Resolution of the Demarest Governing Body

Resolution No. 113-25

June 2, 2025

Council Member	Motion	Second	Yes	No	Abstain	Absent
Jiang			✓			
Fox			✓			
Marks		✓	✓			
Slowikowski		✓	✓			
Reiss			✓			
Collins	✓		✓			

TITLE: RESOLUTION AUTHORIZING ENGINEERING SERVICES FOR 2025 UNIMPROVED ROADS PROJECT

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WHEREAS, the Borough of Demarest has a need for engineering design and bidding services related to 2025 Unimproved Roads Project; and

WHEREAS, the Borough received a proposal dated May 30, 2025 from Colliers Engineering & Design to provide those services, attached, for the sum of $89,500.00; and

WHEREAS, the appointment and the contract are exempted from the competitive bidding requirements of the Local Public Contracts Law, (NJSA 40A:11-1 et. Seq.) as "Professional Services", pursuant to NJSA 40A:11-5(1)(a); and

WHEREAS, the vendor is the currently appointed 2025 Borough Engineer for the Borough of Demarest and the Mayor and Council awarded said 2025 contract pursuant to the provisions of NJSA 19:44A-20.5; and

WHEREAS, the Chief Financial Officer has certified that funds are available in account C-04-2150-55-106-5007;

NOW THEREFORE, BE IT RESOLVED, by the Borough of Demarest that the Borough Administrator is authorized to execute the agreement to authorize Colliers Engineering & Design to perform the work described herein not to exceed $89,500.00 a copy of which is annexed to this Resolution.

APPROVED:

Brian Bernstein, Mayor

CERTIFICATION

I, Julie Falkenstern, Acting Borough Clerk, of the Borough of Demarest, in the County of Bergen and the State of New Jersey do hereby certify that the foregoing Resolution is a true copy of the original resolution duly passed and adopted by the Governing Body at the meeting on June 2, 2025.

Julie Falkenstern, Acting Borough Clerk

C-04-2150-55-106-5007

400 Valley Road
Suite 304
Mt. Arlington, NJ 07856
Main: 877 627 3772

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May 30, 2025

Julie Falkenstern, Borough Administrator
Mayor and Council
Borough of Demarest
118 Serpentine Road
Demarest, New Jersey 07627

Professional Design and Bidding Engineering Services
2025 Unimproved Roads Project – Orchard Road and Wellwood Road
Borough of Demarest, Bergen County
Colliers Engineering & Design Proposal No.: DEB0079P

Dear Ms. Falkenstern,

Colliers Engineering & Design Inc. (CED) is pleased to present this agreement to provide survey, design and bidding services for the 2025 Unimproved Roads Project – Orchard Road and Wellwood Road. Specifically, the limits are:

- **Orchard Road** - from Anderson Avenue to the terminus at Demarest Brook – approximately 900 linear feet; and
- **Wellwood Road** – from Hardenburgh Avenue to the southern terminus - approximately 250 linear feet.

It is our understanding that both streets are under the Borough's jurisdiction. It is also our understanding that these roadways are currently unimproved, consisting of compacted gravel driving surfaces and are generally in poor condition. We have conducted an initial evaluation of both roadways to determine a general design approach needed to construct a full pavement section and improve the roads. CED will design both roadways with curbing and consistent roadway widths. New drainage infrastructure will be designed and installed to capture stormwater. Some minor re-grading of each roadway may be required to establish positive drainage along the curblines. A final evaluation will be conducted once survey is completed and the project is in the design phase.

Survey and Subsurface Utility Evaluation (SUE) will be performed within Orchard Road and Wellwood Road ROW so that CED can evaluate the existing conditions and design the new roadways with minimal disruption to existing infrastructure. In addition, any ponding or drainage issues due to low spots in existing grade elevation, failing infrastructure and/or lack of infrastructure can be identified and mitigated as part of the design. Furthermore, areas that require curbing and/or modification to the roadway grading can be designed with roadway profiles and cross sections. It is our understanding that the curb is to be a laid-back granite block, similar to previous projects completed within the Borough. At the terminal end of Orchard Road, we will evaluate the feasibility designing and constructing a cul-de-sac. The terminal end of Wellwood Road will be squared off at the width of the roadway. Accordingly, the improvements within both roadways will include drainage

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improvements, curbing, base repair, paving, striping, and restoration. It is our understanding that the project will be fully funded by the Borough.

