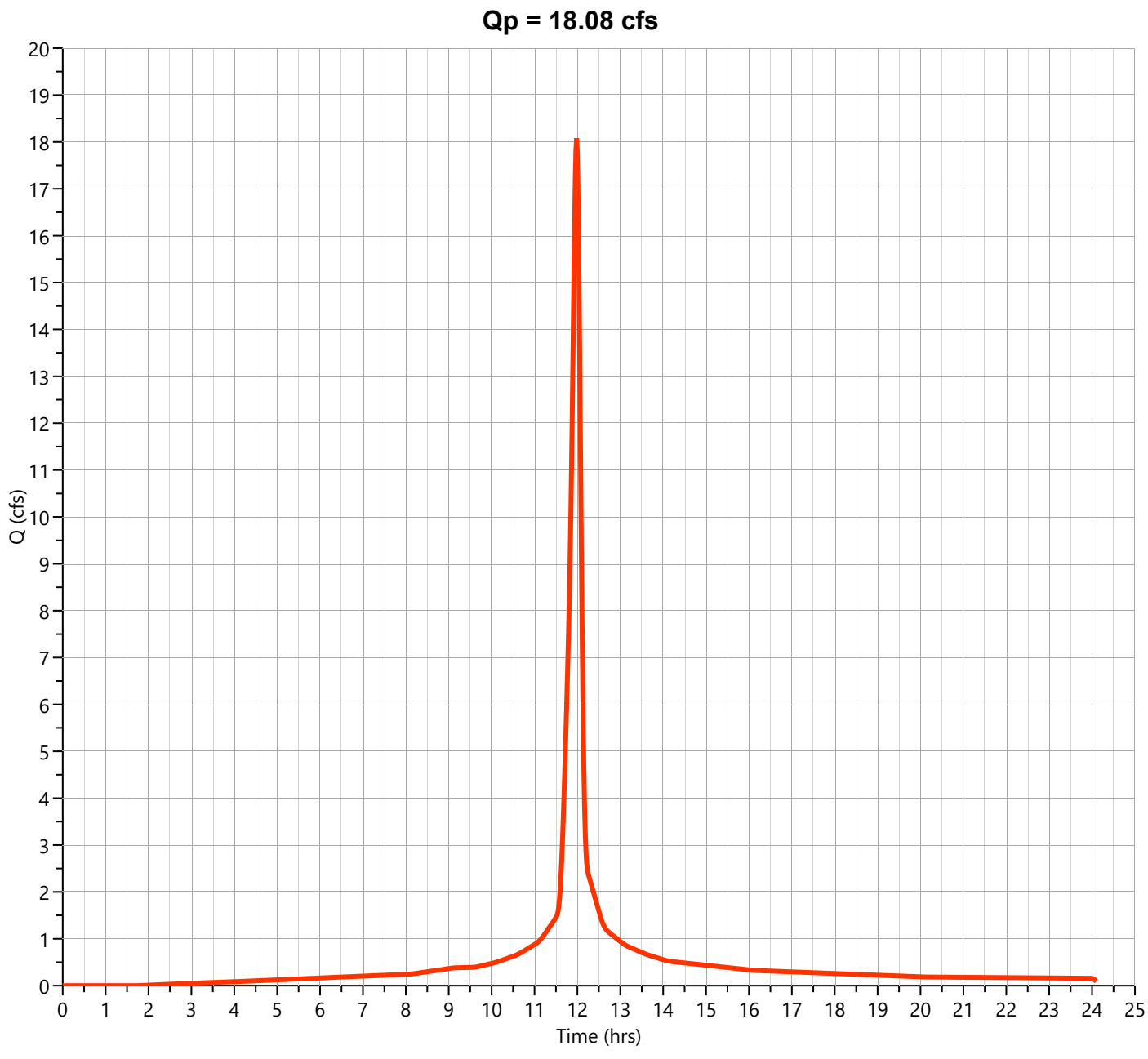
Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

Post North Watershed

Hyd. No. 2

Hydrograph Type	= NRCS Runoff	Peak Flow	= 18.08 cfs
Storm Frequency	= 100-yr	Time to Peak	= 11.98 hrs
Time Interval	= 1 min	Runoff Volume	= 46,260 cuft
Drainage Area	= 2.39 ac	Curve Number	= 95.00
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 5.92 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Report

Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

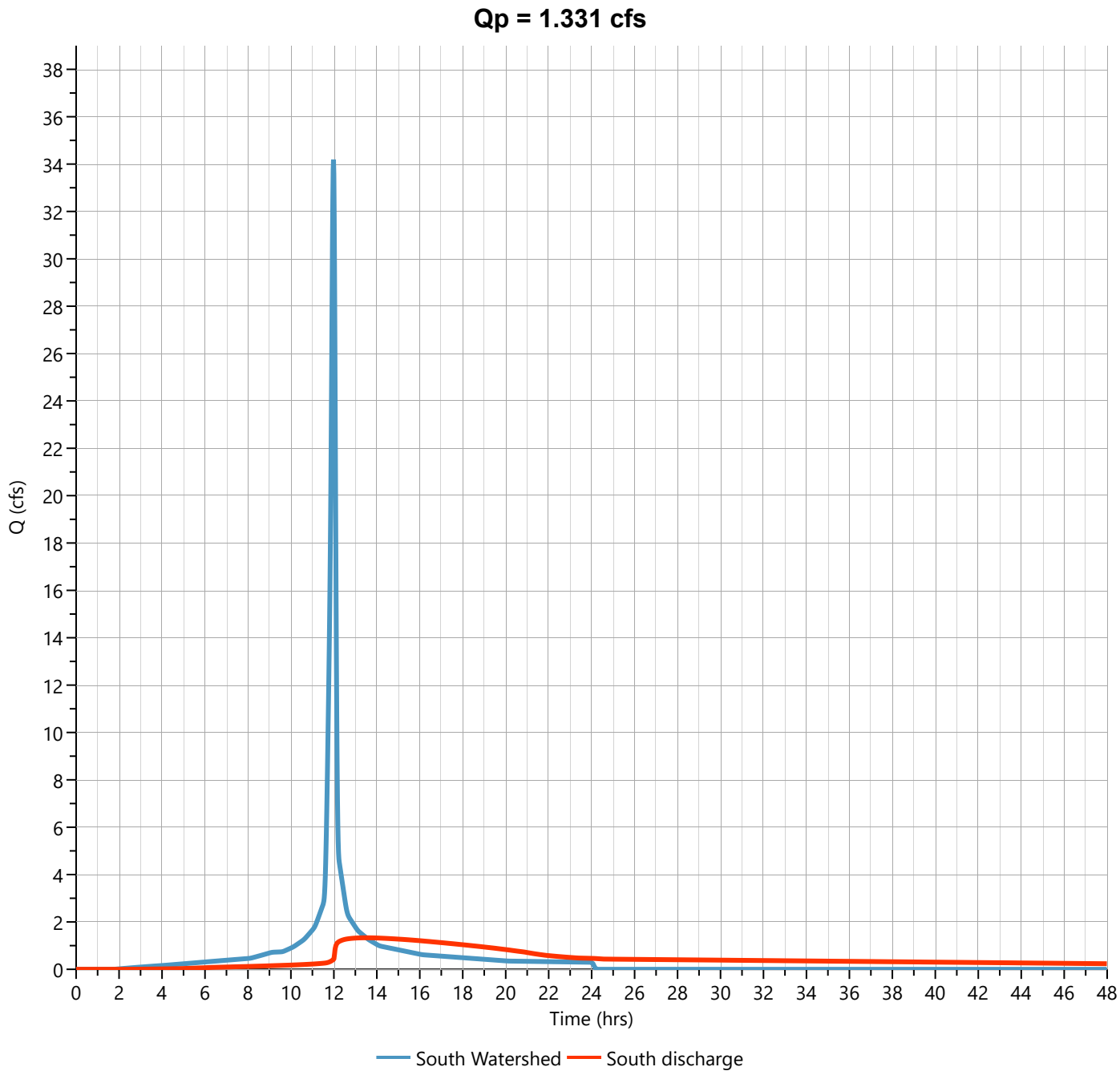
Post South discharge

Hyd. No. 3

Hydrograph Type	= Pond Route	Peak Flow	= 1.331 cfs
Storm Frequency	= 100-yr	Time to Peak	= 13.52 hrs
Time Interval	= 1 min	Hydrograph Volume	= 74,690 cuft
Inflow Hydrograph	= 1 - South Watershed	Max. Elevation	= 772.58 ft
Pond Name	= South Storm Trap	Max. Storage	= 57,111 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 11.32 hrs



Hydrograph Report

Hydrology Studio v 3.0.0.38

File: CGrove Parking Lot.hys
05-30-2025

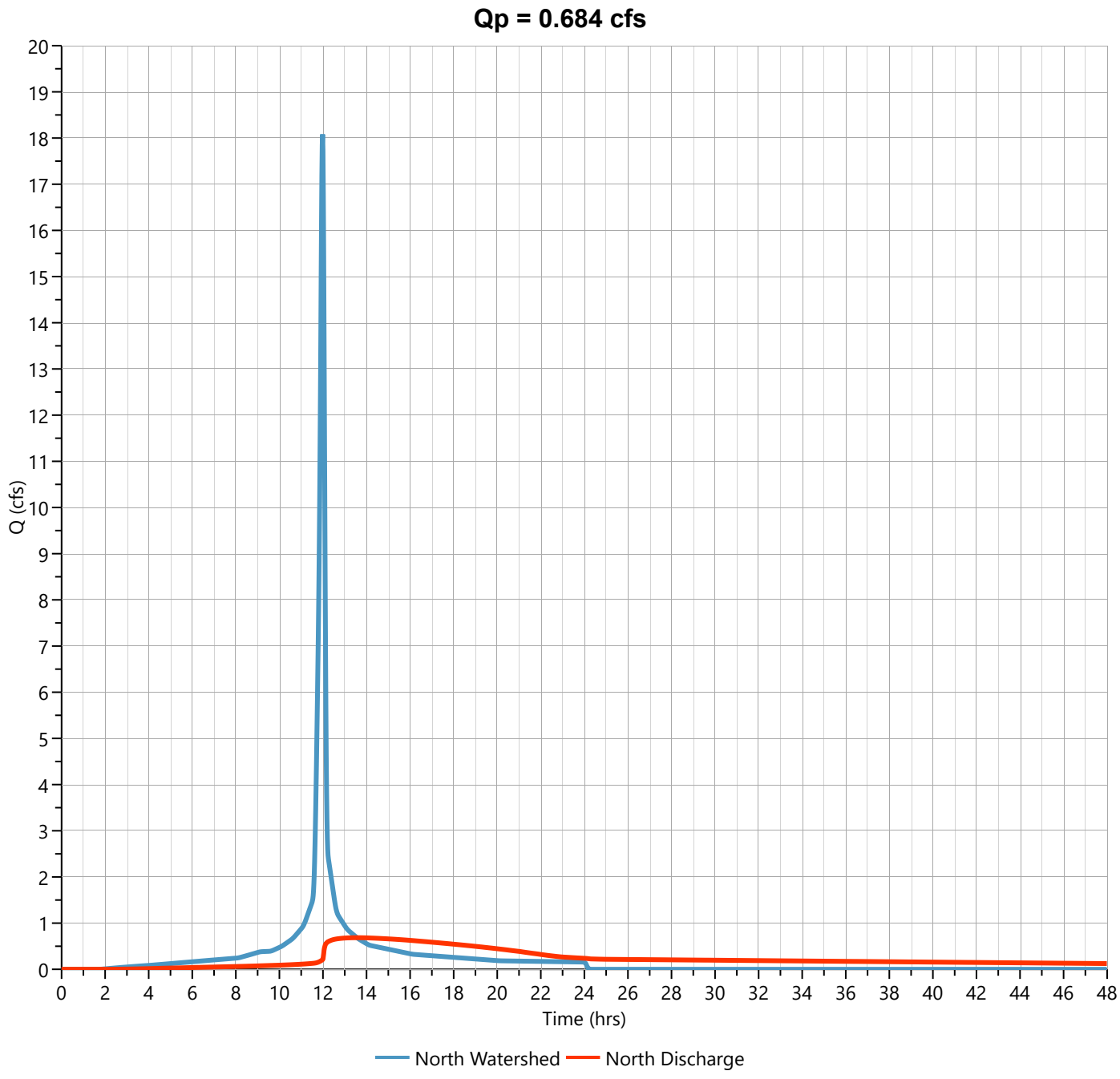
Post North Discharge

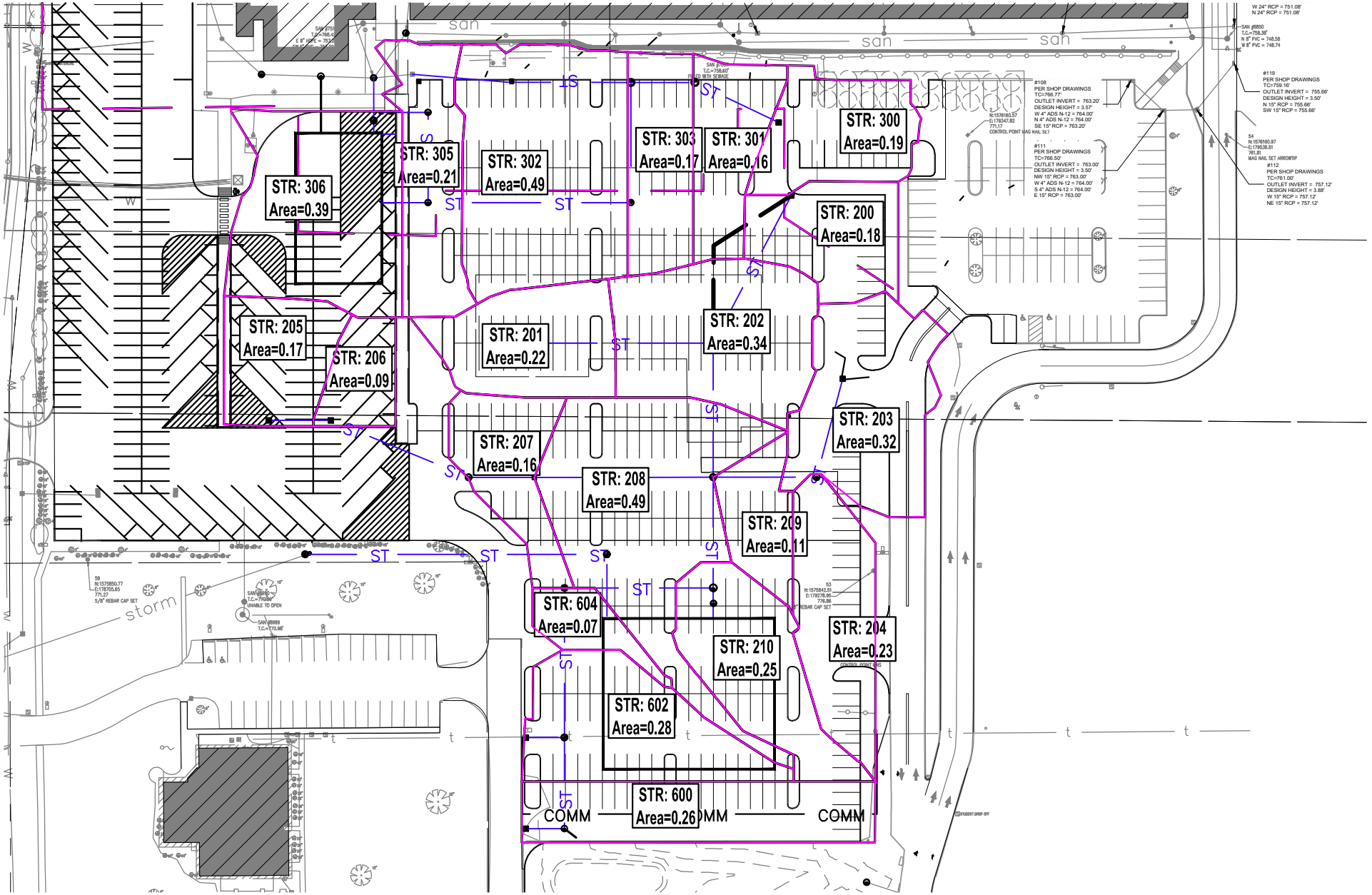
Hyd. No. 4

Hydrograph Type	= Pond Route	Peak Flow	= 0.684 cfs
Storm Frequency	= 100-yr	Time to Peak	= 13.57 hrs
Time Interval	= 1 min	Hydrograph Volume	= 38,806 cuft
Inflow Hydrograph	= 2 - North Watershed	Max. Elevation	= 768.08 ft
Pond Name	= North Storm Trap	Max. Storage	= 30,330 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 11.27 hrs





INLET BASIN AREAS
CENTER GROVE HS PARKING

Scale: 1" = 100'

N

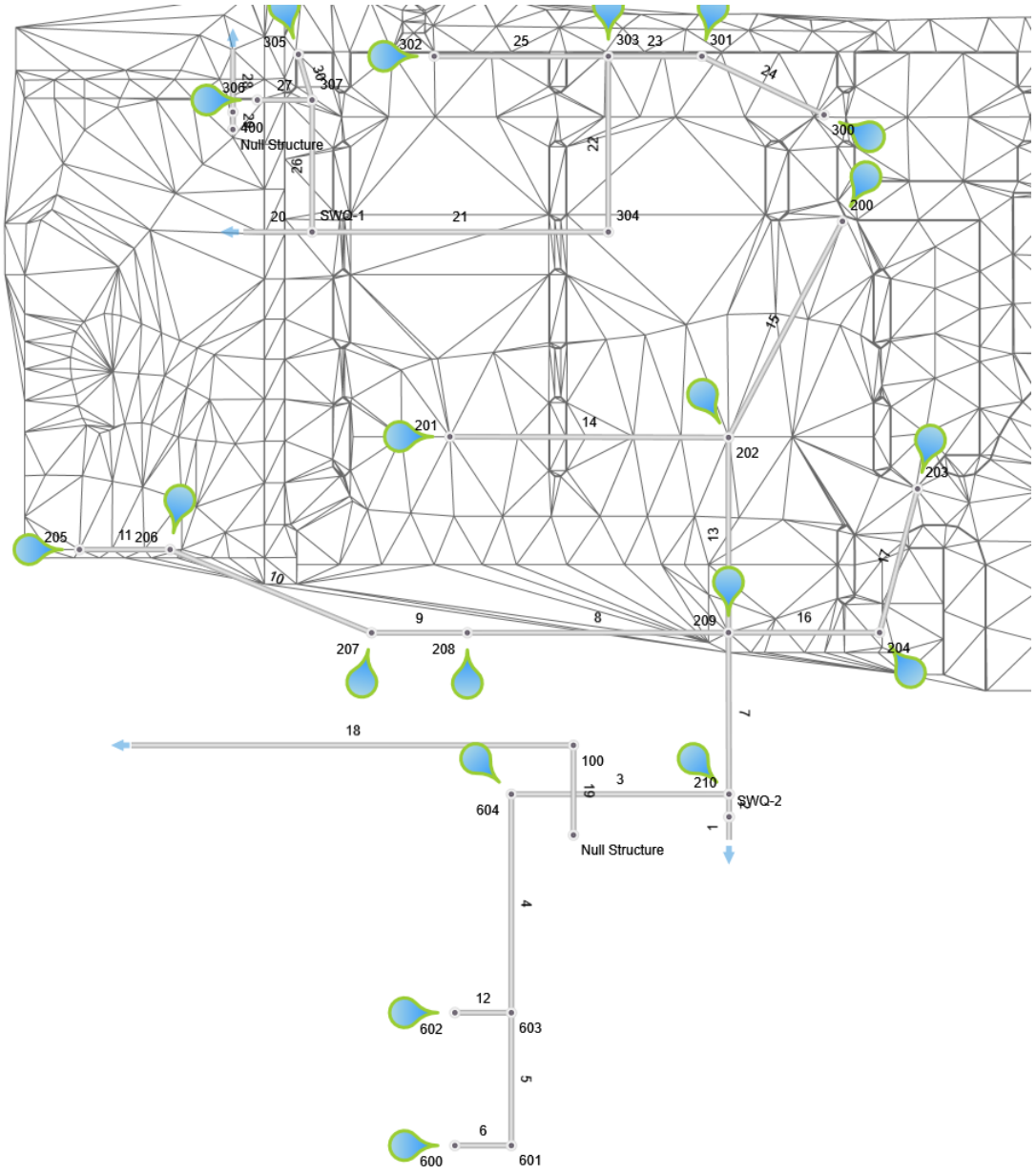
TLF

Plan View

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



Storm Sewer Tabulation

Project Name: Proposed Storm

Stormwater Studio 2025 v 1.0.0.0

05-30-2025

Line ID	Length	Drng Area		Rational	C x A		Tc		Intensity	Total Q	Capacity	Velocity	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Up	Dn	Up	Dn	Up	Dn	
	(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
Pipe - (21) (1) (1)	10.93	0.000	3.175	0.00	0.00	2.70	0.0	6.74	6.64	17.93	30.73	3.66	30	0.56	767.76	767.70	770.22	770.20	0.00	0.00	1
Pipe - (21) (1)	11.36	0.247	3.175	0.85	0.21	2.70	5.0	6.71	6.66	17.96	27.99	3.66	30	0.47	767.81	767.76	770.37	770.35	0.00	0.00	2
Pipe - (30)	108.71	0.069	0.617	0.85	0.06	0.52	5.0	5.91	6.94	3.64	4.34	2.97	15	0.45	769.07	768.58	770.91	770.56	0.00	0.00	3
Pipe - (29)	109.26	0.000	0.548	0.00	0.00	0.47	0.0	5.46	7.12	3.32	4.58	2.70	15	0.50	769.62	769.07	771.37	771.09	0.00	0.00	4
Pipe - (28)	66.43	0.000	0.264	0.00	0.00	0.22	0.0	5.14	7.25	1.62	2.55	2.07	12	0.51	769.96	769.62	771.65	771.51	0.00	0.00	5
Pipe - (27)	28.22	0.264	0.264	0.85	0.22	0.22	5.0	5.00	7.31	1.64	2.51	2.08	12	0.50	770.10	769.96	771.79	771.73	0.00	0.00	6
Pipe - (21)	80.79	0.109	2.310	0.85	0.09	1.96	5.0	6.46	6.74	13.24	15.25	4.21	24	0.45	768.18	767.81	770.76	770.48	773.60	773.84	7
Pipe - (24)	130.49	0.492	0.908	0.85	0.42	0.77	5.0	6.00	6.91	5.33	7.75	3.02	18	0.54	768.89	768.18	771.46	771.13	773.74	773.60	8
Pipe - (46)	47.80	0.161	0.416	0.85	0.14	0.35	5.0	5.79	6.99	2.47	2.68	3.15	12	0.56	769.17	768.90	771.77	771.54	0.00	0.00	9
Pipe - (45)	108.98	0.088	0.255	0.85	0.07	0.22	5.0	5.25	7.20	1.56	2.51	1.98	12	0.50	769.71	769.17	772.14	771.94	772.44	773.39	10
Pipe - (44)	45.26	0.167	0.167	0.85	0.14	0.14	5.0	5.00	7.31	1.04	2.48	1.32	12	0.49	769.93	769.71	772.25	772.21	NaN	772.44	11
Pipe - (31)	28.22	0.285	0.285	0.85	0.24	0.24	5.0	5.00	7.31	1.77	2.51	2.25	12	0.50	769.79	769.65	771.57	771.50	0.00	0.00	12
Pipe - (20)	97.55	0.339	0.745	0.85	0.29	0.63	5.0	5.69	7.03	4.45	8.17	2.52	18	0.60	768.77	768.18	771.33	771.15	773.38	773.60	13
Pipe - (19)	139.22	0.222	0.222	0.85	0.19	0.19	5.0	5.00	7.31	1.38	4.77	1.12	15	0.55	769.50	768.74	771.52	771.46	773.45	773.38	14
Pipe - (41)	122.15	0.184	0.184	0.85	0.16	0.16	5.0	5.00	7.31	1.14	2.60	1.46	12	0.53	769.39	768.74	771.58	771.45	772.08	773.38	15
Pipe - (23)	75.53	0.231	0.548	0.85	0.20	0.47	5.0	5.35	7.16	3.33	4.58	2.72	15	0.50	768.56	768.18	771.34	771.14	774.43	773.60	16
Pipe - (22)	74.33	0.316	0.316	0.85	0.27	0.27	5.0	5.00	7.31	1.97	2.51	2.50	12	0.50	768.93	768.56	771.69	771.46	772.97	774.43	17
Pipe - (17)	220.27	0.000	0.000	0.00	0.00	0.00	0.0	0.30	7.31	0.00	2.52	0.00	12	0.50	767.50	766.40	767.50	766.40	0.00	0.00	18
Pipe - (15)	44.90	0.000	0.000	0.00	0.00	0.00	0.0	0.00	7.31	0.00	15.10	0.00	24	0.45	767.70	767.50	767.70	767.50	0.00	0.00	19
Pipe - (40) (1)	33.73	0.000	1.617	0.00	0.00	1.37	0.0	6.37	6.77	9.31	16.00	3.00	24	0.50	762.42	762.25	764.30	764.25	770.96	771.14	20
Pipe - (40)	148.02	0.000	1.018	0.00	0.00	0.87	0.0	5.84	6.97	6.03	16.00	2.24	24	0.50	763.16	762.42	764.56	764.47	771.64	770.96	21
Pipe - (39)	87.84	0.174	1.018	0.85	0.15	0.87	5.0	5.54	7.08	6.13	7.84	3.75	18	0.56	763.65	763.16	764.86	764.63	768.24	771.64	22

Notes: IDF File = Greenwood IDF.idf, Return Period = 10-yrs.

Project File: Storm Sewer 05-29-25.sws

Storm Sewer Tabulation

Project Name: Proposed Storm

Stormwater Studio 2025 v 1.0.0.0

05-30-2025

Line ID	Length	Drng Area		Rational	C x A		Tc		Intensity	Total Q	Capacity	Velocity	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Up	Dn	Up	Dn	Up	Dn	
	(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
Pipe - (34)	46.74	0.162	0.356	0.85	0.14	0.30	5.0	5.34	7.17	2.17	4.82	1.77	15	0.56	763.91	763.65	765.32	765.27	769.02	768.24	23
Pipe - (36)	67.68	0.194	0.194	0.85	0.16	0.16	5.0	5.00	7.31	1.20	2.70	1.53	12	0.58	764.30	763.91	765.44	765.36	769.70	769.02	24
Pipe - (37)	87.01	0.488	0.488	0.85	0.41	0.41	5.0	5.00	7.31	3.03	4.64	2.47	15	0.52	764.10	763.65	765.43	765.24	767.14	768.24	25
Pipe - (43)	65.95	0.000	0.600	0.00	0.00	0.51	0.0	5.11	7.26	3.70	4.84	3.01	15	0.56	762.82	762.45	764.64	764.42	767.71	770.96	26
Pipe - (42)	27.35	0.390	0.390	0.85	0.33	0.33	5.0	5.00	7.31	2.42	2.81	3.08	12	0.62	762.99	762.82	764.92	764.79	767.98	767.71	27
Pipe - (26) (1)	31.10	0.000	0.000	0.00	0.00	0.00	0.0	0.06	7.31	0.00	2.52	0.00	12	0.50	762.15	761.99	762.15	761.99	768.48	NaN	28
Pipe - (26)	8.72	0.000	0.000	0.00	0.00	0.00	0.0	0.00	7.31	0.00	16.04	0.00	24	0.50	762.19	762.15	762.19	762.15	768.74	768.48	29
Line 30	23.83	0.210	0.210	0.85	0.18	0.18	5.0	5.00	7.31	1.30	2.83	1.66	12	0.63	762.99	762.84	764.88	764.85	767.47	767.71	30

Notes: IDF File = Greenwood IDF.idf, Return Period = 10-yrs.

