



**NOTICE OF REGULAR MEETING AGENDA
LANCASTER CITY COUNCIL
MUNICIPAL CENTER CITY COUNCIL CHAMBERS
211 N. HENRY STREET, LANCASTER, TEXAS**

Monday, February 14, 2022 - 7:00 PM



While one or more City Council Members may be present via video or audio link, a quorum of the City Council will be at the Municipal Center-City Council Chambers, as required by the Texas Open Meetings Act.

Please click the link below for forms:

<https://www.lancaster-tx.com/1413/Notice-Regarding-Public-Participation>

Please click the link below to join the webinar:

https://us02web.zoom.us/join/register/tZ0tdOCqDkqGtB5eg_ErBlOoWJxzIIICub1

The meeting will be broadcast live via video at the following address:

<http://www.lancaster-tx.com/324/Watch-Meetings>

7:00 P.M. REGULAR MEETING:

CALL TO ORDER

INVOCATION: Ministerial Alliance

PLEDGE OF ALLEGIANCE: Councilmember Keithsha Wheaton

PROCLAMATION: National School Week

PUBLIC TESTIMONY/CITIZENS COMMENTS:

At this time, citizens who have pre-registered before the call to order will be allowed to speak on any matter for a length of time not to exceed three minutes. No Council action or discussion may take place on a matter until such matter has been placed on an agenda and posted in accordance with law. Anyone desiring to speak on an item scheduled for a public hearing is requested to hold their comments until the public hearing on that item.

CONSENT AGENDA:

Items listed under the consent agenda are considered routine and are generally enacted in one motion. The exception to this rule is that a Council Member may request one or more items to be removed from the consent agenda for separate discussion and action.

1. Consider a resolution ratifying the Mayor's Declaration of Local Disaster for the City of Lancaster, Texas; providing for the implementation of the City's Emergency Management Plan and adopting state and county emergency orders regarding severe weather; providing for a disaster period; and providing an effective date.

2. Consider a resolution ordering a General Election to be held on Saturday, May 7, 2022, for the election of one councilmember for District 1, one councilmember for District 3, and one councilmember for District 5 for a three-year term; providing for the publication and posting of notice; and providing for early voting dates, times and locations.

Considerar una resolución ordenando una elección general la cual se llevará a cabo el Sábado, 7 de Mayo del 2022, para la elección de los siguientes: Miembro del consejo del Distrito 1, Miembro del consejo del Distrito 3, y Miembro del consejo del Distrito 5 para un período de tres años; se dispone la publicación de la notificación; y el ofrecimiento de fechas, horarios y locaciones para votar de manera temprana.

3. Consider a resolution approving the terms and conditions of a Joint Election Contract and Election Services Agreement with Dallas County Elections to conduct a municipal General Election for the election of one councilmember for District 1, one councilmember for District 3, and one councilmember for District 5 to be held on Saturday, May 7, 2022.

Considere una resolución aprobando los términos y condiciones del Contrato Elección Conjunta y servicios de la elección con las elecciones del condado de Dallas para llevar a cabo una elección general municipal para la elección de los distritos 1, 3 y 5 que se celebrará el Sábado, 7 de Mayo 2022.

4. Consider a resolution approving the terms and conditions of an agreement with Environmental Reconstruction Services, Inc. (ERS) for relocation of the propane fuel tank in an amount not to exceed fifty-five thousand, eight hundred, seventeen dollars (\$55,817.00).
5. Consider a resolution designating representatives of the City of Lancaster authorized to transmit and withdraw funds and take all other actions deemed necessary or appropriate for the investment of local funds in TexPool/TexPool Prime; providing for the addition and deletion of an authorized representative.

ACTION:

6. Discuss and consider confirmation of nominations made by the Mayor for appointments to the North Central Texas Housing Finance Corporation Board (NCTHFC).
7. Discuss and consider an ordinance approving the updated General Design Manual and Standard Construction Details.

EXECUTIVE SESSION: The City Council reserves the right to convene into executive session on any posted agenda item pursuant to Section 551.071(2) of the Texas Government Code to seek legal advice concerning such subject.

ACCESSIBILITY STATEMENT: Meetings of the City Council are held in municipal facilities that are wheelchair-accessible. For sign interpretive services, call the City Secretary's office, 972-218-1311, or TDD 1-800-735-2989, at least 72 hours prior to the meeting. Reasonable accommodation will be made to assist your needs.

PURSUANT TO SECTION 30.06 PENAL CODE (TRESPASS BY HOLDER WITH A CONCEALED HANDGUN), A PERSON LICENSED UNDER SUBCHAPTER H, CHAPTER 411, GOVERNMENT CODE (HANDGUN LICENSING LAW), MAY NOT ENTER THIS PROPERTY WITH A CONCEALED HANDGUN.

CONFORME A LA SECCION 30.06 DEL CODIGO PENAL (TRASPASAR PORTANDO ARMAS DE FUEGO CON LICENCIA) PERSONAS CON LICENCIA BAJO DEL SUB-CAPITULO 411, CODIGO DEL GOBIERNO (LEY DE PORTAR ARMAS), NO DEBEN ENTRAR A ESTA PROPIEDAD PORTANDO UN ARMA DE FUEGO OCULTADA.

PURSUANT TO SECTION 30.07 PENAL CODE (TRESPASS BY HOLDER WITH AN OPENLY CARRIED HANDGUN), A PERSON LICENSED UNDER SUBCHAPTER H, CHAPTER 411, GOVERNMENT CODE (HANDGUN LICENSING LAW), MAY NOT ENTER THIS PROPERTY WITH A HANDGUN THAT IS CARRIED OPENLY.

CONFORME A LA SECCION 30.07 DEL CODIGO PENAL (TRASPASAR PORTANDO ARMAS DE FUEGO AL AIRE LIBRE CON LICENCIA) PERSONAS CON LICENCIA BAJO DEL SUB-CAPITULO H, CAPITULO 411, CODIGO DE GOBIERNO (LEY DE PORTAR ARMAS), NO DEBEN ENTRAR A ESTA PROPIEDAD PORTANDO UN ARMA DE FUEGO AL AIRE LIBRE.

Certificate

I hereby certify the above Notice of Meeting was posted at Lancaster City Hall on February 10, 2022 @ 10 p.m. and copies thereof were provided to the Mayor, Mayor Pro-Tempore, Deputy Mayor Pro-Tempore and Council members.

A handwritten signature in blue ink, reading "Carey D. Neal, Jr.", is positioned above a horizontal line.

Carey D. Neal, Jr.

Assistant City Manager

CITY OF LANCASTER CITY COUNCIL

City Council Regular Meeting

1.

Meeting Date: 02/14/2022

Policy Statement: This request supports the City Council 2021-2022 Policy Agenda

Goal(s): Healthy, Safe & Engaged Community
Professional and Committed City Workforce

Submitted by: Opal Mauldin-Jones, City Manager

Agenda Caption:

Consider a resolution ratifying the Mayor's Declaration of Local Disaster for the City of Lancaster, Texas; providing for the implementation of the City's Emergency Management Plan and adopting state and county emergency orders regarding severe weather; providing for a disaster period; and providing an effective date.

Background:

On February 2, 2022, the City of Lancaster, Texas experienced an imminent threat of severe weather which had the potential to cause roadways to be treacherous as well as widespread or severe damage, injury, or loss of life or property resulting from a severe snow and ice storm coupled with extremely cold temperatures.

On February 2, 2022, Dallas County Judge Clay Jenkins provided a local declaration of disaster to take effect immediately from and after its issuance, for a period of not more than seven days from the date of declaration unless continued or renewed by the Commissioners Court of Dallas County, Texas. Dallas County Judge Clay Jenkins determined that extraordinary measures must be taken to alleviate the suffering of people and to protect or rehabilitate property.

Judge Jenkins ordered the following, effective immediately on February 2, 2022, which is continued until rescinded or expired by operation of law:

1. That a local state of disaster is hereby declared for Dallas County, pursuant to section 418.108(a) of the Texas Government Code.
2. Pursuant to section 418.108(b) of the Texas Government Code, the state of disaster shall continue for a period of not more than seven days from the date of this declaration unless continued or renewed by the Commissioners Court of Dallas County, Texas.
3. Pursuant to section 418.108(c) of the Texas Government Code, this Local Declaration of Disaster shall be given prompt and general publicity and shall be filed promptly with the County Clerk.
4. Pursuant to section 418.108(d) of the Texas Government Code, this Local Declaration of Disaster activates the Dallas County emergency management plans.
5. That this proclamation shall take effect immediately from and after its issuance.

On February 3, 2022, Governor Greg L. Abbott, declared a state of disaster for 17 Texas counties, including Dallas County, due to ice storms posing an imminent threat of severe property damage, injury or loss of life.

1. Pursuant to Section 418.017 of the code, authorizing the use of all available resources of the state government and of political subdivisions that are reasonably necessary to cope with this disaster.
2. Pursuant to Section 418.016 of the code, any regulatory statute prescribing the procedures for

conduct of state business or any order or rule of a state agency that would in any way prevent, hinder, or delay necessary action in coping with this disaster shall be suspended upon written approval of the Office of the Governor. However, to the extent that the enforcement of any state statute or administrative rule regarding contracting or procurement would impede any state agency's emergency response that is necessary to protect life or property threatened by this declared disaster, authorizing the suspension of such statutes and rules for the duration of this declared disaster for that limited purpose.

3. Pursuant to 49 C.F.R. Section 390.23 and Chapter 644 of the Texas Transportation Code, declare a regional emergency due to this ice storm that justifies an exemption from the hours-of-service regulations in 49 C.F.R. Section 395.3 for motor carriers providing power line repairs to assist disaster relief in Texas.

As a City within Dallas County, Mayor Hairston executed a Disaster Declaration for the City of Lancaster, Texas which took effect on Wednesday, February 2, 2022, and included the following:

1. That a local state of disaster is hereby declared for the City of Lancaster, Texas, a Dallas County city, pursuant to section 418.108(a) of the Texas Government Code.
2. Pursuant to section 418.108(b) of the Texas Government Code, the state of disaster shall continue for a period of not more than seven days from the date of this declaration unless continued or renewed by executive order.
3. Pursuant to section 418.108(c) of the Texas Government Code, this Local Declaration of Disaster shall be given prompt and general publicity and shall be filed promptly with the City Secretary.
4. Pursuant to section 418.108(d) of the Texas Government Code, this Local Declaration of Disaster activates the City of Lancaster emergency management plans.
5. That this declaration shall take effect immediately from and after its issuance.

Legal Considerations:

This resolution has been reviewed and approved as to form by the City Attorney.

Public Information Considerations:

This item is being considered at a Regular Meeting of the City Council and noticed in accordance with the Texas Open Meetings Act.

Options/Alternatives:

1. City Council may approve the resolution, as presented.
2. City Council may deny the item, as presented.

Recommendation:

Staff recommends approval of resolution, as presented.

Attachments

Resolution

Exhibit A - Emergency Declaration

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LANCASTER, TEXAS, DECLARING A LOCAL DISASTER; PROVIDING FOR IMPLEMENTATION OF THE CITY'S EMERGENCY MANAGEMENT PLAN; PROVIDING PROMPT AND GENERAL PUBLICITY; ADOPTING THE DALLAS COUNTY FEBRUARY 2, 2022, ORDER ATTACHED HERETO; GRANTING THE MAYOR THE POWER AND AUTHORITY TO REVIEW, ADOPT, RATIFY, AND EXECUTE ANY SUBSEQUENT DALLAS COUNTY EMERGENCY ORDERS ON BEHALF OF THE CITY COUNCIL; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, on February 2, 2022, the City of Lancaster, Texas experienced an imminent threat of severe weather which had the potential to cause roadways to be treacherous as well as widespread or severe damage, injury, or loss of life or property resulting from a severe snow and ice storm coupled with extremely cold temperatures;

WHEREAS, due to the current weather event, Lancaster Mayor Clyde C. Hairston has determined that extraordinary measures must be taken to alleviate the suffering of people and to protect or rehabilitate property and has issued a Local Declaration of Disaster;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LANCASTER, TEXAS:

SECTION 1. That a local state of disaster is hereby declared for the City of Lancaster, Texas, pursuant to section 418.108(a) of the Texas Government Code.

SECTION 2. Pursuant to section 418.108(b) of the Texas Government Code, the state of disaster shall continue for a period of not more than seven days from the date of this declaration unless continued or renewed by executive order.

SECTION 3. Pursuant to section 418.108(c) of the Texas Government Code, this Local Declaration of Disaster shall be given prompt and general publicity and shall be filed promptly with the City Secretary.

SECTION 4. Pursuant to section 418.108(d) of the Texas Government Code, this Local Declaration of Disaster activates the City of Lancaster emergency management plans.

SECTION 5. That this declaration shall take effect immediately from and after its issuance.

SECTION 6. That the City's Emergency Management plan has been implemented in accordance with the Code of Ordinances.

SECTION 7. That the February 2, 2022, Emergency Orders (Local, County and State) attached hereto as Exhibit "A" are hereby ratified and adopted as orders of the City of Lancaster, Texas.

SECTION 8. That the Mayor be delegated and given the full power and authority of the City Council to review, ratify, and adopt any subsequent City of Lancaster emergency orders relating to the local disaster, and that the Mayor may execute any resolution or other document to ratify and adopt any such order.

SECTION 9. That the City Secretary shall give prompt and general publicity to this order declaring a local state of disaster.

DULY PASSED and approved by the City Council of the City of Lancaster, Texas on this the 14th day of February, 2022.

ATTEST:

APPROVED:

Sorangel O. Arenas, City Secretary

Clyde C. Hairston, Mayor

APPROVED AS TO FORM:

David T. Ritter, City Attorney



THE CITY OF LANCASTER

ORDER OF MAYOR CLYDE C. HAIRSTON

DATE ORDER ISSUED: February 2, 2022

WHEREAS, on February 2, 2022, the City of Lancaster, Texas is experiencing an imminent threat of severe weather which may cause roadways to be treacherous as well as widespread or severe damage, injury, or loss of life or property resulting from a severe snow and ice storm coupled with extremely cold temperatures, and;

WHEREAS, due to the current weather event, Lancaster Mayor Clyde C. Hairston has determined that extraordinary measures must be taken to alleviate the suffering of people and to protect or rehabilitate property and has issued a Local Declaration of Disaster, and;

WHEREAS, pursuant to this current *Local Declaration of Disaster*, Lancaster Mayor Clyde C. Hairston issues the following executive orders:

UNDER THE AUTHORITY OF TEXAS GOVERNMENT CODE SECTION 418.108, LANCASTER MAYOR CLYDE C. HAIRSTON ORDERS:

DECLARED this the 2nd day of February, 2022, effective immediately from and after its issuance continuing until rescinded or expires by operation of law:

1. That a local state of disaster is hereby declared for the City of Lancaster, Texas, pursuant to section 418.108(a) of the Texas Government Code.
2. Pursuant to section 418.108(b) of the Texas Government Code, the state of disaster shall continue for a period of not more than seven days from the date of this declaration unless continued or renewed by the Commissioners Court of Dallas County, Texas.
3. Pursuant to section 418.108(c) of the Texas Government Code, this Local Declaration of Disaster shall be given prompt and general publicity and shall be filed promptly with the City Secretary.
4. Pursuant to section 418.108(d) of the Texas Government Code, this Local Declaration of Disaster activates the City of Lancaster emergency management plans.
5. That this proclamation shall take effect immediately from and after its issuance.

IT IS SO ORDERED

CLYDE C. HAIRSTON
CITY OF LANCASTER, MAYOR



DALLAS COUNTY JUDGE CLAY LEWIS JENKINS

LOCAL DECLARATION OF DISASTER

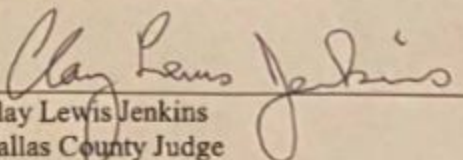
WHEREAS, the County of Dallas, Texas on the 2nd day of February, 2022, is experiencing an imminent threat of severe weather which may cause roadways to be treacherous as well as widespread or severe damage, injury, or loss of life or property resulting from a severe snow and ice storm coupled with extremely cold temperatures and,

WHEREAS, Clay Lewis Jenkins, the County Judge of Dallas County, Texas has determined that extraordinary measures must be taken to alleviate the suffering of people and to protect or rehabilitate property.

NOW, THEREFORE, BE IT PROCLAIMED BY THE COUNTY JUDGE OF DALLAS COUNTY, TEXAS:

1. That a local state of disaster is hereby declared for Dallas County, Texas, pursuant to section 418.108(a) of the Texas Government Code.
2. Pursuant to section 418.108(b) of the Texas Government Code, the state of disaster shall continue for a period of not more than seven days from the date of this declaration unless continued or renewed by the Commissioners Court of Dallas County, Texas.
3. Pursuant to section 418.108(c) of the Texas Government Code, this *Local Declaration of Disaster* shall be given prompt and general publicity and shall be filed promptly with the County Clerk.
4. Pursuant to section 418.108(d) of the Texas Government Code, this *Local Declaration of Disaster* activates the Dallas County emergency management plans.
5. That this proclamation shall take effect immediately from and after its issuance.

DECLARED this the 2nd day of February, 2022.


Clay Lewis Jenkins
Dallas County Judge



GOVERNOR GREG ABBOTT

February 3, 2022

FILED IN THE OFFICE OF THE
SECRETARY OF STATE
12:15pm O'CLOCK

FEB 03 2022


Secretary of State

The Honorable John B. Scott
Secretary of State
State Capitol Room 1E.8
Austin, Texas 78701

Dear Mr. Secretary:

Pursuant to his powers as Governor of the State of Texas, Greg Abbott has issued the following:

A proclamation concerning the possibility of inclement winter weather including a widespread freezing rain, ice, and snow event in many Texas counties.

The original proclamation is attached to this letter of transmittal.

Respectfully submitted,


Gregory S. Davidson
Executive Clerk to the Governor

GSD/gsd

Attachment

PROCLAMATION

BY THE

Governor of the State of Texas

TO ALL TO WHOM THESE PRESENTS SHALL COME:

WHEREAS, the National Weather Service is predicting at least a quarter-inch of ice for Bosque, Dallas, Delta, Denton, Ellis, Fannin, Grayson, Hopkins, Hunt, Johnson, Kaufman, Lamar, Navarro, Rains, Red River, Rockwall, and Williamson counties; and

WHEREAS, the previously listed counties have issued or are planning to issue local disaster declarations in response to this ice storm;

NOW, THEREFORE, I, GREG ABBOTT, Governor of the State of Texas, do hereby certify that this ice storm poses an imminent threat of severe property damage, injury, or loss of life in Bosque, Dallas, Delta, Denton, Ellis, Fannin, Grayson, Hopkins, Hunt, Johnson, Kaufman, Lamar, Navarro, Rains, Red River, Rockwall, and Williamson counties. In accordance with the authority vested in me by Section 418.014 of the Texas Government Code, I do hereby declare a state of disaster in the previously listed counties based on the existence of such threat.

Pursuant to Section 418.017 of the code, I authorize the use of all available resources of state government and of political subdivisions that are reasonably necessary to cope with this disaster.

Pursuant to Section 418.016 of the code, any regulatory statute prescribing the procedures for conduct of state business or any order or rule of a state agency that would in any way prevent, hinder, or delay necessary action in coping with this disaster shall be suspended upon written approval of the Office of the Governor. However, to the extent that the enforcement of any state statute or administrative rule regarding contracting or procurement would impede any state agency's emergency response that is necessary to protect life or property threatened by this declared disaster, I hereby authorize the suspension of such statutes and rules for the duration of this declared disaster for that limited purpose.

Pursuant to 49 C.F.R. Section 390.23 and Chapter 644 of the Texas Transportation Code, I hereby declare a regional emergency due to this ice storm that justifies an exemption from the hours-of-service regulations in 49 C.F.R. Section 395.3 for motor carriers providing power line repairs to assist disaster relief in Texas.

In accordance with the statutory requirements, copies of this proclamation shall be filed with the applicable authorities.

IN TESTIMONY WHEREOF, I have hereunto signed my name and have officially caused the Seal of State to be affixed at my office in the City of

FILED IN THE OFFICE OF THE
SECRETARY OF STATE
12:15 PM O'CLOCK
FEB 03 2022



Austin, Texas, this the 3rd day of
February, 2022.

A handwritten signature in black ink that reads "Greg Abbott".

GREG ABBOTT
Governor

ATTESTED BY:

A handwritten signature in black ink that reads "John B. Scott".

JOHN B. SCOTT
Secretary of State

FILED IN THE OFFICE OF THE
SECRETARY OF STATE
12:15pm O'CLOCK

FEB 03 2022

CITY OF LANCASTER CITY COUNCIL

City Council Regular Meeting

2.

Meeting Date: 02/14/2022

Policy Statement: This request supports the City Council 2021-2022 Policy Agenda

Goal(s): Healthy, Safe & Engaged Community

Submitted by: Sorangel O. Arenas, City Secretary

Agenda Caption:

Consider a resolution ordering a General Election to be held on Saturday, May 7, 2022, for the election of one councilmember for District 1, one councilmember for District 3, and one councilmember for District 5 for a three-year term; providing for the publication and posting of notice; and providing for early voting dates, times and locations.

Considerar una resolución ordenando una elección general la cual se llevará a cabo el Sábado, 7 de Mayo del 2022, para la elección de los siguientes: Miembro del consejo del Distrito 1, Miembro del consejo del Distrito 3, y Miembro del consejo del Distrito 5 para un período de tres años; se dispone la publicación de la notificación; y el ofrecimiento de fechas, horarios y locaciones para votar de manera temprana.

Background:

The municipal General Election for City officers this year includes councilmembers for Districts 1, 3 and 5. The designated uniform Election Day is Saturday, May 7, 2022.

Operational Considerations:

To conduct the election, the City of Lancaster will participate in a joint election with other governing entities in Dallas County administered by Dallas County Elections. Participating in a joint election with other cities and school districts greatly reduces election costs for all participants. The joint election agreement is a companion item to this agenda item.

Early voting will be held at the Lancaster Veterans Memorial Library. This location best serves the election process by offering sufficient space for the voters, easy entry/exit from the room (without entering the Library itself) and offers the necessary technology access for use by Dallas County Elections personnel. This location is familiar to our voters and has consistently been used in recent elections for early voting as well as for Election Day voting. During early voting, registered voters may vote at any Dallas County early voting polling location.

Election day voting for the joint election will be held on May 7, 2022, and will be conducted at various branch voting polling locations. A list of all Dallas County voting locations is available at www.dallascountyvotes.org.

Legal Considerations:

The City Attorney has reviewed the resolution ordering the election. The statutory last day for City Council to order the election is February 18, 2022.

Pursuant to state and federal laws, the resolution (Election Order) is provided in English and Spanish. In addition, the caption on the City's agenda for this meeting for the election order is in English and Spanish.

The 82nd Texas Legislature revised the requirements for notice of early voting locations contained in the election order. Election law only requires the main early voting location to be listed in the election order. The main early voting location (Dallas County Records Building) and the Lancaster early voting location (Veterans Memorial Library) are included in the election order.

Public Information Considerations:

All requirements for the posting and publishing of the election order will be completed as outlined in the election order. This resolution is being considered at a regular meeting of the City Council noticed in accordance with the Texas Open Meeting Act.

Fiscal Impact:

The City's cost will depend on the number of entities contracting with Dallas County for election services. There will be further details regarding estimated election costs in the future agenda item on the joint election agreement. If a run-off election is required, the City will incur additional costs.

Options/Alternatives:

1. City Council may approve the resolution, as presented
2. City Council may deny the resolution requiring the City to incur the full cost and responsibility of conducting a standalone election.

Recommendation:

Staff recommends approval of the resolution as presented ordering the General Election for municipal officers on Saturday, May 7, 2022.

Attachments

Resolution- English

Resolution- Spanish

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LANCASTER, TEXAS, ORDERING A GENERAL ELECTION TO BE HELD ON MAY 7, 2022 FOR THE ELECTION OF ONE COUNCILMEMBER FOR DISTRICT 1, ONE COUNCILMEMBER FOR DISTRICT 3, AND ONE COUNCILMEMBER FOR DISTRICT 5 FOR A THREE YEAR TERM; PROVIDING FOR THE PUBLICATION AND POSTING OF NOTICE; PROVIDING FOR EARLY VOTING DATES, TIMES AND LOCATIONS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Charter requires that a councilmember for Districts 1, 3 and 5 shall be elected this year at a General Election to be held on May 7, 2022, under the TEXAS ELECTION CODE and the City's Home Rule Charter; and

WHEREAS, by law it becomes the ministerial duty of the City Council to call for such municipal election;

NOW, THEREFORE, BE IT REMEMBERED THAT on this the 14th day of February, 2022, at a duly convened meeting of the City Council of the City of Lancaster, Texas, a quorum being present, the Council issued the following order:

IT IS HEREBY ORDERED that a General Election be held in the City of Lancaster, Texas, on the 7th day of May, 2022, the same being the first Saturday of the month, 7:00 a.m. to 7:00 p.m., for the purpose of electing one councilmember for District 1 for a three (3) year term, one councilmember for District 3 for a three (3) year term, and one councilmember for District 5 for a three (3) year term; and,

IT IS FURTHER ORDERED: That such general election shall be held as a Joint Election administered by the Dallas County Elections Administrator in accordance with the provisions of the TEXAS ELECTION CODE and a Joint Election Agreement; and,

None but legally qualified voters of District 1 shall be entitled to vote for the Councilmember for District 1; none but legally qualified voters of District 3 shall be entitled to vote for the Councilmember for District 3; and none but legally qualified voters of District 5 shall be entitled to vote for the Councilmember for District 5; and,

The candidate for each such office receiving a majority of all votes cast for all candidates for such office shall be elected to serve such term or until his or her successor is duly elected and qualified; and,

In the event any candidate for any one of said offices fails to receive a majority of all votes cast for all the candidates for such office, a run-off election shall be held. If a run-off election becomes necessary, the run-off election shall be held on Saturday, June 4, 2022. The Dallas County Elections Administrator will conduct the run-off election; and,

A Presiding Election Judge and an Alternate Presiding Election Judge shall be appointed in accordance with the Joint Election Agreement; and,

Notice of said election shall be published once in the official newspaper of the City not earlier than April 7, 2022, the 30th day before Election Day, and not later than April 27, 2022, the 10th day before Election Day. Such notice shall also be posted on the Bulletin Board used to publish notice of City Council Meetings not later than April 16, 2022, the last business day prior to the 21st day before Election Day; and,

A copy of the published notice that contains the name of the newspaper and the date of publication shall be retained as a record of such notice, and the person posting the notice shall make a record at the time of posting stating the date and place of posting and deliver a copy of said notice posted to the Mayor of the City of Lancaster after the posting is made; and,

EARLY VOTING

Michael Scarpello, Dallas County Elections Administrator, is the appointed early voting clerk in compliance with Section 271.006 of the Texas Election Code. Other deputy early voting clerks will be appointed as needed to process early voting mail and to conduct early voting at the branch locations.

Early voting by personal appearance will be conducted at the main and branch locations beginning Monday, April 25, 2022 through Friday, April 29, 2022, between 8:00 a.m. to 5:00 p.m.; Saturday, April 30, 2022, between 8:00 a.m. to 5:00 p.m.; Sunday, May 1, 2022, between 1:00 p.m. to 6:00 p.m.; and Monday, May 2, 2022 through Tuesday, May 3, 2022, between 7:00 a.m. to 7:00 p.m.; and,

Any qualified voter of Lancaster may vote early for the Joint Election by personal appearance at either the main early voting location or at any Dallas County Branch Early Voting location;

MAIN EARLY VOTING POLLING PLACE: Dallas County Records Building

BRANCH EARLY VOTING POLLING PLACES:

Branch early voting for the joint election to be held on April 25, 2022, will be conducted at various branch early voting polling locations including the Lancaster Veterans Memorial Library at 1600 Veterans Memorial Parkway, Lancaster, Texas 75134. A list of all Dallas County Early Voting Polling locations is available at: www.dallascountyvotes.org.

EARLY VOTING BY MAIL

Application for a ballot by mail shall be mailed to:
Michael Scarpello - Early Voting Clerk
Office of the Elections Department
1520 Round Table Drive
Dallas, Texas 75247

Application for ballot by mail must be received no later than the close of business on April 26, 2021; and,

BRANCH ELECTION DAY VOTING POLLING PLACES:

Branch voting for the joint election to be held on May 7, 2022, will be conducted at various branch voting polling locations. A list of all Dallas County Voting Polling locations is available at www.dallascountyvotes.org.

The City Secretary shall present such returns to the City Council for the canvassing of said elections; and,

The canvass of said election returns for the election of officers shall be conducted by the City Council not earlier than the 3rd day nor later than the 11th day after the election.

ATTEST:**APPROVED:**

Sorangel O. Arenas, City Secretary

Clyde C. Hairston, Mayor**APPROVED AS TO FORM:**

David T. Ritter, City Attorney

RESOLUCIÓN NO. _

RESOLUCIÓN DEL CONSEJO MUNICIPAL DE LA CIUDAD DE LANCASTER, TEXAS, QUE ORDENA UNA ELECCIÓN GENERAL QUE SE CELEBRARÁ EL 7 de Mayo DE 2022, PARA LA ELECCIÓN DE UN CONCEJO DE DISTRITO 1, UN CONCEJO DE DISTRITO 3, Y UN CONCEJO DE DISTRITO 5 PARA UN TÉRMINO DE TRES AÑOS; QUE CONTEMPLA LA PUBLICACIÓN Y PUBLICACIÓN DEL AVISO, LA PRESTACIÓN PARA VOTACIÓN TEMPRANA FECHAS, HORAS Y LUGARES; Y PROPORCIONAR UNA FECHA DE VIGENCIA.

CONSIDERANDO, que la Carta exige que los concejales de la ciudad para los distritos 1, 3 y 5 serán elegidos este año en una elección general que se celebrará el 7 de Mayo de 2022, en el marco del Código Electoral de Texas y

CONSIDERANDO, que, por ley se convierte en el deber ministerial del Consejo de la Ciudad para solicitar tales elecciones municipales

AHORA, POR LO TANTO, debe recordarse que en este día el 14 de Febrero 2022, en una reunión debidamente convocada del Consejo Municipal de la Ciudad de Lancaster, Texas, el quórum está presente, el Consejo emitió el siguiente orden:

SE ORDENA que las elecciones generales se celebrarán en la ciudad de Lancaster, Texas, el día 7 de Mayo 2022, el mismo ser el primer sábado del mes, de 7:00 a.m. - 7:00 p.m. con el fin de elegir a un Concejal para el Distrito 1, para un período tres (3) años, un Concejal del distrito 3, para un período de tres (3) años, y un Concejal para el Distrito 5, para un período de tres (3) años y,

SE ORDENA ADEMÁS: Que las elecciones generales se llevará a cabo como una elección conjunta administrado por el Administrador de Elecciones del Condado de Dallas, de conformidad con las disposiciones del Código Electoral de Texas y un acuerdo electoral mixto y,

Ninguno, pero está legalmente calificado votantes del Distrito 1, tendrá derecho a votar por el concejal para el Distrito 1, ninguna formación jurídica, pero los votantes del Distrito 3, tendrá derecho a votar por el Concejal del distrito 3, ninguna formación jurídica, pero los votantes del Distrito 5 se derecho a votar por el concejal para el Distrito 5 y,

El candidato para cada oficina, que recibe la mayoría de los votos emitidos para todos los candidatos a cargos serán elegidos para servir a dicho término o hasta que su sucesor sea debidamente elegido y calificado y,

En el caso de que cualquier candidato a cualquiera de dichos oficios no recibe una mayoría de los votos emitidos a favor de todos los candidatos a dicho cargo, una vuelta de las elecciones se celebrarán. Si una segunda vuelta de las elecciones se hace necesario, la vuelta de las elecciones se celebrará el Sábado, 4 de Junio 2022. El Administrador de Elecciones del Condado de Dallas llevará a cabo la segunda vuelta electoral y,

Un Juez de Elección Presidente y un Suplente Elección Juez Presidente será nombrado de conformidad con el acuerdo electoral mixto y,

Aviso de dicha elección se publicará una vez en el periódico oficial de la ciudad no antes del 7 de Abril 2022, 30 días antes de las elecciones, ya más tardar el 27 de Abril 2022, el día 10 antes de las elecciones. Dicho aviso también se publicará en el tablón de anuncios utilizado para publicar un anuncio de reuniones del Concejo Municipal a más tardar el 16 de Abril 2022, el último día hábil antes del día 21 antes de las elecciones y,

Una copia del anuncio publicado que contenga el nombre del periódico y la fecha de publicación se mantiene como un registro de tal notificación, y la persona que envía el anuncio deberá hacer un registro en el momento del anuncio indicando la fecha y lugar de envío y entregar una copia de dicho aviso enviado a el Alcalde de la ciudad de Lancaster, después de que se haga la publicación y,

VOTACIÓN TEMPRANA

Michael Scarpello, Dallas County Elections Administrator, es el designado secretario de votación anticipada en cumplimiento con la Sección 271.006 del Código Electoral de Texas. Otros empleados de la votación anticipada Adjunto será designado como sea necesario para el proceso electrónico de votación temprana y llevar a cabo la votación anticipada en las sucursales.

La votación anticipada en persona se llevará a cabo a partir Lunes, 25 de Abril 2022 hasta el Viernes, 29 de Abril 2022, entre 8:00 a.m. - 5:00 p.m.; Sábado, 30 de Abril 2022, entre las 8:00 a.m. - 5:00 p.m., Domingo, 1 de Mayo 2020, entre las 1:00 p.m. - 6:00 p.m., y Lunes, 2 de Mayo 2022 hasta el Martes, 3 de Mayo 2022, entre las 7:00 a.m. - 7:00 p.m. y,

Cualquier votante calificado de Lancaster puede votar por adelantado para la elección conjunta de comparecencia personal en cualquier lugar principal de votación anticipada o en cualquier lugar del condado de Dallas lugar de votación temprana:

LUGARE PRINCIPAL DE VOTACIÓN TEMPRANA ELECTORAL: Dallas County Records Building

LUGARES DE VOTACIÓN TEMPRANA:

Lugares de votación temprana para la elección conjunta que se celebrará el 25 de Abril de 2022, se llevará a cabo en varios lugares de votación temprana, incluyendo la Biblioteca Lancaster Veterans Memorial Library at 1600 Veterans Memorial Parkway, Lancaster, Texas 75134. Una lista de todos los lugares del condado de Dallas votación temprana están disponible en:

www.dallascountyvotes.org.

VOTACIÓN TEMPRANA POR CORREO

Solicitud para votar por correo deberán enviarse a:

Michael Scarpello - Early Voting Clerk
Office of the Elections Department
1520 Round Table Drive
Dallas, Texas 75247

Solicitud de boleta por correo deberán recibirse a más tardar al cierre de actividades el 26 de Abril de 2022 y,

LUGARES DE VOTACIÓN DEL DÍA DE LA ELECCIÓN DE SUCURSAL:

La votación de las sucursales para la elección conjunta que se llevará a cabo el 7 de Mayo de 2022 se llevará a cabo en varios lugares de votación de las sucursales. Una lista de todos los lugares de votación del condado de Dallas está disponible en www.dallascountyvotes.org.

El Secretario de la Ciudad deberá presentar estas declaraciones al Ayuntamiento para la captación de dicha elección y,

El Concejo Municipal llevará a cabo el escrutinio de dichos resultados electorales para la elección de funcionarios no antes del 3 día ni después del 11 día después de la elección.

ATTEST:

APPROVED:

Sorangel O. Arenas, City Secretary

Clyde C. Hairston, Mayor

APPROVED AS TO FORM:

David T. Ritter, City Attorney

CITY OF LANCASTER CITY COUNCIL

City Council Regular Meeting

3.

Meeting Date: 02/14/2022

Policy Statement: This request supports the City Council 2021-2022 Policy Agenda

Goal(s): Financially Sound Government
Professional and Committed City Workforce

Submitted by: Sorangel O. Arenas, City Secretary

Agenda Caption:

Consider a resolution approving the terms and conditions of a Joint Election Contract and Election Services Agreement with Dallas County Elections to conduct a municipal General Election for the election of one councilmember for District 1, one councilmember for District 3, and one councilmember for District 5 to be held on Saturday, May 7, 2022.

Considere una resolución aprobando los términos y condiciones del Contrato Elección Conjunta y servicios de la elección con las elecciones del condado de Dallas para llevar a cabo una elección general municipal para la elección de los distritos 1, 3 y 5 que se celebrará el Sábado, 7 de Mayo 2022.

Background:

On May 7, 2022, the City will conduct a municipal General Election to elect councilmembers for Districts 1, 3, and 5 for a three-year term.

Operational Considerations:

Dallas County Elections has the staff, equipment, and expertise to efficiently conduct elections. Participating with other municipalities and school districts helps defray the cost of the election and streamlines the voting process for residents.

Legal Considerations:

The election services agreement is attached. The City Attorney has reviewed and approved the resolution as to form.

Public Information Considerations:

This item is being considered at a Regular Meeting of the City Council noticed in accordance with the Texas Open Meetings Act.

Fiscal Impact:

The City's final cost depends on how many entities contract with Dallas County for election services. Recent general municipal election costs are outlined below.

Election Year	Costs
May 2022	\$19,328.49
May 2021	\$0.00 (election canceled)
May 2020	\$10,153.88
May 2019	\$22,391.76

May 2018	\$30, 310.76
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Estimated costs for the City's election are calculated by Dallas County Elections based on various factors including shared polling locations and total number of governing entities that participate in the election. If a run-off election is required, the City will incur additional costs.

Options/Alternatives:

1. City Council may approve the resolution, as presented.
2. City Council may deny the resolution and direct staff.

Recommendation:

Staff recommends approval of the resolution contracting with Dallas County Elections for election services, as presented.

Attachments

Resolution

Election Contract

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LANCASTER, TEXAS, APPROVING THE TERMS AND CONDITIONS OF A JOINT ELECTION CONTRACT AND ELECTION SERVICES AGREEMENT WITH DALLAS COUNTY ELECTIONS TO CONDUCT A MUNICIPAL GENERAL ELECTION FOR THE ELECTION OF ONE COUNCILMEMBER FOR DISTRICT 1, ONE COUNCILMEMBER FOR DISTRICT 3 AND ONE COUNCILMEMBER FOR DISTRICT 5 TO BE HELD ON SATURDAY, MAY 7, 2022; AUTHORIZING THE CITY MANAGER TO EXECUTE SAID CONTRACT; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Lancaster will hold a municipal General Election for the election of a councilmember for Districts 1, 3, and 5 to be held on Saturday, May 7, 2022; and

WHEREAS, the City of Lancaster desires to participate with other municipalities and entities in Dallas County to help defray the costs of such elections and streamline the voting process for residents; and

WHEREAS, it is the desire of the City of Lancaster to secure election services from Dallas County Elections;

NOW, THEREFORE, BE IT REMEMBERED THAT on this the 14th day of February, 2022, at a duly convened meeting of the City Council of the City of Lancaster, Texas, a quorum being present, the Council issued the following order:

SECTION 1. That the Dallas County Joint Election Contract and Election Services Agreement attached hereto and incorporated herein by reference as Exhibit "1", having been reviewed by the City Council of the City of Lancaster, Texas, and found to be acceptable and in the best interest of the City and its citizens, be, and the same is hereby, in all things approved.

SECTION 2. That the City Manager is hereby authorized to execute the Joint Election Contract and Election Services Agreement with Dallas County Elections to conduct a general and special election.

SECTION 3. This resolution shall become effective immediately from and after its passage, as the law and charter in such cases provide.

DULY PASSED and approved by the City Council of the City of Lancaster, Texas on this the 14th day of February, 2022.

ATTEST:

APPROVED:

Sorangel O. Arenas, City Secretary

Clyde C. Hairston, Mayor

APPROVED AS TO FORM:

David T. Ritter, City Attorney

**ELECTION SERVICES CONTRACT ("Election Services Contract" or "Contract")
BETWEEN
DALLAS COUNTY ON BEHALF OF THE DALLAS COUNTY ELECTIONS ADMINISTRATOR
AND**

**FOR THE CONDUCT OF A
AMENDMENT, JOINT,
TO BE HELD SATURDAY,
TO BE ADMINISTERED BY
ELECTIONS**

**1) STATUTORY AUTHORITY
ELECTION SERVICES**

a) Michael Scarpello is
Elections
Administrator") of
("County") and the
Dallas County
("DCED"). As such,
County's Voter
Officer of Dallas
authorized by
of Title 3 and Chapter
Election Code upon
Commissioners Court
Services Contract
or "Contract") with
the Participating
"Attachment F" of
Contract. DCED acts
Elections
Elections
Participating Political
referred to
individually as

b) The contracting
Participating Political
participating in this
are listed on the face
"Attachment F" of
Contract and are
each other in this

Town of Addison
Town of Highland Park
Town of Sunnyvale
City of Balch Springs
City of Combine
City of Carrollton
City of Cockrell Hill
City of DeSoto
City of Duncanville
City of Farmers Branch
City of Garland
City of Grand Prairie
City of Hutchins
City of Irving
City of Lancaster
City of Lewisville
Dallas County Park Cities
Municipal Utilities District
City of Rowlett
City of Sachse
City of Seagoville
City of University Park
City of Wilmer
City of Wylie
City of Cedar Hill
Coppell ISD
Carrollton-Farmers Branch ISD
Cedar Hill ISD
Dallas College
Dallas ISD
DeSoto ISD
Duncanville ISD
Garland ISD
Grand Prairie ISD
Ferris ISD
Highland Park ISD
Irving ISD
Mesquite ISD
Richardson ISD

**CONSTITUTIONAL
AND SPECIAL ELECTION
MAY 7, 2022
THE DALLAS COUNTY
DEPARTMENT**

**FOR AND PARTIES TO THIS
CONTRACT**

the duly appointed County
Administrator ("Elections
Dallas County, Texas
Department Head of the
Elections Department
Michael Scarpello is the
Registrar and the Election
County, Texas and is
Subchapter D of Chapter 31
271 of Title 16 of the Texas
approval of the Dallas County
to enter into this Election
("Election Services Contract"
the contracting authorities of
Political Subdivisions listed in
this Election Services
at the direction of the
Administrator. The County
Administrator, DCED, and the
Subdivisions together may be
collectively as "Parties" or
"Party."

authorities of the
Subdivisions that are
Election Services Contract
page of this agreement and in
this Election Services
hereby participating with
Constitutional Amendment,

Joint, and Special Election to be held in Dallas County, Texas on Saturday, May 7th, 2022 under Chapter 271 of Title 16 of the Texas Election Code (“Joint Election”); and are hereby contracting with the Elections Administrator of Dallas County, Texas to perform the election services set forth in this Election Services Contract under Subchapter D of Chapter 31 of Title 3 of the Texas Election Code. The Participating Political Subdivisions acknowledge that they are participating in this Joint Election with each other to the extent that they have candidates and/or propositions on the ballot in this Joint Election. The terms and conditions of this Elections Services Contract also apply to any run-off election or re-count related to this Joint Election, unless otherwise agreed in writing.

- c) The Elections Administrator will coordinate, supervise, and handle all aspects of administering this Joint Election in accordance with the provisions of the Texas Election Code and as outlined in this Election Services Contract. Each contracting authority of each Participating Political Subdivision will pay its share of the Election Costs to the Elections Administrator for the equipment, supplies, services, and administrative costs outlined in this Election Services Contract. The Elections Administrator will administer the election; however, each Participating Political Subdivision will be responsible for the duties directly administered by the Participating Political Subdivision. Pursuant to Texas Election Code §§ 31.093, and 31.098, the Elections Administrator may enter into a contract to furnish the election services requested within this Election Services Contract.
 - d) If applicable and in the event a runoff election is necessary, the date of the runoff for this Joint election would be **June 18, 2022**. This Elections Services Contract and its terms will be automatically extended to cover the Joint Runoff Election, unless a Participating Political Subdivision states in writing **on or before May 20, 2022** that it does not wish to participate in a joint runoff election contemplated herein. DCED will provide each Participating Political Subdivision to which this Section 1(d) applies an estimated cost required to be deposited into a special and separate Joint Runoff Election account. The funds must be deposited within seven (7) days after DCED provides uncertified results.
- 2) **ATTACHMENTS** The following attachments are hereby incorporated into this Election Services Contract as if set forth herein in their entirety. The Participating Political Subdivisions acknowledge that the following attachments are subject to reasonable changes by the Dallas County Elections Administrator before, during, and after Election Day and any runoff election(s), if any runoff election(s) are required by law to be held.
- a) **“Attachment A”** is an itemized list of the estimated election expenses for this Joint Election and the amounts that each Participating Political Subdivision must deposit with the Dallas County Elections Department. It also includes the Deposit Detail for each entity. The Elections Administrator will amend “Attachment A” to reflect the changing estimates of election expenses that are caused by changing circumstances and by the withdrawal of Participating Political Subdivision(s), if any, from this Election Services Contract.
 - b) **“Attachment B”** is a list of the early voting polling places for this Joint Election. (“early voting vote center(s), or “early voting polling place(s)”

- c) **“Attachment C”** is a list of the Election Day Countywide polling places (“vote center(s)”) for this Joint Election.
- d) **“Attachment D”** is a list of the people that the Dallas County Elections Administrator will appoint as deputy early voting clerks for this Joint Election.
- e) **“Attachment E”** is a list of the presiding election judges and alternate election judges for Election Day for this Joint Election.
- f) **“Attachment F”** is a list of the Participating Political Subdivisions that will be holding elections in Dallas County election precincts and sub-precincts and the number of registered voters in each of those election precincts or partial election precincts. **“Attachment F”** will be amended if any of the Participating Political Subdivisions withdraw from this Election Services Contract. **“Attachment F”** will be amended to reflect the number of registered voters in each election precinct and sub-precinct as of the statutory deadline of **April 7, 2022** for voters to submit applications to register to vote or changes of address in this Joint Election.
- g) **“Attachment G”** is a list of the Participating Political Subdivisions & Ballot Details
- h) **“Attachment H”** will contain, for each Participating Political Subdivision, the full name of the person serving as a point of contact, the physical address, the mailing address, a facsimile number, and an email address. **“Attachment H”** will be amended if any of the Participating Political Subdivisions withdraw from this Election Services Contract.
- i) Within five (5) business days after any of the foregoing attachments are amended by the Elections Administrator, the Elections Administrator will send each Participating Political Subdivision an amended version of the amended attachment by email to the email address provided by each Participating Political Subdivision in **“Attachment F.”**

3) LEGAL DOCUMENTS

- a) Each Participating Political Subdivision will prepare, adopt, and publish all legally required election orders, resolutions, notices, and other documents that are required by, or of, their governing bodies. Each Participating Political Subdivision must send the Elections Administrator a copy of any election order, resolution, or notice related to this Joint Election within three (3) business days of publishing, adopting, or ordering it. Such documents can be sent to the attention of: **Michael Scarpello, Elections Administrator at 1520 Round Table Drive, Dallas, Texas 75247; or, emailed to DCECommunications@dallascounty.org, with a copy sent to Michael.Scarpello@dallascounty.org on all communications related to legal documents and questions regarding this election.**
- b) Each Participating Political Subdivision is responsible for having its own election orders, resolutions, notices, or official ballot wording translated into the Spanish and Vietnamese languages.

4) **VOTING SYSTEMS**

- a) Each Participating Political Subdivision agrees that, during this Joint Election, voters will cast their ballots on the following voting systems, that are approved by the Texas Secretary of State in accordance with the Texas Election Code and the Texas Administrative Code: the ES&S ExpressVote Universal Voting System Ballot Marking Devices (“BMD(s)”), and the ES&S DS200 Digital Vote Center Scanner (“Tabulators”). Each of these systems are accessible to voters with physical disabilities. **On March 23, 2022, beginning at 10:00 A.M.**, until completed, at the County Elections Department at 1520 Round Table Drive, Dallas, Texas 75247, the Elections Administrator will test the BMDs and Tabulators used for counting ballots at the central counting station. At least 48 hours before the date and hour of each test, the Elections Administrator will publish a newspaper notice with the date, hour, and place of the testing.
- b) The Elections Administrator will provide Electronic Poll Books, BMDs, Tabulators, and any other necessary equipment for this Joint Election. For Early Voting and on Election Day, the Elections Administrator will allocate voting equipment to the vote centers in amounts reasonably sufficient for the anticipated turnout of voters.
- c) The itemized list of the estimated election expenses for this Joint Election are in “Attachment A,” which includes, but may not be limited to the number of Electronic Poll Books, BMDs, Tabulators, and any other necessary equipment.

5) **POLLING PLACES/VOTE CENTERS**

- a) The Elections Administrator will select and arrange for the use of and payment for all of the early voting vote centers listed in “Attachment B” and the Election Day vote centers listed in “Attachment C”. Early voting polling places and vote centers identified in Attachments “B” and “C” cannot be changed by a Participating Political Subdivision, but the Elections Administrator may consider changes requested by a Participating Political Subdivision. Any changes to vote centers are subject to the procedures outlined in Section 43.007 of the Texas Election Code. The Elections Administrator will finalize the vote centers as soon as possible before this joint election.
- b) Whenever possible, previously used vote centers that voters are accustomed to using will be used in this Joint Election; however, the Participating Political Subdivisions acknowledge that sometimes previously used vote centers are not available or appropriate for every election. Accessibility under the Americans with Disabilities Act is an important consideration for all vote centers in this Joint Election.
- c) In accordance with Section 43.007(o) of the Texas Election Code, the Elections Administrator will post a notice at each vote center of the four nearest vote centers by driving distance. The Participating Political Subdivisions shall be responsible for any notices required under Section 43.062 of the Texas Election Code.

6) **PRESIDING ELECTION JUDGES, ALTERNATE PRESIDING ELECTION JUDGES, ELECTION CLERKS, AND OTHER ELECTION DAY PERSONNEL**

- a) In accordance with Sections 32.002 and 32.005 of the Texas Election Code, the Parties are responsible for the appointment of the presiding election judges and alternate election judges listed in "Attachment E" for each vote center listed in "Attachment C" subject to the eligibility requirement found in the Texas Election Code Subchapter C, Chapter 32 and Subchapter A, Chapter 83. The Parties acknowledge that approval of this Election Services Contract by the Participating Political Subdivisions shall constitute approval and appointment of the Judges and Alternate Judges listed in "Attachment E" by the Participating Political Subdivisions. The Elections Administrator will be responsible for the administration of the election judges listed in "Attachment E".
- b) **[This provision is intentionally deleted].**
- c) If a person appointed as a presiding election judge or alternate election judge becomes ineligible to serve as such in this Joint Election, then the Election Administrator will name a replacement presiding election judge or alternate election judge, amend "Attachment E" accordingly, and send each Participating Political Subdivision the amended "Attachment E" by email within five (5) business days after naming a replacement presiding judge or alternate presiding judge.
- d) If a person is unable or unwilling to serve as a presiding election judge or an alternate election judge, then the Elections Administrator will name a replacement presiding election judge or alternate presiding judge, and send each Participating Political Subdivision the amended "Attachment E" by email within five (5) business days after naming a replacement presiding judge or alternate presiding judge.
- e) The Elections Administrator will provide county training programs and applicable notice of such training programs, in keeping with Section 32.114 of the Texas Election Code, for all of the presiding election judges, alternate election judges, and election clerks for this Joint Election. Pursuant to Section 32.114(b), the training programs will be open to the public free of charge.
- f) To serve in this Joint Election, each presiding election judge and alternate election judge must have attended either an online or in-person training class which includes information regarding recent law changes, court rulings, Voter ID laws, Poll Watcher rules, Election Equipment, election procedures, and COVID-19 safety procedures. New judges and election clerks must attend an in-person training class.
- g) The Elections Administrator will notify the Participating Political Subdivisions by email and post on the DCED's website the dates, times, and locations of training classes for both Early Voting and Election Day Workers.
- h) To comply with the Federal Voting Rights Act of 1965, as amended, vote centers are required to have interpreter assistance. If a presiding election judge of such a vote center is not bilingual and is unable to hire a bilingual election clerk, the Elections Administrator may recommend an individual to provide interpreter assistance. If the Elections Administrator is unable to recommend an individual to provide interpreter assistance for such a vote center, the Elections Administrator will notify the Participating Political Subdivision and request assistance in identifying an interpreter. In the event that a

bilingual election clerk is hired by the Elections Administrator for a vote center required to have interpreter assistance, the bilingual clerk will be paid according to a rate set by the Elections Administrator. The Elections Administrator will charge that expense to the funds deposited with the Dallas County Elections Department for the conduct of the elections listed in this Election Services Contract. A Participating Political Subdivision may pay more money to a bilingual clerk than the rate set by the Elections Administrator, however that expense will be borne by that Participating Political Subdivision individually and that extra expense will not be charged to the funds deposited with the Dallas County Elections Department for the conduct of the elections listed in this Election Services Contract.

- i) The Elections Administrator will notify all presiding election judges and alternate election judges about the eligibility requirements of Subchapter C of Chapter 32 of Title 3 of the Texas Election Code and Section 271.005 of the Texas Election Code. The Elections Administrator will take the necessary steps to ensure that all of the presiding election judges, and alternate election judges appointed to serve during this Joint Election are eligible to serve and qualified to serve in this Joint Election. Under Section 32.031 of the Texas Election Code, the presiding election judge for each vote center shall appoint the election clerks to assist the presiding election judge in the conduct of the election at the vote center served by the presiding election judge on Election Day.
- j) The presiding election judges are responsible for picking up election supplies at the time and place determined by the Elections Administrator, which will be set forth in the letter to the presiding election judges requesting service for this election. Payments for the presiding election judge will be specified in "Attachment A."
- k) Any Participating Political Subdivision electing to pay their election workers for attending a training class must bear that expense separately from the funds deposited into this Joint Election account.
- l) The Elections Administrator will employ and or contract for other personnel necessary for the proper administration of the election, including such part-time help as is necessary to prepare for the election, to ensure the timely delivery of services, supplies, assistance, and equipment, during the period of Early Voting and on Election Day, and for the efficient tabulation of ballots at the central counting station.

7) SUPPLIES AND PRINTING

- a) The Elections Administrator will obtain and distribute all of the election supplies and election printing necessary for this Joint Election, including, but not limited to, all forms, signs, and other materials used by the presiding election judges and clerks at the vote centers.
- b) The Elections Administrator will provide maps, if necessary, instructions, and other information that the presiding election judges need to conduct this Joint Election.
- c) Each Participating Political Subdivision must deliver a list to the Elections Administrator of candidates and propositions for their elections. The list must be in English, Spanish, and

Vietnamese. The list must include the ballot positions for the candidates and the propositions. The list must include the correct spelling of each candidate's name and the precise wording of all the propositions. The Elections Administrator will email each Participating Political Subdivision a form for their use to create the required list. As soon as possible after each Participating Political Subdivision has determined its ballot positions for the candidates and propositions in its election, the Participating Political Subdivision must email the completed form to the Elections Administrator. The Elections Administrator will use the forms received from the Participating Political Subdivisions to create the ballot styles for this Joint Election. The Elections Administrator will deliver the proposed ballots to the Participating Political Subdivisions for approval. Each Participating Political Subdivision will be responsible for proofreading the proposed ballots and notifying the Elections Administrator of any corrections that are required for their particular ballots. The Elections Administrator is responsible for implementing the corrections made by the Participating Political Subdivisions to their ballots and then producing the ballots for this Joint Election.

8) OPTICAL SCAN CARD BALLOTS

- a) The Elections Administrator will supply a sufficient number of ballots to assure that there will be more than enough ballots for the expected turnout for the Joint Election. The ballots will be allocated based on an analysis of voter turnout for comparable elections at each vote center.
- b) Ballot usage shall be monitored by the Elections Administrator on an hourly and daily basis during early voting and on Election Day and additional ballots will be allocated if necessary.

9) RETURNS OF ELECTIONS

- a) The County and the Elections Administrator will establish a central counting station to receive and tabulate ballots cast in this Joint Election under Chapter 127 of Title 8 of the Texas Election Code. The Participating Political Subdivisions will designate the central counting station established by the County and Elections Administrator in accordance with Section 127.001(b) of the Texas Election Code.
- b) The County and the Elections Administrator hereby, in accordance with Sections 127.002, 127.003 and 127.005 of the Texas Election Code, appoint the following central counting station officials:

Central Count Station Manager: **Michael Scarpello**, Dallas County Elections Administrator

Tabulation Supervisor: **Danielle Grant**, Central Count Station Manager

Assistant Tabulation Supervisor: **Angelica Munoz** Central Count Station Lead

Clerk

The Parties hereby, in accordance with Sections 127.005 of the Texas Election Code, appoint the following central counting station officials:

Presiding Judge: **Louis Bedford**, Appointed by the Parties

Alternate Presiding Judge: **Mike Slaton**, Appointed by the Parties

The Parties acknowledge that approval of this Election Services Contract by the Participating Political Subdivisions shall constitute approval and appointment of the Presiding and Alternate Presiding Judge for the central counting station.

- c) The Central Count Station Manager or their representative will deliver timely, cumulative reports of the election results as vote centers are tabulated. The Central Count Station Manager will be responsible for releasing cumulative totals and vote center election returns from the election to the Participating Political Subdivisions, candidates, press, and the general public by the distribution of hard copies or electronic transmittals (where accessible). The Elections Administrator will operate an election result center to release election results in the **Dallas County Elections Operations Facility, 1520 Round Table Dr., Dallas, Texas 75247**.
- d) The Elections Administrator will link any Participating Political Subdivision's website to DCED's website. Participating Political Subdivisions that want such website linkage should deliver their website address to the Tabulation Supervisor at DCED.
- e) The Elections Administrator will prepare the unofficial canvass report after the results from all vote centers have been counted and will email a copy of the unofficial canvass to each Participating Political Subdivision as soon as possible after all returns, provisional ballots, and late overseas ballots have been tabulated, but no later than **May 18, 2022**. All Participating Political Subdivisions will be responsible for the official canvass of their respective elections.
- f) The Elections Administrator will be responsible for conducting the post-election manual recount, unless the Texas Secretary of State grants a waiver under Section 127.201 of the Texas Election Code. If no such waiver is given, the Elections Administrator will provide notice and copies of the recount to each Participating Political Subdivision and the Secretary of State's Office. Each Participating Political Subdivision must notify the Elections Administrator if such a waiver has been granted or denied as soon as possible, but no later than five (5) calendar days before Election Day.

10) ELECTION EXPENSES

- a) The Participating Political Subdivisions agree to share the costs of administering this Joint Election as specified in "Attachment A." The Election Administrator will charge a general supervisory fee not to exceed ten (10%) percent of the total cost of this Joint Election as authorized by Section 31.100 of the Texas Election Code. In no event will the

ten (10%) percent general supervisory fee be refunded to any Participating Political Subdivision. If the ballot, candidates, or propositions supplied by the Participating Political Subdivision are changed after their initial programming and/or printing by the Elections Administrator due to a court order from a court of competent jurisdiction, the affected Participating Political Subdivision(s) agrees to pay all expenses associated with re-printing and re-programming the ballots pursuant to a court order including expenses for expedited services and "Attachment A" will be amended by the Election Administrator.

- b) Allocation of costs among the Participating Political Subdivisions will be according to a formula based on the total cost of the Joint Election multiplied by the Participating Political Subdivision's percentage of the total current, and active registered voters for the Joint Election ("Election Costs"). Any Participating Political Subdivision that requests additional vote centers, personnel, or equipment that exceeds the Election Costs will be billed directly for any excess expenditures (e.g. supplies, equipment, personnel, etc.). **The cost of any special request from a Participating Political Subdivision, which is not agreed upon by all Participating Political Subdivisions, will be borne by the Participating Political Subdivision making the special request.**
- c) The expenses for early voting by mail and personal appearance will be paid by each Participating Political Subdivision as set forth in "Attachment A."
- d) The Elections Administrator will determine the final election expenses to the extent practicable within one hundred and eighty (180) business days after the final canvass of this Joint Election or the runoff election, if any. The Elections Administrator will provide each Participating Political Subdivision with a final, written accounting of all money that was deposited into, and payments that were made from, the Joint Election account(s) maintained by the Dallas County Elections Department for this Joint Election and the runoff election, if any.
- e) If the Elections Administrator requires additional money to perform their obligations under this Election Services Contract, then the Elections Administrator will bill each Participating Political Subdivision using the same method used to determine each Participating Political Subdivision's required deposit in "Attachment A" of this Election Services Contract ("Final Bill"). The Participating Political Subdivision shall pay the Final Bill within thirty (30) days of receipt except for any amount the Participating Political Subdivision files a timely good faith dispute under Section 17 of this Election Services Contract. After all of the expenses of this Joint Election are paid and disputes, if any, resolved, any monies that remain in the account maintained by the Dallas County Elections Department for this Election Services Contract will be refunded to the Participating Political Subdivisions (the "Refund") as soon as practicable.

11) DEPOSIT OF FUNDS

- a) Attachment A: Cost Audit details the cost and expenses anticipated for this election;

Participating Political Subdivisions will initially receive an estimate cost audit. The Final Bill will be distributed as soon as all cost and expenses for the election can be determined. Each Participating Political Subdivision hereby agrees to deposit with the Dallas County Elections Department one hundred (100%) percent of the full balance of money listed for their entity in “**Attachment A: Deposit of Funds Detail**” of this Election Services Contract by the due date of (on or before) **February 18, 2022**. The Dallas County Elections Department will place the money deposited by the Participating Political Subdivisions in a Joint Election account.

- b) The deposit of funds by each Participating Political Subdivision is an express condition precedent to the participation of each Participating Political Subdivision in this Election Services Contract. A Participating Political Subdivision may seek an extension from the Elections Administrator as to the due date for the deposit of funds. Such an extension must be sought in writing and prior to due date for such deposit by the Participating Political Subdivision. Any decision(s) made by the Elections Administrator will be provided in writing to the Participating Political Subdivision. The Elections Administrator, however, shall not be required to grant an extension for the deposit of funds by a Participating Political Subdivision. For any Participating Political Subdivision that fails to deposit the total amounts specified in “Attachment A” by the dates specified in this Election Services Contract or any extension granted by the Elections Administrator, the Elections Administrator will be relieved from the responsibility to perform under this Election Services Contract for such Participating Political Subdivision.
- c) The Elections Administrator will only draw money from this Joint Election account to pay for election expenses that are included in “Attachment A” to this Election Services Contract and for other expenses that the Participating Political Subdivisions agree to in writing.
- d) If a Participating Political Subdivision withdraws completely from this Joint Election by **March 4, 2022**, or by **March 11, 2022** for any special election, then the Elections Administrator will refund (as soon as practicable) that Participating Political Subdivision’s deposit, less any money already expended before the withdrawal and less the general supervisory fee authorized by Section 31.100 of the Texas Election Code. In the event of a partial withdrawal from this Joint Election, deposits will not be refunded to the Participating Political Subdivisions.
- e) The Elections Administrator will not make partial refunds to a Participating Political Subdivision if any candidate(s) or propositions do not appear on the ballot for that Participating Political Subdivision.
- f) Deposits should be made out to Dallas County Elections Department and delivered within the mandatory time frame to:

**Michael Scarpello
Dallas County Elections Administrator
1520 Round Table Drive
Dallas, Texas 75247**

In the “memo” section of check place Election Escrow Account: 91474

12) RECORDS OF THE ELECTION

- a) The Elections Administrator is hereby appointed the general custodian of the voted ballots and all election records of this Joint Election to the extent authorized by Sections 31.094, 31.095, 31.096, and 31.097 of the Texas Election Code.
- b) Access to the election records will be available to each Participating Political Subdivision as well as to the public in accordance with the Texas Public Information Act, Chapter 552, Government Code, at the **Dallas County Elections Department, 1520 Round Table Drive, Dallas, Texas 75247** at any time during normal business hours. The Elections Administrator will ensure that the records are maintained in an orderly manner, so that records are clearly identifiable and retrievable per records storage container. However, access to election records that contain confidential information that must be redacted pursuant to federal or state law may be provided at the offices of the Civil Division of the Criminal District Attorney’s Office of Dallas County, Texas at 500 Elm Street, Suite 6300 , Dallas, Texas 75202.
- c) Pursuant to Section 66.058 of the Texas Election Code, the Elections Administrator will retain the precinct election records that are distributed to the Elections Administrator at the Elections Administrator’s main offices and Elections Warehouse for **sixty (60) days** after the date of this Joint Election. **Sixty (60) days** after the date of this Joint Election, the Elections Administrator may arrange for transport of this precinct election records to the Dallas County Record Storage facility. If so, the precinct election records will then become the responsibility of Dallas County Record Storage for the remainder of the **twenty-two (22) month** preservation period. If the Elections Administrator does not transport the precinct election records to the Dallas County Records Storage facility, then the precinct election records will remain the responsibility of the Elections Administrator for the remainder of the **twenty-two (22) month** preservation period. Dallas County Record Storage will be responsible for the destruction of this Joint Election records after the preservation period. The Participating Political Subdivisions agree the Elections Administrator may destroy the records from this Joint Election after the **twenty-two (22)** month preservation period without further notice to the Participating Political Subdivisions, unless the events in Section 12 (d) occur.
- d) The Participating Political Subdivisions must notify the Elections Administrator in writing within three (3) business days after any official or employee of any Participating Political Subdivision becomes aware of any election contest in connection with this Joint Election. In accordance with Section 1.013 of the Texas Election Code, the election records must be preserved until any election contest is completed and a judgment, if any, becomes final. Also, the election records will be maintained by the Elections Administrator if there

is an active criminal investigation, proceeding, or a pending request for public information, related to the election records until such investigation, proceeding, or request for public information is finally concluded.

- e) The Participating Political Subdivisions acknowledge and agree that the Elections Administrator reserves the right to intervene in any election contest or litigation in connection with this Joint Election in order to preserve any available remedies at law, and to preserve the Elections Administrator's obligations under this Contract and the Texas Election Code.
- f) If the Participating Political Subdivisions have changed their single member districts since their last election, the Subdivisions must submit new boundaries by **February 4, 2022**.
- g) The Elections Administrator will provide each Participating Political Subdivision records that indicate the jurisdictional boundaries of each Participating Political Subdivision by **February 21, 2022**. Each Participating Political Subdivision will have until **February 25, 2022** to verify in writing that the jurisdictional boundaries provided by the Elections Administrator are correct.

13) EARLY VOTING

- a) Under Sections 31.094 and 271.006 of the Texas Election Code, the Participating Political Subdivisions hereby appoint the Elections Administrator to be the early voting clerk for all of the political subdivisions participating in this Joint Election. The deputy early voting clerks that will be appointed by the Elections Administrator are listed in "Attachment D."
- b) **[This provision is intentionally deleted]**
- c) Any qualified voter for this Joint Election may vote early by personal appearance at the main early voting polling place or at one of the early voting branch polling places listed in Attachment B. Early voting will be conducted as follows:

Monday-Friday, April 25-29, 2022 from 8:00 a.m. to 5:00 p.m.

Saturday, April 30, 2022 from 8:00 a.m. to 5:00 p.m.

Sunday, May 1, 2022 from 12:00 p.m. to 6:00 p.m.

Monday-Tuesday, May 2-3, 2022 from 7:00 a.m. to 7:00 p.m.

- d) All requests for early voting ballots by mail that are received by a Participating Political Subdivision must be transported by runner on the day of receipt to the Dallas County Elections Department, Elections Operations Facility at 1520 Round Table Drive, Dallas, Texas 75247 for processing. Persons voting by mail must send their voted ballots to the Dallas County Elections Department.
- e) All early voting ballots will be prepared for counting by an Early Voting Ballot Board appointed under Subchapter A of Chapter 87 of the Texas Election Code. The Parties may submit one individual for consideration by the presiding judge to be appointed as a member of the Early Voting Ballot Board and will notify DCED of the individual's name,

telephone number, mailing address, and email address, if any, no later than **April 1, 2022**. The Parties agree to appoint **Chaka Terrell** as the presiding judge and **Patty Clapp** as alternate presiding judge of the Early Voting Ballot Board. In accordance with Section 87.002(c) of the Texas Election Code, the presiding judge will appoint at least one or more members to the Early Voting Ballot Board. A list of Early Voting Ballot Board members will be furnished to each Participating Political Subdivision by April 8, 2022 .

- f) A signature verification committee will be appointed in accordance with Section 87.027 of the Texas Election Code. A list of the members of the signature verification committee will be furnished to each Participating Political Subdivision.
- g) The presiding judge of the Early Voting Ballot Board shall deliver notices of rejected ballots in compliance with Section 87.0431, Texas Election Code.

14) CRIMINAL BACKGROUND CHECKS

The Elections Administrator, their agent or assignee will conduct a criminal background check (in accordance with statutory requirements) of any person who is expected to or scheduled to serve or work in this Joint Election at either the Elections Department or an Early Voting location. Any person that does not satisfactorily pass the criminal background check will be ineligible to serve or work in this Joint Election. Failure to obtain a criminal background check does not release the participating entity's obligation to pay for service rendered in good faith. Additionally, DCED will conduct a review of all poll workers against the Texas Public Sex Offender Registry and provide the results to the Parties.

15) ELECTION REPORTS

During the early voting period for this Joint Election, the Elections Administrator will deliver daily reports to each Participating Political Subdivision of the Early Voting Location Turnout Totals and Early Voting Roster. The day after the early voting period ends, the Elections Administrator will deliver to each Participating Political Subdivision, a Daily Early Voting Roster by vote center report that includes the entire Early Voting period. Pursuant to the Texas Election Code Section 87.121, the Elections Administrator will deliver these election reports by providing a link to a website posting.

16) WITHDRAWAL FROM CONTRACT

- a) No deposits will be refunded after the deadline to withdraw from this Election Services Contract has passed.
- b) In order to withdraw from this Election Services Contract, a Participating Political Subdivision must deliver to the Elections Administrator any certifications and declarations that are required under Subchapter C or Subchapter D of Chapter 2 of Title 1 of the Texas Election Code.
- c) The Elections Administrator will bill any Participating Political Subdivision that withdraws from this Election Services Contract for any expenses incurred prior to the Elections Administrator receiving copies of the certifications and declarations that are required under Subchapter C or Subchapter D of Chapter 2 of Title 1 of the Texas Election Code.

- d) If there are any withdrawals from this Joint Election, within ten (10) business days after the deadline for Participating Political Subdivisions to make declarations under Subchapter C or Subchapter D of Chapter 2 of Title 1 of the Texas Election Code, said deadline being **March 4, 2022**, or by **March 11, 2022** for any special election, the Elections Administrator will amend the attachments to this Election Services Contract as appropriate and provide updated copies of the amended attachments to all of the remaining Participating Political Subdivisions.
- e) The general supervisory fee authorized by Section 31.100 of the Texas Election Code will not be refunded.

17) AUDITING AND PROHIBITION ON WITHHOLDING OF DEPOSITS

- a) The Dallas County Auditor will conduct a review of the deposits and expenditures related to this Election Services Contract before the Final Bill or Refund is submitted to the Participating Political Subdivisions. Refunds will be submitted as soon as practicable.
- b) The Participating Political Subdivisions may request a financial audit of the Final Bill or Refund or dispute the Final Bill or Refund under this Section, if: 1) the Final Bill exceeds ten percent (10%) of the amount of the Participating Political Subdivision's initial deposit as required in "Attachment A" to this Election Services Contract; or 2) the accounting accompanying the Refund is ten percent (10%) less than the amount the Participating Political Subdivision determines, should be refunded, after its good faith review. The request for a financial audit or dispute must be done in accordance with Section 17 (d) below.
- c) Should the events in Section 17 (b) occur, in lieu of an audit or dispute, the Participating Political Subdivision may make a request that the Elections Administrator ask the Dallas County Auditor to review the cost allocation methodology for the Participating Political Subdivision's Final Bill or Refund ("Review Request"). Participating Political Subdivisions must submit a Review Request to the Elections Administrator within five (5) business days of receipt of the Final Bill or the Refund, whichever is later. The Review Request must set forth, in detail, the basis for any challenge to the Final Bill or Refund. Corrections to the Participating Political Subdivision's Final Bill or the Refund, based on a Review Request, will be determined at the sole discretion of the Elections Administrator. A Review Request does not extend the timeframe in Section 17(d).
- d) Should the circumstances giving rise to an audit or dispute in Section 17 (b) occur, the Participating Political Subdivision may send a formal written notice of dispute of the Final Bill or Refund ("Dispute Notice") to the Elections Administrator. This Dispute Notice must be received by the Elections Administrator no later than thirty (30) calendar days from the date the Participating Political Subdivision receives the Final Bill or Refund. This Dispute Notice must provide: 1) an itemization of the disputed charge(s) by the Participating Political Subdivision; 2) the basis for the dispute; 3) the methodology showing how the Participating Political Subdivision arrived at the amount disputed; and 4) documentation in support thereof. The Participating Political Subdivision will have no right to withhold any undisputed amounts set forth in this Election Services Contract or

reflected in the Final Bill. Payment of undisputed amounts in the Final Bill must be made by the Participating Political Subdivision as set forth in Section 10 (e) of this Election Services Contract.

- e) Failure of the Participating Political Subdivision to submit a timely Dispute Notice, as set forth in Section 17(d), shall waive any and all disputes, claims, or challenges to the Final Bill or Refund by the Participating Political Subdivision. The entire amount of the Participating Political Subdivision's Final Bill shall be due immediately; or, any estimated refund amounts will become final.
- f) If the Participating Political Subdivision files a timely Dispute Notice in compliance with Section 17(d), the Participating Political Subdivision will have the right to conduct a good faith financial audit ("Financial Audit") for the deposits and expenditures related to this Elections Services Contract. In conducting the Financial Audit, the Participating Political Subdivision will have no greater right to demand access to or copies of the County's governmental or election records than those rights specified in the Texas Election Code and the Texas Public Information Act. The cost of any Financial Audit conducted by the Participating Political Subdivision shall be borne by the requesting Participating Political Subdivision and may not be paid for with funds deposited with the Dallas County Elections Department under this Election Services Contract. Further, the Participating Political Subdivision conducting the Financial Audit shall pay the Elections Administrator the reasonable costs for time expended and copies provided in order to perform the Financial Audit. If the Financial Audit identifies overcharges by the Elections Administrator of more than ten percent (10%) of the initial deposit amount required by "Attachment A", the Elections Administrator will review and assess the findings of the Financial Audit and will negotiate, in good faith, to resolve any disputes for overcharges with the Participating Political Subdivision. The Elections Administrator shall not be bound by the findings or recommendations of the Participating Political Subdivision's Financial Audit. The financial records will be retained at the County Election Administrator's office until the conclusion of the Financial Audit and resolution of all outstanding audit disputes.
- g) In the event the representatives of the Participating Political Subdivision and the Elections Administrator cannot agree on the amount of the disputed Final Bill as set forth in this Section, then the Parties may agree to submit to non-binding mediation. If mediation is acceptable to both parties to resolve a dispute concerning the disputed Final Bill, the Parties will agree to use a mutually agreed-upon mediator. Unless the Parties come to a written agreement at mediation, the mediation will not constitute a final and binding resolution of the dispute.
- h) The Participating Political Subdivision acknowledges that the practical effect of the Participating Political Subdivision withholding undisputed funds that are required under this Election Services Contract would result in breach of this Elections Services Contract and the other Participating Political Subdivisions' taxpayers subsidizing the withholding Participating Political Subdivision's election expenses.

18) NOTICE

Any addendum to, change/modification of, clarification of, and/or withdrawal from this contract requires written notice to and written approval by Dallas County. Whenever this Election Services Contract requires any consent, approval, notice, request, or demand, it must be in writing to be effective and must be delivered to the party intended to receive it as shown below:

Address for notice to the Elections Administrator:

Michael Scarpello
Dallas County Elections Administrator
1520 Round Table Drive
Dallas, Texas 75247
(214) 819-6334 telephone
(214) 819-6301 facsimile

and, to the physical addresses and facsimile numbers for notice to the Participating Political Subdivisions are in "Attachment F" to this Election Services Contract. Any written notice required under this Contract shall be deemed to have been given when personally delivered, or if mailed, seventy-two (72) hours after deposit of the same in the United States Mail, postage prepaid, certified, or registered, return receipt requested, properly addressed to the contact person shown at the respective addresses set forth above, or at such other addresses as shall be specified by written notice delivered in accordance this notice section.

19) LIABILITY FOR NEGLIGENCE

ALL PARTIES TO THIS ELECTION SERVICES CONTRACT AGREE TO BE RESPONSIBLE, IN ACCORDANCE WITH APPLICABLE STATE OR FEDERAL LAW, EACH FOR THEIR OWN NEGLIGENT ACTS OR OMISSIONS, OR OTHER TORTIOUS CONDUCT IN THE COURSE OF PERFORMANCE OF THIS ELECTION SERVICES CONTRACT WITHOUT WAIVING ANY SOVEREIGN IMMUNITY, GOVERNMENTAL IMMUNITY, STATUTORY IMMUNITY, OR OTHER DEFENSES AVAILABLE TO THE PARTIES UNDER FEDERAL OR STATE LAW. NOTHING IN THIS PARAGRAPH SHALL BE CONSTRUED TO CREATE OR GRANT ANY RIGHTS, CONTRACTUAL OR OTHERWISE, IN OR TO ANY THIRD PERSONS OR ENTITIES. ALL PARTIES AGREE THAT ANY SUCH LIABILITY OR DAMAGES OCCURRING DURING THE PERFORMANCE OF THIS ELECTION SERVICES CONTRACT CAUSED BY THE JOINT OR COMPARATIVE NEGLIGENCE OF THE PARTIES, OR THEIR EMPLOYEES, AGENTS OR OFFICERS WILL BE DETERMINED IN ACCORDANCE WITH COMPARATIVE RESPONSIBILITY LAWS OF TEXAS, BUT ONLY TO THE EXTENT SUCH LAWS ARE APPLICABLE TO THE PARTY.

TO THE EXTENT PERMITTED BY LAW, IF LEGAL ACTION IS FILED AGAINST A PARTY TO THIS ELECTION SERVICES CONTRACT, THAT PARTY SHALL BE SOLELY RESPONSIBLE FOR THEIR OWN RESPECTIVE COSTS AND DEFENSE OF THAT SUIT.

20) CHOICE OF LAW

This Election Services Contract will be governed and interpreted by the laws of the State

of Texas.

21) VENUE AND JURISDICTION

The courts of the State of Texas and the United States of America that are physically located in Dallas, Dallas County, Texas are the exclusive jurisdiction and venue for any lawsuit, cause of action, temporary restraining order, temporary injunction, injunction, petition for extraordinary relief, mandamus, or any other legal proceeding or claim arising out of the performance of this Election Services Contract.

22) SEVERABILITY

If any term of this Election Services Contract is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the terms of this Election Services Contract will remain in full force and effect and will in no way be affected, impaired, or invalidated.

23) ENTIRE CONTRACT

This Election Services Contract, including any exhibits or attachments, contains the entire agreement between the Elections Administrator and the Participating Political Subdivisions concerning the duties required by this Election Services Contract. The Elections Administrator of Dallas County, Texas and each Participating Political Subdivision hereby expressly warrant and represent that they are not relying on any promises or agreements that are not contained in this Election Services Contract concerning any of the terms in this Election Services Contract. Except otherwise specified in this Election Services Contract, no modification, amendment, novation, renewal, or other alteration of this Election Services Contract shall be effective unless mutually agreed upon in writing and executed by the Parties hereto.

24) PLURALITY, GENDER, AND HEADINGS

In this Election Services Contract, words in the singular number include the plural, and those in the plural include the singular. Words of any gender also refer to any other gender. Headings in this Election Services Contract are terms of inclusion, not exclusion.

25) RELATIONSHIP OF PARTIES

The Participating Political Subdivisions, including their agents, or employees, are not an agent, servant, joint enterpriser, joint venturer, or employee of the County Elections Administrator, the County or DCED, and are responsible for their own acts, forbearance, negligence and deeds, and for those of their agents, or employees in conjunction with the performance of services covered under this Election Services Contract. The Participating Political Subdivisions represent that they have, or will secure at their own expense, all personnel and consultants required in performing the duties directly administered by the Participating Political Subdivision. Such personnel and consultants shall not be employees of or have any contractual relationship with the County, the County Elections Administrator, or DCED.

26) FORCE MAJEURE

No Party shall be in default or responsible for delays or failures in performance resulting from causes beyond its control. Such causes include but are not limited to acts of God, fire, storm, flood, earthquake, natural disaster, pandemic, epidemic, nuclear accident, strike, air traffic disruption, lockout, riot, freight embargo, public regulated utility, or governmental statutes, orders, or regulations superimposed after the fact. Any Party delayed by force majeure shall as soon as reasonably possible give the other Party written notice of the delay. The Party delayed shall use reasonable diligence to correct the cause of the delay, if correctable, and if the condition that caused the delay is corrected, the Party delayed shall immediately give the other Parties written notice thereof and shall resume performance under this Election Services Contract as soon as practicable. The date of delivery or of performance shall be extended for at least a minimum time period equal to the time lost by reason of the delay.

27) DEFAULT/CUMULATIVE RIGHTS/MITIGATION.

It is not a waiver of default if the non-defaulting Party fails to immediately declare a default or delays in taking any action. The rights and remedies provided by this Election Services Contract are cumulative, and no Party's use of any right or remedy will preclude or waive its right to any other remedy. These rights and remedies are in addition to any other rights the Parties may have by law, statute, ordinance or otherwise. All Parties have a duty to mitigate damages.

28) CONTRA PROFERENTEM

The legal doctrine of contra proferentem will not apply to this Election Services Contract. Consequently, any ambiguity that may exist in this Election Services Contract will not be construed against the Party who drafted this Election Services Contract.

29) ORDER OF PRECEDENCE

Any inconsistencies in this Election Services Contract will be resolved by reviewing and considering this Election Services Contract and Attachments A through G to this Election Services Contract together in context with each other.

30) SIGNATORY WARRANTY

Dallas County and the Elections Administrator of Dallas County, Texas and all of the contracting authorities of all of the Participating Political Subdivisions listed in "Attachment F" of this Election Services Contract represent that each has the full right, power and authority to enter into and perform this Election Services Contract in accordance with all of its terms and conditions, and that the execution and delivery of this Election Services Contract has been made by authorized representatives of the Participating Political Subdivisions to validly and legally bind the Participating Political Subdivisions to all terms, performances, and provisions set forth in this Election Services Contract.

31) COUNTERPARTS.

This Election Services Contract may be executed in any number of counterparts with the

same effect as if all signatory parties had signed the same document. All counterparts will be construed together and will constitute one and the same instrument.

[Signatures on following page]

WITNESS HEREOF, the parties hereto have executed in triplicate originals this Election Services Contract on this _____ day of _____ 2022. ("Effective Date")

DALLAS COUNTY:

CLAY JENKINS
DALLAS COUNTY JUDGE

RECOMMENDED AND APPROVED:

APPROVED AS TO FORM*

MICHAEL SCARPELLO
COUNTY ELECTIONS ADMINISTRATOR
DALLAS COUNTY, TEXAS

James R. Palomo
ASSISTANT DISTRICT ATTORNEY,
DISTRICT ATTORNEY
DALLAS COUNTY CRIMINAL ATTORNEY'S
OFFICE, CIVIL DIVISION

*By law, the Criminal District Attorney's Office may only advise or approve contracts or legal documents on behalf of its clients. It may not advise or approve a contract or legal document on behalf of other parties. Our review of this document was conducted solely from the legal perspective of our client. Our approval of this document was offered solely for the benefit of our client. Other parties should not rely on this approval, and should seek review and approval by their own respective attorney(s).

ACCEPTED TO AND AGREED TO BY THE _____:

APPROVED

[INSERT NAME AND POSITION]



Dallas County Elections Department

1520 Round Table Drive
Dallas, Texas 75247

May 7, 2022 Joint Election

ESTIMATED COST INVOICE

ENTITY ESTIMATE

Subject to Change

EXHIBIT - A

- 37 Entities
- 47 EV Locations
- 469 ED Vote Centers

Registered Voter Split	TOTAL	COL
Total Number of Registered Voters	4,159,861	25,024
Cost Per Registered Voter (w/o ESF)	\$0.70	\$0.70
Total Cost	\$2,920,971.80	\$17,571.36
% of Units	100%	0.60%
	TOTAL	COL
Election Total	\$2,920,971.80	\$17,571.36
Exceptional Cost	\$0.00	\$0.00
Election Services Fee (ESF)	\$194,782.03	\$1,757.14
Total Cost	\$3,115,753.83	\$19,328.49
Cost Per Registered Voter (w. ESF)	\$0.75	\$0.75
Amount of Deposit	\$0.00	
(Overpaid)/Underpaid	\$3,115,753.83	\$19,328.49

EXP. CODE	EARLY VOTING	UNITS	UNIT COST	ESTIMATED	COL
POSTAGE					
2180	Printing of Mail Ballots (AC)	10,000	\$0.45	\$4,500.00	\$27.07
2180	Mail Ballot Kits (AC)	10,000	\$3.25	\$32,500.00	\$195.51
2180	Mail Bad Mail Kits (AC)	3,000	\$3.20	\$9,600.00	\$57.75
2170	Postage Ballots Mailed	10,000	\$1.63	\$16,300.00	\$98.05
2170	Postage for Non-Returned Mailed Ballots	3,000	\$1.21	\$3,630.00	\$21.84
2170	Postage for Returned Mailed Ballots	7,000	\$1.21	\$8,470.00	\$50.95
2170	Postage Rejected / Incomplete Mail Ballots	56	\$1.62	\$90.72	\$0.55
EQUIPMENT RENTAL					
7030	EV Furniture Rental	Various EV Locations		\$8,000.00	\$48.12
7040	EV Model DS200 (Tabulator/Scanner)	47	\$464.10	\$21,812.70	\$131.22
7040	EV ExpressVote Ballot Marking Device (ADA)	47	\$295.00	\$13,865.00	\$83.41
7040	EV EPB Printer	141	\$27.73	\$3,909.93	\$23.52
7040	EV ExpressVote Booth	400	\$89.50	\$35,800.00	\$215.36
7040	EV Provisional Bags	47	\$5.00	\$235.00	\$1.41
7050	EV Van / Car Rental	Mini-Vans (Techs)		\$8,500.00	\$51.13
7211	Sprint/Frontier (Landline Charges)	Use of Service During EV Period		\$6,000.00	\$36.09
7213	Cell Phones/Phone Lines/Internet access	Tech. - Regional Sites - Polling Locations		\$1,500.00	\$9.02
RENTAL BUILDINGS					
7010	Building Rental	Various Locations		\$55,000.00	\$330.86
5590	Custodial Charges	Various Locations		\$25,000.00	\$150.39
PERSONNEL					
1020	EV Election Department FT (OT Reg.)	Various		\$1,500.00	\$9.02
1050	EV Clerks (OT) 30 Hrs	169	\$24.06	\$122,003.14	\$733.92
1050	EV Election Department FT (OT)	Various		\$15,000.00	\$90.23
1050	EV Election Department FT - Central Count (OT)	3	Staffs	\$1,500.00	\$9.02
1050	EV Election Department FT - Warehouse (OT)	6	Staffs	\$9,500.00	\$57.15
1050	EV Election Department PT (OT)	Various		\$7,500.00	\$45.12
1050	EV Election Department PT - Warehouse (OT)	Various		\$2,500.00	\$15.04
1050	EV Judges (OT) 30 Hrs	47	\$25.49	\$35,939.88	\$216.20
1050	EV Mail Clerks PT (OT)	Various		\$800.00	\$4.81
1050	EV Building Security (OT)	Various		\$1,500.00	\$9.02
1050	EV Techs (OT) 49 Hrs	7	\$24.68	\$9,000.00	\$54.14
1050	EV Training Trainers (OT)	5	\$27.54	\$6,500.00	\$39.10
1050	EV Ballot Board Committee (OT)	4	\$27.00	\$500.00	\$3.01
1050	EV Ballot Board Judge (OT)	12 days	\$27.00	\$500.00	\$3.01
1050	EV Signature Verification Committee (OT)	6	\$27.00	\$500.00	\$3.01
1050	EV Signature Verification Supervisor (OT)	12 days	\$27.00	\$500.00	\$3.01
1060	EV Ballot Board Committee (ST)	17	\$18.00	\$7,500.00	\$45.12
1060	EV Ballot Board Judge (ST)	12 days	\$18.00	\$1,500.00	\$9.02
1060	EV Central Count (ST)	4	Staffs	\$1,000.00	\$6.02
1060	EV Clerks (ST)	271	\$16.04	\$347,801.18	\$2,092.23
1060	EV Election Department PT (ST)	Various		\$15,000.00	\$90.23
1060	EV Election Department PT - Warehouse (ST)	Various		\$11,000.00	\$66.17
1060	EV Judges (ST)	47	\$16.99	\$63,893.12	\$384.35
1060	EV Mail Clerks PT (ST)	Various		\$5,000.00	\$30.08
1060	EV Signature Verification Committee (ST)	7	\$18.00	\$3,000.00	\$18.05
1060	EV Signature Verification Supervisor (ST)	12 days	\$18.00	\$1,000.00	\$6.02
1060	EV Techs (ST)	7	\$16.45	\$10,000.00	\$60.16
1060	EV Training Trainers (ST)	6	\$18.36	\$13,000.00	\$78.20
1111	EV FICA	6.2%		\$5,563.87	\$33.47
1112	EV Medicare	1.45%		\$1,301.23	\$7.83
1113	EV PARS	1.3%		\$8,845.69	\$53.21
1150	EV Retirement Chargeback	13.93%		\$12,500.76	\$75.20
5590	EV Temp. Employees	Various Temp. Agencies		\$20,000.00	\$120.31
SUPPLY EXPENSE					
2180	Sample Ballots Hand Out for Voters 8.5x11in.	1,275	\$0.77	\$981.75	\$5.91
2180	Sample Ballots Large for Posting 11x17in.	1,038	\$0.748	\$776.42	\$4.67
2180	Official ExpressVote Ballots 14"	29,000	\$0.13	\$3,625.00	\$21.81
2880	Supplies for Early Voting	Misc./Forms/Binders		\$2,500.00	\$15.04
2180	Judges Kits	47	\$80.00	\$3,760.00	\$22.62
SERVICE EXPENSE					
2013	Legal Notice	Legal Notice		\$5,000.00	\$30.08
5590	ES&S EV Support	1	\$1,650.00	\$1,650.00	\$9.93

5590	IT Services (QNET)			\$3,750.00	\$22.56
5590	PrintMailPro Services for EV Polling Location Change Cards			\$5,000.00	\$30.08
PREPARATION AND TRANSPORTATION OF VOTING EQUIPMENT					
2910	Equipment Delivery and Pickup Warehouse	94		\$7,350.00	\$44.21
MILEAGE / FUEL					
3095	Fuel		\$0.585	\$2,500.00	\$15.04
	EARLY VOTING TOTAL			\$1,034,755.39	\$6,224.66

EXP. CODE	Election Day	UNITS	UNIT COST	ESTIMATED	COL
EQUIPMENT RENTAL					
7030	ED Furniture Rental			\$8,000.00	\$48.12
7040	ED Model DS200 (Tabulator/Scanner)	469	\$464.10	\$217,662.90	\$1,309.37
7040	ED ExpressVote Ballot Marking Device (ADA)	469	\$295.00	\$138,355.00	\$832.29
7040	ED EPB Printer	1,876	\$27.73	\$52,021.48	\$312.94
7040	ED ExpressVote Booth	1,876	\$89.50	\$167,902.00	\$1,010.03
7040	ED Election Supply Carts (ESC)	469	\$199.80	\$93,706.20	\$563.70
7040	ED Provisional Bags	469	\$5.00	\$2,345.00	\$14.11
7050	ED Truck Rental/Van Rental	Runners /Regional Sites		\$10,000.00	\$60.16
7213	Cell Phones/Phone Lines/Internet access	Tech. - Regional Sites - Polling Locations		\$1,500.00	\$9.02
RENTAL BUILDINGS					
7010	Location Rental	Various Locations		\$50,000.00	\$300.78
5590	Custodial Charges	Various Locations		\$60,000.00	\$360.94
PERSONNEL					
1020	ED County Employees (ST)	Various		\$700.00	\$4.21
1020	ED Sheriff Deputies (ST)	14	Various	\$7,000.00	\$42.11
1020	ED Election Department FT (OT Reg.)	Various		\$2,000.00	\$12.03
1020	ED Building Security (ST)	Various		\$400.00	\$2.41
1020	ED Techs (ST)	5	\$20.00	\$10,000.00	\$60.16
1020	ED Clerks (ST) 14 Hrs	1,876	\$16.00	\$420,224.00	\$2,527.89
1020	ED Judges Delivery (Can Money)	469	\$25.00	\$11,725.00	\$70.53
1020	ED Emergency Response (Judges & Clerks) (ST)	36	\$280.00	\$14,000.00	\$84.22
1020	ED Judges (ST) 14 Hrs	469	\$18.00	\$118,188.00	\$710.97
1020	ED Phone Bank (ST)	18	\$370.00	\$6,660.00	\$40.06
1020	ED Regional Site Support (ST)	22	\$20.00	\$5,500.00	\$33.09
1020	ED Traffic Control Officers (ST)	10	Various	\$6,000.00	\$36.09
1020	ED Tabulation (ST)	37	Various	\$3,500.00	\$21.05
1020	ED Training Trainer (ST)	8	Various	\$5,000.00	\$30.08
1020	ED S.U.A.T (ST) 2 Hrs	35	\$20.00	\$2,000.00	\$12.03
1020	ED Inspectors (ST)	32	\$25.00	\$34,000.00	\$204.53
1050	ED County Employees (OT)	Various		\$3,500.00	\$21.05
1050	ED Sheriff Deputies (OT)	28	Various	\$20,000.00	\$120.31
1050	ED Election Department FT (OT)	Various		\$19,000.00	\$114.30
1050	ED Election Department PT (OT)	Various		\$7,000.00	\$42.11
1050	ED Election Department PT - Warehouse (OT)	Various		\$5,000.00	\$30.08
1050	ED Building Security (OT)	Various		\$3,000.00	\$18.05
1060	ED Election Department PT (ST)	Various		\$9,000.00	\$54.14
1060	ED Election Department PT - Warehouse (ST)	Various		\$7,000.00	\$42.11
1111	ED FICA	6.2%		\$43,071.21	\$259.10
1112	ED Medicare	1.45%		\$10,073.11	\$60.60
1113	ED PARS	1.3%		\$403.00	\$2.42
1150	ED Retirement Chargeback	13.93%		\$96,771.29	\$582.14
5590	ED Temp. Employees	Various Temp. Agencies		\$30,000.00	\$180.47
SUPPLY EXPENSE					
2180	Official ExpressVote Ballots	57,000	\$0.145	\$8,265.00	\$49.72
2180	Sample Ballots Hand Out for Voters 8.5x11in.	936	\$0.77	\$720.72	\$4.34
2880	Supplies for Election Day	Misc./Forms/Binders		\$2,500.00	\$15.04
2180	ED Judge Kit	469	\$80.00	\$37,520.00	\$225.70
SERVICE EXPENSE					
5590	ES&S Election Day Support	3	\$1,650.00	\$4,950.00	\$29.78
5590	ROBIS (ED Support)	2 Persons Tech Team		\$2,825.00	\$16.99
5590	IT Services (QNET)	ED Technicians		\$47,560.00	\$286.10
POSTAGE					
2170	Election Paychecks	2,500	\$0.58	\$1,450.00	\$8.72
PREPARATION & TRANSPORTATION OF VOTING EQUIPMENT					
2910	Atlantic Delivery and Pick-up	938		\$67,500.00	\$406.05
2910	Delivery and Pick-up (Warehouse Specials)		\$22.50	\$1,500.00	\$9.02
2910	Delivery and Pick-up (Warehouse)		\$45.00	\$3,500.00	\$21.05
MILEAGE / FUEL					
1080	Mileage for Deputies	5,500	\$0.585	\$3,217.50	\$19.36
3095	Fuel	Tech Cars and Trucks		\$2,500.00	\$15.04
	ELECTION DAY TOTAL			\$1,886,216.41	\$11,346.70

**2021 - 2023 TERM
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JUDGES AND ALTERNATE JUDGES
SUBMISSION
DALLAS COUNTY COMMISSIONER DISTRICTS 1-4
Updated Judges List**

V1001	SAM TASBY MIDDLE SCHOOL	7001 FAIR OAKS AVE DALLAS 75231
J D	JONATHAN BELL 1081915708	A R CYNTHIA KNOX 1083294571
V1002	VICKERY BAPTIST CHURCH	5814 RIDGECREST RD DALLAS 75231
J D	WILLIAM WOODS 1080877445	A R KEITH GILLESPIE 1086029525
V1003	HAMILTON PARK UNITED METHODIST CHURCH	11881 SCHROEDER DR DALLAS 75243
J D	LINTON GRAY 1083654595	A R BRUCE BRADLEY 1079043284
V1004	FOREST MEADOW JR HIGH SCHOOL	9373 WHITEHURST DR DALLAS 75243
J R	VANCE WADE 1081795675	A D CRYSTAL HUGHES 1083714619
V1005	NEW MOUNT ZION BAPTIST CHURCH	9550 SHEPHERD RD DALLAS 75243
J D	PATRICIA HICKS 1084105962	A R KATHLEEN YOUNG 1080701556
V1006	MOSS HAVEN ELEM SCHOOL	9202 MOSS FARM LN DALLAS 75243
J R	DEBORAH BROWN 1081774276	A D TRACEY ASHBY 2158622422
V1008	LEE MCSHAN JR ELEMENTARY SCHOOL	8307 MEADOW RD DALLAS 75231
J D	LORI REISENBICHLER 1083549605	A R CEDRIC WOOD 1081701888

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V1013	NORTH DALLAS HIGH SCHOOL	3120 N HASKELL AVE DALLAS 75204
J D	ANNE BESSER 1086078788	A R BRIAN BODINE 1130673123
V1015	MULTIPLE CAREERS MAGNET CTR	4528 RUSK AVE DALLAS 75204
J D	BYRON MONTGOMERY 1078318394	A R PAUL LOCKMAN 1080242629
V1019	SOLAR PREPARATORY SCHOOL FOR GIRLS	2617 N HENDERSON AVE DALLAS 75206
J D	MICHELLE BUTTON 1084501770	A R LAURA ALLEN 1082482830
V1020	BEN MILAM ELEM SCH - DISD	4200 MCKINNEY AVE DALLAS 75205
J D	JEAN A. BALL-MEZA 1170968508	A R SUZANNE SHELTON 1080803105
V1022	OAKLAWN BRANCH LIBRARY	4100 CEDAR SPRINGS RD DALLAS 75219
J D	TIM WEST 1220365491	A R ELIZABETH JOHNSON 1081905653
V1023	THE FATHER'S CHURCH	2707 ABRAMS RD DALLAS 75214
J D	THOMAS WRIGHT 1086225980	A R ELIZABETH VINEY 1157126719
V1027	AUDELIA CREEK ELEM SCHOOL	12600 AUDELIA RD DALLAS 75243
J D	RONALD SELF 1085642393	A R RICHARD HARMS 1080844728

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SUBMISSION
DALLAS COUNTY COMMISSIONER DISTRICTS 1-4
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V1029	RICHLAND COLLEGE-LECROY CENTER	9596 WALNUT ST DALLAS	75243
J D	LENNA WEBB 1078376952	A R	JAMES FRAME 1081914470
V1030	A M AIKIN ELEM SCHOOL	12300 PLEASANT VALLEY D DALLAS	75243
J D	RANDALL EPPS 1081436325	A R	JANICE FOWLER 1084760609
V1032	NORTHWOOD HILLS ELEM SCH	14532 MEANDERING WAY DALLAS	75254
J R	CAROLINE CROLEY 1219328829	A D	MONICA SHEVELL 1076279574
V1033	SPRING VALLEY ELEM SCHOOL	13535 SPRING GROVE AVE DALLAS	75240
J R	LARRY STANDEFER 1080201670	A D	KIMMY ROBINSON 1086081072
V1036	RISD ACADEMY	13630 COIT RD DALLAS	75240
J D	CHRISTINE MILAZZO 1079461058	A R	JANET MARIANI 1087926535
V1040	DALLAS FIRE STATION # 57	10801 AUDELIA RD DALLAS	75238
J D	VACANT	A R	ISABELLA IVERSON 1080497084
V1043	SKYVIEW ELEM SCHOOL	9229 MEADOWKNOLL DR DALLAS	75243
J R	JIMMIE MCGUIRE 1083497414	A D	KAREN SIMMONS 1082917681

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SUBMISSION
DALLAS COUNTY COMMISSIONER DISTRICTS 1-4
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V1045	HIGHLAND MEADOWS ELEM SCHOOL	8939 WHITEWING LN DALLAS 75238
J D	SAUNDRA LEINNEWEBER 1081837871	A R DANIEL HEERS 1081891021
V1047	MARTHA T REILLY ELEM	11230 LIPPITT AVE DALLAS 75218
J D	GEORGE SIGGERS 1082187251	A R CAROLINE WALKER 1081426707
V1049	MERRIMAN PARK ELEM SCHOOL	7101 WINEDALE DR DALLAS 75231
J R	SHELBY JAMES 1086737948	A D LINDA NEWMAN 1086850567
V1052	LOCHWOOD BRANCH LIBRARY	11221 LOCHWOOD BLVD DALLAS 75218
J D	TIMOTHY SEXTON 1078546507	A R LAWRENCE GEORGE BURKE 1080611062
V1054	CASA VIEW ELEM SCHOOL	2100 N FAROLA DR DALLAS 75228
J D	MARIE ARROWSMITH 2153068861	A R EDWARD RETTA 1088133350
V1056	CHARLES A GILL ELEM SCH	10910 FERGUSON RD DALLAS 75228
J D	ANNETTE CHOICE 1086461130	A R BONNIE WATT 1080481782
V1057	ST PIUS X CHURCH PARISH	3030 GUS THOMASSON RD DALLAS 75228
J D	CHRIS MCDONALD 1075555067	A R CHARLIE YOUNGBLOOD 1083558910

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SUBMISSION
DALLAS COUNTY COMMISSIONER DISTRICTS 1-4
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V1058	BRYAN ADAMS HIGH SCHOOL	2101 MILLMAR DR DALLAS 75228
J D	EDMOND MARTIN 1086580481	A R DORIS BRANTFERGER 1083010306
V1059	REINHARDT ELEM SCHOOL	10122 LOSA DR DALLAS 75218
J D	NANCY BRYANT 1076395586	A R TAMARA BROWN 1157932978
V1060	ALEX SANGER PREPARATORY SCHOOL	8410 SAN LEANDRO DR DALLAS 75218
J D	BRUCE ANTON 1080737653	A R GARRY BROWN 1083050706
V1061	W H GASTON MIDDLE SCHOOL	9565 MERCER DR DALLAS 75228
J D	DAVID E. WALLACE 1080475974	A R KERI MOORE 1081051242
V1063	GEORGE TRUETT ELEM SCH	1811 GROSS RD DALLAS 75228
J D	ELIZABETH HARDAGE 1086157068	A R BARBARA KING 1080803855
V1070	GRACE UNITED METH CHURCH	4105 JUNIUS ST DALLAS 75246
J D	GREGORY BYRNE 1088536933	A R JULIANA MARTINEZ 1081229049
V1071	LAKEWOOD BRANCH LIBRARY	6121 WORTH ST DALLAS 75214
J D	VIVIAN DUDLEY 1116885636	A R TERRYLL NEMETH 2143067549

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SUBMISSION
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Updated Judges List**

V1073	THE CHURCH AT JUNIUS HEIGHTS	5429 REIGER AVE DALLAS	75214
J D	CHERI BALL-MEZA 1083048522	A R	DAVID SHAW 1082517779
V1074	SAMUELL GRAND REC CENTER	6200 E GRAND AVE DALLAS	75223
J D	LOTA DUNHAM 1080364148	A R	VIRGINIA MONTFORT 1083391257
V1076	EDUARDO MATA MONTESSORI SCHOOL	7420 LA VISTA DR DALLAS	75214
J D	DARRYL CAMPBELL 2121028923	A R	TRENT BARTON 1164073131
V1078	BAYLES ELEM SCHOOL	2444 TELEGRAPH AVE DALLAS	75228
J D	OLA ALLEN 1083953661	A R	CORA BILLINGSLEY 1080583639
V1079	S S CONNER ELEM SCHOOL	3037 GREENMEADOW DR DALLAS	75228
J D	RHONDA CHOICE 1078934119	A R	LEE BALDWIN 1082910053
V1081	OWENWOOD FARM & NEIGHBOR SPACE	1451 JOHN WEST RD DALLAS	75228
J D	JEAN ROGERS 1082065107	A R	KARON ROBINSON 1083781250
V1083	COLONIAL BAPTIST CHURCH	6459 SCYENE RD DALLAS	75227
J D	TYLER WADE 2166437391	A R	WILTON CROCKER 1084243223

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SUBMISSION
DALLAS COUNTY COMMISSIONER DISTRICTS 1-4
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V1084	EDNA ROWE ELEM SCHOOL	4918 HOVENKAMP DR DALLAS	75227
J D	ALLISON PINKARD 1080071434	A R	VACANT
V1085	URBAN PARK ELEM SCHOOL	6901 MILITARY PKWY DALLAS	75227
J D	LUCY GARCIA 1083038717	A R	JOYCE MCMILLAN 1202007019
V1087	SKYLINE HIGH SCHOOL	7777 FORNEY RD DALLAS	75227
J D	DELPHINE VASSER 1082689174	A R	LINDA MACK 1081364869
V1088	SKYLINE BRANCH LIBRARY	6006 EVERGLADE RD DALLAS	75227
J D	TRACY DOTIE HILL 1080969076	A R	VACANT
V1090	SAN JACINTO ELEM SCHOOL	7900 HUME DR DALLAS	75227
J D	DOROTHY DIGGS 1081641147	A R	FRIEDRICH SCHULZ 1081609910
V1091	ANNIE WEBB BLANTON SCHOOL	8915 GREENMOUND AVE DALLAS	75227
J D	LATRICE JACKSON 1081962801	A R	KALPANA PARAMESH 1086208163
V1092	EDWARD TITCHE ELEM SCHOOL	9560 HIGHFIELD DR DALLAS	75227
J D	HERLINDA RESENDIZ 1186966235	A R	VACANT

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SUBMISSION
DALLAS COUNTY COMMISSIONER DISTRICTS 1-4
Updated Judges List**

V1093	NUEVA VIDA LIFE ASSEMBLY	10747 BRUTON RD DALLAS	75217
J D	BETTY CARTER 1083683735	A R	VACANT
V1094	JOHN IRELAND ELEM SCHOOL	1515 N JIM MILLER RD DALLAS	75217
J D	BRENDA ANDERSON 1081866370	A R	QUENTIN CAMPBELL 1078333528
V1095	NATHANIEL HAWTHORNE SCHOOL	7800 UMPHRESS RD DALLAS	75217
J D	JAMES DOUGLAS RAY 1124082978	A R	VACANT
V1096	EASTFIELD COLLEGE PLEASANT GROVE CAMPUS	802 S BUCKNER BLVD DALLAS	75217
J D	LAKISHA NEALY 1087108234	A R	VACANT
V1097	W W SAMUELL HIGH SCHOOL	8928 PALISADE DR DALLAS	75217
J D	WHITNEY HUNT 1169552222	A R	VACANT
V1098	YMLA @ FLORENCE MIDDLE SCHOOL	1625 N MASTERS DR DALLAS	75217
J D	JUANITA POLLARD 1207900568	A R	LARRY LINKE 1081098250
V1100	E B COMSTOCK MIDDLE SCHOOL	7044 HODDE ST DALLAS	75217
J D	MINNIE ARMSTRONG 1080460384	A R	VACANT

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DALLAS COUNTY COMMISSIONER DISTRICTS 1-4
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V1101	PLEASANT GROVE LIBRARY	7310 LAKE JUNE RD DALLAS	75217
J D	DONNA O'NEAL 1080810525	A R	ROGER HUDGENS 1083108731
V1102	B H MACON ELEM SCHOOL	650 HOLCOMB RD DALLAS	75217
J D	INIECE DAVIS 1080835612	A R	VACANT
V1104	WILLIAM ANDERSON ELEM SCH	620 N ST AUGUSTINE RD DALLAS	75217
J D	AUBREY SEARS 1201085994	A R	VACANT
V1107	RICHARD LAGOW ELEM SCHOOL	637 EDGEWORTH DR DALLAS	75217
J D	LISA PELMORE 1082144933	A R	VACANT
V1108	H GRADY SPRUCE HIGH SCHOOL	9733 OLD SEAGOVILLE RD DALLAS	75217
J D	DAVID HAIGLER 1217392337	A R	ZARA ZERBY 1078046435
V1109	SURE FOUNDATION BAPTIST CHURCH	8805 FIRESIDE DR DALLAS	75217
J D	VACANT	A R	RALPH STINSON III 1080834522
V1116	EDWIN J KEST ELEM SCHOOL	2611 HEALEY DR DALLAS	75228
J D	GABRIELA PATARO 1083464285	A R	STEVE YORK 1083060216

**2021 - 2023 TERM
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SUBMISSION
DALLAS COUNTY COMMISSIONER DISTRICTS 1-4
Updated Judges List**

V1118	IGNITE MIDDLE SCHOOL	2211 CADDO ST DALLAS	75204
J D	JAMES WATKINS 2149226969	A R	MARY HARMS 1082116209
V1119	ST LUKE COMMUNITY UMC	5710 E R L THORNTON FRW DALLAS	75223
J D	GEORGE COLLINS 1081465587	A R	WILLIAM BIESEL 1083284512
V1120	SOLAR PREPARATORY SCHOOL FOR BOYS	1802 MOSER AVE DALLAS	75206
J D	ROBERT SULLIVAN 1081432304	A R	TONNETTE KHABIR 1087124734
V1121	LIVING WATERS CHURCH OF GOD	11110 SHILOH RD DALLAS	75228
J D	BEN DAY 1080297198	* A R	CAROLE STEPHENS 2129955121
V1128	LAKE HIGHLANDS HIGH SCHOOL	9449 CHURCH RD DALLAS	75238
J R	JANA BOSWELL 1080874950	A D	BRYON HANNAH 2124905754
V1134	FORESTER FIELD HOUSE	8233 MILITARY PKWY DALLAS	75227
J D	KIM MUHAMMAD 1081636253	A R	VACANT
V1300	ED VANSTON MIDDLE SCHOOL	3230 KARLA DR MESQUITE	75150
* J D	CHRISTI RODGERS 1083388699	* A R	GEORGE BURRIDGE 1080904796

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JUDGES AND ALTERNATE JUDGES
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DALLAS COUNTY COMMISSIONER DISTRICTS 1-4
Updated Judges List**

V1301	FLORENCE RECREATION CENTER	2501 WHITSON WAY MESQUITE 75150
J D	ELIZABETH RENDON 1081793377	A R MARY LAWSON 1080095355
V1302	VERNON PRICE ELEM SCHOOL	630 STROUD LN GARLAND 75043
J D	LINDA GARRETT 1083345883	A R RUSSELL JOHNSON 1084922195
V1303	EASTFIELD COLLEGE-MAIN CAMPUS, C BLDG	3737 MOTLEY DR MESQUITE 75150
J D	WILLIAM BRIDGMAN 1086714861	A R JOSH GUTIERREZ 1082989730
V1304	GOODBAR RECREATION CENTER	3000 CONCORD DR MESQUITE 75150
J D	LISA WILLIAMS 1081484116	A R PAT MOORMAN 1080282928
V1305	ZACK MOTLEY ELEM SCHOOL	3719 MOON DR MESQUITE 75150
J D	STEPHEN POGUE 1083753524	A R MICHAEL WIETHORN 1083099603
V1308	RANGE ELEM SCHOOL	4060 EMERALD DR MESQUITE 75150
J D	FERNANDO ROJAS 1079191279	* A R CAROL WOJTKOWIAK 1083391843
V1310	TOSCH ELEM SCHOOL	2424 LARCHMONT DR MESQUITE 75150
J D	BOBBYE ROSS 1161782389	A R POPPY AIRHART 1080266507

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V1311	J C RUGEL ELEM SCHOOL	2701 SYBIL DR MESQUITE	75149
J R	COLETTE KUYKENDALL 1080348685	* A D JAMES ALEXANDER 1088721628	
V1312	GALLOWAY ELEM SCHOOL	200 CLARY DR MESQUITE	75149
J D	MARTHA ROSALES 1085994827	A R KAREN SWAIN 1083357081	
V1314	WEST MESQUITE HIGH SCHOOL	2500 MEMORIAL PKWY MESQUITE	75149
* J D	LASHUN HENDERSON 1085430227	A R ERIC KIDDER 1080825518	
V1500	DOVER ELEM SCHOOL	700 DOVER DR RICHARDSON	75080
J D	HOLLIS STAIR 1214957102	A R JAN NORRIS 1080469747	
V1501	PROFESSIONAL DEVELOPMENT CTR-RISD	701 W BELT LINE RD RICHARDSON	75080
J D	JOHN KEISER 1078071158	A R CHRIS DAVIS 1083338459	
V1502	MATH/SCIENCE TECHNOLOGY MAGNET-RISD	450 ABRAMS RD RICHARDSON	75081
J D	JOHN COUPE 1081217592	A R WILLIAM BEARD 1088214604	
V1503	RICHLAND ELEM SCHOOL	550 PARK BEND DR RICHARDSON	75081
J D	ARMIN SABETI 1077760579	A R MARILYN NORTHRUP 1082136462	

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Updated Judges List**

V1700	BRADFIELD REC CENTER	1146 CASTLE DR GARLAND	75040
J D	SABRINA DONNELL 1082053098	* A R SHERYL OVERTURF 1082475139	
V1701	BUSSEY MIDDLE SCHOOL	1204 TRAVIS ST GARLAND	75040
J D	ANNE KOGAN 2130150591	* A R VACANT	
V1702	GOLDEN MEADOWS ELEM SCHOOL	1726 TRAVIS ST GARLAND	75042
J D	CECILY COX 1189875972	* A R JOHN BALL 1080184798	
V1703	A R DAVIS ELEM SCHOOL	1621 MCCALLUM DR GARLAND	75042
J D	SANDRA JOHNSON 1081078082	A R PATRICIA SHAW 1080876493	
V1705	O. HENRY ELEMENTARY SCHOOL	4100 TYNES DR GARLAND	75042
J D	MABEL OKECHUKWU 1078219535	A R DANNY JANES 1083243034	
V1706	BRADFIELD ELEM SCHOOL-GISD	3817 BUCKNELL DR GARLAND	75042
J D	SHERIE WIGDER 1078568948	A R LEAH CAREY 1080993311	
V1708	RICHLAND COLLEGE - GARLAND CAMPUS	675 W WALNUT ST GARLAND	75040
J D	MELODIE MCFARLAND 1081820418	A R ESTHER COWPERTHWAIT 1081023750	

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V1709	AUSTIN ACADEMY	1125 BEVERLY DR GARLAND 75040
J D	DAVID SPONSEL 1086904097	A R ANNA HALL 1081711655
V1710	KIMBERLIN ACADEMY	1520 CUMBERLAND DR GARLAND 75040
* J D	MARIA GARCIA 1198190952	A R JOAN BUTLER 1088771995
V1711	GRANGER RECREATION CENTER	1310 W AVE F GARLAND 75040
J D	MAGGIE ENSLEY 1078459158	* A R MARIA MARCON 1083317792
V1712	WILLIAMS ELEM SCHOOL	1821 OLD GATE LN GARLAND 75042
J R	GARY BENTLEY 1083659429	A D JANET HARRIS 1083757176
V1713	MEMORIAL PATHWAY ACADEMY	2825 S FIRST ST GARLAND 75041
J R	SCOTT MCKIM 1082993891	A D MARILYN PORTMAN 1081540518
V1715	WATSON TECHNOLOGY CENTER	2601 DAIRY RD GARLAND 75041
J D	ARLENE BEASLEY 1080963609	* A R BILL UNDERHILL 1081569430
V1716	SOUTH GARLAND HIGH SCHOOL	600 COLONEL DR GARLAND 75043
J R	CHRIS SWAIN 1027394792	A D JOY BRADY 1078273700

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V1717	CLASSICAL CENTER @ BRANDENBURG MS	626 NICKENS RD GARLAND	75043
J D	JAMECIA JOHNSON 1159943564	A R	JEFF S TURNER 1078803036
V1718	SOUTHGATE ELEM SCHOOL	1115 MAYFIELD AVE GARLAND	75041
J R	ROBERT DAY 1080546639	A D	PEGGY MCCARTY 1083333816
V1719	MONTCLAIR ELEM SCHOOL	5200 BROADMOOR DR GARLAND	75043
J D	JANETTE SWINTON 2121084209	A R	ELLEN HAIRSTON 1080952584
V1720	O'BANION MIDDLE SCHOOL	700 BIRCHWOOD DR GARLAND	75043
J D	TIARA SCOTT 1086923883	* A R	SHERRIE BEYER 1082840390
V1722	CLASSICAL CENTER AT VIAL ELEM SCHOOL	126 CREEKVIEW DR GARLAND	75043
* J D	ANGELICA VILLANUEVA 1084084973	A R	LINDA HATHORN 1086676202
V1723	SOUTH GARLAND BRANCH LIBRARY	4845 BROADWAY BLVD GARLAND	75043
J D	JAMES HARP 1080917191	A R	JOHN LIVELY 1086499808
V1726	ROUTH ROACH ELEM SCHOOL	1811 MAYFIELD AVE GARLAND	75041
J D	AMY PECK 1192845502	A R	RONDA PAULSEN 1082207006

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V1728	SAM HOUSTON MIDDLE SCHOOL	2232 SUSSEX DR GARLAND 75041
J D	ANGELA ROBINETTE 1081186495	A R MATTHEW FONTAINE 1082858849
V2002	THOMAS C MARSH PREPARATORY ACADEMY	3838 CROWN SHORE DR DALLAS 75244
J D	DARYL HINSHAW 1081139236	A R SUSANNE BOONE 1081005679
V2003	W T WHITE HIGH SCHOOL	4505 RIDGESIDE DR DALLAS 75244
J R	EDWARD SIMPSON 1083181583	A D ROXANE WIERMAN 1083249033
V2004	NATHAN ADAMS ELEM SCHOOL	12600 WELCH RD DALLAS 75244
J R	STEPHANIE SMITH 1083712932	A D ADAM SHULMAN 1180747827
V2005	MARSH LANE BAPTIST CHURCH	10716 MARSH LANE DALLAS 75229
J R	MELINDA STARNES 1080599097	A D MELANIE H SMITH 1083448172
V2006	HARRY C WITHERS ELEM SCHOOL	3959 NORTHAVEN RD DALLAS 75229
J R	WILLARD SMITH 1083256769	A D MARY DREW 1081249782
V2007	MIDWAY HILLS CHRISTIAN CHURCH	11001 MIDWAY RD DALLAS 75229
J R	NICHOLAS GILLIAM 1080492618	A D JANICE HENDERSON 1081285500

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V2008	JOHN J PERSHING ELEM SCHOOL	5715 MEADERS LN DALLAS	75229
J R	MARY BROOKS 1083663623	A D MARCIA MEAD 1083371280	
V2009	L G CIGARROA ELEM SCHOOL	9990 WEBB CHAPEL RD DALLAS	75220
J R	MARIANNE MORRIS 1085382239	A D AMY WALLACE 1083449612	
V2010	EDWARD CARY MIDDLE SCHOOL	3978 KILLION DR DALLAS	75229
J R	BRYAN LONG 1081538800	A D MAUREEN WALDIE 1083718462	
V2011	WALNUT HILL REC CENTER	10011 MIDWAY RD DALLAS	75229
J R	SHANNON DALTON 1082165568	A D DENA JACKSON 1088706325	
V2013	LOVERS LANE UNITED METHODIST CHURCH	9200 INWOOD RD DALLAS	75220
J R	NANCY ANDERTON 1082415373	A D JONATHAN NELSON 1044621211	
V2016	UNITY CHURCH OF DALLAS	6525 FOREST LN DALLAS	75230
J R	EVA ROYER 1089976676	A D JANICE SCHWARZ 1081959717	
V2018	NORTHAVEN UN METHODIST CHURCH	11211 PRESTON RD DALLAS	75230
J R	VINCENT REYNOLDS 1078614015	A D CLAIRE STANARD 1082552226	

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V2019	GEORGE B DEALEY MONTESSORI ACADEMY	6501 ROYAL LN DALLAS	75230
J R	EDMUND DANIELS 1108467254	A D WILL WILKINS 1080563661	
V2020	ARTHUR KRAMER ELEM SCHOOL	7131 MIDBURY DR DALLAS	75230
J D	ROLLIN GARY 1083315754	A R LINDA WARD 1096401050	
V2021	HILLCREST HIGH SCHOOL	9924 HILLCREST RD DALLAS	75230
J R	BILL ANDERTON 1081843684	A D DON FORTENBERRY 1082005393	
V2023	BENJAMIN FRANKLIN - IEA	6920 MEADOW RD DALLAS	75230
J R	JAMES CARTER 1088252908	A D SANDRA ELLIS 1083804834	
V2026	PRESTON HOLLOW UN METHODIST CHURCH	6315 WALNUT HILL LN DALLAS	75230
J R	CHARLES ARMSTRONG 1083064377	A D EDDIE BOWERS 1084933053	
V2027	OUR REDEEMER LUTHERAN CHURCH	7611 PARK LN DALLAS	75225
J R	SANDY AMMONS 1083356115	A D ALAN CORETZ 1078613725	
V2029	WESTMINISTER PRESBYTERIAN CHURCH	8200 DEVONSHIRE DR DALLAS	75209
J R	FRANCO MORTAROTTI 1219537887	A D MICHAEL STREET 1158639943	

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V2030	THE MUSEUM OF BIBLICAL ART	7500 PARK LN DALLAS	75225
J R	LINDA COLLINS 1083226666	A D	NATALIE LEVY 1080218072
V2032	SKILLMAN SOUTHWESTERN BRANCH LIBRARY	5707 SKILLMAN ST DALLAS	75206
J D	DALE GREER 1088124637	A R	GREGORY CLEMENTS 1079771208
V2034	HENRY W LONGFELLOW - CEA	5314 BOAZ ST DALLAS	75209
J R	ARTHUR FIELDS 1184673592	A D	MARY BETH MCKENNA 1088110295
V2035	MOCKINGBIRD COMMUNITY CHURCH	5470 ELLSWORTH AVE DALLAS	75206
J D	JEAN LAMBERTY 1087595745	A R	DAN WYDE 1081330932
V2036	ZION LUTHERAN CHURCH	6121 E LOVERS LN DALLAS	75214
J R	LAWRENCE WAINER 1083040516	A D	DALE MCEOWEN 1080354419
V2038	GENEVA HEIGHTS ELEMENTARY	2911 DELMAR AVE DALLAS	75206
J D	CHARLES MULLINS 1087660838	A R	CHRISTOPHER FORD 1215788323
V2040	ST ANDREWS PRESBYTERIAN CHURCH	3204 SKILLMAN ST DALLAS	75206
J R	CHISA SAVAGE 2137968805	A D	JOAN COOPER 1074294001

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V2041	UNIVERSITY OF TEXAS-DALLAS, VISITOR CTR	800 W CAMPBELL RD RICHARDSON 75080
J R	GAYLYNN GEE 1082764689	A D GAYANE FULLFORD 1081573054
V2042	PARKHILL JR HIGH SCHOOL	16500 SHADYBANK DR DALLAS 75248
J R	VERA GAJEWSKY 1078292196	A D ROBERT FRANKLIN 1078443307
V2043	BRENTFIELD PRIMARY SCHOOL	6767 BRENTFIELD DR DALLAS 75248
J R	DAVID W. WALLACE 2148257111	A D ANNE CHRISTIANSEN 1208466372
V2044	TEXAS A&M RESEARCH EXT CTR BLDG E	17360 COIT RD DALLAS 75252
J R	DARLENE HOWELL 1087831296	A D JAY TOBIN 1083022562
V2047	JAMES BOWIE ELEM SCHOOL-RISD	7643 LA MANGA DR DALLAS 75248
J R	CONNIE HUTZELL 1080636741	A D GERALDINE SLAUGHTER 1080639995
V2048	DALLAS FIRE STATION # 7	6010 DAVENPORT RD DALLAS 75248
J D	VACANT	A R DELISA DAY 1080816360
V2050	PRESTONWOOD ELEM SCHOOL	6525 LA COSA DR DALLAS 75248
J R	CARON HILL 1080486050	A D PATRICIA SHAUGHNESSY 1080633751

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V2051	SPRING CREEK ELEM-RISD	7667 ROUNDROCK RD DALLAS 75248
J R	JASON FRANNEA 1081163280	A D ELIZABETH HOFFMAN 2131860564
V2052	FRETZ PARK LIBRARY	6990 BELT LINE RD DALLAS 75254
J R	BILL THORESON 1081627091	A D KENNETH CARROLL 1083657399
V2056	KING OF GLORY LUTHERAN CHURCH	6411 LBJ FWY DALLAS 75240
J R	LESLIE HUBER 1081195485	A D STEPHANIE GROSSMAN 1079390483
V2058	PARK CENTRAL BAPTIST CHURCH	7777 LBJ FWY DALLAS 75251
J R	LUANN HOBBS 1081767964	A D MARCY HELFAND 1080238636
V2059	BETHANY LUTHERAN CHURCH	10101 WALNUT HILL LN DALLAS 75238
J R	DANA KIMBROUGH 1080691417	A D GERALD OAKLEY 1041328687
V2060	NORTHLAKE ELEM SCH - RISD	10059 RAVENSWAY DR DALLAS 75238
J R	PASCAL MUSCANERE 1085986953	A D WILLIAM CRAIN 1080480694
V2061	LAKE HIGHLANDS ELEM SCHOOL	9501 FERNDAL RD DALLAS 75238
J R	ROGER PRYOR 1080742298	A D MARGUERITE SARTAIN 1078762517

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V2062	LAKE HIGHLANDS JR HIGH	10301 WALNUT HILL LN DALLAS 75238
J R	KATIE WINNIFORD 1088166367	A D SCOTT BALL 1055833078
V2063	WALLACE ELEM SCHOOL-RISD	9921 KIRKHAVEN DR DALLAS 75238
J R	SUSAN FOUNTAIN 1079397554	A D SHARON K. THOMPSON 1206631202
V2064	HIGHLAND OAKS CHURCH OF CHRIST	10805 WALNUT HILL LN DALLAS 75238
J D	SCOTT HADDEN 1083878594	A R CATHERINE MARRS 1081031800
V2065	VICTOR HEXTER ELEM SCHOOL	9720 WATERVIEW RD DALLAS 75218
J D	PATRICIA FINK 1086450334	A R GRANT READING 1083331962
V2066	LAKE HIGHLANDS NORTH REC CTR	9940 WHITE ROCK TRL DALLAS 75238
J R	YVETTE ATKINS 1083886265	A D KENNETH STEWART 1139526555
V2067	L L HOTCHKISS ELEM SCHOOL	6929 TOWN NORTH DR DALLAS 75231
J R	JOHN BROWN 1087202550	A D KAREN POTASZNIK 1082993532
V2068	DAN D ROGERS ELEM SCHOOL	5314 ABRAMS RD DALLAS 75214
J D	KEITH BURESH 1083709383	A R LISA CAUSEY 1079267331

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V2069	RIDGEWOOD REC CENTER	6818 FISHER RD DALLAS	75214
J R	DAN PICKENS 1083285652	A D	ADAN GONZALEZ 2024262328
V2071	LAKEWOOD ELEM SCHOOL	3000 HILLBROOK ST DALLAS	75214
J R	ROXAN STAFF 1080964968	A D	PATRICIA COLE 1015426266
V2072	NORTHRIDGE PRESBYTERIAN CHURCH	6920 BOB-O-LINK DR DALLAS	75214
J R	WILLIAM HAUGEN 1082759879	A D	PAULA GRAHAM 1083298922
V2073	BATH HOUSE CULTURAL CENTER	521 E LAWTHER DR DALLAS	75218
J D	JANE BYE 2003397959	A R	VANESSA POGUE-COLLINS 1078726334
V2077	E D WALKER MIDDLE SCHOOL	12532 NUESTRA DR DALLAS	75230
J R	CARLA MCCLANAHAN 1081523702	A D	KRISTIN MALMBERG 1083291974
V2079	ANNE FRANK ELEM SCHOOL	5201 CELESTIAL RD DALLAS	75254
J D	WENDY CAMPBELL 1083660152	A R	HENRY CONRAD 1083553372
V2201	CENTRAL CHRISTIAN CHURCH	4711 WESTSIDE DR DALLAS	75209
J R	WHITNEY MATHES 1088553199	A D	NANCY EILEEN GREGORY 1083533167

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V2203	JOHN S ARMSTRONG ELEM	3600 CORNELL AVE DALLAS 75205
J R	TERENCE HUFFINES 1173634072	A D LILLIAN STEPHENSON 1082255863
V2220	UNIVERSITY PARK UNITED METHODIST CHURCH	4024 CARUTH BLVD DALLAS 75225
J R	BETH BIESEL 1081388439	A D CANDIS MORRIS-HINES 1080976018
V2221	JOHN S. BRADFIELD ELEMENTARY	4300 SOUTHERN AVE DALLAS 75205
J R	LAURA ELIZABETH BIESEL 1177848707	A D VICTORIA GLIKIN 2128090756
V2223	UNIVERSITY PARK SCH-W	3505 AMHERST AVE DALLAS 75225
J R	GRANT LAUGHLIN 1081193835	A D DOROTHY MUNDY 1078209802
V2224	HIGHLAND PARK MIDDLE SCHOOL	3555 GRANADA DR DALLAS 75205
J R	JAMES HAIRSTON 1083846182	A D GINA WEBER 1082350493
V2225	SMU/HUGHES-TRIGGS STUDENT CTR	3140 DYER ST DALLAS 75205
J R	KAREN WATSON 1085781689	A D PRECIOUS WASHINGTON 1079737261
V2226	HIGHLAND PARK ISD ADMIN BLDG	7015 WESTCHESTER DR DALLAS 75205
J R	CINDY HOLIDAY 1083072882	A D LEIGH BAILEY 1163243128

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V2300	ST ANDREWS EPISCOPAL CHURCH	2783 VALWOOD PKWY FARMERS BRAN 75234
* J D	JEFFREY RASANSKY 1083338266	A R DAVID BELL 1083082796
V2301	LOOS FIELD HOUSE	3815 SPRING VALLEY RD ADDISON 75001
J R	CANDACE ADAMS 1079063097	A D VINCENT PERUCCA 1082525295
V2302	VIVIAN FIELD MIDDLE SCHOOL	13551 DENNIS LN FARMERS BRAN 75234
* J D	GARY ADELMAN 1166270367	A R DAVID BEARDSLEY 1192734611
V2303	FARMERS BRANCH RECREATION CENTER	14050 HEARTSIDE PL FARMERS BRAN 75234
* J D	SARAH BEREL-HARROP 1120030133	A R ALBERT SOLIS 1083618971
V2305	FARMERS BRANCH MANSKE LIBRARY	13613 WEBB CHAPEL RD FARMERS BRAN 75234
J R	SUSAN WHITING 1086031773	A D PAUL HELLER 1082657079
V2306	CHAPEL HILL PREPARATORY SCHOOL	12701 TEMPLETON TRL DALLAS 75234
J R	CARL SCOTTOW 1090689342	A D BEN KRAGE 1080520751
V2307	BROOKHAVEN COLLEGE	3939 VALLEY VIEW LN FARMERS BRAN 75244
J R	CAREY CONN 1027375128	A D LAWRENCE SPENCER 1079040091

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V2310	WEBB CHAPEL UN METH CHUR	2536 VALLEY VIEW LN FARMERS BRAN 75234
J R	JUDITH SAMUEL 1083833402	A D ASHLEY O'NEILL 1081827951
V2401	TED POLK MIDDLE SCHOOL	2001 KELLY BLVD CARROLLTON 75006
J R	BOBBY WADSWORTH 1080813559	A D TERRI ROMINE-ORTEGA 1082884031
V2402	MCCOY ELEMENTARY SCHOOL	2425 MCCOY RD CARROLLTON 75006
J D	ANGIE COLE 1199340128	A R SUSAN MORRISSEY 1080523276
V2403	JERRY R JUNKINS ELEM SCHOOL	2808 RUNNING DUKE DR CARROLLTON 75006
J D	DAVID MIRANDA 1174453484	A R JENNIFER TURNER 1084997597
V2404	BLANTON ELEM SCHOOL	2525 SCOTT MILL RD CARROLLTON 75006
J D	IVAN HISTAND 1169430634	A R TEENA MARKS 2148784800
V2405	NEWMAN SMITH HIGH SCHOOL	2335 N JOSEY LN CARROLLTON 75006
J R	JOHN MAYFIELD 1082963418	A D ERIC SPETT 1082888047
V2406	KELLER SPRINGS BAPTIST CHUR	3227 KELLER SPRINGS RD CARROLLTON 75006
J D	BEVERLY CROCKETT 1086910410	A R GEORGE SIMONS 1088198918

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V2407	JOSEY RANCH LAKE LIBRARY	1700 KELLER SPRINGS RD CARROLLTON 75006
J D	CAROLYN RUTKOWSKI 1081450162	A R JOHN JONES 2141590064
V2408	CROSBY RECREATION CENTER	1610 E CROSBY RD CARROLLTON 75006
J D	JOHN YOURSE 1085125491	A R DAN CLAIBORNE 1083148970
V2409	NORTH DALLAS FAMILY CHURCH	1700 S JOSEY LN CARROLLTON 75006
J D	JANICE BALLOU 1124546877	A R KELLEY BOULTON 1208621480
V2500	GREENWOOD HILLS ELEM SCHOOL	1313 W SHORE DR RICHARDSON 75080
* J D	ANNAMARIE FERGUSON 1086369739	A R FELY EICHENBERGER 1082454700
V2501	CANYON CREEK ELEM SCHOOL	2100 COPPER RIDGE DR RICHARDSON 75080
J R	EDWARD DEES 1083394503	A D CAROL COULTER 1154216320
V2502	PRAIRIE CREEK ELEM SCHOOL	2120 E PRAIRIE CREEK DR RICHARDSON 75080
J R	BONNIE WELLS 1083321086	A D JULIA KAUFMAN 1149706309
V2503	MOHAWK ELEM SCHOOL	1500 MIMOSA DR RICHARDSON 75080
J R	JILLIAN ZHORNE 1088544807	A D COLLEEN MARTIN 1081481939

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V2504	RICHARDSON N JR HIGH SCHOOL	1820 N FLOYD RD RICHARDSON	75080
J R	TIM SEAMAN 1081536131	A D	DONNA BULLARD 1082842248
V2505	NORTHRICH ELEM SCHOOL	1301 CUSTER RD RICHARDSON	75080
* J D	AHMED ZAYAN 1184337559	A R	KURT JOHNSON 1083638521
V2506	ARAPAHO CLASSICAL MAGNET SCHOOL	1300 CYPRESS DR RICHARDSON	75080
J R	KATHERINE THOMAS 1083747970	A D	NICOLA STOUT 1080127770
V2507	RICHARDSON HEIGHTS ELEM	101 N FLOYD RD RICHARDSON	75080
J R	LILA FARMER 1087517943	A D	RICHARD COADY 1083585447
V2508	RICHARDSON TERRACE ELEMENTARY	300 N DOROTHY DR RICHARDSON	75081
J D	FRANK COONEY 1081828364	A R	BILL LOVELL 1082754772
V2509	CARE CHURCH	1504 E CAMPBELL RD RICHARDSON	75081
J R	ALETA JODY LUBBERS 1080217960	A D	EVELYN ROBERSON 1083733959
V2510	YALE ELEM SCHOOL	1900 E COLLINS BLVD RICHARDSON	75081
J R	ROWELL LUBBERS 1083340864	A D	HOWARD T. MAHER 1082537090

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V2511	DARTMOUTH ELEM SCHOOL	417 DARTMOUTH LN RICHARDSON 75081
J R	JOHN AMIS 1083377920	A D LAUREL JOHNSON 1080799624
V2513	SPRINGRIDGE ELEMENTARY SCHOOL	1801 E SPRING VALLEY RD RICHARDSON 75081
J D	CATHERINE TAYLOR 1081340353	A R ALYCE SCHMITT 1086416242
V2514	JESS HARBEN ELEM SCHOOL	600 S GLENVILLE DR RICHARDSON 75081
J R	HELEN CALDWELL 1080890691	A D MARIA RAMIREZ-BONER 1080571156
V2516	RICHARDSON CIVIC CENTER	411 W ARAPAHO RD RICHARDSON 75080
J R	KERRY GAINES 1078943836	A D LORI RALEY 1081065167
V2601	VALLEY RANCH ELEM SCHOOL	9800 RODEO DR IRVING 75063
J D	FRANCINE LY 1084492936	A R MIKE WILCOX 1088473208
V2602	CIMARRON RECREATION CENTER	201 RED RIVER TRL IRVING 75063
J D	CRYSTAL HENDERSON 1163599310	A R RICK TUBB 1080787814
V2603	FREEMAN ELEM SCHOOL-CFBISD	8757 VALLEY RANCH PKWY IRVING 75063
* J D	SILVIA ZAMORA-SANDERS 1182803778	A R BRIAN SCHRADER 1165399036

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V2604	VALLEY RANCH BRANCH LIBRARY	401 CIMARRON TRL IRVING 75063
* J D	KENDRA HENRY 2147279556	A R KASSIOPIA JACKSON 1154939594
V2700	BIG SPRINGS ELEM SCHOOL	3301 W CAMPBELL RD GARLAND 75044
J D	RACHEL BAKER FORD 1082285745	A R BARBARA STAUFFER 1083819544
V2701	SPRINGPARK SPORTS CLUB	3330 SPRINGPARK WAY GARLAND 75044
J R	BRIAN JENSEN 1082830242	A D BRIDGETTE SCOTT 1085972877
V2702	SPRING CREEK ELEM -GISD	1510 SPRING CREEK DR GARLAND 75040
J R	MAIKA RODRI 1161101166	A D LINDSEY TROUSDALE 1132853408
V2704	NORTH GARLAND BRANCH LIBRARY	3845 N GARLAND AVE GARLAND 75040
J D	SANDRA FRANKLIN 1081451706	A R BOB J. BROWN 1083197846
V2705	HICKMAN ELEM SCHOOL	3114 PINWOOD DR GARLAND 75044
* J D	TANESA LEE 1077548082	A R MARGARET HOFFELD 1083369251
V2706	WALLACE ETHRIDGE ELEM SCHOOL	2301 SAM HOUSTON DR GARLAND 75044
J R	DWIGHT DAVIS 1083075912	A D MICHAEL BAKER 1081957598

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V2709	COOPER ELEM SCHOOL	1200 KINGSBRIDGE DR GARLAND 75040
J R	ANDREW CASTILLO 2001963376	A D TARA MCCLINTON 1159830220
V2710	LISTER ELEM SCHOOL	3131 MARS DR GARLAND 75040
J D	MAURI LONG 1079402451	A R ANNETTE RATLIFF 1083476360
V2712	NORTHLAKE ELEM SCHOOL -GISD	1626 BOSQUE DR GARLAND 75040
J D	JENNIFER GOUGE 1081364922	A R MIKE FLEMING 1040620107
V2713	CLUB HILL ELEM SCHOOL	1330 COLONEL DR GARLAND 75043
J R	PAMELA HAIR 1078043152	A D WESLEY JOHNSON 1081297687
V2714	LYLES MIDDLE SCHOOL	4655 S COUNTRY CLUB RD GARLAND 75043
J D	LINDSEY FIEGELMAN 1087561810	A R SHARON STACHA 1078997183
V2715	NORTHSIDE BAPTIST CHURCH-GA	2510 N GLENBROOK DR GARLAND 75040
J R	JAMES MURPHY 1080279234	A D DORRIS JOHNSON 1078785642
V2801	COPPELL ARTS CENTER	505 TRAVIS ST COPPELL 75019
J R	ADRIA GER 1083429137	A D BETSABETH LUGO 1170182794

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V2802	WILSON ELEMENTARY SCHOOL	200 S COPPELL RD COPPELL 75019
* J R	JANINA VALDEZ SOLOMON 1139034404	A D NANCY WANG 1081409787
V2803	MOCKINGBIRD ELEM SCHOOL	300 MOCKINGBIRD LN COPPELL 75019
J R	MAUREEN VANACORE 1082428720	A D CLAIRE EBERT 1179743613
V2805	COPPELL TOWN CENTER	255 E PARKWAY BLVD COPPELL 75019
J R	WILLIAM HURLBERT 1081435648	A D THOMAS TRAHAN 1214155409
V2807	LAKESIDE ELEM SCHOOL-COISD	1100 VILLAGE PKWY COPPELL 75019
J R	WANDA CARROLL 1082023057	A D CYNTHIA SALIT 1088044702
V2808	COTTONWOOD CREEK ELEM SCH	615 MINYARD DR COPPELL 75019
J R	DAVID JENKINS 1083114450	A D NICHOLI HOSKINS 1083769882
V2809	RIVERCHASE ELEM SCHOOL	272 S MACARTHUR BLVD COPPELL 75019
J R	SONAL TANDALE 2126547938	A D ANGELA GIBSON-PITTMAN 1086370034
V2900	ADDISON FIRE STATION # 2	3950 BELTWAY DR ADDISON 75001
J R	LOLA HURT 1086368459	A D DAVID GRIGGS 1083697799

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V2902	ADDISON FIRE STATION # 1	4798 AIRPORT PKWY ADDISON 75001
J D	TERRY BARKER 1082988961	A R TANYA SMITH 1153507020
V2920	COYLE MIDDLE SCHOOL	4500 SKYLINE DR ROWLETT 75088
J R	JAMES WIEDERHOLD 1081238870	A D LASHANDIA HARRIS 1078899053
V2921	BACK ELEM SCHOOL	7300 BLUEBONNET DR ROWLETT 75089
J R	JORDAN VOOR 1104213322	A D LESLIE MONTENA 1086312774
V2922	LIBERTY GROVE ELEM SCHOOL	10201 LIBERTY GROVE RD ROWLETT 75089
J R	JOANN CURRAN 1079349422	A D ANNETTE DOUGLAS 1079993560
V2924	ROWLETT CITY HALL ANNEX	4004 MAIN ST ROWLETT 75088
J R	JOHN SIMONTON 1081089367	A D WATHENIA CLARK 1087121892
V2925	ROWLETT ELEM SCHOOL	3315 CARLA DR ROWLETT 75088
J R	TE SUMNER 1085971861	A D KENDRA PREVOST 1086212928
V2926	HERFURTH ELEM SCHOOL	7500 MILLER RD ROWLETT 75088
J R	DAVID ELAM 1187052892	A D SOPHIA THOMAS 2000579641

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V2927	SCHRADE MIDDLE SCHOOL	6201 DANRIDGE RD ROWLETT 75089
J R	CHAD MANLEY 2125179831	A D JILL PETERS 1081622051
V2940	CHASE OAKS CHURCH-WOODBRIDGE CAMPUS	2709 3RD ST SACHSE 75048
J R	GARY OVERBY 1083556850	A D Wafa ISMAIL 1183447242
V2941	SACHSE SENIOR CENTER	3815 SACHSE RD, BLDG A SACHSE 75048
J R	CHRISTINE PEREZ 1024316377	A D SANDRA RICHARDSON 1083592585
V2942	BG HUDSON MIDDLE SCHOOL	4405 HUDSON DR SACHSE 75048
J R	ROBERT VAN BLOEMENDAAL 1144047166	A D DAVID SANTUCCI 1083697656
V3000	WILLIAM B TRAVIS ACADEMY	3001 MCKINNEY AVE DALLAS 75204
J D	ANDREA BARREIRO 1192292819	A R ALEXANDER KELIHER 1200429234
V3003	T W BROWNE MIDDLE SCHOOL	3333 SPRAGUE DR DALLAS 75233
J D	JOE TAVE 1084639238	A R SARAH WESTGUARD 1089069418
V3004	DANIEL WEBSTER ELEM SCHOOL	3815 S FRANKLIN ST DALLAS 75233
J D	MARTIN BURRELL 1087123260	A R VACANT

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V3007	EL CENTRO COLLEGE-MAIN CAMPUS	801 MAIN ST DALLAS	75202
J D	DORIS SMITH 1078986521	A R	REX MACAYLO 2147663264
V3008	GEORGE L ALLEN SR. COURTS BLDG	600 COMMERCE ST DALLAS	75202
* J D	DRUCILLA EMANUEL 1117843006	A R	GINA GENTILE 1087271172
V3009	EXALL RECREATION CENTER	1355 ADAIR ST DALLAS	75204
* J D	YAFEUH SHAMSID DEEN 1078536184	A R	KIRK KENNEDY 1082841478
V3011	ST EDWARDS CATHOLIC CHURCH	4033 ELM ST DALLAS	75226
* J D	ELAINE CAMPBELL 1083282524	A R	ROBERT RENTERIA 1194978134
V3016	BILL J PRIEST INSTITUTE	1402 CORINTH ST DALLAS	75215
J D	VINCENT RODRIQUEZ 1083458540	A R	HELEN COLLINS 1081081767
V3017	MARTIN LUTHER KING JR LEARNING CTR	1817 WARREN AVE DALLAS	75215
J D	GERRE WILLIAMS 1186300576	A R	BRIAN FABIAN 1075968533
V3018	PARK SOUTH YMCA	2500 ROMINE AVE DALLAS	75215
J D	SAUNDRA RAY 1083182191	A R	PAUL SCHLOSBERG 1088199026

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V3019	JAMES MADISON HIGH SCHOOL	3000 MLK BLVD DALLAS	75215
J D	MYRTLE BROWN 1083324195	A R	VACANT
V3020	MARTIN LUTHER KING CORE BLDG	2922 MARTIN L KING BLVD DALLAS	75215
J D	KAJUANA YOUNG 1081975373	A R	TANA HENSLEY 1215648039
V3022	IRMA RANGEL-YOUNG WOMEN'S SCHOOL	1718 ROBERT B CULLUM BL DALLAS	75210
J D	VACANT	A R	VACANT
V3025	MT HOREB BAPTIST CHURCH	3306 CARPENTER AVE DALLAS	75215
* J D	DR. FELICIA SHEPHERD 1077971369	A R	LATRESE ADKINS 1151196150
V3026	ST PAUL BAPTIST CHURCH	1600 PEAR ST DALLAS	75215
J D	NICOLE SIMS 1086954383	A R	SUSAN BLACKBURN 1085508387
V3027	LINCOLN HIGH SCHOOL -CHM	2826 ELSIE FAYE HEGGINS DALLAS	75215
J D	BETTY HOOEY 1083931895	A R	VACANT
V3029	EVANGELIST TEMPLE CHURCH	2627 DORRIS ST DALLAS	75215
J D	MICHAEL WEBB 1084396787	A R	RICK SUMMEY 1080851563

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V3032	HECTOR P GARCIA MIDDLE SCHOOL-DISD	700 E 8TH ST DALLAS	75203
J D	JOSHUA LLOYD 1083822463	A R	VACANT
V3034	GREATER MT PLEASANT BAPTIST CHURCH	1403 MORRELL AVE DALLAS	75203
J D	GLORIA JAMES 1079493683	A R	VACANT
V3035	F D ROOSEVELT HIGH SCHOOL	525 BONNIE VIEW RD DALLAS	75203
J D	ANNIE NEWMAN 1085821864	A R	MICHAEL QUINT 1083802277
V3038	THE WAY-TRUTH-LIFE CHRISTIAN CHURCH	1702 S DENLEY DR DALLAS	75216
J D	DR. NETTIESTINE SMITH 1085683520	A R	VACANT
V3039	OLIVER W HOLMES MIDDLE SCHOOL	2001 E Kiest BLVD DALLAS	75216
J D	MICHAEL KING 1084680208	A R	VACANT
V3040	GOOD STREET BAPTIST CHURCH	3110 BONNIE VIEW RD DALLAS	75216
J D	JAMES BAKER 1083964323	A R	VACANT
V3042	JOHN NEELY BRYAN ELEM SCHOOL	2001 DEER PATH DR DALLAS	75216
J D	MAE CHOICE 1084055952	A R	VACANT

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V3043	PAUL L DUNBAR LANCASTER-KEIST LIBRARY	2008 EAST KEST BLVD DALLAS 75216
J D	KIMBERLY RICHARDSON 2002192443	A R VACANT
V3044	W W BUSHMAN ELEM SCHOOL	4200 BONNIE VIEW RD DALLAS 75216
* J D	VANESSA SCOTT 1079127393	A R VACANT
V3045	GETHSEMANE MISSIONARY BAPTIST CHURCH	4600 SOLAR LN DALLAS 75216
J D	CLAUDIA FOWLER 1084206721	A R MARILYN TAYLOR 1086737074
V3046	JOHN W CARPENTER ELEM SCHOOL	2121 TOSCA LN DALLAS 75224
J D	BEATRICE LOVETT 1085768325	A R CHRIS WRIGHT 1085088769
V3047	CFNI STUDENT CENTER	444 FAWN RIDGE DR DALLAS 75224
J D	MARGARET CUMBY 1084916691	A R OSCAR BRACKS 1080943055
V3048	SOUTH OAK CLIFF HIGH SCHOOL	3601 S MARSALIS AVE DALLAS 75216
J D	RUTH WYRICK 1184488981	A R CAROL NICHOLS 1083358072
V3049	CLARA OLIVER ELEM SCHOOL	4010 IDAHO AVE DALLAS 75216
J D	ARTHERINE PRIESTON 1085502414	A R LORI SCHMIDT 1083707732

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V3050	H I HOLLAND ELEM SCHOOL @ LISBON	4203 S LANCASTER RD DALLAS 75216
J D	JESSE LIPSCOMB 1085563946	A R VACANT
V3051	FOUNTAIN OF THE LIVING WORD CHURCH	2543 E LEDBETTER DR DALLAS 75216
J D	MYRTLE JOHNSON 1084174414	A R VACANT
V3052	ELISHA M PEASE ELEM SCHOOL	2914 CUMMINGS ST DALLAS 75216
J D	LINDA WYNN 1084012458	A R MURDOCK GIBBS 1081960782
V3054	W M HAWLEY ATWELL LAW ACADEMY	1303 REYNOLDSTON LN DALLAS 75232
* J D	BARBARA LEWIS 1084113729	A R VACANT
V3055	ADELLE TURNER ELEM SCHOOL	5505 S POLK ST DALLAS 75232
J D	VIVIAN HILL 1085582005	A R TAFT THOMPSON 2002497781
V3056	MARK TWAIN LEADERSHIP VANGUARD	724 GREEN COVE LN DALLAS 75232
J D	KEBRAN ALEXANDER 1088542947	A R VACANT
V3057	TG TERRY ELEM SCHOOL	6661 GREENSPAN AVE DALLAS 75232
J D	LAWSON L TURNER, JR 1084209031	A R VACANT

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V3058	ST PAUL LUTHERAN CHURCH	5725 S MARSALIS AVE DALLAS 75241
J D	GARLINE SHAW 1084111329	A R LINDA CHILES 1083107634
V3059	IDEAL FAMILY CHURCH	1000 E REDBIRD LN DALLAS 75241
* J D	STEPHANIE WARD 1084603854	A R KENNETH BROWN 1085063095
V3060	R L THORNTON ELEM SCHOOL	6011 OLD OX RD DALLAS 75241
J D	MARY LUCKEY 1085437050	A R DUANE NICCUM 1079283813
V3061	BOML ACADEMY @ A MACEO SMITH	3030 STAG RD DALLAS 75241
* J D	BARBARA FLUKER 1086417659	A R VACANT
V3062	J N ERVIN ELEM SCHOOL	3722 BLACK OAK DR DALLAS 75241
J D	BOADICEA WHITE-MATHIS 1085728390	A R VACANT
V3063	RONALD E MCNAIR ELEM SCHOOL	3150 BAINBRIDGE AVE DALLAS 75237
J D	DOROTHY WHALEY 1084486087	A R GLORIA CAFFEY 1084247747
V3064	FRIENDSHIP WEST BAPTIST CHURCH	2020 WHEATLAND RD DALLAS 75232
J D	DIANNA JACKSON 1188905807	* A R RICHARD SCHELL 2163200077

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V3065	UMPHREY LEE ELEM SCHOOL	7808 RACINE DR DALLAS	75232
J D	SEDONIA KIDD 1084030181	A R	VACANT
V3066	MARTIN WEISS ELEM SCHOOL	8601 WILLOUGHBY BLVD DALLAS	75232
* J D	TIPHANIE PAIGE 1084779236	A R	VACANT
V3067	DA HULCY STEAM MIDDLE SCHOOL	9339 S POLK ST DALLAS	75232
J D	ERIC JOHNSON 1085357826	A R	VACANT
V3068	SINGING HILLS REC CENTER	6805 PATROL WAY DALLAS	75241
* J D	ELIZA STEWARD 1084082098	A R	VACANT
V3069	CORNERSTONE COMMUNITY CHURCH	2817 CHERRY VALLEY BLVD DALLAS	75241
J D	NARLON CLEMONS 1084067852	A R	RUTH HODGE 1084247515
V3070	TOMMIE ALLEN REC CENTER	7071 BONNIE VIEW RD DALLAS	75241
* J D	YOLONDA HIGHTOWER 1183033951	A R	VACANT
V3071	HIGHLAND HILLS UN METHODIST CHURCH	3800 SIMPSON STUART RD DALLAS	75241
J D	DEBRA HARWELL 1085347666	A R	VACANT

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V3072	CEDAR VALLEY COLLEGE-M BLDG	3030 N DALLAS AVE LANCASTER	75134
J D	ANTHONY FORCELLEDO 2147481103	A R	FRANKLIN HILL 1082384563
V3073	HIGHLAND HILLS LIBRARY	6200 BONNIE VIEW RD DALLAS	75241
* J D	DERRICK TALTON 1082158782	A R	RICHARD CAREY 1082255956
V3075	WILMER-HUTCHINS HIGH SCHOOL	5520 LANGDON RD DALLAS	75241
J D	LATORRY JACKSON 1086078204	A R	VACANT
V3078	PARK IN THE WOODS REC CENTER	6801 MOUNTAIN CREEK PK DALLAS	75249
J D	WILLIAM HILL 1084547091	A R	MICHAEL PRICE 1079147706
V3079	HENRIE ELEMENTARY SCHOOL	253 W LAWSON RD DALLAS	75253
* J D	DESHAYLA JEFFERSON 1086541161	A R	VACANT
V3080	KLEBERG/RYLIE REC CENTER	1515 EDD RD DALLAS	75253
J D	LANTRESA WILLIAMS 1149350470	* A R	EUGENE RALPH SR 1172356345
V3081	BOOKER T WASHINGTON HIGH SCHOOL	2501 FLORA ST DALLAS	75201
J R	ANDREW NELSON 1150547398	A D	DEMEKA WILLIAMS 1181084551