CED will provide the following services:

SCOPE OF SERVICES

TASK 1.0 SURVEY SERVICES

Task 1.1 Partial Boundary & Topographic Survey

CED will prepare a Partial Boundary Survey of Orchard Road and Wellwood Road in the Borough of Demarest, Bergen County, State of New Jersey in accordance with the standards set forth in the Laws of the State of New Jersey Statutory Reference NJSA 45:8-28(e) and more specifically, the administrative rules and regulations promulgated by the State Board of Professional Engineers and Land Surveyors and contained in N.J.A.C. 13:40-5.1.

Included in this task of service are the following tasks:

- Public records research and pre-field records review;
- Field traverse, location survey and data collection;
- Field survey data reduction and computation;
- Boundary analysis and survey calculations.

Unless provided by the Borough, the boundary surveys will be subject to such facts that a current and accurate title report would disclose.

The fee for this task is based upon the assumption that the deed mathematically closes, that there are no title problems, that there are no overlaps or gores with adjoining properties, and that extraordinary research or analysis is not required. If any of the items cited in this paragraph do become issues during our survey efforts, we will discuss the necessary additional services and related costs with you prior to proceeding with the additional services.

Our office will prepare a topographic survey map that is a graphic pictorial representation of existing site features observed at the time of the field survey such as buildings, curbs, sidewalks, roadways, driveways, retaining walls, fences, trees four inches (4") in diameter and greater, and utility hardware. The topographic maps will depict existing spot elevations and contours at a one-foot (1') contour interval. GPS surveying techniques will be used to control the survey with the resulting horizontal datum being New Jersey State Plane Coordinate System NAD83 and the vertical datum being North American Vertical Datum NAVD88.

CED will perform partial topographic surveys of the subjects. The limits of the topography are outlined in **red** as depicted in the Survey Limits image below:

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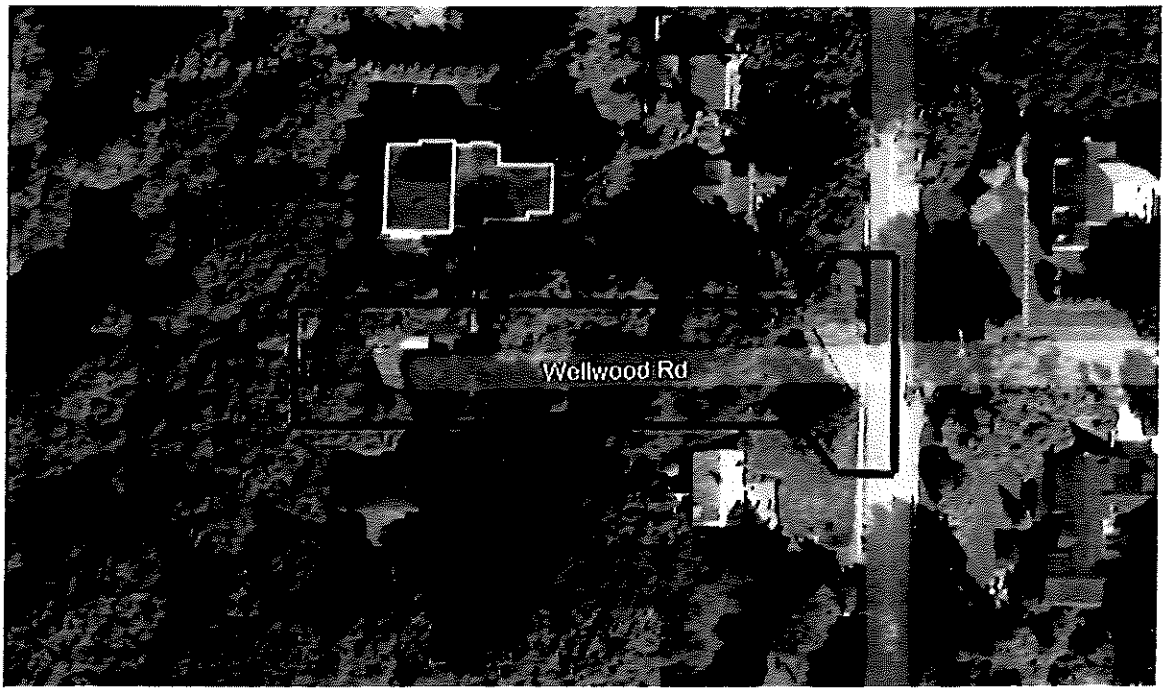
SURVEY LIMITS