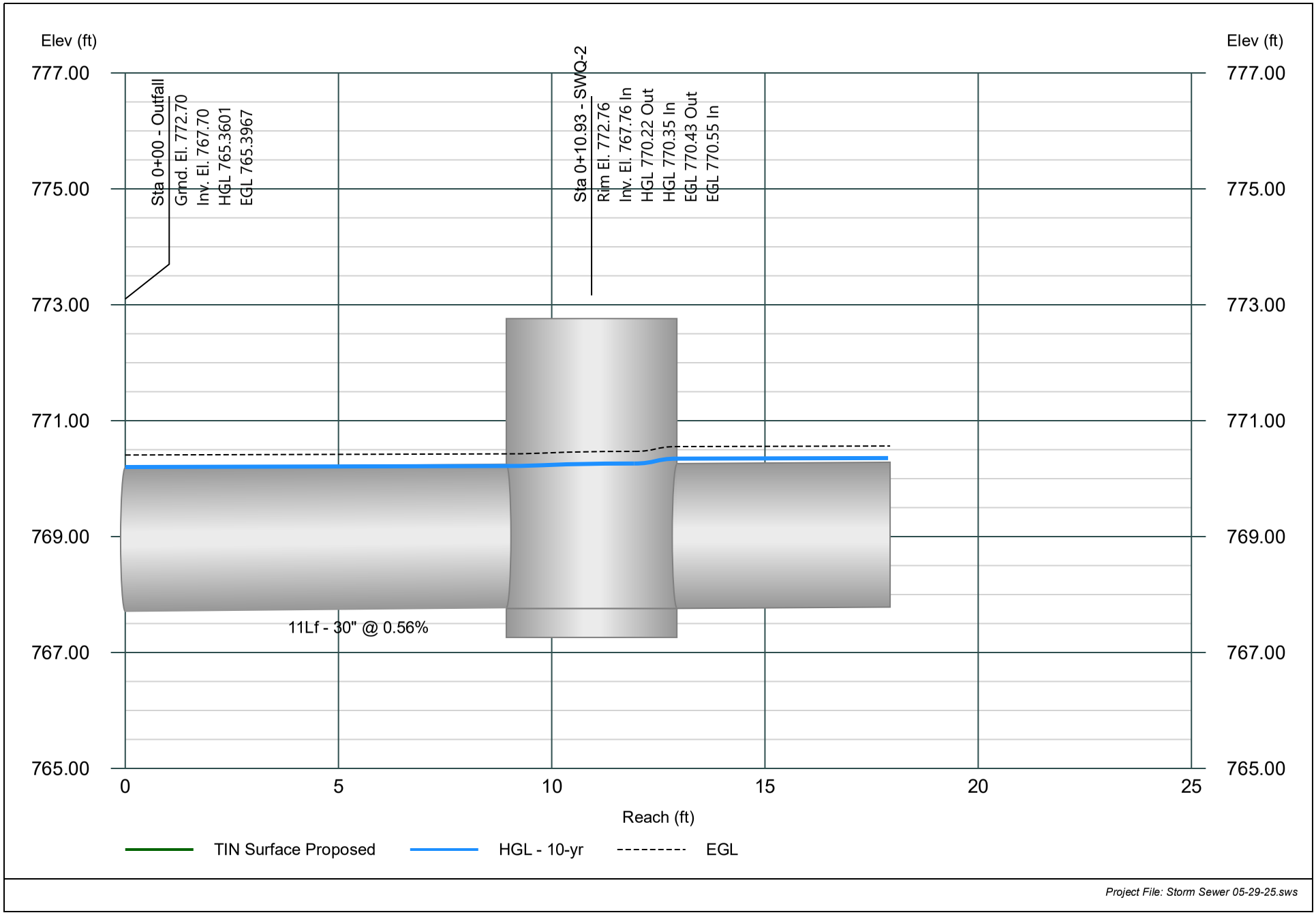
Project File: Storm Sewer 05-29-25.sws

Line 1 - Pipe - (21) (1) (1)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



