City of Montgomery
City Council
Regular Meeting Agenda

May 13, 2025 at 6:00 PM
Montgomery City Hall – Council Chambers
101 Old Plantersville Rd. Montgomery, TX 77316

NOTICE IS HEREBY GIVEN that a Regular Meeting of the City Council will be held on **Tuesday, May 13, 2025** at **6:00 PM** at the City of Montgomery City Hall, 101 Old Plantersville Road, Montgomery, Texas.

Members of the public may view the meeting live on the City's website under Agenda/Minutes and then select **Live Stream Page (located at the top of the page).** The meeting will be recorded and uploaded to the City's website.

OPENING AGENDA

1. Call Meeting to Order.
2. Invocation.
3. Pledges of Allegiance.

PUBLIC FORUM

The City Council will receive comments from the public on any matters within the jurisdiction of the City of Montgomery, Texas. Speakers will be limited to three (3) minutes each. Persons wishing to participate (speak) during the Public Forum portion of the meeting must sign-in to participate prior to the meeting being called to order. Please note that the City Council's discussion, if any, or subjects for which public notice has not been given, are limited to statements of specific factual responses and recitation of existing policy.

CONSENT AGENDA

All Consent Agenda items are considered to be routine by the City Council and will be enacted by a single motion. There will be no separate discussion on these items unless a Councilmember requests an item to be removed and considered separately.

4. Consideration and possible action on the City Council Regular Meeting Minutes of March 25, 2025.
5. Consideration and possible action on the City Council Special Meeting Minutes of April 07, 2025.

PRESENTATION

6. Presentation of Certificate of Election to newly-elected officials for City Council Place 1, Place 3 and Place 5.
7. Administration of Statement of Officer and Oath of Office to newly elected officials for City Council Place 1, Place 3 and Place 5.
8. Proclamation by Mayor Sara Countryman designating the week of May 18-24, 2025, as “National Public Works Week”.

REGULAR AGENDA

All items on the Regular Agenda are for discussion and/or action.

9. Consideration and possible action regarding the appointment of Mayor Pro-Tem.

10. Consideration and possible action on a resolution calling for a public hearing, for May 27, 2025, at 6:00 p.m., on an application by TriPointe Homes to grant an exception to place a manufactured home outside a manufactured home park for the establishment of voter residency by residential occupancy in a temporary manufactured home within the proposed MUD 255 for TriPointe Homes.

11. Consideration and possible action on a resolution calling for a public hearing, for June 10, 2025, at 6:00 p.m., on an application to grant a Special Use Permit to K. Hovnanian of Houston II, LLC for a proposed temporary construction/sales trailer on a vacant residential lot at 235 South Rose Marie Lane, Montgomery, Texas.

12. Consideration and possible action on a petition by Treaty Oak Developers, LLC for certain private property to be released from the City's Extraterritorial Jurisdiction.

13. Consideration and possible action on a petition by Steven Havens and Lisa Havens for certain private property to be released from the City's Extraterritorial Jurisdiction.

14. Consideration and Possible Action on the Legacy Grove Section 1 WSD&P Plans (Dev. No. 2409).

15. Consideration and Possible Action on ending releasing the maintenance bond on the Buffalo Springs Signal Improvements project.

16. Consideration and Possible Action on the Briarley PH 1B WSD&P Plans (Dev. No. 2006).

COUNCIL INQUIRY

Pursuant to Texas Government Code Sect. 551.042, the Mayor and Council Members may inquire about a subject not specifically listed on this Agenda. Responses are limited to the recitation of existing policy or a statement of specific factual information given in response to the inquiry. Any deliberation or decision shall be limited to a proposal to place on the agenda of a future meeting.

EXECUTIVE SESSION

17. Closed Session

City Council will meet in Closed Session pursuant to the provisions of Chapter 551 of the Texas Government Code, in accordance with the authority contained in:

A. Section 551.074 Personnel Matters for the purpose of discussion and deliberations regarding the appointment, employment, evaluation and duties of a City Administrator.

B. Section 551.072 Deliberations about Real Property for potential sale of land.

18. Open Session

City Council will reconvene in Open Session at which time action on the matter(s) discussed in Closed Session may be considered.

A. Section 551.074 Personnel Matters for the purpose of discussion and deliberations regarding the appointment, employment, evaluation and duties of a City Administrator.

B. Section 551.072 Deliberations about Real Property for potential sale of land.

CLOSING AGENDA

19. Items to consider for placement on future agendas.

20. Adjourn.

The City Council for the City of Montgomery reserves the right to adjourn into executive session at any time during the course of this meeting to discuss any of the matters listed below, as authorized by the Texas Government Code Sections 551.071 (Consultation with Attorney), 551.072 (Deliberations about Real Property), 551.073 (Deliberation Regarding Prospective Gifts), 551.074 (Personnel Matters), 551.076 (Deliberations regarding Security Devices), and 551.087 (Deliberation regarding Economic Development Negotiations).

I, Ruby Beaven, certify that this notice of meeting was posted on the website and bulletin board at City Hall of the City of Montgomery, Texas, a place convenient and readily accessible to the general public at all times. This notice was posted at said locations on the following date and time: **May 09, 2025** at **11:59 AM.** and remained so posted continuously for at least 72 hours preceding the scheduled time of said meeting.

/s/ Ruby Beaven

City Secretary

This public notice was removed from the official posting board at the Montgomery City Hall on the following:

Date: _____ Time: _____

By: _____
City Secretary's Office
City of Montgomery, Texas

This facility is wheelchair accessible and accessible parking spaces are available. Please contact the City Secretary's office at 936-597-6434 for further information or for special accommodation.

Montgomery City Council
AGENDA REPORT

Meeting Date: May 13, 2025	**Budgeted Amount:** N/A
Department: Administration	**Prepared By: Ruby Beaven**

Subject

Consideration and possible action on the City Council Regular Meeting Minutes of March 25, 2025.

Recommendation

Staff recommends approval of meeting minutes, as presented.

Discussion

Please see the accompanying minutes:

City Council Regular Meeting Minutes of March 25, 2025

Approved By

Interim City Administrator	Anthony Solomon	Date: 04/28/2025

City Council
Regular Meeting Minutes
March 25, 2025

OPENING AGENDA

1. **Call Meeting to Order.**

The City Council Regular Meeting of the City of Montgomery was called to order by Mayor Countryman at 6:00 p.m. on March 25, 2025, at City Hall 101 Old Plantersville Rd., Montgomery, TX and live video streaming.

With Council Members present a full quorum was established.

Present:	Mayor	Sara Countryman
	Mayor Pro-Tem	Casey Olson
	Council Member Place 1	Carol Langley
	Council Member Place 4	Cheryl Fox
	Council Member Place 5	Stan Donaldson

2. **Invocation.**

Council Member Donaldson gave the invocation.

3. **Pledges of Allegiance.**

Mayor Countryman led the pledges of allegiance.

PUBLIC FORUM

No comments were received.

PRESENTATION

4. **Proclamation designating the month of March 2025 as Theatre In Our Schools Month.**

Mayor Countryman stated the young lady that we were doing this proclamation for is not here. She should be here around 6:20 p.m. so we will come back to this item number.

At 6:20 p.m. Mayor Countryman said the City has a Proclamation that she would like to read and to present to Ms. Ginger Brown.

WHEREAS, every year in March, the American Allegiance for Theatre & Education, the Educational Theatre Association, and the International Thespian Society partner for Theatre In Our Schools Month to raise awareness about the value of theatre education and draw attention to the need for all students to have access to a quality theatre program; and

WHEREAS, theatre is an integral part of arts education and the arts have been part of life from the very beginning and are an inseparable part of the human journey; describing, defining, and deepening the human experience and adding depth and dimension to the environment we live in; and

WHEREAS, all students participating in arts education courses benefit from the skills and processes developed through the arts and apply those skills in a variety of disciplines and settings no matter their intended career path; and

WHEREAS, participating in theatre contributes to student's development through heightened skills in listening, understanding human experiences, adapting to and respecting others' diverse ways of thinking, communicating, effectively analyzing nonverbal communication, reading, self-expression, imagination of humankind, creativity; and

WHEREAS, theatre helps develop self-confidence, boost self-reliance, and increase empathy and compassion towards one's self and others; and

WHEREAS, as a creative outlet, or as the beginning steps toward a professional career, theatre programs in Montgomery shape the future of our young people. There are a variety of benefits that come from taking part in these programs for students of all backgrounds and professional and educational interests, including creative problem solving skills, the ability to accomplish team goals and many more.

NOW, I SARA COUNTRYMAN, MAYOR OF THE CITY OF MONTGOMERY, TEXAS, do hereby honor and proclaim the month of March 2025, as THEATRE IN OUR SCHOOLS MONTH and, on behalf of the City of Montgomery, hereby urge all citizens to celebrate theatre programs and the students that participate in them, as we work toward a better future for this important part of every student's education.

In testimony whereof, I have hereunto set my hand and caused the Official Seal of the City of Montgomery, Texas to be affixed this 25th day of March 2025.

CONSENT AGENDA

Agenda item 8 pulled from the Consent Agenda for separate discussion.

5. **Consideration and possible action on the City Council Workshop Meeting Minutes of January 29, 2025.**

6. **Consideration and possible action on the City Council Regular Meeting Minutes of February 11, 2025.**

7. **Consideration and possible action on a Resolution of the City Council of the City of Montgomery, Texas, declaring property salvage and authorizing the disposal of salvage property.**

   Proposed Resolution No. 2025-09

   Motion: Mayor Pro-Tem Olson made a motion to accept consent agenda items 5, 6 and 7. Council Member Donaldson seconded the motion. Motion carried with all present voting in favor.

8. **Consideration and possible on a Resolution calling for a Public Hearing to grant a Special Use Permit for 0.7059 acres of land situated in the John Corner Survey, Abstract No. 8 [A.K.A. 21049 Eva Street, Montgomery, Texas] Montgomery County, Texas for a fast food restaurant with common drive thru lane.**

   Council Member Fox stated I would like to table this item until April 22nd because I would like to think about it and consider it more. Mayor Pro-Tem Olson said he believes if they table it, do they have to bring it back in the next session or can we pick one farther out? City Attorney Villarreal said you just need to state the date.

   Motion: Council Member Fox made a motion to table item #8 as presented until April 22, 2025. Mayor Pro-Tem Olson seconded the motion.

   Discussion: Council Member Langley asked if they will receive more information on it before April 22nd that you are looking for? Council Member Fox said she hopes so.

   Motion carried with all present voting in favor.

REGULAR AGENDA

9. **Consideration and possible action by the City Council for a variance request related to lot minimum frontage and side yard setbacks of lots 27 & 28 for the Hills of Town Creek Section 5 development.**

   City Engineer Roznovsky said in Hills of Town Creek Section 5 towards the very back corner by the driveway to the stadium, they had originally set up the property as a reserve in that back corner with no access to it. They have since come back and said they want to use that property as a park. They are requesting this variance to be able to replat the property to provide a reserve that goes from the street to that area to be able to communitize it with a walkway there that is on a property they would own and maintain, versus being on the neighboring property owners. If you look on page 47 in your packet, you will see an exhibit showing the proposed change. It essentially reduces those lots to 45 foot width at that point versus the 50 foot that was approved originally. Overall, the lot sizes since these are those pie shaped lots in the cul-de-sac, are still well above what the variance amount

was. One is 10,700 square feet, one is 8,500 square feet so the overall lot size is still above what was approved previously. Mayor Pro-Tem Olson asked does this affect the setback to where it abuts up to Lone Star Parkway as well? City Engineer Roznovsky said no, it should not. This variance what it does, is their original variance was for 50 foot lot widths, this is 45 foot. Council Member Donaldson said they are just making wider access to get to the park. City Engineer Roznovsky said correct. They are creating access that was not there. Mayor Countryman asked who did you say was going to maintain it? City Engineer Roznovsky said it would be the HOA. It is not a City property. This would just approve the variance. Mayor Pro-Tem Olson said I just want to make sure that the fence cannot be pushed closer. I am sure they are going to fence it if it is going to be a park, that it cannot get closer to Lone Star Parkway than it already is. City Engineer Roznovsky said it will not change the right-of-way line of Lone Star Parkway. I do not know if they are going to fence it, but we can definitely ask that question because we have a water line that goes through there, so we will need to see what or if anything they are proposing on top of it. They would not be able to go and build a fence within the Lone Star Parkway right-of-way without the County.

Motion: Council Member Donaldson made a motion to accept a variance request related to lot minimum frontage and side yard setbacks of lots 27 & 28 for the Hills of Town Creek Section 5 development. Council Member Fox seconded the motion. Motion carried with all present voting in favor.

Mayor Countryman said now if you would please look at your agenda on item number four. Miss Ginger Brown has entered the building and we would like to go ahead and put item number four on the agenda.

10. **Consideration and possible action by City Council on an Amendment to the Agreement with Taylor Morrison (the "Developer"), for the Lone Star Ridge Development to include Retaining Walls, and to authorize the Mayor to sign the agreement.**

City Engineer Roznovsky said this is the Lone Star Ridge development which currently they are creating and clearing the site on Lone Star Parkway. Through the develop design process and through the comments back from the home builder to the design engineer, they need the lots to be flatter than were originally proposed. Therefore, retaining walls were required on site. If you look on page 59 of your packet, you will see a general exhibit showing the location, a substantial amount of walls therein, and height all across the property. What this amendment to the agreement does is it assigns and denotes who is liable for the walls, where they should and should not be constructed, and any issues inside the walls are not the City's responsibility going forward. It is clarifying it so in the future, if there is a problem, we have an agreement in front of us to reference back to. This has been reviewed and approved by the developer. The developer's engineer is here if you have any specific questions for him on the need, etc. that we would recommend approval of the

amendment. Mayor Pro-Tem Olson asked did the drainage plan have to be adjusted for all the walls? City Engineer Roznovsky said it was. The way that they received the project which is normal and then they will go back and finish up the review of the water and drainage plans that includes drainage layout that accounts for the walls. One of the last changes accompanying this, is moving these walls back away from the right-of-way, away from utilities. Again, we are trying to minimize any future repair costs. Mayor Countryman said I am assuming that if these walls deteriorate and fall down, it is not on us. It is on their POA who is collecting it. It is the neighborhood who will own them. City Engineer Roznovsky said it is on the developer. This agreement can be assignable, so I do not know. I do not know if this will get assigned to the MUD on this property, or the HOA on the property, but as of this agreement, it is the developer's responsibility. Mayor Countryman said just for full transparency from today moving forward of who owns these walls and this drainage. City Engineer Roznovsky said per this agreement, the developer is the owner and will hold the City harmless of any issues caused by the walls. Mayor Countryman said just because we have had issues back there. City Engineer Roznovsky said yes, retaining walls and especially when you look at Fairwater, we want to make this as crystal clear as we can. Mayor Pro-Tem Olson said my concern about the drainage is that yes, the walls belong to the developer in the subdivision ultimately, but the streets are public and it means the ditches are public and we will have considerable runoff. I am from up north, so we use a lot of walls. Our topography is much more than it is here generally. If we do not do our drainage correctly, we can have a mess quick.

Mr. Jonathan White with L Squared Engineering said just for your concern, like City Engineer Roznovsky indicated, we did a master drainage plan. One thing we wanted to do on this property was obviously to do detention, so we did enlarge detention ponds in the very back, did off-site drainage areas, and made sure everything flowed through. In most of our designs on any of the on-site storms here, we try to make sure that 100 percent can be conveyed within the energy grading of the storm system itself. We are not relying on any overflow through streets, so we do try to make that as an implementation of our design. Some of the ditches that we have on the east and west property lines, those are actually going to be owned and maintained by the MUD district. The detention pond is going to be owned and maintained by the MUD district. We coordinated with the property next door of potentially giving them access, rights, and easements to where that MUD district can take care of all that. We know that we have had some concerns with the area downstream, so we have been even through construction trying to monitor that as closely as we possibly can. There will be a form of government entity that will be in charge of the drainage components outside of what the City owns. Mayor Countryman asked Mr. White, will you be that MUD's engineer? Mr. White said yes.

Motion: Mayor Pro-Tem Olson made a motion to accept an amendment to the agreement with Taylor Morrison, the Lone Star Ridge development to include retaining walls, and to

authorize the Mayor to sign the agreement. Council Member Langley seconded the motion. Motion carried with all present voting in favor.

11. Consideration and possible action on a request for a sign variance of the entry sign for the Lone Star Ridge development.

Code Enforcement Officer and Planning/Zoning Administrator Tilley said this letter is their (Taylor Morrison's) apologies that they are unable to attend this meeting. It explains exactly what they are doing and the reasons for this sign variance. What they are asking for is according to our sign ordinance, you cannot exceed 64 square feet of sign base and the height is not to exceed eight feet. What they are proposing is a 782.5 square foot sign at a height of 15 feet so their variance request is going to be for 718.5 square feet with a high variance of seven feet. The main reasoning or the finding that I would support the recommendation of approval of this sign is the location of the sign. It is actually going to be about 200 feet from Lone Star Parkway, so for visibility and safety for their residents, it would be good to have that size of sign. Also to note, they are only proposing back lighting for the signage on that sign, so no spotlight or anything like that. Mayor Countryman said it is very good looking. Council Member Langley asked do we have any other signs in the City that are this large at entrances to subdivisions? Code Enforcement Officer and Planning/Zoning Administrator Tilley said the one most recent would be Montgomery Bend that has the two towers on either side. City Council Member Langley asked that is the only other one that you know? Code Enforcement Officer and Planning/Zoning Administrator Tilley said that would be the most recent. There might be a couple that might be coming, maybe not this size. Take into consideration that the actual size is based on how you are required to measure the dimensions of a monument sign. It includes everything from ground all the way up, and from all sides where the lettering is actually on a small portion of that whole monument sign, but because the monument sign is so large, you have to measure the whole structure, not just the lettering. Mayor Countryman said I was in the neighborhood today and they had these kinds of signs. It is very clean and good looking.

Motion: Council Member Donaldson made a motion to accept a request for a sign variance of the entry sign for the Lone Star Ridge development. Mayor Pro-Tem Olson seconded the motion. Motion carried with all present voting in favor.

12. Consideration and possible action on an Ordinance of the City of Montgomery, Texas, granting to SiEnergy, L.P. a franchise to furnish and supply gas to the general public in the City of Montgomery, Montgomery County, Texas, and to transport, deliver, sell, and distribute gas in and out of and through said municipality for all purposes; providing for the payment of a fee or charge for the use of the streets, alleys, and public ways; and providing a severability clause, a penalty clause, and an effective date.

Mayor Pro-Tem Olson said they were here and presented at the last meeting. Is that correct? Mayor Countryman said that is correct. I then saw them on television the next day.

Motion: Mayor Pro-Tem Olson made a motion to accept Ordinance 2025-09, an Ordinance of the City of Montgomery, Texas, granting to SiEnergy, L.P. a franchise to furnish and supply gas to the general public in the City of Montgomery, Montgomery County, Texas, and to transport, deliver, sell, and distribute gas in and out of and through said municipality for all purposes; providing for the payment of a fee or charge for the use of the streets, alleys, and public ways; and providing a severability clause, a penalty clause, and an effective date.

Discussion: Council Member Donaldson said on page 77 which is page 16, there are two blanks there on the franchise fee payment. What are those percentages? City Secretary Beaven said it is supposed to be five percent. Mayor Countryman asked do you want to add that to your motion to put five percent in there? Council Member Donaldson said I do not know how we determined that. That was my question tonight. City Secretary Beaven said the City Attorney. City Attorney Villarreal said this was City Attorney Petrov that actually looked at the contracts, but that is the number standard that is used in other cities and other franchise or agreements. It is the standard number that is used. Council Member Fox asked why was it left blank on this one? City Attorney Villarreal said I am not sure. I do not know why it is not filled in. Council Member Donaldson asked are the two brackets, one with the percent spelled out and one with a percent sign, is that for ambiguity? Are we supposed to match it? Is is supposed to be five percent in each box? Mayor Countryman said I think one of them is you type out five and then the next one you put in the numeral five just for clarity. Mayor Pro-Tem Olson said yes. Let us just add it to the motion. City Secretary Beaven said for clarification, when I uploaded that document into the agenda management, I grabbed the draft and not the one that the attorney had given me back. It does have it written out as "five percent (5%)" on the document to be signed. Mayor Countryman asked in that case, does the motion stand because in the actual, not the draft, but in the actual paper that you have it has five in there, or because right now we are approving the draft, or are we really approving that? We just happen to have the wrong one in front of us. City Secretary Beaven said you can run the motion with making sure that five percent is written in.

Motion: Mayor Pro-Tem Olson made a motion to amend Ordinance 2025-09, an Ordinance of the City of Montgomery, Texas, granting to SiEnergy, L.P. a franchise to furnish and supply gas to the general public in the City of Montgomery, Montgomery County, Texas, and to transport, deliver, sell, and distribute gas in and out of and through said municipality for all purposes; providing for the payment of a fee or charge for the use of the streets, alleys, and public ways; and providing a severability clause, a penalty clause, and an effective date with the caveat to make the change of the number five written out and five percent as "five percent (5%)" to Section XI. Council Member Donaldson seconded the motion. Motion carried with all present voting in favor.

13. Consideration and possible action regarding the BCS Properties Memorandum of Understanding.

City Engineer Roznovsky said this is the item you had the workshop on last night. Based on the comments we received, we handed out a revised copy. BCS can take a look if they are not in agreement with the exact terms that are in it. I will note this is not the final version; however, I think this will open up more discussion after last night's topics on what additional information BCS is looking for. Mayor Countryman said on this MOU, it still has the hotel on there, but I thought last night we discussed those two parcels for the detention pond with which BCS was going to be checking to see if it could be minimized. City Engineer Roznovsky said correct. On the market version, we had that highlighted to be removed. We just did not take that whole section out because it was not a big topic, at least to bring back up before it gets removed. 100 percent it needs to be removed. One thing that I just noticed sitting here that I missed earlier, is it talks about the water plant impact fee credit in section two. However, based on the talk last night, it was the overall reimbursement of costs, not direct impact fee credits was what was discussed. That would need to be modified. Based on our discussion last night, the way that we interpret it was it would be the 100 percent of the roadway cost, 50 percent of the utility cost reimbursed through sales tax, and that being from 50 percent of the City share. I know that last night there was more than we asked for in terms of creating additional jobs and credit above the national public cost in terms of the 380 agreement. We were looking at different mechanisms based on discussion last night.

Mr. Burgher said I felt like we made pretty good headway last night. Thank you guys. For us again, we stated last night, it is pretty simple. For us to be able to get this deal financed, we need $4 million. We can do that in various ways. We can discuss and create a development agreement. We can do it that way, but $4 million, no matter how you skin it, is what we need help with. We have an updated MOU that we sent that actually explains that. It spells it out. It is $4 million. And then, we have increased it if you guys want us to do the CB Stewart as well to another $800,000. We can do that, we just have to increase the number not to exceed. It is a not to exceed number. Mayor Countryman said I too, walked away with, I think the City Council as a whole, I felt that they were very much in favor of this, and sees that this development will, like Kroger, transform us. This is really going to transform us and really provide us with a lot of ad valorem taxes as well as sales tax. Partnering on the utilities and then the roadway, I see the importance of that as well. I guess it is up to Council. Again, we talked about $4 million is in the scope of what this is going to bring to us. I think in the rearview mirror, we are going to say, oh that is all? I know it sounds like a lot, but we paid five and a half million dollars for Kroger. I think this is going too far exceed what Kroger has done and what I think even your projections will do. Based on the feedback from our constituents, everybody is very excited.

Council Member Donaldson said I was not exactly in total agreement because I do not even want to pay the $4 million. When you changed the pad sites and added the retention ponds, we lost some sub pad sites because you moved the Academy over and those pad sites disappeared, so that is revenue that we will not get. I am not against what you are wanting to do, and I am for what you are wanting to do, I am just concerned about the payout and the time of the payout. I did not want to pay any more than seven years, and talking to some of the other Council members, we cannot do it in seven years. It has to be a 10-year payout which I really do not want, but if that is what it takes to get the deal done, I am fine. I still say I would like to have a little more wiggle room in the $4 million after losing three sub-pad sites. Mr. Burgher said well, that is what we need to get it done, but we are local so we are going to be here, and I will give you some good news. It is not done, but we made some progress today on the adjacent six and a half acres. We are going to purchase that so that is more accretive dollars. Mayor Pro-Tem Olson asked are you not going to come back to us and ask us for some more money for six acres? Mr. Burgher said no we are not. The Academy deal does not make money. That is what I was trying to explain last night. It does not make money. You can ask other developers. Cities are having to invest in order to bring users like Academy, so that is a use specific. Once you get that anchor, then what it does for the remaining property you know, so no, we will not be coming asking for more money. That is on record. Mayor Countryman said that is huge and that is a big caveat as well. That is a game changer Jack.

Mayor Pro-Tem Olson said the other question too falls back to the ponds. I have to rely on City Engineer Roznovsky and others because I am not an engineer and I do not understand necessarily the state rules on that, but they are huge. They are absolutely enormous. I have a hard time understanding why we would need six acres of water standing. Mayor Countryman said they are going to do what the engineers tell them to do. Mr. White said with the scale it does look larger, but when you zoom out you see the entire 32 acres and it will not look as bad. Mayor Pro-Tem Olson said no, I am not worried about the size. I am looking at the footprint and what it is costing us to build it. You are telling us it cost us $2 million to build six acres worth of ponds. Council Member Donaldson said to me that it is not really part of what a 380 agreement is about. I do not think it is technically included in something that the City should have to pay for, but that is just my opinion. Mayor Countryman said but technically, it could be too, depending on how it is worded in the agreement. Mr. Burgher said we just did a deal in Spring with the MUD. We got a $7.5 million economic development agreement. It had nothing to do with public infrastructure. It had to do with what we could do with the dollars in terms of accretive sales tax and that is how we see this here. We can do other uses for proposed on site, but bringing Academy and then what else it does with the development is an accretive sales tax and ad valorem tax generator for the City. Mayor Countryman said last night, but just for the record too, we established that commercially we are about 40 percent capacity, so there is that tipping point that Finance Director Carl talked about where when you build out, there is no more

growth and then now you have 380'd yourself out broke. We are not there. We are not at that tipping point thankfully. We still have room to grow and that is when we can make these kinds of commitments with developers like yourself. City Engineer Roznovsky said we are looking at multiple financing mechanisms because the 380 has certain rules that if the Council wants to go up to that $4 million number, it is just switching. Is it based on job creation or other things that we can provide that incentive? What Finance Director Carl talked about last night is the rules around 380 and what the City has adopted specifically to public infrastructure. However, there are other tools in the tool chest to be used to get to that number. The retaining walls they are talking about are at SH-105. Mr. White said I think they are around four feet. City Engineer Roznovsky asked, and then additional ones are behind the Academy or to be determined? Mr. White said the retaining walls fall on this corner here. This is the lowest point of the property, so it would wrap here. Mayor Countryman asked who maintains this? Mr. White said it would be most likely the property owner. Mr. Burgher said we are going to create a POA that governs the entire development. Mayor Countryman said just not the City. I do not want to pay for it over and over again. Mr. Burgher said we talked to our MUD attorney specialist today about how we can skin what City Engineer Roznovsky was talking about. Our attorneys can help with the City attorneys in order to skin this, but this is done all the time in terms of putting a hard cap and not having it for exact public infrastructure. Mayor Countryman asked could we put a hotel in the six acres and get that commitment? Mr. Burgher said we can look at a hotel. I cannot make any commitments. Council Member Fox asked what type of hotel? Mr. Burgher said a boutique a hotel. That is what we were originally going to reserve, but the detention is now going on that.

Mayor Pro-Tem Olson said City Engineer Roznovsky I am going to ask some questions on the numbers here and I am going to go off of your sheet you provided. If we throw the linear utilities back to 100 percent and we double that up, that puts us at $1.12 million. We add that back into the roadway expenses of $1.4 million. We should end up right around $2.5 million, right? City Engineer Roznovsky said correct. Mayor Pro-Tem Olson said impact fees is a hard pill for me to swallow, to give impact fees back. Council Member Donaldson said me too. Council Member Fox said me too. Mayor Pro-Tem Olson said then we look at the cost, so we are $2.5 million, and they have $2.7 million, but I am going to go with your numbers at $2.5 million. Now we have roughly $2 million in the ponds, so that is $4.5 million is what they are looking at that I find to be anywhere in the City's realm of somewhat responsible. Like I said, the ponds, I am struggling with those ponds. $2 million for two three-acre ponds. One of the ponds seems like a lot, but also $2 million for walls and ponds. City Engineer Roznovsky said the concept that is being proposed is the pond would still be a private detention, not a City feature. If you have $2.5 million in reimbursement of city public infrastructure, impact fees are off the table, but on city water is a roadway that gives a million and a half dollars of additional incentive job creation, whatever it is, to tie that to what that proper tool is. I think we will have to come back with

how to structure it, but you are ultimately trying to get to the total of the $4 million total. Mayor Pro-Tem Olson said I do not want to pay $4 million just plain and simple. That is where I stand. I just do not want to pay $4 million for this. Council Member Fox said I do not want to pay $4 million, but I want the project. Mayor Pro-Tem Olson said I am not against the project. I just feel like we are carrying most of the load on this. I know utilities and all that come back, but we have to maintain this stuff. They walk away with their $4 million, but we still have to maintain everything. Mayor Countryman said we still have to maintain it today though too. Mayor Pro-Tem Olson said no, there is not anything there right now. Mayor Countryman said well yes, there is on that roadway. There is a road. It is deteriorating and they are partnering with us to build that infrastructure back up. A partnership is a give and a get. It is not an I will and I will give. Mayor Pro-Tem Olson said but that is what I am saying. We are giving 100 percent back on the roadway. We are giving 100 percent back on everything. Council Member Fox said we are not giving it right this minute. Mayor Countryman said right. Council Member Fox said it is on lay away. Mayor Pro-Tem Olson said I understand. Mayor Countryman said we give it today, but we pay it out. Again, this project pays for itself. Mayor Pro-Tem Olson said I am not saying that we should not be partners on this. Council Member Fox said it is a lot. Mayor Countryman said I am not saying it is not a lot, but also I think it is a great investment and a worthwhile investment. Mr. Burgher said the best remaining land piece in the City of Montgomery; we are going to foster this and develop Class A retail with surrounding restaurants that is going to have the look and feel that the City is going to be proud of and we are going to protect that. Not only are we going to generate and pay for ourselves, because we are, we are going to pay for ourselves, and this will be a fantastic investment. We want to pay you off quicker too. If we pay you off quicker, then we pay ourselves offer quicker. Now we are excited about the additional six and a half acres and what we can do to really square off the site and get all the way to C.B. Stewart. We understand this is a big ask. It is a big ask, so we just appreciate you guys. Mayor Countryman said but it is not out of the realm of possibility, you are not shooting for the stars here. Mr. Burgher said we feel like it is a win-win. Mayor Countryman said I agree. City Engineer Roznovsky said just to point out, the numbers are only the sales tax numbers. The ad valorem tax, I cannot remember what the total valuation is, but roughly at $90 million valuation, which I think they were the same numbers that were hired. Mayor Countryman said 130. Mayor Pro-Tem Olson said property taxes stabilized revenue of 270. Mayor Countryman said that is nice and the ad valorem taxes 100 percent come to us and we do not do anything with that, which is not what we have currently today, but some other ones. This to me is the soundest we have put together.

Motion: Council Member Fox made a motion to accept the BCS Properties Memorandum of Understanding.

Discussion: Mayor Pro-Tem Olson said he would like to amend the motion. City Engineer Roznovsky said he would like to help on what the terms are that we want to see in here regarding the total cap and what portion is coming from sales tax. Mr. Burgher said City Engineer Roznovsky, in all due respect, I think what we need right now is to know if we can get the $4 million. I am not going to agree to the breakdown. That is just too much detail, too much finance involved. Mr. Todd said that will be done in the 380 agreement. City Engineer Roznovsky said the City needs to understand where the formula is coming from. Part of the MOU is the deal only works if it is 100 percent of all sales tax. Mr. Todd said that is not what we are saying here. The whole idea in the MOU is to figure out what cost we are going to put in there and then how much we want to get reimbursed. The 380 agreement is going to need to explain what percentages of the City, the EDC, and then of ad valorem tax is going to make that up. Then we are going to tie that to a projection. Those projections will have the property values for each one of these tracts and you can see where these revenue streams are coming from and how long that is actually going to take to hit the $4 million that we are asking for. Now hopefully, it is a lot quicker than the 10 years that you all are opposed to. I think once we do those projections it will show that, but right now we are just trying to reel in the $4 million and what is being done. Mayor Countryman said this is just high level and then we will approve the details later in the 380 agreement. Mr. Todd said absolutely. The MOU that was presented today is unapplicable. It needs to be redlined and then agreed upon, similar to what we did March 7th when City Engineer Roznovsky and I went back and forth on the red line and then March 11th we discussed it in a workshop. Mayor Pro-Tem Olson said actually what I would like to do because neither of the MOU's not the one we had that has been marked up that you all wrote, not the one you obviously do not agree to the engineers one, so we have two MOU's in front of us and neither one of them nobody agrees on, so we actually have nothing to vote on. I want to table this until we have an MOU that we all agreed upon. Mr. Todd said exactly. Mr. Burgher asked can we vote on the $4 million? Mayor Pro-Tem Olson said no. The memorandums we have, neither one of them is agreed upon. It is not on the agenda. We can give direction to City Engineer Roznovsky and get an MOU in front of us. Mayor Countryman said we need the direction to put the $4 million in there and then figure out how to slice and dice that. City Engineer Roznovsky said the direction of a maximum reimbursement of $4 million that we can then bring back to you. Mayor Pro-Tem Olson said we are trying to hammer out what is going to be in the MOU. City Attorney Villarreal said Mayor Pro-Tem Olson, I think we are just looking for a motion or recommendation to give city staff so we can negotiate the MOU. Mayor Pro-Tem Olson said that we can do, but that is not what the agenda item says. City Attorney Villarreal said correct. Council Member Fox asked how would the motion be structured? Mayor Countryman said to restructure the MOU for BCS. City Attorney Villarreal said a motion to authorize city staff to negotiate the MOU with BCS. Mayor Pro-Tem Olson said before we make a motion, I would like to go a little bit farther in the fact that if by chance we can get the pond sizes down and they cost less, we would like that cushion. Mr. Todd said the 380 agreements are going to be tied to a budget that we all agree upon and then if the costs come in a little bit lower than that, we benefit from that getting more usable land and that is a win-win. Council Member Donaldson said we do not even have EDC involved yet. Mayor Pro-Tem Olson said no, and we can only vote on our one cent. Now I am good Council Member Fox. I just wanted to make sure you got that in there. City Attorney Villarreal said and with

DRAFT

that motion, my understanding would be the next Council meeting, we would have basically a final form of the MOU to present to Council. Council Member Donaldson said that is April 8th. Council Member Langley asked City Engineer Roznovsky do you have everything you need from us right now? City Engineer Roznovsky said you can put in the motion we are working with the $4 million number because that is the key to this and so that way, it can get written with staff and BCS with that number in mind. Council Member Fox said the motion would be that we are authorizing city staff to negotiate the MOU to be able to substantiate the $4 million. Is that right? City Engineer Roznovsky said yes. Mayor Countryman said and then the next Council meeting we will finalize it. Council Member Fox asked does it have to be April the 8th? City Engineer Roznovsky said yes. Mayor Pro-Tem Olson said just to clarify one more time, that new six acres is not part of this agreement. City Engineer Roznovsky said correct.

Motion: Council Member Fox made a motion for item #13 to authorize the city staff to negotiate the MOU with BCS for our next meeting April 8th with a cap of $4 million. Council Member Langley seconded the motion.

Discussion: Council Member Langley asked City Engineer Roznovsky if he has what he needs? City Engineer Roznovsky said he is working on it.

Motion carried with all present voting in favor.

DEPARTMENTAL REPORTS

14. Police Dept and Code Enforcement/P&Z Admin for February 2025.

Lieutenant Belmares said just as a reminder, we will be starting our annual Citizens Police Academy next week so we are excited about that. I am here to take any questions you may have.

Council Member Donaldson stated you have a bunch of new vehicles, right? Lieutenant Belmares said yes sir. Council Member Donaldson said good.

Mayor Countryman said I believe I saw an officer that was downloading and updating software for new body cams or cams inside cars. What was that? Lieutenant Belmares said yes. We just got our new Axon system installed to the patrol units. It is so great to have this technology, and they also come equipped with the body cams. They all work in sync. They also work with our flock camera systems here in the City and so officers are patrolling and they are also reading just as the flock cameras will, but now they are traveling with the vehicle so as they are in parking lots and going through the apartment complexes and the businesses, the plates are being read so we will know if they are stolen vehicles, if they are in amber alerts, silver alerts, any type of alerts that would initiate officer contact. It is a well piece of equipment that we are going to benefit from as well as the City. Mayor Countryman said that is awesome. When do those go into effect? Lieutenant Belmares said

they are already running. Mayor Countryman asked so we should see increases in these numbers?

Mayor Countryman asked how big is the Citizens Academy? Lieutenant Belmares said we are at 12 for sure, possibly 13. Mayor Countryman said good. That is manageable.

Code Enforcement Officer and Planning/Zoning Administrator Tilley said you have the report in front of you. Do you have any specific questions. Mayor Countryman said I think this is probably for you and for Public Works Director Muckleroy, but any further problems with the development down Old Plantersville Road and Cemetery Womack? Code Enforcement Officer and Planning/Zoning Administrator Tilley said she has not heard anything. Mayor Countryman said she has not either. Good.

15. Municipal Court Report February 2025.

Court Administrator Duckett said she has the collections report for February. The citations were 163 and the revenue is $35,702.10. Are there any questions for the municipal court? Mayor Countryman said the revenue is up big time from 2023 and 2024. Is it the new way that you are processing everything? Court Administrator Duckett said they work smart, not hard. Mayor Pro-Tem Olson said we have a new judge also, right? Has he started now? Court Administrator Duckett said yes.

16. Financial report for the period ending February 28, 2025.

Finance Director Carl said on the cover sheet, the one item she pointed out to everyone, is that we had a very large sales tax payment in February and that was directly related to comptroller audit. There were a total of 45 businesses in that audit and it went all the way back to 2014 in that audit period. Mayor Countryman asked have we found the retailer yet, that money? Finance Director Carl said the retailer that has been in question that had been contacted by the comptroller to reach out to the local field office, as of last report in February, had not done so. Mayor Countryman said I have personally witnessed merchandise coming from headquarters, their other location, to this location, but my understanding is their POS systems are two separate systems, so would not each POS have to pay taxes from its own POS system? Finance Director Carl said I do not know the answer to that, but I can tell you that our sales tax group HDL has reached back out to the comptroller's office to find out what the time period is that they are given in which to continue this. Mayor Countryman said the said retailer has been open three or four years and we have never collected a dollar. That is going to be a significant amount because I know that they do a good business here. Finance Director Carl said right, and so what we have to believe in this particular instance is that sales tax is being collected, and sales tax is being paid to a jurisdiction other than ours. That will be a part of this audit situation where they will be able to take money that would have gone to the other jurisdiction and send it our way, or if there is any other jurisdiction that would be entitled. Council Member

Fox asked how far can they go back? Finance Director Carl said this one went all the way back to 2014. Mayor Countryman said Council remembers we had a similar situation. HEB sent us $400,000 and it was meant for the Magnolia store, but they sent it to us and we put it in a bank account and made money off of it until they asked for it back which was good. Finance Director Carl said those kind of things are identified real quick. Mayor Countryman said it took a year almost for them to figure that one out. That is okay. We will take the interest.

17. Engineer's Report for February 2025.

City Engineer Roznovsky said starting with water plant number two on page 132 in your packets, we will go through the highlights. I will hit the high points, and ask if there are any questions. Water plant number two improvements is still proceeding. They still expect to be complete in July.

The Old Plantersville waterline project, I am on item five, page 133, second part of our report. The Old Plantersville water extension that serves the Redbird Meadows development, we are still waiting on BNSF. There is a lot of back and forth on their side regarding insurance requirements. Everything has been provided, just at the mercy of BNSF right now.

The Town Creek wastewater treatment plant they expect to have that permit in May.

Items seven and eight, the downtown improvements. We are coordinating with the design team and meeting with property owners going through different options and hopefully get a detail schedule from the design team here soon to get that project moving forward.

The wastewater treatment plant expansion project we have been coordinating with Halff. They are in the process of the preliminary design. The latest is they are going through a couple different site plan options, optimizing it for future growth of that plant, so that is going well.

We did have a kickoff meeting with Baxter and Woodman regarding the water plant number four design. They are providing their draft contract to us for review and in turn, we will bring it back to you all for official approval.

On page three, these are all developer related projects. Lift station 10 improvements as a reminder, that is the Taylor Morrison project. One thing that the developer asked, I will just say again here, is that project is not critical for phase one. They definitely have to have it for phase two of the project, just based on capacity, so it will be done. The design is wrapping up, but the selling and building of homes is not contingent on that project. They are moving forward, they put up their funds, and it is going.

The same thing with Tri-Pointe on the lift station number five relocation. Both that and the West Lone Star Parkway have put up their deposit so all that is proceeding with design.

We are working on the final closeout documents, and we do have the final pay estimate. You have already accepted the project for Buffalo Springs Drive. One thing to know going through the TxDot process, is they officially accepted the signal into their maintenance period. That officially happened on March 17th, and that is solely TxDot's responsibility going forward.

The two design projects for College Street and for the booster pump edition, we expect to submit to TCEQ for the booster pump this month, in the next couple days, and then we received the survey back. We are working on that, especially to complete the design next month for that project.

The plan reviews are listed, none really to note. There have been a lot of them and there is more coming. Mayor Pro-Tem Olson asked the College Street, that was the bridge, right? City Engineer Roznovsky said correct. Replacing those culverts, repairing the road, and regrading the ditches. Mayor Pro-Tem Olson said we talked about larger culverts, right? City Engineer Roznovsky said correct. Mayor Pro-Tem Olson said and that is in the new number? City Engineer Roznovsky said correct.

Council Member Fox said number two says that it is going to be substantially completed in July 2025. What is substantially completed? City Engineer Roznovsky said operational. All facilities are fully operational for their schedule. They might have punch lists, touch-up coatings, grass, etc., but fully operational by that time. Components will be able to come online sooner, so like well and other things that should be able to come online sooner, but everything being completed and installed. When we say substantially, it is more issues of substantial completion. It is when it is an operational facility meets its intended function. Generally, that is what kicks in your warranties, especially with plant projects, contractors do not want to extend mechanical warranties waiting on restrooms, so it will be deemed substantially complete while they address the minor items. City Engineer Vu said part of the contract they had to evaluate the foundation of the ground storage tank to determine if it was adequate to put the new tank online. When they evaluated the foundation, they determined that it needed to be replaced, so we already had it written into the contract that if this needed to happen, it gave them an extra 60 days to get that additional work completed. They had to reach out to the structural engineer and get it designed to have us review it and approve it as well, and then do a full demo of replacement of the foundation. That is why that substantial completion date shifted as well because the foundation has to now be replaced.

City Engineer Roznovsky said a couple other things to know; I will just hit the high points. Planning properties are ongoing. Ongoing construction, we talked a little bit about the

Briarley development and the water, so all that has been going better now that there is additional sight on their part.

One-year warranty for Flagship, the contractor is still addressing this punch list. We did notify the bonding company that he was delaying it, that is now complete.

Going onto page six off our report, the Lone Star Bend and Lone Star Parkway intersection improvements. We have a meeting with Montgomery County tomorrow to talk about our signal at that intersection tomorrow morning. It is at Lone Star Bend and Lone Star Parkway.

For item six, I want to highlight the clean water and drinking water state revolving fund. Back in the first of March, we prepared and submitted four different projects to get on project information forms to the state for funding. All four of those were accepted and so now they are going to the full application process. That total is around $20 million with capital improvements. This puts you in line for low interest loans with the water development board. This is the first step of that process. It is a project information, and they accepted it. These qualified and met the rules. They have asked us to do the full application process for those. We would know fully late this summer that those would be able to get the funding. That was a big win to get those accepted and keep that process going.

Council Member Langley said will you remind me where that subdivision is called, it says used to be Harry Teach Grove. City Engineer Roznovsky said yes, the Cheatham Stewart property behind Napa. Council Member Langley said not the one right across over here. City Engineer Roznovsky said as of the writing of this report, they have reached back out. The Villages of Montgomery, which was this small, I do not know if garden style is the right word, but alley load houses, have reached back out and they have requested to be on the upcoming Planning and Zoning meeting for some variances for lot size. Mayor Countryman said I thought that development was not going to have variances. City Engineer Roznovsky said the Tri-Pointe development they do not. Tri-Pointe, Heritage Grove, and now Legacy Grove are all the same. Council Member Fox asked who is asking for the variance for Planning and Zoning? City Engineer Roznovsky said you were asking about the one right across the street here at the end of Caroline and over. That one they have reached back out that they are planning to move forward with the project and are starting the variance process. If you remember, their feasibility study had the boulevard street down in the middle with an alley load behind on those houses. We received that application, I think it was late last week, so it may or may not make this Planning and Zoning meeting because those agenda items are due on Monday. It will likely go to the next one. Mayor Countryman said we discussed that when they came to us and were talking about the variance because they were going up with them and going deep. City Engineer Roznovsky said they changed a couple things on the land plan, so we are asking some

clarifying questions because one thing that popped up earlier today is they are now closing connection to College Street which originally, they were not, so that was on there. We just identified some of those items that we need to discuss. Council Member Langley asked you do not think they will be on this next Planning and Zoning? City Engineer Roznovsky said we received the request on Thursday and realized they need to have the agenda items on Monday. Council Member Langley said the next one. City Engineer Roznovsky said that it is a safe one too, next Monday. Mayor Pro-Tem Olson asked did not that development have some retention pond issues? City Engineer Roznovsky said their ponds are all on the west, on both sides of the creek. Legacy Grove has ponds as well, right along the creek. Mayor Countryman said they were talking about doing like jogging trails around. City Engineer Roznovsky said we have a lot of questions, and we have not heard from this development in quite some time and then, they pop back up asking for variances. Also, the Mia Lago reserve development was able to get out of the City of Conroe so there will be future items for that requesting variances.

Mayor Countryman asked did you happen to find out about the ETJ question that we discussed last night about those tiny homes? City Engineer Roznovsky said it is on our list. We are meeting on Friday morning and that is one of our top discussions, to get that nailed down and get that correspondence out to them one way or the other. Mayor Countryman said if he is moving dirt, we need to make him aware. City Engineer Roznovsky said what Mayor Countryman is referring to is on FM 149 south of Spring Branch Road, if you are going down FM 149 there is the creek. If you look off to the east, they have cut in a road and are clearing behind, and that is within your ETJ. You do not have full control of developments in your ETJ, but you do have subdivision regulations that apply.

Council Member Donaldson asked what is the status of Plez Morgan? Mayor Countryman said the drainage. City Engineer Roznovsky said we were actually talking about that earlier. We agreed from the road it is still relatively the same. We set the drone up last week and just have to download those photos to see if it is starting to undercut anymore.

Mayor Countryman said I talked to Chief Edwards at the fire department yesterday and I went by there today. I do not know if you know, I am sure you do, that they want to put some administrative offices out there and another office. That drainage is concerning, especially if they are going to be putting concrete out there with the severity of that drainage.

Mayor Countryman said I also had somebody call me about FM 1097 north where the bridge blew out all that stuff at the end of Summit. If a development went in there, what is their liability for all the stuff south of FM 1097? City Engineer Roznovsky said the development went in north of FM 1097, so they would be required to send a drainage study that shows their impact to the creek, if they are changing the flow of the creek, and its impact of the downstream. As long as they follow the rules and regulations, they are not

impacting it, and they are doing proper detention, I do not think they would have liability involved. Mayor Countryman said they just do not want their fingerprints on anything south.

Which by the way, that leads me to Sunday or Saturday, I was driving and there is dirt being moved and there is big, heavy equipment out there on Atkins Creek. City Engineer Roznovsky said they were made aware. Mayor Countryman said I have pictures. City Engineer Roznovsky said yes, we have pictures. One of the officers was called out previously and asked about that. We are discussing that because that is not a city contractor, that is not a contractor that has any plans to do improvements in that area. Mayor Countryman asked did we find out who those people belong to? City Engineer Roznovsky said I do not know as of yet. Mayor Countryman said because there was no signage on their vehicles either. They were making it wider; they were moving dirt. I was like what is going on here? I even drove through Terra Vista and took pictures and video because I had not seen anything on any agenda saying there should be any movement on that. City Engineer Roznovsky said that is correct. We are working with your attorney.

18. Public Works February 2025 Monthly Report.

Mayor Countryman said if Council has any questions on number 18 of public works, Public Works Director Muckleroy had an emergency and had to step out. If you have any questions, feel free to write to him and Chief Solomon, or ask me and I will get with Public Works Director Muckleroy.

19. Utility Operations February 2025 Monthly Report.

Mr. Phillip Wright, Hays Utility Services said he has another apology. If you look at my report, obviously you can see very quickly on the very first page the low accountability of this last month. Part of it was because the report went out before while I was on spring break with my kids, so I hope you do not mind, but let us add a million gallons to the flushing and I am not even joking. We did in the month of February an extraordinary amount of flushing and that is because of the dirty water calls that we had. We hit multiple areas doing directional flushing for longer periods of time than we ever have before, and so I would say that number needs to be at least 1.6 million which brings us up to around 91 percent of accountability. I have also been talking with Public Works Director Muckleroy and he got those meters tested accurate. We are supposed to go out to all the major commercial meters to verify those and so we are waiting reports back on that. There is no doubt in my mind that we did at least 1.6 million gallons worth of flushing this last month. Water quality is a priority obviously. Mayor Pro-Tem Olson asked did we do well swapping? When we use the deep one, the water gets softer, way softer. Mr. Wright said it is softer. Mayor Pro-Tem Olson said I noticed that in the water usage when at the house like wow, the water is extremely soft, so I had to turn my softener down a little bit. Did we

do any kind of swapping, did we use the mix different? Mr. Wright said I would not say that the mix was different. We definitely were just running so much more volume. I think that the water age difference was a big factor this last month because essentially, you had this long draw. We had very little water usage, and then all of a sudden, we are pumping so much water through there. That may have been a part of what we were experiencing, but going back and forth between the wells, I think we try to keep it around the same type of blend so there is not really a big blend difference there. Mayor Pro-Tem Olson said I just noticed there was a big change for about a week.

Mayor Countryman said this is month three. I am seeing the accountability, and I hear what you are saying and I understand, but at the same time, if we see it in month four, then there is a serious problem. Mr. Wright said I feel it too. This month we are kind of back to normal flushing operations, the plant's operation at normal. Right now, we are kind of back into a normal mode and then when we get these testing results back from these meters that Public Works Director Muckleroy was hoping he could report on tonight, but I understand, family first. We will have a full report on the accountability of those meters and it will be top priority.

Council Member Donaldson asked, you are not pumping any water out of well number four? Mr. Wright said no, well yes, we are. Well number three and well number four. It is just three and four being blended out of the one water plant. Council Member Donaldson said okay because I thought that was one, we had the problem with the dirty water is when we opened up four. I misunderstood. Mayor Pro-Tem Olson said four is usually warm and soft. Mr. Wright said that is the Catahoula.

20. Building Official Report for February 2025.

Mr. Rick Hanna, CBO Building Official, said I have on here the swimming pool barrier update. I think we failed four of them. Still working on some of the others. I did go out and look at them all. They were failing and they were not compliant, so that keeps the permit active. We will continue to work on that.

As a reminder, we will be coming to you next month once they produce all the documents for the proclamation for May to be water safety month. We will start to do a PR campaign.

We are going to try to do a little better job. Our system should have generated a report, but it did not jive with what Kristen had, so hopefully next month the report will make a little more sense on the volume of permits.

Council Member Donaldson asked is the PR campaign for the swimming pool? Mr. Hanna said pools and pool barriers.

DRAFT

Mr. Hanna said the last thing that I enclosed was an expired building permit policy. I visited various cities. The idea was that if somebody comes in and pays for a building permit, a building permit is good for 180 days. If you begin work, then it just continues to extend. If you stop for 180 days, it expires. If someone pays for a building permit and never does anything, in visiting other folks, they are with the attitude of like buying a seat for a baseball game. If you do not show up for the game, they will come the next day and say can I get my money back or can I start now? My thought was if somebody's permit expires, pay another fee, have plans reviewed again, and start all over. If they do not like that idea, they can appeal to either a Board or come to Council. During the course of their permit, if they run 150 days and we are contacted and they say we are having trouble getting materials or something of that nature, you can extend the permit. If they do not ever say anything, it is like buying a ticket and not showing up. That is my policy, unless you all want to advise me otherwise. Mayor Countryman said that is all right. Are we keeping you busy? Mr. Hanna said yes. I think we did 11 plan reviews for Hills of Town Creek so they should hopefully, within the next few weeks, try to get started there. We have two plan reviews done in Redbird Meadows and that is the correct name. They are going to call it Briarley, and I understand. We had a report come in that she set up for a plan review, so yes, we have plenty going on.

Motion: Mayor Pro-Tem Olson made a motion to accept all departmental reports as presented. Council Member Fox seconded the motion. Motion carried with all present voting in favor.

COUNCIL INQUIRY

Mayor Pro-Tem Olson said I have an inquiry for city staff and City Attorney Villarreal. Would you guys be interested in a summer intern, city staff admin side? City Secretary Beaven said yes. Mayor Pro-Tem Olson asked City Attorney Villarreal how we would go about doing that? City Attorney Villarreal asked, is it going to be a paid position? Is it a paid position that would have to be budgeted for and accounted for? Mayor Pro-Tem Olson said I imagine we would have to pay him to work him to death would we not? Chief Solomon said not necessarily, because we are giving him a valuable lesson as well. That is not always the case. We do it all the time at the police department and they are not paid, but they are gaining a valuable lesson. Mayor Pro-Tem Olson said for the individual to use it as a credit, we would have to make it official. An internship. Chief Solomon said yes, we can do that. Mayor Pro-Tem Olson said we have an individual interested in that. Chief Solomon said have them give us a holler and we will take care of it. Mayor Pro-Tem Olson said absolutely.

Mayor Countryman said in the Historic District, Code Enforcement Officer and Planning/Zoning Administrator Tilley I think this is for you, and I missed asking you, I have been made aware of a resident that has a box truck parked in the back of their lot. Is

that something that the neighbor needs to call and have you go look at, or do I discuss it with you afterwards? I do not believe that it is in the Historic District's ordinances. Code Enforcement Officer and Planning/Zoning Administrator Tilley said I can check it if you just give me the address.

Mayor Countryman said Chief Solomon, on the next agenda there are some properties I think I talked to you about, some properties, some ideas. Can we put that on the next agenda? Chief Solomon said already done. City Secretary Beaven asked is going to be in executive session? Mayor Countryman said it does not really matter. Chief Solomon said we will do it in executive session.

EXECUTIVE SESSION

21. Closed Session

City Council will meet in Closed Session pursuant to the provisions of Chapter 551 of the Texas Government Code, in accordance with the authority contained in:

A. Section 551.074 Personnel Matters for the purpose of discussion and deliberations regarding the appointment, employment, evaluation and duties of a City Administrator.

At 7:22 p.m. Mayor Countryman convened the Montgomery City Council into closed session pursuant to provision of Chapter 551 of the Texas Government Code, in accordance with the authority contained in A. Section 551.074 Personnel Matters for the purpose of discussion and deliberations regarding the appointment, employment, evaluation and duties of a City Administrator.

22. Open Session

City Council will reconvene in Open Session at which time action the matter(s) discussed in Closed Session may be considered.

A. Section 551.074 Personnel Matters for the purpose of discussion and deliberations regarding the appointment, employment, evaluation and duties of a City Administrator.

At 8:20 p.m. Mayor Countryman reconvened the Montgomery City Council into an open session pursuant to provision of Chapter 551 of the Texas Government Code to take any action necessary related to the executive session noted herein, or regular agenda items, noted above, and/or related items.

No action taken from executive session.

CLOSING AGENDA

23. Items to consider for placement on future agendas.

Mayor Countryman said to add properties for placement on future agendas.

Mayor Pro-Tem Olson said there was a workshop with MEDC. Do we need to do anything with that? City Secretary Beaven said yes, it is going to be a joint workshop with EDC on the marketing logo. Council Member Langley asked when is that? Mayor Pro-Tem Olson said we have not set it up yet.

24. Adjourn.

Motion: Mayor Pro-Tem Olson made a motion to adjourn the Regular Meeting of the City of Montgomery at 8:22 p.m. Council Member Fox seconded the motion. Motion carried with all present voting in favor.

APPROVED:

_____
Sara Countryman, Mayor

ATTEST:

_____
Ruby Beaven, City Secretary

DRAFT

Montgomery City Council
AGENDA REPORT

Meeting Date: May 13, 2025	**Budgeted Amount:** N/A
Department: Administration	**Prepared By: Ruby Beaven**

Subject

Consideration and possible action on the City Council Special Meeting Minutes of April 07, 2025.

Recommendation

Staff recommends approval of meeting minutes, as presented.

Discussion

Please see the accompanying minutes:

City Council Special Meeting Minutes of April 07, 2025

Approved By

Interim City Administrator	Anthony Solomon	Date: 04/28/2025

City of Montgomery
City Council
Special Meeting Minutes
April 07, 2025

OPENING AGENDA

1. Call Meeting to Order.

The City Council Special Meeting of the City of Montgomery was called to order by Mayor Countryman at 6:00 p.m. on April 07, 2025, at City Hall 101 Old Plantersville Rd., Montgomery, TX and live video streaming.

With Council Members present a full quorum was established.

Present:	Mayor	Sara Countryman
	Mayor Pro-Tem	Casey Olson
	Council Member Place 1	Carol Langley
	Council Member Place 4	Cheryl Fox
	Council Member Place 5	Stan Donaldson

2. Invocation.

Council Member Donaldson led the Invocation.

3. Pledges of Allegiance.

Mayor Countryman led the Pledges of Allegiance.

PUBLIC FORUM

No comments were received.

COUNCIL INQUIRY

No Council Inquiry was received.

EXECUTIVE SESSION

4. Closed Session

City Council will meet in Closed Session pursuant to the provisions of Chapter 551 of the Texas Government Code, in accordance with the authority contained in:

A. Section 551.074 Personnel Matters for the purpose of discussion and deliberations regarding the appointment, employment, evaluation and duties of a City Administrator.

At 6:01 p.m. Mayor Countryman convened the Montgomery City Council into closed session pursuant to provision Chapter 551 of the Texas Government Code, in

accordance with the authority contained in Section 551.074 Personnel Matters for the purpose of discussion and deliberations regarding the appointment, employment, evaluation and duties of a City Administrator.

5. Open Session

City Council will reconvene in Open Session at which time action on the matter(s) discussed in Closed Session may be considered.

A. Section 551.074 Personnel Matters for the purpose of discussion and deliberations regarding the appointment, employment, evaluation and duties of a City Administrator.

At 7:34 p.m. Mayor Countryman reconvened the Montgomery City Council into open session pursuant to provision Chapter 551 of the Texas Government Code, in accordance with the authority contained in Section 551.074 Personnel Matters for the purpose of discussion and deliberations regarding the appointment, employment, evaluation and duties of a City Administrator.

Item A. No action taken.

CLOSING AGENDA

6. Adjourn.

Motion: Council Member Fox made a motion to adjourn the Special Meeting of the City of Montgomery at 7:35 p.m. Mayor Pro-Tem Olson seconded the motion. Motion carried with all present voting in favor.

APPROVED:

_____
Sara Countryman, Mayor

ATTEST:

_____
Ruby Beaven, City Secretary

DRAFT

Montgomery City Council
AGENDA REPORT

Meeting Date: May 13, 2025	**Budgeted Amount:** N/A
Department: Administration	**Prepared By: Ruby Beaven**

Subject

Presentation of Certificate of Election to newly-elected officials for City Council Place 1, Place 3 and Place 5.

Recommendation

Recommendation for newly elected officials to complete the Statement of Officer and Oath of Office and file a copy of the forms with the City of Montgomery City Secretary's Office.

Discussion

The Certificate of Election is required by the Secretary of the State to verify the election of officials.

- Certificate of Election Place 1 Carol Langley
- Certificate of Election Place 3 Thomas Czulewicz
- Certificate of Election Place 5 Ray Stanley Donaldson

Approved By

Interim City Administrator	Anthony Solomon	Date: 05/05/2025

Certificate of Election

In the name and by the authority of

The State of Texas

THIS IS TO CERTIFY, that at a general election held on

May 03, 2025

Thomas Czulewicz

was unopposed and hereby elected

Council Member Place 3

of the City of Montgomery, Texas

In testimony whereof, I have hereunto signed my name and caused the Seal of Montgomery to be affixed at the City of Montgomery, this the 13th day of May, 2025.

_____

Sara Countryman, Mayor

DRAFT

Certificate of Election

In the name and by the authority of

The State of Texas

THIS IS TO CERTIFY, that at a general election held on

May 03, 2025

Carol Langley

was unopposed and hereby elected

Council Member Place 1

of the City of Montgomery, Texas

In testimony whereof, I have hereunto signed my name and caused the Seal of Montgomery to be affixed at the City of Montgomery, this the 13th day of May, 2025.

_____

Sara Countryman, Mayor

DRAFT

Certificate of Election

In the name and by the authority of

The State of Texas

THIS IS TO CERTIFY, that at a general election held on

May 03, 2025

Ray Stanley Donaldson

was unopposed and hereby elected

Council Member Place 5

of the City of Montgomery, Texas

In testimony whereof, I have hereunto signed my name and caused the Seal of Montgomery to be affixed at the City of Montgomery, this the 13th day of May, 2025.

_____

Sara Countryman, Mayor

DRAFT

Montgomery City Council
AGENDA REPORT

Meeting Date: May 13, 2025	**Budgeted Amount:** N/A
Department: Administration	**Prepared By: Ruby Beaven**

Subject

Administration of Statement of Officer and Oath of Office to newly elected officials for City Council Place 1, Place 3 and Place 5.

Recommendation

Recommendation for newly elected officials to complete the Statement of Officer and Oath of Office and file a copy of the forms with the City of Montgomery City Secretary's Office.

Discussion

The Statement of Officer form must be executed before taking the Oath of Office.

Article XVI §1, Texas Constitution prescribes an oath that all officers must take before they enter upon the duties of their offices.

Approved By

Interim City Administrator	Anthony Solomon	Date: 05/05/2025

Form #23-3 Rev. 09/2023
Submit to:
SECRETARY OF STATE
Government Filings
Section P O Box 12887
Austin, TX 78711-2887
512-463-6334
512-463-5569 - Fax
Filing Fee: None

STATEMENT OF OFFICER

Statement

I, Thomas Czulewicz , do solemnly swear (or affirm) that I have not directly or indirectly paid, offered, promised to pay, contributed, or promised to contribute any money or thing of value, or promised any public office or employment for the giving or withholding of a vote at the election at which I was elected or as a reward to secure my appointment or confirmation, whichever the case may be, so help me God.

Title of Position to Which Elected/Appointed: City Council Member, Place 3

Execution

Under penalties of perjury, I declare that I have read the foregoing statement and that the facts stated therein are true.

Date: 05/13/2025

Signature of Officer

Print Reset

Form #23-3 Rev. 09/2023
Submit to:
SECRETARY OF STATE
Government Filings
Section P O Box 12887
Austin, TX 78711-2887
512-463-6334
512-463-5569 - Fax
Filing Fee: None

STATEMENT OF OFFICER

Statement

I, Carol Langley , do solemnly swear (or affirm) that I have not directly or indirectly paid, offered, promised to pay, contributed, or promised to contribute any money or thing of value, or promised any public office or employment for the giving or withholding of a vote at the election at which I was elected or as a reward to secure my appointment or confirmation, whichever the case may be, so help me God.

Title of Position to Which Elected/Appointed: City Council Member, Place 1

Execution

Under penalties of perjury, I declare that I have read the foregoing statement and that the facts stated therein are true.

Date: 05/13/2025

Signature of Officer

Print Reset

Form #23-3 Rev. 09/2023
Submit to:
SECRETARY OF STATE
Government Filings
Section P O Box 12887
Austin, TX 78711-2887
512-463-6334
512-463-5569 - Fax
Filing Fee: None

STATEMENT OF OFFICER

Statement

I, Ray Stanley Donaldson , do solemnly swear (or affirm) that I have not directly or indirectly paid, offered, promised to pay, contributed, or promised to contribute any money or thing of value, or promised any public office or employment for the giving or withholding of a vote at the election at which I was elected or as a reward to secure my appointment or confirmation, whichever the case may be, so help me God.

Title of Position to Which Elected/Appointed: City Council Member, Place 5

Execution

Under penalties of perjury, I declare that I have read the foregoing statement and that the facts stated therein are true.

Date: 05/13/2025

Signature of Officer

Print Reset

Form #23-2 Rev. 9/2023

Submit to:
SECRETARY OF STATE
Government Filings Section
P O Box 12887
Austin, TX 78711-2887
512-463-6334

Filing Fee: None

This space reserved for office use

OATH OF OFFICE

IN THE NAME AND BY THE AUTHORITY OF THE STATE OF TEXAS,
I, Ray Stanley Donaldson, do solemnly swear (or affirm), that I will faithfully execute the duties of the office of City Council Member, Place 5 of the State of Texas, and will to the best of my ability preserve, protect, and defend the Constitution and laws of the United States and of this State, so help me God.

Signature of Officer

State of Texas)
County of Montgomery)

Sworn to and subscribed before me this 13th day of May, 2025.

(seal)

Signature of Notary Public or Other Officer Administering Oath

Printed or Typed Name

Print Reset

Form #23-2 Rev. 9/2023

Submit to:
SECRETARY OF STATE
Government Filings Section
P O Box 12887
Austin, TX 78711-2887
512-463-6334

Filing Fee: None

This space reserved for office use

OATH OF OFFICE

IN THE NAME AND BY THE AUTHORITY OF THE STATE OF TEXAS,
I, Thomas Czulewicz , do solemnly swear (or affirm), that I will faithfully execute the duties of the office of City Council Member, Place 3 of the State of Texas, and will to the best of my ability preserve, protect, and defend the Constitution and laws of the United States and of this State, so help me God.

Signature of Officer

State of Texas)
County of Montgomery)

Sworn to and subscribed before me this 13th day of May, 2025.

(seal)

Signature of Notary Public or Other Officer Administering Oath

Printed or Typed Name

Print Reset

Form #23-2 Rev. 9/2023

Submit to:
SECRETARY OF STATE
Government Filings Section
P O Box 12887
Austin, TX 78711-2887
512-463-6334

Filing Fee: None

This space reserved for office use

OATH OF OFFICE

IN THE NAME AND BY THE AUTHORITY OF THE STATE OF TEXAS,
I, Carol Langley , do solemnly swear (or affirm), that I will faithfully execute the duties of the office of City Council Member, Place 1 of the State of Texas, and will to the best of my ability preserve, protect, and defend the Constitution and laws of the United States and of this State, so help me God.

Signature of Officer

State of Texas)
County of Montgomery)

Sworn to and subscribed before me this 13th day of May, 2025.

(seal)

Signature of Notary Public or Other Officer Administering Oath

Printed or Typed Name

Print Reset

Montgomery City Council
AGENDA REPORT

Meeting Date: May 13, 2025	**Budgeted Amount: N/A**
Department: Public Works	**Prepared By: Mike Muckleroy**

Subject

Proclamation by Mayor Sara Countryman designating the week of May 18-24, 2025, as "National Public Works Week".

Recommendation

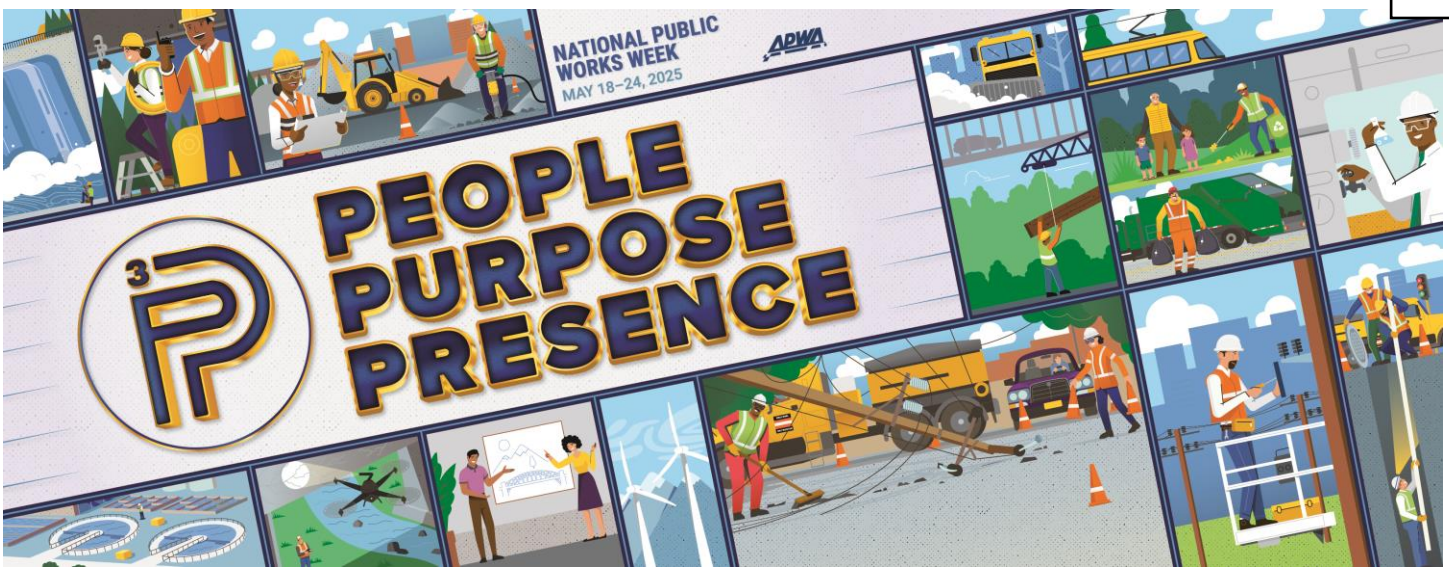
Proclamation presented by the City of Montgomery Mayor.

Discussion

The American Public Works Association designates the week of May 18-24, 2025 as National Public Works Week. This Proclamation gives recognition to the public and private sectors of our Public Works team in their efforts to keep the City's infrastructure and public services running effectively and efficiently.

Approved By

Public Works Director	Mike Muckleroy	Date: 04/24/2025
Interim City Administrator	Anthony Solomon	Date: 04/24/2025



National Public Works Week

May 18–24, 2025

“People, Purpose, Presence”

City of Montgomery Proclamation

WHEREAS, public works professionals focus on infrastructure, facilities and services that are of vital importance to sustainable and resilient communities and to the public health, high quality of life and well-being of the people of Montgomery, Texas; and,

WHEREAS, these infrastructure, facilities and services could not be provided without the dedicated efforts of public works professionals, both public and private sector, who are employees at all levels of City government, who are responsible for rebuilding, improving and protecting our city’s transportation, water supply and treatment, wastewater collection and treatment, public buildings, and other structures and facilities essential for our citizens; and,

WHEREAS, it is in the public interest for the citizens, civic leaders and children in Montgomery, Texas to gain knowledge of and to maintain a progressive interest and understanding of the importance of public works and public works programs in our community; and,

WHEREAS, the year 2025 marks the 65th annual National Public Works Week sponsored by the American Public Works Association be it now,

RESOLVED, I, Sara Countryman, Mayor of the City of Montgomery, do hereby designate the week May 18 – 24, 2025 as National Public Works Week; I urge all citizens to join with representatives of the American Public Works Association and government agencies in activities, events and ceremonies designed to pay tribute to our public works professionals, engineers, managers and employees and to recognize the substantial contributions they make to protecting our City’s health, safety, and quality of life.

IN WITNESS WHEREOF, I do hereby proclaim on behalf of the City of Montgomery.

_____

Sara Countryman, Mayor SEAL:

ATTEST:

_____

Ruby Beaven, City Secretary

Montgomery City Council
AGENDA REPORT

Meeting Date: May 13, 2025	**Budgeted Amount:** N/A
Department: Administration	**Prepared By: Ruby Beaven**

Subject

Consideration and possible action regarding the appointment of Mayor Pro-Tem.

Recommendation

Recommendation for Council to appoint a Mayor Pro-Tem.

Discussion

In accordance with Local Government Code 22.037 MAYOR AS PRESIDING OFFICER; PRESIDENT PRO TEMPORE.

(b) At each new governing body's first meeting or as soon as practicable, the governing body shall elect one alderman to serve as president pro tempore for a term of one year.

(c) If the mayor fails, is unable, or refuses to act, the president pro tempore shall perform the mayor's duties and is entitled to receive the fees and compensation prescribed for the mayor.

Approved By

Interim City Administrator	Anthony Solomon	Date: 05/05/2025

Montgomery City Council
AGENDA REPORT

Meeting Date: May 13, 2025	**Budgeted Amount:** N/A
Department: Administration	**Prepared By: Corinne Tilley**

Subject

Consideration and possible action on a resolution calling for a public hearing, for May 27, 2025, at 6:00 p.m., on an application by TriPointe Homes to grant an exception to place a manufactured home outside a manufactured home park for the establishment of voter residency by residential occupancy in a temporary manufactured home within the proposed MUD 255 for TriPointe Homes.

Discussion

In accordance with Chapter 54 Manufactured Homes and Trailers, Section 54-25 of the City Code of Ordinances, granting of exception to place home outside park; standards for homes located outside park; specifically subsection (2) a public hearing will be scheduled by the city council to hear the request, with proper legal notice and publication required.

Since the City Code of Ordinances doesn't specify a term date for the publication of the notice, Texas Local Government Code Sec. 2051.050 states that a notice must be published in a newspaper issued at least one day before the occurrence of the event to which the notice refers.

On May 14, the City will submit a request for publication to the Conroe Courier. The notice will be printed Friday, May 16, giving 11 days notice before the public hearing on May 27.

Recommendation

Based on the requirements outlined above, staff find no objection to calling the public hearing

Approved By

City Secretary & Director of Administrative Services	Ruby Beaven	Date: 05/07/2025
Interim City Administrator	Anthony Solomon	Date: 05/07/2025

RESOLUTION NO. 2025 - ____

A RESOLUTION CALLING A PUBLIC HEARING ON AN APPLICATION BY TRIPOINTE HOMES TO GRANT AN EXCEPTION TO PLACE A MANUFACTURED HOME OUTSIDE A MANUFACTURED HOME PARK FOR THE ESTABLISHMENT OF VOTER RESIDENCY BY RESIDENTIAL OCCUPANCY IN A TEMPORARY MANUFACTURED HOME WITHIN THE PROPOSED MUD 255 FOR TRIPOINTE HOMES.

WHEREAS, the applicant, TriPointe Homes, requests the City of Montgomery to consider granting an exception to place a manufactured home outside a park for the establishment of voter residency by residential occupancy in a temporary manufactured home within the proposed MUD 255 for TriPointe Homes; and

WHEREAS, pursuant to Section 54-25(2) of the Montgomery City Code, a public hearing must precede any grant of an exception concerning placement of a manufactured home; **NOW THEREFORE**,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MONTGOMERY, TEXAS:

1. **THAT** the facts set forth in the preamble above are true and correct.

2. **THAT** the City Council has received an application for an exception from TriPointe Homes regarding placement of a manufactured home.

3. **THAT** a public hearing will be held on May 27, 2025, at 6:00 p.m. to consider whether to grant an exception to place a manufactured home outside a manufactured home park for the establishment of voter residency by residential occupancy in a temporary manufactured home within the proposed MUD 255 for TriPointe Homes, in the City Council Chambers of City of Montgomery City Hall, 101 Old Plantersville Road, Montgomery, TX 77316.

4. **THAT** notice of the public hearing shall be published one time, in a newspaper of general circulation in the City, prior to the date of the hearing stating the time and place of the hearing.

READ, ADOPTED, AND APPROVED this 13th day of May, 2025, at a Regular Meeting of the City Council of the City of Montgomery.

CITY OF MONTGOMERY, TEXAS

_____
Mayor

ATTEST:

_____
City Secretary

DRAFT

Montgomery City Council
AGENDA REPORT

Meeting Date: May 13, 2025	**Budgeted Amount:** N/A
Department: Administration	**Prepared By: Corinne Tilley**

Subject

Consideration and possible action on a resolution calling for a public hearing, for June 10, 2025, at 6:00 p.m., on an application to grant a Special Use Permit to K. Hovnanian of Houston II, LLC for a proposed temporary construction/sales trailer on a vacant residential lot at 235 South Rose Marie Lane, Montgomery, Texas.

Discussion

In accordance with Section 98-27 of the City Code of Ordinances, any application for a special use permit must undergo a public hearing conducted by the City Council prior to its adoption. This ensures community involvement and transparency in decision-making. Additionally, a notice of the hearing must be published, with the hearing scheduled no earlier than 15 days from the date of publication.

Sec. 98-27. - Special use permits.

(a) The city council, by an affirmative four-fifths vote, may by ordinance grant a special permit for special uses in any district, for those uses listed under "CC" in the table of permitted uses in section 98-88, or which are otherwise not expressly permitted by this chapter, and may impose appropriate conditions and safeguards, including a specified period of time for the permit, to protect property and property values in the neighborhood. A special use permit may be revoked or canceled by the city council upon violation of any permit granted. Before authorization of any of such special uses, the request therefor shall be referred to the planning and zoning commission for study and report concerning the effect of the proposed use on the comprehensive plan and on the character and development of the neighborhood. A public hearing shall be held in relation thereto before the city council, and notice and publication of the time and place for which shall conform to the procedure prescribed in subsection (b) of this section.

(b) A public hearing shall be held by the city council before adopting any proposed special use permit. Notice of such hearing shall be given by publication one time in a newspaper of general circulation in the city stating the time and place of hearing, which time shall not be earlier than 15 days from the date of publication.

Recommendation

Based on the requirements outlined in Section 98-27 of the City Code of Ordinances, staff finds no objection to calling the public hearing.

Approved By

City Secretary & Director of Administrative Services	Ruby Beaven	Date: 05/07/2025
Interim City Administrator	Anthony Solomon	Date: 05/07/2025

RESOLUTION NO. 2025 - ____

A RESOLUTION CALLING A PUBLIC HEARING ON AN APPLICATION TO GRANT A SPECIAL USE PERMIT TO K. HOVNANIAN OF HOUSTON II, LLC FOR A PROPOSED TEMPORARY CONSTRUCTION/SALES TRAILER ON A VACANT RESIDENTIAL LOT AT 235 SOUTH ROSE MARIE LANE, MONTGOMERY, TEXAS.

WHEREAS, the applicant, K. Hovnanian of Houston II, LLC, requests the City of Montgomery to consider granting a Special Use Permit to K. Hovnanian of Houston II, LLC for a proposed temporary construction/sales trailer on a vacant residential lot at 235 South Rose Marie Lane, Montgomery, Texas; and

WHEREAS, pursuant to Chapter 211 of the Texas Local Government Code, and Section 98-27 of the Montgomery City Code, a public hearing must precede any zoning change or grant of a special use permit; **NOW THEREFORE**,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MONTGOMERY, TEXAS:

1. **THAT** the facts set forth in the preamble above are true and correct.

2. **THAT** the City Council has received an application for a Special Use Permit.

3. **THAT** a public hearing on will be held on June 10, 2025, at 6:00 p.m. to consider whether to grant the application for a Special Use Permit to K. Hovnanian of Houston II, LLC for a proposed temporary construction/sales trailer on a vacant residential lot at 235 South Rose Marie Lane, Montgomery, Texas in the City Council Chambers of City of Montgomery City Hall, 101 Old Plantersville Road, Montgomery, TX 77316.

4. **THAT** notice of the public hearing shall be published one time, in a newspaper of general circulation in the City, at least fifteen days prior to the date of the hearing stating the time and place of the hearing.

READ, ADOPTED, AND APPROVED this 13th day of May, 2025, at a Regular Meeting of the City Council of the City of Montgomery.

CITY OF MONTGOMERY, TEXAS

_____
Mayor

ATTEST:

_____
City Secretary

DRAFT

Montgomery City Council
AGENDA REPORT

Meeting Date: May 13, 2025	**Budgeted Amount:** Loss of Future Revenue
Department: Administration	**Prepared By: Ruby Beaven**

Subject

Consideration and possible action on a petition by Treaty Oak Developers, LLC for certain private property to be released from the City's Extraterritorial Jurisdiction.

Recommendation

City Attorney recommendation is to take no action.

Discussion

Treaty Oak Developers, LLC have submitted a formal petition to be released from the City's ETJ for unknown reasons. The State Law has recently changed to allow this action.

Approved By

Interim City Administrator	Anthony Solomon	Date: 05/06/2025

RECEIVED BY:
APR 2 1 2025
City of Montgomery

April 17, 2025

VIA FEDERAL EXPRESS
City of Montgomery
Ms. Ruby Beaven, City Secretary
101 Old Plantersville Road,
Montgomery, TX 77316

Re: Petition for Release of an Area from a Municipality's Extraterritorial Jurisdiction (the "Petition") – 13.842 acres (the "Land")

Dear Ms. Beaven:

Please find enclosed, for consideration by the Mayor and City Council of the City of Montgomery, Texas (the "City"), one original of a Petition for Release of an Area from a Municipality's Extraterritorial Jurisdiction relating to 13.842 acres of land located in the City's extraterritorial jurisdiction (the "Land").

In accordance with Section 42.105(c) of the Local Government Code, we respectfully request that the City take official action to release the Land from the City's extraterritorial jurisdiction. Should you have any questions, or need additional information, regarding this matter or the enclosed document, please feel free to call me at (281) 705-6416. Thank you for your attention to this matter.

Sincerely,

Chris Wren

Enclosure

CC: City Attorney, Alan P. Petrov\
Johnson Petrov LLP
2929 Allen Pkwy Ste 3150
Houston, TX 77019

PETITION FOR RELEASE OF AN AREA FROM A MUNICIPALITY'S EXTRATERRITORIAL JURISDICTION

THE STATE OF TEXAS §
§
COUNTY OF MONTGOMERY §

TO: THE HONORABLE MAYOR AND CITY COUNCIL OF THE CITY OF MONTGOMERY, TEXAS:

TREATY OAK DEVELOPERS, LLC (the "Petitioner"), acting pursuant to the provisions of Subchapter D, Chapter 42, Texas Local Government Code, together with all amendments and additions thereto, respectfully petitions this Honorable City Council to release the 13.842 acres of land described by metes and bounds in **Exhibit A** and shown on the map attached as **Exhibit B** (the "Land"), attached hereto and incorporated herein for all purposes, from the extraterritorial jurisdiction of the City of Montgomery, Texas (the "City"), and in support of this petition the Petitioner represents, covenants, and agrees as follows:

I.

The Petitioner holds fee simple title to the Land (which is a portion of an 18.87 acre tract, some of which is outside the City's ETJ), and hereby represents that it owns all of the Land to be released from the extraterritorial jurisdiction of the City with its ownership proven by the deed, attached hereto as **Exhibit C,** recorded in the official real property records of Montgomery County, Texas.

II.

The Petitioner represents that the Land is not located within five (5) miles of the boundary of a military base, as defined by Section 43.0117 of the Texas Local Government Code, at which an active training program is conducted.

III.

The Petitioner represents that the Land has not been voluntarily annexed into the extraterritorial jurisdiction of a municipality that is located in a county (a) in which the population grew by more than fifty percent (50%) from the previous federal decennial census in the federal decennial census conducted in 2020; and (b) that has a population of greater than 240,000.

IV.

The Petitioner represents that the Land is not within the portion of the extraterritorial jurisdiction of a municipality with a population of more than 1.4 million that is (a) within 15 miles of the boundary of a military base, as defined by Section 43.0117 of the Texas Local Government Code, at which an active training program is conducted; and (b) in a county with a population of more than two million.

V.

The Petitioner represents that the Land is not in an area designated as an industrial district under Section 42.944 of the Texas Local Government Code.

VI.

The Petitioner represents that the Land is not in an area subject to a strategic partnership agreement entered into under Section 43.0751 of the Texas Local Government Code.

WHEREFORE, the undersigned respectfully prays that this petition be heard and granted in all respects and that the City immediately release the Land from its extraterritorial jurisdiction, as required by Section 42.105(c) of the Texas Local Government Code, as it exists today and from any future expansions of the City's extraterritorial jurisdiction whether by annexation or pursuant to Section 42.021 of the Texas Local Government Code. If the City fails to release the Land from its extraterritorial jurisdiction by the later of forty-five (45) days from the date it receives the petition or the next meeting of municipality's governing body that occurs after the 30th day after the date the City receives this petition, the Land shall be released from the City's extraterritorial jurisdiction by operation of law.

Respectfully Submitted on April 17, 2025

By: Treaty Oak Developers, LLC

By: _____

Chris Wren, Member

Address: Treaty Oak Developers,
1135 Grand Central Parkway, Suite 250
Conroe, Texas 77304
Phone: 281-705-6416
Email: CWren@treatyoakdev.com

THE STATE OF TEXAS §
COUNTY OF MONTGOMERY §

This instrument was acknowledged before me on April 17, 2025 by Treaty Oak Developers, LLC, by Chris Wren, its Member.

STEPHANIE STIPSKY
My Notary ID # 130639399
Expires April 27, 2028

_____
Notary Public, State of Texas

TEXAS PROFESSIONAL SURVEYING, LLC.
3032 N. FRAZIER STREET, CONROE, TEXAS 77303
(936)756-7447 FAX (936)756-7448
FIRM REGISTRATION No. 100834-00

FIELD NOTE DESCRIPTION
13.842 ACRES
IN THE RALEIGH ROGERS SURVEY, ABSTRACT NUMBER 33
MONTGOMERY COUNTY, TEXAS

BEING a 13.842 acre tract of land situated in the Raleigh Rodgers Survey, Abstract Number 33, Montgomery County, Texas, being a portion of that certain called 17.02 acre tract described in instrument to Kathleen Padon, recorded under Clerk's File Number 2019045198, of the Official Public Records of Montgomery County, Texas (O.P.R.M.C.T.), further described in Clerk's File Number 8131413 of the Real Property Records of Montgomery County Texas (R.P.R.M.C.T.), being all of the area lying within the City of Montgomery Extra-Territorial Jurisdiction, said 13.842 acre tract being more particularly described by metes and bounds as follows:

BEGINNING at a 1/2 inch iron rod with cap stamped "TPS 100834-00" found in the easterly margin of Farm to Market Road 149 (FM 149), for the common westerly corner of said 17.02 acre tract and that certain called 2.011 acre tract, described in instrument to NH-Bell Investments, LLC., recorded under Clerk's File Number 2021180295, O.P.R.M.C.T., being the westerly southwest corner of the herein described 13.842 acre tract, from which a 1/2 inch iron rod found for reference, bears North 84°26'46" West, 4.45 feet, and a 3/8 inch iron rod found for reference bears South 03°49'46" West, 201.79 feet, said **POINT OF BEGINNING** having a Texas State Plane Coordinate value of **N: 10,113,203.81, E: 3,758,927.77**, Central Zone, grid measurements;

THENCE with the easterly margin of said FM 149, the westerly line of said 17.02 acre tract, the following four (4) courses and distances:

1. North 03°17'46" West, 300.28 feet, to a 1/2 inch iron rod with cap stamped "TPS 100834-00" set for corner;
2. North 17°20'06" West, 103.06 feet, to a 5/8 inch iron rod with disk stamped "TXDOT" found for the beginning of a curve to the right;
3. Northwesterly 16.55 feet, with the arc of said curve to the right, having a radius of 5679.58 feet, a central angle of 00°10'01", and a chord that bears North 02°26'27" West, 16.55 feet, to a 1/2 inch iron rod with cap stamped "TPS 100834-00" set for the end of said curve to the right;
4. North 02°41'04" West, 25.98 feet, to a 1/2 inch iron rod with cap stamped "TPS 100834-00" set for the common westerly corner of said 17.02 acre tract and that certain called 9.7 acre tract in instrument to Jeffrey Russell Burell Trust, recorded under Clerk's File Number 2013108474, O.P.R.M.C.T., being the northwesterly corner of the herein described 13.842 acre tract, from which a 1/2 inch iron rod found for reference, bears North 02°41'04" West, 357.21 feet;

THENCE North 87°27'36" East, with the common line between said 17.02 acre tract and said 9.7 acre tract, at a distance of 1.52 feet, pass a 1/2 inch iron rod found for reference, at a distance of 15.44 feet, pass a 1/2 inch iron rod found for reference, in all, a total distance of 1177.91 feet, to a 1/2 inch iron rod found in the westerly line of that certain called 3.995 acre tract described in instrument to Michael Pirie and Lindsey Pirie, recorded under Clerk's File Number 2021052495, O.P.R.M.C.T., for the common easterly corner of said 17.02 acre tract and said 9.7 acre tract, being the northeasterly corner of the herein described 13.842 acre tract;

EXHIBIT
A

THENCE South 02°45'42" East, 374.24 feet, with the westerly line of said 3.995 acre tract and Lot 4 of Rachel and Grace Estates, Section One, as shown on the map or plat thereof, recorded in Cabinet Z, Sheet 1267, of the Map Records of Montgomery County, Texas (M.R.M.C.T.), common to the easterly line of said 17.02 acre tract, to a calculated point in a southerly line of The City of Montgomery Extra-Territorial Jurisdiction, in the arc of a non-tangent curve to the right, for southeasterly corner of the herein described 13.842 acre tract, from which a 1/2 inch iron rod found for the common easterly corner of said 17.02 acre tract and that certain called 19.258 acre tract described in instrument to PWP Land Co. LLC, recorded under Clerk's File Number 20188027790, O.P.R.M.C.T. bears, South 02°45'42" East, 333.49 feet;

THENCE Southwesterly, 889.18 feet, over and across said 17.02 acre tract, with the southerly line of said City of Montgomery Extra-Territorial Jurisdiction, with the arc of said non-tangent curve to the right, having a radius of 2640.00 feet, a central angle of 19°17'52", and a chord that bears South 68°24'19" West, 884.98 feet, to a calculated point in the common line between said 17.02 acre tract and said 2.011 acre tract, for the southerly southwest corner of the herein described 13.842 acre tract, from which a 1/2 inch iron rod found for the common southerly corner of said 17.02 acre tract and said 2.011 acre tract bears, South 02°41'38" East, 42.53 feet;

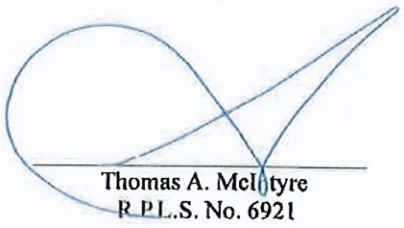
THENCE with the common line between said 17.02 acre tract and said 2.011 acre tract, the following two (2) courses and distances:

1. North 02°41'38" West, 186.37 feet, to a 1/2 inch iron rod found for corner;
2. North 86°15'20" West, 313.94 feet, to the **POINT OF BEGINNING** and containing a computed area of 13.842 acres of land within this Field Note Description.

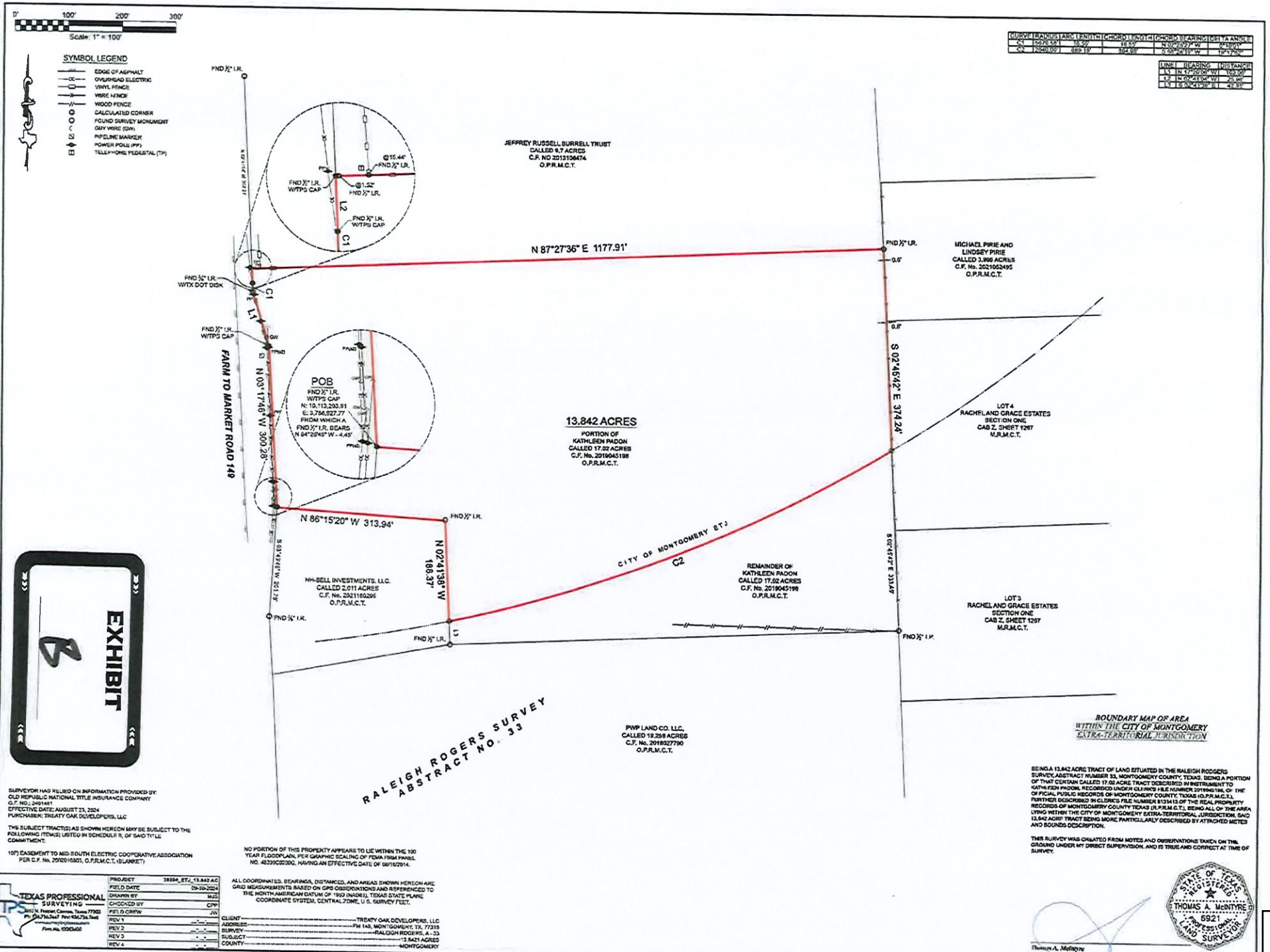
This Field Note Description was prepared from a survey performed on the ground on September 30, 2024, by Texas Professional Surveying, LLC., Registered Professional Land Surveyors and referenced to Survey Drawing Project 38204.

