

**GRAND COUNTY AIRPORT BOARD  
REGULAR MEETING  
AGENDA**

**February 3rd, 2025 @ 4:00 p.m.  
Grand County Commission Chambers, 125 E. Center Street  
Moab, UT 84532**

Join Zoom Meeting <https://us02web.zoom.us/j/85919598974>  
To join by phone: Dial (669) 900-6833 Meeting ID: 859 1959 8974

- A. Call to Order
- B. General Business
  - 1. Approve minutes of January 6th, 2025 (Regular meeting)
- C. Citizens to be Heard
- D. Action Items: Discussion and Consideration (some for Recommendation to County Commission with approvals subject to limitation):
  - 1. Airport Garage Co. location.
  - 2. CNY Airport Advertising Policy revisions made and submitted by the Advertising Subcommittee.
  - 3. Airport Board Bylaws revisions made and submitted by the Bylaws Subcommittee.
  - 4. Effect of Packet 2 weeks early - Minutes - maybe just send docs.
- E. Discussion Items:
  - 1. Repair work to fix terminal foundation and affected interior walls - updates.
  - 2. FAA Required Title VI, CPP and DBE - approved by the commission and submitted to the FAA.
  - 3. Land Use Code - Airport Limitation District - HB 206 requirements.
    - a. Working with P & Z and County Attorney to bring the land use code into compliance with HB 206.
  - 4. Discuss county funding for pavement in front of FBO hangars. Should the area where the fuel trucks are parked and the drive through gate be repaired during apron reconstruction? Engineer's Estimate - \$54,670.50
    - a. Leave the pavement as is and hope for the best?
    - b. Require Redtail to fund the project?
    - c. Seek funding from Grand County?
  - 5. Discuss alternative funding options for Taxi lane F - FAA will not fund. Engineers Estimate - \$405,308.50
    - a. Continue enforcing the Minimum Standards - put the cost on the developer?
    - b. Grand County to provide funds for the project?
    - c. Seek alternative funding sources - CIB, loans/bonds, investors?
  - 6. Project Reports
    - a. Taxiway A1 Relocation - Construction to start in the spring.

- b. Ramp expansion and Taxi lane - late summer/fall.
- c. Taxi Lane E, J, G, project can go out for bids right away.
  - i. Discuss the proposed borrow site for Taxi lane fill.
- d. Drive through gate replacement (FEMA Grant) - half installed.
- e. Contour Airlines advertising - we need a marketing plan
- f. Economic Development is assisting with creating entrance sign for CNY - possible grant funding available through the state.

F. Reports:

- 1. Airport Monthly Data Report & Virtower Data - January 2025
- 2. Any questions on Director's Report for January 2025
- 3. County Commission
- 4. City of Moab
- 5. Travel Council
- 6. Solar Committee
- 7. Reports from the new Subcommittees
- 8. Other reports for Airport Board

G. Future Considerations

H. Closed Session, if necessary

I. Adjourn

Those with special needs requests wishing to attend Airport Board meetings are encouraged to contact the County two (2) days in advance of these events. Specific accommodations necessary to allow participation of disabled persons will be provided to the maximum extent possible. Requests, or any questions or comments can be communicated to: (435) 259-1346.

Posted by: Tara Collins  
at the Grand County Commission Chambers \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

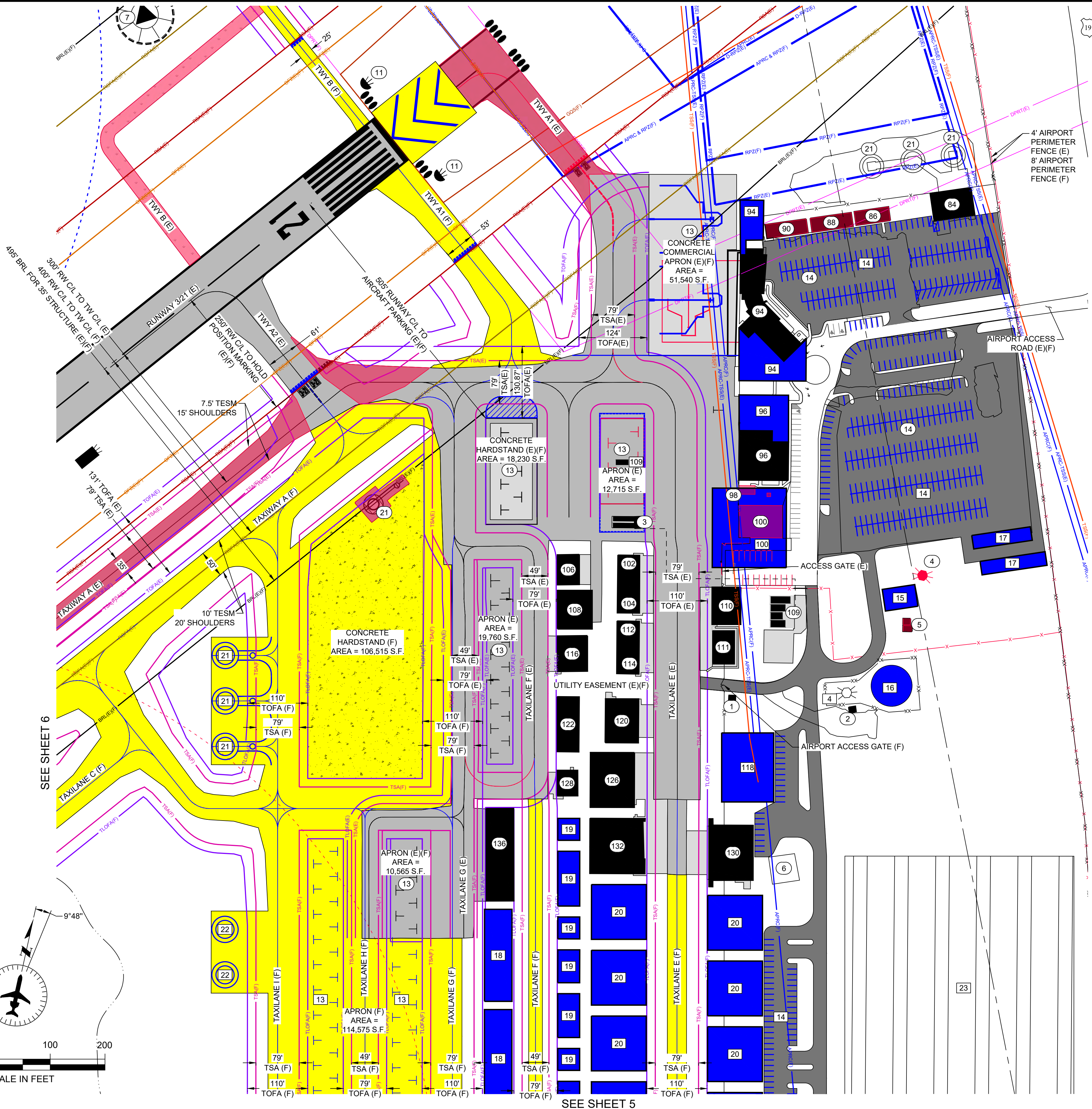
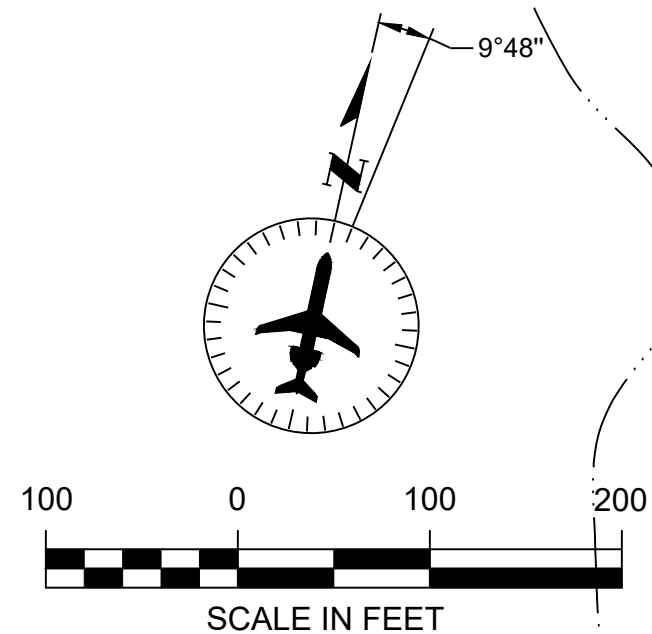
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| AIRPORT FACILITIES LIST |                                         |                      |     |                       |                      |
|-------------------------|-----------------------------------------|----------------------|-----|-----------------------|----------------------|
| NO.                     | FACILITY DESCRIPTION                    | TOP ELEV. (MSL-EST.) | NO. | FACILITY DESCRIPTION  | TOP ELEV. (MSL-EST.) |
| 1                       | ELECTRICAL VAULT                        | -                    | 86  | *PARKING GARAGE       | 4571'                |
| 2                       | RCO BUILDING                            | -                    | 88  | *PARKING GARAGE       | 4571'                |
| 3                       | FUEL TANK                               | 4578'                | 90  | *PARKING GARAGE       | 4571'                |
| 4                       | BEACON                                  | 4619'                | 94  | * TERMINAL / FBO      | 4583'                |
| 5                       | PUMP HOUSE                              | 4583'                | 96  | * BOX HANGAR          | 4594'                |
| 6                       | ELECTRICAL SUBSTATION                   | 4568'                | 98  | * WASH BAY            | 4580'                |
| 7                       | LIGHTED WIND CONE WITH SEGMENTED CIRCLE | 4578'                | 100 | * BOX HANGAR          | 4591'                |
| 8                       | VOR / DME                               | 4561'                | 102 | * BOX HANGAR          | 4596'                |
| 9                       | ASOS                                    | 4591'                | 104 | * BOX HANGAR          | 4596'                |
| 10                      | SUPPLEMENTAL WIND CONE                  | 4554'                | 106 | * BOX HANGAR          | 4585'                |
| 11                      | REIL's                                  | -                    | 108 | BOX HANGAR            | 4587'                |
| 12                      | PAPI's                                  | -                    | 109 | FUEL FARM / FUEL PUMP | -                    |
| 13                      | AIRCRAFT PARKING                        | -                    | 110 | * BOX HANGAR          | 4594'                |
| 14                      | VEHICLE PARKING                         | -                    | 112 | * BOX HANGAR          | 4589'                |
| 15                      | WASH BAY                                | -                    | 113 | BOX HANGAR            | 4595'                |
| 16                      | WATER TANK SYSTEM                       | 4586'                | 114 | * BOX HANGAR          | 4589'                |
| 17                      | PARKING GARAGE                          | 4588'                | 116 | * BOX HANGAR          | 4582'                |
| 18                      | T-HANGAR                                | 4578'                | 118 | BOX HANGAR            | 4595'                |
| 19                      | BOX HANGAR                              | 4579'                | 120 | *BOX HANGAR           | 4585'                |
| 20                      | BOX HANGAR                              | 4594'                | 122 | * BOX HANGAR          | 4580'                |
| 21                      | HELICOPTER PARKING                      | -                    | 126 | * BOX HANGAR          | 4592'                |
| 22                      | VTOL PARKING                            | -                    | 128 | * BOX HANGAR          | 4579'                |
| 23                      | SOLAR FARM                              | -                    | 130 | * BOX HANGAR          | 4588'                |
| 24                      | CORPORATE/FBO/DEVL.                     | -                    | 132 | * BOX HANGAR          | 4591'                |
| 84                      | * PINNACLE HELICOPTERS HANGAR           | 4585'                | 136 | * T-HANGAR            | 4581'                |

EXISTING FUTURE

\* ELEVATIONS ARE FROM SURVEY (ALL OTHERS ARE ESTIMATED)

| LEGEND   |          |         | DESCRIPTION                          |
|----------|----------|---------|--------------------------------------|
| EXISTING | FUTURE   |         |                                      |
| ASPHALT  | CONCRETE | ASPHALT | CONCRETE                             |
|          | N/A      |         | AIRFIELD DEVELOPMENT                 |
|          |          |         | GRAVEL                               |
|          |          |         | STRUCTURE/FACILITIES (BUILDING)      |
|          |          |         | AIRPORT PROPERTY LINE (APL)          |
|          |          |         | RUNWAY SAFETY AREA (RSA)             |
|          |          |         | OBSTACLE FREE ZONE (OFZ)             |
|          |          |         | RUNWAY OBJECT FREE AREA (ROFA)       |
|          |          |         | RUNWAY PROTECTION ZONE (RPZ)         |
|          |          |         | BUILDING RESTRICTION LINE (BRL)      |
|          |          |         | TAXIWAY SAFETY AREA (TSA)            |
|          |          |         | TAXIWAY OBJECT FREE AREA (TOFA)      |
|          |          |         | AIRPORT REFERENCE POINT (ARP)        |
|          |          |         | PACS/SACS MONUMENT                   |
|          |          |         | TO BE REMOVED                        |
|          |          |         | THRESHOLD LIGHTS                     |
|          |          |         | REIL                                 |
|          |          |         | PAPI                                 |
|          |          |         | AIRPORT BEACON                       |
|          |          |         | LIGHTED WIND CONE & SEGMENTED CIRCLE |
|          |          |         | ASOS                                 |
|          |          |         | SUPPLEMENTAL WIND CONE               |
|          |          |         | SECTION CORNER                       |
|          |          |         | CONTOURS                             |
|          |          |         | ROADS                                |
|          |          |         | MARKINGS                             |
|          |          |         | FENCING                              |
|          |          |         | HELICOPTER / VTOL PARKING            |



| No. | Ac No. | Date    | Revision / Description | File    | Drwn. | Chkd. | Apprvd. |
|-----|--------|---------|------------------------|---------|-------|-------|---------|
| 0   | 226796 | 09/2023 | ORIGINAL ISSUE         | 6796503 | RA    | JPH   | JZP     |

**GRAND COUNTY AIRPORT BOARD  
REGULAR MEETING  
MINUTES**

**January 6, 2025 @ 4:00 p.m.  
Grand County Commission Chambers, 125 E. Center Street  
Moab, UT 84532**

**A. Call to Order**

1. The meeting was called to order at 4:02 p.m.
2. Members present: Jody Patterson, Bill Hawley, Bill Winfield (County Rep.), Alex Borichevsky (Travel Council Rep.), Rachel Paxman, and Jason Taylor (Moab City Rep.). Laurel Catto and Randy Martin participated (later) on Zoom. Airport Director Tammy Howland was also present.
3. Members not present: 0
4. Others present: Director's Assistant Tara Collins. On Zoom were Rea Erwin (ARFF), and Bill Prather of Airport Garage Co.

**B. General Business**

5. Approve minutes of December 2, 2024 (Regular meeting)  
There was discussion of a correction to be made to a highlighted word on page 2. Bill W. said the correct term is purlins. Bill H. added that there were other methods to do this insulation than sheetrock, like ceramic. Bill W. agreed.  
**Motion** by Bill H. to approve, with the correction made, seconded by Alex, approved 5-0.
6. Approve minutes of December 9, 2024 (Special budget meeting)  
**Motion** by Alex to approve, seconded by Rachel, approved 5-0.

**C. Citizens to be Heard (None)**

**D. Action Items: Discussion and Consideration (some for Recommendation to County Commission with approvals subject to limitation):**

1. New language for Minimum Standards re: spacing between hangars or buildings and minimum square footage.

Tammy interjected that she had literally just received an email from Planning & Zoning regarding this item. Amy Weiser wants to tweak some of the language for hangar size: it should include Building, Engineering, and Planning & Zoning.

**Motion** by Bill H. to accept the language changes to the Minimum Standards, with the additional language from the Zoning Director, seconded by Jason, approved 5-0.

Bill H. confirmed it would go to the County Attorney next, after they make the changes.

2. Adopt advertising policy.

Jody said this draft was not very different from the draft in previous packets. Bill H. thought the policy was incomplete: There is no administrative part to it, there's nothing about the digital signs. He'd like to table it. Bill W. agreed, he is concerned with #3, that all of the advertising discretion is given to the Airport Director. He thought the Board should have some say in what is advertised. Jody thought that was nitpicking, as long as the standards of the lease are being met, that they would review every single advertiser. Bill W. said he didn't want to review every single one. Jody and Tammy said Lion's Back is good to go, they just need to install it. Bill H. thought that since these are leases, the Board should have some oversight in it, as to who advertises, how long they advertise, etc. And there are bandwidth questions.

Bill W. asked if this had been reviewed by the County Attorney. Tammy said the plan was to go through Airport Board first, so we're not going back and forth with Stephen. Tammy said she had not received any input from any board member about this draft policy, and invited members to give her input on it. Bill W. thought it should be tabled, since he just got this a few days ago. Bill H. suggested they make a 3-person subcommittee to look at drafting language. Jody asked what advertisers have expressed interest. Tammy said one of the ground transportation companies wants to hang a poster, and Palisade Colorado wants to do some advertising. Jason asked if the Commission would be approving these, Tammy said it depends on how this policy is written. Alex made a distinction between the County paying for advertising versus a private company paying for it. Bill W. said that's why there should be verbiage in here about the Board reviewing potential advertisers. Jody confirmed that the Airport would be providing the space that the digital advertising will happen in, correct? Tammy said yes. Jody said then we're not really leasing space, maybe our wording is wrong. And we just need an advertising policy. Because we're just providing space and the service for advertising. Bill H. said that's why this version is not ready yet.

**Motion** by Bill H. to table this and form a subcommittee to work on this verbiage, seconded by Alex, approved 5-0.

These people volunteered for the advertising subcommittee: Bill H., Bill W. (though he said he's not a voting member, but he will represent the Commission), and Jason.

3. Review of Airport Board Bylaws annually per county attorney's request.

Bill H. started a discussion regarding his item that actually comes later in Discussion (E.8.). He is concerned that the Board has become a rubber stamp for a lot of things going on at the Airport. He would like to see the Board become more involved in a leadership, priority-driven mode, where what's going on is better shared, better communicated, and better understood. Because they don't hear anything until the Friday before the meeting. He wants to modify the language of the Bylaws to make some of these decisions and projects more a part of the Board's operation, and what the Board does. As opposed to just hearing about it and voting on it. He said we have some examples of things that are just brought here, and it's the first time we're hearing about it, and we just don't have

time to act. Bill W. pointed out that these issues of Bill H.'s are further down in the agenda, but that we might as well combine them, because they are the same thing. Tammy clarified they're not the same, this item is the County Attorney's request for all Boards to review their Bylaws annually with the membership[and one is Action, one is Discussion]. She said we could review them as a group, or you can read them at home, that's up to the Board to decide how to handle that.

Bill H. said the other thing we should include in our Bylaws, since we are a regional airport, is representation from San Juan County and Green River, whether they are voting members or not, he doesn't know. His reasoning is that Emery and San Juan Counties are players in this Airport. Jody said he didn't know how it works for San Juan, but he believes that the Board can have members from Emery County. Rachel confirmed that it says they have to live in Grand County. Bill H. and Bill W. said we can change that.

Jody wondered at what point does a Board which serves as an advisory medium to the Commission, like we do, where is that line drawn between any power or authority that the Airport Board has versus the actual hired employees of the Airport, that are running the day-to-day operations? Do we care more about the day-to-day stuff, or the bigger projects? Jody thought the way it's written now, the Board is more of an oversight institution, and that we don't micromanage the day-to-day operations at the Airport. Jody thought the Board should focus on the bigger things that will go before the Commission, that those items come before us first, to see if we're agreeing with the direction of the operations side of the Airport. Rachel agreed, saying we can't micromanage everything going on out there. Bill W. said the intent wasn't to micromanage, but neither should the intent be that a few days before the Board meeting do we get the packet, and then expect to make a decision on them. He said we've got to have enough time to look them over. Bill H. brought up his desire to see priorities.

Bill H. and Bill W. want to see the ongoing Airport Project Log on a regular basis. Tara said she doesn't currently have permission from people outside the Airport to reveal some requested projects to the public. Jody asked if some names and things are redacted, could it be shared, and Tara said that it could. Tammy asked how long before the meeting did the Board want to receive the packet of agenda materials. Bill H. said: 2 weeks before the meeting.

Bill W. thought they should do a subcommittee for the Bylaws. These people volunteered for the Bylaws revisions subcommittee: Randy, Bill H., Bill W.

Bill W. wondered why there was no representative from the FBO on the Board. Bill H. and Bill W. thought we should table this, and the subcommittee can work on the language. Jason mentioned that some Boards hold a half-day retreat, where they come up with priorities and goals, and reach a common objective. He suggested we have this retreat at the Airport, and do a full walk around, and then have a meeting. Rachel volunteered to organize the retreat, on the Monday meeting day in March (March 3). Bill H. volunteered his hangar for the meeting portion.

4. Nomination and vote for Airport Board Vice Chair.

Jody said the term would be for 2 years. Randy and Bill H. said they would throw their names in. Randy withdrew. **Motion** by Jason to nominate Bill H. for Vice Chair, seconded by Randy, approved 6-0.

5. Accept State Grant for landscaping improvements and Dumpster enclosure - see map. \$46,550 no local match.

Tammy said this was brought to her attention by UDOT, it's called a revitalization grant, to help improve the appearance when you first pull into an airport. She showed photos of the area to be improved, and said they would clean all the weeds up, put down a weed barrier, and put down stone to keep the hill from washing out. Then they can build an enclosure for the dumpster. She's shooting for June, and hopefully by then we will have an entrance sign picked out, and have that built.

There was discussion about the location of the dumpster. The opening would face the terminal, with no gates on it. Jason said it's a long way from hangars. Rachel said it used to be more in the middle. Tammy agreed, but that was temporary. Tammy said this location seems to be best, there is less trash around it, and it's easier for Monument to get in there. Bill H. suggested moving it to where the rental cars are. Bill W. said he's not concerned about the location, but he is all in favor of cleaning up that entrance. He wondered if the County Weed department could help with that.

**Motion** by Rachel to accept this grant, for landscaping and a dumpster enclosure, seconded by Randy. Discussion: Bill H. wanted to discuss the dumpster location further, he asked if the State cares where it's located. Jody thought this was like what they discussed earlier, it's nitpicky, and not in the board's purview. He said if the Airport has a functional place for it and it's working, he doesn't see why they'd want to nitpick that. Bill H. brought up the Master Plan. Bill W. said they could be moved closer to the car garages. Bill H. suggested down off the hill, between the garages and Heli X. Tammy said that would be putting it even further away from everybody. Bill W. added: and on a different level; that would be inconvenient. Rea (ARFF) offered that when it's dark outside, there's a light right above its current location, so they can see if something does fall out, before the next day when the birds get it. Randy and Rachel said that was a good point. Jody suggested that since we have a motion, that we move on that, and then if we want to have further discussion about the location during the retreat when we are there on site, we can do that. Tammy said the State is flexible, and if we want to take the enclosure out, and just do all landscaping, we can do that.

**Motion** by Jason to approve the grant for \$46,550, and to continue the discussion on location at the retreat in March, seconded by Bill H., approved 6-0.

Jason asked about bids, Tammy said a lot would be done in-house. The enclosure won't be concrete block, or chain-link, it will just be a privacy fence.

6. Airport garages - reconsider placing on the edge of parking or approve cancellation of land lease.

Mr. Prather said the bottom line is that the cost of the project exceeds any hope of making it financially feasible for him and Ed. It's priced right now at \$30,000 per garage unit. It's at high 6% return, so it doesn't make financial sense for them. Placing it on the existing parking lot is the only way to make it financially feasible. His other big concern is that he's losing reservations because of the air service, frankly. A lot of his northern tenants, like in Canada, just don't want to go through Phoenix. Tammy showed an aerial photograph, with Prather's markings of 2 optional placements. He will downsize the project to 10 units, so it's not such a big strip.

Bill W. said the Zoning Administrator has issues with this placement. Bill W. read Ms. Weiser's email that he and Tammy received about 5 minutes ago: the proposal to place the downsized project in the parking expansion area is not in compliance with the ALP or the AMP. If a lease is approved at this location, it could affect expansion of the parking area in the future. In addition, placing hangars in that location will require an extensive grading and drainage plan, because the parking expansion area is not paved and has not undergone planning and engineering requirements for parking. The photo submitted with the applicant's emails does not show setbacks from property lines or UDOT right-of-way. Bill W. thought that Tammy and Ms. Weiser should meet before they decide anything. Mr. Prather said that there were 25-foot setbacks from the property line. Also, his impression was that the expansion parking lot has been engineered, and compacted. There was a minimal amount of over-x, 12 inches, and that would make a huge difference for his endeavor. Prather is more than happy to work with the Planning Department.

Prather asked about flights from Denver, or even Salt Lake. Tammy said they're looking at a March-April timeline for Denver flights. Prather asked if he could proceed, hold off, or is it dead? Bill W. said it made sense to hold off until Tammy can meet with the Zoning Administrator. Prather agreed. Bill H. asked about a soil study. Prather said yes, he's done a soils test on the prior location he'd been working on, but on the expanded parking lot - no. Bill H. suggested that Prather didn't really know if that location would work, and Prather said no, he'd made the assumption, looking at the lot, that that had been engineered or based on soils tests that the Airport would have done. Bill H. said no, he didn't think that had been done. They just brought in gravel, and put it on there and graded it. And compacted it, Tammy added.

Jody asked if anybody had issues with moving to this location, now that we have additional information, and things are changing. If anybody has any ideas about absolutely not putting them in the parking lot, then we don't have anywhere to move. But if board members are willing to re-examine this, that might give Prather what he needs, and give Tammy time to start looking at what it might take, and what they might be able to do, if they can move that location. They need to decide that first. There was discussion about the 2 options in Prather's drawing, direction of placement, and access.

Jason said that, depending on what Amy says, that he doesn't mind re-looking at this. Jody was of the same mind. He said, particularly because if they needed potential future parking expansion, that Mr. Prather would move these upon that Airport need. Prather clarified that we've agreed through the lease document and the Commission, that you can move his garages at his expense, for any purpose other than surface parking. Tammy said these garages are part of the parking facilities. Jody asked if anyone had any issues. Alex thought we should give Prather a chance. Bill H. and Randy agreed. Prather asked about next steps. Tammy said she would meet with Amy. Prather will talk to the soils people, because they dug some big holes, maybe they could drill a smaller hole, so as not to tear up that lot.

7. Approve advertising for flights on airport billboard - Discover Moab banner is fading.

Tammy said this billboard is on the north end, inside the Airport fence. It was never leased out, so it's used by the County. Right now there's a Discover Moab banner on it, but it's fading. She thought we could advertise Contour flights on it, for CNY Airport. We can keep Discover Moab on it too. We wouldn't charge Contour for this advertising. The \$25,000 that Contour already gave us for advertising is being used on Travel Zoo. Jody said it went live on December 14, and we'll get an update on January 14. Rachel suggested we put "Daily flights to Phoenix and Denver" on it. Jody wondered if we could advertise other activities on it, like "we have skydiving, we have an FBO, we have site tours". Rachel thought it should be concise, since people have 1.5 seconds to see it. Jody agreed it should be simple. Tammy said since Contour gave us advertising money, the ad should be kept for their flights only. She said the other side of this billboard is rented out. Alex suggested "Sick of traffic? Fly in". Rachel suggested "Next time fly". Bill H. thought we should put a timeline on an ad for Contour flights on that billboard, maybe "at the Airport's discretion". Jason thought a banner might cost \$1,000. Bill H. mentioned that the info could become old, and then we'd need to change it. Rachel suggested we let the Denver flights get firmed up, she thought that would happen by March.

**Motion** by Bill H. to make a decision in March for a Contour banner for the unused billboard, and use the Contour money to pay for it. Seconded by Alex. Discussion: Tammy said if anybody has ideas for this, great, if not, she'll work with Economic Development to come up with ideas. Bill H. added: and Contour.

Jason's hesitation with this plan is that he thought there should be a contract, because another Airport company may object to this free advertising. Jody asked if we should advertise that that billboard is available for lease. Jason staged it as: "Grand County is renting this billboard to Grand County, to advertise Contour flights." Bill W. thought we could use the contract for the other side as a model. Tammy thought Skydive Moab is renting the other side. Jason reiterated the need for a contract, because Keith could ask that his side be free as well. Tammy said she'd go as far as designating that side as "for the County", and that it's not available. Jason agreed, that designation should be spelled out. Tammy said with

our County sponsorship of the Airport, there's a lot of leniency that gives the Airport the right to advertise who it wants. Bill W. said there's an item on the Commission meeting tomorrow night that will affect advertising.

Bill H. reiterated his **motion**, adding with an agreement or contract in place. Seconded by Jason, approved 7-0.

8. Approve FAA Required Title VI, DBE and CPP documents.

Tammy said this is one of those rubber-stamp cases. Last year the FAA mandated that commercial airports have to adopt these 3 plans. These all deal with Civil Rights. Usually we would just have our County Attorney verify that we do comply with Civil Rights, but now the FAA requires actual plans from airports. These were mostly written by Armstrong's person that does nothing but writes these plans. These are lists of criteria to meet. There's not a lot for the Board to change in these. These 3 plans have been approved by the County Attorney. In practice, there will be some posters in the terminal explaining the process for filing a Title VI Civil Rights complaint. A lot of it is to protect language barriers. If approved here, it will be on the Jan. 21 Commission meeting. These documents only apply to the Airport, not the whole County. If we don't have these plans, we don't get federal funding. Jody said he has to sign similar things for government contracts.

**Motion** by Rachel to approve all 3 documents, seconded by Alex, approved 7-0.

9. Approve ARINC lease renewal.

ARINC is hired out by all the airlines in this country. They provide radio repeater equipment, for airline communication. We've been in business with them since 2008. You can see their big antennas on top of the terminal. They also have some space in our utility closet for their equipment. Their lease is up in March. They'll write their lease renewal, which will look much like this one. Bill H. asked why we wouldn't increase the cost. Jason said it probably benefits the Airport. Tammy said there's no demand for space in the terminal, so no need for an increase. Bill H. said they use our power. Tammy said that's included in the square footage fee for terminal space. Bill H. said the square footage fee has not been increased for a while.

**Motion** by Randy to approve lease renewal with ARINC, seconded by Rachel. Jody asked if there is a yearly utility increase in our leases? Tammy said not for terminal leases. Rachel said this current lease says "Rent shall be adjusted upon amendment of the County Fee Ordinance". Tammy said we could look at doing an increase. **Approved** 6-0 (Laurel offline). Tammy noted that this is not space that would be in competition for anybody else, this is a very specialized service. It's essentially a single source.

E. Discussion Items:

1. Approved 2025 budget.

(Operating budget for the Airport.) Jody asked if the Commission had changed anything. Tammy said no, if anything, they've taken things away. Tammy said she didn't know if the foundation repairs and the roof project were approved, she apologized for not confirming that before this meeting. Originally she had asked for cameras and parking lot lights too, but she withdrew those after the budget meeting, because there wasn't enough money. So she prioritized the terminal foundation and roof, and she'll just need to verify their approval.

2. Repair work to fix terminal foundation and affected interior walls.  
Bill W. said he had a soils engineer take a look at the proposal from CST, and he had concerns as well as did Bill W. The soil guy was recommending that we have a soil engineer do a soil test before this money was spent. The soil guy recommended "the County consider getting additional information related to the cracking of the interior slab at the airport terminal, before moving forward with proposed ground improvement methods". . . "Ground injection . . . is generally not suitable for the soils that are at the Airport". Bill W. said the soil at the Airport is Mancos shale. Also, he said the Zoning Administrator said there should have been a closed bid process for 3 contracts, as well as going through the RFP process. He has many questions about this contract.

Tammy said, first of all, that this was just an estimate. She needed a dollar amount, to ask for funding, so that it could go out for bids. This was just a generic contract, to provide Tammy with a base dollar amount, in order to proceed. This was not intended for approving this contract. This document was just to say: this project needs to be done, here's an estimate on funding. It's also not to address cracks in the floor, it's to address the settling of the foundation from the wall itself. It had nothing to do with cracks. The foundation is sinking, not the inside floor. Tammy said they have a soils test done already. Bill W. asked where it is, and Tammy said she hasn't dug it up yet, it's in Judd's files. It was in Tammy's budget request that this document was just an estimate, not an actual final contract. Bill W. said he'd be glad to read and interpret the soil report. Randy said our first step is to make sure the County approved the budget was approved for this project. Tammy invited anyone to come out and look at the problem areas. She had a local contractor, Ben Byrd, come over and look at it, and ground injection was his suggestion.

3. ~~FAA Required Title VI, DBE and CPP documents.~~
4. Discuss county funding for pavement in front of FBO hangars, fuel trucks and the drive through gate during apron reconstruction.

Tammy said it's a 2026 project, so there's time to hash it out. Anything 50 feet from a hangar is not covered by AIP funds. So the County would have to pay to pave there. Bill H. confirmed that she'd have to budget for that in 2026. She doesn't have an estimate for that yet. Bill W. said they could go over the 2026 and 2025 project lists at the March retreat. Tammy can get Lochner to put together an engineer's estimate. But they won't really know until bids come in. Tammy said that section will be torn up, soil-tested, excavated as needed (to fix present waviness), and then re-paved.

5. MOU with TSA for CCTV footage.

Tammy said TSA often has requests for security footage. This agreement just bypasses the need to submit to the County every time they ask. Attorney Stocks will be an integral part of this. TSA sent her their blanket form, she can send it out to everyone. Jody asked if they would make requests for specific time periods, or will they have access to the system. Tammy said they want access to the system, but she needs to work that out with IT and Attorney Stocks, because she needs to find out if that would give them access to everything, and whether that would not be in the County's interest. She's leaning toward single requests from them.

6. Terminal Roof Repairs, including the sandstone walls and gutter - rough estimate \$40,000, need approval for funding before RFB.

Tammy said the roof is 30 years old now. They've been trying to keep it leak-free, but it's now beyond what they can do in-house. This estimate would fix the 2 sandstone walls by capping them, and repairing the sandstone itself. It would also involve putting in a membrane roof, to match the one on the newer side of the terminal, getting rid of the galvanized metal. Jody asked if the terminal would need to be closed, Tammy said it shouldn't need to be, but she would need a set scope of work. Alex explained the process of installing membrane roofs.

7. Develop a comprehensive project list for the airport. The list would include all projects prioritized according to need and would include descriptions of the projects, cost estimates, funding sources and proposed begin dates.

We can send out the project list each month, with some info redacted. Bill H. said it would be good fodder for the retreat. Bill W. and Jody said it would be good to see what projects are coming up.

8. Consider updating the Airport Board Bylaws to include (please attach the current Bylaws to the agenda):

- a. Change the way the Board functions to a proactive and leadership-oriented body.
- b. Additional Board members from Emery and San Juan counties.  
(Already discussed.)

9. Project Reports

a. Taxiway A1 Relocation - Construction to start in the spring.

b. Ramp expansion and taxi lane - late summer/fall.

Tammy said those will go back out for bid in probably February. Construction will probably be in late summer or fall. Those 2 projects will lead up to 2026 and the reconstruction of the apron in front of the Redtail hangars, and the area around the fuel farm. Redtail has been looped in on that project. They're going to make some changes to the fuel farm.

- c. Drive through gate replacement (FEMA Grant) - gate was delivered, installation TBD.  
They're planning to come down next week to do the concrete, and the following week to install the gate. This was funded with a FEMA grant. We will have to upgrade the keypad as well.
- d. Economic Development is working with the Airport Director and Contour for airline advertising for 2024 funding.  
That's on the Travel Zoo website. Tammy met with Economic Development, as they know more about the advertising needs of the County. Our contract is February to February. Currently they are focused on winter in Moab ads. We could talk about some more advertising that the board wants at our retreat. Jason thought the ad was good, maybe posted a little late for a winter trip. For example he's personally currently planning for spring break. He also thought they could have gone into how to get to Moab once you've flown into the airport. Tammy agreed it was somewhat rushed, but the team at EconDev was mostly all brand new personnel.
- e. Economic Development is assisting with creating entrance sign for CNY – possible grant funding available through the state.  
Tammy said they will pull from their creative experiences, maybe we'll have another design contest, to get some fresh ideas. That project is definitely eligible for the revitalization grant from the State that will be available in June.
- f. Emergency Fence repairs completed – Fed Ex semi crash.  
Two weeks prior to Christmas, a FedEx driver fell asleep, ran off the road across oncoming traffic, went through the ditch and ran through our brand new fence. He took out 350 feet of fence. It was a Saturday. Staff rallied and got some emergency repairs done, then the next week had permanent repairs completed. So we were in compliance. This is an insurance claim, they will appeal to FedEx to recoup the costs. We actually got it on surveillance, so the entire episode was on camera. Highway Patrol and Sheriff came out and cited the driver. We reported it to Homeland Security.
- g. End of year numbers.  
Tammy showed operations numbers, next month we'll do more financial stuff once everything's come in. Jason mentioned he's heard people on forums sharing: don't land in Moab, because fuel is \$7.07 per gallon, and it's not worth it. Grand Junction is like \$5.50. Tammy said she's had a meeting with Redtail about that. Bill W. said Redtail used to get a lot of fuel sales from SkyWest, and they're struggling. He wondered if Contour buys fuel in Phoenix because of the price. Rachel tries to talk the pilots into it, because it's so convenient here to get fuel, less waiting, and reliable trucks.

Tammy showed the year-end numbers, and takeoffs and landings are definitely down from 2023. Jason said, regarding tourist numbers for the whole County, that there are several variables. He said we'll probably know more once the TRT numbers come in.

F. Reports:

1. Airport Monthly Data Report & Virtower Data - December 2024
2. Any questions on Director's Report for December 2024
3. County Commission - Bill W. said they're making changes to the advertising policy.
4. City of Moab - Jason said there's a big retreat coming up, 2 days long, where they will be talking about their objectives for the year.
5. Travel Council - (Alex had to leave).
6. Solar Committee
7. Other reports for Airport Board

G. Future Considerations

Bill H. requested reports from the 2 new subcommittees. They clarified the members of the new subcommittees.

H. Closed Session, if necessary

I. Adjourn - 6:55 p.m.

4565.75

4564

4565.75

4564



Tara Collins &lt;tcollins@grandcountyutah.net&gt;

## Fwd: Planning and Canyonlands Airport

2 messages

**Tammy Howland** <thowland@grandcountyutah.net>  
To: Tara Collins <tcollins@grandcountyutah.net>

Mon, Jan 13, 2025 at 12:50 PM

I asked Amy to write something for the Airport Board. Please add it to the packet or email to everyone.

Thank you,

Tammy Howland

Airport Director

Canyonlands Regional Airport

435-259-4120



----- Forwarded message -----

From: **Amy Weiser** <aweiser@grandcountyutah.net>

Date: Fri, Jan 10, 2025 at 3:43 PM

Subject: Planning and Canyonlands Airport

To: **Jody J. Patterson** <jody.j.patterson@gmail.com>, Bill Winfield <bwinfield@grandcountyutah.net>

Cc: Quinn Hall <qhall@grandcountyutah.net>, Tammy Howland <thowland@grandcountyutah.net>

Hello Jody and Bill-

I would like to circle back with you about the issues that I raised via email at the start of the Airport Board meeting on Monday.

Since that time, Tammy and I have spoken at length about how things have historically been for approvals at the airport, and how they have been working since she became director. We both agreed that there needs to be better communication and sharing of information between our departments. After our phone call she emailed multiple documents that we here in the planning department did not have and were not fully aware of, this is not surprising given the amount of turnover in the Planning Department over the last few years. I created a shared google drive folder for everyone to access the information.

I apologized to Tammy for not reaching out sooner, as I have been here almost 5 months and I honestly just started to pay attention to permits happening out at the airport about 2 weeks ago. That's when a contractor working on a permitted hanger came into the building department to talk about his frustrations with the soils and drainage situation and happened to be in the vicinity and was able to listen and ask a few questions. At that same time I became aware of the pending building permit for car storage for Mr. Prather. I was concerned about these relocated buildings potentially limiting the future expansion of the parking area, as well as required paving and drainage improvements that could also affect the parking area. Tammy and I will continue to work together to understand the issues out at the airport and meet earlier in the process so everyone is up to speed and understands what the possibilities are. Perhaps we can work together with the applicant to find the best location for him.

Tammy explained the proposed revisions and showed me a few other sections that make it clear that an applicant must receive approval from the building department prior to the issuance of permits. The Building Department is aware that these new structures require site plan review approval from P&Z as well as approval of the building permits. As P&Z works on code revisions in 2025 it will be a good time to look at the standards in the Airport Limitation District found in the LUC under Article 4 Special Purpose and Overlay districts. It would be ideal if the language across the board in both the LUC and the airport documents were updated and used similar language.

Tammy informed me that her process prior to preparing an RFP for proposals for construction (as required for work over a certain \$ amount) is to get a few bids if possible so she has a general idea of what the work will entail and how much it might cost. This way she can consider it in her budget and if it will be feasible. She apologized for including the draft contract in the packet for the repair of the terminal foundation as that was somewhat misleading. She explained that it was a standard contract that the contractor sent without her requesting one.

These comments are more for the County Commission and the County Attorney to discuss and address:

(1) I do still have further questions about how the Airport Master Plan and Airport Layout plan are acknowledged by the County Commission. I am unclear if this has been the process in previous years (before Tammy or I were directors in our positions). It seems that the Commission should formally approve and adopt them after FAA approval. I would like to have further discussion on this, as well as what the internal process should be for County Departments for approving the relocation of structures shown on the AMP and ALP. As it stands, if the document is not formally adopted by the Commission, then Tammy is correct that she has the discretion to relocate them as necessary or as requested as long as the new location is in compliance with FAA regulations as it relates to the ALP.

(2) Dan Stenta and I talked about the need to have a comprehensive drainage plan at the airport. We also feel that the airport should be required to construct all required infrastructure. Tammy is in agreement. We all agree that it will take County Commission support and a commitment of funds in addition to finding and receiving significant grant money. The current drainage study is from 2017.

(3) I also feel that prior to executing a lease/contract for a new building, that the building have some kind of preliminary approval from planning/building/engineering and that this approval should go hand in hand with the lease that gets approved by the Commission.

Tammy and I are confident moving forward that we will have a great working relationship and be able to help our departments continue an improved collaboration. My comments sent on January 6th are not because of any failure wholly on Tammy's shoulders, I am also at fault for not being more informed and not reaching out to Tammy for a site visit and a sit down to learn about the airport. We are all doing the best we can with the knowledge we have, the historical context we can find, and the workload we all have right now. We plan to take Planning staff out for a site visit in the next few weeks to gain a better understanding and find ways to help.

Thank you for reading this long email!  
Have a great weekend,  
Amy

Feel free to pass this on to the other airport board members. I could not find their emails on the county website. I understand that there's a way to just put a link on the website that says 'email' and an email is then forwarded to whatever email we set it to. This way the public can contact airport board members if needed. I need to do this for our planning commission as well! It would also be nice - and maybe it already exists and I just don't know where it is - if internal County Staff could have access to all commissioner emails for better communication.

--

**Amy Weiser**

Planning Director  
Grand County, UT  
[aweiser@grandcountyutah.net](mailto:aweiser@grandcountyutah.net)  
435-259-1343



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**Tara Collins** <[tcollins@grandcountyutah.net](mailto:tcollins@grandcountyutah.net)>

Mon, Jan 20, 2025 at 3:15 PM

To: Rachel Paxman <[rachel.paxman@flycontour.com](mailto:rachel.paxman@flycontour.com)>, Randy Martin <[rmartin2680@gmail.com](mailto:rmartin2680@gmail.com)>, Bill Winfield <[bwinfield@grandcountyutah.net](mailto:bwinfield@grandcountyutah.net)>, "Bill Hawley ([whawleyx2@gmail.com](mailto:whawleyx2@gmail.com))" <[whawleyx2@gmail.com](mailto:whawleyx2@gmail.com)>, Laurel Catto

1/20/25, 3:15 PM

Grand County Utah Mail - Fwd: Planning and Canyonlands Airport

<laurelcatto@me.com>, Jason Taylor <jason@westernriver.com>, Alex Borichevsky <axlecheff@gmail.com>, Tammy Howland <thowland@grandcountyutah.net>, Jody Patterson <jody.j.patterson@gmail.com>

I will do both - email and include in the packet.

Tara Collins  
Assistant to CNY Airport Director  
(435) 259-4849  
[tcollins@grandcountyutah.net](mailto:tcollins@grandcountyutah.net)

[Quoted text hidden]

## Canyonlands Regional Airport Airport Advertising Policy

This policy provides advertising and signage criteria for the Canyonlands Regional Airport ("Airport"). This policy does not apply to activities of the Airport and its Airport Director, or designee, to inform the public, promote Airport facilities, services, or otherwise market the Airport and Airport Business Park.

Advertising is as an essential part of airport concessions, information, and identity programs; however, any advertisement must also be aesthetically consistent with the Airport's design and architectural standards and not interfere with operational efficiencies and safety. A balance between Airport advertising and other informational systems must be maintained to preserve visual continuity, avoid clutter, and message overload. ~~Advertising, for the purpose of this policy, is defined as the display of paid announcements in any form to promote businesses other than the Airport or the business of Airport tenants on their respective leaseholds.~~

~~All signs and other types of advertising on Airport property must be consistent with these guidelines and approved by the Airport Director in writing before installation. Existing signs that do not meet the guidelines in this policy will be removed; however, a sign that has been previously approved by the Airport shall be allowed to remain as is until changed, replaced, or relocated at which time the sign must be modified to conform to this policy.~~

~~do not meet the guidelines in this policy will be removed; however, a sign that has been previously approved by the Airport shall be allowed to remain as is until changed, replaced, or relocated at which time the sign must be modified to conform to this policy.~~

Digital Advertising is defined as ads including banners, images, and videos shown on digital displays at the airport. The content of this type of advertising may or may not be part of tenant leaseholds.

Airport Management will periodically review the Terminal area and tenant leaseholds for compliance with this policy.

### **1. General Rules**

Signs and other advertisements on Airport property must meet the following general rules and be approved by the Airport Director and Airport Board or their designee(s) in writing before installation:

#### **1.1 Advertisements in the terminal public areas are the responsibility of the Airport.**

Advertisements in leased areas are the responsibility of the tenant but those advertisements must comply with this policy.

1.2 Digital advertising content shown on displays in the public areas of the airport terminal will be managed and billed to the advertising client by the airport or their designee(s). The advertising displayed will be driven by available space from a date driven managed list. Display devices and infrastructure will be owned and operated by the Airport or its designee(s).

~~1.2-3~~ No advertisements may be placed on exterior doors or windows except those approved by the Airport ~~Manager~~Director.

~~1.3-4~~ No advertisements may be placed on the roof of any building or on any structure atop a building.

~~1.4-5~~ All advertisements must meet and comply with any applicable safety standards.

~~1.5-6~~ Advertisements shall not contain obscene, pornographic or violent material; market tobacco products, hard liquors, or illegal/prohibited substances; contain commentary, advocacy, or promotion of or on social, political, religious, or rhetorical issues; advocate for or against political candidates, political campaigns, ballot measures, or political parties or organizations; or advocate a position (directly or indirectly) on any public policy or social issue.

~~1.6-7~~ Advertisements shall not advertise services in direct competition with the Airport's business objectives and services.

~~1.7-8~~ Advertisements shall not be false, misleading, or deceptive.

~~1.8-9~~ Advertisements shall not contain objectionable or controversial material such that the advertisement would be contrary to community standards or would detract from the mission of the Airport ~~to provide a comfortable, pleasant passenger experience~~.

~~1.9-10~~ Except as noted above, no advertising of any nature is allowed along roadways, walkways, landscaped areas, or other grounds of the Airport without permission from the Airport ~~Manager~~Director.

~~1.10-11~~ Advertisements may not contain flashing messages or be illuminated by strobe or laser lighting.

~~1.11-12~~ Advertising on the exterior of the terminal building or any permanent structure on the Airport property is prohibited.

~~1.12-13~~ The Airport will not provide email/telephone support (e.g., answer questions about products, services, companies, etc.), email/telephone endorsements (e.g., provide a positive review of a product or service or recommend any product or service) or take orders for products or services advertised at the Airport.

1.~~13-14~~ All advertisements must be approved by the Airport Board in writing prior to display.

## **2. Community Promotion Organizations**

In the event the Airport does not have an advertising agreement in place for the use of a desired advertising space, then the Airport may make the space available to community promotion organizations if the content otherwise meets the requirements of this policy. A community promotion organization means an organization which markets business or tourism in the Moab area and would benefit from the exposure provided on Airport premises, including, but not limited to, local chambers of commerce, economic development councils, convention and visitor organizations, local public museums, local non-profit services, and the Airport.

## **3. Terminal Building**

Within the Airport's terminal building, all advertising in public and common use spaces shall be allowed entirely at the discretion of and subject to the judgment of the Airport Director and the Airport Board, in accordance with the general rules set forth above. Advertising in spaces exclusively or preferentially leased by tenants shall be restricted to only goods and services offered by the tenant.

~~preferentially leased by tenants shall be restricted to only goods and services offered by the tenant.~~

~~accordance with the general rules set forth above. Advertising in spaces exclusively or preferentially leased by tenants shall be restricted to only goods and services offered by the tenant.~~

~~All advertisements proposed in the terminal building, no matter where or how placed, are subject to the written consent and approval of the Airport Director prior to installation.~~

The Airport Director shall have the right to remove and dispose of any sign, brochure, flyer, advertisement, circular, picture, sketch, drawing or other commercial message that violates any of these policies. The Airport Director shall have the right to post or cause to be posted signs, brochures, flyers, advertisements, circulars, pictures, sketches, drawings, or other commercial messages that promote the use of Airport-provided services.

## **4. Other Airport Buildings and Structures**

Advertising is not permitted on the exterior of or on the grounds of any other building or structure on Airport property. This policy does not apply to activities of tenant/leaseholders to identify, inform the public, or promote its services or business, or otherwise market their business in accordance with the terms and conditions of their specific lease. Any promotion or identification of a business or tenant of the Airport must comply with any applicable signage ordinance that is in effect or enacted by Grand County.

## **5. Digital Advertising**

~~Digital advertising is available on displays provided in the airport terminal. See Attachment A~~

~~for locations. Both static images and video ads (no audio) are permitted in in the following formats: JPG, JPEG, PNG, GIF, MP4~~

~~5.1 Agreement is month-to-month with auto renewal until the lessee notifies airport management in writing of termination of services.~~

~~5.2 Ads may be changed no more than every 3 months.~~

~~5.3 Short term special event ads are available for up to 14 days at a rate of \$60.00~~

## **65. Temporary Advertising Signs**

Temporary signs that may be considered advertising in nature may be used by the Airport tenant and/or contractors during construction periods to identify projects, work sites, contractors and work in process.

## **76. Terms**

Advertising agreements are month-to-month with auto renewal until the lessee notifies Airport management in writing of termination. Short-term special event ads are available for up to 14 days. Fees are established annually by the Grand County Commission and are found in the Grand County Fee Schedule.

## **87. Indemnity**

Advertisers and their agencies will indemnify and hold harmless Canyonlands Regional Airport and Grand County, its officers and agents, against all expenses and losses resulting from the publication of the contents of the advertisement, including claims for libel, violation of privacy, copyright infringement, or plagiarism.

Neither the Airport's name, logo, and designations, nor testimonials by current Airport employees, may be used in advertisements to endorse non-Airport products or services, unless the Airport has specifically contracted with a particular advertiser to promote or endorse a product or service apart from the purposes of the advertising program.

### **8. Indemnity**

~~Advertisers and their agencies will indemnify and hold harmless Canyonlands Regional Airport and Grand County, its officers and agents, against all expenses and losses resulting from the publication of the contents of the advertisement, including claims for libel, violation of privacy, copyright infringement, or plagiarism.~~

~~Neither the Airport's name, logo, and designations, nor testimonials by current Airport employees, may be used in advertisements to endorse non-Airport products or services, unless the Airport has specifically contracted with a particular advertiser to promote or endorse a product or service apart from the purposes of the advertising program.~~

BYLAWS  
of the  
GRAND COUNTY AIRPORT BOARD  
(effective December 23, 2023)

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19. RESIGNATION
20. REMOVAL OF MEMBERS

1. PURPOSE OF THE BOARD

- a. The Grand County Airport Board was established via Grand County Ordinance No. 467 on March 18, 2008.
- b. The purpose of the Grand County Airport Board (“the Board”) shall be to advise the Grand County Commission in matters related to the business and affairs of the Grand County Canyonlands Regional Airport (henceforth called the “Airport”). The members shall in all cases act as a Board, adopt such rules and regulations for the conduct of their meetings and the management of the Board, as they may deem proper, not inconsistent with these Bylaws, County Ordinances, and the laws of this state.

2. DUTIES OF THE BOARD

- a. The Board shall:

i. Recommend, review and prioritize projects at the Airport;

ii. Recommend, review and priority marketing plans;

iii. Recommend that the County Commission enter into contracts, agreements and other instruments required for the efficient operation of the Airport, its facilities and services;

iv. Advise that the County Commission purchase, trade, exchange, acquire, buy, sell, obtain option on, acquire by gift, grant, bequest, or devise, or otherwise dispose of and encumber real and personal property or any interest therein, including leases and easements;

v. Provide recommendations to the County Commission concerning the movement of passengers or property to, from, or within the Airport, as it relates to security and practicality, in relation to the current Airport layout and development;

vi. Recommend to the County Commission regulations to prohibit any Airport hazard, obstruction, or environmental concerns;

vii. Recommend charges, fees, and rates, and submit such recommendations to the County

Commission for approval;

- ~~viii.~~ viii. Advise the County Commission concerning leases for development, use, or operation of certain lots, spaces, or areas of the Airport;
- ~~ix.~~ ix. Recommend for approval by the County Commission rules governing the use of the Airport, its facilities and the use of other property and means of transportation at the Airport;
- ~~x.~~ x. Recommend the County Commission enter into contracts or otherwise cooperate with the Federal Government, the state, or other public or private agencies;
- ~~xi.~~ xi. Promote aeronautics and the furtherance of commerce and navigation by air;
- ~~xii.~~ xii. Recommend authorization of travel and other expenses of the Board members, agents, counsel, and employees when engaged in Board business;
- ~~xiii.~~ xiii. Recommend the County Commission accept financial assistance from public or private sources, or that the County apply for and accept advances, loans, grants, contributions and any other forms of financial assistance from the Federal Government, state, or county or any other source public or private;
- ~~xiv.~~ xiv. Fix the time and place at which its meetings shall be held; such place shall be a public place located within the county;
- ~~xv.~~ xv. Recommend to the County Commission the advice of specific technical experts, and other agents, as may be necessary for specific actions or projects associated with the Airport and its attendant facilities;
- ~~xvi.~~ xvi. Arrange with County staff for the providing of any services or supplies required by the Board;
- ~~xvii.~~ xvii. Serve as a hearing group on violations associated with the implementation of any standards adopted by the County for operations at the Airport;
- ~~xviii.~~ xviii. Review annual operating budget of the Airport as determined by County staff;
- ~~xix.~~ xix. Serve as the 'Airport Board of Adjustment' as defined in Section 4.3.3 of Airport Limitation District section of the Grand County Land Use Code.

### 3. MEMBERSHIP

- a. The Board shall consist of ~~seven (7)~~ nine (9) voting members and one (1) non-voting member:
  - i. One (1) voting member nominated by the City of Moab; and
  - ii. One (1) voting member nominated by the Moab Area Travel Council Advisory Board; and
  - iii. One (1) non-voting member appointed by the County Commission; and
  - iv. ~~Five (5)~~ Seven (7) voting members selected at large. Five (5) from Grand County. One (1) from Emery County. One (1) from San Juan County.
- b. All appointments to the Board shall be made by the Grand County Commission; the Commission will consider the recommendations of the Airport Board at the time of the appointment.

### 4. TENURE

- a. The appointment of members shall be for a term of four (4) years.
  - i. Any fraction of a calendar year in the initial appointment shall be considered a full year.
- b. Board Officers (Chair and Vice Chair) shall serve two (2) year terms, which expire on the first meeting in January on the year their term ends.
- c. A member whose term has expired may continue to hold office until a successor is appointed and qualified.
- d. A vacancy occurring in the board shall be filled for the unexpired term in the same manner as was the original appointment.

### 5. QUALIFICATIONS OF MEMBERS

- a. A person eligible to be appointed as a Board member shall meet the following requirements:
  - i. be not less than 21 years of age;
  - ii. be a resident of Grand County or Emery County or San Juan County and the State of Utah; and
  - iii. be a registered voter in Grand County or Emery County or San Juan County.

- b. Each Board member shall comply with the Grand County documentation requirements for disclosure of conflicts of interest.

## 6. SELECTION OF CHAIR

- a. Upon expiration of a prior term, at its first regular meeting in February, the Board shall select one of the voting members to serve as Chair.
  - i. The Chair shall be the principal Officer of the Board and shall preside over all business and affairs of the Board.
  - ii. The Chair shall, when present, preside at all meetings of the Board in accordance with Roberts Rules of Order.

## 7. SELECTION OF VICE-CHAIR

- a. Upon expiration of a prior term, at its first regular meeting in February, the Board shall select one of the voting members to serve as Vice-Chair.
  - i. In the absence of the Chair, or in the event of their removal, death, inability or refusal to act, the Vice-Chair shall perform the duties of the Chair, and when so acting, shall have all the powers of and be subject to all the restrictions upon the Chair position.

## 8. SECRETARY

- a. A Grand County employee, working in the Department of the Airport, will act as a Secretary of Airport Board meetings. This employee will be either the Airport Director or their designee.

## 9. QUORUM OF THE BOARD

- a. Four (4) members of the Board constitute a quorum for the transactions of business.
- b. The Board may act officially by an affirmative vote of a majority of the members, once a quorum is established.
- c. For purposes of a closed session, the Board must vote in a supermajority (two-thirds of Board members present) to go into a closed session. For the purposes of these Bylaws, a supermajority consists of ~~five (5)~~ six (6) members.

## 10. RECORD OF MEETINGS

- a. The Board shall cause written minutes of its proceedings to be kept available for public inspection.
- b. Minutes will be kept on record in the office of the Airport Director, and made available electronically on the Grand County website.
- c. The Board shall record in the record the yea and nay votes cast by the Board with regard to any action taken by it.

## 11. MEETINGS OF BOARD

- a. The Board shall convene for regular meetings to be held not less than monthly throughout the year.
- b. The order of business shall be:
  - i. Reading of minutes of the preceding meeting with editing and approval.
  - ii. Reports of the Airport Director.
  - iii. Citizens to be heard.
  - iv. Discussion and consideration items for possible action by the board.
  - v. Discussion items to be addressed by the board that do not require action.
  - vi. Elections, if required.
  - vii. Future Considerations.
- c. Emergency meetings may be ordered by the Chair or Vice-Chair.
  - i. All members must be notified immediately as well as an advertisement to the public through the most expeditious means, in order for the emergency meeting to be held as per Utah Code 52-4-202(5).
- d. Meetings shall be held at such public place, within the County, as may be designated by the Board or the Chair.

- e. The Board shall adopt a system of rules of procedure under which its meetings are to be held.
  - i. The Board may suspend the rules of procedure by two-thirds vote of the members who are present at the meeting. The Board shall not suspend the rules of procedure beyond the duration of the meeting at which the suspension of the rules occurs.
- f. Subject to the approval of the County Commission, the Board is empowered to determine and establish such rules for the conduct of the Board as the members deem advisable, except that such rules shall not be in conflict with these Bylaws or other laws: federal, state, county, or city.