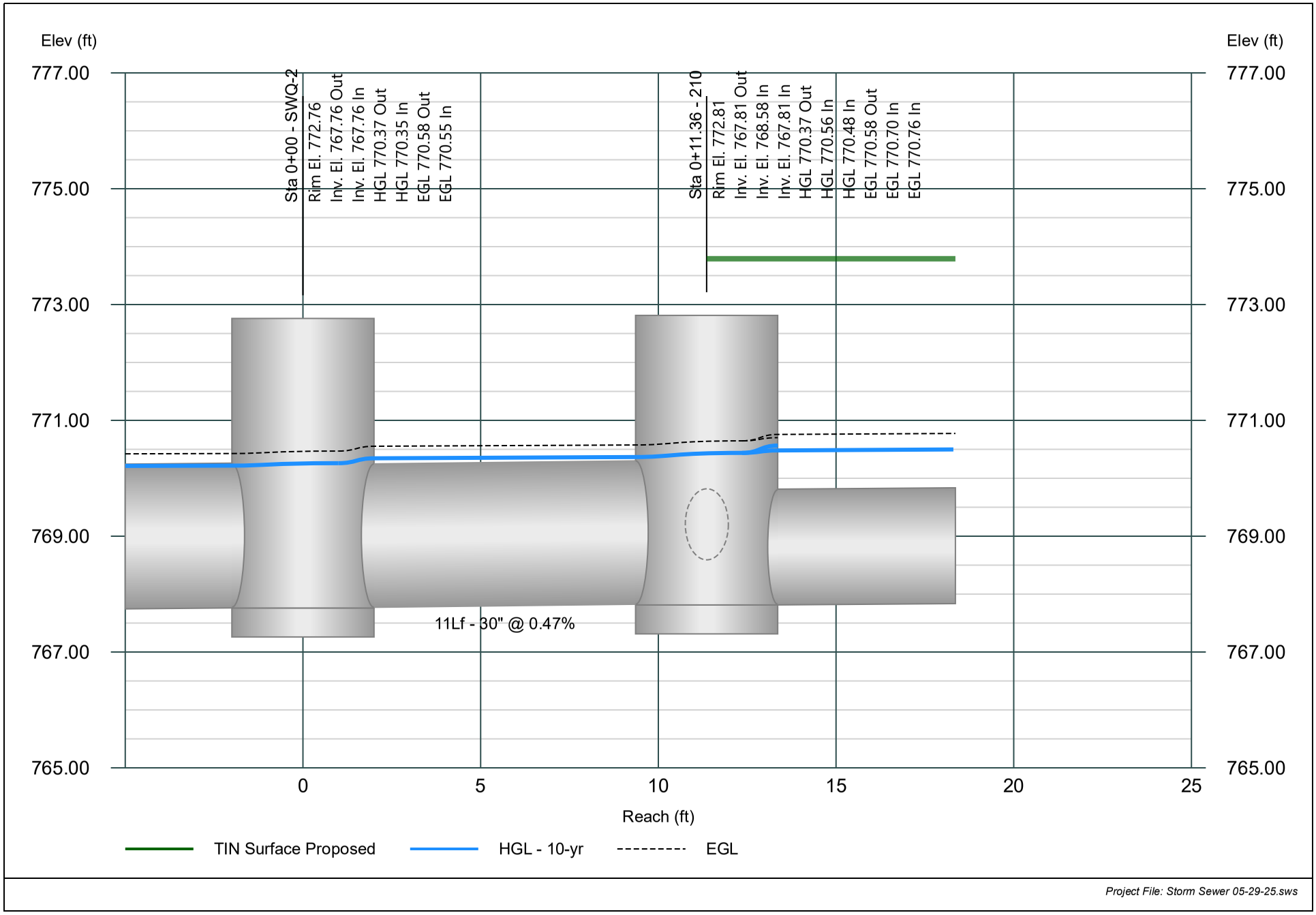
Project File: Storm Sewer 05-29-25.sws

Line 2 - Pipe - (21) (1)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



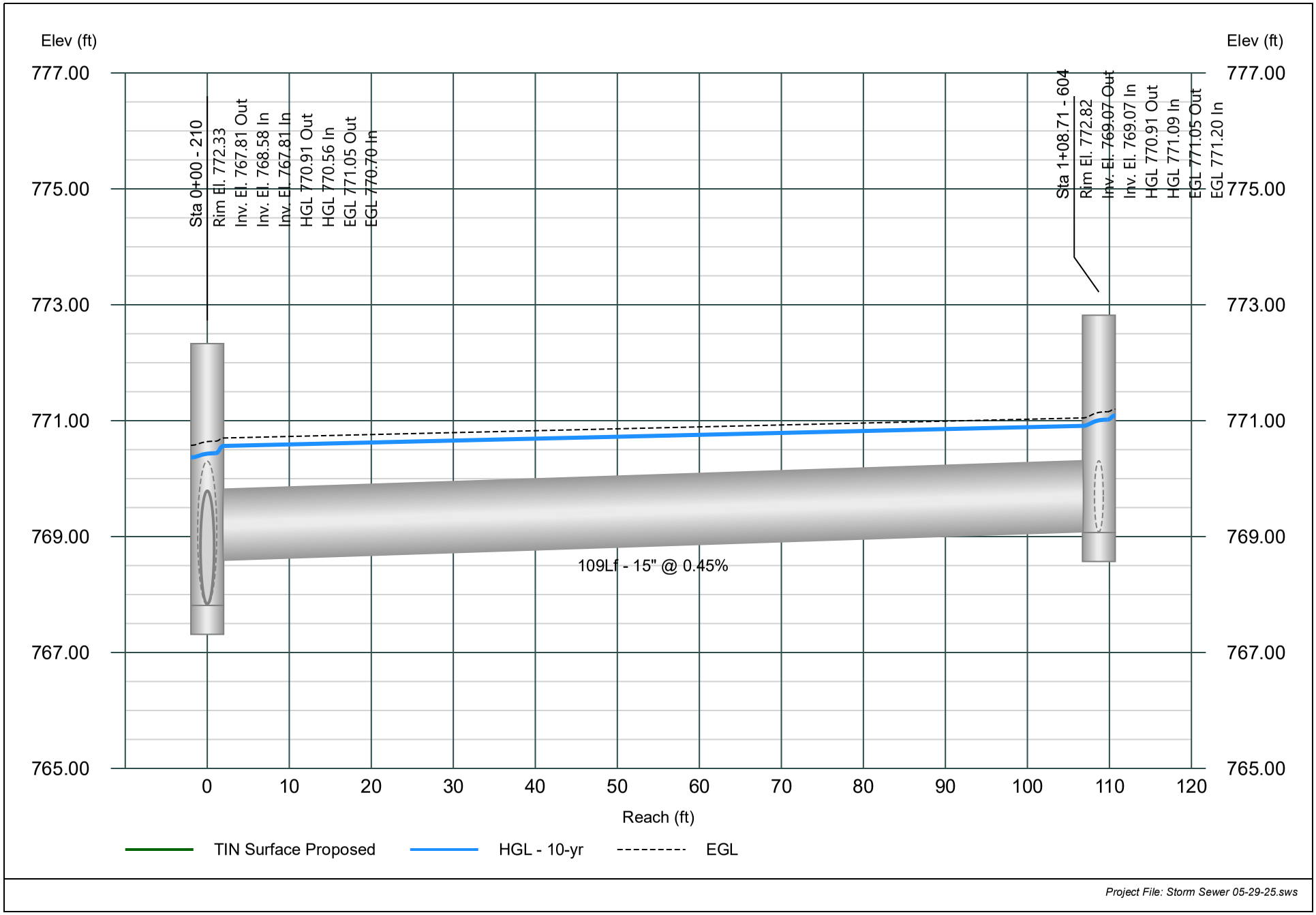
Project File: Storm Sewer 05-29-25.sws

Line 3 - Pipe - (30)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



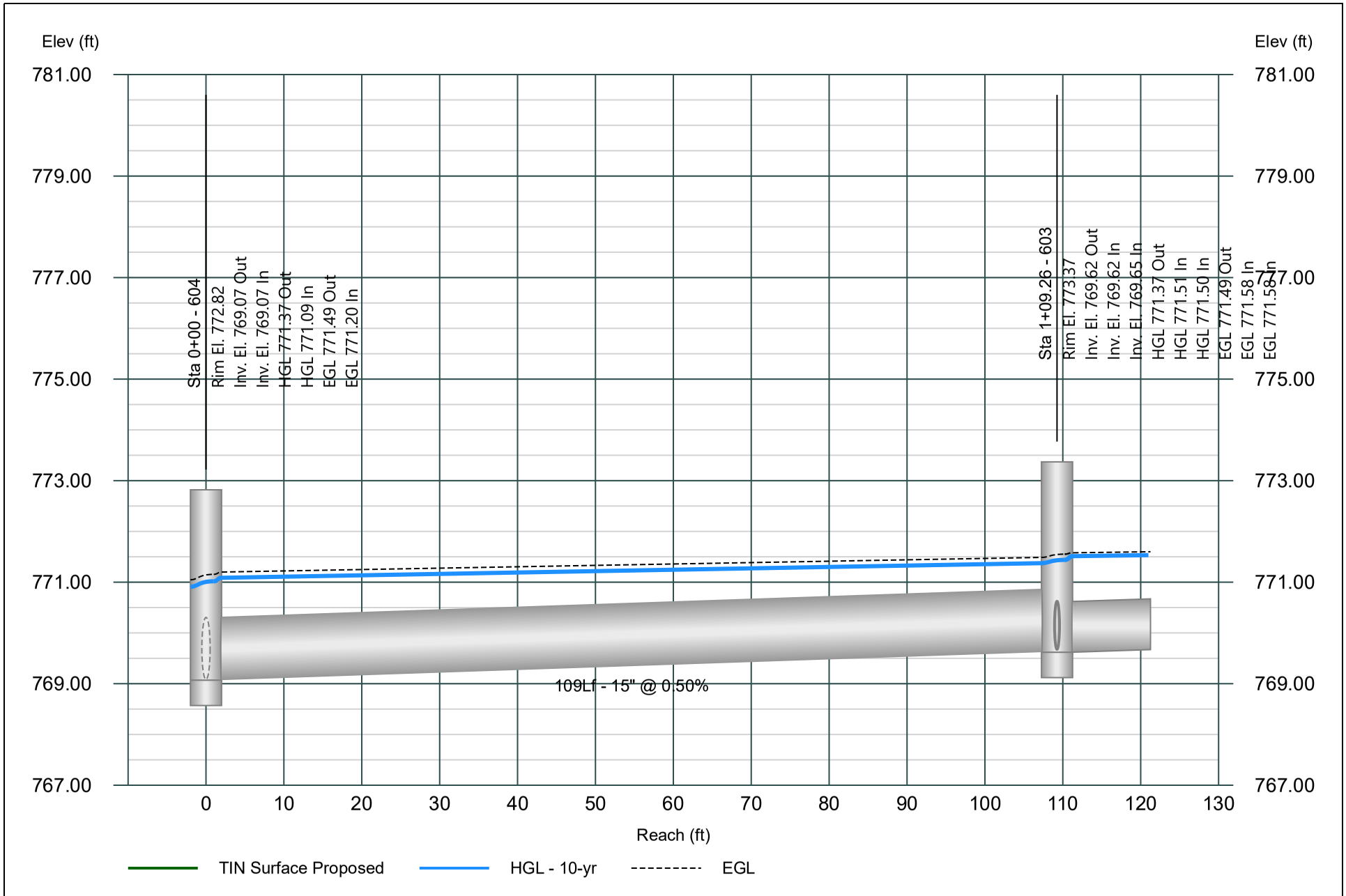
Project File: Storm Sewer 05-29-25.sws

Line 4 - Pipe - (29)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



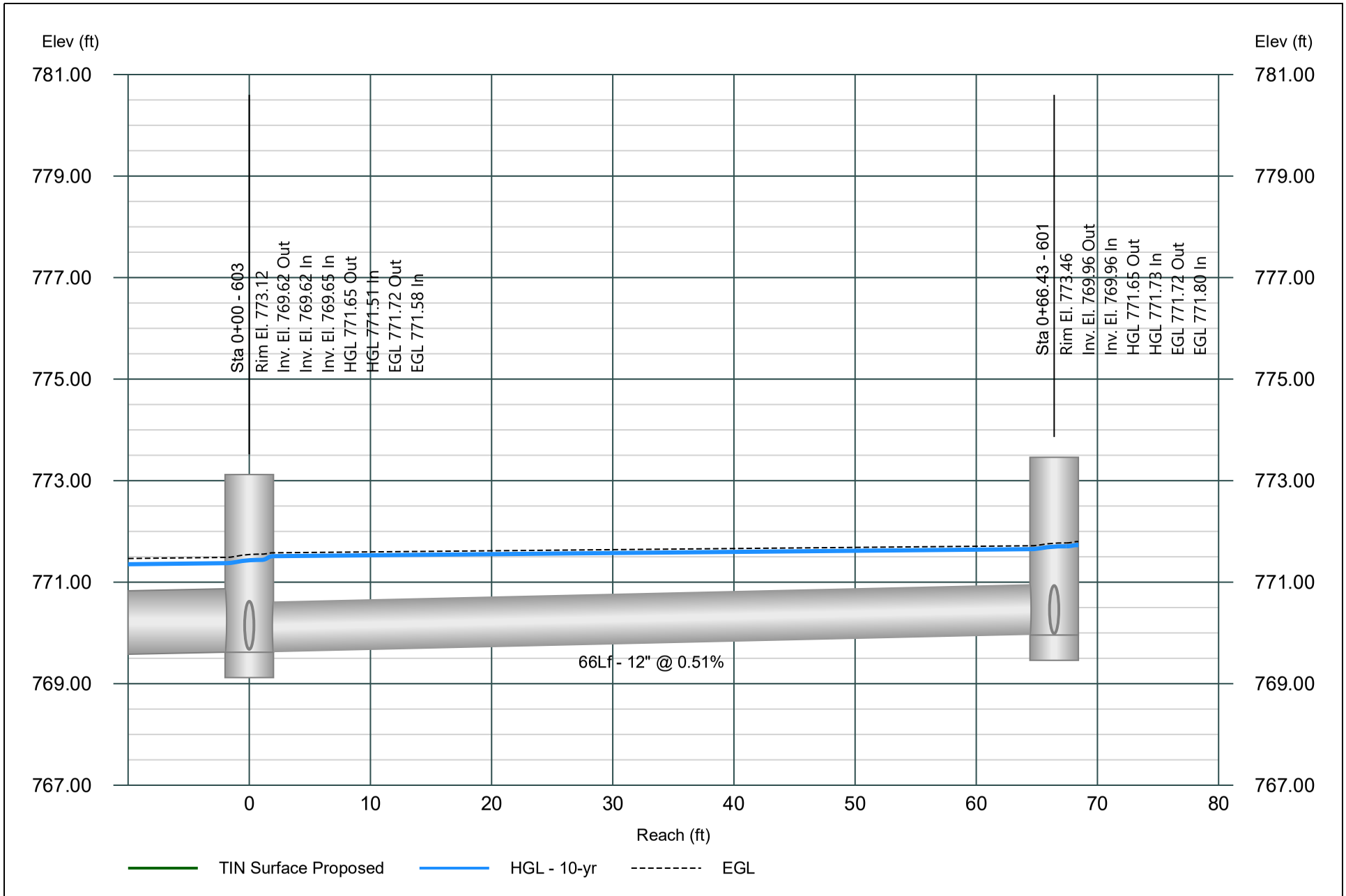
Project File: Storm Sewer 05-29-25.sws

Line 5 - Pipe - (28)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



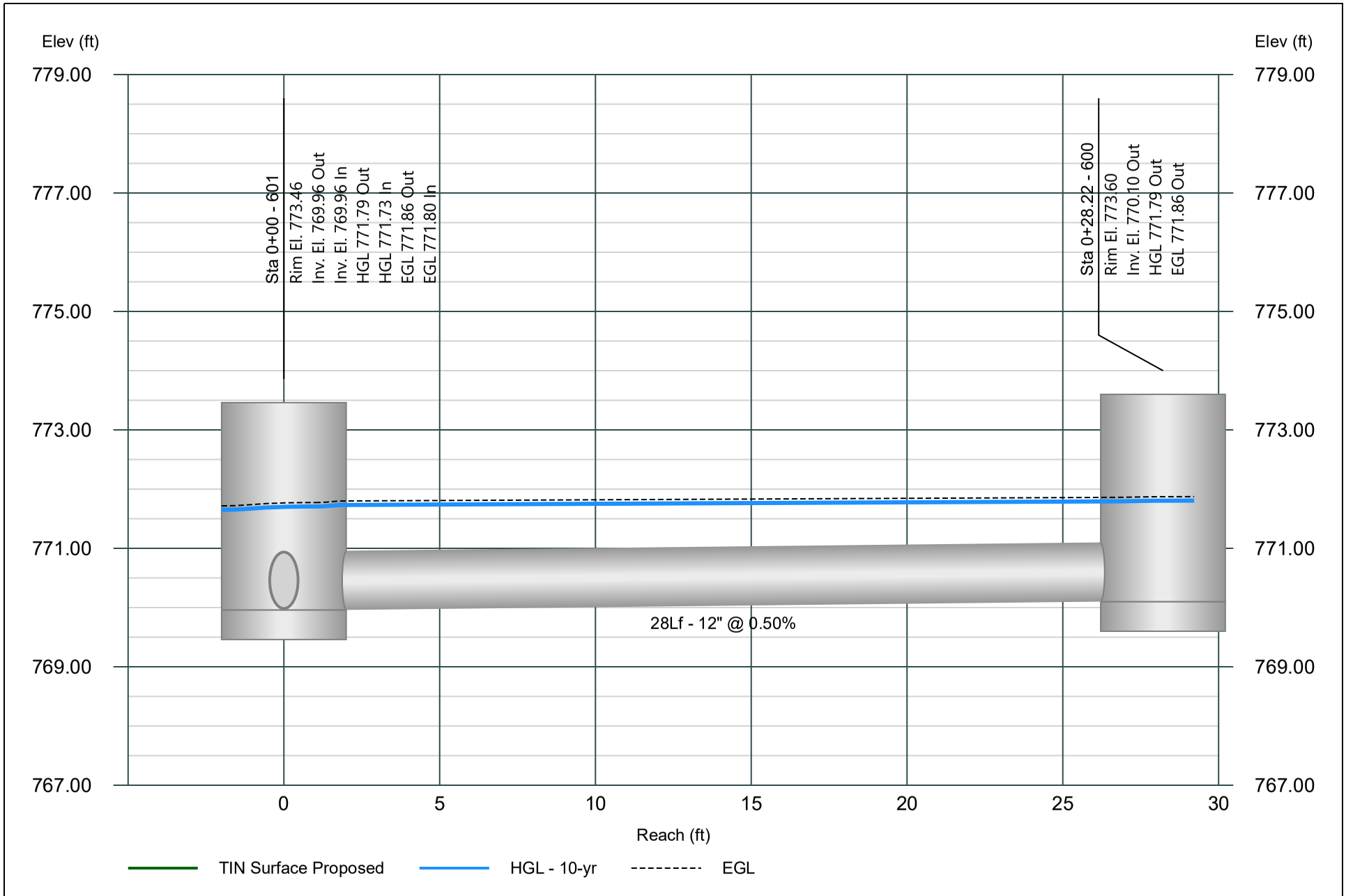
Project File: Storm Sewer 05-29-25.sws

Line 6 - Pipe - (27)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



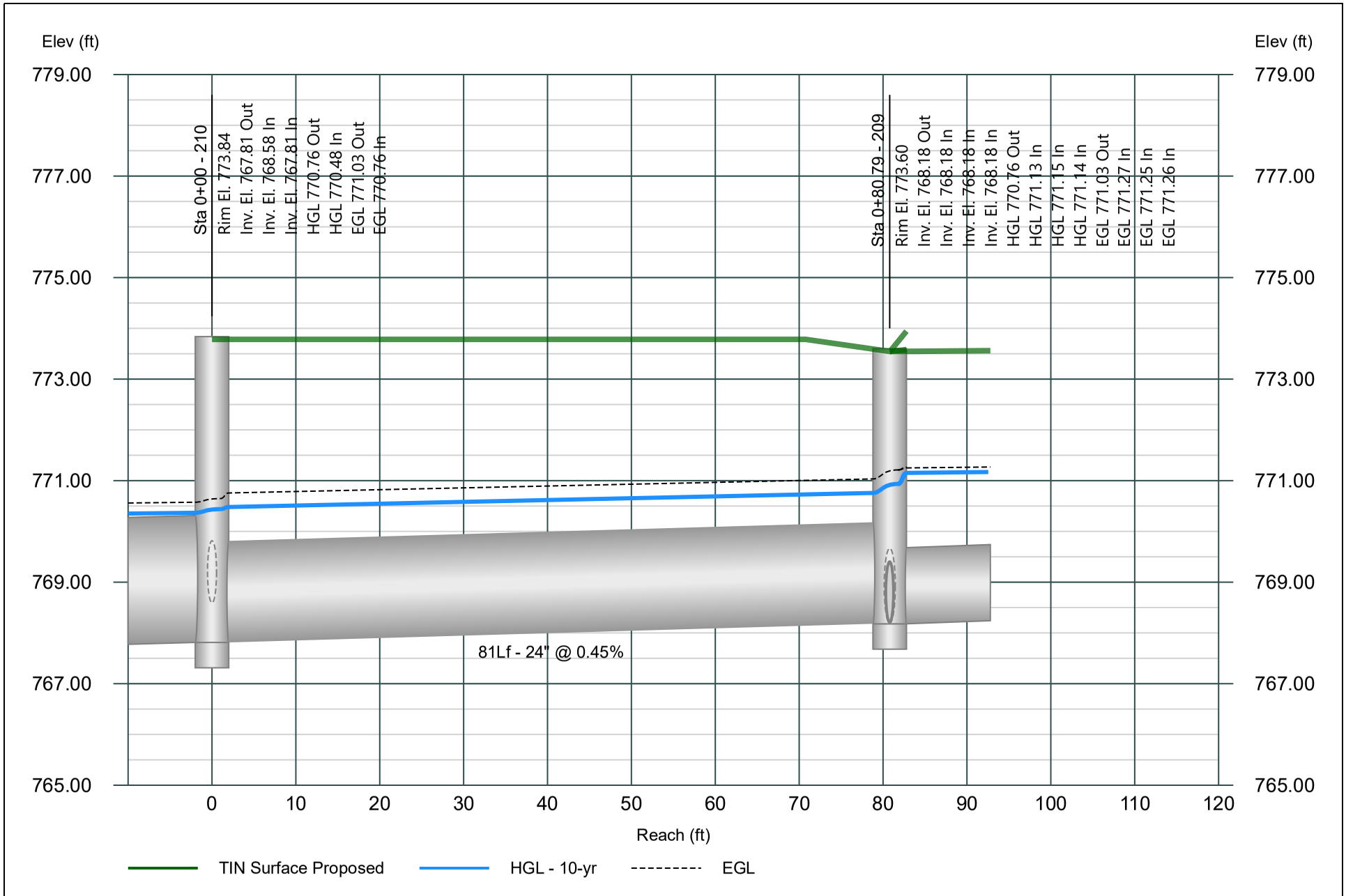
Project File: Storm Sewer 05-29-25.sws

Line 7 - Pipe - (21)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



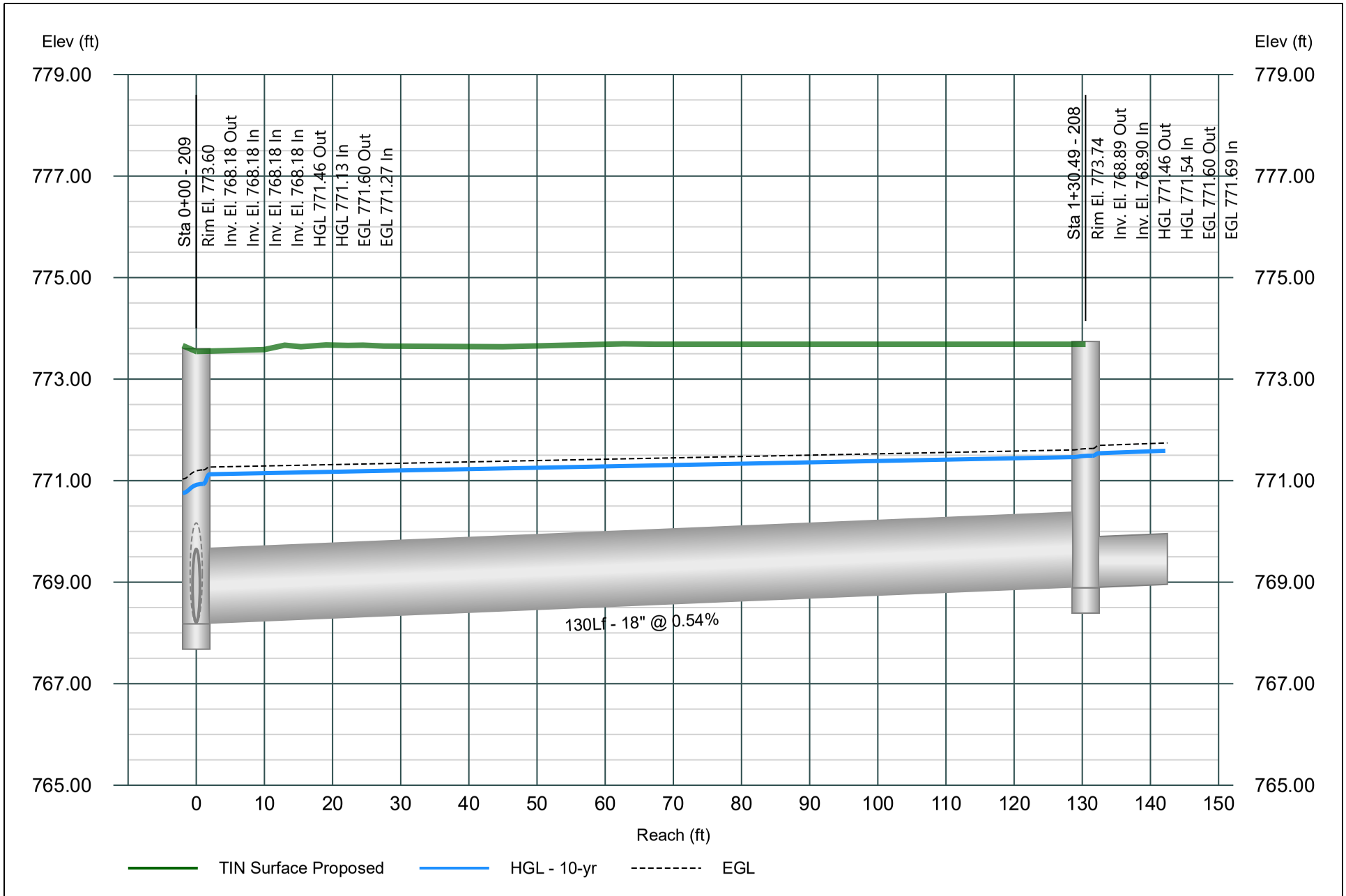
Project File: Storm Sewer 05-29-25.sws

Line 8 - Pipe - (24)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



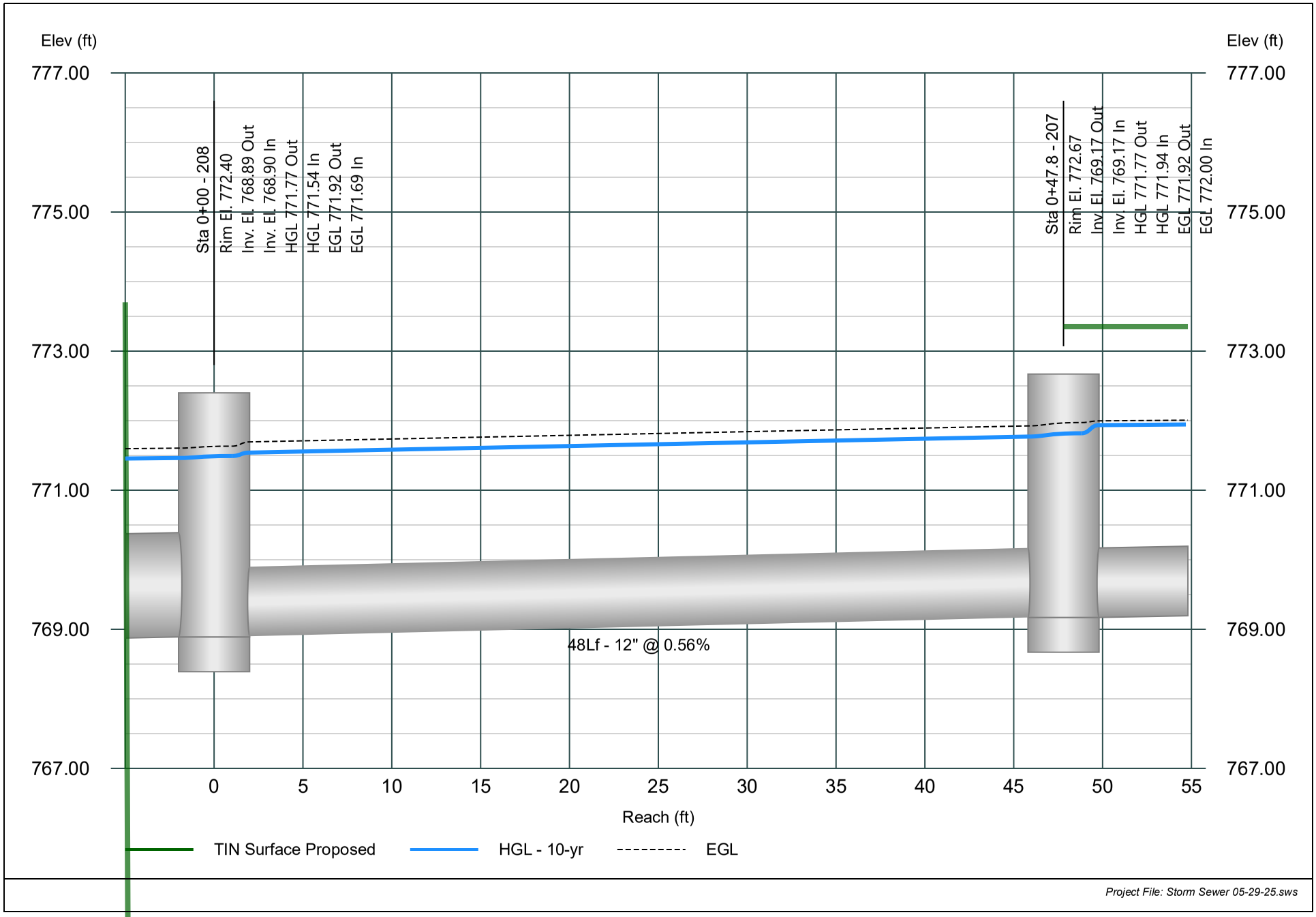
Project File: Storm Sewer 05-29-25.sws

Line 9 - Pipe - (46)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



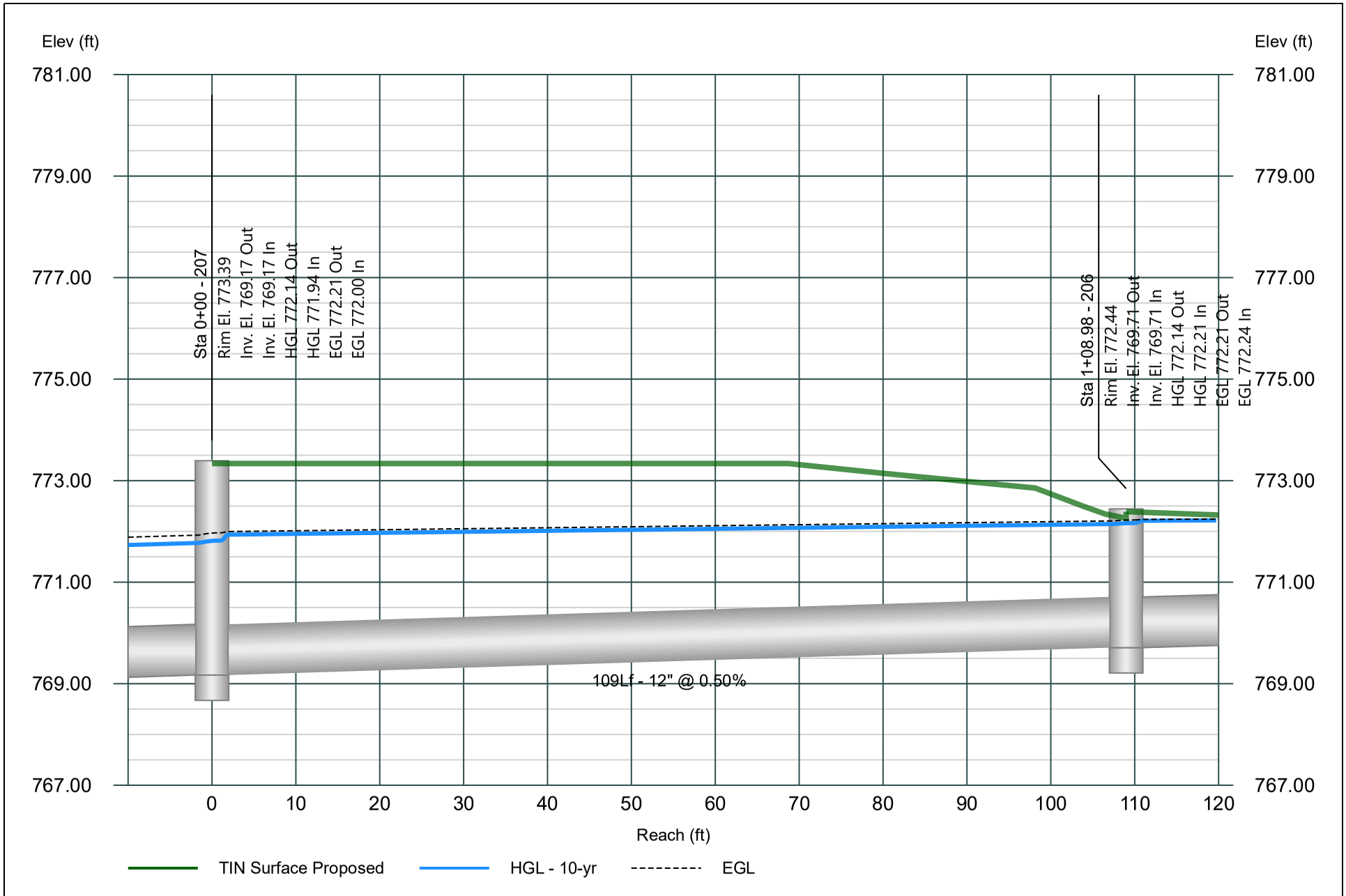
Project File: Storm Sewer 05-29-25.sws

Line 10 - Pipe - (45)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



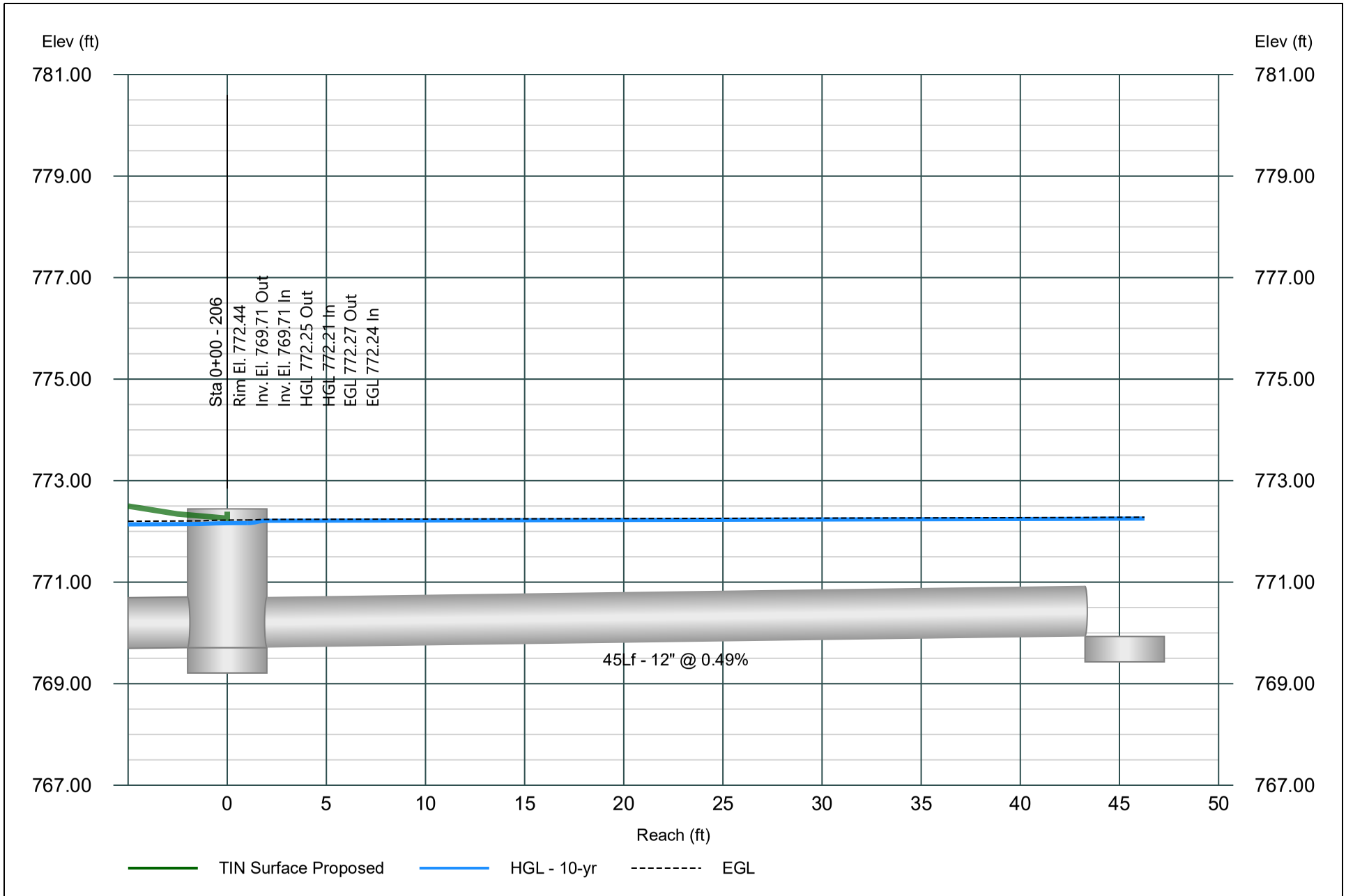
Project File: Storm Sewer 05-29-25.sws