All coordinates, bearings, distances, and areas shown hereon are grid measurements based on GPS observations and referenced to the North American Datum 1983 (NAD83), Texas State Plane Coordinate System, Central Zone, U.S. Survey Feet.

March 25, 2025
Date



Thomas A. McIntyre
R.P.L.S. No. 6921



CURVE	LENGTH	RADIUS	TANGENT	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	56.76'	50.00'	30.22'	53.82'	N 55°26'57" W	65°03'04"
C2	1240.00'	1240.00'	382.68'	381.18'	S 50°26'21" W	17°41'26"

LINE	BEARING	DISTANCE
L1	N 17°00'00" W	100.00'
L2	N 02°45'42" W	20.00'
L3	S 87°14'18" E	42.81'

DOC #2024104549
Pages 5

OLD REPUBLIC TITLE
GF # 2401491

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

SPECIAL WARRANTY DEED WITH VENDOR'S LIEN

Date: October 16, 2024

Grantor: Kathleen Martin a/k/a Kathleen "Tina" Padon, a/k/a Kathleen Padon

Grantor's Mailing Address: 1996 Northshore Drive, Conroe, Texas 77304

Grantee: Treaty Oak Developers LLC, a Texas limited liability company

Grantee's Mailing Address: 1135 Grand Central Parkway, Suite 250, Conroe, Texas 77304

Lender: The Brenham National Bank

Lender's Mailing Address: P.O. Box 2568, Brenham, Washington County, Texas 77834

Trustee: Michael R. Rudloff

Consideration:

Cash and a note of even date executed by Grantee and payable to the order of Lender in the principal amount of FIVE HUNDRED EIGHTY-EIGHT THOUSAND AND NO/100 DOLLARS ($588,000.00). The note is secured by a first and superior vendor's lien and superior title retained in this deed in favor of Lender and by a first-lien deed of trust of even date from Grantee to Trustee.

Property (including any improvements):

See Exhibit A, attached hereto and incorporated herein by reference.

Reservations from Conveyance:

For Grantor and Grantor's heirs, successors, and assigns forever, a reservation of all oil, gas, and other minerals in and under and that may be produced from the Property. If the mineral estate is subject to existing production or an existing lease, this reservation includes the production, the lease, and all benefits from it.

Grantor waives and conveys to Grantee the right of ingress and egress to and from the surface of the Property relating to the portion of the mineral estate owned by Grantor.

Nothing herein, however, restricts or prohibits the pooling or unitization of the portion of the mineral estate owned by Grantor with land other than the Property; or the exploration or production of the oil, gas, and other minerals by means of wells that are drilled or mines that open on land other than the Property but enter or bottom under the Property, provided that these operations in no manner interfere with the surface or subsurface support of any improvements constructed or to be constructed on the Property.

Exceptions to Conveyance and Warranty:

Liens described as part of the Consideration and any other liens described in this deed as being either assumed by Grantee or subject to which title is taken by Grantee; validly existing restrictive covenants common to the platted subdivision in which the Property is located; standby fees, taxes, and assessments by any taxing authority for the year 2024 and subsequent years, and subsequent taxes and assessments by any taxing authority for prior years due to change

EXHIBIT
C

in land usage or ownership; validly existing utility easements created by the dedication deed or plat of the subdivision in which the Property is located; any discrepancies, conflicts, or shortages in area or boundary lines, or any encroachments or protrusions, or any overlapping of improvements; homestead or community property or survivorship rights, if any, of any spouse of Grantee; and any validly existing titles or rights asserted by anyone, including but not limited to persons, the public, corporations, governments, or other entities, to (a) tidelands or lands comprising the shores or beds of navigable or perennial rivers and streams, lakes, bays, gulfs, or oceans, (b) lands beyond the line of the harbor or bulkhead lines as established or changed by any government, (c) filled-in lands or artificial islands, (d) water rights, including riparian rights, or (e) the area extending from the line of mean low tide to the line of vegetation or the right of access to that area or easement along and across that area.

Grantor, for the Consideration and subject to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty, grants, sells, and conveys to Grantee the Property, together with all and singular the rights and appurtenances thereto in any way belonging, to have and to hold it to Grantee and Grantee's heirs, successors, and assigns forever. Grantor binds Grantor and Grantor's heirs and successors to warrant and forever defend all and singular the Property to Grantee and Grantee's heirs, successors, and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof when the claim is by, through, or under Grantor but not otherwise, except as to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty.

The vendor's lien against and superior title to the Property are retained until each note described is fully paid according to its terms, at which time this deed will become absolute.

Lender, at Grantee's request, has paid in cash to Grantor that portion of the purchase price of the Property that is evidenced by the note. The first and superior vendor's lien against and superior title to the Property are retained for the benefit of Lender and are transferred to Lender without recourse against Grantor.

When the context requires, singular nouns and pronouns include the plural.

Kathleen Tina Padon

Kathleen Martin a/k/a Kathleen "Tina" Padon, a/k/a Kathleen Padon

STATE OF TEXAS

COUNTY OF Montgomery

Before me, the undersigned Notary Public, personally appeared Kathleen Martin a/k/a Kathleen "Tina" Padon, a/k/a Kathleen Padon, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument and acknowledged to me that he/she/they executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 16 day of October, 2024.

APRIL BOND
My Notary ID # 131032103
Expires March 7, 2025

Notary Public, State of Texas

PREPARED IN THE OFFICE OF:
Dorsett Johnson, LLP
407 Throckmorton, Suite 500
Fort Worth, Texas 76102

AFTER RECORDING RETURN TO:
Treaty Oak Developers LLC
1135 Grand Central Parkway, Suite 250
Conroe, Texas 77304

EXHIBIT A

All that certain tract or parcel of land, together with all improvements thereon, being 18.87 acres in the RALEIGH ROGERS SURVEY, ABSTRACT 33, Montgomery County, Texas, being the same tract of land conveyed to J.B. Martin by A.J. and Wilma Martin by Deed recorded in Volume 303, Page 218, Deed Records of Montgomery County, Texas, described as 20.0 acres; also a part of a 40 ac tract conveyed to A.J. Martin by Deed recorded in Volume 418, Page 162, Deed Records of Montgomery County, Texas; said 18.87 acre tract being more particularly described as follows, to-wit:

BEGINNING at the Northeast corner of the A. J. Martin 40 acre tract of land, and the Southeast corner of a 9.7 acre Melder tract, an iron bolt for corner;

THENCE S. 00 deg. 23' W. along the East Line of the A.J. Martin tract 707.4 ft. to a 1/2" iron pipe for the Northeast corner of the South portion of the A. J. Martin tract from which an 8" Sweet Gum mkd. X brs. N. 17 de E. 13.5 ft. and a 3" Sweet Gum mkd. X brs. S. 85 deg. W. 10.2 ft.;

THENCE N. 89 deg. 22' W. along the North Line of a 19.58 acre tract surveyed out of the A. J. Martin 40 acres, 1178.2 ft. to a 3/4" iron pipe for corner in the East Line of F.M. Road 149, from which a 10" Red Oak mkd. X brs. S. 61 deg. E. 10.0 ft.;

THENCE along the East Line of Road the following:

N. 00 deg. 04' W. 63.0 ft.;

N. 07 deg. 20' E. 201.0 ft.;

N.00 deg.'04, W. 300.0 ft.;

and N. 04 deg. 30' W. 145.0 ft. to an iron stake for corner, and the Southwest corner of the Melder 9.7 acre tract;

THENCE N. 89 deg. 22' E. 1169.0 ft. to the place of BEGINNING, containing 18.87 acres of land, more or less.

SAVE AND EXCEPT THE FOLLOWING DESCRIBED PROPERTY

Being a 1.845 acre tract or parcel of land located in the Raleigh Rogers Survey, Abstract No. 33, of Montgomery County, Texas, and being out of and part of a called 18.87 acre tract conveyed to Kathleen Martin as described in deed recorded in Volume 613, Page 459, D.R.M.C., and. being the same tract of land conveyed to Gary and Kathleen Padon as described in deed recorded in CF No. 2001-095684, R.P.R.M.C. and said 1.845 acres being more particularly described as follows:

BEGINNING at a found 1/2" iron rod in the easterly right-of-way line of F. M. 149, as a point for the southwest corner of the herein described tract, same being the southwest corner of the said 18.87 acre tract, and the northwest corner of a called 19.58 acre tract conveyed to Wilma Martin as described in deed recorded in Volume 605, Page 776, D.R.M.C., and proceeding;

THENCE: N 00°11'29" W, a distance of 63.46 feet (Deed - N 00°04'00" W., a distance of 63.6 feet) along said F.M. 149, to a found 3/8" iron rod as an angle point;

THENCE: N 07°20'00" E, a distance of 201.00 feet to a point for the northwest corner of the herein described tract, from which a found fence post bears S 65°34'10" W, a distance of 1.94 feet;

THENCE: S 83°06'38" E, a distance of 312.96 feet (Deed - S 83°03'00" E, a distance of 313.2 feet) to a found 1/2" iron rod as a point for the northeast corner of the herein described tract, same being an inner corner of the residual of the said. 18.87 acre tract;

THENCE: S 00°33'18" W, a distance of 228.97 feet (Deed - S 00°35'00" W, a distance of 229.2 feet) to a found 1/2" iron rod in the south line of the said 18.87 acre tract, and the north line of the said 19.58 acre tract as a point for the southeast corner of the herein. described tract;

THENCE: N 89°22'00" W, a distance of 333.95 feet (Deed - 334.2 feet), back to the place and point of BEGINNING and having a computed area of 1.845 acres.

Doc #: 2024104549
Pages 5

E-FILED FOR RECORD
10/17/2024 11:39AM

L. Brandon Steinmann
County Clerk,
Montgomery County, Texas

STATE OF TEXAS,
COUNTY OF MONTGOMERY
I hereby certify that this instrument was e-filed in the file number sequence on the date and time stamped herein by me and was duly e-RECORDED in the Official Public Records of Montgomery County, Texas.

10/17/2024

L. Brandon Steinmann
County Clerk,
Montgomery County, Texas

Montgomery City Council
AGENDA REPORT

Meeting Date: May 13, 2025	**Budgeted Amount:** Loss of Future Revenue
Department: Administration	**Prepared By: Ruby Beaven**

Subject

Consideration and possible action on a petition by Steven Havens and Lisa Havens for certain private property to be released from the City's Extraterritorial Jurisdiction.

Recommendation

City Attorney recommendation is to take no action.

Discussion

Property owners have submitted a formal petition to be released from the City's ETJ for unknown reasons. The State Law has recently changed to allow this action.

Approved By

Interim City Administrator	Anthony Solomon	Date: 05/06/2025

SK LAW

Sanford | Kuhl | Hagan | Kugle | Parker | Kahn LLP

1330 POST OAK BOULEVARD
SUITE 2650
HOUSTON, TEXAS 77056
(713) 850-9000
FAX: (713) 850-1330
www.sklaw.us

RYAN E. LARUE
larue@sklaw.us

April 24, 2025

RECEIVED BY:
APR 25 2025
City of Montgomery

VIA FEDEX

Ms. Ruby Beaven, TRMC, MMC
City Secretary & Director of Administrative Services
City of Montgomery, Texas
101 Old Plantersville Road
Montgomery, Texas 77316

RE: Extraterritorial Jurisdiction Release

Dear Ms. Beaven:

Pursuant to Chapter 42, Texas Local Government Code, as amended by Senate Bill 2038, effective September 1, 2023, please find the attached Petition for Release of Area from the Extraterritorial Jurisdiction (the "Petition") and Certificates of Ownership (the "Certificates"). The Petitioners, Steven Havens and Lisa Havens, are the owners of the 135.270-acre parcel of land to be released from the Extraterritorial Jurisdiction of the City of Montgomery, Texas, as confirmed by the attached Certificates.

There are no residential tenants residing on the land. Additionally, there are no lienholders on the land. Attached to the Petition are a metes and bounds description and a survey of the land to be removed.

Upon receipt of this letter, and the Petition, please verify the signatures of the Petitioners pursuant to Chapter 42.105, Texas Local Government Code and notify the undersigned the results of the Petition.

Should you have any questions, please do not hesitate to contact the undersigned.

Respectfully,

Ryan E. LaRue

Enclosures

PETITION FOR RELEASE OF AREA
FROM THE EXTRATERRITORIAL JURISDICTION

THE STATE OF TEXAS §
§
COUNTY OF MONTGOMERY §

TO THE HONORABLE MAYOR AND COUNCIL OF THE CITY OF MONTGOMERY, TEXAS:

The undersigned (hereinafter called "Petitioner"), acting pursuant to Section 42.102 of the Texas Local Government Code, as amended, hereby respectfully petitions the City of Montgomery, Texas (hereinafter called the "City"), for the removal of the area described in Exhibit "A" and depicted on the map in Exhibit "B", both attached hereto (the "Property"), from the extraterritorial jurisdiction (the "ETJ") of the City.

In support of this Petition, Petitioners would respectfully show:

I.

Petitioners have authority, pursuant to Section 42.102(b) of the Texas Local Government Code, to file this Petition as the owners of the majority in value of an area of land in a municipality's ETJ, as described herein.

II.

This Petition is signed by a majority in value of the holders of title of land in the area as described by this Petition, as indicated by the Certificate of Ownership attached as Exhibit "C".

III.

This Petition has satisfied the signature requirements described by Sections 42.103 and 42.104(a) of the Texas Local Government Code, and Chapter 277, Texas Election Code, and is not later than the 180th day after the date the first signature for the Petition is obtained.

IV.

The signature collected for this Petition is in writing, pursuant to Section 42.104(c) of the Texas Local Government Code.

V.

The Property is located in Montgomery County, Texas, and totals approximately 135.2 acres, as described in Exhibit "A", which is located within the ETJ of the City and, to the best of the Petitioners' knowledge, is not subject to any of the exceptions from applicability described in Section 42.101, Texas Local Government Code.

VI.

This Petition shall be verified by the City Secretary of the City or other person at the City responsible for verifying signatures.

VII.

The City must notify the residents or landowners of the Property of the results of the Petition, which notification requirement may be satisfied by notifying the Petitioner in writing.

VIII.

If Petitioners have obtained the signatures on the Petition required under Section 42.104, Texas Local Government Code, to release the Property from the City's ETJ, the City shall immediately release the Property from its ETJ pursuant to Section 42.105(c), Texas Local Government Code.

WHEREFORE, PREMISES CONSIDERED, Petitioners pray that this Petition be filed with the City Secretary of the City, and that, thereafter, the Property be removed from the ETJ of the City, in the manner provided by law, including particularly Sections 42.102-105 of the Texas Local Government Code, as amended, that after this Petition has been granted, that it and the Petitioners' action thereon be filed of record and be recorded in the Office of the City Secretary of the City; and that Petitioners have such other order and relief to which it may show itself entitled. If the City Council has not released the Property from the ETJ by the later of the 45th day after the date the City receives this Petition or the next meeting of the City Council that occurs after the 30th day after the date the City receives this Petition, the Property shall be released by operation of law pursuant to Chapter 42.105(d), Texas Local Government Code.

[SIGNATURE PAGE FOLLOWS]

RESPECTFULLY SUBMITTED this 14th day of April, 2025.

"Petitioner"

Steven Havens

DATE OF BIRTH: 4-18-195X

RESIDENCE ADDRESS: 2297 Springbranch Montgomery Texas 77316

DATE OF SIGNING: April 14, 2025

THE STATE OF TEXAS §
§
COUNTY OF MONTGOMERY §

This instrument was acknowledged before me on the 14th day of April, 2025, by Steven Havens, individually, and acknowledged to me that said person executed the same for the purposes therein expressed, in the capacity therein stated, as the act and deed of said individual.

(SEAL)

Demetrius Elliott
My Commission Expires
9/8/2027
Notary ID 134547622

NOTARY PUBLIC, STATE OF TEXAS

"Petitioner"

Lisa Havens

Lisa Havens

DATE OF BIRTH: 7/16/1957

RESIDENCE ADDRESS: 2291 Spring Branch Rd. Montgomery

DATE OF SIGNING: 4/14/2025

THE STATE OF TEXAS §
§
COUNTY OF MONTGOMERY §

This instrument was acknowledged before me on the 14th day of April, 2025, by Lisa Havens, individually, and acknowledged to me that said person executed the same for the purposes therein expressed, in the capacity therein stated, as the act and deed of said individual.

(SEAL)

NOTARY PUBLIC, STATE OF TEXAS

EXHIBIT "A"

LEGAL DESCRIPTION OF AREA TO BE REMOVED FROM THE EXTRATERRITORIAL JURISDICTION

[Please See Attached]

TEXAS PROFESSIONAL SURVEYING, LLC.

3032 N. FRAZIER STREET, CONROE, TEXAS 77303
(936)756-7447 FAX (936)756-7448
FIRM REGISTRATION No. 100834-00

FIELD NOTE DESCRIPTION
135.270 ACRES
IN THE ZACHARIAH LANDRUM SURVEY, ABSTRACT NUMBER 22
MONTGOMERY COUNTY, TEXAS

BEING a 135.270 acre tract of land situated in the Zachariah Landrum Survey, Abstract Number 22, Montgomery County, Texas, being a portion of that certain called 251.96 acre tract described in instrument to Steven L. Havens, recorded under Clerk's File Number 9403259, of the Real Property Records of Montgomery County, Texas (R.P.R.M.C.T.), being all of the area lying within the City of Montgomery Extra-Territorial Jurisdiction, said 135.270 acre tract being more particularly described by metes and bounds as follows:

BEGINNING at a 5/8 inch iron rod found in the southerly line of the remainder of that certain called 454.2890 acre tract, now or formerly described in instrument to Michael J. Kammerer and Judith L. Kammerer, recorded under Clerk's File Number 9401426, R.P.R.M.C.T., in the southerly line of an access easement, recorded under Clerk's File Number 9511114, R.P.R.M.C.T., for the common northerly corner of said 251.96 acre tract and that certain called 49.895 acre tract described in instrument to James Heine and Norma Heine, recorded under Clerk's File Number 2023032964, O.P.R.M.C.T., being the northeasterly corner of the herein described 135.270 acre tract, said **POINT OF BEGINNING** having a Texas State Plane Coordinate value of **N: 10,129,051.65, E: 3,750,580.10,** Central Zone, grid measurements;

THENCE South 03°53'26" East, 1358.22 feet, with the common line between said 251.96 acre tract and said 49.895 acre tract, to a 5/8 inch iron rod with cap found for the common westerly corner of said 49.895 acre tract and that certain called 96.43 acre tract described as "Tract 1" in instrument to The Hetland Trust Limited Partnership, recorded under Clerk's File Number 2020124901, O.P.R.M.C.T., being an angle point in the easterly line of said 251.96 acre tract and the herein described 135.270 acre tract;

THENCE South 03°05'53" East, 1272.64 feet, with the common line between said 251.96 acre tract and said 96.43 tract, to a calculated point in a southerly line of The City of Montgomery Extra-Territorial Jurisdiction (ETJ line), in the arc of a non-tangent curve to the right, for the southeasterly corner of the herein described 135.270 acre tract, from which a 1 inch iron pipe found for a southerly common corner of said 251.96 acre tract and said 96.43 acre tract bears South 03°05'53" East, 84.27 feet;

THENCE over and across said 251.96 acre tract, with a southerly line of said ETJ line, the following three (3) courses and distances:

1. Southwesterly, 235.70 feet, with the arc of said non-tangent curve to the right, having a radius of 2640.00 feet, a central angle of 05°06'56", and a chord that bears South 85°45'03" West, 235.62 feet, to a calculated point for the end of said curve to the right;
2. South 88°18'37" West, 2413.37 feet, to a calculated point for the beginning of a curve to the right;
3. Northwesterly, 1337.98 feet, with the arc of said curve to the right, having a radius of 2640.00 feet, a central angle of 29°02'17", and a chord that bears North 77°10'18" West, 1323.70 feet, to a calculated point in the centerline of said Spring Branch Road, the westerly line of said 251.96 acre tract, for the end of said curve to the right, being the southwesterly corner of the herein described 135.270 acre tract;

THENCE with the centerline of said Spring Branch Road, the westerly line of said 251.96 acre tract, the following two (2) courses and distances:

1. North 02°48'37" West, 34.49 feet, to a calculated point for corner;
2. North 03°05'00" West, 127.67 feet, to a calculated point for the westerly northwest corner of the herein described 135.270 acre tract;

THENCE over and across said 251.96 acre tract, the following two (2) courses and distances:

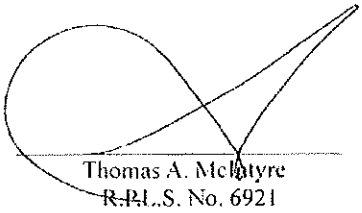
1. North 86°46'33" East, at a distance of 20.00 feet, pass a 1/2 inch iron rod with cap stamped "TPS 100834-00" found for reference in the easterly margin of said Spring Branch Road, in all, a total distance of 2033.08 feet, to a 1/2 inch iron rod with cap stamped "TPS 100834-00" found for corner;
2. North 03°01'28" West, 2092.23, to a 1/2 inch iron rod with cap stamped "TPS 100834-00" found in the common line between said 251.96 acre tract and that certain called 388.5 acre tract described in instrument to Redbird Development, LLC., recorded under Clerk's File Number 2021049974, O.P.R.M.C.T., for the northerly northwest corner of the herein described 135.270 acre tract;

THENCE North 88°18'44" East, 1866.92 feet, with the southerly line of said 388.5 acre tract and said remainder of 454.2890 acre tract, common to the northerly line of said 251.96 acre tract, to the **POINT OF BEGINNING** and containing a computed area of 135.270 acres of land within this Field Note Description.

This Field Note Description was prepared from a survey performed on the ground on November 26, 2024, by Texas Professional Surveying, LLC., Registered Professional Land Surveyors and referenced to Survey Drawing Project 38550.

All coordinates, bearings, distances, and areas shown hereon are grid measurements on GPS observations and referenced to the North American Datum 1983 (NAD83), Texas State Plane Coordinate System, Central Zone, U.S. Survey Feet.

April 1, 2025
Date

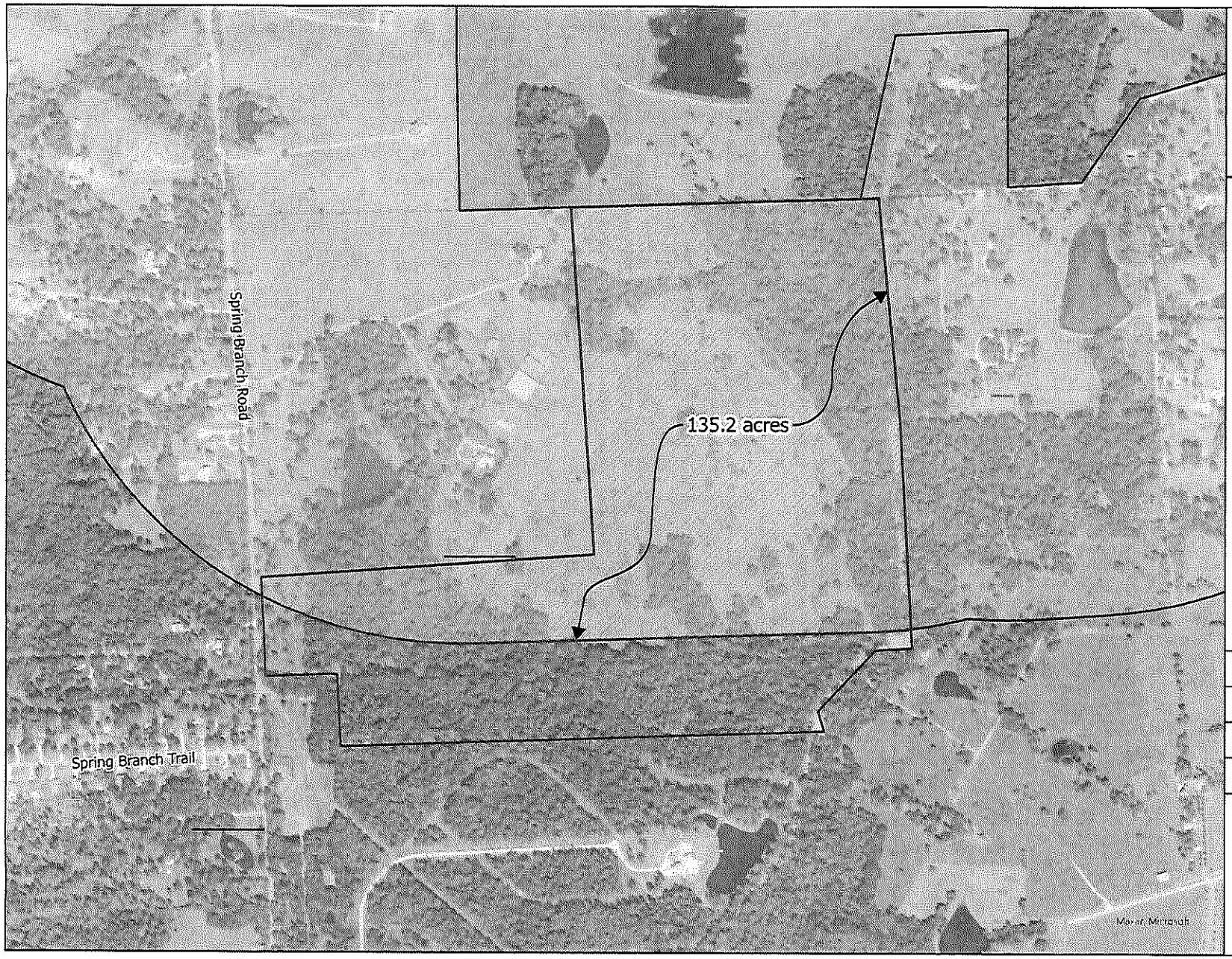


Thomas A. McIntyre
R.P.L.S. No. 6921

EXHIBIT "B"

MAP OF AREA TO BE REMOVED FROM THE EXTRATERRITORIAL JURISDICTION

[Please See Attached]



Montgomery

105

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

Legend

- Spring Branch Tract Boundary
- Area within City of Montgomery ETJ
- City of Montgomery ETJ

0 250 500 1,000 Feet

Elevation Reference:
NAD 1983 StatePlane
Texas Central 4203
Units: Feet

Spring Branch Road Tract

ETJ Vicinity Map

CREATED BY	REVIEWED BY
MCW	MCW
DATE	EXHIBIT NO.
MARCH 2025	1

ELEVATION land solutions
TBPE Registration Number F-22671
9709 Lakeside Blvd, Suite 200
The Woodlands, TX 77381 832-823-2200

EXHIBIT "C"

CERTIFICATE OF OWNERSHIP

[Please See Attached]

MONTGOMERY CENTRAL APPRAISAL DISTRICT
SHERRY C. HUNTER RPA, CCA
CHIEF APPRAISER

109 GLADSTELL ST., CONROE, TX 77301
P.O. BOX 2233, CONROE, TX 77305
936-756-3354 | WWW.MCAD-TX.ORG

CERTIFICATE OF OWNERSHIP

THE STATE OF TEXAS §
§
§
COUNTY OF MONTGOMERY §

District: Decker Prairie Municipal Utility District

Description: 135.270 acres of land situated in the Zachariah Landrum Survey, Abstract No. 22 located in Montgomery County, Texas.

I, the undersigned, hereby certify that I have examined the rolls of Montgomery Central Appraisal District and find that as of April 1, 2025 fee simple ownership of all of the property described in an Exhibit attached hereto, was assessed on the rolls of Montgomery Central Appraisal District, in the name of:

Existing or Parent Accounts on Last Certified Roll (2024) with Appraised Values (if applicable):

OWNER	ACCOUNT #	ACRES
STEVEN AND LISA HAVENS	33389	135.270

Above calculation are given by the Registered Surveyor upon request and not by the Montgomery Central Appraisal District.

By _____
Adam Edmundson, Director of Special Operations

State of Texas
County of Montgomery
Subscribed and sworn to (or affirmed) before me this 4th day of April, 2025.

BERENICE VILLANUEVA
My Notary ID # 133278772
Expires August 19, 2025

_____
Berenice Villanueva, Notary Public

Montgomery City Council
AGENDA REPORT

Meeting Date: 2025.05.13	**Budgeted Amount:**
Department: Administration	**Prepared By: WGA**

Subject

Consideration and Possible Action on the Legacy Grove Section 1 WSD&P Plans (Dev. No. 2409)

Recommendation

Staff and WGA recommends Council approval of the Legacy Grove Section 1 WSD&P plans as presented.

Discussion

The Engineer's memo and supporting documents are attached.

Approved By

City Staff	Ruby Beaven	Date: 2025.05.05

May 7, 2025

City Council
City of Montgomery
101 Old Plantersville Rd.
Montgomery, Texas 77316

Re: Approval of Water, Sanitary, Drainage, & Paving Plans
Legacy Grove Section 1 WSD&P Plans (Dev. No. 2409)
City of Montgomery

Dear Mayor and Council:

We reviewed the WSD&P plans submission for the referenced development on behalf of the City of Montgomery (the "City"). Our review was based on the City's Code of Ordinances, Chapter 78 Section 60 and any other applicable chapters, and the City's Design Manual. Our review was also based upon the approved development regulations included as part of the development agreement between the Developer and the City. This phase of the development includes 108 acres, 65 lots ranging from 90' to 121' in width, and is served by 28' wide roads with 60' right of way. Please note that the preliminary plat was approved by P&Z on May 6th.

We recommend approval of the WSD&P plans as submitted. As outlined in the Development Agreement Amendment dated April 8, 2025, the Developer will be required to provide a $50,000 financial guarantee for the required bypass pumping related to the construction of this section. As outlined in the amendment, the City assumes no liability for the construction and maintenance of the temporary bypass pump, and that responsibility relies solely with the Developer and their successor(s).

If you have any questions or comments, please contact me.

Sincerely,

Chris Roznovsky, PE
Engineer for the City

CVR/zlgt
Z:\00574 (City of Montgomery)_900 General Consultation\Correspondence\Letters\2025\2025.05.06 MEMO to Council Legacy Grove Section 1 WS&D Plans.docx
Enclosures: Plans
Cc (via email): Mr. Anthony Solomon – City of Montgomery, Interim City Administrator & Police Chief
Ms. Ruby Beaven – City of Montgomery, City Secretary & Director of Administrative Services
Ms. Corinne Tilley – City of Montgomery, Code Enforcement Officer & Planning and Development Administrator

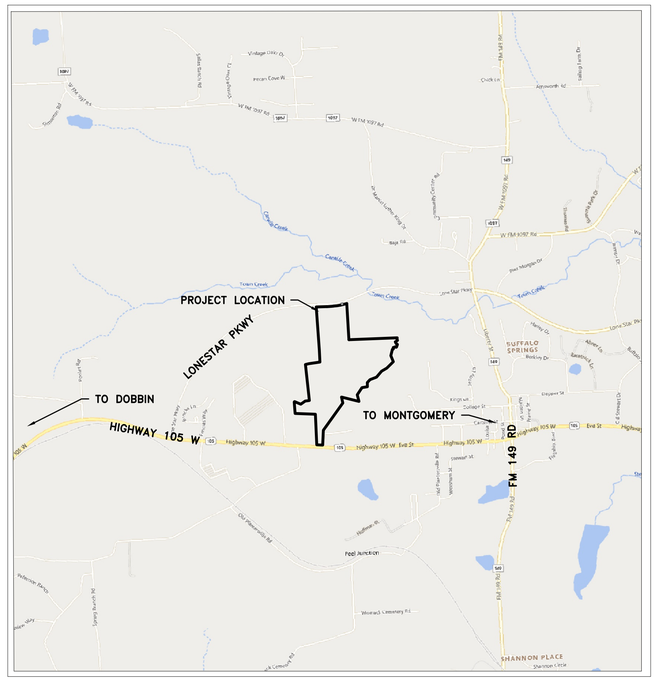
CITY OF MONTGOMERY, TEXAS

LEGACY GROVE
SECTION 1 WS&D

PUBLIC IMPROVEMENTS

Sheet List Table

Sheet Number	Sheet Title
01	COVER SHEET
02	CONSTRUCTION NOTES AND LEGEND
03	TCEQ CONSTRUCTION NOTES
04	EXISTING CONDITIONS SURVEY
05	OVERALL LAYOUT AND INDEX
06	TRAFFIC AND PAVING PLAN
07	WATER AND SANITARY SEWER PLAN (1 OF 2)
08	WATER AND SANITARY SEWER PLAN (2 OF 2)
09	STORM SEWER PLAN (1 OF 3)
10	STORM SEWER PLAN (2 OF 3)
11	STORM SEWER PLAN (3 OF 3)
12	DRAINAGE PLAN (1 OF 3)
13	DRAINAGE PLAN (2 OF 3)
14	DRAINAGE PLAN (3 OF 3)
15	DRAINAGE CALCULATIONS
16	HERITAGE GROVE CT PLAN AND PROFILE 0+00–END
17	ESTATE GROVE CT PLAN AND PROFILE 0+00–END
18	COPSE SHADE CT PLAN AND PROFILE 0+00–END
19	STEWARDSHIP LN PLAN AND PROFILE 0+00–6+00
20	STEWARDSHIP LN PLAN AND PROFILE 6+00–END
21	ROOTED KNOLL PLAN AND PROFILE 0+00–END
22	LEGACY GROVE DR PLAN AND PROFILE 9+55–17+00
23	LEGACY GROVE DR PLAN AND PROFILE 17+00–END
24	SANITARY TRUNK LINE (1 OF 4)
25	SANITARY TRUNK LINE (2 OF 4)
26	SANITARY TRUNK LINE (3 OF 4)
27	SANITARY TRUNK LINE (4 OF 4)
28	SWPP PLAN
29	SWPP DETAILS
30	PAVING DETAILS (1 OF 3)
31	PAVING DETAILS (2 OF 3)
32	PAVING DETAILS (3 OF 3)
33	TRAFFIC CONTROL PLAN
34	UTILITY DETAILS (1 OF 3)
35	UTILITY DETAILS (2 OF 3)
36	UTILITY DETAILS (3 OF 3)
37	STORM DETAILS



KEY MAP 122Z,122R,123S,123N
SCALE: 1" = 2000'

PROJECT NOTES

ENGINEER'S CERTIFICATION:
I CERTIFY THAT THESE PLANS WHICH BEAR MY SEAL HAVE BEEN PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND ARE IN COMPLIANCE WITH ALL APPLICABLE CITY, STATE AND FEDERAL REQUIREMENTS. THE PROPOSED IMPROVEMENTS SHOWN IN THESE PLANS WILL NOT IMPEDE THE FLOW OF SURFACE WATERS FROM HIGHER ADJACENT PROPERTIES, WILL NOT ALTER THE NATURAL FLOW OF SURFACE WATERS SO AS TO DISCHARGE THEM UPON ADJACENT PROPERTIES AT A MORE RAPID RATE OR IN A DIFFERENT LOCATION, AND WILL NOT CONCENTRATE FLOWS OF SURFACE WATERS IN A MANNER WHICH EXCEEDS THE CAPACITY OF THE RECEIVING WATERCOURSE. THIS CERTIFICATION DOES NOT APPLY TO ANY EXISTING IMPROVEMENTS ON THE SUBJECT PROPERTY.

CIVIL NOTE:
FIELD VERIFY ALL EXISTING CONDITIONS AND ELEVATIONS INCLUDING PAVEMENT AND UTILITY TIE-INS PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ALL DISCREPANCIES PRIOR TO BEGINNING ANY WORK.

TDLR NOTE:
TEXAS DEPARTMENT OF LICENSING AND REGISTRATION (TDLR) NUMBER REQUIRED FOR ALL PROPOSED COMMERCIAL BUILDINGS. **IF TDLR NUMBER IS NOT PRESENT, CLIENT IS RESPONSIBLE FOR ACQUIRING REGISTRATION NUMBER PRIOR TO CONSTRUCTION.

WETLAND NOTE:
THESE PLANS WERE PREPARED WITHOUT THE BENEFIT OF AN ENVIRONMENTAL OR OTHER WETLANDS STUDY. L SQUARED ENGINEERING IS NOT AN ENVIRONMENTAL ENGINEERING FIRM AND DOES NOT HAVE THE ABILITY TO DETERMINE ENVIRONMENTAL OR WETLAND IMPACTS. THE CLIENT AND/OR OWNER SHALL BE RESPONSIBLE FOR ANY SUCH STUDY AND NOTIFY ENGINEER IF ANY RESULTING CHANGES ARE NEEDED PRIOR TO CONSTRUCTION.

LEGAL DESCRIPTION:
A TRACT OR PARCEL CONTAINING 108.8 ACRES OR 4,741,398 SF OF LAND, SITUATED IN THE BENJAMIN RIGSBY LEAGUE, ABSTRACT NO. 31, MONTGOMERY COUNTY, TEXAS, BEING PART OF AND OUT OF THE RESIDUE OF A CALLED 94.889 ACRE TRACT OF LAND DESCRIBED IN DEED TO NORMAN R. STEWART, JR. AND WIFE, JENNIFER H. STEWART AS RECORDED UNDER MONTGOMERY COUNTY CLERK'S FILE (M.C.C.F.) NO. 9357628M AND PART OF AND OUT OF A CALLED 67.820 ACRE TRACT OF LAND DESCRIBED IN DEED TO CMC PARTNERSHIP, LTD. AS RECORDED UNDER M.C.C.F. NO. 2022130572, WITH ALL BEARINGS BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, CENTRAL ZONE (4203)

BENCHMARK: PUBLISHED ELEV – 285.97'
CITY OF MONTGOMERY BENCHMARK NO. 4, BEING A BRASS DISK IN CONCRETE WITH A 6"X 5/8" IRON REBAR DROVE INTO IT. WITH A PUNCH HOLE IN THE CENTER OF PKWY +/– 4,300 FEET TO AN ASPHALT DRIVE THAT LEADS NOWHERE ON THE SOUTH SIDE OF ROAD. DRIVEWAY IS WEST OF AN OLD WOOD FRAME BUILDING THAT SITS UPON THE TOP BANK OF THE SLOPE THAT GOES DOWN TO THE ROAD. BUILDING IS BELIEVED TO HAVE BEEN FOR A NURSERY. DRIVEWAY IS ACROSS THE STREET FROM WHAT LOOKS TO BE AN UNOCCUPIED MOBILE HOME WITH THE ADDRESS 3300 ON THE MAILBOX. FROM THE SW CORNER OF ASPHALT DRIVE IN A SW DIRECTION +/– 5 FEET. MARK IS +/– 100 FEET EAST OF THE WEST CITY LIMITS LINE. (PER CITY OF MONTGOMERY BENCHMARK DATA SHEET, VERTICAL DATUM IS GEOID '09)

SITE BENCHMARK:
TBM "A" ELEV – 282.12'
TEMPORARY BENCHMARK "A" IS A RAILROAD SPIKE IN A POWER POLE LOCATED ON THE NORTH SIDE OF LONE STAR PARKWAY, APPROXIMATELY 1.2 MILES NORTH OF THE INTERSECTION OF LONE STAR PARKWAY AND STATE HIGHWAY NO. 105, APPROXIMATELY 16 FEET WEST OF A GRAVEL DRIVE, AND APPROXIMATELY 113 FEET NORTH OF THE EDGE OF PAVING OF LONE STAR PARKWAY.

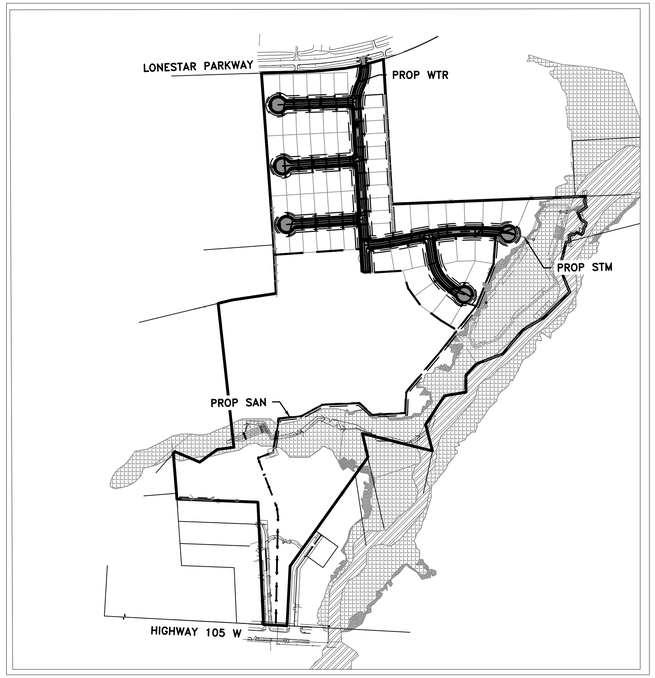
TBM "B" ELEV – 265.17'
TEMPORARY BENCHMARK "A" IS A RAILROAD SPIKE IN A POWER POLE LOCATED ON THE NORTH SIDE OF LONE STAR PARKWAY, APPROXIMATELY 1.3 MILES NORTH OF THE INTERSECTION OF LONE STAR PARKWAY AND STATE HIGHWAY NO. 105, APPROXIMATELY 73 FEET EAST OF A CONCRETE DRIVE, AND APPROXIMATELY 106 FEET NORTH OF THE EDGE OF PAVING OF LONE STAR PARKWAY.

TBM"C" ELEV – 277.64'
A CUT BOX ON TOP OF CONCRETE STORM HEADWALL OF THE WESTERLY END OF A 24 INCH STORM PIPE UNDERNEATH A DRIVEWAY. LOCATED APPROX. 3,330 FEET EAST OF EMMA'S WAY ON THE NORTH SIDE OF HIGHWAY NO. 105, BEING APPROX. 19 FEET NORTH OF THE EDGE OF PAVEMENT OF HIGHWAY NO. 105 AND BEING APPROX. 33 FEET SOUTH OF A FIRE HYDRANT.

TBM"D" ELEV – 283.04'
A CUT BOX ON TOP OF CONCRETE STORM HEADWALL OF THE WESTERLY END OF A 24 INCH STORM PIPE UNDERNEATH A DRIVEWAY. LOCATED APPROX. 3,175 FEET EAST OF EMMA'S WAY ON THE NORTH SIDE OF HIGHWAY NO. 105, BEING APPROX. 22 FEET NORTH OF THE EDGE OF PAVEMENT OF HIGHWAY NO. 105 AND BEING APPROX. 25 FEET SOUTHWESTERLY OF A TRAFFIC SIGN AND APPROX. 32 FEET SOUTHEASTERLY OF A TELEPHONE PEDESTAL

FLOODPLAIN:
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP (FIRM) FOR MONTGOMERY COUNTY, TEXAS, MAP NO. 48339C0200G REVISED/DATED AUGUST 18, 2014, THE SUBJECT TRACT APPEARS TO LIE WITHIN UNSHADED ZONE "X", SHADED ZONE "X", ZONE "AE", AND ZONE "AE FLOODWAY". THIS DETERMINATION WAS DONE BY GRAPHIC PLOTTING AND IS APPROXIMATE ONLY, AND HAS NOT BEEN FIELD VERIFIED. THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY OR STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. ON RARE OCCASIONS FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF WINDROSE SURVEYING AND LAND SERVICES. BFE ELEVATIONS 247' TO 265'.

SURVEY NOTE:
SURVEY PROVIDED BY WINDROSE LAND SURVEYING DATED 09/26/2024. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO ANY WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES.



PROJECT MAP
SCALE: 1" = 500'

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

ONE-CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG!!!
(713) 223-4567 (in Houston)
(New Statewide Number Outside Houston)
1-800-545-6005

CITY OF MONTGOMERY
DEVELOPMENT NUMBER: 2409

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12235
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUITE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D
COVER SHEET

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	AS SHOWN	SHEET	01

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER
04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\01 COVER SHEET.DWG Apr. 30, 2025–8:00 AM LAURYN JOHNSON

REFERENCE SPECIFICATIONS:

APPLICABLE ENTITY DETAILS & SPECIFICATIONS SHALL APPLY. WHEN NO SUCH INFORMATION EXISTS, CONTRACTOR SHALL THEN REFERENCE MONTGOMERY COUNTY DETAILS AND SPECIFICATIONS.

GENERAL CONSTRUCTION NOTES:

1. MATERIALS, CONSTRUCTION AND TESTING TO BE IN ACCORDANCE WITH THE GOVERNING ENTITY'S ORDINANCES AND SPECIFICATIONS, LATEST PRINTING AND AMENDMENTS THERETO.

2. CONTRACTOR TO OBTAIN ALL DEVELOPMENT AND CONSTRUCTION PERMITS REQUIRED BY ALL ENTITIES AT HIS EXPENSE PRIOR TO COMMENCEMENT OF WORK.

3. CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES OR RAILROADS AFFECTED BY HIS OPERATIONS 48 HOURS PRIOR TO COMMENCEMENT OF WORK IN STREET RIGHTS-OF-WAY OR EASEMENTS.

4. ALL EXISTING UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETED OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE. CONTRACTOR HAS SOLE RESPONSIBILITY FOR FIELD VERIFICATION OF ALL EXISTING FACILITIES SHOWN ON DRAWINGS. CONTRACTOR SHALL COORDINATE ALL CONFLICTS WITH THE APPROPRIATE GOVERNING AGENCY.

5. THE LOCATION OF EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL REQUEST THE EXACT LOCATION OF THESE FACILITIES BY CALLING THE UTILITY COMPANIES, AT LEAST 48 HOURS BEFORE COMMENCING WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH OCCURS DUE TO HIS FAILURE TO REQUEST THE LOCATION AND PRESERVATION OF THESE UNDERGROUND FACILITIES. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF CONSTRUCTION OPERATIONS WILL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

6. TEXAS LAW ARTICLE 1436c, PROHIBITS ALL ACTIVITIES IN WHICH PERSONS OR EQUIPMENT MAY COME WITHIN 6 FEET OF ENERGIZED OVERHEAD POWER LINES, AND FEDERAL REGULATION, TITLE 29, PART 1910.130(1) AND PART 1926.440 (A) (15) REQUIRE A MINIMUM CLEARANCE OF 10 FEET FROM THESE FACILITIES. THE ABOVE LAWS CARRY BOTH CRIMINAL AND CIVIL LIABILITIES, WITH CONTRACTORS AND OWNERS BEING LEGALLY RESPONSIBLE FOR THE SAFETY OF WORKERS UNDER THESE LAWS. IF YOU OR YOUR COMPANY MUST WORK NEAR ENERGIZED OVERHEAD POWER LINES, CALL THE POWER COMPANY FOR THE LINES TO BE DE-ENERGIZED AND/OR MOVED AT YOUR EXPENSE.

7. CONSTRUCTION SHALL COMPLY WITH THE LATEST REVISIONS OF OSHA REGULATIONS AND STATE OF TEXAS LAW CONCERNING TRENCHING AND SHORING. CONTRACTOR SHALL PROVIDE A TRENCH SAFETY SYSTEM TO MEET, AS A MINIMUM, THE REQUIREMENTS OF OSHA SAFETY AND HEALTH REGULATION, PART 1926, SUB-PART P AS PUBLISHED IN THE FEDERAL REGISTER, VOLUME 54, NO. 209, DATED OCTOBER 31, 1989.

8. DETAILS SHOWN DO NOT EXTEND OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY CHAPTER 756, SUBCHAPTER "C" OF THE TEXAS HEALTH AND SAFETY CODE.

9. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH ANCHORED STEEL PLATES DURING NON-WORKING HOURS, ALONG EXISTING ROADWAYS AND TRAFFIC AREAS.

10. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE GOVERNING ENTITY. ALL CONSTRUCTION RUNOFF SHALL COMPLY WITH STORM WATER MANAGEMENT FOR CONSTRUCTION ACTIVITIES AND THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING AND WARNING DEVICES, ETC., DURING CONSTRUCTION IN ACCORDANCE WITH THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS OR PROVIDE ALL-WEATHER DETOURS AROUND CONSTRUCTION SITE, PROVIDE PUBLIC NOTIFICATION, AND USE UNIFORMED POLICE OFFICERS TO CONTROL TRAFFIC.

12. EXISTING PAVEMENTS, CURBS, SIDEWALKS AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO THE GOVERNING ENTITY'S STANDARDS. ALL ASPHALT AND CONCRETE DRIVEWAYS EXCAVATED DURING CONSTRUCTION SHALL BE BACKFILLED WITH STABILIZED MATERIAL AND RETURNED TO EXISTING CONDITIONS. ALL STATE AND COUNTY HIGHWAY PAVEMENT AND RAILROAD RIGHT-OF-WAYS TO BE BORED ACCORDING TO THE RULES, REGULATIONS AND REQUIREMENTS FOR APPROVAL AND ACCEPTANCE BY SAID AGENCIES.

13. EXISTING ROADS AND/OR RIGHT-OF-WAYS DISTURBED DURING CONSTRUCTION SHALL BE AS GOOD OR BETTER THAN THE CONDITION PRIOR TO STARTING THE WORK, UPON COMPLETION OF THE PROJECT.

14. AFTER DISTURBED AREAS HAVE BEEN COMPLETED TO THE LINES, GRADES, AND CROSS-SECTIONS SHOWN ON THE PLANS, SEEDING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS TO ESTABLISH AN ADEQUATE VEGETATION COVERAGE TO ELIMINATE EROSION. IF NO PROVISION FOR PLANTING GRASS IS INCLUDED IN THE PLANS OR SPECIFICATIONS, THE MINIMUM REQUIREMENT FOR THIS ITEM WILL BE IN ACCORDANCE WITH THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR "SODDING OR SEEDING FOR EROSION CONTROL." (ITEMS 162 OR 164). ANY SOD OR SEED IS TO BE WATERED BY THE CONTRACTOR UNTIL 80% ESTABLISHED. ALL GRASS SHALL BE MOWED AND MAINTAINED BY THE CONTRACTOR UNTIL FINAL ACCEPTANCE.

15. ALL TRENCHES, INCLUDING TRENCHES FOR LEADS AND STUBS UNDER PAVEMENT AND TO A POINT ONE (1) FOOT IMMEDIATELY BELOW THE SUBGRADE. TRENCHES OTHER THAN UNDER PAVEMENT SHALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL IN 6 INCH LAYERS AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST (ASTM DESIGNATION D-698/AASHTO T99). MOISTURE CONTENT OF BACKFILL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CEMENT STABILIZED SAND SPECIFICATIONS. SEE GOVERNING ENTITY'S STANDARD DETAIL SHEETS FOR BEDDING AND OTHER DESIGN REQUIREMENTS.

16. CONTRACTOR TO REMOVE EXISTING PLUGS AND CONNECT TO EXISTING UTILITY LINES AS INDICATED ON PLANS.

17. UNLESS OTHERWISE NOTED ON PLANS, WHERE MANHOLES ARE LOCATED WITHIN THE UTILITY EASEMENTS, THE CONTRACTOR SHALL SET RIM ELEVATIONS THREE INCHES ABOVE FINISHED GROUND ELEVATIONS.

18. WHEN TRENCH CONDITION REQUIRES THE USE OF WELL POINTS, THIS IS TO BE REQUESTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

19. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING THE MUD AND/OR DIRT DEPOSITED ON EXISTING PAVEMENT DUE TO HIS CONSTRUCTION ACTIVITY DAILY. ALL EQUIPMENT AND DEBRIS FROM CONSTRUCTION TO BE MOVED AT END OF PROJECT.

20. NOTES LAST UPDATED ON: 11/1/2024

STORM WATER QUALITY NOTES:

1. COVERAGE IS REQUIRED UNDER THE TPDES GENERAL PERMIT TXR150000 FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING NOI/NOT, IMPLEMENTATION, INSPECTION, AND MAINTENANCE OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. THE COSTS TO IMPLEMENT, INSPECT, AND MAINTAIN THE SWPPP SHALL BE CONSIDERED INCIDENTAL TO THE SWPPP BID ITEMS.

2. IF THE PROJECT DISTURBS GREATER THAN 5 ACRES, A NOTICE OF INTENT (NOI) SHALL BE SUBMITTED TO THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) AT LEAST 7 DAYS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TCEQ COMPLIANCE, PLAN IMPLEMENTATION AND MAINTENANCE DURING CONSTRUCTION. WHEN DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE A COPY OF THE CONTRACTOR'S NOTICE OF INTENT (NOI) AND PROOF THAT IT HAS BEEN SENT TO THE TCEQ.

3. COPIES OF THE CONTACTOR'S NOI AND CONSTRUCTION SITE NOTICE (CSN) SHALL BE POSTED AT THE SITE BY THE CONTRACTOR. COPIES SHALL ALSO BE SUBMITTED TO THE PROJECT OWNER AND ENGINEER. THE CONTRACTOR SHALL LAMINATE AND POST THE TWO NOIS, TWO CSNS AND ANY "SECONDARY OPERATOR" CSNS ON THE PROJECT SITE AT A LOCATION WITH EASY ACCESS TO THE PUBLIC FOR CLEAR VIEWING AND AS APPROVED BY THE ENGINEER. THE COST OF LAMINATION AND POSTING OF THE NOIS & CSNS SHALL BE CONSIDERED INCIDENTAL TO THE SWPPP BID ITEMS.

4. UPON COMPLETION OF CONSTRUCTION ACTIVITIES AND FINAL STABILIZATION OF THE SITE, AS DEFINED BY THE TPDES GENERAL PERMIT, A NOTICE OF TERMINATION (NOT) IS REQUIRED TO BE SUBMITTED TO THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). WHEN DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE A COPY OF THE CONTRACTOR'S NOTICE OF TERMINATION (NOT) AND PROOF THAT IT HAS BEEN SENT TO THE TCEQ.

5. A RAIN GAUGE SHALL BE KEPT ON THE PROJECT SITE OR WITHIN THE IMMEDIATE PROJECT VICINITY. RECORDS OF RAINFALL EVENTS SHALL BE KEPT BY THE CONTRACTOR TO ASSIST WITH DETERMINING IF AN SWPPP SITE INSPECTION IS REQUIRED. THE COSTS FOR THE RAIN GAUGE SHALL BE CONSIDERED INCIDENTAL TO THE SWPPP BID ITEMS.

6. THE SWPPP, INSPECTION & MAINTENANCE REPORTS, CERTIFICATIONS, RAINFALL RECORDS, MAJOR GRADING DATE RECORDS AND TEMPORARY AND PERMANENT STABILIZATION DATE RECORDS SHALL BE KEPT CURRENT BY THE CONTRACTOR AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. COPIES OF THE ALL SWPPP RECORDS SHALL BE KEPT ON-SITE, IF FEASIBLE, UNTIL THE NOTICE OF TERMINATION HAS BEEN SUBMITTED TO THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY. THE SWPPP RECORDS SHALL BE MADE READILY AVAILABLE TO ENGINEER AND REGULATORY AUTHORITIES UPON AN ON-SITE INSPECTION. THE CONTRACTOR SHALL DELIVER COPIES OF ALL SWPPP RECORDS TO PROJECT OWNER AND ENGINEER AS DIRECTED BY THE ENGINEER.

7. CONTRACTOR TO PROTECT FINISH GRADES FROM EROSION AND REPAIR ANY DAMAGE PRIOR TO ACCEPTANCE.

SANITARY SEWER CONSTRUCTION NOTES:

1. SANITARY SEWERS SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE LATEST SPECIFICATIONS FOR SEWER CONSTRUCTION, AND TESTED AS SPECIFIED FROM THE LATEST TEST PROCEDURE FOR EITHER LIQUID OR AIR, INCLUDING ALL AMENDMENTS AND REVISIONS THERETO. BACKFILL AND BEDDING FOR SANITARY SEWERS MUST MEET ALL MINIMUM ASPECTS OF ASTM D-2321 AND MUST BE PLACED IN ACCORDANCE WITH THE APPLICABLE ENTITY'S SPECIFICATIONS.

2. ALL SANITARY SEWER MANHOLES SHALL BE THE APPLICABLE ENTITIES STANDARD PRE-CAST USING RAM-NECK OR CAST IN PLACE CONCRETE IN ACCORDANCE WITH ASTM C-478. NO BRICK MANHOLES ALLOWED. FOR PVC PIPE, USE MANHOLE WATER STOP GASKET AND CLAMP ASSEMBLY AT MANHOLE CONNECTIONS. SANITARY SEWER MANHOLE RIMS SHALL BE 3 INCHES ABOVE NATURAL GROUND. BACKFILL SHALL BE ADDED AND SLOPED AWAY FROM THE MANHOLE RIM FOR DRAINAGE PURPOSES.

3. MANHOLE CONCRETE BOTTOM FOUNDATION SHALL BE 12" REINFORCED WITH #5 BARS AT 12", ON CENTERS, EACH WAY, WITH A MINIMUM OF 6" EXTRA SLAB LENGTH AROUND THE MANHOLE, IF POURED IN PLACE. APPROVED CHEMICALS SHALL BE USED FOR PATCHING AROUND MANHOLE JOINTS. MORTAR CEMENT WILL NOT BE ACCEPTED.

4. SANITARY SEWER PIPE SHALL BE PVC SDR 26, IN ACCORDANCE WITH ASTM SPECIFICATIONS D-3034, FOR 4" THROUGH 15" AND ASTM F-879 FOR 18" THROUGH 27". MINIMUM SIZE SANITARY SEWER MAIN IS 6".

5. SEWER LINES SHALL BE LOCATED ON THE OPPOSITE SIDE OF THE STREET FROM WHERE WATER IS LOCATED. SEWER LINE AND WATER LINE SEPARATION SHALL BE IN ACCORDANCE WITH TCEQ CHAPTER 217.

6. NO SEWER PIPE SHALL BE LAID ON AN UNSTABLE FOUNDATION. SELECTED MATERIAL SHALL BE USED AND/OR WET SAND CONSTRUCTION DETAILS, WHICHEVER APPLIES IN THE OPINION OF THE ENGINEER. NO PIPE SHALL BE COVERED WITHOUT APPROVAL OF THE ENGINEER OR HIS REPRESENTATIVE. SANITARY SEWERS CONSTRUCTED IN WET SAND SHALL HAVE A SPECIAL PROCEDURE AND SHALL BE CONSTRUCTED AS PER THE APPLICABLE ENTITY STANDARDS.

7. WHEN THE NATURAL GROUND LEVEL AROUND MANHOLE LIES BELOW THE 100 YEAR FLOODPLAIN ELEVATION, THE MANHOLE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SEALED AND VENTED MANHOLE DETAIL.

8. A DEFLECTION TEST SHALL BE REQUIRED AFTER THE BACKFILL HAS BEEN IN PLACE A MINIMUM OF 30 DAYS. THIS TEST SHALL BE DONE BY PULLING A HAND LINE WITH AN ATTACHED MANDREL FROM MANHOLE TO MANHOLE. THE MANDREL SHALL HAVE AN OUTSIDE DIAMETER THAT IS AT LEAST 95% OF THE ORIGINAL INSIDE DIAMETER OF THE PIPE. MANDREL TO BE MANUFACTURED WITH A MINIMUM OF SEVEN (7) RUNNERS, WITH EACH RUNNER BEING A MINIMUM OF 5 INCHES LONG. ANY PIPE NOT MEETING EST REQUIREMENTS TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

9. INFILTRATION/EXFILTRATION NOT TO EXCEED 10 GALLONS PER INCH DIAMETER PER MILE OF PIPE FOR 24 HOURS UNDER A MINIMUM OF 2 FEET OF HEAD, OR AN AIR TEST SHALL BE REQUIRED IN ACCORDANCE WITH ASTM C-828.

10. WHERE A SEWER LINE HAS LESS THAN (2) FEET OF COVER, PROVIDE CEMENT STABILIZED SAND BACKFILL MATERIAL.

11. CONTRACTOR SHALL KEEP RECORD OF LOCATION OF ALL STACKS, STUBS, SEWER LEADS, ETC. THE AS-BUILT DRAWINGS MUST SHOW THE EXACT LOCATION.

12. IF SANITARY SERVICE LEADS ARE INSTALLED DURING CONSTRUCTION OF MAIN LINE, ALL LEADS TO HAVE A MINIMUM SLOPE OF 1.0% OR GREATER. ALL PVC LEADS TO BE THE SAME MATERIAL AS MAIN LINE. ALL DOUBLE SERVICE LEADS TO HAVE WYE LOCATED ON THE END OF THE LEAD. ALL SINGLE SERVICE LEADS TO BE 4 INCH, AND ALL DOUBLE SERVICE LEADS TO BE 6 INCH.

13. THE INSTALLATION OF ALL SANITARY SEWER LINES SHALL EXTEND ALONG THE ENTIRE LENGTH OF THE PROPERTY TO BE SERVED. SANITARY SEWER LINES THAT DEAD END SHALL EXTEND TO THE PROJECT LIMITS FOR FUTURE EXTENSIONS, WITH DEPTHS BASED ON ENTIRE SERVICE AREA.

PAVING NOTES:

1. FOR ASPHALT CROSS-SECTIONS, MATERIAL TO BE 2" TYPE "D" HOT MIX ASPHALTIC CONCRETE SURFACING AND 8" FLEXIBLE BASE (PER TXDOT SPECIFICATION ITEM 247) AT MINIMUM. CROSS-SECTION TO COMPLY WITH APPLICABLE ENTITY REQUIREMENTS AND GEOTECHNICAL REPORT.

2. EXPOSE 15 INCHES OF REINFORCING STEEL AT ALL PROPOSED SAWED JOINTS. IF NO REINFORCING STEEL EXISTS, USE HORIZONTAL DOWELS PER NOTE #4.

3. REQUIRE A ONE (1) INCH REDWOOD EXPANSION BOARD OR PRE-MOLDED NON-EXTRUDING JOINT BETWEEN SIDEWALK AND BACK OF CURB.

4. HORIZONTAL DOWELS SHALL BE NO. 6 BARS, 24 INCHES LONG, DRILLED AND EMBEDDED 8 INCHES INTO THE CENTER OF THE EXISTING SLAB WITH "PO ROC" OR EQUAL. DOWELS SHALL BE 24 INCHES CENTER TO CENTER UNLESS OTHERWISE SPECIFIED.

5. WHEN PROPOSED PAVEMENT ENDS AT A CONSTRUCTION JOINT LEAVE 15 INCHES OF REINFORCING STEEL EXPOSED BEYOND PAVEMENT, COAT WITH ASPHALT, AND WRAP WITH BURLAP FOR FUTURE PAVEMENT TIE-IN. AT EXPANSION JOINTS, EXTEND DOWELS 5 INCHES; COAT AND WRAP SAME AS CONSTRUCTION JOINTS.

6. WHEREVER A SIDEWALK IS REQUIRED BY GOVERNING ENTITY'S ORDINANCE , PROVIDE WHEELCHAIR RAMP AND/OR SIDEWALKS IN ACCORDANCE WITH THE "TEXAS DEPARTMENT OF TRANSPORTATION STANDARD WHEELCHAIR RAMP AND SIDEWALK DETAILS".

7. ADJUST EXISTING MANHOLE FRAMES AND COVERS TO FIT NEW GRADE.

8. ADJUST EXISTING WATER VALVE BOXES TO NEW PAVING GRADE. REPLACE ALL MISSING OR DAMAGED VALVE BOXES AND COVERS.

9. PLACE WHITE OR YELLOW PLASTIC MARKER OR PAINT AS SHOWN BY THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST REVISION) FOR PAVEMENT MARKINGS.

10. PROVIDE A CONCRETE PAVING HEADER AT THE END OF THE PAVEMENT.

11. T. C. INDICATES TOP OF CURB ELEVATION AND T. P. INDICATES TOP OF PAVEMENT ELEVATION.

12. CURB RADII AT STREET INTERSECTIONS TO BE 25.0 FEET TO BACK OF CURB WITH A MINIMUM OF ONE (1) PERCENT GRADE UNLESS OTHERWISE NOTED.

13. GUIDELINES SET FORTH IN THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION WILL BE OBSERVED.

14. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT ALL RADIUS RETURNS AND AT A MAXIMUM SPACING OF 60 FOOT INTERVALS.

15. CONTRACTOR WILL USE CONTINUOUS LONGITUDINAL REINFORCING BARS IN CURBS AS SHOWN ON DETAILS PROVIDED IN CONSTRUCTION DRAWINGS.

16. CYLINDER COMPRESSION TEST OR BEAM FLEXURAL TEST SHALL BE REQUIRED. TWO SAMPLES SHALL BE TAKEN FOR EACH 100 CUBIC YARDS OF CONCRETE POURED. FOR SMALLER QUANTITIES, TWO SAMPLES SHALL BE TAKEN REGARDLESS OF THE AMOUNT OF CONCRETE POURED EACH DAY. CONCRETE SHALL HAVE 5 SACKS CEMENT PER CUBIC YARD AND A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 28 DAYS OR A MINIMUM FLEXURAL STRENGTH OF 600 PSI IN 28 DAYS, NO TRAFFIC SHALL BE ALLOWED ON CONCRETE FOR 28 DAYS. IF EXTRA TESTS ARE MADE 75% OF THE 28 DAY STRENGTH IS ACHIEVED THE GOVERNING ENTITY'S ENGINEER MAY ALLOW TRAFFIC ON THE PAVEMENT IF IT DEEMS NECESSARY.

17. PRIOR TO PLAN APPROVAL, A CERTIFIED LAB SHALL DETERMINE THE PERCENTAGE OF CEMENT CONTENT FOR SUBGRADE STABILIZATION IN SANDY SOILS WITH P.I. LESS THAN 10 TO OBTAIN A COMPRESSIVE STRENGTH OF 400 PSI IN 28 DAYS. THE LAB SHALL ALSO DETERMINE THE PERCENTAGE OF LIME CONTENT FOR SUBGRADE STABILIZATION IN CLAY SOILS WITH A P.I. GREATER THAN 20. ALL STREETS SHALL BE TESTED EVERY 200 FEET AND SUBGRADE SHALL BE STABILIZED UNLESS THE LAB CERTIFIES THE P.I. TO BE BETWEEN 10 AND 20 AND THAT STABILIZATION IS NOT NEEDED.

18. A CONCRETE MIX DESIGN BY THE CERTIFIED LAB SHALL BE SUBMITTED TO AND APPROVED BY THE GOVERNING ENTITY'S ENGINEER BEFORE ANY CONCRETE IS POURED.

19. A MINIMUM OF TWO (2) COMPACTION TESTS SHALL BE PERFORMED A MAXIMUM DISTANCE OF 500 FEET, AND FOR EACH 2'-6" MAXIMUM THICK LAYERS OF FILL. IN AREAS WHERE NO FILL IS REQUIRED, TWO (2) SAMPLES SHALL BE TAKEN AT A MAXIMUM DISTANCE OF 500 FEET. ADDITIONAL TESTING SHALL BE PERFORMED IF SEEN NECESSARY BY THE ENGINEER. NO ADDITIONAL LAYERS OF FILL SHALL BE MADE WITHOUT HAVING THE LAB'S WRITTEN APPROVAL OF COMPLETED LAYERS. PROOF ROLLING SHALL BE REQUIRED BY THE INSPECTOR ON EACH LAYER PLACED AND ANY "PUMPING" AREAS SHALL BE REMOVED IMMEDIATELY AND REPLACED OR STABILIZED AND RE-COMPACTED TO A PASSING DENSITY.

20. CONSTRUCTION OF ITEMS THAT ARE NOT SPECIFICALLY ADDRESSED TO BE IN ACCORDANCE WITH THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (LATEST REVISION).

21. RIGHT-OF-WAY SHALL BE SLOPED FROM THE PROPERTY TO THE TOP OF CURB AND HYDROMULCHED OR SODDED BEFORE FINAL ACCEPTANCE BY THE GOVERNING ENTITY TO CONTROL EROSION INTO THE STREET AND STORM SEWER.

22. MEMBRANE CURING TYPE 2, WHITE PIGMENTED, SHALL BE USED FOR CURING ALL CONCRETE SURFACES IMMEDIATELY AFTER FINISHING OF SURFACES AND SHALL BE IN ACCORDANCE WITH THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS ITEM #526.

23. ALL FIRST STAGE INLET CONSTRUCTION SHALL BE PROTECTED WITH 3 INCH THICK BOARDS AT ALL TIMES.

24. ALL SUBGRADE AND EMBANKMENT AREAS SHALL BE STRIPPED OF ALL ORGANIC AND UNSUITABLE MATERIAL BEFORE STABILIZATION OR FILLING IS BEGUN. MATERIAL USED FOR FILL SHALL BE CERTIFIED BY A LAB TO HAVE A PLASTICITY INDEX BETWEEN 10 AND 20.

25. FORMS SHALL BE SET TO THE PROPER GRADE AND PROPERLY SUPPORTED SO THAT NO DISPLACEMENT OCCURS WITH THE PAVING ACTIVITIES. ALL CONCRETE SHALL BE VIBRATED BY MECHANICAL MEANS TO INSURE PROPER COMPACTION AND NO HONEY COMBS.

26. CONCRETE SHALL NOT BE PLACED WHEN THE TEMPERATURE IS BELOW 40° F. AND FALLING, BUT MAY BE PLACED WHEN TEMPERATURE IS ABOVE 35° F. AND RISING. THE TEMPERATURE SHALL BE TAKEN IN THE SHADE AND AWAY FROM ARTIFICIAL HEAT.

27. THE CONTRACTOR SHALL ERECT AND MAINTAIN BARRICADES TO ADEQUATELY PROTECT THE PAVEMENT. THE CONTRACTOR SHALL HAVE PERSONNEL ON SITE UNTIL THE PAVEMENT HAS REACHED SUFFICIENT STRENGTH AS NOT TO BE DAMAGED BY ANIMALS OR FOOT TRAFFIC.

28. JOINT SEALING MATERIAL SHALL BE A HOT POURED RUBBER TYPE AND SHALL MEET THE REQUIREMENTS IN ACCORDANCE WITH TEST METHOD TEX-525-C, OR AN APPROVED EQUAL. TAR WILL NOT BE ALLOWED.

29. JOINTS SHALL BE CLEANED OF ALL SCALE, DIRT, DUST, CURING COMPOUND, AND CONCRETE TO THE WIDTH AND DEPTH OF THE JOINT AND SHALL BE DRY BEFORE SEALING IS PERFORMED.

30. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM 615 GRADE 60 (GRADE 40 ONLY FOR BARS REQUIRING BENDING). REINFORCING STEEL SHALL BE SUPPORTED ON CHAIRS STRONG ENOUGH TO HOLD IT IN PLACE AND BE TIED.

31. CONCRETE FOR PAVEMENT SHALL MEET TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND SHALL BE A MINIMUM OF 5 SACK, 3,000 PSI UNLESS STATED SPECIFICALLY BY THE PLANS OR THE SPECIFICATIONS.

32. CONCRETE PAVEMENT SHALL BE CORED TO VERIFY THICKNESS OF CONCRETE AT INTERVALS OF 1,000 LINEAR FEET PER TRAFFIC LANE, IF REQUIRED BY THE GOVERNING ENTITY ENGINEER.

STORM SEWER NOTES:

1. STORM SEWER AND LEADS SHALL BE REINFORCED CONCRETE PIPE, ASTM C-76, CLASS III, WITH O-RING RUBBER GASKET JOINTS, AND SHALL BE INSTALLED, BEDDED AND BACKFILLED IN ACCORDANCE WITH THE GOVERNING ENTITIE'S STANDARDS AND SPECIFICATIONS

NOTE: HDPE PIPE MAY BE USED PROVIDED THAT IT IS BACKFILLED WITH CEMENT STABILIZED SAND (2 SACKS CEMENT/TON), OR OTHER BACKFILL MATERIALS THAT HAVE BEEN APPROVED BY THE GOVERNING ENTITY. SEE NOTES BELOW.

2. ALL PROPOSED PIPE STUB OUTS FROM MANHOLES OR INLETS ARE TO BE PLUGGED WITH 8 INCH BRICK WALLS UNLESS OTHERWISE NOTED.

3. ALL BOX CULVERTS INSTALLED SHALL BE PLACED ON A MINIMUM OF 6 INCHES OF CEMENT STABILIZED SAND (CEMENT STABILIZED SAND SHALL BE 1½ SACK CEMENT PER TON). FOR INSTALLATION OF PRE-CASE CONCRETE BOX CULVERTS IN POOR SAIL CONDITIONS, A 7 INCH REINFORCED CONCRETE SLAB SHALL BE INSTALLED. FOR INSTALLATION OF MONOLITHIC REINFORCED CONCRETE BOX CULVERTS IN POOR SOIL CONDITIONS, A 4 INCH THICK CLASS "C" CONCRETE SEAL SLAB SHALL BE INSTALLED, PRIOR TO CONSTRUCTION OF BOX CULVERTS.

4. STORM SEWER MANHOLES SHALL BE STANDARD PRE-CAST, UNLESS OTHERWISE NOTED.

5. ALL INLETS TO BE TO THE DETAIL SPECIFICATIONS SHOWN IN THE PLANS OR APPROVED EQUAL OR UNLESS OTHERWISE STATED ON PLANS, INLETS TO BE STANDARD DEPTH UNLESS OTHERWISE NOTED.

6. ALL STORM SEWER LEADS SHALL HAVE A GRADE DROP BETWEEN INLETS OF A MINIMUM OF 0.20 FOOT. GRADE DROP BETWEEN INLET AND MANHOLES TO BE 0.20 FOOT UNLESS OTHERWISE SHOWN. WHEN MANHOLE FRAME AND COVER IS REQUIRED, USE EAST JORDAN 24" FRAME AND COVER (OR EQUAL).

9. FOR ADJUSTMENT OF MANHOLE LIDS USE STANDARD CONCRETE RINGS.

10. CONCRETE USED FOR ALL POURED-IN-PLACE MANHOLES, INLETS, WINGWALLS, HEADWALLS AND OTHER APPURTENANCES TO BE CLASS "A" CONCRETE WITH 3,000 P.S.I. STRENGTH AT 28 DAYS.

11. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4".

12. OTHER BACKFILL MATERIALS MAY BE USED BASED ON THE GEOTECHNICAL REPORT OR PER HDPE SPECIFICATIONS. BACKFILL MUST BE USED WITH APPROPRIATE COMPACTION.

13. SEE MANUFACTURERS SPECIFICATIONS FOR THE USE OF HIGH DENSITY POLYETHYLENE PIPE FOR STORM DRAINS FOR SPECIFIC TECHNICAL INFORMATION.

WATER CONSTRUCTION NOTES:

1. CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING TO WITHSTAND TEST PRESSURE AS SPECIFIED IN THE APPLICABLE ENTITY STANDARD DRAWINGS AND REQUIREMENTS FOR WATER MAIN CONSTRUCTION AND MATERIALS.

2. PRIOR TO INSTALLATION OF WATER METER, WATER METER LEAD OR UNMETERED FIRE SPRINKLER LINE, THE CONTRACTOR SHALL CONTACT THE PERMIT DIVISION.

3. PRIOR TO WATER MAIN CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE GOVERNING ENTITY'S ENGINEER AND COMPLY WITH ALL REQUIREMENTS NECESSARY FOR THE ISSUANCE OF A WORK ORDER FOR THE WATER MAIN CONSTRUCTION.

4. SEPARATION DISTANCES FOR ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY TCEQ CHAPTER 217.

5. TWELVE-INCH (12") AND SMALLER MAINS SHALL HAVE A MINIMUM COVER OF FOUR FEET (4') FROM THE TOP OF THE CURB OR FIVE FEET (5') FROM THE MEAN ELEVATION OF THE BOTTOM OF THE NEARBY DITCH AND NEARBY RIGHT-OF-WAY ELEVATION FOR OPEN DITCH SECTIONS.

6. MAINS LARGER THAN TWELVE-INCHES (12") SHALL HAVE A MINIMUM COVER OF FIVE FEET (5') FROM THE TOP OF THE CURB OR SIX FEET (6') FROM THE MEAN ELEVATION FOR OPEN DITCH SECTIONS.

7. ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED BEFORE BACTERIOLOGICAL TESTING IN ACCORDANCE WITH AWWA AND TCEQ STANDARDS.

8. ALL WATER PIPING SHALL BE DISINFECTED AND BACTERIOLOGICALLY TESTED PRIOR TO USE IN ACCORDANCE WITH AWWA AND TCEQ STANDARDS.

9. ALL WATER MAINS 4" THROUGH 12" SHALL BE C-900 (SDR-18). ALL WATER MAINS 14" THROUGH 36" SHALL BE C-651 (SDR-18).

10. PRIOR TO BACKFILLING OF ALL UNDERGROUND WATER LINES, INSTALL A CONTINUOUS TRACER WIRE, LOCATED DIRECTLY OVER BURIED LINES AND ACCESSIBLE AT EACH VALVE STACK PER APPLICABLE ENTITIES REQUIREMENT.

11. THE INSTALLATION OF ALL WATER LINES SHALL EXTEND ALONG THE ENTIRE LENGTH OF THE PROPERTY TO BE SERVED. WATER LINES THAT DEAD END SHALL EXTEND TO THE PROJECT LIMITS FOR FUTURE EXTENSIONS.

12. BOTTOM FLANGE OF ALL FIRE HY

Texas Commission on Environmental Quality
Organized Sewage Collection System
General Construction Notes

Edwards Aquifer Protection Program Construction Notes – Legal Disclaimer

The following/listed "construction notes" are intended to be advisory in nature only and do not constitute an approval or conditional approval by the Executive Director, nor do they constitute a comprehensive listing of rules or conditions to be followed during construction. Further actions may be required to achieve compliance with TCEQ regulations found in Title 30, Texas Administrative Code, Chapters 213 and 217, as well as local ordinances and regulations providing for the protection of water quality. Additionally, nothing contained in the following/listed "construction notes" restricts the powers of the Executive Director, the commission or any other governmental entity to prevent, correct, or curtail activities that result or may result in pollution of the Edwards Aquifer or hydrologically connected surface waters. The holder of any Edwards Aquifer Protection Plan containing "construction notes" is still responsible for compliance with Title 30, Texas Administrative Code, Chapters 213 or any other applicable TCEQ regulation, as well as all conditions of an Edwards Aquifer Protection Plan through all phases of plan implementation. Failure to comply with any condition of the Executive Director's approval, whether or not in contradiction of any "construction notes," is a violation of TCEQ regulations and any violation is subject to administrative rules, orders, and penalties as provided under Title 30, Texas Administrative Code § 213.10 (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. The following/listed "construction notes" in no way represent an approved exception by the Executive Director to any part of Title 30 Texas Administrative Code, Chapters 213 and 217, or any other TCEQ applicable regulation.

1. This Organized Sewage Collection System (SCS) must be constructed in accordance with 30 Texas Administrative Code (TAC) §213.5(c), the Texas Commission on Environmental Quality's (TCEQ) Edwards Aquifer Rules and any local government standard specifications.

2. All contractors conducting regulated activities associated with this proposed regulated project must be provided with copies of the SCS plan and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors must be required to keep on-site copies of the plan and the approval letter.

3. A written notice of construction must be submitted to the presiding TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include:
   - the name of the approved project;
   - the activity start date; and
   - the contact information of the prime contractor.

4. Any modification to the activities described in the referenced SCS application following the date of approval may require the submittal of an SCS application to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval.

5. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the manufacturers specifications. These controls must remain in place until the disturbed areas have been permanently stabilized.

6. If any sensitive features are discovered during the wastewater line trenching activities, all regulated activities near the sensitive feature must be suspended immediately. The applicant must immediately notify the appropriate regional office of the TCEQ of the feature discovered. A geologist's assessment of the location and extent of the feature discovered must be reported to that regional office in writing and the applicant must submit a plan for ensuring the structural integrity of the sewer line or for modifying the proposed collection system alignment around the feature. The regulated activities near the sensitive feature may not proceed until the

executive director has reviewed and approved the methods proposed to protect the sensitive feature and the Edwards Aquifer from any potentially adverse impacts to water quality while maintaining the structural integrity of the line.

7. Sewer lines located within or crossing the 5-year floodplain of a drainage way will be protected from inundation and stream velocities which could cause erosion and scouring of backfill. The trench must be capped with concrete to prevent scouring of backfill, or the sewer lines must be encased in concrete. All concrete shall have a minimum thickness of 6 inches.

8. Blasting procedures for protection of existing sewer lines and other utilities will be in accordance with the National Fire Protection Association criteria. Sand is not allowed as bedding or backfill in trenches that have been blasted. If any existing sewer lines are damaged, the lines must be repaired and retested.

9. All manholes constructed or rehabilitated on this project must have watertight size on size resilient connectors allowing for differential settlement. If manholes are constructed within the 100-year floodplain, the cover must have a gasket and be bolted to the ring. Where gasketed manhole covers are required for more than three manholes in sequence or for more than 1500 feet, alternate means of venting will be provided. Bricks are not an acceptable construction material for any portion of the manhole.

   The diameter of the manholes must be a minimum of four feet and the manhole for entry must have a minimum clear opening diameter of 30 inches. These dimensions and other details showing compliance with the commission's rules concerning manholes and sewer line/manhole inverts described in 30 TAC §217.55 are included on Plan Sheet **34** of **37**.

   It is suggested that entrance into manholes in excess of four feet deep be accomplished by means of a portable ladder. The inclusion of steps in a manhole is prohibited.

10. Where water lines and new sewer line are installed with a separation distance closer than nine feet (i.e., water lines crossing wastewater lines, water lines paralleling wastewater lines, or water lines next to manholes) the installation must meet the requirements of 30 TAC §217.53(d) (Pipe Design) and 30 TAC §290.44(e) (Water Distribution).

11. Where sewers lines deviate from straight alignment and uniform grade all curvature of sewer pipe must be achieved by the following procedure which is recommended by the pipe manufacturer: **N/A**.

    If pipe flexure is proposed, the following method of preventing deflection of the joint must be used: **N/A**.

    Specific care must be taken to ensure that the joint is placed in the center of the trench and properly bedded in accordance with 30 TAC §217.54.

12. New sewage collection system lines must be constructed with stub outs for the connection of anticipated extensions. The location of such stub outs must be marked on the ground such that their location can be easily determined at the time of connection of the extensions. Such stub outs must be manufactured wyes or tees that are compatible in size and material with both the sewer line and the extension. At the time of original construction, new stub-outs must be constructed sufficiently to extend beyond the end of the street pavement. All stub-outs must be sealed with a manufactured cap to prevent leakage. Extensions that were not anticipated at the time of original construction or that are to be connected to an existing sewer line not furnished with stub outs must be connected using a manufactured saddle and in accordance with accepted plumbing techniques.

If no stub-out is present an alternate method of joining laterals is shown in the detail on Plan Sheet **34** of **37**. (For potential future laterals).

The private service lateral stub-outs must be installed as shown on the plan and profile sheets on Plan Sheet __ of __ and marked after backfilling as shown in the detail on Plan Sheet __ of __.

13. Trenching, bedding and backfill must conform with 30 TAC §217.54. The bedding and backfill for flexible pipe must comply with the standards of ASTM D-2321, Classes IA, IB, II or III. Rigid pipe bedding must comply with the requirements of ASTM C 12 (ANSI A 106.2) classes A, B or C.

14. Sewer lines must be tested from manhole to manhole. When a new sewer line is connected to an existing stub or clean-out, it must be tested from existing manhole to new manhole. If a stub or clean-out is used at the end of the proposed sewer line, no private service attachments may be connected between the last manhole and the cleanout unless it can be certified as conforming with the provisions of 30 TAC §213.5(c)(3)(E).

15. All sewer lines must be tested in accordance with 30 TAC §217.57. The engineer must retain copies of all test results which must be made available to the executive director upon request. The engineer must certify in writing that all wastewater lines have passed all required testing to the appropriate regional office within 30 days of test completion and prior to use of the new collection system. Testing method will be:
   (a) For a collection system pipe that will transport wastewater by gravity flow, the design must specify an infiltration and exfiltration test or a low-pressure air test. A test must conform to the following requirements:
      (1) *Low Pressure Air Test.*
         (A) A low pressure air test must follow the procedures described in American Society For Testing And Materials (ASTM) C-828, ASTM C-924, or ASTM F-1417 or other procedure approved by the executive director, except as to testing times as required in Table C.3 in subparagraph (C) of this paragraph or Equation C.3 in subparagraph (B)(ii) of this paragraph.
         (B) For sections of collection system pipe less than 36 inch average inside diameter, the following procedure must apply, unless a pipe is to be tested as required by paragraph (2) of this subsection.
            (i) A pipe must be pressurized to 3.5 pounds per square inch (psi) greater than the pressure exerted by groundwater above the pipe.
            (ii) Once the pressure is stabilized, the minimum time allowable for the pressure to drop from 3.5 psi gauge to 2.5 psi gauge is computed from the following equation:

Equation C.3 $$T = \frac{0.085 \times D \times K}{Q}$$

Where:

T = time for pressure to drop 1.0 pound per square inch gauge in seconds
K = 0.000419 X D X L, but not less than 1.0
D = average inside pipe diameter in inches

L = length of line of same size being tested, in feet
Q = rate of loss, 0.0015 cubic feet per minute per square foot internal surface

(C) Since a K value of less than 1.0 may not be used, the minimum testing time for each pipe diameter is shown in the following Table C.3:

Pipe Diameter *(inches)*	Minimum Time *(seconds)*	Maximum Length for Minimum Time *(feet)*	Time for Longer Length *(seconds/foot)*
6	340	398	0.855
8	454	298	1.520
10	567	239	2.374
12	680	199	3.419
15	850	159	5.342
18	1020	133	7.693
21	1190	114	10.471
24	1360	100	13.676
27	1530	88	17.309
30	1700	80	21.369
33	1870	72	25.856

(D) An owner may stop a test if no pressure loss has occurred during the first 25% of the calculated testing time.
(E) If any pressure loss or leakage has occurred during the first 25% of a testing period, then the test must continue for the entire test duration as outlined above or until failure.
(F) Wastewater collection system pipes with a 27 inch or larger average inside diameter may be air tested at each joint instead of following the procedure outlined in this section.
(G) A testing procedure for pipe with an inside diameter greater than 33 inches must be approved by the executive director.

(2) *Infiltration/Exfiltration Test.*
(A) The total exfiltration, as determined by a hydrostatic head test, must not exceed 50 gallons per inch of diameter per mile of pipe per 24 hours at a minimum test head of 2.0 feet above the crown of a pipe at an upstream manhole.
(B) An owner shall use an infiltration test in lieu of an exfiltration test when pipes are installed below the groundwater level.
(C) The total exfiltration, as determined by a hydrostatic head test, must not exceed 50 gallons per inch diameter per mile of pipe per 24 hours at a minimum test head of two feet above the crown of a pipe at an upstream manhole, or at least two feet above existing groundwater level, whichever is greater.
(D) For construction within a 25-year flood plain, the infiltration or exfiltration must not exceed 10 gallons per inch diameter per mile of pipe per 24 hours at the same minimum test head as in subparagraph (C) of this paragraph.
(E) If the quantity of infiltration or exfiltration exceeds the maximum quantity specified, an owner shall undertake remedial action in order to reduce

the infiltration or exfiltration to an amount within the limits specified. An owner shall retest a pipe following a remediation action.

(b) If a gravity collection pipe is composed of flexible pipe, deflection testing is also required. The following procedures must be followed:
(1) For a collection pipe with inside diameter less than 27 inches, deflection measurement requires a rigid mandrel.
(A) *Mandrel Sizing.*
(i) A rigid mandrel must have an outside diameter (OD) not less than 95% of the base inside diameter (ID) or average ID of a pipe, as specified in the appropriate standard by the ASTMs, American Water Works Association, UNI-BELL, or American National Standards Institute, or any related appendix.
(ii) If a mandrel sizing diameter is not specified in the appropriate standard, the mandrel must have an OD equal to 95% of the ID of a pipe. In this case, the ID of the pipe, for the purpose of determining the OD of the mandrel, must equal be the average outside diameter minus two minimum wall thicknesses for OD controlled pipe and the average inside diameter for ID controlled pipe.
(iii) All dimensions must meet the appropriate standard.
(B) *Mandrel Design.*
(i) A rigid mandrel must be constructed of a metal or a rigid plastic material that can withstand 200 psi without being deformed.
(ii) A mandrel must have nine or more odd number of runners or legs.
(iii) A barrel section length must equal at least 75% of the inside diameter of a pipe.
(iv) Each size mandrel must use a separate proving ring.
(C) *Method Options.*
(i) An adjustable or flexible mandrel is prohibited.
(ii) A test may not use television inspection as a substitute for a deflection test.
(iii) If requested, the executive director may approve the use of a deflectometer or a mandrel with removable legs or runners on a case-by-case basis.
(2) For a gravity collection system pipe with an inside diameter 27 inches and greater, other test methods may be used to determine vertical deflection.
(3) A deflection test method must be accurate to within plus or minus 0.2% deflection.
(4) An owner shall not conduct a deflection test until at least 30 days after the final backfill.
(5) Gravity collection system pipe deflection must not exceed five percent (5%).
(6) If a pipe section fails a deflection test, an owner shall correct the problem and conduct a second test after the final backfill has been in place at least 30 days.

16. All manholes must be tested to meet or exceed the requirements of 30 TAC §217.58.
(a) All manholes must pass a leakage test.
(b) An owner shall test each manhole (after assembly and backfilling) for leakage, separate and independent of the collection system pipes, by hydrostatic exfiltration testing, vacuum testing, or other method approved by the executive director.
(1) Hydrostatic Testing.

(A) The maximum leakage for hydrostatic testing or any alternative test methods is 0.025 gallons per foot diameter per foot of manhole depth per hour.
(B) To perform a hydrostatic exfiltration test, an owner shall seal all wastewater pipes coming into a manhole with an internal pipe plug, fill the manhole with water, and maintain the test for at least one hour.
(C) A test for concrete manholes may use a 24-hour wetting period before testing to allow saturation of the concrete.
(2) Vacuum Testing.
(A) To perform a vacuum test, an owner shall plug all lift holes and exterior joints with a non-shrink grout and plug all pipes entering a manhole.
(B) No grout must be placed in horizontal joints before testing.
(C) Stub-outs, manhole boots, and pipe plugs must be secured to prevent movement while a vacuum is drawn.
(D) An owner shall use a minimum 60 inch/lb torque wrench to tighten the external clamps that secure a test cover to the top of a manhole.
(E) A test head must be placed at the inside of the top of a cone section, and the seal inflated in accordance with the manufacturer's recommendations.
(F) There must be a vacuum of 10 inches of mercury inside a manhole to perform a valid test.
(G) A test does not begin until after the vacuum pump is off.
(H) A manhole passes the test if after 2.0 minutes and with all valves closed, the vacuum is at least 9.0 inches of mercury.

17. All private service laterals must be inspected and certified in accordance with 30 TAC §213.5(c)(3)(I). After installation of and, prior to covering and connecting a private service lateral to an existing organized sewage collection system, a Texas Licensed Professional Engineer, Texas Registered Sanitarian, or appropriate city inspector must visually inspect the private service lateral and the connection to the sewage collection system, and certify that it is constructed in conformity with the applicable provisions of this section. The owner of the collection system must maintain such certifications for five years and forward copies to the appropriate regional office upon request. Connections may only be made to an approved sewage collection system.

Austin Regional Office 12100 Park 35 Circle, Building A Austin, Texas 78753-1808 Phone (512) 339-2929 Fax (512) 339-3795	San Antonio Regional Office 14250 Judson Road San Antonio, Texas 78233-4480 Phone (210) 490-3096 Fax (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

TCEQ WATER DISTRIBUTION SYSTEM GENERAL CONSTRUCTION NOTES

1. This water distribution system must be constructed in accordance with the current Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D. When conflicts are noted with local standards, the more stringent requirement shall be applied. At a minimum, construction for public water systems must always meet TCEQ's "Rules and Regulations for Public Water Systems."

2. All newly installed pipes and related products must conform to American National Standards Institute (ANSI)/NSF International Standard 61 and must be certified by an organization accredited by ANSI [§290.44(a)(1)].

3. Plastic pipe for use in public water systems must bear the NSF International Seal of Approval (NSF-pw) and have an ASTM design pressure rating of at least 150 psi or a standard dimension ratio of 26 or less [§290.44(a)(2)].

4. No pipe which has been used for any purpose other than the conveyance of drinking water shall be accepted or relocated for use in any public drinking water supply [§290.44(a)(3)].

5. All water line crossings of wastewater mains shall be perpendicular [§290.44(e)(4)(B)].

6. Water transmission and distribution lines shall be installed in accordance with the manufacturer's instructions. However, the top of the water line must be located below the frost line and in no case shall the top of the water line be less than 24 inches below ground surface [§290.44(a)(4)].

7. The maximum allowable lead content of pipes, pipe fittings, plumbing fittings, and fixtures is 0.25 percent [§290.44(b)].

8. The contractor shall install appropriate air release devices with vent openings to the atmosphere covered with 16-mesh or finer, corrosion resistant screening material or an acceptable equivalent [§290.44(d)(1)].

9. The contractor shall not place the pipe in water or where it can be flooded with water or sewage during its storage or installation [§290.44(f)(1)].

10. When waterlines are laid under any flowing or intermittent stream or semi-permanent body of water the waterline shall be installed in a separate watertight pipe encasement. Valves must be provided on each side of the crossing with facilities to allow the underwater portion of the system to be isolated and tested [§290.44(f)(2)].

11. Pursuant to 30 TAC §290.44(a)(5), the hydrostatic leakage rate shall not exceed the amount allowed or recommended by the most current AWWA formulas for PVC pipe, cast iron and ductile iron pipe. Include the formulas in the notes on the plans.
   - The hydrostatic leakage rate for polyvinyl chloride (PVC) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-605 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

$$Q = \frac{LD\sqrt{P}}{148{,}000}$$

   Where:
   - Q = the quantity of makeup water in gallons per hour,
   - L = the length of the pipe section being tested, in feet,
   - D = the nominal diameter of the pipe in inches, and
   - P = the average test pressure during the hydrostatic test in pounds per square inch (psi).

   - The hydrostatic leakage rate for ductile iron (DI) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-600 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

$$L = \frac{SD\sqrt{P}}{148{,}000}$$

   Where:
   - L = the quantity of makeup water in gallons per hour,
   - S = the length of the pipe section being tested, in feet,
   - D = the nominal diameter of the pipe in inches, and
   - P = the average test pressure during the hydrostatic test in pounds per square inch (psi).

12. The contractor shall maintain a minimum separation distance in all directions of nine feet between the proposed waterline and wastewater collection facilities including manholes. If this distance cannot be maintained, the contractor must immediately notify the project engineer for further direction. Separation distances, installation methods, and materials utilized must meet §290.44(e)(1)-(4).

13. The separation distance from a potable waterline to a wastewater main or lateral manhole or cleanout shall be a minimum of nine feet. Where the nine-foot separation distance cannot be achieved, the potable waterline shall be encased in a joint of at least 150 psi pressure class pipe at least 18 feet long and two nominal sizes larger than the new conveyance. The space around the carrier pipe shall be supported at five-foot intervals with spacers or be filled to the springline with washed sand. The encasement pipe shall be centered on the crossing and both ends sealed with cement grout or manufactured sealant [§290.44(e)(5)].

14. Fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater line, wastewater lateral, or wastewater service line regardless of construction [§290.44(e)(6)].

15. Suction mains to pumping equipment shall not cross wastewater mains, wastewater laterals, or wastewater service lines. Raw water supply lines shall not be installed within five feet of any tile or concrete wastewater main, wastewater lateral, or wastewater service line [§290.44(e)(7)].

16. Waterlines shall not be installed closer than ten feet to septic tank drainfields [§290.44(e)(8)].

17. The contractor shall disinfect the new waterlines in accordance with AWWA Standard C-651-14 or most recent, then flush and sample the lines before being placed into service. Samples shall be collected for microbiological analysis to check the effectiveness of the disinfection procedure which shall be repeated if contamination persists. A minimum of one sample for each 1,000 feet of completed waterline will be required or at the next available sampling point beyond 1,000 feet as designated by the design engineer [§290.44(f)(3)].

18. Dechlorination of disinfecting water shall be in strict accordance with current AWWA Standard C655-09 or most recent.

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 22320
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D
TCEQ CONSTRUCTION NOTES

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	NONE	SHEET	03

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

Jonathan Payne 04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\02 CONSTRUCTION NOTES.DWG Apr. 30, 2025–8:00 AM LAURYN JOHNSON

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\03 EXISTING CONDITIONS SURVEY.DWG Apr. 30, 2025-8:00 AM LAURYN JOHNSON

Curve Table

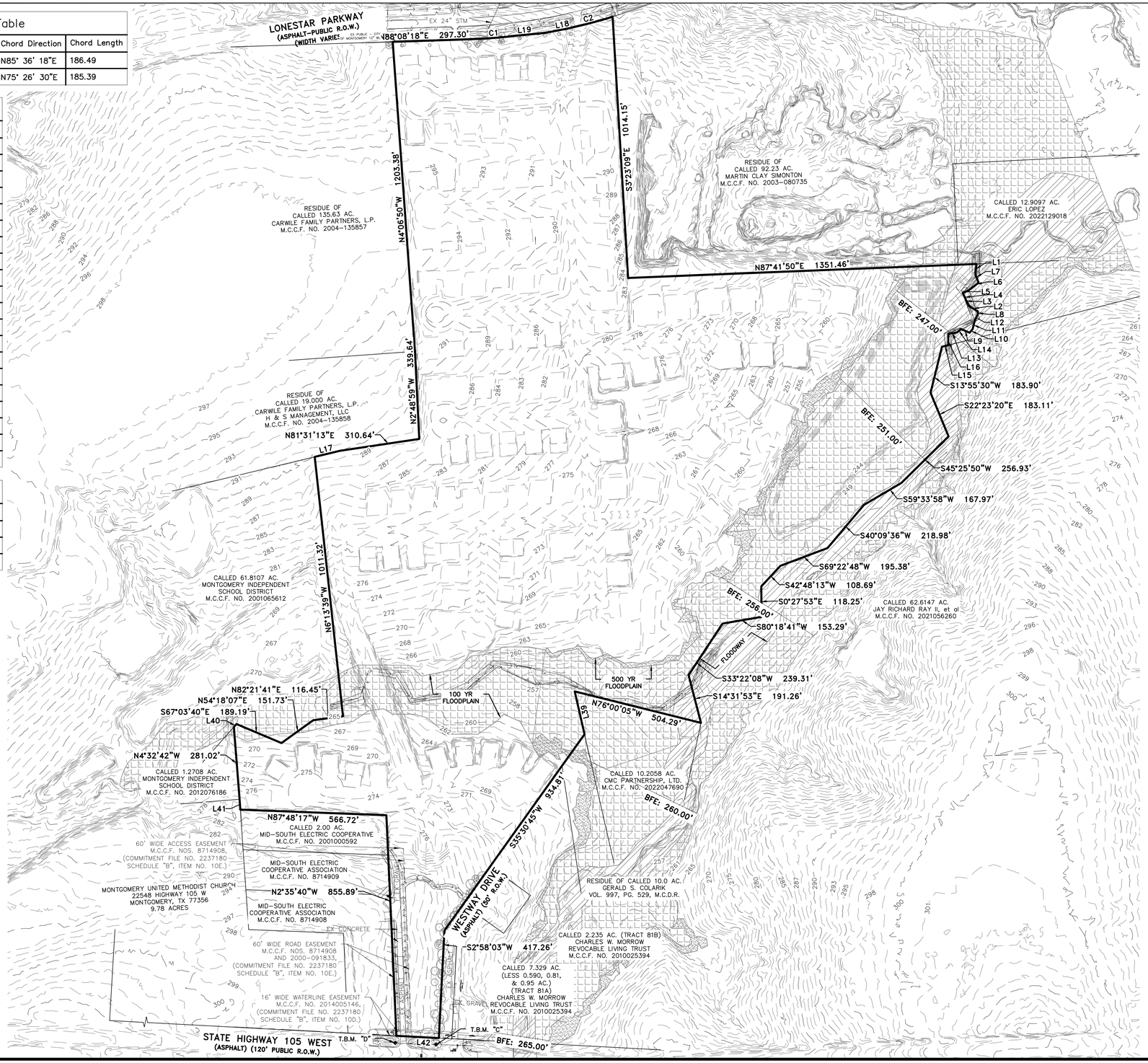
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	186.55	2139.85	5.00	N85° 36' 18"E	186.49
C2	185.45	2144.85	4.95	N75° 26' 30"E	185.39

Parcel Line Table

Line #	Length	Direction
L1	40.70	S5° 51' 46.00"W
L2	40.92	S58° 38' 09.00"E
L3	28.22	S25° 42' 31.00"E
L4	27.55	S26° 06' 10.00"E
L5	24.40	S66° 05' 51.00"W
L6	49.55	S52° 46' 43.00"W
L7	34.78	S21° 05' 35.00"E
L8	11.36	S5° 15' 25.00"W
L9	36.50	N67° 05' 23.00"W
L10	18.11	S39° 56' 21.00"W
L11	33.05	S14° 03' 47.00"W
L12	27.54	S25° 01' 16.00"W
L13	34.72	S80° 54' 16.00"W
L14	20.17	S48° 51' 33.00"W
L15	25.57	S75° 49' 01.00"W
L16	43.56	S0° 50' 41.00"E
L17	100.92	N76° 27' 15.00"E
L18	87.20	N79° 13' 20.00"E
L19	104.65	N84° 29' 43.00"E
L39	170.39	S12° 52' 18.00"E

Parcel Line Table

Line #	Length	Direction
L40	15.51	N41° 24' 28.00"E
L41	40.15	N3° 53' 09.00"W
L42	164.83	N86° 57' 13.00"W



LEGEND:

- FLOODWAY
- 100-YEAR FLOODPLAIN
- 500-YEAR FLOODPLAIN

UTILITY NOTE:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES LOCATION AND ELEVATIONS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

CITY OF MONTGOMERY, CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR — DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 22325
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUITE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKWY / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

EXISTING CONDITIONS SURVEY

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

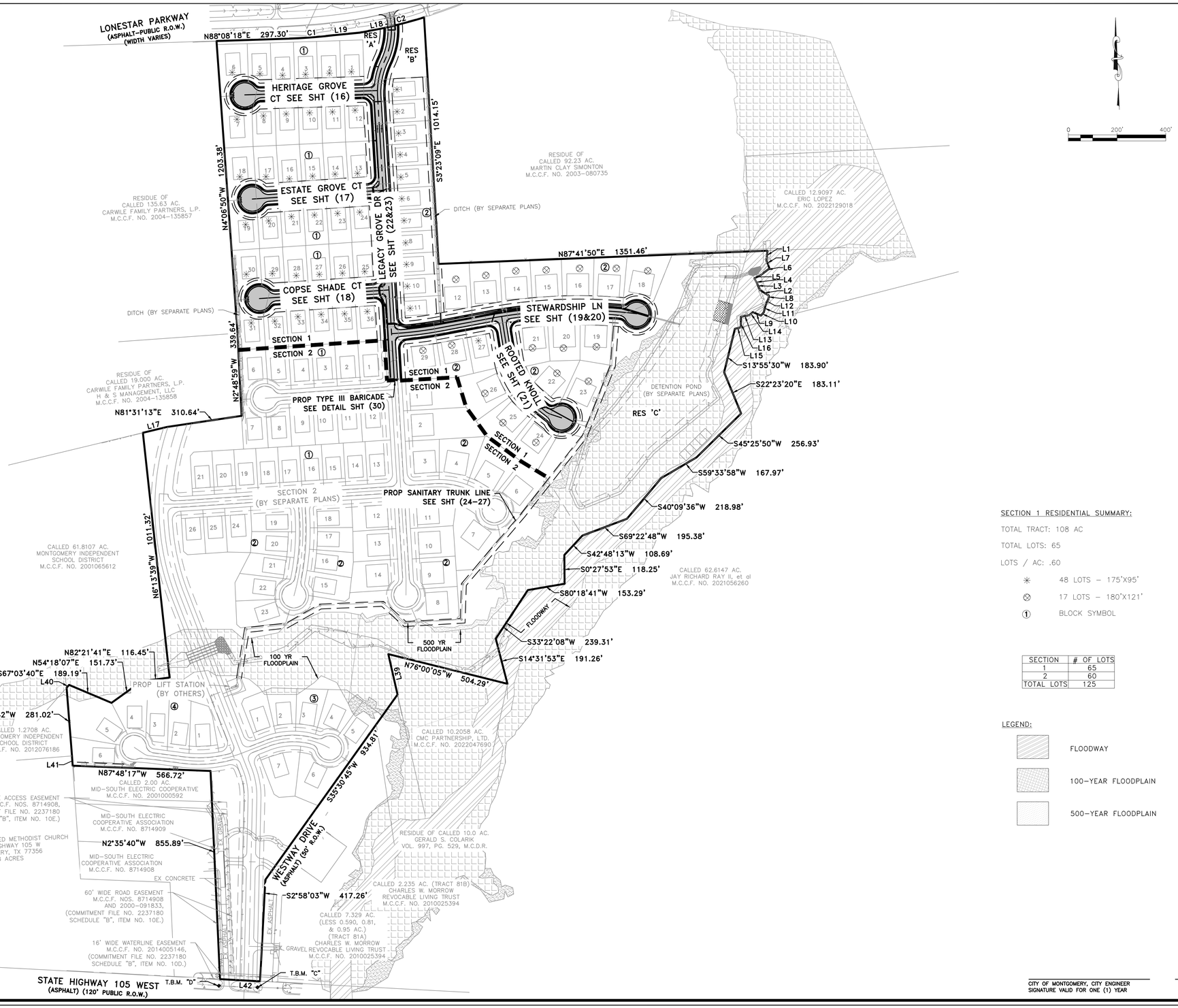
DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 200' (24x36) 1" = 400' (11x17)	SHEET	04

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

Jonathan Payne 04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE



SECTION 1 RESIDENTIAL SUMMARY:

TOTAL TRACT: 108 AC

TOTAL LOTS: 65

LOTS / AC: .60

- ✳ 48 LOTS – 175'X95'
- ⊗ 17 LOTS – 180'X121'
- ① BLOCK SYMBOL

SECTION	# OF LOTS
1	65
2	60
TOTAL LOTS	125

LEGEND:

- FLOODWAY
- 100-YEAR FLOODPLAIN
- 500-YEAR FLOODPLAIN

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12235
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

OVERALL LAYOUT AND INDEX

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

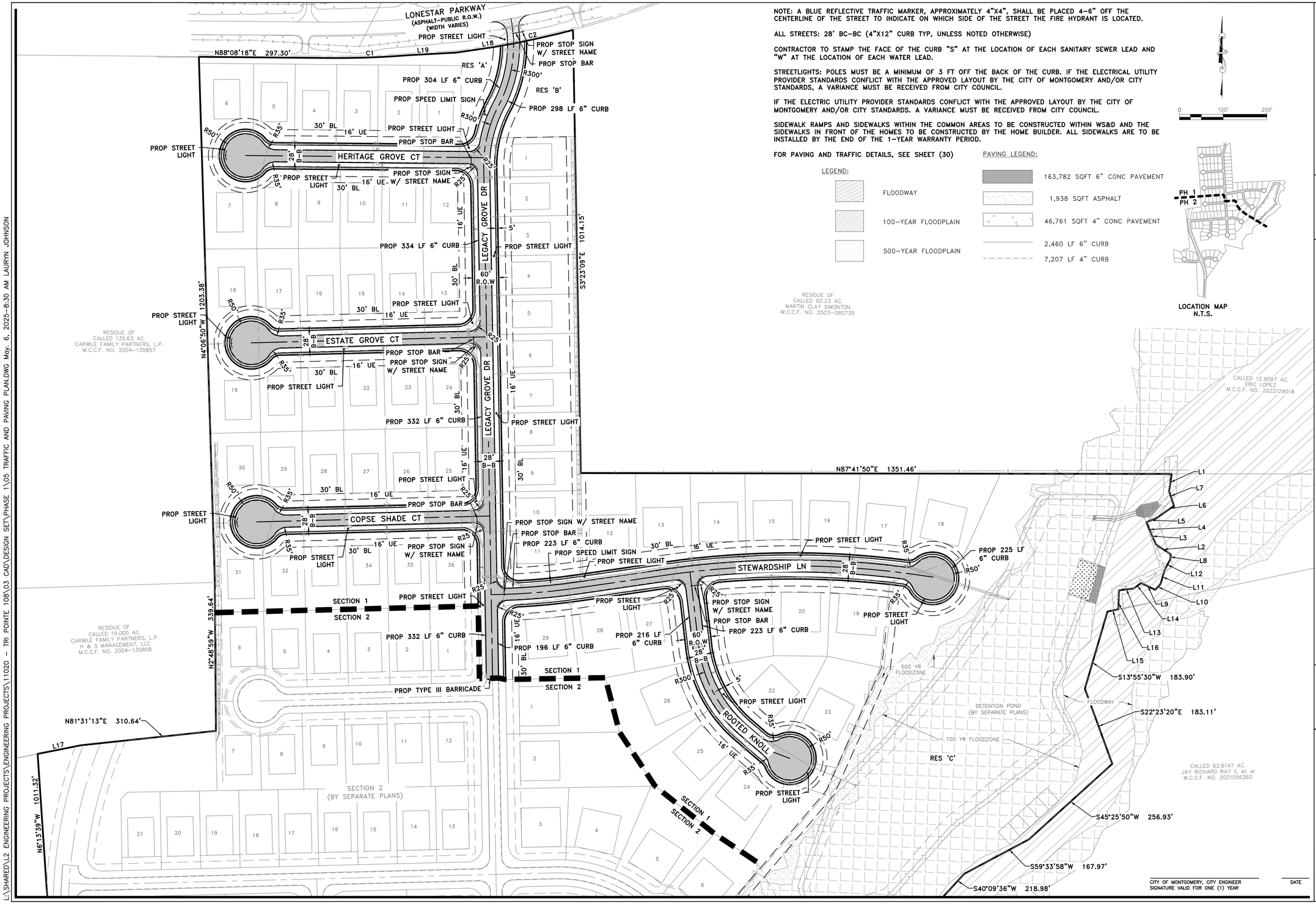
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 200' (24x36) 1" = 400' (11x17)	SHEET	05

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\04 OVERALL SITE PLAN.DWG Apr. 30, 2025-8:03 AM LAURYN JOHNSON



NOTE: A BLUE REFLECTIVE TRAFFIC MARKER, APPROXIMATELY 4"X4", SHALL BE PLACED 4-6" OFF THE CENTERLINE OF THE STREET TO INDICATE ON WHICH SIDE OF THE STREET THE FIRE HYDRANT IS LOCATED.

ALL STREETS: 28' BC-BC (4"X12" CURB TYP, UNLESS NOTED OTHERWISE)

CONTRACTOR TO STAMP THE FACE OF THE CURB "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

STREETLIGHTS: POLES MUST BE A MINIMUM OF 3 FT OFF THE BACK OF THE CURB. IF THE ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY OF MONTGOMERY AND/OR CITY STANDARDS, A VARIANCE MUST BE RECEIVED FROM CITY COUNCIL.

IF THE ELECTRIC UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY OF MONTGOMERY AND/OR CITY STANDARDS. A VARIANCE MUST BE RECEIVED FROM CITY COUNCIL.

SIDEWALK RAMPS AND SIDEWALKS WITHIN THE COMMON AREAS TO BE CONSTRUCTED WITHIN WS&D AND THE SIDEWALKS IN FRONT OF THE HOMES TO BE CONSTRUCTED BY THE HOME BUILDER. ALL SIDEWALKS ARE TO BE INSTALLED BY THE END OF THE 1-YEAR WARRANTY PERIOD.

FOR PAVING AND TRAFFIC DETAILS, SEE SHEET (30)

LEGEND:

- FLOODWAY
- 100-YEAR FLOODPLAIN
- 500-YEAR FLOODPLAIN

PAVING LEGEND:

- 163,782 SQFT 6" CONC PAVEMENT
- 1,938 SQFT ASPHALT
- 46,761 SQFT 4" CONC PAVEMENT
- 2,460 LF 6" CURB
- 7,207 LF 4" CURB

0 100' 200'

LOCATION MAP
N.T.S.

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12320
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

TRAFFIC AND PAVING PLAN

DRAWING ISSUE			
#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION			
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 100' (24x36) 1" = 200' (11x17)	SHEET	06

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

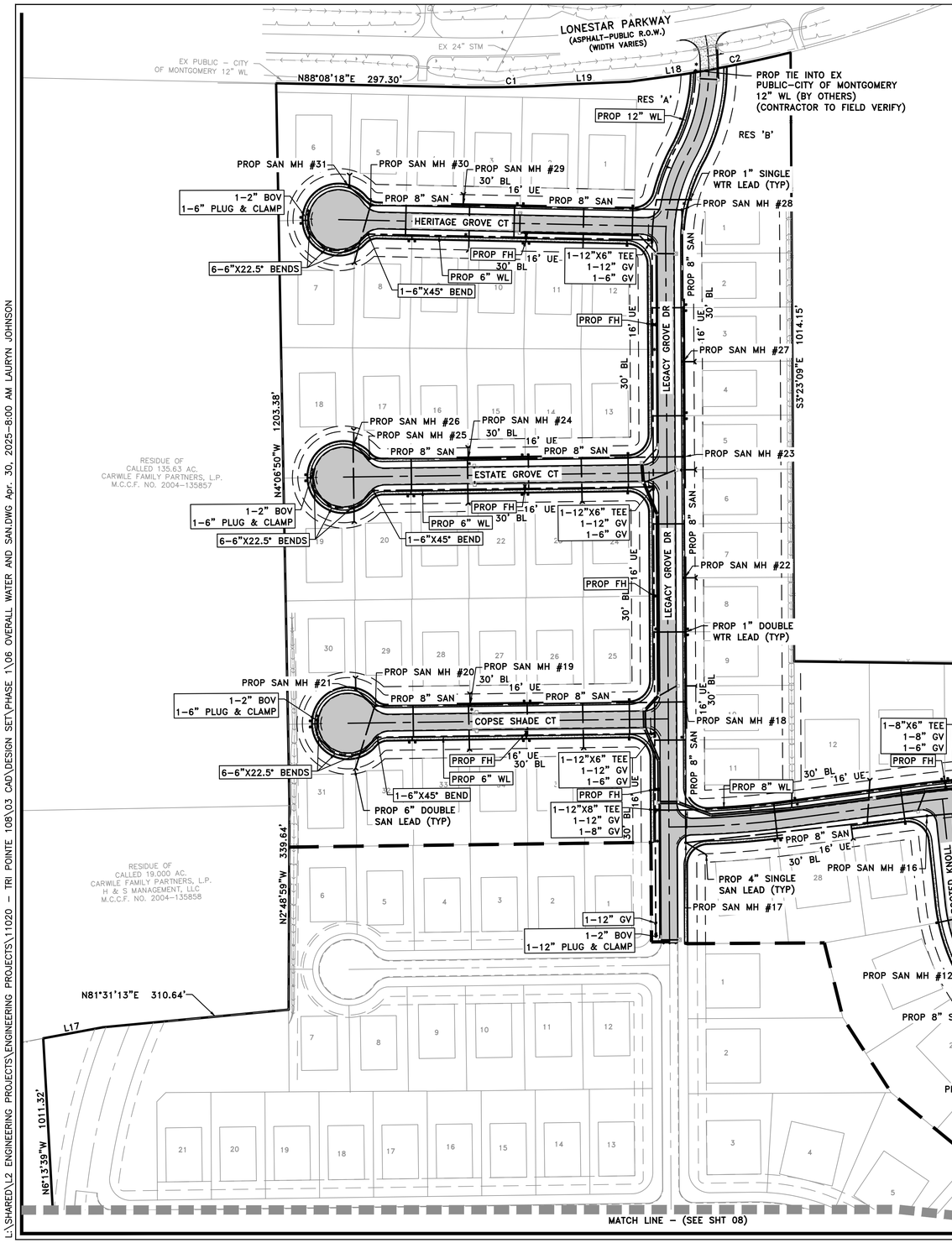
Jonathan Payne 04/29/2025

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\05 TRAFFIC AND PAVING PLAN.DWG May. 6, 2025-8:30 AM LAURYN JOHNSON



SERVICE LEAD LEGEND:

- 1" DOUBLE WATER METER
- 1" SINGLE WATER METER
- 4" SINGLE SANITARY LEAD
- 6" DOUBLE SANITARY LEAD

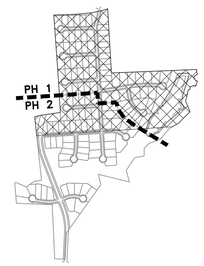
LEGEND:

- FLOODWAY
- 100–YEAR FLOODPLAIN
- 500–YEAR FLOODPLAIN

WATER & SANITARY NOTES

1. ALL DOUBLE SANITARY LEADS TO BE 6" AND SINGLE SANITARY LEADS TO BE 4". ALL DOUBLE AND SINGLE WATER LEADS TO BE 1" POLY.
2. ALL SANITARY SEWER SERVICE LINES TO BE 1% SLOPES UNLESS NOTED OTHERWISE.
3. ALL FIRE HYDRANTS TO BE LOCATED 3' BEHIND BACK OF CURB, WITH BOTTOM FLANGE 3" ABOVE TOP OF CURB.
4. WATER AND SANITARY SHALL MAINTAIN 9' SEPARATION.
5. ALL LONGSIDE LEADS SHALL INCLUDE STACKS, RISERS, TEES, WYES, AND ALL APPURTENANCES TO END AT A DEPTH OF 4'–5' BELOW NATURAL GROUND. SEE DETAIL SHEET (35).
6. ALL UTILITY LEADS UNDER PAVEMENT TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
7. ALL MANHOLE RIMS TO BE SET TO 3" ABOVE FINISHED GRADE.
8. ALL WATERLINES TO HAVE A MINIMUM OF 4' COVER.
9. CONTRACTOR MUST COORDINATE WITH CITY FOR ANY TAPS TO THE CITY SANITARY SEWER OR WATER DISTRIBUTION SYSTEMS.
10. ALL WATER AND SEWER LINES TO BE OWNED AND MAINTAINED BY THE CITY UNLESS OTHERWISE NOTED.
11. DEFLECTION ON WATERLINE SHALL NOT EXCEED MANUFACTURES SPECIFICATIONS. CONTRACTOR TO INSTALL INCIDENTAL BENDS AS NECESSARY.
12. ALL PUBLIC WATERLINES SHALL BE C–900 DR–18 PVC UNLESS OTHERWISE NOTED.
13. ALL PUBLIC SEWER LINES SHALL BE SDR–26 PVC UNLESS OTHERWISE NOTED.

0 100' 200'



LOCATION MAP
N.T.S.

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D
WATER AND SANITARY SEWER PLAN (1 OF 2)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

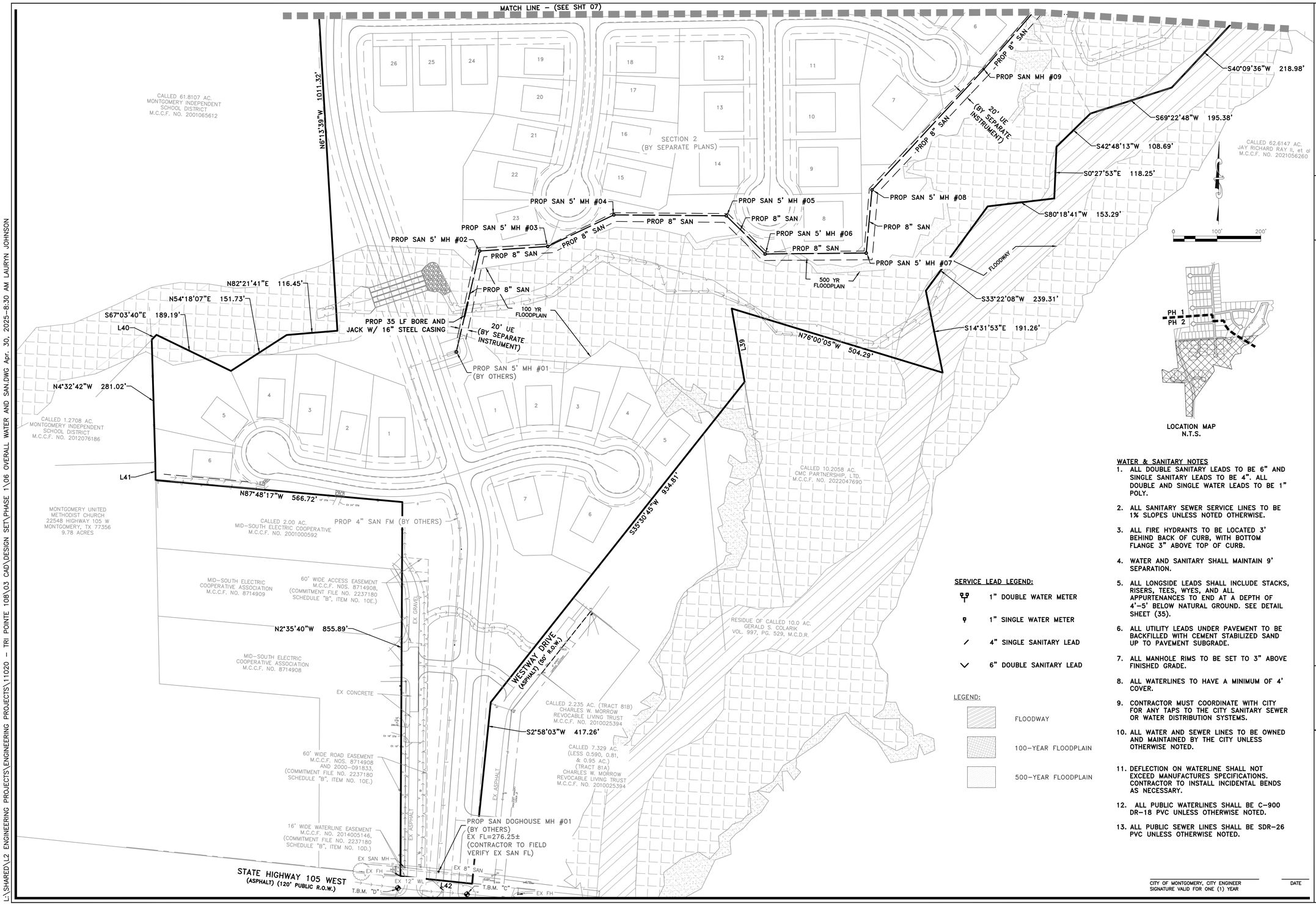
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 100' (24x36) 1" = 200' (11x17)	SHEET	07

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\06 OVERALL WATER AND SAN.DWG Apr. 30, 2025–8:00 AM LAURYN JOHNSON



LOCATION MAP
N.T.S.

WATER & SANITARY NOTES

1. ALL DOUBLE SANITARY LEADS TO BE 6" AND SINGLE SANITARY LEADS TO BE 4". ALL DOUBLE AND SINGLE WATER LEADS TO BE 1" POLY.
2. ALL SANITARY SEWER SERVICE LINES TO BE 1% SLOPES UNLESS NOTED OTHERWISE.
3. ALL FIRE HYDRANTS TO BE LOCATED 3' BEHIND BACK OF CURB, WITH BOTTOM FLANGE 3" ABOVE TOP OF CURB.
4. WATER AND SANITARY SHALL MAINTAIN 9' SEPARATION.
5. ALL LONGSIDE LEADS SHALL INCLUDE STACKS, RISERS, TEES, WYES, AND ALL APPURTENANCES TO END AT A DEPTH OF 4'–5' BELOW NATURAL GROUND. SEE DETAIL SHEET (35).
6. ALL UTILITY LEADS UNDER PAVEMENT TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
7. ALL MANHOLE RIMS TO BE SET TO 3" ABOVE FINISHED GRADE.
8. ALL WATERLINES TO HAVE A MINIMUM OF 4' COVER.
9. CONTRACTOR MUST COORDINATE WITH CITY FOR ANY TAPS TO THE CITY SANITARY SEWER OR WATER DISTRIBUTION SYSTEMS.
10. ALL WATER AND SEWER LINES TO BE OWNED AND MAINTAINED BY THE CITY UNLESS OTHERWISE NOTED.
11. DEFLECTION ON WATERLINE SHALL NOT EXCEED MANUFACTURES SPECIFICATIONS. CONTRACTOR TO INSTALL INCIDENTAL BENDS AS NECESSARY.
12. ALL PUBLIC WATERLINES SHALL BE C-900 DR-18 PVC UNLESS OTHERWISE NOTED.
13. ALL PUBLIC SEWER LINES SHALL BE SDR-26 PVC UNLESS OTHERWISE NOTED.

SERVICE LEAD LEGEND:

- 1" DOUBLE WATER METER
- 1" SINGLE WATER METER
- 4" SINGLE SANITARY LEAD
- 6" DOUBLE SANITARY LEAD

LEGEND:

- FLOODWAY
- 100-YEAR FLOODPLAIN
- 500-YEAR FLOODPLAIN

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 22329
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D
WATER AND SANITARY SEWER PLAN
(2 OF 2)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

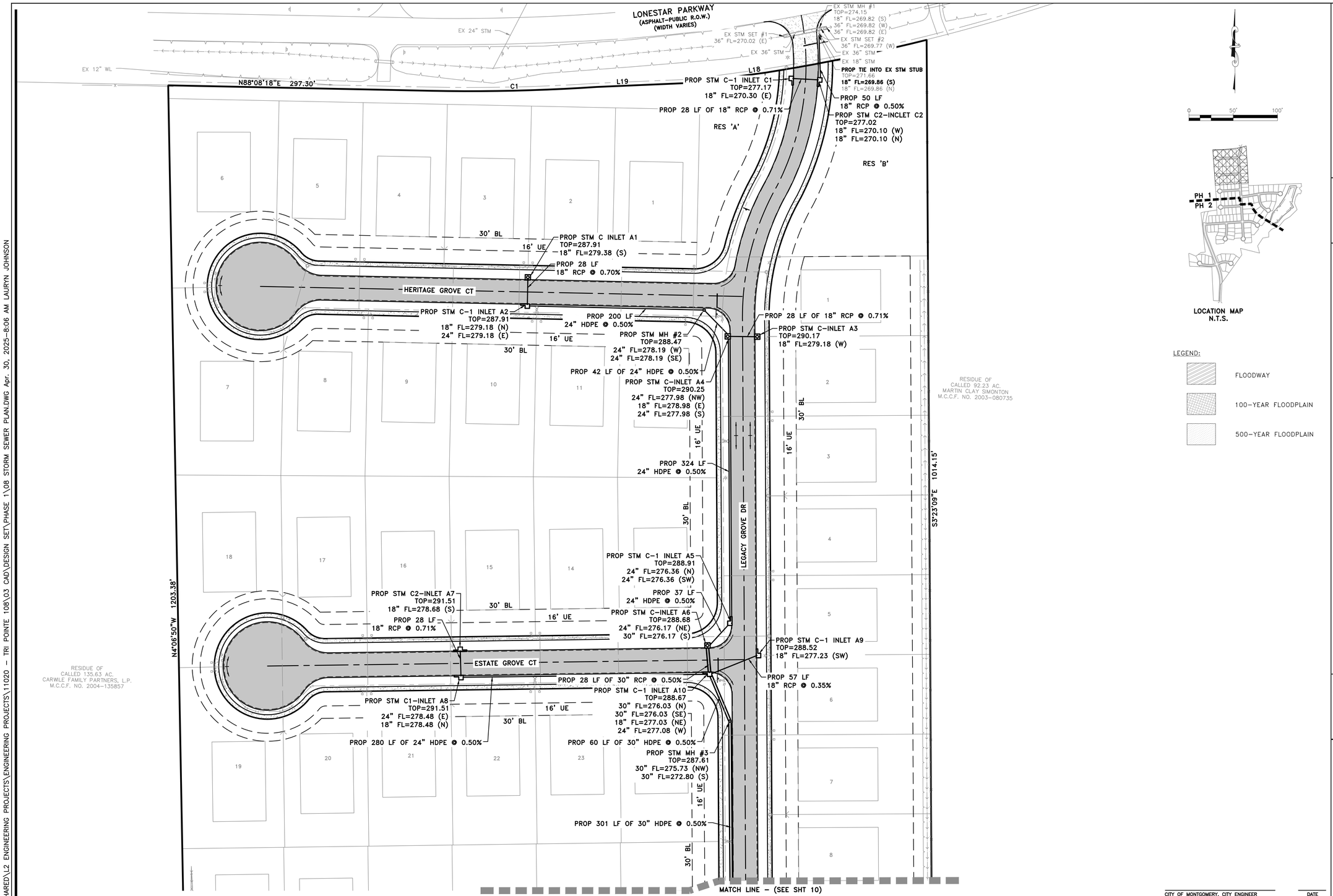
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 100' (24x36) 1" = 200' (11x17)	SHEET	08

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\06 OVERALL WATER AND SAN.DWG Apr. 30, 2025–8:30 AM LAURYN JOHNSON



L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

STORM SEWER PLAN (1 OF 3)

DRAWING ISSUE			
#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION			
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 50' (24x36) 1" = 100' (11x17)	SHEET	09

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

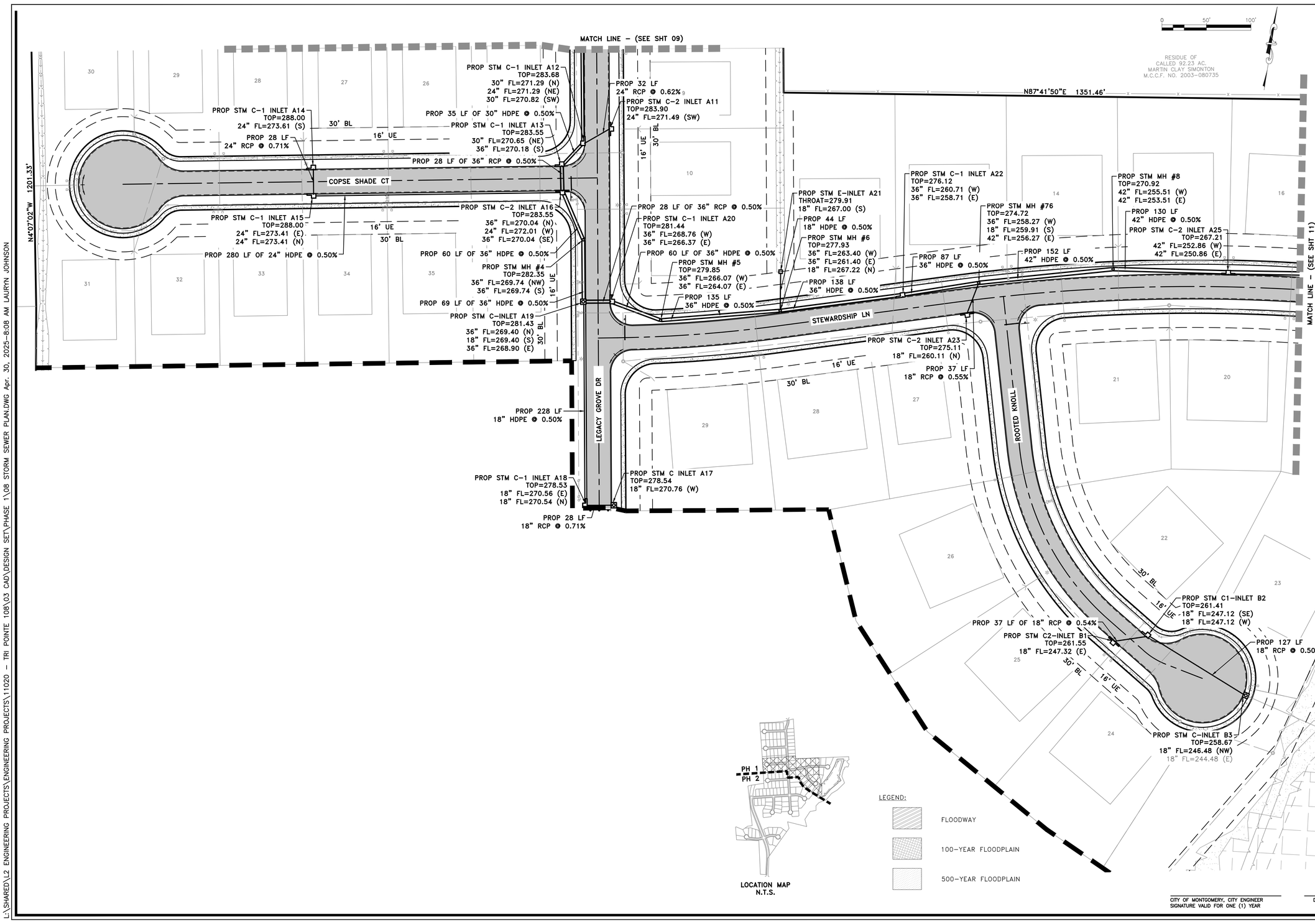
Jonathan Payne 04/29/2025

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\08 STORM SEWER PLAN.DWG Apr. 30, 2025-8:06 AM LAURYN JOHNSON



L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12230
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

STORM SEWER PLAN (2 OF 3)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

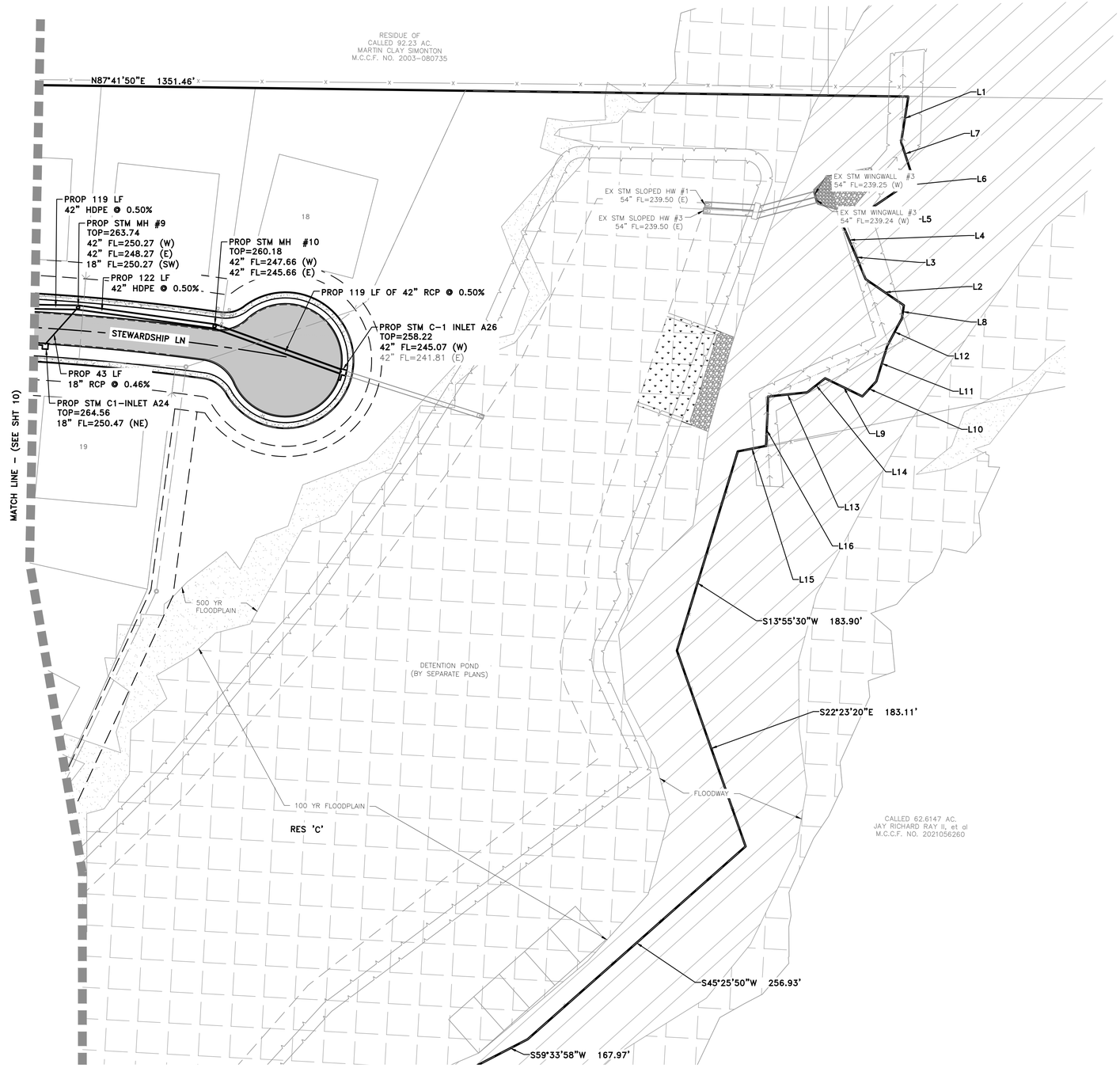
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 50' (24x36) 1" = 100' (11x17)	SHEET	10

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

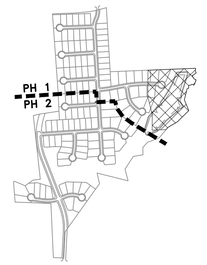
04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\08 STORM SEWER PLAN.DWG Apr. 30, 2025–8:08 AM LAURYN JOHNSON



0 50' 100'



LOCATION MAP
N.T.S.

LEGEND:

- FLOODWAY
- 100-YEAR FLOODPLAIN
- 500-YEAR FLOODPLAIN

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12230
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUITE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D

STORM SEWER PLAN (3 OF 3)

DRAWING ISSUE			
#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION			
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 50' (24x36) 1" = 100' (11x17)	SHEET	11

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

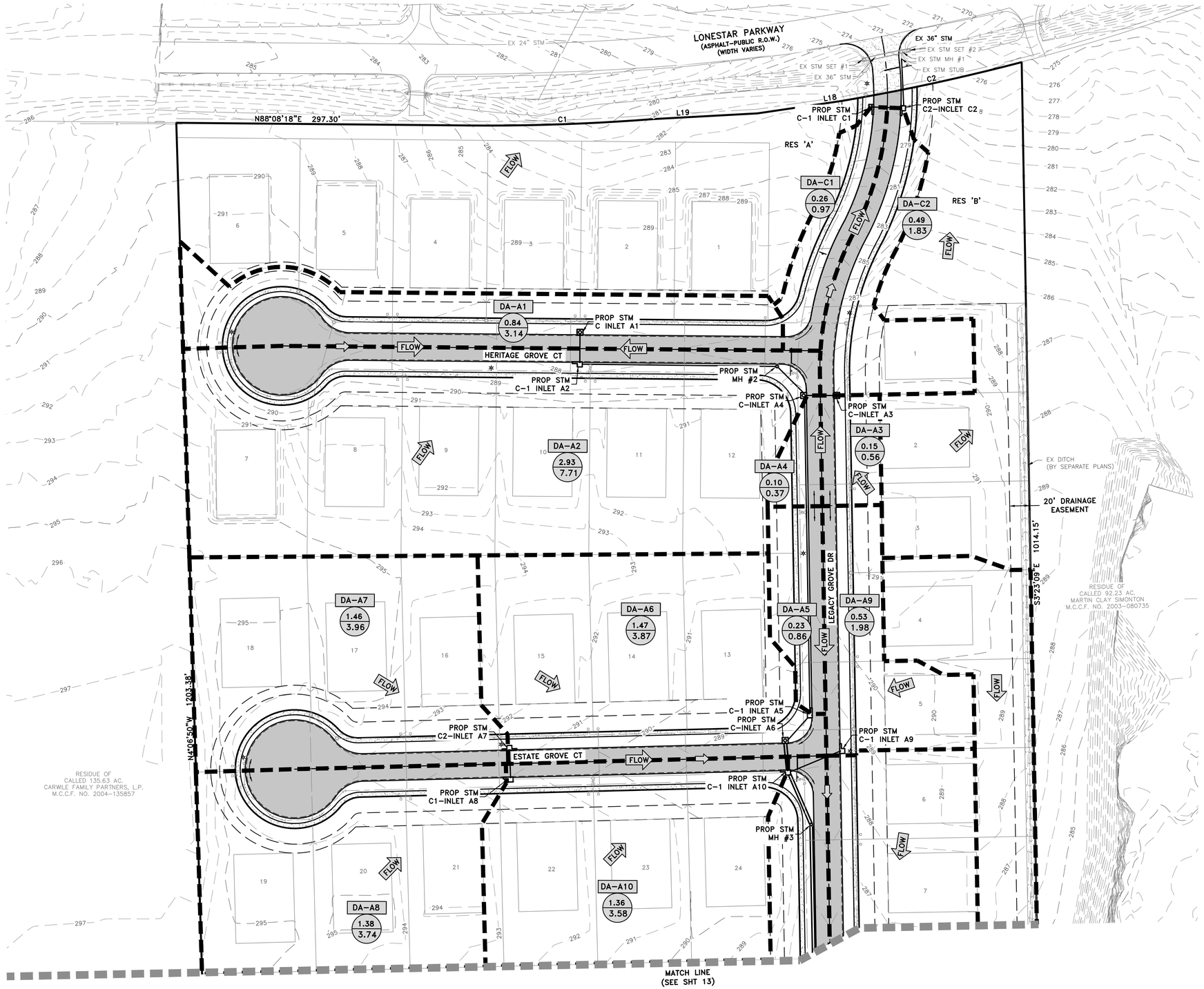
Jonathan Payne 04/29/2025

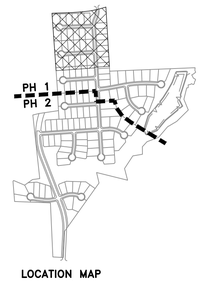
CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\08 STORM SEWER PLAN.DWG Apr. 30, 2025-8:02 AM LAURYN JOHNSON





LOCATION MAP
N.T.S.

DRAINAGE LEGEND:

- PROP DRAINAGE AREA BREAKLINE
- DA-A1 / AREA / FLOW — PROP DRAINAGE AREA NUMBER; PROP DRAINAGE AREA ACRES & FLOW (5 YEAR)
- OUTFALL A / AREA / FLOW — PROP OUTFALL NAME; PROP OUTFALL CUMULATIVE ACRES & FLOW (100 YEAR)
- FLOW — DRAINAGE FLOW DIRECTION
- EXTREME EVENT OVERFLOW PATH

LEGEND:

- FLOODWAY
- 100-YEAR FLOODPLAIN
- 500-YEAR FLOODPLAIN

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12235
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

DRAINAGE PLAN (1 OF 3)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 50' (24x36) 1" = 100' (11x17)	SHEET	12

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\09 POST DEVELOPED DAM.DWG Apr. 30, 2025-8:05 AM LAURYN JOHNSON

LEGEND:

- FLOODWAY
- 100-YEAR FLOODPLAIN
- 500-YEAR FLOODPLAIN

DRAINAGE LEGEND:

- PROP DRAINAGE AREA BREAKLINE
- DA-A1 / AREA / FLOW — PROP DRAINAGE AREA NUMBER; PROP DRAINAGE AREA ACRES & FLOW (5 YEAR)
- OUTFALL A / AREA / FLOW — PROP OUTFALL NAME; PROP OUTFALL CUMULATIVE ACRES & FLOW (100 YEAR)
- FLOW — DRAINAGE FLOW DIRECTION
- EXTREME EVENT OVERFLOW PATH

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12230
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

DRAINAGE PLAN (2 OF 3)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 50' (24x36) 1" = 100' (11x17)	SHEET	13

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

Jonathan Payne 04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\09 POST DEVELOPED DAM.DWG Apr. 30, 2025-8:05 AM LAURYN JOHNSON

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\09 POST DEVELOPED DAM.DWG Apr. 30, 2025–8:05 AM LAURYN JOHNSON

LOCATION MAP
N.T.S.

DRAINAGE LEGEND:

- PROP DRAINAGE AREA BREAKLINE
- DA–A1 — PROP DRAINAGE AREA NUMBER
- AREA / FLOW — PROP DRAINAGE AREA ACRES & FLOW (5 YEAR)
- OUTFALL A — PROP OUTFALL NAME
- AREA / FLOW — PROP OUTFALL CUMULATIVE ACRES & FLOW (100 YEAR)
- FLOW — DRAINAGE FLOW DIRECTION
- EXTREME EVENT OVERFLOW PATH

LEGEND:

- FLOODWAY
- 100–YEAR FLOODPLAIN
- 500–YEAR FLOODPLAIN

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 22230
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

DRAINAGE PLAN (3 OF 3)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 50' (24x36) 1" = 100' (11x17)	SHEET	14

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

Jonathan Payne 04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

Inlet No.	Inlet Type	Calculated Minimum Length (ft)	5-Yr Flow	Proposed Inlet Size	Proposed Inlet Length (ft)
A1	Sag	3.57	3.14	C	5
A2	Sag	7.89	7.71	C-1	10
A3	On-Grade	6.06	1.42	C-1	10
A4	On-Grade	3.46	0.37	C	5
A5	On-Grade	5.08	0.86	C-1	10
A6	Sag	3.71	3.74	C	5
A7	On-Grade	10.11	3.96	C-2	15
A8	On-Grade	9.87	3.74	C-1	10
A9	On-Grade	9.42	3.22	C-1	10
A10	On-Grade	9.85	3.58	C-1	10
A11	On-Grade	11.03	4.68	C-2	15
A12	On-Grade	7.38	1.80	C-1	10
A13	Sag	7.43	3.68	C-1	10
A14	On-Grade	9.81	3.58	C-1	10
A15	On-Grade	9.71	3.50	C-1	10
A16	On-Grade	10.58	3.29	C-2	15
A17	On-Grade	4.10	0.45	C	5
A18	On-Grade	7.59	1.95	C-1	10
A19	On-Grade	4.85	0.67	C	5
A20	On-Grade	7.93	2.17	C-1	10
A22	On-Grade	9.37	3.01	C-1	10
A23	On-Grade	11.34	4.74	C-2	15
A24	On-Grade	7.93	1.20	C-1	10
A25	On-Grade	14.33	4.91	C-2	15
A26	Sag	6.86	4.71	C-1	10
B1	On-Grade	10.21	2.17	C-2	15
B2	On-Grade	8.83	1.53	C-1	10
B3	Sag	3.39	1.48	C	5
C1	On-Grade	8.57	0.97	C-1	10
C2	On-Grade	11.18	1.83	C-2	15

Drainage Calculations (25-Yr)

Drainage Area	Area	Tc	C	I	C_f	Q
DA-A1	0.84	5.00	0.45	11.61	1.1	4.83
DA-A2	2.93	14.00	0.45	8.11	1.1	11.77
DA-A3	0.38	5.00	0.45	11.61	1.1	2.18
DA-A4	0.10	5.00	0.45	11.61	1.1	0.57
DA-A5	0.23	5.00	0.45	11.61	1.1	1.32
DA-A6	1.47	14.00	0.45	8.11	1.1	5.90
DA-A7	1.46	13.00	0.45	8.36	1.1	6.05
DA-A8	1.38	13.00	0.45	8.36	1.1	5.71
DA-A9	0.86	5.00	0.45	11.61	1.1	4.94
DA-A10	1.36	14.00	0.45	8.11	1.1	5.46
DA-A11	1.25	5.00	0.45	11.61	1.1	7.18
DA-A12	0.48	5.00	0.45	11.61	1.1	2.76
DA-A13	1.40	14.00	0.45	8.11	1.1	5.62
DA-A14	1.32	13.00	0.45	8.36	1.1	5.47
DA-A15	1.29	13.00	0.45	8.36	1.1	5.34
DA-A16	1.25	14.00	0.45	8.11	1.1	5.02
DA-A17	0.12	5.00	0.45	11.61	1.1	0.69
DA-A18	0.52	5.00	0.45	11.61	1.1	2.99
DA-A19	0.18	5.00	0.45	11.61	1.1	1.03
DA-A20	0.58	5.00	0.45	11.61	1.1	3.33
DA-A21	0.88	12.00	0.45	8.64	1.1	3.76
DA-A22	1.11	13.00	0.45	8.36	1.1	4.60
DA-A23	1.80	14.00	0.45	8.11	1.1	7.23
DA-A24	0.40	10.00	0.45	9.26	1.1	1.83
DA-A25	1.92	15.00	0.45	7.88	1.1	7.49
DA-A26	1.84	15.00	0.45	7.88	1.1	7.18
DA-B1	0.58	5.00	0.45	11.61	1.1	3.33
DA-B2	0.41	5.00	0.45	11.61	1.1	2.36
DA-B3	0.21	5.00	0.85	11.61	1.1	2.28
DA-C1	0.26	5.00	0.45	11.61	1.1	1.49
DA-C2	0.49	5.00	0.45	11.61	1.1	2.82

SYSTEM A

5 Year

Inlet Info

Inlet/MH From	Inlet/MH To	Drainage Area	Total Drainage Area	Runoff Co. "C"	DA C*A	Total C*A	Drainage Area Time of Conc. (Min)	Total Time of Conc. (Min)	Intensity (I)	Cf	Drainage Area Flow (cfs)	Total Flow (cfs)	Number of Barrels	Culvert Size (ft)	Slope	Area (A)	Perimeter (P)	R=(A/P)	Length (ft)	Roughness (n)	$Q_{capacity}$ (CFS)	$V_{full\ flow}$ (FPS)	HGL Upstream FL	HGL Downstream FL	Change In Head (ft)	Hydraulic Gradeline %	Elevation of Hyd. Grad. Upstream (ft)	Elevation of Hyd. Grad. Downstream(ft)
Inlet A1	Inlet A2	0.84	0.84	0.45	0.38	0.38	5.00	5.00	8.32	1.00	3.14	3.14	1	1.5	0.007	1.77	4.71	0.375	28	0.013	8.87	5.02	279.38	279.18	0.03	0.09	280.71	280.64
Inlet A2	MH1	2.93	3.77	0.45	1.32	1.70	14.00	14.00	5.85	1.00	7.71	9.92	1	2	0.005	3.14	6.28	0.500	200	0.011	18.81	5.99	279.18	278.19	0.28	0.14	280.47	280.19
MH1	Inlet A4	0.00	3.77	0.45	0.00	1.70	0.00	14.56	5.76	1.00	0.00	9.76	1	2	0.005	3.14	6.28	0.500	42	0.011	18.90	6.02	278.19	277.98	0.06	0.13	280.04	279.98
Inlet A3	Inlet A4	0.15	0.15	0.45	0.07	0.07	5.00	5.00	8.32	1.00	0.56	0.56	1	1.5	0.007	1.77	4.71	0.375	28	0.013	8.87	5.02	279.18	278.98	0.00	0.00	280.48	280.48
Inlet A4	Inlet A5	0.10	4.02	0.45	0.05	1.81	5.00	14.67	5.74	1.00	0.37	10.38	1	2	0.005	3.14	6.28	0.500	324	0.011	18.90	6.02	277.98	276.36	0.49	0.15	279.10	278.61
Inlet A5	Inlet A6	0.23	4.25	0.45	0.10	1.91	5.00	15.57	5.59	1.00	0.86	10.70	1	2	0.005	3.14	6.28	0.500	37	0.011	19.15	6.10	276.36	276.17	0.06	0.16	278.61	278.55
Inlet A6	Inlet A10	1.47	4.88	0.45	0.66	2.20	14.00	15.67	5.58	1.00	3.87	12.25	1	2.5	0.005	4.91	7.85	0.625	28	0.013	29.00	5.91	276.17	276.03	0.02	0.09	278.55	278.53
Inlet A7	Inlet A8	1.46	1.46	0.45	0.66	0.66	13.00	13.00	6.01	1.00	3.96	3.96	1	1.5	0.007	1.77	4.71	0.375	28	0.013	8.87	5.02	278.68	278.48	0.04	0.14	280.02	279.98
Inlet A8	Inlet A10	1.38	2.84	0.45	0.62	1.28	13.00	13.09	6.01	1.00	3.74	7.68	1	2	0.005	3.14	6.28	0.500	285	0.011	18.73	5.96	278.48	277.08	0.24	0.08	279.32	279.08
Inlet A9	Inlet A10	0.53	0.53	0.45	0.24	0.24	5.00	5.00	8.32	1.00	1.98	1.98	1	1.5	0.004	1.77	4.71	0.375	57	0.013	6.22	3.52	277.23	277.03	0.02	-0.04	278.55	278.53
Inlet A10	MH2	1.36	10.45	0.45	0.61	4.70	14.00	16.37	5.47	1.00	3.58	25.74	1	2.5	0.005	4.91	7.85	0.625	60	0.011	34.27	6.98	276.03	275.73	0.17	0.28	278.40	278.23
MH2	Inlet A12	0.00	10.45	0.45	0.00	4.70	0.00	16.46	5.46	1.00	0.00	25.68	1	2.5	0.005	4.91	7.85	0.625	301	0.011	34.33	6.99	272.80	271.29	0.84	0.28	274.63	273.79
Inlet A11	Inlet A12	1.25	1.25	0.45	0.56	0.56	5.00	5.00	8.32	1.00	4.68	4.68	1	2	0.006	3.14	6.28	0.500	32	0.013	17.88	5.69	271.49	271.29	0.01	0.04	273.30	273.28
Inlet A12	Inlet A13	0.48	12.18	0.45	0.22	5.48	5.00	16.55	5.45	1.00	1.80	29.86	1	2.5	0.005	4.91	7.85	0.625	35	0.011	33.78	6.88	270.82	270.65	0.13	0.38	273.28	273.15
Inlet A13	Inlet A16	1.40	13.58	0.45	0.63	6.11	14.00	16.64	5.44	1.00	3.68	33.21	1	3	0.005	7.07	9.42	0.750	28	0.013	47.16	6.67	270.18	270.04	0.07	0.25	273.11	273.04
Inlet A14	Inlet A15	1.32	1.32	0.45	0.59	0.59	13.00	13.00	6.01	1.00	3.58	3.58	1	1.5	0.007	1.77	4.71	0.375	28	0.013	8.87	5.02	273.61	273.41	0.03	0.12	274.94	274.91
Inlet A15	Inlet A16	1.29	2.61	0.45	0.58	1.17	13.00	13.09	6.01	1.00	3.50	7.06	1	1.5	0.005	1.77	4.71	0.375	285	0.011	8.60	4.87	273.41	272.04	0.92	0.32	274.46	273.54
Inlet A16	MH3	1.25	17.44	0.45	0.56	7.85	14.00	17.61	5.30	1.00	3.29	41.58	1	3	0.005	7.07	9.42	0.750	60	0.011	55.73	7.88	270.04	269.74	0.17	0.28	272.91	272.74
MH3	Inlet A19	0.00	17.44	0.45	0.00	7.85	0.00	17.74	5.28	1.00	0.00	41.45	1	3	0.005	7.07	9.42	0.750	69	0.011	55.33	7.83	269.74	269.40	0.19	0.28	272.59	272.40
Inlet A17	Inlet A18	0.12	0.12	0.45	0.05	0.05	5.00	5.00	8.32	1.00	0.45	0.45	1	1.5	0.007	1.77	4.71	0.375	28	0.013	8.87	5.02	270.18	269.98	0.00	0.00	271.96	271.96
Inlet A18	Inlet A19	0.52	0.64	0.45	0.23	0.29	5.00	5.09	8.27	1.00	1.95	2.38	1	1.5	0.005	1.77	4.71	0.375	228	0.011	8.78	4.97	270.54	269.40	0.08	0.04	271.96	271.88
Inlet A19	Inlet A20	0.18	18.26	0.45	0.08	8.22	5.00	17.89	5.26	1.00	0.67	43.24	1	3	0.005	7.07	9.42	0.750	28	0.013	47.16	6.67	268.90	268.76	0.12	0.42	271.88	271.76
Inlet A20	MH4	0.58	18.84	0.45	0.26	8.48	5.00	17.96	5.25	1.00	2.17	44.53	1	3	0.005	7.07	9.42	0.750	60	0.011	55.73	7.88	266.37	266.07	0.19	0.32	269.26	269.07
MH4	MH5	0.00	18.84	0.45	0.00	8.48	0.00	18.08	5.24	1.00	0.00	44.39	1	3	0.005	7.07	9.42	0.750	135	0.011	55.53	7.86	264.07	263.40	0.43	0.32	266.83	266.40
Inlet A21	MH5	1.12	1.12	0.45	0.50	0.50	12.00	12.00	6.22	1.00	3.13	3.13	1	1.5	0.005	1.77	4.71	0.375	44	0.011	8.78	4.97	267.44	267.22	0.03	0.06	268.75	268.72
MH5	Inlet A22	0.00	19.96	0.45	0.00	8.98	0.00	18.37	5.20	1.00	0.00	46.69	1	3	0.005	7.07	9.42	0.750	138	0.011	55.73	7.88	261.40	260.71	0.48	0.35	264.19	263.71
Inlet A22	MH6	1.11	21.07	0.45	0.50	9.48	13.00	18.38	5.20	1.00	3.01	49.28	1	3	0.005	7.07	9.42	0.750	87	0.011	56.05	7.93	258.71	258.27	0.34	0.39	261.61	261.27
Inlet A23	MH6	1.80	1.80	0.45	0.81	0.81	14.00	14.00	5.85	1.00	4.74	4.74	1	1.5	0.005	1.77	4.71	0.375	37	0.013	7.72	4.37	260.11	259.91	0.08	0.20	261.49	261.41
MH6	MH7	0.00	22.87	0.45	0.00	10.29	0.00	18.56	5.17	1.00	0.00	53.24	1	3.5	0.005	9.62	11.00	0.875	152	0.011	84.07	8.74	256.27	255.51	0.30	0.20	259.31	259.01
MH7	Inlet A24	0.00	22.87	0.45	0.00	10.29	0.00	18.85	5.14	1.00	0.00	52.86	1	3.5	0.005	9.62	11.00	0.875	130	0.011	84.07	8.74	253.51	252.86	0.26	0.20	256.62	256.36
Inlet A24	MH8	0.40	23.27	0.45	0.18	10.47	10.00	10.00	6.66	1.00	1.20	69.70	1	3.5	0.005	9.62	11.00	0.875	119	0.011	83.72	8.70	250.86	250.27	0.41	0.34	254.18	253.77
Inlet A25	MH8	1.92	1.92	0.45	0.86	0.86	15.00	19.10	5.10	1.00	4.91	4.41	1	1.5	0.005	1.77	4.71	0.375	43	0.013	7.16	4.05	250.47	250.27	0.08	0.18	251.85	251.77
MH8	MH9	0.00	25.19	0.45	0.00	11.34	0.00	19.27	5.08	1.00	0.00	57.62	1	3.5	0.005	9.62	11.00	0.875	122	0.011	84.07	8.74	248.27	247.66	0.29	0.23	251.45	251.16
MH9	Inlet A26	0.00	25.19	0.45	0.00	11.34	0.00	19.51	5.05	1.00	0.00	57.29	1	3.5	0.005	9.62	11.00	0.875	119	0.013	70.84	7.36	245.66	245.07	0.39	0.32	248.96	248.57
Inlet A26	OUT	1.84	27.03	0.45	0.83	12.16	15.00	19.78	5.02	1.00	4.71	61.08	1	3.5	0.005	9.62	11.00	0.875	132	0.011	84.07	8.74	241.81	241.15	0.35	0.26	245.00	244.65

Starting TW Elevation: 244.65

100 Year

Inlet Info

Inlet/MH From	Inlet/MH To	Drainage Area	Total Drainage Area	Runoff Co. "C"	DA C*A	Total C*A	Drainage Area Time of Conc. (Min)	Total Time of Conc. (Min)	Intensity (I)	Cf	Drainage Area Flow (cfs)	Total Flow (cfs)	Number of Barrels	Diameter (ft)	Slope	Area (A)	Perimeter (P)	R=(A/P)	Length (ft)	Roughness (n)	$Q_{capacity}$ (CFS)	$V_{full\ flow}$ (FPS)	HGL Upstream FL	HGL Downstream FL	Change In Head (ft)	Hydraulic Gradeline %	Elevation of Hyd. Grad. Upstream (ft)	Elevation of Hyd. Grad. Downstream(ft)
Inlet A1	Inlet A2	0.84	0.84	0.45	0.38	0.38	5.00	5.00	14.57	1.25	6.89	6.89	1	1.5	0.007	1.77	4.71	0.375	28	0.013	8.87	5.02	279.38	279.18	0.12	0.43	283.58	283.46
Inlet A2	MH1	2.93	3.77	0.45	1.32	1.70	14.00	14.00	10.15	1.25	16.73	21.52	1	2	0.005	3.14	6.28	0.500	200	0.011	18.81	5.99	279.18	278.19	1.30	0.65	283.46	282.17
MH1	Inlet A4	0.00	3.77	0.45	0.00	1.70	0.00	14.56	9.98	1.25	0.00	21.17	1	2	0.005	3.14	6.28	0.500	42	0.011	18.90	6.02	278.19	277.98	0.26	0.63	282.17	281.90
Inlet A3	Inlet A4	0.15	0.15	0.45	0.07	0.07	5.00	5.00	14.57	1.25	1.23	1.23	1	1.5	0.007	1.77	4.71	0.375	28	0.013	8.87	5.02	279.18	278.98	0.00	0.01	281.91	281.90
Inlet A4	Inlet A5	0.10	4.02	0.45	0.05	1.81	5.00	14.67	9.95	1.25	0.82	22.50	1	2	0.005	3.14	6.28	0.500	324	0.011	18.90	6.02	277.98	276.36	2.29	0.71	281.90	279.61
Inlet A5	Inlet A6	0.23	4.25	0.45	0.10	1.91	5.00	15.57	9.69	1.25	1.89	23.17	1	2	0.005	3.14	6.28	0.500	37	0.011	19.15	6.10	276.36	276.17	0.28	0.75	279.61	279.33
Inlet A6	Inlet A10	1.47	4.88	0.45	0.66	2.20	14.00	15.67	9.67	1.25	8.39	26.53	1	2.5	0.005	4.91	7.85	0.625	28	0.013	29.00	5.91	276.17	276.03	0.12	0.42	279.33	279.21
Inlet A7	Inlet A8	1.46	1.46	0.45	0.66	0.66	13.00	13.00	10.47	1.25	8.60	8.60	1	1.5	0.007	1.77	4.71	0.375	28	0.013	8.87	5.02	278.68	278.48	0.19	0.67	280.51	280.32
Inlet A8	Inlet A10	1.38	2.84	0.45	0.62	1.28	13.00	13.09	10.44	1.25	8.13	16.67	1	2	0.005	3.14	6.28	0.500	285	0.011	18.73	5.96	278.48	277.08	1.11	0.39	280.32	279.21
Inlet A9	Inlet A10	0.53	0.53	0.45	0.24	0.24	5.00	5.00	14.57	1.25	4.34	4.34	1	1.5	0.004	1.77	4.71	0.375	57	0.013	6.22	3.52	277.23	277.03	0.10	0.17	279.31	279.21
Inlet A10	MH2	1.36	10.45	0.45	0.61	4.70	14.00	16.37	9.48	1.25	7.76	55.72	1	2.5	0.005	4.91	7.85	0.625	60	0.011	34.27	6.98	276.03	275.73	0.79	1.32	279.21	278.42
MH2	Inlet A12	0.00	10.45	0.45	0.00	4.70	0.00	16.46	9.45	1.25	0.00	55.58	1	2.5	0.005	4.91	7.85	0.625	301	0.011	34.33	6.99	272.80	271.29	3.96	1.31	278.42	274.46
Inlet A11	Inlet A12	1.25	1.25	0.45	0.56	0.56	5.00	5.00	14.57	1.25	10.25	10.25	1	2	0.006	3.14	6.28	0.500	32	0.013	17.88	5.69	271.49	271.29	0.07	0.21	274.46	274.40
Inlet A12	Inlet A13	0.48	12.18	0.45	0.22	5.48	5.00	16.55	9.43	1.25	3.93	64.63	1	2.5	0.005	4.91	7.85	0.625	35	0.011	33.78	6.88	270.82	270.65	0.62	1.78	275.02	274.40
Inlet A13	Inlet A16	1.40	13.58	0.45	0.63	6.11	14.00	16.64	9.41	1.25	7.99	71.87	1	3	0.005	7.07	9.42	0.750	28	0.013	47.16	6.67	270.18	270.04	0.33	1.16	274.40	274.07
Inlet A14	Inlet A15	1.32	1.32	0.45	0.59	0.59	13.00	13.00	10.47	1.25	7.77	7.77	1	1.5	0.007	1.77	4.71	0.375	28	0.013	8.87	5.02	273.61	273.41	0.15	0.55	278.57	278.42
Inlet A15	Inlet A16	1.29	2.61	0.45	0.58	1.17	13.00	13.09	10.47	1.25	7.60	15.32	1	1.5	0.005	1.77	4.71	0.375	285	0.011	8.60	4.87	273.41	272.04	4.34	1.52	278.42	274.07
Inlet A16	MH3	1.25	17.44	0.45	0.56	7.85	14.00	17.61	9.16	1.25	7.14	89.90	1	3	0.005	7.07	9.42	0.750	60	0.011	55.73	7.88	270.04	269.74	0.78	1.30	274.07	273.29
MH3	Inlet A19	0.00	17.44	0.45	0.00	7.85	0.00	17.74	9.13	1.25	0.00	89.60	1	3	0.005	7.07	9.42	0.750	69	0.011	55.33	7.83	269.74	269.40	0.89	1.29	273.29	272.40
Inlet A17	Inlet A18	0.12	0.12	0.45	0.05	0.05	5.00	5.00	14.57	1.25	0.98	0.98	1	1.5	0.007	1.77	4.71	0.375	28	0.013	8.87	5.02	270.18	269.98	0.00	0.01	272.71	272.71
Inlet A18	Inlet A19	0.52	0.64	0.45	0.23	0.29	5.00	5.09	14.49	1.25	4.26	5.22	1	1.5	0.005	1.77	4.71	0.375	228	0.011	8.78	4.97	270.54	269.40	0.40	0.18	272.71	272.31
Inlet A19	Inlet A20	0.18	18.26	0.45	0.08	8.22	5.00	17.89	9.10	1.25	1.48	93.44	1	3	0.005	7.07	9.42	0.750	28	0.013	47.16	6.67	268.90	268.76	0.55	1.95	272.31	271.76
Inlet A20	MH4	0.58	18.84	0.45	0.26	8.48	5.00	17.96	9.08	1.25	4.75	96.23	1	3	0.005	7.07	9.42	0.750	60	0.011	55.73	7.88	266.37	266.07	0.89	1.48	271.75	270.85
MH4	MH5	0.00	18.84	0.45	0.00	8.48	0.00	18.08	9.05	1.25	0.00	95.91	1	3	0.005	7.07	9.42	0.750	135	0.011	55.53	7.86	264.07	263.40	2.00	1.47	270.85	268.85
Inlet A21	MH5	1.12	1.12	0.45	0.50	0.50	12.00	12.00	10.81	1.25	6.81	6.81	1	1.5	0.005	1.77	4.71	0.375	44	0.011	8.78	4.97	267.44	267.22	0.13	0.30	268.85	268.72
MH5	Inlet A22	0.00	19.96	0.45	0.00	8.98	0.00	18.37	8.98	1.25	0.00	100.86	1	3	0.005	7.07	9.42	0.750	138	0.011	55.73	7.88	261.40	260.71	2.26	1.63	265.97	263.71
Inlet A22	MH6	1.11	21.07	0.45	0.50	9.48	13.00	18.38	8.98	1.25	6.54	106.45	1	3	0.005	7.07	9.42	0.750	87	0.011	56.05	7.93	258.71	258.27	1.59	1.81	262.86	261.27
Inlet A23	MH6	1.80	1.80	0.45	0.81	0.81	14.00	14.00	10.15	1.25	10.28	10.28	1	1.5	0.005	1.77	4.71	0.375	37	0.013	7.72	4.37	260.11	259.91	0.35	0.95	261.76	261.41
MH6	MH7	0.00	22.87	0.45	0.00	10.29	0.00	18.56	8.94	1.25	0.00	115.00	1	3.5	0.005	9.62	11.00	0.875	152	0.011	84.07	8.74	256.27	255.51	1.42	0.93	260.43	259.01
MH7	Inlet A24	0.00	22.87	0.45	0.00	10.29	0.00	18.85	8.87	1.25	0.00	114.14	1	3.5	0.005	9.62	11.00	0.875	130	0.011	84.07	8.74	253.51	252.86	1.20	0.92	257.56	256.36
Inlet A24	MH8	0.40	23.27	0.45	0.18	10.47	10.00	10.00	11.60	1.25	2.61	151.78	1	3.5	0.005	9.62	11.00	0.875	119	0.011	83.72	8.70	250.86	250.27	1.94	1.62	255.71	253.77
Inlet A25	MH8	1.92	1.92	0.45	0.86	0.86	15.00	19.10	8.82	1.25	10.64	9.52	1	1.5	0.005	1.77	4.71	0.375	43	0.013	7.16	4.05	250.47	250.27	0.35	0.82	252.85	252.49
MH8	MH9	0.00	25.19	0.45	0.00	11.34	0.00	19.27	8.78	1.25	0.00	124.37	1	3.5	0.005	9.62	11.00	0.875	122	0.011	84.07	8.74	248.27	247.66	1.33	1.09	252.49	251.16
MH9	Inlet A26	0.00	25.19	0.45	0.00	11.34	0.00	19.51	8.71	1.25	0.00	123.64	1	3.5	0.005	9.62	11.00	0.875	119	0.013	70.84	7.36	245.66	245.07	1.80	1.50	250.37	248.57
Inlet A26	OUT	1.84	27.03	0.45	0.83	12.16	15.00	19.78	8.67	1.25	10.20	131.77	1	3.5	0.005	9.62	11.00	0.875	132	0.011	84.07	8.74	241.81	241.15	1.62	1.22	247.62	246.00

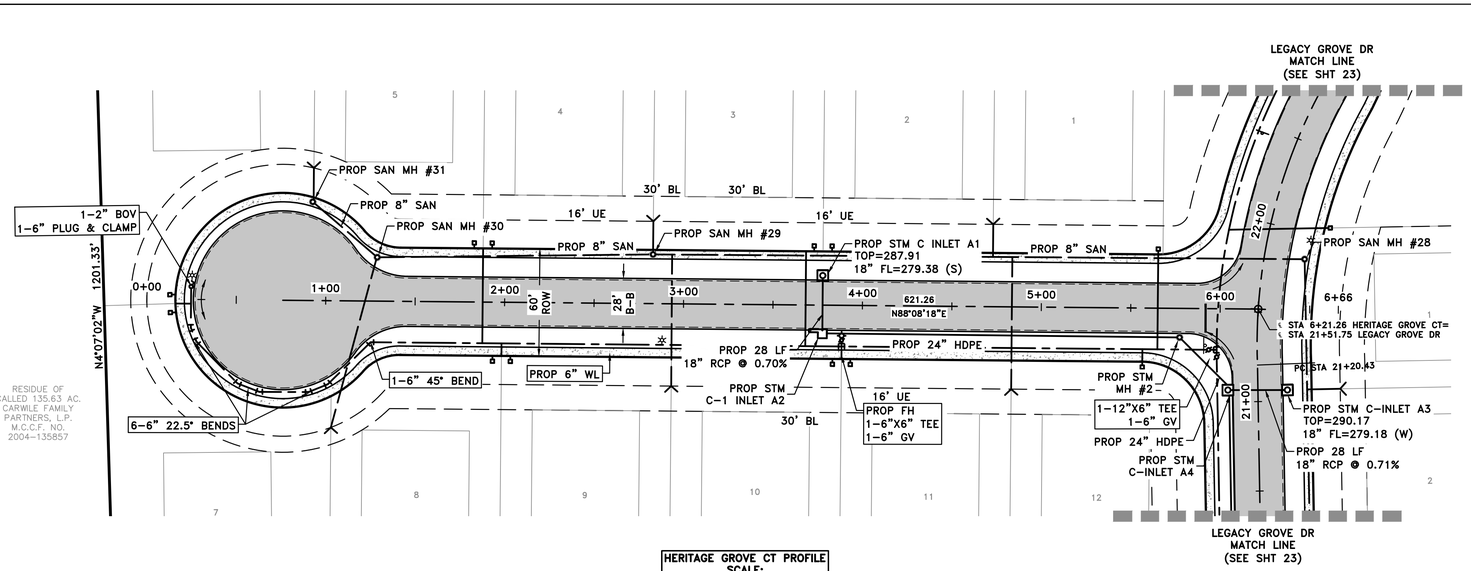
Starting TW Elevation: 246.00

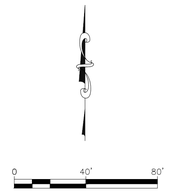
SYSTEM B

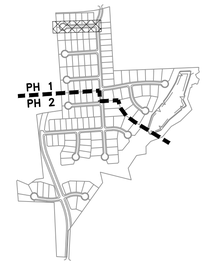
5 Year

Inlet Info

Inlet/MH From	Inlet/MH To	Drainage Area	Total Drainage Area	Runoff Co. "C"	DA C*A	Total C*A	Drainage Area Time of Conc. (Min)	Total Time of Conc. (Min)	Intensity (I)	Cf	Drainage Area Flow (cfs)	Total Flow (cfs)	Number of Barrels	Culvert Size (ft)	Slope	Area (A)	Perimeter (P)	R=(A/P)	Length (ft)	Roughness (n)	$Q_{capacity}$ (CFS)	$V_{full\ flow}$ (FPS)	HGL Upstream FL	HGL Downstream FL	Change In Head (ft)	Hydraulic Gradeline %	Elevation of Hyd. Grad. Upstream (ft)	Elevation of Hyd. Grad. Downstream(ft)
Inlet B1	Inlet B2	0.58	0.58	0.45	0.26	0.26	5.00	5.00	8.32	1.00	2.17	2.17	1	1.5	0.005	1.77	4.71	0.375	37	0

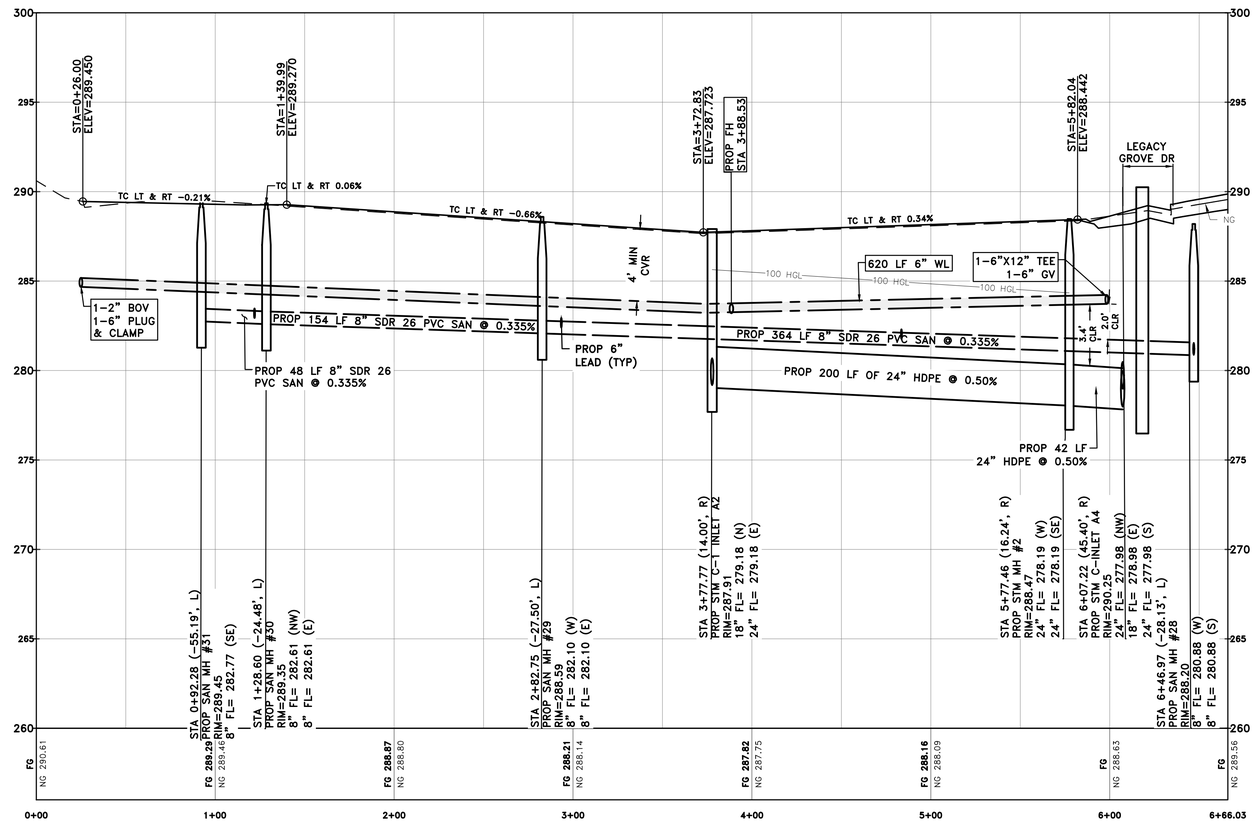






LOCATION MAP
N.T.S.

HERITAGE GROVE CT PROFILE
SCALE:
1"=40' HORIZ
1"=4' VERT



SAN LEAD TABLE			
STATION & OFFSET	LENGTH	START FL	END FL
0+92.74, -74.13	17.78	283.03	282.85
1+03.50, 70.83	96.69	283.69	282.72
2+82.74, -46.02	16.52	282.34	282.17
2+93.53, 46.00	73.52	282.88	282.14
4+72.74, -46.04	18.20	281.73	281.54
4+83.57, 46.00	73.85	282.25	281.51

LEGEND:

- 1" DOUBLE WATER METER
- 1" SINGLE WATER METER
- 6" DOUBLE SAN SWR LEAD
- 4" SINGLE SAN SWR LEAD

NOTES:

1. ALL LONGSIDE LEADS SHALL INCLUDE STACKS, RISERS, TEES, WYES, AND ALL APPURTENANCES TO END AT A DEPTH OF 4'-5' BELOW NATURAL GROUND. (SEE DETAIL SHT. 35)
2. ALL SANITARY SEWER SERVICE LINES TO BE 1% SLOPE, UNLESS OTHERWISE NOTED
3. ALL FIRE HYDRANTS TO BE LOCATED 3' BEHIND BACK OF CURB WITH BOTTOM FLANGE 3" ABOVE TOP OF CURB.
4. ALL UTILITY LEADS UNDER PAVEMENT IN CUL-DE-SACS AND/OR KNUCKLES TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
5. SEE PROFILE FOR ACTUAL LOCATION OF EACH WATERLINE APPURTENANCE. PROFILE VIEW GOVERNS OVER PLAN VIEW.
6. HGL IS FOR THE 100-YR EVENT IN STORM SEWER.
7. WATER AND SANITARY SHALL MAINTAIN 9' SEPARATION.
8. STORM AND SANITARY SHALL MAINTAIN 5' SEPARATION.
9. 4"X12" CURB TO BE IN FRONT OF ALL LOTS, AND 6" CURBS TO BE LOCATED ON ALL SIDE LOT, MEDIANS, ECT.
10. ALL UTILITY LEADS UNDER PAVEMENT TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
11. ALL MANHOLES TO BE SET TO FINISHED GRADE WITH A MINIMUM OF 6" OF ADJUSTMENT RINGS.
12. ALL TOP OF CURB ELEVATIONS ARE BASED ON 4" CURB. CONTRACTOR SHALL ADD .17 FEET TO THE TOP OF CURB ELEVATIONS SHOWN ON PLANS TO DETERMINE TOP OF CURB ELEVATIONS WHERE 6" CONCRETE CURB IS PROPOSED.
13. ALL PUBLIC WATERLINES SHALL BE C-900 DR-18 PVC UNLESS OTHERWISE NOTED.
14. ALL PUBLIC SEWER LINES SHALL BE SDR-26 PVC UNLESS OTHERWISE NOTED.
15. CONTRACTOR TO STAMP THE FACE OF THE CURB "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12230
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUITE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D
HERITAGE GROVE CT PLAN AND PROFILE 0+00-END

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

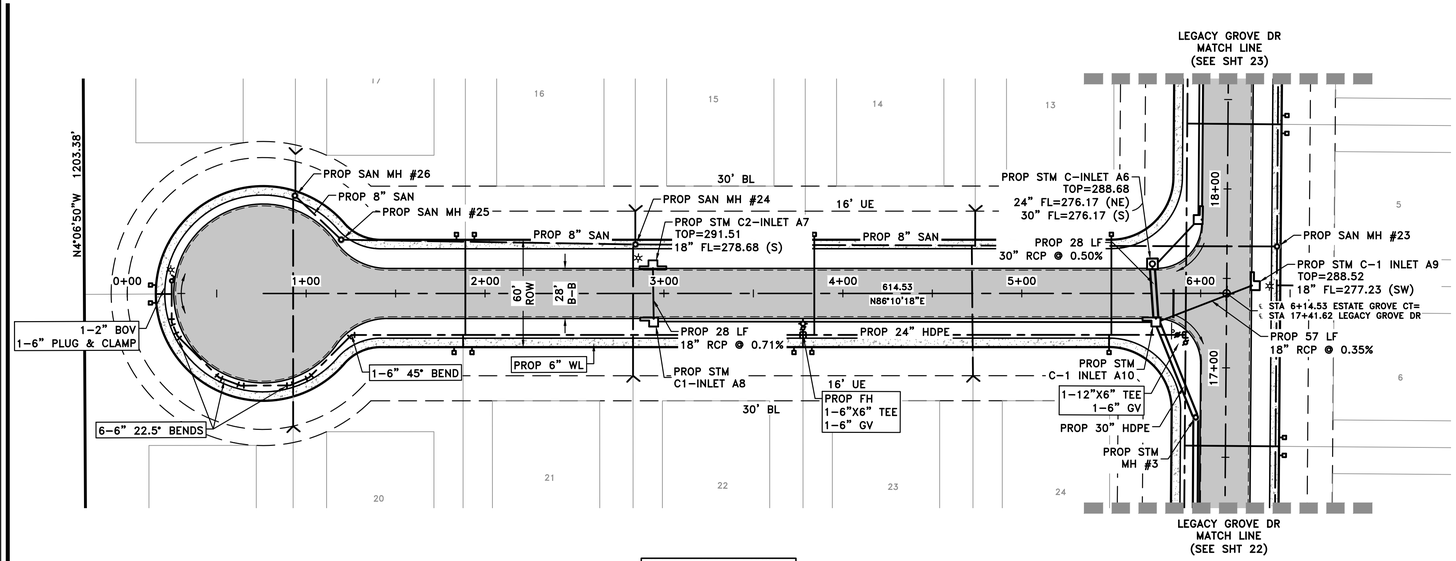
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 40' (24x36) 1" = 80' (11x17)	SHEET	16

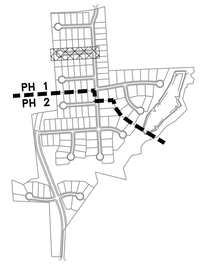
STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

Jonathan Payne 04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

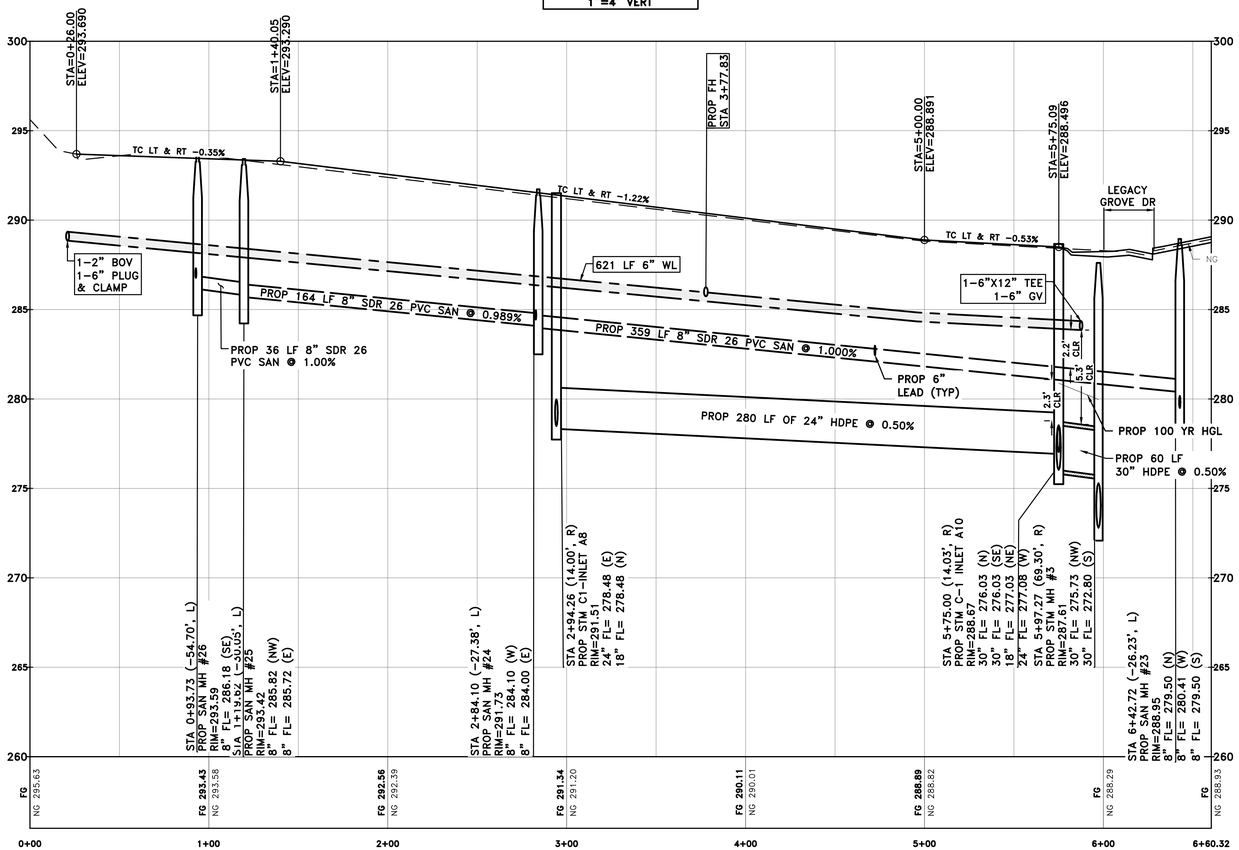
L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\10 STREET A P&P.DWG Apr. 30, 2025--8:07 AM LAURYN JOHNSON





LOCATION MAP
N.T.S.

