



**CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, NORTH CAROLINA**

ADDENDUM NO. 1

**NORTH END AROUND TAXIWAY (NEAT)
OVERLOOK RELOCATION**

**CLT PROJECT NO. AVIA 23-50
ADDENDUM DATE: MAY 16, 2023**

This Addendum is hereby made a part of the contract documents and specifications of the above referenced project. All other requirements of the original plans and specification shall remain in effect in their respective order. Acknowledge receipt of this addendum by initialing next to its number on the "Execution of Bid" page of your Bid.

Addendum No. 1 Includes the Following:

- Bidder Questions and Responses (as of 05.15.2023 at 10:00AM)
 - Responses are in the color **red**.
 - Project Manual (Front End) Revisions
 - Technical Specification Revisions
 - Line Item Revisions
 - Plan Sheet Revisions
 - Revised Section III. Bid Form and Supplements
 - The revised bid form reflects the adjustments made to the line times
 - **NOTE:** Bid submissions must have the revised bid form included in this Addendum No. 1.
 - Geotechnical Report
 - Pre-Bid Meeting Attendance Sheet
 - Pre-Bid Meeting PowerPoint Slides
 - Plan Holders List (as of 05.15.2023)
 - Project Controls Templates
 - **END OF ADDENDUM NO. 1**
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BIDDER QUESTIONS AND RESPONSES

1. Is a CAD file available for the site?
No CAD files are available.
2. Is there an engineer's estimate or budget that can be shared with the bidders?
No engineers estimate is available.
3. Is the FAA facility and associated duct banks existing, part of this contract, or future installation by others?
The Proposed Electric Duct Bank (By Others) and Communication Duct Banks (By Others) shown on plan sheets 5 and 6 and the Proposed RTR (By Others) shown on plan sheet 5 will be concurrent work installed by others. See Notes 1 and 2 on plan sheet 5 and notes 2 and 3 on plan sheet 6. The Future ASR site shown on plan sheet 6 will be future work installed by others after the completion of this contract.
4. Will design loading criteria for the aircraft display be given, or is design loading a contractor design responsibility as well?
Addendum 1 removes the foundation design from the Contract. A line item for the foundation has been added.
5. Please provide the geotechnical report for the project area.
The geotechnical report is provided for information only as part of Addendum 1.
6. During the prebid meeting it was mentioned that rough grading at the site was complete and that all we are responsible for in this contract is the fine grading. However, we see 32,500 CY of unclassified excavation as part of the bid items in this contract leading us to believe additional rough grading is necessary. Could additional information be provided as to what was meant in the prebid meeting when it was said that all rough grading would be completed ahead of time by others?
During the pre-bid meeting, it was noted the rough grading was substantially complete by others. The Overlook contractor will be responsible for removal of topsoil and cutting in all ditches. There may be other minor rough grading required by the contractor to complete the project. It was also discussed during the meeting that the controlled fill placed by others will require monitoring for settlement by the Overlook contractor and that S&ME will be on-site and provide direction when various activities could occur based on settlement plate readings installed by the Overlook contractor.
7. Is it possible for an installation duration to be provided for the playground equipment and canopy accessories?
The installation duration for the playground equipment is estimated to be approximately 6 weeks.
8. Can an allowance be established for water and sewer tap fess / impact fees for the project? The city of Charlotte does not have a fixed rate schedule for this.
These fees have been paid by CLT Airport. The only related water fees the Contractor is responsible for are the 3rd party testing of the backflows.
9. Please confirm that concrete light pole bases are to be provided by Duke and not the contractor.
The lighting provided and installed by Duke Energy do not require concrete light pole

bases.

10. Can you confirm that only NC DOT DBE firms are counted towards the project goal and not NC DOT SBE firms or CBI firms.

Confirmed. While the Prime may utilize a combination of DBE and Non-DBE firms, only NCDOT DBE firms can be counted for participation towards the 17.00% DBE project goal.

11. Can a specification be provided for plumbing fixtures to be installed in the restrooms?
Sheet P-1, Plumbing Fixture Schedule is a list of fixtures and descriptions of each fixture. See Specification Commercial Water Closet Section 224213.13, Commercial Urinals Section 224213.16 C, Commercial Sinks Section 224216.16, Wash Fountains Section 224233, Drinking Fountains Section 224713.

12. Restroom building elevations on sheet A2 indicated 3" insulation (R-13) beneath EIFS finish. The specifications call for R-15 insulation which would be 4". Please confirm what thickness EIFS to provide.

See Sheet A-3 Details 1 and 2 above top of CMU reads, "EIFS on 3" Insulation (R-15) on 5/8" Ext. Gyp Bd. on 2 x 4 Wd. Studs at 16" o.c." The total thickness of the EIFS is 4".

13. The invitation to bid indicates the use of Primavera P6 scheduling software version 18 or higher. Would the use of Phoenix project scheduling be an acceptable alternate?

Primavera P6 is required.

14. Can the current version of the Davis Bacon wage rates be provided for this project?

Information will be provided in Addendum 2.

15. Do we need to input the unit prices into e-builder in addition to our bid form? Is it possible to remove the need for entering them on e-builder due to the high number of unit prices to be entered on multiple forms.

In addition to the Bid Forms and Supplements within the Invitation to Bid, responsive bidders must enter unit costs into the Response Form in the e-Builder portal. Bidders may use "Download Bid Cost" to access an Excel version of the form and "Upload Bid Cost" to import their populated pricing.

16. We attempted to view the site late last week but the site was gated by ES Wagner and we could not access the site. Could a formal site visit be scheduled to allow bidders to access the actual site?

A site visit will not be provided for this project. The site is currently located in a restricted access area and under construction thru the bidding of the Overlook. Bidders are advised not to attempt accessing these areas for safety and security reasons.

PROJECT MANUAL (FRONT END) REVISIONS

- Remove and replace pages BID-22 through BID-28 from the Project Manual (Front End) with the attached revision.
-

TECHNICAL SPECIFICATION REVISIONS

- Remove and replace the Table of Contents found on page 5 of 636 in the Technical Specifications with the attached revision.
- Remove and replace the **SP-Chain Link Fence** content found on page 26 of 636 in the Technical Specifications with the attached revision.
- Remove and replace the **SP-Aircraft Display (Allowance No. 1)** content found on page 29 of 636 in the Technical Specifications with the attached revision
- Add the attached Special Provision **SP-Chain and Bollard Barrier** to the Technical Specifications
- Add the attached Special Provision **SP-Aircraft Display Foundation** to the Technical Specifications

LINE ITEM REVISIONS

NOTE: Bid submissions must include the revised Bid Form and Supplements, attached within this Addendum No. 1.

The following Line Items have been modified to read as follows:

Line Item	Spec No.	Description	Qty	Unit	Unit Price	Amount
31	848	4" CONCRETE SIDEWALK	4900	SY		
32	SP	FENCE, 48" CHAIN LINK	0	LF		
35	SP	12' 48"- CHAIN LINK DOUBLE SWING GATE (Aircraft Display)	0	EA		
NEW	SP	AIRCRAFT DISPLAY CONCRETE FOUNDATION	1	LS		
NEW	SP	BOLLARD AND CHAIN BARRIER	26	EA		

PLAN SHEET REVISIONS

- **Delete** plan sheet Title Sheet and **Insert** the revised plan sheet Title Sheet attached to this Addendum.
- **Delete** plan sheet 3A-9 and **Insert** the revised plan sheet 3A-9 attached to this Addendum.

- **Delete** plan sheet 3B-1 and **Insert** the revised plan sheet 3B-1 attached to this Addendum.
- **Delete** plan sheet 3B-2 and **Insert** the revised plan sheet 3B-2 attached to this Addendum.
- **Delete** plan sheet 3B-3 and **Insert** the revised plan sheet 3B-3 attached to this Addendum.
- **Delete** plan sheet 5 and **Insert** the revised plan sheet 5 attached to this Addendum.
- **Delete** plan sheet PM-3 and **Insert** the revised plan sheet PM-3 attached to this Addendum.
- **Delete** plan sheet LS-1 and **Insert** the revised plan sheet LS-1 attached to this Addendum.
- **Delete** plan sheet LS-3 and **Insert** the revised plan sheet LS-3 attached to this Addendum.
- **Delete** plan sheet SIGN-3 and **Insert** the revised plan sheet SIGN-3 attached to this Addendum.
- **Delete** plan sheet LE-1 and **Insert** the revised plan sheet LE-1 attached to this Addendum.
- **Delete** plan sheet E-4 and **Insert** the revised plan sheet E-4 attached to this Addendum.
- **Delete** plan sheet ITS-4 and **Insert** the revised plan sheet ITS-4 attached to this Addendum.
- **Add** the attached Plan Sheet 3A-10 to the Plans.
- **Add** the attached Plan Sheet S-2 to the Plans.

END OF ADDENDUM NO. 1



Geotechnical Engineering Report
CLT NEAT – Temporary Airport Overlook Drive
Charlotte, North Carolina
S&ME Project No. 1335-19-012

PREPARED FOR:

STV Engineers, Inc.
900 W. Trade Street, Suite 715
Charlotte, North Carolina 28202

PREPARED BY:

S&ME, Inc.
9751 Southern Pine Boulevard
Charlotte, North Carolina 28273

March 29, 2021



March 29, 2021

STV Engineers, Inc.
900 W. Trade Street, Suite 715
Charlotte, North Carolina 28202

Attention: Mr. John Johnson, P.E.

Reference: **Geotechnical Engineering Report**
CLT NEAT – Temporary Airport Overlook Drive
Charlotte, North Carolina
S&ME Project No. 1335-19-012
NC PE Firm License No. F-0176

Dear Mr. Johnson:

S&ME, Inc. has completed the subsurface exploration for the Temporary Airport Overlook Drive portion of the Charlotte Douglas International Airport's North End-Around Taxiway project. This study was performed in general accordance with our proposal No. 34-1800303 dated August 31, 2018. The purpose of this study was to determine the subsurface conditions along the proposed roadway alignment so that those conditions can be evaluated regarding the appropriate foundation and construction considerations for the relocated roadway. This report presents the findings of our investigation and pavement recommendations.

S&ME appreciates the opportunity to assist you during this phase of the project. If you should have any questions concerning this report or if we may be of further assistance, please contact us.

Sincerely,

S&ME, Inc.

DocuSigned by:
Luis Campos
72275FD8BA38437...

Luis A. Campos, P.E.
Project Engineer
NC Registration No. 037845



Kristen H. Hill
Kristen H. Hill, P.E., P.G.
Principal Engineer



Table of Contents

1.0	Project Overview	1
1.1.1	<i>Project Description.....</i>	1
1.1.2	<i>Site Description & Geology.....</i>	1
2.0	Exploration Procedures	3
2.1	Field Testing	3
2.1.1	<i>Hand Auger Borings.....</i>	3
2.1.2	<i>Pavement Coring and Kessler DCP Testing.....</i>	4
2.2	Laboratory Testing	4
3.0	Subsurface Conditions.....	5
3.1	Soil Conditions.....	5
3.2	Pavement Conditions.....	5
4.0	Conclusions and Recommendations	6
4.1	Earthwork.....	6
4.1.1	<i>Site Preparation.....</i>	6
4.1.2	<i>Expansive Soils</i>	6
4.1.3	<i>Soft Soils.....</i>	7
4.1.4	<i>Proofrolling of Subgrade Soils.....</i>	7
4.1.5	<i>Subgrade Repair after Exposure.....</i>	7
4.1.6	<i>Excavations</i>	8
4.1.7	<i>Cut and Fill Slopes</i>	8
4.1.8	<i>Fill Placement.....</i>	8
4.1.9	<i>Groundwater / Dewatering.....</i>	9
4.2	Pavement Recommendations	9
4.2.1	<i>Traffic Conditions</i>	9
4.2.2	<i>Design Recommendations</i>	9
5.0	Qualifications of Report	11



List of Figures

Figure 1-1: Typical Piedmont Weathering Profiles 2

Figure 2-1: Correlation between DCP Blow Counts and SPT N-Values 4

List of Tables

Table 1-1: Traffic Loading Summary 1

Table 3-1: Summary of Pavement Conditions 5

Table 4-1: Traffic Loading Conditions..... 9

Table 4-2: Airport Overlook Drive (-Y-) New Pavement Recommendations..... 10

Table 4-3: Airport Overlook Drive (-Y-) Overlay Recommendations..... 10

Appendix

Test Location Plan, Figure 1

Hand Auger Boring Logs (3 sheets)

Kessler DCP Logs (2 sheets)

1.0 Project Overview

1.1.1 Project Description

Project information is based on e-mail correspondence between Nikki Honeycutt of STV and Luis Campos of S&ME in January 2021.

As part of the Charlotte Douglas International Airport North End-Around Taxiway (NEAT) project, STV is providing design services to relocate a portion of Airport Overlook Drive to assist with construction sequencing. For the purposes of this report, this portion of the project consists of alignments -L- (Old Dowd Road) and -Y- (Proposed Airport Overlook Drive). Our services were requested to provide roadway and pavement thickness recommendations for the relocated portion of Airport Overlook Drive.

STV provided plan, profile, and cross-section information for both -L- and -Y-. Based on the provided information, no roadway/pavement improvements are planned along -L- except for tie in points to -Y-. The new -Y- alignment typical section is a two-lane roadway. The alignment will require up to 6 feet of cut and 7 feet of fill to achieve design grades. The following traffic information was provided by STV for the -L- alignment, which we understand is the basis of design for the -Y- alignment.

Table 1-1: Traffic Loading Summary

Design Information	Old Dowd Road (-L-)
ADT year 2021	3,700
ADT year 2040	6,500
Tractor Trailer Semi Truck (TTST) %	1
Duals (%)	1
Design Hourly Volume (DHV)	10
Directional Split, %	55

1.1.2 Site Description & Geology

The project site is located in Charlotte, Mecklenburg County, North Carolina. The new Airport Overlook Drive alignment (-Y-) traverses a partially wooded area beginning on the south side of Old Dowd Road (-L-) for about 500 feet, at which point it connects into the existing Airport Overlook Drive over a span of about 180 feet. The pavement surface on the existing Airport Overlook Drive is asphalt.

The project site is located in the Charlotte Belt of the Piedmont Physiographic Province of North Carolina. The Piedmont Province generally consists of well-rounded hills and ridges, which are dissected by a well-developed system of draws and streams. The Piedmont Province is predominantly underlain by metamorphic rock (formed by heat, pressure and/or chemical action) and igneous rock (formed directly from molten material), which were initially formed during the Precambrian and Paleozoic eras. The volcanic and sedimentary rocks deposited in the Piedmont Province were the host for the metamorphism and were changed to gneiss and schist. The more recent

Paleozoic era had periods of igneous emplacement, with at least several episodes of regional metamorphism resulting in the majority of the rock types seen today.

The topography and relief of the Piedmont Province have developed from differential weathering of the igneous and metamorphic rock. Because of the continued chemical and physical weathering, the rocks in the Piedmont Province are now generally covered with a mantle of soil that has weathered in place from the parent bedrock. These soils have variable thicknesses and are referred to as residuum or residual soils. The residuum is typically finer grained and has higher clay content near the surface because of the advanced weathering. Similarly, the soils typically become coarser grained with increasing depth because of decreased weathering. As the degree of weathering decreases, the residual soils generally retain the overall appearance, texture, gradation and foliations of the parent rock. Alluvial soils, consisting of interbedded sands, silts, and clays, are common in the floodplain along rivers and creeks in the Piedmont.

The boundary between soil and rock in the Piedmont is not sharply defined. A transitional zone termed "Weathered Rock" or "Partially Weathered Rock" is normally found overlying the parent bedrock. Weathered Rock (WR) is defined for engineering purposes as residual material with Standard Penetration Resistances (N-values) exceeding 100 blows per foot. The transition between hard/dense residual soils and WR occurs at irregular depths due to variations in degree of weathering. A depiction of typical weathering profiles in the Piedmont Province is presented in Figure 1-1.

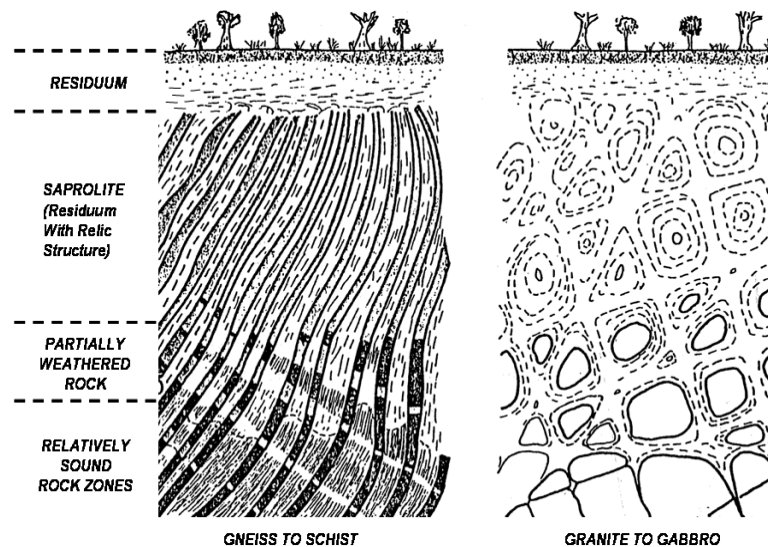


Figure 1-1: Typical Piedmont Weathering Profiles

Water is typically present in the residual soils and within fractures in the PWR or underlying bedrock in the Piedmont. On upland ridges in the Piedmont, water may or may not be present in the residual soils above the PWR and bedrock. Fluctuations in water levels are typical in residual soils and PWR in the Piedmont, depending on variations in precipitation, evaporation, and surface water runoff. Seasonal high water levels are expected to occur during or just after the typically wetter months of the year (November through April).



2.0 Exploration Procedures

2.1 Field Testing

In order to explore the general subsurface conditions at the site, S&ME performed hand auger borings, pavement cores, and Kessler Dynamic Cone Penetrometer (DCP) tests. The field tests were advanced at the 5 locations approximately shown on the Site Plan (Figure 1) in the Appendix between February 16 and March 17, 2021. The test locations were selected by S&ME. Each of the test locations were located in the field by S&ME personnel by measuring distances and estimating right angles from existing site features or using a hand-held GPS unit. Northings and eastings presented on the logs are approximate. Also, elevations presented on our logs should also be considered approximate as these were interpolated from the provided topographical information.

2.1.1 *Hand Auger Borings*

Hand auger borings HA-1050, HA-1250, and HA-1450 were performed to depths of 6.5 to 10 feet below the existing ground surface. Dynamic Cone Penetrometer (DCP) tests were performed in the hand auger borings at approximate 2-foot intervals. DCP tests were performed in general accordance with ASTM Specialty Publication STP 399. The results of the classifications as well as the DCP tests results are presented on the Hand Auger Boring Logs included in the Appendix.

The DCP test procedure is as follows: The cone point of the penetrometer is first seated 2 inches into the bearing materials to assure that the point is completely embedded. Then the cone point is driven an additional 1-¾ inches using a 15-pound weight falling 20 inches. The penetrometer reading is the number of blows required to drive the cone point 1-¾ inches. The cone point may be driven a second and third increment of 1-¾ inches each and the penetrometer readings are recorded. The penetrometer reading is similar to the Standard Penetration Resistance "N-value" as defined by ASTM D1586. When properly evaluated, the penetrometer test results provide an index for estimating soil strength and relative density. The following figure (from ASTM Special Technical Publication #399, 1966) presents generally accepted correlations between average DCP blow counts and the SPT N-value.

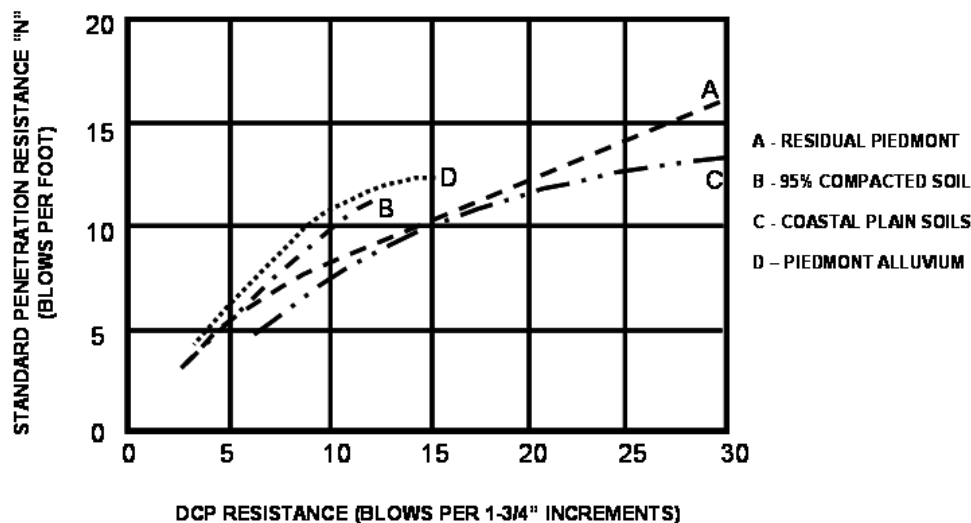


Figure 2-1: Correlation between DCP Blow Counts and SPT N-Values

Groundwater level measurements were attempted in the hand auger borings at termination. Upon completion of the groundwater level measurements, the boreholes were backfilled with soil cuttings.

2.1.2 Pavement Coring and Kessler DCP Testing

The existing pavement was cored at test locations C-1500 and C-1650 using a 4-inch diameter core drill. The pavement thickness was measured and recorded along with the thickness of the stone underlying the asphalt. The core locations were then repaired with cold-mix asphalt patch.

The subgrade soils beneath the existing pavements were then evaluated by performing Kessler DCP tests (ASTM D6951) at both core locations. The Kessler DCP was driven into the subgrade soils by dropping a Dual-Mass Hammer (17.6-pound) from a height of 22.6 inches. The depth of cone penetration is measured at selected penetration of hammer drop intervals and the soil shear strength is reported in terms of DCP index. The DCP index is used to estimate weighted average field CBR values. The penetration rate of the Kessler DCP can be used to estimate in-situ California Bearing Ratio (CBR) and shear strength of near surface soils. The Kessler DCP Test Results sheets are included in the Appendix.

2.2 Laboratory Testing

A staff professional visually examined each sample in general accordance with the American Association of State Highway and Transportation Officials (AASHTO) to estimate the distribution of grain sizes, plasticity, organic content, moisture condition, color, presence of lenses and seams and apparent geological origin. The results of the classifications, as well as the field test results, are presented on the individual boring logs included in the Appendix. Similar materials were grouped into strata on the logs. The strata contact lines represent approximate boundaries between the soil types; the actual transition between the soil types in the field may be gradual in both the horizontal and vertical directions.



3.0 Subsurface Conditions

3.1 Soil Conditions

Soils encountered during this investigation consisted of topsoil underlain by residual materials. The topsoil thickness was measured at 2 inches. The underlying residual soils generally consisted of soft to stiff silty clay (A-7-5), soft to stiff sandy clay (A-6), medium stiff to stiff sandy silt (A-4), and loose to medium dense silty sand (A-2-4). The soils were noted as wet to dry. DCP resistance values in the residual soils ranged from 3 to greater than 25 blows per 1-¾ inch increment. The lower DCP resistance values were in the upper portion of the borehole, generally stiffening/hardening with depths.

Groundwater was not encountered at drilling termination. Please note that groundwater levels tend to fluctuate with seasonal and climatic variations, as well as with some types of construction operations.

3.2 Pavement Conditions

Existing pavement conditions were obtained during our field activities on March 17, 2021. During this study, pavement coring and a subgrade evaluation was performed at two locations (C-1500 and C-1650) along the existing Airport Overlook Drive. The approximate test areas are shown in Figure 1 in the Appendix. The subgrade was evaluated by performing Kessler DCP tests and then extending a hand auger boring to collect soil samples. Table 3-1 summarizes the pavement layers encountered:

Table 3-1: Summary of Pavement Conditions

Test ID	Alignment	Station	Asphalt Thickness (inches)	Base Thickness (inches)	Base Type	Soil Weighted Average Field CBR
C-1500	Proposed Airport Overlook Drive (-Y-)	15+00	6 ¼	11	ABC	18
C-1650		16+50	6 ½	9	ABC	20

The subgrade soils at the core locations generally consisted of residual soils which classified as sandy clay (A-6).

The individual Kessler DCP results are presented in the Appendix.

4.0 Conclusions and Recommendations

4.1 Earthwork

4.1.1 Site Preparation

All topsoil, rootmat, vegetation, trash, debris and other unsuitable materials should be stripped to a minimum of 10 feet outside the pavement area. Based on the borings, we anticipate an average stripping depth of 3 inches to remove the surficial materials. Deeper stripping depths should be anticipated in the wooded areas in order to remove the rootmat and localized stumps.

Any existing underground utilities, structures, or obstructions in the proposed construction areas should be properly excavated, removed, abandoned, or re-routed to facilitate the proposed grading. The resulting excavations should be properly backfilled as described later in this report.

4.1.2 Expansive Soils

Results of the hand auger borings and our visual observations of the hand auger samples recovered indicate moderately plastic silty clay (A-7-5) soils exist at the near-surface of the site. These plastic soils, along with high plasticity clays (A-7-6), are common to the region. Along the -Y- alignment, these soils were encountered in boring HA-1450 (corresponding to station 14+50). Plastic soils can undergo change in volume (shrink/swell) with changes in their moisture content. The presence of the moderate to high plasticity material can adversely affect the performance of the pavement systems. Therefore, the presence of these materials should be considered during for design and budgeting purposes.

In order to reduce the risk of damage of the pavement systems, high plasticity (A-7-6) materials, if encountered, should be completely undercut from pavement areas or adequate separation be provided. High plasticity clay (A-7-6) residual soils may remain in place provided they are stable under proofrolling and are separated from design pavement subgrades by a minimum of 2 feet. Separation material should consist of newly placed structural fill soils. Moderately plastic A-7-5 residual soils, such as those encountered in the HA-1450 area, may remain in place provided they are stable under proofrolling; however, we do not anticipate that these materials will be stable as they were soft, as further discussed in Section 4.1.3. Unstable plastic soils should be undercut and replaced with structural fill.

These materials should be carefully evaluated when encountered at/beneath pavement subgrade. An evaluation by the geotechnical engineer's representative should be performed during construction to help reduce the potential of plastic materials from underlying the pavements. Based on the hand auger borings, existing grades, and anticipated grades, we anticipate undercutting of the plastic soils (A-7-5) encountered in between -Y- station 13+50 to the southern tie-in point.



4.1.3 Soft Soils

Relatively soft soils were encountered at the near-surface in two of the three borings performed (HA-1050 and HA-1450).

While we anticipate that the soft near surface soils in boring HA-1050 (corresponding to station 10+50) will be removed due grading (cut) operations, these soft materials should be anticipated at nearby grade points. These materials should be removed and re-worked to achieve adequate compaction.

In the area of boring HA-14-50 (corresponding to station 14+50), these residual soils should undercut due to their plasticity as re-working these materials to re-compact may be difficult. We anticipate that if other soft areas are present, that they may be identifiable during proofrolling activities.

4.1.4 Proofrolling of Subgrade Soils

After stripping of the surficial materials is completed, the exposed subgrade soils in areas to receive fill or at the subgrade elevation in cut areas should be proofrolled with a loaded dump truck or similar pneumatic tired vehicle (minimum loaded weight of 20 tons) to help identify unstable areas requiring surface repair. The proofrolling procedures should consist of four complete passes of the exposed areas, with two of the passes being in a direction perpendicular to the preceding ones. Any areas which deflect, rut or pump excessively during proofrolling or fail to "tighten up" after successive passes should be undercut to suitable soils and replaced with compacted fill.

4.1.5 Subgrade Repair after Exposure

The on-site silts and clays in the project area are fairly low-strength, sensitive to moisture, and can degrade quickly if exposed to water. Because of this, the exposed subgrade soil may deteriorate when exposed to construction activity and environmental changes such as freezing, erosion, softening from ponded rainwater, and rutting from construction traffic.

We recommend that exposed subgrade surfaces in the pavement areas that have deteriorated be properly repaired by scarifying and recompacting immediately prior to additional construction. It should be noted that the level of difficulty and cost of developing a stable subgrade will depend upon the weather conditions before and during construction as well as the time available to stabilize the subgrade. If subgrade preparation operations must be performed during wet weather conditions, undercutting the deteriorated soil and replacing it with compacted crushed stone, rather than soil fill, may be preferable.

We recommend that the grading subcontractor smooth-roll exposed subgrades at the end of each workday, limit construction traffic to defined areas, and protect exposed subgrade soils during construction. This is essential for construction during the typically wetter, cooler months of November through April. If subgrades are rough-graded and not immediately covered by pavement base course materials, the grading subcontractor should cover the exposed subgrades with a sacrificial layer of crushed stone, leave the subgrades approximately 6 inches high, or be prepared to repair/stabilize the subgrades at a later date.



4.1.6 Excavations

Based on the results of the hand auger borings, we anticipate that the majority of the general excavation for this site will be in fill and residual soils. Generally, these soils can be excavated using backhoes, trackhoes, front-end loaders, bull dozers and other types of typical earthmoving equipment. We also estimate that hand auger refusal materials will be excavatable with typical earthmoving equipment.

Weathered rock was not encountered in the hand auger borings. However, weathered rock, intermittent rock lenses, boulders and/or parent bedrock may be encountered during general site grading and excavation for the installation of the roadway and utilities. The depth to, and thickness of, weathered rock and rock lenses or seams, can vary dramatically in short distances and between boring locations; therefore, weathered rock or bedrock may be encountered during construction at locations or depths, between boring locations, not encountered during this exploration.

For temporary excavations, shoring and bracing or flattening (laying back) of the slopes should be performed to obtain a safe working environment. Excavations should be sloped or shored in accordance with local, state and federal regulations, including OSHA (29 CFR Part 1926) excavation trench safety standards. The contractor is usually solely responsible for site safety. This information is provided only as a service and under no circumstances should we be assumed responsible for construction site safety.

4.1.7 Cut and Fill Slopes

Final project slopes should be designed at 3 horizontal to 1 vertical or flatter, which we understand is planned. The tops and bases of all slopes should be located a minimum of 5 feet from pavement limits. The fill slopes should be adequately compacted, as outlined below, and all slopes should be seeded and maintained after construction.

4.1.8 Fill Placement

Structural fill placed within the pavement areas at the site should consist of a low plasticity soil that is free of organic material or debris. Structural fill soils should generally classify as A-1, A-2, A-3, A-4, A-5, or A-6 in accordance with AASHTO. While some of these materials were encountered in cut areas of the site, moderately plastic (A-7-5) materials were also encountered in cut (ditch) areas. These materials can be used as structural fill, however, should not be placed within 2 feet of pavement subgrades. It should be noted that mixing with low plasticity soils may be required to achieve the required compaction criteria.

Structural fill should be placed in 8- to 10-inch-thick loose lifts at moisture contents within three percent of the optimum moisture content of the material as determined by AASHTO T-99 (standard Proctor). Each lift of fill should be uniformly compacted to a dry density of at least 95 percent of the maximum dry density of the material determined according to AASHTO T-99 (standard Proctor), with the upper 8 inches of fill compacted to at least 100 percent.

The geotechnical engineer's representative should perform in-place field density tests to evaluate the compaction of the structural fill and backfill placed at the site. We recommend a testing frequency of one test per lift per

5,000 square feet of fill area in pavements. Also, at least one field density test should be performed for each lift of backfill per every 100 linear feet of utility trench in structural areas.

4.1.9 Groundwater / Dewatering

Groundwater was not encountered at drilling termination, and as such, we do not anticipate that temporary dewatering will be required. However, groundwater may be encountered during construction at depths not indicated by the borings as groundwater levels tend to fluctuate with seasonal and climatic variations, as well as with some types of construction operations.

4.2 Pavement Recommendations

4.2.1 Traffic Conditions

Traffic conditions are based on information provided by STV which have been detailed in Table 1-1. As shown in Table 4-1, the following traffic conditions have been incorporated into our analyses:

Table 4-1: Traffic Loading Conditions

Alignment	2021 ADT	2040 ADT	Trucks %	Duals %	Design Life (years)	Lanes	Directional Split
(-Y-) Prop. Airport Overlook Drive	3,700	6,500	1	1	20	2	55
(-Y-) Prop. Airport Overlook Drive Overlay	3,700	6,500	1	1	10	2	55

Considering the NCDOT Pavement Design Procedure (2017), a required total number of 18-kip single axle load applications (ESALs) of **213,067** have been determined for the Proposed Airport Overlook Drive alignment (-Y-), considering a 20-year design life. ESALs of **90,851** have been determined for the Proposed Airport Overlook Drive alignment (-Y-) overlay pavement section, considering a 10-year design life.

4.2.2 Design Recommendations

The asphalt design procedures are based on the NCDOT Pavement Design Procedure (2017) and the 1993 AASHTO Guide for Design of Pavement Structures. The method selected for determining the effective structural number of the existing AC pavement is the Condition Survey for AC Pavements (AASHTO Guide for Design of Pavement Structures). This method is dependent on the types and amounts of deterioration present and involves assigning layer coefficients to the in-place pavements based on the condition.

Generally, the existing pavements along the subject portion of the existing Airport Overlook Drive (-Y-) are in moderate condition as signs of moderate-severity block cracking are present. Based on the condition survey and the condition of the asphalt cores, the top 4 inches of the existing asphalt has been assigned an in-place layer coefficient of 0.30.

Based on the results of the testing program and our engineering judgement regarding soaked CBR values for the soil types encountered, pavement designs have considered a soaked laboratory CBR value of 4.0 along the new portion of the subject -Y- alignment. Also, a reliability of 90%, a standard deviation of 0.45, and a terminal serviceability (P_t) of 2.5 were used for design. The recommendations for the asphalt and subbase layer sections are shown in the following tables.

Table 4-2: Airport Overlook Drive (-Y-) New Pavement Recommendations

Material	Thickness (inches)	Alternative for Full-Depth Thickness (inches)
Asphalt Surface Course (S 9.5B)	1.5	3
Asphalt Intermediate Course (I 19.0C)	3	4
ABC Stone	8	-

Table 4-3: Airport Overlook Drive (-Y-) Overlay Recommendations

Material	Mill and Replace Thickness (inches)
Asphalt Surface Course (S 9.5B)	1

Please note that our analysis indicates that no additional pavement thickness is required for the -Y- overlay area shown in Table 4-3 as the existing section is sufficient for the future traffic loading over the 10-year design period. As such, we recommend that a minimum 1-inch mill and replace be performed, if desired. We also recommend that sections that show cracking be milled and leveled and that any potholes be removed and replaced with full depth asphalt prior to the overlay.

The early placement of the graded aggregate base course will minimize the deterioration of the prepared soil subgrades. However, some loss of graded aggregate due to rutting and surface contamination may occur prior to final asphalt paving. Some infilling and re-grading of the graded aggregate in conjunction with sweeping with a wire broom may be required.

We recommend that special care be given to providing adequate drainage away from pavement areas to reduce infiltration of surface water to the base course and subgrade materials in these areas. If the subgrade soils are allowed to become saturated during the life of the pavement section, there may be a strength reduction of the materials that could result in a reduced life of the pavement section. All water should be routed away from the pavements via ditches to maintain drainage. Pavement areas should be proofrolled prior to placing structural fill and/or base course. Proofrolling procedures are outlined in previous sections of this report.

Longitudinal cracking is a common issue at the joint between new and existing pavement systems. A pavement reinforcement system such as the Glasgrid® System could be utilized directly beneath the overlaid portion of the existing pavement system and the asphalt surface course of the new pavement system to aid in the prevention of longitudinal cracking.

