

Edward Street Permanent Radar Speed Signs

INVITATION TO BID NO. 2023C009



**Municipality of Anchorage
Public Works Department
Project Management & Engineering
PO Box 196650
Anchorage, AK 99519**

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

**EDWARD STREET PERMANENT RADAR SPEED SIGNS
22-24**

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**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

EDWARD STREET PERMANENT RADAR SPEED SIGNS

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I

INVITATION TO BID

MUNICIPALITY OF ANCHORAGE PURCHASING DEPARTMENT

Invitation to Bid

No. 2023C009

Sealed bids will be received in accordance with the time schedule shown below by the Municipality of Anchorage at the Purchasing Department, 632 W. 6th Ave., Suite 520, Anchorage, Alaska 99501 for:

Edward Street Permanent Radar Speed Signs

The Work that is presented in the Bid Proposal for this Contract consists of approximately 3 Radar Speed Signs; 3,520 L.F. of Conductor; Load Center Modifications; 20 L.F. of Curb and Gutter Removal and Replacement; 25 Tons of A.C. Pavement Class E; and other related work.

ESTIMATED CONSTRUCTION COST: **Between: \$100,001 - \$500,000**

Site Visit: N/A

Pre-Bid Conference: N/A

Questions Due: 12:00 P.M. Local Time, March 16, 2023

Bid Opening: 2:00 P.M. Local Time, March 30, 2023

All Pre-Bid Conferences and/or Bid Openings may be attended in person or via conference call at this number (907) 343-6089. You may call in five (5) minutes before any scheduled conference. EMAILED BIDS WILL NOT BE ACCEPTED.

ALL QUESTIONS SHALL BE SUBMITTED PRIOR TO THE QUESTION DUE DATE THIS WILL BE THE FINAL OPPORTUNITY TO ASK QUESTIONS OR REQUEST CLARIFICATIONS.

Requests for interpretation or clarification of the bidding Documents shall be made in writing to the Purchasing Office (wwpur@muni.org). Please reference the Invitation to Bid Number & Project Title. Do not contact the specified department directly.

To maintain the project schedule, Interpretations, corrections, or changes to the Bidding Documents shall be made by Addendum and shall not be binding unless included in the Addendum. It is your responsibility to periodically check the website for addenda.

Municipality of Anchorage
ITB: 2023C009

At the above indicated time, the bids will be opened publicly and read. Bids must be received by the Purchasing Officer prior to the time fixed for opening of the bids to be considered. Time of receipt will be as determined by the time stamp in the Purchasing Office, Suite 520.

The Municipality of Anchorage reserves the right to reject any and all bids and to waive any informalities in the bids. No bidder may withdraw his bid after the hour set for the opening of bids or before the award of contract unless said award is delayed for a period exceeding forty-five (45) days from the time of the opening.

The Municipality shall not be responsible for bid preparation costs, nor for costs, including attorney fees, associated with any (administrative, judicial or otherwise) challenge to the determination of the lowest responsive and responsible bidder and/or award of contract, and/or rejection of bids. By submitting a bid, each bidder agrees to be bound in this respect and waives all claims to such costs and fees.

Contracts shall be awarded by written notice issued by the Purchasing Officer to the lowest responsive and responsible bidder; however, preference will be given to local bidders in compliance with Anchorage Municipal Code Section 7.20.040.

The Municipality of Anchorage assumes no responsibility for any interpretations or presentations made by any of its officers or agents unless such interpretations or presentations are made by written addendum to this Invitation to Bid.

Bonding Requirements are per MASS/MASS B or as per special provisions.

THE MUNICIPALITY OF ANCHORAGE IS AN "EQUAL OPPORTUNITY EMPLOYER"

PUBLISH ONE TIME

Date: March 13, 2023

Senior Buyer Assigned to this Project:
Jared Brunelle

Chris Hunter

Chris Hunter
Deputy Purchasing Director

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

EDWARD STREET PERMANENT RADAR SPEED SIGNS

22-24

II

SPECIAL PROVISIONS

MUNICIPALITY OF ANCHORAGE TRAFFIC ENGINEERING DEPARTMENT

EDWARD STREET PERMANENT RADAR SPEED SIGNS

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MUNICIPALITY OF ANCHORAGE TRAFFIC ENGINEERING DEPARTMENT

EDWARD STREET PERMANENT RADAR SPEED SIGNS

22-24

SPECIAL PROVISIONS

SECTION 95.01 LOCATION AND SCOPE

All proposed Work is located within the Municipality of Anchorage corporate limits and is more particularly located at Ptarmigan Elementary School, see Drawings for detailed locations. The Work included under this Contract consists of furnishing all labor, materials, equipment, supervision, and other facilities necessary to successfully complete the Work set forth in the Drawings and Specifications. The Work included under this Contract consists of, but is not limited to:

- Three proposed radar speed signs on Edward Street.
- Associated paving, curb and gutter, sidewalk, pathway, signing and striping, and electrical improvements.

It is the responsibility of the bidder to prepare the bid so that all materials and/or fittings shall harmoniously conform to the intent of the Contract Drawings, Specifications, and Special Provisions.

SECTION 95.02 REFERENCE TO MUNICIPALITY OF ANCHORAGE STANDARD SPECIFICATIONS

This Contract is subject to and hereby incorporates by reference the Municipality of Anchorage Standard Specifications, dated 2015, hereinafter referred to as M.A.S.S.; APDES Permit AKS-052558; the Alaska Sign Design Specifications (ASDS) as adopted and amended by the Municipality; the Municipality of Anchorage Sign Manual; the Alaska Traffic Manual (ATM)-Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition, with the Alaska supplement, dated 1/13/12; the National Electrical Safety Code (NESC) as amended and adopted by the Municipality; the National Electrical Code as amended and adopted by the Municipality of Anchorage; and the Edition of the Standard Specifications for Structural Supports for Highway Sign, Luminaires and Traffic Signals provided in the appropriate divisions. When conflicts exist between M.A.S.S. and MUTCD, the requirements of M.A.S.S. and these Special Provisions shall govern.

SECTION 95.03 TIME OF COMPLETION

This Project shall be completed within thirty (30) calendar days after the Notice-to-Proceed is issued.

SECTION 95.04 MODIFICATIONS AND/OR ADDITIONS TO MUNICIPALITY OF ANCHORAGE STANDARD SPECIFICATIONS

The following listed provisions of M.A.S.S. are amended as hereinafter stated:

A. DIVISION 10 STANDARD GENERAL PROVISIONS

Add the following Section:

SECTION 10.00 ALL APPLICABLE M.A.S.S. ARTICLES

Delete all references to and requirements for compliance with Anchorage Municipal Code Chapter 7.60 the Disadvantaged/Women Owned Business (DBE/WBE) program and specifications.

SECTION 10.03 AWARD AND EXECUTION OF CONTRACT

Article 3.4 Action on Bids

Delete the last paragraph and replace with the following:

Unless otherwise specified in the Invitation to Bid, Notice of Award or rejection shall be given within Sixty (60) days of Bid opening. The notice shall be in writing and signed by the Purchasing Officer or authorized designee. A Notice of Award shall constitute an acceptance of the Bid. No other act(s) of the Municipality or its representatives shall constitute an acceptance of a Bid. The acceptance of a Bid shall bind the successful Bidder to execute the Contract.

SECTION 10.04 SCOPE OF WORK

Article 4.12 Public Convenience and Access

Add the following:

Regular School Session

The Contractor is hereby notified that Ptarmigan Elementary school will commence pre-session faculty operations on August 14, 2023, and will begin full time operations on August 17, 2023. Contacts: Ptarmigan Elementary School Principal – Kelly Ramey, Phone number - 742-0400.

With the commencement of the pre-session faculty operations, the Contractor should expect an increase of automobile traffic to and from the school, and should take that increase into account when complying with this Article and Article 4.13 – Traffic Control Plan for street closures. At the commencement of pre-session operation, all work adjacent to Ptarmigan Elementary shall be substantially complete.

With the commencement of full-time operations, the Contractor should expect school bus operations to and from Ptarmigan Elementary School between 8:30 a.m. - 9:30 a.m. and 3:00 p.m. - 4:00 p.m.

Moreover, during full time school operations, because of the presence of student pedestrians, the Contractor shall take special precautions when working between 8:30 a.m. - 9:30 a.m. and 3:00 p.m. - 4:00 p.m., Monday through Friday. Special precautions may include detouring the student pedestrians from the worksite or the provision of a crossing guard/escort for the pedestrians. The Contractor shall have an affirmative duty to coordinate the required plan under this Article, and plan under Article 4.13 – Traffic Control Plan, with Ptarmigan Elementary School Officials.

Should the Contractor, during periods of heavy student pedestrian/vehicle flows, elect to suspend construction operations, the Contractor shall ensure that all appropriate safety measures are implemented for the protection of the public, no matter how short the suspension of work.

Beginning August 17, 2023 the Contractor's road and lane closure on Edward Street from E 8th Avenue to Markstrom Drive will be prohibited during the following hours on Monday thru Friday:

8:30 a.m. - 9:30 a.m.

3:00 p.m. - 4:00 p.m.

Summer School Session

The Contractor is hereby notified that Ptarmigan Elementary School may commence school sessions for summer 2023. The Contractor shall coordinate summer school session dates and hours with the school principal prior to beginning construction. The Contractor shall follow the Regular School Session requirements outlined in this Article for the half hour before and half hour after the beginning and ending of summer session daily hours, Monday through Friday.

Article 4.17 Utilities

C. Gas

Add the following paragraphs:

The Contractor shall download and follow the most current construction guidelines published by ENSTAR. Those guidelines can be downloaded from:

<https://www.enstarnaturalgas.com/safety-for-excavators-contractors/>

Click on the link in the last sentence of the first paragraph.

The Final Rule from the PHMSA website can be obtained from:

<https://www.phmsa.dot.gov/pipeline/excavator-final-rule/about-excavation-enforcement-final-rule>

Click on the “Final Rule on Excavation Damage 80 FR 43836 Final Rule” link.

D. Electrical and Telecommunications

Add the following paragraphs:

The Contractor shall download and follow the most current construction guidelines published by Chugach Electric Association. Those guidelines can be downloaded from:

<http://www.chugachelectric.com/media-room/publications-request>

Click on the link titled “Electrical Facility Clearance Requirements”.

The following contact information is provided as a courtesy to the Contractor and is the most currently available.

Alaska Communication Systems (ACS) North ANC – Francisco Martin,
907-564-1785 or 907-231-7369

Alaska Communication Systems (ACS) South ANC – Duilio Guerrero,
907-564-1522

Anchorage Water & Wastewater Utility (AWWU) – Shawn Dooley, 907-564-2786

AT&T – Mike Barsalou, 907-264-7325

Chugach Electric Association (CEA) – Victor Willis, 907-230-7536

ENSTAR Natural Gas – Stan Staples, 907-334-7777

GCI – Steven Cranford, 907-868-6769

Municipal Street and Storm Drain Maintenance – Eric Hodgson, 907-343-8100

Municipal Street Light Maintenance – Eric Hodgson, 907-343-8100

Municipal Traffic Signals Section – Levi Piehl, 907-343-8363

Solid Waste Services (SWS) – Evalu Filitaula, 907-343-6258 or 907-317-6863

Matanuska Electric Association (MEA) – John Foutz, 907-761-9265

Matanuska Telephone Assoc. (MTA) – Robbie Nash, 907-761-2704 or 907-355-1687

Eagle River Street & Storm Drain Maintenance – Mark Littlefield, 907-343-1512

Alaska Waste – Josh James, 907-688-4446

Add the following Articles:

Article 4.22 Project Information Signs

Prior to beginning of any work on the project, Contractor shall install one (1) project information sign(s) (combination owner and contractor supplied materials), in accordance with Section 70.12, Article 12.7 - Traffic Control Devices, in a location directed by the Engineer. The Owner supplied project information signs shall be available for pick up at 5701 Northwood Drive, Monday thru Thursday from 8:00 a.m. to 4:00 p.m. Contact Paul VanLandingham at 343-8372 (office) or 317-7054 (cell) to coordinate pickup.

Owner-supplied materials are as follows:

- Project Information Sign - one (1) 4'x8'x $\frac{3}{4}$ " MDO wood sign Project Name, Project No. 22-24.

Contractor provided materials are as follows:

- Sign Frame - one (1) 2"x4" lumber pre-assembled in a rectangular shape measuring 4-foot by 8-foot
- Post Skids – assembled, two (2) EA 4"x6" lumber standing vertical 8-foot in height, with 8-foot base attached with a $\frac{3}{4}$ " plywood gusset between the 2 vertical pieces.

Assembly shall be constructed per Appendix A Project Information Sign(s) detail. Once assembled and positioned as directed by the Engineer, the Contractor shall supply and secure each post skid with two (2) each 60-pound sand bags, or provide equivalent anchoring system as approved by the Engineer. The Contractor shall be responsible for maintaining placement and possible location adjustment if required per the Engineer, and for overall maintenance of the signs.

Following final completion of the project, Contractor shall disassemble the signs and return the owner-provided materials to 5701 Northwood Drive. Contact Paul VanLandingham at 343-8372 (office) or 317-7054 (cell) to coordinate drop-off.

All Work in this Article shall be considered incidental to the project.

SECTION 10.05 CONTROL OF WORK

Article 5.27 Liquidated Damages

Add the following paragraph:

The Owner may withhold from any progress payment the sum of \$500 per day as Liquidated Damages for each and every calendar day that the Substantial Completion Date is delayed beyond the Contract Completion Date. The Owner may withhold out of any progress payment the sum of \$250 per day as Liquidated Damages for each and every calendar day that the Final Acceptance Date is delayed beyond the Contract Completion Date. If no money is due Contractor, the Owner will have the right to recover said sums from Contractor, the Surety, or both.

SECTION 10.06 LEGAL RELATIONS AND RESPONSIBILITIES

Article 6.1 Laws to be Observed

Add the following paragraph:

Owner is not aware of any contaminated material within the project limits. If such material is encountered, Contractor shall notify the Engineer immediately for direction. This will be treated as a changed condition, unless the contamination was caused by Contractor's operation.

Article 6.8 Safety

Add the following paragraphs at the end of this Article:

The Governor's emergency declaration and mandates relating to COVID-19 expired on February 14, 2021. However, contractors are encouraged to review COVID-19 Response and Recovery Health Advisories that can be accessed at:

<https://covid19.alaska.gov/health-advisories/>

The Municipality of Anchorage emergency orders currently in effect can be accessed at:

<https://covid-response-moa-muniorg.hub.arcgis.com/pages/emergency-orders>

Contractors will still be required to meet any applicable local ordinances or requirements currently in effect, and comply with any future federal, state or local declarations or mandates that might be adopted while work on the project is ongoing. Consistent with this Section, the Contractor will be responsible for paying all costs and expenses incurred to comply with any COVID-19 Health Mandates or Health Advisories in effect during times when the Contractor is performing project-related work activities. The Contractor will additionally be responsible for preparing any general or site-specific mitigation and response plans required for its forces, along with any associated schedule delays or impacts.

B. DIVISION 20 STANDARD CONSTRUCTION SPECIFICATIONS FOR EARTHWORK

SECTION 20.05 CLEARING

Article 5.1 General

Replace Article 5.1 General with the following:

The Work under this section consists of removing branches, limbs, and other brush as needed to ensure visibility of signs as directed by the Engineer. All removed branches, limbs, and brush shall be disposed of at a Contractor-provided disposal site. Clearing activities should not disturb the ground vegetation. Clearing activities shall not extend outside the ROW.

Article 5.2 Construction

Replace the first sentence of A. Clearing for Multi Use Paths with the following:

Overhanging limbs shall be pruned to provide a four foot (4') clear corridor on both sides of the pathway with a twenty foot (20') clearance above the finished trail.

Add the following paragraph:

The Contractor shall protect migratory bird habitat in compliance with the most current version of the "Construction Advisory for Protecting Migratory Birds (pdf)" handout located at <https://www.fws.gov/alaska/mbsp/mbm/index.htm>. Additionally, Contractor shall notify the Engineer immediately if any active nests are found at any time during construction of the project.

SECTION 20.09 REMOVAL OF PAVEMENT

Article 9.2 Construction

Delete the second paragraph and replace with the following:

Contractor shall keep all asphalt surfacing designated for removal free from objectionable material (concrete, steel, etc.). Contractor shall deliver all asphalt surfacing that does not contain objectionable material to Street Maintenance. Contractor shall coordinate exact location and time of delivery with the Maintenance & Operations Department, Street Maintenance Division, at 343-8102. If the removed asphalt surfacing, under this Section, contains objectionable material, as identified by the Engineer, Contractor shall dispose of this asphalt surfacing in accordance with Division 10, Section 10.04, Article 4.9 – Disposal Sites.

SECTION 20.21 CLASSIFIED FILL AND BACKFILL

Article 21.2 Material

Add the following paragraph after the second paragraph:

Crushed waste glass (cullet) may be combined with soil-aggregate material and used in Type II or Type II-A classified fill and backfill. If glass cullet is incorporated, classified fill and backfill shall contain not more than ten percent (10%) by weight glass cullet smaller than three-eighths-inch (3/8"). Contractor shall ensure that glass cullet is uniformly blended with natural soil aggregate material prior to project delivery and placement. Glass cullet must conform to the specifications in Sub-Article G – Glass Cullet of this Article. In addition to the normal gradation documentation for classified fill or backfill, when glass cullet is used the Contractor shall provide documentation certifying that the glass cullet (1) is comprised only of eligible types of glass, (2) does not contain prohibited materials, (3) meets debris content requirement, and (4) meets blending percentage requirement to the Engineer prior to placement of the material.