ESTATE GROVE CT PROFILE
SCALE:
1"=40' HORIZ
1"=4' VERT



SAN LEAD TABLE			
STATION & OFFSET	LENGTH	START FL	END FL
0+92.72, 74.14	127.13	287.53	286.26
0+94.01, -73.83	17.17	286.45	286.28
2+82.73, 46.00	71.86	284.91	284.19
2+84.01, -46.00	17.20	284.23	284.06
4+72.73, 46.00	72.51	282.92	282.20
4+74.01, -46.00	19.50	282.38	282.18

LEGEND:

- 1" DOUBLE WATER METER
- 1" SINGLE WATER METER
- 6" DOUBLE SAN SWR LEAD
- 4" SINGLE SAN SWR LEAD

NOTES:

1. ALL LONGSIDE LEADS SHALL INCLUDE STACKS, RISERS, TEES, WYES, AND ALL APPURTENANCES TO END AT A DEPTH OF 4'-5' BELOW NATURAL GROUND. (SEE DETAIL SHT. 35)
2. ALL SANITARY SEWER SERVICE LINES TO BE 1% SLOPE, UNLESS OTHERWISE NOTED
3. ALL FIRE HYDRANTS TO BE LOCATED 3' BEHIND BACK OF CURB WITH BOTTOM FLANGE 3" ABOVE TOP OF CURB.
4. ALL UTILITY LEADS UNDER PAVEMENT IN CUL-DE-SACS AND/OR KNUCKLES TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
5. SEE PROFILE FOR ACTUAL LOCATION OF EACH WATERLINE APPURTENANCE. PROFILE VIEW GOVERNS OVER PLAN VIEW.
6. HGL IS FOR THE 100-YR EVENT IN STORM SEWER.
7. WATER AND SANITARY SHALL MAINTAIN 9' SEPARATION.
8. STORM AND SANITARY SHALL MAINTAIN 5' SEPARATION.
9. 4"X12" CURB TO BE IN FRONT OF ALL LOTS, AND 6" CURBS TO BE LOCATED ON ALL SIDE LOT, MEDIANS, ECT.
10. ALL UTILITY LEADS UNDER PAVEMENT TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
11. ALL MANHOLES TO BE SET TO FINISHED GRADE WITH A MINIMUM OF 6" OF ADJUSTMENT RINGS.
12. ALL TOP OF CURB ELEVATIONS ARE BASED ON 4" CURB. CONTRACTOR SHALL ADD .17 FEET TO THE TOP OF CURB ELEVATIONS SHOWN ON PLANS TO DETERMINE TOP OF CURB ELEVATIONS WHERE 6" CONCRETE CURB IS PROPOSED.
13. ALL PUBLIC WATERLINES SHALL BE C-900 DR-18 PVC UNLESS OTHERWISE NOTED.
14. ALL PUBLIC SEWER LINES SHALL BE SDR-26 PVC UNLESS OTHERWISE NOTED.
15. CONTRACTOR TO STAMP THE FACE OF THE CURB "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUITE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D
ESTATE GROVE CT PLAN AND PROFILE 0+00-END

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

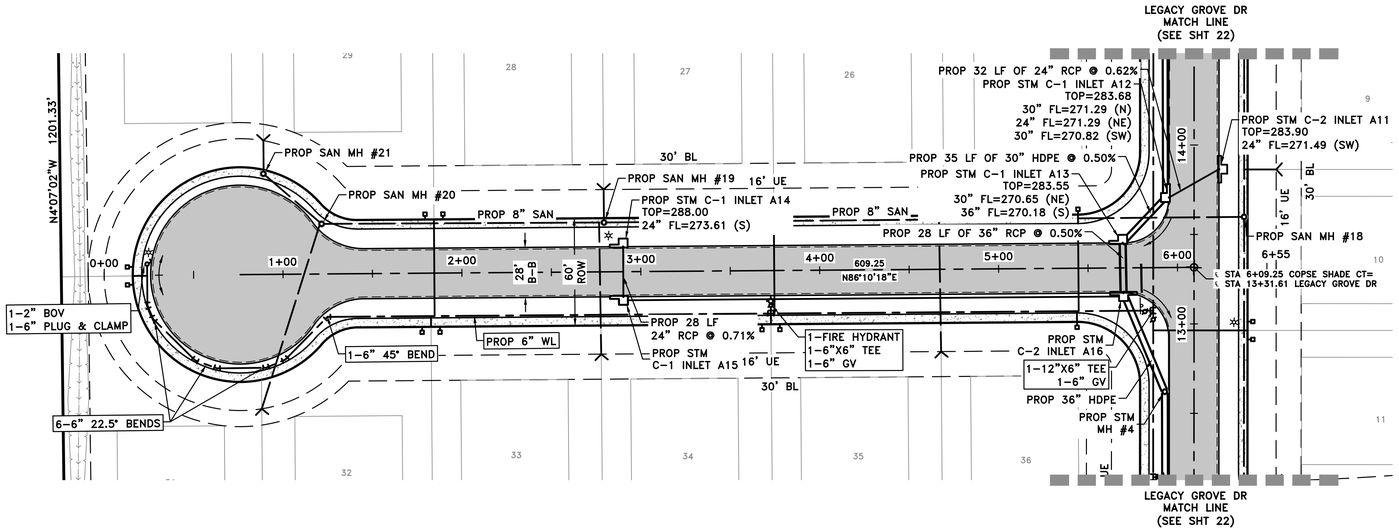
DRAWING INFORMATION

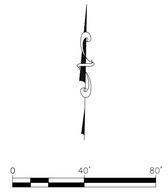
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 40' (24x36) 1" = 80' (11x17)	SHEET	17

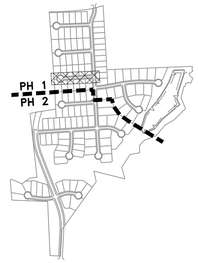
STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER
04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\11 STREET B P&P.DWG Apr. 30, 2025-8:02 AM LAURYN JOHNSON

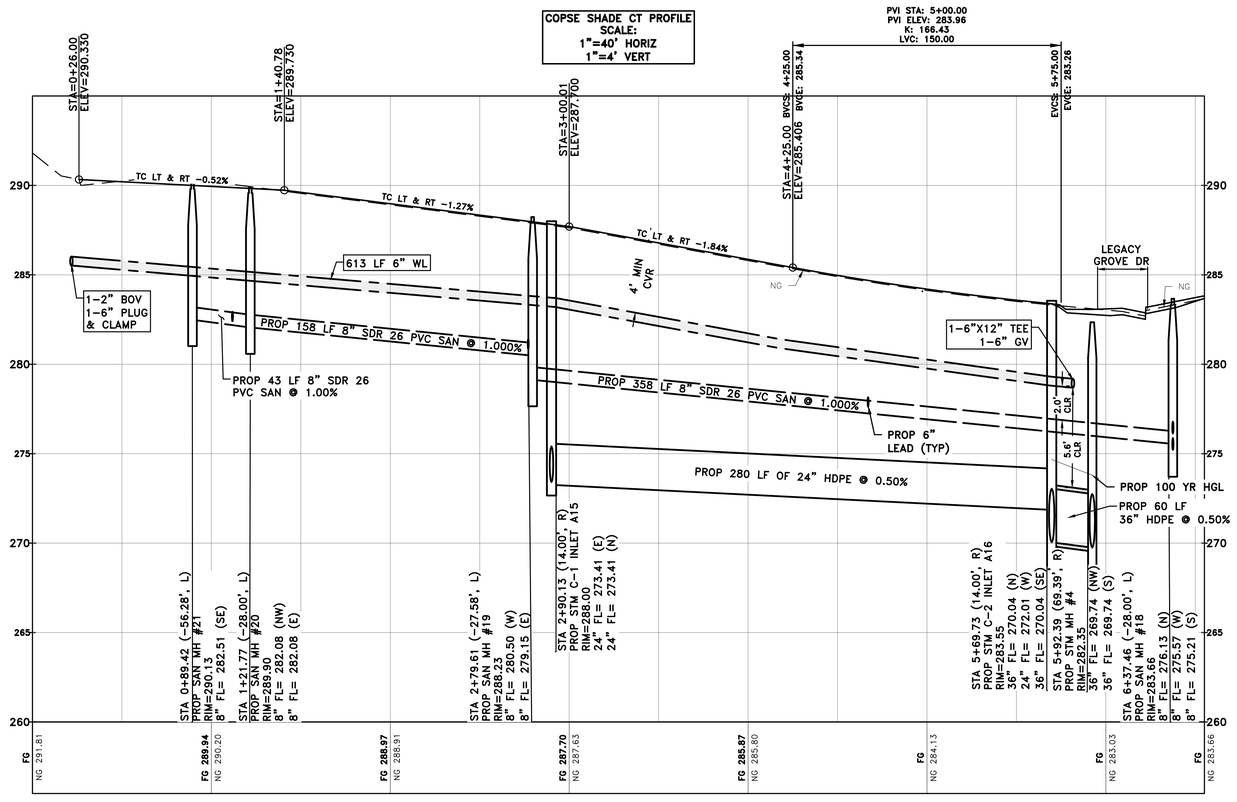






LOCATION MAP
N.T.S.

COPSE SHADE CT PROFILE
SCALE:
1"=40' HORIZ
1"=4' VERT



SAN LEAD TABLE			
STATION & OFFSET	LENGTH	START FL	END FL
0+87.52, 75.12	106.93	283.21	282.14
0+89.56, −74.78	16.33	282.74	282.58
2+77.51, 46.00	73.59	281.35	280.61
2+79.56, −46.00	16.42	279.38	279.21
4+67.52, 46.00	73.81	278.10	277.36
4+69.56, −46.00	18.20	277.51	277.33

Station	Elevation	Grade Percent (%)	Location
4+25.00	285.34'	−1.84%	PVC
4+26.00	285.32'	−1.83%	
4+36.00	285.14'	−1.80%	
4+46.00	284.96'	−1.74%	
4+56.00	284.80'	−1.68%	
4+66.00	284.63'	−1.62%	
4+76.00	284.48'	−1.56%	
4+86.00	284.33'	−1.50%	
4+96.00	284.18'	−1.44%	
5+00.00	284.13'	−1.40%	Sag
5+06.00	284.05'	−1.37%	
5+16.00	283.92'	−1.32%	
5+26.00	283.79'	−1.26%	
5+36.00	283.67'	−1.20%	
5+46.00	283.56'	−1.14%	
5+56.00	283.45'	−1.08%	
5+66.00	283.35'	−1.02%	
5+75.00	283.26'	−0.96%	PVT

LEGEND:

- 1" DOUBLE WATER METER
- 1" SINGLE WATER METER
- 6" DOUBLE SAN SWR LEAD
- 4" SINGLE SAN SWR LEAD

NOTES:

1. ALL LONGSIDE LEADS SHALL INCLUDE STACKS, RISERS, TEES, WYES, AND ALL APPURTENANCES TO END AT A DEPTH OF 4'-5' BELOW NATURAL GROUND. (SEE DETAIL SHT. 35)
2. ALL SANITARY SEWER SERVICE LINES TO BE 1% SLOPE, UNLESS OTHERWISE NOTED
3. ALL FIRE HYDRANTS TO BE LOCATED 3' BEHIND BACK OF CURB WITH BOTTOM FLANGE 3" ABOVE TOP OF CURB.
4. ALL UTILITY LEADS UNDER PAVEMENT IN CUL-DE-SACS AND/OR KNUCKLES TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
5. SEE PROFILE FOR ACTUAL LOCATION OF EACH WATERLINE APPURTENANCE. PROFILE VIEW GOVERNS OVER PLAN VIEW.
6. HGL IS FOR THE 100-YR EVENT IN STORM SEWER.
7. WATER AND SANITARY SHALL MAINTAIN 9' SEPARATION.
8. STORM AND SANITARY SHALL MAINTAIN 5' SEPARATION.
9. 4"X12" CURB TO BE IN FRONT OF ALL LOTS, AND 6" CURBS TO BE LOCATED ON ALL SIDE LOT, MEDIANS, ECT.
10. ALL UTILITY LEADS UNDER PAVEMENT TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
11. ALL MANHOLES TO BE SET TO FINISHED GRADE WITH A MINIMUM OF 6" OF ADJUSTMENT RINGS.
12. ALL TOP OF CURB ELEVATIONS ARE BASED ON 4" CURB. CONTRACTOR SHALL ADD .17 FEET TO THE TOP OF CURB ELEVATIONS SHOWN ON PLANS TO DETERMINE TOP OF CURB ELEVATIONS WHERE 6" CONCRETE CURB IS PROPOSED.
13. ALL PUBLIC WATERLINES SHALL BE C-900 DR-18 PVC UNLESS OTHERWISE NOTED.
14. ALL PUBLIC SEWER LINES SHALL BE SDR-26 PVC UNLESS OTHERWISE NOTED.
15. CONTRACTOR TO STAMP THE FACE OF THE CURB "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 22320
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUITE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKWY / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D
COPSE SHADE CT PLAN AND PROFILE 0+00-END

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

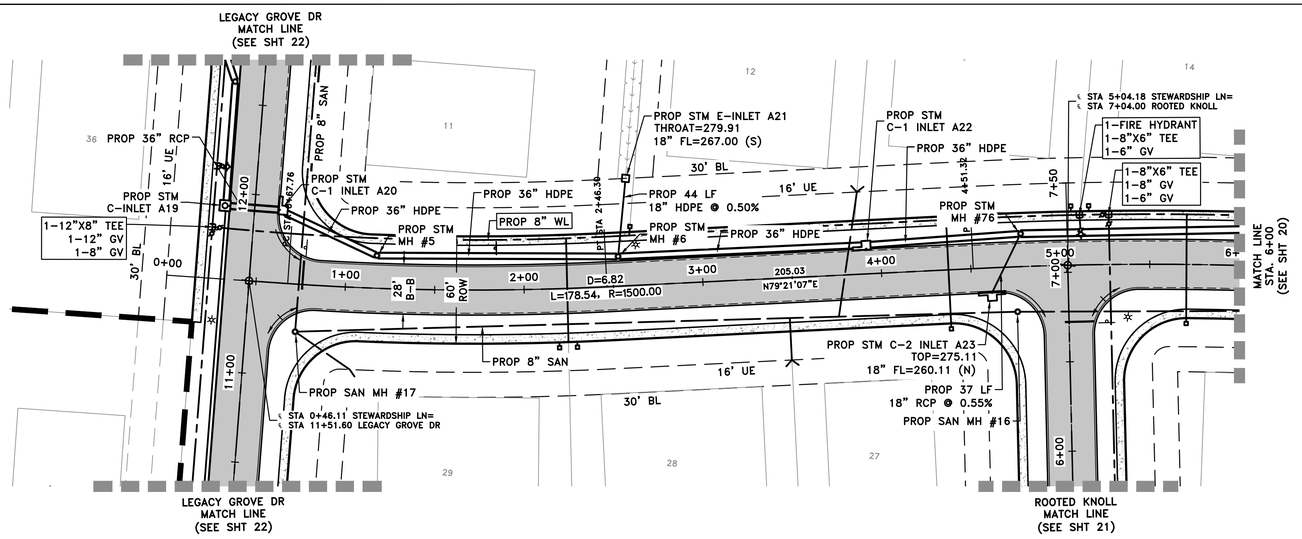
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 40' (24x36) 1" = 80' (11x17)	SHEET	18

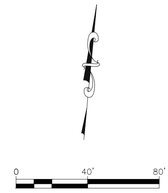
STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

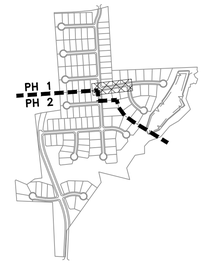
04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\12 STREET C P&P.DWG Apr. 30, 2025-8:03 AM LAURYN JOHNSON

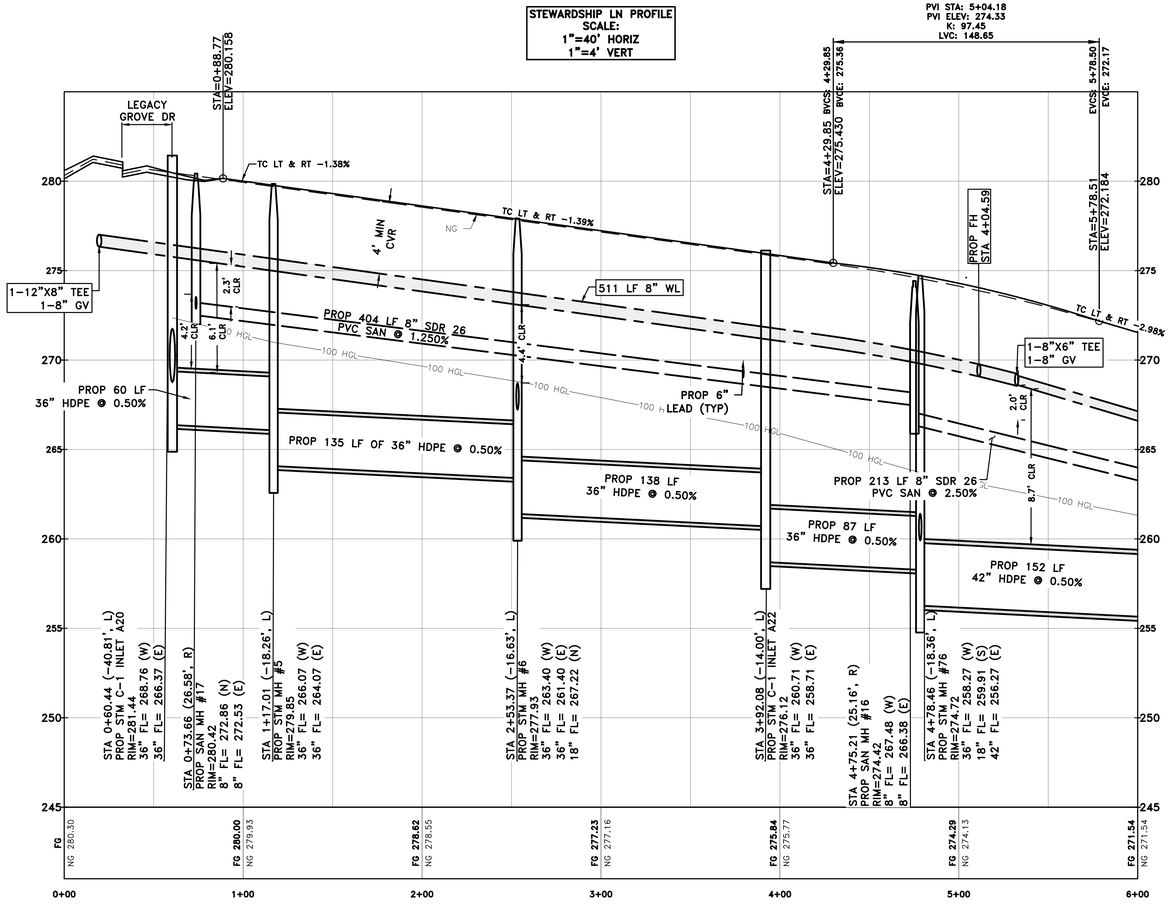






LOCATION MAP
N.T.S.

STEWARDSHIP LN PROFILE
SCALE:
1"=40' HORIZ
1"=4' VERT



SAN LEAD TABLE			
STATION & OFFSET	LENGTH	START FL	END FL
1+04.53, 46.00	35.11	272.94	272.59
3+47.54, 46.00	23.48	269.39	269.16
3+88.47, -46.00	70.42	269.52	268.81

Station	Elevation	Grade Percent (%)	Location
4+29.85	275.36'	-1.39%	PVC
4+32.61	275.32'	-1.40%	
4+42.61	275.17'	-1.47%	
4+52.61	275.02'	-1.58%	
4+62.61	274.85'	-1.68%	
4+72.61	274.67'	-1.79%	
4+82.61	274.48'	-1.90%	
4+92.61	274.28'	-2.01%	
5+02.61	274.07'	-2.11%	
5+04.18	274.03'	-2.18%	Crest
5+12.61	273.85'	-2.23%	
5+22.61	273.61'	-2.33%	
5+32.61	273.37'	-2.43%	
5+42.61	273.11'	-2.54%	
5+52.61	272.85'	-2.65%	
5+62.61	272.57'	-2.76%	
5+72.61	272.29'	-2.86%	
5+78.50	272.11'	-2.95%	PVT

LEGEND:

- 1" DOUBLE WATER METER
- 1" SINGLE WATER METER
- 6" DOUBLE SAN SWR LEAD
- 4" SINGLE SAN SWR LEAD

NOTES:

1. ALL LONGSIDE LEADS SHALL INCLUDE STACKS, RISERS, TEES, WYES, AND ALL APPURTENANCES TO END AT A DEPTH OF 4'-5' BELOW NATURAL GROUND. (SEE DETAIL SHT. 35)
2. ALL SANITARY SEWER SERVICE LINES TO BE 1% SLOPE, UNLESS OTHERWISE NOTED
3. ALL FIRE HYDRANTS TO BE LOCATED 3' BEHIND BACK OF CURB WITH BOTTOM FLANGE 3" ABOVE TOP OF CURB.
4. ALL UTILITY LEADS UNDER PAVEMENT IN CUL-DE-SACS AND/OR KNUCKLES TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
5. SEE PROFILE FOR ACTUAL LOCATION OF EACH WATERLINE APPURTENANCE. PROFILE VIEW GOVERNS OVER PLAN VIEW.
6. HGL IS FOR THE 100-YR EVENT IN STORM SEWER.
7. WATER AND SANITARY SHALL MAINTAIN 9' SEPARATION.
8. STORM AND SANITARY SHALL MAINTAIN 5' SEPARATION.
9. 4"X12" CURB TO BE IN FRONT OF ALL LOTS, AND 6" CURBS TO BE LOCATED ON ALL SIDE LOT, MEDIANS, ECT.
10. ALL UTILITY LEADS UNDER PAVEMENT TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
11. ALL MANHOLES TO BE SET TO FINISHED GRADE WITH A MINIMUM OF 6" OF ADJUSTMENT RINGS.
12. ALL TOP OF CURB ELEVATIONS ARE BASED ON 4" CURB. CONTRACTOR SHALL ADD .17 FEET TO THE TOP OF CURB ELEVATIONS SHOWN ON PLANS TO DETERMINE TOP OF CURB ELEVATIONS WHERE 6" CONCRETE CURB IS PROPOSED.
13. ALL PUBLIC WATERLINES SHALL BE C-900 DR-18 PVC UNLESS OTHERWISE NOTED.
14. ALL PUBLIC SEWER LINES SHALL BE SDR-26 PVC UNLESS OTHERWISE NOTED.
15. CONTRACTOR TO STAMP THE FACE OF THE CURB "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 W S&D
STEWARDSHIP LN PLAN AND PROFILE 0+00-6+00

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

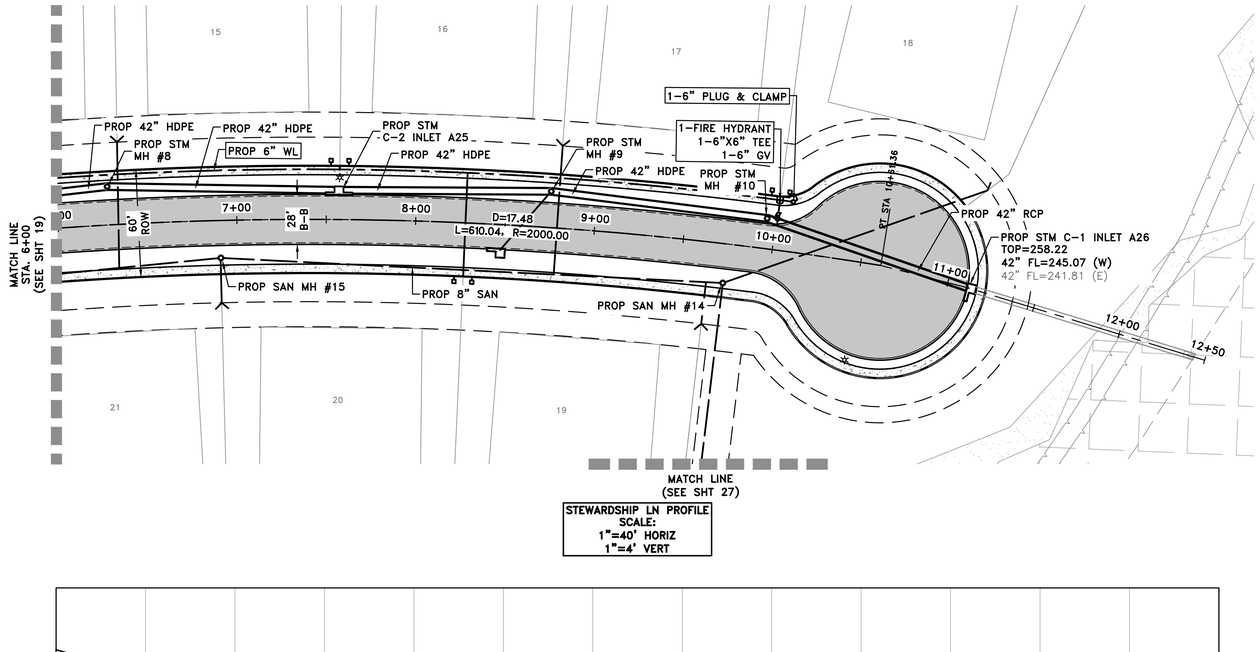
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 40' (24x36) 1" = 80' (11x17)	SHEET	19

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

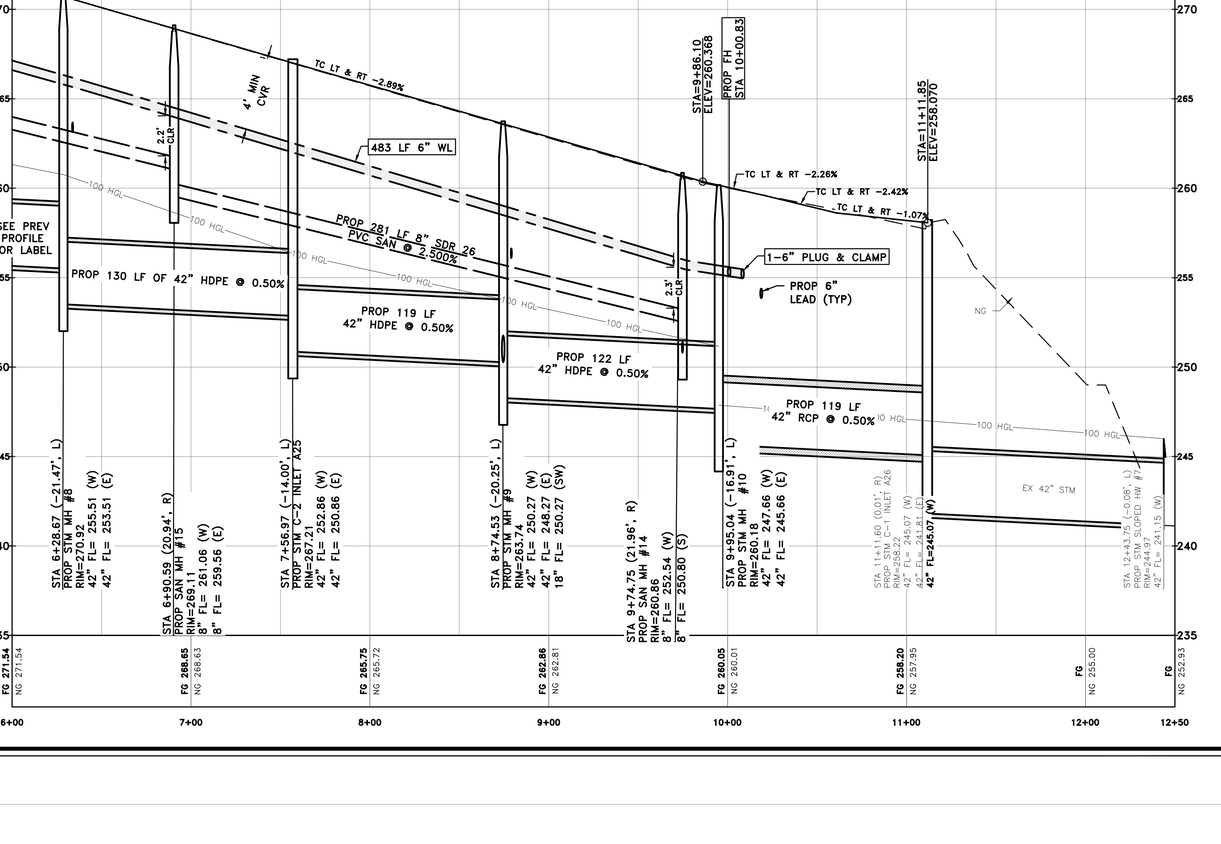
Jonathan Payne 04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

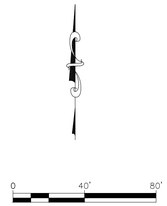
L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\13 STREET E P&P.DWG Apr. 30, 2025 - 8:06 AM LAURYN JOHNSON

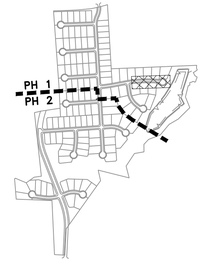


STEWARDSHIP LN PROFILE
SCALE:
1"=40' HORIZ
1"=4' VERT



SAN LEAD TABLE			
STATION & OFFSET	LENGTH	START FL	END FL
6+35.42, -46.00	70.38	264.27	262.57
6+90.45, 46.00	23.07	262.42	261.19
8+79.07, -46.00	72.05	258.11	254.99
11+08.66, -55.43	154.77	256.62	252.67





LOCATION MAP
N.T.S.

LEGEND:

1" DOUBLE WATER METER

1" SINGLE WATER METER

6" DOUBLE SAN SWR LEAD

4" SINGLE SAN SWR LEAD

NOTES:

1. ALL LONGSIDE LEADS SHALL INCLUDE STACKS, RISERS, TEES, WYES, AND ALL APPURTENANCES TO END AT A DEPTH OF 4'-5' BELOW NATURAL GROUND. (SEE DETAIL SHT. 35)
2. ALL SANITARY SEWER SERVICE LINES TO BE 1% SLOPE, UNLESS OTHERWISE NOTED
3. ALL FIRE HYDRANTS TO BE LOCATED 3' BEHIND BACK OF CURB WITH BOTTOM FLANGE 3" ABOVE TOP OF CURB.
4. ALL UTILITY LEADS UNDER PAVEMENT IN CUL-DE-SACS AND/OR KNUCKLES TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
5. SEE PROFILE FOR ACTUAL LOCATION OF EACH WATERLINE APPURTENANCE. PROFILE VIEW GOVERNS OVER PLAN VIEW.
6. HGL IS FOR THE 100-YR EVENT IN STORM SEWER.
7. WATER AND SANITARY SHALL MAINTAIN 9' SEPARATION.
8. STORM AND SANITARY SHALL MAINTAIN 5' SEPARATION.
9. 4"X12" CURB TO BE IN FRONT OF ALL LOTS, AND 6" CURBS TO BE LOCATED ON ALL SIDE LOT, MEDIANS, ECT.
10. ALL UTILITY LEADS UNDER PAVEMENT TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
11. ALL MANHOLES TO BE SET TO FINISHED GRADE WITH A MINIMUM OF 6" OF ADJUSTMENT RINGS.
12. ALL TOP OF CURB ELEVATIONS ARE BASED ON 4" CURB. CONTRACTOR SHALL ADD .17 FEET TO THE TOP OF CURB ELEVATIONS SHOWN ON PLANS TO DETERMINE TOP OF CURB ELEVATIONS WHERE 6" CONCRETE CURB IS PROPOSED.
13. ALL PUBLIC WATERLINES SHALL BE C-900 DR-18 PVC UNLESS OTHERWISE NOTED.
14. ALL PUBLIC SEWER LINES SHALL BE SDR-26 PVC UNLESS OTHERWISE NOTED.
15. CONTRACTOR TO STAMP THE FACE OF THE CURB "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D
STEWARDSHIP LN PLAN AND PROFILE 6+00-END

DRAWING ISSUE			
#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

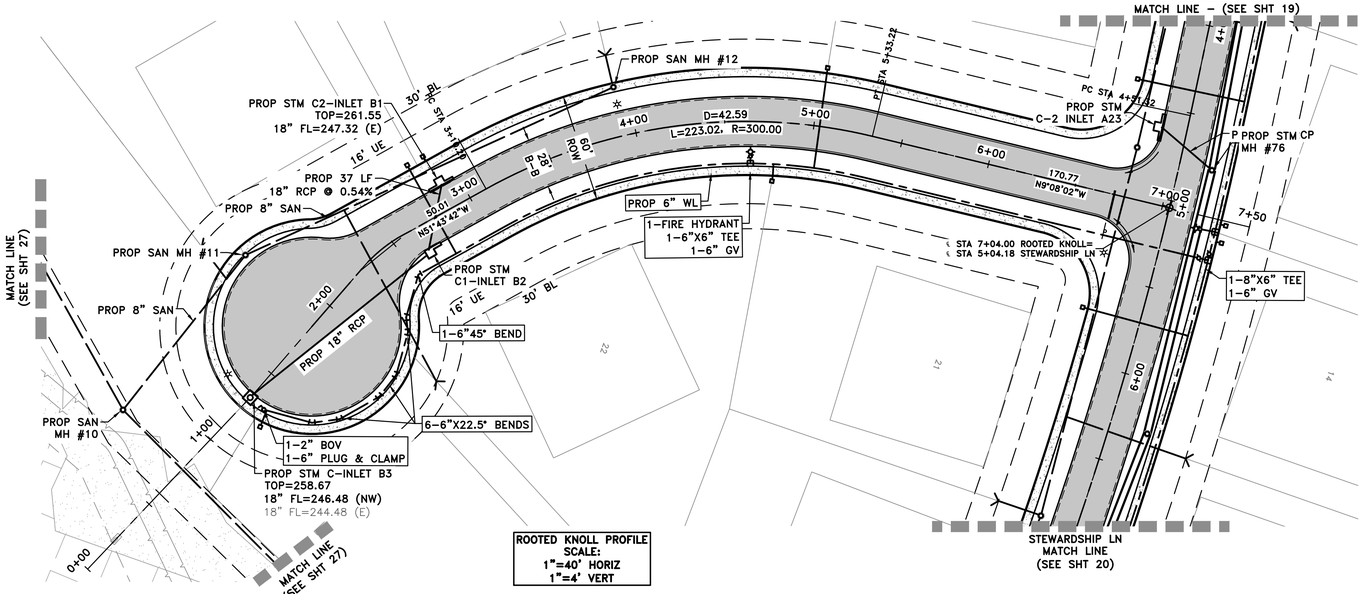
DRAWING INFORMATION			
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 40' (24x36) 1" = 80' (11x17)	SHEET	20

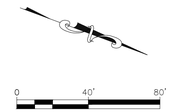
STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

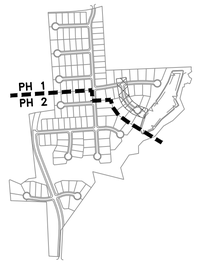
04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\13 STREET E P&P.DWG Apr. 30, 2025 - 8:03 AM LAURYN JOHNSON



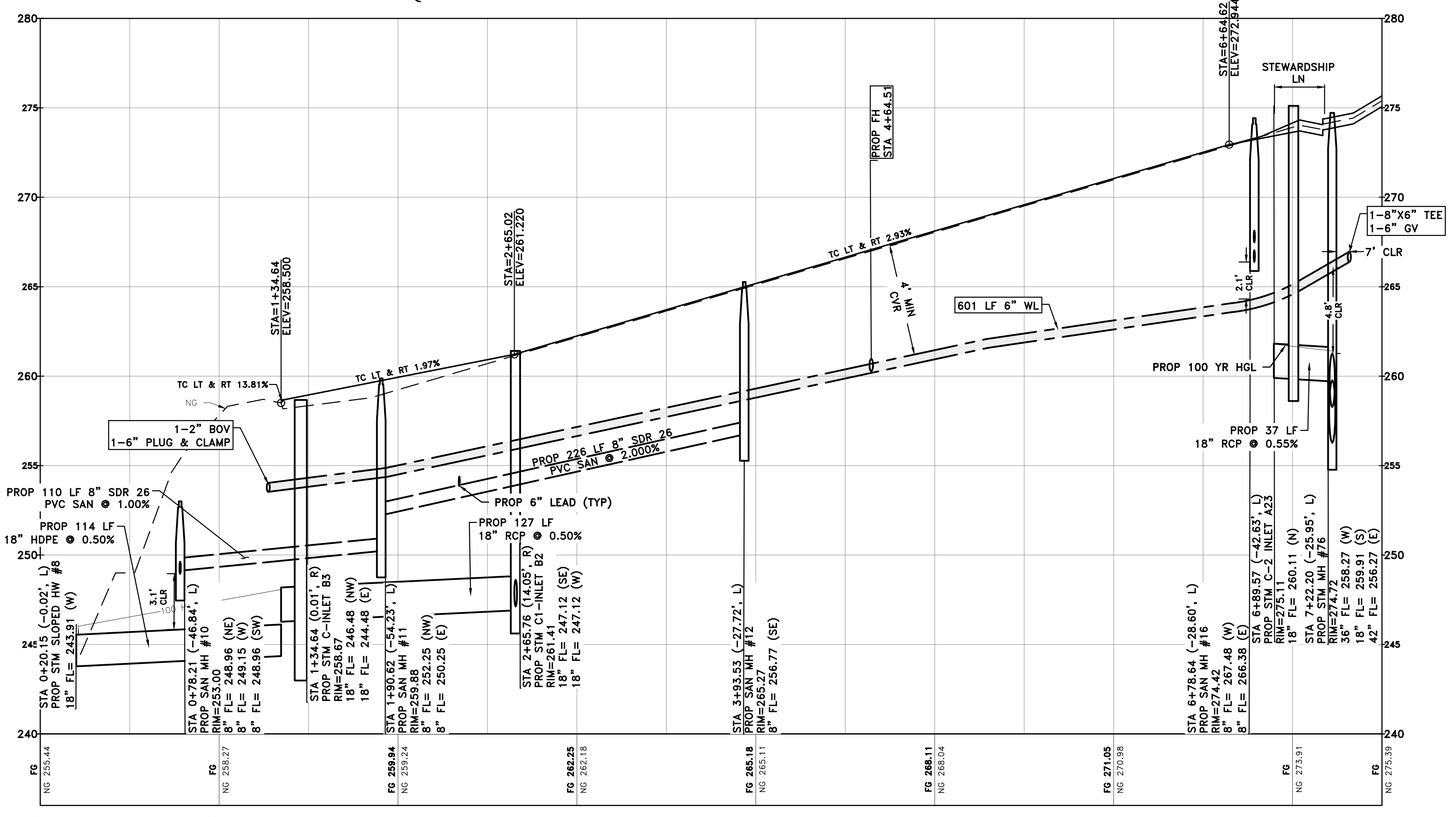




LOCATION MAP
N.T.S.

LEGEND:

- 1" DOUBLE WATER METER
- 1" SINGLE WATER METER
- 6" DOUBLE SAN SWR LEAD
- 4" SINGLE SAN SWR LEAD



SAN LEAD TABLE			
STATION & OFFSET	LENGTH	START FL	END FL
1+78.16, –75.73	22.71	251.39	251.16
2+07.12, 72.59	108.70	254.63	253.54
3+93.33, –46.00	16.00	256.97	256.81

NOTES:

1. ALL LONGSIDE LEADS SHALL INCLUDE STACKS, RISERS, TEES, WYES, AND ALL APPURTENANCES TO END AT A DEPTH OF 4'–5' BELOW NATURAL GROUND. (SEE DETAIL SHT. 35)
2. ALL SANITARY SEWER SERVICE LINES TO BE 1% SLOPE, UNLESS OTHERWISE NOTED
3. ALL FIRE HYDRANTS TO BE LOCATED 3' BEHIND BACK OF CURB WITH BOTTOM FLANGE 3" ABOVE TOP OF CURB.
4. ALL UTILITY LEADS UNDER PAVEMENT IN CUL–DE–SACS AND/OR KNUCKLES TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
5. SEE PROFILE FOR ACTUAL LOCATION OF EACH WATERLINE APPURTENANCE. PROFILE VIEW GOVERNS OVER PLAN VIEW.
6. HGL IS FOR THE 100–YR EVENT IN STORM SEWER.
7. WATER AND SANITARY SHALL MAINTAIN 9' SEPARATION.
8. STORM AND SANITARY SHALL MAINTAIN 5' SEPARATION.
9. 4"X12" CURB TO BE IN FRONT OF ALL LOTS, AND 6" CURBS TO BE LOCATED ON ALL SIDE LOT, MEDIANS, ECT.
10. ALL UTILITY LEADS UNDER PAVEMENT TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
11. ALL MANHOLES TO BE SET TO FINISHED GRADE WITH A MINIMUM OF 6" OF ADJUSTMENT RINGS.
12. ALL TOP OF CURB ELEVATIONS ARE BASED ON 4" CURB. CONTRACTOR SHALL ADD .17 FEET TO THE TOP OF CURB ELEVATIONS SHOWN ON PLANS TO DETERMINE TOP OF CURB ELEVATIONS WHERE 6" CONCRETE CURB IS PROPOSED.
13. ALL PUBLIC WATERLINES SHALL BE C–900 DR–18 PVC UNLESS OTHERWISE NOTED.
14. ALL PUBLIC SEWER LINES SHALL BE SDR–26 PVC UNLESS OTHERWISE NOTED.
15. CONTRACTOR TO STAMP THE FACE OF THE CURB "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D
ROOTED KNOLL PLAN AND PROFILE
0+00-END

DRAWING ISSUE			
#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

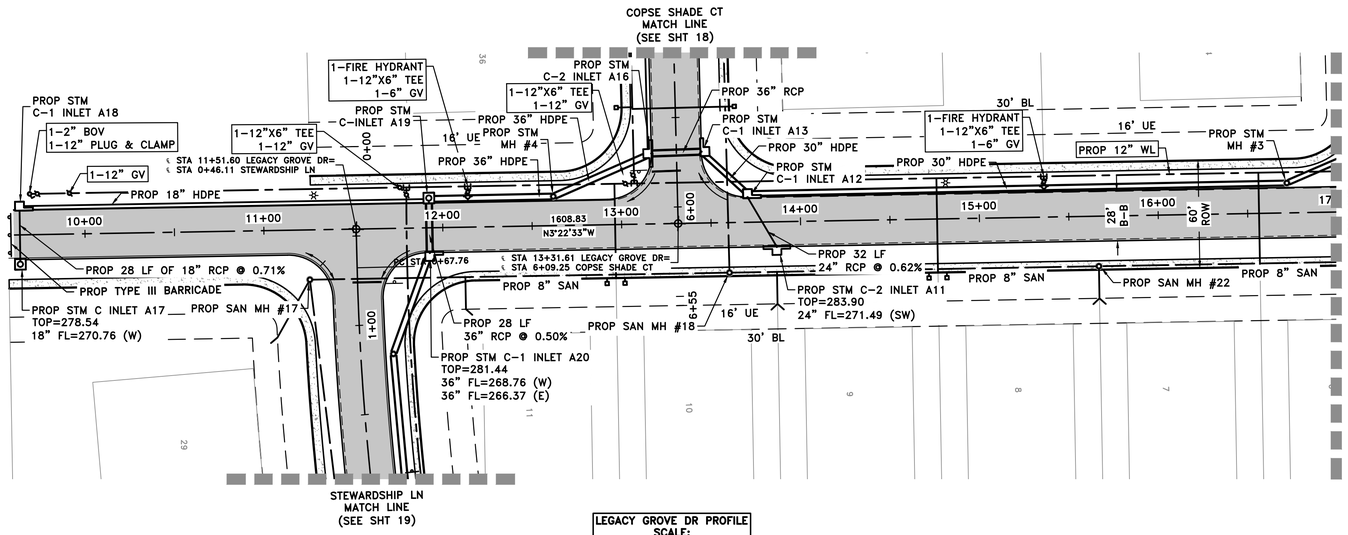
DRAWING INFORMATION			
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 40' (24x36) 1" = 80' (11x17)	SHEET	21

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

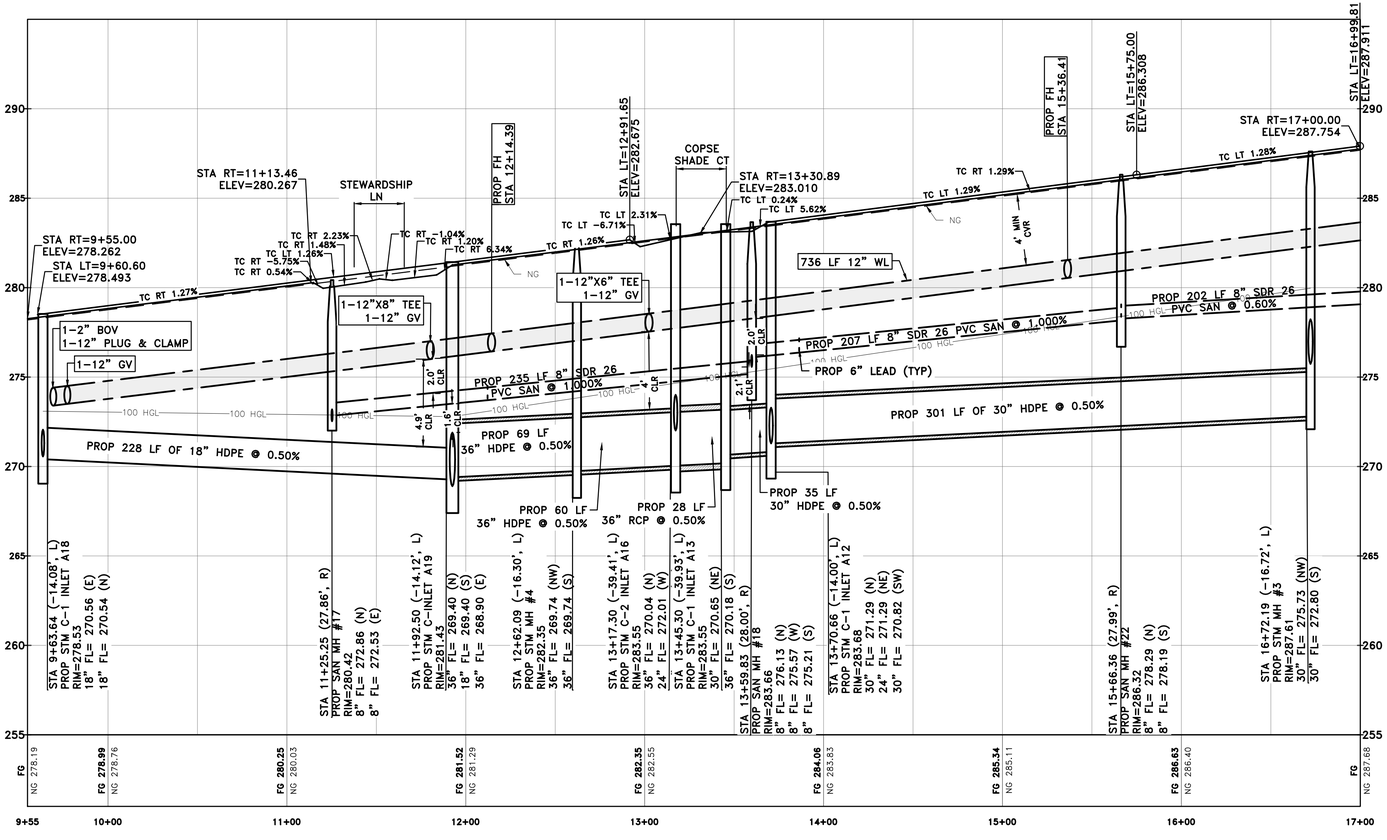
04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

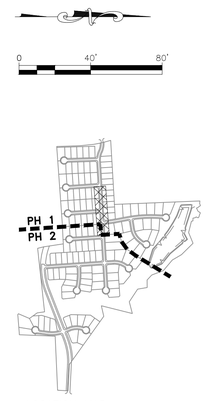
L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\14 STREET F P&P.DWG, Apr. 30, 2025–8:07 AM, LAURYN JOHNSON



LEGACY GROVE DR PROFILE
SCALE:
1"=40' HORIZ
1"=4' VERT



SAN LEAD TABLE			
STATION & OFFSET	LENGTH	START FL	END FL
12+12.17, 45.88	17.97	274.00	273.82
13+86.36, 45.90	17.91	276.65	276.47
15+66.36, 45.93	16.11	278.55	278.39



LOCATION MAP
N.T.S.

LEGEND:

- 1" DOUBLE WATER METER
- 1" SINGLE WATER METER
- 6" DOUBLE SAN SWR LEAD
- 4" SINGLE SAN SWR LEAD

NOTES:

1. ALL LONGSIDE LEADS SHALL INCLUDE STACKS, RISERS, TEES, WYES, AND ALL APPURTENANCES TO END AT A DEPTH OF 4'-5' BELOW NATURAL GROUND. (SEE DETAIL SHT. 35)
2. ALL SANITARY SEWER SERVICE LINES TO BE 1% SLOPE, UNLESS OTHERWISE NOTED
3. ALL FIRE HYDRANTS TO BE LOCATED 3' BEHIND BACK OF CURB WITH BOTTOM FLANGE 3" ABOVE TOP OF CURB.
4. ALL UTILITY LEADS UNDER PAVEMENT IN CUL-DE-SACS AND/OR KNUCKLES TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
5. SEE PROFILE FOR ACTUAL LOCATION OF EACH WATERLINE APPURTENANCE. PROFILE VIEW GOVERNS OVER PLAN VIEW.
6. HGL IS FOR THE 100-YR EVENT IN STORM SEWER.
7. WATER AND SANITARY SHALL MAINTAIN 9' SEPARATION.
8. STORM AND SANITARY SHALL MAINTAIN 5' SEPARATION.
9. 4"X12" CURB TO BE IN FRONT OF ALL LOTS, AND 6" CURBS TO BE LOCATED ON ALL SIDE LOT, MEDIANS, ECT.
10. ALL UTILITY LEADS UNDER PAVEMENT TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
11. ALL MANHOLES TO BE SET TO FINISHED GRADE WITH A MINIMUM OF 6" OF ADJUSTMENT RINGS.
12. ALL TOP OF CURB ELEVATIONS ARE BASED ON 4" CURB. CONTRACTOR SHALL ADD .17 FEET TO THE TOP OF CURB ELEVATIONS SHOWN ON PLANS TO DETERMINE TOP OF CURB ELEVATIONS WHERE 6" CONCRETE CURB IS PROPOSED.
13. ALL PUBLIC WATERLINES SHALL BE C-900 DR-18 PVC UNLESS OTHERWISE NOTED.
14. ALL PUBLIC SEWER LINES SHALL BE SDR-26 PVC UNLESS OTHERWISE NOTED.
15. CONTRACTOR TO STAMP THE FACE OF THE CURB "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D
LEGACY GROVE DR PLAN AND PROFILE 9+55-17+00

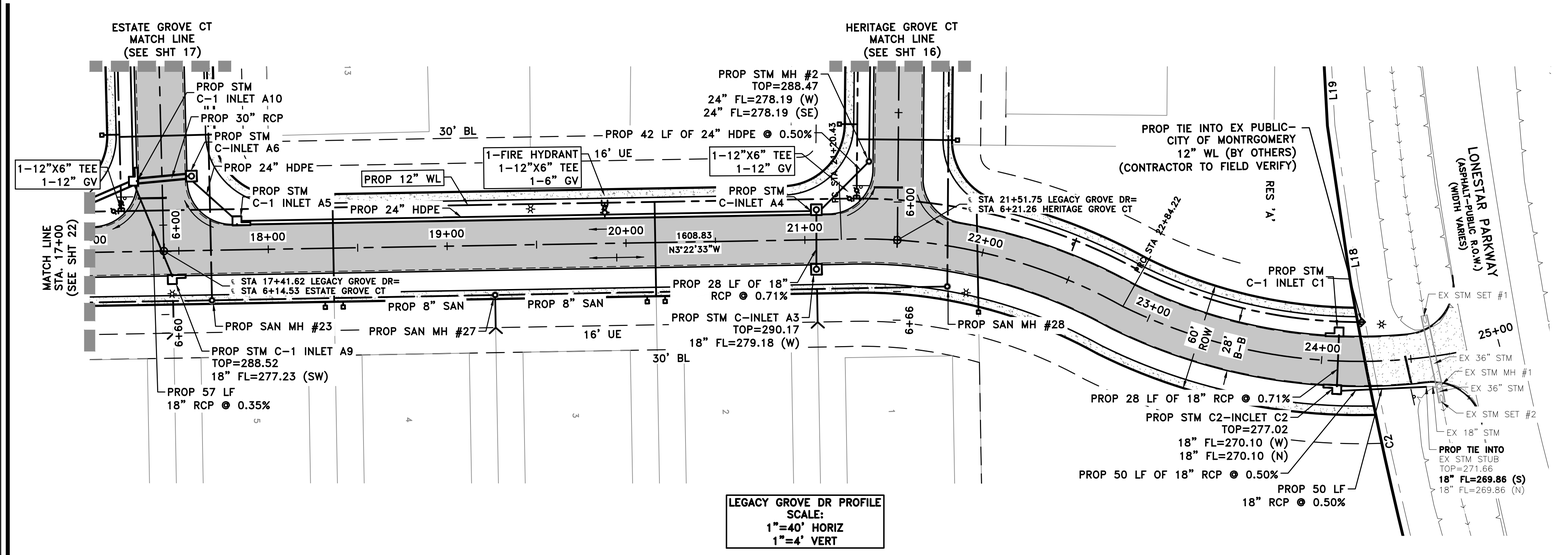
DRAWING ISSUE			
#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION			
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 40' (24x36) 1" = 80' (11x17)	SHEET	22

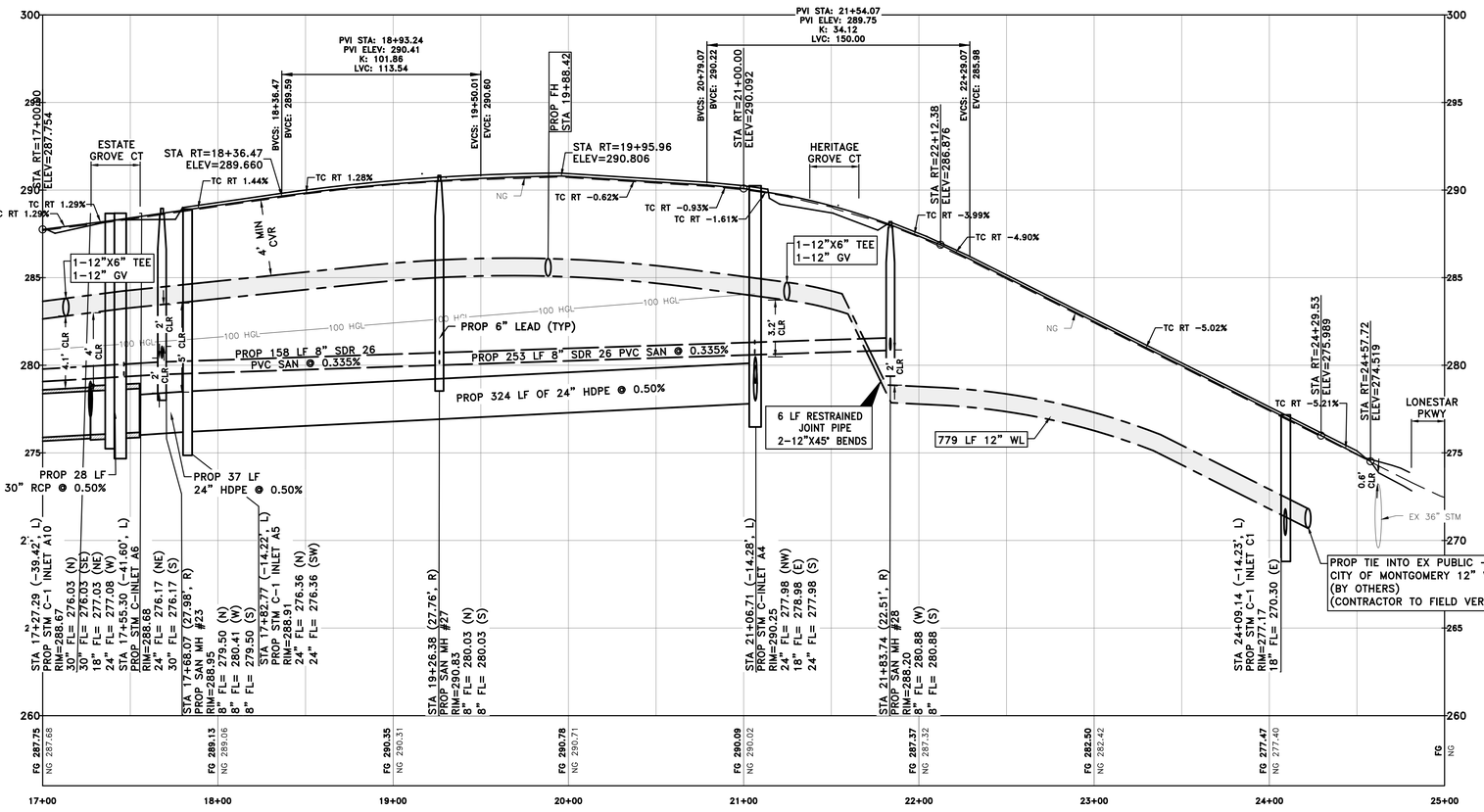
STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER
04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\15 STREET G P&P.DWG Apr. 30, 2025 - 8:05 AM LAURYN JOHNSON



LEGACY GROVE DR PROFILE
SCALE:
1"=40' HORIZ
1"=4' VERT

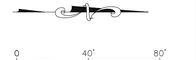


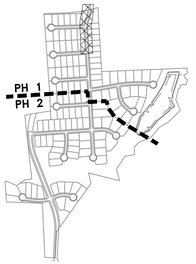
NOTES:

1. ALL LONGSIDE LEADS SHALL INCLUDE STACKS, RISERS, TEES, WYES, AND ALL APPURTENANCES TO END AT A DEPTH OF 4'-5' BELOW NATURAL GROUND. (SEE DETAIL SHT. 35)
2. ALL SANITARY SEWER SERVICE LINES TO BE 1% SLOPE, UNLESS OTHERWISE NOTED
3. ALL FIRE HYDRANTS TO BE LOCATED 3' BEHIND BACK OF CURB WITH BOTTOM FLANGE 3" ABOVE TOP OF CURB.
4. ALL UTILITY LEADS UNDER PAVEMENT IN CUL-DE-SACS AND/OR KNUCKLES TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
5. SEE PROFILE FOR ACTUAL LOCATION OF EACH WATERLINE APPURTENANCE. PROFILE VIEW GOVERNS OVER PLAN VIEW.
6. HGL IS FOR THE 100-YR EVENT IN STORM SEWER.
7. WATER AND SANITARY SHALL MAINTAIN 9' SEPARATION.
8. STORM AND SANITARY SHALL MAINTAIN 5' SEPARATION.
9. 4"X12" CURB TO BE IN FRONT OF ALL LOTS, AND 6" CURBS TO BE LOCATED ON ALL SIDE LOT, MEDIANS, ECT.
10. ALL UTILITY LEADS UNDER PAVEMENT TO BE BACKFILLED WITH CEMENT STABILIZED SAND UP TO PAVEMENT SUBGRADE.
11. ALL MANHOLES TO BE SET TO FINISHED GRADE WITH A MINIMUM OF 6" OF ADJUSTMENT RINGS.
12. ALL TOP OF CURB ELEVATIONS ARE BASED ON 4" CURB. CONTRACTOR SHALL ADD .17 FEET TO THE TOP OF CURB ELEVATIONS SHOWN ON PLANS TO DETERMINE TOP OF CURB ELEVATIONS WHERE 6" CONCRETE CURB IS PROPOSED.
13. ALL PUBLIC WATERLINES SHALL BE C-900 DR-18 PVC UNLESS OTHERWISE NOTED.
14. ALL PUBLIC SEWER LINES SHALL BE SDR-26 PVC UNLESS OTHERWISE NOTED.
15. CONTRACTOR TO STAMP THE FACE OF THE CURB "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

Station	Elevation	Grade Percent (%)	Location
18+36.47	289.59'	1.44%	PVC
18+45.96	289.72'	1.40%	
18+55.96	289.85'	1.30%	
18+65.96	289.97'	1.20%	
18+75.96	290.08'	1.11%	
18+85.96	290.18'	1.01%	
18+93.24	290.25'	0.92%	Crest
18+95.96	290.28'	0.87%	
19+05.96	290.36'	0.81%	
19+15.96	290.43'	0.71%	
19+25.96	290.49'	0.61%	
19+35.96	290.54'	0.52%	
19+45.96	290.58'	0.42%	
19+50.01	290.60'	0.35%	PVT
20+79.07	290.22'	−0.62%	PVC
20+85.96	290.17'	−0.73%	
20+95.96	290.07'	−0.97%	
21+05.96	289.94'	−1.27%	
21+15.96	289.79'	−1.56%	
21+25.96	289.60'	−1.85%	
21+35.96	289.39'	−2.15%	
21+45.96	289.14'	−2.44%	
21+54.07	288.92'	−2.70%	Crest
21+55.96	288.87'	−2.85%	
21+65.96	288.57'	−3.02%	
21+75.96	288.24'	−3.32%	
21+85.96	287.87'	−3.61%	
21+95.96	287.48'	−3.90%	
22+05.96	287.06'	−4.20%	
22+15.96	286.62'	−4.49%	
22+25.96	286.14'	−4.78%	
22+29.07	285.98'	−4.98%	PVT

SAN LEAD TABLE			
STATION & OFFSET	LENGTH	START FL	END FL
17+46.36, 45.92	17.94	279.63	279.45
19+26.36, 45.97	16.22	280.28	280.12
21+06.36, 46.00	18.50	280.90	280.72





LOCATION MAP
N.T.S.

LEGEND:

- 1" DOUBLE WATER METER
- 1" SINGLE WATER METER
- 6" DOUBLE SAN SWR LEAD
- 4" SINGLE SAN SWR LEAD

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 22325
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUITE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKWY / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D
LEGACY GROVE DR PLAN AND PROFILE 17+00-END

DRAWING ISSUE			
#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

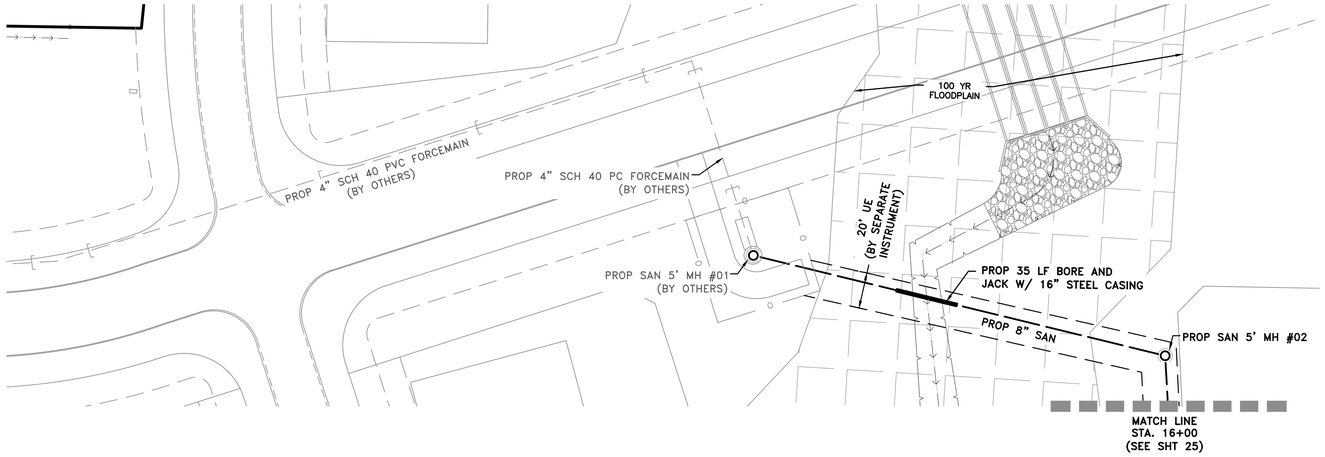
DRAWING INFORMATION			
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 40' (24x36) 1" = 80' (11x17)	SHEET	23

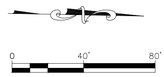
STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

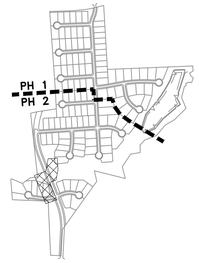
04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\15 STREET G P&P.DWG Apr. 30, 2025 - 8:04 AM LAURYN JOHNSON

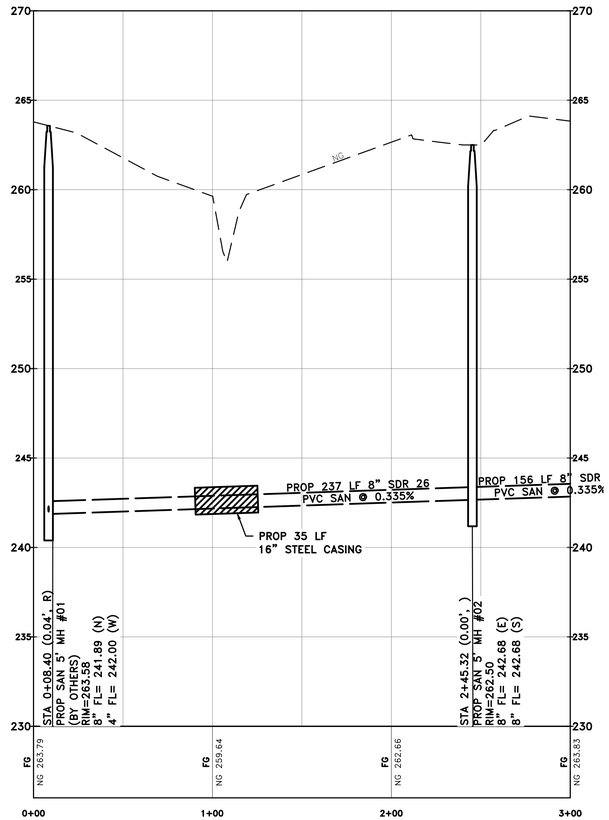






LOCATION MAP
N.T.S.

SANITARY TRUNK LINE PROFILE
SCALE:
1"=40' HORIZ
1"=4' VERT



CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUITE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D

SANITARY TRUNK LINE (1 OF 4)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

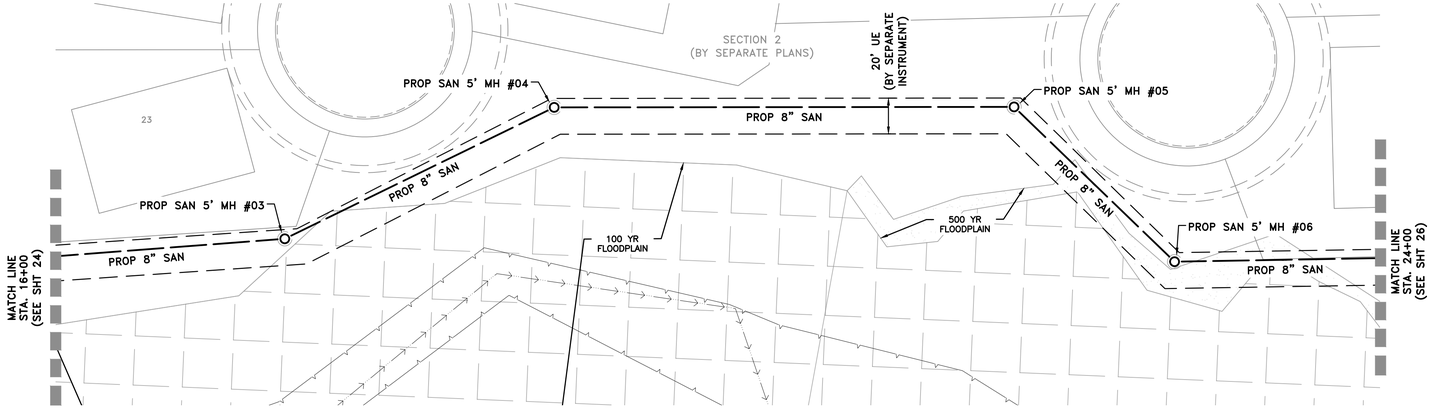
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 40' (24x36) 1" = 80' (11x17)	SHEET	24

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

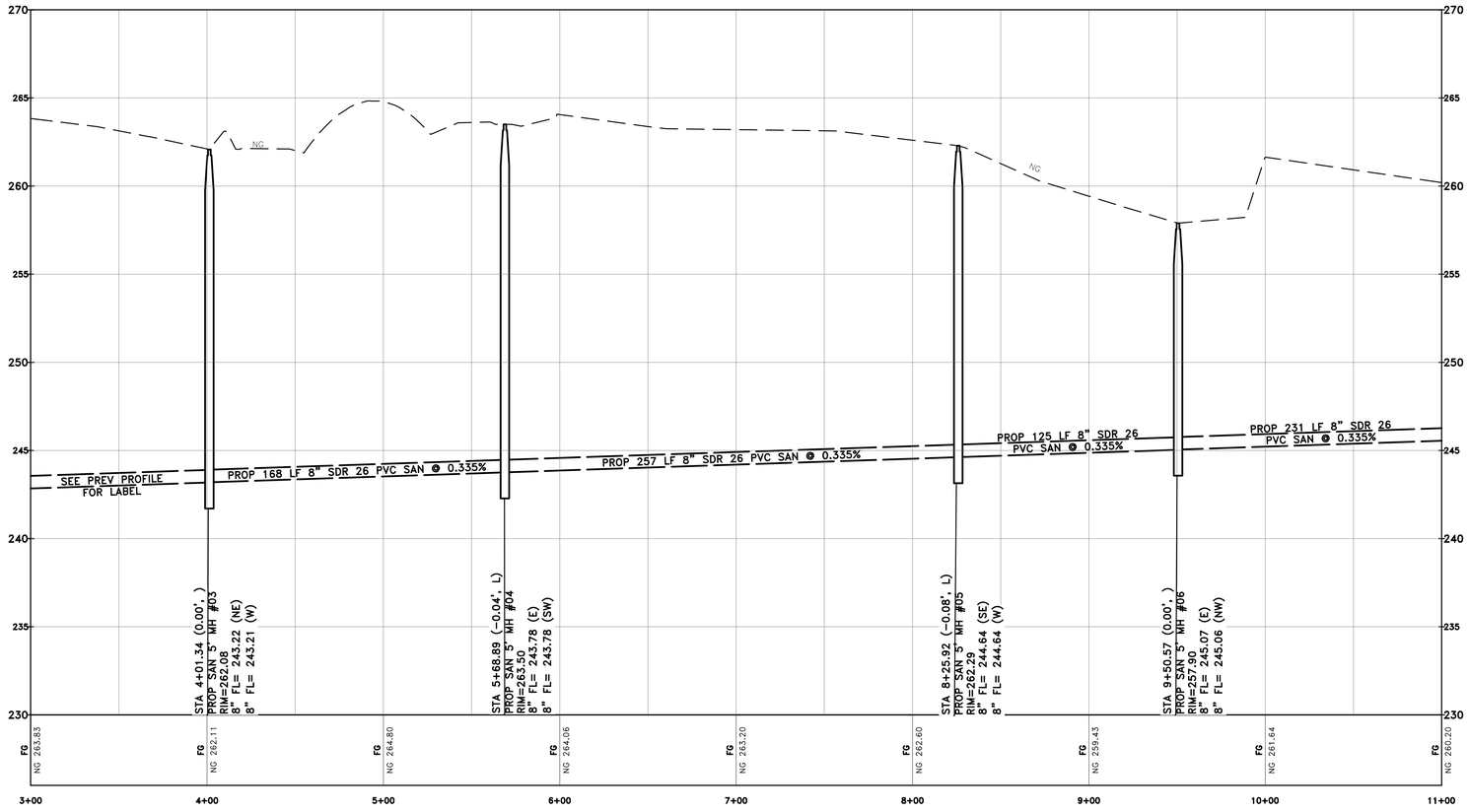
Jonathan Payne 04/29/2025

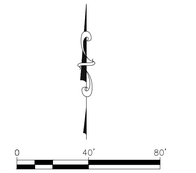
*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

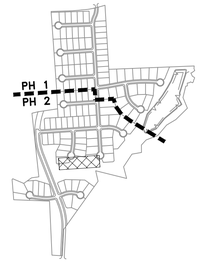
L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\16 SANITARY TRUNK LINE.DWG Apr. 30, 2025-8:01 AM LAURYN JOHNSON



SANITARY TRUNK LINE PROFILE
SCALE:
1"=40' HORIZ
1"=4' VERT







LOCATION MAP
N.T.S.

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUITE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D

SANITARY TRUNK LINE (2 OF 4)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

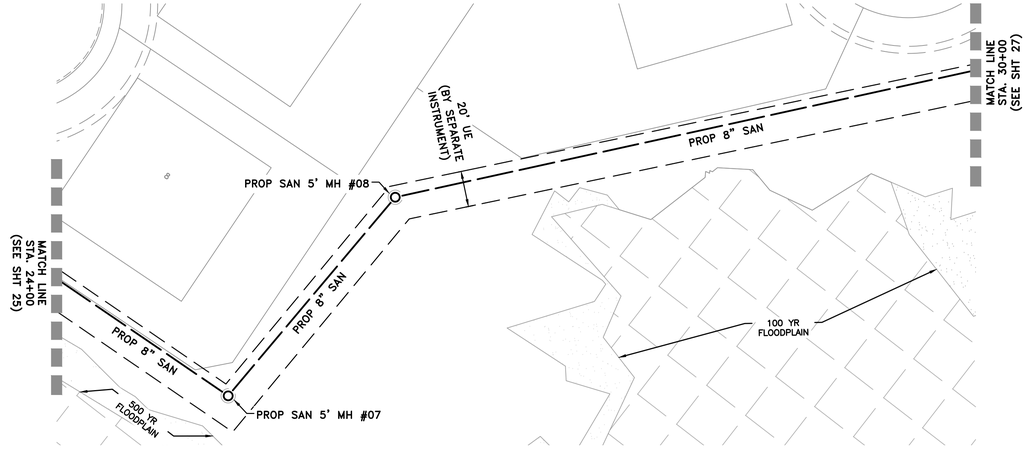
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 40' (24x36) 1" = 80' (11x17)	SHEET	25

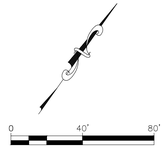
STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

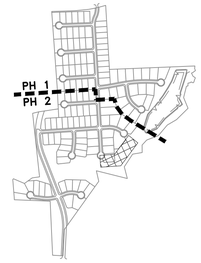
Jonathan Payne 04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\16 SANITARY TRUNK LINE.DWG Apr. 30, 2025 - 8:08 AM LAURYN JOHNSON

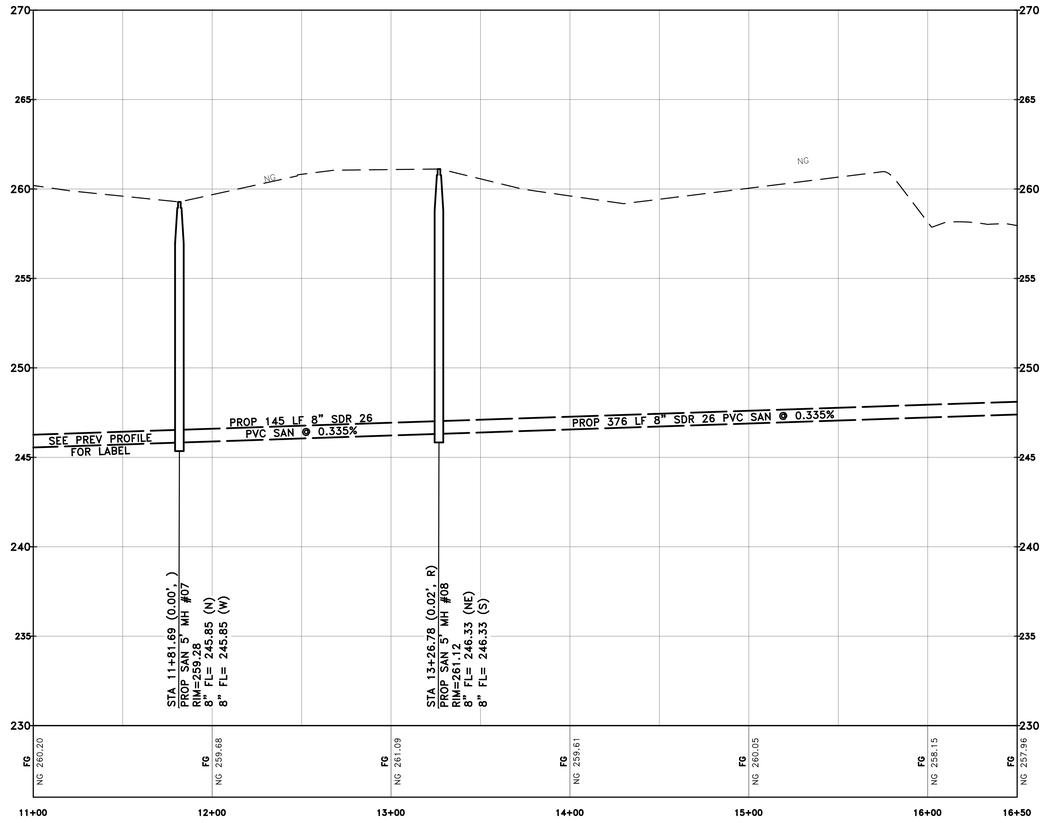






LOCATION MAP
N.T.S.

SANITARY TRUNK LINE PROFILE
SCALE:
1"=40' HORIZ
1"=4' VERT



CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12230
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D
SANITARY TRUNK LINE (3 OF 4)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 40' (24x36) 1" = 80' (11x17)	SHEET	26

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\16 SANITARY TRUNK LINE.DWG Apr. 30, 2025–8:02 AM LAURYN JOHNSON

LOCATION MAP
N.T.S.

SANITARY TRUNK LINE PROFILE
SCALE:
1"=40' HORIZ
1"=4' VERT

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D
SANITARY TRUNK LINE (4 OF 4)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

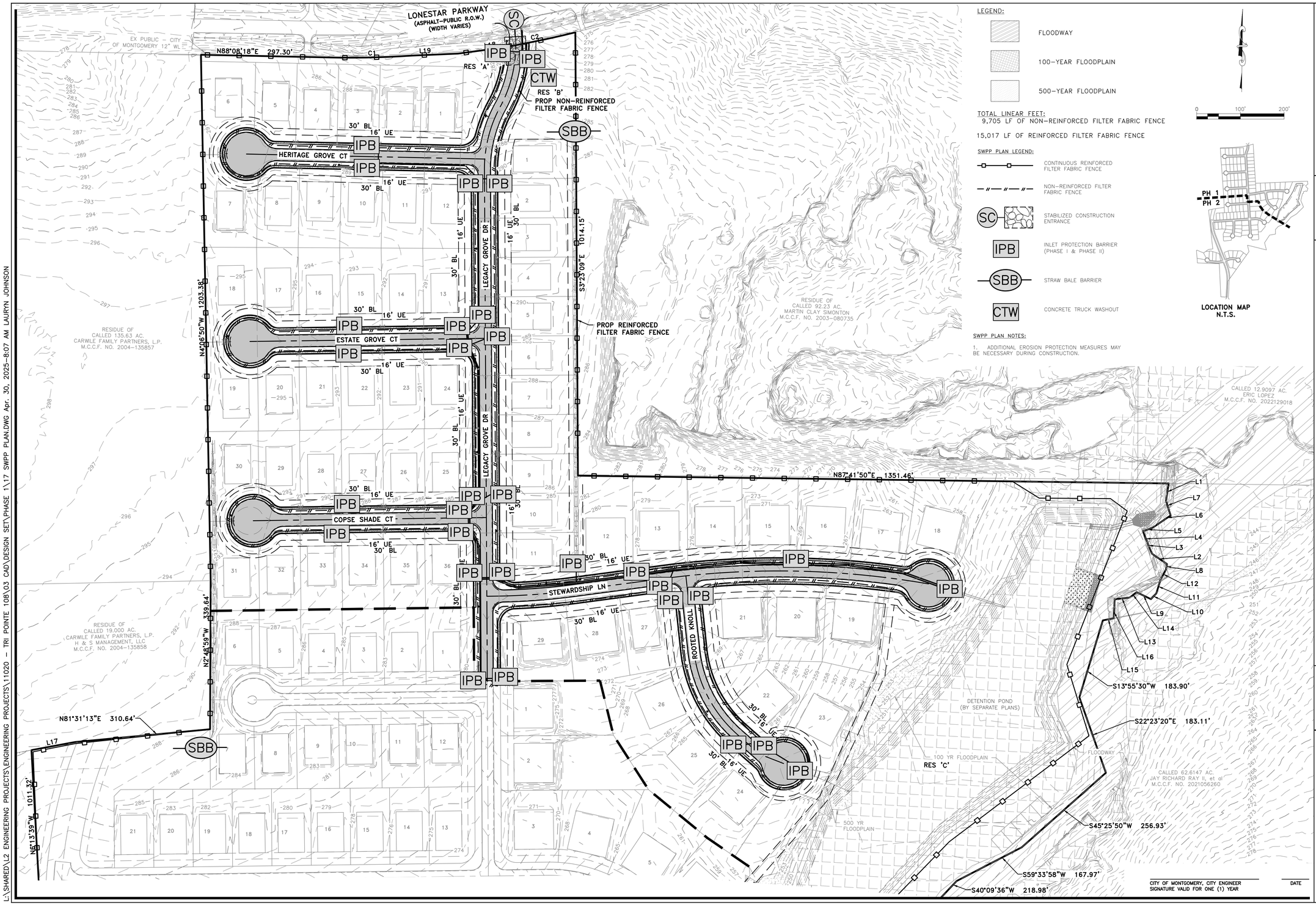
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 40' (24x36) 1" = 80' (11x17)	SHEET	27

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\16 SANITARY TRUNK LINE.DWG Apr. 30, 2025 - 8:01 AM LAURYN JOHNSON



LEGEND:

- FLOODWAY
- 100–YEAR FLOODPLAIN
- 500–YEAR FLOODPLAIN

TOTAL LINEAR FEET:

9,705 LF OF NON–REINFORCED FILTER FABRIC FENCE

15,017 LF OF REINFORCED FILTER FABRIC FENCE

SWPP PLAN LEGEND:

- CONTINUOUS REINFORCED FILTER FABRIC FENCE
- NON–REINFORCED FILTER FABRIC FENCE
- SC — STABILIZED CONSTRUCTION ENTRANCE
- IPB — INLET PROTECTION BARRIER (PHASE I & PHASE II)
- SBB — STRAW BALE BARRIER
- CTW — CONCRETE TRUCK WASHOUT

SWPP PLAN NOTES:

1. ADDITIONAL EROSION PROTECTION MEASURES MAY BE NECESSARY DURING CONSTRUCTION.

0 100' 200'

LOCATION MAP
N.T.S.

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12235
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

SWPP PLAN

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

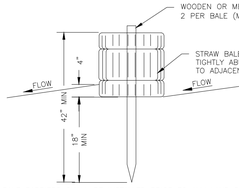
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	1" = 100' (24x36) 1" = 200' (11x17)	SHEET	28

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

04/29/2025

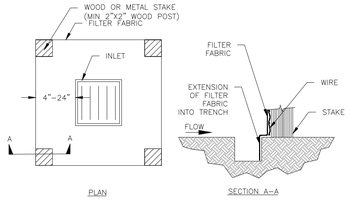
*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\17 SWPP PLAN.DWG Apr. 30, 2025–8:07 AM LAURYN JOHNSON



NOTES:
1. STRAW BALE BARRIERS SHALL BE INSTALLED PRIOR TO ANY LAND DISTRURBING ACTIVITIES.
2. BALES SHALL CONSIST OF APPROXIMATELY 5 CF OF CERTIFIED WEED FREE HAY OR STRAW AND WEIGH NOT LESS THAN 35 POUNDS.
3. BALES ARE TO BE PLACED IN A SINGLE ROW WITH THE END OF THE BALES TIGHTLY ABUTTING ONE ANOTHER.
4. EACH BALE IS TO BE SECURELY ANCHORED WITH AT LEAST TWO STAKES AND THE FIRST STAKE IS TO BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
5. STAKES ARE TO BE A MINIMUM OF 42" LONG. METAL STAKES SHALL BE STANDARD "T" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD STAKES SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2".
6. BALES ARE TO BE BOUND WITH EITHER WIRE OR STRING AND ORIENTED SUCH THAT THE BINDINGS ARE AROUND THE SIDES AND NOT ALONG THE TOPS AND BOTTOMS OF THE BALE.
7. GAPS BETWEEN BALES ARE TO BE CHINKED (FILLED BY WEDGING) WITH STRAW OR THE SAME MATERIAL AS THE BALE.
8. END BALES ARE TO EXTEND UPSLOPE SO THE TRAPPED RUNOFF CANNOT FLOW AROUND THE ENDS OF THE BARRIER.
9. CONTRACTOR SHALL INSPECT STRAW BALE BARRIERS IMMEDIATELY AFTER EACH RAINFALL. AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL.
10. DAMANGED OR INEFFECTIVE BARRIERS SHALL PROMPTLY BE REPAIRED. UNTRENCHED BALES NEED TO BE REPAIRED WITH COMPACTED BACKFILL MATERIAL.
11. SEDIMENT SHALL BE REMOVED FROM BEHIND STRAW BALE BARRIERS WHEN IT ACCUMULATES TO APPROXIMATELY 1 THE HEIGHT OF THE BARRIER.
12. STRAW BALE BARRIERS SHALL BE REMOVED WHEN ADEQUATED VEGETATIVE COVER IS ATTAINED.

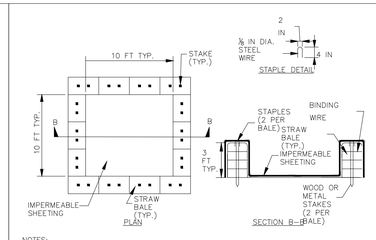
STRAW BALE BARRIER DETAIL
NTS



PLAN SECTION A–A

NOTES:
1. SET 2 INCH BY 2 INCH WOODEN STAKES SPACED A MAX OF 6 FEET APART AND EMBEDDED A MIN OF 12 INCHES.
2. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POST WITH STAPLES.
3. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE, WITH TIES SPACED EVERY 24" AT TOP & MIDSECTION.
4. MINIMUM HEIGHT OF FILTER SHOULD BE 18 INCHES AND A MAXIMUM OF 36 INCHES ABOVE NATURAL GROUND.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED 6" AT THE POSTS, & FOLDED.
6. SEE STANDARD SPECIFICATION FOR FILTER FABRIC BARRIER.

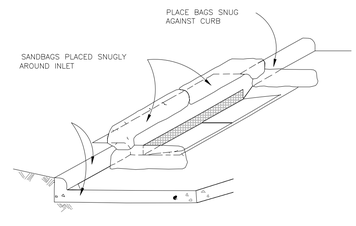
SILT FENCE INLET PROTECTION BARRIER
NTS



PLAN SECTION B–B

NOTES:
1. CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3" MINIMUM DEPTH
2. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
3. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
4. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
5. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
6. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET–VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

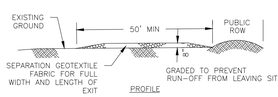
CONCRETE TRUCK WASHOUT DETAIL
NTS



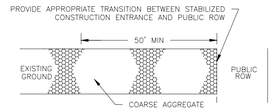
SEE CONSTRUCTION HANDBOOK SECTION 4.3.4 FOR SANDBAG DESIGN AND MAINTENANCE REQUIREMENTS

GENERAL NOTES:
1. BAGS OR WATTLES CAN BE USED FOR THIS APPLICATION.
2. PROVIDE WOVEN OR UNWOVEN GEOTEXTILE FILTER FABRIC FOR BAGS.
3. PROVIDE COARSE SAND AND AGGREGATE MIX FOR FILL MATERIAL FOR BAGS. USE ONLY PARTICLES CONSISTING OF CLEAN, HARD, DURABLE MATERIALS FREE FROM ADHERENT COATINGS, SALT, ALKALI, DIRT, CLAY, LOAM, SHALE, SOFT OR FLAKY MATERIALS, OR ORGANIC AND INJURIOUS MATTER.
4. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE–THIRD THE HEIGHT OF THE BARRIER.

INLET PROTECTION BARRIER FOR STAGE 1 INLETS
NTS



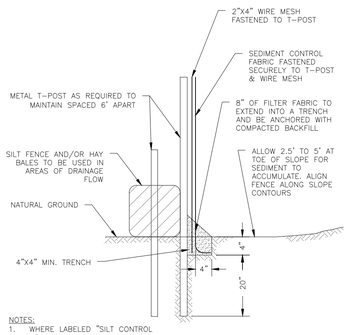
PROFILE



PLAN

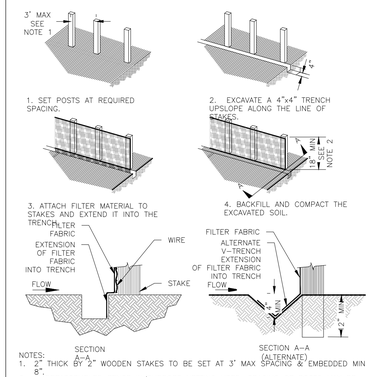
NOTES:
1. LENGTH SHALL BE AS SHOWN ON THE CONSTR. DRAWINGS, BUT NOT LESS THAN 50 FEET.
2. THICKNESS SHALL BE NOT LESS THAN 8 INCHES.
3. WIDTH SHALL BE NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
4. STABILIZATION FOR OTHER AREAS SHALL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTR. EXIT, UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
5. STABILIZED AREA MAY BE WIDENED/ LENGTHENED TO ACCOMMODATE A TRUCK WASHING AREA.
6. AN OUTLET SEDIMENT TRAP MUST BE PROVIDED FOR THE TRUCK WASHING AREA.
7. SEE STANDARD SPECIFICATION FOR STABILIZED CONSTRUCTION EXIT.
8. STABILIZED CONSTRUCTION EXIT SHALL BE MAINTAINED FREE OF SEDIMENT FOR THE DURATION OF THE PROJECT.

STABILIZED CONSTRUCTION EXIT DETAIL
NTS



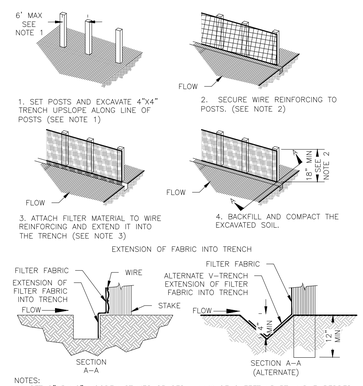
NOTES:
1. WHERE LABELED "SILT CONTROL FENCE," HAY BALE MAY BE OMITTED.
2. WHERE LABELED "HAY BALLE BARRIER," THE ENTIRE SILT FENCE ASSEMBLY SHALL BE BUILT

SILT FENCE ASSEMBLY
NTS



NOTES:
1. 2" THICK BY 2" WOODEN STAKES TO BE SET AT 3' MAX SPACING & EMBEDDED MIN 8".
2. IF PREASSEMBLED FENCE W/SUPPORT NETTING USED, SPACING OF POSTS MAY BE INCREASED TO 8' MAX.
3. ATTACH FILTER FABRIC TO WOODEN STAKES.
4. FILTER FABRIC FENCE SHALL HAVE MIN HEIGHT OF 18" & MAX HEIGHT OF 36" ABOVE NAT. GRND.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 6" AT THE POSTS, AND FOLDED.
6. SEE STANDARD SPECIFICATION FOR FILTER FABRIC FENCE.

NON–REINFORCED FILTER FABRIC FENCE DETAIL
NTS



NOTES:
1. SET 2" BY 2" WOODEN STAKES SPACED A MAX OF 6 FEET APART AND EMBEDDED A MIN OF 12".
2. WOVEN WIRED REINFORCING TO BE FASTENED SECURELY TO BARRIER POSTS WITH STAPLES.
3. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE REINFORCING, WITH TIES SPACED EVERY 24" AT TOP AND MIDSECTION.
4. MINIMUM HEIGHT OF FILTER SHOULD BE 18" AND A MAXIMUM OF 36" ABOVE NATURAL GROUND.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED 6" AT THE POSTS AND FOLDED.

REINFORCED FILTER FABRIC FENCE DETAIL
NTS

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12235
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUITE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

SWPP DETAILS

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

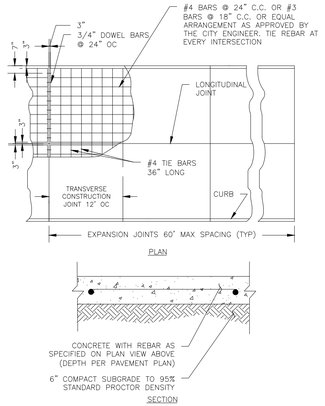
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	AS NOTED	SHEET	29

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

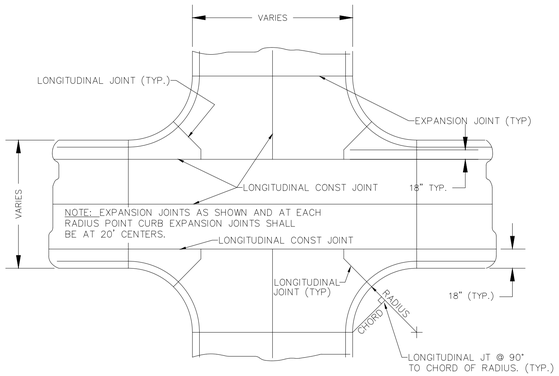
Jonathan Payne 04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

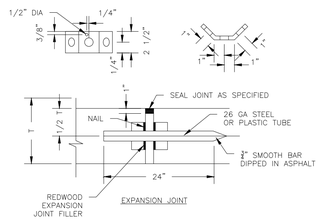
L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\18 DETAIL SHEETS.DWG Apr. 30, 2025–8:06 AM LAURYN JOHNSON



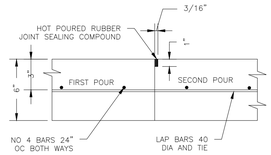
TYPICAL CONCRETE PAVEMENT DETAIL
NTS



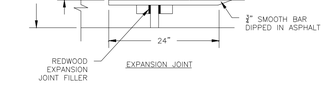
CONCRETE INTERSECTION



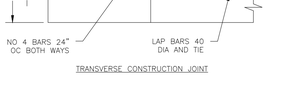
EXPANSION JOINT



TRANSVERSE CONSTRUCTION JOINT

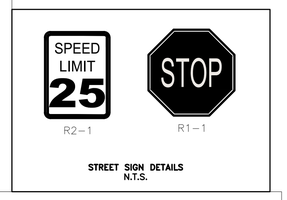


LONGITUDINAL JOINT

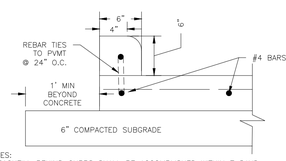


TRANSVERSE OR LONGITUDINAL SAWED DUMMY JOINT (CONTRACTION JOINT)

CONCRETE CONSTRUCTION JOINT DETAILS
NTS

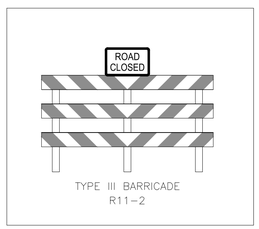


STREET SIGN DETAILS
N.T.S.

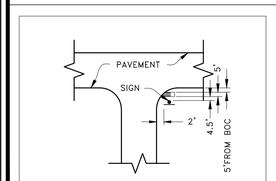


NOTES:
1. BACKFILL BEHIND CURBS SHALL BE ACCOMPLISHED WITHIN 7 DAYS.
2. CURB AND GUTTER CONCRETE SHALL BE CLASS "A" (3000 PSI).
3. REINFORCING STEEL AS SHOWN.
4. ALL JOINTS ARE TO BE PROPERLY SEALED.

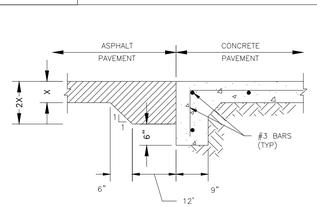
TYPICAL CURB DETAIL
NTS



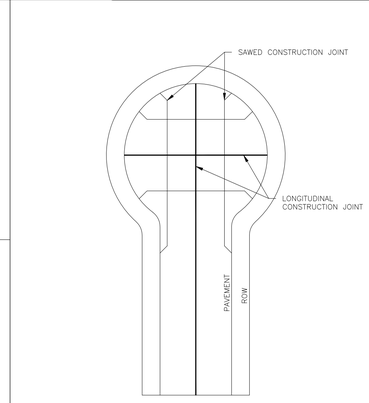
TYPE III BARRICADE
R11-2



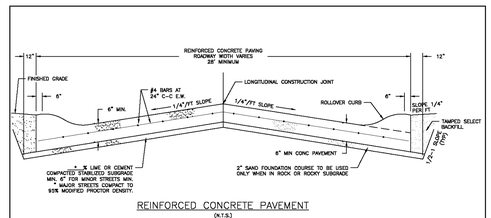
SIGN LOCATION
N.T.S.



ASPHALT TO CONCRETE HEADER
NTS

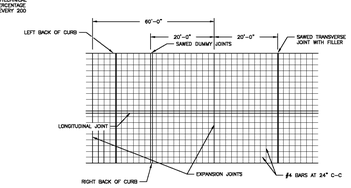


CONCRETE CONSTRUCTION JOINT DETAIL FOR CUL DE SAC
NTS



REINFORCED CONCRETE PAVEMENT
(N.T.S.)

*MUST BE FILLED OUT BASED ON A GEOTECHNICAL REPORT SUBMITTED WITH THE PLANS FOR APPROVAL. THE GEOTECHNICAL REPORT SHALL INDICATE THE PERCENTAGE OF LIME OR CEMENT REQUIRED EVERY 200 FEET AT THE SUBGRADE DEPTH.