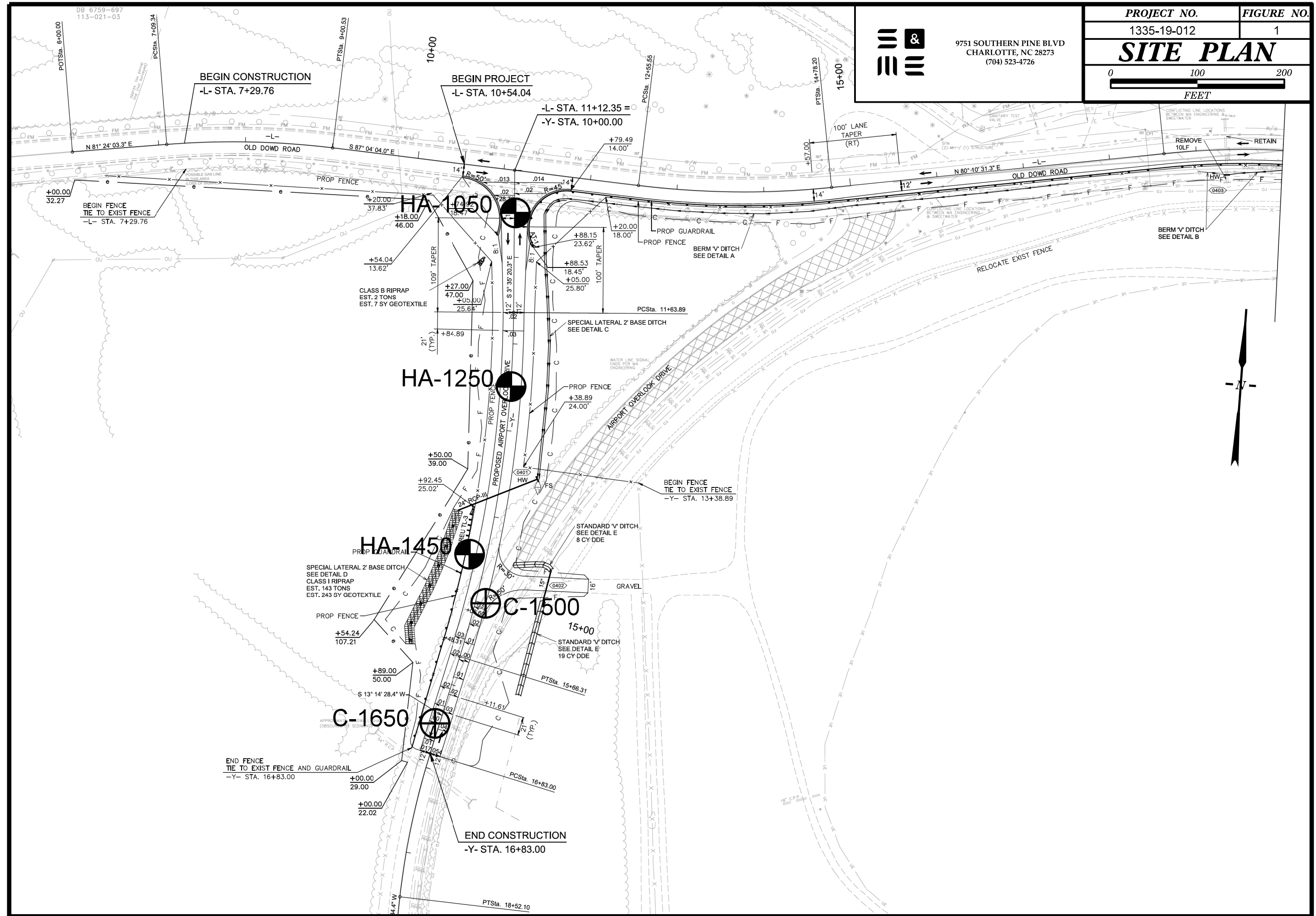


5.0 Qualifications of Report

This report has been prepared in accordance with generally accepted geotechnical engineering practice for specific application to this project. The conclusions contained in this report were based on the applicable standards of our profession at the time this report was prepared. No other warranty, expressed or implied, is made.

The conclusions submitted in this report are based, in part, upon the data obtained from the subsurface exploration. The nature and extent of subsurface variations between the borings may not become evident until construction. If variations appear evident, then the conclusions contained in this report may need to be re-evaluated. In the event that any changes in the nature, design, or location of the structure are planned, the conclusions contained in this report will not be considered valid unless the changes are reviewed by S&ME, and the conclusions of the report are modified or verified in writing.

Appendix



PROJECT: Charlotte NEAT - Temporary Overlook Drive Charlotte, North Carolina S&ME Project No. 1335-19-012		BORING LOG: HA-1050
DATE PERFORMED: 2/16/2021	ELEVATION: 742 feet	NOTES: Dynamic Cone Penetrometer Testing performed in general accordance with ASTM STP 399. Ground surface elevation interpolated from provided cross sections and should be considered approximate.
PERFORMED BY: CP/CO	BORING DEPTH: 6.5 feet	
NORTHING: 545053	WATER LEVEL: Not Encountered	
EASTING: 1415661	STATION: 10+50	
ALIGNMENT: -Y-	OFFSET: CL	

HAND AUGER / DYNAMIC CONE PENETROMETER SOUNDING RECORD

DEPTH (FEET)	DESCRIPTION	<div>Dynamic Cone Penetrometer Resistance (Blows/1-3/4")</div> <table border="1"><caption>Dynamic Cone Penetrometer Data</caption><thead><tr><th>Depth (feet)</th><th>Resistance (Blows/1-3/4")</th></tr></thead><tbody><tr><td>0.0</td><td>3</td></tr><tr><td>0.0</td><td>4</td></tr><tr><td>0.2</td><td>4</td></tr><tr><td>2.5</td><td>11</td></tr><tr><td>2.5</td><td>11</td></tr><tr><td>2.8</td><td>15</td></tr><tr><td>4.2</td><td>10</td></tr><tr><td>4.5</td><td>15</td></tr><tr><td>4.8</td><td>21</td></tr><tr><td>6.2</td><td>16</td></tr><tr><td>6.5</td><td>17</td></tr><tr><td>6.5</td><td>20</td></tr><tr><td>6.8</td><td>25</td></tr></tbody></table>	Depth (feet)	Resistance (Blows/1-3/4")	0.0	3	0.0	4	0.2	4	2.5	11	2.5	11	2.8	15	4.2	10	4.5	15	4.8	21	6.2	16	6.5	17	6.5	20	6.8	25
Depth (feet)	Resistance (Blows/1-3/4")																													
0.0	3																													
0.0	4																													
0.2	4																													
2.5	11																													
2.5	11																													
2.8	15																													
4.2	10																													
4.5	15																													
4.8	21																													
6.2	16																													
6.5	17																													
6.5	20																													
6.8	25																													
0 - 0.2	Topsoil (2 inches)																													
0.2 - 1.5	Residual: Soft, Red Brown, Sandy CLAY (A-6) , wet																													
1.5 - 5	Medium Stiff to Stiff, Red, Sandy SILT (A-4) , moist																													
5 - 6.5	Medium Dense, Red, Silty fine to medium SAND (A-2-4) , moist																													
Hand Auger Refusal at 6.5 feet. Groundwater not encountered.																														



9751 Southern Pine Boulevard
 Charlotte, North Carolina 28723
 Phone: (704) 523-4726 • Fax: (704) 525-3953

PROJECT: Charlotte NEAT - Temporary Overlook Drive Charlotte, North Carolina S&ME Project No. 1335-19-012		BORING LOG: HA-1250
DATE PERFORMED: 2/16/2021	ELEVATION: 722 feet	NOTES: Dynamic Cone Penetrometer Testing performed in general accordance with ASTM STP 399. Ground surface elevation interpolated from provided cross sections and should be considered approximate.
PERFORMED BY: CP/CO	BORING DEPTH: 8.5 feet	
NORTHING: 544852	WATER LEVEL: Not Encountered	
EASTING: 1415671	STATION: 12+50	
ALIGNMENT: -Y-	OFFSET: CL	

HAND AUGER / DYNAMIC CONE PENETROMETER SOUNDING RECORD

DEPTH (FEET)	DESCRIPTION	Dynamic Cone Penetrometer Resistance (Blows/1-3/4")
0 - 0.2	Topsoil (2 inches)	
0.2 - 3	Residual: Medium Stiff to Stiff, Red, Sandy CLAY (A-6), moist to wet	
3 - 3.5	Medium Stiff, Red, Sandy SILT (A-4), moist	
3.5 - 5.5	Loose, Red, Silty fine to medium SAND (A-2-4), moist	
5.5 - 8.5	Medium Dense, Red Tan, Silty fine SAND (A-2-4), dry to moist	
Hand Auger Refusal at 8.5 feet. Groundwater not encountered.		



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PROJECT: Charlotte NEAT - Temporary Overlook Drive Charlotte, North Carolina S&ME Project No. 1335-19-012		BORING LOG: HA-1450
DATE PERFORMED: 2/16/2021	ELEVATION: 707 feet	NOTES: Dynamic Cone Penetrometer Testing performed in general accordance with ASTM STP 399. Ground surface elevation interpolated from provided cross sections and should be considered approximate.
PERFORMED BY: CP/CO	BORING DEPTH: 10 feet	
NORTHING: 544656	WATER LEVEL: Not Encountered	
EASTING: 1415638	STATION: 14+50	
ALIGNMENT: -Y-	OFFSET: 20' RT	

HAND AUGER / DYNAMIC CONE PENETROMETER SOUNDING RECORD

DEPTH (FEET)	DESCRIPTION	<div>Dynamic Cone Penetrometer Resistance (Blows/1-3/4")</div> <table border="1"><caption>DCP Resistance Data</caption><thead><tr><th>Depth (feet)</th><th>Resistance (Blows/1-3/4")</th></tr></thead><tbody><tr><td>0.1</td><td>3</td></tr><tr><td>0.2</td><td>4</td></tr><tr><td>0.3</td><td>5</td></tr><tr><td>2.5</td><td>9</td></tr><tr><td>2.6</td><td>9</td></tr><tr><td>2.7</td><td>11</td></tr><tr><td>4.5</td><td>8</td></tr><tr><td>4.6</td><td>12</td></tr><tr><td>4.7</td><td>14</td></tr><tr><td>6.5</td><td>11</td></tr><tr><td>6.6</td><td>16</td></tr><tr><td>8.5</td><td>15</td></tr><tr><td>8.6</td><td>16</td></tr><tr><td>10.5</td><td>12</td></tr><tr><td>10.6</td><td>16</td></tr><tr><td>11.5</td><td>24</td></tr></tbody></table>	Depth (feet)	Resistance (Blows/1-3/4")	0.1	3	0.2	4	0.3	5	2.5	9	2.6	9	2.7	11	4.5	8	4.6	12	4.7	14	6.5	11	6.6	16	8.5	15	8.6	16	10.5	12	10.6	16	11.5	24
Depth (feet)	Resistance (Blows/1-3/4")																																			
0.1	3																																			
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1.5 - 3.5	Medium Stiff to Stiff, Red Brown, Silty CLAY (A-7-5) , moist																																			
3.5 - 5.5	Medium Stiff to Stiff, Red Orange, Sandy CLAY (A-6) , moist to wet																																			
5.5 - 7.5	Stiff, Red Orange, Sandy SILT (A-4) , moist to wet																																			
7.5 - 10	Loose to Medium Dense, Red, Silty fine to coarse SAND (A-2-4) , moist																																			
Hand Auger Terminated at 10 feet. Groundwater not encountered.																																				



9751 Southern Pine Boulevard
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KESSLER DCP TEST RESULTS



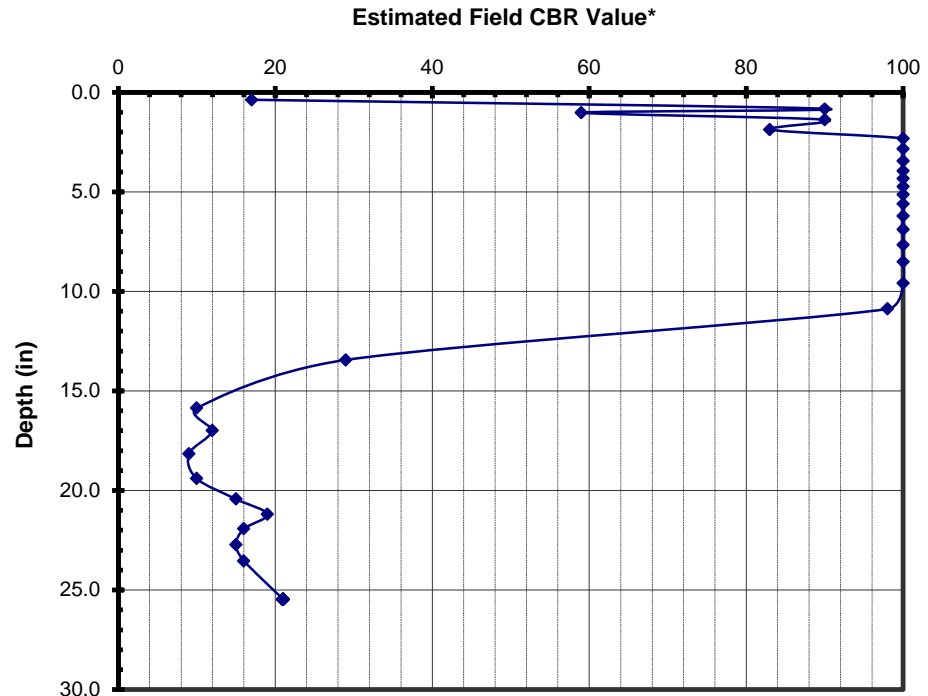
Project Name: CLT NEAT - Overlook Temporary Roadway
S&ME Project No.: 1335-19-012 Ph 01

Test Location: C-1500 Date: 3/17/2021 Personnel: CP
Thickness of Stone (in): 11

Test Data	
No. of Blows	Cummulative Penetration (mm)
1	19
1	23
1	29
3	41
3	54
3	64
5	80
5	95
5	106
5	114
5	127
5	134
10	151
10	165
10	185
10	204
10	229
10	258
10	295
8	388
1	418
1	445
1	478
1	508
1	530
1	547
1	567
1	588
1	608
5	686

CBR - DCP Correlation for Soil Subgrade	
<input checked="" type="radio"/>	North Carolina Department of Transportation (Shin, et al 1989)
<input type="radio"/>	U.S. Army Corps of Engineers (Webster, et al 1992)
<input type="radio"/>	Piedmont Residual Soils (Coonse 1999)

Test Summary			
Stone		Soil Subgrade	
# Values	19	# Values	11
Average CBR	91	Average CBR	16
Weighted Average	92	Weighted Average	18
Max CBR	100	Max CBR	29
Min CBR	17	Min CBR	9



* Stone Field CBR estimated using published NCDOT relationship.
Subgrade Field CBR estimated using relationship indicated above.

KESSLER DCP TEST RESULTS



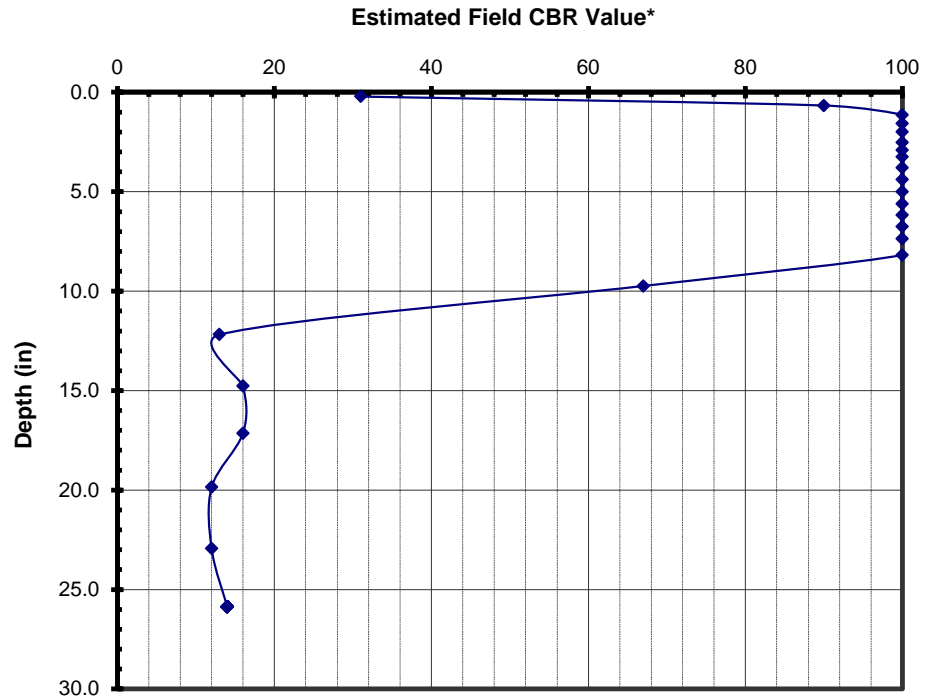
Project Name: CLT NEAT - Overlook Temporary Roadway
S&ME Project No.: 1335-19-012 Ph 01

Test Location: C-1650 Date: 3/17/2021 Personnel: CP
Thickness of Stone (in): 9

Test Data	
No. of Blows	Cummulative Penetration (mm)
1	11
3	23
5	35
5	45
5	56
5	72
5	76
5	89
10	104
10	119
10	135
10	150
10	164
10	179
10	195
10	221
10	274
3	345
3	405
3	466
3	543
3	623
3	691

CBR - DCP Correlation for Soil Subgrade	
<input checked="" type="radio"/>	North Carolina Department of Transportation (Shin, et al 1989)
<input type="radio"/>	U.S. Army Corps of Engineers (Webster, et al 1992)
<input type="radio"/>	Piedmont Residual Soils (Coonse 1999)

Test Summary			
Stone		Soil Subgrade	
# Values	16	# Values	7
Average CBR	95	Average CBR	21
Weighted Average	96	Weighted Average	20
Max CBR	100	Max CBR	67
Min CBR	31	Min CBR	12



* Stone Field CBR estimated using published NCDOT relationship.
Subgrade Field CBR estimated using relationship indicated above.



**CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, NORTH CAROLINA**

ADDENDUM NO. 1

**NORTH END AROUND TAXIWAY (NEAT)
OVERLOOK RELOCATION**

**CLT PROJECT NO. AVIA 23-50
ADDENDUM DATE: MAY 16, 2023**

PRE-BID MEETING ATTENDANCE LIST

Name	Organization	Phone Number	Email Address
Alan Johnson	NCDWR		alan.johnson@ncdenr.gov
Andrew "Drew" Vane	STV	(704) 330-9555	andrew.vane@stvinc.com
Cauley Hobson	Chandler Construction		chobson@chandlerconstruction.com
Chris Malinowski	MESSER CONSTRUCTION CO.		
Daren Daye	DMD Supply Services		dmdaye@dmdsupplygroup.com
David Coe	Crowder		dcoe@crowderusa.com
Elyana Vasquez			
Eno Atta			
Eric Rysdon	HDR	(980) 337-5021	eric.rysdon@hdrinc.com
Eve Hibbler	BDC		ehibbler@blythedevelopment.com
Gary Peeples	CLT		ghpeeples@cltairport.com
Gerry McCauley	STV		gerald.mccauley@stvinc.com
Harry Sherrill	STV		hsherrill@stvinc.com
Hunter Ballard	CLT	(980) 287-1377	hunter.ballard@cltairport.com
James Wally	CLT	(980) 307-2335	james.wally@cltairport.com
Jay Trimble	TBE	(704) 426-6070	jtrimble@tbeclt.com
John N. Johnson	STV	(704) 287-9689	john.johnson@stvinc.com
Kevin Andrews	MCCO	(980) 259-0488	kandrews@mcco-us.com
Laura Handleton	KHA	(704) 954-7487	Laura.Handleton@kimley-horn.com
Lindsay Madenford	CLT	(704) 608-4976	lemadenford@cltairport.com
Lisa Markus	Martin Landscaping		MartinLandscaping@rocketmail.com
Logan Childs	Archer Western		lchilds@walshgroup.com
Logan Moran	CLT	(704) 359-4013	logan.moran@cltairport.com
Marcus Choi	CLT		marcus.choi@cltairport.com
Mia Guerrero-Horner	CLT		Mia.Guerrero@cltairport.com
Michael Baril	STV		michael.baril@stvinc.com
Michael Guiliano	STV		michael.guiliano@stvinc.com
Mike Hall			
Mike Schmidt			
Mikkea Carter	CLT		Mikkea.Carter@cltairport.com
Misty			
Renee Stowe	MCCO	(704) 301-9462	rstowe@mcco-us.com
Thomas Greiter	HNTB	(312) 237-1390	tgreiter@hntb.com



Name	Organization	Phone Number	Email Address
Tiffani Rogoff	TBE	(704) 426-6070	trogoff@tbeclt.com
Walt Fisher	SHOWALTER CONSTRUCTION		WFisher@showalterconstruction.com
Will Gharst	MESSER CONSTRUCTION CO.		wgharst@messer.com
William Garland	MESSER CONSTRUCTION CO.		
Zach Bornhorst	MESSER CONSTRUCTION CO.		



NORTH END AROUND TAXIWAY (NEAT) OVERLOOK RELOCATION

Project No. AVIA 23-50

Pre-Bid Meeting
May 09, 2023, at 11:00 AM (EST)

 CITY OF CHARLOTTE DEPARTMENT

1

HOUSEKEEPING ITEMS

- Please keep devices on mute.
- Please hold questions until the end of the meeting. At that time, we will open the floor for questions and answers.
- All questions and answers discussed in this meeting are unofficial and will need to be submitted in writing for an official response.
- This presentation will be included in the first addendum, with an attendance list and bidders list.



2

AGENDA

- Introductions and Attendance
- Bid Submission and Opening
- Bid Form and Supplements
- Addenda and Bidder Questions
- eBuilder Bid Portal
- Information for Bidders
- Security
- DBE Program
- Project Scope
- Project Controls
- Questions from Attendees
- Closing



3

INTRODUCTIONS AND ATTENDANCE

- Presenters:
 - Gary Peeples – Contract Compliance Manager (CLT)
 - James Wally – Engineering Program Manager (CLT)
 - Jacob Baertlein – Engineering Project Manager (CLT)
 - Logan Moran – Security Ops Constr. Supervisor (CLT)
 - Mia Guerrero – Civil Rights Lead Specialist (CLT)
 - John Johnson, P.E. – Engineer of Record (STV)
 - Drew Vane, P.E. – Engineer of Record (STV)
 - Harry Sherrill, AIA – Architecture Director (STV)
 - Michael Baril, CNNA – Engineer of Record (STV)



4

INTRODUCTIONS AND ATTENDANCE

- Meeting Attendance (Virtual Sign-In Sheet)
 - Please submit your name, company name and contact information to the Q&A board in the eBuilder Bid Portal for your attendance to be captured for today's meeting.



5

BID SUBMISSION AND OPENING

Bid due date, time, and submission information is as follows:

Date: June 1, 2023

Time: 2:00 PM EST (per CLT's clock)

Location: Accepting Electronic Submissions ONLY through the eBuilder Bid Portal

Public Bid Opening can be viewed via WebEx (Meeting link is in solicitation document)

Anticipated Notice to Proceed: August 2023



6

BID FORM AND SUPPLEMENTS

Bids shall consist of the following forms:

- (1) Bid Forms
- (2) Certificate of Non-discrimination
- (3) DBE Form # 3
- (4) DBE Form # 5
- (4) Bid Bond
- (5) Buy American Certification
- (6) Tax Delinquency and Felony Convictions
- (7) Lobbying and Influencing Federal Employees

All required forms must be completed and signed



7

ADDENDA AND BIDDER QUESTIONS

- All Addenda will be posted to the eBuilder Bid Portal.
- Questions must be addressed in written form and submitted through the eBuilder Bid Portal Q&A tab.
- Questions and Answers will be included in addenda for the benefit of all bidders. Please submit all questions asked in this pre-bid meeting using the Bid Portal, to be addressed within an Addendum.
- **Deadline for submitting written questions will be on Monday, May 22, 2023, at 5:00 PM EST (close of business).**



8

EBUILDER BID PORTAL

Charlotte Douglas International Airport (CLT) / Solicitations 010 Development

↳ ITB AVIA 23-50 NEAT OVERLOOK RELOCATION

Status Bid Package: Open Bidding: Pending Response Submitted: No	28 Days 23 Hours 40 Minutes Left Due on 06.01.2023 at 2:00 PM (GMT-05:00) Eastern Time (US & Canada)	Summary Base Bid Total: 0.00 Alternate No 1 Total: 0.00
--	---	--

Package Invitation Accept Decline	Response Form	Q&A Board
---	---------------	-----------



9

INFORMATION FOR BIDDERS

- Contract Time:
 - 227 Calendar Days**
- Minimum Insurance Requirements:
 - Commercial General Liability Insurance and Vehicle Liability Insurance: \$5 Million Each
- Liquidated Damages:
 - Please review Section 2.1 (Liquidated Damages) within the Project Manual
 - Failure to achieve Substantial Completion: **\$700.00 per calendar day** for each calendar day the 227 calendar day Contract Time is exceeded.
 - Failure to achieve Final Completion: **\$700.00 per calendar day** for each calendar day the 33 calendar day Contract Time is exceeded.
 - Intermediate Completion Time (ICT) #1: Septic System Permit**
 Liquidated damages for failure to satisfactorily complete all work associated with the installation of the septic system to obtain the Operation Permit 30 days prior to the Substantial Completion of the Work will be **\$500.00 per calendar day**, assessed against the Contractor.



10

SECURITY AND BADGING

Security Program

Please see requirements in Bid Packet and go to www.cltairport.com/business/credentialing for all information regarding CLT's Security Program, Policies and Procedures, FAQs, etc.



11

DBE PROGRAM

- DBE Goal: 17.00%
- Goal must be met at time of bid
- Forms 3 and 5 must be filled out in its entirety and signed
- DBE firms can be found on NCDOT's website:

<https://www.ebs.nc.gov/VendorDirectory/search.htm?s=fn&a=new>

- Questions? Contact Mia Guerrero

Mia.Guerrero@cltairport.com (980) 433-9874

North End Around Taxiway GAP Waterline/AVIA 21-16 (rev. 6.1.2020)

III. DBE FORMS

Document	Document Description	Submission Requirements
DBE Form 1 Identification of Subcontracting Opportunities	Identifies the subcontracting or supplier opportunities intended to be utilized by the Bidder/Proposer on the Contract.	Required when Bidder/Proposer did not meet the DBE goal as part of documenting Good Faith Efforts. Due within three (3) business days after requested by the City.
DBE Form 2 Solicitation Form	Identifies all DBEs the Bidder/Proposer contacted or those who contacted the Bidder. It also describes scope of work for which they were contacted. Includes date and method of contact for DBE firms.	Required when Bidder/Proposer did not meet the established DBE goal as part of documenting Good Faith Efforts. Due within three (3) business days after requested by the City.
DBE Form 3 Utilization Commitment	Identifies all subcontractors, suppliers, manufacturers, brokers and/or members of a joint venture to be utilized on the contract, scopes, percentages and dollar amounts committed to DBEs.	With Bid/Proposal Package: must identify firms that were contacted, but not utilized. An Excel spreadsheet with the same information can be used in lieu of DBE Form 3. With Bid/Proposal Package: A copy of each DBE company's NCDOT Directory (i) printout may be attached to the form as backup documentation for proof of certification. The NCDOT Directory can be found here: https://www.ebs.nc.gov/VendorDirectory/default.html
DBE Form 4 Letter of Intent	Bidder/Proposers must submit an executed Letter of Intent with each separate DBE firm listed on DBE Form 3.	The City will request this form from the apparent low bidder/successful proposer. Must be submitted within three (3) business days after requested by the City.
Copy of subcontract Agreements	Copy of signed contract for each DBE subcontractor utilized on the corresponding project. Highlight, text that mentions the non-discrimination, retention, and prompt payment assurances.	Must be submitted before each subcontractor begins work.

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM DBE - 132



12

Charlotte-Douglas
Disadvantaged Business Enterprise Program
DBE Form 3: Subcontractor / Supplier Utilization Commitment
This form MUST be submitted at the time of Bid Opening.
Copy this Form 3 as needed, to document additional subcontracting commitments. Indicate page # range: Page ____ of ____

Bidder/Proposer Name: _____
Bidder/Proposer Address: _____
Bidder/Proposer Annual Gross Receipts: Less than \$500K ☐ \$500K-\$1M ☐ \$1M-\$2M ☐ \$2-\$5M ☐ More than \$5M ☐
Bidder/Proposer Age (in years): _____
Project Name: _____
Project Number: _____ **Established DBE Goal:** _____

1. List below all DBEs that you intend to use on this contract

DBE Vendor Name & Address	Description of work / materials	NAICS Code	Reporting Number	Total Projected Utilization (%)
Annual Gross Receipts <input type="checkbox"/> < \$500K <input type="checkbox"/> \$500K-\$1M <input type="checkbox"/> \$1M-\$5M <input type="checkbox"/> > \$5M	Firm Age (in years):			
Annual Gross Receipts <input type="checkbox"/> < \$500K <input type="checkbox"/> \$500K-\$1M <input type="checkbox"/> \$1M-\$5M <input type="checkbox"/> > \$5M	Firm Age (in years):			
Annual Gross Receipts <input type="checkbox"/> < \$500K <input type="checkbox"/> \$500K-\$1M <input type="checkbox"/> \$1M-\$5M <input type="checkbox"/> > \$5M	Firm Age (in years):			

2. List below all Non-DBEs that you intend to use on this contract

Vendor Name & Address	Description of work / materials	NAICS Code	Reporting Number	Total Projected Utilization (%)
Annual Gross Receipts <input type="checkbox"/> < \$500K <input type="checkbox"/> \$500K-\$1M <input type="checkbox"/> \$1M-\$5M <input type="checkbox"/> > \$5M	Firm Age (in years):			
Annual Gross Receipts <input type="checkbox"/> < \$500K <input type="checkbox"/> \$500K-\$1M <input type="checkbox"/> \$1M-\$5M <input type="checkbox"/> > \$5M	Firm Age (in years):			

A. Total Subcontractor/Supplier Utilization (DBEs and Non-DBEs): _____
B. Percent DBE Utilization: _____ % C. Total Bid Amount: \$ _____
D. Percent DBE Util. (B÷C): _____ % Must be rounded to two (2) decimal places

Signatures: your signature below indicated that the undersigned company certifies and agrees that:
a) it has complied with all provisions of the DBE Program;
b) failure to properly document such compliance in the manner and within the time periods established by the Aviation DBE Coordinator may constitute rejection of bid.

Signature of Authorized Official _____ Printed Name _____ Title _____ Submitted Date _____

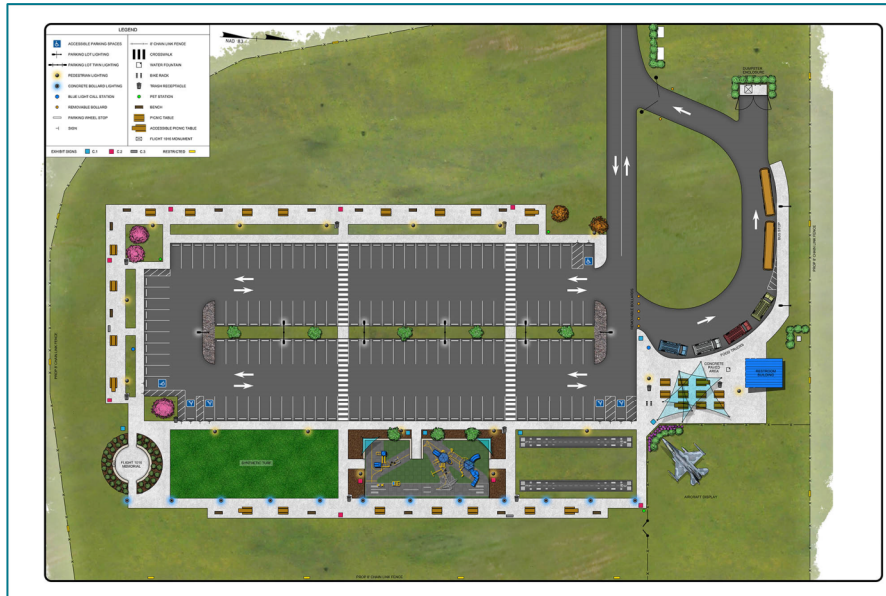
DBE Form No. 3

Charlotte-Douglas
Disadvantaged Business Enterprise (DBE) Program
DBE Form 5: Schedule of Non-Selected Subcontractors
An Excel spreadsheet with the same information can be used in lieu of this form
Copy this side of Form 5 as needed
v.9.25.15

Project Name: _____
Project NF: _____
Bidder's Name: _____ Project NF: _____

NAME OF Subcontracting Firm and Annual Gross Receipts (AGR)	Address, Contact Name AND Phone Number	DBE Certified? (Y/N)	Scope of Work	Reason for Not Selection
AGR: <input type="checkbox"/> < \$10K <input type="checkbox"/> \$10K - \$25K <input type="checkbox"/> \$25K - \$50K <input type="checkbox"/> \$50K - \$100K <input type="checkbox"/> \$100K - \$250K <input type="checkbox"/> \$250K - \$500K <input type="checkbox"/> \$500K - \$1M <input type="checkbox"/> \$1M - \$2M <input type="checkbox"/> \$2M - \$5M <input type="checkbox"/> \$5M - \$10M <input type="checkbox"/> \$10M - \$25M <input type="checkbox"/> \$25M - \$50M <input type="checkbox"/> \$50M - \$100M <input type="checkbox"/> \$100M - \$250M <input type="checkbox"/> \$250M - \$500M <input type="checkbox"/> \$500M - \$1M <input type="checkbox"/> \$1M - \$2M <input type="checkbox"/> \$2M - \$5M <input type="checkbox"/> \$5M - \$10M <input type="checkbox"/> \$10M - \$25M <input type="checkbox"/> \$25M - \$50M <input type="checkbox"/> \$50M - \$100M <input type="checkbox"/> \$100M - \$250M <input type="checkbox"/> \$250M - \$500M <input type="checkbox"/> \$500M - \$1M <input type="checkbox"/> \$1M - 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PROJECT SCOPE – Site Plan



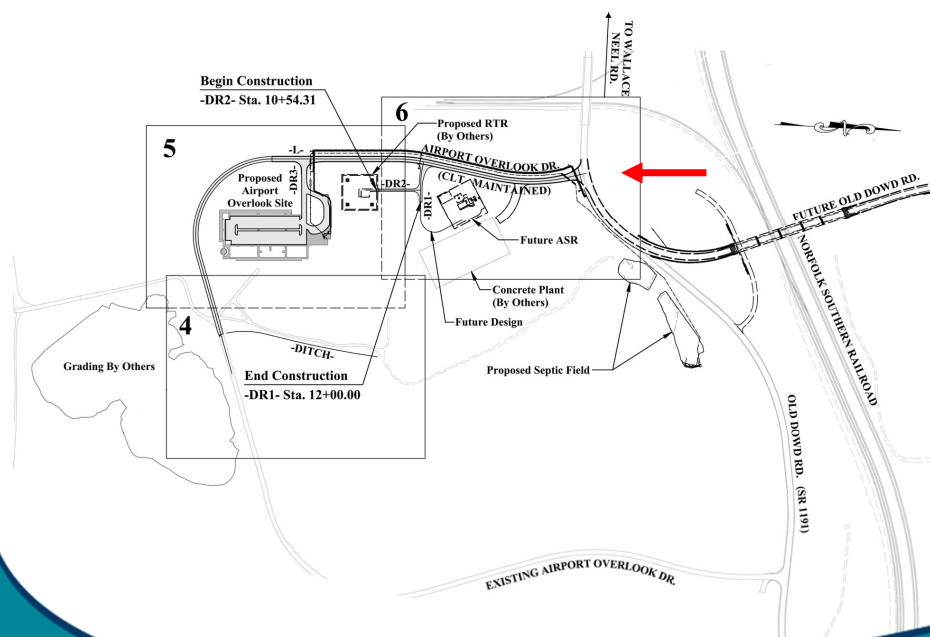
Project Includes

- Parking for 145 vehicles
- Picnic Tables and Benches
- Lighting (Parking lot and Pedestrian Areas)
- Informational Plaques
- Memorial for USAir Flight 1016
- Synthetic Turf
- Playgrounds
- Mock Runways
- Aircraft Display
- Food Truck Area/Picnic Tables
- Shading Features
- Bicycle Racks
- Bus Pull-off
- Restrooms
- Trash Enclosure



15

PROJECT SCOPE – Access



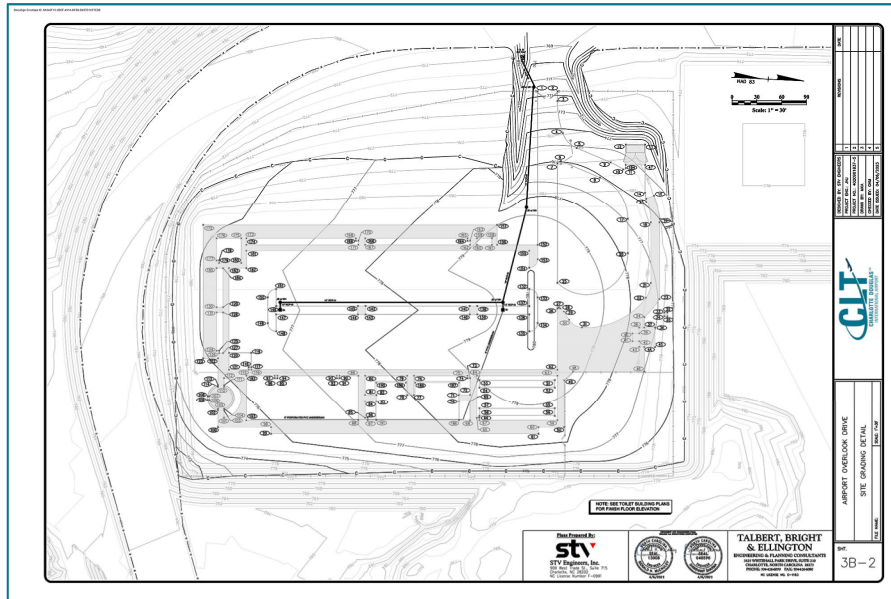
Project Access

- Old Dowd Road
- Other NEAT Program Contractors
 - Concrete Plant Installation
 - Playground Installation



16

PROJECT SCOPE – Site Grading



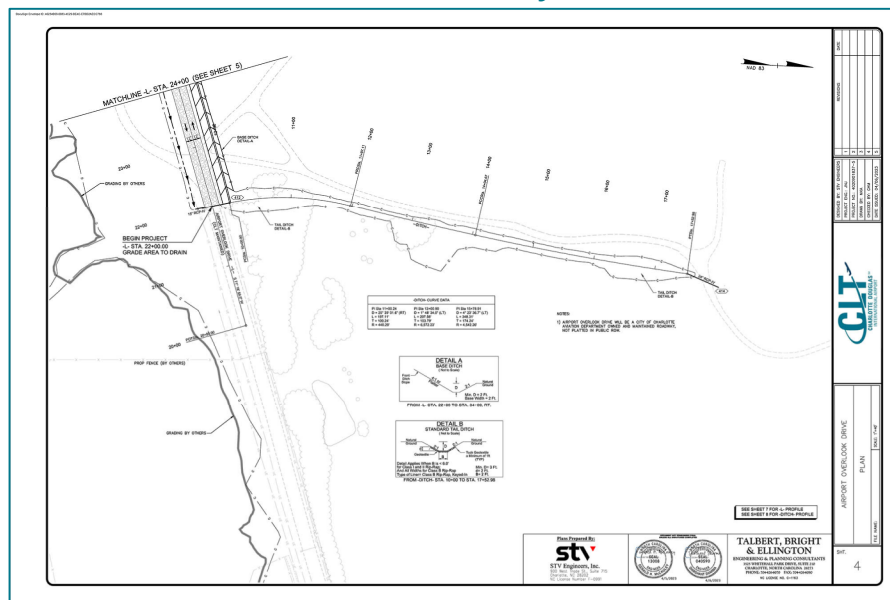
Highlights

- Rough Grading significantly complete, controlled fill by others
- Line item for settlement gauges
- S&ME on site



17

PROJECT SCOPE – Roadway



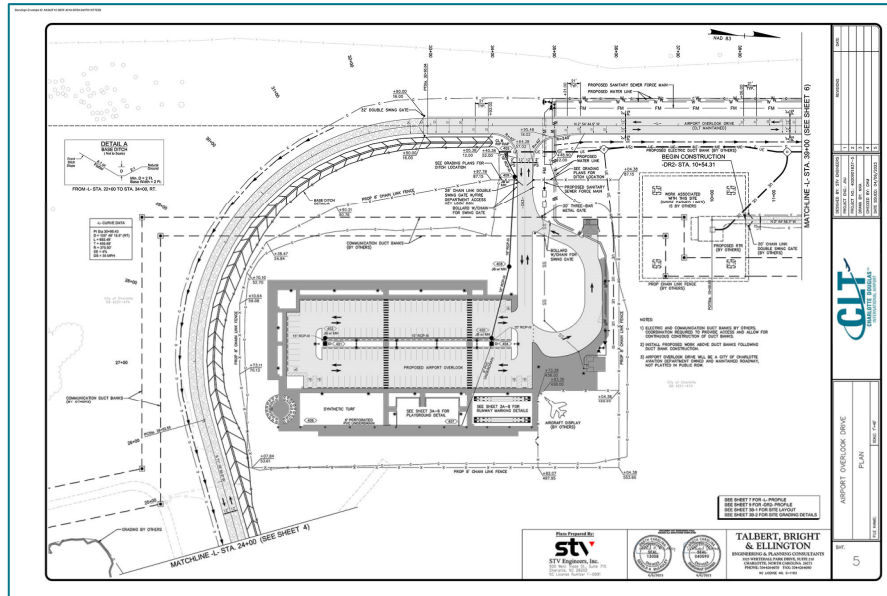
General

- 2600' +/- of new location 2-lane, shoulder section
- 3 driveways
- No cost adjustments (fuel, asphalt cement, etc.)