## 12. COMPENSATION

- a. No compensation shall be paid to members, as such, for their services.
  - i. Expenses incurred during the course of performing services for the Board or Board business may be compensated when approved by the Board from the Airport operating budget; as authorized by the Airport Director.

## 13. PRESUMPTION OF ASSENT

- a. A member of the Board who is present at a meeting of the members at which action on any board matter is taken shall be presumed to have assented to the action taken unless their dissent shall be entered in the minutes of the meeting. Such right of dissent shall not apply to a member who voted in favor of such action.

## 14. COMMITTEES

- a. The Board may designate from among its members ad hoc committees.
  - i. Committees of the Board shall report to the Board the proceedings of any committee meeting but formal recordings and minutes will not be kept of the committee discussions.
  - ii. If the committee consists of a number of members equal or greater than a quorum of the board, the committee meetings will be treated as a regular meeting subject to State requirements of open meetings.

## 15. AMENDMENTS

- a. These Bylaws may be altered, amended or repealed and new Bylaws may be adopted by majority vote of all members at any regular meeting or at any special meeting when the proposed amendment has been sent out in the notice of such meeting. Such amendments must be approved by the Grand County Commission.

## 16. REPORTS BY BOARD

- a. The Board shall file with the Grand County Commission any reports required or requested by the Commission members.

## 17. BUDGET OF BOARD

- a. The Board does not have a specified Budget. Recommendations for Board expenditures will be coordinated with County staff and included in the annual Airport operating budget.

## 18. ELECTRONIC ACCESSIBILITY FOR BOARD MEETINGS

- a. With prior arrangement with the Chair or Vice-Chair, Board members may establish meeting communication either by phone, teleconference or video conference.
- b. Any board member establishing their presence at a meeting via means of electronic communications may act within their full capacity of a Board member for the duration of the meeting.

## 19. RESIGNATION

- a. A member may resign at any time by giving written notice to the Board, the Chair or the Vice-Chair.
- b. Unless otherwise specified in the notice, the resignation shall take effect upon receipt thereof by the Board or such Officer and the acceptance of the resignation shall not be necessary to make it effective.
- c. It shall be considered a resignation, and a Board member shall be automatically removed from the Board, if the member has four (4) unexcused absences of regularly scheduled meetings within a period of twelve (12) consecutive months.

## 20. REMOVAL OF MEMBERS

- a. The Board may recommend the removal of a member to the County Commission for inefficiency, neglect of duty, or misconduct in office.

- b. The Board member in question will be provided a review hearing.
  - i. The member shall be provided a copy of the reasons for removal at least ten (10) days prior to the hearing and shall have the opportunity to respond in person.

# GEOTECHNICAL EVALUATION REPORT

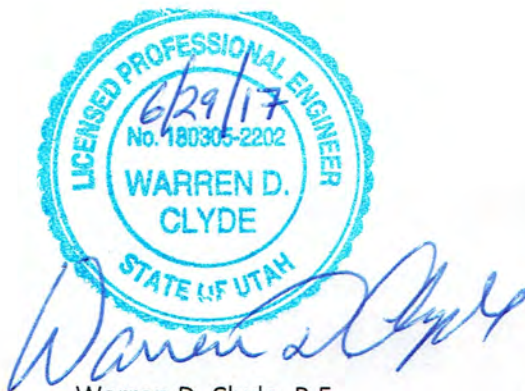
## CNY TERMINAL BUILDING ADDITION

110 West Aviation Way  
Moab, Utah  
WT Reference No. 6127JT134

## PREPARED FOR:

Archiplex Group  
255 Crossroad Square  
Salt Lake City, Utah 84115  
Attn: Mr. Ralph Stanslaw

June 29, 2017



Warren D. Clyde, P.E.  
Principal

Reviewed By: Robert E. Wenzel, Jr., P.E.  
Managing Director - SLC



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**GEOTECHNICAL EVALUATION  
CNY TERMINAL BUILDING ADDITION  
110 WEST AVIATION WAY  
MOAB, UTAH  
WT JOB NO. 6127JT134**

**1.0 PURPOSE**

This report contains the results of our geotechnical evaluation for the proposed terminal building addition, and was performed in general accordance with our contract. The purpose of our services is to provide information and recommendations regarding:

- Subsurface conditions
- Groundwater
- Geology
- Geologic hazards
- Foundation design parameters
- Lateral earth pressures
- Seismic considerations
- Slabs-on-grade
- Drainage
- Corrosivity to concrete
- Excavation conditions
- Earthwork, including site preparation, fill placement, and suitability of existing soils for fill materials, and compaction

Results of the field exploration, field and laboratory tests are presented in the Appendices.

**2.0 PROJECT DESCRIPTION**

Project information supplied by Mr. Ralph Stanislaw on May 10, 2017 indicates that the proposed addition is to be a one-story, slab-on-grade structure using wood frame construction. The maximum wall and column loads are assumed to be 3 to 5 kips per linear foot and 100 to 150 kips, respectively. We anticipate that the ground floor level will be at or slightly above existing site grade and that no extraordinary slab criteria are required. Final site grading plans were not available at the time of this report. Should our assumptions not be correct, we should be notified immediately.

### **3.0 SCOPE OF SERVICES**

#### **3.1 Field Exploration**

Three borings were drilled to depths ranging from 20 to 22 feet below existing grade in the proposed building area. The borings were at the approximate locations shown on the attached Boring Location Diagram. A field log was prepared for each boring. These logs contain visual classifications of the materials encountered during drilling as well as interpolation of the subsurface conditions between samples. Final logs, included in Appendix A, represent our interpretation of the field logs and may include modifications based on laboratory observations and tests of the field samples. The final logs describe the materials encountered, their thicknesses, and the locations where samples were obtained.

The Unified Soil Classification System was used to classify soils. The soil classification symbols appear on the boring logs and are briefly described in Appendix A. Local and regional geologic characteristics were used to estimate the seismic design criteria.

#### **3.2 Laboratory Analyses**

Laboratory analyses were performed on representative soil samples to aid in material classification and to estimate pertinent engineering properties of the on-site soils for preparation of this report. The following tests were performed in general accordance with applicable procedures, and the results are presented in Appendix B.

- Field moisture content
- In-situ soil density
- Consolidation/collapse/swell
- Sieve analysis
- Liquid limit and plasticity index
- Water soluble sulfate content

#### **3.3 Analyses and Report**

Analyses were performed and this report was prepared for the exclusive purpose of providing geotechnical engineering and/or testing information and recommendations. The scope of services for this project does not include, either specifically or by implication, any environmental assessment of the site or identification of contaminated or hazardous materials or conditions. If the owner is concerned about the potential for such

contamination, other studies should be undertaken. We are available to discuss the scope of such studies with you.

This geotechnical engineering report includes a description of the project, a discussion of the field and laboratory testing programs, a discussion of the subsurface conditions, and design recommendations as required to satisfy the purpose previously described.

## **4.0 SITE CONDITIONS**

### **4.1 Surface**

Previous site development consisted of the existing terminal, storage shed, and landscaping. Underground facilities such as septic tanks, cesspools, basements, and dry wells were not observed. The ground surface was relatively flat. Vegetation consisted of shrubs and trees. Site drainage trended to the northeast as sheet surface flow. Other site features included underground utilities for the existing terminal.

### **4.2 Subsurface**

As presented on the boring logs, surface soils to depths of 1.5 to 4 feet consist of fill from the previous development. Near surface soils are of medium to high plasticity. The materials underlying the surface soils and extending to the full depth of exploration consisted of layers of firm to hard clay and very dense sandy clayey gravel over claystone bedrock.

Placement and compaction records of the existing fill were not provided to WT. Therefore WT considers the fill to be undocumented and not suitable to support structures.

### **4.3 Groundwater**

Groundwater was not encountered at the time of exploration. These observations represent the groundwater conditions at the time of measurements and may not be indicative of other times. Groundwater levels can be expected to fluctuate with varying seasonal and weather conditions, groundwater withdrawal and recharge, local irrigation practices, and future development.

#### **4.4     Geology**

The Site is located in the Paradox Basin Fold and Fault Belt of the Colorado Plateau physiographic province. The soils consist of alluvial stream and wash deposits mainly moderately to poorly sorted sand, silt and clay, with local lenses of mostly pebble-sized fragments of sandstone, in ephemeral stream channels and alluvial fans: locally includes poorly sorted, angular to sub-rounded cobbles and boulders. The Alluvial deposits overly the Tununk Shale Member consisting of gray fissile shale that is intermittently silty or sandy.

### **5.0     GEOTECHNICAL PROPERTIES & ANALYSIS**

#### **5.1     Laboratory Tests**

Laboratory test results (see Appendix B) indicate that native subsoils near shallow foundation level exhibit low compressibility at existing water contents. Slight expansion occurs when the water content is increased.

Near-surface soils are of medium to high plasticity. These soils typically exhibit moderate expansion potential when recompacted, confined by loads approximating floor loads and saturated. Slabs-on-grade supported on recompacted native soils have a moderate potential for heaving if the water content of the soil increases. Densification of the soil by the passage of construction equipment may increase the expansion potential of the native clayey soil.

Chemical tests were performed on a representative sample to determine the sulfate exposure for concrete due to sulfates in the on-site soils. The sulfate content test was performed by American West Analytical Laboratories and the results are presented in **Appendix B.**

#### **5.2     Field Tests**

Existing subsoils near shallow foundation level exhibited moderate to high resistance to penetration using test method ASTM D1586 or ASTM D3550. This corresponds to a moderate to high bearing capacity for existing soils in their present condition. However, penetration resistance values exhibited some variability between test locations. This represents a potential for differential settlements within structures supported on the existing soils in their present condition.

The boring logs included in this report are indicators of subsurface conditions only at the specific location and date noted. Variations from the field conditions represented by the borings may become evident during construction. If variations appear, we should be contacted to re-evaluate our recommendations.

## **6.0 RECOMMENDATIONS**

### **6.1 General**

Recommendations contained in this report are based on our understanding of the project criteria described in **Section 2.0**, and the assumption that the soil and subsurface conditions are those disclosed by the borings. Others may change the plans, final elevations, number and type of structures, foundation loads, and floor levels during design or construction. Substantially different subsurface conditions from those described herein may be encountered or become known. Any changes in the project criteria or subsurface conditions shall be brought to our attention in writing.

### **6.2 Design Considerations**

The borings indicate the presence of slightly expansive clay soils on the site. The clay soils may expand or swell with an increase in moisture content. Structures and related improvements situated on expansive clay soils could be subject to relatively large movements if the foundation soils experience an increase in moisture content. If expansive soils are encountered during earthwork operations, selective placement procedures should be implemented. It should be understood that if moisture penetrates expansive soils, there could be some heave and resultant cracking/distress of the proposed structures and related improvements.

### **6.3 Foundations**

Conventional spread and continuous-type footings may be used to support the proposed structure. Since the native soils exhibit some expansive potentials, the footings should bear on engineered fills achieved by removal and replacement of the soils below footings and slabs. The depth and lateral extent of the engineered fills is presented in the **Earthwork** section of this report. The existing fill on the Site should not be used for support of foundations or slabs.

Alternative footing depths and allowable bearing for foundations placed upon engineered fill are presented in the following tabulation:

| <b>Footing Depth Below Finished Grade (ft) <sup>1</sup></b> | <b>Allowable Bearing Capacity (psf) <sup>2</sup></b> |
|-------------------------------------------------------------|------------------------------------------------------|
| 2.5 <sup>3</sup>                                            | 2500                                                 |

<sup>1</sup> Finished grade is the lowest adjacent grade for perimeter footings and floor level for interior footings.

<sup>2</sup> Allowable bearing capacities assume fulfillment of **EARTHWORK** recommendations.

<sup>3</sup> Minimum depth for frost protection for exterior footings or footings in unheated spaces.

The allowable bearing capacities apply to dead loads plus design live load conditions. Recommended minimum widths of column and wall footings are 24 inches and 16 inches, respectively.

Thickened slab sections can be used to support interior partitions, provided that:

- the thickened slabs are supported upon engineered fill
- loads do not exceed 900 plf,
- thickened sections have a minimum width of 12 inches, and
- thickness and reinforcement are consistent with structural requirements.

We anticipate that the total and differential movement of the proposed structure, supported as recommended, should be less than one inch. Additional foundation movements could occur if water from any source infiltrates the foundation soils. Therefore, proper drainage should be provided in the final design and during construction.

All footings, stem walls, and masonry walls should be reinforced to reduce the potential for distress caused by differential foundation movements. The use of joints at openings or other discontinuities in masonry walls is recommended.

We recommend that the geotechnical engineer or his representative observe the footing excavations before reinforcing steel and concrete are placed. This observation is to assess whether the soils exposed are similar to those anticipated for support of the footings. Any soft, loose or unacceptable soils should be undercut to suitable materials and backfilled with approved fill materials or lean concrete. Soil backfill should be properly compacted.

#### 6.4 Lateral Design Criteria

Lateral loads may be resisted by concrete interface friction and by passive resistance. For shallow foundations bearing on properly compacted fill at this site, we recommend the following lateral resistance criteria:

- Coefficient of Friction ..... 0.30
- Passive Pressure.....300 psf/ft

The frictional resistance and the passive pressure may be combined without reduction in determining the total lateral resistance.

It is important that all backfill be properly placed and compacted. Backfill should be mechanically compacted in layers. Flooding or jetting should not be permitted. Care should be taken not to damage the walls when placing the backfill. Backfills should be observed and tested during placement.

Fill against footings and stem walls should be compacted to densities specified in **EARTHWORK**. Compaction of each lift adjacent to walls should be accomplished with hand-operated tampers or other lightweight compactors. Over-compaction may cause excessive lateral earth pressures that could result in wall movements.

#### 6.5 Seismic Considerations

Based upon the fine grained soils encountered, absence of groundwater and shallow bedrock, Liquefaction potential at the Site is not a factor for this site.

For structural designs based upon the International Building Code 2009, the following criteria will apply:

- The seismic site class for the on-site soils is D.
- $S_s$ , the mapped spectral acceleration for short periods, is 0.206 g.
- $S_1$ , the mapped spectral acceleration for one second periods, is 0.068 g.
- The design spectral response acceleration parameter for short period  $S_{DS}$  is 0.220 g.
- The design spectral response acceleration parameter for 1-second period  $S_{D1}$  is 0.109 g.
- Spectral response acceleration  $SM_s$  is 0.330 g.
- Spectral response acceleration  $SM_1$  is 0.163 g.

## **6.5     Conventional Slab-on-Grade Support**

A significant geotechnical concern at the site is the expansive potential of the near surface soil. To minimize the potential for floor slab heaving we recommend that the floor slab be supported on a minimum of three feet of non-expansive imported material. The slab subgrade should be prepared by the procedures outlined in the **Earthwork** section of this report. A minimum 4-inch layer of base course or clean  $\frac{3}{4}$ -inch gravel should be provided beneath all slabs to prevent capillary rise and damp slab. The base course may be included as part of the non-expansive imported material beneath slabs.

For design of interior slabs-on-grade, we recommend using a modulus of subgrade reaction (k) of 250 pounds per cubic inch (pci) for the slabs placed upon compacted engineered fill.

The use of vapor retarders is desirable for any slab-on-grade where the floor will be covered by products using water based adhesives, wood, vinyl backed carpet, impermeable floor coatings (urethane, epoxy, acrylic terrazzo, etc.) or where the floor will be in contact with moisture sensitive equipment or product. The design and installation should be in accordance with the recommendation given in ACI 302.2R.

If moisture sensitive equipment, product, floor coverings, or impermeable floor coverings are to be placed on interior slabs-on-grade, consideration should be given to the use of a vapor retarder. Final determination on the use of a vapor retarder should be left to the slab designer.

All concrete placement and curing operations should follow the American Concrete Institute manual recommendations. Improper curing techniques and/or high slump (high water-cement ratio) could cause excessive shrinkage, cracking or curling. Concrete slabs should be allowed to cure adequately before placing vinyl or other moisture sensitive floor covering.

## **6.6     Drainage**

The major cause of soil problems in this vicinity is moisture increase in soils below structures. Therefore, it is extremely important that positive drainage be provided during construction and maintained throughout the life of the proposed structure. Infiltration of water into utility or foundation excavations must be prevented during construction.

In areas where sidewalks or paving do not immediately adjoin the structure, protective slopes should be provided with an outfall of about five percent for at least 10 feet from perimeter walls. Backfill against footings, exterior walls, and in utility and sprinkler line trenches should be well compacted and free of all construction debris to minimize the possibility of moisture infiltration.

If planters and/or landscaping are adjacent to or near the structure, we recommend the following:

- Grades should slope away from the structures.
- Only shallow rooted landscaping should be used.
- Watering should be kept to a minimum.
- Dry wells, porous pavements, or storm water detention basins should not be located within 30 feet of the structure.

## **6.7 Corrosivity to Concrete**

For determining the exposure categories and classes for concrete in accordance with **Section 1904 Durability Requirements** for concrete of the *2012 International Building Code*, sulfate exposure from the soils at the site classify as “moderate to severe” (Class S1 to S2) according to Table 4.2.1 of ACI 318-11, Building Code Requirements for Structural Concrete.

## **7.0 EARTHWORK**

### **7.1 General**

The conclusions contained in this report for the proposed construction are contingent upon compliance with recommendations presented in this section. Any excavating, trenching, or disturbance that occurs after completion of the earthwork must be backfilled, compacted and tested in accordance with the recommendations contained herein. It is not reasonable to rely upon our conclusions and recommendations if any future unobserved and untested trenching, earthwork activities or backfilling occurs.

Although or underground facilities such as septic tanks, cesspools, basements, and dry wells were not observed, such features might be encountered during construction. These features should be demolished in accordance with the recommendations of the geotechnical engineer. Any loose or disturbed soils resulting from demolition should be

removed or recompacted as engineered fill and any excavations should be backfilled in accordance with recommendations presented herein.

## **7.2 Site Clearing**

Strip and remove any existing vegetation, organic topsoil, debris, fill and any other deleterious materials from the building and pavement areas. The building area is defined as that area within the building footprint plus five feet beyond the perimeter of the footprint. All exposed surfaces should be free of mounds and depressions that could prevent uniform compaction.

## **7.3 Excavation**

We anticipate that excavations for shallow foundations and utility trenches for the proposed construction can be accomplished with conventional equipment.

On-site clayey soils will pump or become unworkable at high water contents. Workability may be improved by scarifying and drying. Overexcavation of wet zones and replacement with granular materials may be necessary. The use of lightweight excavation and compaction equipment may be required to minimize subgrade pumping.

The soils to be penetrated by the proposed excavations may vary significantly across the site. Our soil classifications are based solely on the materials encountered in widely spaced exploratory test borings. The contractor should verify that similar conditions exist throughout the proposed area of excavation. If different subsurface conditions are found at the time of construction, we should be contacted immediately to evaluate the conditions encountered.

## **7.4 Temporary Excavations and Slopes**

Temporary, unsurcharged construction excavations should be sloped or shored. Slopes should not be steeper than 1 to 1 (Horizontal to Vertical) in sands and gravels and 0.5H to 1V in fine-grained soils. Slopes may need to be flattened depending on conditions exposed during construction. If there is not enough space for sloped excavations, shoring should be used. Exposed slopes should be kept moist (not saturated) during construction. Underpinning may be required to protect adjacent structures, if excavations are deeper than existing foundations.

If any excavation, including a utility trench, is extended to a depth of more than 20 feet, it will be necessary to have the side slopes designed by a professional engineer.

As a safety measure, it is recommended that all vehicles and soil piles be kept a minimum lateral distance back from the crest of the slope at least equal to the slope height. The exposed slope face should be protected against the elements.

We recommend that the contractor retain a geotechnical engineer to observe the soils exposed in all excavations and provide engineering design for the slopes. This will provide an opportunity to classify the soil types encountered, and to modify the excavation slopes as necessary. This also allows the opportunity to analyze the stability of the excavation slopes during construction.

#### **7.5 Building Pad Preparation**

Remove existing soils throughout the entire building area to a minimum depth of three feet below the bottom of footing elevation. This includes both foundation and interior floor slab areas. Following the removal, scarify, moisten or dry as required, and recompact the bottom of the excavation to a minimum depth of 10 inches. Refill the excavation with properly compacted engineered fill material. The removal and replacement should extend laterally a minimum of five feet beyond the perimeter of the building.

#### **7.6 Foundation Preparation**

If the **Building Pad Preparation** section above is followed additional specialized treatment of the compacted soils within foundation areas is not required. Footings should bear upon engineered fill. Otherwise, remove existing soils to a minimum depth of three feet below the bottom of the footing. Removal should extend a minimum of three feet beyond the footing edges. Replace with engineered fill material.

#### **7.7 Conventional Interior Slab Preparation**

To minimize the potential for slab heaving due to the expansive near surface site soil, slabs-on-grade should be founded on a minimum of three feet of low-expansive material. Remove existing soils to a minimum depth of three feet below the bottom of the slab. Replace with properly placed and compacted, low-expansive imported fill material.

## 7.8 Exterior Slab Preparation

Compacted subgrade soils expand due to frost or when the water content increases. Therefore, exterior concrete grade slabs may heave, resulting in cracking or vertical offsets. This potential would be greatest where slabs overlie compacted clayey subgrade soils or in areas where the passage of construction equipment has inadvertently densified subsoils. To reduce the potential for damage, we recommend:

- Use of fill with low expansion potential
- Use of fill with low to negligible frost susceptibility
- Placement of effective control joints on relatively close centers
- Moisture-density control during placement of subgrade fills
- Provision for adequate drainage in areas adjoining the slabs
- Use of designs which allow vertical movement between the exterior slabs and adjoining structural elements

## 7.9 Materials

Imported non expansive materials may be used as fill material for the following:

- foundation areas
- interior slab areas
- backfill

\*On-site soils are not recommended for use within 36 inches of the bottom of slabs-on-grade.

Imported soils should conform to the following:

- Gradation (ASTM C136):

|                     | percent finer by weight |
|---------------------|-------------------------|
| 6" .....            | 100                     |
| 4" .....            | 85-100                  |
| ¾" .....            | 70-95                   |
| No. 4 Sieve .....   | 50-85                   |
| No. 200 Sieve ..... | 25 (max)                |
- Maximum Plasticity Index (PI) ..... 11

Frozen soils should not be used as fill or backfill.

The materials used as engineered fill should be reasonable free of rocks or lumps having a particle diameter greater than 6 inches. Acceptance of the quantity of oversize material shall be at the discretion of the geotechnical engineer.

## 7.10 Placement and Compaction

- a. Place and compact fill in horizontal lifts, using equipment and procedures that will produce recommended water contents and densities throughout the lift.
- b. Uncompacted fill lifts should not exceed 10 inches.
- c. No fill should be placed over frozen ground.
- d. Materials should be compacted to the following:

### **Minimum Percent Material Compaction (ASTM D1557)**

- On-site soil, reworked and fill:
  - Below footings ..... 95
  - Below slabs-on-grade..... 95
  - Below pavement ..... 95
- Imported soil:
  - Below footings ..... 95
  - Below slabs-on-grade..... 95
  - Below pavement ..... 95
- Aggregate base ..... 95
- Nonstructural backfill..... 90

Imported soils should be compacted within a water content range of one percent below to three percent above optimum.

## 7.11 Compliance

Recommendations for foundations and slabs-on-grade supported on compacted fills or prepared subgrade depend upon compliance with the **EARTHWORK** recommendations. To assess compliance, observation and testing should be performed under the direction of a

WT geotechnical engineer. Please contact us to provide these observation and testing services.

## **8.0 LIMITATIONS**

This report has been prepared assuming the project criteria described in Section 2.0. If changes in the project criteria occur, or if different subsurface conditions are encountered or become known, the conclusions and recommendations presented herein shall become invalid. In any such event, contact WT to assess the effect that such variations may have on our conclusions and recommendations. If WT is not retained for the construction observation and testing services to determine compliance with this report, our professional responsibility is accordingly limited.

The recommendations presented are based entirely upon data derived from a limited number of samples obtained from widely spaced borings. The attached logs are indicators of subsurface conditions only at the specific locations and times noted. This report assumes the uniformity of the geology and soil structure between borings, however variations can and often do exist. Whenever any deviation, difference or change is encountered or becomes known, WT should be contacted.

This report is for the exclusive benefit of our client alone. There are no intended third-party beneficiaries of our contract with the client or this report, and nothing contained in the contract or this report shall create any express or implied contractual or any other relationship with, or claim or cause of action for, any third party against WT.

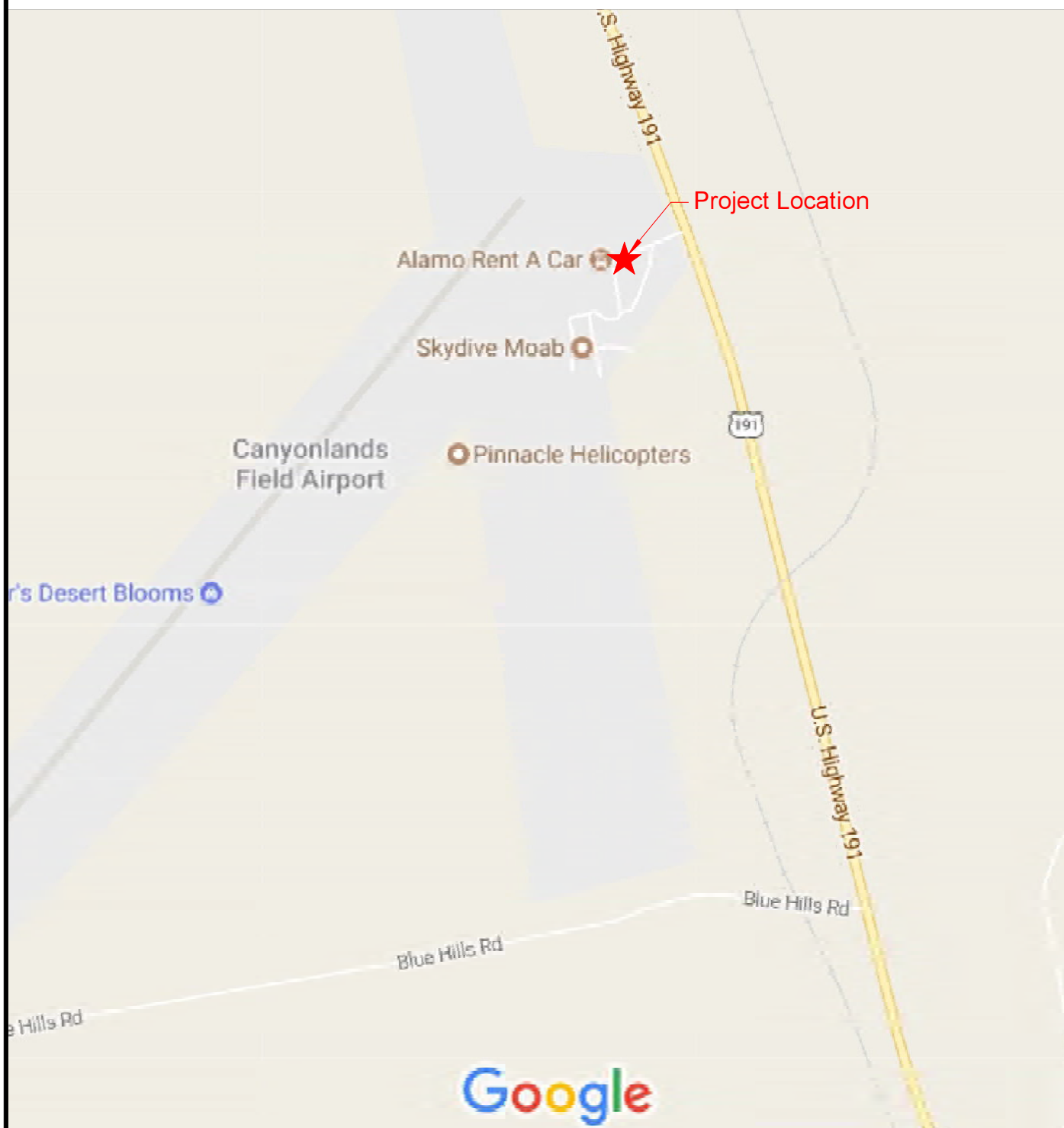
This report is valid until the earlier of one year from the date of issuance, a change in circumstances, or discovered variations. After expiration, no person or entity shall have any right to rely on this report without the express written authorization of WT.

## **9.0 CLOSURE**

We prepared this report as an aid to the designers of the proposed project. The comments, statements, recommendations and conclusions set forth in this report reflect the opinions of the authors. These opinions are based upon data obtained at the location of the borings, and from laboratory tests. Work on your project was performed in accordance with generally accepted standards and practices utilized by professionals providing similar services in this locality. No warranty, express or implied, is made.



NOT TO SCALE



|                                                                                                                                                                                                                                                                          |                                                                                                                     |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------|
| <div><div>Geotechnical<br/>Environmental<br/>Inspections<br/>Materials</div><div></div><div><b>Western Technologies Inc.</b><br/>The <u>Quality</u> People<br/>Since 1955</div></div> | <b>PROJECT VICINITY MAP</b>                                                                                         |                |
|                                                                                                                                                                                                                                                                          | <div>CNY TERMINAL BUILDING ADDITION<br/>38.761467, -109.744999<br/>Moab, Utah</div> <div>WT Job No. 6127JT134</div> | <b>PLATE 1</b> |



# **LEGEND**



Approximate Boring Location

*Geotechnical  
Environmental  
Inspections  
Materials*



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## **BORING LOCATION DIAGRAM**

CNY TERMINAL BUILDING ADDITION  
38.761467, -109.744999  
Moab, Utah

WT Job No. 6127JT134

**PLATE 2**

## **APPENDIX A**

|                                        |                                                                                                                                                                                                                                          |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Allowable Soil Bearing Capacity</b> | The recommended maximum contact stress developed at the interface of the foundation element and the supporting material.                                                                                                                 |
| <b>Backfill</b>                        | A specified material placed and compacted in a confined area.                                                                                                                                                                            |
| <b>Base Course</b>                     | A layer of specified aggregate material placed on a subgrade or subbase.                                                                                                                                                                 |
| <b>Base Course Grade</b>               | Top of base course.                                                                                                                                                                                                                      |
| <b>Bench</b>                           | A horizontal surface in a sloped deposit.                                                                                                                                                                                                |
| <b>Caisson/Drilled Shaft</b>           | A concrete foundation element cast in a circular excavation which may have an enlarged base (or belled caisson).                                                                                                                         |
| <b>Concrete Slabs-On-Grade</b>         | A concrete surface layer cast directly upon base course, subbase or subgrade.                                                                                                                                                            |
| <b>Crushed Rock Base Course</b>        | A base course composed of crushed rock of a specified gradation.                                                                                                                                                                         |
| <b>Differential Settlement</b>         | Unequal settlement between or within foundation elements of a structure.                                                                                                                                                                 |
| <b>Engineered Fill</b>                 | Specified soil or aggregate material placed and compacted to specified density and/or moisture conditions under observations of a representative of a soil engineer.                                                                     |
| <b>Existing Fill</b>                   | Materials deposited through the action of man prior to exploration of the site.                                                                                                                                                          |
| <b>Existing Grade</b>                  | The ground surface at the time of field exploration.                                                                                                                                                                                     |
| <b>Expansive Potential</b>             | The potential of a soil to expand (increase in volume) due to absorption of moisture.                                                                                                                                                    |
| <b>Fill</b>                            | Materials deposited by the actions of man.                                                                                                                                                                                               |
| <b>Finished Grade</b>                  | The final grade created as a part of the project.                                                                                                                                                                                        |
| <b>Gravel Base Course</b>              | A base course composed of naturally occurring gravel with a specified gradation.                                                                                                                                                         |
| <b>Heave</b>                           | Upward movement.                                                                                                                                                                                                                         |
| <b>Native Grade</b>                    | The naturally occurring ground surface.                                                                                                                                                                                                  |
| <b>Native Soil</b>                     | Naturally occurring on-site soil.                                                                                                                                                                                                        |
| <b>Rock</b>                            | A natural aggregate of mineral grains connected by strong and permanent cohesive forces. Usually requires drilling, wedging, blasting or other methods of extraordinary force for excavation.                                            |
| <b>Sand and Gravel Base Course</b>     | A base course of sand and gravel of a specified gradation.                                                                                                                                                                               |
| <b>Sand Base Course</b>                | A base course composed primarily of sand of a specified gradation.                                                                                                                                                                       |
| <b>Scarify</b>                         | To mechanically loosen soil or break down existing soil structure.                                                                                                                                                                       |
| <b>Settlement</b>                      | Downward movement.                                                                                                                                                                                                                       |
| <b>Soil</b>                            | Any unconsolidated material composed of discrete solid particles, derived from the physical and/or chemical disintegration of vegetable or mineral matter, which can be separated by gentle mechanical means such as agitation in water. |
| <b>Strip</b>                           | To remove from present location.                                                                                                                                                                                                         |
| <b>Subbase</b>                         | A layer of specified material placed to form a layer between the subgrade and base course.                                                                                                                                               |
| <b>Subbase Grade</b>                   | Top of subbase.                                                                                                                                                                                                                          |
| <b>Subgrade</b>                        | Prepared native soil surface.                                                                                                                                                                                                            |



### COARSE-GRAINED SOILS

LESS THAN 50% FINES

| GROUP SYMBOLS | DESCRIPTION                                                                | MAJOR DIVISIONS                                                              |
|---------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <b>GW</b>     | WELL-GRADED GRAVEL OR WELL-GRADED GRAVEL WITH SAND, LESS THAN 5% FINES     | GRAVELS<br>MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE |
| <b>GP</b>     | POORLY-GRADED GRAVEL OR POORLY-GRADED GRAVEL WITH SAND, LESS THAN 5% FINES |                                                                              |
| <b>GM</b>     | SILTY GRAVEL OR SILTY GRAVEL WITH SAND, MORE THAN 12% FINES                |                                                                              |
| <b>GC</b>     | CLAYEY GRAVEL OR CLAYEY GRAVEL WITH SAND, MORE THAN 12% FINES              |                                                                              |
| <b>SW</b>     | WELL-GRADED SAND OR WELL-GRADED SAND WITH GRAVEL, LESS THAN 5% FINES       | SANDS<br>MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE  |
| <b>SP</b>     | POORLY-GRADED SAND OR POORLY-GRADED SAND WITH GRAVEL, LESS THAN 5% FINES   |                                                                              |
| <b>SM</b>     | SILTY SAND OR SILTY SAND WITH GRAVEL, MORE THAN 12% FINES                  |                                                                              |
| <b>SC</b>     | CLAYEY SAND OR CLAYEY SAND WITH GRAVEL, MORE THAN 12% FINES                |                                                                              |

**NOTE:** Coarse-grained soils receive dual symbols if they contain 5% to 12% fines (e.g., SW-SM, GP-GC).

### FINE-GRAINED SOILS

MORE THAN 50% FINES

| GROUP SYMBOLS | DESCRIPTION                                                         | MAJOR DIVISIONS                              |
|---------------|---------------------------------------------------------------------|----------------------------------------------|
| <b>ML</b>     | SILT, SILT WITH SAND OR GRAVEL, SANDY SILT, OR GRAVELLY SILT        | SILTS AND CLAYS<br>LIQUID LIMIT LESS THAN 50 |
| <b>CL</b>     | LEAN CLAY OF LOW TO MEDIUM PLASTICITY, SANDY CLAY, OR GRAVELLY CLAY |                                              |
| <b>OL</b>     | ORGANIC SILT OR ORGANIC CLAY OF LOW TO MEDIUM PLASTICITY            |                                              |
| <b>MH</b>     | ELASTIC SILT, SANDY ELASTIC SILT, OR GRAVELLY ELASTIC SILT          | SILTS AND CLAYS<br>LIQUID LIMIT MORE THAN 50 |
| <b>CH</b>     | FAT CLAY OF HIGH PLASTICITY, SANDY FAT CLAY, OR GRAVELLY FAT CLAY   |                                              |
| <b>OH</b>     | ORGANIC SILT OR ORGANIC CLAY OF HIGH PLASTICITY                     |                                              |
| <b>PT</b>     | PEAT AND OTHER HIGHLY ORGANIC SOILS                                 | HIGHLY ORGANIC SOILS                         |

**NOTE:** Fine-grained soils may receive dual classification based upon plasticity characteristics (e.g. CL-ML).

### SOIL SIZES

| COMPONENT            | SIZE RANGE       |
|----------------------|------------------|
| BOULDERS             | Above 12 in.     |
| COBBLES              | 3 in. – 12 in.   |
| GRAVEL               | No. 4 – 3 in.    |
| Coarse               | ¾ in. – 3 in.    |
| Fine                 | No. 4 – ¾ in.    |
| SAND                 | No. 200 – No. 4  |
| Coarse               | No. 10 – No. 4   |
| Medium               | No. 40 – No. 10  |
| Fine                 | No. 200 – No. 40 |
| Fines (Silt or Clay) | Below No. 200    |

**NOTE:** Only sizes smaller than three inches are used to classify soils

### CONSISTENCY

| CLAYS & SILTS | BLOWS PER FOOT |
|---------------|----------------|
| VERY SOFT     | 0 – 2          |
| SOFT          | 3 – 4          |
| FIRM          | 5 – 8          |
| STIFF         | 9 – 15         |
| VERY STIFF    | 16 – 30        |
| HARD          | OVER 30        |

### RELATIVE DENSITY

| SANDS & GRAVELS | BLOWS PER FOOT |
|-----------------|----------------|
| VERY LOOSE      | 0 – 4          |
| LOOSE           | 5 – 10         |
| MEDIUM DENSE    | 11 – 30        |
| DENSE           | 31 – 50        |
| VERY DENSE      | OVER 50        |

**NOTE:** Number of blows using 140-pound hammer falling 30 inches to drive a 2-inch-OD (1½-inch ID) split-barrel sampler (ASTM D1586).

### PLASTICITY OF FINE GRAINED SOILS

| PLASTICITY INDEX | TERM        |
|------------------|-------------|
| 0                | NON-PLASTIC |
| 1 – 7            | LOW         |
| 8 – 20           | MEDIUM      |
| Over 20          | HIGH        |

### DEFINITION OF WATER CONTENT

|               |
|---------------|
| DRY           |
| SLIGHTLY DAMP |
| DAMP          |
| MOIST         |
| WET           |
| SATURATED     |

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**METHOD OF CLASSIFICATION**

PLATE

**A-2**

The number shown in "**BORING NO.**" refers to the approximate location of the same number indicated on the "Boring Location Diagram" as positioned in the field by pacing or measurement from property lines and/or existing features, or through the use of Global Positioning System (GPS) devices. The accuracy of GPS devices is somewhat variable.

"**DRILLING TYPE**" refers to the exploratory equipment used in the boring wherein **HSA = hollow stem auger**, and the dimension presented is the outside diameter of the HSA used.

"**N**" in "**BLOW COUNTS**" refers to a 2-inch outside diameter split-barrel sampler driven into the ground with a 140 pound drop-hammer dropped 30 inches repeatedly until a penetration of 18 inches is achieved or until refusal. The number of blows, or "blow count", of the hammer is recorded for each of three 6-inch increments totaling 18 inches. The number of blows required for advancing the sampler for the last 12 inches (2<sup>nd</sup> and 3<sup>rd</sup> increments) is defined as the Standard Penetration Test (SPT) "**N**"-Value. Refusal to penetration is considered more than 50 blows per 6 inches. (Ref. ASTM D1586).

"**R**" in "**BLOW COUNTS**" refers to a 3-inch outside diameter ring-lined split barrel sampler driven into the ground with a 140 pound drop-hammer dropped 30 inches repeatedly until a penetration of 12 inch is achieved or until refusal. The number of blows required to advance the sampler 12 inches is defined as the "**R**" blow count. The "**R**" blow count requires an engineered conversion to an equivalent SPT N-Value. Refusal to penetration is considered more than 50 blows per foot. (Ref. ASTM D3550).

"**CS**" in "**BLOWS/FT.**" refers to a 2½-in. outside diameter California style split-barrel sampler, lined with brass sleeves, driven into the ground with a 140-pound hammer dropped 30 inches repeatedly until a penetration of 18 inches is achieved or until refusal. The number of blows of the hammer is recorded for each of the three 6-inch increments totaling 18 inches. The number of blows required for advancing the sampler for the last 12 inches (2<sup>nd</sup> and 3<sup>rd</sup> increments) is defined as the "**CS**" blow count. The "**CS**" blow count requires an engineered conversion to an equivalent SPT N-Value. Refusal to penetration is considered more than 50 blows for a 6-inch increment. (Ref. ASTM D 3550)

"**SAMPLE TYPE**" refers to the form of sample recovery, in which **N** = Split-barrel sample, **R** = Ring-lined sample, "**CS**" = California style split-barrel sample, **G** = Grab sample, **B** = Bucket sample, **C** = Core sample (ex. diamond bit rock coring).

"**DRY DENSITY (LBS/CU FT)**" refers to the laboratory-determined dry density in pounds per cubic foot. The symbol "**NR**" indicates that no sample was recovered.

"**WATER (MOISTURE) CONTENT**" (% of Dry Wt.) refers to the laboratory-determined water content in percent using the standard test method ASTM D2216.

"**USCS**" refers to the "Unified Soil Classification System" Group Symbol for the soil type as defined by ASTM D2487 and D2488. The soils were classified visually in the field, and where appropriate, classifications were modified by visual examination of samples in the laboratory and/or by appropriate tests.

These notes and boring logs are intended for use in conjunction with the purposes of our services defined in the text. Boring log data should not be construed as part of the construction plans nor as defining construction conditions.

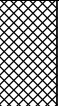
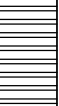
Boring logs depict our interpretations of subsurface conditions at the locations and on the date(s) noted. Variations in subsurface conditions and characteristics may occur between borings. Groundwater levels may fluctuate due to seasonal variations and other factors.

The stratification lines shown on the boring logs represent our interpretation of the approximate boundary between soil or rock types based upon visual field classification at the boring location. The transition between materials is approximate and may be more or less gradual than indicated.

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

| DATE DRILLED: <b>5-18-17</b>                                                                                                                             |                            | <b>BORING NO. B-1</b> |        | EQUIPMENT TYPE: <b>Mobile B80</b> |              |      |         |                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------|--------|-----------------------------------|--------------|------|---------|---------------------------------------------------------------------------------------------------------------|
| LOCATION: <b>See Location Diagram</b>                                                                                                                    |                            |                       |        | DRILLING TYPE: <b>7" H.S.A</b>    |              |      |         |                                                                                                               |
| ELEVATION: <b>Not Determined</b>                                                                                                                         |                            |                       |        | FIELD ENGINEER: <b>K. RIDING</b>  |              |      |         |                                                                                                               |
| MOISTURE<br>CONTENT<br>(% OF DRY WT.)                                                                                                                    | DRY DENSITY<br>(LBS/CU FT) | SAMPLE TYPE           | SAMPLE | BLOWS/FT.                         | DEPTH (FEET) | USCS | GRAPHIC | SOIL DESCRIPTION                                                                                              |
|                                                                                                                                                          |                            |                       |        |                                   |              |      |         | FILL; gravelly clay, brown to black, slightly damp                                                            |
|                                                                                                                                                          |                            | CS                    |        | 26                                |              |      |         |                                                                                                               |
|                                                                                                                                                          |                            |                       |        |                                   |              |      |         | TOPSOIL; sandy clay, black, slightly damp                                                                     |
| 13.1                                                                                                                                                     | 100                        | CS                    |        | 20                                | 5            | CL   |         | CLAY; with sand, brown, very stiff, damp, calcareous                                                          |
| 10.2                                                                                                                                                     | 94                         | CS                    |        | 31                                |              |      |         | ... some sand, gypsum crystals                                                                                |
| 9.1                                                                                                                                                      | 102                        | CS                    |        | 66                                | 10           |      |         | ... some sand, hard                                                                                           |
|                                                                                                                                                          |                            |                       |        |                                   |              |      |         |                                                                                                               |
| 4.9                                                                                                                                                      |                            | CS                    |        | 50-5"                             | 15           |      |         | ... gray, hard, dry                                                                                           |
|                                                                                                                                                          |                            |                       |        |                                   |              |      |         |                                                                                                               |
|                                                                                                                                                          |                            |                       |        |                                   |              |      |         | SHALE; gray, very dense, dry                                                                                  |
| 3.6                                                                                                                                                      |                            | N                     |        | 50-0"                             | 20           |      |         |                                                                                                               |
|                                                                                                                                                          |                            |                       |        |                                   |              |      |         | BORING TERMINATED AT 21.92                                                                                    |
| N- STANDARD SAMPLER<br>R- RING SAMPLER<br>CS- CALIFORNIA STYLE SAMPLER<br>G- GRAB SAMPLE<br>B- BUCKET SAMPLE                                             |                            |                       |        |                                   |              |      |         | NOTES: <b>Groundwater Not Encountered</b>                                                                     |
| Geotechnical<br>Environmental<br>Inspections<br>Materials                                                                                                |                            |                       |        |                                   |              |      |         | PROJECT: <b>CNY TERMINAL BUILDING ADDITON</b><br>LOCATION: <b>MOAB, UTAH</b><br>PROJECT NO.: <b>6127JT134</b> |
|  <b>Western Technologies Inc.</b><br>The Quality People<br>Since 1955 |                            |                       |        |                                   |              |      |         | PLATE<br><br><b>A-4</b>                                                                                       |
| <b>BORING LOG</b>                                                                                                                                        |                            |                       |        |                                   |              |      |         |                                                                                                               |

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

| DATE DRILLED: 5-18-17                                                                                                                                    |                            | BORING NO. B-2 |                                                                                     | EQUIPMENT TYPE: Mobile B80 |              |      |                                                                                     |                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------|-------------------------------------------------------------------------------------|----------------------------|--------------|------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| LOCATION: See Location Diagram                                                                                                                           |                            |                |                                                                                     | DRILLING TYPE: 7" H.S.A    |              |      |                                                                                     |                                                                                          |
| ELEVATION: Not Determined                                                                                                                                |                            |                |                                                                                     | FIELD ENGINEER: K. RIDING  |              |      |                                                                                     |                                                                                          |
| MOISTURE CONTENT<br>(% OF DRY WT.)                                                                                                                       | DRY DENSITY<br>(LBS/CU FT) | SAMPLE TYPE    | SAMPLE                                                                              | BLOWS/FT.                  | DEPTH (FEET) | USCS | GRAPHIC                                                                             | SOIL DESCRIPTION                                                                         |
|                                                                                                                                                          |                            |                |                                                                                     |                            |              | CL   |    | FILL; gravelly clay, brown, slightly damp                                                |
| 21.3                                                                                                                                                     | 80                         | CS             |    | 8                          |              | CL   |    | CLAY; with sand, brown, firm, moist                                                      |
| 19.0                                                                                                                                                     | 88                         | CS             |    | 6                          | 5            |      |                                                                                     | ... grading to sandy, trace gravel                                                       |
| 14.3                                                                                                                                                     | 105                        | CS             |    | 26                         |              |      |                                                                                     | ... grading to some sand, brown, iron oxide stains, very stiff, damp                     |
| 13.9                                                                                                                                                     | 117                        | CS             |    | 29                         | 10           |      |                                                                                     | ... brown, very stiff, slightly damp                                                     |
|                                                                                                                                                          |                            |                |                                                                                     |                            |              | GC   |  | SANDY CLAYEY GRAVEL; brown, very dense, dry                                              |
| 5.8                                                                                                                                                      | 101                        | CS             |  | 50-5"                      | 15           |      |                                                                                     |                                                                                          |
|                                                                                                                                                          |                            |                |                                                                                     |                            |              |      |  | SHALE; gray, very dense, dry                                                             |
|                                                                                                                                                          |                            | N              |  | 50-1"                      | 20           |      |                                                                                     | BORING TERMINATED AT 20.08 FEET                                                          |
| N- STANDARD SAMPLER<br>R- RING SAMPLER<br>CS- CALIFORNIA STYLE SAMPLER<br>G- GRAB SAMPLE<br>B- BUCKET SAMPLE                                             |                            |                |                                                                                     |                            |              |      |                                                                                     | NOTES: Groundwater Not Encountered                                                       |
| Geotechnical<br>Environmental<br>Inspections<br>Materials                                                                                                |                            |                |                                                                                     |                            |              |      |                                                                                     | PROJECT: CNY TERMINAL BUILDING ADDITON<br>LOCATION: MOAB, UTAH<br>PROJECT NO.: 6127JT134 |
|  <b>Western Technologies Inc.</b><br>The Quality People<br>Since 1955 |                            |                |                                                                                     |                            |              |      |                                                                                     | PLATE<br><br><b>A-5</b>                                                                  |
| <b>BORING LOG</b>                                                                                                                                        |                            |                |                                                                                     |                            |              |      |                                                                                     |                                                                                          |

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

| DATE DRILLED: 5-18-17                                                                                                                                    |                            | BORING NO. B-3 |                                                                                     | EQUIPMENT TYPE: Mobile B80 |              |      |                                                                                     |                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------|-------------------------------------------------------------------------------------|----------------------------|--------------|------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| LOCATION: See Location Diagram                                                                                                                           |                            |                |                                                                                     | DRILLING TYPE: 7" H.S.A    |              |      |                                                                                     |                                                                                          |
| ELEVATION: Not Determined                                                                                                                                |                            |                |                                                                                     | FIELD ENGINEER: K. RIDING  |              |      |                                                                                     |                                                                                          |
| MOISTURE<br>CONTENT<br>(% OF DRY WT.)                                                                                                                    | DRY DENSITY<br>(LBS/CU FT) | SAMPLE TYPE    | SAMPLE                                                                              | BLOWS/FT.                  | DEPTH (FEET) | USCS | GRAPHIC                                                                             | SOIL DESCRIPTION                                                                         |
|                                                                                                                                                          |                            |                |                                                                                     |                            |              |      |                                                                                     | FILL; silty sand, reddish - orange, dry                                                  |
| 12.2                                                                                                                                                     | 111                        | CS             |    | 13                         |              | CL   |    | SANDY CLAY; some gravel, gray, stiff, damp                                               |
| 15.1                                                                                                                                                     | 109                        | CS             |    | 13                         | 5            |      |                                                                                     | ... graish -brown, gypsum crystals, damp                                                 |
| 10.0                                                                                                                                                     | 127                        | CS             |    | 65                         |              | GC   |    | SANDY CLAYEY GRAVEL; brown, hard, damp                                                   |
| 9.9                                                                                                                                                      | 126                        | CS             |    | 69-11"                     | 10           | CL   |    | CLAY; some sand, gray, hard, damp                                                        |
| 8.6                                                                                                                                                      | 121                        | CS             |  | 81-8"                      | 15           | GC   |  | SANDY CLAYEY GRAVEL; gray-brown, iron oxide stains, very dense, dry                      |
|                                                                                                                                                          |                            |                |                                                                                     |                            |              |      |  | SHALE; gray, very dense, dry                                                             |
|                                                                                                                                                          |                            | N              |  | 50-1"                      | 20           |      |                                                                                     | BORING TERMINATED AT 20.08 FEET                                                          |
| N- STANDARD SAMPLER<br>R- RING SAMPLER<br>CS- CALIFORNIA STYLE SAMPLER<br>G- GRAB SAMPLE<br>B- BUCKET SAMPLE                                             |                            |                |                                                                                     |                            |              |      |                                                                                     | NOTES: Groundwater Not Encountered                                                       |
| Geotechnical<br>Environmental<br>Inspections<br>Materials                                                                                                |                            |                |                                                                                     |                            |              |      |                                                                                     | PROJECT: CNY TERMINAL BUILDING ADDITON<br>LOCATION: MOAB, UTAH<br>PROJECT NO.: 6127JT134 |
|  <b>Western Technologies Inc.</b><br>The Quality People<br>Since 1955 |                            |                |                                                                                     |                            |              |      |                                                                                     | PLATE<br><br><b>A-6</b>                                                                  |
| <b>BORING LOG</b>                                                                                                                                        |                            |                |                                                                                     |                            |              |      |                                                                                     |                                                                                          |

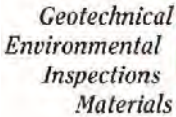
## **APPENDIX B**

| Boring No. | Sample Depth (ft) | USCS Class. | Initial Dry Density (pcf) | Initial Water Content (%) | Percent Passing |      | Atterberg Limits |    | Collapse/Compression Properties |                       |                  | Remarks |
|------------|-------------------|-------------|---------------------------|---------------------------|-----------------|------|------------------|----|---------------------------------|-----------------------|------------------|---------|
|            |                   |             |                           |                           | #4              | #200 | LL               | PI | Surcharge (ksf)                 | Total Compression (%) |                  |         |
|            |                   |             |                           |                           |                 |      |                  |    |                                 | In-Situ               | After Saturation |         |
| B-1        | 5                 | CL          | 100.3                     | 13.1                      | 100             | 84   | 47               | 29 | 0.4                             | -0.44                 | 1                |         |
|            |                   |             |                           |                           |                 |      |                  |    | 0.8                             | -1.38                 |                  |         |
|            |                   |             |                           |                           |                 |      |                  |    | 1.7                             | -2.55                 |                  | -2.88   |
|            |                   |             |                           |                           |                 |      |                  |    | 3.4                             |                       |                  | -5.43   |
|            |                   |             |                           |                           |                 |      |                  |    | 6.7                             |                       |                  | -6.93   |
|            |                   |             |                           |                           |                 |      |                  |    | 13.4                            |                       |                  | -11.01  |
| B-1        | 7.5               | CL          | 94.1                      | 10.2                      | 100             | 91   | 39               | 22 | 0.4                             | -0.27                 | 1                |         |
|            |                   |             |                           |                           |                 |      |                  |    | 0.8                             | -0.89                 |                  |         |
|            |                   |             |                           |                           |                 |      |                  |    | 1.7                             | -1.41                 |                  | -1.32   |
|            |                   |             |                           |                           |                 |      |                  |    | 3.8                             |                       |                  | -2.44   |
|            |                   |             |                           |                           |                 |      |                  |    | 7.9                             |                       |                  | -3.97   |
|            |                   |             |                           |                           |                 |      |                  |    | 16.2                            |                       |                  |         |
| B-1        | 10                | CL          | 101.5                     | 9.1                       | 100             | 93   | 33               | 17 | 0.4                             | 0.03                  | 1                |         |
|            |                   |             |                           |                           |                 |      |                  |    | 0.8                             | -0.34                 |                  |         |
|            |                   |             |                           |                           |                 |      |                  |    | 1.7                             | -0.82                 |                  | 0.00    |
|            |                   |             |                           |                           |                 |      |                  |    | 3.7                             |                       |                  | -1.10   |
|            |                   |             |                           |                           |                 |      |                  |    | 7.9                             |                       |                  | -2.71   |
|            |                   |             |                           |                           |                 |      |                  |    | 16.2                            |                       |                  | -4.67   |
|            | 7.9               |             | -4.46                     |                           |                 |      |                  |    |                                 |                       |                  |         |

**NOTES:** Initial Dry Density and initial Water Content are in-situ values unless otherwise noted.  
NP = Non-plastic

**REMARKS – Collapse / Compression**

1. Submerged to approximate saturation.
2. Sample disturbance observed.
3. Slight rebound after saturation.

|                                                                                                                                                                                                                                                           |                                                               |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------|
|   <b>Western Technologies Inc.</b><br>The Quality People<br>Since 1955<br>wt-us.com | PROJECT: CNY TERMINAL BUILDING ADDITION<br>JOB NO.: 6127JT134 | <b>PLATE</b><br><br><b>B-1</b> |
|                                                                                                                                                                                                                                                           | <b>SOIL PROPERTIES</b>                                        |                                |

| Boring No.                                                                                                                                                                                                                                                             | Sample Depth (ft) | USCS Class. | Initial Dry Density (pcf) | Initial Water Content (%) | Percent Passing |      | Atterberg Limits                                              |    | Collapse/Compression Properties |                       |                  | Remarks                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|---------------------------|---------------------------|-----------------|------|---------------------------------------------------------------|----|---------------------------------|-----------------------|------------------|-------------------------|
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           | #4              | #200 | LL                                                            | PI | Surcharge (ksf)                 | Total Compression (%) |                  |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    |                                 | In-Situ               | After Saturation |                         |
| B-1                                                                                                                                                                                                                                                                    | 15                | CL          | --                        | 4.9                       | 100             | 95   | 38                                                            | 19 |                                 |                       |                  | 1                       |
| B-1                                                                                                                                                                                                                                                                    | 20                | CL          | --                        | 3.6                       | 93              | 89   | 38                                                            | 19 |                                 |                       |                  |                         |
| B-2                                                                                                                                                                                                                                                                    | 2.5               | CL          | 80.2                      | 21.3                      | 100             | 87   | 42                                                            | 25 | 0.2                             | -0.82                 |                  |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    | 0.4                             | -2.11                 |                  |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    | 0.8                             | -3.59                 | -3.25            |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    | 1.6                             |                       | -4.66            |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    | 4.8                             |                       | -11.85           |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    | 11.3                            |                       | -15.84           |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    | 4.8                             |                       | -15.64           |                         |
| B-2                                                                                                                                                                                                                                                                    | 5                 | CL          | 88.0                      | 19.0                      | 94              | 67   | 42                                                            | 25 |                                 |                       |                  |                         |
| B-2                                                                                                                                                                                                                                                                    | 7.5               | CL          | 105.1                     | 14.3                      | 100             | 91   | 40                                                            | 23 |                                 |                       |                  |                         |
| B-2                                                                                                                                                                                                                                                                    | 10                | CL          | 117.1                     | 13.9                      | 100             | 94   | 40                                                            | 23 |                                 |                       |                  |                         |
| B-2                                                                                                                                                                                                                                                                    | 15                | GC          | 100.7                     | 5.8                       | 64              | 42   | 36                                                            | 18 | 0.4                             | -0.67                 |                  |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    | 0.8                             | -1.05                 |                  |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    | 1.7                             | -1.84                 | -3.77            |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    | 3.7                             |                       | -5.88            |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    | 7.9                             |                       | -7.64            |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    | 16.2                            |                       | -9.68            |                         |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      |                                                               |    | 7.9                             |                       | -9.56            |                         |
| B-3                                                                                                                                                                                                                                                                    | 2.5               | CL          | 110.8                     | 12.2                      | 93              | 59   | 42                                                            | 24 |                                 |                       |                  |                         |
| B-3                                                                                                                                                                                                                                                                    | 5                 | CL          | 109.0                     | 15.1                      | 99              | 69   | 42                                                            | 22 |                                 |                       |                  |                         |
| B-3                                                                                                                                                                                                                                                                    | 7.5               | GC          | 127.3                     | 10.0                      | 64              | 41   | 38                                                            | 19 |                                 |                       |                  |                         |
| B-3                                                                                                                                                                                                                                                                    | 10                | CL          | 125.6                     | 9.9                       | 100             | 89   | 38                                                            | 19 |                                 |                       |                  |                         |
| B-3                                                                                                                                                                                                                                                                    | 15                | GC          | 120.8                     | 8.6                       | 67              | 48   | 35                                                            | 18 |                                 |                       |                  |                         |
| <b>NOTES:</b> Initial Dry Density and initial Water Content are in-situ values unless otherwise noted.<br>NP = Non-plastic                                                                                                                                             |                   |             |                           |                           |                 |      |                                                               |    |                                 |                       |                  |                         |
| <b>REMARKS – Collapse / Compression</b><br>1. Submerged to approximate saturation.<br>2. Sample disturbance observed.<br>3. Slight rebound after saturation.                                                                                                           |                   |             |                           |                           |                 |      |                                                               |    |                                 |                       |                  |                         |
| <div>Geotechnical<br/>Environmental<br/>Inspections<br/>Materials</div> <div></div> <div><b>Western Technologies Inc.</b><br/>The Quality People<br/>Since 1955<br/>wt-us.com</div> |                   |             |                           |                           |                 |      | PROJECT: CNY TERMINAL BUILDING ADDITION<br>JOB NO.: 6127JT134 |    |                                 |                       |                  | PLATE<br><br><b>B-2</b> |
|                                                                                                                                                                                                                                                                        |                   |             |                           |                           |                 |      | <b>SOIL PROPERTIES</b>                                        |    |                                 |                       |                  |                         |



## INORGANIC ANALYTICAL REPORT

**Client:** Western Technologies, Inc. **Contact:** Warren Clyde  
**Project:** CNY Terminal Building Addition / 6147PO508  
**Lab Sample ID:** 1706253-001  
**Client Sample ID:** 6127JT134 B1 @ 2.5'-4'  
**Collection Date:** 5/18/2017  
**Received Date:** 6/12/2017 1153h

### Analytical Results

3440 South 700 West  
Salt Lake City, UT 84119

| Compound | Units     | Date Prepared | Date Analyzed   | Method Used  | Reporting Limit | Analytical Result | Qual |
|----------|-----------|---------------|-----------------|--------------|-----------------|-------------------|------|
| Sulfate  | mg/kg-dry |               | 6/13/2017 1009h | SM4500-SO4-L | 571             | 1,800             | &    |

& - Analysis is performed on a 1:1 DI water extract for soils.