Orchard Road

Wellwood Road



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Visible and accessible utilities and/or utility structures within the survey limits, as described above, will be surveyed and shown on the plan. For the purposes of this contract, accessible utilities shall be defined as those utilities that are visible to the naked eye at ground level and are safely accessible by foot by CED field survey personnel without the need for additional safety measures and/or assistance with making pipes visible, open and clear for inspection and measuring.

We will survey visible evidence of existing utilities within the survey limits, but may not be able to confirm the existence, or actual position of, all underground utilities which may be running through or servicing the subject property. The NJ One Call System prohibits the use of its service for surveying and mapping of subsurface utilities for engineering design purposes. We will enlist the services of our in-house subsurface utility engineers to investigate and mark the approximate location of subsurface utilities that may exist on the site.

Included in this task of service are the following tasks:

- Establish on-site survey control;
- Field traverse, topographic survey and data collection;
- Extend topography 25' beyond the edge of travel way;
- Extend topography 50' each direction of Anderson Avenue;
- Extend topography 10' beyond the easterly curb of Anderson Avenue;
- Field survey data reduction and computation;
- Preparation of topographic survey map in AutoCAD Civil 3D 2022 format.

Traffic safety protection for field survey crew and cleaning of clogged or obstructed drain and sewer structures is **not** included in the fee for this survey. If it is determined that safety protection is required for any of the survey services performed under this contract, we will advise you of the approximate cost prior to moving forward. Such additional cost would be invoiced as a reimbursable expense pursuant to prior authorization.

Task 1.2 Utility Investigation and Mapping

CED proposes to provide the following professional Utility Investigation and Mapping Services in support of the above-named project in accordance with the project limits as indicated on the provided map and site sketch.

Utility Records Research. Conduct comprehensive utility records research and collect applicable utility owner records to assist in identifying utility owners that may have facilities on or be affected by the project. Includes interfacing with utility owners/operators to ascertain the availability and completeness of record documents and to obtain verbal or historical information on existing subsurface facilities and operational status. All utility records obtained through this process will be included as an attachment in the final deliverable.

Buried Utility Mapping (Horizontal Mapping of Utilities). Designating the presence and approximate horizontal location of subsurface utilities using geophysical prospecting techniques including, electromagnetic, sonic and acoustical techniques. CED will provide the following designating services to aid the Borough:

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- Provide equipment, personnel and supplies needed for performing designating services. CED will determine equipment, personnel and supplies needed to perform these services.
- Designate the existing underground utility pipeline facilities within the identified area as described in the Survey Limits map above. Conduct appropriate investigation of site conditions.
- Mark the horizontal position of underground utilities on the ground with spray paint to be surveyed by CED Survey team (fees for the survey are included in another Task). These utilities may include water, natural gas, electric, and telecommunications.
- Measure inverts and record data at all sanitary and storm drain structures including, but not limited to, manholes, inlets, catch basins, cleanouts. This information will be provided to the CED Survey team for inclusion in the final mapping. Sanitary and storm drain lines between structures will not be marked out.
- GPR data will be collected approximately every 50 feet of roadway to evaluate the pavement and sub-base thickness. The data will be post-processed and interpreted to determine the thickness of these materials within the project limits. This information will be included in the final deliverable.
- Formulate a field sketch on aerial mapping documenting all utilities designated with electronic depth information and notes. This will be provided to the CED Survey team who will be providing the final CAD deliverable.
- Coordinate with CED Survey team to ensure that the utility investigation results are accurately represented in their final deliverable.
- Aerial utilities are excluded from this Task.
- A final report detailing the results of the utility investigation will be provided within two (2) weeks of completion of field work. The report will include the investigation methodology and equipment used, along with a detailed summary of all the information obtained through the course of this work, including pipe sizes, materials, duct bank limits and any other pertinent information.