18

PROJECT SCOPE – Roadway



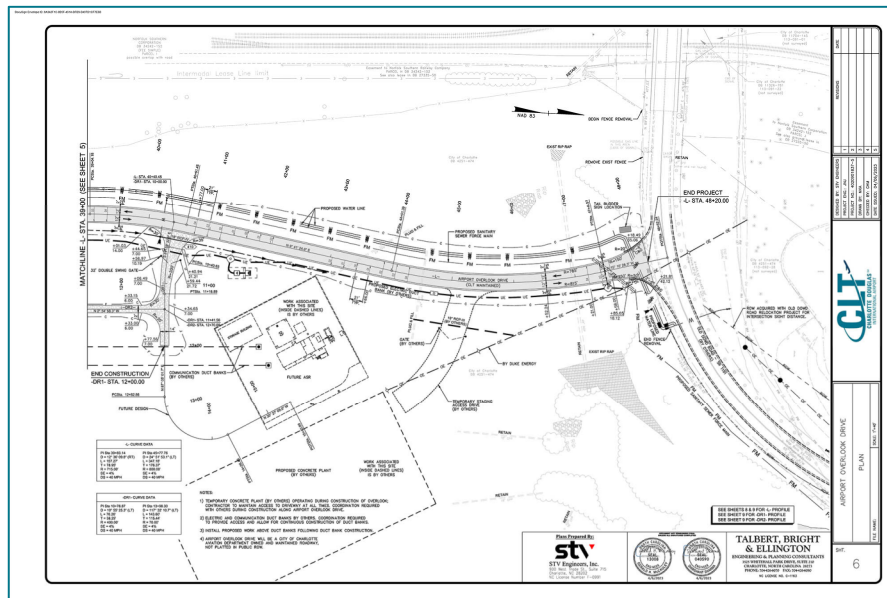
General

- Grade ditches
- Fine Grading
- Heavy duty pavement



19

PROJECT SCOPE – Roadway



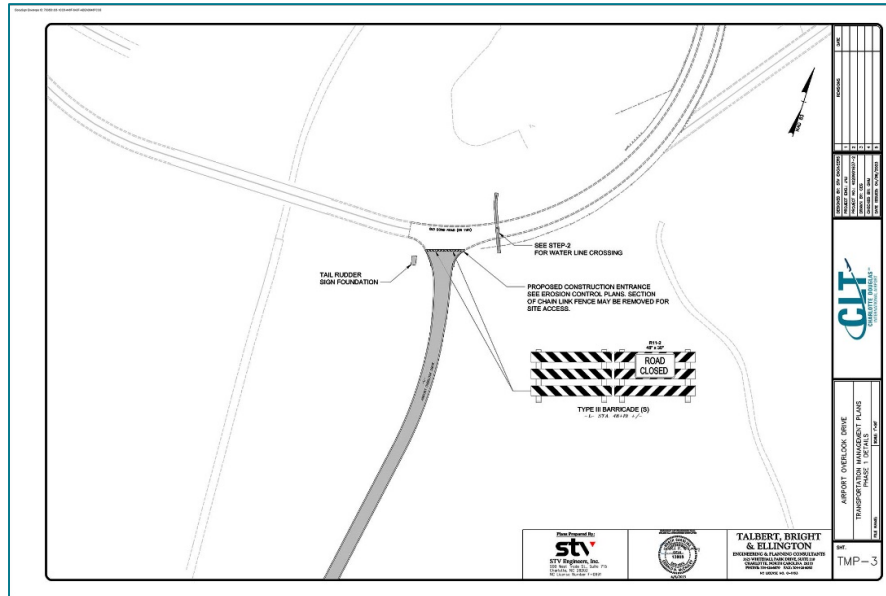
General

- Driveway for RTR and ASR sites
- Concrete plant driveway by others
- Entrance Sign



20

PROJECT SCOPE – Maintenance of Traffic (MOT)



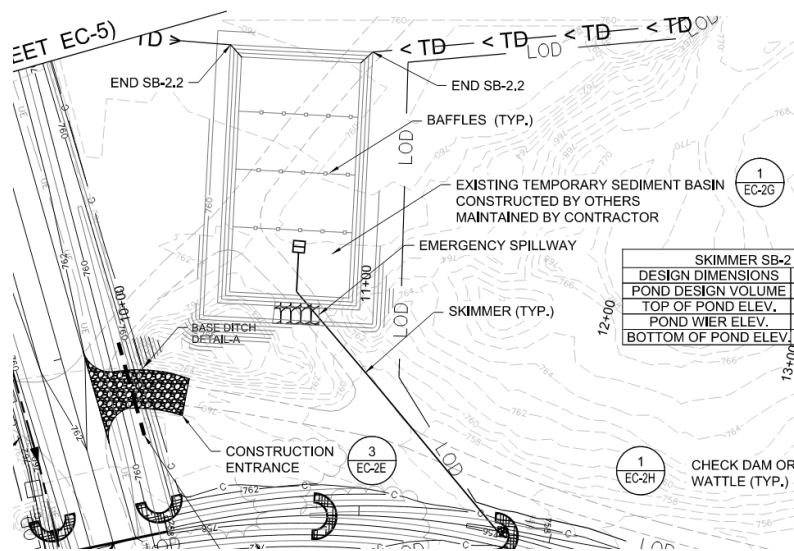
Work Highlights

- Away from traffic construct
 - Sediment and erosion control measures
 - Airport Overlook Drive new alignment
 - Storm drainage
 - Water Line
 - Sewer Line
 - Sewer drainage field
 - Seeding/mulching
- Using temporary lane closures
 - Construct water line crossing Old Dowd Road



21

PROJECT SCOPE – Erosion Control



Existing Skimmer Basin 1

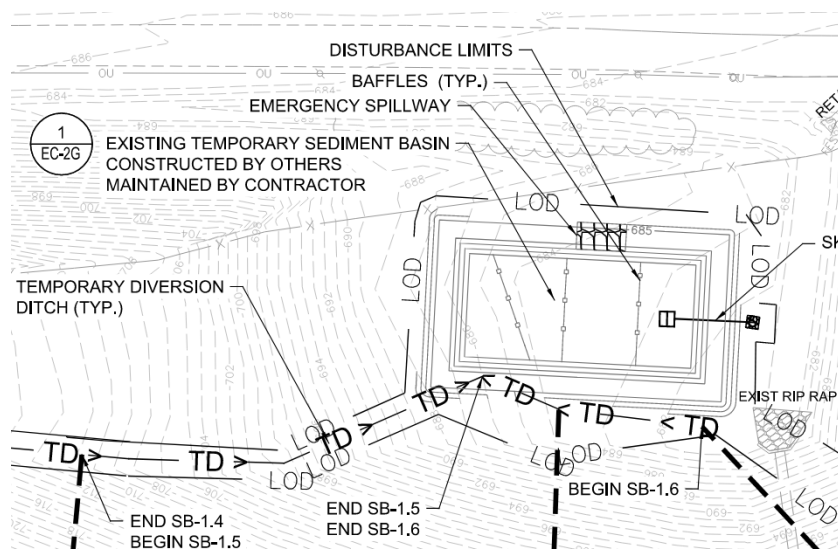
Existing Skimmer Basin Maintenance

- Two skimmer basins constructed by others
- Contractor to take over Skimmer Basin maintenance
- Basin brought to standard before Overlook Contractor takes over maintenance



22

PROJECT SCOPE – Erosion Control



Existing Skimmer Basin 2

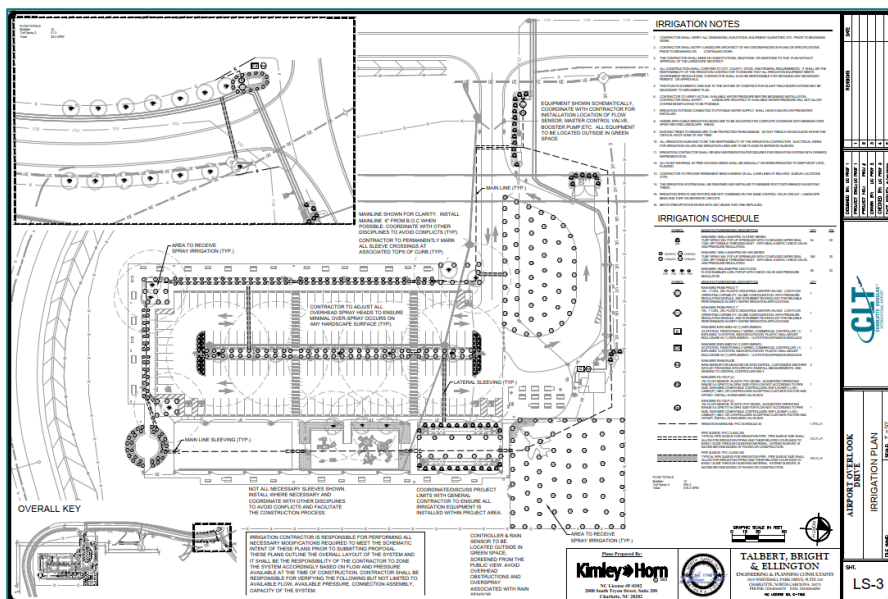
Existing Skimmer Basin Maintenance

- Remove the Skimmer Basins after project is complete.
- Remove all temporary sediment and erosion control devices
- Grade, seed and mulch to stabilize the area



23

PROJECT SCOPE – Irrigation



Irrigation

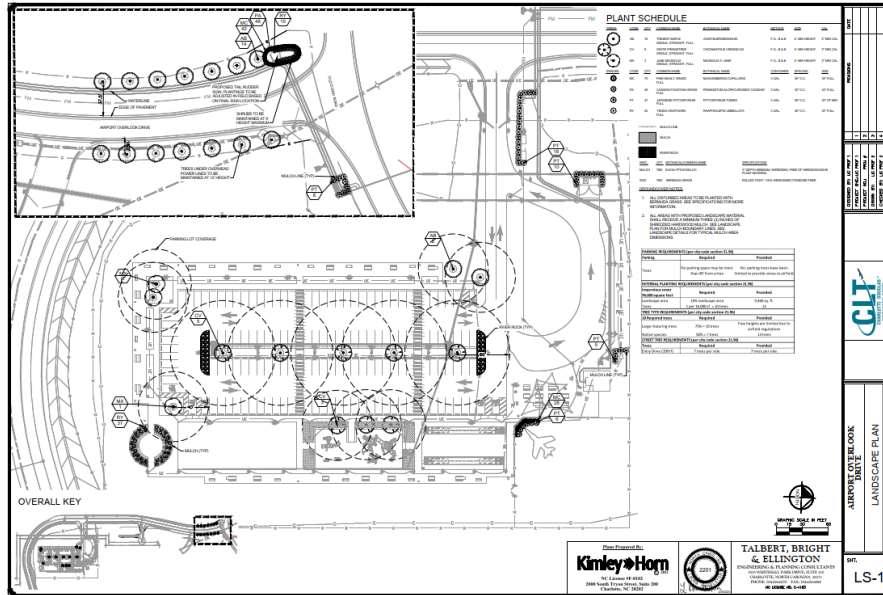
- Delegated Final Design
 - Shop drawing review
- Two Areas
 - Main Overlook Area
 - Entrance area
- Lump Sum item

(Irrigation not provided for lawn areas outside of the Overlook area)



24

PROJECT SCOPE – Landscape Plan



Landscaping

- Two Areas
 - Main Overlook Area
 - Entrance area
- All trees and screening shrubs are required.
- Enhanced plantings are provided at the memorial, entry sign, and airplane display



25

PROJECT SCOPE – Site Lighting and Electrical



Roadway LED Luminaire



Enterprise LED Luminaire



Style A Pole



Concrete Bollard

Contractor Supplied Lighting

Concrete Bollards

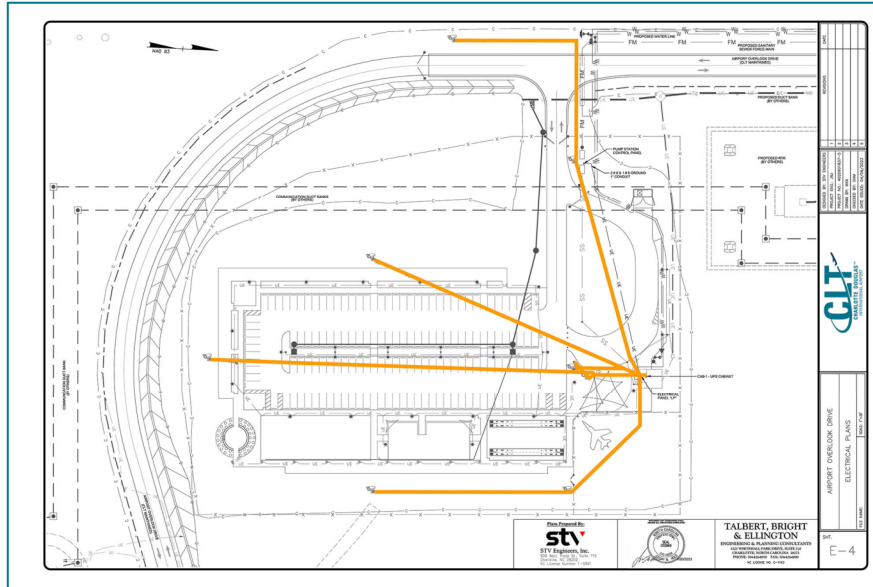
Duke Supplied Lighting

- Roadway LED Luminaire
- Enterprise LED Luminaire
 - Black Finish
- Style A Pole
 - Black Finish
 - Direct Buried



26

PROJECT SCOPE – Site Lighting and Electrical



ITS

- Cameras
- Blue light phones

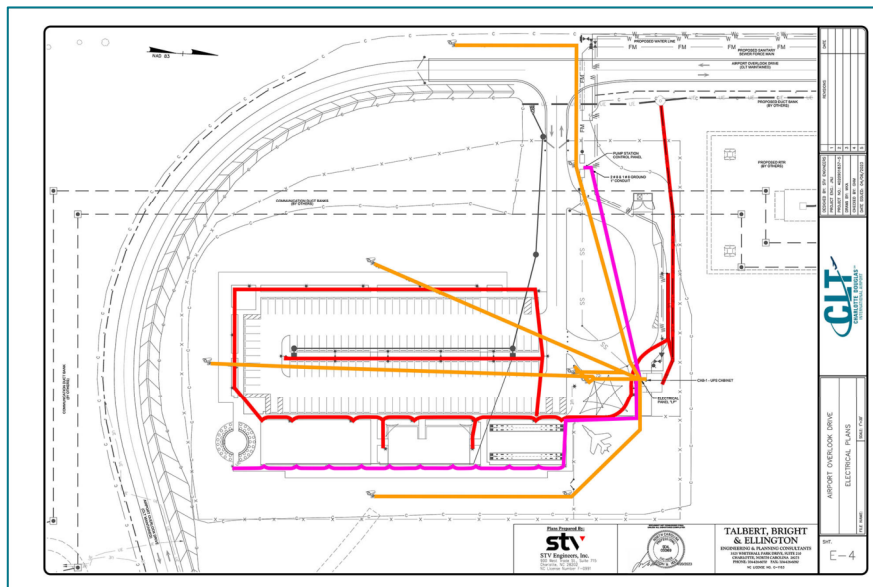
Allowance No. 4

- Coordinate with Johnson Controls (JCI) for all work to be completed by JCI and paid for by the Contractor under the allowance



29

PROJECT SCOPE – Lighting, Electrical, and ITS Conduit



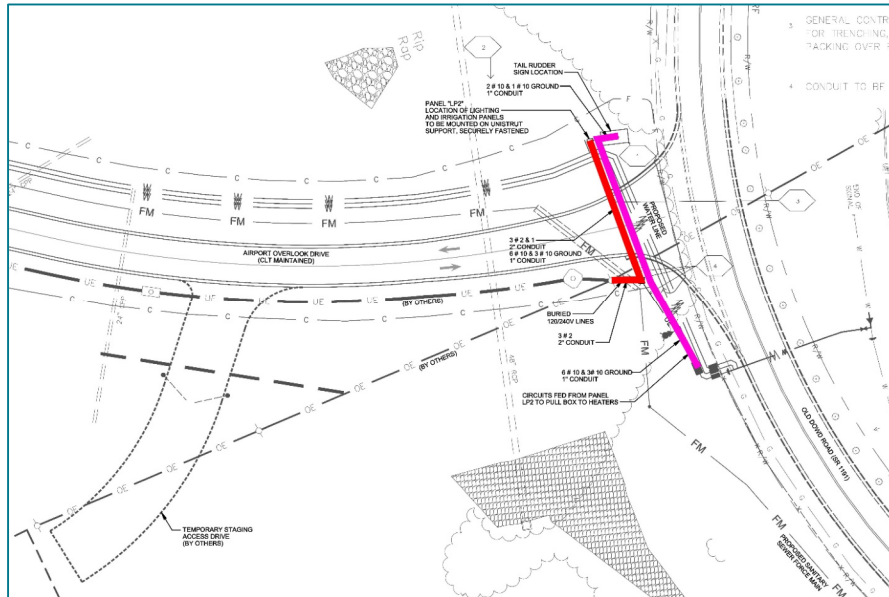
Combined Layout

- Duke Lighting
- Building service
- ITS
- Site electrical



30

PROJECT SCOPE – Lighting, Electrical (Entrance)



Tail Rudder Sign Lighting

- Lighting part of delegated design
- Contractor: Conduit – pull string

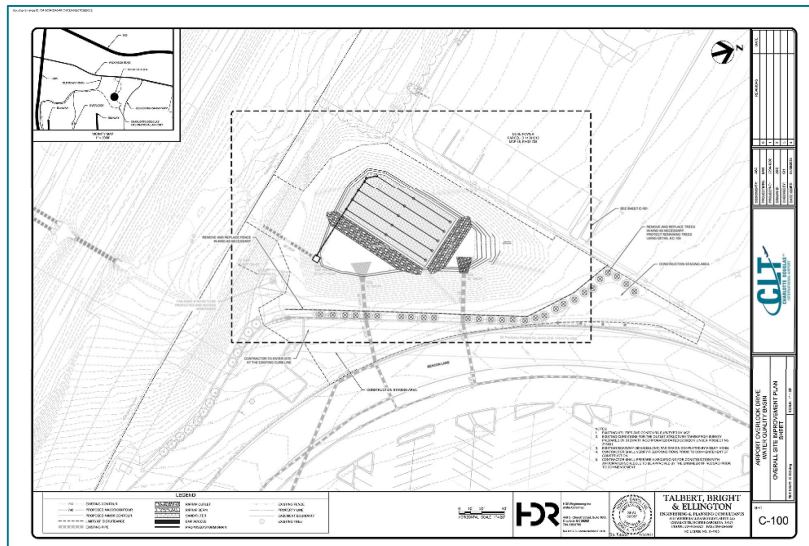
Irrigation/Backflow

- Conduit and Conductor
- Backflow enclosure heaters
- Irrigation controller
- Pull boxes



31

PROJECT SCOPE – Water Quality Basin



Water Quality Basin

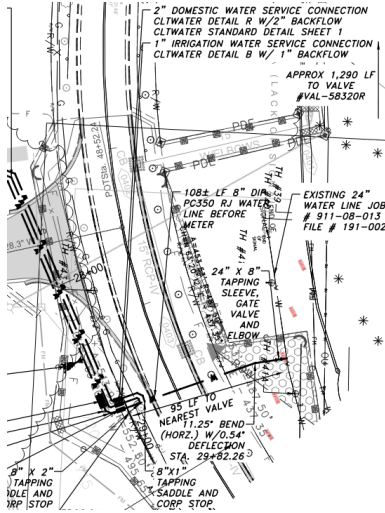
- Erosion Control
- Minor Grading/Shaping Existing Basin
- New Outlet Riser
- Rip Rap Installation
- Sand Filter
- Sod/Basin Stabilization



32

PROJECT SCOPE – Water and Sewer

Water Line Installation

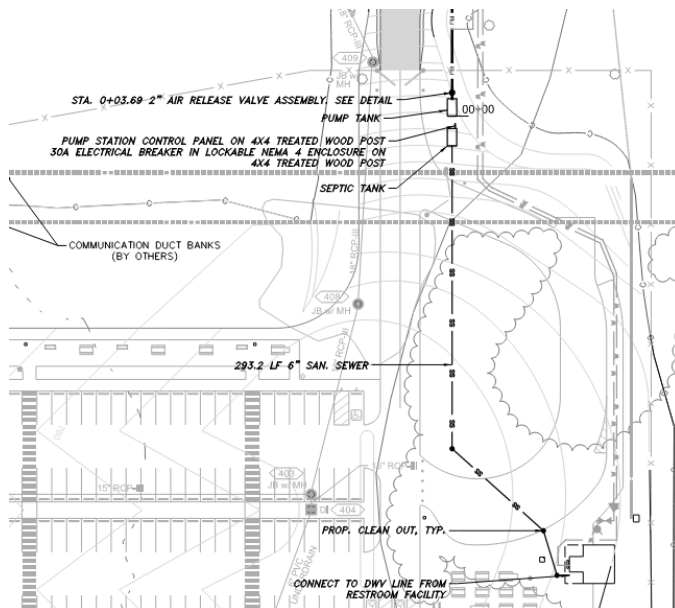


- Connect to existing 24" water main and open-cut across Old Dowd Road.
- Three meters (including one detector meter) & backflows
- Three water lines to restroom facilities in same trench.
 - 1" PVC irrigation
 - 2" PVC domestic
 - 8" DIP fire line
- Private hydrants.
- Will require CLTWater backflow testing/approval via CLTWater approved tester.



33

PROJECT SCOPE – Water and Sewer



Gravity Sewer

- Approx. 294LF of 6" Gravity sewer to septic tank.

Pumping

- 2,500 gallon septic tank
- 2,500 gallon pump tank
- Duplex pumps with alarm panel
- 2" PVC Force Main to manifold
- PVC sleeves at some crossings
- Air release valves

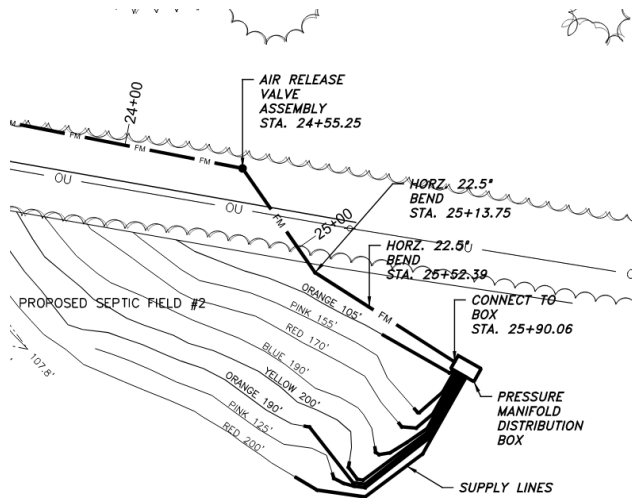
Special Provisions

- Licensed septic installer
- Septic installer performs light clearing of septic fields – work with Meck County to minimize tree removal.
- Designed around EZ-FLOW system. Contractor may submit other nitrification system, subject to approval by Mecklenburg County GWS.



34

PROJECT SCOPE – Water and Sewer



Septic Field

- Septic manifold/Pressure Distribution Box
- Drain lines (follow contours)
- Repair area
- Limited clearing

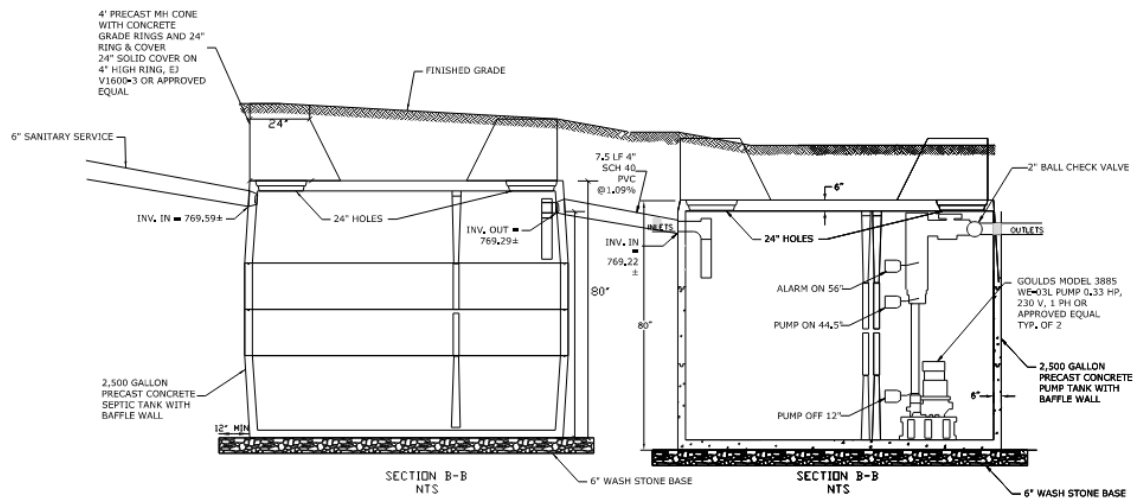
Permitting

- Improvement permit was approved.
- Pre-Construction Meeting with Meck Co.
- Pre-Construction Permit/Documentation with Meck Co. by Contractor.
- Operation Permit with Meck Co. by Contractor.
- Maintain protective fencing/replace.
- SPs: O&M Manuals and site visit/training by pump manufacturer for CLT personnel.



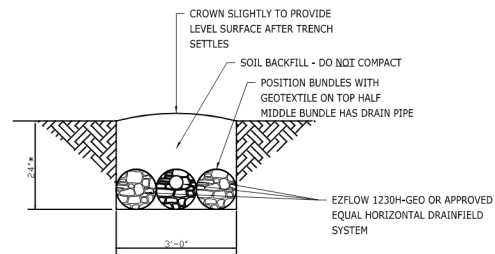
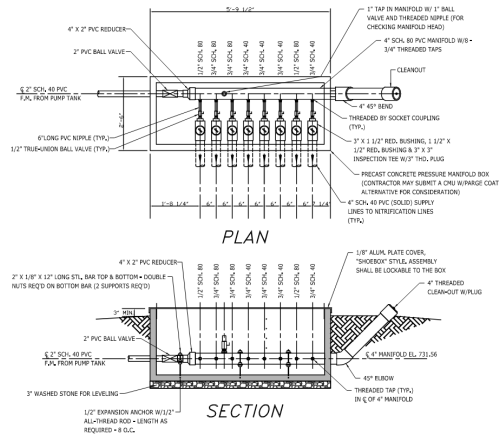
35

PROJECT SCOPE – Water and Sewer



36

PROJECT SCOPE – Water and Sewer



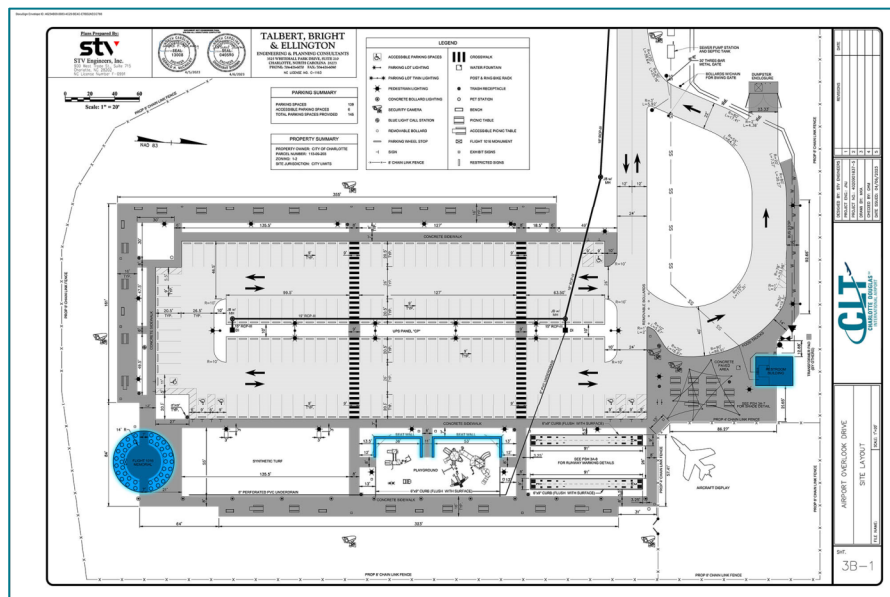
*TRENCH DEPTH SHALL BE MEASURED ON DOWNSLOPE SIDE OF THE TRENCH

**NITRIFICATION
TRENCH DETAIL
NOT TO SCALE**

CLT

37

PROJECT SCOPE – Toilet Bldg., Memorial, Playground

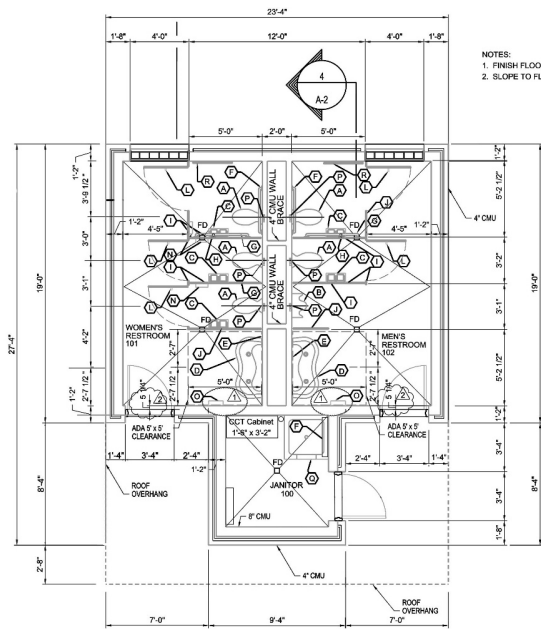


- Toilet Building
- Memorial
- Playground Benches

CLT

38

PROJECT SCOPE – Toilet Building



- Masonry Wall will be installed up to 10' AFF
- Concrete Spread Footings
- 5" thick Concrete Interior Slab Sloped to FDs
- Wood Framing above 10' to Roof
- Glass Block 2- 4'x 4' Areas
- 3 H.M. Doors, Frames and Hardware
- Painting – all Interior Room walls

Construction Constraint by Fire Dept.

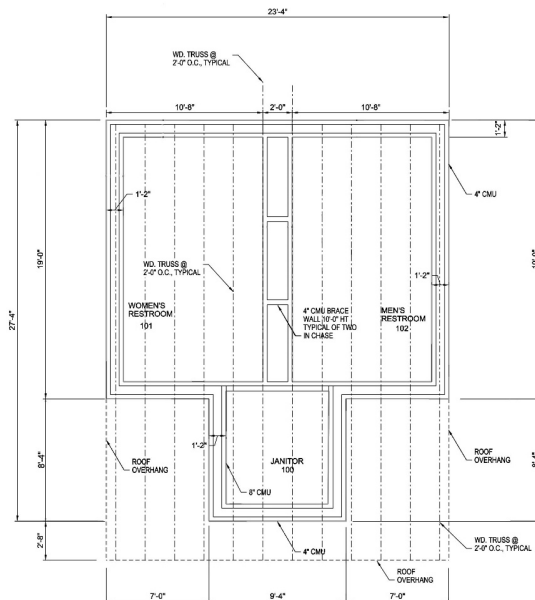
No combustible materials shall be brought onto the jobsite until access road is installed and in service. Gravel is acceptable until asphalt is laid, the access road must be able to support 85,000 pounds.

Call Fire Marshall for inspection.