Line 11 - Pipe - (44)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025

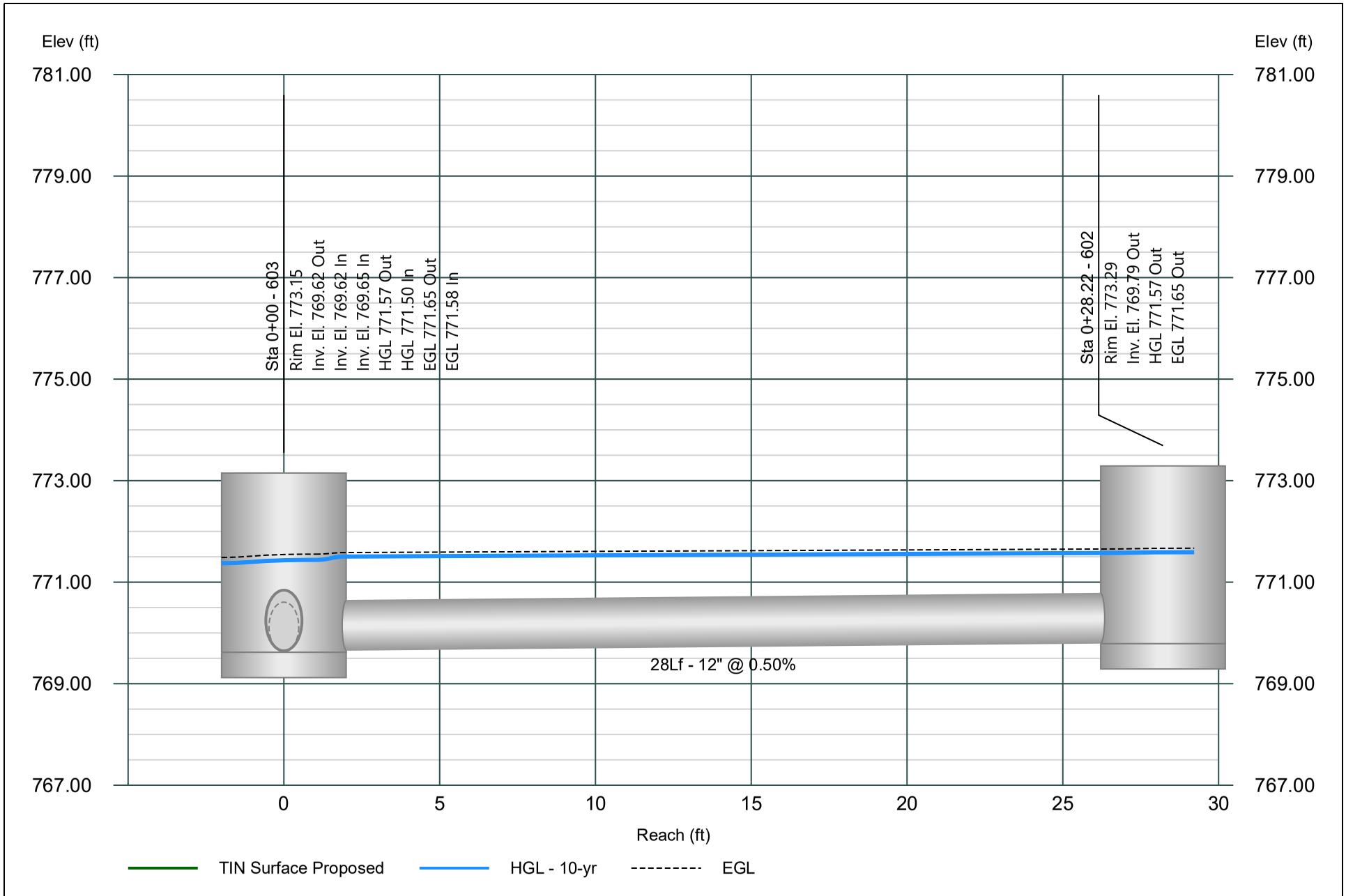


Line 12 - Pipe - (31)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



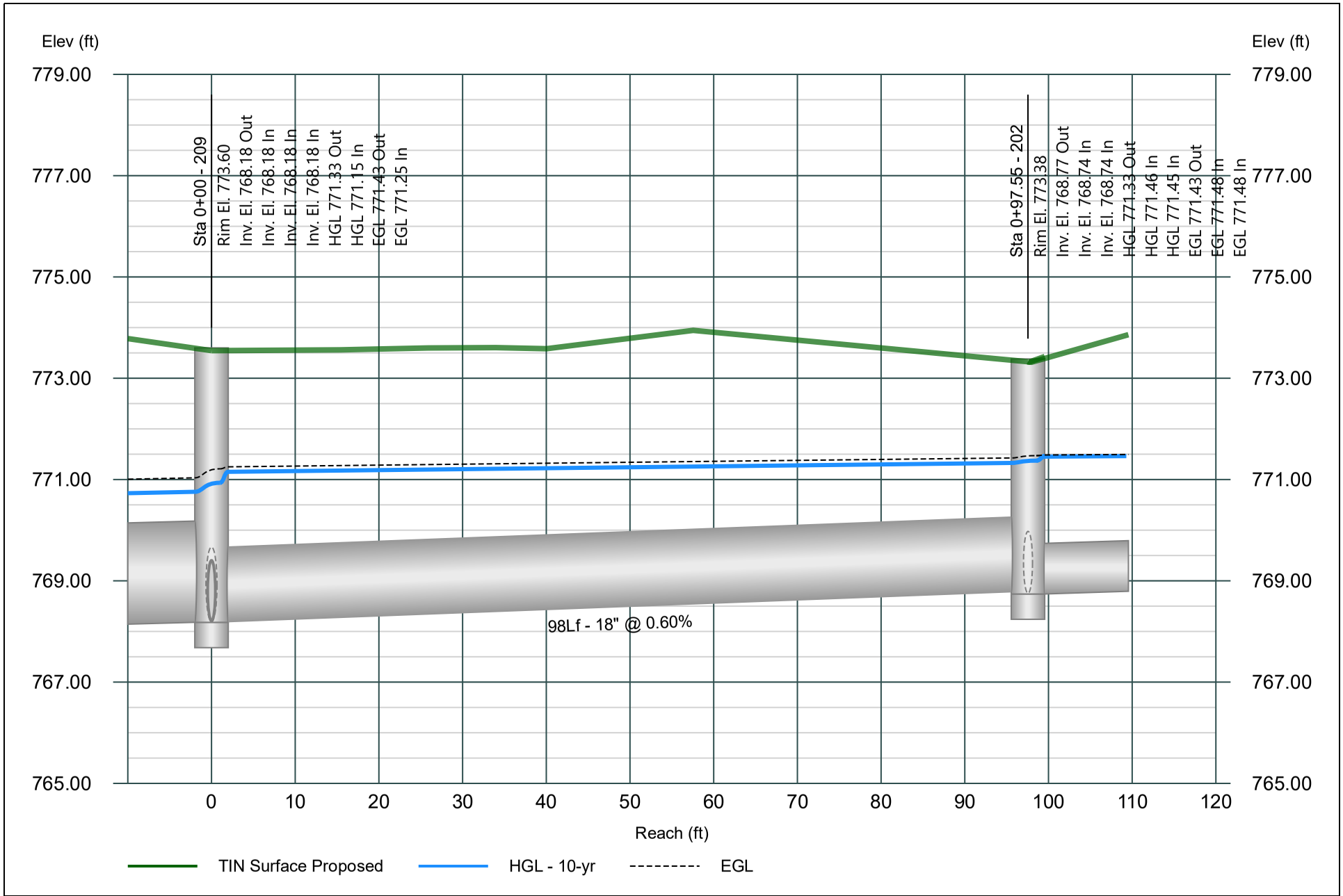
Project File: Storm Sewer 05-29-25.sws

Line 13 - Pipe - (20)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



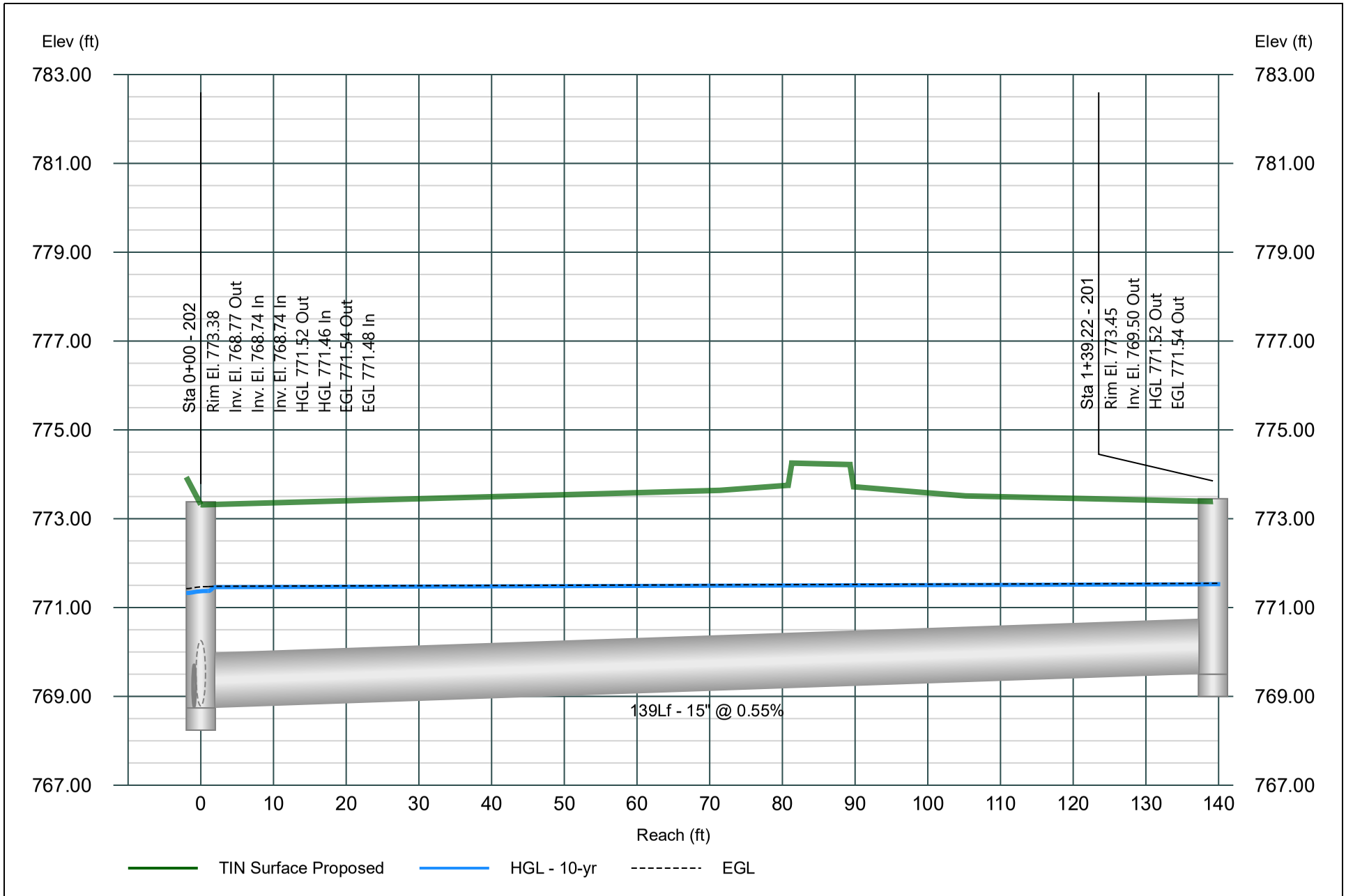
Project File: Storm Sewer 05-29-25.sws

Line 14 - Pipe - (19)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



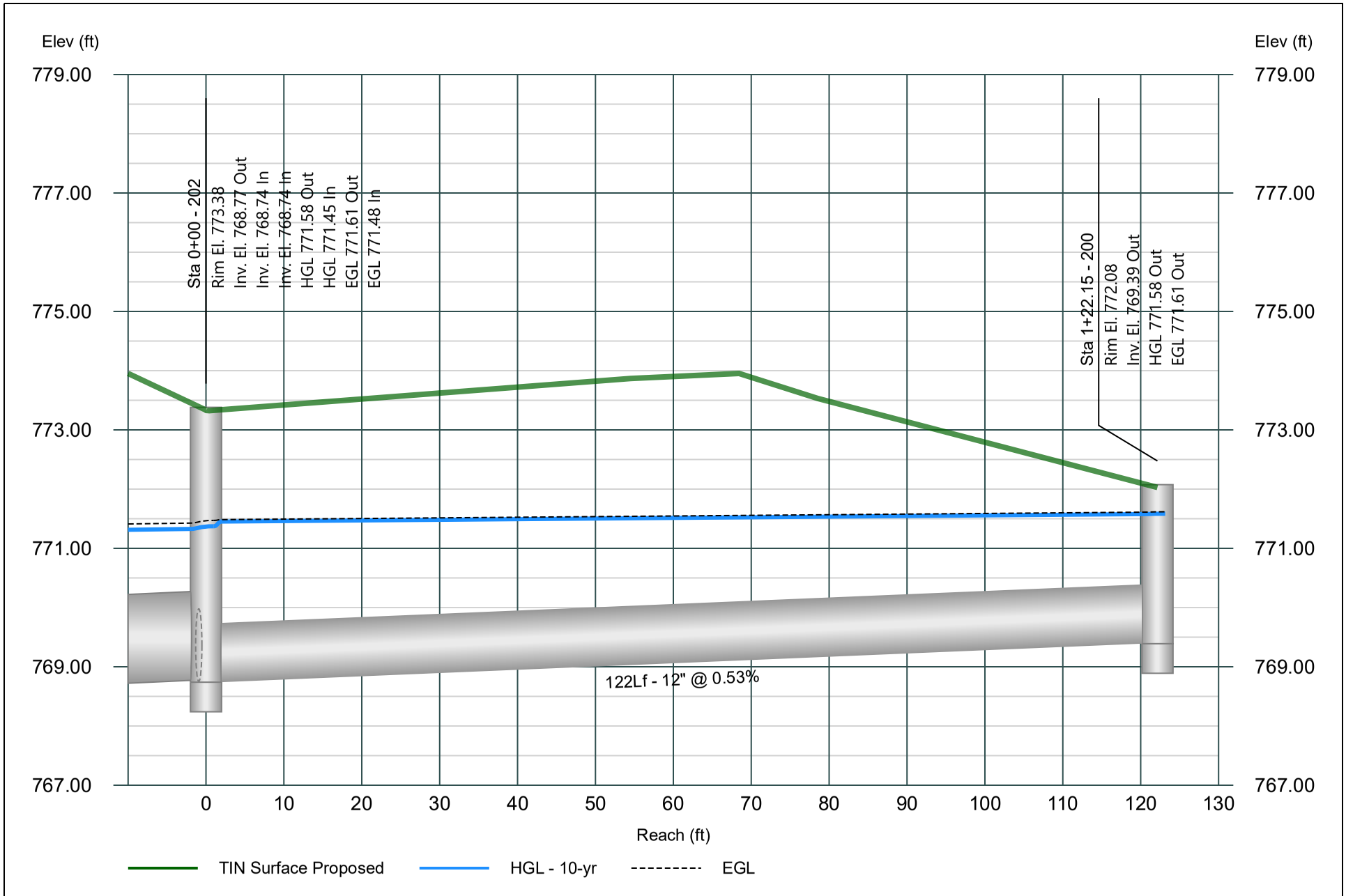
Project File: Storm Sewer 05-29-25.sws

Line 15 - Pipe - (41)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



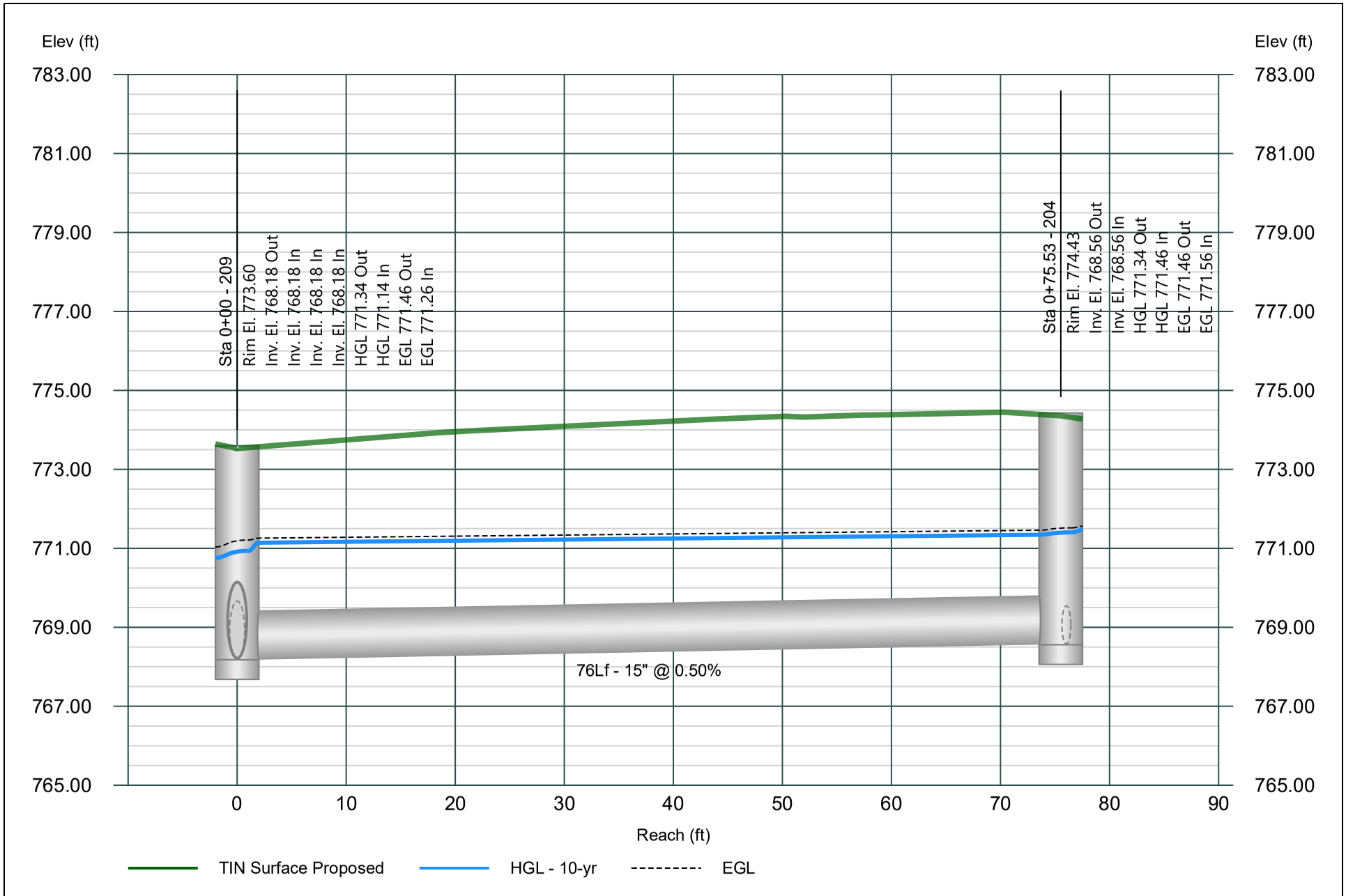
Project File: Storm Sewer 05-29-25.sws

Line 16 - Pipe - (23)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



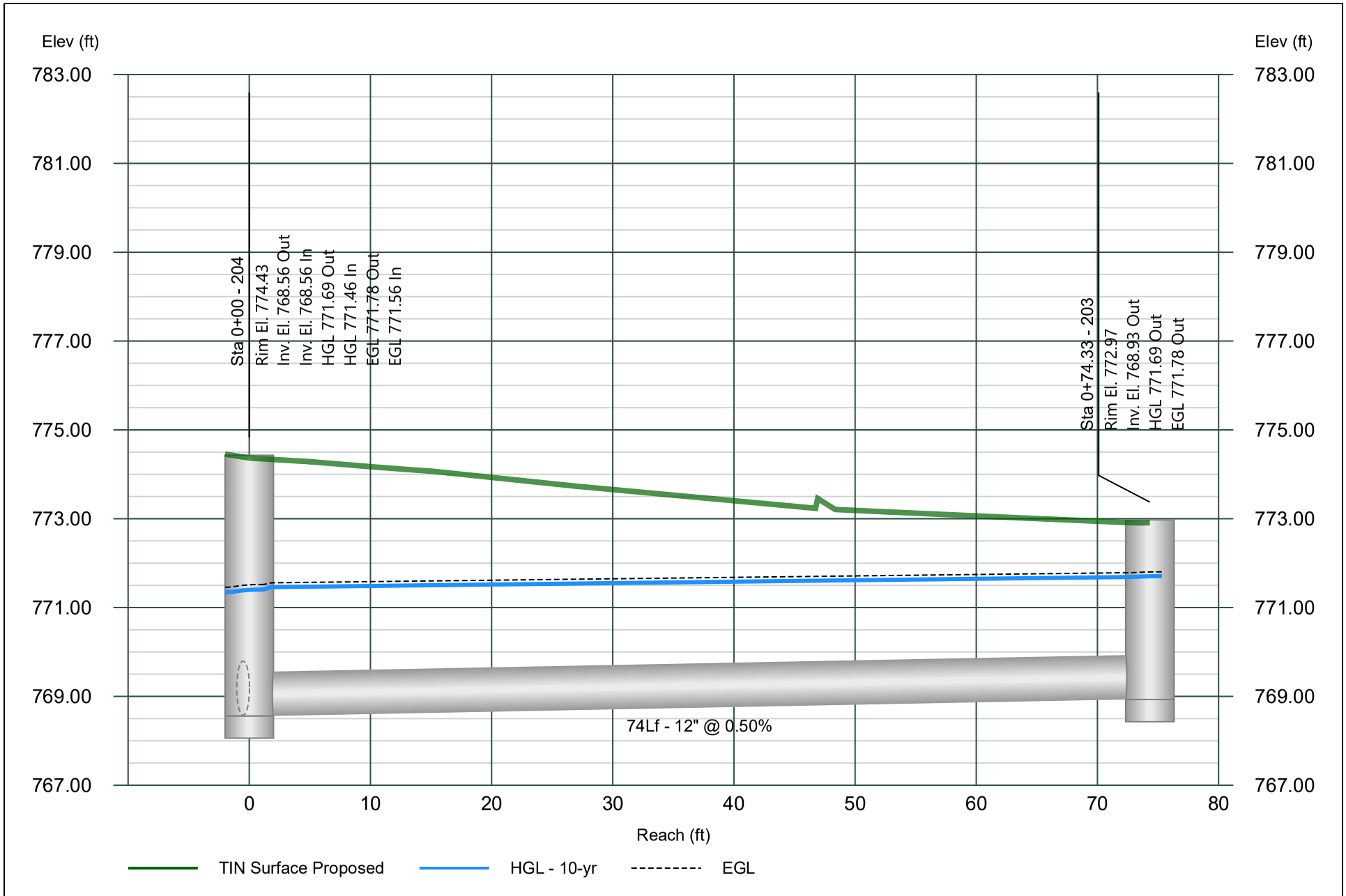
Project File: Storm Sewer 05-29-25.sws

Line 17 - Pipe - (22)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



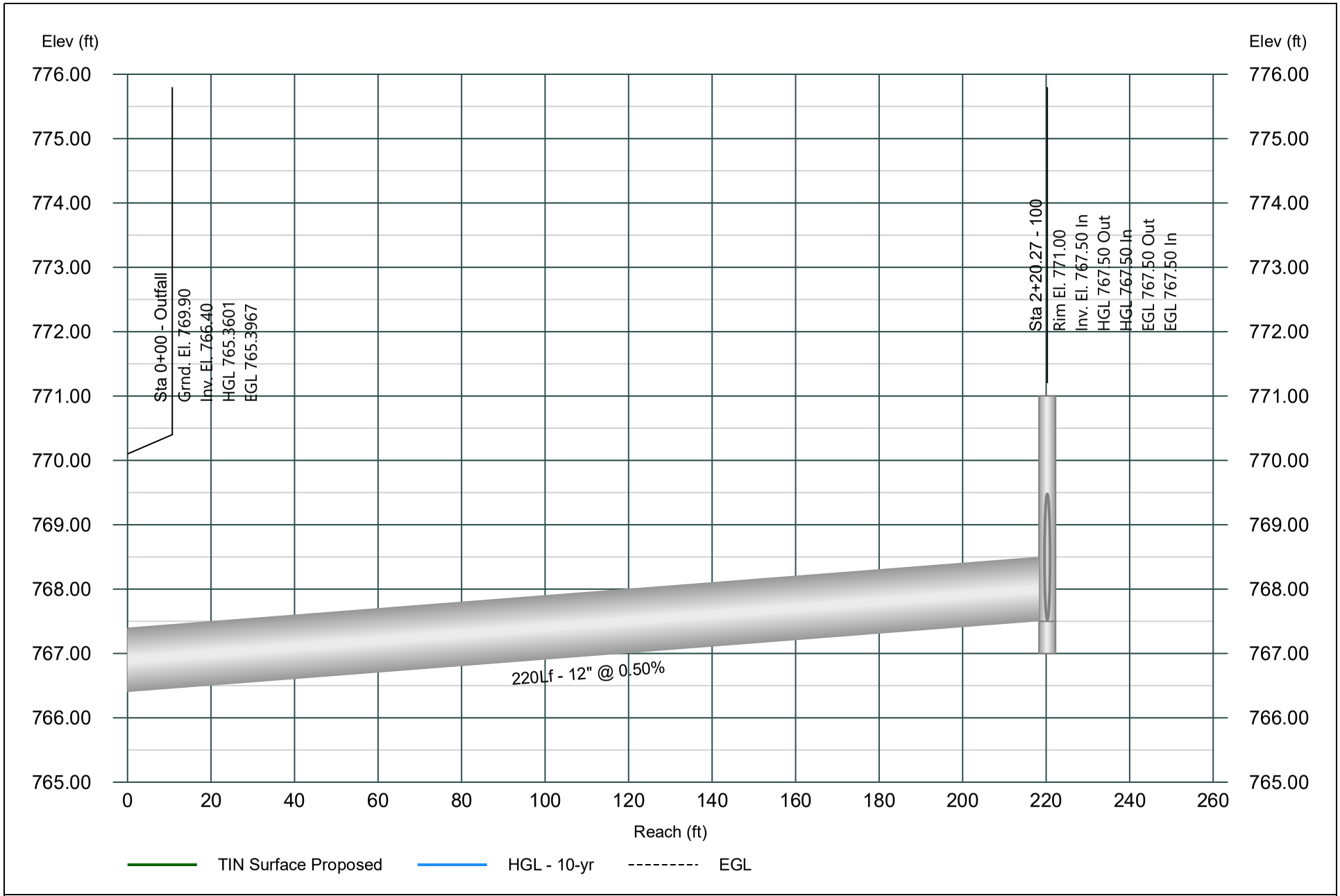
Project File: Storm Sewer 05-29-25.sws

Line 18 - Pipe - (17)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025

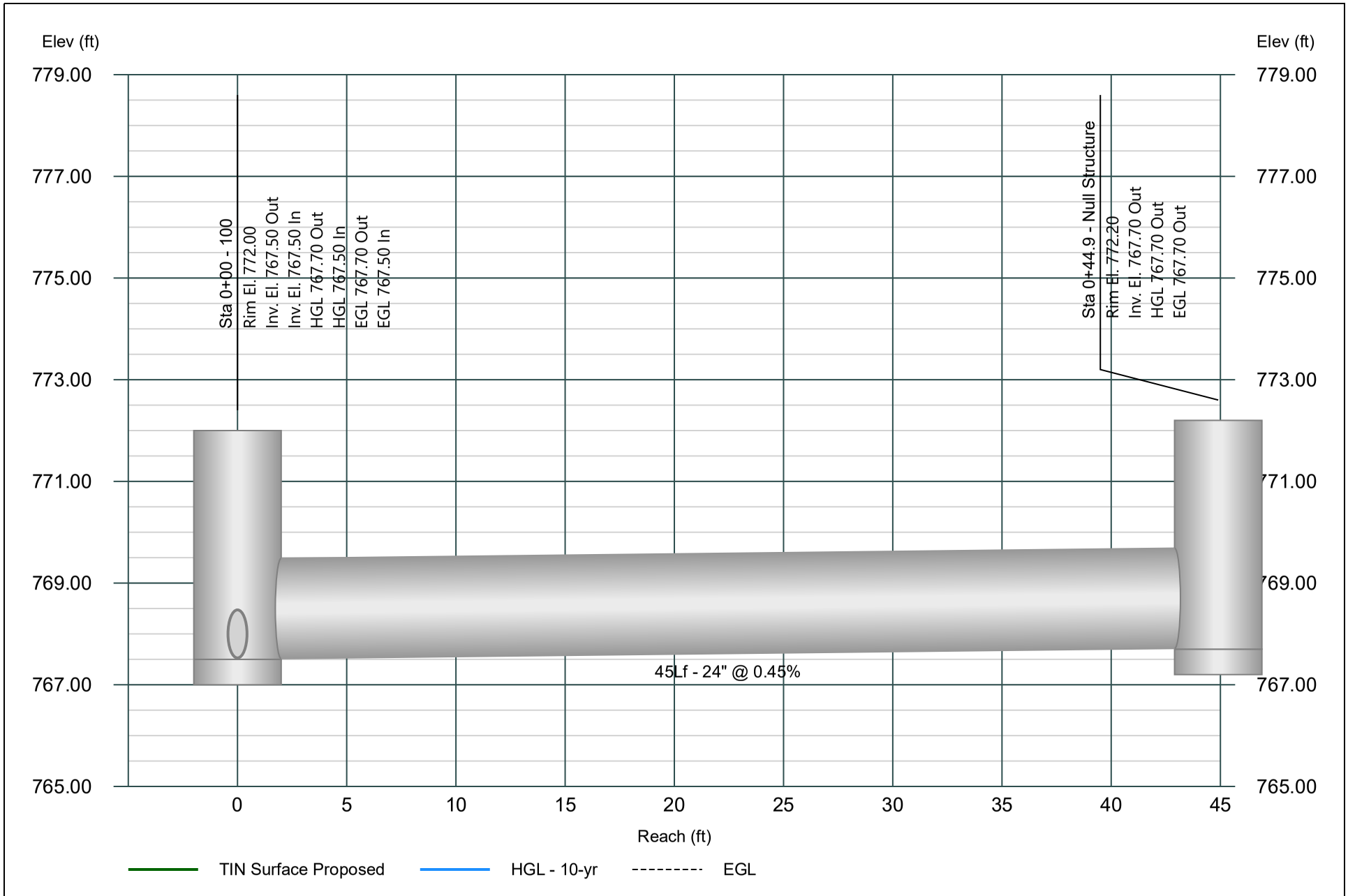


Line 19 - Pipe - (15)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



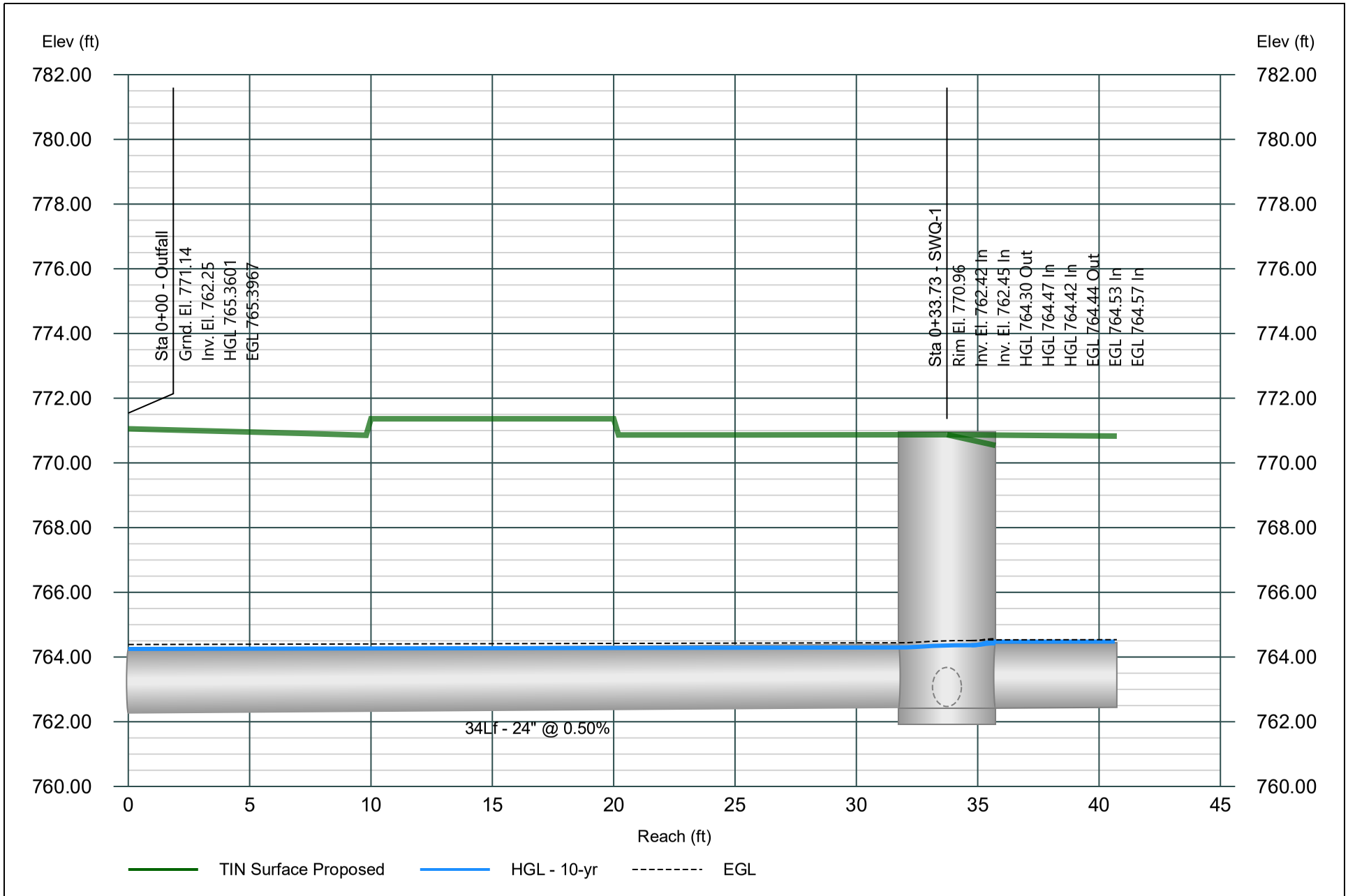
Project File: Storm Sewer 05-29-25.sws

Line 20 - Pipe - (40) (1)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



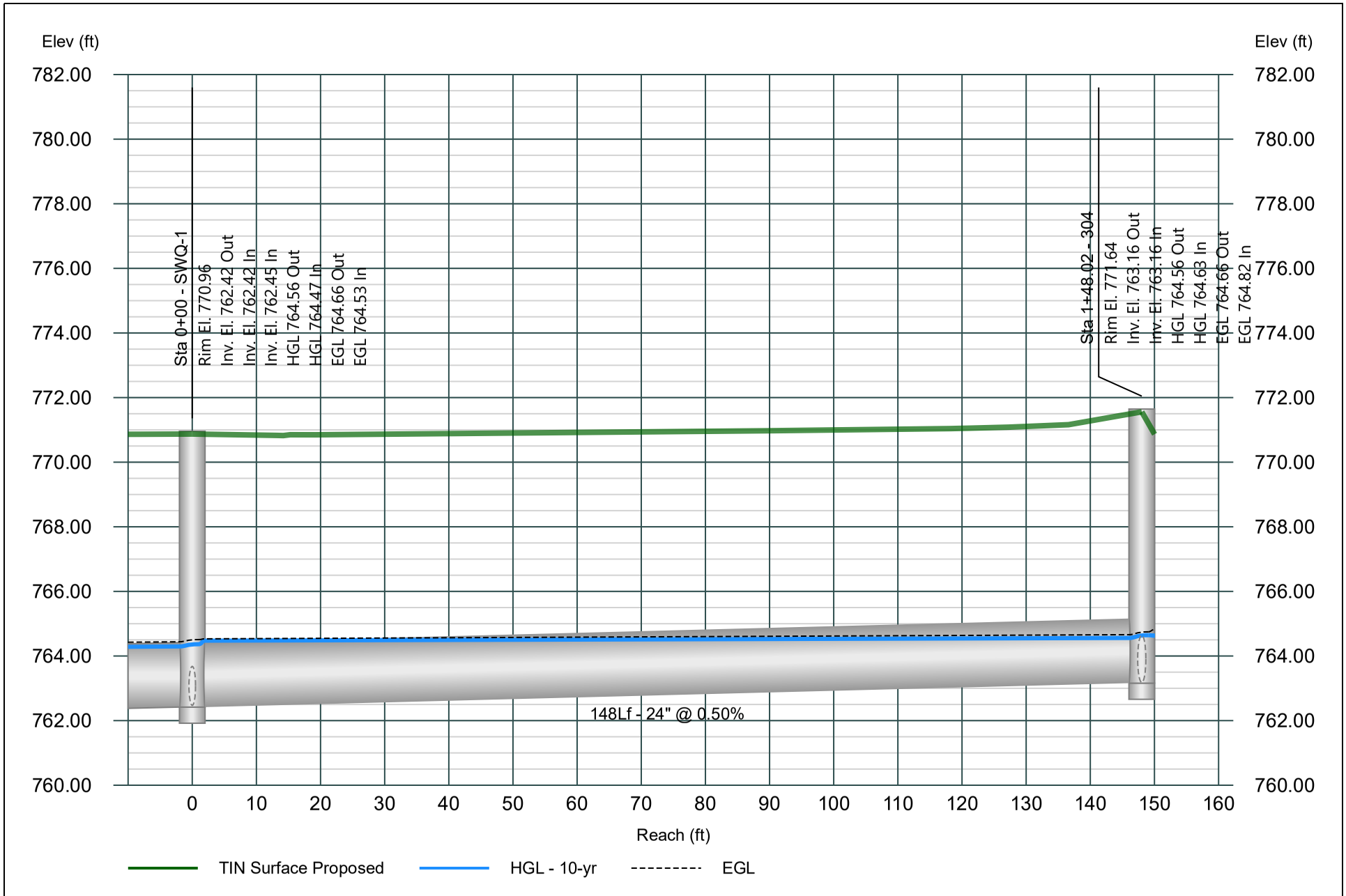
Project File: Storm Sewer 05-29-25.sws