Phone: (801) 263-8686  
Toll Free: (888) 263-8686  
Fax: (801) 263-8687  
e-mail: awal@awal-labs.com  
web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

# Design Maps Summary Report

## User-Specified Input

**Report Title** CNY TERMINAL BUILDING ADDITION

Thu June 29, 2017 22:06:54 UTC

**Building Code Reference Document** 2012/2015 International Building Code  
(which utilizes USGS hazard data available in 2008)

**Site Coordinates** 38.76147°N, 109.745°W

**Site Soil Classification** Site Class D – “Stiff Soil”

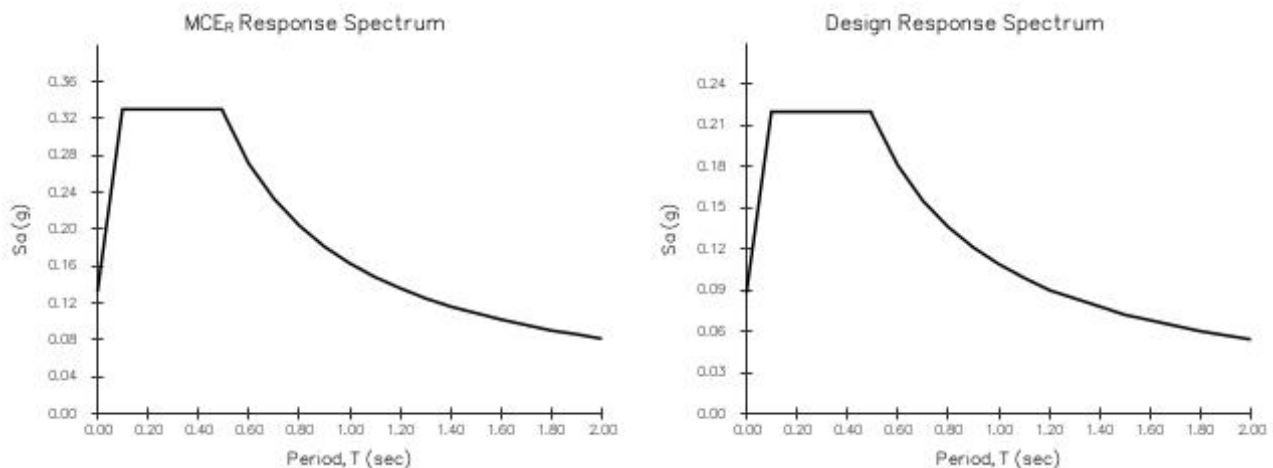
**Risk Category** IV (e.g. essential facilities)



## USGS-Provided Output

|                         |                            |                            |
|-------------------------|----------------------------|----------------------------|
| $S_s = 0.206 \text{ g}$ | $S_{MS} = 0.330 \text{ g}$ | $S_{DS} = 0.220 \text{ g}$ |
| $S_1 = 0.068 \text{ g}$ | $S_{M1} = 0.163 \text{ g}$ | $S_{D1} = 0.109 \text{ g}$ |

For information on how the  $S_s$  and  $S_1$  values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the “2009 NEHRP” building code reference document.



Although this information is a product of the U.S. Geological Survey, we provide no warranty, expressed or implied, as to the accuracy of the data contained therein. This tool is not a substitute for technical subject-matter knowledge.

## **Article 4 Special Purpose and Overlay Districts** Revised 12/22 Revised 12/23

### **4.3 AL, Airport Limitation District**

#### **4.3.1 Purpose**

The AL, Airport Limitation District is a special purpose district intended to establish standards assuring the long-range, safe and beneficial use of Canyonlands Field.

#### **4.3.2 Airport Zoning Commission**

##### **A. Commission Established**

1. The Grand County Planning Commission is designated as the "Airport Zoning Commission" as prescribed in Utah Code §72-10-405.
2. In this LUC and State law, any references to the "Airport Zoning Commission" shall mean the Grand County Planning Commission.
3. If the Planning Commission is empowered in this LUC to take actions that are duties of the Airport Zoning Commission as prescribed in Utah law the Planning Commission shall be presumed to be functioning as the Airport Zoning Commission.

##### **B. Duties**

The Airport Zoning Commission shall recommend boundaries of the various zones to be established and the regulations to be adopted pertaining to any airport hazard area and to perform such other duties as may be assigned to it by the County Commission or Utah law.

#### **4.3.3 Airport Board of Adjustment**

##### **A. Board Established**

1. The Grand County Airport Board shall designate an "Airport Board of Adjustment" as prescribed in Section 72-10-410, Utah Code Annotated 1953.
2. The Board of Adjustment shall consist of five members, each to be appointed for a term of three years, by Grand County Commission and to be removable for cause, upon written charges and after public hearing.

##### **B. Procedure**

Any person aggrieved, or taxpayer affected, by any decision of any administrative agency made in its administration of airport zoning regulations adopted by Grand County, which is of the opinion that a decision of an administrative agency is an improper application of airport zoning regulations of concern to the governing body or board, may appeal to the Board of Adjustment authorized to hear and decide appeals as provided in this Section 4.3.

##### **C. Duties**

1. The Airport Board of Adjustment shall hear and decide appeals from any order, requirement, decision, or determination made by the administrative agency in the enforcement of the airport zoning regulations, as provided in Section 72-10-408, Utah Code Annotated 1953, and to perform such other duties as may be assigned it by the County Commission or Utah law.
2. To hear and decide specific variances as provided in Section 72-10-407(2), Utah Code Annotated 1953. [Ord. 537, 2015.]

#### **4.3.4 Grand County Airport Board**

##### **A. Board Established**

The Grand County Airport Board is designated as the principal advisory body to the Grand County Commission in all matters related to the operation of Canyonlands Field.

## **B. Duties**

The members shall in all cases act as a board, rather than as individuals. The Grand County Airport Board may adopt rules and procedures for the conduct of its meetings and to govern its operation, not inconsistent with bylaws, County ordinances, and regulations of the State of Utah and the FAA.

### **4.3.5 Lot Design Standards**

Development in the AL district shall be subject to the following standards:

- A.** Minimum Lot Area: 5 Acres
- B.** Minimum Front and Street Side Setbacks: 25 Feet
- C.** Minimum Rear and Interior Side Setbacks:
  - 1.** Principal structures: 10 feet
  - 2.** Accessory structures: See Section 3.3
- D.** Minimum Lot Width: 400 Feet
- E.** Maximum Height: 24 Feet

### **4.3.6 Permitted Uses**

The following uses shall be permitted-by-right

- A.** Residential Uses

See Section 4.3.9D

- B.** Public or Civic Uses

Essential services

- C.** Retail, Service and office Uses

Those allowed by the Airport Master Plan

- D.** Agriculture and Agriculture Related Uses

Agricultural animals, subject to the use-specific standards of 3.2.5A

Farm, orchard or truck garden

Grazing

- E.** Industrial, Communications, Transportation and Automobile-Related Uses

Airport

### **4.3.7 Conditional Uses**

Conditional uses shall be allowed in accordance with Section 9.11.

Animal pound or kennel (public or private)

Barn, corral, pen, coop or machinery shed, subject to the use-specific standards of 3.2.5B

Dwelling, single-family

Dude ranch or destination resort, subject to the use-specific standards of 3.2.3F

Electric substation

Mining

Manufactured home, subject to the use-specific standards of 3.2.1H

Oil and gas drilling

Waste materials management, subject to the use-specific standards of 3.2.4N

#### **4.3.8 Accessory Uses**

The following accessory uses shall be allowed:

Accessory use or structure, subject to the use-specific standards of Section 3.3

Dwelling unit, accessory, subject to the use-specific standards of Section 3.3.2B

#### **4.3.9 District Standards**

All uses in the AL District shall be in compliance with the Airport Master Plan, Airport Layout Plan, and Noise Contour Map as adopted by the Grand County Airport Board, and incorporated into this section by reference as it pertains to airport land uses, and subject to the regulations of this section:

##### **A. Conforming Uses only**

All uses in the AL District shall be subject to the height and use standards as prescribed in this LUC or as prescribed in State or Federal standards.

##### **B. Creation of Airport Hazards Prohibited**

No variance, permit, or use shall be allowed that would create or enhance an airport hazard.

##### **C. General Use and Operational Limitations**

No use shall be permitted which:

1. Creates or tends to create electrical interference to navigational devices and communication between aircraft and airports;
2. Creates or tends to create gas, smoke, dust, glare, or other visual hazard in the atmosphere around airports or in the airport hazard area;
3. Creates or tends to create structures that interfere with aircraft safety; or
4. Creates or tends to create any type of hazard for the airport that would inhibit or constrain safe and acceptable airport operations

##### **D. Residential Use Limitation**

All allowed residential uses shall be shown on the Airport Layout consistent with the Airport Master Plan, and be restricted for airport personnel only.

##### **E. Height Limitation**

The maximum height for all structures, except for the airport tower, air service buildings and facilities approved as part of the Airport Layout Plan, shall be 35 feet. The height of the airport tower, air service buildings and facilities shall be in accordance with the Airport Layout Plan. Notwithstanding the foregoing, in no case shall a structure be at a height that creates or tends to create an airport hazard.

**F. Architecture and Landscaping**

1. The architectural style of accessory hangers, storage and maintenance facilities, and similar service uses shall be complementary to the principal structures and appropriate for the site and proposed use.
2. The landscaping around the buildings shall be low maintenance and extend 20 feet around the buildings.
3. All buildings shall comply with applicable Federal, State and local Standards.

**4.3.10 Mandatory Referral**

Prior to the issuance of zoning development or Building Permit, permit applications shall be referred to the Airport Board and to the Federal Aviation Administration, Denver Airports District office (FAA) for comment. In making its determination as to whether a proposed land use is consistent with the standards of this section, the County shall give substantial weight to the recommendations of the Grand County Airport Board and the FAA.

**AIRPORT LAND USE AMENDMENTS**

2023 GENERAL SESSION

STATE OF UTAH

**Chief Sponsor: Melissa G. Ballard**

Senate Sponsor: Todd D. Weiler

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**LONG TITLE**

**General Description:**

This bill amends provisions related to land use requirements near an airport influence area.

**Highlighted Provisions:**

This bill:

- ▶ amends definitions related to airport influence areas and airport overlay zones;
- ▶ encourages a political subdivision to adopt land use regulations that protect airports, including:
  - adopting airport overlay zones;
  - notifying of airport impacts; and
  - granting of avigation easements;
- ▶ amends provisions related to governing law in the event of a conflict between land use regulations related to airport overlay zones;
- ▶ amends provisions related to the acquisition of an avigation easement or similar rights;
- ▶ repeals sections of code related to zoning and land use related to airports; and
- ▶ makes technical changes.

**Money Appropriated in this Bill:**

None

**Other Special Clauses:**

None

**Utah Code Sections Affected:**

## AMENDS:

**10-9a-501**, as last amended by Laws of Utah 2021, Chapter 60

**17-27a-501**, as last amended by Laws of Utah 2021, Chapter 60

**72-10-401**, as renumbered and amended by Laws of Utah 1998, Chapter 270

**72-10-402**, as renumbered and amended by Laws of Utah 1998, Chapter 270

**72-10-403**, as renumbered and amended by Laws of Utah 1998, Chapter 270

**72-10-404**, as renumbered and amended by Laws of Utah 1998, Chapter 270

**72-10-413**, as renumbered and amended by Laws of Utah 1998, Chapter 270

## REPEALS:

**72-10-405**, as renumbered and amended by Laws of Utah 1998, Chapter 270

**72-10-406**, as renumbered and amended by Laws of Utah 1998, Chapter 270

**72-10-407**, as renumbered and amended by Laws of Utah 1998, Chapter 270

**72-10-408**, as renumbered and amended by Laws of Utah 1998, Chapter 270

**72-10-409**, as renumbered and amended by Laws of Utah 1998, Chapter 270

**72-10-410**, as renumbered and amended by Laws of Utah 1998, Chapter 270

**72-10-411**, as renumbered and amended by Laws of Utah 1998, Chapter 270

**72-10-412**, as last amended by Laws of Utah 2018, Chapter 148

**72-10-414**, as renumbered and amended by Laws of Utah 1998, Chapter 270

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*Be it enacted by the Legislature of the state of Utah:*

Section 1. Section **10-9a-501** is amended to read:

**10-9a-501. Enactment of land use regulation, land use decision, or development agreement.**

(1) Only a legislative body, as the body authorized to weigh policy considerations, may enact a land use regulation.

(2) (a) Except as provided in Subsection (2)(b), a legislative body may enact a land use regulation only by ordinance.

(b) A legislative body may, by ordinance or resolution, enact a land use regulation that

imposes a fee.

(3) A legislative body shall ensure that a land use regulation is consistent with the purposes set forth in this chapter.

(4) (a) A legislative body shall adopt a land use regulation to:

(i) create or amend a zoning district under Subsection 10-9a-503(1)(a); and

(ii) designate general uses allowed in each zoning district.

(b) A land use authority may establish or modify other restrictions or requirements other than those described in Subsection (4)(a), including the configuration or modification of uses or density, through a land use decision that applies criteria or policy elements that a land use regulation establishes or describes.

(5) A municipality may not adopt a land use regulation, development agreement, or land use decision that restricts the type of crop that may be grown in an area that is:

(a) zoned agricultural; or

(b) assessed under Title 59, Chapter 2, Part 5, Farmland Assessment Act.

(6) A municipal land use regulation pertaining to an airport or an airport influence area, as that term is defined in Section 72-10-401, is subject to Title 72, Chapter 10, Part 4, Airport Zoning Act.

Section 2. Section 17-27a-501 is amended to read:

**17-27a-501. Enactment of land use regulation.**

(1) Only a legislative body, as the body authorized to weigh policy considerations, may enact a land use regulation.

(2) (a) Except as provided in Subsection (2)(b), a legislative body may enact a land use regulation only by ordinance.

(b) A legislative body may, by ordinance or resolution, enact a land use regulation that imposes a fee.

(3) A land use regulation shall be consistent with the purposes set forth in this chapter.

(4) (a) A legislative body shall adopt a land use regulation to:

(i) create or amend a zoning district under Subsection 17-27a-503(1)(a); and

(ii) designate general uses allowed in each zoning district.

(b) A land use authority may establish or modify other restrictions or requirements other than those described in Subsection (4)(a), including the configuration or modification of uses or density, through a land use decision that applies criteria or policy elements that a land use regulation establishes or describes.

(5) A county may not adopt a land use regulation, development agreement, or land use decision that restricts the type of crop that may be grown in an area that is:

(a) zoned agricultural; or

(b) assessed under Title 59, Chapter 2, Part 5, Farmland Assessment Act.

(6) A county land use regulation pertaining to an airport or an airport influence area, as that term is defined in Section 72-10-401, is subject to Title 72, Chapter 10, Part 4, Airport Zoning Act.

Section 3. Section **72-10-401** is amended to read:

**72-10-401. Definitions.**

As used in this part, unless the context otherwise requires:

(1) "Airport" means any publicly used area of land or water ~~[designed and set aside]~~ that is used, or intended to be used, for the landing and ~~[taking-off]~~ take-off of aircraft and utilized or to be utilized in the interest of the public for these purposes.

~~[(2) "Airport hazard" means any structure or tree or use of land which obstructs the airspace required for the flight of aircraft in landing or taking-off at an airport or is otherwise hazardous to the landing or taking-off of aircraft.]~~

~~[(3) "Airport hazard area" means any area of land or water upon which an airport hazard might be established if not prevented as provided in this part.]~~

(2) "Airport hazard" means any structure, tree, object of natural growth, or use of land that potentially obstructs or otherwise impacts the safe and efficient utilization of the navigable airspace required for the flight of aircraft in landing or take-off at an airport.

(3) "Airport influence area" means land located within 5,000 feet of an airport runway.

(4) "Airport overlay zone" means a secondary zoning district designed to protect the

public health, safety, and welfare near an airport that:

(a) applies land use regulation in addition to the primary zoning district land use regulation of property used as an airport and property within an airport influence area;

(b) may extend beyond the airport influence area;

(c) ensures airport utility as a public asset;

(d) protects property owner land values near an airport through compatible land use regulations as recommended by the Federal Aviation Administration; and

(e) protects aircraft occupant safety through protection of navigable airspace.

(5) "Avigation easement" means an easement permitting unimpeded aircraft flights over property subject to the easement and includes the right:

(a) to create or increase noise or other effects that may result from the lawful operation of aircraft; and

(b) to prohibit or remove any obstruction to such overflight.

(6) "Land use regulation" means the same as that term is defined in Sections [10-9a-103](#) and [17-27a-103](#).

~~[(4)]~~ (7) "Political subdivision" means any municipality, city, town, or county.

~~[(5)]~~ (8) "Structure" means any object constructed or installed by man, including buildings, towers, smokestacks, and overhead transmission lines.

~~[(6)]~~ (9) "Tree" means any object of natural growth.

Section 4. Section **72-10-402** is amended to read:

**72-10-402. Declaration with respect to airport hazards.**

The Legislature finds that:

(1) an airport hazard endangers the lives and property of users of the airport and of occupants of land in its vicinity;

(2) an obstruction of the type that reduces the size of the area available for the landing, taking-off, and maneuvering of aircraft tends to destroy or impair the utility of the airport and the public investment in the airport;

(3) the creation or establishment of an airport hazard is a public nuisance and an injury

to the community served by the airport in question;

(4) it is necessary in the interest of the public health, public safety, and general welfare that the creation or establishment of airport hazards be prevented;

(5) this should be accomplished, to the extent legally possible, by exercise of the police power, without compensation; ~~[and]~~

(6) both the prevention of the creation or establishment of airport hazards and the elimination, removal, alteration, mitigation, or marking and lighting of existing airport hazards are public purposes for which political subdivisions may raise and expend public funds and acquire land or property interests in land~~[-]; and~~

(7) the establishment of an airport overlay zone best prevents the creation or establishment of an airport hazard, and promotes the public health, safety, and general welfare.

Section 5. Section **72-10-403** is amended to read:

**72-10-403. Airport zoning regulations.**

~~[(1) (a) In order to prevent the creation or establishment of airport hazards, every political subdivision having an airport hazard area within its territorial limits may adopt, administer, and enforce, under the police power and in the manner and upon the conditions prescribed in this part, airport zoning regulations for the airport hazard area.]~~

~~[(b) The regulations may divide the area into zones, and, within the zones, specify the land uses permitted and regulate and restrict the height to which structures and trees may be erected or allowed to grow.]~~

~~[(2) (a) If an airport is owned or controlled by a political subdivision and any airport hazard area appertaining to the airport is located outside the territorial limits of the political subdivision, the political subdivision owning or controlling the airport and the political subdivision within which the airport hazard area is located may, by ordinance or resolution duly adopted, create a joint airport zoning board.]~~

~~[(b) The board shall have the same power to adopt, administer, and enforce airport zoning regulations applicable to the airport hazard area in question as that vested by Subsection (1) in the political subdivision within which the area is located.]~~

170 ~~[(c) Each joint board shall have as members two representatives appointed by each~~  
171 ~~political subdivision participating in its creation and in addition a chair elected by a majority of~~  
172 ~~the appointed members.]~~

173 (1) In order to prevent the creation or establishment of airport hazards, each political  
174 subdivision located within an airport influence area, shall adopt, administer, and enforce land  
175 use regulations for the airport influence area, including an airport overlay zone, under the  
176 police power and in the manner and upon the conditions prescribed:

177 (a) in this part;

178 (b) Title 10, Chapter 9a, Municipal Land Use, Development, and Management Act;

179 and

180 (c) Title 17, Chapter 27a, County Land Use Development, and Management Act.

181 (2) (a) Each political subdivision located within an airport influence area shall notify a  
182 person building on or developing land in an airport influence area, in writing, of aircraft  
183 overflights and associated noise.

184 (b) To promote the safe and efficient operation of the airport, a political subdivision  
185 located within an airport influence area:

186 (i) shall:

187 (A) adopt an airport overlay zone conforming to the requirements of this chapter and  
188 14 C.F.R. Part 77; and

189 (B) require any proposed development within an airport influence area to conform with  
190 14 C.F.R. Part 77; and

191 (ii) may, as a condition to granting a building permit, subdivision plat, or a requested  
192 zoning change within an airport influence area, require a person building or developing land to  
193 grant or sell to the airport owner, at appraised fair market value, an aviation easement.

194 (3) If a political subdivision located within an airport influence area fails to adopt an  
195 airport overlay zone by December 31, 2024, then the following requirements shall apply in an  
196 airport influence area:

197 (a) each political subdivision located within an airport influence area shall notify a

person building on or developing land within an airport influence area, in writing, of aircraft overflights and associated noise;

(b) as a condition to granting a building permit, subdivision plat, or a requested zoning change within an airport influence area, require the person building or developing land to grant or sell to the airport owner, at appraised fair market value, an avigation easement; and

(c) require a person building or developing land within an airport influence area conform to the requirements of this chapter and 14 C.F.R. Part 77.

Section 6. Section **72-10-404** is amended to read:

**72-10-404. Zoning ordinances -- Governing law in event of conflict.**

~~[(1) In the event that a political subdivision has adopted or adopts a comprehensive zoning ordinance regulating the height of buildings, any airport zoning regulations applicable to the same area or a portion of the area may be incorporated in and made a part of comprehensive zoning regulations, and be administered and enforced in connection with the comprehensive zoning regulations. (2)]~~ In the event of conflict between any airport land use regulations adopted under this part and any other regulations applicable to the same area, whether the conflict be with respect to the height of structures or trees, the use of land, or any other matter, ~~[and whether the other regulations were adopted by the political subdivision which adopted the airport zoning regulations or by some other political subdivision, the more stringent limitation or requirement]~~ the airport overlay zone requirement shall govern and prevail.

Section 7. Section **72-10-413** is amended to read:

**72-10-413. Purchase or condemnation of air rights or navigation easements.**

A political subdivision ~~[within which the property or nonconforming use is located or the political subdivision]~~ owning the airport ~~[or]~~, whether or not the airport is located within the territorial limits of the political subdivision, or a political subdivision that is served by [it] the airport may acquire, by purchase, grant, or condemnation in the manner provided by the law under which political subdivisions are authorized to acquire real property for public purposes, an air right, ~~[navigation]~~ an avigation easement, or other estate or interest in the property or

226 nonconforming structure or use in question if:

227 (1) it is desired to remove, lower, or otherwise terminate a nonconforming structure or  
228 use;

229 (2) the approach protection necessary cannot, because of constitutional limitations, be  
230 provided by airport ~~[zoning]~~ land use regulations under this part; or

231 (3) it appears advisable that the necessary approach protection be provided by  
232 acquisition of property rights rather than by airport zoning regulations.

233 Section 8. **Repealer.**

234 This bill repeals:

235 Section **72-10-405, Airport zoning regulations -- Adoption and amendment --**  
236 **Airport zoning commission -- Powers and duties.**

237 Section **72-10-406, Airport zoning regulations -- Validity, limitations, and**  
238 **restrictions.**

239 Section **72-10-407, Permit for new or changed structures or uses -- Nonconforming**  
240 **structures -- Airport hazards -- Application to board of adjustment for variance --**  
241 **Allowance of variance -- Conditioning permit or variance.**

242 Section **72-10-408, Appeals to board of adjustment -- Procedure -- Stay of**  
243 **proceedings -- Hearing and judgment.**

244 Section **72-10-409, Airport zoning regulations -- Administration and enforcement.**

245 Section **72-10-410, Board of adjustment -- Powers -- Appointment and**  
246 **membership of board -- Hearings and decisions by board -- Meetings -- Adoption of**  
247 **rules.**

248 Section **72-10-411, Appeals to district courts -- Procedure -- Findings, judgment,**  
249 **and costs -- Regulations invalid as to one structure or parcel of land.**

250 Section **72-10-412, Violations of chapter or rulings -- Misdemeanor -- Remedies of**  
251 **political subdivisions.**

252 Section **72-10-414, Exchange of private property near federal airports.**



## Protect Your Communities and Protect Aviation; It's the Law

Changes to Utah State Code coming January 1, 2025, that Utah state and local leaders should be aware of

The purpose of this flyer is to inform community leader of changes to [Utah State Code \(USC\), 72-10-403 Airport Zoning Regulations](#) that require political subdivisions in the state of Utah to redouble their efforts to prevent incompatible encroachment on public airports in the state of Utah.

For public airport owners (sponsors) that are already bound by federal [grant assurances](#), Grant Assurance 21 (Compatible Land Use) already requires sponsors to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations where the sponsor is already responsible for planning or zoning near the airport.

Significantly, revised USC 72-10-403 establishes responsibilities similar to Grant Assurance 21 for *ALL* political subdivisions in the state of Utah contemplating zoning/planning near a public airport, **whether that political subdivision is an airport sponsor or not**

Some notable excerpts from revised USC 72-10-403 (Airport Zoning Regulations) follows:

- **Para (2)** ...In order to prevent the creation or establishment of airport hazards, each political subdivision located within an airport influence area, shall adopt, administer, and enforce land use regulations for the airport influence area, including an airport overlay zone, under the police power and in the manner and upon the conditions prescribed:
- **Para (3)** ...(a) Each political subdivision located within an [airport influence area](#) (add a link) shall notify a person building on or developing land in an airport influence area, in writing, of aircraft overflights and associated noise.
- A political subdivision located within an airport influence area: **(i)** shall:
  - **(A)** adopt an [airport overlay zone](#) (add a link) conforming to the requirements of this chapter and 14 C.F.R. Part 77; and
  - **(B)** require any proposed development within an airport influence area to conform with 14 C.F.R. Part 77; and
  - **(ii)** may, as a condition to granting a building permit, subdivision plat, or a requested zoning change within an airport influence area, require a person building or developing land to grant or sell to the airport owner, at appraised fair market value, an aviation easement.
- (4)** If a political subdivision located within an airport influence area fails to adopt an airport overlay



zone by December 31, 2024, then the following requirements shall apply in an airport influence area:

- (a)** each political subdivision located within an airport influence area shall notify a person building on or developing land within an airport influence area, in writing, of aircraft overflights and associated noise;
  - (b)** as a condition to granting a building permit, subdivision plat, or a requested zoning change within an airport influence area, require the person building or developing land to grant or sell to the airport owner, at appraised fair market value, an aviation easement; and
  - (c)** require a person building or developing land within an airport influence area conform to the requirements of this chapter and 14 C.F.R. Part 77
- .....

Adherence to USC 72-10-403 (Airport Zoning Regulations) and good airport-related compatible land use practices is not just about safety of aviators and airport operations, it is also about the safety of future residents and their right to quiet enjoyment, and ultimately, protecting your political subdivision from the lawsuits that inevitably arise as a result of allowing incompatible development encroachment near airports. An August 2023 Aircraft Owners and Pilots Association (AOPA) article entitled "[Caution Urged on Development Plans Near Airports](#)" summarizes some use cases and key related discussion points. Finally, we encourage robust and recurring engagement on this topic with [Utah Aeronautics Division](#), [Utah Airport Operators Association](#), your local airport administrators and associated pilot communities including [AOPA](#). **FAA?**

For more information, consider getting familiar with the below references as you and your communities' leadership teams determine how best to comply with USC 72-10-403 going forward:

- [FAA Advisory Circular 150/5190-4B](#) (Airport Land Use Compatibility Planning)
- [State of Utah Airports and Land Use Guide](#) and [Appendix N](#) from the Wasatch Front Regional Council and their 2015-2040 Regional Transportation Plan discussing the need for land use planning around Utah airports and the current state of the airports
- [ACRP 206 - Guidebook on Effective Land Use Compatibility Planning Strategies for GA Airports](#)
  - Other ACRP reports on the topic include reports numbers 27 (Vols I and II), 32, and 38
- [AOPA Guide for Airport Advocates](#)
  - While designed for airport advocates, it is also instructional to zoning authorities as among other things, the guide highlights past cases where planning/zoning decisions did not adequately address compatibility concerns and ultimately led to a variety of unintended, and in some cases, tragic consequences





Suggested Changes:

For Questions or Concerns please call \_\_\_\_\_ at \_\_\_\_\_

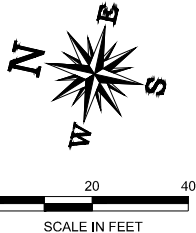
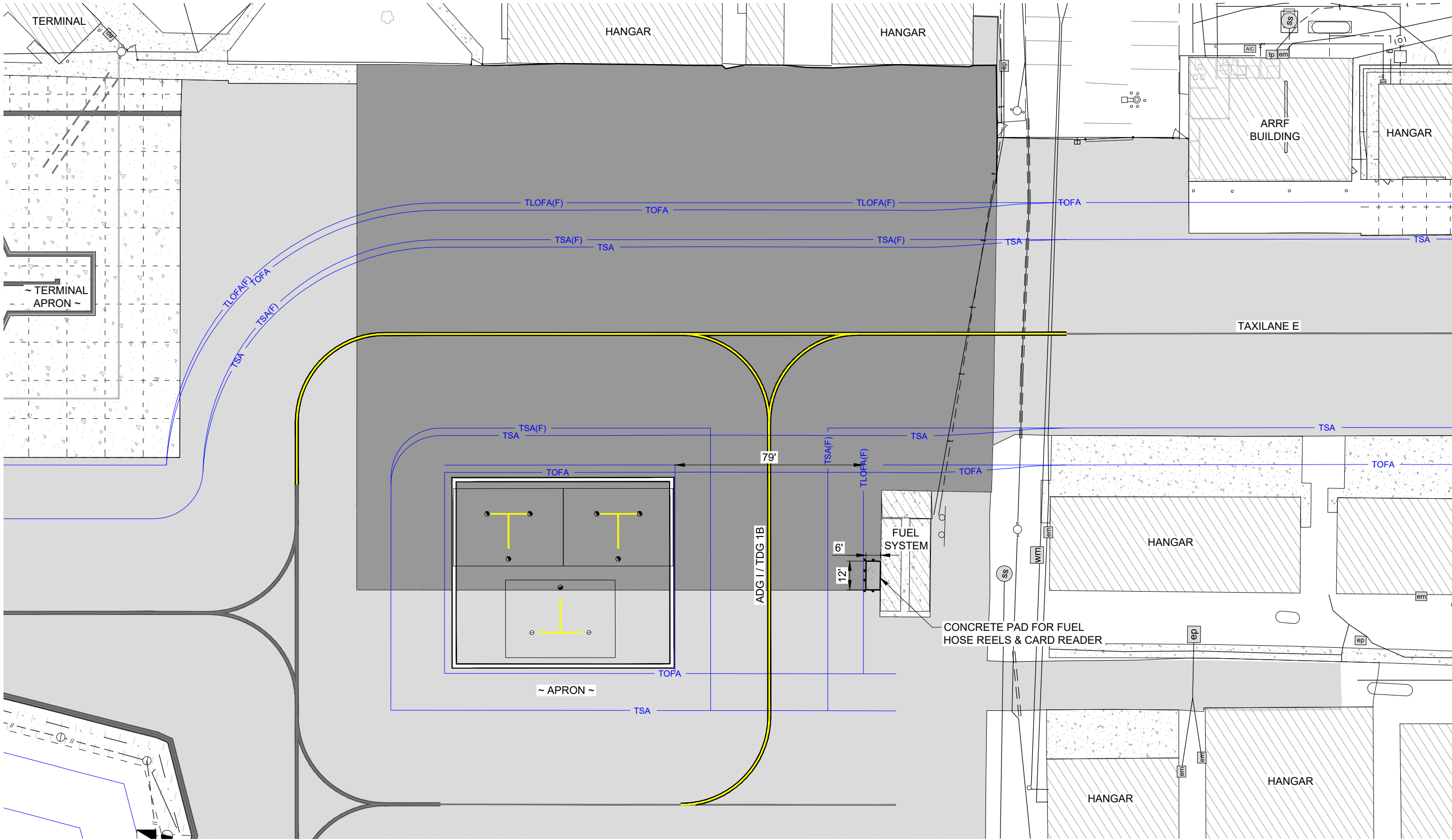
Maybe provide a link to city plan i.e a city part 77 overlay.

Start out by explaining Why are we doing this? How does it benefit municipalities and protect their future decisions?

Get a list of all applicable municipalities and send it to any applicable administration, like mayors, planners, and city managers etc. Who would reach out to them? When? Perhaps we could mention this or have someone present it at Utah league of cities and towns? We could also look for other state conferences to present at, as well as giving it to city mayors, planners and managers (or attend/present at their conferences as well?)

DRAFT





CANYONLANDS REGIONAL AIRPORT  
MOAB, GRAND CONTY, UTAH

FUEL SYSTEM EXHIBIT

 **Lochner**



715 Horizon Drive, Suite 225  
Grand Junction, CO 81506  
970-242-0101

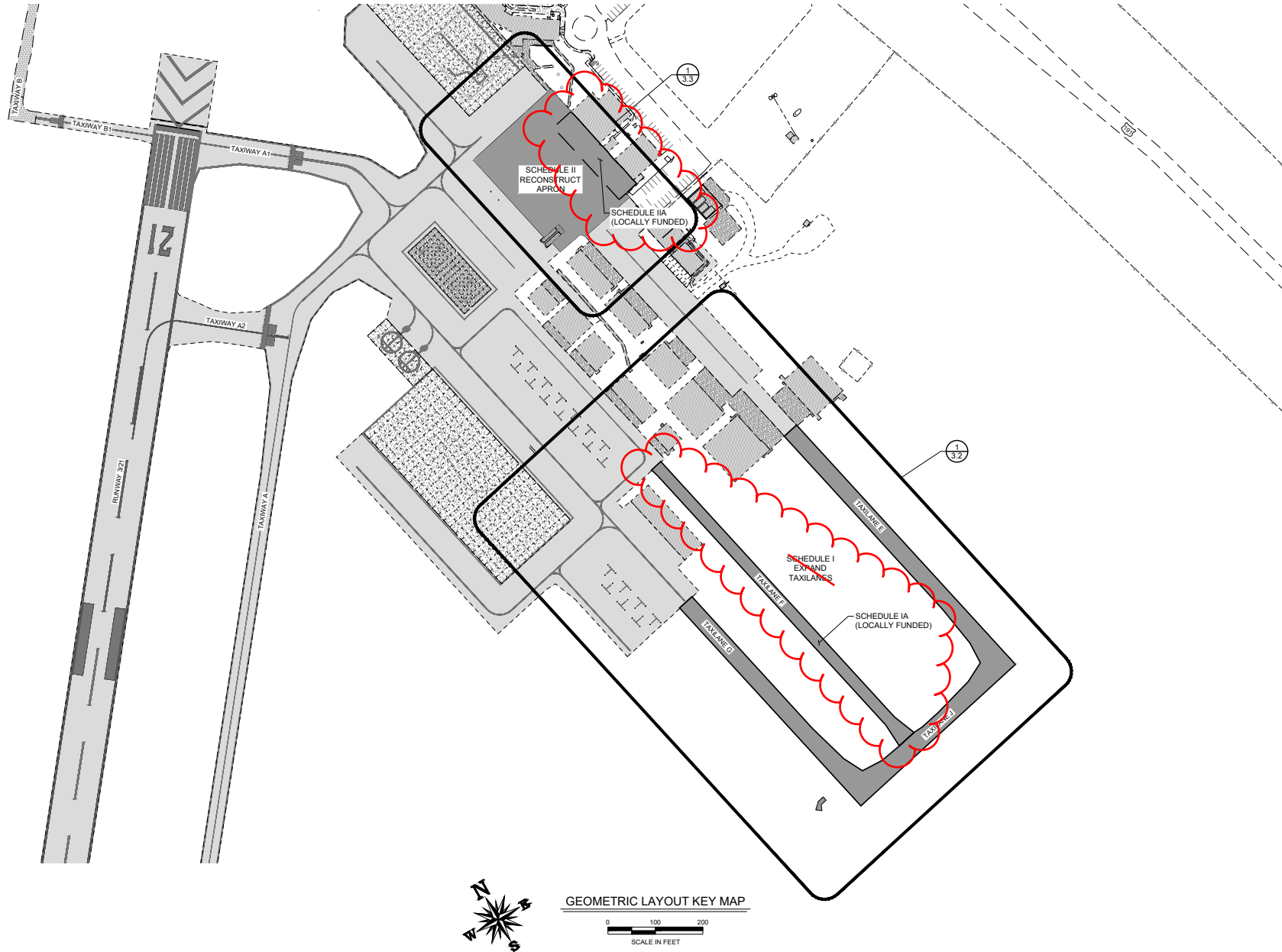
|                                               |
|-----------------------------------------------|
| Canyonlands Regional Airport                  |
| LOCALLY FUNDED CONSTRUCTION                   |
| ACI No. 237004b                               |
| Expand Taxiway F & Reconstruct Apron Approach |
| Completed By: TTM                             |
| Date: 1/15/2025                               |

| Schedule IA - Expand Taxiway F (Locally Funded) |        |                                                                   |            |            | Engineers Estimate |              |
|-------------------------------------------------|--------|-------------------------------------------------------------------|------------|------------|--------------------|--------------|
| No.                                             | Spec   | Construction Item                                                 | Quantity   | Unit       | \$/Unit            | Total        |
| 1                                               | C-102  | Temporary Slope Drains, Benches, Dikes, Dams, and Sediment Basins | Incidental | Incidental | Incidental         | Incidental   |
| 2                                               | C-105  | Mobilization                                                      | 1          | LS         | \$ 40,166.00       | \$ 40,166.00 |
| 3                                               | C-110  | Method of Estimating Percentage of Material with Limits (PWL)     | Incidental | Incidental | Incidental         | Incidental   |
| 4                                               | P-101a | Remove Pavement (Full Depth)                                      | 3          | SY         | \$ 7.00            | \$ 21.00     |
| 5                                               | P-152a | Excavation/Embankment (*Seperate QTY for SCH IA following SCH I)  | 967        | CY         | \$ 20.00           | \$ 19,340.00 |
|                                                 |        | Excavation (Cut) *SCH I & IA                                      | 4004       | CY         | -                  | -            |
|                                                 |        | Embankment (Fill) *SCH I & IA                                     | 28284      | CY         | -                  | -            |
| 6                                               | P-152c | Subgrade Preparation (12-inches deep)                             | 2389       | SY         | \$ 15.00           | \$ 35,835.00 |
| 7                                               | P-152d | Compacted Millings                                                | Incidental | Incidental | Incidental         | Incidental   |
| 8                                               | P-153  | Controlled Low Strength Material (CLSM)                           | Incidental | Incidental | Incidental         | Incidental   |
| 9                                               | P-154b | Subbase Course (16-inches thick)                                  | 2389       | SY         | \$ 30.00           | \$ 71,670.00 |
| 10                                              | P-154c | Separation Geotextile                                             | 2389       | SY         | \$ 2.00            | \$ 4,778.00  |
| 11                                              | P-209  | Crushed Aggregate Base Course (6-inches thick)                    | 2389       | SY         | \$ 16.00           | \$ 38,224.00 |
| 12                                              | P-401a | Asphalt Surface Course (4-inches thick)                           | 549        | TON        | \$ 150.00          | \$ 82,350.00 |
| 13                                              | P-401b | Bituminous Material (PG 70-34)                                    | 38         | TON        | \$ 750.00          | \$ 28,500.00 |
| 14                                              | P-602  | Emulsified Asphalt Prime Coat                                     | 3          | TON        | \$ 525.00          | \$ 1,575.00  |
| 15                                              | P-603  | Emulsified Asphalt Tack Coat                                      | 1.5        | TON        | \$ 525.00          | \$ 787.50    |
| 16                                              | P-610  | Concrete for Miscellaneous Structures                             | Incidental | Incidental | Incidental         | Incidental   |
| 17                                              | P-620a | Marking                                                           | 1316       | SF         | \$ 2.50            | \$ 3,290.00  |
| 18                                              | P-620b | Temporary Marking                                                 | 442        | SF         | \$ 1.00            | \$ 442.00    |
| 19                                              | D-701d | 2-inch PVC Waterline                                              | 122        | LF         | \$ 50.00           | \$ 6,100.00  |
| 20                                              | D-701e | Waterline Valve                                                   | 1          | EA         | \$ 1,000.00        | \$ 1,000.00  |
| 21                                              | D-701f | 2-inch PVC Waterline (Cross Connection)                           | 1          | EA         | \$ 100.00          | \$ 100.00    |
| 22                                              | D-701g | 2-inch PVC Waterline (Cap)                                        | 1          | EA         | \$ 100.00          | \$ 100.00    |
| 23                                              | D-705a | 6-inch Perforated Pipe Underdrain                                 | 749        | LF         | \$ 72.50           | \$ 54,302.50 |
| 24                                              | D-705b | 6-inch Solid Drain Pipe                                           | 5          | LF         | \$ 62.50           | \$ 312.50    |
| 25                                              | L-110a | Concrete Encased Electrical Duct Bank, 2-way 4-inch               | 85         | LF         | \$ 105.00          | \$ 8,925.00  |
| 26                                              | L-110b | Encase Existing Electrical Conduit                                | 35         | LF         | \$ 100.00          | \$ 3,500.00  |
| 27                                              | L-125  | Retroreflective Edge Markers                                      | 19         | EA         | \$ 210.00          | \$ 3,990.00  |
| Schedule IA Construction Cost :                 |        |                                                                   |            |            | \$                 | 405,308.50   |

| Schedule IIA - Reconstruct Apron Approach (Locally Funded) |        |                                                                   |            |            | Engineers Estimate |              |
|------------------------------------------------------------|--------|-------------------------------------------------------------------|------------|------------|--------------------|--------------|
| No.                                                        | Spec   | Construction Item                                                 | Quantity   | Unit       | \$/Unit            | Total        |
| 1                                                          | C-102  | Temporary Slope Drains, Benches, Dikes, Dams, and Sediment Basins | Incidental | Incidental | Incidental         | Incidental   |
| 2                                                          | C-105  | Mobilization                                                      | 1          | LS         | \$ 5,418.00        | \$ 5,418.00  |
| 3                                                          | C-110  | Method of Estimating Percentage of Material with Limits (PWL)     | Incidental | Incidental | Incidental         | Incidental   |
| 4                                                          | P-101b | Partial Depth Removal (3-inch Mill)                               | 1137       | SY         | \$ 5.00            | \$ 5,685.00  |
| 5                                                          | P-401b | Bituminous Material (PG 70-34)                                    | 15         | TON        | \$ 750.00          | \$ 11,100.00 |
| 6                                                          | P-401c | Asphalt Surface Course (3-inches thick)                           | 211        | TON        | \$ 150.00          | \$ 31,680.00 |
| 7                                                          | P-602  | Emulsified Asphalt Prime Coat                                     | 1.5        | TON        | \$ 525.00          | \$ 787.50    |
| 8                                                          | P-610  | Concrete for Miscellaneous Structures                             | Incidental | Incidental | Incidental         | Incidental   |
| Schedule IIA Construction Cost :                           |        |                                                                   |            |            | \$                 | 54,670.50    |

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CANYONLANDS REGIONAL AIRPORT  
MOAB, GRAND COUNTY, UTAH  
EXPAND TAXILANES E, F, & G,  
& RECONSTRUCT APRON  
AIP No. 3-49-0020-046-2023

| No. | Revision | Date | By |
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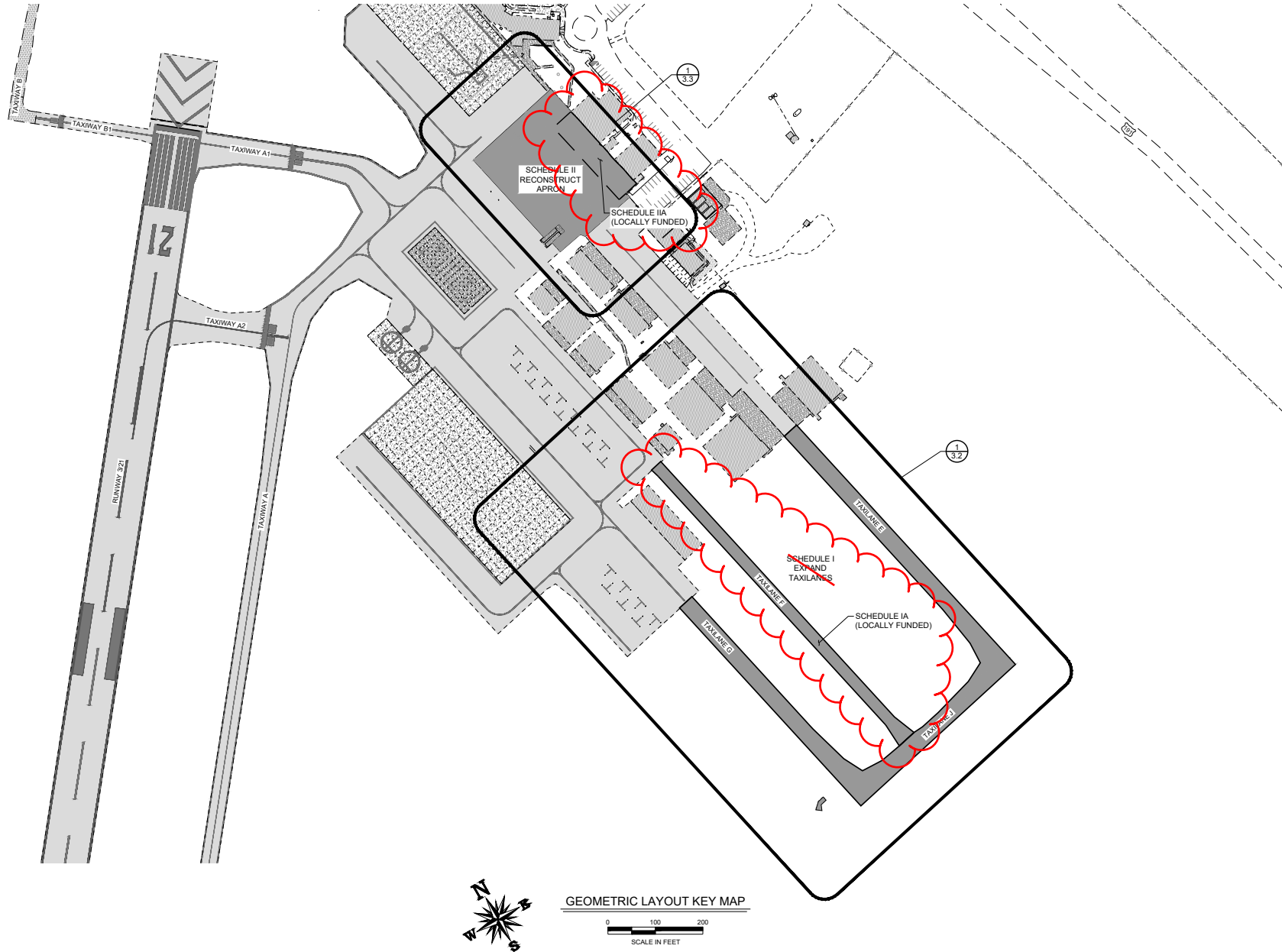
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Approved: DJH

GEOMETRIC  
LAYOUT

Sheet **3.1**

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CANYONLANDS REGIONAL AIRPORT  
MOAB, GRAND COUNTY, UTAH  
EXPAND TAXILANES E, F, & G,  
& RECONSTRUCT APRON  
AIP No. 3-49-0020-046-2023

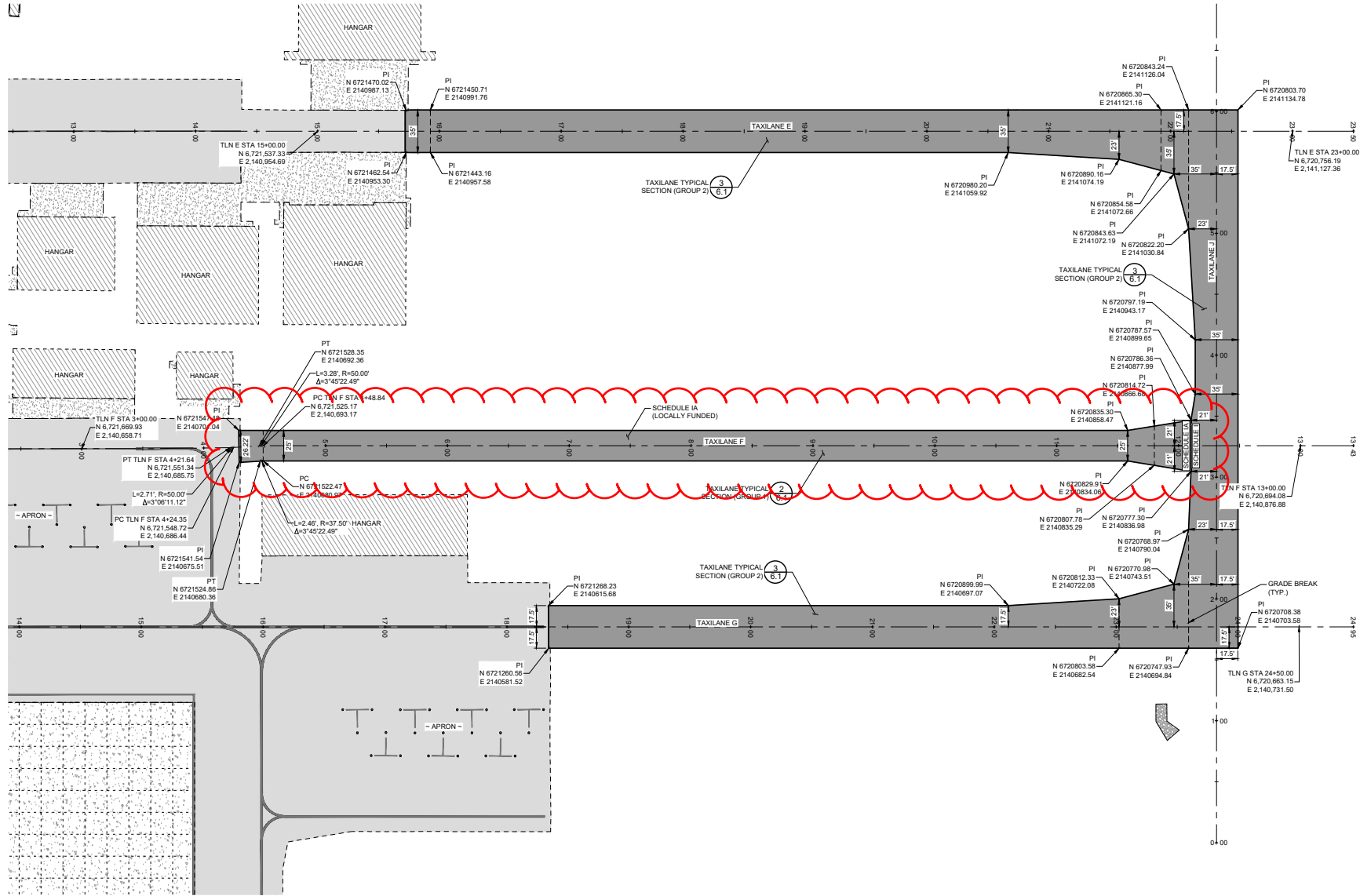
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Date: 11/20/24  
File Name: 2370041037

Drawn: JEF  
Checked: EFR  
Approved: DJH

GEOMETRIC LAYOUT

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3.2 SCHEDULE I TAXILANES GEOMETRIC LAYOUT

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Date: 11/20/24  
File Name: 237004\037

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Approved: DJH

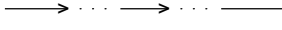
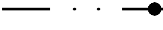
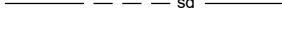
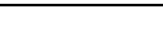
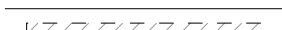
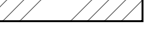
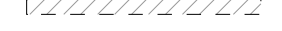
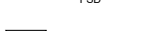
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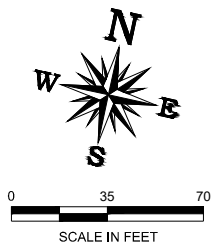


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LEGEND

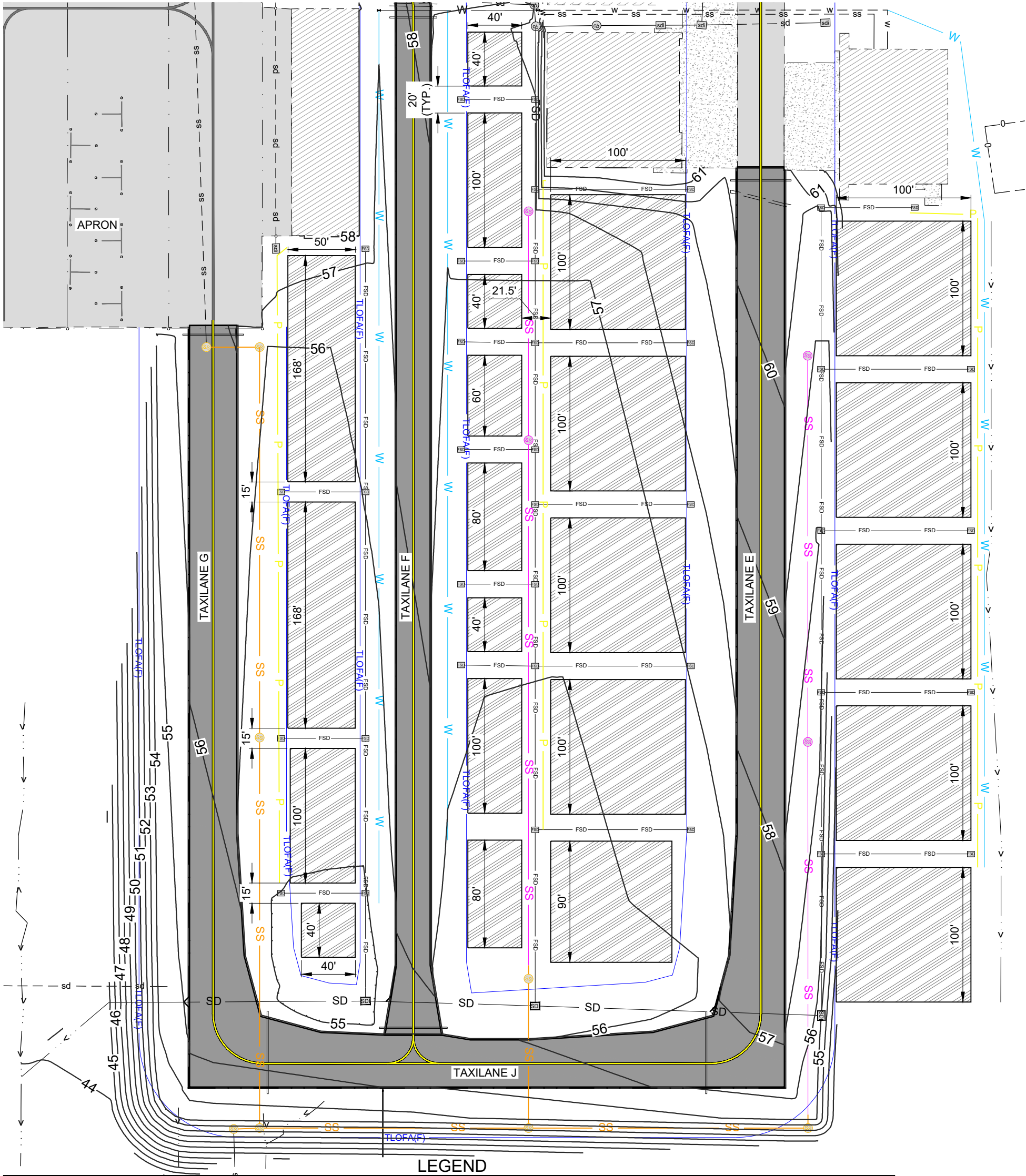
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|  | EXISTING MANHOLE / CLEAN-OUT      |  | PROPOSED SWALE DIRECTION                    |
|  | EXISTING AREA INLET / CATCH BASIN |  | PROPOSED STORM DRAIN LINE                   |
|  | EXISTING SWALE DIRECTION          |  | PROPOSED PERFORATED UNDERDRAIN W/ CLEAN-OUT |
|  | EXISTING STORM DRAIN LINE         |  | PROPOSED NON-PERFORATED UNDERDRAIN          |
|  | EXISTING UNDERDRAIN W/ CLEAN-OUT  |  | PROPOSED BUILDING                           |
|  | EXISTING BUILDING                 |  | FUTURE STORM DRAIN LINE                     |
|  | FUTURE TAXILANE OBJECT FREE AREA  |   | FUTURE STORM DRAIN INLET                    |



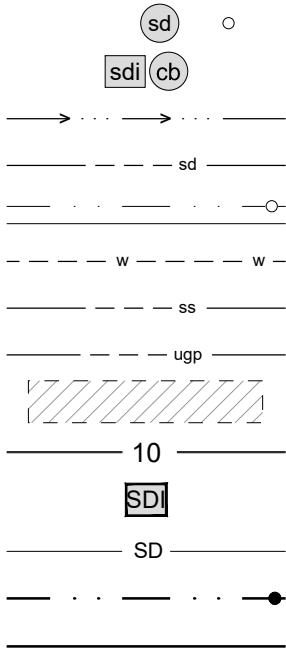
CANYONLANDS REGIONAL AIRPORT  
MOAB, GRAND COUNTY, UTAH

HANGAR & STORM DRAIN EXHIBIT

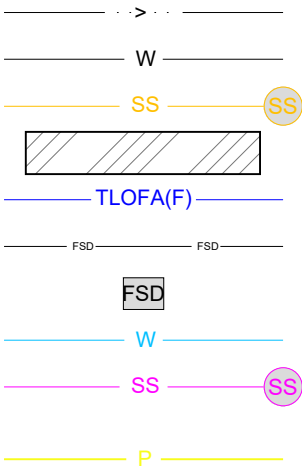
**ARMSTRONG**  
A LOCHNER COMPANY



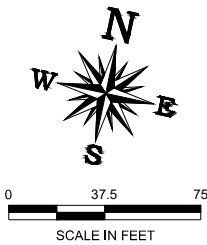
LEGEND



- EXISTING MANHOLE / CLEAN-OUT
- EXISTING AREA INLET / CATCH BASIN
- EXISTING SWALE DIRECTION
- EXISTING STORM DRAIN LINE
- EXISTING UNDERDRAIN W/ CLEAN-OUT
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING UNDERGROUND POWER
- EXISTING BUILDING
- PROPOSED GROUND CONTOUR
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN LINE
- PROPOSED PERFORATED UNDERDRAIN W/ CLEAN-OUT
- PROPOSED NON-PERFORATED UNDERDRAIN