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V3082	W A BLAIR ELEM SCHOOL	7720 GAYGLEN DR DALLAS	75217
* J D	YVONNE BRANCH 1187550605	A R SANDRA STINSON 1080809676	
V3083	EBBY HALLIDAY ELEM SCHOOL	10210 TEAGARDEN RD DALLAS	75217
J D	JOHNNIE GOINS 1085371470	A R CORNELL HILL 1201783288	
V3090	JONSSON CENTRAL LIBRARY	1515 YOUNG ST DALLAS	75201
* J D	CINTHY WHEAT 1078734011	A R VACANT	
V3092	THURGOOD MARSHALL REC CENTER	5150 MARK TRAIL WAY DALLAS	75232
* J D	MARY HARRISON 1084361794	A R ANNA NELSON 1085806489	
V3097	UNIVERSITY OF NORTH TEXAS AT DALLAS	7300 UNIVERSITY HILLS BLV DALLAS	75241
J D	WANDA DAVIS 1085640159	A R SHARON HAYDEN 1083730855	
V3100	CEDAR HILL RECREATION CENTER	310 E PARKERVILLE RD CEDAR HILL	75104
J D	EMELDA MARTIN 1098996319	A R VICKI QUESADA 1086112910	
V3102	KIM LEWIS AUXILIARY SERVICES CTR	202 E BELTLINE RD CEDAR HILL	75104
J D	CONNIE COOK 1167023746	* A R VACANT	

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V3103	BESSIE COLEMAN MIDDLE SCHOOL	1208 E PLEASANT RUN RD CEDAR HILL 75104
J D	ANNA GREEN 1085484273	A R TIM PINON 1085560280
V3104	MADDOX TEACHING & LEARNING CTR	1533 HIGH POINTE LN CEDAR HILL 75104
J D	DOROTHY CHAMBERS 1184395681	A R BRIAN HOMOLESKI 1084311830
V3105	CEDAR HILL GOVERNMENT CENTER-BLDG 100	285 UPTOWN BLVD CEDAR HILL 75104
J R	CHRIS JUHL 1156906491	A D VACANT
V3106	PLUMMER ELEMENTARY SCHOOL	1203 S CLARK RD CEDAR HILL 75104
J D	SHARON BARNES 1150183626	A R LISA THIERRY 1079272292
V3107	HIGHLANDS ELEM SCHOOL-CHISD	131 SIMS DR CEDAR HILL 75104
J D	CASSANDRA COOPER 1081972597	A R LISA PERDUE 1085104587
V3108	BRAY ELEMENTARY SCHOOL	218 N BROAD ST CEDAR HILL 75104
J R	ALEXANDER RAY 1220766981	A D BEVERLY MOORE 1084377837
V3109	LAKE RIDGE ELEM SCHOOL	1020 LAKE RIDGE PKWY CEDAR HILL 75104
J D	ERVIN SEAMSTER 1084505618	A R PATRICK DALE 1121250454

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V3200	H BOB DANIEL SR INTERMEDIATE SCHOOL	1007 SPRINGWOOD DR DUNCANVILLE 75137
J R	KAY KAMM 1085576105	A D BETTY PITTMAN 1084222777
V3201	ALEXANDER ELEMENTARY SCHOOL	510 SOFTWOOD DR DUNCANVILLE 75137
* J D	KELLY RAY HERRING JR 1078173127	A R CAROLINE CREEL 1084759455
V3202	DUNCANVILLE LIBRARY	201 JAMES COLLINS BLVD DUNCANVILLE 75116
J D	ZINA WEST-LEWIS 1158644283	A R LISA EARL 1088004035
V3203	DUNCANVILLE'S FIRST BAPTIST CHURCH	323 W WHEATLAND RD DUNCANVILLE 75116
J D	ANDREA CURTIS RICHARDSON 1156618031	A R VICKI MARSH 1080157320
V3204	REED MIDDLE SCHOOL	530 E FREEMAN ST DUNCANVILLE 75116
* J D	LASHAUN WALLACE 2156105602	A R PAUL SETTER 1084345943
V3205	BRANDENBURG INTERMEDIATE SCH-DUISD	1903 BLUERIDGE DR DUNCANVILLE 75137
* J D	TAQUISHA CRAWFORD 1191083221	A R ROBERT COOK 1085830782
V3206	BYRD MIDDLE SCHOOL	1040 W WHEATLAND RD DUNCANVILLE 75116
J R	KENNETH HOLLINGSWORTH 1085080859	A D VACANT

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V3207	ARISE CHURCH	201 W CENTER ST DUNCANVILLE	75116
J D	CARLA REYNOLDS-GROGAN 1084450205	A R	DONALD SMITH 1185043334
V3208	CENTRAL ELEM SCHOOL- DUISD	302 E FREEMAN ST DUNCANVILLE	75116
J D	TAMMY BRITTON 1085265680	A R	RUSSELL MILLER 1087302744
V3209	DUNCANVILLE HS PERFORMANCE HALL	900 W CAMP WISDOM RD DUNCANVILLE	75116
J R	JELENA PETROVIC 1210527199	A D	SHARON JONES 1085560543
V3211	FAIRMEADOWS ELEM SCHOOL	101 E FAIRMEADOWS DR DUNCANVILLE	75116
J D	MILLIE WILLIAMS 1078241143	A R	DANEE ROEDL 1083773320
V3300	PORTER ELEM SCHOOL	517 VIA AVENIDA MESQUITE	75150
J R	STEVE WALTON 1082027025	A D	SHARON WILSON 1167500199
V3301	DUNFORD REC CENTER	1015 GREEN CANYON DR MESQUITE	75150
J R	BRAD UNDERWOOD 1083853379	* A D	SHARITA WASHINGTON 1149912767
V3302	GEORGIA KIMBALL ELEM	4010 CORYELL WAY MESQUITE	75150
J R	HELEN MAY NICHOLS 1081126581	A D	ROBERT CHAVEZ 1040643248

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V3303	DR JC CANNADAY ELEM SCHOOL	2701 CHISOLM TRL MESQUITE	75150
J D	SANDRA WEATHERALL 1080877180	A R	ED HUDSON 1083491315
V3304	POTEET HIGH SCHOOL	3300 POTEET DR MESQUITE	75150
J R	JENNIFER VIDLER 1083249300	A D	CONSTANCE JAHN 1080808878
V3305	MESQUITE CITY HALL	757 N GALLOWAY AVE MESQUITE	75149
J D	IRAANA MURCHISON 2142409150	A R	PETER SCHROER 1083082037
V3307	W L WILKINSON MIDDLE SCHOOL	2100 CREST PARK DR MESQUITE	75149
J D	LISA THERIOT 1083450677	A R	RAMON PENSADO 2130640752
V3309	LAKESIDE ACTIVITY CENTER	101 HOLLEY PARK DR MESQUITE	75149
J D	ERICKA THROWER 1083810490	A R	LOUIS HOLMAN 1083098285
V3310	MESQUITE HIGH SCHOOL	300 E DAVIS ST MESQUITE	75149
J R	SUSAN CUMBY 1080136329	A D	DEBORAH MOSES 1188387163
V3312	PIRRUNG ELEM SCHOOL	1500 CREEK VALLEY RD MESQUITE	75181
* J D	PAULETTE GOSHA LONG 1082618307	A R	CHRISTY MARTINEZ-ARELLANO 1169154178

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V3313	J R THOMPSON ELEM SCHOOL	2525 HELEN LN MESQUITE	75181
J D	SUZANNE HESS 1081809690	A R	MINNIE JONES 1085859172
V3314	A C NEW MIDDLE SCHOOL	3700 S BELT LINE RD MESQUITE	75181
J D	KIA WILLIAMS 2168401873	A R	BILL AUGUSTINE 2158817964
V3315	TISINGER ELEM SCHOOL	1701 HILLCREST ST MESQUITE	75149
J D	LEON CHANDLER 1191211933	A R	YURI GARCIA 2123031549
V3316	RUTHERFORD REC CENTER	900 RUTHERFORD DR MESQUITE	75149
J D	BELINDA WILLIAMS 1083533506	A R	PAUL ALLEN 1081643412
V3317	HORN HIGH SCHOOL	3300 E CARTWRIGHT RD MESQUITE	75181
J D	DARLENE HARDY 1078267318	A R	PATRICK LAURIE 1086521121
V3400	BALCH SPRINGS CIVIC CENTER	12400 ELAM RD BALCH SPRINGS	75180
J D	JACQUELINE FAIN 1081261030	A R	MATTHEW PROCTOR 1161440412
V3404	HICKORY TREE BAPTIST CHURCH	3200 HICKORY TREE RD BALCH SPRINGS	75180
J D	NORMA KIMBROUGH 1154730764	A R	VACANT

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V3405	HODGES ELEM SCHOOL	14401 SPRING OAKS DR BALCH SPRINGS 75180
J D	JANICE HARRISON 1083265052	A R VACANT
V3408	BALCH SPRINGS RECREATION CENTER	4372 SHEPHERD LN BALCH SPRINGS 75180
J D	ROSIE WALKER 1185042902	A R MICHAEL LARSEN 1081530805
V3500	SUNNYVALE TOWN HALL	127 N COLLINS RD SUNNYVALE 75182
J R	MICHAEL SLATON 1083366675	A D WANA ALWALEE 1082025955
V3601	FAITH BIBLE CHURCH	1437 W PLEASANT RUN RD DESOTO 75115
J D	TANYA MASON 1085320354	A R KATHRYN COOK 1085830795
V3604	RUBY YOUNG ELEM SCHOOL	707 YOUNG BLVD DESOTO 75115
J D	LAJUANA BARTON 1085803512	A R KASUNDRA BROWN 1174329060
V3605	DISCIPLE CENTRAL COMMUNITY CHURCH	901 N POLK ST DESOTO 75115
J D	PATRICIA CARR 1085720427	A R GREGORY WHITEMAN 1085771795
V3606	THE MEADOWS ELEM SCHOOL	1016 THE MEADOWS PKWY DESOTO 75115
* J D	FORREST JACKSON 1081482460	A R JEFFERY TIPPEN 1086488247

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V3607	COCKRELL HILL ELEM SCHOOL	425 S COCKRELL HILL RD DESOTO 75115
J D	SANDRA CHAMBERS 1085290496	A R RANCE ALBERT 2150097630
V3609	DESOTO HIGH SCHOOL	600 EAGLE DR DESOTO 75115
* J D	BRENDA HARRIS 1086172521	A R AGNES MONZINGO 1084839328
V3611	DESOTO EAST MIDDLE SCHOOL	601 E BELT LINE RD DESOTO 75115
J D	RODNEY WHITE 1166684659	A R DORINA DEMAY 1083084186
V3616	BELT LINE CONFERENCE CENTER	200 E BELT LINE RD DESOTO 75115
* J D	RON BIVINS 1084510252	A R CATHERINA SMITH 1078017082
V3617	GLENN HEIGHTS CITY HALL	1938 S HAMPTON RD GLENN HEIGHTS 75154
J D	ZIRA JONES 1052114893	A R MICHAEL VOLGER 2125635541
V3700	COUCH ELEM SCHOOL	4349 WATERHOUSE BLVD GARLAND 75043
J D	TRAVIS WORTHAM 1080861408	A R KEVIN TOMSIC 1171667288
V3702	TOLER ELEM SCHOOL	3520 GUTHRIE RD GARLAND 75043
* J D	VACANT	A R VIRGINIA EVANS 1081232703

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V3800	HOUSTON ELEM SCHOOL-LISD	2929 MARQUIS LN LANCASTER	75134
J D	MELVIN ARMSTRONG 1135925353	A R	VACANT
V3802	PLEASANT RUN ELEM SCHOOL	427 W PLEASANT RUN RD LANCASTER	75146
J D	FRANKIE WALKER LEONARD 1085560911	A R	VACANT
V3803	ROLLING HILLS ELEMENTARY SCHOOL	450 ROLLING HILLS PL LANCASTER	75146
J D	DONNA SPARKS 1080070550	A R	VACANT
V3805	ROSA PARKS-MILLBROOK ELEM SCHOOL	630 MILLBROOK DR LANCASTER	75146
J D	SHERRY GALLOWAY 1084754264	A R	VACANT
V3807	ELSIE ROBERTSON MIDDLE SCHOOL	822 W PLEASANT RUN RD LANCASTER	75146
J D	TAWANA WILLIAMS 1084824032	A R	JOHN STEWART 1083759988
V3808	WEST MAIN ELEM SCHOOL	531 W MAIN ST LANCASTER	75146
J D	MONICA TURNER 1084682032	A R	VACANT
V3809	LANCASTER VETERANS MEMORIAL LIBRARY	1600 VETERANS MEMORIAL LANCASTER	75134
J D	EDWARD WILLIAMS 1085147980	A R	TOM HANAHAN 1081171983

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V3900	MCCOWAN MIDDLE SCHOOL	1500 MAJESTIC MEADOW D GLENN HEIGHTS 75154
J D	PAMELA DEAL-CHANCE 1085565785	A R VACANT
V3920	FIRST BAPTIST CHURCH-SEAGOVILLE	108 E FARMERS RD SEAGOVILLE 75159
J R	CINDY BURKETT 1083595018	* A D VACANT
V3921	SEAGOVILLE CITY HALL	702 N HWY 175 SEAGOVILLE 75159
J D	TEENA GAYLE 1087482452	A R VACANT
V3940	WILMER COMMUNITY CENTER	101 DAVIDSON PLZ WILMER 75172
J D	PAMELA WASH 1082788907	A R LORRIE MCDONALD 1084047698
V3950	HUTCHINS COMMUNITY CENTER	500 W HICKMAN ST HUTCHINS 75141
* J D	ELLENA DAVIS 1084472119	A R LEAH PICKRELL 1078381113
V4000	ED-ELECTIONS OFFICE CURBSIDE	1520 ROUND TABLE DR DALLAS 75247
	NO JUDGE	NO ALTERNATE JUDGE
V4002	CAILLET ELEM SCHOOL	3033 MERRELL RD DALLAS 75229
J D	MICHELE VALENTINO 1083188383	A R NANCIE WAGNER 1080689099

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V4004	MARCUS REC CENTER	3003 NORTHAVEN RD DALLAS	75229
J D	ALAN YUSTER 1216781573	A R	JOHN DUPRE 1078282820
V4006	DEGOLYER ELEM SCHOOL	3453 FLAIR DR DALLAS	75229
J D	STEWART MIKKELSEN 1153521578	A R	ALAN WATERMAN 1078505660
V4010	STEPHEN FOSTER ELEM SCH	3700 CLOVER LN DALLAS	75220
J D	VIVIAN GREGORICH 1086028294	A R	CAROL ROSS 1083164253
V4014	SUDIE WILLIAMS TAG ACADEMY	4518 POMONA RD DALLAS	75209
J R	CLARK WILL 1083682663	A D	JANE GERBER 1088851379
V4015	NORTH PARK COMMUNITY CORP	4619 W UNIVERSITY BLVD DALLAS	75209
J D	OLGA SMITH 1083325532	A R	JANICE PETERS 1108398777
V4016	K B POLK VANGUARD CENTER ATG	6911 VICTORIA AVE DALLAS	75209
J D	JONATHAN MAPLES 1083457337	A R	JUDY WHEELER 1140242912
V4018	MAPLE LAWN ELEM SCHOOL	3120 INWOOD RD DALLAS	75235
J D	DAVID FISHER 1002113326	A R	JOHN HOLDEN 1080345907

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V4019	ARLINGTON PARK RECREATION CENTER	1505 RECORD CROSSING R DALLAS	75235
J D	ELIZABETH PERINI 1160398202	A R	VACANT
V4022	ESPERANZA HOPE MEDRANO ELEM SCHOOL	2221 LUCAS DR DALLAS	75219
J D	RICARDO MEDRANO 1080577811	A R	ROBERT BRAUN 1083409172
V4024	L G PINKSTON HIGH SCHOOL	2200 DENNISON ST DALLAS	75212
J D	SIDNEY WILLIAMS 1086670377	A R	JON ALTSCHULER 1086951420
V4028	VICTORY CATHEDRAL	3407 N WESTMORELAND R DALLAS	75212
J D	LETTIE SEARLES 1084653134	A R	VACANT
V4029	EL CENTRO COLLEGE-WEST CAMPUS	3330 NORTH HAMPTON RD DALLAS	75212
J D	CRAIG HOLCOMB 1083663634	A R	AUTUMN MCCALL 1082213906
V4031	C F CARR ELEM SCHOOL	1952 BAYSIDE ST DALLAS	75212
J D	MARK W. BAKER 1083402357	A R	VACANT
V4032	REVERCHON RECREATION CENTER	3505 MAPLE AVE DALLAS	75219
J D	DANIEL FOYT 1045567637	A R	JAMES MOYERS 1086136440

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V4033	DALLAS FIRE STATION # 1	1901 IRVING BLVD DALLAS 75207
J D	VACANT	A R CATHERINE TAYLOR 1078540348
V4035	MARGARET B. HENDERSON ELEM SCHOOL	2200 S EDGEFIELD AVE DALLAS 75224
J D	ROBERTO ALONZO 1078796151	A R JAY WILLIS 1079357431
V4038	HARRELL BUDD ELEM SCHOOL	2121 S MARSALIS AVE DALLAS 75216
J D	VENTON HILL JONES 2154896667	A R VACANT
V4039	BEXAR STREET BAPTIST CHURCH	2018 S MARSALIS AVE DALLAS 75216
J D	GWENDA LOWE 1166445808	A R BETTY SUE WELCH 1083384237
V4040	TRINITY HEIGHTS TALENTED & GIFTED	1515 LYNN HAVEN AVE DALLAS 75216
J D	LORETTA HALLMAN 1084081781	A R VACANT
V4043	THE UNION CHURCH	3410 S POLK ST DALLAS 75224
J D	JOE BURKLEO 1087627273	A R MARK SLENCZKA 1129888570
V4046	CLINTON P RUSSELL ELEM SCHOOL	3031 S BECKLEY AVE DALLAS 75224
J D	MATHIS PERKINS 1078367327	A R VACANT

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V4050	MOUNTAIN CREEK LIBRARY	6102 MOUNTAIN CREEK PK DALLAS 75249
J D	ERIK WILSON 1084591299	A R JOYCE SETTER 1084345936
V4052	BILHARTZ ELEM SCHOOL	6700 WANDT DR DALLAS 75236
J D	SEDRICK MCCURDY 1084468000	A R THOMAS WILKINS 1084415243
V4055	LESLIE STEMMONS ELEM SCHOOL	2727 KNOXVILLE ST DALLAS 75211
J D	ELIJAH GREEN 2166770320	A R JOSEPH HERNANDEZ 1088334104
V4056	PALABRA DE VIDA CHURCH	2550 W ILLINOIS AVE DALLAS 75233
J D	JESSE ROCHA 1084331353	A R SHIRLEY WEEKS 1084004874
V4057	KIEST REC CENTER	3081 S HAMPTON RD DALLAS 75224
J D	MICHAEL GOODMAN 1084077734	* A R LILLIE RALPH 1156541236
V4060	NANCY JANE COCHRAN ELEMENTARY	6000 KEENELAND PKWY DALLAS 75211
J D	DANIELA VILLARREAL 2140336377	A R MONTY WEDDELL 1084139961
V4061	L O DONALD ELEM SCHOOL	1218 PHINNEY AVE DALLAS 75211
J D	ANDREW ALEMAN 1153158457	A R VACANT

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V4062	LELIA P COWART ELEM SCHOOL	1515 S RAVINIA DR DALLAS	75211
* J D	JESSICA SANTAMARIA 1078536630	A R THOMAS GEDDES 1167521326	
V4063	ELMWOOD-EL BUEN SAMARITANO UMC	1315 BERKLEY AVE DALLAS	75224
J D	DANIEL BROWN 1124828401	A R DON WEEKS 1083889958	
V4064	MARTIN WEISS REC CENTER	1111 MARTINDELL AVE DALLAS	75211
J D	RUSSELL GARNER 1087966312	A R GLORIA HIBDON 1080961858	
V4065	ARCADIA PARK ELEM SCHOOL	1300 N JUSTIN AVE DALLAS	75211
* J D	CHRISTIAN BROWN 1188916110	A R LONNIE NIX 1082432184	
V4066	ANSON JONES ELEM SCHOOL	3901 MEREDITH AVE DALLAS	75211
J D	TEMECKIA DERROUGH 1079093438	A R RYAN MOORE 1074668019	
V4067	GEORGE PEABODY ELEM SCHOOL	3101 RAYDELL PL DALLAS	75211
J D	CATHERINE GARRISON 1085780724	A R VACANT	
V4068	LIDA HOOE ELEM SCHOOL	2419 GLADSTONE DR DALLAS	75211
J D	PERLA LOZA 1079324130	A R VACANT	

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V4069	WINNETKA ELEM SCHOOL	1151 S EDGEFIELD AVE DALLAS 75208
J D	NGENA WHITE 1203886713	A R VACANT
V4070	JOHN F PEELER ELEM SCHOOL	810 S LLEWELLYN AVE DALLAS 75208
J D	ROBERT SHEAKS 1085761040	A R WILLIE O'BRIEN 1209977162
V4071	OAK CLIFF SUB-COURTHOUSE	410 S BECKLEY AVE DALLAS 75203
J D	NGINA WHITE 1203713290	A R MARTHA MELAKU 1079030934
V4073	PREPARING THE WAY MINISTRIES	2442 W JEFFERSON BLVD DALLAS 75211
J D	FRANK RIOS 1089064315	A R MORENA HERNANDEZ 1079284826
V4074	SUNSET HIGH SCHOOL-ANNEX BLDG	2021 W TENTH ST DALLAS 75208
J D	STUART BOLDING 1085234211	A R VACANT
V4075	JOHN H REAGAN SCHOOL	201 N ADAMS AVE DALLAS 75208
J D	TERESA STEWARD 1084892159	A R VACANT
V4076	STEVENS PARK ELEM SCHOOL	2615 W COLORADO BLVD DALLAS 75211
J D	REBECCA MOHR 2128937507	A R VACANT

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V4077	ROSEMONT ELEM SCHOOL/UPPER CAMPUS	719 N MONTCLAIR AVE DALLAS 75208
J D	VALERIE HUTCHINS 1081152404	A R VACANT
V4078	KIDD SPRINGS REC CENTER	711 W CANTY ST DALLAS 75208
* J D	ZETTIE WILLIAMS 1085363966	A R VACANT
V4079	KESSLER PARK UNITED METHODIST CHUR	1215 TURNER AVE DALLAS 75208
J D	MICHAEL WILLIAMSON 1077996814	A R VACANT
V4081	ELADIO R MARTINEZ LEARNING CENTER	4500 BERNAL DR DALLAS 75212
J D	YOLANDA JIMENEZ 1085657920	* A R VACANT
V4083	SIDNEY LANIER EXPRESSIVE ARTS VANGUARD	1400 WALMSLEY AVE DALLAS 75208
J D	SYLVIA MEDRANO 1081651937	A R VACANT
V4085	ANITA MARTINEZ REC CENTER	3212 N WINNETKA AVE DALLAS 75212
J D	GLENDA SALAZAR 1148834888	A R VACANT
V4086	GRAUWYLER PARK REC CENTER	7780 HARRY HINES BLVD DALLAS 75235
J D	ROBERT KERSEY 1088714797	A R MARI ANN ROSS 1081198921

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V4087	BACHMAN REC CENTER	2750 BACHMAN DR DALLAS 75220
* J D	CAROLYN JOHNSON 1079293815	A R MICHAEL BURNAMAN 1160115517
V4094	PARK FOREST BRANCH LIBRARY	3421 FOREST LN DALLAS 75234
J D	MATTHEW CALVERT 1081444715	A R MARGUERITE BUCCINO 1082083560
V4097	DAVID G BURNET ELEM SCHOOL	3200 KINKAID DR DALLAS 75220
J D	BETTY ROWE WILLIAMS 1083174779	A R WAYNE MACNAUGHTON 1081082667
V4110	BOUDE STOREY MIDDLE SCHOOL	3000 MARYLAND AVE DALLAS 75216
J D	STEPHEN CARTER 1085607534	A R VACANT
V4113	MOUNTAIN VIEW COLLEGE-E BLDG	4849 W ILLINOIS AVE DALLAS 75211
J D	MARY HODGE 1088328992	A R LUIS ZUNIGA 1144843197
V4300	COCKRELL HILL CITY HALL	4125 W CLARENDON DR COCKRELL HILL 75211
* J D	CHRIS CARSON 1198761527	A R RUBY LEE 1078505312
V4501	SUZANNA DICKINSON ELEM	1902 PALMER TRL GRAND PRAIRIE 75052
J D	DARLA WISDOM 1084375464	A R KATHRYN MONETTE 1085706498

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V4502	BETTY WARMACK LIBRARY	760 BARDIN RD GRAND PRAIRIE	75052
J D	EVELYN GRAY 1084425491	A R	PHILIP VARGHESE 1078106646
V4507	DANIELS ACADEMY	801 SW 19TH ST GRAND PRAIRIE	75051
J D	PATSY RAY 1083976659	A R	VACANT
V4508	ELLEN OCHOA STEM ACADEMY/MILAM-GPISD	2030 PROCTOR DR GRAND PRAIRIE	75051
* J D	SHARICA REESE 1154874979	A R	SELENA WOFFORD 1085510959
V4509	YWLA @ ARNOLD MIDDLE SCHOOL	1204 E MARSHALL DR GRAND PRAIRIE	75051
J D	JEANNETTE PUGH 1084756363	A R	TRUDY GILL 1084537136
V4511	BOWIE FINE ARTS ACADEMY -GPISD	425 ALICE DR GRAND PRAIRIE	75051
* J D	MICHAEL CONNELL 1088730294	A R	MINH VUONG 1182718289
V4512	CHARLEY TAYLOR REC CENTER	601 E GRAND PRAIRIE RD GRAND PRAIRIE	75051
J D	LYDIA ALCALAN 1085904849	A R	FRANK STROHSCHIN 1085502613
V4513	HOUSTON PROFESSIONAL STAFF DEVELOPMENT CTR	1502 COLLEGE ST GRAND PRAIRIE	75050
J D	ARMANDO MONSIVAIS 1084855088	A R	ADRIENE THOMPSON 1084806341

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V4514	CROSSWINDS HIGH SCHOOL	1100 N CARRIER PKWY GRAND PRAIRIE 75050
J R	WARREN WIENECKE 1085505964	A D MARY NUNEZ 1083342281
V4515	TRAVIS WORLD LANGUAGE ACADEMY	525 NE 15TH ST GRAND PRAIRIE 75050
J D	STEPHEN SCOTT 1079451960	A R VACANT
V4517	EISENHOWER ELEMENTARY SCHOOL	2102 N CARRIER PKWY GRAND PRAIRIE 75050
J R	KEITH PIMM 2135579503	A D ANA COCA 1046814834
V4518	MINISTERIOS CIELO EN LA TIERRA	3313 GILBERT RD GRAND PRAIRIE 75050
J D	SHLAWNDA CELESTINE 1151116727	A R MATHEW LIGUEZ 1046380960
V4519	RONALD W REAGAN MIDDLE SCHOOL	4616 BARDIN RD GRAND PRAIRIE 75052
J D	CYNTHIA SMITH 1084221450	A R JENA PERKINS 1085387383
V4520	SAM RAYBURN ELEM SCHOOL	2800 REFORMA DR GRAND PRAIRIE 75052
J D	DIANA KRIS FARRELL 1145233168	* A R PAUL MOLINAR 1086798546
V4521	LORENZO DE ZAVALA ACADEMY	3410 KIRBY CREEK DR GRAND PRAIRIE 75052
* J D	MAX NUNEZ 1087738996	A R JACK WOLFSON 1087121761

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V4522	TRUMAN MIDDLE SCHOOL	1501 COFFEYVILLE TRL GRAND PRAIRIE 75052
J D	CHARLES SCHU 1165473840	A R DIANE KATSULIS 1088807614
V4525	JOHNSON (LBJ) DAEP -GPISD	650 STONEWALL DR GRAND PRAIRIE 75052
J D	DEE HART 1084164623	A R VACANT
V4527	HECTOR P. GARCIA ELEM SCHOOL-GPISD	2444 GRAHAM ST GRAND PRAIRIE 75050
J D	BRENT PIMENTEL 1060420645	A R VANCE ROPER 1084455335
V4528	OUR REDEEMER LUTHERAN CHURCH- GP	4729 S CARRIER PKWY GRAND PRAIRIE 75052
J D	CAROL DAVIS 1084493233	A R ROBERT BAKER 1079960610
V4538	GLOBAL LEADERSHIP ACADEMY at BUSH ELEM SCHOOL-GPISD	511 E SPRINGDALE LN GRAND PRAIRIE 75052
J D	SUNJA SMITH 1088009904	A R VACANT
V4601	SALLY B ELLIOTT ELEM SCHOOL	1900 S STORY RD IRVING 75060
J R	ROY GETTING 1079097162	* A D SARAH NELSON 2159604977
V4602	NIMITZ HIGH SCHOOL	100 W OAKDALE RD IRVING 75060
J D	MARTHA SCHECHT 1085773637	A R PAUL BERTANZETTI 1084403302

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V4605	OTIS BROWN ELEM SCHOOL	2501 W TENTH ST IRVING	75060
J D	EVELYN SMART 1084474754	* A R	KENT BROWN 1085084877
V4606	LAMAR MIDDLE SCHOOL	219 CRANDALL RD IRVING	75060
J D	SHEWANA ALLEN 1081076960	A R	BERNADETTE WARD 1086586747
V4607	IRVING CITY HALL	825 W IRVING BLVD IRVING	75060
J D	MAGGIE MARTINS 1087639334	A R	BILLIE MORROW 1085433083
V4608	J O DAVIS ELEM SCHOOL	310 DAVIS DR IRVING	75061
* J D	CINDY CORPIER 1086240996	A R	VACANT
V4610	L B BARTON ELEM SCHOOL	2931 CONFLANS RD IRVING	75061
J R	DANNY HERRERA 1077991992	A D	SHARON BARBOSA-CRAIN 1083826015
V4613	IRVING HIGH SCHOOL	900 N O'CONNOR RD IRVING	75061
J D	ARCHIE STEPHENSON 1084509596	A R	DAVID DYKEMAN 1085429190
V4616	GOOD ELEMENTARY SCHOOL-IRISD	1200 E UNION BOWER RD IRVING	75061
J D	SARA ALBERT 1083130275	A R	KATHRINE AARON 1085402973

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V4618	DAVID CROCKETT MIDDLE SCHOOL	2431 HANCOCK ST IRVING	75061
* J D	FANY VARGAS 1166397430	* A R	PATRICIA WOOD 1142268194
V4619	LIVELY ELEM SCHOOL	1800 PLYMOUTH DR W IRVING	75061
J R	CLARISSA LINDSEY 1085899671	A D	ASHLEY TRAN 1076363797
V4620	OAK HAVEN UNITED METHODIST CHURCH	1600 N IRVING HEIGHTS DR IRVING	75061
J D	SHERRON MOLINA 1049062890	A R	ARTHUR BERTANZETTI 1085339576
V4621	THOMAS HALEY ELEM SCHOOL	3601 CHEYENNE ST IRVING	75062
* J D	ROBERT SMITH 1149438479	A R	JOHNNY LOPEZ 1084889947
V4622	W T HANES ELEM SCHOOL	2730 CHEYENNE ST IRVING	75062
J D	SOULFAA AMER 2120790503	A R	VACANT
V4623	A S JOHNSTON ELEM SCHOOL	2801 RUTGERS DR IRVING	75062
* J D	ELEANOR BOGNER 1084505660	A R	VACANT
V4624	BRANDENBURG ELEM	2800 HILLCREST DR IRVING	75062
J D	DAVID BRADLEY 1080853381	A R	KRISTIN CRUISE 2158870384

**2021 - 2023 TERM
ELECTION DAY
JUDGES AND ALTERNATE JUDGES
SUBMISSION
DALLAS COUNTY COMMISSIONER DISTRICTS 1-4
Updated Judges List**

V4626	MACARTHUR HIGH SCHOOL	3700 N MACARTHUR BLVD IRVING 75062
J R	CLAIRE SHAHZAD 1084766060	A D ELIZABETH HAMELINE 1078940123
V4627	IRVING FIRE STATION # 8	650 E LAS COLINAS BLVD IRVING 75039
J D	TARIQ JAFFERY 1079753390	A R LOIS MCGIVERN 1210227360
V4629	BEAR CREEK COMMUNITY CHURCH	2700 FINLEY RD IRVING 75062
J D	MARTIN SAENZ 1079904309	A R BECKY BROWN 1020421569
V4630	T J LEE ELEM SCHOOL	1600 CARLISLE ST IRVING 75062
J R	RICHARD SMITH 1085701090	A D THOMAS AMES 2123116953
V4631	TRAVIS MIDDLE SCHOOL	1600 FINLEY RD IRVING 75062
J R	THEODORE COLE 1084117316	A D VACANT
V4633	NORTH LAKE COLLEGE-F BLDG	5001 N MACARTHUR BLVD IRVING 75038
J R	HAROLD JENKINS 1085684455	A D LISA ROGERS 1082133107
V4634	SINGLEY ACADEMY	4601 N MCARTHUR BLVD IRVING 75038
J D	CONSUELO EVANS 1079596055	A R DUC NGUYEN 1083280419

**2021 - 2023 TERM
ELECTION DAY
JUDGES AND ALTERNATE JUDGES
SUBMISSION
DALLAS COUNTY COMMISSIONER DISTRICTS 1-4
Updated Judges List**

V4640	HOUSTON MIDDLE SCHOOL-IRISD	3033 W COUNTRY CLUB RD IRVING 75038
J D	SCOTT HAGAR 1082925817	A R SHARON CLARK 1187231392
V4642	IRVING ARTS CENTER	3333 N MACARTHUR BLVD IRVING 75062
J R	DEBRA ARNETT 1084843959	* A D VANICE WEBB 1084234106
V4645	LAS COLINAS ELEM SCHOOL	2200 KINWEST PKWY IRVING 75063
* J D	SHIVAKUMARAN ANNAMALAI 2123626902	A R SHELLY AKERLY 1085765371
V4646	BARBARA CARDWELL CAREER PREP	101 E UNION BOWER RD IRVING 75061
* J D	ALISON TRUJILLO 1078611770	A R SAMANTHA MORENO 2166157538
V4647	MUSTANG PARK REC CENTER	2223 KINWEST PKWY IRVING 75063
J D	ZULIKHA HUSSAIN 1185089744	A R KATHLEEN HODGES 1081318844
V4652	BRITAIN ELEMENTARY SCHOOL	631 EDMONDSON DR IRVING 75060
J D	BENEDICT PARKS 2000981449	A R JUDSON BARR 1084870369
V4654	IRVING FIRE STATION # 2	1306 N STORY RD IRVING 75061
J D	JUAN DAVID GUTIERREZ 1084934093	A R DOROTHY MARTIN 2142183543

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ELECTION DAY
JUDGES AND ALTERNATE JUDGES
SUBMISSION
DALLAS COUNTY COMMISSIONER DISTRICTS 1-4
Updated Judges List**

V4663	UNIVERSITY OF DALLAS- CARDINAL FARRELL HALL	2815 LYNCH CIR IRVING	75062
J D	MARY MCINTIRE 1081929730	A R JONATHON HOLLIS 2163424383	

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BALCH SPRINGS CIVIC CENTER	12400 ELAM RD BALCH SPRINGS 75180
D JACQUELINE FAIN 1081261030	R CAROL DUKE 1083796214
BEAR CREEK COMMUNITY CHURCH	2700 FINLEY RD IRVING 75062
D DOROTHY CHAMBERS 1184395681	R KEVIN RENO 1080405132
BETHANY LUTHERAN CHURCH	10101 WALNUT HILL LN DALLAS 75238
D SANDRA BIGGS 1083093440	R TANYA PIPKEN 1081571177
BROOKHAVEN COLLEGE	3939 VALLEY VIEW LN FARMERS BRAN 75244
D JAMECIA JOHNSON 1159943564	R BRUCE BRADLEY 1079043284
CEDAR HILL RECREATION CENTER	310 E PARKERVILLE RD CEDAR HILL 75104
D EMELDA MARTIN 1098996319	R DIANE KATSULIS 1088807614
CEDAR VALLEY COLLEGE-M BLDG	3030 N DALLAS AVE LANCASTER 75134
D FRANKIE WALKER LEONARD 1085560911	R VIRGINIA ESQUIVEL 1088400767
COPPELL TOWN CENTER	255 E PARKWAY BLVD COPPELL 75019
D NANCY WANG 1081409787	R KATHLEEN HODGES 1081318844
CROSSWINDS HIGH SCHOOL	1100 N CARRIER PKWY GRAND PRAIRIE 75050
D MAE CHOICE 1084055952	R DANEE ROEDL 1083773320

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SUBMISSION
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DISCIPLE CENTRAL COMMUNITY CHURCH	901 N POLK ST DESOTO 75115
D PATRICIA CARR 1085720427	R SYLVIA BRACKS 1087146338
DUNCANVILLE LIBRARY	201 JAMES COLLINS BLVD DUNCANVILLE 75116
D BARBARA LEWIS 1084113729	R VICKI MARSH 1080157320
EASTFIELD COLLEGE-MAIN CAMPUS, C BLDG	3737 MOTLEY DR MESQUITE 75150
D NGINA WHITE 1203713290	R MOLLY BISHOP 1083684156
EASTFIELD COLLEGE-PLEASANT GROVE CAMPUS	802 S BUCKNER BLVD DALLAS 75217
D BOBBYE ROSS 1161782389	R ANDREW CASTILLO 2001963376
EL CENTRO COLLEGE-MAIN CAMPUS	801 MAIN ST DALLAS 75202
D CHERI BALL-MEZA 1083048522	R JAN NORRIS 1080469747
EL CENTRO COLLEGE-WEST CAMPUS	3330 NORTH HAMPTON RD DALLAS 75212
D DEBORAH CULBERSON 1083065266	R DEBRA AGUILAR 1078994440
FLORENCE RECREATION CENTER	2501 WHITSON WAY MESQUITE 75150
D CHARLES MULLINS 1087660838	R RUSSELL JOHNSON 1084922195
FRETZ PARK LIBRARY	6990 BELT LINE RD DALLAS 75254
D VICTOR DAVIS 1084490211	R BILL THORESON 1081627091

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EARLY VOTING
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SUBMISSION
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FRIENDSHIP WEST BAPTIST CHURCH	2020 WHEATLAND RD DALLAS 75232
D DIANNA JACKSON 1188905807	R PATRICIA PIERSON 1155966120
GEORGE L ALLEN SR. COURTS BLDG	600 COMMERCE ST DALLAS 75202
D NICOLE SIMS 1086954383	R WILLIAM HAUGEN 1082759879
GRAUWYLER PARK REC CENTER	7780 HARRY HINES BLVD DALLAS 75235
D MARK W. BAKER 1083402357	R LYIAH CLARK 2170463201
HARRY STONE RECREATION CENTER	2403 MILLMAR DR DALLAS 75228
D BEN DAY 1080297198	R LATRESE ADKINS 1151196150
HIGHLAND HILLS LIBRARY	6200 BONNIE VIEW RD DALLAS 75241
** D DEBBIE LEE 1091325853	R JOSEPH HERNANDEZ 1088334104
IRVING CITY HALL	825 W IRVING BLVD IRVING 75060
D MAGGIE MARTINS 1087639334	R DEBRA ARNETT 1084843959
JOSEY RANCH LAKE LIBRARY	1700 KELLER SPRINGS RD CARROLLTON 75006
D TERRY BARKER 1082988961	R KALPANA PARAMESH 1086208163
LAKESIDE ACTIVITY CENTER	101 HOLLEY PARK DR MESQUITE 75149
D ZINA WEST-LEWIS 1158644283	R ERMINIA RINCONES 1080487708

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EARLY VOTING
PRESIDING ELECTION OFFICERS AND ALTERNATE ELECTION OFFICERS
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LANCASTER VETERANS MEMORIAL LIBRARY	1600 VETERANS MEMORIAL LANCASTER 75134
D CARLA REYNOLDS-GROGAN 1084450205	R MICHAEL VOLGER 2125635541
LOCHWOOD BRANCH LIBRARY	11221 LOCHWOOD BLVD DALLAS 75218
D GEORGE SIGGERS 1082187251	R CORRINE HARDIN 1080987675
MARSH LANE BAPTIST CHURCH	10716 MARSH LANE DALLAS 75229
D BETTY ROWE WILLIAMS 1083174779	R DAVID W. WALLACE 2148257111
MARTIN LUTHER KING CORE BLDG	2922 MARTIN L KING BLVD DALLAS 75215
D GERRE WILLIAMS 1186300576	R JOHN MAYFIELD 1082963418
MARTIN WEISS REC CENTER	1111 MARTINDELL AVE DALLAS 75211
D JOE BURKLEO 1087627273	R GLORIA HIBDON 1080961858
MOUNTAIN CREEK LIBRARY	6102 MOUNTAIN CREEK PK DALLAS 75249
D DIANA KRIS FARRELL 1145233168	R CLARISSA LINDSEY 1085899671
MOUNTAIN VIEW COLLEGE-E BLDG	4849 W ILLINOIS AVE DALLAS 75211
D WILLIAM WOODS 1080877445	R DON WEEKS 1083889958
NORTH LAKE COLLEGE-F BLDG	5001 N MACARTHUR BLVD IRVING 75038
D VALERIE HUTCHINS 1081152404	R MATHEW LIGUEZ 1046380960

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OAK CLIFF SUB-COURTHOUSE	410 S BECKLEY AVE DALLAS 75203
D DIANA BROADUS 1084042061	R PATRICK DALE 1121250454
OAKLAWN BRANCH LIBRARY	4100 CEDAR SPRINGS RD DALLAS 75219
D DAVID FISHER 1002113326	R DANIELLE COFNAS 2174504412
OUR REDEEMER LUTHERAN CHURCH	7611 PARK LN DALLAS 75225
D MICHELE VALENTINO 1083188383	R ROWELL LUBBERS 1083340864
OUR REDEEMER LUTHERAN CHURCH- GP	4729 S CARRIER PKWY GRAND PRAIRIE 75052
D EVELYN GRAY 1084425491	R ADRIANA ANGEL 1172788889
PAUL L DUNBAR LANCASTER-KEIST LIBRARY	2008 EAST Kiest BLVD DALLAS 75216
D YVONNE WILLIAMS 1084019290	R THERESA HAYES 1084048456
RICHARDSON CIVIC CENTER	411 W ARAPAHO RD RICHARDSON 75080
D LORI RALEY 1081065167	R CYNTHIA HOLLIDAY 1083072882
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D JANET HARRIS 1083757176	R SHIRLEY RAVEN 1083569898
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D MAGGIE ENSLEY 1078459158	** R MARIA MARCON 1083317792
SACHSE SENIOR CENTER	3815 SACHSE RD, BLDG A SACHSE 75048
D SANDRA FRANKLIN 1081451706	R LEZETTE MCFADDEN 1080217902
SAMUELL GRAND REC CENTER	6200 E GRAND AVE DALLAS 75223
D LOTA DUNHAM 1080364148	R VIRGINIA MONTFORT 1083391257
SKYLINE BRANCH LIBRARY	6006 EVERGLADE RD DALLAS 75227
D TRACY DOTIE HILL 1080969076	R BONNIE WATT 1080481782
SOUTH GARLAND BRANCH LIBRARY	4845 BROADWAY BLVD GARLAND 75043
D NGENA WHITE 1203886713	R MATTHEW FONTAINE 1082858849
UNIVERSITY PARK UNITED METHODIST CHURCH	4024 CARUTH BLVD DALLAS 75225
D JOSEPH SPERANDEO 1086380675	R LINDA COLLINS 1083226666
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VALLEY RANCH BRANCH LIBRARY	401 CIMARRON TRL IRVING 75063
D JUZAR HASTA 1083705225	R JOHN COTHRAN 1081316773



DALLAS COUNTY ELECTIONS DEPARTMENT

MAY JOINT 2022 - PARTICIPATING ENTITIES

#	ENTITY NAME	CONTACT NAME AND TITLE	CONTACT INFORMATION
1	Carrollton-Farmers Branch ISD	Brian Moersch- Assoc. Superintendent	(972) 968-6152 moerschb@cfbisd.edu
2	Cedar Hill ISD	Janine Fields -Chief of Staff	(972) 291-1581 janine.fields@chisd.net
3	City of Balch Springs	Cindy Gross -City Secretary	(972) 286-4477 cgross@cityofbalchsprings.com
4	City of Carrollton	Chloe Sawatzky –City Secretary	(972) 466-3252 chloe.sawatzky@cityofcarrollton.com
5	City of Cockrell Hill	Bret Haney -Elections Administrator	(214) 815-7295 bhaney@cockrell-hill.tx.us
6	City of Combine	Robin Price -City Secretary	(972) 476-1532 city@combinetx.com
7	City of Desoto	Alicia Thomas –City Secretary	(972) 230-9664 athomas@desototexas.gov
8	City of Duncanville	Kristin Downs -City Secretary	(972) 780-5017 kdowns@duncanville.com
9	City of Farmers Branch	Amy Piukana -City Secretary	(972) 919-2503 amy.piukana@farmersbranchtx.gov
10	City of Garland	Carma Potter- Council Assistant	(972) 205-2292 cpotter@garlandtx.gov
11	City of Grand Prairie	Mona Lisa Galicia - City Secretary	(972) 237-8035 mgalicia@gptx.org
12	City of Hutchins	Cynthia Olguin - City Secretary	(972) 225-7435 colguin@cityofhutchins.org
13	City of Irving	Shanae Jennings - City Secretary	(972) 721-2605 sjennings@cityofirving.org
14	City of Lancaster	Sorangel Arenas -City Secretary	(214) 226-0121 aarenas@lancaster-tx.com
15	City of Lewisville	Julie Worster - City Secretary	(972) 219-3404 jworster@cityoflewisville.com
16	City of Rowlett	Laura Hallmark -City Secretary	(972) 412-6109 lhallmark@rowlett.com
17	City of Sachse	Leah Granger- Interim City Secretary	(469) 429-4773 lgranger@cityofsachse.com
18	City of Seagoville	Kandi Jackson -City Secretary	(972) 287-6819 citysecretary@seagoville.us
19	City of University Park	Christine Green -City Secretary	(214) 987-5302 cgreen@uptexas.org
20	City of Wilmer	Mayra Ortiz -City Secretary	(972) 441-6373 mortiz@cityofwilmer.net

#	ENTITY NAME	CONTACT NAME AND TITLE	CONTACT INFORMATION
21	City of Wylie	Stephanie Storm - City Secretary	(972) 516-6022 stephanie.storm@wylietexas.gov
22	Coppell ISD	Carol Snowden - Supt Secretary	(214) 496-8002 csnowden@coppellisd.com
23	Dallas College	Torsha McCarty - Elections Administrator	(214) 378-1703 tmccarty@dcccd.edu
24	Dallas County Park Cities Municipal Utility District	Richard Wagner -General Manager	(214) 652-8639 wagner@parkcitieswater.com
25	Dallas Independent School District	Shantell Grant -Executive Director of Board Services	(972) 925-3720 sgrant@dallasisd.org
26	DeSoto ISD	Carla Venters-Griffin - Senior Executive Administrative Assistant	(972) 223-6666 carla.venters@desotoisd.org
27	Duncanville ISD	Edd Bigbee - CFO	(972) 708-2029 edd_bigbee@yahoo.com
28	Garland ISD	Mechelle Hogan - Board Services Manager	(972) 487-3263 Mnhogan@garlandisd.net
29	Grand Prairie ISD	Debbie Torres - Director of Purchasing / Elections Coordinator	(972) 237-5515 debbie.torres@gpsid.org
30	Highland Park ISD	Scott Drillette - Asst. Supt. for Business Services	(214) 780-3011 drilles@hpsid.org
31	Irving ISD	Esther Kolni - General Counsel	(972) 600-5456 ekolni@irvingisd.net
32	Mesquite ISD	Linda Samples - Executive Assistant to Superintendent	(972) 882-7311 lsamples@mesquiteisd.org
33	Richardson ISD	Viridiana Gutierrez - Executive Assistant to C.F.O.	(469) 593-0331 viridiana.gutierrez@risd.org
34	Town of Addison	Irma Parker - City Secretary	(972) 450-9017 iparker@addisontx.gov
35	Town of Highland Park	Joanna Mekeal -Town Secretary	(214) 559-9457 Jmekeal@hptx.org
36	Town of Sunnyvale	Rachel Ramsey - Director of Administration/Town Secretary	(972) 203-4153 rachel.ramsey@townofsunnyvale.org

CITY OF LANCASTER CITY COUNCIL

City Council Regular Meeting

4.

Meeting Date: 02/14/2022

Policy Statement: This request supports the City Council 2021-2022 Policy Agenda

Goal(s): Healthy, Safe & Engaged Community
Sound Infrastructure
Quality Development

Submitted by: Jermaine Sapp, Director of Equipment and Facility Services

Agenda Caption:

Consider a resolution approving the terms and conditions of an agreement with Environmental Reconstruction Services, Inc. (ERS) for relocation of the propane fuel tank in an amount not to exceed fifty-five thousand, eight hundred, seventeen dollars (\$55,817.00).

Background:

ERS designed and installed the current fuel tanks and fuel management system in May 1995 and upgraded the system in May 2017.

ERS will furnish and install one concrete pad for a propane tank and relocate the existing propane tank to the new pad site. The contractor has estimated ten (10) working days for completion. The tanks will be added to the current fuel management system to monitor and dispense with propane.

The City has a propane fueling station location at 701 E. Main Street. The system lacks proper security and is not connected to our systems. Relocating the propane system to 629 E. Third Street will connect it to our existing system, provide for tracking, maintenance and security.

Legal Considerations:

This City Attorney has reviewed and approved the resolution and agreement, as to form.

Public Information Considerations:

This item is being considered at a Regular Meeting of the City Council noticed in accordance with the Texas Open Meetings Act.

Fiscal Impact:

The agreement with Environmental Reconstruction Services, Inc. (ERS) for relocation of the propane fuel tank will not exceed fifty-five thousand, eight hundred and seventeen dollars (\$55,817.00) funds budgeted in FY 2021/2022.

Options/Alternatives:

1. City Council may approve the resolution, as presented.
2. City Council may deny the resolution.

Recommendation:

Staff recommends approval of the resolution, as presented.

Attachments

Resolution

Standard Agreement

Proposal- ERS- Exhibit A

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LANCASTER, TEXAS, APPROVING THE TERMS AND CONDITIONS OF AN AGREEMENT WITH ENVIRONMENTAL RECONSTRUCTION SERVICES, INC. (ERS) FOR THE RELOCATION OF A PROPANE FUEL TANK; AUTHORIZING THE CITY MANAGER TO EXECUTE SAID AGREEMENT IN AN AMOUNT NOT TO EXCEED FIFTY-FIVE THOUSAND, EIGHT HUNDRED AND SEVENTEEN DOLLARS \$55,817.00; PROVIDING A REPEALING CLAUSE; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council of Lancaster, Texas, desires to improve its fuel island and fuel management system; and

WHEREAS, the relocation of this equipment will improve productivity, efficiency; and

WHEREAS, the City Council hereby approves and authorizes the installation of a fuel tank and fuel management system with Environmental Reconstruction Services, Inc. (ERS) as described in the agreement, attached hereto and incorporated herein by reference as: Exhibit "A".

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LANCASTER, TEXAS:

SECTION 1. The City Council hereby approves, accepts, and authorizes the agreement with Environmental Reconstruction Services, Inc. (ERS) in an amount not to exceed fifty-five thousand, eight hundred and seventeen dollars (\$55,817.00), as set forth in Exhibit "A," and

SECTION 2. That the City Manager of the City of Lancaster, Texas or her designee is hereby authorized to execute the contract in conformity herewith.

SECTION 3. Any prior Resolutions of the Lancaster City Council in conflict with the provisions contained in this Resolution are hereby repealed and revoked.

SECTION 4. Should any part of this Resolution be held to be invalid for any reason, the remainder shall not be affected thereby, and such remaining portions are hereby declared to be severable.

SECTION 5. This Resolution shall become effective immediately from and after its passage, and it is duly resolved.

DULY PASSED and approved by the City Council of the City of Lancaster, Texas, on this the 14th of February, 2022.

ATTEST:

APPROVED:

Sorangel O. Arenas, City Secretary

Clyde C. Hairston, Mayor

APPROVED AS TO FORM:

David T. Ritter, City Attorney

City of Lancaster, Texas
Standard Professional Services Agreement

This Agreement is made by and between the City of Lancaster, Texas, a home-rule municipality (hereinafter referred to as the "City") and Environmental Reconstruction Services, Inc. (ERS) a Texas limited partnership (hereinafter referred to as the "Provider") for propane relocation (hereinafter referred to as the "Project"), the City and the Provider hereby agree as follows:

ARTICLE I: CONTRACT & CONTRACT DOCUMENTS

1.1 THE CONTRACT

The Contract between the City and the Provider, of which this Agreement is a part, consists of the Contract Documents. It shall be effective on the date this Agreement is executed by the last party to execute it.

1.2 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Exhibit 'A' (Scope of Work), all Amendments issued hereafter, any other amendments executed by the parties, together with the following (if any): None

Documents not enumerated in this Paragraph 1.2 are not Contract Documents and do not form part of this Contract.

ARTICLE 2: RECITALS

- 2.1 The City desires to engage the Provider to complete a propane relocation to an existing Fuel Master Fleet Management System; and
- 2.2 The Provider has the professional knowledge, ability and expertise to provide such services; and
- 2.3 The City desires to engage the services of Provider, as an independent Contractor and not as an employee, to provide the services listed below and as detailed in the Proposal which is attached hereto and incorporated herein as **Exhibit A**.

ARTICLE 3: TERM / TERMINATION

3.1 Time of Performance

All work and services provided under this Contract must be completed as outlined in **Exhibit A**.

3.2 Time is of the essence of this Contract.

The Provider shall be prepared to provide the professional services in the most expedient and efficient manner possible in order to complete the work by the times specified.

3.3 TERMINATION

This Agreement may be suspended or terminated by either Party with or without cause at any time by giving written notice to the other party. In the event suspension or termination is without cause, payment to the Provider, in accordance with the terms of this Agreement, will be made on the basis of services reasonably determined by City to be satisfactorily performed to date of suspension or termination. Such payment will be due upon delivery of all instruments of service to City.

In the event that City requires a modification of the Agreement with Provider, and in the event the parties fail to agree upon a modification of this Agreement, the Parties shall have the option of terminating this Agreement. Payment to Provider shall be made by the City in accordance with the terms of this Agreement, for the services mutually agreed upon by the Parties to be properly performed by the Provider prior to such termination date.

ARTICLE 4: SCOPE OF SERVICES

4.1 Scope of Services

In consideration of the compensation stated in Article 5, the provider agrees to provide the City with the services as described in **Exhibit A**, which is incorporated herein by reference for all purposes, and which services may be more generally described as follows:

Summary of Key Scope Components:

- Furnish and install one concrete pad for propane tank, including pipe bollards and pipe guard. (500 sq. ft.)
- Haul off excess dirt from concrete pad area.
- Relocate existing propane tank to new site.
- Furnish and install Gasboy single hose propane dispenser.
- Hook up propane dispenser to existing Fuel Master Fleet Management System.
- Furnish and install electrical conduit and wiring for hook up of propane dispenser and Fuel Master System.
- Obtain necessary permits per the City of Lancaster, TX

4.2 AUTHORIZED AGENT

All work performed by the Provider will be performed under this Agreement, signed by a duly authorized agent of the City as approved by resolution of the City Council of the City of Lancaster, Texas and the designated authorized agent for the Provider.

ARTICLE 5: COMPENSATION / PAYMENT TERMS AND CONDITIONS

5.1 Compensation for the performance of Services described herein shall be paid to the Provider by the City in an amount not to exceed the lump sum price submitted which shall accrue and be payable as provided in Sections 5.1 and 5.2 hereof.

5.2 Work will be performed at the rates set forth in **Exhibit A**, Basis of Compensation, which is attached hereto and incorporated herein by reference, or as otherwise provided in negotiated fee schedules approved within this Agreement, if any. Any additional work beyond the lump sum agreement must be authorized in advance by the City in writing.

5.3 If the City fails to make any payment due the Provider within thirty (30) days after receipt of Provider's invoice, the amounts due the Provider will be increased at the rate of 1.5% per month from said thirtieth day, unless there is a good faith refusal by the City to pay. Payment shall be remitted to Provider by City as instructed on invoices.

5.4 Invoices shall be delivered to one of the following address.

City of Lancaster
Accounts Payable
PO Box 940
Lancaster, TX 75146

accounts-payable@lancaster-tx.com

ARTICLE 6: TIME FOR COMPLETION

6.1 The Provider's services and compensation under this Agreement have been agreed to in anticipation of orderly and continuous progress of the Assigned Project(s) through completion of the project(s) as detailed in Exhibit 'A'.

6.2 If the City fails to give prompt written authorization to proceed with any phase of services after completion of the immediately preceding phase, the Provider shall be entitled to equitable adjustment of rates and amounts of compensations to reflect reasonable costs incurred by Provider as a result of the delay or changes in the various elements that comprise such rates of compensation, but in no event shall such compensation exceed the scope of services schedule of maximum payment unless a written amendment to this Agreement is consummated between the parties.

ARTICLE 7: INDEMNIFICATION

7.1 THE PROVIDER AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD HARMLESS THE CITY, ITS OFFICERS, AGENTS, SERVANTS AND EMPLOYEES (HEREINAFTER COLLECTIVELY REFERRED TO AS "INDEMNITIES") FROM AND AGAINST SUITS, ACTIONS, CLAIMS, LOSSES, ANY DAMAGE, LIABILITY, AND FROM AND AGAINST ANY COSTS AND EXPENSES, INCLUDING, IN PART, ATTORNEY FEES INCIDENTAL TO THE DEFENSE OF SUCH SUITS, ACTIONS CLAIMS, LOSSES, DAMAGES OR LIABILITY ON ACCOUNT OF INJURY, DISEASE, SICKNESS, INCLUDING DEATH, TO ANY PERSON OR DAMAGE TO PROPERTY INCLUDING, IN PART, THE LOSS OF USE RESULTING THEREFROM, ARISING FROM ANY NEGLIGENT ACT, ERROR OR OMISSION OF THE PROVIDER, ITS OFFICERS, EMPLOYEES, SERVANTS, AGENTS OR SUBCONTRACTORS, OR ANYONE ELSE UNDER THE PROVIDER'S DIRECTION AND CONTROL, AND ARISING OUT OF, RESULTING FROM, OR CAUSED BY THE PERFORMANCE OR FAILURE OF PERFORMANCE OF ANY WORK OR SERVICES UNDER THIS AGREEMENT, OR FROM CONDITIONS CREATED BY THE PERFORMANCE OR NON-PERFORMANCE OF SAID WORK OR SERVICES. IN THE EVENT ONE OR MORE OF THE INDEMNITIES IS DETERMINED BY A COURT OF LAW TO BE JOINTLY OR DERIVATIVELY NEGLIGENT OR LIABLE FOR SUCH DAMAGE OR INJURY, THE PROVIDER SHALL BE OBLIGATED TO INDEMNIFY INDEMNITIES AS PROVIDED HEREIN ON A PROPORTIONATE BASIS IN ACCORDANCE WITH THE FINAL JUDGMENT, AFTER ALL APPEALS ARE EXHAUSTED, DETERMINING SUCH JOINT OR DERIVATIVE NEGLIGENCE OR LIABILITY.

7.2 THE CITY AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD THE PROVIDER, ITS OFFICERS, AGENTS, SERVANTS AND EMPLOYEES (HEREINAFTER COLLECTIVELY REFERRED TO AS "INDEMNITIES") FROM AND AGAINST SUITS, ACTIONS, CLAIMS, LOSSES, ANY DAMAGE, LIABILITY, AND FROM AND AGAINST ANY COSTS AND EXPENSES, INCLUDING, IN PART, ATTORNEY FEES INCIDENTAL TO THE DEFENSE OF SUCH SUITS, ACTIONS CLAIMS, LOSSES, DAMAGES OR LIABILITY ON ACCOUNT OF INJURY, DISEASE, SICKNESS, INCLUDING DEATH, TO ANY PERSON OR DAMAGE TO PROPERTY INCLUDING, IN PART, THE LOSS OF USE RESULTING THEREFROM, ARISING FROM ANY NEGLIGENT ACT, ERROR OR OMISSION OF THE CITY, ITS OFFICERS, EMPLOYEES, SERVANTS, AGENTS OR SUBCONTRACTORS, OR ANYONE ELSE UNDER THE CITY'S DIRECTION AND CONTROL, AND ARISING OUT OF, RESULTING FROM, OR CAUSED BY THE PERFORMANCE OR FAILURE OF PERFORMANCE OF ANY WORK OR SERVICES UNDER THIS AGREEMENT, OR FROM CONDITIONS CREATED BY THE PERFORMANCE OR NON-PERFORMANCE OF SAID WORK OR SERVICES. IN THE EVENT ONE OR MORE OF THE INDEMNITIES IS DETERMINED BY A COURT OF LAW TO BE JOINTLY OR DERIVATIVELY NEGLIGENT OR LIABLE FOR SUCH DAMAGE OR INJURY, THE CITY SHALL BE OBLIGATED TO INDEMNIFY INDEMNITIES AS PROVIDED HEREIN ON A PROPORTIONATE BASIS IN ACCORDANCE WITH THE FINAL JUDGMENT, AFTER ALL APPEALS ARE EXHAUSTED, DETERMINING SUCH JOINT OR DERIVATIVE NEGLIGENCE OR LIABILITY.

7.3 THE PROVIDER IS NOT OBLIGATED TO INDEMNIFY THE CITY IN ANY MANNER WHATSOEVER FOR THE CITY'S OWN NEGLIGENCE.

7.4 NOTHING CONTAINED HEREIN SHALL CONSTITUTE A WAIVER OF GOVERNMENTAL IMMUNITY IN FAVOR OF ANY THIRD PARTY.

7.5 PROVIDER AGREES THAT IT IS AN INDEPENDENT CONTRACTOR AND NOT AN AGENT OF THE CITY, AND THAT PROVIDER IS SUBJECT, AS AN EMPLOYER, TO ALL APPLICABLE UNEMPLOYMENT COMPENSATION STATUTES, SO FAR AS TO RELIEVE THE CITY OF ANY RESPONSIBILITY OR LIABILITY FROM TREATING PROVIDER'S EMPLOYEES AS EMPLOYEES OF CITY FOR THE PURPOSE OF KEEPING RECORDS, MAKING REPORTS OR PAYMENTS OF UNEMPLOYMENT COMPENSATION TAXES OR CONTRIBUTIONS. PROVIDER FURTHER AGREES TO INDEMNIFY AND HOLD CITY HARMLESS AND REIMBURSE IT FOR ANY EXPENSES OR LIABILITY INCURRED UNDER SAID STATUTES IN CONNECTION WITH EMPLOYEES OF PROVIDER.

7.6 PROVIDER SHALL DEFEND AND INDEMNIFY INDEMNITIES AGAINST AND HOLD CITY AND THE PREMISES HARMLESS FROM ANY AND ALL CLAIMS, SUITS OR LIENS BASED UPON OR ALLEGED TO BE BASED UPON THE NON- PAYMENT OF LABOR, TOOLS, MATERIALS, EQUIPMENT, SUPPLIES, TRANSPORTATION AND MANAGEMENT COSTS INCURRED BY PROVIDER IN PERFORMING THIS AGREEMENT.

ARTICLE 8: INSURANCE

8.1 Workers Compensation Insurance

The Provider shall provide and maintain Workers' Compensation with statutory limits.

8.2 Automotive Insurance

Provider shall provide and maintain in full force and effect during the time of this Agreement, auto insurance (including, but not limited to, insurance covering the operation of owned and non-owned automobiles, trucks and other vehicles) protecting Provider and City as an additional insured with limits not less than 250/500/100,000 or as amended by statute.

8.3 General Liability Insurance

Provider shall provide general liability insurance. Such insurance covering personal and bodily injuries or death shall be in the sum of not less than two hundred fifty thousand dollars (\$250,000.00) per occurrence and five hundred thousand dollars (\$500,000.00) aggregate. Insurance covering damages to property shall be in the sum of not less than one hundred thousand dollars (\$100,000.00). The general liability insurance must name the City as an additional insured.

8.4 Professional Liability Errors and Omissions Insurance

Provider shall also provide and maintain Professional Liability Errors and Omissions Insurance coverage to protect Provider and City from any liability arising out of the performance of professional services, if any, under this Agreement. Such coverage shall be in the sum of not less than three hundred thousand dollars (\$300,000.00) per occurrence and five hundred thousand dollars (\$500,000.00) aggregate.

8.5 Certificate of Insurance

A signed Certificate of Insurance, satisfactory to City, showing compliance with the requirements of this Article shall be furnished to City before any services are performed. Such Certificate shall provide thirty (30) days written notice to City prior to the cancellation or modification of any insurance referred to therein.

The project name and bid/contract number shall be listed on the certificate.

ARTICLE 9: DEFAULT

In the event Provider fails to comply or becomes disabled and unable to comply with the provisions of this Agreement as to the quality or character of the service or time of performance, and the failure is not corrected within thirty (30) days after written notice by City to Provider, City may, at its sole discretion without prejudice to any other right or remedy.

- (a) Terminate this Agreement and be relieved of the payment of any further *c o n s i d e r a t i o n* to Provider except for all work determined by City to be satisfactorily completed prior to termination. Payment for work satisfactorily completed shall be for actual costs, including reasonable salaries and travel expenses of Provider to and from meetings called by City at which Provider is required to attend, but shall not include and loss of profit of Provider. In the event such termination, City may proceed to complete the services in any manner deemed proper by the City, either by the use of its own forces or by resubmitting to others. Provider agrees that any costs incurred to complete the services herein provided for may be deducted and paid by the owner out of such money's as may be due or that may thereafter become due to Provider under and by virtue of this Agreement.
- (b) City may, without terminating this Agreement or taking over the services, furnish the necessary materials, equipment, supplies and/or help necessary to remedy the situation, at the expense of Provider.

ARTICLE 10: MISCELLANEOUS

10.1 Reuse of Documents:

Except as otherwise dictated by the Contract Documents, and with the explicit exception of the preliminary and final Master Trail Map documents, all documents including Maps, Plans and Specifications provided or furnished by the Provider pursuant to this Agreement are instruments of service; and Provider shall retain ownership and property interest therein whether or not the work is completed. The City may make and retain copies of any plans or specifications provided under this Agreement for the use by City and others; such documents are not intended or suitable for reuse by City or others on extension of the Project or on any other Project. Any such reuse without written approval or adaptation by the Provider for the specific purpose intended will be at the City's sole risk and without liability to the Provider.

10.2 Entire Agreement.

This Agreement constitutes the sole and only Agreement of the parties and supersedes any prior understandings or written or oral agreements between the parties with respect to this subject matter.

10.3 Assignment.

Neither this Agreement nor any duties or obligations under it shall be assignable by Provider without the prior written consent of City. In the event of an assignment by Provider to which the City has consented, the assignee or the assignee's legal representative shall agree in writing with the City to personally assume, perform, and be bound by all the covenants, obligations, and agreements contained in this Agreement.

10.4 Adjustments in Services/Amendment.

This Agreement may be amended by the mutual written agreement of the parties. Provider shall not make any claims for extra services, additional services or changes in the services without a written agreement with City prior to the performance of such services.

10.5 Governing law.

The validity of this Agreement and any of its terms or provisions, as well as the rights and duties of the parties, shall be governed by the laws of the State of Texas; and venue for any action concerning this Agreement shall be in Dallas County, Texas.

10.6 Notices.

All notices required by the Agreement shall be in writing and addressed to the following, or such other party or address as either party designates in writing, by certified mail, postage prepaid or by hand delivery:

City of Lancaster

Opal Mauldin-Jones, City Manager
PO Box 940
Lancaster, TX 75146
972-218-1300
ojones@lancaster-tx.com

Environmental Reconstruction Services, INC. (ERS)

Terry Sauls
P.O Box 9
Wylie, TX 75098
Ph. 972-524-2946-O; 469-951-7604 M
Tsauls.ers@verizon.net

10.7 Legal construction.

In the event any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions and the Agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained in this Agreement.

10.8 Successors and Assigns.

- (a) The City and Provider each is hereby bound and the partners, successors, executors, administrators, legal representatives and assigns of City and Provider are hereby bound to the other party to this Agreement and to the partners, successors, executors, administrators, legal representatives and assigns of such other party in respect of all covenants and obligations of this Agreement.

- (b) Neither the City nor the Provider may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting or transfer is mandated by law or the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.
- (c) Nothing in this Agreement shall be construed to create, impose or give rise to any duty owed by the Provider to any Provider, subcontractor, supplier, other person or entity, or to any surety for or employee of any of them, or give any rights in or benefits under this Agreement to anyone other than the City and the Provider.

10.9 Conflict.

If a conflict exists between this Agreement, and an Exhibit, the Response, then such conflicts shall be resolved as follows:

- (a) If a conflict exists between this Agreement and an Exhibit or the Response, then this Agreement shall control.
- (b) If a conflict exists between the Response and an Exhibit, the Exhibit shall control.

10.10 Severability

Any provision or part of the Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken and all remaining provisions shall continue to be valid and binding upon the City and the Provider, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.11 Captions

The captions used in this Agreement are for convenience only and shall not affect in any way the meaning or interpretations of the provisions set forth herein.

10.12 Counterparts

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on this the 14th day of February, 2022.

CITY OF LANCASTER, TEXAS
A Texas home-rule municipality

**Environmental Reconstruction Services, INC.
(ERS).**
A Texas General INC.

Opal Mauldin-Jones, City Manager

Terry Sauls

Date: _____

Date: _____

Exhibit A: Scope of Work

ERS, INC.

ENVIRONMENTAL RECONSTRUCTION SERVICES, INC.

A Registered and Insured UST Contractor

October 15, 2021

City of Lancaster -Propane

ERS Job Proposal #21-077

Lancaster, TX

Propane Installation

SCOPE OF WORK

- Furnish and install one concrete pad for propane tank, including pipe bollards and pipe guard. (500 sq. ft.)
- Haul off excess dirt from concrete pad area.
- Relocate existing propane tank to new site.
- Furnish and install Gasboy single hose propane dispenser.
- Hook up propane dispenser to existing Fuel Master Fleet Management System.
- Furnish and install electrical conduit and wiring for hook up of propane dispenser and Fuel Master System.
- Obtain necessary permits per the City of Lancaster, TX

Estimated Time on Job: 10 working days

Total Construction Cost: \$ 38,597.00

Total Equipment Cost: \$ 17,220.00

Total Estimated Cost: \$55,817.00

Exclusions:

- **Fuel for startup by others.**
- **Permitting of Propane tank to Texas Railroad Commission by others.**

Sincerely,

Terry Sauls

ENVIRONMENTAL RECONSTRUCTION SERVICES, INC.

972-524-2946 – Office

469-951-7604 - Mobile

CITY OF LANCASTER CITY COUNCIL

City Council Regular Meeting

5.

Meeting Date: 02/14/2022

Policy Statement: This request supports the City Council 2021-2022 Policy Agenda

Goal(s): Financially Sound Government

Submitted by: Opal Mauldin-Jones, City Manager

Agenda Caption:

Consider a resolution designating representatives of the City of Lancaster authorized to transmit and withdraw funds and take all other actions deemed necessary or appropriate for the investment of local funds in TexPool/TexPool Prime; providing for the addition and deletion of an authorized representative.

Background:

The City currently invests its resources with TexPool. TexPool requires the passage of a resolution by the governing body to add or remove primary and secondary representatives to make transactions. The City's accounts are currently established for internal transfer (from one City TexPool account to another), deposit (from the City depository checking account to TexPool), and withdrawal (from the TexPool account to the City depository checking account) transactions only.

The primary and secondary representatives are required to attend mandatory training for operation of the investment portfolio.

Operational Considerations:

This resolution adds and assigns primary responsibility to Mike Delmore, Director of Finance, Christine Harris, Assistant Director of Finance, and Opal Mauldin-Jones, City Manager, who continues to remain on the primary responsibility list. Additionally, this resolution, adds Carey Neal, Assistant City Manager, as an authorized representative.

Legal Considerations:

The resolution is in the form prescribed by TexPool and has been reviewed and approved by the city attorney as to form.

Public Information Considerations:

This item is being considered at a Regular Meeting of the City Council and noticed in accordance with the Texas Open Meetings Act.

Options/Alternatives:

1. City Council may approve the resolution, as presented.
2. City Council may deny the resolution.

Recommendation:

Staff recommends approval of the resolution, as presented.

Attachments

Resolution



*** Required Fields**

WHEREAS,

("Participant") is a local government of the State of Texas and is empowered to delegate to a public funds investment pool the authority to invest funds and to act as custodian of investments purchased with local investment funds; and

WHEREAS, it is in the best interest of the Participant to invest local funds in investments that provide for the preservation and safety of principal, liquidity, and yield consistent with the Public Funds Investment Act; and

WHEREAS, the Texas Local Government Investment Pool ("**TexPool / Texpool Prime**"), a public funds investment pool, were created on behalf of entities whose investment objective in order of priority are preservation and safety of principal, liquidity, and yield consistent with the Public Funds Investment Act.

NOW THEREFORE, be it resolved as follows:

- A. That the individuals, whose signatures appear in this Resolution, are Authorized Representatives of the Participant and are each hereby authorized to transmit funds for investment in TexPool / TexPool Prime and are each further authorized to withdraw funds from time to time, to issue letters of instruction, and to take all other actions deemed necessary or appropriate for the investment of local funds.
- B. That an Authorized Representative of the Participant may be deleted by a written instrument signed by two remaining Authorized Representatives provided that the deleted Authorized Representative (1) is assigned job duties that no longer require access to the Participant's TexPool / TexPool Prime account or (2) is no longer employed by the Participant; and
- C. That the Participant may by Amending Resolution signed by the Participant add an Authorized Representative provided the additional Authorized Representative is an officer, employee, or agent of the Participant;

List the Authorized Representative(s) of the Participant. Any new individuals will be issued personal identification numbers to transact business with TexPool Participant Services.

3.

Name										Title																			
Phone										Fax										Email									
Signature																													

1. Resolution (continued)

4.
Name Title

Phone Fax Email

Signature

List the name of the Authorized Representative listed above that will have primary responsibility for performing transactions and receiving confirmations and monthly statements under the Participation Agreement.

Name

In addition and at the option of the Participant, one additional Authorized Representative can be designated to perform only inquiry of selected information. *This limited representative cannot perform transactions.* If the Participant desires to designate a representative with inquiry rights only, complete the following information.

Name Title

Phone Fax Email

D. That this Resolution and its authorization shall continue in full force and effect until amended or revoked by the Participant, and until TexPool Participant Services receives a copy of any such amendment or revocation. This Resolution is hereby introduced and adopted by the Participant at its regular/special meeting held on the day of , 20.

Note: Document is to be signed by your Board President, Mayor or County Judge and attested by your Board Secretary, City Secretary or County Clerk.

Name of Participant*

SIGNED

Signature*

Printed Name*

Title*

ATTEST

Signature*

Printed Name*

Title*

2. Mailing Instructions

The completed Resolution Amending Authorized Representatives can be faxed to TexPool Participant Services at 1-866-839-3291, and mailed to:

TexPool Participant Services
1001 Texas Avenue, Suite 1150
Houston, TX 77002

CITY OF LANCASTER CITY COUNCIL

City Council Regular Meeting

6.

Meeting Date: 02/14/2022

Policy Statement: This request supports the City Council 2021-2022 Policy Agenda

Goal(s): Financially Sound Government
Sound Infrastructure
Quality Development
Professional and Committed City Workforce

Submitted by: Opal Mauldin-Jones, City Manager

Agenda Caption:

Discuss and consider confirmation of nominations made by the Mayor for appointments to the North Central Texas Housing Finance Corporation Board (NCTHFC).

Background:

The NCTHFC was organized in 1981 for the purpose of providing a vehicle for its members (cities of Duncanville, Cedar Hill, Lancaster, DeSoto, Waxahachie and counties of Ellis, Hunt, Kaufman, Navarro, and Rockwall) to jointly provide tax-exempt financing for single-family and multifamily housing within the defined jurisdictions. Each sponsoring local governmental unit shall appoint a board member and two alternates. The board member shall be a resident of the appointing local government unit (city). The two alternate members are not required to reside in the city.

Other cities within the NCTHFC have appointed both City Council members and/or City staff. Historically, the City of Lancaster has appointed City staff, but there is not a requirement for one or the other. All three appointees are welcome to attend the quarterly meetings; however, there is only one vote for the City of Lancaster.

This board grants Mortgage Credit Certificates (MCC) for first-time homebuyers within the City of Lancaster. This program allows an income tax credit of up to \$8,000 over a four-year period for the life of the mortgage loan. The funds are on a first-come, first-served basis, and standard underwriting requirements must be met through a participating lender.

Involvement on this board keeps the city up-to-date on regional incentive programs that our citizens can take advantage of, as well as a vehicle to promote homeownership without budget implications for the city.

Operational Considerations:

Mayor Hairston currently serves as a board member of the NCTHFC. This is a request for the City Council to confirm the Mayor's nomination of an alternate to the NCTHFC. Appointments were last made on January 13, 2020, and need to be updated. Currently, appointed are City Manager, Opal Mauldin-Jones - alternate, and Director of Finance, Kim Hall - alternate. Ms. Hall is no longer a City of Lancaster employee, therefore; Mayor Hairston is recommending Carey Neal, Assistant City Manager, as an alternate member to replace Ms. Hall.

Public Information Considerations:

This item is being considered at a Regular Meeting of the City Council noticed in accordance with the Texas Open Meetings Act.

Options/Alternatives:

1. Confirm the Mayor's nomination to serve on the North Central Texas Housing Finance Corporation (NCTHFC).
2. Take no action and discuss options with the Mayor.

Attachments

Exhibit A

EXHIBIT A

North Central Texas Housing Finance Corporation (NCTHFC) Board Appointments

Carey Neal, Assistant City Manager - Alternate

CITY OF LANCASTER CITY COUNCIL

City Council Regular Meeting

7.

Meeting Date: 02/14/2022

Policy Statement: This request supports the City Council 2021-2022 Policy Agenda

Goal(s): Sound Infrastructure
Quality Development

Submitted by: Than Nguyen, City Engineer

Agenda Caption:

Discuss and consider an ordinance approving the updated General Design Manual and Standard Construction Details.

Background:

The City's General Design Manual and Standard Construction Details were approved on December 13, 1999, and amended by addendum in April, 2001. The General Design Manual and Standard Construction Details are important construction standards documents, and they describe how infrastructure improvements in the public rights-of-way, such as water, wastewater, and roadways should be designed, engineered, and constructed. The Standard Construction Details portion of the documents provides detailed descriptions of the construction methods and standards that contractors must follow when performing infrastructure construction in the city. The General Design Manual is used for both City capital improvement projects and private development projects that involve municipal infrastructure such as commercial warehouse projects, residential subdivisions, and retail projects. In summary, the General Design Manual summarizes how public improvements should be designed by engineers and the Standard Construction Details illustrates how these improvements should be made when constructed.

Staff worked with several local consultants over a multi-year period to make recommendations on updating both documents. The intent of updating the documents is to conform with evolving industry standards used for public improvements and maintain parity with peer cities which have recently updated their General Design and Construction Details documents. An example of these updated standards includes

requirements on how new roadways should be built with stronger concrete strength to alleviate future maintenance issues. The General Design Manual was reviewed and updated by staff from Planning, Engineering, Fire, Building Inspections, and Public Works.

Operational Considerations:

The General Design Manual and Standard Construction Details provide minimum design standards for new developments related to public infrastructure improvements such as water, wastewater, roadways, storm drainage, and street lights.

Legal Considerations:

The ordinance has been reviewed and approved by the City Attorney, as to form.

Public Information Considerations:

This item is being considered at a Regular Meeting of the City Council noticed in accordance with the Texas Open Meetings Act.

Options/Alternatives:

1. City Council may approve the ordinance, as presented.
2. City Council may deny the ordinance.

Recommendation:

Staff recommends the approval of the ordinance, as presented.

Attachments

Ordinance

Exhibit A

Exhibit B

ORDINANCE NO.

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LANCASTER, TEXAS AMENDING THE CITY'S GENERAL DESIGN MANUAL AND STANDARD CONSTRUCTION DETAILS; PROVIDING FOR A SAVINGS CLAUSE; PROVIDING FOR A REPEALER CLAUSE; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City of Lancaster's current General Design Manual and Standard Construction Details were adopted on December 13, 1999, and amended by Addendum in April 2001; and

WHEREAS, the General Design Manual and Standard Construction Details are essential documents used to provide standards, guidance and details for engineers, developers and contractors to implement in the design and construction of major infrastructure items such as water, wastewater, and roadway systems; and

WHEREAS, the City of Lancaster desires to have a Healthy, Safe and Engaged Community; with Sound Infrastructure and Quality as stated in the annual Goals and Objectives adopted by the City Council; and

WHEREAS, the City Council of the City of Lancaster finds it in the best interest of the citizens of the City to update the General Design Manual and Standard Construction Details to provide up-to-date standards for the design and construction of infrastructure items.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LANCASTER, TEXAS:

SECTION 1. The City Council of the City of Lancaster, Texas hereby approves and adopts the updated General Design Manual and Standard Construction Details, copies of which are collectively attached hereto as Exhibit "A" and Exhibit "B", and repeals and replaces the existing General Design Manual and Standard Construction Details with these new versions.

SECTION 2. The City Council directs the City Manager to implement the updated and newly-adopted General Design Manual and Standard Construction Details.

SECTION 3. Any prior Ordinance or Resolution of the City Council in conflict with the provisions contained in this Ordinance is hereby repealed and revoked, to the extent of the conflict with this Ordinance.

SECTION 4. Should any part of this Ordinance be held to be invalid for any reason, the remainder shall not be affected thereby, and such remaining portions are hereby declared to be severable.

SECTION 5. This Ordinance shall take effect immediately from and after the date of passage and as provided by law.

DULY PASSED and approved by the City Council of the City of Lancaster, Texas, on this the 14th day of January, 2022.

ATTEST:

APPROVED:

Sorangel O. Arenas, City Secretary

Clyde C. Hairston, Mayor

APPROVED AS TO FORM:

David T. Ritter, City Attorney

CITY OF LANCASTER, TEXAS



GENERAL DESIGN MANUAL

City of Lancaster
Lancaster, Texas 75146-0940
Phone (972) 218-1200

CITY OF LANCASTER, TEXAS

GENERAL DESIGN MANUAL

Title

This General Construction Design Manual is in conformance with the “Subdivision Regulations of the City of Lancaster, Texas”.

Purpose

The regulations are designed and enacted in accordance with state law and the City’s home-rule legislative powers.

This following document contains the various construction criteria, techniques, and details, which are the minimum requirements of the City of Lancaster for public facilities. This data is primarily intended for the use of the Developer and his Engineer to enable the applicant to provide the proper design for the public facilities associated with a proposed development or project. This criteria is not intended as an exhaustive list of the construction techniques available. In the event that specific circumstances dictate additional requirements, it shall be the responsibility of the Engineer of record to provide the necessary details for construction to be approved by the Engineering Division of the Development Services Department for the City of Lancaster.

The review is for general conformance with the design concept of the project and general compliance with the information given in the contract and construction documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction, coordination of their work with that of all other trades and performing their work in a safe and satisfactory manner.

This design criteria and details may be modified by administrative action of the City and subsequent Resolution by the City Council at such times as may be appropriate in keeping with the most up-to-date construction techniques and specifications of the North Central Texas Council of Government (NCTCOG).

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STANDARD CONSTRUCTION DETAILS

DESCRIPTION	DETAIL SHEET
General Construction Notes	GN-00 – GN-03
Divided Roadway Sections	STREET – 01
Left Turn Lane Plan / Divided Roadway	STREET – 01
Undivided Roadway Sections	STREET – 02
Curb Details	STREET – 02
Street Headers	STREET – 02
Barricade	STREET – 03
Pavement Joints	STREET – 03
Median Details	STREET – 04
Fire Lane	STREET – 04
Alley and Driveways	STREET – 05
Alley Radio Sheet	STREET – 06
Flumes	STREET – 07
Sidewalks / Barrier Free Ramps	STREET – 07
Inlets Recessed and Standard	STM SEW-01 & 02
Drop Inlet	STM SEW – 03
Storm Sewer Manholes	STM SEW – 03
Sloped Concrete Headwall	STM SEW – 03
Pilot Channel	STM SEW – 04
Concrete Lined Channel	STM SEW – 04
Gabion Bed. Channel	STM SEW – 05
Walls	WALL – 01
Fire Hydrant	WATER – 01
Water Service	WATER – 01
Creek Crossing and Utility	WATER – 01
Butterfly Valve	WATER – 02
Gate Valve	WATER – 02
A/Vacuum Release Valve	WATER – 02
Blow Off Valve	WATER – 02
Meter Valve	WATER – 03
Meter Details	WATER – 04
3” Domestic Meter with Vault	WATER – 05
3” – 6” Domestic Compound Meter with Assembly	WATER – 06
10” DDC with Vault (Fire Lane)	WATER – 07
FDC Detail Requirement	WATER – 08
Air Release Valve – Type 1	WATER – 09
Aerial Crossing	SEWER – 01
Cast in Place Manhole	SEWER – 02
Pre-Cast Manhole	SEWER – 02
Ring Covers	SEWER – 02
Sewer Service Residential	SEWER – 03

Stubout Connection to Existing Pipe	SEWER – 03
Erosion and Sediment Control	EROSION
Embedment	EMBED – 01

SECTION 1-01 CONSTRUCTION PLANS

A. Construction Plan Requirements

All civil construction plans for proposed public water, sanitary sewer, fire lanes, street, drainage and traffic improvements shall adhere to the City of Lancaster's standards and specifications and the following requirements:

1. Plans shall be clear, legible, and neatly drawn on bordered sheets, size 22" x 34" or 24" x 36". Each sheet shall clearly display the seal of the Texas Professional Engineer licensed by the State of Texas, under whose direction the plans were designed. A title block in the lower right-hand corner shall be filled in to include: project name; Engineer's name, address, and telephone number, and furnished in the following format:
 - a. Cover Sheet containing:
 - Project title
 - Legal property description
 - Assigned street address by the City of Lancaster
 - City name
 - Vicinity map with Mapsco grid number
 - Owner, Engineer, and Surveyor's name, address and telephone number
 - Project title in small print placed vertical along the middle right border
 - Sheet index
 - Development Service's approval signature block (Obtained from the Engineering Division of Development Services)
 - b. Copy of approved and/or accepted plat bound with final plans. The signed plat shall be bound with five (5) copies of the proposed construction plans including the Engineer's signature and seal.
 - c. Drainage area map and storm drainage calculations with all existing contours, existing and proposed storm drains, and/or other drainage facilities.
 - d. Approved site plan indicating the location and width of all proposed and existing street and driveway approaches noting the back-of-curb radii. All public easements delineated.
 - e. Utility plan indicating the location and size of all existing and proposed water and sanitary sewer lines with adjacent existing or proposed top of curb grades. Also, the location of all existing and

proposed fire hydrants adjacent to the site shall be shown, including the maximum coverage radius of each as outlined in later sections of this manual.

- f. Plan and Profile Sheets for roadways, sewer lines, storm drains, flumes, water lines and channels. Stationing shall be generally left to right and with stationing beginning at the downstream end of all sewers, storm drains, and channels.
- g. Stationing shall be included on the plan view as well as the profile for all roads, water, sewer, storm drain, and channel sheets. Elevations shall be calculated and provided in all profiles as indicated below.
 - 1. Straight grade – provide elevations at a maximum interval of 100' feet.
 - 2. Vertical curve – provide elevations at the beginning and ending points at a maximum interval of 25' feet in between.
 - 3. State design speed for all horizontal and vertical curves.
- h. Details for improvement which are to become public
 - 1. Horizontal scale shall be on 1" equals fifty (50') feet or larger, i.e. 1" = 40'. Vertical scale shall be one (1") inch equals five (5') feet or larger.
 - 2. Hydraulic grade line or water surface profile based on FEMA 100 year water surface shall be plotted with all drainage design. Discharge capacity, 100-year design discharge, velocity, and friction slope shall be noted on each segment of drainage facility in the profile and all drainage calculations shown in accordance with the City's storm drainage manual with one or more of these parameters changes.
 - 3. Construction plans will be reviewed by the City of Lancaster Development Services staff and signed after all comments have been resolved. Construction must start within two (2) years following the final acceptance of plans. Plans for projects, which have not started construction within this two-year period, must be submitted to Development Services staff for a new review.

B.. Other Utilities

The developer shall furnish all easements and right-of-way (onsite and offsite) necessary for construction of water, sanitary sewer, storm drainage, and electrical, gas, cable TV, and telephone service to the proposed subdivision. All on and off site utilities must be included. Additional franchise utility easements (seven [7'] feet on streets and, five [5'] feet on alley) will be required for developments where no alley exists.

1. Specifications are the Standard Specifications for Public Work Construction, North Central Texas (4th Edition or as amended) as prepared by the North Central Texas Council of Governments.
2. Special Provisions to the Specifications must be addressed during preliminary platting unless otherwise directed.
3. Standard Construction Details are as prepared by the City of Lancaster.

C. Notification

Utility contractor and street contractor are to notify the City's construction inspector at least 48 hours prior to beginning construction.

D. Record Drawings (As-Built)

The developer shall furnish record drawings and the accepted final plat completed with engineer signature and seal. The developer shall furnish:

- One (1) set reduced in 11" x 17" completed with engineer signature and seal.
- Record drawings will need to show tie downs for water and sewer services from each lot line.
- In addition, electronic files of the record drawings shall be submitted in dgn and pdf format. Record drawings (stamped as "as-builts") shall include all changes made by change order, field change, or on-site changes. Record drawings shall be provided to the City prior to final acceptance of the project.

Other Items Needed for Project Close-Out

- 1 electronic set of Final Plat (i.e. DVD, flash drive)
- Additionally required is a Subdivision Infrastructure Inventory Disk on DVD or flash drive, formatted as an Excel Spreadsheet with no protection locks.

- Owners will need to submit Bid Tabulations for Water, Sewer, Storm Drainage, Fire Lanes, and Streets.
- Original copy of Geotechnical report for project with form 79G completed for each lot.

E. Form of Plans

The plan sheet should be drawn so that the north arrow points to the top or to the left side of the sheet. The plan must show sufficient surrounding streets, lots, and property lines so the existing water and sewer may be adequately shown and so that proper consideration may be given to future extensions. The City will determine if sufficient data is shown. Proposed water and sewer lines shall be stubbed out to the addition extremities in order that future extensions may be made. Unless it would make the plan very difficult to read, both water and sewer lines should be shown on the same sheet. The lines on the profile sheet shall be drawn in the same direction as on the plan. Lettering shall be oriented to be read upward or to the left.

On large additions or layouts requiring the use of more than six sheets (total of plan & profile), key sheets may be required on a scale of 1" = 400' or 1" = 1000', as designated by the City Engineer. They shall show the overall layout with the specific project clearly indicated with reference to individual sheets.

The use of "off-standard" scales will not be permitted. A plan shall be drawn to a horizontal scale of 1" = 20', or 1" = 40'. Plans for water and sewer that do not involve great detail should be drawn on a scale of 1" = 50'. Plans in and along creeks, heavily wooded sections, streets with numerous utilities, or as may be required to produce a clean and legible drawing, shall be drawn on plan-profile sheets or separate plan and profile sheets on a scale 1" = 40'. If the plan is in an extremely congested area, a scale of 1" = 10' may be necessary. All profiles shall be drawn on a vertical scale (1" = 5') as required for clarity, and the horizontal scale shall be the same as for the plan unless otherwise directed by the City Engineer.

F. Data to be included in Plans

Sewer data to be included on plan sheets: The plan shall show the existing and proposed water and sewer lines and all appurtenances thereto. The plan should also have the storm sewer system dashed in. All lines shall be numbered, lettered or otherwise designated on both plan and profile sheets. All lines shall show sizes and direction of flow on both plan and profile sheets. Stationing shall be shown to the nearest 0.1' foot and each new line shall begin at 1+00 at the outlet and increase up the sewer. Station pluses at all junctions of sewers, horizontal P.C.'s, and P.T.'s, bends, angle points, wyes, cleanouts, manholes, the centerlines of all cross streets and railroads, and all crossing utilities, etc., shall be shown on both plan and profile. The degree of angles and horizontal curve data shall be shown on the plan only. Radius for specific pipe size and material shall be determined by the Engineer of

record and approved by the City Engineer. While curved sanitary sewer lines are allowed per manufacturer specifications, sewer radius pipe shall be used as a last resort. Sewer laterals shall be shown at a location most convenient to serve the property.

Sewer laterals will usually be near the center of the lot, either at the street or alley. If the lateral is to be adjacent to the water service, then show the lateral 10 feet downstream. The location shall be designated on the plans.

G. Sewer Data to be Included on the Profile Sheet

The data for the profile sheet shall be obtained by running a line of levels along the actual route and by taking any other necessary observations. Profiles shall show the elevations to the nearest 0.1 foot of the ground at the centerline of the sewer, and to the right and left of the centerline of the sewer at the location of the approximate center of the proposed houses or buildings to be served, and the approved street or alley grade. Profiles shall also show the sewer pipe, manholes, cleanouts, etc. The size of the sewer, the direction of the flow, and the grade to the nearest 0.01 foot shall be indicated just over the "pipe" and the total linear footage of line, size, kind of pipe, and type of embedment or encasement shown below the "pipe". The design flow, pipe capacity and velocity must be shown in the profile. All of the information pertaining to the horizontal data, station pluses, appurtenances to be built, etc., is usually shown just above the ground line, whereas, the flow line (invert) elevations are shown below the pipe. Elevations of crossing and parallel utilities shall be shown. All invert elevations shall be shown to the nearest 0.01 foot. Invert elevations shall be recorded at all junctions (all lines-in and out), at grade breaks, the ends of lines, or other points as requested by the City Engineer. Benchmarks used shall also be clearly shown, giving the descriptive locations and elevations. Elevations will be given using the State Plan Coordinate System the City has established benchmarks and must be adhered to. All existing water, sewer, gas, storm sewer, telephone, power, and other utilities parallel to or crossing the proposed sewer or water line shall be adequately designated as to size, type, and location. All Texas Commission on Environmental Quality (TCEQ) requirements shall be covered in the design and in the plans.

H. Data to be Included for Water Plan and Profile

Indicate the location of any existing valves required for shutdown purposes and of any tees, ends, etc., to be tied into horizontal distances. Shut down of existing lines shall be approved by the City Engineer. Otherwise wet taps will be required. Indicate clearly the sizes of the lines to be installed, and all proposed valves, fire hydrants, tees, crosses, bends, reducers, plugs, sleeves, wet connections, tap connections, creeks, railroad or highway crossings, tunnels, meter boxes, valve vaults, and other appurtenances at each intersection or as required. Where the

pipe is to be placed around a curve, the curve data must be provided. The size and type of services and the material, type of joint, and class of pipe shall be indicated by adequate notation in the lower left or right hand corners of the plan sheet. Water services and meter boxes shall be indicated and shall be located at or near the center of the front of each lot. Waterline profiles are required on lines 12-inches and larger; follow the general procedures as outlined for sewers, except that the grades and elevations of the proposed water line usually need not be shown closer than the nearest 0.1' foot. All TCEQ requirements shall be included in the plans.

SECTION 1-02 WATER SYSTEM

This section is intended to aid and assist engineers in the layout and design of water lines to definite standards and to obtain uniformity in the plans. Any proposed variances to these rules must be submitted to the Director of Public Works based on sound and acceptable engineering practices.

A. Review Process

1. Submittal

On completion of the planning and preliminary engineering of a subdivision, submit five (5) copies along with a contour map and preliminary water and sewer layout to the City, whereby a check can be made as to the general layout and availability of water and sewer. If problems arise as to the availability of water and sewer, it may be necessary to meet with the developer and discuss and resolve those issues prior to further review and acceptance.

2. Preliminary Check

When the engineering plans are complete, submit three (3) sets of full sized (22" x 34" or 24" x 36") legible prints. Every attempt will be made to review plans within ten (10) business days. Review time is typically governed by the completeness of the plans being reviewed.

3. Final Check

The following items shall be reviewed prior to submittal of final plans. The transmittal letter shall include certification that those items have been completed.

4. Final Approval of Plans

The following list should be verified before submittal of plans are submitted for City approval:

- (a) The plans must be complete and correct.
- (b) The approved preliminary plat must have been submitted.

- (c) The street grades and storm sewer plans must have been submitted and approved by City Engineer.
- (d) The plans must be signed and sealed by the Professional Engineer licensed in the State of Texas, who is responsible for the design.
- (e) All fees and other monies due must be paid in full. Impact fees must be paid prior to any construction activities.

B. Water System Extensions

1. Water systems shall be of sufficient size to furnish adequate domestic service, to provide adequate fire protection to all lots, and to conform to the City's current Master Water Distribution System Plan (<http://lancaster-tx.com/DocumentCenter/View/3374>). Public water mains adjacent to federal, state, or county roadways shall be constructed outside the rights-of-way in a separate easement dedicated by separate instrument, and shown on plat. Fire flow calculations for non-master plan network lines must be submitted for review.
2. All tee intersections of public water mains shall include at least two (2) gate valves. Valve placement shall be in such a manner as to require preferably 2 valves, but not more than 3 valves, to shut down each City block, or as required to prevent shutting off more than one fire hydrant. Valves shall be spaced a maximum of 800-feet apart in residential districts and a maximum of 500-feet apart in all other districts. Valves 12 inches and smaller shall be resilient seated gate valves (RSGV), and valves larger than 12 inches shall be butterfly valves. All cross intersections of public water mains shall include at least four (4) gate valves.
3. The minimum size water main in conventional single-family residential areas shall be eight (8") inches in diameter, unless a larger line is shown on the master plan. Smaller lines may be utilized in some areas with prior approval of the Director of Public Works. The Director of Public Works or the Water/Wastewater Superintendent shall have final approval of their use.
4. The minimum size water main in all other areas shall be eight (8") inches in diameter. Larger diameter mains will be necessary if fire flow requirements so dictate or the master plan shows a large line. A fire flow analysis is required to determine adequate proposed water main sizes.
5. Minimum depth of cover over all water mains shall be 48 inches.

6. Water mains 12 inches and larger shall be profiled. P.I.s and elevations shall be provided to the nearest 0.01 feet for all profiled water lines. Where water mains are to be installed in rights-of-way having roads constructed without curb and gutter, regardless of water main diameter, a plan and profile sheet shall be submitted with the construction plans showing the proposed water main profile, the existing street grades, and the preliminary future top-of-curb grades for at least 300 feet either side of the boundary of the proposed subdivision. The preliminary grade shall be set by the submitting design engineer.
7. The minimum horizontal and vertical separation between water and sewer lines shall be in accordance with TCEQ requirements.
8. The minimum easement width for a water line on private property shall be seven and one half (7.5') feet on each side of the pipe for a total of 15 feet. Water and shallow depth sanitary sewer easements (less than 12 feet deep) shall be 25 feet in width.
9. Residential water services shall not normally be directly connected to water mains 16 inches in diameter or greater. Smaller, parallel water mains are required for water service connections.
10. All water services shall be placed at the lot line, between lots, where possible and all water meters shall be located in City rights-of-way or inside a waterline easement, unless approved otherwise by the Public Works Department.

C. Fire Hydrants

1. In all conventional single-family subdivisions, fire hydrant spacing shall not allow the fire hose lay distance to any point on the building to exceed five-hundred (500') feet as measured along public ROW and/or emergency access easements. All lots within the proposed subdivision shall be within five hundred (500') feet radial distance of a fire hydrant.
2. In all other subdivisions, fire hydrant spacing shall not allow the fire hose lay distance to any point on the building to exceed five hundred (500') feet as measured along public ROW and/or emergency access easements. The entire subdivision shall be within three hundred (300') feet radial distance of a fire hydrant.
3. Fire hydrants located on the opposite side of a major collector or arterial street, (i.e., roadway width greater than forty [40'] feet), from a development shall not be considered when determining adequate fire hydrant coverage for a development.

4. All fire hydrants shall be installed at property lines.
5. All fire hydrants for commercial development must be approved by the City of Lancaster Fire Marshal.
 - (a) Number and Locations - A sufficient number of fire hydrants shall be installed to provide hose stream protection for every point on the exterior wall of the building with the lengths of hose normally attached to the hydrants. There shall be sufficient hydrants to concentrate the required fire flow, as recommended by the publication "GUIDE FOR DETERMINATION OF REQUIRED FIRE FLOW" published by the Insurance Service Office, around any building with no hose line exceeding the distances hereinafter established and with an adequate flow available from the water system to meet this required flow. In addition, the following guidelines shall be met or exceeded:
 - (b) SINGLE FAMILY AND DUPLEX RESIDENTIAL - As the property is developed, fire hydrants shall be located at all intersecting streets and at intermediate locations between intersections at a maximum spacing of 500 feet between fire hydrants as measured along the route that fire hose is laid by a fire vehicle.
 - (c) MULTIFAMILY RESIDENTIAL - As the property is developed, fire hydrants shall be located at all intersecting streets and at intermediate locations between intersections at a maximum spacing of 400 feet as measured along the length of the centerline of the roadway, and the front of any structure at grade shall be no further than 500 feet from a minimum of 2 fire hydrants as measured along the route that a fire hose is laid by a fire vehicle.
 - (d) OTHER DISTRICTS - As the property is developed, fire hydrants shall be located at all intersecting streets and at intermediate locations between intersections at a maximum spacing of 300 feet as measured along the length of the centerline of the roadway, and the front of any building at grade shall be no farther than 300 feet from a minimum of 2 fire hydrants as measured along the route that the fire hose is laid by a fire vehicle.
 - (e) PROTECTED PROPERTIES - Fire hydrants required to provide a supplemental water supply for automatic fire protection systems shall be within 100 feet of the Fire Department connection for such system.
 - (f) BUILDINGS WITH FIRE SPRINKLER – All fire line stub-outs and valves shall be sized according to the requirements of an approved fire

flow analysis signed and sealed by a registered fire flow engineer.

- g) The size of the water line serving the fire hydrants shall be a minimum of eight (8") inch and shall be sized according to the requirements of an approved fire flow analysis signed and sealed by a registered fire flow engineer. Fire hydrants shall be installed along all fire lane areas as follows:
 - 1. Non-Residential Property or Use
 - (aa) Within 150 feet of the main entrance.
 - (bb) Within 50 feet of any Fire Department Connection.
 - (cc) At a maximum intermediate spacing of 500 feet as measured along the length of the fire lane.
 - 2. Apartment Townhouse' or Cluster Residential Property or Use
 - (aa) Within 50 feet of any Fire Department Connection.
 - (bb) At maximum intermediate spacing of 400 feet as measured along the length of the fire lane.
 - 3. Commercial and Industrial Use
 - (aa) Within 50 feet of any Fire Department Connection.
 - (bb) At maximum intermediate spacing of 300 feet as measured along the length of the fire lane.
- 6. Generally, no fire hydrant shall be located closer than 50 feet to a non-residential building or structure unless approved by the Engineering and Fire Departments.
- 7. In instances where access between the fire hydrant and the building that it is intended to serve may be blocked, extra fire hydrants shall be provided to improve the fire protection. Railroads, divided thoroughfares, expressways, blocks which are subject to buildings restricting movement, and other man-made or natural obstacles are considered as barriers.

8. Restrictions

- (a) All required fire hydrants shall be of the national standard three (3) way breakaway type no less than five and one-quarter (5¼") inches in size and shall conform to the provisions of the latest AWWA Standard C502 and shall be placed upon water mains of no less than eight (8") inches in size. Fire hydrants shall have a bury depth of four (4) feet.
- (b) Valves shall be placed on all fire hydrants leads. Valves shall be flanged by mechanical joint. Water service connections shall not be allowed on fire hydrant leads.
- (c) Required fire hydrants shall be installed so the breakaway point will be no less than two (2") inches, and no greater than six (6") inches above the grade surface.
- (d) Fire hydrants shall be located a minimum of two (2') feet and a maximum of six (6') feet behind the curb line, based on the location of the sidewalk. The fire hydrant shall not be in the sidewalk.
- (e) All required fire hydrants placed on private property shall be adequately protected by either curb stops or concrete posts or other methods as approved by the Fire Marshal and shall be within dedicated easements. Such stops or posts to be the responsibility of the landowner on which the said fire hydrant is placed.
- (f) All required fire hydrants shall be installed so that the steamer connection will face the fire lane or street, or as directed by the Fire Marshal.
- (g) Fire hydrants, when placed at intersections or access drives to parking lots, when practical, shall be placed so that no part of the fire truck will block the intersection or parking lot access when connections to the fire hydrant are made.
- (h) Fire hydrants, required by this article, and located on private property, shall be accessible to the Fire Department at all times.
- (i) Fire hydrants shall be located at street or fire lane intersections, when feasible.
- (j) A Blue Stimsonite, Fire-Lite reflector (or approved equal) shall be placed in the center of the drive lane on the side of the fire hydrant. When a hydrant is located at an intersection a marker will be placed on both sides of the hydrant,

in the center of the drive lane of both intersecting streets.

- (k) In non-residential developments an eight (8") inch lead will be required on all fire hydrants that are located more than 20 feet from the looped main.
- (l) Eight (8") inch mains used for hydrant supply shall be looped and dead-ends eliminated where practical. Eight (8") inch lines shall be connected so that only one hydrant will be between intersecting lines where practical with not more than two hydrants on an eight (8") inch main between intersecting lines. Dead-end water mains, such as in cul-de-sacs, longer than 300 feet shall require a fire hydrant to serve as a flush point.
- (m) The minimum cover to the top of the pipe is 48 inches. In general, the minimum cover below the top of the street sub-grade should be as follows: six (6") inch and smaller, four (4.0') feet; eight (8") inch, four (4.0') feet; 12" inch, four and a half (4.5') feet; 16" inch, five (5.0') feet. Lines larger than 16" inch shall have a minimum of six (6') feet of cover, which is sufficient to allow water and sewer and other utilities to go over the large main. For water lines to be constructed along county-type roads commonly built with a high crown about the surrounding property, increase the cover as required to allow for future paving grade changes.
- (n) A service with a meter box is constructed from the main to a point just behind the curb line, usually in advance of paving. The location of the meter box is at or near the center of the front of the lot to be served. On multiple apartments and business properties, the desired size and location is usually specified by the Owner or Architect. Minimum requirements for water service sizes are:
 - 1. One (1) inch copper services are required to serve all residential lots including townhouse lots and patio homes. Separate services shall be provided for each of the family units.
 - 2. The size of apartment, condominium, or multi-family services will depend on the number of units served with a minimum of one (1) meter per building.
 - 3. Fittings shall include megalugs. A domestic service connection shall not be allowed on fire hydrant leads.
- (o) Route water lines around storm drain inlets with a minimum of 12 inches of clearance out-to-out.

D. Required Water Main Extensions

All water mains constructed within a proposed subdivision shall be extended to the perimeter (stubbed out) of the proposed subdivision to allow for future extension of the water system into adjacent properties. All stubbed out lines and dead end lines within the project boundaries shall include a post type hydrant for the purpose of bleeding the system.

Post hydrants can be either an above ground type or below ground installed in a meter box, (Examples of both are given in the Standard Construction Details sheet Water-01) as manufactured by Gil Industries, Inc. or The Kupferle Foundry Company or equal approved by the Public Works Director. Post Hydrants will be equipped with weep holes to prohibit freezing. Hydrant will be tied to main by means of a two (2") inch double strap bronze tapping saddle with cc threads and a two (2") inch compression by cc corporation stop. Either two (2") inch copper or polyethylene tubing may be utilized to run the lateral for post hydrant. Set back from curb will be the same as for fire hydrants, three (3) feet to six (6) feet behind curb line, based on location of sidewalk. The post hydrant will not be allowed in the sidewalk.

E. Material and Workmanship

All materials and workmanship incorporated in water system extensions shall be in accordance with the currently adopted City Standard Construction Details.

WATER SYSTEM IMPROVEMENTS

All work and materials shall be in accordance with City Standard Construction Details and General Construction Design Standards.

1. Fire Hydrants to be Mueller, M&H, or approved equal with standard three-way connections, one (1) four (4") inch and two (2) two and one-half (2 ½") inch, with standard NST thread.
2. Valves to be Mueller or an approved equal by the water and wastewater superintendent.
3. All residential water service shall be as follows:
 - (a) See details for sizes and types of materials to be used on all services. (Per City of Lancaster General Construction Design Standards).
 - (b) The water service shall be 1-inch diameter type "K" soft copper pipe, unless otherwise shown on the plans.
 - (c) The utility Contractor shall install the water services to from the property line, at a depth of 12 inches. The meter box shall be furnished and installed by the Contractor after the paving Contractor has completed the final grading in back of the curb. Each service location will be marked on the curb by etching the letter "W" by the Utility Contractor and tied to property lines on the "Record" drawings.
4. The Contractor shall install fire hydrants at the locations shown on the plans.
5. The Contractor shall furnish the City of Lancaster with a Maintenance Bond from an approved surety company which protects the City against defective workmanship and materials for a period of two (2) years from the date of the final acceptance by the City. Where defective workmanship and/or materials are discovered requiring repairs to be made under this guarantee, all such repair work shall be done by the Contractor at his own expense within five (5) days after written notice of such defect has been given to him by the City. Should the Contractor fail to repair leaks or correct such defective workmanship and/or materials within five (5) days after being notified, the City may make the necessary repairs and charge the Contractor with the actual cost of all labor and materials required. The Maintenance Bond shall be in the amount of \$50,000.00 or 10 percent (10%) of the amount of the Contract. The Contractor shall execute the Maintenance Bond on the forms furnished by the City. The Contractor shall be responsible for providing "Record Drawings" to the Engineer showing the location of water services and valves by distance to both lot lines. This information shall be placed and marked "Record Drawings" by the engineer of record. Copies of these "Record Drawings" plans shall be furnished to the City.

6. The installation of a Blue Stimsonite (or equal) Model 88-SSA Fire Hydrant Marker will be installed by the Developer or Contractor at their own cost.
7. All fire hydrants are to be painted with two coats of aluminum paint.
8. P.V.C. pipe will be in accordance with AWWA C-900 Class 150 (DR-18) unless indicated otherwise on plans. All water pipe shall be installed with a "Tracer Tape" four (4) inches to six (6) inches over the top of the pipe ("water" laid above the pipe to identify it). This tape shall be installed in the backfill material over the top of the water main.
9. For embedment details on all water conduits, refer to Standard Construction Details.
10. Double strap brass saddle to be used on three-fourths ($\frac{3}{4}$ ") through two (2") inch services. Refer to Standard Construction Details, sheet Water-01.
11. It shall be the sole responsibility of the contractor to open and or close all valves including but not limited to the City of Lancaster valves during construction of a project. The procedures to open or close City valves are as follows:
 - The contractor shall contact the City of Lancaster City Inspector at least 48 hours prior to operating City water valve(s) to get permission to open or close a valve(s).
 - If the contractor is given permission by the City Inspector to operate the valve(s), the contractor shall contact the City Inspector and develop a list of addresses that will be affected by any valve closings. After the list has been developed each address affected shall be given a written notice stating the water will be off due to construction for a given period of time (not to exceed 4 hours) and the notice(s) shall be delivered by the contractor to the address(s) affected, at least 48 hours prior to closing the valve(s). After the notification has been delivered and 48 hours have elapsed the contractor may operate the valve(s) with the Inspector present and at his instruction.
 - In no case shall City personnel be responsible for operating valves for construction in the event the valve(s) does not operate properly, then the contractor shall ask the inspector for assistance. No time or charges shall be charged to the City by the contractor for operating valves.
 - TCEQ rules and regulations shall apply to all water lines that fall below the TCEQ's minimum pressures.
12. All fire hydrants shall be Mueller or Clow, three-way standard thread with 4" nozzle and 2 $\frac{1}{2}$ " nozzles.

13. Gate valves shall be resilient wedge epoxy coated gate valves, ISO Test, Mueller or Clow.
14. Tapping sleeves shall be full circle, all stainless steel with stainless steel bolts and nuts.
15. All water mains shall have a minimum of 48" cover over the top of the pipe unless otherwise stipulated on the plan.
16. All connections used for flushing shall be metered with a certified backflow prevention device and all water used shall be at the contractor's expense
17. Water lines shall be tested at 200 psi pressure for a three-hour continuous period. The leakage rate will not exceed 25 gallons per inch of nominal diameter per mile of pipe over a 24-hour period. The contractor will flush and sterilize lines and perform bacteriological tests as directed by the City Inspector and to prove lines to be free of coliform organisms. The chlorination steps are as follows, chlorinate to at least 50 ppm-wait 24 hours. Flush super chlorination, check Chlorine (CL2), then wait additional 24 hours before taking sample. All flushing shall be metered. If samples are reported positive, the contractor will flush and re-sterilize and repeat steps until water samples are free from coliform organisms.
18. Connection to the water system shall not be made until all lines have been pressure tested and satisfactory written bacteriological report results have been received by the City of Lancaster Inspector.
19. All residential services shall be installed as follows:
 - Meter boxes shall be a plastic body type with locking cast iron or steel ring and lid to meet City of Dallas specification or approved equal and will be installed two (2) feet back of curb line. All meter boxes in paving shall be Traffic Rated. See Sheet number Water-04for details. All water services will be 1" in diameter and made of type "k" soft copper pipe unless otherwise shown on the plans and approved by the City. Refer to standard construction detail water sheet. Water services shall be located upstream of the sanitary sewer services except as may be shown on the plans.
 - The utility contractor will install the water service to a point two (2) feet past the back of curb, or as may be shown on the plans, at a depth of 12 inches. The meter box will be furnished and installed by the contractor after the paving contractor has completed the final grading in back of the curb. All water services shall be embedded in at least 6" of sand from tap to meter box.

- Contractor will tie a 1" wide piece of blue plastic flagging to the water service curb stop and will leave a minimum of 36" of flagging exposed after backfilling curb and paving is complete.
 - Contractor shall be responsible for providing and installing meter to City of Lancaster's specification at his own cost.
20. Polytubewrapping- The contractor shall furnish and install polyethylene wrap around the ductile iron pipe, fire hydrant up to the bury line and related fittings and valves. This wrap will be an 8 mil thickness polytube. Seams and overlaps will be wrapped and held in place by two inch (2") wide plastic backed adhesive tape, Polyken No. 900 or Scotchraf No. 50 or an equal with approximately two (2') footlaps on the polytube. The wrap on the barrel of the pipe will be loose enough to allow the film to shift with the soil. The wrap will be installed without breaks, tears or holes in the film. The cost of the polyethylene tube wrap and complete installation will be included in the unit price bid for furnishing and installing ductile iron pipe and related fittings, valves and fire hydrants.
21. Ductile iron fittings shall be a minimum C-ISO, pressure class 250 and all mechanical bends and fittings shall be mega-lug restrained and blocked with 3600 psi concrete.
22. The contractor shall install fire hydrants 2' from back of curb or as may be shown on the plans or as may be required to avoid conflicts. The splash pad (3'x 4') when no curb and will be placed in front of fire hydrants that are not abutting sidewalks or close enough to flow onto paved roadways. The flash pads will be dowelled in to the curb when adjacent to curb.
23. All bolts and nuts used with mechanical joint fittings will be high strength, corrosion resistant steel per ASTM A 235 Type 3.
24. Valve boxes will be furnished and set on each gate valve. After final clean up and alignment has been completed, the contractor (utility) will pour a steel reinforced (#3 bars on 12" centers) concrete block 30"x30"x6" around all valve box tops so the finished grade is level with the finished parkway.
25. The contractor will be responsible for providing "as-built" plans to the engineer showing the location of sewer services. This information will be placed on the engineering plans and marked "as built" by the design engineer. Copies of these "as-built" plans will be furnished to the City. Ties will be made by distance measurements from both lot lines for all manholes, cleanouts and services.
26. The installation of Blue Stemsonite (or approved equal) Model 88-SSA fire hydrant marker will be furnished and installed by the contractor.

27. Fire hydrants will be painted as noted. All hydrants are to be painted with two (2) coats of aluminum paint.
28. PVC pipe will be a minimum C-900 class (DR-I8) unless indicated otherwise on the plans. All water pipe will be installed with a “tracer tape” placed over the top of the pipe with word “water” multiply repeated on the tape, laid 2’ above the pipe prior to final back fill.
29. Water mains will be installed with a class B+ embedment and all ditches and trenches will be tamped and compacted to 95% proctor density. Moisture content shall be within 0 to +4 of optimum.
30. Double strap brass saddle to be used on all service lines installed on PVC pipe.
31. Contactor will protect all public utilities during the construction of this project. The utility contactor must adjust all existing manholes, cleanouts, valves, boxes, fire hydrants and appurtances, to proper line and grade after replacement of paving. The work is subsidiary to pavement.
32. The locations of all utilities indicated on the plans are taken from existing public records. The contractor must determine the exact location and elevation of all public utilities. It will be the responsibility of the contractor to ascertain whether any additional facilities other than those shown on the plans may be present.
33. Where storm sewer inlets are installed over top of water lines, the contractor must provide a minimum clearance of 18”. Where the water crosses over top of the storm sewer, there must be a minimum of 18” of clearance.
34. Refer to City of Lancaster Standard Details for additional information regarding construction of water and sanitary sewer systems.
35. Contractor will install a post hydrant where shown on the plans for the purpose of sampling. Waterlines installed will be Kupferle Eclipse 88 or approved equal by the City. Refer to Standard Construction Detail Sheets for water.
36. Dead end lines should be avoided but in cases where they cannot, the contractor must install a flush point per TCEQ regulations.
37. A list of approved water utility materials and approval of alternate materials must be obtained from the City Water and Sewer Superintendent prior to beginning of construction.
38. At the end of the project and before final acceptance, all valves and water services located behind the curb shall be marked by sawing or inscribing into the curb the

letter W for water services and the letter V for valves and FH for fire hydrants. Painting of such lettering shall not be an accepted substitute.

39. Contractors are required to submit an application/deposit for use of a City water meter with the Utility Billing Department prior to starting work. The Contractor must supply a testable backflow to be tested after installed. Test reports must be submitted to the City.

WATER MAINS

In general, water mains are placed on the north and west sides of a street, at a distance of ten feet from the centerline of the street, or otherwise as directed by the City. Where applicable, line sizes will comply with the Water Distribution System Master Plan (<http://lanaster-tx.com/DocumentCenter/View/3374> or as amended) and be adequate to convey a fire flow. Fire flow analysis will be required on lines that are questionable. Starting pressures shall be obtained from the nearest junction node as stated in the City's Water Distribution Master Plan Map.

1. Minimum eight (8) inch pipe, (other sizes approved by the Director of Public Works and Water/Wastewater Superintendent) required in residential, commercial and retail areas.
2. Minimum twelve (12) inch pipe required on industrial areas.
3. Dead-end mains shall not exceed 600 feet in length. A fire hydrant will be required at the end of all dead-end mains.
4. No water main shall be located closer than five (5) feet from any tree or structure without permission of the Public Works Director.
5. Water Main Specifications: City mains shall have a minimum diameter of eight (8) inches, unless a larger line size is required by the Comprehensive Plan, Water Master Plan or to meet fire protection needs as determined by analysis. All water lines shall meet the requirements of AWWA and NCTCOG under the following specifications:

Line Size	NCTCOG Item	AWWA Standard	Description
8" thru 12"	501.14.1	C905	PVC
Greater than 12" Pipe	501.4.5 and 501.4.6	C301 & C303	Reinforced Concrete Cylinder Pipe
	501.15	ASTM D2241.	High Density Polyethylene

All mains supplying fire sprinkler systems outside of utility easements shall be minimum 200 PSI working pressure and U.L. listed.

6. Valves 12-inch and under shall be placed on or near street property lines and not over 800 feet apart in residential, duplex and apartment districts and not over 500

feet apart in all other districts: and in such a manner as to require preferably 2, but not more than 3 valves to shut down each City block, or as may be required to prevent shutting off more than 1 fire hydrant. On cross-feed mains without services, a maximum of four valves shall be used to shut down each block. Also, valves shall be placed at or near the ends of mains in such a manner that a shutdown can be made for a future main extension without causing loss of service on the existing main. The location of valves larger than 12 inches will be as approved by the Director of Public Works. Valves 12 inches and under will be Gate Valves meeting requirements of AWWA C500 or AWWA C509 (NCTCOG Item 502.6.1 and 502.6.2) with non-rising stems. Valves over 12 inches will be Butterfly Valves meeting requirements of AWWA C504 (NCTCOG Item 502.6.5). All actuators shall be for direct bury service.

7. Maintain all valves during construction so they are protected, marked, and accessible at all times.

SECTION 1-03 SANITARY SEWER SYSTEM IMPROVEMENTS

All work and materials shall be in accordance with the City Standard Specifications and General Construction Design standards.

1. All P.V.C. sewer pipe shall be minimum S.D.R. 35 or 26 (depths greater than 10 feet), as per City Specifications and shall be laid on a minimum of Class "B+" Embedment or as specified by the City.
2. Any other pipe to be used for sanitary sewer main other than P.V.C. must be approved by the Director of Public Works.
3. All residential sewer tap service shall be a minimum four (4") inch diameter.
4. All sewer mains shall be a minimum diameter of eight (8") inches and shall maintain a minimum flow velocity of two (2') feet per second and a maximum velocity of ten (10') feet per second. Exceeding maximum velocity shall be as approved by the Director of Public Works.
5. All trenches will be tampered and compacted to a 95% proctor density. Moisture content shall be within 0 to +4 of optimum. After pipe has been laid on proper bedding, backfill with 8" maximum loose lifts mechanically compacted to 95% standard proctor. Moisture content shall be within 0 to +4 of optimum under roadway and 12" maximum loose lift behind curb. Maximum size in backfill shall not exceed 6" in diameter.
6. Contractor shall tie a one-inch (1") wide piece of green plastic flagging to the end of sewer service and shall leave a minimum of 36 inches of flagging exposed after backfill. After curb and paving is completed, Contractor shall etch a red "s" size two (2") inch, on the curb or alley at location of the sewer service. All P.V.C. sewer pipe shall be installed with green metallic tape "Tracer Tape" over the top of the embedment pipe. Tracer tape over the top of the P.V.C. pipe similar to "Blue Terra Tape D" Detectable, installed in accordance with manufacturer's recommendation. All P.V.C. sewer pipe that is not green in color shall also be installed with a red plastic identification tape marked "sewer" laid above the pipe to identify it.
7. The Contractor shall furnish the City of Lancaster with a Maintenance Bond from an approved surety company which protects the City against defective workmanship and materials for a period of two (2) years from the date of the final acceptance by the City. Where defective workmanship and/or materials are discovered requiring repairs to be made under this guarantee, all such repair work shall be done by the Contractor at his own expense within five (5) days after written notice of such defect has been given to him by the City. Should the Contractor fail to repair leaks or correct such defective workmanship and/or materials within five (5) days after being notified, the City may make the necessary repairs and charge the Contractor with the actual cost of

all labor and materials required. The Maintenance Bond shall be in the amount of \$50,000.00 or 10 percent (10%) of the amount of the Contract, whichever is greater, but not to exceed 100 percent (100%) of the Contract amount. The Contractor shall execute the Maintenance Bond on the forms furnished by the City.

8. The Contractor shall be responsible for providing "Record Drawings" to the City showing the location of sewer service by distance to both lot lines. This information shall be placed on the Engineering Plans and marked "Record Drawings" by the Design Engineer. Copies of these "Record Drawings" plans shall be furnished to the City prior to final acceptance of project. Ties shall be made by distance measurements from both lot lines or from building corners for all manholes, clean-outs and services.
9. All sanitary sewer line shall be tested for infiltration and by the Low Pressure Air Test Method in accordance with the standard specifications and as shown on the plans. Low Pressure Air Test is to be performed on all completed sections of sewer mains. Successful air tests shall be mandatory to prove acceptability of the sewer lines. Lines shall be mandreled in accordance with TCEQ requirements. Completed lines shall be inspected by color video camera. The camera shall have pan and tilt capabilities. All services and manholes shall be taped (measured). Original color videotape shall be provided to the City.
10. All PVC sewer pipe will be SDR 35 for depth less than 10' and SDR 26 for depth 10' or grater as per City specifications and will be installed with a minimum of class B+ embedment.
11. Any other pipe for sanitary sewer main construction must be approved by the City Engineer.
12. All residential sewer services will be a minimum of four (4") inches in diameter or as specified on the plans and shall terminate at the property line with a clean out. Services shall be located downstream of the water services except as may be shown on the plans. All services shall be embedded in minimum of 6" of sand on all sides of pipe.
13. All sewer mains will be a minimum diameter of eight (8") inches and will be installed per the plan profile.
14. All trenches will be tamped and compacted to a 95% proctor density. Moisture content shall be within 0 to +4 of optimum.
15. Contractor will tie 1" wide piece of red plastic flagging to the end of the sewer service and will leave a minimum of 36" of flagging exposed after backfill. At the end of the project and before final acceptance, all manholes and sewer services located behind the curb shall be marked 2" notch by sawing into the curb. The letters

for sewer services and the letter MH for manhole. Painting of such lettering shall not be an accepted substitute.

16. The contractor will be responsible for providing “as-built” plans to the engineer showing the location of sewer services. This information will be placed on the engineering plans and marked “as-built” by the design engineer. Copies of these “as-built” plans will be furnished to the City. Ties will be made by distance measurements from both lot lines for all manholes, cleanouts and services.
17. All sanitary sewer lines and manholes will be tested for infiltration and exfiltration by the low pressure air test method in accordance with the TCEQ current specifications.
18. All sewer pipes will be installed with a red plastic identification tape marked “sewer” laid 2’ above the pipe.
19. A low pressure air test will be performed on all installed sections of sewer mains. Successful air tests will be mandatory to prove acceptability of the sewer lines.
20. All new sanitary sewer mains will require mandrel tests in accordance with TCEQ requirements.
21. Manholes are to be installed with a ductile iron hinged ring and water tight cover gasket type to prevent infiltration with and locking device Pam-Rex brand or approved equal with the wording sanitary sewer forged into the lid.
22. The contractor shall center a 20 foot joint of pressure rated PVC sanitary sewer pipe at all water line crossings. Embed sanitary sewer line in cement stabilized sand in accordance with TCEQ regulations chapter 290, page 43. The pressure rated pipe shall be ASTM 2241 SDR-26 or approved equal.
23. A list of approved sanitary sewer utility materials and approval of alternate materials must be obtained from the City Water and Sewer Superintendent prior to beginning of construction.
24. For final acceptance, the City will require video inspection of all sanitary sewer mains. A copy of the results must be provided to the City on a CD Rom or DVD disc. VHS tapes will not be accepted.
25. No vertical curves will be allowed. Horizontal curvature may be by joint deflection. The Engineer must specify on the plans the allowable radius and joint deflection for each pipe size. The allowable deflection shall be 5 degrees or 80% of the manufacturer’s recommended maximum joint deflection, whichever is less. When joint deflection is used the Engineer must specify the size of mandrel used for deflection testing. The mandrel shall be sized to verify the maximum joint deflection has not been exceeded. Horizontal curves shall match change in street direction as

near as possible, but will not be allowed across residential single family and duplex lots. Slopes on horizontally curved sanitary sewers shall be a minimum of 1% greater than the corresponding minimum slope of sanitary sewers on a straight line.

Manholes on horizontally curved sanitary sewers shall be located at the P.C. and P.T. of the curve and a maximum spacing of 300 feet along the curve.

26. General Sewerage System Extensions

- a. All subdivisions developed must be served by community sanitary sewer collection, treatment and disposal systems approved by the City. Each lot must be provided with an individual service
- b. Sanitary sewer facilities shall be provided to adequately service each lot or tract of the subdivision, and shall conform to the City's current Sanitary Sewer Master Plan; <http://www.lancaster-tx.com/DocumentCenter/View/3373> or as amended.
- c. No sanitary sewer main shall be less than eight (8") inches in diameter. All sewers shall be designed with consideration for serving the natural drainage basin at full develop cut conditions. Drainage area main and calculations are required. Exceptions to this requirement may be made only at the direction of the Public Works Director.
- d. All laterals and sewer mains installed within subdivision must extend to the borders of the subdivision as required for future extensions of the collection system regardless of whether or not such extensions are required for service within the subdivision. Manholes are required at the end of lines with 13 stubout capped.
- e. The minimum easement width for a sanitary sewer main shall be seven and ½ (7.5') feet on each side of the pipe for a total of 15 feet.
- f. The population density shall be based on three (3) persons per single family unit, but shall not be less than nine point five (9.5) persons per acre. The contributing sewage flow shall be determined on the basis of an average flow of 140 gallons per person per day which includes provisions for minimal I & I. A peaking factor shall be applied to the flow. Peaking factor shall be determined from curve A in ASCE Manual of Practice No. 60 "Gravity Sanitary Sewer Design and Construction" or a factor of five (5) times may be used.

27. Sanitary Sewer Improvements Design Criteria

- a. All services shall be placed ten (10') feet downstream of water service and shall maintain a minimum 10 foot separation from water and sewer lines unless instructed otherwise by the Director of Public Works.

- b. Manhole spacing shall not exceed five hundred (500') feet as measured horizontally along the centerline of the pipe.
- c. Sewer mains, which require more than an 18-inch difference in flow line elevations, must be accommodated with a five (5') foot diameter external drop manhole.
- d. All upstream ends of sanitary sewer mains shall terminate at a manhole. Cleanouts will not be allowed unless approved by the Director of Public Works.
- e. Four-foot (4') diameter manholes or six-inch (6") sampling cleanouts will be required as sampling ports on businesses that are required to pre-treat their sewer discharge. The manhole or sampling cleanout must be located between the public sewer main and the grease trap and located within a public sanitary sewer easement if on private property.
- f. If a new sewer line is to be constructed adjacent to an existing street, the profile will need to include the existing top of curb grades.
- g. All sanitary sewers constructed adjacent to federal, state or county roadways shall be constructed outside the ROW in a separate easement dedicated by separate instrument, not by plat or as directed by the City.
- h. All sanitary sewer pipes and manholes shall maintain horizontal and vertical separations from public water supply pipes as specified by TCEQ regulations. The minimum horizontal separation between any sanitary sewer main and a storm drain facility shall be equal to two point five (2.5') feet or half the depth of the sanitary sewer, whichever is greater.

28. Lift Stations or Separate Treatment Facilities

The provisions for lift stations or separate treatment facilities will not be permitted unless, in the opinion of the Public Works Director and City Engineer, there is no feasible alternative which can provide the necessary service to the proposed subdivision. Property deeds and easements to the City may be required.

29. Connections

No connection shall be made to any sanitary sewer within the City which will permit the entrance of surface water or waste which has other than domestic sewage characteristics without the specific authorization of the City.

30. Alternate Sewage Systems

Where public sanitary sewerage systems are not within 500 feet of the plat, alternate sewerage systems may be approved only if all of the following conditions are met:

- a. The proposed subdivision consists of three (3) lots or less.
- b. The existing City sewer system is not and cannot feasibly, in the opinion of the Public Works Department be made available to the area of development.
- c. Percolation tests run by an independent testing laboratory are submitted to both the City and the Dallas County Health Department with results showing that a septic tank and absorption field can be developed in accordance with state and county criteria to provide adequate disposal of the sewage. Where septic tank installations are permitted in lieu of a sanitary sewerage system, approval must be given by the Dallas County Health Department as the plat must include dedicated sanitary sewer easements not less than 20 feet in width adjacent to all lots to facilitate the future installation of a sewerage system. Dedication of such easement shall prohibit fencing or other obstructions that would interfere with the future installation of the sewers.
- d. Installation of individual septic tanks shall be according to rules and regulations issued by the State of Texas and minimum standards and approval of Dallas County Health Department.
- e. Such designs shall include provisions to tie the system into the gravity system when it becomes available.
- f. Sizes and grades for sanitary sewer lines shall be based on serving the proposed development and all upstream areas in the drainage basin at full development. Design calculations for sizing lines shall be included in the plans, along with drainage area map. If feasible, sewers shall be placed in streets. Sewers are usually located in the center of the street. Each addition has its challenges; therefore, no fixed rules will apply to all cases.
- g. Minimum cover shall be three point five (3.5') feet; exceptions authorized by the Director of Public Works shall have concrete protection. In general, the minimum depth for sewer to serve given property with a four (4") inch lateral shall be three (3') feet plus 2% times the length of the house lateral (the distance from the sewer to the center of the house). Thus, for a house 135 feet from the sewer, the depth would be three (3') feet plus $2\% \times 135 \text{ feet} = \text{three (3.0')} \text{ plus two point seven (2.7')} = \text{five point seven (5.7')} \text{ feet}$. The depth of the flow line of the sewer should then be at least five point seven (5.7') feet below the elevation of the ground at the point where the service enters the

house. Profiles of the ground line 20 feet past the building line will be required to verify that this criteria is met. On lines deeper than 12 feet, a parallel sewer line will be required when laterals are to be attached. This requirement should be discussed with the City Engineer.

- h. Pipes should be placed on such a grade that the velocity when flowing full is not less than 2 feet or more than 10 feet per second. Minimum grades shall be as follows: *

6" - 0.54%;	8" - 0.35%;	10" - 0.26%;	12" - 0.22%;
15" - 0.16%;	18" - 0.12%	21" - 0.095%	27" - 0.065%

* Accordance with TCEQ Requirement

- i. All grades shall be shown to the nearest 0.01-foot. Grades shall be evenly divisible by four (4), and if practical, they should be even, such as: 0.20%, 0.40%, 0.60%, and 1.00%, etc., in order to facilitate field computations. When the slope of a sewer changes, a manhole will be required. No vertical curves will be allowed.
- j. The sizes and locations of manholes, wyes, bends, tap connections, cleanouts, etc., shall be approved by the Director of Public Works. In general, manholes shall be placed at all four-way connections and three-way connections. The diameter of a manhole constructed over the center of a sewer should vary with the size of the sewer. For six (6"), eight (8"), ten (10"), and twelve (12) inch sewers the manhole shall be four (4.0') feet minimum diameter; for 15", 18", 21", 24", and 27" – five (5.0') feet minimum diameter; 30", and 36" – six (6') feet minimum diameter. In Flood Plains, sealed manholes are to be used to prevent the entrance of storm water. Manholes in flood plains shall be vented as required by TCEQ. No main line clean-outs will be allowed on the ends of lines. External drop manholes shall be required when the inflow elevation is more than 18 inches above the outflow elevation. Construct manholes at each end of lines that are installed by other than open cut and at each end of aerial crossing lines. Sewer mains and water mains separation shall be in accordance with TCEQ requirements.
- k. **LATERALS:** The sizes and locations of laterals shall be as approved by the City Engineer. In general, for single family dwellings, the lateral size shall be four (4") inch minimum; for multiple units, apartments, local retail and commercial – six (6") inch minimum; for manufacturing and industrial, the size should be eight (8") inch or larger as required. House laterals shall come out ten (10') feet downstream from the center of the lot and shall have a minimum of ten (10) feet lateral separation from the water service. Manholes will be required on six (6") inch and larger laterals where they connect to the

main line. Laterals will not be attached to sewer mains that are deeper than 12feet. A minimum of one lateral per building shall be required. Also, a minimum of one lateral per residential lot shall be required. Duplexes shall have two laterals.

- l. Railroad, State Highway and creek crossings, etc., shall be as approved by the City Engineer. The developer is responsible for obtaining permits from the Railroad Company and from the Texas Department of Transportation. Such approved permits shall be provided to the City prior to construction.

- m. Line and grade stakes for construction shall be furnished by the developer's engineer. All property lines and corners must be properly staked with iron rods to insure correct alignment. The City Engineer will not be liable for improper alignment or delay of any kind caused by improper or inadequate surveys by the developer or by interference of other utilities.

- n. In order to provide access for sewer lines for cleaning, manholes and/or cleanouts shall be so located that 250 feet of sewer rod can reach any point in the line. This means that manhole spacing shall be a maximum of 500 feet: that spacing between a manhole and an upstream cleanout, if allowed, shall be limited to 400 feet.

- o. No sewer line shall be located nearer than five feet (5') from any tree or structure. No sewer lateral line shall cross property lines without a minimum of five (5') feet easement recorded in county records.

- p. No sanitary sewer will be allowed in alleys unless approved by the City Engineer.

- q. Finish floor elevations shall be at least 1.5 feet above the rim elevation of the closest downstream manhole.

- r. Main Sewer Lines Specifications

All main sewer lines shall be PVC and meet the requirement of ASTM and NCTCOG under the following specifications:

Pipe Diameter	NCTCOG Item	ASTM Standard
6" thru 15"	501.17.2	D3034/SDR 35 or SDR-26 For depths greater than 10-feet, SDR-26 must be used

Lines Greater Than 15"	501.17.2	F679
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Sewer pipe shall conform to the Specifications and/or Special Provisions.

s. Lift Stations

Lift station design shall be in full conformance to TCEQ Regulations, latest revision. Letter approval from the TCEQ must be provided at time of Preliminary Engineering plan submittal. Flows shall be as calculated in accordance with this manual.

t. Material disposal for developer projects

The contractor shall notify the City Engineer in writing of proposed material disposal sites to be utilized outside of the project limits and inside of the City of Lancaster. Project limits shall include legal lot/block, addition description and address of the proposed site. The Director of Public Works shall be notified two (2) weeks in advance of any material being deposited.

u. Current Texas Commission on Environmental Quality rules can be obtained at: www.tceq.texas.gov/rules/current.html

SECTION 1-04 STREET SYSTEM

A. Streets Required

All streets constructed within the City shall be required to be constructed with curbs and gutters. The required widths of all streets within the City shall be determined by the "Functional Classification" of the streets as contained in the most current revision of the City Master Thoroughfare Plan; <http://www.lancaster-tx.com/documentcenter/view/10285>.

B. Paving Improvements

All work and materials shall be in accordance with the City Standard Construction Details and General Construction Design Standards.

1. The street and alley right-of way width shall be excavated full width in accordance with the street and sidewalk section to be constructed.
2. All streets, alleys and fire lanes require a compacted lime stabilized subgrade to a distance of 12 inches beyond the back of curb or edge of pavement. Only hydrated lime shall be utilized. Optimum lime shall be applied. Optimum lime application rate shall be determined by a lime series test to reduce the plasticity index (PI) to 15 or less as conducted by a City approved testing laboratory. The City will add 1% for field variation. Lime series test shall be taken along the excavation at all changes in soil or at a maximum of 300 feet between sample spots. The lime treated subgrade shall be compacted to a density of not less than 95% of the maximum density as determined by ASTM D698. Moisture content shall be within 0 to +4 of optimum. Density test results shall be completed by an independent laboratory approved by the City at the contractor's expense. A copy of all results shall be given to the City Inspector. Sulfate tests shall also be conducted at the discretion of the City.
3. All concrete paving for street construction shall have a minimum compressive strength of 4,000 pounds per square inch (psi) in 28 days as no fly ash is allowed. All concrete paving for alley construction shall develop a minimum compressive strength of 4,000 (psi) in 28 days as no fly ash is allowed. The submitted design for City consideration must be submitted by a certified independent testing laboratory.
4. All roadway embankments with PI (Plastic Index) above 20 shall be compacted to a density as determined by a geotechnical study unless otherwise shown on the construction plans and approved by the City Engineer. Maximum loose lifts eight (8") inches. Compaction shall be by mechanical methods, unless otherwise shown on the construction plans and approved by the City Engineer.
5. Testing of materials required for the construction of the specified street and alley improvements shall be performed by a certified independent testing laboratory approved by Engineering. The cost for such testing services shall be paid by the

Contractor. The City shall approve the laboratory to do the testing of materials, 72 hours prior to construction commencing. It shall be the Contractor's responsibility to show by standard testing procedures that the work constructed does meet the requirements of the specifications. If the testing lab is not present during a concrete pour, the City reserves the right to request core samples be taken and analyzed as this will be paid by the contractor.

6. The Contractor shall furnish a maintenance bond to the City to run two (2) years from the date of final acceptance of the infrastructure improvements by the City.
7. A twenty-four (24) foot wide lane shall be paved in all apartment and commercial areas, with a minimum of six (6) inches of reinforced concrete pavement (minimum of 4,000 psi) on a six (6") inch lime stabilized sub-grade. The remaining area, parking area, shall consist of 6-inch reinforced class "A" concrete or a minimum of three (3") inches of Type "D" H.M.A.C. on a six (6") inch lime stabilized sub-grade or a pavement design approved by the Director of Public. Parking and non-fire lane drive area pavement sections shall have a minimum pavement thickness of five inches (5") and shall be designed by a geotechnical engineer. Subgrade preparation shall be per the geotechnical engineer's design.
8. Required number of passing field density tests on lime stabilized sub-grade shall be equal to the ratio of 1 per 100 linear feet of street, and all failing density tests shall require moisture-density curves.
9. All dumpster sites shall have a paved lane up to the site that shall consist of a minimum of six (6") inches of a minimum of 3,600 psi reinforced concrete on a six (6") inch lime stabilized sub-grade.
10. All fill shall be mechanically compacted per the geotechnical report.
11. All construction barricading to be in accordance with current "Texas Manual on Uniform Traffic Control Devices for Streets and Highways" guidelines Part IV.
12. Reinforcement shall be in accordance with City detail sheet Street-01.
13. All reinforcement steel shall be 100% tied, with no skip ties, reinforcing steel shall be set on every other chair and shall be uniform. Bar laps shall be extended to a minimum overlap of 18 inches.
14. All streets and alleys shall have expansion joints installed at 200 feet intervals and at all intersections or as may be shown on the plans.
15. Sawed transverse dummy joints shall be placed in pavement every 20'. Sawing of pavement shall occur within 5 to 12 hours after curing and sealing. Otherwise, the section shall be removed and a longitudinal butt joint constructed.

16. Lime Trimmings are not acceptable for any use. Fill in or level up is to be completed with flowable fill (min. 2000 psi).
17. All fill shall be compacted by mechanical methods. Maximum loose lift for compaction shall be 8 inches. All lifts shall be tested for density by an independent laboratory approved by the City at the contractor's expense. Density requirements shall be as shown on the plans for the type of material called for on the plans.
18. All disturbed areas of roadway work shall have grass established immediately. Grass shall meet the requirement of item 3.8, 3.9 and 3.11 of the NCTCOG latest edition.
19. All areas to be excavated or filled shall have erosion control placed prior to commencing any work. Erosion control devices shall be maintained throughout the project in accordance with item 3.12 of the NCTCOG latest edition.
20. All sidewalks shall include barrier-free ramps at intersecting streets, alleys, driveway, etc. Barrier-free ramps shall meet current TAS or ADA accessibility guideline requirements.
21. Sidewalks shall be doweled into pavement where it abuts pavement and driveways. Expansion joint material shall be used at these locations. Steel for sidewalks shall be number 3 bars placed per the detail sheet 100% tied with plastic chairs at every other bar supporting steel. The chairs shall be placed uniformly. Concrete shall be 3000 psi at 28 days compressive strength.
22. Test cylinders: 1 set of 4 every 80 to 100 CY poured, but no less than 1 set per pour or per day-1 @ 7 days, 2 @ 28 days and hold one. 56 day breaks are not acceptable. Minimum 28 day design strength for all streets, alleys and fire lanes is 4,000 psi. If 28 day strength is not attained, the laboratory needs to schedule cores to prove out the deficient section no more than 2 days beyond 28. As a minimum, all reports shall indicate unit weight, air content, slump and ambient/concrete temperatures. All streets, alleys and fire lanes shall also be cored for depth checks every 300 LF. LT-CNTR-RT. There is a minimum of one quarter inch tolerance for all concrete depths. Anything more than one quarter inch shy will be assessed a penalty or be removed and replaced according to City's criteria.
23. All subgrade testing (includes fire lanes) gradations/pulverizations shall be taken every 300 LF and PI's every 300 LF. Densities (95%, 0 to +4% of optimum moisture) every 300 LF. LT-CNTR-RT. Grab samples will need to be tested for PI's at each gradation check to make sure sufficient lime was installed. Lime depth checks every 300 LF. LT-CNTR-RT or when the soil changes composition.
24. All density control shall be received, reviewed and approved by the City prior to any subgrade work. Density reports are only good for 48 hours after taken or right before a rain. 2 batch designs required, one each for machine and hand pours.

Street Design Criteria

1. All streets within or abutting the proposed subdivision shall be paved, with curbs and gutters installed, in accordance with the City's Standards and Specifications. All paving shall be to the width specified on the Master Thoroughfare Plan and shall be constructed under the inspection of the Engineering Division. The construction costs of all street improvements shall be borne by the developer unless participation by the City has been approved.
2. All underground utilities required in the subdivision shall be placed under or across all streets after the rough grades are made, but prior to lime stabilization. Paving operations will not be allowed to start until the utility work is complete.
3. Street grades shall be designed such that excessive sand deposition from too low a water velocity or pavement scouring from too high a velocity is avoided. The minimum street grade permitted shall be 0.50%. The maximum street grade shall not exceed 8.0%. Any deviation from this range of permissible grades shall require written approval of the Director of Public Works.
4. Standard roadway widths from face-of-curb to face-of-curb shall be according to the following table:

STANDARD PAVEMENT WIDTHS				
Street Type	Number of Traffic Lanes	Lane Width (feet)	Median Width (feet)	R.O.W. Width (feet)
TYPE F	2	12	-	60
TYPE E	2	12	-	50
TYPE D	2	12	-	65
TYPE C	4	12	-	85
TYPE B	4	12	-	100
TYPE B Major	4	12	14	100
TYPE A	6	12	18	110

5. The minimum classified width of a proposed street shall be enlarged under the following conditions.
 - a. Adjacent to commercial or multi-family land uses where, in the opinion of the Public Works Department or Fire Marshal, additional width is necessary for proper access and circulation.

- b. Where, in the opinion of the City or in the opinion of the Developer, with the concurrence of the City, the aesthetic value achieved from extra width is dictated by special conditions.
6. The proposed streets shall be located in the center of the right-of-way to allow both parkways to be the same width. The final grade of all parkways, existing and proposed, shall be one-half (1/2") inch per foot from the top of curb to the property line. All parkways shall drain to the street.
7. All cul-de-sacs shall be installed with a forty (40') foot radius to the face of curb in a fifty (50') foot radius ROW. Smaller shall be approved by the Public Works Director.
8. Standard reinforced concrete curb height and width is six (6") inches with a twenty-four (24") inch integral gutter section measured from the face of the curb. Any deviation from this section will require the approval of the Public Works Director.
9. The minimum pavement and sub-grade thickness for the various street widths shall be as indicated in the standard details.
10. All construction barricading to be in accordance with current "Texas Manual on Uniform Traffic Control Devices (TMUTCD) for Streets and Highways" guidelines Part IV.
11. Minimum horizontal curvature radii for design of street centerlines shall be as follows:

Arterial	800 feet
Collector	400 feet
Residential	200 feet

All street intersections shall be constructed to form a ninety (90) degree angle.

12. In order to maintain minimum sight distance, the minimum "K" values for the computation of vertical curves in the formula $L=KA$, where L is the length of the vertical curve in feet, and A is the algebraic difference of the street grades in percent (%) are listed below:

Design Speed MPH	Crest Vertical Curve K" Value	Sag Vertical Curve "K" Value
30	28	35
40	60	60
50	110	90

13. The minimum radius for curb returns at intersections shall be thirty (30') feet to the face of curb.
14. A tangent of at least one hundred (100') feet long is preferred between reverse curves on arterial and collector streets.
15. At all street intersections, there shall be provided a minimum twenty-five (25') foot by twenty-five (25') foot corner clip sidewalk and utility easement.
16. Reinforced concrete valley gutters are required at all asphalt street intersections where gutter flowlines cross another street or at low points where water flow crosses the street.
17. Median openings shall be spaced a minimum of six hundred (600') feet center-to-center or five hundred (500') feet curb-to-curb, whichever is greater.

C. Sidewalks and Leadwalks

1. Sidewalks and leadwalks shall be constructed with a minimum thickness of four (4") inches. They shall utilize NCTCOG Class "A" concrete with 3,000 psi and #3 steel bars placed on a spacing of eighteen (18") inch centers each direction, with a minimum of three (3) longitudinal bars 6 inches apart at expansion joints. Refer to Lancaster Development Code for additional sidewalk requirements.
2. Sidewalks shall be constructed with a minimum of four (4') feet in width in residential areas and five (5') feet at curb line and non-residential areas. The sidewalk shall be located on the City parkway adjacent to the private property line. Sidewalks shall be graded at one-quarter (1/4") inch per foot such that the sidewalk at the property line shall be no greater than two and one-half (2-1/2 ") inches higher than the top of curb on a typical ten (10') foot parkway.
3. Sidewalks shall be a minimum of five (5') feet in width adjacent to curb and shall be doveled into the curb. Sidewalks in City parkway adjacent to the private property line shall be four (4') feet in width. Leadwalks shall be minimum three (3') feet in width and dowel into front porch and public walks, and expansion joint at both locations.
4. All fire hydrants, street lights and, utility poles that conflict with sidewalks or Barrier Free Ramps shall be relocated at the Utility Contractor's expense.

5. Entrances to sidewalks, alleys, and streets or approaches shall meet the current American Disabilities Act (ADA) standards. Transitions from sidewalks to alleys shall have smooth transitions without a drop off.

D. Driveway Standards

1. Residential Driveways shall be dowel into the foundation and alley or street Approaches
 - a. All approaches shall be constructed of six (6") inch thick NCTCOG class "A" reinforced concrete pavement with number three (#3) steel bars on eighteen (18") inch centers each way. The driveway approach shall begin at the street curb and extend to the property line or to a point ten (10') feet from the face of the curb whichever is greater. The driveway approach shall be constructed such that the height of the drive approach at the property ROW, with a normal ten (10') feet parkway, shall be two and one-half (2-1/2") inches higher than the top of the curb. Two-foot asphalt transition shall be required on asphalt streets.
 - b. Width of Driveway Approaches: Residential driveway approaches shall not be less than sixteen (16') feet in width nor more than twenty (20') feet wide measured at the property line. Specific variance to this criteria may be requested by the property owner. Any variance granted based on a specific design submittal must have the approval of the Public Works Department.

Width of driveway approaches: (Residential Development)

residential driveways shall be a minimum of sixteen (16') feet wide, from face of garage door to property line, and twenty-six (26') feet minimum width at alley or street, including a five (5') foot radius. Specific variance to this criteria may be requested by property owner. Any variance granted based on a specific design submittal must have the approval of the Public Works Department.

- c. Radius: Residential driveways shall be constructed with the return curbs having a rolled face disappearing at the sidewalk and joining the street curb with a minimum five (5') foot radius with a typical ten (10') foot radius requirement.
- d. Provision for Joint Approaches: Driveway approaches shall be located entirely within the frontage of the premises they serve except that joint, or cooperative, driveways with adjoining property holders may be permitted and may be required by the City Engineer. When

the joint drive approach is proposed by the developer, the request must be made by all the interested parties and all property owners involved. The design of the joint driveway facilities must be submitted with the request to be approved by the City Engineer.

- e. Residential Driveway Approaches at Street Intersections: The drive approach on corner lots must be located to approximately line up with the side of the house or garage that is farthest from the intersection.

Only drive approaches in accordance with the above criteria will be allowed onto residential streets or the minor street at a street intersection. If both streets are residentially classified, a circular drive will be allowed on a corner lot if one of its two approaches meets the above location criteria. The other drive approach can have its near side no closer than 25 feet to the property corner closest to the intersection. If both streets have the same classification, other than residential per the currently adopted City Thoroughfare Plan, the City Engineer shall make the determination as to which street access will be allowed.

2. Commercial/Industrial Driveway Approaches

- a. Commercial and Industrial driveway approaches shall be constructed of six (6") inch thick (minimum 4,000 psi) concrete with #4 steel bars on eighteen (18") inch centers each way. The driveway shall begin at the curb of the street and extend to the property line or to a point ten (10') feet from the face of the curb, whichever is greater. The drive approach shall be constructed such that the height of the drive approach at the property line shall be two and one-half (2-1/2") inches higher than the top of curb at the street.
- b. Width of driveway approach: The width of any commercial or industrial driveway approach shall not be less than thirty (30') feet measured along the property line. Specific variance to this criteria may be requested by the Developer. Any variance granted based upon a specific design submittal must have the approval of the City Engineer.
- c. Radius: Commercial and Industrial driveways shall be constructed with the return curbs having a rolled face disappearing at the sidewalk and joining the street curb with a minimum thirty (30') foot radius. All fire lanes shall have a minimum turning radius of thirty (30') feet.

- d. Allowable Spacing for Driveway Approaches: On streets classified as Collector Streets, the minimum centerline spacing between driveways shall be at least three hundred (300') feet. On streets classified as Arterials, minimum spacing shall be at least five hundred (500') feet. This spacing criteria shall be applied irrespective of the number of individual properties located within the intervening distance. Deviation from this criteria may be requested by the Developer. Any deviation granted will be based on a specific design submittal and must have the approval of the City Engineer.
 - e. Provision for Joint Approaches: Driveway approaches shall be located entirely within the frontage of the premises and shall be located no closer than ten (10') feet from each side property line except that joint, or cooperative, drive approaches with adjoining property holders may be permitted in order to conform with the provisions of paragraph (d) above. Any request for joint drive access must be by agreement of all parties involved and a specific plan submittal must be included for approval of the City Engineer. Both properties will be required to dedicate public ingress and egress easements to cover the approach and joint access area and must be filed on the plat and filed with the Dallas County Court of Records and one copy of this record must be submitted to the City.
 - f. Approaches on Properties other than Residential: The driveway for the corner lot, if allowed, must be located a minimum of one hundred (100') feet from the point of intersection of the curb lines of both streets.
 - g. Angle of Driveway Approach: The angle of the driveway approach with the curb line shall be ninety (90) degrees.
 - h. Sidewalk to be Removed: When a driveway approach is to be built, the sidewalk shall be removed and the entire area replaced as a driveway. The drive approach shall extend to the property line. The sidewalk removed shall be tied back into the approach by dowels and shall meet the American Disabilities Act (ADA) requirements to be barrier free.
3. Driveways Crossing Bar Ditches:
- a. The minimum eighteen-inch (18") culvert pipe size of (inside diameter) 3:1 slope, will be determined based upon the drainage area that it serves. The ends of all culvert pipe shall be cut at a 6:1 slope.

- b. Radius: Driveways shall be constructed with the return curbs joining the edge of pavement at the street with a minimum five (5') foot radius, with a typical ten (10') foot radius requirement.
- c. The maximum slope from the edge of driveway to the top of the culvert pipe shall be 3:1. The sloped area around the end of the culvert pipe shall be sodded or hydromulched to resist erosion. Safety devices shall be installed as required by the Design Engineer.

The minimum cross slope on the drive shall be 1/8" inch per foot. The minimum longitudinal slope between the edge of pavement at the street and the valley over the culvert pipe shall be 1/4" inch per foot.

All future maintenance of the drive approach, curb, sidewalk, and culvert pipe is the responsibility of the property owner.

- d. During the drive approach installation, all ditch grading upstream and downstream of the proposed driveway culvert is the responsibility of the property owner, and shall be approved by the City Engineer.