Add the following Sub-Article G:

G. Crushed Waste Glass (Cullet)

Glass cullet shall be free of prohibited or hazardous substances and the cullet shall contain no more than two percent (2.0%) debris as determined in AASHTO M318.

Eligible glass products from which glass cullet may be produced include:

- food and beverage container glass;
- plain ceramic or china dinnerware; and
- building window glass.

Prohibited glass products include:

- automobile windshields or other glass from automobiles;
- light bulbs of any type;
- porcelain products;
- laboratory glass; or
- television, computer, or other cathode ray monitor tubes.

Article 21.3 Construction

Add the following after the last paragraph:

Contractor shall not use classified fill and backfill incorporating glass cullet:

- within four feet (4') from the face of any embankment slope;
- within one hundred and fifty feet (150') of any surface water body;
- in embankment areas where culvert placement is required;
- in contact with any geotextile or geo-synthetic material; or
- in any soil-aggregate base or subbase courses that are not covered by surfacing material.

Article 21.4 Measurement

Add the following after the last paragraph:

Use of glass cullet is incidental to the bid item Classified Fill and Backfill and no additional payments shall be made.

SECTION 20.22 LEVELING COURSE

Article 22.2 Material

Add the following paragraphs after the second paragraph:

Crushed waste glass (cullet) may be combined with soil-aggregate material and used in leveling course. If glass cullet is incorporated, leveling course shall contain not more than ten percent (10%) by weight glass cullet smaller than three-eighths-inch (3/8"). Contractor shall ensure that glass cullet is uniformly blended with natural soil aggregate material prior to project delivery and placement. Glass cullet must conform to the specifications in Sub article G – Glass Cullet of this Article. In addition to the normal gradation documentation for classified fill or backfill, when glass cullet is used the Contractor shall provide documentation certifying that the glass cullet (1) is comprised only of eligible types of glass, (2) does not contain prohibited materials, (3) meets debris content requirement, and (4) meets blending percentage requirement to the Engineer prior to placement of the material.

Upon written approval by the Engineer, recycled concrete aggregate (RCA) may be substituted for leveling course, on an inch for inch basis. RCA shall conform to this specification.

Add the following Sub-Articles:

D. Crushed Waste Glass (Cullet)

Glass cullet shall be free of prohibited or hazardous substances and the cullet shall contain no more than two percent (2.0%) debris as determined in AASHTO M318.

Eligible glass products from which glass cullet may be produced include:

- food and beverage container glass;
- plain ceramic or china dinnerware; and
- building window glass.

Prohibited glass products include:

- automobile windshields or other glass from automobiles;
- light bulbs of any type;
- porcelain products;
- laboratory glass; or
- television, computer, or other cathode ray monitor tubes.

E. Recycled Concrete Aggregate

RCA shall consist of a manufactured aggregate material and natural aggregate particles derived from the crushing, processing and classification of Portland cement concrete construction debris recovered from roadways, sidewalks, building, bridges and other sources, which conforms to AASHTO M-319 - Reclaimed Concrete Aggregate for Unbound Soil-Aggregate Base Course, and this specification. This material shall not contain deleterious substances in excess of the following amounts by mass-weight:

<u>Deleterious Material</u>	<u>By weight</u> %
Bituminous concrete materials	5%
Brick or concrete masonry unit block	5%
Solid waste or hazardous materials	0%
Wood, metal, plaster, gypsum	0.1%

Both Coarse and Fine Aggregate shall conform to this specification and the quality requirements from AASHTO M-147 - Materials for Aggregate and Soil-Aggregate Subbase, Base, and Surface Courses. Additionally RCA shall have a minimum of seventy percent (70%) of particles with one or more mechanically fractured faces when the RCA is tested in accordance with AASHTO TP-61.

The Maximum Moisture Content is four percent (4.0%) for RCA.

The RCA Liquid Limit shall not exceed 35 when tested in accordance with AASHTO T-89 and the Plasticity Index of the fraction of RCA passing the No. 40 sieve shall not exceed 6 when tested in accordance with AASHTO T-90.

In accordance with ASTM 306, the percent of flat and elongated pieces in RCA shall not exceed eight percent (8%).

Restrictions to Use of Recycled Concrete Aggregate: RCA shall not be placed over a geotextile layer, gravel drain fields, drain field piping, subdrains, or open soil-lined stormwater retention or detention facilities, because soluble minerals rich in calcium salts and calcium hydroxide can be hydraulically transported from the recycled concrete aggregate. RCA is not approved for use within five feet (5') of metal culverts due to its high alkalinity and because recycled concrete aggregate in contact with aluminum or galvanized steel pipes can cause corrosion in the presence of moisture.

Article 22.3 Construction

Insert the following paragraph at the end of Sub Article C. Placing:

If used, any portion of the RCA which becomes segregated and/or develops zones of paste or crushed conglomerates during the distribution/compaction process shall be corrected by the Contractor. This correction process shall be conducted full depth and continue until the on-grade RCA meets this specification. The Engineer reserves the right to sample (or resample) the RCA for acceptance after it has been placed, watered and compacted.

Add the following Sub-Article F:

F. Crushed Waste Glass (Cullet)

Contractor shall not use leveling course incorporating glass cullet:

- within four feet (4') from the face of any embankment slope;
- within one hundred and fifty feet (150') of any surface water body;
- in embankment areas where culvert placement is required;
- in contact with any geotextile or geo-synthetic material; or
- in any soil-aggregate base or subbase courses that are not covered by surfacing material.

Article 22.4 Measurement

Remove the first sentence and replace with the following:

The leveling course shall be measured in tons of materials delivered and placed in accordance with these Specifications and adjusted for excess moisture as provided.

Add the following after the last paragraph:

Use of glass cullet and/or RCA is incidental to the bid item Leveling Course and no additional payments shall be made.

C. DIVISION 40 STANDARD CONSTRUCTION SPECIFICATIONS FOR ASPHALT SURFACING

SECTION 40.01 GENERAL

Add the following Article:

Article 1.7 Asphalt Price Adjustment

This provision provides a price adjustment for asphalt cement material by:

1. an increase to the contract amount, or
2. a deduction from the contract amount.

The provision shall apply to asphalt concrete pavement which:

- is a major bid item as defined in M.A.S.S. Division 10, Section 10.04, Article 4.5 – Increased Quantities;
- is placed in the second or later year of the contract;
- conforms to M.A.S.S. Division 40, Section 40.06 – Asphalt Concrete Pavement; and
- is paid pursuant to M.A.S.S. Division 40, Section 40.06 – Asphalt Concrete Pavement and Section 40.07 – Stone Mastic Asphalt Concrete Pavement.

This provision shall only apply to cost changes in the asphalt cement material that occurs between the date of bid opening and the date the asphalt material is incorporated into the project.

The asphalt price adjustment shall only apply when there is more than a seven and one-half percent (7.5%) increase or decrease in the Alaska Asphalt Material Price Index from the date of the bid opening to the date the asphalt material is incorporated into the project.

As used in this Article, the Alaska Asphalt Material Price Index is calculated bi-monthly on the first and third Friday of each month, and will remain in effect from the day of calculation until the next bi-monthly calculation. The Alaska Asphalt Material Price Index is posted on the ADOT&PF's Statewide Materials website, and is calculated according to the formula posted therein.

The Asphalt Price Adjustment (APA) payment is cumulative and is calculated with each progress payment. Asphalt material price index in effect on the last day of the pay period is used to calculate the price adjustment for asphalt cement material incorporated into the project during that pay period. The Municipality will increase or

decrease payment under this contract by the amount determined with the following asphalt cement material price adjustment formula:

$$\mathbf{APA \{price^{increase/decrease}\}^* = [(\pm IPP \mp IB) - (0.075 * IB)] * Q * \% AC}$$

Where,

Q = quantity of asphalt concrete pavement incorporated into the project during the pay period, in tons, and documented by weight tickets;

IB = Index at bid: the bi-monthly Alaska asphalt material price index in effect on date of bid, in dollars per ton;

IPP = Index at Pay Periods: the bi-monthly Alaska asphalt material price index in effect on the last day of the pay period, in dollars per ton; and

%AC = percentage asphalt cement content in the asphalt concrete pavement, as determined by the average asphalt cement content in project's asphalt concrete quality control testing.

* Note: a negative price adjustment (APA) results in a price reduction to the Contract.

Method of measurement for determining quantity, Q, is the weight of asphalt concrete pavement material that conforms to M.A.S.S. Division 40, Section 40.06 – Asphalt Concrete Pavement and is incorporated into the project.

No asphalt price adjustment will be paid based on estimated quantities.

Contingent Sum payment shall be made on the following basis:

The final asphalt price adjustment on a project is the aggregate of the price adjustments paid on a project's respective progress pay estimates, i.e.,

$$APA = APA_1 + APA_2 + \dots + APA_n$$

Where n = partial payment estimate number.

**D. DIVISION 70 STANDARD CONSTRUCTION SPECIFICATIONS
MISCELLANEOUS**

SECTION 70.12 TRAFFIC MAINTENANCE

Amend the following Article:

Article 12.6 Public Notice

Delete the first paragraph, inclusive of the list of local officials and transportation organizations, and replace with the following:

The Work Site Traffic Supervisor shall give notices of changes, delays, or lane/road closures to the following local officials and transportation organizations including, but not limited to:

- | | |
|---------------------------------------|-------------------|
| 1. Anchorage Chamber of Commerce | 907-272-2401 |
| 2. Alaska Travel Industry Association | 907-929-2842 |
| 3. Alaska Trucking Association | 907-276-1149 |
| 4. Alaska State Troopers | 907-428-7200 |
| 5. Alaska Court System | 907-264-8232 |
| 6. Anchorage Police Department | 907-786-8500 |
| 7. Anchorage Fire Department | 907-267-4950 |
| 8. Local Emergency Medical Services | 907-267-4950 |
| 9. Anchorage Public Transportation | 907-343-8253/8386 |
| 10. ASD Pupil Transportation | 907-742-1207 |
| 11. U.S. Postal Service | 907-266-3261 |
| 12. MOA Parks and Recreation | 907-343-4297 |
| 13. Local Schools and Universities | Varies |
| 15. Alaska Waste | 907-563-3717 |
| 16. Commercial Vehicle Enforcement | 907-365-1203 |

**E. DIVISION 75 STANDARD CONSTRUCTION SPECIFICATIONS FOR
LANDSCAPING IMPROVEMENTS**

SECTION 75.04 SEEDING

Article 4.3 Application

Remove the first paragraph of A. Soil Preparation and replace with the following:

After grading of areas has been completed in conformity with the lines and grades shown on the Drawings, and before beginning seeding operations, the areas to be seeded shall be cultivated to provide a reasonably firm but friable seedbed. Cultivation shall be carried to a depth of two inches (2"). On slopes steeper than 3:1, depth of cultivation may be reduced as directed by the Engineer. All areas to be cultivated shall be raked or cleared of stones (one inch [1"] in diameter and larger), weeds, plant growth, sticks, stumps, and other debris or irregularities which might interfere with the seeding operation, germination of seed, or subsequent maintenance of the seed-covered areas. Cultivation shall include the entire ground surface, regardless of existing ground cover. Contractor may be required to track-walk slopes 2:1 or over as directed in the Drawings or by the Engineer. Prior to seeding application, site inspection by the Engineer is required to confirm that preparation conditions are satisfactory for the seeding work to proceed.

**F. DIVISION 80 STANDARD CONSTRUCTION SPECIFICATIONS FOR
INSTALLATION AND REMOVAL OF TRAFFIC SIGNALS AND
ILLUMINATION**

SECTION 80.04 FOUNDATIONS

Article 4.5 Driven Pile Foundation

After the last paragraph, add the following:

Driven pile foundation for signal pedestal pole shall be as shown on the Plans and M.A.S.S. Standard Detail 80-12 for the base plate.

Article 4.7 Basis of Payment

Add the following pay item:

ITEM	UNIT
Driven Pile Signal Pedestal Pole Foundation	Each

SECTION 80.05 MAST ARMS, POLES, STEEL PEDESTALS AND POSTS

Article 5.2 Poles and Arms

B. Signal Poles and Arms Less Than 15' and all Luminaire Poles and Arms

After the last paragraph, add the following:

See Drawings for additional manufacturing and construction requirements.

Article 5.10 Measurement

After the last paragraph, add the following:

Breakaway traffic signal poles indicated as spares shall be delivered to Street Light Maintenance, 343-8372 prior to final acceptance. Contact Street Light Maintenance a minimum of three business days prior to delivery. The Engineer retains the right to inspect all poles for conformance with the contract documents prior to accepting delivery. The cost of storage prior to delivery and delivery of these materials is subsidiary to the pay item.

Article 5.11 Basis of Payment

Add the following pay item:

ITEM	UNIT
Breakaway Traffic Signal Pole	Each
Breakaway Traffic Signal Pole, Spare	Each

SECTION 80.10 CONDUCTORS

Article 10.6 Measurement

After the last paragraph, add the following:

All grounding conductors are incidental to other Work and shall not be measured for payment.

SECTION 80.13 BONDING AND GROUNDING

Article 13.1 General

After the last paragraph, add the following:

Ground rods are not required to be installed in junction boxes.

SECTION 80.14 LOAD CENTERS

Article 14.1 General

After the last paragraph, add the following:

Circuit breakers shall be manufactured to fit the existing load center panel, industrial grade, and rated for the maximum available fault current indicated on the Plans.

Install short circuit fault current and arc flash placard on the existing load center. Placard shall reflect the calculation results shown on the Plans.

Article 14.8 Measurement

After the last paragraph, add the following:

Load center modifications shall be measured as units, complete and in place. This work includes furnishing and installing new circuit breakers in the existing load center, all work to terminate new cables on new circuit breakers, and installing short circuit and arc flash placards on the load center.

Article 14.9 Basis of Payment

Add the following pay item:

ITEM	UNIT
Load Center Modifications	Each

Add the following section:

SECTION 80.29 RADAR SPEED SIGN

Article 29.1 General

Work under this Section consists of the performance of all operations pertaining to furnishing and insalling the radar speed sign, including the labor, equipment, and materials, in accordance with the Drawings.

Article 29.2 Manufacturer

Radar speed sign shall be the "VCalm YS" traffic calming sign as manufactured by Fortel Traffic Inc. (<https://www.vcalm.com>) or approved equal.

Article 29.3 Materials

Contractor shall provide new, undamaged materials to meet the requirements specified on the Drawings and in these Specifications.

A. Radar Speed Sign

1. Contractor shall install a radar speed sign at the locations shown in the Drawings or as directed by the Engineer. Mount signs to a new 11' signal pedestal pole or electrolier in accordance with the Plans.
2. Radar speed sign shall have the approximate overall dimensions 45" (h) x 28.5" (w) x 4.5" (d).
3. Radar speed sign shall be UL listed.
4. Sign enclosure shall be rated NEMA-3R and be constructed of 11-gauge (0.090) continuous formed aluminum. Finish shall be black powder coat.
5. Upper display shall be static plaquareds, but have the option to be upgradable to a variable Light Emitting Diode (LED) message display in the future. The upper display shall read "YOUR SPEED" in two rows with approximate overall dimensions: 12" (h) x 20".
6. Lower display shall be numerals consisting of amber LEDs and have the approximate overall dimensions: 16" (h) x 18" (w). Lens shall be 3/8" polycarbonate.

7. Sign shall have a receptacle capable of receiving an SD card for programming and data retrieval.
8. Install the following optional modules with the radar speed sign:
 - a. Wireless IP Mode/VSpeed Online for programming
 - b. Flashing Strobe for when speeds above the posted speed limit are detected
9. Includes 5 year wireless service subscription.
10. If a means to mount the sign to the pole are not included in the sign kit, or are unstable, the Contractor shall provide mounting hardware in accordance with M.A.S.S., these Special Provisions, and manufacturer's instructions, subject to approval by the Engineer.
11. Provide a short length of RMC between radar speed sign and pole or post, unless directed otherwise by the manufacturer's instructions or the field engineer. Conduit penetration shall be at the sign bottom unless otherwise directed. Pull radar speed sign cable through RMC and terminate.
12. Install a new 18"x24" R2-1 sign at radar speed sign "S1" as shown on the drawings.

Article 29.4 Construction

MOA Traffic to be onsite for field installations. Contact Kris Langley at MOA Traffic Engineering Department (907-343-8479) seven (7) working days prior to planned field installations. Provide MOA Traffic Engineering Department twenty four (24) hours notice prior to actual installations. Failure to notify MOA Traffic Engineering Department may result in delay of work and withholding of payment. The Owner may withhold from any progress payment the sum of \$500 per day as liquidated Damages for each and every calendar day the Contractor delays notification to MOA Traffic Engineering Department.

Contractor shall install the radar speed sign according to the manufacturer's instructions and in accordance with the Drawings or as directed by the Engineer. Contractor shall ensure that the radar speed sign is level and correctly orientated. Repair any damage to galvanized finishes according to Article 16.3.

Field locate all utilities and existing lighting circuits according to Article 1.1. Hand dig when within 2 feet of utilities.

Route conduit as shown in the Drawings or as directed by the Engineer. Utilize existing junction boxes and conduit where shown in the Drawings for the radar speed sign circuit.

Install new 18"x24" R2-1 signs at radar speed signs as shown on the drawings.