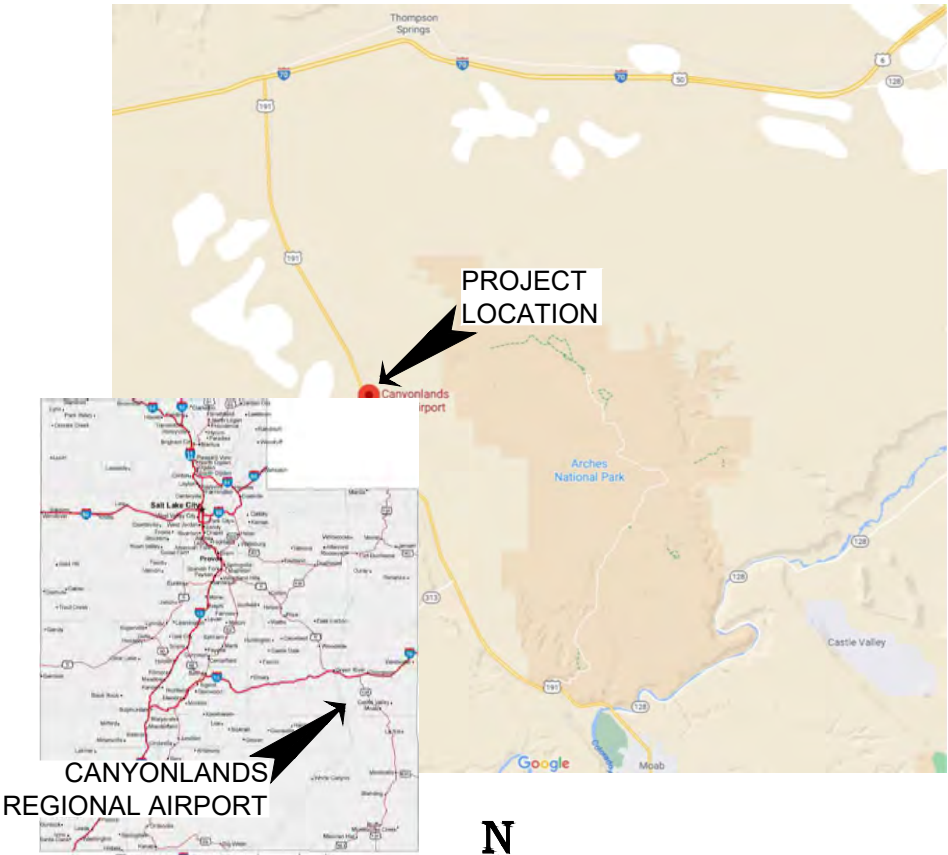
- PROPOSED SWALE DIRECTION
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER LINE / MANHOLE
- PROPOSED BUILDING
- PROPOSED / FUTURE TAXILANE OBJECT FREE AREA
- FUTURE STORM DRAIN LINE
- FUTURE STORM DRAIN INLET
- FUTURE WATER LINE
- FUTURE SANITARY SEWER LINE / MANHOLE
- FUTURE UNDERGROUND POWER



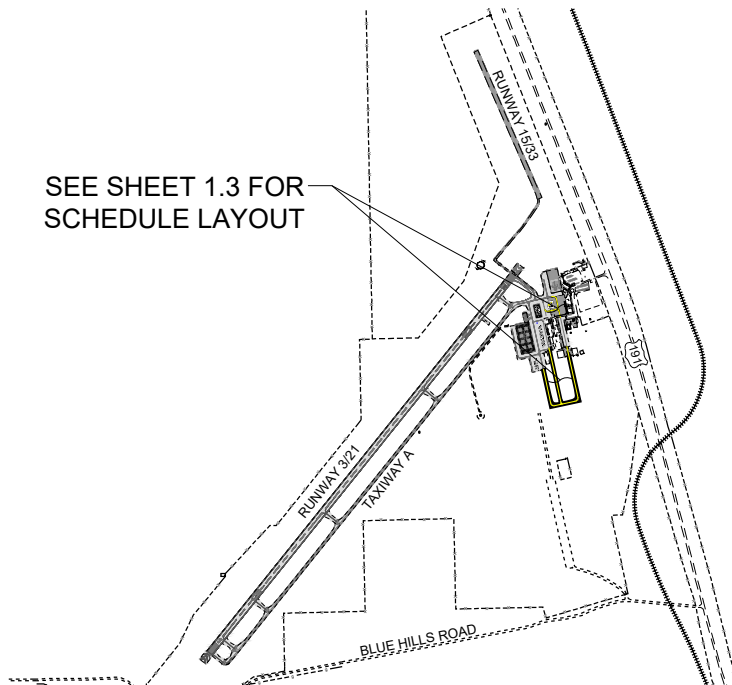
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MOAB, GRAND COUNTY, UTAH  
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SEE SHEET 1.3 FOR  
SCHEDULE LAYOUT



# CANYONLANDS REGIONAL AIRPORT

## MOAB, GRAND COUNTY, UTAH

### DESIGN ONLY

AIP No. 3-49-0020-046-2023

ACI No. 237004b

OCTOBER 2024

DESIGNED BY:

DATE

REGISTERED PROFESSIONAL ENGINEER

DATE

REVIEWED BY AND PREPARED UNDER MY DIRECT SUPERVISION

#### SCHEDULE I

EXPAND TAXILANES E, G & J  
(700' x 35', 525' x 35', 440' x 35')

#### SCHEDULE IA

EXPAND TAXILANE F (LOCALLY FUNDED)  
(780' x 25')

#### SCHEDULE II

RECONSTRUCT APRON  
(220' x 260')

#### SCHEDULE IIA

RECONSTRUCT APRON HANGAR APPROACH  
(LOCALLY FUNDED)  
(200' x 50')

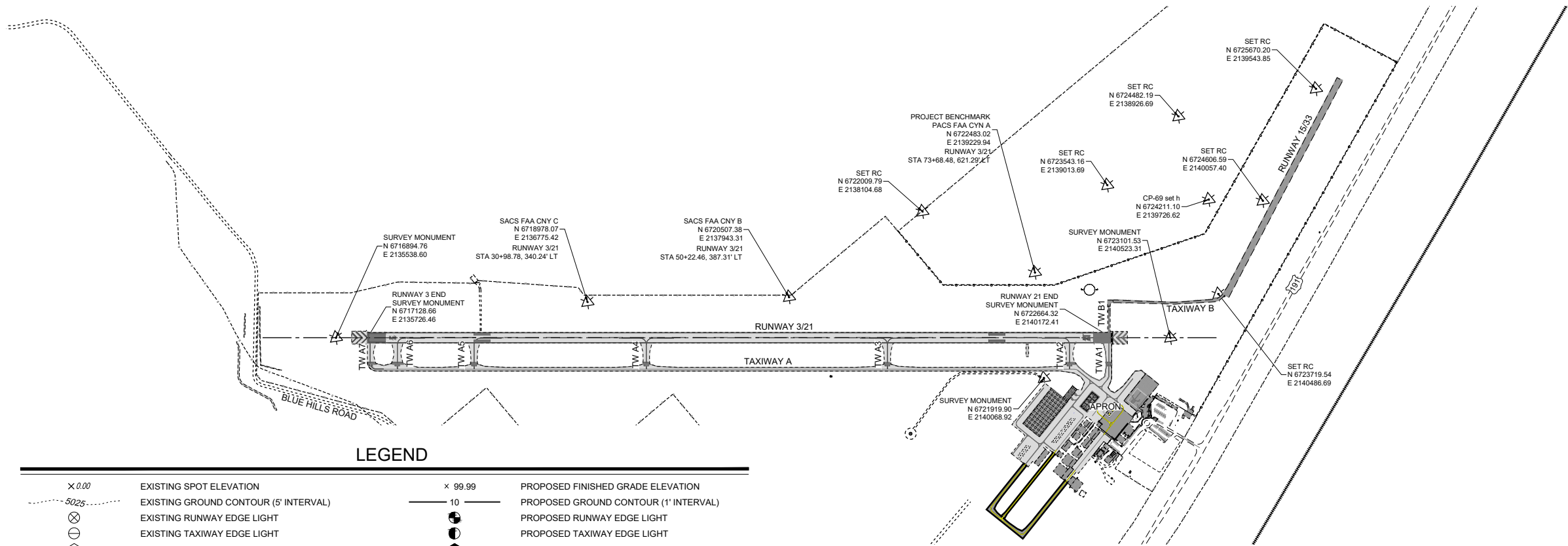
#### INDEX TO SHEETS

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| UNDERDRAIN PLAN                        | 5.6       |                                                                |              |

SHEET 1.1



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### LEGEND

|  |                                          |  |                                             |
|--|------------------------------------------|--|---------------------------------------------|
|  | EXISTING SPOT ELEVATION                  |  | PROPOSED FINISHED GRADE ELEVATION           |
|  | EXISTING GROUND CONTOUR (5' INTERVAL)    |  | PROPOSED GROUND CONTOUR (1' INTERVAL)       |
|  | EXISTING RUNWAY EDGE LIGHT               |  | PROPOSED RUNWAY EDGE LIGHT                  |
|  | EXISTING TAXIWAY EDGE LIGHT              |  | PROPOSED TAXIWAY EDGE LIGHT                 |
|  | EXISTING RETROREFLECTIVE MARKER          |  | PROPOSED RETROREFLECTIVE MARKER             |
|  | EXISTING SPLICE BASE / PULL BOX          |  | PROPOSED SPLICE BASE / PULL BOX             |
|  | EXISTING AIRFIELD SIGN                   |  | PROPOSED AIRFIELD SIGN                      |
|  | EXISTING BEACON                          |  | PROPOSED BEACON AND TOWER                   |
|  | EXISTING WIND CONE                       |  | PROPOSED LIGHTED WIND CONE                  |
|  | EXISTING SEGMENTED CIRCLE                |  | PROPOSED SUPPLEMENTAL WIND CONE             |
|  | EXISTING PAPI / VASI                     |  | PROPOSED SEGMENTED CIRCLE                   |
|  | EXISTING REIL                            |  | PROPOSED PAPI                               |
|  | EXISTING AWOS/ASOS/UNICOM                |  | PROPOSED REIL                               |
|  | EXISTING TIEDOWN ANCHOR                  |  | PROPOSED AWOS                               |
|  | EXISTING UTILITY POLE                    |  | PROPOSED TIEDOWN ANCHOR                     |
|  | EXISTING AREA LIGHT                      |  | PROPOSED UTILITY POLE                       |
|  | EXISTING GUY                             |  | PROPOSED AREA LIGHT (S)                     |
|  | EXISTING PAD MOUNTED TRANSFORMER         |  | PROPOSED ELECTRIC TRANSFORMER               |
|  | EXISTING UTILITY PEDESTAL                |  | PROPOSED MANHOLE                            |
|  | EXISTING UTILITY METER                   |  | PROPOSED SANITARY SEWER CLEAN-OUT           |
|  | EXISTING MANHOLE / CLEAN-OUT             |  | PROPOSED STORM DRAIN INLET                  |
|  | EXISTING AREA INLET / CATCH BASIN        |  | PROPOSED FIRE HYDRANT                       |
|  | EXISTING FIRE HYDRANT                    |  | PROPOSED WATER VALVE                        |
|  | EXISTING WATER VALVE                     |  | PROPOSED SURVEY MONUMENT                    |
|  | EXISTING TREE                            |  | PROPOSED AIRFIELD POWER CABLE(S)            |
|  | EXISTING ROAD SIGN(S)                    |  | PROPOSED COUNTERPOISE CABLE                 |
|  | EXISTING SECTION CORNER                  |  | PROPOSED CONCRETE ENCASED DUCT BANK         |
|  | EXISTING SURVEY CONTROL MONUMENT         |  | PROPOSED CULVERT W/END SECTIONS             |
|  | EXISTING PROPERTY CORNER PIN/CAP         |  | PROPOSED SWALE DIRECTION                    |
|  | EXISTING AIRFIELD POWER CABLE(S)         |  | PROPOSED BARBED WIRE FENCE                  |
|  | EXISTING CONCRETE DUCT BANK              |  | PROPOSED CHAIN LINK FENCE                   |
|  | EXISTING CULVERT                         |  | PROPOSED WILDLIFE FENCE                     |
|  | EXISTING SWALE DIRECTION                 |  | PROPOSED SANITARY SEWER LINE                |
|  | EXISTING BARB WIRE FENCE                 |  | PROPOSED STORM DRAIN LINE                   |
|  | EXISTING CHAIN LINK FENCE                |  | PROPOSED WATERLINE                          |
|  | EXISTING WILDLIFE FENCE                  |  | PROPOSED GAS LINE                           |
|  | EXISTING SANITARY SEWER LINE             |  | PROPOSED UNDERGROUND POWER/TELE             |
|  | EXISTING STORM DRAIN LINE                |  | PROPOSED PERFORATED UNDERDRAIN W/ CLEAN-OUT |
|  | EXISTING WATER LINE                      |  | PROPOSED NON-PERFORATED UNDERDRAIN          |
|  | EXISTING GAS LINE                        |  | PROPOSED SEDIMENT LOG                       |
|  | EXISTING UNDERGROUND POWER OR TELE. LINE |  | PROPOSED SILT FENCE                         |
|  | EXISTING OVERHEAD POWER CABLE            |  | PROPOSED CONCRETE PAVEMENT                  |
|  | EXISTING UNDERGROUND COMMUNICATION LINE  |  | PROPOSED ASPHALT PAVEMENT                   |
|  | EXISTING FIBER OPTIC CABLE               |  | PROPOSED ASPHALT/CONCRETE REMOVAL           |
|  | EXISTING UNDERDRAIN W/ CLEAN-OUT         |  | PROPOSED GRAVEL                             |
|  | EXISTING CONCRETE PAVEMENT               |  | PROPOSED ROCK RIPRAP                        |
|  | EXISTING ASPHALT PAVEMENT                |  | PROPOSED BUILDING                           |
|  | EXISTING GRAVEL                          |  | PROPOSED SEEDING AREA                       |
|  | EXISTING BUILDING                        |  | PROPOSED GRADING AREA                       |
|  | EXISTING WETLANDS                        |  |                                             |

NOTE: LEGEND APPLIES TO ALL SHEETS IN THIS PLAN SET, IS GENERIC, AND NOT ALL SYMBOLS MAY BE IN PLAN SHEETS.



### SURVEY CONTROL LAYOUT



### GENERAL NOTES

- ESTIMATED QUANTITIES ARE CONSIDERED APPROXIMATE ONLY EXCEPT WHERE PLAN QUANTITIES ARE SPECIFIED FOR PAYMENT. ACTUAL QUANTITIES SHALL BE DETERMINED BY FIELD MEASUREMENT OR SPECIFICATIONS.
- THE CONTRACTOR SHALL PROVIDE MATERIAL SUBMITTALS FOR THE ENGINEER'S APPROVAL PRIOR TO ORDERING.
- THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY CONSTRUCTION PERMITS AS NECESSARY FOR THE PROJECT.
- THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A WORK SCHEDULE AND PROPOSED CONSTRUCTION METHODS AT THE PRE-CONSTRUCTION CONFERENCE.
- THE CONTRACTOR SHALL OBTAIN APPROVAL FROM AIRPORT MANAGEMENT AND THE ENGINEER PRIOR TO ESTABLISHING CONSTRUCTION ACCESS OR HAUL ROADS. EXISTING PAVEMENT SURFACES OTHER THAN AIRFIELD PAVEMENTS SHALL BE USED TO THE MAXIMUM EXTENT POSSIBLE.
- THE CONTRACTOR SHALL MINIMIZE DISTURBANCE INCLUDING RUTS PRODUCED BY VEHICLES AND EQUIPMENT IN NON-PAVEMENT AREAS WITHIN ALL CONSTRUCTION AREAS. ALL DISTURBED AREAS IN THESE LOCATIONS SHALL BE RECLAIMED AT NO ADDITIONAL COST TO THE SPONSOR. **DAMAGE CAUSED TO EXISTING AIRFIELD PAVEMENTS, AIRFIELD CABLE CIRCUITS OR FACILITIES DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE SPONSOR.**
- CONTRACTOR SHALL COORDINATE ALL ON-SITE WASTE MATERIAL DISPOSAL WITH ENGINEER AND AIRPORT.

### NOTES TO SURVEYOR:

- THE PROJECT CONTROL IS A MODIFIED STATE PLANE COORDINATE SYSTEM.
- ALL DISTANCE UNITS ARE IN FEET AT GROUND.
- A BASE LINE WITH STATIONS AND OFFSETS HAS BEEN SET AT THE RUNWAY CENTERLINE FOR PROJECT CONTROL. ALL INFORMATION FOR THIS PROJECT WILL BE BASED ON THIS BASE LINE.
- BEFORE ANY CONSTRUCTION OPERATIONS BEGIN, CONSTRUCTION SURVEYOR TO RUN A TRAVERSE, LEVEL LOOP, AND VERIFY CONTROL. ANY DISCREPANCIES SHALL BE RESOLVED WITH PROJECT ENGINEER.
- FOR QUALITY CONTROL AND VERIFICATION PURPOSES, ANY WRITTEN SURVEY INFORMATION SUPPLIED TO ACI SHALL BE IN STATION, OFFSET, ELEVATION FORMAT.

### CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS IN THE FIELD. THE INFORMATION IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR AND IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL UTAH 811 (1-800-662-4111) AT LEAST 48 HOURS BEFORE ANY EXCAVATION / EMBANKMENT TO REQUEST FIELD LOCATION OF UTILITIES.



Know what's below.  
Call before you dig.

CANYONLANDS REGIONAL AIRPORT  
MOAB, GRAND COUNTY, UTAH  
EXPAND TAXILANES E, F, & G,  
& RECONSTRUCT APRON  
AIP No. 3-49-0020-046-2023

| No. | Revision | Date | By |
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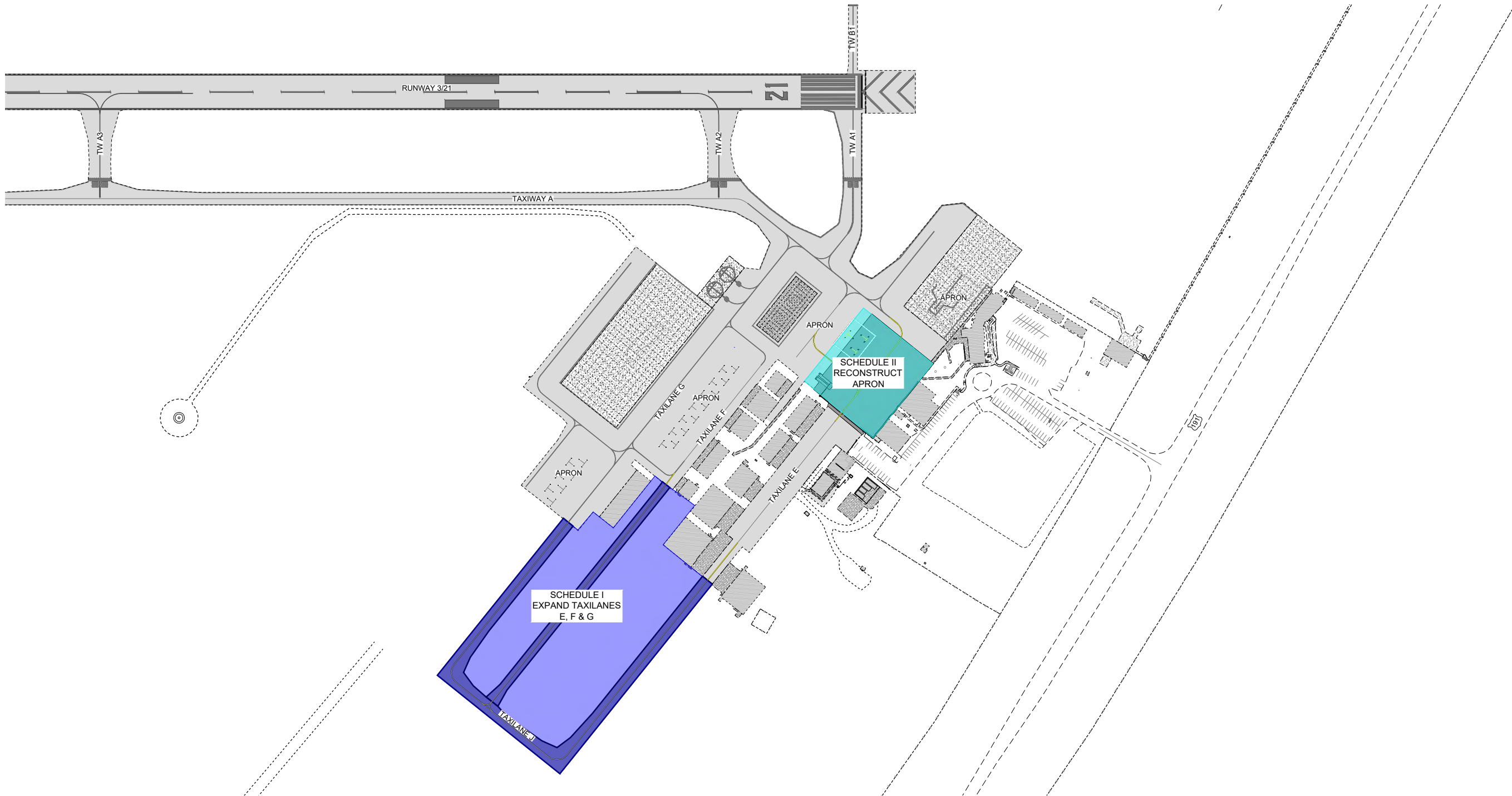
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Checked: EFR  
Approved: DJH

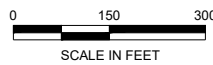
GENERAL  
NOTES,  
LEGEND &  
SURVEY  
CONTROL

Sheet: 1.2

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SCHEDULE LAYOUT



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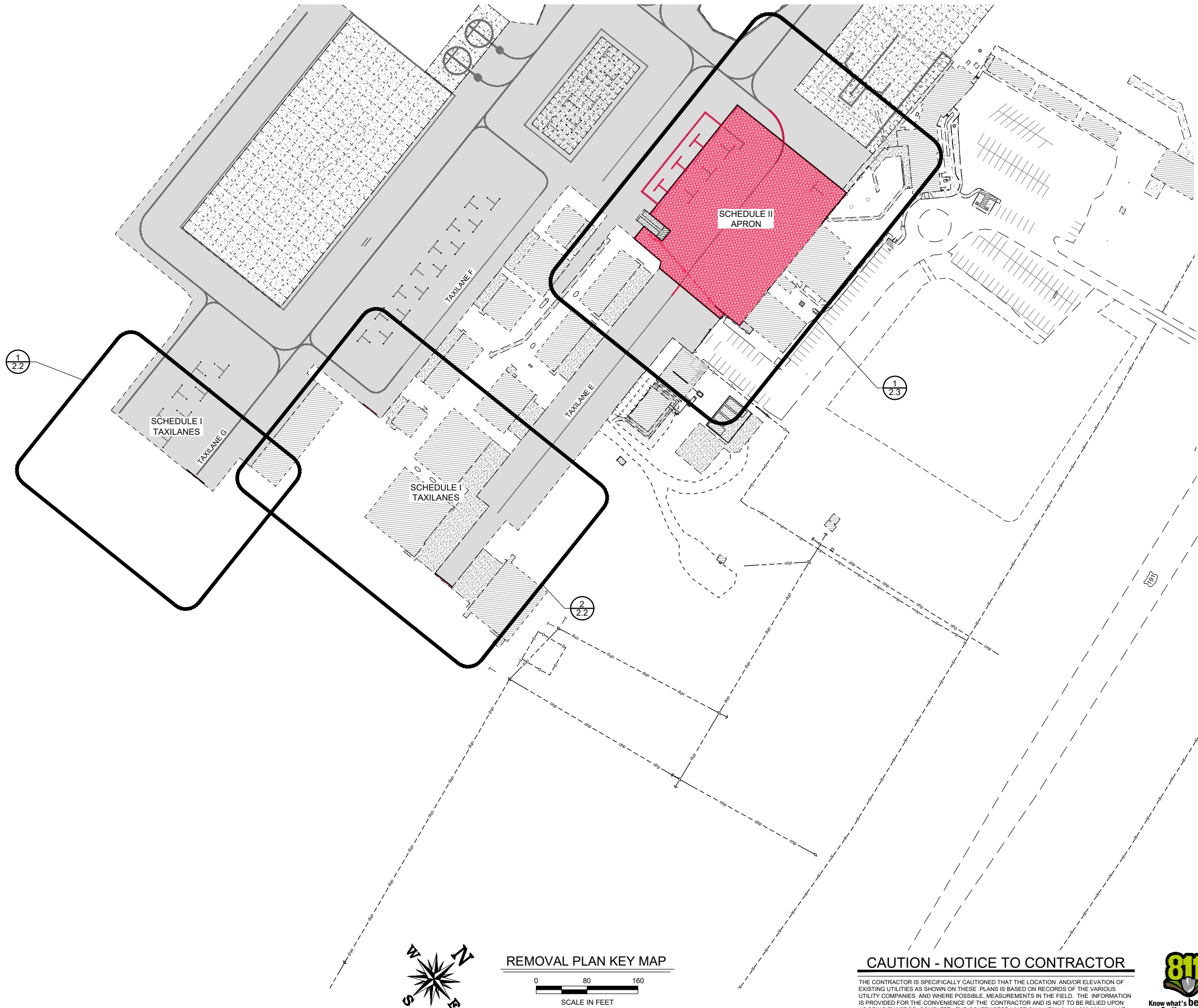
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SCHEDULE  
LAYOUT

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REMOVAL PLAN KEY MAP

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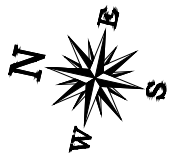
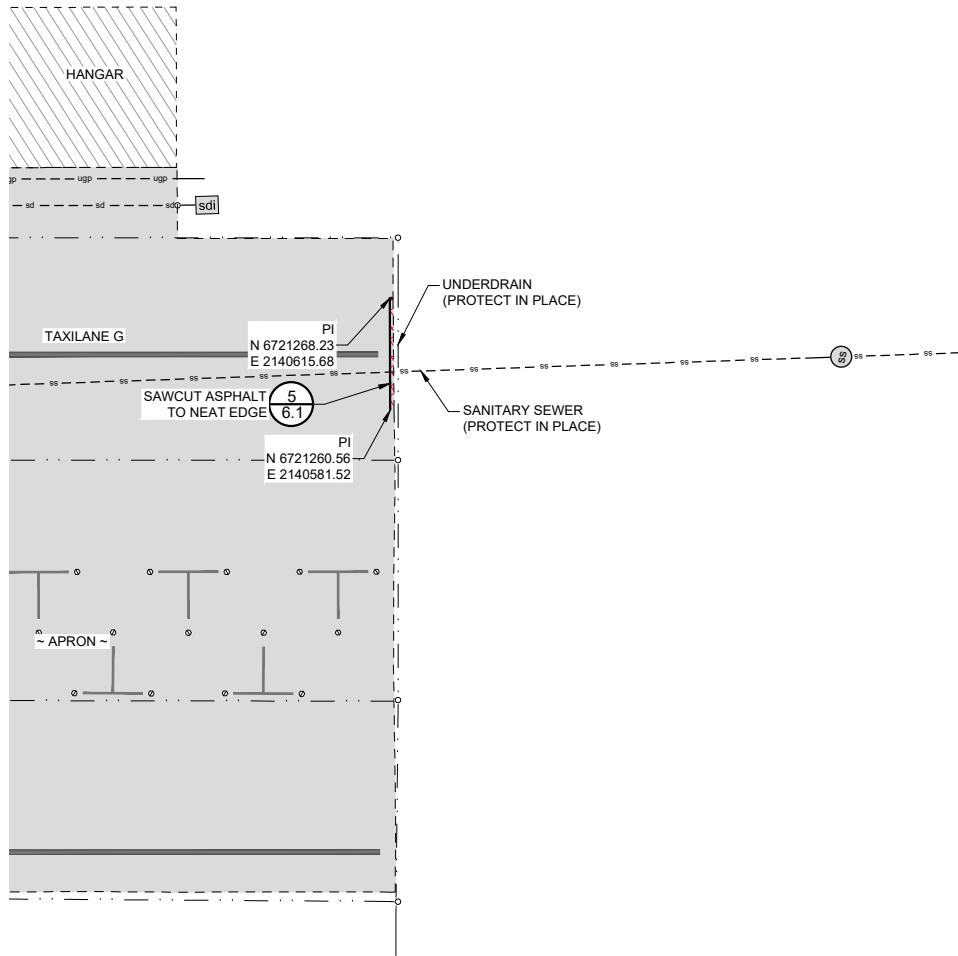
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REMOVAL  
PLAN

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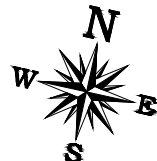
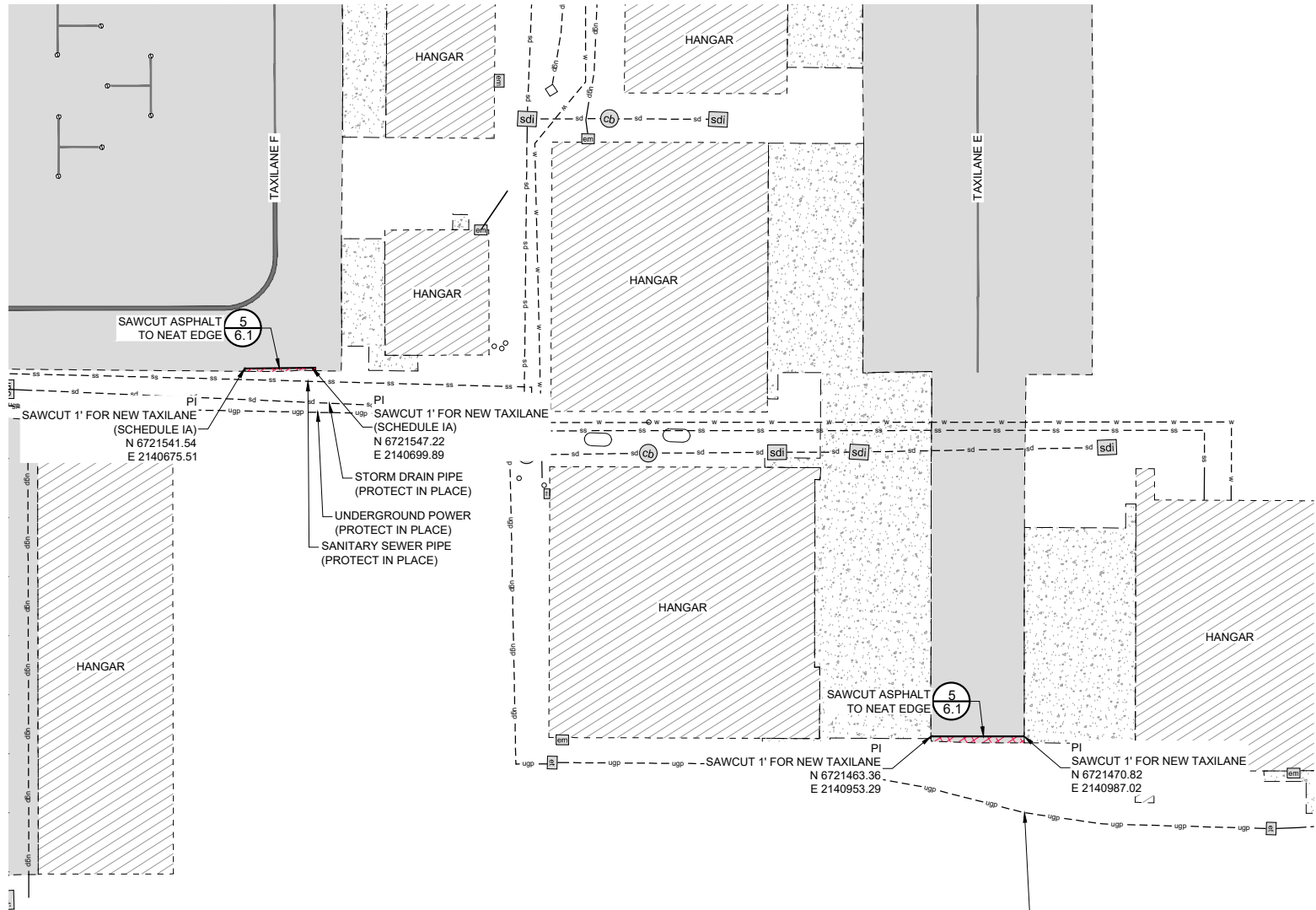
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SCALE IN FEET

### CAUTION - NOTICE TO CONTRACTOR

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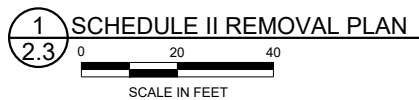
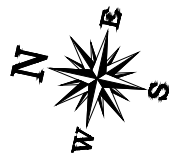
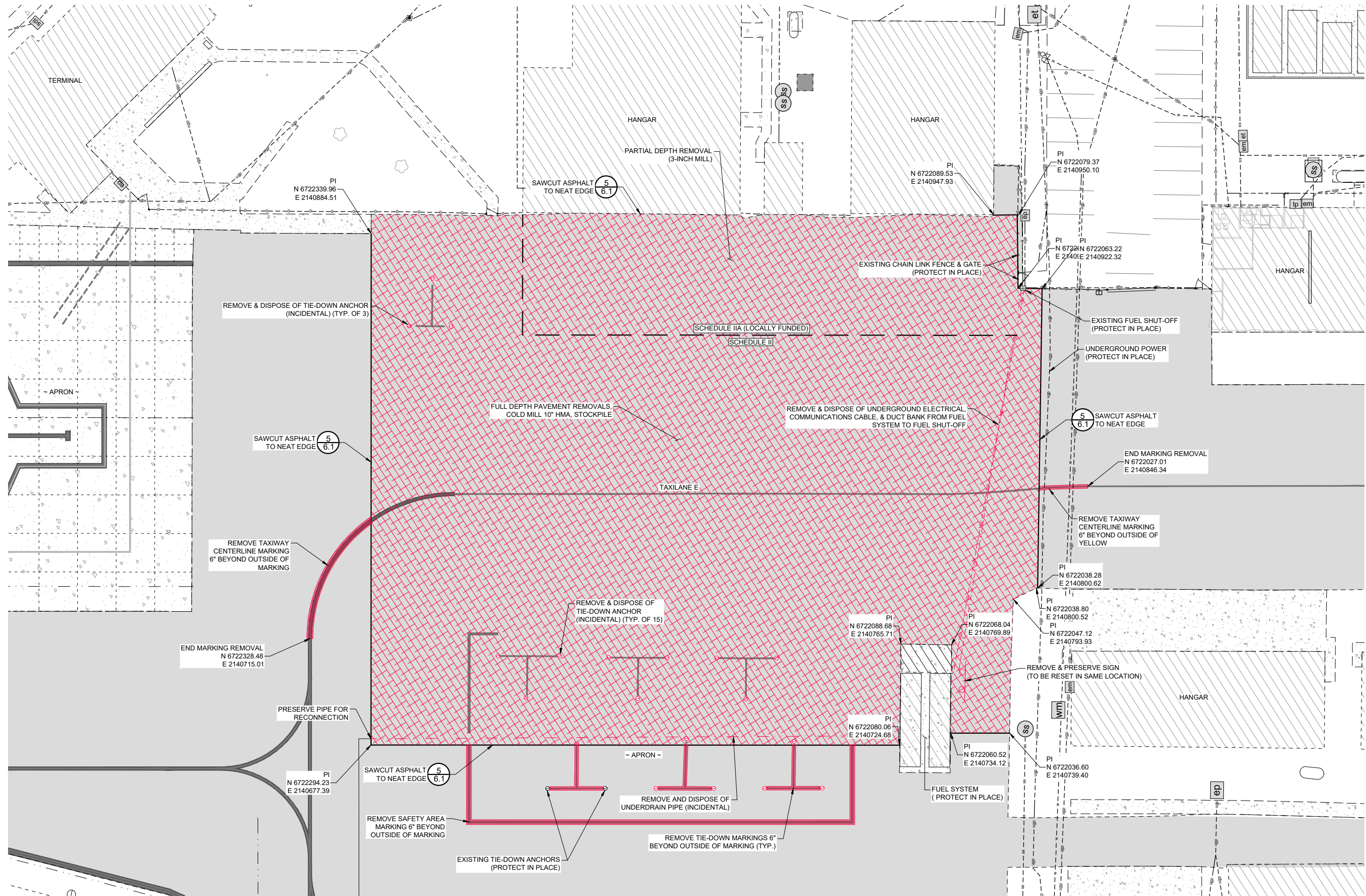
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SCHEDULE II REMOVAL PLAN

CAUTION - NOTICE TO CONTRACTOR

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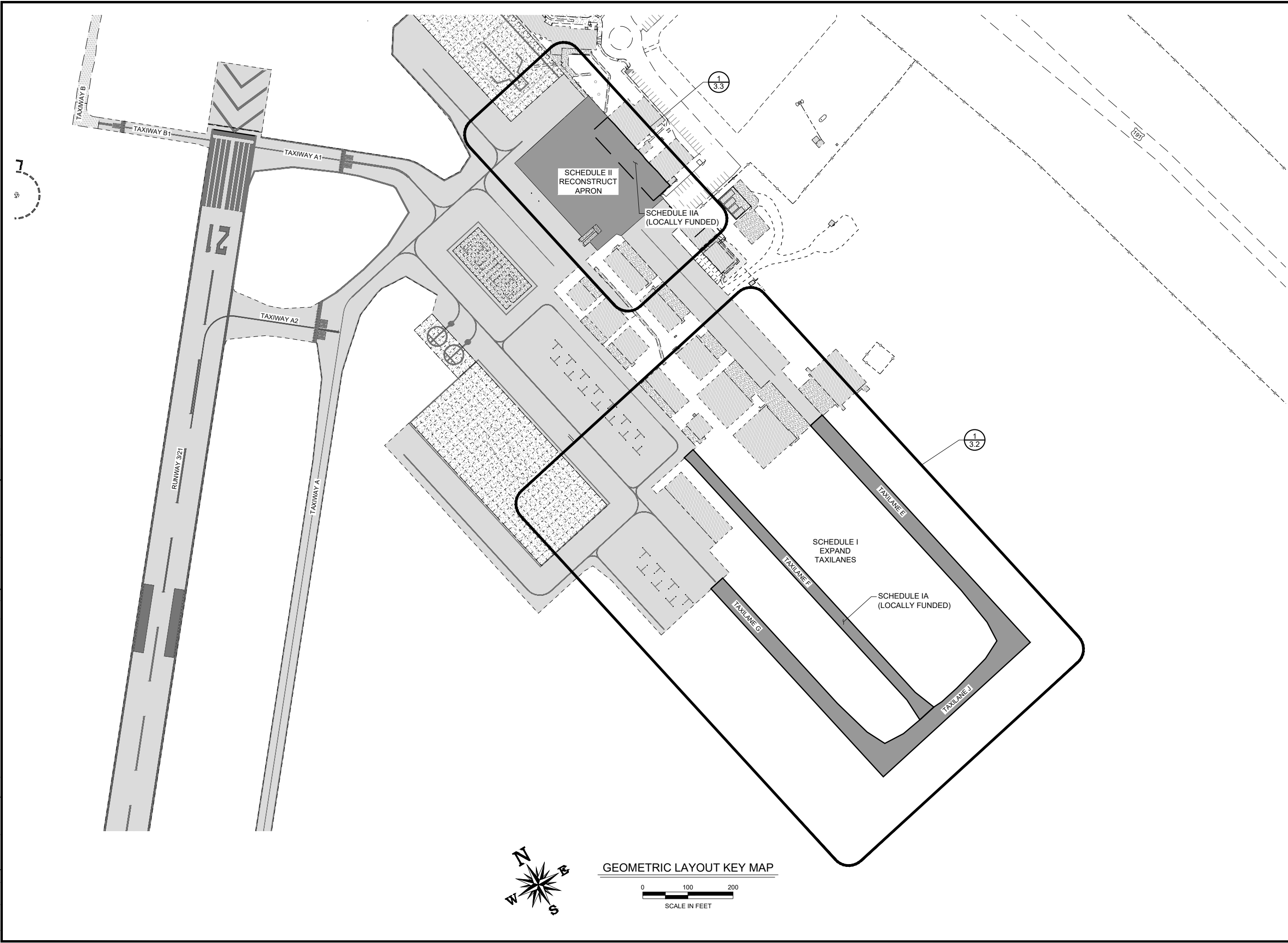
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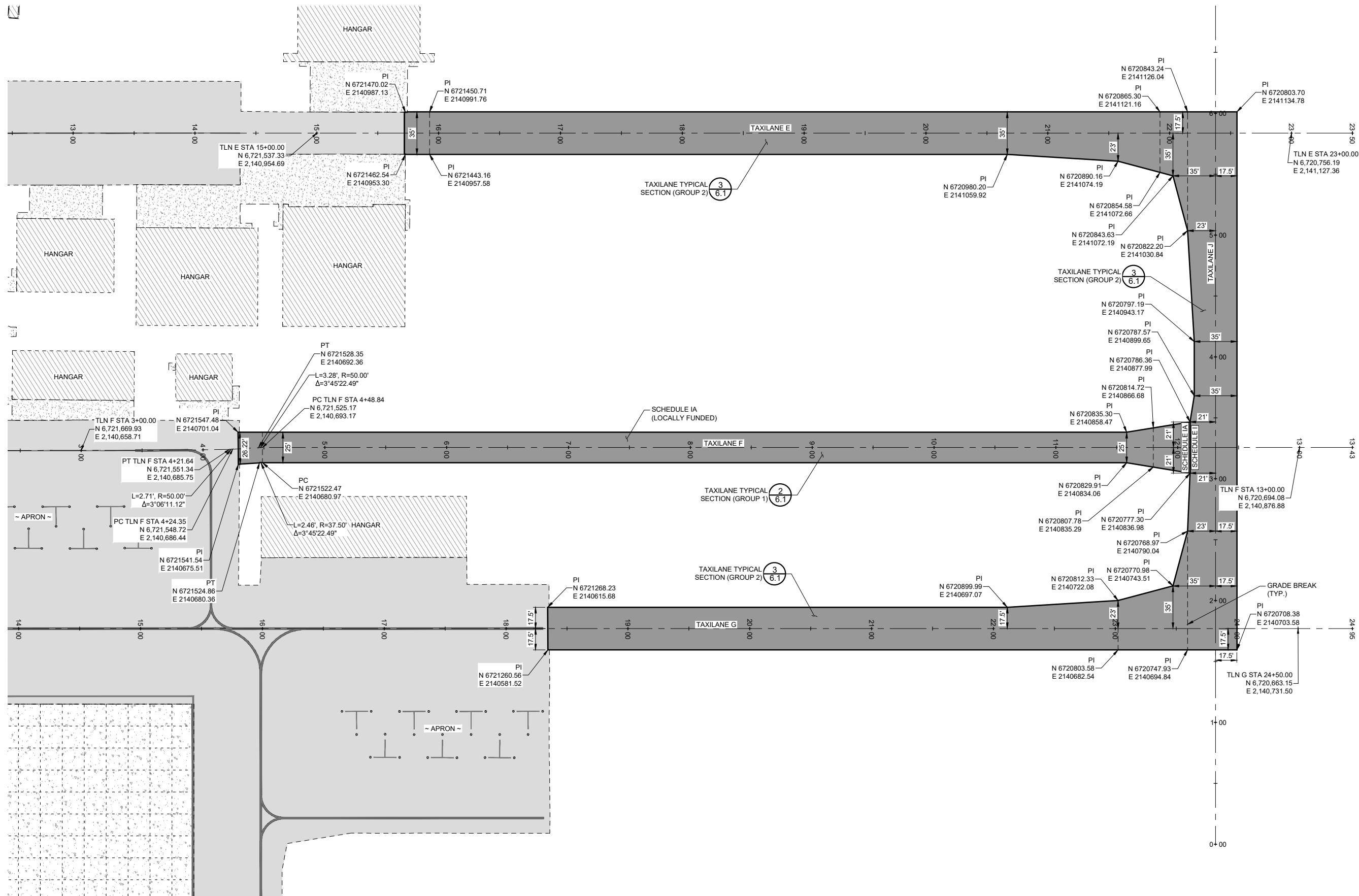
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GEOMETRIC  
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1 SCHEDULE I TAXILANES GEOMETRIC LAYOUT

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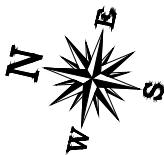
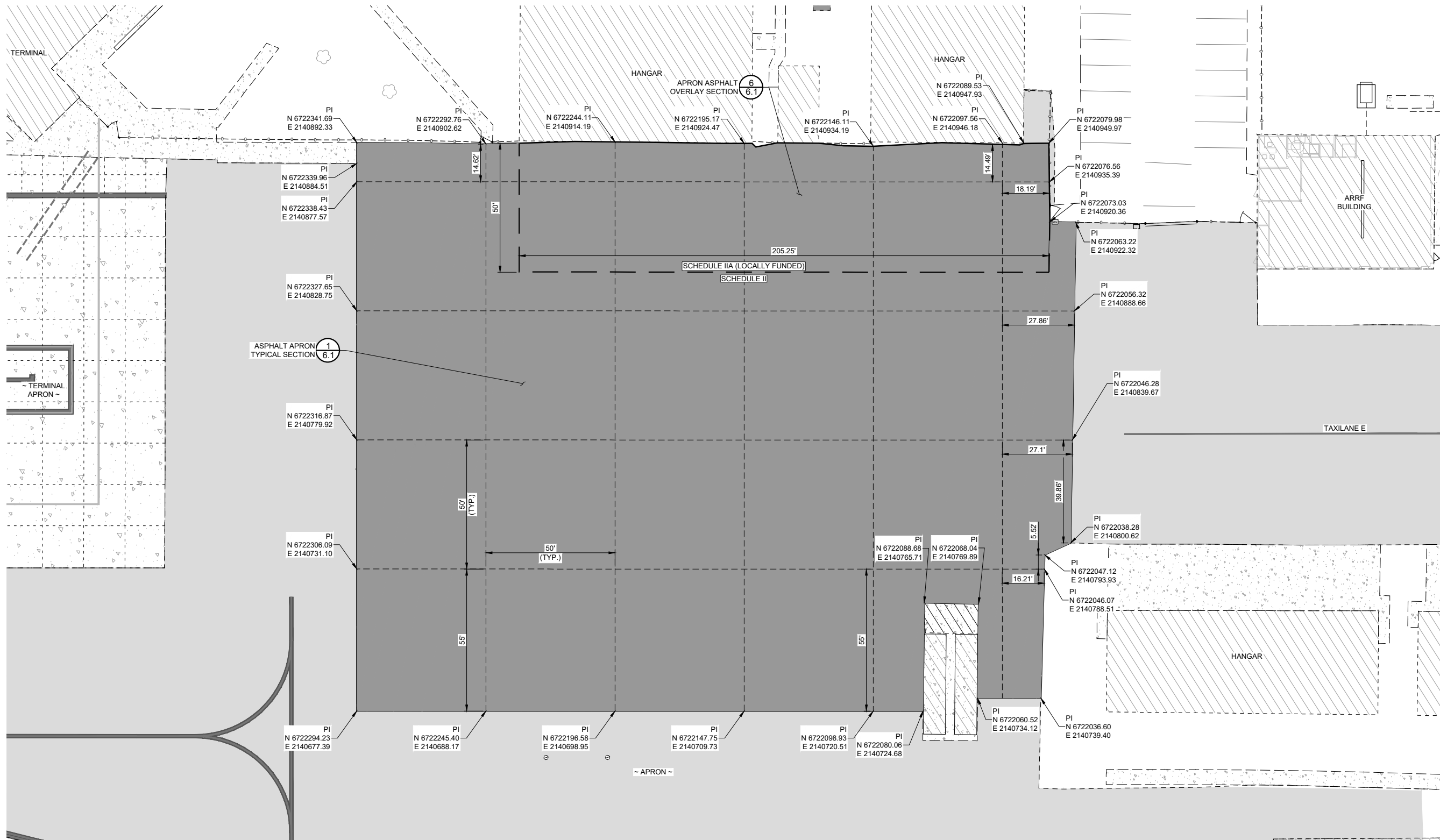
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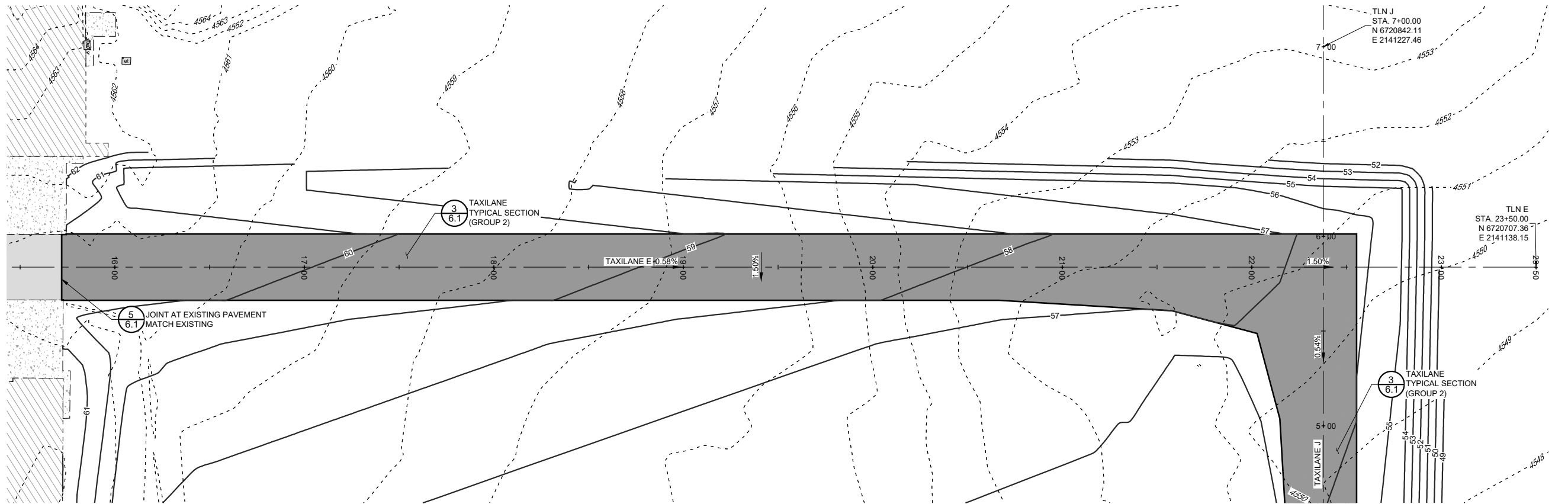
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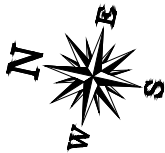
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GEOMETRIC  
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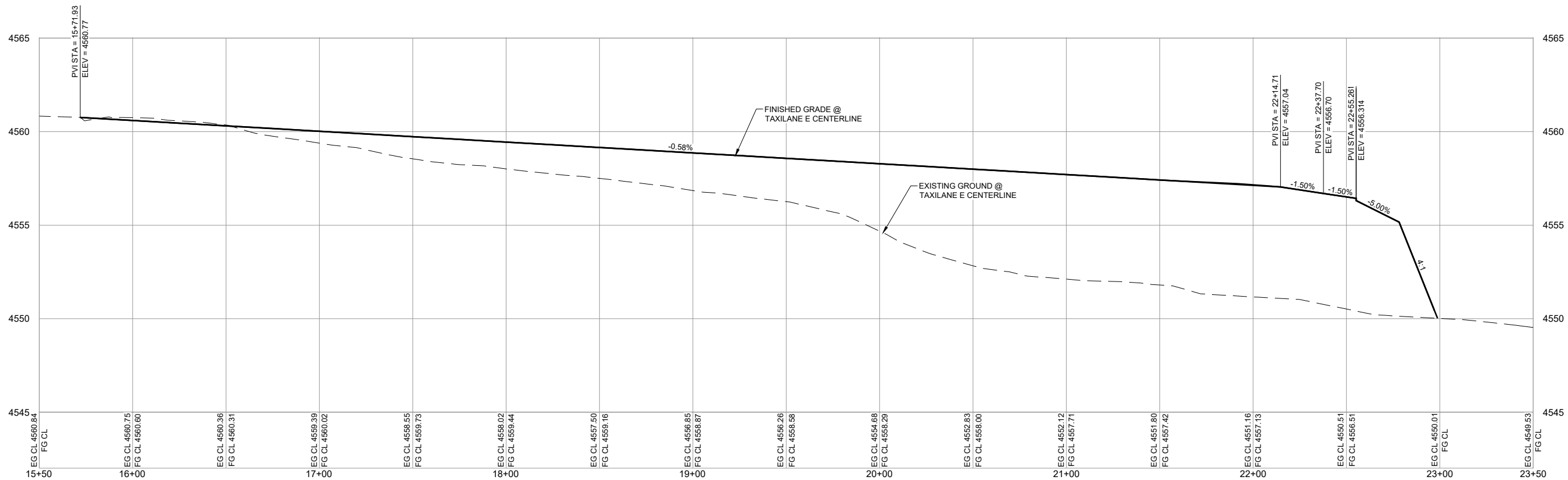
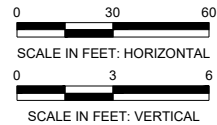
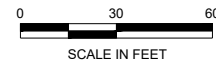
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- NOTES:
1. SEE GEOMETRIC LAYOUT SHEETS FOR LAYOUT.
  2. SEE STORM DRAIN PLAN & PROFILE SHEETS FOR CULVERT & STORM DRAIN DESIGN.
  3. SEE UNDERDRAIN PLAN SHEETS FOR LAYOUT.

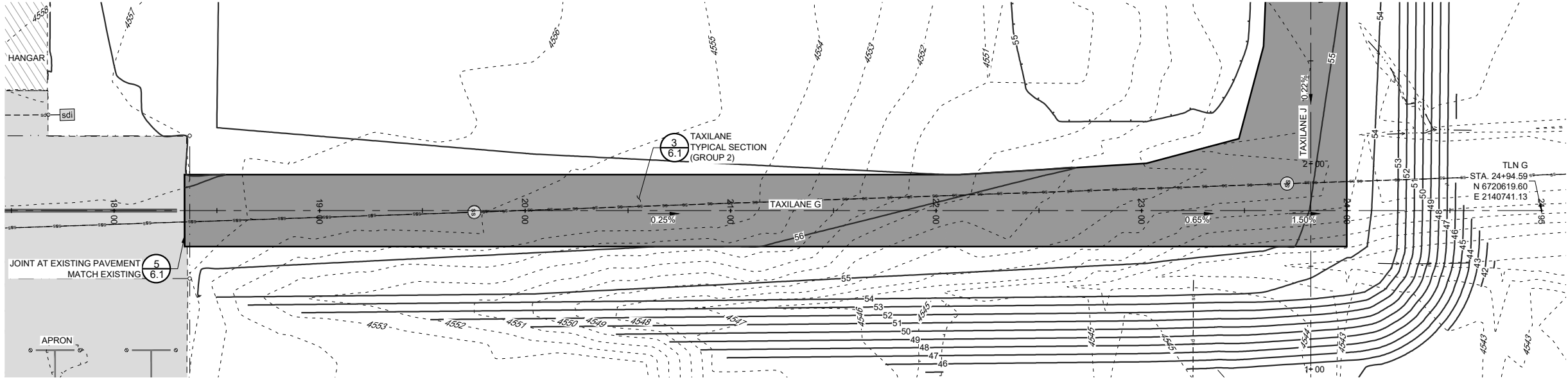


TAXILANE E PLAN (SCHEDULE I)

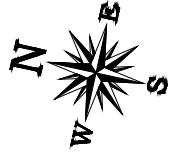


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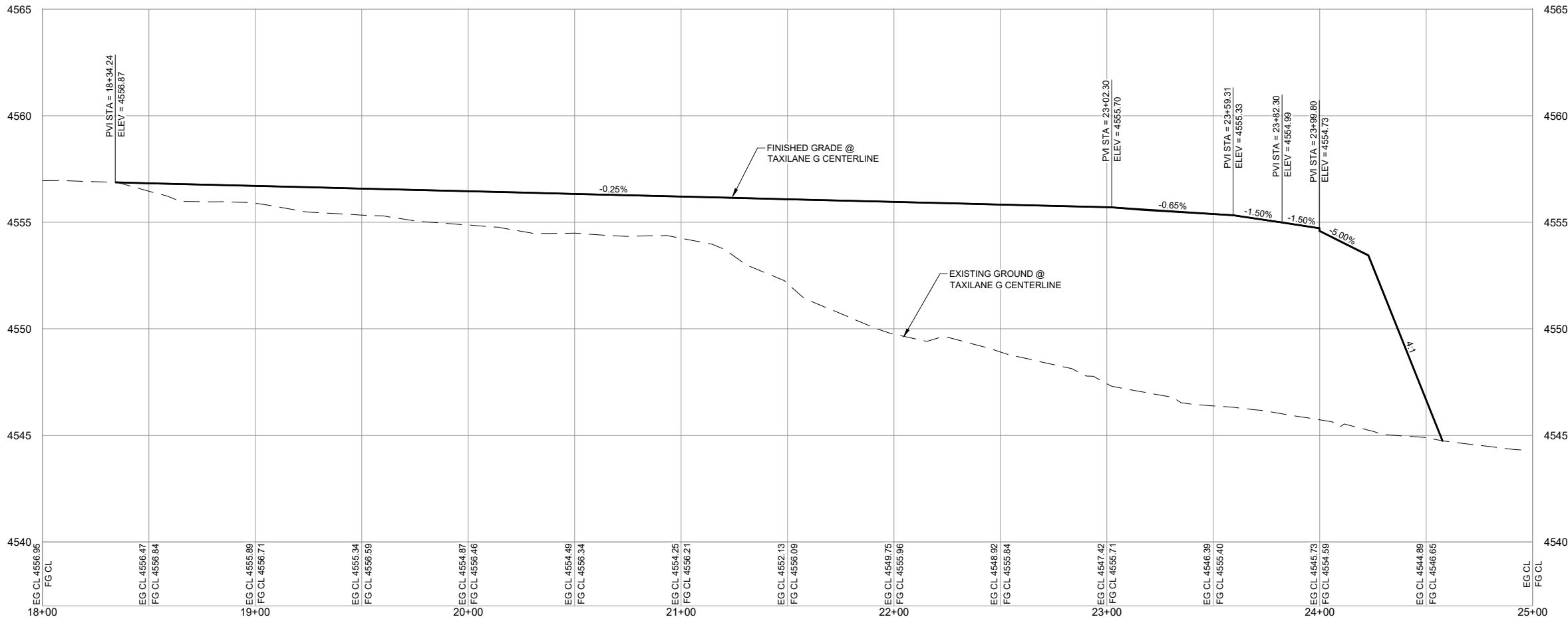
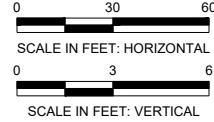
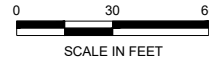
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- NOTES:
1. SEE GEOMETRIC LAYOUT SHEETS FOR LAYOUT.
  2. SEE STORM DRAIN PLAN & PROFILE SHEETS FOR CULVERT & STORM DRAIN DESIGN.
  3. SEE UNDERDRAIN PLAN SHEETS FOR LAYOUT.