Line 21 - Pipe - (40)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



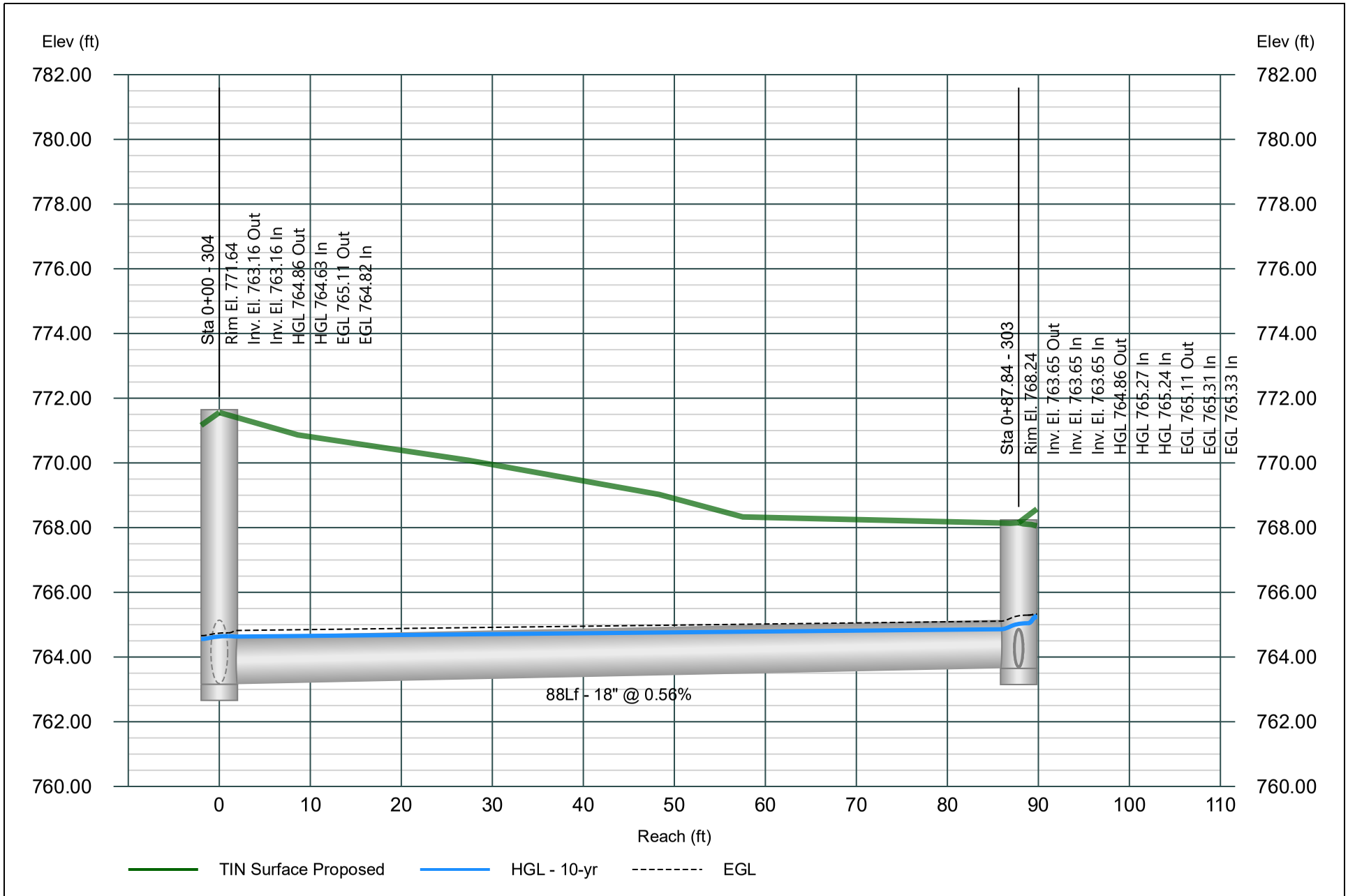
Project File: Storm Sewer 05-29-25.sws

Line 22 - Pipe - (39)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025

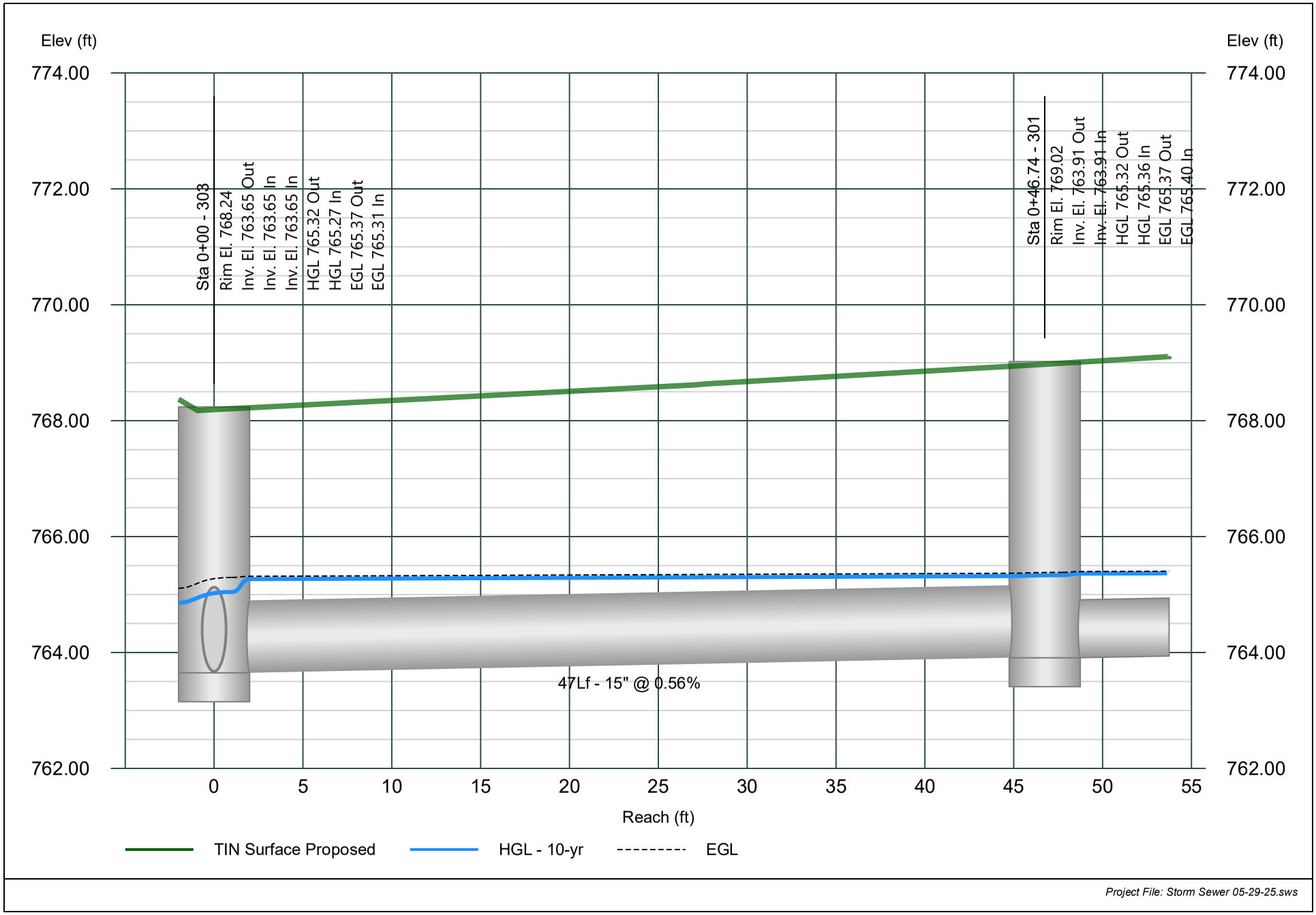


Line 23 - Pipe - (34)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025

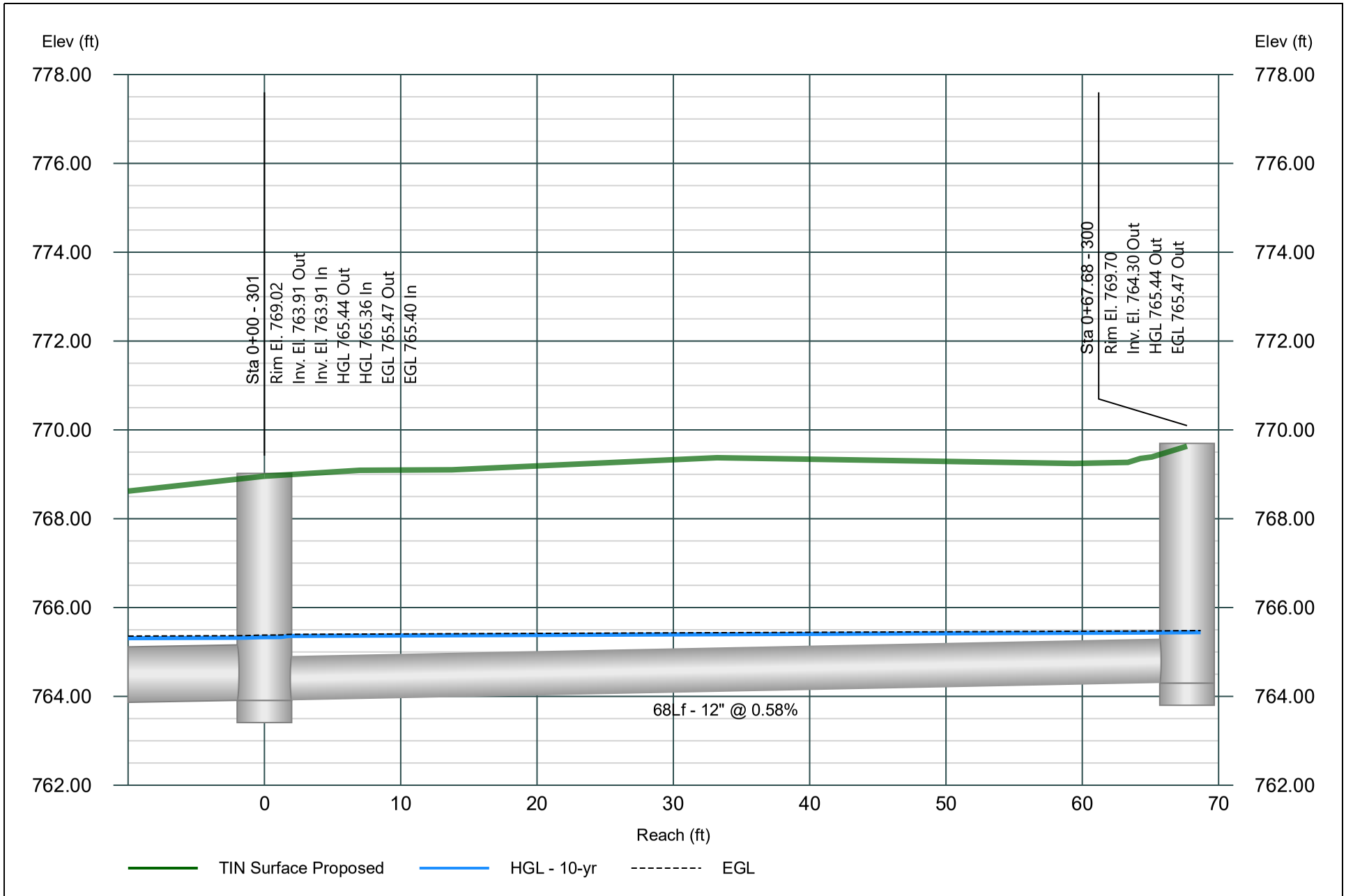


Line 24 - Pipe - (36)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025

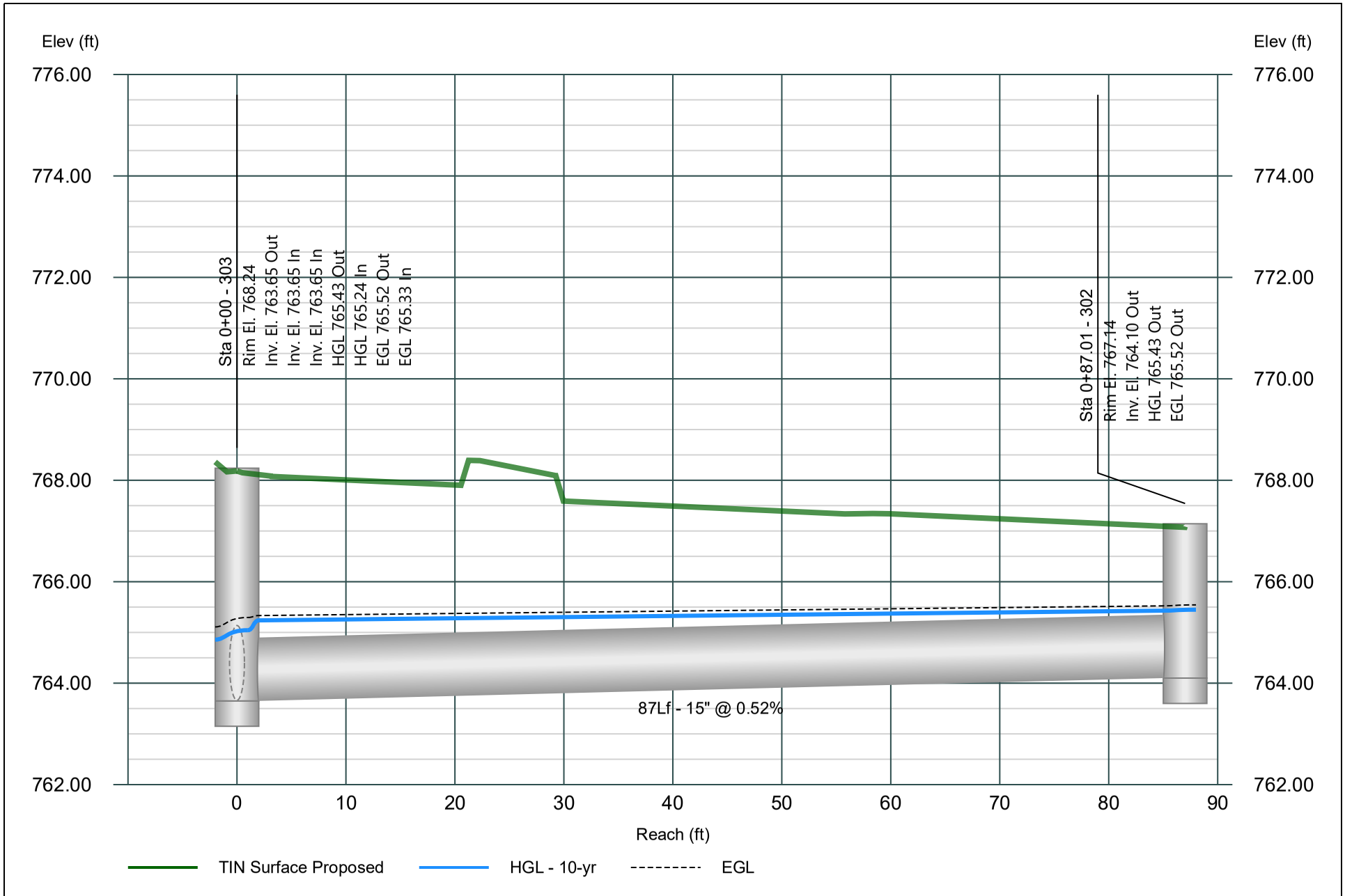


Line 25 - Pipe - (37)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



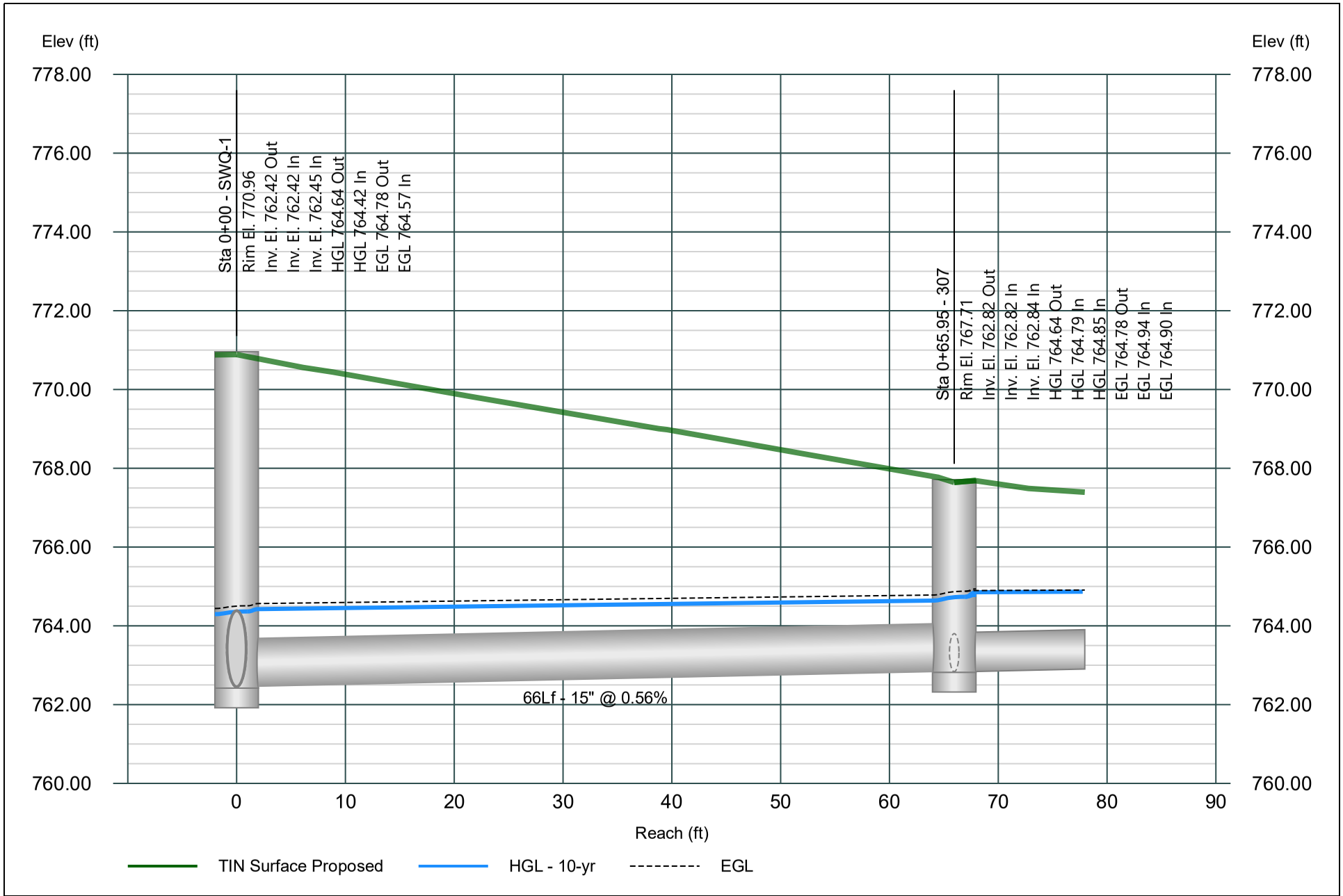
Project File: Storm Sewer 05-29-25.sws

Line 26 - Pipe - (43)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



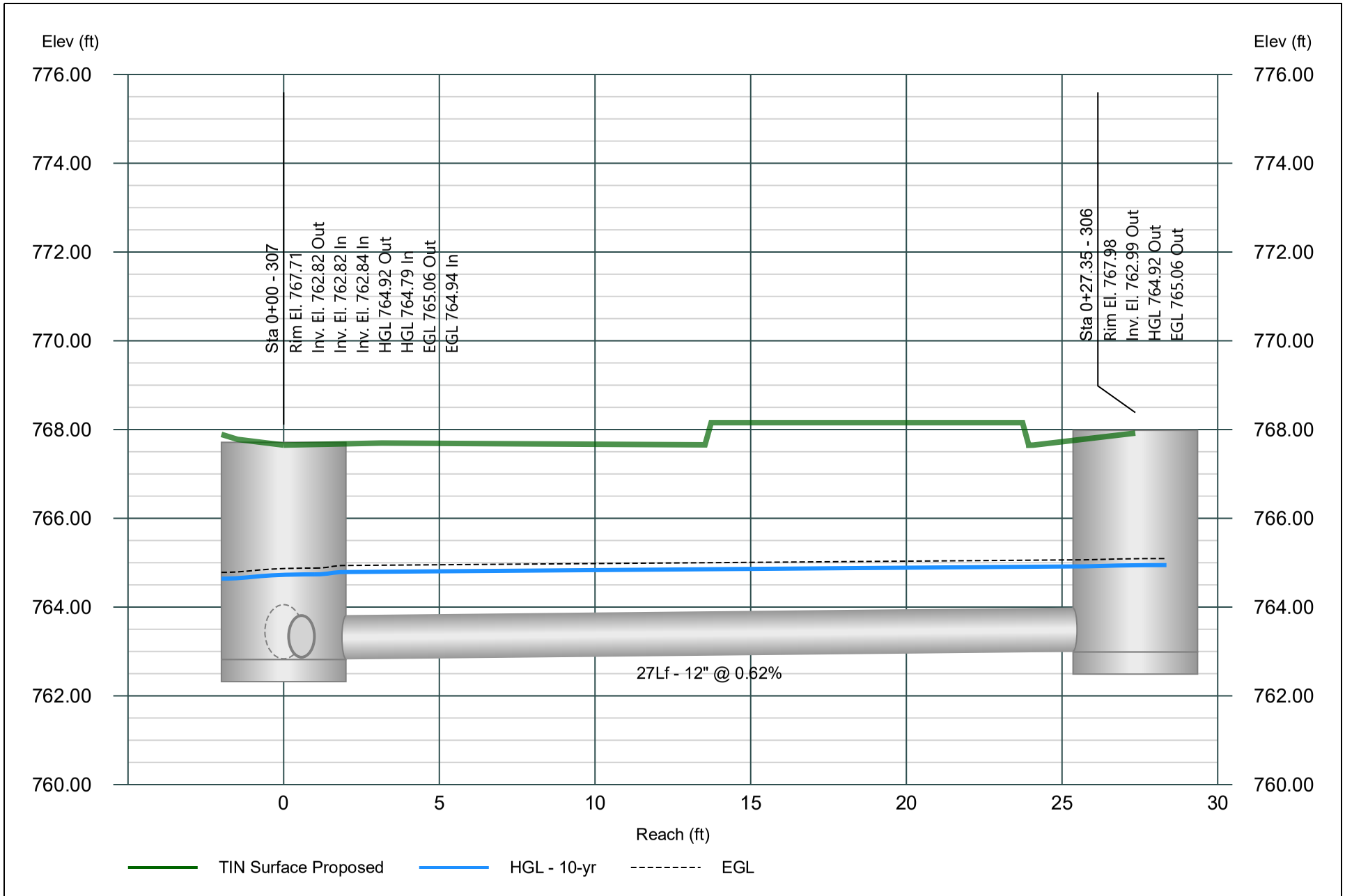
Project File: Storm Sewer 05-29-25.sws

Line 27 - Pipe - (42)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



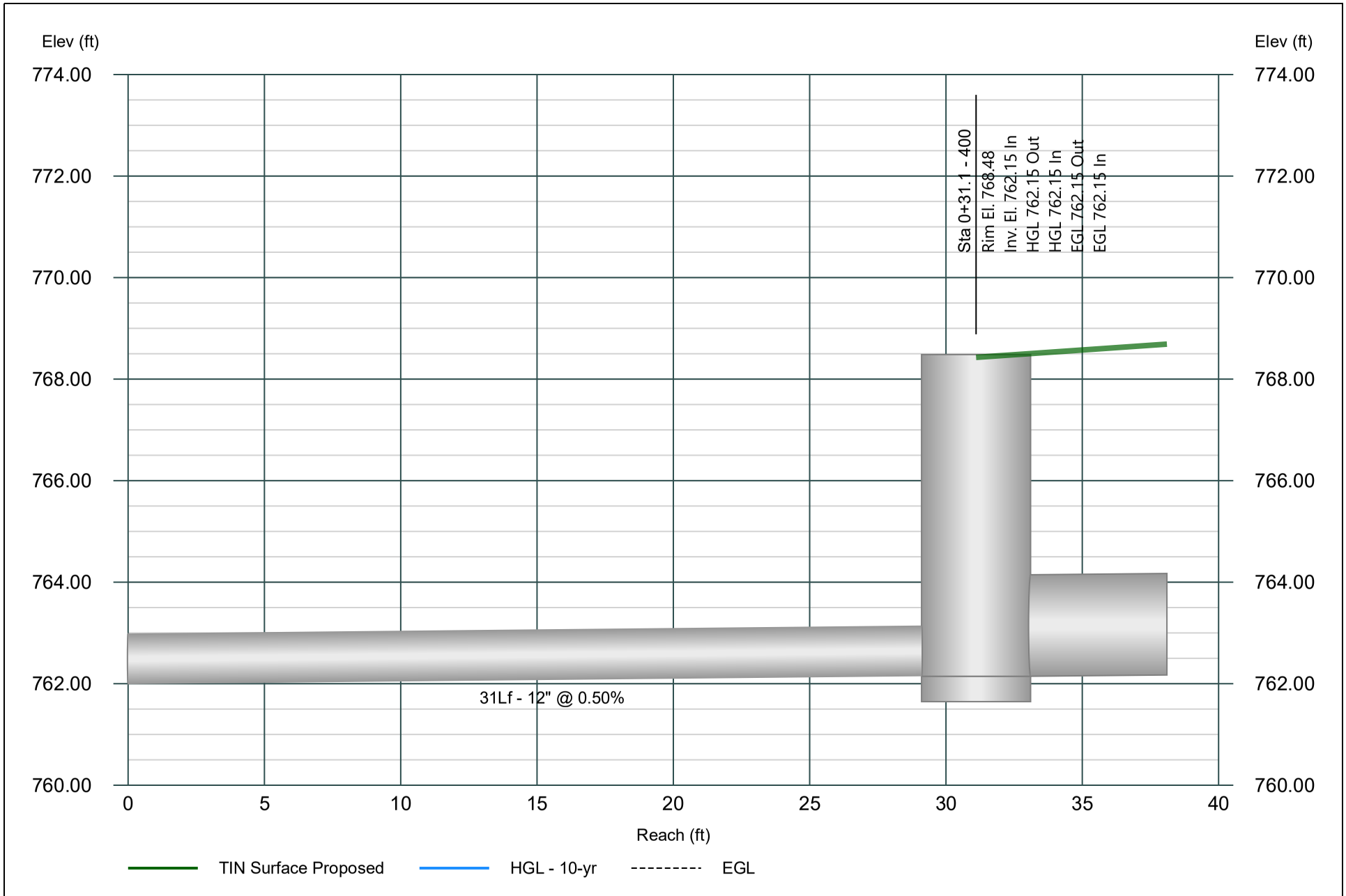
Project File: Storm Sewer 05-29-25.sws

Line 28 - Pipe - (26) (1)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025

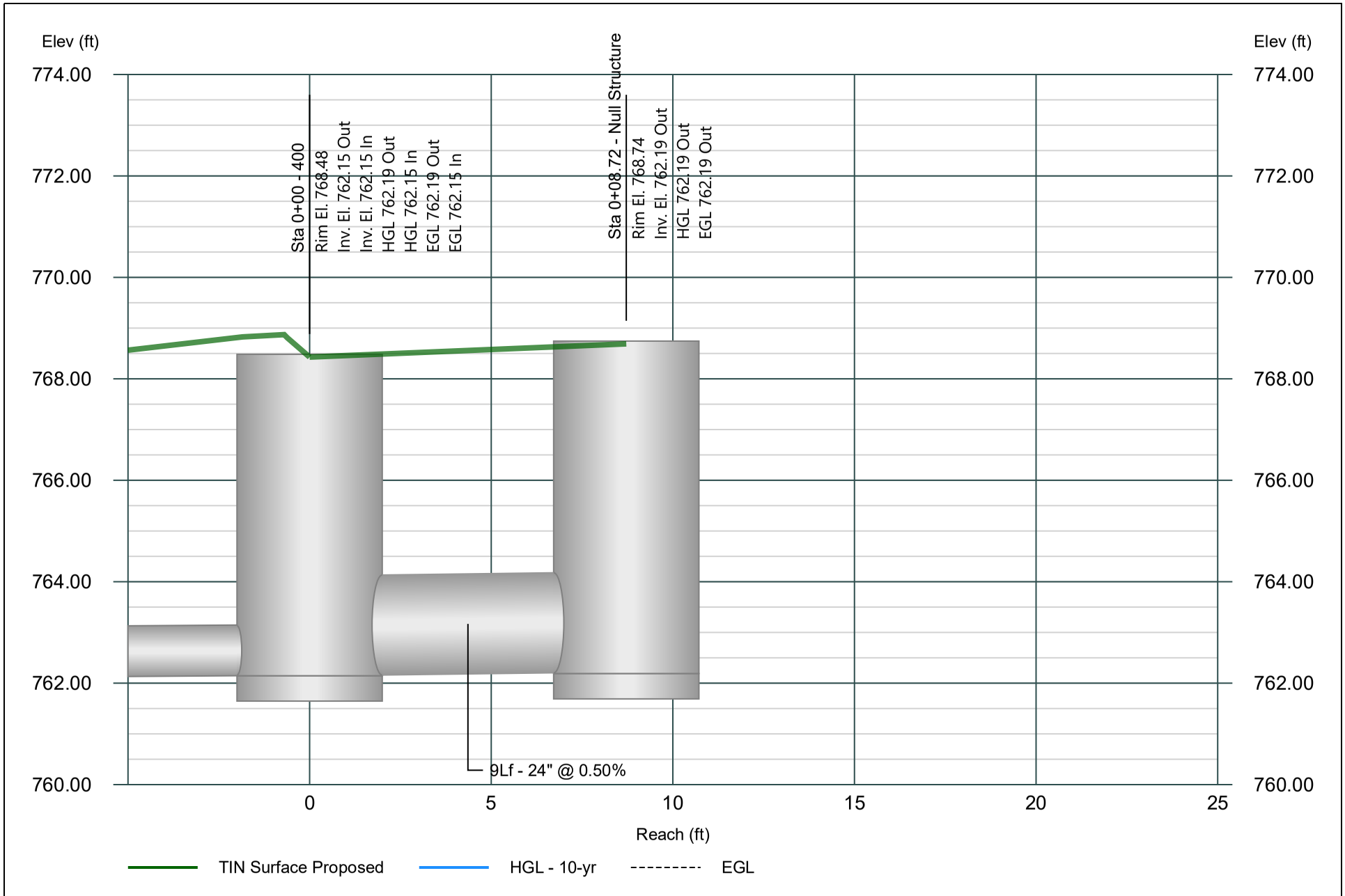


Line 29 - Pipe - (26)

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



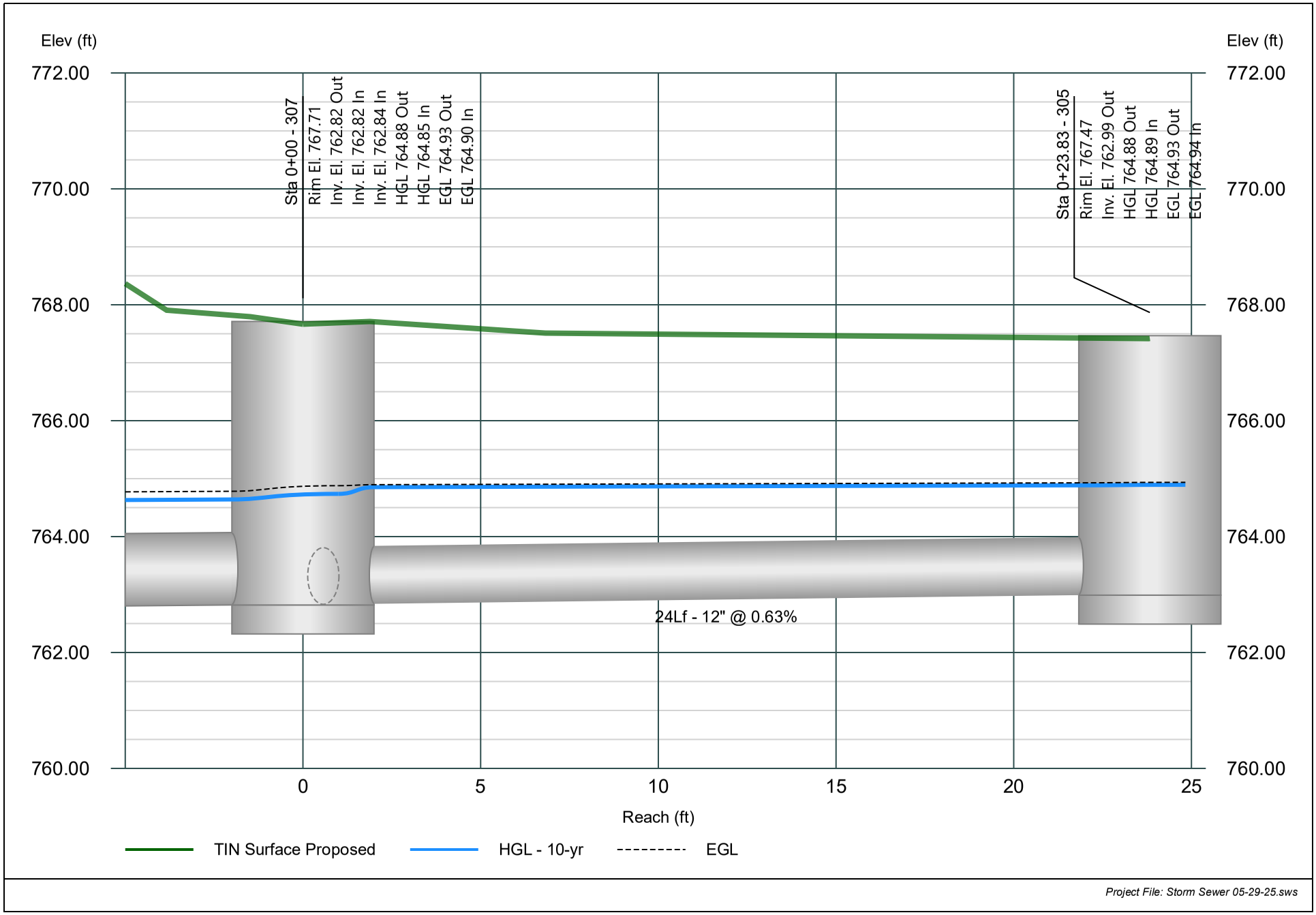
Project File: Storm Sewer 05-29-25.sws

Line 30

Stormwater Studio 2025 v 1.0.0.0

Project Name: Proposed Storm

05-30-2025



Project File: Storm Sewer 05-29-25.sws

Hydrograph Report

Project Name: New Project

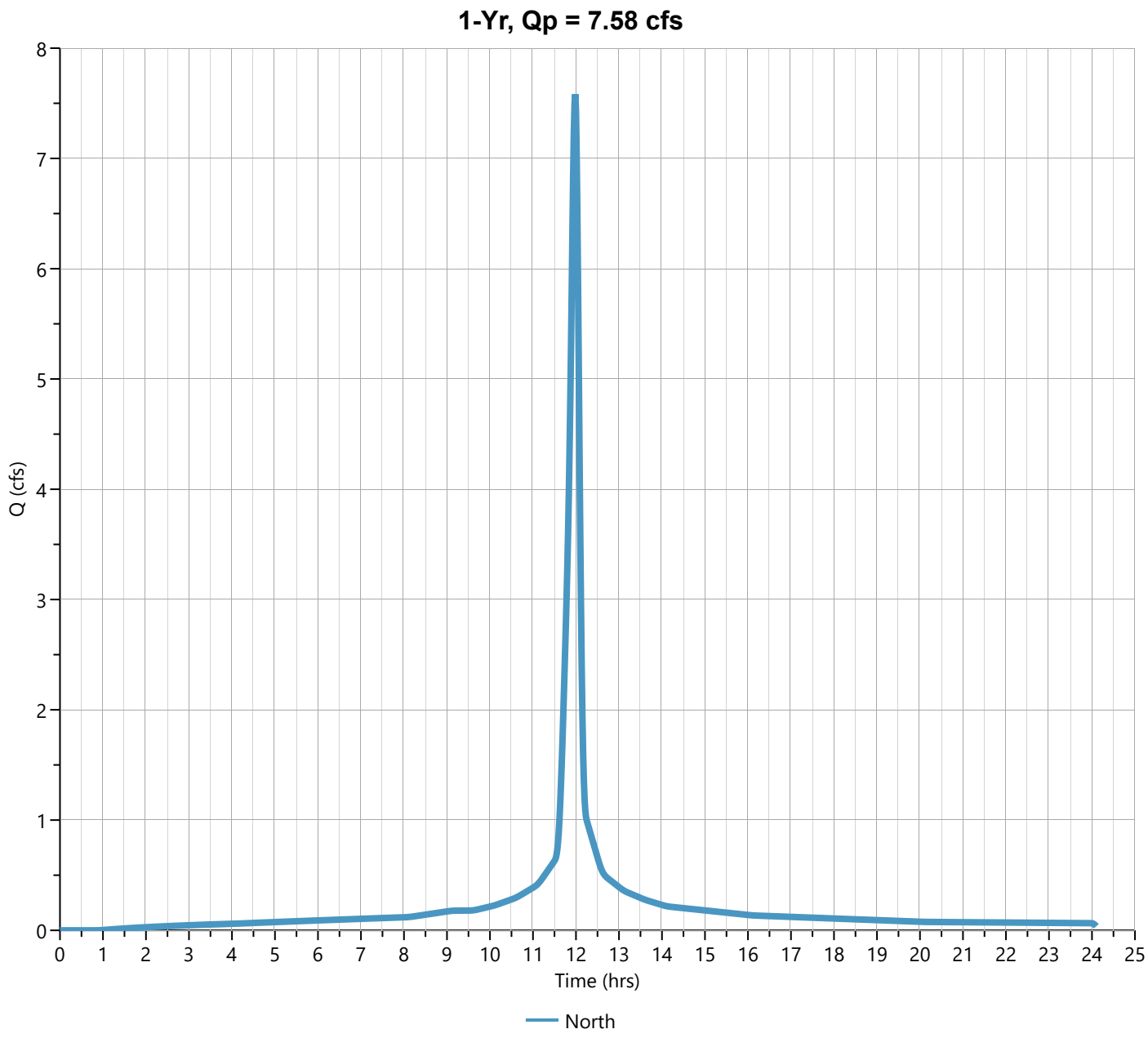
Studio Express by Hydrology Studio v 1.0.0.0