Article 29.5 Measurement

The radar speed sign system shall be measured as units, complete and in place. Any required mounting hardware is subsidiary to this pay item. Conduit and conductors required for the connection of the radar speed sign system shall be paid for separately under Sections 80-07 and 80-10. The foundation and signal pedestal pole shall be paid for under Sections 80-04 and 80-05. The R2-1 speed limit sign, assembly, and mounting hardware shall be subsidiary to this pay item. All salvage and demolition efforts described in this section shall be subsidiary to this pay item.

Article 29.6 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall include full payment for all Work described in this Section.

Payment shall be made under the following unit:

ITEM	UNIT
Radar Speed Sign	Each

END OF SPECIAL PROVISIONS

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

EDWARD STREET PERMANENT RADAR SPEED SIGNS

22-24

III

SUBMITTAL LIST

EDWARD STREET PERMANENT RADAR SPEED SIGNS**22-24****SUBMITTAL LIST**

Job #: _____ Contractor: _____

Submittal Number	Rev.	Description
10.04.12		Property Owner 48-Hour Closure Notice
10.04.13		Street Closures; Traffic Control Plan
10.04.15		Temporary Erosion and Sediment Control Plan
10.04.17		Utility Notification Verification
10.04.17		Pre-Construction Utility Inspection Report
10.04.17		Post-Construction Utility Inspection Report
10.04.19		Record Drawings
10.04.20		Operating and Maintenance Manuals
10.05.3		Construction Progress Schedule
10.05.4		Notice of Unusual Working Hours
10.05.7		Proposed Substitutions
10.05.9		Contractor's Authorized Representatives and Employees
10.05.10		Subcontractor's List
10.06.6		Contractor Obtained Permits (ROW, Noise, Electrical, Dewatering, etc.)
10.06.9		Certificate of Insurance
10.06.12		Certified Payroll
10.07.1		Material Weight Tickets
10.07.7		ADOL Notification of Compliance
10.07.7		Notarized Certificate of Compliance
20.02.4		Storm Water Pollution Prevention Plan (SWPPP)
20.02.16		SWPPP Inspection Reports
20.10.7		Survey Cross-Section Measurement - Usable and Unusable Excavation

Submittal Number	Rev.	Description
20.27.4		Survey Cross-Section Measurement - Trench Excavation Disposal of Unusable or Surplus Material
20.13.2		Trench Excavation Notice to Engineer and AWWU.
30.01.9		Concrete Temperature Maintenance Procedure Proposal
40.02.2		Certified Analysis of Asphalt for Seal Coat from Refining Laboratory
40.04.2		Certified Analysis of Asphalt for Tack Coat from Refining Laboratory
40.04.3		Tack Coat Test Strip and Notification
40.06.3		Asphalt Job Mix Formula for A.C. Pavement
40.06.4		Contractor's Certificate of Compliance for bituminous paver segregation mechanism installation
40.06.5		Paving Plan
40.09.2		Certified Analysis of Asphalt for Bituminous Surface Treatment from Refining Laboratory
50.06.2		Sanitary Sewer Existing Manhole Modifications Submittal
65.02.2		Survey Field Notes
65.02.3		Party Chief's Daily Diary
65.02.5		Survey Cross Sections
65.02.5		Notification Prior to Cross Section Work
65.02.13		Survey Electronic Data
65.02.16		Survey Quantity Measurements (Clearing, Clearing & Grubbing, Pavement Removal, Pavement Rotomilling, Pavement Reclamation, Road Excavation, Trench Excavation, Topsoil, Seeding, and other areas of misc. final surfacing application such as asphalt, concrete, RAP, etc. which are measured in SF or SY)
70.10.3		Manufacturer's Recommendations for Application of Methyl Methacrylate Traffic Markings
70.12.2		Traffic Control Plan (TCP)
70.12.4		Identify Work Site Traffic Supervisor/Telephone Number
70.12.6		Proof of Public Notice
75.02.3		Identify Tree Protection Zone

Submittal Number	Rev.	Description
75.03.2		Topsoil Analysis Test Reports
75.04.2		Seed Certification Tag
80.01.3		Electrical Equipment and Materials Submittal
80.01.3		Record Drawings
80.01.4		Manufacturers' Warranties, Guarantees and Instruction Sheets
80.01.5		Traffic Signal Maintenance Name and Telephone Number
80.05.1		Wind Stress Certification Submittal
80.29		Radar Speed Sign Hardware

NOTE: The above list of submittals is not all inclusive. In addition to the above, the Contractor is required to comply with all submittal requirements as required or identified in the plans, specifications, M.A.S.S., or as directed by the Engineer.

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

EDWARD STREET PERMANENT RADAR SPEED SIGNS

22-24

IV

EQUAL EMPLOYMENT OPPORTUNITY SPECIAL PROVISION

CONTRACT COMPLIANCE SPECIFICATIONS

EQUAL EMPLOYMENT OPPORTUNITY

SPECIAL PROVISIONS

Every municipal contract shall include language substantially the same as the following: The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, age, sex, sexual orientation, gender identity, marital status, or physical or mental disability. The contract will comply with all laws concerning the prohibition of discrimination including, but not limited to, Title 5 and Title 7 of the Anchorage Municipal Code.

Every municipal contract shall state, in all solicitations or advertisements for employees to work under the contract, that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, ancestry, age, sex, sexual orientation, gender identity, marital status, or physical or mental disability.

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

EDWARD STREET PERMANENT RADAR SPEED SIGNS

22-24

V

MINIMUM RATES OF PAY

Laborers' & Mechanics' Minimum Rates of Pay

Title 36. Public Contracts AS 36.05 & AS 36.10 Wage & Hour Administration Pamphlet No. 600 (Pamphlet 600) is hereby incorporated in its entirety. Pamphlet 600 is available for free download at <http://labor.state.ak.us/lss/pamp600.htm>.

The Municipality of Anchorage will include a paper copy of the wage rates in the signed Contract.

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

EDWARD STREET PERMANENT RADAR SPEED SIGNS

22-24

VI

CONTRACT

CONTRACT

Invitation to Bid No. **2019C** _____

Contract No. **C-2019** _____

NAME AND ADDRESS OF CONTRACTOR:

Check appropriate box:

Incorporated in the State of

MUNICIPALITY OF ANCHORAGE, acting through _____ (hereinafter the Owner).

Contract for _____

BID SCHEDULES

ITEMS

**PLAN SHEET
FILE NUMBERS**

AMOUNT

\$ _____

Total Amount : \$ _____

THIS CONTRACT, entered into by the MUNICIPALITY OF ANCHORAGE, ALASKA, acting through the Owner named above, and the individual, partnership, or corporation named above, hereinafter called the Contractor, WITNESSETH that the parties hereto do mutually agree as follows:

Statement of Work: The Contractor shall furnish all labor, equipment and materials and perform the Work above described, for the amount stated, in strict accordance with the Contract Documents.

CONTRACT DOCUMENTS

- I. This CONTRACT consisting of 4 pages.
- II. The Bid Proposal Section ____ consisting of ____ pages numbered as ____, **as contained in ITB 2019C**_____.
- III. The Contract Performance and Payment Bond _____.
- IV. The Contractor's Certificate of Insurance Dated _____.
- V. Municipality of Anchorage Standard Specifications dated 2015 (MASS) Incorporated by Reference, **as contained in ITB 2019C**_____.
- VI. Specifications consisting of the following:

Supplemental Provisions Section ____ consisting of ____ pages, with attachments Exhibit A through F, **as contained in ITB 2019C**_____.
- VII. Equal Opportunity Special Provisions and Forms Section ____ consisting of ____ pages, **as contained in ITB 2019C**_____.
- VIII. Disadvantaged/Women-Owned Business Enterprise (DBE/WBE) Specification Section ____ consisting of ____ pages, **as contained in ITB 2019C**_____.
- IX. The Laborers' and Mechanics' Minimum Rates of Pay dated September 1, 2015 Section ____ consisting of ____ pages, **as contained in ITB 2019C**_____.
- X. Submittal List Section ____ consisting of ____ page, **as contained in ITB 2019C**_____.
- XI. The Drawings consisting of ____ sheets numbered _____, **as contained in ITB 2019C**_____.

**CONTRACT AND PERFORMANCE AND PAYMENT
BOND SIGNATURE INSTRUCTIONS**

1. The full name and business of the Contractor shall be inserted on Page 1 of the Contract and on the Performance and Payment Bond, hereinafter the Bond.
2. Two copies of the Contract and the Bond shall be manually signed by the Contractor. If the Contractor is a partnership or joint venture, all partners or joint ventures shall sign the Contract and the Bond except that one partner or one joint venturer may sign for the partnership or joint venture when all other partners or joint venturers have executed a Power-of-Attorney authorizing one partner or joint venturer to sign. The Power-of-Attorney shall accompany the executed contract and the Bond.
3. If the Contractor is a corporation, the President of the corporation shall execute the Contract and the Bond unless a Power-of-Attorney or corporate resolution shall accompany the executed Contract and Bond.
4. The Bond shall be returned to the Purchasing Division undated. The Contract Date shall be inserted on the Contract when the Municipality signs the Contract and the Bond shall be dated the same as the Contract Date.

SAMPLE

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

EDWARD STREET PERMANENT RADAR SPEED SIGNS

22-24

VII

CONTRACT PERFORMANCE AND PAYMENT BOND

CONTRACT PERFORMANCE AND PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, That we _____
 _____ of _____
 as Principal, and _____
 a corporation organized under the laws of the _____
 _____ and authorized to transact surety business in
 the State of Alaska, of _____
 as Surety, are held and firmly bound unto the MUNICIPALITY OF ANCHORAGE, as Obligee, in
 the full and just sum of _____
 (\$ _____) Dollars, lawful money of the UNITED STATES, for
 the payment which, well and truly to be made, we bind ourselves, our heirs, executors,
 administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION IS SUCH, that whereas the principal has entered into
 a certain contract dated the _____ date of _____ 20 _____,
 with the Obligee for the construction of _____

which contract is hereby referred to and made a part hereof as fully and to the same extent as if
 copied at length herein.

NOW THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings,
 covenants, terms, conditions, and agreements of said contract, and shall promptly make payments
 to all persons supplying labor and material in the prosecution of the work provided for in said
 contract, during the original term of said contract and any extensions or modifications thereof that
 may be granted by the Municipality, with or without notice to the Surety, then this obligation to be
 void; otherwise to remain in full force and effect.

This obligation is made for the use of said Obligee and also for use and benefit of all persons who
 may perform any work or labor or furnish any material in the execution of said Contract and may
 be sued on thereby in the name of said Obligee.

The said Surety, for the value received, hereby stipulates and agrees that no change, extension of
 time, alteration or addition to the terms of the contract or to the work to be performed thereunder or
 the specifications accompanying the same, shall in anywise affect its obligations on this bond, and
 it does hereby waive notice of any such change, extension of time, alteration or addition to the
 terms of the contract or to the work or to the specifications.

Whenever Principal shall be, and declared by Obligee to be in default under the Contract the Obligee having performed Obligee's obligations thereunder, the Surety may promptly remedy the default or shall promptly:

1. Complete the Contract in accordance with its terms and conditions, or
2. Obtain a bid or bids for submission to Obligee for completing the Contract in accordance with its terms and conditions and upon determination by Surety of the lowest responsible bidder, or, if the Obligee elects, upon determination by Obligee and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Obligee and make available as Work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price but not exceeding, including other costs and damages for which the Surety may be liable hereunder the amount set forth in the first paragraph hereof. The term "balance of the contract price" as used in this paragraph, shall mean the total amount payable by Obligee to Principal under the Contract and any amendments thereto, less the amount properly paid by Obligee to Principal.

IN TESTIMONY WHEREOF, the parties hereunto have caused the execution hereof in _____ original counterparts as of the _____ day of _____, 20_____.

WITNESS AS TO PRINCIPAL:

(AFFIX CORPORATE SEAL)

Principal Name

Principal Signature

Corporate Surety

Surety Business Address

BY:

(Attorney-In-Fact)

(AFFIX SURETY SEAL)

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

EDWARD STREET PERMANENT RADAR SPEED SIGNS

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VIII

CERTIFICATE OF INSURANCE

INSURANCE

By submitting a bid, the bidder agrees, if they are the successful bidder, to obtain and maintain the insurance required by this section. The bidder also agrees to provide the Municipality a copy of their Certificate of Liability Insurance prior to signing the contract and prior to commencement of any work under this contract.

GENERAL: The Contractor will not allow any subcontractor to commence work until the subcontractor has obtained insurance as listed in this section. The contractor and each subcontractor shall maintain this insurance throughout the life of this contract, including any maintenance and/or guarantee/warranty period. The contractor shall obtain separate insurance certificates for each contract.

ADDITIONAL INSURED: The Municipality of Anchorage shall be listed as an additional insured on all General and Auto Liability policies required by this contract. All policies shall contain a waiver of subrogation against the Municipality, except Professional Liability. All policies shall remain in effect during the life of the contract. The Contractors insurance certificate shall also indicate the Municipality of Anchorage as a certificate holder of the policy.

WORKERS COMPENSATION: The Contractor shall purchase and maintain during the life of this contract, workers compensation insurance for all employees who will work on this project and, if any work is sublet, the Contractor shall require the subcontractor similarly to provide such insurance. Employers' Liability with a minimum limit of \$500,000 shall be maintained and Workers Compensation with minimum limits as required by Alaska State Workers Compensation Statutes. The policy shall contain a waiver of subrogation against the Municipality.

NOTICE TO "OUT-OF-STATE" CONTRACTORS WORKING IN ALASKA: The Contractor shall provide evidence of Workers Compensation insurance, either State of Alaska Workers Compensation coverage or an endorsement to the Contractor's home state Workers Compensation policy, evidencing coverage for "other states" including Alaska, prior to execution of a contract or, if approved, before commencement of contract performance in Alaska.

GENERAL LIABILITY: The Contractor shall purchase and maintain, in force, during the life of this contract such general liability insurance as shall protect the Owner and the Contractor against losses which may result from claims for damages for bodily injury, including accidental death, as well as from claims for property damages which may arise from any operations under this contract whether such operations be those of the Contractor, a subcontractor or anyone directly or indirectly employed by either of them.

<u>Commercial General Liability</u>	<u>Minimum Limits</u>
Products/Completed Operations	\$2,000,000
Personal & Advertising Injury	\$1,000,000
Each Occurrence	\$1,000,000
General Aggregate	\$2,000,000
Medical Payments	\$5,000
<u>Commercial Auto Liability</u>	<u>Minimum Limits</u>
Combined single limit (Bodily Injury and Property Damage)	\$1,000,000
Including all owned, hired, and non-owned	
<u>Workers Compensation and Employers Liability</u>	<u>Minimum Limits</u>
Per Alaska statute	\$500,000
<u>Errors and Omissions</u>	<u>Minimum Limits</u>
Professional Liability (Not required unless limits appear in space provided)	
<u>Umbrella Liability</u>	<u>Minimum Limits</u>
(Not required unless limits appear in space provided)	
\$ _____ S.I.R.	

Each insurance policy required by this section shall require the insurer to give advance notice to the MOA/Contract Administrator prior to the cancellation of the policy. IF the insurer does not notify the MOA upon policy cancellation, it shall be the Contractor's responsibility to notify the MOA of such cancellation.

COMPLIANCE WITH LAWS

The Contractor shall observe and abide by all applicable laws, regulations, ordinances and other rules of the State of Alaska and/or any political subdivisions thereof, or any other duly constituted public authority wherein work is done or services performed, and further agrees to indemnify and save the Municipality of Anchorage harmless from any and all liability or penalty which may be imposed or asserted by reason of the Contractor's failure or alleged failure to observe and abide thereby.

(Remainder of Page Initially left Blank)



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) shall be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME	
	PHONE (A/C, No, Ext)	FAX (A/C,
	E-MAIL ADDRESS	
	INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED	INSURER A	
	INSURER B	
	INSURER C	
	INSURER D	
	INSURER E	
	INSURER F	

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO <input type="checkbox"/> LOC						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV NJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULE D AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMB NED S NGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS- DED RETENTIONS \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE Y / N <input type="checkbox"/> OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below N / A						WC STATUTORY LIMITS OTHER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

1. The Municipality of Anchorage is an additional insured on Auto and General Liability policies. All policies, including workers compensation, contain a WAIVER OF SUBROGATION against the Municipality, except Professional Liability, .
2. CANCELLATION: "Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the Policy Provisions."

CERTIFICATE HOLDER

CANCELLATION

	<p style="text-align: center;">SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.</p> <p>Authorized Representative</p>
--	---

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

EDWARD STREET PERMANENT RADAR SPEED SIGNS

22-24

IX

BID BOND

BID BOND

KNOW ALL MEN BY THESE PRESENTS, That we, _____
 as Principal, and _____ a
 corporation organized under the laws of the _____ and
 authorized to transact surety business in the State of Alaska, of _____
 _____ as Surety, are held and firmly bound unto the MUNICIPALITY OF
 ANCHORAGE, as Obligee, in the full and just sum of _____
 _____ (\$ _____) Dollars, lawful
 money of the UNITED STATES, for the payment of which sum, well and truly to be made, we bind
 ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly
 by the presents.

WHEREAS, the said Principle is herewith submitting its proposal for _____
 _____.

The condition of this obligation is such that if the aforesaid Principal will, within the time required enter
 into a formal contract and give a good and sufficient bond to secure the performance of the terms and
 conditions of the contract, then this Obligation to be void; otherwise the Principal and Surety will pay
 unto to the Obligee the amount stated above.