39

PROJECT SCOPE – Toilet Building Framing



Wood Trusses, Bracing and Anchors

- Contractor Delegated Design
Signed and Sealed Shop Drawings
- Interior CMU Walls, block filler/ Paint
- No Interior Ceilings
- Exterior Gyp. Bd Soffit, Painted
- Wood Framing above 10'
- Paint All Abusive Resistant Gyp. Bd.
Walls in The Rooms above 10'



40

PROJECT SCOPE – Toilet Building Elevations

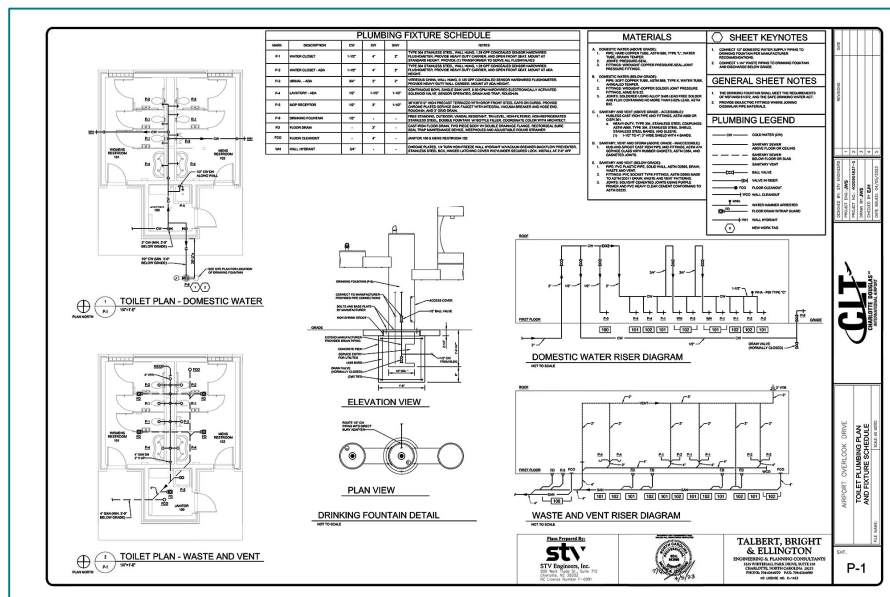


- 4" Split Face up to 8' with
- 4" Smooth Face CMU, 3 courses up to 10'
- EIFS: Sto or Dryvit above 10'
- Standing Seam Mtl. Roof
- 5" Rigid Insulation,
- 8" x 8" Glass Block



41

PROJECT SCOPE – Toilet Building Plumbing

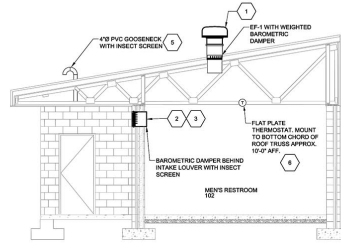
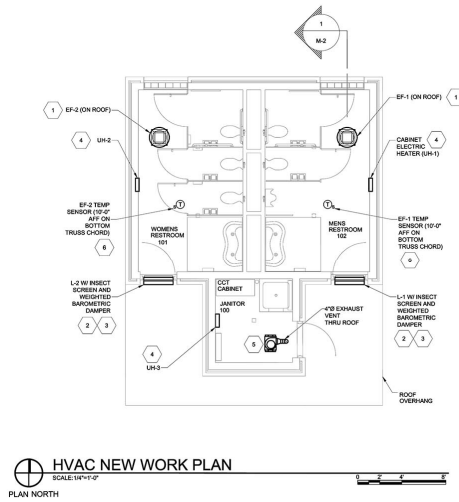


- 5- S.S. Water Closets
- 1-Vitrous China Urinal
- Automatic Flush Valves in CMU Walls
- 2 -Single Sink Units
- Mop Sink
- 5- Floor Drains
- No Water Heater
- Exterior Fountain



42

PROJECT SCOPE – Toilet Building Mechanical



- 3- Exhaust Fans
- Louvers with Barometric Dampers
- Temp Sensor, Above 85 Deg.
- Occupancy Sensor
- 3-Wall Heater, Below 70 Deg.

CLT

43

PROJECT SCOPE – Toilet Building Mechanical Schedules

FAN SCHEDULE																	
MARK	MFR	MODEL	SERVICE	TYPE	CFM	RPM	EXTERNAL SP (IN WG)	DRIVE	AMBIENT TEMP	MOTOR						MAX WEIGHT W ACCESSORIES (LBS)	NOTES
									DEG F	RPM	HP	VOLTS	PHASE	HZ	FLA		
EF-1	GREENHECK	G-899-VS	MEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-2	GREENHECK	G-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-3	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-4	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-5	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-6	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-7	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-8	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-9	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-10	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-11	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-12	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-13	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-14	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-15	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-16	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-17	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-18	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-19	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-20	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-21	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-22	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-23	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-24	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-25	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-26	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-27	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-28	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-29	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-30	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-31	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-32	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-33	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-34	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-35	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-36	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-37	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-38	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-39	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-40	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-41	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-42	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-43	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-44	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-45	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-46	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-47	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-48	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-49	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-50	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-51	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-52	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-53	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-54	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-55	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-56	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-57	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-58	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-59	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-60	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-61	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-62	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-63	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-64	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-65	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-66	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-67	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-68	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-69	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-70	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-71	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-72	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-73	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-74	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-75	GREENHECK	SP-899-VS	WOMEN'S RESTROOM	CENTRAL GAS DOWNBLAST	210/200	1,187	0.36	DIRECT	95	1,187	1/2	115	1	60	2.8	46	1.2.1
EF-76	GREENHECK	SP-899-VS	WOM														

NOTES:

1. PROVIDE WITH BAROMETRIC BACKDRAFT DAMPER.
2. PROVIDE WITH MANUAL DISCONNECT SWITCH.
3. PROVIDE WITH GREENHECK REMOTE OFF AUTO CONTROLLER.
4. PROVIDE WITH 12" SLOPED ROOF CURB.

LOUVER SCHEDULE										
MARK	MFR	MODEL	INTAKE / EXHAUST	SERVES	CFM	VELOCITY FPM	MAX. PD IN WG	SIZE (INCHES) W x H	FREE AREA (FT2)	NOTE
L-1	RUSKIN	ELF375DK	INTAKE	MAID'S RESTROOM	320	221	0.01	32 X 16	1.45	1.2
L-2	RUSKIN	ELF375DK	INTAKE	WOMEN'S RESTROOM	320	221	0.01	32 X 16	1.45	1.2

NOTES:

1. CONTRACTOR TO COORDINATE ROUGH OPENING SIZES WITH GENERAL CONTRACTOR FOR THE LOUVERS PROVIDED.
2. PROVIDE WITH GREENHECK REMOTE OFF AUTO CONTROLLER.
3. PROVIDE WITH PANEL, OPERABLE BLADES.

ELECTRIC CABINET UNIT HEATER SCHEDULE																
MARK	MFR	MODEL	CFM	WATTS	TEMP RISE (°F)	SIZE IN.			AMPS	VOLTAGE	PHASE	Hz	WEIGHT (LBS)	MOUNTING	COLOR	NOTES
						HEIGHT	WIDTH	DEPTH								
UH-1	INDECO	WV	320	6000	60	19-7/8"	30-3/16"	4-1/8"	25.4	240	1	60	RECESSED	BLACK	1	
UH-2	INDECO	WV	320	6000	60	19-7/8"	30-3/16"	4-1/8"	25.4	240	1	60	RECESSED	BLACK	1	
UH-3	INDECO	WV	1000	18000	60	19-7/8"	14-7/16"	4-1/8"	12.8	120	1	60	20 RECESSED	BLACK	1	

NOTES:

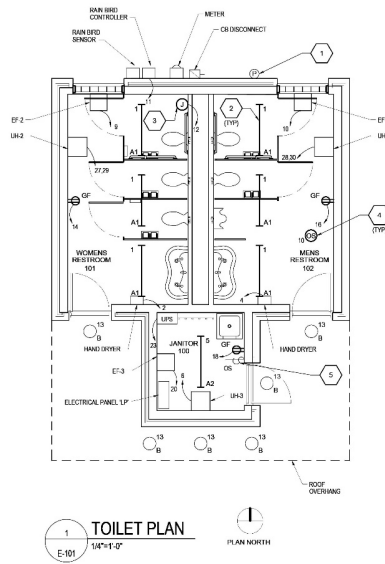
1. PROVIDE WITH INTEGRAL THERMOSTAT.
2. PROVIDE WITH DISCONNECT SWITCH.
3. PROVIDE WITH BLACK 1" RECESSED TRIMKIT.

VENTILATION CALC SHEET																				
ROOM #	ROOM NAME	SYSTEM	No. OF PEOPLE	No. OF FIXTURES	ROOM DIMENSIONS			IMC REQUIRED (CFM)		MINIMUM REQUIRED OUTSIDE AIR (CFM)	BREATHING ZONE OUTSIDE AIR (CFM) (%TTL)	ACTUAL CFM				CORRECTED				
					AREA (SF)	HEIGHT (FT)	VOLUME (CF)	OUTSIDE AIR (cfm/sf)	EXHAUST			PRIMARY SUPPLY (CFM)	UNOCC SUPPLY (CFM)	EXHAUST (CFM)	XFER AIR (CFM) = IN / - OUT	PRESSURIZATION (CFM)	RETURN (CFM)	DISTRIBUTION EFFECTIVENESS (Ev)	CORR. OA (CFM)	CORRECTED OA (% TTL)
100	JANITOR	EF-3	0	0	50	10	500	-	-	0	0	70	1.00	70	0	0	0	1.000	70	1.00
101	WOMEN'S RESTROOM	EF-2	0	3	158	10	1580	-	70/FIXTURE	210	-	320	1.00	320	0	0	0	1.000	320	1.00
102	WOMEN'S RESTROOM	EF-1	0	3	158	10	1580	-	70/FIXTURE	210	-	320	1.00	320	0	0	0	1.000	320	1.00

CLT

44

PROJECT SCOPE – Toilet Building Electrical



- Electrical Panel "LP1"
- UPS for Site Cameras
- LED Light Fixtures Elect. Heaters
- 3- Exhaust Fans

CLT

45

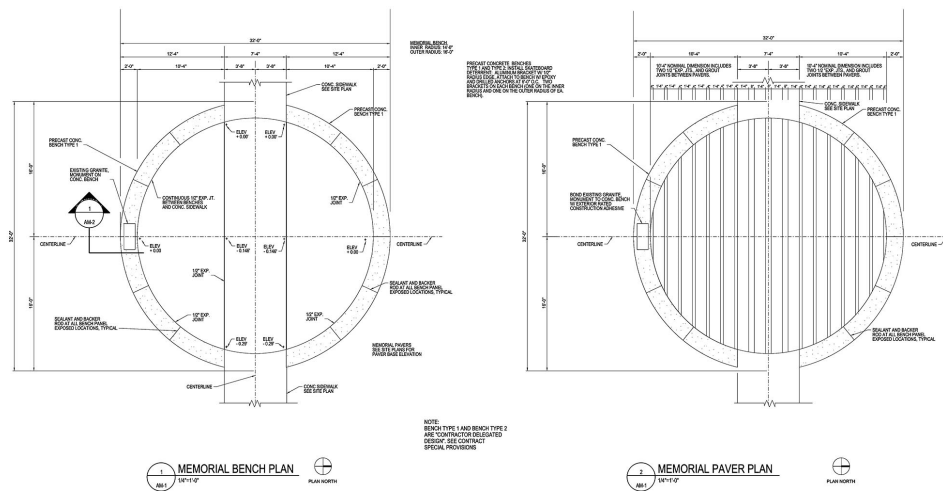
PROJECT SCOPE – US Air Flight 1016 Memorial



CLT

46

PROJECT SCOPE – Memorial Bench and Paver Plan



Memorial Bench Plan

- Existing Granite
- Bench Type #1
- Exp. Jts. / Slope

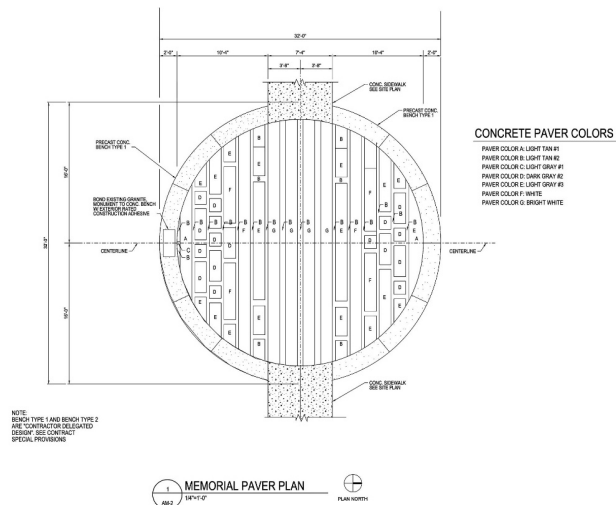
Memorial Paver Plan

- 2 3/4" Concrete Pavers on Thinset Mortar, Grouted Jts.



47

PROJECT SCOPE – Memorial Concrete Paver Plan



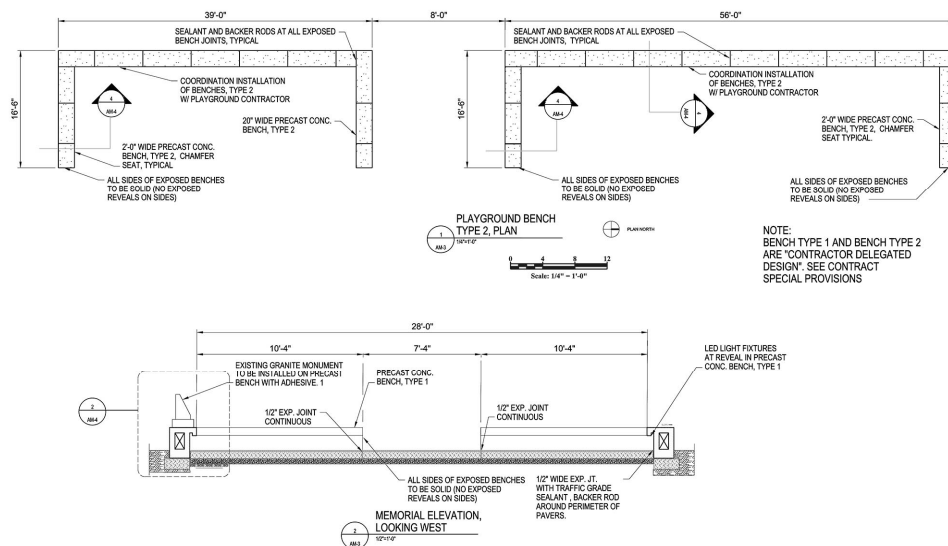
Memorial Paver Plan

- 8- Paver Colors "A – G"
 - Threshold Markers Color "G"
- 2- Paver Color for Airport Morse Codes



48

PROJECT SCOPE – Memorial Elevation and Playground Benches



Memorial

- Bench Type #1
- Contractor Delegated Design
- Exposed Sides of Panels
No Reveals

Playground

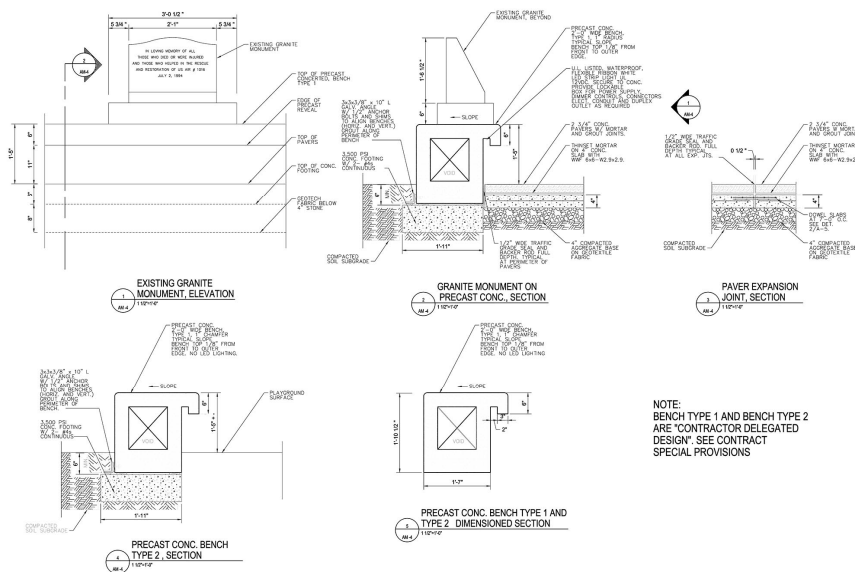
- Bench Type #2
- Contractor Delegated Design
- Exposed Sides of Panels
No Reveals

Contract Special Provisions



49

PROJECT SCOPE – Memorial Details



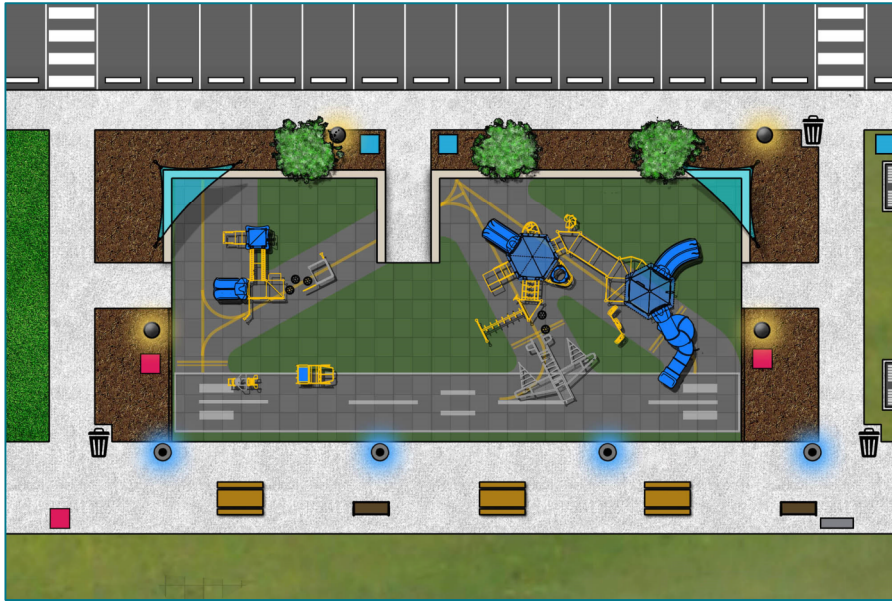
- Bench Type #1 and Bench Type #2 are
- Contractor Delegated Design
 - Lighting design provided by contractor will require an RTAP with MCCE. Contractor to provide the design; CLT to submit to MCCE.

- Review Contract Special Provisions for Contractor Delegated Design



50

PROJECT SCOPE – Playground



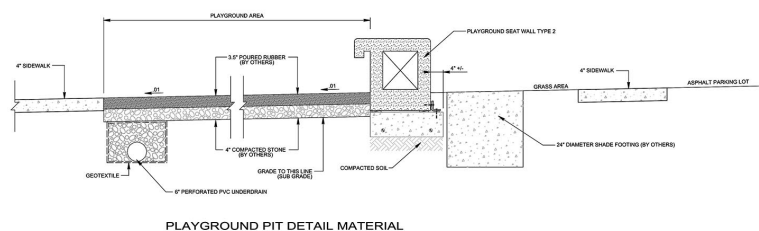
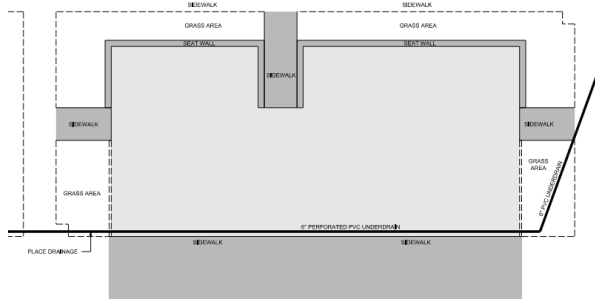
Coordinate with Cunningham Recreation (Playground Contractor)

- Schedule pre-con meeting
- Provide site access
- Provide staging area
- Protection of completed work



51

PROJECT SCOPE – Playground



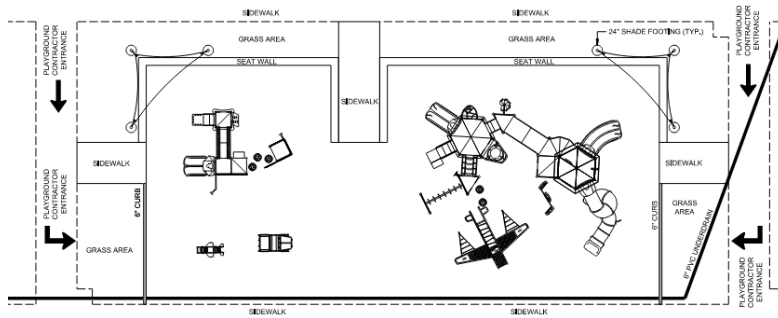
Contractor responsible for:

- Fine grading
- Drainage system
- All underground conduit and lighting
- Irrigation
- Seating walls (Bench Type #2)
- Coordinate seating wall footing location with Playground Contractor for placement of shade footing
- Concrete sidewalk installation
- Protect items installed from damage
- Turn area over to the Playground Contractor
- Contact Cunningham Recreation **4 weeks** prior to site readiness



52

PROJECT SCOPE – Playground



Cunningham Recreation

- NEAT Program Contractor
- Equipment foundations
- Remove & dispose soil spoils
- Playground equipment
- Shade Foundations and shades
- Flush concrete curb
- Gravel Base
- Rubber surface

(Rubber surface to be contained by curb, sidewalk, and seating wall)



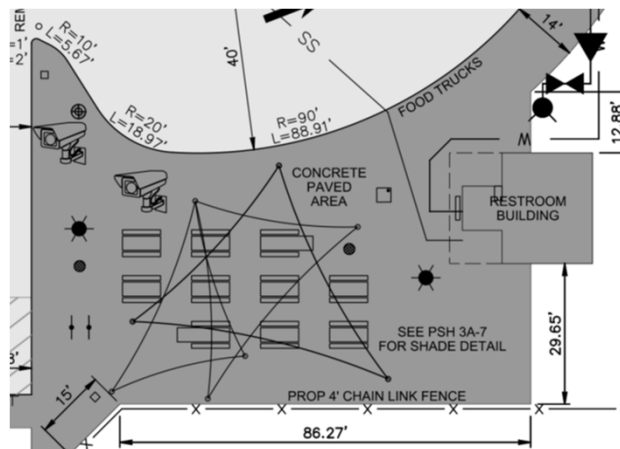
53

PROJECT SCOPE – Playground



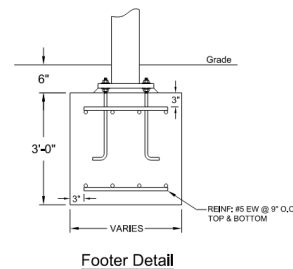
54

PROJECT SCOPE – Food Court Shade



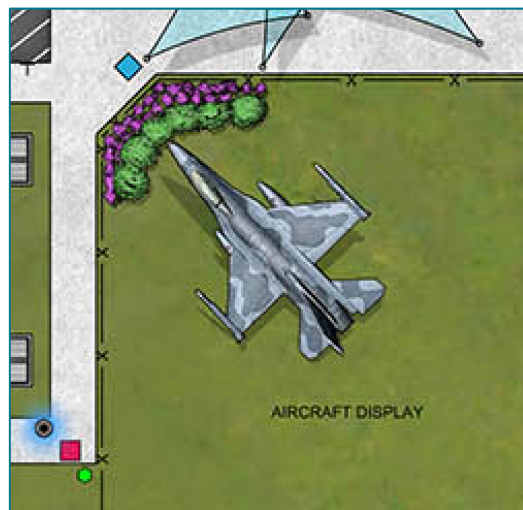
Shade Foundations

- Coordinate NEAT Program Contractor for placement of shade footing
- Playground Contractor to install shade foundation and shades
- Install food court concrete surface
- CLT to approve table location



55

PROJECT SCOPE – Aircraft Display



Aircraft Display Allowance No 1

Responsible for:

- **Contractor Delegated Design:**
Electrical design requires an RTAP;
Contractor to provide plans; CLT to submit to MCCE
- Hauling plane
- Mounting system foundation
- Up-lighting
- Landscaping



56

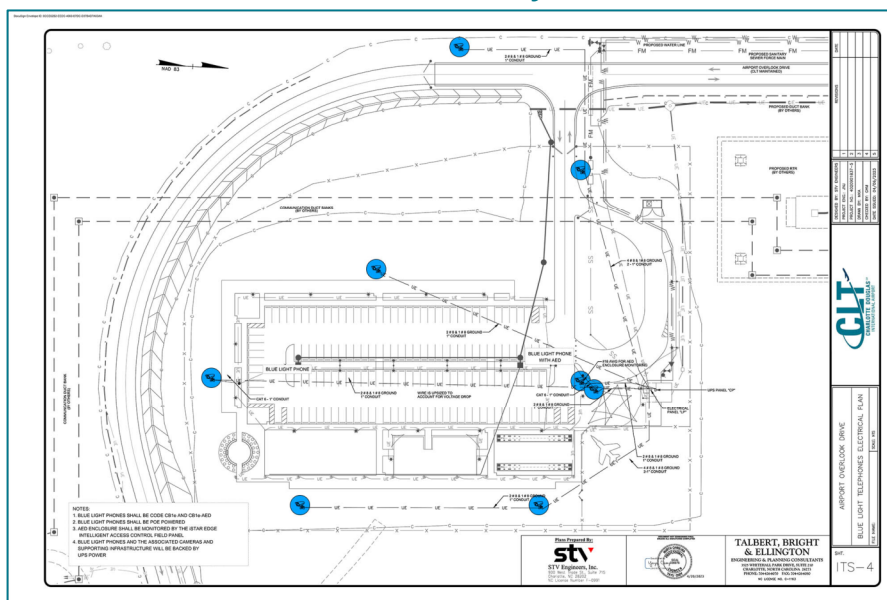
Security/ITS General Notes

- Security Systems will be installed by Johnson Controls (JCI) under an allocated fee as part of the CLT Overlook project. **JCI will be a subcontractor to the Contractor**
- UPS Power will be utilized to provide emergency back up power for the Emergency Telephones, their associated CCTV Cameras and the supporting infrastructure for those systems.
- Final locations of CCTV and Antenna poles will be coordinated with CLT Airport.
- Items to be provided by and installed by JCI are attached in the TSP in Appendix A.
- Contractor does not require badging for this Project.



57

PROJECT SCOPE – Security/ITS



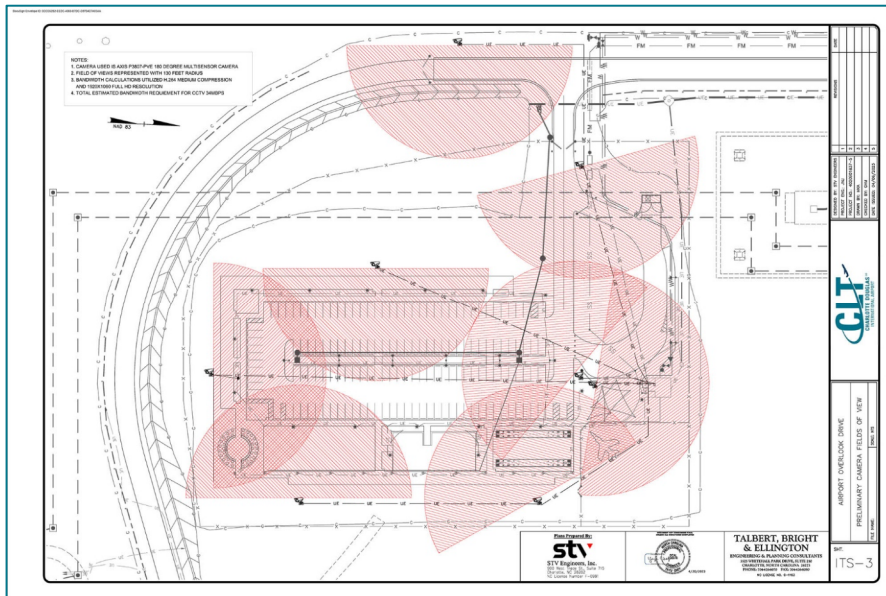
Security/ITS Systems

- Eight (8) 180° Multi-Sensor CCTV Cameras placed throughout the Overlook area.
- Two (2) Emergency "Blue Light" Telephones located on either side of the parking lot.
- One (1) AED located in the Emergency Telephone located near the toilet facility.
- Emergency Telephone will integrate with the existing CLT Airport IP Emergency Telephone System



58

PROJECT SCOPE – Security/ITS



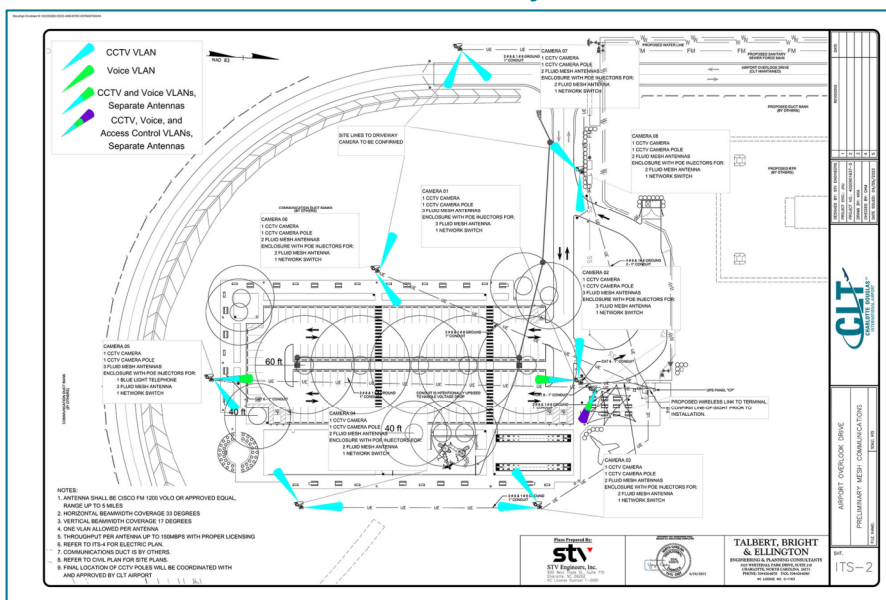
Closed Circuit Television

- CCTV Cameras will provide coverage of Overlook area, with special emphasis on monitoring the two Emergency Telephones
- Overlook CCTV will integrate into existing CLT Airport CCTV System



59

PROJECT SCOPE – Security/ITS



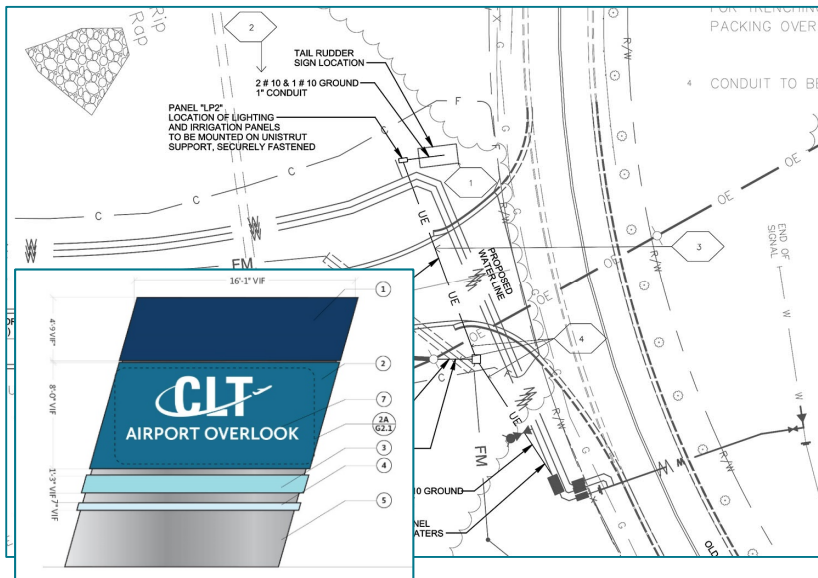
Wireless Mesh Network

- Fluid Mesh Wireless Network Antenna will be used to create a wireless mesh network, providing redundancy where possible.
- Each Sub-System will utilize it's own set of antenna to communicate to the antenna located on top of Terminal A



60

PROJECT SCOPE – Signing (Entrance)



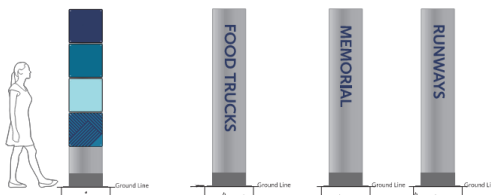
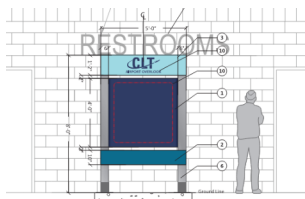
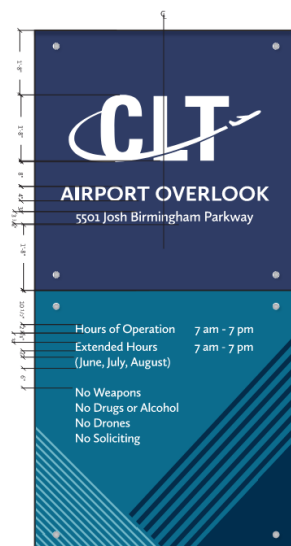
Allowance No 2 Airport Overlook Entrance Sign (Tail Rudder Sign)

- CLT provides existing sign; Contractor responsible for hauling, installation and a delegated design to refurbish, lighting, structural
- This will require a **RTAP** submittal to MCCE for the electrical. Contractor to prepare plans, sub to CLT, CLT to submit to MCCE.
- Fine grading/landscaping irrigation have pay items built into the contract
- Obtain Sign Permits



61

PROJECT SCOPE – Signing (Site)



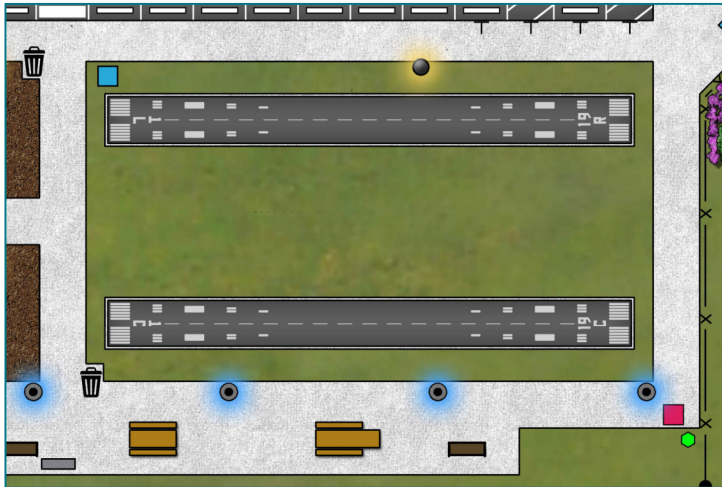
Allowance No 3 Site Wayfinding Signage

- Design intent package in specs
- **Contractor delegated design**
- Obtain permitting for Sign with MCCE
- Based on "Design Intent" Drawings
- Shop drawings
- Approval sign content prior to fabrication
- Approval of sign location



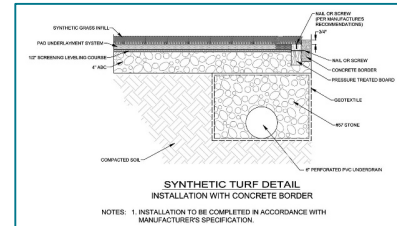
62

PROJECT SCOPE – Alternate Bid



Base Bid

- Grassed
- Irrigation system



Alternate Bid

- Install synthetic turf
- Underdrain
- Sub grade preparation
- Gravel Base



63

PROJECT CONTROLS REQUIREMENTS

- Contractor to staff appropriately for Project Controls functions including schedule, cost reporting and risk analysis.
- Provide reporting as detailed in Project Controls General Requirements
 - Example templates for Contractor use will be included via Addendum
 - Reports submitted via e-Builder process
- P6 CPM Schedule
 - **Within 30 days of Contract Effective Date**
- Progress Meetings
- Contractor's Financial Information Requirements



64

PROJECT CONTROLS – Deliverables Matrix

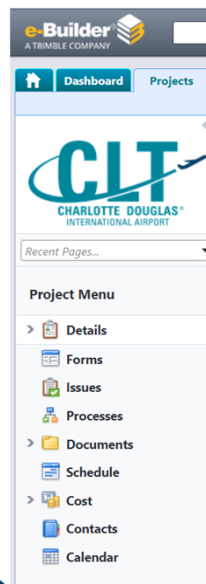
PROJECT CONTROLS DELIVERABLES MATRIX				
Description	Template Name	Initial Submission for Acceptance	Owner Acceptance Timeline	Update / Distribution
General				
Baseline Schedule (XER & PDF)	n/a	Within 30 Days after Effective Date of Contract Approval	2 weeks after submitted	Until Baseline Schedule is Accepted/As Necessary for Revisions
Baseline Schedule - Critical Path (PDF)	n/a	Within 30 Days after Effective Date of Contract Approval	2 weeks after submitted	Until Baseline Schedule is Accepted/As Necessary for Revisions
Baseline Schedule Acceptance Form	BL Acceptance	Within 30 Days after Effective Date of Contract Approval	2 weeks after submitted	7 Days after approved change
Risk Register	Risk Register	Within 30 Days after Effective Date of Contract Approval	2 weeks after submitted	Monthly (2)
Staffing Plan of General Conditions (Word & PDF)	Staffing Plan	Within 30 Days after Effective Date of Contract Approval	2 weeks after submitted	Monthly (2)
Monthly Progress Report	n/a	Within 30 Days after Effective Date of Contract Approval	2 weeks after submitted	Monthly (2)
Weather Tracking Log	Weather Tracking Log	Within 30 Days after Effective Date of Contract Approval	2 weeks after submitted	Monthly (2)
Procurement Status Report	Procurement Status Report	Within 30 Days after Effective Date of Contract Approval	2 weeks after submitted	Weekly (1)
Full Schedule (XER & PDF)	n/a	Prior to first Pay Application Submission	2 weeks after submitted	Monthly (2)
Critical Path Schedule (PDF)	n/a	Prior to first Pay Application Submission	2 weeks after submitted	Monthly (2)
Milestone Variance Report	Milestone Variance	Prior to first Pay Application Submission	2 weeks after submitted	Monthly (2)
Schedule Change Log	Sch Change Log	Prior to first Pay Application Submission	2 weeks after submitted	Monthly (2)
Schedule Adherence Report	Sch Adherence	Prior to first Pay Application Submission	2 weeks after submitted	Monthly (2)
4 Week Look-ahead Schedule (PP-PDF & Contractor Excel)	4 Week	2 weeks prior to Preconstruction Meeting	2 weeks after submitted	Weekly (1) and Monthly (2)
Contractor Daily Report	Daily Report	2 weeks prior to Preconstruction Meeting	2 weeks after submitted	Daily
Safety Statistics Report	Safety Statistics Weekly Safety Statistics Monthly	2 weeks prior to Preconstruction Meeting	2 weeks after submitted	Weekly (1) and Monthly (2)
Environmental Report	Environmental	First Week on Site	First Week on Site	Weekly (1) and Monthly (2)
QA/QC Non-Conformance Log	QA/QC Non-Conformance Log	First Week on Site	First Week on Site	Weekly (1) and Monthly (2)
Other Reports reasonably requested by Owner	n/a	As Requested	As Requested	As Requested
Financial				
Schedule of Values	n/a	Within 30 Days after Effective Date of Contract Approval	2 weeks after submitted	Monthly
Cash Flow Plan	Cash Flow	Prior to first Pay Application Submission	2 weeks after submitted	Monthly (2)
Summary of CB/M/WSRE Tracking	CBH	Prior to first Pay Application Submission	2 weeks after submitted	Monthly (2)
Change Order Log	CO Log	First Week on Site	2 weeks after submitted	Weekly (1) and Monthly (2)
Pay Application - shall include Monthly Progress Schedule Update, Monthly Progress Report, Updated Schedule of Values, Updated Cash Flow Plan	Pay App Summary CBH_M/WSRE Tracking	On or before the tenth (10) working day		per contract

(1) - Items included in Weekly Progress Report due prior to the Weekly Progress Meeting.
(2) - Items included in Monthly Progress Report to be discussed in the Monthly Progress Meeting



65

EBUILDER PROJECT MANAGEMENT SYSTEM



- e-Builder is the CLT's web-based project management software.
- CLT will provide access and training to the Contractor's project management staff.
- e-Builder is utilized for all project coordination documenting and reporting, including:
 - Submittals
 - RFIs
 - Change Requests
 - Pay Applications
 - Plans & Specs



66

QUESTIONS FROM ATTENDEES

- REMINDERS:
 - All questions asked at the pre-bid meeting are unofficial. Please submit questions in writing via the eBuilder Q&A board.
 - Deadline for all written questions will be on **Monday, May 22, 2023, at 5:00 PM EST.**



67

THANK YOU!