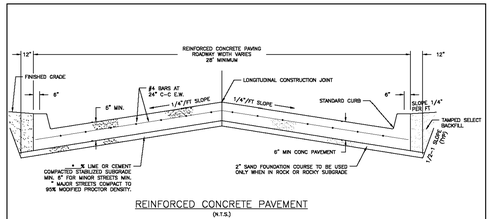


NOTE:
FOR PLASTICITY > 20 – USE LIME STAB.
FOR PLASTICITY < 10 – USE CEM. STAB.
FOR SILTY CLAYS – USE LIME – FLY ASH

FOR P.I. BETWEEN 10 AND 20, THE LAB CERTIFICATION IS REQUIRED IF NO STABILIZATION IS USED.

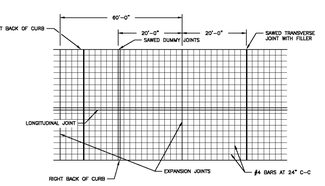
CONSTRUCT SAWED JOINTS AT 20' CENTERS. EXPANSION JOINS TO BE AT INTERSECTIONS, RADIUS AND DRIVE STRUCTURE AND AT SPACINGS NOT TO EXCEED 60'. ALL JOINTS TO BE PROPERLY SEALED. A MANUALLY OPERATED SCREED EQUIPPED WITH A POWER VIBRATOR MAY BE USED. HAND FINISH SHALL BE USED WHEN NECESSARY.

REVISIONS		
10-2013 REVISED NOTES	CITY OF MONTGOMERY TYPICAL RESIDENTIAL CONCRETE PAVING WITH ROLLOVER CURB	PAVING P-2



REINFORCED CONCRETE PAVEMENT
(N.T.S.)

*MUST BE FILLED OUT BASED ON A GEOTECHNICAL REPORT SUBMITTED WITH THE PLANS FOR APPROVAL. THE GEOTECHNICAL REPORT SHALL INDICATE THE PERCENTAGE OF LIME OR CEMENT REQUIRED EVERY 200 FEET AT THE SUBGRADE DEPTH.

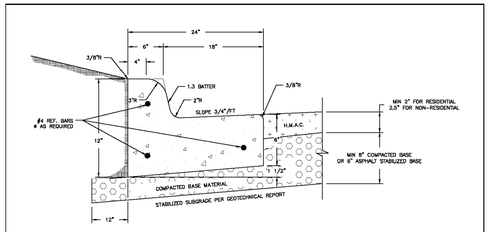


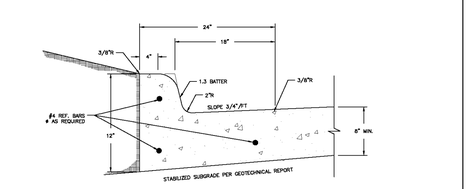
NOTE:
FOR PLASTICITY > 20 – USE LIME STAB.
FOR PLASTICITY < 10 – USE CEM. STAB.
FOR SILTY CLAYS – USE LIME – FLY ASH

FOR P.I. BETWEEN 10 AND 20, THE LAB CERTIFICATION IS REQUIRED IF NO STABILIZATION IS USED.

CONSTRUCT SAWED JOINTS AT 20' CENTERS. EXPANSION JOINS TO BE AT INTERSECTIONS, RADIUS AND DRIVE STRUCTURE AND AT SPACINGS NOT TO EXCEED 60'. ALL JOINTS TO BE PROPERLY SEALED. A MANUALLY OPERATED SCREED EQUIPPED WITH A POWER VIBRATOR MAY BE USED. HAND FINISH SHALL BE USED WHEN NECESSARY.

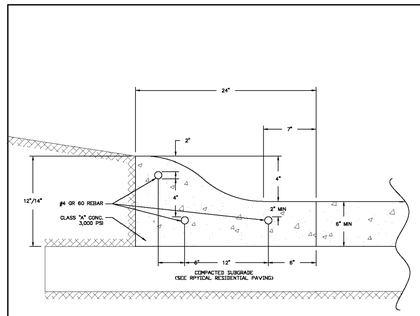
REVISIONS		
10-2013 REVISED NOTES	CITY OF MONTGOMERY TYPICAL NON-RESIDENTIAL CONCRETE PAVING WITH STANDARD CURB	PAVING P-3





NOTES:
1. ALL HONEYCOMBING SHALL BE GROUTED TO PROVIDE A UNIFORM SURFACE.
2. WHEN HONEYCOMBING IS EXCESSIVE AS DETERMINED BY THE INSPECTOR, CURB AND GUTTER SHALL BE REPLACED.
3. BACKFILL BEHIND CURBS SHALL BE ACCOMPLISHED WITHIN 7 DAYS.
4. CURB AND GUTTER CONCRETE SHALL BE CLASS "A" (3000 PSI). CURB POURED WITH PAVEMENT SHALL MATCH PAVEMENT.
5. REINFORCING STEEL AS SHOWN.
6. EXPANSION JOINTS AT A MAXIMUM LENGTH OF 60 FEET.
7. SAWED CONTRACTION JOINTS EVERY 20 FEET BETWEEN EXPANSION JOINTS.
8. ALL JOINTS ARE TO BE PROPERLY SEALED.

REVISIONS		
10-2013 REVISED NOTES	CITY OF MONTGOMERY STANDARD CURB & GUTTER	PAVING P-4



NOTES:
1. ALL HONEYCOMBING SHALL BE GROUTED TO PROVIDE A UNIFORM SURFACE.
2. WHEN HONEYCOMBING IS EXCESSIVE AS DETERMINED BY THE INSPECTOR, CURB AND GUTTER SHALL BE REPLACED.
3. BACKFILL BEHIND CURBS SHALL BE ACCOMPLISHED WITHIN 7 DAYS.
4. CURB AND GUTTER CONCRETE SHALL BE CLASS "A" (3000 PSI). CURB POURED WITH PAVEMENT SHALL MATCH PAVEMENT.
5. REINFORCING STEEL AS SHOWN.
6. EXPANSION JOINTS AT A MAXIMUM LENGTH OF 60 FEET.
7. SAWED CONTRACTION JOINTS EVERY 20 FEET BETWEEN EXPANSION JOINTS.
8. ALL JOINTS ARE TO BE PROPERLY SEALED.

REVISIONS		
10-2013 REVISED NOTES	CITY OF MONTGOMERY ROLLOVER CURB & GUTTER	PAVING P-5

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUITE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D
PAVING DETAILS (1 OF 3)

DRAWING ISSUE			
#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION			
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	AS NOTED	SHEET	30

04/29/2025

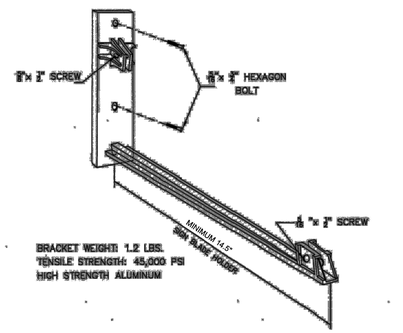
*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\18 DETAIL SHEETS.DWG Apr. 30, 2025–8:00 AM LAURYN JOHNSON

NOTES:

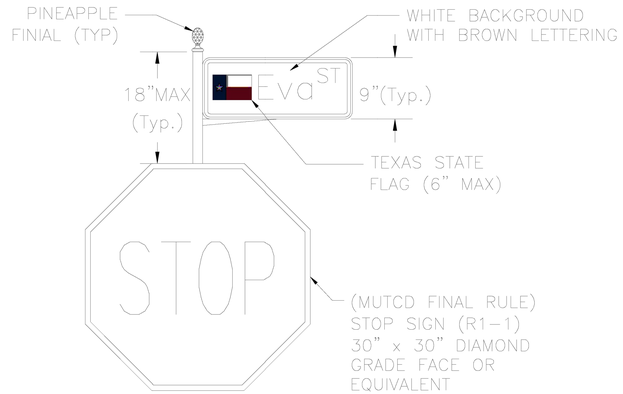
1. THIS DETAIL WILL APPLY TO ALL PROPOSED STREET SIGNS.
2. ALL STOP SIGNS TO BE SIZED AND PLACED AS SHOWN ON PLANS.
3. STREET SIGN NAMES TO BE INSTALLED AT INTERSECTION OF ALL STREETS.
4. STREET SIGN BRACKET TO BE 14.5" LONG MINIMUM.
5. SIGN BLADE HEIGHT TO BE 9" WITH 6" CAPITAL LETTERS AND 5" LOWERCASE LETTERING.
6. STREET SIGN POSTS AT NON-MAJOR STREETS TO BE $2\frac{3}{8}$" O.D. SET IN CONCRETE.
7. STREET SIGN POSTS AT MAJOR STREET INTERSECTIONS TO BE $2\frac{7}{8}$" O.D. WITH A BREAKAWAY BASE.

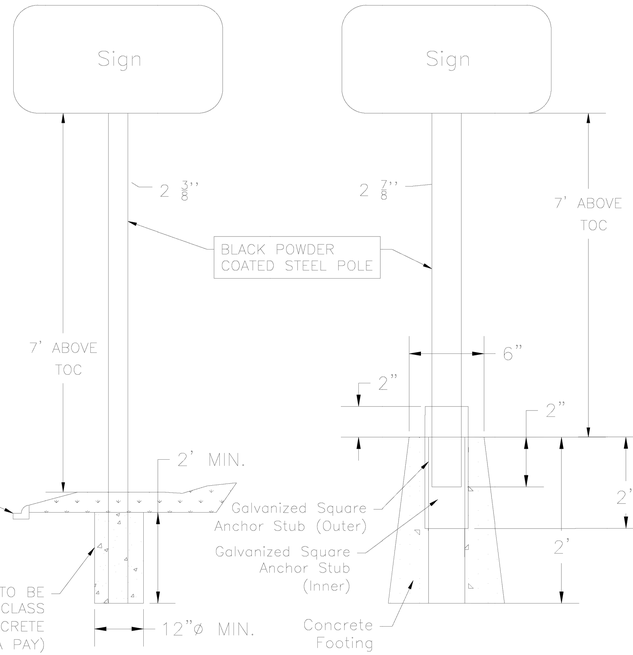
SIGNAL POLE MOUNTING DETAIL



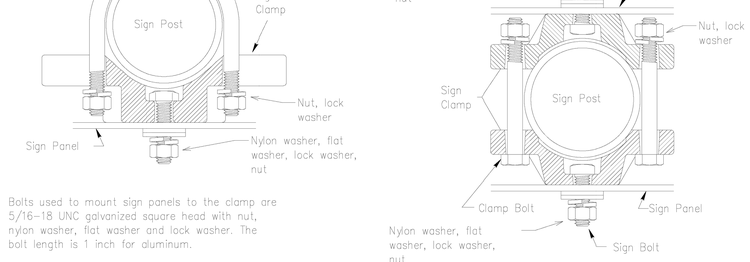
NOTES:

* TYPICAL SIGN PLATE SHOULD BE 30" MAX.
* LONGER SIGN PLATE MUST BE APPROVED BY THE CITY ENGINEER





TYPICAL SIGN ATTACHMENT DETAIL



Bolts used to mount sign panels to the clamp are 5/16-18 UNC galvanized square head with nut, nylon washer, flat washer and lock washer. The bolt length is 1 inch for aluminum.

When two sign clamps are used to mount signs back-to-back, use a 5/16-18 UNC galvanized hex head per ASTM A307 with nut and helical-spring lock washer. The approximate bolt lengths for various post sizes and sign clamp types are given in the table at right. The bolt length may need to be adjusted depending upon field conditions.

Sign clamps may be either the specific size clamp or the universal clamp.

Pipe Diameter	Approximate Bolt Length	
	Specific Clamp	Universal Clamp
$2\frac{3}{8}$" O.D.	3" or $3\frac{1}{2}$"	$3\frac{1}{2}$" or 4"
$2\frac{7}{8}$" O.D.	$3\frac{1}{2}$" or 4"	$4\frac{1}{2}$"

CITY OF MONTGOMERY
STANDARD STREET SIGN

PAVING

P-6

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D

PAVING DETAILS (2 OF 3)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	AS NOTED	SHEET	31

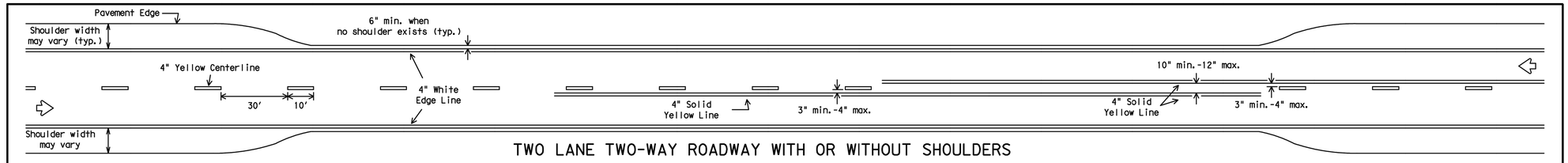
STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

Jonathan Payne 04/29/2025

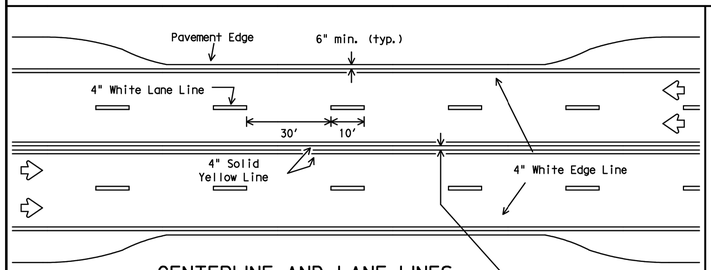
*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\18 DETAIL SHEETS.DWG Apr. 30, 2025-8:07 AM LAURYN JOHNSON

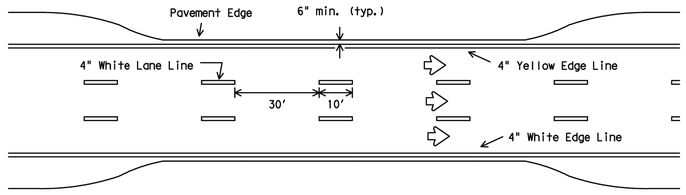
DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.



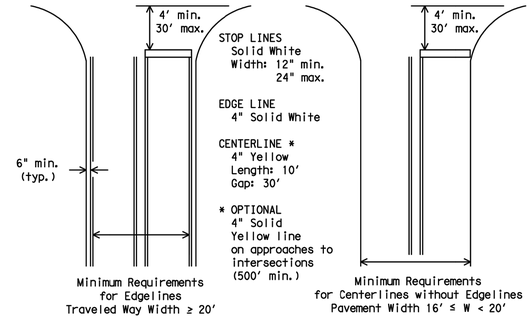
TWO LANE TWO-WAY ROADWAY WITH OR WITHOUT SHOULDERS



CENTERLINE AND LANE LINES FOUR LANE TWO-WAY ROADWAY WITH OR WITHOUT SHOULDERS

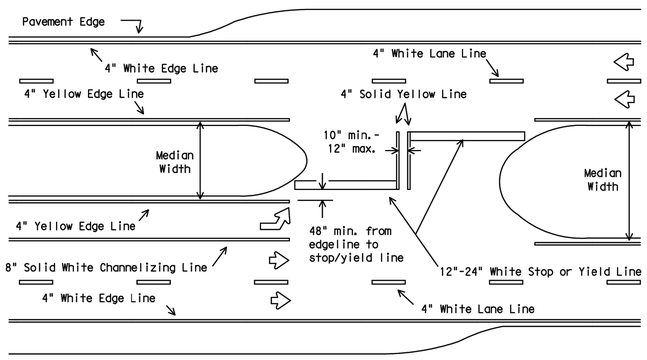


EDGE LINE AND LANE LINES ONE-WAY ROADWAY WITH OR WITHOUT SHOULDERS



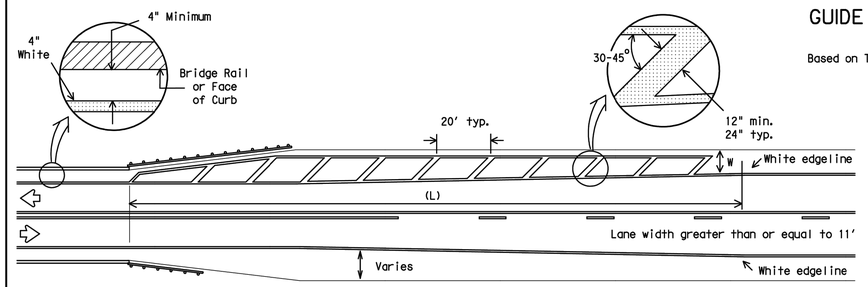
GUIDE FOR PLACEMENT OF STOP LINES, EDGE LINE & CENTERLINE

Based on Traveled Way and Pavement Widths for Undivided Highways



All medians shall be field measured to determine the location of necessary striping. Stop/Yield bars and centerlines shall be placed when the median width is greater than 30 ft. The median width is defined as the area between two roadways of a divided highway measured from edge of traveled way to edge of traveled way. The median excludes turn lanes. The median width might be different between intersections, interchanges and of opposite approaches of the same intersection. The narrow median width will be the controlling width to determine if markings are required.

FOUR LANE DIVIDED ROADWAY INTERSECTIONS



NOTES:

1. No-passing zone on bridge approach is optional but if used, it shall be a minimum 500 feet long.
2. For crosshatching length (L) see Table 1.
3. The width of the offset (W) and the required crosshatching width is the full shoulder width in advance of the bridge.
4. The crosshatching is not required if delineators or barrier reflectors are used along the structure.
5. For guard fence details, refer elsewhere in the plans.

ROADWAYS WITH REDUCED SHOULDER WIDTHS ACROSS BRIDGE OR CULVERT

TABLE 1 - TYPICAL LENGTH (L)

Posted Speed *	Formula
≤ 40	$L = \frac{WS^2}{60}$
≥ 45	L=WS

* 85th Percentile Speed may be used on roads where traffic speeds normally exceed the posted speed limit. Crosshatching length should be rounded up to nearest 5 foot increment.

L=Length of Crosshatching (FT.) W=Width of Offset (FT.)
S=Posted Speed (MPH)

EXAMPLES:

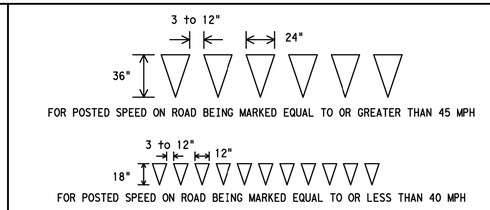
An 8 foot shoulder in advance of a bridge reduces to 4 feet on a 70 MPH roadway. The length of the cross-hatching should be:
L = 8 x 70 = 560 ft.
A 4 foot shoulder in advance of a bridge reduces to 2 feet on a 40 MPH roadway. The length of the cross-hatching should be:
$L = 4(40)^2 / 60 = 106.67$ ft. rounded to 110 ft.

GENERAL NOTES

1. Edgeline striping shall be as shown in the plans or as directed by the Engineer. The edgeline should typically be placed a minimum of 6 inches from the edge of pavement. This distance may vary due to pavement raveling or other conditions. Edgelines are not required in curb and gutter sections of roadways.
2. The traveled way includes only that portion of the roadway used for vehicular travel and not the parking lanes, sidewalks, berms and shoulders. The traveled ways shall be measured from the inside of edgeline to inside of edgeline of a two lane roadway.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



YIELD LINES

Texas Department of Transportation
Traffic Operations Division

TYPICAL STANDARD PAVEMENT MARKINGS

PM(1)-12

© TxDOT November 1978

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS	CONT	SECT	JOB	HIGHWAY
8-95 2-12				
5-00				
8-00	DIST	COUNTY		SHEET NO.
3-03				

22A

CITY OF MONTGOMERY, CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR — DATE

DATE:
FILE:

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

PAVING DETAILS (3 OF 3)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	AS NOTED	SHEET	32

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

04/29/2025

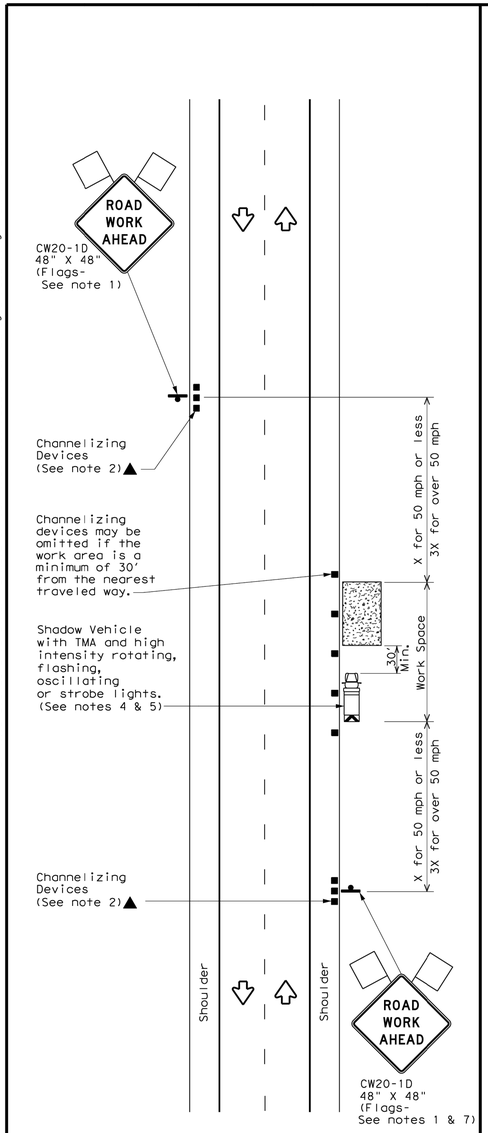
*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\18 DETAIL SHEETS.DWG Apr. 30, 2025-8:00 AM LAURYN JOHNSON

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\18 DETAIL SHEETS.DWG Apr. 30, 2025-8:01 AM LAURYN JOHNSON

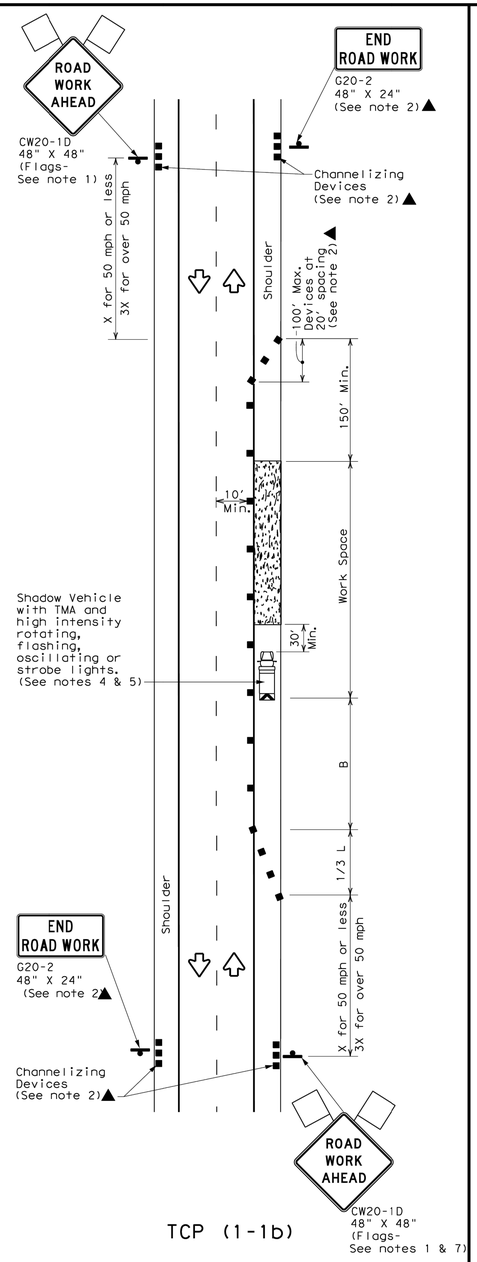
DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
FILE:



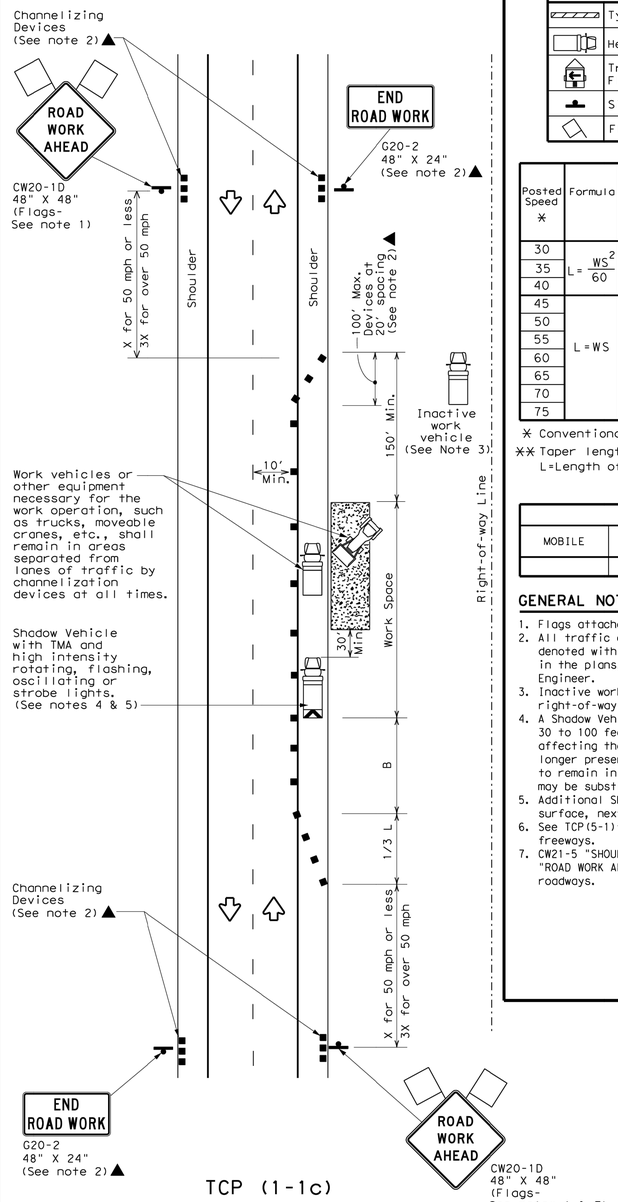
TCP (1-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (1-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (1-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

1. Flags attached to signs where shown are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
4. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
5. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
6. See TCP(5-1)for shoulder work on divided highways, expressways and freeways.
7. CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

Texas Department of Transportation — Traffic Operations Division Standard

TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK

TCP(1-1)-18

FILE: tcp1-1-18.dgn	DN:	CK:	DW:	CK:
©TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS				
2-94 4-98	DIST	COUNTY		SHEET NO.
8-95 2-12				
1-97 2-18				

151

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12220
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

TRAFFIC CONTROL PLAN

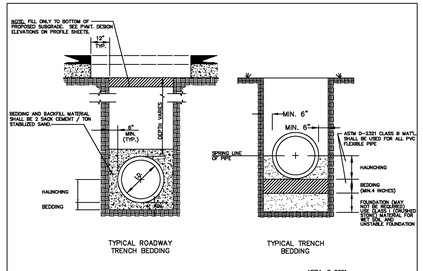
DRAWING ISSUE			
#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION			
PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	AS NOTED	SHEET	33

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER

Jonathan Payne 04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE



TYPICAL ROADWAY TRENCH BEDDING

TYPICAL TRENCH BEDDING

NOTE: BACKFILL ABOVE THE BEDDING SHALL CONFORM TO "TYPICAL WATERLINE BACKFILL AND TRENCH REPAIR" STANDARD DRAWING W-5.

Foundation
A foundation is required when the trench bottom is unstable. Any foundation that will support a rigid pipe without causing loss of grade or flexural breaking will be more than adequate for PVC pipe.

Bedding
The bedding directly underneath the pipe is required only to bring the trench bottom up to grade. It should not be so thick or soft that the pipe will settle and lose grade. The purpose of the bedding is to provide a firm, uniform support under the pipe. A layer of material sufficient to establish line, grade, and support should be placed. Bell holes should be excavated to insure uniform bearing.

Haunching
The haunching area is the most important in terms of limiting the deflection of a flexible pipe. This is the area that should be compacted to the required or specific density.

ASTM D 2321

Description of embedment materials

Class I
Angular, 1/4" to 1 1/2" graded stone, including a number of fill materials that have regional significance, such as coral, slag, cinders, crushed stone and uncrushed shells.

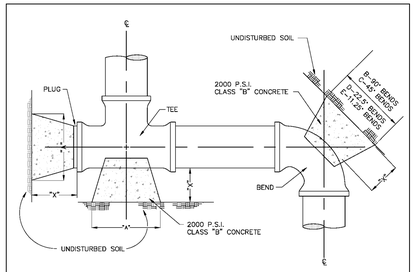
Class II
Coarse sands and gravels with maximum particle size of 1 1/2", including variously graded sands and gravels containing small percentages of fines, generally granular and noncohesive, either wet or dry. Soil Types GW, GP, SW, and SP are included in this class.

Class III
Fine sand and clayey gravels including fine sands, sand-clay mixtures, and gravel-clay mixtures. Soil Types GM, GC, SM, and SC are included in this class.

Class IV
Silt, silty clays, and clays, including inorganic clays and silts of medium to high plasticity and liquid limits. Soil Types MH, ML, OH and CL are included in this class.

Class V
This class includes the organic soils OL, OH, and PT as well as soils containing frozen earth, debris, rocks larger than 1 1/2" in diameter, and other foreign materials. These materials are not recommended for bedding, haunching, or initial backfill.

REVISIONS	CITY OF MONTGOMERY TYPICAL WATERLINE BEDDING AND TRENCH DETAIL	WATER W–1



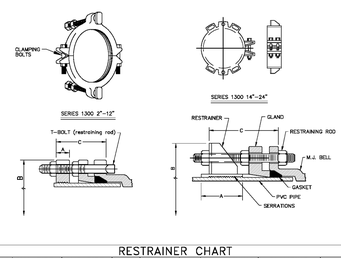
HORIZONTAL BLOCKING TABLE

Dimension "X" to be a minimum of (1) foot, but is to be increased where necessary to provide bearing against undisturbed trench wall.

PIPE SIZE	DIM.	PLUGS & TEES			90° BENDS			45° BENDS			22.50° BENDS			11.25° BENDS		
		"X"	MIN. AREA	MIN. VOL.	"X"	MIN. AREA	MIN. VOL.	"C"	MIN. AREA	MIN. VOL.	"X"	MIN. AREA	MIN. VOL.	"X"	MIN. AREA	MIN. VOL.
4"	1'–0"	1'–0"	0.88	0.05	1'–0"	0.83	0.05	1'–0"	0.83	0.05	1'–0"	0.83	0.05	1'–0"	0.83	0.05
6"	1'–6"	1'–0"	1.06	0.06	1'–2"	1.50	0.09	1'–0"	0.83	0.05	1'–0"	0.83	0.05	1'–0"	0.83	0.05
8"	1'–6"	1'–3"	1.89	0.11	1'–6"	2.66	0.15	1'–3"	1.44	0.08	1'–0"	0.83	0.05	1'–0"	0.83	0.05
10"	1'–6"	1'–3"	2.95	0.17	2'–0"	4.17	0.24	1'–6"	2.26	0.13	1'–3"	1.15	0.07	1'–0"	0.83	0.05
12"	1'–6"	2'–0"	4.25	0.24	2'–3"	6.00	0.34	1'–9"	3.25	0.18	1'–3"	1.65	0.10	1'–0"	0.83	0.05
16"	2'–0"	2'–7"	7.34	0.56	3'–0"	10.65	0.79	2'–3"	5.76	0.43	1'–8"	2.94	0.22	1'–2"	1.48	0.11
18"	2'–0"	2'–11"	7.70	0.57	3'–5"	10.89	0.82	2'–6"	5.89	0.44	1'–10"	3.01	0.22	1'–5"	1.51	0.11
20"	2'–0"	3'–3"	7.86	0.59	3'–9"	11.12	0.84	2'–9"	6.01	0.45	2'–0"	3.07	0.23	1'–7"	1.54	0.12
24"	2'–6"	3'–8"	11.33	0.84	4'–3"	16.00	1.20	3'–2"	8.65	0.65	2'–6"	4.42	0.33	1'–10"	2.22	0.17

NOTE: Calculations in Minimum Area column are in square feet.
Calculations in Minimum Volume column are in cubic yards.

REVISIONS	CITY OF MONTGOMERY HORIZONTAL BLOCKING FOR WATERLINE	WATER W–2

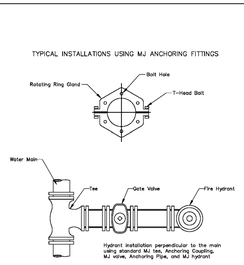


RESTRAINER CHART

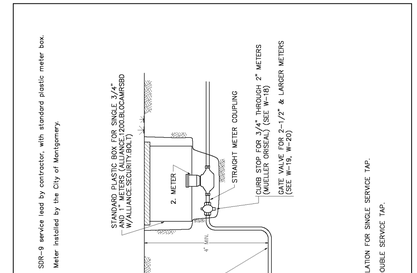
NOM. PIPE SIZE	PVC PIPE W/STEEL PIPE O.D., No.1300–S	PVC PIPE W/D.I. PIPE, O.D., No.1300–C	A	B approx.	C max.	RESTRAINING RODS NO.	RESTRAINING RODS SIZE	CLAMPING BOLTS NO.	CLAMPING BOLTS SIZE	APPROX. WGT. (lbs.)
2	2.375	N/A	1'–1/8	6–1/4	4.0	2	5/8 x5	2	5/8 x4	4
3	3.500	N/A	1'–1/8	7–11/16	4.0	2	5/8 x5	2	5/8 x4	5
4	4.500	4.80	1'–1/8	9–1/8	6.0	2	3/4 x7	2	5/8 x4	6.5
6	6.625	6.90	1'–1/8	11–1/8	6.0	2	3/4 x7	2	5/8 x4	8.5
8	8.625	8.05	1'–1/4	13–7/8	6.0	2	3/4 x7	2	3/4 x5	13
10	10.750	11.10	1'–3/8	16–5/8	6.0	4	3/4 x7	2	7/8 x6	23
12	12.750	13.20	1'–3/8	19–1/4	6.0	4	3/4 x7	2	7/8 x6	25
14	N/A	15.30	4.0	22.0	15.0	6	3/4 x17	2	7/8 x7	50
16	N/A	17.40	4.0	24.2	15.0	6	3/4 x17	2	7/8 x7	65
18	N/A	19.50	5.0	26.5	15.0	8	3/4 x17	2	1 x 7	65
20	N/A	21.60	7.0	28.6	22.0	8	3/4 x24	3	1 1/8 x9	125
24	N/A	25.80	7.0	32.8	22.0	12	3/4 x24	3	1 1/8 x9	143

Weights include Restraining rods, clamping bolt and nuts and special "T" bolts and nuts.
N/A PIPE not manufactured in this size.
Dimensions in inches.

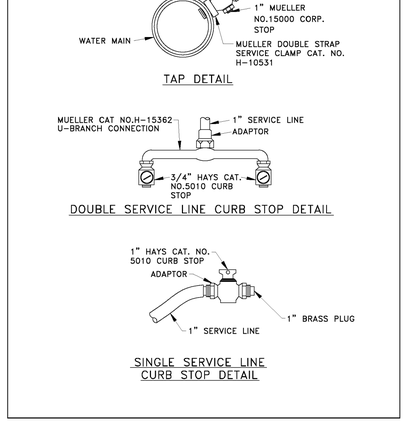
REVISIONS	CITY OF MONTGOMERY WATERLINE RESTRAINER	WATER W–3



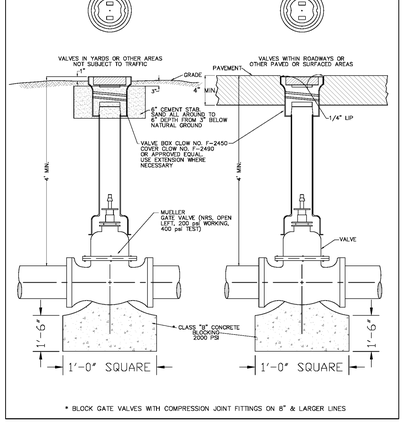
REVISIONS	CITY OF MONTGOMERY MECHANICAL JOINTS AND ELCEN CLAMPS FOR WATERLINES	WATER W–4



REVISIONS 10–2013 REVISED NOTES SERVICE SIZE	CITY OF MONTGOMERY WATER SERVICE CONNECTION	WATER W–8

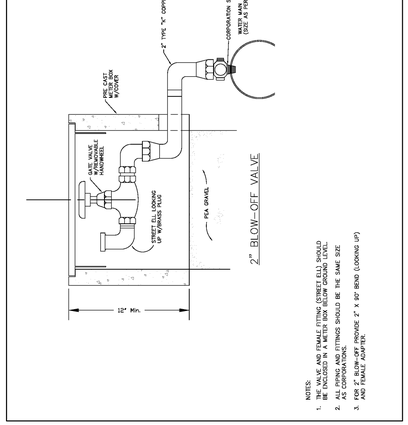


REVISIONS 10–2013 REVISED SERVICE LINE SIZE	CITY OF MONTGOMERY CURB STOP & TAP FOR WATERLINE	WATER W–10

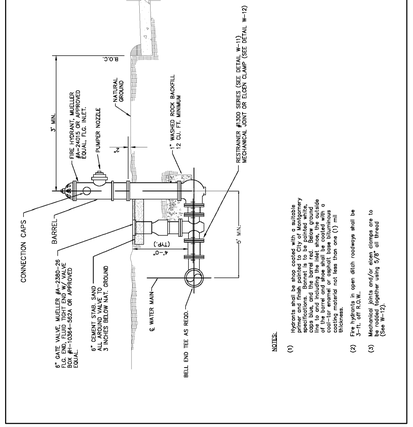


* BLOCK GATE VALVES WITH COMPRESSION JOINT FITTINGS ON 8" & LARGER LINES

REVISIONS	CITY OF MONTGOMERY GATE VALVE & BOX INSTALLATION 14" AND SMALLER WATERLINE	WATER W–11



REVISIONS	CITY OF MONTGOMERY 2" BLOW–OFF VALVE FOR WATERLINE	WATER W–13



REVISIONS	CITY OF MONTGOMERY FIRE HYDRANT INSTALLATION	WATER W–15

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 22339
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUITE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

UTILITY DETAILS (1 OF 3)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

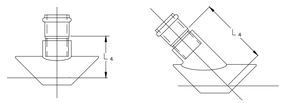
DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	AS NOTED	SHEET	34

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER
04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\18 DETAIL SHEETS.DWG Apr. 30, 2025–8:05 AM LAURYN JOHNSON



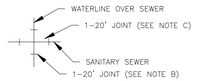
TEE SADDLE			WYE SADDLE		
D	L_4	Wt. lbs.	D	L_4	Wt. lbs.
6 x 4	6.0	2.3	6 x 4	7.1	5.9
8 x 4	7.0	2.3	8 x 4	7.9	5.9
8 x 6	7.8	4.5	8 x 6	9.7	5.4
10 x 4	9.0	2.3	10 x 4	9.3	5.9
10 x 6	9.8	4.5	10 x 6	11.1	5.4
12 x 4	10.0	2.3	12 x 4	10.8	5.9
12 x 6	10.8	4.5	12 x 6	12.5	5.4

NOTES:
1. PLACE SADDLE IN POSITION ON PIPE.
2. MARK HOLE GUIDE FOR CUT IN PIPE USING SADDLE AS A TEMPLATE.
3. REMOVE SADDLE FROM PIPE.
4. AUGER A HOLE INTO PIPE WALL ON HOLE GUIDE MARK. THE HOLE SHOULD BE 1/2" OUTSIDE THE HOLE GUIDE MARK.
5. WIPE CLEAN AND DRY BOTH THE UNDERSIDE OF THE SADDLE AND THE MATING SURFACE OF THE PIPE.
6. APPLY PRIMER TO BOTH MATING SURFACES. CHECK THE PVC SURFACES WHILE STILL WET WITH PRIMER TO SEE THAT THE SURFACES HAVE BEEN ETCHED.
7. WHILE THE SURFACES ARE STILL WET WITH PRIMER, LIBERALLY BRUSH CEMENT BASE ON MATING SURFACE OF SADDLE AND PIPE.
8. IMMEDIATELY POSITION THE SADDLE OVER THE HOLE IN THE PIPE AND DRAW DOWN WITH STAINLESS STEEL STRAPS.
9. THE SADDLE MUST NOT BE MOVED ONCE IT MAKES CONTACT WITH THE PIPE.

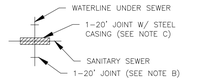
TEE & WYE SADDLES FOR PVC PIPE
NTS

CONSTRUCT WATER LINE–SANITARY SEWER CROSSING PER THE FOLLOWING REQUIREMENTS:

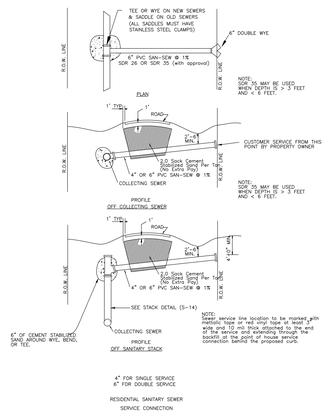
1
A. PROVIDE MINIMUM 2' VERTICAL CLEARANCE.
B. PLACE ONE FULL SECTION (MIN. 18 FT) OF WATERLINE CENTERED AT SANITARY SEWER CROSSING. PROVIDE RESTRAINED JOINTS ON WATERLINE, SPACED AT LEAST 9 FEET HORIZONTALLY FROM CENTERLINE SAND, AS PER TAC § 290.44.
C. WHERE A WATERLINE CROSSES A SEWER MAIN OR LATERAL WITHOUT 2' CLEARANCE, WATERLINE MUST BE 6" ABOVE SEWER MAIN OR LATERAL, SEWER MUST HAVE A PRESSURE RATED PIPE OF AT LEAST 150 PSI AND SHALL BE EMBEDDED IN CEMENT STABILIZED SAND FOR A TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12" BEYOND THE JOINT ON EACH END.
D. PLACE ONE FULL SECTION (MIN 18 FT) OF 150 PSI SANITARY SEWER CENTERED AT WATERLINE CROSSING, SPACED AT LEAST 9 FEET HORIZONTALLY FROM CENTERLINE OF WATERLINE, AND EMBED IN CEMENT STABILIZED SAND.
E. WATERLINES, INCLUDING SERVICE LEADS, SHALL ALWAYS CROSS OVER SANITARY SEWER LINES AND SERVICE LEADS UNLESS SPECIFICALLY LABELED AND APPROVED OTHERWISE.



2
A. ANY SANITARY SEWER MAIN OR LATERAL THAT CROSSES OVER A NEW WATERLINE SHALL BE ENCASED IN 18" OR LONGER SECTION OF PIPE CENTERED ON THE WATERLINE OR CONSTRUCTED WITH DUCTILE IRON OR STEEL PIPE WITH MECHANICAL WELDED JOINTS.

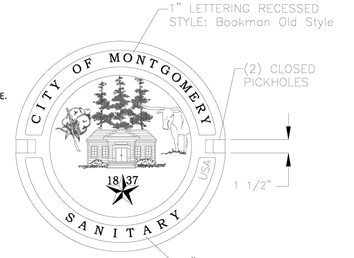


WATER LINE AND SANITARY SEWER CROSSING NOTES AND DETAIL
NTS

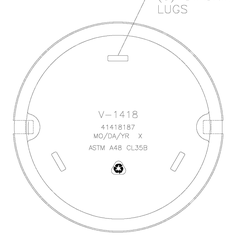


NOTES:

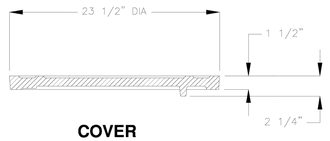
1. **APPROXIMATE WEIGHT**
   FRAME - 170LB
   COVER - 270LB
2. **MATERIAL TO BE GRAY CAST IRON (ASTM A48 CL35B).**
3. **CASTING TO MEET M306 PROOF LOAD SPECIFICATIONS.**
4. **ALL MANHOLE COVERS WILL NEED TO BE APPROVED BY THE CITY ENGINEER AND DIRECTOR OF PUBLIC WORKS PRIOR TO ACCEPTANCE OF THE PUBLIC INFRASTRUCTURE.**



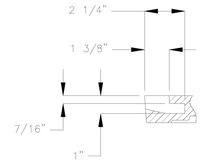
COVER SECTION VIEW



COVER BOTTOM VIEW

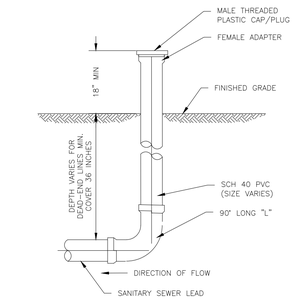


COVER SECTION VIEW

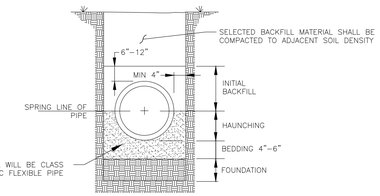


PICKHOLE DETAIL

CITY OF MONTGOMERY 24" SANITARY MANHOLE COVER	SANITARY S–2



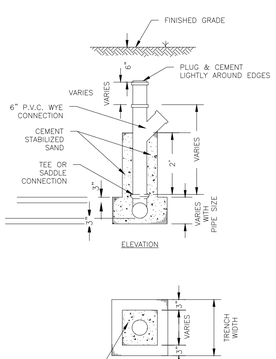
SANITARY SEWER LEAD TEMPORARY STUB UP DETAIL
NTS



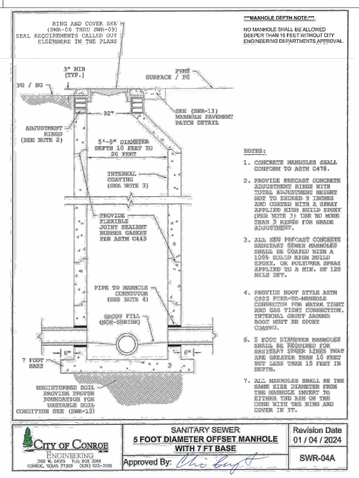
NOTES:
1. A FOUNDATION IS REQUIRED WHEN THE TRENCH BOTTOM IS UNSTABLE. ANY FOUNDATION THAT WILL SUPPORT A RIGID PIPE WITHOUT CAUSING LOSS OF GRADE OR FLEXURAL BREAKING WILL BE MORE THAN ADEQUATE FOR PVC PIPES.
2. THE BEDDING DIRECTLY UNDERNEATH THE PIPE IS REQUIRED ONLY TO BRING THE TRENCH BOTTOM UP TO GRADE. IT SHOULD NOT BE SO THICK OR SOFT THAT THE PIPE WILL SETTLE AND LOSE GRADE. THE PURPOSE OF THE BEDDING IS TO PROVIDE A FIRM, STABLE AND UNIFORM SUPPORT OF THE PIPE. A LAYER OF MATERIAL SUFFICIENT TO ESTABLISH LINE, GRADE, AND SUPPORT SHOULD BE PLACED. BELL HOLES SHOULD BE EXCAVATED TO INSURE UNIFORM BEARING.
3. THE HAUNCHING AREA IS THE MOST IMPORTANT IN TERMS OF LIMITING THE DEFLECTION OF A FLEXIBLE PIPE. THIS IS THE AREA THAT SHOULD BE COMPACTED TO THE REQUIRED OR SPECIFIED DENSITY.

ASTM D–2321 DESCRIPTION OF EMBEDMENT MATERIALS:
CLASS I: ANGULAR, 1/4" TO 1–1/2" GRADED STONE, INCLUDING A NUMBER OF FILL MATERIALS THAT HAVE REGIONAL SIGNIFICANCE, SUCH AS CORAL, SLAG, CINDERS, CRUSHED STONE AND CRUSHED SHELLS.
CLASS II: COARSE SANDS AND GRAVELS WITH MAXIMUM PARTICLE SIZE OF 1–1/2", INCLUDING VARIOUSLY GRADED SANDS, AND GRAVELS CONTAINING SMALL PERCENTAGES OF FINES, GENERALLY GRANULAR AND NONCOHESIVE, EITHER WET OR DRY. SOIL TYPES GW, GP, SW, AND SP ARE INCLUDED IN THIS CLASS.
CLASS III: FINE SAND AND CLAYEY GRAVELS, INCLUDING FINE SANDS AND SAND–CLAY MIXTURES, AND GRAVEL CLAY MIXTURES. SOIL TYPES GM, GC, SM AND SC ARE INCLUDED IN THIS CLASS.
CLASS IV: SILT, SILTY CLAYS, AND CLAYS, INCLUDING INORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY AND LIQUID LIMITS. SOIL TYPES MH, ML, CH, AND CL ARE INCLUDED IN THIS CLASS.
CLASS V: THIS CLASS INCLUDES THE ORGANIC SOILS OL, OH, AND PT AS WELL AS SOILS CONTAINING FROZEN EARTH, DEBRIS, ROCKS LARGER THAN 1–1/2" IN DIAMETER, AND OTHER FOREIGN MATERIALS. THESE MATERIALS ARE NOT RECOMMENDED FOR BEDDING, HAUNCHING, OR INITIAL BACKFILL.

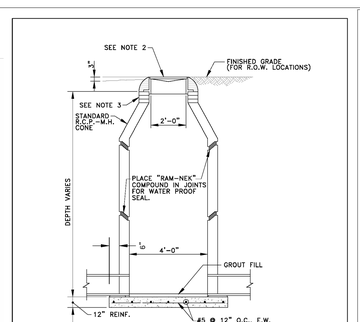
TYPICAL SANITARY BEDDING & TRENCH DETAIL
NTS



SANITARY SEWER STACK DETAIL
NTS

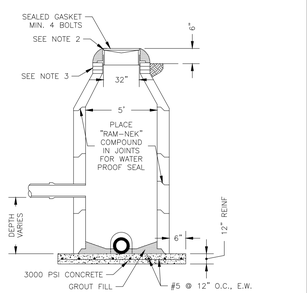


CITY OF CONROE ENGINEERING 300 W. DAVIS, CONROE, TEXAS 77301 (936) 522-3000	SANITARY SEWER 5 FOOT DIAMETER OFFSET MANHOLE WITH 7 FT BASE Approved By:	Revision Date 01 / 04 / 2024 SWR-04A



NOTE:
1.All R.C.P. Manholes shall be in accordance A.S.T.M. C–478.
2.Vulcan Foundry V–1418–2 Frame and Cover (or equal) with the City of Montgomery logo embedded in lid.
3.For adjustment of Manhole Lid use standard concrete rings. No brick adjustment allowed.
4.Precast bottom section of manhole to be securely attached to reinforced concrete slab with waterproof sealer.

REVISIONS	CITY OF MONTGOMERY STANDARD PRECAST MANHOLE	SEWER S–4



NOTE:
1. A DROP PIPE SHALL BE PROVIDED FOR A SEWER ENTERING A MANHOLE MORE THAN 24" ABOVE THE MANHOLE INVERT & SHALL BE AN INTERNAL DROP.
2. ALL R.C.P. MANHOLES SHALL BE IN ACCORDANCE WITH A.S.T.M. C–478.
3. USE WATERTIGHT MANHOLE RING & COVER (OR EQUAL)
4. FOR ADJUSTMENT OF MANHOLE LID USE STANDARD CONCRETE RINGS. NO BRICK ADJUSTMENT ALLOWED.
5. PRECAST BOTTOM SECTION OF MANHOLE TO BE SECURELY ATTACHED TO REINFORCED CONCRETE SLAB WITH WATERPROOF SEALER.
6. MANHOLE SECTIONS, CONES AND INVERT TOPS SHALL BE COATED WITH A SUITABLE, PROTECTIVE, 20 MILS THICK, COLD TAR EPOXY COATING.

STANDARD PRECAST DOGHOUSE MANHOLE
NTS

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12235
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE SECTION 1 WS&D

UTILITY DETAILS (2 OF 3)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	AS NOTED	SHEET	35

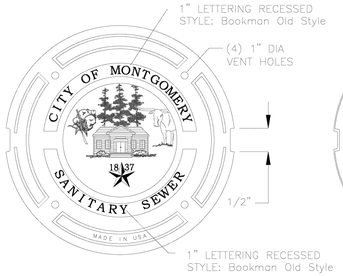
STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER
Jonathan Payne
04/29/2025

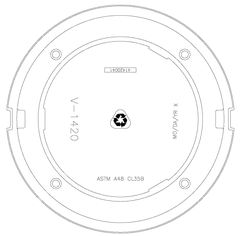
*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\18 DETAIL SHEETS.DWG Apr. 30, 2025–8:00 AM LAURYN JOHNSON

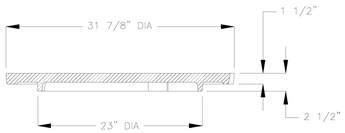
NOTES:

1. APPROXIMATE WEIGHT
   FRAME - 170LB
   COVER - 270LB
2. MATERIAL TO BE GRAY CAST IRON (ASTM A48 CL35B).
3. CASTING TO MEET M306 PROOF LOAD SPECIFICATIONS.
4. ALL MANHOLE COVERS WILL NEED TO BE APPROVED BY THE CITY ENGINEER AND DIRECTOR OF PUBLIC WORKS PRIOR TO ACCEPTANCE OF THE PUBLIC INFRASTRUCTURE.





COVER
BOTTOM VIEW

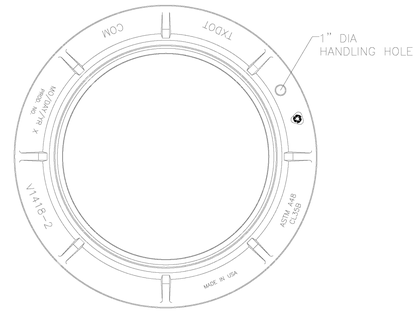


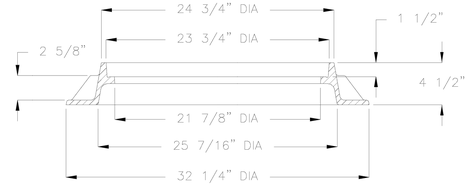
COVER
SECTION VIEW

CITY OF MONTGOMERY 32" SANITARY MANHOLE COVER	SANITARY S-1

NOTES:

1. APPROXIMATE WEIGHT
   FRAME - 170LB
   COVER - 270LB
2. MATERIAL TO BE GRAY CAST IRON (ASTM A48 CL35B).
3. CASTING TO MEET M306 PROOF LOAD SPECIFICATIONS.
4. ALL MANHOLE FRAMES WILL NEED TO BE APPROVED BY THE CITY ENGINEER AND DIRECTOR OF PUBLIC WORKS PRIOR TO ACCEPTANCE OF THE PUBLIC INFRASTRUCTURE.





FRAME SECTION VIEW

CITY OF MONTGOMERY 24" SANITARY MANHOLE FRAME	SANITARY S-4

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12230
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D
UTILITY DETAILS (3 OF 3)

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

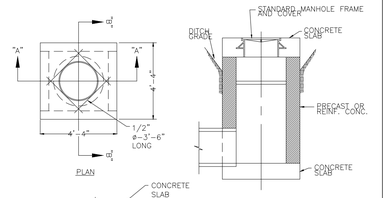
DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	AS NOTED	SHEET	36

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER
04/29/2025

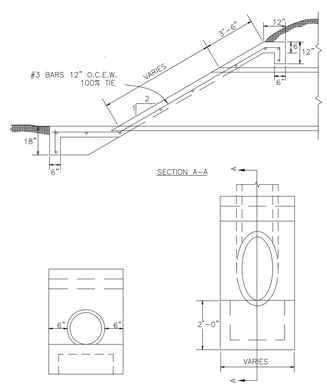
*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 - TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\18 DETAIL SHEETS.DWG Apr. 30, 2025-8:04 AM LAURYN JOHNSON

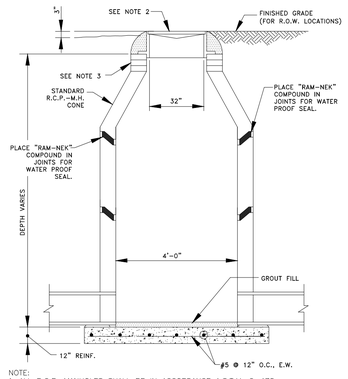


NOTE:
INLET MAY BE EITHER CAST IN PLACE W/ WATERPROOF SEALER OR PRECAST BASE ON 12" CEMENT STABILIZED SLAB.

TYPE "C" INLET
NTS

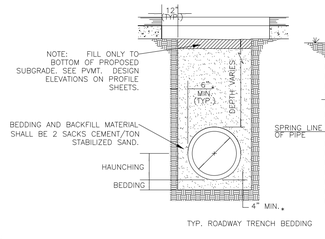


SLOPED HEADWALL DETAIL
NTS

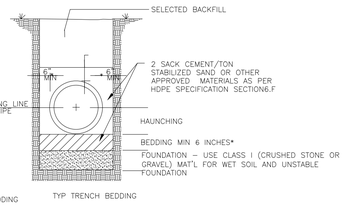


NOTE:
1. ALL R.C.P. MANHOLES SHALL BE IN ACCORDANCE A.S.T.M. C-478.
2. EAST JORDAN 32" FRAME AND COVER (OR EQUAL) WITH THE CITY OF CONROE LOGO EMBEDDED IN LID.
3. FOR ADJUSTMENT OF MANHOLE LID USE STANDARD CONCRETE RINGS. NO BRICK ADJUSTMENT ALLOWED.
4. PRECAST BOTTOM SECTION OF MANHOLE TO BE SECURELY ATTACHED TO REINFORCED CONCRETE SLAB WITH WATERPROOF SEALER.
5. MANHOLE SECTIONS, CONES AND INVERT TOPS SHALL BE COATED WITH A SUITABLE, PROTECTIVE, 20 MILS THICK, COLD TAR EPOXY COATING.

STANDARD PRECAST MANHOLE
NTS



TYP. ROADWAY TRENCH BEDDING



TYP TRENCH BEDDING

FOUNDATION:
A FOUNDATION IS REQUIRED WHEN THE TRENCH BOTTOM IS UNSTABLE. ANY FOUNDATION THAT WILL SUPPORT A RIGID PIPE WITHOUT CAUSING LOSS OF GRADE OR FLEXURAL BREAKING WILL BE MORE THAN ADEQUATE FOR PVC PIPES.
BEDDING:
THE BEDDING DIRECTLY UNDERNEATH THE PIPE IS REQUIRED ONLY TO BRING THE TRENCH BOTTOM UP TO GRADE. IT SHOULD NOT BE SO THICK OR SOFT THAT THE PIPE WILL SETTLE AND LOSE GRADE. THE PURPOSE OF THE BEDDING IS TO PROVIDE A FIRM, STABLE AND UNIFORM SUPPORT OF THE PIPE. A LAYER OF MATERIAL SUFFICIENT TO ESTABLISH LINE, GRADE, AND SUPPORT SHOULD BE PLACED. BELL HOLES SHOULD BE EXCAVATED TO INSURE UNIFORM BEARING.
HAUNCHING:
HAUNCHING AND INITIAL BACKFILL ARE THE MOST IMPORTANT IN TERMS OF LIMITING THE DEFLECTION OF AREAS HORIZONTAL A FLEXIBLE PIPE. THESE AREAS SHOULD BE COMPACTED TO REQUIRED OR SPECIFIED DENSITY.

NOTE 1: WHEN USING HDPE PIPE, THE BACKFILL MATERIAL SHALL BE CEMENT STABILIZED SAND (2 SACK CEMENT/TON) OR OTHER APPROVED BACKFILL MATERIAL AS SPECIFIED BY THE ENGINEER, AND IN ACCORDANCE TO CITY OF CONROE HDPE SPECIFICATION, SECTION 6.F FURTHER, THE BACKFILL MATERIAL SHALL BE USED FOR THE WHOLE DEPTH AND WIDTH OF ALL DITCHES, TRENCHES, ETC. UNDER ANY ROADWAY OR PAVED SURFACES. WHEN PIPES ARE NOT UNDER PAVED SURFACES, THE BACKFILL MATERIAL SHALL BE USED TO A MINIMUM OF 6" UNDER AND AROUND THE PIPE, BUT SHALL COVER THE FULL WIDTH OF THE TRENCH TO THE UNDISTURBED WALLS. THE MINIMUM DIMENSION OF THE TRENCH FOR THE HDPE PIPE SHALL BE AS SPECIFIED IN THE HDPE SPECIFICATION, TABLE 6.1.

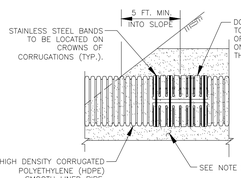
NOTE 2: ONLY RCP (REINFORCED CONC PIPE) SHALL BE USED UNDER THE PAVED SURFACE OF ROADWAYS. PIPE MAY ONLY BE PLACED UNDER A ROADWAY WHEN IT RUNS PERPENDICULAR TO A ROADWAY. PIPE MAY RUN LONGITUDINALLY BESIDE THE ROADWAY IN THE R.O.W.

NOTE 3: BACKFILL ABOVE THE BEDDING SHALL CONFORM TO "TYPICAL STORM SEW. BACKFILL AND TRENCH REPAIR" STANDARD DRAWING D-5.

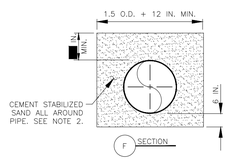
ASTM D-2321
DESCRIPTION OF EMBEDMENT MATERIALS
CLASS I

ANGULAR, 1/4" TO 1-1/2" GRADED STONE, INCLUDING A NUMBER OF FILL MATERIALS THAT HAVE REGIONAL SIGNIFICANCE, SUCH AS CORAL, SLAG, CINDERS, CRUSHED STONE AND CRUSHED SHELLS. CLASS II COARSE SANDS AND GRAVELS WITH MAXIMUM PARTICLE SIZE OF 1-1/2", INCLUDING VARIOUSLY GRADED SANDS, AND GRAVELS CONTAINING SMALL PERCENTAGES OF FINES, GENERALLY GRANULAR AND NONCOHESIVE, EITHER WET OR DRY. SOIL TYPES GW, GP, SW, AND SP ARE INCLUDED IN THIS CLASS. CLASS III FINE SAND AND CLAYEY GRAVELS, INCLUDING FINE SANDS AND SAND-CLAY MIXTURES, AND GRAVEL CLAY MIXTURES. SOIL TYPES GM, GC, SM AND SC ARE INCLUDED IN THIS CLASS.

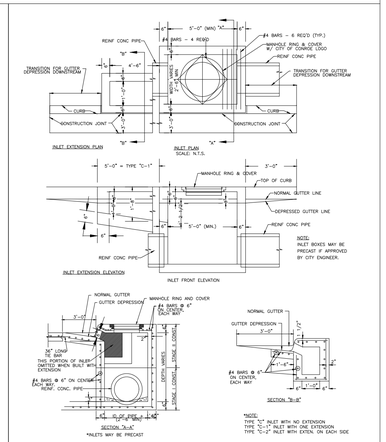
STORM SEWER BEDDING AND TRENCH DETAIL
NTS



HDPE BAND COUPLER DETAIL



BEDDING HDPE PIPE DETAIL
NTS



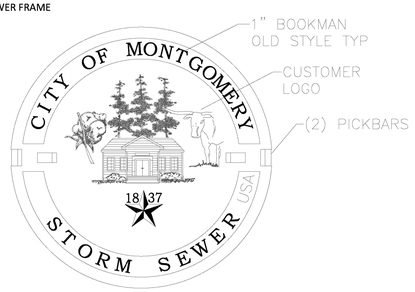
*NOTE:
TYPE "C" INLET WITH NO EXTENSION
TYPE "C-1" INLET WITH ONE EXTENSION
TYPE "C-2" INLET WITH EXTEN. ON EACH SIDE

*INLETS MAY BE PRECAST

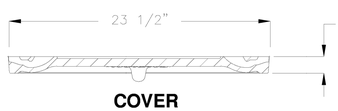
TYPE "C", "C-1" & "-2" INLETS
NTS

NOTES:

1. APPROXIMATE WEIGHT
   FRAME - 170LB
   COVER - 270LB
2. MATERIAL TO BE GRAY CAST IRON (ASTM A48 CL35B).
3. CASTING TO MEET M306 PROOF LOAD SPECIFICATIONS.
4. ALL MANHOLE COVERS WILL NEED TO BE APPROVED BY THE CITY ENGINEER AND DIRECTOR OF PUBLIC WORKS PRIOR TO ACCEPTANCE OF THE PUBLIC INFRASTRUCTURE.
5. COVER TO BE INSTALLED WITH SNAITARY SEWER FRAME OF CORRESPONDING SIZE.



COVER BOTTOM VIEW



COVER SECTION VIEW

CITY OF MONTGOMERY
STORM SEWER
MANHOLE COVER

DRAINAGE

D-5

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

L SQUARED ENGINEERING
MUNICIPAL COMMERCIAL RESIDENTIAL
WWW.L2ENGINEERING.COM
FIRM REGISTRATION NUMBER 12235
3307 W. DAVIS STREET #100
CONROE, TEXAS 77304
OFFICE: 936-647-0420

CLIENT INFORMATION
TRI POINTE HOMES
DANIEL GILLHAM
16340 PARK TEN PLACE, SUTIE 250
HOUSTON, TX 77084

PROJECT ADDRESS
LONESTAR PKW / SH 105
MONTGOMERY, TX 77356

LEGACY GROVE
SECTION 1 WS&D

STORM DETAILS

DRAWING ISSUE

#	DATE	BY	* COMMENT
1	04/29/25	JP	FOR PERMIT

DRAWING INFORMATION

PROJECT	11020	TDLR	**
DRAWN	LMJ	CHECKED	JP
SCALE	AS NOTED	SHEET	37

STATE OF TEXAS
JONATHAN PAYNE
139294
LICENSED
PROFESSIONAL ENGINEER
Jonathan Payne
04/29/2025

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE

L:\SHARED\L2 ENGINEERING PROJECTS\ENGINEERING PROJECTS\11020 – TRI POINTE 108\03 CAD\DESIGN SET\PHASE 1\18 DETAIL SHEETS.DWG Apr. 30, 2025–8:06 AM LAURYN JOHNSON

Montgomery City Council
AGENDA REPORT

Meeting Date: 2025.05.13	**Budgeted Amount:**
Department: Administration	**Prepared By: WGA**

Subject

Consideration and Possible Action on ending releasing the maintenance bond on the Buffalo Springs Signal Improvements project.

Recommendation

Staff and WGA recommend that City Council formally end the Maintenance Bond with the contractor.

Discussion

The project was officially placed in TxDOT's maintenance purview on February 7, 2025, and no longer requires the contractor's maintenance bond to be held. TxDOT has confirmed that they will not be reaching out to the City requesting any repairs be made to the signal.

As a reminder, this project was funded by Home Depot.

The Engineer's memo is attached.

Approved By

City Staff	Ruby Beaven	Date: 2025.05.05

May 7, 2025

The Honorable Mayor and City Council
City of Montgomery
101 Old Plantersville Road
Montgomery, Texas 77316

Re: Warranty Release
Buffalo Springs Signal
City of Montgomery

Dear Mayor and City Council:

As you are aware, the Buffalo Springs Signal project is completed, and the signal is operational. Based on the interlocal governmental agreement with TxDOT, the signal would be the responsibility of TxDOT to maintain once all punchlist items had been addressed.

As of February 7, 2025, the contractor, Traf-Tex, has addressed all City and TxDOT comments, and the signal was transferred to TxDOT for all operation and future maintenance. Per TxDOT, the City nor the contractor is required to complete any future repairs or maintenance on the signal. We recommend formally ending the warranty period and releasing the maintenance bond for the project.

If you have any questions or comments, please do not hesitate to contact me.

Sincerely,

Chris Roznovsky, PE
Engineer for the City

CVR/zlgt
Z:\00574 (City of Montgomery)_900 General Consultation\Correspondence\Letters\2024\2024.10.01 MEMO to Council RE Water Plant No. 3 Improvements Warranty Release.docx
Enclosures: TxDOT Correspondence
Cc (via email): Ms. Corinne Tilley– City of Montgomery, Code Enforcement Officer & Director of Planning & Development
Chief Anthony Solomon – City of Montgomery, Interim City Administrator & Chief of Police
Ms. Ruby Beaven – City of Montgomery, City Secretary
Mr. Alan Petrov – Johnson Petrov, LLP, City Attorney

April 15, 2025

The Honorable Mayor and City Council
City of Montgomery
101 Old Plantersville Road
Montgomery, Texas 77316

Re: One-Year Warranty
Buffalo Springs Drive & SH-105 Traffic Signal
City of Montgomery

Dear Mayor and Council,

As of February 6, 2025, the traffic signal on SH-105 at Buffalo Springs Drive has been accepted by TxDOT to operate and maintain and as such, Traf-Tex is no longer expected to complete any work related to this project. All deficiencies noted by City of Montgomery and TxDOT have been corrected and verified.

Based on the following, we recommend the City of Montgomery officially end the warranty for the project and release maintenance bond.

Should you have any questions, please feel free to contact us.

Sincerely,

Sean Donahue, PE
Construction Department Manager

SMD/cnf
Z:\00574 (City of Montgomery)\117 Montgomery Summit Business Park\Inspections\One-Year Warranty Complete\Warranty (1yr) Inspection - Complete.docx

cc (via email): Mr. Anthony Solomon – City of Montgomery, Interim City Administrator
Ms. Corrine Tilley – City of Montgomery, Code Enforcement Officer and P&D Administrator
Ms. Ruby Beaven – City of Montgomery, City Secretary
Mr. Mike Muckleroy – City of Montgomery, Director of Public Works
Mr. Alan Petrov – Johnson Petrov, LLP, City Attorney
Ms. Katherine Vu, PE – Ward, Getz, & Associates, LLC, City Engineer

Outlook

Re: SH 105 West to Buffalo Springs - (23050393)

From Zachary Timms <ztimms@wga-llc.com>
Date Fri 4/11/2025 2:28 PM
To Timothy Conrad <Timothy.Conrad@txdot.gov>
Cc Chris Roznovsky <CRoznovsky@wga-llp.com>; Katherine Vu <KVu@wga-llp.com>; Esteban Sosa <Esteban.Sosa@txdot.gov>; Ruri Almonte <ruri@traftex.com>; Akeem Dunmoye <adunmoye@wga-llp.com>; Chelsea Festervand <cfestervand@wga-llp.com>; Sean Donahue <sdonahue@wga-llp.com>; Birch Fitzgerald <birch@traftex.com>

Thanks for the update. We with that we will be releasing the maintenance bond on Traf-Tec.

Have a great weekend.

Thanks,

Zach Timms, EIT
Assistant Project Manager
WGA Consulting Engineers
Cell: 972-765-0721 | **Direct:** 713-581-7357

From: Timothy Conrad <Timothy.Conrad@txdot.gov>
Sent: Friday, April 11, 2025 2:16 PM
To: Zachary Timms <ztimms@wga-llp.com>
Cc: Chris Roznovsky <CRoznovsky@wga-llp.com>; Katherine Vu <KVu@wga-llp.com>; Esteban Sosa <Esteban.Sosa@txdot.gov>; Ruri Almonte <ruri@traftex.com>; Akeem Dunmoye <adunmoye@wga-llp.com>; Chelsea Festervand <cfestervand@wga-llp.com>; Sean Donahue <sdonahue@wga-llp.com>; Birch Fitzgerald <birch@traftex.com>
Subject: RE: SH 105 West to Buffalo Springs - (23050393)

Yes, as of 2/6/25, the signals on SH 105 @ Buffalo Springs Drive are the responsibility of TxDOT to maintain.

Thank you.

Tim Conrad

Driveway Inspector
O: 936-538-3357
Timothy.conrad@txdot.gov

From: Zachary Timms <ztimms@wga-llp.com>
Sent: Thursday, April 10, 2025 8:29 AM
To: Timothy Conrad <Timothy.Conrad@txdot.gov>
Cc: Chris Roznovsky <CRoznovsky@wga-llp.com>; Katherine Vu <KVu@wga-llp.com>; Esteban Sosa <Esteban.Sosa@txdot.gov>; Ruri Almonte <ruri@traftex.com>; Akeem Dunmoye <adunmoye@wga-llp.com>; Chelsea Festervand <cfestervand@wga-llp.com>; Sean Donahue <sdonahue@wga-llp.com>; Birch Fitzgerald <birch@traftex.com>
Subject: Re: SH 105 West to Buffalo Springs - (23050393)

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Tim,

Following up on this. We are looking to close out the project and release the bonds on Trav-Tec for this work. Just wanted to confirm that as of Feb 7th the signal was under TxDOT's maintenance purview and our contractor was no longer expected to complete any work related to this.

Would there be any documentation you could provide to us for our records on this?

Thanks,

Zach Timms, EIT
Assistant Project Manager
WGA Consulting Engineers
Cell: 972-765-0721 | **Direct:** 713-581-7357

From: Sean Donahue <sdonahue@wga-llp.com>
Sent: Tuesday, February 11, 2025 11:27 AM
To: Timothy Conrad <Timothy.Conrad@txdot.gov>; Zachary Timms <ztimms@wga-llp.com>; Birch Fitzgerald <birch@traftex.com>
Cc: Chris Roznovsky <CRoznovsky@wga-llp.com>; Katherine Vu <KVu@wga-llp.com>; Esteban Sosa <Esteban.Sosa@txdot.gov>; Ruri Almonte <ruri@traftex.com>; Akeem Dunmoye <adunmoye@wga-llp.com>; Chelsea Festervand <cfestervand@wga-llp.com>
Subject: RE: SH 105 West to Buffalo Springs - (23050393)

Hi Tim,

I didn't see any email after this one, was it sent off to the District?

Thanks,

Sean Donahue, PE
Construction Department Manager

4526 Research Forest, Suite 360 | The Woodlands, TX 77381

C: 720-371-0786 | O: 713-789-1900

Montgomery City Council
AGENDA REPORT

Meeting Date: 2025.05.13	**Budgeted Amount:**
Department: Administration	**Prepared By: WGA**

Subject

Consideration and Possible Action on the Briarley PH 1B WSD&P Plans (Dev. No. 2006)

Recommendation

Staff and WGA recommends Council approval of the Briarley PH 1B WSD&P plans as presented.

Discussion

The Engineer's memo and supporting documents are attached.

Approved By

City Staff	Ruby Beaven	Date: 2025.05.05

May 7, 2025

City Council
City of Montgomery
101 Old Plantersville Rd.
Montgomery, Texas 77316

Re: Approval of Water, Sanitary, Drainage, & Paving Plans
Briarley Phase 1B WSD&P Plans (Dev. No. 2006)
City of Montgomery

Dear Mayor and Council:

We reviewed the WSD&P plans submission for the referenced development on behalf of the City of Montgomery (the "City"). Our review was based on the City's Code of Ordinances, Chapter 78 Section 60 and any other applicable chapters, and the City's Design Manual. Our review was also based upon the approved development regulations included as part of the development agreement between the Developer and the City.

This phase of the development includes 42.51 acres, 112 lots ranging from 60' to 80' in width, and is served by a maximum 28' wide road with 60' right of way. As a reminder, the variance for 60' lot width from the required 75' and lot area of 8,400 sf from the required 9,000 sf was approved on August 8th, 2023. We recommend approval of the WSD&P plans as submitted.

If you have any questions or comments, please contact me.

Sincerely,

Chris Roznovsky

Chris Roznovsky, PE
Engineer for the City

CVR/zlgt
Z:\00574 (City of Montgomery)_900 General Consultation\Correspondence\Letters\2025\2025.05.06 MEMO to Council Briarley Phase 1B WSD&P Plans.docx
Enclosures: Plans
Cc (via email): Mr. Anthony Solomon – City of Montgomery, Interim City Administrator & Police Chief
Ms. Ruby Beaven – City of Montgomery, City Secretary & Director of Administrative Services
Ms. Corinne Tilley – City of Montgomery, Code Enforcement Officer & Planning and Development Administrator

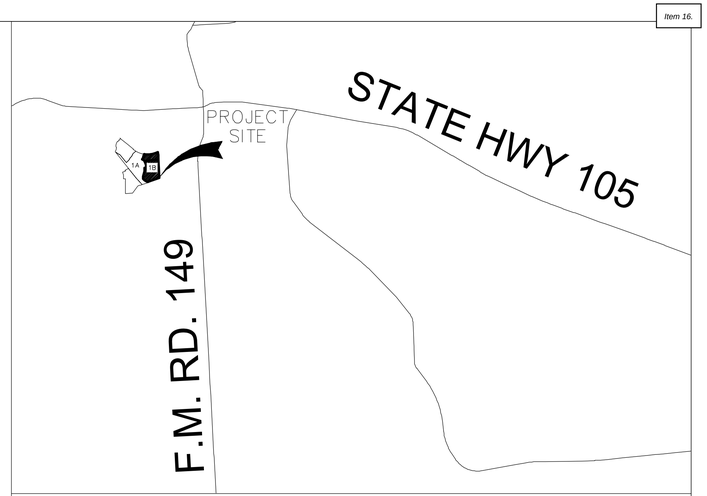
CONSTRUCTION PLANS FOR
WATER, SANITARY SEWER AND DRAINAGE FACILITIES
&
PAVING AND APPURTENANCES
TO SERVE

BRIARLEY PHASE 1B
DEV. NO. 2006

MONTGOMERY COUNTY
MUNICIPAL UTILITY DISTRICT NO. 215
CITY OF MONTGOMERY, TEXAS

JOB. NO. 2980-0104

DATE: April 2025



VICINITY MAP
SCALE: NTS
KEY MAP: 123 W

Sheet Index

Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL NOTES
3	DRAINAGE LAYOUT
4	PAVING AND SIDEWALK
5	STREET LIGHT LAYOUT
6	DRAINAGE AREA MAP
7	5 YEAR STORM CALCULATIONS
7a	10 YEAR STORM CALCULATIONS
8	100 YEAR STORM CALCULATIONS
9	STORM WATER POLLUTION PREVENTION PLAN
10	CLEARING PLAN
11	LANDSCAPE PLAN
12	HOUNDSTONE HOLLOW (BEGIN TO STA. 13+00)
13	HOUNDSTONE HOLLOW (STA 13+00 TO 24+00)
14	SHEPARD HOLLOW (STA 24+00 TO END)
15	SETTER TRAIL (BEGIN TO STA. 11+50)
16	SETTER TRAIL (STA. 11+50 TO END)
17	POINTER PLACE & COLLIE CREEK
18	STORM OUTFALL 'B'
19	STORM OUTFALL 'B'
20	PAVING DETAILS
21	PAVING DETAILS II
22	SANITARY DETAILS I
23	SANITARY DETAILS II
24	WATER DETAILS I
25	WATER DETAILS II
26	WATER DETAILS III
27	DRAINAGE DETAILS I
28	DRAINAGE DETAILS II
29	DRAINAGE DETAILS III
30	STORM WATER POLLUTION PREVENTION PLAN DETAILS

NOTES

1. ALL STORM SEWER, OVERFLOW SWALES, OUTFALL DITCHES, CHANNELS AND BOX CULVERTS SHALL BE MAINTAINED BY MONTGOMERY COUNTY M.U.D. NO. 215.

2. THE MASTER DRAINAGE FOR THE BRIARLEY DEVELOPMENT (FORMERLY REDBIRD DEVELOPMENT), IS BEING DESIGNED BY LJA TO MEET OR EXCEED MINIMUM REQUIREMENTS OF CITY OF MONTGOMERY & MONTGOMERY COUNTY, TEXAS. ALL STORM SEWERS, NATURAL DRAINAGE COURSES, OR IMPROVED DRAINAGE CHANNELS HAVE ADEQUATE CAPACITY FOR THE FLOWS INDICATED IN THE DRAINAGE ANALYSIS. THE DRAINAGE DATA PRESENTED IN THESE PLANS CONFORMS TO THE LJA MASTER DRAINAGE PLAN AND ALL APPLICABLE CITY OF MONTGOMERY DRAINAGE REQUIREMENTS.

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

MONTGOMERY COUNTY
FIRE MARSHALL

Approved: _____
Fire Marshall

Date: _____

JDS OLD PLANTERSVILLE ROAD, LLC
FORMERLY: REDBIRD DEVELOPMENT, LLC

APPROVED FOR CONSTRUCTION

BY _____ DATE _____

ENGINEER:
LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

Date\Time : Wed, 23 Apr 2025 - 3:59pm
Path\Name : I:\Projekt\2980\0104\Sheets\1 COVER SHEET.dwg

BRIARLEY PHASE 1B – 2980-0104

GENERAL NOTES:

1. MATERIALS, CONSTRUCTION AND TESTING TO BE IN ACCORDANCE WITH THE CITY OF MONTGOMERY ORDINANCES AND SPECIFICATIONS, LATEST PRINTING AND AMENDMENTS THERETO.
2. CONTRACTOR SHALL OBTAIN ALL DEVELOPMENT AND CONSTRUCTION PERMITS REQUIRED BY THE CITY OF MONTGOMERY AT CONTRACTORS EXPENSE PRIOR TO COMMENCEMENT OF WORK.
3. CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES OR RAILROADS AFFECTED BY HIS OPERATIONS AND THE CITY OF MONTGOMERY DEPARTMENT OF PUBLIC WORKS, 48 HOURS PRIOR TO COMMENCEMENT OF WORK IN STREET RIGHTS-OF-WAY OR EASEMENTS.
4. ALL EXISTING UNDERGROUND UTILITIES ARE NOT GUARANTEED TO BE COMPLETED OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE. CONTRACTOR HAS SOLE RESPONSIBILITY FOR FIELD VERIFICATION OF ALL EXISTING FACILITIES SHOWN ON DRAWINGS. CONTRACTOR SHALL COORDINATE ALL CONFLICTS WITH THE APPROPRIATE GOVERNING AGENCY.
5. THE LOCATION OF AT&T COMPANY, ENTERPRISE PIPELINE, TEXAS EXPRESS PIPELINE AND TXU UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL REQUEST THE EXACT LOCATION OF THESE FACILITIES BY CALLING THE UTILITY COMPANIES, AT LEAST 48 HOURS BEFORE COMMENCING WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH OCCURS DUE TO FAILURE TO REQUEST THE LOCATION AND PRESERVATION OF THESE UNDERGROUND FACILITIES. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF CONSTRUCTION OPERATIONS WILL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
6. TEXAS LAW ARTICLE 1436C, PROHIBITS ALL ACTIVITIES IN WHICH PERSONS OR EQUIPMENT MAY COME WITHIN 6 FEET OF ENERGIZED OVERHEAD POWER LINES, AND FEDERAL REGULATION, TITLE 29, PART 1910.130(1) AND PART 1926.440 (A) (15) REQUIRE A MINIMUM CLEARANCE OF 10 FEET FROM THESE FACILITIES. THE ABOVE LAWS CARRY BOTH CRIMINAL AND CIVIL LIABILITIES, WITH CONTRACTORS AND OWNERS BEING LEGALLY RESPONSIBLE FOR THE SAFETY OF WORKERS UNDER THESE LAWS. IF YOU OR YOUR COMPANY MUST WORK NEAR ENERGIZED OVERHEAD POWER LINES, CALL THE POWER COMPANY FOR THE LINES TO BE DE-ENERGIZED AND/OR MOVED AT YOUR EXPENSE.
7. CONSTRUCTION SHALL COMPLY WITH THE LATEST REVISIONS OF OSHA REGULATIONS AND STATE OF TEXAS LAW CONCERNING TRENCHING AND SHORING. CONTRACTOR SHALL PROVIDE A TRENCH SAFETY SYSTEM TO MEET, AS A MINIMUM, THE REQUIREMENTS OF OSHA SAFETY AND HEALTH REGULATION, PART 1926, SUB-PART P AS PUBLISHED IN THE FEDERAL REGISTER, VOLUME 54, NO. 209, DATED OCTOBER 31, 1989.
8. DETAILS PREPARED BY THE ENGINEER DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY CHAPTER 756, SUBCHAPTER "C" OF THE TEXAS HEALTH AND SAFETY CODE.
9. CONTRACTOR SHALL COVER OPEN EXCAVATIONS WITH ANCHORED STEEL PLATES DURING NON-WORKING HOURS, ALONG EXISTING ROADWAYS AND TRAFFIC AREAS.
10. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE CITY OF MONTGOMERY . ALL CONSTRUCTION RUNOFF SHALL COMPLY WITH STORM WATER MANAGEMENT FOR CONSTRUCTION ACTIVITIES AND THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING AND WARNING DEVICES, ETC., DURING CONSTRUCTION BOTH DAY AND NIGHT IN ACCORDANCE WITH THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS OR PROVIDE ALL-WEATHER DETOURS AROUND CONSTRUCTION SITE, PROVIDE PUBLIC NOTIFICATION, AND USE UNIFORMED POLICE OFFICERS TO CONTROL TRAFFIC.
12. EXISTING PAVEMENTS, CURBS, SIDEWALKS AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO CITY OF MONTGOMERY STANDARDS. ALL ASPHALT AND CONCRETE DRIVEWAYS EXCAVATED DURING CONSTRUCTION SHALL BE BACKFILLED WITH STABILIZED MATERIAL AND RETURNED TO EXISTING CONDITIONS. ALL STATE AND COUNTY HIGHWAY PAVEMENT AND RAILROAD RIGHT-OF-WAYS TO BE BORED ACCORDING TO THE RULES, REGULATIONS AND REQUIREMENTS FOR APPROVAL AND ACCEPTANCE BY SAID AGENCIES.
13. EXISTING ROADS AND/OR RIGHT-OF-WAYS DISTURBED DURING CONSTRUCTION SHALL BE AS GOOD OR BETTER THAN THE CONDITION PRIOR TO STARTING THE WORK, UPON COMPLETION OF THE PROJECT.
    AFTER DISTURBED AREAS HAVE BEEN COMPLETED TO THE LINES, GRADES, AND CROSS-SECTIONS SHOWN ON THE PLANS, SEEDING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS TO ESTABLISH ADEQUATE VEGETATION COVERAGE TO ELIMINATE EROSION. IF NO PROVISION FOR PLANTING GRASS IS INCLUDED IN THE PLANS OR SPECIFICATIONS, THE MINIMUM REQUIREMENT FOR THIS ITEM WILL BE IN ACCORDANCE WITH THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR "SODDING OR SEEDING FOR EROSION CONTROL."
14. ALL TRENCHES, INCLUDING TRENCHES FOR LEADS AND STUBS UNDER PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL CURBS SHALL BE BACKFILLED WITH CEMENT STABILIZED SAND AS PER SPECIFICATION TO A POINT IMMEDIATELY BELOW THE SUBGRADE. TRENCHES OTHER THAN UNDER PAVEMENT SHALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL IN 6 INCH LAYERS AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST (ASTM DESIGNATION D-698/AASHTO T99). MOISTURE CONTENT OF BACKFILL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CEMENT STABILIZED SAND SPECIFICATIONS. SEE STANDARD DETAIL SHEETS FOR BEDDING AND OTHER DESIGN REQUIREMENTS.
15. INCLUDE PRICE OF ALL BEDDING AND BACKFILL OF TYPE REQUIRED, IN PRICE BID PER LINEAR FOOT OF PIPE.
16. CONTRACTOR TO REMOVE EXISTING PLUGS AND CONNECT TO EXISTING UTILITY LINES AS INDICATED ON PLANS.
17. UNLESS OTHERWISE NOTED ON PLANS, WHERE MANHOLES ARE LOCATED WITHIN THE UTILITY EASEMENTS, THE CONTRACTOR SHALL SET RIM ELEVATIONS TWO INCHES ABOVE FINISHED GROUND ELEVATIONS.
18. WHEN TRENCH CONDITION REQUIRES THE USE OF WELL POINTS, THIS IS TO BE REQUESTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING THE MUD AND/OR DIRT DEPOSITED ON EXISTING PAVEMENT DUE TO HIS CONSTRUCTION ACTIVITY DAILY. ALL EQUIPMENT AND DEBRIS FROM CONSTRUCTION TO BE MOVED AT END OF PROJECT.
20. CONTRACTOR SHALL CONTACT THE FOLLOWING A MINIMUM OF 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
    MARCUS BOWLES, PE . . . . . LJA ENGINEERING, INC. . . . (713) 953-5098
    MICAH KREIKEMEIER, PE . . . . . LJA ENGINEERING, INC. . . . (713) 953-5134
    KATHERINE VU, PE . . . . . CITY ENGINEER . . . . . (713) 789-1900
    CHRIS ROZNOVSKY, PE . . . . . CITY ENGINEER. . . . . (713) 789-1900
21. ALL AREAS DISTURBED ALONG SIDE AND BACK-OF-LOT EASEMENTS OR OTHER UNNECESSARY DISTURBANCES AS A RESULT OF CONSTRUCTION WORK SHALL BE SEEDED AND FERTILIZED IN ACCORDANCE WITH SEEDING SPECIFICATIONS (NO SEPARATE PAY).
22. ALL STATIONS ARE CENTERLINE OF STREET RIGHT-OF-WAY UNLESS OTHERWISE NOTED.
23. THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
24. MATERIAL USED FOR COMPACTED FILL SHALL HAVE A PLASTIC INDEX (P.I.) BETWEEN 10 AND 20.
25. WHEN THE OWNER DETERMINES THAT THE CONTRACTOR IS WORKING IN OR ADJACENT TO DEVELOPED AREAS, NO CONSTRUCTION SHALL COMMENCE PRIOR TO SUNRISE ON WEEK DAYS AND 7:30 A.M. ON WEEKENDS AND/OR HOLIDAYS, AND SHALL CONCLUDE PRIOR TO SUNDOWN UNLESS ARRANGEMENTS TO THE CONTRARY HAVE BEEN COORDINATED AND APPROVED WITH THE OWNER.
26. IN THE CASE OF ONGOING PROJECTS ADJACENT TO OR NEAR THE PROPOSED PROJECT, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING CONSTRUCTION WITH OTHER CONTRACTORS.

SPECIAL TRENCH BACKFILL NOTES:

1. ALL TRENCH BACKFILL FOR UTILITIES SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY PER ASTM D-698. MOISTURE CONTENT SHALL BE WITHIN -3% TO +3% OF OPTIMUM.
2. DENSITIES SHALL BE TAKEN AT APPROXIMATE 100-FOOT INTERVALS FOR EACH LIFT, OR AS RECOMMENDED BY THE TESTING LAB, OR AS OTHERWISE DIRECTED BY THE ENGINEER.
3. THE TESTING LAB SHALL BE PAID BY THE OWNER EXCEPT RETESTS REQUIRED DUE TO THE FAILURE OF THE FIRST TEST SHALL BE PAID BY THE CONTRACTOR.
4. LIFTS SHALL BE 8-INCH MAXIMUM, MEASURED LOOSE.
5. ALL TRENCH BACKFILL SHALL BE CONSIDERED SUBSIDIARY TO THE PIPE.

SANITARY SEWER CONSTRUCTION NOTES:

1. SANITARY SEWERS SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE LATEST CITY SPECIFICATIONS FOR SEWER CONSTRUCTION, AND TESTED AS SPECIFIED IN THE CITY TEST PROCEDURE FOR EITHER LIQUID OR AIR, INCLUDING ALL AMENDMENTS AND REVISIONS THERETO. BACKFILL AND BEDDING FOR SANITARY SEWERS MUST MEET ALL MINIMUM ASPECTS OF ASTM D-2321 AND MUST BE PLACED IN ACCORDANCE WITH CITY OF MONTGOMERY DRAWING NUMBER 1201.
2. ALL SANITARY SEWER MANHOLES SHALL BE STANDARD CITY OF MONTGOMERY PRE-CAST USING RAM-NECK OR CAST IN PLACE CONCRETE IN ACCORDANCE WITH ASTM C-478. NO BRICK MANHOLES ALLOWED. FOR PVC PIPE, USE MANHOLE WATER STOP GASKET AND CLAMP ASSEMBLY AT MANHOLE CONNECTIONS. SANITARY SEWER MANHOLE RIMS SHALL BE 3 INCHES ABOVE NATURAL GROUND. BACKFILL SHALL BE ADDED AND SLOPED AWAY FROM THE MANHOLE RIM FOR DRAINAGE PURPOSES.
3. MANHOLE CONCRETE BOTTOM FOUNDATION SHALL BE 12" REINFORCED WITH #5 BARS AT 12", ON CENTERS, EACH WAY, WITH A MINIMUM OF 6" EXTRA SLAB LENGTH AROUND THE MANHOLE, IF POURED IN PLACE. APPROVED CHEMICALS SHALL BE USED FOR PATCHING AROUND MANHOLE JOINTS. MORTAR CEMENT WILL NOT BE ACCEPTED.
4. SANITARY SEWER PIPE SHALL BE PVC SDR 26 OR PVC SDR 35 (WITH APPROVAL), IN ACCORDANCE WITH ASTM SPECIFICATIONS D-3034, FOR 4" THROUGH 15" AND ASTM F-879 FOR 18" THROUGH 27". MINIMUM SIZE SANITARY SEWER MAIN IS 6". SDR 35 MAY BE USED WHEN DEPTH IS MORE THAN 3 FEET AND LESS THAN 6 FEET.
5. SEWER LINES SHALL BE LOCATED ON THE OPPOSITE SIDE OF THE STREET FROM WHERE WATER IS LOCATED. SEWER LINE AND WATER LINE SEPERATION SHALL BE IN ACCORDANCE WITH TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES, CHAPTER 317.13 APPENDIX E. (SEE THIS SHEET FOR THESE RULES).
6. NO SEWER PIPE SHALL BE LAID ON AN UNSTABLE FOUNDATION. SELECTED MATERIAL SHALL BE USED AND/OR WET SAND CONSTRUCTION DETAILS, WHICHEVER APPLIES IN THE OPINION OF THE ENGINEER. NO PIPE SHALL BE COVERED WITHOUT APPROVAL OF THE ENGINEER OR HIS REPRESENTATIVE. SANITARY SEWERS CONSTRUCTED IN WET SAND SHALL HAVE A SPECIAL PROCEDURE AND SHALL BE CONSTRUCTED AS PER CITY OF MONTGOMERY DRAWING NUMBER 1201.
7. WHEN THE NATURAL GROUND LEVEL AROUND MANHOLE LIES BELOW THE 100 YEAR FLOODPLAIN ELEVATION, THE MANHOLE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MONTGOMERY DRAWING NUMBER 1201, STANDARD SEALED AND VENTED MANHOLE DETAIL.
8. A DEFLECTION TEST SHALL BE REQUIRED AFTER THE BACKFILL HAS BEEN IN PLACE A MINIMUM OF 30 DAYS. THIS TEST SHALL BE DONE BY PULLING A HAND LINE WITH AN ATTACHED MANDREL FROM MAN-HOLE TO MANHOLE. THE MANDREL SHALL HAVE AN OUTSIDE DIAMETER THAT IS AT LEAST 95% OF THE ORIGINAL INSIDE DIAMETER OF THE PIPE. MANDREL TO BE MANUFACTURED WITH A MINIMUM OF SEVEN (7) RUNNERS, WITH EACH RUNNER BEING A MINIMUM OF 5 INCHES LONG. ANY PIPE NOT MEETING TEST REQUIREMENTS TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.
9. INFILTRATION/EXFILTRATION NOT TO EXCEED 200 GALLONS PER INCH DIAMETER PER MILE OF PIPE FOR 24 HOURS UNDER A MINIMUM OF 2 FEET OF HEAD, OR AN AIR TEST SHALL BE REQUIRED IN ACCORDANCE WITH ASTM C-828.
10. WHERE A SEWER LINE HAS LESS THAN (2) FEET OF COVER, PROVIDE CEMENT STABILIZED SAND BACKFILL MATERIAL.
11. CONTRACTOR SHALL KEEP RECORD OF LOCATION OF ALL STACKS, STUBS, SEWER LEADS, ETC. THE AS-BUILT MYLAR DRAWINGS MUST SHOW THE EXACT LOCATION.
12. IF SANITARY SERVICE LEADS ARE INSTALLED DURING CONSTRUCTION OF MAIN LINE, ALL LEADS TO HAVE A MINIMUM SLOPE OF 0.70% OR GREATER. ALL PVC LEADS TO BE THE SAME MATERIAL AS MAIN LINE. ALL DOUBLE SERVICE LEADS TO HAVE WYE LOCATED ON THE END OF THE LEAD. ALL SINGLE SERVICE LEADS TO BE 4 INCH, AND ALL DOUBLE SERVICE LEADS TO BE 6 INCH.
13. THE INSTALLATION OF ALL SANITARY SEWER LINES SHALL EXTEND ALONG THE ENTIRE LENGTH OF THE PROPERTY TO BE SERVED. SANITARY SEWER LINES THAT DEAD END SHALL EXTEND TO THE PROJECT LIMITS FOR FUTURE EXTENSIONS, WITH DEPTHS BASED ON ENTIRE SERVICE AREA.