05-30-2025

North

Hyd. No. 1

Hydrograph Type	= NRCS	Peak Flow	= 7.583 cfs
Storm Frequency	= 1-yr	Time to Peak	= 11.98 hrs
Time Interval	= 1 min	Runoff Volume	= 20,152 cft
Drainage Area	= 2.39 ac	Curve Number	= 99
Tc Method	= User-Defined	Time of Conc. (Tc)	= 10.0 min
Total Rainfall	= 2.440 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Discharge Table

NRCS

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
1.32	0.012	4.92	0.074	8.52	0.143	12.12	2.937	15.72	0.151
1.42	0.015	5.02	0.075	8.62	0.149	12.22	1.087	15.82	0.147
1.52	0.017	5.12	0.077	8.72	0.155	12.32	0.907	15.92	0.143
1.62	0.020	5.22	0.078	8.82	0.161	12.42	0.774	16.02	0.139
1.72	0.022	5.32	0.080	8.92	0.167	12.52	0.640	16.12	0.135
1.82	0.025	5.42	0.081	9.02	0.172	12.62	0.531	16.22	0.133
1.92	0.027	5.52	0.083	9.12	0.177	12.72	0.479	16.32	0.132
2.02	0.029	5.62	0.084	9.22	0.179	12.82	0.448	16.42	0.131
2.12	0.031	5.72	0.086	9.32	0.179	12.92	0.418	16.52	0.129
2.22	0.033	5.82	0.087	9.42	0.179	13.02	0.387	16.62	0.128
2.32	0.035	5.92	0.089	9.52	0.180	13.12	0.360	16.72	0.126
2.42	0.036	6.02	0.090	9.62	0.182	13.22	0.341	16.82	0.125
2.52	0.038	6.12	0.092	9.72	0.189	13.32	0.324	16.92	0.123
2.62	0.040	6.22	0.093	9.82	0.199	13.42	0.308	17.02	0.122
2.72	0.042	6.32	0.095	9.92	0.208	13.52	0.292	17.12	0.120
2.82	0.043	6.42	0.096	10.02	0.217	13.62	0.276	17.22	0.119
2.92	0.045	6.52	0.098	10.12	0.228	13.72	0.264	17.32	0.117
3.02	0.046	6.62	0.099	10.22	0.241	13.82	0.252	17.42	0.116
3.12	0.048	6.72	0.100	10.32	0.255	13.92	0.240	17.52	0.114
3.22	0.049	6.82	0.102	10.42	0.269	14.02	0.228	17.62	0.113
3.32	0.051	6.92	0.103	10.52	0.283	14.12	0.219	17.72	0.111
3.42	0.052	7.02	0.105	10.62	0.299	14.22	0.213	17.82	0.110
3.52	0.053	7.12	0.106	10.72	0.320	14.32	0.209	17.92	0.109
3.62	0.055	7.22	0.108	10.82	0.344	14.42	0.205	18.02	0.107
3.72	0.056	7.32	0.109	10.92	0.367	14.52	0.201	18.12	0.106
3.82	0.057	7.42	0.110	11.02	0.391	14.62	0.196	18.22	0.104
3.92	0.059	7.52	0.112	11.12	0.422	14.72	0.192	18.32	0.103
4.02	0.060	7.62	0.113	11.22	0.471	14.82	0.188	18.42	0.101
4.12	0.061	7.72	0.114	11.32	0.526	14.92	0.184	18.52	0.100
4.22	0.063	7.82	0.116	11.42	0.583	15.02	0.180	18.62	0.098
4.32	0.064	7.92	0.117	11.52	0.641	15.12	0.176	18.72	0.097
4.42	0.066	8.02	0.119	11.62	1.011	15.22	0.172	18.82	0.095
4.52	0.067	8.12	0.121	11.72	2.114	15.32	0.168	18.92	0.094
4.62	0.069	8.22	0.126	11.82	3.616	15.42	0.164	19.02	0.092
4.72	0.070	8.32	0.132	11.92	6.323	15.52	0.159	19.12	0.091
4.82	0.072	8.42	0.137	12.02	7.023	15.62	0.155	19.22	0.089

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
19.32	0.088	22.92	0.068						
19.42	0.087	23.02	0.068						
19.52	0.085	23.12	0.068						
19.62	0.084	23.22	0.067						
19.72	0.082	23.32	0.067						
19.82	0.081	23.42	0.067						
19.92	0.079	23.52	0.066						
20.02	0.078	23.62	0.066						
20.12	0.077	23.72	0.066						
20.22	0.076	23.82	0.065						
20.32	0.076	23.92	0.065						
20.42	0.075	24.02	0.064						
20.52	0.075	24.12	0.029						
20.62	0.075	24.22	0.002						
20.72	0.075	*...end*	*...end*						
20.82	0.074								
20.92	0.074								
21.02	0.074								
21.12	0.073								
21.22	0.073								
21.32	0.073								
21.42	0.072								
21.52	0.072								
21.62	0.072								
21.72	0.072								
21.82	0.071								
21.92	0.071								
22.02	0.071								
22.12	0.070								
22.22	0.070								
22.32	0.070								
22.42	0.070								
22.52	0.069								
22.62	0.069								
22.72	0.069								
22.82	0.068								

Hydrograph Report

Project Name: New Project

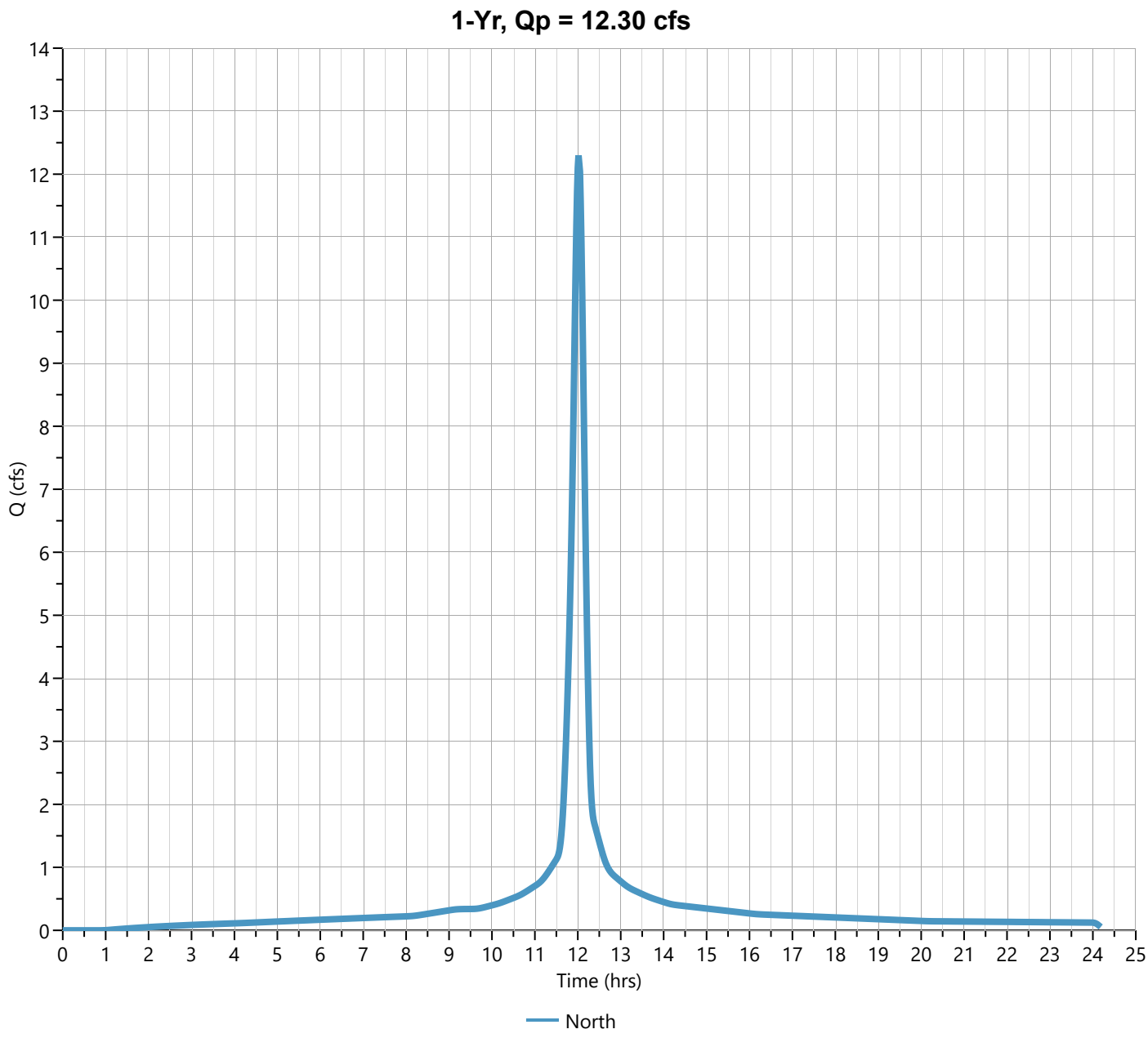
Studio Express by Hydrology Studio v 1.0.0.0

05-30-2025

North

Hyd. No. 1

Hydrograph Type	= NRCS	Peak Flow	= 12.30 cfs
Storm Frequency	= 1-yr	Time to Peak	= 12.02 hrs
Time Interval	= 1 min	Runoff Volume	= 38,112 cft
Drainage Area	= 4.52 ac	Curve Number	= 99
Tc Method	= User-Defined	Time of Conc. (Tc)	= 15.0 min
Total Rainfall	= 2.440 in	Design Storm	= Type II
Storm Duration	= 24 hrs	Shape Factor	= 484



Hydrograph Discharge Table

NRCS

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
1.22	0.014	4.82	0.134	8.42	0.253	**12.02**	**12.30**	15.62	0.299
1.32	0.020	4.92	0.137	8.52	0.264	12.12	9.404	15.72	0.291
1.42	0.025	5.02	0.140	8.62	0.275	12.22	4.697	15.82	0.283
1.52	0.030	5.12	0.143	8.72	0.286	12.32	2.099	15.92	0.275
1.62	0.035	5.22	0.146	8.82	0.297	12.42	1.617	16.02	0.268
1.72	0.039	5.32	0.149	8.92	0.308	12.52	1.365	16.12	0.260
1.82	0.044	5.42	0.152	9.02	0.319	12.62	1.133	16.22	0.255
1.92	0.048	5.52	0.155	9.12	0.329	12.72	0.975	16.32	0.251
2.02	0.052	5.62	0.158	9.22	0.335	12.82	0.886	16.42	0.249
2.12	0.056	5.72	0.160	9.32	0.338	12.92	0.825	16.52	0.246
2.22	0.060	5.82	0.163	9.42	0.339	13.02	0.768	16.62	0.243
2.32	0.063	5.92	0.166	9.52	0.339	13.12	0.713	16.72	0.240
2.42	0.067	6.02	0.169	9.62	0.342	13.22	0.668	16.82	0.237
2.52	0.070	6.12	0.172	9.72	0.350	13.32	0.633	16.92	0.235
2.62	0.074	6.22	0.175	9.82	0.365	13.42	0.602	17.02	0.232
2.72	0.077	6.32	0.177	9.92	0.383	13.52	0.571	17.12	0.229
2.82	0.080	6.42	0.180	10.02	0.400	13.62	0.540	17.22	0.226
2.92	0.083	6.52	0.183	10.12	0.419	13.72	0.514	17.32	0.224
3.02	0.086	6.62	0.186	10.22	0.441	13.82	0.490	17.42	0.221
3.12	0.089	6.72	0.188	10.32	0.466	13.92	0.468	17.52	0.218
3.22	0.092	6.82	0.191	10.42	0.492	14.02	0.446	17.62	0.215
3.32	0.094	6.92	0.194	10.52	0.519	14.12	0.425	17.72	0.213
3.42	0.097	7.02	0.196	10.62	0.547	14.22	0.410	17.82	0.210
3.52	0.099	7.12	0.199	10.72	0.582	14.32	0.400	17.92	0.207
3.62	0.102	7.22	0.202	10.82	0.623	14.42	0.392	18.02	0.204
3.72	0.104	7.32	0.204	10.92	0.667	14.52	0.384	18.12	0.201
3.82	0.107	7.42	0.207	11.02	0.711	14.62	0.376	18.22	0.199
3.92	0.109	7.52	0.210	11.12	0.762	14.72	0.368	18.32	0.196
4.02	0.112	7.62	0.212	11.22	0.836	14.82	0.361	18.42	0.193
4.12	0.114	7.72	0.215	11.32	0.932	14.92	0.353	18.52	0.190
4.22	0.117	7.82	0.217	11.42	1.037	15.02	0.345	18.62	0.188
4.32	0.119	7.92	0.220	11.52	1.145	15.12	0.337	18.72	0.185
4.42	0.122	8.02	0.223	11.62	1.519	15.22	0.330	18.82	0.182
4.52	0.125	8.12	0.226	11.72	2.839	15.32	0.322	18.92	0.179
4.62	0.128	8.22	0.233	11.82	5.143	15.42	0.314	19.02	0.176
4.72	0.131	8.32	0.242	11.92	9.001	15.52	0.306	19.12	0.174

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
19.22	0.171	22.82	0.130						
19.32	0.168	22.92	0.129						
19.42	0.165	23.02	0.129						
19.52	0.163	23.12	0.128						
19.62	0.160	23.22	0.127						
19.72	0.157	23.32	0.127						
19.82	0.154	23.42	0.126						
19.92	0.151	23.52	0.126						
20.02	0.149	23.62	0.125						
20.12	0.146	23.72	0.125						
20.22	0.144	23.82	0.124						
20.32	0.144	23.92	0.124						
20.42	0.143	24.02	0.122						
20.52	0.142	24.12	0.091						
20.62	0.142	24.22	0.037						
20.72	0.141	24.32	0.007						
20.82	0.141	*...end*	*...end*						
20.92	0.140								
21.02	0.140								
21.12	0.139								
21.22	0.139								
21.32	0.138								
21.42	0.137								
21.52	0.137								
21.62	0.136								
21.72	0.136								
21.82	0.135								
21.92	0.135								
22.02	0.134								
22.12	0.134								
22.22	0.133								
22.32	0.132								
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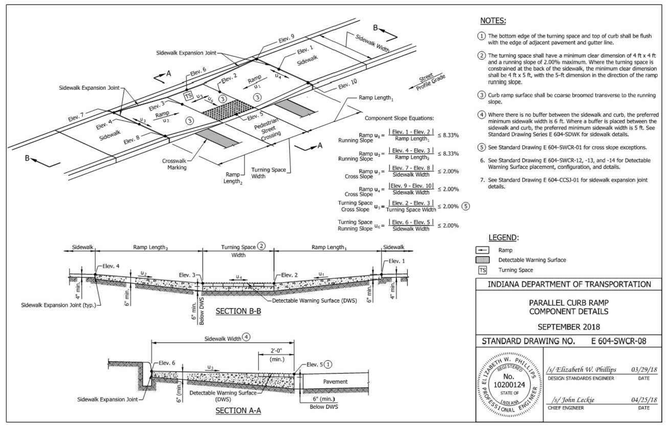
22.62	0.131								
22.72	0.130								



NOTES:

1. The bottom edge of the turning space and top of curb shall be flush with the edge of adjacent pavement and gutter line.
2. The turning space shall have a minimum clear dimension of 4 ft x 4 ft and a running slope of 2.00% maximum. Where the turning space is constrained at the back of the sidewalk, the minimum clear dimension shall be 4 ft x 5 ft, with the 5-ft dimension in the direction of the ramp running slope.
3. Curb ramp surface shall be coarse broomed transverse to the running slope.
4. Where there is no buffer between the sidewalk and curb, the preferred minimum sidewalk width is 6 ft. Where a buffer is placed between the sidewalk and curb, the preferred minimum sidewalk width is 5 ft. See Standard Drawing Series E 604-SWxx for sidewalk details.
5. See Standard Drawing E 604-SWCR-01 for cross slope exceptions.
6. See Standard Drawing E 604-SWCR-12, -13, and -14 for Detectable Warning Surface placement, configuration, and details.
7. See Standard Drawing E 604-CCSJ-01 for sidewalk expansion joint details.

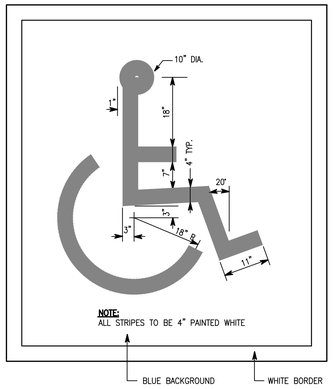
LEGEND:

- Ramp
- Detectable Warning Surface
- Turning Space

INDIANA DEPARTMENT OF TRANSPORTATION	
PARALLEL CURB RAMP COMPONENT DETAILS SEPTEMBER 2018	
STANDARD DRAWING NO. E 604-SWCR-08	
REGISTERED No. 10200124 STATE OF INDIANA ELIZABETH W. PHILLIPS PROFESSIONAL ENGINEER	/s/ Elizabeth W. Phillips — DESIGN STANDARDS ENGINEER — 03/29/18 (DATE) /s/ John Leckie — CHIEF ENGINEER — 04/25/18 (DATE)

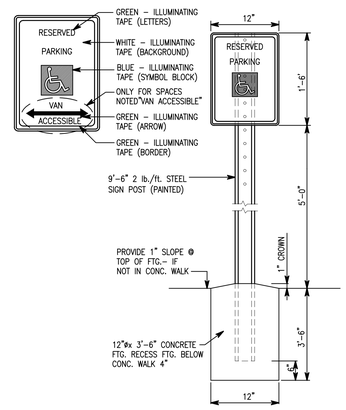
CONCRETE ADA RAMP - DETAIL N

NO SCALE



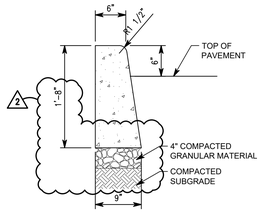
PAINTED HANDICAP SYMBOL - DETAIL K

NO SCALE



HANDICAP PARKING SIGN - DETAIL L

NO SCALE

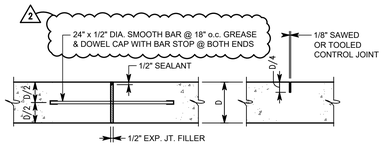


NOTES:

1. PROVIDE CONTROL JOINTS AT 10' MAX. SPACING.
2. PROVIDE EXPANSION JOINTS AT 80' MAX. SPACING AND AT ENDS OF ALL RADII.

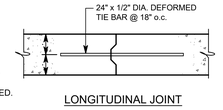
CONCRETE CURB - DETAIL F

1" = 1'-0"



EXPANSION JOINT — CONTROL JOINT

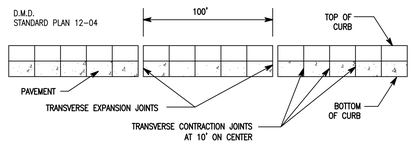
NOTE:
CONSTRUCT EXPANSION JOINTS AT 40' MAX. AND CONTROL JOINTS AT 2.5 x THICKNESS OF SLAB EXPRESSED IN FEET, UNLESS OTHERWISE NOTED.



LONGITUDINAL JOINT

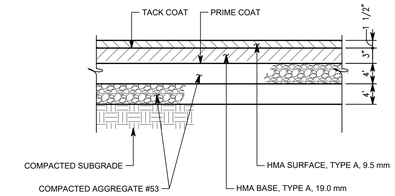
CONCRETE JOINTS - DETAIL G

1" = 1'-0"



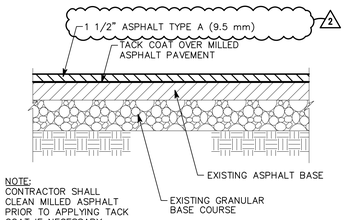
CURB JOINT - DETAIL H

NO SCALE



STANDARD DUTY ASPHALT PAVEMENT - DETAIL A

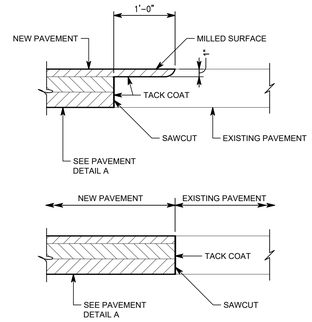
1" = 1'-0"



NOTE:
CONTRACTOR SHALL CLEAN MILLED ASPHALT PRIOR TO APPLYING TACK COAT IF NECESSARY.

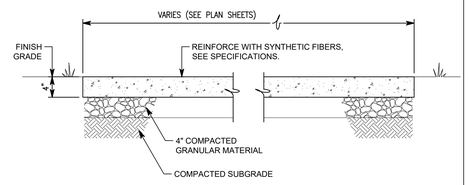
ASPHALT SURFACE OVERLAY - DETAIL B

1 1/2" = 1'-0"



PAVEMENT INTERFACE - DETAIL C

1" = 1'-0"

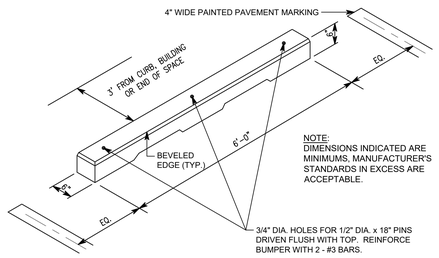


NOTES:

1. PROVIDE CONTROL JOINTS AT 6' MAX. SPACING; PROVIDE EXPANSION JOINTS AT 48' MAX. SPACING.
2. PROVIDE EXPANSION JOINT WHERE SIDEWALK ABUTS BUILDING OR WALLS, AT INTERSECTION WITH ANOTHER SIDEWALK, AND AT OTHER LOCATIONS INDICATED ON THE DRAWINGS.
3. CONTROL JOINTS AND EDGES OF SIDEWALK SHALL BE HAND-TOOLED AFTER EACH FINISHING OPERATION.

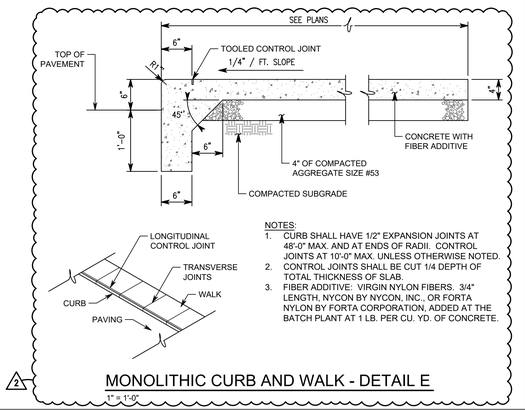
CONCRETE SIDEWALK WITH FIBER - DETAIL D

1" = 1'-0"



PARKING BUMPER - DETAIL J

NO SCALE

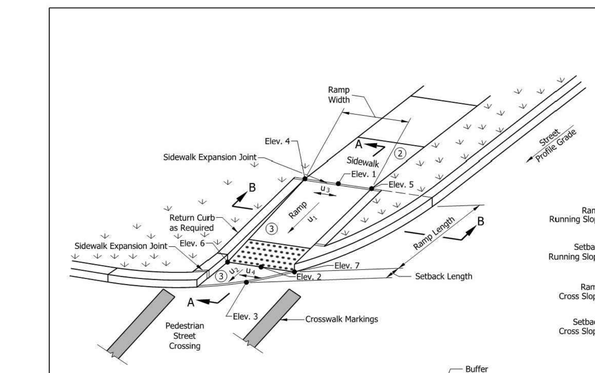


NOTES:

1. CURB SHALL HAVE 1/2" EXPANSION JOINTS AT 48'-0" MAX. AND AT ENDS OF RADII. CONTROL JOINTS AT 10'-0" MAX. UNLESS OTHERWISE NOTED.
2. CONTROL JOINTS SHALL BE CUT 1/4 DEPTH OF TOTAL THICKNESS OF SLAB.
3. FIBER ADDITIVE: VIRGIN NYLON FIBERS. 3/4" LENGTH, NYCON BY NYCON, INC., OR FORTA NYLON BY FORTA CORPORATION, ADDED AT THE BATCH PLANT AT 1 LB. PER CU. YD. OF CONCRETE.

MONOLITHIC CURB AND WALK - DETAIL E

1" = 1'-0"



Component Slope Equations:

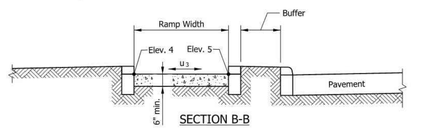
- Ramp u_1 Running Slope = | Elev. 1 - Elev. 2 | / Ramp Length ≤ 8.33%
- Setback u_2 Running Slope = | Elev. 2 - Elev. 3 | / Setback Length ≤ Profile Grade of Adjacent Street
- Ramp u_3 Cross Slope = | Elev. 4 - Elev. 5 | / Ramp Width ≤ 2.00% (4)
- Setback u_4 Cross Slope = | Elev. 6 - Elev. 7 | / Ramp Width ≤ 2.00% (4)

NOTES:

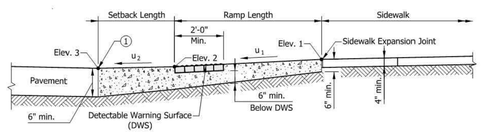
1. The bottom edge of the ramp or setback and top of curb shall be flush with the edge of adjacent pavement and gutter line.
2. A turning space is not required at the top of the ramp for a one-way directional perpendicular curb ramp.
3. Curb ramp surface shall be coarse broomed transverse to the running slope.
4. See Standard Drawing E 604-SWCR-01 for cross slope exceptions.
5. See Standard Drawing E 604-SWCR-12, -13, and -14 for Detectable Warning Surface placement, configuration, and details.
6. See Standard Drawing E 604-CCSJ-01 for sidewalk expansion joint details.

LEGEND:

- Buffer or Other Non-Walkable Surface
- Ramp
- Detectable Warning Surface



SECTION B-B



SECTION A-A

CONCRETE ADA RAMP - DETAIL M

NO SCALE

INDIANA DEPARTMENT OF TRANSPORTATION	
ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP COMPONENT DETAILS SEPTEMBER 2018	
STANDARD DRAWING NO. E 604-SWCR-06	
REGISTERED No. 10200124 STATE OF INDIANA ELIZABETH W. PHILLIPS PROFESSIONAL ENGINEER	/s/ Elizabeth W. Phillips — DESIGN STANDARDS ENGINEER — 03/29/18 (DATE) /s/ John Leckie — CHIEF ENGINEER — 04/25/18 (DATE)

CENTER GROVE HIGH SCHOOL PARKING LOT EXPANSION

2717 SOUTH MORGANTOWN ROAD
GREENWOOD, INDIANA 46143

CENTER GROVE COMMUNITY SCHOOL CORPORATION

ARCHITECT

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INDIANAPOLIS, IN 46204

CIVIL ENGINEER

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3901 W 86th Street, Suite 200
Indianapolis, IN 46268
Phone: (317) 334-1500
www.tlf-engineers.com

ISSUED FOR CONSTRUCTION

CHAD N. KINCAID REGISTERED No. 11300453 STATE OF INDIANA PROFESSIONAL ENGINEER

PROJECT MANAGER: CNK
DRAWN BY: JHL
PROJECT NUMBER: 224140.00
PROJECT ISSUE DATE: 06-06-2025

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM 1	06/18/2025
2	ADDENDUM 2	06/23/2025

SITE DETAILS

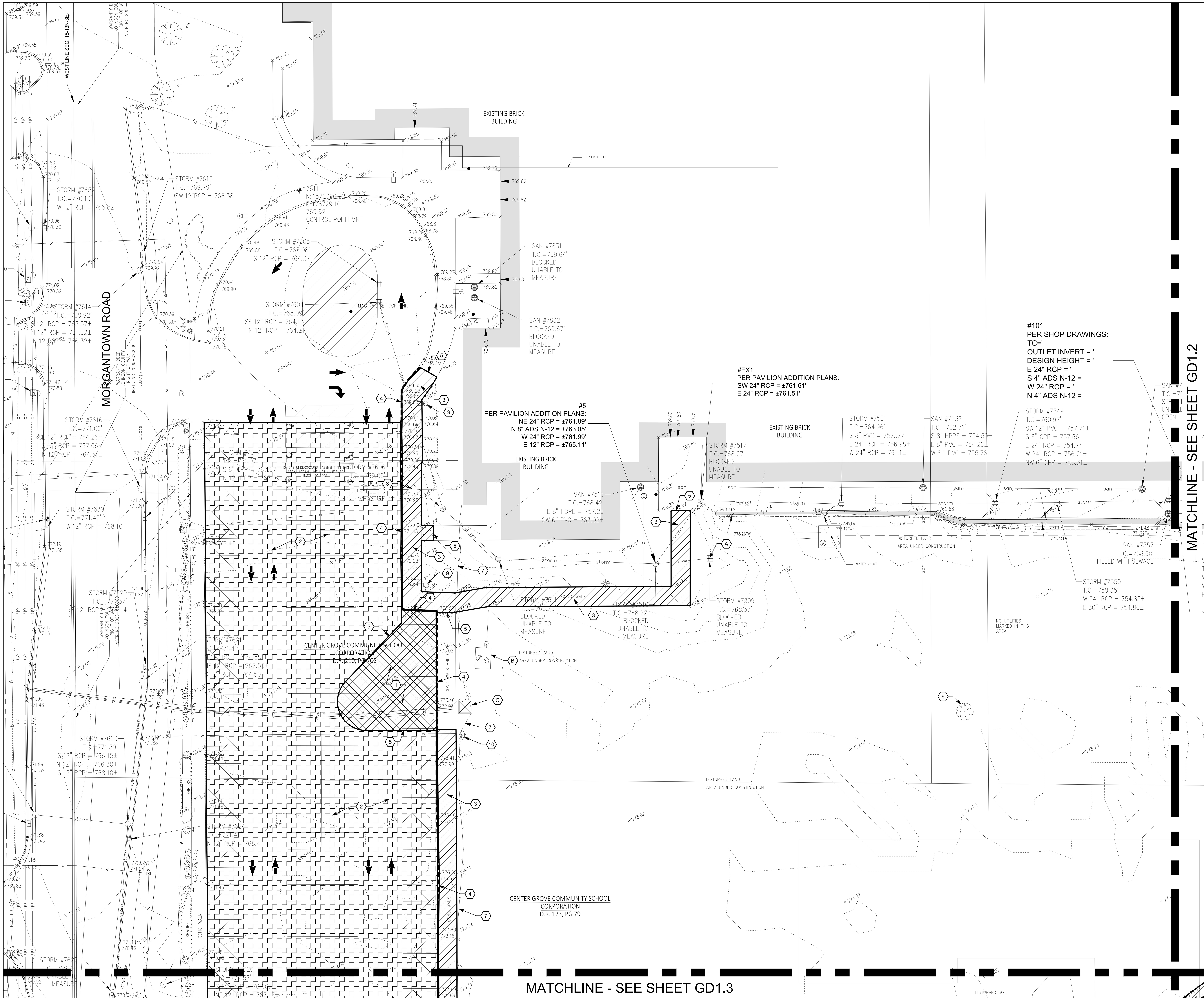
G1.5

Drawing Path: P:\2024\3601\3673\CAD\Civil\Active\7_2024-567_G1.5_Site Details.dwg
Plotted By: jlaureano Time of Plot: 6/23/25 - 2:45pm Last Edited: 6/23/25 - 2:41pm

CENTER GROVE HIGH SCHOOL PARKING LOT EXPANSION

2717 SOUTH MORGANTOWN ROAD
GREENWOOD, INDIANA 46143

CENTER GROVE COMMUNITY SCHOOL CORPORATION



NORTH

20 0 20 40 60

GENERAL NOTES

1. SEE DRAWING GD0.1 FOR GENERAL NOTES AND ADDITIONAL LEGEND.
2. TOPOGRAPHIC CONDITIONS AND EXISTING UTILITIES SHOWN WERE PROVIDED BY SURVEY FIRST LLC, DATED 05-01-2025. THE ENGINEER MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED.
3. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE PROJECT AREA INCLUDING UNDERGROUND UTILITY CONDITIONS, LOCATION AND DEPTH PRIOR TO ANY OTHER SITE CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER.