68



**CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT
CHARLOTTE, NORTH CAROLINA**

ADDENDUM NO. 1

**NORTH END AROUND TAXIWAY (NEAT)
OVERLOOK RELOCATION**

**CLT PROJECT NO. AVIA 23-50
ADDENDUM DATE: MAY 16, 2023**

PLAN HOLDERS LIST

Contact	Company	Email	Bid / Status
Hailie Enriquez	Archangel Protective Services	hailie.enriquez@archangelusa.com	No Pending
Logan Childs	Archer Western	lchilds@walshgroup.com	No Pending
Adam McDowell	Axiom Foundations, Inc.	amcdowell@axiomfoundations.com	No Pending
Eve Hibbler	Blythe Development	ehibbler@blythedevelopment.com	No Pending
Cauley Hobson	Chandler Construction Services, Inc.	chobson@chandlerconstruction.com	No Pending
EMILY GULLEDGE	Crowder Construction Company	egulledge@crowderusa.com	No Pending
daren daye	DMD Supply Services Group, LLC.	dmdaye@dmdsupplygroup.com	No Will bid
Kathy Marshall	Dodge Data & Analytics	kathy.marshall@construction.com	No Pending
Dave Scott	HALL CONTRACTING CORPORATION	dscott@hallcontracting.com	No Will bid
Derek Walker	Lane Construction	mdwalker@laneconstruct.com	No Will not bid
Lisa Markus	Martin Landscaping Co., Inc.	martinlandscaping@rocketmail.com	No Will bid
Will Gharst	MESSER CONSTRUCTION CO.	wgharst@messer.com	No Pending
Paul Winter	Neighboring Concepts	paul@neighboringconcepts.com	No Pending
Kara Ely	OnSite Development LLC	onsite17@outlook.com	No Pending
Freddie Young	Sanders Utility Construction Co INC	Freddie@sandersutility.com	No Pending
Walt Fisher	SHOWALTER CONSTRUCTION COMPANY INC	WFisher@showalterconstruction.com	No Pending
Scott Little	State Utility Contractors, Inc.	scott@sucontractors.com	No Pending

(CONTRACTOR NAME) Staffing Plan of General Conditions

Project Name:

Date: 1/30/2021

Title	Name	Hourly Rate (\$)	JAN-21		FEB-21		MAR-21	
			Planned Time Assigned to This Project	Actual Time Assigned to This Project	Planned Time Assigned to This Project	Actual Time Assigned to This Project	Planned Time Assigned to This Project	Actual Time Assigned to This Project
(Example) Project Manager	John Smith	\$100	100%	80%	100%		100%	
(Example) Superintendent	John Smith	\$60	100%	100%	100%		100%	
(Example) Project Controls	John Smith	\$30	100%	100%	100%		50%	
EXAMPLE								

Weather Tracking Log				
Period	Expected "Weather Days" per Month	Non-Working "Weather Days" Allowance in the Schedule Calendar	Actual "Weather Days" Experienced	Expected vs Actual "Weather Days" - Variance
Jan-21	8	0	0	-8
Feb-21	7	0	0	-7
Mar-21	8	0	0	-8
Apr-21	6	0	0	-6
May-21	6	0	0	-6
Jun-21	6	0	0	-6
Jul-21	7	0	0	-7
Aug-21	6	0	0	-6
Sep-21	6	0	0	-6
Oct-21	5	0	0	-5
Nov-21	6	0	0	-6
Dec-21	6	0	0	-6

Procurement Status Report

[illegible]

Milestone Variance Report										
Activity ID	Activity Name	Days from NTP	Contract	Baseline	Jan Update	Feb Update	Contract Variance	BL Variance	Jan vs Feb Variance	Notes
Intermediate Milestones - Completion of a Phase, Completion of a Major Scope Item, and Other Key Dates as Defined by the Construction Documents. This Also Includes Key Dates of Importance To The Contractor.										
			0-Jan-00				0	0	0	
			0-Jan-00				0	0	0	
			0-Jan-00				0	0	0	
			0-Jan-00				0	0	0	
Owner Identified Milestones - Key Dates for Operations, Security, and Other Coordination Efforts Which Will Be Provided By CDIA										
			0-Jan-00				0	0	0	
			0-Jan-00				0	0	0	
			0-Jan-00				0	0	0	
			0-Jan-00				0	0	0	
			0-Jan-00				0	0	0	

SCHEDULE CHANGE LOG			
Total # of Activities	Not Started	In Progress	Completed
Description			Number of Activities
In Progress Duration Changes			
Baseline Duration Changes			
Description			Number of Activities
Added Activities			
Deleted Activities			
Activities that Missed the Late Start Date			
Activities that Missed the Late Finish Date			
Activities that Started Early			
Activities that Finished Early			

SCHEDULE ADHERENCE REPORT

Activities Planned			Actuals - Started/Finished		
Month	Start	Finish	Started	Finished	Calculation

Steps

1. Contractor at the end of the previous month take a "snap shot" of the next months schedule (level 2 or 3)
2. Count the planned number of starts and finishes for the upcoming month.
3. Contractor performs work during the month and takes another "snap shot" of the schedule.
4. Count the completed number of starts and finishes that occurred during the month.
5. Run the following calculation each month to achieve the percentage % of actuals vs planned. (See example)
6. The outcome will help show "are you completing the activities you said you were going to do"
Percentages should typically be over 75% to 80% to show schedule adherence.

Example:

Snap shot taken last closing cycle date of March 2020--> Snap Shot of April 2020 (next month)

Snap shot shows planned starts = 20 and Finishes = 25

Snap shot taken at the end of the closing cycle for the current month ----> April 2020

Snap shot shows completed starts = 15 and finishes = 20 for the month of April 2020

<u>Month</u>	<u>Planned</u>		<u>Actual</u>		
	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>	
Apr-20	20	25	15	20	77.78%

Schedule Adherence = (Actual Starts & Actual Finishes) / (Planned Starts + Planned Finishes)

			Project Superintendent:		Job Superintendent:																											
			3/1/2021							3/8/2021							3/15/2021							3/22/2021								
PROJECT:			SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT		
			3/1	3/2	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10	3/11	3/12	3/13	3/14	3/15	3/16	3/17	3/18	3/19	3/20	3/21	3/22	3/23	3/24	3/25	3/26	3/27	3/28		
Project Days (580)			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Phase/Sub Phase	Prime	Subcontractor																														
Phase 1																																
Example		Sub 1																														
Example	Prime																															
Example		Sub 1																														
Grade for Sod & Sod	Prime	Sub 2																														
Grooving Operation		Sub 5																														
RW CL fixtures and wire		Sub 3																														
B5 & B6 Plaza's, Conduit, Sign Pads		Sub 3																														
B-6 thru B-7		Sub 6																														
Lightning panel P-501		Sub 1																														
B10 to Echo TDZ and CL Fixtures		Sub 3																														
RW edge Wire		Sub 3																														
Video FPVC Runs		Sub 8																														
Stripe Phase 1		Sub 4																														
Vault Bussway		Sub 3																														
Generator Conduit		Sub 3																														
Pour Slabs and Mount Stairs on Generator		Sub 3																														
Russelectric Modify ATS		Sub 3																														
Phase 1E																																
Finish grade for/and Sod		Sub 2																														
Groove Concrete Panels		Sub 5																														
TW B10 Trim-Out (After surface treatment)		Sub 3																														
Surface Treatment		Sub 7																														
B-10 Stripe (west to east)		Sub 4																														

CONTRACTOR DAILY REPORT			
PROJECT NAME			
CONDITIONS			
Weather Conditions:	Example -> Sunny, Low 54, High 84		
Site Conditions:	Status of working conditions, good, poor, flooding & etc.		
Rain Gauge Reading:	0.00"		
DAILY ACTIVITY INFORMATION			
Date:	Date of work		
Work Performed:	Subcontractor #1 Work Scope - description of work performed during the work period. Include key information such as coordination with others. Subcontractor #2 Work Scope - description of work performed during the work period. Include key information such as coordination with others.		
Quantities:	Example: Clearing - 2 AC		
Location:	Provide work areas for work performed above		
Deliveries:			
CONTRACTORS LABOR REPORT INFORMATION			
Contractors Personnel:	Provide labor report for each contractor & personell Contractor: # Superintendent, (#)Assistance Superintendents, (#)Foreman, (#)Journeyman, (#)laborers, (#)Technicians, (#)Painters, (#)Fire Protection & etc.		
Subcontractor Personnel:	Provide labor report for each subcontractor & personell Subcontractor: # Superintendent, (#)Assistance Superintendents, (#)Foreman, (#)Journeyman, (#)laborers, (#)Technicians, (#)Painters, (#)Fire Protection & etc.		
Contractor's Hours Worked:	Example 7:00 am - 5:00 pm		
Visitors on Job-Site:	Example 2 FAA		
Accidents:	#		
CONTRACTOR'S MAJOR EQUIPMENT ON-SITE			
Equipment On-Site	Quantity	Equipment, if Other,	Idle
Provide Major Equipment - Crane	1	Heavy Duty	
ADDITIONAL COMMENTS			

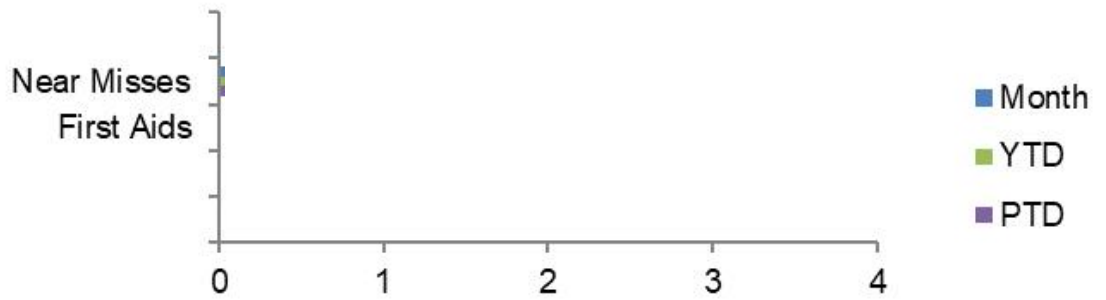
Safety Statistics Report - Weekly

- a. Safety Minute - Provide meeting topic to be discussed in Weekly Progress Meeting
- b. Man Hours to date
- c. First Aid Incidents this Week
- d. Near Misses this Week
- e. Recordable Incidents this Week
- f. Lost Time Accidents this Week
- g. Weeks Without Lost Time Accidents

EXAMPLE

Safety Summary

Safety Table & Graph



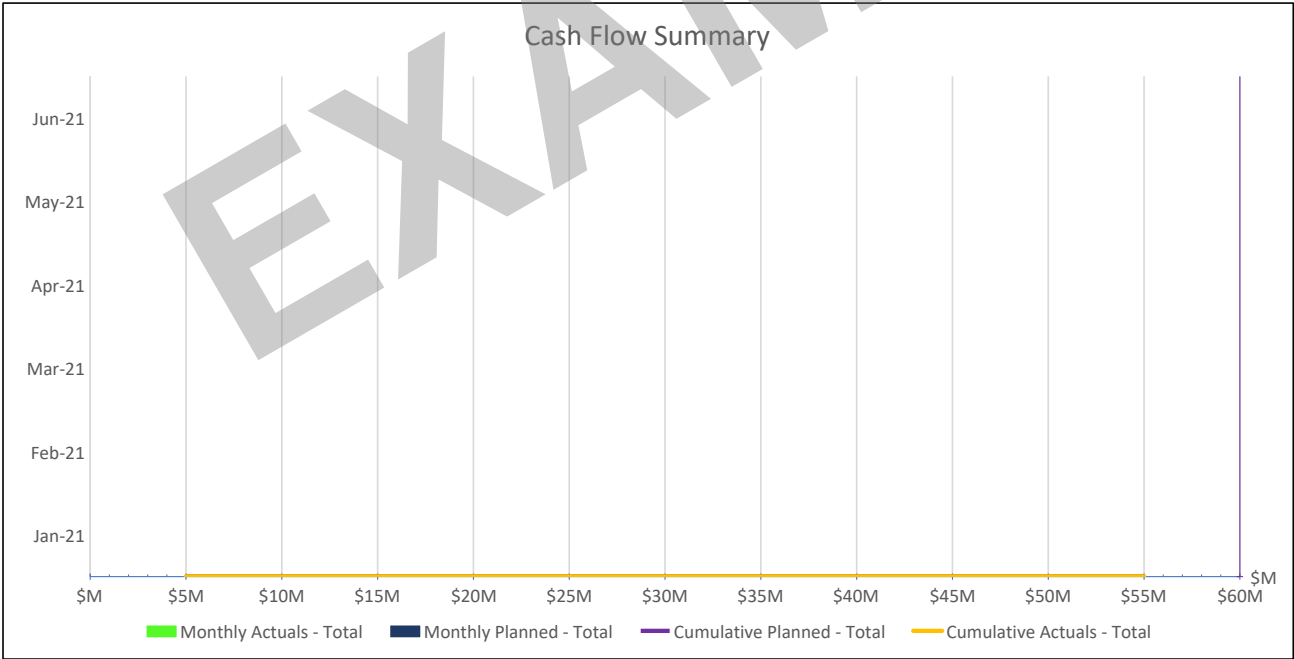
Description	MTD	YTD	PTD
Total Hours Worked	0	0	0
Days without Lost Time	0	0	0
Days without Accident	0	0	0
Near Miss Incidents	0	0	0
First Aids	0	0	0

I Safety Statistics Report - Monthly				
	<u>Data</u>	<u>Month</u>	<u>Year to Date</u>	<u>Project to Date</u>
			project total for the current year (0 - 12 months)	total project to date
Man hours	Man hours	reporting month	project total for the current year (0 - 12 months)	total project to date
First Aid	First Aid	reporting month	project total for the current year (0 - 12 months)	total project to date
Near Miss	Near Miss	reporting month	project total for the current year (0 - 12 months)	total project to date
Recordables	Recordables	reporting month	project total for the current year (0 - 12 months)	total project to date
Lost Time	Lost Time	reporting month	project total for the current year (0 - 12 months)	total project to date
Project Recordable Incident Rate	0.0			
National Average Rate	3.1			
Project Lost Time Accidents				
Project Lost Time Accident Rate	0.0			
National Average	1.2			
II Incident Review				
Report on incidents that occurred in during the month and reported above				
III High Hazard Upcoming Activities		Risk Mitigation Techniques		
Provide work scope that is high hazard work upcoming on the project		Provide risk mitigation tools and techniques that will be used to prevent high hazard incidents		
V Highlights				
Provide any safety program highlights. Examples are Safety Orientations, Daily Stretch and Flex				

Environmental Report			
Environmental Compliance Issues			
Date	Issue Description	Correction	Date Corrected
Precipitation Table			
Date	Amount (inches)	Type (Rain, Snow, etc.)	Critical Path Schedule Impact Y/N
1/1/2021			
1/2/2021			
1/3/2021			
1/4/2021			
1/5/2021			
1/6/2021			
1/7/2021			
1/8/2021			
1/9/2021			
1/10/2021			
1/11/2021			
1/12/2021			
1/13/2021			
1/14/2021			
1/15/2021			
1/16/2021			
1/17/2021			
1/18/2021			
1/19/2021			
1/20/2021			
1/21/2021			
1/22/2021			
1/23/2021			
1/24/2021			
1/25/2021			
1/26/2021			
1/27/2021			
1/28/2021			
1/29/2021			
1/30/2021			
1/31/2021			

Cash Flow Plan						
Planned					Actuals & Projections	
Month/Year	Early Finish	Late Finish	Average Monthly Total	Cumulative Total	Actual	Cumulative Total
Jan-21			\$0	\$0		\$0
Feb-21			\$0	\$0		\$0
Mar-21			\$0	\$0		\$0
Apr-21			\$0	\$0		\$0
May-21			\$0	\$0		\$0
Jun-21			\$0	\$0		\$0
Total	\$0	\$0	\$0		\$0	

Cash Flow Plan							
Description	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Total
Planned							
Early Finish							\$0
Late Finish							\$0
Average Monthly Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Cummalative Total	\$0	\$0	\$0	\$0	\$0	\$0	
Actuals & Projections							
Monthly Total							
Cummalative Total	\$0	\$0	\$0	\$0	\$0	\$0	



Summary of CBI / MWSBE Tracking			
Description	MWSBE	Contract Value \$	Total MWSBE \$
Contract Goals	0.00%		
Current Committments	0.00%		
Current Status	0.00%		

EXAMPLE

[illegible][illegible]

Contractor's Certification of Buy American Compliance

[Contractor] hereby certifies that it has complied with 49 USC § 50101, BABA and other related U.S. statutes, guidance, and policies of the FAA by:

- a) Only installing iron, steel and manufactured products produced in the United States;
- b) Only installing construction materials defined as: an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives that are or consist primarily of non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); lumber or drywall that have been manufactured in the United States.
- c) Installing manufactured products for which the Federal Aviation Administration (FAA) has issued a waiver as indicated by inclusion on the current FAA Nationwide Buy American Waivers Issued listing; or
- d) Installing products listed as an Excepted Article, Material or Supply in Federal Acquisition Regulation Subpart 25.104 and 25.108.

The attached documentation is provided as evidence of the source and origin of the iron, steel, and/or manufactured product, and certifying that these permanent construction materials used in the project are manufactured in the U.S.

Contract Pay Item #	Pay Item Description	Quantity	Product Manufacturer/Supplier*

Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Authorized Corporate Signature

Date

Printed Name

e-Mail Address

Position Title

Phone Number

* Attach the corresponding Manufacturer's Certification of Buy American Compliance for each Manufacturer or Supplier listed and all products listed on this sheet.

TO BE POPULATED ON MANUFACTURER OR SUPPLIER LETTERHEAD

Manufacturer's Certification of Buy American Compliance

This is to certify the items, products and/or materials listed below for use on the [Project Name] in [Project Location]

- a) are **wholly produced in the United States of 100% U.S. Material** in accordance with 49 USC § 50101; or
- b) are listed as a **Nonavailable Article in Federal Acquisition Regulation Subpart 25** and comply with 49 USC § 50101; or
- c) are included on the **FAA Nationwide Buy American Waivers Issued** list per 49 USC § 50101(b).

Part/Model #	Product Description	Quantity	Manufacturing Location

Per 49 USC § 47126, this certification concerns a matter within the jurisdiction of the Federal Aviation Administration and the making of a false, fictitious or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code.

Authorized Corporate Signature

Date

Printed Name

e-Mail Address

Position Title

Phone Number

CHAIN LINK FENCE AND GATES



1.0 DESCRIPTION

Work covered by this special provision consists of furnishing and erecting chain link fence as shown on the plans and in accordance with the provisions of these specifications. This fencing is not intended to be SIDA fencing.

2.0 MATERIALS

2.1 Fabric. The fabric shall be woven with a 9-gauge galvanized steel wire in a 2-inch (50 mm) mesh and shall meet the requirements of ASTM A392, Class 2.

2.2 Posts, rails, and braces. Posts, rails, and braces shall conform to the requirements of ASTM F1043 or ASTM F1083 as follows:

- Galvanized tubular steel pipe shall conform to the requirements of Group IA, (Schedule 40) coatings conforming to Type A, or Group IC (High Strength Pipe), external coating Type B and internal coating Type B or D.

Posts, rails, and braces, with the exception of galvanized steel conforming to ASTM F1043, Material Group IA, Type A, shall demonstrate the ability to withstand testing in salt spray in accordance with ASTM B117 as follows:

- External: 1,000 hours with a maximum of 5% red rust.
- Internal: 650 hours with a maximum of 5% red rust.

The dimensions of the posts, rails, and braces shall be in accordance with Tables I through IV of Federal Specification RR-F-191/3.

2.3 Gates. Gate frames shall consist of galvanized steel pipe and shall conform to the specifications for the same material under paragraph 2.2. The fabric shall be of the same type material as used in the fence.

- Gates shall be provided with galvanized malleable iron or heavy gauge post and frame hinges.
- Single gates shall be provided with positive locking latches fabricated of 5/16 in. by 1-3/4 in. pressed galvanized steel.
- One leaf of double gates shall have a positive anchor consisting of two galvanized malleable iron or heavy gauge brackets and a 3/4 in. "L" shaped slide bar secured to a casting or embedded pipe in a 10 in. pier (minimum 18 in. embedment); the mating leaf shall have a positive locking latch described above.

- Each gate shall have a continuous concrete pad shown in the details extending to a point 1'-0" beyond gate piers on each side of the opening.
- The Owner will provide chains and padlocks at Project completion.

2.4 Wire ties and tension wires. Wire ties for use in conjunction with a given type of fabric shall be of the same material and coating weight identified with the fabric type. Tension wire shall be 7-gauge marcelled steel wire with the same coating as the fabric type and shall conform to ASTM A824. All material shall conform to Federal Specification RR-F-191/4.

2.5 Miscellaneous fittings and hardware. Miscellaneous steel fittings and hardware for use with zinc-coated steel fabric shall be of commercial grade steel or better quality, wrought or cast as appropriate to the article, and sufficient in strength to provide a balanced design when used in conjunction with fabric posts, and wires of the quality specified herein. All steel fittings and hardware shall be protected with a zinc coating applied in conformance with ASTM A153. Barbed wire support arms shall withstand a load of 250 pounds (113 kg) applied vertically to the outermost end of the arm.

2.6 Concrete. Concrete shall have a minimum 28-day compressive strength of 3,000 psi (2670 kPa). Concrete for post footings shall be manufactured using Type III, High Early Strength Portland cement. Concrete used in pads under gates may use either Type I or Type III Portland cement at Contractor's option.

2.7 Marking. Each roll of fabric shall carry a tag showing the kind of base metal (steel), kind of coating, the gauge of the wire, the length of fencing in the roll, and the name of the manufacturer. Posts, wire, and other fittings shall be identified as to manufacturer, kind of base metal (steel), and kind of coating.

1.0 SUBMITTALS

Prepare and submit to the Engineer for approval complete shop drawings and design computations for the bracing, accessory hardware, and foundations for the 3-Bar Metal Gate and Double Swing Gate.

Have a professional engineer registered in the State of North Carolina, perform the computations, and render a set of sealed, signed and dated drawings detailing the construction of each gate.

4.0 CONSTRUCTION METHODS

4.1 General. The fence shall be constructed at locations shown on the plans and as specified here using new materials. The Contractor shall layout the fence line based on the plans. The Contractor shall span ditch openings below the fence as shown in the ditch crossing detail.

4.2 Clearing fence line. Clearing shall consist of the removal of all stumps, brush, rocks, trees, or other obstructions that will interfere with proper construction of the fence. Stumps within the cleared area of the fence shall be grubbed or excavated. The bottom of the fence shall be placed a uniform distance above ground, as specified in the plans. All holes remaining after post and stump removal shall be refilled with suitable soil, gravel, or other suitable material and compacted with tampers.

4.3 Installing posts. All posts shall be set in concrete at the required dimension and depth and at the spacing shown on the plans.

The concrete shall be thoroughly compacted around the posts by tamping or vibrating and shall have a smooth finish slightly higher than the ground and sloped to drain away from the posts. All posts shall be set plumb and to the required grade and alignment. No materials shall be installed on the posts, nor shall the posts be disturbed in any manner within twenty-four (24) hours after the individual post footing is completed.

Should rock be encountered at a depth less than the planned footing depth, a hole 2 inches (50 mm) larger than the greatest dimension of the posts shall be drilled to a depth of 12 inches (300 mm). After the posts are set, the remainder of the drilled hole shall be filled with grout, composed of one part Portland cement and two parts mortar sand. Any remaining space above the rock shall be filled with concrete in the manner described above.

In lieu of drilling, the rock may be excavated to the required footing depth. No extra compensation shall be made for rock excavation.

4.4 Installing top rails. The top rail shall be continuous and shall pass through the post tops. The coupling used to join the top rail lengths shall allow for expansion.

4.5 Installing braces. Horizontal brace rails, with diagonal truss rods and turnbuckles, shall be installed at all terminal posts.

4.6 Installing fabric. The wire fabric shall be firmly attached to the posts and braced as shown on the plans. All wire shall be stretched taut and shall be installed to the required elevations. The fence shall generally follow the contour of the ground, with the bottom of the fence fabric no less than one inch (25 mm) or more than 4 inches (100 mm) from the ground surface. Grading shall be performed where necessary to provide a neat appearance.

At locations of small natural swales or drainage ditches and where it is not practical to have the fence conform to the general contour of the ground surface, longer posts may be used and multiple strands of barbed wire stretched to span the opening below the fence as shown in the details. The vertical clearance between strands of barbed wire shall be 6 inches (150 mm) or less.

5.0 MEASUREMENT

5.1 The quantity of chain link fence to be measured is the actual number of linear feet of fence, measured from center of post to center of post, which has been completed and accepted.

5.2 Gates will be measured as complete units.

Double swing gate will be measured per each. This pay item includes all work associated with the gate, including but not limited to, the gate, sign placement, and all items for the gate to function.

6.0 PAYMENT

6.1 Payment for chain link fence will be made at the contract unit price per linear foot. No measure or payment will be made for ditch crossings. The ditch crossings will be incidental and included with the payment for chain link fence.

6.2 Payment for vehicle gates will be made at the contract unit price for each gate.

The price shall be full compensation for furnishing all materials, and for all preparation, erection, and installation of these materials, and for all labor equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

FENCE, 96" CHAIN LINK	LF
28' 96"- CHAIN LINK DOUBLE SWING GATE (Overlook Site).....	EA
30' 3-BAR METAL GATE (Food Truck Drive).....	EA
32' DOUBLE SWING GATE (End of Overlook Drive & ASR Entrance)	EA

AIRCRAFT DISPLAY (ALLOWANCE NO. 1)



1.0 GENERAL

The contractor shall construct an aircraft display at the location designated in the plans and CLT will provide the current location of the aircraft. The contractor will be responsible for hauling the aircraft to the site (F-14 aircraft located within 75 miles of CLT) installing the aircraft and LED display lighting.

The Aircraft Display Allowance is to provide payment for this Work. Any unused portion of the allowance remaining at the completion of the Contract shall revert to the Owner as a credit.

An example of the work required:



1.1 COORDINATION

At the earliest practical date after award of the Contract, the Contractor shall advise Owner of the date when final selection and purchase of each product or Work described by an Allowance must be completed to avoid delaying the Work.

1.2 PROCEDURES

Coordinate and process submittals for additional work for the Aircraft Display Allowance. Contractor shall submit a detail cost proposal for purchase of products and work for review and approval prior to commencing work.

2.0 EXECUTION

SCHEDULE OF ALLOWANCES

The aircraft shall be furnished by the Owner and the Contractor shall haul and install the aircraft at the location shown on the plan.

The Contractor shall provide all labor and materials to provide complete display installation of the aircraft including, but not limited to, hauling, aircraft, anchors, wheel stops, and display lighting (including MCCE permits, and additional conduit and conductors not shown on plan).

Preparation of the display location, grading, fencing, conduit, handholds, landscaping, foundation, and electrical conductors as show on the plans will be provided by their separate pay items.

3.0 PAYMENT

An amount has been designated by the Owner to approximately represent Contractor's cost for all labor and material to install the Aircraft Display item(s) and any applicable sales tax. This amount, at its final accounting, could be more or less depending on Owner's selection(s) and/or a third party's actual charges to the CONTRACTOR.

If the cost of the allowance amount exceeds the amount specified, then that amount will be added to the next progress payment or final payment as approved by CLT. If the amount is less than the allowance amount, then that amount will be subtracted from the final amount of the Contract.

ALLOWANCE NO. 1 AIRCRAFT DISPLAY ALLOWANCE

BOLLARD AND CHAIN BARRIER



1.0 DESCRIPTION

The bollard and chain barrier are to designate the boundary of the aircraft display and create a deterrent for safety.

Section shall consist of furnishing and erecting Manufactured Metal Bollards and Chains in accordance with these specifications, the details shown on the plans, and in conformity with the lines and grades shown on the plans. The Bollard Chain barrier installation includes all bollards, quick release opening, and concrete foundation.

1.1 SUBMITTALS

- A. Comply with shop drawing Submittal Procedures
- B. Product Data – submit the following information:
 - 1. Product literature
 - 2. CAD drawings
 - 3. Made in the USA Statement
 - 4. Proprietary information
- D. Warranty – submit manufacturer’s standard warranty

1.2 QUALITY ASSURANCE

- A. Manufacturer’s Qualifications

1.3 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Deliver products to site in manufacturer’s clearly marked original, unopened containers and packaging. Upon delivery, examine packages immediately to ensure all products are complete and undamaged.
- B. Storage: Store products in a protected, dry area in manufacturer’s unopened containers and packaging until installation.
- C. Handling: Protect product’s finish from damage during handling and installation.

1.4 WARRANTY

- A. Material is warranted against material and workmanship defects for THREE YEARS from the date of shipment from manufacturer, assuming products are installed and maintained according to manufacturer’s instruction.
- B. Products damaged by abnormal use, vandalism or acts of nature are not eligible for this factory warranty.

- C. Manufacturer will repair or replace any part found defective upon written notification and inspection by our manufacturer's representative.

PART 2 - PRODUCTS

2.1 BOLLARD

- A. Permanent metal bollard 36" Minimum height above grade
- B. Fully assembled metal powder coated bollard
- C. Made in the USA
- D. Complete weld seams where two pieces of metal touch to reduce chance of corrosion
- E. Concrete foundation
- F. Metal powder coated in black color

2.2 CHAIN

- A. Link bollards with 5/16" connecting chains to deter pedestrians from entering the aircraft display area. Attach chains with chain eyes. Provide one quick link for easy removal to provide access.
- B. Chains are to be black powder coated galvanized steel.

2.3 MATERIALS

- A. Commercial-grade materials,
- B. Completely welded for optimum strength and stability.
- C. Sizes and dimensions according to Manufacture recommendation
- D. Minimum 4" schedule 40 pipe with half dome cap; 11 ga x 3-3/4" tubing removable sleeve
- E. 1/4 x 2" flat metal tabs for concrete stabilization
- F. 1/2" cast iron d-rings for chain loops

2.4 FINISHES

Metal products are finished with a two-coat powder coating process applied to a 7-15 mil thickness. Substrate preparation includes sandblasting to remove all surface contaminants, place a corrosion-inhibiting coating prior to the application of the powder coating. The first coat applied to the substrate is zinc rich epoxy powder primer used exclusively on sandblasted parts. The second coat is a colored polyester powder coating. Both coats are electrostatically applied, and oven cured according to powder coating manufacturing specifications to create a smooth, black satin-like finish.

2.5 FASTENERS

Provide fasteners of size according to the manufacture's recommendation.

PART 3 – EXECUTION

3.1 EXAMINATION

Confirm that installation area is as shown in the plans and bollard locations are approved by the Engineer for product placement.

3.2 INSTALLATION

- A. Install product in accordance with manufacturer’s instructions at locations indicated on the drawings.
- B. Install product level and plumb.
- C. Anchor product securely in place.

3.3 PROTECTION

Protect products prior to installation by having them remain in the manufacturer’s packaging and container.

PART 4 – MEASUREMENT

Bollard and Chain Barrier will be measured for payment by the number of bollards installed and accepted. No separate measurement will be made for concrete foundations, chain, and connections. Payment for these items is incidental to the measurement for *Bollard and Chain Barrier*.

PART 5 –PAYMENT

Payment for *Bollard and Chain Barrier* will be made at the contract unit price per each.

The price shall be full compensation for furnishing all materials, and for all preparation, erection, and installation of these materials, and for all labor equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

BOLLARD AND CHAIN BARRIER EA

AIRCRAFT DISPLAY CONCRETE FOUNDATION:

1.0 Description

The work covered by this special provision includes furnishing all materials, labor, equipment, and incidentals necessary to install Cast-in-place footing for Aircraft Display in accordance with these provisions and contract documents.

2.0 MATERIALS

Refer to NCDOT Standard Specifications Division 10.