WATER LINE CONSTRUCTION NOTES:

1. WATER LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST CITY OF MONTGOMERY WILLIS RULES AND REGULATIONS, STANDARD SPECIFICATIONS, AND CONSTRUCTION DETAILS.
2. 4" THROUGH 12" WATER LINES SHALL BE P.V.C. CLASS 150, DR-18, AWWA C-900 AND 1" THROUGH 3" WATER LINES SHALL BE PVC SCHEDULE 40. 4" THROUGH 54" D.I.P. WATER LINES SHALL BE AWWA C151 (ANSI A21.51) AND DOUBLE WRAPPED IN 8-MIL POLYETHYLENE. PIPE SHALL BE LINED IN ACCORDANCE WITH AWWA C104 (ANSI A21.4).
3. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AS NECESSARY TO PREVENT PIPE MOVEMENT. WHERE PREVENTING MOVEMENT OF PIPE 16" OR GREATER AS NECESSARY DUE TO THRUST, USE RESTRAINED JOINTS UNLESS OTHERWISE NOTED ON PLANS.
4. ALL WATER LINES UNDER PROPOSED OR FUTURE PAVING AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE ENCASED IN BANK SAND TO 12" OVER PIPE AND BACKFILLED WITH CEMENT STABILIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE.
5. ALL WATER LINE AND SEWER LINE CROSSINGS SHALL BE CONSTRUCTED PER CITY OF MONTGOMERY AND TCEQ REGULATIONS.
6. ALL WATER VALVES SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C-500 AND SHALL BE OF THE RESILIENT SEAT TYPE.
7. ALL WATER LINES TO BE DISINFECTED IN CONFORMANCE WITH AWWA C-651 AND THE TEXAS STATE DEPARTMENT OF HEALTH. AT LEAST ONE BACTERIOLOGICAL SAMPLE SHALL BE COLLECTED FOR EACH 1,000 LINEAR FEET OF WATER LINE AND SHALL BE REPEATED IF CONTAMINATION PERSISTS.
8. ALL BELOW GRADE VALVES SHALL BE GASKETED, HUB-END GATE VALVES WITH A CAST IRON BOX, EXCEPT WHERE FLANGES ARE CALLED OUT ON THE PLANS.
9. 4" THROUGH 12" FITTINGS SHALL BE DUCTILE IRON PRESSURE FITTINGS PER ANSI A21.10, OR PUSH ON FITTINGS PER ANSI A21.11, PRESSURE RATED AT 150 PSIG.
10. HYDROSTATIC TESTING: ALL WATER PIPE SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH THE LATEST CITY OF MONTGOMERY STANDARD CONSTRUCTION SPECIFICATIONS. TESTS ARE TO BE PERFORMED ON THE TOTAL FOOTAGE OF WATER PIPE LINE INCLUDED IN THE PROJECT.
11. ALL WATER LINES TO HAVE 4' MINIMUM COVER TO FINISHED GRADE AND MINIMUM 12" CLEAR TO OTHER UTILITIES AT CROSSING UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINE INSTALLED OVER 8' DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS.
12. CONTRACTOR SHALL KEEP WATER PIPE CLEAN AND CAP (OR OTHERWISE EFFECTIVELY COVER) OPEN PIPE ENDS TO EXCLUDE INSECTS, ANIMALS OR OTHER SOURCES OF CONTAMINATION FROM UNFINISHED PIPE LINES AT TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS.
13. UNLESS OTHERWISE NOTED, ALL WATER LINES 12" AND SMALLER SHALL HAVE A MINIMUM OF 4' OF COVER, AND WATER LINES 16" AND LARGER SHALL HAVE A MINIMUM OF 5' OF COVER.
14. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL UNDERGROUND TEES, BENDS AND LATERALS. THEY SHALL BE BUILT AS PER THE DETAILS PROVIDED TO PREVENT PIPE MOVEMENT.
15. ALL ABOVE GROUND DUCTILE IRON PIPE CONNECTIONS SHALL BE FLANGED. UNDERGROUND DUCTILE IRON PIPE CONNECTIONS SHALL BE BOLTLESS AND PUSH-ON AFTER THE FIRST FLANGED FITTING BELOW GRADE UNLESS NOTED OTHERWISE ON THE PLANS.
16. ALL FLANGES BELOW GRADE SHALL HAVE STAINLESS STEEL BOLTS AND NUTS.

WATER LINE CONSTRUCTION NOTES CONT'D:

17. ALL WATER VALVES SHALL OPEN CLOCKWISE. ALL WATER VALVES SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C-500 AND SHALL BE OF THE RESILIENT SEAT TYPE.
18. ALL BELOW GRADE VALVES SHALL BE GASKETED, HUB-END GATE VALVES WITH A CAST IRON BOX, EXCEPT WHERE FLANGES ARE CALLED OUT ON THE PLANS.
19. ALL FLANGES BELOW GRADE SHALL BE INSULATED.
20. ALL WATERLINES SHALL BE ENCASED IN BANK SAND TO AT LEAST 12" ABOVE THE PIPE. COST OF BANK SAND TO BE INCLUDED IN UNIT PRICE OF WATERLINE.
21. MAINTAIN MINIMUM 9-FOOT HORIZONTAL CLEARANCE BETWEEN OUTSIDE OF SANITARY SEWER MANHOLE AND WATERLINE.
22. WATER LINES PARALLEL TO SANITARY LINES SHALL BE INSTALLED WITH AT LEAST A 9-FOOT CLEARANCE AND IN SEPARATE TRENCHES.
23. CENTER OF FIRE HYDRANT TO BE LOCATED 3'-0" FROM BACK OF CURB WITH CENTER LINE OF STEAMER NOZZLE 22-INCHES ABOVE FINISHED GRADE, UNLESS OTHERWISE SHOWN.
24. WATERLINE SHALL BE CONSTRUCTED SUCH THAT ALL CROSSES AND TEES WILL NOT BE LOCATED UNDER PROPOSED OR FUTURE PAVING.
25. UTILITY CONTRACTOR TO TURN FIRE HYDRANTS AND MAKE ALL FINAL ADJUSTMENTS AFTER COMPLETION OF PAVING. NO SEPARATE PAY.

DRY UTILITY NOTES:

CAUTION: UNDERGROUND GAS FACILITIES

1. LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE LLC. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE USUALLY NOT SHOWN.
2. CENTERPOINT SIGNATURES ON THESE PLANS ONLY INDICATES THAT ITS FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 OR 1-800-669-8344 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
3. WHEN CENTERPOINT ENERGY PIPELINE MARKINGS ARE NOT VISIBLE, CALL (713) 967-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
4. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
5. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPELINE.

WARNING: UNDERGROUND ELECTRICAL FACILITIES

1. UNDERGROUND ELECTRICAL FACILITIES EXIST IN THE AREA OF THIS PROJECT. DO NOT BEGIN CONSTRUCTION UNTIL THESE FACILITIES HAVE BEEN LOCATED AND STAKED. TO HAVE THESE UNDERGROUND FACILITIES STAKED CALL THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567, OR TOLL FREE AT 1-800-669-8344, AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION.

TRAFFIC NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. LANE CLOSURE PERMITS ARE TO BE OBTAINED WHEN REQUIRED. THE REQUEST MUST BE MADE AT LEAST THREE DAYS PRIOR TO THE DATE FOR WHICH THE CLOSURE IS SOUGHT.
3. CONTRACTOR SHALL COVER EXCAVATIONS WITH STEEL PLATES, ANCHORED PROPERLY, DURING NON-WORKING HOURS AND OPEN LANES FOR TRAFFIC FLOWS.
4. IF THE CONTRACTOR DESIRES TO BLOCK A LANE FOR WHICH NO "TRAFFIC CONTROL PLANS" WERE SUBMITTED. (S)HE SHALL SUBMIT REPRODUCIBLE MYLARS SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS TO THE PLAN REVIEW SECTION OF THE ENTITY HAVING JURISDICTION OVER THE ROAD BEING WORKED ON, WITH THE ENTIRE APPROVED SET OF DRAWINGS FOR APPROVAL TEN WORKING DAYS PRIOR TO CONSTRUCTION.
5. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS, (S)HE SHALL BE RESPONSIBLE TO SUBMIT AN ALTERNATE SET OF REPRODUCIBLE MYLARS SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS WITH THE ENTIRE APPROVED SET OF DRAWINGS TO THE PLAN REVIEW SECTION OF THE ENTITY HAVING JURISDICTION OVER THE ROAD BEING WORKED ON, FOR APPROVAL TEN WORKING DAYS PRIOR TO IMPLEMENTATION.
6. APPROVED COPIES OF "TRAFFIC CONTROL PLANS" AND LANE/SIDEWALK CLOSURE PERMITS SHALL BE AVAILABLE FOR INSPECTION AT JOB SITE ALL TIMES. ALL REQUESTS FOR LANE/SIDEWALK CLOSURES MUST BE MADE AT LEAST THREE DAYS PRIOR TO THE DATE FOR WHICH THE CLOSURE IS SOUGHT.

MONTGOMERY COUNTY FIRE MARSHALL NOTES:

1. FIRE LANE MARKINGS WILL BE REVIEWED DURING FINAL INSPECTION.
2. NFPA 704 PLACARD SHALL BE PLACED ON THE BUILDING STREETSIDE.
3. PROVIDE FIRE EXTINGUISHERS PER IFC SECTION 906.
4. EXIT DOORS SHALL BE READILY OPERABLE FROM THE EGRESS SIDE WITHOUT THE USE OF KEY OR SPECIAL KNOWLEDGE OR EFFORT. DOOR HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES ON DOORS SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE.
5. EXIT SIGNS AMD EMERGENCY LIGHTING NEEDED IN PROPER LOCATIONS WITH BACK UP POWER.
6. KNOX EQUIPMENT
   - ALL LOCKED ACCESS GATES ARE REQUIRED TO COMPLY WITH THE MONTGOMERY COUNTY ACCESS GATE ACCESS PROGRAM.

CITY OF MONTGOMERY GENERAL NOTES:

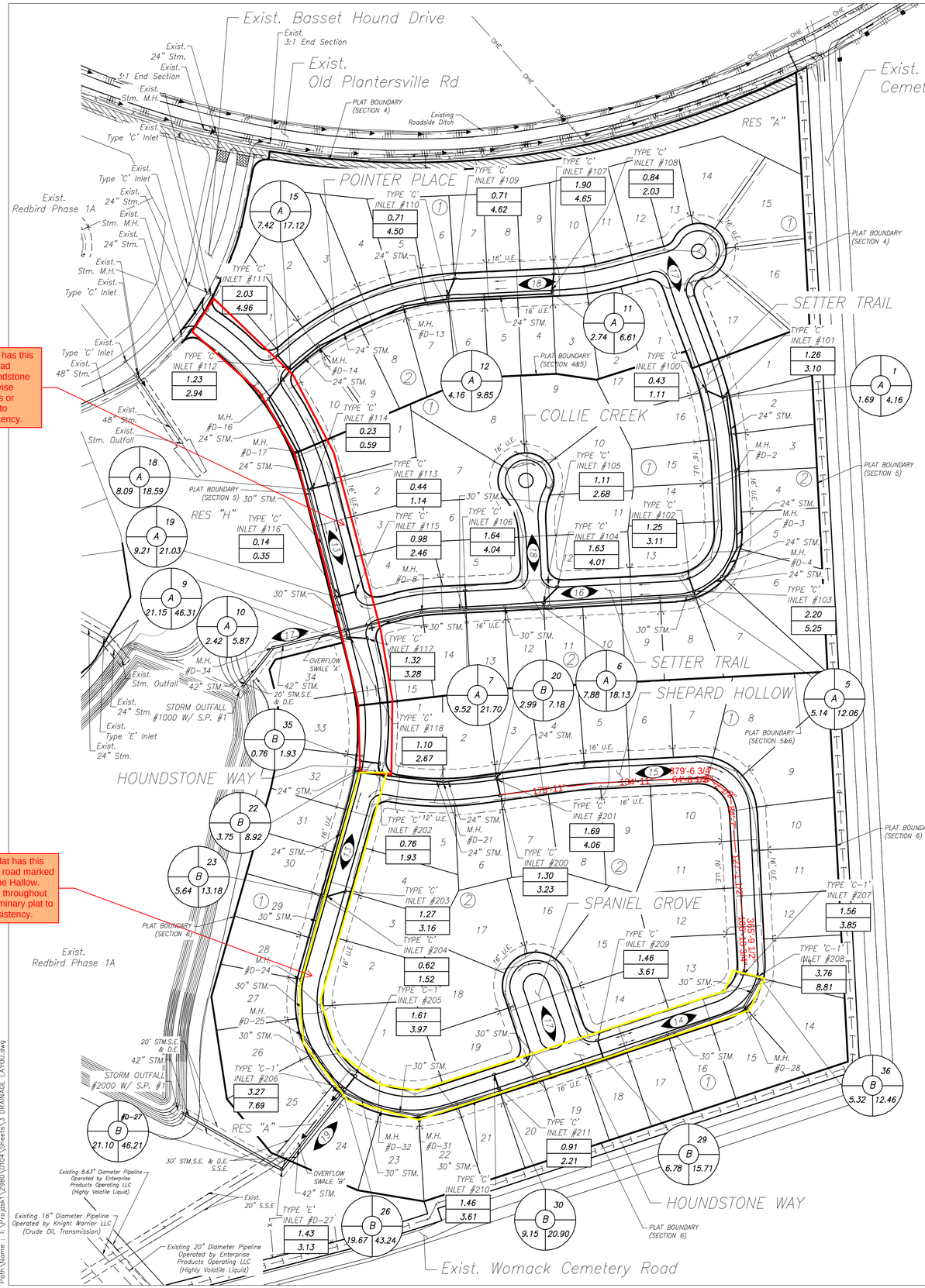
GENERAL CONSTRUCTION NOTES:

1. CONTRACTOR SHALL CONTACT CITY OF MONTGOMERY CITY ENGINEER, KATHERINE VU AT (713)789-1900 A MINIMUM OF 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
2. CONTRACTOR SHALL CONTACT CITY OF MONTGOMERY DIRECTOR OF PUBLIC WORKS, MIKE MUCKLEROY AT (936) 597-6434 A MINIMUM OF 48 HOURS PRIOR TO COMMENCING CONSTRUCTION TO SET UP AN INSPECTION TO VERIFY CITY'S FACILITIES.
3. CONTRACTOR TO CONTACT CITY OF MONTGOMERY UTILITY OPERATOR, PHILIP WRIGHT OF HAYS UTILITY NORTH CORPORATION AT (936)588-1166 A MINIMUM OF 48 HOURS PRIOR TO COMMENCING CONSTRUCTION TO SET UP AN INSPECTION TO VERIFY CITY'S FACILITIES.
4. THE CITY UTILITY OPERATOR AND PUBLIC WORKS FOREMAN SHALL BE NOTIFIED 24 HOURS IN ADVANCE TO WITNESS AND INSPECT ANY SANITARY SEWER LINE CONNECTION. NO SANITARY SEWER LINES SHALL BE BACKFILLED BEFORE THE CITY'S UTILITY OPERATOR OR PUBLIC WORKS FOREMAN HAS INSPECT THE CONNECTION.
5. ALL TAPS TO THE CITY'S WATER AND SANITARY SEWER SYSTEM SHALL BE MADE BY THE CITY'S OPERATOR AT THE OWNER'S EXPENSE.
6. CONTRACTOR SHALL CONTACT THE CITY'S UTILITY OPERATOR OR PUBLIC WORKS FOREMAN TO OPERATE ANY VALVES. ATH NO TIME IS THE CONTRACTOR OR CONTRACTOR'S REPRESENTATIVE TO OPERATE ANY PART OF THE CITY OF MONTGOMERY WATER SYSTEM.
7. THE OWNER OR CONTRACTOR SHALL INSTALL AND TEST APPROPRIATE BACKFLOW PREVENTION, PER THE CITY OF MONTGOMERY RULES & REGULATIONS.
8. ALL TAPS TO THE CITY'S SYSTEM SHALL BE MADE BY THE CITY'S OPERATOR AT THE OWNERS EXPENSE.
9. STORMWATER POLLUTION PROTECTION MUST BE IN PLACE PRIOR TO ANY CONSTRUCTION COMMENCES AND MUST REMAIN IN PLACE UNTIL CONSTRUCTION HAS CONCLUDED. ALL PROTECTION MEASURES MUST BE INSPECTED EVERY 30 DAYS, OR AFTER A RAIN EVENT OF ANY SIZE, WHICHEVER IS SOONER.
10. ALL CONSTRUCTION DRAWINGS MUST INCLUDE A TRAFFIC CONTROL MEASURES THAT MUST BE APPROVED BY THE APPROPRIATE JURISDICTION PRIOR TO CONSTRUCTION BEGINNING AND COORDINATED WITH SAID JURISDICTION THROUGH THE DURATION OF CONSTRUCTION

MANHOLES:
1. CONSTRUCT MANHOLES A MAXIMUM OF FOUR HUNDRED (400) FEET APART.
2. ALL CHANGES OF DIRECTION IN THE SANITARY SEWER LINE SHALL TAKE PLACE AT A MANHOLE.
3. USE PRE-CAST CONCRETE MANHOLE, NO BRICK MANHOLES SHALL BE ALLOWED.
4. PROVIDE MANHOLES IN ACCORDANCE WITH CITY OF MONTGOMERY STANDARD DETAILS.

SERVICE LEAD:
1. FOR DEVELOPMENTS WITH MORE THAN 5,000 GALLONS-PER-DAY FLOW IN SINGLE SERVICE, CONNECT THE SERVICE DIRECTLY TO A PROPOSED OR EXISTING MANHOLE.
2. FOR SINGLE RESIDENTIAL SERVICE, PROVIDE A SERVICE LEAD WITH A MINIMUM 4-INCH DIAMETER AND A MINIMUM SLOPE OF 1%.
3. DOUBLE SERVICE LEADS ARE ONLY ALLOWED WITH AN APPROVED VARIANCE BY THE CITY COUNCIL.
4. IF THE LENGTH OF THE SERVICE LEAD EXCEEDS 100-FEET OR THE WIDTH OF THE PUBLIC RIGHT-OF-WAY BY MORE THAN 20-FEET, THE MINIMUM DIAMETER SHALL BE 8-INCHES .

LINE DEPTH:
1. CONSTRUCT SEWER PIPE WITH THE TOP OF PIPE A MINIMUM OF 3 FEET BELOW NATURAL GROUND.
2. SEWERS LAID IN STREET RIGHT-OF-WAYS WITH CURB AND GUTTER PAVED STREETS SHALL HAVE A MINIMUM COVER OF 4-FEET FROM THE TOP OF PIPE TO TOP OF CURB.
3. SEWERS LAID IN STREET RIGHT-OF-WAYS WITH OPEN DITCHES SHALL HAVE A MINIMUM COVER OF 6-FEET FROM THE AVERAGE GROUND LINE AT THE ADJACENT STREET RIGHT-OF-WAY TO THE TOP OF PIPE.



Preliminary Plat has this section of the road marked as Houndstone Way. Please revise throughout plans or preliminary plat to maintain consistency.

Preliminary Plat has this section of the road marked as Houndstone Hallow. Please revise throughout plans or preliminary plat to maintain consistency.

STORM DRAINAGE LEGEND

- INDICATES MANHOLE NUMBER
- INDICATES DRAINAGE SYSTEM
- INDICATES ACCUMULATED C.F.S.
- INDICATES ACCUMULATED ACREAGE
- INDICATES ACREAGE
- INDICATES C.F.S.

STORM SEWER LEGEND

- PROPOSED STORM SEWER AND MANHOLE
- EXISTING STORM SEWER AND MANHOLE
- PROPOSED STORM SEWER, MANHOLE, AND "H-2" INLETS
- PROPOSED PAVEMENT
- INDICATES STORM SEWER EASEMENT
- 10' STM.S.E.
- INDICATES PAVING SUMMIT
- INDICATES SHEET REFERENCE
- INDICATES BLOCK NUMBER

WARNING! HIGH PRESSURE PIPELINE
EXCAVATION AND/OR CONSTRUCTION PROHIBITED WITHOUT PRIOR WRITTEN PERMISSION FROM ENTERPRISE PRODUCTS OPERATING LLC.

STATE OF TEXAS
MICAH KREKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

DRAINAGE LAYOUT

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

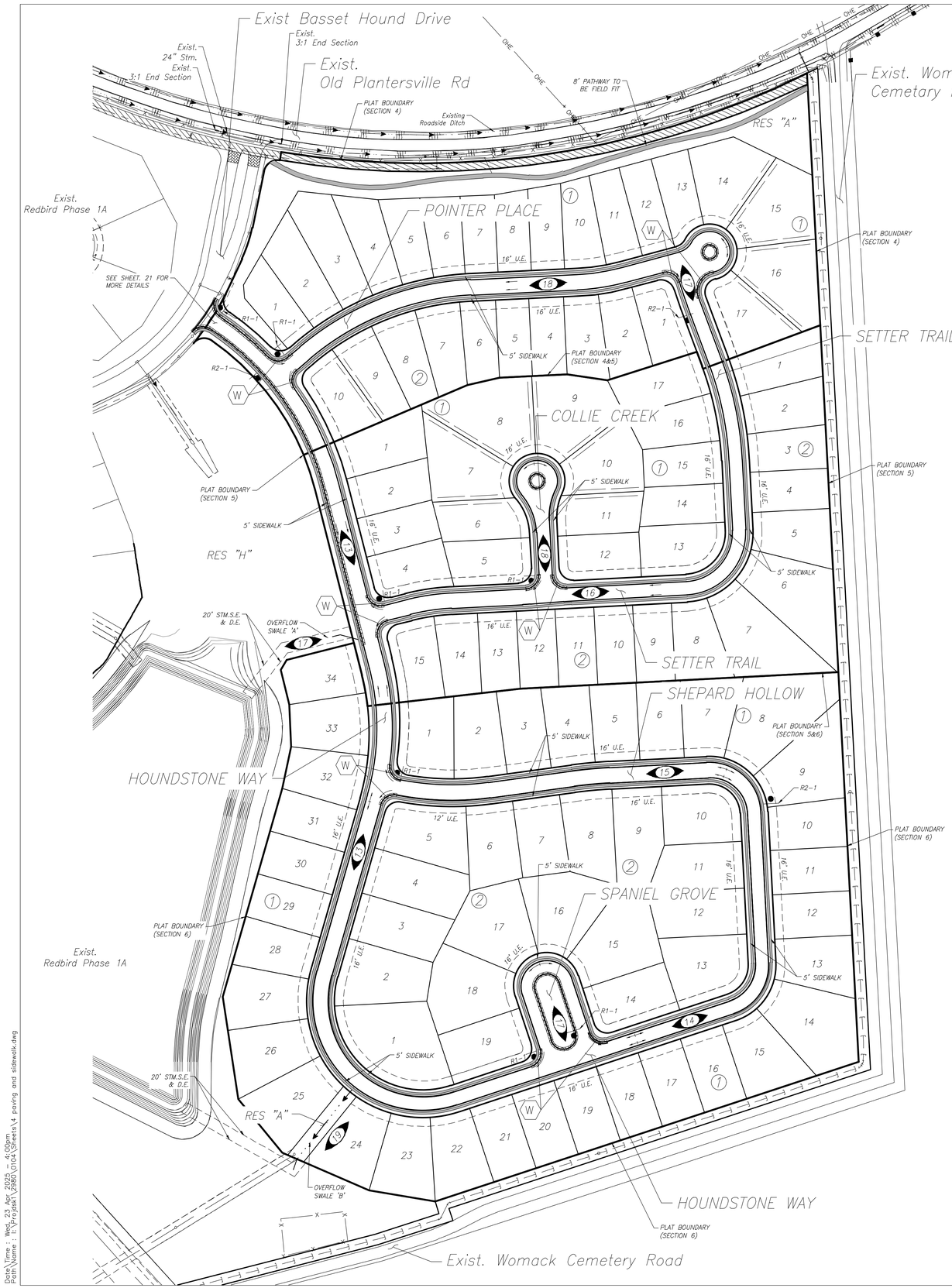
DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

SCALE: 1" = 100'

SHEET NO. 3 OF 30

BRIARLEY PHASE 1B - 2980-0104

Date\Time : Wed, 23 Apr 2025 - 3:59pm
Path\Name : I:\Projects\2980\0104\Sheets\3 DRAINAGE LAYOU.dwg



TRAFFIC CONTROL LEGEND

- STOP / R1-1 — R1-1 — INDICATES STOP SIGN W/ STREET NAME SIGN
- SPEED LIMIT 25 / R2-1 — R2-1 — INDICATES SPEED LIMIT SIGN
- SPEED LIMIT 35 / R2-2 — R2-2 — INDICATES SPEED LIMIT SIGN
- R1-1 / R2-1 — *NOTE IS A MULTILEADER

PAVING LEGEND

- PROPOSED PAVEMENT
- INDICATES PAVING SUMMIT
- 10 — INDICATES SHEET REFERENCE
- 2 — INDICATES BLOCK NUMBER
- INDICATES 6" CURB
- INDICATES R.O.W DEDICATION
- INDICATES 7" REINFORCED CONCRETE PAVEMENT
- INDICATES 6" REINFORCED CONCRETE PAVEMENT
- INDICATES 4" CONCRETE SIDEWALK
- W — INDICATES TYP. ALL ADA RAMP (SEE SHEET 21)

NOTE: ALL CURBS BESIDES THE ONES INDICATED BY THE 6" HATCH TO BE STANDARD ROLLOVER CURBS.

WARNING! HIGH PRESSURE PIPELINE EXCAVATION AND/OR CONSTRUCTION PROHIBITED WITHOUT PRIOR WRITTEN PERMISSION FROM ENTERPRISE PRODUCTS OPERATING LLC.

STATE OF TEXAS — MICAH KREIKEMEIER — 127881 — LICENSED — PROFESSIONAL ENGINEER
04/24/2025

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

PAVING AND SIDEWALK

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

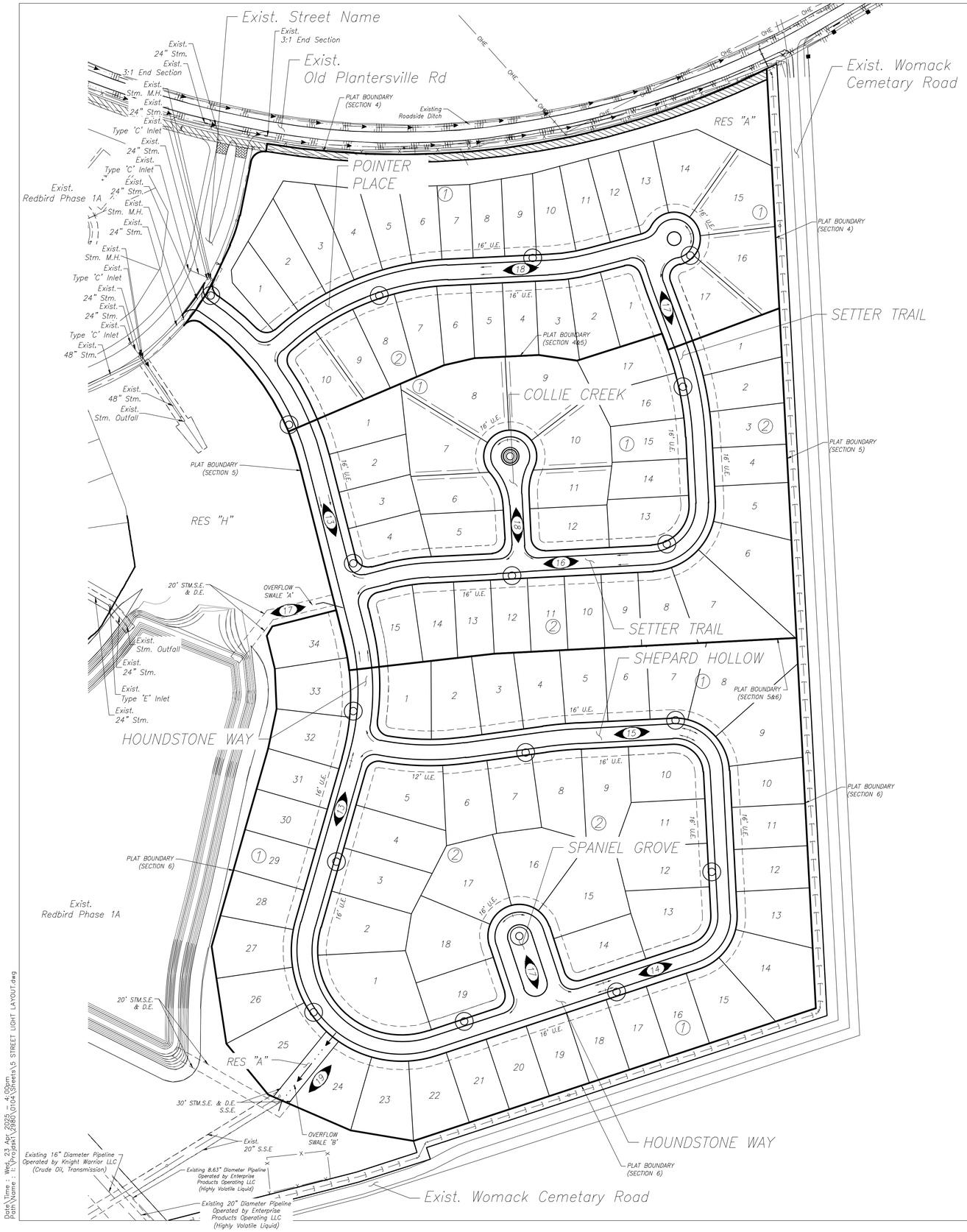
DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

SCALE: 1" = 100'

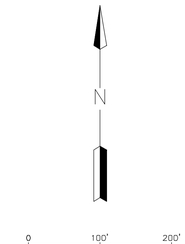
SHEET NO. 4 OF 30

BRIARLEY PHASE 1B — 2980-0104

Date\Time : Wed, 23 Apr, 2025 - 4:03pm
Path\Name : L:\Projekt\2980\0104\Sheets\4 paving and sidewalk.dwg



Date\Time : Wed, 23 Apr 2025 - 4:00pm
Path\Name : I:\Projects\2980\0104\Sheets\5 STREET LIGHT LAYOUT.dwg



STREET LIGHT LEGEND

INDICATES STREET LIGHT LOCATION (APPROXIMATE 300' INTERVALS)

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

STREET LIGHT LAYOUT

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

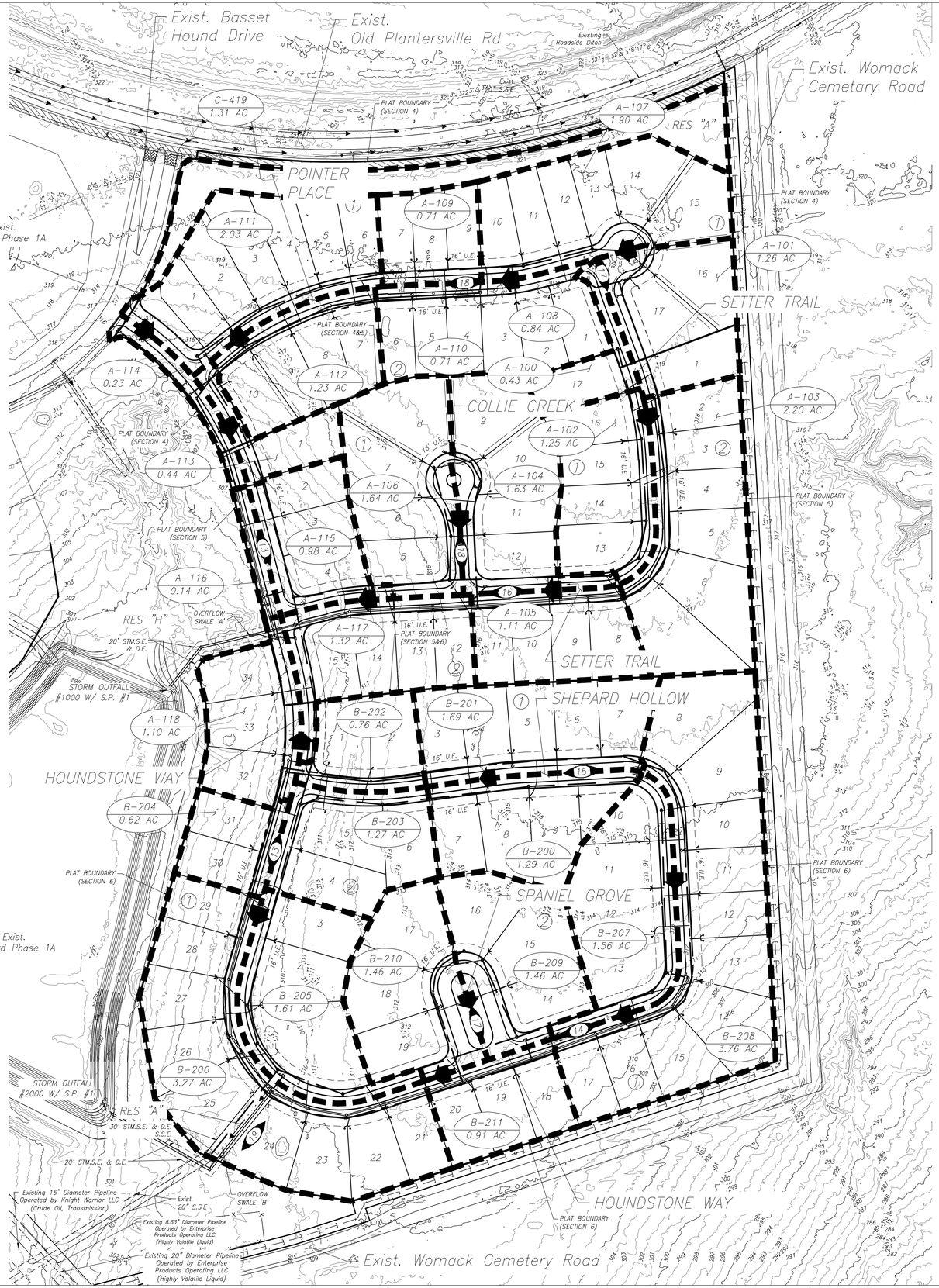
DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

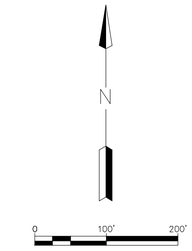
SCALE: 1" = 100'

STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

SHEET NO. 5 OF 30

BRIARLEY PHASE 1B - 2980-0104





STORM DRAINAGE LEGEND

INDICATES EXTREME EVENT FLOW

INDICATES DRAINAGE AREA FOR THE PURPOSE OF STORM SEWER DESIGN. FINAL LOT GRADES AND DRAINAGE PATTERNS ARE DETERMINED BY THE BUILDER

B-1 75.00 AC — INDICATES DRAINAGE SYSTEM; INDICATES ACREAGE IN AREA

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

DRAINAGE AREA MAP

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

SCALE: 1" = 100'

SHEET NO. 6 OF 30

STATE OF TEXAS · MICAH KREIKEMEIER · 127881 · LICENSED · PROFESSIONAL ENGINEER
04/24/2025

Date\Time : Wed, 23 Apr, 2025 - 4:01pm
Path\Name : I:\Projdsk\2980\0104\Sheets\6 DRAINAGE AREA MAP.dwg

BRIARLEY PHASE 1B — 2980-0104

5 YEAR FREQUENCY
SYSTEM A

Area	MANHOLES/ INLETS from	MANHOLES/ INLETS to	Area ac.	Total Area ac.	tc min.	Frequency Factor f	C	Intensity I in./hr.	Q c.f.s.	Additional Q c.f.s.	Total Q c.f.s.	Q Pass c.f.s.	Reach ft.	LINE size in.	LINE slope %	n	DESIGN Q c.f.s.	DESIGN V f.p.s.	Actual V f.p.s.	Friction Loss ft.	Minor Loss ft.	FLOWLINES upstrm. elev.	FLOWLINES dnstrm. elev.	Line Size ft.	HYDR. GRAD. upstrm. elev.	HYDR. GRAD. dnstrm. elev.	HYDR. GRAD. slope %	TC/NG	Pipe Size	BOX CULVERT SIZE	AREA	WETTED PERIMETER	HYDRAULIC RADIUS	HYDRAULIC DIAMETER	X-Coord	Y-Coord	Junction
A-100	100	101	0.43	0.43	23.62	1.00	0.55	4.70	1.11	0.00	1.11	0.00	30	24	0.66%	0.013	18.38	5.9	0.4	0.20	0.02	313.35	313.15	2.0	315.45	315.25	0.66	318.91	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-101	101	1	1.26	1.69	25.97	1.00	0.55	4.47	3.10	0.00	4.16	0.00	8	24	1.21%	0.013	24.88	7.9	1.3	0.10	0.00	313.15	313.05	2.0	315.25	315.15	1.25	318.91	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	1	2	0.00	1.69	25.97	1.00	0.55	4.47	0.00	0.00	4.16	0.00	138	24	0.45%	0.013	15.18	4.8	1.3	0.62	0.00	313.15	312.53	2.0	315.15	314.53	0.45	318.91	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	2	3	0.00	1.69	25.97	1.00	0.55	4.47	0.00	0.00	4.16	0.00	138	24	0.45%	0.013	15.16	4.8	1.3	0.62	0.00	312.53	311.91	2.0	314.53	313.91	0.45	318.62	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	3	4	0.00	1.69	25.97	1.00	0.55	4.47	0.00	0.00	4.16	0.00	59	24	0.45%	0.013	15.20	4.8	1.3	0.26	0.00	311.91	311.64	2.0	313.91	313.64	0.45	317.85	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	4	5	0.00	1.69	25.97	1.00	0.55	4.47	0.00	0.00	4.16	0.00	59	24	0.45%	0.013	15.13	4.8	1.3	0.26	0.10	311.64	311.38	2.0	313.64	313.38	0.45	317.24	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	5	6	0.00	5.14	28.34	1.00	0.55	4.27	0.00	0.00	12.06	0.00	273	24	0.45%	0.013	15.17	4.8	3.8	1.22	0.00	310.93	309.70	2.0	312.93	311.70	0.45	316.64	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	6	7	0.00	7.88	29.38	1.00	0.55	4.18	0.00	0.00	18.13	0.00	140	24	0.95%	0.013	22.04	7.0	5.8	1.32	0.00	307.56	306.23	2.0	309.56	308.23	0.95	316.42	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	7	8	0.00	9.52	29.87	1.00	0.55	4.14	0.00	0.00	21.70	0.00	80	30	0.95%	0.013	39.96	8.1	4.4	0.76	0.00	303.52	302.76	2.5	306.02	305.26	0.95	316.20	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	8	9	0.00	9.52	29.87	1.00	0.55	4.14	0.00	0.00	21.70	0.00	141	30	0.95%	0.013	39.92	8.1	4.4	1.33	0.00	300.99	299.66	2.5	303.49	302.16	0.95	314.95	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	9	34	0.00	21.15	32.12	1.00	0.55	3.98	0.00	0.00	46.31	0.00	135	42	0.26%	0.013	51.24	5.3	4.8	0.35	0.00	294.60	294.25	3.5	298.10	297.75	0.26	311.38	42	X	9.62	11.00	0.88	3.50	3500636.055	255485.154	M
-	34	1000	0.00	21.15	32.12	1.00	0.55	3.98	0.00	0.00	46.31	0.00	98	42	0.26%	0.013	50.81	5.3	4.8	0.25	0.00	294.25	294.00	3.5	297.75	297.50	0.26	306.84	42	X	9.62	11.00	0.88	3.50	3500636.055	255485.154	M
A-102	102	103	1.25	1.25	25.40	1.00	0.55	4.52	3.11	0.00	3.11	0.00	24	24	0.83%	0.013	20.65	6.6	1.0	0.20	0.01	311.65	311.45	2.0	313.65	313.45	0.83	317.85	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-103	103	5	2.20	3.45	27.44	1.00	0.55	4.34	5.25	0.00	8.24	0.00	8	24	1.19%	0.013	24.67	7.9	2.6	0.10	0.00	311.45	311.35	2.0	313.45	313.35	1.19	317.85	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-104	104	105	1.63	1.63	25.90	1.00	0.55	4.48	4.01	0.00	4.01	0.00	36	24	0.55%	0.013	16.84	5.4	1.3	0.20	0.00	310.54	310.34	2.0	312.54	312.34	0.55	316.20	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-105	105	6	1.11	2.74	26.94	1.00	0.55	4.38	2.68	0.00	6.61	0.00	8	24	1.25%	0.013	25.29	8.1	2.1	0.10	0.00	310.34	310.24	2.0	312.34	312.24	1.25	316.20	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-106	106	7	1.64	1.64	25.91	1.00	0.55	4.48	4.04	0.00	4.04	0.00	33	24	0.61%	0.013	17.61	5.6	1.3	0.20	0.00	306.50	306.30	2.0	308.50	308.30	0.61	311.57	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-117	117	118	1.32	1.32	25.50	1.00	0.55	4.52	3.28	0.00	3.28	0.00	28	24	0.71%	0.013	19.08	6.1	1.0	0.20	0.00	300.12	299.92	2.0	302.12	301.92	0.71	314.96	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-118	118	10	1.10	2.42	26.68	1.00	0.55	4.41	2.67	0.00	5.87	0.00	6	24	1.67%	0.013	29.21	9.3	1.9	0.10	0.00	299.92	299.82	2.0	301.92	301.82	1.67	314.96	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	10	9	0.00	2.42	26.68	1.00	0.55	4.41	0.00	0.00	5.87	0.00	21	24	1.24%	0.013	25.20	8.0	1.9	0.26	0.00	296.74	296.48	2.0	298.74	298.48	1.24	314.96	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-107	107	108	1.90	1.90	26.20	1.00	0.55	4.45	4.65	0.00	4.65	0.00	28	24	0.70%	0.013	18.99	6.0	1.5	0.20	0.00	314.43	314.23	2.0	316.43	316.23	0.70	318.34	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-108	108	11	0.84	2.74	26.94	1.00	0.55	4.38	2.03	0.00	6.61	0.00	6	24	1.67%	0.013	29.21	9.3	2.1	0.10	0.00	314.23	314.13	2.0	316.23	316.13	1.25	318.34	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	11	12	0.00	2.74	26.94	1.00	0.55	4.38	0.00	0.00	6.61	0.00	188	24	0.30%	0.013	12.35	3.9	2.1	0.56	0.00	314.11	313.55	2.0	316.11	315.55	0.30	318.34	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	12	13	0.00	4.16	27.85	1.00	0.55	4.31	0.00	0.00	9.85	0.00	83	24	0.30%	0.013	12.42	4.0	3.1	0.25	0.00	313.55	313.30	2.0	315.55	315.30	0.30	317.91	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	13	14	0.00	4.16	27.85	1.00	0.55	4.31	0.00	0.00	9.85	0.00	167	24	1.24%	0.013	25.22	8.0	3.1	2.07	0.00	313.30	311.22	2.0	315.30	313.22	1.24	315.94	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	14	15	0.00	4.16	27.85	1.00	0.55	4.31	0.00	0.00	9.85	0.00	67	24	1.24%	0.013	25.19	8.0	3.1	0.83	0.00	307.84	307.01	2.0	309.84	309.01	1.24	311.81	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	15	16	0.00	7.42	29.23	1.00	0.55	4.19	0.00	0.00	17.12	0.00	65	24	1.24%	0.013	25.20	8.0	5.4	0.81	0.00	307.01	306.20	2.0	309.01	308.20	1.24	310.52	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	16	17	0.00	7.42	29.23	1.00	0.55	4.19	0.00	0.00	17.12	0.00	109	24	1.24%	0.013	25.24	8.0	5.4	1.35	0.00	304.40	303.04	2.0	306.40	305.04	1.24	308.66	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	17	18	0.00	7.42	29.23	1.00	0.55	4.19	0.00	0.00	17.12	0.00	71	24	1.24%	0.013	25.17	8.0	5.4	0.87	0.00	303.04	302.17	2.0	305.04	304.17	1.24	307.67	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	18	19	0.00	8.09	29.45	1.00	0.55	4.18	0.00	0.00	18.59	0.00	200	30	0.95%	0.013	40.01	8.1	3.8	1.89	0.00	301.59	299.69	2.5	304.09	302.19	0.95	307.67	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	19	9	0.00	9.21	29.78	1.00	0.55	4.15	0.00	0.00	21.03	0.00	63	30	0.95%	0.013	40.03	8.2	4.3	0.60	0.00	296.97	296.37	2.5	299.47	298.87	0.95	305.21	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
A-109	109	110	0.71	0.71	24.41	1.00	0.55	4.62	1.80	0.00	1.80	0.00	31	24	0.64%	0.013	18.07	5.8	0.6	0.20	0.00	313.89	313.69	2.0	315.89	315.69	0.64	312.88	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-110	110	12	0.71	1.42	25.64	1.00	0.55	4.50	1.76	0.00	3.52	0.00	6	24	1.67%	0.013	29.21	9.3	1.1	0.10	0.00	313.69	313.59	2.0	315.69	315.59	1.67	312.88	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-111	111	112	2.03	2.03	26.33	1.00	0.55	4.44	4.96	0.00	4.96	0.00	28	24	0.71%	0.013	19.12	6.1	1.6	0.20	0.00	307.31	307.11	2.0	309.31	309.11	0.71	308.48	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-112	112	15	1.23	3.26	27.31	1.00	0.55	4.35	2.94	0.00	7.80	0.00	6	24	1.67%	0.013	29.21	9.3	2.5	0.10	0.00	307.11	307.01	2.0	309.11	309.01	1.67	308.48	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-113	113	114	0.44	0.44	23.65	1.00	0.55	4.70	1.14	0.00	1.14	0.00	28	24	0.71%	0.013	19.12	6.1	0.4	0.20	0.00	303.09	302.89	2.0	305.09	304.89	0.71	305.71	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-114	114	18	0.23	0.67	24.32	1.00	0.55	4.63	0.59	0.00	1.71	0.00	8	24	1.25%	0.013	25.29	8.1	0.5	0.10	0.00	302.89	302.79	2.0	304.89	304.79	1.25	305.71	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-115	115	116	0.98	0.98	24.96	1.00	0.55	4.57	2.46	0.00	2.46	0.00	28	24	0.71%	0.013	19.12	6.1	0.8	0.20	0.00	300.65	300.45	2.0	302.65	302.45	0.71	305.24	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-116	116	19	0.14	1.12	25.20	1.00	0.55	4.54	0.35	0.00	2.80	0.00	8	24	1.25%	0.013	25.29	8.1	0.9	0.10	0.00	300.45	300.35	2.0	302.45	302.35	1.25	305.24	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M

5 YEAR FREQUENCY
SYSTEM B

Area	MANHOLES/ INLETS from	MANHOLES/ INLETS to	Area ac.	Total Area ac.	tc min.	Frequency Factor f	C	Intensity I in./hr.	Q c.f.s.	Additional Q c.f.s.	Total Q c.f.s.	Q Pass c.f.s.	Reach ft.	LINE size in.	LINE slope %	n	DESIGN Q c.f.s.	DESIGN V f.p.s.	Actual V f.p.s.	Friction Loss ft.	Minor Loss ft.	FLOWLINES upstrm. elev.	FLOWLINES dnstrm. elev.	Line Size ft.	HYDR. GRAD. upstrm. elev.	HYDR. GRAD. dnstrm. elev.	HYDR. GRAD. slope %	TC/NG	Pipe Size	BOX CULVERT SIZE	AREA	WETTED PERIMETER	HYDRAULIC RADIUS	HYDRAULIC DIAMETER	X-Coord	Y-Coord	Junction
B-200	200	201	1.30	1.30	25.47	1.00	0.55	4.52	3.23	0.00	3.23	0.00	28	24	0.71%	0.013	19.09	6.1	1.0	0.20	0.00	307.95	307.75	2.0	309.95	309.75	0.71	312.81	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-201	201	20	1.69	2.99	27.13	1.00	0.55	4.37	4.06	0.00	7.18	0.00	7	24	1.43%	0.013	27.04	8.6	2.3	0.10	0.00	307.75	307.65	2.0	309.75	309.65	1.43	312.81	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	20	21	0.00	2.99	27.13	1.00	0.55	4.37	0.00	0.00	7.18	0.00	97	24	0.35%	0.013	13.40	4.3	2.3	0.34	0.00	307.61	307.27	2.0	309.61	309.27	0.35	312.81	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	21	22	0.00	2.99	27.13	1.00	0.55	4.37	0.00	0.00	7.18	0.00	153	24	0.35%	0.013	13.31	4.2	2.3	0.53	0.00	305.16	304.63	2.0	307.23	306.70	0.34	311.53	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	22	23	0.00	3.75	27.62	1.00	0.55	4.33	0.00	0.00	8.92	0.00	230	24	0.35%	0.013	13.34	4.2	2.8	0.80	0.00	303.22	302.42	2.0	306.70	305.91	0.35	308.10	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	23	24	0.00	5.64	28.56	1.00	0.55	4.25	0.00	0.00	13.18	0.00	157	30	0.45%	0.013	27.55	5.6	2.7	0.71	0.00	302.42	301.71	2.5	305.91	305.20	0.45	308.34	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	24	25	0.00	5.64	28.56	1.00	0.55	4.25	0.00	0.00	13.18	0.00	101	30	0.45%	0.013	27.37	5.6	2.7	0.45	0.00	301.71	301.26	2.5	305.20	304.75	0.44	307.87	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	25	26	0.00	5.64	28.56	1.00	0.55	4.25	0.00	0.00	13.18	0.00	125	30	0.45%	0.013	27.63	5.6	2.7	0.56	0.00	301.26	300.69	2.5	304.75	304.19	0.45	307.60	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	26	27	0.00	19.67	31.90	1.00	0.55	4.00	0.00	0.00	43.24	0.00	178	42	0.39%	0.013	62.64	6.5	4.5	0.69	0.00	300.69	300.00	3.5	304.19	303.50	0.39	307.30	42	X	9.62	11.00	0.88	3.50	3500636.055	255485.154	M
-	27	2000	1.43	21.10	32.11	1.00	0.55	3.98	3.13	0.00	46.21	0.00	215	42	0.39%	0.013	62.82	6.5	4.8	0.84	0.00	294.84	294.00	3.5	298.34	297.50	0.39	307.27	42	X	9.62	11.00	0.88	3.50	3500636.055	255485.154	M
B-202	202	35	0.76	0.76	24.53	1.00	0.55	4.61	1.93	0.00	1.93	0.00	33	24	0.61%	0.013	17.61	5.6	0.6	0.20	0.00	303.50	303.30	2.0	306.98	306.78	0.60	307.86	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	35	22	0.00	0.76	24.53	1.00	0.55	4.61	0.00	0.00	1.93	0.00	22	24	0.35%	0.013	13.44	4.3	0.6	0.08	0.00	303.30	303.22	2.0	306.78	306.70	0.30	307.68	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-203	203	204	1.27	1.27	25.43	1.00	0.55	4.52	3.16	0.00	3.16	0.00	33	24	0.60%	0.013	17.58	5.6	1.0	0.20	0.00	303.89	303.69	2.0	306.21	306.01	0.60	308.34	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-204	204	23	0.62	1.89	26.19	1.00	0.55	4.45	1.52	0.00	4.63	0.00	7	24	1.43%	0.013	27.04	8.6	1.5	0.10	0.00	303.69	303.59	2.0	306.01	305.91	1.42	308.34	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-205	205	206	1.61	1.61	25.87	1.00	0.55	4.48	3.97	0.00	3.97	0.00	26	24	0.78%	0.013	19.94	6.3	1.3	0.20	0.05	302.80	302.60	2.0	304.80	304.60	0.78	307.83	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-206	206	26	3.27	4.88	28.22	1.00	0.55	4.28	7.69	0.00	11.48	0.00	8	24	1.25%	0.013	25.29	8.1	3.7	0.10	0.00	302.60	302.50	2.0	304.60	304.50	1.25	307.83	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-207	207	208	1.56	1.56	25.81	1.00	0.55	4.49	3.85	0.00	3.85	0.00	24	24	0.83%	0.013	20.62	6.6	1.2	0.20	0.09	306.05	305.85	2.0	308.38	308.18	0.83	310.55	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-208	208	36	3.76	5.32	28.42	1.00	0.55	4.26	8.81	0.00	12.46	0.00	8	24	1.25%	0.013	25.29	8.1	4.0	0.10	0.00	305.85	305.75	2.0	308.18	308.08	1.24	310.55	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	36	28	0.00	5.32	28.42	1.00	0.55	4.26	0.00	0.00	12.46	0.00	60	30	0.30%	0.013	22.47	4.6	2.5	0.18	0.00	305.58	305.40	2.5	308.08	307.90	0.30	310.55	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	28	29	0.00	5.32	28.42	1.00	0.55	4.26	0.00	0.00	12.46	0.00	270	30	0.30%	0.013	22.48	4.6	2.5	0.81	0.00	305.40	304.59	2.5	307.90	307.09	0.30	310.78	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	29	30	0.00	6.78	29.01	1.00	0.55	4.21	0.00	0.00	15.71	0.00	198	30	0.30%	0.013	22.48	4.6	3.2	0.59	0.00	304.59	304.00	2.5	307.09	306.50	0.30	311.15	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	30	31	0.00	9.15	29.77	1.00	0.55	4.15	0.00	0.00	20.90	0.00	152	30	0.55%	0.013	30.33	6.2	4.3	0.83	0.00	304.00	303.17	2.5	306.50	305.67	0.55	310.47	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	31	32	0.00	9.15	29.77	1.00	0.55	4.15	0.00	0.00	20.90	0.00	69	30	0.55%	0.013	30.48	6.2	4.3	0.38	0.00	303.17	302.79	2.5	305.67	305.29	0.55	308.91	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	32	26	0.00	9.15	29.77	1.00	0.55	4.15	0.00	0.00	20.90	0.00	75	30	0.55%	0.013	30.55	6.2	4.3	0.41	0.00	302.79	302.37	2.5	305.29	304.87	0.55	307.84	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
B-209	209	29	1.46	1.46	25.69	1.00	0.55	4.50	3.61	0.00	3.61	0.00	33	24	0.61%	0.013	17.61	5.6	1.1	0.20	0.00	306.60	306.40	2.0	308.60	308.40	0.61	311.15	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-210	210	211	1.46	1.46	25.69	1.00	0.55	4.50	3.61	0.00	3.61	0.00	24	24	0.83%	0.013	20.65	6.6	1.1	0.20	0.00	305.97	305.77	2.0	307.97	307.77	0.83	310.49	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-211	211	30	0.91	2.37	26.64	1.00	0.55	4.41	2.21	0.00	5.75	0.00	8	24	1.25%	0.013	25.29	8.1	1.8	0.10	0.00	305.77	305.67	2.0	307.77	307.67	1.25	310.49	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BAC

10 YEAR FREQUENCY
SYSTEM A

Area	MANHOLES/ INLETS from	MANHOLES/ INLETS to	Area ac.	Total Area ac.	tc min.	Frequency Factor f	C	Intensity I in./hr.	Q c.f.s.	Additional Q c.f.s.	Total Q c.f.s.	Q Pass c.f.s.	Reach ft.	LINE size in.	LINE slope %	n	DESIGN Q c.f.s.	DESIGN V f.p.s.	Actual V f.p.s.	Friction Loss ft.	Minor Loss ft.	FLOWLINES upstrm. elev.	FLOWLINES dnstrm. elev.	Line Size ft.	HYDR. GRAD. upstrm. elev.	HYDR. GRAD. dnstrm. elev.	HYDR. GRAD. slope %	TC/NG	Pipe Size	BOX CULVERT SIZE	AREA	WETTED PERIMETER	HYDRAULIC RADIUS	HYDRAULIC DIAMETER	X-Coord	Y-Coord	Junction
A-100	100	101	0.43	0.43	23.62	1.00	0.55	5.45	1.29	0.00	1.29	0.00	30	24	0.66%	0.013	19.38	5.9	0.4	0.20	0.02	313.35	313.15	2.0	315.45	315.25	0.66	318.91	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-101	101	1	1.26	1.69	25.97	1.00	0.55	5.18	3.59	0.00	4.82	0.00	8	24	1.21%	0.013	24.88	7.9	1.5	0.10	0.00	313.15	313.05	2.0	315.25	315.15	1.25	318.91	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	1	2	0.00	1.69	25.97	1.00	0.55	5.18	0.00	0.00	4.82	0.00	138	24	0.45%	0.013	15.18	4.8	1.5	0.62	0.00	313.15	312.53	2.0	315.15	314.53	0.45	318.91	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	2	3	0.00	1.69	25.97	1.00	0.55	5.18	0.00	0.00	4.82	0.00	138	24	0.45%	0.013	15.16	4.8	1.5	0.62	0.00	312.53	311.91	2.0	314.53	313.91	0.45	318.62	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	3	4	0.00	1.69	25.97	1.00	0.55	5.18	0.00	0.00	4.82	0.00	59	24	0.45%	0.013	15.20	4.8	1.5	0.26	0.00	311.91	311.64	2.0	313.91	313.64	0.45	317.95	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	4	5	0.00	1.69	25.97	1.00	0.55	5.18	0.00	0.00	4.82	0.00	59	24	0.45%	0.013	15.13	4.8	1.5	0.26	0.13	311.64	311.38	2.0	313.64	313.38	0.45	317.24	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	5	6	0.00	5.14	28.34	1.00	0.55	4.95	0.00	0.00	13.99	0.00	273	24	0.45%	0.013	15.17	4.8	4.5	1.22	0.00	310.93	309.70	2.0	312.93	311.70	0.45	316.64	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	6	7	0.00	7.88	29.38	1.00	0.55	4.85	0.00	0.00	21.04	0.00	140	24	0.95%	0.013	22.04	7.0	6.7	1.32	0.00	307.56	306.23	2.0	309.56	308.23	0.95	316.42	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	7	8	0.00	9.52	29.87	1.00	0.55	4.81	0.00	0.00	25.19	0.00	80	30	0.95%	0.013	39.96	8.1	5.1	0.76	0.00	303.52	302.76	2.5	306.02	305.26	0.95	316.20	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	8	9	0.00	9.52	29.87	1.00	0.55	4.81	0.00	0.00	25.19	0.00	141	30	0.95%	0.013	39.82	8.1	5.1	1.33	0.00	300.99	299.66	2.5	303.49	302.16	0.95	314.95	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	9	34	0.00	21.15	32.12	1.00	0.55	4.62	0.00	0.00	53.79	0.00	135	42	0.26%	0.013	51.24	5.3	5.6	0.38	0.00	294.60	294.25	3.5	298.16	297.78	0.28	311.38	42	X	9.62	11.00	0.88	3.50	3500636.055	255485.154	M
-	34	1000	0.00	21.15	32.12	1.00	0.55	4.62	0.00	0.00	53.79	0.00	98	42	0.26%	0.013	50.81	5.3	5.6	0.28	0.00	294.25	294.00	3.5	297.78	297.50	0.28	306.84	42	X	9.62	11.00	0.88	3.50	3500636.055	255485.154	M
A-102	102	103	1.25	1.25	25.40	1.00	0.55	5.25	3.61	0.00	3.61	0.00	24	24	0.83%	0.013	20.65	6.6	1.1	0.20	0.01	311.65	311.45	2.0	313.65	313.45	0.83	317.85	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-103	103	5	2.20	3.45	27.44	1.00	0.55	5.04	6.09	0.00	9.56	0.00	8	24	1.19%	0.013	24.67	7.9	3.0	0.10	0.00	311.45	311.35	2.0	313.45	313.35	1.19	317.85	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-104	104	105	1.63	1.63	25.90	1.00	0.55	5.19	4.65	0.00	4.65	0.00	36	24	0.55%	0.013	16.84	5.4	1.5	0.20	0.00	310.54	310.34	2.0	312.54	312.34	0.55	316.20	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-105	105	6	1.11	2.74	26.94	1.00	0.55	5.08	3.10	0.00	7.66	0.00	8	24	1.25%	0.013	25.29	8.1	2.4	0.10	0.00	310.34	310.24	2.0	312.34	312.24	1.25	316.20	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-106	106	7	1.64	1.64	25.91	1.00	0.55	5.19	4.68	0.00	4.68	0.00	33	24	0.61%	0.013	17.61	5.6	1.5	0.20	0.00	306.50	306.30	2.0	308.50	308.30	0.61	311.57	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-117	117	118	1.32	1.32	25.50	1.00	0.55	5.23	3.80	0.00	3.80	0.00	28	24	0.71%	0.013	19.08	6.1	1.2	0.20	0.00	300.12	299.92	2.0	302.12	301.92	0.71	314.96	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-118	118	10	1.10	2.42	26.68	1.00	0.55	5.11	3.09	0.00	6.80	0.00	6	24	1.67%	0.013	29.21	9.3	2.2	0.10	0.00	299.92	299.82	2.0	301.92	301.82	1.67	314.96	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	10	9	0.00	2.42	26.68	1.00	0.55	5.11	0.00	0.00	6.80	0.00	21	24	1.24%	0.013	25.20	8.0	2.2	0.26	0.00	296.74	296.48	2.0	298.74	298.48	1.24	314.96	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-107	107	108	1.90	1.90	26.20	1.00	0.55	5.16	5.39	0.00	5.39	0.00	28	24	0.70%	0.013	18.99	6.0	1.7	0.20	0.00	314.43	314.23	2.0	316.43	316.23	0.70	318.34	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-108	108	11	0.84	2.74	26.94	1.00	0.55	5.08	2.35	0.00	7.66	0.00	6	24	1.67%	0.013	29.21	9.3	2.4	0.10	0.00	314.23	314.13	2.0	316.23	316.13	1.25	318.34	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	11	12	0.00	2.74	26.94	1.00	0.55	5.08	0.00	0.00	7.66	0.00	188	24	0.30%	0.013	12.35	3.9	2.4	0.56	0.00	314.11	313.55	2.0	316.11	315.55	0.30	318.34	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	12	13	0.00	4.16	27.85	1.00	0.55	5.00	0.00	0.00	11.43	0.00	83	24	0.30%	0.013	12.42	4.0	3.6	0.25	0.00	313.55	313.30	2.0	315.55	315.30	0.30	317.91	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	13	14	0.00	4.16	27.85	1.00	0.55	5.00	0.00	0.00	11.43	0.00	167	24	1.24%	0.013	25.22	8.0	3.6	2.07	0.00	313.30	311.22	2.0	315.30	313.22	1.24	315.94	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	14	15	0.00	4.16	27.85	1.00	0.55	5.00	0.00	0.00	11.43	0.00	67	24	1.24%	0.013	25.19	8.0	3.6	0.83	0.00	307.84	307.01	2.0	309.84	309.01	1.24	311.81	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	15	16	0.00	7.42	29.23	1.00	0.55	4.87	0.00	0.00	19.86	0.00	65	24	1.24%	0.013	25.20	8.0	6.3	0.81	0.00	307.01	306.20	2.0	309.01	308.20	1.24	310.52	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	16	17	0.00	7.42	29.23	1.00	0.55	4.87	0.00	0.00	19.86	0.00	109	24	1.24%	0.013	25.24	8.0	6.3	1.35	0.00	304.40	303.04	2.0	306.40	305.04	1.24	308.66	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	17	18	0.00	7.42	29.23	1.00	0.55	4.87	0.00	0.00	19.86	0.00	71	24	1.24%	0.013	25.17	8.0	6.3	0.87	0.00	303.04	302.17	2.0	305.04	304.17	1.24	307.67	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	18	19	0.00	8.09	29.45	1.00	0.55	4.85	0.00	0.00	21.57	0.00	200	30	0.95%	0.013	40.01	8.1	4.4	1.89	0.00	301.59	299.69	2.5	304.09	302.19	0.95	307.67	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	19	9	0.00	9.21	29.78	1.00	0.55	4.82	0.00	0.00	24.41	0.00	63	30	0.95%	0.013	40.03	8.2	5.0	0.60	0.00	296.97	296.37	2.5	299.47	298.87	0.95	305.21	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
A-109	109	110	0.71	0.71	24.41	1.00	0.55	5.36	2.09	0.00	2.09	0.00	31	24	0.64%	0.013	18.07	5.8	0.7	0.20	0.00	313.89	313.69	2.0	315.89	315.69	0.64	312.88	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-110	110	12	0.71	1.42	25.64	1.00	0.55	5.22	2.04	0.00	4.08	0.00	6	24	1.67%	0.013	29.21	9.3	1.3	0.10	0.00	313.69	313.59	2.0	315.69	315.59	1.67	312.88	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-111	111	112	2.03	2.03	26.33	1.00	0.55	5.15	5.75	0.00	5.75	0.00	28	24	0.71%	0.013	19.12	6.1	1.8	0.20	0.00	307.31	307.11	2.0	309.31	309.11	0.71	308.48	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-112	112	15	1.23	3.26	27.31	1.00	0.55	5.05	3.41	0.00	9.05	0.00	6	24	1.67%	0.013	29.21	9.3	2.9	0.10	0.00	307.11	307.01	2.0	309.11	309.01	1.67	308.48	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-113	113	114	0.44	0.44	23.65	1.00	0.55	5.44	1.32	0.00	1.32	0.00	28	24	0.71%	0.013	19.12	6.1	0.4	0.20	0.00	303.09	302.89	2.0	305.09	304.89	0.71	305.71	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-114	114	18	0.23	0.67	24.32	1.00	0.55	5.37	0.68	0.00	1.98	0.00	8	24	1.25%	0.013	25.29	8.1	0.6	0.10	0.00	302.89	302.79	2.0	304.89	304.79	1.25	305.71	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-115	115	116	0.98	0.98	24.96	1.00	0.55	5.29	2.85	0.00	2.85	0.00	28	24	0.71%	0.013	19.12	6.1	0.9	0.20	0.00	300.65	300.45	2.0	302.65	302.45	0.71	305.24	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-116	116	19	0.14	1.12	25.20	1.00	0.55	5.27	0.41	0.00	3.24	0.00	8	24	1.25%	0.013	25.29	8.1	1.0	0.10	0.00	300.45	300.35	2.0	302.45	302.35	1.25	305.24	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M

10 YEAR FREQUENCY
SYSTEM B

Area	MANHOLES/ INLETS from	MANHOLES/ INLETS to	Area ac.	Total Area ac.	tc min.	Frequency Factor f	C	Intensity I in./hr.	Q c.f.s.	Additional Q c.f.s.	Total Q c.f.s.	Q Pass c.f.s.	Reach ft.	LINE size in.	LINE slope %	n	DESIGN Q c.f.s.	DESIGN V f.p.s.	Actual V f.p.s.	Friction Loss ft.	Minor Loss ft.	FLOWLINES upstrm. elev.	FLOWLINES dnstrm. elev.	Line Size ft.	HYDR. GRAD. upstrm. elev.	HYDR. GRAD. dnstrm. elev.	HYDR. GRAD. slope %	TC/NG	Pipe Size	BOX CULVERT SIZE	AREA	WETTED PERIMETER	HYDRAULIC RADIUS	HYDRAULIC DIAMETER	X-Coord	Y-Coord	Junction
B-200	200	201	1.30	1.30	25.47	1.00	0.55	5.24	3.74	0.00	3.74	0.00	28	24	0.71%	0.013	19.09	6.1	1.2	0.20	0.00	307.95	307.75	2.0	309.95	309.75	0.71	312.81	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-201	201	20	1.69	2.99	27.13	1.00	0.55	5.07	4.71	0.00	8.33	0.00	7	24	1.43%	0.013	27.04	8.6	2.7	0.10	0.00	307.75	307.65	2.0	309.75	309.65	1.43	312.81	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	20	21	0.00	2.99	27.13	1.00	0.55	5.07	0.00	0.00	8.33	0.00	97	24	0.35%	0.013	13.40	4.3	2.7	0.34	0.00	307.61	307.27	2.0	309.61	309.27	0.35	312.81	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	21	22	0.00	2.99	27.13	1.00	0.55	5.07	0.00	0.00	8.33	0.00	153	24	0.35%	0.013	13.31	4.2	2.7	0.53	0.00	305.16	304.63	2.0	307.23	306.70	0.34	311.53	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	22	23	0.00	3.75	27.62	1.00	0.55	5.02	0.00	0.00	10.35	0.00	230	24	0.35%	0.013	13.34	4.2	3.3	0.80	0.00	303.22	302.42	2.0	306.70	305.91	0.35	308.10	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	23	24	0.00	5.64	28.56	1.00	0.55	4.93	0.00	0.00	15.29	0.00	157	30	0.45%	0.013	27.55	5.6	3.1	0.71	0.00	302.42	301.71	2.5	305.91	305.20	0.45	308.34	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	24	25	0.00	5.64	28.56	1.00	0.55	4.93	0.00	0.00	15.29	0.00	101	30	0.45%	0.013	27.37	5.6	3.1	0.45	0.00	301.71	301.26	2.5	305.20	304.75	0.44	307.87	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	25	26	0.00	5.64	28.56	1.00	0.55	4.93	0.00	0.00	15.29	0.00	125	30	0.45%	0.013	27.63	5.6	3.1	0.56	0.00	301.26	300.69	2.5	304.75	304.19	0.45	307.60	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	26	27	0.00	19.67	31.90	1.00	0.55	4.64	0.00	0.00	50.21	0.00	178	42	0.39%	0.013	62.64	6.5	5.2	0.69	0.00	300.69	300.00	3.5	304.19	303.50	0.39	307.30	42	X	9.62	11.00	0.88	3.50	3500636.055	255485.154	M
-	27	2000	1.43	21.10	32.11	1.00	0.55	4.62	3.64	0.00	53.67	0.00	215	42	0.39%	0.013	62.82	6.5	5.6	0.84	0.00	294.84	294.00	3.5	298.34	297.50	0.39	307.27	42	X	9.62	11.00	0.88	3.50	3500636.055	255485.154	M
B-202	202	35	0.76	0.76	24.53	1.00	0.55	5.34	2.23	0.00	2.23	0.00	33	24	0.61%	0.013	17.61	5.6	0.7	0.20	0.00	303.50	303.30	2.0	306.98	306.78	0.60	307.86	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	35	22	0.00	0.76	24.53	1.00	0.55	5.34	0.00	0.00	2.23	0.00	22	24	0.35%	0.013	13.44	4.3	0.7	0.08	0.00	303.30	303.22	2.0	306.78	306.70	0.30	307.68	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-203	203	204	1.27	1.27	25.43	1.00	0.55	5.24	3.66	0.00	3.66	0.00	33	24	0.60%	0.013	17.58	5.6	1.2	0.20	0.00	303.89	303.69	2.0	306.21	306.01	0.60	308.34	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-204	204	23	0.62	1.89	26.19	1.00	0.55	5.16	1.76	0.00	5.37	0.00	7	24	1.43%	0.013	27.04	8.6	1.7	0.10	0.00	303.69	303.59	2.0	306.01	305.91	1.42	308.34	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-205	205	206	1.61	1.61	25.87	1.00	0.55	5.19	4.60	0.00	4.60	0.00	26	24	0.78%	0.013	19.94	6.3	1.5	0.20	0.07	302.80	302.60	2.0	304.80	304.60	0.78	307.83	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-206	206	26	3.27	4.88	28.22	1.00	0.55	4.96	8.92	0.00	13.31	0.00	8	24	1.25%	0.013	25.29	8.1	4.2	0.10	0.00	302.60	302.50	2.0	304.60	304.50	1.25	307.83	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-207	207	208	1.56	1.56	25.81	1.00	0.55	5.20	4.46	0.00	4.46	0.00	24	24	0.83%	0.013	20.62	6.6	1.4	0.20	0.12	306.05	305.85	2.0	308.38	308.18	0.83	310.55	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-208	208	36	3.76	5.32	28.42	1.00	0.55	4.94	10.22	0.00	14.46	0.00	8	24	1.25%	0.013	25.29	8.1	4.6	0.10	0.00	305.85	305.75	2.0	308.18	308.08	1.24	310.55	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	36	28	0.00	5.32	28.42	1.00	0.55	4.94	0.00	0.00	14.46	0.00	60	30	0.30%	0.013	22.47	4.6	2.9	0.18	0.00	305.58	305.40	2.5	308.08	307.90	0.30	310.55	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	28	29	0.00	5.32	28.42	1.00	0.55	4.94	0.00	0.00	14.46	0.00	270	30	0.30%	0.013	22.48	4.6	2.9	0.81	0.00	305.40	304.59	2.5	307.90	307.09	0.30	310.78	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	29	30	0.00	6.78	29.01	1.00	0.55	4.89	0.00	0.00	18.23	0.00	196	30	0.30%	0.013	22.48	4.6	3.7	0.59	0.00	304.59	304.00	2.5	307.09	306.50	0.30	311.15	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	30	31	0.00	9.15	29.77	1.00	0.55	4.82	0.00	0.00	24.26	0.00	152	30	0.55%	0.013	30.33	6.2	4.9	0.83	0.00	304.00	303.17	2.5	306.50	305.67	0.55	310.47	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	31	32	0.00	9.15	29.77	1.00	0.55	4.82	0.00	0.00	24.26	0.00	69	30	0.55%	0.013	30.48	6.2	4.9	0.38	0.00	303.17	302.79	2.5	305.67	305.29	0.55	308.91	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	32	26	0.00	9.15	29.77	1.00	0.55	4.82	0.00	0.00	24.26	0.00	75	30	0.55%	0.013	30.55	6.2	4.9	0.41	0.00	302.79	302.37	2.5	305.29	304.87	0.55	307.84	30	X	4.91	7.85	0.63	2.50	3500636.055	255485.154	M
B-209	209	29	1.46	1.46	25.69	1.00	0.55	5.21	4.19	0.00	4.19	0.00	33	24	0.61%	0.013	17.61	5.6	1.3	0.20	0.00	306.60	306.40	2.0	308.60	308.40	0.61	311.15	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-210	210	211	1.46	1.46	25.69	1.00	0.55	5.21	4.19	0.00	4.19	0.00	24	24	0.83%	0.013	20.65	6.6	1.3	0.20	0.00	305.97	305.77	2.0	307.97	307.77	0.83	310.49	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-211	211	30	0.91	2.37	26.64	1.00	0.55	5.12	2.56	0.00	6.67	0.00	8	24	1.25%	0.013	25.29	8.1	2.1	0.10	0.00	305.77	305.67	2.0	307.77	307.67	1.25	310.49	24	X	3.14	6.28	0.50	2.00	3500636.055	255485.154	M

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BAC

100 YEAR FREQUENCY
SYSTEM A

Area	MANHOLES/ INLETS from	MANHOLES/ INLETS to	Area ac.	Total Area ac.	tc min.	Frequency Factor r	C	Intensity I in./hr.	Q c.f.s.	Additional Q c.f.s.	Total Q c.f.s.	Q Pass c.f.s.	Reach ft.	LINE size in.	LINE slope %	n	DESIGN Q c.f.s.	DESIGN V f.p.s.	Actual V f.p.s.	Friction Loss ft.	Minor Loss ft.	FLOWLINES upstrm. elev.	FLOWLINES dnstrm. elev.	Line Size ft.	HYDR. GRAD. upstrm. elev.	HYDR. GRAD. dnstrm. elev.	HYDR. GRAD. slope %	TC/NG	Pipe Size	BOX CULVERT SIZE			AREA	WETTED PERIMETER	HYDRAULIC RADIUS	HYDRAULIC DIAMETER	X-Coord	Y-Coord	Junction
A-100	100	101	0.43	23.62	25.47	1.25	0.55	8.04	2.38	0.00	2.38	0.00	30	24	0.66%	0.013	18.38	5.9	0.8	0.20	0.07	313.35	313.15	2.0	318.01	317.81	0.66	318.91	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-101	101	1	1.26	1.69	25.97	1.25	0.55	7.67	6.64	0.00	8.91	0.00	8	24	1.21%	0.013	24.88	7.9	2.8	0.10	0.00	313.15	313.05	2.0	317.81	317.71	1.25	318.91	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	1	2	0.00	1.69	25.97	1.25	0.55	7.67	0.00	0.00	8.91	0.00	138	24	0.45%	0.013	15.18	4.8	2.8	0.62	0.00	313.15	312.53	2.0	317.71	317.09	0.45	318.91	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	2	3	0.00	1.69	25.97	1.25	0.55	7.67	0.00	0.00	8.91	0.00	138	24	0.45%	0.013	15.16	4.8	2.8	0.62	0.00	312.53	311.91	2.0	317.09	316.48	0.45	318.62	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	3	4	0.00	1.69	25.97	1.25	0.55	7.67	0.00	0.00	8.91	0.00	59	24	0.45%	0.013	15.20	4.8	2.8	0.26	0.00	311.91	311.64	2.0	316.48	316.21	0.45	317.85	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	4	5	0.00	1.69	25.97	1.25	0.55	7.67	0.00	0.00	8.91	0.00	59	24	0.45%	0.013	15.13	4.8	2.8	0.26	0.46	311.64	311.38	2.0	316.21	315.95	0.44	317.24	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	5	6	0.00	5.14	28.34	1.25	0.55	7.34	0.00	0.00	25.93	0.00	273	24	0.45%	0.013	15.17	4.8	8.3	3.57	0.00	310.93	309.70	2.0	315.95	312.38	1.31	316.64	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	6	7	0.00	7.88	29.38	1.25	0.55	7.20	0.00	0.00	39.03	0.00	140	24	0.95%	0.013	22.04	7.0	12.4	4.15	0.00	307.56	306.23	2.0	312.38	308.23	2.96	316.42	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	7	8	0.00	9.52	29.87	1.25	0.55	7.14	0.00	0.00	46.76	0.00	80	30	0.95%	0.013	39.96	8.1	9.5	1.04	0.00	303.52	302.76	2.5	306.30	305.26	1.29	316.20	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	8	9	0.00	9.52	29.87	1.25	0.55	7.14	0.00	0.00	46.76	0.00	141	30	0.95%	0.013	39.92	8.1	9.5	1.82	0.00	300.99	299.66	2.5	303.98	302.16	1.29	314.95	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	9	34	0.00	21.15	32.12	1.25	0.55	6.88	0.00	0.00	100.10	0.00	135	42	0.26%	0.013	51.24	5.3	10.4	1.33	0.00	294.60	294.25	3.5	299.79	298.47	0.98	311.38	42	X		9.62	11.00	0.88	3.50	3500636.055	255485.154	M
-	34	1000	0.00	21.15	32.12	1.25	0.55	6.88	0.00	0.00	100.10	0.00	98	42	0.26%	0.013	50.81	5.3	10.4	0.97	0.00	294.25	294.00	3.5	298.47	297.50	0.98	306.84	42	X		9.62	11.00	0.88	3.50	3500636.055	255485.154	M
A-102	102	103	1.25	1.25	25.40	1.25	0.55	7.75	6.66	0.00	6.66	0.00	24	24	0.83%	0.013	20.65	6.6	2.1	0.20	0.03	311.65	311.45	2.0	316.25	316.05	0.83	317.85	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-103	103	5	2.20	3.45	27.44	1.25	0.55	7.46	11.28	0.00	17.69	0.00	8	24	1.19%	0.013	24.67	7.9	5.6	0.10	0.00	311.45	311.35	2.0	316.05	315.95	1.18	317.85	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-104	104	105	1.63	1.63	25.90	1.25	0.55	7.68	8.60	0.00	8.60	0.00	36	24	0.55%	0.013	16.84	5.4	2.7	0.20	0.00	310.54	310.34	2.0	312.68	312.48	0.55	316.20	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-105	105	6	1.11	2.74	26.94	1.25	0.55	7.53	5.74	0.00	14.18	0.00	8	24	1.25%	0.013	25.29	8.1	4.5	0.10	0.00	310.34	310.24	2.0	312.48	312.38	1.24	316.20	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-106	106	7	1.64	1.64	25.91	1.25	0.55	7.68	8.66	0.00	8.66	0.00	33	24	0.61%	0.013	17.61	5.6	2.8	0.20	0.00	306.50	306.30	2.0	308.50	308.30	0.61	311.57	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-117	117	118	1.32	1.32	25.50	1.25	0.55	7.74	7.02	0.00	7.02	0.00	28	24	0.71%	0.013	19.08	6.1	2.2	0.20	0.00	300.12	299.92	2.0	302.12	301.92	0.71	314.96	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-118	118	10	1.10	2.42	26.68	1.25	0.55	7.56	5.72	0.00	12.58	0.00	6	24	1.67%	0.013	29.21	9.3	4.0	0.10	0.00	299.92	299.82	2.0	301.92	301.82	1.67	314.96	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	10	9	0.00	2.42	26.68	1.25	0.55	7.56	0.00	0.00	12.58	0.00	21	24	1.24%	0.013	25.20	8.0	4.0	0.26	0.00	296.74	296.48	2.0	300.05	299.79	1.23	314.96	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-107	107	108	1.90	1.90	26.20	1.25	0.55	7.63	9.97	0.00	9.97	0.00	28	24	0.70%	0.013	18.99	6.0	3.2	0.20	0.00	314.43	314.23	2.0	317.05	316.86	0.70	318.34	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-108	108	11	0.84	2.74	26.94	1.25	0.55	7.53	4.35	0.00	14.18	0.00	6	24	1.67%	0.013	29.21	9.3	4.5	0.10	0.00	314.23	314.13	2.0	316.86	316.76	1.25	318.34	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	11	12	0.00	2.74	26.94	1.25	0.55	7.53	0.00	0.00	14.18	0.00	188	24	0.30%	0.013	12.35	3.9	4.5	0.73	0.00	314.11	313.55	2.0	316.76	316.02	0.39	318.34	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	12	13	0.00	4.16	27.85	1.25	0.55	7.40	0.00	0.00	21.17	0.00	83	24	0.30%	0.013	12.42	4.0	6.7	0.72	0.00	313.55	313.30	2.0	316.02	315.30	0.87	317.91	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	13	14	0.00	4.16	27.85	1.25	0.55	7.40	0.00	0.00	21.17	0.00	167	24	1.24%	0.013	25.22	8.0	6.7	2.07	0.00	313.30	311.22	2.0	315.30	313.22	1.24	315.94	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	14	15	0.00	4.16	27.85	1.25	0.55	7.40	0.00	0.00	21.17	0.00	67	24	1.24%	0.013	25.19	8.0	6.7	0.83	0.00	307.84	307.01	2.0	311.47	310.64	1.23	311.81	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	15	16	0.00	7.42	29.23	1.25	0.55	7.22	0.00	0.00	36.85	0.00	65	24	1.24%	0.013	25.20	8.0	11.7	1.72	0.00	307.01	306.20	2.0	310.64	308.92	2.64	310.52	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	16	17	0.00	7.42	29.23	1.25	0.55	7.22	0.00	0.00	36.85	0.00	109	24	1.24%	0.013	25.24	8.0	11.7	2.89	0.00	304.40	303.04	2.0	308.92	306.03	2.64	308.66	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	17	18	0.00	7.42	29.23	1.25	0.55	7.22	0.00	0.00	36.85	0.00	71	24	1.24%	0.013	25.17	8.0	11.7	1.86	0.00	303.04	302.17	2.0	306.03	304.17	2.64	307.67	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	18	19	0.00	8.09	29.45	1.25	0.55	7.20	0.00	0.00	40.03	0.00	200	30	0.95%	0.013	40.01	8.1	8.2	1.89	0.00	301.59	299.69	2.5	304.09	302.19	0.95	307.67	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	19	9	0.00	9.21	29.78	1.25	0.55	7.16	0.00	0.00	45.31	0.00	63	30	0.95%	0.013	40.03	8.2	9.2	0.76	0.00	296.97	296.37	2.5	300.56	299.79	1.21	305.21	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
A-109	109	110	0.71	0.71	24.41	1.25	0.55	7.91	3.86	0.00	3.86	0.00	31	24	0.64%	0.013	18.07	5.8	1.2	0.20	0.00	313.89	313.69	2.0	316.32	316.12	0.63	312.88	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-110	110	12	0.71	1.42	25.64	1.25	0.55	7.72	3.77	0.00	7.53	0.00	6	24	1.67%	0.013	29.21	9.3	2.4	0.10	0.00	313.69	313.59	2.0	316.12	316.02	1.66	312.88	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-111	111	112	2.03	2.03	26.33	1.25	0.55	7.62	10.63	0.00	10.63	0.00	28	24	0.71%	0.013	19.12	6.1	3.4	0.20	0.00	307.31	307.11	2.0	310.94	310.74	0.71	308.48	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-112	112	15	1.23	3.26	27.31	1.25	0.55	7.48	6.32	0.00	16.76	0.00	6	24	1.67%	0.013	29.21	9.3	5.3	0.10	0.00	307.11	307.01	2.0	310.74	310.64	1.66	308.48	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-113	113	114	0.44	0.44	23.65	1.25	0.55	8.03	2.43	0.00	2.43	0.00	28	24	0.71%	0.013	19.12	6.1	0.8	0.20	0.00	303.09	302.89	2.0	305.09	304.89	0.71	305.71	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-114	114	18	0.23	0.67	24.32	1.25	0.55	7.92	1.25	0.00	3.65	0.00	8	24	1.25%	0.013	25.29	8.1	1.2	0.10	0.00	302.89	302.79	2.0	304.89	304.79	1.25	305.71	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-115	115	116	0.98	0.98	24.96	1.25	0.55	7.82	5.27	0.00	5.27	0.00	28	24	0.71%	0.013	19.12	6.1	1.7	0.20	0.00	300.65	300.45	2.0	302.65	302.45	0.71	305.24	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
A-116	116	19	0.14	1.12	25.20	1.25	0.55	7.78	0.75	0.00	5.99	0.00	8	24	1.25%	0.013	25.29	8.1	1.9	0.10	0.00	300.45	300.35	2.0	302.45	302.35	1.25	305.24	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M

100 YEAR FREQUENCY
SYSTEM B

Area	MANHOLES/ INLETS from	MANHOLES/ INLETS to	Area ac.	Total Area ac.	tc min.	Frequency Factor r	C	Intensity I in./hr.	Q c.f.s.	Additional Q c.f.s.	Total Q c.f.s.	Q Pass c.f.s.	Reach ft.	LINE size in.	LINE slope %	n	DESIGN Q c.f.s.	DESIGN V f.p.s.	Actual V f.p.s.	Friction Loss ft.	Minor Loss ft.	FLOWLINES upstrm. elev.	FLOWLINES dnstrm. elev.	Line Size ft.	HYDR. GRAD. upstrm. elev.	HYDR. GRAD. dnstrm. elev.	HYDR. GRAD. slope %	TC/NG	Pipe Size	BOX CULVERT SIZE			AREA	WETTED PERIMETER	HYDRAULIC RADIUS	HYDRAULIC DIAMETER	X-Coord	Y-Coord	Junction
B-200	200	201	1.30	1.30	25.47	1.25	0.55	7.74	6.92	0.00	6.92	0.00	28	24	0.71%	0.013	19.09	6.1	2.2	0.20	0.00	307.95	307.75	2.0	310.02	309.82	0.71	312.81	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-201	201	20	1.69	2.99	27.13	1.25	0.55	7.50	8.72	0.00	15.42	0.00	7	24	1.43%	0.013	27.04	8.6	4.9	0.10	0.00	307.75	307.65	2.0	309.82	309.72	1.42	312.81	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	20	21	0.00	2.99	27.13	1.25	0.55	7.50	0.00	0.00	15.42	0.00	97	24	0.35%	0.013	13.40	4.3	4.9	0.45	0.00	307.61	307.27	2.0	309.72	309.27	0.46	312.81	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	21	22	0.00	2.99	27.13	1.25	0.55	7.50	0.00	0.00	15.42	0.00	153	24	0.35%	0.013	13.31	4.2	4.9	0.71	0.00	305.16	304.63	2.0	309.20	308.49	0.46	311.53	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	22	23	0.00	3.75	27.62	1.25	0.55	7.43	0.00	0.00	19.17	0.00	230	24	0.35%	0.013	13.34	4.2	6.1	1.64	0.00	303.22	302.42	2.0	308.49	306.85	0.71	308.10	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	23	24	0.00	5.64	28.56	1.25	0.55	7.31	0.00	0.00	28.34	0.00	157	30	0.45%	0.013	27.55	5.6	5.8	0.75	0.00	302.42	301.71	2.5	306.85	306.10	0.47	308.34	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	24	25	0.00	5.64	28.56	1.25	0.55	7.31	0.00	0.00	28.34	0.00	101	30	0.45%	0.013	27.37	5.6	5.8	0.48	0.00	301.71	301.26	2.5	306.10	305.62	0.47	307.87	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	25	26	0.00	5.64	28.56	1.25	0.55	7.31	0.00	0.00	28.34	0.00	125	30	0.45%	0.013	27.63	5.6	5.8	0.59	0.00	301.26	300.69	2.5	305.62	305.03	0.47	307.60	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	26	27	0.00	19.67	31.90	1.25	0.55	6.91	0.00	0.00	93.42	0.00	178	42	0.39%	0.013	62.64	6.5	9.7	1.53	0.00	300.69	300.00	3.5	305.03	303.50	0.86	307.30	42	X		9.62	11.00	0.88	3.50	3500636.055	255485.154	M
-	27	2000	1.43	21.10	32.11	1.25	0.55	6.89	6.77	0.00	99.88	0.00	215	42	0.39%	0.013	62.82	6.5	10.4	2.11	0.00	294.84	294.00	3.5	299.61	297.50	0.98	307.27	42	X		9.62	11.00	0.88	3.50	3500636.055	255485.154	M
B-202	202	35	0.76	0.76	24.53	1.25	0.55	7.89	4.12	0.00	4.12	0.00	33	24	0.61%	0.013	17.61	5.6	1.3	0.20	0.00	303.50	303.30	2.0	308.77	308.57	0.60	307.86	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	35	22	0.00	0.76	24.53	1.25	0.55	7.89	0.00	0.00	4.12	0.00	22	24	0.35%	0.013	13.44	4.3	1.3	0.08	0.00	303.30	303.22	2.0	308.57	308.49	0.30	307.68	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-203	203	204	1.27	1.27	25.43	1.25	0.55	7.75	6.77	0.00	6.77	0.00	33	24	0.60%	0.013	17.58	5.6	2.2	0.20	0.00	303.89	303.69	2.0	307.15	306.95	0.60	308.34	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-204	204	23	0.62	1.89	26.19	1.25	0.55	7.64	3.25	0.00	9.92	0.00	7	24	1.43%	0.013	27.04	8.6	3.2	0.10	0.00	303.69	303.59	2.0	306.95	306.85	1.42	308.34	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-205	205	206	1.61	1.61	25.87	1.25	0.55	7.68	8.50	0.00	8.50	0.00	26	24	0.78%	0.013	19.94	6.3	2.7	0.20	0.24	302.80	302.60	2.0	305.33	305.13	0.77	307.83	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-206	206	26	3.27	4.88	28.22	1.25	0.55	7.35	16.53	0.00	24.67	0.00	8	24	1.25%	0.013	25.29	8.1	7.9	0.10	0.00	302.60	302.50	2.0	305.13	305.03	1.24	307.83	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-207	207	208	1.56	1.56	25.81	1.25	0.55	7.69	8.25	0.00	8.25	0.00	24	24	0.83%	0.013	20.62	6.6	2.6	0.20	0.43	306.05	305.85	2.0	311.61	311.41	0.83	310.55	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-208	208	36	3.76	5.32	28.42	1.25	0.55	7.33	18.94	0.00	26.80	0.00	8	24	1.25%	0.013	25.29	8.1	8.5	0.11	0.00	305.85	305.75	2.0	311.41	311.30	1.40	310.55	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
-	36	28	0.00	5.32	28.42	1.25	0.55	7.33	0.00	0.00	26.80	0.00	60	30	0.30%	0.013	22.47	4.6	5.5	0.25	0.00	305.58	305.40	2.5	311.30	311.04	0.42	310.55	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	28	29	0.00	5.32	28.42	1.25	0.55	7.33	0.00	0.00	26.80	0.00	270	30	0.30%	0.013	22.48	4.6	5.5	1.14	0.00	305.40	304.59	2.5	311.04	309.90	0.42	310.78	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	29	30	0.00	6.78	29.01	1.25	0.55	7.25	0.00	0.00	33.80	0.00	196	30	0.30%	0.013	22.48	4.6	6.9	1.33	0.00	304.59	304.00	2.5	309.90	308.57	0.68	311.15	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	30	31	0.00	9.15	29.77	1.25	0.55	7.16	0.00	0.00	45.02	0.00	152	30	0.55%	0.013	30.33	6.2	9.2	1.82	0.00	304.00	303.17	2.5	308.57	306.75	1.20	310.47	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	31	32	0.00	9.15	29.77	1.25	0.55	7.16	0.00	0.00	45.02	0.00	69	30	0.55%	0.013	30.48	6.2	9.2	0.82	0.00	303.17	302.79	2.5	306.75	305.92	1.20	308.91	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
-	32	26	0.00	9.15	29.77	1.25	0.55	7.16	0.00	0.00	45.02	0.00	75	30	0.55%	0.013	30.55	6.2	9.2	0.90	0.00	302.79	302.37	2.5	305.92	305.03	1.20	307.84	30	X		4.91	7.85	0.63	2.50	3500636.055	255485.154	M
B-209	209	29	1.46	1.46	25.69	1.25	0.55	7.71	7.74	0.00	7.74	0.00	33	24	0.61%	0.013	17.61	5.6	2.5	0.20	0.00	306.60	306.40	2.0	310.09	309.90	0.60	311.15	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-210	210	211	1.46	1.46	25.69	1.25	0.55	7.71	7.74	0.00	7.74	0.00	24	24	0.83%	0.013	20.65	6.6	2.5	0.20	0.00	305.97	305.77	2.0	308.87	308.67	0.83	310.49	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M
B-211	211	30	0.91	2.37	26.64	1.25	0.55	7.57	4.74	0.00	12.33	0.00	8	24	1.25%	0.013	25.29	8.1	3.9	0.10	0.00	305.77	305.67	2.0	308.67	308.57	1.24	310.49	24	X		3.14	6.28	0.50	2.00	3500636.055	255485.154	M

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

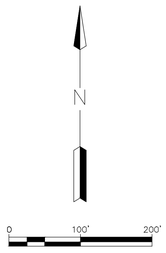
5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT PO



LEGEND

= FABRIC FENCE

= STABILIZED CONSTRUCTION EXIT

CTW = CONCRETE TRUCK WASHOUT AREA (OWNER WILL PROVIDE LOCATION)

LEGEND

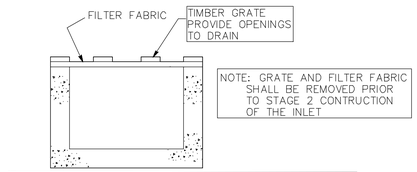
FF = FILTER FABRIC

RFB = REINFORCED FABRIC FENCE

(1) INDICATES LOCATION OF POLLUTION CONTROL MEASURE

ITEM	APPROX. QNTY.
(1)	20' RFB
(2)	20' RFB

1. CONTRACTOR SHALL ALSO INSTALL & MAINTAIN SILT BARRIER FOR INLETS AS DETAILED ON DRAINAGE DETAILS.



A CONTINUOUS SILT BARRIER FENCE SHALL BE CONSTRUCTED AROUND ALL FIRST STAGE INLETS BY THE UTILITY CONTRACTOR, AND MAINTAINED BY THE PAVING CONTRACTOR.