## TAXILANE G PLAN (SCHEDULE I)



### TAXILANE G PROFILE (SCHEDULE I)

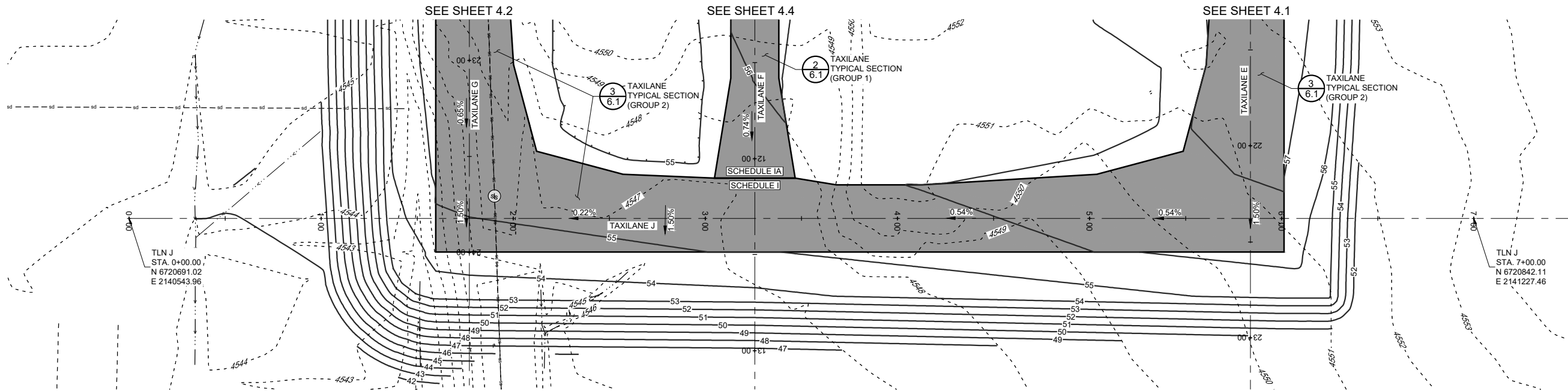
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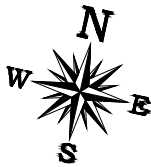
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Approved: DJH

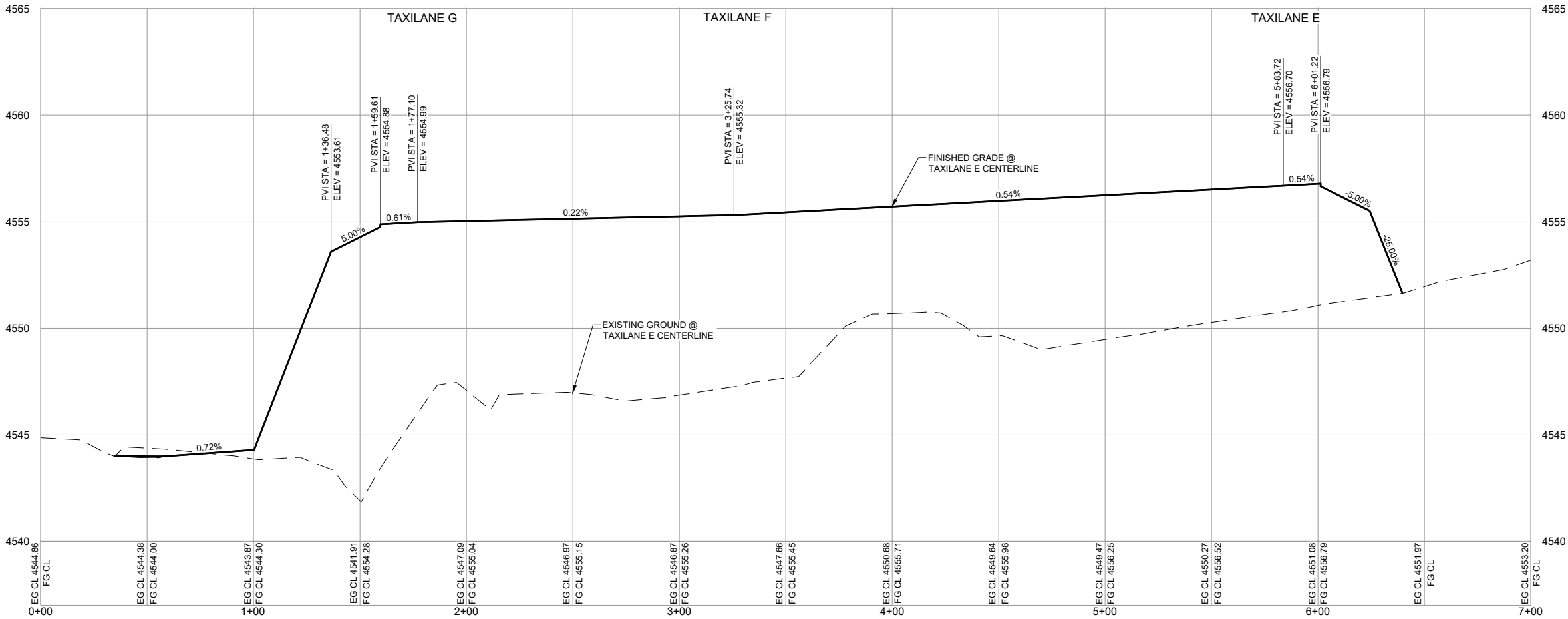
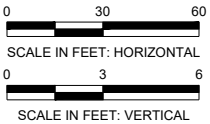
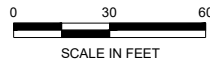
## PLAN & PROFILE



- NOTES:
- SEE GEOMETRIC LAYOUT SHEETS FOR LAYOUT.
  - SEE STORM DRAIN PLAN & PROFILE SHEETS FOR CULVERT & STORM DRAIN DESIGN.
  - SEE UNDERDRAIN PLAN SHEETS FOR LAYOUT.



TAXILANE J PLAN (SCHEDULE I)



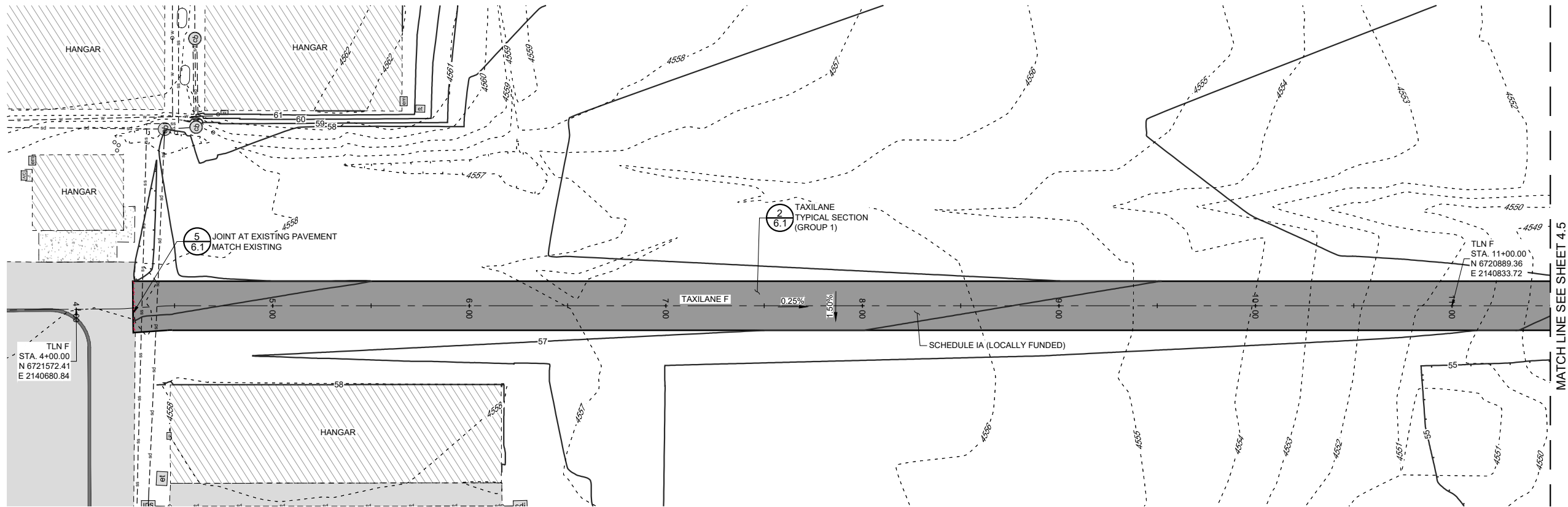
TAXILANE J PROFILE (SCHEDULE I)

| No. | Revision | Date | By |
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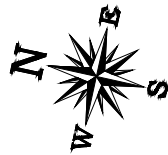
ACI No. 237004  
Date: 10/2024  
File Name: 237004104T

Drawn: JEF  
Checked: EFR  
Approved: DJH

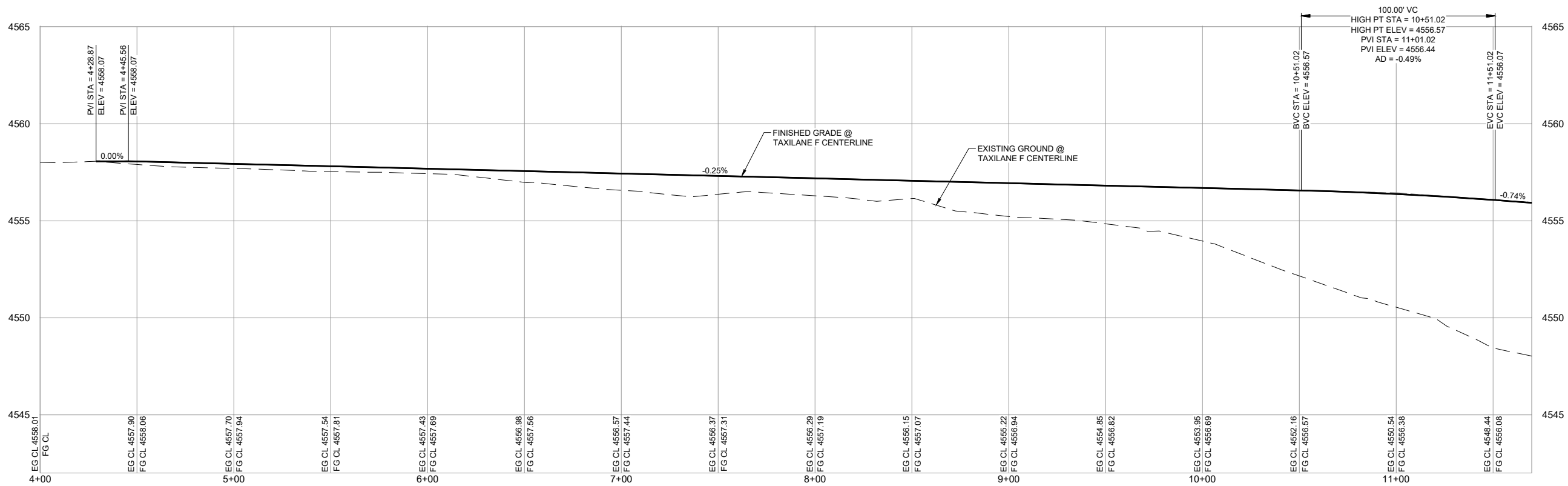
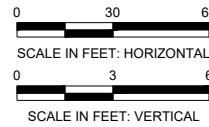
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- NOTES:
1. SEE GEOMETRIC LAYOUT SHEETS FOR LAYOUT.
  2. SEE STORM DRAIN PLAN & PROFILE SHEETS FOR CULVERT & STORM DRAIN DESIGN.
  3. SEE UNDERDRAIN PLAN SHEETS FOR LAYOUT.



TAXILANE F PLAN (SCHEDULE IA)



TAXILANE F PROFILE (SCHEDULE IA)

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& RECONSTRUCT APRON  
AIP No. 3-49-0020-046-2023

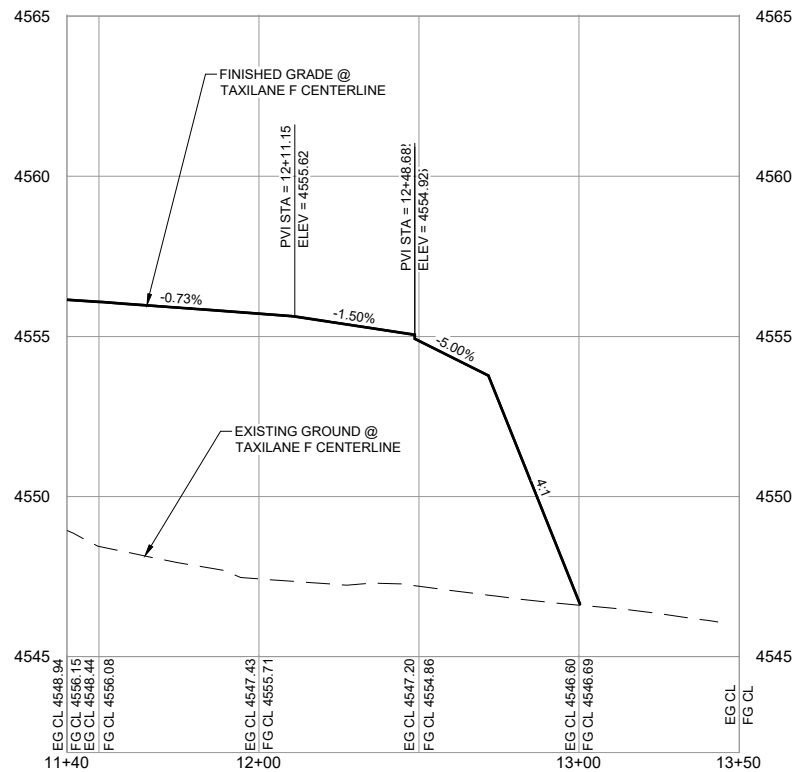
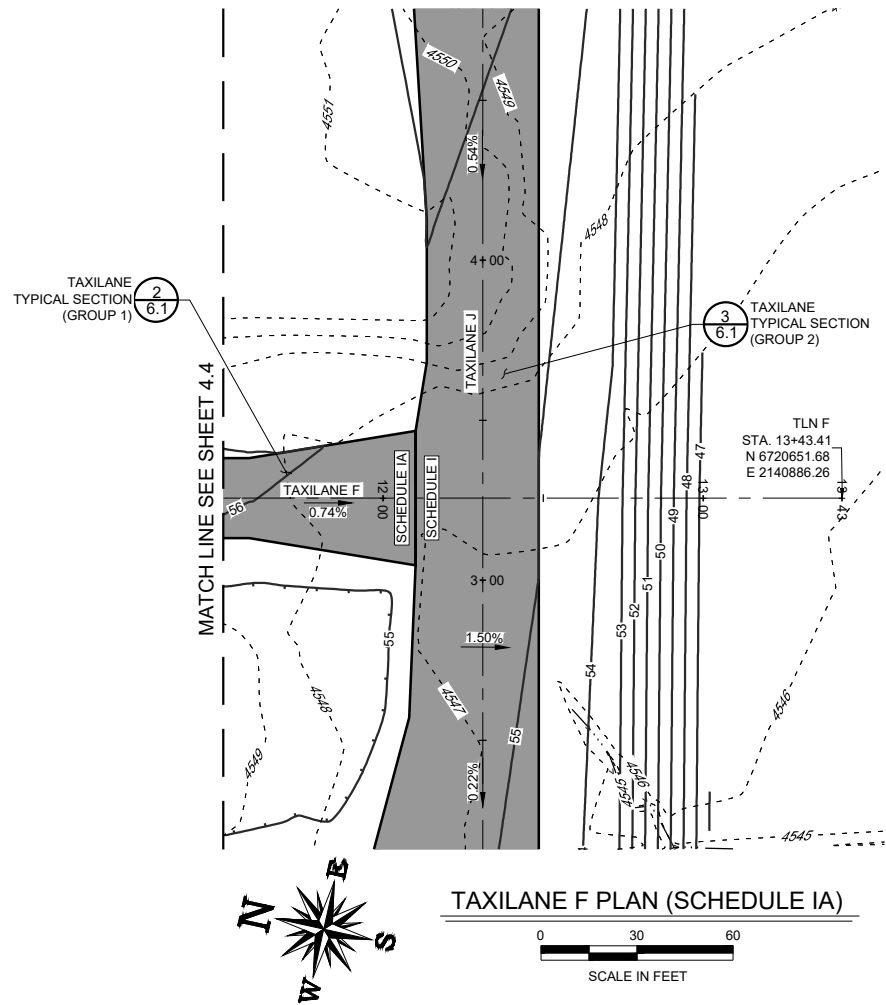
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ACI No. 237004  
Date: 10/2024  
File Name: 237004104T

Drawn: JEF  
Checked: EFR  
Approved: DJH

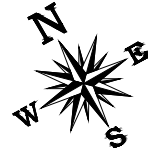
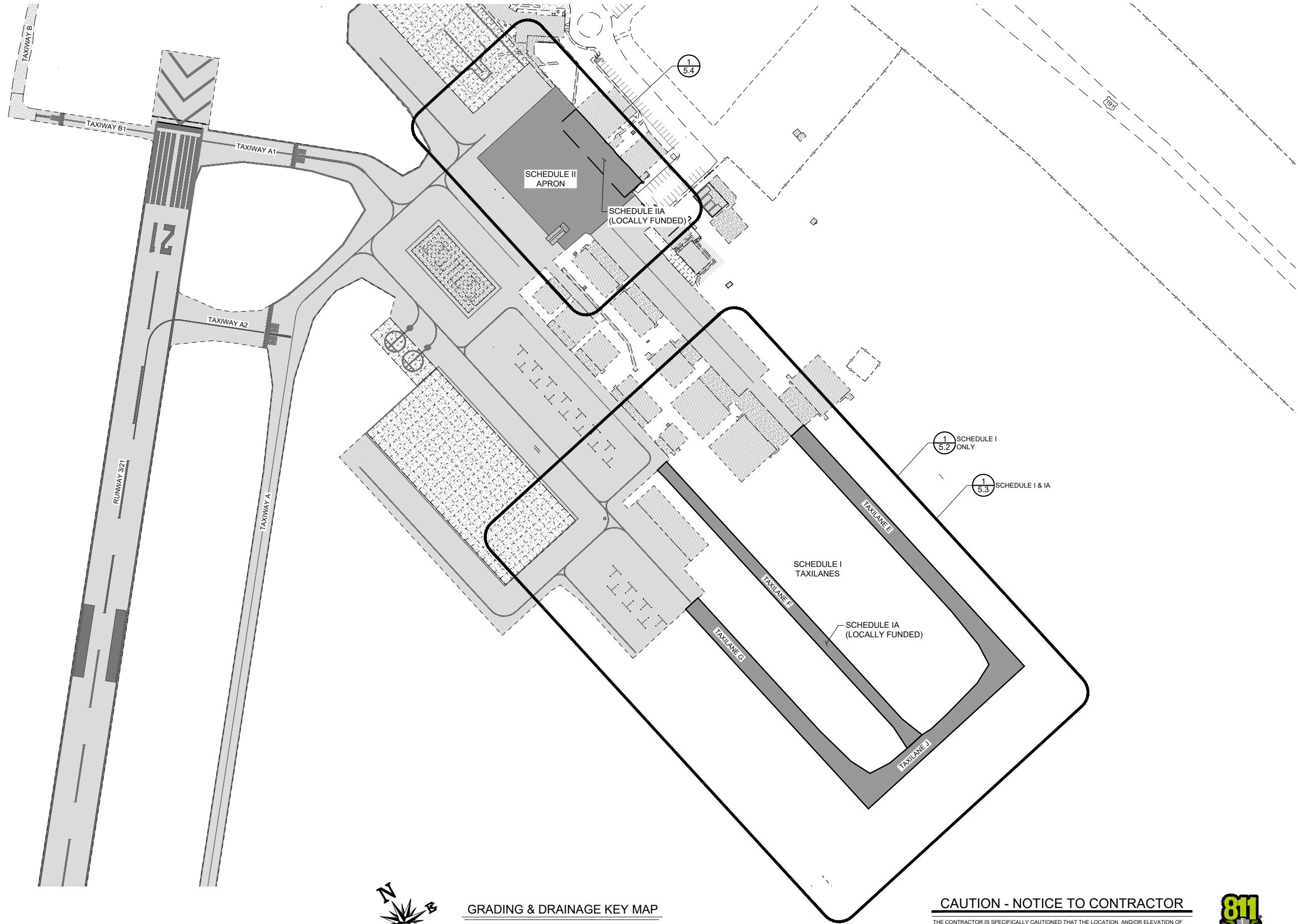
PLAN &  
PROFILE

Sheet: 4.4



| No. | Revision | Date | By |
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#### GRADING & DRAINAGE KEY MAP



#### CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION, AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS IN THE FIELD. THE INFORMATION IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR AND IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL UTAH 811 (1-800-662-4111) AT LEAST 48 HOURS BEFORE ANY EXCAVATION / EMBANKMENT TO REQUEST FIELD LOCATION OF UTILITIES.



Know what's below.  
Call before you dig.

CANYONLANDS REGIONAL AIRPORT  
MOAB, GRAND COUNTY, UTAH  
EXPAND TAXILANES E, F, & G,  
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AIP No. 3-49-0020-046-2023

| No. | Revision | Date | By |
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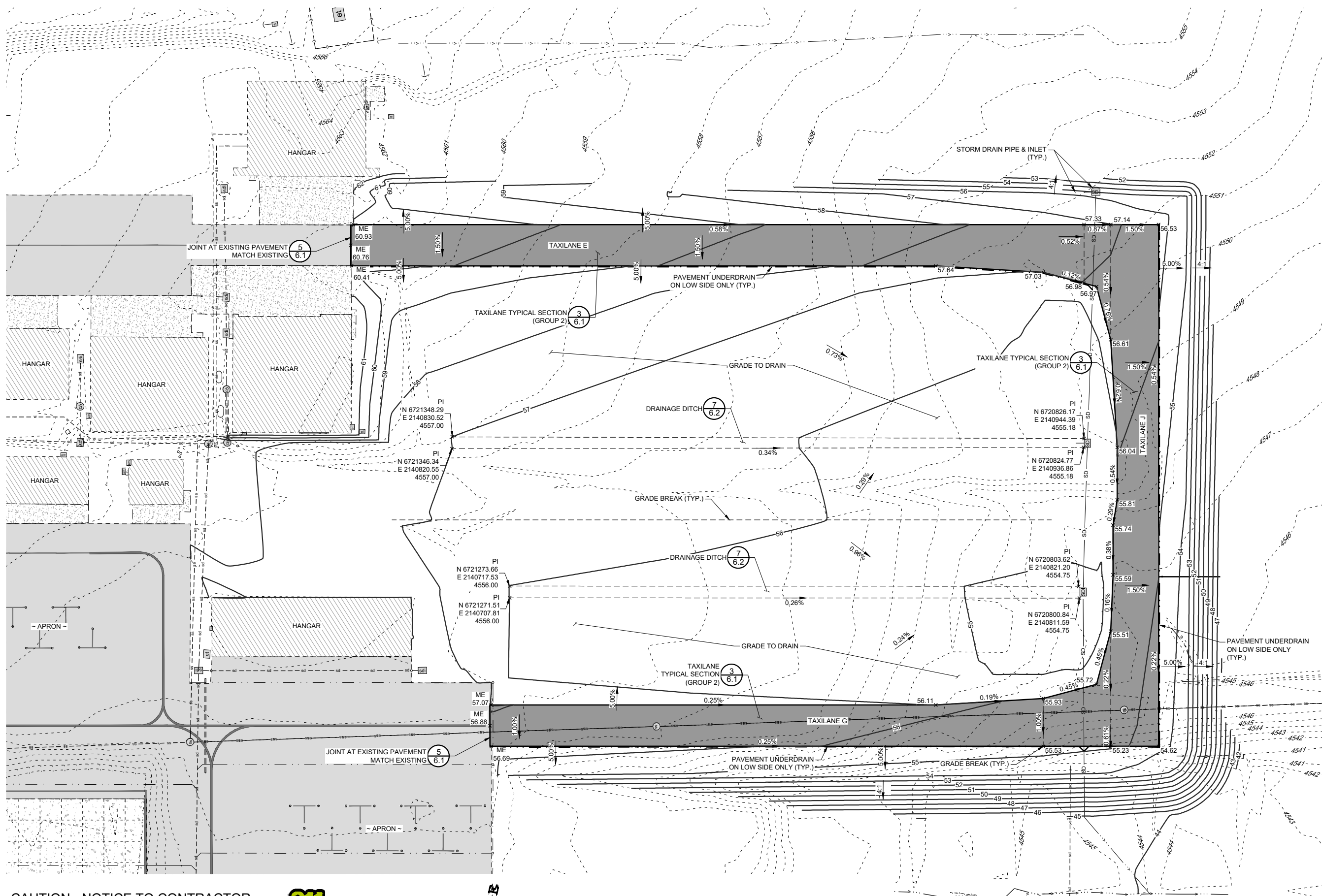
ACI No. 237004  
Date: 10/2024  
File Name: 237004105T

Drawn: JEF  
Checked: EFR  
Approved: DJH

GRADING &  
DRAINAGE  
PLAN

Sheet: 5.1

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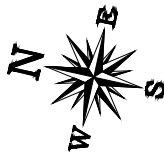


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Know what's below.  
Call before you dig.



### 1 SCHEDULE I TAXILANES GRADING & DRAINAGE PLAN

5.2

0 40 80  
SCALE IN FEET

#### NOTES:

1. SEE GEOMETRIC LAYOUT SHEETS FOR LAYOUT.
2. SEE STORM DRAIN PLAN & PROFILE SHEETS FOR CULVERT & STORM DRAIN DESIGN.
3. SEE UNDERDRAIN PLAN SHEETS FOR LAYOUT.
4. SEE LIGHTING & SIGN PLAN FOR CONCRETE DUCT BANK LAYOUT.

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AIP No. 3-49-0020-046-2023

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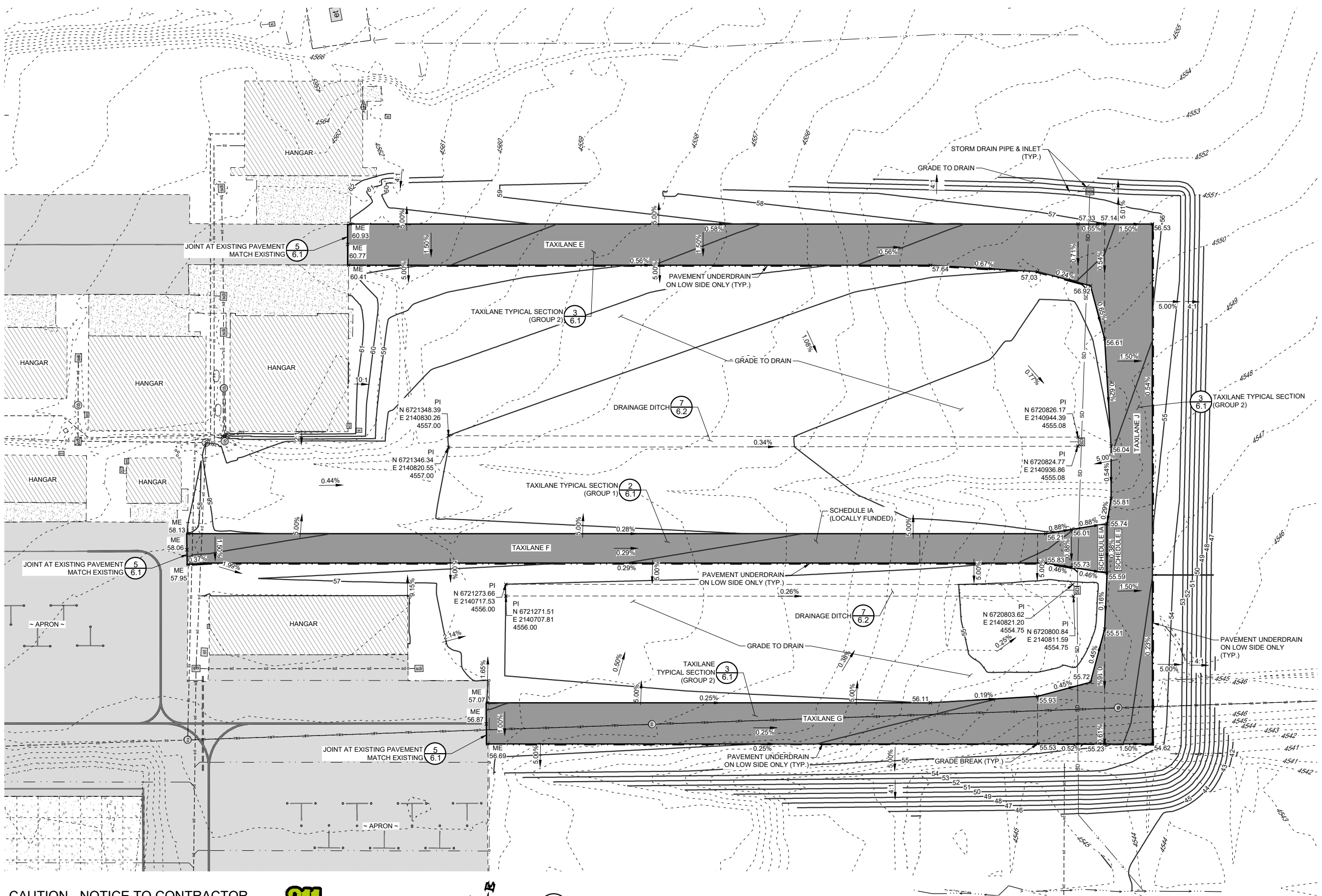
ACI No. 237004  
Date: 10/2024  
File Name: 237004105T

Drawn: JEF  
Checked: EFR  
Approved: DJH

GRADING &  
DRAINAGE  
PLAN

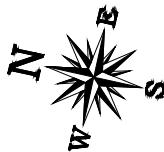
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### 1 SCHEDULE I & IA TAXILANES GRADING & DRAINAGE PLAN

5.3



#### NOTES:

- SEE GEOMETRIC LAYOUT SHEETS FOR LAYOUT.
- SEE STORM DRAIN PLAN & PROFILE SHEETS FOR CULVERT & STORM DRAIN DESIGN.
- SEE UNDERDRAIN PLAN SHEETS FOR LAYOUT.
- SEE LIGHTING & SIGN PLAN FOR CONCRETE DUCT BANK LAYOUT.

CANYONLANDS REGIONAL AIRPORT  
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& RECONSTRUCT APRON  
AIP No. 3-49-0020-046-2023

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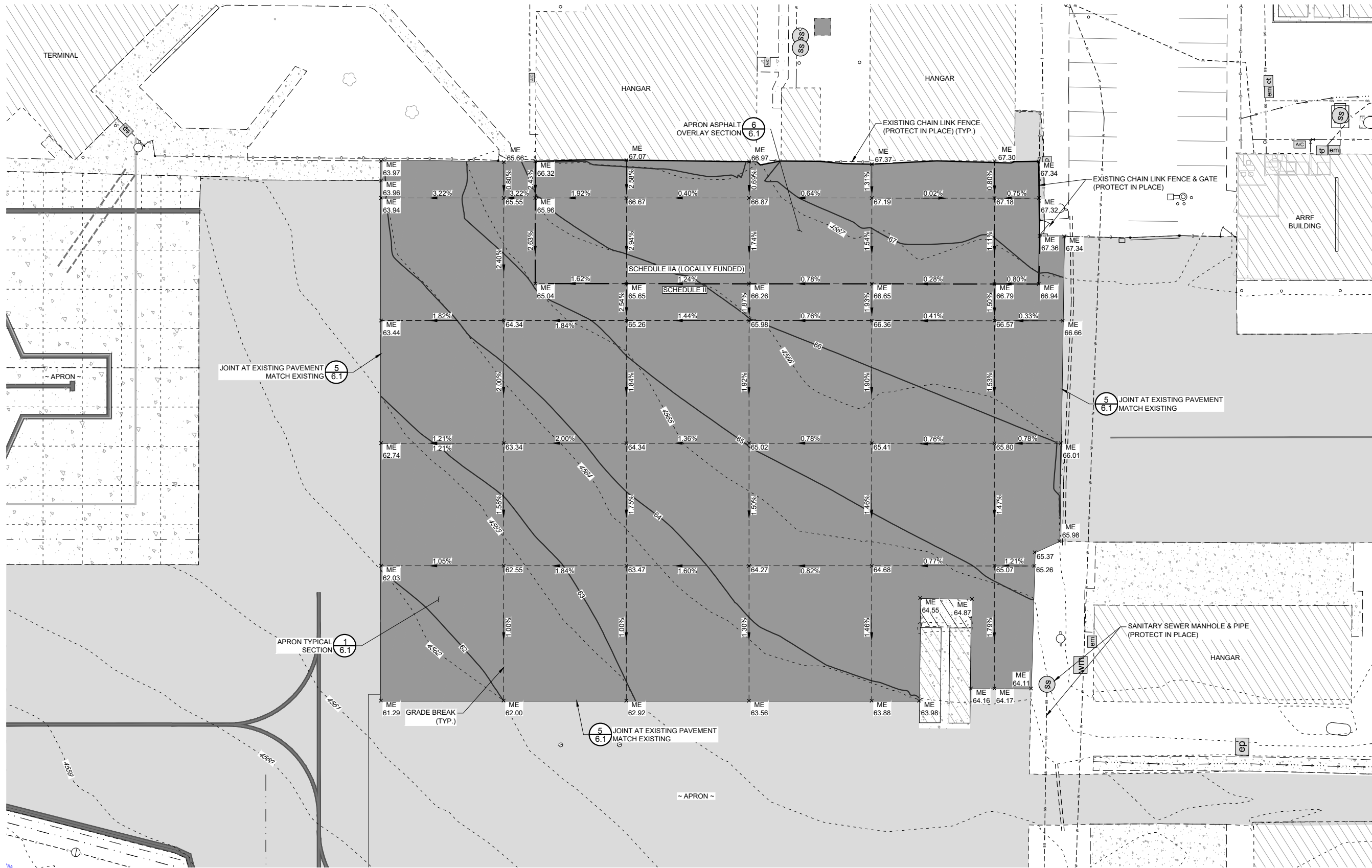
ACI No. 237004  
Date: 10/2024  
File Name: 237004105T

Drawn: JEF  
Checked: EFR  
Approved: DJH

GRADING &  
DRAINAGE  
PLAN

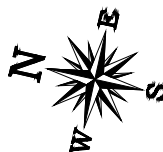
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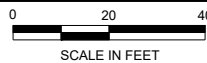


### CAUTION - NOTICE TO CONTRACTOR

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### 1 5.4 SCHEDULE II APRON GRADING & DRAINAGE PLAN



#### NOTES:

- SEE GEOMETRIC LAYOUT SHEETS FOR LAYOUT.
- SEE UNDERDRAIN PLAN SHEETS FOR LAYOUT.



CANYONLANDS REGIONAL AIRPORT  
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AIP No. 3-49-0020-046-2023

| No. | Revision | Date | By |
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ACI No. 237004  
Date: 10/2024  
File Name: 237004105T

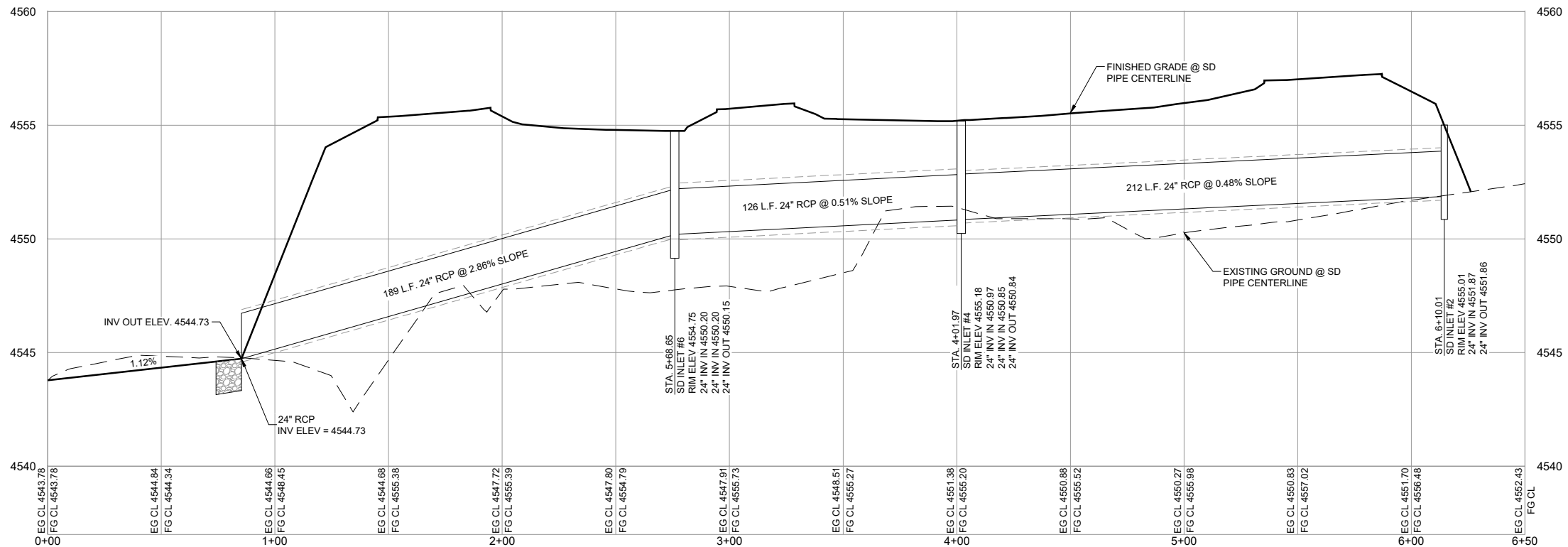
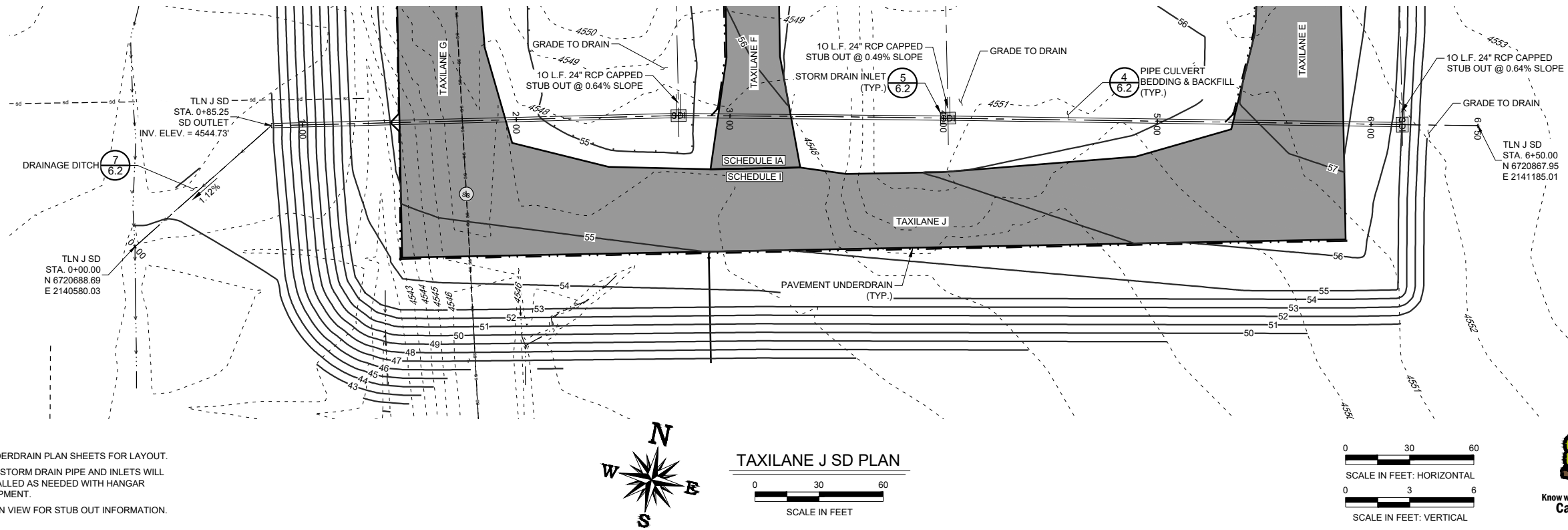
Drawn: JEF  
Checked: EFR  
Approved: DJH

GRADING &  
DRAINAGE  
PLAN

Sheet: 5.4

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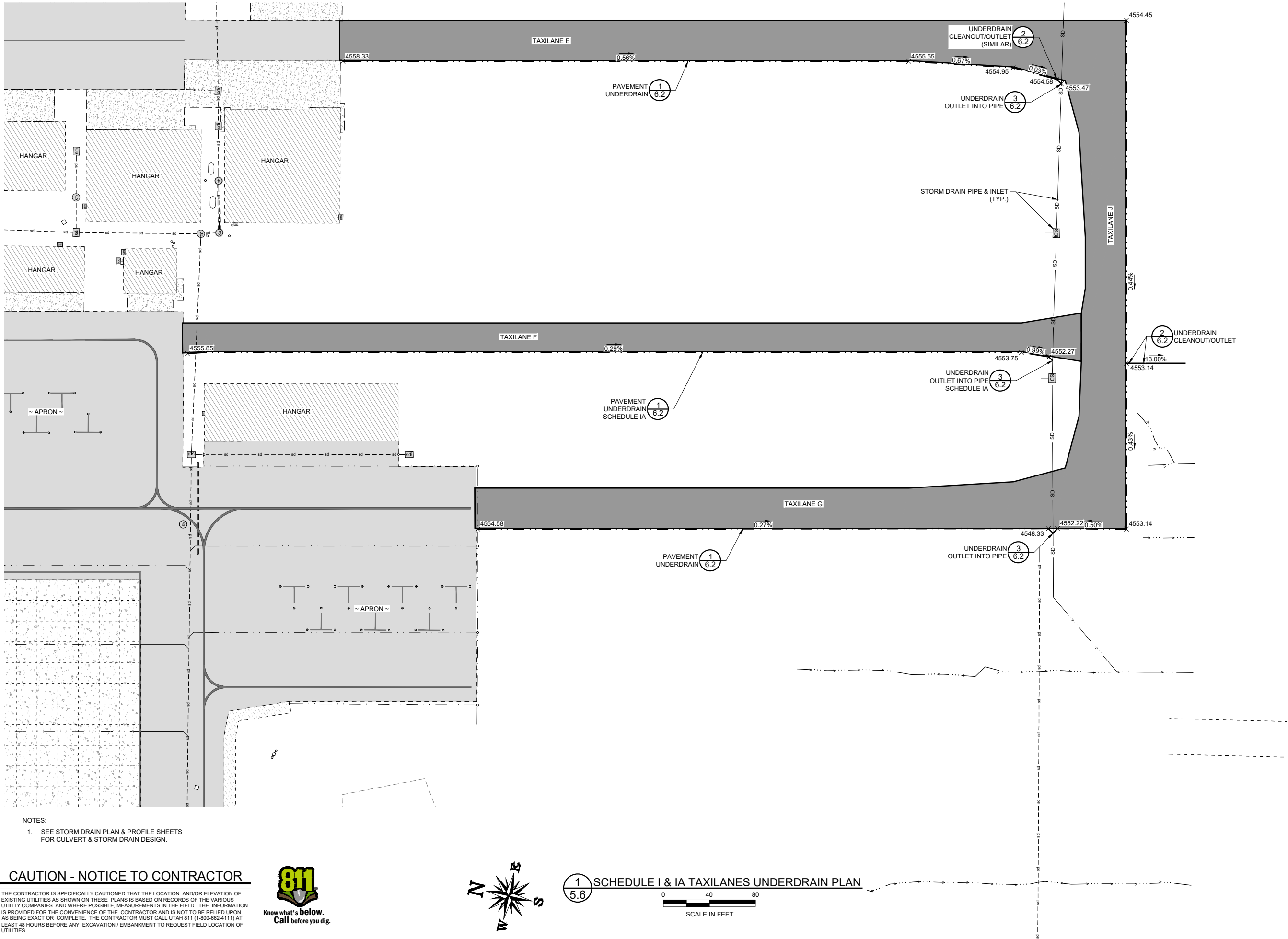
- NOTES:
1. SEE UNDERDRAIN PLAN SHEETS FOR LAYOUT.
  2. FUTURE STORM DRAIN PIPE AND INLETS WILL BE INSTALLED AS NEEDED WITH HANGAR DEVELOPMENT.
  3. SEE PLAN VIEW FOR STUB OUT INFORMATION.



TAXILANE J SD PROFILE

| No. | Revision | Date | By |
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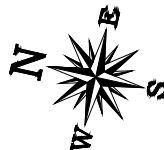


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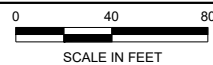
1. SEE STORM DRAIN PLAN & PROFILE SHEETS FOR CULVERT & STORM DRAIN DESIGN.

**CAUTION - NOTICE TO CONTRACTOR**

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**SCHEDULE I & IA TAXILANES UNDERDRAIN PLAN**



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EXPAND TAXILANES E, F, & G,  
& RECONSTRUCT APRON  
AIP No. 3-49-0020-046-2023

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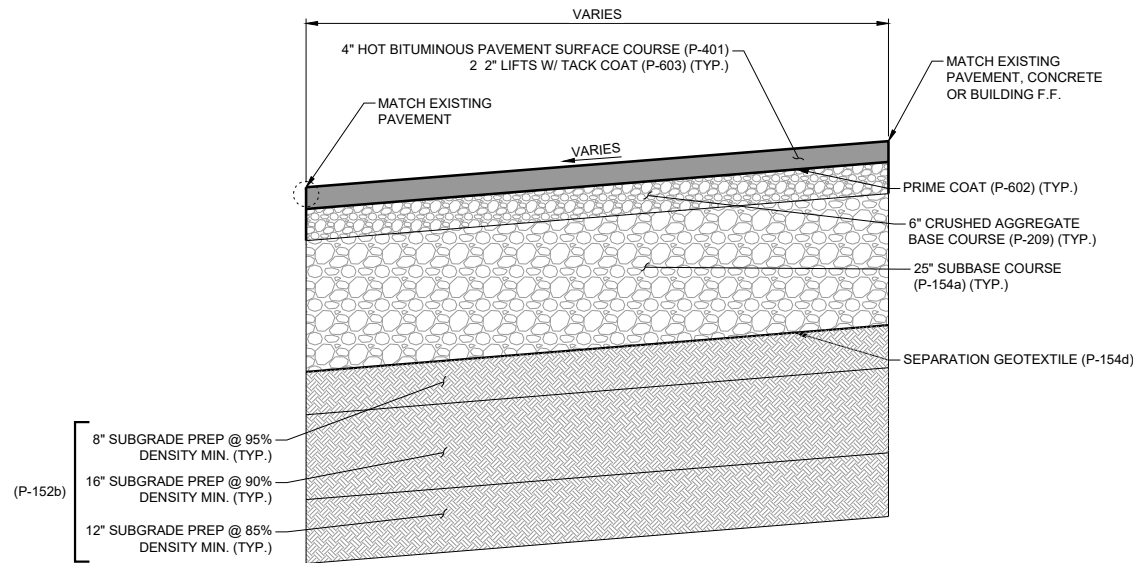
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Date: 10/2024  
File Name: 237004105TUD

Drawn: JEF  
Checked: EFR  
Approved: DJH

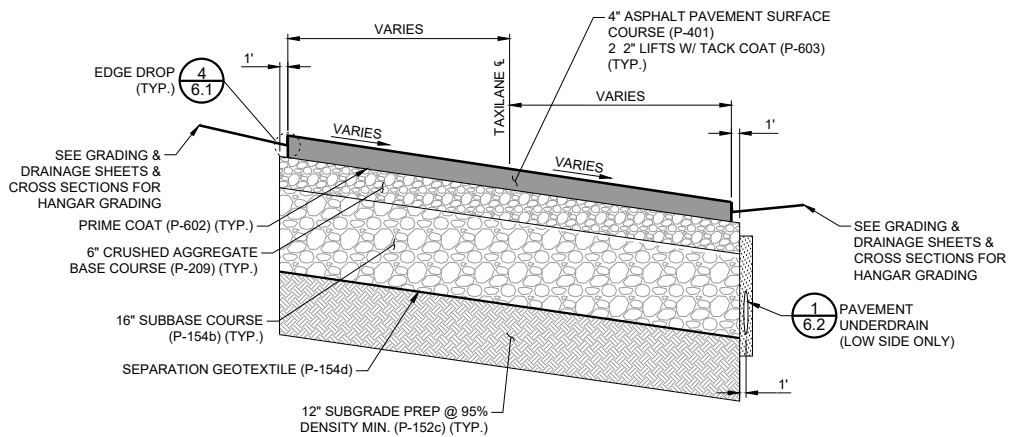
**UNDERDRAIN  
PLAN**

Sheet: **5.6**

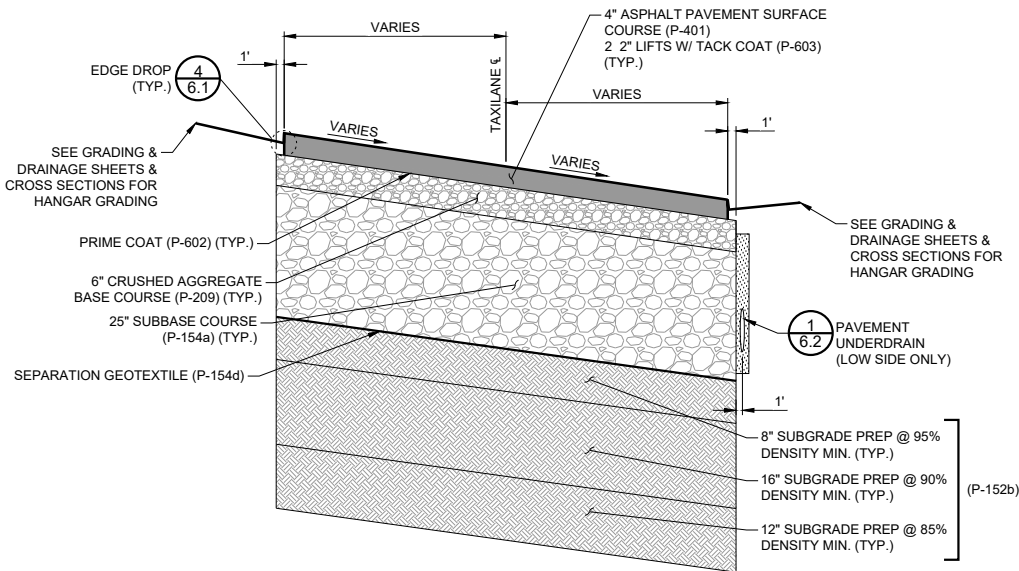
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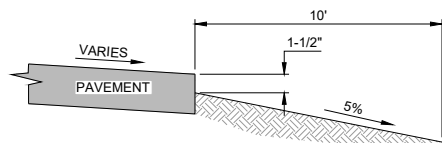
1 ASPHALT APRON TYPICAL SECTION  
6.1 NOT TO SCALE



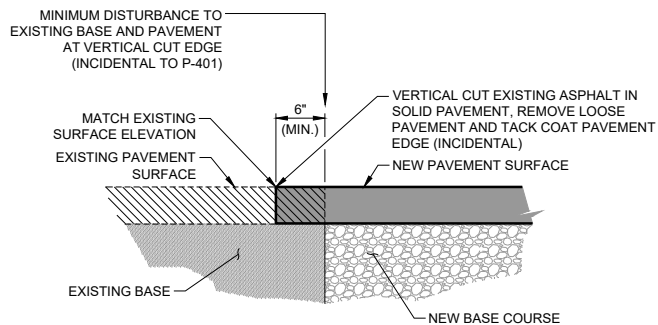
2 TAXILANE TYPICAL SECTION (GROUP 1)  
6.1 NOT TO SCALE  
SEE TAXILANE TYPICAL SECTION NOTE.



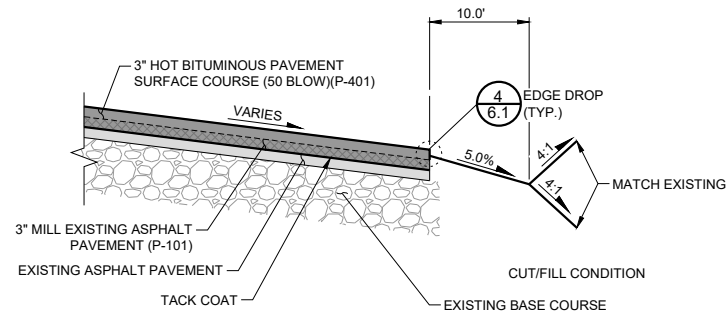
3 TAXILANE TYPICAL SECTION (GROUP 2)  
6.1 NOT TO SCALE  
SEE TAXILANE TYPICAL SECTION NOTE.



4 PAVEMENT EDGE DROP  
6.1 NOT TO SCALE



5 JOINT AT EXISTING PAVEMENT EDGE  
6.1 NOT TO SCALE



6 APRON ASPHALT OVERLAY SECTION  
6.1 NOT TO SCALE

| EARTHWORK QUANTITIES |            |             |
|----------------------|------------|-------------|
| SCHEDULES            | CUT (C.Y.) | FILL (C.Y.) |
| I (ONLY)             | 3,139      | 29176       |
| I & IA               | 4,004      | 28,284      |
| II                   | 10,863     | 0           |
| IIA                  | 109        | 0           |

SUBGRADE NOTE :  
MATERIAL IDENTIFIED AS WEATHERED SHALE ENCOUNTERED IN THE SUBGRADE (P-152b/P-152c) SHALL BE REMOVED AND DISPOSED OF. THIS MATERIAL SHALL BE REPLACED WITH IMPORTED FILL THAT IS NON-EXPANSIVE (P-152e).