Signed, sealed, and delivered _____, 20_____.

WITNESS AS TO PRINCIPAL:

(AFFIX CORPORATE SEAL)

 Contractor Name

 Contractor Signature

 Corporate Surety

 Surety Business Address

BY: _____
 (Attorney-In-Fact)

(AFFIX SURETY SEAL)

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

EDWARD STREET PERMANENT RADAR SPEED SIGNS

22-24

X

BIDDER'S CHECKLIST & RESPONSIBLE BIDDER QUESTIONNAIRE

Municipality of Anchorage
ITB: 2023C009

BIDDER’S CHECKLIST

INSTRUCTION TO BIDDER

I. GENERAL:

Bidders are advised that notwithstanding any instructions or implications elsewhere in this Invitation to Bid only the documents shown and detailed on this sheet need be submitted with and made part of their bid. Other documents may be required to be submitted after bid time, but prior to award. Bidders are hereby advised that failure to submit the documents shown and detailed on this sheet shall be justification for rendering the bid nonresponsive. Evaluation of bids for responsiveness shall be accomplished in accordance with Anchorage Municipal Code, Title 7.

II. REQUIRED DOCUMENTS FOR BID

NOTE: “Only the following listed items as marked with an “X” are required to be completely filled out and submitted with the bid.”

 X Bid Proposal consisting Four (4) pages numbered BP- 1 through BP- 4. Bid Proposal
Page BP- 2 of 4 must be manually signed.

 X Erasures or other changes made to the Bid Proposal Sheet must be initialed by the person signing the bid.

 X Bid Bond, certified check, cashier’s check, money order or cash shall be submitted with the bid in the amount indicated.

 X All Addenda issued shall be acknowledged in the space provided on the Bid Proposal sheet or by manually signing the Addenda sheet and submitting it prior to the bid opening in accordance with Anchorage Municipal Code 7.20.020C.

III. REQUIRED DOCUMENTS AFTER BID OPENING

The following documents are required within **five (5)** working days of notification by the Purchasing Office. Failure, in whole or in part, to submit the documents required below shall be grounds to determine the Bidder as non-responsible.

 X In accordance with AO No. 2019-130 (S), Anchorage Municipal Code 7.20.030 and 7.20.070, Contractor Questionnaire consisting of three (3) Pages, Prime Contractor Form Filled out by Prime Contractor **and** all known subcontractors. **Please review AO NO. 2019-130 (S), AMC 7.20.030 and 7.20.070, and the attached Contractor Questionnaire before submitting a bid.**

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

EDWARD STREET PERMANENT RADAR SPEED SIGNS

22-24

XI

BID PROPOSAL

BID PROPOSAL
(CERTIFICATION)

TO: MUNICIPALITY OF ANCHORAGE
PURCHASING DEPARTMENT
632 W. 6TH AVENUE, SUITE 520
ANCHORAGE, ALASKA 99501

March 13, 2021

SUBJECT: Invitation to Bid No. 2023C009

PROJECT TITLE: Edward Street Permanent Radar Speed Signs

Pursuant to and in compliance with subject Invitation to Bid, and other bid documents relating thereto, the bidder hereby proposes to furnish all labor and materials and to perform all work for the construction of the above referenced project in strict accordance with the bid documents at the prices established in the Bid Proposal, page **BP- 1 through BP 4** submitted herewith.

The bidder agrees, if awarded the contract, to commence and complete the work within the time specified in the bid documents.

Basic Bid; Lump Sum; 1 Job: \$ _____

The bidder acknowledges receipt of the following addenda:

Addenda No. _____	Date of Addenda _____
Addenda No. _____	Date of Addenda _____
Addenda No. _____	Date of Addenda _____

Enclosed is a Bid Bond in the amount of _____.
(Dollar Amount or Percentage of Bid)

Type of Business Organization

The bidder, by checking the applicable box, represents that it operates as () a corporation incorporated under the laws of the State of _____, () an individual, () an LLC, () a partnership, () a nonprofit organization, or () a joint venture. If a partnership or joint venture, identify all parties on a separate page.

Is this project Federally Funded?

Yes
No

Company Name

BID PROPOSAL
(CERTIFICATION)
Continued

SUBJECT: Invitation to Bid No. 2023C009

PROJECT TITLE: Edward Street Permanent Radar Speed Signs

Date

Alaska Contractor's License Number

Company Name (Printed)

Employer's Tax Identification Number

Authorized Representative Signature

Printed Name & Title

Company **Mailing** Address

Company Phone Number

City, State, Zip Code

Company Fax Number

Company **Physical** Address
(if different from mailing address)

Company Email Address

City, State, Zip Code

MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT
EDWARD STREET PERMANENT RADAR SPEED SIGNS
22-24

ITEM NO.	SPEC. NO.	WORK DESCRIPTION	EST QTY	UNIT BID PRICE	TOTAL BID PRICE
A-1	20.02	Storm Water Pollution Prevention Plan (Type I)	per LS	1	
A-2	20.05 95.04	Clearing	per LS	1	
A-3	20.07	Remove Sidewalk	per SY	10	
A-4	20.08	Remove Curb and Gutter	per LF	20	
A-5	20.09 95.04	Remove Pavement	per SY	100	
A-6	20.10	Unusable Excavation	per CY	10	
A-7	20.11	Grading Existing Surfaces	per LF	23	
A-8	20.21 95.04	Classified Fill and Backfill (Type II-A)	per Ton	10	
A-9	20.22 95.04	Leveling Course	per Ton	15	
A-10	30.02	P.C.C. Curb and Gutter (All Types)	per LF	20	
A-11	30.03	P.C.C. Sidewalk (4-Inch) (Standard Finish)	per SY	10	
A-12	40.04	Asphalt Tack Coat	per Ton	1	
A-13	40.06	A.C. Pavement (Class E)	per Ton	25	
A-15	65.02	Construction Survey Measurement	per LS	1	
A-16	65.02	Two-Person Survey Crew	per HR	8	
A-17	70.10	Traffic Markings (4" Solid White)	per LF	30	

COMPANY NAME

BP-3 of 4

MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT
EDWARD STREET PERMANENT RADAR SPEED SIGNS
22-24

ITEM NO.	SPEC. NO.	WORK DESCRIPTION	EST QTY	UNIT BID PRICE	TOTAL BID PRICE
A-18	70.10	Traffic Markings (4" Solid Yellow)	50		
		per LF			
A-19	70.12 95.04	Traffic Maintenance	1		
		per LS			
A-20	75.03	Topsoil (4-Inch)	1		
		per MSF			
A-21	75.04 95.04	Seeding (Schedule A)	1		
		per MSF			
A-22	80.02	Trench and Backfill, 2'x3'	60		
		per LF			
A-23	80.04 95.04	Driven Pile Signal Pedestal Pole Foundation	1		
		per EA			
A-24	80.05 95.04	Breakaway Traffic Signal Pole	1		
		per EA			
A-25	80.05 95.04	Breakaway Traffic Signal Pole, Spare	1		
		per EA			
A-26	80.07	GRC Steel Conduit (2")	120		
		per LF			
A-27	80.08	Junction Box (Type 1A)	2		
		per EA			
A-28	80.10 95.04	Conductor, 3C, #14 AWG, XHHW	820		
		per LF			
A-29	80.10 95.04	Conductor, 3C, #10 AWG, XHHW	2,535		
		per LF			
A-30	80.10 95.04	Conductor, 3C, #8 AWG, XHHW	165		
		per LF			
A-31	80.14 95.04	Load Center Modifications	1		
		per EA			
A-32	80.29 95.04	Radar Speed Sign	3		
		per EA			

TOTAL: _____

CONTRACTOR: _____

DATE: _____

COMPANY NAME

BP-4 of 4

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

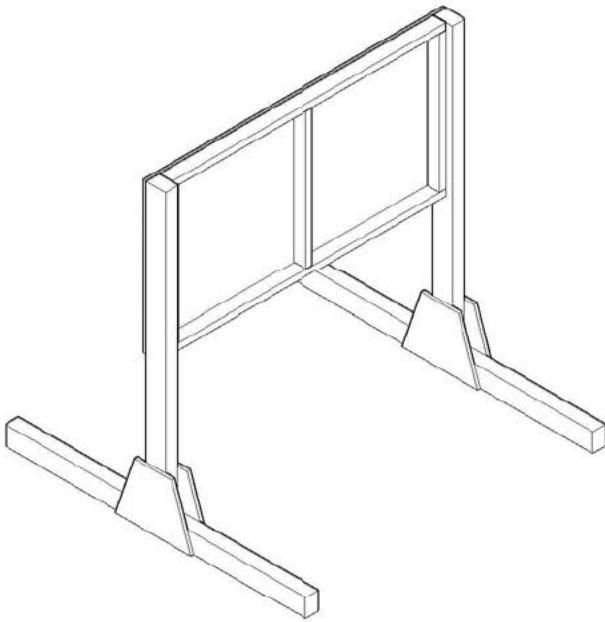
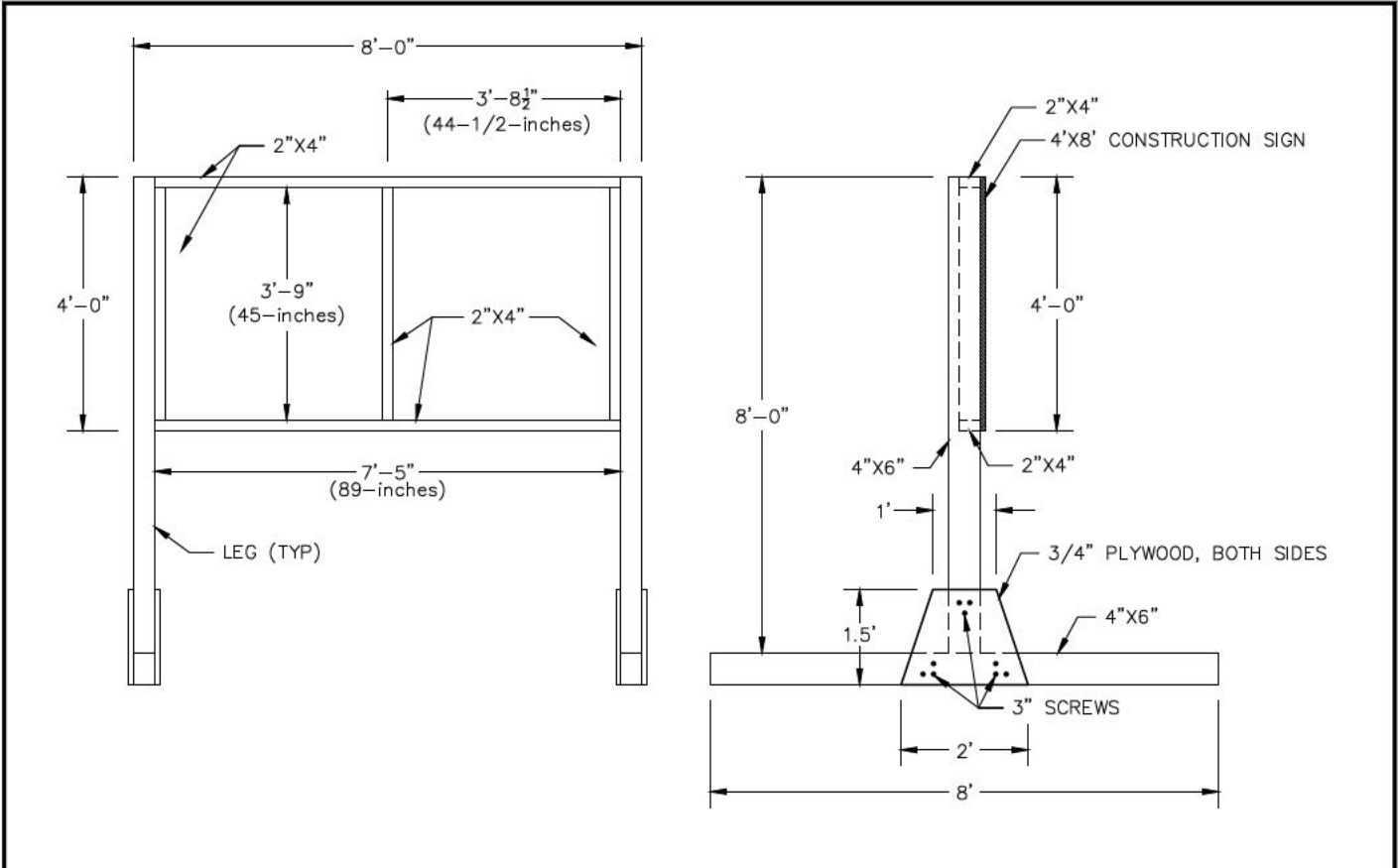
EDWARD STREET PERMANENT RADAR SPEED SIGNS

22-24

XII

Attachment A

Project Information Sign Detail



BACK



FRONT



MOA/PM&E CONSTRUCTION SIGN LEGS & FRAMES DETAIL

SCALE:
NTS
REVISED:
9/21

**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

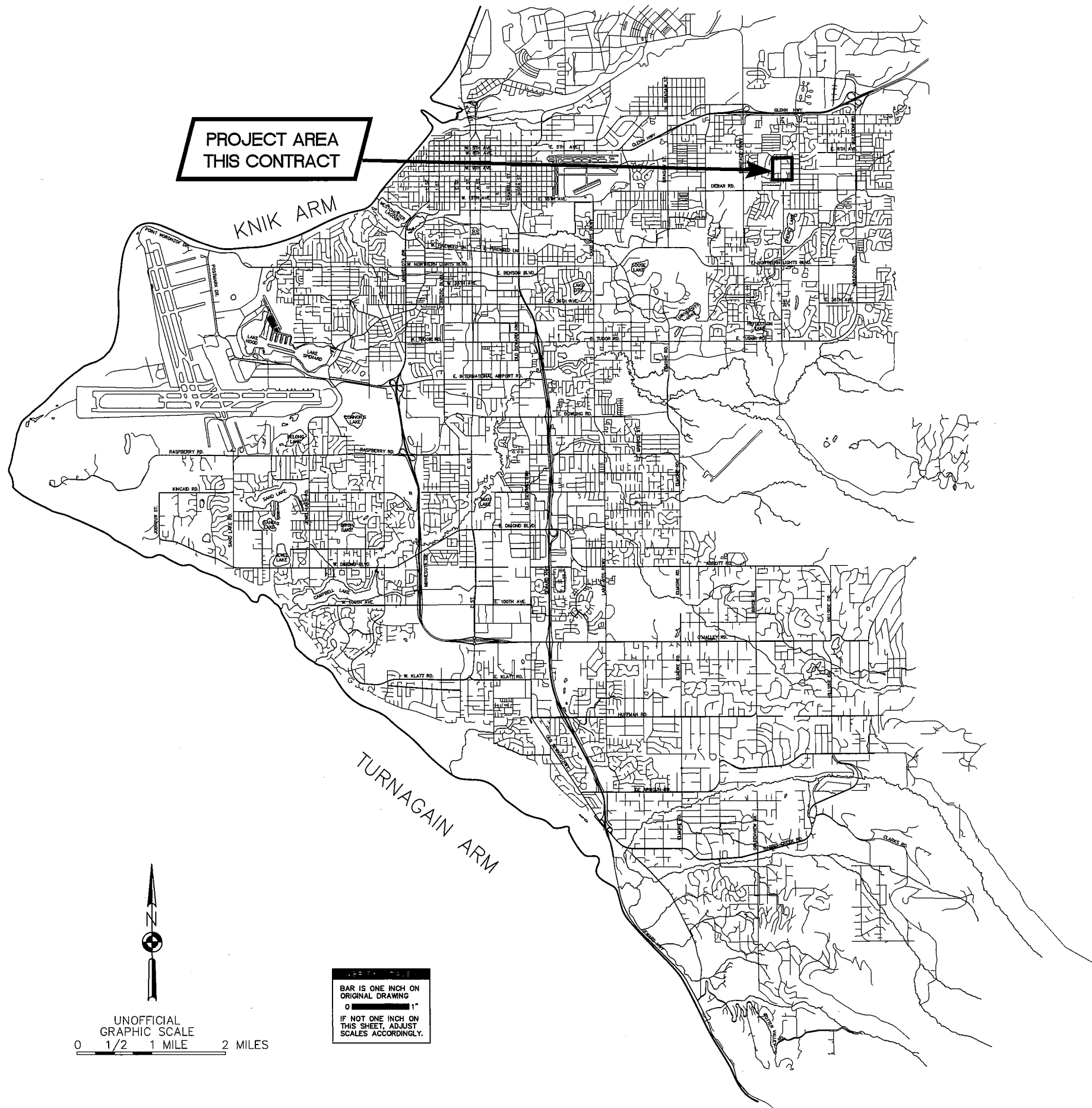
EDWARD STREET PERMANENT RADAR SPEED SIGNS

22-24

XIII

PLANS (11 SHEETS)

H:\jobs\21-014 MOA Traffic Eng Term II\24-Edward Street Permanent Radar Speed Signs\Drawings\21014_24_01_Cover.dwg, 1:2, 1/31/23 at 16:30 by WPEACE

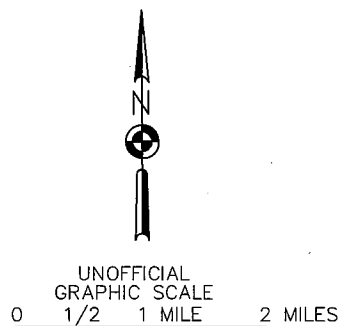


**MUNICIPALITY OF ANCHORAGE
TRAFFIC ENGINEERING DEPARTMENT**

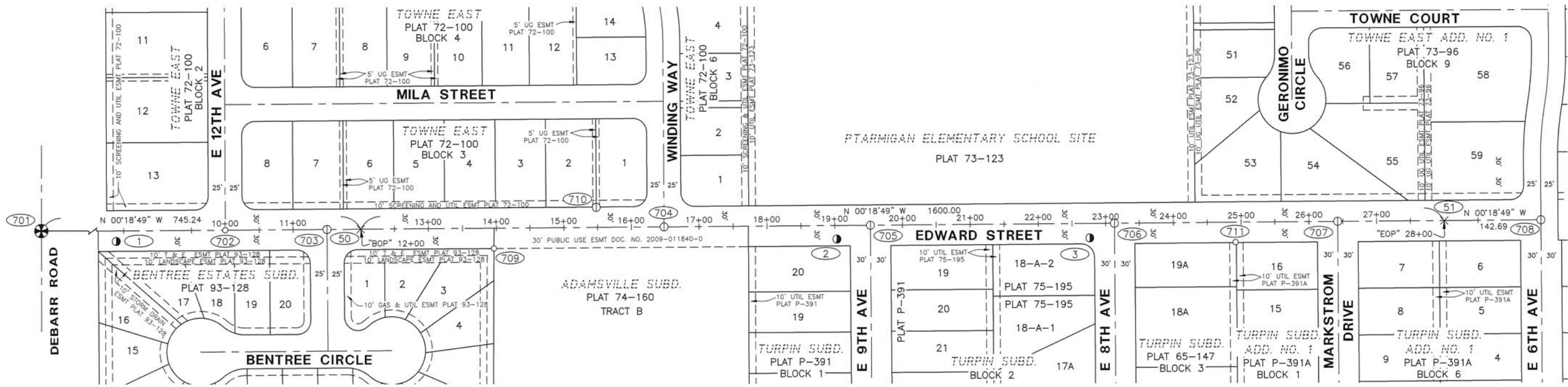
**EDWARD STREET PERMANENT
RADAR SPEED SIGNS
PROJECT 22-24**

APPROVED BY:

BRANDON TELFORD, P.E., ACTING MUNICIPAL ENGINEER



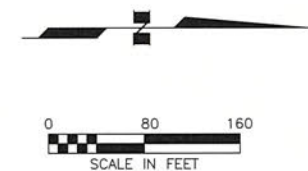
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.