INLET PROTECTION BARRIER (STAGE 1)

(BY UTILITY CONTRACTOR)
(NO SEPARATE PAY)

FILTER DAM NOTES:

A. TYPES OF FILTER DAMS

1. TYPE 1 (NON-REINFORCED)
   A. HEIGHT – 18-24 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP FILTER DAM
   B. TOP WIDTH – 2 FEET (MINIMUM)
   C. SLOPES – 2:1 (MAXIMUM)

2. TYPE 2 (REINFORCED)
   A. HEIGHT – 18-36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
   B. TOP WIDTH – 2 FEET (MINIMUM)
   C. SLOPES – 2:1 (MAXIMUM)

3. TYPE 3 (REINFORCED)
   A. HEIGHT – 36-48 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
   B. TOP WIDTH – 2 FEET (MINIMUM)
   C. SLOPES – 3:1 (MAXIMUM)

4. TYPE 4 (GABION)
   A. HEIGHT – 30 INCHES (MINIMUM). MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
   B. TOP WIDTH – 2 FEET (MINIMUM)

5. TYPE 5 (AS SHOWN ON THE PLANS)

B. CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS.

1. TYPE 2 AND 3 FILTER DAMS: SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGON OPENINGS.

2. GRANULAR FILL:
   A. PLACE ON MESH TO HEIGHT AND SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE ENGINEER.
   B. 3-5 INCHES FOR ROCK FILTER DAM TYPES 1, 2 AND 4 AND 4-8 INCHES FOR 4-8 INCHES FOR ROCK FILTER DAM

TYPE 3 REFER TO GRANULAR FILL IN SPECIFICATION SECTION NO.02378 – RIP RAP AND GRANULAR FILL.

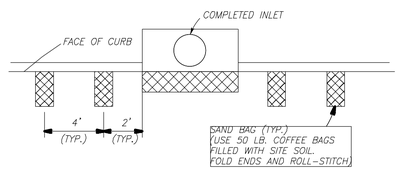
3. WIRE MESH: FOLD AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.

4. IN STREAMS: SECURES OR STAKE MESH TO STREAM BED PRIOR TO AGGREGATE PLACEMENT.

5. SEE SPECIFICATION SECTION NO. 02364 – FILTER DAMS.

6. EMBED ONE FOOT MINIMUM INTO SLOPE AND RAISE ONE FOOT THAN CENTER OF DEPRESSED AREA AT SLOPE.

CONTRACTOR SHALL INSTALL INLET PROTECTION BARRIERS PER DETAIL. (TYP. ALL PROPOSED INLETS)



INLET PROTECTION BARRIER (STAGE 2)

(BY UTILITY CONTRACTOR)

IMMEDIATELY AFTER COMPLETION OF THE SECOND STAGE INLET THE UTILITY CONTRACTOR WILL PLACE 2 SAND BAGS ON EACH SIDE OF THE INLET, PERPENDICULAR TO THE CURB, AS SHOWN BELOW

CONSTRUCTION SPECIFICATIONS FOR SILT BARRIER FENCE

A. MATERIALS:

1. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING REQUIREMENT (PER ASTM METHODS):

PHYSICAL PROPERTY	REQUIREMENTS
FILTER EFFICIENCY	75% (MIN.)
TENSILE STRENGTH @ 20%	EXT. STRENGTH = 50 LBS./LIN. IN.(MIN.)
MAX ELONGATION	STD. STRENGTH = 30 LBS./LIN. IN.(MIN.)
FLOW RATE	0.3 GAL./SQ. FT./MIN. (MIN.)

2. SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0° TO 120°.

B. INSTALLATION:

1. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 15" AND A MAXIMUM OF 18" ABOVE FINAL GRADE.

2. STANDARD STRENGTH SYNTHETIC FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS (AND THUS IMPROVE THE BARRIER'S STRENGTH AND EFFICIENCY).

3. STAKES FOR THE SILT FENCE SHALL BE 2" x 2" WOOD WITH A MINIMUM LENGTH OF 3 FEET.

4. THE STAKES SHALL BE SPACED A MAXIMUM OF 3' APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (18" MIN.)

5. A TRENCH SHALL BE EXCAVATED APPROX. 4" WIDE AND 4" DEEP ALONG THE LINE OF STAKES AND UPSLOPE FROM THE BARRIER.

6. THE SILT FENCE SHALL BE STAPLED TO THE STAKES, WITH 8" (MIN.) OF FABRIC EXTENDED INTO THE TRENCH. HEAVY DUTY WIRE STAPLES AT LEAST ONE-HALF INCH LONG SHALL BE USED. THE FENCE SHALL NOT BE STAPLED TO EXISTING TREES.

7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FENCE MATERIAL.

8. IF A SILT FENCE IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SWALE, THE BARRIER SHALL BE OF SUFFICIENT LENGTH TO ELIMINATE END FLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE WITH THE ENDS ORIENTED UPSLOPE.

9. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

C. MAINTENANCE:

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

2. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE SILT FENCE IS STILL NECESSARY, IT SHALL BE REPLACED IMMEDIATELY.

3. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN DEPOSITS REACH APPROX. 1/3 THE HEIGHT OF THE FENCE.

4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

5. THERE SHOULD BE NO GAPS OR SAGS IN THE SILT FENCE.

GENERAL NOTES TO CONTRACTOR

1. LOCATE FUEL/MATERIAL STORAGE AREAS AWAY FROM STORM WATER CONVEYANCE SYSTEMS.
   USE A LINER UNDER ABOVE GROUND STORAGE TANKS. USE SILT FENCING, HAY BALES, OR BERMS AROUND FUEL STORAGE AREAS. (NO SEPARATE PAY)

2. CONTRACTOR WILL ADVISE OWNER IMMEDIATELY, VERBALLY, AND IN WRITING, OF ANY FUEL SPILLS ONTO THE PROJECT/CONSTRUCTION AREA AND THE ACTIONS TAKEN TO REMEDY THE PROBLEM.

3. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL ENVIRONMENTAL LAWS.

4. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF FUELS, MATERIALS, AND EXCAVATIONS IN A LEGALLY APPROVED MANNER.

5. CONTRACTOR IS TO INSPECT ALL STRUCTURAL CONTROLS SPECIFIED HEREIN, AT A MINIMUM, ONCE EVERY 7 CALENDAR DAYS OR WITHIN 24 HOURS AFTER ANY STORM EVENT
   THAT MEETS OR EXCEEDS 0.5 INCHES/24 HOUR PERIOD.

6. CONTRACTOR WILL PROVIDE PROTECTED STORAGE AREAS FOR CHEMICALS, PAINTS SOLVENTS, FERTILIZERS, AND OTHER POTENTIALLY TOXIC MATERIALS.

7. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATELY MAINTAINED SANITARY FACILITIES.

8. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION, IDENTIFICATION, AND REMOVAL OF ALL DEBRIS FOR DESIGNATED CONCRETE WASH-OUT SITE.

9. ALL UNSATISFACTORY AND/OR WASTE MATERIALS INCLUDING VEGETATION, ROOTS, CONCRETE AND DEBRIS SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR.

10. CONTRACTOR IS RESPONSIBLE FOR CLEANING MUD AND/OR DIRT TRACKED ONTO EXISTING
    STREETS BY HIS WORKMAN'S, SUPPLIER OR SUBCONTRACTORS VEHICLES. STREET MUST BE CLEANED WITHIN 24 HOURS OF WHEN THE TRACKING OCCURS.

11. ALL DISTURBED AREAS, BOTH ON-SITE AND OFF, NOT COVERED BY PAVEMENT OR PERMANENT STRUCTURES SHALL BE SEEDED.

12. 16" WIDE STRIP OF SOD SHALL BE INSTALLED BEHIND THE ENTIRE LENGTH OF CURB BY
    PAVING CONTRACTOR. SEEDING WILL BE INSTALLED BETWEEN SOD AND STREET R.O.W.

13. EACH SUBSEQUENT CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER MAINTENANCE
    OF EXISTING STRUCTURAL CONTROLS DURING THE DURATION OF HIS CONSTRUCTION ACTIVITIES. ANY DAMAGE TO STRUCTURAL CONTROL CAUSED BY THE CONTRACTOR SHALL
    BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT NO COST TO OWNER.

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.913.322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR — DATE

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

STORM WATER POLLUTION PREVENTION PLAN

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

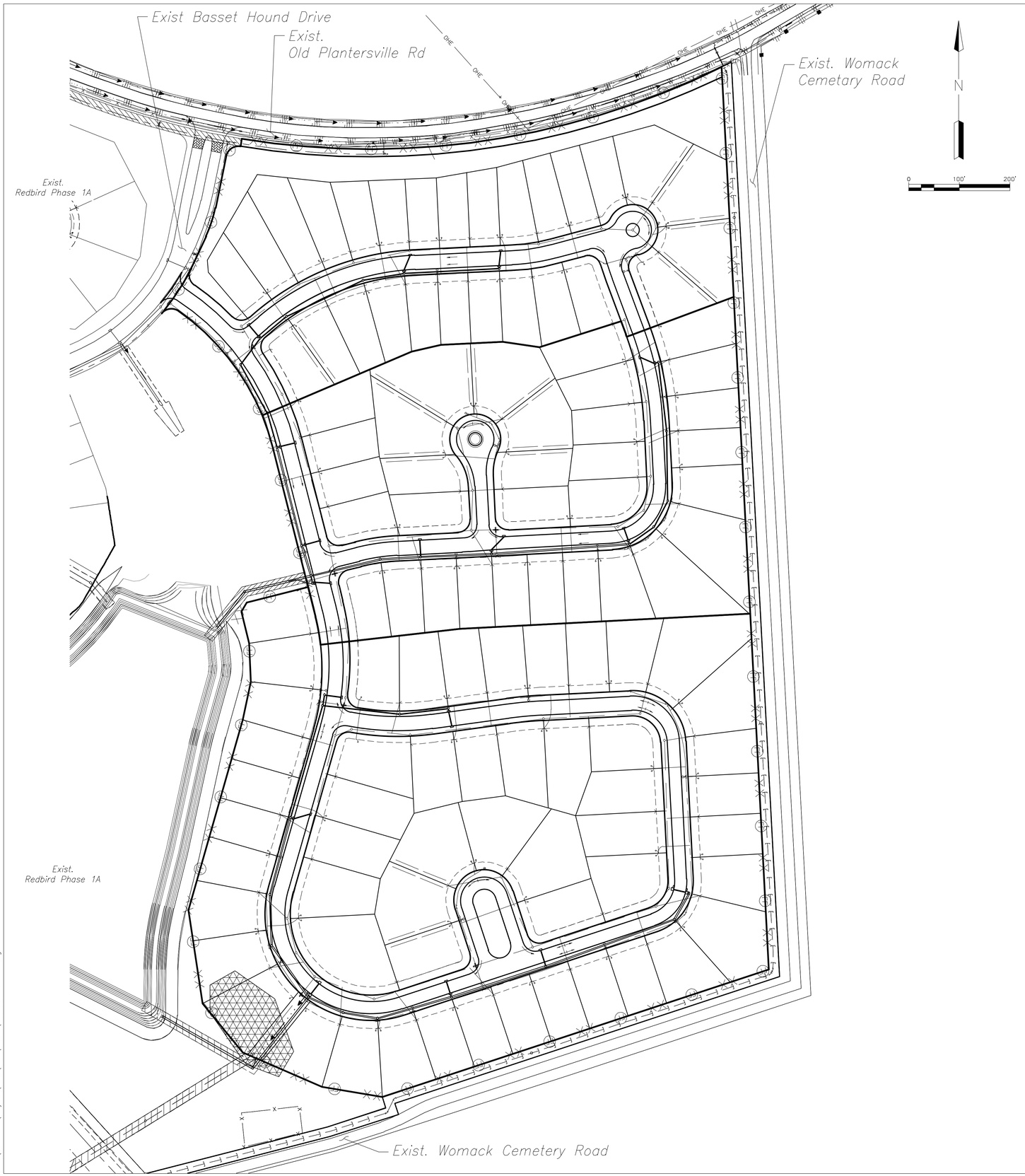
SCALE: 1" = 100'

STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

SHEET NO. 9 OF 30

BRIARLEY PHASE 1B — 2980-0104

Date\Time : Wed, 23 Apr 2025 - 4:01pm
Path\Name : I:\Projekt\2980\01\04\Sheets\9 storm water pollution prevention plan.dwg



AREA TO BE CLEARED

INDICATES LOTS TO BE CLEARED (0.48 AC)

INDICATES WET UTILITY EASEMENTS TO BE CLEARED (0.28 AC)

FF XX INDICATES FILTER FABRIC FENCE

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

CLEARING PLAN

STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

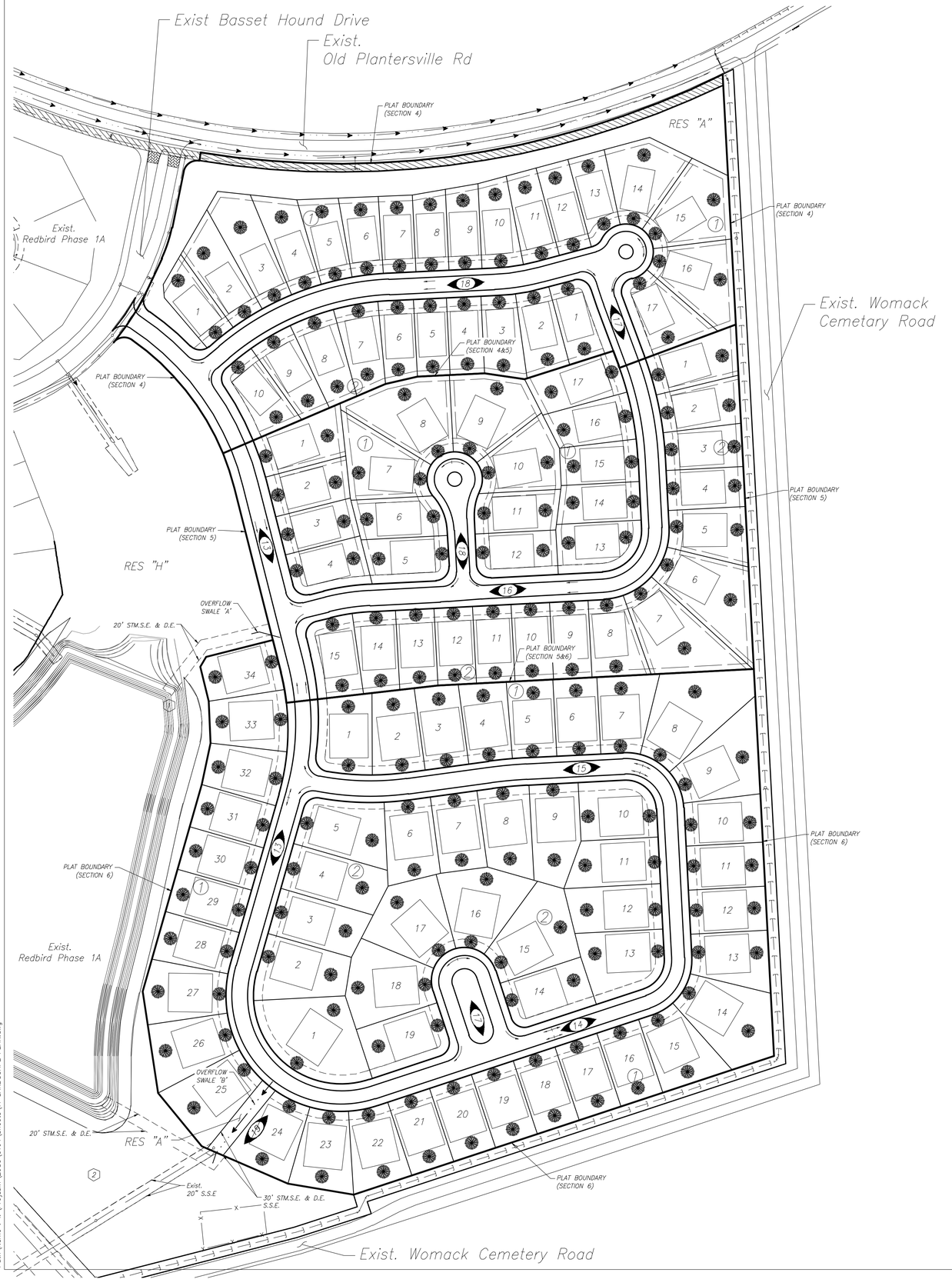
DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

SCALE: 1" = 100'

SHEET NO. 10 OF 30

BRIARLEY PHASE 1B — 2980-0104

Date\Time : Wed, 23 Apr, 2025 — 4:02pm
Path\Name : I:\Projdat\2980\0104\Sheets\10 CLEARING PLAN.dwg



LEGEND

INDICATES TREE POSITION

N

0 100' 200'

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"–6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS–BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS–BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

LANDSCAPE PLAN

LANDSCAPING FOR RESERVES WILL BE PROVIDED IN A SEPARATE PLAN SET

WARNING! HIGH PRESSURE PIPELINE EXCAVATION AND/OR CONSTRUCTION PROHIBITED WITHOUT PRIOR WRITTEN PERMISSION FROM ENTERPRISE PRODUCTS OPERATING LLC.

LJA Engineering, Inc. LJA
3600 W Sam Houston Parkway S — Phone 713.953.5200
Suite 600 — Fax 713.953.5026
Houston, Texas 77042 — FRN - F-1386

LJA PROJECT NO.: 2980–0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

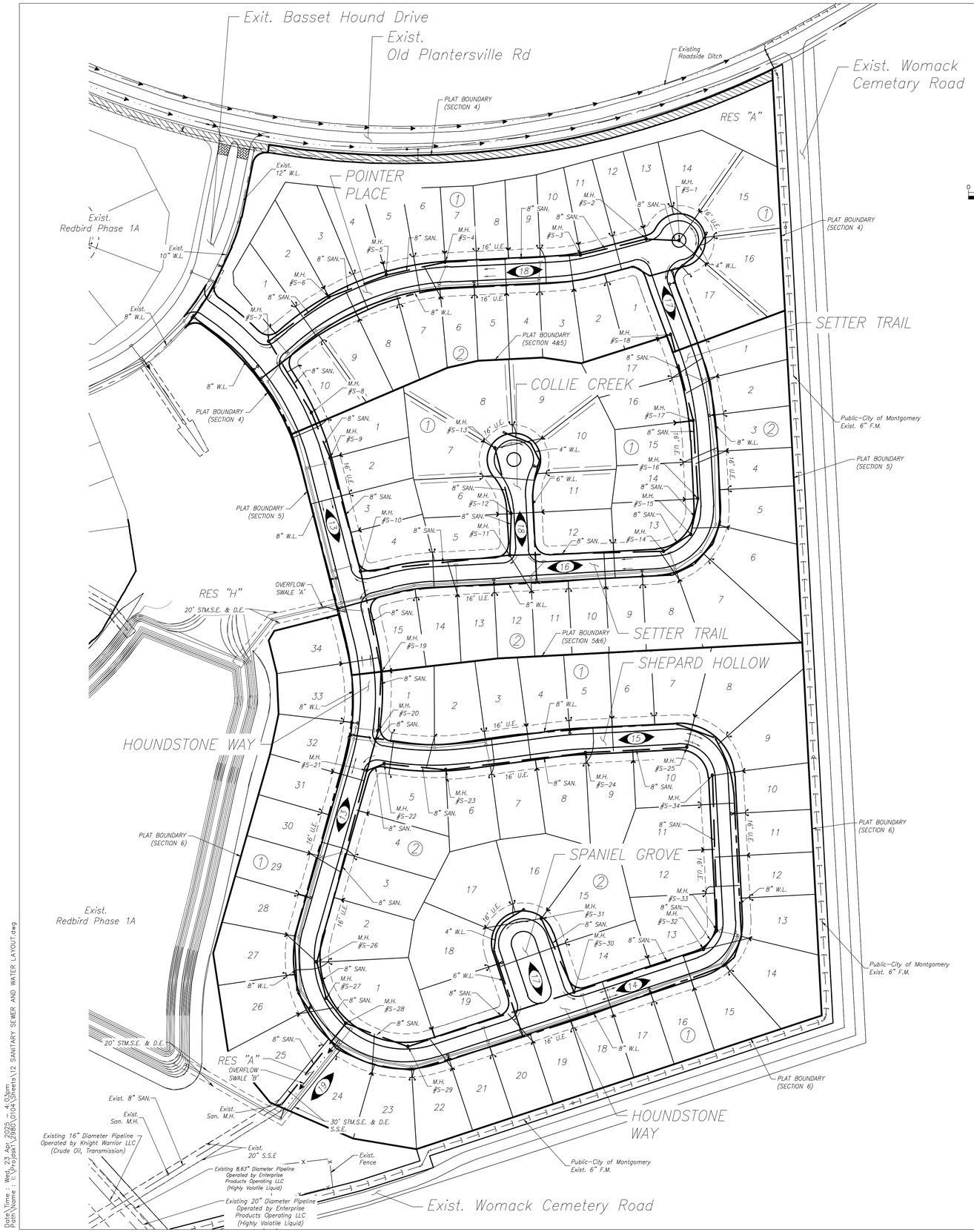
SCALE: 1" = 100'

SHEET NO. 11 OF 30

STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

Date\Time : Wed, 23 Apr 2025 – 4:02pm
Path\Name : I:\Projdsk1\2980\0104\Sheets\11 LANDSCAPE PLAN.dwg

BRIARLEY PHASE 1B – 2980–0104



SANITARY SEWER LEGEND

- PROPOSED SANITARY SEWER AND MANHOLE
- SANITARY SEWER AND MANHOLE (BY OTHERS)
- DOUBLE SANITARY SEWER SERVICE LEAD
- SINGLE SANITARY SEWER SERVICE LEAD
- PROPOSED FORCE MAIN AND FLOW DIRECTION
- X' S.S.E. — INDICATES SANITARY SEWER EASEMENT
- INDICATES SHEET REFERENCE NUMBER
- INDICATES BLOCK NUMBER

WATERLINE LEGEND

- PROPOSED WATER MAIN
- PROPOSED WATER LINE W/BENDS
- PROPOSED WATER LINE W/TEE, GATE VALVE & BOX
- PROPOSED WATER LINE W/REDUCER
- PROPOSED WATER LINE W/FIRE HYDRANT ASSEMBLY
- 10' W.L.E. — INDICATES WATER LINE EASEMENT
- 2" BLOW-OFF ASSEMBLY W/PLUG AND CLAMP
- DOUBLE WATER LINE SERVICE LEAD
- SINGLE WATER LINE SERVICE LEAD

LEGEND

- INDICATES PLACEMENT OF ONE FULL SECTION OF WATER LINE JOINT CENTERED AT SANITARY MAIN CROSSING W/ APPROVED WATER LINE RESTRAINED JOINTS. (NO SEPARATE PAY)
- INDICATES PLACEMENT OF MIN. ONE FULL SECTION OF SANITARY SEWER JOINT (PSI 150 LINED DUCTILE IRON OR P.V.C. PIPE) CENTERED AT WATER LINE MAIN CROSSING W/ APPROVED RESTRAINED JOINTS FOR BOTH WATER LINE AND SANITARY SEWER. (NO SEPARATE PAY)

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

SANITARY SEWER AND WATER LAYOUT

LJA Engineering, Inc. LJA
3600 W Sam Houston Parkway S — Phone 713.953.5200
Suite 600 — Fax 713.953.5026
Houston, Texas 77042 — FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

SCALE: 1" = 100'

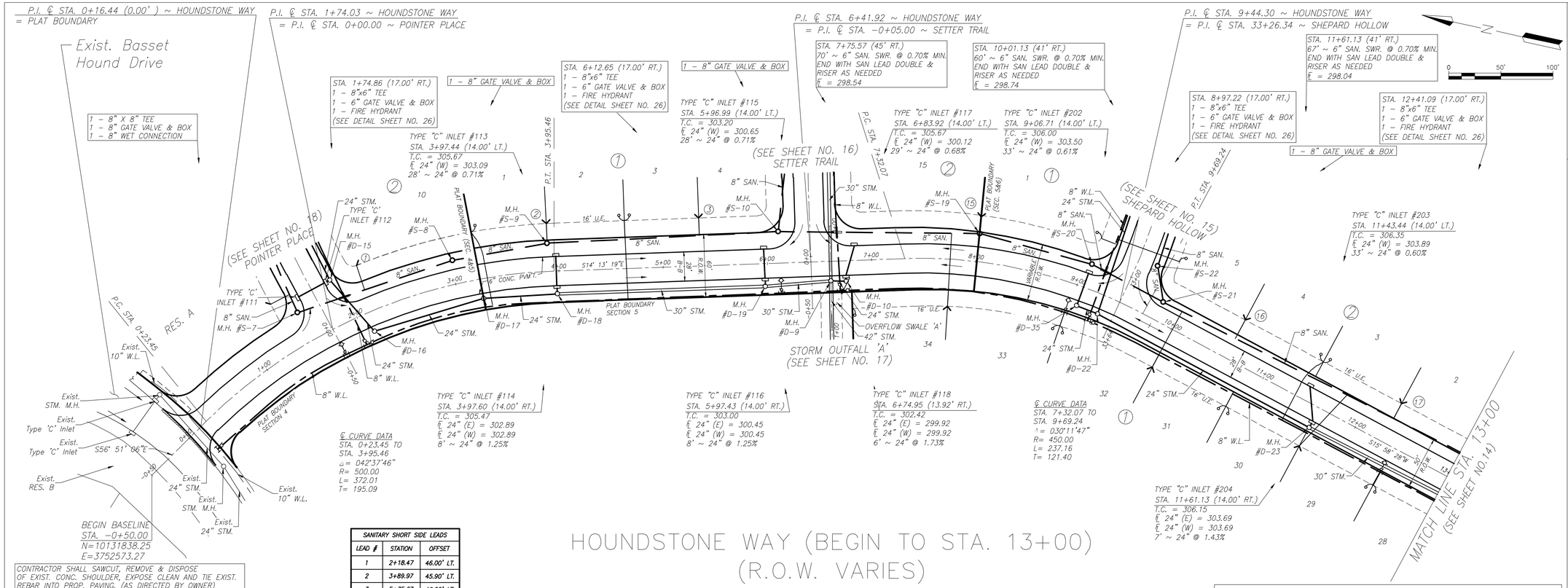
STATE OF TEXAS — MICAH KREIKEMEIER — 127881 — LICENSED PROFESSIONAL ENGINEER
04/24/2025

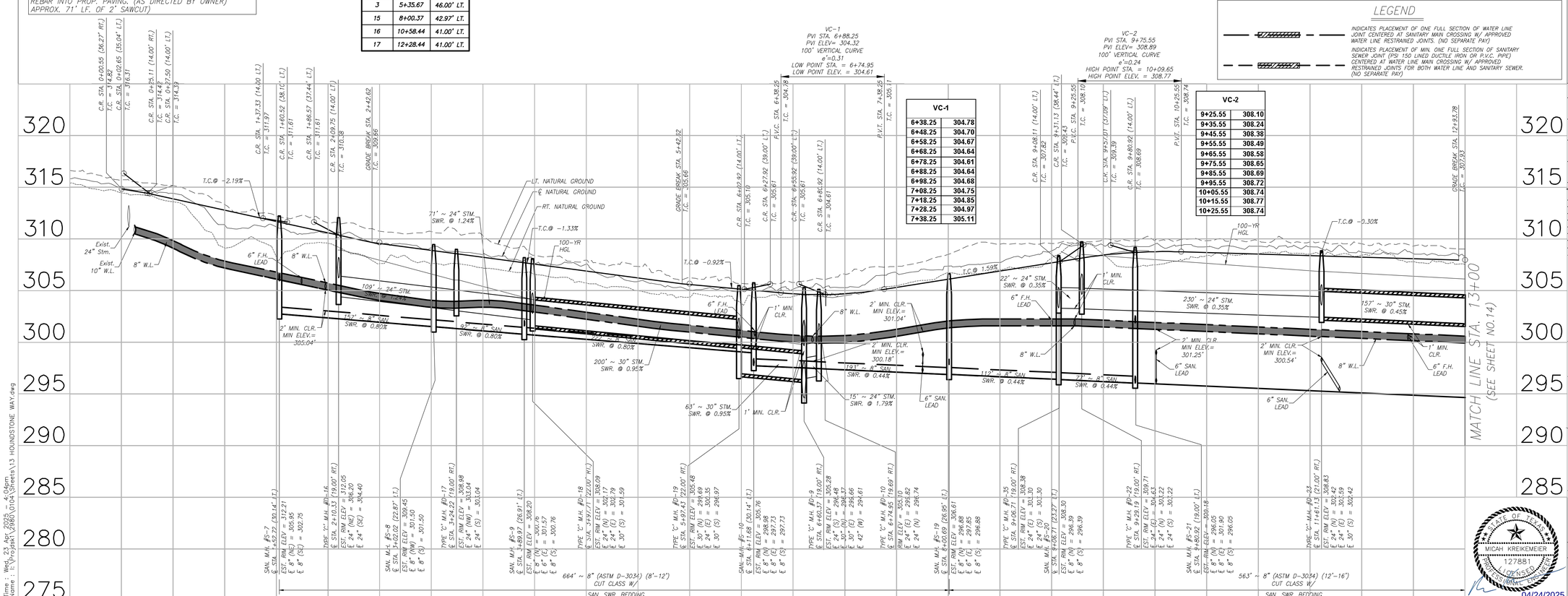
SHEET NO. 12 OF 30

Date\Time : Wed, 23 Apr 2025 - 4:03pm
Path\Name : I:\Projects\2980\0104\Sheets\12 SANITARY SEWER AND WATER LAYOUT.dwg

BRIARLEY PHASE 1B - 2980-0104

HOUNDSTONE WAY (BEGIN TO STA. 13+00)
(R.O.W. VARIES)





Date\Time : Wed, 23 Apr 2025 - 4:04pm
Path\Name : I:\Projekt\2980\01CA\Sheets\13 HOUNDSTONE WAY.dwg

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"−6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS−BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS−BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY MUNICIPAL UTILITY DISTRICT NO. 215

BRIARLEY PHASE 1B

HOUNDSTONE WAY (BEGIN TO STA. 13+00)

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980−0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

SCALE: 1" = 50' HOR.
1" = 5' VERT.

STATE OF TEXAS — MICAH KREIKEMEIER — 127881 — LICENSED PROFESSIONAL ENGINEER — 04/24/2025

SHEET NO. 13 OF 30

BRIARLEY PHASE 1B − 2980−0104

HOUNDSTONE WAY (STA. 13+00 TO 24+00)
(50' R.O.W.)

P.I. ℄ STA. 15+15.23 ~ HOUNDSTONE WAY II
= P.I. ℄ STA. 0+25.01 ~ STORM OUTFALL 'B'

STA. 13+16.94 (41' RT.)
76' ~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE & RISER AS NEEDED
℄ = 297.33

STA. 14+42.41 (41' RT.)
66' ~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE & RISER AS NEEDED
℄ = 296.71

STA. 15+91.18 (41' RT.)
73' ~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE & RISER AS NEEDED
℄ = 298.01

1 - 8" X 22 1/2" BENDS

STA. 14+42.07 (16.34' RT.)
1 - 8"x6" TEE
1 - 6" GATE VALVE & BOX
1 - FIRE HYDRANT
(SEE DETAIL SHEET NO. 26)

1 - 8" X 22 1/2" BENDS

℄ CURVE DATA
STA. 13+00.65 TO
STA. 17+01.83
Δ = 124°15'01"
R= 185.00
L= 401.19
T= 349.77

TYPE "C-1" INLET #205
STA. 15+22.99 (12.87' LT.)
T.C. = 307.30
℄ 24" (SW) = 302.80
26' ~ 24" @ 0.78%

TYPE "C-1" INLET #206
STA. 15+22.84 (12.87' RT.)
T.C. = 307.30
℄ 24" (SW) = 302.60
℄ 24" (NE) = 302.60
8' ~ 24" @ 1.25%

P.I. ℄ STA. 19+22.36 ~ HOUNDSTONE WAY II
= P.I. ℄ STA. 0+50.00 ~ KNUCKLE 'A'

STA. 17+20.86 (41' RT.)
69' ~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE & RISER AS NEEDED
℄ = 299.09

STA. 18+80.86 (41' RT.)
70' ~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE & RISER AS NEEDED
℄ = 299.56

STA. 20+40.86 (41' RT.)
64' ~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE & RISER AS NEEDED
℄ = 299.87

1 - 8" X 22 1/2" BENDS

STA. 17+21.21 (15.00' RT.)
1 - 8"x6" TEE
1 - 6" GATE VALVE & BOX
1 - FIRE HYDRANT
(SEE DETAIL SHEET NO. 26)

1 - 8" GATE VALVE & BOX

STA. 22+00.86 (41' RT.)
64' ~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE & RISER AS NEEDED
℄ = 301.88

STA. 23+08.00 (41' RT.)
~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE & RISER AS NEEDED
℄ = 302.84

3 - 8" X 22 1/2" BENDS

STA. 21+20.60 (15.00' RT.)
1 - 8"x6" TEE
1 - 6" GATE VALVE & BOX
1 - FIRE HYDRANT
(SEE DETAIL SHEET NO. 26)

TYPE "C" INLET #210
STA. 18+00.86 (12.00' LT.)
T.C. = 308.50
℄ 24" (S) = 305.97
24' ~ 24" @ 0.83%

TYPE "C" INLET #209
STA. 19+97.36 (12.00' LT.)
T.C. = 309.10
℄ 24" (S) = 306.60
33' ~ 24" @ 0.61%

TYPE "C-1" INLET #207
STA. 23+08.00 (12.00' LT.)
T.C. = 310.19
℄ 24" (E) = 306.05
24' ~ 24" @ 0.83%

TYPE "C" INLET #211
STA. 18+00.86 (12.00' RT.)
T.C. = 308.30
℄ 24" (N) = 305.77
℄ 24" (S) = 305.77
8' ~ 24" @ 1.25%

TYPE "C-1" INLET #208
STA. 23+08.00 (12.00' RT.)
T.C. = 309.99
℄ 24" (W) = 305.85
℄ 24" (E) = 305.85
8' ~ 24" @ 1.25%

CURVE NO.	DELTA	RADIUS	CHORD BEARING	CHORD DISTANCE	ARC LENGTH
C-1	P.C. STA. 13+02.79 (14.00 RT.) TO P.T. STA. 17+04.01 (12.00 RT.)				
	124°15'00"	198.00'	S 46° 09' 02.46" E	350.05'	429.38'
C-2	P.C. STA. 13+03.89 (14.00 LT.) TO P.T. STA. 17+05.04 (12.00 LT.)				
	124°15'00"	172.00'	S 46° 09' 02.46" E	304.09'	373.00'

LEGEND

INDICATES PLACEMENT OF ONE FULL SECTION OF WATER LINE JOINT CENTERED AT SANITARY MAIN CROSSING W/ APPROVED WATER LINE RESTRAINED JOINTS. (NO SEPARATE PAY)

INDICATES PLACEMENT OF MIN. ONE FULL SECTION OF SANITARY SEWER JOINT (PSI 150 LINED DUCTILE IRON OR P.V.C. PIPE) CENTERED AT WATER LINE MAIN CROSSING W/ APPROVED RESTRAINED JOINTS FOR BOTH WATER LINE AND SANITARY SEWER. (NO SEPARATE PAY)

VC-3	
15+06.28	307.32
15+16.28	307.29
15+26.28	307.32
15+36.28	307.35
15+46.28	307.38
15+56.28	307.42
15+66.28	307.51
15+76.28	307.61
15+86.28	307.73
15+96.28	307.87
16+06.28	308.03

VC-3
PVI STA. 15+53.60
PVI ELEV.= 307.17
100' VERTICAL CURVE
a =0.25
LOW POINT STA. = 15+18.43
LOW POINT ELEV. = 307.29

SANITARY SHORT SIDE LEADS		
LEAD #	STATION	OFFSET
18	17+07.82	41.00' LT.
20	21+36.36	41.00' LT.

BENCHMARK:
ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

HOUNDSTONE WAY
(STA. 13+00 TO STA.
24+00)

LJA Engineering, Inc.
3600 W Sam Houston Parkway S — Phone 713.953.5200
Suite 600 — Fax 713.953.5026
Houston, Texas 77042 — FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

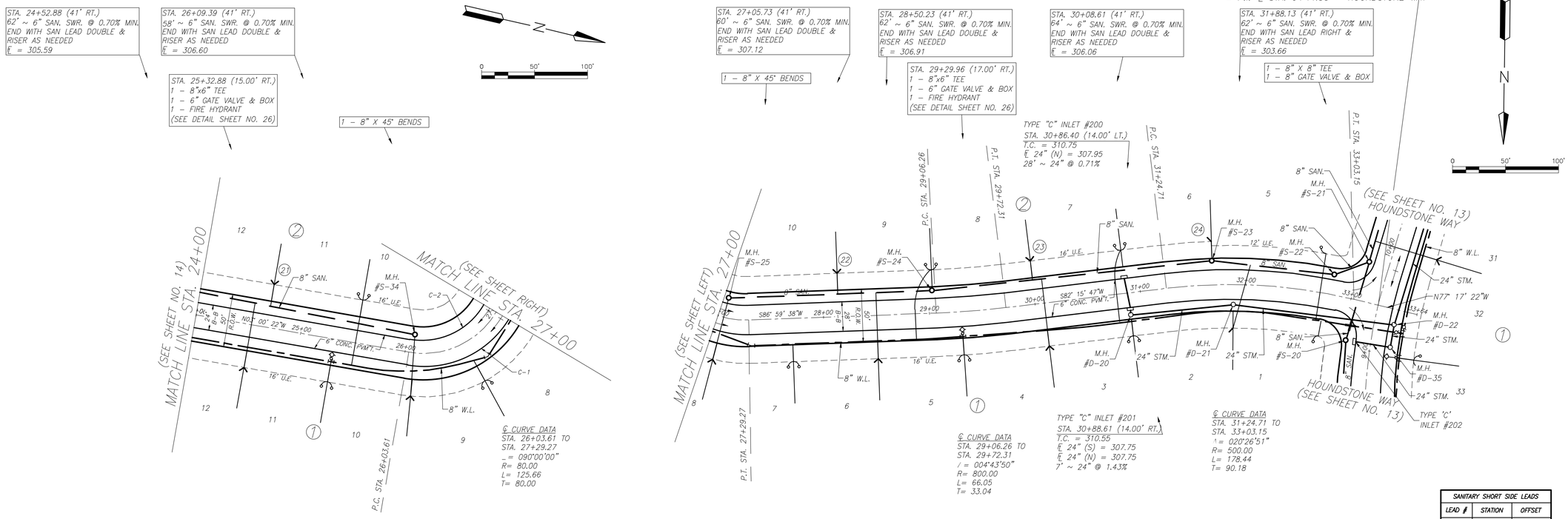
SCALE: 1" = 50' HOR.
1" = 5' VERT.

SHEET NO. 14 OF 30

STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

Date\Time : Wed, 23 Apr, 2025 - 4:05pm
Path\Name : I:\Projects\2980\01\04\Sheets\14 HOUNDSTONE WAY.dwg

BRIARLEY PHASE 1B — 2980-0104

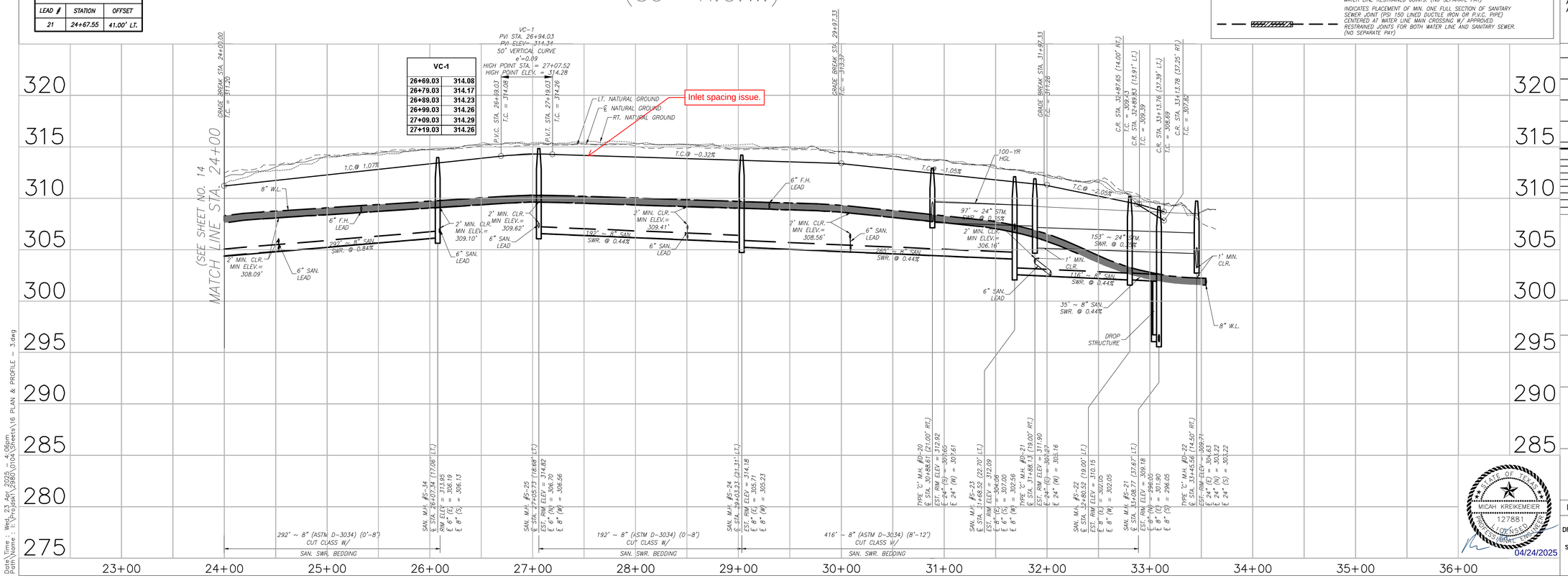


CURVE NO.	DELTA	RADIUS	CHORD BEARING	CHORD DISTANCE	ARC LENGTH
C-1	P.C. STA. 26+07.15 (12.01 RT.)TO P.T. STA. 27+32.94 (14.00 RT.)				
	090°00'00"	93.00'	N 48° 00' 22.42" W	131.52'	146.08'
C-2	P.C. STA. 26+05.28 (12.00 LT.) TO P.T. STA. 27+30.73 (13.99 LT.)				
	090°00'00"	67.00'	N 48° 00' 22.42" W	94.75'	105.24'

SANITARY SHORT SIDE LEADS		
LEAD #	STATION	OFFSET
21	24+67.55	41.00' LT.

SANITARY SHORT SIDE LEADS		
LEAD #	STATION	OFFSET
22	28+14.27	41.00' LT.
23	30+00.40	41.00' LT.
24	31+68.52	41.00' LT.

SHEPARD HOLLOW (STA. 24+00 TO END)
(50' R.O.W.)



LEGEND

INDICATES PLACEMENT OF ONE FULL SECTION OF WATER LINE JOINT CENTERED AT SANITARY MAIN CROSSING W/ APPROVED WATER LINE RESTRAINED JOINTS. (NO SEPARATE PAY)

INDICATES PLACEMENT OF MIN. ONE FULL SECTION OF SANITARY SEWER JOINT (PSI 150 LINED DUCTILE IRON OR P.V.C. PIPE) CENTERED AT WATER LINE MAIN CROSSING W/ APPROVED RESTRAINED JOINTS FOR BOTH WATER LINE AND SANITARY SEWER. (NO SEPARATE PAY)

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR — DATE

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

SHEPARD HOLLOW
(STA. 24+00 TO END)

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

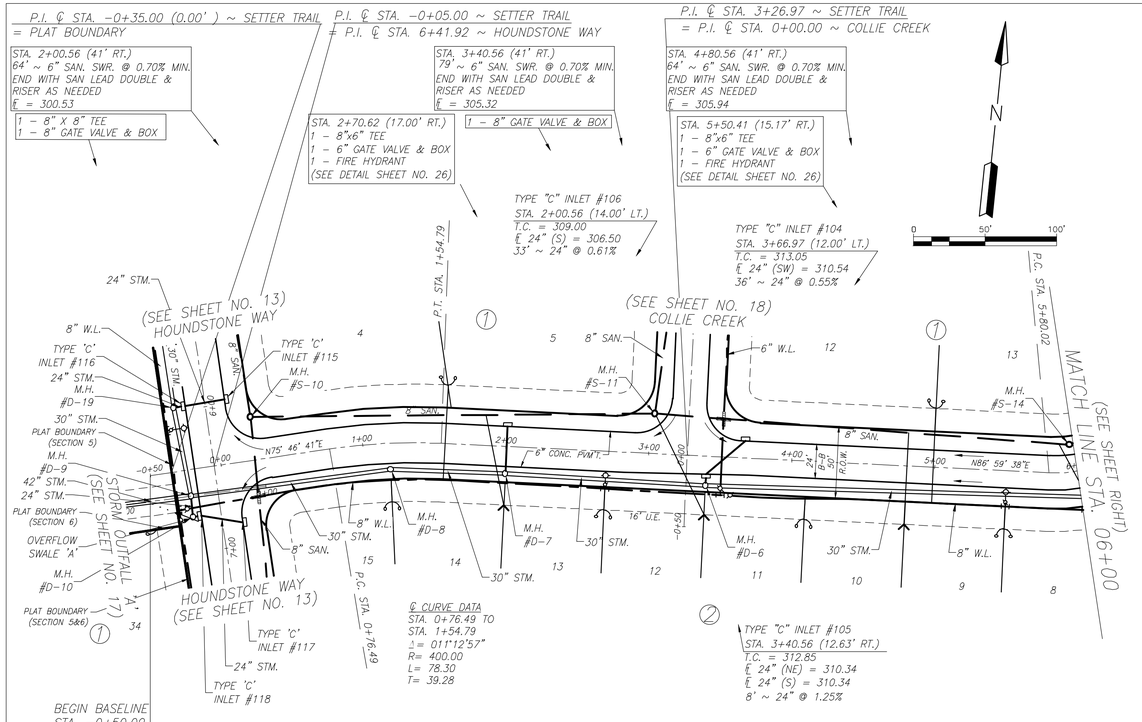
SCALE: 1" = 50' HOR.
1" = 5' VERT.

STATE OF TEXAS — MICAH KREIKEMEIER — 127881 — LICENSED PROFESSIONAL ENGINEER — 04/24/2025

SHEET NO. 15 OF 30

Date\Time : Wed, 23 Apr, 2025 - 4:06pm
Path\Name : I:\Projdsk1\2980\0104\Sheets\16 PLAN & PROFILE - 3.dwg

BRIARLEY PHASE 1B – 2980-0104



BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"–6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS–BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS–BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

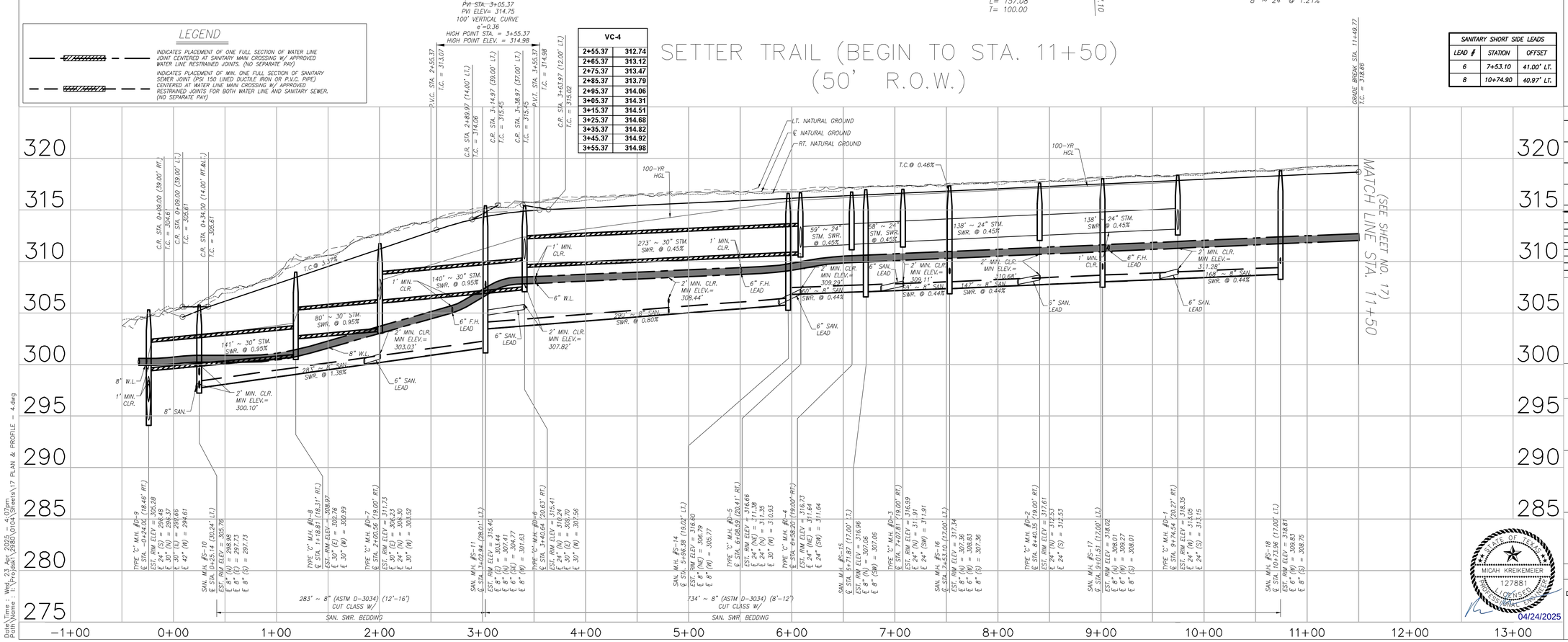
SANITARY SHORT SIDE LEADS		
LEAD #	STATION	OFFSET
6	7+53.10	41.00' LT.
8	10+74.90	40.97' LT.

LEGEND

INDICATES PLACEMENT OF ONE FULL SECTION OF WATER LINE JOINT CENTERED AT SANITARY MAIN CROSSING W/ APPROVED WATER LINE RESTRAINED JOINTS. (NO SEPARATE PAY)

INDICATES PLACEMENT OF MIN. ONE FULL SECTION OF SANITARY SEWER JOINT (PSI 150 LINED DUCTILE IRON OR P.V.C. PIPE) CENTERED AT WATER LINE MAIN CROSSING W/ APPROVED RESTRAINED JOINTS FOR BOTH WATER LINE AND SANITARY SEWER. (NO SEPARATE PAY)

VC-4	
2+55.37	312.74
2+65.37	313.12
2+75.37	313.47
2+85.37	313.79
2+95.37	314.06
3+05.37	314.31
3+15.37	314.51
3+25.37	314.68
3+35.37	314.82
3+45.37	314.92
3+55.37	314.98



DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

SETTER TRAIL
(BEGIN TO STA. 11+50)

LJA Engineering, Inc. LJA
3600 W Sam Houston Parkway S — Phone 713.953.5200
Suite 600 — Fax 713.953.5026
Houston, Texas 77042 — FRN - F-1386

LJA PROJECT NO.: 2980–0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

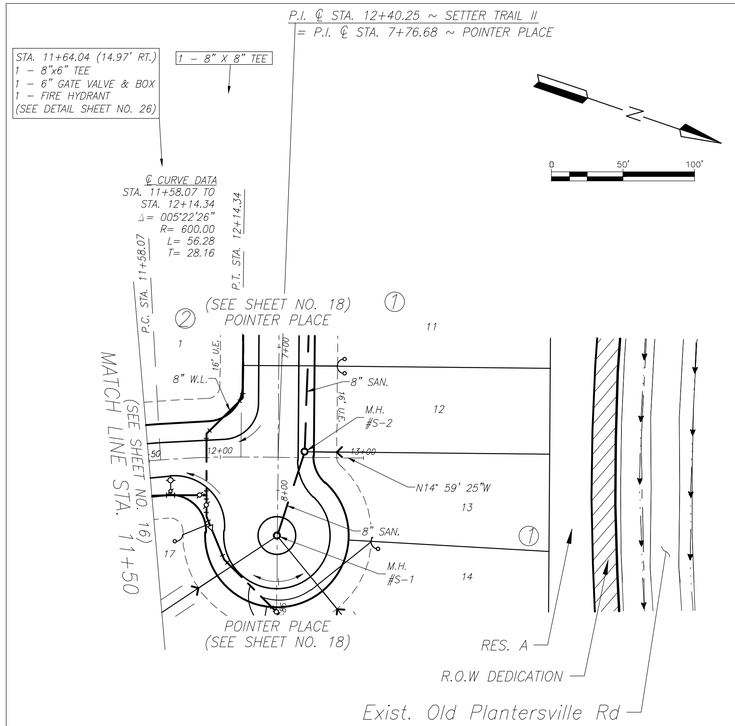
SCALE: 1" = 50' HOR.
1" = 5' VERT.

STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

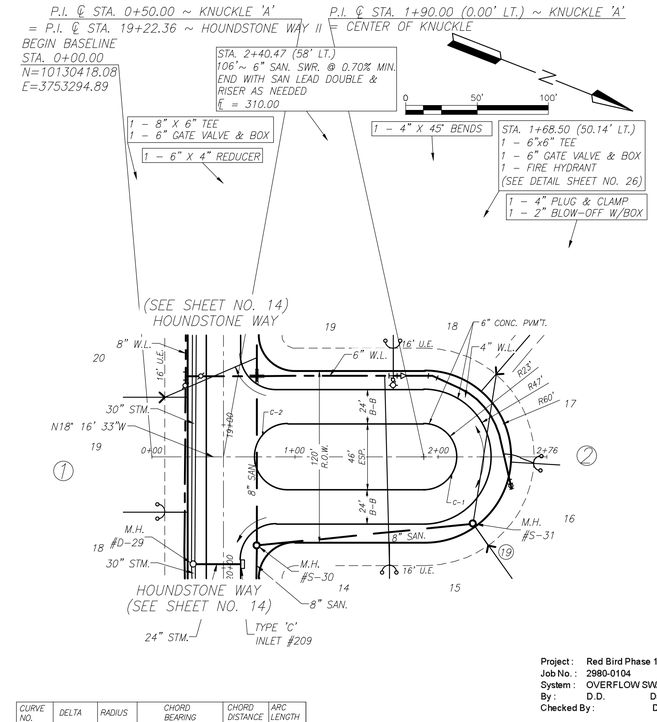
SHEET NO. 16 OF 30

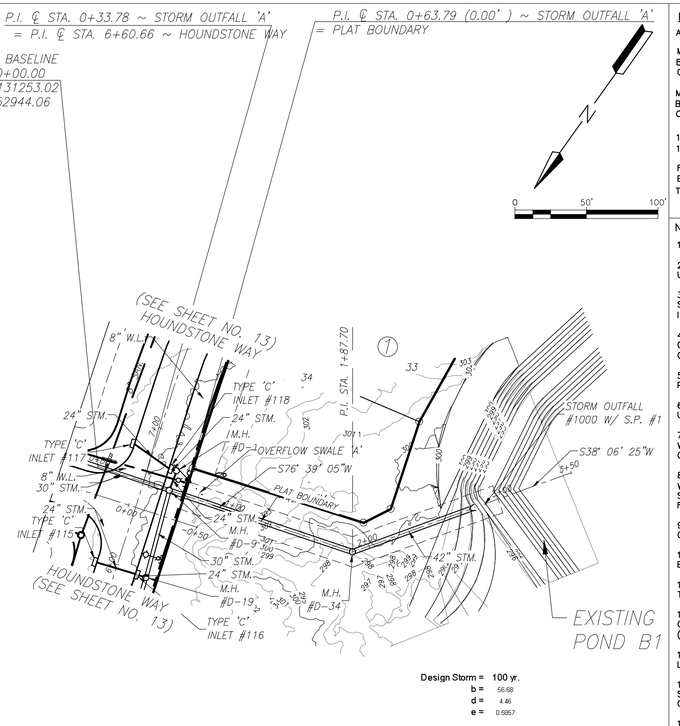
Date\Time : Wed, 23 Apr, 2025 – 4:07pm
Path\Name : I:\Projdsk\2980\0104\Sheets\17 PLAN & PROFILE – 4.dwg

BRIARLEY PHASE 1B – 2980–0104



SETTER TRAIL (STA. 11+50 TO END) (50' R.O.W.)





CURVE NO.	DELTA	RADIUS	CHORD BEARING	CHORD DISTANCE	ARC LENGTH
C~1	P.C. STA. 1+90.88 (23.00 RT.) TO P.T. STA. 1+90.00 (23.00 LT.)				
	180°00'00"	23.00'	S 71° 43' 28.18" W	46.00'	72.26'
C~2	P.C. STA. 0+95.00 (23.00 LT.) TO P.T. STA. 0+95.00 (23.00 RT.)				
	180°00'00"	23.00'	N 71° 43' 27.14" E	46.00'	72.26'

Project : Red Bird Phase 1B
Job No. : 2980-0104
System : OVERFLOW SWALE 'A'
By : D.D. Date :
Checked By : Date:

Design Storm = 100 yr.
b = 56.68
d = 4.46
e = 0.5957

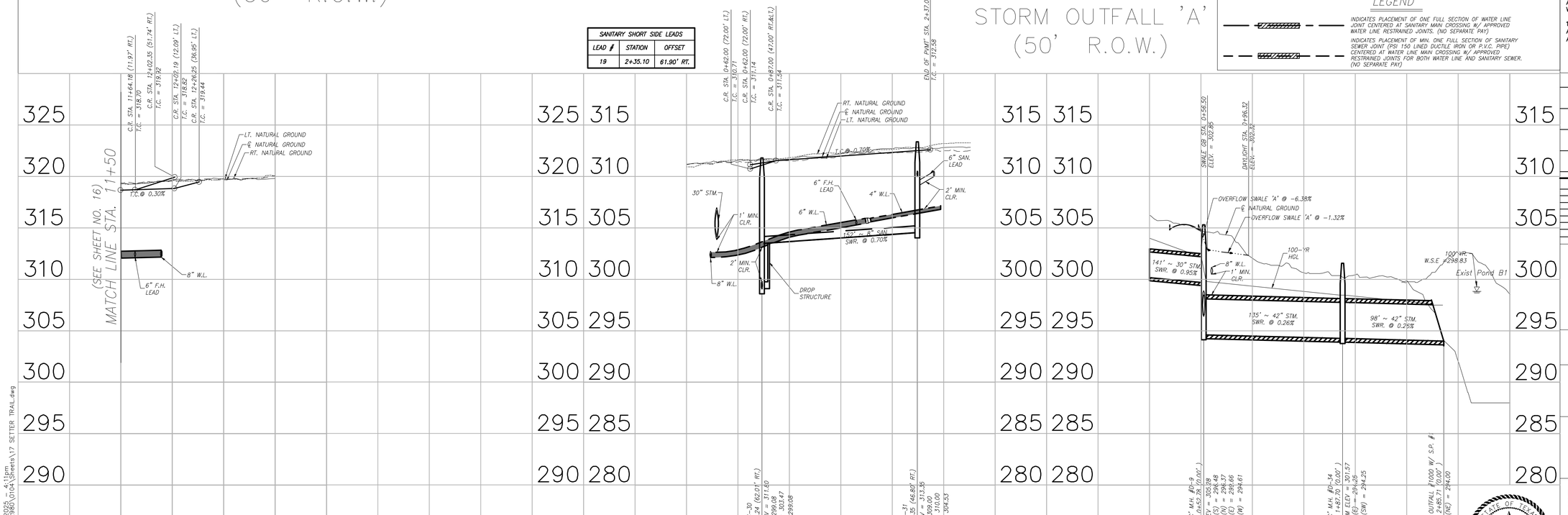
Overflow Swale "OVERFLOW SWALE "A"
MoCo - 100 YEAR FREQUENCY

x	y	Side	Slope %	Drainage Area	Total Area	"C"	"CF"	Tc (minutes)	I Inches/Hr	Q 100 YR (CFS)	Q 5 YR (CFS)	Q DELTA (CFS)	Ditch Section FS	BW	BS	"n"	"d"	Design (c.f.s.)	Velocity (fps)	Ditch Lining
0+35.93	0+56.50	Overflow	11.84	21.35	21.35	0.55	1.25	32.14	6.88	118.93	54.98	63.95	4	3	4	0.04	1.70	210.53	3.84	grass
0+56.50	0+96.32	Overflow	1.32	21.35	21.35	0.55	1.25	32.14	6.88	118.93	54.98	63.95	4	3	4	0.04	1.70	70.29	3.84	grass

SPANIEL GROVE (50' R.O.W.)

STORM OUTFALL 'A' (50' R.O.W.)

SANITARY SHORT SIDE LEADS		
LEAD #	STATION	OFFSET
19	2+35.10	61.90' RT.



LEGEND

INDICATES PLACEMENT OF ONE FULL SECTION OF WATER LINE JOINT CENTERED AT SANITARY MAIN CROSSING W/ APPROVED WATER LINE RESTRAINED JOINTS. (NO SEPARATE PAY)

INDICATES PLACEMENT OF MIN. ONE FULL SECTION OF SANITARY SEWER JOINT (PSI 150 LINED DUCTILE IRON OR P.V.C. PIPE) CENTERED AT WATER LINE MAIN CROSSING W/ APPROVED RESTRAINED JOINTS FOR BOTH WATER LINE AND SANITARY SEWER. (NO SEPARATE PAY)

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"~6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR — DATE

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

SETTER TRAIL
(STA. 11+50 TO END),
SPANIEL GROVE, &
STORM OUTFALL 'A'

LJA Engineering, Inc. LJA
3600 W Sam Houston Parkway S — Phone 713.953.5200
Suite 600 — Fax 713.953.5026
Houston, Texas 77042 — FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

SCALE: 1" = 50' HOR.
1" = 5' VERT.

SHEET NO. 17 OF 30

STATE OF TEXAS
MICAH KREKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

Date\Time : Wed, 23 Apr 2025 - 4:11pm
Path\Name : I:\Projekt\2980\0104\Sheets\17 SETTER TRAIL.dwg

BRIARLEY PHASE 1B – 2980-0104

P.I. ℄ STA. 0+00.00 ~ POINTER PLACE
= P.I. ℄ STA. 1+74.00 ~ HOUNDSTONE WAY

STA. 1+96.37 (41' RT.)
60'~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE &
RISER AS NEEDED
℄ = 309.88

1 – 8" X 8" TEE
1 – 8" GATE VALVE & BOX

STA. 3+70.97 (41' RT.)
65'~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE &
RISER AS NEEDED

STA. 4+97.17 (41' RT.)
65'~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE &
RISER AS NEEDED
℄ = 310.70

STA. 6+20.61 (41' RT.)
64'~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE &
RISER AS NEEDED
℄ = 311.91

STA. 4+37.72 (15.00' RT.)
1 – 8"x6" TEE
1 – 6" GATE VALVE & BOX
1 – FIRE HYDRANT
(SEE DETAIL SHEET NO. 26)

TYPE "C" INLET #111
STA. 0+40.73 (14.00' LT.)
T.C. = 310.95
℄ 24" (SE) = 307.31
28' ~ 24" @ 0.71%

P.C. STA. 0+65.26

(SEE SHEET NO. 13)
HOUNDSTONE WAY RES. A

M.H. #S-7
M.H. #S-6
M.H. #S-5
M.H. #S-4
M.H. #S-3
M.H. #S-2
M.H. #S-1

16' U.E.
8" SAN.
8" W.L.
N49° 35' 35"E
24" STM.
M.H. #D-13
M.H. #D-14
M.H. #D-15
M.H. #D-16
HOUNDSTONE WAY
(SEE SHEET NO. 13)

TYPE "C" INLET #112
STA. 0+40.72 (14.00' RT.)
T.C. = 310.75
℄ 24" (NW) = 307.11
℄ 24" (SE) = 307.11
6' ~ 24" @ 1.67%

℄ CURVE DATA
STA. 0+65.26 TO
STA. 3+93.85
Δ = 037°39'12"
R= 500.00
L= 328.59
T= 170.47

P.I. ℄ STA. 7+76.68 ~ POINTER PLACE
= P.I. ℄ STA. 12+40.25 ~ SETTER TRAIL

STA. 8+68.64 (55' RT.)
66'~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE &
RISER AS NEEDED
℄ = 316.29

2 – 8" X 45° BENDS
1 – 8" X 22 1/2° BENDS
1 – 4" X 22 1/2° BENDS
1 – 8" GATE VALVE & BOX

TYPE "C" INLET #109
STA. 3+85.10 (14.00' LT.)
T.C. = 316.35
℄ 24" (S) = 313.89
31' ~ 24" @ 0.64%

P.C. STA. 5+85.43
P.T. STA. 6+70.85

TYPE "C" INLET #110
STA. 3+70.97 (14.00' RT.)
T.C. = 316.15
℄ 24" (N) = 313.69
℄ 24" (S) = 313.69
6' ~ 24" @ 1.67%

℄ CURVE DATA
STA. 5+85.43 TO
STA. 6+70.85
Δ = 012°14'12"
R= 400.00
L= 85.43
T= 42.88

Extend 16' UE here.

P.I. ℄ STA. 8+31.68 (0.00' LT.) ~ POINTER PLACE
= CENTER OF KNUCKLE

STA. 8+82.34 (42' LT.)
66'~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE &
RISER AS NEEDED
℄ = 316.73

1 – 4" PLUG & CLAMP
1 – 2" BLOW-OFF W/BOX
1 – 8" X 4" REDUCER

0 50' 100'

(SEE SHEET NO. 17)
SETTER TRAIL
SETTER TRAIL
(SEE SHEET NO. 17)

R50'
R37'
R13'
N75° 00' 35"E
N10° 14' 15"W

P.I. ℄ STA. 0+00.07 ~ COLLIE CREEK
= P.I. ℄ STA. 3+26.97 ~ SETTER TRAIL

STA. 1+06.25 (41' RT.)
58'~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE &
RISER AS NEEDED
℄ = 308.45

1 – 8" X 6" TEE
1 – 6" GATE VALVE & BOX

P.I. ℄ STA. 2+07.66 (0.00') ~ COLLIE CREEK
= CENTER OF CUL-DE-SAC

STA. 2+37.81 (59' RT.)
90'~ 6" SAN. SWR. @ 0.70% MIN.
END WITH SAN LEAD DOUBLE &
RISER AS NEEDED
℄ = 315.00

1 – 6" X 4" REDUCER
2 – 4" X 45° BENDS
1 – 4" PLUG & CLAMP
1 – 2" BLOW-OFF W/BOX

0 50' 100'

STA. 1+89.15 (35.46' RT.)
1 – 6"x6" TEE
1 – 6" GATE VALVE & BOX
1 – FIRE HYDRANT
(SEE DETAIL SHEET NO. 26)

(SEE SHEET NO. 16)
SETTER TRAIL
SETTER TRAIL
(SEE SHEET NO. 16)

P.C. STA. 1+43.42
P.T. STA. 1+68.66

6" CONC. PVMT.
M.H. #S-13
M.H. #S-12
M.H. #S-11
16' U.E.
8" SAN.
NW3° 8"
NO3° 00' 22"W
30" STM.
M.H. #D-6
11 24" STM.
TYPE 'C' INLET #105
24" STM.
30" STM.
TYPE 'C' INLET #104
8" U.E.
6" W.L.
4" W.L.

℄ CURVE DATA
STA. 1+43.42 TO
STA. 1+68.66
Δ = 007°13'52"
R= 200.00
L= 25.24
T= 12.64

BEGIN BASELINE
STA. −0+50.00
N=10131666.16
E=3752711.01

BEGIN BASELINE
STA. −0+50.00
N=10131254.22
E=3753237.43

COLLIE CREEK (50' R.O.W.)

SANITARY SHORT SIDE LEADS		
LEAD #	STATION	OFFSET
9	0+47.09	41.00' LT.
10	1+64.67	40.96' LT.
11	2+76.00	41.00' LT.
12	3+85.10	40.96' LT.
13	5+04.27	41.00' LT.

SANITARY SHORT SIDE LEADS		
LEAD #	STATION	OFFSET
4	1+06.25	41.00' LT.
5	2+51.52	49.32' LT.

LEGEND

INDICATES PLACEMENT OF ONE FULL SECTION OF WATER LINE JOINT CENTERED AT SANITARY MAIN CROSSING W/ APPROVED WATER LINE RESTRAINED JOINTS. (NO SEPARATE PAY)

INDICATES PLACEMENT OF MIN. ONE FULL SECTION OF SANITARY SEWER JOINT (PSI 150 LINED DUCTILE IRON OR P.V.C. PIPE) CENTERED AT WATER LINE MAIN CROSSING W/ APPROVED RESTRAINED JOINTS FOR BOTH WATER LINE AND SANITARY SEWER. (NO SEPARATE PAY)

VC-5	
1+00.00	314.32
1+10.00	314.73
1+20.00	315.11
1+30.00	315.45
1+40.00	315.77
1+50.00	316.05
1+60.00	316.30
1+70.00	316.53
1+80.00	316.72
1+90.00	316.88
2+00.00	317.01

POINTER PLACE (50' R.O.W.)

VC-5
PVI STA. 1+50.00
PVI ELEV= 316.44
100' VERTICAL CURVE
e'=0.39
HIGH POINT STA. = 2+00.00
HIGH POINT ELEV. = 317.01

P.V.C. STA. 1+00.00 T.C. = 314.32
P.V.T. STA. 2+00.00 T.C. = 317.01

GRADE BREAK STA. 3+00.00 T.C. = 316.14

C.R. STA. 0+10.03 (35.28' RT.) T.C. = 310.38
C.R. STA. 0+11.01 (35.28' LT.) T.C. = 311.97
C.R. STA. 0+35.97 (14.00' RT.&LT.) T.C. = 311.61
C.R. STA. 7+37.68 (14.00' RT.) T.C. = 319.44
C.R. STA. 7+64.71 (38.31' RT.) T.C. = 318.82
C.R. STA. 7+78.81 (75.02' RT.) T.C. = 318.36
C.R. STA. 7+90.70 (75.02' RT.) T.C. = 318.70
C.R. STA. 8+29.57 (36.87' RT.) T.C. = 318.92
END OF PVMT. STA. 8+68.56 T.C. = 326.19

5.6@ 1.24%
T.C.@ 1.13%
T.C.@ 0.30%
T.C.@ 0.70%

8" W.L.
67' ~ 24" STM. SWR. @ 1.24%
167' ~ 24" STM. SWR. @ 1.24%
141' ~ 8" SAN. SWR. @ 1.70%
116' ~ 8" SAN. SWR. @ 0.44%
114' ~ 8" SAN. SWR. @ 0.44%
188' ~ 24" STM. SWR. @ 0.30%
256' ~ 8" SAN. SWR. @ 0.44%
128' ~ 8" SAN. SWR. @ 1.40%
83' ~ 8" SAN. SWR. @ 0.44%
78' ~ 8" SAN. SWR. @ 0.80%
127' ~ 8" SAN. SWR. @ 0.70%
83' ~ 24" STM. SWR. @ 0.30%
1' MIN. CLR.
2' MIN. CLR. MIN. ELEV.= 305.07'
22' MIN. CLR. MIN. ELEV.= 312.38'
2' MIN. CLR. MIN. ELEV.= 313.38'
2' MIN. CLR. MIN. ELEV.= 313.25'
2' MIN. CLR. MIN. ELEV.= 313.20'
2' MIN. CLR MIN. ELEV.= 314.41
2' MIN. CLR.
2' MIN. CLR. MIN. ELEV.= 310.95
2' MIN. CLR. MIN. ELEV.= 307.00'
2' MIN. CLR. MIN. ELEV.= 308.00'
6" F.H. LEAD
6" SAN. LEAD
4" W.L.
DROP STRUCTURE

141' ~ 8" (ASTM D-3034) (0'-8') CUT CLASS W/ SAN. SWR. BEDDING
486' ~ 8" (ASTM D-3034) (8'-12') CUT CLASS W/ SAN. SWR. BEDDING
190' ~ 8" (ASTM D-3034) (0'-8') CUT CLASS W/ SAN. SWR. BEDDING
212' ~ 8" (ASTM D-3034) (0'-8') CUT CLASS W/ SAN. SWR. BEDDING

SAN. M.H. #S-7 ℄ STA. 0+27.84 (22.17' LT.) EST. RIM ELEV = 317.27 ℄ 8" (E) = 308.52 ℄ 8" (SE) = 302.25
TYPE "C" M.H. #D-16 ℄ STA. 0+22.36 (34.59' RT.) EST. RIM ELEV = 317.05 ℄ 24" (NE) = 306.20 ℄ 24" (SE) = 304.40
TYPE "C" M.H. #D-15 ℄ STA. 0+40.72 (20.00' RT.) EST. RIM ELEV = 317.28 ℄ 24" (NW) = 307.01 ℄ 24" (SE) = 307.01
TYPE "C" M.H. #D-14 ℄ STA. 0+64.37 (19.00' RT.) EST. RIM ELEV = 317.31 ℄ 24" (NE) = 311.22 ℄ 24" (SW) = 307.84
SAN. M.H. #S-6 ℄ STA. 1+64.67 (22.00' LT.) EST. RIM ELEV = 316.84 ℄ 8" (E) = 308.34 ℄ 6" (NW) = 308.38 ℄ 8" (SW) = 308.34
SAN. M.H. #S-5 ℄ STA. 2+76.00 (19.00' LT.) EST. RIM ELEV = 318.37 ℄ 8" (E) = 308.85 ℄ 8" (N) = 310.45 ℄ 8" (W) = 308.85
TYPE "C" M.H. #D-13 ℄ STA. 2+84.57 (19.00' RT.) EST. RIM ELEV = 318.47 ℄ 24" (E) = 314.30 ℄ 24" (SW) = 313.30
TYPE "C" M.H. #D-12 ℄ STA. ??? (???' ???) RIM ELEV = 318.86 ℄ 24" (N) = 313.59 ℄ 24" (E) = 313.55 ℄ 24" (W) = 313.55
SAN. M.H. #S-4 ℄ STA. 3+85.10 (23.60' LT.) EST. RIM ELEV = 318.89 ℄ 8" (E) = 309.35 ℄ 8" (N) = 311.00 ℄ 8" (W) = 309.35
TYPE "C" M.H. #D-11 ℄ STA. ??? (???' ???) RIM ELEV = 319.41 ℄ 24" (N) = 314.13 ℄ 24" (W) = 314.11
SAN. M.H. #S-3 ℄ STA. 5+43.56 (20.64' LT.) EST. RIM ELEV = 319.66 ℄ 8" (E) = 313.32 ℄ 8" (N) = 314.00 ℄ 8" (W) = 310.48
SAN. M.H. #S-2 ℄ STA. 7+72.68 (18.75' LT.) EST. RIM ELEV = 320.04 ℄ 8" (E) = 314.00 ℄ 8" (N) = 314.00 ℄ 8" (W) = 314.11
SAN. M.H. #S-1 ℄ STA. 8+31.68 (0.00') EST. RIM ELEV = 320.43 ℄ 8" (E) = 315.00 ℄ 8" (N) = 316.37 ℄ 8" (W) = 314.93
SAN. M.H. #S-11 ℄ STA. 0+28.01 (24.03' LT.) EST. RIM ELEV = 315.40 ℄ 8" (E) = 303.44 ℄ 8" (N) = 304.41 ℄ 8" (SE) = 304.77 ℄ 8" (W) = 301.63
SAN. M.H. #S-12 ℄ STA. 1+06.25 (17.00' LT.) EST. RIM ELEV = 316.42 ℄ 8" (E) = 308.04 ℄ 8" (N) = 308.00 ℄ 8" (S) = 308.04 ℄ 8" (W) = 308.04
SAN. M.H. #S-13 ℄ STA. 2+55.56 (31.40' LT.) EST. RIM ELEV = 317.36 ℄ 8" (E) = 314.00 ℄ 8" (N) = 314.00 ℄ 8" (S) = 308.93

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 0+00 1+00 2+00 3+00

325 320 315 310 305 300 295 290 285 280 275

Date\Time : Wed, 23 Apr 2025 - 4:13pm
Path\Name : I:\Projekt\2980\0104\Sheets\19 PLAN & PROFILE - 6.dwg

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

POINTER PLACE & COLLIE CREEK

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

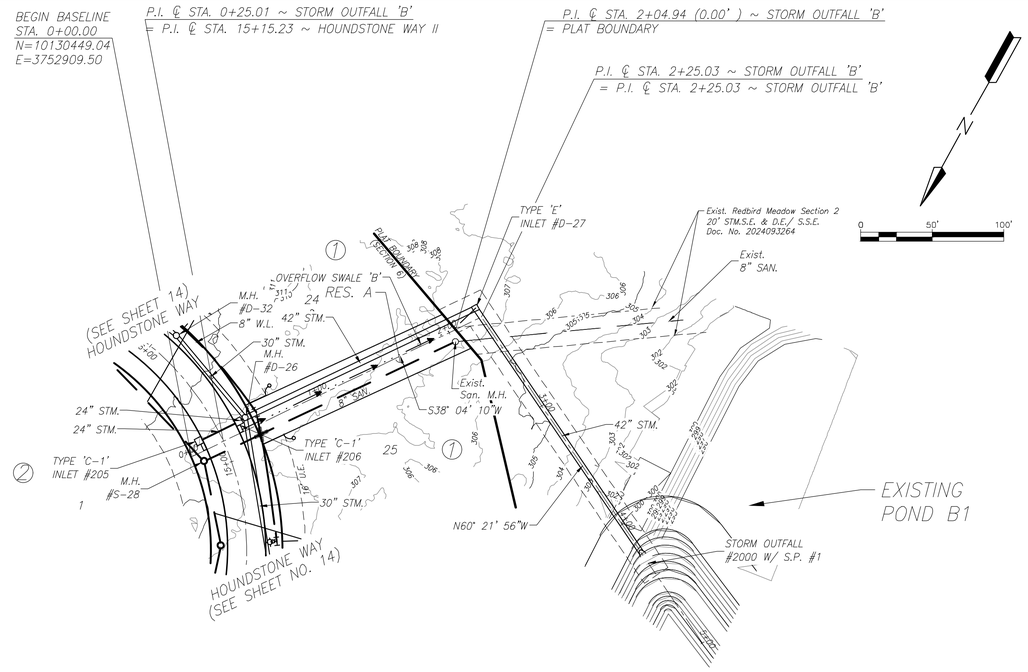
DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

SCALE: 1" = 50' HOR.
1" = 5' VERT.

STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

SHEET NO. 18 OF 30

BRIARLEY PHASE 1B – 2980-0104



THE PROPOSED CONNECTION OF THE SANITARY SEWER LINE TO THE SANITARY SEWER MANHOLE SHALL BE BY MEANS OF CORE AND BOOT AT SPECIFIED FLOWLINE. THE OPENING IN THE SIDE OF THE MANHOLE SHALL NOT BE MORE THAN 3-INCHES NOR LESS THAN 1-INCH IN DIAMETER THAN THE OUTSIDE DIAMETER FOR THE PROPOSED PIPE. THE PROPOSED PILE SHALL NOT PROTRUDE MORE THAN 3-INCHES PAST THE INSIDE FACE OF THE MANHOLE WALL. FILL THE ENTIRE VOID AROUND THE PROPOSED PIPE WITH NON-SHRINK WATERPROOF GROUT. SLOPE AT INVERT OF MANHOLE SHALL BE CONSTRUCTED UNDER POINT OF SANITARY SEWER CONNECTION. BACKFILL THE EXCAVATION AROUND THE EXISTING MANHOLE WITH CEMENT-SAND. CONNECTION TO EXISTING PUBLIC SANITARY SEWER MANHOLE SHALL BE COMPLETED BY THE CITY OF MONTGOMERY AT THE OWNER'S EXPENSE.

Project : Red Bird Phase 1B
Job No. : 2980-0104
System : OVERFLOW SWALE 'B'
By : D.D. Date :
Checked By : Date:

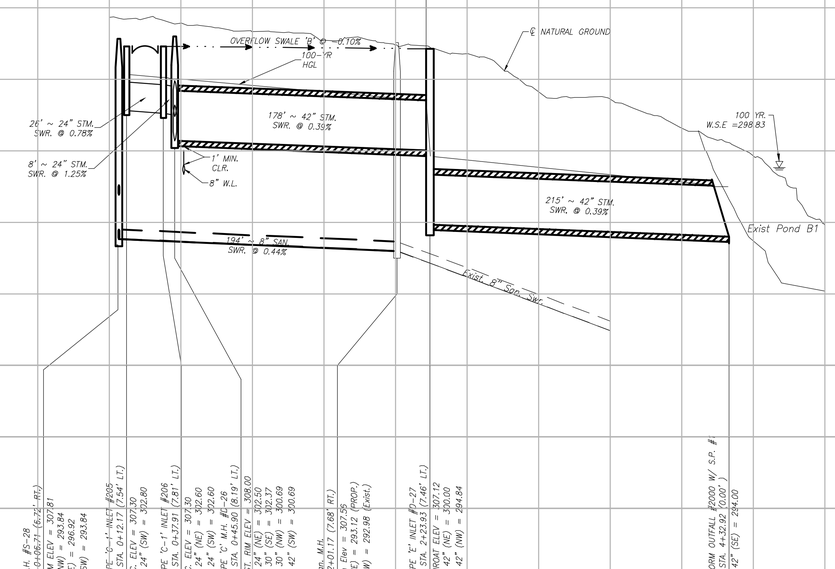
Design Storm = 100 yr.
b = 56.68
d = 4.46
e = 0.5857

Overflow Swale "OVERFLOW SWALE "B"
MoCo - 100 YEAR FREQUENCY

x	y	Side	Slope %	Drainage Area	Total Area	"C"	"CF"	Tc (minutes)	I Inches/Hr	Q 100 YR (CFS)	Q 5 YR (CFS)	Q DELTA (CFS)	Ditch Section FS	BW	BS	"n"	"d"	Design (c.f.s.)	Velocity (fps)	Ditch Lining
0+39.71	2+21.18	Overflow	0.10	19.67	19.67	0.55	1.25	31.90	6.91	23.36	10.87	12.49	4	2	4	0.04	1.50	12.54	1.04	grass

CONTRACTOR SHALL CORE INTO EXIST. SAN. M.H. #78 AND CONNECT PROPOSED 8" SAN. SWR.

STORM OUTFALL 'B' (50' R.O.W.)



BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

STORM OUTFALL 'B'

LJA Engineering, Inc.
3600 W Sam Houston Parkway S — Phone 713.953.5200
Suite 600 — Fax 713.953.5026
Houston, Texas 77042 — FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

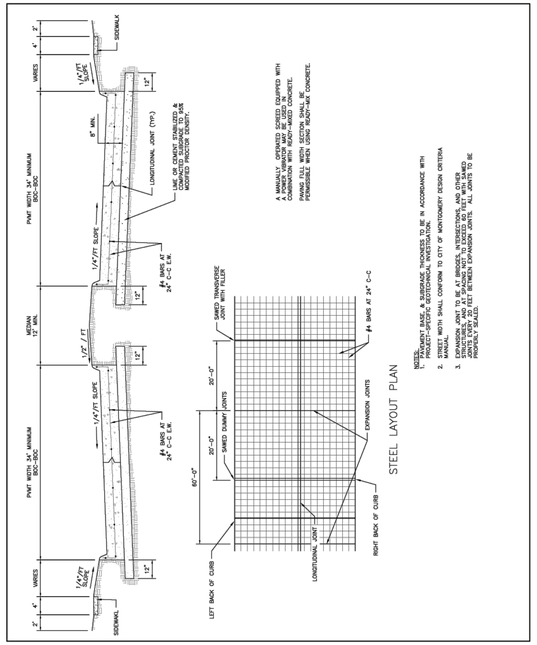
SCALE: 1" = 50' HOR.
1" = 5' VERT.

SHEET NO. 19 OF 30

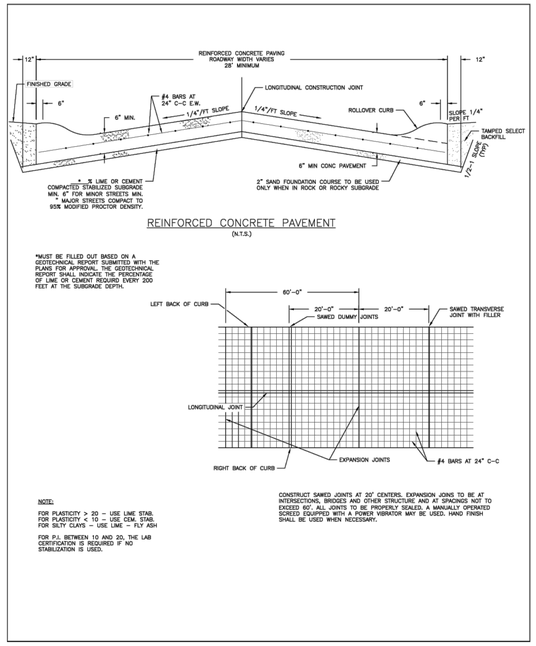
STATE OF TEXAS — MICAH KREKEMEIER — 127881 — LICENSED PROFESSIONAL ENGINEER — 04/24/2025

Date\Time : Wed, 23 Apr 2025 - 4:14pm
Path\Name : I:\Projset\2980\0104\Sheets\20 PLAN & PROFILE - 7.dwg

BRIARLEY PHASE 1B - 2980-0104



REVISIONS		
10–2013 REVISED NOTES	CITY OF MONTGOMERY DIVIDED ROADWAY CROSS SECTION	PAVING P–1



REINFORCED CONCRETE PAVEMENT
(N.T.S.)

*MUST BE FILLED OUT BASED ON A GEOTECHNICAL REPORT SUBMITTED WITH THE PLANS FOR APPROVAL. THE GEOTECHNICAL REPORT SHALL INDICATE THE PERCENTAGE OF LIME OR CEMENT REQUIRD EVERY 200 FEET AT THE SUBGRADE DEPTH.

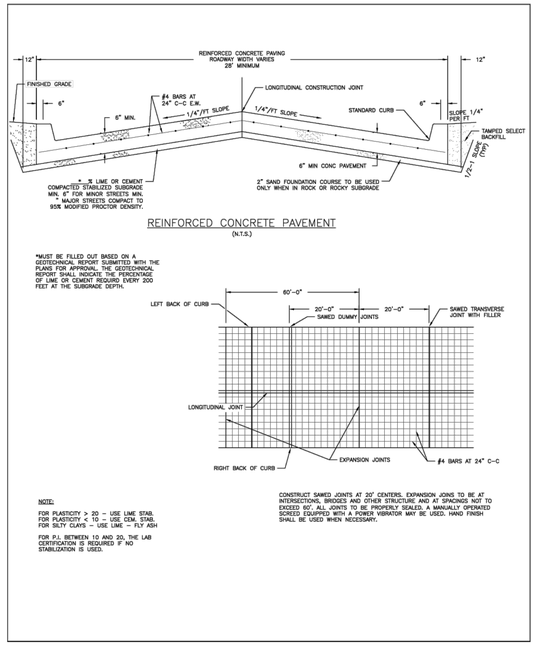
NOTE:

FOR PLASTICITY > 20 – USE LIME STAB.
FOR PLASTICITY < 10 – USE CEM. STAB.
FOR SILTY CLAYS – USE LIME – FLY ASH

FOR P.I. BETWEEN 10 AND 20, THE LAB CERTIFICATION IS REQUIRED IF NO STABILIZATION IS USED.

CONSTRUCT SAWED JOINTS AT 20' CENTERS. EXPANSION JOINS TO BE AT INTERSECTIONS, BRIDGES AND OTHER STRUCTURE AND AT SPACINGS NOT TO EXCEED 60'. ALL JOINTS TO BE PROPERLY SEALED. A MANUALLY OPERATED SCREED EQUIPED WITH A POWER VIBRATOR MAY BE USED. HAND FINISH SHALL BE USED WHEN NECESSARY.

REVISIONS		
10–2013 REVISED NOTES	CITY OF MONTGOMERY TYPICAL RESIDENTIAL CONCRETE PAVING WITH ROLLOVER CURB	PAVING P–2



REINFORCED CONCRETE PAVEMENT
(N.T.S.)

*MUST BE FILLED OUT BASED ON A GEOTECHNICAL REPORT SUBMITTED WITH THE PLANS FOR APPROVAL. THE GEOTECHNICAL REPORT SHALL INDICATE THE PERCENTAGE OF LIME OR CEMENT REQUIRD EVERY 200 FEET AT THE SUBGRADE DEPTH.

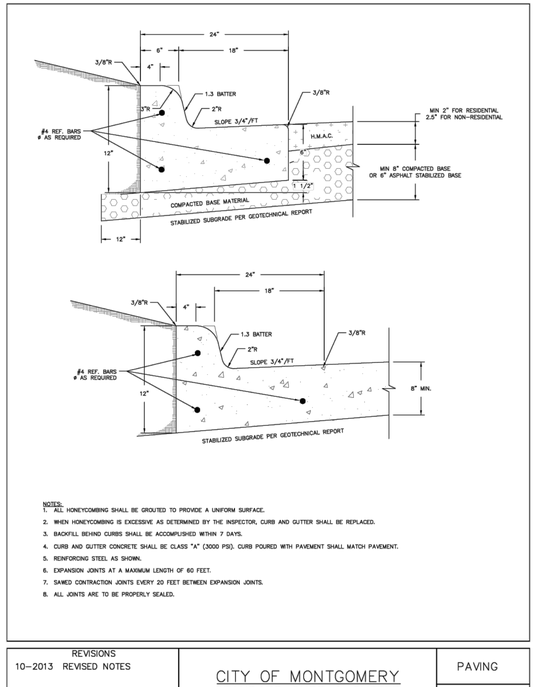
NOTE:

FOR PLASTICITY > 20 – USE LIME STAB.
FOR PLASTICITY < 10 – USE CEM. STAB.
FOR SILTY CLAYS – USE LIME – FLY ASH

FOR P.I. BETWEEN 10 AND 20, THE LAB CERTIFICATION IS REQUIRED IF NO STABILIZATION IS USED.

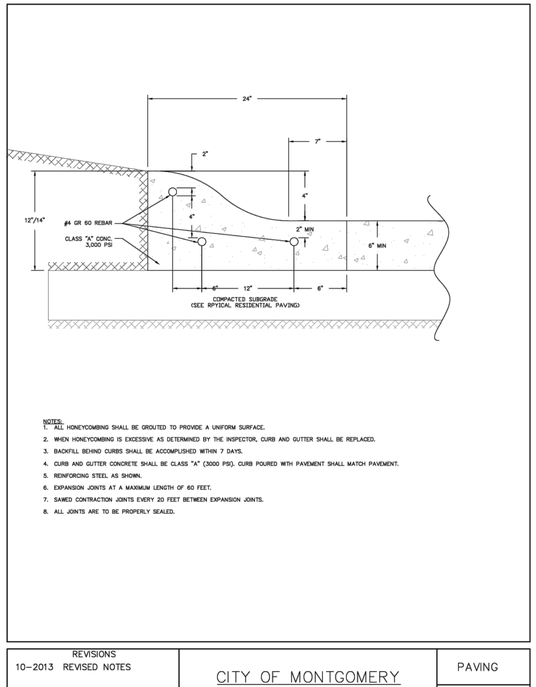
CONSTRUCT SAWED JOINTS AT 20' CENTERS. EXPANSION JOINS TO BE AT INTERSECTIONS, BRIDGES AND OTHER STRUCTURE AND AT SPACINGS NOT TO EXCEED 60'. ALL JOINTS TO BE PROPERLY SEALED. A MANUALLY OPERATED SCREED EQUIPED WITH A POWER VIBRATOR MAY BE USED. HAND FINISH SHALL BE USED WHEN NECESSARY.