4. General - A.D.A. Guidelines – Per Guidelines State and Federal

- a. Driveway Approaches at Pedestrian Crossings: Driveway approaches shall not be located in street intersections or at established pedestrian crossings.
- b. Driveway Approaches at Obstructions: Driveways shall be kept at a minimum of five (5') feet away from obstructions such as street light posts, fire hydrants, traffic signals, etc.
- c. Driveway Approach not to be Obstructed: Driveway approaches shall not be constructed or designed for parking of vehicles or for use as angle parking.
- d. Accumulative Width of Approaches: Driveway approaches shall not occupy more than forty (40%) percent of the frontage of a lot or tract, unless approved by the City.
- e. Curb Ramps are to be constructed on all permanent curb returns at intersections of all streets or as directed by the City Engineer.

SECTION 1-05 STORM DRAINAGE IMPROVEMENTS

A. General

The criteria herein provided shall govern the design of storm drainage improvements within the City of Lancaster and shall comply with the Lancaster Code of Ordinance; Article 24.06 (Drainage Utility System) and 24.08 (Stormwater Management). Improvements shall include streets, alleys, storm sewers, channels, culverts, bridges, swales, and any other facilities through which storm water flows. All drainage improvements shall be constructed in accordance with City specifications and be located entirely in dedicated right-of-ways (ROW) or drainage easements. The Developer shall provide all the necessary easements and ROWs, on-site and off-site, required for drainage structures, including storm sewers and open channels with access ramps. Easement width for storm sewer pipe shall not be less than fifteen (15') feet, and easement width for open channels shall be at least twenty-five (25') feet wider than the top of the channel with twenty (20') feet on one side to serve as an access way for maintenance purposes.

The Developer shall be required to install at his own expense all storm sewers and drainage structures, and appurtenances, designed to convey the 100-year design storm. This policy is applicable to all required drainage facilities including the channel improvements on the main channels and tributaries.

The Developer shall be responsible for excavation and channel liner improvements based on the fully urbanized one hundred (100) year frequency discharge for the channel and to process a U.S. Army Corps of Engineers Permit 404.

B. Basis of Design

All storm drainage design shall be in accordance with the City's manual for the design of storm drainage systems; *City of Lancaster Storm Water Design Manual* (Revised August 2007) <http://www.lancaster-tx.com/DocumentCenter/Home/View/598>; or as amended and Standard Construction Details.

1. Open Channels: When the runoff exceeds the capacity of a seventy-two (72") inch diameter concrete pipe or equivalent cross sectional pipe area (i.e., 2-51 inch diameter concrete pipe), the discharge can be carried in an open channel. Open channels shall be designed to carry the one hundred (100) year frequency storm runoff from a fully urbanized watershed with two (2') foot of freeboard. Improvements to existing channel shall include all Corps of Engineers permitting (#404 permit), Federal Emergency Management Agency map amendments and Environmental Protection Agency.

- a. All hydraulic studies shall be based on known FEMA 100-year water surfaces. The height of concrete channel liner shall be at least one (1') foot above the fully urbanized one hundred (100) year water surface profile. Such profile shall be determined by backwater calculations using the HEC-RAS computer program or other approved modeling methods by the City Engineer, which take into account backwater effects from downstream bridges, culverts, and other obstructions.
- c. Special considerations of levees will be considered in conjunction with the City and U.S. Army Corps of Engineers.
- d. Earthen Channels: Earthen channels shall meet the following requirements:
 - 1. The velocity of flow will not exceed eight (8') feet per second.
 - 2. That channel banks be reinforced, such reinforcing methods shall be approved by the City.
 - 3. That sufficient energy dissipation is designed and constructed at all locations where concrete lining meets earthen slopes and bottoms.
 - 4. That drainage easements are dedicated to encompass the area below the elevation of the water surface profile of a fully urbanized one hundred (100) year frequency storm, plus two-foot (2') of freeboard and any additional area necessary to provide access for maintenance, but not less than sixty (60') feet in width.
 - 5. That, arrangements have been made for perpetual maintenance of the channel by the adjacent property owners within the dedicated drainage easement or the channel has been dedicated and accepted for City Park purposes.
 - 6. That, in the judgement of the City Engineer, the appropriate use of the neighboring property or the health and safety of persons affected will not be substantially injured.
 - 7. Earthen channels, when approved, shall be constructed with a trapezoidal shape and a minimum bottom width of twelve (12') feet and side slopes not steeper than four (4') feet horizontal to one (1') foot vertical (5 to 1 preferred). A reinforced concrete pilot channel not less than twelve (12') feet in width or, as determined by the Public Works director, shall be constructed. The side slopes shall be smooth, free of rocks, and contain a minimum of six (6") inches of top soil. Gabion, rock, rubble, riprap, or other such similar materials shall be placed a minimum of four (4') feet along both sides of the pilot

channel to a depth of at least two (2') feet. Size and gradation of such material shall be determined based on peak discharge velocity requirements. The pilot channel shall be constructed as approved by the Engineering Division. The easement width for an earthen channel shall extend at least twenty (20') feet beyond the top of each channel bank and shall not be cross-fenced. The top of bank areas shall remain open for maintenance purposes.

After proposed earthen side slopes are cut, slopes shall be established in accordance by the City's specifications with grass or other designed vegetation as approved by the City Engineer. The grass shall be planted to twenty (20') feet outside the top of banks, and no less than one (2) two-inch high sprig per half square inch of slope and bottom.

The water surface profile (hydraulic grade line) for the one hundred (100) year frequency storm shall be shown on all sections and profiles. Maximum permissible velocities for the one hundred (100) year frequency flow shall be eight (8') feet per second in partially concrete lined channels while in fully lined channels, the maximum permissible velocities for one hundred (100) year frequency discharge shall be fifteen (15) feet per second.

Special consideration should be given to outlet structures on channels where concrete lining meets earthen banks.

One reinforced concrete access ramp shall be provided at all intersections of every open channel with a public street. Access ramps shall be a minimum of twelve (12') feet wide with a maximum slope of sixteen (16%) percent.

2. Bridges and Culverts: All bridges and culverts shall be designed in accordance with the City's Storm Water Drainage Manual. The fully urbanized one hundred (100) year frequency storm hydraulic grade line shall be plotted on all sections. All culverts shall have headwalls and wingwalls upstream and downstream. All culverts shall pass the fully urbanized one hundred (100) year frequency storm runoff without allowing runoff to pass over the road. All bridges shall have channel bottom and slopes concrete or gabion lined. The low point on the bridge structure shall be at least two (2') foot above the fully urbanized one hundred (100) year frequency storm water surface.
3. Lot Grading: existing and proposed grading plan of developments shall be provided. The contour interval shall be two (2') feet unless other interval is approved by the City Engineer.

Commercial lot grading will be conducted in a manner, which will take all runoff to the adjacent streets or drainage easements. No lot area will drain onto adjacent properties without approval of the City Engineer.

Finished floor elevations shall be set a minimum of one (1') foot above the top of curb at the centerline of the lot or one (1) foot above the one hundred (100) year frequency storm water surface elevation, whichever is higher.

4. Off-Site Drainage: In respect to offsite drainage, the following provisions shall apply:

- a. The Developer shall be responsible for all runoff from property upstream of his proposed development as though it were all fully developed. Runoff coefficients utilized to design drainage systems for the properties involved shall use the current zoning and/or the future use of the property as shown in the Future Land Use Plan, whichever is the most intensive use.
- b. Effect of the development's drainage design on downstream properties and adjacent properties shall be given proper consideration. Water concentrated in streets, pipes, drains, culverts, and channels will be moved to a recognized watercourse without damage to intervening structures or undue spreading across intervening land.

The Developer is responsible for constructing all offsite channelization or underground storm drain with overland relief required to discharge concentrated storm water from the low end of his development to the recognized watercourse, and also to obtain all the necessary easements from intervening land owners. Calculations will be required to show that connecting offsite drainage ways are capable to handling any increase in runoff due to development, concentration, or diversion for at least the ten (10) year storm frequency.

Any drainage easements necessary due to the Developer's alteration of existing concentrated discharge locations (i.e., existing creeks, channels, or storm sewers) shall be acquired by the Developer at no cost to the City.

- c. Where the preliminary drainage analysis by the Developer indicates that additional runoff from the developing property will overload downstream drainage facilities and result in hazardous conditions, the City may withhold approval of the development until appropriate provisions have been made.
- C. Developer and his Engineer shall furnish to the City, a "hold harmless agreement" and a "release of liability" indemnifying the City of Lancaster from any liabilities due to damages cause to the downstream property owner by the discharge of storm drainage water from the said development.

Preliminary Drainage Analysis Guidelines

The purpose of a Preliminary Drainage analysis is to determine the need for drainage facilities and drainage easements either within the proposed development or offsite. These guidelines shall be used as the minimum for a Preliminary Plat. When requested by the Public Works Department, a Preliminary Drainage Analysis shall be submitted with a Replat or Amended Plat. The Preliminary Drainage Analysis shall consist of the following items:

1. A topographical map drawn at a scale of 1" – 200' and depicting the entire natural watershed, which drains to and across the subdivision. Also a map, which includes the subdivision and an area extending for 200 feet in all directions from the proposed subdivision as a minimum. The map must also include contour lines at two-foot vertical intervals or less depending on terrain. Data from the City topo maps will be acceptable where available. Data from the USGS Quad sheets will be acceptable only where City topo maps are not available. Field surveys may be required to clearly depict the area.

The map shall indicate any offsite or adjoining areas outside the limits of the area being platted, which are relevant to onsite drainage. Show any proposed or existing drainage and utility easements, water bodies, streams, and railroads, parks, cemeteries, and drainage ditches. Show location of existing utilities including gas and petroleum lines, electric, telephone and TV cable. Also, the location of any existing structures located within the area being proposed for the subdivision.

The datum for all topography shall be that of the USGS. The Preliminary Analysis shall be sealed by a Professional Engineer licensed by the State of Texas.

2. Calculation of the drainage areas, time of concentration, and storm water runoff rate for the 100-year frequency storms shall be provided in accordance with City's Storm Water Design Manual.
3. Identification of special flood hazard areas as defined by the flood Damage Ordinance and as located by the current Flood Insurance Rate Map shall be shown and for FEMA panel number provided.

D. Drainage Study Guidelines

A Drainage Study is required when it has been determined that the area being developed will require storm water drainage facilities or drainage easements either within the development or offsite. The following criteria shall be used by the Design Engineer to prepare a Drainage Study.

1. The study shall analyze the effect of the subdivision on existing downstream drainage facilities. The study shall be sufficient to verify compliance with the City's criteria.

2. The study shall include a topographical map as defined above in Subsection C. “Preliminary Drainage Analysis Guidelines.”
3. Delineation and calculation of drainage areas together with proposed flow arrows shall represent flow patterns from runoff after all proposed improvements have been installed. Surface water drainage patterns shall be shown for each and every lot in the proposed subdivision and for each lot adjacent to the proposed subdivision (proposed grading plan).
4. In addition to those calculations required by the preliminary Drainage Analysis, this study shall also include:
 - a. Hydraulic calculations to each lateral, manhole, inlet and outlet structure in the system. Such calculations shall be in tabular form as outlined in the City’s Storm Drainage Manual and be made part of the construction plans.
 - b. Inlet calculations utilizing the minimum time of concentration for the zoning type which is contributing the largest “CA” to the inlet. Such calculation shall be in tabular form as outlined in the City’s Storm Drainage Manual and made part of the construction plans.
5. If any portion of the proposed subdivision or its offsite improvements (including pipes or ditches) fall within the limits of a Federal Emergency Management Agency (FEMA) floodplain, additional backwater calculations may be required. Additional calculations in the form of a Conditional Letter of Map Revision will be required if:
 - a. Any portion of the proposed subdivision is determined to be located within a FEMA Zone “A” floodplain; or
 - b. Any portion of the proposed subdivision is determined to be located within a FEMA Zone “AE” floodplain and the overall subdivision (including all phases) is five (5) acres or larger; or
 - c. Any portion of the proposed improvements from a subdivision include dredging or filling within a FEMA designated floodway.

Backwater calculations shall comply with normally accepted standards as required by FEMA for application of a Letter of Map Revision (LOMR). In addition, the calculations must begin with a previously defined Base Flood Elevation (BFE). The calculations shall continue upstream through the project until the proposed BFE is within .01’ feet of the existing BFE or the limits of the existing Zone “A” have been reached.

A LOMR will be required prior to issuing building permits.

6. The Drainage Study shall be sealed by a Professional Engineer licensed by the State of Texas.

DRAINAGE IMPROVEMENTS

All work and materials shall be in accordance with the City's General Construction Design Standards, Storm Drainage Manual and Standard Construction Details.

1. Inlet installation; The floor of the excavation for the inlet box must provide a firm, level bed for the base section to rest upon. Use a minimum of 6" depth of 1" diameter (maximum) rock or gravel to prepare the inlet bedding to final grade. When installing inlet with wet soil conditions, use cement stabilized-sand and allow it to set up by keeping hole pumped dry.
2. After pipe has been laid on proper bedding, backfill with 8" maximum loose lifts mechanically compacted to 95% standard proctor. Moisture content shall be within 0 to +4 of optimum under roadway and 12" maximum loose lift behind curb. Maximum size rock in backfill shall not exceed 4" in diameter.
3. Precast inlets and headwalls must be approved by the City Engineer.
4. Concrete for inlets and head walls must be a minimum of 4,200 psi.
5. Connection of the storm sewer pipe laterals to inlets shall be made with pipe that is smooth and even. If the pipe has to be cut, then the end of the pipe shall be evenly saw-cut. Chipped or broken pipe will be rejected.
6. Locking device is required for all storm sewer lids.
7. The wording "Storm Water" shall be forged into all inlet lids and letters shall be a minimum of 2" in height.
8. Existing storm sewer pipe and/or laterals shall be located prior to construction of inlet boxes. If adjustment in grade of lateral is required, a revised design by the engineer of record shall be submitted to the City Engineer for approval.
9. Reinforced concrete pipe shall be class III minimum or approved equal, installed on a class B+ embedment.
10. Connections between pipe size changes shall be made with only pre-cast manufactured pipe fittings.
11. All transitions and bends must be pre-cast manufactured.
12. All storm sewer pipe spigot and bell ends shall be asphalt primed.
13. For final acceptance, the City will require video inspection of all storm sewer mains. A copy of the results must be provided to the City Inspector on a CD Rom or DVD disc. VHS tapes will not be accepted.

14. All inlets shall have MS-4 drain tile markers. For detail, contact City Inspector.
15. No tracking of mud from construction site is allowed. The mud tracked shall be immediately cleaned.

Storm Sewer Pipe Embedment

1. A compacted crushed stone six (6") inches thick shall be required under the bottom of the pipe as Class B+ embedment is required.
2. The initial backfill of fine granular material shall be required to a minimum of twelve (12) inches over the top of the pipe.
3. All ditches not under existing or proposed paving sections, where ditches cross existing or proposed street or alley sections the ditch shall be mechanically compacted to 95% Standard Proctor Density, unless otherwise approved by the City Engineer.

Pipe Joints

The joints shall be constructed and jointed together in such a manner that no spill through or backfill will occur. This includes the lift holes used in certain size, and types of pipe. The use of the following types of joint materials are acceptable.

1. Cold applied, plastic asphalt joint compound
2. Rubber gaskets
3. Cold applied, performed plastic gasket

Storm Drainage Inlets

1. The type of drainage inlet shall be as indicated on the construction plans. For secondary and major street sections, a recessed type inlet shall be required. For industrial and residential streets, a curb line inlet will be acceptable unless otherwise shown on the construction plans.
2. Pipe backfill on 10% grades or greater should be stabilized, minimum half way up the pipe.
3. A round manhole cover with locking device shall be placed on all inlet tops.
4. The inlet throat shall be constructed with a rounded section with a maximum depth of opening of a maximum six (6") inches unless otherwise shown on the construction plans.

SECTION 1-06 STREET LIGHTING (TXU)

- A. Reference *City of Lancaster 2006 Streetscape Master Plan* (<http://www.lancaster-tx.com/DocumentCenter/View/7866>) (or as amended) for additional street light design requirements.

B. Installation

Street light in all subdivisions shall be installed on approved metal (galvanized steel) poles.

1. Poles must be approved by Oncor Electric Delivery (Oncor) and the Public Works Director.
2. Poles shall be contracted and paid for by the Developer during the construction phase of a subdivision and before building permits are issued.
3. Requirement for fiber-class galvanized poles only. Poles not purchased through Oncor, shall be certified in writing by a Professional Engineer licensed in the State of Texas to meet the specifications as required by Oncor.

C. Location

The location of street lights shall be as follows:

1. At all intersections.
2. Where a new street intersects an existing street.
3. Where a block is four hundred (400') feet or longer, a street light shall be installed approximately 180 -220 feet apart; low in height and warm in color.
4. If a cul-de-sac block is four hundred (400') feet or longer, a street light shall be installed in the end of the cul-de-sac.
5. Street light poles should be at a minimum of ten (10') away from any obstruction.
6. Street lights shall be installed at any other location as may be directed by Oncor or the Director of Public Works for the welfare and safety of the community.

SECTION 1-07 MASONRY/CONCRETE SCREENING WALLS

A. Construction

Masonry or concrete screening walls shall be constructed according to the following specifications.

1. Concrete foundations shall have a minimum compressive strength of 3000 psi at 28 days meeting the requirements of NCTCOG Class “A” concrete. Compressive strength tests conducted by an independent testing laboratory shall be submitted to the City staff for confirmation. All testing costs shall be paid by the developer or his contractor.
2. Reinforcing steel shall be billet steel conforming to the requirements of ASTM A-615-GR.60.
3. Concrete for piers shall be placed within 8 hours of drilling pier holes, and protected, and poured dry immediately.
4. Material used for screening fence shall be approved by the City of Lancaster Standard Details.
5. Mortar shall be Type “S”.
6. Construction shall be in accordance with the requirements of the City of Lancaster General Construction Design Manual; “WALL-01” (Standard Construction Details).
7. The wall shall be a minimum of six (6’) feet in height as measured from the nearest/adjacent sidewalk grade. No masonry or concrete screening wall or column shall exceed eight (8’) feet in height unless the wall is functioning as a retaining wall and is designed as such. Note: Wood is prohibited.
8. Unless it has been determined by the City Engineer that no drainage problems are anticipated, openings designed to allow for storm water drainage shall be provided.
9. No prefabricated or simulated screening fence shall be allowed.
10. All screening walls i.e. masonry, concrete, rock, stone, decorative Concrete Masonry Unit (CMU) shall be designed and sealed by a Professional Engineer (Structural or Civil) licensed in the State of Texas. Sealed plans shall be submitted to the City for review.

Location

1. No wall shall be located on public right-of-way.
2. Sight triangles shall be provided at street intersections according to the schedule contained in the Lancaster Development Code.
3. The location and placement of a wall shall be installed to avoid conflicts with utility and drainage easements.

B. Plan Approval

1. Plans are to be designed, signed, sealed and dated by a Professional Engineer licensed in the State of Texas and furnished with the following information:
 - a. The title shall include the legal name of the property owner's on which the wall is being constructed.
 - b. A plan view of the wall showing its location, limits, and stationing.
 - c. A profile of the wall including grades for the top of the concrete mow-strip, adjacent top of curb, sidewalk and finished floor of proposed and/or existing adjacent slabs.
 - d. Elevation view of a typical column.
 - e. Elevation view of the wall.
 - f. Mow-strip detail
 - g. Drainage clearance under wall (2" minimum).
 - h. Steel tensile strength.
 - i. Concrete compressive strength.
 - j. Wind load calculations.
 - k. Construction details of screening walls.
 - l. Pier design.
2. City approval will be given through either 1) a new building permit application as part of a new improvement or 2) as part of a civil package review for a new retail or commercial development project. If detailed construction plans are not a part of the civil package, a new building permit application will be required.

SECTION 1-08 EARTHWORK

A. Definitions

1. Conceptual Grading Plan- A topographical map of the subdivision to provide a clear definition of the initial elevations, watercourses, and drainage patterns. The grading plan shall involve a minimum 50' feet beyond the subdivision limits to establish an overview of the area. In addition, a proposed grading plan shall be provided. The two set of plans must be sealed and signed by a Professional Engineer Licensed by the State of Texas.
2. Excavation- The removal of turf, soil, rock or weeds such that the surface is six (6") inches lower than the initial elevation.
3. Fill- The deposition of rock, concrete, soil or sod such that the cumulative thickness of all materials is equivalent to six (6") inches or greater. All backfill shall not have rock or stone (debris) larger than four (4") inch in all directions.
4. Final Grading Plan-A topographical map of the subdivision with sufficient perimeter area to provide a clear definition of the initial elevations, watercourses and drainage patterns. In addition, the plan shall include two (2') feet contours, spot elevations and flow arrows. The plan is in sufficient detail and scale to determine limits and depths of excavation or fill. The plan must be signed and sealed by a Professional Engineer licensed in the State of Texas. All fill and excavation shall be mechanically compacted per the geotechnical report. All material testing reports must be furnished to the City.
5. Grading-The movement of dirt, top soil, grass, native material, brush, trees, landscaping or other forms of surface material which will result in a long term difference of six (6") inches or greater from the initial elevation.
6. Initial Elevation-The mean sea level elevation as it existed five (5) years prior to the current date.
7. Multi-Lot Subdivision-A division of any tract of land into two or more parcels.

B. Unplatted Multi-Lot Subdivision

When multi-lot subdivision has been proposed for platting, but has not yet been approved by the City, the following provisions shall govern the excavation and fill process.

1. A conceptual grading plan and related geotechnical report shall be submitted to the Engineering Division. The plan and report will be reviewed for consistency with City ordinances and policies. If the plan and report are approved, an early grading permit will be issued to allow grading to begin as site plan approval by the Planning division is required. An early grading permit application submittal will include grading plans, erosion control plans, the permit application and required fees. With an early grading permit, no utilities will be allowed.
2. The process must be inspected by a construction inspector of Engineering. All lifts shall be tested for compaction per the approved geotechnical report and reviewed by the testing laboratory. All tests shall be done by an independent testing laboratory. Copies of all tests shall be furnished to the city for their review and approval.
3. Areas which fail the compaction tests shall be excavated, the material replaced (or new material imported, depending on moisture content) re-compacted and retested at the contractor's expense.
4. Areas which have been filled without adequate compaction tests or without inspection by the City, shall be considered as areas which have failed the compaction tests and such fill removed and the fill section constructed with proper testing and observation.

C. Platted Multi-Lot Subdivision

When a multi-lot subdivision has been platted in accordance with the existing Subdivision Ordinance and the plat has been filed with the County, the following provisions shall apply.

1. A final grading plan shall be submitted to the Engineering Division. The plan will be reviewed for consistency with City ordinances and policies. If the plan is approved, then applicant will be allowed to apply for an early grading permit will be issued to allow grading to begin as site plan approval by the Planning division is required. An early grading permit submittal includes grading plans, erosion control plans, and a grading permit application. With an early grading permit, no utilities will be allowed.
2. The process must be inspected by a construction inspector from Engineering and all fill within public rights-of-way shall be tested for compaction. Tests results to be furnished to Engineering as they are completed.
3. Areas which fail the compaction tests shall be excavated, the material replaced (or new material imported, depending on moisture content) re-compacted and retested at the contractor's expense.

4. Areas which have been filled without adequate compaction tests or without inspection by a construction inspector from Engineering shall be considered as areas which have failed the compaction tests and such fill removed.
5. Areas of a multi-lot subdivision which are not graded at the same time as the rest of the subdivision will be required to comply with the provisions of a single-lot subdivision.

D. Single-Lot Subdivision

All single lot subdivisions shall be required to obtain a Grading and Excavation Permit from Building Inspections. Note that single-lot subdivision shall be considered multi-lot if the subject parcel and any adjacent parcels are filled.

E. Testing

All compaction shall be tested by an independent soil-testing laboratory approved by the City.

1. The testing facility must be registered with the City. The Engineering Division may disallow any and all firms which cannot or refuse to meet the minimum criteria established.
2. All lots that are filled must be compacted per the approved geotechnical report.
3. All lifts shall be tested per the approved geotechnical report and reviewed by the testing laboratory on each lot. Copies of all tests shall be furnished to the city for their review and approval.
4. Slopes created by excavation or fill shall not exceed six horizontal to one vertical (6:1) in residential areas, and shall not exceed three horizontal to one vertical (3:1) in other locations approved by the City.
5. All select backfill shall not have rock or stone (debris) larger than four (4") inch in all directions.

EROSION CONTROL

1. Every soil disturbing activity shall have an accompanying erosion control plan (ECP) and either a construction site notice (CSN) for those activities disturbing more than 1 but less than 5 acres, or a notice of intent (NOI) for those activities disturbing more than 5 acres. A copy of the appropriate CSN or NOI shall be provided to the City of Lancaster (City Engineer) prior to issuance of an early grading permit or construction activities.
2. The CSN or NOI shall be posted in a location viewable to the public until construction is complete and a notice of termination (NOT) is submitted. The Storm Water Prevention Plan (SW3P) shall be readily available for review by federal, state or local authorities.
3. No soil disturbing activities will occur prior to SW3P, ECP and associated Best Management Practices (BMP) being fully implemented, then inspected by the City of Lancaster's Construction Inspector.
4. The contractor shall comply with the City of Lancaster's MS4 Stormwater Ordinance. The current NCTCOG Best Management Practices Manual, The Texas Pollutant Discharge Elimination System (TPDES) General Construction Permit TXR 150000, and any other state and or local regulations.
5. The site shall be reviewed by the contractor or his representative weekly and after any major storm adjustments/repairs may be inspected and approved.
6. Final acceptance of a site shall be contingent upon vegetation being established per the TPDES General Construction Permit TXR150000, and proper Notice of Termination (NOT) has been submitted to the State of Texas. A copy of the Notice of Termination (NOT) shall be submitted to the City of Lancaster.
7. Contractor (or Subcontractor) shall provide a copy of self-inspection report (related to SW3P) to the City Construction Inspector on a weekly basis.

SECTION 1-9 UTILITIES, R-O-W, TELECOMMUNICATION

- A. Installation of utilities in existing streets shall be by bore (open cut not allowed), unless approved in writing by the City Engineer. Plans that have been approved with an open cut must be validated by the City Engineer and an Excavation Permit obtained prior to cutting. Tunneling and boring under city streets, paved structures, and tree lines shall be accomplished by means of jacking, boring or tunneling equipment, which is subject to City approval through the Engineering Division prior to the start of operation.
- B. Lane and Road Closures: A detailed traffic control plan shall be prepared and signed by a professional engineer unless approved by the City Engineer. Provide a copy of the approved plan and notify the City Engineer at least 72 hours in advance so the appropriate City Emergency Services can be notified. Lane closure of any street and/or intersection will be between the hours of 9 am to 3 pm, unless approved by the City of Lancaster.
- C. The voids outside of the carrier pipe or casing pipe shall be backfilled by hydraulically placed material so that there are no open voids over the roof of the tunnel or bore. This shall be done without damage to the roadway surface. Shall maintain a minimum eighteen (18") inches clearance from water- and wastewater utility lines.
- D. All bore pits, trenches, open cuts, and holes shall be inspected and backfilled within 24 hours after installation of utility lines. The method of compaction shall be in accordance with the earthwork section of this manual. Any excess or surplus material resulting due to displacement of utility lines and conduits shall be disposed of in an acceptable manner to the City.
- E. Utility clearances that apply to streets shall apply to alleys and driveways.
- F. The Contractor shall be required to install all necessary warning and safety devices in accordance with TXDOT Manual of Traffic Control Devices Part IV and or those warning and safety devices required to protect the safety and health of the public until the work has been furnished and accepted by the City.
- G. Utility crossings of state and federal highways or railroads shall meet the requirements of that agency. Approved permits from those agencies shall be provided to the City, prior to construction commencing.
- H. H. The use of a casing pipe will be based upon the specific project location and soil conditions. The approved plans will show casing pipe if it is to be used on the specific bore in question.

For R-O-W and Telecommunications, refer to the Lancaster Code of Ordinances; ARTICLES 24.09 (RIGHT-OF-WAY MANAGEMENT) & 24.10 (CERTAIN USES OF PUBLIC RIGHTS-OF-WAY AND ERECTION OF NETWORK NODES AND SUPPORT POLES IN THE PUBLIC RIGHT-OF-WAY) as they can be found at:
<http://z2codes.franklinlegal.net/franklin/Z2Browser2.html?showset=lancasterset>

**CITY OF LANCASTER, TEXAS
WIRELESS COMMUNICATION USE OF CITY WATER TANKS**

GENERAL REQUIREMENTS

SUBMITTAL PROCESS

1. Letter to City requesting consideration to use specifically identified site. Letter to include type of wireless communication and general equipment proposal. Include a statement that no expense will be borne by the City for submittal information. Statement to acknowledge public hearing and action by City Council required to accept or reject request to use a City owned site.
2. Approval and subsequent executed contract agreements will include full insurance coverage as outlined in Attachment A.
3. Detailed submittal of engineering drawings.
4. Letter from Tank Manufacturer.
5. Artist rendering of additions to the site.

COSTS/LEASE TERMS

1. The City desires a 5-year lease with two 5-year renewable lease options for each site.
2. All expenses required for additions to the site and telecommunications maintenance shall be at the expense of the telecommunications company.
3. All expenses required to make a complete submittal package shall be at the expense of the telecommunications company.
4. Telecommunications companies will be responsible for obtaining and paying for all required utilities.
5. Lease terms can be structured to provide monthly payments or in kind services or a combination of each. Lease terms should consider the renewable options and should include inflationary increases.

REQUIREMENTS

1. Public hearings will occur that will be hosted by the City Council or other Council appointed board. Final decisions of acceptance or rejection of each proposal will be made by the City Council.
2. Fully developed plans with complete details will be required as part of any submittal package for consideration. Artist rendering or illustration will be required to show the effects of telecommunication additions to the tank structure and effects on adjacent properties.
3. Telecommunication companies will be responsible for repairs and relocation's to existing irrigation and landscaping due to their activities.
4. All improvements to the site shall be permanent in nature and meet all building codes. Cabinets and structures shall be adequately landscaped. Improvements shall blend with the surrounding community.
5. No exterior lighting is expected. All lighting shall be internal to telecommunications equipment.
6. Telecommunications companies shall provide typical routine maintenance schedule and projected emergency access to the City sites.
7. No entry into the tank structure shall be permitted by telecommunications personnel, unless in the company of the City of Lancaster personnel.
8. All access to the site will be through the existing gate. Telecommunications companies will have access to the site 24-hours a day.
9. Telecommunication company shall have tank manufacturer review proposed attachments to water tank and provide a letter, sealed and signed by a Professional Engineer registered in the State of Texas, stating that the improvements have been reviewed and that no adverse effects will be placed on the structure due to live, dead and wind loads. Further, the tank manufacturer will need to state any reservations that may exist.
10. No penetrations shall be made to steel or concrete portions of any tank or tank structure without design calculations being provided as part of No. 9 above.
11. Any attachment made to a steel tank or steel tank structure interior or exterior shall be welded and all damage to existing coating system repaired and recoated to match the existing coating system. Attachments shall be coated in the same manner as the repair work. No welding or attachments will be allowed on the wet riser or on the

wet compartment. No telecommunication equipment or appurtenances shall interfere with the City's existing electrical or telecommunication equipment or the alike.

12. Any bands or attachments made to concrete structures shall be stainless steel. Such devices shall not chip or spall the existing concrete.
13. All cable or conduit runs located on the exterior of the tank or tank structure shall be totally enclosed. Such enclosed cable or conduit trays on concrete structure shall be stainless steel, on steel tank structure the trays shall be steel and shall be coated to match the existing color of the tank and tank structure. All conduit runs between tank and telecommunication's cabinets or buildings shall be underground.
14. Any cable or conduit runs located on the interior of the tank or tank structure shall be attached to existing ladders in a secure and rigid fashion. Such attachments or hangers shall be stainless steel. In addition, no cable or conduit shall be run and/or attached to the existing floor. Empty conduits in the floor may be made available for telecommunication company's use. Cable or conduit runs shall not interfere with ladders, safety devices or access routes.
15. Any secondary user or a site shall make improvements that are aesthetically compatible with the primary telecommunication user, buildings, cabinets, landscaping and antennas shall match.

TANK PREPARATION AND PAINTING

A. Surface Preparation

All steel surfaces shall be thoroughly cleaned of all existing paint and mill scale by abrasive blasting in the field after erection of all steel members. All interior surfaces shall be abrasive blasted to a near white metal blast in accordance with Steel Structures Painting Council Specification SSPC-SP10 after erection of all steel members. All exterior surfaces shall be abrasive blasted to a commercial finish in accordance with SSP-SP6. If blasting of any previously painted surfaces is required, the blast finish shall be feathered to provide a smooth uniform paint finish.

Final determination of blasting quality shall be determined by the Owner. All abrasive blasting shall be performed in full accordance with the latest regulations issued by the Texas Air Control Board.

The Contractor shall be in full conformance with the Texas Air Control Board's (TNRCC) General Rules for nuisance. If such a nuisance arises from the Contractor's work on this project, the Contractor shall immediately shutdown the work causing the nuisance and makes the necessary changes in operation, including preventative shields and containment. Contractor shall provide whatever is necessary to resolve the nuisance caused by the Contractor's operation to the satisfaction of the State of Texas and the City. All cost of whatever the nature shall be included in the unit price bid for the project.

B. Standard of Comparison

The specific paint referred to in these specifications is manufactured by Valspar Chemical Company, or Carboline and is presented as a standard of comparison. Other paints may be acceptable if they are equal in quality as determined by the Owner. The Owner shall determine the acceptability of paints to be used. The Owner reserves the right to request the Contractor to supply a complete history of the paint system he proposes to use. This information would be used to determine acceptability of the system. All paints applied are to be by the same manufacturer. Any deviation of the specified paint systems must be presented at the Owner's Pre-bid Conference in writing for acceptance.

C. Paint System

All tank surfaces shall be coated after erection of all members as follows:

1. Interior Steel Painting

The interior paint system shall be certified by the national Sanitation Foundation – ANSI/NSF Standard 61 Drinking Water System Components for Potable Water Coatings.

After interior surfaces have been abrasive blasted they shall be painted by spraying with one coat of food grade Valspar 32-D-7 PWR High Build Epoxy, or Carboline 191 Epoxy Primer. Minimum dry film thickness shall be 5.0 mils throughout. All touch-up painting shall also be done with the approved prime paint. Prior to the first coat of paint, all welds shall be coated by brush with the approved prime paint thinned by 50% with the approved paint supplier's food grade thinner.

The second interior and final coat shall be applied by spraying one coat of white food grade Valspar 32-W-3 PWR Hi Build Epoxy, or Carboline 191 Epoxy Finish. The minimum dry film thickness of the second coat shall be 5.0 mils throughout.

Total dry film thickness of the interior paint after seven days (75°F Temperature) drying time shall not be less than 10.0 mils throughout. Contractor shall provide adequate forced ventilation during application and curing to achieve required results. Each coat of paint shall be applied in a uniform thickness and shall be feathered as necessary at its edges to prevent lap marks and provide a smooth paint finish. All interior paint shall comply with ANSI/NSF Standard 61.

2. Exterior Steel Painting

After exterior surfaces have been abrasive blasted they shall be painted by spraying or rolling, one coat of Valspar Val-Chem Hi Build Epoxy Primer. Minimum dry film thickness shall be 5.0 mils throughout.

The final exterior coat shall be applied by spraying or rolling one coat of Valspar, V 41 Series, Val-Chem Urethane Enamel, or Carboline 133 HB. The minimum dry film thickness shall be 5.0 mils throughout.

The minimum total dry film thickness of the exterior paint system shall be no less than 10.0 mils throughout. Each coat of paint shall be applied in a uniform thickness and shall be feathered as necessary at its edges to prevent lap marks and provide a smooth paint finish. The final coat may require placing this coating in more than one (1) coat to insure a uniform color. It shall be the Contractors responsibility to produce the uniform cover on the exterior of this tank. If additional coats are used they shall be

placed in thickness of 1.5 mils minimum.

Color of the exterior of steel shall be white. The column shall not be coated. Colors shall be reviewed and approved by the Owner. Colors for logos shall be selected and approved by the Owner. The logo shall consist of two coats of final coat 2.5 mils average, and shall include two coats of a clear coat compatible with the paint system. The logo will appear on four sides of the tank.

D. Application

Coatings shall be applied in accordance with paint manufacturer's recommendations found on the paint data sheets and are subject to inspection at all times by the on-site representative. Paint manufacturer's data sheets shall be submitted as part of the shop drawing submittal process. Contractor shall follow the Steel Structures Painting Council Good Painting Practice except where exceeded in these specifications.

No painting shall take place utilizing the interior paint system unless the atmospheric temperature is above 50°F and metal surface temperatures is about 50°F above the dew point. The relative humidity shall not be greater than 80%. Painting also shall not proceed if the temperature is expected to fall below 40°F before the paint has dried to the recoat window (24 hours) or if the surface temperature is at or above 110°F.

No painting shall take place utilizing the first coat of exterior paint system unless the atmospheric temperature is above 50°F and metal surface temperatures is above 50°F and a minimum of 5°F above the dew point. The relative humidity shall not be greater than 85%. No painting shall take place utilizing the several and final coat of the exterior paint system unless the atmospheric temperature is above 40°F above the dew point. The relative humidity shall not be greater than 89%. Painting utilizing the exterior system shall not proceed if the temperature is expected to fall below 40°F before the paint has dried to the recoat window (24 Hours) or if the surface temperature is at or above 110°F.

Contractor shall have sufficient number of compressors and adequate compressor output on site to complete the blasting and painting in a timely manner.

Contractor shall have on site and utilize during the coating of the tank, two (2) 45:1 Ratio airless spray Graco Pumps or equal in working order.

All spray equipment shall be inspected and approved by Owner's representative before any application is begun. A moisture trap shall be placed in line from air supply to pressure pot and spray gun. This trap shall be opened slightly to provide a continuous bleed. Regulators and gauges shall be provided for air to

both pressure pot and spray gun.

All abrasive and dust from blasting operations shall be removed from surfaces before paint application is begun. Blasted surfaces shall be coated with one coat of primer during the same day that blasting was done. Primer shall not be applied closer than six inches to non-blasted area. Any subsequent blasting operation shall not result in abrasive particles embedded in the paint film. The sequence to be followed in painting shall be such that a minimum of damage to finished coatings will result.

Spray guns must be held perpendicular to the surface being painted, handled and adjusted in such a manner so dry overspray is kept at a minimum.

The Contractor shall at all times protect the buildings, homes, automobiles and other items from blasting and paint that is being applied to the tank. Contractor shall be solely liable for all claims of damage of whatever nature which results from the blasting and/or painting operations on this project.

E. Inspection

All work shall be done in a workmanlike manner, so that the finished coating on the interior, exterior and all painted surfaces of the tank and structures shall be free from bubbles, runs, drips, ridges, waves and unnecessary brush marks and variations in color. Additionally, all surfaces that will be in contact with potable water shall be free of holidays and pinholes. With the roof structure being seal welded, the roof area (all surfaces above water level) shall be free of holidays and pinholes.

Inspection and acceptance of the abrasive blasting shall be achieved prior to application of the prim coat of paint on the tank. The Contractor shall schedule and coordinate his work with the Owner to allow for expeditious prosecution of the inspection and painting.

All paint film thickness shall be verified by the Contractor by measuring the wet film thickness of each coat as it is applied. The Contractor shall coordinate the use of the painting scaffolds and rigging with the Owner or his representative to provide regular access for the paint inspections. A wet film thickness measurement shall be made for each 100 square feet of surface painted.

All paint will be inspected for applied dry film thickness using a non-destructive magnetic gauge such as a Mikrotest Gauge or an Elkometer. Dry film thickness, pinholes and Holidays shall be inspected throughout the painted surface at locations determined by the Owner. Testing for dry film thickness will be done by the Owner or an independent testing laboratory which is chosen and paid by the Owner. General paint inspection will be done by the Owner. All work shall

be done in a workmanlike manner, so that the finished coating on the interior and exterior of the tank shall be free from bubbles, runs, drips, ridges, waves, brush marks and variations in color.

The Contractor shall minimize lap marks created from the seal of the containment system. These areas shall be strategically located in welled seams.

F. Safety Precautions

The Contractor shall be fully responsible for the safety of the workmen on this project and public in the vicinity of this tank at all times during the removal of the rust and mill scale, painting and sterilization of the tank. The Contractor shall be responsible for meeting all OSHA Safety Standards and Regulations. Protective equipment, abrasive resistant clothing, safety shoes, leather gloves, ear protection and OSHA approved respirators shall be utilized as a minimum during blasting and painting on this tank. All respirators shall be air fed. Contractor shall provide all workers, Owner Personnel and all other persons on site the minimum described safety equipment as well as that required by OSHA.

G. Contractor Liability

Contractor shall be solely liable for all claims for personal and property damage, including death, which result from the blasting, painting and sterilization operations on this project. The Contractor shall take special precautions to control paint from damaging automobiles, homes and other facilities in the developed area around the tank. If complaints are received by the Contractor or the Owner, the Contractor shall investigate the complaint immediately and report in writing to the Owner corrective action he is taking. It shall be the Contractor's complete responsibility to correct or make whole any damage or injuries caused by his painting operations.

EXHIBIT A

INSURANCE REQUIREMENTS

Vendor shall procure and maintain for the duration of the contract, insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the vendor, his agents, representative, employees or subcontractors. The cost of such insurance shall be included in the Contractor's bid.

A. Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. ISO Form Number GL 0002 (Ed 1/72) covering Comprehensive General Liability and ISO Form Number GL 0404 covering Broad Form Comprehensive General Liability; or ISO Commercial General Liability coverage ("occurrence" Form CG 0001). "Claims made" form is unacceptable except for professional liability.
2. Automobile liability shall include all owned, hired and non-owned vehicles.
3. Worker's Compensation insurance as required by the Labor code of the State of Texas, including Employer's Liability Insurance.

B. Minimum Limits of Insurance

Vendor shall maintain limits not less than:

1. Commercial General Liability: \$5,000,000 per occurrence for bodily Injury, personal injury and property damage. \$10,000,000 Aggregate Policy will include coverage for a) Premises – Operations; b) Broad Form Contractual Liability; c) Products and Completed Operations; d) Use of Contractors and Subcontractors; e) Personal Injury; f) Broad Form Property Damage; g) Explosion Collapse and Underground (XCU) Coverage, Fire Damage, Medical Expense. NOTE: The aggregate loss limit applies to each project.
2. Automobile liability: \$1,000,000 combined single limit per accident, for bodily injury and property damage.
3. Worker's Compensation and Employer's Liability: Worker's Compensation limits as required by the Labor Code of the State of Texas and Statutory Employer's Liability Limits.

C. Deductibles and Self-Insured Retentions

Any deductible or self-insured retention must be declared to and approved by the City.

D. Other Insurance Provisions

The policies are to contain, or be endorsed to contain the following provisions:

1. General Liability and Automobile Liability Coverage

- a. The City, its officers, officials, employees, Boards and volunteers are to be added as “Additional Insureds” as respects liability arising out of activities performed by or on behalf of the vendor, products and completed operations of the vendor, premises owned, occupied or used by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, officials, employees or volunteers. It is understood that the business auto policy under “Who is an Insured” automatically provides liability coverage in favor of the City.
 - b. The vendor’s insurance coverage shall be primary insurance as respects the City, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City, its officials, employees or volunteers shall be excess of the vendors insurance and shall not contribute with it.
 - c. Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the City, its officers, officials, employees, Boards and Commissions or volunteers.
 - d. The vendor’s insurance shall apply separately to each insured against which claim is made or suit is brought, except with respect to the limits of the insured’s liability.
 2. **Worker’s Compensation and Employer’s Liability Coverage**
The insurer shall agree to waive all rights of subrogation against the City, its officers, officials, employees and volunteers for losses arising from work performed by the vendor for the City.
 3. **All Coverages**
Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled or non-renewed by either party, reduced in coverage or in limits except after ten (10) ten days prior written notice by certified mail, return receipt requested, has been given to the City.
- E. **Acceptability of Insurers**
The City prefers that Insurance be placed with insurers with an A.M. Best’s rating of no less than A-:VI, or, A or better by Standard & Poors. This requirement will be waived for worker’s compensation coverage only for those vendors whose worker’s compensation coverage is placed with companies who participate in the State of Texas Worker’s Compensation Assigned Risk Pool. Professional Liability carriers will need to be approved by the Risk Manager.
- F. **Verification of Coverage**
Contractor shall furnish the City with certificates of insurance effecting coverage required. The certificates for each insurance policy are to be signed by a person

authorized by that insurer to bind coverage on its behalf. The certificates are to be on forms provided by the City and are to be received and approved by the City before work commences. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Section 1-10 - Stormwater Pollution Program

All contractors (and their subcontractors) shall abide by all city, state, and federal stormwater regulations while performing work in the City of Lancaster. The City of Lancaster has an MS4 program as contractors shall comply with the City's stormwater management program best management practices; Lancaster Code of Ordinances; Article 24.08 – Stormwater Management as this can be found at:

<http://z2codes.franklinlegal.net/franklin/Z2Browser2.html?showset=lancasterset>

Ordinance 2012-07-11 adopted 7/23/12

Section 1-11 - Benchmarks

GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #2		DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA	
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #2		ORDER: 2ND	SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		
CITY: LANCASTER	COUNTY: DALLAS	STATE: TX	COMBINED SCALE FACTOR: 0.999884104		
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)
PROJECT NUMBER: 0107-012		STATE: TX ZONE: NC CODE: 4202		PLANE AZIMUTH ANGLE (CONVERGENCE)	
DISTANCE & DIRECTIONS TO REFERENCES MARKS					
3.5'	NORTH	NORTH EDGE OF PAYMENT			
9.2'	SOUTHEAST	FENCE CORNER			
5.5'	EAST	STOP SIGN			
49.6'	WEST	FIRE HYDRANT			
				NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)
		STATE: TX ZONE: NC CODE: 4202		PLANE AZIMUTH ANGLE (CONVERGENCE)	
				N 6894689.1047 E 2496898.4954	
				0°56'07.962"	
		METRIC CONVERSION FACTOR: 3.2808333333			
DESCRIPTION TO POINT:		POSITION NAD 27 <input type="checkbox"/> NAD 83 <input checked="" type="checkbox"/> ELEV: (FEET)			
		GEODETIC DATA		LATITUDE: 32°34'12.63140" NORTH LONGITUDE: 96°47'04.72168" WEST	
<p>3 1/2" BRASS DISK WITH "CITY OF LANCASTER MONUMENT NO. 2" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW GROUND AT THE NORTHEAST CORNER OF THE INTERSECTION OF TEN MILE LANE AND SOUTH BLUE GROVE ROAD, MONUMENT IS LOCATED 3.5' NORTH OF THE NORTH EDGE OF PAVEMENT OF TEN MILE LANE, 9.2' SOUTHEAST OF A FENCE CORNER, 5.5' EAST OF A STOP SIGN, AND 49.6' WEST OF A FIRE HYDRANT.</p>		FIELD SKETCH:			
		<div style="text-align: right; margin-top: 10px;"> <p>□ STOP SIGN ▲ MONUMENT #2 □ FIRE HYDRANT</p> </div>			

T TO SCALE

GPS MONUMENT CONTROL SHEET

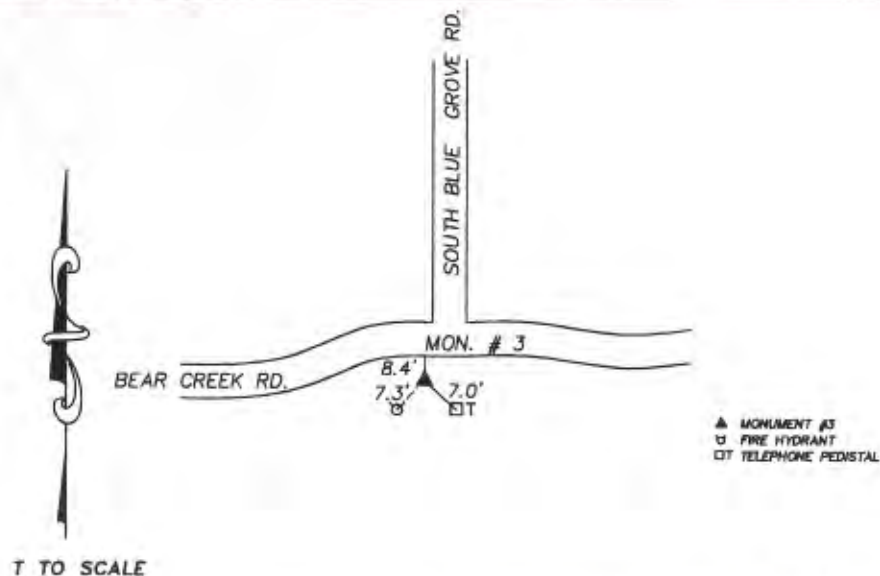
STATION NAME: LANCASTER #3		DATE: OCT & NOV. 2001	ADJUSTED HORIZONTAL CONTROL DATA	
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #3			ORDER: 2ND	SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>
CITY: LANCASTER	COUNTY: DALLAS	STATE: TX	COMBINED SCALE FACTOR: 0.999884456	
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC	NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)
PROJECT NUMBER: 0107-012				PLANE AZIMUTH ANGLE (CONVERGENCE)
DISTANCE & DIRECTIONS TO REFERENCES MARKS			STATE: TX	
8.4'	SOUTH	SOUTH EDGE OF PAVEMENT	ZONE: NC	
7.3'	NORTHEAST	FIRE HYDRANT	CODE: 4202	
7.0'	NORTHWEST	TELEPHONE PEDISTAL		
			NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)
				PLANE AZIMUTH ANGLE (CONVERGENCE)
			STATE: TX	N 6891231.1607
			ZONE: NC	
			CODE: 4202	E 2495851.7432
			METRIC CONVERSION FACTOR: 3.280833333	

DESCRIPTION TO POINT:

3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 3"
STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND AT THE
INTERSECTION OF SOUTH BLUE GROVE ROAD AND BEAR CREEK ROAD,
MONUMENT IS LOCATED 8.4' SOUTH OF THE SOUTH EDGE OF PAVE-
MENT OF BEAR CREEK ROAD, 7.3' NORTHEAST OF A FIRE HYDRANT, AND
7.0' NORTHWEST OF A TELEPHONE PEDISTAL.

GEODETIC DATA	POSITION	NAD 27 <input type="checkbox"/>	NAD 83 <input checked="" type="checkbox"/>	ELEV: (FEET)
	LATITUDE: 32°33'38.58669"	NORTH		601.1799
	LONGITUDE: 96°47'17.61111"	WEST		

FIELD SKETCH:



GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #4			DATE: OCT & NOV. 2001			ADJUSTED HORIZONTAL CONTROL DATA																						
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #4			ORDER: 2ND		SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>																							
CITY: LANCASTER		COUNTY: DALLAS		STATE: TX		COMBINED SCALE FACTOR: 0.999885184																						
SURVEYOR: VANNOY & ASSOC., INC.			PREPARED BY: KCC			NAD 27 GRID DATA																						
PROJECT NUMBER: 0107-012						COORDINATES (U.S. SURVEY FEET)																						
DISTANCE & DIRECTIONS TO REFERENCES MARKS <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">+/- 309'</td> <td style="width: 33%;">SOUTH</td> <td style="width: 33%;">CL OF BEAR CREEK ROAD</td> </tr> <tr> <td>17.5'</td> <td>EAST</td> <td>EDGE PAVEMENT OF SOUTH HOUSTON SCHOOL ROAD</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>			+/- 309'	SOUTH	CL OF BEAR CREEK ROAD	17.5'	EAST	EDGE PAVEMENT OF SOUTH HOUSTON SCHOOL ROAD																STATE: TX ZONE: NC CODE: 4202			PLANE AZIMUTH ANGLE (CONVERGENCE)	
			+/- 309'	SOUTH	CL OF BEAR CREEK ROAD																							
17.5'	EAST	EDGE PAVEMENT OF SOUTH HOUSTON SCHOOL ROAD																										
			NAD 83 GRID DATA			COORDINATES (U.S. SURVEY FEET)																						
			STATE: TX ZONE: NC CODE: 4202			PLANE AZIMUTH ANGLE (CONVERGENCE)																						
			N 6890835.4443 E 2490570.0513			0°55'27.236"																						
			METRIC CONVERSION FACTOR: 3.280833333																									
DESCRIPTION TO POINT: 3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 4" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND SOUTH OF THE INTERSECTION OF SOUTH HOUSTON SCHOOL ROAD AND BEAR CREEK ROAD, MONUMENT IS LOCATED +/- 309' SOUTH OF THE CENTERLINE OF BEAR CREEK ROAD, AND 17.5' EAST OF EDGE OF PAVEMENT OF SOUTH HOUSTON SCHOOL ROAD.			GEODETIC DATA		POSITION		ELEV: (FEET)																					
					NAD 27 <input type="checkbox"/> NAD 83 <input checked="" type="checkbox"/>																							
					LATITUDE: 32°33'35.51870" NORTH LONGITUDE: 96°48'19.39435" WEST		588.7492																					
			FIELD SKETCH:																									

GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #5		DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA	
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #5			ORDER: 2ND	SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	
CITY: LANCASTER	COUNTY: DALLAS	STATE: TX	COMBINED SCALE FACTOR: 0.99885381		
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)
PROJECT NUMBER: 0107-012				PLANE AZIMUTH ANGLE (CONVERGENCE)	
DISTANCE & DIRECTIONS TO REFERENCES MARKS			STATE: TX ZONE: NC CODE: 4202		
90.1'	WEST	WEST END OF GUARD RAIL			
12.8'	NORTH	NORTH EDGE OF W. MAIN			
6.2'	WEST	WEST SIGN POST			
			NAD 83 GRID DATA		COORDINATES (U.S. SURVEY FEET)
			STATE: TX ZONE: NC CODE: 4202		PLANE AZIMUTH ANGLE (CONVERGENCE)
			N 6899656.8623 E 2496206.8983		0°56'04.071"
			METRIC CONVERSION FACTOR: 3.280833333		
DESCRIPTION TO POINT: 3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 5" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND NORTH OF THE INTERSECTION OF SOUTH BLUE GROVE ROAD AND WEST MAIN STREET, MONUMENT IS LOCATED 90.1' WEST OF THE WEST END OF A GUARDRAIL ON THE NORTH SIDE OF WEST MAIN STREET, 12.8' NORTH OF THE NORTH EDGE OF PAVEMENT OF WEST MAIN STREET, AND 6.2' WEST OF THE MOST WESTERLY POST OF A SIGN.			POSITION NAD 27 <input type="checkbox"/> NAD 83 <input checked="" type="checkbox"/> ELEV: (FEET)		
			GEODETIC DATA		
			LATITUDE: 32°35'01.89514" NORTH LONGITUDE: 96°47'11.85600" WEST 511.7572		
			FIELD SKETCH:		
			<p style="text-align: center;">▲ MONUMENT #5</p> <p style="text-align: center;">T TO SCALE</p>		

GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #6		DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA	
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #6				ORDER: 2ND	SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>
CITY: LANCASTER		COUNTY: DALLAS	STATE: TX	COMBINED SCALE FACTOR: 0.999885578	
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)
PROJECT NUMBER: 0107-012				PLANE AZIMUTH ANGLE (CONVERGENCE)	
DISTANCE & DIRECTIONS TO REFERENCES MARKS					
66'	SOUTHWEST	POWER POLE IN A CEDAR			
6.3'	NORTH	NORTH EDGE OF W. MAIN			
METRIC CONVERSION FACTOR: 3.280833333					
DESCRIPTION TO POINT:					
3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 6" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND NORTH OF THE INTERSECTION OF NORTH HOUSTON SCHOOL ROAD AND WEST MAIN STREET, MONUMENT IS LOCATED 66' SOUTHWEST OF POWER POLE IN A BIG CEDAR TREE, AND 6.3' NORTH OF THE NORTH EDGE OF PAVEMENT OF WEST MAIN STREET.					
GEODETIC DATA		POSITION	NAD 27 <input type="checkbox"/>	NAD 83 <input checked="" type="checkbox"/>	ELEV. (FEET)
		LATITUDE:	32°34'56.17834"		NORTH
		LONGITUDE:	96°48'09.51136"		WEST
FIELD SKETCH:					
TO SCALE					

GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #7		DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA		
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #7		ORDER: 2ND	SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			
CITY: LANCASTER	COUNTY: DALLAS	STATE: TX	COMBINED SCALE FACTOR: 0.999882356			
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	
PROJECT NUMBER: 0107-012				PLANE AZIMUTH ANGLE (CONVERGENCE)		
DISTANCE & DIRECTIONS TO REFERENCES MARKS		STATE: TX ZONE: NC CODE: 4202				
41.3'	NORTH	CENTER OF A STORM DRAIN MANHOLE				
0.4'	EAST					
		NAD 83 GRID DATA		COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)	
		STATE: TX ZONE: NC CODE: 4202		N 6903076.2492 E 2495691.6682	0°56'01.143"	
		METRIC CONVERSION FACTOR: 3.2808333333				
DESCRIPTION TO POINT:						
<p>3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 7" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND NORTH OF THE INTERSECTION OF NORTH BLUE GROVE ROAD AND BELTLINE, MONUMENT IS LOCATED NORTH OF THE EXIT OF A SCHOOL, 41.3' NORTH OF THE CENTER OF A STORM DRAIN MANHOLE, AND 0.4' EAST OF THE EAST EDGE OF A SIDEWALK.</p>		POSITION		NAD 27 <input type="checkbox"/> NAD 83 <input checked="" type="checkbox"/>	ELEV: (FEET)	
		GEODETIC DATA		LATITUDE: 32°35'35.81041" NORTH		547.4262
				LONGITUDE: 96°47'17.22601" WEST		
		FIELD SKETCH:				

GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #8		DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA	
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #8		ORDER: 2ND		SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	
CITY: LANCASTER	COUNTY: DALLAS	STATE: TX		COMBINED SCALE FACTOR: 0.999882445	
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)
PROJECT NUMBER: 0107-012		STATE: TX ZONE: NC CODE: 4202		PLANE AZIMUTH ANGLE (CONVERGENCE)	
DISTANCE & DIRECTIONS TO REFERENCES MARKS					
20.6'	SOUTH	EDGE OF PAVEMENT BELTLINE			
54.4'	SOUTHWEST	SPEED LIMIT SIGN			
+/-93'	EAST	EAST OF EDGE OF PAVEMENT HOUSTON SCHOOL ROAD			
		NAD 83 GRID DATA		COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
		STATE: TX ZONE: NC CODE: 4202		N 6902699.7137 E 2490424.2161	0°55'27.527
METRIC CONVERSION FACTOR: 3.280833333					
DESCRIPTION TO POINT: 3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 8" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND, 20.6' SOUTH OF THE EDGE OF PAVEMENT OF THE SOUTH EDGE OF WEST BELTLINE ROAD, 54.4' SOUTHWEST OF SPEED LIMIT SIGN, AND +/-93' EAST OF THE EAST EDGE OF PAVEMENT OF NORTH HOUSTON SCHOOL ROAD.		POSITION		NAD 27 <input type="checkbox"/> NAD 83 <input checked="" type="checkbox"/>	ELEV: (FEET)
		LATITUDE: 32°35'32.92998"		NORTH	548.0341
		LONGITUDE: 96°48'18.86183"		WEST	
FIELD SKETCH:					

1" = 20' SCALE

GPS MONUMENT CONTROL SHEET

[illegible]

GPS MONUMENT CONTROL SHEET

[illegible]

GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #11		DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA	
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #11		ORDER: 2ND		SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	
CITY: LANCASTER	COUNTY: DALLAS	STATE: TX	COMBINED SCALE FACTOR: 0.999874888		
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)
PROJECT NUMBER: 0107-012				PLANE AZIMUTH ANGLE (CONVERGENCE)	
DISTANCE & DIRECTIONS TO REFERENCES MARKS		STATE: TX ZONE: NC CODE: 4202			
17.2'	EAST	EAST EDGE OF PAVEMENT			
33'	SOUTH	POWER POLE			
40'	SOUTHWEST	GUY ANCHOR			
				NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)
				PLANE AZIMUTH ANGLE (CONVERGENCE)	
		STATE: TX ZONE: NC CODE: 4202		N 6912195.3980 E 2490176.3160 0°55'26.923"	
		METRIC CONVERSION FACTOR: 3.280833333			
DESCRIPTION TO POINT: 3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 11" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND, SOUTH OF THE INTERSECTION OF NORTH HOUSTON SCHOOL ROAD AND EAST WINTERGREEN ROAD, 17.2' EAST OF THE EAST EDGE OF PAVEMENT OF NORTH HOUSTON SCHOOL ROAD, 33' SOUTH OF A POWER POLE, AND 40' SOUTHWEST OF A GUY ANCHOR.		POSITION		NAD 27 <input type="checkbox"/>	NAD 83 <input checked="" type="checkbox"/>
		ELEV: (FEET)		632.3728	
		GEODETIC DATA		LATITUDE: 32°37'06.92213" NORTH LONGITUDE: 96°48'19.96897" WEST	
FIELD SKETCH:					
<div style="position: absolute; top: 10px; right: 10px; font-size: 0.8em;"> ▲ MONUMENT #11 ○ POWER POLE — GUY ANCHOR </div>					

GPS MONUMENT CONTROL SHEET									
STATION NAME: LANCASTER #12			DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA				
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #12					ORDER: 2ND		SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		
CITY: LANCASTER		COUNTY: DALLAS		STATE: TX		COMBINED SCALE FACTOR: 0.999872761			
SURVEYOR: VANNOY & ASSOC., INC.			PREPARED BY: KCC		NAD 27 GRID DATA		COORDINATES (U.S. SURVEY FEET)		PLANE AZIMUTH ANGLE (CONVERGENCE)
PROJECT NUMBER: 0107-012					STATE: TX ZONE: NC CODE: 4202				
DISTANCE & DIRECTIONS TO REFERENCES MARKS									
36.6'		NORTHWEST		FIRE HYDRANT					
24.7'		NORTHWEST		STOP SIGN					
5'		EAST		BACK OF CURB OF NORTH HOUSTON SCHOOL ROAD					
					NAD 83 GRID DATA		COORDINATES (U.S. SURVEY FEET)		PLANE AZIMUTH ANGLE (CONVERGENCE)
					STATE: TX ZONE: NC CODE: 4202		N 6916435.7427 E 2490097.3783		0°55'26.856"
					METRIC CONVERSION FACTOR: 3.280833333				
DESCRIPTION TO POINT:					POSITION NAD 27 <input type="checkbox"/> NAD 83 <input checked="" type="checkbox"/> ELEV: (FEET)				
3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 12" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND, AT THE NORTHEAST CORNER OF THE INTERSECTION OF NORTH HOUSTON SCHOOL ROAD AND CEDARDALE ROAD, 36.6' NORTHWEST OF FIRE HYDRANT, 24.7' NORTHWEST OF A STOP SIGN, AND 5' EAST OF THE EAST BACK OF CURB OF NORTH HOUSTON SCHOOL ROAD AND ALSO BEING AT TO NORTHEAST CORNER OF THE END OF A SIDEWALK.					GEODETIC DATA		LATITUDE: 32°37'48.88970" NORTH LONGITUDE: 96°48'20.09218" WEST		645.3488
FIELD SKETCH:									
					<div style="text-align: right;"> ▲ MONUMENT #12 ■ FIRE HYDRANT * SIGN POST </div>				
					T TO SCALE				

GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #10			DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA																						
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #10			ORDER: 2ND		SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>																						
CITY: LANCASTER		COUNTY: DALLAS	STATE: TX		COMBINED SCALE FACTOR: 0.999879356																						
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)																					
PROJECT NUMBER: 0107-012				STATE: TX																							
DISTANCE & DIRECTIONS TO REFERENCES MARKS <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">30.3'</td> <td style="width: 15%;">EAST</td> <td style="width: 70%;">LIGHT POLE</td> </tr> <tr> <td>12.7'</td> <td>NORTH</td> <td>SOUTH BACK OF CURB OF MEDIAN</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>				30.3'	EAST	LIGHT POLE	12.7'	NORTH	SOUTH BACK OF CURB OF MEDIAN																ZONE: NC		
				30.3'	EAST	LIGHT POLE																					
12.7'	NORTH	SOUTH BACK OF CURB OF MEDIAN																									
				CODE: 4202																							
				NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)																					
				STATE: TX	N 6906968.0153	0°55'25.420"																					
				ZONE: NC																							
				CODE: 4202	E 2490024.9691																						
				METRIC CONVERSION FACTOR: 3.2808333333																							
DESCRIPTION TO POINT: 3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 10" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND, WEST OF THE INTERSECTION OF NORTH HOUSTON SCHOOL ROAD AND WEST PLEASANT RUN ROAD, 30.3' EAST OF THE SECOND LIGHT POLE FROM INTERSECTION, AND 12.7' NORTH OF THE SOUTH BACK OF CURB OF THE MEDIAN.				POSITION NAD 27 <input type="checkbox"/> NAD 83 <input checked="" type="checkbox"/> ELEV: (FEET)																							
				GEODETIC DATA LATITUDE: 32°36'15.22530" NORTH 578.9422																							
				LONGITUDE: 96°48'22.72375" WEST																							
				FIELD SKETCH:																							
				NORTH HOUSTON SCHOOL ROAD WEST PLEASANT RUN ROAD ▲ MONUMENT #10 ○ LIGHT POLE																							
							T TO SCALE																				

GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #11		DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA	
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #11			ORDER: 2ND	SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	
CITY: LANCASTER	COUNTY: DALLAS	STATE: TX		COMBINED SCALE FACTOR: 0.999874888	
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)
PROJECT NUMBER: 0107-012		STATE: TX ZONE: NC CODE: 4202		PLANE AZIMUTH ANGLE (CONVERGENCE)	
DISTANCE & DIRECTIONS TO REFERENCES MARKS					
17.2'	EAST	EAST EDGE OF PAVEMENT			
33'	SOUTH	POWER POLE			
40'	SOUTHWEST	GUY ANCHOR			
				NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)
				STATE: TX ZONE: NC CODE: 4202	PLANE AZIMUTH ANGLE (CONVERGENCE)
				N 6912195.3980 E 2490176.3160	0°55'26.923"
				METRIC CONVERSION FACTOR: 3.2808333333	

DESCRIPTION TO POINT:

3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 11" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND, SOUTH OF THE INTERSECTION OF NORTH HOUSTON SCHOOL ROAD AND EAST WINTERGREEN ROAD, 17.2' EAST OF THE EAST EDGE OF PAVEMENT OF NORTH HOUSTON SCHOOL ROAD, 33' SOUTH OF A POWER POLE, AND 40' SOUTHWEST OF A GUY ANCHOR.

GEODETTIC DATA	POSITION		NAD 27 <input type="checkbox"/>	NAD 83 <input checked="" type="checkbox"/>	ELEV: (FEET)
	LATITUDE: 32°37'06.92213"		NORTH		632.3728
	LONGITUDE: 96°48'19.96897"		WEST		

FIELD SKETCH:



GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #2		DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA	
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #2		ORDER: 2ND		SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	
CITY: LANCASTER	COUNTY: DALLAS	STATE: TX		COMBINED SCALE FACTOR: 0.999884104	
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)
PROJECT NUMBER: 0107-012		STATE: TX ZONE: NC CODE: 4202		PLANE AZIMUTH ANGLE (CONVERGENCE)	
DISTANCE & DIRECTIONS TO REFERENCES MARKS					
3.5'	NORTH	NORTH EDGE OF PAVEMENT			
9.2'	SOUTHEAST	FENCE CORNER			
5.5'	EAST	STOP SIGN			
49.6'	WEST	FIRE HYDRANT			
				NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)
		STATE: TX ZONE: NC CODE: 4202		PLANE AZIMUTH ANGLE (CONVERGENCE)	
				N 6894689.1047 E 2496898.4954	
				0°56'07.962"	
METRIC CONVERSION FACTOR: 3.2808333333					

DESCRIPTION TO POINT:

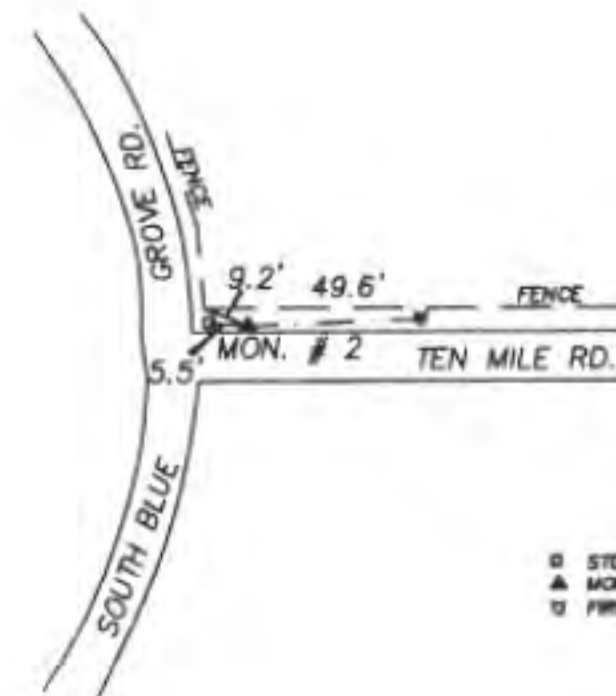
3 1/2" BRASS DISK WITH "CITY OF LANCASTER MONUMENT NO. 2"
STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW GROUND AT THE
NORTHEAST CORNER OF THE INTERSECTION OF TEN MILE LANE AND SOUTH
BLUE GROVE ROAD, MONUMENT IS LOCATED 3.5' NORTH OF THE NORTH EDGE
OF PAVEMENT OF TEN MILE LANE, 9.2' SOUTHEAST OF A FENCE CORNER,
5.5' EAST OF A STOP SIGN, AND 49.6' WEST OF A FIRE HYDRANT.

GEODETTIC DATA	POSITION	NAD 27 <input type="checkbox"/>	NAD 83 <input checked="" type="checkbox"/>	ELEV: (FEET)
	LATITUDE: 32°34'12.63140"	NORTH		579.4481
	LONGITUDE: 96°47'04.72168"	WEST		

FIELD SKETCH:



T TO SCALE



GPS MONUMENT CONTROL SHEET

DATE: OCT & NOV. 2001

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: 2ND

SURVEY METHOD: GPS ☒ OTHER ☐

COUNTY: DALLAS

STATE: TX

COMBINED SCALE FACTOR: 0.999884456

PREPARED BY: KCC

PROJECT NUMBER: 0107-012

NAD 27
GRID DATA

COORDINATES
(U.S. SURVEY FEET)

PLANE AZIMUTH ANGLE
(CONVERGENCE)

STATE: TX
ZONE: NC
CODE: 4202

DISTANCE & DIRECTIONS TO REFERENCES MARKS

8.4'

SOUTH

SOUTH EDGE OF PAYMENT

7.3'

NORTHEAST

FIRE HYDRANT

7.0'

NORTHWEST

TELEPHONE PEDISTAL

NAD 83
GRID DATA

COORDINATES
(U.S. SURVEY FEET)

PLANE AZIMUTH ANGLE
(CONVERGENCE)

STATE: TX
ZONE: NC
CODE: 4202

N 6891231.1607

E 2495851.7432

0'56'00.932^{ns}

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC
DATA

POSITION	NAD 27 <input type="checkbox"/>	NAD 83 <input checked="" type="checkbox"/>	ELEV: (FEET)
----------	---------------------------------	--	--------------

LATITUDE: 32°33'38.58669"

NORTH

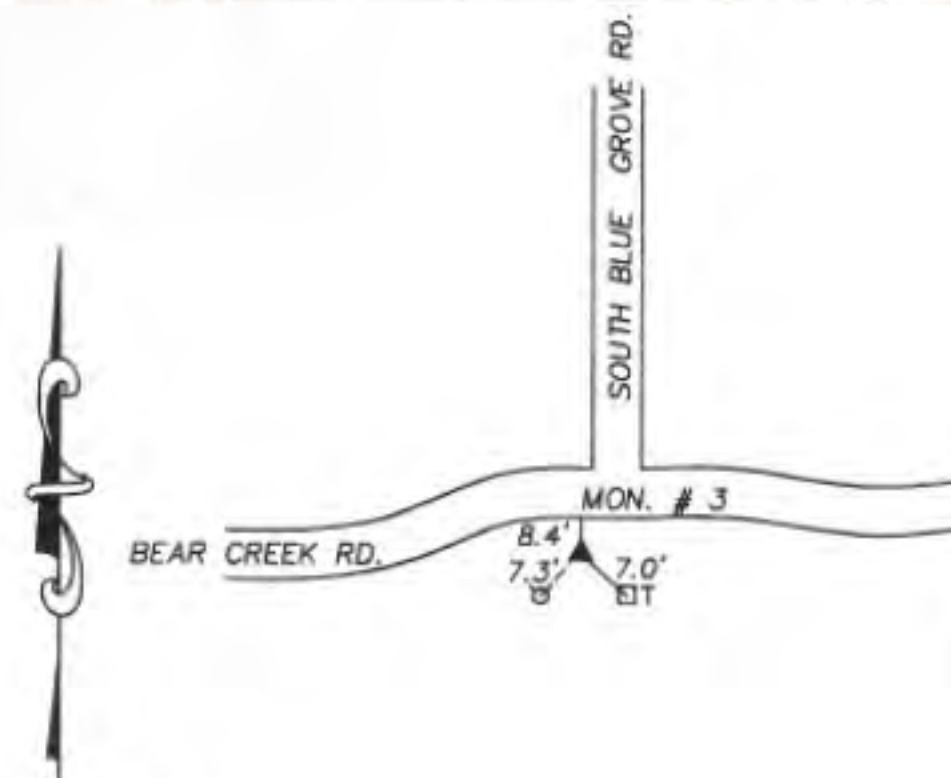
LONGITUDE: 96°47'17.61111"

WEST

601.1799

3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 3"
STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND AT THE OF
INTERSECTION OF SOUTH BLUE GROVE ROAD AND BEAR CREEK ROAD.
MONUMENT IS LOCATED 8.4' SOUTH OF THE SOUTH EDGE OF PAVE-
MENT OF BEAR CREEK ROAD, 7.3' NORTHEAST OF A FIRE HYDRANT, AND
7.0' NORTHWEST OF A TELEPHONE PEDISTAL.

FIELD SKETCH:



▲ MONUMENT AS
□ FIRE HYDRANT
○ TELEPHONE PEDISTAL

T TO SCALE

GPS MONUMENT CONTROL SHEET

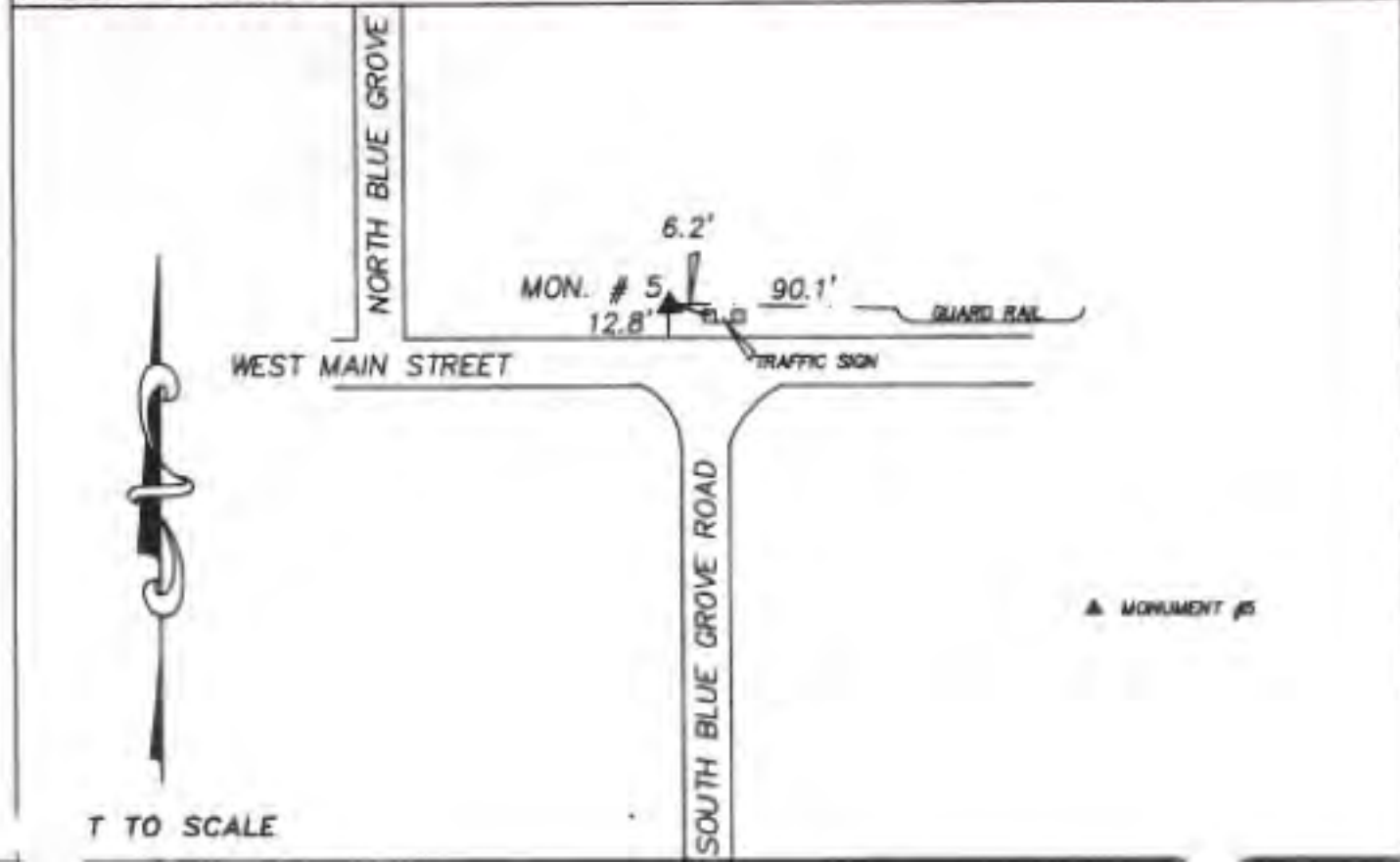
STATION NAME: LANCASTER #4			DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA		
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #4			ORDER: 2ND		SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		
CITY: LANCASTER		COUNTY: DALLAS	STATE: TX		COMBINED SCALE FACTOR: 0.999885184		
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)	
PROJECT NUMBER: 0107-012				STATE: TX ZONE: NC CODE: 4202			
DISTANCE & DIRECTIONS TO REFERENCES MARKS							
+/- 309'	SOUTH	CL OF BEAR CREEK ROAD					
17.5'	EAST	EDGE PAVEMENT OF SOUTH HOUSTON SCHOOL ROAD					
				NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)	
				STATE: TX ZONE: NC CODE: 4202	N 6890835.4443 E 2490570.0513	0°55'27.236"	
				METRIC CONVERSION FACTOR: 3.2808333333			
DESCRIPTION TO POINT:							
<p>3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 4" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND SOUTH OF THE INTERSECTION OF SOUTH HOUSTON SCHOOL ROAD AND BEAR CREEK ROAD, MONUMENT IS LOCATED +/- 309' SOUTH OF THE CENTERLINE OF BEAR CREEK ROAD, AND 17.5' EAST OF EDGE OF PAVEMENT OF SOUTH HOUSTON SCHOOL ROAD.</p>				POSITION NAD 27 <input type="checkbox"/> NAD 83 <input checked="" type="checkbox"/> ELEV: (FEET)			
				GEODETIC DATA			
				LATITUDE: 32°33'35.51870" NORTH LONGITUDE: 96°48'19.39435" WEST 588.7492			
FIELD SKETCH:							
				T TO SCALE TRANSMISSION LINE			

GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #5		DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA	
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #5			ORDER: 2ND	SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	
CITY: LANCASTER	COUNTY: DALLAS	STATE: TX		COMBINED SCALE FACTOR: 0.99885381	
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)
PROJECT NUMBER: 0107-012		STATE: TX ZONE: NC CODE: 4202		PLANE AZIMUTH ANGLE (CONVERGENCE)	
DISTANCE & DIRECTIONS TO REFERENCES MARKS					
90.1'	WEST	WEST END OF GUARD RAIL			
12.8'	NORTH	NORTH EDGE OF W. MAIN			
6.2'	WEST	WEST SIGN POST			
				NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)
		STATE: TX ZONE: NC CODE: 4202		N 6899656.8623 E 2496206.8983	
				PLANE AZIMUTH ANGLE (CONVERGENCE) 0°56'04.071"	
		METRIC CONVERSION FACTOR: 3.2808333333			

DESCRIPTION TO POINT: 3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 5" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND NORTH OF THE INTERSECTION OF SOUTH BLUE GROVE ROAD AND WEST MAIN STREET, MONUMENT IS LOCATED 90.1' WEST OF THE WEST END OF A GUARDRAIL ON THE NORTH SIDE OF WEST MAIN STREET, 12.8' NORTH OF THE NORTH EDGE OF PAVEMENT OF WEST MAIN STREET, AND 6.2' WEST OF THE MOST WESTERLY POST OF A SIGN.	GEODETIC DATA	POSITION NAD 27 <input type="checkbox"/> NAD 83 <input checked="" type="checkbox"/>	ELEV: (FEET)
	LATITUDE: 32°35'01.89514" NORTH		
	LONGITUDE: 96°47'11.85600" WEST		

FIELD SKETCH:



GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #6			DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA			
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #6			ORDER: 2ND		SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			
CITY: LANCASTER		COUNTY: DALLAS	STATE: TX		COMBINED SCALE FACTOR: 0.999885578			
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA		COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)	
PROJECT NUMBER: 0107-012				STATE: TX ZONE: NC CODE: 4202				
DISTANCE & DIRECTIONS TO REFERENCES MARKS								
66'	SOUTHWEST	POWER POLE IN A CEDAR						
6.3'	NORTH	NORTH EDGE OF W. MAIN						
				NAD 83 GRID DATA		COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)	
				STATE: TX ZONE: NC CODE: 4202		N 6898999.1492 E 2491284.0401	0°55'32.626"	
				METRIC CONVERSION FACTOR: 3.2808333333				
DESCRIPTION TO POINT: 3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 6" STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND NORTH OF THE INTERSECTION OF NORTH HOUSTON SCHOOL ROAD AND WEST MAIN STREET. MONUMENT IS LOCATED 66' SOUTHWEST OF POWER POLE IN A BIG CEDAR TREE, AND 6.3' NORTH OF THE NORTH EDGE OF PAVEMENT OF WEST MAIN STREET.				POSITION NAD 27 <input type="checkbox"/> NAD 83 <input checked="" type="checkbox"/> ELEV: (FEET)				
				GEODETIC DATA		LATITUDE: 32°34'56.17834" NORTH		512.4708'
						LONGITUDE: 96°48'09.51136" WEST		
				FIELD SKETCH:				
				▲ MONUMENT #6 ○ POWER POLE ○ CEDAR TREE				

1" TO SCALE

GPS MONUMENT CONTROL SHEET

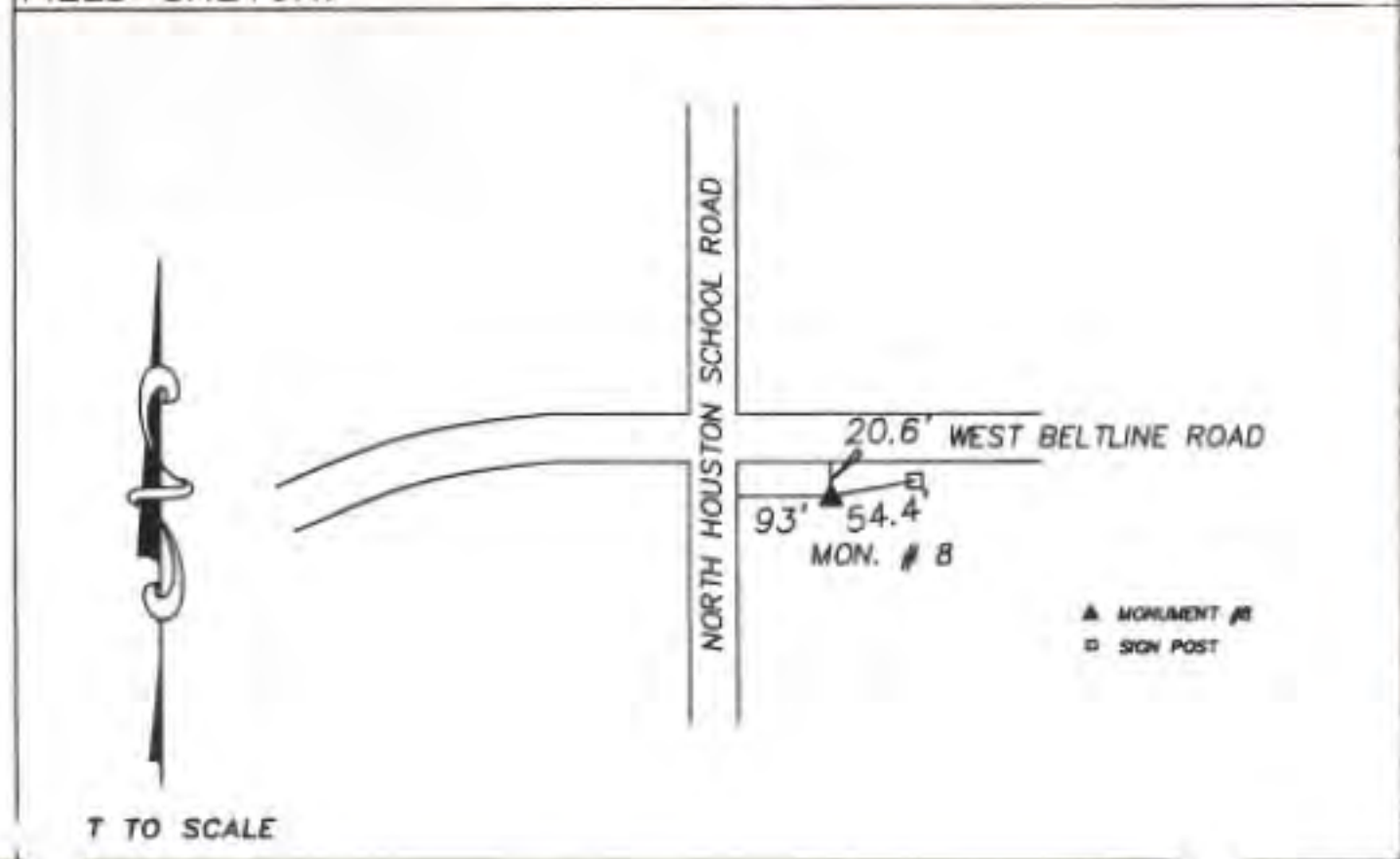
↑ TO SCALE

GPS MONUMENT CONTROL SHEET

STATION NAME: LANCASTER #8		DATE: OCT & NOV. 2001		ADJUSTED HORIZONTAL CONTROL DATA	
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #8			ORDER: 2ND	SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	
CITY: LANCASTER	COUNTY: DALLAS	STATE: TX		COMBINED SCALE FACTOR: 0.999882445	
SURVEYOR: VANNOY & ASSOC., INC.		PREPARED BY: KCC		NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)
PROJECT NUMBER: 0107-012		STATE: TX ZONE: NC CODE: 4202		PLANE AZIMUTH ANGLE (CONVERGENCE)	
DISTANCE & DIRECTIONS TO REFERENCES MARKS					
20.6'	SOUTH	EDGE OF PAVEMENT BELTLINE			
54.4'	SOUTHWEST	SPEED LIMIT SIGN			
+/-93'	EAST	EAST OF EDGE OF PAVEMENT HOUSTON SCHOOL ROAD			
				NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)
		STATE: TX ZONE: NC CODE: 4202		N 6902699.7137 E 2490424.2161	
				PLANE AZIMUTH ANGLE (CONVERGENCE) 0°55'27.527	
		METRIC CONVERSION FACTOR: 3.2808333333			

DESCRIPTION TO POINT: 3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 8" STAMPED ON IT BEING APPROXIMATELY 0.3" BELOW THE GROUND, 20.6' SOUTH OF THE EDGE OF PAVEMENT OF THE SOUTH EDGE OF WEST BELTLINE ROAD, 54.4' SOUTHWEST OF SPEED LIMIT SIGN, AND +/-93' EAST OF THE EAST EDGE OF PAVEMENT OF NORTH HOUSTON SCHOOL ROAD.	GEODETIC DATA	POSITION NAD 27 <input type="checkbox"/> NAD 83 <input checked="" type="checkbox"/> ELEV: (FEET)
	LATITUDE: 32°35'32.92998" NORTH	
	LONGITUDE: 96°48'18.86183" WEST	

FIELD SKETCH:



GPS MONUMENT CONTROL SHEET

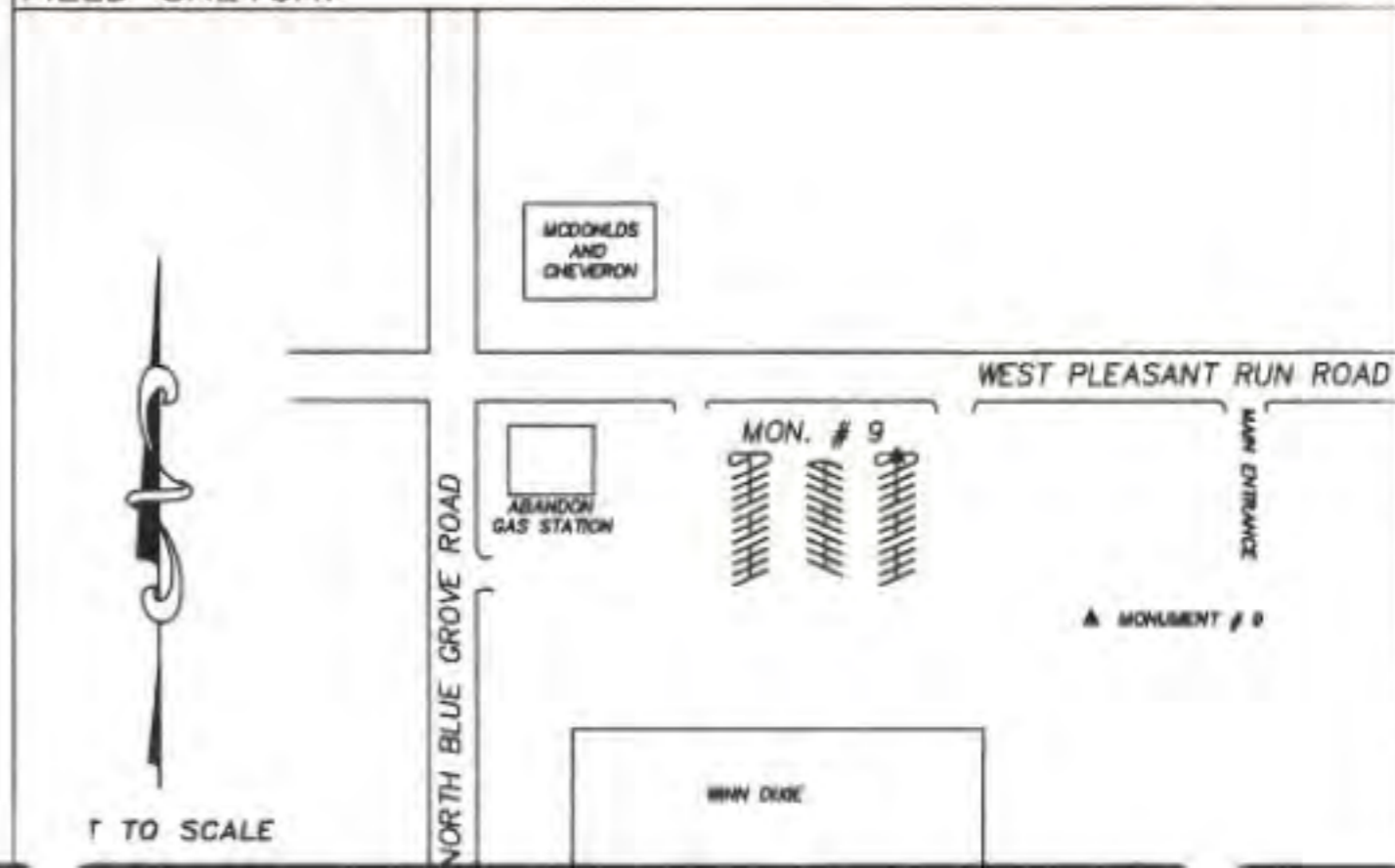
STATION NAME: LANCASTER #9			DATE: OCT & NOV. 2001			ADJUSTED HORIZONTAL CONTROL DATA					
MONUMENT TYPE: 3 1/2" BRASS MON. STAMPED #9						ORDER: 2ND		SURVEY METHOD: GPS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			
CITY: LANCASTER		COUNTY: DALLAS		STATE: TX		COMBINED SCALE FACTOR: 0.999879523					
SURVEYOR: VANNOY & ASSOC., INC.			PREPARED BY: KCC			NAD 27 GRID DATA		COORDINATES (U.S. SURVEY FEET)		PLANE AZIMUTH ANGLE (CONVERGENCE)	
PROJECT NUMBER: 0107-012						STATE: TX ZONE: NC CODE: 4202					
DISTANCE & DIRECTIONS TO REFERENCES MARKS											
0.4'		NORTHEAST		INSIDE ELL OF BACK OF CURB							
						NAD 83 GRID DATA		COORDINATES (U.S. SURVEY FEET)		PLANE AZIMUTH ANGLE (CONVERGENCE)	
						STATE: TX ZONE: NC CODE: 4202		N 6906991.2760 E 2495967.6655		0°56'03.309"	
						METRIC CONVERSION FACTOR: 3.2808333333					

DESCRIPTION TO POINT:

3 1/2" BRASS CAP WITH "CITY OF LANCASTER MONUMENT NO. 9"
STAMPED ON IT BEING APPROXIMATELY 0.3' BELOW THE GROUND, 0.4'
NORTHEAST OF THE POINT OF THE INSIDE ELL CORNER OF A BACK OF CURB
OF A PARKING ISLAND, NEAR THE INTERSECTION OF NORTH BLUE GROVE
ROAD AND WEST PLEASANT RUN ROAD BEING EAST OF THE MOST WESTERLY
ENTRANCE INTO SHOPPING CENTER ALONG WEST PLEASANT RUN ROAD YET
BEING WEST OF THE NEXT ENTRANCE EAST ON WEST PLEASANT RUN ROAD.

GEODETIC DATA	POSITION	NAD 27 <input type="checkbox"/>	NAD 83 <input checked="" type="checkbox"/>	ELEV: (FEET)
	LATITUDE: 32°36'14.50201"		NORTH	575.8654
LONGITUDE: 96°47'13.25404"		WEST		

FIELD SKETCH:



CITY OF LANCASTER, TEXAS

STANDARD CONSTRUCTION DETAILS



SIGNATURE: _____
PUBLIC WORKS DIRECTOR

DATE: _____

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SHEET NO.	SECTION	DESCRIPTION
1	GN-01	GENERAL NOTES & TESTING REQUIREMENTS
2	GN-02	GENERAL NOTES & TESTING REQUIREMENTS
3	GN-03	GENERAL NOTES & TESTING REQUIREMENTS
4	GN-04	GENERAL NOTES & TESTING REQUIREMENTS
5	PAV-01	ASPHALT PAVEMENT DETOURS AND TRANSITIONS
6	PAV-02	CONCRETE PAVING
7	PAV-03	CONCRETE DRIVEWAY
8	PAV-04	CONCRETE PAVING ALLEY & FIRE LANE
9	PAV-05	CONCRETE PAVING DIVIDED THOROFARE
10	PAV-06	SIDEWALK AND BARRIER FREE RAMP 1
11	PAV-07	PEDESTRIAN FACILITIES 1
12	PAV-08	PEDESTRIAN FACILITIES 2
13	PAV-09	PEDESTRIAN FACILITIES 3
14	PAV-10	PEDESTRIAN FACILITIES 4
15	PAV-11	PAVEMENT MARKING 1
16	PAV-12	PAVEMENT MARKING 2
17	PAV-13	PAVEMENT MARKING 3
18	PAV-14	PAVEMENT MARKING 4
19	STM-01	STORM DRAIN MANHOLE
20	STM-02	GRATE INLETS
21	STM-03	STORM DRAIN INLET
22	STM-04	COMBINATION CURB INLET 1
23	STM-05	COMBINATION CURB INLET 2
24	STM-06	GRATE DROP INLET
25	STM-07	STORMDRAIN DROP INLET
26	STM-08	STORM DRAIN CHANNEL AND FLUME
27	STM-09	STORM DRAIN CHANNEL AND GABIONS

SHEET INDEX		
SHEET NO.	SECTION	DESCRIPTION
28	STM-10	OUTFALL WITH SLOPED HEADWALL
29	STM-11	TXDOT SAFETY END TREATMENT
30	STM-12	THIN BRICK SCREENING WALL
31	WAT-01	STANDARD WATER DETAILS 1
32	WAT-02	STANDARD WATER DETAILS 2
33	WAT-03	VAULT AND APPURTENANCES
34	WAT-04	WATER, AIR AND VACUUM RELEASE VALVE
35	WAT-05	WATER BLOWOFF VALVE
36	WAT-06	3IN METER – 4IN WATER METER
37	WAT-07	3IN THRU 10IN DOUBLE CHECK DETECTOR ASSEMBLY FOR FIRE SERVICE
38	WAT-08	4IN THRU 10IN DOUBLE CHECK DETECTOR ASSEMBLY FOR FIRE SERVICE
39	WAT-09	FDC DETAIL REQUIREMENTS
40	SAN-01	STANDARD WASTEWATER DETAILS 1
41	SAN-02	STANDARD WASTEWATER DETAILS 2
42	SAN-03	STANDARD WASTEWATER DETAILS 3
43	SAN-04	WASTEWATER LIFT STATION 1
44	SAN-05	WASTEWATER LIFT STATION 2
45	SAN-06	WASTEWATER LIFT STATION 3
46	EC-01	EROSION CONTROL DETAILS 1
47	EC-02	EROSION CONTROL DETAILS 2
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GENERAL NOTES – CITY OF LANCASTER

ALL WORK AND MATERIALS WILL BE IN ACCORDANCE WITH CITY OF LANCASTER STANDARD SPECIFICATIONS AND GENERAL DESIGN STANDARDS. IN THE EVENT AN ITEM IS NOT COVERED IN THE CITY OF LANCASTER SPECIFICATIONS AND DETAILS, THEN THE CITY ENGINEER SHALL MAKE THE FINAL DECISION ON MATERIALS, METHODS OF INSTALLATION AND PROCEDURES. THESE GENERAL NOTES ARE FOR CONSTRUCTION OF THE CITY INFRASTRUCTURE WITHIN CITY RIGHT OF WAYS AND EASEMENTS.

- IT IS THE INTENT OF THESE PLANS TO SHOW THE LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITIES IN ACCORDANCE WITH EXISTING RECORDS. HOWEVER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD–VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UTILITIES, WHETHER IN OR OUT OF RIGHT–OF–WAY.
- FENCES, LANDSCAPING, AND ALL OTHER IMPROVEMENTS REMOVED TO ALLOW CONSTRUCTION SHALL BE IN THE SAME LOCATION AND IN CONDITION AS GOOD OR BETTER THAN THAT IN WHICH THEY WERE FOUND. NO COMPENSATION SHALL BE GIVEN TO THE CONTRACTOR FOR REMOVAL AND REPLACEMENT OF SUCH IMPROVEMENTS.
- CONTRACTOR SHALL MAINTAIN WATER AND SEWER SERVICE TO ALL EXISTING CONNECTIONS AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING CONNECTIONS, WATER METERS, WATER LINES, AND SEWER LINES IN THE FIELD PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL ADHERE TO THE CITY OF LANCASTER’S CURRENT ADOPTED TREE ORDINANCE IN REFERENCE TO ALL TREES LOCATED WITH IN THE PROJECT.
- ONLY THOSE ITEMS LISTED IN THE BID SCHEDULE WILL BE MEASURED AND PAID FOR AT THE UNIT PRICE. ALL OTHER WORK NOT LISTED IN THE BID SCHEDULE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS BID ITEMS.
- ALL PAVEMENT TO BE REMOVED (ASPHALT OR CONCRETE) SHALL BE SAWCUT AT FULL DEPTH OR REMOVED TO THE NEAREST JOINT.
- BRACE ALL UTILITY POLES AS REQUIRED TO MAINTAIN STABILITY OF THE POLES DURING CONSTRUCTION. YOU MUST NOTIFY FRANCHISE UTILITIES FOR APPROVAL.
- CONTRACTOR SHALL NOTIFY THE ENGINEERING DEPARTMENT ASSIGNED INSPECTOR 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE CURRENT TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND AMENDMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL TRAFFIC CONTROL DEVICES THROUGH OUT THE PROJECT DURING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR KEEPING STREETS, ALLEYS, AND SIDEWALKS ADJACENT TO THE PROJECT FREE OF MUD AND DEBRIS DURING CONSTRUCTION OF THE PROJECT.
- THE CONTRACTOR MUST MAINTAIN TWO–WAY TRAFFIC IN CONSTRUCTION AREAS. ONE LANE OF TRAVEL WITH FLAGMAN WILL BE ALLOWED AS INDICATED IN THE APPROVED TRAFFIC CONTROL PLAN (TCP). THE CONTRACTOR SHALL NOTIFY THE CITY OF LANCASTER CITY ENGINEER 48 HOURS IN ADVANCE OF ANY LANE CLOSURES FOR APPROVAL. THE CONTRACTOR MUST MAINTAIN ACCESS TO ALL DRIVEWAYS UNLESS WRITTEN APPROVAL IS GIVEN BY THE CITY ENGINEER.
- THE CLOSING OF STREET OR LANE SHALL BE BETWEEN 9.00AM TO 3.00PM MONDAY THROUGH FRIDAY. CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS IN ADVANCED BEFORE CLOSING ANY LANE OR STREET.
- CONTRACTOR SHALL NOT PLACE FILL OR WASTE MATERIAL ON PRIVATE PROPERTY WITHOUT A NOTARIZED WRITTEN AGREEMENT WITH THE PROPERTY OWNER AND PROPER PERMITTING AND VERIFICATION BY THE CITY ENGINEER.
- EXCESS EXCAVATED MATERIAL SHALL NOT BE DEPOSITED IN LOW AREAS OR ALONG NATURAL WATERWAYS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM SUCH FILL AND SHALL REMOVE THE MATERIAL AT HIS OWN COST.
- CONTRACTOR SHALL REMOVE AND REINSTALL ALL EXISTING STREET SIGN POSTS AND SIGNS WHICH INTERFERE WITH THE CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO NOTIFY THE LANCASTER STREET SUPERINTENDENT AT LEAST (5) DAYS IN ADVANCE OF THE TIME A STREET SIGN MUST BE RELOCATED. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY STREET SIGNS AS MAY BE REQUIRED DURING CONSTRUCTION.
- BEFORE FINAL COMPLETION OF PROPOSED WORK, ALL ROADWAYS, SIGNS, SLOPES, MAIL BOXES, DITCHES AND BERMS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
- CONTRACTOR SHALL RE–ESTABLISH AND MAINTAIN ALL DRAINAGE TO CHANNELS, DITCHES, AND DRAINAGE PATHS DISTURBED DURING CONSTRUCTION WITH PROPER GRADE TO DRAIN.
- ALL DISTURBED SOIL SHALL BE RE–ESTABLISHED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR AFTER CONSTRUCTION.
- ALL EXCESS EXCAVATION AND TRENCH SOIL SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THESE PLANS AND APPROVED BY THE CITY ENGINEER.
- THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS GOVERNING EXCAVATION, TRENCHES, AND SIDE SLOPES, AND SHALL MEET OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS.
- ANY CHANGES OR DEVIATIONS FROM THESE APPROVED PLANS MUST BE SUBMITTED IN WRITING AND APPROVED BY THE CITY ENGINEER PRIOR TO MAKING THE CHANGES.
- A CITY OF LANCASTER RIGHT OF WAY PERMIT IS REQUIRED PRIOR TO BEGINNING WORK WITHIN A CITY EASEMENT OR RIGHT–OF–WAY. THE CONTRACTOR SHALL REGISTER WITH THE CITY AND PROVIDE LIABILITY INSURANCE TO OBTAIN THE PERMIT.
- TRACKING OF MUD FROM SITE IS NOT ALLOWED ON CITY STREETS. IF THE MUD IS TRACKED ON CITY STREETS, IT SHALL BE CLEANED IMMEDIATELY AS PER MS–4 PERMIT.

EROSION CONTROL

- EVERY SOIL DISTURBING ACTIVITY SHALL HAVE AN ACCOMPANYING EROSION CONTROL PLAN (ECP), AND EITHER A CONSTRUCTION SITE NOTICE (CSN) FOR THOSE ACTIVITIES DISTURBING MORE THAN 1 BUT LESS THAN 5 ACRES, OR A NOTICE OF INTENT (NOI) FOR THOSE ACTIVITIES DISTURBING MORE THAN 5 ACRES. A COPY OF THE APPROPRIATE CSN OR NOI SHALL BE PROVIDED TO THE CITY OF LANCASTER PRIOR TO ISSUANCE OF A GRADING PERMIT. THE ECP SHALL BE PROVIDED TO THE LANCASTER CITY ENGINEER PRIOR TO GRADING.

- THE CSN OR NOI SHALL BE POSTED IN A LOCATION VIEWABLE TO THE PUBLIC UNTIL CONSTRUCTION IS COMPLETE AND A NOTICE OF TERMINATION (NOT) IS SUBMITTED. THE STORM WATER PREVENTION PLAN (SWP3) SHALL BE READILY AVAILABLE FOR REVIEW BY FEDERAL, STATE, OR LOCAL AUTHORITIES.
- NO SOIL DISTURBING ACTIVITIES WILL OCCUR PRIOR TO SWP3, ECP, AND ASSOCIATED BEST MANAGEMENT PRACTICES (BMP) BEING FULLY IMPLEMENTED, THEN INSPECTED BY THE CITY OF LANCASTER’S INSPECTOR.
- THE CONTRACTOR SHALL COMPLY WITH THE CITY OF LANCASTER’S STORM WATER ORDINANCE, THE CURRENT NCTCOG BEST MANAGEMENT PRACTICES MANUAL, THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM (TPDES) GENERAL CONSTRUCTION PERMIT TXR150000, AND ANY OTHER STATE AND OR LOCAL REGULATIONS.
- THE SITE SHALL BE REVIEWED BY THE CONTRACTOR OR HIS REPRESENTATIVE WEEKLY, AND AFTER ANY MAJOR STORM ADJUSTMENTS/REPAIRS TO THE EROSION CONTROL MEASURES WILL BE MADE AS NEEDED. THE CONTRACTOR SHALL NOTIFY THE CITY OF LANCASTER’S INSPECTOR OF ADJUSTMENTS/REPAIRS MAY BE INSPECTED AND APPROVED.INSPECTION REPORTS MUST BE EMAILED TO CITY INSPECTOR WEEKLY.
- FINAL ACCEPTANCE OF A SITE SHALL BE CONTINGENT UPON VEGETATION BEING ESTABLISHED PER THE TPDES GENERAL CONSTRUCTION PERMIT TXR150000, AND PROPER NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE STATE OF TEXAS. A COPY OF THE NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO THE CITY OF LANCASTER.
- CONTRACTOR (OR SUBCONTRACTOR) SHALL PROVIDE A COPY OF SELF INSPECTION REPORT TO THE CITY INSPECTOR ON WEEKLY BASIS.

WATER

ALL WORK AND MATERIALS WILL BE IN ACCORDANCE WITH CITY OF LANCASTER STANDARD SPECIFICATIONS AND GENERAL DESIGN STANDARDS. IN THE EVENT AN ITEM IS NOT COVERED IN THE CITY OF LANCASTER SPECIFICATIONS AND DETAILS, THEN THE CITY ENGINEER SHALL MAKE THE FINAL DECISION ON MATERIALS, METHODS OF INSTALLATION AND PROCEDURES.

- IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OPEN AND OR CLOSE ALL VALVES INCLUDING BUT NOT LIMITED TO THE CITY OF LANCASTER VALVES DURING CONSTRUCTION OF A PROJECT. THE PROCEDURES TO OPEN OR CLOSE CITY VALVES ARE AS FOLLOWS

A.THE CONTRACTOR SHALL CONTACT THE CITY OF LANCASTER INSPECTOR AT LEAST 48 HOURS PRIOR TO OPERATING CITY WATER VALVE(S)TO GET PERMISSION TO OPEN OR CLOSE A VALVE(S).

B.IF THE CONTRACTOR IS GIVEN PERMISSION BY THE CITY INSPECTOR TO OPERATE THE VALVE(S), THEN THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR AND DEVELOP A LIST OF ADDRESSES THAT WILL BE AFFECTED BY ANY VALVE CLOSINGS. AFTER THE LIST HAS BEEN DEVELOPED EACH ADDRESS AFFECTED SHALL BE GIVEN A WRITTEN NOTICE STATING THE WATER WILL BE OFF DUE TO CONSTRUCTION FOR A GIVEN PERIOD OF TIME (NOT TO EXCEED 4 HOURS) AND THE NOTICE(S) SHALL BE DELIVERED BY THE CONTRACTOR TO THE ADDRESS(S) AFFECTED, AT LEAST 48 HOURS PRIOR TO CLOSING THE VALVE(S). AFTER THE NOTIFICATION HAS BEEN DELIVERED AND 48 HOURS HAVE ELAPSED THE CONTRACTOR MAY OPERATE THE VALVE(S) WITH THE INSPECTOR PRESENT AND AT HIS INSTRUCTION.

C.IN NO CASE SHALL CITY PERSONNEL BE RESPONSIBLE FOR OPERATING VALVES FOR CONSTRUCTION IN THE EVENT THE VALVE(S) DOES NOT OPERATE PROPERLY, THEN THE CONTRACTOR SHALL ASK THE INSPECTOR FOR ASSISTANCE. NO TIME OR CHARGES SHALL BE CHARGED TO THE CITY BY THE CONTRACTOR FOR OPERATING VALVES.

D.TCEQ RULES AND REGULATIONS SHALL APPLY TO ALL WATER LINES THAT FALL BELOW THE TCEQ’S MINIMUM PRESSURES.
- ALL FIRE HYDRANTS SHALL BE M&H, MUELLER, AND KENNEDY, AND EQUAL TO, APPROVED BY DIRECTOR OF PUBLIC WORKS. HYDRANTS SHALL BE THREE–WAY STANDARD THREAD WITH 4” NOZZLE AND 2 1/2” NOZZLES.
- GATE VALVES SHALL BE RESILIENT WEDGE EPOXY COATED GATE VALVES, ISO TEST, MUELLER OR CLOW.
- TAPPING SLEEVES SHALL BE ALL STAINLESS STEEL WITH STAINLESS STEEL BOLTS AND NUTS.
- ALL WATER MAINS SHALL HAVE A MINIMUM OF 48” COVER OVER THE TOP OF THE PIPE UNLESS STIPULATED ON THE PLAN.
- ALL CONNECTIONS USED FOR FLUSHING SHALL BE METERED WITH A CERTIFIED BACK FLOW PREVENTION DEVICE AND ALL WATER USED SHALL BE AT THE CONTRACTOR’S EXPENSE.
- WATER LINES SHALL BE TESTED AT 150 PSI PRESSURE FOR A FOUR–HOUR CONTINUOUS PERIOD. THE LEAKAGE RATE WILL NOT EXCEED 25 GALLONS PER INCH OF NOMINAL DIAMETER PER MILE OF PIPE OVER A 24–HOUR PERIOD. THE CONTRACTOR WILL FLUSH AND STERILIZE LINES AND PERFORM BACTERIOLOGICAL TESTS AS DIRECTED BY THE CITY INSPECTOR AND TO PROVE LINES TO BE FREE OF COLIFORM ORGANISMS. THE CHLORINATION STEPS ARE AS FOLLOWS, CHLORINATE TO AT LEAST 50 PPM–WAIT 24 HOURS. FLUSH SUPERCHLORINATION, CHECK CL2, THEN WAIT ADDITIONAL 24 HOURS BEFORE TAKING SAMPLE.ALL CHLORINATION NEEDS TO BE METERED.IF SAMPLES ARE REPORTED POSITIVE, THE CONTRACTOR WILL FLUSH WITH METER AND RESTERILIZE AND REPEAT STEPS UNTIL WATER SAMPLES ARE FREE FROM COLIFORM ORGANISMS.
- CONNECTION TO THE WATER SYSTEM SHALL NOT BE MADE UNTIL ALL LINES HAVE BEEN PRESSURE TESTED AND SATISFACTORY WRITTEN BACTERIOLOGICAL REPORT RESULTS HAVE BEEN RECEIVED BY THE CITY OF LANCASTER INSPECTOR.
- ALL RESIDENTIAL SERVICES SHALL BE INSTALLED AS FOLLOWS:

A.METER BOXES SHALL BE A PLASTIC BODY TYPE WITH LOCKING CAST IRON OR STEEL RINGED PLASTIC AND LID DALLAS SPECS.OR APPROVED EQUAL AND WILL BE INSTALLED TWO (2) FEET BACK OF CURB LINE. ALL METER BOXES IN PAVING SHALL BE TRAFFIC RATED. ALL WATER SERVICES WILL BE MINIMUM 1” IN DIAMETER, AND MADE OF TYPE ”K” SOFT COPPER OR POLY PIPE UNLESS OTHERWISE SHOWN ON THE PLANS AND APPROVED BY THE CITY. REFER TO STANDARD CONSTRUCTION DETAIL WATER SHEET. WATER SERVICES SHALL BE LOCATED UPSTREAM OF THE SANITARY SEWER SERVICES EXCEPT AS MAY BE SHOWN ON THE PLANS.

B.THE UTILITY CONTRACTOR WILL INSTALL THE WATER SERVICE TO A POINT TWO (2) FEET PAST THE BACK OF CURB, OR AS MAY BE SHOWN ON THE PLANS, AT A DEPTH OF 12 INCHES. THE METER BOX WILL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AFTER THE PAVING CONTRACTOR HAS COMPLETED THE FINAL GRADING IN BACK OF THE CURB. ALL WATER SERVICES SHALL BE EMBEDDED IN AT LEAST 6” OF SAND FROM TAP TO METER BOX.

C.CONTRACTOR WILL TIE A 1” WIDE PIECE OF BLUE PLASTIC FLAGGING TO THE WATER SERVICE CURB STOP AND WILL LEAVE A MINIMUM OF 36” OF FLAGGING EXPOSED AFTER BACKFILLING CURB AND PAVING IS COMPLETE.

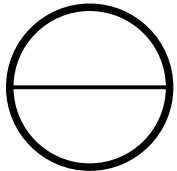

D.CONTRACTOR IS RESPONSIBLE TO PROVIDE AND INSTALL METERS TO CITY SPECIFICATION AT HIS OWN COST.

- POLYTUBEWRAPING:
THE CONTRACTOR SHALL FURNISH AND INSTALL POLYETHYLENE WRAP AROUND THE DUCTILE IRON PIPE, FIRE HYDRANT UP TO THE BURY LINE AND RELATED FITTINGS AND VALVES. THIS WRAP WILL BE AN 8 MIL THICKNESS POLYTUBE. SEAMS AND OVERLAPS WILL BE WRAPPED AND HELD IN PLACE BY TWO INCH (2”) WIDE PLASTIC BACKED ADHESIVE TAPE, POLYKEN NO. 900 OR SCOTHRAF NO. 50 OR AN EQUAL WITH APPROXIMATELY TWO (2’) FOOTLAPS ON THE POLYTUBE. THE WRAP ON THE BARREL OF THE PIPE WILL BE LOOSE ENOUGH TO ALLOW THE FILM TO SHIFT WITH THE SOIL. THE WRAP WILL BE INSTALLED WITHOUT BREAKS, TEARS OR HOLES IN THE FILM. THE COST OF THE POLYEHTYLENE TUBE WRAP AND COMPLETE INSTALLATION WILL BE INCLUDED IN THE UNIT PRICE BID FOR FURNISHING AND INSTALLING DUCTILE IRON PIPE AND RELATED FITTINGS, VALVES AND FIRE HYDRANTS.
- DUCTILE IRON FITTINGS SHALL BE A MINIMUM C–ISO, PRESSURE CLASS 250 AND ALL MECHANICAL BENDS AND FITTINGS SHALL BE MEGA–LUG RESTRAINED AND BLOCKED WITH 3600 PSI CONCRETE.
- THE CONTRACTOR SHALL INSTALL FIRE HYDR4NTS 2’ FROM BACK OF CURB OR AS MAY BE SHOWN ON THE PLANS OR AS MAY BE REQUIRED TO AVOID CONFLICTS. THE SPLASHPAD WILL BE IN FRONT OF FIRE HYDRANTS THAT ARE NOT ABUTTING SIDEWALKS OR CLOSE ENOUGH TO FLOW ONTO PAVED ROADWAYS.THE SPLASHBLOCK SHALL BE CONNECTED AND DOWELLED IN TO CURB, WHEN THERE IS CURB.
- ALL BOLTS AND NUTS USED WITH MECHANICAL JOINT FITTINGS WILL BE HIGH STRENGTH, CORROSION RESISTANT STEEL PER ASTM A235 TYPE 3.
- VALVE BOXES WILL BE FURNISHED AND SET ON EACH GATE VALVE. AFTER FINAL CLEAN UP AND ALIGNMENT HAS BEEN COMPLETED. THE CONTRACTOR (UTILITY) WILL POUR A STEEL REINFORCED CONCRETE BLOCK AROUND ALL VALVE BOX TOPS SO THE FINISHED GRADE IS LEVEL WITH THE FINISHED PARKWAY.

THE CONTRACTOR SHALL FURNISH THE CITY OF LANCASTER WITH A MAINTENANCE BOND FROM AN APPROVED SURETY COMPANY WHICH PROTECTS THE CITY AGAINST DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF TWO (2) YEARS FROM THE DATE OF THE FINAL ACCEPTANCE BY THE CITY. WHERE DEFECTIVE WORKMANSHIP AND/OR MATERIALS ARE DISCOVERED REQUIRING REPAIRS TO BE MADE UNDER THIS GUARANTEE, ALL SUCH REPAIR WORK SHALL BE DONE BY THE CONTRACTOR AT HIS OWN EXPENSE WITHIN FIVE (5) DAYS AFTER WRITTEN NOTICE OF SUCH DEFECT HAS BEEN GIVEN TO HIM BY THE CITY. SHOULD THE CONTRACTOR FAIL TO REPAIR LEAKS OR CORRECT SUCH DEFECTIVE WORKMANSHIP AND /OR MATERIAL WITHIN FIVE (5) DAYS AFTER BEING NOTIFIED , THE CITY MAY MAKE THE NECESSARY REPAIRS AND CHARGE THE CONTRACTOR WITH THE ACTUAL COST OF ALL LABOR AND MATERIAL REQUIRED. THE MAINTENANCE BOND SHALL IN THE AMOUNT OF \$50,000.00 OR 10 PERCENT(10%) OF THE AMOUNT OF THE CONTRACT, WHICHEVER IS GREATER, BUT NOT EXCEED 100 PERCENT (100%) OF THE CONTRACT AMOUNT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ”RECORD DRAWINGS” TO THE ENGINEER SHOWING LOCATION OF WATER SERVICES AND VALVES BY DISTANCE TO BOTH LOT LINES.

THIS INFORMATION SHALL BE PLACED AND MARKED ”RECORD DRAWINGS” BY THE ENGINEER OF RECORD. COPIES OF ”RECORD DRAWINGS” PLANS SHALL BE FURNISHED TO THE CITY.

- THE INSTALLATION OF BLUE STEMSONITE (OR APPROVED EQUAL) MODEL 88–SSA FIRE HYDRANT MARKER WILL BE FURNISHED AND INSTALLED BY CONTRACTOR.
- FIRE HYDRANTS WILL BE PAINTED AS NOTED. ALL HYDRANTS ARE TO BE PAINTED WITH TWO (2) COATS OF ALUMINUM PAINT.
- PVC PIPE WILL BE A MINIMUM C–900 CLASS (DR–18) UNLESS INDICATED OTHERWISE ON THE PLANS. ALL WATER PIPE WILL BE INSTALLED WITH A ”TRACER TAPE” PLACED OVER THE TOP OF THE SAND WITH WORD ”WATER” MULTIPLY REPEATED ON THE TAPE, LAID 2’ ABOVE THE PIPE PRIOR TO FINAL BACK FILL.
- WATER MAINS WILL BE INSTALLED WITH A CLASS B+ EMBEDMENT AND ALL DITCHES AND TRENCHES WILL BE TAMPED AND COMPACTED TO 95% PROCTOR DENSITY. MOISTURE CONTENT SHALL BE WITHIN 0 TO +4 OF OPTIMUM.
- DOUBLE STRAP BRASS SADDLE TO BE USED ON ALL SERVICE LINES INSTALLED ON PVC PIPE.
- CONTRACTOR WILL PROTECT ALL PUBLIC UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT. THE UTILITY CONTRACTOR MUST ADJUST ALL EXISTING MANHOLES, CLEAN OUTS, VALVES, BOXES, FIRE HYDRANTS AND APPURTENANCES TO PROPER LINE AND GRADE AFTER REPLACEMENT OF PAVING. NO ADDITIONAL PAY ITEM.

<div>CERTIFICATION: THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.</div> <div></div>						
STANDARD GENERAL NOTES &						
TESTING REQUIRMENTS FOR						
WASTER, WASTEWATER,						
STORM SEWER AND PAVEMENT						
CONSTRUCTION						
<div></div>						
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	GN-01	1 OF 53

- 22.THE LOCATIONS OF ALL UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL PUBLIC UTILITIES. IT WILL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BY PRESENT.
- 23.WHERE STORM SEWER INLETS ARE INSTALLED OVER TOP OF WATER LINES, THE CONTRACTOR MUST PROVIDE A MINIMUM CLEARANCE OF 18". WHERE THE WATER CROSSES OVER TOP OF THE STORM SEWER, THERE MUST BE A MINIMUM OF 18" OF CLEARANCE.
- 24.REFER TO CITY OF LANCASTER STANDARD DETAILS FOR ADDITIONAL INFORMATION REGARDING CONSTRUCTION OF WATER & SANITARY SEWER SYSTEMS.
- 25.WATER SYSTEMS WILL NEED A KUPFERLE ECLIPSE 88 OR APPROVED EQUAL BY THE CITY. REFER TO STANDARD CONSTRUCTION DETAIL SHEETS FOR WATER.
- 26.DEAD END LINES SHOULD BE AVOIDED BUT IN CASES WHERE THEY CAN NOT, CONTRACTOR MUST INSTALL A FLUSH POINT PER TCEQ STANDARDS.
- 27.A LIST OF APPROVED WATER UTILITY MATERIALS AND APPROVAL OF ALTERNATE MATERIALS MUST BE OBTAINED FROM THE CITY WATER AND SEWER SUPERINTENDENT PRIOR TO BEGINNING OF CONSTRUCTION.
- 28.AT THE END OF THE PROJECT AND BEFORE FINAL ACCEPTANCE, ALL VALVES AND WATER SERVICES LOCATED BEHIND THE CURB SHALL BE MARKED BY SAWING OR INSCRIBING INTO THE CURB 2" LETTER W FOR WATER SERVICES AND THE LETTER V FOR VALVES AND FH FOR FIRE HYDRANT. PAINTING OF SUCH LETTERING SHALL NOT BE AN ACCEPTED SUBSTITUTE.
- 29.CONTRACTORS ARE REQUIRED TO SUBMIT AN APPLICATION/DEPOSIT FOR USE OF CITY WATER METER WITH THE CITY UTILITY BILLING DEPARTEMENT, PRIOR TO STARTING WORK. THE CONTRACTOR MUST SUPPLY A TESTABLE BACKFLOW PREVENTER TO BE TESTED AFTER INSTALLED. TEST REPORTS MUST BE SUBMITTED TO THE CITY.

SANITARY SEWER

- ALL WORK AND MATERIALS WILL BE IN ACCORDANCE WITH THE CITY OF LANCASTER STANDARD SPECIFICATIONS AND GENERAL DESIGN STANDARDS. IN THE EVENT AN ITEM IS NOT COVERED IN THE CITY OF LANCASTER SPECIFICATIONS AND DETAILS, THEN THE CITY ENGINEER SHALL MAKE THE FINAL DECISION ON MATERIALS, METHODS OF INSTALLATION AND PROCEDURES.
- ALL PVC SEWER PIPE WILL BE SDR 35 FOR DEPTH LESS THEN 10' AND SDR 26 FOR DEPTH 10' OR GREATER AS PER CITY SPECIFICATIONS AND WILL BE INSTALLED WITH A MINIMUM OF CLASS B+ EMBEDMENT.
 - ANY OTHER PIPE FOR SANITARY SEWER MAIN CONSTRUCTION MUST BE APPROVED BY THE CITY ENGINEER.
 - ALL RESIDENTIAL SEWER SERVICES WILL BE A MINIMUM DIAMETER OF FOUR (4") INCHES OR AS SPECIFIED ON THE PLANS AND SHALL TERMINATE AT THE PROPERTY LINE WITH A CLEANOUT. SERVICES SHALL BE LOCATED DOWNSTREAM OF THE WATER SERVICES EXCEPT AS MAY BE SHOWN ON THE PLANS. ALL SERVICES SHALL BE EMBEDDED IN CLASS B+ EMBEDMENT.
 - ALL SEWER MAINS WILL BE A MINIMUM DIAMETER OF EIGHT (8") INCHES AND WILL BE INSTALLED PER THE PLAN PROFILE.
 - ALL TRENCHES WILL BE TAMPED AND COMPACTED TO A 95% PROCTOR DENSITY. MOISTURE CONTENT SHALL BE WITHIN 0 TO +4 OF OPTIMUM. AFTER PIPE HAS BEEN LAID ON PROPER BEDDING, BACKFILL WITH 8" MAXIMUM LOOSE LIFTS MECHANICALLY COMPACTED TO 95% STANDARD PROCTOR. MOISTURE CONTENT SHALL BE WITHIN 0 TO +4 OF OPTIMUM UNDER ROADWAY AND 12" MAXIMUM LOOSE LIFT BEHIND CURB. MAXIMUM SIZE ROCK IN BACKFILL SHALL NOT EXCEED 6" IN DIAMETER.
 - CONTRACTOR WILL TIE 1" WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF THE SEWER SERVICE AND WILL LEAVE A MINIMUM OF 36" OF FLAGGING EXPOSED AFTER BACKFILL. AT THE END OF THE PROJECT AND BEFORE FINAL ACCEPTANCE, ALL MANHOLES AND SEWER SERVICES LOCATED BEHIND THE CURB SHALL BE MARKED 2" BY SAWING INTO THE CURB. THE LETTERS FOR SEWER SERVICES AND THE LETTER MH FOR MANHOLE. PAINTING OF SUCH LETTERING SHALL NOT BE AN ACCPETED SUBSTITUTE.
 - THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING "AS-BUILT" PLANS TO THE ENGINEER SHOWING THE LOCATION OF SEWER SERVICES. THIS INFORMATION WILL BE PLACED ON THE ENGINEERING PLANS AND MARKED "AS-BUILT" BY THE DESIGN ENGINEER. COPIES OF THESE "AS-BUILT" PLANS WILL BE FURNISHED TO THE CITY. TIES WILL BE MADE BY DISTANCE MEASUREMENTS FROM BOTH LOT LINES FOR ALL MANHOLES. CLEANOUTS AND SERVICES.
 - ALL SANITARY SEWER LINES AND MANHOLES WILL BE TESTED FOR INFILTRATION AND EXFILTRATION BY THE LOW PRESSURE AIR TEST METHOD IN ACCORDANCE WITH THE TCEQ CURRE SPECIFICATIONS.
 - ALL SEWER PIPES WILL BE INSTALLED WITH A RED PLASTIC IDENTIFICATION TAPE MARKED "SEWER" LAID 2' ABOVE THE PIPE.
- 10.A LOW PRESSURE AIR TEST WILL BE PREFORMED ON ALL INSTALLED SECTIONS OF SEWER MAINS. SUCCESSFUL AIR TESTS WILL BE MANDATORY TO PROVE ACCEPTABILITY OF THE SEWER LINES.
- 11.ALL NEW SANITARY SEWER MAINS WILL REQUIRE MANDREL TESTS IN ACCORDANCE WITH TCEQ REQUIREMENTS.
- 12.MANHOLES ARE TO BE INSTALLED WITH A DUCTILE IRON HINGED RING AND WATER TIGHT COVER GASKET TYPE TO PREVENT INFILTRATION WITH AND LOCKING DEVICE PAM-REX BRAND OR APPROVED EQUAL WITH THE WORDING SANITARTY SEWER FORGED INTO THE LID.
- 13.THE CONTRACTOR SHALL CENTER A 20 FOOT JOINT OF PRESSURE RATED PVC SANITARY SEWER PIPE AT ALL WATER LINE CROSSINGS. EMBED SANITARY SEWER LINE IN CEMENT STABILIZED SAND IN ACCORDANCE WITH TCEQ REGULATIONS CHAPTER 290, PAGE 43. THE PRESSURE RATED PIPE SHALL BE ASTM 2241 SDR-26 OR APPROVED EQUAL.
- 14.A LIST OF APPROVED SANITARY SEWER UTILITY MATERIALS AND APPROVAL OF ALTERNATE MATERIALS MUST BE OBTAINED FROM THE CITY WATER AND SEWER SUPERINTENDENT PRIOR TO BEGINNING OF CONSTRUCTION.
- 15.FOR FINAL ACCEPTANCE, THE CITY WILL REQUIRE VIDEO INSPECTION OF ALL SANITARY SEWER MAINS. A COPY OF THE RESULTS MUST BE PROVIDED TO THE CITY ON A CD ROM OR DVD DISC. VHS TAPES WILL NOT BE ACCEPTED.

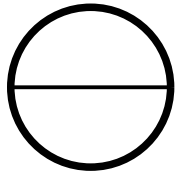
STORM SEWER

- ALL WORK AND MATERIALS WILL BE IN ACCORDANCE WITH CITY OF LANCASTER STANDARD SPECIFICATIONS,STORM WATER DESIGN MANUAL AND ORDINANCE AND GENERAL DESIGN MANUAL. IN THE EVENT AN ITEM IS NOT COVERED IN THE CITY OF LANCASTER SPECIFICATIONS AND DETAILS, THEN THE CITY ENGINEER SHALL MAKE THE FINAL DECISION ON MATERIALS, METHODS OF INSTALLATION AND PROCEDURES.
- INLET INSTALLATION; THE FLOOR OF THE EXCAVATION FOR THE INLET BOX MUST PROVIDE A FIRM, LEVEL BED FOR THE BASE SECTION TO REST UPON. USE A MINIMUM OF 6" DEPTH OF 1" DIAMETER (MAXIMUM) ROCK OR GRAVEL TO PREPARE THE INLET BEDDING TO FINAL GRADE. WHEN INSTALLING INLET WITH WET SOIL CONDITIONS, USE CEMENT STABILIZED-SAND AND ALLOW IT TO SET UP BY KEEPING HOLE PUMPED DRY.
 - AFTER PIPE HAS BEEN LAID ON PROPER BEDDING, BACKFILL WITH 8" MAXIMUM LOOSE LIFTS MECHANICALLY COMPACTED TO 95% STANDARD PROCTOR. MOISTURE CONTENT SHALL BE WITHIN 0 TO +4 OF OPTIMUM UNDER ROADWAY AND 12" MAXIMUM LOOSE LIFT BEHIND CURB. MAXIMUM SIZE ROCK IN BACKFILL SHALL NOT EXCEED 6" IN DIAMETER.
 - PRECAST INLETS AND HEADWALLS MUST BE APPROVED BY THE CITY ENGINEER.
 - CONCRETE FOR INLETS AND HEAD WALLS MUST BE A MINIMUM OF 4500 PSI.
 - CONNECTION OF THE STORM SEWER PIPE LATERALS TO INLETS SHALL BE MADE WITH PIPE THAT IS SMOOTH AND EVEN. IF THE PIPE HAS TO BE CUT THEN THE END OF THE PIPE SHALL BE EVENLY SAW CUT. CHIPPED OR BROKEN PIPE WILL BE REJECTED.
 - LOCKING DEVICE IS REQUIRED FOR ALL STORM SEWER LIDS.
 - THE WORDING "STORM WATER" SHALL BE FORGED INTO ALL INLET LIDS AND LETTERS SHALL BE A MINIMUM OF 2" IN HEIGHT.
 - EXISTING STORM SEWER PIPE AND/OR LATERALS SHALL BE LOCATED PRIOR TO CONSTRUCTION OF INLET BOXES. IF ADJUSTMENT IN GRADE OF LATERAL IS REQUIRED, A REVISED DESIGN BY THE ENGINEER OF RECORD SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
 - REINFORCED CONCRETE PIPE SHALL BE CLASS III MINIMUM OR APPROVED EQUAL, INSTALLED ON A CLASS B+ EMBEDMENT.
 - CONNECTIONS BETWEEN PIPE SIZE CHANGES SHALL BE MADE WITH ONLY PRE-CAST MANUFACTURED PIPE FITTINGS.
 - ALL TRANSITIONS AND BENDS MUST BE PRE-CAST MANUFACTURED.
 - ALL STORM SEWER PIPE SPIGOT AND BELL ENDS SHALL BE ASPHALT PRIMERED.
 - FOR FINAL ACCEPTANCE, THE CITY WILL REQUIRE VIDEO INSPECTION OF ALL STORM SEWER MAINS. A COPY OF THE RESULTS MUST BE PROVIDED TO THE CITY ON A CD ROM OR DVD DISC. VHS TAPES WILL NOT BE ACCEPTED.
 - ALL INLETS SHALL HAVE MS-4 DRAIN TILE MARKERS. FOR DETAIL, CONTACT CITY INSPECTOR.
 - NO TRACKING OF MUD FROM CONSTRUCTION SITE IS ALLOWED. THE MUD TRACKED SHALL BE CLEANED IMMEDIATELY.
- PAVING
- ALL WORK AND MATERIALS WILL BE IN ACCORDANCE WITH CITY OF LANCASTER STANDARD SPECIFICATIONS AND GENERAL DESIGN STANDARDS. IN THE EVENT AN ITEM IS NOT COVERED IN THE CITY OF LANCASTER SPECIFICATIONS AND DETAILS, THEN THE CITY ENGINEER SHALL MAKE THE FINAL DECISION ON MATERIALS, METHODS OF INSTALLATION AND PROCEDURES.
- CONCRETE FOR ALL STREETS AND ALLEYS SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE NCTCOG, FOR 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS OR AS SHOWN IN THE PLANS.
 - REINFORCEMENT SHALL IN ACCORDANCE WITH CITY PAVING DETAILS.
 - ALL REINFORCEMENT STEEL SHALL BE 100% TIED, WITH NO SKIP TIES. REINFORCING STEEL SHALL BE SET ON CHAIRS. THE CHAIRS SHALL BE PLACED UNFORMLY AT EVERY OTHER BAR. BAR LAPS SHALL BE EXTENDED TO A MINIMUM OVERLAP OF 18 INCHES.
 - ALL STREETS AND ALLEYS SHALL HAVE EXPANSION JOINTS INSTALLED AT 200 FT. INTERVALS AND AT ALL INTERSECTIONS OR AS MAY BE SHOWN ON THE PLANS. THE EXPANSION JOINTS SHALL BE INSTALLED AT ALL RADIUS RETURNS.
 - SAWED TRANSVERSE DUMMY JOINTS SHALL BE PLACED IN PAVEMENT EVERY 20'. SAWING OF PAVEMENT SHALL OCCUR WITHIN 5 TO 12 HOURS AFTER CURING AND SEALING. OTHERWISE, THE SECTION SHALL BE REMOVED AND A LONGITUDINAL BUTT JOINT CONSTRUCTED.
 - ALL STREETS, ALLEYS, AND FIRE LANES REQUIRE A COMPACTED LIME STABILIZED SUBGRADE TO A DISTANCE OF 12 INCHES BEYOND THE BACK OF CURB OR EDGE OF PAVEMENT. ONLY HYDRATED LIME SHALL BE UTILIZED. OPTIMUM LIME SHALL BE APPLIED. OPTIMUM LIME APPLICATION RATE SHALL BE DETERMINED BY A LIME SERIES TEST TO REDUCE THE PLASTICITY INDEX (PI) TO 15 OR LESS AS CONDUCTED BY A CITY APPROVED TESTING LABORATORY. THE CITY WILL ADD 1% FOR FIELD VARIATION. LIME SERIES TEST SHALL BE TAKEN ALONG THE EXCAVATION AT ALL CHANGES IN SOIL OR AT A MAXIMUM OF 300 FEET BETWEEN SAMPLE SPOTS. THE LIME TREATED SUBGRADE SHALL BE COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D698. MOISTURE CONTENT SHALL BE WITHIN 0 TO +4 OF OPTIMUM. DENSITY TEST RESULTS SHALL BE COMPLETED BY AN INDEPENDENT LABORATORY APPROVED BY THE CITY AT THE CONTRACTOR'S EXPENSE. A COPY OF ALL RESULTS SHALL BE GIVEN TO THE CITY INSPECTOR. SULFATE TESTS SHALL ALSO BE CONDUCTED AT THE DISCRETION OF THE CITY.DURING POURING OF CONCRETE, LAB MUST BE PRESENT.
 - LIME TRIMMINGS ARE NOT ACCEPTABLE FOR ANY USE. FILL IN OR LEVEL UP IS TO BE COMPLETED WITH FLOWABLE FILL (MIN. 2000 PSI). NO ROCKS LARGER THAN 6" IN ANY DIRECTION.
 - ALL FILL SHALL BE COMPACTED BY MECHANICAL METHODS. MAXIMUM LOOSE LIFT FOR COMPACTION SHALL BE 8 INCHES. ALL LIFTS SHALL BE TESTED FOR DENSITY BY AN INDEPENDENT LABORATORY APPROVED BY THE CITY AT THE CONTRACTOR'S EXPENSE. DENSITY REQUIREMENT SHALL BE AS SHOWN ON THE PLANS FOR THE TYPE OF MATERIAL CALLED FOR ON THE PLANS.
 - ALL DISTURBED AREAS OF ROADWAY WORK SHALL HAVE GRASS ESTABLISHED IMMEDIATELY.

10. ALL AREAS TO BE EXCAVATED OR FILLED SHALL HAVE EROSION CONTROL PLACED PRIOR TO COMMENCING ANY WORK. EROSION CONTROL DEVICES SHALL BE MAINTAINED THROUGHOUT THE PROJECT.
11. ALL SIDEWALKS SHALL INCLUDE BARRIER-FREE RAMPS AT INTERSECTING STREETS, ALLEYS, DRIVEWAYS, ETC. BARRIER-FREE RAMPS SHALL MEET CURRENT TAS AND ADA ACCESSIBILITY GUIDELINE REQUIREMENTS.
12. SIDEWALKS SHALL BE DOWELED INTO PAVEMENT WHERE IT ABUTS ANY PAVEMENT. EXPANSION JOINT MATERIAL SHALL BE USED AT THESE LOCATIONS. STEEL FOR SIDEWALKS SHALL BE NUMBER 3 BARS PLACED PER THE DETAIL SHEET 100 PERCENT TIED. PLASTIC CHAIRS WILL BE PLACED UNIFROMLY AT EVERY OTHER BAR . CONCRETE SHALL BE 3,000 PSI AT 28 DAYS COMPRESSIVE STRENGTH.
13. TEST CYLINDERS: 1 SET OF 4 EVERY 80 TO 100 CY POURED, BUT NO LESS THAN 1 SET PER POUR OR PER DAY @ 7 DAYS, 2 @ 28 DAYS AND HOLD ONE. 56 DAY BREAKS ARE NOT ACCEPTABLE. MINIMUM 28 DAY DESIGN STRENGTH FOR ALL STREETS, ALLEYS, AND FIRE LANES IS 4000 PSI. IF 28 DAY STRENGTH IS NOT ATTAINED, THE LABORATORY NEEDS TO SCHEDULE CORES TO PROVE OUT THE DEFICIENT SECTION NO MORE THAN 2 DAYS BEYOND 28. AS A MINIMUM, ALL REPORTS SHALL INDICATE UNIT WEIGHT, AIR CONTENT, SLUMP, AND AMBIENT/CONCRETE TEMPERATURES. FOR ANY FAILED PARAMETER FOR STREETS, ALLEYS, AND FIRE LANES,THE CITY ENGINEER OR FIRE MARSHALL SHALL DETERMINE IF THE PAVEMENT NEEDS TO BE CORED FOR DEPTH CHECKS EVERY 300 LF. LT-CNTR-RT. THERE IS A MINIMUM OF ONE QUARTER INCH TOLERANCE FOR ALL CONCRETE DEPTHS. ANYTHING MORE THAN ONE QUARTER INCH SHY WILL BE REMOVED AND REPLACED ACCORDING TO CITY CRITERIA.
14. ALL SUB-GRADE TESTING (INCLUDES FIRE LANES) GRADATIONS/PULVERIZATIONS SHALL BE TAKEN EVERY 300 LF. AND PI'S EVERY 300 LF. DENSITIES (95%, 0 TO +4% OF OPTIMUM MOISTURE) EVERY 300 LF. LT-CNTR-RT. GRAB SAMPLES WILL NEED TO BE TESTED FOR P.I.'S AT EACH GRADATION CHECK TO MAKE SURE SUFFICIENT LIME WAS INSTALLED. LIME DEPTH CHECKS EVERY 300 LF. LT-CNTR-RT OR WHEN THE SOIL CHANGES COMPOSITION.
15. ALL DENSITY CONTROL SHALL BE RECEIVED, REVIEWED, AND APPROVED BY THE CITY PRIOR TO ANY SUBGRADE WORK. DENSITY REPORTS ARE ONLY GOOD FOR 48 HOURS AFTER TAKEN OR RIGHT BEFORE A RAIN. 2 BATCH DESIGNS REQUIRED, ONE EACH FOR MACHINE AND HAND POURS.

SPECIAL DETAILS OR MODIFICATIONS TO THESE STANDARD DETAILS TO BE UTILIZED ON ANY GIVEN PROJECT SHALL BE SUBMITTED TO THE CITY FOR APPROVAL FOR USE.

CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.



STANDARD GENERAL NOTES & TESTING REQUIRMENTS FOR WASTER, WASTEWATER, STORM SEWER AND PAVEMENT CONSTRUCTION						
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	GN-02	2 OF 53

THIS INFORMATION IS AN EXPLANATION OF BASIC TESTING PROCEDURES AND IS MEANT TO BE USED IN CONJUNCTION WITH THE CITY OF LANCASTER STANDARD CONSTRUCTION DETAILS AND THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, FOURTH EDITION

TESTING OF MATERIALS:

- THE CONTRACTOR WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PUBLIC AND PRIVATE PROJECTS WITHIN THE CITY R.O.W. AND EASEMENTS UNLESS SPECIFIED OTHERWISE. ALL FINAL REPORTS SHALL BE TURNED IN TO THE INSPECTOR AND CONTRACTOR WITHIN FIVE WORKING DAYS. FIELD COPIES MUST BE SUBMITTED TO THE INSPECTOR AND CONTRACTOR UPON COMPLETION OF THE TESTING AND PRIOR TO LEAVING THE JOB SITE. FAILED SAMPLES MUST BE REPORTED TO THE CITY INSPECTOR AND CONTRACTOR IMMEDIATELY.
- PRIVATE DEVELOPMENT PROJECTS: THE DEVELOPER/OWNER SHALL PROVIDE TESTING FOR ALL PROJECT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION COMMENCING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE CITY’S APPROVED TESTING FIRM AND THE CITY’S INSPECTOR AT LEAST 24 HOURS PRIOR TO ANY REQUIRED TESTING.
- THE CONTRACTOR SHALL COORDINATE ALL TESTING ACTIVITIES WITH THE CITY AND ITS INSPECTOR AND SHALL FACILITATE REQUIRED TESTING THROUGHOUT THE CONSTRUCTION PERIOD. THE INSPECTOR SHALL BE PRESENT DURING ALL TESTING. ALL PIPE, FITTINGS, AND OTHER CONSTRUCTION MATERIALS SHALL BE INSPECTED FOR DEFECTS AND CONFORMANCE TO CITY OF LANCASTER STANDARDS PRIOR TO PLACEMENT.
- ALL TESTING RESULTS WILL BE SUBMITTED TO THE CONTRACTOR AND INSPECTOR WITHIN FIVE WORKING DAYS OF TESTING.
- THE CITY SHALL MAKE FINAL DECISION AS TO THE VALIDITY OF ALL

TESTING RESULTS.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT MATERIALS TO BE TESTED ARE IN COMPLIANCE WITH ALL PLANS AND SPECIFICATIONS PRIOR TO TESTING. ALL MATERIALS FOUND NOT TO BE IN COMPLIANCE WITH THE PLANS AND SPECIFICATIONS BEFORE AND AFTER TESTING SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR’S EXPENSE.
- ALL COSTS ASSOCIATED WITH THE RETESTING OF WORK THAT FAILS TO MEET THE SPECIFICATIONS REQUIRED IN THE CONTRACT DOCUMENTS SHALL BE BORNE BY THE CONTRACTOR THROUGH THE DEVELOPER/CITY. FOR CITY PROJECTS RETESTING COST SHALL BE WITHHELD FROM PAY REQUESTS SUBMITTED BY THE CONTRACTOR. THIS COST WILL BE BASED ON THE CITY’S COST WITH NO ADDITIONAL MARK-UP. A LETTER OF ACCEPTANCE WILL NOT BE ISSUED UNTIL ALL TESTING DEFICIENCIES ARE ADDRESSED AND ALL RELATED COST PAID.

MATERIALS TESTING POLICIES:

- INSPECTOR AND TESTING FIRM MUST BE NOTIFIED 24 HOURS PRIOR TO ANY REQUIRED TESTING. FAILURE TO NOTIFY INSPECTOR AND TESTING FIRM MAY RESULT IN REJECTION OF THE WORK AND THE REMOVAL AND REPLACEMENT OF THE MATERIAL. INSPECTOR SHALL BE PRESENT DURING ALL TESTING. ALL PIPE, FITTINGS, AND OTHER CONSTRUCTION MATERIALS SHALL BE INSPECTED FOR DEFECTS AND CONFORMANCE TO CITY OF LANCASTER STANDARDS PRIOR TO PLACEMENT.
- THE CONTRACTOR MAKING ANY CONNECTION, EXTENSION OR MODIFICATION TO A PUBLIC UTILITY (WATER, WASTEWATER, OR STORM DRAIN), SHALL ALSO BE RESPONSIBLE FOR THE COMPACTION OF THE UTILITY TRENCH BACKFILL WITHIN THE EASEMENT OR RIGHT-OF-WAY. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE REPLACEMENT OF ANY PAVING THAT IS REMOVED TO MAKE ANY CONNECTION, EXTENSION OR MODIFICATION TO SAID PUBLIC UTILITY.

SECTION 1: SANITARY SEWER MAINS

BACKFILL AND DENSITY TESTING

- ALL TRENCHES SHALL BE BACKFILLED IN ACCORDANCE WITH SECTION 7 MECHANICAL TAMPING (ON THIS SHEET) MECHANICALLY COMPACTED WITH APPROVED VIBRATORY METHODS IN ACCORDANCE WITH NCTCOG SPECIFICATIONS ITEM 504.5.3.2.1 UNLESS OTHERWISE STATED ON THE PLANS OR IN THE SPECIFICATIONS.
- DENSITIES SHALL CONFORM TO SECTION 7 AND NCTCOG SPECIFICATIONS ITEM 504.5.3.2.1, UNLESS OTHERWISE STATED ON THE PLANS OR IN THE SPECIFICATIONS. PROCTOR SAMPLES SHALL BE TAKEN FOR ALL CLASSIFICATIONS OF SOIL ON SITE. ATTERBERG LIMITS SHALL BE DETERMINED ON ALL PROCTOR SAMPLES. DENSITIES SHALL BE IN ACCORDANCE WITH SECTION 7. NO "POTHOLING" OR "DIG-BACKS" WILL BE ALLOWED. DENSITIES SHALL BE TAKEN ON ALL SEWER SERVICES BOTH SIDES OF THE STREET WITHIN THE RIGHT-OF-WAY AND SHALL CONFORM TO SECTION 7 AND NCTCOG SPECIFICATIONS ITEM 504.5.3.2.1, UNLESS OTHERWISE STATED ON THE PLANS OR IN THE SPECIFICATIONS. BACKFILL ADJACENT TO ALL STRUCTURES SHALL BE COMPACTED MANUALLY AND DENSITY TESTED ON EVERY LIFT.

SEWER LINE INSPECTION AND TESTING:

- ALL SEWER LINES SHALL BE TESTED WITH A MANDREL FOR 5% DEFLECTION (MAX.) IN ACCORDANCE WITH NCTCOG SPECIFICATION, ITEM 507.5.1.4.1. INSPECTOR OR OTHER CITY REPRESENTATIVE MUST BE PRESENT. ALL SEWER LINES SHALL BE TESTED BY A LOW PRESSURE AIR TEST ACCORDING TO THE NCTCOG SPECIFICATIONS, ITEM 507.5.1.3. INSPECTOR OR OTHER CITY REPRESENTATIVE MUST BE PRESENT. ALL SEWER LINES SHALL BE TELEVISED AND PLACED ON DVD (DIGITAL VIDEO DISK). A COPY OF THE DVD AND T.V. REPORT SHALL BE SUBMITTED TO THE CITY PRIOR TO ANY PAVING ACTIVITIES SO FAILURES MAY BE IDENTIFIED AND REPAIRED ACCORDINGLY (NCTCOG SPECIFICATIONS ITEM 507.5.2). ALL SERVICES SHALL NOT BE "PANNED" MANDRELED, AIR TESTED, NOR T.V. INSPECTED UNTIL ALL UTILITIES ARE COMPLETE IN PLACE AND BACKFILLED.

MANHOLE CONSTRUCTION:

- A CONCRETE MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY PRIOR TO ANY PLACEMENT OF CONCRETE. SEE CITY OF LANCASTER STANDARD CONSTRUCTION DETAILS FOR CONCRETE REQUIREMENTS. SULFATE RESISTANT CONCRETE SHALL BE USED FOR ALL MANHOLES.
- INSPECTOR SHALL BE NOTIFIED OF CONCRETE PLACEMENT 24 HOURS IN ADVANCE FOR STEEL AND FORM INSPECTION.
- ONE SET OF FOUR CYLINDERS (2-7 DAY, 2-28 DAY) FOR CAST-IN-PLACE MANHOLES SHALL BE MADE FOR EVERY DAY CONCRETE IS PLACED (ASTM C-31). AIR, SLUMP, AND TEMPERATURE TESTS SHALL BE TAKEN FOR EVERY SET OF CYLINDERS MADE. CONCRETE WITH A TEMPERATURE ABOVE 95° F WILL BE REJECTED. ADDITIONAL CYLINDERS AND OR TESTS MAY BE REQUESTED AT THE INSPECTOR OR ENGINEER'S DISCRETION. EXTERIOR FORMS SHALL NOT BE REMOVED FOR A MINIMUM OF 24 HOURS UNLESS APPROVED BY INSPECTOR OR ENGINEER.
- NO BACKFILLING AROUND MANHOLES SHALL BE PERMITTED UNTIL AT LEAST 72 HOURS AFTER FORM REMOVAL.
- ALL BACKFILL AROUND MANHOLES AND OTHER STRUCTURES SHALL BE MANUALLY PERFORMED AND SOIL DENSITIES SHALL BE TAKEN AT EVERY LIFT (6-8") IN SPIRAL FASHION.
- MAXIMUM SIZE ROCK IN BACKFILL SHALL NOT EXCEED 6" IN DIAMETER.

SECTION 2: WATER MAINS

BACKFILL AND DENSITY TESTING

- ALL TRENCHES SHALL BE BACKFILLED IN ACCORDANCE WITH SECTION 7 (ON THIS SHEET) AND MECHANICALLY COMPACTED WITH APPROVED VIBRATORY METHODS (NCTCOG SPECIFICATIONS ITEM 504.5.3.2.1). DENSITIES SHALL CONFORM TO SECTION 7 AND NCTCOG SPECIFICATIONS ITEM 504.5.3.2.1, UNLESS OTHERWISE STATED ON THE PLANS OR IN THE SPECIFICATIONS. PROCTOR SAMPLES SHALL BE TAKEN FOR ALL CLASSIFICATIONS OF SOIL ON SITE. ATTERBERG LIMITS SHALL BE DETERMINED ON ALL PROCTOR SAMPLES.
- DENSITIES SHALL BE IN ACCORDANCE WITH SECTION 7. NO "POTHOLING" WILL BE ALLOWED. DENSITIES SHALL BE TAKEN ON ALL LONG SERVICES UNDER PAVEMENT AND SHALL CONFORM TO SECTION 7 AND NCTCOG SPECIFICATIONS ITEM 504.5.3.2.1, UNLESS OTHERWISE STATED ON THE PLANS OR IN THE SPECIFICATIONS. BACKFILL ADJACENT TO HYDRANTS, METER VAULTS, AND OTHER WATER RELATED STRUCTURES SHALL BE COMPACTED MANUALLY AND DENSITY TESTED ON EVERY LIFT.

WATER MAIN TESTING

- SAMPLE LOCATIONS SHALL BE DETERMINED BY INSPECTOR. (SAMPLES MAY ONLY BE TAKEN MONDAY THROUGH THURSDAY FROM 8 AM TO 12 PM). INSPECTION OF WATER SERVICES AND MAIN LINE VALVES WILL BE DONE AT PRELIMINARY AND FINAL WALK THROUGH TO ENSURE SERVICES ARE "HOT" AND VALVES ARE OPERATIONAL AND FULLY OPEN. THIS WILL BE DONE BY OPERATING EACH SERVICE BRIEFLY TO VERIFY WATER FLOW AND OPERATING EACH VALVE TO A CLOSED POSITION AND BACK TO THE FULL OPEN POSITION. INSPECTION OF FIRE HYDRANTS WILL ALSO BE DONE AT FINAL WALK-THROUGH. THE HYDRANT WILL BE OPERATED WITH ALL CAPS CLOSED TO DEMONSTRATE NO FLANGE SEAL LEAKAGE. THEN THE HYDRANT WILL BE OPERATED WITH ONE CAP REMOVED TO DEMONSTRATE EASE OF OPERATION, WATER FLOW, AND WEEP-HOLE PERFORMANCE.
- MAXIMUM SIZE ROCK IN BACKFILL SHALL NOT EXCEED 6" IN DIAMETER.