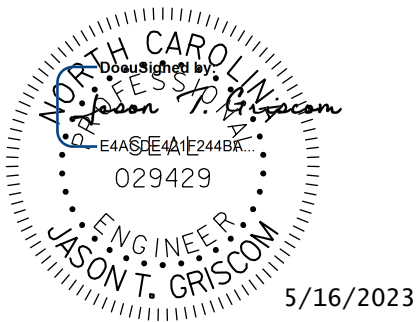
Item	Section
Reinforcing Steel	1070
Portland Cement Concrete	1000

3.0 MEASUREMENT AND PAYMENT

All items associated with the *Airplane Display Concrete Foundation* will be paid for at the contract lump sum price for *Airport Display Concrete Foundation*. Such Price and payment will be full compensation for all work covered by this special provision, the plans and applicable parts of the NCDOT standard specifications and will include, but not be limited to, furnishing all labor, materials, equipment and other incidentals necessary to complete this work. Such price and payment will also be full compensation for concrete, reinforcing steel, excavating, backfilling, labor and all other related materials necessary for the completion of the footing. No separate measurement or payment will be made for items needed to complete the work satisfactorily.

Payment will be made under:

Aircraft Display Concrete Foundation LS



A. ITEMIZED BID

NEAT OVERLOOK RELOCATION

Charlotte Douglas International Airport
Project No.: **AVIA 23-50**

BASE BID (Unit Price Total Amount + Allowances = BASE BID)

The undersigned Bidder, having carefully examined the Bidding and Contract Documents, and having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment, permits and services, including all scheduled Allowances, necessary to complete the Work for the above-named project, in accordance with the requirements of the Bidding Documents, for the sum of: _____ Dollars (\$ _____)

ALTERNATES (Base Bid + Allowances + Alternate(add/deduct) = ALTERNATES)

The undersigned Bidder, having carefully examined the Bidding and Contract Documents, and having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment, permits and services, including all scheduled Allowances and Alternate scope, necessary to complete the Work for the above-named project, in accordance with the requirements of the Bidding Documents, for the sum of: _____ Dollars (\$ _____)

UNIT PRICES

Line Item	Spec No.	Description	Qty	Unit	Unit Price	Amount
1	800	MOBILIZATION (5%)	1	LS		
2	200	CLEARING AND GRUBBING	1	LS		
3	200	SUPPLEMENTARY CLEARING AND GRUBBING	1	ACR		
4	225	UNCLASSIFIED EXCAVATION	32500	CY		
5	225	UNDERCUT EXCAVATION	250	CY		
6	235	EMBANKMENT SETTLEMENT GAUGES	8	EA		
7	260	PROOF ROLLING	20	HR		
8	270	GEOTEXTILE FOR SOIL STABILIZATION	6000	SY		
9	300	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	150	TN		
10	300	FOUNDATION CONDITIONING GEOTEXTILE	500	SY		
11	310	15" RC PIPE CULVERTS, CLASS III	276	LF		
12	310	18" RC PIPE CULVERTS, CLASS III	292	LF		
13	310	24" RC PIPE CULVERTS, CLASS IV	64	LF		
14	310	15" RC PIPE CULVERTS, CLASS IV	60	LF		
15	310	18" RC PIPE CULVERTS, CLASS IV	104	LF		
16	300	6" CLEAN OUT	2	EA		
17	500	FINE GRADING	1	LS		
18	520	AGGREGATE BASE COURSE	9,000	TN		
19	560	SHOULDER BORROW	50	CY		
20	607	INCIDENTAL MILLING	100	SY		
21	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B	1,500	TN		

Line Item	Spec No.	Description	Qty	Unit	Unit Price	Amount
22	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	2000	TN		
23	620	ASPHALT BINDER FOR PLANT MIX	200	TN		
24	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	30	TN		
25	815	6" PVC SUBDRAIN, SCHEDULE 80	500	LF		
26	840	MASONRY DRAINAGE STRUCTURES	6	EA		
27	840	FRAME WITH GRATE, STD 840.14	2	EA		
28	840	FRAME WITH COVER, STD 840.54	4	EA		
29	846	2'-6" CONCRETE CURB AND GUTTER	100	LF		
30	SP	FLUSH CONCRETE CURB	300	LF		
31	848	4" CONCRETE SIDEWALK	4900	SY		
32	SP	FENCE, 48" CHAIN LINK	0	LF		
33	SP	FENCE, 96" CHAIN LINK	2500	LF		
34	SP	28' 96"- CHAIN LINK DOUBLE SWING GATE (Overlook Site)	1	EA		
35	SP	12' 48"- CHAIN LINK DOUBLE SWING GATE (Aircraft Display)	0	EA		
36	SP	30' 3-BAR METAL GATE (Food Truck Drive)	1	EA		
37	SP	32' DOUBLE SWING GATE (End of Overlook Drive & ASR Entrance)	2	EA		
38	SP	REMOVAL OF EXISTING FENCE	500	LF		
39	876	RIP RAP, CLASS B	5	TN		
40	876	GEOTEXTILE FOR DRAINAGE	10	SY		
SIGNING						
41	901	CONTRACTOR FURNISHED, TYPE E SIGN	168	SF		
42	903	SUPPORTS, 3-LB STEEL U-CHANNEL	860	LF		
43	904	SIGN ERECTION TYPE E (GROUND MOUNTED)	64	EA		
TRAFFIC CONTROL						
44	1110	WORK ZONE SIGNS (STATIONARY)	54	SF		
45	1110	WORK ZONE SIGNS (PORTABLE)	54	SF		
46	1110	WORK ZONE SIGNS (BARRICADE MOUNTED)	10	SF		
47	1130	DRUMS	100	EA		
48	1145	BARRICADES (TYPE III)	100	LF		
49	1150	FLAGGER	6	DAY		
PAVEMENT MARKING						
50	1205	THERMOPLASTIC PAVEMENT MARKING LINES (4",90 MIL)	12,000	LF		
51	1205	THERMOPLASTIC PAVEMENT MARKING LINES (8",90 MIL)	50	LF		
52	1205	THERMOPLASTIC PAVEMENT MARKING LINES (24" 90 MIL)	100	EA		
53	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MIL)	4	EA		
54	1205	PAINT PAVEMENT MARKING LINES (4")	4,000	LF		
55	1205	PAINT PAVEMENT MARKING LINES (12")	600	LF		
56	1205	PAINT PAVEMENT MARKING LINES (24")	650	LF		

Line Item	Spec No.	Description	Qty	Unit	Unit Price	Amount
57	1205	PAINT PAVEMENT MARKING SYMBOL	16	EA		
SITE AMENITIES						
58	SP	ALLOWANCE NO.1 AIRCRAFT DISPLAY	1	ALLOW	125,000.00	125,000.00
59	SP	ALLOWANCE NO.2 AIRPORT OVERLOOK ENTRANCE SIGN	1	ALLOW	150,000.00	150,000.00
60	SP	ALLOWANCE NO.3 SITE WAYFINDING SIGNAGE	1	ALLOW	115,000.00	115,000.00
61	SP	AIRPORT OVERLOOK ENTRANCE SIGN CONCRETE FOUNDATION	1	LS		
62	SP	MOCK RUNWAY MARKING	1	LS		
63	SP	REMOVABLE STEEL BOLLARD	5	EA		
64	SP	CONCRETE WHEEL STOP	155	EA		
65	SP	SYNTHETIC TURF	7,500	SF		
66	SP	8' SURFACE MOUNT PICNIC TABLE	23	EA		
67	SP	8' ACCESSIBLE SURFACE MOUNT PICNIC TABLE	6	EA		
68	SP	6' BENCH SEAT (CLT SUPPLIED)	12	EA		
69	SP	TRASH RECEPTACLE	12	EA		
70	SP	PET WASTE STATION	4	EA		
71	SP	RACK FOR BICYCLE PARKING, CLDS 50.21	3	EA		
72	SP	TRASH DUMPSTER ENCLOSURE	1	LS		
SITE ELECTRICAL AND LIGHTING						
73	SP	CONCRETE BOLLARD LIGHTING	12	EA		
74	SP	ELECTRICAL JUNCTION BOX	20	EA		
75	SP	6" ELECTRICAL CONDUIT, SCHEDULE 40	700	LF		
76	SP	3" ELECTRICAL CONDUIT, SCHEDULE 40	5,500	LF		
77	SP	2" ELECTRICAL CONDUIT, SCHEDULE 40	300	LF		
78	SP	1" ELECTRICAL CONDUIT, SCHEDULE 40	1,000	LF		
79	SP	2 AWG SIZE 8 CONDUCTOR (BK & RD)	3,000	LF		
80	SP	1 AWG SIZE 10 GROUNDING CONDUCTOR	2,000	LF		
81	SP	100 Amps, 208Y/120/240V LOAD CENTER	1	EA		
SITE SECURITY						
82	SP	ALLOWANCE NO.4 SECURITY ITEMS PROVIDED, INSTALLED AND ITEGRAED BY JCI	1	Allowance	314,000.00	314,000.00
83	SP	NETWORK SWITCH (TERMINAL COMMUNICATIONS ROOM)	8	EA		
84	SP	1" CONDUIT (MATERIAL AND INSTALLATION)	3,500	LF		
85	SP	2 AWG SIZE 8 CONDUCTOR (BK & RD)	5,000	LF		
86	SP	1 AWG SIZE 10 GROUNDING CONDUCTOR	3,500	LF		
87	SP	CAT-6	100	LF		
88	SP	24 VDC POWER SUPPLIES	11	EA		
89	SP	48 VDC POWER SUPPLIES	8	EA		
90	SP	POE INJECTOR	1	EA		
91	SP	EQUIPMENT ENCLOSURE	8	EA		
92	SP	PELCO 12' POLE	8	EA		
93	SP	PELCO POLE BASE	8	EA		

Line Item	Spec No.	Description	Qty	Unit	Unit Price	Amount
94	SP	ANCHOR BOLTS	64	EA		
95	SP	ACORN CAP FOR POLE	8	EA		
96	SP	FIRE DEPARTMENT ACCESS KEY LOCK BOX	1	EA		
WATER AND SEWER						
97	SPUC-01A	8" DI PC350 RESTRAINED JOINT WATER LINE W/FITTINGS	2,010	LF		
98	SPUC-01B	6" DI PC350 RESTRAINED JOINT WATER LINE W/FITTINGS	74	LF		
99	SPUC-01C	2" PVC SCH40 WATER LINE W/FITTINGS	2,000	LF		
100	SPUC-01D	1" PVC SCH40 WATER LINE W/FITTINGS	1,800	LF		
101	SPUC-02A	8" GATE VALVE	2	EA		
102	SPUC-02B	6" GATE VALVE	5	EA		
103	SPUC-02C	MJ CAP W/ 2" BLOW OFF ASSEMBLY	1	EA		
104	SPUC-02D	1" IRRIGATION WATER SERVICE METER WITH BACKFLOW	1	EA		
105	SPUC-02E	2" DOMESTIC WATER METER WITH BACKFLOW	1	EA		
106	SPUC-02F	8" FIRE LINE SERVICE WITH DETECTOR METER AND BACKFLOW	1	EA		
107	SPUC-02G	FIRE HYDRANT ASSEMBLY	4	EA		
108	SPUC-02H	24" X 8" TAPPING SADDLE AND VALVE	1	EA		
109	SPUC-03A	6" SEWER SERVICE WITH CLEANOUTS	294	LF		
110	SPUC-03B	PRECAST SEPTIC TANK 2500 GALLONS	1	EA		
111	SPUC-03C	PRECAST PUMP TANK W/ PUMP SYSTEM AND CONNECTION BETWEEN TANKS	1	EA		
112	SPUC-03D	2" FORCE MAIN WITH CLEANOUTS, BALL VALVES AND PVC SLEEVES	2,591	LF		
113	SPUC-03E	AIR RELEASE VALVE ASSEMBLY	2	EA		
114	SPUC-03F	MANIFOLD ASSEMBLY W/SUPPLY LINES	1	EA		
115	SPUC-03G	NITRIFICATION LINES INCLUDING CLEARING AND ALL SEPTIC FIELD RESTORATION	1,500	LF		
116	SPUC-04A	REMOVAL OF UNSUITABLE MATERIAL	150	CY		
117	SPUC-04B	SELECT FILL	150	CY		
BUILDING AND ARCHITECTURAL						
118	SP	ARCHITECTURAL	1	LS		
119	SP	STRUCTURAL	1	LS		
120	SP	PLUMBING	1	LS		
121	SP	MECHANICAL	1	LS		
122	SP	ELECTRICAL	1	LS		

Line Item	Spec No.	Description	Qty	Unit	Unit Price	Amount
123	SP	CONCRETE PAVERS (MEMORIAL)	1	LS		
124	SP	PRE-CAST BENCH TYPE 1 (MEMORIAL)	1	LS		
125	SP	PRE-CAST BENCH TYPE 2 (PLAYGROUND)	1	LS		
LANDSCAPING						
126	SP	SHRUB - 3 GAL	217	EA		
127	SP	TREE - 2" CAL MIN.	27	EA		
128	SP	MULCH	100	CY		
129	SP	TOP SOIL	650	CY		
130	SP	RIVER ROCK	100	TN		
131	SP	IRRIGATION SYSTEM - COMPLETE	1	LS		
EROSION CONTROL						
132	1605	TEMPORARY SILT FENCE	5,000	LF		
133	1610	EROSION CONTROL STONE, CLASS B	400	TN		
134	1615	TEMPORARY MULCHING	120	ACR		
135	1620	SEED FOR TEMPORARY SEEDING	500	LB		
136	1620	FERTILIZER FOR TEMPORARY SEEDING	3	TN		
137	1622	TEMPORARY SLOPE DRAINS	700	LF		
138	1630	SILT EXCAVATION	3,000	CY		
139	1631	MATting FOR EROSION CONTROL	13,000	SY		
140	SP	COIR FIBER MAT	20	SY		
141	SP	PERMANENT SOIL REINFORCEMENT MAT	1,500	SY		
142	1632	1/4" HARDWARE CLOTH	200	LF		
143	SP	24" TEMPORARY PIPE	300	LF		
144	SP	COIR FIBER WATTLE	300	LF		
145	SP	SKIMMER BASIN MAINTENANCE	2	EA		
146	1660	SEEDING AND MULCHING	4	ACR		
147	1660	MOWING	4	ACR		
148	1661	SEED FOR REPAIR SEEDING	100	LB		
149	1661	FERTILIZER FOR REPAIR SEEDING	1	TN		
150	1662	SEED FOR SUPPLEMENTAL SEEDING	100	LB		
151	1665	FERTILIZER TOPDRESSING	2	TN		
152	SP	CONCRETE WASHOUT STRUCTURE	3	EA		
153	1667	SPECIALIZED HAND MOWING	20	MHR		
OVERLOOK WATER QUALITY BASIN						
154	200	Borrow Excavation	1,037	CY		
155	225	No. 57 Washed Stone for Sand Filters	333	TN		
156	225	6" Perforated PVC Pipe	414	LF		
157	225	8" Non-Perforated PVC Pipe	94	LF		
158	275	Geotextile Fabric for Filter Basin	997	SY		
159	520	PVC Cleanout	16	EA		
160	876	PVC Elbows	2	EA		
161	876	PVC Tees	4	EA		

Line Item	Spec No.	Description	Qty	Unit	Unit Price	Amount
162	1620	Pre-Caste Riser Basin	1	EA		
163	1660	Pre-Caste Riser Basin (Above 5' VF)	1	EA		
164	838	4" DIP	2	LF		
165	838	4" Gate Valve and Valve Box	1	EA		
166	825	HDPE Peaked Trash Rack	1	EA		
167	310	Rip Rap, Class I	17	TN		
168	310	Rip Rap, Class A	321	TN		
169	825	Geotextile Fabric, Type-2	466	SY		
170	1605	Temporary Silt Fence	476	LF		
171	1605	Inlet Protection	6	EA		
172	1639	Special Stilling Basins	1	EA		
173	1664	Sodding	561	SY		
174	SP	Sand Aggregate Material for Sand Filter BMP	997	TN		
175	1610	Fence, 5' Chain Link Fence	280	LF		
176	876	Fence Removal. 5' Chain Link Fence	300	LF		
177	240	Fence, 5' Chain Link (Double Gate)	1	EA		
178	852	Tree Removal	28	EA		
179	610	Tree - 3" Caliper	28	EA		
180	SP	AIRCRAFT DISPLAY CONCRETE FOUNDATION	1	LS		
181	SP	BOLLARD AND CHAIN BARRIER	26	EA		
UNIT PRICE TOTAL AMOUNT						

ADDITIVE BID ALTERNATES						
182	1665	SYNTHETIC TURF AT MOCK RUNWAY	3,730	SF		
183	815	6" PVC SUBDRAIN, SCHEDULE 80	200	LF		
184	520	AGGREGATE BASE COURSE	140	TN		
UNIT PRICE TOTAL AMOUNT						

In case of error in extension of prices in the Bid, the unit prices, where available, shall govern.

BID GUARANTEE

The undersigned Bidder agrees to execute the Contract for the above amount and to furnish surety as specified within 10 days after notice of award, if offered within 120 calendar days after receipt of bids, and upon failure to do so agrees to forfeit the attached cash, cashier's check, certified check, U. S. money order, or bid bond, as liquidated damages for such failure, in the amount of:

_____ Dollars (\$_____)
the stated amount constituting five percent (5%) of the Base Bid amount above.

BID SUPPLEMENTS

Attached to this Bid Form and incorporated herein are the following documents, completed in full by the undersigned:

Certificate of Non-Discrimination

DBE Form # 3

DBE Form # 5

Bid Bond

Buy American Certification

Tax Deficiency and Felony Convictions Certification

Lobbying and Influencing Federal Employees Certification

Form copies of DBE Form #3 and DBE Form #5 can be found at:

<http://www.cltairport.com/doingbusinesswithCLT/pages.default.aspx>

PLEASE NOTE - FAILURE TO INCLUDE ALL BID SUPPLEMENTS MAY RESULT REJECTION OF THIS BID.

CONTRACTOR'S LICENSE

The undersigned further states that he is a duly licensed Contractor, for the type of work proposed, in the State of North Carolina, and that all fees, permits, etc., pursuant to the submission of this proposal have been paid in full. LICENSE #

_____.

CONFIDENTIALITY REQUIREMENTS

By signing this bid form, I acknowledge that I have read, understand and shall comply with the confidentiality requirements as stated in the Instruction to Bidders, Section 13.

INDEX OF SHEETS	
Roadway / Site Plans	
Cover Sheet	1
General Notes	2A
Typical Sections	3A-1 - 3A-2
Site Details	3A-3 - 3A-10
Site Layout	3B-1
Site Grading Detail	3B-2 - 3B-3
Summaries	3C-1 - 3C-2
Survey Control	3D-1
Roadway Plans	4-6
Roadway Profiles	7-9
Transportation Management Plans	TMP-1 - TMP-3
Pavement Marking Plans	PM-1 - PM-4
Erosion Control Plans	EC-1 - EC-6
Landscape & Irrigation Plans	LS-1 - LS-5
Signing Plans	SIGN-1 - SIGN-4
Entrance Sign & Aircraft Concrete Foundations	S-1 - S-2
Water and Sewer Plans	U-1 - U-16
Water Quality Basin	C-100 - C-109
Lighting Plans	LE-1
Cross Sections	X-1 - X-33
Architecture	
Appendix B & Abbreviations	G-1 - G-6
Architectural Plans	A-1 - A-5
Plumbing Plans & Fixture Schedule	P-1
Mechanical Plans	M-1 - M-5
Electrical Plans	E-1 - E-5
ITS Conduit Plans	ITS-1 - ITS-25
Memorial Plans	AM-1 - AM-4
TOTAL SHEETS 169	

DESIGN DATA
DESIGN SPEED = 40 MPH
FUNC. CLASSIFICATION: PRIVATE STREET



Construction Plans for Relocation of
Airport Overlook Drive and Airport Overlook Site
(Project Number: 4020901837-5)

Project Features:

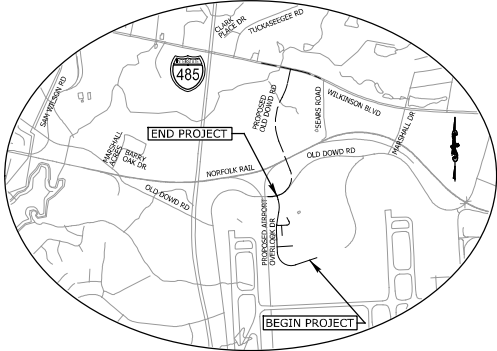
Grading, Paving, Curb & Gutter, Drainage,
Erosion Control, Site Facilities and Utilities

PE SEAL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

Record Drawings

CONVENTIONAL SYMBOLS	
New Property Line	— ROW —
Existing Property Line	— — — — —
Maintained as R/W Line	— — — — —
Existing Structures	— — — — —
Railroad Tracks	=====
Fence	— X —
Slope Stake Line	— G — F —
Limits of Disturbance Line	— LOD — LOD —
Limits of Construction Line	— LOC — LOC —
Temporary Construction Easement	— G — G — G —
Lease Easement	— E — E —
Drainage Easement	— PDE — PDE — PDE —
Slope Easement	— SE — SE — SE —
Drainage Utility Easement	— DUE — DUE — DUE —
Utility Easement	— PUE — PUE — PUE —
Post Construction Controls Easement	— PCE — PCE — PCE —
Conservation Easement	— CE — CE — CE —
Existing Gas Line	— G — G — G —
Existing Water Line	— W — W — W —
Proposed Water Line	— W — W — W —
Existing Sanitary Sewer	— SS — SS — SS —
Existing Underground Telecommunications	— UT — UT — UT —
Existing Underground Electric	— UE — UE — UE —
Existing Storm Drainage	— — — — —
Proposed Storm Drainage	— — — — —
Accessible Ramp	— ACC —
Existing Tree	— — — — —
Existing Water Meter	— — — — —
Existing Water Valve	— — — — —
Existing Gas Valve	— — — — —
Existing Sanitary Sewer Manhole	— — — — —
Proposed Sanitary Sewer Manhole	— — — — —
Existing Storm Drain Manhole	— — — — —
Proposed Storm Drain Manhole	— — — — —
Existing Telephone Manhole	— — — — —
Proposed Telephone Manhole	— — — — —
Existing Electric Manhole	— — — — —
Proposed Electric Manhole	— — — — —
Existing Catch Basin	— — — — —
Proposed Catch Basin	— — — — —
Existing Light Pole	— — — — —
Proposed Light Pole	— — — — —
Existing Utility Pole	— — — — —
Guy Wire	— — — — —
Proposed Utility Pole	— — — — —
Iron Pin	— — — — —
Existing Fire Hydrant	— — — — —
Proposed Fire Hydrant	— — — — —
Existing Drop Inlet.....	— — — — —
Proposed Drop Inlet.....	— — — — —
Tree Protection	— — — — —
Proposed Guardrail	— — — — —
Silt Fence	— — — — —
Proposed Curb & Gutter, Conc. Drive, Sidewalk	— — — — —
Proposed Asphalt Pavement	— — — — —
Proposed Rip Rap Ditch	— — — — —
Proposed Gravel	— — — — —
Proposed Pavement Removal	— — — — —
Asphalt Milling	— — — — —
GRAPHIC SCALES	
Plan View	40 80 120
Horz. Profile	40 80 120
Vert. Profile	8 16 24
Cross Section	5 10 15



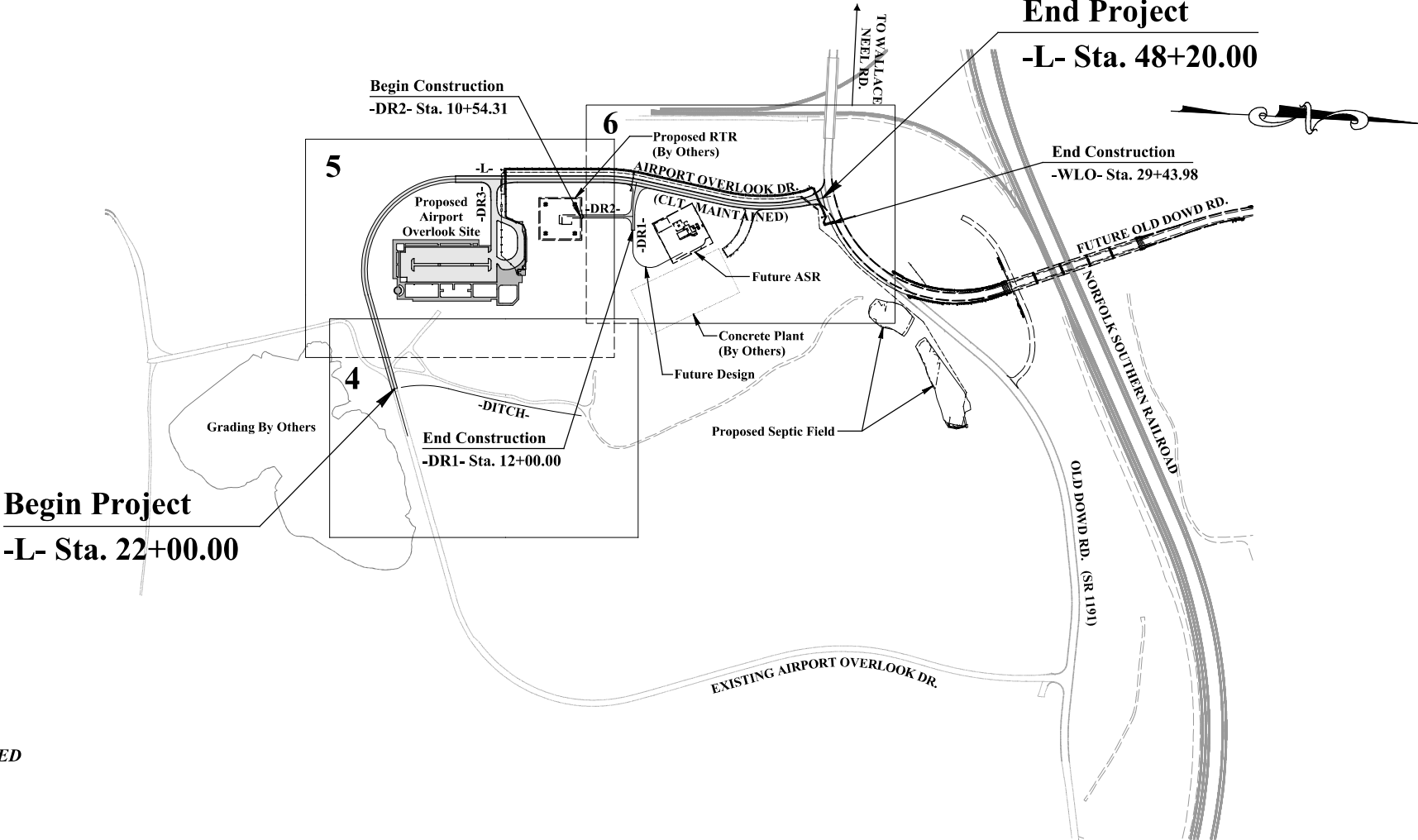
VICINITY MAP
NTS



CLEARING ON THIS PROJECT SHALL BE PERFORMED
TO THE LIMITS ESTABLISHED BY METHOD III.

PLANS PREPARED BY:

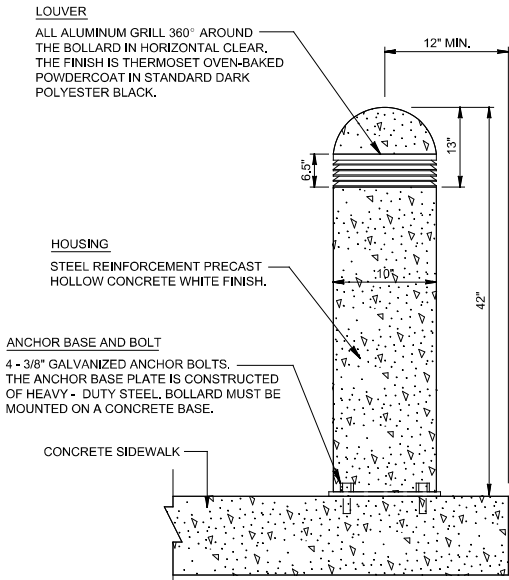
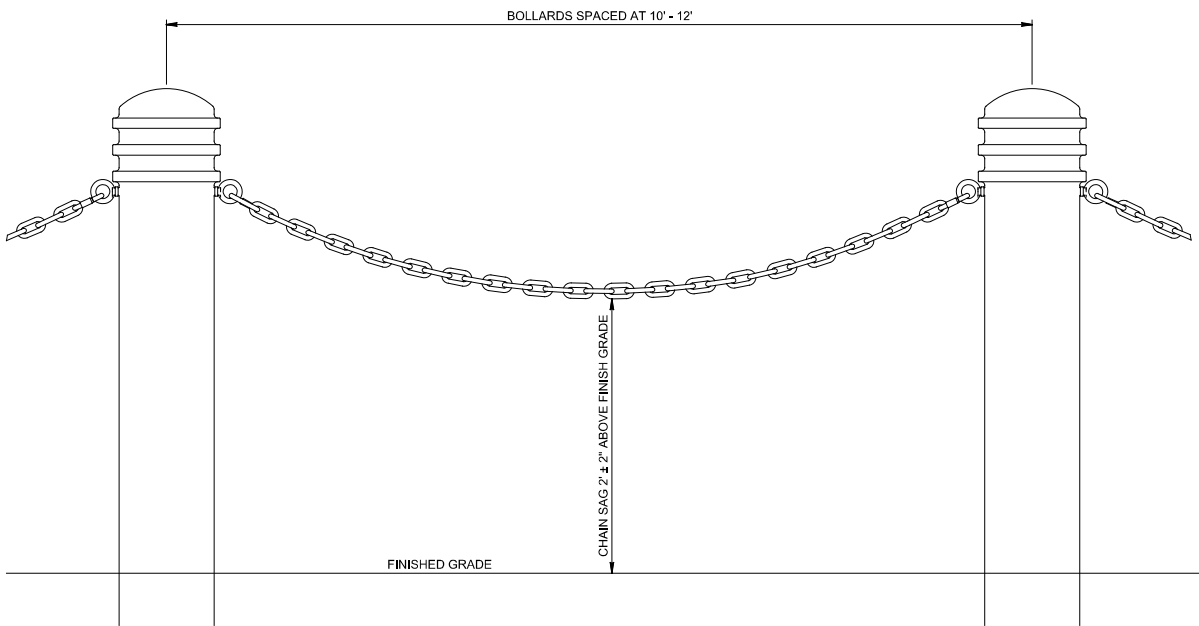
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991



LOCATION MAP
NTS

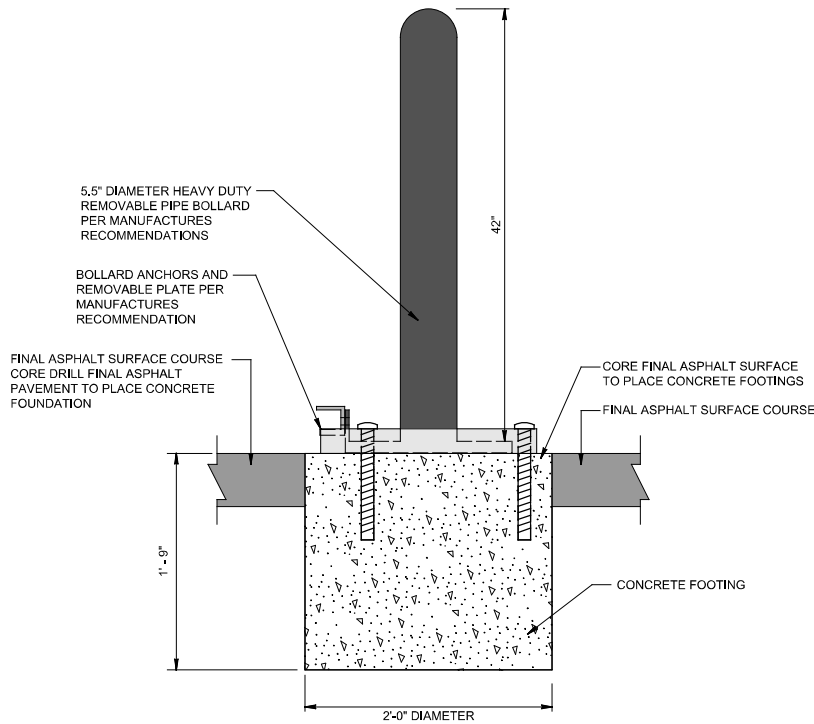
PROJECT LENGTH = 0.496 MILES
(AIRPORT OVERLOOK DRIVE)
2018 NCDOT STANDARD SPECIFICATIONS

	REVISIONS	DATE
1	ADDENDUM NO. 1 - ADDED DETAIL SHEET & STRUCTURE FOUNDATION SHEET	05/15/2023
2		
3		
4		
5		



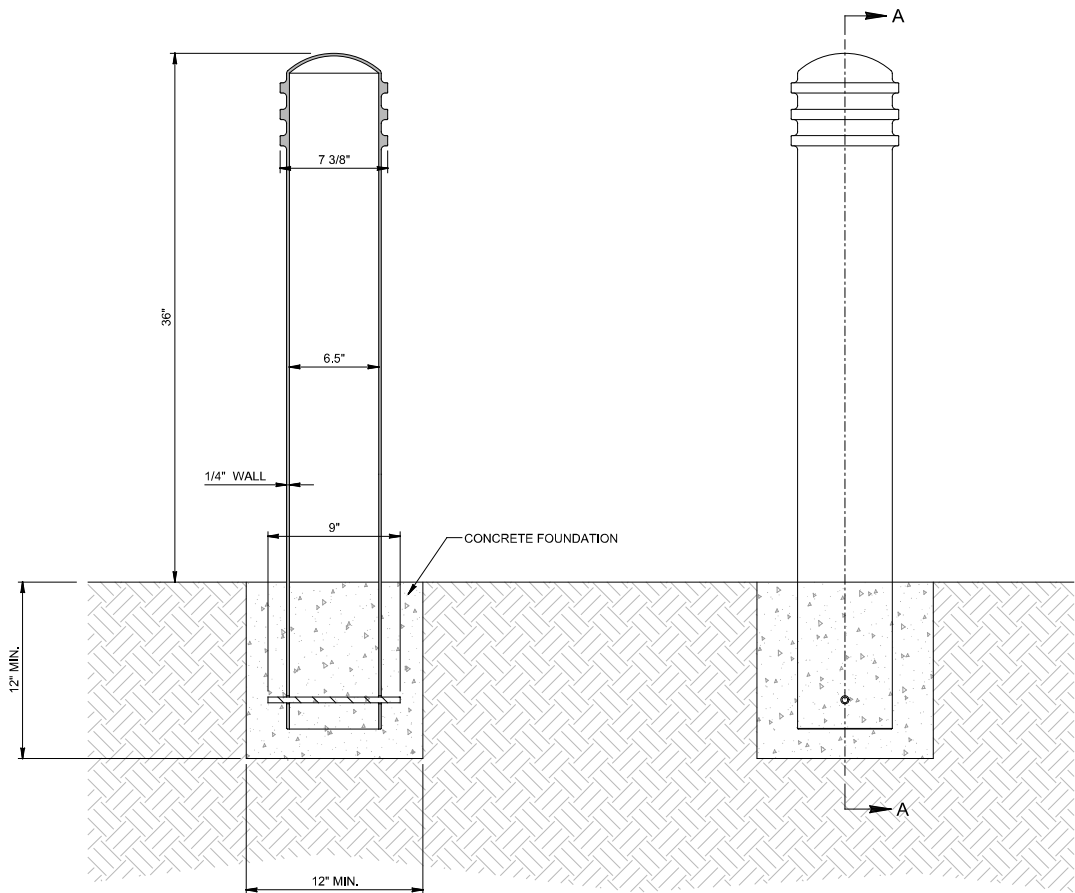
CONCRETE BOLLARD WITH LIGHT

- NOTES: 1. PLACEMENT IN SIDEWALK
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.