REVISIONS		
10–2013 REVISED NOTES	CITY OF MONTGOMERY TYPICAL NON–RESIDENTIAL CONCRETE PAVING WITH STANDARD CURB	PAVING P–3



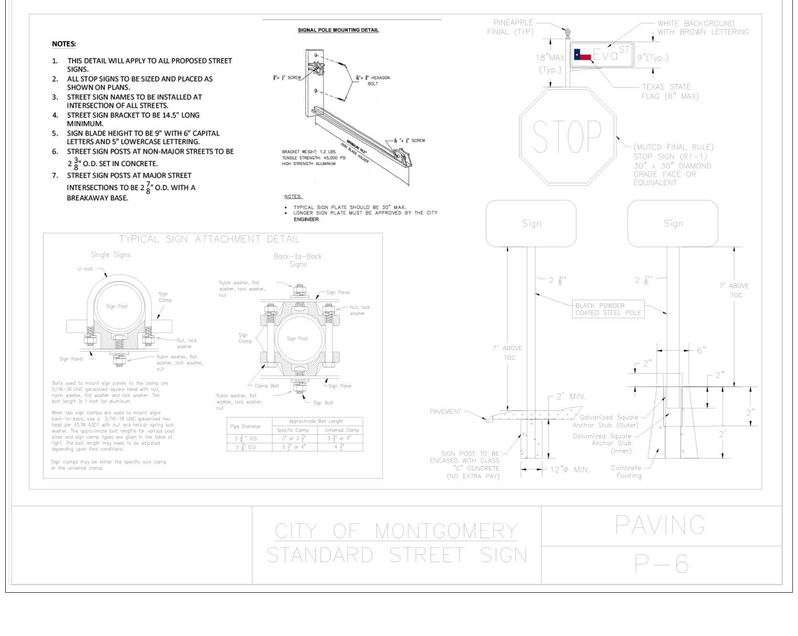
NOTES:
1. ALL HONEYCOMBING SHALL BE GROUTED TO PROVIDE A UNIFORM SURFACE.
2. WHEN HONEYCOMBING IS EXCESSIVE AS DETERMINED BY THE INSPECTOR, CURB AND GUTTER SHALL BE REPLACED.
3. BACKFILL BEHIND CURBS SHALL BE ACCOMPLISHED WITHIN 7 DAYS.
4. CURB AND GUTTER CONCRETE SHALL BE CLASS "A" (3000 PSI). CURB POURED WITH PAVEMENT SHALL MATCH PAVEMENT.
5. REINFORCING STEEL AS SHOWN.
6. EXPANSION JOINTS AT A MAXIMUM LENGTH OF 60 FEET.
7. SAWED CONTRACTION JOINTS EVERY 20 FEET BETWEEN EXPANSION JOINTS.
8. ALL JOINTS ARE TO BE PROPERLY SEALED.

REVISIONS		
10–2013 REVISED NOTES	CITY OF MONTGOMERY STANDARD CURB & GUTTER	PAVING P–4



NOTES:
1. ALL HONEYCOMBING SHALL BE GROUTED TO PROVIDE A UNIFORM SURFACE.
2. WHEN HONEYCOMBING IS EXCESSIVE AS DETERMINED BY THE INSPECTOR, CURB AND GUTTER SHALL BE REPLACED.
3. BACKFILL BEHIND CURBS SHALL BE ACCOMPLISHED WITHIN 7 DAYS.
4. CURB AND GUTTER CONCRETE SHALL BE CLASS "A" (3000 PSI). CURB POURED WITH PAVEMENT SHALL MATCH PAVEMENT.
5. REINFORCING STEEL AS SHOWN.
6. EXPANSION JOINTS AT A MAXIMUM LENGTH OF 60 FEET.
7. SAWED CONTRACTION JOINTS EVERY 20 FEET BETWEEN EXPANSION JOINTS.
8. ALL JOINTS ARE TO BE PROPERLY SEALED.

REVISIONS		
10–2013 REVISED NOTES	CITY OF MONTGOMERY ROLLOVER CURB & GUTTER	PAVING P–5



	CITY OF MONTGOMERY STANDARD STREET SIGN	PAVING P–6

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"–6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS–BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS–BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

PAVING DETAILS

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980–0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

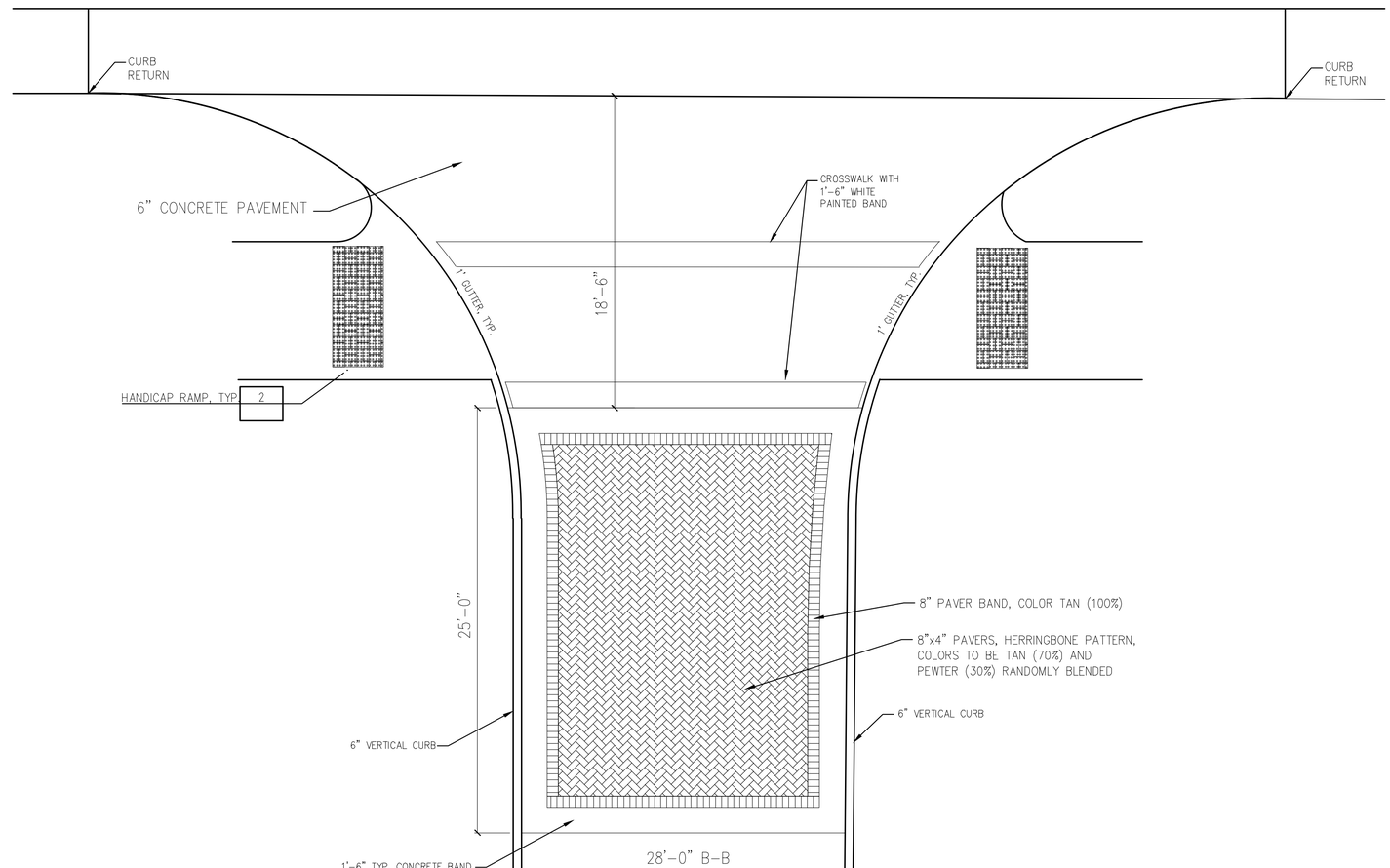
SCALE: N.T.S.

SHEET NO. 20 OF 30

STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

Date\Time : Wed, 23 Apr, 2025 – 4:14pm
Path\Name : I: \Projdat\2980\0104\Sheets\21 PAVING DETAILS.dwg

BRIARLEY PHASE 1B – 2980–0104

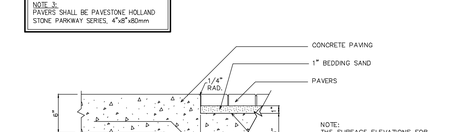


1 ENTRANCE DETAIL
PLAN N.T.S.

NOTE 1:
ALL PAVERS TO BE SET FLUSH WITH ADJACENT PAVER OR ADJACENT PAVEMENT.

NOTE 2:
ALL PAVERS ARE TO BE INSTALLED PER MANUFACTURERS DIRECTIONS.

NOTE 3:
PAVERS SHALL BE PAVESTONE HOLLAND STONE PARKWAY SERIES, 4"x8"x80mm



2 TYPICAL PAVERS
Section SCALE: N.T.S.

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR — DATE

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

PAVING DETAILS II

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

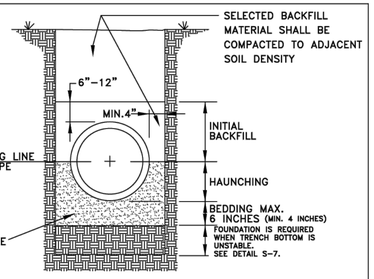
SCALE: N.T.S.

STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

SHEET NO. 21 OF 30

BRIARLEY PHASE 1B - 2980-0104

Date\Time : Wed, 23 Apr, 2025 - 4:14pm
Path\Name : I:\Projekt\2980\0104\Sheets\21 PAVING DETAILS II.dwg



BEDDING DETAIL

NOTE: BACKFILL AND BEDDING MUST MEET ALL MINIMUM ASPECTS OF ASTM D-2321

Foundation
A foundation is required when the trench bottom is unstable. Any foundation that will support a rigid pipe without causing loss of grade or flexural breaking will be more than adequate for PVC pipes.

Bedding
The bedding directly underneath the pipe is required only to bring the trench bottom up to grade. It should not be so thick or soft that the pipe will settle and lose grade. The purpose of the bedding is to provide a firm, stable and uniform support of the pipe. A layer of material sufficient to establish line, grade, and support should be placed. Bell holes should be excavated to insure uniform bearing.

Haunching
The haunching area is the most important in terms of limiting the deflection of a flexible pipe. This is the area that should be compacted to the required or specified density.

ASTM D-2321
DESCRIPTION OF EMBEDMENT MATERIALS

Class I
Angular, 1/4" to 1-1/2" graded stone, including a number of fill materials that have regional significance, such as coral, slag, cinders, crushed stone and crushed shells.

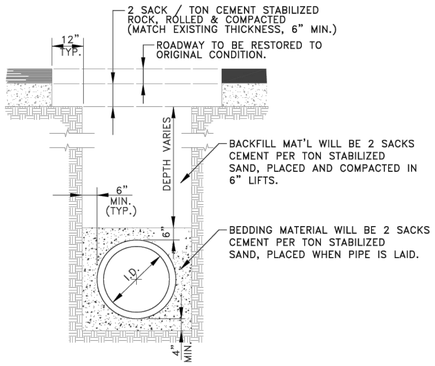
Class II
Coarse sands and gravels with maximum particle size of 1-1/2", including variously graded sands, and gravels containing small percentages of fines, generally granular and noncohesive, either wet or dry. Soil types GW, GP, SW, and SP are included in this class.

Class III
Fine sand and clayey gravels, including fine sands and sand-clay mixtures, and gravel clay mixtures. Soil types GM, GC, SM and SC are included in this class.

Class IV
Silt, silty clays, and clays, including inorganic clays and silts of medium to high plasticity and liquid limits. Soil types MH, ML, CH, and CL are included in this class.

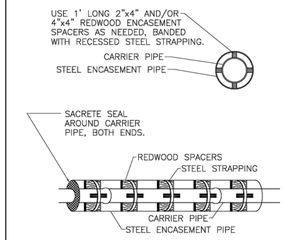
Class V
This class includes the organic soils OL, OH, and PT as well as soils containing frozen earth, debris, rocks larger than 1-1/2" in diameter, and other foreign materials. These materials are not recommended for bedding, haunching, or initial backfill.

REVISIONS	CITY OF MONTGOMERY TYPICAL SANITARY SEWER BEDDING AND TRENCH DETAIL	SEWER S-1



NOTE: BACKFILL AND BEDDING MUST MEET ALL MINIMUM ASPECTS OF ASTM D-2321

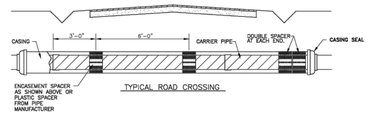
REVISIONS	CITY OF MONTGOMERY TYPICAL ROADWAY TRENCH BEDDING AND BACKFILL DETAIL	SEWER S-2



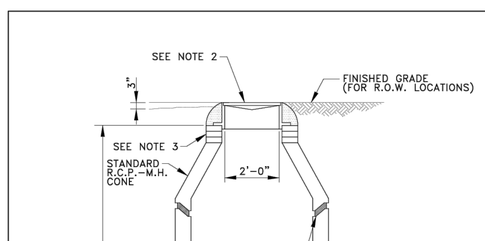
NOTE: LOCATE REDWOOD SPACERS ON EITHER SIDE OF CARRIER PIPE BELLS, THEN ONE SET CENTERED ON EACH JOINT.

CARRIER SIZE	MINIMUM ENCASEMENT STEEL PIPE
4" C 900	10" – .25 WALL
6" C 900	12" – .25 WALL
8" C 900	16" – .25 WALL
10" C 900	18" – .25 WALL
12" C 900	20" – .25 WALL
14" C 905	24" – .25 WALL
16" C 905	26" – .25 WALL
18" C 905	30" – .25 WALL
20" C 905	36" – .375 WALL
24" C 905	42" – .375 WALL

NOTES:
1. Steel casing shall have totally welded joints.
2. Steel casing shall be used in all bores.
3. Contractor to obtain permits prior to any construction at these crossings.

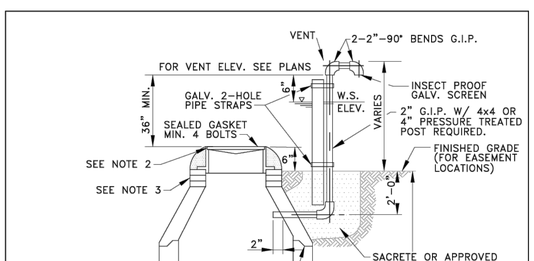


REVISIONS	CITY OF MONTGOMERY STANDARD BORED CROSSING WITH STEEL CASING FOR SEWER LINES (OR WATERLINES)	SEWER S-3



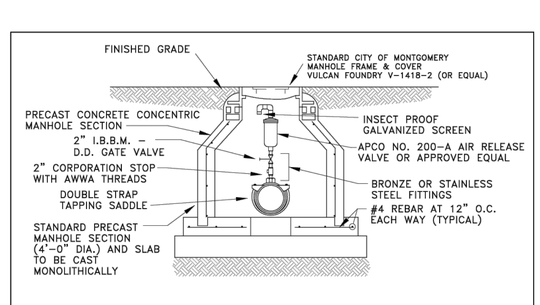
NOTE:
1.All R.C.P. Manholes shall be in accordance A.S.T.M. C-478.
2.Vulcan Foundry V-1418-2 Frame and Cover (or equal) with the City of Montgomery logo embedded in lid.
3.For adjustment of Manhole Lid use standard concrete rings. No brick adjustment allowed.
4.Precast bottom section of manhole to be securely attached to reinforced concrete slab with waterproof sealer.

REVISIONS	CITY OF MONTGOMERY STANDARD PRECAST MANHOLE	SEWER S-4



NOTE:
1.All R.C.P. Manholes shall be in accordance with A.S.T.M. C-478.
2.Vulcan Foundry V-2418-2 watertight manhole ring & cover (or equal) with the City of Montgomery logo embedded in lid.
3.For adjustment of Manhole Lid use standard concrete rings. No brick adjustment allowed.
4.Precast bottom section of manhole to be securely attached to reinforced concrete slab with waterproof sealer.

REVISIONS	CITY OF MONTGOMERY STANDARD PRECAST MANHOLE W/ DROP CONNECTION & VENT	SEWER S-5



MANUAL AIR RELEASE VALVE

AUTOMATIC AIR RELEASE VALVE

REVISIONS	CITY OF MONTGOMERY AIR RELEASE VALVES	SEWER S-6

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

SANITARY DETAILS I

LJA Engineering, Inc.
3600 W Sam Houston Parkway S, Suite 600, Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

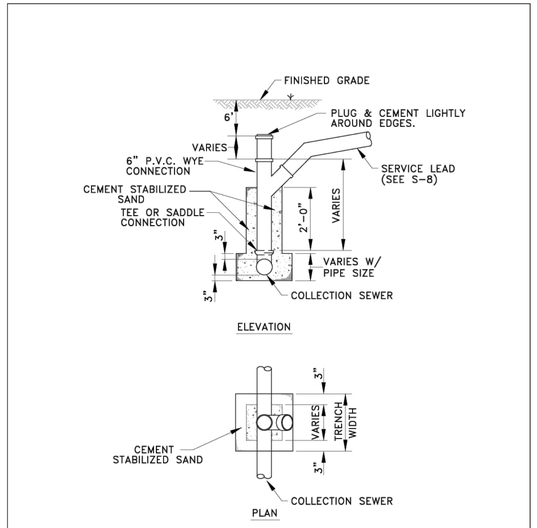
LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

SCALE: N.T.S.

SHEET NO. 22 OF 30

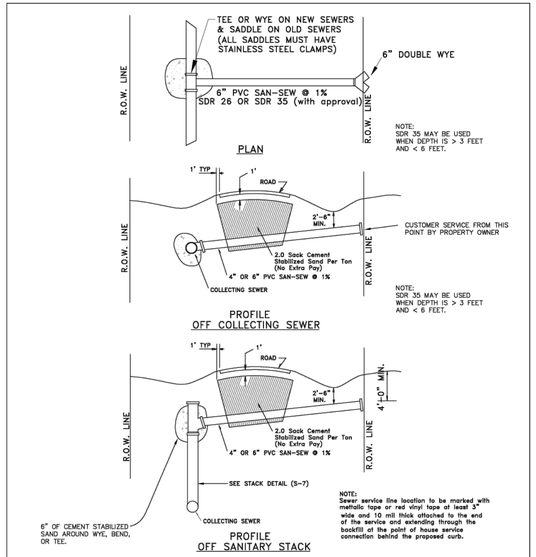
STATE OF TEXAS — MICAH KREIKEMEIER — 127881 — LICENSED — PROFESSIONAL ENGINEER
04/24/2025



REVISIONS
10-2013 – REVISED NOTES

CITY OF MONTGOMERY
SANITARY SEWER STACK DETAIL

SEWER
S-7



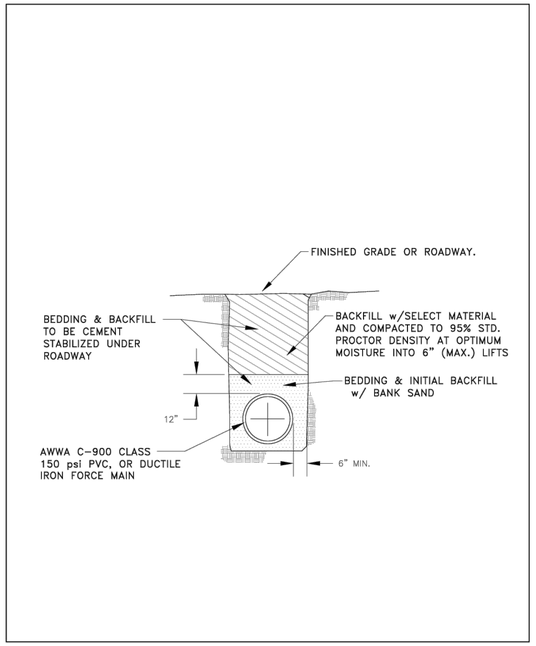
SANITARY SEWER SERVICE CONNECTION

4" FOR SINGLE SERVICE
6" FOR DOUBLE SERVICE

REVISIONS
10-2013 REVISED SERVICE GRADE & NOTES

CITY OF MONTGOMERY
RESIDENTIAL SANITARY SEWER SERVICE CONNECTION

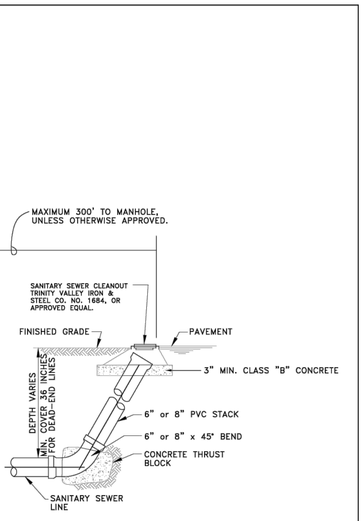
SEWER
S-8



REVISIONS

CITY OF MONTGOMERY
PVC FORCE MAIN
BEDDING AND BACKFILL

SEWER
S-9

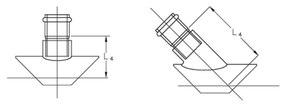


REVISIONS

CITY OF MONTGOMERY
CLEAN OUT DETAIL

SEWER
S-10

SADDLES FOR FIELD CUT-IN CONNECTIONS



TEE SADDLE			WYE SADDLE		
D	L_4	Wt. lbs.	D	L_4	Wt. lbs.
6 x 4	6.0	2.3	6 x 4	7.1	5.9
8 x 4	7.0	2.3	8 x 4	7.9	5.9
8 x 6	7.8	4.5	8 x 6	9.7	5.4
10 x 4	9.0	2.3	10 x 4	9.3	5.9
10 x 6	9.8	4.5	10 x 6	11.1	5.4
12 x 4	10.0	2.3	12 x 4	10.8	5.9
12 x 6	10.8	4.5	12 x 6	12.5	5.4

The base of the saddle is curved to fit the size for which it was made.

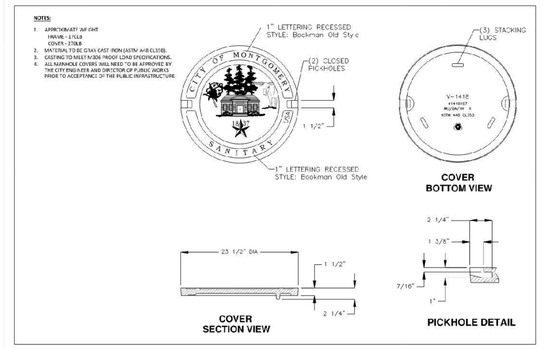
PROCEDURE FOR PLACING SADDLE CONNECTION

1. Place saddle in position on pipe. Mark hole guide for cut in pipe using saddle as a template. Remove saddle from pipe.
2. Auger a hole into pipe wall on hole guide mark.
3. The hole should be 1/2" outside the hole guide mark.
4. Wipe clean and dry both the underside of the saddle and the mating surface of the pipe.
5. Apply primer to both mating surfaces. Check the PVC surfaces while still wet with primer to see that the surfaces have been etched.
6. While the surfaces are still wet with primer, liberally brush cement base on mating surface of saddle and pipe.
7. Immediately position the saddle over the hole in the pipe and draw down with stainless steel straps. The saddle must not be moved once it makes contact with the pipe.

REVISIONS

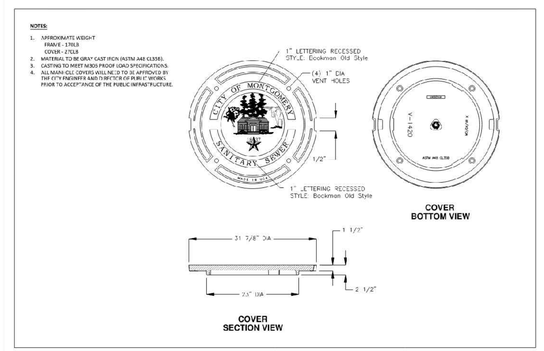
CITY OF MONTGOMERY
TEE & WYE SADDLES FOR PVC PIPE

SEWER
S-11



CITY OF MONTGOMERY
24" SANITARY
MANHOLE COVER

SANITARY
S-2



CITY OF MONTGOMERY
32" SANITARY
MANHOLE COVER

SANITARY
S-1

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

SANITARY DETAILS II

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

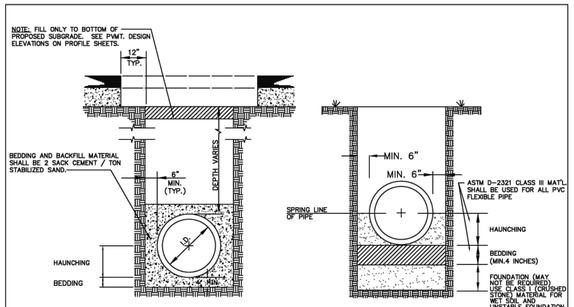
SCALE: N.T.S.

SHEET NO. 23 OF 30

STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

BRIARLEY PHASE 1B – 2980-0104

Date\Time : Wed, 23 Apr, 2025 – 4:14pm
Path\Name : I:\Projdat\2980\0104\Sheets\23 SANITARY DETAILS II.dwg



TYPICAL ROADWAY TRENCH BEDDING

TYPICAL TRENCH BEDDING

ASTM D 2321

Description of embedment materials

Class I
Angular, 1/4" to 1 1/2" graded stone, including a number of fill materials that have regional significance, such as coral, slag, cinders, crushed stone and crushed shells.

Class II
Coarse sands and gravels with maximum particle size of 1 1/2", including variously graded sands and gravels containing small percentages of fines, generally granular and noncohesive, either wet or dry. Soil Types GW, GP, SW, and SP are included in this class.

Class III
Fine sand and clayey gravels including fine sands, sand-clay mixtures, and gravel-clay mixtures. Soil Types GM, GC, SM, and SC are included in this class.

Class IV
Silt, silty clays, and clays, including inorganic clays and silts of medium to high plasticity and liquid limits. Soil Types MH, ML, CH and CL are included in this class.

Class V
This class includes the organic soils OL, OH, and PT as well as soils containing frozen earth, debris, rocks larger than 1 1/2" in diameter, and other foreign materials. These materials are not recommended for bedding, haunching, or initial backfill.

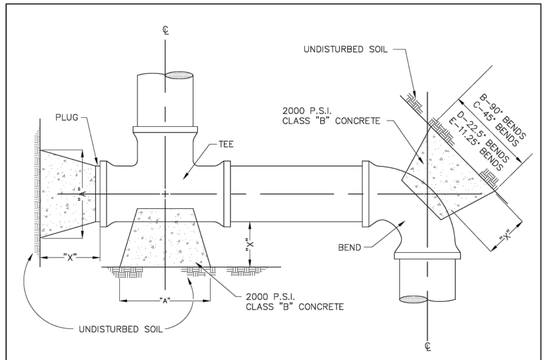
Foundation
A foundation is required when the trench bottom is unstable. Any foundation that will support a rigid pipe without causing loss of grade or flexural breaking will be more than adequate for PVC pipe.

Bedding
The bedding directly underneath the pipe is required only to bring the trench bottom up to grade. It should not be so thick or soft that the pipe will settle and lose grade. The purpose of the bedding is to provide a firm, stable and uniform support of the pipe. A layer of material sufficient to establish line, grade, and support should be placed. Bell holes should be excavated to insure uniform bearing.

Haunching
The haunching area is the most important in terms of limiting the deflection of a flexible pipe. This is the area that should be compacted to the required or specific density.

NOTE: BACKFILL ABOVE THE BEDDING SHALL CONFORM TO "TYPICAL WATERLINE BACKFILL AND TRENCH REPAIR" STANDARD DRAWING W-5.

REVISIONS	CITY OF MONTGOMERY TYPICAL WATERLINE BEDDING AND TRENCH DETAIL	WATER W-1



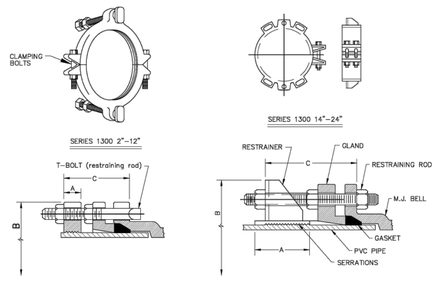
HORIZONTAL BLOCKING TABLE

Dimension 'X' to be a minimum of (1) foot, but is to be increased where necessary to provide bearing against undisturbed trench wall.

PIPE SIZE	'X' DIM.	PLUGS & TEES 'A'	MIN. AREA	MIN. VOL.	90° BENDS 'B'	MIN. AREA	MIN. VOL.	45° BENDS 'C'	MIN. AREA	MIN. VOL.	22.50° BENDS 'D'	MIN. AREA	MIN. VOL.	11.25° BENDS 'E'	MIN. AREA	MIN. VOL.
4"	1'-0"	1'-0"	0.88	0.05	1'-0"	0.83	0.05	1'-0"	0.83	0.05	1'-0"	0.83	0.05	1'-0"	0.83	0.05
6"	1'-6"	1'-0"	1.06	0.06	1'-2"	1.50	0.09	1'-0"	0.83	0.05	1'-0"	0.83	0.05	1'-0"	0.83	0.05
8"	1'-6"	1'-3"	1.89	0.11	1'-6"	2.66	0.15	1'-3"	1.44	0.08	1'-0"	0.83	0.05	1'-0"	0.83	0.05
10"	1'-6"	1'-3"	2.95	0.17	2'-0"	4.17	0.24	1'-6"	2.26	0.13	1'-3"	1.15	0.07	1'-0"	0.83	0.05
12"	1'-6"	2'-0"	4.25	0.24	2'-3"	6.00	0.34	1'-9"	3.25	0.18	1'-3"	1.65	0.10	1'-0"	0.83	0.05
16"	2'-0"	2'-7"	7.34	0.56	3'-0"	10.65	0.79	2'-3"	5.76	0.43	1'-8"	2.94	0.22	1'-2"	1.48	0.11
18"	2'-0"	2'-11"	7.70	0.57	3'-5"	10.89	0.82	2'-6"	5.89	0.44	1'-10"	3.01	0.22	1'-5"	1.51	0.11
20"	2'-0"	3'-3"	7.86	0.59	3'-9"	11.12	0.84	2'-9"	6.01	0.45	2'-0"	3.07	0.23	1'-7"	1.54	0.12
24"	2'-6"	3'-8"	11.33	0.84	4'-3"	16.00	1.20	3'-2"	8.65	0.65	2'-6"	4.42	0.33	1'-10"	2.22	0.17

NOTE: Calculations in Minimum Area column are in square feeet.
Calculations in Minimum Volume column are in cubic yards.

REVISIONS	CITY OF MONTGOMERY HORIZONTAL BLOCKING FOR WATERLINE	WATER W-2

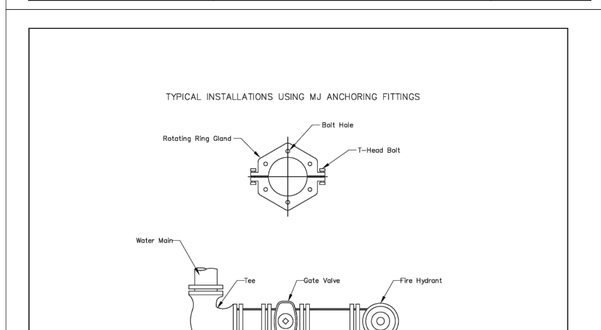


RESTRAINER CHART

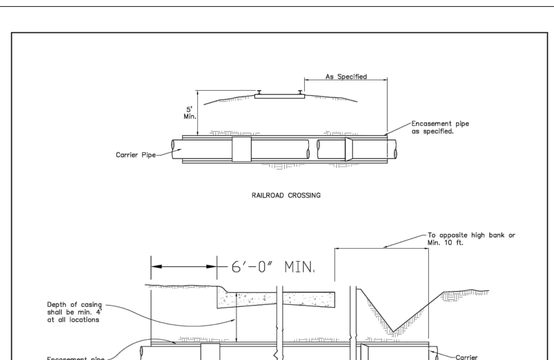
NOM. PIPE SIZE	PVC PIPE W/STEEL PIPE O.D. No.1300-S	PVC PIPE W/D.I. PIPE O.D. No.1300-C	A	B approx.	C max.	RESTRAINING RODS NO.	RESTRAINING RODS SIZE	CLAMPING BOLTS NO.	CLAMPING BOLTS SIZE	APPROX. WGT. (lbs.)
2	2.375	N/A	1-1/8	6-1/4	4.0	2	5/8 x5	2	5/8 x4	4
3	3.500	N/A	1-1/8	7-11/16	4.0	2	5/8 x5	2	5/8 x4	5
4	4.500	4.80	1-1/8	9-1/8	6.0	2	3/4 x7	2	5/8 x4	6.5
6	6.625	6.90	1-1/8	11-1/8	6.0	2	3/4 x7	2	5/8 x4	8.5
8	8.625	8.05	1-1/4	13-7/8	6.0	2	3/4 x7	2	3/4 x5	13
10	10.750	11.10	1-3/8	16-5/8	6.0	4	3/4 x7	2	7/8 x6	23
12	12.750	13.20	1-3/8	19-1/4	6.0	4	3/4 x7	2	7/8 x6	25
14	N/A	15.30	4.0	22.0	15.0	6	3/4 x17	2	7/8 x7	50
16	N/A	17.40	4.0	24.2	15.0	6	3/4 x17	2	7/8 x7	65
18	N/A	19.50	5.0	26.5	15.0	8	3/4 x17	2	1 x 7	65
20	N/A	21.60	7.0	28.6	22.0	8	3/4 x24	3	1 1/8 x9	125
24	N/A	25.80	7.0	32.8	22.0	12	3/4 x24	3	1 1/8 x9	143

Weights include Restraining rods, clamping bolt and nuts and special "T" bolts and nuts.
N/A PIPE not manufactured in this size.
Dimensions in inches.

REVISIONS	CITY OF MONTGOMERY WATERLINE RESTRAINER	WATER W-3



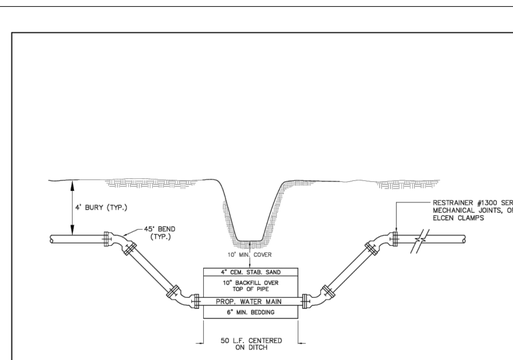
REVISIONS	CITY OF MONTGOMERY MECHANICAL JOINTS AND ELCEN CLAMPS FOR WATERLINES	WATER W-4



CARRIER SIZE	MINIMUM ENCASEMENT STEEL PIPE
4" C 900	10" - .25 WALL
6" C 900	12" - .25 WALL
8" C 900	16" - .25 WALL
10" C 900	18" - .25 WALL
12" C 900	20" - .25 WALL
14" C 905	24" - .25 WALL
16" C 905	26" - .25 WALL
18" C 905	30" - .25 WALL
20" C 905	36" - .375 WALL
24" C 905	42" - .375 WALL

NOTES:
1. Steel casing shall have totally welded joints.
2. Steel casing shall be used in all bores.
3. Contractor to obtain permits prior to any construction at these crossings.

REVISIONS	CITY OF MONTGOMERY STANDARD BORED CROSSING FOR WATERLINE	WATER W-5



REVISIONS	CITY OF MONTGOMERY DITCH CROSSING DETAILS FOR WATERLINE	WATER W-6

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

WATER DETAILS I

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

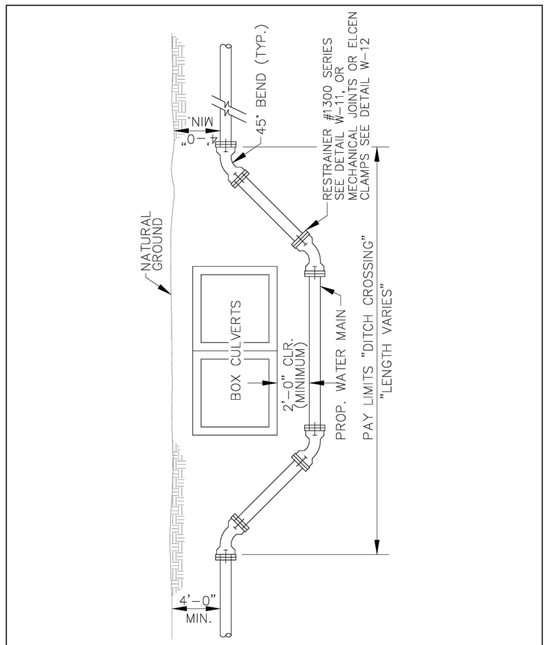
SCALE: N.T.S.

SHEET NO. 24 OF 30

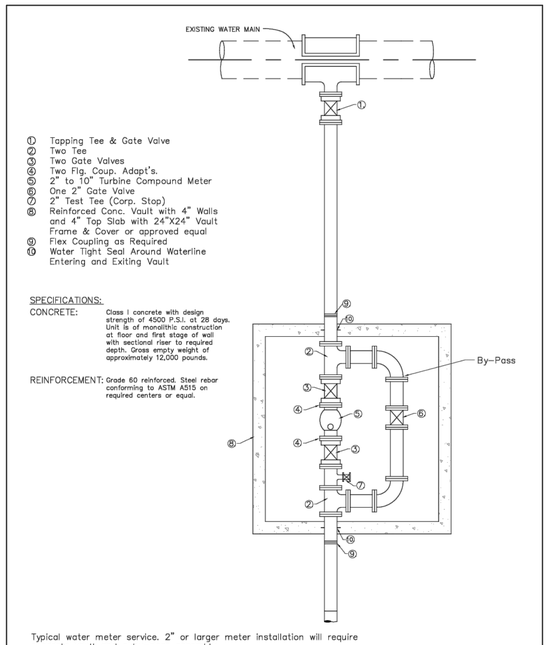
STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

Date\Time : Wed, 23 Apr, 2025 - 4:14pm
Path\Name : I:\Projects\2980\0104\Sheets\24 WATER DETAILS I.dwg

BRIARLEY PHASE 1B - 2980-0104



REVISIONS	CITY OF MONTGOMERY CULVERT CROSSING DETAIL FOR WATERLINE	WATER W–7



① Tapping Tee & Gate Valve
② Two Tee
③ Two Gate Valves
④ Two Fig. Coup. Adapt's.
⑤ 2" to 10" Turbine Compound Meter
⑥ One 2" Gate Valve
⑦ 2" Test Tee (Corp. Stop)
⑧ Reinforced Conc. Vault with 4" Walls and 4" Top Slab with 24"X24" Vault Frame & Cover or approved equal
⑨ Flex Coupling as Required
⑩ Water Tight Seal Around Waterline Entering and Exiting Vault

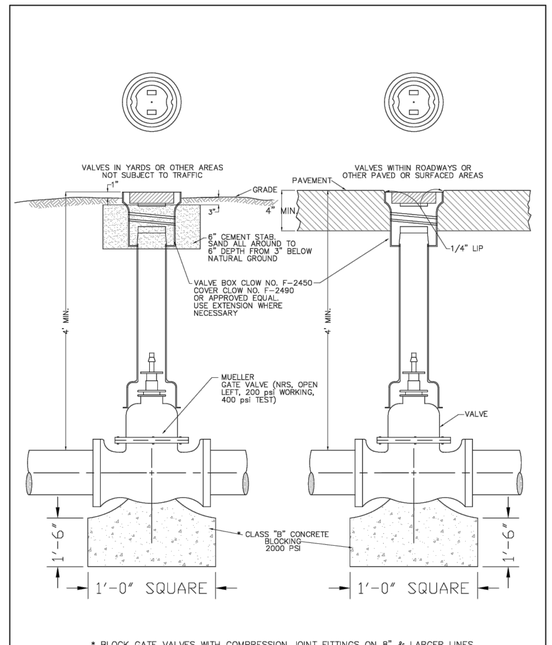
SPECIFICATIONS:

CONCRETE: Class I concrete with design strength of 4500 P.S.I. at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth. Gross empty weight of approximately 12,000 pounds.

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A515 on required centers or equal.

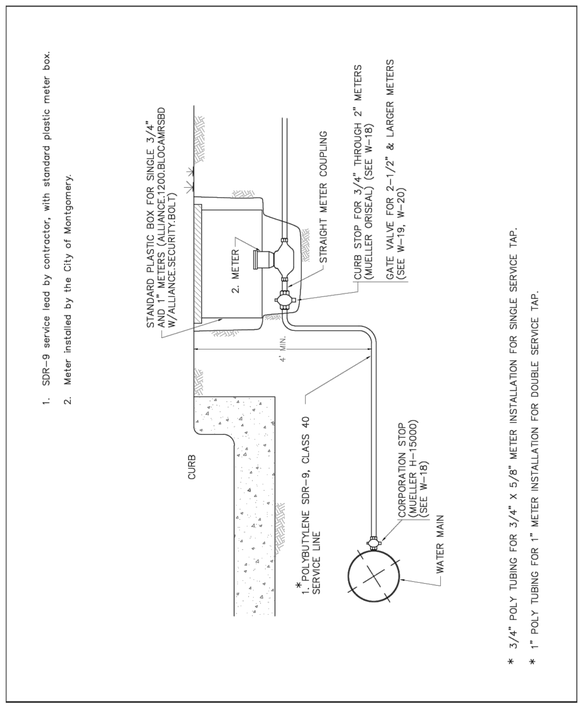
Typical water meter service. 2" or larger meter installation will require concrete vault and a by–pass assembly.

REVISIONS	CITY OF MONTGOMERY 2" & LARGER WATER SERVICE CONNECTION	WATER W–9

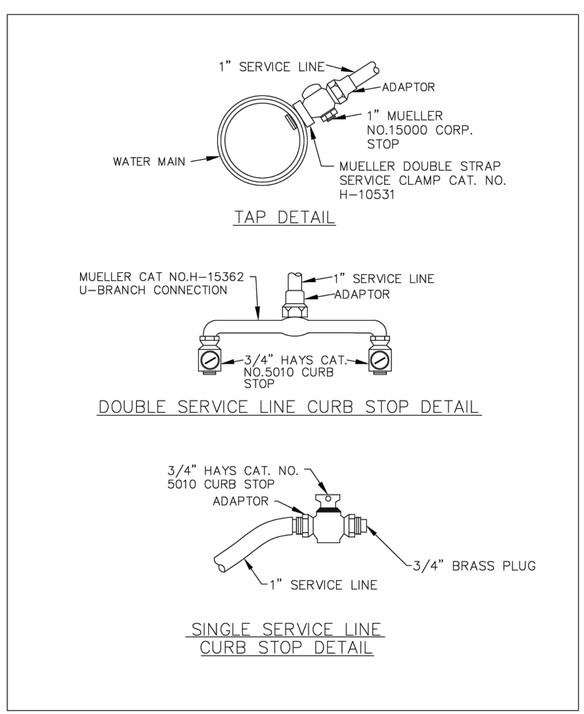


* BLOCK GATE VALVES WITH COMPRESSION JOINT FITTINGS ON 8" & LARGER LINES

REVISIONS	CITY OF MONTGOMERY GATE VALVE & BOX INSTALLATION 14" AND SMALLER WATERLINE	WATER W–11



REVISIONS 10–2013 REVISED NOTES SERVICE SIZE	CITY OF MONTGOMERY WATER SERVICE CONNECTION	WATER W–8



TAP DETAIL

DOUBLE SERVICE LINE CURB STOP DETAIL

SINGLE SERVICE LINE CURB STOP DETAIL

REVISIONS 02–2025 REVISED SERVICE LINE SIZE	CITY OF MONTGOMERY CURB STOP & TAP FOR WATERLINE	WATER W–10

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"–6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS–BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS–BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

WATER DETAILS II

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980–0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

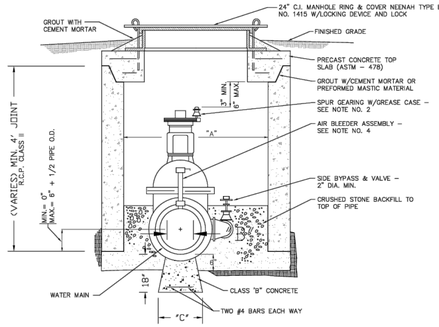
SCALE: N.T.S.

STATE OF TEXAS
MICAH KREKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025

SHEET NO. 25 OF 30

BRIARLEY PHASE 1B – 2980–0104

Date\Time : Wed, 23 Apr 2025 - 4:14pm
Path\Name : I:\Projekt\2980\01CA\Streets\25 WATER DETAILS II.dwg

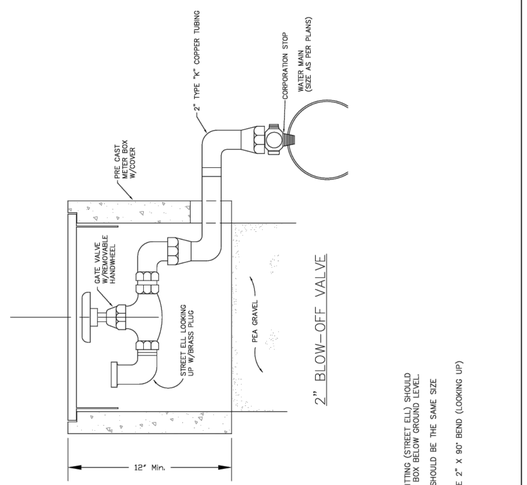


PIPE SIZE	"A"	"B"	"C"
16"	48"	10" SQ.	16" SQ.
18"	48"	12" SQ.	18" SQ.
20"	54"	12" SQ.	20" SQ.

NOTES

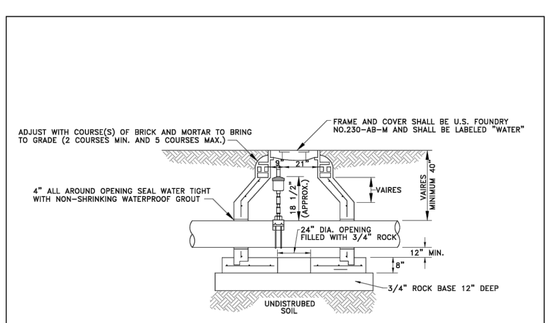
1. PLACE 1/2" EXPANSION JOINT MATERIAL AROUND WATER PIPE WHERE IT PASSES THROUGH CONCRETE VAULT.
2. VALVES 18" AND LARGER SHALL HAVE SPUR GEARING WITH GREASE CASE.
3. NOTE: LARGER DIAMETER R.C.P. MAY BE REQUIRED DEPENDENT UPON MANUFACTURER'S STANDARD SIZE FOR GATE VALVE.
4. PROVIDE CORPORATION WITH COPPER RISER AND CURB STOP AT A MAXIMUM OF 12" FROM EACH END OF GATE VALVE AS SHOWN. CORPORATION AND CURB STOP SIZES SHALL BE 1". EXTEND RISER TO WITHIN 24" OF TOP OF MANHOLE.
5. VALVES, BYPASS, CORPORATION STOP AND PIPING SHALL BE DESIGNED TO OPERATE AT THE MAXIMUM PRESSURES AS DESCRIBED IN THE SPECIFICATIONS.

REVISIONS	CITY OF MONTGOMERY GATE VALVE & VAULT INSTALLATION 16" AND LARGER WATERLINE	WATER W–12



NOTES:
1. THE VALVE AND FEMALE FITTING (STREET ELL) SHOULD BE ENCLOSED IN A METER BOX BELOW GROUND LEVEL.
2. ALL PIPING AND FITTINGS SHOULD BE THE SAME SIZE AS CORPORATIONS.
3. FOR 2" BLOW-OFF PROVIDE 2" X 90° BEND (LOOKING UP) AND FEMALE ADAPTER.

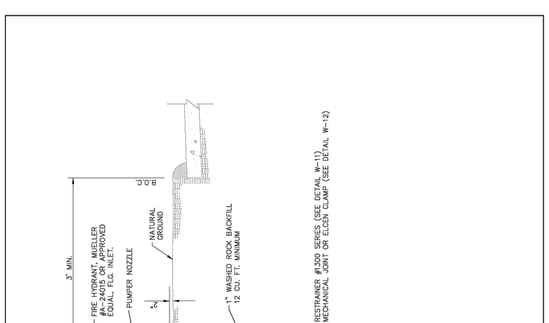
REVISIONS	CITY OF MONTGOMERY 2" BLOW-OFF VALVE FOR WATERLINE	WATER W–13



WATER MAIN
AUTOMATIC AIR RELEASE VALVE
ELEVATION DETAIL

NOTE: FOR LOCATION OF INSTALLATION SEE PLAN AND PROFILE SHEETS.

REVISIONS	CITY OF MONTGOMERY WATER MAIN AUTOMATIC AIR RELEASE VALVE	WATER W–14



NOTES:
(1) Hydrants shall be shop coated with a suitable primer and finished with two coats of highway safety enamel conforming to federal specifications. Bonnet is to be painted white, operating nut, cap nuts and caps painted chrome yellow. Paint to be applied after hydrant has been hydrostatically tested. Barrel of hydrant shall have a coat of coal-tar enamel or asphalt base bituminous coating material not less than one (1) mil thickness.
(2) Fire hydrants in open ditch roadways shall be 3–ft. off R.O.W.
(3) Mechanical joints and/or elden clamps are to be rodded together using 5/8" all thread (See W-12)

REVISIONS	CITY OF MONTGOMERY FIRE HYDRANT INSTALLATION	WATER W–15

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"–6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS–BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS–BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER
SIGNATURE VALID FOR ONE (1) YEAR

DATE

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

WATER DETAILS III

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

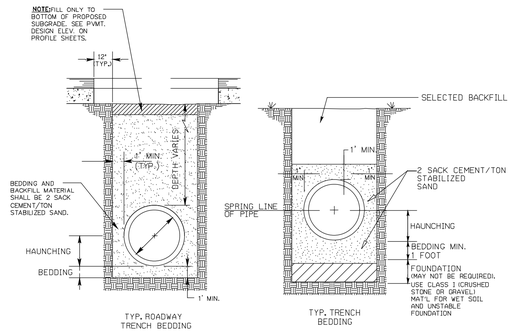
LJA PROJECT NO.: 2980–0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

SCALE: N.T.S.

SHEET NO. 26 OF 30

STATE OF TEXAS
MICAH KREIKEMEIER
127881
LICENSED
PROFESSIONAL ENGINEER
04/24/2025



TYP. ROADWAY TRENCH BEDDING

TYP. TRENCH BEDDING

Foundation
A foundation is required when the trench bottom is unstable. Any foundation that will support a rigid pipe without causing loss of grade or flexural breaking will be more than adequate for PVC pipes.

Bedding
The bedding directly underneath the pipe is required only to bring the trench bottom up to grade. It should not be so thick or soft that the pipe will settle and lose grade. The purpose of the bedding is to provide a firm, stable and uniform support of the pipe. A layer of material sufficient to establish line, grade, and support should be placed. Bell holes should be excavated to insure uniform bearing.

Haunching
The haunching area is the most important in terms of limiting the deflection of a flexible pipe. This is the area that should be compacted to the required or specified density.

ASTM D-2321
DESCRIPTION OF EMBEDMENT MATERIALS

Class I
Angular, 1/4" to 1-1/2" graded stone, including a number of fill materials that have regional significance such as coral, slag, cinders, crushed stone and crushed shells.

Class II
Coarse sands and gravels with maximum particle size of 1-1/2", including variously graded sands and gravels containing small percentages of fines, generally granular and noncohesive, either wet or dry. Soil types GW, GP, SW, and SP are included in this class.

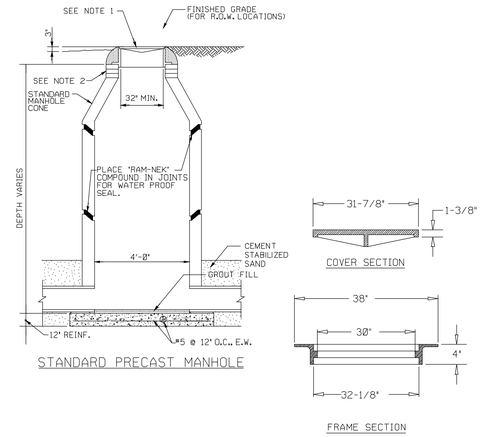
Class III
Fine sand and clayey gravels, including fine sands and sand-clay mixtures, and gravel clay mixtures. Soil types GM, GC, SM and SC are included in this class.

Class IV
Silts, silty clays, and clays, including inorganic clays and silts of medium to high plasticity and liquid limits. Soil types ML, ML, CH, and CL are included in this class.

Class V
This class includes the organic soils OL, OH, and PT as well as soils containing frozen earth, debris, rocks larger than 1-1/2" in diameter, and other foreign materials. These materials are not recommended for bedding, haunching, or initial backfill.

NOTE: BACKFILL ABOVE THE BEDDING SHALL CONFORM TO "TYPICAL STORM SEW. BACKFILL AND TRENCH REPAIR" STANDARD DRAWING D-5

REVISIONS	CITY OF CONROE	DWG. NO. 1201
	MODIFIED TYPICAL STORM SEWER BEDDING TRENCH DETAIL	D-4



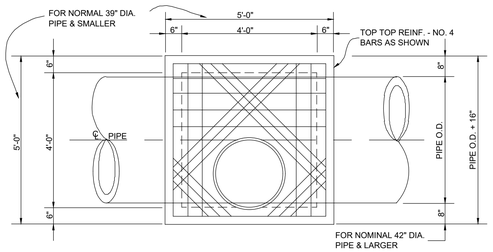
STANDARD PRECAST MANHOLE

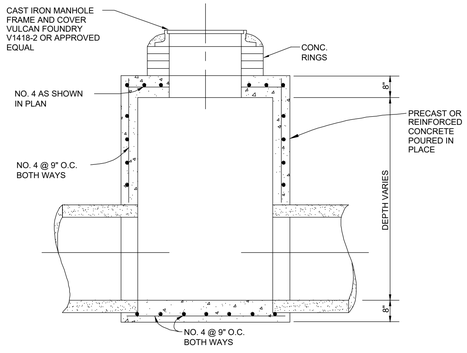
FRAME SECTION

NOTE:

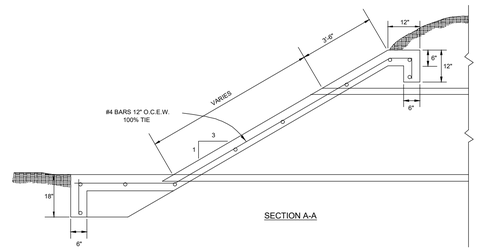
1. Vulcan Foundry V-1418-2 Frame and Cover (or equal) with City of Montgomery logo embedded in lid.
2. For adjustment of Manhole Lid use standard concrete rings. No brick adjustment allowed.
3. Precast bottom section of manhole to be securely attached to reinforced concrete slab with waterproof sealer.

REVISIONS		
	MODIFIED STORM SEWER MANHOLE	D-6

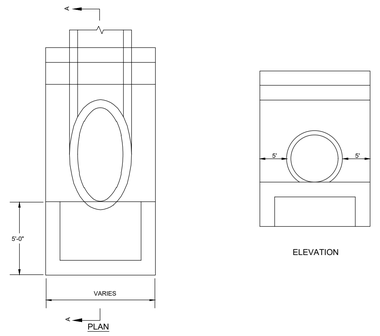




REVISIONS	CITY OF CONROE	DWG. NO. 1201
	STANDARD SQUARE STORM DRAIN MANHOLE	D-7



SECTION A-A



ELEVATION

PLAN

REVISIONS	CITY OF CONROE	DWG. NO. 1201
	MODIFIED EFFLUENT/INFLUENT STORM HEADWALL	D-12

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

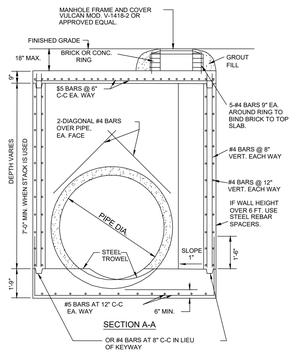
11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

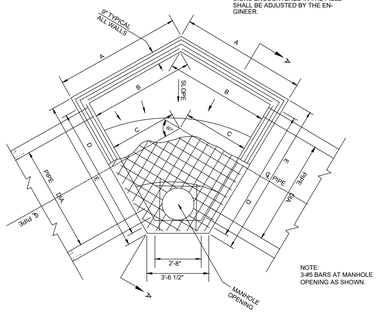
14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

MANHOLE TYPE	PIPE DIA.	A	B	C	D	E
1	18" to 24"	4'-5 1/2"	3'-3 9/16"	2'-5"	3'-0"	4'-2"
2	27" to 33"	4'-11 5/8"	3'-9 3/8"	2'-8"	3'-10 1/2"	5'-1"
3	36" to 42"	5'-5 5/8"	4'-3 7/16"	2'-11"	4'-9"	5'-11 1/4"
4	48" to 54"	6'-1 3/4"	4'-11 1/2"	3'-3"	5'-11"	7'-1 1/4"
5	60" to 66"	6'-9 7/8"	5'-7 5/8"	3'-7"	7'-1"	8'-3 1/4"
6	72" to 78"	7'-6"	6'-3 3/4"	3'-11"	8'-3"	9'-5 1/4"
7	84" to 90"	8'-6 1/8"	7'-3 7/8"	4'-5 1/8"	10'-0"	11'-2 1/4"



SECTION A-A

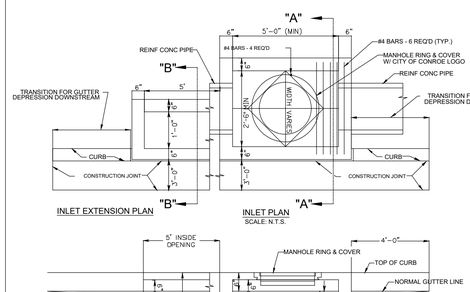
NOTE: THE 2'-6" DIMENSION SHALL IN ALL CASES BE THE CONTROL DIMENSION AND ANY DEVIATION IN OTHER DIMENSIONS ENCOUNTERED IN THE FIELD SHALL BE ADJUSTED BY THE ENGINEER.



PLAN

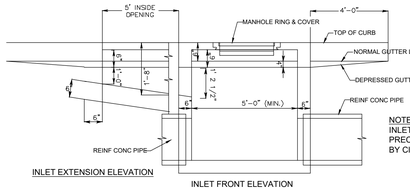
NOTE: 3-#5 BARS AT MANHOLE OPENING AS SHOWN.

REVISIONS	CITY OF CONROE	DWG. NO. 1201
	MANHOLE TYPES 1-7	D-13



INLET EXTENSION PLAN

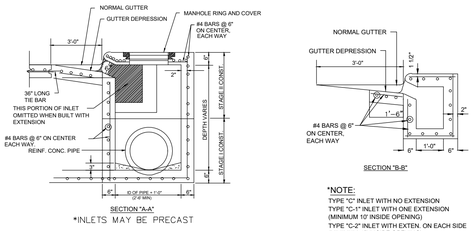
INLET PLAN
SCALE: N.T.S.



INLET EXTENSION ELEVATION

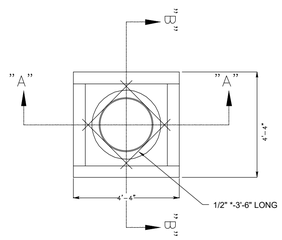
INLET FRONT ELEVATION

NOTE:
INLET BOXES MAY BE PRECAST IF APPROVED BY CITY ENGINEER.

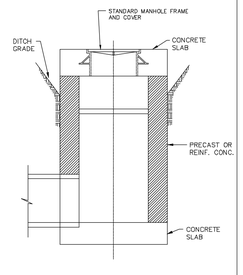


*NOTE:
TYPE "C" INLET WITH NO EXTENSION
TYPE "C-1" INLET WITH ONE EXTENSION (MINIMUM 10' INSIDE OPENING)
TYPE "C-2" INLET WITH EXTEN. ON EACH SIDE (MINIMUM 15' INSIDE OPENING)

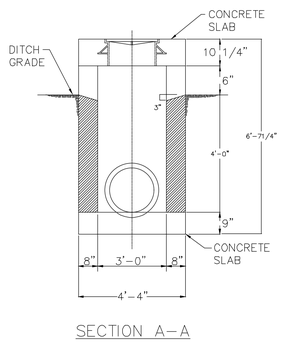
REVISIONS	CITY OF CONROE	DWG. NO. 1201
	MODIFIED TYPE "C", "C-1" & "C-2" INLETS	D-16



PLAN



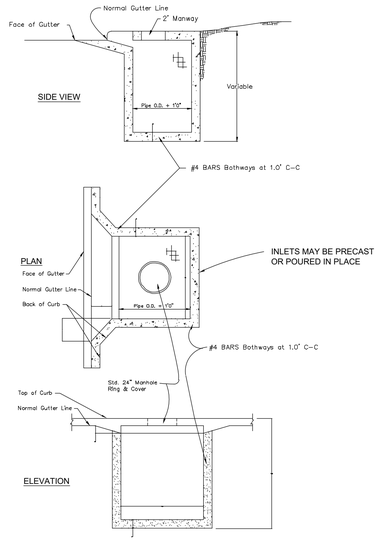
SECTION B-B



SECTION A-A

NOTE: INLET MAY BE EITHER CAST IN PLACE W/ WATERPROOF SEALER OR PRECAST BASE ON 12" CEMENT STABILIZED SLAB.

REVISIONS	CITY OF CONROE	DWG. NO. 1201
	TYPE "E" INLET	D-18



ELEVATION

NOTE: PVC WATER STOPPER SHALL BE USED FOR ALL CAST IN PLACE STRUCTURES AT EACH STAGE.

REVISIONS	CITY OF CONROE	DWG. NO. 1201
	TYPICAL RECESSED INLET DETAILS	D-20

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

DRAINAGE DETAILS I

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

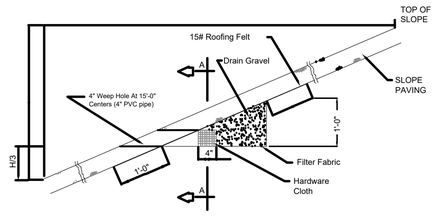
SCALE: N.T.S.

STATE OF TEXAS — MICAH KREIKEMEIER — 127881 — LICENSED PROFESSIONAL ENGINEER — 04/24/2025

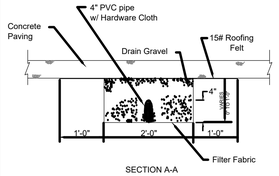
SHEET NO. 27 OF 30

Date\Time : Wed, 23 Apr, 2025 - 4:15pm
Path\Name : I:\Projdsk\2980\0104\Sheets\27 DRAINAGE DETAILS I.dwg

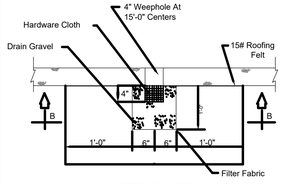
BRIARLEY PHASE 1B - 2980-0104



SLOPE DETAIL



SECTION A-A



BOTTOM SLAB DETAIL

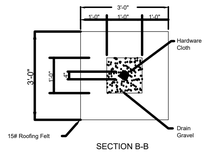
SPECIFICATION FOR:

DRAIN GRAVEL	
SIEVE SIZE	% FINER
3/4"	100
3/8"	55-100
NO. 4	15-100
NO. 8	0- 50
NO. 16	0- 15
NO. 20	0- 5
NO. 200	0- 5

HARDWARE CLOTH	
MAX. WIDTH OF MESH OPENING	1/4"
MIN. WIDTH OF MESH OPENING	1/16"

FILTER FABRIC	
MAX. EQUIVALENT OPENING SIEVE	NO. 70 SIEVE
MIN. EQUIVALENT OPENING SIEVE	NO. 100 SIEVE

* P.V.C. Pipe Shall Be Schedule 40



SECTION B-B

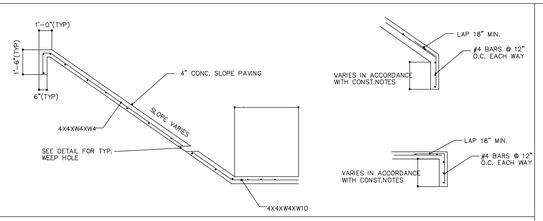
REVISIONS

CITY OF CONROE

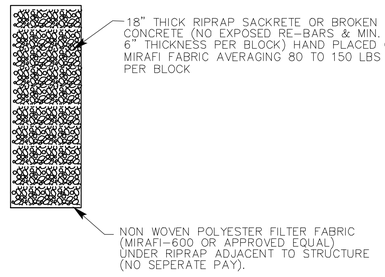
WEEP HOLE DETAIL

DWG. NO. 1202

D-26



SLOPE PAVING DETAIL



NOTES:

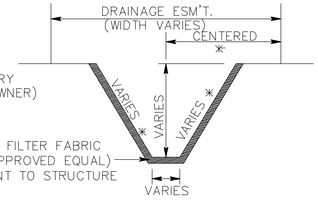
1.) NON WOVEN POLYESTER FILTER FABRIC (MIRAFI-600 OR APPROVED EQUAL) UNDER RIPRAP ADJACENT TO STRUCTURE (NO SEPERATE PAY).

2.) 18" THICK RIPRAP SACKRETE OR BROKEN CONCRETE (NO EXPOSED RE-BARS & MIN. 6" THICKNESS PER BLOCK) HAND PLACED ON MIRAFI FABRIC AVERAGING 80 TO 150 LBS PER BLOCK

RIPRAP

NOTE:
CONTRACTOR TO PROVIDE SURVEYED "AS BUILT " DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

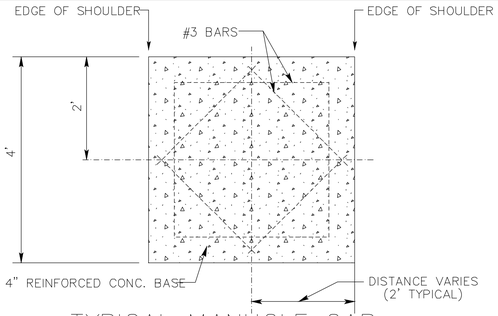
NOTE:
SLOPE & LOCATION OF SWALES MAY VARY (AS DIRECTED BY OWNER)



NON WOVEN POLYESTER FILTER FABRIC (TREVIRA S-1145 OR APPROVED EQUAL) UNDER RIPRAP ADJACENT TO STRUCTURE (NO SEPERATE PAY).

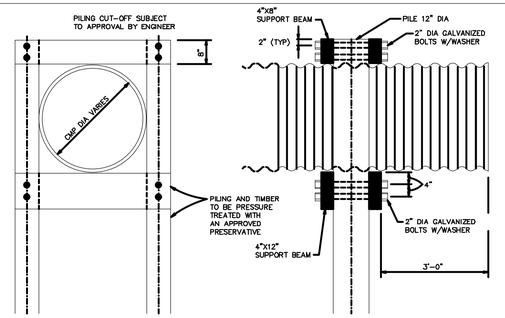
OUTFALL DITCH AND OVERFLOW SWALE DETAIL

ALL STORM OUTFALLS WILL HAVE OVER FLOW SWALES CONSTRUCTED OVER THE DRAINAGE PIPE UNLESS OTHERWISE DIRECTED BY OWNER.

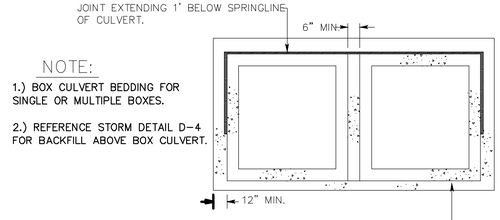


TYPICAL MANHOLE CAP DETAIL

(N.T.S.)



TIMBER BENT FOR CORRUGATED METAL PIPE OUTFALL 48-INCH AND LARGER



NOTE:

1.) BOX CULVERT BEDDING FOR SINGLE OR MULTIPLE BOXES.

2.) REFERENCE STORM DETAIL D-4 FOR BACKFILL ABOVE BOX CULVERT.

BOX CULVERT BEDDING DETAIL

NOT TO SCALE

BENCHMARK:

ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

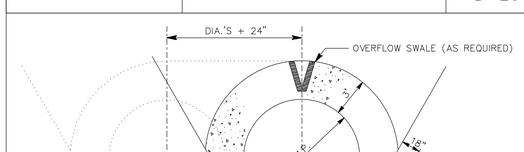
10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.



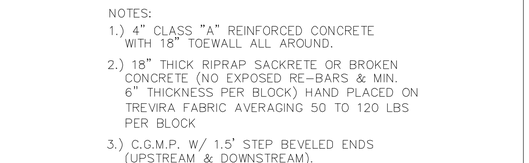
NOTES:

1.) 4" CLASS "A" REINFORCED CONCRETE WITH 18" TOEWALL ALL AROUND.

2.) 18" THICK RIPRAP SACKRETE OR BROKEN CONCRETE (NO EXPOSED RE-BARS & MIN. 6" THICKNESS PER BLOCK) HAND PLACED ON TREVIRA FABRIC AVERAGING 50 TO 120 LBS PER BLOCK

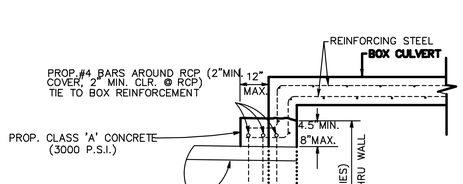
3.) C.G.M.P. W/ 1.5' STEP BEVELED ENDS (UPSTREAM & DOWNSTREAM).

4.) 2' REBAR DRIVEN THROUGH ALTERNATE SACKS.



SLOPE PROTECTION DETAIL NO. 1

SINGLE OR DOUBLE



NOTES:

1. HOLE CUT IN WALL OF BOX TO BE NEAT AND DONE IN A WORKMANLIKE MANNER.
2. TIE THE PROP. COLLAR STEEL TO LONGITUDINAL AND ELLIPTICAL STEEL, WHERE APPLICABLE.
3. ALL REINFORCING STEEL TO CONFORM TO ASTM A-615, GRADE 60. PROVIDE 30-BAR DIAMETER LAPS FOR CYLINDRICAL STEEL. ALL LONGITUDINAL STEEL SHOULD BE OF ADEQUATE LENGTH TO PROVIDE LAP TIE TO REINFORCING STEEL.

STORM SEWER/BOX CULVERT CONCRETE COLLAR

NOT TO SCALE

(INCIDENTAL TO STORM SEWER CONSTRUCTION)

STORM CONSTRUCTION NOTES

1. STORM SEWER AND LEADS SHALL BE REINFORCED CONCRETE PIPE, ASTM C-76, CLASS III, WITH O-RING RUBBER GASKET JOINTS, AND SHALL BE INSTALLED, BEDDED AND BACKFILLED IN ACCORDANCE WITH CITY OF CONROE STANDARD DETAIL AND DETAILS WITHIN THESE PLANS.
2. ALL REINFORCED CONCRETE BOX CULVERTS SHALL CONFORM TO ASTM C 1433 REQUIREMENTS UNLESS SPECIFICALLY ESTABLISHED OTHERWISE IN THE CONSTRUCTION PLANS.
3. ALL PROPOSED PIPE STUB OUTS FROM MANHOLES OR INLETS ARE TO BE PLUGGED WITH 8 INCH BRICK WALLS UNLESS OTHERWISE NOTED.

   A. ALL BOX CULVERTS INSTALLED SHALL BE PLACED ON A MINIMUM OF 6 INCHES OF CEMENT STABILIZED SAND (CEMENT STABILIZED SAND SHALL BE 2 SACKS CEMENT PER TON).

   B. FOR INSTALLATION OF PRE-CAST CONCRETE BOX CULVERTS IN POOR SOIL CONDITIONS, A 7 INCH REINFORCED CONCRETE SLAB SHALL BE INSTALLED.
4. C. FOR INSTALLATION OF MONOLITHIC REINFORCED CONCRETE BOX CULVERTS IN POOR SOIL CONDITIONS, A 4 INCH THICK CLASS "C" CONCRETE SEAL SLAB SHALL BE INSTALLED, PRIOR TO CONSTRUCTION OF BOX CULVERTS.
5. STORM SEWER MANHOLES SHALL BE STANDARD PRE-CAST, CAST IN PLACE OR CONSTRUCTED OF BRICK.
6. ALL INLETS TO BE CITY OF CONROE TYPE "C", "C-1" OR "C-2" UNLESS OTHERWISE STATED ON PLANS. ALL INLETS INCLUDE ALL DEPTHS AND ARE TO BE STAGE-CONSTRUCTED. ALL TYPE C INLETS SHALL USE A PRECAST SECTION FOR STAGE I OF THE INLET. STAGE II INLETS MAY BE EITHER PRECAST OR CAST-IN-PLACE.
7. ALL STORM SEWER LEADS SHALL BE 24 INCH MINIMUM UNLESS OTHERWISE INDICATED.
8. GRADE DROP ON LEAD INLETS TO BE A MINIMUM OF 0.20 FOOT. GRADE DROP BETWEEN INLET AND MANHOLES TO BE 0.10 FOOT UNLESS OTHERWISE SHOWN.
9. WHEN MANHOLE FRAME AND COVER IS REQUIRED, USE VULCAN FOUNDRY V-1418-Z FRAME AND COVER (OR EQUAL) WITH THE CITY OF CONROE LOGO EMBEDDED IN LID.
10. FOR ADJUSTMENT OF MANHOLE LIDS USE STANDARD CONCRETE RINGS.
11. CONCRETE USED FOR ALL POURED-IN-PLACE MANHOLES, INLETS, WINGWALLS, HEADWALLS AND OTHER APPURTENANCES TO BE CLASS "A" CONCRETE WITH 4,000 PSI STRENGTH AT 28 DAYS. CONCRETE SLOPE PROTECTION TO BE CLASS "B" CONCRETE WITH 3000 PSI STRENGTH AT 28 DAYS.
12. CORNERS OF ALL EXPOSED CONCRETE STRUCTURES SHALL BE CHAMFERED¾".
13. CONTRACTOR SHALL PROVIDE A MINIMUM VERTICAL CLEARANCE OF 6 INCHES AND HORIZONTAL CLEARANCE OF 4 FEET FROM PROPOSED STORM SEWER AND OTHER UTILITIES.
14. ALL DRIVEWAYS WILL BE LOCATED TO AVOID EXISTING CURB INLET STRUCTURES.
15. STORM SEWER MANHOLE RIMS SHALL BE 6 INCHES ABOVE NATURAL GROUND. BACKFILL SHALL BE ADDED AND SLOPED AWAY FROM THE MANHOLE RIM FOR DRAINAGE PURPOSES.
16. WHEN STORM SEWER IS UNDER OR WITHIN 1' OF PAVEMENT, STORM SEWER TO BE BACKFILLED WITH CEMENT STABILIZED SAND.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER SIGNATURE VALID FOR ONE (1) YEAR — DATE

MONTGOMERY COUNTY MUNICIPAL UTILITY DISTRICT NO. 215

BRIARLEY PHASE 1B

DRAINAGE DETAILS II

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

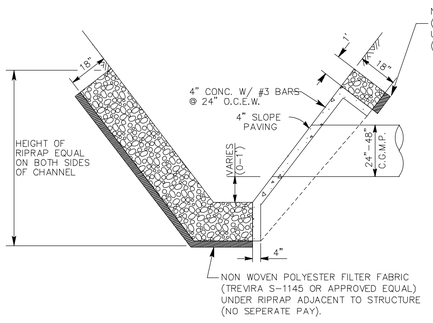
SCALE: N.T.S.

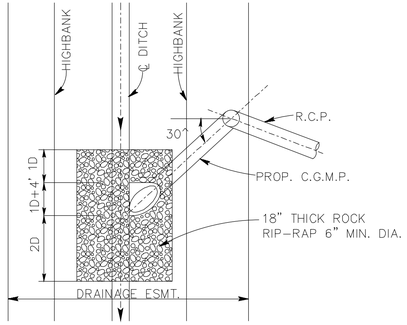
STATE OF TEXAS — MICAH KREIKEMEIER — 127881 — LICENSED — PROFESSIONAL ENGINEER — 04/24/2025

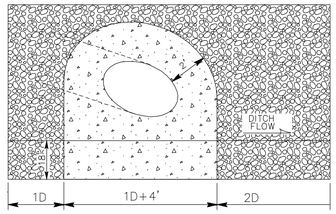
SHEET NO. 28 OF 30

Date\Time : Wed, 23 Apr, 2025 - 4:15pm
Path\Name : I:\Projdat\2980\0104\Sheets\28 DRAINAGE DETAILS II.dwg

BRIARLEY PHASE 1B - 2980-0104



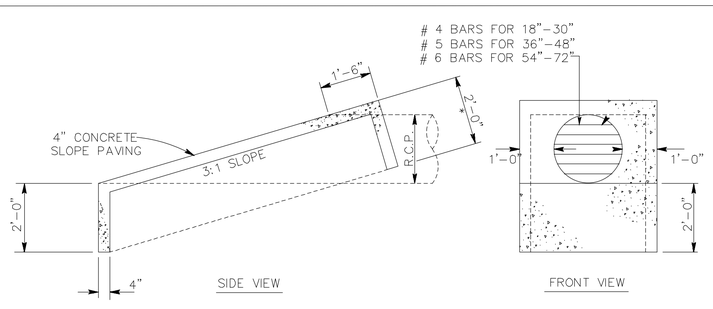




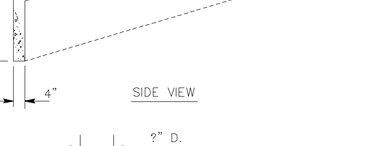
NOTE:
BOX CULVERT SLOPE PROTECTION SHALL COMPLY WITH THESE DIMENSIONS AND REQUIREMENTS MODIFIED FOR RECTANGULAR CONFIGURATON

NOTES:
1.) 4" CLASS "A" REINFORCED CONCRETE WITH 18" TOEWALL ALL AROUND.
2.) 18" THICK RIPRAP SACKRETE OR BROKEN CONCRETE (NO EXPOSED RE-BARS & MIN. 6" THICKNESS PER BLOCK) HAND PLACED ON TREVIRA FABRIC AVERAGING 50 TO 120 LBS PER BLOCK
3.) C.G.M.P. W/ 1.5' STEP BEVELED ENDS (UPSTREAM & DOWNSTREAM).
4.) 2' REBAR DRIVEN THROUGH ALTERNATE SACKS.

DITCH OUTFALL W/SLOPE PROTECTION
DETAIL NO. 2



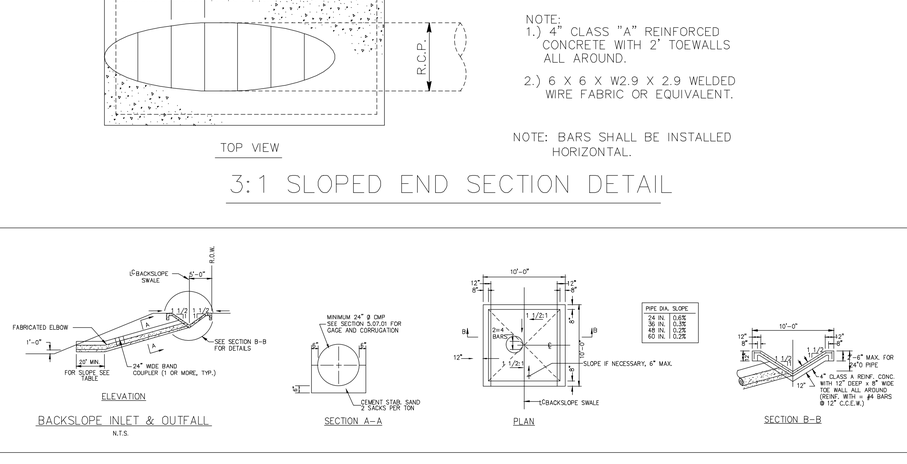
* ADJUST FOOTING TO AVOID CONFLICT WITH R.C.P.



NOTE:
1.) 4" CLASS "A" REINFORCED CONCRETE WITH 2' TOEWALLS ALL AROUND.
2.) 6 X 6 X W2.9 X 2.9 WELDED WIRE FABRIC OR EQUIVALENT.

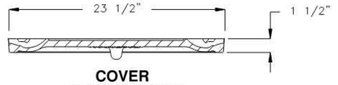
NOTE: BARS SHALL BE INSTALLED HORIZONTAL.

3:1 SLOPED END SECTION DETAIL



NOTES:
1. APPROXIMATE WEIGHT
   FRAME - 170LB
   COVER - 270LB
2. MATERIAL TO BE GRAY CAST IRON (ASTM A48 CL35B).
3. CASTING TO MEET M306 PROOF LOAD SPECIFICATIONS.
4. ALL MANHOLE COVERS WILL NEED TO BE APPROVED BY THE CITY ENGINEER AND DIRECTOR OF PUBLIC WORKS PRIOR TO ACCEPTANCE OF THE PUBLIC INFRASTRUCTURE.
5. COVER TO BE INSTALLED WITH SNAITARY SEWER FRAME OF CORRESPONDING SIZE.

COVER BOTTOM VIEW



COVER SECTION VIEW

CITY OF MONTGOMERY STORM SEWER MANHOLE COVER

DRAINAGE D-5

BENCHMARK:
ALL ELEVATIONS SET TO NGS. NAVD 88.

MONUMENT 1 DESIGNATION ELEV. 239.00
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 376,481.91322 Y = 10,135,441.47530

MONUMENT 2 DESIGNATION ELEV. 301.880
BRASS DISC SET IN CONCRETE LOCATED BY
COORDINATES X = 3,757,800.73970 Y = 10,131,535.69490

100YR. W.S.E.= 298.83' AT OUTFALL #1000
100YR. W.S.E.= 298.83' AT OUTFALL #2000

FIRM PANEL NO.48339C0200G & 48339C0350G
EFFECTIVE DATE: AUGUST 18, 2014
THIS AREA LIES IN ZONE "X".

NOTES:

1) ALL UTILITIES ARE PROPOSED UNLESS OTHERWISE NOTED.

2) THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3) PAVING CONTRACTOR SHALL TAKE EXTREME CAUTION IN SUBGRADE MANIPULATION IN THIS AREA. STORM SEWER PIPE IS IN OR WITHIN 6" OF SUBGRADE.

4) CONTRACTOR TO PROVIDE SURVEYED "AS BUILT" DATA ON THE FLOWLINE AND CROSS SECTIONAL AREA OF ALL OVERFLOW SWALES MINIMUM EVERY 50'.

5) CEMENT STABILIZED SAND FOR BACKFILL CROSSING ALL PAVEMENT SHALL BE INCIDENTAL.

6) ALL STORM SEWER TO BE MAINTAINED BY MUNICIPAL UTILITY DISTRICT NO. 215.

7) ALL MANHOLE RIM ELEVATIONS WILL NEED TO BE FLUSH WITH PAVEMENT/SIDEWALK OR 3"-6" ABOVE NATURAL GROUND.

8) IF ELECTRICAL UTILITY PROVIDER STANDARDS CONFLICT WITH THE APPROVED LAYOUT BY THE CITY AND/OR CITY STANDARDS A VARIANCE REQUEST MUST BE REQUESTED FROM CITY COUNCIL.

9) ALL LIGHT POLES MUST BE A MINIMUM OF 3' OFF BACK OF CURB.

10) SIDEWALKS TO BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.

10a) SIDEWALKS TO BE LOCATED A MINIMUM OF 5' FROM THE BACK OF CURB WHERE LIGHT POLES ARE PRESENT.

10b) CONSTRUCT SIDEWALKS AND CURB RAMPS IN CONFORMANCE WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE AMERICAN WITH DISABILITIES ACT (ADA).

10c) DO NOT PLACE SIDEWALK OVER PARALLEL UTILITY LINES.

10d) AT DRIVEWAYS, ALIGN A MINIMUM 5 FOOT WIDE SIDEWALK SECTION MEETING TAS AND ADA AS THE SIDEWALK CROSSES THE DRIVEWAY.

11) AS-BUILT ELECTRICAL PLANS TO BE SUBMITTED WITH THE AS-BUILT DRAWINGS FOR THE SUBDIVISION.

12) CONTRACTOR SHALL CLEAR, GRUB, ROOT RAKE, BACK DRAG, CHIP AND DISPOSE OFFSITE OF ALL CLEARED AND GRUBBED MATERIAL.

13) SIDEWALK RAMPS AND SIDEWALKS WITHIN COMMON AREAS TO BE CONSTRUCTED WITH WS&D. SIDEWALKS IN FRONT OF HOMES TO BE CONSTRUCTED BY HOMEBUILDERS. ALL SIDEWALKS TO BE INSTALLED BY END OF 1 YEAR WARRANTY PERIOD.

14) CONTRACTOR TO STAMP THE FACE OF THE CURB WITH AN "S" AT THE LOCATION OF EACH SANITARY SEWER LEAD AND "W" AT THE LOCATION OF EACH WATER LEAD.

DATE	REVISION	BY

CITY OF MONTGOMERY CITY ENGINEER SIGNATURE BLOCK

CITY OF MONTGOMERY, CITY ENGINEER — DATE
SIGNATURE VALID FOR ONE (1) YEAR

MONTGOMERY COUNTY
MUNICIPAL UTILITY
DISTRICT NO. 215

BRIARLEY PHASE 1B

DRAINAGE DETAILS III

LJA Engineering, Inc.
3600 W Sam Houston Parkway S
Suite 600
Houston, Texas 77042
Phone 713.953.5200
Fax 713.953.5026
FRN - F-1386

LJA PROJECT NO.: 2980-0104

DRAWN: R.D.R./F.M. DESIGN: R.D.R./F.M. DATE: APRIL 2025

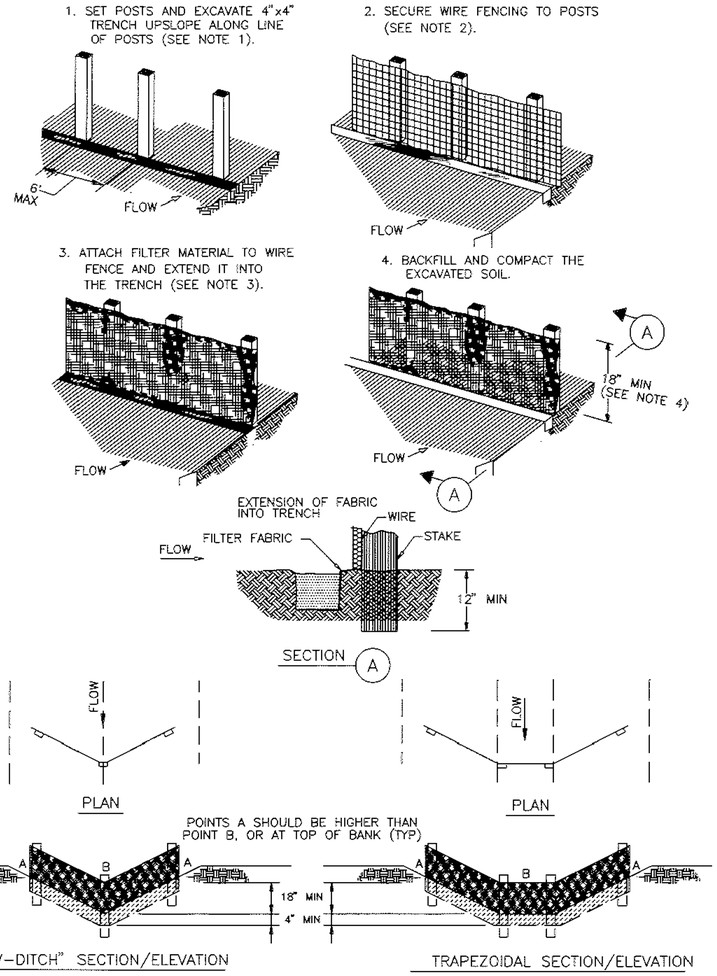
SCALE: N.T.S.

STATE OF TEXAS — MICAH KREIKEMEIER — 127881 — LICENSED — PROFESSIONAL ENGINEER
04/24/2025

SHEET NO. 29 OF 30

BRIARLEY PHASE 1B - 2980-0104

Date\Time : Wed, 23 Apr, 2025 - 4:15pm
Path\Name : I:\Projekt\2980\0104\Sheets\29 DRAINAGE DETAILS III.dwg

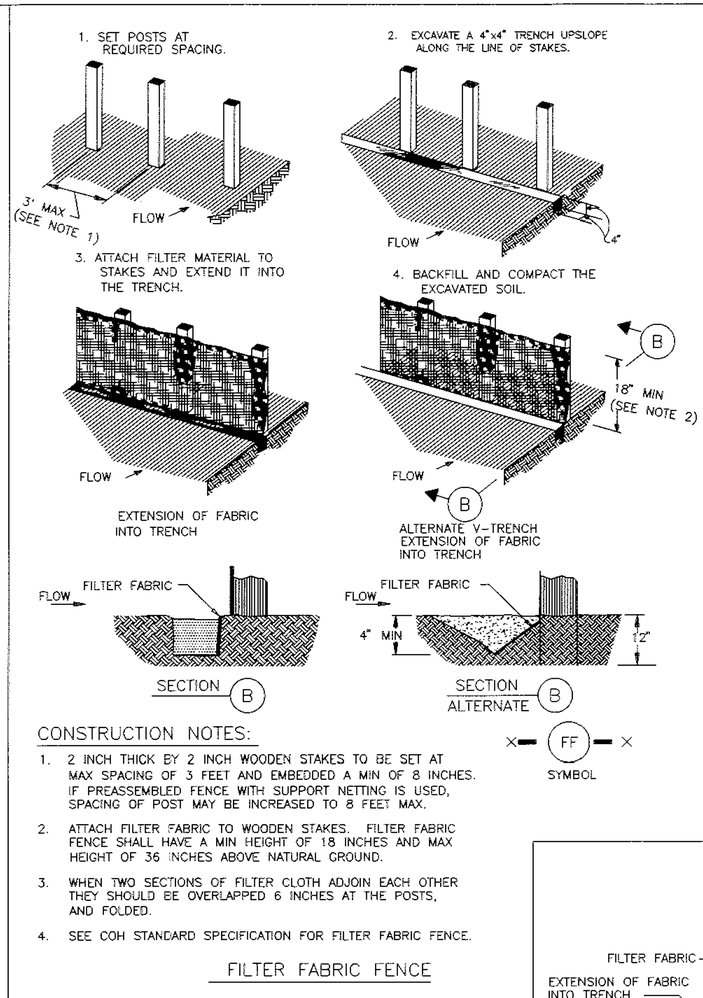


CONSTRUCTION NOTES:

1. SET 2 INCH BY 2 INCH WOODEN STAKES SPACED A MAX OF 6 FEET APART AND EMBEDDED A MIN OF 12 INCHES.
2. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH STAPLES.
3. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE, WITH TIES SPACED EVERY 24 INCHES AT TOP AND MIDSECTION.
4. MINIMUM HEIGHT OF FILTER SHOULD BE 18 INCHES AND A MAXIMUM OF 36 INCHES ABOVE NATURAL GROUND.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.
6. SEE COH STANDARD SPECIFICATION FOR FILTER FABRIC BARRIER.

×—(RFB)—× SYMBOL

REINFORCED FILTER FABRIC BARRIER

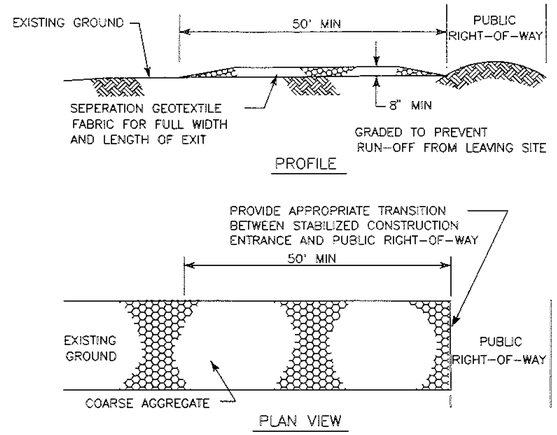


CONSTRUCTION NOTES:

1. 2 INCH THICK BY 2 INCH WOODEN STAKES TO BE SET AT MAX SPACING OF 3 FEET AND EMBEDDED A MIN OF 8 INCHES. IF PREASSEMBLED FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAX.
2. ATTACH FILTER FABRIC TO WOODEN STAKES. FILTER FABRIC FENCE SHALL HAVE A MIN HEIGHT OF 18 INCHES AND MAX HEIGHT OF 36 INCHES ABOVE NATURAL GROUND.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.
4. SEE COH STANDARD SPECIFICATION FOR FILTER FABRIC FENCE.

×—(FF)—× SYMBOL

FILTER FABRIC FENCE

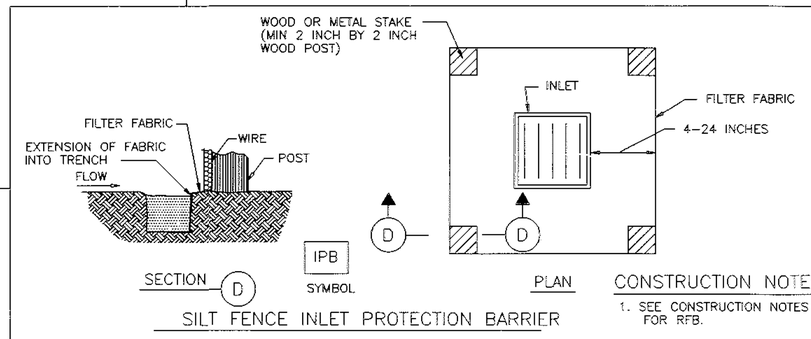


CONSTRUCTION NOTES:

1. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN 50 FEET.
2. THICKNESS SHALL BE NOT LESS THAN 8 INCHES.
3. WIDTH SHALL BE NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
4. STABILIZATION FOR OTHER AREAS SHALL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT, UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
5. STABILIZED AREA MAY BE WIDENED OR LENGTHENED TO ACCOMODATE A TRUCK WASHING AREA. AN OUTLET SEDIMENT TRAP MUST BE PROVIDED FOR THE TRUCK WASHING AREA.
6. SEE COH STANDARD SPECIFICATION FOR STABILIZED CONSTRUCTION EXIT.
7. STABILIZED CONSTRUCTION EXIT SHALL BE MAINTAINED FREE OF SEDIMENT FOR THE DURATION OF THE PROJECT.

(SC) SYMBOL

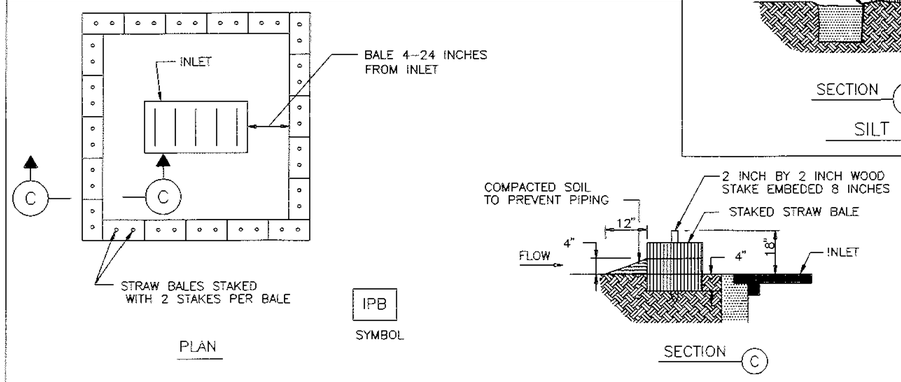
STABILIZED CONSTRUCTION EXIT



SILT FENCE INLET PROTECTION BARRIER

CONSTRUCTION NOTE:

1. SEE CONSTRUCTION NOTES FOR RFB.



STRAW BALE DROP INLET PROTECTION BARRIER

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

STORM WATER POLLUTION PREVENTION PLAN DETAILS

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002	DWG NO: 01571-01

STATE OF TEXAS — MICAH KREIKEMEIER — 127881 — LICENSED PROFESSIONAL ENGINEER

04/24/2025

COH