SECTION 3: STORM DRAINS

BACKFILL AND DENSITY TESTING

- ALL TRENCHES SHALL BE BACKFILLED IN ACCORDANCE WITH SECTION 7 (ON THIS SHEET) AND MECHANICALLY COMPACTED WITH APPROVED VIBRATORY METHODS (NCTCOG SPECIFICATIONS ITEM 504.5.3.2.1) UNLESS OTHERWISE STATED ON THE PLANS OR IN THE SPECIFICATIONS. DENSITIES SHALL CONFORM TO SECTION 7 AND NCTCOG SPECIFICATIONS ITEM 504.5.3.2.1 UNLESS OTHERWISE STATED ON THE PLANS OR IN THE SPECIFICATIONS. PROCTOR SAMPLES SHALL BE TAKEN FOR ALL CLASSIFICATIONS OF SOIL ON SITE. ATTERBERG LIMITS SHALL BE DETERMINED ON ALL PROCTOR SAMPLES. DENSITIES SHALL BE IN ACCORDANCE WITH SECTION 7. NO "POTHOLING" WILL BE ALLOWED. DENSITIES SHALL BE TAKEN ON EVERY LATERAL UNDER PAVEMENT AND SHALL CONFORM TO SECTION 7 AND NCTCOG SPECIFICATIONS ITEM 504.5.3.2.1 UNLESS OTHERWISE STATED ON THE PLANS OR IN THE SPECIFICATIONS. BACKFILL ADJACENT TO INLETS, HEADWALLS, JUNCTION BOXES, AND OTHER STRUCTURES SHALL BE COMPACTED MANUALLY AND DENSITY TESTED ON EVERY LIFT

CONNECTIONS

- BELL & SPIGOT ENDS SHALL BE PRIMER COATED. COLLARS, JUNCTIONS, WYES, AND DAMAGE REPAIRS WILL BE INSPECTED PRIOR TO CONCRETE PLACEMENT AND AGAIN PRIOR TO FINAL EMBEDMENT AND BACKFILL.

STRUCTURE CONSTRUCTION

- PRE-CAST MANHOLES OR INLETS SHALL BE PERMISSIBLE FOR PUBLIC STORM DRAIN. A CONCRETE MIX DESIGN MUST BE SUBMITTED AND APPROVED BY GEOTECH PRIOR TO ANY PLACEMENT OF CONCRETE. SEE CITY OF LANCASTER STANDARD CONSTRUCTION DETAILS FOR CONCRETE REQUIREMENTS. INSPECTOR SHALL BE NOTIFIED OF CONCRETE PLACEMENT 24 HOURS IN ADVANCE FOR STEEL AND FORM INSPECTION. ONE SET OF FOUR CYLINDERS (2-7 DAY, 2-28 DAY) SHALL BE MADE FOR EVERY DAY CONCRETE IS PLACED (ASTM C-31). AIR, SLUMP, AND TEMPERATURE TESTS SHALL BE TAKEN FOR EVERY SET OF CYLINDERS MADE. CONCRETE WITH A TEMPERATURE ABOVE 95° F WILL BE REJECTED. ADDITIONAL CYLINDERS AND OR TESTS MAY BE REQUESTED AT THE INSPECTOR OR ENGINEER'S DISCRETION. EXTERIOR FORMS SHALL NOT BE REMOVED FOR A MINIMUM OF 24 HOURS UNLESS APPROVED BY INSPECTOR OR ENGINEER.
- NO BACKFILLING ROUND STRUCTURES SHALL BE PERMITTED UNTIL AT LEAST 72 HOURS AFTER FORM REMOVAL.
- ALL STORM DRAIN LINES SHALL BE TELEVISED AND PLACE ON DVD (DIGITAL VIDEO DISK). A COPY OF THE DVD AND STATIONED REPORT SHALL BE SUBMITTED TO THE CITY PRIOR TO ANY PAVING ACTIVITIES SO FAILURES MAY BE IDENTIFIED AND REPAIRED ACCORDINGLY (NCTCOG SPECIFICATIONS ITEM 507.5.2).
- MAXIMUM SIZE ROCK IN BACKFILL SHALL NOT EXCEED 6" IN DIAMETER.

SECTION 4: STABILIZATION OF SUB-GRADE

SOIL CLASSIFICATION AND SAMPLING *

- SAMPLES SHALL BE TAKEN FOR ALL CLASSIFICATIONS OF SOILS ON SITE. TESTING FOR SULFATE PRESENCE AND LIME SERIES TESTS SHALL BE CONDUCTED FOR ALL SAMPLES PRIOR TO ANY STABILIZATION. SPECIFIC RECOMMENDATION SHALL BE MADE BY GEOTECHNICAL ENGINEER FOR SUBGRADE PREPARATION AND THICKER PAVEMENT SECTION TO BE APPROVED BY THE CITY IF SULFATE CONTENT IS GREATER THAN 2,000 PPM (PARTS PER MILLION) . WHERE LIME IS RECOMMENDED, LIME CONTENT SHALL BE 6% MINIMUM. FOR SOILS WITH A P.I. OF LESS THAN 10, A MINIMUM OF 5% PORTLAND CEMENT SHALL BE USED. ADDITIONAL GEOTECHNICAL TESTING AND RECOMMENDATIONS MAY BE REQUIRED BY CITY AS FIELD CONDITIONS DICTATE. ATTERBERG LIMITS SHALL BE DETERMINED ON ALL PROCTOR SAMPLES.
- LIME STABILIZED SUB-GRADE SHALL HAVE AN INITIAL CURE TIME OF NOT LESS THAN 72 HOURS PRIOR TO RE-MIXING ACCORDING TO NCTCOG SPEC. ITEM 301.2.3.5.1.

SUB-GRADE TESTING

- GRADATIONS FOR LIME TREATED SUB-GRADE SHALL BE TAKEN AT INTERVALS NOT EXCEEDING 300 FEET ALONG ROAD AND MUST PASS 100% THROUGH A 1 3/4" SIEVE AND 60% THROUGH A #4 SIEVE ACCORDING TO NCTCOG SPECIFICATIONSITEM 301.2.3.5.1.
- GRADATIONS FOR PORTLAND CEMENT TREATED SUB-GRADE SHALL BE TAKEN PRIOR TO PLACEMENT OF CEMENT AND AT INTERVALS NOT EXCEEDING 100 FEET ALONG ROAD AND MUST PASS 100% THROUGH A 1" SIEVE AND 80% THROUGH A #4 SIEVE ACCORDING TO NCTCOG SPECIFICATIONS(ITEM 301.3.3.2).
- LIME SUB-GRADE SHALL BE TESTED IN ACCORDANCE WITH NCTCOG SPECIFICATIONS(ITEM 301.2.1.3). TESTS WILL BE PERFORMED BY EXCAVATING DEEPER THAN LIME TREATMENT AND ADMINISTERING A PHENOLPHTHALEIN INDICATOR.
- DENSITIES SHALL BE TAKEN ON SUB-GRADE IN ACCORDANCE WITH SECTION 7 MECHANICAL TAMPING AND IN ACCORDANCE WITH (NCTCOG SPECIFICATIONS ITEM 301.2.3.6) UNLESS OTHERWISE STATED ON THE PLANS OR IN THE SPECIFICATIONS.
- ALL SUB-GRADE SHALL BE VISUALLY 'PROOF ROLLED' AFTER IT IS TRIMMED AND PRIOR TO PLACEMENT OF STEEL.
- DENSITIES SHALL BE TAKEN WITHIN 48 HOURS OF CONCRETE PLACEMENT (NCTCOG SPECIFICATIONS ITEM 303.5.1). IF MORE THAN 48 HOURS ELAPSE, DENSITIES MUST BE RETAKEN UNLESS AN APPROVED EMULSION SEALANT IS USED (NCTCOG SPECIFICATIONS ITEM 302.3.5).

- LOCATIONS FOR DENSITIES, GRADATIONS, AND DEPTH CHECKS SHALL BE AT THE DISCRETION OF THE INSPECTOR AND SHALL BE REPRESENTATIVE OF THE ENTIRE CROSS SECTION OF THE SUB-GRADE.
- SUB-GRADE FAILURES SHALL BE DEFINED BY INSPECTOR OR ENGINEER. REPAIR METHOD WILL BE DISCUSSED WITH INSPECTOR OR ENGINEER AND APPROVED PRIOR TO BEGINNING REPAIR WORK.
- AT ALL TESTING LOCATION INTERVALS, MULTIPLE TESTS MAY BE REQUIRED ACROSS WIDTH OF RIGHT-OF-WAY.
- FOR EMULSION PLACEMENT OVER SUB-GRADE PLEASE REFER TO NCTCOG SPECIFICATIONS ITEM 302.3.5

SECTION 5: CONCRETE PAVEMENT (NCTCOG SECTION-303)

MATERIALS AND BATCH DESIGN SUBMITTED FOR APPROVAL:

- THE CONTRACTOR SHALL SUBMIT FOR THE APPROVAL OF THE ENGINEER, PRIOR TO COMMENCING WORK, CONCRETE BATCH DESIGN MIXES TO BE USED IN ALL STRUCTURAL CONCRETE, SHOWING BY WEIGHT AND PROPORTION EACH OF CEMENT, FLYASH, ADMIXTURE, FINE AGGREGATE, AND COURSE AGGREGATE AND WATER TO OBTAIN A CONCRETE OF PROPER CONSISTENCY, DENSITY AND WORKABILITY. TESTING INFORMATION SHALL BE PROVIDED TO CONFIRM THE MIX DESIGN IS CAPABLE OF PRODUCING CONCRETE IN COMPLIANCE WITH THE PLANS AND SPECIFICATIONS. NO NATIVE/NATURAL STONE, RIVER ROCK/PEA GRAVEL SHALL BE ALLOWED. FINE AGGREGATE IE. (SAND) SHALL BE NATURAL SAND. NO BLEND WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE ENGINEER. NO MORE THAN 20% MANUFACTURED SAND BLEND WILL BE ALLOWED UNDER ANY CIRCUMSTANCE.
- CONCRETE TESTING
 - CONCRETE MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY PRIOR TO ANY PLACEMENT OF CONCRETE. SEE CITY OF LANCASTER STANDARD CONSTRUCTION DETAILS FOR CONCRETE REQUIREMENTS. INSPECTOR SHALL BE NOTIFIED OF CONCRETE PLACEMENT 24 HOURS IN ADVANCE FOR STEEL AND FORM INSPECTION. A MINIMUM OF FOUR TEST CYLINDERS SHALL BE OBTAINED PER ONE HUNDRED CUBIC YARD OF CONCRETE PRODUCTION; TESTS SHALL ALSO INCLUDE SLUMP, AIR CONTENTS AND TEMPERATURE OF CONCRETE MIXTURE; EACH MIX DESIGN OF CONCRETE PLACED EACH DAY SHALL ALSO BE TESTED. CONCRETE STRENGTH SHALL BE TESTED AT 7 DAYS (2 CYLINDERS) AND 28 DAYS (2 CYLINDERS). ADDITIONAL CYLINDERS AND OR TESTS MAY BE REQUESTED AT THE INSPECTOR OR ENGINEER’S DISCRETION.

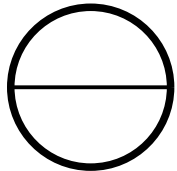
HOT WEATHER CONCRETE PLACEMENT

- CONCRETE WITH A TEMPERATURE OF 85° OR HIGHER WILL REQUIRE A RETARDING AGENT ADMIXTURE. THE MAXIMUM TEMPERATURE OF CONCRETE AT THE TIME OF PLACEMENT SHALL NOT EXCEED 95°. IT SHALL BE THE CONTRACTOR AND/OR HIS SUPPLIERS’S RESPONSIBILITY TO TAKE STEPS TO CONTROL THE TEMPERATURE OF CONCRETE. ALL CONCRETE THAT EXCEEDS THE TEMPERATURE LIMIT OF 95° WILL BE REJECTED.
- STAMP OR DIE PROJECT PAVING LIMITS INCLUDING ALL STREET INTERSECTIONS TO N.C.T.C.O.G. ITEM. 303.5.6.1.3.

SECTION 6: CURE TIME, CORES, & FORM REMOVAL

- FORMS SHALL NOT BE REMOVED FROM PAVEMENT, SIDEWALKS, RAMPS, OR RETAINING WALLS FOR 24 HOURS MINIMUM, AND SHALL NOT BE BACKFILLED LESS THAN 72 HOURS AFTER CONCRETE PLACEMENT. PAVEMENT SHALL HAVE A MINIMUM CURE TIME OF 7 DAYS, BUT MAY BE OPENED TO TRAFFIC EARLIER AT THE DISCRETION OF THE INSPECTOR OR ENGINEER ONLY AFTER REVIEW OF COMPRESSIVE STRENGTH DATA. TEMPORARY PERPENDICULAR CROSSINGS MAY BE MADE AFTER 72 HOURS BY RAMPING SOIL OVER THE NEW PAVEMENT AT A DEPTH OF NOT LESS THAN 18" AND A WIDTH OF NOT LESS THAN 10'. PRIOR TO GROUT WIPING ANY CONCRETE, CONTRACTOR SHALL DEMONSTRATE METHOD OF SURFACE PREPARATION TO ENSURE ADHESION OF GROUT. ALL STREET PAVEMENT SHALL BE CORED TO VERIFY PROPER PAVEMENT THICKNESS AND STRENGTH PRIOR TO ACCEPTANCE. CORES FOR STRENGTH AND DEPTH SHALL BE 4" DIAMETER AND TAKEN AT INTERVALS NOT EXCEEDING 600 FEET; CORES FOR DEPTH ONLY SHALL BE 2" DIAMETER AND SHALL BE TAKEN AT INTERMEDIATE INTERVALS NOT EXCEEDING 300'. LOCATIONS WILL BE APPROVED BY THE CITY. MULTIPLE CORES MAY BE REQUIRED AT EACH INTERVAL TO REPRESENT ENTIRE CROSS SECTION. ALL CORES SHALL BE TAKEN AT 28 DAYS AND RESULTS SHALL BE CORRELATED WITH THE CYLINDER TEST RESULTS. EVALUATION OF CORES WILL BE IN ACCORDANCE WITH NCTCOG SPECIFICATIONS(ITEM 303.8.2). ALL REQUIRED PAVEMENT REPLACEMENT SHALL BE IN FULL PANEL INCREMENTS.

CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.




STANDARD GENERAL NOTES &

TESTING REQUIRMENTS FOR

WASTER, WASTEWATER,

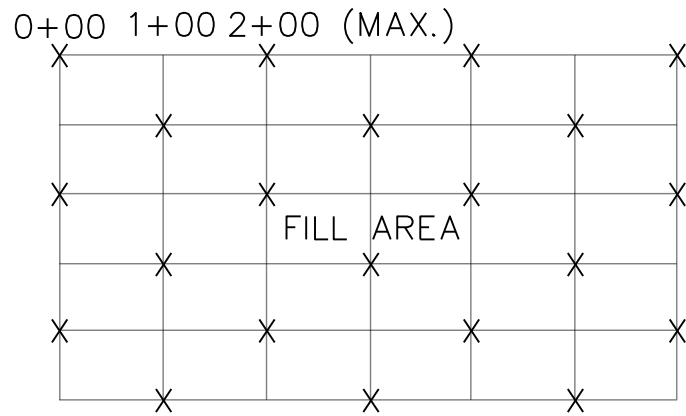
STORM SEWER AND PAVEMENT

CONSTRUCTION



DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
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- SECTION 7: MECHANICAL TAMPING OF BACKFILL
- ALL DITCH LINES AND BORE PITS SHALL BE MECHANICALLY TAMPED.
 - BACKFILL, OTHER THAN SELECT FILL, MAY CONSIST OF ONSITE OR OFFSITE INORGANIC SOILS AND SHOULD BE PLACED IN LOOSE LIFTS 6”–8” IN THICKNESS AND SHOULD BE MECHANICALLY COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY
 - AS DEFINED BY ASTM D–698 (STANDARD PROCTOR) PROCEDURES UNDER EXISTING AND PROPOSED PAVEMENT, AND TO 95 PERCENT STANDARD PROCTOR PROCEDURES ELSEWHERE. THE MOISTURE CONTENT OF THE FILL AT THE TIME OF COMPACTION SHALL BE BETWEEN 0 TO FOUR PERCENTAGE POINTS ABOVE THE PROCTOR OPTIMUM VALUE.
 - ALL BACKFILL MATERIAL TO BE SELECT NATIVE MATERIAL 6” DIAMETER CLODS AND SMALLER UNLESS DIRECTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS AND TO BE MECHANICALLY TAMPED AND DENSITY CONTROLLED AS DESCRIBED IN ITEM NO. B. ABOVE.
 - WATER JETTING IS NOT PERMITTED.
 - DENSITIES SHALL BE TAKEN EVERY ONE LIFT AT STAGGERED LOCATIONS NOT TO EXCEED 200 FEET INCREMENTS. OFFSET FIFTY FEET EVERY OTHER LIFT.
 - DENSITIES MAY BE TAKEN AT TYPICAL LOCATIONS AS SHOWN BELOW; ALSO DENSITIES WILL BE TAKEN AT RANDOM LOCATIONS AND AT THE GEO–TECHNICIAN’S DISCRETION.



(LEGEND: X DENOTES DENSITIES.)

- SOLUBLE SULFATE TESTS SHALL BE PERFORMED EVERY THREE HUNDRED LINEAR FEET AFTER UTILITY CONSTRUCTION HAS BEEN COMPLETED AND FINAL PAVEMENT SUB–GRADES HAVE BEEN ACHIEVED. SULFATE RESISTANT CONCRETE SHALL BE UTILIZED FOR ALL AREAS WHERE HIGH CONCENTRATIONS OF SOLUBLE SULFATES ARE PRESENT; SULFATE CONTENTS EXCEEDING 2000 PARTS PER MILLION (PPM) ARE CONSIDERED HIGH. SULFATE TESTING METHOD SHALL COMPLY WITH TXDOT’S TEST METHOD TEX145E.

SECTION 8: BATCH PLANT REQUIREMENTS WITHIN THE CITY LIMITS AND ETJ:

- THE CONTRACTOR SHALL COMPLY WITH THE CITY OF LANCASTER REQUIREMENTS:

PERMITS:
– PERMIT FOR TEMPORARY CONCRETE, ASPHALT OR ANY OTHER TYPE PLANT ESTABLISHED FOR MIXING MATERIALS FOR PAVING OR BUILDING MUST BE GRANTED BY THE CITY BUILDING INSPECTIONS.

SECTION 9: GENERAL:

- SOIL TESTING TECHNICIANS SHALL PROVIDE WRITTEN PROOF OF HAVING MINIMUM OF TWO YEARS OF RELATED FIELD EXPERIENCE.

HOT–MIX ASPHALT CONCRETE PAVEMENT
– SPECIFICATION SHALL FOLLOW ITEM 302 OF THE N.C.T.C.O.G. AND CONFORM TO THE TXDOT STANDARD FOR HOT–MIX ASPHALTIC CONCRETE.

- THE ASPHALTIC MIXTURE SHALL BE TESTED FOR OVEN BURN OFF/GRADATION AND STABILITY.

- A RELATIVE DENSITY OF NOT LESS THAN 92% WILL BE REQUIRED AFTER FINAL COMPACTION OF THE IN–PLACE PAVEMENT SECTION. THE CONTRACTOR SHALL SCHEDULE THE CMT LABORATORY TO COME OUT IN THE FIELD AND ESTABLISH A ROLLING PATTERN. THE USE OF NUCLEAR FIELD DENSITY DETERMINATIONS SHALL NOT BE ACCEPTED AS THE BASIS FOR ACCEPTANCE WITH RESPECT TO DENSITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT THE COMPACTION OF THE ASPHALTIC CONCRETE IN PLACE WILL ATTAIN BETWEEN FIVE AND NINE PERCENT AIR VOIDS. THE CONTRACTORS’ RESPONSIBILITY FOR THE REQUIRED COMPACTION INCLUDES THE SELECTION OF ROLLING EQUIPMENT AND SELECTION OF ROLLING PATTERNS TO ACHIEVE THE REQUIRED COMPACTION.

- HMAC MIX TEMPERATURE RANGE AT TIME OF PLACEMENT SHALL BE BETWEEN 260° AND 325°. THE ASPHALTIC MIXTURE SHALL NOT BE PLACED WHEN THE AIR TEMPERATURE IS BELOW 50°F BUT MAY BE PLACED WHEN THE AIR TEMPERATURE IS ABOVE 40°F AND RISING, THE TEMPERATURE BEING TAKEN IN THE SHADE AND AWAY FROM ARTIFICIAL HEAT.

- IN–PLACE COMPACTION CONTROL IS REQUIRED FOR ALL MIXTURES. ASPHALTIC CONCRETE SHOULD BE PLACED AND COMPACTED TO CONTAIN NOT MORE THAN NINE PERCENT NOR LESS THAN FIVE PERCENT AIR VOID UNLESS OTHERWISE INDICATED. THE PERCENT AIR VOIDS WILL BE CALIBRATED USING THE MAXIMUM THEORETICAL SPECIFIC GRAVITY OF THE MIXTURE DETERMINED ACCORDING TO TXDOT TEST METHOD TEX–227–F ROADWAY SPECIMEN, WHICH SHALL EITHER BE CORES OR SECTIONS OF PAVEMENT, WILL BE TESTED ACCORDING TO TXDOT TEST METHOD TEX–207F. THE SAME SPECIMEN SHALL BE USED TO DETERMINING BOTH THE THEORETICAL DENSITY AND FIELD DENSITY.

- PRIME COAT WILL FOLLOW N.C.T.C.O.G. SPECIFICATIONS 302.7 AND 302.9.6.1.

- TACK COAT WILL FOLLOW N.C.T.C.O.G. SPECIFICATION ITEM 302.9.6.2.

- HMAC MIX DESIGNS SHALL FOLLOW N.C.T.C.O.G. SPECIFICATION ITEM 302.9.3 AND THE GRADING TABLES INCLUDED IN THIS SECTION. THESE MIXTURES WILL BE IN ACCORDANCE WITH TXDOT TEST METHOD TEX–204–F, DESIGN OF BITUMINOUS MIXTURES.

FLOWABLE FILL SPECIFICATIONS
– COMPOSITION OF FLOWABLE FILL SHALL INCLUDE NATIVE SAND OR A BLEND OF NATIVE SAND/MANUFACTURED SAND, CEMENT AND FLY ASH WHICH WILL PRODUCE A MATERIAL WITH UNCONFINED COMPRESSIVE STRENGTH OF 250 TO 450 PSI AFTER TWENTY–EIGHT DAYS.

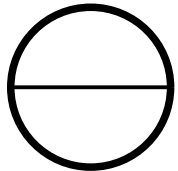
- FLOWABLE FILL MUST BE MIXED AT A CONCRETE BATCH PLANT OR A MOBILE TRANSIT AND SHALL HAVE A SLUMP OF FIVE TO EIGHT INCHES AND AN AIR CONTENT OF SIX TO TWENTY PERCENT. THE MIXTURE MUST BE ALLOWED TO SET PRIOR TO THE PLACEMENT OF ANY OVERLYING MATERIAL.

- THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A MIX DESIGN TO BE USED TEN DAYS PRIOR TO THE START OF THE BACKFILL OPERATION. CONTRACTOR SHALL ALSO SUPPLY THE PUBLIC WORKS INSPECTOR A COPY OF THE BATCH PLANT DELIVERY TICKET FOR EACH DELIVERED TRUCKLOAD.

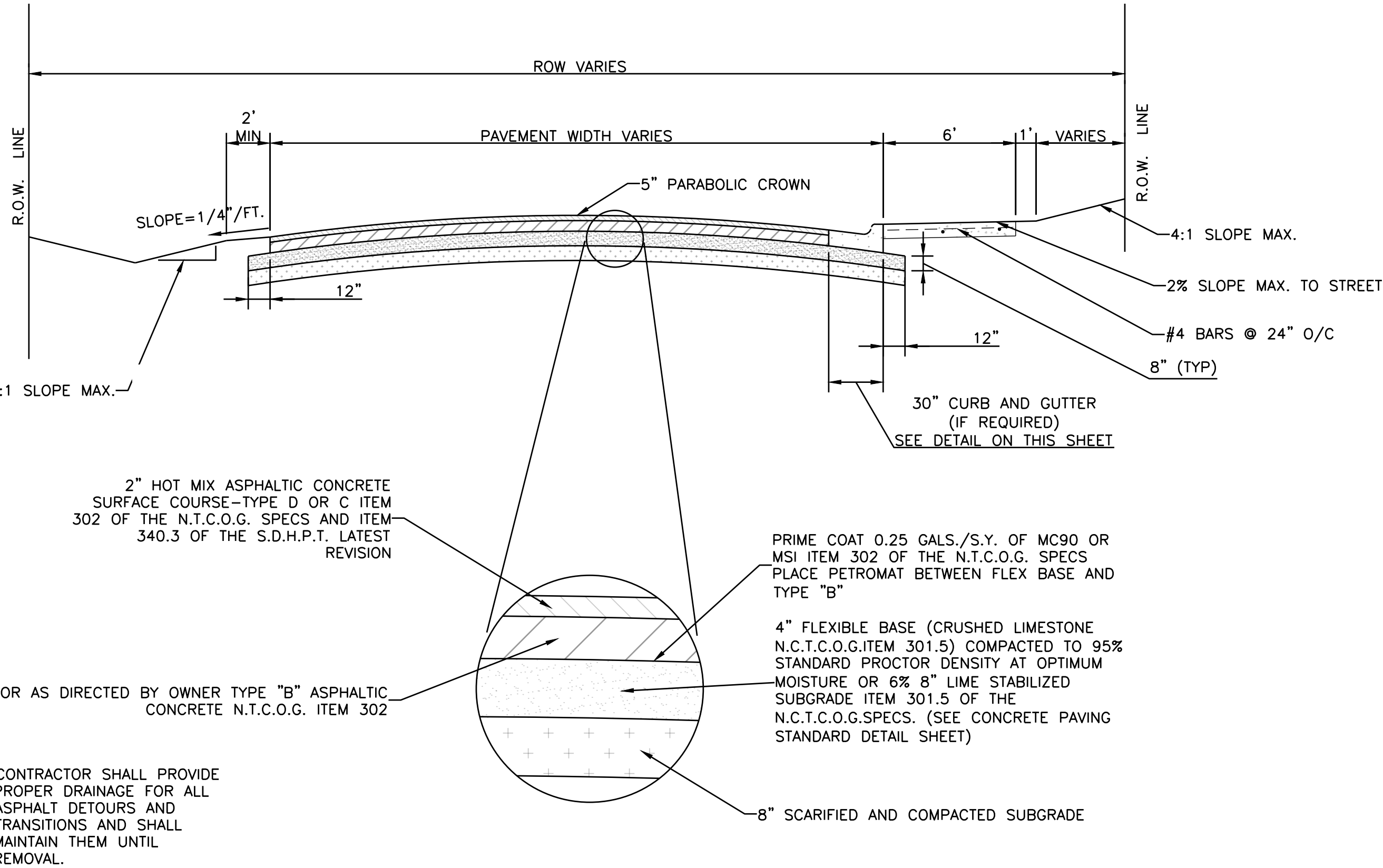
- THE CITY MAY EXERCISE THE OPTION OF TESTING THE MATERIAL AT RANDOM. IT SHALL BE THE OWNER/DEVELOPER’S RESPONSIBILITY FOR ANY COST ASSOCIATED WITH TESTING OF THE MATERIAL.

TESTING OF MANHOLES:
– ALL MANHOLES SHALL BE VACUUM TESTED. MANHOLES SHALL BE TESTED IN THE PRESENCE OF THE CITY’S REPRESENTATIVE. THE VACUUM TEST SHALL CONSIST OF APPLYING A VACUUM TO THE MANHOLE. EACH MANHOLE SHALL BE TESTED AFTER THE INSTALLATION HAS BEEN COMPLETED. ALL PIPES ENTERING THE MANHOLE SHALL BE PLUGGED, TAKING CARE TO SECURELY BRACE THE PLUG FROM BEING DRAWN INTO THE MANHOLE. THE TEST HEAD SHALL BE PLACED AT THE INSIDE OF THE MANHOLE COVER FRAME, THE SEAL INFLATED AND THE MANHOLE SHALL BE TESTED IN ACCORDANCE WITH THE FOLLOWING A VACUUM OF 10 INCHES OF MERCURY SHALL BE DRAWN AND THE VACUUM PUMP SHUT OFF. WITH THE VALVES CLOSED, THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP TO 9 INCHES OF MERCURY. THE MANHOLE SHALL PASS IF THE TIME IS GREATER THAN 120 SECONDS.

CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.

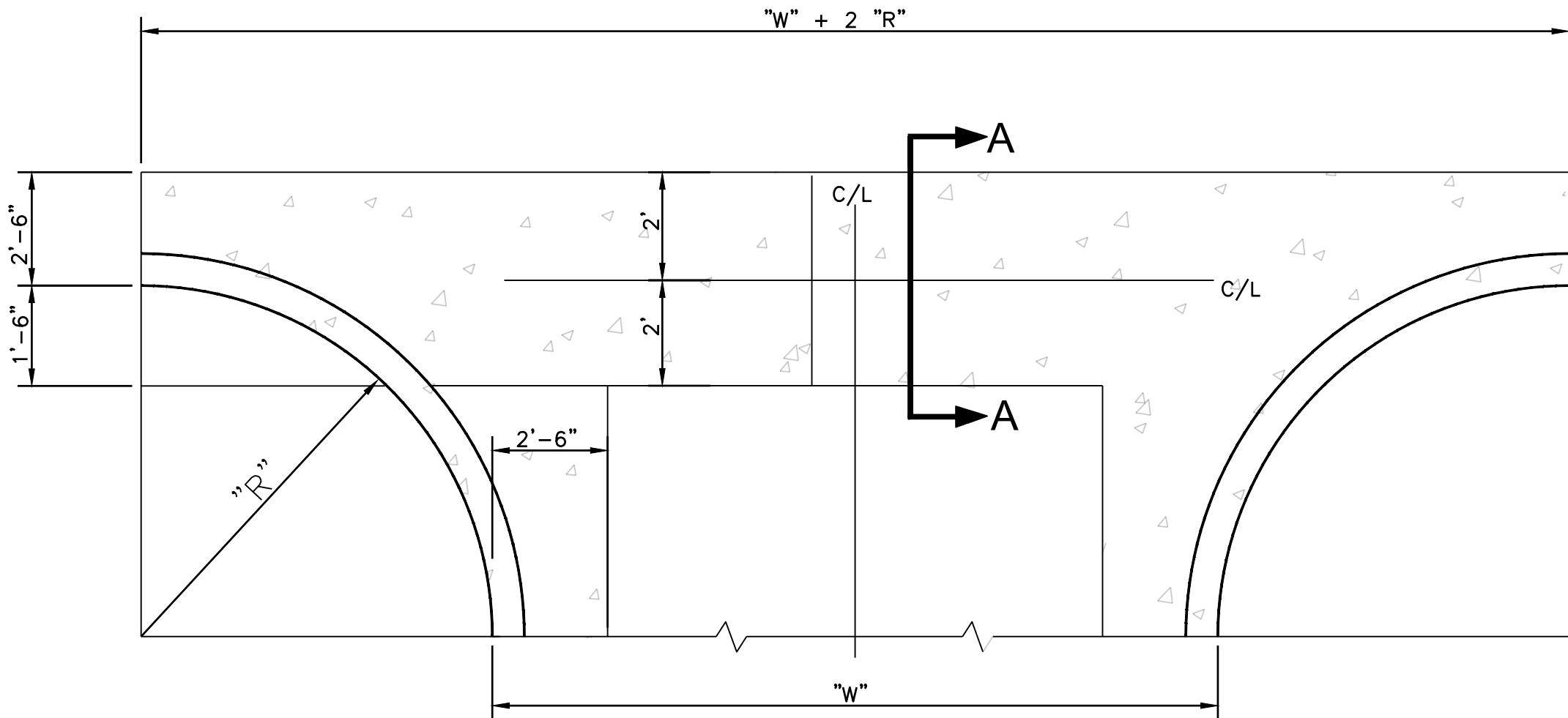


STANDARD GENERAL NOTES & TESTING REQUIRMENTS FOR WASTER, WASTEWATER, STORM SEWER AND PAVEMENT CONSTRUCTION						
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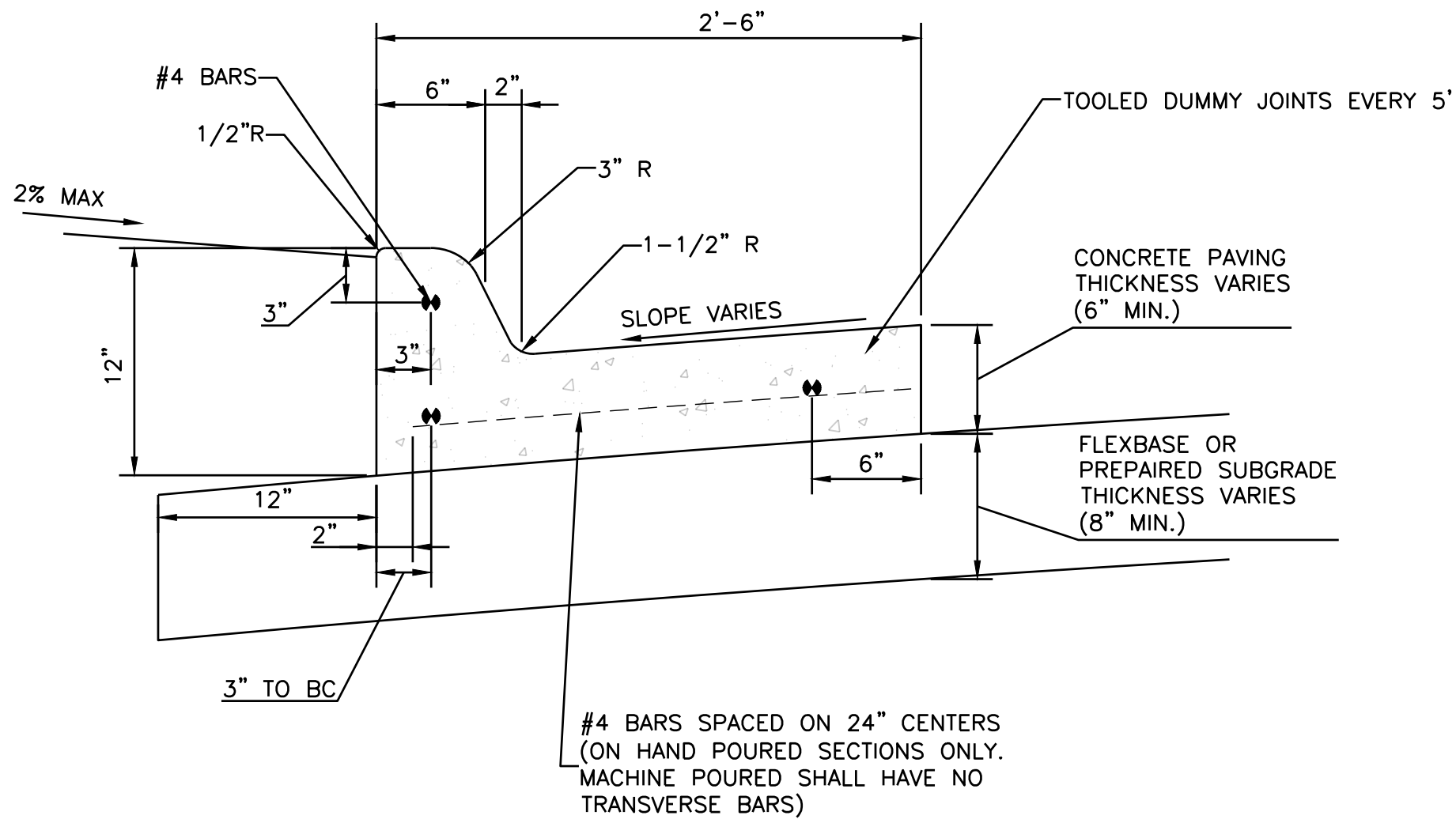
ASPHALT PAVEMENT CROSS SECTION

(FOR EXISTING ASPHALT ROADWAY EXTENSION
TEMPORARY DETOURS AND TRANSITIONS)
NOT TO SCALE

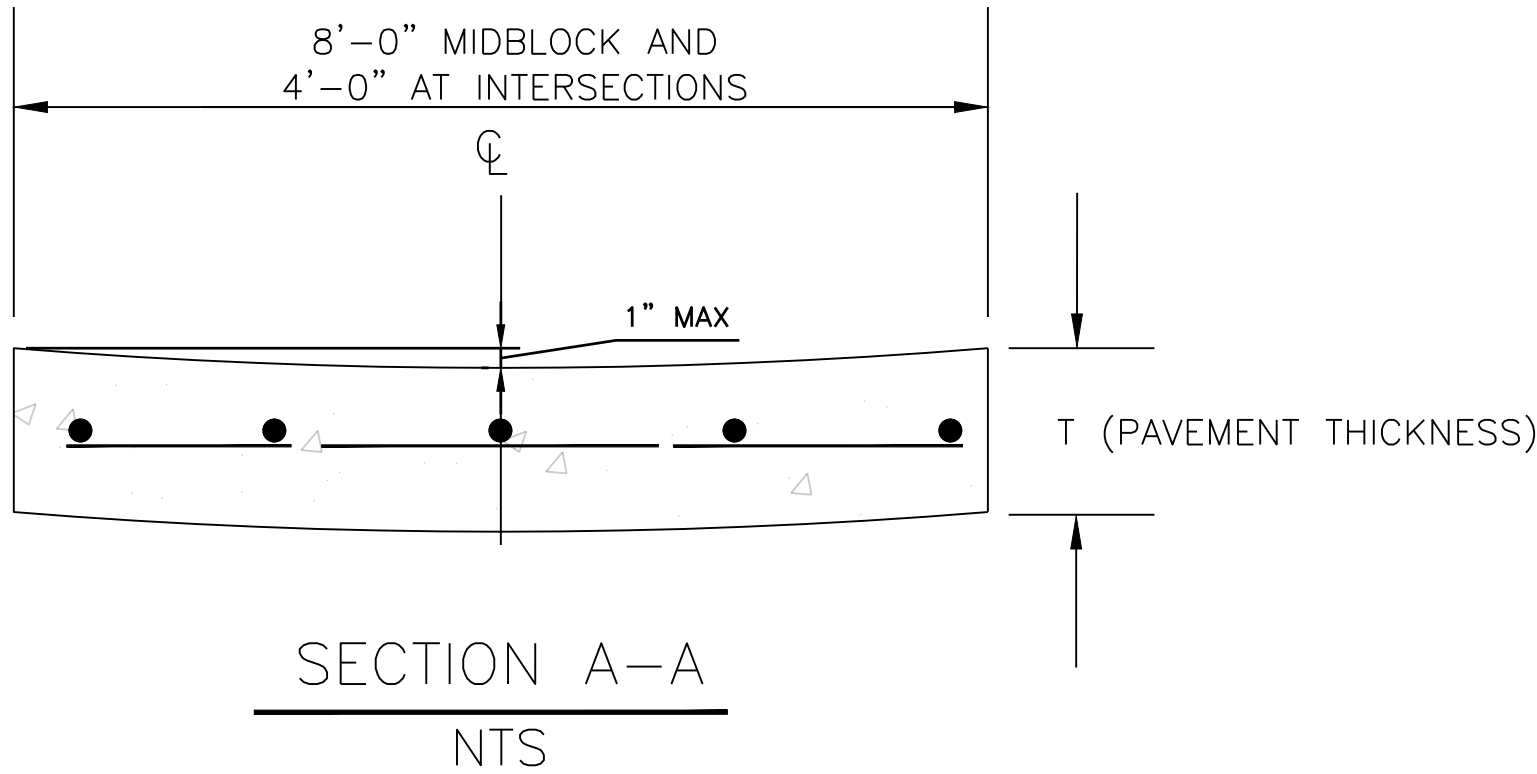


NOTE:
ALL CONCRETE FOR VALLEY GUTTER
SHALL BE CLASS "A" 4500 PSI
COMPRESSION STRENGTH. REINFORCING
STEEL SHALL BE NO. 4 BARS ON
12" CENTERS BOTH WAYS.

VALLEY GUTTER PLAN
NOT TO SCALE



6" MONOLITHIC CONCRETE CURB & GUTTER
NOT TO SCALE



VALLEY GUTTER SECTION
NOT TO SCALE

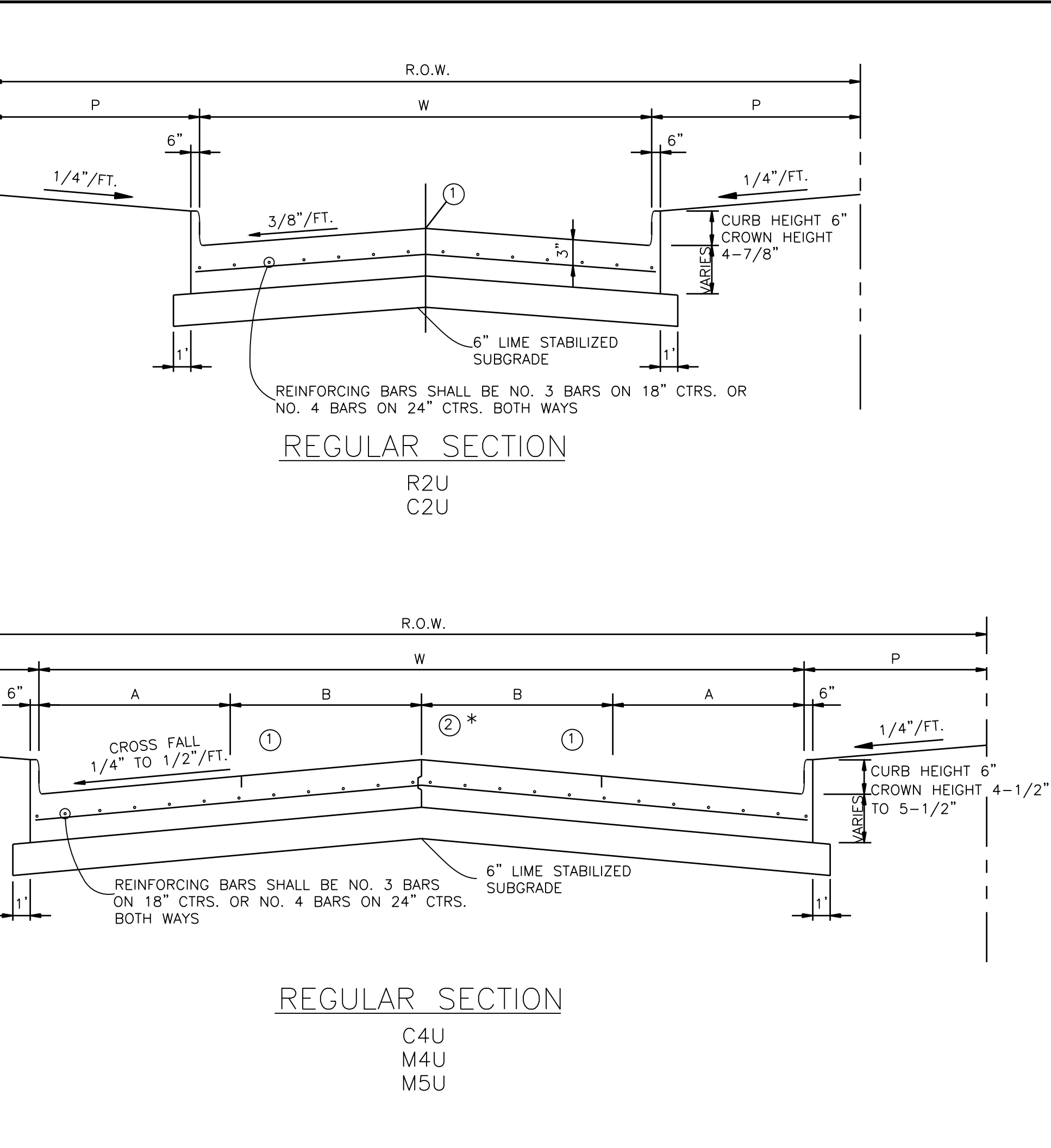
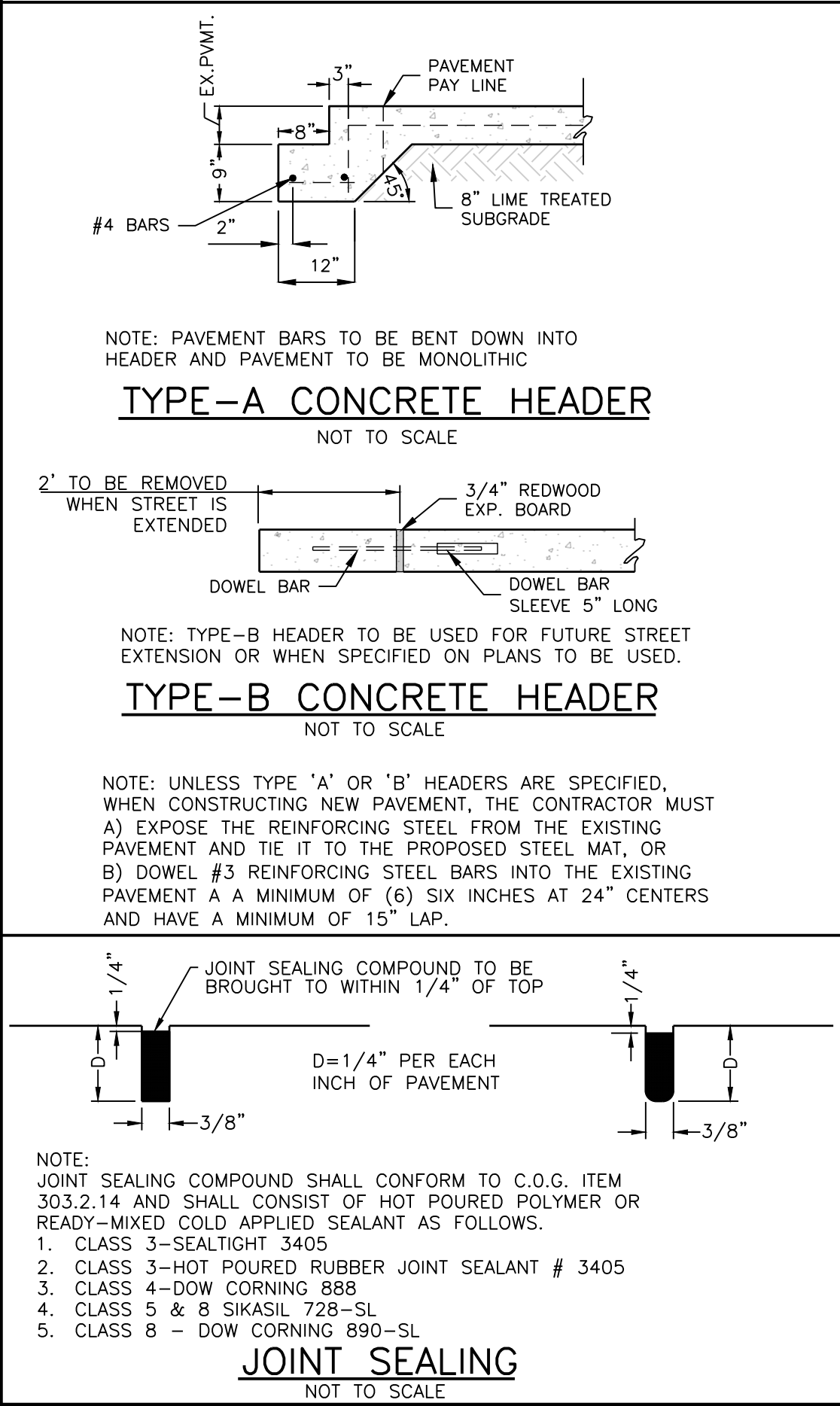
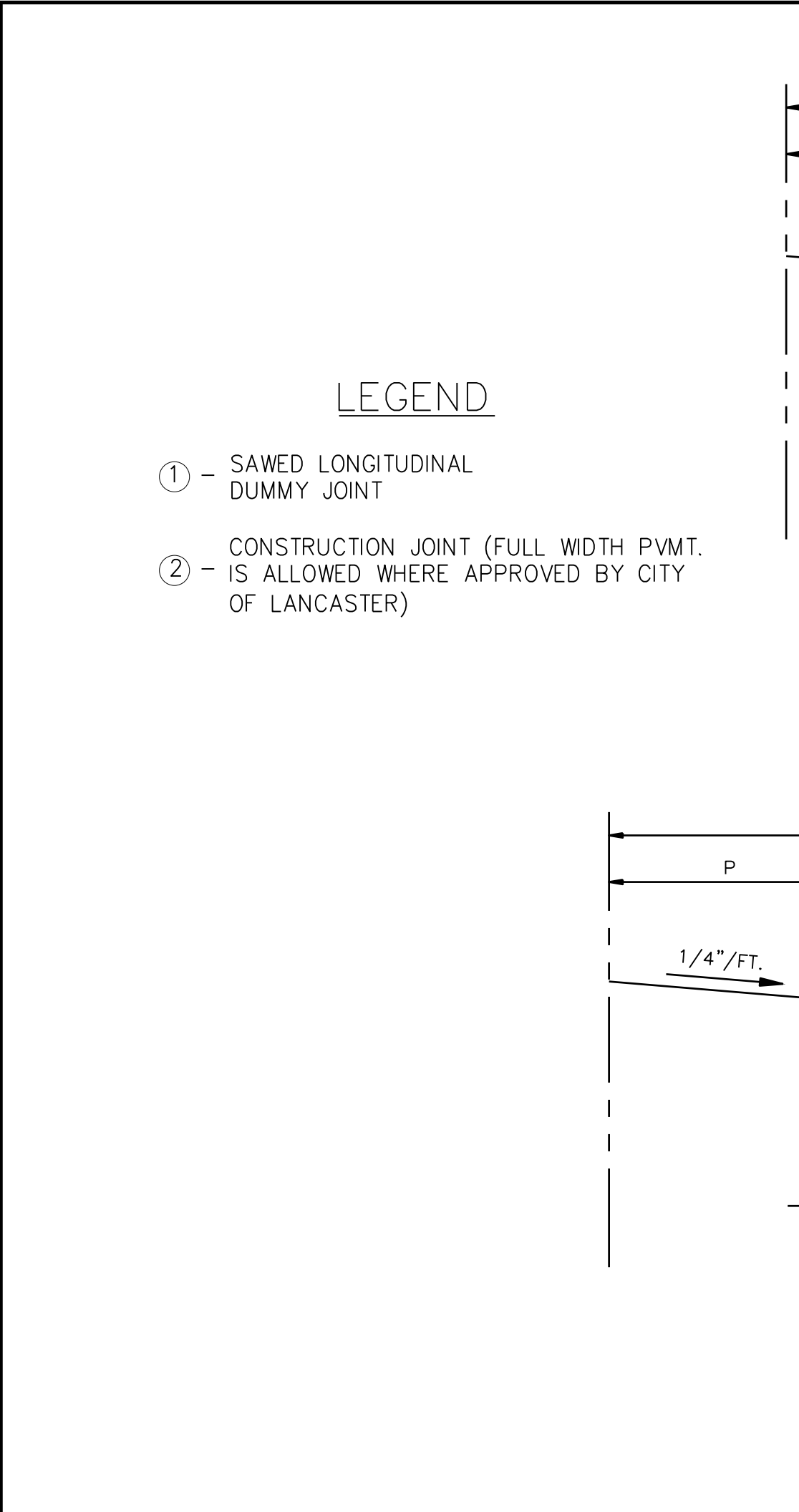
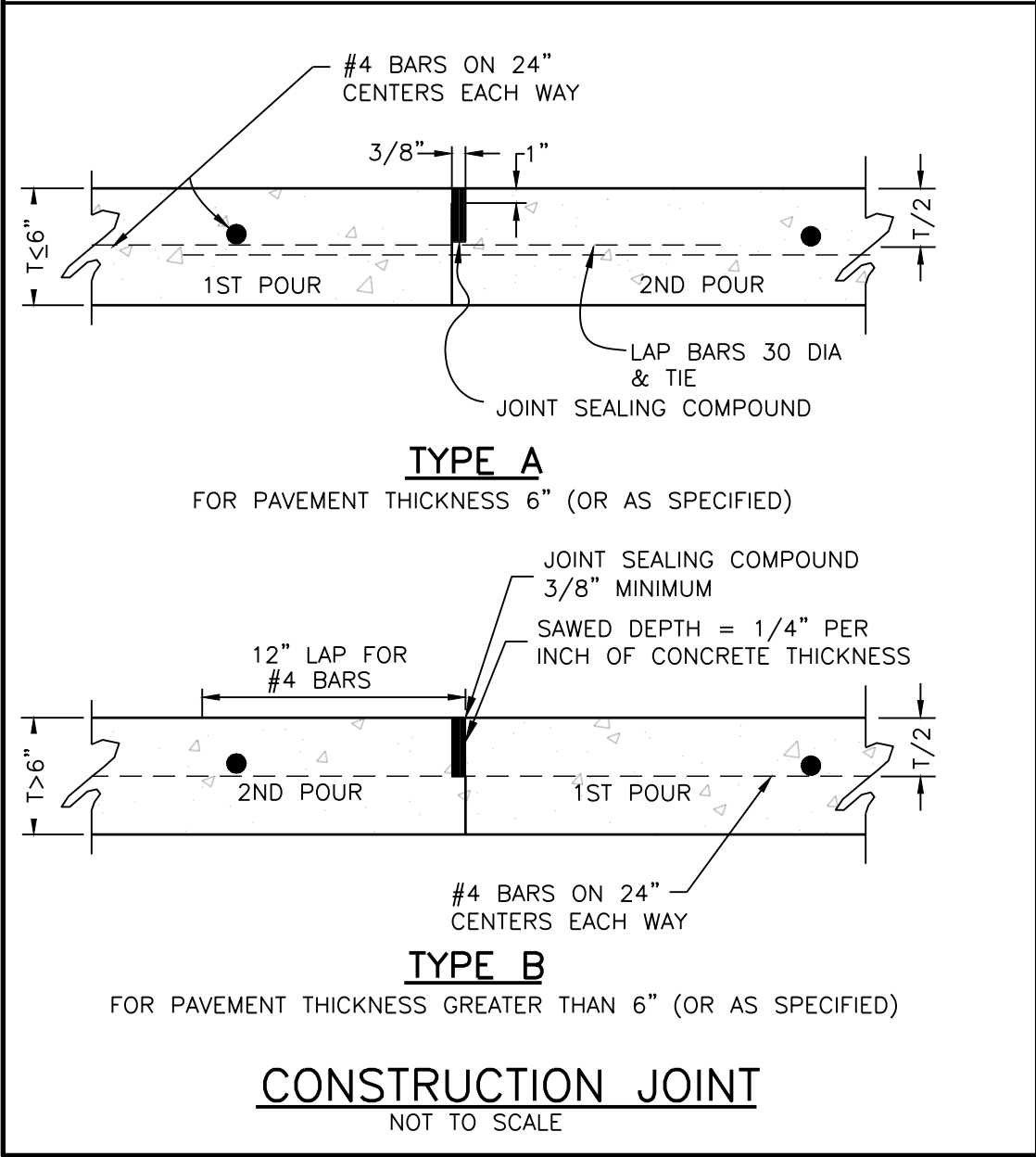
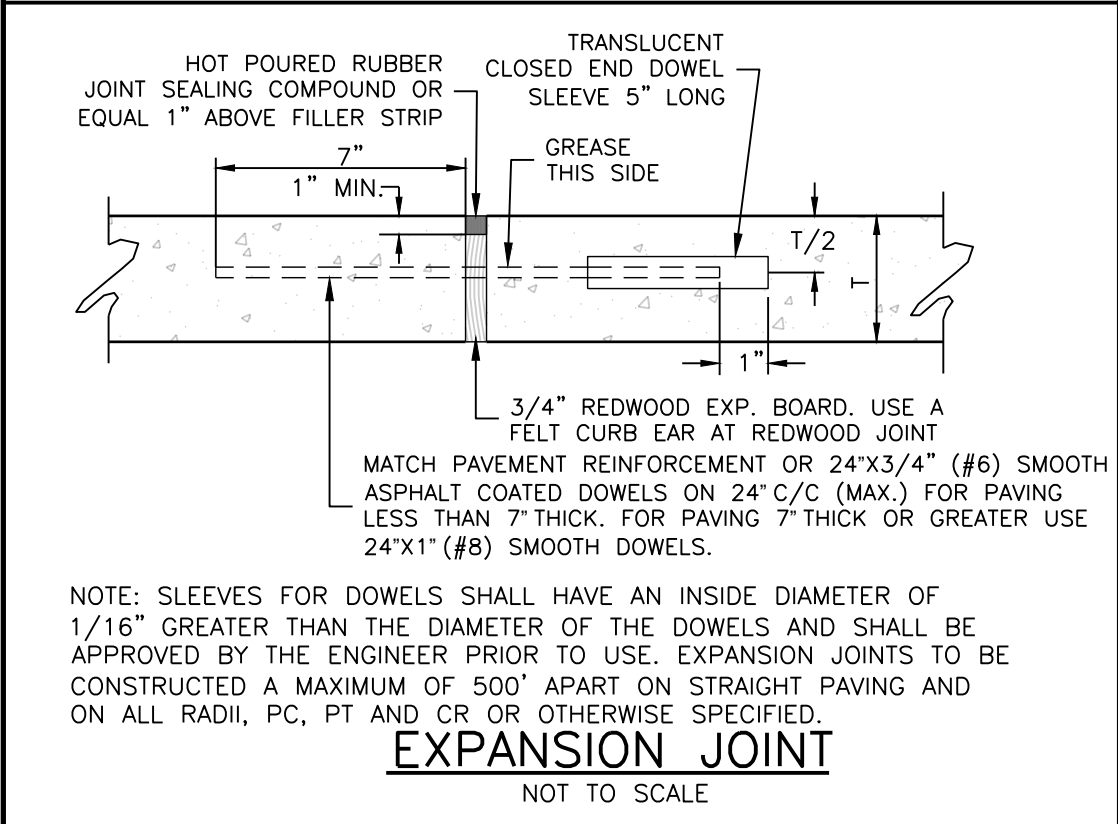
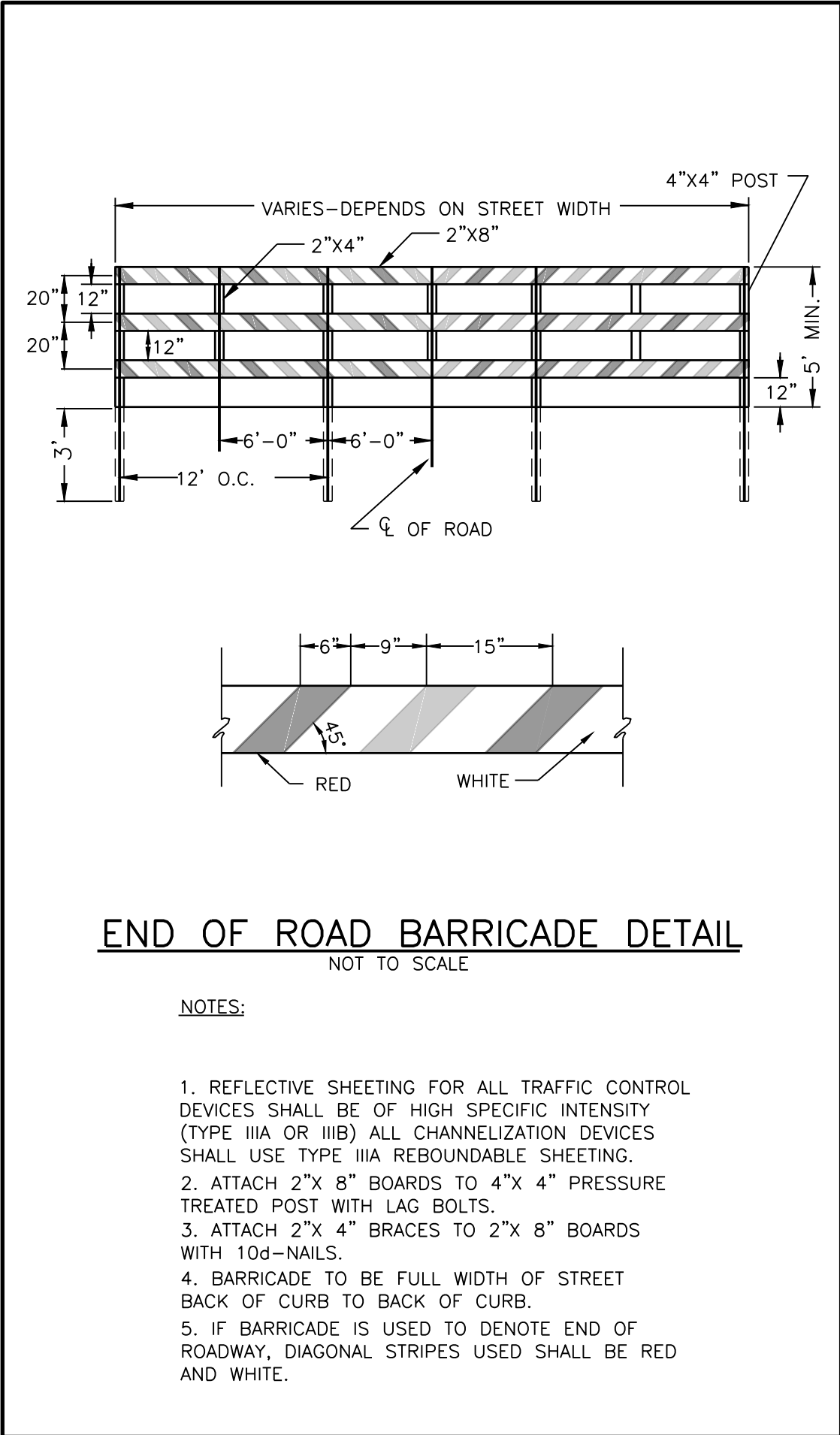
ASPHALT PAVING STANDARD RESIDENTIAL,
COMMERCIAL INDUSTRIAL STREETS

GENERAL:
ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS" HEREIN REFERRED TO AS "N.C.T.C.O.G." SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888 (817) 640-3300. ALSO REFER TO N.C.T.C.O.G. ITEM 303 SPECIFICATIONS THERE SHALL BE NO LEAVE OUTS FOR UTILITY ADJUSTMENTS; ALL MANHOLE, VALVE SETS ETC. SHALL BE CONSTRUCTED TO FINAL GRADE PRIOR TO PAVING. MEDIANS AND PARKWAYS SHALL BE SODDED. (NO SEEDING)
CONTRACTOR SHALL CONTACT STREETS DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT-OF-WAY.
SUBGRADE PREPARATION:
PLEASE REFER TO ITEM 301 OF THE N.C.T.C.O.G. SPECIFICATIONS.
LIME STABILIZED SUBGRADE:
A. PLEASE REFER TO ITEM 301.2 OF THE N.C.T.C.O.G. SPECIFICATIONS. LIME SHALL BE PLACED USING THE SLURRY METHOD, MAY BE MIXED ON-SITE OR TRUCKED IN.
PLEASE REFER N.C.T.C.O.G. ITEM 301.2.3.4.2.
B. SEE CITY OF LANCASTER STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN, AND PAVEMENT CONSTRUCTION.
MATERIAL:
A. ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
B. HOT-MIX ASPHALT CONCRETE PAVEMENT:
1. SPECIFICATION SHALL FOLLOW SECTION 302 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION N.C.T.C.O.G. AND CONFORM TO THE TXDOT STANDARD FOR HOT-MIX ASPHALTIC CONCRETE.
2. THE ASPHALTIC MIXTURE SHALL BE TESTED FOR OVEN BURN OFF/GRADATION AND STABILITY.
3. DENSITY
(a) A RELATIVE DENSITY OF NOT LESS THAN 95% STANDARD PROCTOR AND MOISTURE CONTENT WITHIN 0 TO +4% OPTIMUM WILL BE REQUIRED AFTER FINAL COMPACTION OF THE IN-PLACE PAVEMENT SECTION.
(b) THE CONTRACTOR SHALL SCHEDULE THE CMT LABORATORY TO COME OUT IN THE FIELD AND ESTABLISH A ROLLING PATTERN.
(c) THE USE OF NUCLEAR FIELD DENSITY DETERMINATIONS SHALL NOT BE ACCEPTED AS THE BASIS FOR ACCEPTANCE WITH RESPECT TO DENSITY.
(d) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT THE COMPACTION OF THE ASPHALTIC CONCRETE IN PLACE WILL ATTAIN BETWEEN 5% AND 9% (FIVE AND NINE PERCENT) AIR VOIDS.
(e) THE CONTRACTORS' RESPONSIBILITY FOR THE REQUIRED COMPACTION INCLUDES THE SELECTION OF ROLLING EQUIPMENT AND SELECTION OF ROLLING PATTERNS TO ACHIEVE THE REQUIRED COMPACTION.
4. HMAc MIX TEMPERATURE RANGE AT TIME OF PLACEMENT SHALL BE BETWEEN 260' AND 325'. THE ASPHALTIC MIXTURE SHALL NOT BE PLACED WHEN THE AIR TEMPERATURE IS BELOW 50°F BUT MAY BE PLACED WHEN THE AIR TEMPERATURE IS ABOVE 40°F AND RISING, THE TEMPERATURE BEING TAKEN IN THE SHADE AND AWAY FROM ARTIFICIAL HEAT.
5. COMPACTION CONTROL
(a) IN-PLACE COMPACTION CONTROL IS REQUIRED FOR ALL MIXTURES.
(b) ASPHALTIC CONCRETE SHOULD BE PLACED AND COMPACTED TO CONTAIN NOT MORE THAN 9% (NINE PERCENT) NOR LESS THAN 5% (FIVE PERCENT) AIR VOID UNLESS OTHERWISE INDICATED.
(c) THE PERCENT AIR VOIDS WILL BE CALIBRATED USING THE MAXIMUM THEORETICAL SPECIFIC GRAVITY OF THE MIXTURE DETERMINED ACCORDING TO TXDOT TEST METHOD TEX-227-F ROADWAY SPECIMEN, WHICH SHALL EITHER BE CORES OR SECTIONS OF PAVEMENT, WILL BE TESTED ACCORDING TO TXDOT TEST METHOD TEX-207F.
(d) THE SAME SPECIMEN SHALL BE USED TO DETERMINING BOTH THE THEORETICAL DENSITY AND FIELD DENSITY.
6. PRIME COAT WILL FOLLOW N.C.T.C.O.G. SPECIFICATIONS 302.7 AND 302.9.6.1.
7. TACK COAT WILL FOLLOW N.C.T.C.O.G. SPECIFICATION 302.9.6.2.
8. HMAc MIX DESIGNS SHALL FOLLOW N.C.T.C.O.G. SPECIFICATION 302.9.3 AND THE GRADING TABLES INCLUDED IN THIS SECTION. THESE MIXTURES WILL BE IN ACCORDANCE WITH TXDOT TEST METHOD TEX-204-F, DESIGN OF BITUMINOUS MIXTURES.
C. CONCRETE CURB AND GUTTER:
1. ALL CONCRETE FOR CURB AND GUTTER SHALL BE 4500 PSI, 5% AIR (±1.5%)
2. EXPANSION JOINTS SHALL BE PLACED AT ALL INTERSECTIONS C.R.S, PT.S, DRIVEWAYS, INLETS, AND OTHER CURB AND GUTTER OR EVERY 200 LF.
3. ALL EXPANSION JOINTS SHALL NOT BE LESS THAN 3/4" IN THICKNESS WITH LONGITUDINAL DOWELS.
4. DOWEL BARS SHALL BE THREE NO. 4 SMOOTH BARS, WITH A GREASED EXPANSION GAP WITH LENGTH AS FOLLOWS.
(a) FOR 30" G&G LENGTH EQUALS 24"
(b) FOR 24" G&G LENGTH EQUALS 18"
(c) FOR 18" G&G LENGTH EQUALS 12"
5. ALL LOOSE MATERIAL BETWEEN THE FORM WILL BE REMOVED AND THE GRADE WETTED PRIOR TO THE PLACEMENT OF CONCRETE.
6. CURING
(a) PLEASE REFER TO ITEM 303.5.8 AND 303.2.13.1.1 OF N.C.T.C.O.G. SPECIFICATIONS
(b) THE CONTRACTOR SHALL USE A WHITE PIGMENTED LIQUID CURING COMPOUND AS PER N.C.T.C.O.G. 303.5.8 AND 303.2.13.1.1
7. CURB & GUTTER REPLACEMENT IS 30" MONOLITHIC CONC. PLACEMENT
TESTING:
A. PLEASE REFER TO THE GENERAL NOTES SHEETS, GN-01 - GN 04, FOR TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.
B. THE CONTRACTOR WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.
PRIVATE DEVELOPMENT PROJECTS:
A. THE DEVELOPER/OWNER SHALL PROVIDE TESTING FOR ALL PROJECT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION COMMENCING.
CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.

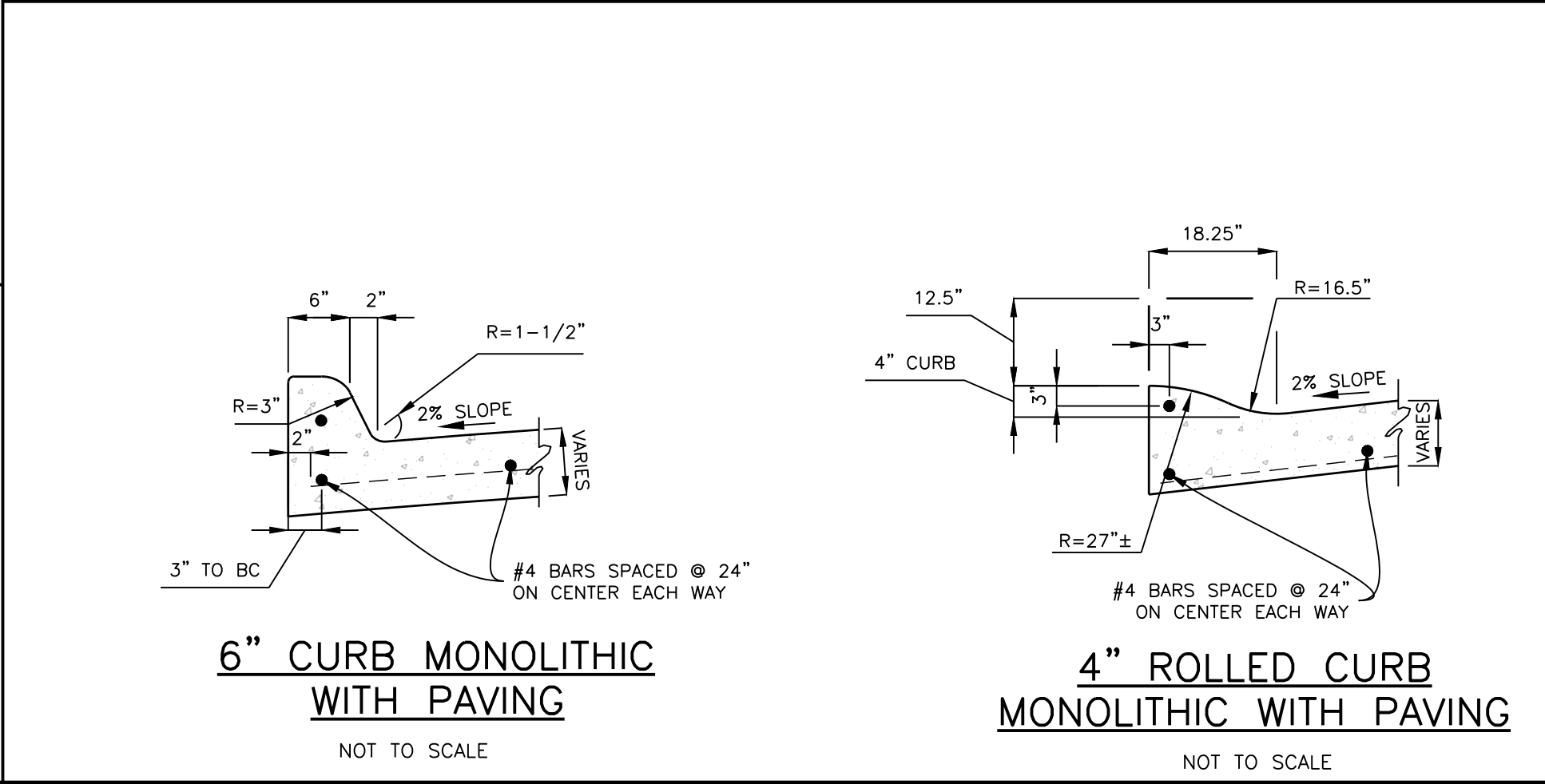
ASPHALT PAVEMENT, DETOURS
AND TRANSITIONS
STANDARD DETAILS



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ROADWAY WIDTH (W)	TOTAL CROWN HEIGHT	3/4 POINT	MID-POINT	1/4 POINT
26'	4"	2-1/4"	1"	1/4"
36'	6"	3-3/8"	1-1/2"	3/8"
44'	6"	3-3/8"	1-1/2"	3/8"



P.C. CONCRETE STANDARD RESIDENTIAL, COMMERCIAL & INDUSTRIAL STREETS

GENERAL:

(A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS" HEREIN REFERRED TO AS "N.C.T.C.O.G." SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888 (817)640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM

(B) ALSO REFER TO N.C.T.C.O.G. ITEM 303 SPECIFICATIONS

(C) THERE SHALL BE NO LEAVE OUTS FOR UTILITY ADJUSTMENTS; ALL MANHOLE, VALVE SETS ETC. SHALL BE CONSTRUCTED TO FINAL GRADE PRIOR TO PAVING.

(D) MEDIANS AND PARKWAYS SHALL BE SODDED. (NO SEEDING)

(E) CONTRACTOR SHALL CONTACT PUBLIC WORKS OR STREETS DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT-OF-WAY.

SUBGRADE PREPARATION:
PLEASE REFER TO ITEM 301 OF THE N.C.T.C.O.G. SPECIFICATIONS.

LIME STABILIZED SUBGRADE:

(A) PLEASE REFER TO ITEM 301.2 OF THE N.C.T.C.O.G. SPECIFICATIONS. LIME SHALL BE PLACED USING THE SLURRY METHOD, MAY BE MIXED ON-SITE OR TRUCKED IN. PLEASE REFER N.C.T.C.O.G. ITEM 301.2.3.4.2.

(B) SEE CITY OF LANCASTER STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.

FORMS:
PLEASE REFER TO N.C.T.C.O.G. ITEM 303.4.4

REINFORCEMENT BARS:
ONLY STEEL RODS SHALL BE USED. PLEASE REFER TO ITEM 303.2.9 OF THE N.C.T.C.O.G. SPECIFICATIONS.

REINFORCEMENT BAR CHAIRS:
THE CONTRACTOR SHALL INSTALL SUPPORTING CHAIRS FOR REINFORCING STEEL ON A ONE SQUARE YARD SPACING IN ALL CONCRETE PAVEMENTS. THE CHAIRS ARE TO BE PLASTIC AND INSTALLED AS PER ITEM 303.2.1.1 OF THE N.C.T.C.O.G. SPECIFICATIONS.

CONCRETE:

(A) PORTLAND CEMENT SHALL BE AS PER N.C.T.C.O.G. ITEM 303.2.2

(B) UP-TO 25% (BY WEIGHT) OF THE CEMENT CONTENT MAY BE REPLACED WITH TYPE C FLY ASH. FLY ASH REPLACEMENT SHALL BE 1.25 POUNDS PER 1.0 POUND OF CEMENT REDUCTION. ALSO REFER TO N.C.T.C.O.G. ITEM 303.2.4

(C) AGGREGATES SHALL BE AS PER N.C.T.C.O.G. ITEM 303.2.1. RIVER ROCK OR BLENDED AGGREGATES SHALL NOT BE ALLOWED.

(D) MANUFACTURED SAND SHALL NOT EXCEED 20% OF THE TOTAL SAND CONTENT IN THE CONCRETE MIX DESIGN.

(E) CONCRETE FOR ALL PAVING AND CURBS WITHIN THE RIGHT-OF-WAY SHALL HAVE A MINIMUM 5 1/2 SACK/CUBIC YARD OF CEMENT CONTENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI WHEN TESTED AT THE AGE OF 28 DAYS. HAND PLACED CONCRETE SHALL HAVE A MINIMUM 6 1/2 SACK/CUBIC YARD OF CEMENT CONTENT AND MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI.

(F) THE DESIGN ENGINEER SHALL APPROVE THE CONCRETE MIX DESIGN IN WRITING PRIOR TO USE.

(G) PAVEMENT CURBS SHALL BE POURED MONOLITHICALLY. PLEASE REFER TO N.C.T.C.O.G. ITEM 303.5.2.4.

(H) STAMP OR DIE PROJECT PAVING LIMITS INCLUDING ALL STREET INTERSECTIONS TO N.C.T.C.O.G. ITEM 303.5.6.1.3 AND DETAIL ON THIS SHEET.

(I) THERE SHALL BE ZERO TOLERANCES FOR CONCRETE STRENGTH AND DEPTH. NO VARIANCES ARE ALLOWED. ANY AREAS OF DEFICIENCY SHALL BE PROVED, REMOVED AND REPLACED.

(J) ALL CURBS AND GUTTERS SHALL BE POURED IN ONE COURSE. CONSTRUCTION CONCRETE SHALL BE PLACED IN FORMS ON COMPACTED, WETTED SUBGRADE AND SHALL BE TAMPED AND SPADED UNTIL MORTAR COVERS THE ENTIRE SURFACE. TAMPING AND SPADED OF NEWLY POURED CONCRETE SHALL BE GIVEN SPECIAL ATTENTION TO ENSURE ADEQUATE COMPACTION AND SURFACES FREE OF HONEYCOMBS.

(K) ALL CONCRETE SHALL BE VIBRATED.

CURING:

(A) PLEASE REFER TO ITEM 303.5.8 AND 303.2.13.1.1 OF THE N.C.T.C.O.G. SPECIFICATIONS.

(B) THE CONTRACTOR SHALL USE A WHITE PIGMENTED LIQUID CURING COMPOUND AS PER N.C.T.C.O.G. ITEM 303.5.8. AND 303.2.13.1.1

JOINTS:

(A) CONSTRUCTION JOINTS SHALL BE USED IN ALL BLOCK-OUTS FOR DRIVEWAYS, INLETS, ETC.

(B) TRANSVERSE JOINTS SHALL BE SAWS ON 15' CENTERS. THE CONCRETE SAW MUST BE STATIONED ON THE JOB-SITE PRIOR TO PLACING THE PAVEMENTS. ALL JOINTS SHALL BE SAWS WITHIN AN EIGHTEEN (18) HOUR PERIOD FROM THE TIME OF THE POUR.

(C) LONGITUDINAL JOINTS SHALL BE SAWS BASED ON THE FOLLOWING:
25' WIDTH (BLVD.) SAW JOINT 3" FROM THE CENTER
27' " SAW JOINT ALONG THE CENTER
31' " SAW JOINT ALONG THE CENTER
37' " TWO EVENLY SPACED JOINTS
OVER 37' WIDTH MINIMUM TWO JOINTS - OUTSIDE JOINTS SAWS AT 12'-6" MAX.

(D) SAW JOINTS TO BE 1/4" DEPTH FOR EACH 1" OF PAVEMENT THICKNESS.
6" PAVEMENT = 1 1/2" DEEP.
7" PAVEMENT = 1 3/4" DEEP.
8" PAVEMENT = 2" DEEP, ETC.

TESTING:

1.) PLEASE REFER TO THE GENERAL NOTES SHEETS, GN-01 - GN 04, FOR TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.

2.) THE CONTRACTOR WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE WORKING DAYS.

3.) MATERIAL: ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW. PRIVATE DEVELOPMENT PROJECTS: THE DEVELOPER/OWNER SHALL PROVIDE TESTING FOR ALL PROJECT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION COMMENCING.

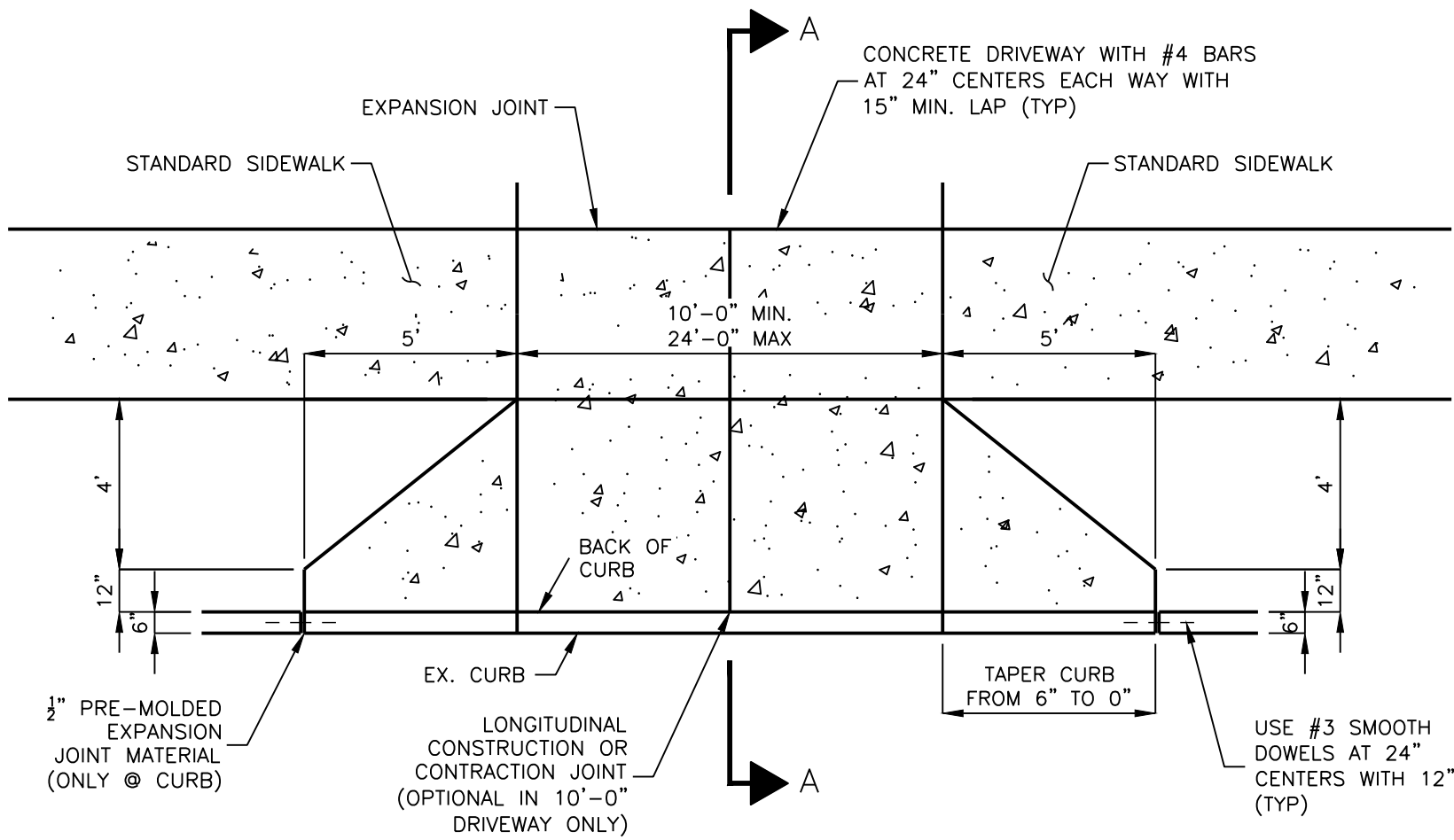
CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.

CONCRETE PAVING STANDARD DETAILS

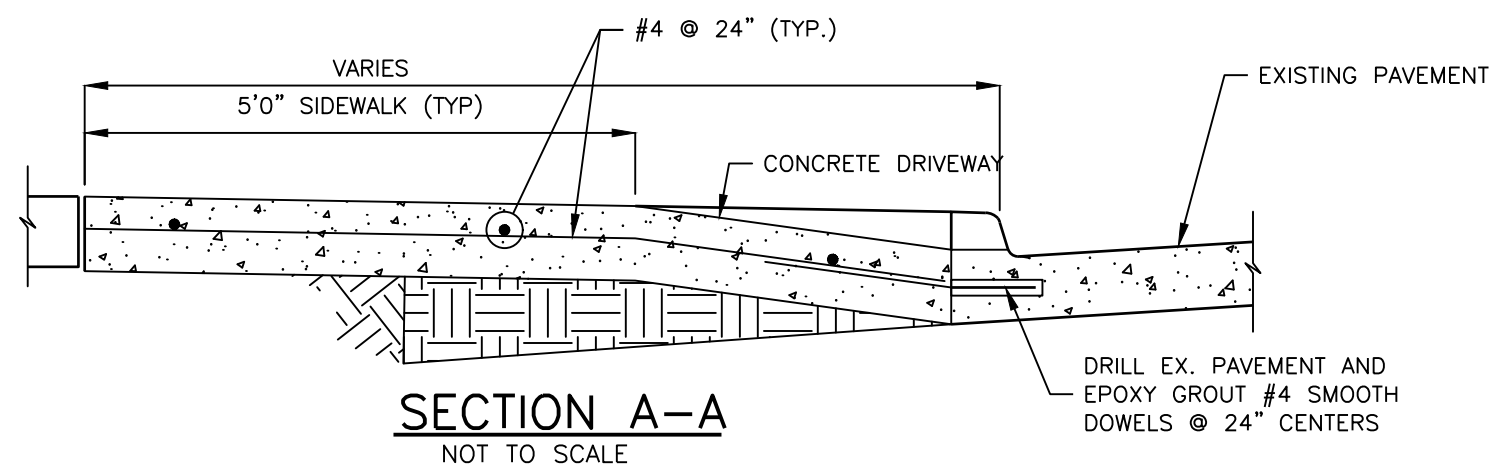
*** NOTES:**

1. STREET CROWN FOR ROLLED CURB SECTION, SHALL BE 3" ROOF TOP
2. ENGINEERING PLANS FOR ROLLED CURB CONSTRUCTION MUST BE PRE-APPROVED BY THE CITY ENGINEER FOR DRAINAGE CONVEYANCE AS ADDITIONAL INLETS MAY BE REQUIRED.
3. STREET SECTIONS FOR 4" ROLLED DOWN CURB SHALL HAVE ROOF TOP CROWN.
4. IF THE 4-INCH HIGH CURBED STREET SECTION IS USED, INCREASE THE LINEAR FEET OF INLETS PROVIDED BY 84% TO MEET CURRENT CITY DRAINAGE REQUIREMENTS.
5. AT CURB INLETS, CURB HEIGHT SHALL BE TRANSITIONED FROM 6" TO 4" (TO MATCH THE 4" ROLLED CURB)

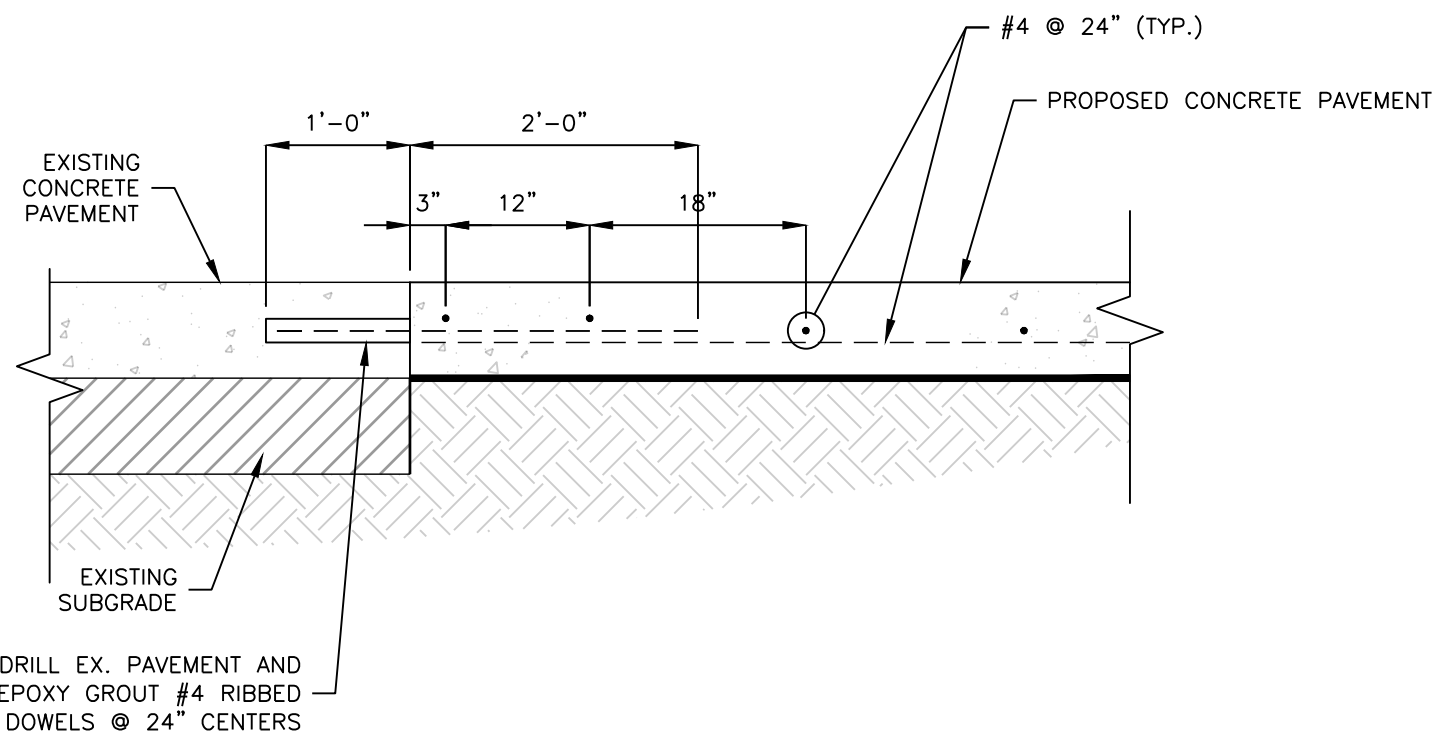
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NEW RESIDENTIAL DRIVEWAY DETAIL WITH
LAY DOWN CURB
(AS DIRECTED BY THE DESIGN ENGINEER)

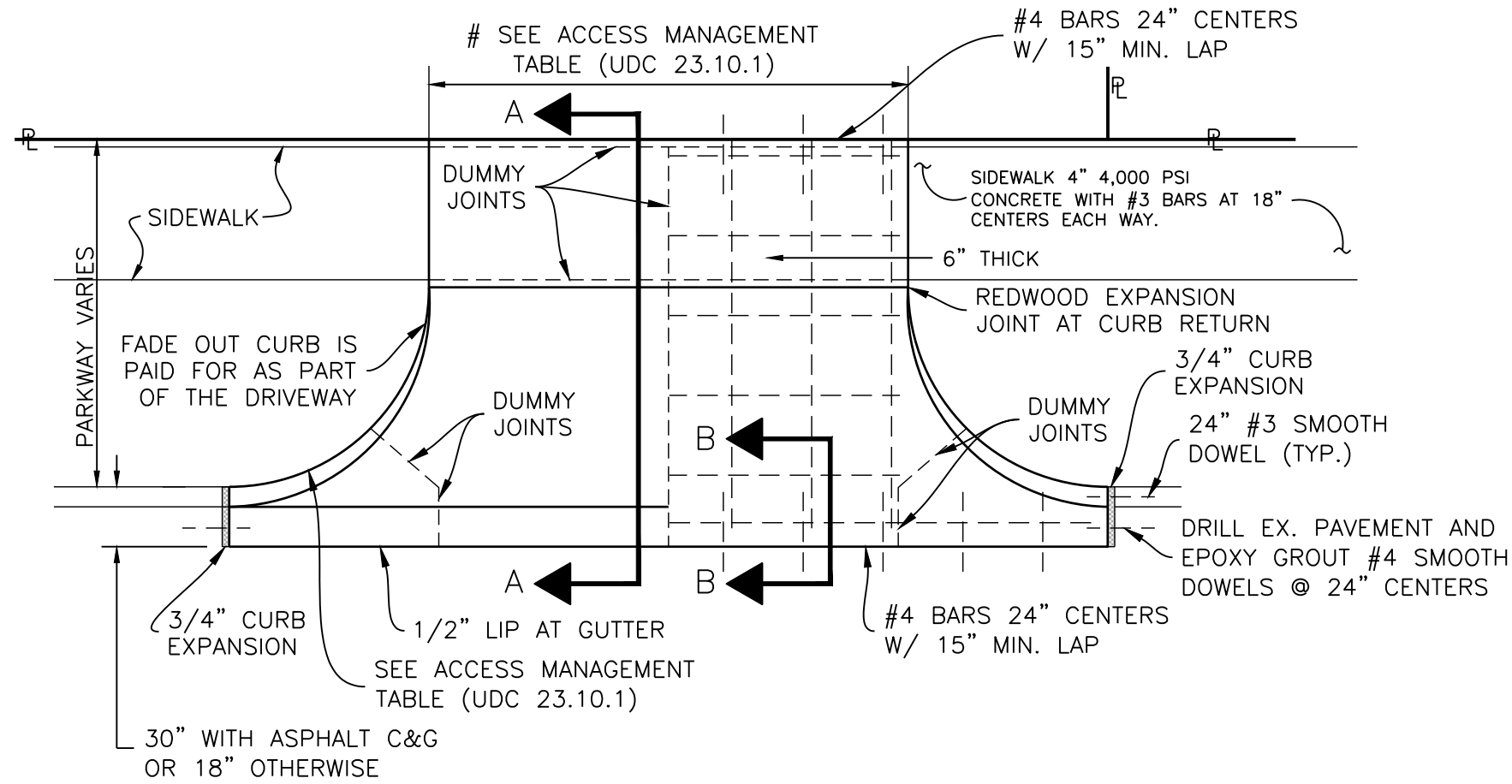


- NOTES:
1. SIDEWALK SECTION THROUGH DRIVEWAY SHALL BE POURED SAME THICKNESS AND STEEL REINFORCEMENT AS DRIVEWAY APPROACH (EXISTING SIDEWALK, IF ANY, SHALL BE REMOVED)
 2. DRIVEWAY APPROACH THICKNESS SHALL BE A MINIMUM OF 6" (SIX INCHES)
 3. DRIVEWAYS CONSTRUCTED ON PRIVATE PROPERTY SHALL TAPER AT A 1:1 RATIO TO INTERSECT APPROACH AT PROPERTY LINE NO GREATER THAN 24' WIDTH.
 4. NEW RESIDENTIAL DRIVEWAYS SHALL HAVE A MAXIMUM GRADE NOT TO EXCEED 10%. NEW COMMERCIAL DRIVEWAYS SHALL HAVE A MAXIMUM GRADE NOT TO EXCEED 6%.

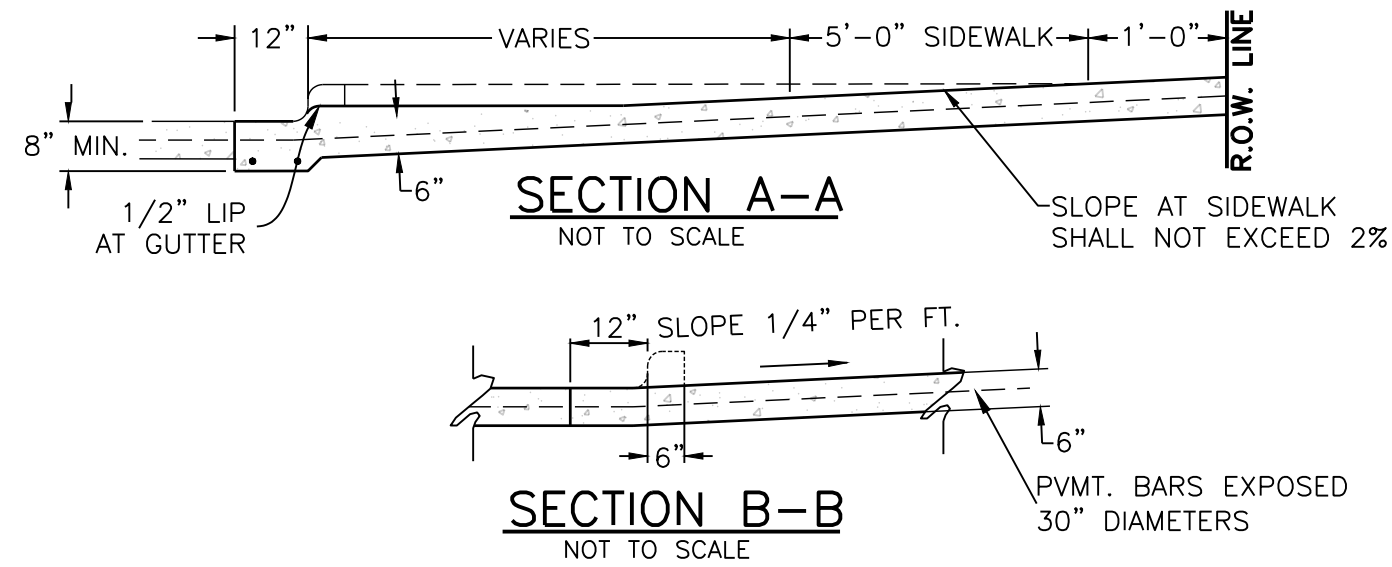


PROPOSED PAVING
CONNECTION TO EXISTING
PAVEMENT

NOT TO SCALE



STANDARD COMMERCIAL
AND RESIDENTIAL DRIVEWAY DETAIL
SEE ACCESS MANAGEMENT TABLE
(UDC 23.10.1)



NOTE: CURB, GUTTER, PAVEMENT AND VALLEY TO BE POURED MONOLITHIC THE REINFORCED CONCRETE VALLEY SHALL REPLACE THE CONCRETE PAVING WITH THE SUBGRADE AND BASE TREATMENT REMAINING THE SAME IN ACCORDANCE WITH THE TYPICAL PAVING SECTION. DO NOT DOWEL IN NEW CONCRETE DRIVES INTO EXISTING ASPHALT ROADS. UTILIZE MODIFIED TYPE-A CONCRETE HEADER.

- NOTE:
1. SIDEWALK SECTION THROUGH DRIVEWAY SHALL BE POURED SAME THICKNESS AND STEEL REINFORCEMENT AS DRIVEWAY APPROACH (EXISTING SIDEWALK, IF ANY, SHALL BE REMOVED)
 2. NEW COMMERCIAL DRIVEWAYS SHALL HAVE A MAXIMUM GRADE NOT TO EXCEED 10%. NEW COMMERCIAL DRIVEWAYS SHALL HAVE A MAXIMUM GRADE NOT TO EXCEED 6%.

# ACCESS MANAGEMENT TABLE (UDC 23.10.1)					
		LOCAL	COLLECTOR	MINOR ARTERIAL	PRINCIPAL ARTERIAL
RESIDENTIAL DRIVEWAY	THROAT WIDTH	15-28 ft.	15-28 ft.	N/A	N/A
	CURB RADIUS	N/A	N/A	N/A	N/A
INDUSTRIAL DRIVEWAY	THROAT WIDTH	40 ft.	40-60 ft.*	40-60 ft.*	40-60 ft.*
	CURB RADIUS	30 ft.	40 ft.	40 ft.	40 ft.
COMMERCIAL DRIVEWAY	THROAT WIDTH	30-40 ft.	30-40 ft.	30-40 ft.	30-40 ft.
	CURB RADIUS	20 ft.	25 ft.	30 ft.	35 ft.

- NOTE:
1. NEW RESIDENTIAL DRIVEWAYS SHALL BE 15' (MIN.) WIDTH
 2. EXISTING RESIDENTIAL DRIVEWAY APPROACHES SHALL NOT BE RECONSTRUCTED TO LESS THAN 9' WIDTH.
 3. CURB RETURNS FOR NEW DRIVES SHALL BE CONSTRUCTED TO 5' RADIUS B.O.C.
 4. IN REPLACING EXISTING DRIVES, THE EXISTING DRIVE SHALL BE SAWED AND REMOVED AT A DISTANCE WHICH WILL ASSURE A SMOOTH GRADE, (TO BE SPECIFIED BY THE ENGINEER) AND WILL BE REPLACED TO THAT POINT.
 5. NEW RESIDENTIAL DRIVEWAYS SHALL HAVE A MAXIMUM GRADE NOT TO EXCEED 10%.
 6. NEW COMMERCIAL DRIVEWAYS SHALL HAVE A MAXIMUM GRADE NOT TO EXCEED 6%.
 7. VERTICAL CURVES SHALL BE USED FOR ALL GRADE BREAKS IN DRIVEWAYS EXCEEDING 12%

**P.C. CONCRETE STANDARD
RESIDENTIAL, COMMERCIAL & INDUSTRIAL STREETS**

GENERAL:

(A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS" HEREIN REFERRED TO AS "N.C.T.C.O.G." SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SE 200, ARLINGTON, TEXAS 76005-5888 (817)640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM

(B) ALSO REFER TO N.C.T.C.O.G. ITEM 303 SPECIFICATIONS

(C) THERE SHALL BE NO LEAVE OUTS FOR UTILITY ADJUSTMENTS; ALL MANHOLE, VALVE SETS ETC. SHALL BE CONSTRUCTED TO FINAL GRADE PRIOR TO PAVING.

(D) MEDJANS AND PARKWAYS SHALL BE SODDED. (NO SEEDING)

(E) CONTRACTOR SHALL CONTACT PUBLIC WORKS OR STREETS DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT-OF-WAY.

SUBGRADE PREPARATION:

PLEASE REFER TO ITEM 301 OF THE N.C.T.C.O.G. SPECIFICATIONS.

LIME STABILIZED SUBGRADE:

(A) PLEASE REFER TO ITEM 301.2 OF THE N.C.T.C.O.G. SPECIFICATIONS. LIME SHALL BE PLACED USING THE SLURRY METHOD, MAY BE MIXED ON-SITE OR TRUCKED IN. PLEASE REFER N.C.T.C.O.G. ITEM 301.2.3.4.2.

(B) SEE CITY OF LANCASTER STANDARD GENERAL TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.

FORMS:

PLEASE REFER TO N.C.T.C.O.G. ITEM 303.4.4

REINFORCEMENT BARS:

ONLY STEEL RODS SHALL BE USED. PLEASE REFER TO ITEM 303.2.9 OF THE N.C.T.C.O.G. SPECIFICATIONS

REINFORCEMENT BAR CHAIRS:

THE CONTRACTOR SHALL INSTALL SUPPORTING CHAIRS FOR REINFORCING STEEL ON A ONE SQUARE YARD SPACING IN ALL CONCRETE PAVEMENTS. THE CHAIRS ARE TO BE PLASTIC AND INSTALLED AS PER ITEM 303.2.11 OF THE N.C.T.C.O.G. SPECIFICATIONS.

CONCRETE:

(A) PORTLAND CEMENT SHALL BE AS PER N.C.T.C.O.G. ITEM 303.2.2

(B) UP-TO 25% (BY WEIGHT) OF THE CEMENT CONTENT MAY BE REPLACED WITH TYPE C FLY ASH. FLY ASH REPLACEMENT SHALL BE 1.25 POUNDS PER 1.0 POUND OF CEMENT REDUCTION. ALSO REFER TO N.C.T.C.O.G. ITEM 303.2.4

(C) AGGREGATES SHALL BE AS PER N.C.T.C.O.G. ITEM 303.2.1. RIVER ROCK OR BLENDED AGGREGATES SHALL NOT BE ALLOWED.

(D) MANUFACTURED SAND SHALL NOT EXCEED 20% OF THE TOTAL SAND CONTENT IN THE CONCRETE MIX DESIGN.

(E) CONCRETE FOR ALL PAVING AND CURBS WITHIN THE RIGHT-OF-WAY SHALL HAVE A MINIMUM 5 1/2 SACK/CUBIC YARD OF CEMENT CONTENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI WHEN TESTED AT THE AGE OF 28 DAYS. HAND PLACED CONCRETE SHALL HAVE A MINIMUM 6 1/2 SACK/CUBIC YARD OF CEMENT CONTENT AND MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI.

(F) THE DESIGN ENGINEER SHALL APPROVE THE CONCRETE MIX DESIGN IN WRITING PRIOR TO USE.

(G) PAVEMENT CURBS SHALL BE POURED MONOLITHICALLY. PLEASE REFER TO N.C.T.C.O.G. ITEM 303.5.2.4.

(H) STAMP OR DIE PROJECT PAVING LIMITS INCLUDING ALL STREET INTERSECTIONS TO N.C.T.C.O.G. ITEM 303.5.6.1.3 AND DETAIL ON THIS SHEET.

(I) THERE SHALL BE ZERO TOLERANCES FOR CONCRETE STRENGTH AND DEPTH. NO VARIANCES ARE ALLOWED. ANY AREAS OF DEFICIENCY SHALL BE PROVED, REMOVED AND REPLACED.

(J) ALL CURBS AND GUTTERS SHALL BE POURED IN ONE COURSE. CONSTRUCTION CONCRETE SHALL BE PLACED IN FORMS ON COMPACTED, WETTED SUBGRADE AND SHALL BE TAMPED AND SPADED UNTIL MORTAR COVERS THE ENTIRE SURFACE. TAMPING AND SPADED OF NEWLY POURED CONCRETE SHALL BE GIVEN SPECIAL ATTENTION TO ENSURE ADEQUATE COMPACTION AND SURFACES FREE OF HONEYCOMBS.

(K) ALL CONCRETE SHALL BE VIBRATED.

CURING:

(A) PLEASE REFER TO ITEM 303.5.8 AND 303.2.13.1.1 OF THE N.C.T.C.O.G. SPECIFICATIONS.

(B) THE CONTRACTOR SHALL USE A WHITE PIGMENTED LIQUID CURING COMPOUND AS PER N.C.T.C.O.G. ITEM 303.5.8 AND 303.2.13.1.1

JOINTS:

(A) CONSTRUCTION JOINTS SHALL BE USED IN ALL BLOCK-OUTS FOR DRIVEWAYS, INLETS, ETC.

(B) TRANSVERSE JOINTS SHALL BE SAWED ON 15' CENTERS. THE CONCRETE SAW MUST BE STATIONED ON THE JOB-SITE PRIOR TO PLACING THE PAVEMENTS. ALL JOINTS SHALL BE SAWED WITHIN AN EIGHTEEN (18) HOUR PERIOD FROM THE TIME OF THE POUR.

(C) LONGITUDINAL JOINTS SHALL BE SAWED BASED ON THE FOLLOWING:

25' WIDTH (BLVD.) SAW JOINT 3" FROM THE CENTER

27' " SAW JOINT ALONG THE CENTER

31' " SAW JOINT ALONG THE CENTER

37' " TWO EVENLY SPACED JOINTS

OVER 37' WIDTH MINIMUM TWO JOINTS - OUTSIDE JOINTS SAWED AT 12'-6" MAX.

(D) SAW JOINTS TO BE 1/4" DEPTH FOR EACH 1" OF PAVEMENT THICKNESS.

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TESTING:

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3.) MATERIAL: ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.

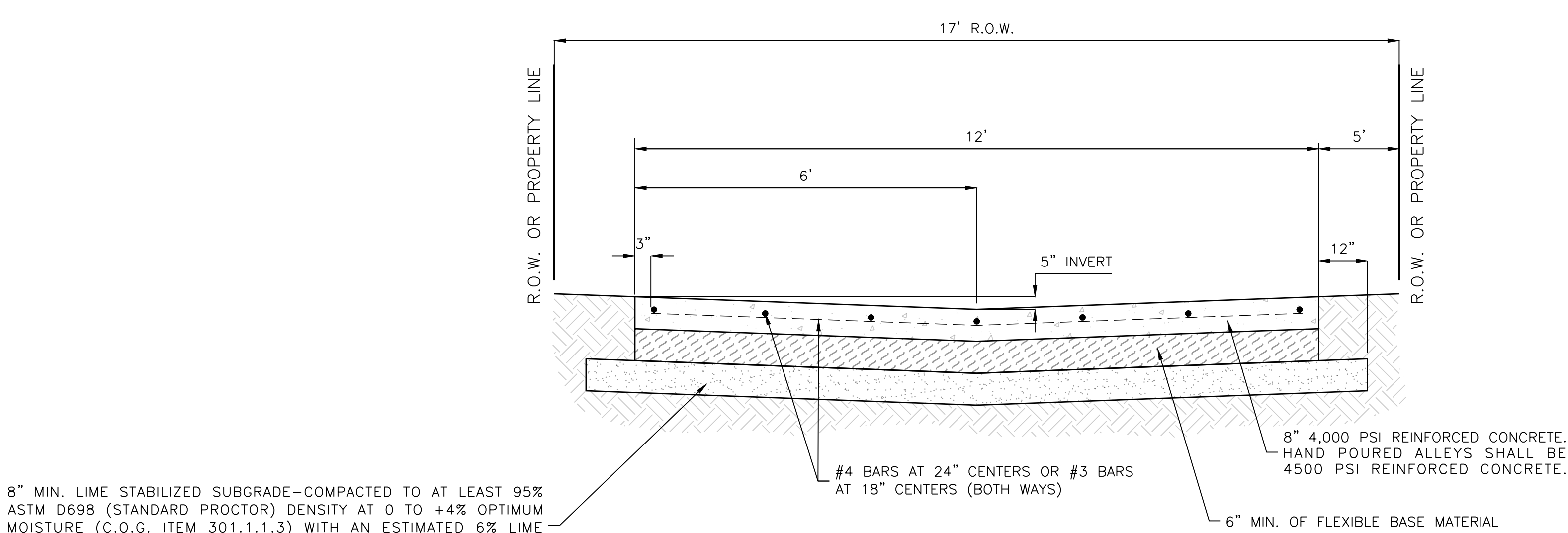
PRIVATE DEVELOPMENT PROJECTS: THE DEVELOPER/OWNER SHALL PROVIDE TESTING FOR ALL PROJECT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION COMMENCING.

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**CONCRETE DRIVEWAY
STANDARD DETAILS**

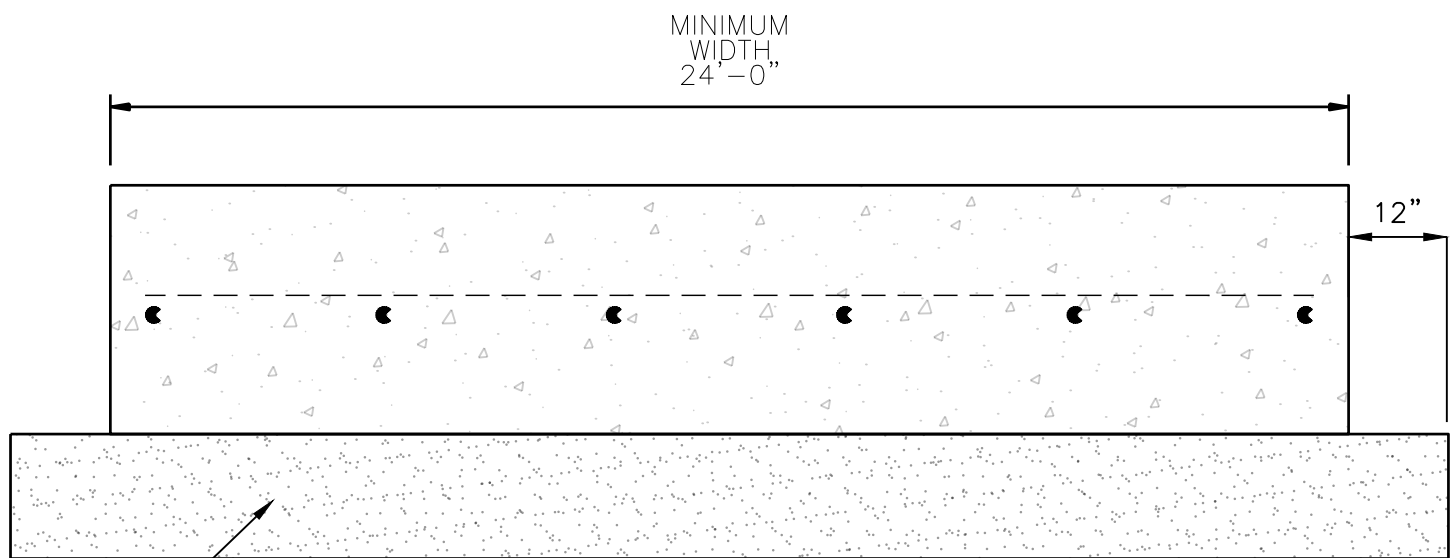
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8" MIN. LIME STABILIZED SUBGRADE—COMPACTED TO AT LEAST 95% ASTM D698 (STANDARD PROCTOR) DENSITY AT 0 TO +4% OPTIMUM MOISTURE (C.O.G. ITEM 301.1.1.3) WITH AN ESTIMATED 6% LIME SLURRY (36 LBS. PER SQUARE YARD) OR 6" FLEXIBLE BASE MATERIAL UNLESS SPECIFIED AND APPROVED OTHERWISE.

- NOTE:
1. CONSTRUCT TRANSVERSE SAW JOINT @ 20' (MAX)
 2. EXPANSION JOINTS TO BE PLACED AT ALL INTERSECTIONS AND RADIUS POINTS; AND NOT TO EXCEED 240' BETWEEN JOINTS.

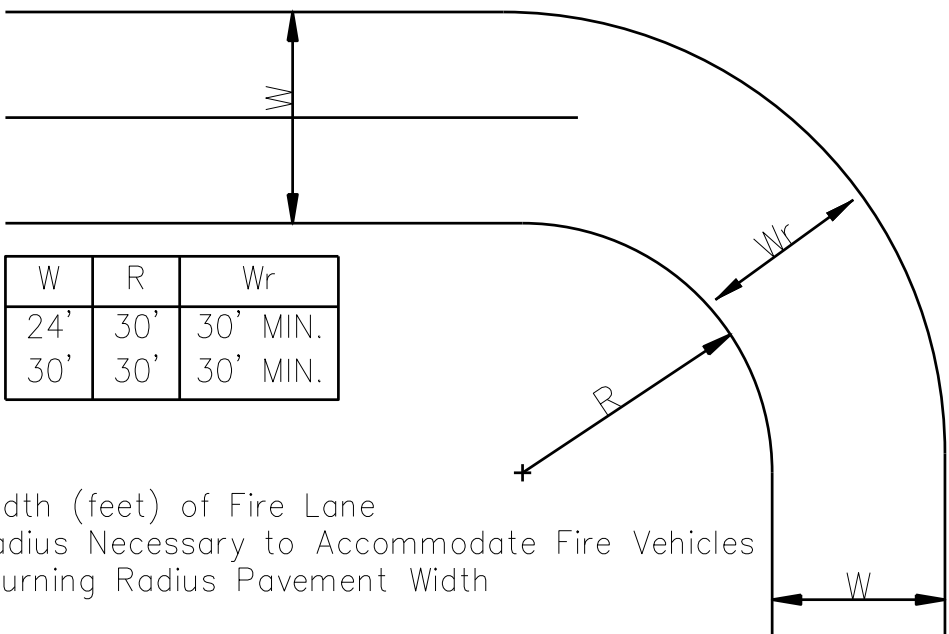
ALLEY DETAILS



8" MIN. LIME STABILIZED SUBGRADE—COMPACTED TO AT LEAST 95% ASTM D698 (STANDARD PROCTOR) DENSITY AT 0 TO +4% OPTIMUM MOISTURE (C.O.G. ITEM 301.1.1.3) WITH AN ESTIMATED 6% LIME SLURRY (36 LBS. PER SQUARE YARD) OR 6" FLEXIBLE BASE MATERIAL UNLESS SPECIFIED AND APPROVED OTHERWISE.

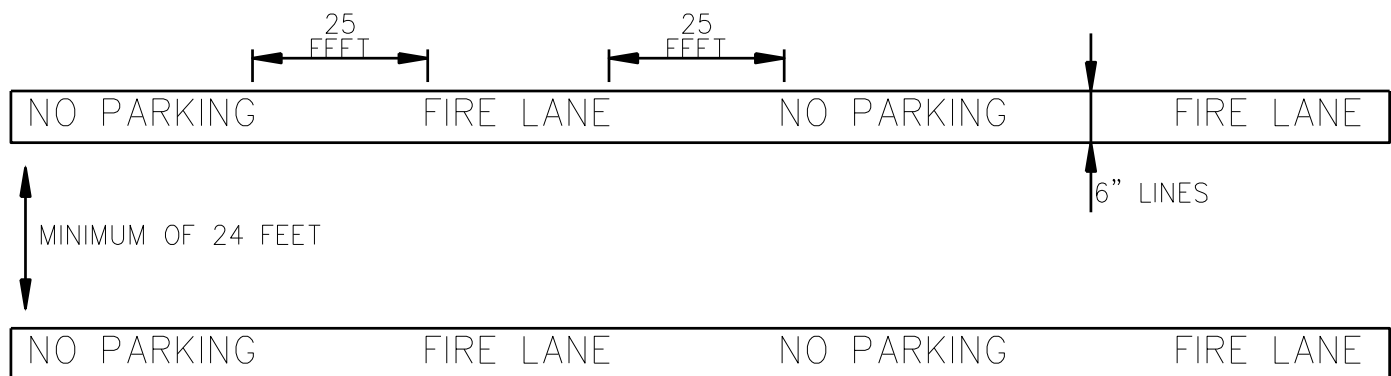
1. ALL FIRE LANES SHALL BE PAVED WITH A MINIMUM OF 6 INCHES OF 4000 P.S.I. CONCRETE REINFORCED WITH #3 REBAR PLACED ON 18 INCH CENTERS OR #4 REBAR ON 24 INCH CENTERS EACH WAY ON A 6" LIME STABILIZED SUBGRADE. THE SUBGRADE SHALL BE STABILIZED WITH HYDRATED LIME IN SUFFICIENT AMOUNT TO REDUCE THE PLASTICITY INDEX BELOW FIFTEEN (15). AT LEAST 95% STANDARD PROCTOR DENSITY. CONTRACTION JOINTS SHALL BE SPACED AT A MAXIMUM OF 15.5 FEET ON CENTERS EACH WAY. CONTRACTION JOINTS MAY BE DUMMY OR SAWED JOINTS AT A DEPTH OF AT LEAST ONE (1) INCH DEEP TO INSURE PROPER RUNOFF IN ORDER TO PREVENT PONDING, THE PAVEMENT SURFACE SHOULD HAVE A MINIMUM SLOPE OF 1%(12" PER 100 FEET).
2. ALL STEEL SHALL BE TIED 100%.

FIRE LANE PAVING & JOINT DETAIL



W=Width (feet) of Fire Lane
R=Radius Necessary to Accommodate Fire Vehicles
Wr=Turning Radius Pavement Width

FIRE LANE DESIGN



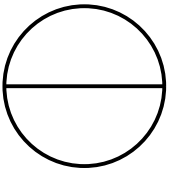
1. THE FIRE MARSHAL IS AUTHORIZED TO DESIGNATE FIRE LANES.
2. FIRE LANES SHALL BE MARKED BY SIX INCH (6") WIDE LINES USING RED TRAFFIC 2. PAINT, WITH THE WORDING "NO PARKING" AND "FIRE LANE" PAINTED ON THE LINES AT INTERVALS OF TWENTY-FIVE (25'). THE LETTERING WILL BE FOUR INCHES (4") HIGH WITH A ONE INCH (1") WIDE STROKE PAINTED WITH WHITE TRAFFIC PAINT.
3. FIRE LANES SHALL BE A MINIMUM OF TWENTY FOUR- FEET (24') IN WIDTH F-F
4. ANY DEAD-END FIRE LANE MORE THAN ONE HUNDRED FIFTY- FEET (150') LONG SHALL 4. PROVIDE A TURN AROUND OF ONE HUNDRED FEET (100') IN DIAMETER AT THE CLOSED END, OR A 50' HAMMER HEAD 50'R.

FIRE LANE MARKING

P.C. CONCRETE STANDARD RESIDENTIAL, COMMERCIAL & INDUSTRIAL STREETS

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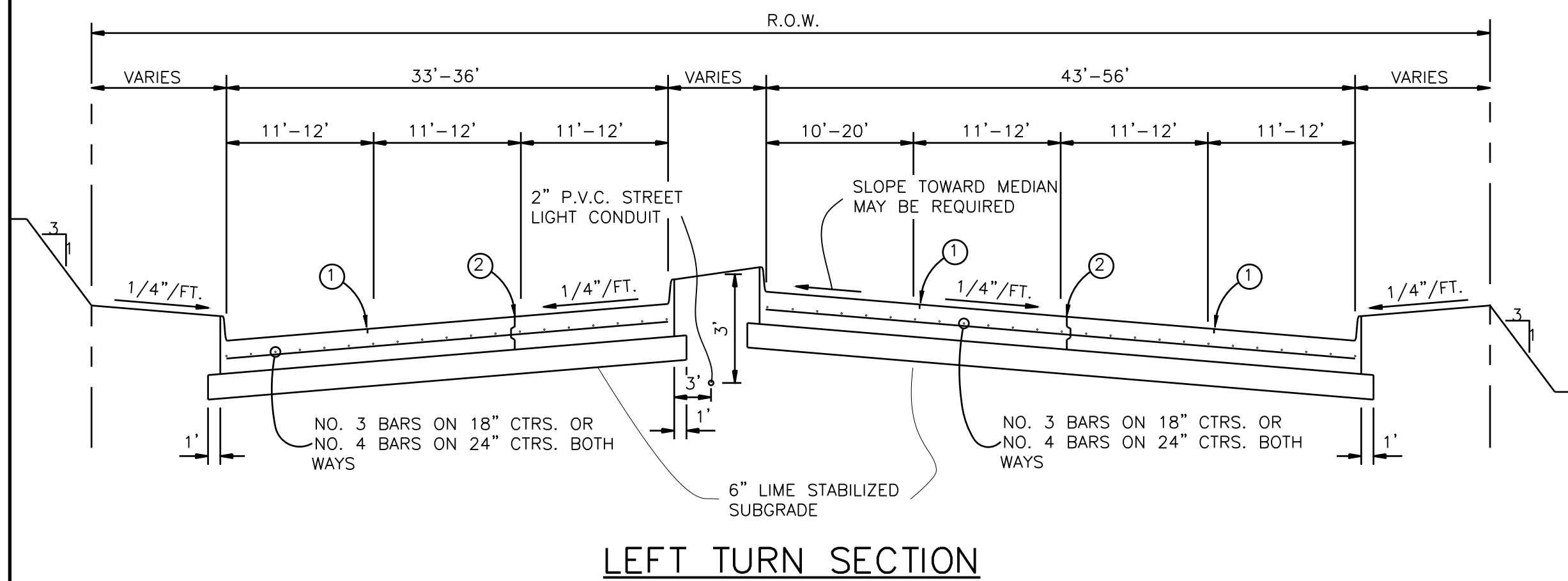
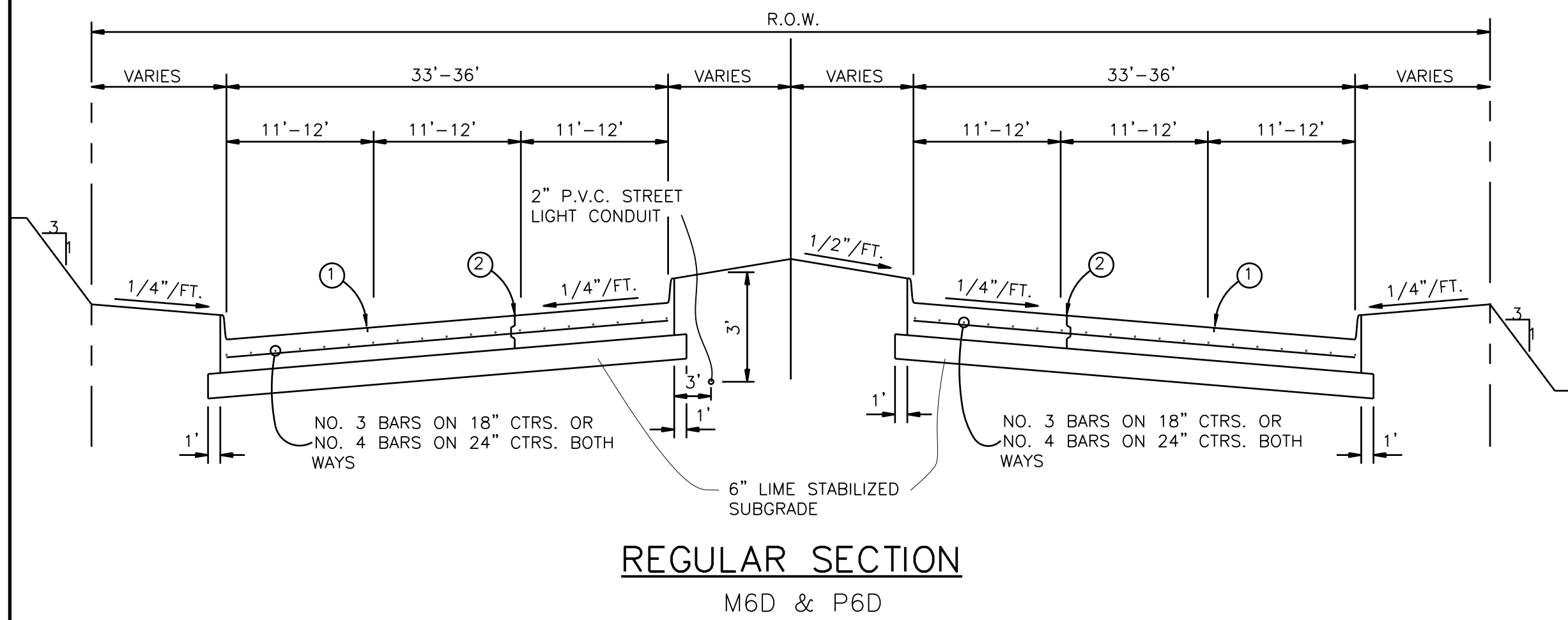
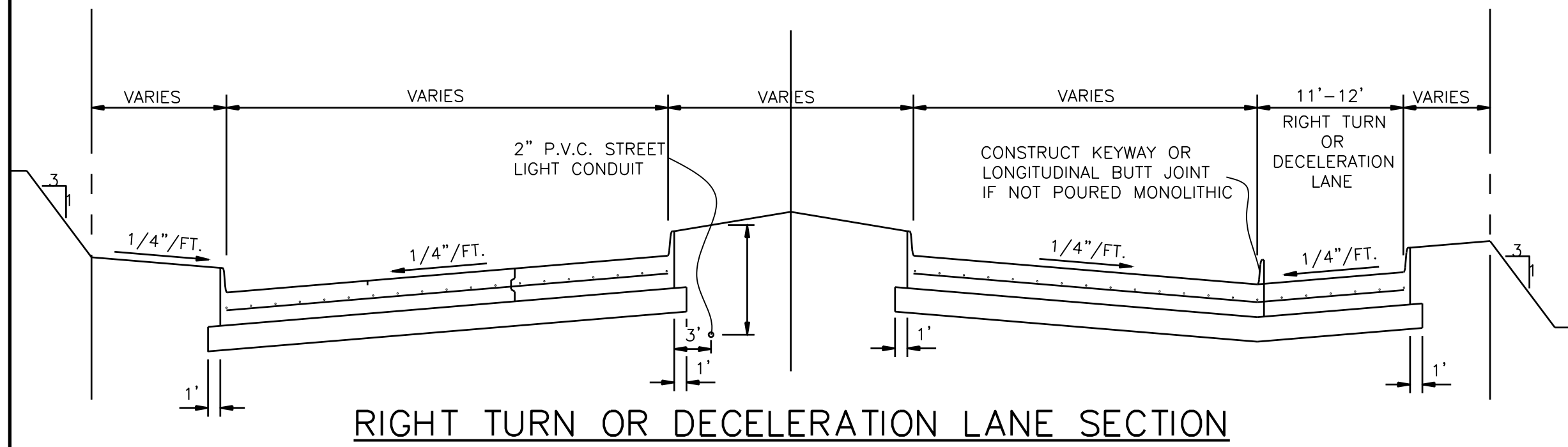


CONCRETE PAVING ALLEY & FIRE LANE

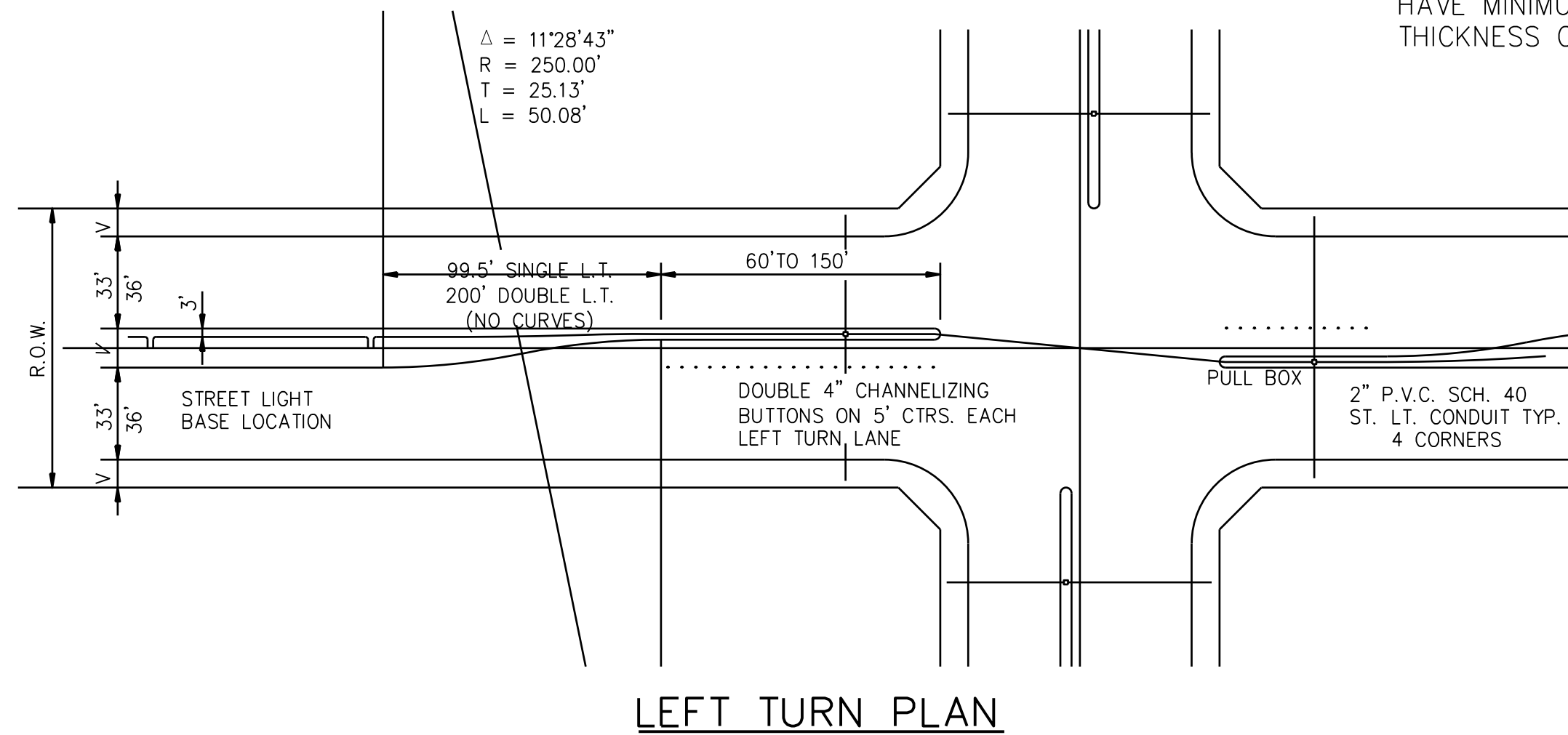
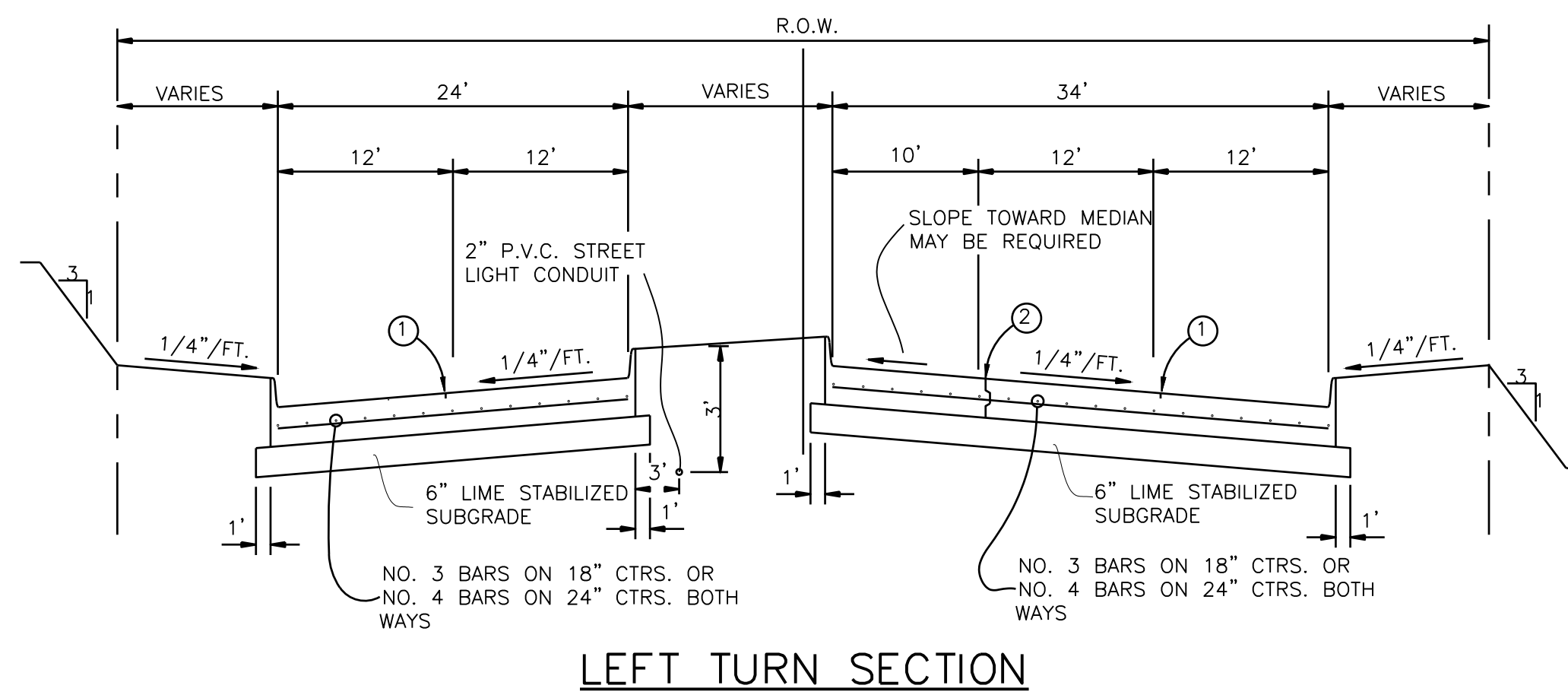
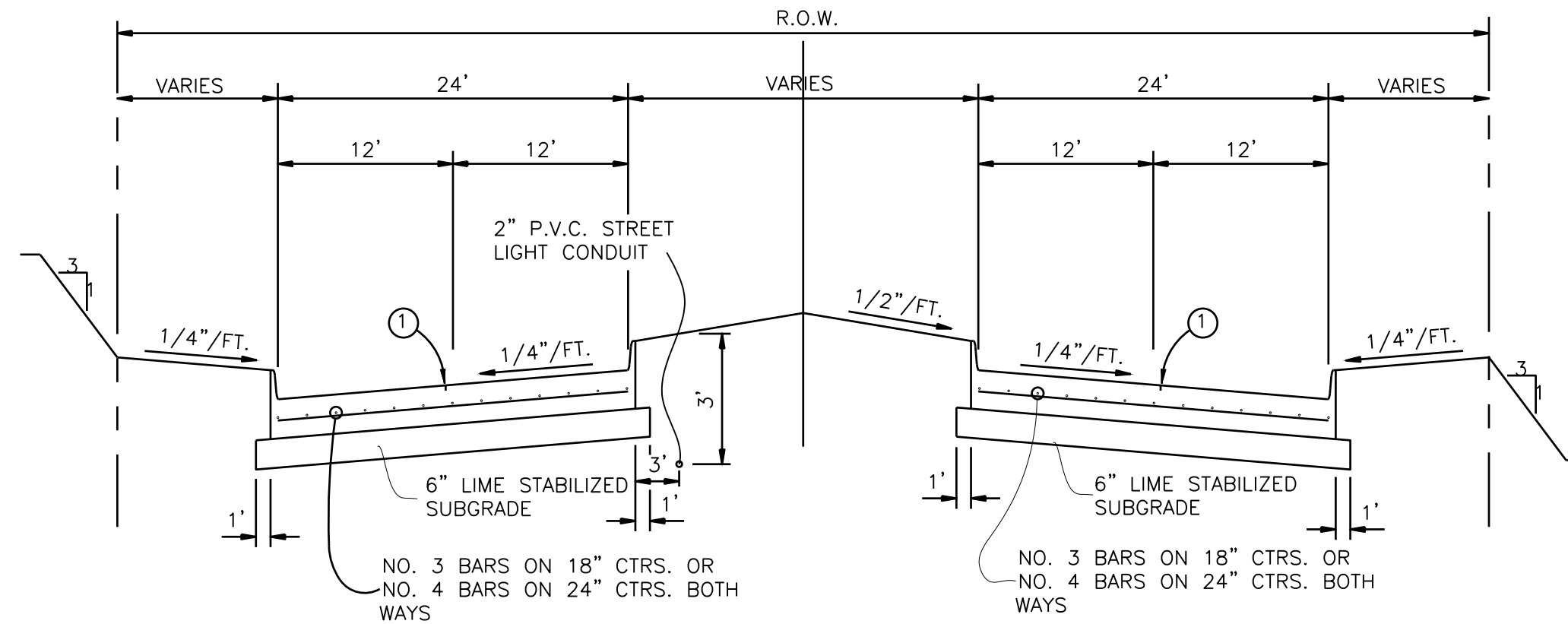
STANDARD DETAILS



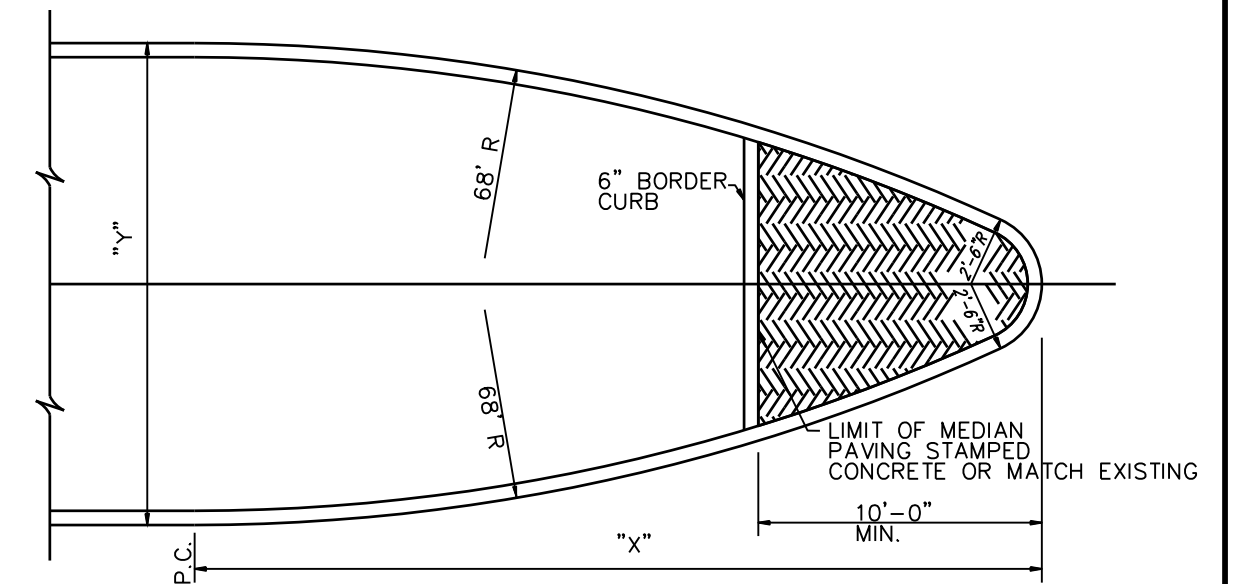
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	PAV-04	8 OF 53



- LEGEND**
- ① - SAWED LONGITUDINAL DUMMY JOINT
 - ② - A. CONSTRUCTION JOINT (FULL WIDTH PVMT. IS ALLOWED WHERE APPROVED BY CITY OF LANCASTER).
B. DELETE IT WHEN PAVING IS 25 FT. WIDTH TO BE WIDENED IN FUTURE.
C. INSTALL CURB IF PAVING IS LESS THAN FULL WIDTH OF 33'-36'.

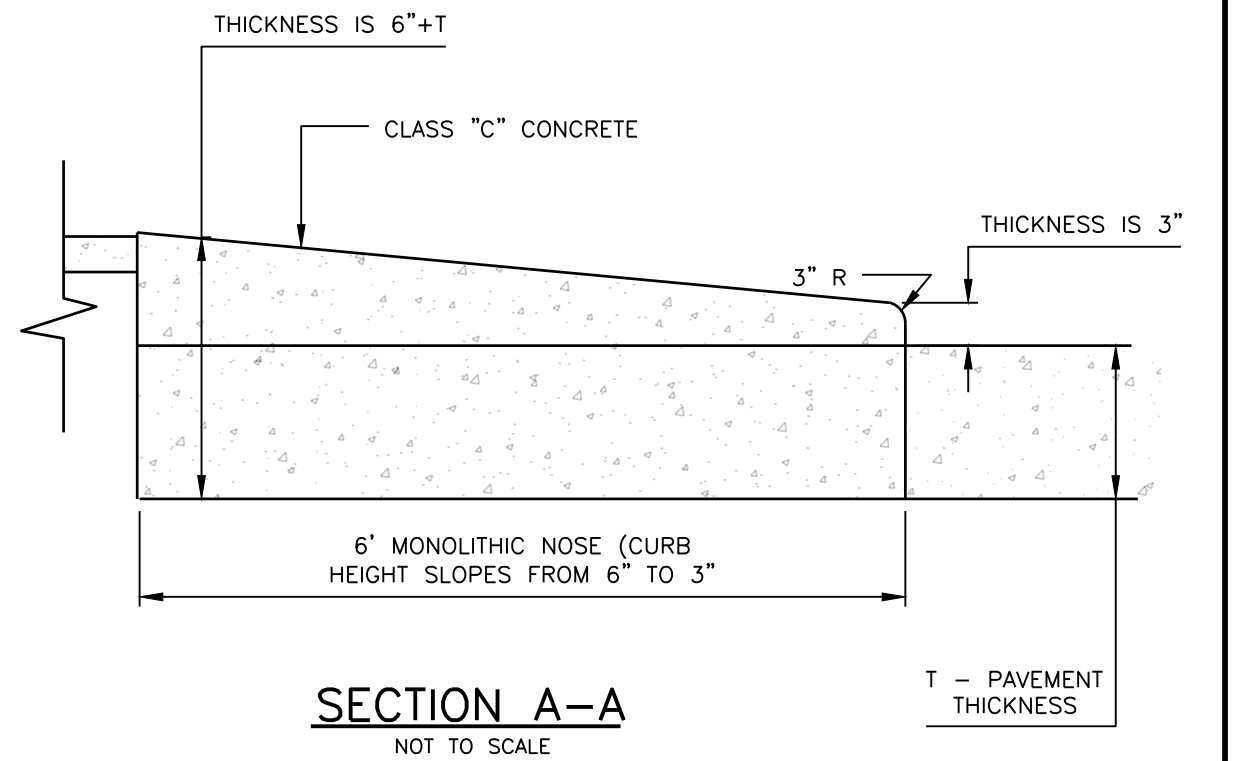


M60, P60, M4D SECTIONS SHALL HAVE MINIMUM PAVEMENT THICKNESS OF 8 INCHES.



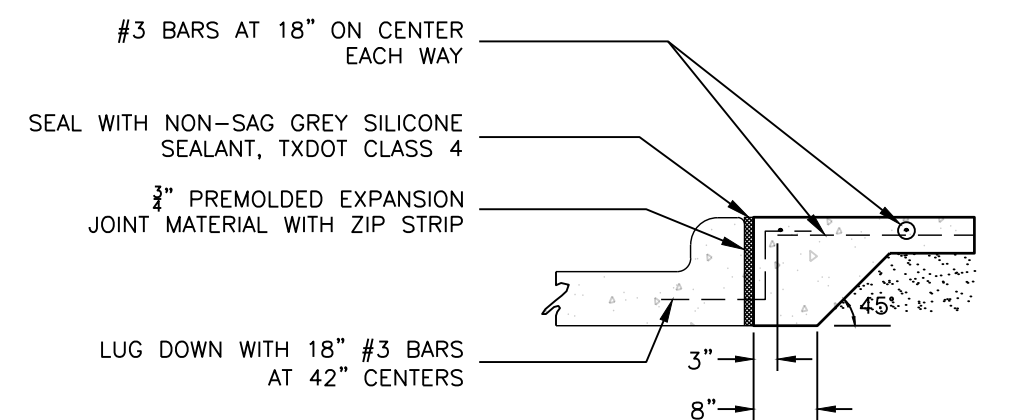
DETAIL OF NOSE FOR MEDIAN ISLAND

DIMENSIONS OF MEDIAN NOSE			
X = 13.90'	Y = 7.0'	X = 26.36'	Y = 14.0'
X = 16.44'	Y = 8.0'	X = 29.89'	Y = 17.0'
X = 18.08'	Y = 9.0'	X = 32.93'	Y = 20.0'
X = 20.42'	Y = 10.0'	X = 36.47'	Y = 24.0'



- NOTE:
- USE #4 REBARS WHEN TAPERING MEDIAN NOSE FROM 6" TO 3"
 - ALL MEDIAN NOSES SHALL BE TAPERED AS SHOWN ABOVE

TAPERED MEDIAN NOSE DETAIL
NOT TO SCALE



MEDIAN LUG DETAIL
NOT TO SCALE

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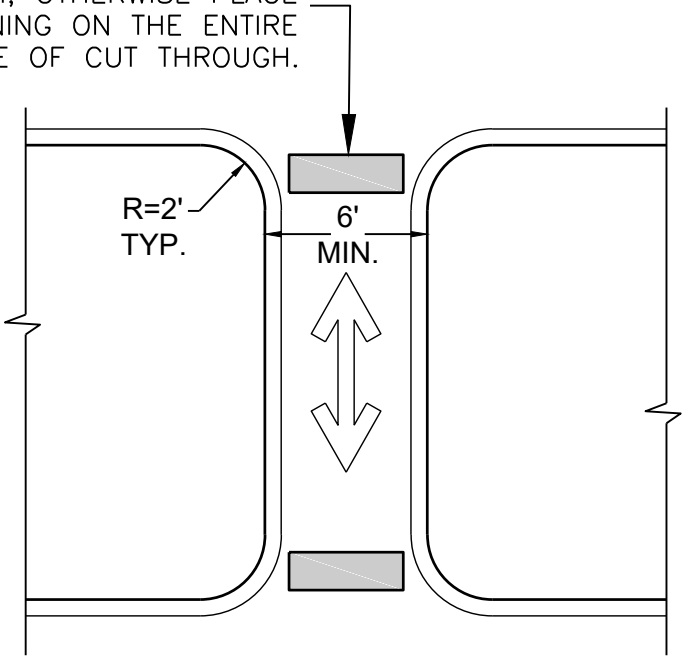
CONCRETE PAVING
STANDARD DETAILS FOR
DIVIDED THOROUGHFARE



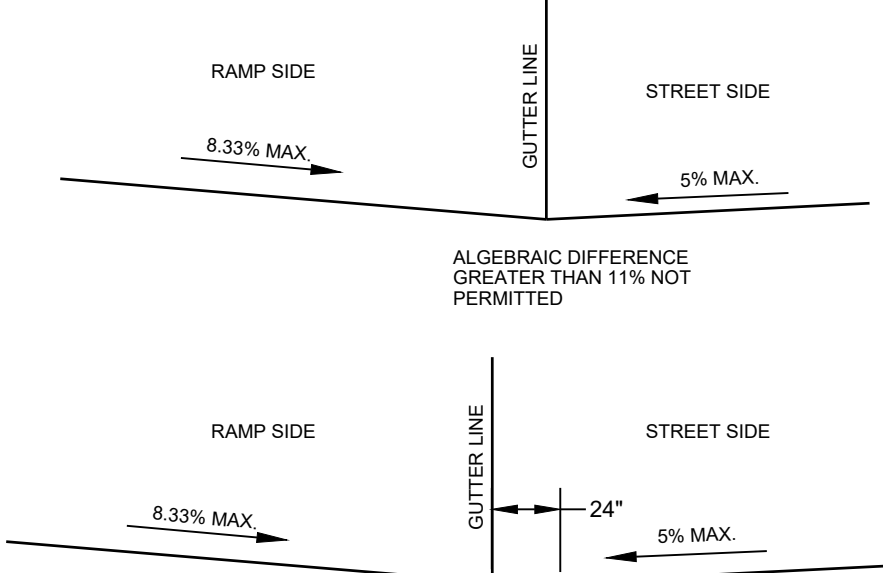
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	PAV-05	9 OF 53

1. NOTE:
2. SEE BARRIER FREE RAMPS SHEET 2 OF 2 FOR DETECTABLE WARNING DETAILS
3. LAY-DOWN CURB LENGTH VARIES (MINIMUM LENGTH AS SHOWN)
4. BARRIER FREE RAMPS SHALL BE DOWELED INTO EXISTING STREET PAVEMENT (MIN. 9") WITH #3 @ 18" O.C. x 24" LONG.
5. BARRIER FREE RAMPS SHALL BE REINFORCED CONCRETE (4000 PSI) FOR A 2 FOOT WIDTH FROM BACK OF CURB & MATCH STREET THICKNESS. THE REMAINDER OF THE BARRIER FREE RAMP SHALL BE 5" REINFORCED CONCRETE (4000 PSI). THE ENTIRE RAMP MAY HAVE A 2" SAND CUSHION.
6. ALL 12:1 RAMPS SHALL NOT EXCEED 6' IN LENGTH.
7. FILL TO BE MINIMUM 95% STANDARD PROCTOR DENSITY AT ± 2% OF OPTIMUM MOISTURE CONTENT AND SHALL BE SELECT FILL WITH P.I. LESS THAN 15.
8. BARRIER FREE RAMPS SHALL BE CONSTRUCTED AT ALL STREET AND ALLEY INTERSECTIONS EVEN IF THE SIDEWALKS ARE NOT INCLUDED IN THE CONSTRUCTION PLANS.

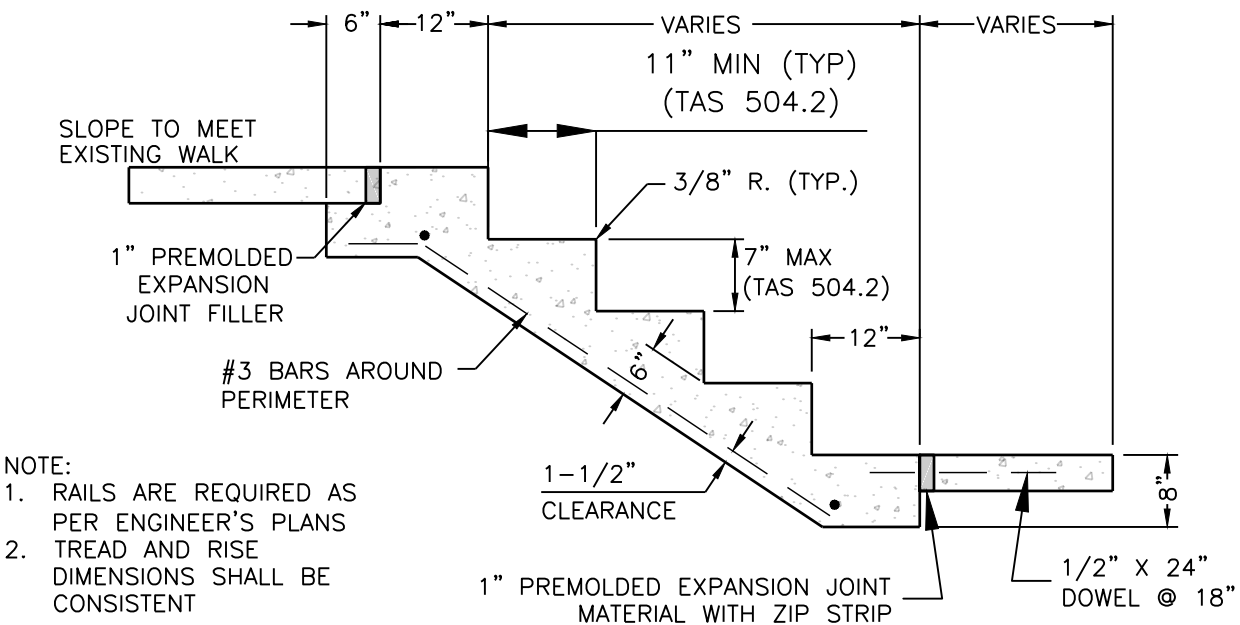
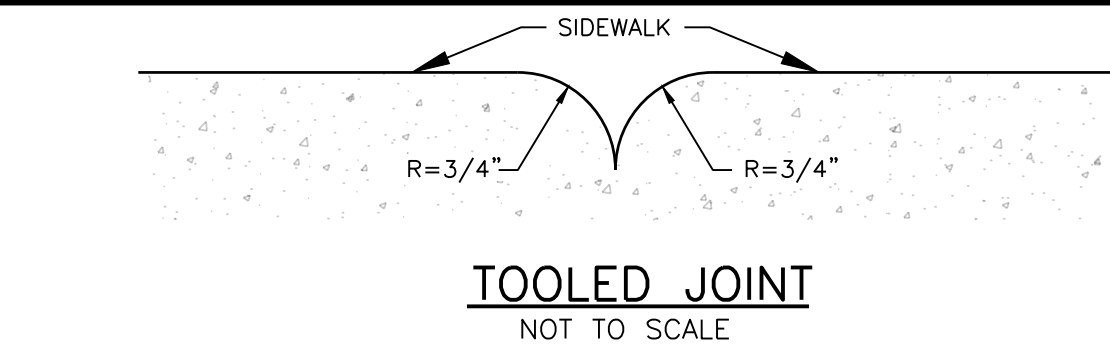
2' STRIPE IF CUT THROUGH IS GREATER THAN 5' IN LENGTH, OTHERWISE PLACE DETECTABLE WARNING ON THE ENTIRE SURFACE OF CUT THROUGH.