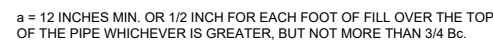
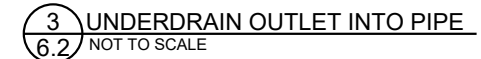
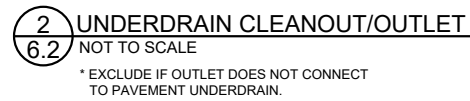
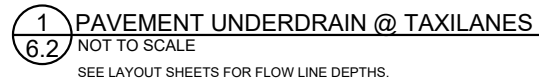
CANYONLANDS REGIONAL AIRPORT  
MOAB, GRAND COUNTY, UTAH  
EXPAND TAXILANES E, F, & G,  
& RECONSTRUCT APRON  
AIP No. 3-49-0020-046-2023

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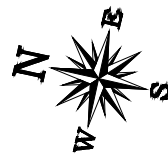
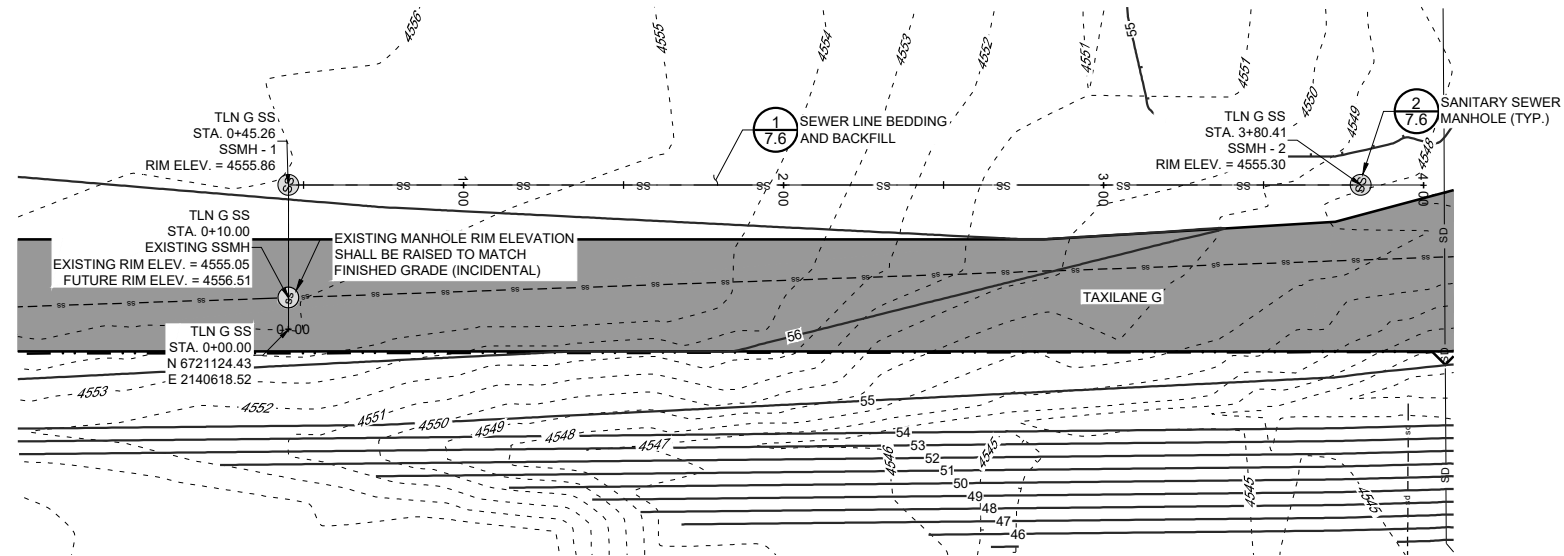
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File Name: 237004106T

Drawn: JEF  
Checked: EFR  
Approved: DJH

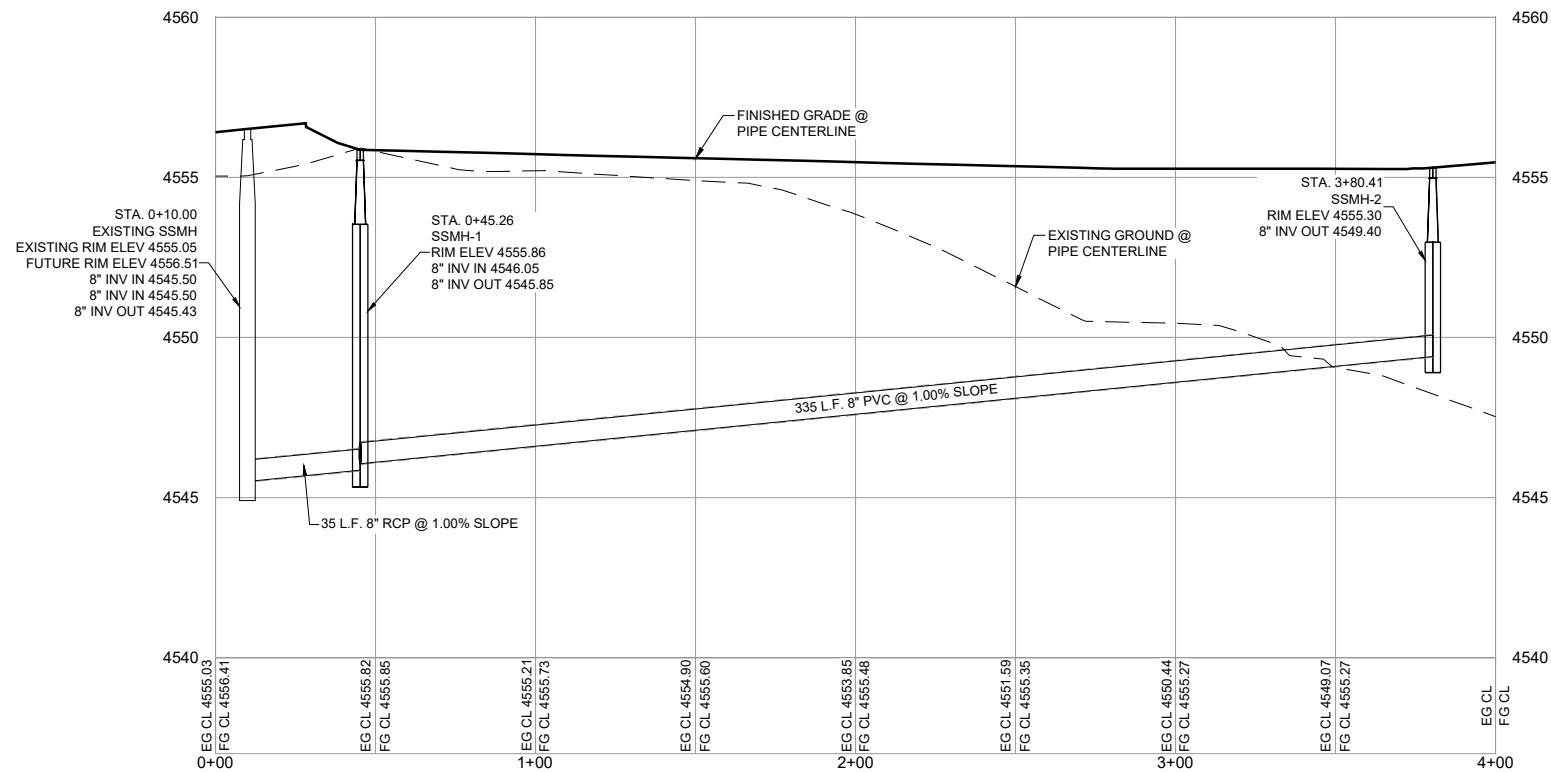
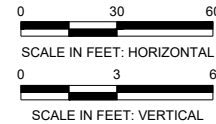
TYPICAL  
SECTIONS &  
DETAILS







TAXILANE G SANITARY SEWER PLAN



TAXILANE G SANITARY SEWER PROFILE

| No. | Revision | Date | By |
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ACI No. 237004  
Date: 10/2024  
File Name: 237004107T

Drawn: JEF  
Checked: EFR  
Approved: DJH

UTILITIES

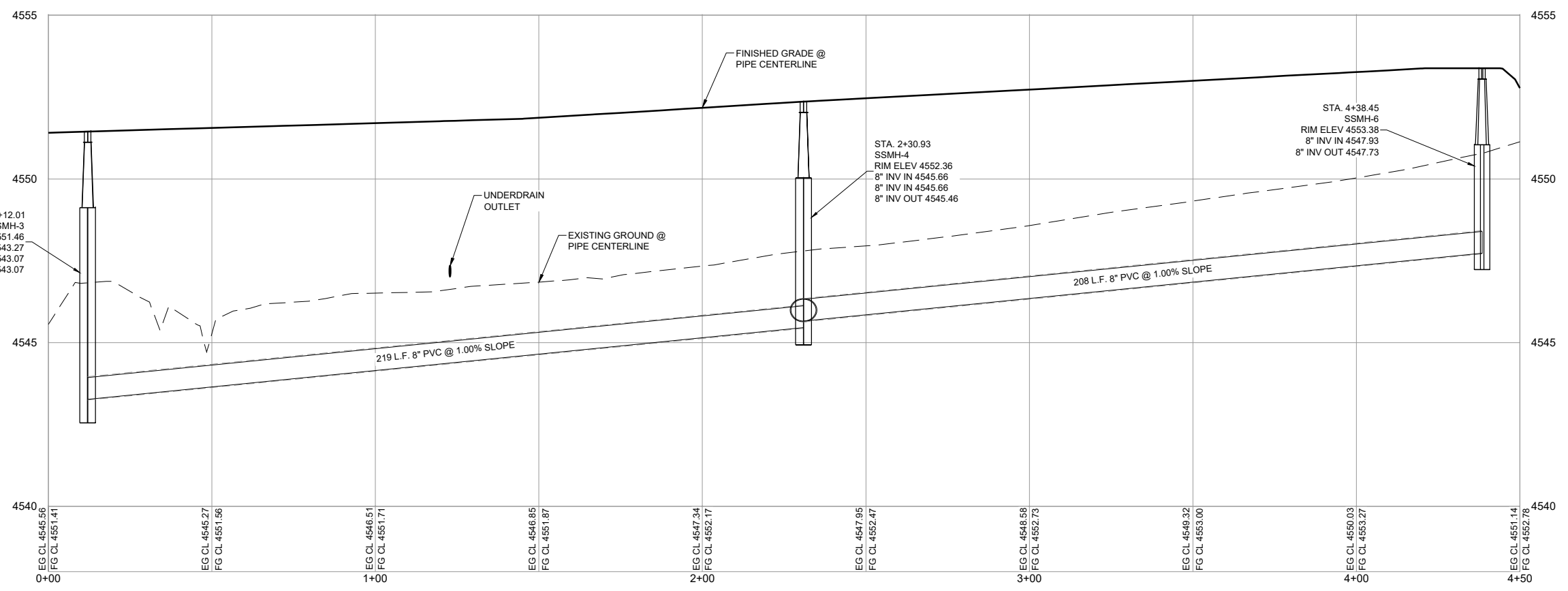
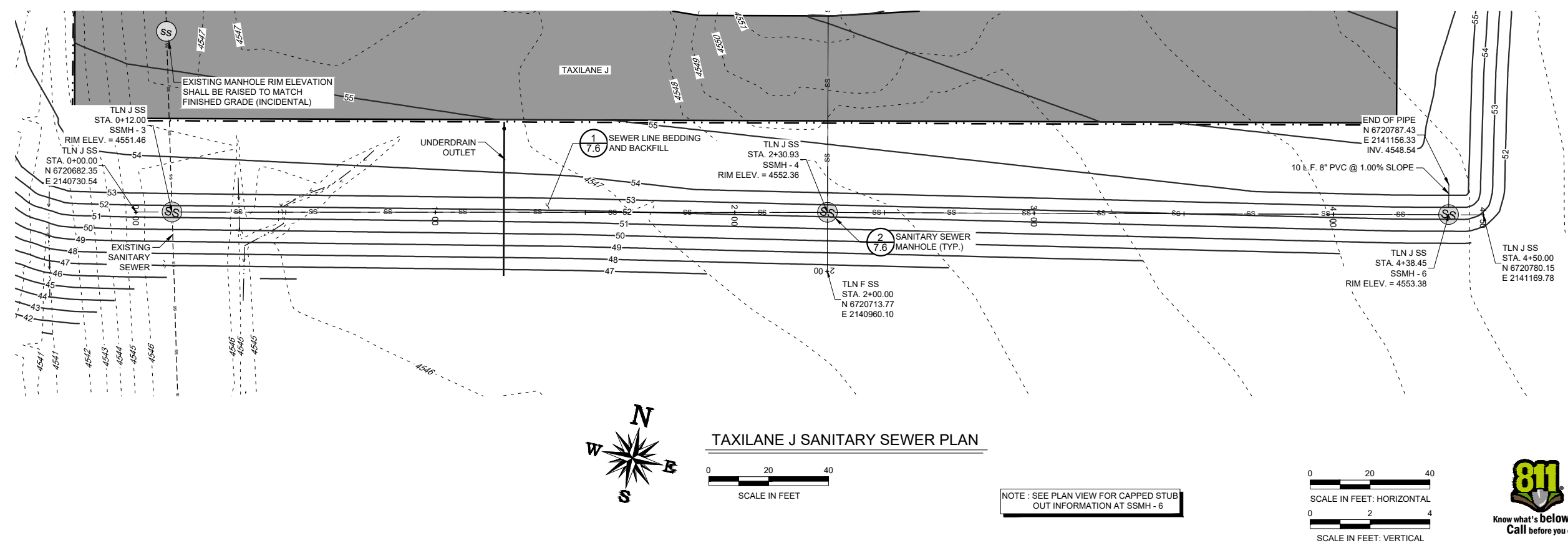
CANYONLANDS REGIONAL AIRPORT  
MOAB, GRAND COUNTY, UTAH  
EXPAND TAXILANES E, F, & G,  
& RECONSTRUCT APRON  
AIP No. 3-49-0020-046-2023

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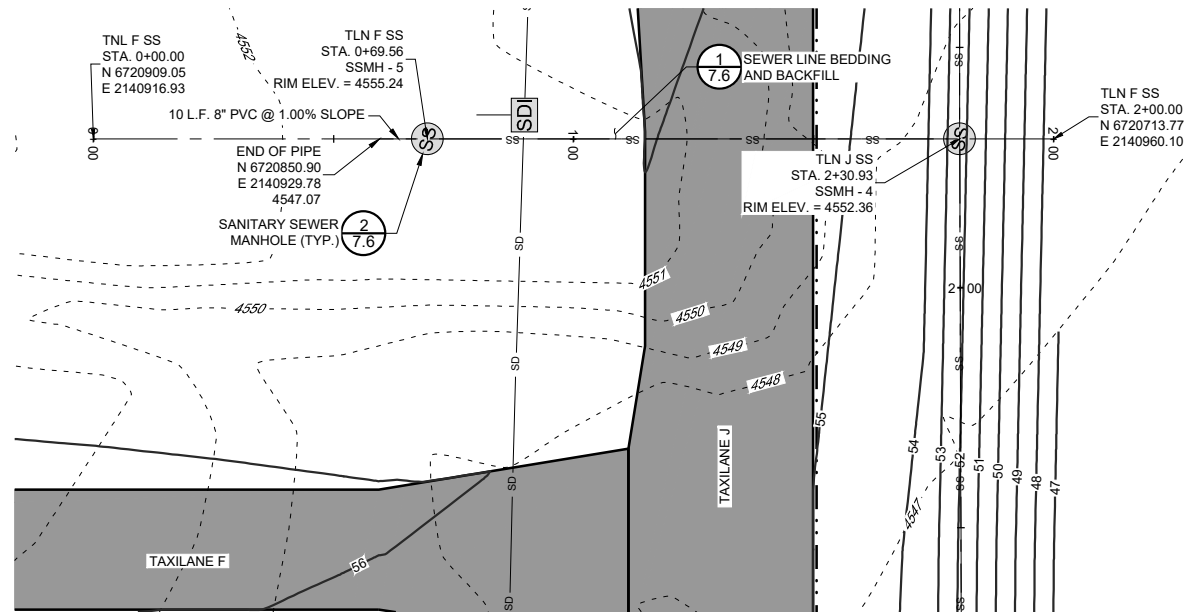
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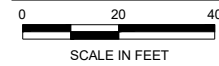
UTILITIES



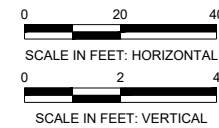
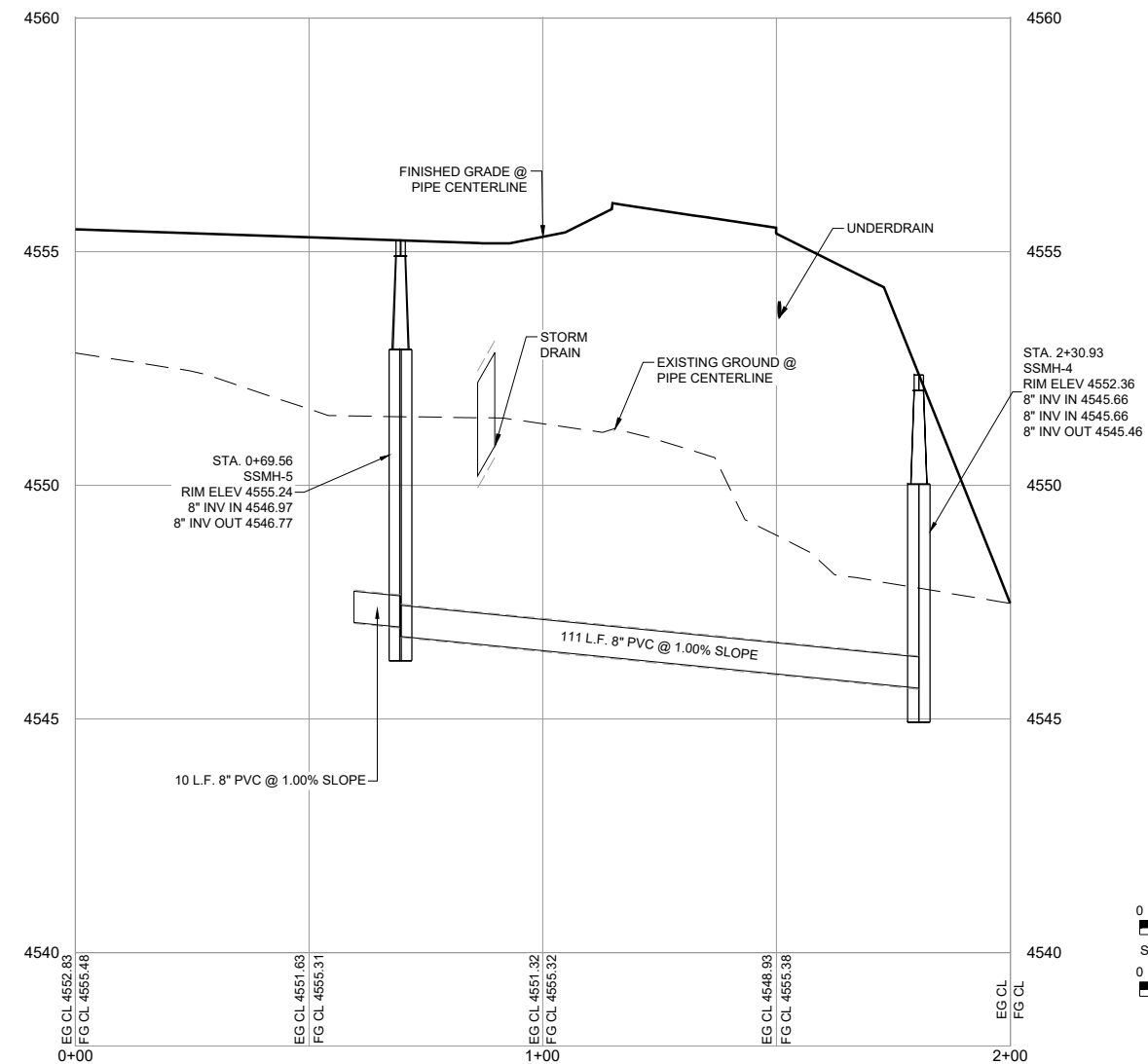
**TAXILANE J SANITARY SEWER PROFILE**



### TAXILANE F SANITARY SEWER PLAN



NOTE: SEE PLAN VIEW FOR CAPPED STUB  
OUT INFORMATION AT SSMH - 7



### TAXILANE F SANITARY SEWER PROFILE

CANYONLANDS REGIONAL AIRPORT  
MOAB, GRAND COUNTY, UTAH  
EXPAND TAXILANES E, F, & G,  
& RECONSTRUCT APRON  
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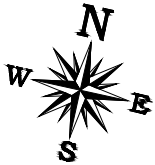
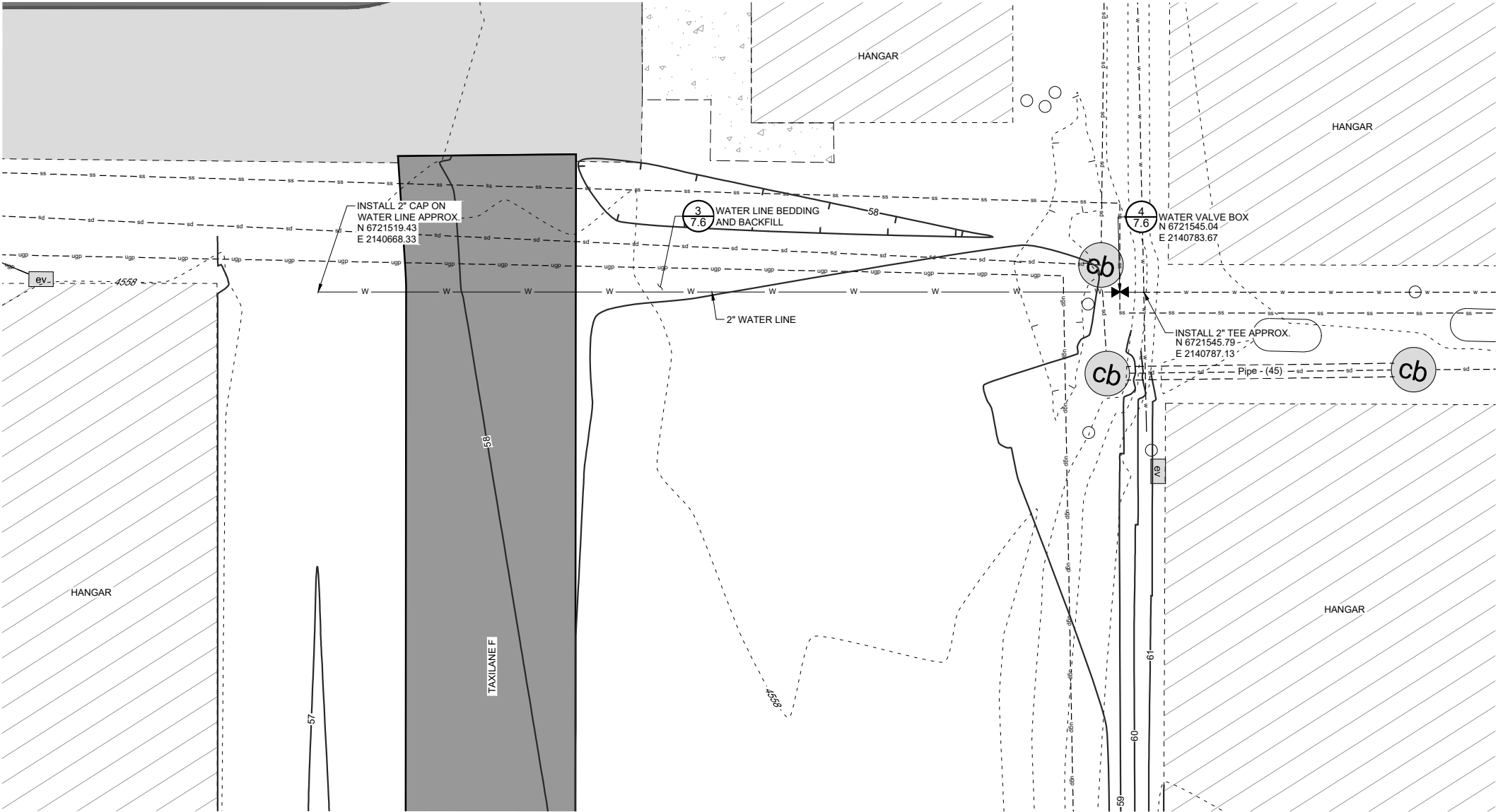
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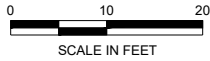
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Checked: EFR  
Approved: DJH

UTILITIES

Sheet: **7.4**



WATER LINE PLAN (SCHEDULE IA)



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UTILITIES

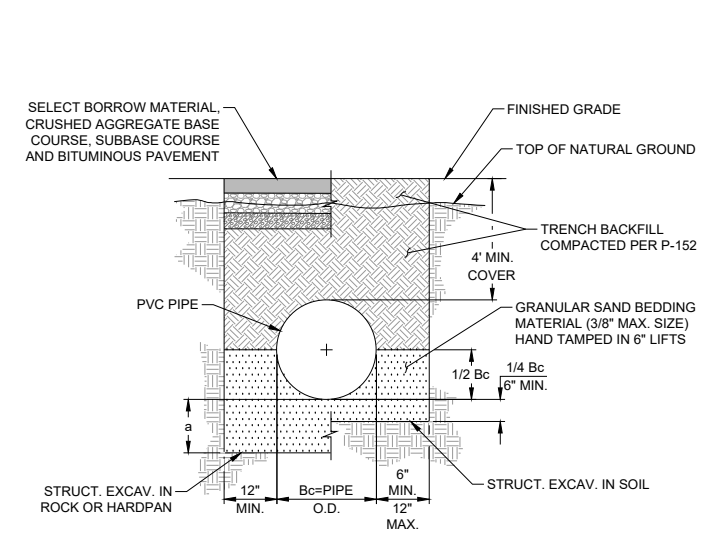
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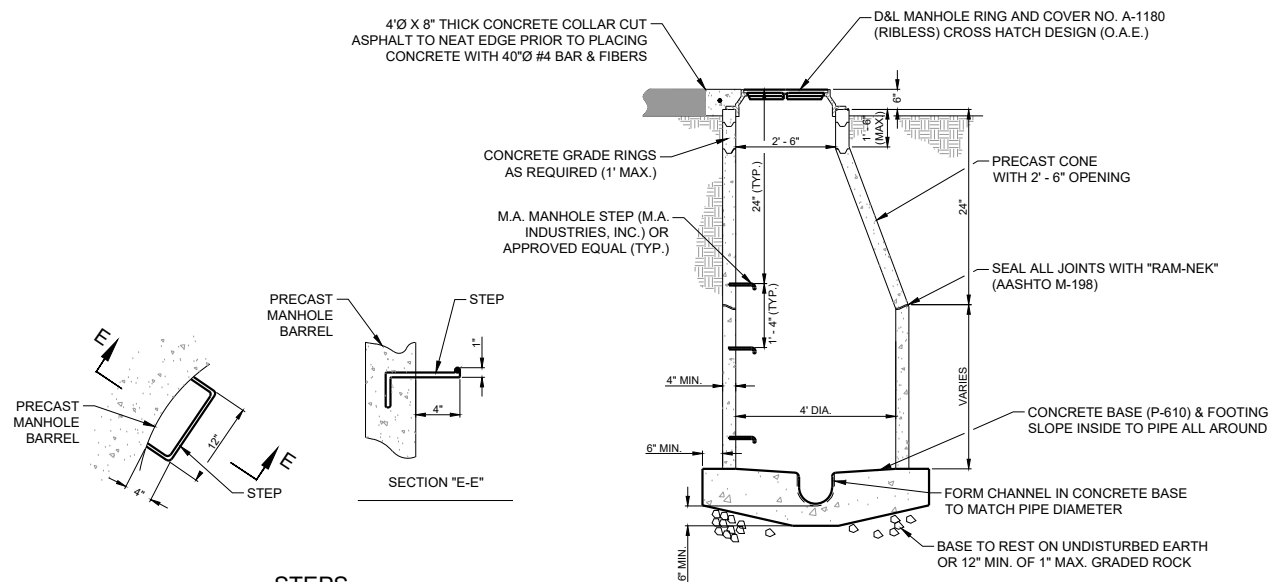
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UTILITY  
DETAILS

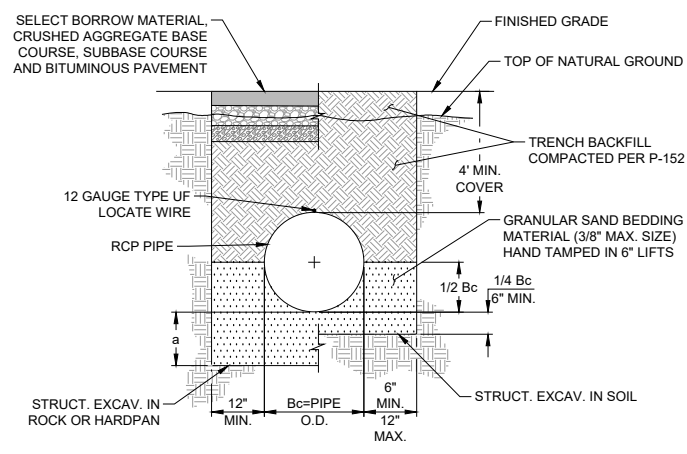
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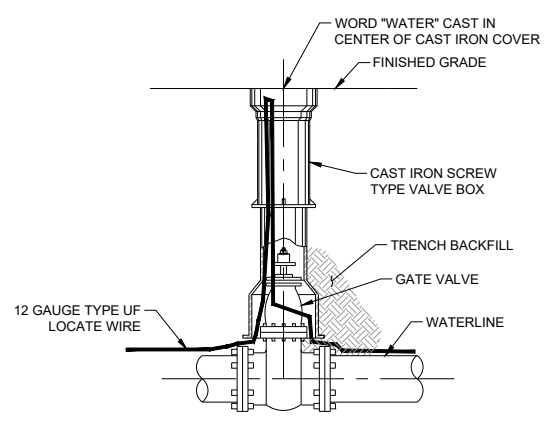
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7.6 SEWER LINE BEDDING AND BACKFILL DETAIL  
NOT TO SCALE



2  
7.6 TYPICAL MANHOLE FOR SANITARY SEWER  
NOT TO SCALE



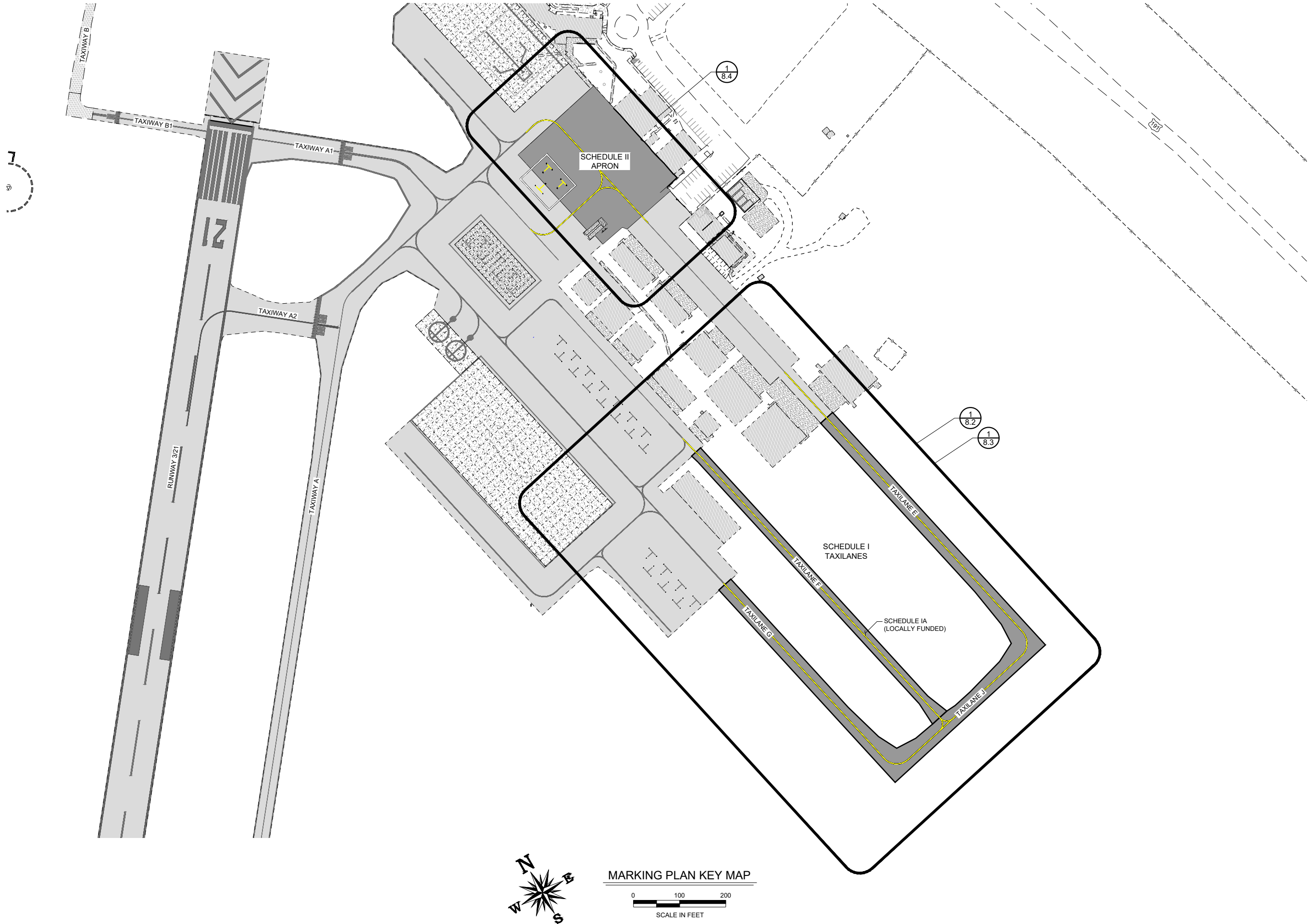
3  
7.6 WATER LINE BEDDING & BACKFILL DETAIL  
NOT TO SCALE



4  
7.6 WATER VALVE BOX DETAIL  
NOT TO SCALE



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AIP No. 3-49-0020-046-2023

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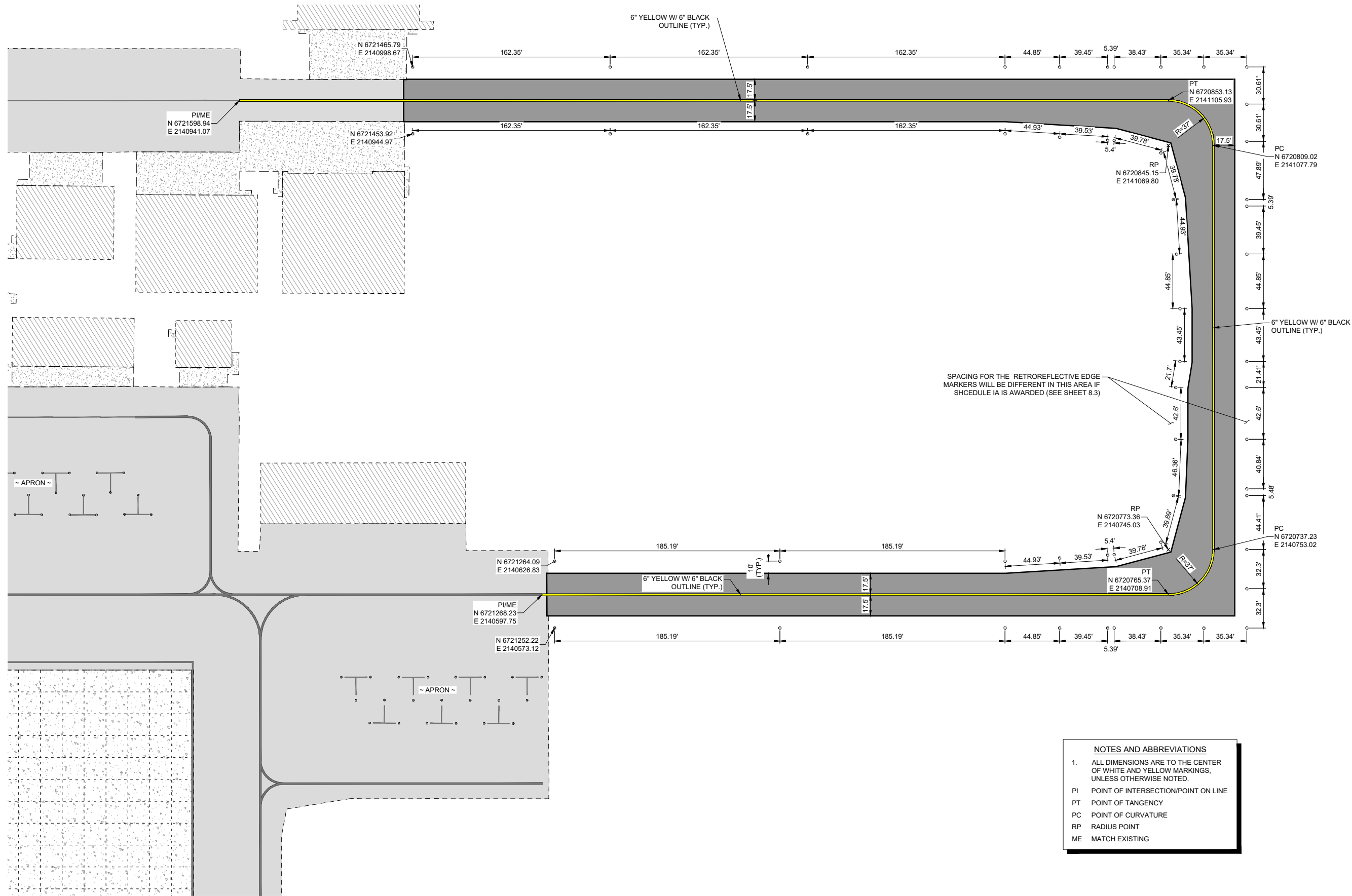
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RETROREFLECTIVE  
EDGE MARKER,  
MARKING, & SIGN  
PLAN & DETAILS

Sheet: 8.1

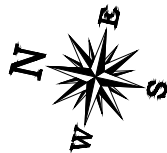
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**NOTES AND ABBREVIATIONS**

1. ALL DIMENSIONS ARE TO THE CENTER OF WHITE AND YELLOW MARKINGS, UNLESS OTHERWISE NOTED.

PI POINT OF INTERSECTION/POINT ON LINE  
PT POINT OF TANGENCY  
PC POINT OF CURVATURE  
RP RADIUS POINT  
ME MATCH EXISTING



1  
8.2

SCHEDULE I TAXILANES RETROREFLECTORS & MARKING PLAN



CANYONLANDS REGIONAL AIRPORT  
MOAB, GRAND COUNTY, UTAH  
EXPAND TAXILANES E, F, & G,  
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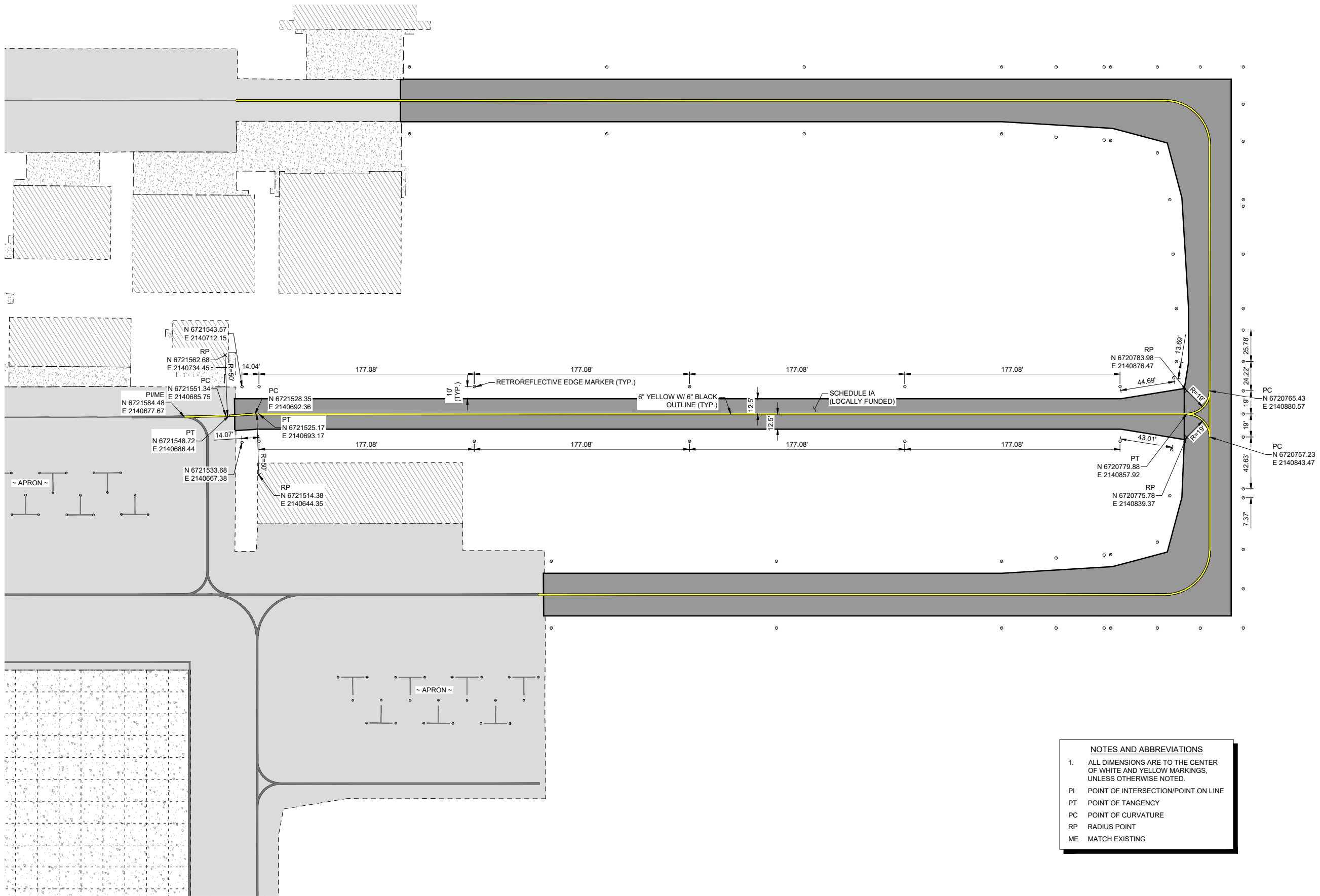
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Approved: DJH

RETROREFLECTIVE  
EDGE MARKER,  
MARKING, & SIGN  
PLAN & DETAILS

Sheet: 8.2

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NOTES AND ABBREVIATIONS

1.

ALL DIMENSIONS ARE TO THE CENTER OF WHITE AND YELLOW MARKINGS, UNLESS OTHERWISE NOTED.

PI

POINT OF INTERSECTION/POINT ON LINE

PT

POINT OF TANGENCY

PC

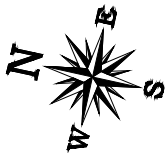
POINT OF CURVATURE

RP

RADIUS POINT

ME

MATCH EXISTING



1  
8.3

SCHEDULE IA TAXILANES RETROREFLECTORS & MARKING PLAN



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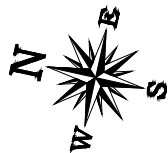
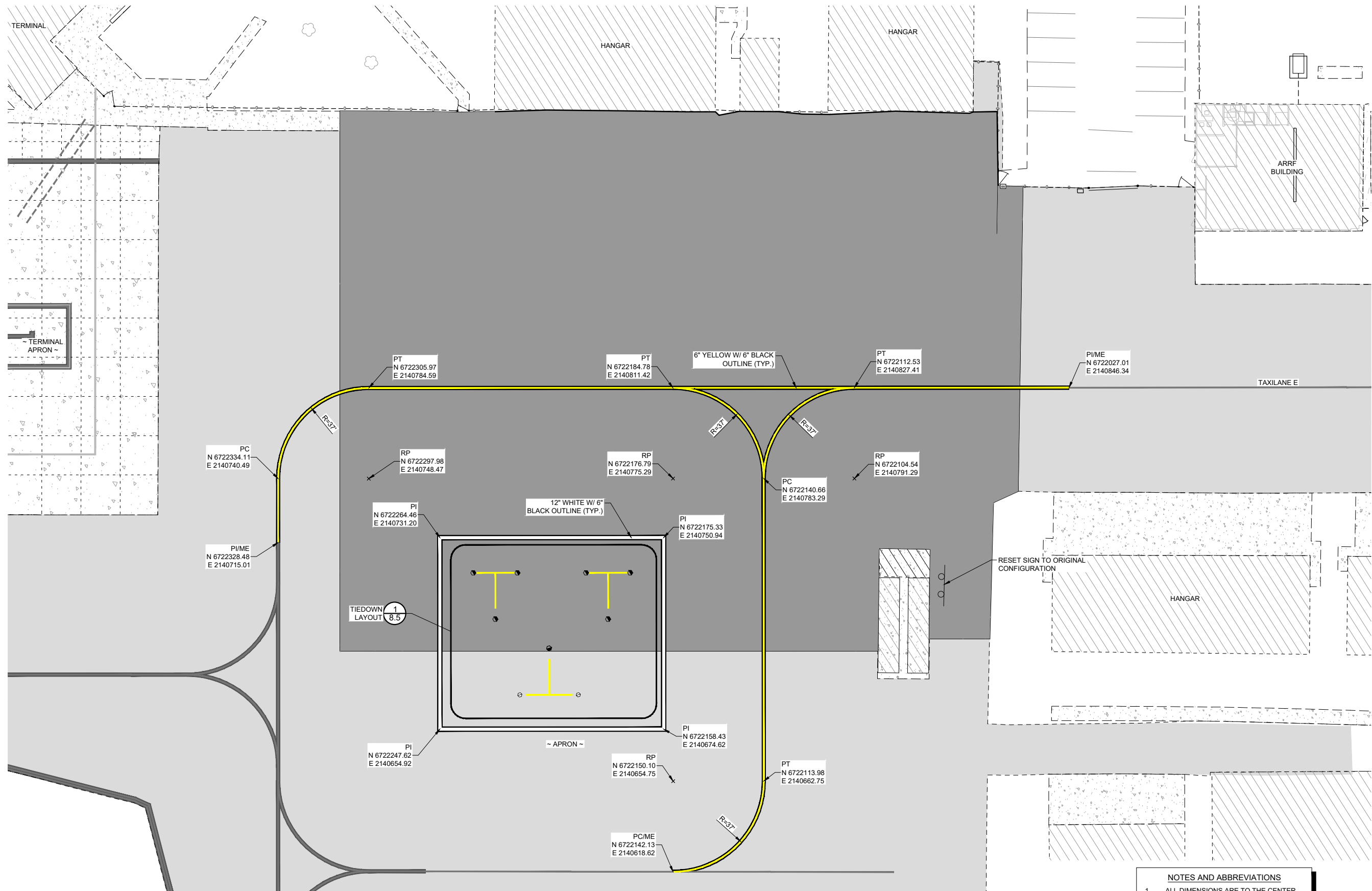
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RETROREFLECTIVE  
EDGE MARKER,  
MARKING, & SIGN  
PLAN & DETAILS

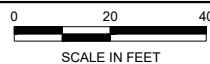
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1  
8.4

#### SCHEDULE II APRON MARKING PLAN



SCALE IN FEET

#### NOTES AND ABBREVIATIONS

- ALL DIMENSIONS ARE TO THE CENTER OF WHITE AND YELLOW MARKINGS, UNLESS OTHERWISE NOTED.
- PI POINT OF INTERSECTION/POINT ON LINE  
PT POINT OF TANGENCY  
PC POINT OF CURVATURE  
RP RADIUS POINT  
ME MATCH EXISTING

CANYONLANDS REGIONAL AIRPORT  
MOAB, GRAND COUNTY, UTAH  
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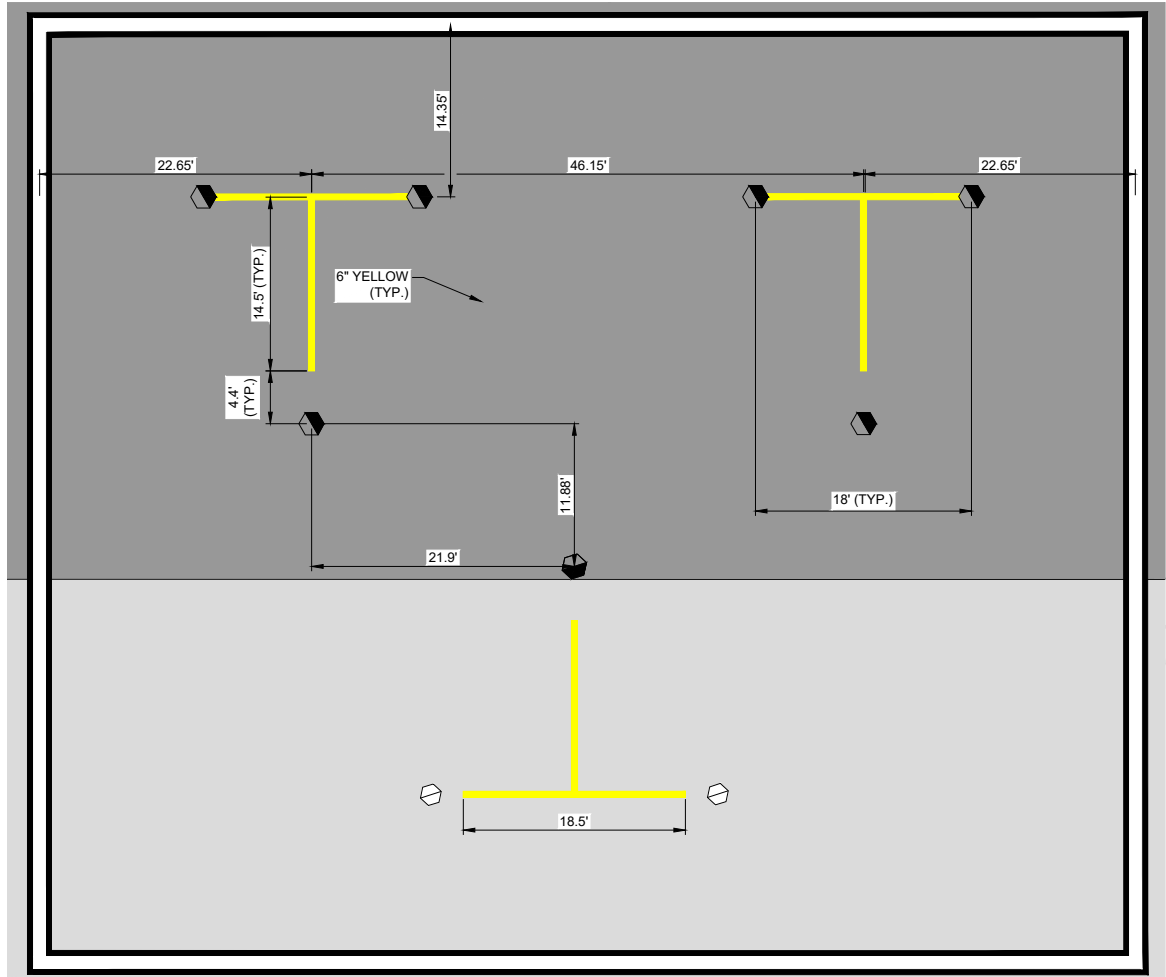
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RETROREFLECTIVE  
EDGE MARKER,  
MARKING, & SIGN  
PLAN & DETAILS

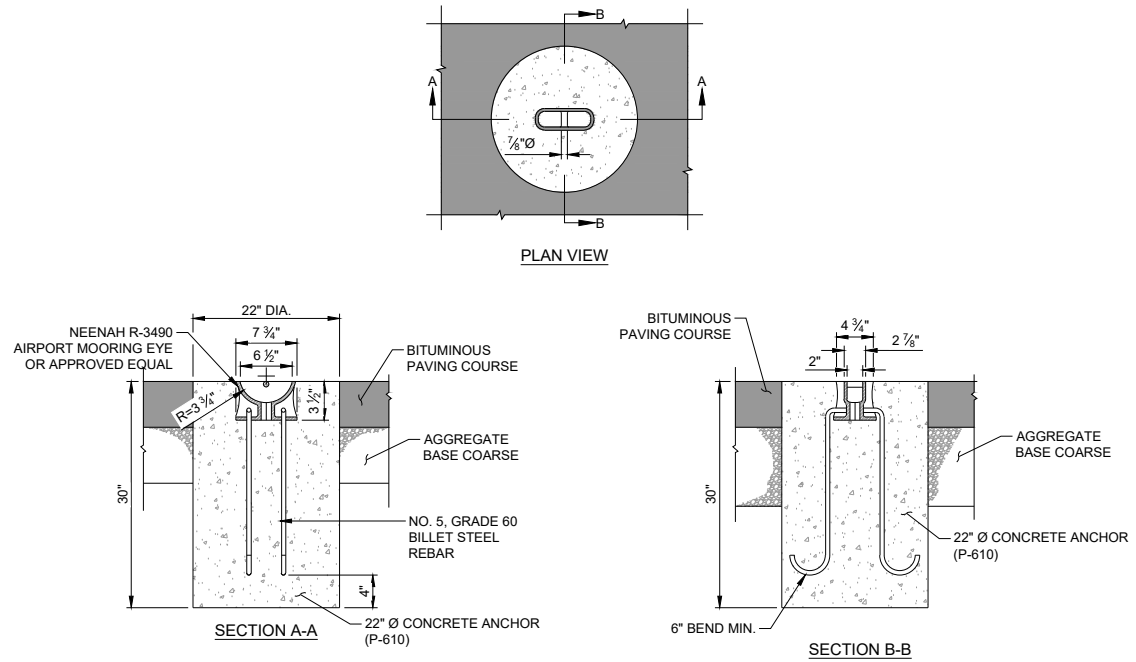
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8.5  
TIE-DOWN LAYOUT  
0 8 16  
SCALE IN FEET

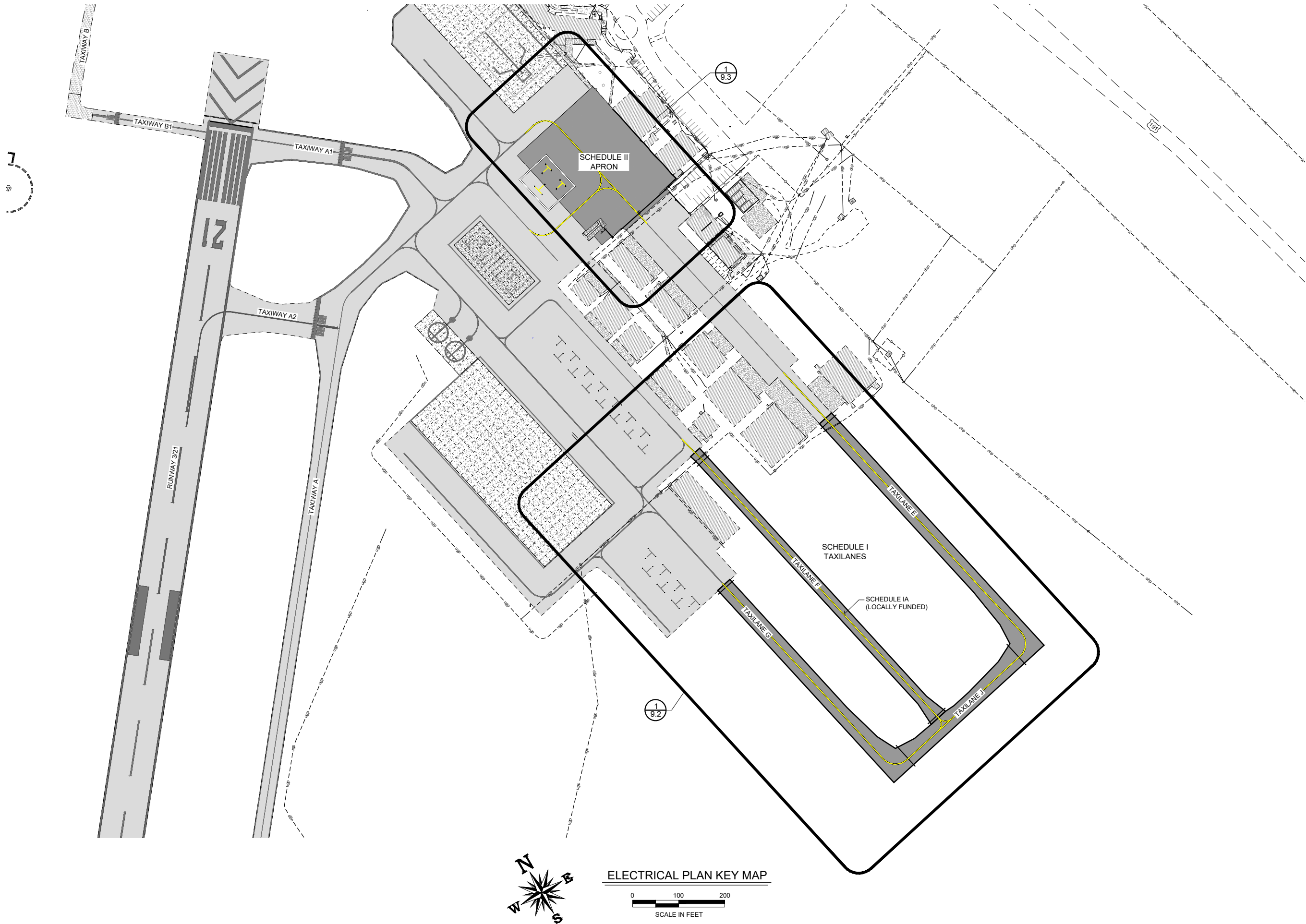
2  
8.5  
AIRCRAFT TIE-DOWN  
(TYP.)