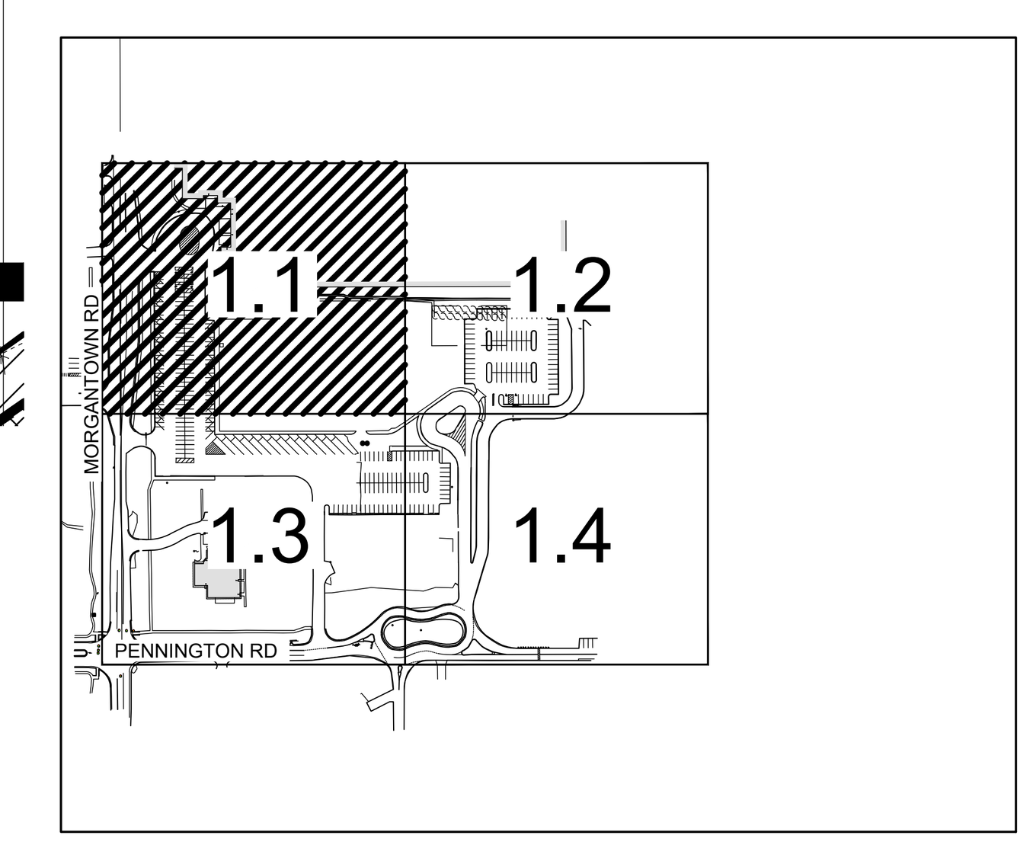
DEMOLITION KEYNOTES

1. REMOVE EXISTING ASPHALT PAVEMENT
2. SURFACE MILL 1.5" OF EXISTING ASPHALT PAVEMENT
3. REMOVE EXISTING CONCRETE WALK
4. REMOVE EXISTING CONCRETE CURB
5. SAWCUT EXISTING PAVEMENT
6. REMOVE EXISTING TREE
7. REMOVE EXISTING FENCE AND GATE
8. REMOVE EXISTING VEHICLE BARRIER ARM AND FOUNDATION
9. RELOCATE EXISTING LIGHT POLE. SEE SHEET E1.01 (2)
10. RELOCATED EXISTING FIRE HYDRANT ASSEMBLY
11. REMOVE EXISTING STORM SEWER LINE IN ITS ENTIRETY
12. CAP EXISTING STORM SEWER LINE TO BE ABANDONED IN PLACE - SEE DETAIL L/SU2.1
13. REMOVE EXISTING STORM STRUCTURE
14. REMOVE EXISTING SHRUBS

A. PROTECT EXISTING STORM INLET TO REMAIN IN PLACE
B. PROTECT EXISTING WATER METER VAULT TO REMAIN IN PLACE
C. PROTECT EXISTING ELECTRICAL TRANSFORMER TO REMAIN IN PLACE

DEMOLITION LEGEND

- APPROXIMATE LIMITS OF CONCRETE PAVEMENT REMOVAL
- APPROXIMATE LIMITS OF ASPHALT PAVEMENT REMOVAL
- APPROXIMATE LIMITS OF ASPHALT SURFACE MILLING
- APPROXIMATE LIMITS OF UTILITY LINE REMOVAL
- APPROXIMATE LIMITS OF CONCRETE CURB REMOVAL



KEY MAP

ARCHITECT

FANNING HOWEY

(317) 848-0966 WWW.FHAI.COM
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2	ADDENDUM 2	06/23/2025

SITE DEMOLITION PLAN
1 OF 4

GD1.1

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It's Fast, It's Easy and It's the Law in the state of Indiana!

CAUTION !!

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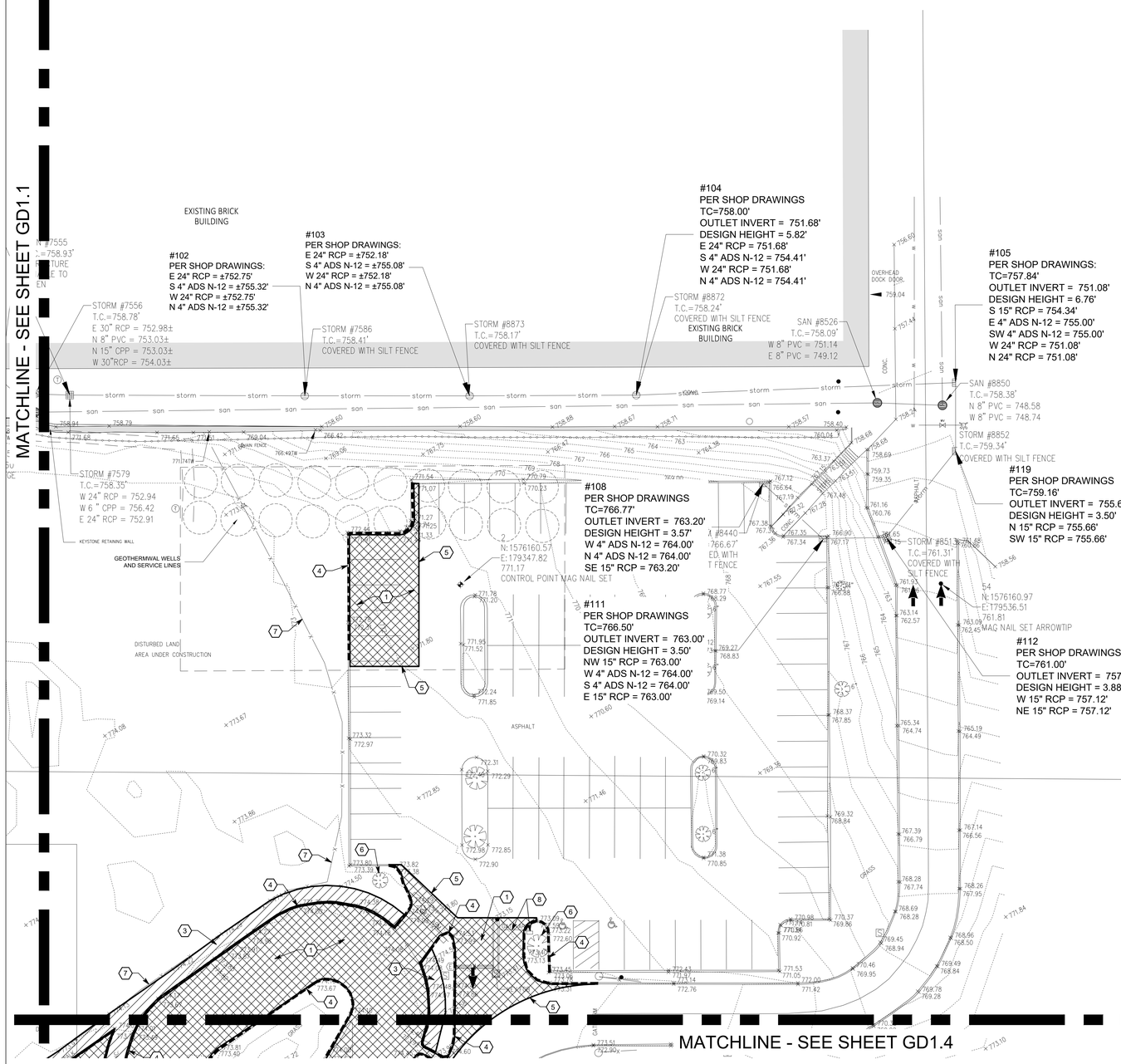
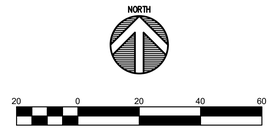
Drawing Path: P:\2024\300\367\CAD\Civil\Active\4_2024-367_GD1.0-GD1.4_Demolition Plan.dwg
Plotted By: jlaureano Time of Plot: 6/23/25 - 1:45pm Last Edited: 6/23/25 - 1:12pm





GENERAL NOTES

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14. REMOVE EXISTING SHRUBS

A. PROTECT EXISTING STORM INLET TO REMAIN IN PLACE

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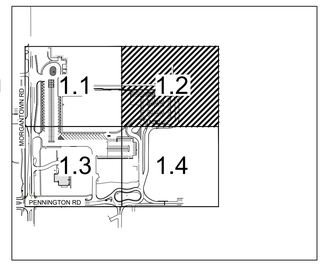
DEMOLITION LEGEND

- APPROXIMATE LIMITS OF CONCRETE PAVEMENT REMOVAL
- APPROXIMATE LIMITS OF ASPHALT PAVEMENT REMOVAL
- APPROXIMATE LIMITS OF ASPHALT SURFACE MILLING
- APPROXIMATE LIMITS OF UTILITY LINE REMOVAL
- APPROXIMATE LIMITS OF CONCRETE CURB REMOVAL



KEY MAP

811
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ARCHITECT

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ISSUED FOR CONSTRUCTION

CHAD N. KINCAID
REGISTERED
No. 11300453
STATE OF INDIANA
PROFESSIONAL ENGINEER

PROJECT MANAGER: CNK
DRAWN BY: JHL
PROJECT NUMBER: 224140.00
PROJECT ISSUE DATE: 06-06-2025

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM 1	06/18/2025
2	ADDENDUM 2	06/23/2025

SITE DEMOLITION PLAN
2 OF 4

GD1.2

Drawing Path: P:\2024_JOBS_367\CAD\Civil\Active\4_2024-367_GD1.0-GD1.4_Demolition Plan.dwg
Plotted By: jlaureano Time of Plot: 6/23/25 - 1:46pm Last Edited: 6/23/25 - 1:12pm

MATCHLINE - SEE SHEET GD1.1

MATCHLINE - SEE SHEET GD1.4

MORGANTOWN ROAD

PENNINGTON DR.

CENTER GROVE COMMUNITY SCHOOL CORPORATION
D.R. 212, PG 184

CENTER GROVE COMMUNITY SCHOOL CORPORATION
BY SURVEY 2013-028447

EXISTING BRICK BUILDING

CONSTRUCTION TRAILERS

NORTH

20 0 20 40 60

GENERAL NOTES

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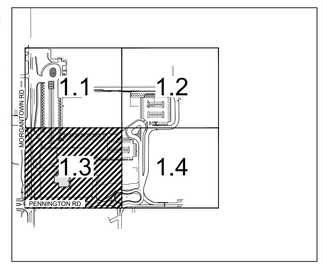
- APPROXIMATE LIMITS OF ASPHALT PAVEMENT REMOVAL
- APPROXIMATE LIMITS OF ASPHALT SURFACE MILLING
- APPROXIMATE LIMITS OF UTILITY LINE REMOVAL
- APPROXIMATE LIMITS OF CONCRETE CURB REMOVAL



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Plotted By: jlourenco Time of Plot: 6/23/25 - 1:46pm Last Edited: 6/23/25 - 1:12pm

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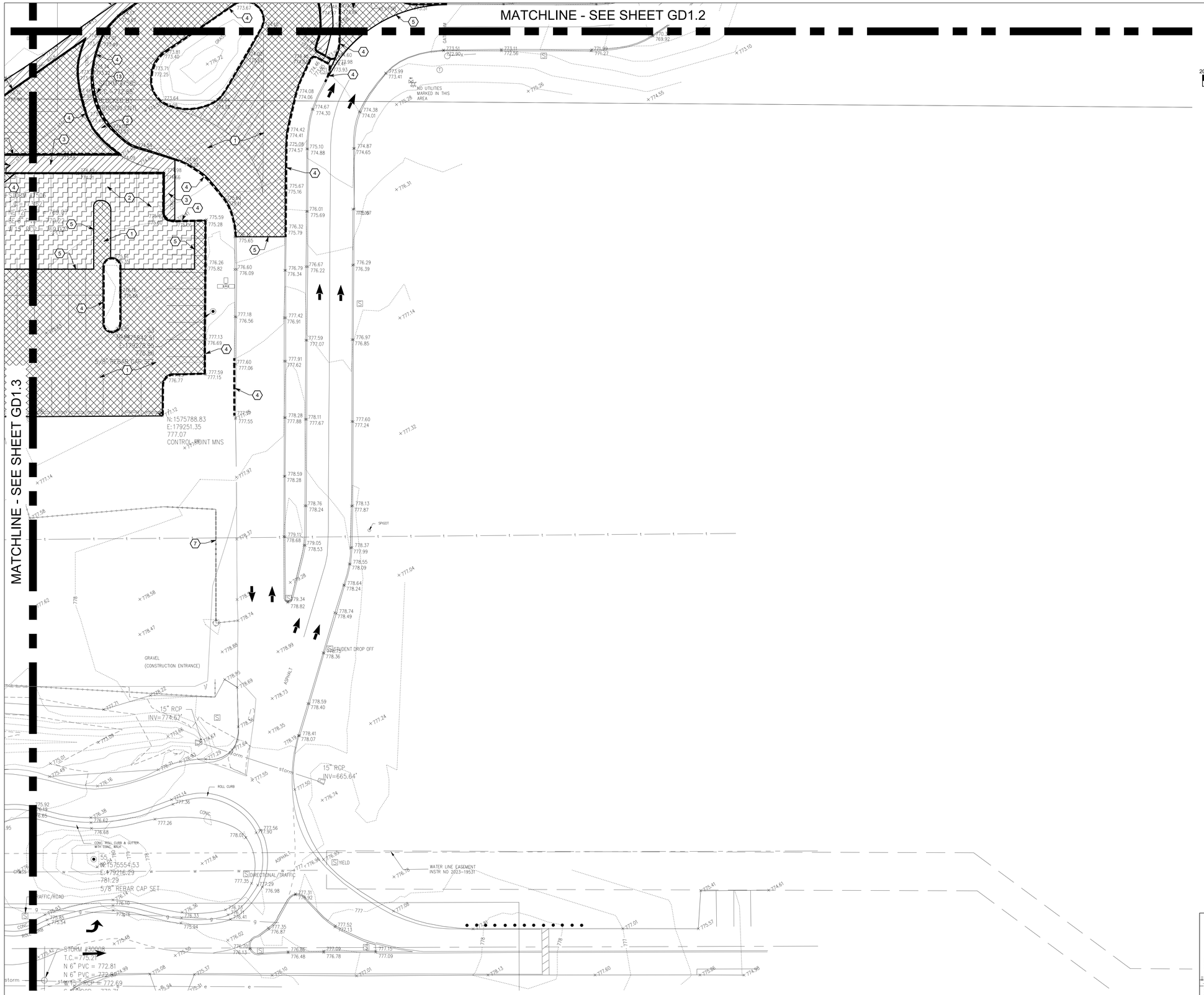
SITE DEMOLITION PLAN
3 OF 4

GD1.3



GENERAL NOTES

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⬡ DEMOLITION KEYNOTES

1. REMOVE EXISTING ASPHALT PAVEMENT
2. SURFACE MILL 1.5" OF EXISTING ASPHALT PAVEMENT △2
3. REMOVE EXISTING CONCRETE WALK
4. REMOVE EXISTING CONCRETE CURB
5. SAWCUT EXISTING PAVEMENT
6. REMOVE EXISTING TREE
7. REMOVE EXISTING FENCE AND GATE
8. REMOVE EXISTING VEHICLE BARRIER ARM AND FOUNDATION
9. RELOCATE EXISTING LIGHT POLE. SEE SHEET E1.01 △2
10. RELOCATED EXISTING FIRE HYDRANT ASSEMBLY
11. REMOVE EXISTING STORM SEWER LINE IN ITS ENTIRETY
12. CAP EXISTING STORM SEWER LINE TO BE ABANDONED IN PLACE - SEE DETAIL L/SU2.1
13. REMOVE EXISTING STORM STRUCTURE
14. REMOVE EXISTING SHRUBS

A. PROTECT EXISTING STORM INLET TO REMAIN IN PLACE
B. PROTECT EXISTING WATER METER VAULT TO REMAIN IN PLACE
C. PROTECT EXISTING ELECTRICAL TRANSFORMER TO REMAIN IN PLACE

DEMOLITION LEGEND

▨	APPROXIMATE LIMITS OF CONCRETE PAVEMENT REMOVAL
▩	APPROXIMATE LIMITS OF ASPHALT PAVEMENT REMOVAL
▦	APPROXIMATE LIMITS OF ASPHALT SURFACE MILLING
〰	APPROXIMATE LIMITS OF UTILITY LINE REMOVAL
▬ ▬ ▬	APPROXIMATE LIMITS OF CONCRETE CURB REMOVAL

KEY MAP

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Drawing Path: P:\2024\300\367\CAD\Civil\Active\4_2024-367_GD1.0-GD1.4_Demolition Plan.dwg
Plotted By: jlaureano Time of Plot: 6/23/25 - 1:46pm Last Edited: 6/23/25 - 1:12pm

CENTER GROVE HIGH SCHOOL PARKING LOT EXPANSION

2717 SOUTH MORGANTOWN ROAD
GREENWOOD, INDIANA 46143

CENTER GROVE COMMUNITY SCHOOL CORPORATION

ARCHITECT

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CIVIL ENGINEER

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ISSUED FOR CONSTRUCTION

CHAD N. KINCAID
No. 11300453

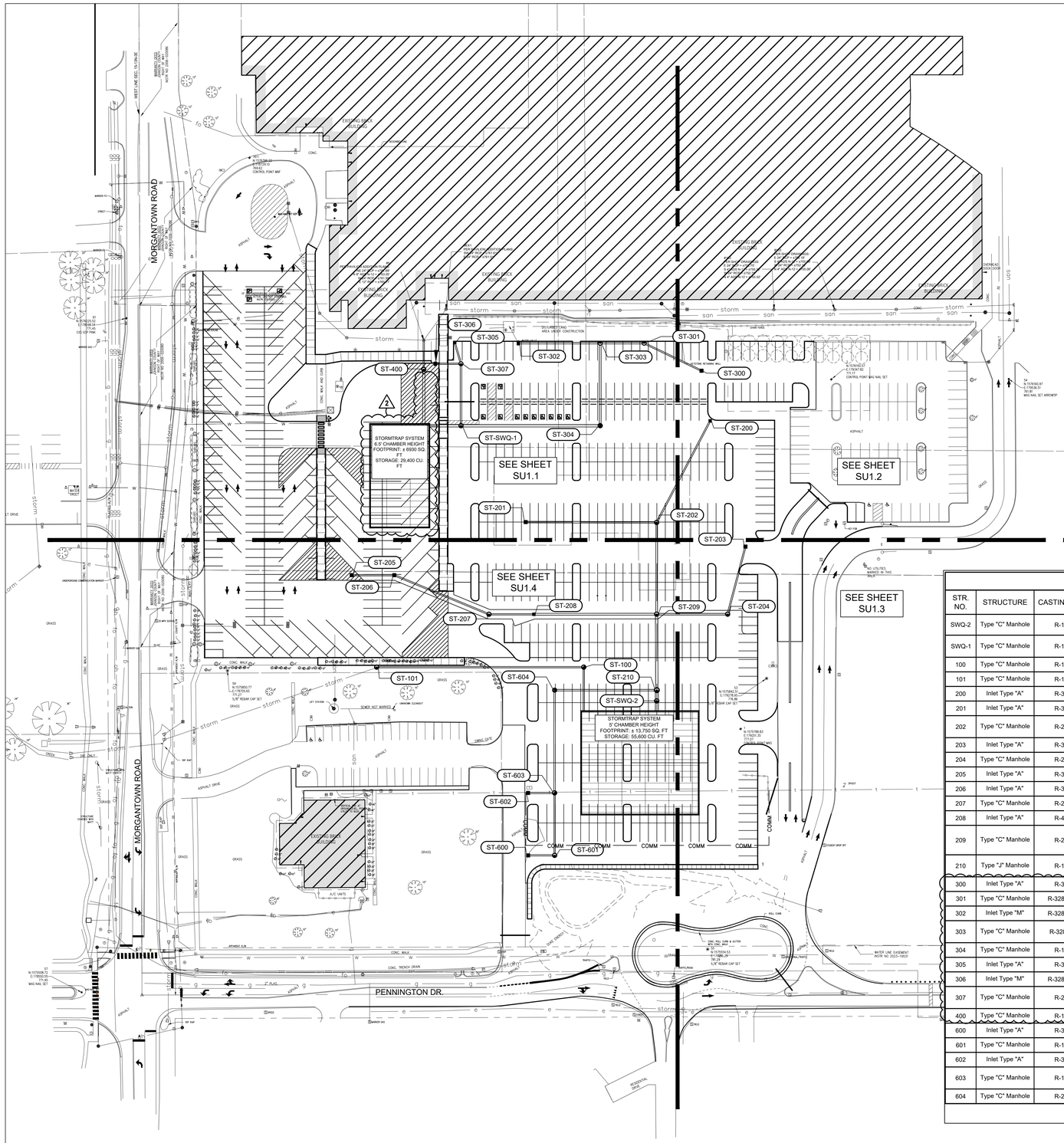
Chad N. Kincaid

PROJECT MANAGER: CNK
DRAWN BY: JHL
PROJECT NUMBER: 224140.00
PROJECT ISSUE DATE: 06-06-2025

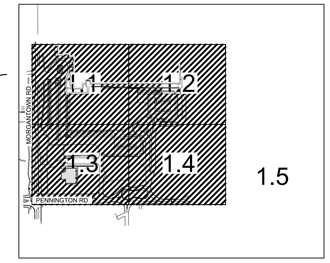
REV. NO.△	DESCRIPTION	DATE
1	ADDENDUM 1	06/18/2025
2	ADDENDUM 2	06/23/2025

SITE DEMOLITION PLAN
4 OF 4

GD1.4



STORM STRUCTURE TABLE										
STR. NO.	STRUCTURE	CASTING TYPE	RIM	INCOMING PIPE DATA (DIRECTION) [FROM STR]	OUTGOING PIPE DATA (DIRECTION) [TO STR]	OUTGOING PIPE L.F.	OUTGOING PIPE SIZE	OUTGOING GRADE	CONNECT TO STR.	REMARKS
SWQ-2	Type "C" Manhole	R-1772	775.43	30" RCP OR HDPE 767.76 (N) [210]	30" RCP OR HDPE 767.76 (S) []	11'	30"	0.55%		STORMTRAP STORM SETTLER 12
SWQ-1	Type "C" Manhole	R-1772	770.94	24" RCP OR HDPE 762.60 (E) [304] 15" RCP OR HDPE 762.60 (N) [307]	24" RCP OR HDPE 762.60 (W) []	34'	24"	0.50%		STORMTRAP STORM SETTLER 10
100	Type "C" Manhole	R-1772	774.60	12" RCP OR HDPE 767.50 (S) []	12" RCP OR HDPE 767.50 (W) [101]	220'	12"	0.50%	101	-
101	Type "C" Manhole	R-1772	770.45	12" RCP OR HDPE 766.40 (E) [100]						-
200	Inlet Type "A"	R-3472	772.08		12" RCP OR HDPE 769.39 (SW) [202]	122'	12"	0.53%	202	-
201	Inlet Type "A"	R-3472	773.45		15" RCP OR HDPE 769.50 (E) [202]	139'	15"	0.55%	202	-
202	Type "C" Manhole	R-2502	773.38	15" RCP OR HDPE 768.74 (W) [201] 12" RCP OR HDPE 768.74 (NE) [200]	18" RCP OR HDPE 768.77 (S) [209]	98'	18"	0.60%	209	-
203	Inlet Type "A"	R-3472	772.97		12" RCP OR HDPE 768.93 (S) [204]	74'	12"	0.50%	204	-
204	Type "C" Manhole	R-2502	774.48	12" RCP OR HDPE 768.56 (N) [203]	15" RCP OR HDPE 768.56 (W) [209]	76'	15"	0.50%	209	-
205	Inlet Type "A"	R-3472	772.25		12" RCP OR HDPE 769.93 (E) [206]	45'	12"	0.49%	206	-
206	Inlet Type "A"	R-3472	772.50	12" RCP OR HDPE 769.71 (W) [205]	12" RCP OR HDPE 769.71 (E) [207]	109'	12"	0.50%	207	-
207	Type "C" Manhole	R-2502	773.01	12" RCP OR HDPE 769.17 (W) [206]	12" RCP OR HDPE 769.17 (E) [208]	48'	12"	0.56%	208	-
208	Inlet Type "A"	R-4342	773.03	12" RCP OR HDPE 768.90 (W) [207]	18" RCP OR HDPE 768.89 (E) [209]	130'	18"	0.54%	209	-
209	Type "C" Manhole	R-2502	773.60	18" RCP OR HDPE 768.18 (N) [202] 15" RCP OR HDPE 768.18 (E) [204] 18" RCP OR HDPE 768.18 (W) [208]	24" RCP OR HDPE 768.18 (S) [210]	81'	24"	0.45%	210	-
210	Type "J" Manhole	R-1772	775.04	24" RCP OR HDPE 767.81 (N) [209] 15" RCP OR HDPE 768.72 (W) [604]	30" RCP OR HDPE 767.81 (S) [SWQ-2]	11'	30"	0.45%	SWQ-2	-
300	Inlet Type "A"	R-3472	769.56		12" RCP OR HDPE 764.72 (NW) [301]	68'	12"	0.56%	301	-
301	Type "C" Manhole	R-3287-10V	768.94	12" RCP OR HDPE 764.34 (SE) [300]	15" RCP OR HDPE 764.34 (W) [303]	47'	15"	0.56%	303	-
302	Inlet Type "M"	R-3287-10V	767.27		15" RCP OR HDPE 764.52 (E) [303]	87'	15"	0.51%	303	-
303	Type "C" Manhole	R-3286-8V	767.40	15" RCP OR HDPE 764.08 (E) [301] 15" RCP OR HDPE 764.08 (W) [302]	18" RCP OR HDPE 764.08 (S) [304]	88'	18"	0.50%	304	-
304	Type "C" Manhole	R-1772	771.37	18" RCP OR HDPE 763.64 (N) [303]	24" RCP OR HDPE 763.34 (W) [SWQ-1]	148'	24"	0.50%	SWQ-1	-
305	Inlet Type "A"	R-3472	767.48		12" RCP OR HDPE 763.06 (S) [307]	24'	12"	0.55%	307	-
306	Inlet Type "M"	R-3287-10V	767.86		12" RCP OR HDPE 763.08 (E) [307]	27'	12"	0.55%	307	-
307	Type "C" Manhole	R-2502	767.81	12" RCP OR HDPE 762.93 (W) [306] 12" RCP OR HDPE 762.93 (N) [305]	15" RCP OR HDPE 762.93 (S) [SWQ-1]	66'	15"	0.50%	SWQ-1	-
400	Type "C" Manhole	R-1772	768.61	24" RCP OR HDPE 762.15 (S) []	12" RCP OR HDPE 762.15 (N) []	31'	12"	0.50%		-
600	Inlet Type "A"	R-3472	773.40		12" RCP OR HDPE 770.10 (E) [601]	28'	12"	0.50%	601	-
601	Type "C" Manhole	R-1772	774.33	12" RCP OR HDPE 769.96 (W) [600]	12" RCP OR HDPE 769.96 (N) [603]	66'	12"	0.48%	603	-
602	Inlet Type "A"	R-3472	774.15		12" RCP OR HDPE 769.79 (E) [603]	28'	12"	0.50%	603	-
603	Type "C" Manhole	R-1772	774.82	12" RCP OR HDPE 769.64 (S) [601] 12" RCP OR HDPE 769.65 (W) [602]	15" RCP OR HDPE 769.64 (N) [604]	109'	15"	0.50%	604	-
604	Type "C" Manhole	R-2502	774.26	15" RCP OR HDPE 769.09 (S) [603]	15" RCP OR HDPE 769.09 (E) [210]	109'	15"	0.34%	210	-