GPR Assumptions/Clarifications. GPR effectiveness and resolution is highly dependent on soil conditions within the investigation area. GPR's ability to identify or resolve subsurface anomalies may vary significantly across the investigation area. GPR resolution depths are soil dependent and can vary from zero feet (0') to eight feet (8)' of penetration at infinite points across an investigation area. While GPR can be a very effective tool in locating or identifying subsurface objects or facilities (anomalies), the results are interpretive and subject to possible misinterpretation or error. SUE Provider personnel will make every reasonable effort to properly identify and interpret GPR anomalies in accordance with the performance limitations of the technology and provide recognizable markings for the Borough.

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Provider Certifications. The Utility Investigation Provider shall not be required to sign any documents, no matter by whom they may be requested, that would result in the Provider having to certify, guarantee or warrant the existence of conditions which the Provider cannot ascertain. The Client also agrees that it has no right to make the resolution of any dispute with the Provider or the payment of any amounts due to the Provider in any way contingent upon the SUE Provider signing any such certification.

TASK 2.0 DESIGN AND BIDDING

CED will develop construction drawings and specifications to be utilized for public bid. Bid documents will be prepared in accordance with NJDOT requirements. The scope of improvements expressed in the bid documents will be as previously discussed with the Borough and coordinated during the design phase.

The existing site conditions will be investigated during the design; more specifically, the conditions of the curbing, sidewalk, driveway, roadway, and drainage structures. Utilizing the survey prepared in Task 1.0 above as a base map for both roadways, this information will be located, inspected for condition, and depicted on a plan that will be utilized for bidding.

The improvements will include the design of curbing along both sides of each roadway in an effort to achieve a uniform travel-way-width consistent with industry standards to the greatest extent feasible. A concept will be prepared and presented to the Borough to review the potential roadway widths and the impact of each. While tree removals and/or utility pole relocations are typically avoided as much as feasible, during design it may be necessary for us to recommend these removals/relocations to facilitate the proposed improvements. We will advise accordingly. This concept will be reviewed with the Borough prior to preparation of the full design documents and CED will attend a public meeting with residents (if requested) to discuss the design approach and the resulting impacts.

At the terminal end of Orchard Road, we will evaluate the feasibility designing and constructing a cul-de-sac. The terminal end of Wellwood Road will be squared off at the width of the roadway. Improvements will also include review of potential drainage issues toward mitigation. The installation of storm water infrastructure in the form of inlets and piping will be proposed. Runoff collected by the proposed infrastructure will be conveyed to the nearest existing infrastructure while maintaining existing drainage patterns to the greatest extent feasible. Roadway cross slopes, gutter slopes and longitudinal slopes will be evaluated, and grading will be designed, as feasible, to improve slopes and associated drainage. Where applicable, the vertical profile and cross sections of the proposed roadway will be modified in an effort to meet industry standards while minimizing drainage issues and impact to the surrounding properties.

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Accordingly, for both roadways, curbing, drainage structures, milling, paving, replacement of inlet grates and curb pieces, reconstruction of storm inlets to remain, pavement base repair as needed, striping, and restoration of landscape areas are included as part of the project. Based on a preliminary review of the roadways, ADA ramps are not anticipated as part of the project. In addition, modifications to gutter profiles may require re-design of certain driveway aprons.

CED will prepare the base mapping, title sheet, general notes and legend, estimate of quantities, construction plans and the construction details. CED will also prepare the supplemental and technical specifications for the site improvement items that are specified on our construction drawings for incorporation into the overall bid specifications. The specifications will be prepared in the latest NJDOT format, as amended. As this project develops, and the Construction Cost Estimate (CCE) is closer to completion during the design phase, the Borough will be updated with the status of design and whether alternate bids are recommended.

The project limits may be adjusted by utilizing alternate bids based upon the budget approved by the Borough. CED will prepare the CCE based on the quantity required for each alternate bid and finalize the design in order for the project to remain within the construction budget. Bidding services will be coordinated through our Mount Arlington office.