NOTES

1. THE FIELD SURVEY WAS PERFORMED BY HDL ENGINEERING CONSULTANTS, LLC FROM SEPTEMBER 07, 2022 THROUGH SEPTEMBER 23, 2022. FIELD SURVEY INFORMATION FOR THIS PROJECT IS LOCATED IN M.O.A. TRAFFIC TERM FIELD BOOK 21-014 NO. 03 PAGES 2 THROUGH 18 AND 26 THROUGH 27.
2. THIS PROJECT IS LOCATED ENTIRELY WITHIN THE ANCHORAGE BOWL 2000 ADJUSTMENT, A LOCAL SURFACE GRID COORDINATE SYSTEM, EXPRESSED IN U.S. SURVEY FEET, DEVELOPED BY THE ALASKA DEPARTMENT OF TRANSPORTATION.
3. THE BASIS OF COORDINATES IS NGS STATION O'MALLEY, LOCATED NEAR THE INTERSECTION OF THE NEW SEWARD HIGHWAY AND O'MALLEY ROAD. SAID STATION HAS ANCHORAGE BOWL 2000 COORDINATES OF 303939.2310 N, 353362.5446 E. (U.S. SURVEY FEET).
4. THE BASIS OF BEARINGS IS A LOCAL PLANE BEARING BETWEEN NGS STATION O'MALLEY AND NGS STATION LOOP 2 USE RM 3 1964. NGS STATION LOOP 2 USE RM 3 1964 BEARS N 01°43'26.4" E A DISTANCE OF 49488.4476 FEET FROM NGS STATION O'MALLEY. NGS STATION LOOP 2 USE RM 3 1964 HAS ANCHORAGE BOWL 2000 COORDINATES OF 353405.2778 N, 354851.3982 E. (U.S. SURVEY FEET)
5. TO CONVERT THE LOCAL BOWL 2000 COORDINATES TO NAD 83 (92) ALASKA STATE PLANE, ZONE 4 COORDINATES, EXPRESSED IN U.S. SURVEY FEET; TRANSLATE USING +2,296,869.2529' N., +1,312,517.0656' E., AND SCALE USING 0.9998910192.
6. THE BASIS OF COORDINATES FOR THIS PROJECT IS POINT NUMBER 701, A FOUND 2-1/2" BRASS CAP IN A MONUMENT CASE JUST EAST OF THE INTERSECTION OF DEBARR ROAD AND EDWARD STREET. COORDINATES OF POINT 701 ARE 337563.6103 N., 369805.0609 E. AND ORIGINATE FROM THE A.K.D.O.T. SURVEY CONTROL DIAGRAM, DEBARR ROAD RESURFACING, PROJECT No. AKSAS 53433, PLAT No. 2015-121.
7. ELEVATIONS ARE BASED ON THE M.O.A. VERTICAL DATUM, 1972 N.G.S. ADJUSTMENT, FROM BENCHMARKS, "CB-9A", ELEV=224.76' AND "GAAB-16", ELEV=235.14'. SEE MOA WEBSITE "SURVEY BENCHMARKS" FOR FURTHER INFORMATION.
8. EASEMENTS OF RECORD OTHER THAN THOSE SHOWN MAY EXIST.
9. VERIFY HORIZONTAL AND VERTICAL CONTROL PRIOR TO USE AND ON A SEASONAL BASIS.

COORDINATE SCHEDULE					
POINT	STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
701	4+54.76	0.00 RT	337563.61	369805.06	FOUND 2-1/2" MONUMENT
1	8+39.21	15.37 RT	337948.14	369818.32	SET 1-1/4" BRASS PLUG
702	10+00.00	0.00 RT	338108.84	369802.08	FOUND 5/8" REBAR
703	11+50.18	0.07 RT	338259.02	369801.32	FOUND 2" ALCAP
50	12+00.00	0.00 RT	338308.84	369800.98	BOP
709	13+96.26	29.84 RT	338505.26	369829.74	FOUND 5/8" REBAR
710	15+48.42	29.49 LT	338657.09	369769.59	FOUND PLASTIC CAP
704	16+48.33	0.02 RT	338757.16	369798.55	FOUND 2" ALCAP
2	19+03.06	19.95 RT	339012.00	369817.09	SET 1-1/4" BRASS PLUG
705	19+52.70	0.01 LT	339061.53	369796.85	FOUND 2" ALCAP
3	22+76.46	21.25 RT	339385.40	369816.34	SET 1-1/4" BRASS PLUG
706	23+13.22	0.06 RT	339422.04	369794.94	FOUND 2" ALCAP
711	24+91.68	29.27 RT	339600.66	369823.18	FOUND 1/2" REBAR
707	26+42.51	0.05 LT	339751.32	369793.03	FOUND 2" ALCAP
51	28+00.00	0.00 RT	339908.82	369792.22	EOP
708	29+42.69	0.00 RT	340051.50	369791.44	FOUND 2" ALCAP



LEGEND

- ⊗ FOUND BRASS MONUMENT
 - ⊙ FOUND ALUMINUM/PLASTIC CAP
 - FOUND REBAR
 - SET BRASS PLUG
 - × COMPUTED POINT NOTHING SET
 - ⊗(XXX) SURVEY CONTROL POINT NUMBER
-  TYPICAL BRASS PLUG

RECORD DRAWING

1. DATA PROVIDED BY: _____ TITLE: _____

THIS WILL SERVE TO CERTIFY THAT THESE RECORD DRAWINGS ARE A TRUE AND ACCURATE REPRESENTATION OF THE PROJECT AS CONSTRUCTED.

CONTRACTOR: _____

BY: _____ TITLE: _____ DATE: _____

2. DATA TRANSFERRED BY: _____ TITLE: _____

COMPANY: _____ DATE: _____

3. BASED ON PERIODIC FIELD OBSERVATIONS BY THE ENGINEER (OR AN INDIVIDUAL UNDER HIS/HER DIRECT SUPERVISION), THE CONTRACTOR-PROVIDED DATA APPEARS TO REPRESENT THE PROJECT AS CONSTRUCTED.

DATA TRANSFER CHECKED BY: _____ TITLE: _____

COMPANY: _____ DATE: _____

BY: _____

DATA	DRAWN BY	CHECKED BY
BASE	---	---
TOPOGRAPHY	---	---
PROFILE	---	---
STORM SEWER	---	---
WATER/SANITARY SEWER	---	---
GAS	---	---
TELEPHONE	---	---
ELECTRIC	---	---
DESIGN	---	---
QUANTITIES	---	---
PRELIMINARY/FINAL	---	---
MUNICIPAL/STATE	---	---

FIELD BOOKS	BM NO.	LOCATION	ELEV.	REV	DATE	DESCRIPTION	BY
DESIGN SEE NOTE 1	CB 9A	ROLLAR RINK BUILDING	224.76				
	GAAB 16	WELLS FARGO BUILDING	235.14				

BASIS OF THIS DATUM 1972 N.G.S. ADJUSTED DATUM

HDL ENGINEERING CONSULTANTS, LLC

- CIVIL ENGINEERING
- SURVEYING
- GEOTECHNICAL
- ENVIRONMENTAL

3335 Arctic Blvd., Suite 100
Anchorage, AK 99503
(907) 564-2120
www.HDLalaska.com
AECLE861



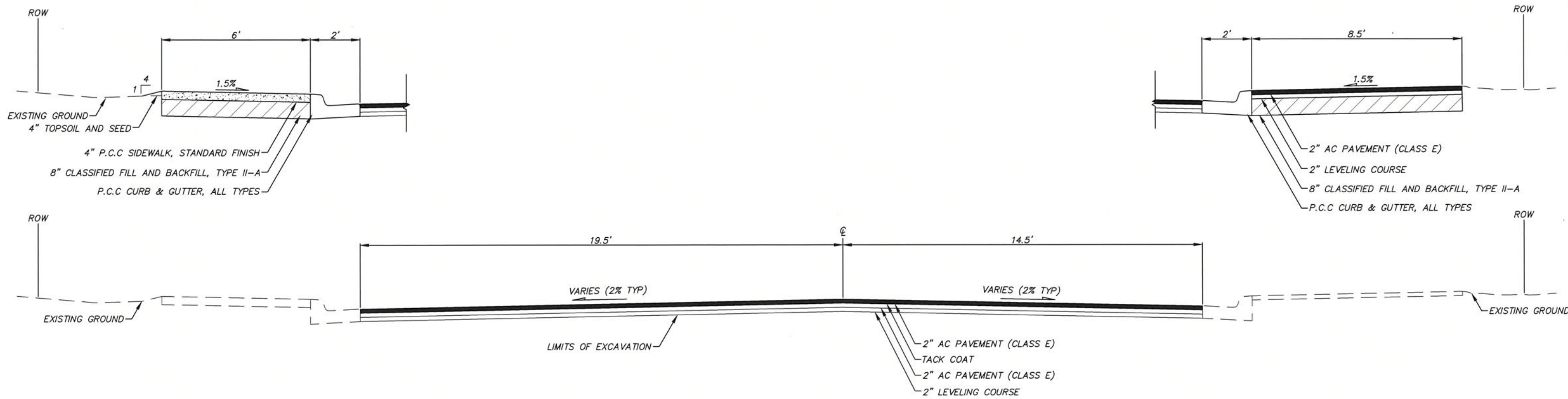
TRAFFIC ENGINEERING DEPARTMENT

22-24 EDWARD STREET PERMANENT RADAR SPEED SIGNS

SURVEY CONTROL

SCALE	HOR. 1"=80'	GRID SW1338, SW1339
VER.	N/A	DATE FEB. 2023
		STATUS

SHEET 3 of 11



1 ROADWAY SECTION
4 NTS

NOTES:

- SEE LAYOUT POINT TABLE FOR ROADWAY GRADES, SIDEWALK GRADES, AND CURB AND GUTTER TYPES. ROADWAY CROSS SLOPE SHALL HAVE A MAXIMUM SLOPE OF 3%. SIDEWALK CROSS SLOPES SHALL HAVE A MAXIMUM SLOPE OF 2%.
- PRIOR TO PLACEMENT OF FILL, NATIVE MATERIAL SHALL BE SCARIFIED, PROOF-ROLLED, AND COMPACTED TO NINETY-FIVE PERCENT (95%) OF MAXIMUM DENSITY TO A MINIMUM THICKNESS OF 8 INCHES UNDER NEW PAVEMENT AND 6 INCHES UNDER NEW SIDEWALK, OR AS DIRECTED BY THE ENGINEER.
- ALL FILL, USABLE EXCAVATION, AND PLACED NATIVE MATERIAL SHALL BE COMPACTED TO NINETY-FIVE PERCENT (95%) OF MAXIMUM DENSITY, PER M.A.S.S. DIVISION 20 EARTHWORK.

RECORD DRAWING
 1. DATA PROVIDED BY: _____ TITLE: _____
 THIS WILL SERVE TO CERTIFY THAT THESE RECORD DRAWINGS ARE A TRUE AND ACCURATE REPRESENTATION OF THE PROJECT AS CONSTRUCTED.
 CONTRACTOR: _____
 BY: _____ TITLE: _____ DATE: _____
 2. DATA TRANSFERRED BY: _____ TITLE: _____
 COMPANY: _____ DATE: _____
 3. BASED ON PERIODIC FIELD OBSERVATIONS BY THE ENGINEER (OR AN INDIVIDUAL UNDER HIS/HER DIRECT SUPERVISION), THE CONTRACTOR-PROVIDED DATA APPEARS TO REPRESENT THE PROJECT AS CONSTRUCTED.
 DATA TRANSFER CHECKED BY: _____ TITLE: _____
 COMPANY: _____ DATE: _____
 BY: _____

DATA	DRAWN BY	CHECKED BY
BASE	---	---
TOPOGRAPHY	---	---
PROFILE	---	---
STORM SEWER	---	---
WATER/SANITARY SEWER	---	---
GAS	---	---
TELEPHONE	---	---
ELECTRIC	---	---
DESIGN	---	---
QUANTITIES	---	---
PRELIMINARY/FINAL	---	---
MUNICIPAL/STATE	---	---

FIELD BOOKS	BY
DESIGN	
STAKING	
ASBUILT	
CONTRACTOR	
INSPECTOR	

PLAN CHECK	CONSTRUCTION RECORD	VERTICAL DATUM	REVISIONS

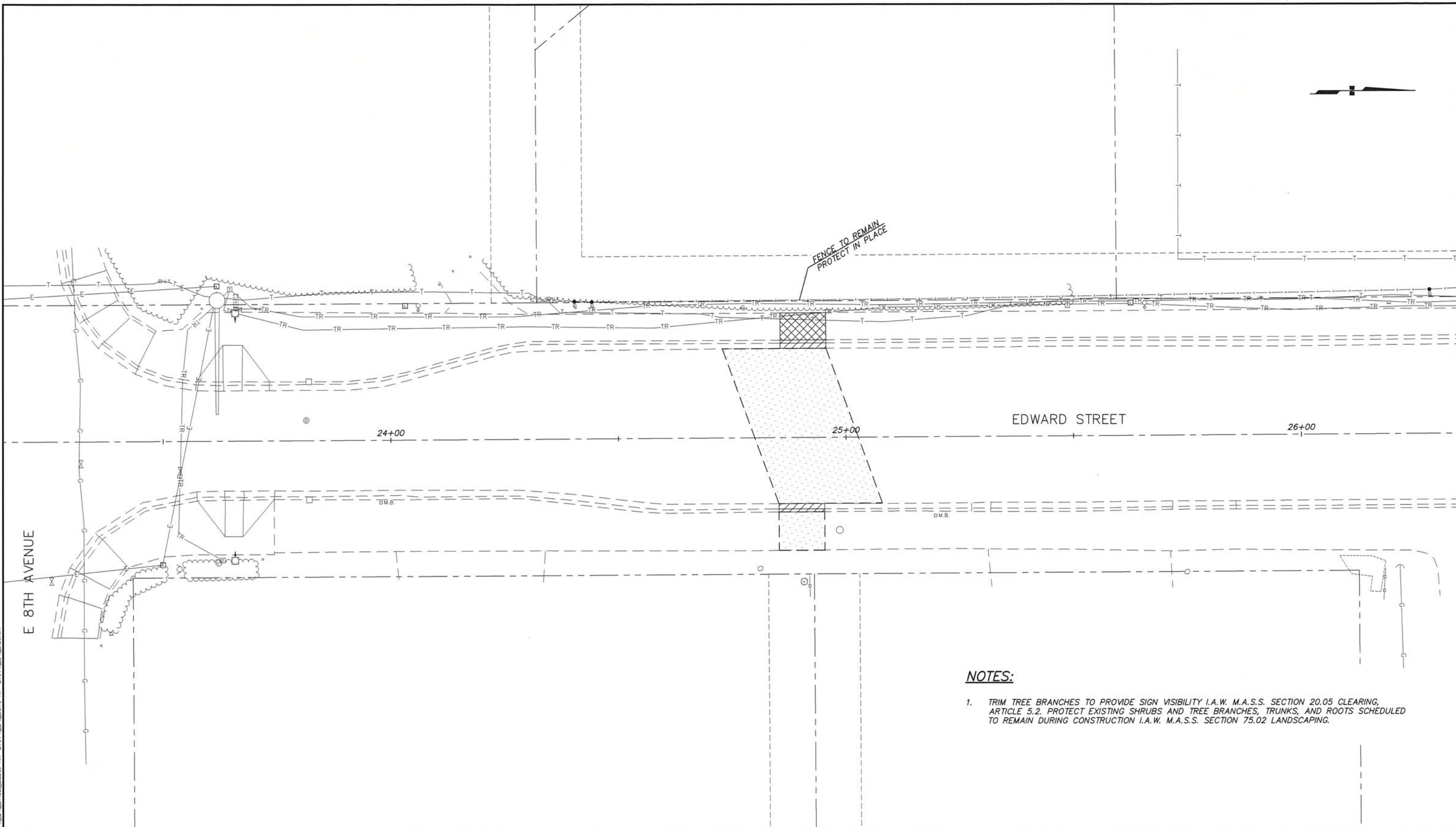
HDL ENGINEERING
 Consultants LLC
 • CIVIL ENGINEERING
 • SURVEYING
 • GEOTECHNICAL
 • ENVIRONMENTAL
 3335 Arctic Blvd., Suite 100
 Anchorage, AK 99503
 (907) 964-2120
 www.HDLalaska.com
 AECL861



TRAFFIC ENGINEERING DEPARTMENT
 22-24 EDWARD STREET PERMANENT RADAR SPEED SIGNS
TYPICAL SECTION
 SCALE HOR. VER. GRID SW1338, SW1339 DATE FEB. 2023 STATUS SHEET 4 of 11

FILE NO. -

\\hdll\hsl\hsl\21-014 MDA Traffic Eng Term \1\24-Edward Street Permanent Radar Speed Signs\CAD\Drawings\21014_24_05_Demolition, 1=1, 11-03-22 at 13:58 by ALA
 LAYOUT: Layout
 VIEW: 007_H_PDF
 XREF: XR-21014_24_BASE, XR-21014_24_BASE_ELEC, XR-21014_24_BDR, XR-21014_24_DESIGN



NOTES:

1. TRIM TREE BRANCHES TO PROVIDE SIGN VISIBILITY I.A.W. M.A.S.S. SECTION 20.05 CLEARING, ARTICLE 5.2. PROTECT EXISTING SHRUBS AND TREE BRANCHES, TRUNKS, AND ROOTS SCHEDULED TO REMAIN DURING CONSTRUCTION I.A.W. M.A.S.S. SECTION 75.02 LANDSCAPING.