2  
8.5  
AIRCRAFT TIE-DOWN DETAIL  
NOT TO SCALE

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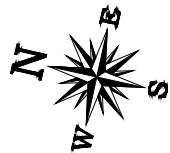
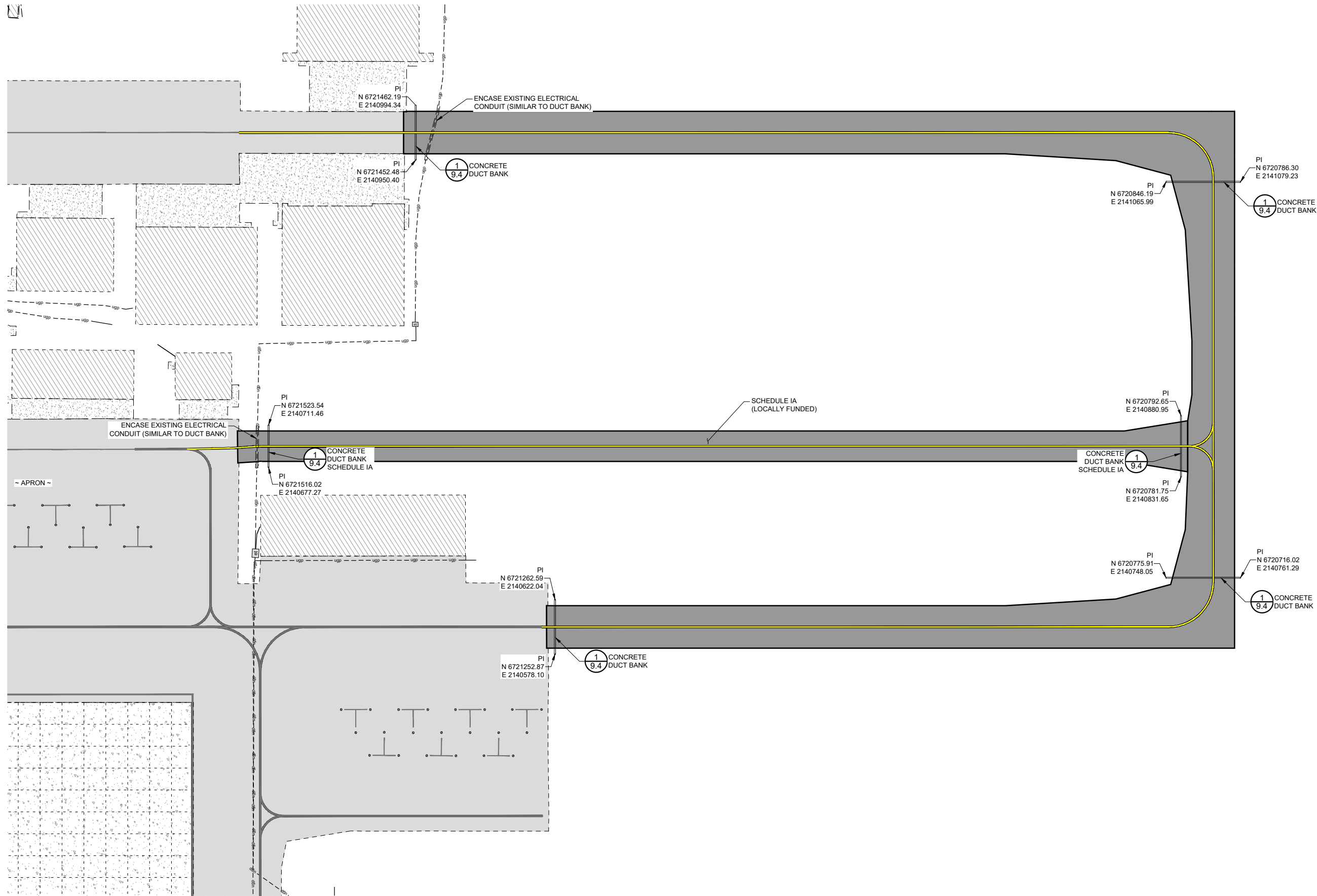
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ELECTRICAL  
PLAN &  
DETAILS

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9.2 SCHEDULE I TAXILANES ELECTRICAL PLAN

0 40 80  
SCALE IN FEET

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EXPAND TAXILANES E, F, & G,  
& RECONSTRUCT APRON  
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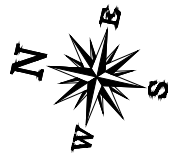
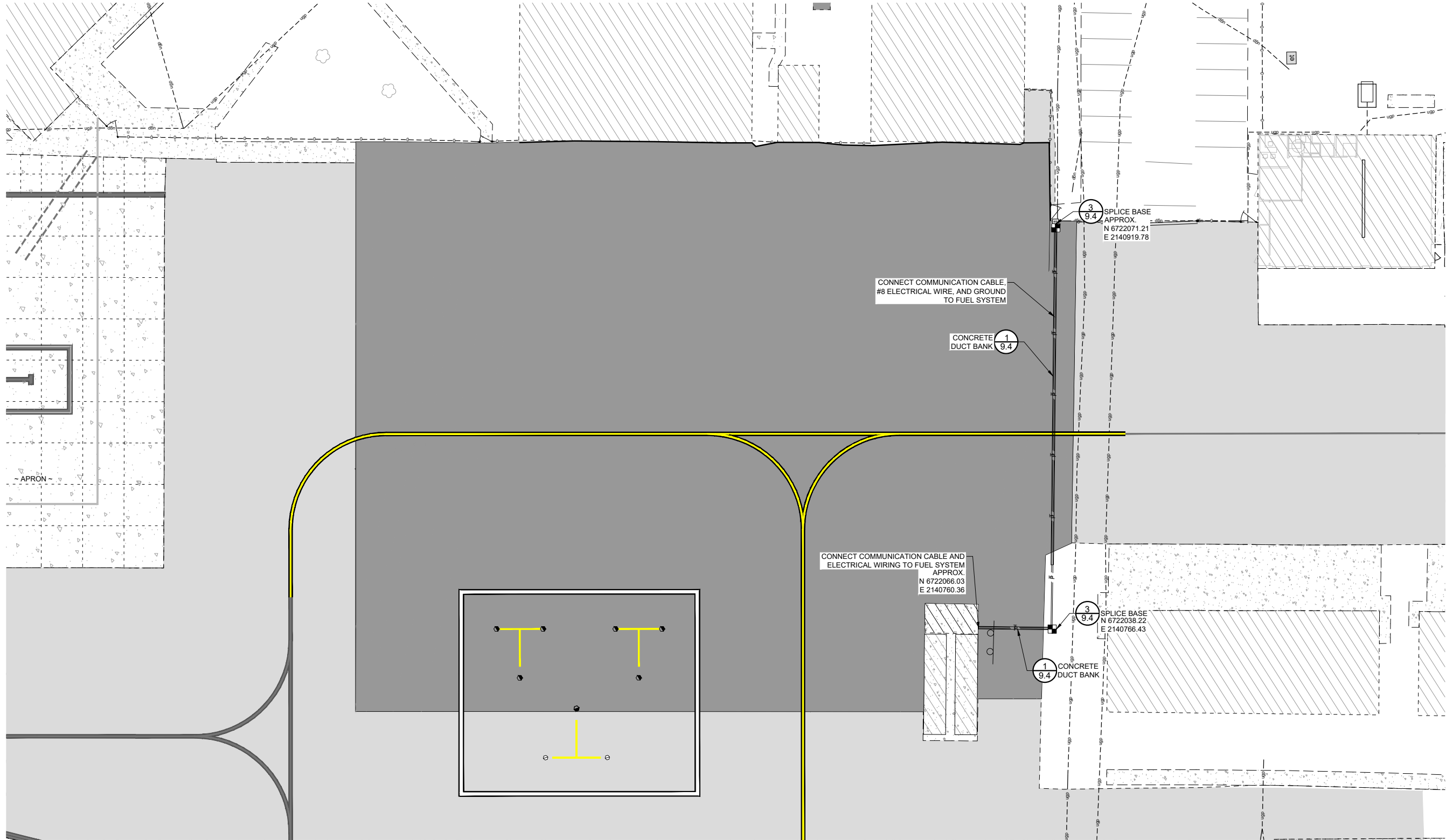
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1 9.3 SCHEDULE II APRON ELECTRICAL PLAN  
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ELECTRICAL  
PLAN &  
DETAILS

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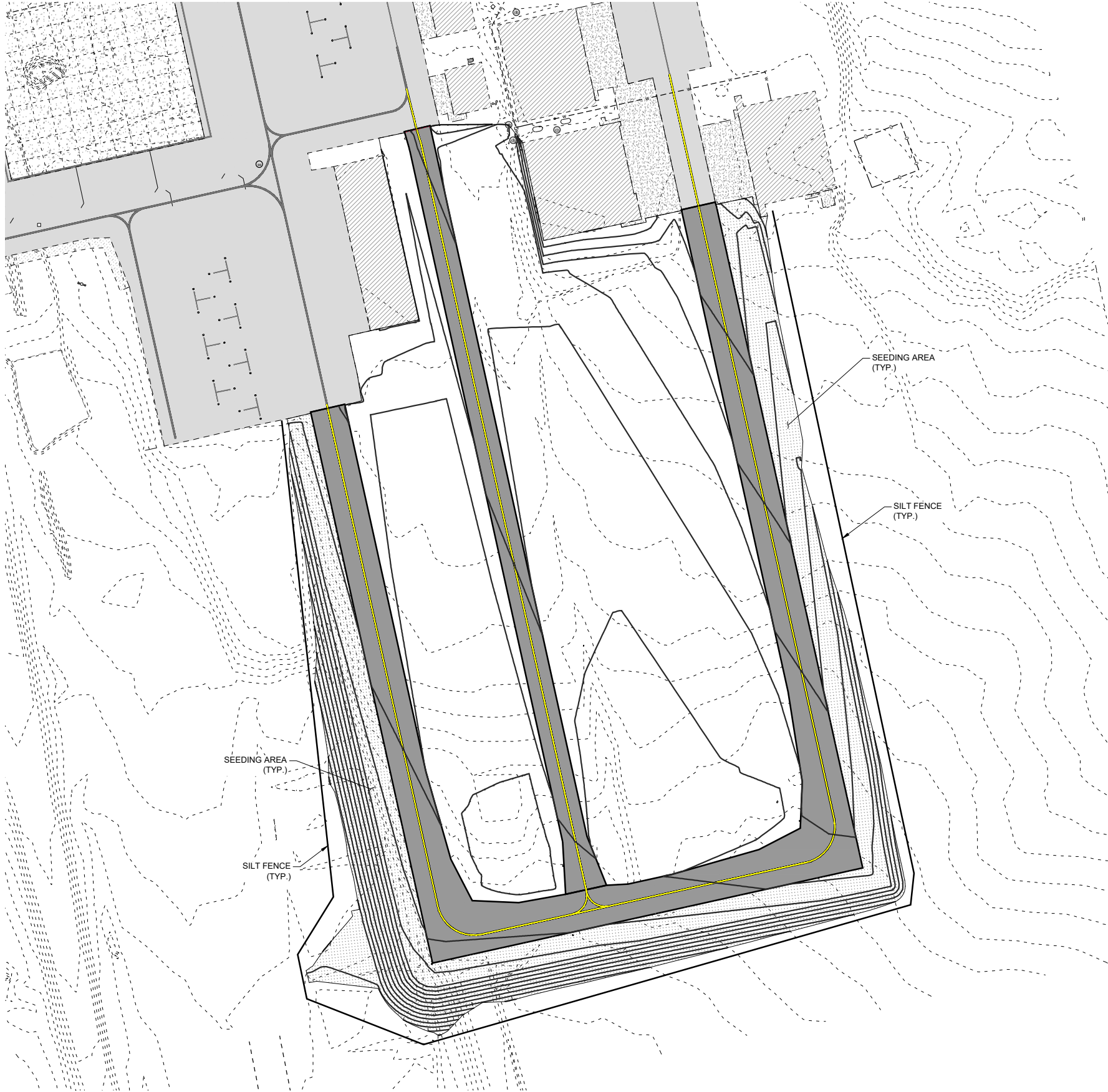


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MARK-UP AS NEEDED

- NOTES:
1. CONTRACTOR SHALL MAINTAIN ALL INSTALLED EROSION CONTROL DEVICES PLACED DURING CONSTRUCTION.
  2. CONTRACTOR SHALL ERECT AND MAINTAIN SILT FENCE PER STATE REGULATIONS.

| LEGEND                                                                              |              |
|-------------------------------------------------------------------------------------|--------------|
|  | SEDIMENT LOG |
|  | SILT FENCE   |
|  | SEEDING AREA |



EROSION CONTROL & SEEDING PLAN



CANYONLANDS REGIONAL AIRPORT  
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& RECONSTRUCT APRON  
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EROSION  
CONTROL  
PLAN &  
DETAILS

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EROSION CONTROL NOTES

EROSION CONTROL OPERATIONS SHALL CONFORM TO THE FAA ADVISORY CIRCULAR, AC 150/5370-10G, ITEM C-102, TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION, AND SILTATION CONTROL.

PLACEMENT OF TOPSOIL, SEEDING, AND MULCHING WILL NOT BE DONE IN A SINGLE OPERATION, BUT SHALL BE COMPLETED AFTER EACH CONSTRUCTION PHASE.

WASHING OUT OF CONCRETE TRUCKS SHALL BE LIMITED TO SITES PRE-APPROVED BY THE ENGINEER.

FENCE (SILT) AND EROSION BALES SHALL BE PLACED PRIOR TO WORK COMMENCING.

TO PROVIDE TEMPORARY EROSION CONTROL PRIOR TO SEED APPLICATION, UTILIZE SURFACE ROUGHENING(ON THE CONTOUR OR PERPENDICULAR TO PREVAILING WINDS) AND APPLY MULCH.

CONTRACTOR SHALL NOT STAGE IN A WETLAND OR RIPARIAN AREA.

UPON GRADING COMPLETION, SITE SHALL BE SEEDED WITH THE SPECIFIED MIX AND MULCHED.

SEEDING APPLICATION:

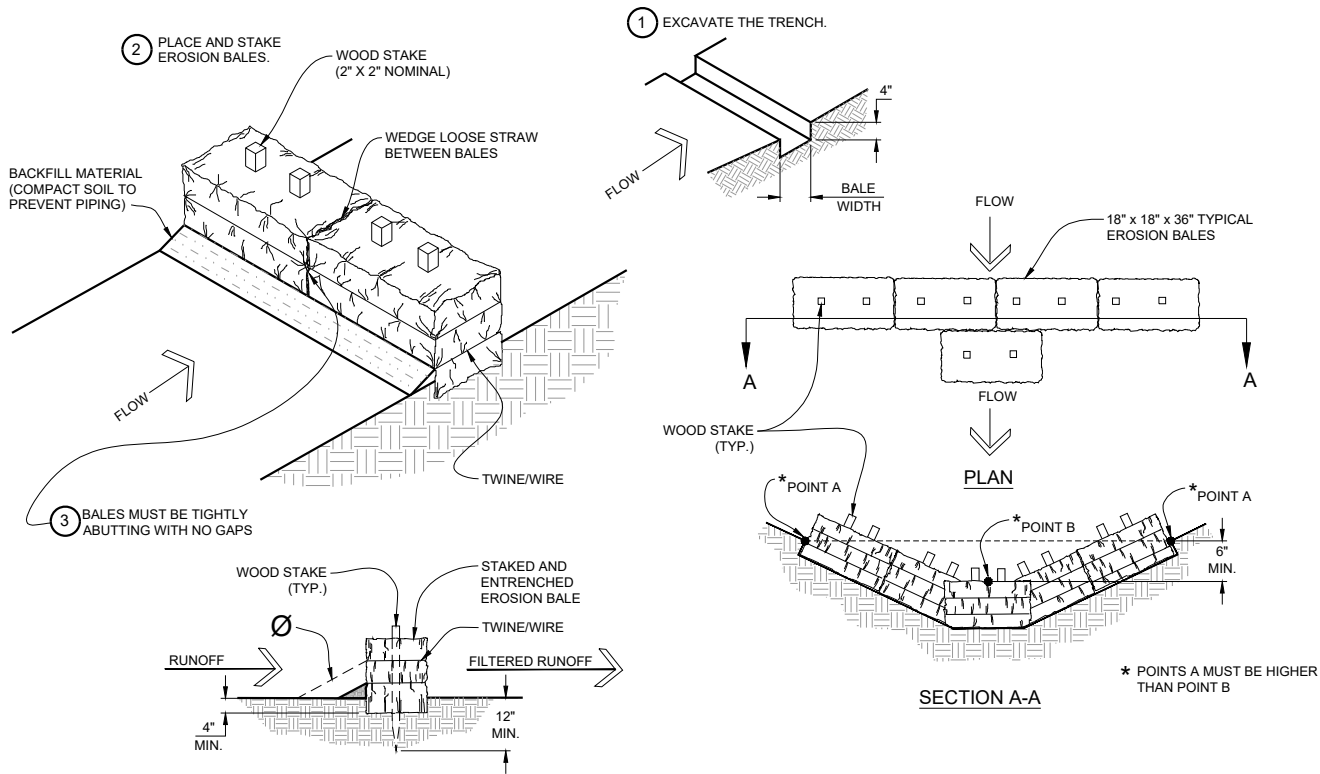
THE APPLIED SEED SHALL NOT BE COVERED BY A SOIL THICKNESS GREATER THAN 0.5" IN DEPTH.

SEEDING SHALL TAKE PLACE WITHIN 14 DAYS OF ACHIEVING FINISH GRADE. SEEDING MUST OCCUR WITHIN 3 DAYS OF TOPSOIL PLACEMENT.

SEED SHALL BE PLANTED WITH DRILL SEEDING EQUIPMENT, WHENEVER POSSIBLE.

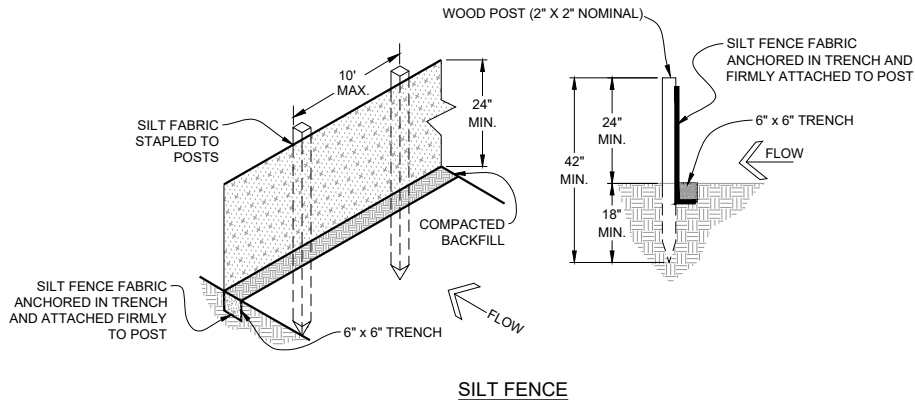
AREAS THAT REQUIRE BROADCAST SEEDING SHALL BE MULCHED AND TACKIFIED.

SEED APPLIED HYDRAULICALLY SHALL INCLUDE TACKIFIER IN THE MIX, AS SPECIFIED BY THE MANUFACTURER.

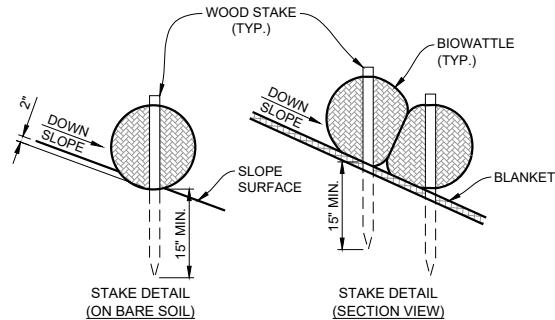


EROSION BALE TRENCHING AND STAKING (TYP)

Ø SEDIMENT REMOVAL SHALL BE PERFORMED CONTINUOUSLY FOR PROPER FUNCTION.



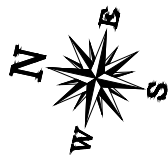
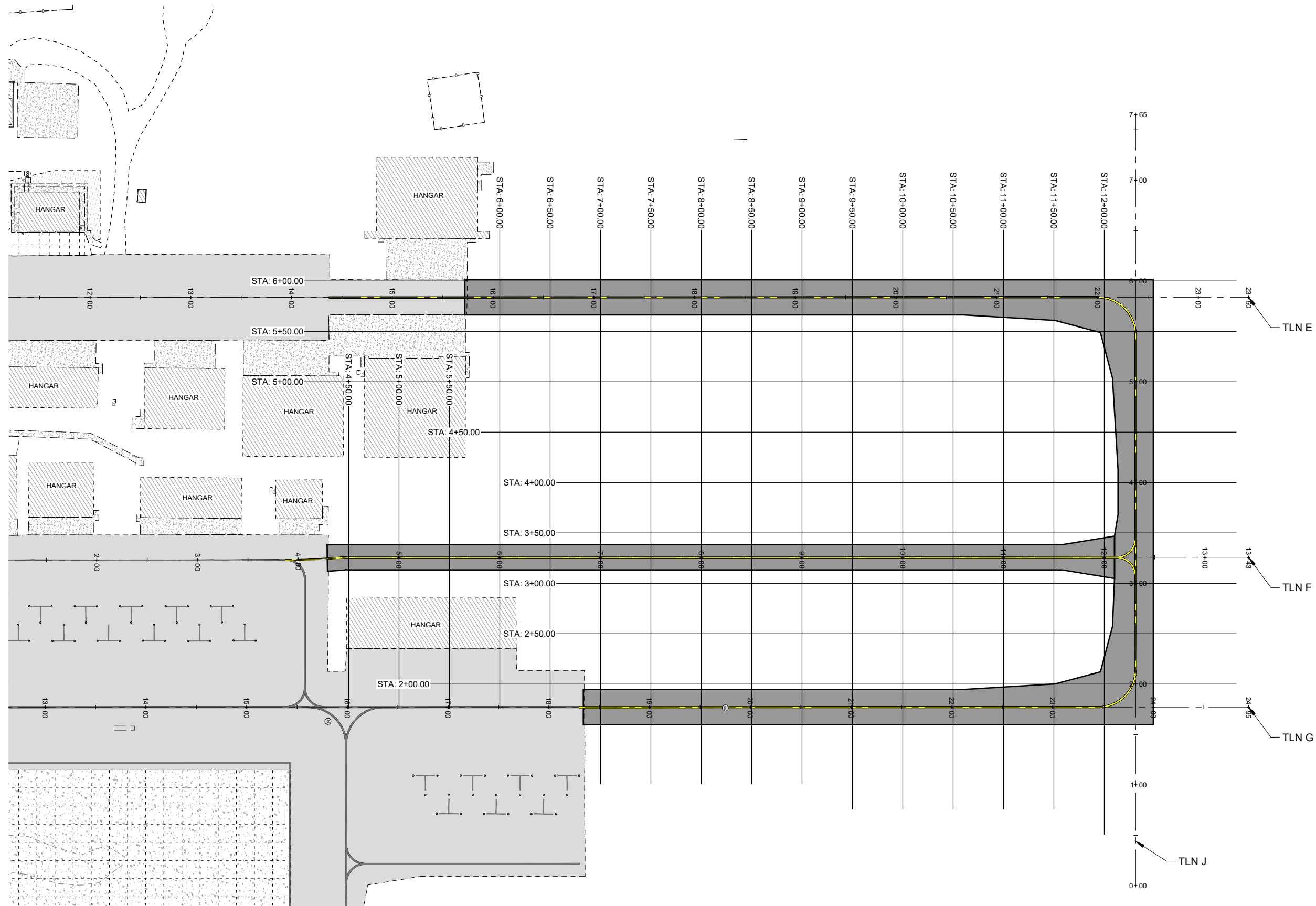
SILT FENCE



FILTREXX-BIOWATTLE

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SCHEDULE I TAXILANES CROSS SECTION KEY MAP

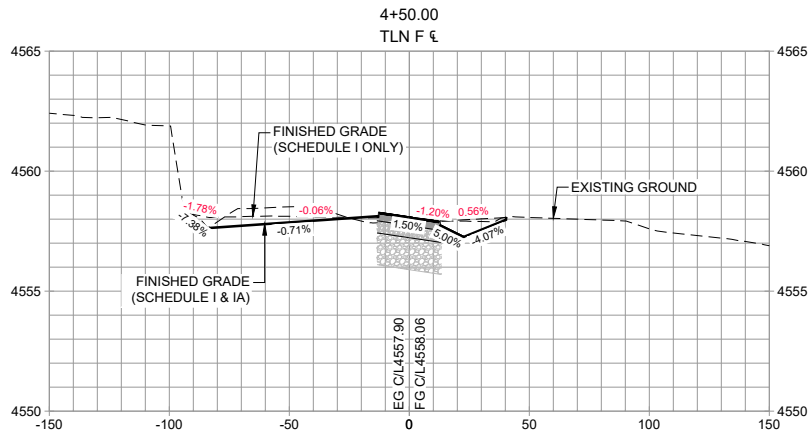
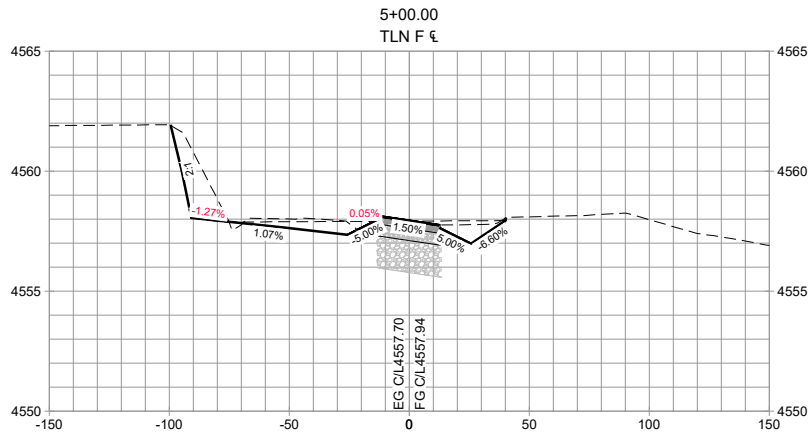
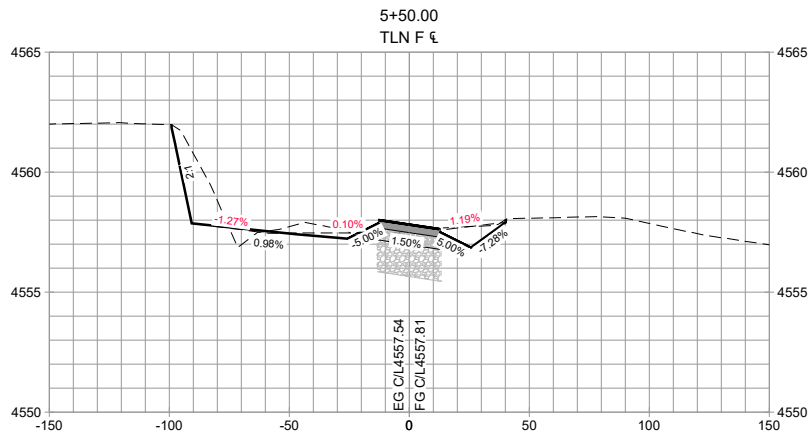


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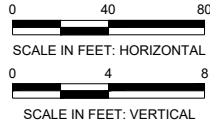
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Checked: EFR  
Approved: DJH

CROSS  
SECTIONS



NOTE : ALL RED GRADES ARE ASSOCIATED  
WITH SCHEDULE 1 ONLY



CANYONLANDS REGIONAL AIRPORT  
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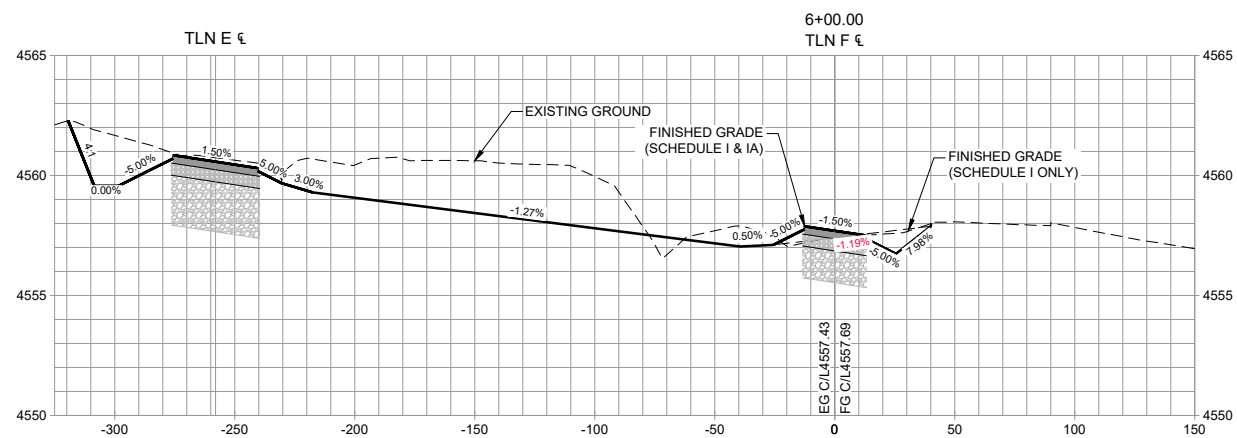
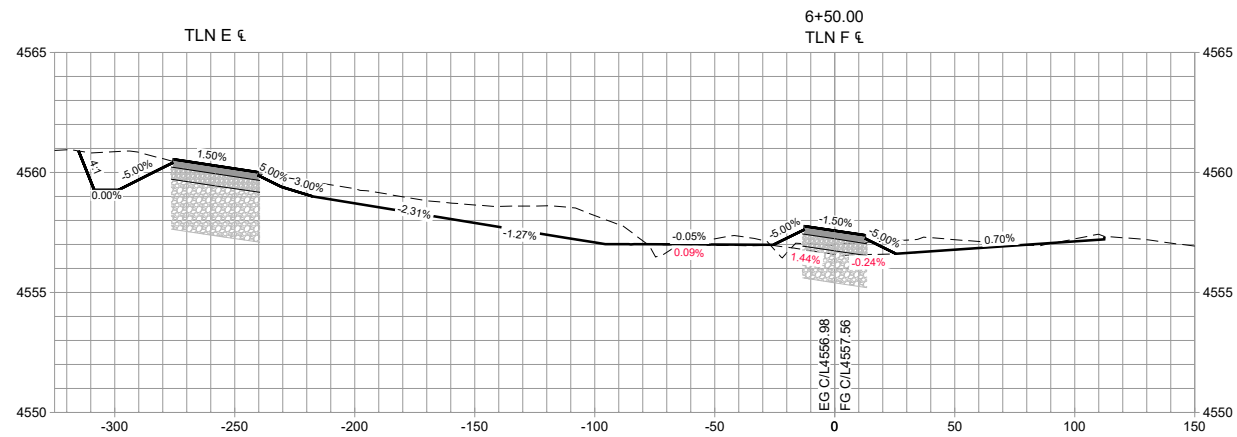
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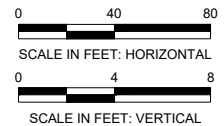
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MOAB, GRAND COUNTY, UTAH  
EXPAND TAXILANES E, F, & G,  
& RECONSTRUCT APRON  
AIP No. 3-49-0020-046-2023

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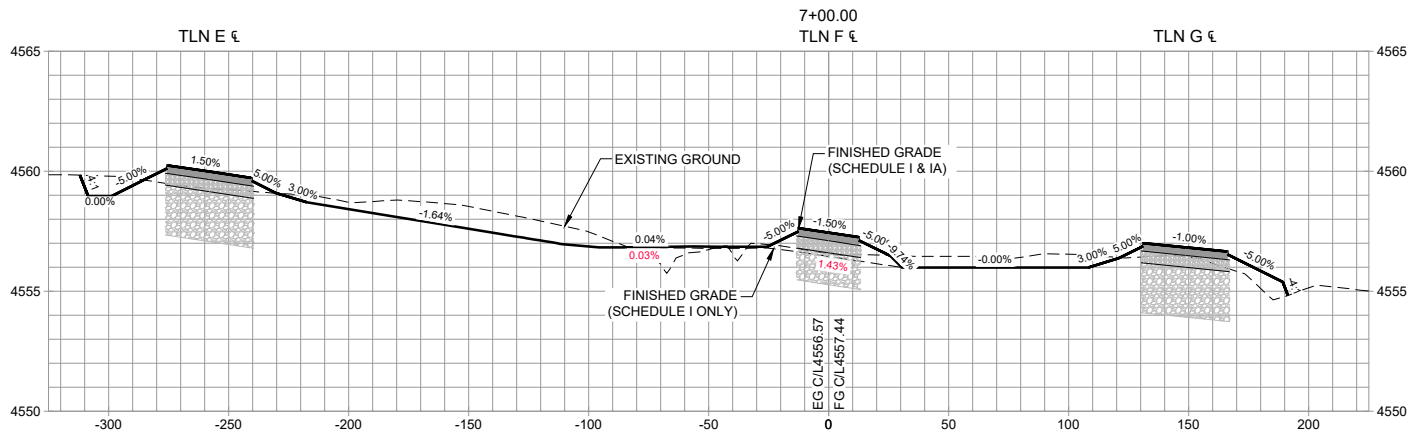
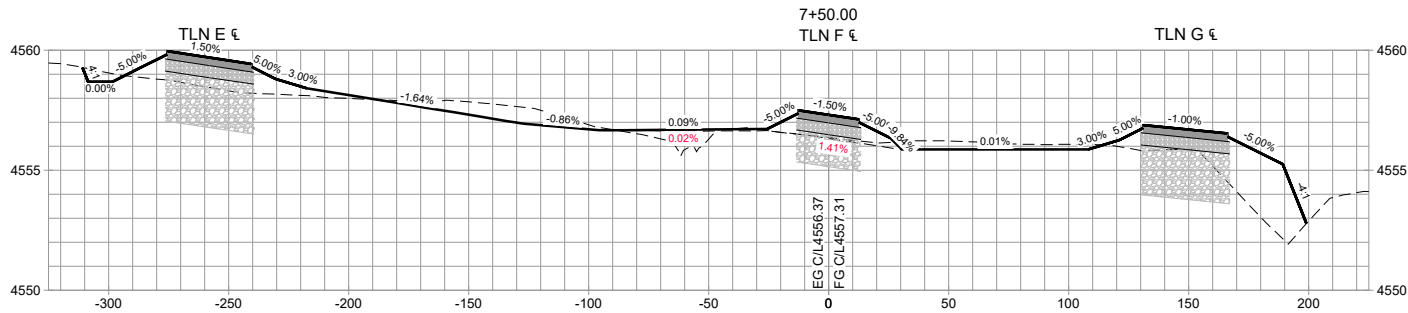
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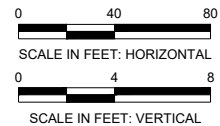
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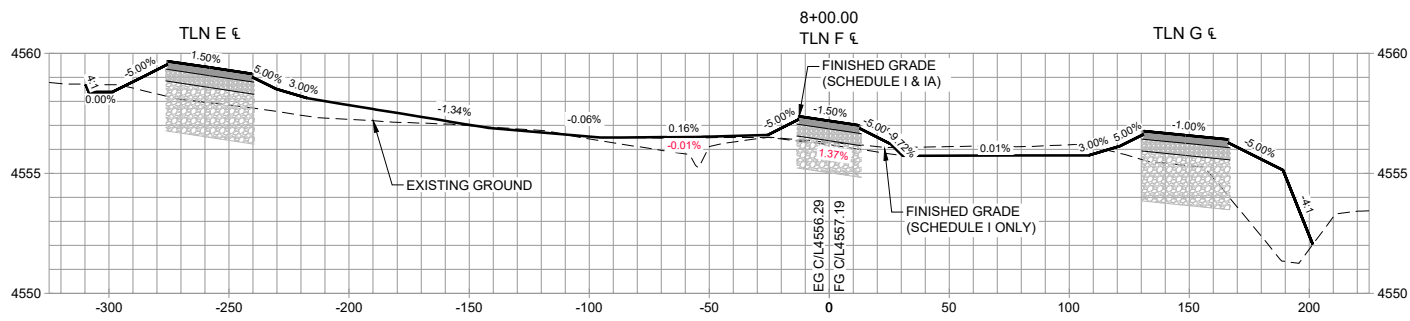
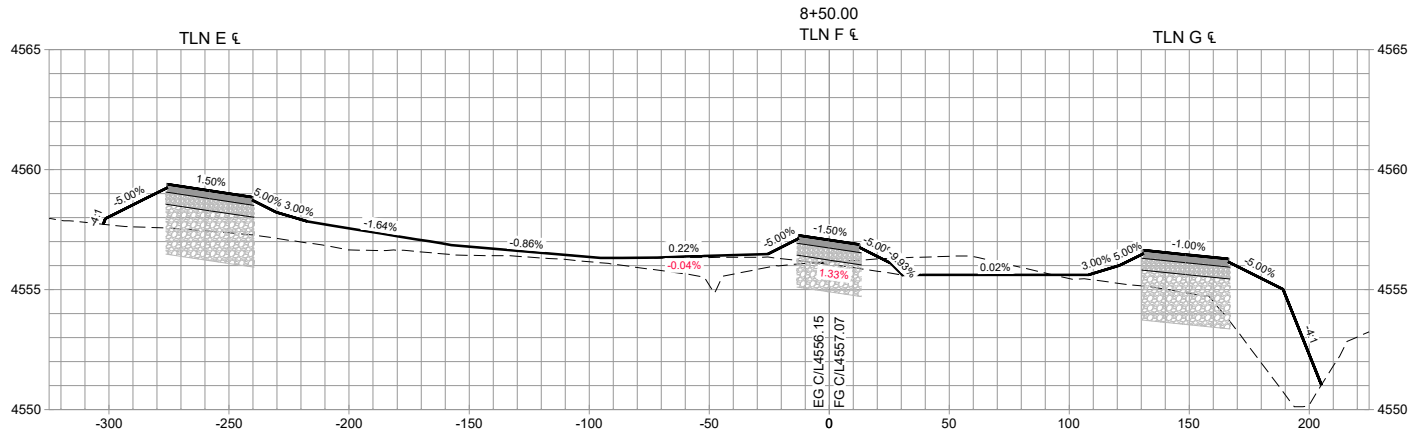
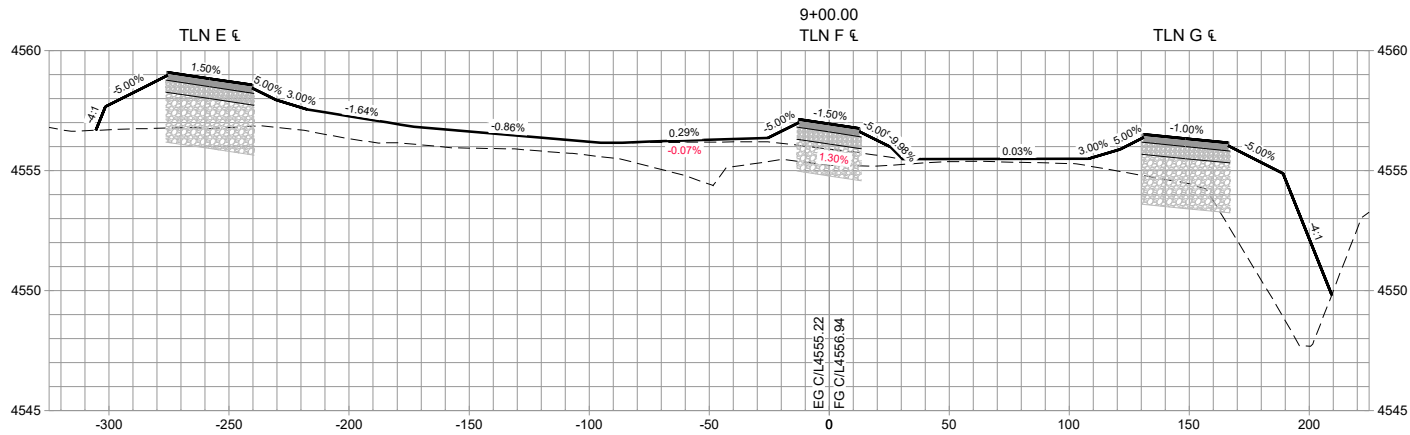
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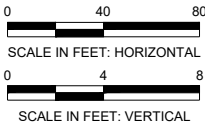
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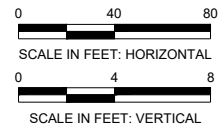
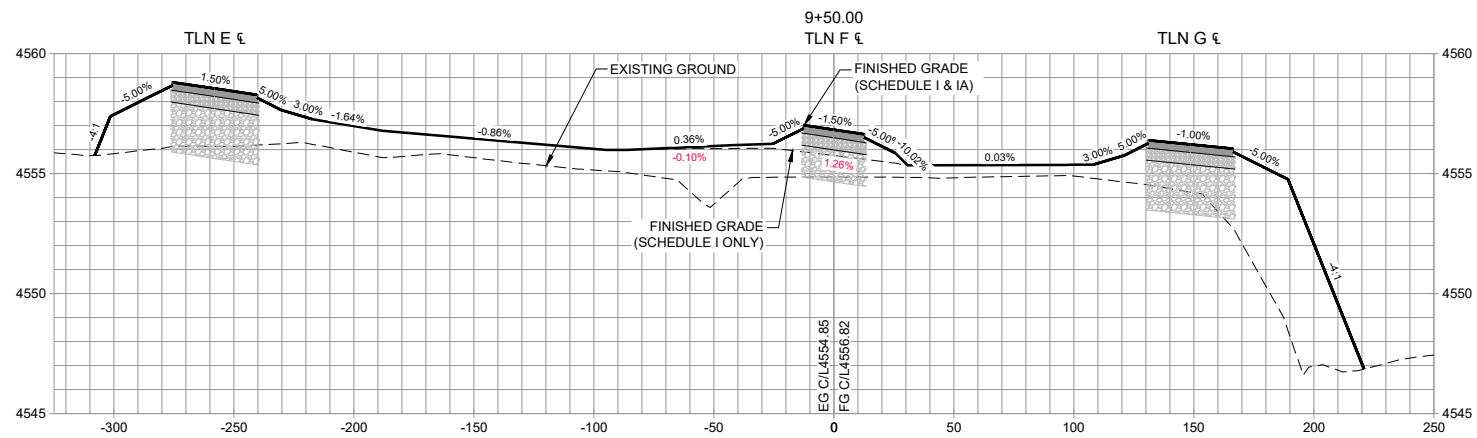
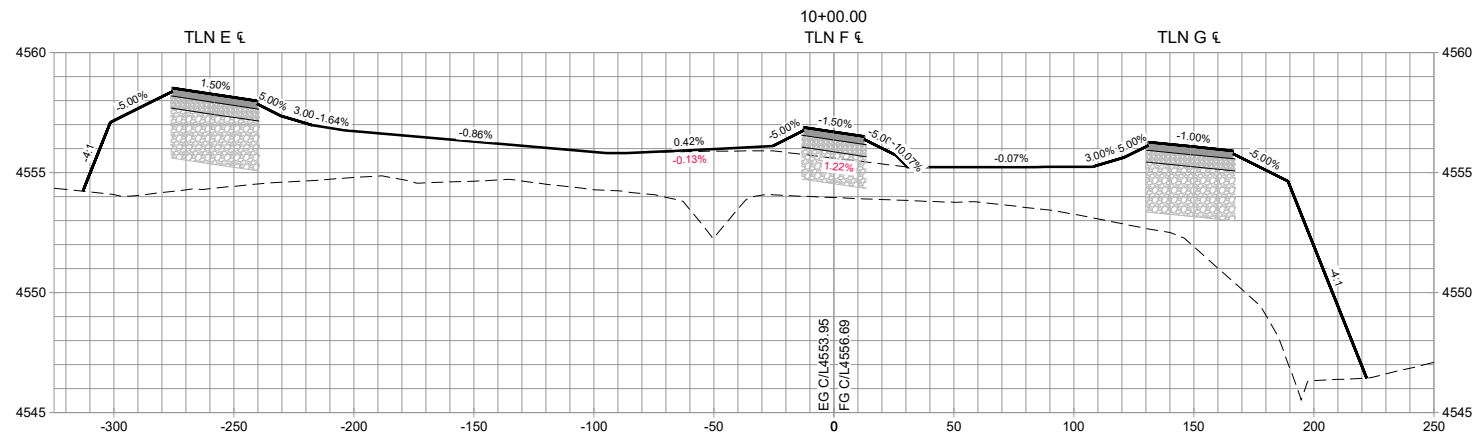
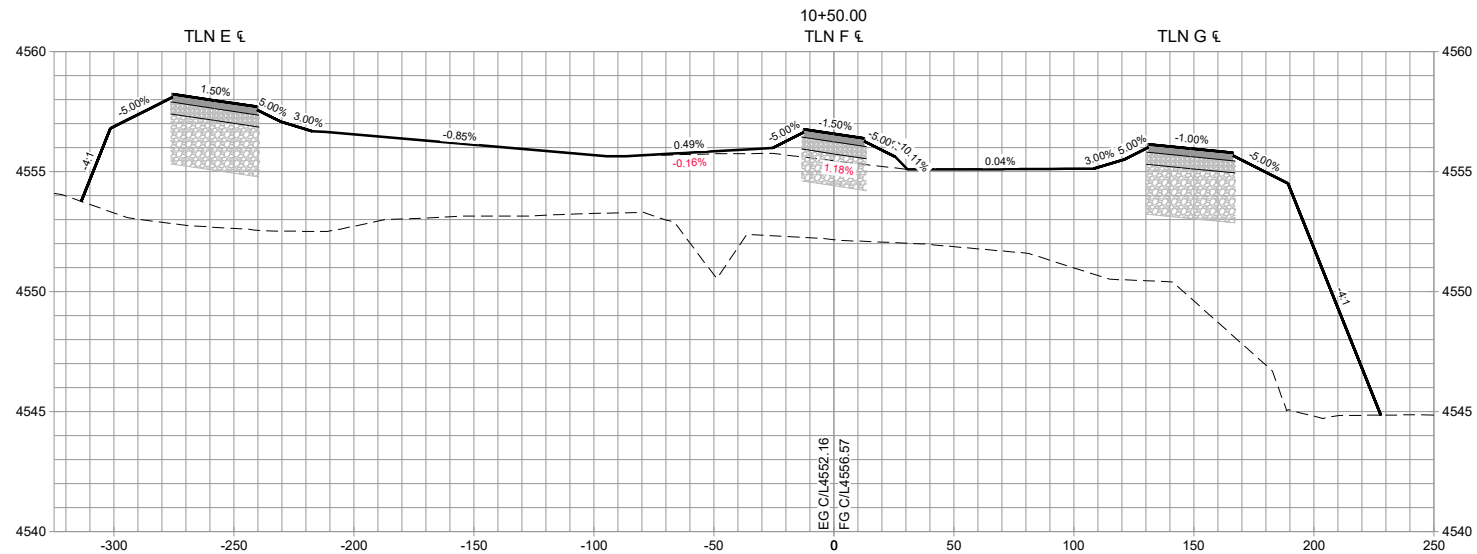
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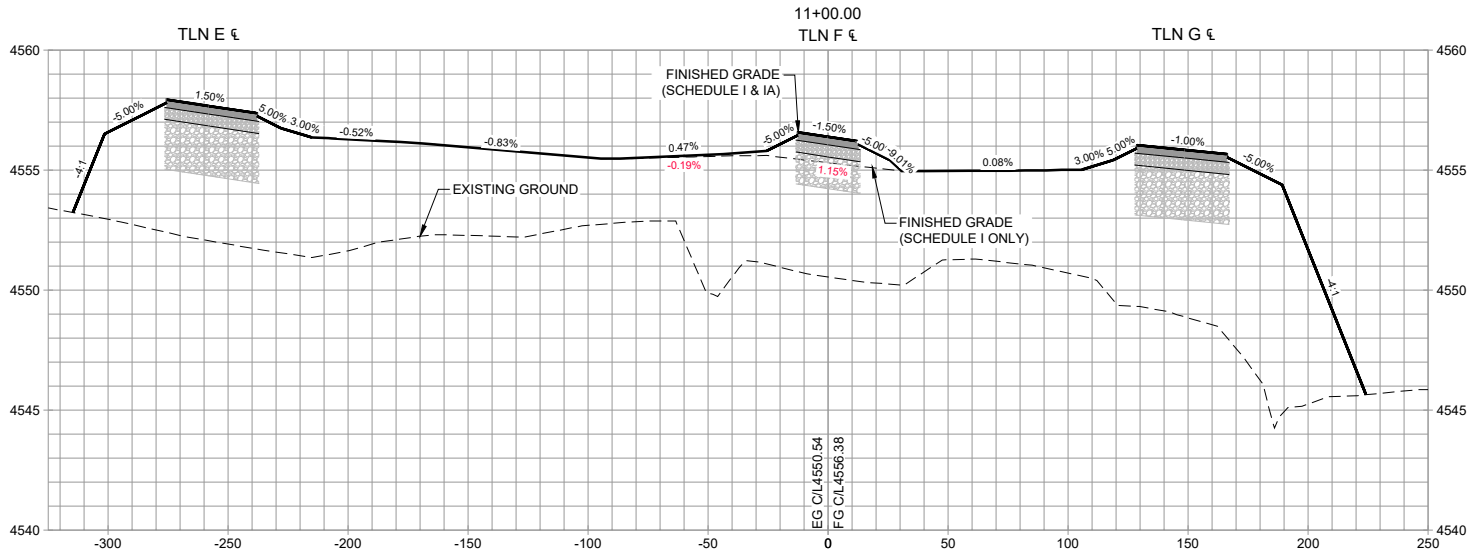
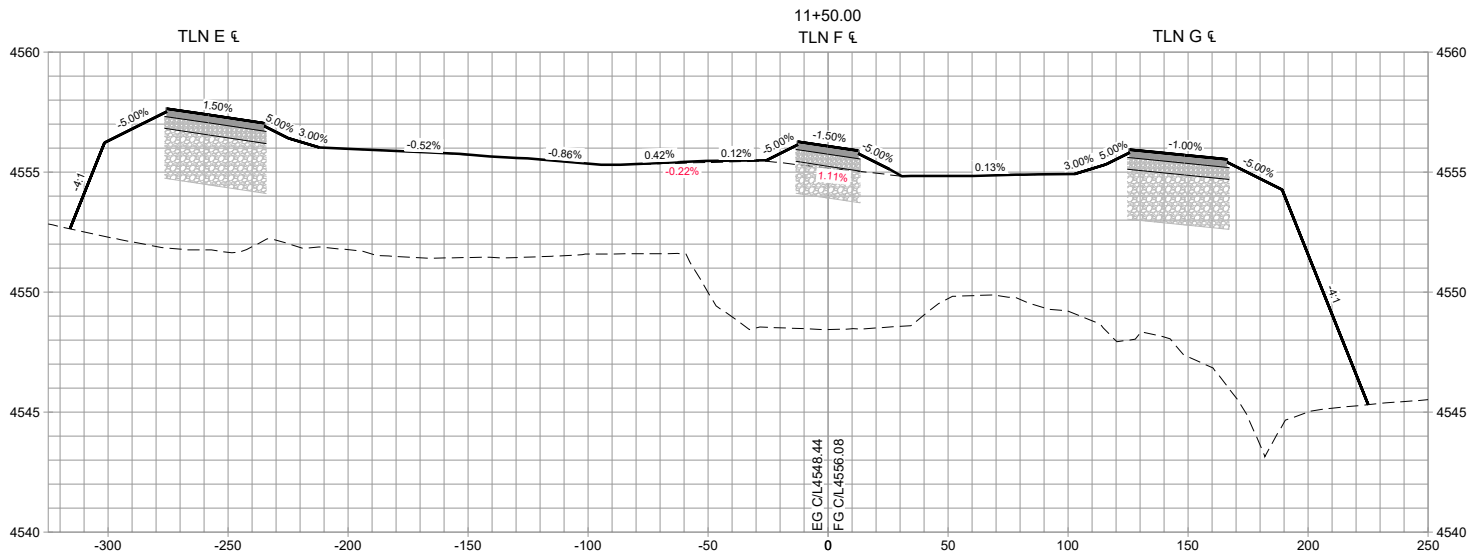
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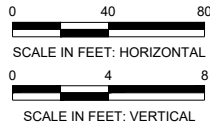
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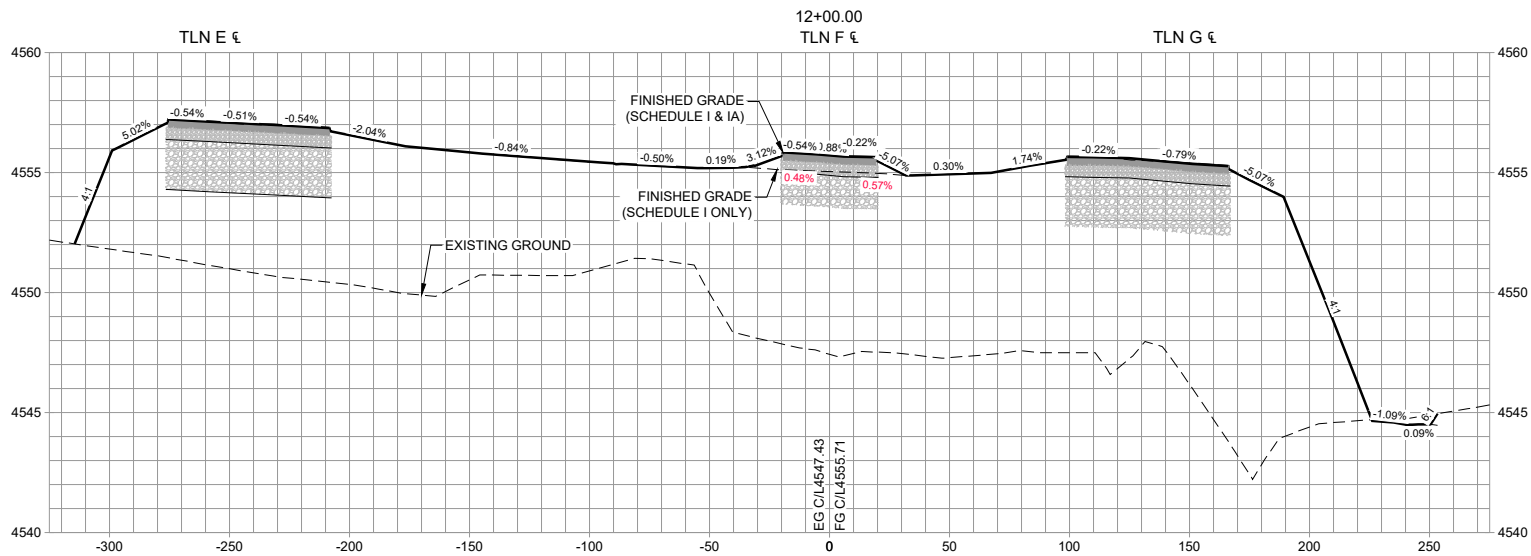
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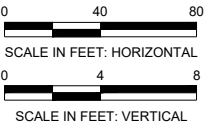
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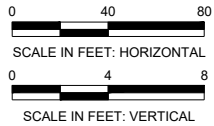
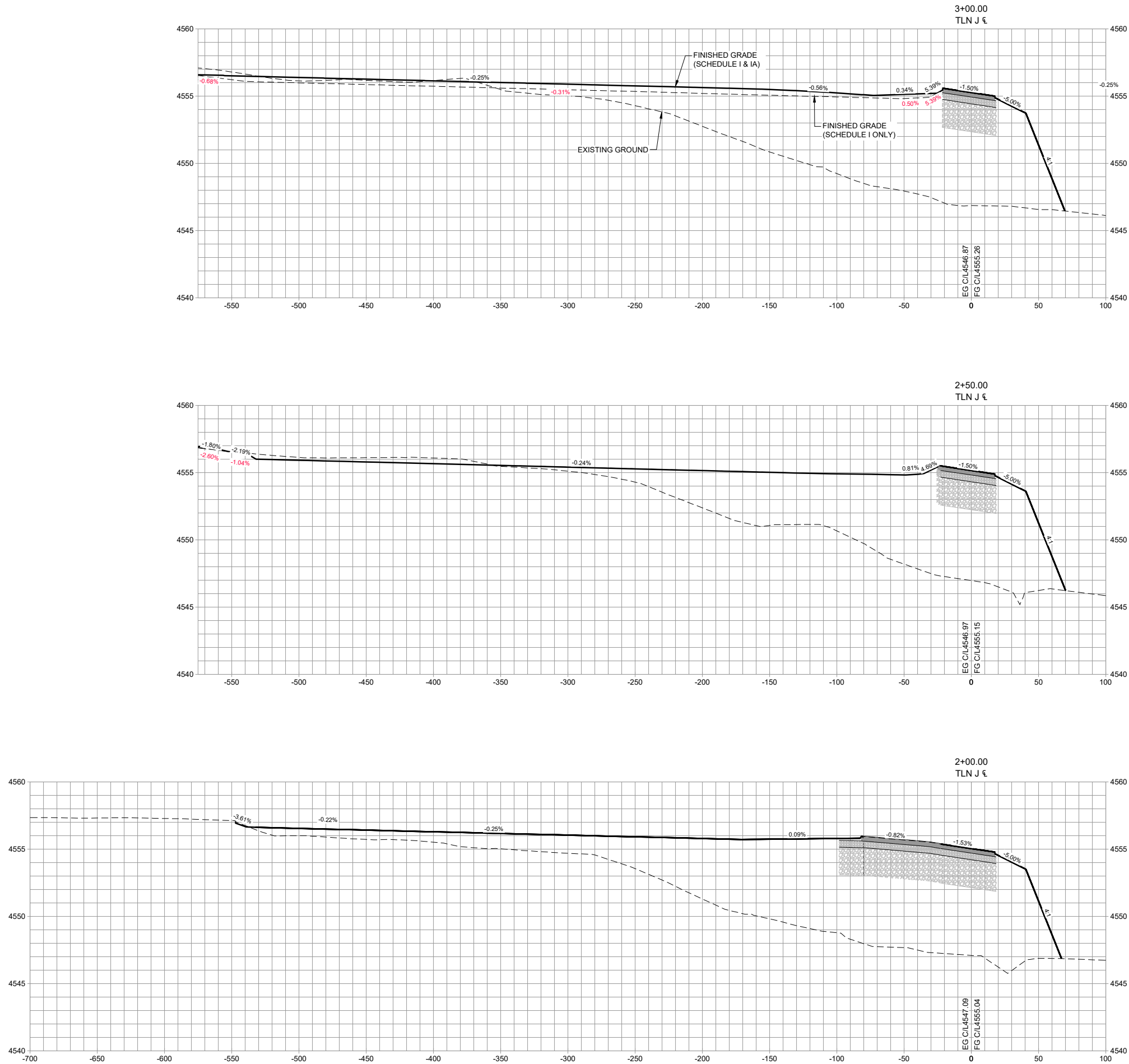
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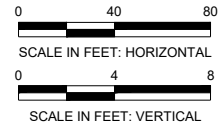
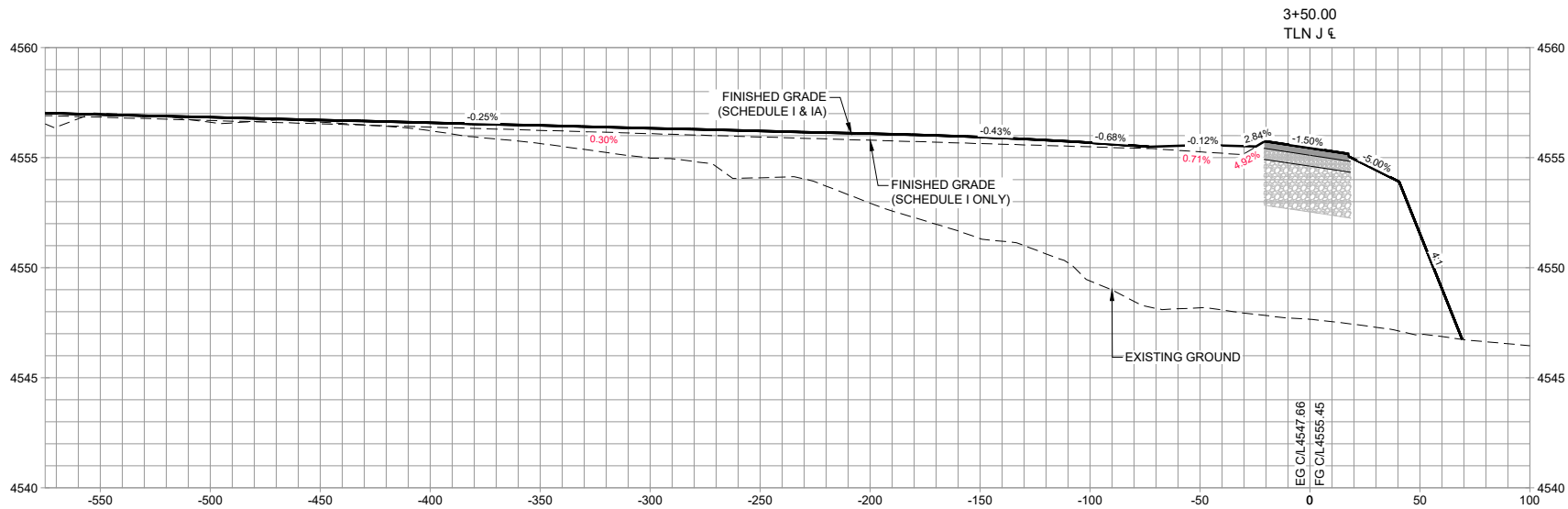
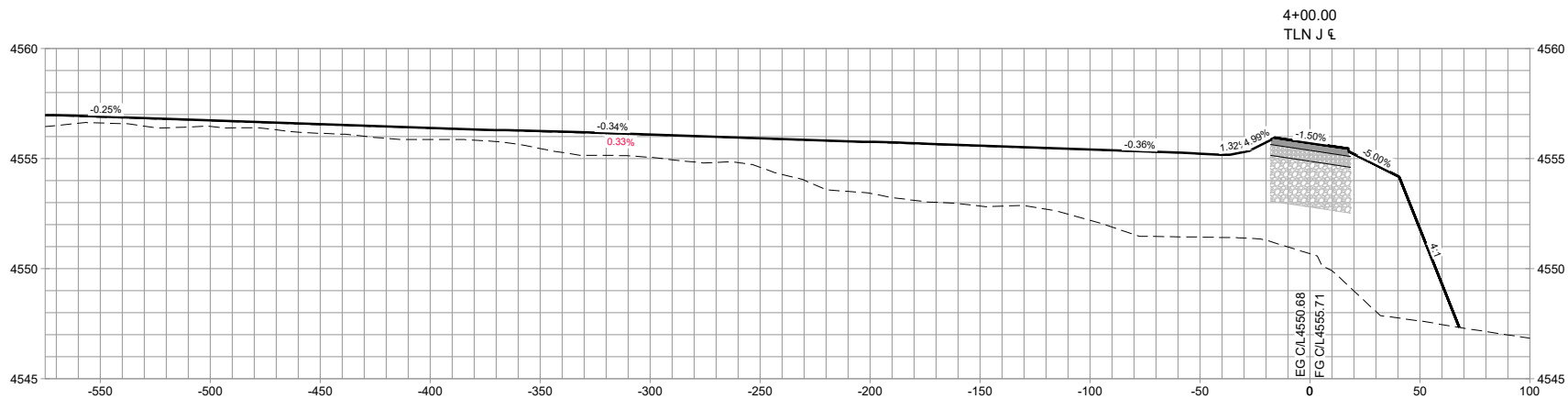
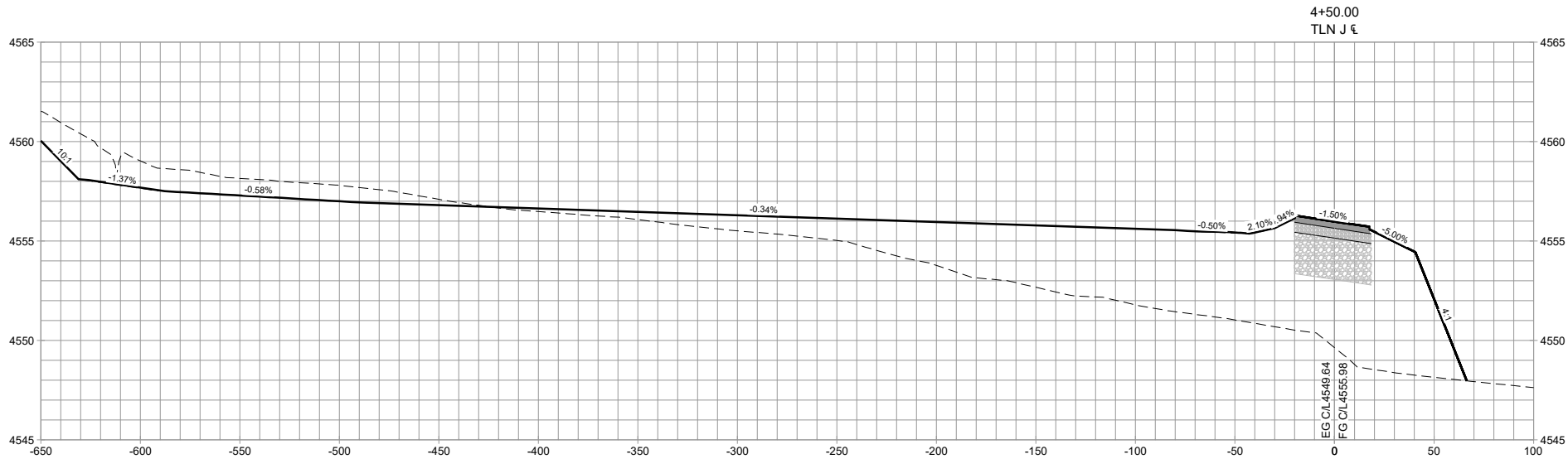
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CROSS SECTIONS