CUT THROUGH AT ISLAND/MEDIAN



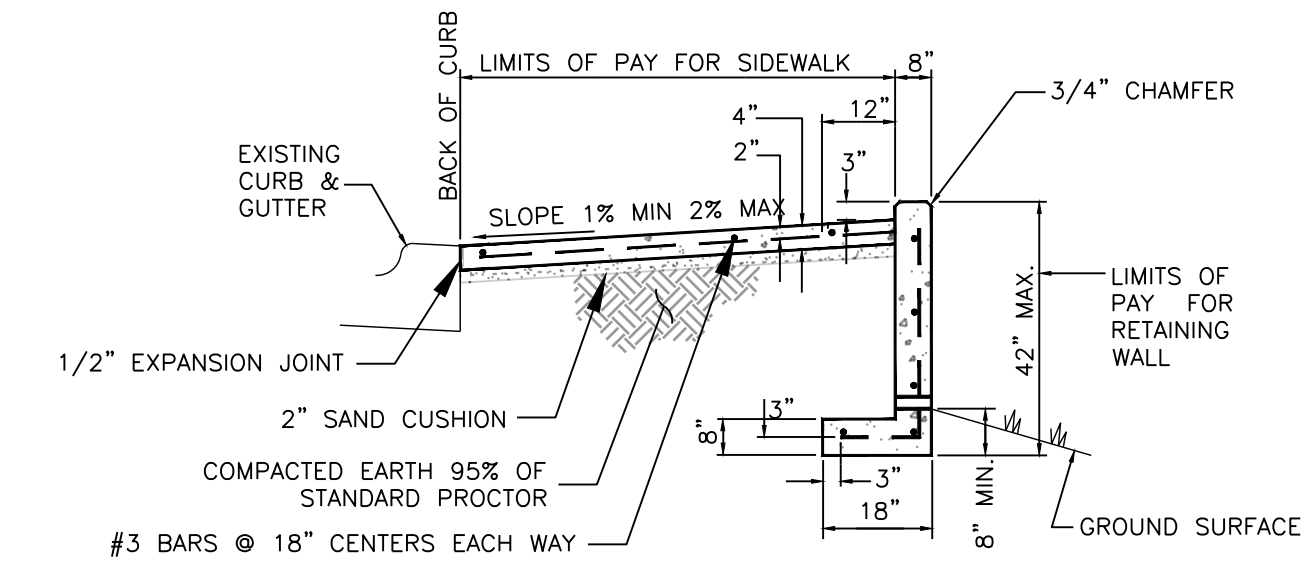
COUNTER SLOPE CONDITIONS



- NOTE:
1. RAILS ARE REQUIRED AS PER ENGINEER'S PLANS
2. TREAD AND RISE DIMENSIONS SHALL BE CONSISTENT

SIDEWALK STEPS

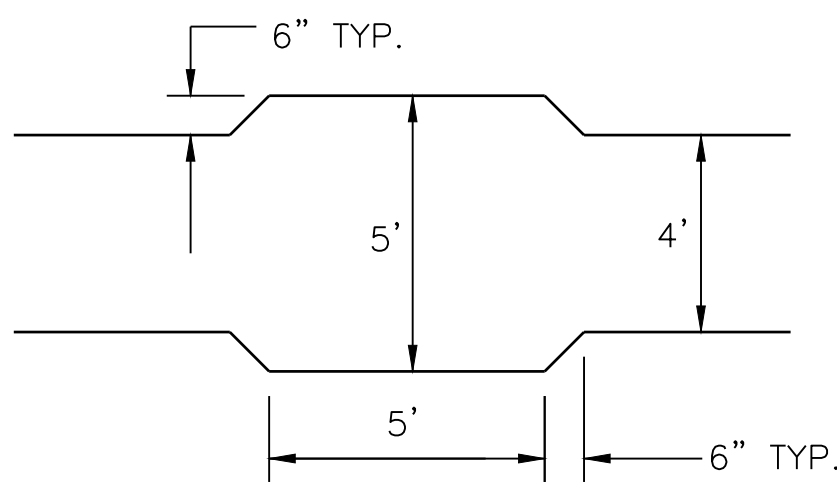
NOT TO SCALE



- NOTES:
1. STEEL REINFORCING IN WALL SHALL BE #3 BARS @ 12" CENTERS HORIZONTALLY AND #4 BARS @ 8" CENTERS VERTICALLY.
2. REDWOOD JOINTS IN WALL SHALL MATCH REDWOOD JOINTS IN THE SIDEWALK. THE WALL SHALL BE DOUBLE CHAMFERED AT THE REDWOOD LOCATIONS.3. ENDS OF WALL SHALL ALSO BE CHAMFERED.
3. CONCRETE TO HAVE COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.

SIDEWALK WITH LOW WALL

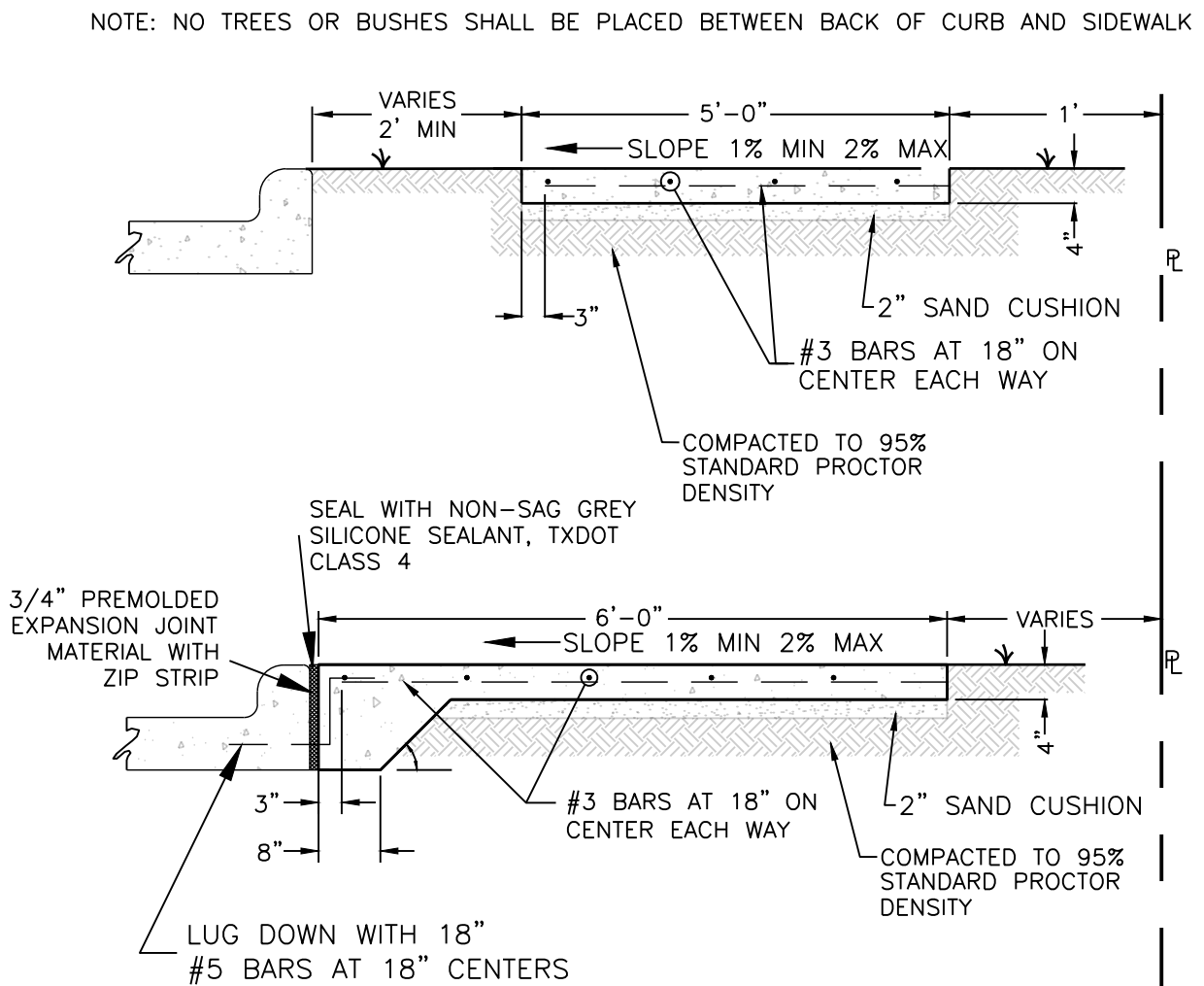
NTS



SIDEWALK PASSING AREA *

NOT TO SCALE

NOTE: DRIVEWAY CROSSING QUALIFY AS PASSING AREA. *MAXIMUM 200' INTERVALS



SIDEWALK LOCATION DETAIL

NOT TO SCALE

- SIDEWALK AND BARRIER RAMPS NOTES:**
- GENERAL REQUIREMENTS**
- A. BARRIER FREE RAMPS SHALL BE CONSTRUCTED AS PER THE LATEST REQUIREMENTS AND SPECIFICATIONS OF THE TEXAS ACCESSIBILITY STANDARDS AND THE AMERICANS WITH DISABILITIES ACT.
- B. CONTRACTOR SHALL CONTACT THE PUBLIC WORKS OR STREET DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT-OF-WAY.
- LOCATION:**
- A. BARRIER FREE RAMPS UNDER THESE PROVISIONS, SHALL BE WHEREVER AN ACCESSIBLE ROUTE CROSSES A CURB.
- SLOPE:**
- A. SLOPES ON BARRIER FREE RAMPS SHALL BE AS FOLLOWS:
- B. THE SLOPE SHALL BE MEASURED AS SHOWN IN COUNTER SLOPE CONDITION DETAIL & SECTION B-B OF BARRIER FREE RAMP TYPE-VI (DUAL).
- C. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
- D. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE BARRIER FREE RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20.
- E. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION SHALL BE 1:12. THE MAXIMUM RISE FOR ANY RUN SHALL BE 30" (760 MM). BARRIER FREE RAMPS AND RAMPS TO BE CONSTRUCTED ON EXISTING SITES OR IN EXISTING BUILDING OR FACILITIES MAY HAVE SLOPES AND RISES IF SPACE LIMITATIONS PROHIBIT THE USE OF A 1:12 SLOPE OR LESS, AS FOLLOWS:
1. A SLOPE BETWEEN 1:10 AND 1:12 IS ALLOWED FOR A MAXIMUM RISE OF 6".
2. A SLOPE BETWEEN 1:8 AND 1:10 IS ALLOWED FOR A MAXIMUM OF 3" A SLOPE STEEPER THAN 1:8 IS NOT ALLOWED.
- RAMP WIDTH:**
- A. THE MINIMUM WIDTH OF A BARRIER FREE RAMP SHALL BE 36" EXCLUSIVE OF FLARED SIDES.
- SIDEWALK WIDTH:**
- A. THE MINIMUM WIDTH OF ALL SIDEWALKS SHALL BE 5', AND TO BE CONSTRUCTED AS PER THE "SIDEWALK LOCATION DETAIL" ON THIS SHEET.
- B. MINIMUM 6' SIDEWALK MAY BE PLACED ADJACENT TO THE CURB, WITH THE APPROVAL OF THE CITY ENGINEER.
- SURFACE:**
- A. SURFACES OF CURB RAMPS, ALONG ACCESSIBLE ROUTES AND IN ACCESSIBLE ROOMS AND SPACES INCLUDING FLOORS, WALKS, RAMPS, STAIRS, AND CURB RAMPS, SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
- SIDES OF BARRIER FREE RAMPS:**
- A. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, OR WHERE IT IS NOT PROTECTED BY HANDRAILS OR GUARDRAILS, IT SHALL HAVE FLARED SIDES.
- B. THE MAXIMUM SLOPE OF THE FLARE SHALL BE 1:10 BARRIER FREE RAMPS WITH RETURNED CURBS MAY BE USED WHERE PEDESTRIANS WOULD NOT WALK ACROSS THE RAMP.
- BUILT-UP RAMPS:**
- A. BUILT-UP BARRIER FREE RAMPS SHALL BE LOCATED SO THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES.
- OBSTRUCTIONS:**
- A. BARRIER FREE RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED VEHICLES.
- B. ALL EFFORT SHALL BE MADE TO ENSURE AN UNOBSTRUCTED ACCESSIBLE ROUTE AND ALL WORK SHALL COMPLY WITH TEXAS ACCESSIBILITY STANDARDS (TAS) AND TOLR REQUIREMENTS.
- LOCATION AT MARKED CROSSINGS:**
- A. BARRIER FREE RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
- DIAGONAL BARRIER FREE RAMPS:**
- A. IF DIAGONAL (OR CORNER TYPE) BARRIER FREE RAMPS HAVE RETURNED CURBS OR OTHER WELL DEFINED EDGES, SUCH EDGES SHALL BE PARALLEL TO THE DIRECTION OF PEDESTRIAN FLOW.
- B. THE BOTTOM OF DIAGONAL BARRIER FREE RAMPS SHALL HAVE 48" (1220 MM) MIN.
- C. DIAGONAL BARRIER FREE RAMPS ARE PROVIDED AT MARKED CROSSINGS, THE 48" (1220 MM) CLEAR SPACE SHALL BE WITHIN THE MARKINGS.
- D. IF DIAGONAL BARRIER FREE RAMPS HAVE FLARED SIDES, THEY SHALL ALSO HAVE AT LEAST A 24" (610 MM) LONG SEGMENT OF STRAIGHT CURB LOCATED ON EACH SIDE OF THE BARRIER FREE RAMP AND WITHIN THE MARKED CROSSING.
- E. ANY RAISED ISLANDS IN CROSSINGS SHALL BE CUT THROUGH LEVEL WITH THE STREET OR HAVE BARRIER FREE RAMPS AT BOTH SIDES AND A LEVEL AREA AT LEAST 48" (1220 MM) LONG BETWEEN THE BARRIER FREE RAMPS IN THE PART OF THE ISLAND INTERSECTED BY THE CROSSINGS.
- CONSTRUCTION:**
- A. THE CONTRACTOR SHALL SAWCUT, REMOVE AND DISPOSE OFF-SITE THE REQUIRED EXISTING CONCRETE SIDEWALK, CURB AND GUTTER, TO CONSTRUCT THE PROPOSED RAMPS.
- B. CONCRETE SIDEWALKS AND RAMPS SHALL BE MINIMUM 5 1/2 SACK/CUBIC YARD OF CEMENT AND MINIMUM 4" THICK 4000 PSI CONCRETE, REINFORCED WITH #3 BARS AT 18" CENTERS BOTH WAYS, PLACED OVER A 2" THICK SAND CUSHION EMBEDMENT.
- C. THE CONTRACTOR SHALL USE 1" PREMOLED EXPANSION JOINT MATERIAL BETWEEN THE PROPOSED SIDEWALKS AND RAMPS AT THE BACK OF CURBS, AND AT JOINTS AT NO EXTRA PAY.
- D. EXPANSION JOINTS AND DUMMY JOINTS
1. FOR 4' SIDEWALK: REDWOOD EXPANSION JOINTS REQUIRED AT EVERY 40' AND DUMMY JOINTS AT EVERY 4'.
2. FOR 5' SIDEWALK: REDWOOD EXPANSION JOINTS REQUIRED AT EVERY 40' AND DUMMY JOINTS AT EVERY 5'.
3. FOR 6' SIDEWALK: REDWOOD EXPANSION JOINTS REQUIRED AT EVERY 42' AND DUMMY JOINTS AT EVERY 6'.
4. FOR 8' SIDEWALK: REDWOOD EXPANSION JOINTS REQUIRED AT EVERY 40' AND DUMMY JOINTS AT EVERY 8'.
- E. INSTALL 1/2" SLIP DOWELS (SMOOTH) ALONG LEAD WALKS AND AT BARRIER FREE RAMPS
- TESTING:**
- A. PLEASE REFER TO THE GENERAL NOTES SHEETS, GN-01 – GN 04, FOR TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.
- B. THE CONTRACTOR WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.
- PRIVATE DEVELOPMENT PROJECTS:**
- A. THE DEVELOPER/OWNER SHALL PROVIDE TESTING FOR ALL PROJECT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION COMMENCING.
- B. ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
- C. CONCRETE SHALL BE MADE WITH A MINIMUM OF 5 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.

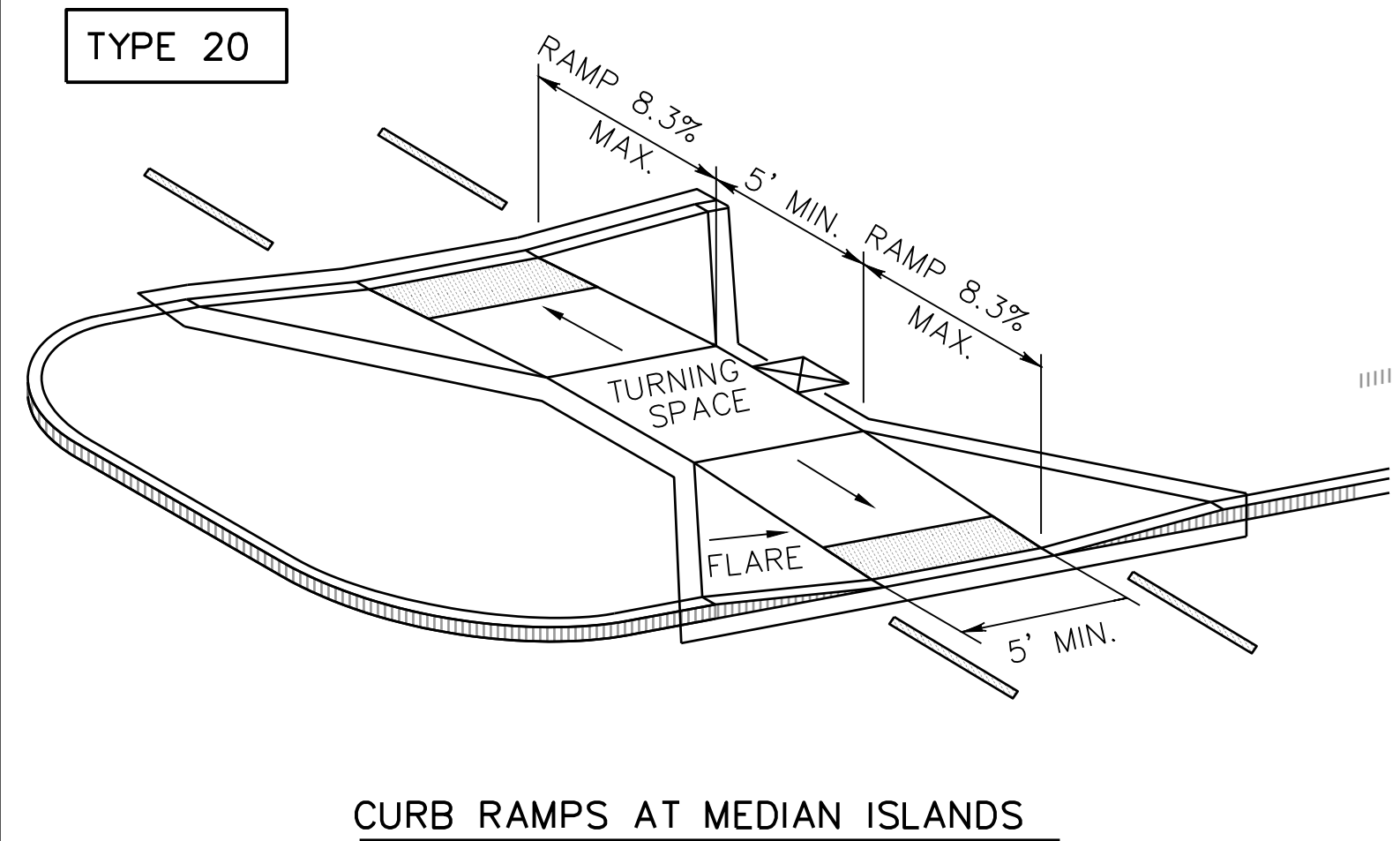
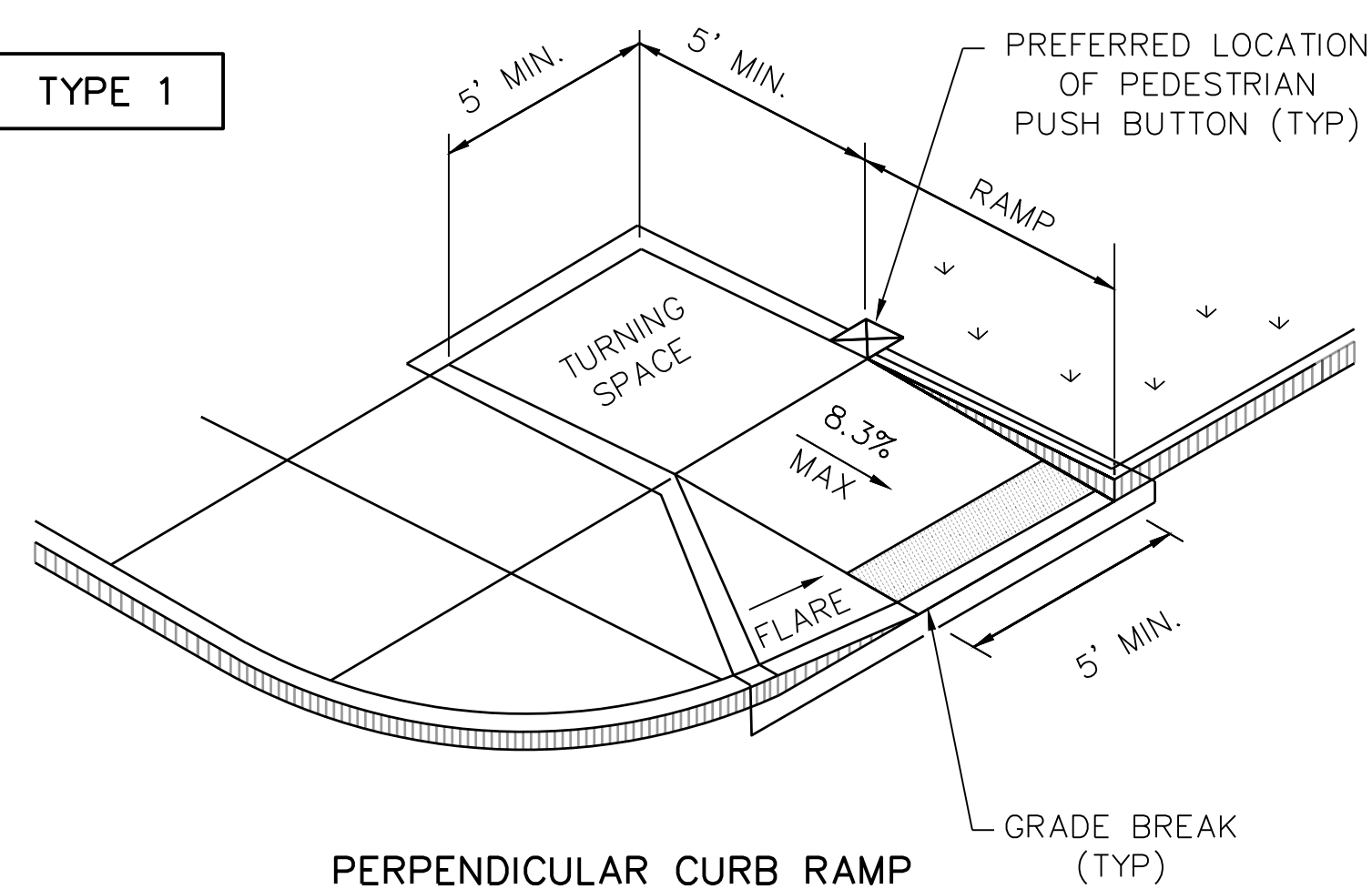
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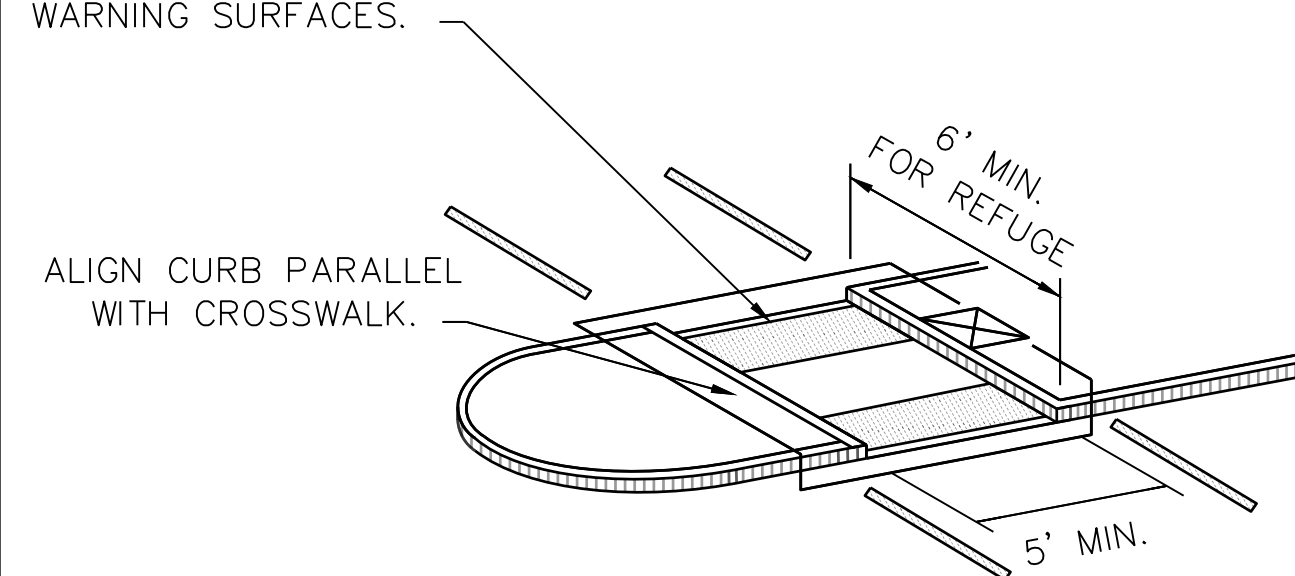
SIDEWALK AND BARRIER FREE RAMPS



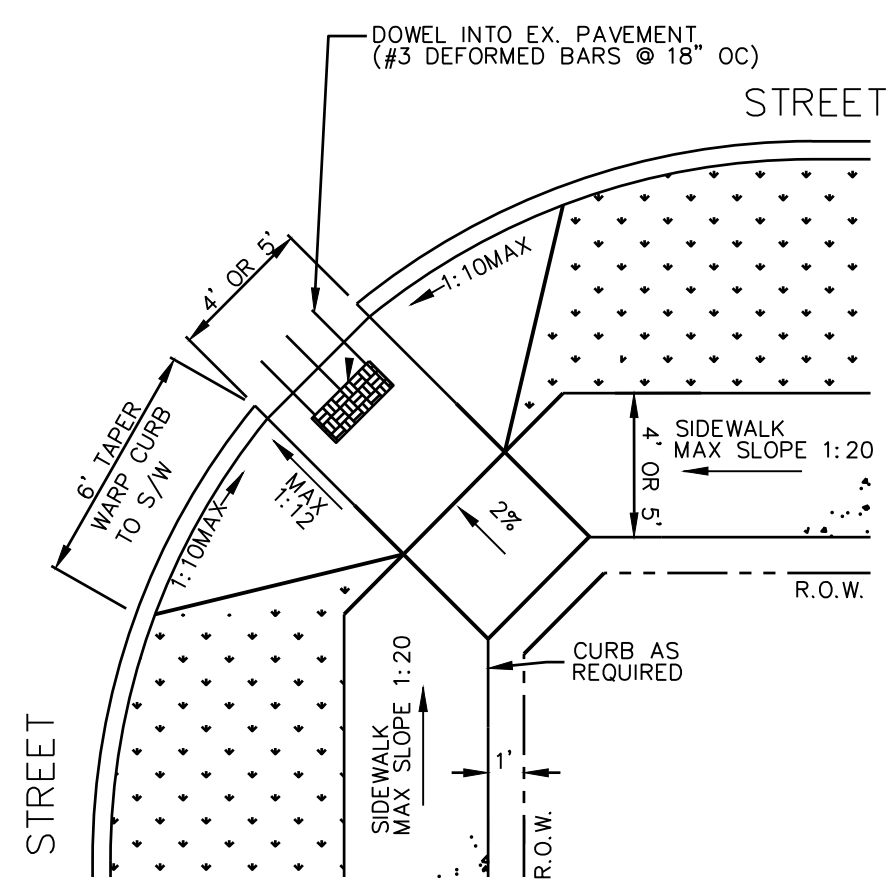
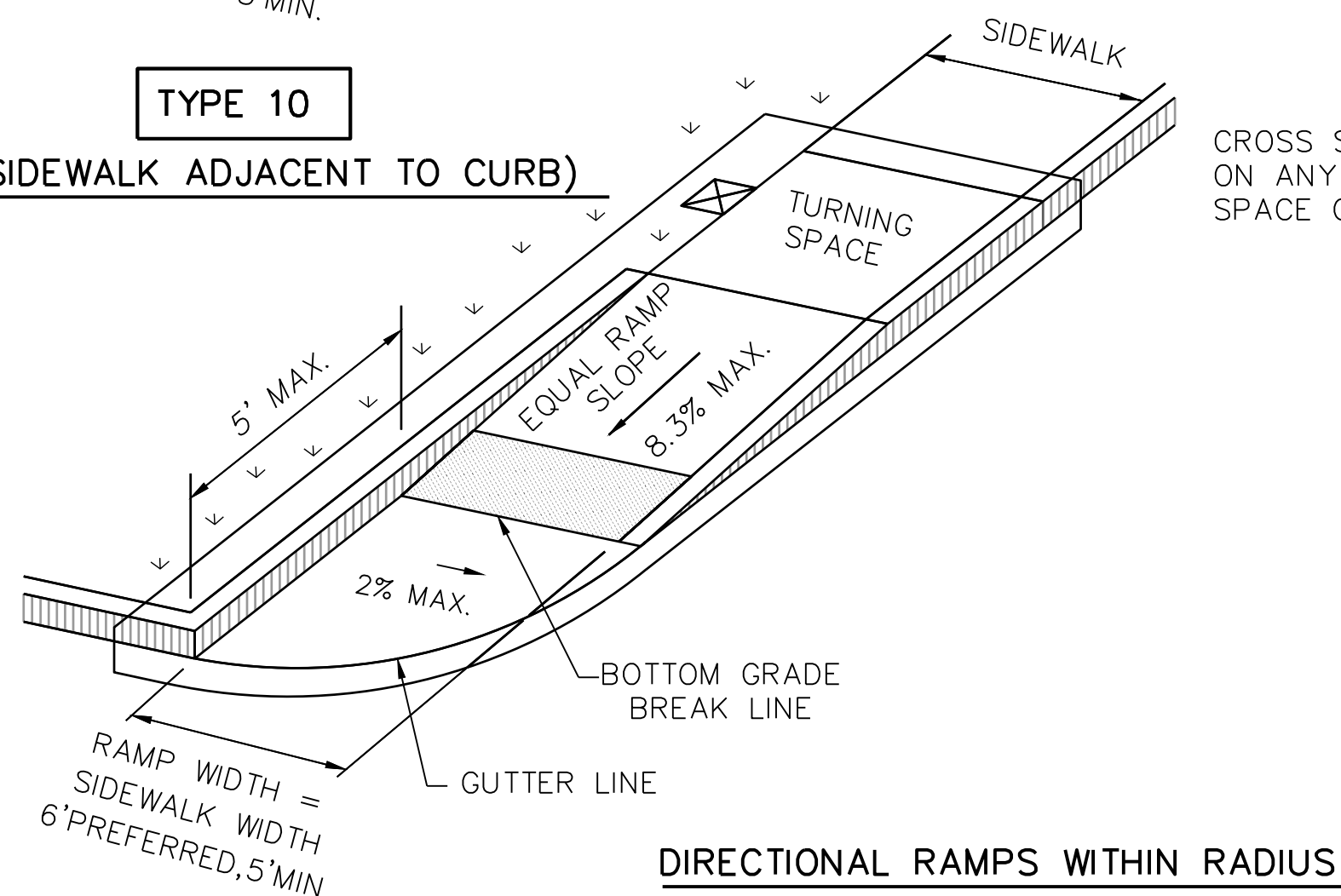
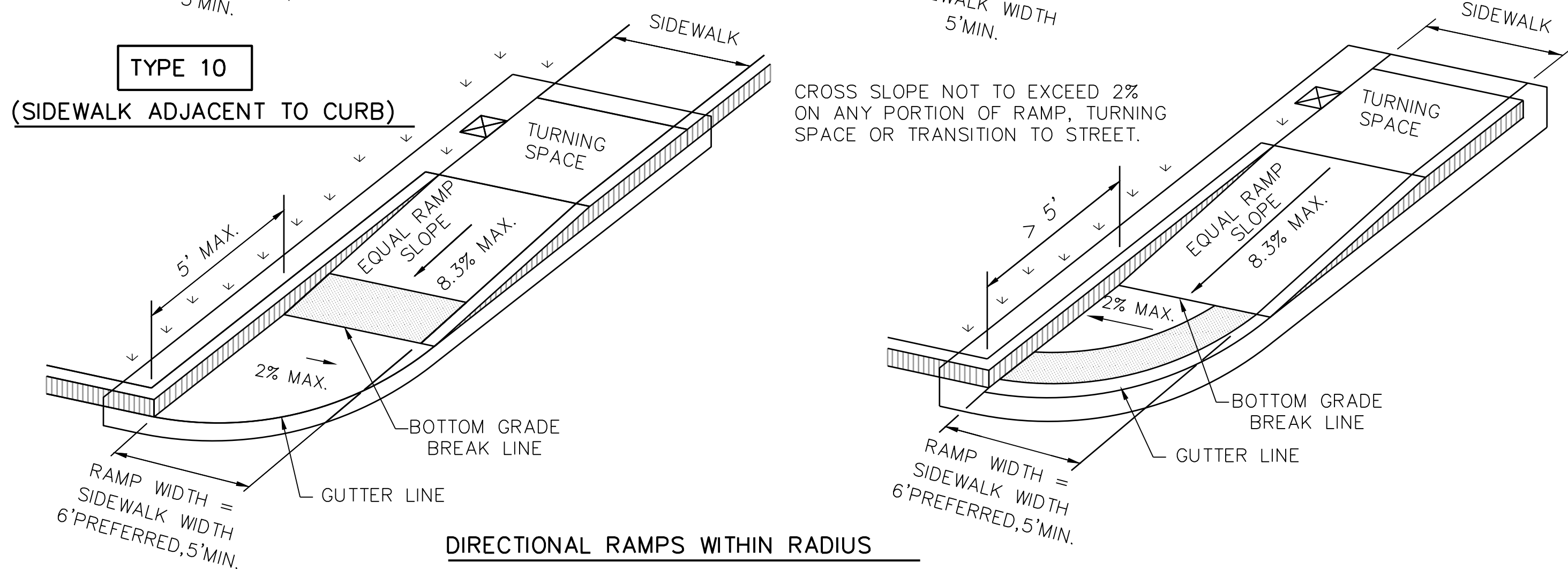
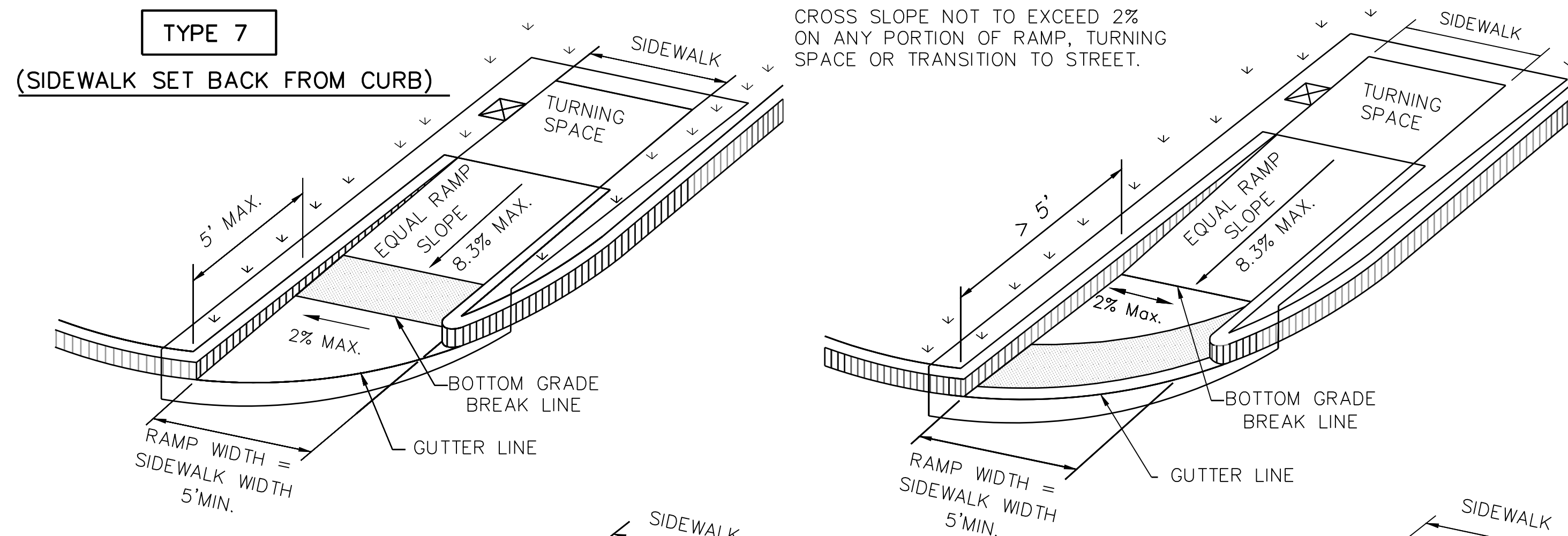
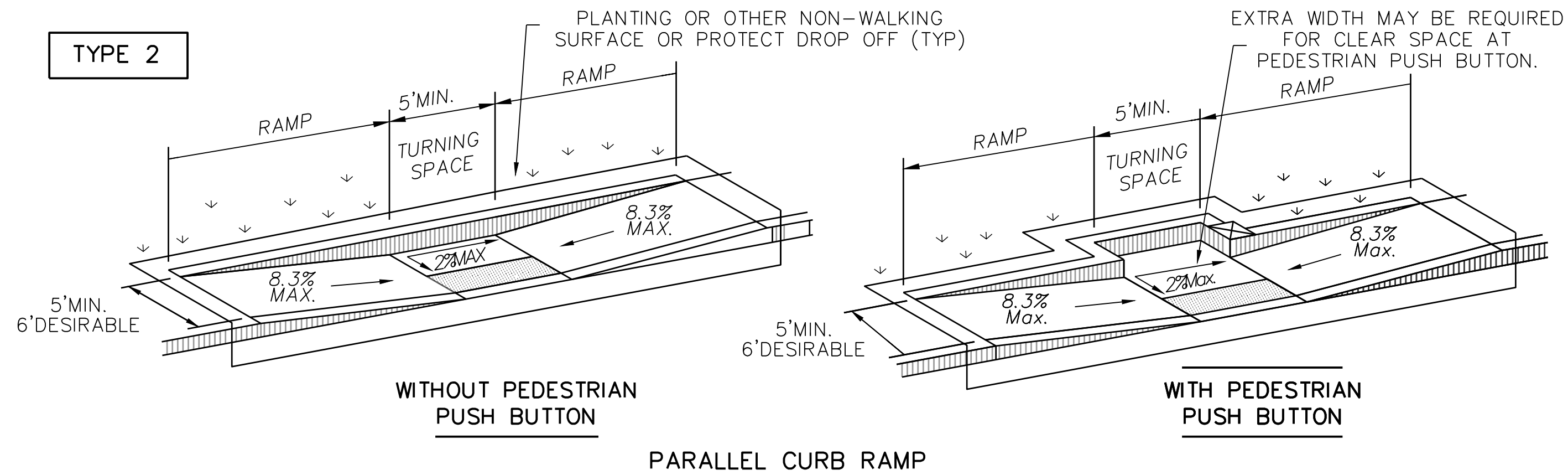
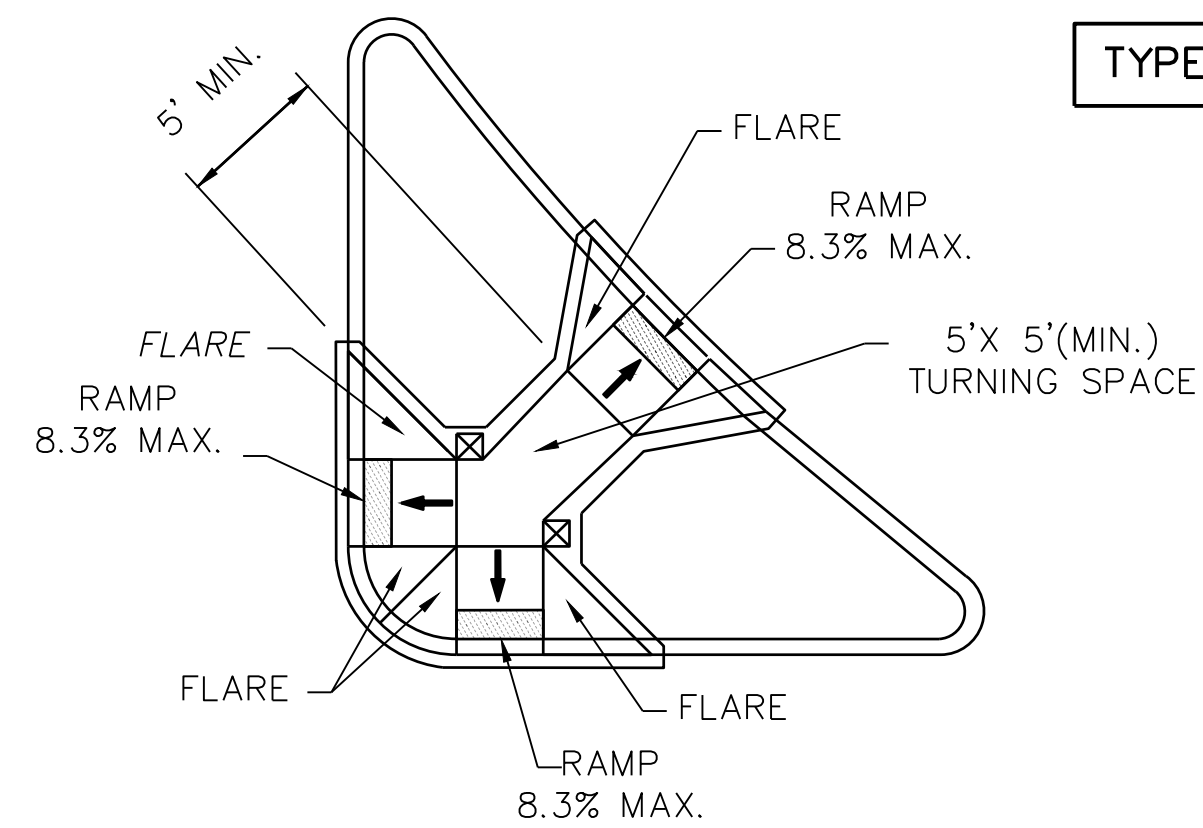
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	PAV-06	10 OF 53



INSTALL DETECTABLE WARNING SURFACE AT EACH END OF THE CUT-THROUGH RAMP WITH A MINIMUM 2' USUAL SIDEWALK SURFACE BETWEEN. IF MEDIAN IS LESS THAN 6' WIDE, ELIMINATE DETECTABLE WARNING SURFACES.



NOTE: CURB DETAILS ARE SHOWN
ELSEWHERE IN THE PLANS.



NOTES / LEGEND:

SEE GENERAL NOTES ON SHEET 2 OF 4 FOR MORE INFORMATION.

DENOTES PLANTING OR
NON-WALKING SURFACE
NOT PART OF PEDESTRIAN
CIRCULATION PATH.

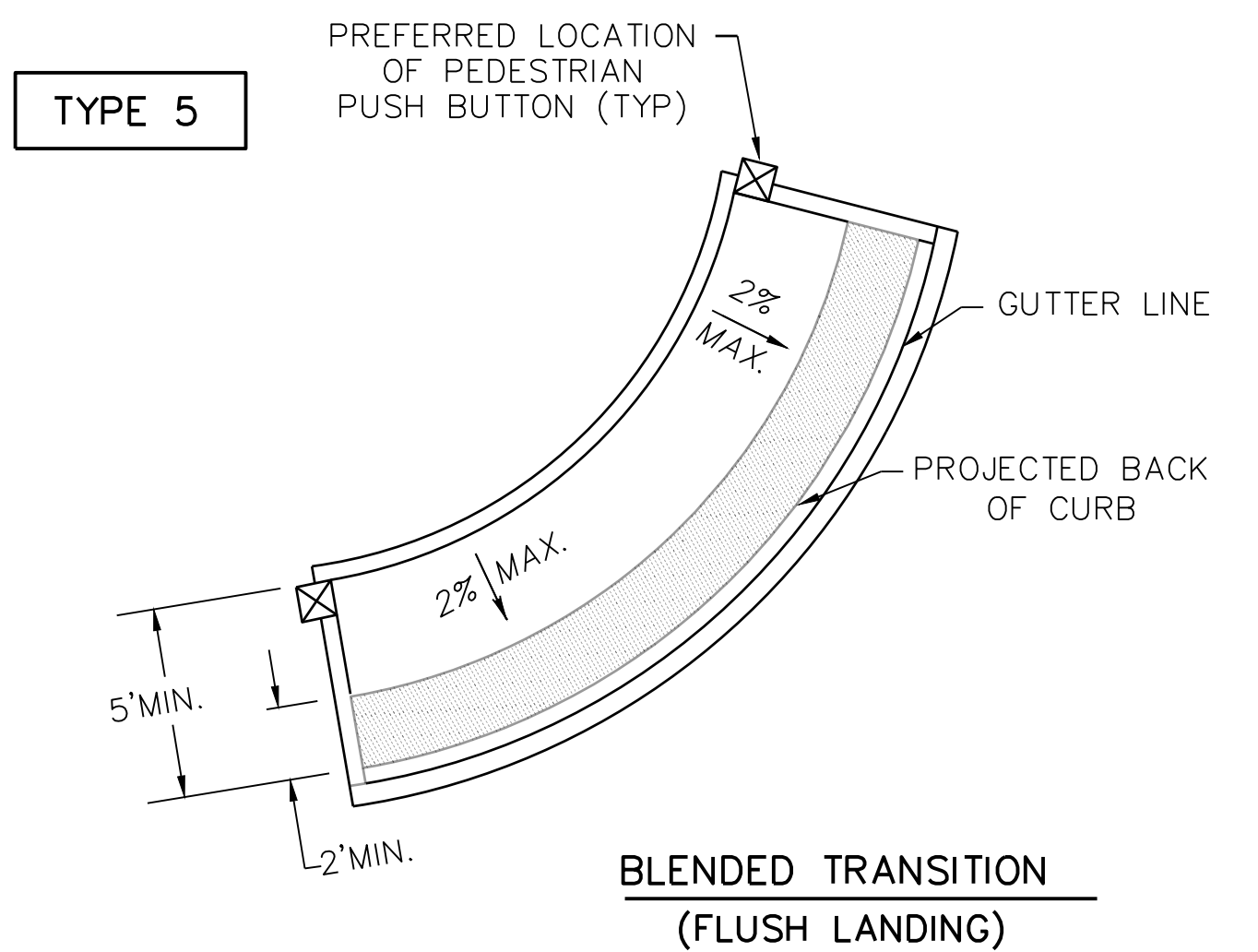
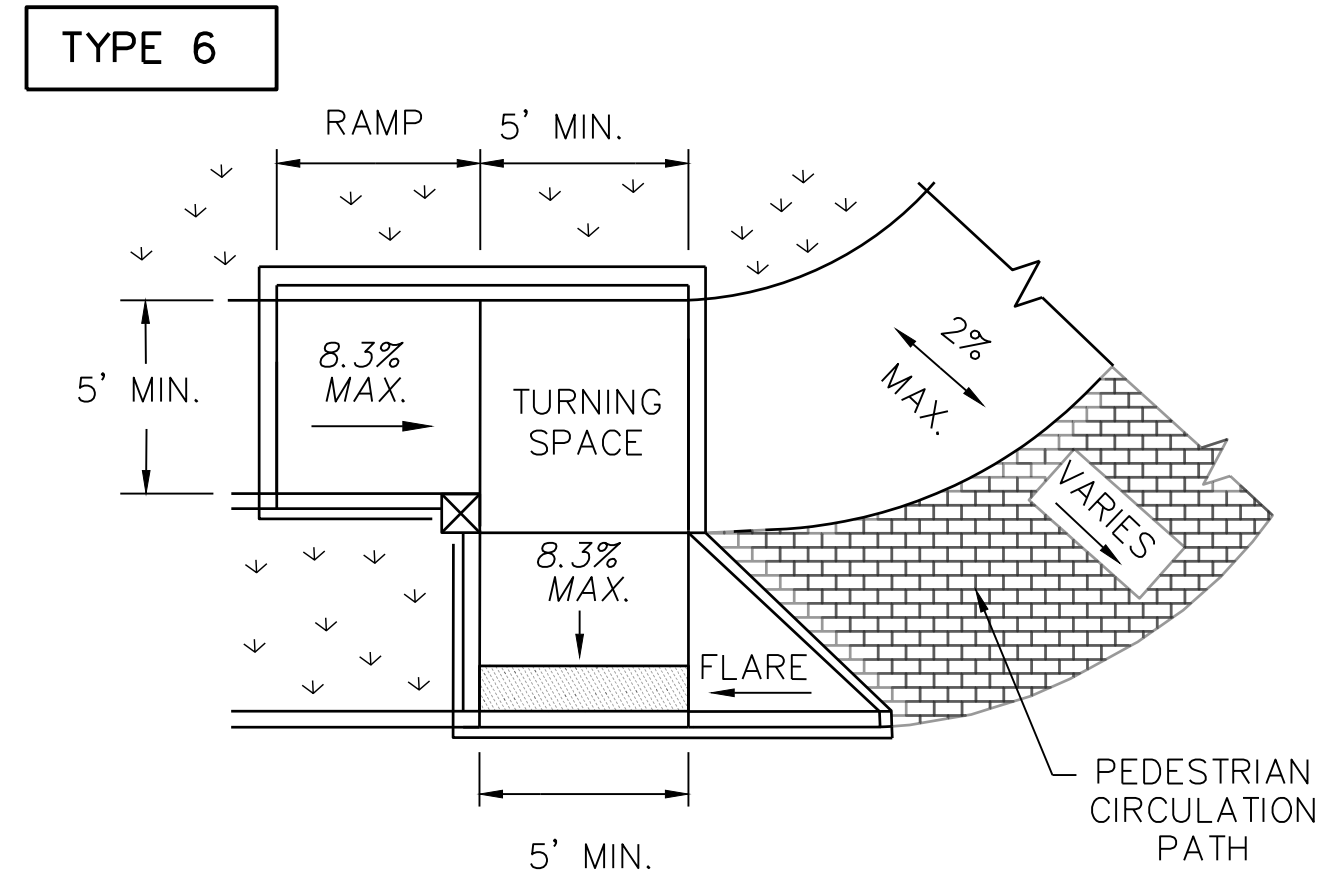
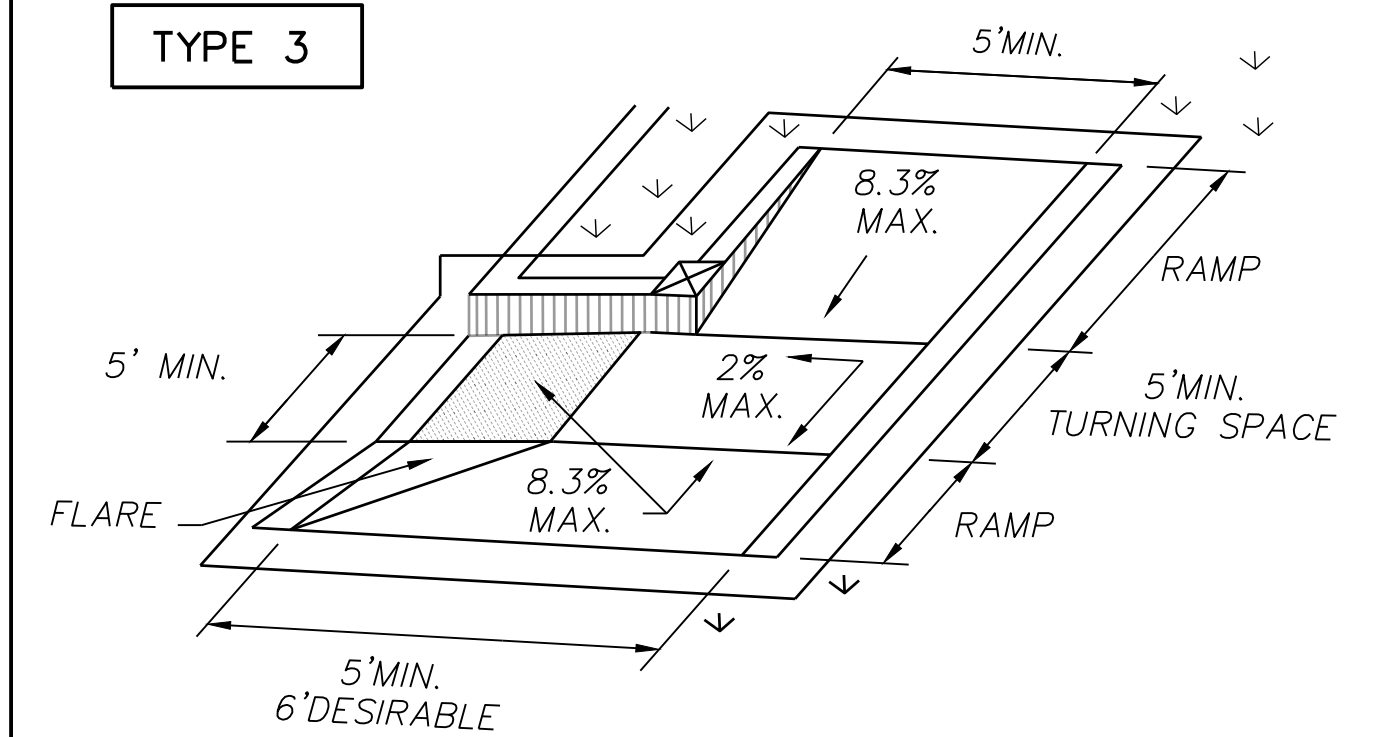
DETECTABLE WARNING SURFACE

DENOTES PREFERRED LOCATION
OF PEDESTRIAN PUSH BUTTON
IF APPLICABLE.

GUTTER LINE

GRADE BREAK

RAMP LIMITS OF PAYMENT



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PEDESTRIAN FACILITIES 1 OF 4

STANDARD DETAILS



DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			<i>Moy 2021</i>	N.T.S.	<i>PAV-07</i>	<i>11 OF 53</i>

GENERAL NOTES

CURB RAMPS

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Cross slopes of 1.5% and lesser running should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
4. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5'x 5' passing areas at intervals not to exceed 200' are required.
5. Turning Spaces shall be 5'x 5' minimum. Cross slope shall be maximum 2%.
6. Clear space at the bottom of curb ramps shall be a minimum of 4'x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the latest draft of the Proposed Guidelines for Pedestrian Facilities in the Public Right of Way (PROWAG) as published by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board).
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5'x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Provide curb ramps to connect the pedestrian access route at each pedestrian street crossing. Handrails are not required on curb ramps.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Furnish and install No. 3 reinforcing steel bars at 18" o.c. both ways, unless otherwise directed.
16. Provide a smooth transition where the curb ramps connect to the street.
17. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
18. Existing features that comply with applicable standards may remain in place unless otherwise shown on the plans.

DETECTABLE WARNING MATERIAL

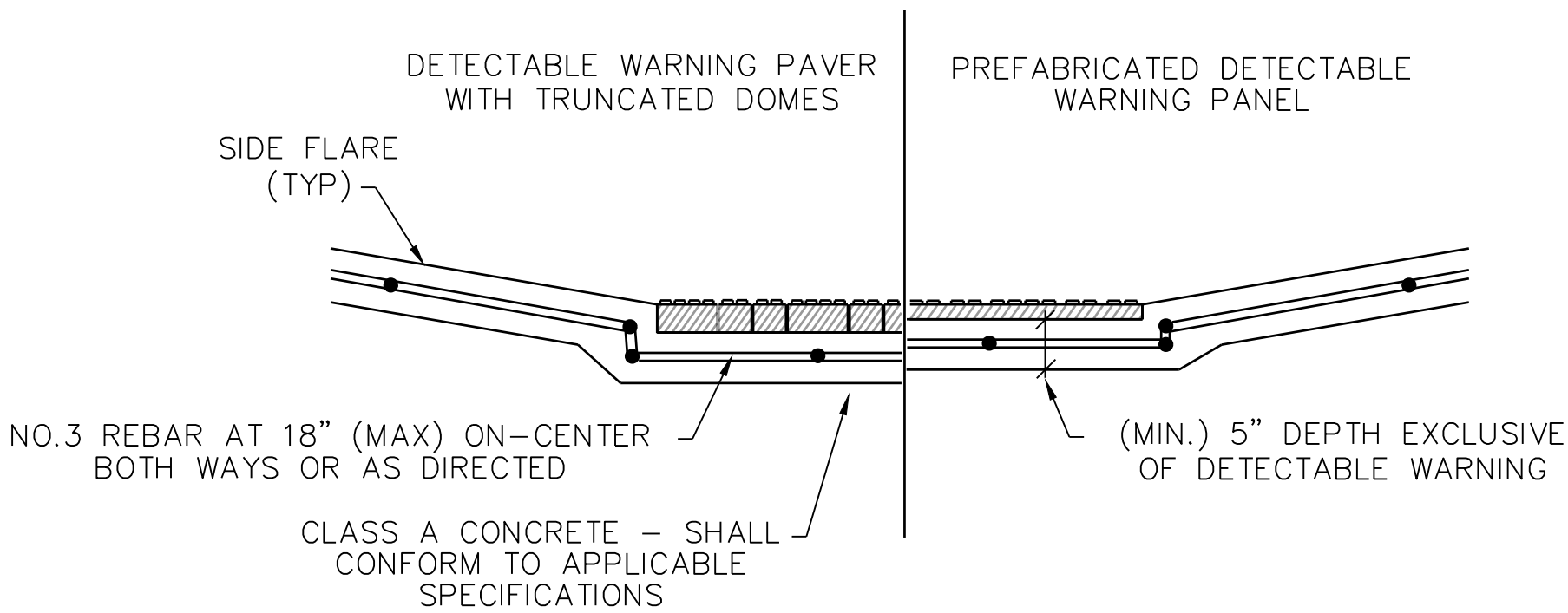
19. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with PROWAG. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cost-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
20. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
21. Detectable warning surfaces must be firm, stable and slip resistant.
22. Detectable warning surfaces shall be a minimum of 24 inches in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
23. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb and neither end of that edge is greater than 5 feet from the back of curb. Detectable warning surfaces may be curved along the corner radius.
24. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.

DETECTABLE WARNING PAVERS (IF USED)

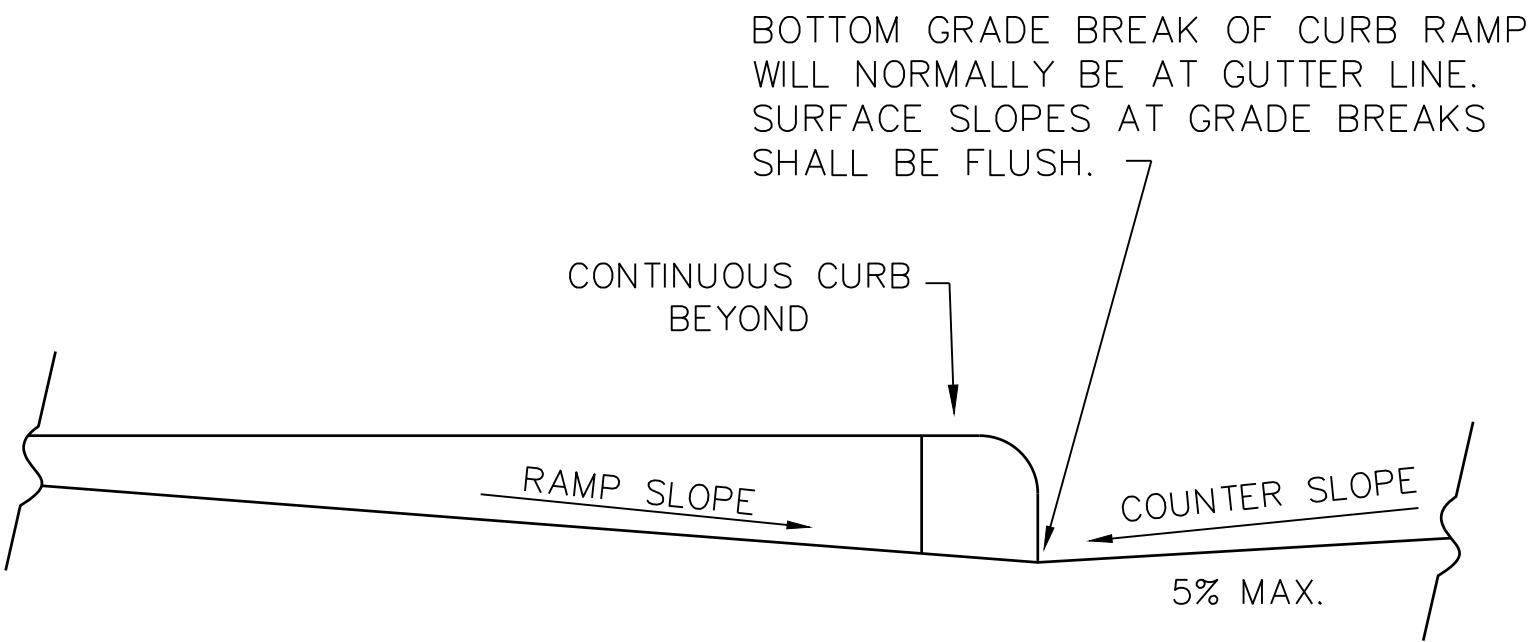
25. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
26. Lay full-size units first followed by closure units consisting of at least 25 percent (25%) of a full unit. Cut detectable warning paver units using a power saw.

SIDEWALKS

27. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within unobstructed reach range specified in PROWAG section R406.
28. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
29. Street grades and cross slopes shall be as shown elsewhere in the plans.
30. Changes in level greater than 1/4 inch are not permitted.
31. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than five percent (5%) must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with PROWAG R409.
32. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
33. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
34. Sidewalk details are shown elsewhere in the plans.

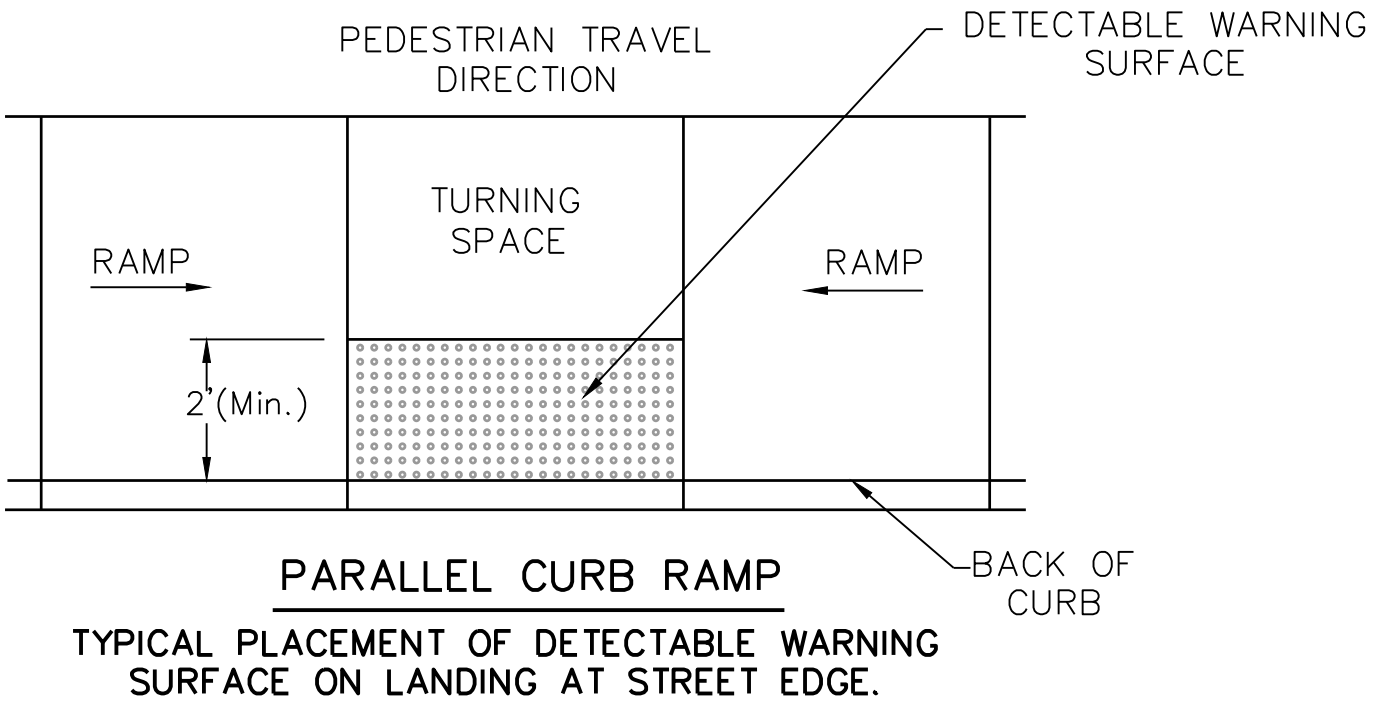


SECTION VIEW DETAIL
CURB RAMP AT DETECTIBLE WARNINGS

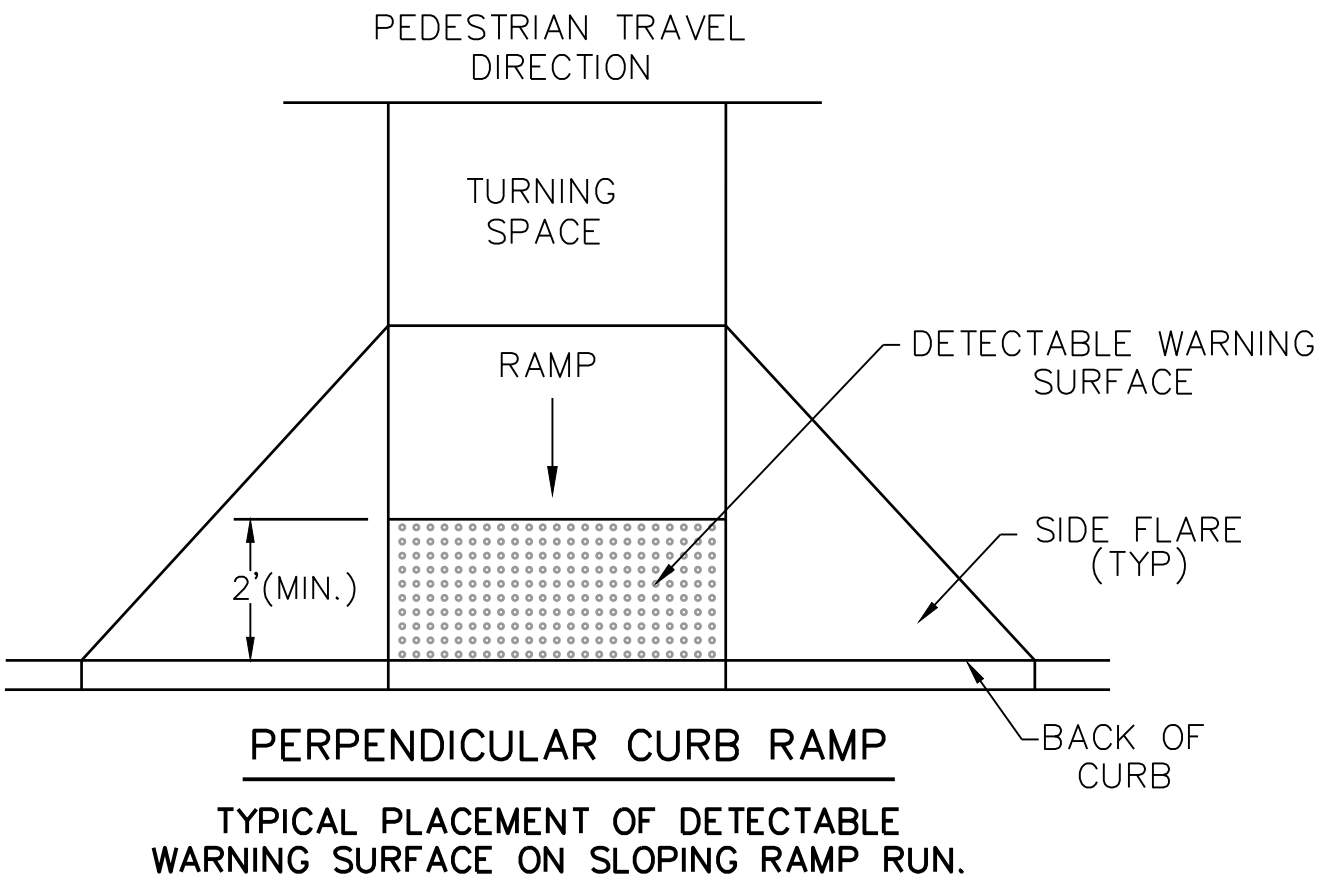


TYPICAL SECTION OF PERPENDICULAR
CURB RAMP AT CONNECTION TO ROADWAY

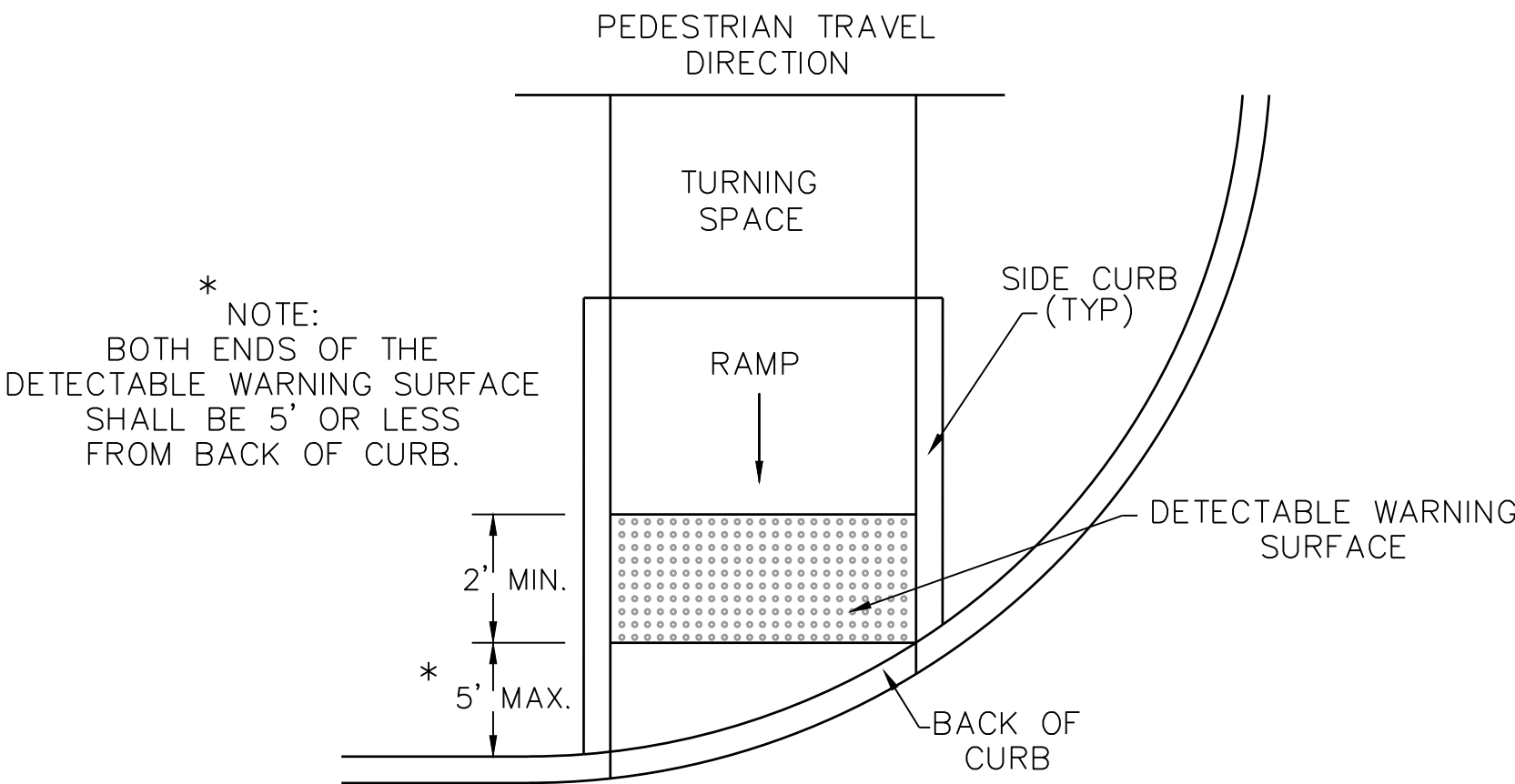
DETECTABLE WARNING SURFACE DETAILS



TYPICAL PLACEMENT OF DETECTABLE WARNING
SURFACE ON LANDING AT STREET EDGE.

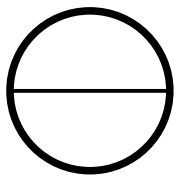


TYPICAL PLACEMENT OF DETECTABLE
WARNING SURFACE ON SLOPING RAMP RUN.



TYPICAL PLACEMENT OF DETECTABLE
WARNING SURFACE ON SLOPING RAMP RUN.

CERTIFICATION:
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DETAILS AND NOTES ON THIS SHEET HAVE
NOT BEEN ALTERED FROM THAT RECEIVED FROM
THE CITY OF LANCASTER.



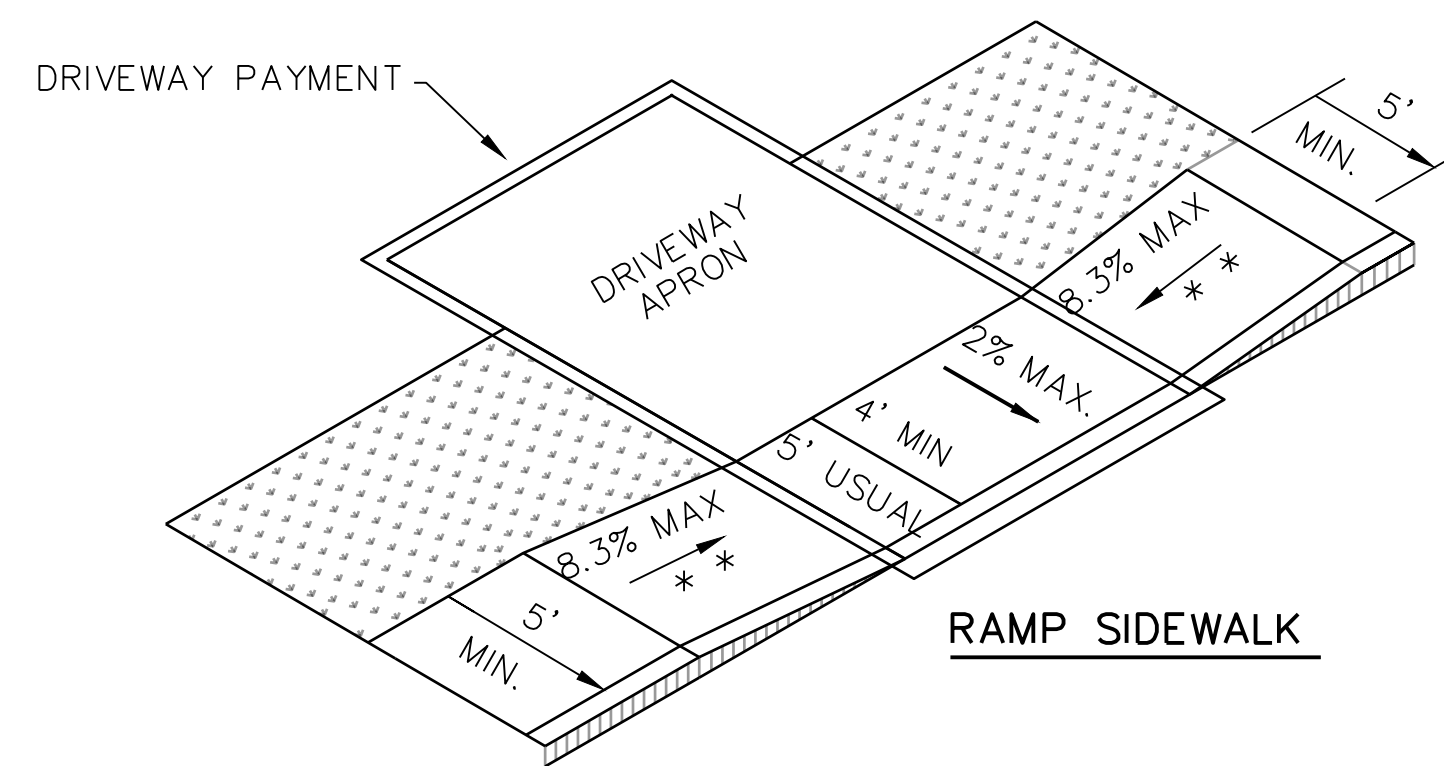
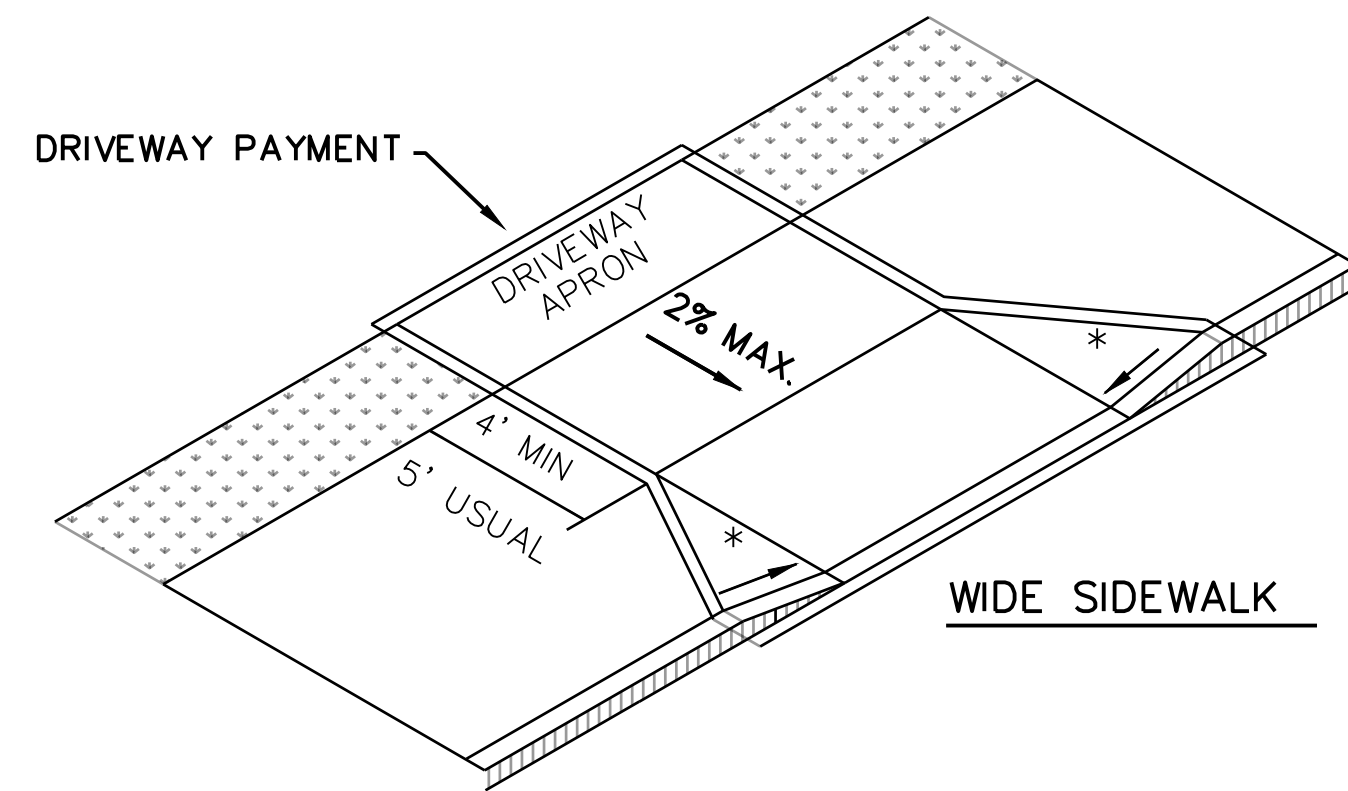
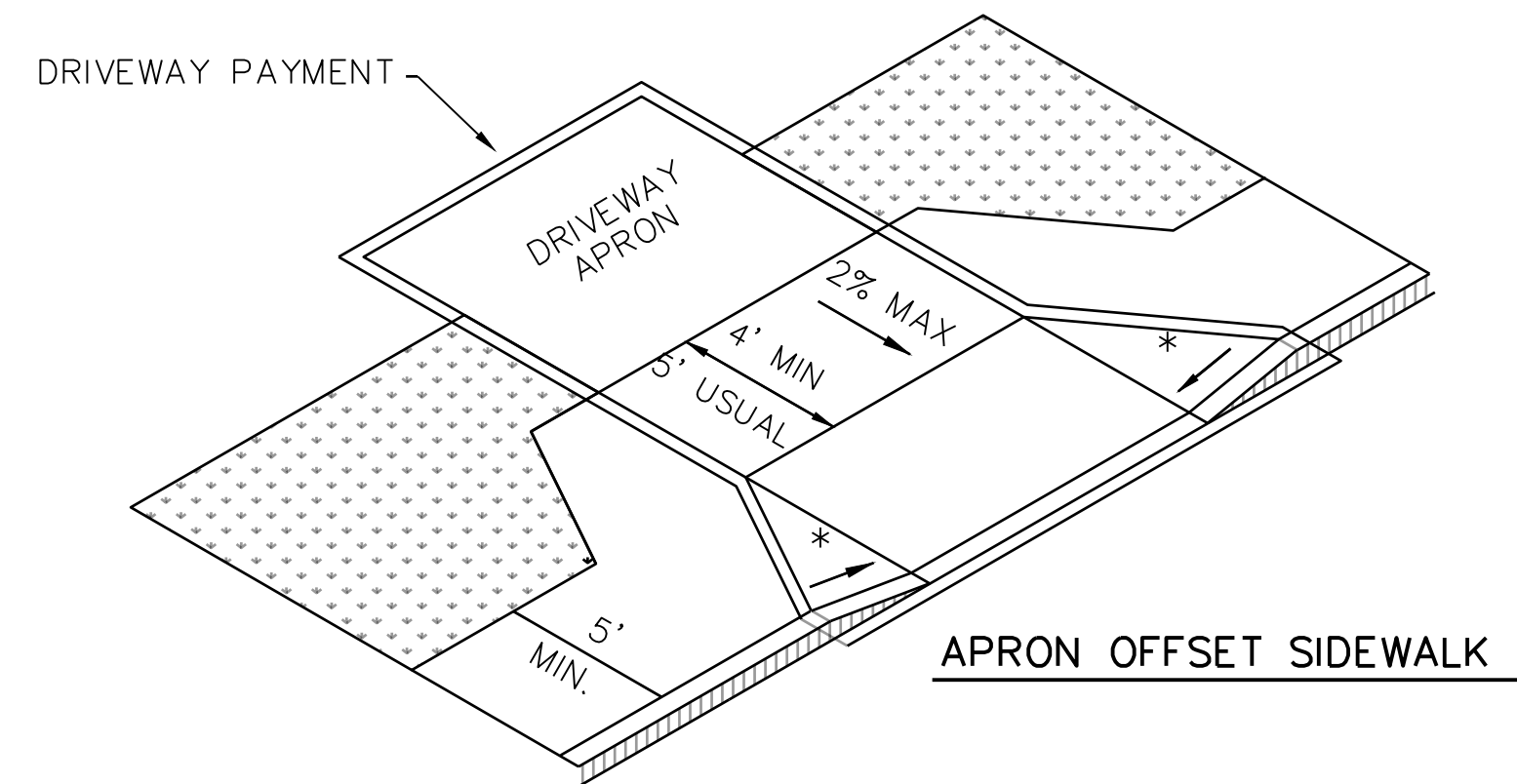
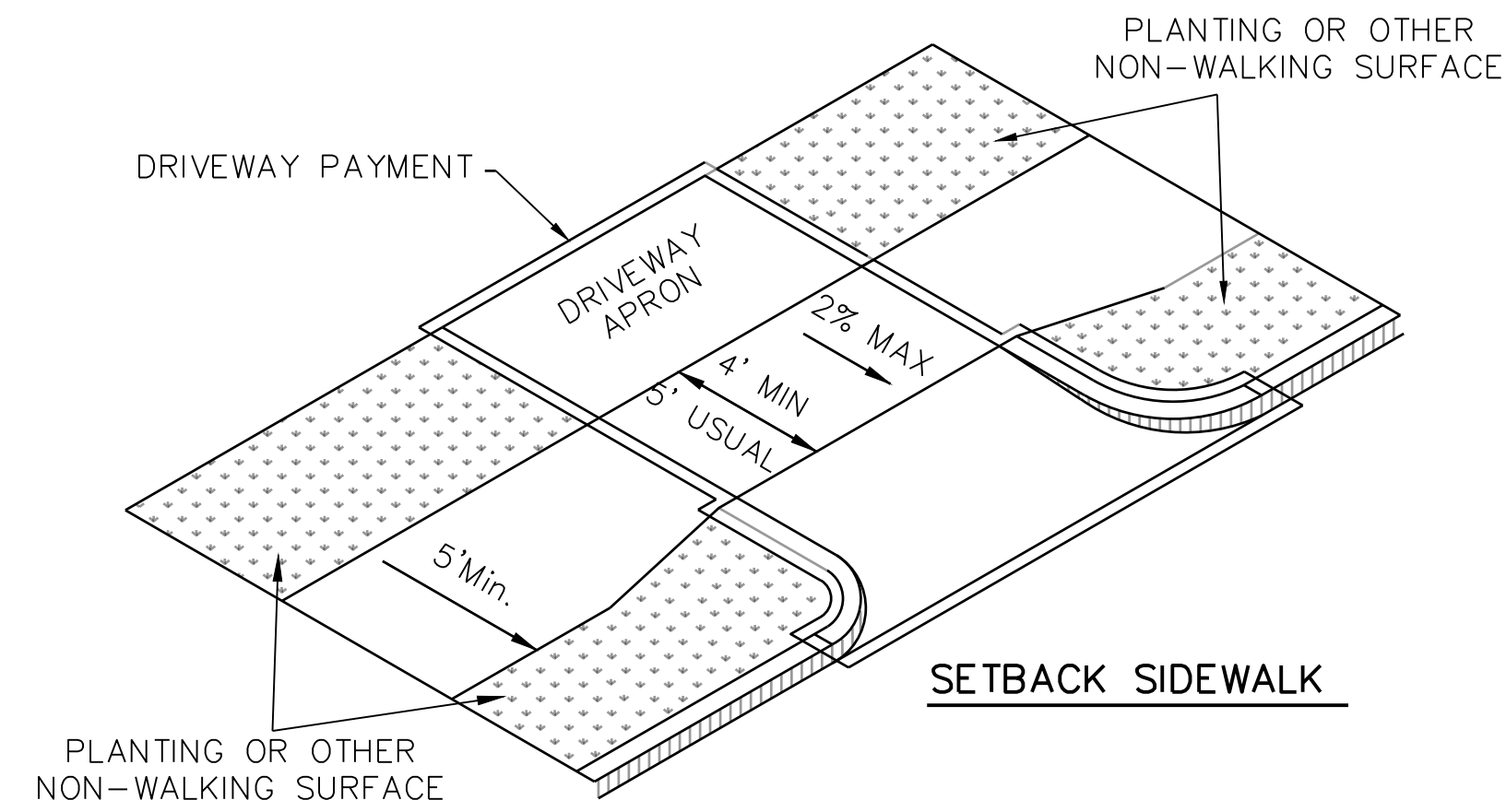
PEDESTRIAN FACILITIES 2 OF 4

STANDARD DETAILS

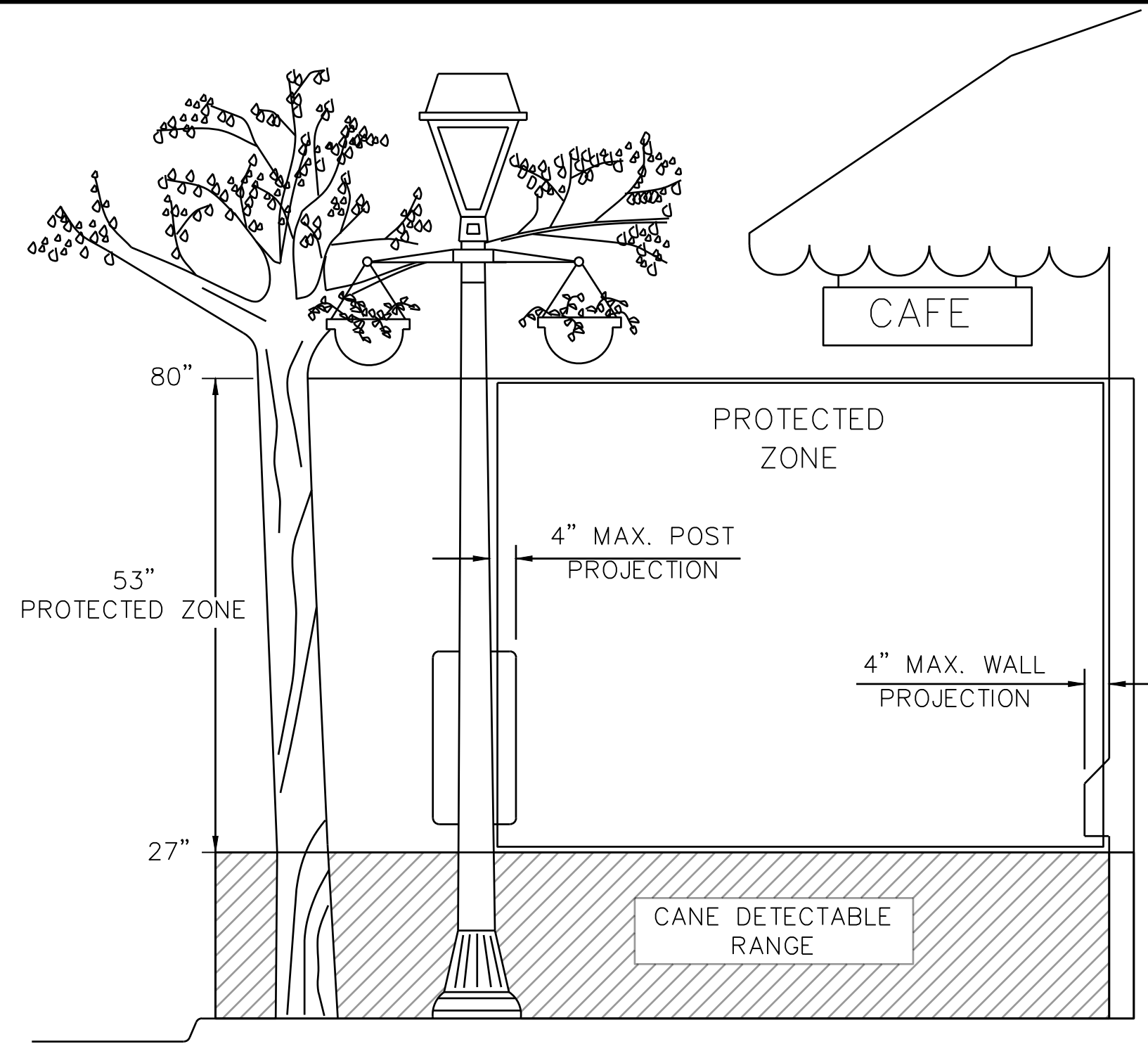


DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	PAV-08	12 OF 53

SIDEWALK TREATMENT AT DRIVEWAYS

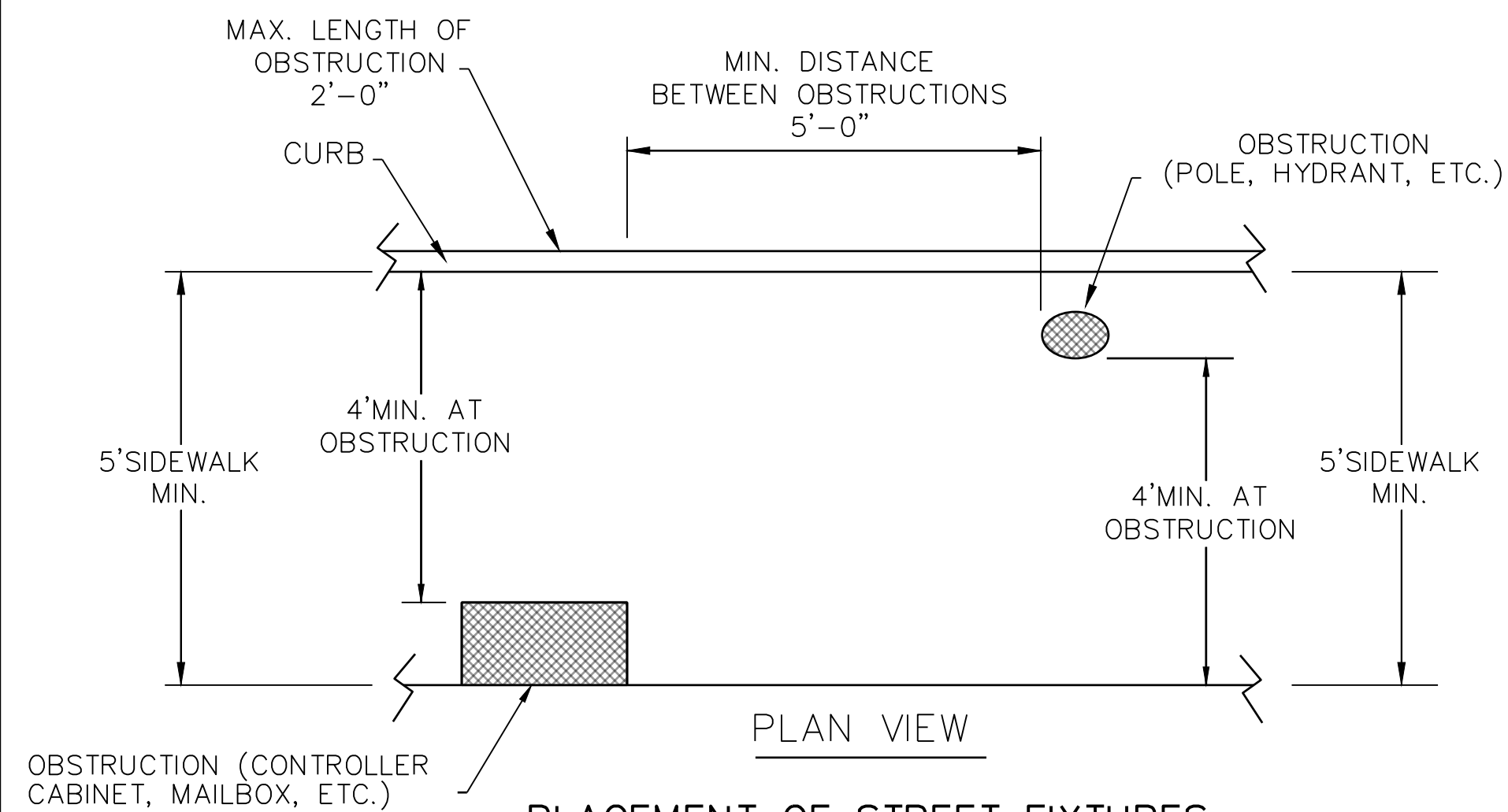


- NOTES:
- * WHERE DRIVEWAYS CROSS THE PEDESTRIAN ROUTE, SIDES SHALL BE FLARED AT 10% MAX SLOPE.
 - * * IF CURB HEIGHT IS GREATER THAN 6 INCHES, USE GRADE LESS THAN OR EQUAL TO 5%. HANDRAIL AND DETECTABLE WARNING ARE NOT REQUIRED.



PROTECTED ZONE

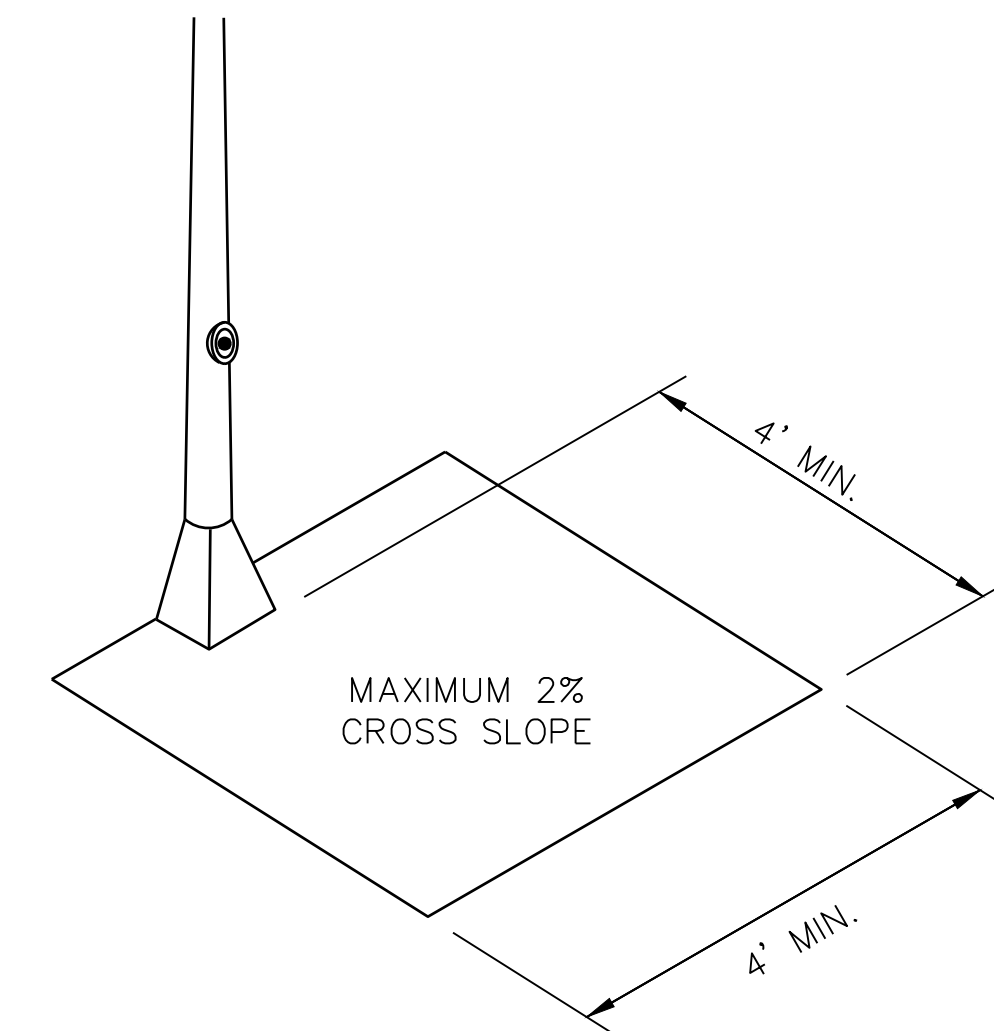
NOTE: IN PEDESTRIAN CIRCULATION AREA, MAXIMUM 4" PROJECTION FOR POST OR WALL MOUNTED OBJECTS BETWEEN 27" AND 80" ABOVE THE SURFACE.



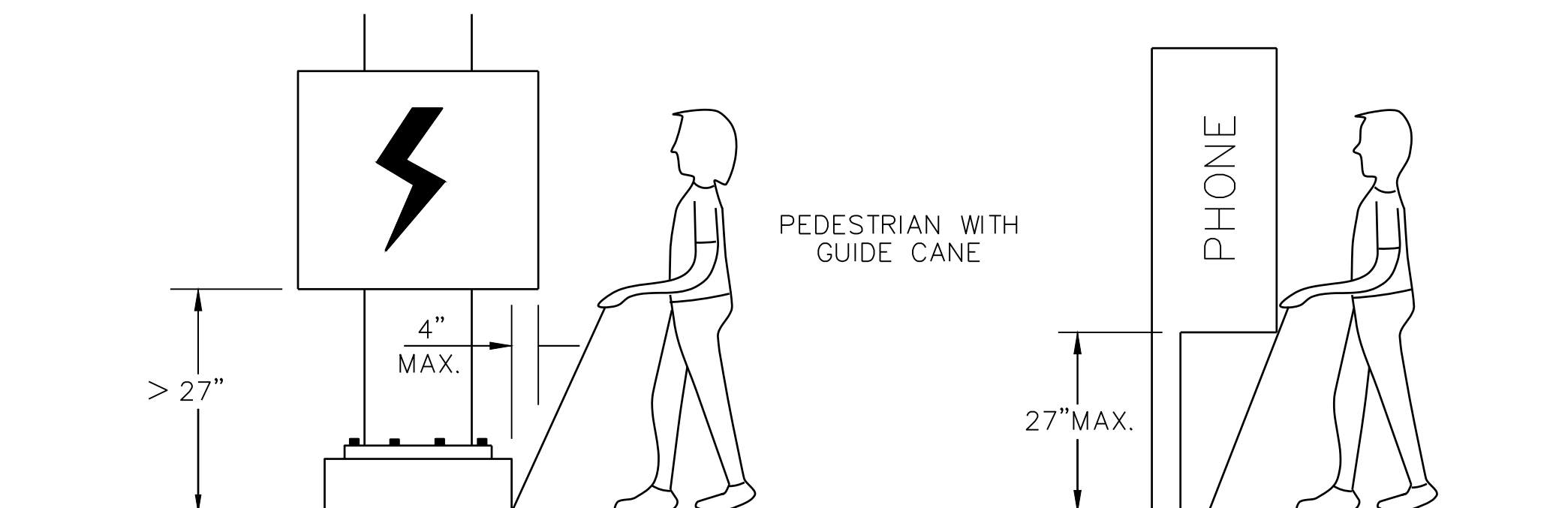
PLAN VIEW

PLACEMENT OF STREET FIXTURES

NOTE: ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' X 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.



CLEAR SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



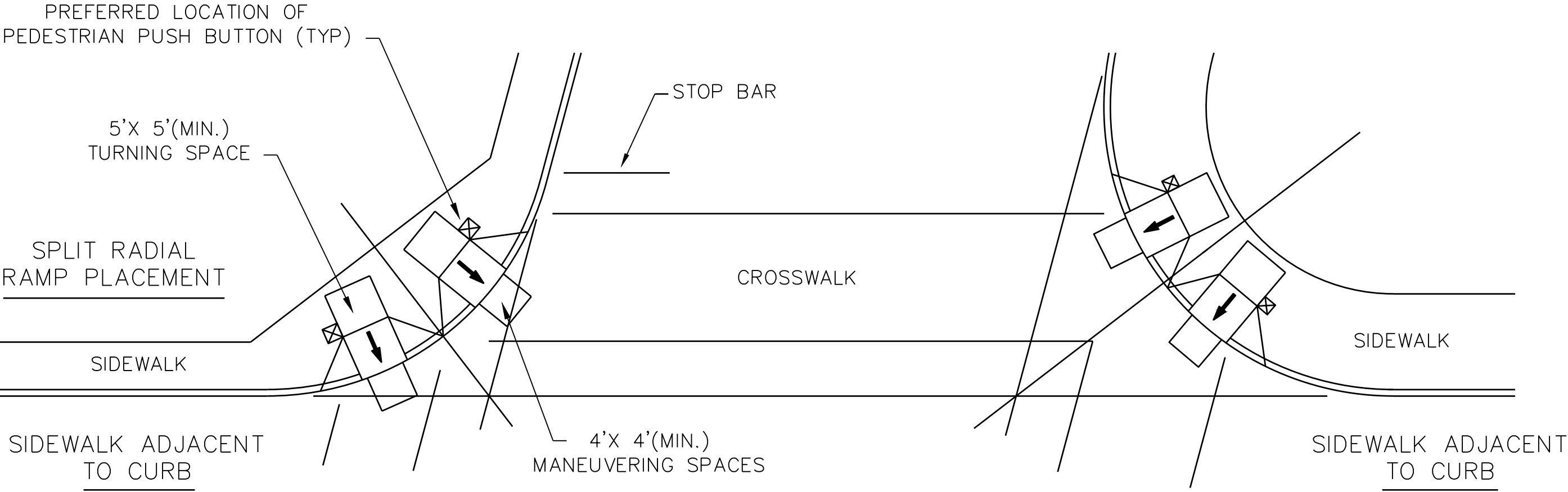
WHEN AN OBSTRUCTION OF A HEIGHT GREATER THAN 27" FROM THE SURFACE WOULD CREATE A PROTRUSION OF MORE THAN 4" INTO THE PEDESTRIAN CIRCULATION AREA, CONSTRUCT ADDITIONAL CURB OR FOUNDATION AT THE BOTTOM TO PROVIDE A MAXIMUM 4" OVERHANG.

PROTRUDING OBJECTS OF A HEIGHT 28" ARE DETECTABLE BY CANE AND DO NOT REQUIRE ADDITIONAL TREATMENT.

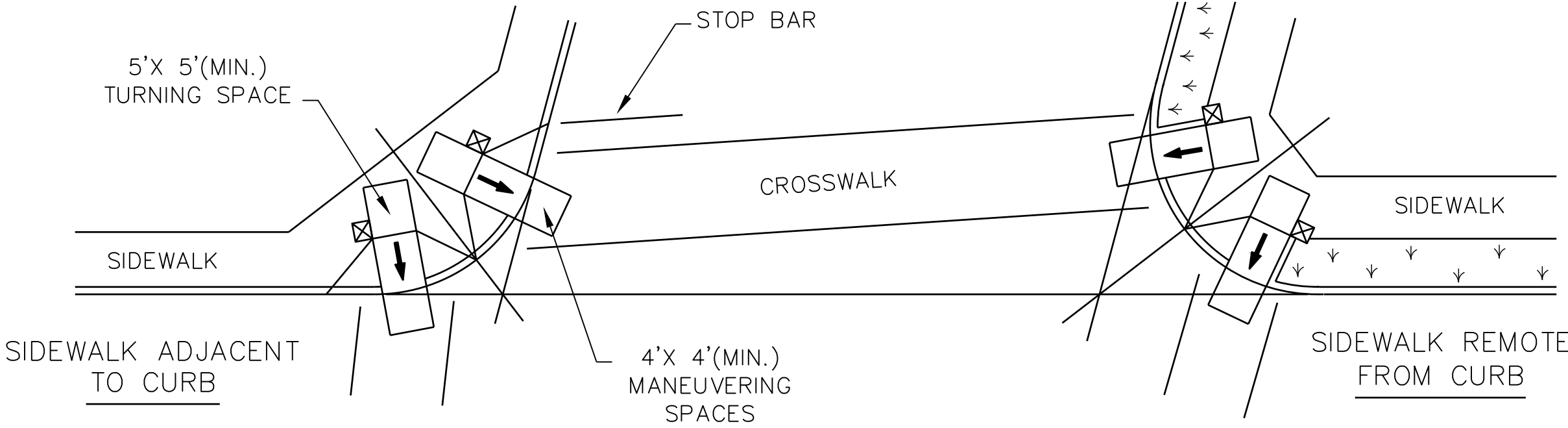
DETECTION BARRIER FOR VERTICAL CLEARANCE <80"

<p>CERTIFICATION: THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.</p>						
<p>PEDESTRIAN FACILITIES 3 OF 4</p>						
<p>STANDARD DETAILS</p>						
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	PAV-09	13 OF 53

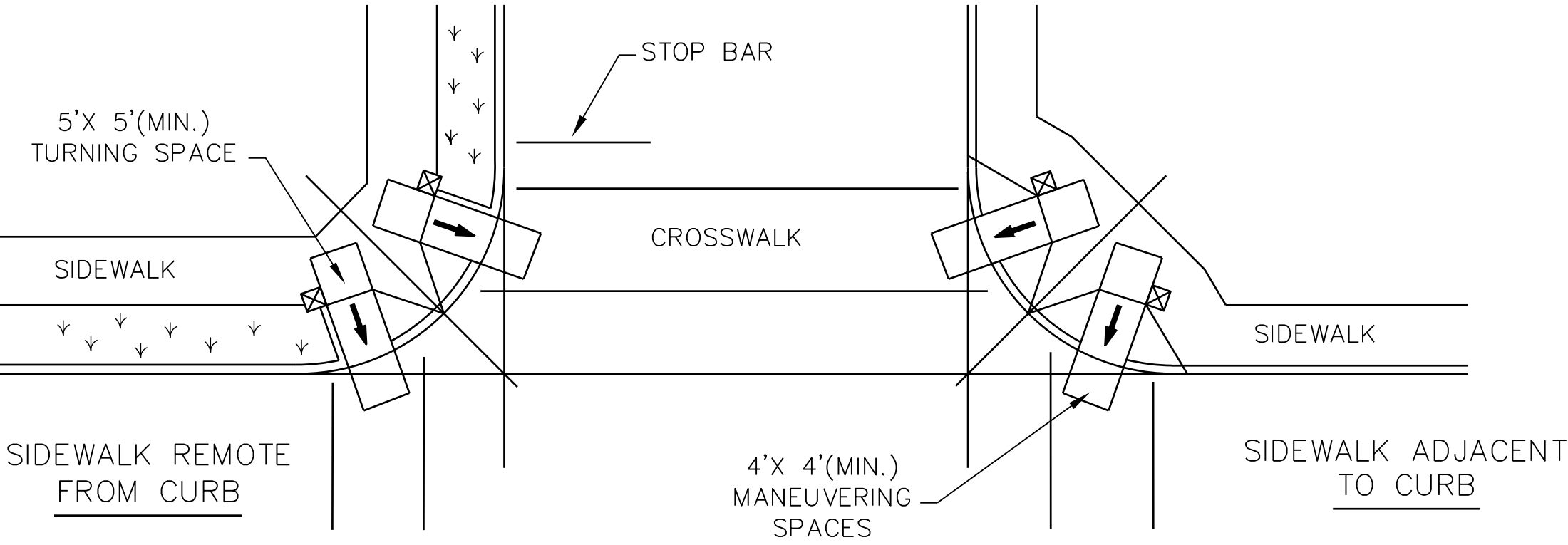
TYPICAL CROSSING LAYOUTS
SEE SHEET 1 OF 4 FOR DETAILS AND DIMENSIONS



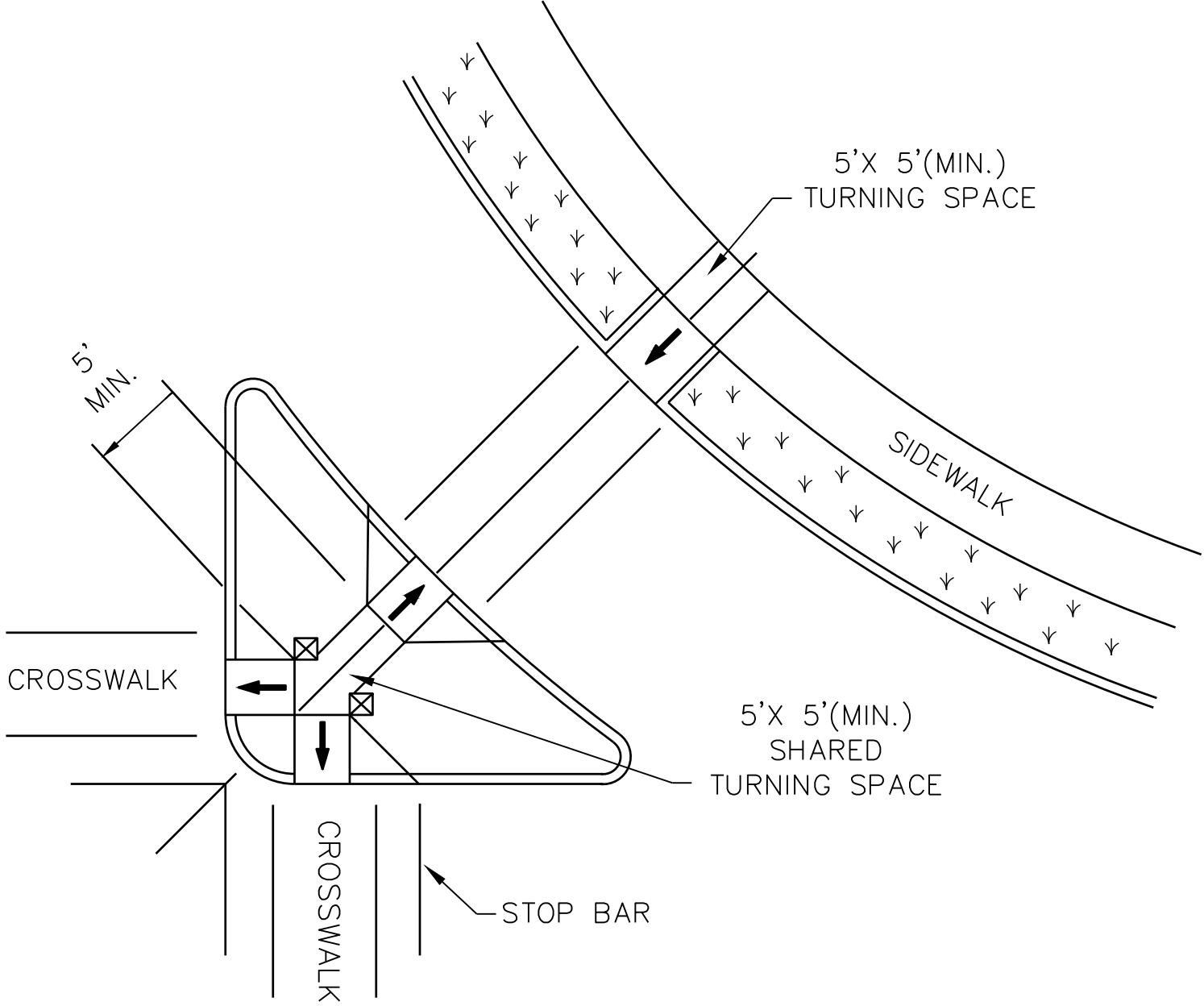
SKewed INTERSECTION WITH "LARGE" RADIUS



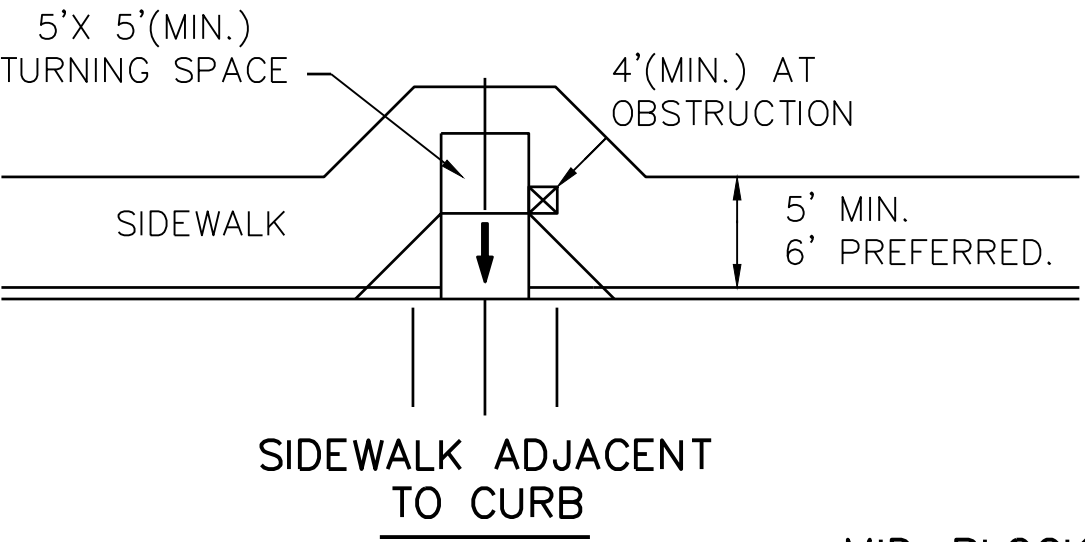
SKewed INTERSECTION WITH "SMALL" RADIUS



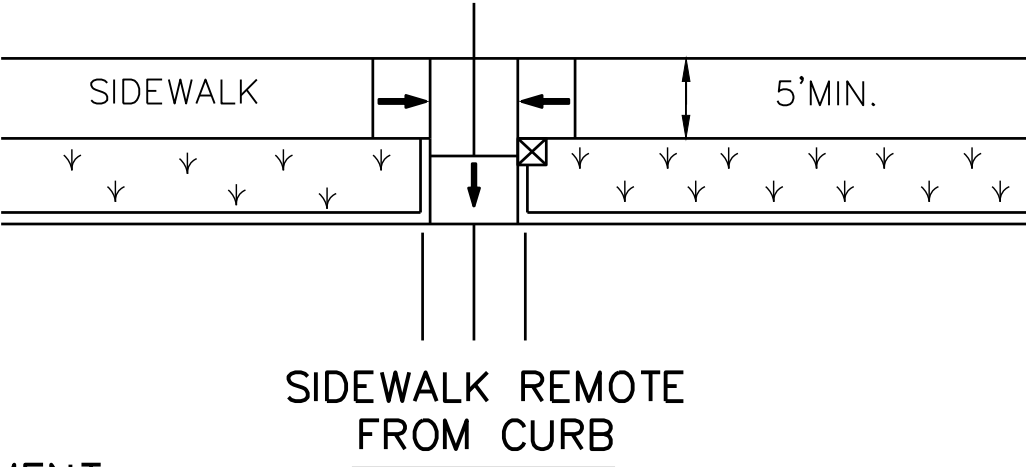
NORMAL INTERSECTION WITH "SMALL" RADIUS



AT INTERSECTION
W/FREE RIGHT TURN & ISLAND



SIDEWALK ADJACENT
TO CURB



SIDEWALK REMOTE
FROM CURB

MID-BLOCK PLACEMENT
PERPENDICULAR RAMPS

LEGEND:

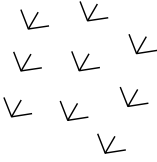
SHOWS DOWNWARD SLOPE.



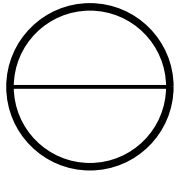
DENOTES PREFERRED LOCATION OF PEDESTRIAN
PUSH BUTTON (IF APPLICABLE).



DENOTES PLANTING OR NON-WALKING SURFACE
NOT PART OF PEDESTRIAN CIRCULATION PATH.



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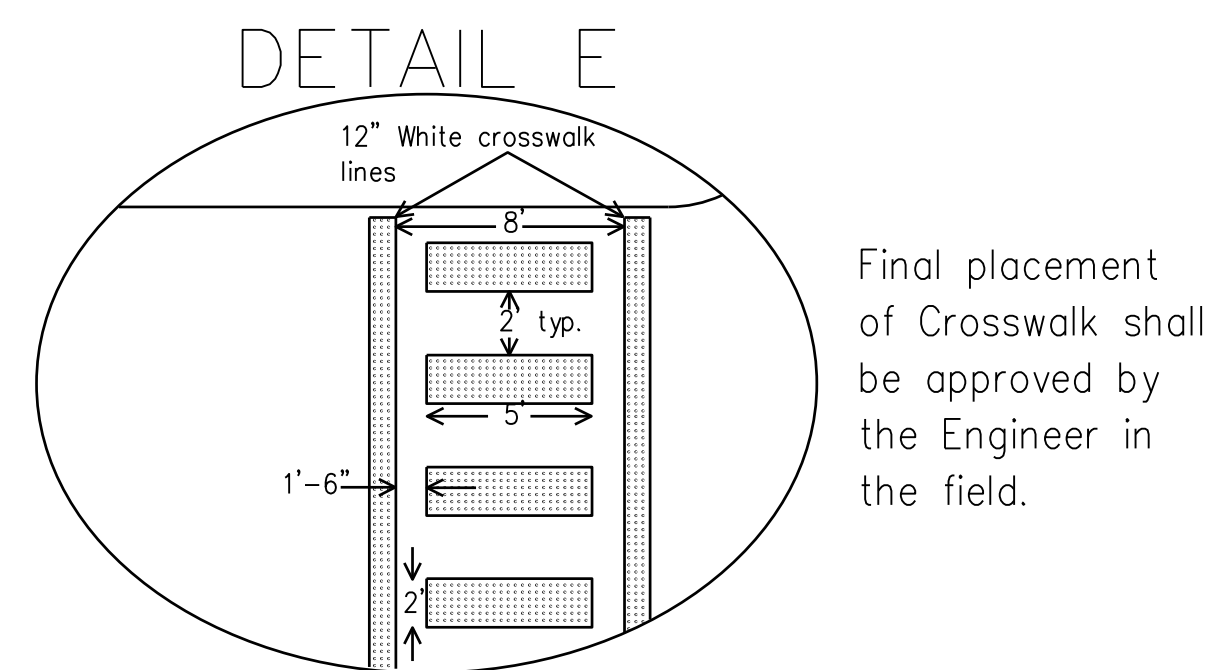
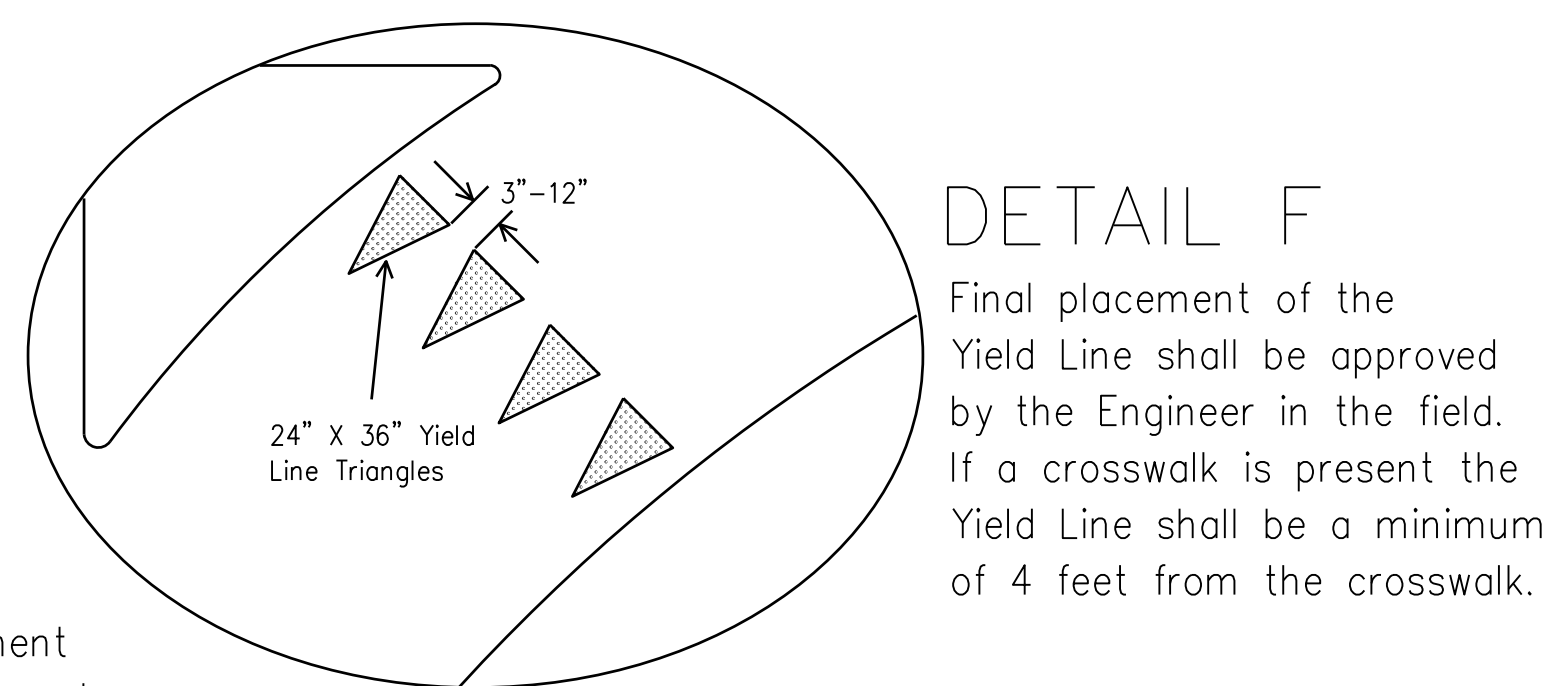
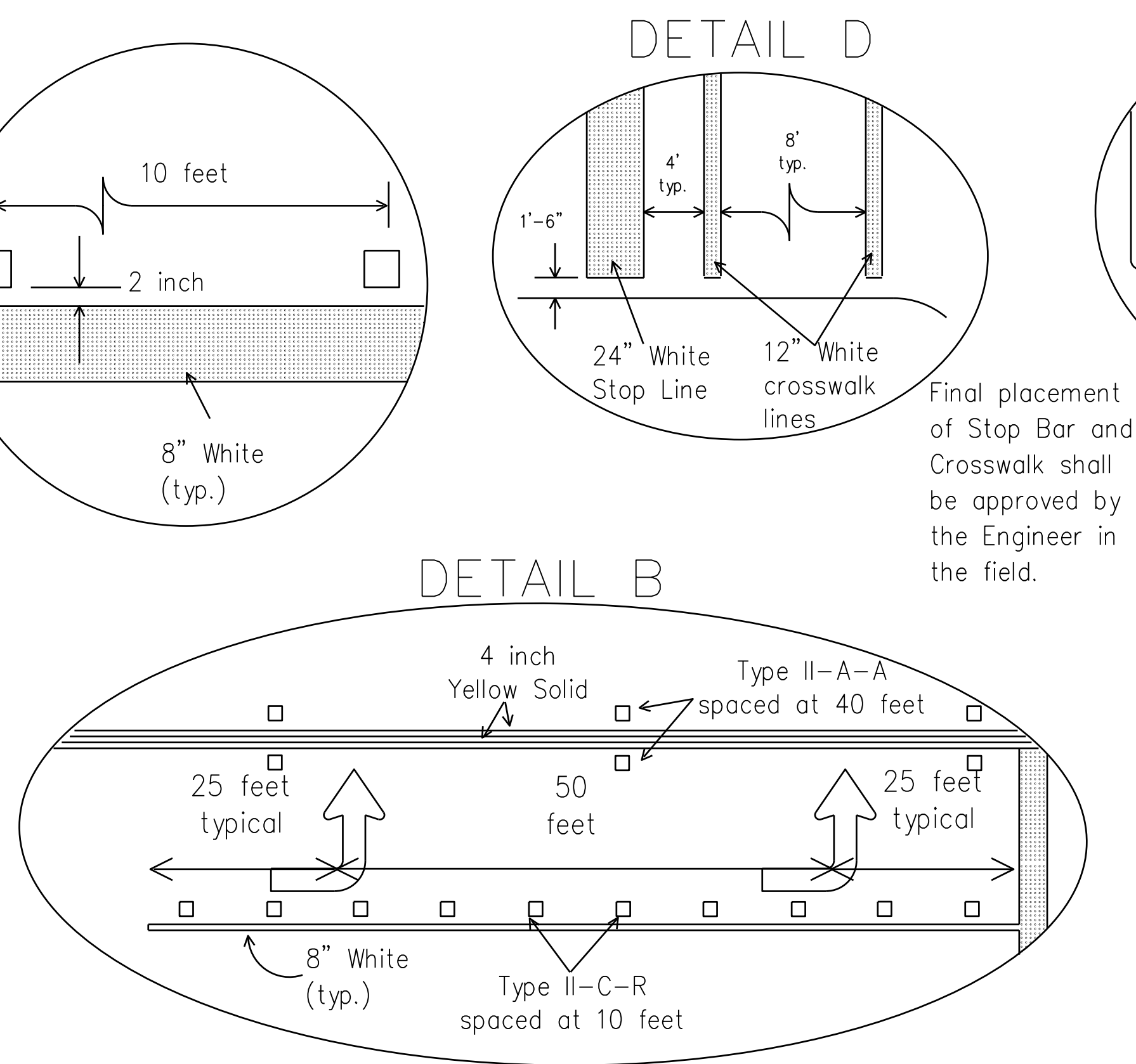
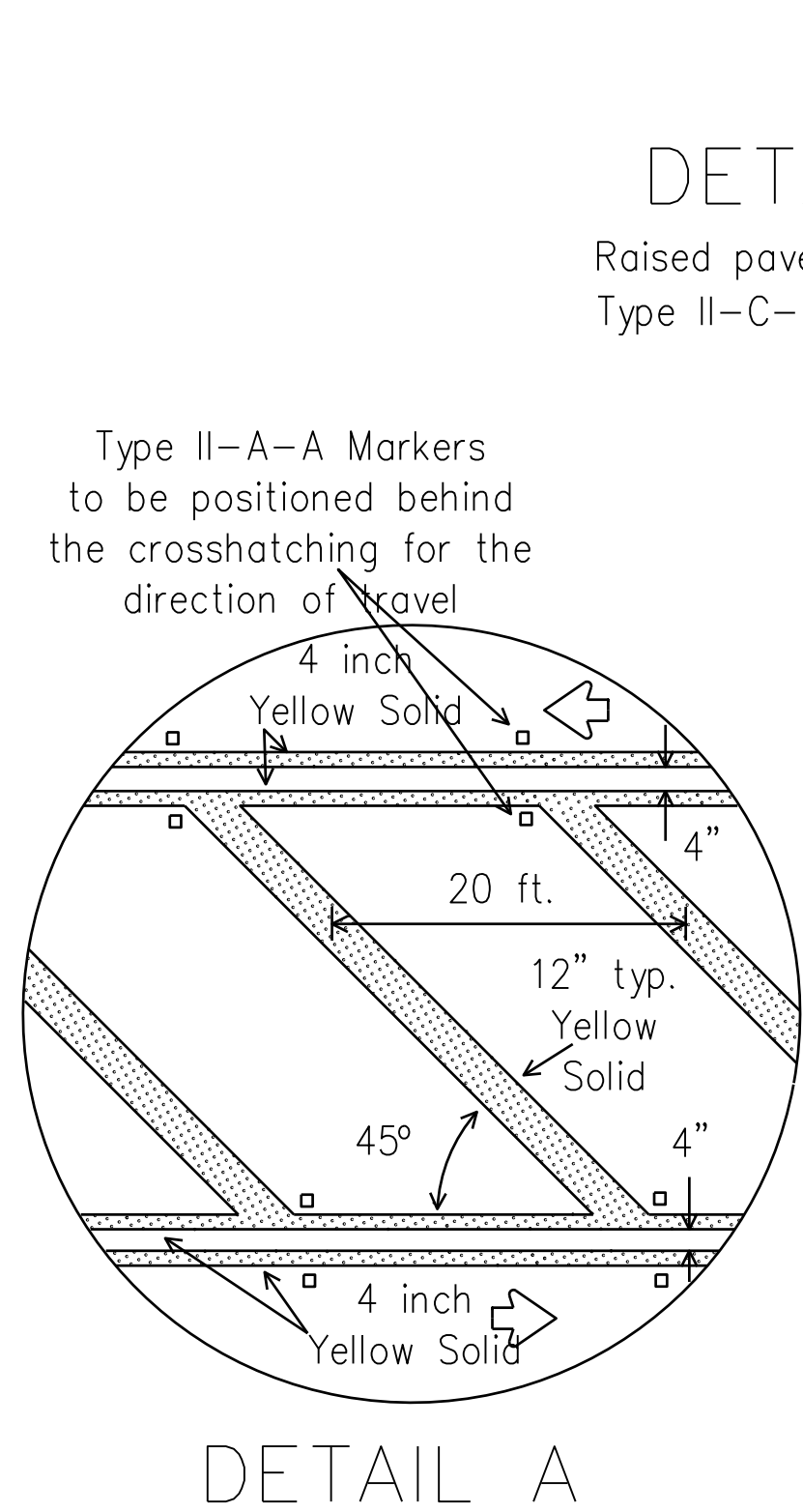
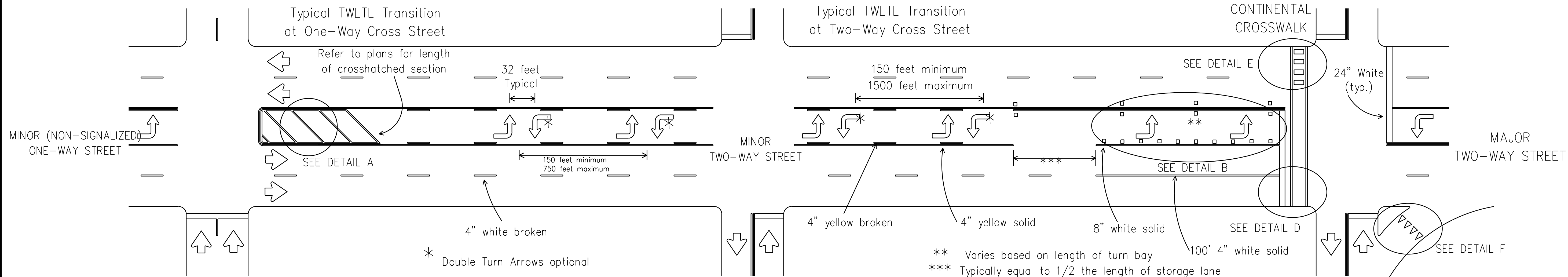


PEDESTRIAN FACILITIES 4 OF 4

STANDARD DETAILS



DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	PAV-10	14 OF 53

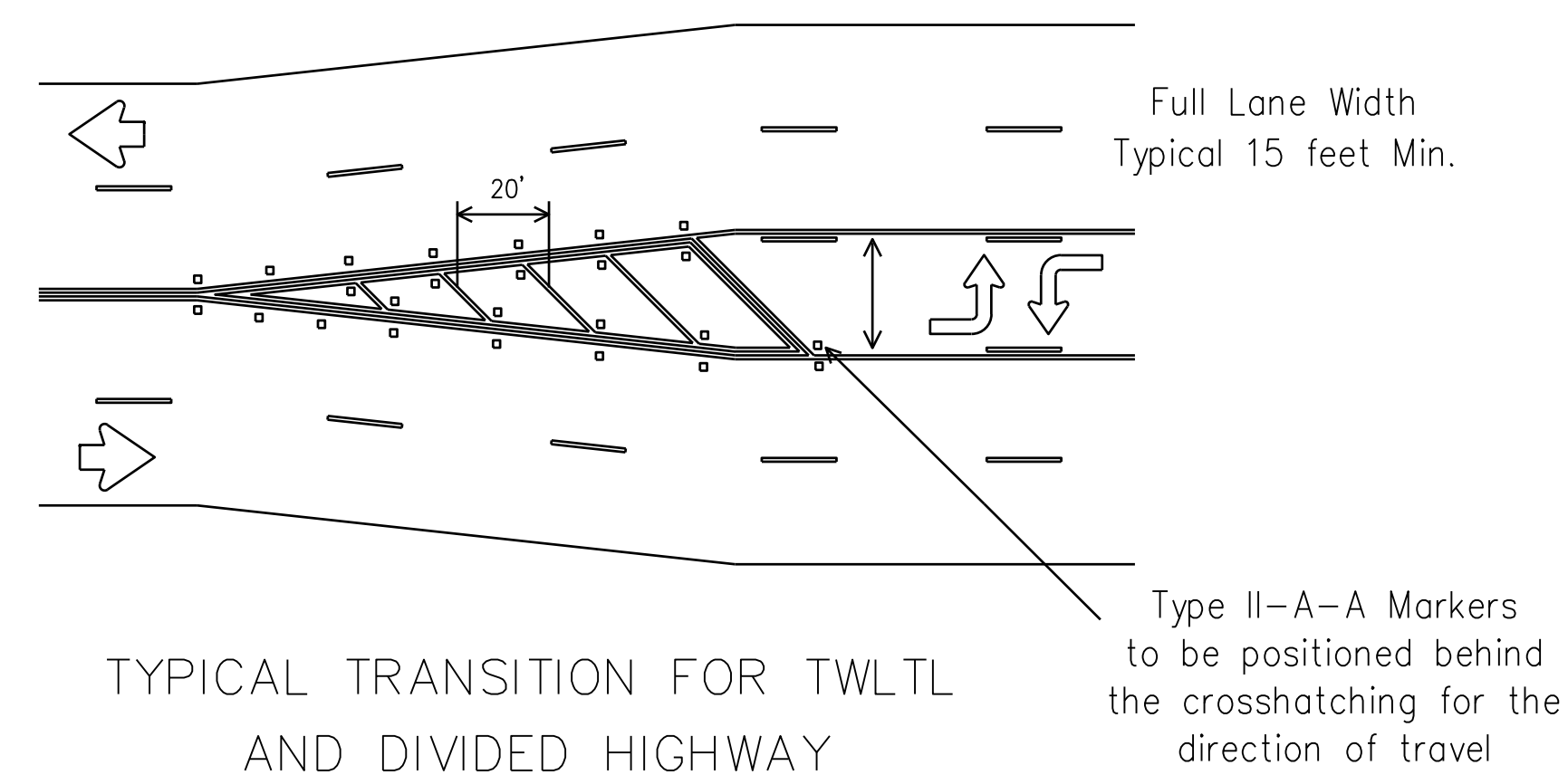
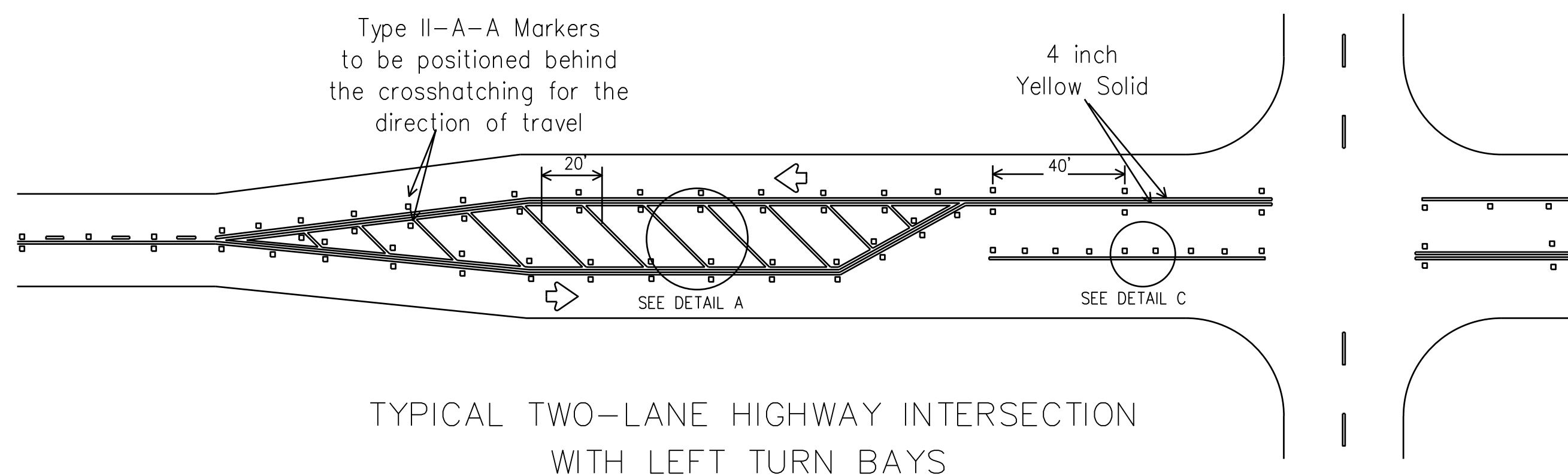


GENERAL NOTES

Refer elsewhere in plans for additional RPM placement and details. Details for words and arrows as shown on other sheets. All pavement marking materials shall meet the Texas Department of Transportation Material Specifications as specified by the plans. For a left turn bay less than 100 feet in length two arrows shall be used. For a left turn bay greater than 100 feet in length three arrows shall be used. Spacing to be determined by Engineer. The use of turn bay arrows are reserved for signalized intersections only. The use of the word ONLY shall only be used in trapped turn lanes. Yield line triangles may be 12" X 18" minimum on narrow, low speed facilities. Other crosswalk patterns as shown in the "Texas Manual on Uniform Traffic Control Devices" may be used.

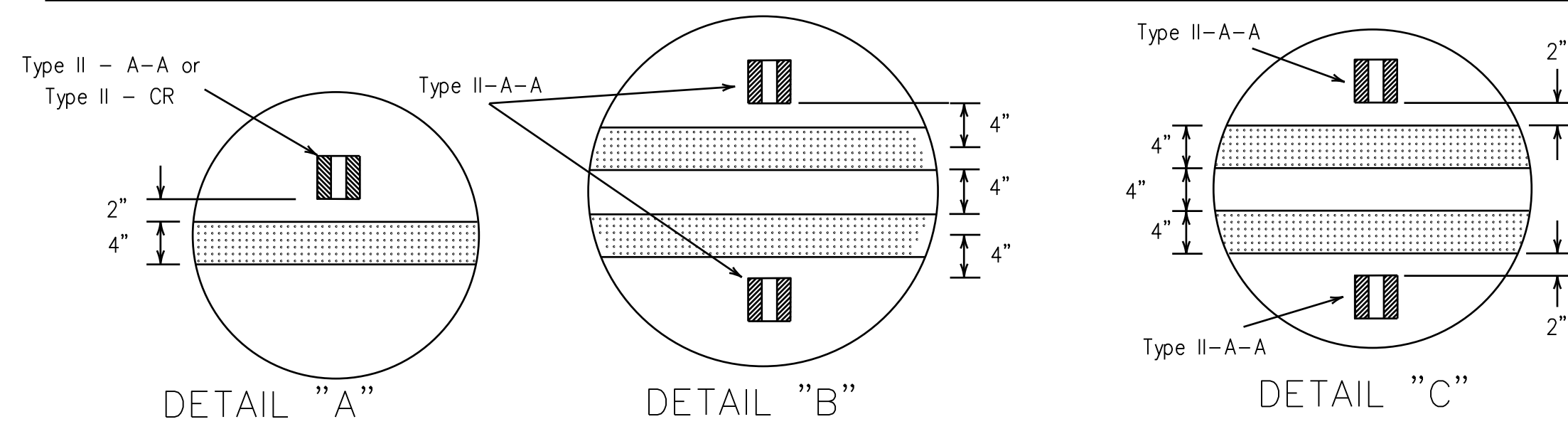
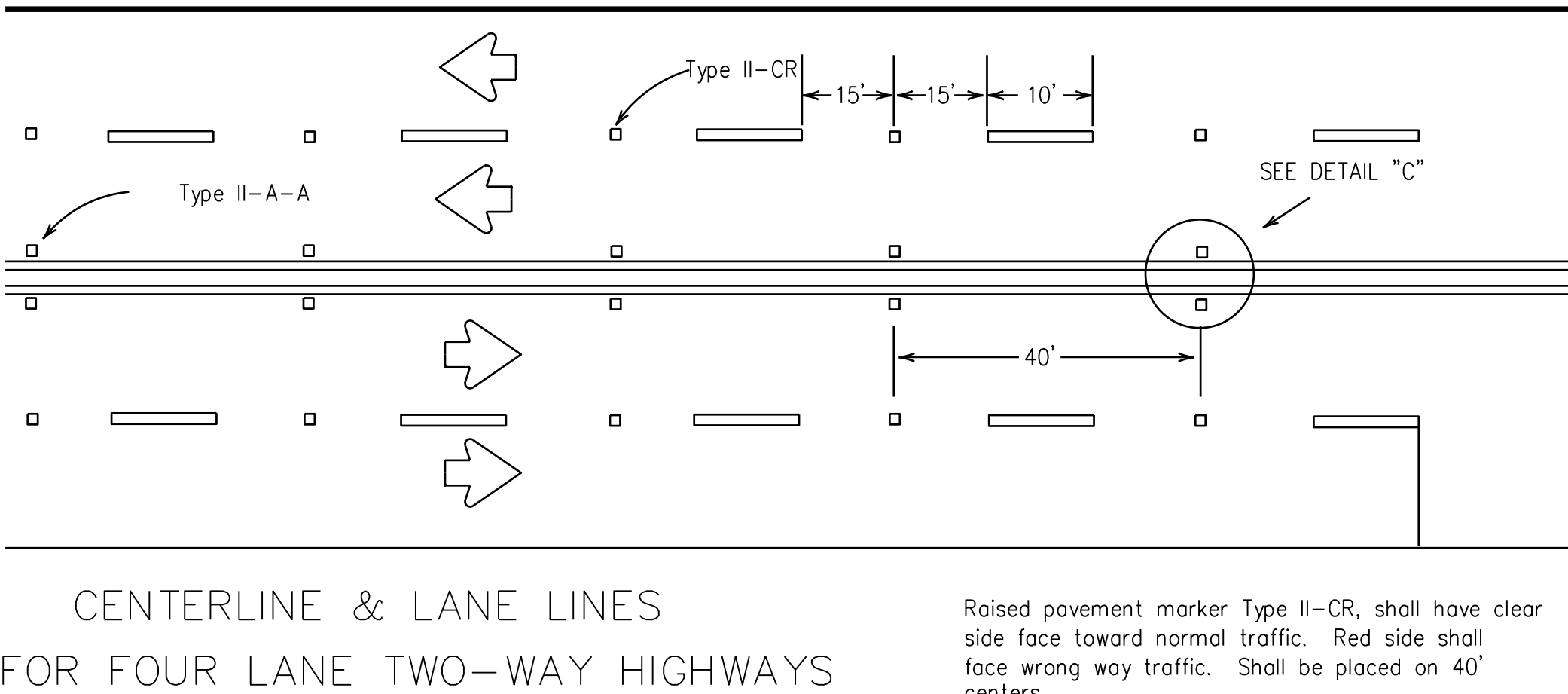
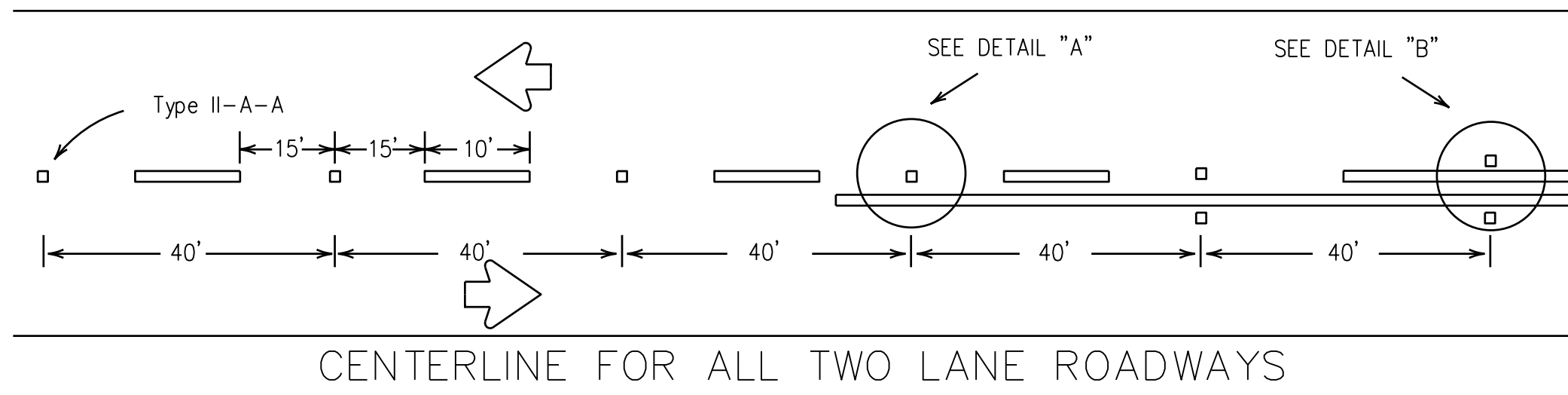
SPECIFICATION REFERENCE TABLE

MATERIAL	SPECIFICATIONS
PAVEMENT MARKERS (REFLECT.)	DMS-4200
EPOXY	DMS-6100
BITUMINOUS ADHESIVE FOR PAV. MRKRS.	DMS-6130

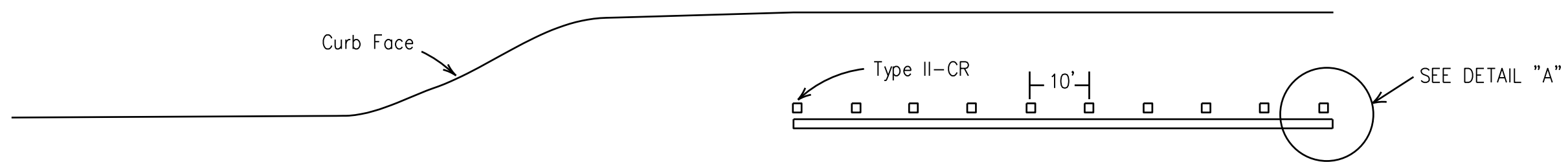


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<p>PAVEMENT MARKINGS 1 OF 4</p>						
<p>TURN LANE AND TRANSVERSE</p>						
<p>STANDARD DETAILS</p>						
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	PAV-11	15 OF 53

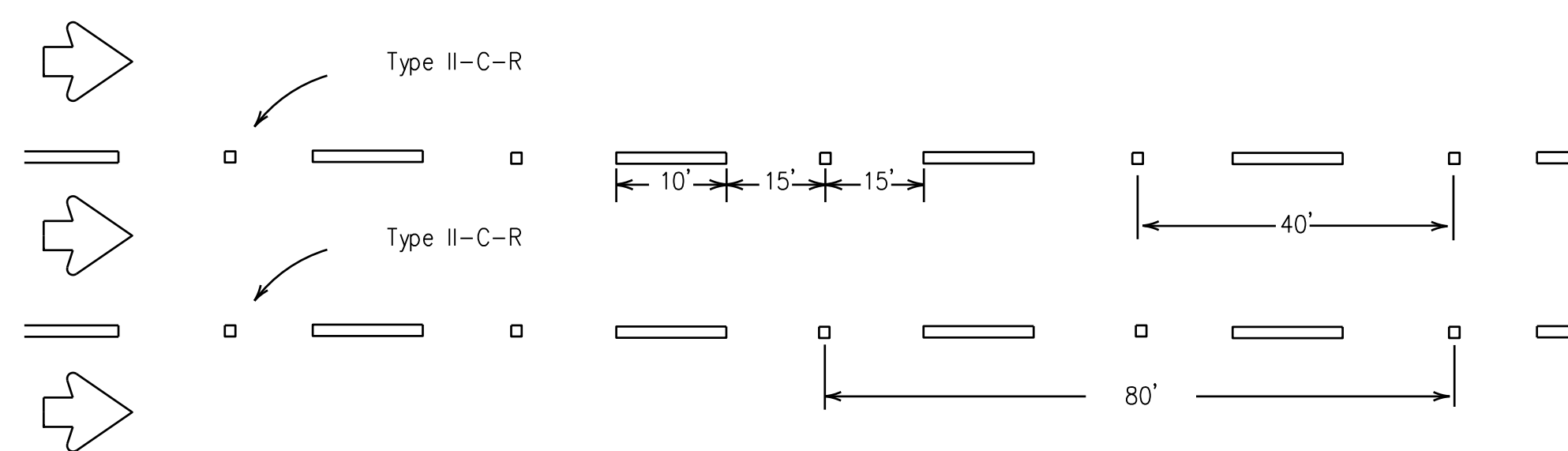
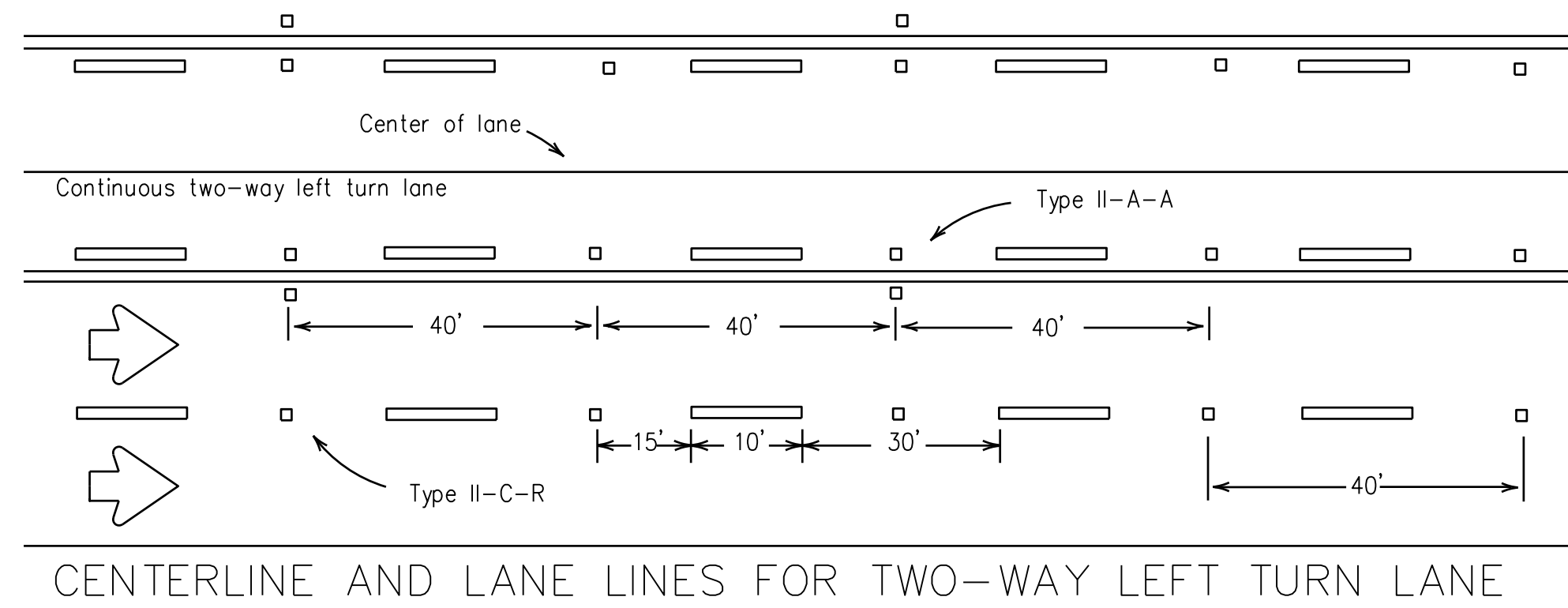
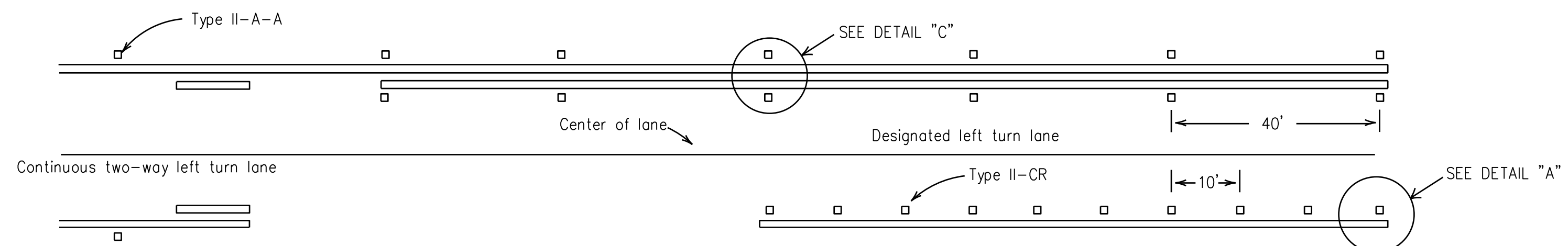
REFLECTIVE RAISED PAVEMENT MARKERS FOR VEHICLE POSITIONING GUIDANCE



LANE LINES FOR DESIGNATED TURN LANES



LANE LINES FOR DESIGNATED TURN LANES IN A SHARED TWO-WAY TURN LANE

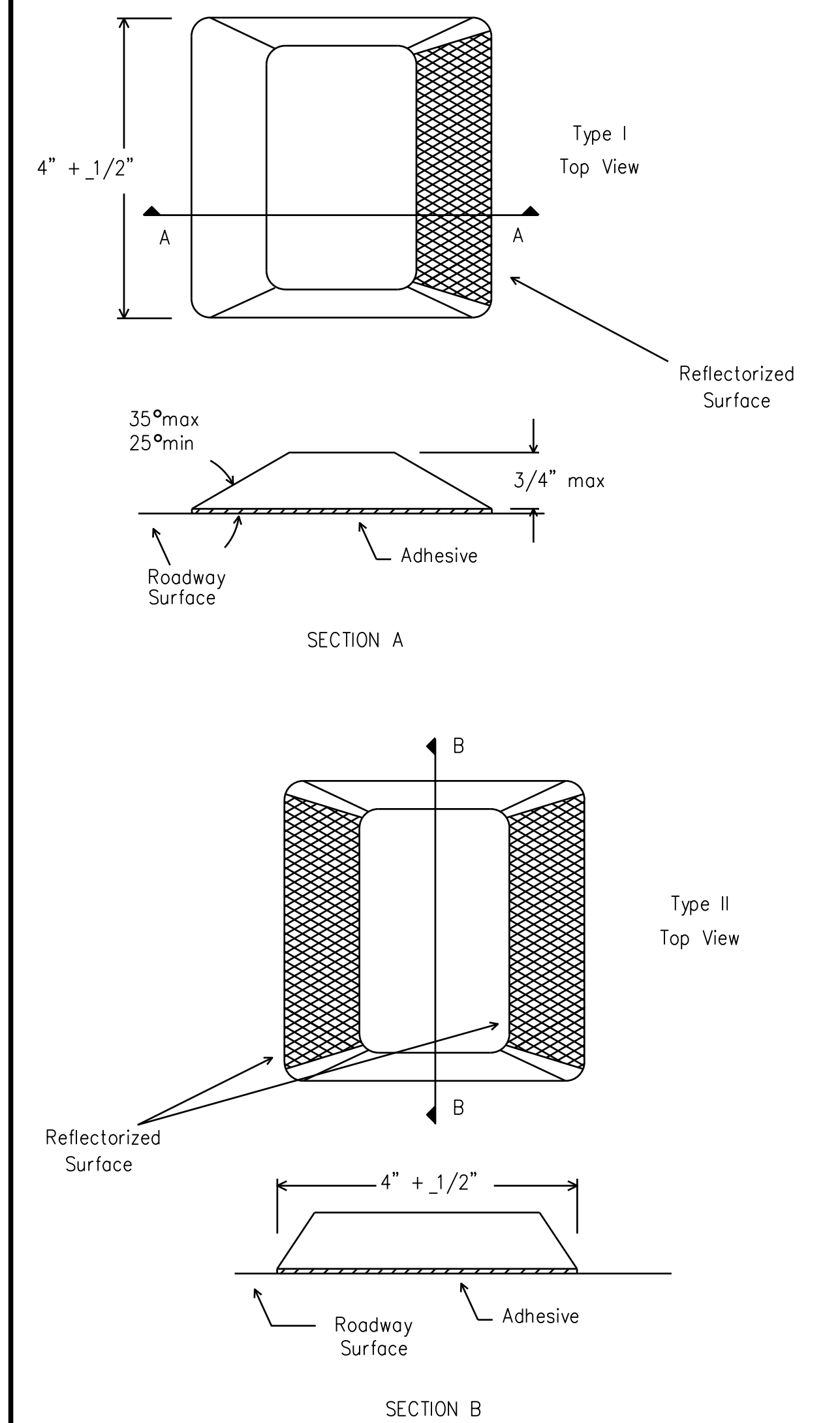


LANE LINES FOR ONE-WAY ROADWAY (NON-FREEWAY FACILITIES)

Raised pavement markers Type II-C-R shall have clear face toward normal traffic and red face toward wrong-way traffic.