KEY MAP

CENTER GROVE HIGH SCHOOL PARKING LOT EXPANSION

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CENTER GROVE COMMUNITY SCHOOL CORPORATION

ARCHITECT

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ISSUED FOR CONSTRUCTION

CHAD N. KINGCADE
REGISTERED
No. 11300453
STATE OF
INDIANA
PROFESSIONAL ENGINEER

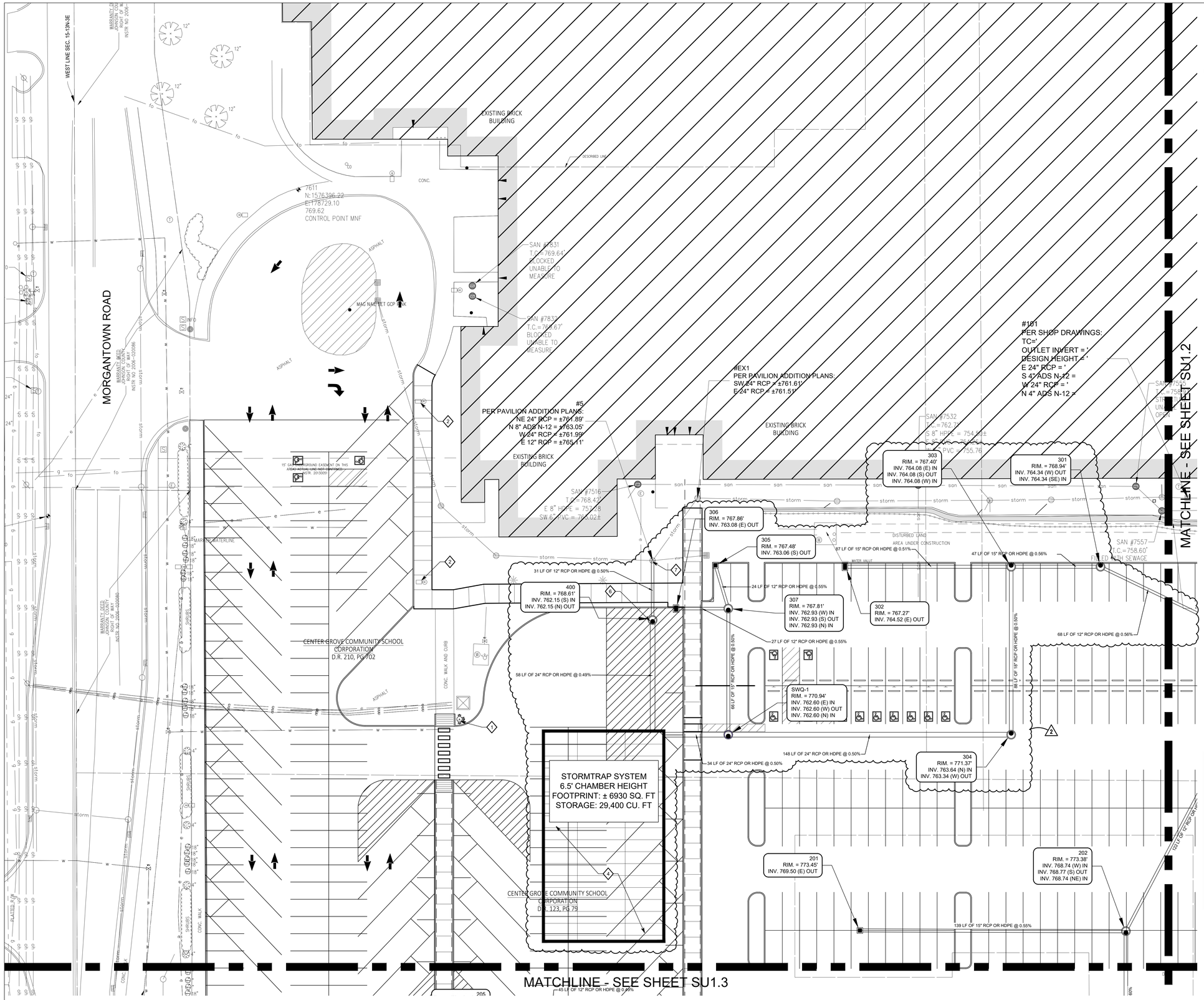
PROJECT MANAGER: CNK
DRAWN BY: JHL
PROJECT NUMBER: 224140.00
PROJECT ISSUE DATE: 06-06-2025

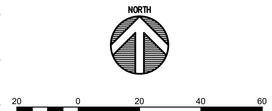
REV. NO.	DESCRIPTION	DATE
2	ADDENDUM 2	06/23/2025

OVERALL UTILITY PLAN

SU1.0

Drawing Path: P:\2024\300\367\CAD\Civil\Active\14_2024-367_ SU1.0 _Overall Utility Plan.dwg
Plotted By: jlourenco Time of Plot: 6/23/25 - 1:47pm Last Edited: 6/23/25 - 1:13pm





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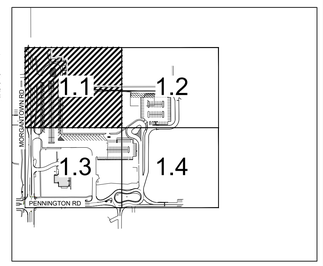
3. VERIFY COMM LINE AND RELOCATE. COORDINATE WITH OWNER
4. STORM TRAP UNDERGROUND DETENTION SYSTEM - SEE SHEET SU2.3
5. STORM TRAP UNDERGROUND DETENTION SYSTEM - SEE SHEET SU2.2
6. OUTLET CONTROL STRUCTURE - SEE DETAIL H AND J/SU2.1
7. CORE EXISTING STRUCTURE FOR NEW PIPE, GROUT IN PLACE
8. CONCRETE SADDLE FOR PIPE CROSSING - SEE DETAIL K/SU2.1

UTILITY LEGEND

- PROPOSED STORM SEWER LINE
- COMM — PROPOSED COMMUNICATION LINE
- W — PROPOSED WATER LINE
- PROPOSED FIRE HYDRANT
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- PROPOSED LIGHT POLE (SEE ELECTRICAL PLANS)



KEY MAP

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ISSUED FOR CONSTRUCTION

CHAD N. KINNAIRD
REGISTERED No. 11300453 STATE OF INDIANA
PROFESSIONAL ENGINEER

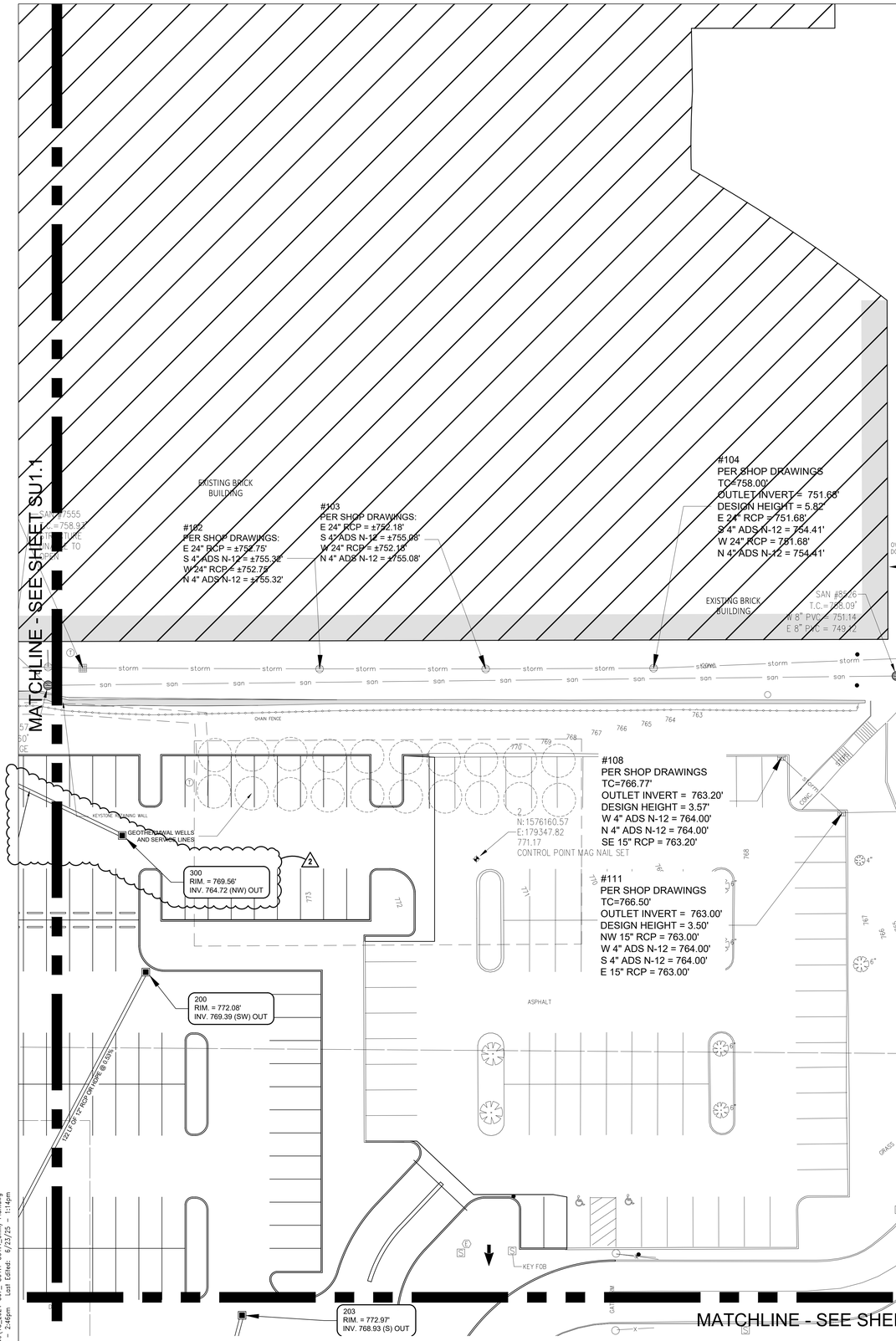
PROJECT MANAGER: CNK
DRAWN BY: JHL
PROJECT NUMBER: 224140.00
PROJECT ISSUE DATE: 06-06-2025

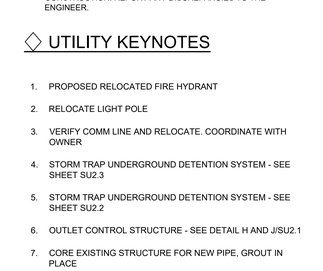
REV. NO.	DESCRIPTION	DATE
1	ADDENDUM 1	06/18/2025
2	ADDENDUM 2	06/23/2025

UTILITY PLAN
1 OF 4

SU1.1

Drawing Path: P:_2024_560_567_CAD\Civil\Active\15_2024-567_ SU1.1-SU1.4_Utility Plan.dwg
Plotted By: jlourenco Time of Plot: 6/23/25 - 2:46pm Last Edited: 6/23/25 - 1:14pm





KEY MAP

NORTH

20 0 20 40 60

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- PROPOSED FIRE DEPARTMENT CONNECTION
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- PROPOSED STORM MANHOLE
- PROPOSED LIGHT POLE (SEE ELECTRICAL PLANS)

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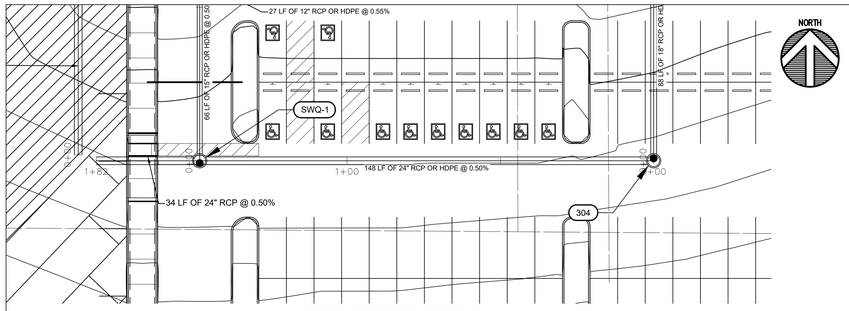
PROJECT ISSUE DATE: 06-06-2025

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM 2	06/23/2025

UTILITY PLAN
2 OF 4

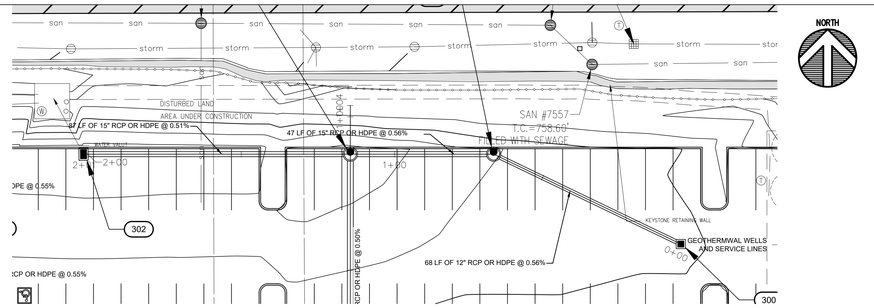
SU1.2

Drawing Path: P:\2024\300\367\CAD\Civil\Active\15_2024-367_ SU1.1-SU1.4_Utility Plan.dwg
Plotted By: jlourenco Time of Plot: 6/23/25 - 2:46pm Last Edited: 6/23/25 - 1:14pm



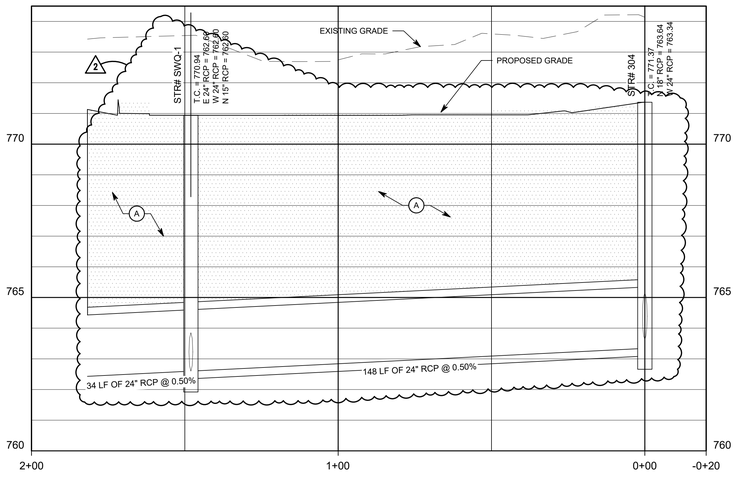
STORM LINE PROFILE LINE "ST-11"

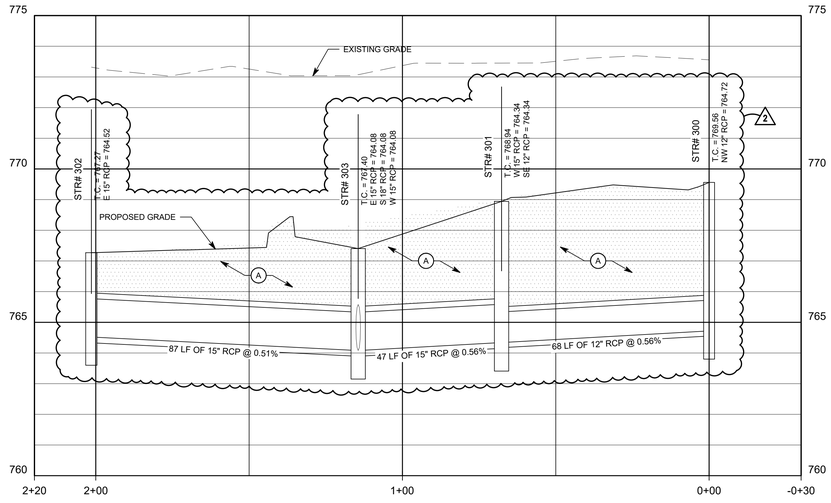
SCALE:
HORIZ.: 1" = 20'
VERT.: 1" = 5'



STORM LINE PROFILE LINE "ST-12"

SCALE:
HORIZ.: 1" = 20'
VERT.: 1" = 5'





STORM PROFILE KEYNOTES

A. GRANULAR BACKFILL REQUIRED. REFER TO DETAIL A/SU2.1

APPROXIMATE LIMITS OF GRANULAR BACKFILL

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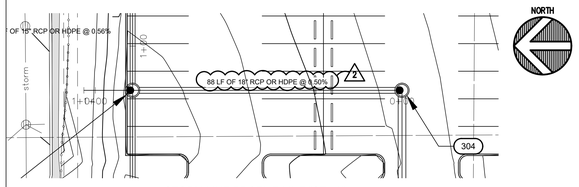
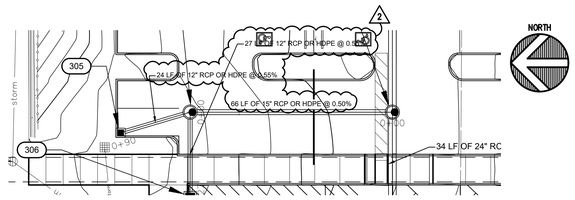


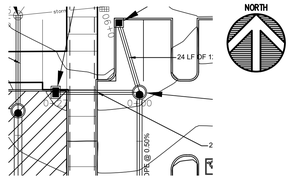
STORM LINE PROFILE LINE "ST-13"

SCALE:
HORIZ.: 1" = 20'
VERT.: 1" = 5'



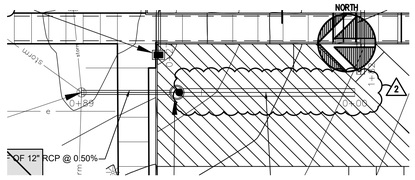
STORM LINE PROFILE LINE "ST-14"

SCALE:
HORIZ.: 1" = 20'
VERT.: 1" = 5'



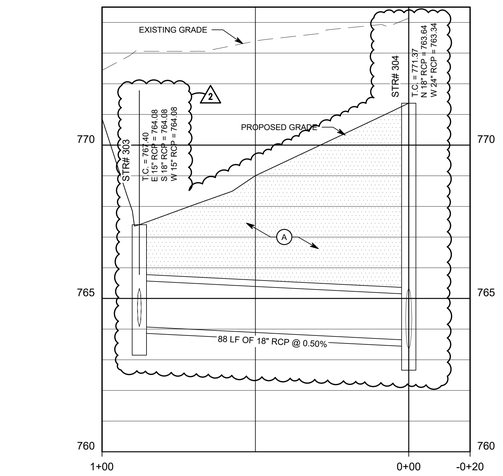
STORM LINE PROFILE LINE "ST-15"

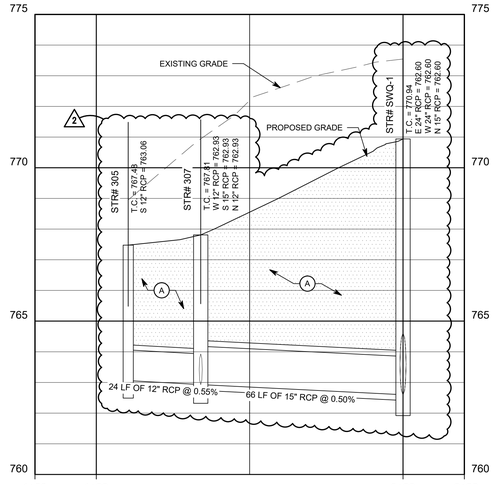
SCALE:
HORIZ.: 1" = 20'
VERT.: 1" = 5'

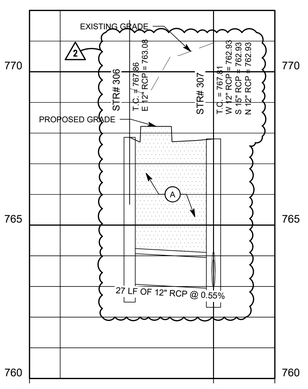


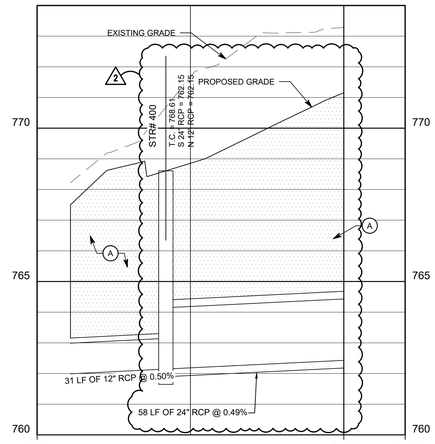
STORM LINE PROFILE LINE "ST-16"

SCALE:
HORIZ.: 1" = 20'
VERT.: 1" = 5'









ISSUED FOR CONSTRUCTION

CHAD N. KIMCAID
REGISTERED No. 11300453 STATE OF INDIANA PROFESSIONAL ENGINEER

PROJECT MANAGER: CNK
DRAWN BY: JHL
PROJECT NUMBER: 224140.00
PROJECT ISSUE DATE: 06-06-2025

REV. NO.	DESCRIPTION	DATE
2	ADDENDUM 2	06/23/2025

UTILITY PLAN
3 OF 3

SU3.3

Drawing Path: P:\2024\2401\247\CAD\Civil Active\17_2024-247_ SU3.1-SU3.4_Storm Plan and Profile.dwg
Plotted By: jlaurens Time of Plot: 6/23/25 - 2:55pm Last Edited: 6/23/25 - 2:55pm

224140.00 CENTER GROVE HIGH SCHOOL PARKING LOT IMPROVEMENTS

ELECTRICAL SITE PLAN

1" = 40'-0"

PLAN NOTES:

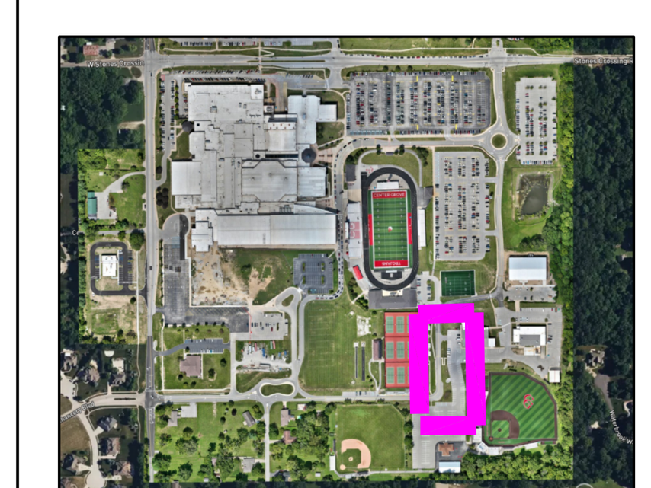
- S1 EXISTING LIGHT POLE AT THIS LOCATION IS TO REMAIN IN PLACE.
- S2 EXISTING LIGHT POLE AND BASE AT THIS LOCATION IS TO BE DISCONNECTED AND REMOVED.
- S3 PROVIDE A NEW LIGHT POLE ON A PRECAST CONCRETE BASE AT THIS LOCATION. POLE IS TO BE A 25'-0" TALL SQUARE POLE, PAINTED BLACK. PRECAST BASE AND POLE ARE PROVIDED BY THE ELECTRICAL CONTRACTOR AND THE LIGHT FIXTURE HEAD(S) ARE PROVIDED BY ENERGY HARNESS. PRECAST BASE IS TO MATCH THE EXISTING BASES.
- S4 RUN TWO 2" CONDUITS FROM EXISTING PANELBOARDS APHM AND APLM (ONE FROM EACH PANELBOARD), ABOVE THE CEILING THEN DOWN THE WALL CAVITY TO BELOW GRADE, THEN OUT TO THE POWER PULL BOX.
- S5 RUN A 2" CONDUIT FROM ABOVE THE CEILING TO THE WALL, THEN DOWN THE WALL CAVITY TO BELOW THE GRADE THEN OUT TO THE DATA PULLBOX.
- S6 WIRE NEW GATE TO SPARE 20A, 1-POLE CIRCUIT IN EXISTING PANELBOARD "APLM" RUN THROUGH THE NEW POWER PULLBOX. E.C. IS RESPONSIBLE FOR FIBER FROM BUILDING TO NEW GATE LOCATION. (2)
- S7 WIRE NEW LIGHTING TO A SPARE 20, 1-POLE CIRCUIT IN EXISTING PANELBOARD "APHM". RUN THROUGH THE NEW POWER PULL BOX.
- S8 WIRE EXISTING LIGHTING TO A SPARE 20A, 1-POLE CIRCUIT IN EXISTING PANELBOARD "APHM". RUN THROUGH THE NEW POWER PULL BOX.
- S9 EXISTING LIGHT POLE AT THIS LOCATION IS TO BE RELOCATED TO THE SOUTH TO MISS THE NEW SIDE WALK. PROVIDE A NEW CONCRETE BASE FOR LIGHT POLE AT LOCATION SHOWN.
- S10 PROVIDE A 2" PVC CONDUIT RUNNING TO LIGHT POLE FOR FUTURE CAMERA CABLING.
- S11 PROVIDE A 2"PVC CONDUIT RUNNING TO LIGHT POLE WITH A 120V POWER FOR FUTURE CAMERA POWER.
- S12 RUN 3 DIFFERENT SETS OF OM4 MULTI-MODE 6 PAIR FIBER RUNS FROM THE NEW DATA PULLBOX, BACK TO THE AP DATA ROOM IN THE EXISTING BUILDING. (1)
- S13 RUN AN INDIVIDUAL OM4 MULTI-MODE 6 PAIR FIBER FROM NEW DATA PULLBOX TO LIGHT POLE LOCATION.
- S14 EXISTING LIGHT POLE AT THIS LOCATION IS TO BE RELOCATED TO MISS NEW STORM SEWER LINE. EXTEND CONDUIT AND WIRING TO NEW LOCATION. PROVIDE A NEW CONCRETE BASE AT THE NEW LOCATION. (2)

CENTER GROVE COMMUNITY SCHOOL CORPORATION
4800 W Stones Crossing Rd, Greenwood, IN 46143
(317)-881-9326

ARCHITECT

FANNING HOWEY

317-848-0966 WWW.FHAI.COM



KEY PLAN

PLAN NORTH

100% CONSTRUCTION DOCUMENTS

BRIAN W. BUTLER REGISTERED No. PE 11600305 STATE OF INDIANA PROFESSIONAL ENGINEER

PROJECT MANAGER: KS

DRAWN BY: RR

PROJECT NUMBER: 224140.00

PROJECT CONSTRUCTION ISSUE DATE: 06-06-2025

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	06-18-2025
2	ADDENDUM #2	06-23-2025

811 Know what's below. Call before you dig.
Call 811 or 1-800-382-5544 Before You Begin Any Digging Project.
Call 48 hours or 2 working days before you dig.
It's Fast, It's Easy and It's the Law in the state of Indiana!

CAUTION !!

THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (INCLUDING, BUT NOT LIMITED TO, MANHOLES, INLETS, VALVES, AND MARKS MADE UPON THE GROUND BY OTHERS) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

LOCATIONS GIVEN ARE APPROXIMATE AND ARE TO BE SITE VERIFIED PRIOR TO THE START OF CONSTRUCTION. ALL ASPHALT PAVING NOT NOTED FOR WORK IS TO REMAIN – PROTECT DURING CONSTRUCTION TYP.

ELECTRICAL SITE PLAN

E1.01