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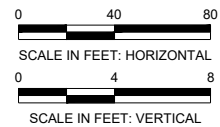
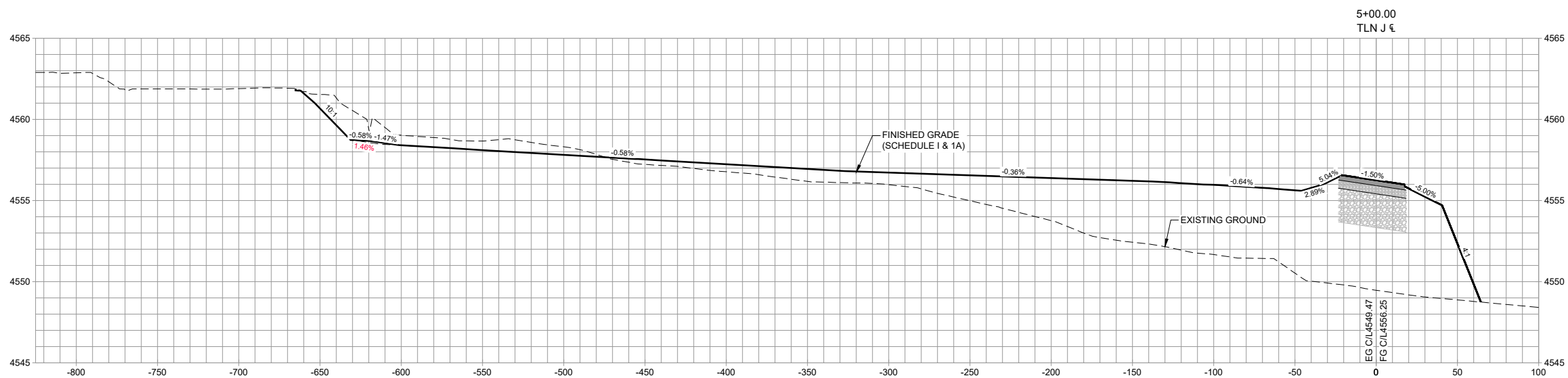
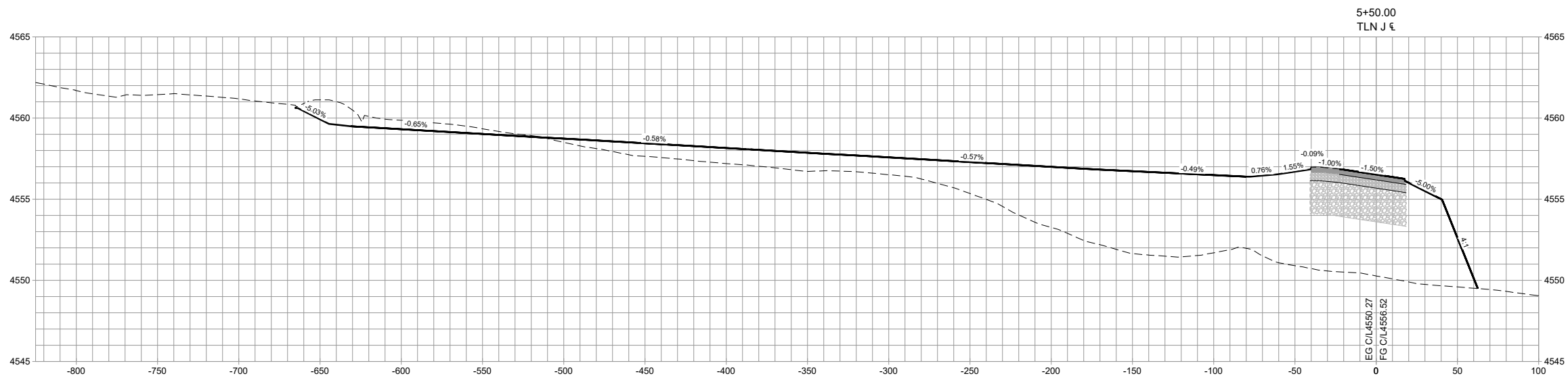
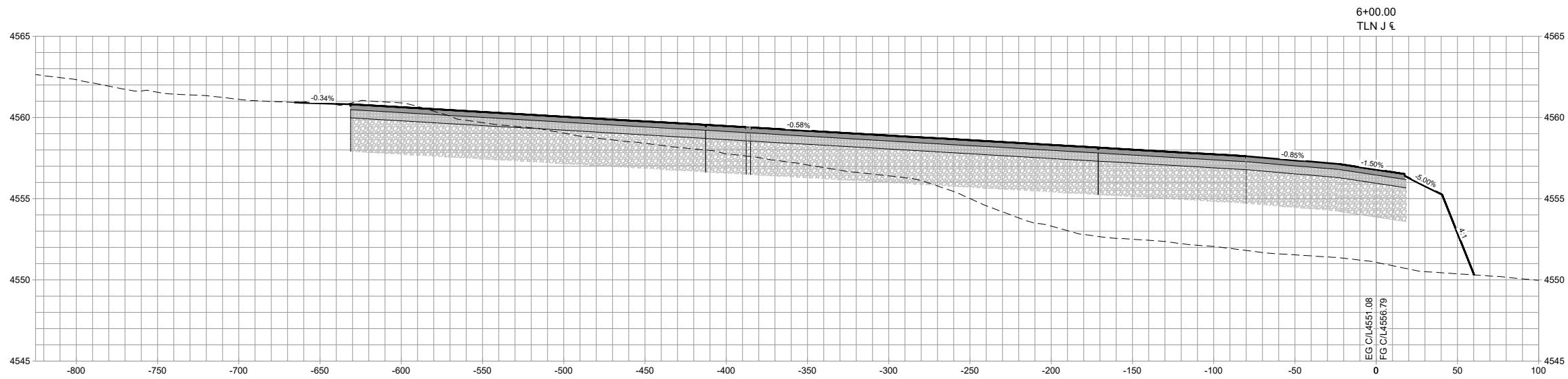
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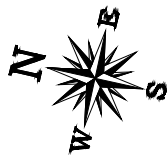
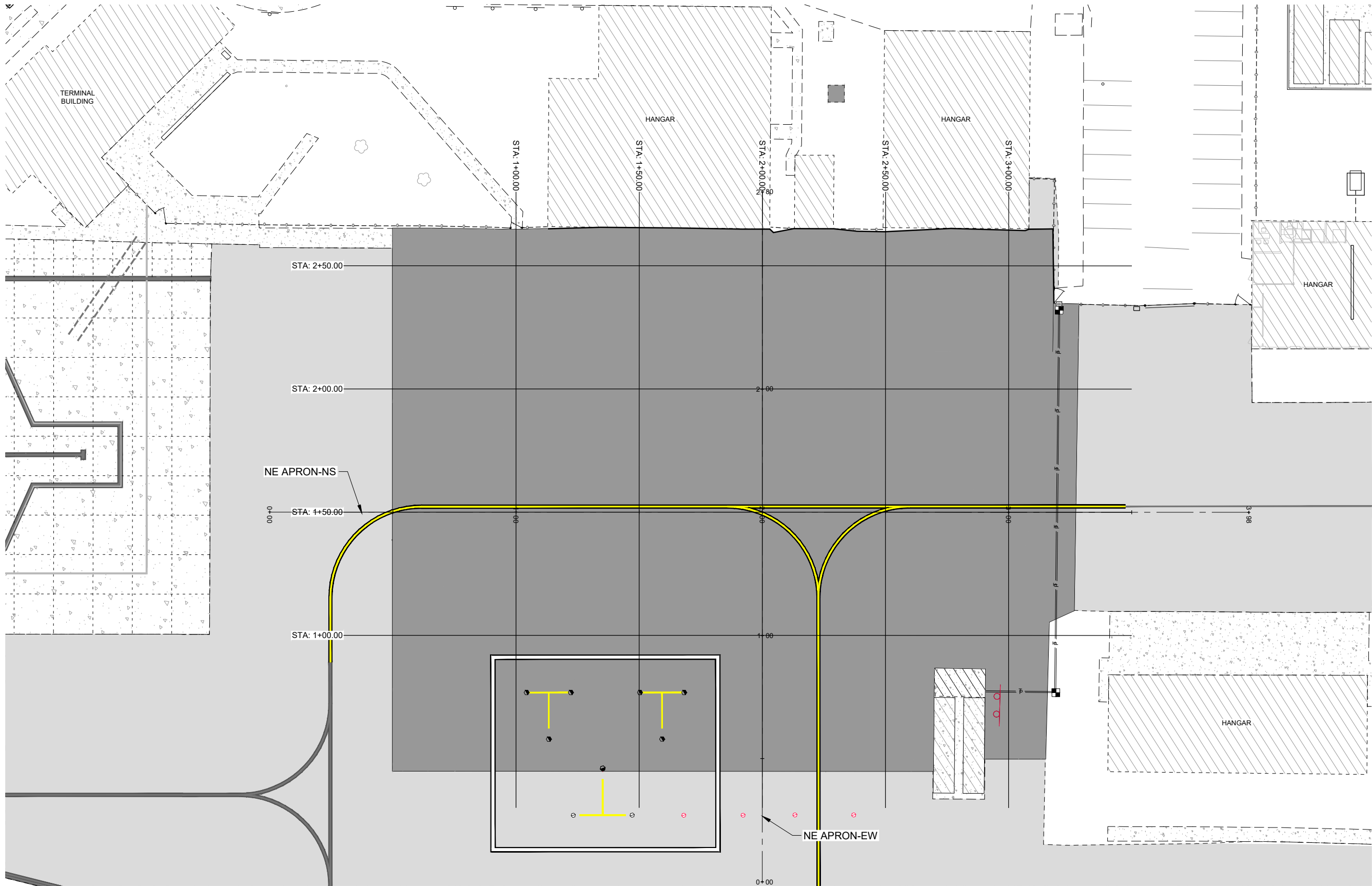
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SCHEDULE II APRON CROSS SECTION KEY MAP



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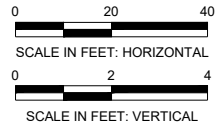
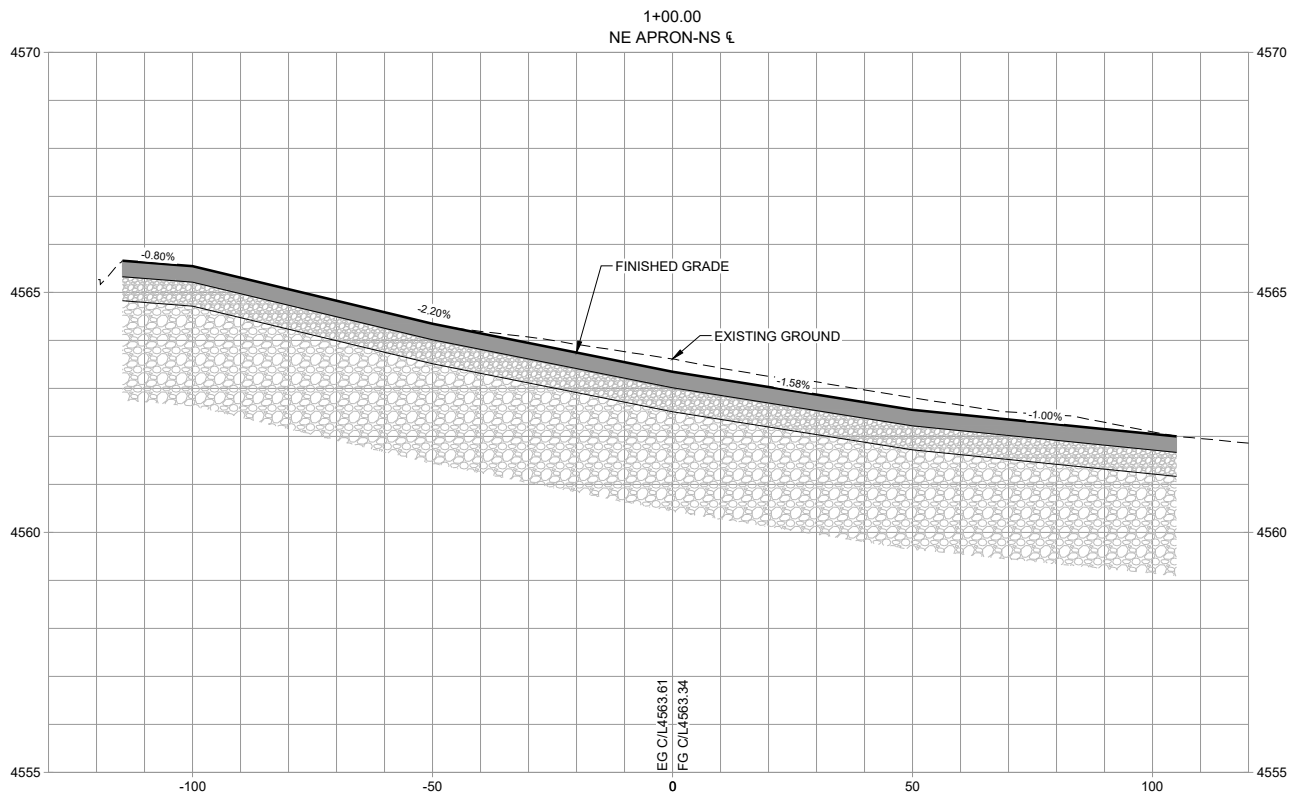
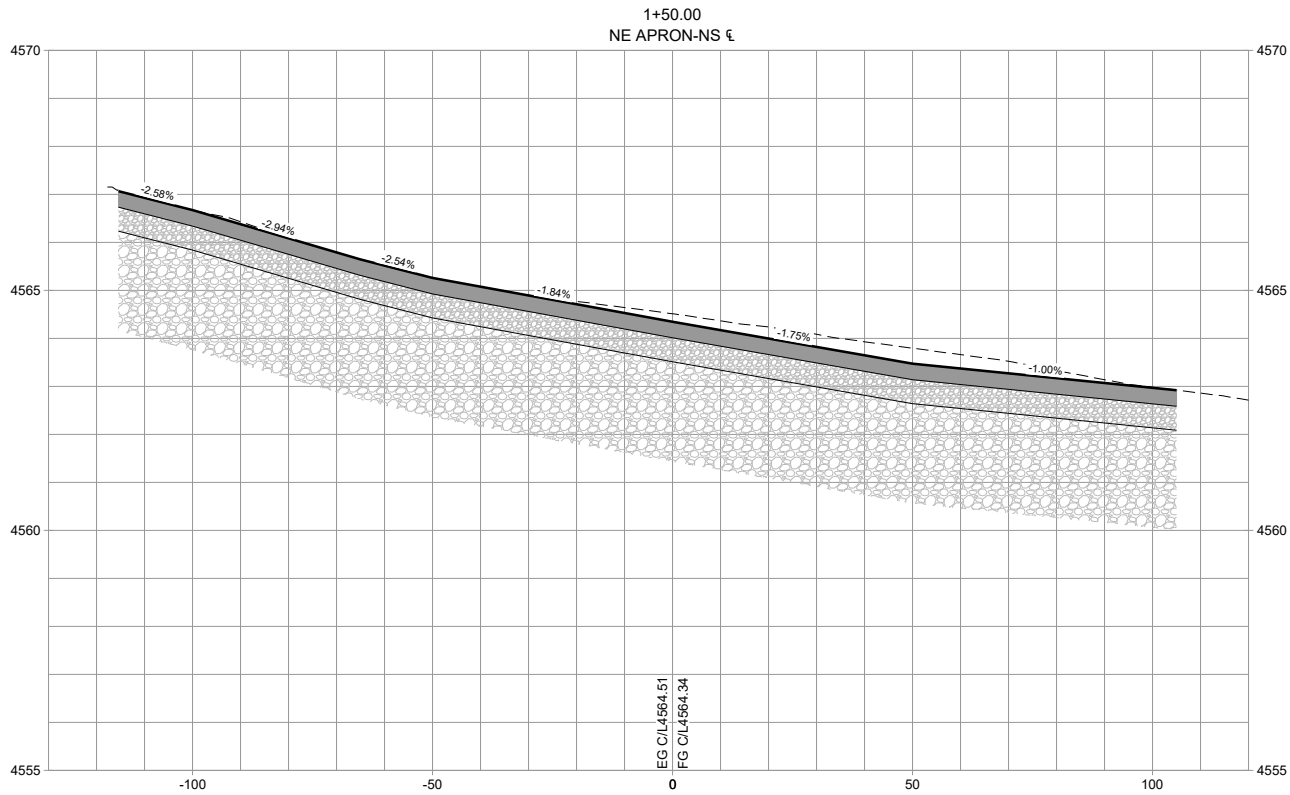
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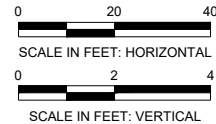
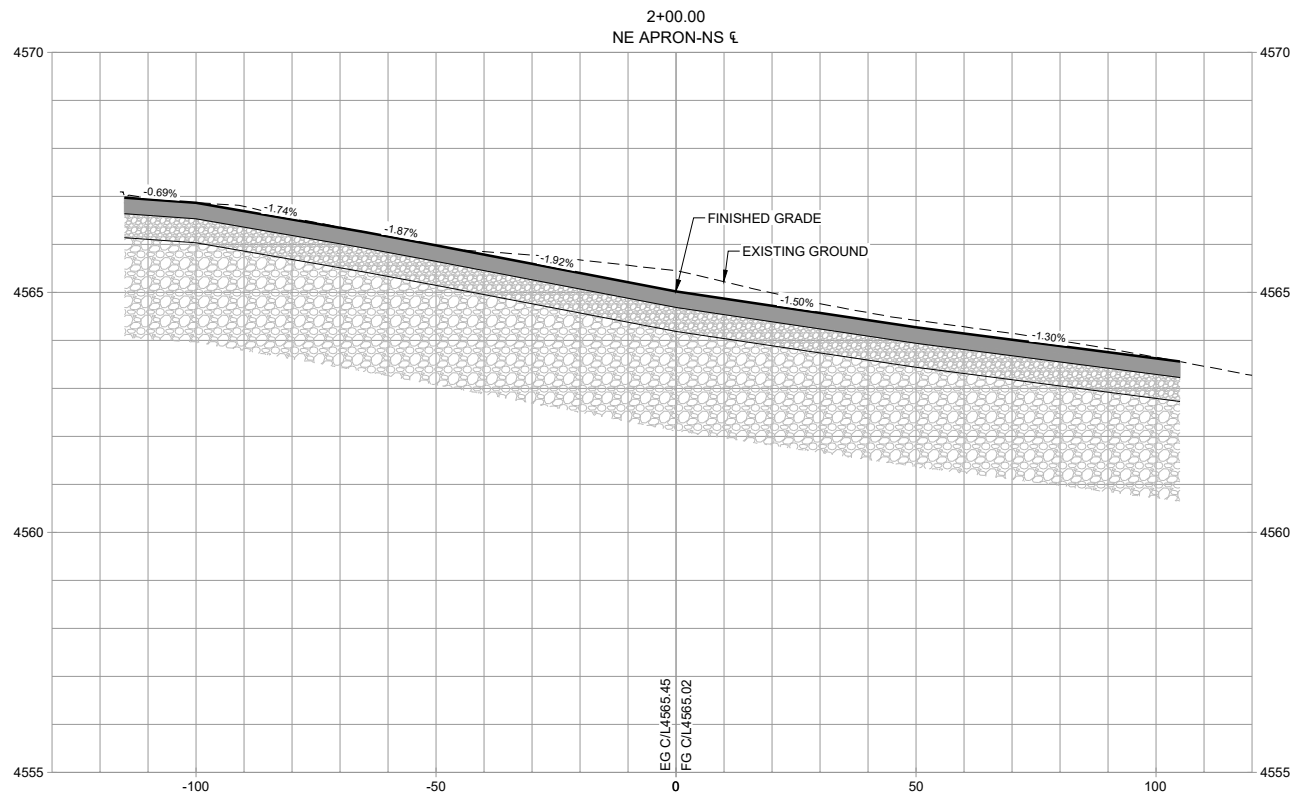
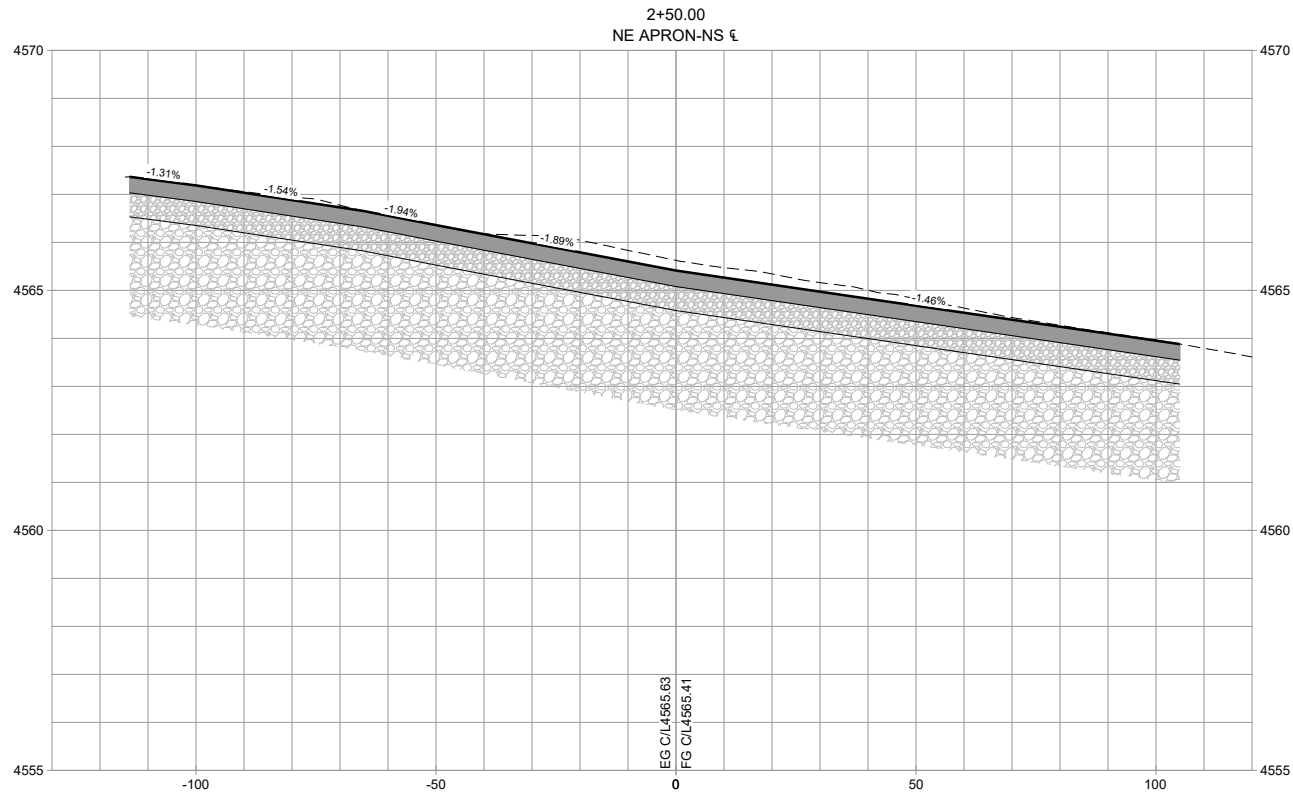
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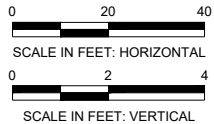
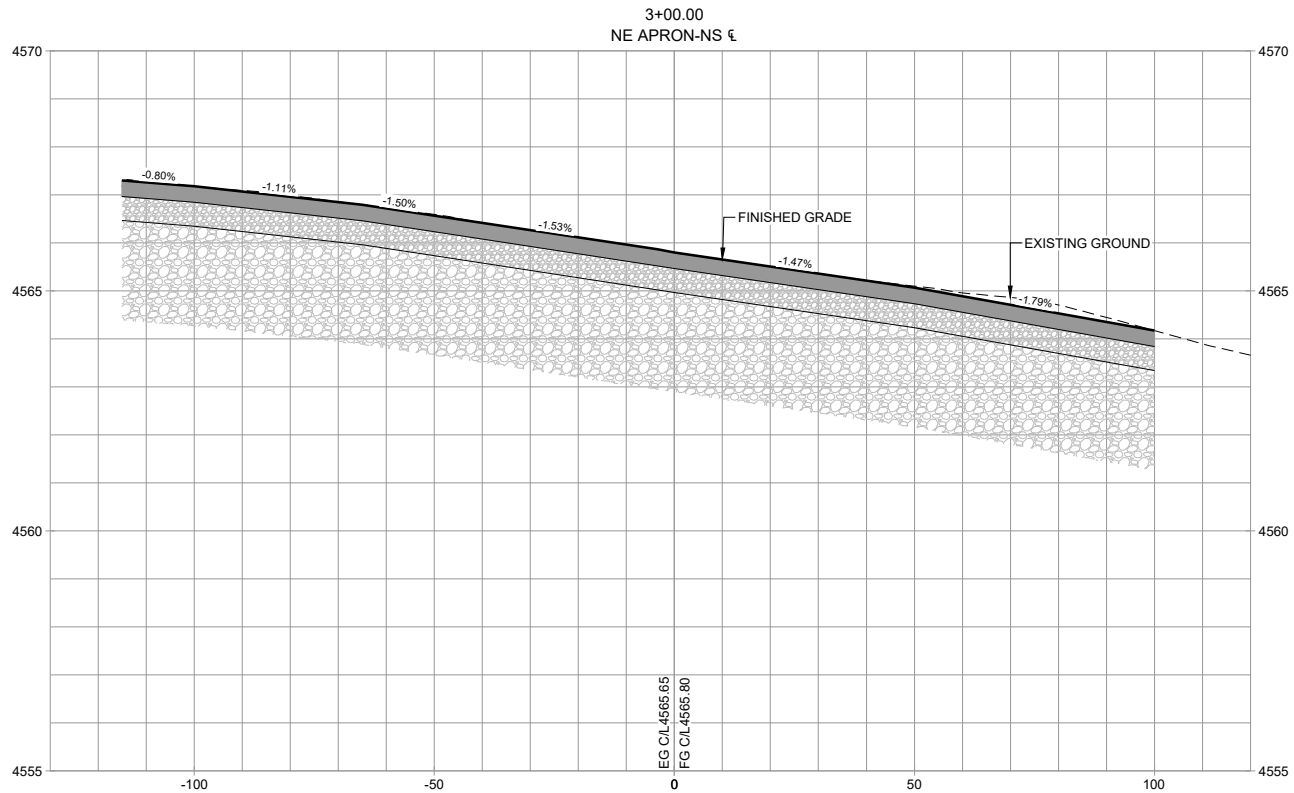
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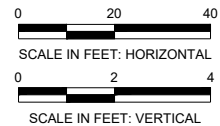
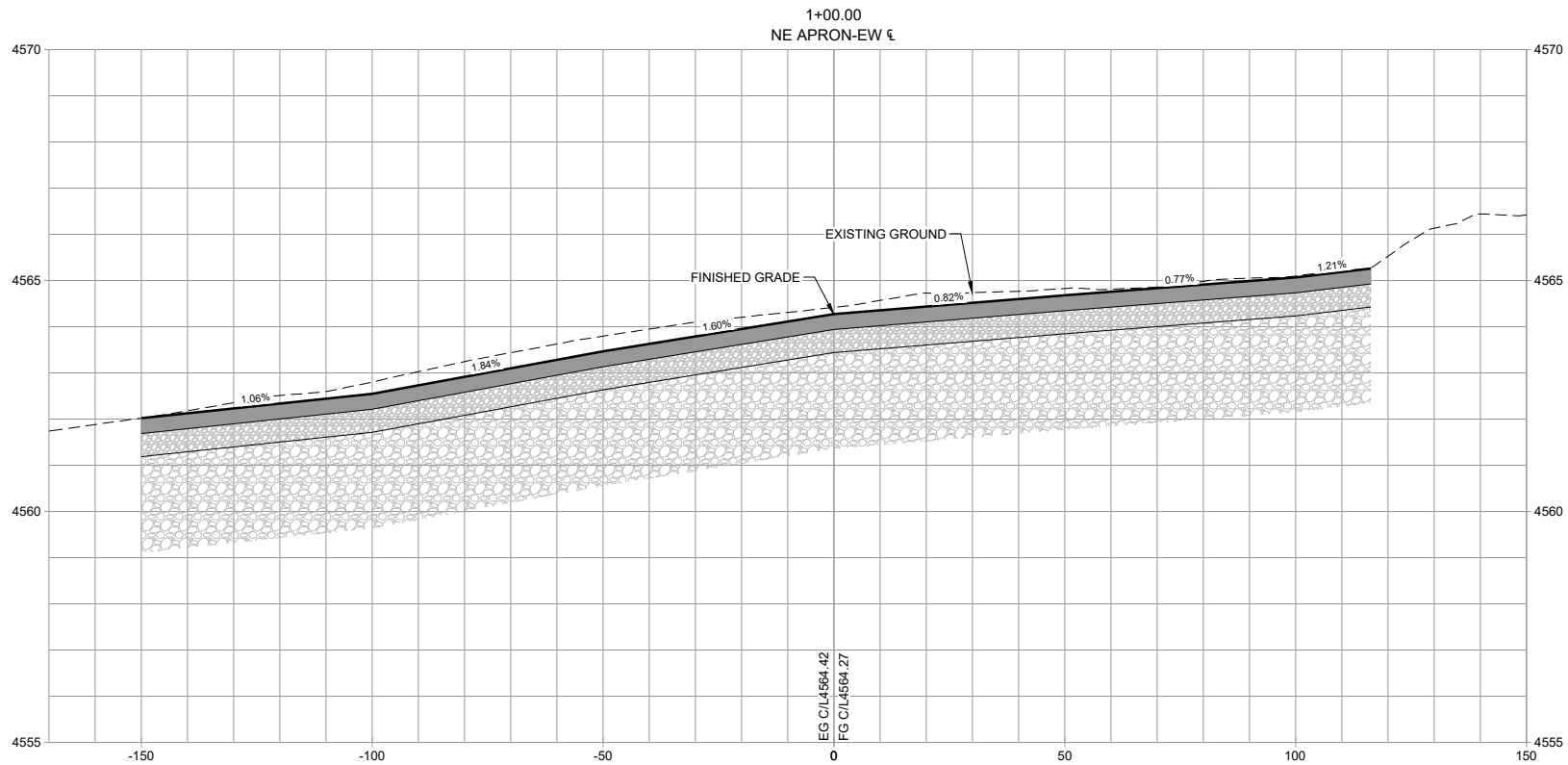
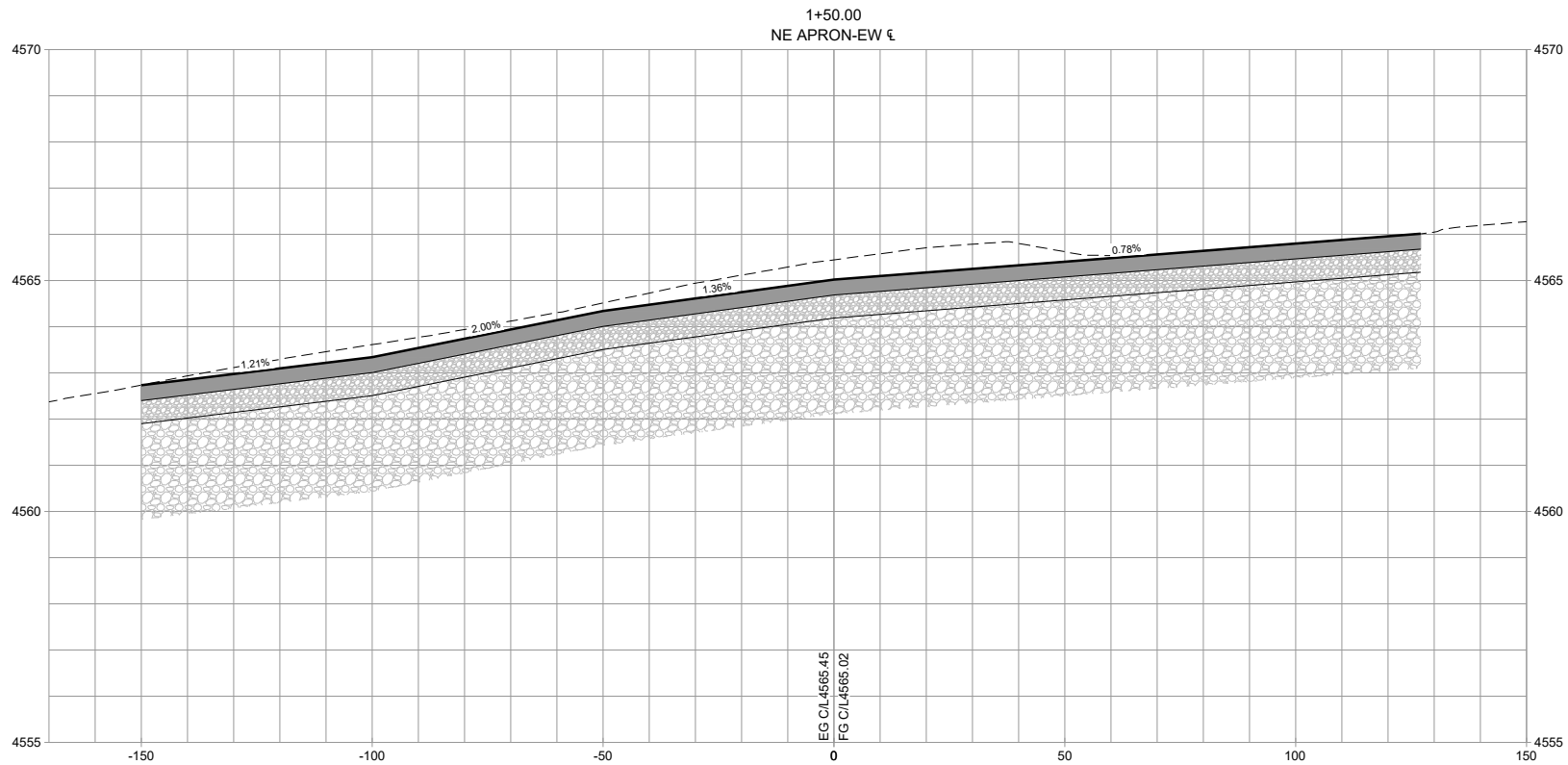
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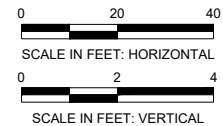
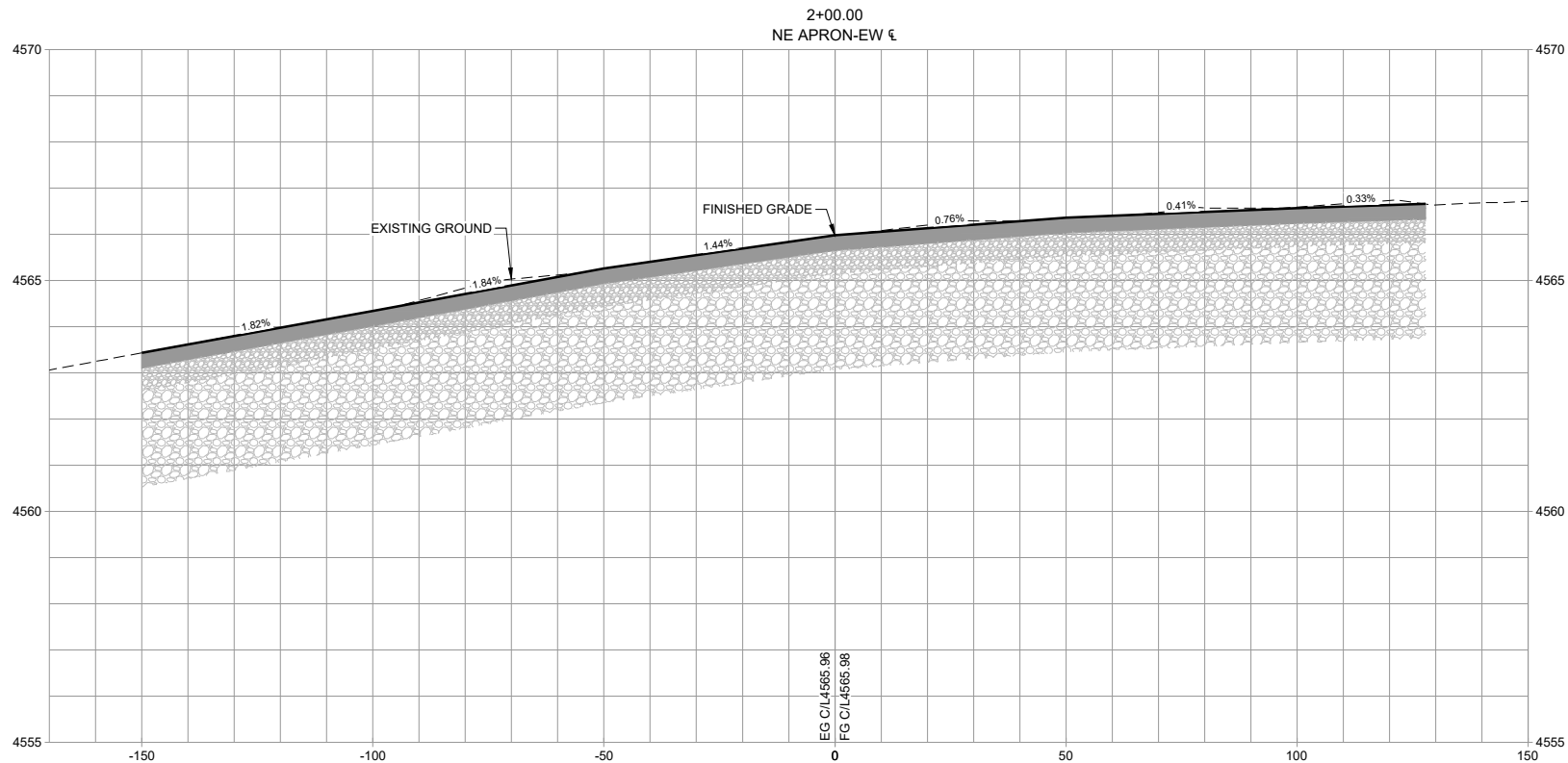
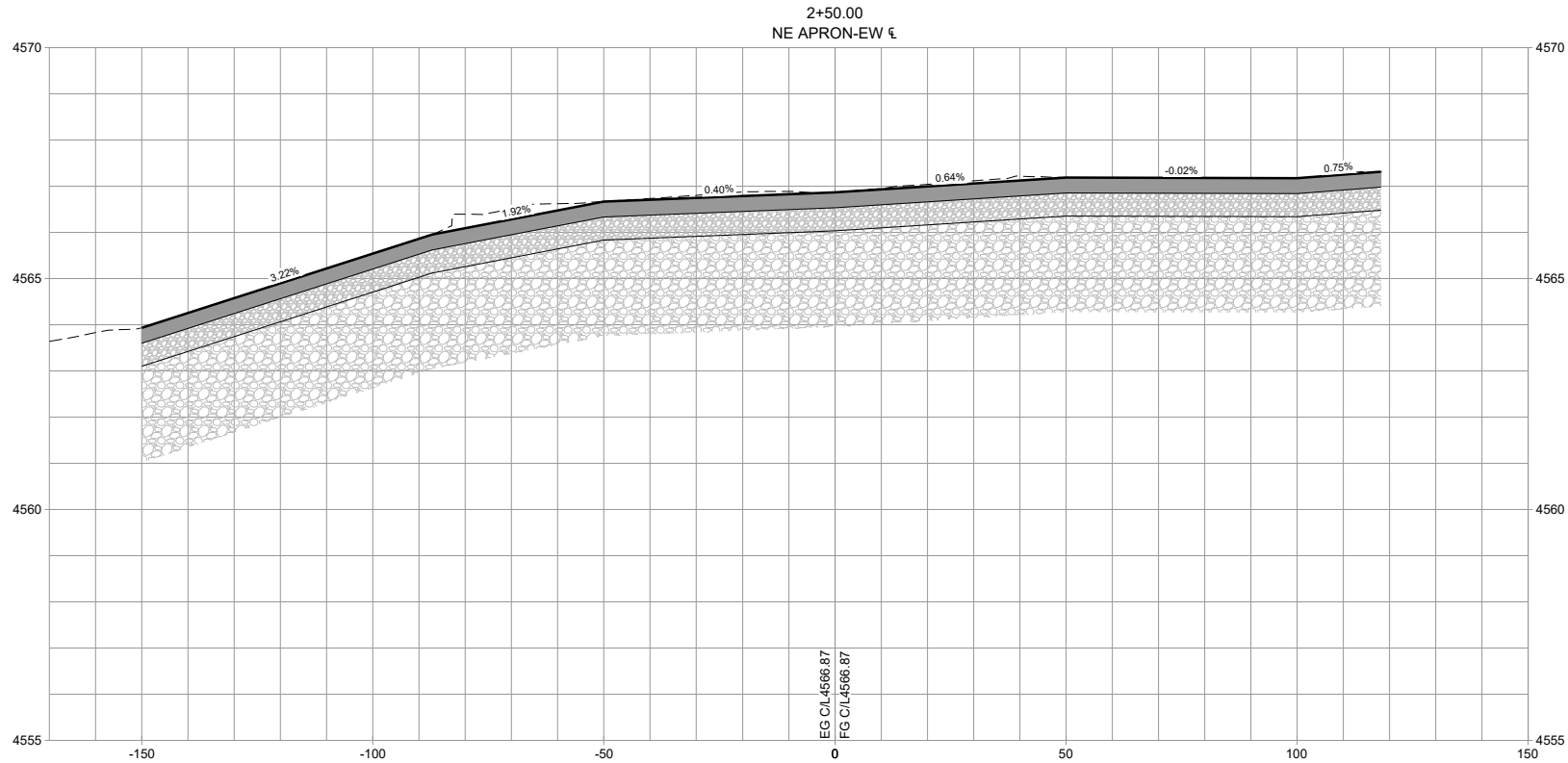
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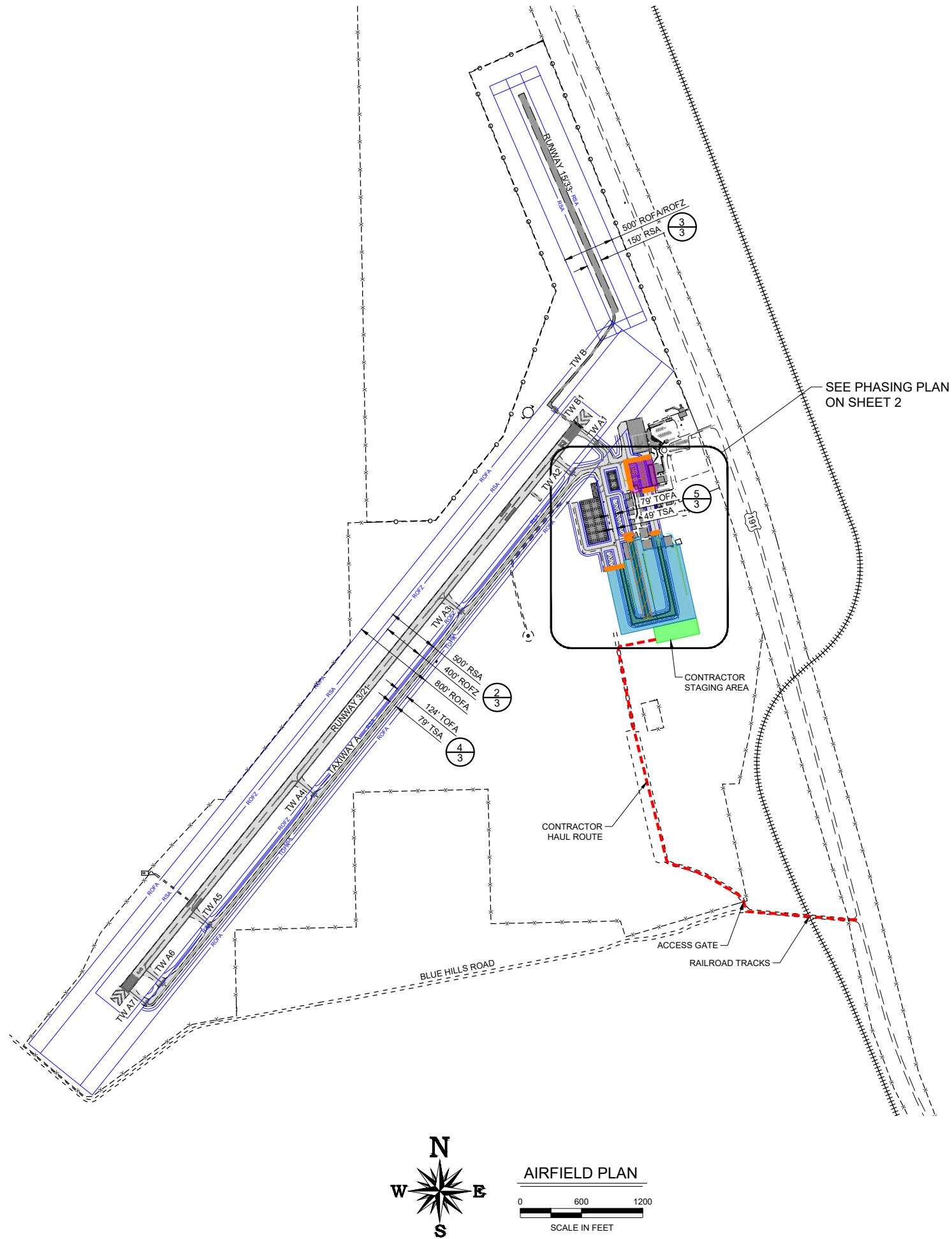
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**LEGEND**

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|--|----------------------------------------------------|
|  | PHASE I WORK AREA (TAXILANES E & G)                |
|  | PHASE II WORK AREA (APRON & APRON HANGAR APPROACH) |
|  | PHASE III WORK AREA (TAXILANE F)                   |
|  | CONTRACTOR STAGING AREA                            |
|  | LOW PROFILE BARRIER                                |
|  | CONTRACTOR HAUL ROUTE                              |
|  | DETAIL #                                           |
|  | SHEET #                                            |
|  | ROFA = RUNWAY OBJECT FREE AREA                     |
|  | ROFZ = RUNWAY OBSTACLE FREE ZONE                   |
|  | RSA = RUNWAY SAFETY AREA                           |
|  | TOFA = TAXIWAY OBJECT FREE AREA                    |
|  | TSA = TAXIWAY SAFETY AREA                          |

**NOTES:**

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO HAUL ROUTES. ANY DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.

**ARMSTRONG**  
A LOCHNER COMPANY

CANYONLANDS REGIONAL AIRPORT  
GRAND COUNTY, UTAH  
EXPAND TAXILANES E, F, & G  
& RECONSTRUCT APRON  
AIP No. 3-49-0020-046-2023

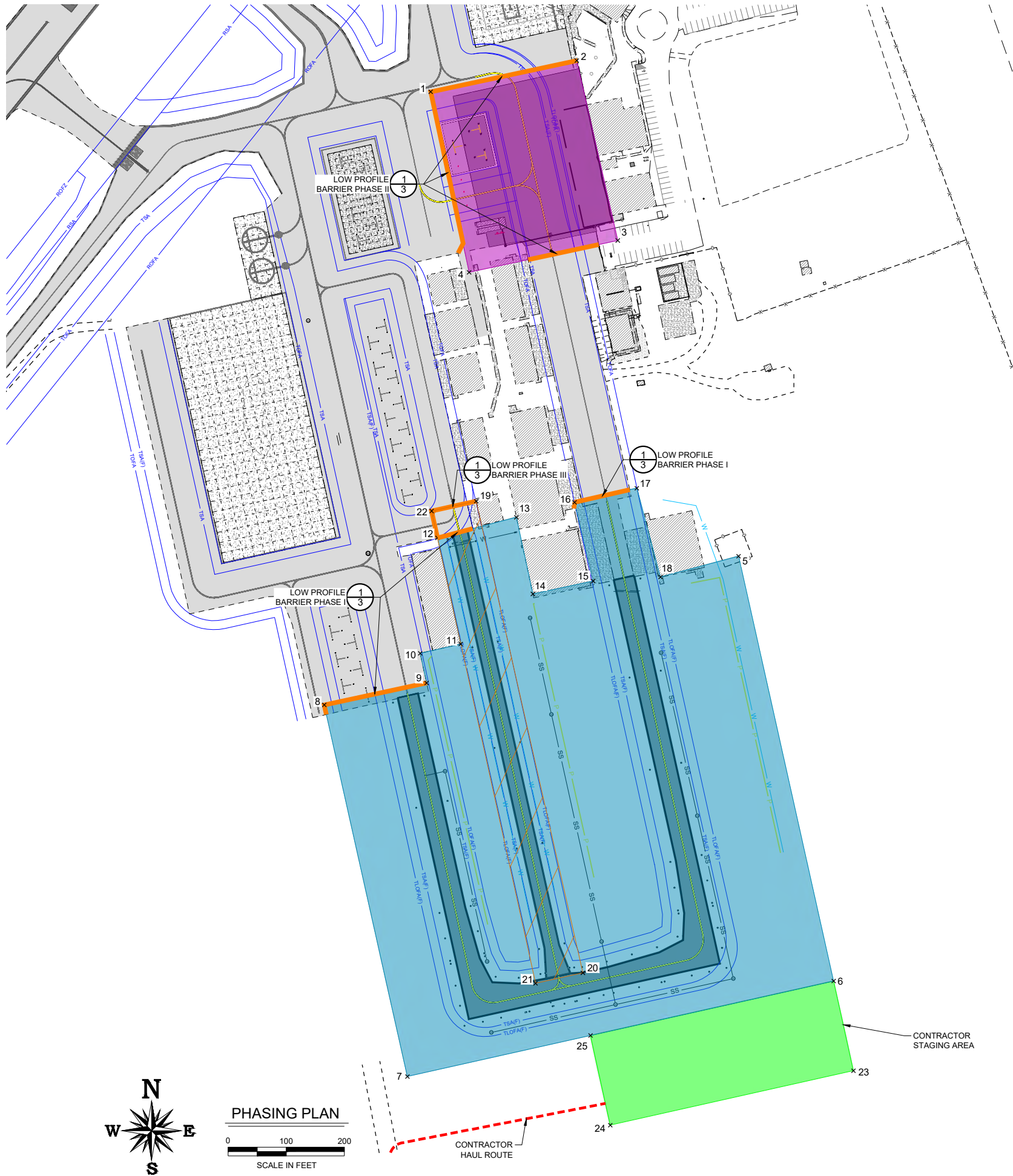
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ACI No. 237004  
Date: 10/2024  
File Name: 237004150T

Drawn: JEF  
Checked: EFR  
Approved: DJH

CONSTRUCTION  
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Sheet: 1 of 3



| WORK AREA COORDINATES |           |                |                |
|-----------------------|-----------|----------------|----------------|
| POINT #               | ELEVATION | LATITUDE       | LONGITUDE      |
| 1                     | 4560'     | N038°45'39.14" | W109°44'45.04" |
| 2                     | 4564'     | N038°45'39.62" | W109°44'41.85" |
| 3                     | 4567'     | N038°45'36.55" | W109°44'41.04" |
| 4                     | 4564'     | N038°45'36.06" | W109°44'44.28" |
| 5                     | 4566'     | N038°45'31.14" | W109°44'38.55" |
| 6                     | 4554'     | N038°45'23.89" | W109°44'36.67" |
| 7                     | 4543'     | N038°45'22.41" | W109°44'45.96" |
| 8                     | 4555'     | N038°45'28.75" | W109°44'47.61" |
| 9                     | 4557'     | N038°45'29.09" | W109°44'45.38" |
| 10                    | 4557'     | N038°45'29.60" | W109°44'45.51" |
| 11                    | 4558'     | N038°45'29.74" | W109°44'44.62" |
| 12                    | 4558'     | N038°45'31.55" | W109°44'45.08" |
| 13                    | 4562'     | N038°45'31.88" | W109°44'43.36" |
| 14                    | 4562'     | N038°45'30.57" | W109°44'43.03" |
| 15                    | 4562'     | N038°45'30.77" | W109°44'41.72" |
| 16                    | 4562'     | N038°45'32.11" | W109°44'42.09" |
| 17                    | 4563'     | N038°45'32.33" | W109°44'40.73" |
| 18                    | 4562'     | N038°45'30.82" | W109°44'40.26" |
| 19                    | 4558'     | N038°45'32.16" | W109°44'44.23" |
| 20                    | 4556'     | N038°45'24.11" | W109°44'42.11" |
| 21                    | 4555'     | N038°45'23.95" | W109°44'43.14" |
| 22                    | 4558'     | N038°45'32.01" | W109°44'45.20" |
| 23                    | 4547'     | N038°45'22.36" | W109°44'36.28" |
| 24                    | 4547'     | N038°45'21.52" | W109°44'41.58" |
| 25                    | 4547'     | N038°45'23.05" | W109°44'41.97" |

LATITUDE AND LONGITUDES (LAT/LONG) DELINEATION OF THE CONSTRUCTION AREA AND CONTRACTOR STAGING AREA LIMITS  
ELEVATIONS WERE OBTAINED FROM PROJECT SURVEY EXCEPT POINTS 23 AND 24. THEY WERE OBTAINED FROM GOOGLE EARTH.

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GRAND COUNTY, UTAH  
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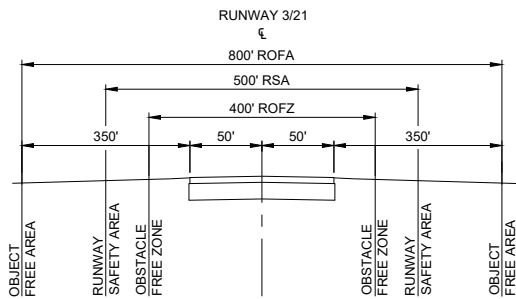
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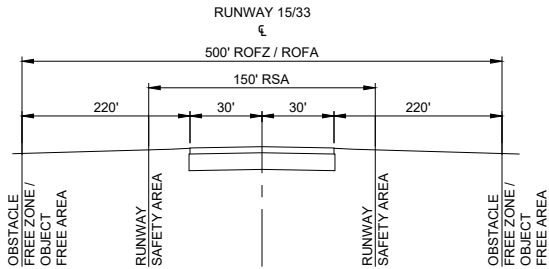
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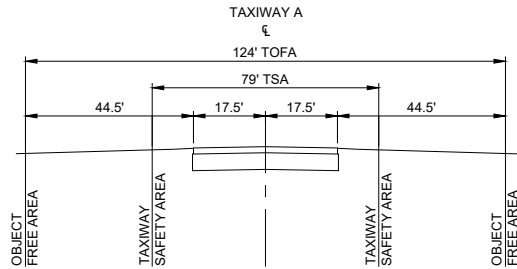
ALL STATIONARY CONSTRUCTION EQUIPMENT AND STOCKPILES MUST REMAIN CLEAR OF ANY OPEN RUNWAY OBJECT FREE AREA. ALL CONSTRUCTION EQUIPMENT AND TRAFFIC MUST REMAIN CLEAR OF ANY OPEN RUNWAY OBSTACLE FREE ZONE.

2 SAFETY AREAS  
3 NOT TO SCALE



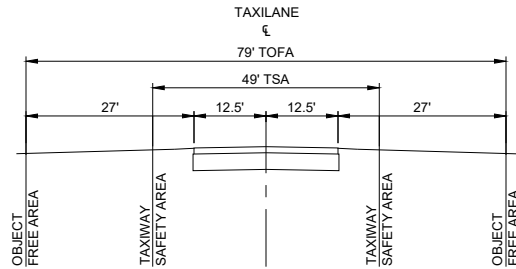
ALL CONSTRUCTION EQUIPMENT, STOCKPILES, AND TRAFFIC MUST REMAIN CLEAR OF ANY OPEN RUNWAY OBSTACLE FREE ZONE / OBJECT FREE AREA.

3 SAFETY AREAS  
3 NOT TO SCALE



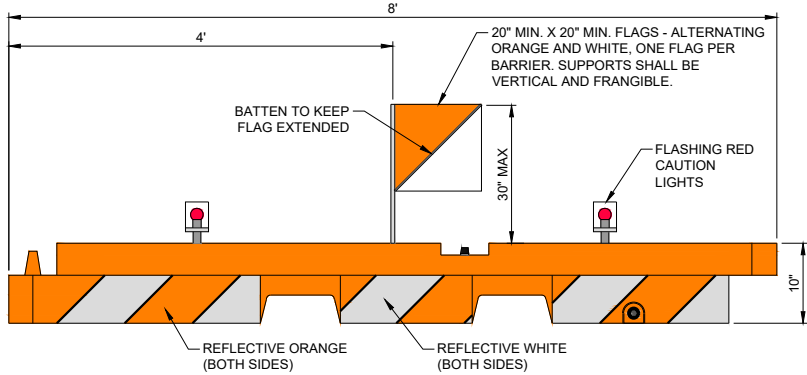
ALL CONSTRUCTION EQUIPMENT, STOCKPILES, AND TRAFFIC MUST REMAIN CLEAR OF ANY OPEN TAXIWAY OBJECT FREE AREA.

4 SAFETY AREAS  
3 NOT TO SCALE



ALL CONSTRUCTION EQUIPMENT, STOCKPILES, AND TRAFFIC MUST REMAIN CLEAR OF ANY OPEN TAXIWAY OBJECT FREE AREA.

5 SAFETY AREAS  
3 NOT TO SCALE



1 LOW PROFILE SAFETY BARRIER  
3 NOT TO SCALE

NOTES:

1. BARRIER SHALL BE SHERWIN INDUSTRIES, 10" x 96" LOW PROFILE AIRPORT BARRIER, AS SHOWN, OR APPROVED EQUAL.
2. THE ENTIRE AREA OF ORANGE AND WHITE STRIPES SHALL BE REFLECTORIZED WITH SMOOTH SURFACE TYPE REFLECTIVE SHEETING.
3. LIGHTS MUST BE MOUNTED ON BARRIERS AND SPACED AT NO MORE THAN 10 FT.
4. THE BARRIERS SHALL BE WEIGHTED AGAINST PROPWASH AND CAPABLE OF WITHSTANDING UP TO 100 M.P.H. WIND FORCES.
5. FLASHING RED CAUTION LIGHTS SHALL BE BATTERY OPERATED AND SHALL MAINTAIN SUCH INTENSITY SO AS TO BE READILY IDENTIFIED FROM DISTANCES OF AT LEAST 200 FEET DURING DARKNESS.
6. THE CONTRACTOR SHALL CHECK ALL BARRIERS AND LIGHTS EACH DAY BEFORE LEAVING THE AIRPORT TO ENSURE LIGHTS ARE WORKING PROPERLY AND MAY NOT LEAVE WITHOUT ALL BARRIERS AND LIGHTS BEING IN PROPER WORKING ORDER.

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