RECORD DRAWING
 1. DATA PROVIDED BY: _____ TITLE: _____
 THIS WILL SERVE TO CERTIFY THAT THESE RECORD DRAWINGS ARE A TRUE AND ACCURATE REPRESENTATION OF THE PROJECT AS CONSTRUCTED.
 CONTRACTOR: _____ DATE: _____
 BY: _____ TITLE: _____
 2. DATA TRANSFERRED BY: _____ TITLE: _____
 COMPANY: _____ DATE: _____
 3. BASED ON PERIODIC FIELD OBSERVATIONS BY THE ENGINEER (OR AN INDIVIDUAL UNDER HIS/HER DIRECT SUPERVISION), THE CONTRACTOR-PROVIDED DATA APPEARS TO REPRESENT THE PROJECT AS CONSTRUCTED.
 DATA TRANSFER CHECKED BY: _____ TITLE: _____
 COMPANY: _____ DATE: _____
 BY: _____

DATA	DRAWN BY	CHECKED BY
BASE	--	--
TOPOGRAPHY	--	--
PROFILE	--	--
STORM SEWER	--	--
WATER/SANITARY SEWER	--	--
GAS	--	--
TELEPHONE	--	--
ELECTRIC	--	--
DESIGN	--	--
QUANTITIES	--	--
PRELIMINARY/FINAL	--	--
MUNICIPAL/STATE	--	--

FIELD BOOKS	BY
DESIGN	
STAKING	
ASBUILT	
CONTRACTOR	
INSPECTOR	

BASIS OF THIS DATUM



HDL ENGINEERING
 Consultants LLC
 • CIVIL ENGINEERING
 • SURVEYING
 • GEOTECHNICAL
 • ENVIRONMENTAL
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 Anchorage, AK 99503
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 AEC1861

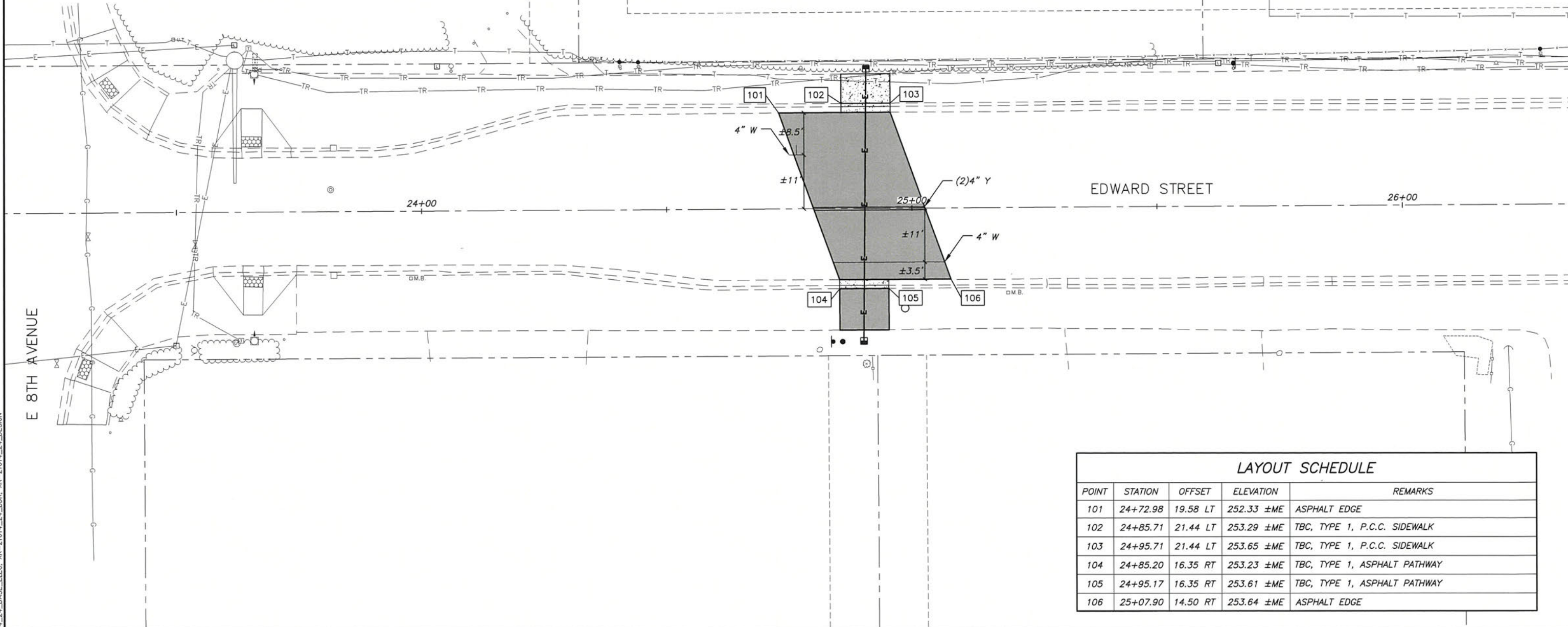


TRAFFIC ENGINEERING DEPARTMENT	
22-24	EDWARD STREET PERMANENT RADAR SPEED SIGNS
DEMOLITION PLAN	
SCALE: HOR. 1"=10' VER. N/A	GRID: SW1338, SW1339 DATE: FEB. 2023 STATUS: _____
5 of 11	

FILE NO. --

NOTES:

1. CONTRACTOR SHALL REPLACE ALL DISTURBED TRAFFIC MARKINGS. ALL MARKINGS SHALL BE SURFACE APPLIED PAINT.
2. STRIPING SHOWN IS APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY EXISTING STRIPING LOCATION PRIOR TO EXCAVATION.
3. SEE ELECTRICAL LAYOUT SHEETS FOR LOCATIONS OF THE PROPOSED ELECTRICAL LINES AND PERMANENT RADAR SPEED SIGNS.
4. SIDEWALK AND PATHWAY CROSS SLOPES SHALL NOT EXCEED 2%.



LAYOUT SCHEDULE				
POINT	STATION	OFFSET	ELEVATION	REMARKS
101	24+72.98	19.58 LT	252.33 ±ME	ASPHALT EDGE
102	24+85.71	21.44 LT	253.29 ±ME	TBC, TYPE 1, P.C.C. SIDEWALK
103	24+95.71	21.44 LT	253.65 ±ME	TBC, TYPE 1, P.C.C. SIDEWALK
104	24+85.20	16.35 RT	253.23 ±ME	TBC, TYPE 1, ASPHALT PATHWAY
105	24+95.17	16.35 RT	253.61 ±ME	TBC, TYPE 1, ASPHALT PATHWAY
106	25+07.90	14.50 RT	253.64 ±ME	ASPHALT EDGE

H:\alaska\hdl\jobs\21-014 MOA Traffic Eng Term \24-Edward Street Permanent Radar Speed Signs\CAD\Drawings\21014_24_06_Layout_Signing_1=1_11-03-22 at 14:09 by ALA
 LAYOUT: 007_H_PDF
 VIEW: 007_H_PDF
 XREF: XR-21014_24_BASE_ELEC.XR-21014_24_BDR.XR-21014_24_DESIGN

RECORD DRAWING

1. DATA PROVIDED BY: _____ TITLE: _____

THIS WILL SERVE TO CERTIFY THAT THESE RECORD DRAWINGS ARE A TRUE AND ACCURATE REPRESENTATION OF THE PROJECT AS CONSTRUCTED.

CONTRACTOR: _____

BY: _____ TITLE: _____ DATE: _____

2. DATA TRANSFERRED BY: _____ TITLE: _____

COMPANY: _____ DATE: _____

3. BASED ON PERIODIC FIELD OBSERVATIONS BY THE ENGINEER (OR AN INDIVIDUAL UNDER HIS/HER DIRECT SUPERVISION), THE CONTRACTOR-PROVIDED DATA APPEARS TO REPRESENT THE PROJECT AS CONSTRUCTED.

DATA TRANSFER CHECKED BY: _____ TITLE: _____

COMPANY: _____ DATE: _____

BY: _____

DATA	DRAWN BY	CHECKED BY
BASE	--	--
TOPOGRAPHY	--	--
PROFILE	--	--
STORM SEWER	--	--
WATER/SANITARY SEWER	--	--
GAS	--	--
TELEPHONE	--	--
ELECTRIC	--	--
DESIGN	--	--
QUANTITIES	--	--
PRELIMINARY/FINAL	--	--
MUNICIPAL/STATE	--	--

FIELD BOOKS	BY
DESIGN	
STAKING	
ASBUILT	
CONTRACTOR	
INSPECTOR	

BASIS OF THIS DATUM: _____



HDL ENGINEERING
Consultants LLC

- CIVIL ENGINEERING
- SURVEYING
- GEOTECHNICAL
- ENVIRONMENTAL

3335 Arctic Blvd., Suite 100
Anchorage, AK 99503
(907) 564-2120
www.HDLalaska.com
AECCL861

STATE OF ALASKA
49th
AVERIAN A. LARSEN
No. CE-119371
2/16/23
REGISTERED PROFESSIONAL ENGINEER



TRAFFIC ENGINEERING DEPARTMENT

22-24 EDWARD STREET PERMANENT RADAR SPEED SIGNS

LAYOUT PLAN

SCALE: HOR. 1"=10' VER. N/A

GRID: SW1338, SW1339

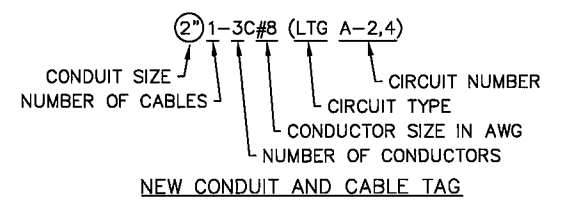
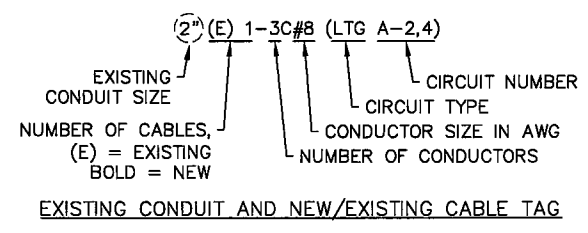
DATE: FEB, 2023 STATUS: _____

SHEET 6 of 11

FILE NO. -

ELECTRICAL LEGEND

EXISTING	PROPOSED	
		ELECTROLIER
		TYPE 1A JUNCTION BOX
		TYPE 2 JUNCTION BOX
		LOAD CENTER
		UNDERGROUND CONDUIT
		CIRCUIT BREAKER
		WATTHOUR METER
		11' BREAKAWAY TRAFFIC SIGNAL POLE



ABBREVIATIONS

- A AMPERE
- BC BEACON CONTROLLER
- BCU BARE COPPER
- C CONDUIT
- CEA CHUGACH ELECTRIC ASSOCIATION
- CKT CIRCUIT
- CU COPPER
- FB FLASHING BEACON
- G GROUND CONDUCTOR
- I.A.W. IN ACCORDANCE WITH
- KVA KILO-VOLT-AMPERES
- LTG LIGHTING
- M.A.S.S. MUNICIPALITY OF ANCHORAGE STANDARD SPECIFICATIONS
- RMC (GALVANIZED) RIGID METAL CONDUIT
- RSS RADAR SPEED SIGN
- TYP TYPICAL
- V VOLTS
- W WATTS

GENERAL ELECTRICAL NOTES

- CALL BEFORE YOU DIG. HAVE ALL UTILITIES, PROPERTY LINES AND EASEMENTS LOCATED PRIOR TO STARTING WORK. IMMEDIATELY NOTIFY THE ENGINEER IN THE EVENT OF CONFLICTS.
- ALL ELECTRICAL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS, INCLUDING BUT NOT LIMITED TO THOSE LISTED IN ARTICLE 1.2 OF SECTION 80.1.
- ELECTRICAL IMPROVEMENTS ARE NOT PERMITTED TO BE INSTALLED OUTSIDE OF THE RIGHT-OF-WAY. IMMEDIATELY NOTIFY THE ENGINEER IN THE EVENT OF CONFLICTS.
- NEW CONDUIT RUNS SHALL BE RMC UNLESS OTHERWISE NOTED.
- POTHOLE ALL FOUNDATION LOCATIONS PRIOR TO INSTALLATION.
- MOA TRAFFIC ENGINEERING DEPARTMENT TO BE ONSITE FOR RADAR SPEED SIGN INSTALLATIONS. CONTACT KRIS LANGLEY (907-343-8479) 7 WORKING DAYS PRIOR TO RADAR SPEED SIGN INSTALLATIONS. PROVIDE MOA TRAFFIC ENGINEERING DEPARTMENT 24 HOUR NOTICE PRIOR TO ACTUAL INSTALLATIONS.
- PROVIDE SCOTCHCAL 220 DECALS ON EXTERIOR OF NEW LOAD CENTER DENOTING OWNER (MOA) AND PURPOSE (LU).
- ATTACH LAMINATED POWER ONE LINE AND SUMMARY INSIDE EACH LOAD CENTER DOOR.
- PROVIDE ARC FLASH WARNING LABELS WITH INCIDENT ENERGY LEVEL VALUES AND PERSONNEL PROTECTIVE EQUIPMENT (PPE) REQUIREMENTS ON EACH PIECE OF EQUIPMENT IN ACCORDANCE WITH NEC ARTICLE 110.16 AND NFPE 70E.
- PROVIDE LABELS INDICATING MAXIMUM AVAILABLE FAULT CURRENT ON EACH PIECE OF SERVICE EQUIPMENT IN ACCORDANCE WITH NEC ARTICLE 110.24.
- VERIFY FAULT CURRENT AND ARC FLASH CALCULATION PARAMETERS MATCH FIELD CONDITIONS PRIOR TO INSTALLING LABELS ON SERVICE EQUIPMENT. DOCUMENT ANY DIFFERENCES AND THE ENGINEER WILL PROVIDE REVISED CALCULATIONS.
- REFER TO ARTICLE 8.3 OF 80.8 FOR JUNCTION BOX BURIAL DEPTH.
- ALL GROUNDING AND BONDING FOR EXISTING EQUIPMENT AND RACEWAY SYSTEMS SHALL BE DONE IN ACCORDANCE WITH ARTICLE 13.1 OF 80.13.
- INSTALLATION OF NEW CABLES IN EXISTING CONDUIT SHALL BE PERFORMED IN ACCORDANCE WITH ARTICLE 11.1 OF SECTION 8.11