Type I - C markers may be used in place of Type II - CR markers at the discretion of the Engineer.

RAISED PAVEMENT MARKERS
(REFLECTORIZED)



GENERAL NOTES

All raised pavement markers placed in broken lines shall be placed in line with and midway between the stripes.

On concrete pavements the raised pavement markers should be placed to the same side of the longitudinal joints as the lane line.

All pavement markers installed on concrete shall be installed using Epoxy adhesive.

All pavement markers installed on asphalt shall be installed using Bituminous adhesive.

All pavement marking materials shall meet the Texas Department of Transportation Material Specifications as specified by the plans.

SPECIFICATION REFERENCE TABLE

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECT.)	DMS-4200
EPOXY	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130

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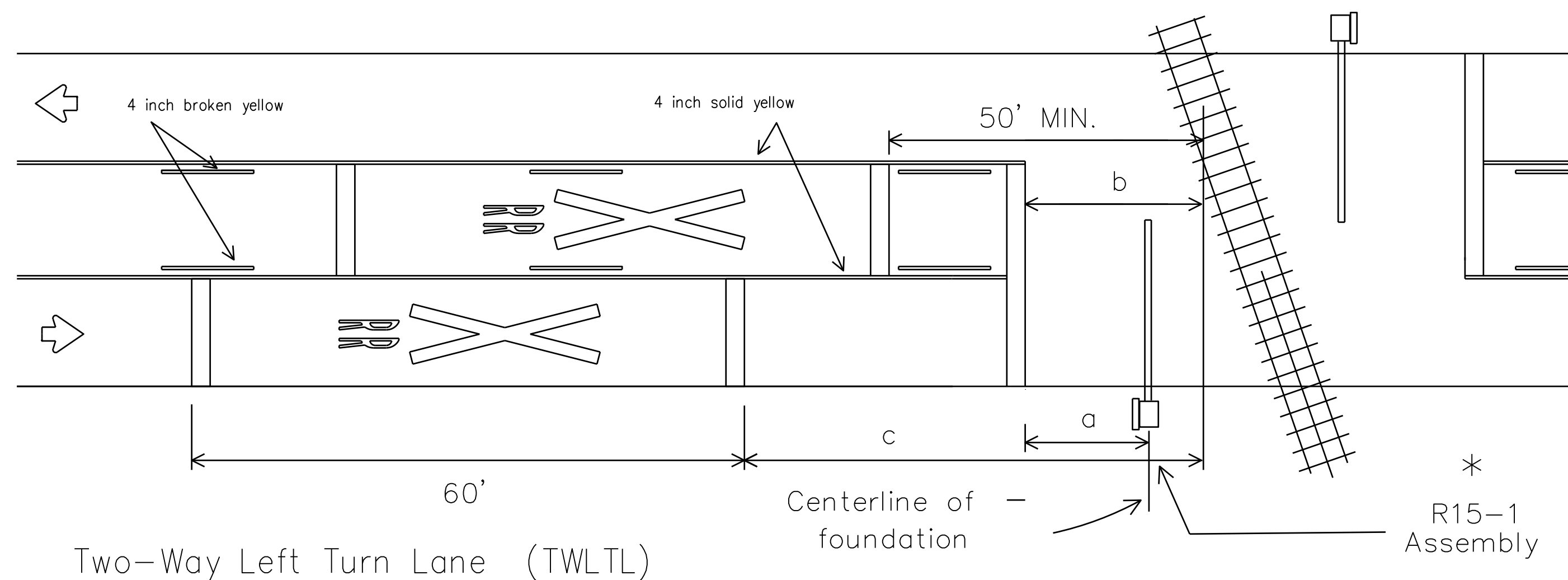
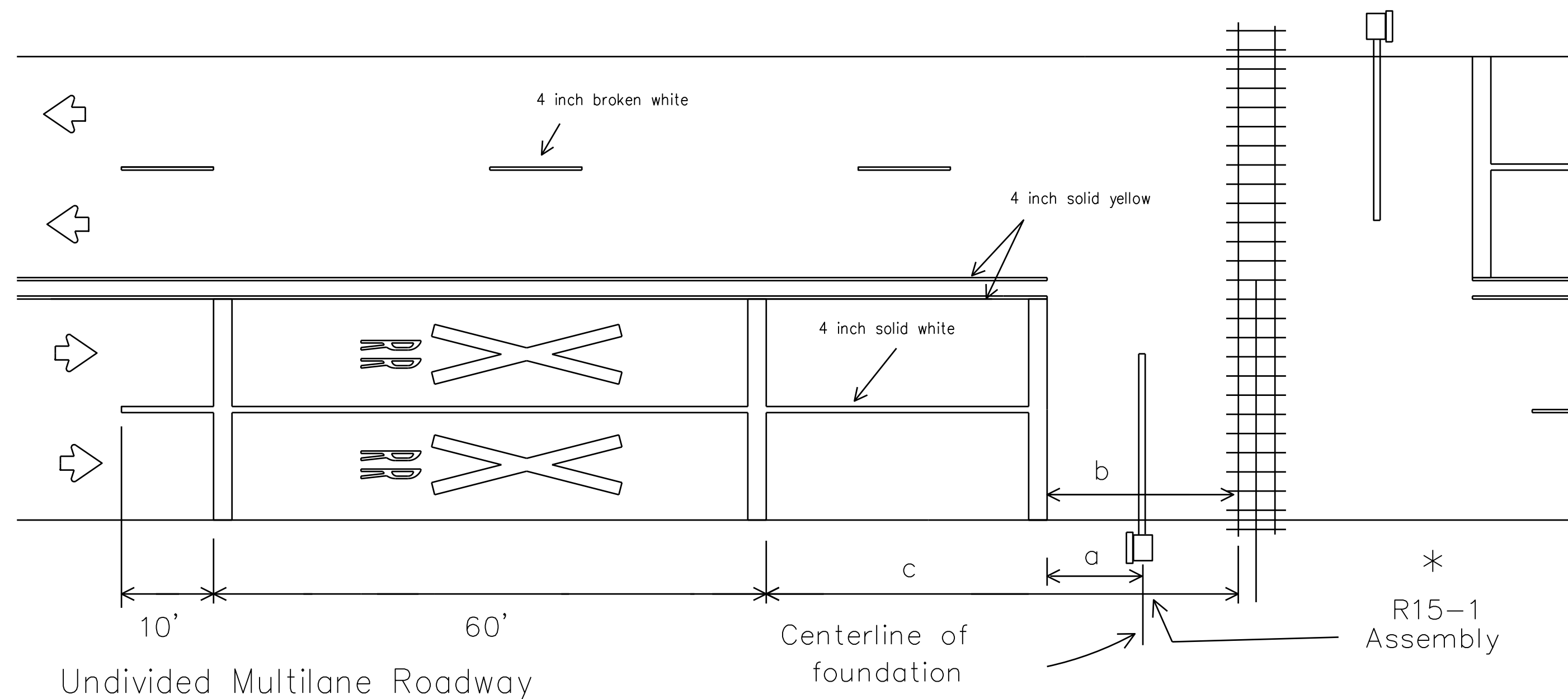
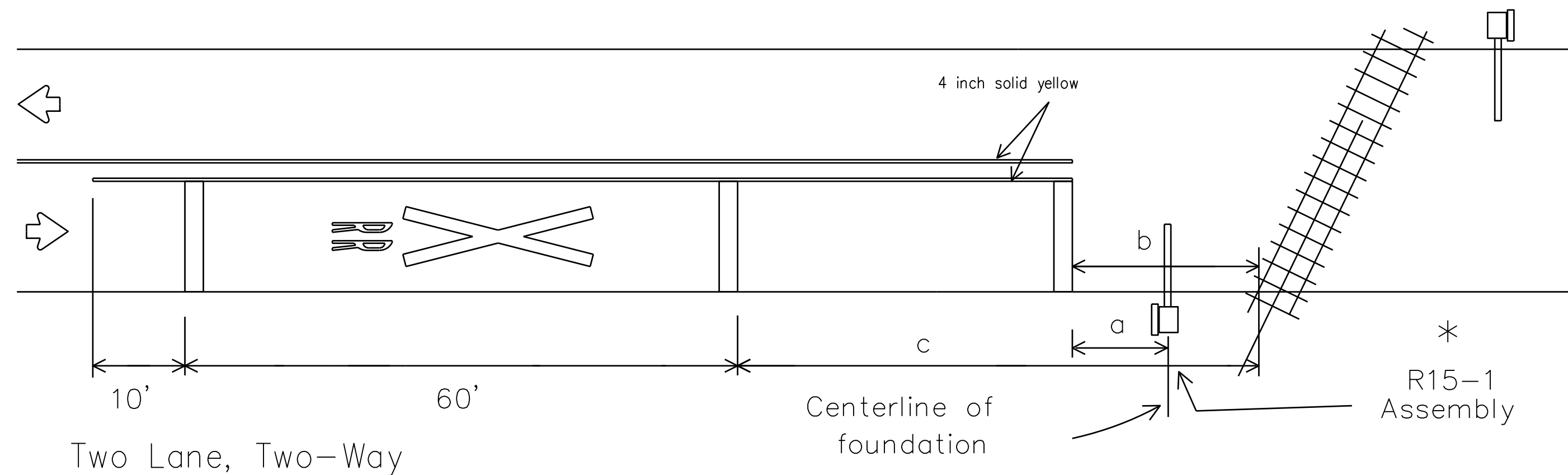
PAVEMENT MARKINGS 2 OF 4

RAISED PAVEMENT MARKERS

STANDARD DETAILS



DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	PAV-12	16 OF 53



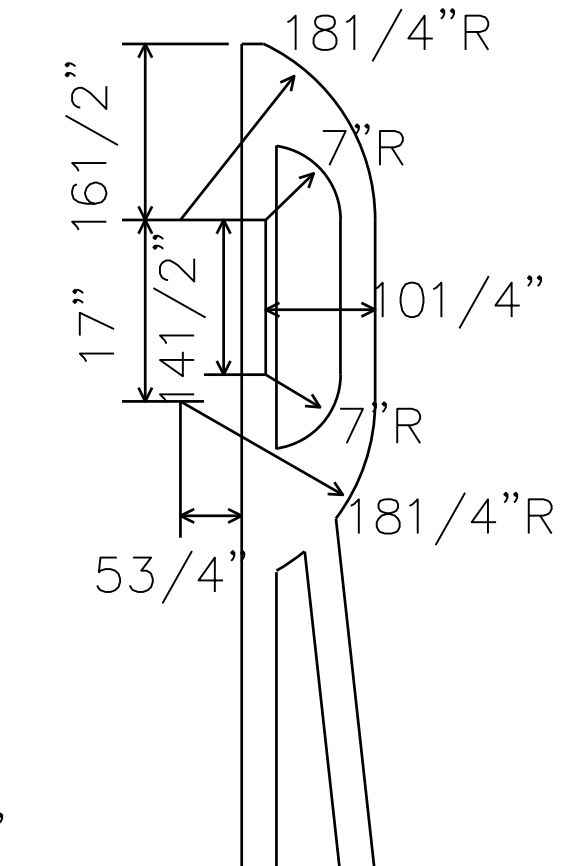
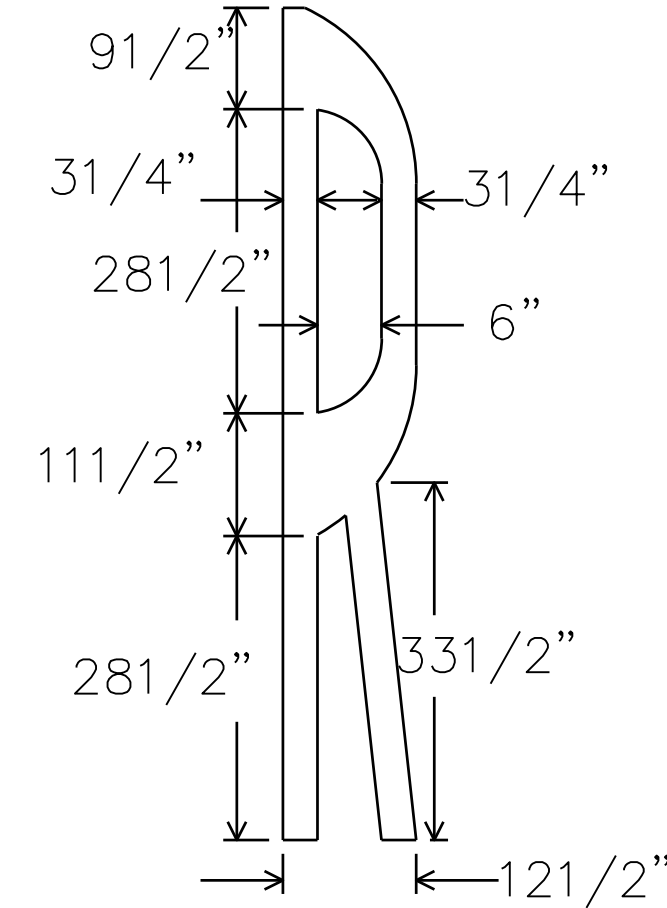
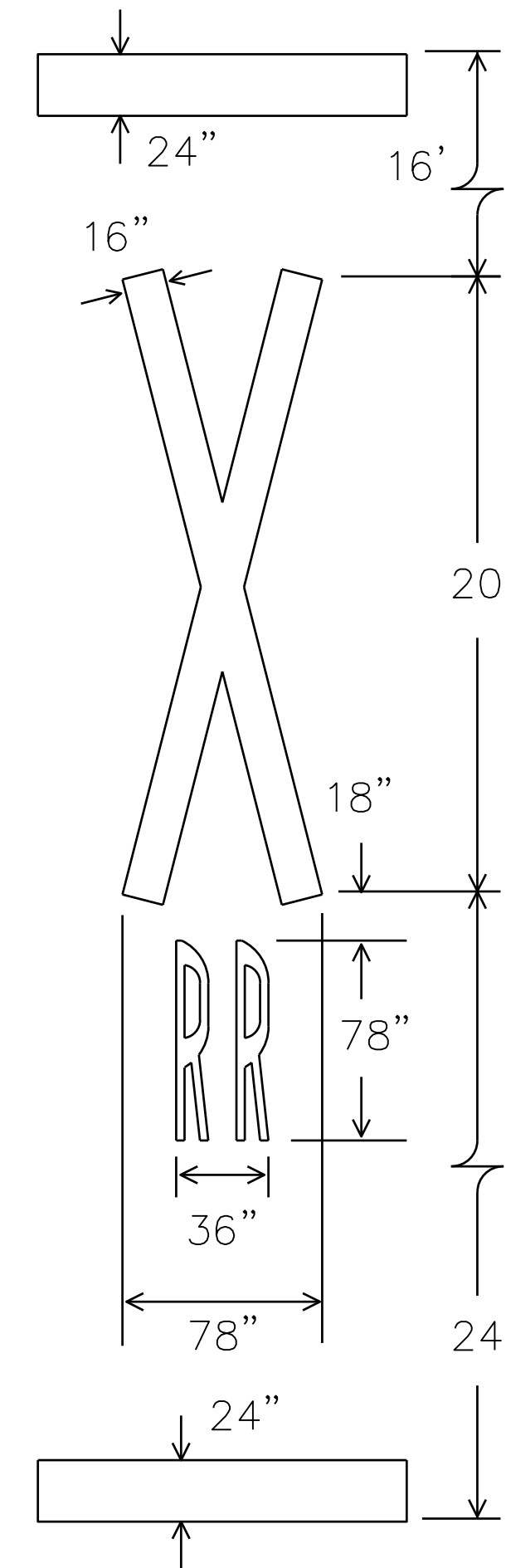
a = Stop lines should be approximately 8 feet in advance of active warning devices (Type A, E or F). Stop line should be approximately 15 feet from near rail if only passive devices (R15-1, plus R15-2 when applicable) are present.

b = 15 feet desirable minimum. R15-1 should be placed between stop line and rails with adequate distance provided for "a".

c =

Approach Speed(mph)	Desirable Placement (feet)
20	145
25	220
30	295
35	370
40	445
45	520
50	595
55	670
60	745
65	820
70	900

* Local conditions may require alternate placement locations.



ESTIMATED QUANTITIES

(for Contractor Information ONLY)

24 INCH WHITE TRANSVERSE MARKINGS AND STOP LINES

No. of Approach Lanes
(Include TWLTL)

	LANE WIDTH (FT)			
	11	12	13	14
1	33	36	39	42
2	66	72	78	84
3	99	108	117	126
4	132	144	156	168

4 INCH SOLID YELLOW NO PASSING LINE = "d" - "c" + 70

For: Two Lane, Two-Way, Single Lane Approach per Direction

4 INCH SOLID WHITE LANE LINE = "d" - "a" + 70

For: Two-Way or One-Way Traffic, 2 or More Approach Lanes in Same Direction (Do NOT Include TWLTL)

GENERAL NOTES

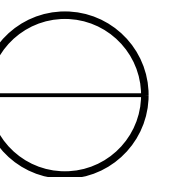
- The pavement markings on an approach to a railroad grade crossing shall consist of:
 - The RR Xing symbol,
 - Three transverse 24" lines, and
 - Lane lines: a solid no passing line for two-way traffic approaches, or solid lane lines for multilane approaches.
- For bidding purposes, the RR Xing symbol will be measured and paid for as for each lane in place. The transverse markings and lane lines will be measured and paid for by the lineal foot.
- Centerlines shall be yellow, other markings shall be white.
- Approach lanes less than 8 foot width shall NOT have markings.
- Markings should NOT be placed where less than 110 feet of approach roadway is available for placement.
- RR Xing symbols should be placed approximately in the center of the approach lane.
- All transverse markings, including stop lines, shall be placed at right angles to the centerline and across all approach lanes.
- Existing non-standard markings shall be removed to the fullest extent possible so as not to leave a discernable marking, by any method approved by the engineer. OVERPAINTING WILL NOT BE ALLOWED.
- Additional markings and placement details may be found in the TMUTCD, Appendix H.
- The Engineer may require additional longitudinal markings if the distance between the stop lines is greater than 80 feet. Markings are not required across or between the rails unless specified elsewhere in the plans.

*
R15-1
Assembly

May consist of one or more of the following:

- R15-1 Crossbuck Sign
- R15-2 Multiple Track Sign
- Type A Mast Flashers
- Type E Cantilevers
- Type F Gates

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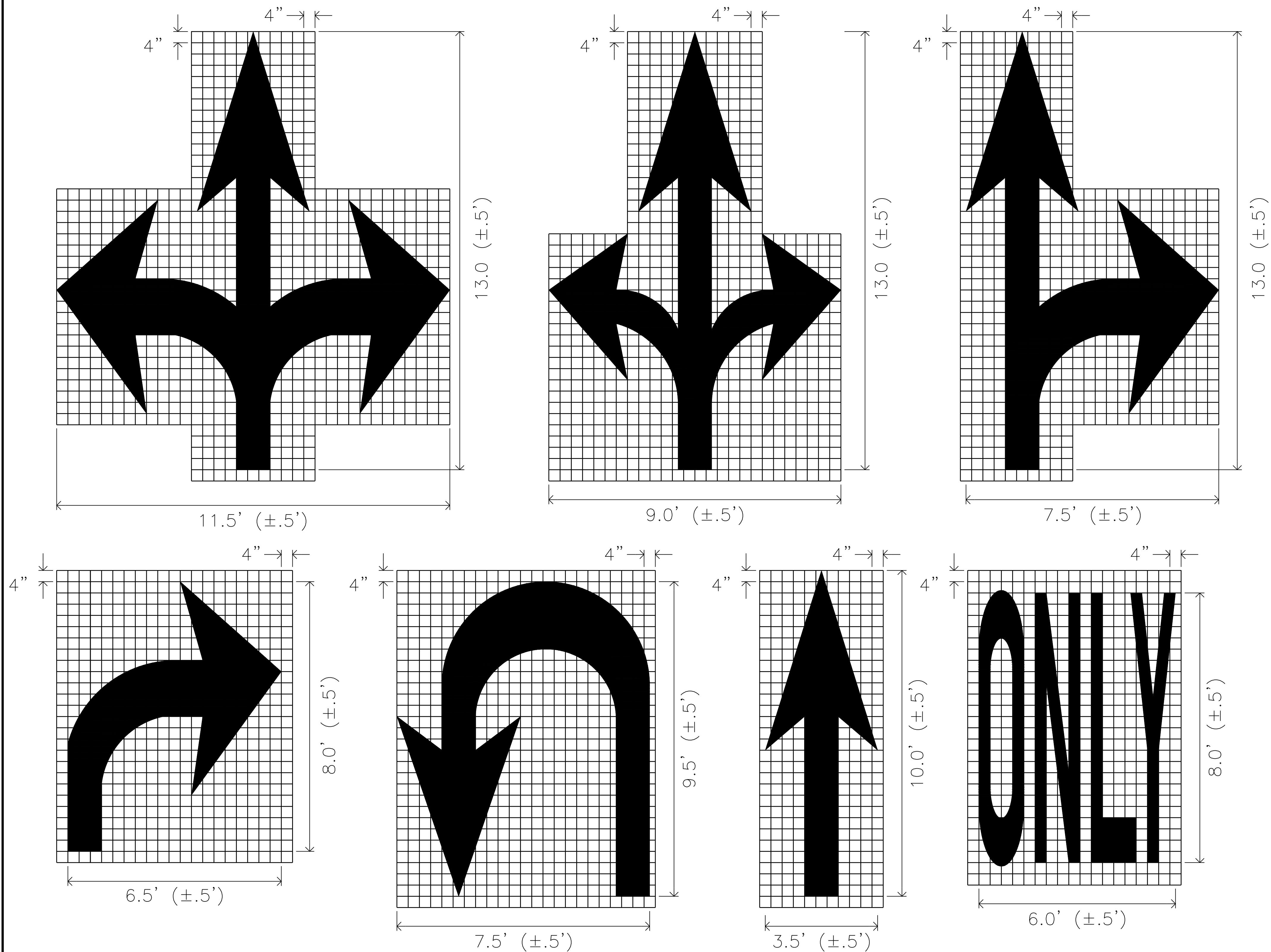
PAVEMENT MARKINGS 3 OF 4

RAILROAD CROSSINGS

STANDARD DETAILS



DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	PAV-13	17 OF 53

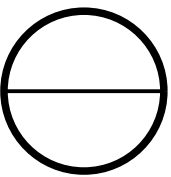


GENERAL NOTES;

- Minimum 8 foot white markings should be used, unless otherwise noted. If message consists of more than one word, it should be placed with first word nearest the driver.
- These details are standard size for normal installation; sizes may be reduced approximately one-third for low speed urban conditions; larger sizes may be needed for freeways, above average speed conditions or other critical locations.
- The longitudinal space between markings should be at least four times the height of the markings, on low speed roads, but should not exceed ten times the height under any condition.
- Markings considered appropriate for use when warranted include the following:
 - Regulatory
 - STOP
 - RIGHT (LEFT) TURN ONLY
 - 25 MPH
 - SYMBOL ARROWS
 - Warning
 - STOP AHEAD
 - SIGNAL AHEAD
 - SCHOOL
 - SCHOOL X-ING
 - PED X-ING
 - R X R (see RCPM standard)
 - Guide
 - US XXX
 - ROUTE XXX
 - STATE XXX
 - Other words or symbols may be necessary under certain conditions
- Uncontrolled use of pavement markings can result in driver confusion. Word and symbol markings should be no more than three lines.
- The word "STOP" shall not be used on the pavement unless accompanied by a Stop line and Stop sign. The word "STOP" shall not be placed on the pavement in advance to a stop line, unless every vehicle is required to stop at all times.
- Pavement markings should generally be no more than one lane in width, with School messages being the exception. For details of School and School crossing pavement markings, refer to Part VII of the "Texas Manual on Uniform Traffic Control Devices".
- Spacing between letters should be approximately 4 inches. The width of letters may vary depending on the width of the travel lanes.
- Lane-Use arrow markings may be used to convey either guidance or mandatory messages. Arrows used to convey a mandatory movement must be accompanied by standard signs. The use of the pavement marking word "ONLY" shall be determined by the Engineer.
- Pavement markings are to be located as specified elsewhere in the plans.

SPACING BETWEEN LINES OF PAVEMENT MARKING	
MPH	SPACING
≤ 45	MINIMUM 4 TIMES THE LETTER HEIGHT
> 45	MINIMUM – 4 TIMES THE LETTER HEIGHT MAXIMUM – 10 TIMES THE LETTER HEIGHT

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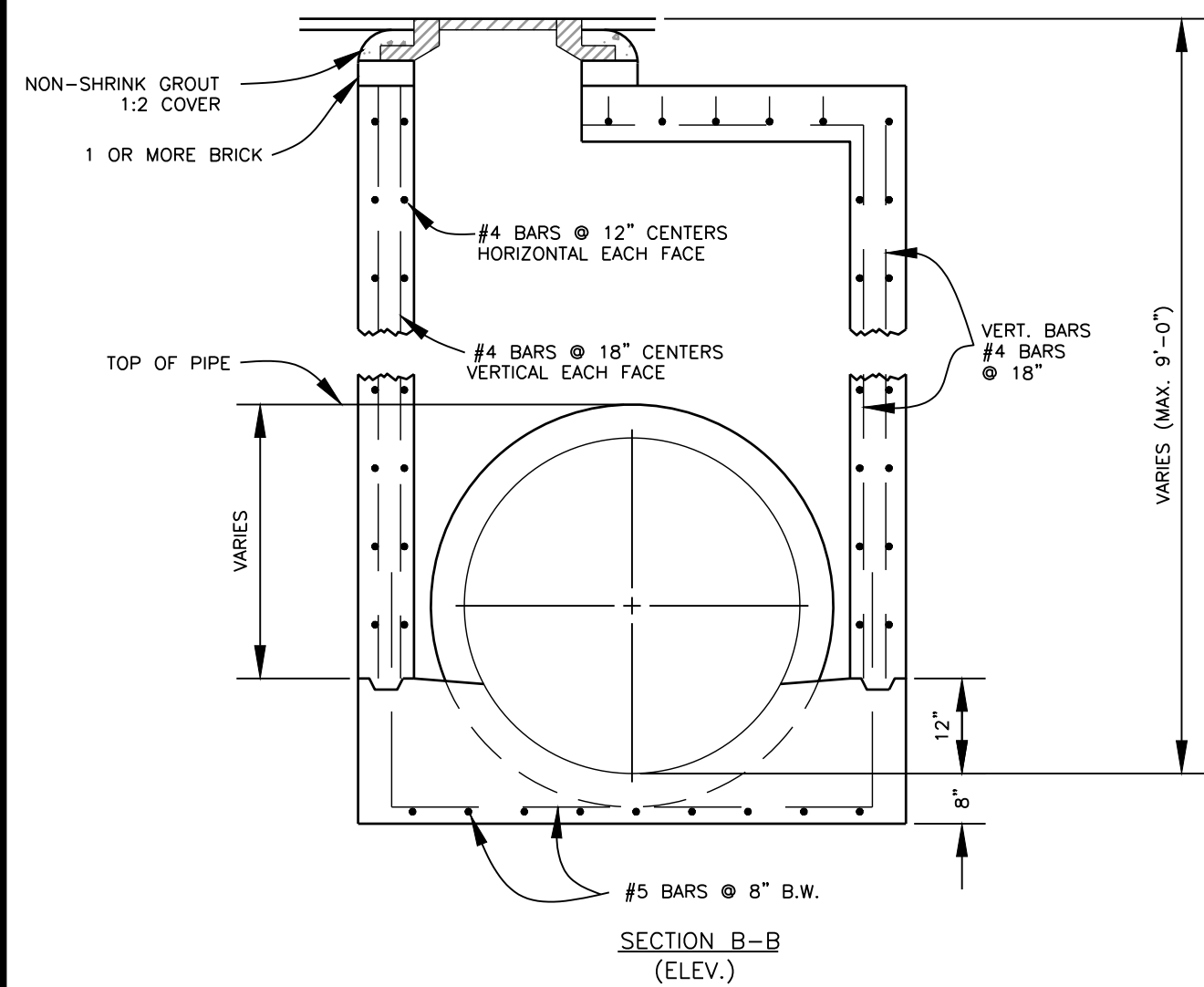
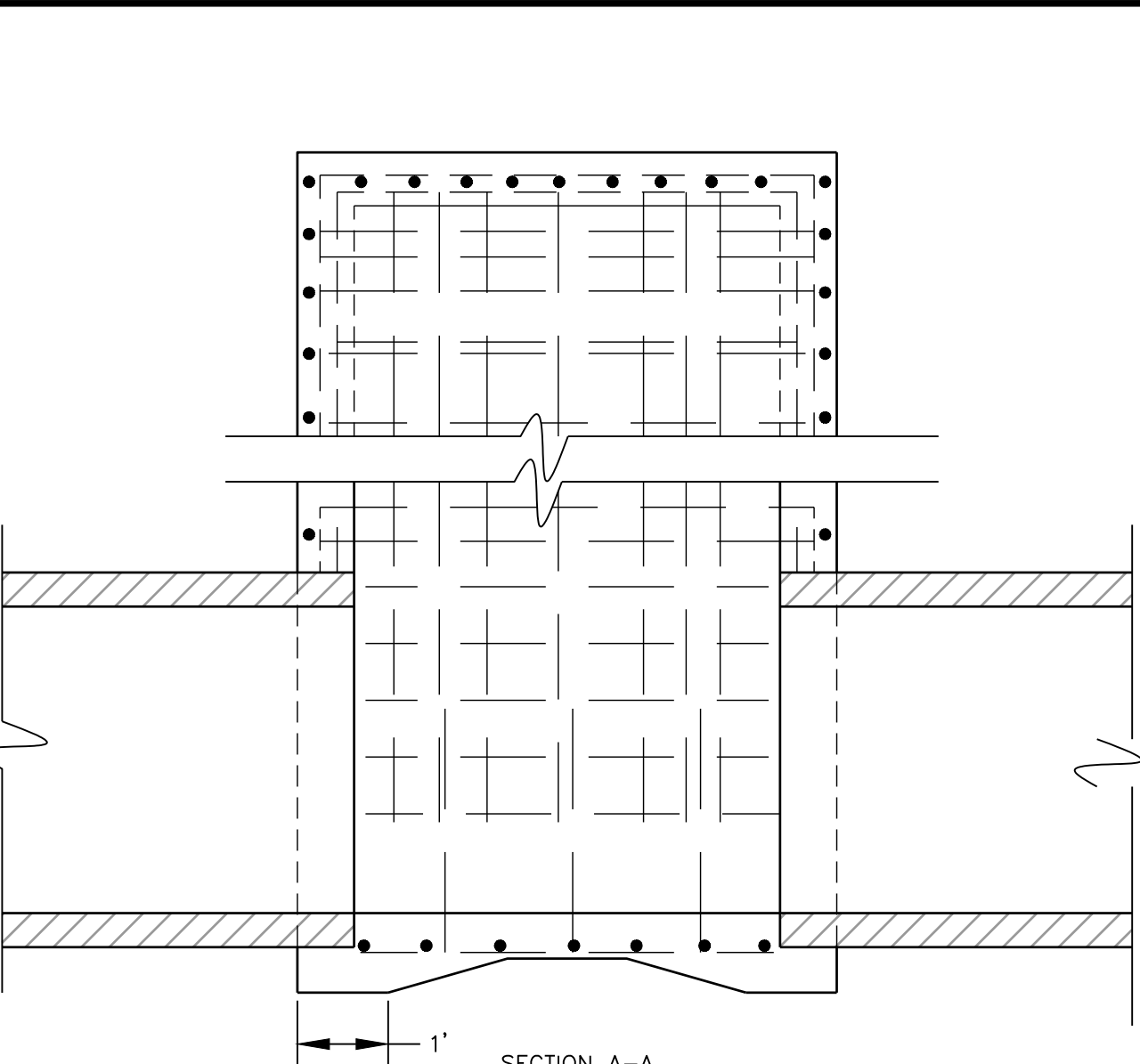
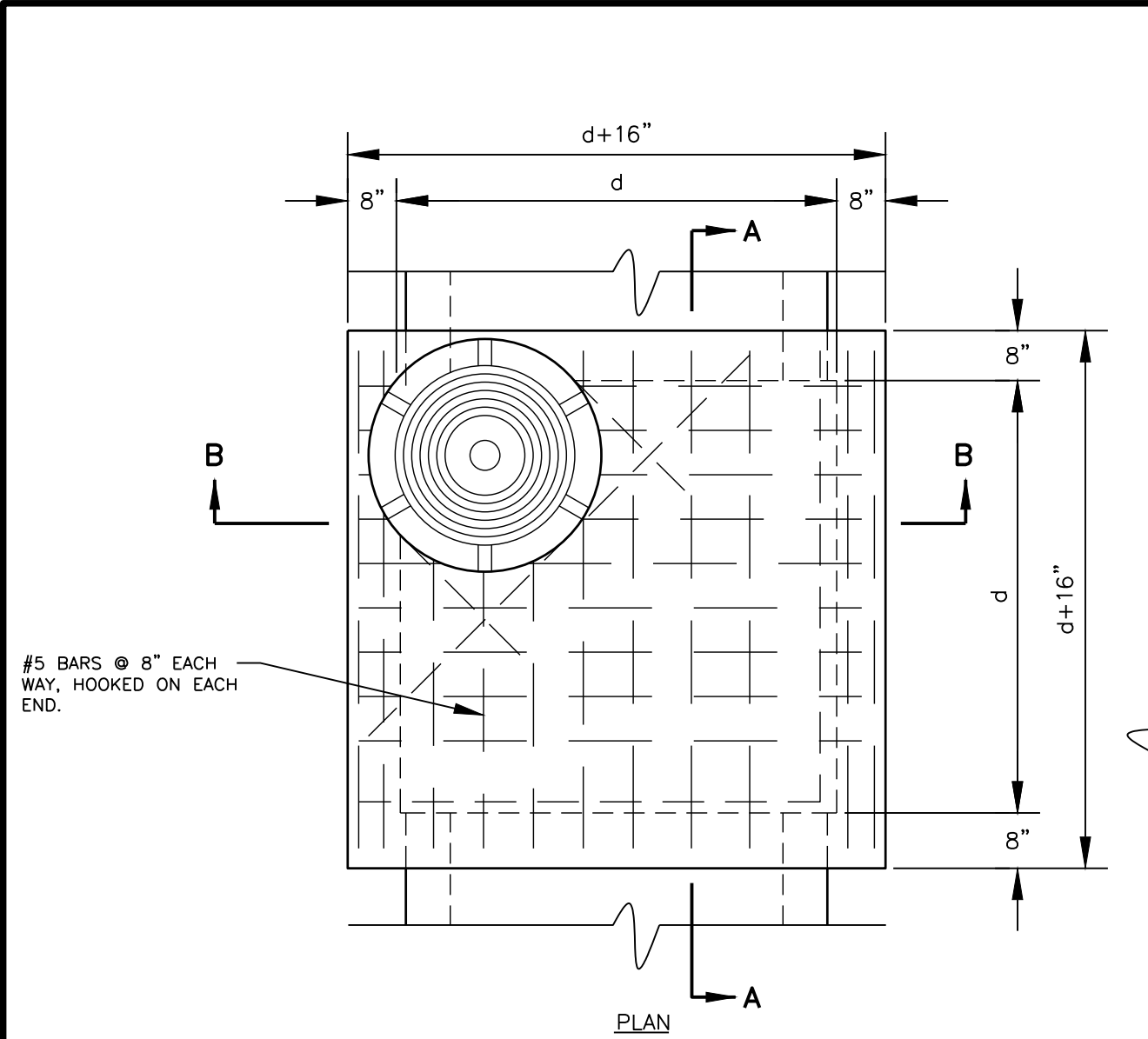
PAVEMENT MARKINGS 4 OF 4

ARROWS AND SYMBOLS

STANDARD DETAILS



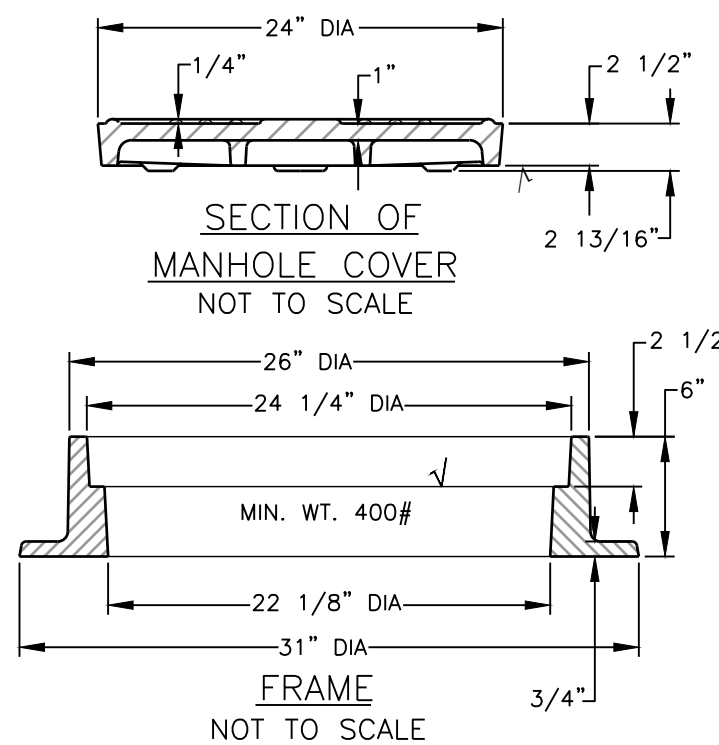
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			May 2021	N.T.S.	PAV-14	18 OF 53



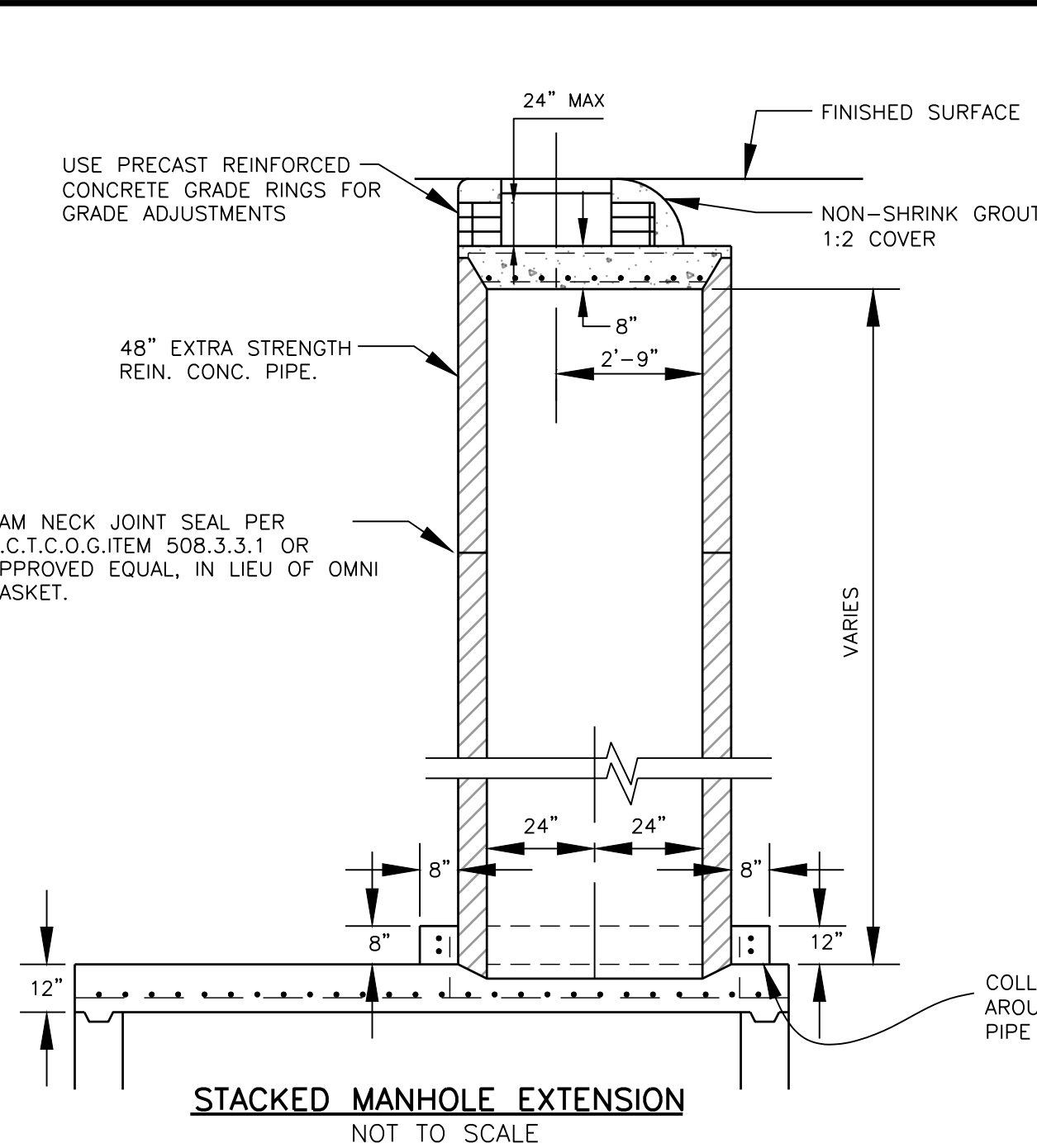
CORNER	
PIPE SIZES	d
24"-39"	5'
42"-48"	6'
54"-60"	7'
66"-72"	8'

TYPE "B" MANHOLE
NOT TO SCALE

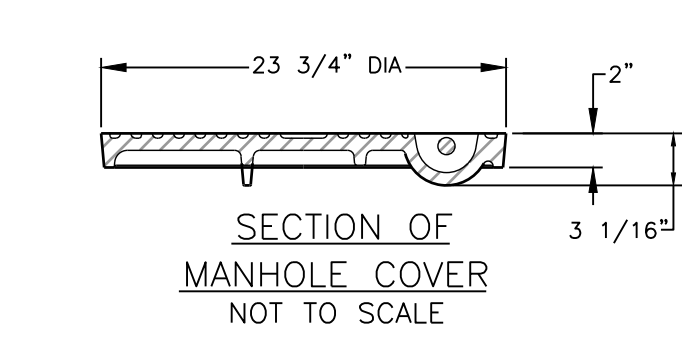
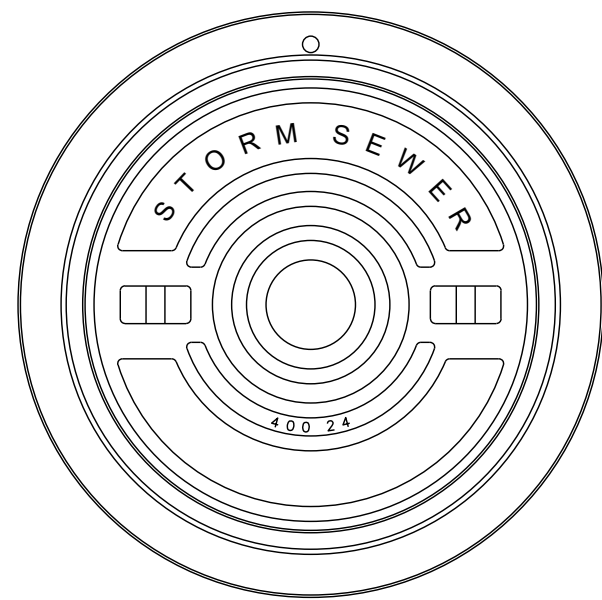
MANHOLE FRAME AND COVER NOTES:
1. MANHOLE LIDS SHALL HAVE PICK SLOTS ONLY.
2. M.H. FRAME & COVERS IN STREET SHALL BE 400 LBS. MIN. WT. (L BASS & HAYS # 400-24 OR EQUAL) ALL OTHERS MAY BE 300 LBS. (L BASS & HAYS # 300-24 OR EQUAL)



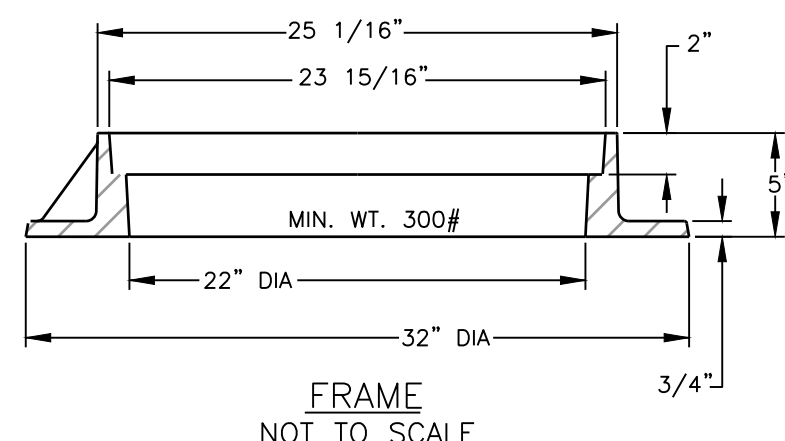
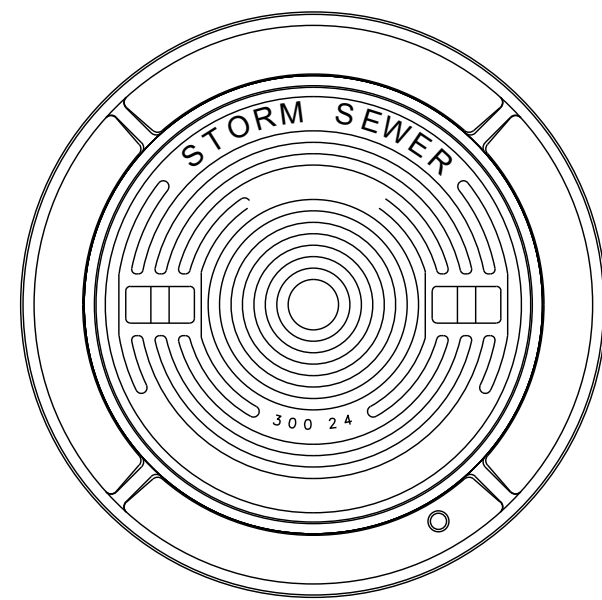
TRAFFIC RATED
MANHOLE FRAME & COVER DETAIL



STACKED MANHOLE EXTENSION
NOT TO SCALE



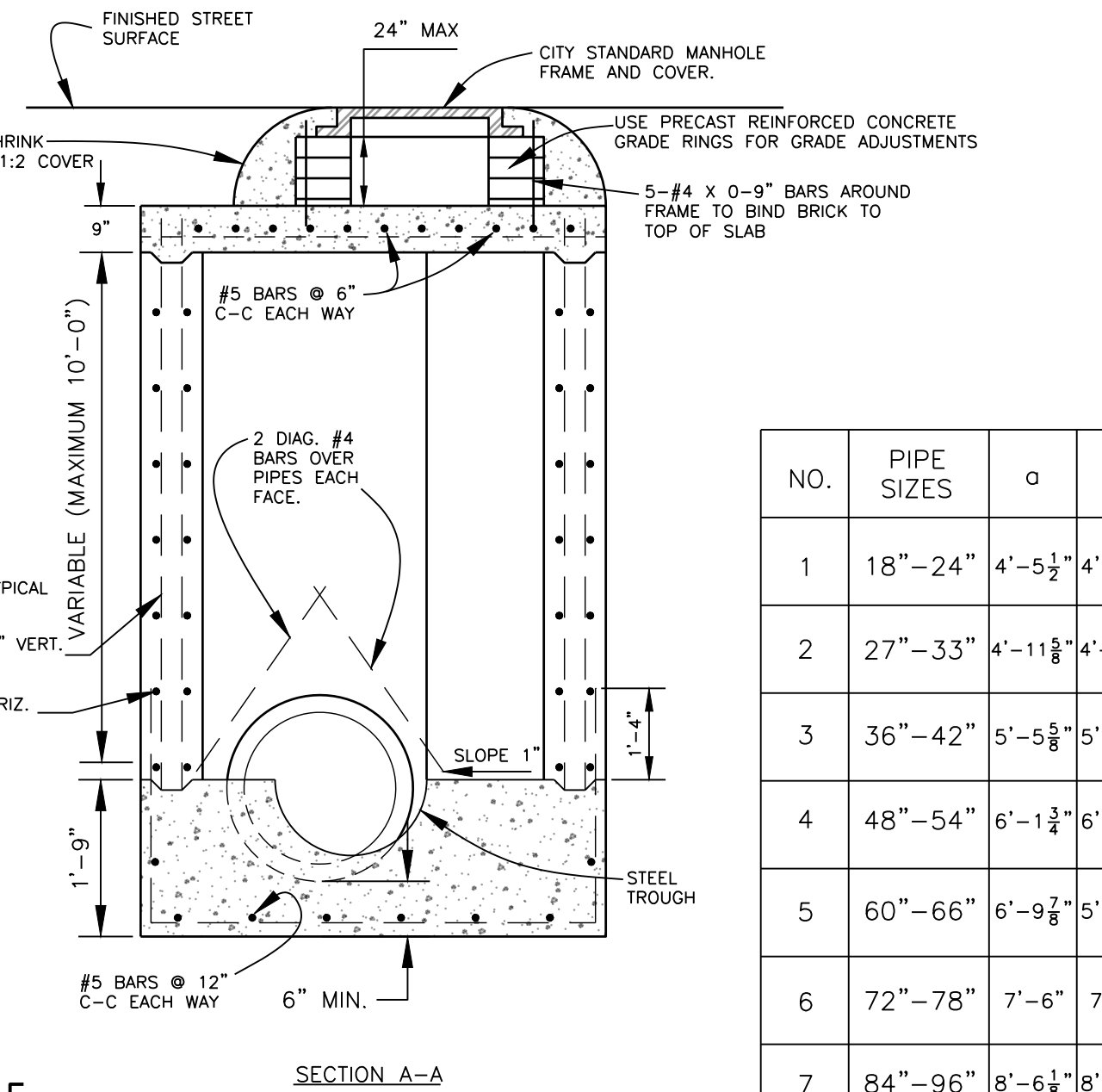
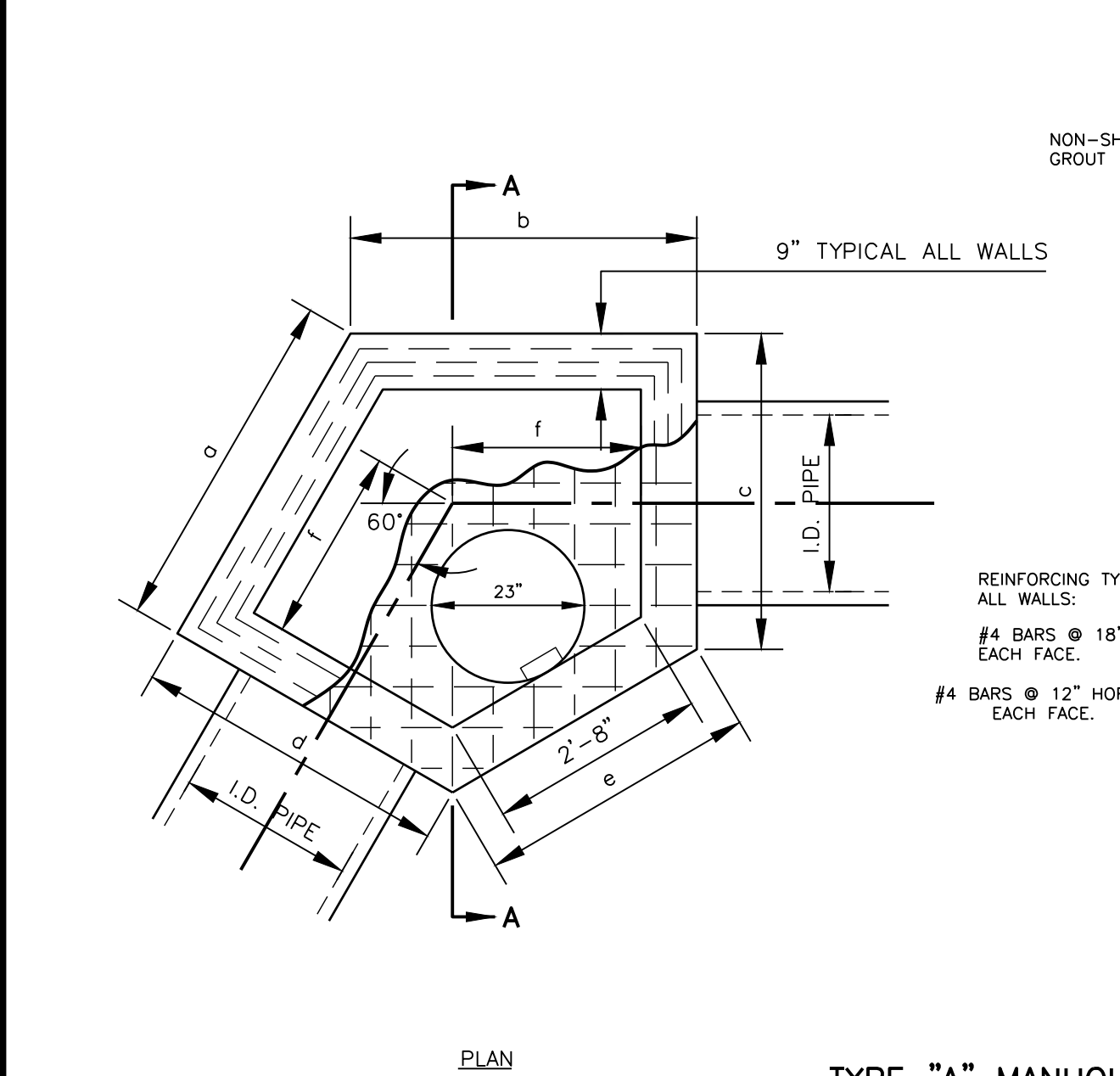
SECTION OF
MANHOLE COVER
NOT TO SCALE



FRAME
NOT TO SCALE

NON-TRAFFIC RATED
MANHOLE FRAME & COVER DETAIL

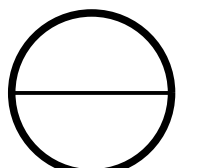
- GENERAL NOTES:
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS HEREIN REFERRED TO AS N.C.T.C.O.G. SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817) 640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM
 - ALL MANHOLES SHALL BE POURED IN PLACE OR PRECAST. PRECAST JUNCTION BOXES OR MANHOLES SHALL HAVE SHOP DRAWINGS PRE-APPROVED BY THE CITY ENGINEER.
 - DIRECT TRAFFIC CONCRETE STRUCTURES SHALL BE MADE WITH A MINIMUM OF 6 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS. OTHER CONCRETE SHALL BE MADE WITH A MINIMUM OF 5 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
 - ALL REINFORCING STEEL SHALL BE NEW, NEAT, BILLET-STEEL PER ASTM DESIGNATION A-615, GRADE 60, AND SHALL BE DETAILED AND PLACED PER ACI MANUALS SP-88 AND 318, LATEST ADDITIONS. ALL REINFORCING STEEL SHALL HAVE MINIMUM 15 INCH LAP SPLICES, UNLESS NOTED OTHERWISE ON THE PLANS.
 - THE CONTRACTOR SHALL USE A LIQUID MEMBRANE-FORMING CURING COMPOUND PER N.C.T.C.O.G. ITEM 303.2.13.
 - LIGHT BROOM FINISH REQUIRED ON ALL EXPOSED MANHOLE TOPS.
 - MANHOLE FRAME AND COVER SHALL BE INSTALLED AS PER THE DETAILS ON THIS SHEET.
 - STACKED MANHOLE EXTENSION SHALL BE INSTALLED, WHERE SPECIFIED ON THE PLANS AND AS PER THE DETAILS ON THIS SHEET. PRECAST ALLOWED FOR STACKED MANHOLE EXTENSIONS.
 - MANHOLES SHALL BE CONSTRUCTED PER DETAILS ON THIS SHEET AND N.C.T.C.O.G. ITEM 502.1.
 - PREFABRICATED ROUND MANHOLES SHALL CONFORM TO ASTM C478 SPECIFICATIONS.
 - PREFABRICATED SQUARE MANHOLES SHALL CONFORM TO ASTM C890 AND ASTM C913 SPECIFICATIONS.
 - ALL UTILITY DITCH LINES WITHIN CITY R.O.W. OR EASEMENT SHALL BE TESTED AT A FREQUENCY OF ONE DENSITY PER 6"-8" LIFTS (NOT TO EXCEED 12") AT STAGGERED 100' INTERVALS. ALL LATERALS OR SERVICES SHALL HAVE A MINIMUM OF ONE DENSITY TEST PER FOOT OF LIFT. THE INSPECTOR SHALL HAVE THE RIGHT TO REQUEST ADDITIONAL RANDOM TESTS AS HE/SHE DEEMS NECESSARY.
 - ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
 - CONTRACTOR SHALL CONTACT STREETS DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT-OF-WAY.
 - PLEASE REFER TO THE GENERAL NOTES SHEETS, GN-01 - GN 04, FOR TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.
 - THE CONTRACTOR WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.
 - PRIVATE DEVELOPMENT PROJECTS: THE DEVELOPER/OWNER SHALL PROVIDE TESTING FOR ALL PROJECT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION COMMENCING.



NO.	PIPE SIZES	a	b	c	d	e	f
1	18"-24"	4'-5 1/2"	4'-5 1/2"	4'-2"	4'-2"	3'-6 1/2"	2'-5"
2	27"-33"	4'-11 3/8"	4'-11 3/8"	5'-1"	5'-1"	3'-6 3/8"	2'-8"
3	36"-42"	5'-5 5/8"	5'-5 5/8"	5'-1 1/4"	5'-1 1/4"	3'-6 3/8"	2'-11"
4	48"-54"	6'-1 3/4"	6'-1 3/4"	7'-1 1/4"	7'-1 1/4"	3'-6 1/2"	3'-3"
5	60"-66"	6'-9 7/8"	6'-9 7/8"	8'-3 1/4"	8'-3 1/4"	3'-6 1/2"	3'-7"
6	72"-78"	7'-6"	7'-6"	9'-5 1/4"	9'-5 1/4"	3'-6 1/2"	3'-11"
7	84"-96"	8'-6 1/8"	8'-6 1/8"	11'-2 1/4"	11'-2 1/4"	3'-6 1/2"	4'-5 1/2"

TYPE "A" MANHOLE
NOT TO SCALE

CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.



STORM DRAIN MANHOLE

STANDARD DETAILS



DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	STM-01	19 OF 53

ONE GRATE INLET

TWO GRATE INLET

THREE GRATE INLET

FOUR GRATE INLET

SIX GRATE INLET

SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D

SECTION G-G

GRATE DETAILS

SECTION F-F

NOTE :
GRATE AND FRAME SHALL BE
PATTERN NO. 814 AS
MANUFACTURED BY BASS &
HAYES FOUNDRY OR APPROVED
EQUAL.

NOTES

1. ALL LAP'S AND EXTENSIONS OF REINFORCING BARS SHALL BE 30 BAR DIAMETERS UNLESS NOTED OTHERWISE.
2. TACK WELD GRATES IN PLACE OR USE GRATE LOCK.
3. PIPE MAY BE PLACED IN ANY WALL, BUT SHALL NOT ENTER ANY CORNER OR BOTTOM.
4. CONCRETE TO MIN. OF 4200 PSI.
5. GRATE INLET DESIGN TO BE ONLY USED IN PAVED AREAS ONLY.

GENERAL:

(A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS HEREIN REFERRED TO AS N.C.T.C.O.G. SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817) 640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM

CLOSED CONDUITS:

- (A) CLOSED CONDUITS SHALL BE INSTALLED PER N.C.T.C.O.G. ITEM 508
- (B) ONLY REINFORCED CONCRETE PIPE (RCP) OR REINFORCED CONCRETE BOX (RCB) IS APPROVED FOR USE FOR STORM DRAIN CONDUIT, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
- (C) CLASS IV RCP SHALL BE USED WHERE THE PIPE COVER IS GREATER THAN 1 FEET AND ALL OTHER PIPE SHALL BE USED WHERE THE PIPE COVER IS GREATER THAN 1 FEET. CLASS III RCP SHALL BE USED WHERE THE PIPE COVER VARIES FROM 2 FEET TO 6 FEET. THE CLASS OF ALL OTHER RCP SHALL DETERMINED BY AN ENGINEER PER LOADS AND SUPPORTING STRENGTHS, AMERICAN CONCRETE PIPE ASSOCIATION.
- (D) C-850 RCB SHALL BE USED WHERE THE COVER IS LESS THAN 3 FEET. C-789 SHALL BE USED WHERE THE COVER VARIES FROM 3 FEET TO 6 FEET. THE DESIGN OF ALL OTHER RCB SHALL BE DETERMINED BY AN ENGINEER.
- (E) FOR PIPES, EMBEDEDMENT SHALL BE PER THE STREET BACKFILL & REPAIR DETAIL ON STORM DRAIN & INLET STANDARD DETAIL SHEET. FOR BOX CULVERTS, EMBEDEDMENT SHALL BE PER THE BOX CULVERT EMBEDEDMENT DETAIL ON STORM DRAIN & INLET STANDARD DETAIL SHEET. NOTE THAT FLOWABLE BACKFILL IS ONLY REQUIRED BELOW AREAS TO BE PAVED.
- (F) JOINT SEALS OR EQUAL: UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
- (G) THE MINIMUM SIZE FOR LATERALS IS 18 INCHES IN DIAMETER. THE MINIMUM SIZE FOR MAINS IS 24 INCHES IN DIAMETER.

FITTINGS COLLARS AND CONNECTIONS:

- (A) CONSTRUCTION SHALL USE ONLY PRE-FABRICATED FITTINGS ON NEW CONSTRUCTION PROJECTS. FIELD CONNECTIONS SHALL BE MADE ONLY TO EXISTING PIPE WITH CITY APPROVAL. THE CONNECTION SHALL BE A SMOOTH CONNECTION AND CONCRETE WRAPPED ON THE OUTSIDE AND INSIDE.
- (B) CONCRETE COLLARS SHALL BE CONSTRUCTED PER THE CONCRETE COLLAR DETAILS. ON THE STORM DRAIN AND INLET STANDARD DETAIL SHEET, AT ALL STORM DRAIN SIZES AND AT GRADES 12" OR GREATER WHERE THE JOINT IS BEING PULLED MORE THAN RECOMMENDED BY THE MANUFACTURER, PLEASE ALSO REFER TO THE DETAILS ON THIS SHEET AND N.C.T.C.O.G. ITEM 508.3.4.1.

INLETS:

- (A) INLETS SHALL BE POURED IN PLACE OR PRECAST. PRECAST INLETS, JUNCTION BOXES, MANHOLES, AND HEADWALLS SHALL HAVE SHOP DRAWINGS PRE-APPROVED BY THE CITY ENGINEER.
- (B) INLETS SHALL NOT BE USED AS JUNCTION BOXES OR PLACED ON A MAIN, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- (C) THE MINIMUM OPENING FOR A CURB INLET SHALL BE 5 FEET. CURB INLETS SHALL BE CONSTRUCTED IN 12" FOLG CEMENTS. ALL CURB INLETS WITH 15 FEET WIDE OR LARGER OPENING SHALL HAVE A CENTER SUPPORT. ALL CURB INLETS GREATER THAN 7 FEET DEEP SHALL BE DESIGNED AND SEALED BY AN ENGINEER.
- (D) BOTTOMS, TOPS, AND VARIABLE HEIGHT CURB TO BE SEPARATE POURS (3 POURS) FOR CURB INLETS.
- (E) CURB INLET BOTTOMS SHALL BE POURED PRIOR TO ANY PAVING. (F) CURB INLETS SHALL HAVE TO LINEAR FEET OF VARIABLE HEIGHT CURB ON BOTH SIDES OF THE INLET OPENING.
- (G) FRAME AND COVER ON CURB INLETS TO BE LOCATED DIRECTLY OVER THE OUTLET PIPE.

CONCRETE:

- (A) CONCRETE SHALL BE MADE WITH A MINIMUM OF 6 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS. NO CONTINUOUS VOLUMETRIC MIX CONCRETE ALLOWED IN STRUCTURAL POORS. ALL POORS MUST BE PLACED IN RUN/TRANSIT MIX CONCRETE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- (B) ALL REINFORCING STEEL SHALL BE NEW, NEAT, BILLET-STEEL PER ASTM DESIGNATION A615, GRADE 60, WITH A MINIMUM YIELD STRENGTH OF 60,000 PSI, SP-80 AND 318, LATEST ADDITIONS. ALL REINFORCING STEEL SHALL HAVE MINIMUM 15 INCH LAP SPICES, UNLESS NOTED OTHERWISE ON THE PLANS.
- (C) CONTRACTOR SHALL SUBMIT AND HAVE APPROVED MEMBRANE-FORMING COMPOUND PER N.C.T.C.O. ITEM ITEM 302.2.3.1.1.

TESTING:

- (A) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:
- (a) ALL CLOSED CONDUITS SHALL BE T.V. INSPECTED PER N.C.T.C.O.G. ITEM 507.5.2 METHOD AND LINES WITHIN CITY P.R.O.W. OR EASEMENTS SHALL BE TESTED.
 - (b) ALL UTILITY CATCH BASINS SHALL BE INSPECTED PER "B" LIFT (NOT TO EXCEED 12") AT STAGGERED 100' INTERVALS. ALL LATERALS OR SERVICES SHALL HAVE A MINIMUM OF ONE DENSITY TEST PER FOOT OF LIFT. THE INSPECTOR SHALL HAVE THE RIGHT TO REQUEST ADDITIONAL RANDOM TESTS AS HE/SHE DEEMS NECESSARY.
- (B) PLEASE REFER TO THE GENERAL NOTES SHEETS, GN-01 - GN 04, FOR TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.
- (C) THE CONTRACTOR WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.

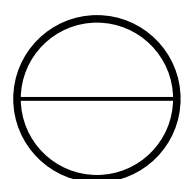
MATERIAL: ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.

PRIVATE DEVELOPMENT PROJECTS:

- PRIVATE DEVELOPMENT PROJECTS:
- A. THE DEVELOPER/OWNER SHALL PROVIDE TESTING FOR ALL PROJECT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION COMMENCING.
- B. WELD CHAINS TO GRATES OR TACK WELD.

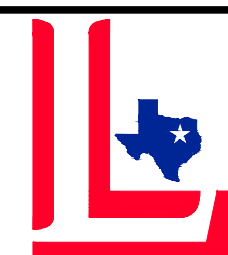
CERTIFICATION:

CERTIFICATION: THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.

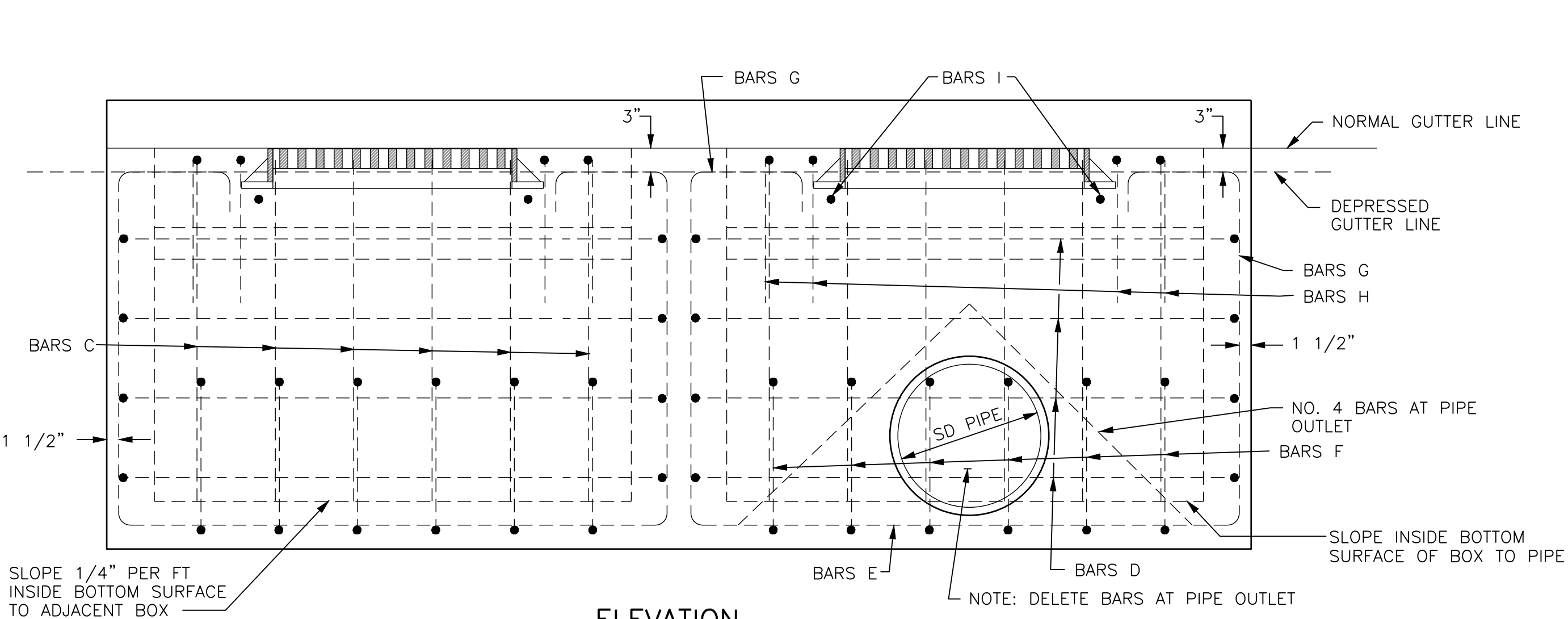


GRATE INLETS

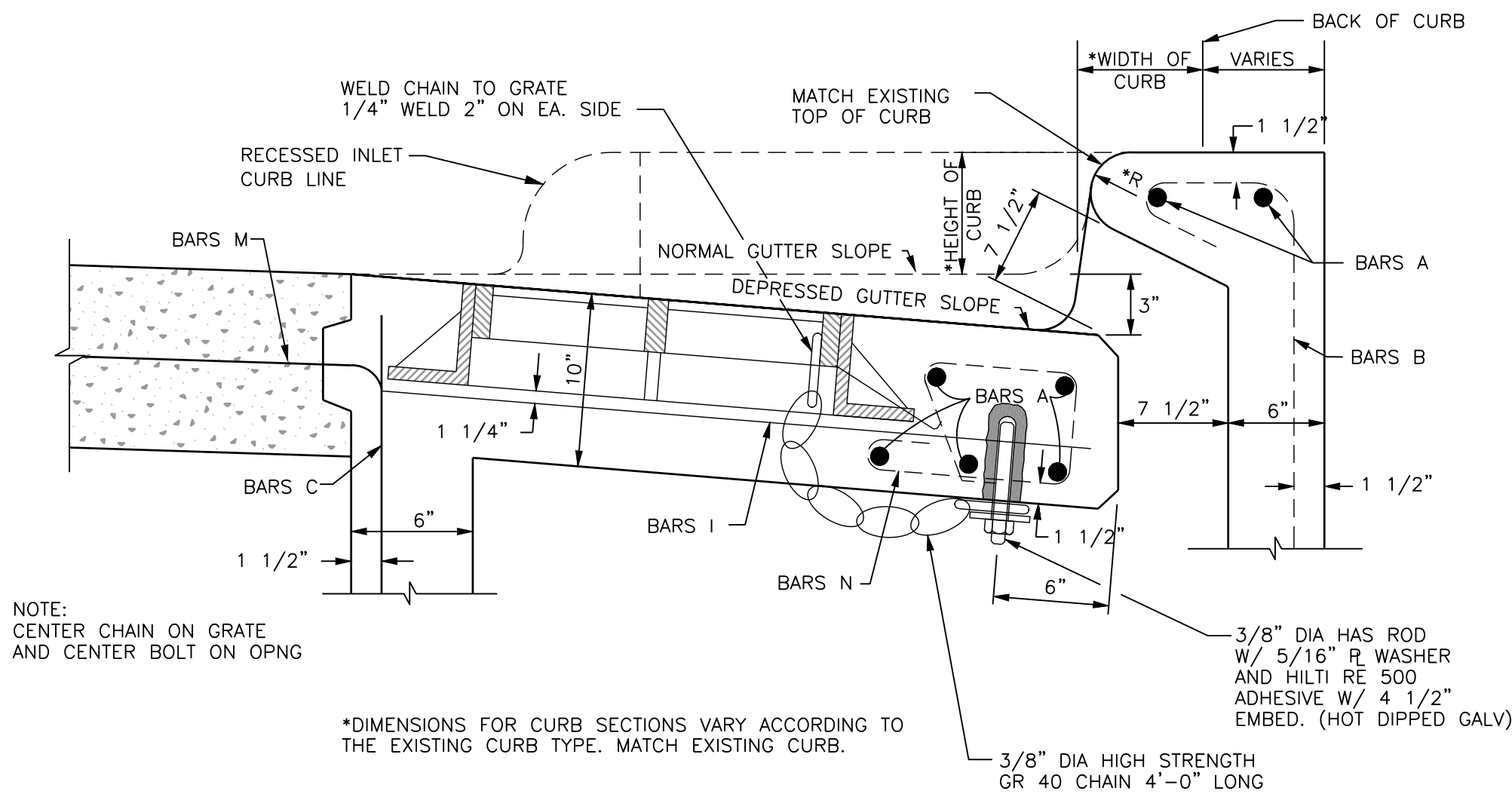
STANDARD DETAILS



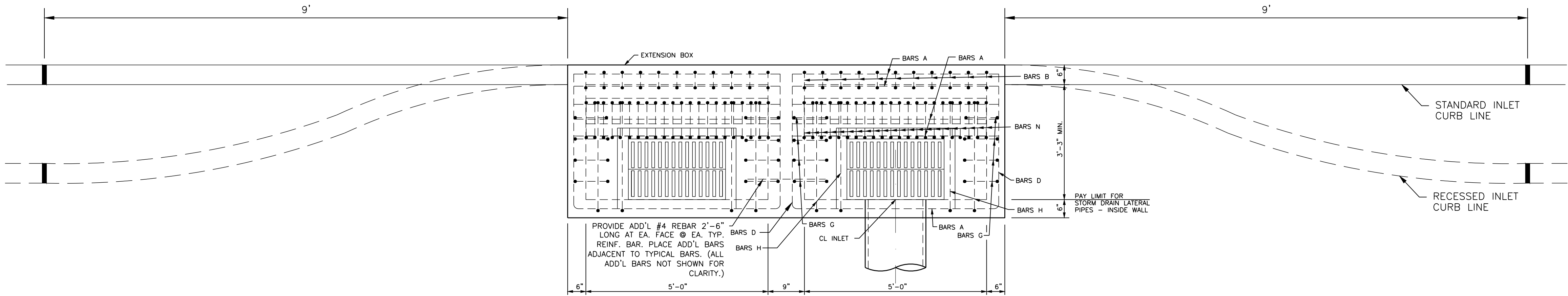
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			<i>May 2021</i>	N.T.S.	STM-02	20 OF 53



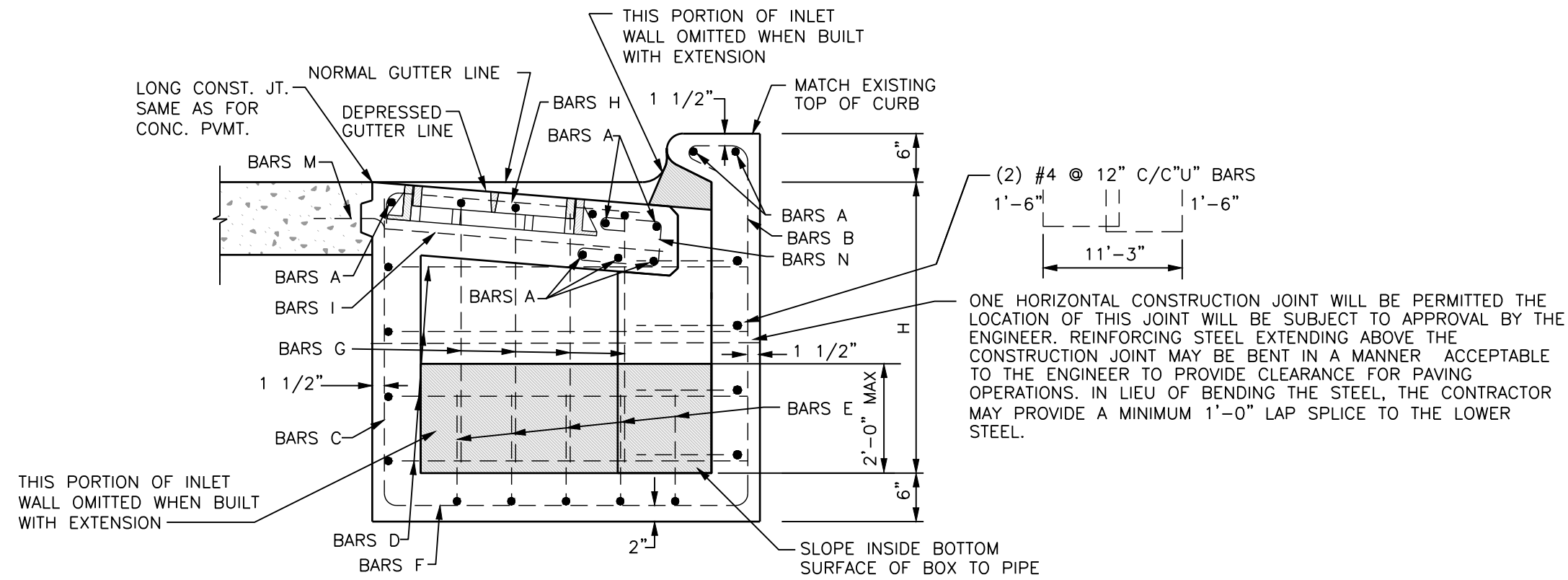
ELEVATION
NOT TO SCALE



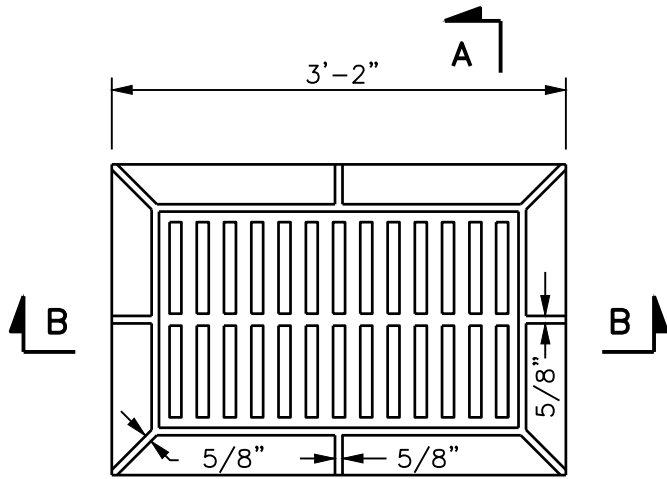
TOP OF INLET DETAIL
NOT TO SCALE



PLAN
NOT TO SCALE

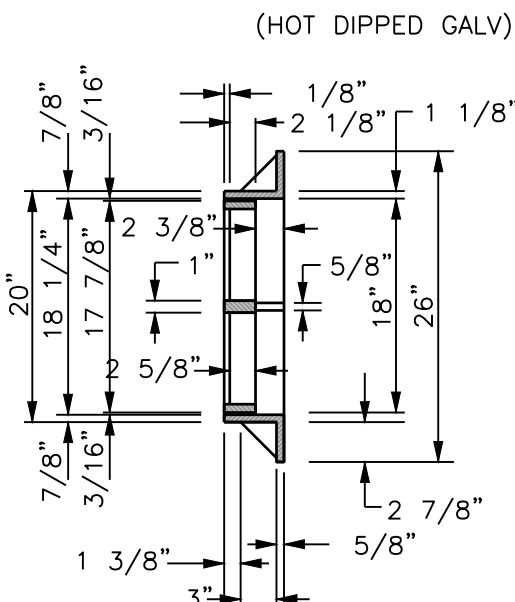


SIDE VIEW
NOT TO SCALE

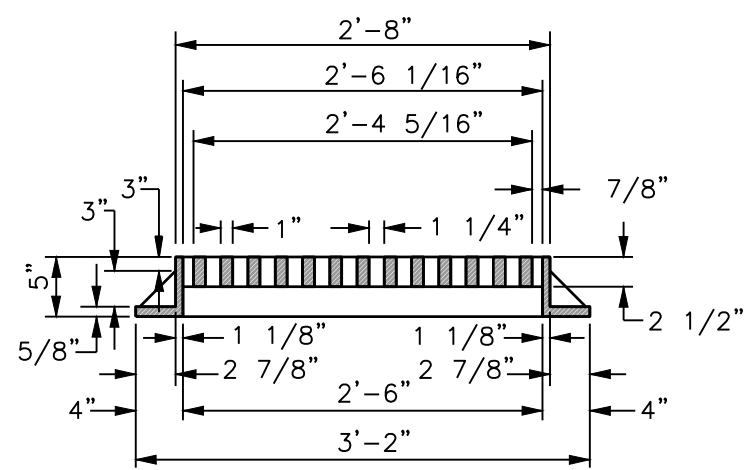


PLAN

NOTE:
FRAME AND GRATE TO BE OF GRAY CAST IRON
CONFORMING TO A.S.T.M. SPEC. A-48 FOR
CLASS NO. 30 CAST IRON.



SECTION A-A



SECTION B-B

FRAME AND GRATE
NOT TO SCALE

GENERAL:
(A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS HEREIN REFERRED TO AS N.C.T.C.O.G. SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817) 640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM

CLOSED CONDUITS:
(A) CLOSED CONDUITS SHALL BE INSTALLED PER N.C.T.C.O.G. ITEM 508
(B) ONLY REINFORCED CONCRETE PIPE (RCP) OR REINFORCED CONCRETE BOX (RCB) IS APPROVED FOR USE, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
(C) CLASS IV RCP SHALL BE USED WHERE THE PIPE COVER IS GREATER THAN 1 FOOT AND LESS THAN 2 FEET. CLASS III RCP SHALL BE USED WHERE THE PIPE COVER VARIES FROM 2 FEET TO 6 FEET. THE CLASS OF ALL OTHER RCP SHALL BE DETERMINED BY AN ENGINEER PER LOADS AND SUPPORTING STRENGTHS, AMERICAN CONCRETE PIPE ASSOCIATION.
(D) REINFORCED CONCRETE BOX CULVERTS (RCB) SHALL BE ASTM C-1433. THE DESIGN OF ALL OTHER RCB SHALL BE DETERMINED BY AN ENGINEER.
(E) FOR PIPES, EMBEDMENT SHALL BE PER THE STREET BACKFILL & REPAIR DETAIL ON STORM DRAIN & INLET STANDARD DETAIL SHEET. FOR BOX CULVERTS, EMBEDMENT SHALL BE PER THE BOX CULVERT EMBEDMENT DETAIL ON STORM DRAIN & INLET STANDARD DETAIL SHEET. NOTE THAT FLOWABLE BACKFILL IS ONLY REQUIRED BELOW AREAS TO BE PAVED.
(F) THE CONTRACTOR SHALL SEAL ALL JOINTS ON CLOSED CONDUITS WITH OMNI-FLEX JOINT SEALS, OR EQUAL, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
(G) THE MINIMUM SIZE FOR LATERALS IS 18 INCHES IN DIAMETER. THE MINIMUM SIZE FOR MAINS IS 24 INCHES IN DIAMETER.

FITTINGS COLLARS AND CONNECTIONS:
(A) THE CONTRACTOR SHALL USE ONLY PRE-FABRICATED FITTINGS ON NEW CONSTRUCTION PROJECTS. FIELD CONNECTIONS SHALL BE MADE ONLY TO EXISTING PIPE WITH CITY APPROVAL. THE CONNECTION SHALL BE A SMOOTH CONNECTION AND CONCRETE WRAPPED ON THE OUTSIDE AND INSIDE.
(B) CONCRETE COLLARS SHALL BE CONSTRUCTED PER THE CONCRETE COLLAR DETAIL ON THE STORM DRAIN AND INLET STANDARD SHEET AT ALL STORM DRAIN SIZE AND AT GRADE CHANGES OR IN CURVES WHERE THE JOINT IS BEING PULLED MORE THAN RECOMMENDED BY THE MANUFACTURER. PLEASE ALSO REFER TO THE DETAILS ON THIS SHEET AND N.C.T.C.O.G. ITEM 508.3.4.1.
INLETS:
(A) ALL INLETS SHALL BE POURED IN PLACE OR PRECAST. PRECAST INLETS, JUNCTION BOXES, MANHOLES, AND HEADWALLS SHALL HAVE SHOP DRAWINGS PRE-APPROVED BY THE CITY ENGINEER.
(B) INLETS SHALL NOT BE USED AS JUNCTION BOXES OR PLACED ON A MAIN, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
(C) THE MINIMUM OPENING FOR A CURB INLET SHALL BE 5 FEET. CURB INLETS SHALL BE CONSTRUCTED IN 5 FOOT INCREMENTS. ALL CURB INLETS WITH 15 FEET WIDE OR LARGER OPENINGS SHALL HAVE A CENTER SUPPORT. ALL CURB INLETS GREATER THAN 7 FEET DEEP SHALL BE DESIGNED AND SEALED BY AN ENGINEER.
(D) BOTTOMS, TOPS, AND VARIABLE HEIGHT CURB TO BE SEPARATE POURS (3 POURS) FOR CURB INLETS.
(E) CURB INLET BOTTOMS SHALL BE POURED PRIOR TO ANY PAVING. (F) CURB INLETS SHALL HAVE 10 LINEAR FEET OF VARIABLE HEIGHT CURB ON BOTH SIDES OF THE INLET OPENING.
(G) FRAME AND COVER ON CURB INLETS TO BE LOCATED DIRECTLY OVER THE OUTLET PIPE.

CONCRETE:
(A) CONCRETE SHALL BE MADE WITH A MINIMUM OF 6 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
(B) ALL REINFORCING STEEL SHALL BE NEW, NEAT, BILLET-STEEL PER ASTM DESIGNATION A-615, GRADE 60, AND SHALL BE DETAILED AND PLACED PER ACI MANUALS SP-88 AND 318, LATEST ADDITIONS. ALL REINFORCING STEEL SHALL HAVE MINIMUM 15 INCH LAP SPLICES, UNLESS NOTED OTHERWISE ON THE PLANS.
(C) THE CONTRACTOR SHALL USE A LIQUID MEMBRANE-FORMING CURING COMPOUND PER N.C.T.C.O.G. ITEM 303.2.13.1.1.

TESTING:
1.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:
(A) ALL CLOSED CONDUITS SHALL BE T.V. INSPECTED PER N.C.T.C.O.G. ITEM 507.5.2 METHOD AND BE COMPLETED PRIOR TO PLACING PAVEMENT.
(B) ALL UTILITY DITCH LINES WITHIN CITY R.O.W. OR EASEMENT SHALL BE TESTED AT A FREQUENCY OF ONE DENSITY PER 6"-8" LIFTS (NOT TO EXCEED 12") AT STAGGERED 100' INTERVALS. ALL LATERALS OR SERVICES SHALL HAVE A MINIMUM OF ONE DENSITY TEST PER FOOT OF LIFT. THE INSPECTOR SHALL HAVE THE RIGHT TO REQUEST ADDITIONAL RANDOM TESTS AS HE/SHE DEEMS NECESSARY.
2.) PLEASE REFER TO THE GENERAL NOTES SHEETS, GN-01 - GN 04, FOR TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.
3.) THE CONTRACTOR WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.

MATERIAL: ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.

PRIVATE DEVELOPMENT PROJECTS: THE DEVELOPER/OWNER SHALL PROVIDE TESTING FOR ALL PROJECT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION COMMENCING.

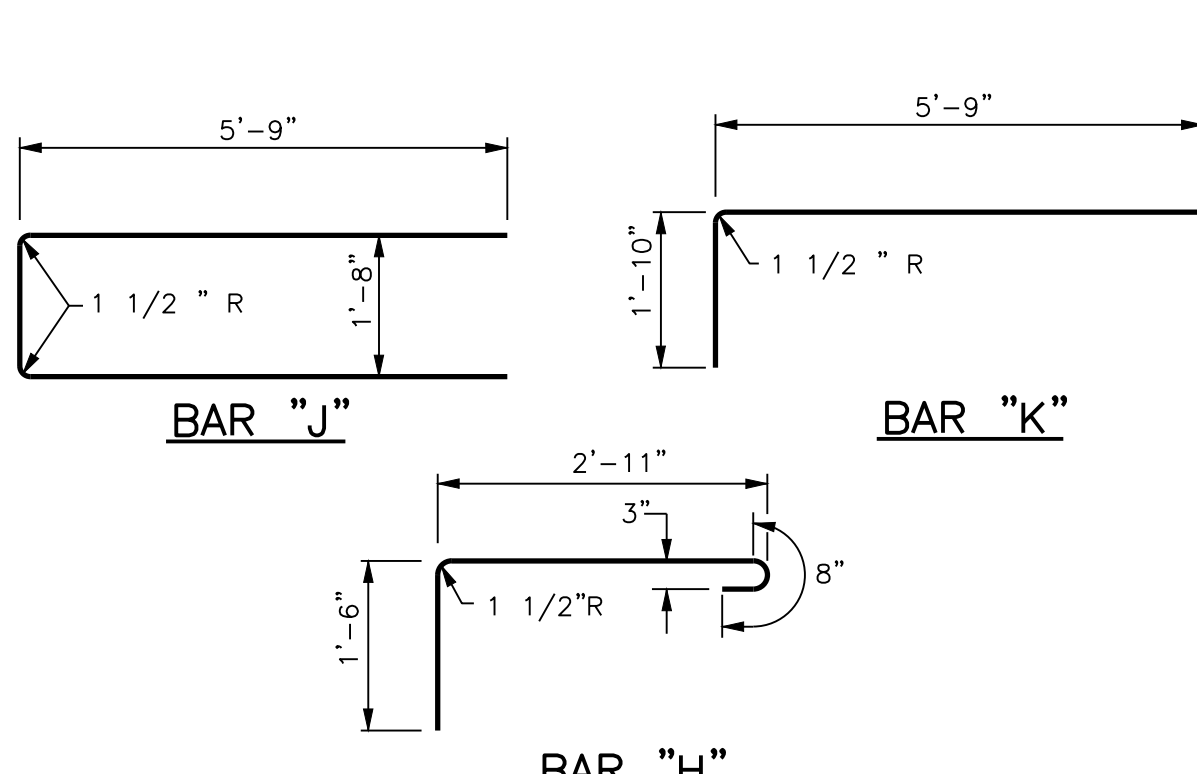
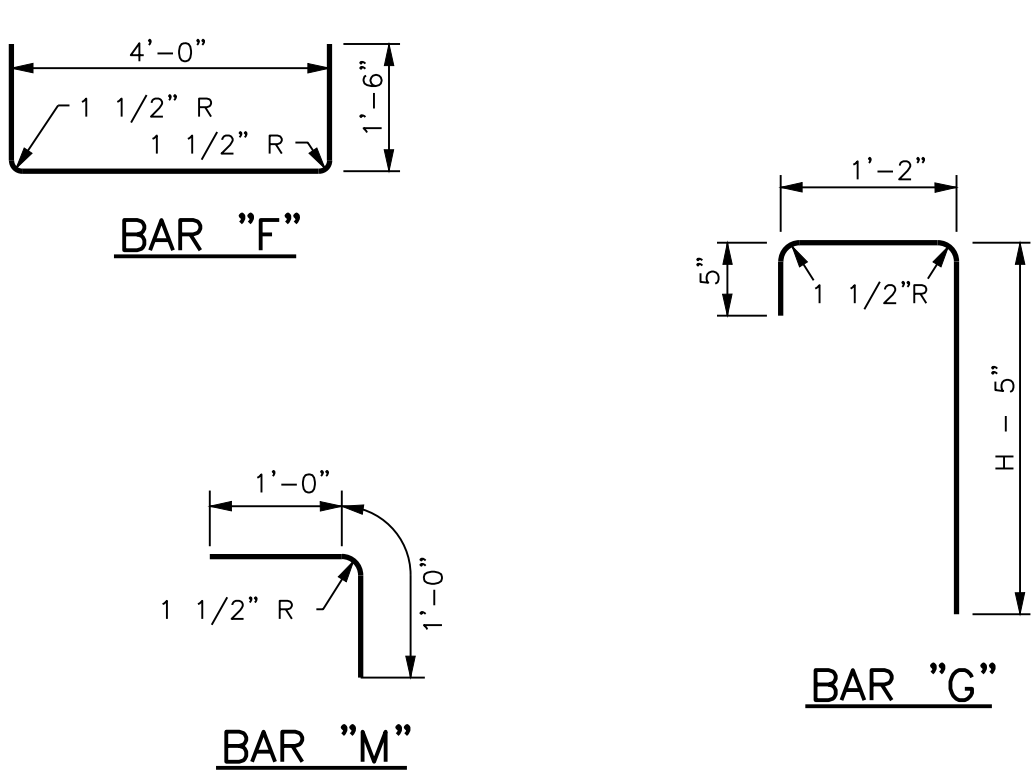
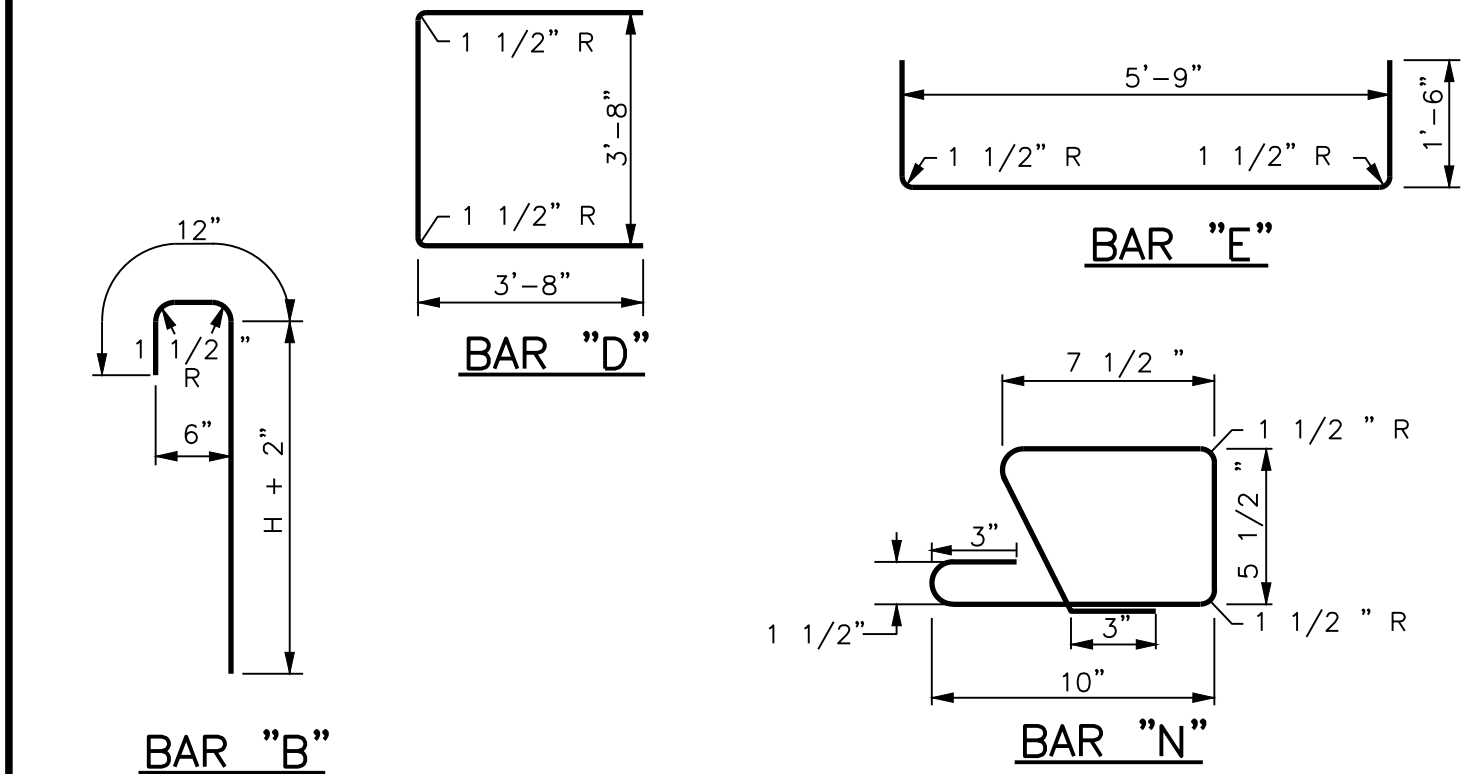
CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.

MODIFIED COMBINATION
CURB INLET
STANDARD DETAILS

1 OF 2



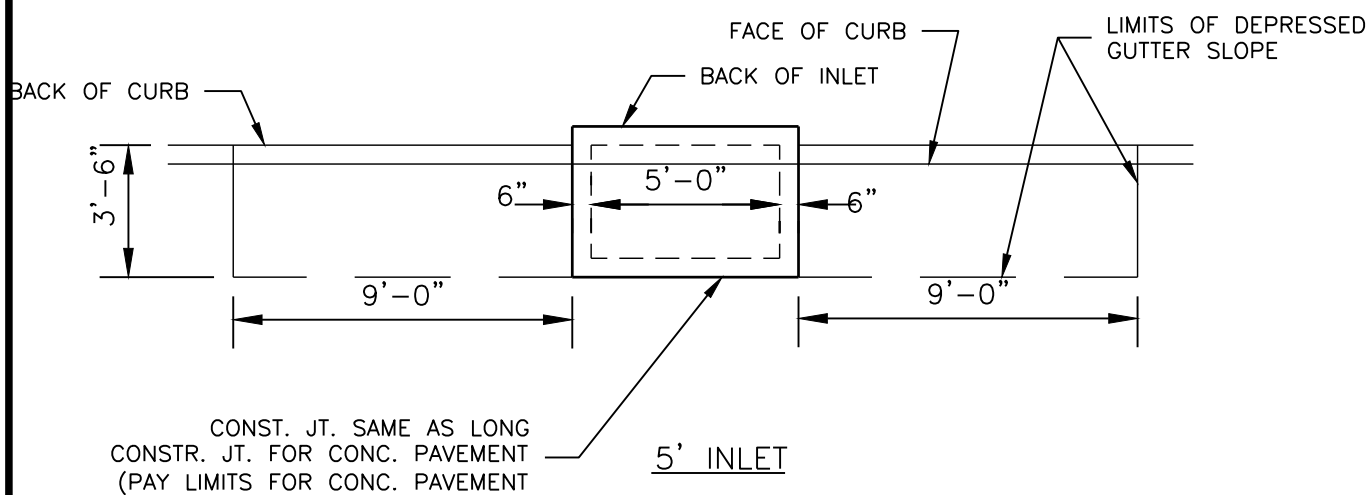
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			May 2021	N.T.S.	STM-04	22 OF 53



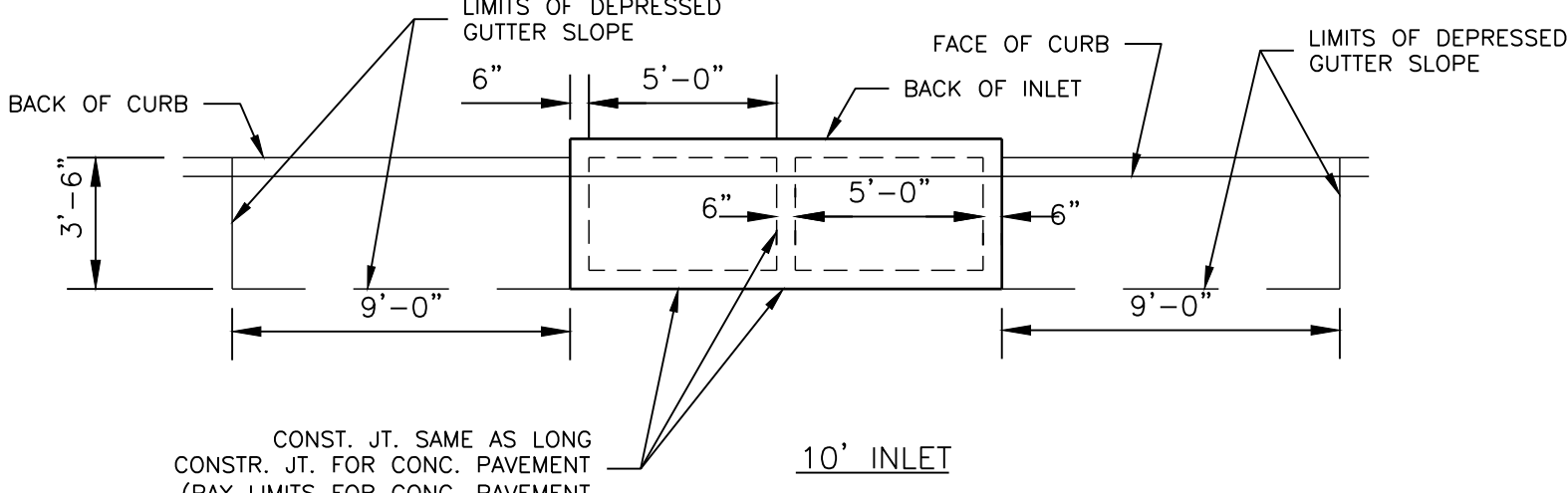
GENERAL NOTES:

1. ALL CONCRETE SHALL BE 4000 PSI
2. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4".
3. INLET STEPS SPACED 14" c.c. AND LOCATED AS DIRECTED BY THE ENGINEER, SHALL BE PROVIDED AND INSTALLED IN ALL INLETS WHERE THE DEPTH EXCEEDS 5'-0".
4. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO THE CENTER OF THE BARS.
5. TOTAL QUANTITIES SHOWN FOR CONCRETE AND REINFORCING STEEL ARE APPROXIMATE AND ARE PLACED HEREON FOR INFORMATIONAL PURPOSES ONLY.
6. BAR DETAILS SHALL BE ADJUSTED AS NECESSARY TO ACCOMMODATE A HORIZONTAL CONSTRUCTION JOINT IF USED REINFORCING STEEL QUANTITIES SHOWN DO NOT INCLUDE LAP STEEL REQUIRED FOR CONSTRUCTION JOINTS.

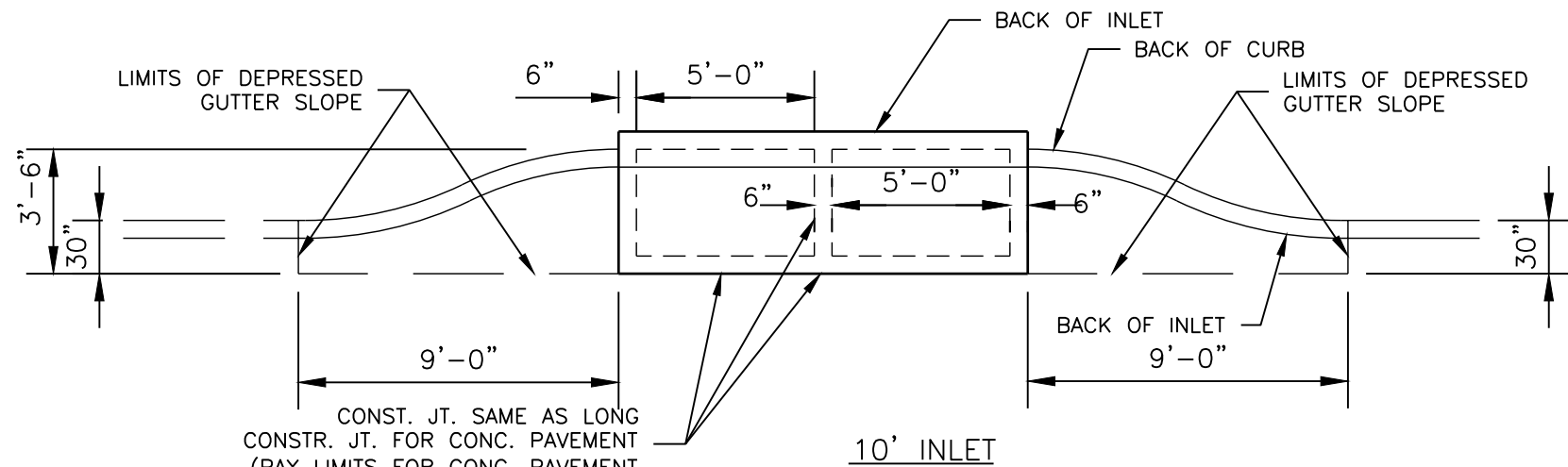
REINFORCING STEEL AND CONCRETE FOR 5' INLET



PLAN OF INLET



PLAN OF INLET AND EXTENSIONS



PLAN OF RECESSED INLET AND EXTENSIONS

INLET SIZE		STEEL																																									
HEIGHT FT.	WIDTH FT.	BAR 'A'							BAR 'B'							BAR 'C'							BAR 'D'							BAR 'E'							BAR 'G'						
		No.	SIZE	Ty	SPACING	LENGTH	Wt.	No.	SIZE	Ty	SPACING	LENGTH	Wt.	No.	SIZE	Ty	SPACING	LENGTH	Wt.	No.	SIZE	Ty	SPACING	LENGTH	Wt.	No.	SIZE	Ty	SPACING	LENGTH	Wt.	No.	SIZE	Ty	SPACING	LENGTH	Wt.						
2.5	3.0	8	6	ST	AS SHOWN	5'-9"	69	11	4	ST	6" cc	3'-8"	27	6	4	ST	10" cc	2'-4"	9	2	4	ST	12" cc	11'-0"	28	5	4	ST	7" cc	8'-9"	29	10	4	ST	6" cc	6'-9"	27						
3.0	3.0	8	6	ST	AS SHOWN	5'-9"	69	11	4	ST	6" cc	4'-2"	31	6	4	ST	10" cc	3'-0"	11	4	4	ST	12" cc	11'-0"	42	5	4	ST	7" cc	8'-9"	29	10	4	ST	6" cc	6'-9"	27						
3.5	3.0	8	6	ST	AS SHOWN	5'-9"	69	11	4	ST	6" cc	4'-8"	34	6	4	ST	10" cc	3'-4"	13	6	4	ST	12" cc	11'-0"	42	5	4	ST	7" cc	8'-9"	29	10	4	ST	6" cc	6'-9"	27						
4.0	3.0	8	6	ST	AS SHOWN	5'-9"	69	11	4	ST	6" cc	5'-2"	38	6	4	ST	10" cc	3'-10"	15	8	4	ST	12" cc	11'-0"	56	5	4	ST	7" cc	8'-9"	29	10	4	ST	6" cc	6'-9"	27						
4.5	3.0	8	6	ST	AS SHOWN	5'-9"	69	11	4	ST	6" cc	5'-8"	42	6	4	ST	10" cc	4'-4"	17	8	4	ST	12" cc	11'-0"	56	5	4	ST	7" cc	8'-9"	29	10	4	ST	6" cc	6'-9"	27						
5.0	3.0	8	6	ST	AS SHOWN	5'-9"	69	11	4	ST	6" cc	6'-2"	45	6	4	ST	10" cc	4'-10"	19	10	4	ST	12" cc	11'-0"	70	5	4	ST	7" cc	8'-9"	29	10	4	ST	6" cc	6'-9"	27						
5.5	3.0	8	6	ST	AS SHOWN	5'-9"	69	11	4	ST	6" cc	6'-8"	49	6	4	ST	10" cc	5'-4"	21	10	4	ST	12" cc	11'-0"	70	5	4	ST	7" cc	8'-9"	29	10	4	ST	6" cc	6'-9"	27						
6.0	3.0	8	6	ST	AS SHOWN	5'-9"	69	11	4	ST	6" cc	7'-2"	53	6	4	ST	10" cc	5'-10"	23	12	4	ST	12" cc	11'-0"	84	5	4	ST	7" cc	8'-9"	29	10	4	ST	6" cc	6'-9"	27						
7.0	3.0	8	6	ST	AS SHOWN	5'-9"	69	11	4	ST	6" cc	8'-2"	60	6	4	ST	10" cc	6'-10"	27	14	4	ST	12" cc	11'-0"	99	5	4	ST	7" cc	8'-9"	29	10	4	ST	6" cc	6'-9"	27						
8.0	3.0	8	6	ST	AS SHOWN	5'-9"	69	11	4	ST	6" cc	9'-2"	67	6	4	ST	10" cc	7'-10"	31	16	4	ST	12" cc	11'-0"	112	5	4	ST	7" cc	8'-9"	29	10	4	ST	6" cc	6'-9"	27						
9.0	3.0	8	6	ST	AS SHOWN	5'-9"	69	11	4	ST	6" cc	10'-2"	75	6	4	ST	10" cc	8'-10"	35	18	4	ST	12" cc	11'-0"	120	5	4	ST	7" cc	8'-9"	29	10	4	ST	6" cc	6'-9"	27						
10.0	3.0	8	6	ST	AS SHOWN	5'-9"	69	11	4	ST	6" cc	11'-2"	82	6	4	ST	10" cc	9'-10"	39	20	4	ST	12" cc	11'-0"	140	5	4	ST	7" cc	8'-9"	29	10	4	ST	6" cc	6'-9"	27						

INLET SIZE		STEEL																												TOTALS			
HEIGHT FT.	WIDTH FT.	BAR 'H'							BAR 'I'							BAR 'M'							BAR 'N'							STEEL		CONC.	
		No.	SIZE	Ty	SPACING	LENGTH	Wt.	No.	SIZE	Ty	SPACING	LENGTH	Wt.	No.	SIZE	Ty	SPACING	LENGTH	Wt.	No.	SIZE	Ty	SPACING	LENGTH	Wt.	Lbs.	CY						
2.5	3.0	4	4	ST	AS SHOWN	5'-9"	13	2	4	ST	AS SHOWN	2'-9"	4	7	4	ST	24"	cc	2'-0"	9	21	4	ST	3"	cc	2'-7"	36	271	163				
3.0	3.0	4	4	ST	AS SHOWN	5'-9"	13	2	4	ST	AS SHOWN	2'-9"	4	7	4	ST	24"	cc	2'-0"	9	21	4	ST	3"	cc	2'-7"	36	271	163				
3.5	3.0	4	4	ST	AS SHOWN	5'-9"	13	2	4	ST	AS SHOWN	2'-9"	4	7	4	ST	24"	cc	2'-0"	9	21	4	ST	3"	cc	2'-7"	36	271	163				
4.0	3.0	4	4	ST	AS SHOWN	5'-9"	13	2	4	ST	AS SHOWN	2'-9"	4	7	4	ST	24"	cc	2'-0"	9	21	4	ST	3"	cc	2'-7"	36	271	163				
4.5	3.0	4	4	ST	AS SHOWN	5'-9"	13	2	4	ST	AS SHOWN	2'-9"	4	7	4	ST	24"	cc	2'-0"	9	21	4	ST	3"	cc	2'-7"	36	271	163				
5.0	3.0	4	4	ST	AS SHOWN	5'-9"	13	2	4	ST	AS SHOWN	2'-9"	4	7	4	ST	24"	cc	2'-0"	9	21	4	ST	3"	cc	2'-7"	36	271	163				
5.5	3.0	4	4	ST	AS SHOWN	5'-9"	13	2	4	ST	AS SHOWN	2'-9"	4	7	4	ST	24"	cc	2'-0"	9	21	4	ST	3"	cc	2'-7"	36	271	163				
6.0	3.0	4	4	ST	AS SHOWN	5'-9"	13	2	4	ST	AS SHOWN	2'-9"	4	7	4	ST	24"	cc	2'-0"	9	21	4	ST	3"	cc	2'-7"	36	271	163				
7.0	3.0	4	4	ST	AS SHOWN	5'-9"	13	2	4	ST	AS SHOWN	2'-9"	4	7	4	ST	24"	cc	2'-0"	9	21	4	ST	3"	cc	2'-7"	36	271	163				
8.0	3.0	4	4	ST	AS SHOWN	5'-9"	13	2	4	ST	AS SHOWN	2'-9"	4	7	4	ST	24"	cc	2'-0"	9	21	4	ST	3"	cc	2'-7"	36	271	163				
9.0	3.0	4	4	ST	AS SHOWN	5'-9"	13	2	4	ST	AS SHOWN	2'-9"	4	7	4	ST	24"	cc	2'-0"	9	21	4	ST	3"	cc	2'-7"	36	271	163				
10.0	3.0	4	4	ST	AS SHOWN	5'-9"	13	2	4	ST	AS SHOWN	2'-9"	4	7	4	ST	24"	cc	2'-0"	9	21	4	ST	3"	cc	2'-7"	36	271	163				

REINFORCING STEEL AND CONCRETE FOR 5' INLET TABLE

BAR	No.	SIZE	Ty	SPACING	LENGTH	Wt.
A	6	6	ST	AS SHOWN	5'-9"	23
J	1	4	ST	AS SHOWN	13'-2"	9
K	1	4	ST	AS SHOWN	7'-7"	5
L	10	4	ST	6" cc	7'-3" TO 7'-9"	50
M	4	4	ST	24" cc	2'-0"	5

REINFORCING STEEL AND CONCRETE FOR ONE 5' EXT. TABLE

PIPE DIA.	CONC. CY
15"	0.04
18"	0.05
21"	0.07
24"	0.09
27"	0.11
30"	0.14
36"	0.20

CONCRETE TO BE DEDUCTED FOR PIPES (ONE PIPE)

GENERAL:
(A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS HEREIN REFERRED TO AS N.C.T.C.O.G. SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817) 640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM

CLOSED CONDUITS:
(A) CLOSED CONDUITS SHALL BE INSTALLED PER N.C.T.C.O.G. ITEM 508
(B) ONLY REINFORCED CONCRETE PIPE (RCP) OR REINFORCED CONCRETE BOX (RCB) IS APPROVED FOR USE, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
(C) CLASS IV RCP SHALL BE USED WHERE THE PIPE COVER IS GREATER THAN 1 FEET AND LESS THAN 2 FEET. CLASS III RCP SHALL BE USED WHERE THE PIPE COVER VARIES FROM 2 FEET TO 6 FEET. THE CLASS OF ALL OTHER RCP SHALL BE DETERMINED BY AN ENGINEER PER LOADS AND SUPPORTING STRENGTHS, AMERICAN CONCRETE PIPE ASSOCIATION.
(D) REINFORCED CONCRETE BOX CULVERTS (RCB) SHALL BE ASTM C-1433. THE DESIGN OF ALL OTHER RCB SHALL BE DETERMINED BY AN ENGINEER.
(E) FOR PIPES, EMBEDMENT SHALL BE PER THE STREET BACKFILL & REPAIR DETAIL ON STORM DRAIN & INLET STANDARD DETAIL SHEET. FOR BOX CULVERTS, EMBEDMENT SHALL BE PER THE BOX CULVERT EMBEDMENT DETAIL ON STORM DRAIN & INLET STANDARD DETAIL SHEET. NOTE THAT FLOWABLE BACKFILL IS ONLY REQUIRED BELOW AREAS TO BE PAVED.
(F) THE CONTRACTOR SHALL SEAL ALL JOINTS ON CLOSED CONDUITS WITH OMNI-FLEX JOINT SEALS, OR EQUAL; UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
(G) THE MINIMUM SIZE FOR LATERALS IS 18 INCHES IN DIAMETER. THE MINIMUM SIZE FOR MAINS IS 24 INCHES IN DIAMETER.

FITTINGS COLLARS AND CONNECTIONS:
(A) THE CONTRACTOR SHALL USE ONLY PRE-FABRICATED FITTINGS ON NEW CONSTRUCTION PROJECTS. FIELD CONNECTIONS SHALL BE MADE ONLY TO EXISTING PIPE WITH CITY APPROVAL. THE CONNECTION SHALL BE A SMOOTH CONNECTION AND CONCRETE WRAPPED ON THE OUTSIDE AND INSIDE.
(B) CONCRETE COLLARS SHALL BE CONSTRUCTED PER THE CONCRETE COLLAR DETAIL ON THE STORM DRAIN AND INLET STANDARD SHEET AT ALL STORM DRAIN SIZE AND AT GRADE CHANGES OR IN CURVES WHERE THE JOINT IS BEING PULLED MORE THAN RECOMMENDED BY THE MANUFACTURER. PLEASE ALSO REFER TO THE DETAILS ON THIS SHEET AND N.C.T.C.O.G. ITEM 508.3.4.1.

INLETS:
(A) ALL INLETS SHALL BE POURED IN PLACE. PRECAST INLETS, JUNCTION BOXES, MANHOLES, AND HEADWALLS SHALL HAVE SHOP DRAWINGS PRE-APPROVED BY THE CITY ENGINEER.
(B) INLETS SHALL NOT BE USED AS JUNCTION BOXES OR PLACED ON A MAIN, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
(C) THE MINIMUM OPENING FOR A CURB INLET SHALL BE 5 FEET. CURB INLETS SHALL BE CONSTRUCTED IN 5 FOOT INCREMENTS. ALL CURB INLETS WITH 15 FEET WIDE OR LARGER OPENINGS SHALL HAVE A CENTER SUPPORT. ALL CURB INLETS GREATER THAN 7 FEET DEEP SHALL BE DESIGNED AND SEALED BY AN ENGINEER.
(D) BOTTOMS, TOPS, AND VARIABLE HEIGHT CURB TO BE SEPARATE POURS (3 POURS) FOR CURB INLETS.
(E) CURB INLET BOTTOMS SHALL BE POURED PRIOR TO ANY PAVING. (F) CURB INLETS SHALL HAVE 10 LINEAR FEET OF VARIABLE HEIGHT CURB ON BOTH SIDES OF THE INLET OPENING.
(G) FRAME AND COVER ON CURB INLETS TO BE LOCATED DIRECTLY OVER THE OUTLET PIPE.

CONCRETE:
(A) CONCRETE SHALL BE MADE WITH A MINIMUM OF 6 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
(B) ALL REINFORCING STEEL SHALL BE NEW, NEAT, BILLET-STEEL PER ASTM DESIGNATION A-615, GRADE 60, AND SHALL BE DETAILED AND PLACED PER ACI MANUALS SP-88 AND 318, LATEST ADDITIONS. ALL REINFORCING STEEL SHALL HAVE MINIMUM 15 INCH LAP SPLICES, UNLESS NOTED OTHERWISE ON THE PLANS.
(C) THE CONTRACTOR SHALL USE A LIQUID MEMBRANE-FORMING CURING COMPOUND PER N.C.T.C.O.G. ITEM 303.2.13.1.1.

TESTING:
1.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:
(A) ALL CLOSED CONDUITS SHALL BE T.V. INSPECTED PER N.C.T.C.O.G. ITEM 507.5.2 METHOD AND BE COMPLETED PRIOR TO PLACING PAVEMENT.
(B) ALL UTILITY DITCH LINES WITHIN CITY R.O.W. OR EASEMENT SHALL BE TESTED AT A FREQUENCY OF ONE DENSITY PER 6'-8" LIFTS (NOT TO EXCEED 12") AT STAGGERED 100' INTERVALS. ALL LATERALS OR SERVICES SHALL HAVE A MINIMUM OF ONE DENSITY TEST PER FOOT OF LIFT. THE INSPECTOR SHALL HAVE THE RIGHT TO REQUEST ADDITIONAL RANDOM TESTS AS HE/SHE DEEMS NECESSARY.
2.) PLEASE REFER TO THE GENERAL NOTES SHEETS, GN-01 - GN 04, FOR TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.
3.) THE CONTRACTOR WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.

MATERIAL: ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.

PRIVATE DEVELOPMENT PROJECTS: THE DEVELOPER/OWNER SHALL PROVIDE TESTING FOR ALL PROJECT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION COMMENCING.

CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.

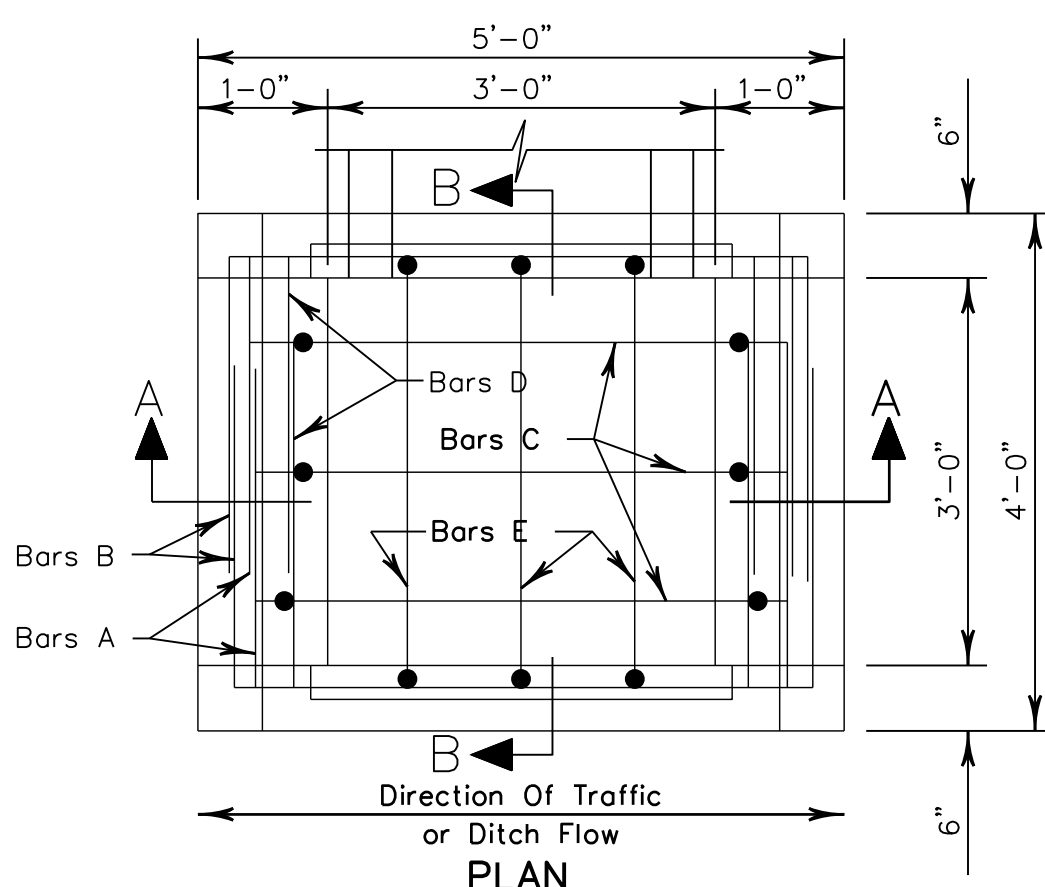
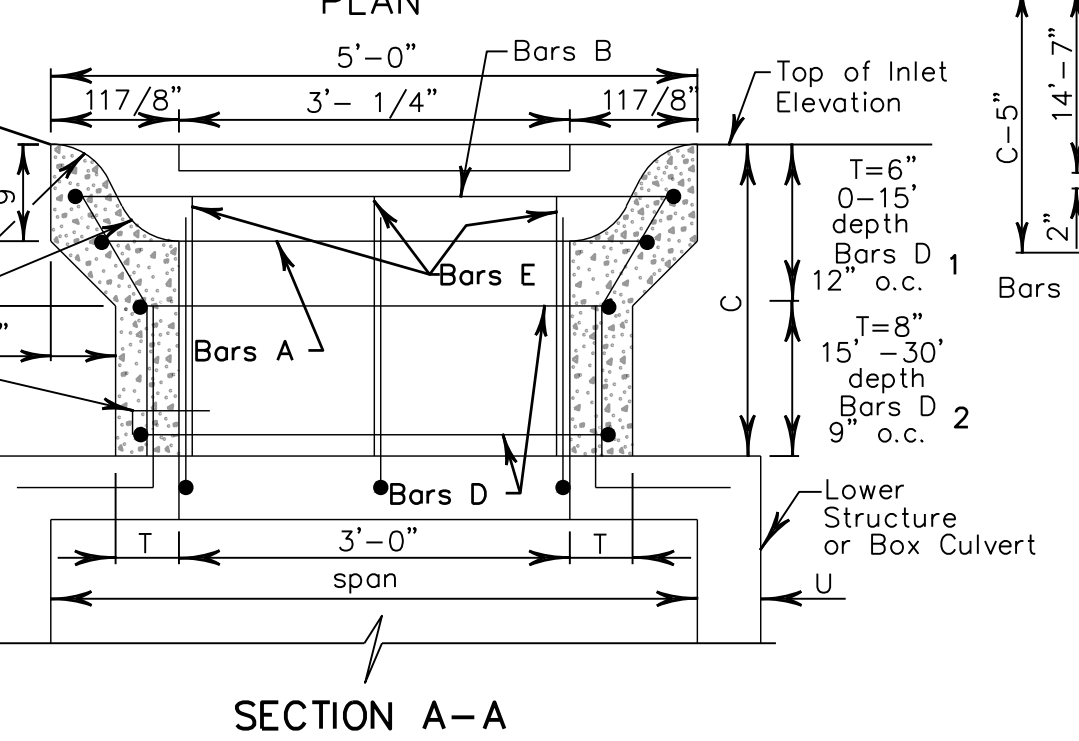
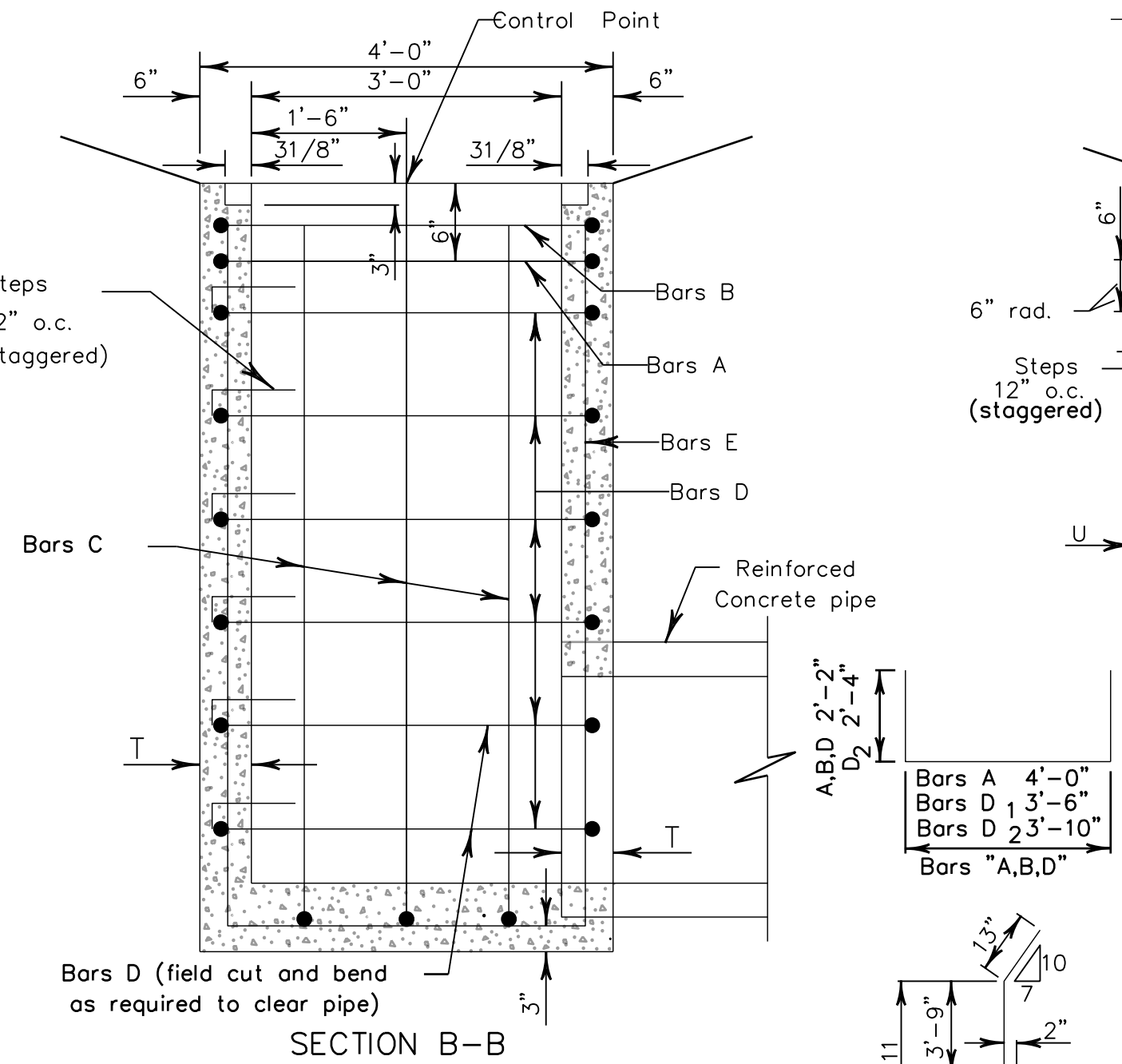
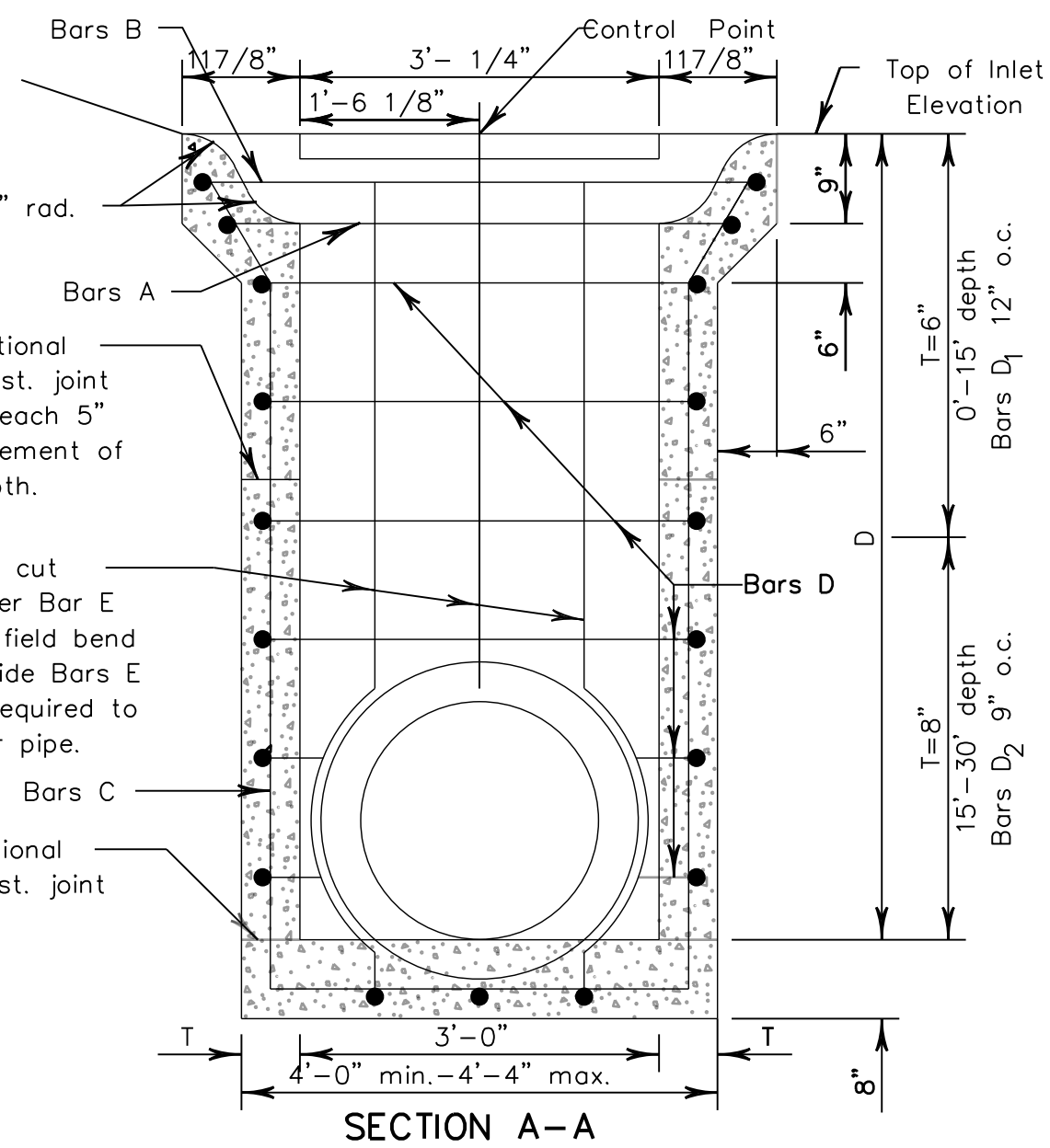
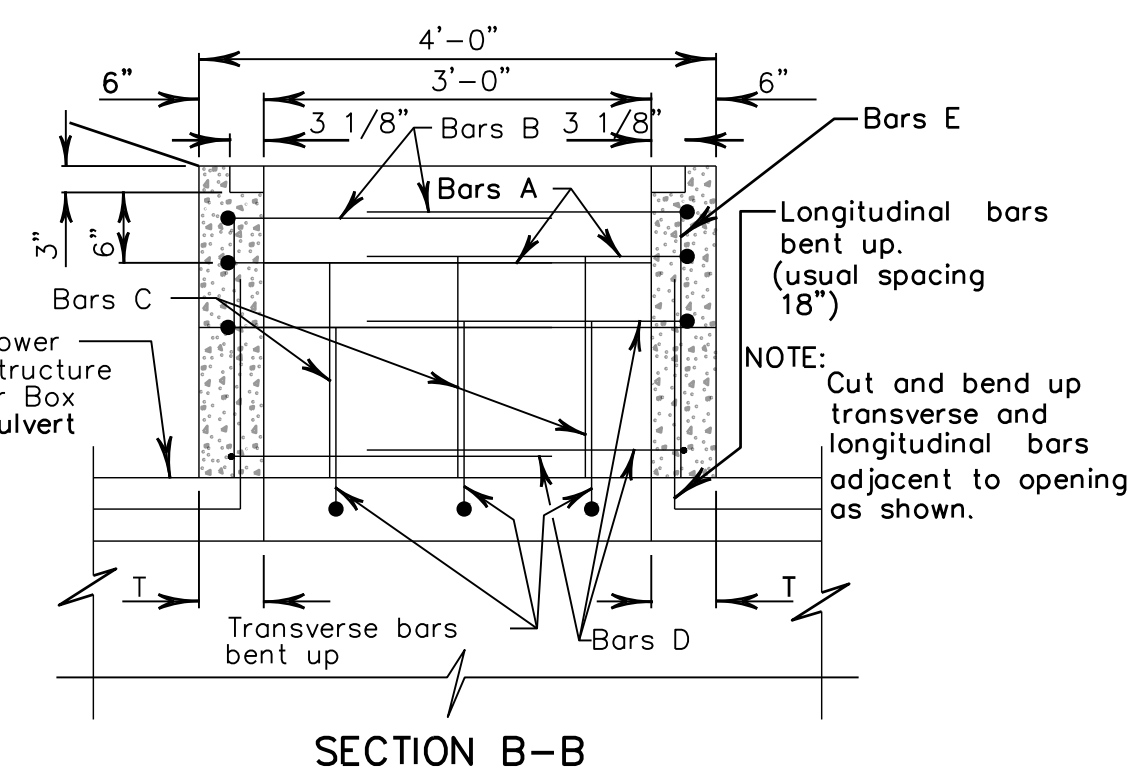
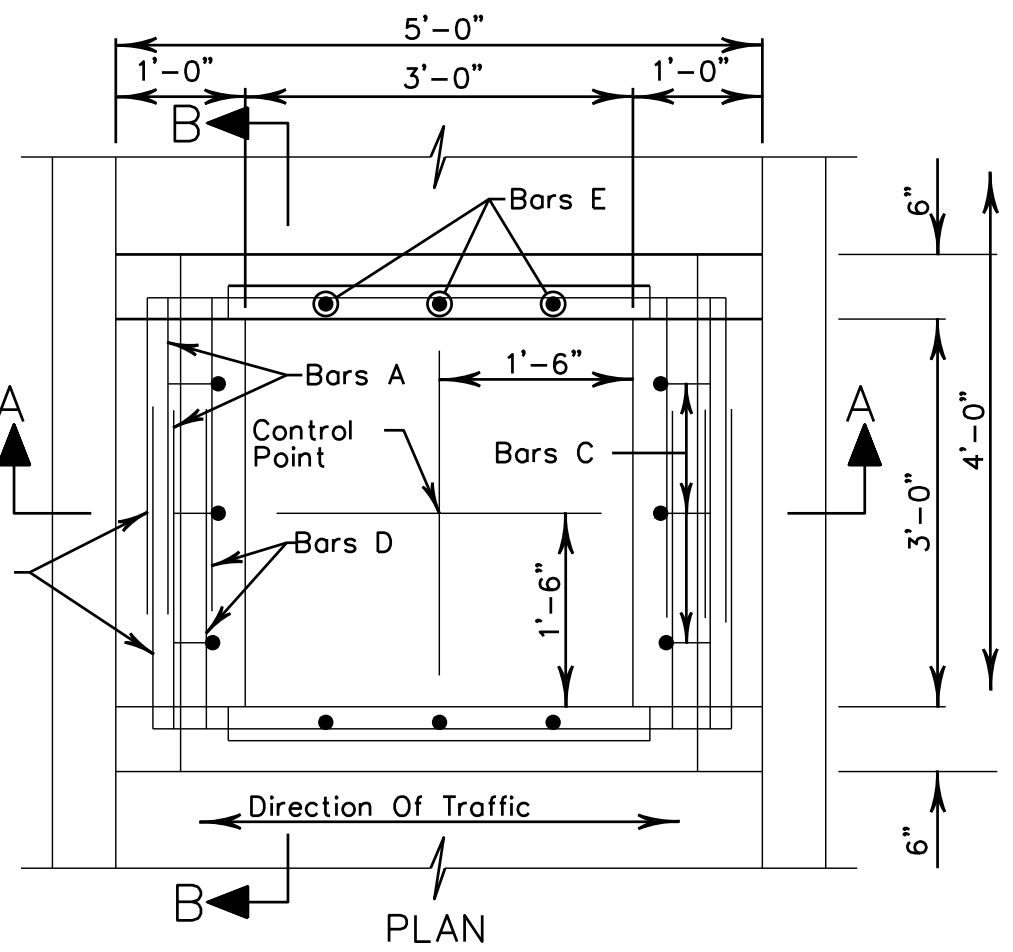
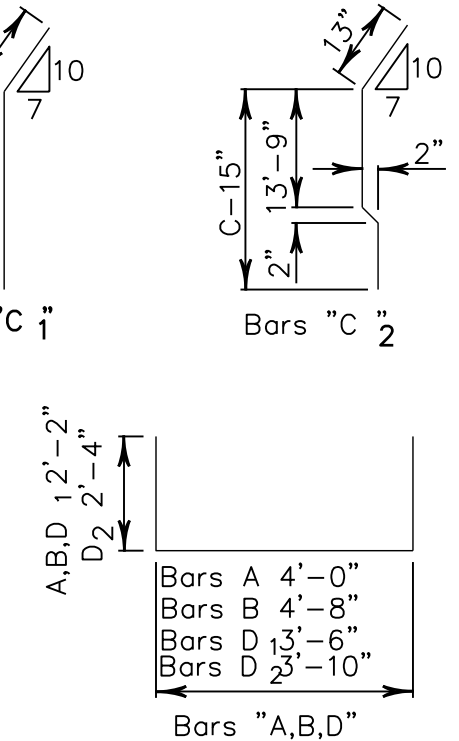


TABLE OF QUANTITIES—TYPE 1 INLET											
Bar	Size	Spacing	D=3'-0"		D=10'-0"		D=20'-0"		D=30'-0"		
			No.	Length	Weight	No.	Length	Weight	No.	Length	Weight
A	4	—	2	8'-4"	11	2	8'-4"	11	2	8'-4"	11
B	4	—	2	9'-0"	12	2	9'-0"	12	2	9'-0"	12
C1	4	12"	3	9'-8"	19	3	23'-8"	47	—	—	—
C2	4	12"	—	—	—	—	—	—	6	22'-6"	130
D1	4	12"	4	7'-10"	21	18	7'-10"	94	28	7'-10"	146
D2	4	9"	—	—	—	—	—	—	14	8'-6"	79
E1	4	12"	3	9'-4"	19	3	23'-4"	47	—	—	—
E2	4	12"	—	—	—	—	—	—	6	22'-4"	89
Steps	6	12"	1	2'-10"	4	8	2'-10"	34	18	2'-10"	77
Total Steel — Lbs.			86		245		505		775		
Class "A" Concrete — Cu. Yds.			1.223		3.036		6.210		9.830		
D=3' Steel 86.35 Lb + 22.73 Lb/LF							Steel 364.49 Lb + 27.03 Lb/LF				
to D=15' Conc. 1.223 CY + 0.259 CY/LF							Conc. 4.400CY + 0.362 CY/LF				
D>15' Steel 364.49 Lb + 27.03 Lb/LF											
to D=15' Conc. 4.400CY + 0.362 CY/LF											



CONCRETE QUANTITY REDUCTION TABLE		
Pipe Diameter	Reduction One Pipe (m ² Concrete)	
15"	0.04	0.05
18"	0.05	0.07
21"	0.08	0.10
24"	0.09	0.12
27"	0.11	0.15
30"	0.14	0.18
33"	0.17	0.22
36"	0.20	0.26



GENERAL:
 (A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION — NORTH CENTRAL TEXAS HEREIN REFERRED TO AS N.C.T.C.O.G. SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817) 640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM
 (B) GRATE SHALL CONFORM TO TXDOT STANDARD SPECIFICATION FOR CONSTRUCTION ITEM 471.
 (C) LOCATION OF INLET AS SHOWN IN THE PLANS REFERS TO CONTROL POINT SHOWN ON THIS SHEET. INLET SHALL BE ALIGNED SO THAT GRATE VANES ARE PARALLEL TO DITCH FLOW. FOR TYPE 1-C STRUCTURES NOT ON CULVERTS, LOWER STRUCTURE MAY BE POSITIONED AS REQUIRED TO ALIGN WITH TOP STRUCTURE, STORM DRAIN PIPES, OR OTHER ADJACENT STRUCTURES.
 (D) WHEN USED WITH JUNCTION BOX, MEASURE AND PAY FOR DROP INLET AND JUNCTION BOX SEPARATELY.

FITTINGS COLLARS AND CONNECTIONS:
 (A) THE CONTRACTOR SHALL USE ONLY PRE-FABRICATED FITTINGS ON NEW CONSTRUCTION PROJECTS. FIELD CONNECTIONS SHALL BE MADE ONLY TO EXISTING PIPE WITH CITY APPROVAL. THE CONNECTION SHALL BE A SMOOTH CONNECTION AND CONCRETE WRAPPED ON THE OUTSIDE AND INSIDE.
 (B) CONCRETE COLLARS SHALL BE CONSTRUCTED PER THE DETAILS ON THIS SHEET AT ALL STORM DRAIN SIZE, GRADE CHANGES, AT PROPOSED-EXISTING PIPE CONNECTIONS AND IN CURVES WHERE THE JOINT IS BEING PULLED MORE THAN RECOMMENDED BY THE MANUFACTURER. PLEASE ALSO REFER TO THE DETAILS ON THIS SHEET AND N.C.T.C.O.G. ITEM 508.3.4.1.

GRATE INLETS:
 (A) ALL INLETS SHALL BE POURED IN PLACE OR PRECAST. PRECAST INLETS, JUNCTION BOXES, MANHOLES, AND HEADWALLS SHALL HAVE SHOP DRAWINGS PRE-APPROVED BY THE CITY ENGINEER.
 (B) INLETS SHALL NOT BE USED AS JUNCTION BOXES OR PLACED ON A MAIN, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
 (C) INLETS SHALL BE STAGED IN 2 POURS:
 FIRST POUR: INLET BOTTOM AND WALLS
 SECOND POUR: INLET TOP

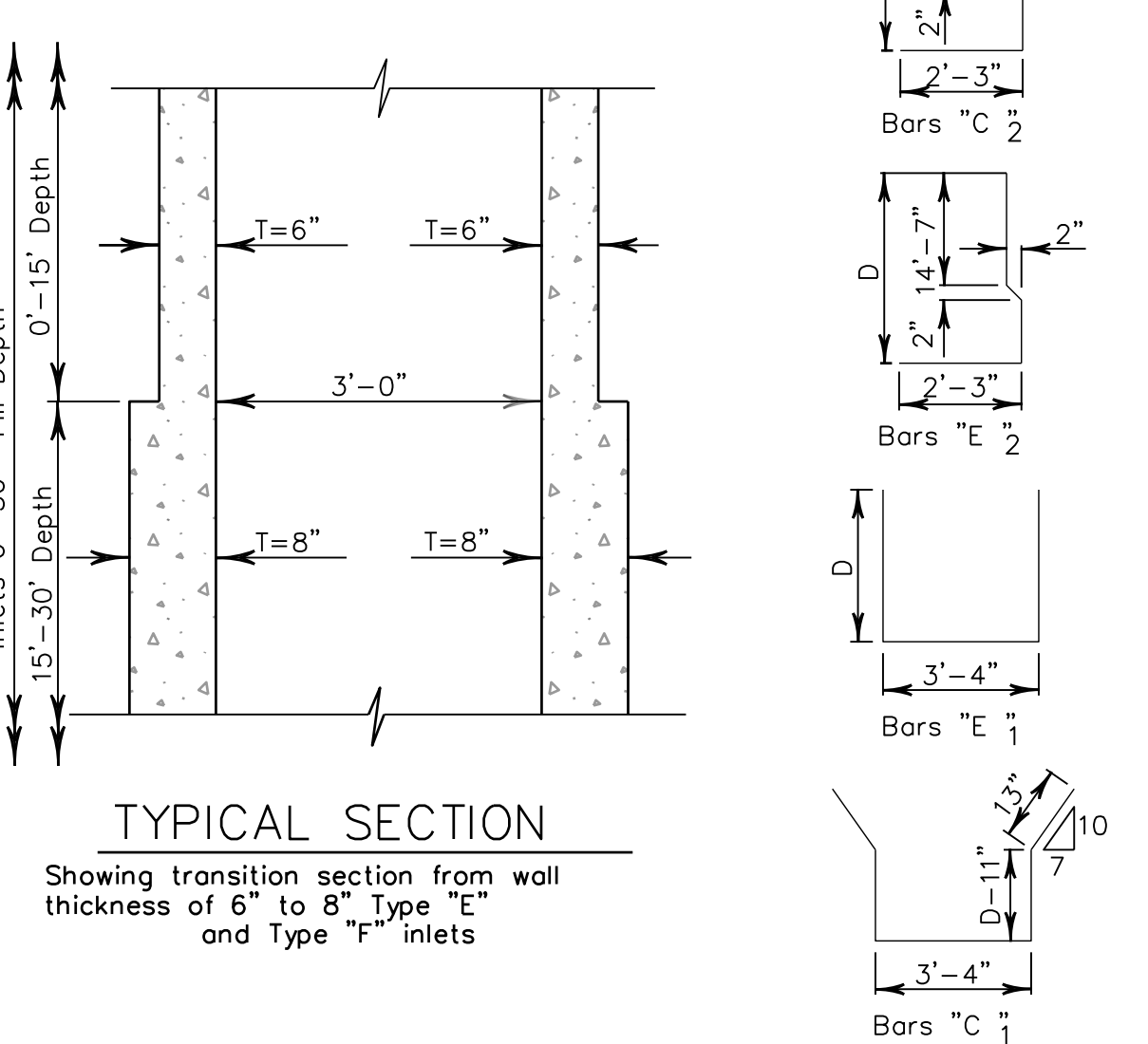
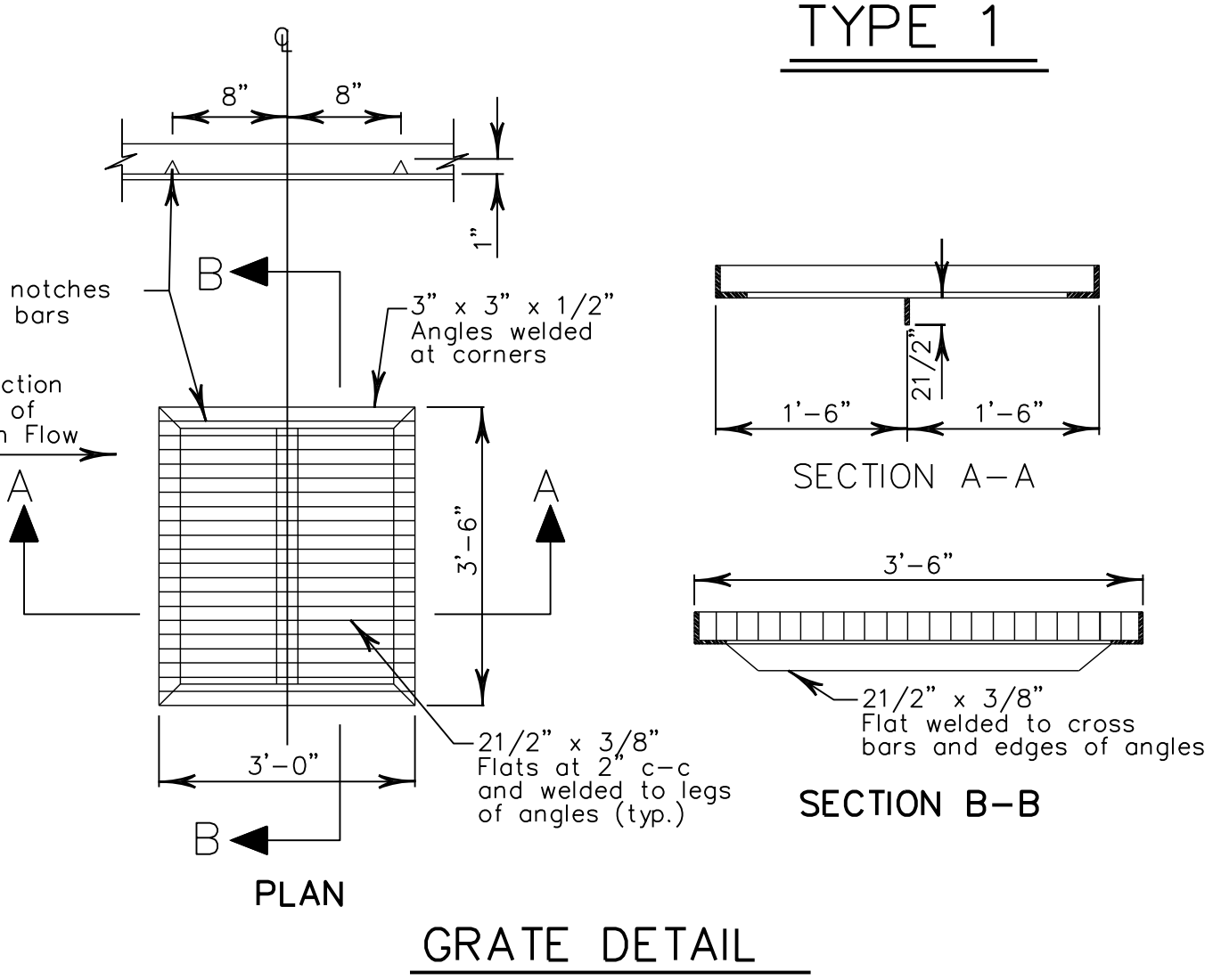
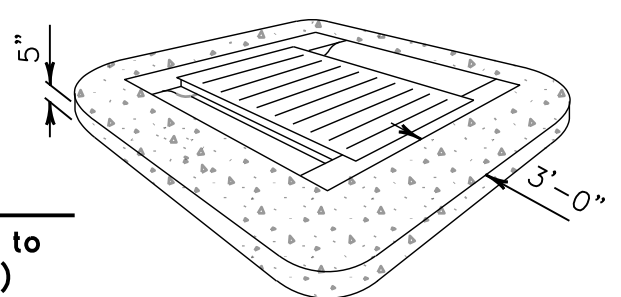
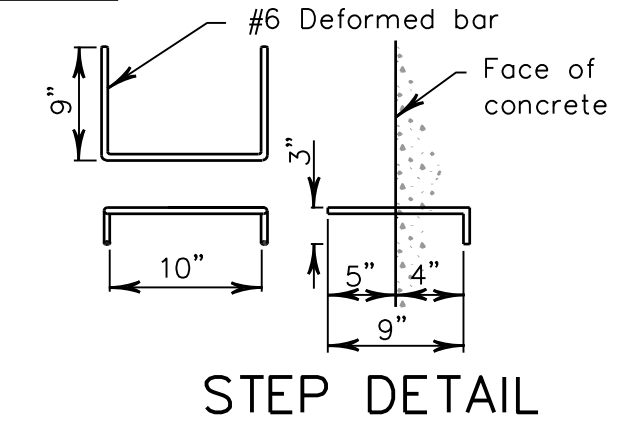
CONCRETE:
 (A) GRATE INLETS SHALL COMPLY WITH THE FOLLOWING:
 1. STANDARD SPECIFICATION ITEM 702 CONCRETE STRUCTURES CLASS H STRUCTURAL CONCRETE
 2. SHALL BE MADE WITH A MINIMUM OF 6 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
 3. ALL OTHER CONCRETE SHALL BE MADE WITH A MINIMUM OF 5 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
 (A) ALL REINFORCING STEEL SHALL BE NEW, NEAT, BILLET-STEEL PER ASTM DESIGNATION —615, GRADE 60, AND SHALL BE DETAILED AND PLACED PER ACI MANUALS SP-88 NO 318, LATEST ADDITIONS. ALL REINFORCING STEEL SHALL HAVE MINIMUM 15 INCH LAP SPLICES, UNLESS NOTED OTHERWISE ON THE PLANS.
 (B) THE CONTRACTOR SHALL USE A LIQUID MEMBRANE-FORMING CURING COMPOUND PER OG ITEM 303.2.13.1.1. GROUT SHALL BE MIN. 5-SACK 2000 PSI CONCRETE.