HEAVY DUTY REMOVABLE PIPE BOLLARD

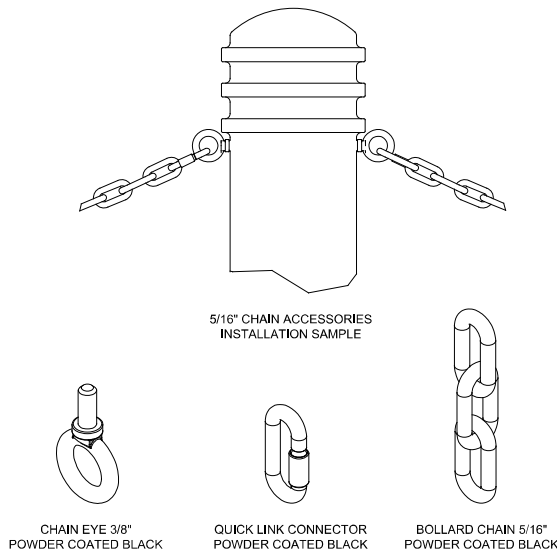
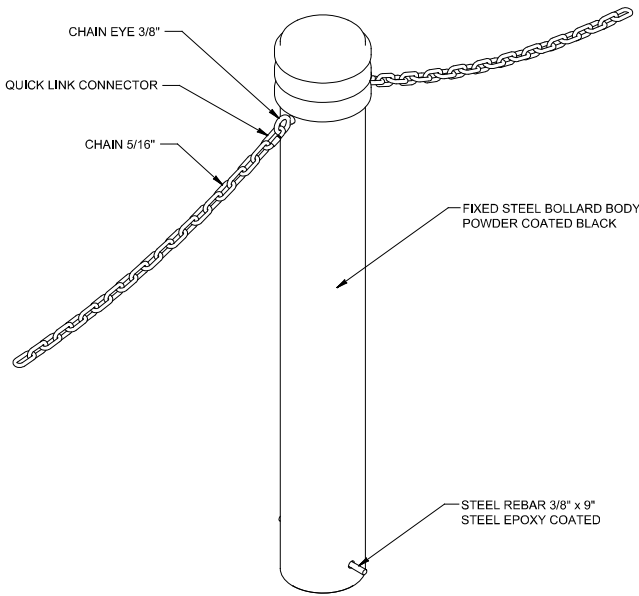
- NOTES: 1. CONTRACTOR TO PAINT ALL ABOVE GRADE PORTIONS OF REMOVABLE BOLLARD AND REMOVABLE PLATES SAFETY YELLOW.
2. REMOVABLE - MOUNTING PLATE SLIDES OUT OF REMOVABLE BASE FOR TEMPORARY ACCESS TO EQUIPMENT PADLOCKABLE.
3. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.



SECTION A-A

BOLLARD AND CHAIN BARRIER

- NOTES: 1. PLACEMENT LOCATED IN AIRCRAFT DISPLAY AREA.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.



Plans Prepared By:

STV

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

5/15/2023

TALBERT, BRIGHT
& ELLINGTON

ENGINEERING & PLANNING CONSULTANTS
3525 WHITEHALL PARK DRIVE, SUITE 210
CHARLOTTE, NORTH CAROLINA 28273
PHONE: 704-426-6070 FAX: 704-426-6080
NC LICENSE NO. C-1163

AIRPORT OVERLOOK DRIVE

DETAILS

SCALE: NTS

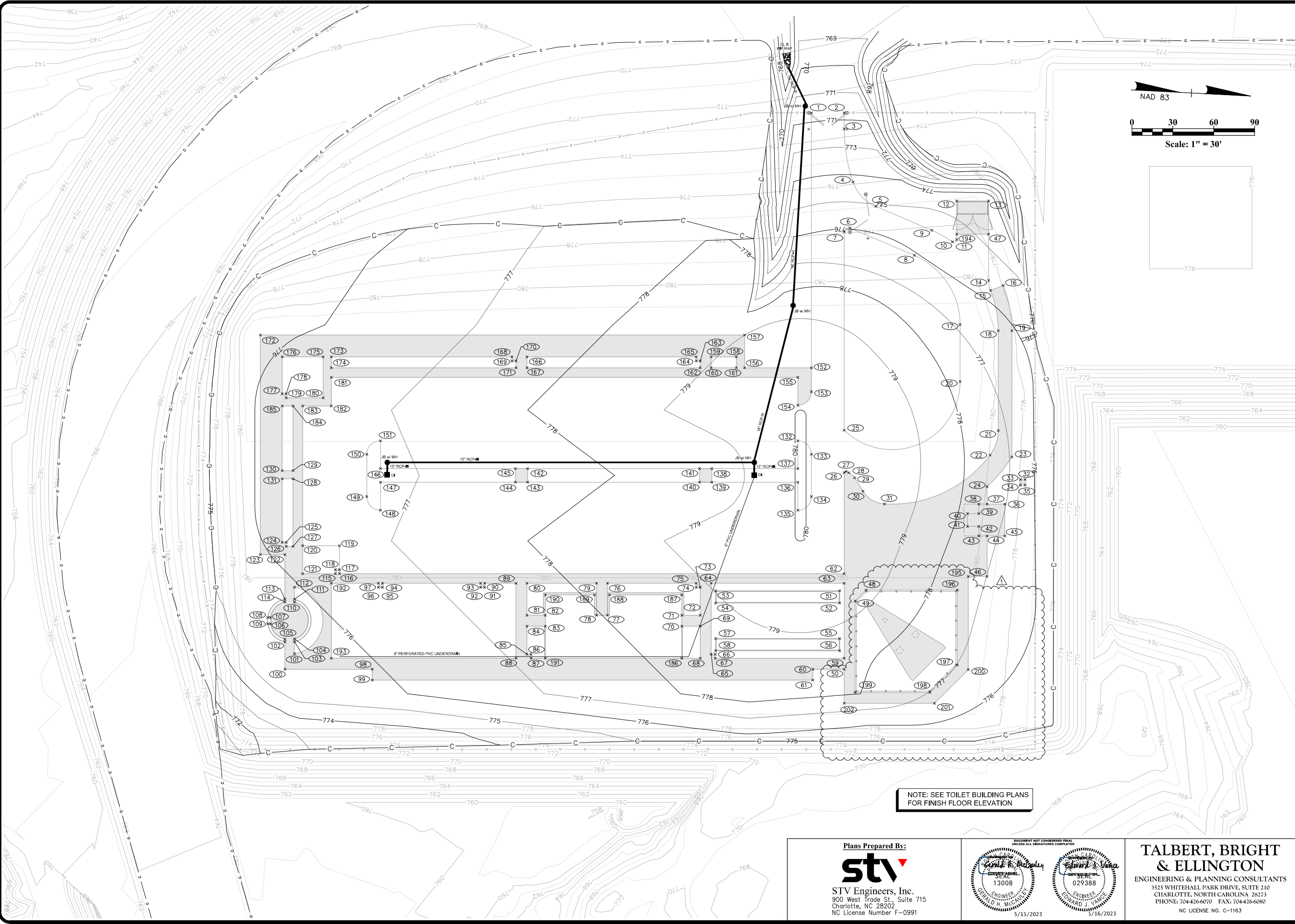
FILE NAME:

SHT.

3A-10

DESIGNED BY:	STV ENGINEERS
PROJECT NO.:	4020901837-5
DRAWN BY:	CEG
CHECKED BY:	GHM
DATE ISSUED:	05/15/2023
REVISIONS	DATE
1 ADDENDUM NO. 1 - ADDED ENTIRE SHEET 3A-10	05/15/2023
2	
3	
4	
5	





DATE	05/15/2023
REVISIONS	1 ADDENDUM NO. 1 - REVISED AIRCRAFT DISPLAY AREA
2	
3	
4	
5	

DESIGNED BY: STV ENGINEERS	PROJECT NO.: 4020901837-5
PROJECT ENG.: JUN	DRAWN BY: MKA
CHECKED BY: GHM	DATE ISSUED: 05/15/2023



AIRCRAFT DISPLAY AREA	SCALE: 1"=30'
SITE GRADING DETAIL	FILE NAME:

SHT. 3B-2

Plans Prepared By:



STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991



TALBERT, BRIGHT & ELLINGTON
ENGINEERING & PLANNING CONSULTANTS
3525 WHITEHALL PARK DRIVE, SUITE 210
CHARLOTTE, NORTH CAROLINA 28273
PHONE: 704-426-6070 FAX: 704-426-6080
NC LICENSE NO. C-1163

Point #	Elevation	X-Coordinate	Y-Coordinate	Point #	Elevation	X-Coordinate	Y-Coordinate	Point #	Elevation	X-Coordinate	Y-Coordinate	Point #	Elevation	X-Coordinate	Y-Coordinate
1	771.66	1413815.8659	542624.3590	52	779.21	1414173.6980	542663.3410	103	775.74	1414222.2966	542265.5465	154	779.94	1414030.4477	542625.2632
2	771.74	1413814.6464	542648.3280	53	779.01	1414169.3333	542572.0013	104	775.75	1414220.1998	542265.4398	155	779.64	1414009.9742	542624.2216
3	772.24	1413826.3986	542648.9259	54	778.92	1414178.3217	542572.4586	105	775.71	1414220.7131	542258.4569	156	779.28	1414004.9648	542584.9163
4	774.26	1413864.9500	542657.3865	55	778.74	1414199.6644	542664.6621	106	775.70	1414210.1059	542247.3462	157	779.00	1413980.9958	542583.6968
5	775.09	1413881.9613	542674.9244	56	778.58	1414208.6528	542665.1194	107	775.72	1414205.4563	542247.0723	158	779.14	1413997.2800	542578.5176
6	775.95	1413898.7507	542656.7850	57	778.66	1414204.2881	542573.7796	108	775.71	1414205.5606	542245.0221	159	778.95	1413998.2200	542560.0415
7	776.07	1413901.7205	542652.7580	58	778.57	1414213.2765	542574.2369	109	775.69	1414210.2105	542245.2911	160	779.04	1414006.2097	542560.4479
8	776.09	1413916.4177	542705.0708	59	778.43	1414213.9805	542668.6447	110	775.90	1414193.3560	542264.0741	161	779.22	1414005.2697	542578.9240
9	775.53	1413897.3149	542716.8874	60	778.53	1414223.1388	542646.0808	111	775.92	1414191.2594	542263.9675	162	778.95	1414006.6162	542552.4583
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12	774.63	1413874.9983	542734.1007	63	779.35	1414159.0516	542665.8501	114	775.86	1414193.5542	542257.0752	165	778.84	1413998.7789	542549.0557
13	774.44	1413873.8128	542757.4039	64	779.04	1414164.0056	542568.4760	115	776.35	1414171.0129	542292.9762	166	777.60	1414005.0794	542425.2158
14	775.68	1413931.8504	542760.3567	65	778.51	1414215.9384	542571.1182	116	776.38	1414170.8605	542295.9723	167	777.68	1414013.0691	542425.6223
15	775.81	1413939.1562	542762.1444	66	778.54	1414215.7860	542574.1143	117	776.41	1414167.8644	542295.8199	168	777.49	1414005.6384	542414.2300
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17	776.87	1413965.2744	542741.1013	68	778.40	1414219.3410	542563.2809	119	776.56	1414150.3870	542294.9307	170	777.55	1414008.4820	542417.3786
18	776.32	1413968.3791	542769.2955	69	778.64	1414195.8714	542562.0869	120	776.27	1414151.7589	542267.9656	171	777.60	1414013.4756	542417.6326
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20	777.70	1414006.9930	542743.2238	71	778.58	1414188.5677	542548.1978	122	776.10	1414158.9110	542255.3126	173	776.24	1414012.3708	542281.9012
21	777.19	1414041.5238	542773.0168	72	778.72	1414187.8817	542561.6804	123	775.92	1414159.8256	542237.3359	174	776.31	1414020.3604	542282.3077
22	777.43	1414059.8054	542767.9392	73	778.92	1414167.4082	542560.6388	124	776.14	1414150.0243	542252.8579	175	776.21	1414012.6756	542275.9089
23	776.90	1414060.4163	542783.9910	74	778.89	1414167.5606	542557.6426	125	776.17	1414149.8718	542255.8541	176	776.05	1414014.1999	542245.9477
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27	779.65	1414077.1121	542663.1365	78	777.96	1414191.7433	542485.7786	129	776.28	1414097.1856	542258.1800	180	776.43	1414042.6369	542277.4333
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31	779.28	1414099.5292	542692.4071	82	777.58	1414193.6487	542448.3270	133	779.95	1414065.8931	542637.0795	184	776.26	1414049.7470	542255.7665
32	776.35	1414076.2994	542794.5616	83	777.50	1414201.6384	542448.7335	134	779.95	1414096.8530	542638.6546	185	776.19	1414050.1534	542247.7769
33	776.54	1414076.4772	542791.0662	84	777.37	1414202.3243	542435.2509	135	780.00	1414107.3482	542629.1756	186	778.27	1414220.0270	542549.7984
34	776.54	1414080.7217	542791.2821	85	777.16	1414222.7978	542436.2925	136	780.00	1414086.8747	542628.1340	187	778.73	1414173.5870	542547.4357
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37	777.41	1414095.8196	542767.5974	88	777.05	1414226.2005	542428.4553	139	778.58	1414090.0758	542565.2154	190	777.73	1414178.6681	542447.5648
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40	777.79	1414103.5389	542753.6383	91	777.35	1414175.4363	542402.8429	142	777.60	1414086.9481	542429.8817	193	775.81	1414233.0853	542293.1303
41	777.71	1414112.8602	542754.1125	92	777.32	1414175.5887	542399.8467	143	777.60	1414096.9352	542430.3898	194	775.31	1413899.3003	542735.3371
42	777.47	1414112.4367	542762.4351	93	777.35	1414172.5926	542399.6943	144	777.53	1414097.3925	542421.4014	195	777.36	1414149.4343	542756.4785
43	777.41	1414119.4277	542762.7908	94	776.63	1414176.2509	542327.7873	145	777.53	1414087.4054	542420.8933	196	777.49	1414159.8278	542748.9969
44	777.23	1414119.1228	542768.7830	95	776.60	1414179.2471	542327.9397	146	776.80	1414092.4357	542322.0212	197	776.98	1414214.7568	542751.7915
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46	776.99	1414148.7316	542770.2894	97	776.60	1414176.4034	542324.7912	148	776.87	1414122.8963	542323.5709	199	778.03	1414238.5417	542677.9046
47	774.58	1413898.1147	542758.6403	98	775.95	1414239.5506	542323.4981	149	776.76	1414113.4173	542313.0757	200	776.86	1414217.6597	542759.9495
48	779.13	1414163.2321	542682.0835	99	775.90	1414247.5403	542323.9045	150	776.76	1414113.4173	542313.0757	201	776.85	1414243.5684	542736.5495
49	779.13	1414171.6283	542674.5003	100	775.58	1414242.8025	542259.5807	151	776.87	1414071.9621	542320.9795	202	777.96	1414246.9379	542670.3214
50	778.30	1414221.9702	542669.0511	101	775.69	1414231.0952	542265.9942	152	779.52	1414002.4751	542633.8530				
51	779.32	1414164.7096	542662.8837	102	775.70	1414222.7887	542258.5625	153	779.77	1414019.9525	542634.7422				

REVISIONS		DATE
1	ADDENDUM NO. 1 - REVISED AIRCRAFT DISPLAY AREA	05/15/2023
2		
3		
4		
5		

DESIGNED BY: STV ENGINEERS	PROJECT NO.: 4020901837-5
PROJECT ENG.: JUN	DRAWN BY: MKA
CHECKED BY: GHM	DATE ISSUED: 05/15/2023



AIRPORT OVERLOOK DRIVE	SITE GRADING DETAIL
FILE NAME:	SCALE: NTS

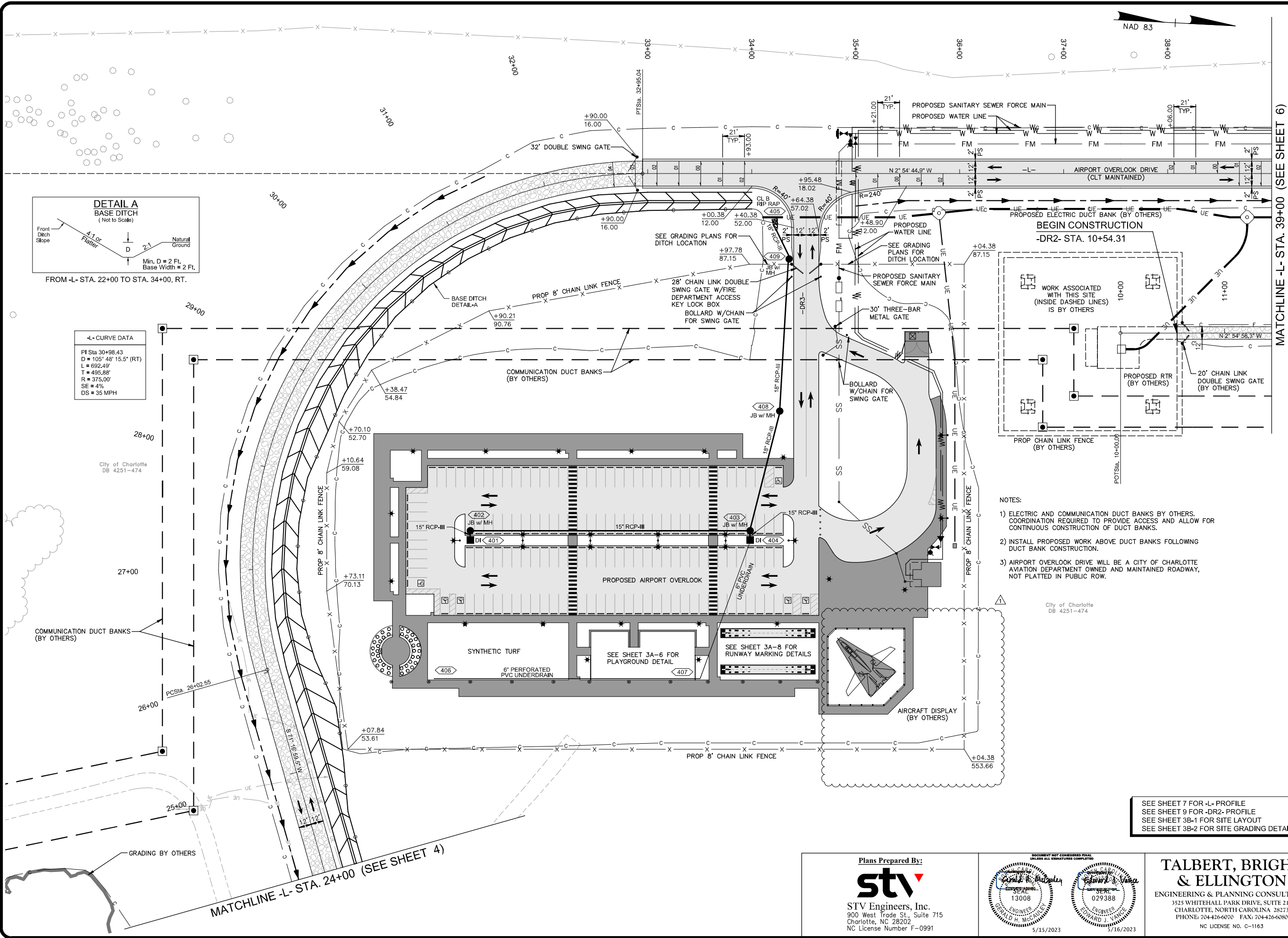
SHT.
3B-3

Plans Prepared By:

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
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PHONE: 704-426-6070 FAX: 704-426-6080
NC LICENSE NO. C-1163



DATE	REVISIONS
05/15/2023	1 ADDENDUM NO. 1 - REVISED AIRCRAFT DISPLAY AREA
	2
	3
	4
	5

DESIGNED BY: STV ENGINEERS	PROJECT NO.: 4020901837-5
PROJECT ENG.: JNU	DRAWN BY: MKA
CHECKED BY: GHM	DATE ISSUED: 05/15/2023



PLAN

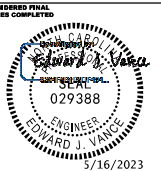
AIRCRAFT OVERLOOK DRIVE

SHT. 5

Plans Prepared By:

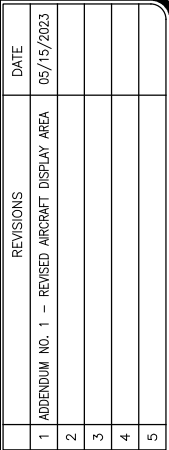


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DESIGNED BY: STV ENGINEERS
PROJECT ENG.: JNJ
PROJECT NO.: 4020901837-5
DRAWN BY: CEG
CHECKED BY: GHM
DATE ISSUED: 05/15/2023



AIRPORT OVERLOOK DRIVE	
PAVEMENT MARKING	
FILE NAME:	SCALE: 1"=40'

SHT.
PM-3

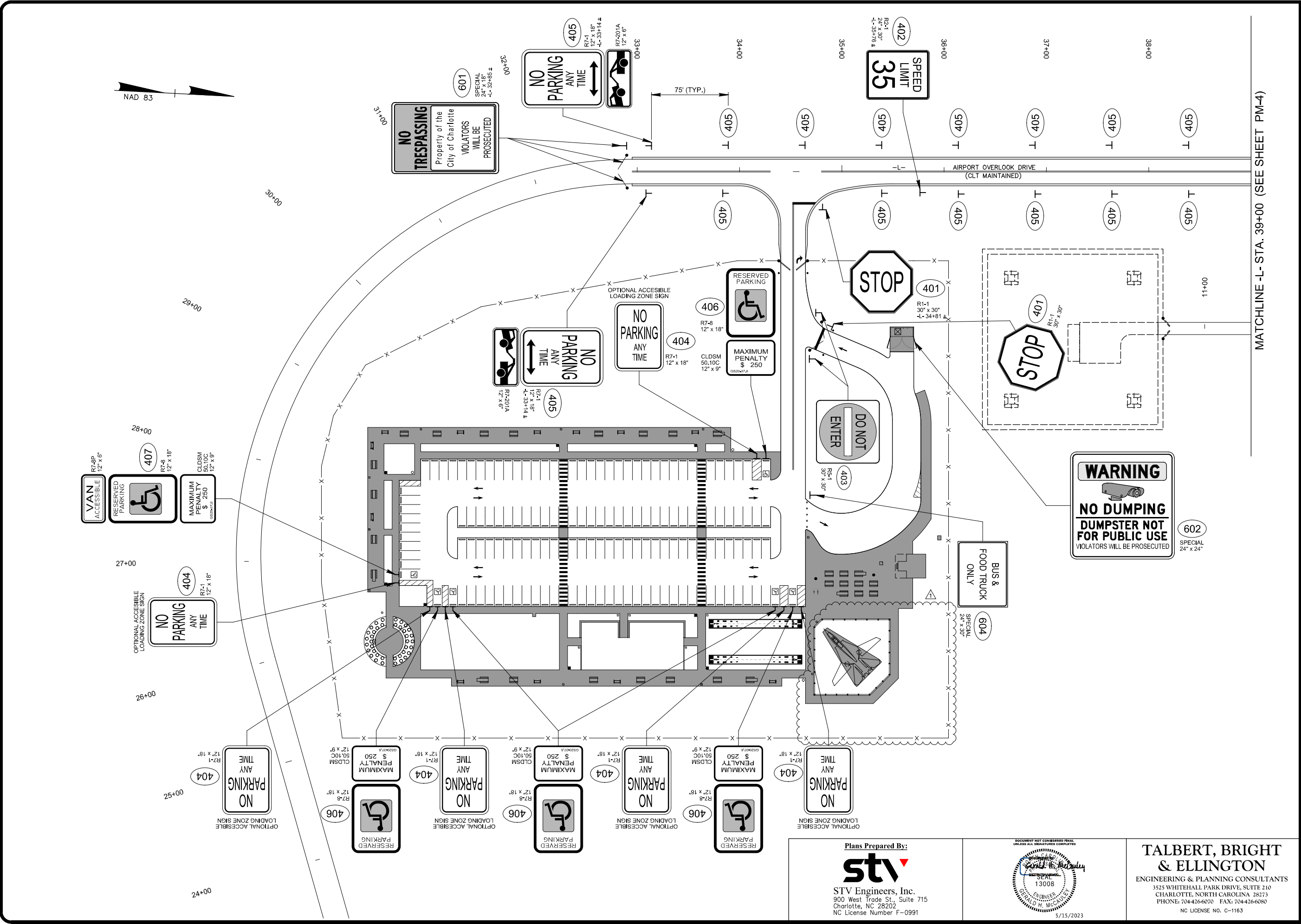


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APPROVED BY
Gerald H. McCauley
SEAL
13008
ENGINEER
GERALD H. MCCAULEY

5/15/2023

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AIRPORT OVERLOOK DRIVE

SIGNING PLAN

FILE NAME: SCALE: 1"=40'

DESIGNED BY: STV ENGINEERS		REVISIONS	
PROJECT NO.: 4020901837-5	PROJECT ENG.: JNU	1	ADDENDUM NO. 1 - REVISED AIRCRAFT DISPLAY AREA
DRAWN BY: CEG	CHECKED BY: GHM	2	
DATE ISSUED: 05/15/2023		3	
		4	
		5	



SHT. SIGN-3

Plans Prepared By:

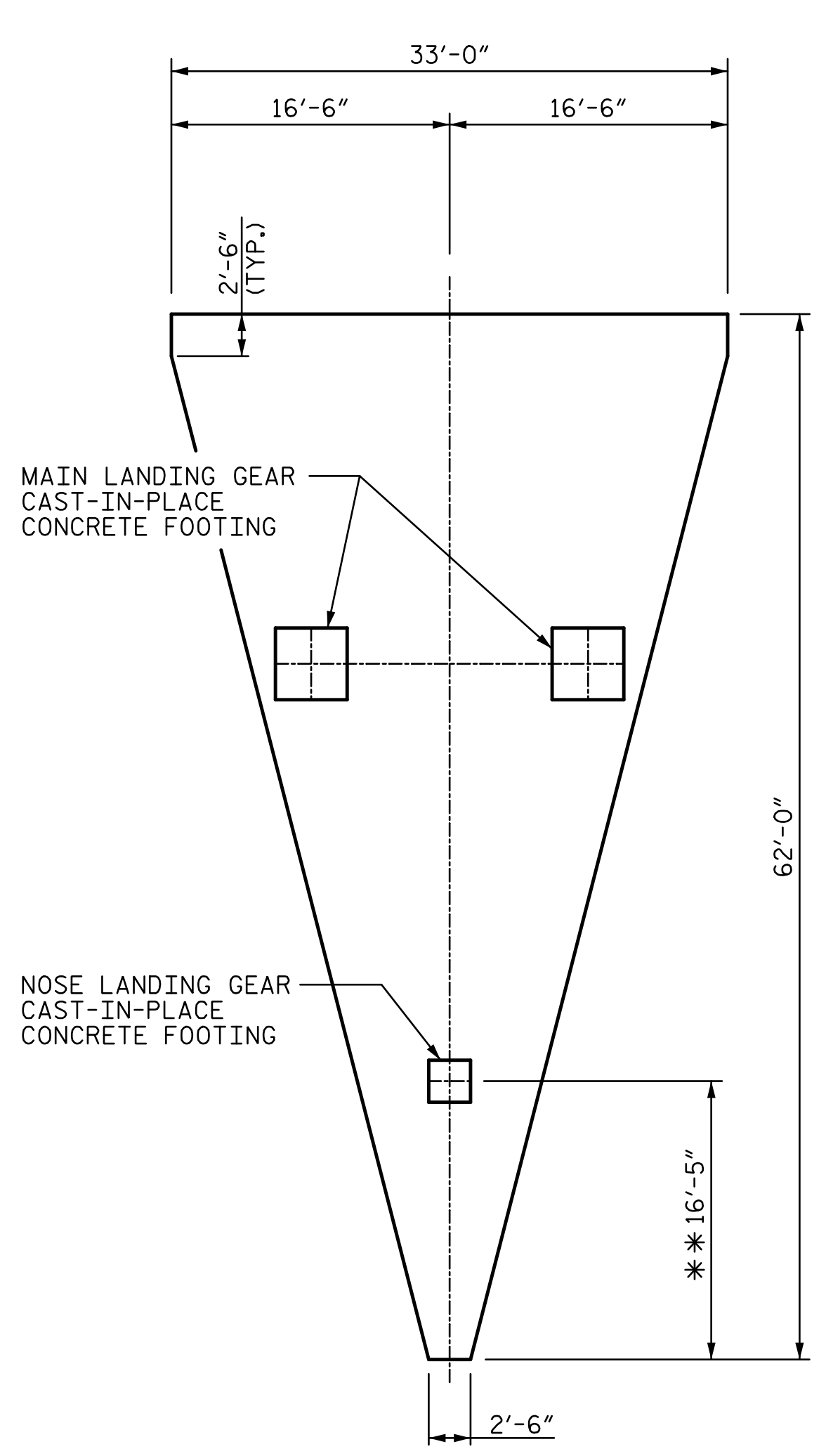
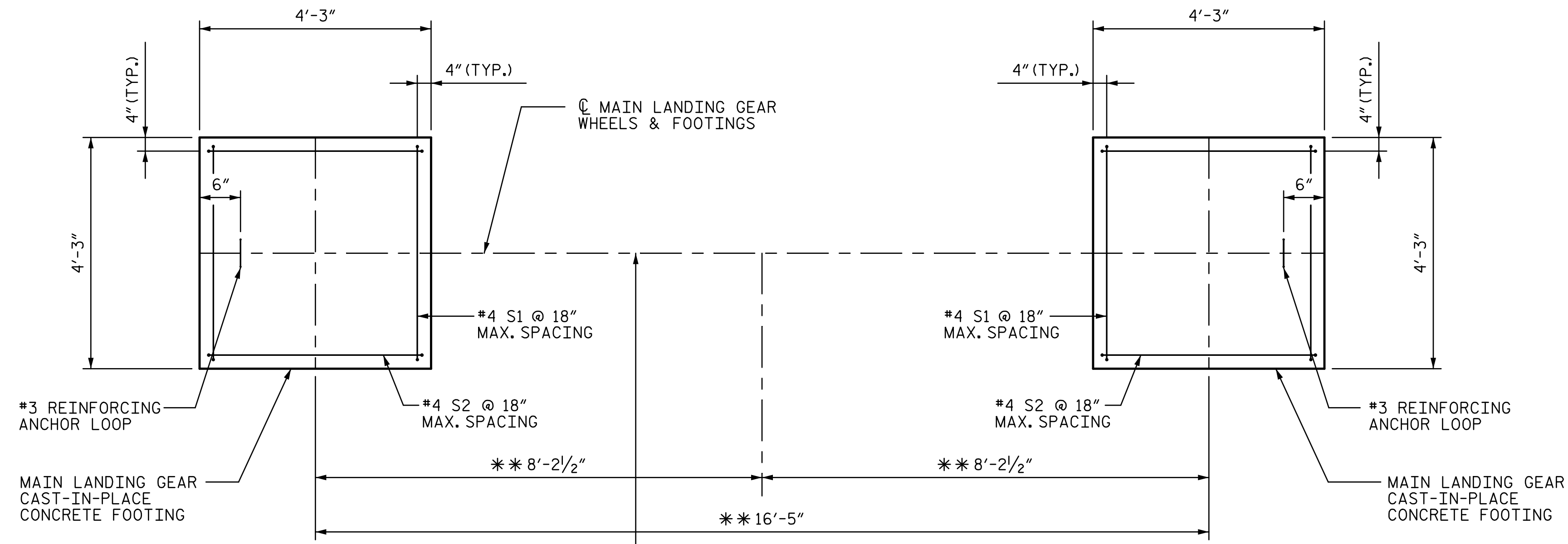

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5/15/2023

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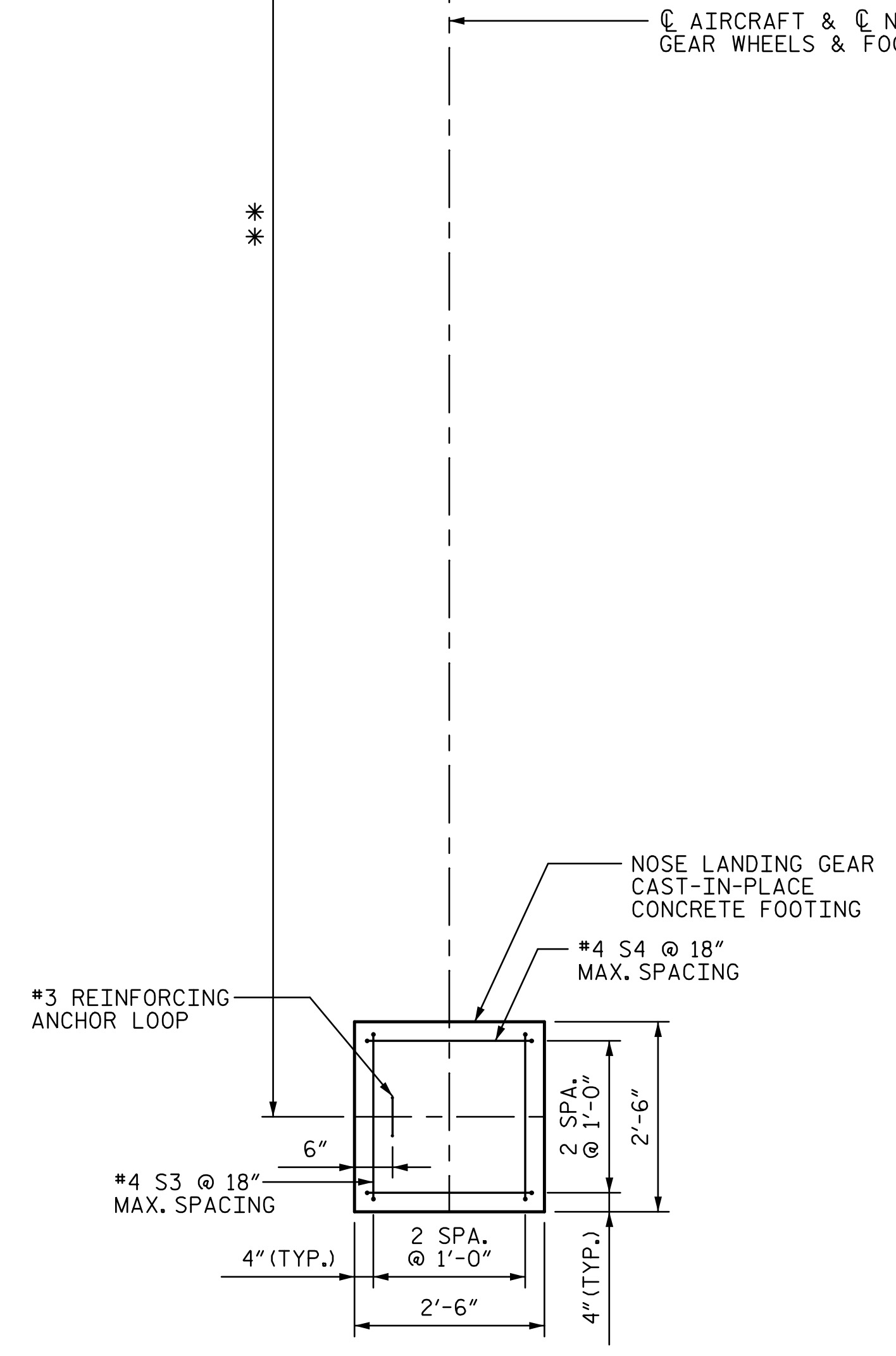
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CONCRETE SLAB PLAN

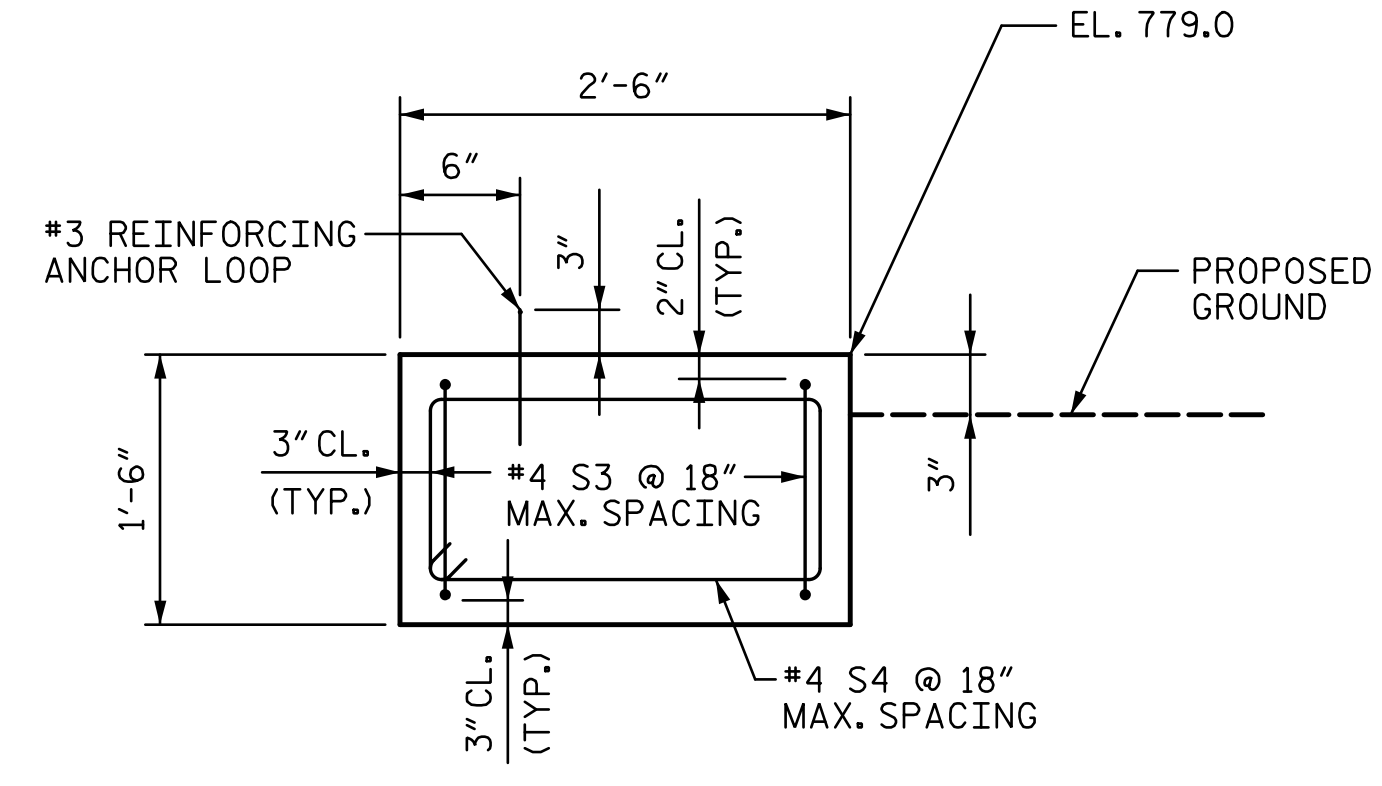
** FIELD VERIFY ACTUAL PLAN DIMENSIONS PRIOR TO FOUNDATION PLACEMENT.