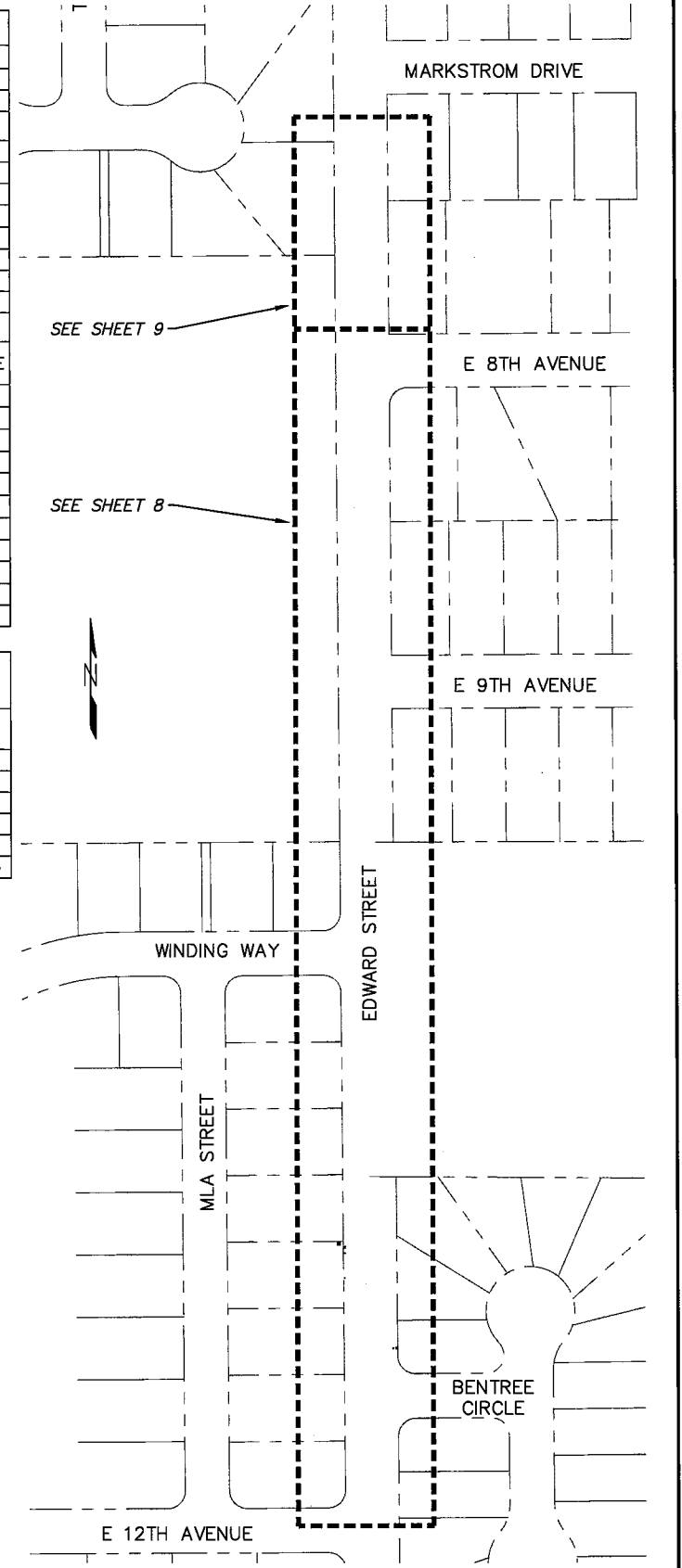
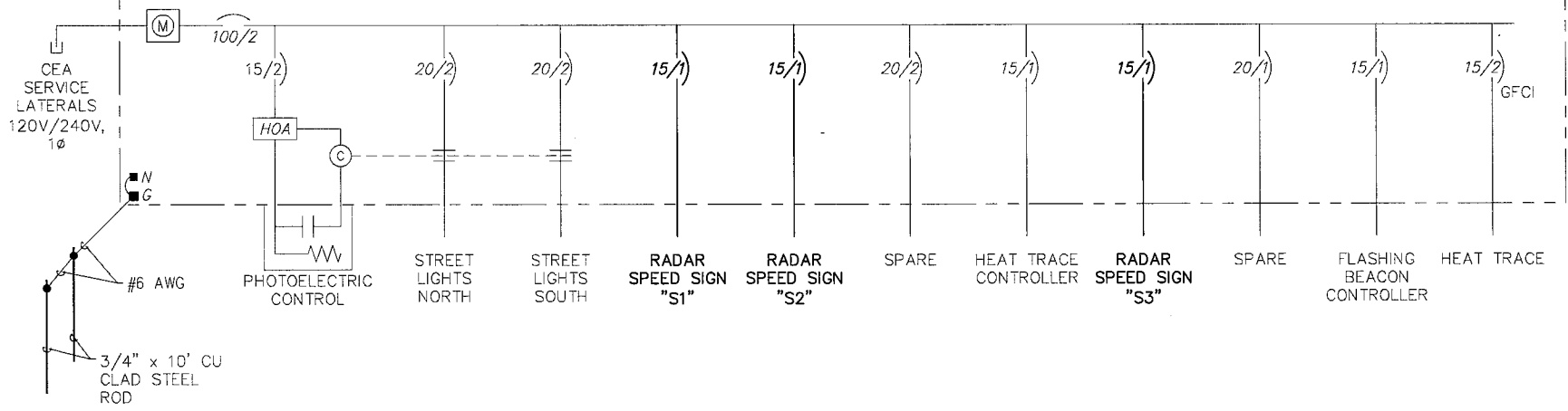
SUMMARY OF EXISTING LOAD CENTER "A"	
LOAD CENTER TYPE:	TYPE 1A (MOA)
SERVING UTILITY:	CHUGACH ELECTRIC ASSOCIATION
SERVICE CONDUIT TYPE:	RIGID METAL CONDUIT
LOCATION DATA	
LOAD CENTER:	EDWARD STREET
POWER SOURCE:	NEW LINE EXTENSION
PHOTOELECTRIC CONTROL:	NONE
SERVICE VOLTAGE:	120/240V, 1-PHASE, 3-WIRE
PROVIDE METER SOCKET:	NEW
MAIN BREAKER:	240V, 100A, 2-POLE
CONTACTOR:	NONE
AIC RATING:	10,000A

PANEL A										
POLE	AMP TRIP	DESCRIPTION	POLE KVA	Aφ	Bφ	POLE KVA	DESCRIPTION	AMP TRIP	POLE	
1	15/1	RADAR SPEED SIGN S1**	0.1	0.1		0.0				
3	15/1	RADAR SPEED SIGN S2**	0.1		0.1	0.0	SERVICE DISCONNECT	100/2	2	4
5	20/2	STREET LIGHTS NORTH*	0.5	0.6		0.1	PHOTOCELL	15/2	6	8
7			0.5		0.6	0.1				
9	20/2	STREET LIGHTS SOUTH*	0.5	0.6		0.1	RADAR SPEED SIGN S3**	15/1	10	12
11			0.5		0.6	0.1			SPARE	
13	20/2	SPARE	0.0	0.1		0.1	FLASHING BEACON CONT	15/1	14	16
15			0.0		0.1	0.1			HEAT TRACE (GFCI)	
17	15/1	HEAT TRACE CONT	0.1	0.2		0.1		15/2	18	
			* = THROUGH CONTACTOR		1.6 1.3		TOTAL PANEL A KVA		2.9	
			** = NEW CIRCUIT BREAKER				AMPS		12.1	

SHORT CIRCUIT CALCULATION LC "A"	
TRANSFORMER RATING	25KVA
VOLTAGE	120/240V
TRANSFORMER IMPEDANCE	1.2%
LET-THRU SHORT CIRCUIT CURRENT	8,681A
LENGTH TO FAULT	20'
SERVICE CONDUCTOR SIZE	#2 AWG
SERVICE CONDUIT	NON-METALLIC
MAX FAULT CURRENT	6,704A
DATE CALCULATED	2/13/2023

ARC FLASH CALCULATION LC "A"	
INCIDENT ENERGY	0.30 CAL/CM ²
ARC-FLASH BOUNDARY	8"
ARC-FLASH PPE CATEGORY	1
NOMINAL SYSTEM VOLTAGE	240V
LIMITED APPROACH BOUNDARY	42"
RESTRICTED APPROACH BOUNDARY	12"
CALCULATION DATE	2/13/2023

LC "A": TYPE 1A LOAD CENTER
100A, 120V/240V, 1φ
10,000 AIC RATING



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BY: _____

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BASE	-	-
TOPOGRAPHY	-	-
PROFILE	-	-
STORM SEWER	-	-
WATER/SANITARY SEWER	-	-
GAS	-	-
TELEPHONE	-	-
ELECTRIC	-	-
DESIGN	-	-
QUANTITIES	-	-
PRELIMINARY/FINAL	-	-
MUNICIPAL/STATE	-	-

GRAPHIC SCALE: 100 0 100 200 300

FIELD BOOKS	BY
DESIGN	
STAKING	
ASBUILT	
CONTRACTOR	
INSPECTOR	

BASIS OF THIS DATUM: _____

PLAN CHECK	CONSTRUCTION RECORD	VERTICAL DATUM	REVISIONS	CONSULTANT	SEAL

EDC, INC.
213 W. FIREWEED LANE
ANCHORAGE, AK 99508
(907) 278-7933
LICENSE NO. AEC0706

STATE OF ALASKA
49th
ROY N. PACE
EE-10053
2/13/2023
REGISTERED PROFESSIONAL ENGINEER

MUNICIPALITY OF ANCHORAGE

TRAFFIC ENGINEERING DEPARTMENT

22-24 EDWARD STREET PERMANENT RADAR SPEED SIGNS

LEGEND, ABBREVIATIONS, SITE PLAN, AND NOTES

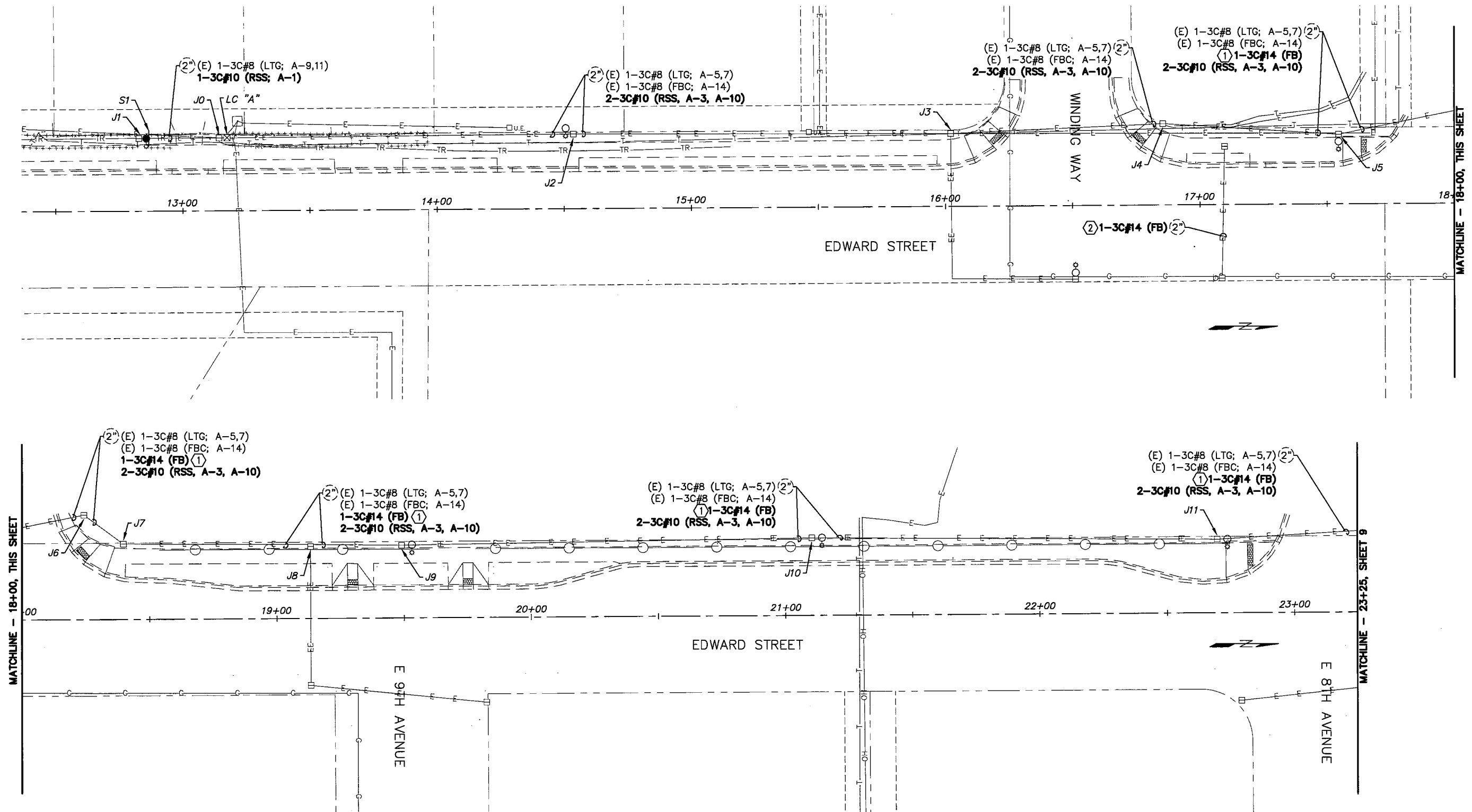
SCALE: HOR. 1:100 VER. N/A GRID: SW1338, SW1339 DATE: FEB, 2023 STATUS: _____ SHEET 7 of 11

SHEET NOTES

- ① DEMOLISH EXISTING 3C#8 FLASHING BEACON CABLE FROM CONDUIT AND REPLACE WITH CABLE SHOWN.

GENERAL SHEET NOTES

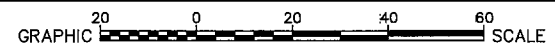
- 1. LOCATION INFORMATION TAKEN FROM SURVEY AND AS-BUILT DATA. FIELD LOCATE ALL J-BOXES AND EQUIPMENT SHOWN.
- 2. TRIM TREE BRANCHES TO PROVIDE SIGN VISIBILITY I.A.W. M.A.S.S. SECTION 20.05 CLEARING, ARTICLE 5.2.



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TOPOGRAPHY		
PROFILE		
STORM SEWER		
WATER/SANITARY SEWER		
GAS		
TELEPHONE		
ELECTRIC		
DESIGN		
QUANTITIES		
PRELIMINARY/FINAL		
MUNICIPAL/STATE		

PLAN CHECK	CONSTRUCTION RECORD	VERTICAL DATUM	REVISIONS

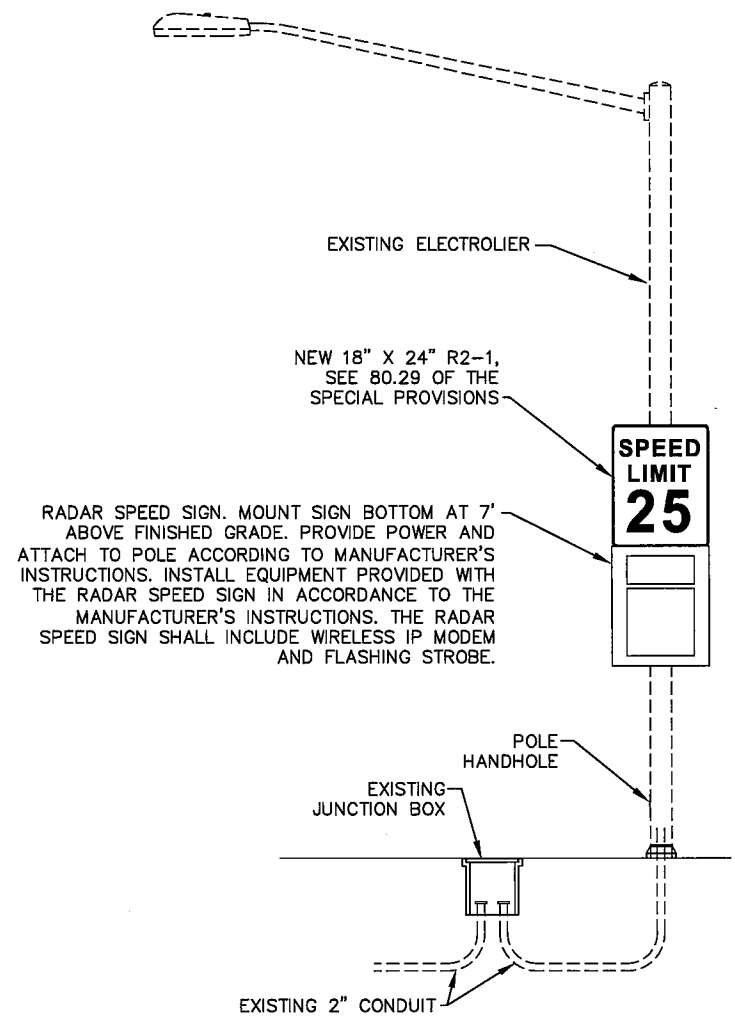


EDC, INC.
 213 W. FIREWEED LANE
 ANCHORAGE, AK 99503
 (907) 276-7933
 LICENSE NO. AECC706

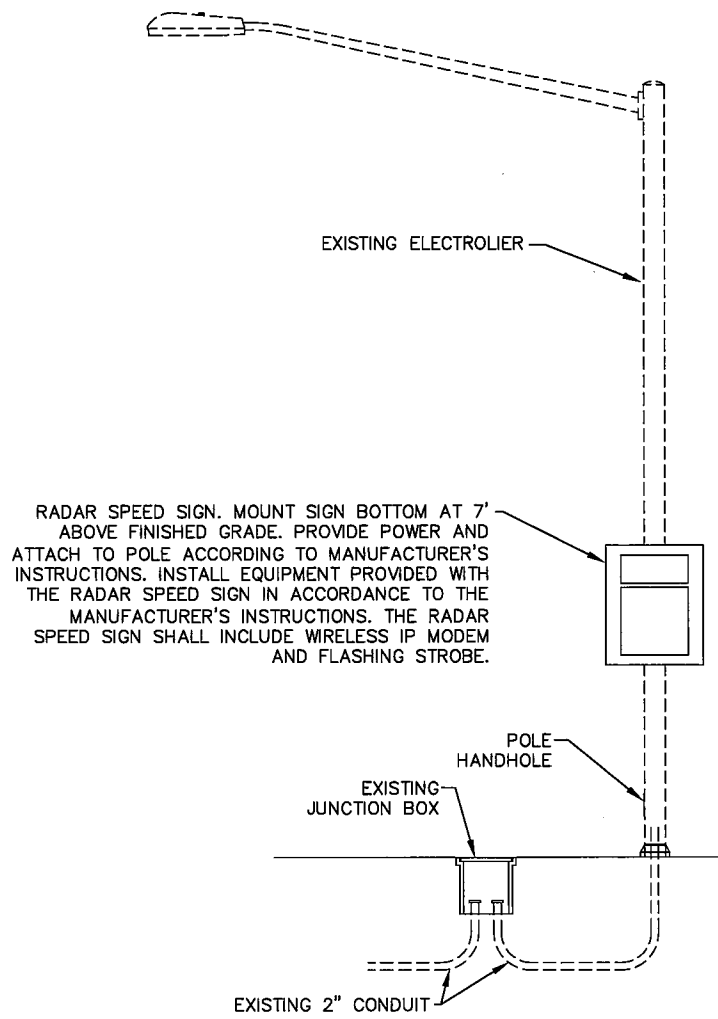
STATE OF ALASKA
 49th
 ROY N PACE
 EE-12063
 2/15/2023
 REGISTERED PROFESSIONAL ENGINEER