TESTING:
 (A) CONTRACTOR RESPONSIBLE FOR THE FOLLOWING:
 1. T.V. INSPECTION SHALL BE AS PER THE N.C.T.C.O.G. ITEM 507.5.2. METHOD AND BE COMPLETED PRIOR TO PLACING PAVEMENT.
 2. ALL T.V. INSPECTIONS OF EXISTING OR PROPOSED PIPES SHALL BE PROVIDED ON DVD.
 (A) PLEASE REFER TO THE GENERAL NOTES SHEETS, GN-01 — GN 04, FOR TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.
 (B) THE CONTRACTOR WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS IN CITY R.O.W. OR EASEMENT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.

MATERIAL:
 ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
PRIVATE DEVELOPMENT PROJECTS:
 (A) THE DEVELOPER/OWNER SHALL PROVIDE TESTING FOR ALL PROJECT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION COMMENCING.

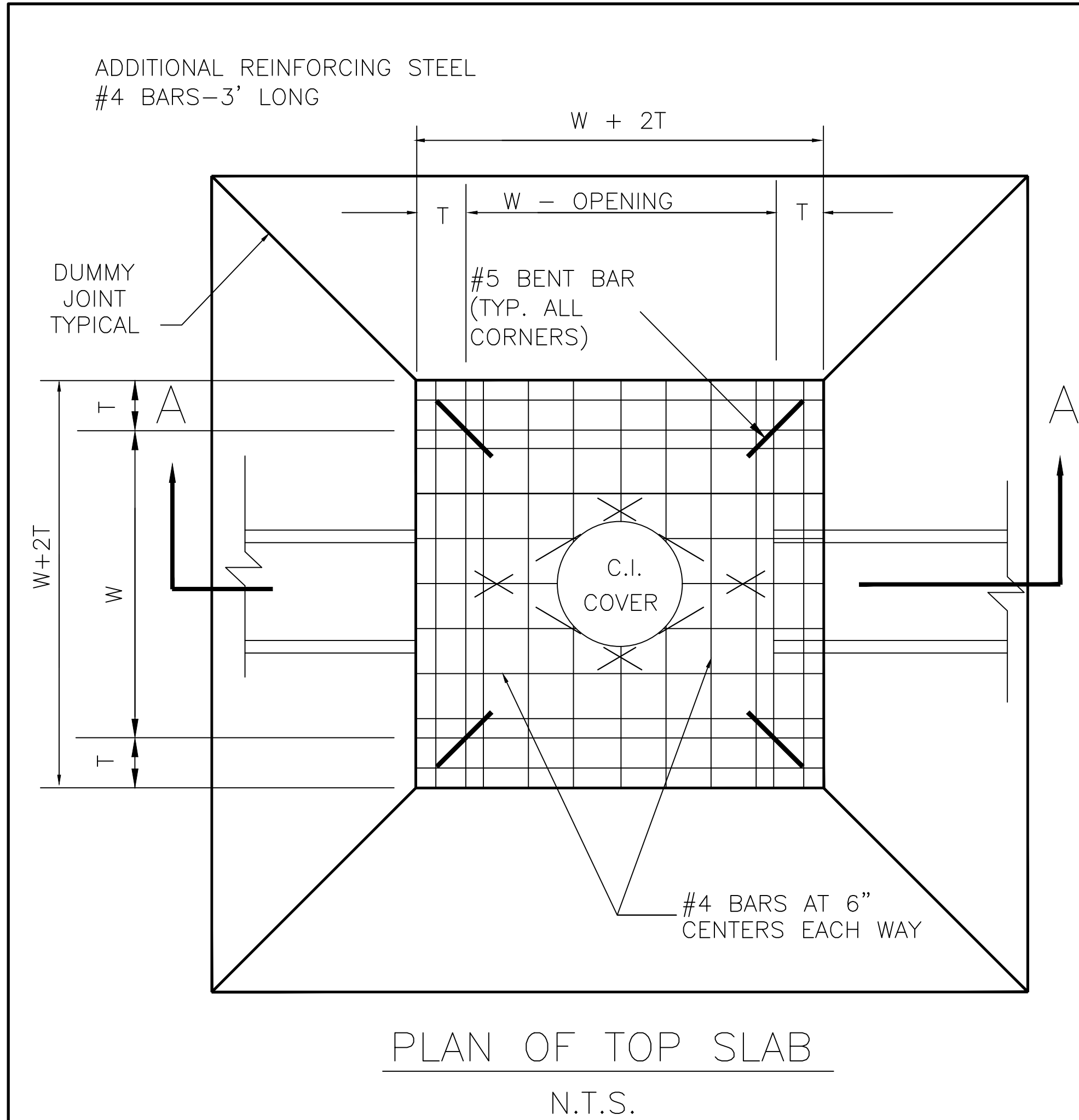
(B) WELD CHAINS ON GRATE OR TACK WELD

TABLE OF QUANTITIES—TYPE 1-C INLET											
Bar	Size	Spacing	C=1'-3"		C=10'-0"		C=20'-0"		C=30'-0"		
			No.	Length	Wt.	No.	Length	Wt.	No.	Length	Wt.
A	4	—	2	8'-4"	11	2	8'-4"	11	2	8'-4"	11
B	4	—	2	9'-0"	12	2	9'-0"	12	2	9'-0"	12
C1	4	12"	—	—	—	6	9'-10"	39	—	—	—
C2	4	12"	—	—	—	—	—	—	6	19'-11"	120
D1	4	12"	—	—	—	18	7'-10"	94	28	7'-10"	146
D2	4	9"	—	—	—	—	—	—	14	8'-6"	80
E1	4	12"	—	—	—	6	9'-7"	38	—	—	—
E2	4	12"	—	—	—	—	—	—	6	19'-8"	79
Steps	6	12"	—	—	—	8	2'-10"	34	18	2'-10"	77
Total Steel (Lbs)			23		228		485		754		
Class "A" Conc.—Cu. Yds.			0.375		2.641		5.746		9.366		
C=1'-3" Steel 30.84 Lb + 22.73 Lb/LF							Steel 343.38 Lb+27.03 Lb/LF				
to C=15' Conc. 0.375 CY + 0.259 CY/LF							Conc.3.936 CY + 0.362 CY/LF				



CERTIFICATION:
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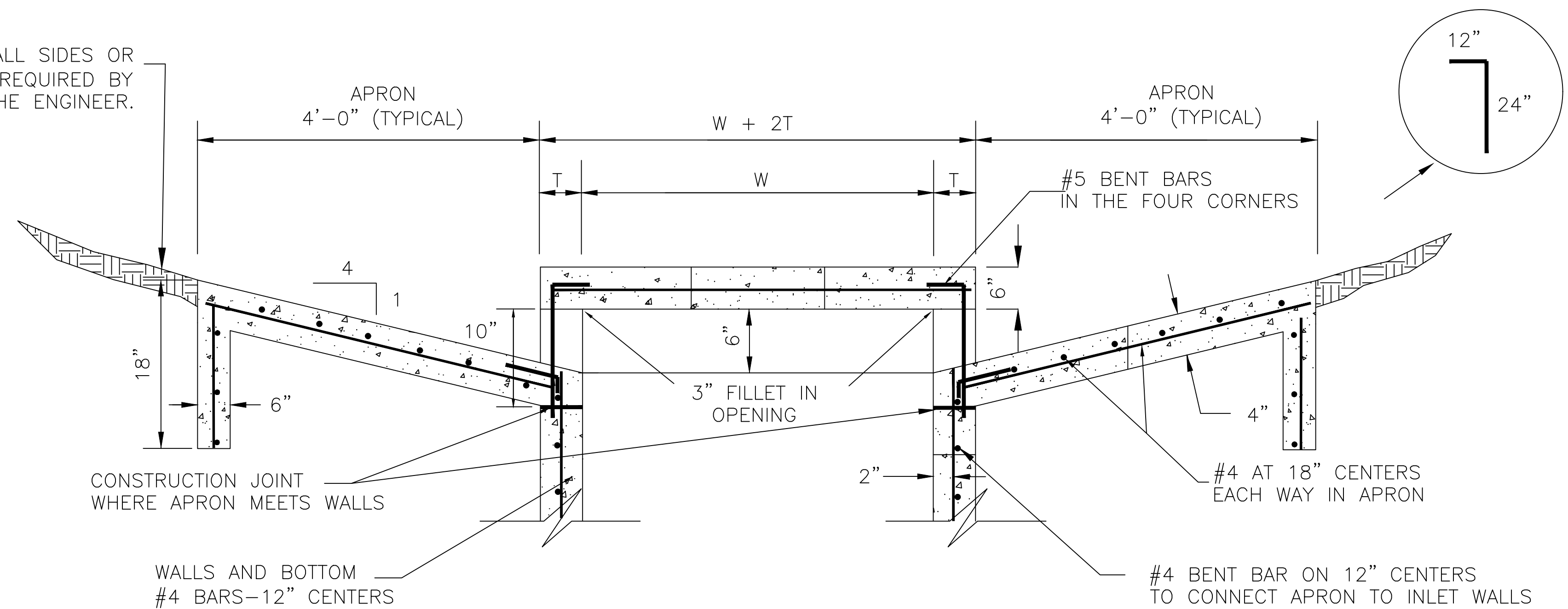
GRATE DROP INLET STANDARD DETAILS						
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	STM-06	24 OF 53



INLET FRAME & COVER NOTES:

1. THE STD. INLET COVER SHALL BE BASS & HAYES FRAME & COVER PATTERN No. 226 OR APPROVED EQUAL.
2. APPROXIMATE WEIGHT OF FRAME=75 lbs. AND COVER=155 lbs.
3. TACK WELD COVER IN 4 SPOTS AFTER FINAL INSPECTION

SOLID SOD MIN. 2' ON ALL SIDES OR 6"-8" GROUTED RIPRAP AS REQUIRED BY THE ENGINEER.



INLET SIZE	T	W
4' SQUARE	7"	4'-0"
5' SQUARE	8"	5'-0"
6' SQUARE	9"	6'-0"

SECTION "A"

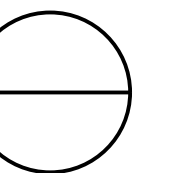
N.T.S.

DROP INLET

N.T.S.

- GENERAL NOTES:
- REINFORCING STEEL SHALL BE #4 BARS ON 12" CENTERS EACH WAY FOR BOTTOM SLAB AND WALLS, AND #4 BARS ON 6" CENTERS EACH WAY FOR TOP SLAB. ADDITIONAL REINFORCING STEEL SHALL BE PLACED AROUND MANHOLES AS SHOWN.
1. ALL REINFORCING STEEL SHALL BE GRADE 60.
 2. ALL CONCRETE SHALL BE CLASS "A" 4000 PSI AT 28 DAYS. 5 1/2 SACK MINIMUM.
 3. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4"
 4. ALL REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 2" ON INSIDE FACE WALL.
 5. ALL BACKFILLING SHALL BE PERFORMED BY MECHANICAL TAMPING TO 95% STANDARD PROCTOR DENSITY.
 6. ALL DROP INLETS SHALL HAVE ONE OPENING ON EACH SIDE UNLESS OTHERWISE SHOWN ON PLANS.
 7. PROVIDE LIGHT BROOM FINISH ON ALL SURFACES.

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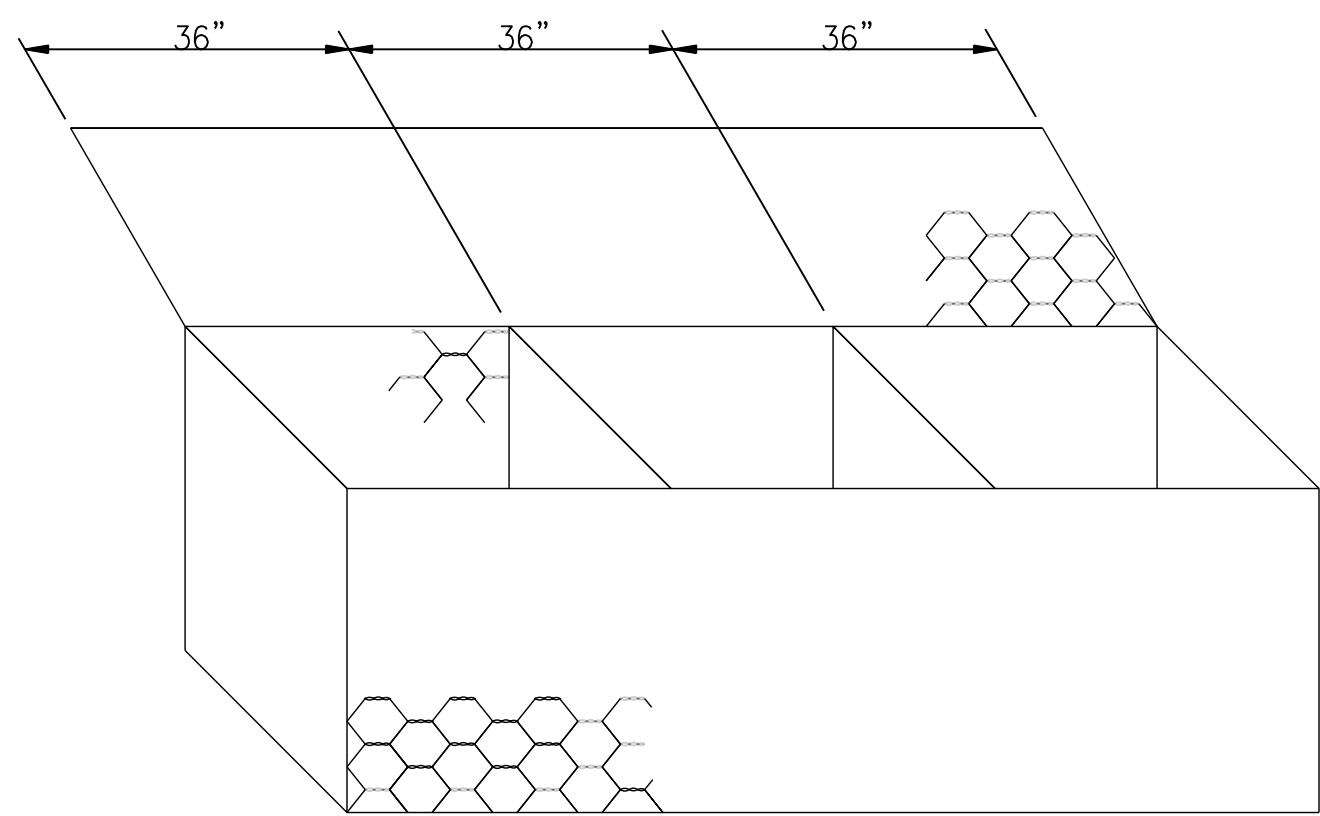
STORM DRAIN

DROP INLET

STANDARD DETAILS

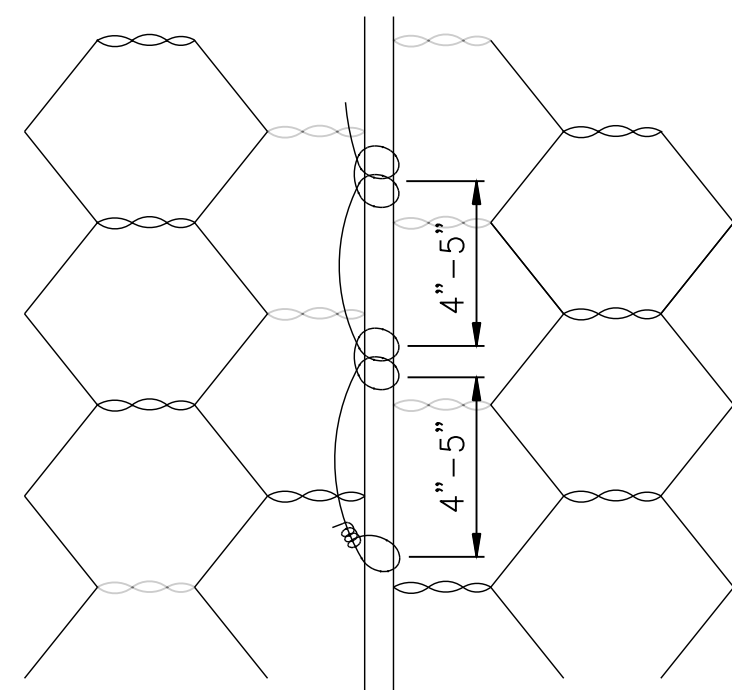


DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	STM-07	25 OF 53



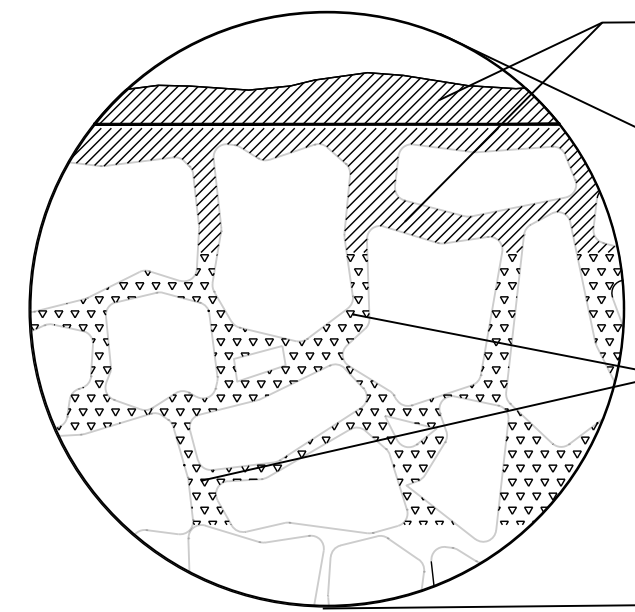
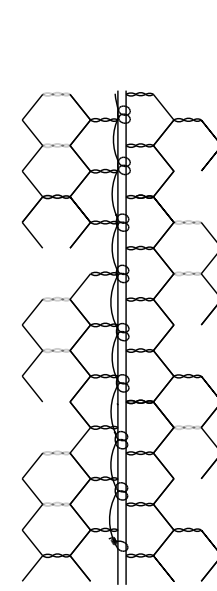
GABION CONTAINER
N.T.S.

NOTE: GABION MAY BE CUT BUT SHALL BE RETIED IN A MANNER TO PRODUCE A CLOSED CELL AND ALL TIES SHALL BE IN CONFORMANCE WITH DETAILS



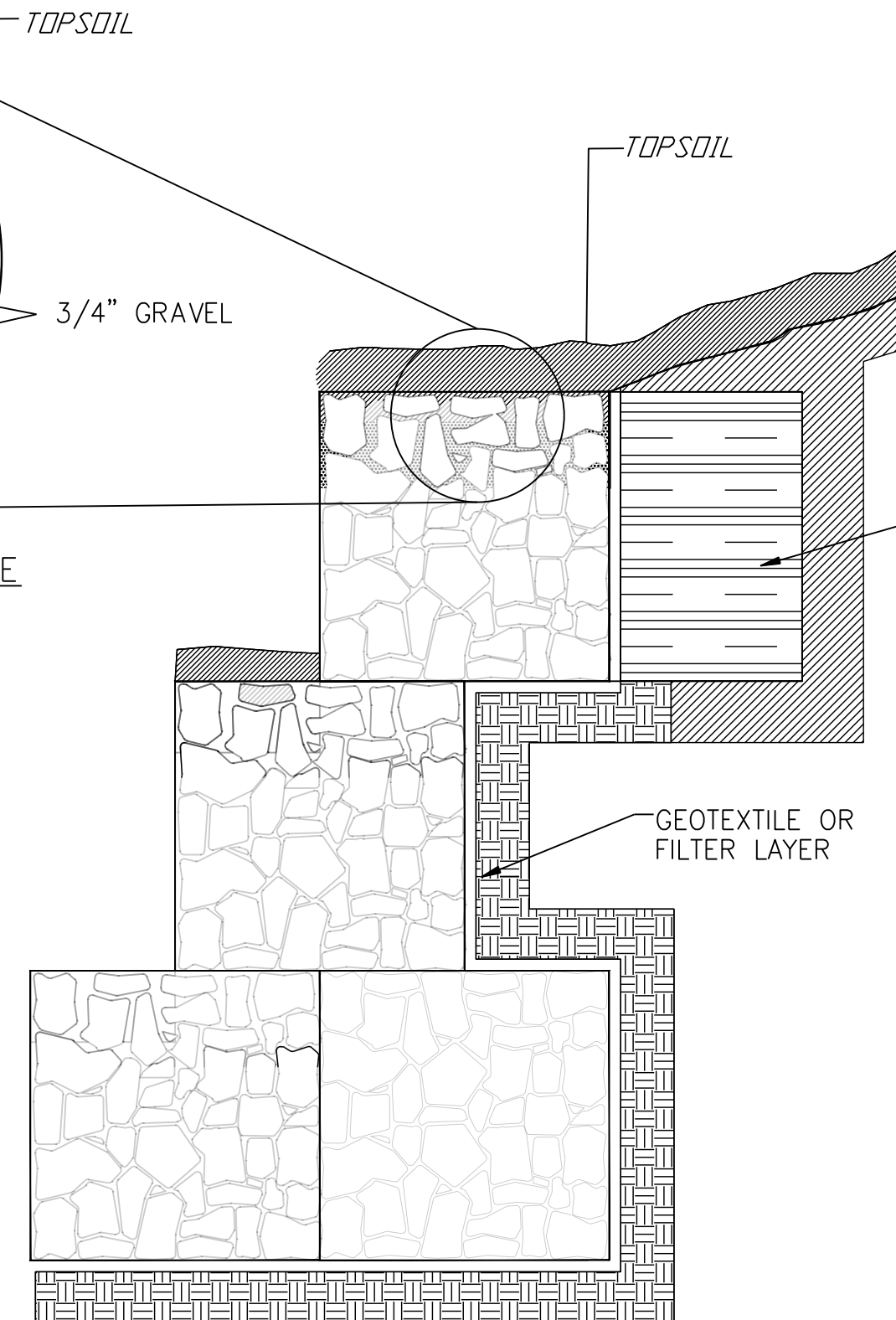
GABION TIE
N.T.S.

NOTE: ALL TYING OF GABIONS SHALL BE AS SHOWN



TOPSOIL PLACEMENT PROCEDURE

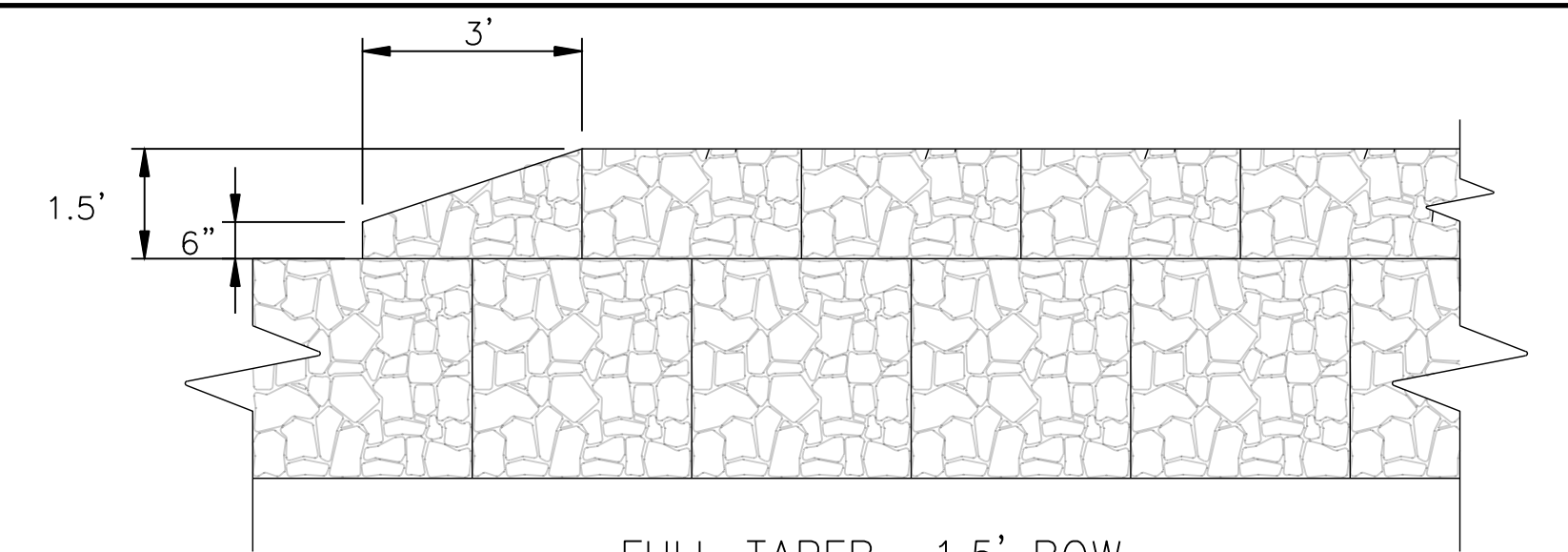
1. PRIOR TO CLOSING BASKET, PLACE A LAYER OF 3/4" GRAVEL ON TOP OF THE GABION WALL AND THE HORIZONTAL STEPS FILLING THE VOIDS BETWEEN THE GABION ROCKS.
2. SWEEP EXCESSIVE GRAVEL OFF THE GABIONS WITH A BROOM UNTIL FLUSH WITH, OR BELOW, THE TOP OF THE GABION..
3. PLACE A LAYER OF SOIL ON TOP OF THE GABION WALL AND STEPS.
4. WASH OR "JET" THE SOIL INTO THE GABIONS.
5. PLACE FINAL LAYER OF TOPSOIL ON THE GABIONS TO A DEPTH OF SIX INCHES.



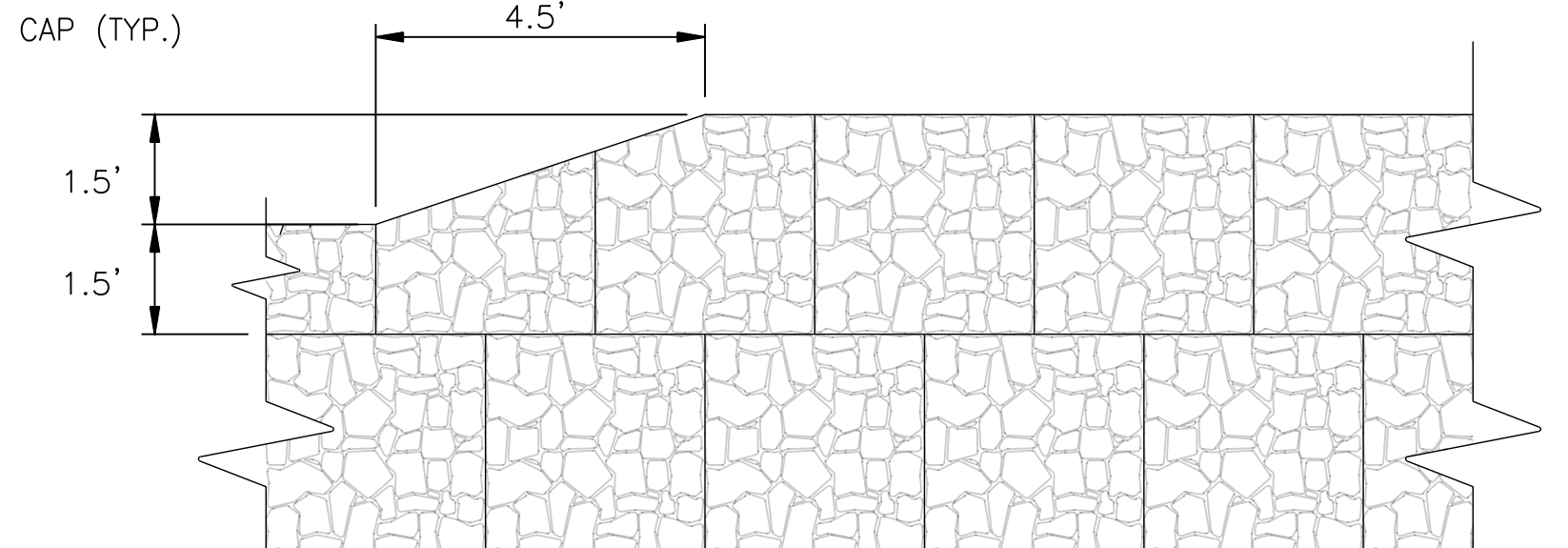
SECTION

NOTE: DO NOT USE SHARP TOOLS WHEN SPREADING TOPSOIL ON GABIONS

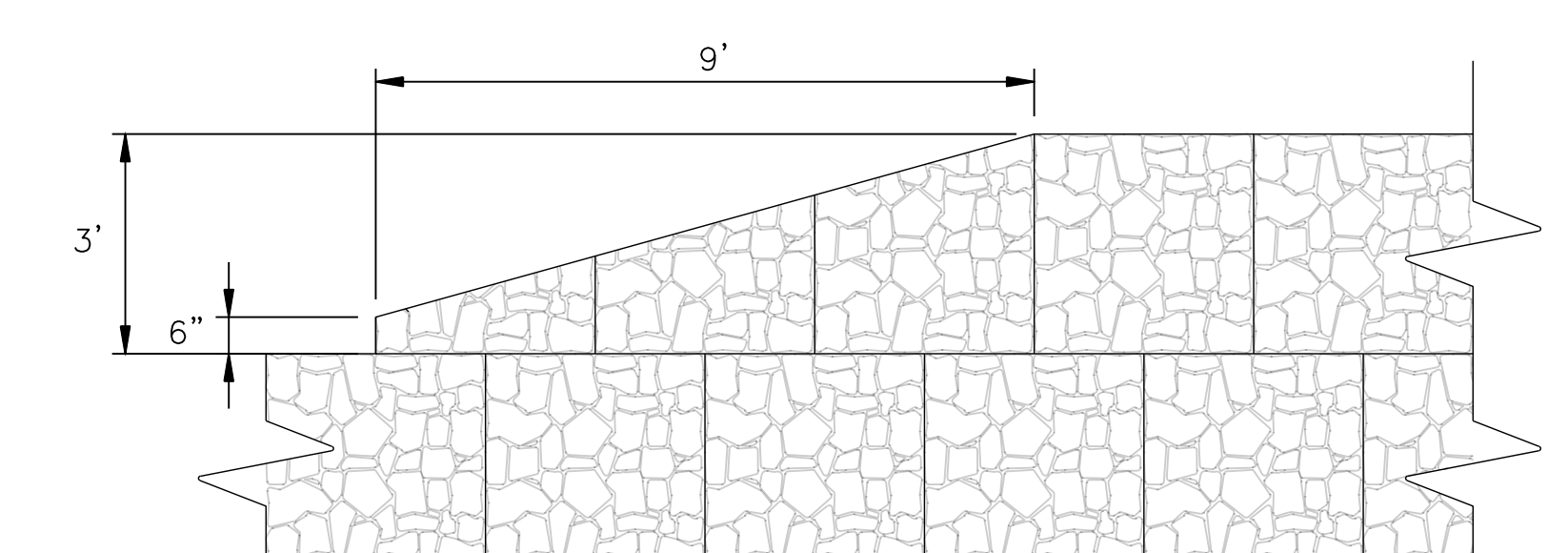
VEGETATED GABION WALL
TOPSOIL PLACEMENT



FULL TAPER -1.5' ROW

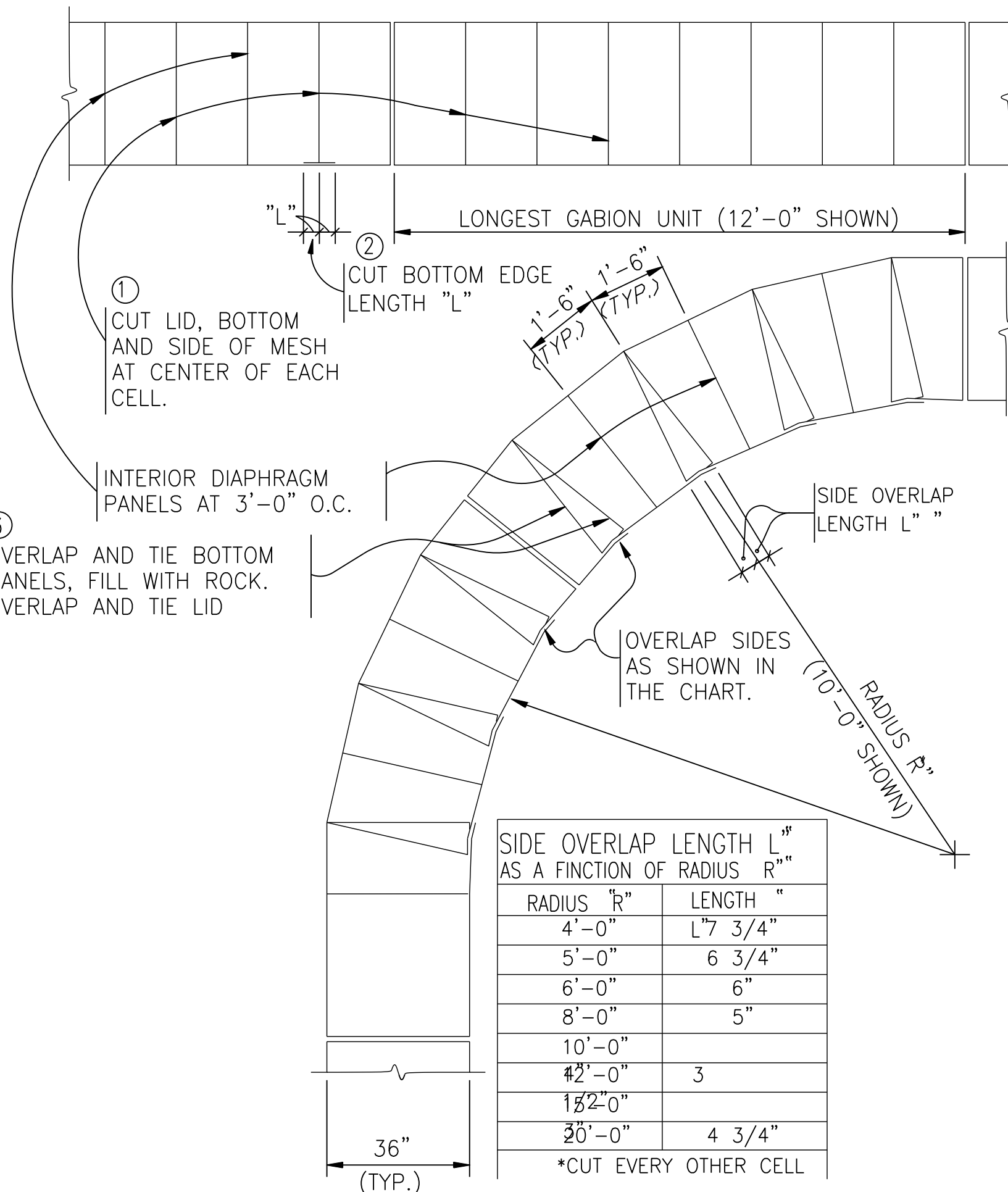


HALF TAPER -3' ROW



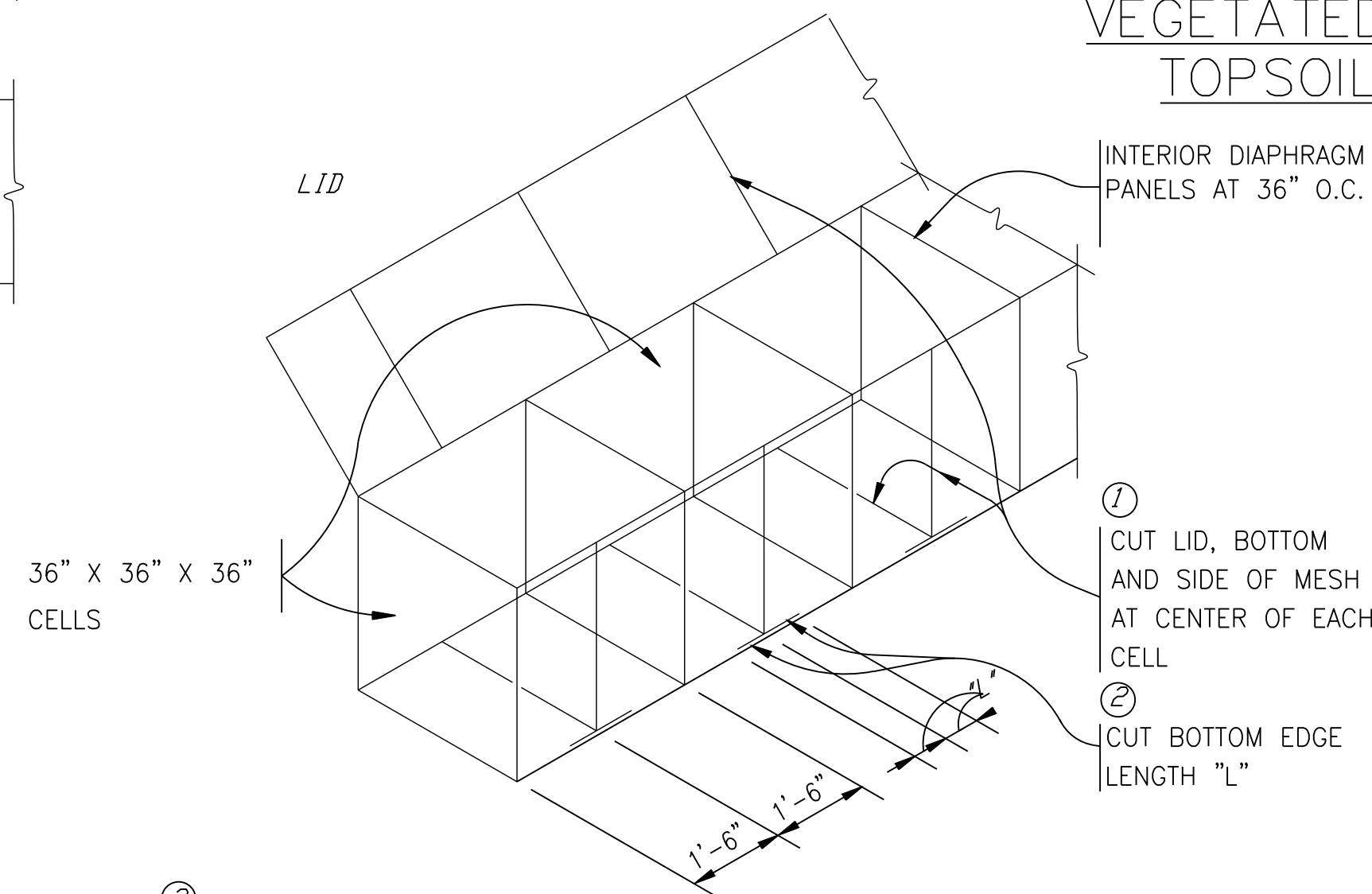
FULL TAPER -3' ROW

TAPERED WALL HEIGHT TRANSITION



GABION RADIUS PROCEDURE

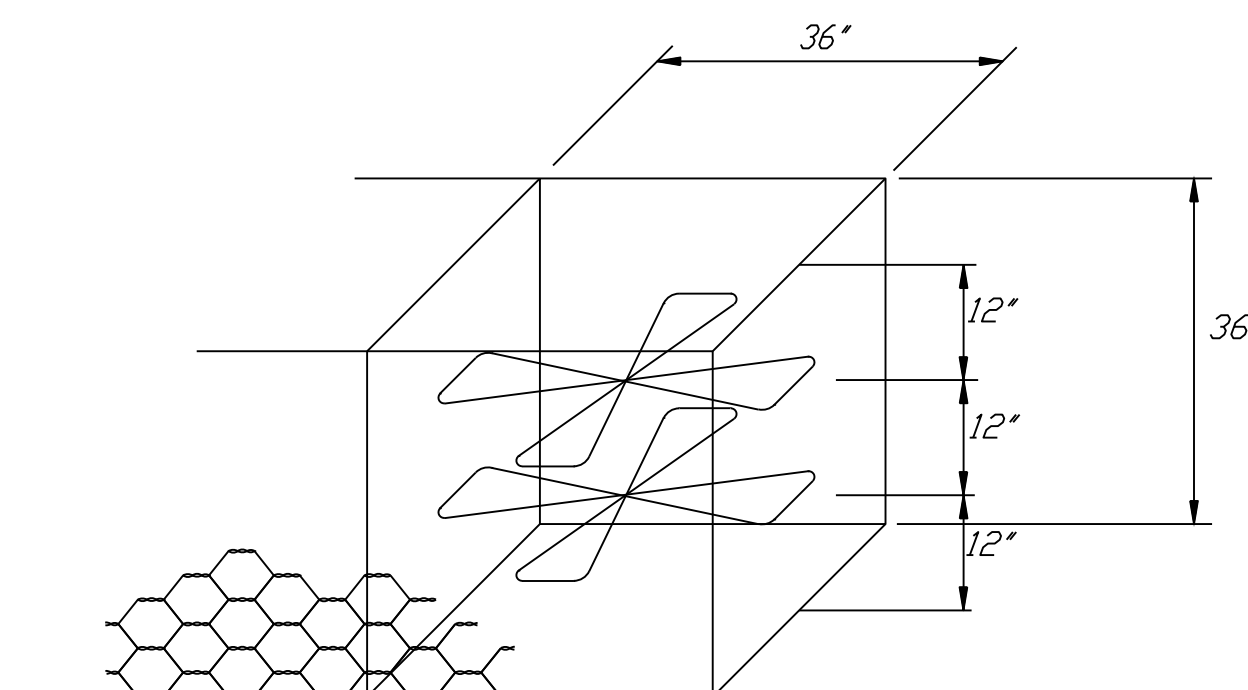
SIDE OVERLAP LENGTH L AS A FINCTION OF RADIUS R	
RADIUS "R"	LENGTH "
4'-0"	L 7 3/4"
5'-0"	6 3/4"
6'-0"	6"
8'-0"	5"
10'-0"	
12'-0"	3
18'-0"	
20'-0"	4 3/4"
*CUT EVERY OTHER CELL	



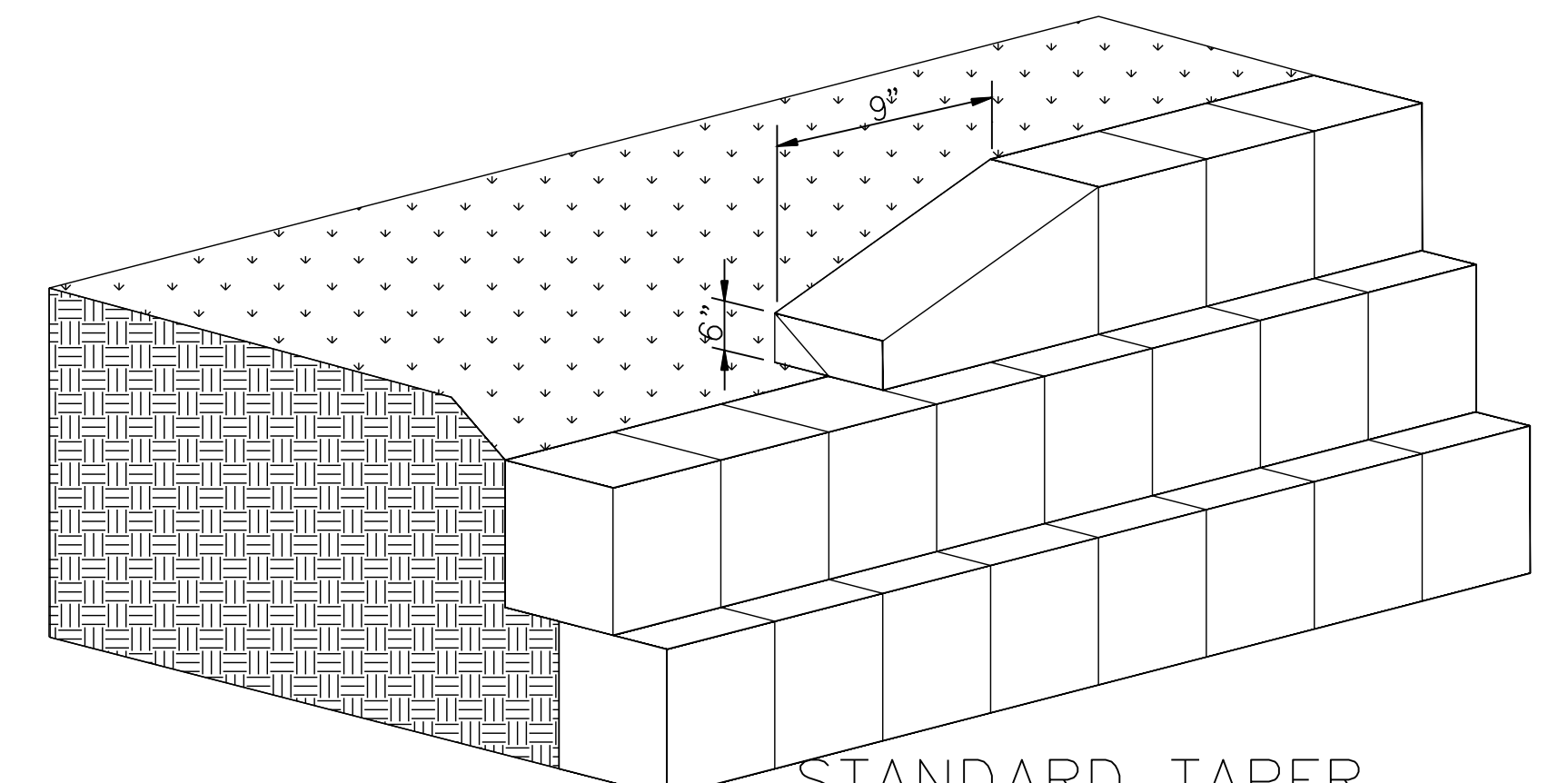
- ③ OVERLAP AND TIE BOTTOM PANELS AS SHOWN

NOTE-ALL RETYING OF THE CUT GABION SHALL BE BY TYING WITH A DOUBLE LOOP-MADE AT THE SAME POINT AT A 4 INCH SPACING

GABION RADIUS PROCEDURE

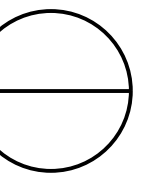


INNER TIE WIRE
N.T.S.



STANDARD TAPER
FOR WALL HEIGHTS TRANSITIONS

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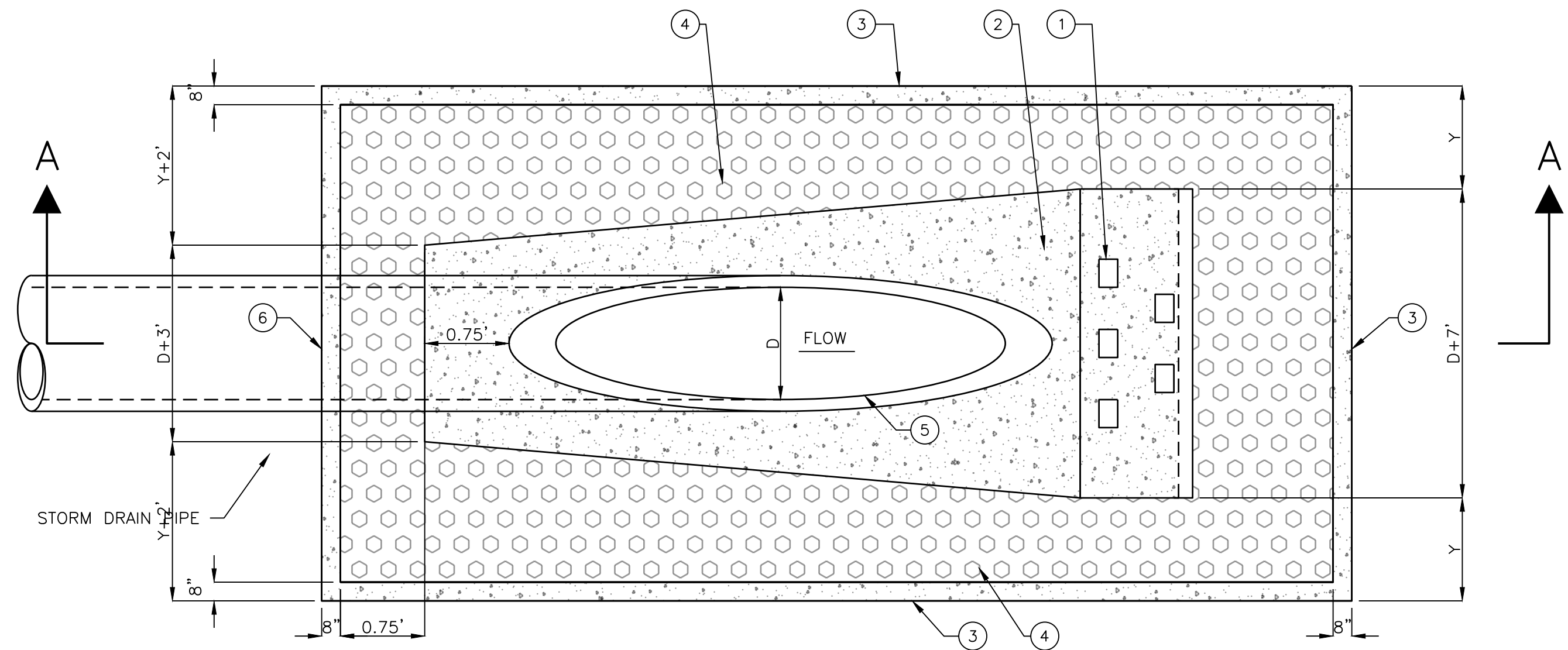


STORM DRAIN CHANNEL AND
GABIONS

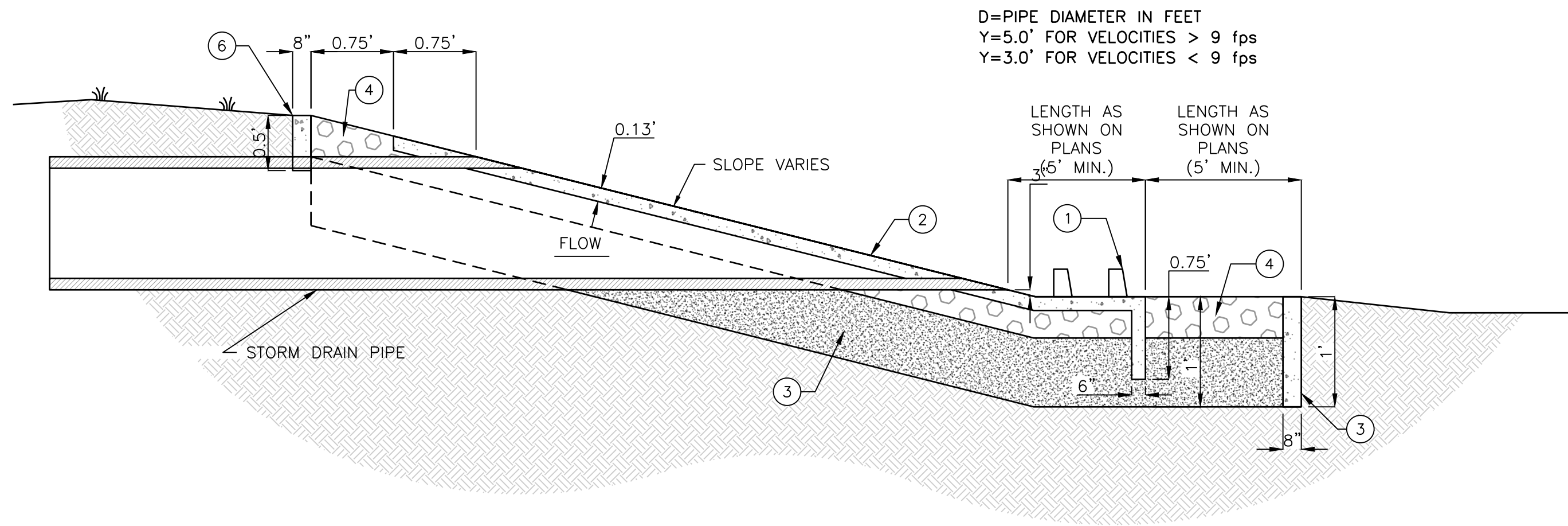
STANDARD DETAILS



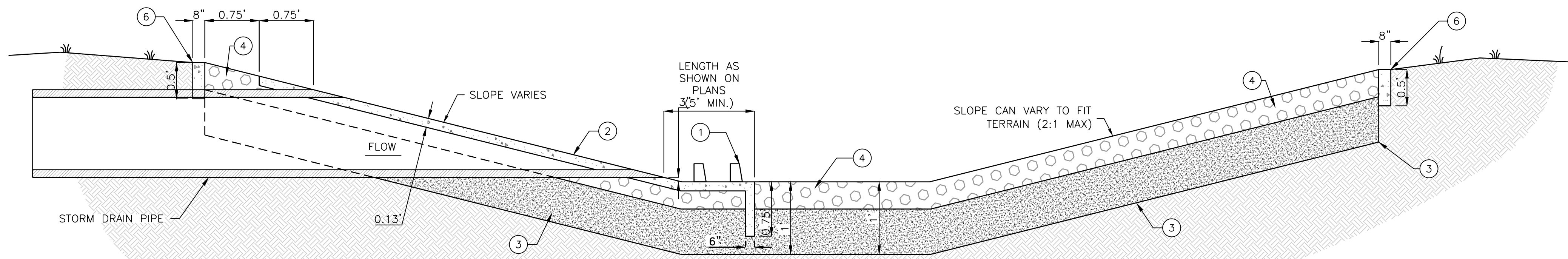
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	STM-09	27 OF 53



PLAN



SECTION A-A (WITHOUT CREEK BANKS)




SECTION A-A (WITH CREEK BANKS)

NOTES	
①	BAFFLES REQUIRED FOR VELOCITY > 6 fps. SPECIALLY DESIGNED ENERGY DISSIPATION STRUCTURE REQUIRED IF VELOCITIES EXCEED 12 fps. DESIGN PER HEC-14 "HYDRAULIC DESIGN OF ENERGY DISSIPATERS FOR CULVERTS AND CHANNELS"
②	6" THICK REINFORCED CONCRETE CHANNEL LINING. SEE STANDARD DETAIL STORM DRAIN CHANNEL AND FLUME FOR DETAILS
③	8" WIDE, 4' DEEP REINFORCED CONCRETE TOE WALL (REQUIRED ALONG ALL GROUTED RIPRAP EDGES EXCEPT WHERE NOTED OTHERWISE.)
④	12"-18" GROUTED STONE RIPRAP ON FILTER FABRIC (40% OF ROCK EXPOSED). 10" MIN. STONE GRADATION PERMITTED WHEN DETAILED DESIGN PROVIDED BY ENGINEER OF RECORD
⑤	MAX. 48" DIA. RCP. FOR PIPES LARGER THAN 48" DIA. USE TXDOT FLARED WING WALLS WITH A 4:1 SLOPE.
⑥	8" WIDE, 2' DEEP REINFORCED CONCRETE TOE WALL FOR TOP OF SLOPE APPLICATIONS

- GENERAL:**
- (A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS HEREIN REFERRED TO AS N.C.T.C.O.G. SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888; (817) 640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINDO.COM
- (B) ALL CONCRETE HEADWALLS WITH FLARED WING WALLS SHALL BE CONSTRUCTED AS PER TXDOT STANDARD DETAILS AND SPECIFICATIONS WITH A 4:1 SLOPE.
- CULVERTS:**
- (A) CLOSED CONDUITS SHALL BE INSTALLED PER N.C.T.C.O.G. ITEM 508
- (B) ONLY REINFORCED CONCRETE PIPE (RCP) OR REINFORCED CONCRETE BOX (RCB) IS APPROVED FOR USE, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
- (C) CLASS IV RCP SHALL BE USED WHERE THE PIPE COVER IS GREATER THAN 1 FEET AND LESS THAN 2 FEET. CLASS III RCP SHALL BE USED WHERE THE PIPE COVER VARIES FROM 2 FEET TO 6 FEET. THE CLASS OF ALL OTHER RCP SHALL BE DETERMINED BY AN ENGINEER PER LOADS AND SUPPORTING STRENGTHS, AMERICAN CONCRETE PIPE ASSOCIATION.
- (D) C-850 RCB SHALL BE USED WHERE THE COVER IS LESS THAN 3 FEET. C-789 SHALL BE USED WHERE THE COVER VARIES FROM 3 FEET TO 6 FEET. THE DESIGN OF ALL OTHER RCB SHALL BE DETERMINED BY AN ENGINEER.
- (E) FOR PIPES, EMBEDMENT SHALL BE PER THE STREET BACKFILL & REPAIR DETAIL.
- (F) THE CONTRACTOR SHALL SEAL ALL JOINTS ON CLOSED CONDUITS WITH OMNI-FLEX JOINT SEALS, OR EQUAL; UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
- (G) THE MINIMUM SIZE FOR LATERALS IS 18 INCHES IN DIAMETER. THE MINIMUM SIZE FOR MAINS IS 24 INCHES IN DIAMETER.
- (H) DRIVEWAY CULVERTS SHALL BE 18 INCH DIAMETER RCP OR LARGER AND SHALL HAVE 4 TO 1 SLOPED PRECAST CONCRETE END SECTIONS OR APPROVED EQUAL.
- (I) STORM DRAIN PIPES AND CULVERTS WITH SLOPES EXCEEDING 10% SHALL BE BACKFILLED WITH FLOWABLE FILL MATERIAL BETWEEN SPRING LINE AND 6" (INCHES) ABOVE THE STORM DRAIN PIPE.
- CONCRETE:**
- (A) CONCRETE LINING SHALL BE MADE WITH A MINIMUM OF 5 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
- (B) ALL REINFORCING STEEL SHALL BE NEW, NEAT, BILLET-STEEL PER ASTM DESIGNATION -615, GRADE 60, AND SHALL BE DETAILED AND PLACED PER ACI MANUALS SP-88 ND 318, LATEST ADDITIONS. ALL REINFORCING STEEL SHALL HAVE MINIMUM 15 INCH LAP SPLICES, UNLESS NOTED OTHERWISE ON THE PLANS.
- (C) THE CONTRACTOR SHALL USE A WHITE LIQUID MEMBRANE-FORMING CURING COMPOUND PER OG ITEM ITEM 303.2.13.1.1.
- (D) GROUT SHALL BE MIN. 5-SACK 2000 PSI CONCRETE.

- TESTING:**
- A) CONTRACTOR RESPONSIBLE FOR THE FOLLOWING:
1. T.V. INSPECTION SHALL BE AS PER THE N.C.T.C.O.G. ITEM 507.5.2. METHOD AND BE COMPLETED PRIOR TO PLACING PAVEMENT.
 2. ALL T.V. INSPECTIONS OF EXISTING OR PROPOSED PIPES SHALL BE PROVIDED ON DVD.
- B) PLEASE REFER TO THE GENERAL NOTES SHEETS, GN-01 - GN 04, FOR TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.
- C) THE CONTRACTOR WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS IN CITY R.O.W. OR EASEMENT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.
- MATERIAL:**
- ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
- PRIVATE DEVELOPMENT PROJECTS:**
- A. THE DEVELOPER/OWNER SHALL PROVIDE TESTING FOR ALL PROJECT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION COMMENCING.

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STORM DRAIN OUTFALL WITH SLOPED HEADWALL						
STANDARD DETAILS						
						
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			May 2021	N.T.S.	STM-10	28 OF 53


- GENERAL NOTES:
1. Precast safety end treatment for reinforced concrete pipe may be used for TYPE II end treatment as specified in Item "Safety End Treatment".
 2. When Precast Safety End Treatment is used as a Contractor's alternate to mitered RCP, Riprap will not be required unless noted otherwise on the plans.
 3. Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.
 4. Manufacture of this product shall conform to requirements of Item "Safety End Treatment" except as noted below :
 - A. Minimum reinforcing shall be #4 at 6" (Grade 40) or #4 at 9" (Grade 60) each way or 6 x 6 - W12 x W12 or 5 x 5 - W10 x W10 welded wire reinforcement (WWR).
 - B. Concrete for precast (steel formed) sections shall be Class "C" with a minimum compressive strength of 3600 psi. At the option and expense of the Contractor the next larger size of Safety End Treatment may be furnished; as long as the "D" dimension cast is that of the required size of pipe.
 11. Pipe Runners are designed for a traversing load of 10,000 Lbs at yield as recommended by Research Report 280-2F, "Safety Treatment of Roadside Parallel-Drainage Structures", Texas Transportation Institute, March. Pipe Runners shall conform to the requirements of ASTM A53 (Type E or S, Grade B), ASTM A500 (Grade B), or API 5LX52.
 12. All steel components except reinforcing, shall be galvanized after fabrication. Galvanizing damaged during transport or construction shall be repaired in accordance with the specifications.

PIPE I.D.	PIPE WALL "B" THICKNESS	"D" ①	MAXIMUM SLOPE	MINIMUM LENGTH OF UNIT	PIPE RUNNERS REQUIRED		REQUIRED PIPE RUNNER SIZES		
					SINGLE PIPE	MULTIPLE PIPE	NOMINAL DIA.	O.D.	I.D.
12"	2"	17"	6:1	4'-9"	No	Yes, for >2 pipes	3" STD	3.500"	3.068"
15"	2 1/4"	20 1/2"	6:1	6'-5"	No	Yes, for >2 pipes	3" STD	3.500"	3.068"
18"	2 1/2"	24"	6:1	8'-0"	No	Yes, for >2 pipes	3" STD	3.500"	3.068"
24"	3"	31"	6:1	11'-3"	No	Yes, for >2 pipes	3" STD	3.500"	3.068"
30"	3 1/2"	38 1/2"	6:1	14'-8"	No	Yes	4" STD	4.500"	4.026"
36"	4"	45 1/2"	6:1	17'-11"	Yes	Yes	4" STD	4.500"	4.026"
42"	4 1/2"	52 1/2"	6:1	21'-2"	Yes	Yes	4" STD	4.500"	4.026"

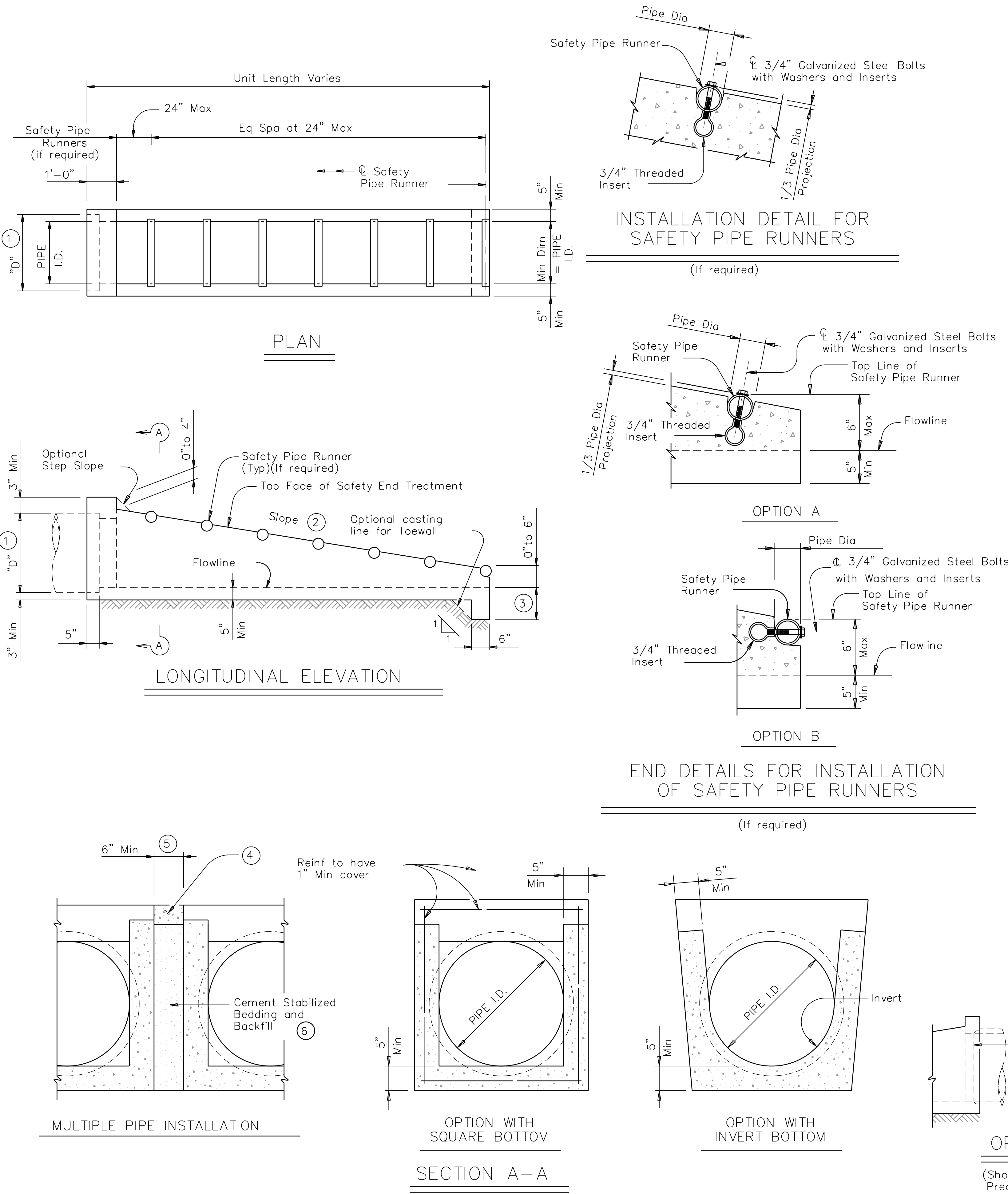
- ① Dimension "D" is based on ASTM C-76, Class III, Wall "B" thickness. If any other wall thickness is used, dimension "D" must be adjusted accordingly.
- ② Slope as shown elsewhere in the plans.
- ③ Toewall to be used only when dimension is shown elsewhere in the plans.
- ④ The top 4" of void between Precast End Treatments shall be filled with concrete Riprap and shall be considered subsidiary to Safety End Treatment.
- ⑤ Clear distance between pipes shall be adjusted to provide for the minimum distance between safety end treatments.
- ⑥ Cement stabilized bedding and backfill shall be in accordance with the Item, "Excavation and Backfill for Structures". Bedding and backfill shall be considered subsidiary to the Item "Safety End Treatment". When concrete riprap is specified around the safety end treatment, backfill shall be as directed by Engineer.

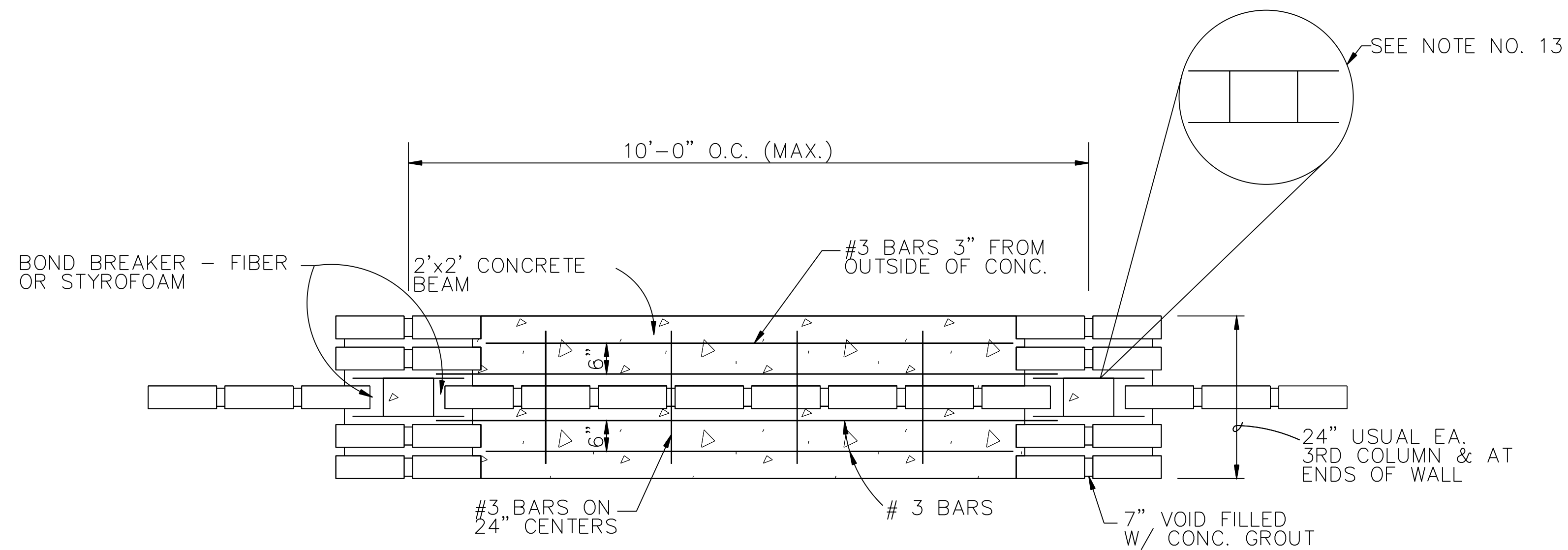
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PRECAST SAFETY END TREATMENT
TYPE II – PARALLEL DRAINAGE

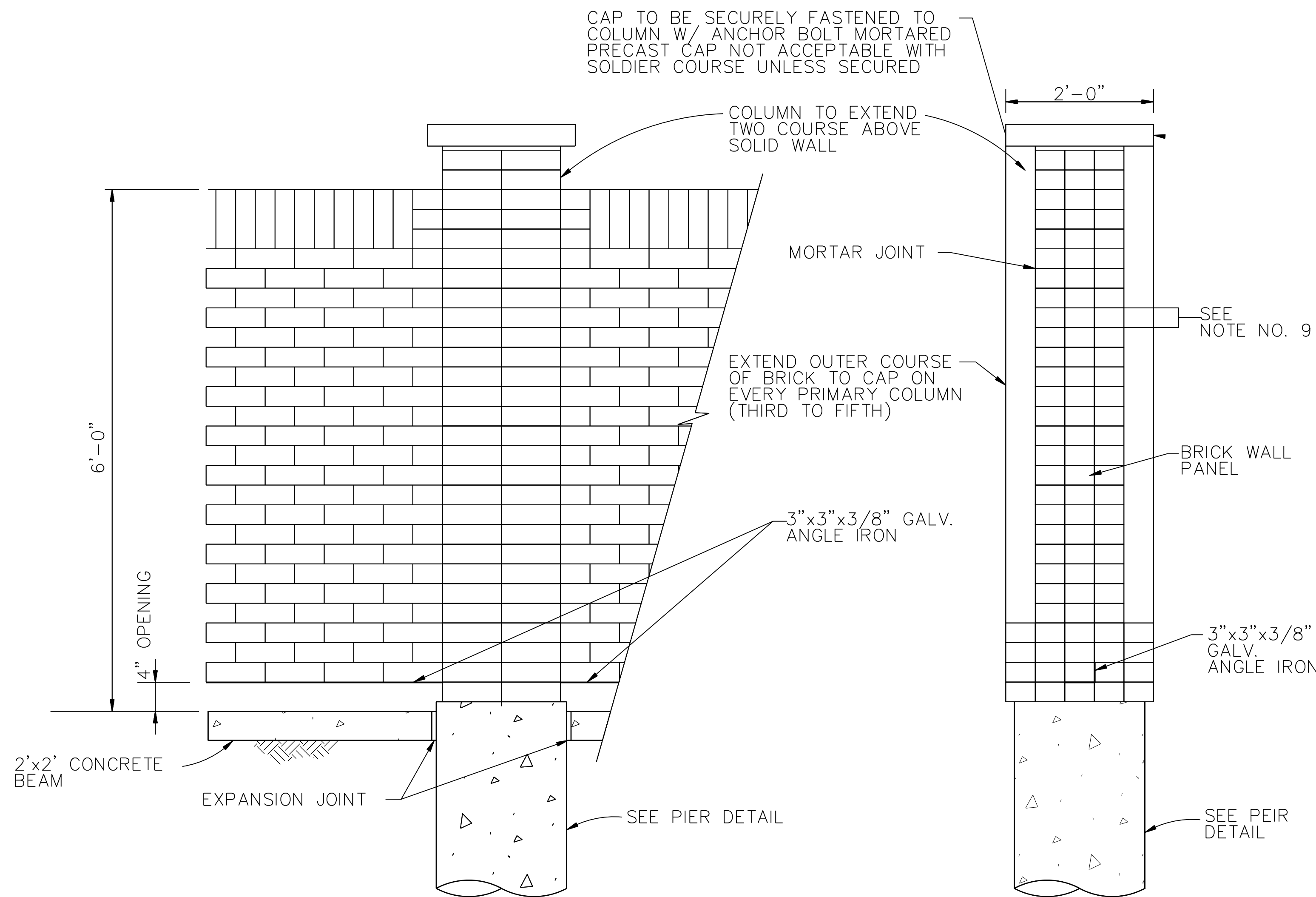


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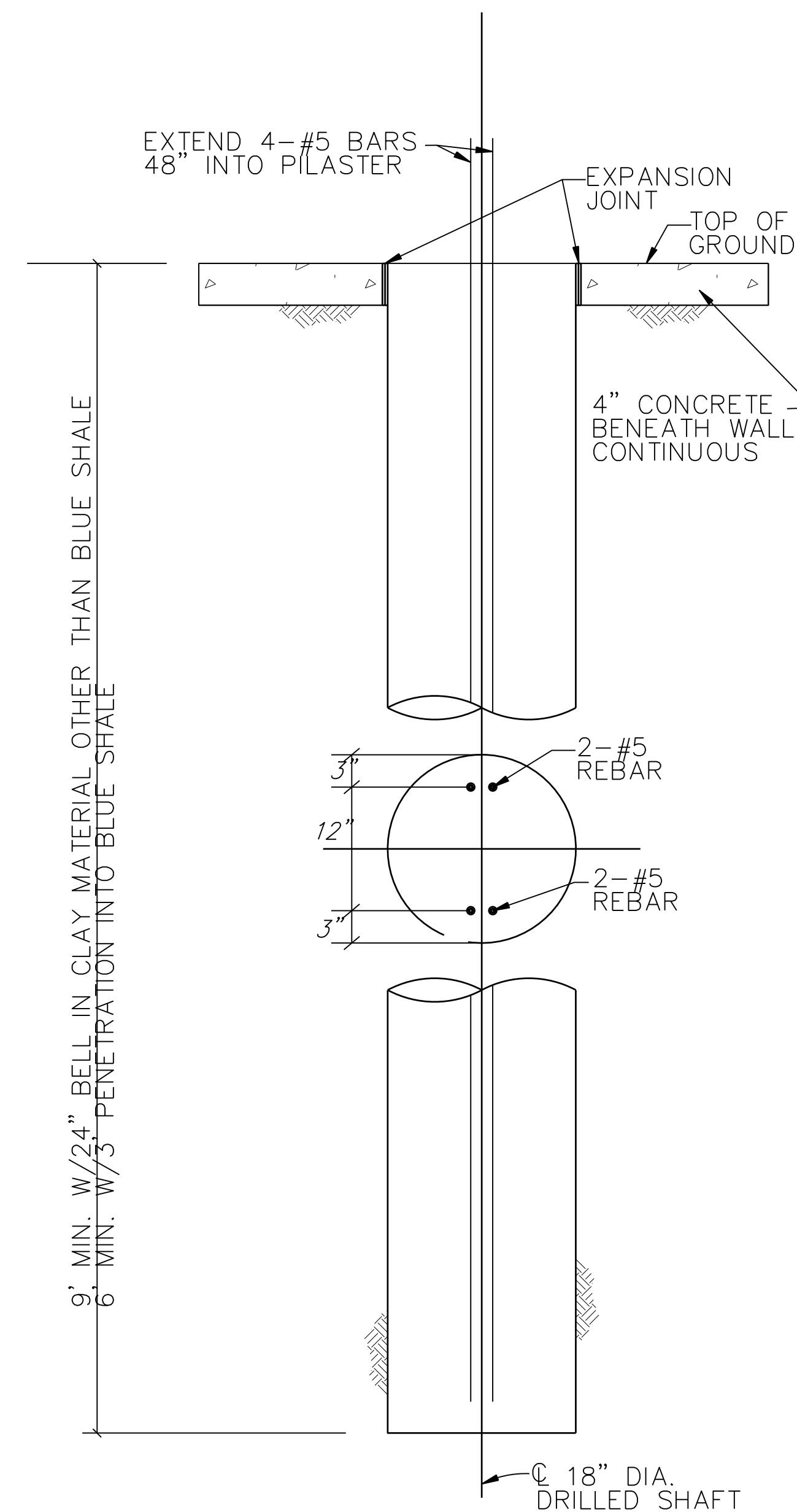




PLAN



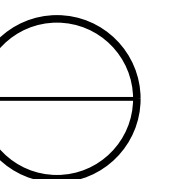
ELEVATION



PIER DETAIL

- NOTES:
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 P.S.I. AT 28 DAYS.
 2. REINFORCING STEEL SHALL BE NEW BILLET STEEL CONFORMING TH THE REQUIREMENTS OF ASTM A-615-GR.60
 3. CONCRETE FOR DRILLED PIERS SHALL BE PLACED WITHIN 8 HOURS OF DRILLING PIER HOLES.
 4. CLEAN BOTTOM OF HOLE PRIOR TO PLACMENT OF CONCRETE.
 5. BRICK MASONRY SHALL BE AS SPECIFIED IN ITEM 2.3.6 OF THE SPECIAL PROVISIONS.
 6. MORTAR SHALL BE TYPE "S".
 7. DESIGN WIND PRESSURE - 20 PSF.
 8. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE "RECOMMENDED PRACTICE FOR ENGINEERED BRICK MASONRY" -- BRICK INSTITUTE OF AMERICA.
 9. USE # 9 GAUGE 1-3/4" WIDE GALVANIZED LADDER WIRE TO EXTEND HORIZONTAL IN WALL PANEL DURAWALL CORP. EVERY COURSE.
 10. # 9 GAUGE WIRE FABRICATED AS SHOWN BETWEEN EACH COURSE OF COLUMN BRICK.
 11. THE WALL SHALL BE OF SIX FEET IN HEIGHT AS MEASURED FROM THE NEAREST ALLEY EDGE OR SIDEWALK GRADE, WHICHEVER IS HIGHER. THE COLOR OF SCREEN WALL SHALL BE SELECTED BY THE CITY.
 12. MAXIMUM PILASTER SPACING - 10'-0"
 13. EXTEND REBAR 48" INTO PILASTER AND COLUMN.
 14. CONTRACTOR SHALL PROVIDE MID PANEL BRICK SUPPORT. SUCH SUPPORT SHALL BE COMPOSED OF BRICK AND MORTAR.

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THIN BRICK SCREENING WALL

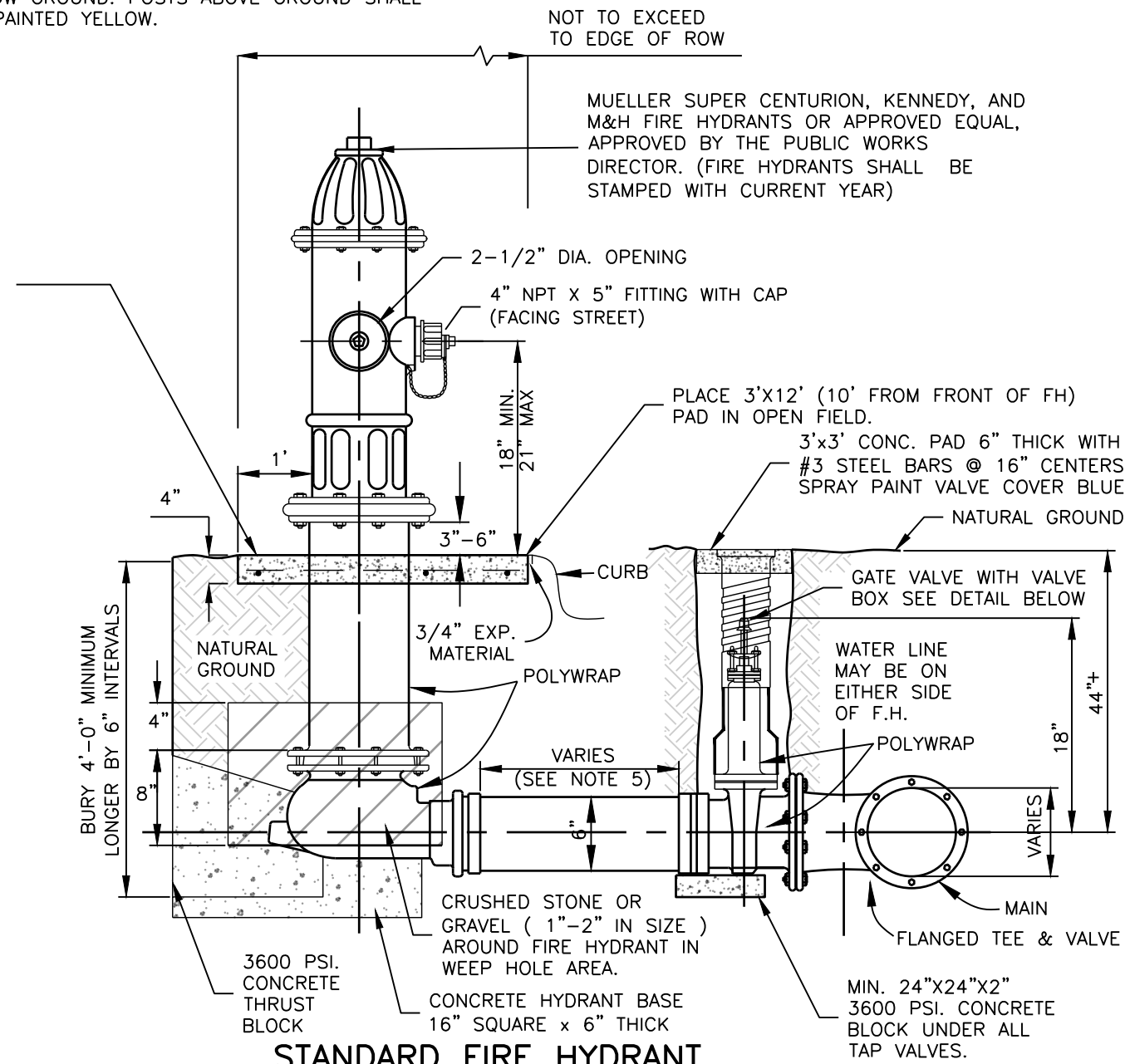
STANDARD DETAILS



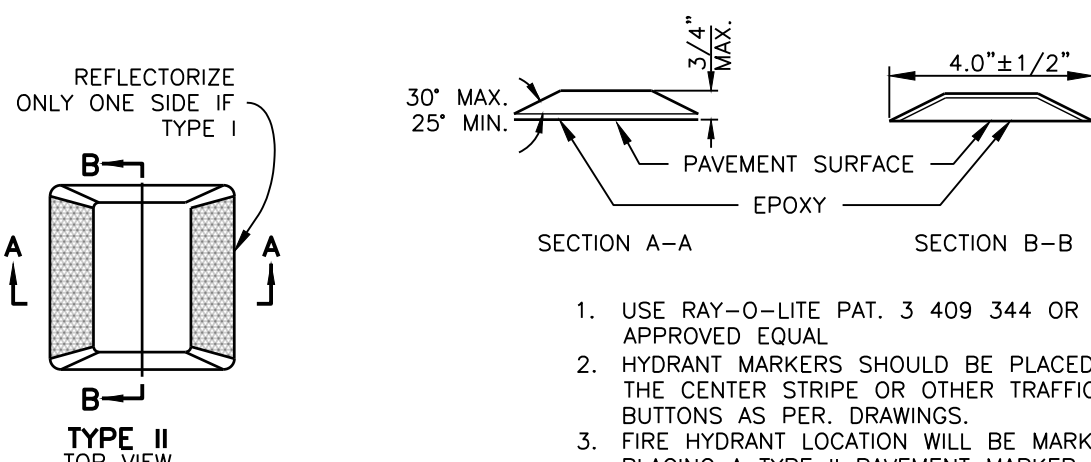
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- FIRE HYDRANT NOTE:**
1. FIRE HYDRANTS SHALL BE LOCATED INSIDE THE CURB, CONFORM SETBACK WITH CITY ENGINEER PRIOR TO PLACEMENT.
 2. FIRE HYDRANT PAINT AND COLORS:
 - a. PUBLIC FIRE HYDRANTS SHALL BE COATED WITH BRUSHED ALUMINUM QUICK DRY ENAMEL PAINT. NO SPRAY PAINT ALLOWED.
 - b. PRIVATE FIRE HYDRANT BONNETS SHALL BE PAINTED CHROME YELLOW QUICK DRY ENAMEL. FIRE HYDRANT BARREL SHALL BE PAINTED MACHINERY RED QUICK DRY ENAMEL F-77RH.
 3. ALL FIRE HYDRANTS SHALL BE PAINTED AFTER INSTALLATION.
 4. FIRE HYDRANT LEAD SHALL BE 150" MAXIMUM AS MEASURED FROM THE MAIN UNLESS APPROVED BY THE CITY FIRE MARSHAL.
 5. PLACE 3'x12" PAD IN OPEN FIELD.

6. FIRE LINE VALVES SHALL BE IDENTIFIED BY THE LETTERS FLV STAMPED OR ETCHED INTO THE CURB.
7. USE VALVE MARKERS FOR OFFSITE FIRE HYDRANTS.
8. 6" DIAMETER BOLLARDS MUST BE PLACED AROUND THE FIRE HYDRANT WHEN IT CANNOT BE INSTALLED AS PER THIS FIRE HYDRANT DETAIL. BOLLARD SHALL BE 3' ABOVE & BELOW GROUND. POSTS ABOVE GROUND SHALL BE PAINTED YELLOW.

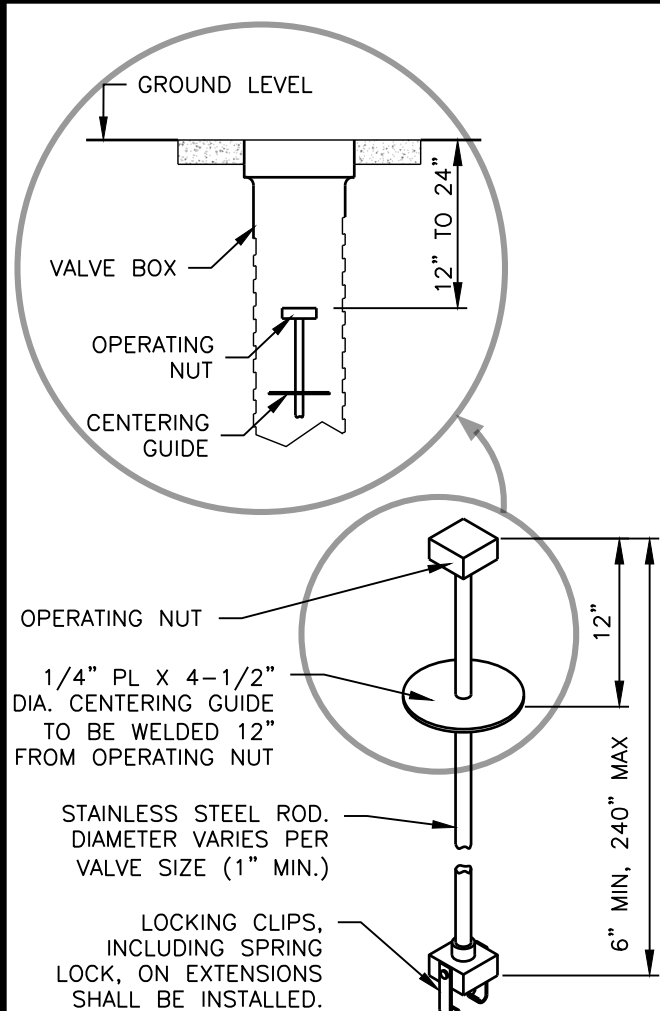


STANDARD FIRE HYDRANT
DETAIL (N.T.S.)



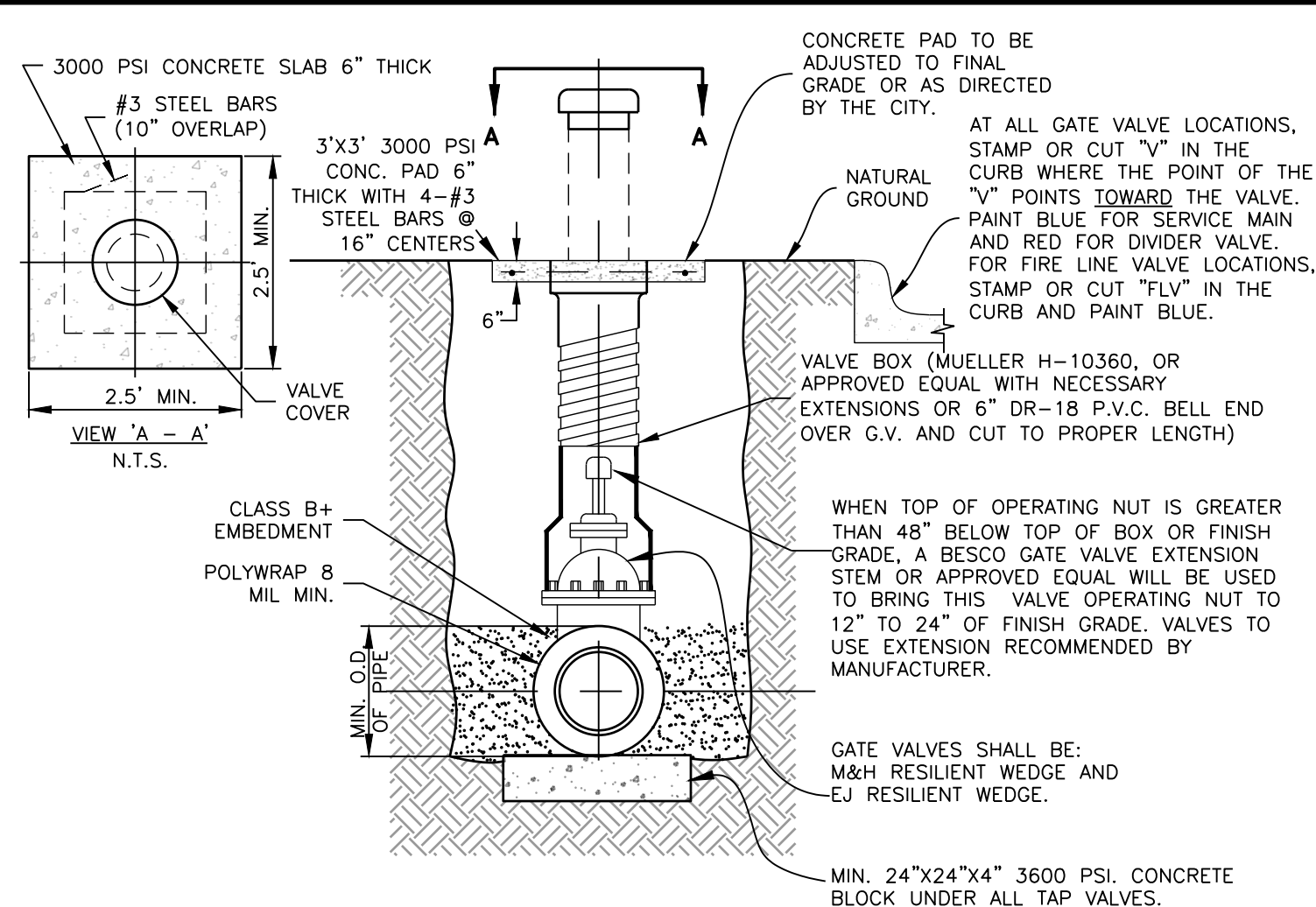
1. USE RAY-O-LITE PAT. 3 409 344 OR APPROVED EQUAL
2. HYDRANT MARKERS SHOULD BE PLACED 4" OFF THE CENTER STRIPE OR OTHER TRAFFIC BUTTONS AS PER DRAWINGS.
3. FIRE HYDRANT LOCATION WILL BE MARKED BY PLACING A TYPE II PAVEMENT MARKER REFLECTORIZED BLUE 4" OFF OF THE TRAFFIC LANE BUTTONS. THE MARKER WILL BE IN THE LANE NEAREST TO THE FIRE HYDRANT. ALL MARKERS AT INTERSECTIONS SHOULD BE 10 FEET BACK FROM THE INTERSECTION.

PAVEMENT MARKERS
(REFLECTORIZED) TYPE II

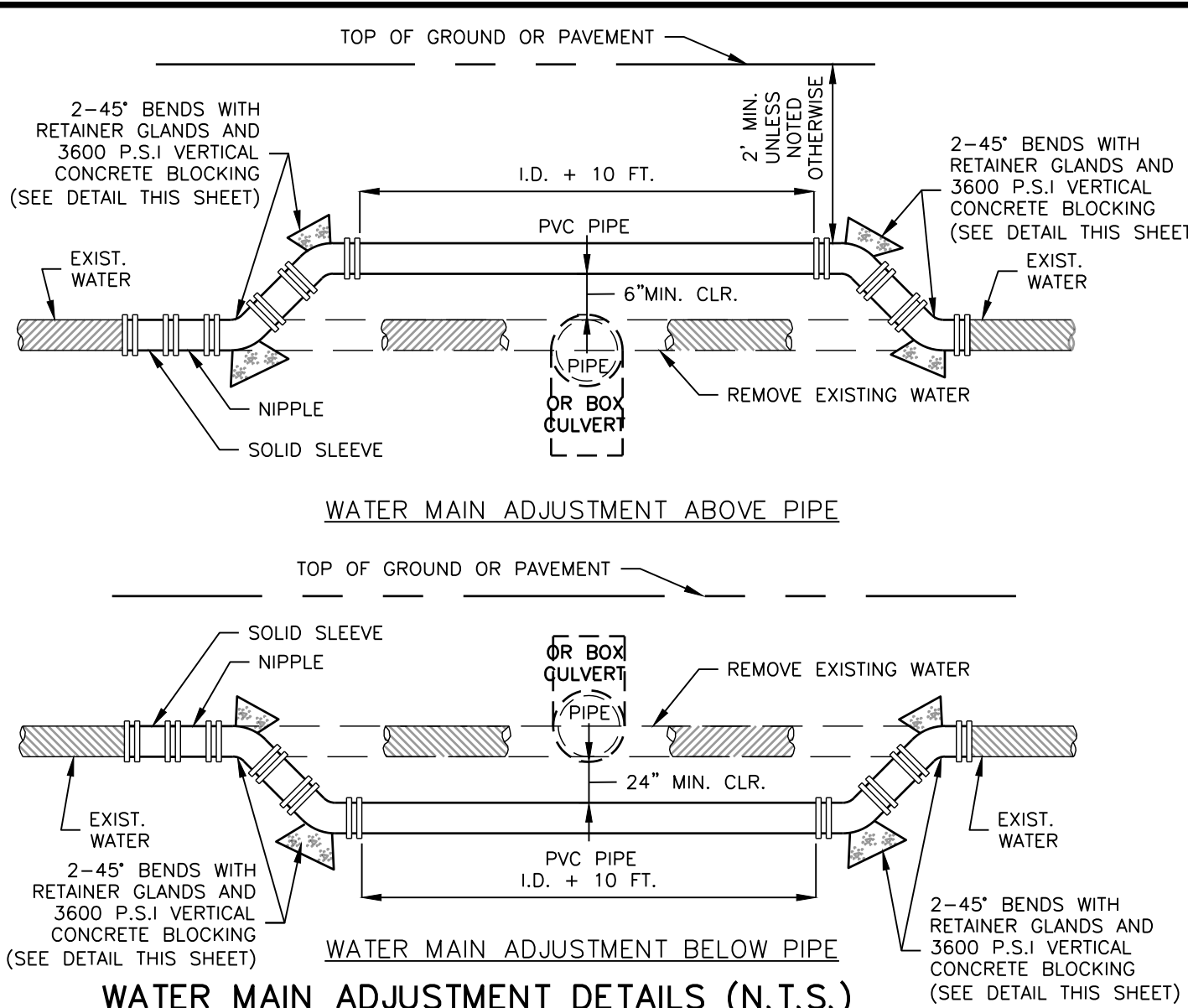


- NOTES
1. GATE VALVE EXTENSION RODS SHALL BE ONE PIECE CONSISTING OF 304 STAINLESS STEEL.
 2. A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE WHOSE OPERATING NUT IS LOCATED IN EXCESS OF 4' BELOW THE TOP OF THE VALVE BOX. THESE EXTENSIONS SHALL BRING THIS VALVE OPERATING NUT TO 12" TO 24" OF FINISH GRADE. VALVES TO USE EXTENSION RECOMMENDED BY MANUFACTURER.

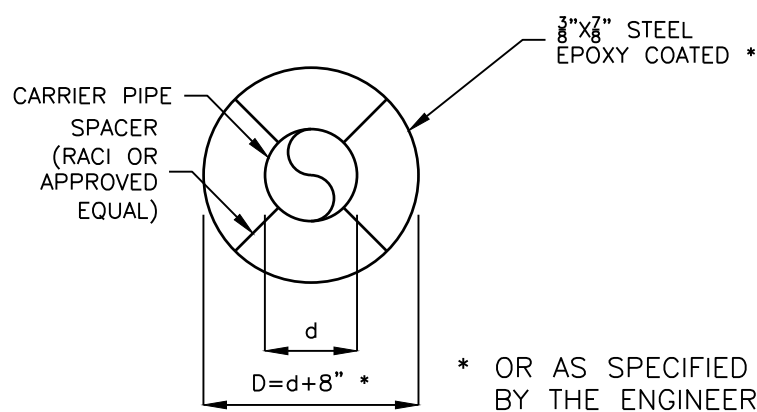
GATE VALVE EXTENSION STEM
(N.T.S.)



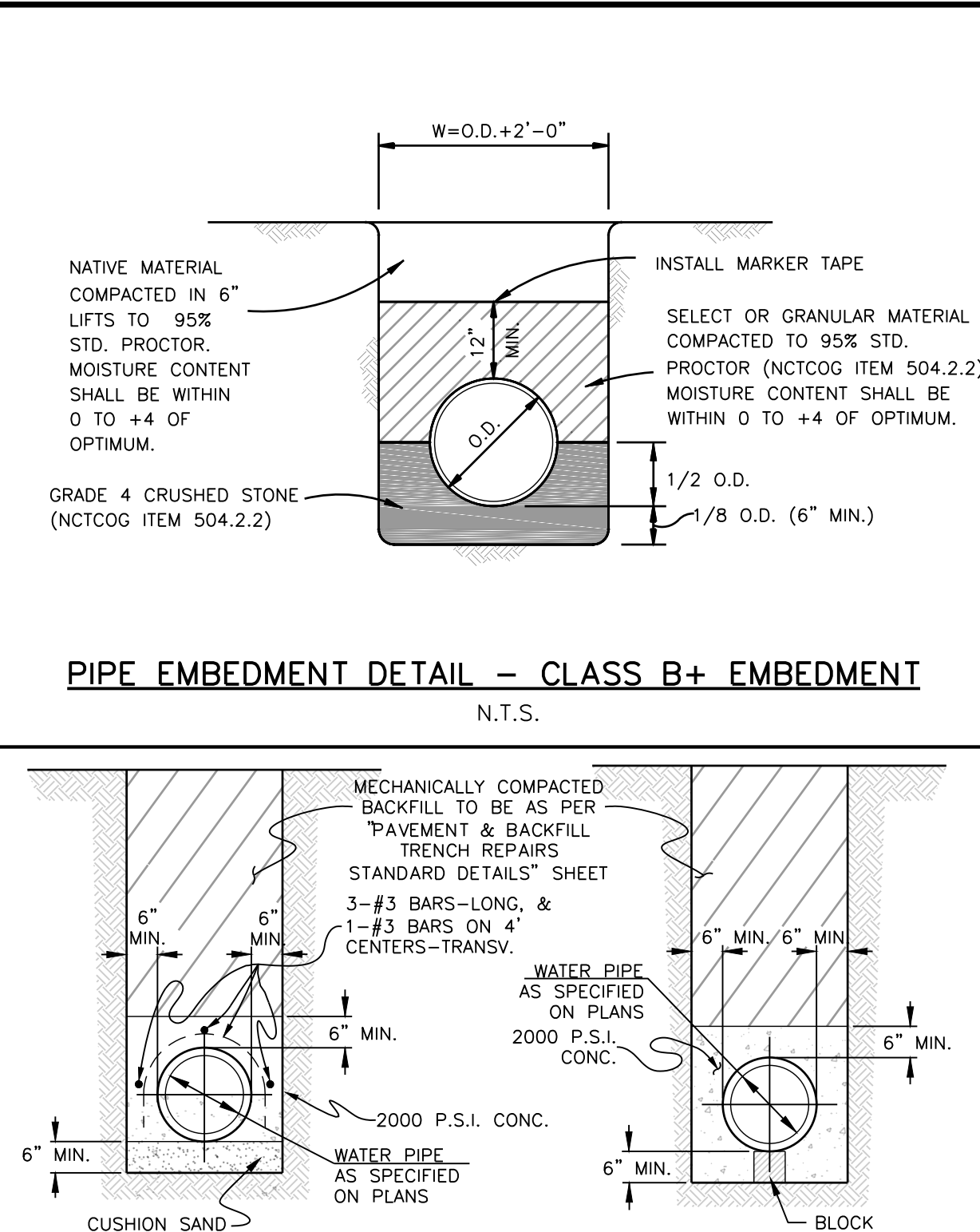
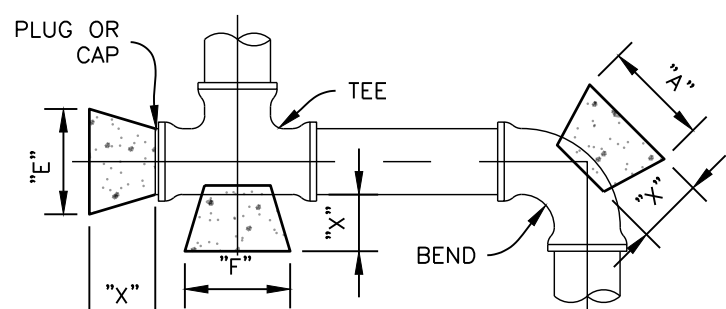
TYPICAL GATE VALVE SETTING AND BOX
(N.T.S.)



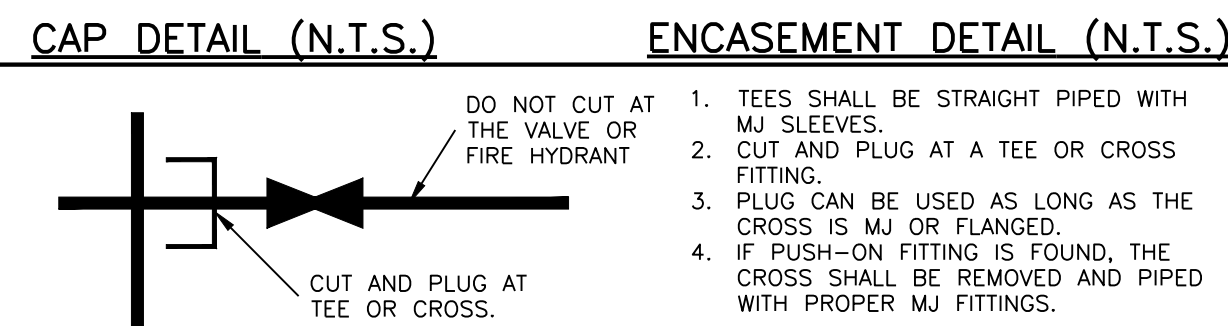
WATER MAIN ADJUSTMENT DETAILS (N.T.S.)



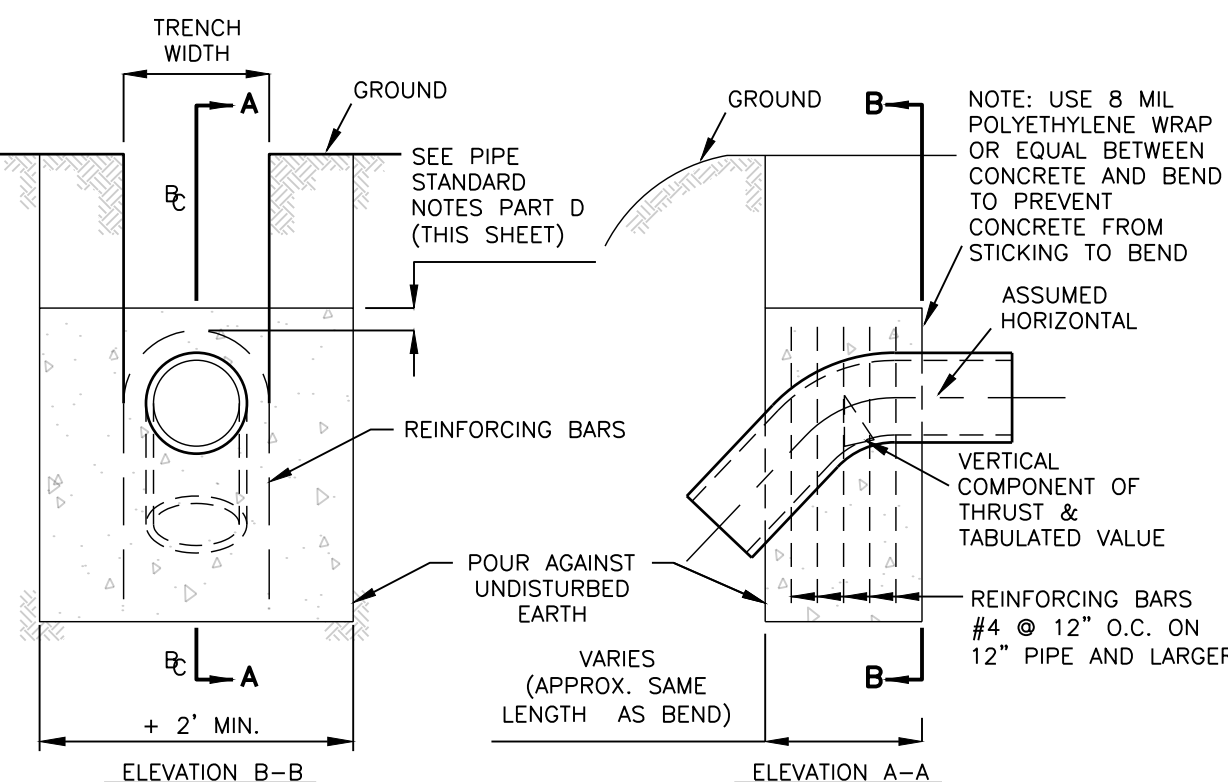
STEEL PIPE ENCASEMENT DETAIL(N.T.S.)



PIPE EMBEDMENT DETAIL - CLASS B+ EMBEDMENT
N.T.S.



CUT AND PLUG FOR ABANDONED WATER
LINES, VALVES, AND FIRE HYDRANTS



Δ	11.25'	22.50'	30'	45'	67.50'	90'
I.D. (IN)	THRUST VOL. TONS	THRUST VOL. TONS	THRUST VOL. TONS	THRUST VOL. TONS	THRUST VOL. TONS	THRUST VOL. TONS
4.6, 8	1.0	0.5	2.0	1.0	2.5	1.3
10.12	2.2	1.1	4.3	2.2	5.7	2.8
16.18	5.0	2.5	9.7	4.9	12.7	6.4
20	6.1	3.1	12.0	6.0	15.7	7.9
24	8.2	4.0	17.3	8.7	22.6	11.3
30	10.5	5.2	20.3	10.1	26.5	13.3
36	14.9	7.5	29.2	14.6	38.2	19.1
42	20.3	10.1	39.8	19.9	52.0	26.0
48	26.5	13.2	51.9	26.0	67.9	33.9
54	33.5	16.8	65.7	32.9	85.9	42.9
60	41.4	20.7	81.2	40.6	106.0	53.0
66	50.1	25.0	98.2	49.1	128.0	64.2
72	59.6	29.8	117.0	58.4	153.0	76.3
78	69.3	35.0	137.0	68.6	179.0	90.0
84	81.1	40.5	159.0	79.5	208.0	104.0
90	93.1	46.5	183.0	91.3	239.0	119.0
96	106.0	53.0	208.0	104.0	272.0	136.0

- VERTICAL THRUST BLOCK NOTES:
1. ALL CALCULATIONS ARE BASED ON INTERNAL PRESSURE OF 200 P.S.I. FOR 24" I.D. PIPE AND SMALLER AND 150 P.S.I. ON 30" I.D. AND LARGER.
 2. VOLUMES OF VERTICAL BEND THRUST BLOCKS ARE NET VOLUMES OF CONCRETE TO BE FURNISHED. THE CORRESPONDING WEIGHT OF THE CONCRETE IS EQUAL TO OR GREATER THAN THE VERTICAL COMPONENT OF THRUST ON THE VERTICAL BEND.
 3. WALL THICKNESS (T) ASSUMED HERE FOR ESTIMATING PURPOSES ONLY.
 4. CONCRETE FOR BLOCKING SHALL BE 3600 P.S.I. CONCRETE.
 5. DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS WHERE AND AS DIRECTED BY THE ENGINEER. THE VOLUME OF CONCRETE BLOCKING SHALL NOT BE LESS THAN SHOWN HERE.

DIMENSIONS OF CONCRETE FOR VERTICAL
THRUST BLOCKS AT FITTINGS (N.T.S.)

DIMENSIONS OF CONCRETE FOR HORIZONTAL THRUST
CONCRETE BLOCKING AT FITTINGS (N.T.S.)

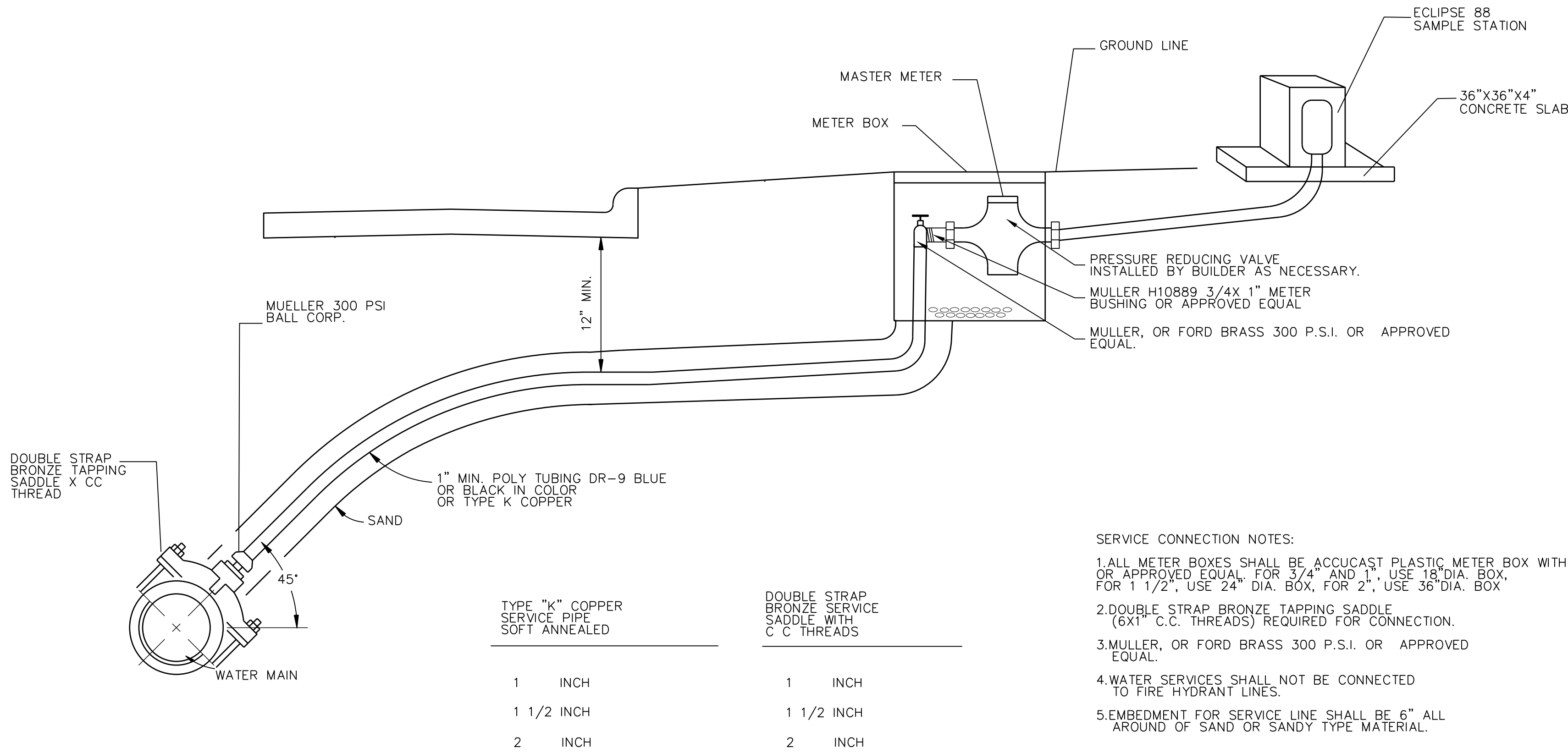
- GENERAL NOTES:**
- A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS" HEREIN REFERRED TO AS "N.C.T.C.O.G." SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817) 640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM
 - B. PLEASE ALSO REFER TO N.C.T.C.O.G. ITEM 501, 502, 503, 504, 505, 506 & 509 SPECIFICATIONS.
 - C. WHERE SPECIFIED NAME BRANDS ARE INDICATED, PRODUCTS OF EQUAL OR BETTER MAY BE CONSIDERED FOR APPROVAL UPON SUBMITTAL OF ALL SUPPORTING DATA TO THE CITY ENGINEER FOR REVIEW.
 - D. THE CONTRACTOR SHALL PROVIDE FOR TEMPORARY 3" COLD MIX ASPHALTIC CONCRETE AS PER N.C.T.C.O.G. ITEM 403.2.3 TO BE PLACED OVER ALL VEHICULAR TRAVELED AREAS UNTIL THE FINAL REPAIRS/IMPROVEMENTS ARE MADE.
 - E. ALL VALVES, VALVE STACKS AND COVERS ON ABANDONED WATER MAINS SHALL BE REMOVED COMPLETELY; SURFACE SHALL BE REPAIRED TO MATCH EXISTING.
 - F. CONTRACTOR SHALL CONTACT STREETS DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT-OF-WAY.
 - G. WATER MAINS UP TO 12" DIAMETER SHALL BE POLYVINYL CHLORIDE PVC DR18 C900 (CLASS 150), OR DR14 C800 (CLASS 200). WATER MAINS GREATER THAN 12" IN DIAMETER MAY BE ONE OF THE FOLLOWING:
 1. REINFORCED CONCRETE CYLINDER PIPE (RCCP) C303 PRESSURE CLASS 150 OR GREATER AS SPECIFIED BY THE ENGINEER.
 2. PVC PIPE SHALL BE DR18 C900 (CLASS 235) OR AS APPROVED BY THE ENGINEER.
 - H. PVC PIPE SHALL NOT BE USED FOR MAINS GREATER THAN 24" IN DIAMETER.
 - I. EMBEDMENT:
 1. EMBEDMENT SHALL BE AS PER THE "PIPE EMBEDMENT DETAIL" ON THIS SHEET UNLESS SPECIFIED OTHERWISE BY THE ENGINEER.
 2. FOR PIPE SIZES LARGER THAN 12", MINIMUM EMBEDMENT SHALL BE 1/4"-3/4" CRUSHED STONE 6" BELOW PIPE TO 6" ABOVE PIPE UNLESS SPECIFIED OTHERWISE BY THE ENGINEER.
 - J. COVER: THE FOLLOWING MINIMUM COVERS OVER THE WATERLINE ARE REQUIRED:
 1. 42" OF COVER OVER WATER LINES 8" IN DIAMETER OR LESS
 2. 48" OF COVER OVER WATER LINES 12" IN DIAMETER
 3. 60" TO 72" OF COVER OVER WATER LINES LARGER THAN 12" IN DIAMETER. NOTE: WATER MAINS BURIED WITH OVER 72" OF COVER SHALL BE APPROVED BY THE CITY ENGINEER.
 - K. STORAGE: PVC WATER PIPE S ALLOWED TO BE STORED A MAXIMUM OF SIX (6) MONTHS WITHOUT COVER. THEREAFTER ALL PIPES SHALL BE COVERED OR KEPT AWAY FROM SUNLIGHT AND SHALL BE PROTECTED FROM OTHER ELEMENTS.
 - L. INSTALLATION:
 1. BLUE PVC WATER PIPE IS ACCEPTABLE FOR THE INSTALLATION. HOWEVER, THE CONTRACTOR IS RESPONSIBLE TO INSTALL THE PIPE IN A WAY THAT THE WRITING ON THE PIPE IS INSTALLED ON THE SIDE UP AND IS READABLE FROM THE TOP OF THE DITCH.
 2. ALL WATER MAINS, VALVES, FITTINGS, ETC. MADE WITH DUCTILE IRON OR FERROUS METAL SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE WRAP.
 3. REVEALED ENDS OF THE PIPE SHALL BE REMOVED WHEN USED IN MJ FITTING
 4. CASINGS: WHEN PVC WATER PIPE IS INSTALLED IN CASING, SKIDS MUST BE USED TO PREVENT DAMAGE TO THE PIPE AND BELL DURING INSTALLATION. PVC PIPE SHOULD NOT REST ON THE BELLS. PLASTIC SPACERS SUCH AS RAO OR APPROVED EQUAL SHALL BE USED.
 5. MUST STUB OUT AT LEAST ONE FULL JOINT (20 FEET MIN.) OF PIPE AT ALL STUB OUTS. NO SERVICES SHALL BE LOCATED ON THE STUB OUT.
 6. JACE PIPE WITH LETTERING FACING UP (ON TOP OF PIPE)
 7. MAXIMUM PIPE DEFLECTION SHALL BE AS RECOMMENDED BY MANUFACTURER
 8. DUCTILE IRON PIPE WHERE SPECIFIED BY THE ENGINEER SHALL HAVE CEMENT-MORTAR LINING PER AWWA C100 SPECIFICATIONS AND SHALL BE OF A MINIMUM THICKNESS CLASS 51 OR GREATER AND HAVE A MINIMUM 8 MILS POLYWRAP.
 - M. FITTINGS:
 - A. THE CONTRACTOR MAY USE CAST IRON OR DUCTILE IRON FITTINGS, COMPLETE WITH EPOXY COATING AND 8 MIL (MIL) POLYWRAP
 - B. ALL FITTINGS SHALL BE BLOCKED AS PER DETAILS ON THIS SHEET.
 - C. ALL FITTINGS SHALL BE MJ UNLESS SPECIFIED OTHERWISE. PVC FITTINGS ARE NOT ALLOWED
 - D. PLEASE ALSO REFER TO N.C.T.C.O.G. ITEM 501 SPECIFICATIONS.
 - E. ALL BODIES, TEES AND RELAYS SHALL HAVE RETAINER GLANDS.
 - F. USE AWWA C110 DUCTILE IRON FITTINGS FOR PIPES 3"-48" IN DIAMETER AND AWWA C153 FOR DUCTILE IRON COMPACT FITTINGS FOR PIPES 3"-16" IN DIAMETER.
 - G. DUCTILE IRON INTEGRAL RESTRAINED JOINT FITTINGS ARE PERMISSIBLE FOR PVC AND DUCTILE IRON PIPE SIZES 4"-12" IN DIAMETER; NOTE: CONCRETE BLOCKING IS NOT REQUIRED WITH THESE FITTINGS.
 - H. ALL DUCTILE IRON AND CAST IRON FITTINGS SHALL BE MANUFACTURED IN THE UNITED STATES.
 - I. POLYWRAP SADDLES WITH 8 MIL POLYWRAP.
 - N. VALVES:
 - A. VALVES INSTALLED ON WATER LINES 12" IN DIAMETER OR LESS SHALL BE VERTICAL GATE VALVES.
 - B. VALVES INSTALLED ON WATER LINES LARGER THAN 12" IN DIAMETER SHALL BE DIRECT BURY BUTTERFLY VALVES WITH A VALVE BOX. PLEASE NOTE THAT SPECIAL FITTINGS SHALL BE INSTALLED TO ALLOW FOR THE CORRECTION OF NEW INSTALLATIONS. COST INCURRED TO PROJECT OVERALL.
 - C. BUTTERFLY VALVES SHALL CONFORM TO AWWA C504 STANDARDS LATEST REVISION.
 - D. BUTTERFLY VALVES SHALL BE MUELLER, CLOW, PRATT, M&H OR AN APPROVED EQUAL.
 - E. ALL GATE VALVES SHALL HAVE NON-RISING STEMS AND RESILIENT SEATED WEDGE.
 - F. ALL VALVES AND FIRE HYDRANTS SHALL BE IN LINE WITH THE PROPERTY LINE, WHERE POSSIBLE.
 - G. ALL VALVE LOCATIONS SHALL BE MARKED WITH "V" STAMPED OR CUT ON THE CURB.
 - H. PLEASE ALSO REFER TO THE DETAILS ON THIS SHEET AND N.C.T.C.O.G. ITEM 502.6. SPECIFICATIONS.
 - I. ALL STUB-OUT VALVES TO HAVE A MINIMUM 20' JOINT OF PIPE.
 - J. ALL VALVES TO BE FLANGED VALVES OR ANCHOR COUPLE TO TEE WHERE APPLICABLE.
 - O. TESTING:
 - A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:
 1. PURGING BY USING THE "POLY-PIG" METHOD TO ENTER AND EXIT AT APPROVED STRATEGIC LOCATIONS AND AS PER N.C.T.C.O.G. ITEM 506.7.3.1 SPECIFICATIONS, TO INCLUDE ALL EQUIPMENT, MATERIAL, FITTINGS, AND LABOR.
 2. HYDROSTATIC TEST AS PER GENERAL NOTES SHEETS, GN-01 - GN 04, FOR TESTING REQUIREMENTS FOR WATER.
 3. THE CONTRACTOR WILL FLUSH AND STERILIZE LINES AND PERFORM BACTERIOLOGICAL TESTS AS DIRECTED BY THE CITY INSPECTOR AND TO PROVIDE LINES TO BE FREE OF COLIFORM ORGANISMS.
 4. ALL TEMPORARY TEST POINTS TO HAVE CORPORATION STOPS AT THE MANHOLE.
 5. ALL TEMPORARY TESTING & CHLORINATION POINTS AND ASSOCIATED CORPORATION STOPS SHALL BE REMOVED AND PLUGGED, PRIOR TO FINAL ACCEPTANCE.
 6. ONE WATER SAMPLE PER EACH STREET NAME, OR AS APPROVED BY THE CITY ENGINEER.
 - (b) PLEASE REFER TO THE GENERAL NOTES SHEETS, GN-01 - GN 04, FOR TESTING REQUIREMENTS FOR WATER, WASTEWATER, STORM DRAIN AND PAVEMENT CONSTRUCTION.
 - (c) THE CONTRACTOR WILL PROVIDE BACKFILL, DENSITY AND CONCRETE TESTING FOR ALL PROJECTS UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED IN TO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.

- MATERIAL:**
- A. ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
 - B. PRIVATE DEVELOPMENT PROJECTS:
 - A. THE DEVELOPER/OWNER SHALL PROVIDE TESTING FOR ALL PROJECT UNLESS SPECIFIED OTHERWISE. ALL REPORTS SHALL BE TURNED INTO THE INSPECTOR WITHIN FIVE (5) WORKING DAYS.
 - B. THE DEVELOPER/OWNER SHALL PROVIDE GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION COMMENCING.

- TYPICAL WATER CURB MARKINGS**
- "V" - VALVE (WATER MAIN LINE)
 - "THV" - FIRE HYDRANT VALVE
 - "BOV" - BLOW OFF VALVE
 - "ARV" - AIR RELEASE VALVE
 - "W" - WATER METER
 - ALL "V" MARKINGS POINT TOWARD LOCATION OF VALVE
 - EXAMPLE: FH (FIRE HYDRANT VALVE BEHIND THE CURB)

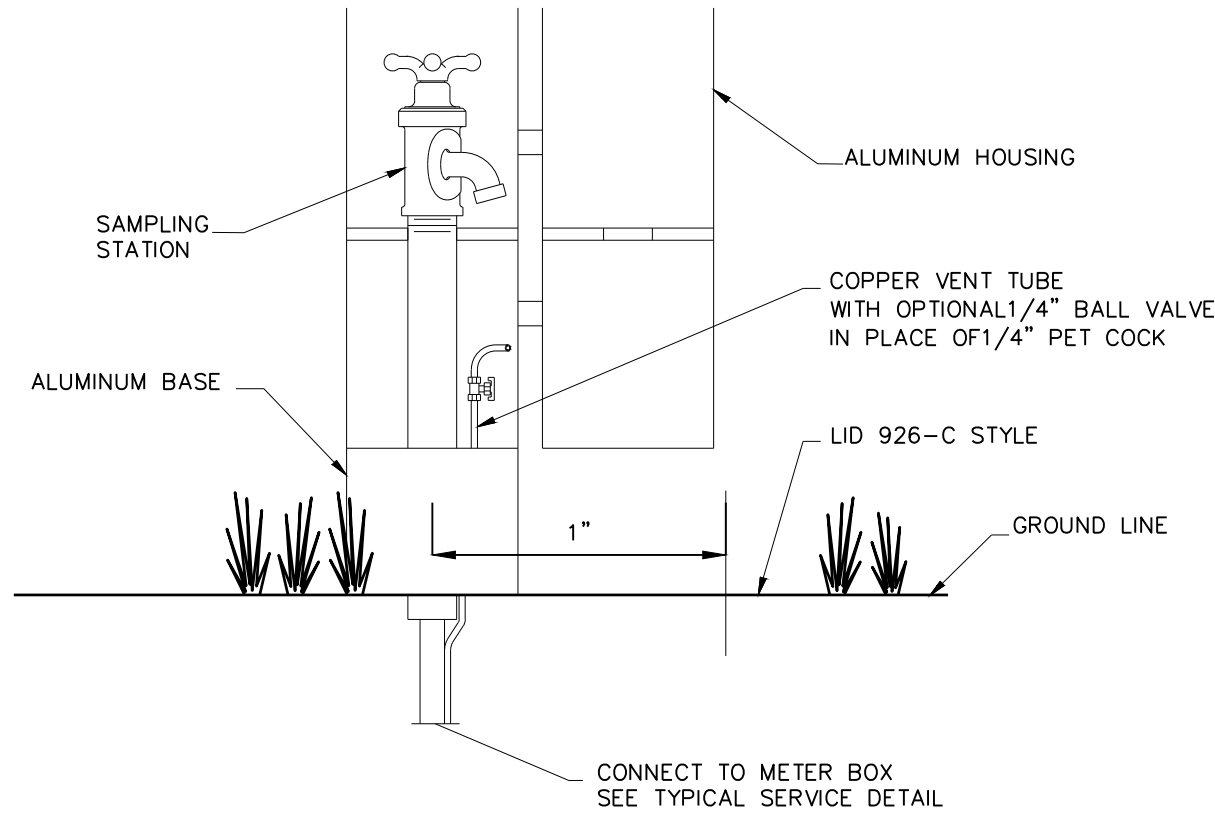
CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET HAS BEEN AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.

WATER 1 OF 2					
STANDARD DETAILS					
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION
			May 2021	N.T.S.	WAT-01
					NO. 31 OF 53



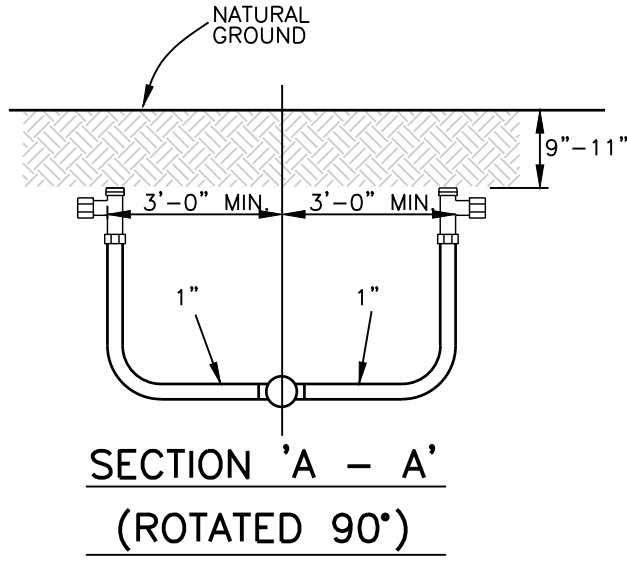
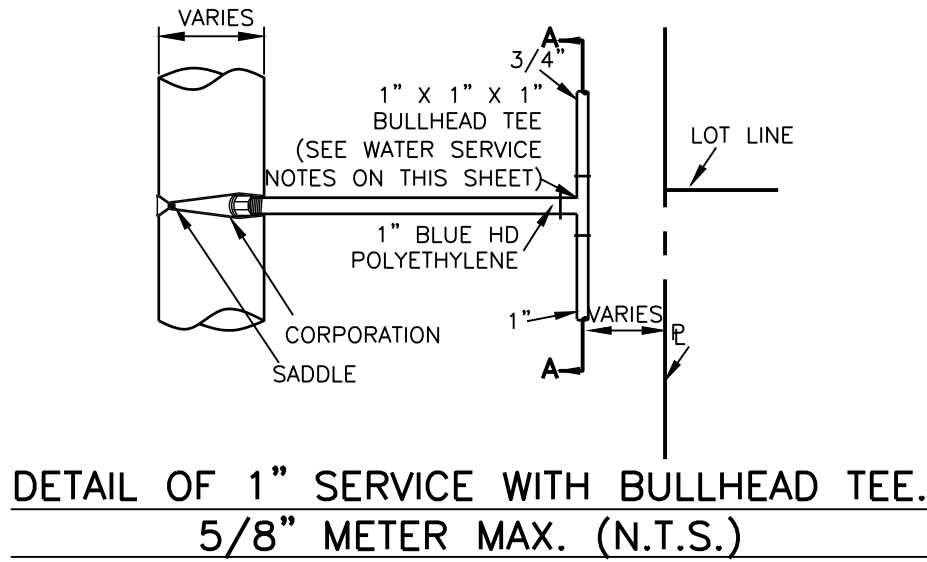
TYPICAL SERVICE CONNECTION WITH METER BOX

- NOTES:
1. PROPOSED PIPING & FITTINGS ARE SYMMETRIC ABOUT CENTER OF PROP. SAN. SEW. OR ST. SEW. PIPE AND SHALL RETAIN TEST PRESSURES.
 2. CROSSING OF SANITARY SEWER SHALL BE IN ACCORDANCE WITH TCEQ REQUIREMENTS.
 3. SAN. SEWER SHALL BE DR 26 PRESSURE RATED PIPE 10' EACH DIRECTION FROM CENTER LINE OF CROSSING.
 4. MEGALUGS SHALL BE USED ON ALL FITTINGS AND ANCHOR ALL BENDS.
 5. ALL BENDS MUST BE SUPPORTED BY 3600 P.S.I. CONCRETE THRUST BLOCK.

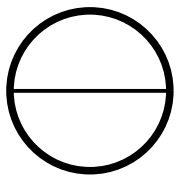


- NOTE:
1. SAMPLING STATIONS SHALL BE 1.0' BURY, WITH A 3/4" FIP INLET AND A (3/4" HOSE OR UNTHREADED) NOZZLE.
 2. ALL STATIONS SHALL BE ENCLOSED IN A LOCKABLE, NONREMOVABLE ALUMINUM-CAST HOUSING.
 3. WHEN OPENED, THE STATION SHALL REQUIRE NO KEY FOR OPERATION AND THE WATER WILL FLOW IN AN ALL BRASS WATERWAY.
 4. ALL WORKING PARTS WILL ALSO BE OF BRASS AND BE REMOVABLE FROM ABOVE GROUND WITH NO DIGGING. EXTERIOR PIPING SHALL BE GALVANIZED STEEL (BRASS PIPE ALSO AVAILABLE).
 5. A COPPER VENT TUBE WILL ENABLE EACH STATION TO BE PUMPED FREE OF STANDING WATER TO PREVENT FREEZING AND TO MINIMIZE BACTERIA GROWTH.
 6. ECLIPSE NO. 88 SAMPLING STATION SHALL BE MANUFACTURED BY KUPFERLE FOUNDRY, ST. LOUIS, MO. 63102. OR APPROVED EQUAL.
 7. ALL PIPING TO BE BRONZE, NOT GALVANIZED.

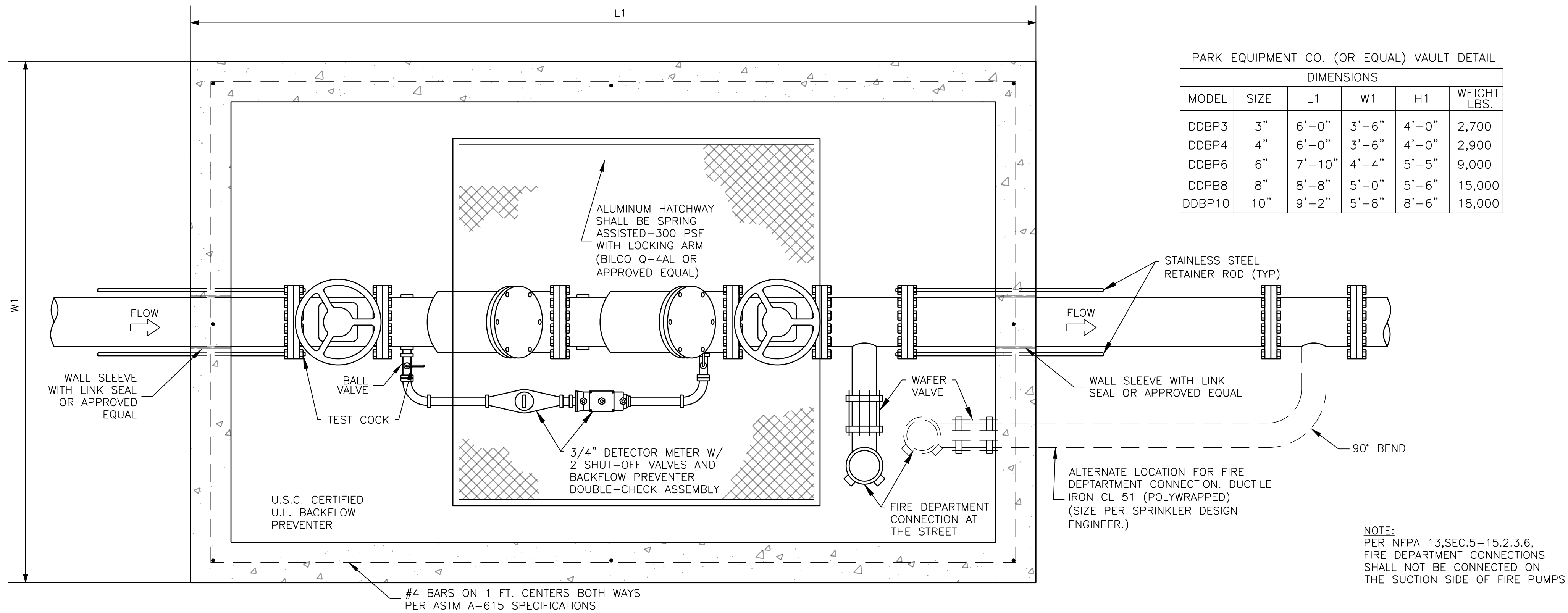
ECLIPSE NO. 88 SAMPLING STATION



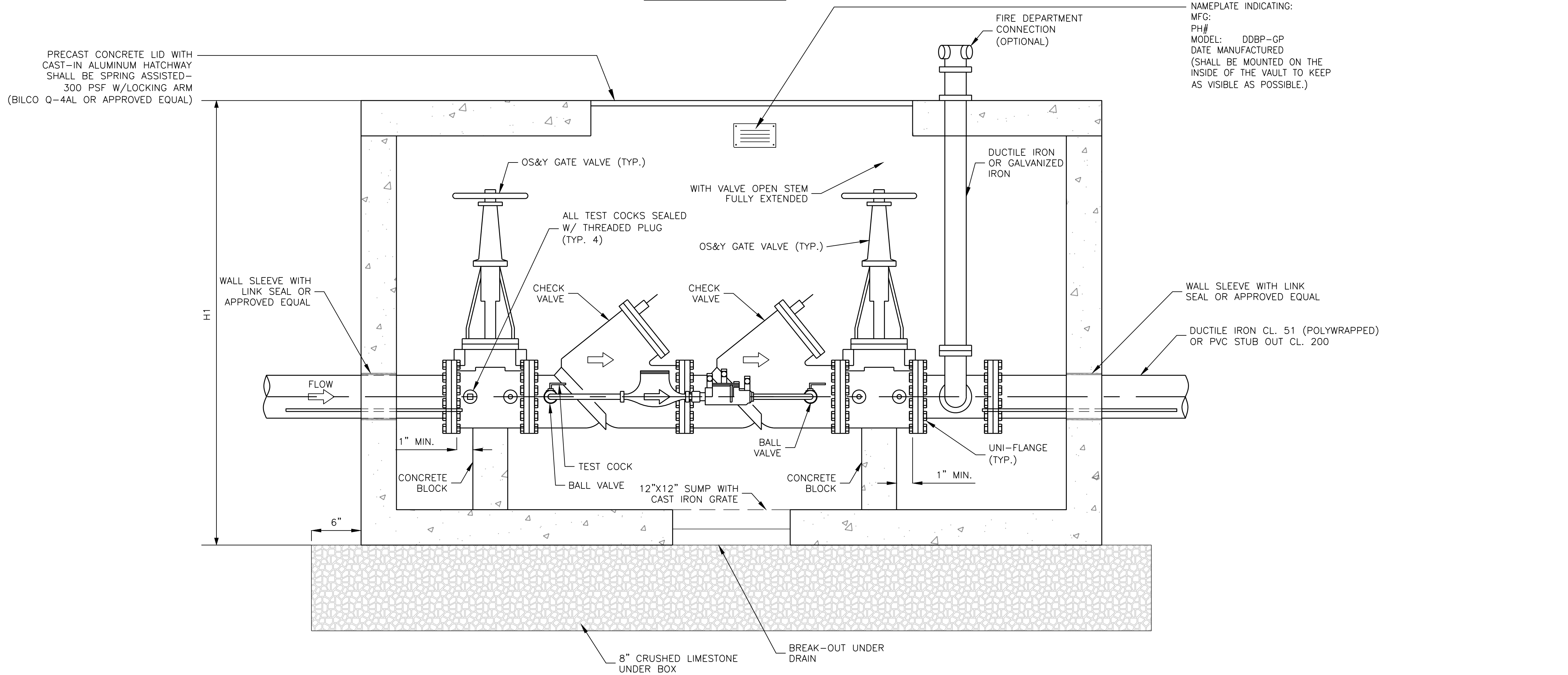
CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.



WATER 2 OF 2						
STANDARD DETAILS						
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	WAT-02	32 OF 53



PLAN VIEW




GENERAL NOTES:
GENERAL:
A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS" HEREIN REFERRED TO AS "N.C.T.C.O.G." SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817)640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM PLEASE ALSO REFER TO N.C.T.C.O.G. ITEM 502 SPECIFICATIONS.
B. THE ASSEMBLY SHALL MEET THE BASIC REQUIREMENTS OF ASCE 1048 FOR DOUBLE CHECK VALVES AND MEET REQUIREMENTS OF AWWA, CSA, UL CLASSIFIED, FM APPROVED. ASSEMBLY SHALL ALSO BE APPROVED BY THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH AT THE UNIVERSITY OF SOUTHERN CALIFORNIA.
C. ALL DETAILS AND SPECIFICATIONS SHOWN ON THIS SHEET WILL GOVERN FOR THE INSTALLATION OF THE ASSEMBLY.
LOCATION:
A. THE VAULT SHALL BE LOCATED ON THE OWNER'S PROPERTY AND NOT WITHIN CITY RIGHT-OF-WAY OR EASEMENT.
B. THE OWNER AT HIS OPTION AND THE APPROVAL OF THE CITY OF LANCASTER MAY BE PERMITTED TO INSTALL THE DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY INSIDE THE BUILDING. THE INSTALLATION WOULD BE REQUIRED TO BE PERMITTED WITH THE BUILDING INSPECTION DEPARTMENT AND WILL BE INSPECTED BY THE ENVIRONMENTAL SERVICES DEPARTMENT AND THE BUILDING INSPECTION DEPARTMENT. THE FIRE DEPARTMENT CONNECTION IS TO BE LOCATED AT THE STREET. FIRE DEPARTMENT CONNECTION SHALL BE WITHIN 6 FT. OF CURB, UNOBSTRUCTED AND IN CLEAR VIEW. WATER UTILITY PERSONNEL TO HAVE ACCESS DURING NORMAL BUSINESS HOURS.
C. THE FIRE DEPARTMENT CONNECTION MAY BE INSTALLED OUTSIDE THE VAULT WITH THE APPROVAL OF THE FIRE DEPARTMENT.
D. VAULT WITH FIRE DEPARTMENT SHALL BE LOCATED A DISTANCE AWAY FROM THE STRUCTURE OF THE SPRINKLED BUILDING AS DIRECTED BY THE FIRE DEPARTMENT. ALTERNATE LOCATIONS FOR THE FIRE DEPARTMENT CONNECTION SHALL BE APPROVED BY THE FIRE DEPARTMENT PRIOR TO INSTALLATION.
VAULT:
A. THE VAULT CAN BE EITHER POURED IN PLACE OR PRE-CAST.
B. THE VAULT SHALL BE PLACED ON 8" CRUSHED LIMESTONE AND THE VAULT SHALL HAVE A SUMP WITH A MINIMUM OF A 12" X 12" GRATE IN THE BOTTOM OF THE VAULT FOR DRAIN PURPOSES.
C. CONCRETE SHALL BE A MINIMUM 6.5 SACK, WITH 4200 P.S.I. AT 28 DAYS.
D. UNIT IS TO BE OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.
E. REINFORCEMENT SHALL BE GRADE 60 STEEL REBAR CONFORMING TO ASTM A-615 ON REQUIRED CENTERS OR EQUAL.
F. HATCHWAY SHALL BE 1/4" ALUMINUM DIAMOND PLATE COVER WITH EXTRUDED ALUMINUM FRAME. HATCH TO BE FURNISHED WITH 316 STAINLESS STEEL SNAP LOCK AND BRASS HINGES.
PERMIT AND INSPECTION:
A. THE INSTALLATION OF THE CHECK VALVES AND VAULT SHALL BE PERMITTED AND INSPECTED BY THE CITY. THE APPLICANT WILL BE REQUIRED TO OBTAIN A MAINTENANCE BOND FOR TWO (2) YEARS FROM DATE OF ACCEPTANCE OF INSTALLATION.
B. THE PIPE LINE FROM THE CHECK VALVE VAULT TO THE BUILDING SHALL BE PERMITTED AND INSPECTED BY THE CITY.
INSTALLATION:
A. THE DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY SHALL CONSIST OF A SINGLE COMPLETE ASSEMBLY CONTAINING TWO INDEPENDENT ACTING CHECK VALVES AND FOUR PROPERLY PLACED RESILIENT TEST COCKS FOR TEST OF THE ASSEMBLY.
B. ASSEMBLY SHALL ALSO INCLUDE TWO (2) U.L. LISTED RESILIENT SEATED OS & Y SHUTOFF VALVES AND TEST COCKS.
C. UNIT SHALL BE UL/FM APPROVED WITH UL/FM APPROVED OS & Y SHUTOFF VALVES.
D. OS & Y VALVES SHALL BE MUELLER, WATEROUS, KENNEDY OR AN APPROVED EQUAL.
E. THE AUXILIARY LINE SHALL CONSIST OF AN APPROVED BACKFLOW PREVENTER (DOUBLE CHECK ASSEMBLY COMPLETED WITH TEST COCKS) AND A 5/8" X 3/4" WATER METER.
F. THE BYPASS AUXILIARY LINE SHALL HAVE A DOUBLE CHECK ASSEMBLY, WATTS SERIES 007, AMES 2000 SS BV OR FEBCO 805 Y OR AN APPROVED EQUAL.
G. THE BYPASS AUXILIARY LINE 5/8" X 3/4" METER SHALL BE HERSEY, NEPTUNE OR BADGER.
H. THE BACKFLOW PREVENTER SHALL HAVE:
1. AN EPOXY COATED CAST IRON BODY, EPOXY COATED DUCTILE IRON BODY OR STAINLESS STEEL BODY WITH REPLACEMENT BRONZE SEATS AND/OR
2. A UNITIZED STAINLESS AND PLASTIC CHECK ASSEMBLY.
I. THE DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY SHALL BE A WATTS SERIES 709 DCD4 OSYRW, AMES MODEL 3000 SS OR FEBCO MODEL 856 OR AN APPROVED EQUAL.
J. 4" WAFER CHECK VALVES SHALL BE KENNEDY, RELIABLE MODEL DW, MUELLER A 2102 OR NBCO W-900W OR AN APPROVED EQUAL.
TESTING:
A. THE UNIFORM PLUMBING CODE REQUIRES THAT THIS ASSEMBLY MUST BE TESTED IMMEDIATELY UPON INSTALLATION. COPIES OF THE TEST REPORT MUST BE FORWARDED TO THE FIRE MARSHAL'S OFFICE.
B. UPON INSTALLATION AND APPROVAL OF FIRE SPRINKLER LINE/FIRE DEPARTMENT CONNECTION, THE OWNER SHALL BE REQUIRED TO SUBMIT A YEARLY TEST REPORT FROM A REPUTABLE TESTING COMPANY STATING THAT THE CHECK VALVES ARE IN GOOD WORKING CONDITION. THESE TEST REPORTS SHALL BE SUBMITTED TO THE CITY OF LANCASTER FIRE MARSHAL'S OFFICE ONCE A YEAR. THE TESTING OF BACKFLOW PREVENTER ASSEMBLIES WHICH ARE INSTALLED TO PROVIDE PROTECTION AGAINST HEALTH HAZARDS ARE TO BE COMPLETED BY CERTIFIED FIRELINE TESTERS THAT ARE QUALIFIED TO TEST AND REPAIR BACKFLOW PREVENTER ASSEMBLIES ON FIRE LINES ONLY.
MAINTENANCE:
THE MAINTENANCE OF THE DOUBLE CHECK DETECTOR BACKFLOW ASSEMBLY SHALL BE BY THE PROPERTY OWNER.
MATERIAL: ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
HATCH SIZE:
SEE DOUBLE CHECK DETECTOR ASSEMBLY AND/OR CHECK VALVE ASSEMBLY DETAIL SHEETS FOR ALUMINUM HATCHWAY SIZING.

CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.

VAULT AND APPURTENANCES

STANDARD DETAILS



DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	WAT-03	33 OF 53



(A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS. HEREIN REFERRED TO AS "N.C.T.C.O.G." SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817) 640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM

(B) PLEASE ALSO REFER TO THE DETAILS ON THIS SHEET AND N.C.T.C.O.G. ITEM 502 SPECIFICATIONS.

(C) AIR AND VACUUM RELEASE VALVES FOR WASTEWATER APPLICATIONS SHALL BE MADE OF NON-CORROSIVE MATERIAL.

(D) ALL UTILITY DITCH LINES WITHIN CITY R.O.W. OR EASEMENT SHALL BE TESTED AT A FREQUENCY OF ONE DENSITY PER 6" - 8" LIFTS (NOT TO EXCEED 12") AT STAGGERED 100' INTERVALS. ALL LATERALS OR SERVICES SHALL HAVE A MINIMUM OF ONE DENSITY TEST PER FOOT OF LIFT. THE INSPECTOR SHALL HAVE THE RIGHT TO REQUEST ADDITIONAL RANDOM TESTS AS HE/SHE DEEMS NECESSARY.

(E) ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.

(F) ALL RUTILE IRON SHALL BE CLASS 51 AND POLYWRAPPED.


(G) CONTRACTOR SHALL CONTACT STREETS DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT-OF-WAY.

(H) SERVICE CONNECTION FOR AIR AND VACUUM RELEASE OR MANUALLY OPERATED FLUSH POINTS SHALL BE K COPPER TUBING. HD POLYETHYLENE IS NOT ALLOWED.