4" CONCRETE SLAB TO BE LEVEL WITH PROPOSED GROUND.

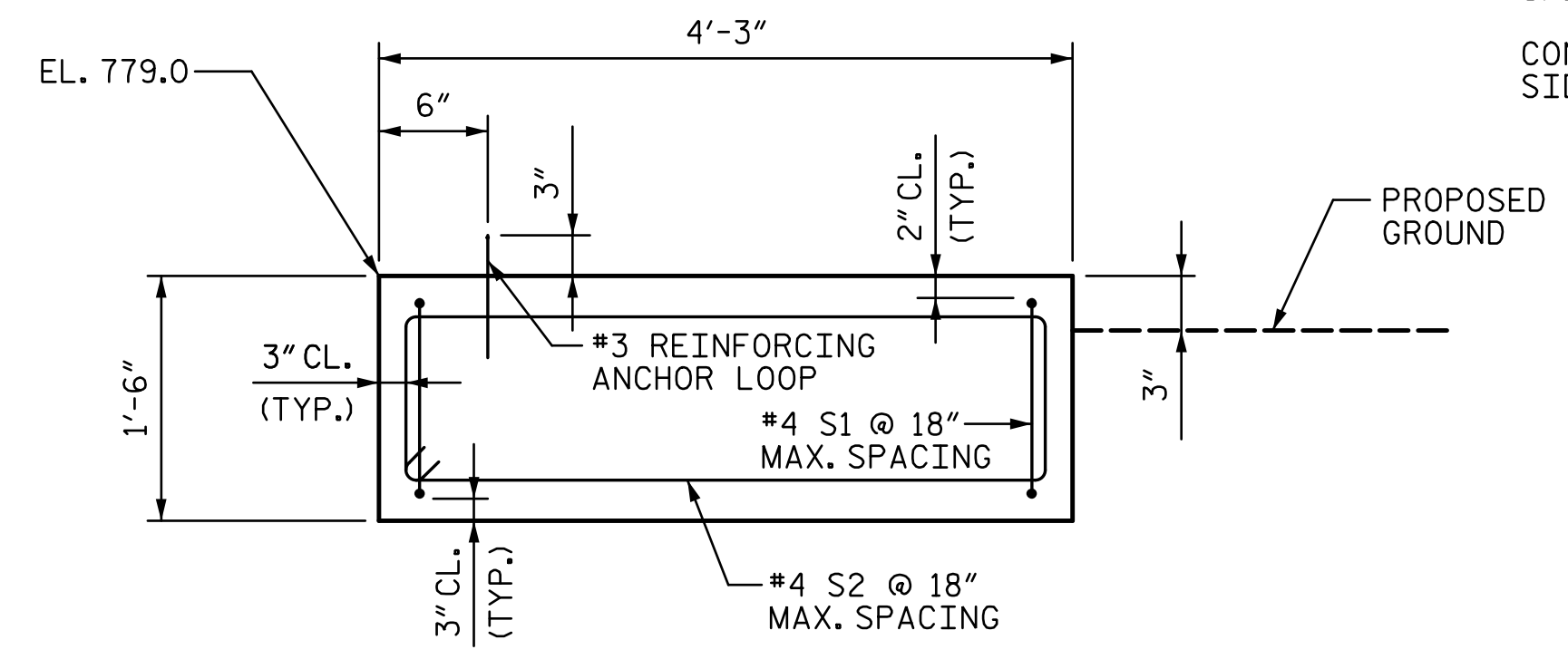


PLAN

** FIELD VERIFY ACTUAL PLAN DIMENSIONS PRIOR TO FOUNDATION PLACEMENT.



ELEVATION NOSE LANDING GEAR FOOTING



ELEVATION MAIN LANDING GEAR FOOTING

BILL OF MATERIAL					
BAR	NO	SIZE	TYPE	LENGTH	WEIGHT
S1	8	#4	①	10'-5"	56
S2	8	#4	①	10'-2"	55
S3	3	#4	①	6'-11"	14
S4	3	#4	①	6'-8"	14
ANCHOR LOOP	3	#3	②	2'-6"	3
QUANTITIES					
REINFORCING STEEL				LBS.	142
CLASS A CONCRETE				C.Y.	2.4
BAR TYPES					
ALL DIMENSIONS ARE OUT TO OUT					

NOTES

EXCEPT AS OTHERWISE SPECIFIED IN SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2018 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N.C. DEPARTMENT OF TRANSPORTATION.

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS OF EXISTING F-14 PLANE WHEELS AND LANDING GEAR LOCATIONS. WHEELS SHOULD BE CENTERED ON PROPOSED FOOTINGS.

CONCRETE SHALL BE CLASS A CONCRETE AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI.

CHAMFER ALL EXPOSED EDGES 3/4".

FOOTING DESIGN IS BASED UPON A NET ALLOWABLE BEARING PRESSURE OF 2,000 PSF. THE BEARING OF THE SOILS SHALL BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER OR HIS AUTHORIZED REPRESENTATIVE PRIOR TO CONSTRUCTION.

REINFORCING ANCHOR LOOPS PROVIDED TO SECURE AIRCRAFT AFTER IT HAS BEEN PLACED ONTO FOOTINGS. ANCHOR LOOPS SHALL BE CAST IN TO WET CONCRETE. REINFORCING STEEL SHALL CONFORM TO REQUIREMENTS OF ASTM A615 GRADE 60. CONTRACTOR MAY PROPOSE ALTERNATE ANCHOR LOOP FOR APPROVAL.

IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION AND CONSTRUCTION.

GRADE EXISTING GROUND AS NECESSARY TO CREATE A LEVEL SURFACE UNDER THE AIRCRAFT.

CONCRETE SLAB WILL BE PAID SEPARATELY UNDER "4" CONCRETE SIDEWALK" PAY ITEM.

Plans Prepared By:

stv

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5/16/2023

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NC LICENSE NO. C-1163

DESIGNED BY: STV ENGINEERS
PROJECT ENG.: JNJ
PROJECT NO.: 4020901837-5
DRAWN BY: NMH
CHECKED BY: JTG
DATE ISSUED: 05/15/2023

1 ADDENDUM NO. 1 - ADDED SHEET S-2

1	2	3	4	5
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AIRCRAFT OVERLOOK DRIVE

AIRCRAFT OVERLOOK AIRCRAFT DISPLAY CONCRETE FOUNDATIONS

FILE NAME:

SCALE: NOT TO SCALE

SHT.

S-2



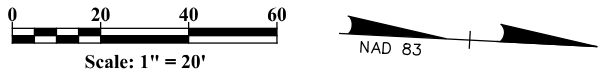


TABLE 'A' CIRCUITRY CONDUCTOR CONDUIT TYPE & SIZE		
PLAN SYMBOL	DESCRIPTION	
8	2 #8 Ø 1 #10G 3" PVC	2 AWG SIZE 8 CONDUCTOR (BK & RD) 1 AWG SIZE 10 GROUNDING CONDUCTOR 3" PVC CONDUIT
*8	2 #8 Ø 1 #10G	2 AWG SIZE 8 CONDUCTOR (BK & RD) 1 AWG SIZE 10 GROUNDING CONDUCTOR

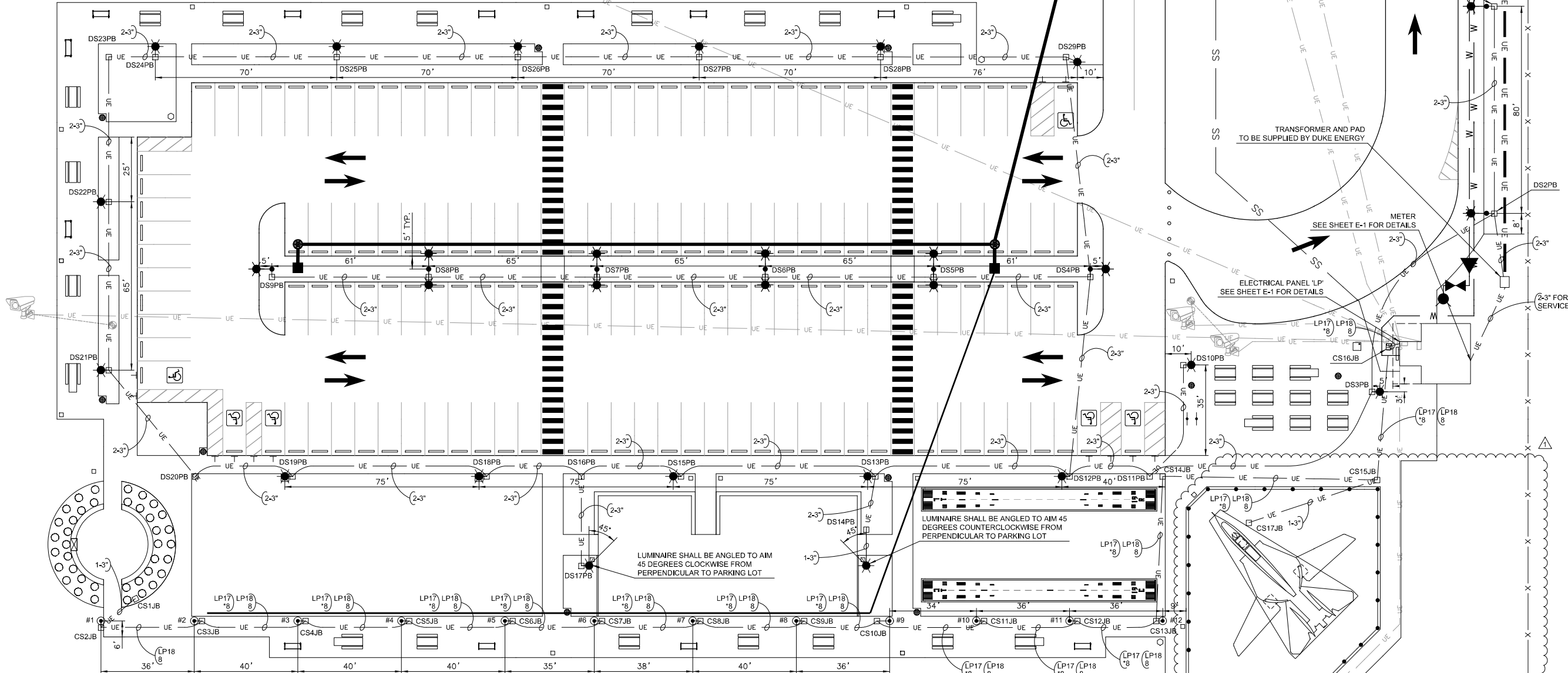
DUKE SUPPLIED LUMINAIRE/POLE SCHEDULE							
SYMBOL	LUMINAIRE	WATTAGE	MOUNTING HEIGHT	COLOR	POLE	DISTRIBUTION	ARM(S)
	ROADWAY LED	110W	20'	BLACK	STYLE A	TYPE III	6'
	ENTERPRISE LED	50W	12'	BLACK	STYLE A	TYPE III	-

NOTES:
1. ALL LIGHT POLES/BOLLARDS ARE OFFSET 1' FROM EDGE OF NEAREST SIDEWALK UNLESS OTHERWISE NOTED.
2. BOLLARD LIGHTS SHALL BE TIED FROM ELECTRICAL PANEL TO PHOTOCELL FOR DUSK TO DAWN CONTROL. (SEE SHEET E-1 FOR DETAILS)
3. ALL ROADWAY/PEDESTRIAN LIGHT POLES SHALL HAVE 1-3" CONDUIT FROM LIGHT POLE TO NEAREST ELECTRICAL PULLBOX/JUNCTION BOX.
4. BOLLARD LIGHTS SHALL BE INSTALLED ON A CONCRETE BASE WITHIN THE SIDEWALK. (SEE SHEET 3A-0 FOR DETAIL)
5. CONTRACTOR SHALL INSTALL ALL DUKE SUPPLIED PULLBOXES, COORDINATE WITH YULO EVANS 803-835-7945 TWO (2) WEEKS IN ADVANCE FOR DELIVERY OF PULLBOXES.

CONTRACTOR SUPPLIED LIGHTING SUMMARY	
CONCRETE BOLLARD LIGHTING	12
ELECTRICAL JUNCTION BOX	17
6" ELECTRICAL CONDUIT (LINEAR FEET)	550
3" ELECTRICAL CONDUIT (LINEAR FEET)	5000
2 AWG SIZE 8 CONDUCTOR (BK & RD)	700
1 AWG SIZE 10 GROUNDING CONDUCTOR	700

DUKE SUPPLIED LIGHTING SUMMARY	
ROADWAY LUMINAIRES	12
PEDESTRIAN LUMINAIRES	17
STYLE A POLE	25
6' LIGHTING ARMS	12
ELECTRICAL PULLBOX	29

LEGEND	
	PARKING LOT LIGHTING (6' ARM, 20' MH, 110W LED)
	PARKING LOT TWIN LIGHTING (6' ARMS, 20' MH, 110W LED)
	PEDESTRIAN LIGHTING (TYPE III DIST, 12' MH, 50W LED)
	CONCRETE BOLLARD LIGHTING (3.5' HEIGHT, 40W LED)
	ELECTRICAL PULLBOX/JUNCTION BOX
	UNDERGROUND ELECTRICAL CONDUIT, NUMBER OF CONDUITS (2), SIZE OF CONDUIT (3")
	PROPOSED FEEDER CIRCUIT CONTROL SYSTEM (LP), CIRCUIT (17) PLAN SYMBOL (8) SEE TABLE A, THIS SHEET
	8' CHAIN LINK FENCE
	WATER FOUNTAIN
	POST & RING BIKE RACK
	TRASH RECEPTACLE
	BENCH
	PICNIC TABLE
	ACCESSIBLE PICNIC TABLE
	FLIGHT 1016 MONUMENT
	SIGN
	REMOVABLE BOLLARD
	BLUE LIGHT CALL STATION



ABBREVIATIONS	
G	GROUND
Ø	PHASE
PVC	PVC SCHEDULE 40 CONDUIT
DS3PB	DUKE SUPPLIED #3 PULL BOX
CS3JB	CONTRACTOR SUPPLIED #3 JUNCTION BOX

Plans Prepared By:



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AIRPORT OVERLOOK DRIVE

LIGHTING

FILE NAME:

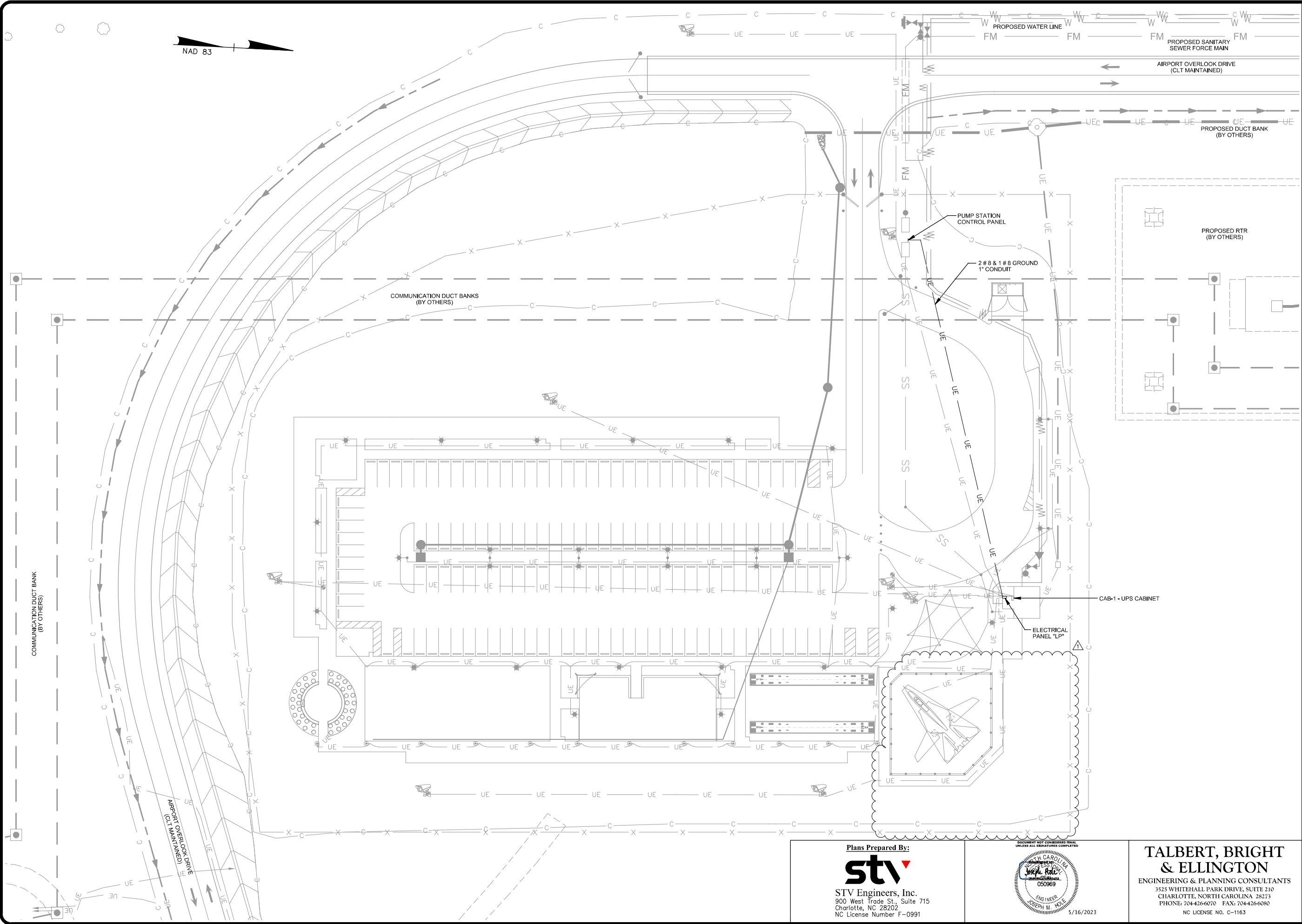
SHT.

LE-1

REVISIONS		DATE
1	ADDENDUM NO. 1 - REVISED AIRCRAFT DISPLAY AREA	05/15/2023
2		
3		
4		
5		

DESIGNED BY: STV ENGINEERS	PROJECT ENG.: JNU
PROJECT NO.: 4020901837-5	DRAWN BY: KAM
CHECKED BY: MCG	DATE ISSUED: 05/15/2023





REVISIONS		DATE
1	ADDENDUM NO. 1 - REVISED AIRCRAFT DISPLAY AREA	05/15/2023
2		
3		
4		
5		

DESIGNED BY: STV ENGINEERS	PROJECT NO.: 4020901837-5
PROJECT ENG.: JNU	DRAWN BY: MKA
CHECKED BY: GHM	DATE ISSUED: 05/15/2023



AIRCRAFT OVERLOOK DRIVE	SCALE: 1"=30'
ELECTRICAL PLANS	FILE NAME:

SHT.	E-4
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Plans Prepared By:



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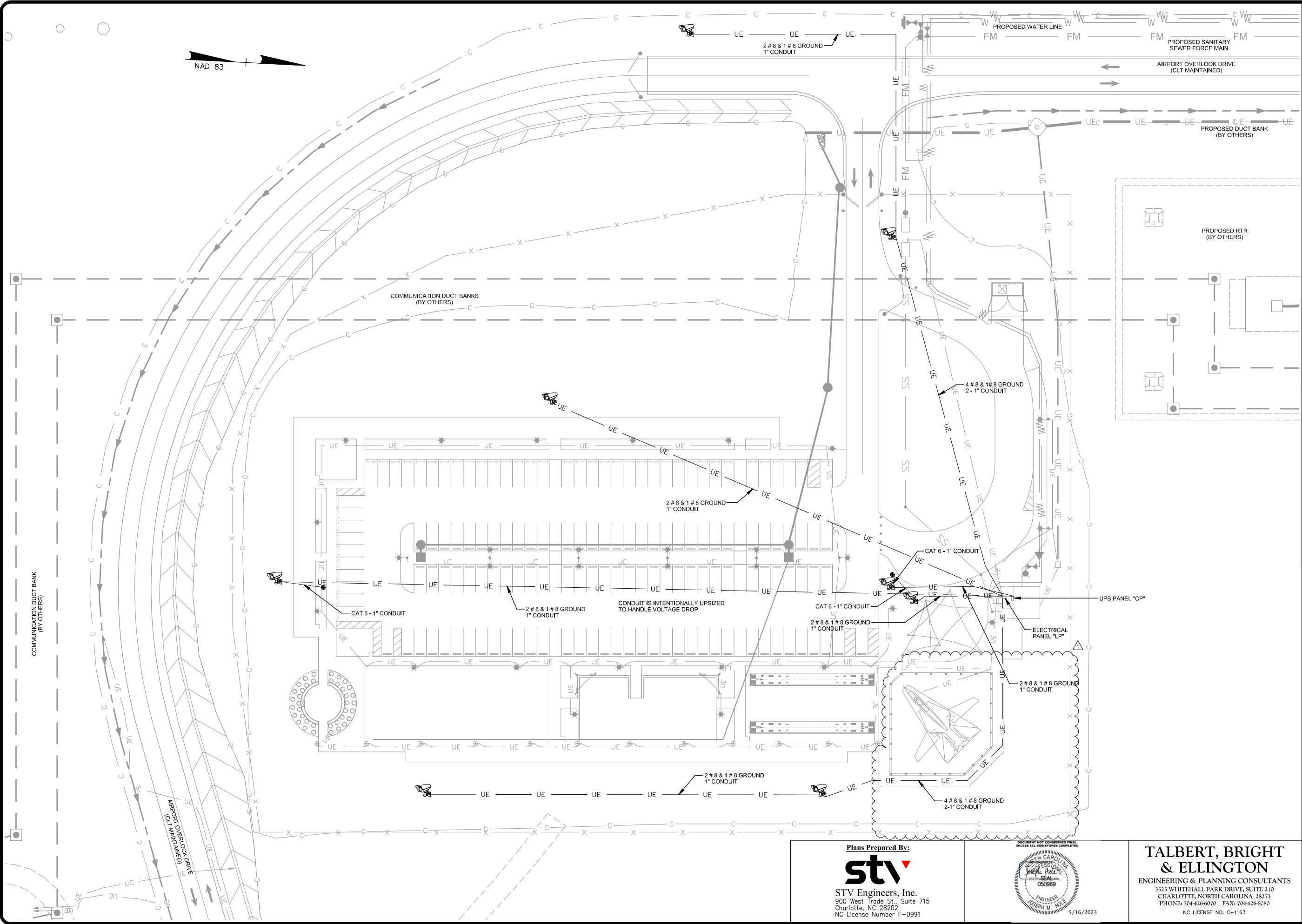
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REVISIONS		DATE
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DESIGNED BY: STV ENGINEERS	PROJECT ENG.: JNU
PROJECT NO.: 4020901837-5	DRAWN BY: MKA
CHECKED BY: GHM	DATE ISSUED: 05/15/2023



AIRCRAFT OVERLOOK DRIVE	SCALE: 1"=30'
ITS CONDUIT LAYOUT	FILE NAME:

SHT.
ITS-4

Plans Prepared By:



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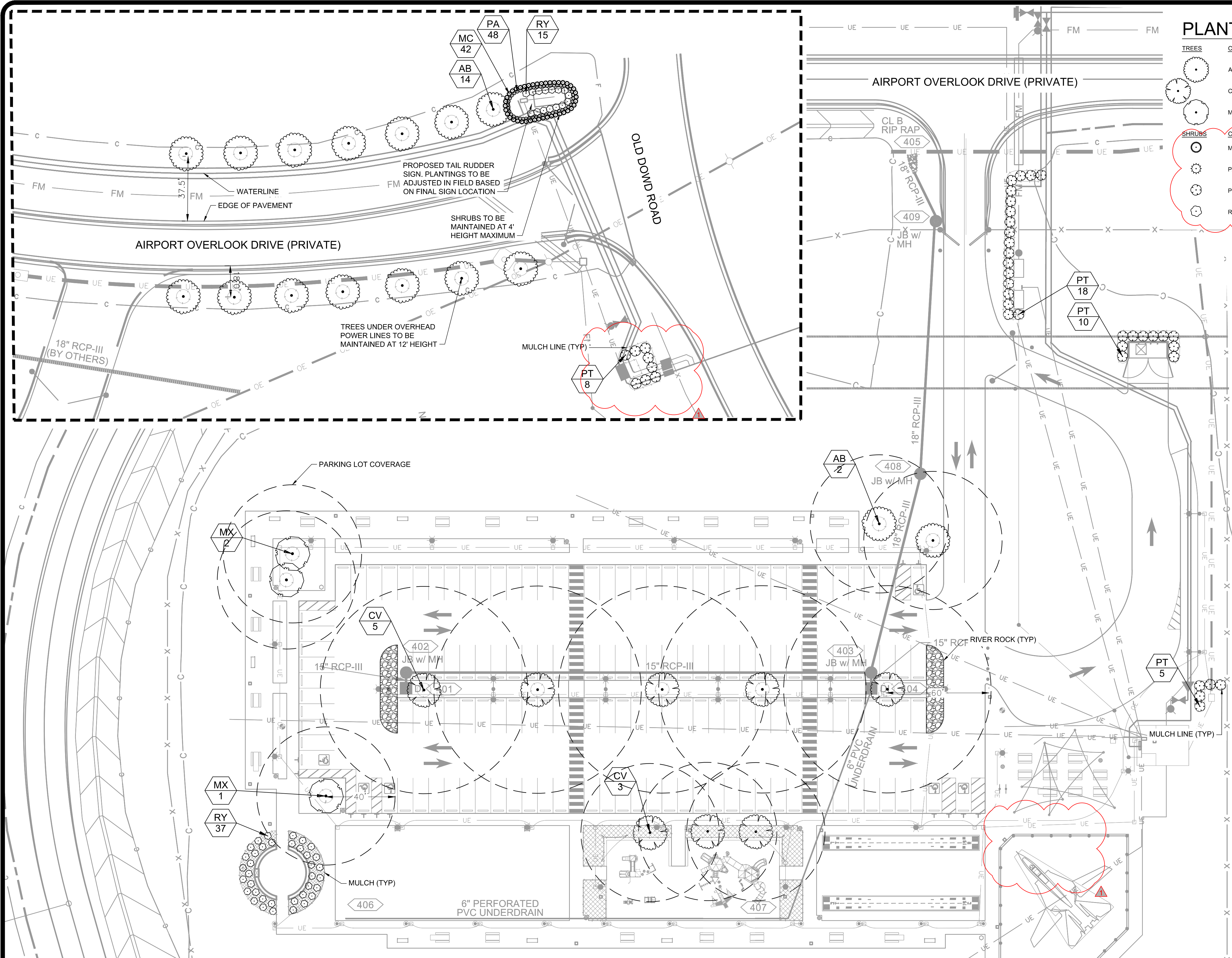
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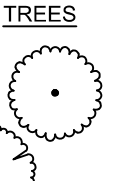
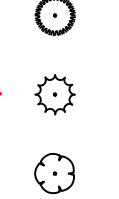
5/16/2023

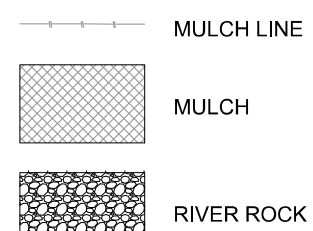
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PLANT SCHEDULE

TREES	CODE	QTY	COMMON NAME	BOTANICAL NAME	METHOD	SIZE	CAL
	AB	16	TRIDENT MAPLE SINGLE, STRAIGHT, FULL	ACER BUERGERIANUM	F.G., B & B	8' MIN HEIGHT	2" MIN CAL
	CV	8	WHITE FRINGETREE SINGLE, STRAIGHT, FULL	CHIONANTHUS VIRGINICUS	F.G., B & B	8' MIN HEIGHT	2" MIN CAL
	MX	3	JANE MAGNOLIA SINGLE, STRAIGHT, FULL	MAGNOLIA X 'JANE'	F.G., B & B	8' MIN HEIGHT	2" MIN CAL
SHRUBS	CODE	QTY	COMMON NAME	BOTANICAL NAME	CONTAINER	SPACING	SIZE
	MC	42	PINK MUHLY GRASS FULL	MUHLENBERGIA CAPILLARIS	3 GAL.	36" O.C.	30" FULL
	PA	48	CASSIAN FOUNTAIN GRASS FULL	PENNISETUM ALOPECUROIDES 'CASSIAN'	3 GAL.	30" O.C.	24" FULL
	PT	41	JAPANESE PITTOSPORUM FULL	PITTOSPORUM TOBIRA	3 GAL.	36" O.C.	30" HT MIN
	RY	52	YEDDA HAWTHORN FULL	RHAPHIOLEPIS UMBELLATA	3 GAL.	36" O.C.	30" FULL



MISC.	QTY	BOTANICAL/COMMON NAME	SPECIFICATIONS
MULCH	TBD	EUCALYPTUS MULCH	3" DEPTH MINIMUM, SHREDDED, FREE OF WEEDS/INVASIVE PLANT MATERIAL
SOD	TBD	BERMUDA GRASS	ROLLED TIGHT, 100% WEED/INSECT/DISEASE FREE

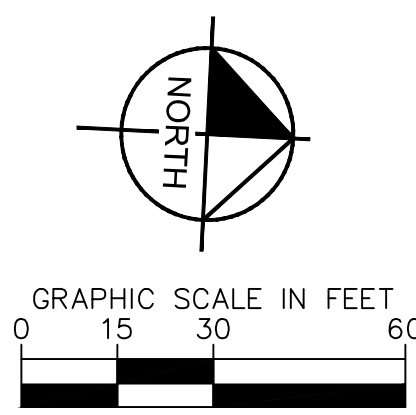
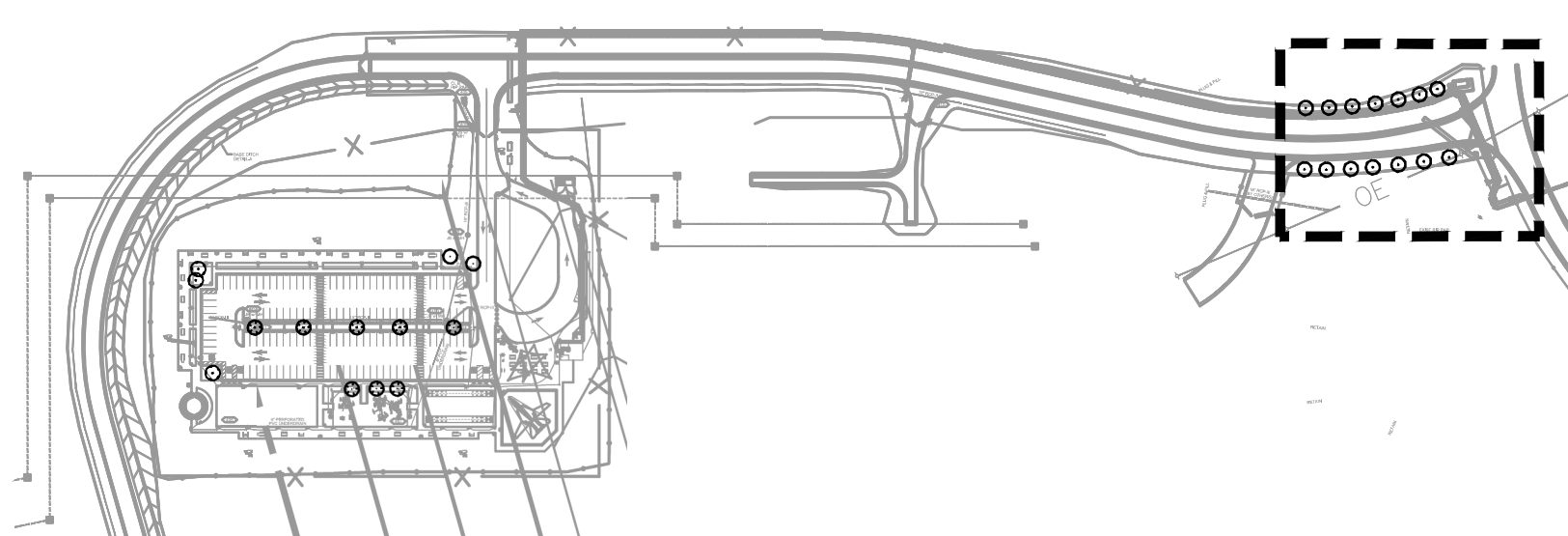
GROUND COVER NOTES:

- ALL DISTURBED AREAS TO BE PLANTED WITH BERMUDA GRASS. SEE SPECIFICATIONS FOR MORE INFORMATION.
- ALL AREAS WITH PROPOSED LANDSCAPE MATERIAL SHALL RECEIVE A MINIMUM THREE (3) INCHES OF SHREDDED HARDWOOD MULCH. SEE LANDSCAPE PLAN FOR MULCH BOUNDARY LINES. SEE LANDSCAPE DETAILS FOR TYPICAL MULCH AREA DIMENSIONS.

PARKING REQUIREMENTS (per city code section 21.96)		
Parking	Required	Provided
Trees	No parking space may be more than 40' from a tree	No: parking trees have been limited to provide views to airfield
INTERNAL PLANTING REQUIREMENTS (per city code section 21.96)		
Impervious cover	Required	Provided
94,600 square feet		
Landscape area	10% landscape area	9,460 sq. ft.
Trees	1 per 10,000 sf. = 10 trees	13
TREE TYPE REQUIREMENTS (per city code section 21.96)		
10 Required trees	Required	Provided
Large maturing trees	75% = 10 trees	Tree heights are limited due to airfield regulations
Native species	50% = 7 trees	13 trees
STREET TREE REQUIREMENTS (per city code section 21.96)		
Trees	Required	Provided
Entry Drive (200 lf)	7 trees per side	7 trees per side

PARKING SCREENING IS NOT PROVIDED PER 12.303 BECAUSE PARKING AREA IS NOT VISIBLE FROM ADJACENT PROPERTIES OR ROW. THE PARKING AREA IS OVER 1,300 FEET FROM THE NEAREST PUBLIC ROW (OLD DOWD ROAD).

OVERALL KEY



Plans Prepared By:

Kimley»Horn

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NC LICENSE NO. C-1163

DESIGNED BY: LUC PROF 1

PROJECT ENG: LUC PROF 1

PROJECT NO.: PROJ #

DRAWN BY: LUC PROF 2

CHECKED BY: LUC PROF 3

DATE ISSUED: 9/30/2022

GLT
CHARLOTTE DOUGLAS
INTERNATIONAL AIRPORT

AIRPORT OVERLOOK DRIVE

LANDSCAPE PLAN

SCALE: 1" = 30'

FILE NAME:

SHT.

LS-1