SEAL OF ANCHORAGE

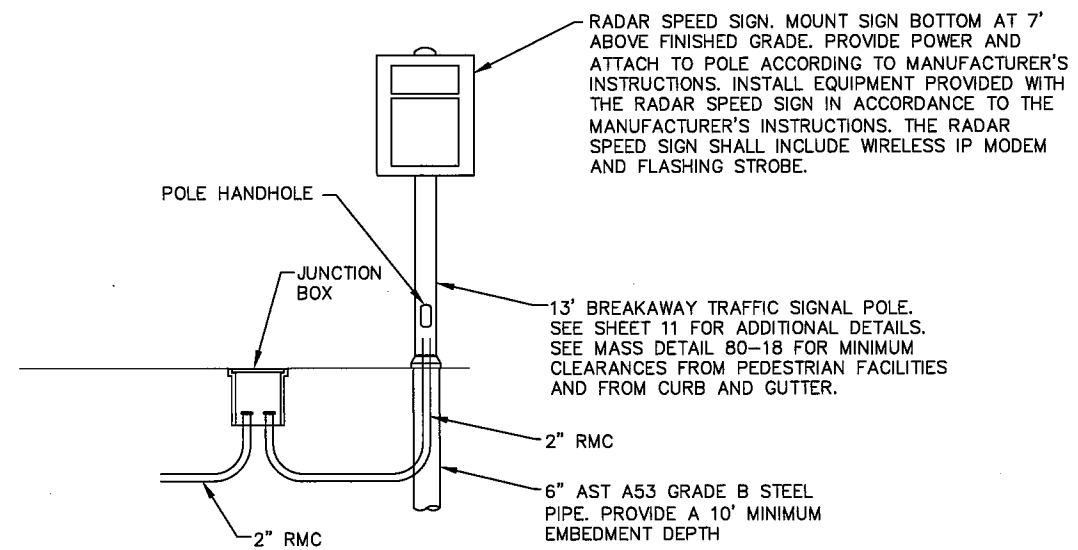
TRAFFIC ENGINEERING DEPARTMENT
 22-24
 EDWARD STREET PERMANENT RADAR SPEED SIGNS
ELECTRICAL PLAN
 SCALE: HOR. 1:20, VER. N/A
 GRID: SW1338, SW1339
 DATE: FEB, 2023
 STATUS: _____
 SHEET 8 of 11



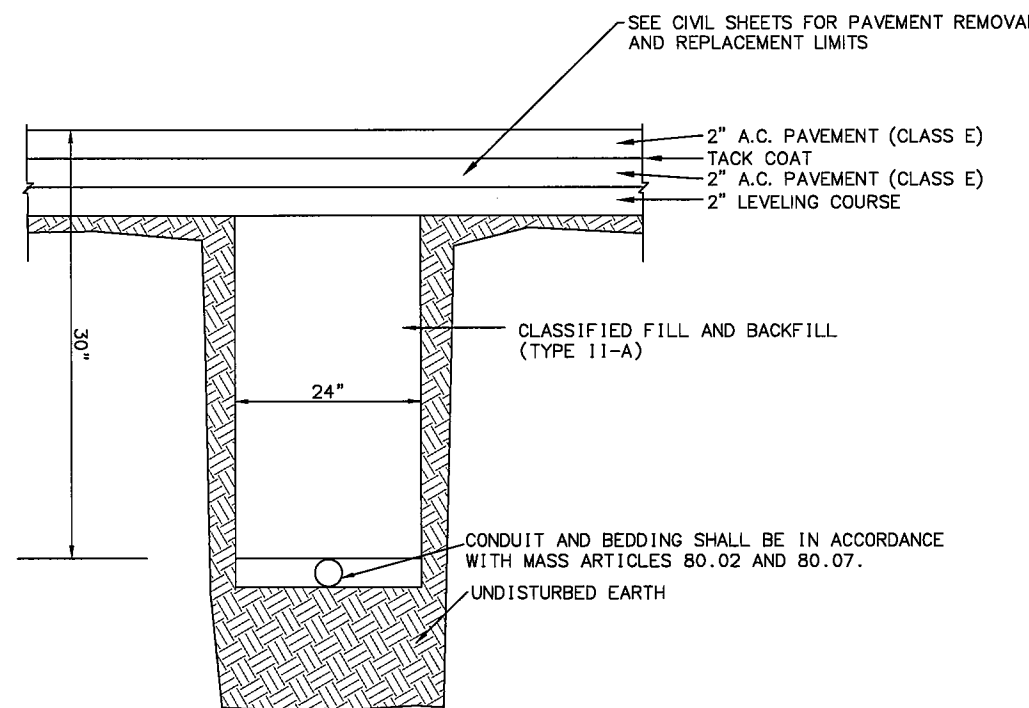
RADAR SPEED SIGN "S1" INSTALLATION DETAILS



RADAR SPEED SIGN "S3" INSTALLATION DETAILS



RADAR SPEED SIGN "S2" INSTALLATION DETAILS



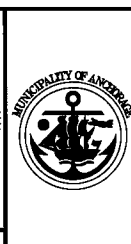
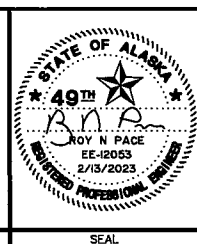
TRENCH DETAIL

RECORD DRAWING
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DATA	DRAWN BY	CHECKED BY	DATE	BY
BASE				
TOPOGRAPHY				
PROFILE				
STORM SEWER				
WATER/SANITARY SEWER				
GAS				
TELEPHONE				
ELECTRIC				
DESIGN				
QUANTITIES				
PRELIMINARY/FINAL				
MUNICIPAL/STATE				

FIELD BOOKS	DESIGN	STAKING	ASBUILT	CONTRACTOR	INSPECTOR	DATE	BY

EDC, INC.
 213 W. FIREWEED LANE
 ANCHORAGE, AK 99503
 (907) 278-7933
 LICENSE NO. AECC705



TRAFFIC ENGINEERING DEPARTMENT
 22-24 EDWARD STREET PERMANENT
 RADAR SPEED SIGNS

ELECTRICAL DETAILS

SCALE	HOR. N/A VER. N/A	GRID	SW1338, SW1339
DATE	FEB, 2023	STATUS	

FILE NO. —

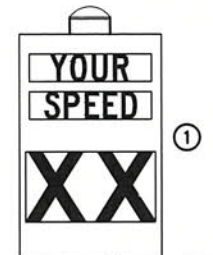
SHEET 10 of 11

FIXED DESIGN ELEMENTS	
ALL ASSEMBLIES	
LENGTH	13' (TYP, MAY VARY IN PLANS)
FIXED END DIAMETER O.D.	10.0"
TAPER	0.14" /FT
TUBE THICKNESS	7 GA.
HAND-HOLE O.D.	5.63" X 7.31"
BASE PLATE	15.5" X 15.5" X 1.375"
BOLT CIRCLE	15.5"
FRANGIBLE BASE	MODEL 5100 POLE SAFE OR APPROVED EQUAL
MATERIAL PROPERTIES	
TUBE	ASTM A572 GR. 55
BASEPLATE	AASHTO M270 F3, GR 50
TOP PLATE	ASTM A36
HANDHOLE REINFORCEMENT	ASTM A53, GR. B
FINISH	AASHTO M111 & M232

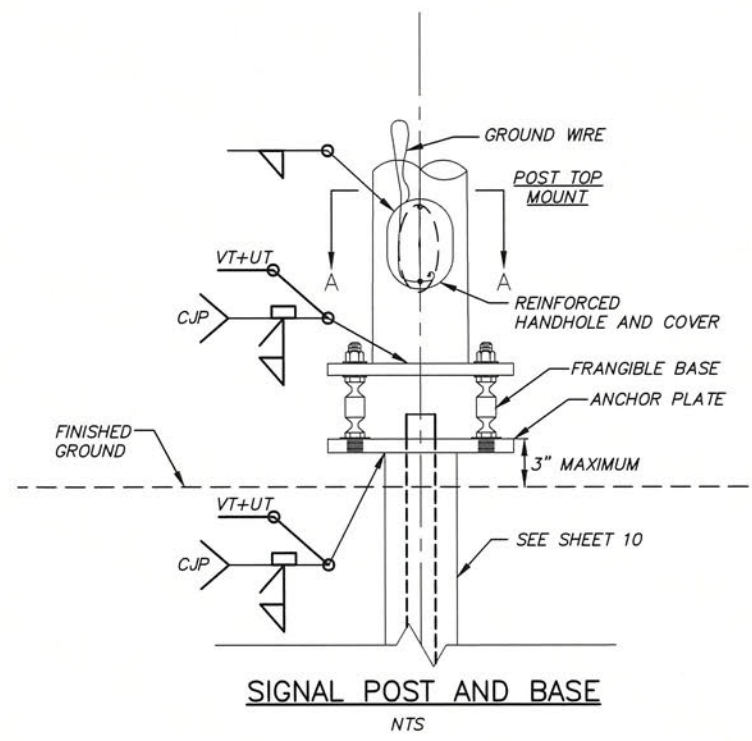
POLE DESIGN LOADING		
LOAD COMPONENT	EFFECTIVE AREA SQ. FT.	WEIGHT LBS.
1 = RADAR SIGN	9	42

NOTES:

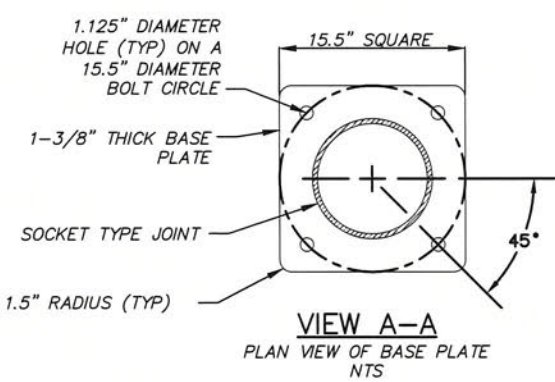
- DESIGN POLE ASSEMBLIES TO THE 2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRE AND TRAFFIC SIGNALS, M.A.S.S., SPECIFICATIONS AND THESE PLANS. DESIGN FOR A BASIC WIND SPEED OF 100 MPH, FATIGUE CATEGORY II.
- POLES SHALL BE DESIGNED AND FABRICATED TO INCORPORATE ALL FIXED DESIGN ELEMENTS.
- DESIGN AND FABRICATE TUBES FROM ONE PIECE OF TAPERED STEEL.
- STEEL GREATER THAN 1/2" THICK SHALL CONFORM TO AASHTO M270 AND SHALL MEET THE FRACTURE CRITICAL CHARPY V-NOTCH IMPACT TEST REQUIREMENTS FOR ZONE 3.
- INSTALL A 0.625" THICK 3003-H14 ALUMINUM SHEET SKIRT AROUND THE FRANGIBLE COUPLINGS FASTENED WITH STAINLESS SHEET METAL SCREWS.
- THE TRAFFIC ENGINEERING DEPARTMENT WILL REJECT DAMAGED OR DEFECTIVE POLES FOR ANY OF THE FOLLOWING, INCLUDING BUT NOT LIMITED TO:
 - VARIANCES FROM APPROVED SHOP DRAWINGS.
 - VARIANCES FROM FIXED DESIGN ELEMENTS.
 - OUT OF ROUND. SECTIONS ARE OUT OF ROUND WHEN THE DIAMETERS OF ROUND MEMBERS EXCEED 2 PERCENT OF THE DIMENSION SPECIFIED ON THE SHOP DRAWINGS.
 - BOWED WITH SWEEPS EXCEEDING 0.75" INCH THROUGHOUT THE LENGTH OF THE POLE, MASTARM, OR SEGMENT.
 - DAMAGED OR DENTED FINISHES.
- WELD SIZE TO BE DETERMINED BY MANUFACTURER.
- PROVIDE PERMANENT TAGS PER M.A.S.S. DIVISION 80, ARTICLE 5.6.
- THIS DRAWING IS INTENDED FOR POLE DESIGN PURPOSES ONLY. ASSEMBLY CONFIGURATIONS ARE FOR LOADING PURPOSES AND MAY DIFFER FROM THOSE SHOWN IN PLANS. POLES HAVE NOT BEEN EVALUATED FOR LOADING CONDITIONS MORE SEVERE THAN THOSE SHOWN AND WILL REQUIRE INDIVIDUAL ANALYSIS WHEN ENCOUNTERED.
- TERMINATE CONDUIT 1" ABOVE THE TOP OF THE ANCHOR PLATE. INSTALL A GROUNDING BUSHING ON THE END OF THE CONDUIT AND BOND TO THE ANCHOR PLATE.



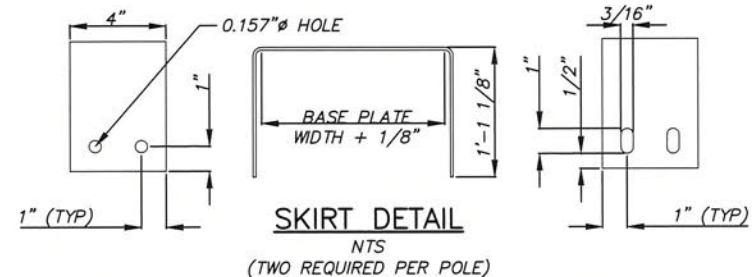
ELEVATION VIEW
NTS



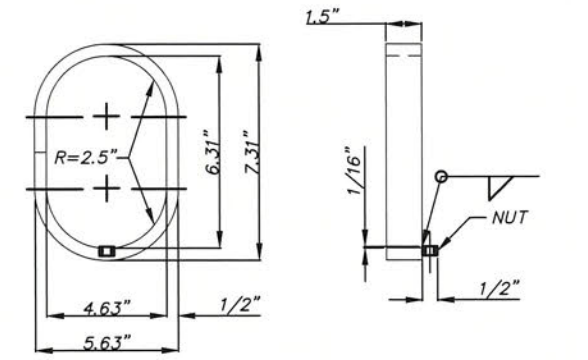
SIGNAL POST AND BASE
NTS



VIEW A-A
PLAN VIEW OF BASE PLATE
NTS



SKIRT DETAIL
NTS
(TWO REQUIRED PER POLE)



HANDHOLE DETAIL
NTS

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DATA	DRAWN BY	CHECKED BY	DATE
BASE	---	---	---
TOPOGRAPHY	---	---	---
PROFILE	---	---	---
STORM SEWER	---	---	---
WATER/SANITARY SEWER	---	---	---
GAS	---	---	---
TELEPHONE	---	---	---
ELECTRIC	---	---	---
DESIGN	---	---	---
QUANTITIES	---	---	---
PRELIMINARY/FINAL	---	---	---
MUNICIPAL/STATE	---	---	---

PLAN CHECK	CONSTRUCTION RECORD	VERTICAL DATUM	REVISIONS

HDL ENGINEERING
Consultants LLC

- CIVIL ENGINEERING
- SURVEYING
- GEOTECHNICAL
- ENVIRONMENTAL

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Anchorage, AK 99503
(907) 564-2120
www.HDLalaska.com
AECLE861

STATE OF ALASKA
49th
AVERIAN A. LARSEN
No. CE-119371
2/14/23
REGISTERED PROFESSIONAL ENGINEER

MUNICIPALITY OF ANCHORAGE

TRAFFIC ENGINEERING DEPARTMENT

22-24 EDWARD STREET PERMANENT RADAR SPEED SIGNS

BREAKAWAY TRAFFIC SIGNAL POLE

SCALE	HOR. VER.	GRID	SW1338, SW1339	DATE	FEB, 2023	STATUS	
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11 of 11 SHEET