Specifications will be developed in accordance with NJDOT Standard Specifications for Road and Bridge Construction, as currently amended. An Engineer's Estimate will be prepared and submitted to the Borough. NJDOT Bureau of Local Aid along with an Engineer's Design Certification, plans, and specifications. Upon completion of the design documents, we will coordinate with the Borough regarding public advertisement of the bid documents.

FEE AGREEMENT

For your convenience, we have broken down the total estimated cost of the project into the categories identified within the Scope of Services.

TASK 1.0	SURVEY SERVICES	$24,750.00
TASK 2.0	DESIGN AND BIDDING	$64,750.00
TOTAL LUMP SUM FEE		**$89,500.00**

The above engineering services will be provided on a lump sum basis not to exceed the listed amount. This contract and fee schedule are based upon the Borough Engineering Contract, authorized by the Borough. Please note, Construction Administration and Observation Services are not included in this agreement. A separate agreement for said services will be prepared and provided to the Borough upon opening of contractor bids.

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PROJECT SCHEDULE

The following is the anticipated project schedule:

	Anticipated Duration
Mayor & Council Award of Professional Services	Anticipate Authorization June 2025
Survey and SUE Services	To be completed within 45 days of Authorization
Preparation of Design Plans and Specifications	To be completed within 120 days of Authorization
Bidding of Project	Anticipate 30 days for bidding process
Contractor Award	Fall 2025
Construction (Anticipated)	TBD – Anticipate Winter/Spring 2026
Project Closeout (Anticipated)	To occur post construction – Anticipate Spring 2026

PROJECT DELIVERABLES

During the design process, CED will provide the Borough with one (1) set of drawings for review during the design phase. Bid packages will be distributed and coordinated through our Mount Arlington office. Two (2) final bid documents will be provided prior to bidding.

PLAN REVISIONS AND EXTRA SERVICES

Any revision requested by the Borough or review agencies that is a major redesign or not an error or omission on the part of CED will be billed on an hourly basis in accordance with our current contract. Please note that a separate agreement will be provided prior to the pre-construction meeting specific to Construction Administration Services.

REIMBURSABLE EXPENSES

Reimbursable expenses including delivery, printing, copying, postage, and other reproducible costs for the above-mentioned deliverables are included within this agreement and are included in the project cost.

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EXCLUSIONS

Services relating to the following items are not anticipated for the project or cannot be quantified at this time. Therefore, any service associated with the following items is specifically excluded from the scope of professional services within this agreement.

- Services not specifically outlined above;
- Modifications of or additions to the completed survey map after it has been distributed. If additional survey requirements or other form of survey certification is requested, a separate fee will be negotiated for performing such service;
- Stream Cross Sections;
- Property title search;
- Traffic studies and/or analyses;
- Ecological due diligence;
- Permit submissions other than Soil Conservation District;
- Construction stakeout services;
- Wetland delineation, reports or surveys;
- Tree Location Plan and/or surveys;
- Subdivision or Consolidation Plans and/or Parcel Maps;
- Security clearance and/or site access protocol.

If any item listed herein, or otherwise not specifically mentioned within this agreement or the Borough Engineering Agreement, is deemed necessary, then CED may prepare an addendum to this agreement for your review, outlining the scope of additional services and associated professional fees with regard to the extra work. Unanticipated additional services shall be in accordance with the Schedule of Hourly Rates for the number of hours that the Construction Administrator or Engineer is on-site. No extra engineering services will be performed without authorization from the Borough.

Please forward a copy of the Resolution of Approval or approved Purchase Order to this office. This will constitute approval of the proposed services and we shall initiate the engineering design services as discussed within this correspondence.

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on this and future projects. In the meantime, should you have any questions regarding this agreement, please feel free to contact me.

Sincerely,

Colliers Engineering & Design

Nick Chelius, P.E., C.M.E.
Borough Engineer Representative

cc: Michael Greco, Deputy Borough Clerk (via email)
Deena Rosendahl, Esq. Borough Attorney (via email)
Peter Suh, Borough CFO (via email)
Patrick Jamieson, (CED via email)
Ken DeGennaro, PE (CED via email)

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