NOT TO SCALE

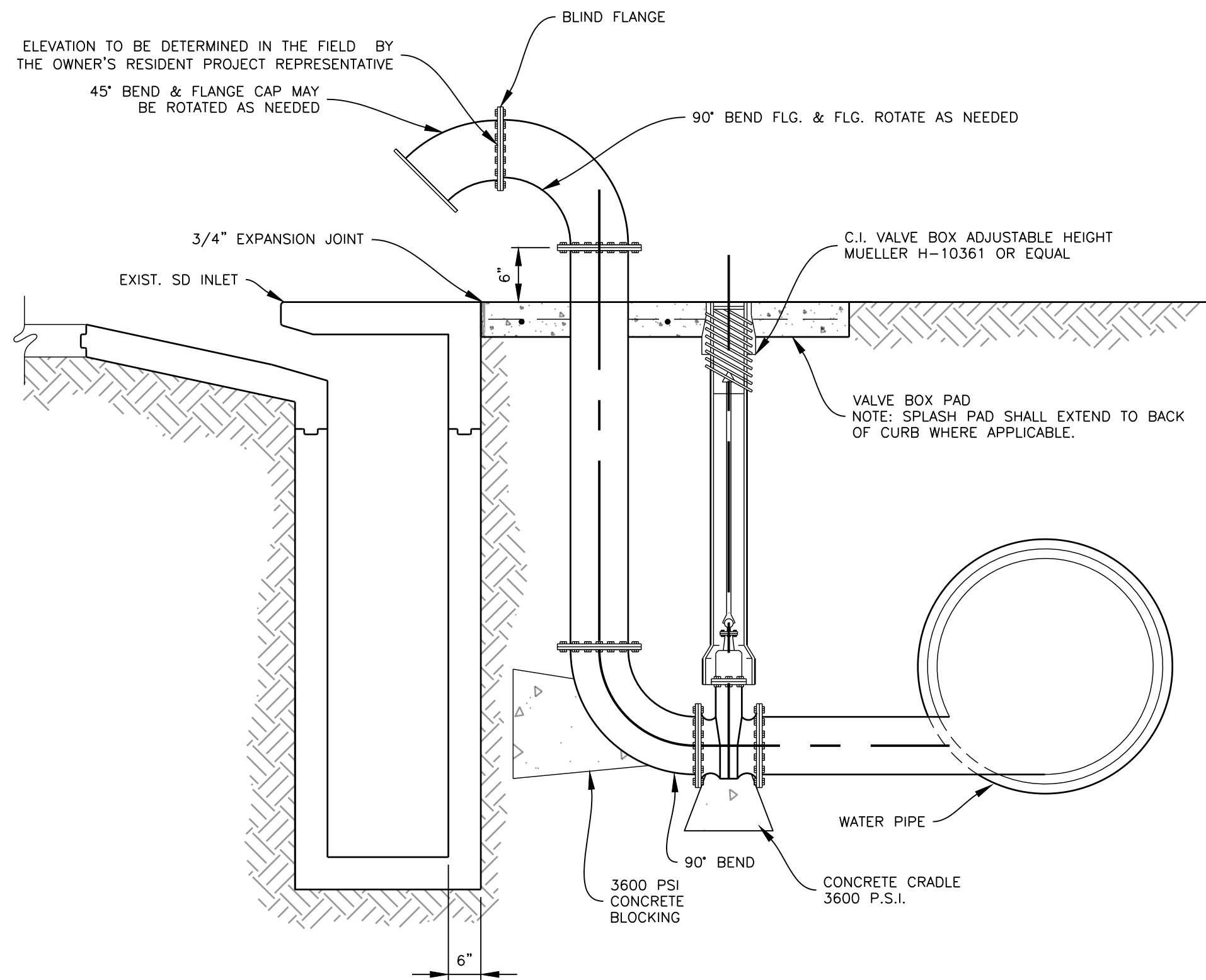
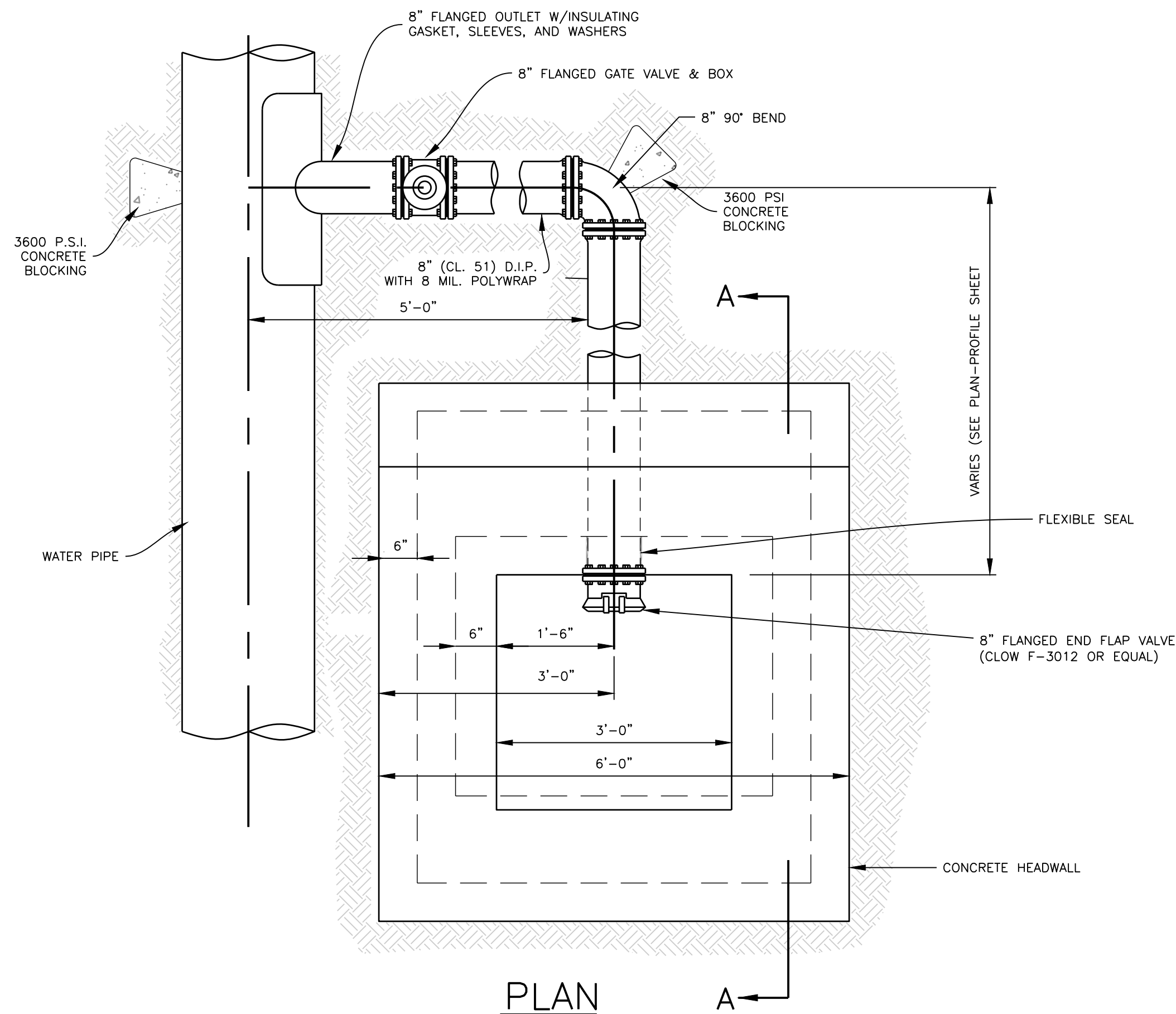
NOTE: EXPANDED METAL PIPE
SHALL BE TACK WELDED



WATER, AIR AND VACUUM RELEASE VALVE STANDARD DETAILS

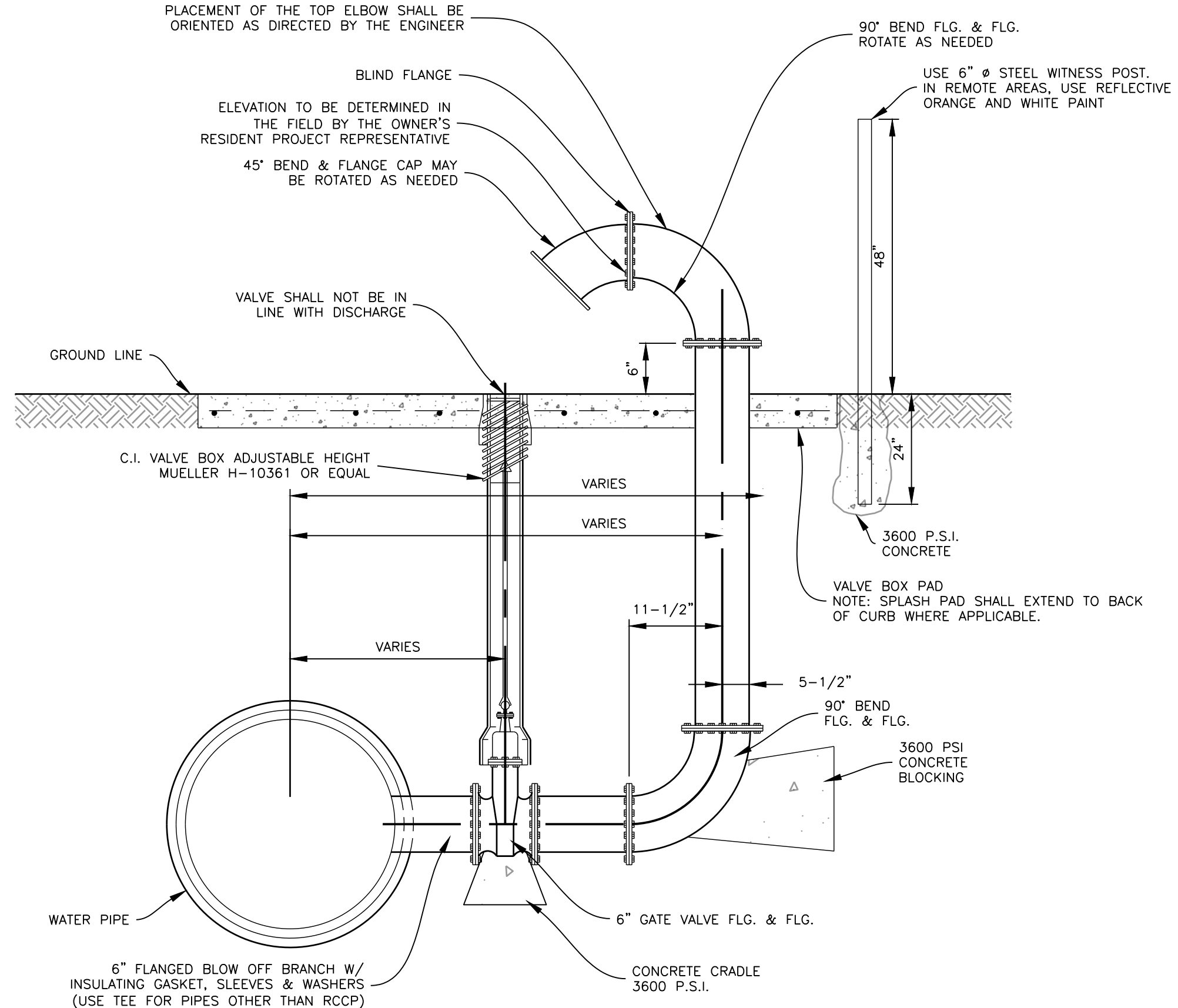


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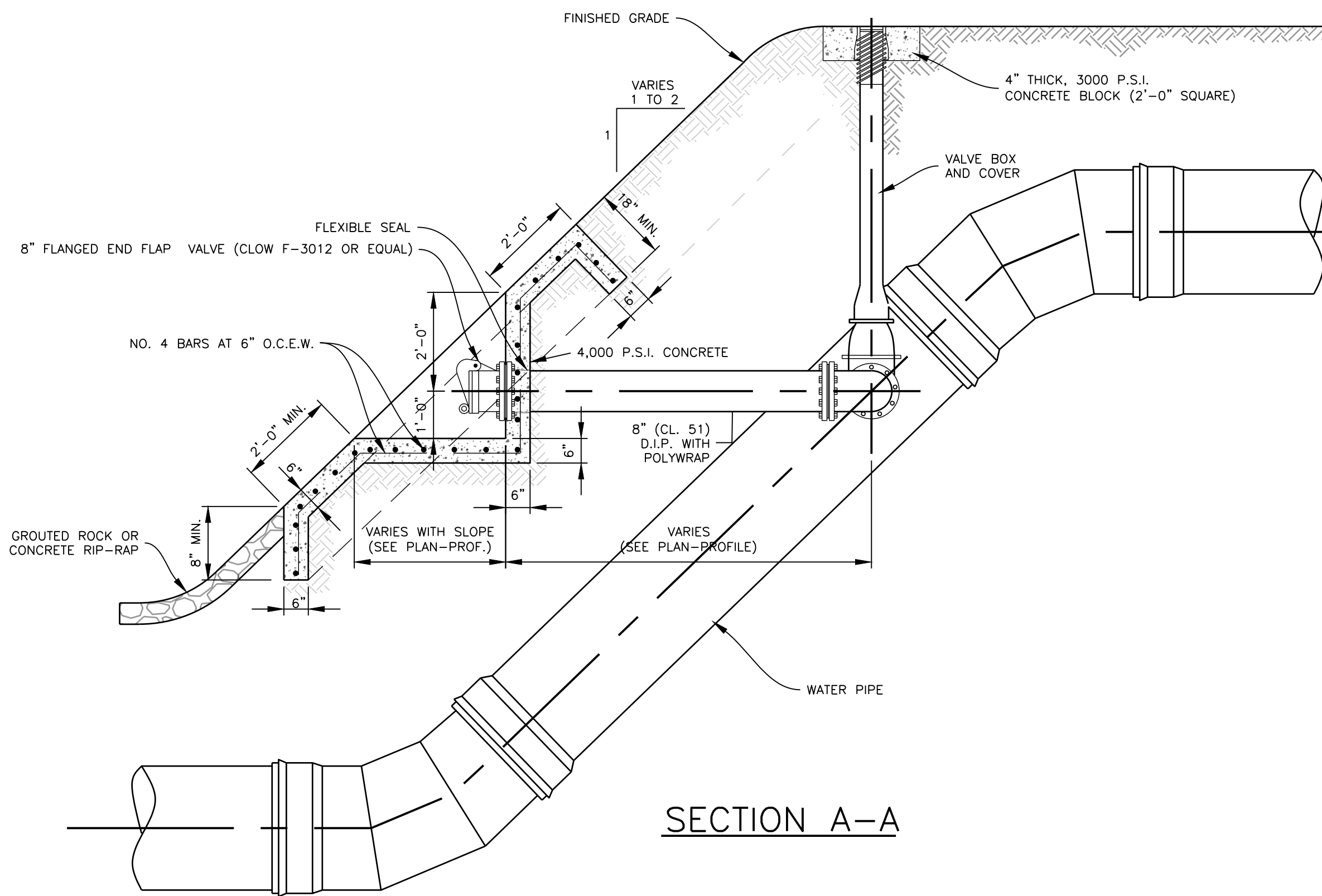
**BLOW-OFF VALVE CONNECTION AT
EX. STORM DRAIN INLET**

(SEE NOTE J.)
NOT TO SCALE



IRON PIPE BLOW-OFF DETAIL

NOT TO SCALE



IRON PIPE BLOW-OFF DETAIL

NOT TO SCALE

- GENERAL:**
- (A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS" HEREIN REFERRED TO AS "N.C.T.C.O.G." SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817)640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM
 - (B) ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE CLASS 51, AND POLYWRAPPED.
 - (C) PLEASE ALSO REFER TO THE "WATER STANDARD DETAIL" SHEET FOR VALVE AND BLOCKING AND TESTING SPECIFICATIONS.
 - (D) PLEASE ALSO REFER TO THE DETAILS ON THIS SHEET AND N.C.T.C.O.G. ITEM 502 SPECIFICATIONS.
 - (E) SOIL TESTING TECHNICIAN MUST PROVIDE WRITTEN PROOF OF 18-24 MONTHS OF RELATED FIELD EXPERIENCE.
 - (F) ALL UTILITY DITCH LINES WITHIN CITY R.O.W. OR EASEMENT SHALL BE TESTED AT A FREQUENCY OF ONE DENSITY PER 6"-8" LIFTS (NOT TO EXCEED 12") AT STAGGERED 100' INTERVALS, ALL LATERALS OR SERVICES SHALL HAVE A MINIMUM OF ONE DENSITY TEST PER FOOT OF LIFT. THE INSPECTOR SHALL HAVE THE RIGHT TO REQUEST ADDITIONAL RANDOM TESTS AS HE/SHE DEEMS NECESSARY.
 - (G) ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
 - (H) CONTRACTOR SHALL CONTACT STREETS DEPARTMENT FOR THE REMOVAL OF CITY SIGNS IN RIGHT-OF-WAY.
 - (I) ALL NEW WATER BLOW-OFF ASSEMBLIES WITHIN FIFTY FEET FROM THE NEAREST STORM DRAIN INLET BE SHALL INSTALLED AT THE INLET AS PER DETAILS ON THIS SHEET.
 - (J) WATER BLOW-OFFS SHALL NOT BE INSTALLED IN SIDEWALKS.

CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.

**WATER BLOW-OFF
STANDARD DETAILS**



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GENERAL NOTE

1. MASTER METER DBC METER OR APPROVED EQUAL. ALL METERS MUST BE OUTFITTED WITH ITRON 60WP OR 60W ERT'S WITH INLINE CONNECTOR. ERT MUST BE MOUNTED JUST UNDER VAULT LID FOR DRIVE-BY READING.

2. THE METER VAULT CAN BE EITHER POURED IN PLACE OR PRE-CAST. ALL WALLS, EITHER POURED IN PLACE OR PRE-CAST, SHALL BE MONOLITHIC POUR. NO SEAMS OR EXTENSIONS WILL BE ALLOWED. CONCRETE SHALL BE 5000 PSI AT 28 DAYS. REINFORCEMENT IS GRADE 60 STEEL REBER CONFORMING TO ASTM A615.

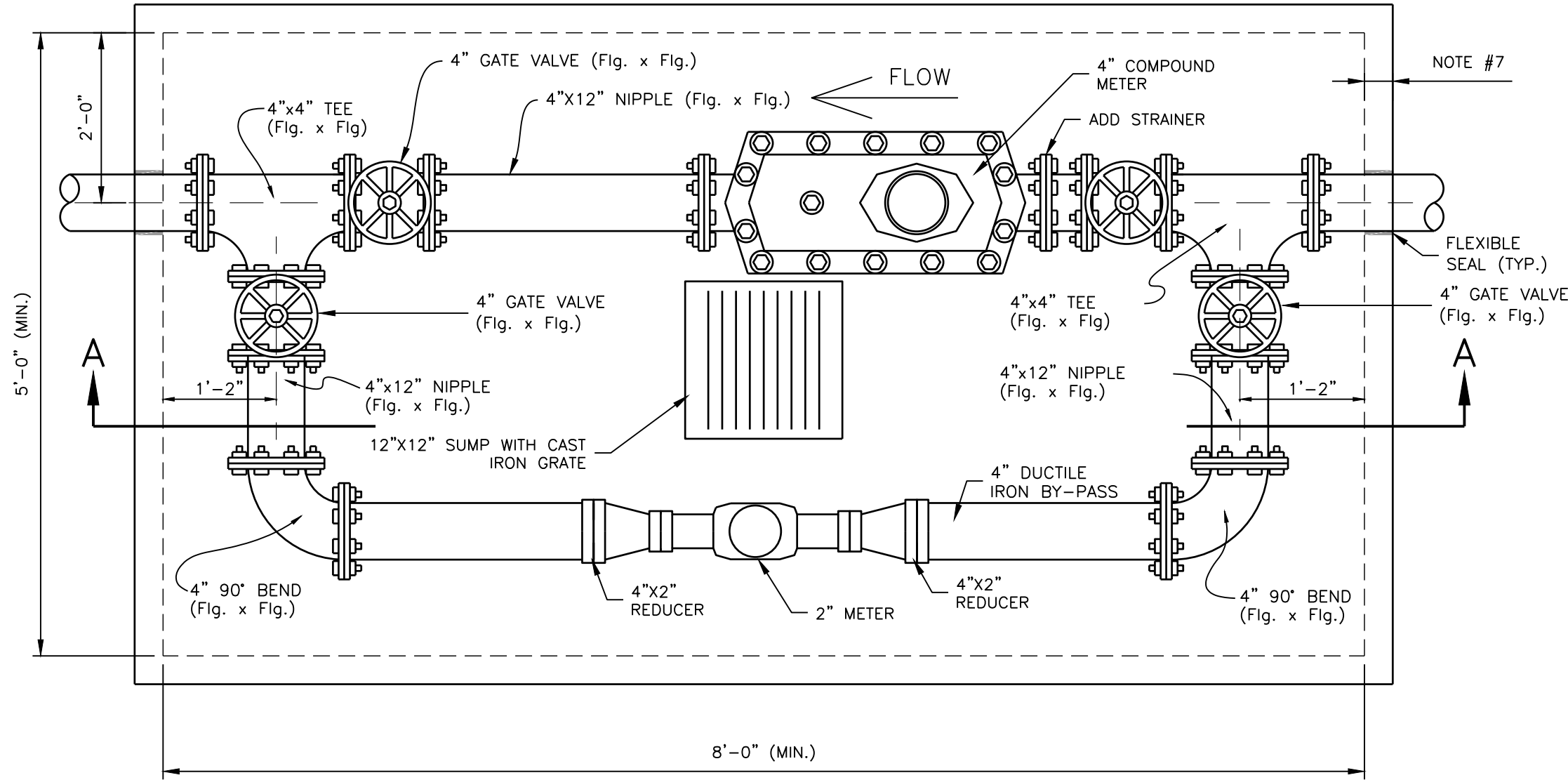
3. A 6" ROCK SHALL BE INSTALLED UNDER THE SLAB. IF A PRE-FABRICATED VAULT TO BE USED, A LAYER OF RAM-NEX SHALL BE INSTALLED BETWEEN THE WALLS AND BOTTOM SLAB.

4. THE VAULT SHALL NOT BE INSTALLED IN ANY DRIVEWAY OF PARKING AREA AND MUST BE LOCATED IN A UTILITY EASEMENT DEDICATED TO THE CITY OF LANCASTER.

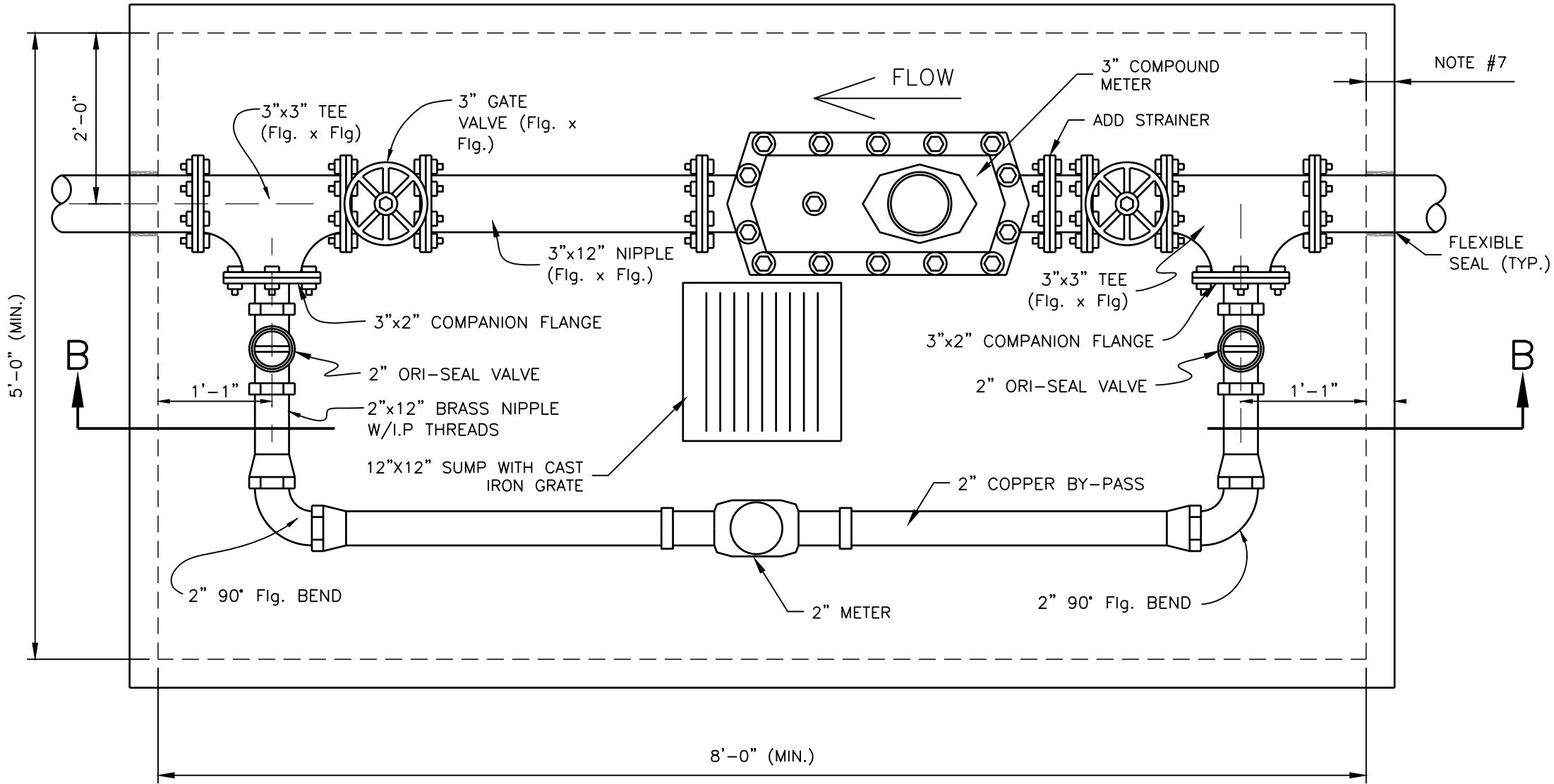
5. THE VAULT LID SHALL BE BILCO TYPE Q-4A L LEAF LID. ANGLE FRAME IS 1/4" ALUMINUM OR STAINLESS STEEL WITH STRAP ANCHORS BOLTED TO THE EXTERIOR. THE LEAF IS 1/4" STEEL DIAMOND PATTERN PLATE, PIVOTING ON TORSION BARS FOR EASY OPERATIONS. THE MINIMUM LIVE LOAD CAPACITY IS 150 LBS.PER SQ.FOOT. THE LID SIZE SHALL BE 30"x48". THE LID SHALL BE PAINTED WITH 43-38 TNEPEC DIFFUSED ALUMINUM PAINT OR APPROVED EQUAL.

6. CONTRACTOR SHALL HAVE THE OPTION TO USE WHEEL VALVE OR HUB VALVE INSIDE METER VAULT.

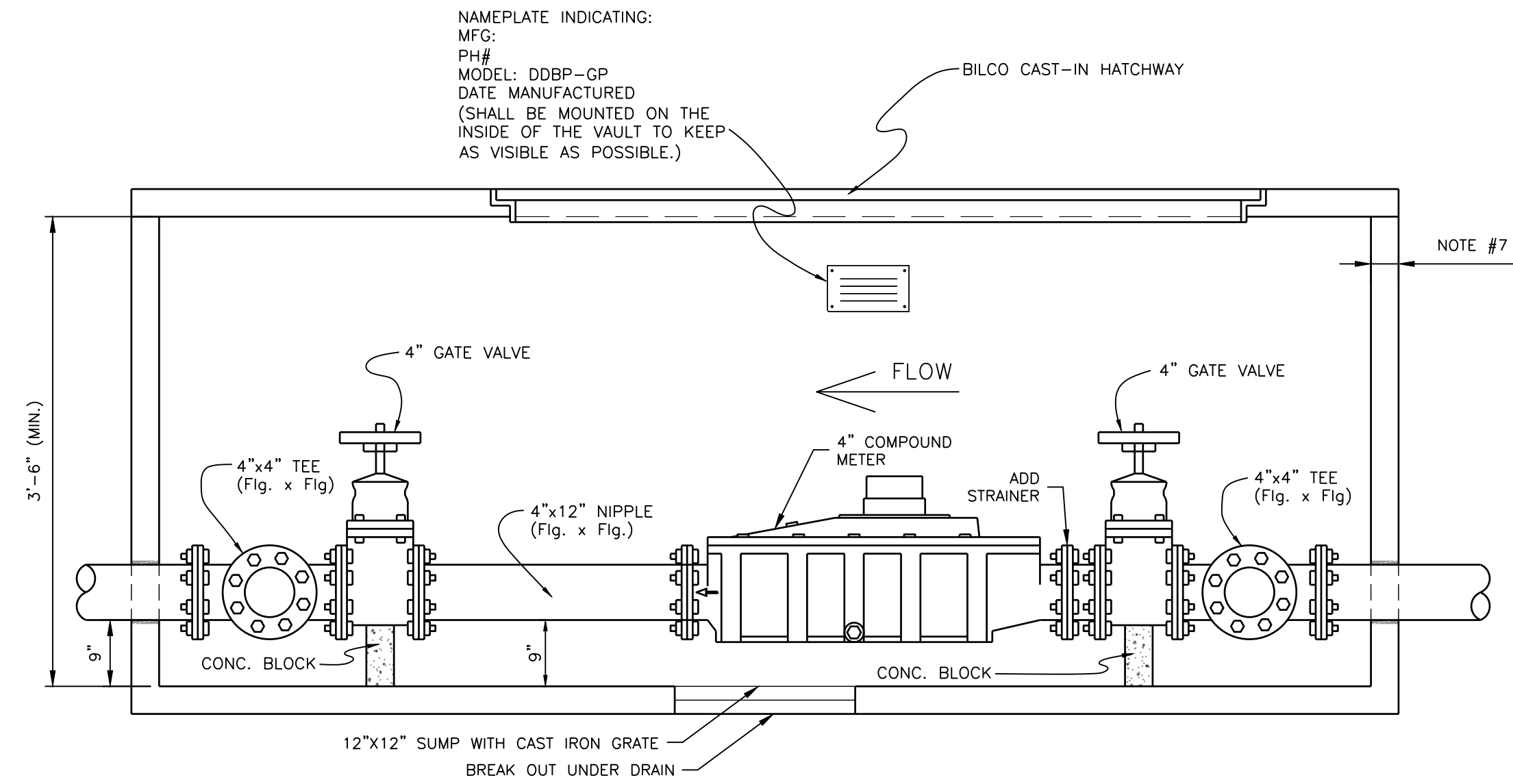
7. THICKNESS OF VAULT WALLS TOP AND BASE MAY VARY AND ARE SPECIFIED BY THE PRECAST VAULT MANUFACTURING COMPANY.



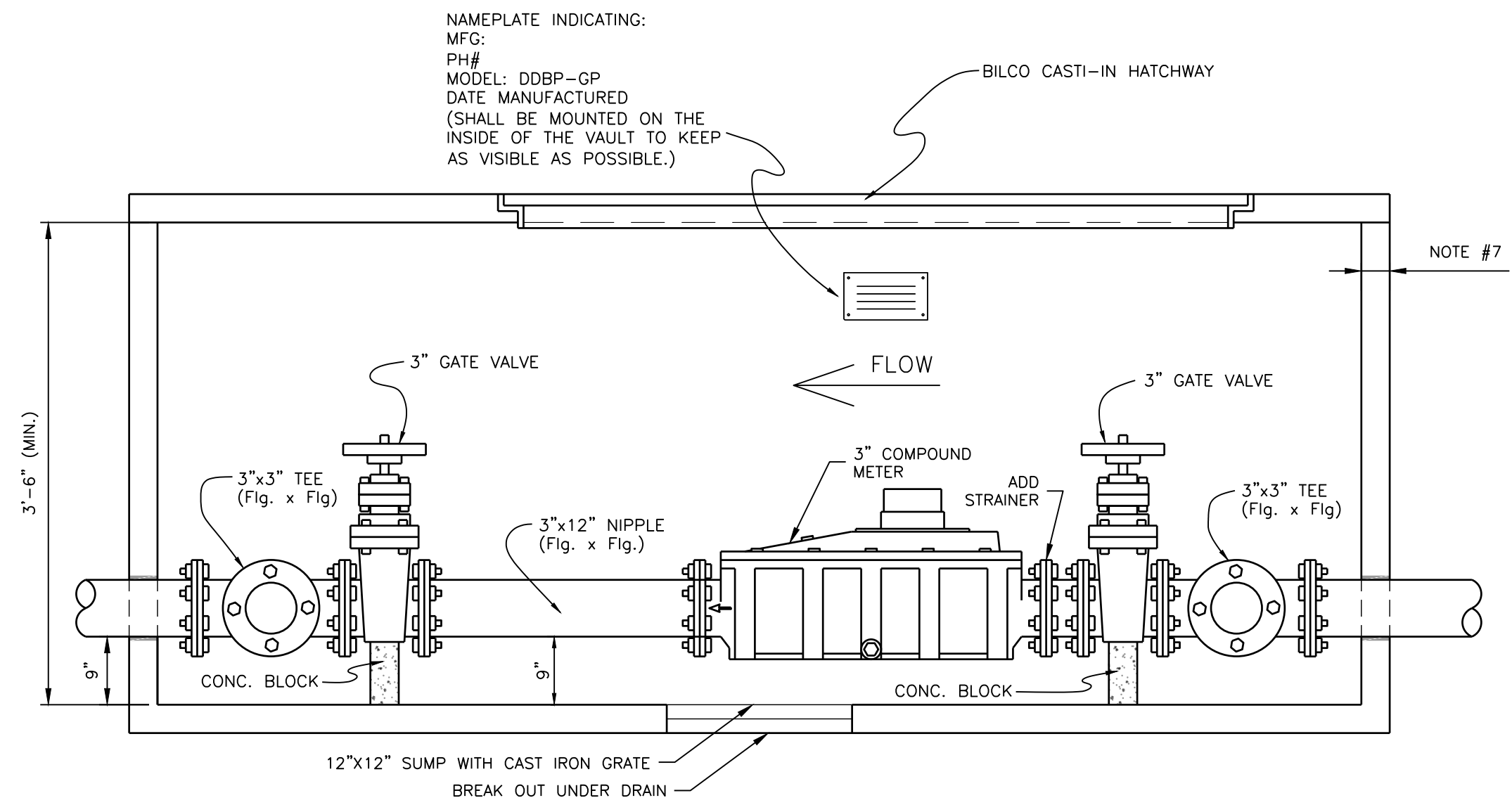
PLAN VIEW
4" COMPOUND WATER METER
N.T.S.



PLAN VIEW
3" COMPOUND WATER METER
N.T.S.



SECTION 'A-A'
N.T.S.



SECTION 'B-B'
N.T.S.

CERTIFICATION:
THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.

3" METER - 4" METER
VAULT & APPURTENANCES
STANDARD DETAILS



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SPECIFICATIONS
CONCRETE: CONCRETE SHALL BE MINIMUM 4500 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.

REINFORCEMENT: GRADE 60 REINFORCED STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.

HATCHWAY: 1/4" ALUMINUM DIAMOND PLATE COVER, WITH 1/4" EXTRUDED ALUMINUM FRAME. HATCH TO BE FURNISHED WITH 316 STAINLESS STEEL SNAP LOCK & BRASS HINGES.

ENGINEERING DATA
FIELD EXCAVATION AND PREPARATION SHALL BE COMPLETED PRIOR TO DELIVERY OF ASSEMBLY. USE DIMENSIONAL DATA AS SHOWN. PIPE, VALVES AND FITTINGS OF THE ASSEMBLY ARE APPROVED BY ONE OR MORE OF THE FOLLOWING ASSOCIATIONS:

GENERAL NOTES:
GENERAL:
(A) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - NORTH CENTRAL TEXAS" HEREIN REFERRED TO AS "N.C.T.C.O.G." SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817) 640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM
(B) PLEASE ALSO REFER TO N.C.T.C.O.G. ITEM 502 SPECIFICATIONS.
(C) THE ASSEMBLY SHALL MEET THE BASIC REQUIREMENTS OF ASCE 1048 FOR DOUBLE CHECK VALVES AND MEET REQUIREMENTS OF AWWA, CSA, UL CLASSIFIED, FM APPROVED. ASSEMBLY SHALL ALSO BE APPROVED BY THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH AT THE UNIVERSITY OF SOUTHERN CALIFORNIA.
(D) ALL DETAILS AND SPECIFICATIONS SHOWN ON THIS SHEET WILL GOVERN FOR THE INSTALLATION OF THE ASSEMBLY.

LOCATION:
(A) THE VAULT SHALL BE LOCATED ON THE OWNER'S PROPERTY AND NOT WITHIN CITY RIGHT-OF-WAY OR EASEMENT.
(B) THE OWNER AT HIS OPTION AND THE APPROVAL OF THE CITY OF LANCASTER MAY BE PERMITTED TO INSTALL THE DOUBLE CHECK VALVE ASSEMBLY INSIDE THE BUILDING. THE INSTALLATION WOULD BE REQUIRED TO BE PERMITTED WITH THE BUILDING INSPECTION DEPARTMENT AND WILL BE INSPECTED BY THE BUILDING INSPECTION DEPARTMENT. THE FIRE DEPARTMENT CONNECTION IS TO BE LOCATED AT THE STREET. FIRE DEPARTMENT CONNECTION SHALL BE WITHIN 6 FT. OF CURB, UNOBSTRUCTED AND IN CLEAR VIEW. WATER UTILITY PERSONNEL TO HAVE ACCESS DURING NORMAL BUSINESS HOURS.

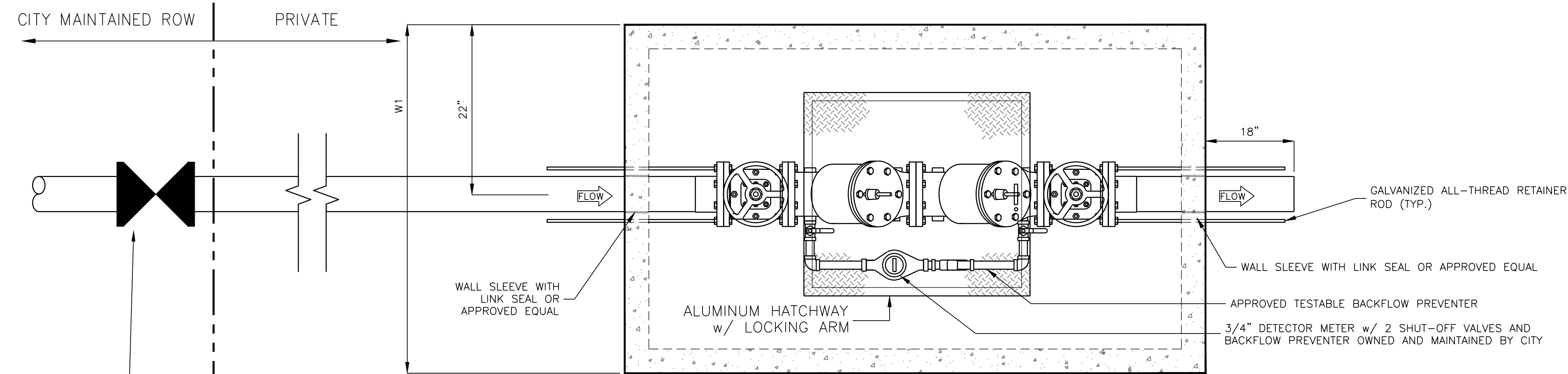
VAULT:
(A) THE VAULT CAN BE EITHER POURED IN PLACE OR PRE-CAST.
(B) THE VAULT SHALL BE PLACED ON 8" CRUSHED LESTONE AND THE VAULT SHALL HAVE A SUMP WITH A MINIMUM OF A 12" X 12" GRATE IN THE BOTTOM OF THE VAULT FOR DRAIN PURPOSES.
(C) CONCRETE SHALL BE A MINIMUM 6.5 SACK, WITH 4500 P.S.I. AT 28 DAYS.
(D) UNIT IS TO BE OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.
(E) REINFORCEMENT SHALL BE GRADE 60 STEEL REBAR CONFORMING TO ASTM A-615 ON REQUIRED CENTERS OR EQUAL.
(F) HATCHWAY SHALL BE 1/4" ALUMINUM DIAMOND PLATE COVER WITH EXTRUDED ALUMINUM FRAME. HATCH TO BE FURNISHED WITH 316 STAINLESS STEEL SNAP LOCK AND BRASS HINGES.

PERMIT AND INSPECTION:
(A) THE INSTALLATION OF THE CHECK VALVES AND VAULT SHALL BE PERMITTED AND INSPECTED BY THE PUBLIC WORKS DEPARTMENT OF THE CITY OF LANCASTER. THE APPLICANT WILL BE REQUIRED TO PAY A PERMIT FEE AND OBTAIN A MAINTENANCE BOND PER THE UNIFIED DEVELOPMENT CODE (UDC), SECTION 22, FOR TWO (2) YEARS FROM DATE OF ACCEPTANCE OF INSTALLATION.
(B) THE INSTALLATION OF THE CHECK VALVES SHALL BE PERMITTED AND INSPECTED BY THE ENVIRONMENTAL SERVICES DEPARTMENT OF THE CITY OF LANCASTER THE APPLICANT WILL BE REQUIRED TO PAY AN INSPECTION FEE OF \$100.00 PER DEVICE.
(C) THE PIPE LINE FROM THE CHECK VALVE VAULT TO THE BUILDING SHALL BE PERMITTED AND INSPECTED BY THE BUILDING INSPECTION DIVISION OF THE CITY OF LANCASTER.

INSTALLATION:
(A) THE DOUBLE CHECK DETECTOR ASSEMBLY SHALL CONSIST OF A SINGLE COMPLETE ASSEMBLY CONTAINING TWO INDEPENDENT ACTING CHECK VALVES AND FOUR PROPERLY PLACED RESILIENT TEST COCKS FOR TEST OF THE ASSEMBLY. ASSEMBLY SHALL ALSO INCLUDE TWO (2) U.L. LISTED RESILIENT SEATED OS & Y SHUTOFF VALVES AND TEST COCKS.
(B) UNIT SHALL BE UL/FM APPROVED WITH UL/FM APPROVED OS & Y SHUTOFF VALVES.
(C) OS & Y VALVES SHALL BE MUELLER, WATEROUS, KENNEDY OR AN APPROVED EQUAL.
(D) THE AUXILIARY LINE SHALL CONSIST OF AN APPROVED BACKFLOW PREVENTER (DOUBLE CHECK ASSEMBLY COMPLETED WITH TEST COCKS) AND A 5/8" X 3/4" WATER METER.
(E) THE BYPASS AUXILIARY LINE SHALL HAVE A DOUBLE CHECK ASSEMBLY, WATTS SERIES 007, AMES 2000 SS BV OR FEBCO 805 Y OR AN APPROVED EQUAL.
(F) THE BYPASS AUXILIARY LINE 5/8" X 3/4" METER SHALL BE HERSEY, NEPTUNE OR BADGER.
(G) THE BACKFLOW PREVENTER SHALL HAVE A EPOXY COATED CAST IRON BODY, EPOXY COATED DUCTILE IRON BODY OR STAINLESS STEEL BODY WITH REPLACEMENT BRONZE SEATS AND/OR A UNITIZED STAINLESS AND PLASTIC CHECK ASSEMBLY.
(H) THE DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY SHALL BE A WATTS SERIES 709 DCDA OSYRW, AMES MODEL 3000 SS OR FEBCO MODEL 856 OR AN APPROVED EQUAL.
(I) 4" WAFER CHECK VALVES SHALL BE KENNEDY, RELIABLE MODEL DW, MUELLER A 2102 OR NBCO W-900W OR AN APPROVED EQUAL.

TESTING:
(A) THE UNIFORM PLUMBING CODE REQUIRES THAT THIS ASSEMBLY MUST BE TESTED IMMEDIATELY UPON INSTALLATION. COPIES OF THE TEST REPORT MUST BE FORWARDED TO THE CITY OF LANCASTER FIRE MARSHAL'S OFFICE.
(B) UPON INSTALLATION AND APPROVAL OF FIRE SPRINKLER LINE/FIRE DEPARTMENT CONNECTION, THE OWNER SHALL BE REQUIRED TO SUBMIT AN ANNUAL TEST REPORT FROM A REPUTABLE TESTING COMPANY STATING THAT THE CHECK VALVES ARE IN GOOD WORKING CONDITION. THESE TEST REPORTS SHALL BE SUBMITTED TO THE CITY OF LANCASTER FIRE MARSHAL'S OFFICE. THE TESTING OF BACKFLOW PREVENTER ASSEMBLIES WHICH ARE INSTALLED TO PROVIDE PROTECTION AGAINST HEALTH HAZARDS ARE TO BE COMPLETED BY CERTIFIED FIRELINE TESTERS THAT ARE QUALIFIED TO TEST AND REPAIR BACKFLOW PREVENTER ASSEMBLIES ON FIRE LINES ONLY.

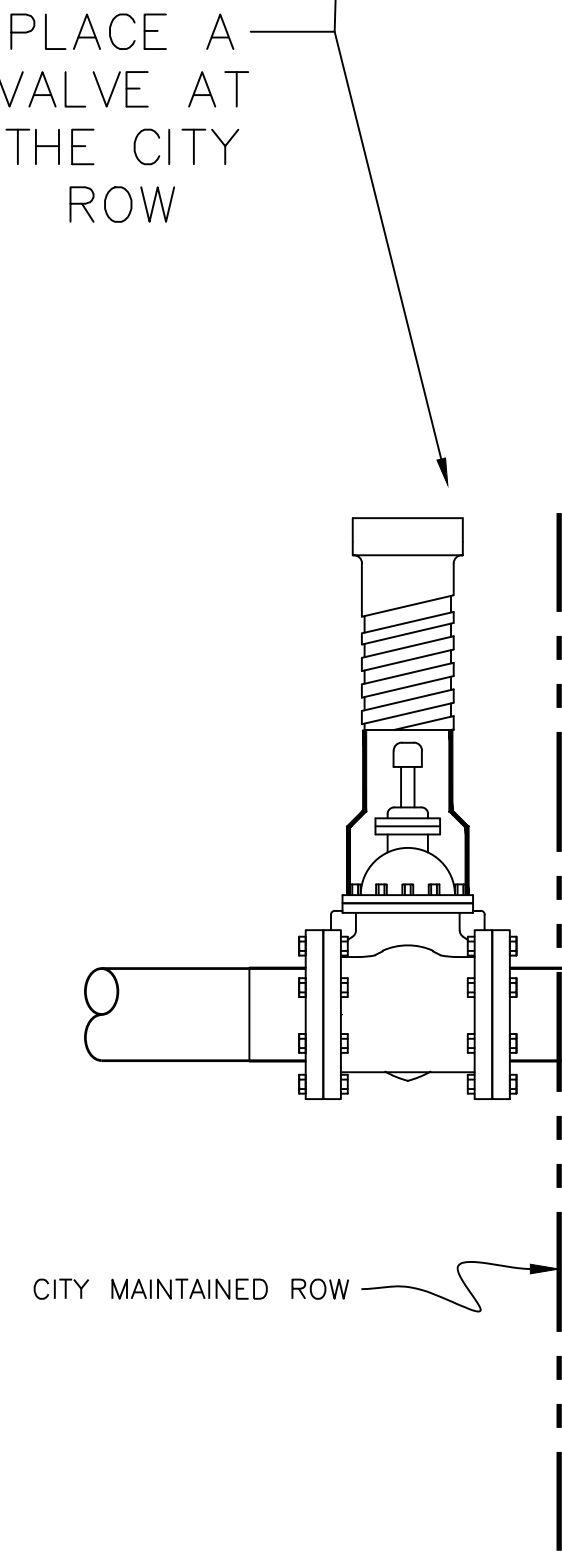
MAINTENANCE:
THE MAINTENANCE OF THE DOUBLE CHECK VALVE ASSEMBLY SHALL BE BY THE PROPERTY OWNER.
MATERIAL:
USE UNIVERSITY OF SOUTHERN CALIFORNIA (U.S.C.) APPROVED DEVICE. (WWW.USC.EDU/DEPT/FCCCHR/LIST.HTML)



NOTE:
ALSO SEE "VAULT AND APPURTENANCES" STANDARD DETAIL SHEET

NAMEPLATE INDICATING:
MFG:
PH#
MODEL: DDBP-GP
DATE MANUFACTURED
(SHALL BE MOUNTED ON THE INSIDE OF THE VAULT TO KEEP AS VISIBLE AS POSSIBLE.)

MODEL	SIZE	L1	W1	H1	ALUMINUM HATCHWAY	WEIGHT LBS
DDBP-GP4	4"	7'-10"	4'-4"	6'-0"	36"x36"	9,000
DDBP-GP6	6"	7'-10"	4'-4"	6'-0"	36"x48"	9,000
DDBP-GP8	8"	8'-8"	5'-0"	6'-0"	36"x48"	15,000
DDBP-GP10	10"	9'-0"	6'-0"	6'-6"	36"x60"	18,000



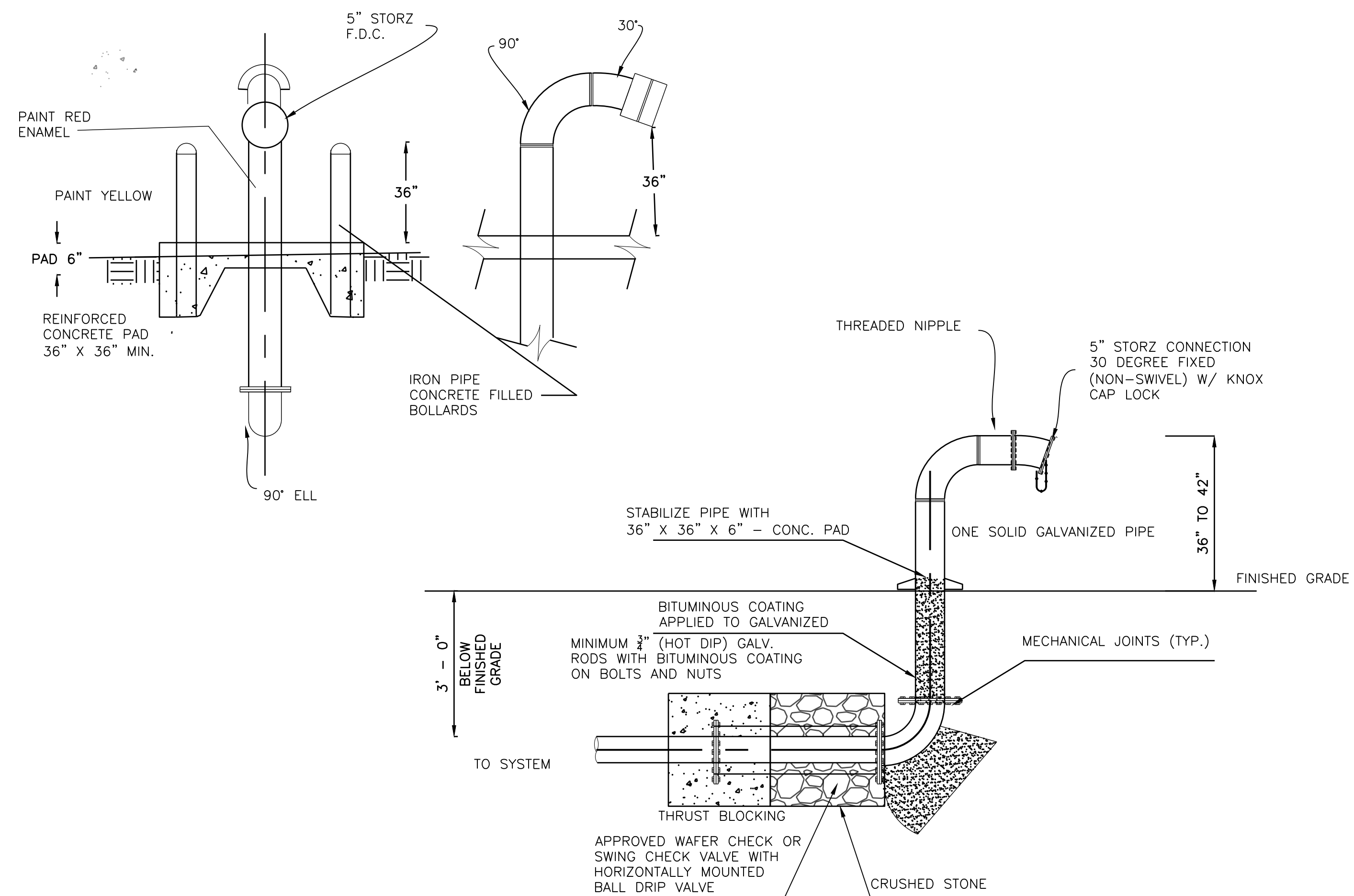
ELEVATION

CERTIFICATION:
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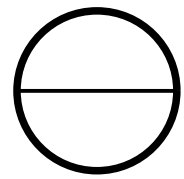

4" THRU 10" DOUBLE CHECK
DETECTOR ASSEMBLY
FOR FIRE SERVICE
STANDARD DETAILS

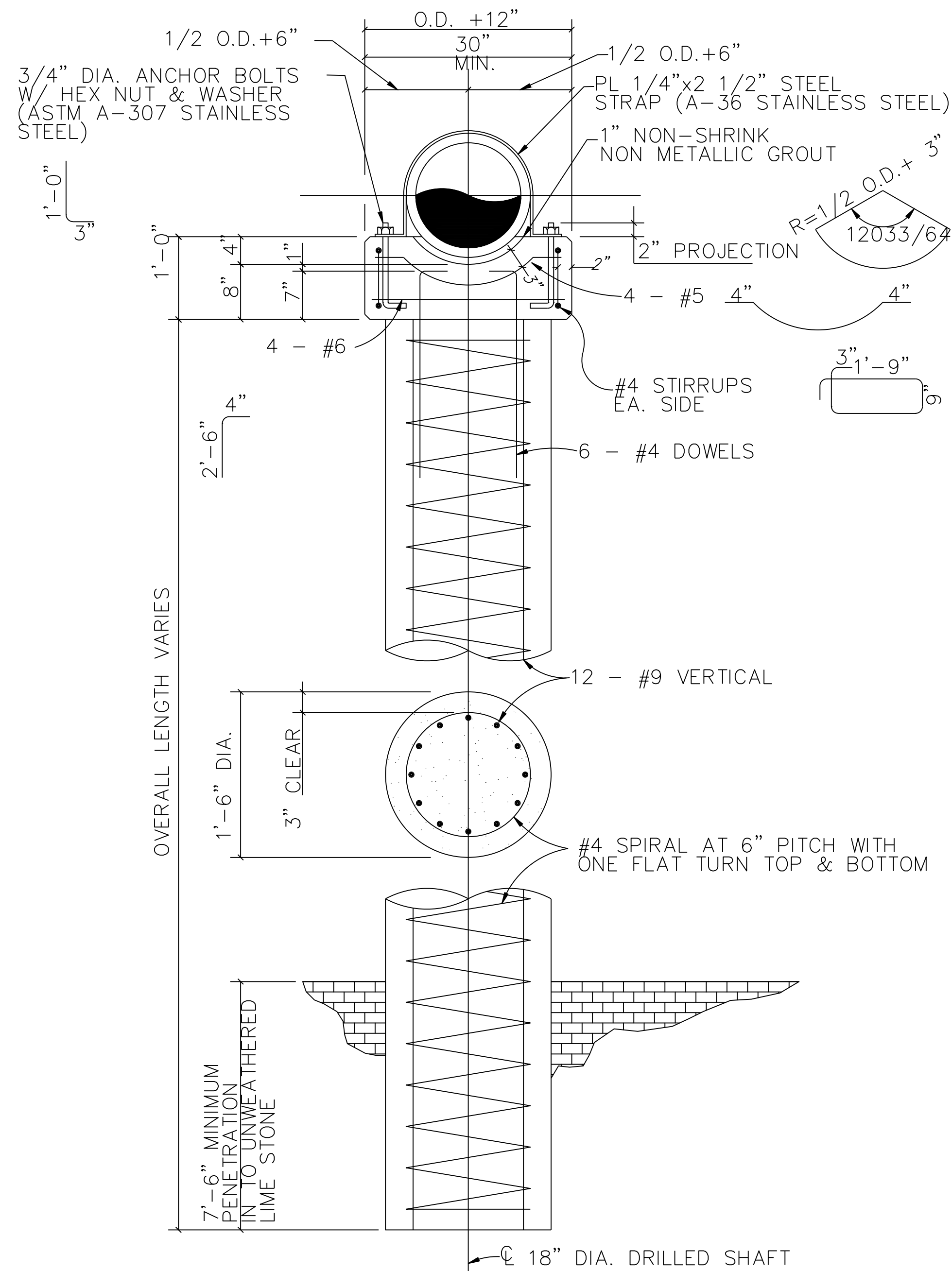


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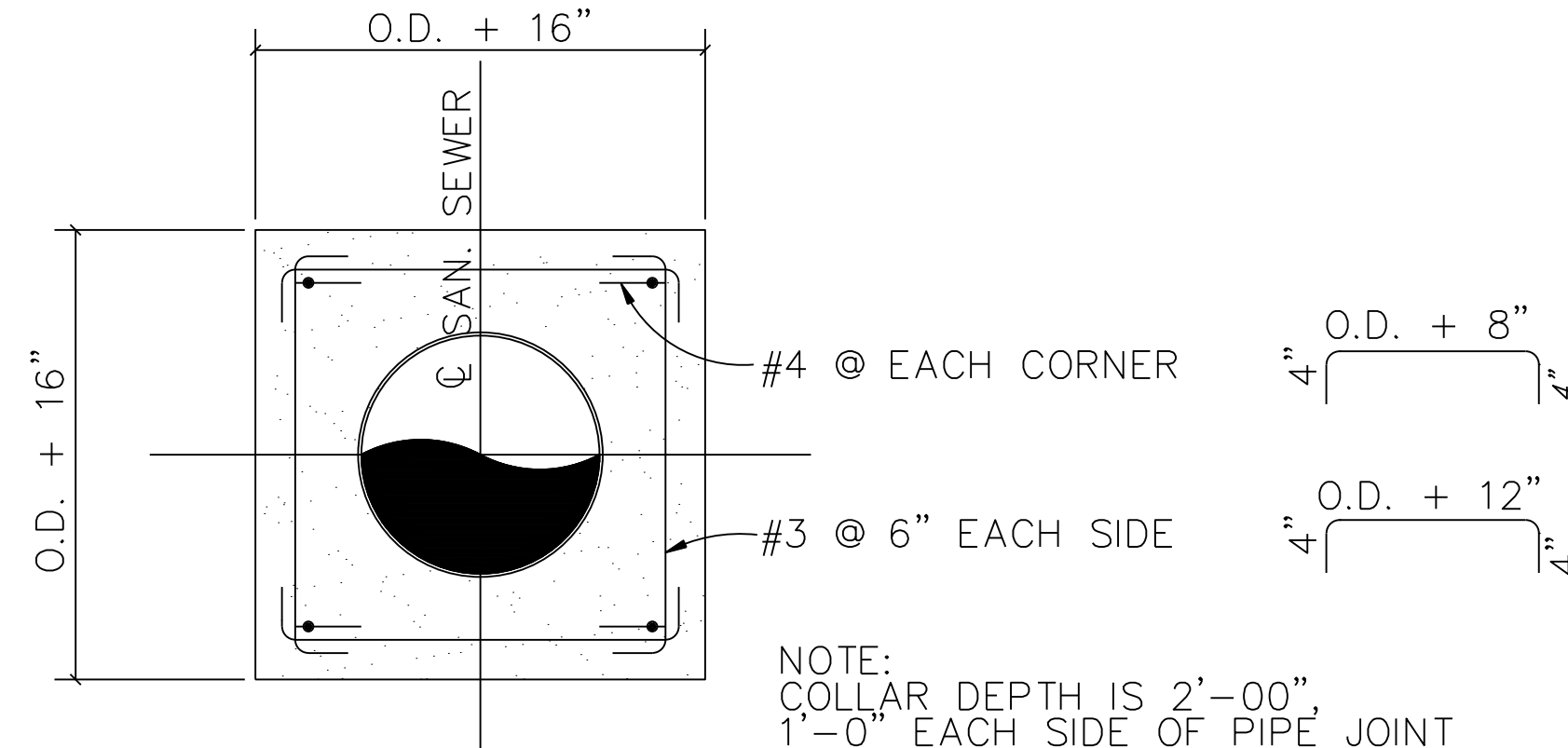


FDC DETAIL REQUIREMENTS

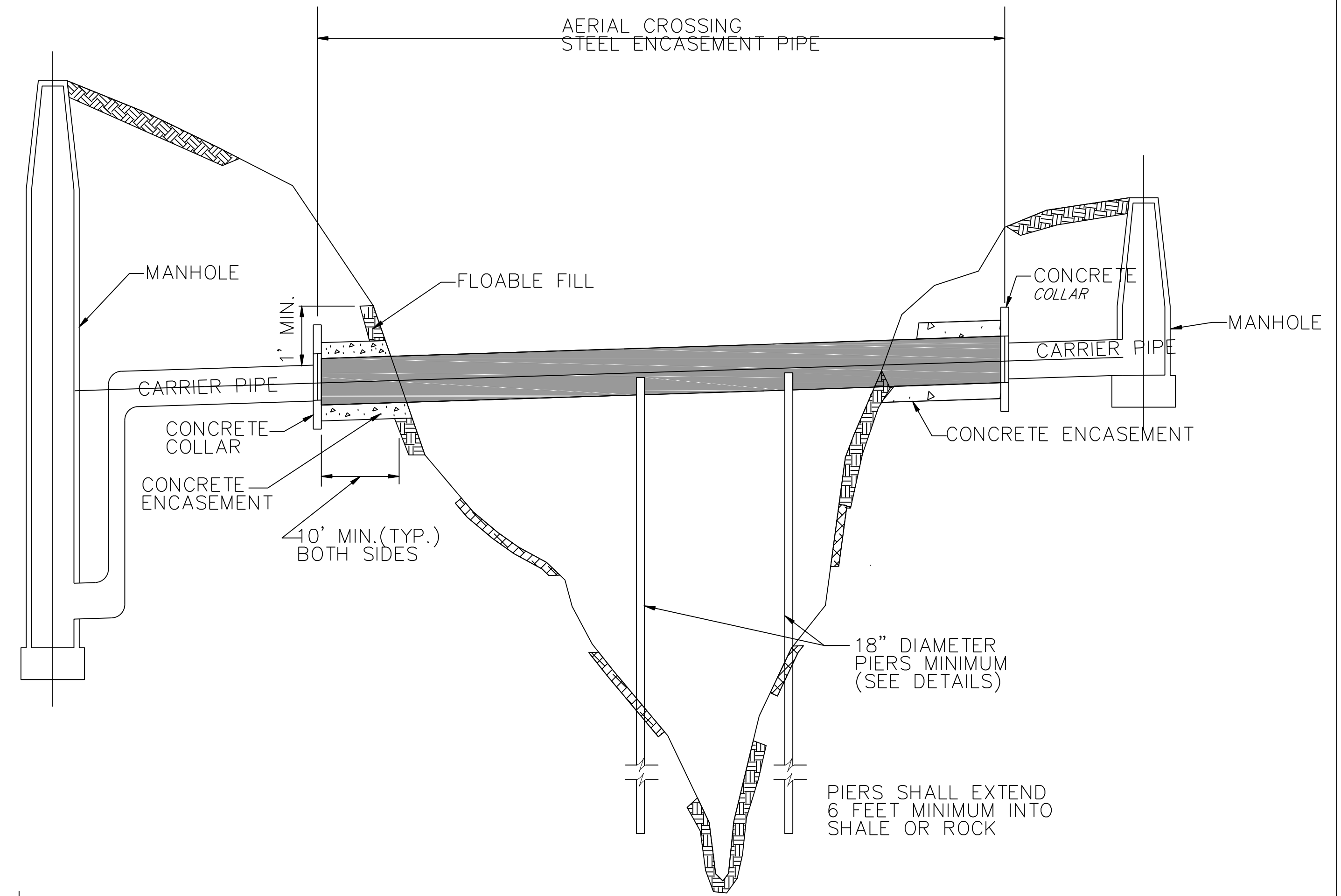
<div>CERTIFICATION: THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.</div> <div></div>						
FDC DETAIL REQUIREMENTS						
STANDARD DETAILS						
						
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
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AERIAL CROSSING PIER & PIER CAP




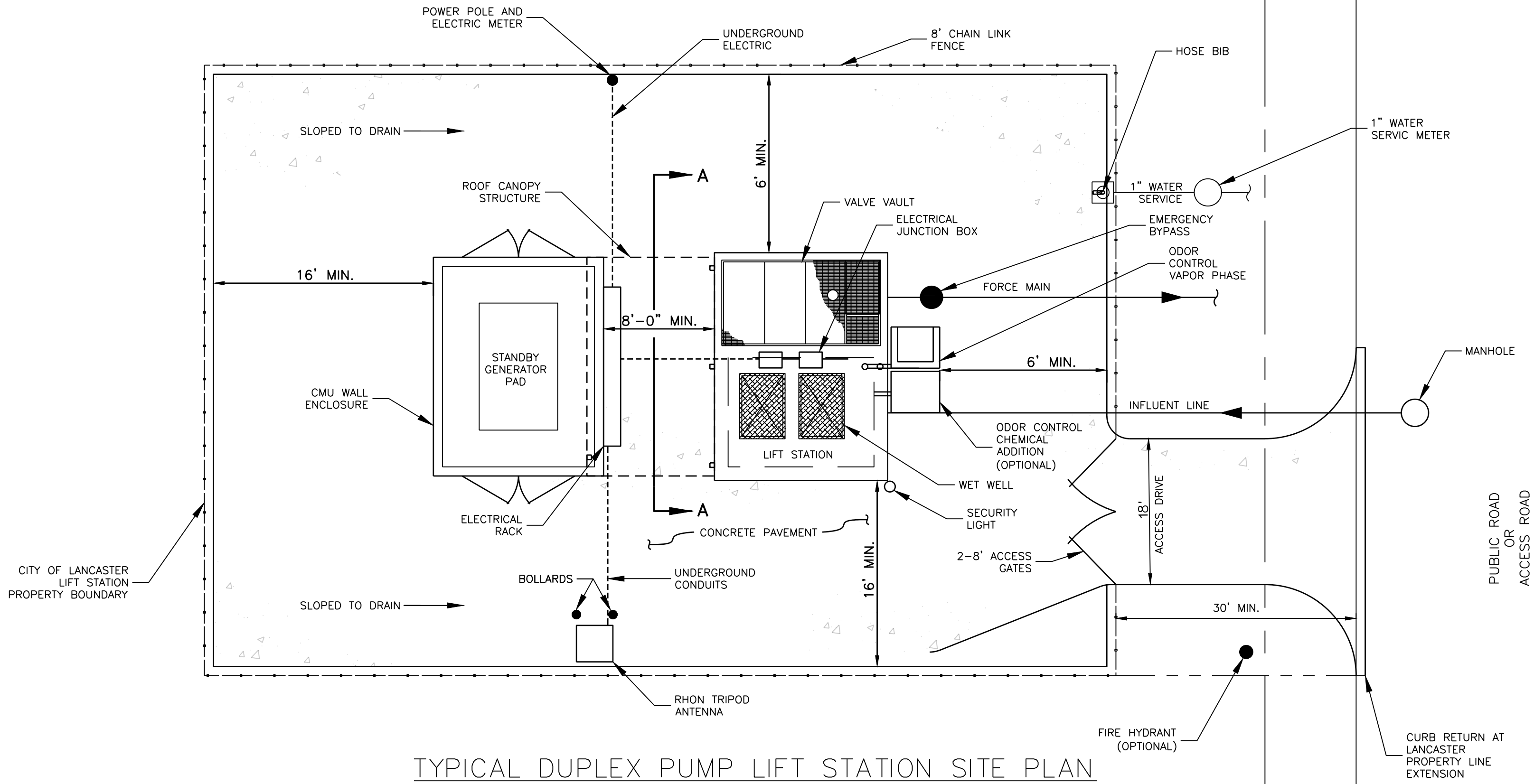
AERIAL CROSSING CONCRETE COLLAR



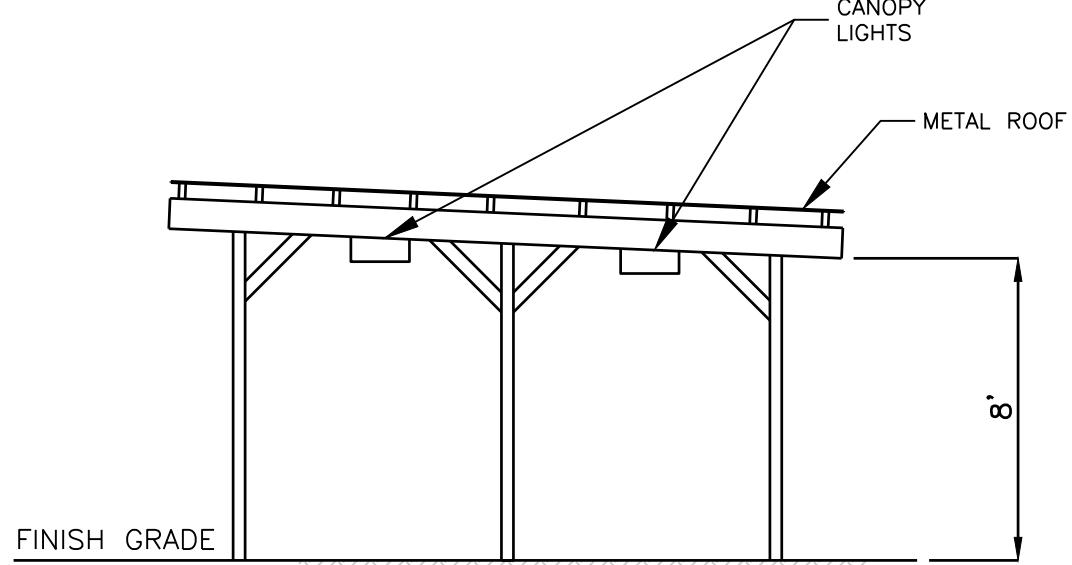
AERIAL CROSSING

- NOTE:
1. PIER PLACEMENT & SPACING SHALL BE SUBMITTED TO CITY FOR APPROVAL.
 2. STEEL PIPE SHALL BE OF THE TYPE SHOWN IN THE SPECIFICATIONS. STEEL PIPE SHALL HAVE A THICKNESS REQUIRED FOR SIZE AND SPAN WITH MINIMUM WALL THICKNESS OF 3/8 INCHES.
 3. PIPE COUPLINGS SHALL BE PLACED A MAXIMUM OF 5 FEET CENTERLINE OF PIERS.

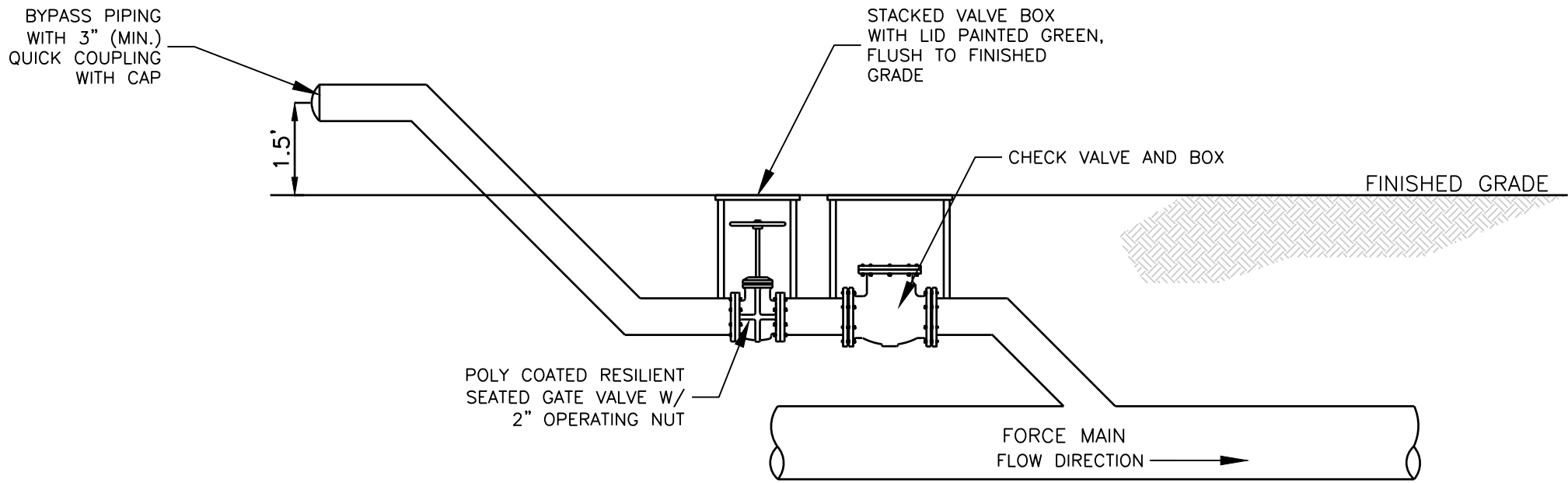
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WASTEWATER 3 OF 3						
STANDARD DETAILS						
						
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TYPICAL DUPLEX PUMP LIFT STATION SITE PLAN



SECTION A-A
TYPICAL CANOPY DETAIL



EMERGENCY BYPASS DETAIL

ALL SPECS SHALL COMPLY WITH THE CITY OF LANCASTER CONSTRUCTION STANDARDS. A COPY MAY BE OBTAINED FROM THE CITY OF LANCASTER WATER UTILITIES. ALL WASTEWATER LIFT STATIONS SHALL BE DESIGNED IN ACCORDANCE WITH 30 TAC §217.59-63.

THE FOLLOWING ARE REQUIRED FOR LIFT STATIONS DEDICATED FOR MAINTENANCE AND OWNERSHIP AND OPERATIONS BY THE PUBLIC WORKS DEPARTMENT:

1. THE DEVELOPER/OWNER SHALL HAVE PROPERTY FOR THE STATION SITE DEDICATED TO THE CITY FEE SIMPLE PRIOR TO ACCEPTANCE.
2. THE DEVELOPER SHALL ESTABLISH AND MAINTAIN PERMANENT POWER PRIOR TO ACCEPTANCE.
3. THE CONTRACTOR/DEVELOPER SHALL CONTACT THE ENGINEERING DEPT. FOR THE PREFERRED SERVICE PROVIDER PRIOR TO ESTABLISHING ELECTRICAL SERVICE ACCOUNT.

SCADA SPECS (CONTACT CITY SCADA CONTRACTOR FOR ADDITIONAL SPECS AND PROGRAMING):

1. SCADA PACK 357.
2. ALL I/O WILL HAVE FUSED LINK ON BUSS BAR PROPERLY MARKED FOR INPUT/OUTPUT.
3. ALL CABINETS ARE REQUIRED TO HAVE COPY OF COMPLETE WIRE DIAGRAM TO INCLUDE WIRE SIZE AND ANY OPERATION MANUALS FOR ALL EQUIPMENT INSTALLED IN A SEALED WATER PROOF CONTAINER. (INCLUDING RELAYS, FUSES, POWER SUPPLIES, SWITCHES AND LIGHTS)
4. BATTERY BACK UP (A STANDARD 2 HR RUN TIME FOR SCADA).
5. FREEWAVE RADIO MODEL # FGR2-CE-U.
6. FREEWAVE YAGI ANTENNA, 4 ELEMENT, 8DBI PART #EAN096YA.
7. RADIO MOUNTING BRACKET.
8. RADIO POWER ADAPTER.
9. SIEMENS SITRANS LR200 EXPLOSION PROOF LEVEL INDICATOR.
10. ALL PROGRAMING TO BE DONE BY CURRENT CITY SCADA CONTRACTOR.
11. BACKUP FLOAT SYSTEM WITH RELAYS AND LOW LEVEL OVERRIDE SWITCH
12. HOA SWITCH AND RUN INDICATION LIGHT FOR EACH PUMP.
13. CLIMATE CONTROL FAN ON TOP AND BOTTOM OF PANEL MOUNTED IN SIDE WALL WITH RAIN GUARD.
14. COM FAILURE.
15. POWER FAILURE RELAY 230AC/24DC.
16. INTRUDER DETECTION ON HATCH DOORS AND PANEL DOORS.
17. ANTENNA AND CONTROL PANELS MUST BE GROUNDED TO GROUND ROD WITH COPPER WIRE.
18. ALL SITES REQUIRE TOSHIBA VFD (SIZE TO BE DETERMINED BY PUMP SIZE) UNLESS OTHERWISE APPROVED BY THE CITY.
19. ALL VFD'S WILL HAVE OPERATION MANUALS AND ALL ACCESSORIES FOR FULL INTEGRATION TO SCADA.
20. ALL PUMPS MUST HAVE ENGINEERS STAMPED PLANS SHOWING THEY WILL BE COMPATIBLE FOR STATION AND FLOWS.
21. ALL PANELS WILL HAVE ENGINEERS STAMP ON PLANS. AND MUST BE PRE-APPROVED BY THE CITY BEFORE INSTALLATION.
22. ANY PANELS OR SPECS NOT FOLLOWED WILL BE CHANGED TO MEET THE CITY OF LANCASTER'S WATER UTILITIES SPECS AT THE CONTRACTORS COST.
23. ANTENNA HEIGHT SHOULD BE PRE-APPROVED BY THE CITY BEFORE INSTALLATION AND SHALL BE MOUNTED ON RHON TRI-POD ANTENNA MAST.

CONCRETE SPECS:

1. DRIVEWAY MINIMUM REQUIREMENTS SHALL BE AS FOLLOWS:

- RESIDENTIAL:
- 16" WIDE, 6" THICK 4000 PSI REINFORCED CONCRETE WITH #4 BARS 24" OC
 - EXPANSION JOINTS SHALL BE PLACED EVERY 12', AT RADIUS POINTS, BETWEEN DRIVEWAY APPROACH AND STREET AND AT DRIVEWAY/CONCRETE PAD AROUND WET-WELL.
 - THE DRIVEWAY SHALL NOT BE INTEGRAL WITH PAVING ON-SITE, THE WET WELL OR VALVE PIT STRUCTURES.
 - DRIVEWAY APPROACH SHALL BE 22'-6" WIDE AT STREET.
- COMMERCIAL/INDUSTRIAL:
- DRIVEWAY REQUIREMENTS SHALL CONFORM TO CITY'S UNIFIED DEVELOPMENT CODE (UDC) AND /OR STREETS DEPARTMENT REQUIREMENTS.

2. A CONCRETE PAD SHALL SURROUND THE WET WELL AND VALVE VAULT ACCORDING TO THE FOLLOWING SPECIFICATIONS:
 - CONCRETE PAD SHALL BE 6" THICK.
 - CONCRETE PAD SURFACE ELEVATION SHALL BE 1" ABOVE THE SURROUNDING FINISHED GRADE ELEVATION.
 - CONCRETE PAD SHALL EXTEND A MINIMUM OF 4' AROUND WET WELL AND VALVE VAULT.
 - A 3'X3' ACCESS HATCH WITH SAFETY GRATE SHALL BE PROVIDED FOR EACH PUMP/ VALVE VAULT
3. FOR ALL CONCRETE PAVING AND DRIVEWAY SPECIFICATIONS PLEASE REFER TO CITY OF LANCASTER STANDARD DETAILS.
4. ALL ACCESS DRIVEWAYS OR ROADS INCLUDING LIFT STATIONS SHALL BE CONSTRUCTED INSIDE DEDICATED CITY EASEMENT OR RIGHT-OF-WAY.

FENCE:

1. FENCE SHALL BE 8" VINYL COATED STEEL CHAIN LINK FENCING WITH TOP RAIL.
2. MESH FENCING FABRIC- POLYVINYL CHLORIDE EXTRUDED OVER AND FUSED COATED STEEL CHAIN LINK FABRIC SHALL BE FURNISHED IN ACCORDANCE WITH ASTM F-669, TYPE 2A. THE CORE WIRE AND BREAK LOAD WILL DETERMINE THE GAUGE OF THE WIRE. THE STEEL CORE WIRE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM-A641-71A. THE COLOR SHALL BE BLACK. MESH SIZE 2" WITH 9 GAUGE WIRE.
3. FRAMING- ALL STEEL PARTS SHALL BE HOT DIPPED GALVANIZED PER ASTM.
4. ROUND POST SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A569 OR ASTM A446, COLD ROLLED, WELDED AND HAVE A MINIMUM YIELD STRENGTH OF 50,000 PSI, GIVEN CORROSION PROTECTION BY AN EXTERIOR TRIPLE COATING CONSISTING OF ZINC APPLIED BEFORE OR AFTER WELDING, CHROMATE CONVERSION AND CLEAR POLYMER OVERCOAT. 4" CORNER AND GATE POSTS, 2 3/8" LINE POSTS.
5. THE INSIDE SURFACE SHALL BE GIVEN CORROSION PROTECTION. THE INTERNAL COATING SHALL BE APPLIED BEFORE OR AFTER WELDING AND SHALL PROTECT THE METAL FROM CORROSION WHEN SUBJECTED TO THE SALT SPRAY TEST OF ASTM B117 FOR 300 HOURS WITH THE END POINT OF 5% RED RUST.
6. POST SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF APPROXIMATELY 3' BELOW GROUND LEVEL. EACH POST SHALL HAVE A POST TOP SO DESIGNED AS TO EXCLUDE MOISTURE FROM THE POST.
7. TOP RAIL- FENCE SHALL HAVE A CONTINUOUS 1-5/8" O.D. TOP RAIL. THE TOP RAIL SHALL PASS THROUGH OPENINGS PROVIDED IN THE LINE POST TOP. EACH LENGTH SHALL BE COUPLED WITH AN OUTSIDE SLEEVE, 6" LONG. THE CHAIN LINK FABRIC SHALL BE ATTACHED TO THE TOP RAIL BY MEANS OF A 13[.091"] GAUGE VINYL COATED TIE WIRE, DOUBLE WRAPPED, AT INTERVALS OF APPROXIMATELY 24".
8. TENSION BAR- FABRIC SHALL BE HELD IN PLACE AT ALL TERMINAL POSTS BY MEANS OF A METAL VINYL COATED TENSION BAR NOT LESS 3/16" X 3/4" AND NOT LESS THAN THE FABRIC HEIGHT. THE TENSION BAR SHALL BE ATTACHED TO THE POSTS BY MEANS OF CLIPS AT INTERVALS NOT TO EXCEED 15".
9. WHERE PIPE POSTS ARE USED, POWDER COATED TENSION BANDS NOT TO EXCEED INTERVALS OF 15" SHALL BE USED. ATTACHMENT BOLTS FOR BANDS SHALL BE 5/16" X 1-1/2" GALVANIZED CARRIAGE BOLTS WITH NUTS. BOLTS AND NUTS SHALL BE FIELD PAINTED TO MATCH VINYL COLOR. ONE TENSION BAR SHALL BE PROVIDED FOR EACH END GATEPOST AND TWO FOR EACH CORNER.
10. ALTERNATE CONSTRUCTION FOR FENCE MATERIALS PRE-APPROVED BY CITY PRIOR TO INSTALLATION.

FENCE GATES:

1. EIGHT (8') TALL DOUBLE SWING VINYL-COATED GATES WITH 16' OPENING.
2. GATE FRAMES SHALL BE CONSTRUCTED OF 2" ROUND GALVANIZED MEMBER WEIGHING 2.60LBS./LF. GALVANIZED MEMBERS WILL BE VINYL COATED. ALL FRAMES SHALL BE WELDED TO FORM A RIGID PANEL. INTERNAL BRACING, WHEN REQUIRED, SHALL BE 1-1/4" ROUND.
3. THE FABRIC SHALL BE ATTACHED TO THE FRAME ON ALL SIDES BY MEANS OF HOOK BOLTS AND TENSION RODS.
4. GATES SHALL BE EQUIPPED WITH GALVANIZED STEEL HINGES, LATCH, DROP BAR AND GATE HOLD BACKS.
5. POSTS SHALL BE SUFFICIENT LENGTH TO ALLOW FOR DEPTH OF APPROXIMATELY 3' BELOW GROUND LEVEL.
6. TWO TIE BACK VINYL COATED POLES TO BE LOCATED AT THE OPEN SWING POSITION OF 2 3/8" POSTS. TIE BACK POLES TO HAVE TOP PAINTED TO MATCH VINYL FENCING.

7. SLEEVE FOR CENTER LATCH DEVICE SHALL BE INSTALLED INTO GROUND.

SECURITY LIGHT:

1. 4"X6" SECURITY LIGHT WITH DUSK TILL DAWN LIGHT ELEMENT.
2. 120 VOLT.
3. MUST BE GROUNDED TO GROUND ROD WITH COPPER WIRE.
4. MUST BE MOUNTED ON A GALVANIZED 4" ROUND POLE 16' IN TOTAL LENGTH WITH 12' ABOVE GROUND.
5. MUST BE LED

CONDUIT:

1. ALL CONDUITS AND FITTINGS MUST BE NEW.
2. ALL CONDUITS AND FITTINGS SHALL BE WEATHER PROOF.
3. ALL CONDUITS AND FITTINGS MUST BE RIGID STEEL AND CONFORM IN RESPECTS TO ANSI C80.1 AND UNDERWRITERS' LABORATORIES SAFETY STANDARD #6.
4. ALL CONDUITS AND BOXES MUST BE GROUNDED TO AN 8' COPPER GROUND ROD IN A METAL BOX MARKED GROUND ROD. WIRE SIZE TO BE BASED ON AMERICAN WIRE GAUGE (AWG) CONDUCTORS, HARD, MEDIUM-HARD, OR SOFT ASTM B3 AND B8 RESPECTIVELY.

CHECK VALVES:

1. MUST BE IN VAULT SEPARATE AND SEALED FROM WET WELL.
2. INSTALL VAULT WITH HATCH AND NEW CHECK VALVES.
3. HATCH DOOR SHALL BE AT LEAST 3'X3' GALVANIZED SPRING OPEN WITH BILCO KEY LOCK
4. ALL VALVES MUST BE SWING GATE CHECK VALVES WITH INDICATOR ARM.

BYPASS:

1. BYPASS SHOULD PROTRUDE FROM GROUND 1.5' AND HAVE 3" QUICK CONNECT COUPLING WITH CAP.
2. BYPASS SHUTOFF VALVE SHOULD BE POLY COATED RESILIENT SEAT GATE VALVE WITH 2" OPERATING NUT AND VALVE STACK AND LID AT GROUND LEVEL PAINTED GREEN.

PROJECT DESCRIPTION:

1. CONTRACTOR IS RESPONSIBLE FOR DURING AND AFTER JOB CLEANLINESS.

A FINAL WALK THRU AND CHECK LIST WILL BE COMPLETED AT END OF JOB.

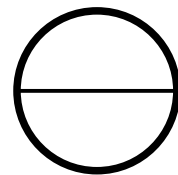
1. A FINAL TEST RUN WILL BE DONE DURING WALK THRU AND MUST BE ACCEPTED BEFORE FINALIZATION OF JOB.

PUMPS:

1. PUMPS SHALL BE HYDROMATIC, ABS, OR FLYGHT UNLESS APPROVED BY THE CITY.

CERTIFICATION:

THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.

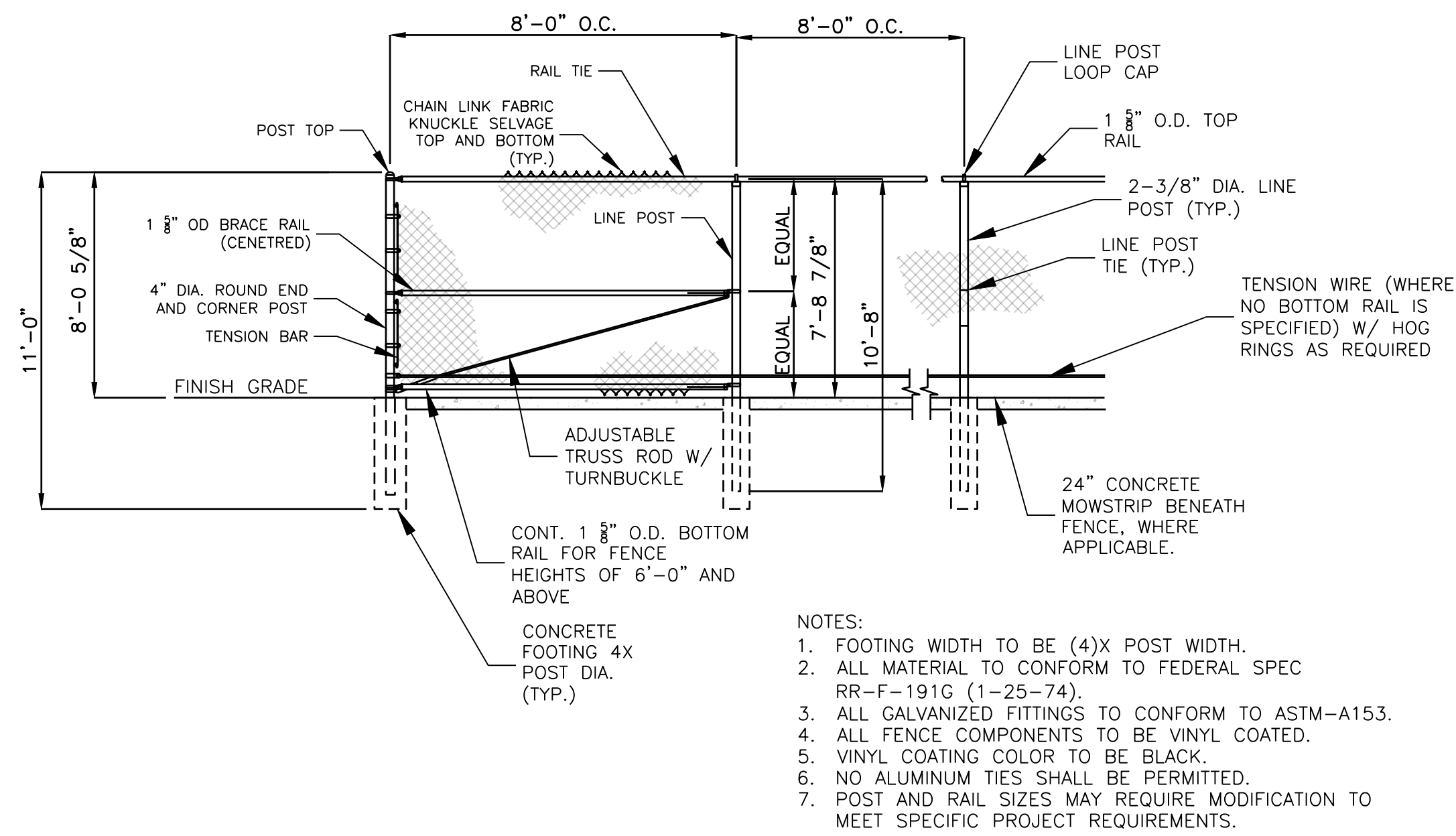


WASTEWATER LIFT STATION 1 OF 3

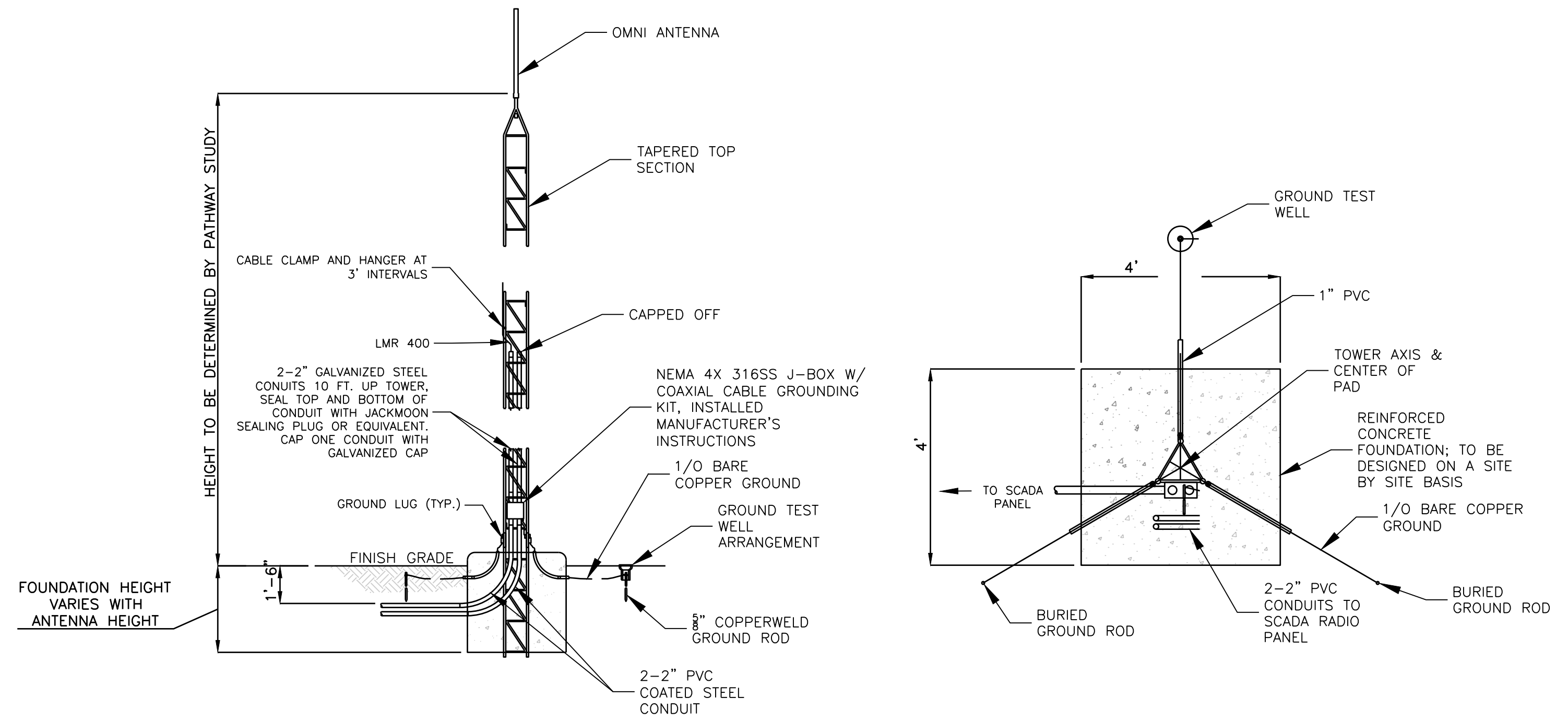
STANDARD DETAILS



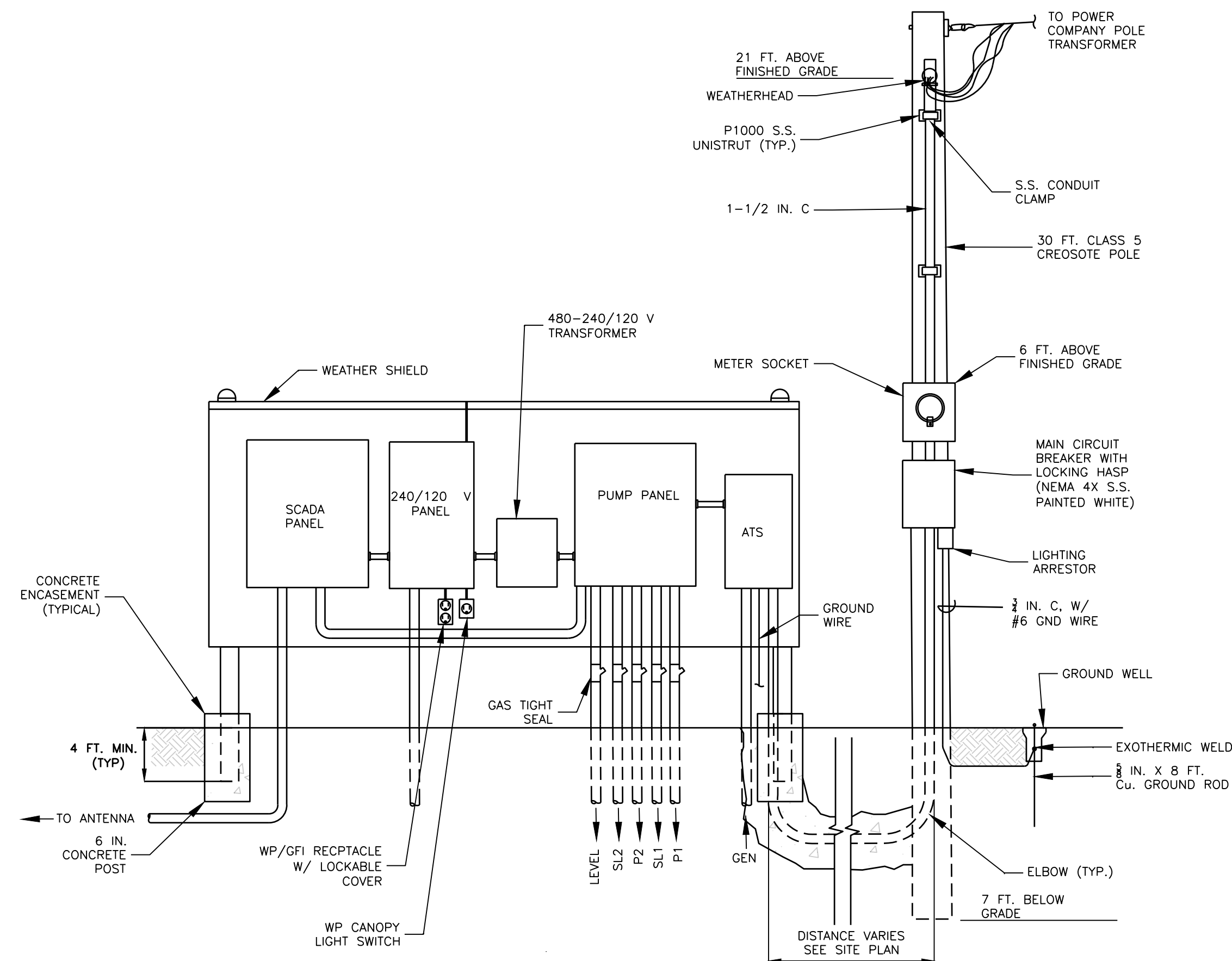
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			May 2021	N.T.S.	SAN-04	43 OF 53



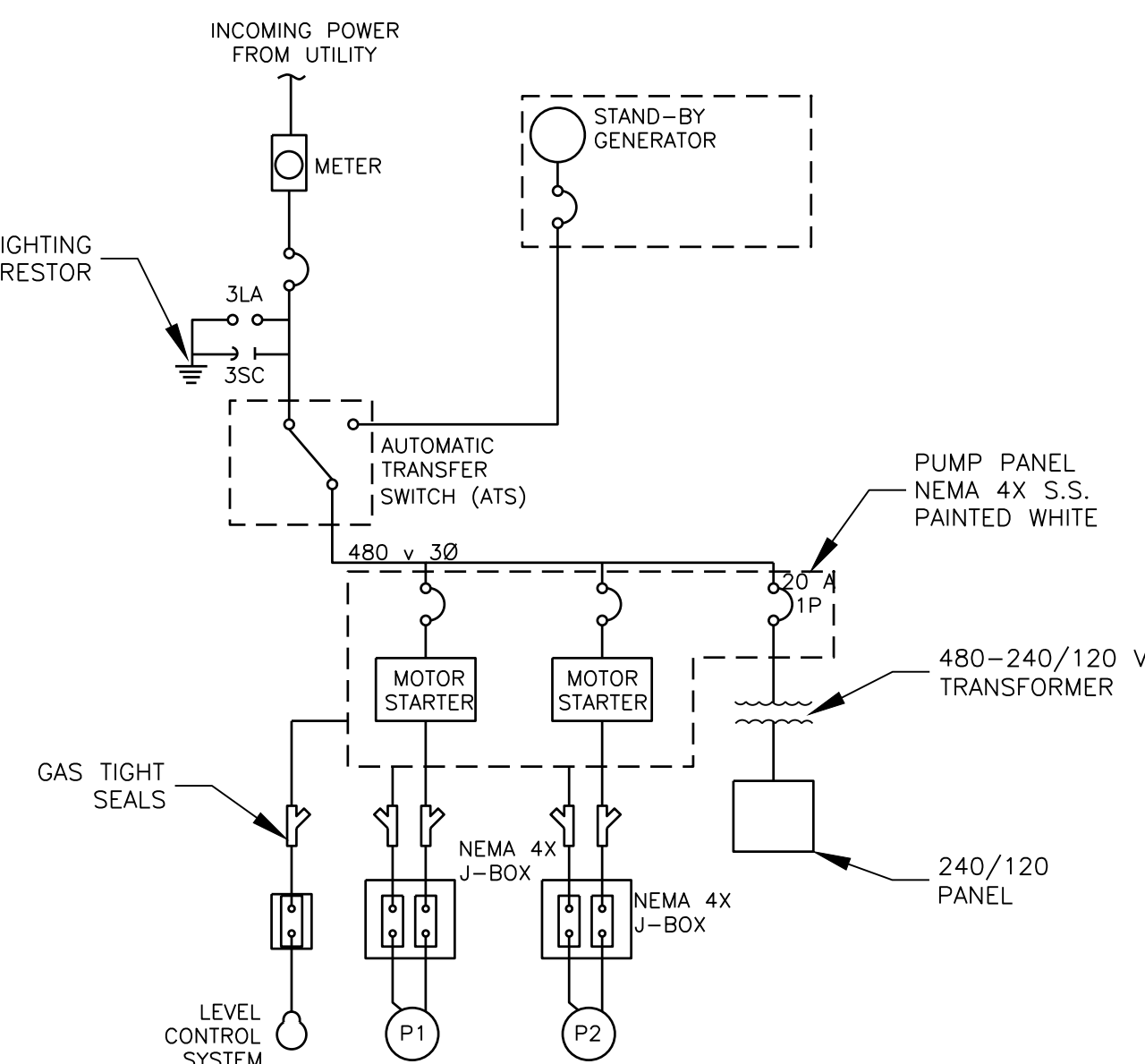
CHAIN LINK FENCE DETAIL
NTS



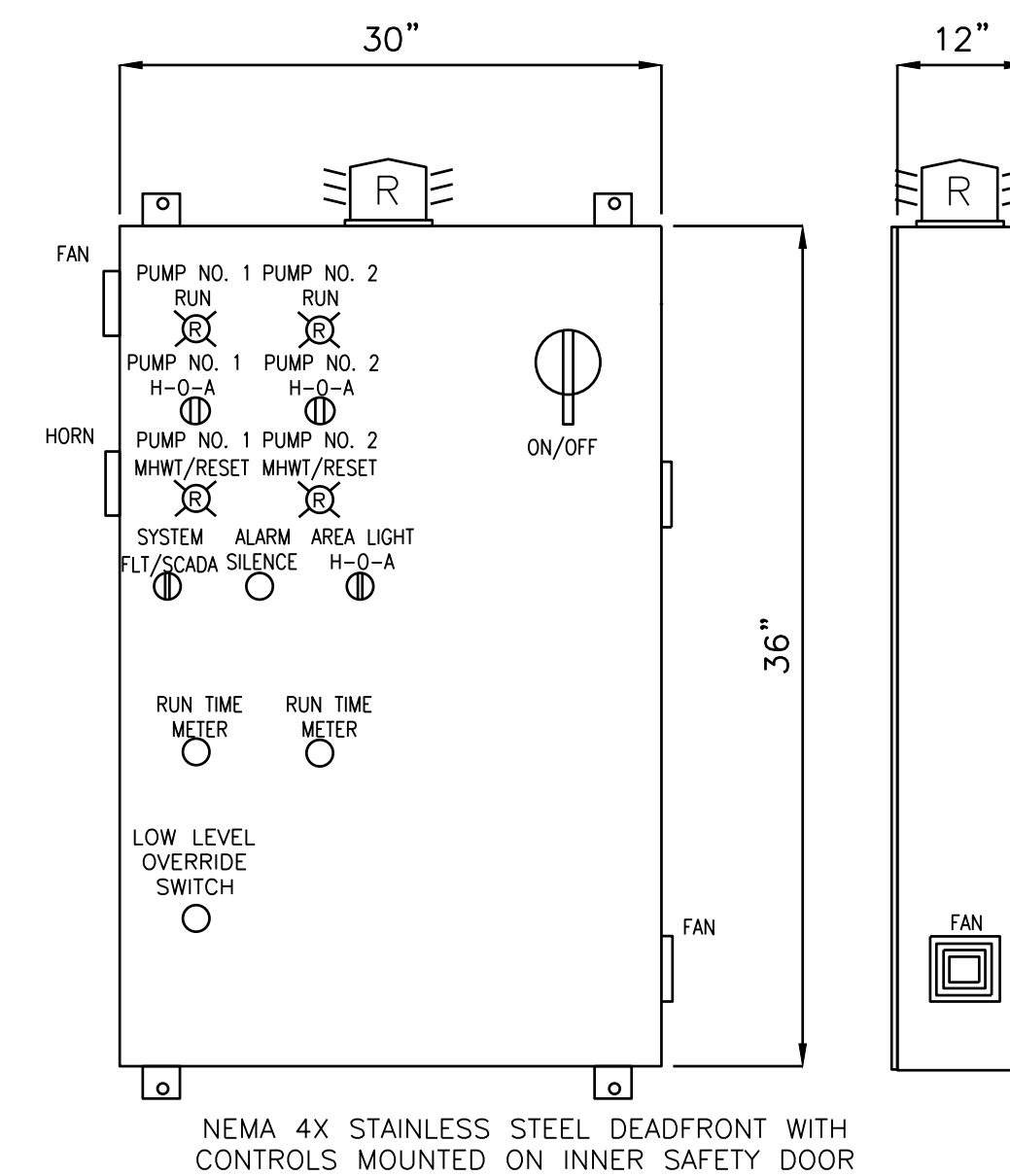
ANTENNA DETAIL
NTS



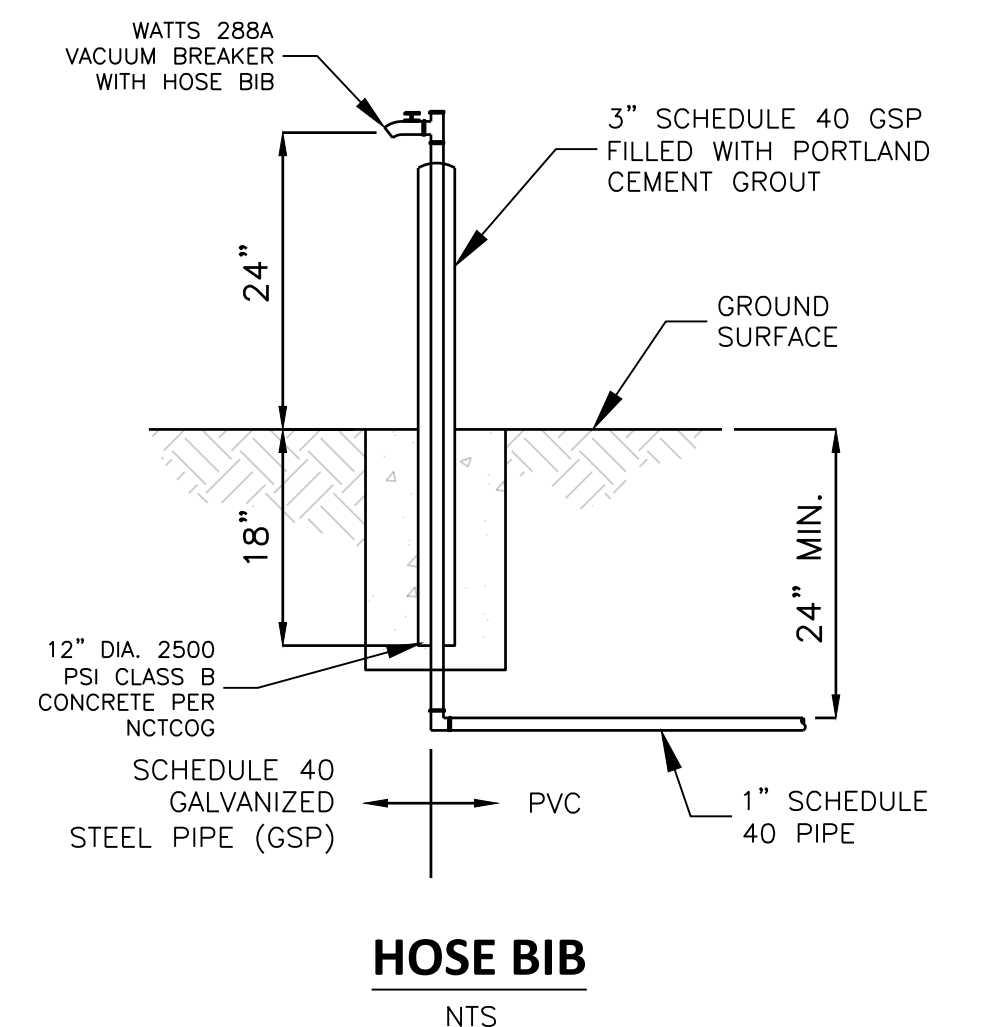
ELECTRICAL RACK DETAIL
NTS




ELECTRICAL ONE LINE DIAGRAM
NTS



PUMP CONTROL PANEL
NTS



<p>CERTIFICATION: THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.</p>						
<p>WASTEWATER LIFT STATION 2 OF 3</p>						
<p>STANDARD DETAILS</p>						
						
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	SAN-05	44 OF 53

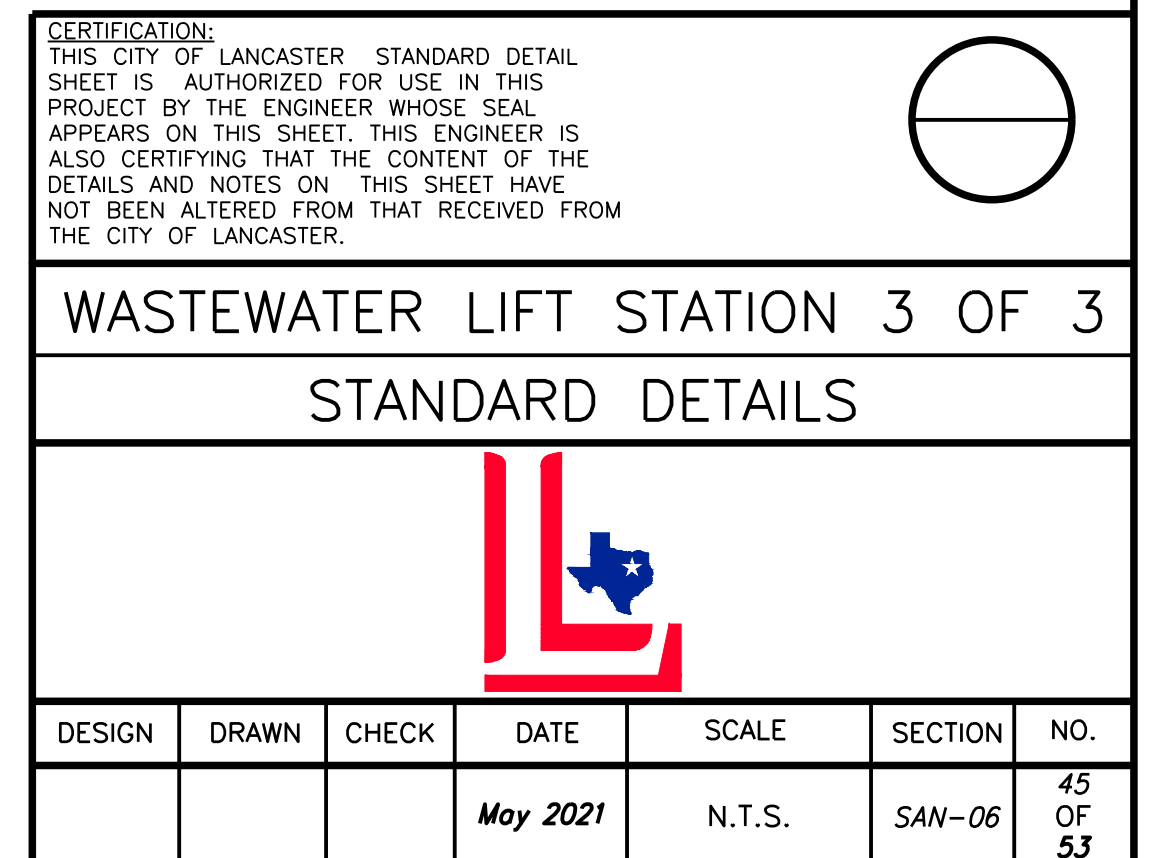
1. WET WELL LEVEL
2. FLOW METER

1. PUMP #1 START/STOP
2. PUMP #1 RUNNING
3. PUMP #2 START/STOP
4. PUMP #2 RUNNING
5. PUMP #3 START/STOP
6. PUMP #3 RUNNING
7. HIGH LEVEL ALARM
8. FLOAT CONTROLS ON
9. COMMUNICATIONS FAIL

1. COMMERCIAL POWER FAIL
2. GENERATOR RUNNING
3. TRANSFER SWITCH POSITION
4. GENERATOR FAIL TO START
5. LOW OIL PRESSURE
6. HIGH COOLANT TEMPERATURE

1. HATCH DOOR
2. PUMP PANEL DOOR
3. SCADA PANEL DOOR
4. ATS DOOR

1. ENCLOSURE SHALL BE NEMA 4X, 316 STAINLESS STEEL 36"x36"x12" MINIMUM SIZE, WITH PADLOCKING HANDLE.
2. ALL I/O'S WILL HAVE FUSED LINK ON BUSS BAR PROPERLY MARKED FOR INPUT/OUTPUT.
3. ALL CONNECTIONS SHALL BE LANDED ON TERMINAL BLOCKS.
4. A COPY OF THE COMPLETE WIRING DIAGRAM AND OPERATIONAL MANUALS FOR ALL EQUIPMENT LOCATED IN THE PANEL SHALL BE PLACED IN A SEALED WATERPROOF CONTAINER AND PLACED IN THE ENCLOSURE DOOR.



GENERAL NOTES:

1. ALL EROSION CONTROL DEVICES SHOWN ON THE PLANS RELEASE FOR CONSTRUCTION SHALL BE INSTALLED IN ACCORDANCE WITH THE SWP3 SEQUENCING PRIOR TO COMMENCING ANY EARTH DISTURBING ACTIVITIES.
2. EROSION CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED IN COMPLIANCE WITH THE PROJECT PLANS, CITY STORMWATER ORDINANCE AND/OR SWP3 AND CONSTRUCTION GENERAL PERMIT.
3. CONTRACTOR(S) SHALL COMPLY WITH THE SOW3 AS SPECIFIED, INCLUDING INSTALLING, MAINTAINING, AND REMOVING ALL TEMPORARY CONTROL MEASURES.
4. CONTRACTOR(S) SHALL CONDUCT AND DOCUMENT WEEKLY SWP3 INSPECTIONS AND INSPECTION AFTER A HALF INCH (0.5") RAIN EVENT IF BMP'S AND CONTROL MEASURES AND REVISE THE SWP3 WITHIN SEVEN(7) CALENDAR DAYS FOLLOWING THE INSPECTION.
5. HAY PRODUCTS, ORGANIC OR OTHER TYPES ARE NOT ACCEPTED FOR USE AS BMP'S WITHIN THE CITY OF LANCASTER.
6. DUST CONTROL SHALL BE UTILIZED ON A REGULAR BASIS DURING DRY CONDITIONS OR AS WEATHER DICTATES THE NEED.
7. CURB CUT-BACKS SHALL NOT BE PERMITTED FOR THE PURPOSE OF BMP'S ONLY.
8. CURB CUT-BACKS FOR THE PURPOSE OF DRIVEWAY INSTALLATION WILL BE ALLOWED FOR A PERIOD NOT TO EXCEED 72 HOURS (MAXIMUM) PRIOR TO POURING CONCRETE. BACKFILLING AREAS SHALL BE PERFORMED WITHIN 48 HOURS (MAXIMUM).
9. STREETS SHALL BE KEPT FREE FROM MUD, DIRT, OR ANY OTHER CONSTRUCTION TYPE DEBRIS DURING THE CONSTRUCTION OPERATION.
10. CONCRETE WASH-OUT AREAS SHALL BE DESIGNED AND MAINTAINED WITH PROPER SIGNAGE/MARKINGS IN COMPLIANCE WITH THE CITY STORMWATER ORDINANCE AND/OR SWP3 AND CONSTRUCTION GENERAL PERMIT.
11. GRASS SOD SHALL BE REQUIRED FOR STABILIZATION WITH THE CITY RIGHT-OF-WAY, VARIATIONS FOR STABILIZATION IN RIGHT-OF-WAY SHALL BE IN WRITING AND SUBMITTED TO CITY ENGINEER FOR APPROVAL.

STORMWATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENTS: PRIOR TO ANY EARTH DISTURBING ACTIVIES THE FOLLOWING CONDITIONS NEED TO BE ADDRESSED AND ACCEPTED THROUGH THE CITY OF LANCASTER STORMWATER DEPARTMENT:

1. A FULLY EXECUTED SWP3 WILL BE SUBMITTED FOR REVIEW AND ACCEPTED THROUGH THE STORMWATER DEPARTMENT. FULLY EXECUTED MEANS ALL SIGNATURES WILL BE REQUIRED WITH THE SUBMITTAL AND AUTHORIZED IN ACCORDANCE WITH THE 30 TEXAS ADMINISTRATIVE CODE (TAC) SUBCHAPTERS 305.44 & 305.128. THE OWNER OF THE PROJECT AND THE OPERATOR (CONTRACTOR) HIRED BY THE OWNER ARE THE REQUIRED SIGNATURES NEEDED FOR A FULLY EXECUTED SWP3.
2. LAND DISTURBING ACTIVITIES THAT EQUAL ONE (1) ACRE AND LESS THAN FIVE (5) ACRES ARE REQUIRED BY THE TPDES CONSTRUCTION GENERAL PERMIT AND THE CITY OF LANCASTER (MS4) TO SUBMIT A SWP3. A SIGNED SMALL CONSTRUCTION SITE NOTICE FROM THE OWNER AND THE OPERATOR (CONTRACTOR) OF THE PROJECT SITE WILL ALSO NEED TO BE INCLUDED WITH THE SWP3 SUBMITTAL. THE CONDITIONS DESCRIBED IN ITEM 1 (ABOVE) APPLY TO ALL SWP3 SUBMITTALS.
3. LAND DISTURBING ACTIVITIES THAT EQUAL FIVE (5) ACRES OR MORE, OR INCLUDED IN A LARGER PROJECT OR COMMON PLAN OF DEVELOPMENT THAT EQUALS (5) OR MORE ACRES ARE REQUIRED BY THE TPDES CONSTRUCTION GENERAL PERMIT AND THE CITY OF LANCASTER (MS4) TO SUBMIT A SWP3, NOTICE OF INTENT (NOI) AND CONSTRUCTION SITE NOTICE PROVIDED BY THE PRIMARY OPERATOR (CONTRACTOR) AS DEFINED IN THE TPDES CONSTRUCTION GENERAL PERMIT AS HAVING DAY TO DAY OPERATIONAL CONTROL OVER THE SITE. AND IF THERE IS A PRIMARY OPERATOR (OWNER) HAVING CONTROL OVER CONSTRUCTION PLANS OR SPECIFICATIONS, THEY WILL ALSO NEED TO SUBMIT A NOI AND SITE NOTICE AS DEFINED IN THE TPDES CONSTRUCTION GENERAL PERMIT. IF A SECONDARY OPERATOR IS PART OF THIS PLAN AND MEETS THE DEFINITIONS GUIDELINES IN ACCORDANCE WITH THE TPDES CONSTRUCTION GENERAL PERMIT, THEN THEY CAN OR SHOULD FALL UNDER THE PRIMARY OPERATORS NOI AND SIGN THE SECONDARY OPERATOR CONSTRUCTION SITE NOTICE.

NOTICE OF TERMINATION (NOT) REQUIRED:

EACH OPERATOR THAT HAS SUBMITTED A NOTICE OF INTENT (NOI) FOR AUTHORIZATION UNDER THE CONSTRUCTION GENERAL PERMIT MUST APPLY TO TERMINATE THAT AUTHORIZATION. THE NOT MUST BE SUBMITTED TO TCEQ, AND A COPY OF THE NOT PROVIDED TO THE MS4 RECEIVING THE DISCHARGE (LANCASTER), WITHIN 30 DAYS AFTER ANY OF THE FOLLOWING CONDITIONS ARE MET:

1. FINAL STABILIZATION HAS BEEN ACHIEVED AND MEETS THE CONDITIONS OF 80% COVERAGE WITH NO LARGE BARE AREAS ON ALL PORTIONS OF THE SITE THAT ARE THE RESPONSIBILITY OF THE PERMITEE.
2. A TRANSFER OF OPERATION CONTROL HAS OCCURRED, OR
3. THE OPERATOR HAS OBTAINED ALTERNATIVE AUTHORIZATION UNDER AN INDIVIDUAL TPDES PERMIT OR ALTERNATIVE TPDES GENERAL PERMIT.
4. FOR SMALL CONSTRUCTION SITES AND SECONDARY OPERATORS THAT FALL UNDER THE PROVISIONS OF THE CONSTRUCTION GENERAL PERMIT, COMPLETE THE APPLICABLE PORTION OF THE SITE NOTICE RELATED TO REMOVAL OF THE SITE NOTICE, AND SUBMIT A COPY OF THE COMPLETED SITE NOTICE TO THE OPERATOR OF THE MS4 (CITY) RECEIVING THE DISCHARGE.

VEGETATION MANAGEMENT:

VEGETATION IS USED AS A TEMPORARY OR FINAL STABILIZATION MEASURE FOR AREAS DISTURBED BY CONSTRUCTION. AS A TEMPORARY CONTROL, VEGETATION IS USED TO STABILIZE STOCKPILES, EARTHEN DIKES, AND BARREN AREAS THAT ARE INACTIVE FOR LONGER THAN TWO WEEKS. AS A FINAL CONTROL AT THE END OF CONSTRUCTION, GRASSES AND OTHER VEGETATION PROVIDE GOOD PROTECTION FROM EROSION ALONG WITH SOME FILTERING FOR OVERLAND RUNOFF.

TEMPORARY VEGETATION:

THE FOLLOWING TABLE LISTS RECOMMENDED PLANT SPECIES FOR THE NORTH CENTRAL TEXAS REGION DEPENDING ON THE SEASON FOR

PLANTING.

AREAS RECEIVING TEMPORARY SEEDING AND VEGETATION SHALL BE LANDSCAPED, RE-SEEDED OR SODDED WITH PERENNIAL SPECIES TO ESTABLISH FINAL VEGETATION AT THE END OF CONSTRUCTION.

RECOMMENDED GRASS MIXTURE FOR TEMPORARY VEGETATION

SEASON	COMMON	PURE LIVE SEE RATE (LBS/ACRE)
SEPT 1–NOV 30	TALL FESCUE WESTERN WHEAT GRASS WHEAT (RED,WINTER)	4.5 5.6 34.0
MAY 1–AUG 31	FOXTAIL MILLET	34.0
FEB 15– MAY 31 SEPT 1– DEC 31	ANNUAL RYE	20.0

VEGETATION FOR FINAL STABILIZATION:

SODDING OR SEEDING MAY BE USED TO ESTABLISH VEGETATION FOR FINAL STABILIZATION OF AREAS DISTURBED BY CONSTRUCTION ACTIVITY. THE VEGETATION MUST ACHIEVE A COVER THAT IS 80 PERCENT OF THE NATIVE BACKGROUND VEGETATIVE COVERT TO BE CONSIDERED FINAL STABILIZATION. GRASS SEED FOR ESTABLISHING FINAL STABILIZATION CAN BE SOWN AT THE SAME TIME AS SEEDING FOR TEMPORARY (ANNUAL) VEGETATION. DROUGHT TOLERANT NATIVE VEGETATION IS RECOMMENDED RATHER THAN EXOTICS AS A LONG-TERM WATER CONSERVATION MEASURE. FOR CONSTRUCTION ACTIVITIES THAT INCLUDE LANDSCAPING IN THE DEVELOPMENT PLANS, THE LANDSCAPE ARCHITECT SHOULD BE CONSULTED WHEN SPECIFYING VEGETATION FOR TEMPORARY OR FINAL STABILIZATION OF DISTURBED.

WHERE VEGETATION IS USED IN SWALES AND CHANNELS IT MAY BE NECESSARY TO USED SOD, RATHER THAN SEEDING, TO ESTABLISH AN EROSION RESISTANT SURFACE THAT ACCOMMODATES RAINFALL RUNOFF FLOWS.

DEBRIS AND TRASH MANAGEMENT:

DEBRIS AND TRASH MANAGEMENT IS USED TO MINIMIZE FLOATABLE AND OTHER WASTES IN STORMWATER. BY CONTROLLING THE TRASH AND DEBRIS ONSITE, STORMWATER QUALITY IS IMPROVED AND THE NEED FOR EXTENSIVE CLEAN UP UPON COMPLETING OF THE PROJECT IS REDUCED.

1. ALL WASTE SOURCES AND STORAGE ARES SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM INLETS, SWALES, DRAINAGE WAYS, CHANNEL AND OTHER WATERS, IF THE SITE CONFIGURATION PROVIDES SUFFICIENT SPACE TO DO SO. IN NO CASE SHALL MATERIAL AND WASTE SOURCES BE CLOSER THAN 20 FEET FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS, AND OTHER WATERS.
2. CONSTRUCTION WASTE AND TRASH SHALL BE STORED IN A MANNER THAT MINIMIZES ITS EXPOSURE TO PRECIPITATION AND STORMWATER RUNOFF.
3. DO NOT ALLOW TRASH CONTAINERS TO OVERFLOW. DO NOT ALLOW WASTE MATERIALS TO ACCUMULATE ON THE GROUND.
4. POLICE SITE DAILY FOR LITTER AND DEBRIS.
5. TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AT REGULAR INTERVALS THAT ARE SCHEDULED TO EMPTY CONTAINERS WHEN THEY ARE 90 PERCENT FULL OR MORE FREQUENTLY.
6. NO WASTE, TRASH, OR DEBRIS SHALL BE BURIED, BURNED OR OTHERWISE DISPOSED OF ONSITE.
7. THE FOLLOWING ARE LISTS DESCRIBING THE TYPE OF TARGETED MATERIALS.
CONSTRUCTION (AND DEMOLITION) DEBRIS:
DIMENSIONAL LUMBER
MISCELLANEOUS METAL (STUDS, PIPE, CONDUIT, SHEATHING, NAILS, ETC.)

INSULATION
BRICK AND MORTAR
SHINGLES
ROOFING MATERIALS
GYPSUM BOARD
TRASH:
PAPER AND CARDBOARD (PACKAGING, CONTAINERS, WRAPPERS)
PLASTIC (PACKAGING, BOTTLES, CONTAINERS)
STYROFOAM (CUPS, PACKING, AND FORMS)
FOOD AND BEVERAGE CONTAINERS
FOOD WASTER

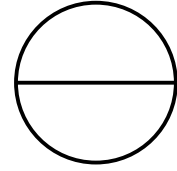
DUST CONTROL:

DUST CONTROL INCLUDED THOSE MEASURE NECESSARY TO PREVENT WIND TRANSPORT OF DUST FROM DISTURBED SOIL SURFACES. DUST CONTROL IS APPLIED IN AREAS SUBJECT TO SURFACE AND AIR MOVEMENT TO DUST WHERE ON-SIRE AND OFF-SITE IMPACTS INCLUDING ROADWAYS DRAINAGE WAYS AND SURFACE WATERS.

1. LIMIT DUST GENERATION BY CLEARING ONLY THOSE AREAS WHERE IMMEDIATE ACTIVITY WILL TAKE PLACE, LEAVING THE REMAINING AREA(S) IN THE ORIGINAL CONDITION IF STABLE. MAINTAIN ORIGINAL COVER AS LONG AS PRACTICABLE.
2. CONSTRUCT NATURAL OR ARTIFICIAL WINDBREAKS OR WINDSCREENS. VEGETATE AREAS THAT WILL NOTE RECENE VEHICULAR TRAFFIC.
3. SPRINKLE THE SITE WITH WATER UNTIL DAMPENED SUFFICIENTLY TO PREVENT DUST AND REPEAT AS NECESSARY. DO NOT APPLY WATER IN QUANTITIES TO CAUSE RUNOFF.


Table 2.5 Recommended Grass Mixture for Final Stabilization of Upland in Rural Areas				
County	Planting Date	Clay Soils Species and Pure Live Seed Rate (Lbs/Acre)	Sandy Soils Species and Pure Live Seed Rate (Lbs/Acre)	
Erath Hood Johnson Palo Pinto Parker Somervell Tarrant Wise	February 1 – May 15	Green Sprangletop Sideoats Grama (El Reno) Bermudagrass Little Bluestem (Native) Blue Grama (Hachita) Illinois Bundleflower	0.3 2.7 0.9 1.0 0.9 1.0	Green Sprangletop Sand Lovegrass Bermudagrass Weeping Lovegrass (Ermelo) Sand Dropseed Partridge Peal
Collin Dallas Denton Ellis Kaufman Navarro Rockwall	February 1 – May 15	Green Sprangletop Bermudagrass Sideoats Grama (El Reno) Little Bluestem (Native) Buffalograss (Texoka) Illinois Bundleflower	0.3 1.2 2.7 2.0 1.6 1.0	Green Sprangletop Bermudagrass Weeping Lovegrass (Ermelo) Sand Lovegrass Sand Dropseed Partridge Pea
Hunt	February 1 – May 15	Green Sprangletop Sideoats Grama (El Reno) Bermudagrass Little Bluestem (Native) Illinois Bundleflower	0.3 3.2 1.8 1.7 1.0	Green Sprangletop Bermudagrass Bahia grass (Pensacola) Sand Lovegrass Weeping Lovegrass (Ermelo) Partridge Pea
(Source: TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges, Item 164)				
Table 2.6 Recommended Grass Mixture for Final Stabilization of Upland in Urban Areas				
County	Planting Date	Clay Soils Species and Pure Live Seed Rate (Lbs/Acre)	Sandy Soils Species and Pure Live Seed Rate (Lbs/Acre)	
Erath Hood Johnson Palo Pinto Parker Somervell Tarrant Wise	February 1 – May 15	Green Sprangletop Sideoats Grama (El Reno) Bermudagrass Buffalograss (Texoka)	0.3 3.6 2.4 1.6	Green Sprangletop Sideoats Grama (El Reno) Bermudagrass Sand Dropseed
Collin Dallas Denton Ellis Kaufman Navarro Rockwall	February 1 – May 15	Green Sprangletop Sideoats Grama (El Reno) Buffalograss (Texoka) Bermudagrass	0.3 3.6 1.6 2.4	Green Sprangletop Buffalograss (Texoka) Bermudagrass Sand Dropseed
Hunt	February 1 – May 15	Green Sprangletop Bermudagrass Sideoats Grama (Haskell)	0.3 2.4 4.5	Green Sprangletop Bermudagrass
(Source: TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges, Item 164)				
Vegetation for final stabilization of channels requires grasses that are tolerant of periodic inundation, such as Bermuda grass, Kentucky bluegrass or a grass-legume mixture.				

CERTIFICATION:
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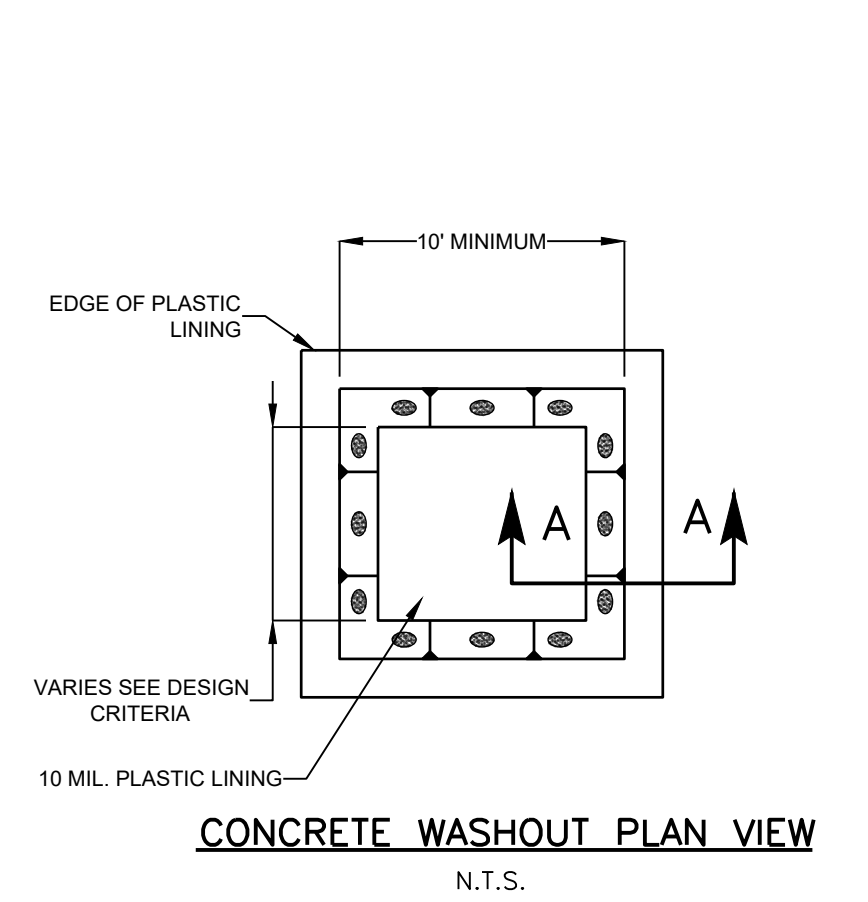


EROSION CONTROL 1 OF 4

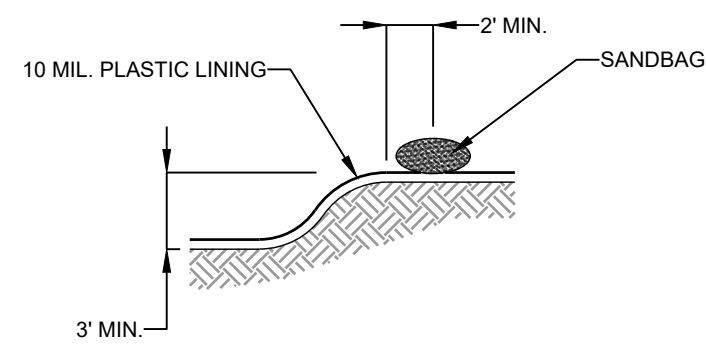
STANDARD DETAILS



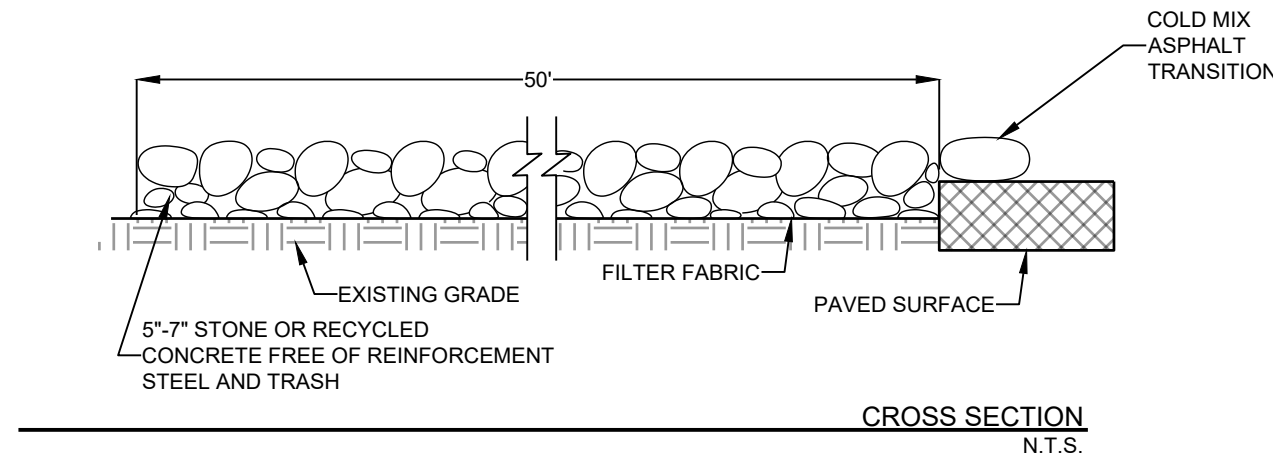
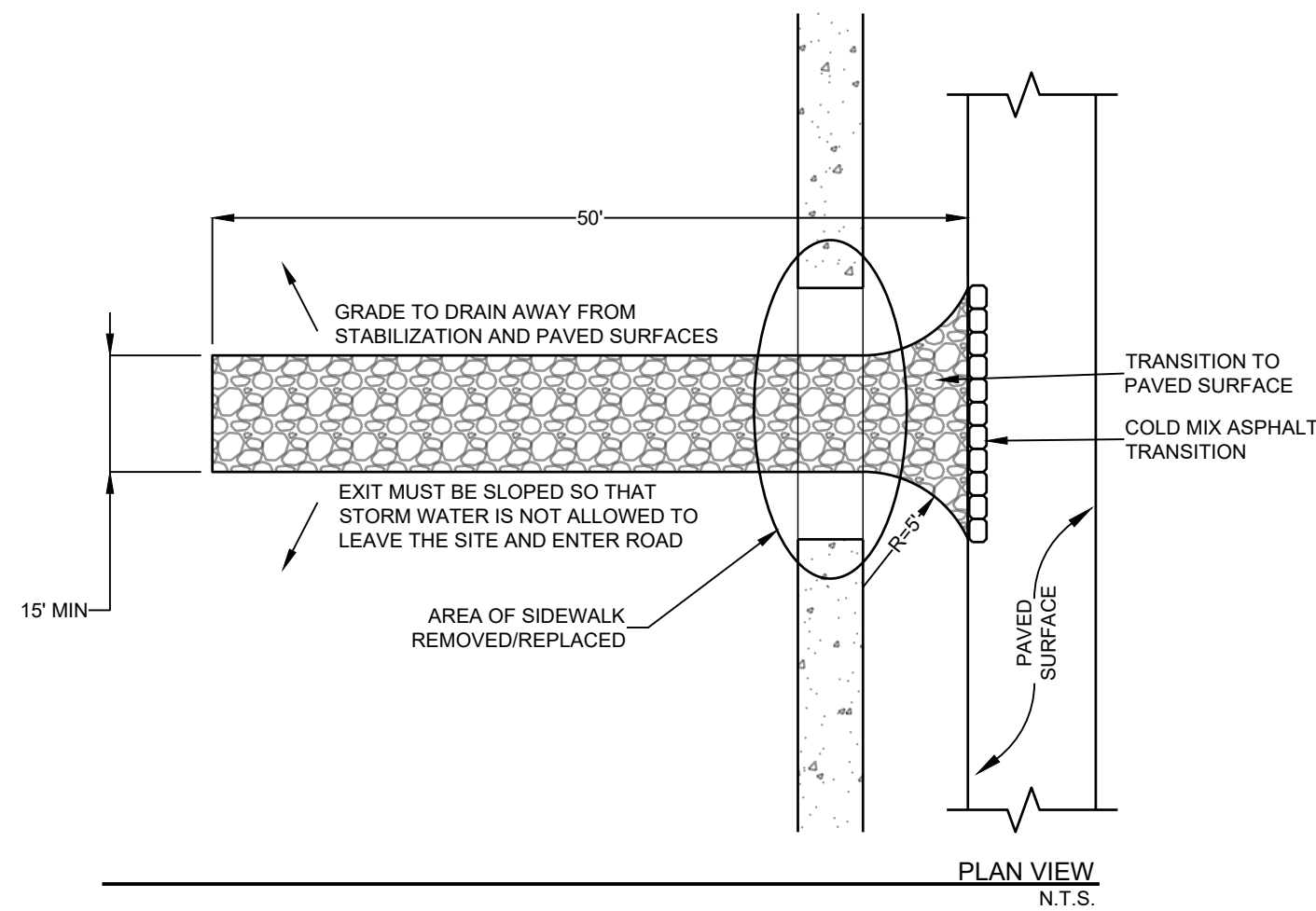
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
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CONCRETE WASHOUT PLAN VIEW
N.T.S.

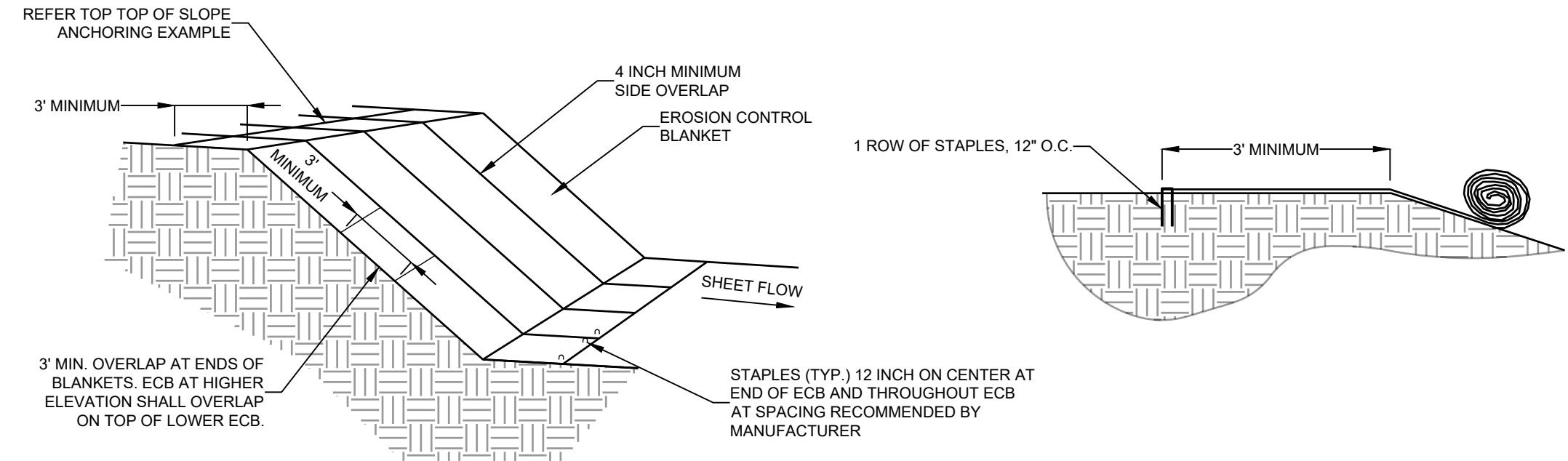


CONCRETE WASHOUT SECTION A-A
N.T.S.

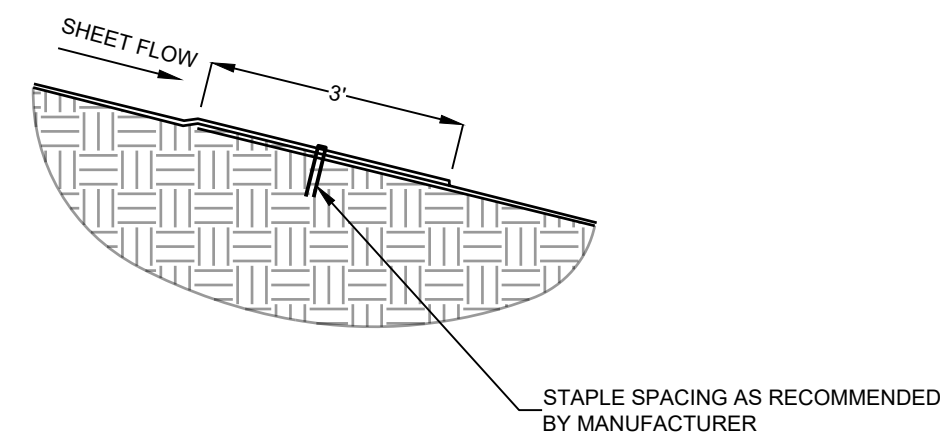


NOTE: INSTALL SILT FENCE, CONSTRUCTION SAFETY FENCING OR SIMILAR BARRIER ALONG THE EXIT TO DIRECT TRAFFIC INTO THE EXIT

SCHEMATICS OF STABILIZED CONSTRUCTION EXIT

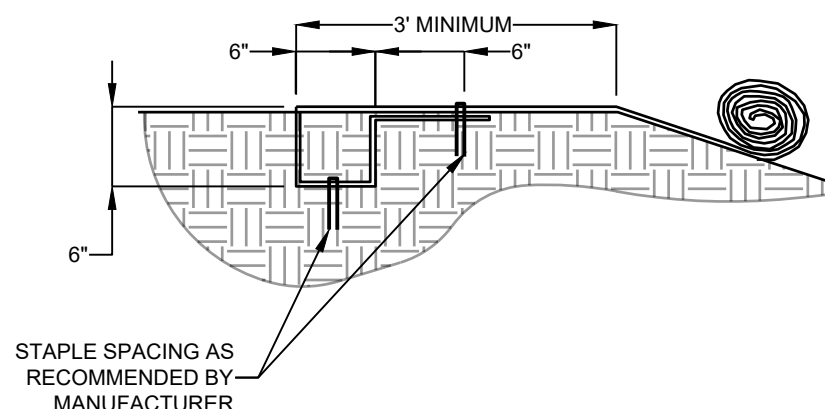


ECB ISOMETRIC PLAN VIEW
N.T.S.



ECB OVERLAP EXAMPLE
N.T.S.

TOP OF SLOPE ANCHOR EXAMPLE 1
N.T.S.



TOP OF SLOPE ANCHOR EXAMPLE 2
N.T.S.

NOTE: ANCHORING METHODS PROVIDED ARE EXAMPLES OF THE TYPE OF ANCHORING THE ECB MANUFACTURER MAY RECOMMEND. THERE ARE MORE THAN A DOZEN DIFFERENT TOP OF SLOPE STEEPNESS, ETC. ALWAYS FOLLOW THE MANUFACTURER'S RECOMMENDATIONS FOR ANCHORING BASED ON THE SITE-SPECIFIC APPLICATION.

CONCRETE TRUCK WASHOUT REQUIREMENTS:

1. DIRECT DISCHARGE OF CONCRETE TRUCK WASHOUT TO SURFACE WATER IN THE STATE, INCLUDING DISCHARGE TO STORM SEWERS, IS PROHIBITED.
2. CONCRETE TRUCK WASH OUT WATER SHALL BE DISCHARGED TO AREAS AT THE CONSTRUCTION SITE WHERE STRUCTURAL CONTROLS HAVE BEEN ESTABLISHED TO PREVENT DIRECT DISCHARGE TO SURFACE WATERS.
3. STRUCTURAL CONTROLS MAY CONSIST OF TEMPORARY BERMS, TEMPORARY SHALLOW PITS, TEMPORARY STORAGE TANKS WITH SLOW RATE RELEASE, OR OTHER REASONABLE MEASURES TO PREVENT RUNOFF FROM THE CONSTRUCTION SITE.
4. WASHOUT OF CONCRETE TRUCKS DURING RAINFALL SHALL BE MINIMALIZED. THE DIRECT DISCHARGE OF CONCRETE TRUCK WASH OUT WATER IS PROHIBITED AT ALL TIMES, AND THE OPERATOR SHALL INSURE THAT ITS BMP'S ARE SUFFICIENT TO PREVENT THE DISCHARGE OF CONCRETE TRUCK WASH OUT AS THE RESULT OF RAINFALL OR STORMWATER RUNOFF.
5. THE DISCHARGE OF WASH OUT WATER MUST NOT CAUSE OR CONTRIBUTE TO GROUNDWATER CONTAMINATION.
6. IF A SWP3 IS REQUIRED TO BE IMPLEMENTED, THE SWP3 SHALL INCLUDE CONCRETE WASHOUT AREAS ON THE ASSOCIATED EROSION CONTROL PLAN.

PROHIBITED CONCRETE DISPOSAL PRACTICES:


1. DUMPING IN VACANT AREAS ON THE JOB SITE.
2. ILLICIT DUMPING ONTO OFF-SITE LOTS OR ANY OTHER PLACE NOT PERMITTED TO RECEIVE CONSTRUCTION DEMOLITION DEBRIS OR WASTE.
3. DUMPING INTO DITCHED, DRAINAGE FACILITIES, OR NATURAL WATER WAYS.

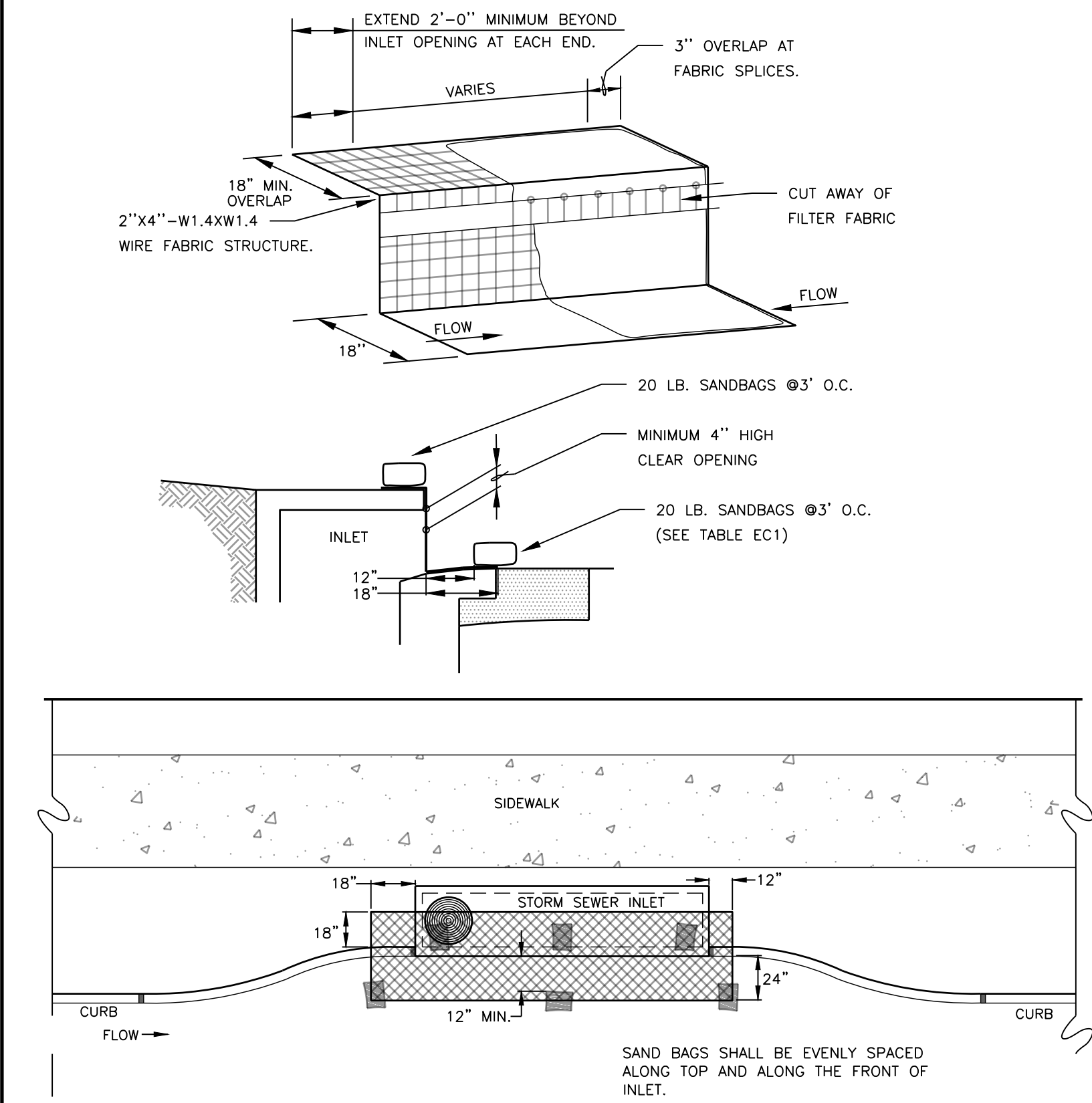
STABILIZED CONSTRUCTION ENTRANCE/EXIT:

1. STABILIZED CONSTRUCTION ACCESS SHALL BE USED ON ALL CONSTRUCTION SITES WITH A DISTURBED AREA OF ONE ACRE OR LARGER AND ARE A RECOMMENDED PRACTICE FOR SMALLER CONSTRUCTION SITES.
2. DESIGN THE ACCESS POINT(S) TO BE AT THE UPSLOPE SIDE OF THE CONSTRUCTION SUITE. DO NOT PLACE CONSTRUCTION ACCESS AT THE LOWEST POINT ON THE CONSTRUCTION SITE.
3. THE ACCESS MUST BE SLOPED AWAY FROM THE PAVED SURFACE SO THAT STORMWATER FROM THE SITE DOES NOT DISCHARGE THROUGH THE EXIT ONTO ROADWAYS.
4. MINIMUM WIDTH OF EXIT SHALL BE 15 FEET.
5. THE CONSTRUCTION ACCESS MATERIAL SHALL BE A MINIMUM THICKNESS OF 6 INCHES. THE STONE OR RECYCLED CONCRETE USED SHALL BE 3 TO 5 INCHES IN SIZE WITH LITTLE OR NO FINES.
6. THE GEOTEXTILE FABRIC SHALL BE INSTALLED PRIOR TO THE ROCK AND MUST MEET THE FOLLOWING MINIMUM CRITERIA:
 - * TENSILE STRENGTH, ASTM D4632 TEST METHOD FOR GRAB BREAKING LOAD AND ELONGATION OF GEOTEXTILES, 300 LBS.
 - * PUNCTURE STRENGTH, ASTM D4833 TEST METHOD FOR INDEX PUNCTURE RESISTANCE OF GEOTEXTILES, GEOMEMBRANES, AND RELATED PRODUCTS, 120 LBS.
 - * MULLEN BURST RATING, ASTM D3786 STANDARD TEST METHOD FOR HYDRAULIC BURSTING STRENGTH OF TEXTILE FABRICS-DIAPHRAGM BURSTING STRENGTH TESTER METHOD, 600 PSI.
 - * APPARENT OPENING SIZE, ASTM D4751 TEST METHOD FOR DETERMINING APPARENT OPENING SIZE OF A GEOTEXTILE, U.S. SIEVE NO. 40(MAX).
7. PERIODIC RE-GRADING AND TOP DRESSING WITH ADDITIONAL STONE SHALL BE DONE TO KEEP THE EFFICIENCY OF THE EXIT FROM DIMINISHING. THE ROCK SHALL BE RE-GRADED WHEN RUTS APPEAR. ADDITION ROCK SHALL BE ADDED WHEN SOIL IS SHOWING THROUGH THE ROCK SURFACE.

EROSION CONTROL BLANKETS:

- APPLICATION: PERIMETER CONTROL, SLOPE PROTECTION, SEDIMENT BARRIER, CHANNEL PROTECTION, TEMPORARY STABILIZATION, AND FINAL STABILIZATION.
1. PRIOR TO THE INSTALLATION OF THE ECB, ALL ROCKS, DIRT CLODS, STUMPS, ROOTS, TRASH AND ANY OTHER OBSTRUCTIONS THAT WOULD PREVENT THE ECB FROM LYING IN DIRECT CONTACT WITH THE SOIL SHALL BE REMOVED.
 2. INSTALLATION AND ANCHORING SHALL CONFORM TO THE RECOMMENDATIONS SHOWN WITHIN THE MANUFACTURER'S PUBLISHED LITERATURE FOR THE EROSION CONTROL BLANKET. ANCHORS (STAPLES) SHALL BE A MINIMUM OF 6 INCHES IN LENGTH AND 1 INCH WIDE. THEY SHALL BE MADE OF 11-GAUGE WIRE, OR EQUIVALENT.
 3. ECBs MAY BE USED AS A SEDIMENT BARRIER BEHIND CURB IN PLACE OF SILT FENCE. FOR SINGLE FAMILY RESIDENTIAL LOTS THE WIDTH OF THE ECB SHALL BE TEN (10) FEET MINIMUM. FOR COMMERCIAL DEVELOPMENT APPLICATIONS THE WIDTH SHALL BE TWENTY (20) FEET MINIMUM, UNLESS OTHERWISE APPROVED BY THE STORMWATER DEPARTMENT.
 4. EROSION CONTROL BLANKETS SHOULD BE INSPECTED WEEKLY (IN ACCORDANCE WITH THE SWP3 REQUIREMENTS AND THE TPDES CONSTRUCTION GENERAL PERMIT) FOR BARE SPOTS CAUSED BY WEATHER OR OTHER EVENTS. MISSING OR LOOSENED BLANKETS SHALL BE REPLACED OR RE-ANCHORED.
 5. EROSION CONTROL BLANKETS SHALL NOT BE USED AS SEDIMENT BARRIERS IN SWALES AND CHANNELS THAT HAVE A SHEAR OF MORE THAN 2.0 POUNDS PER SQUARE FOOT OR SLOPES GREATER THAN 2%. TURF REINFORCEMENT MATS SHALL BE USED IN OPEN CHANNELS WITH HIGHER SHEAR STRESSES AND GREATER SLOPES.

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EROSION CONTROL 2 OF 4					
STANDARD DETAILS					
					
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION
			May 2021	N.T.S.	EC-02
					NO. 47 OF 53



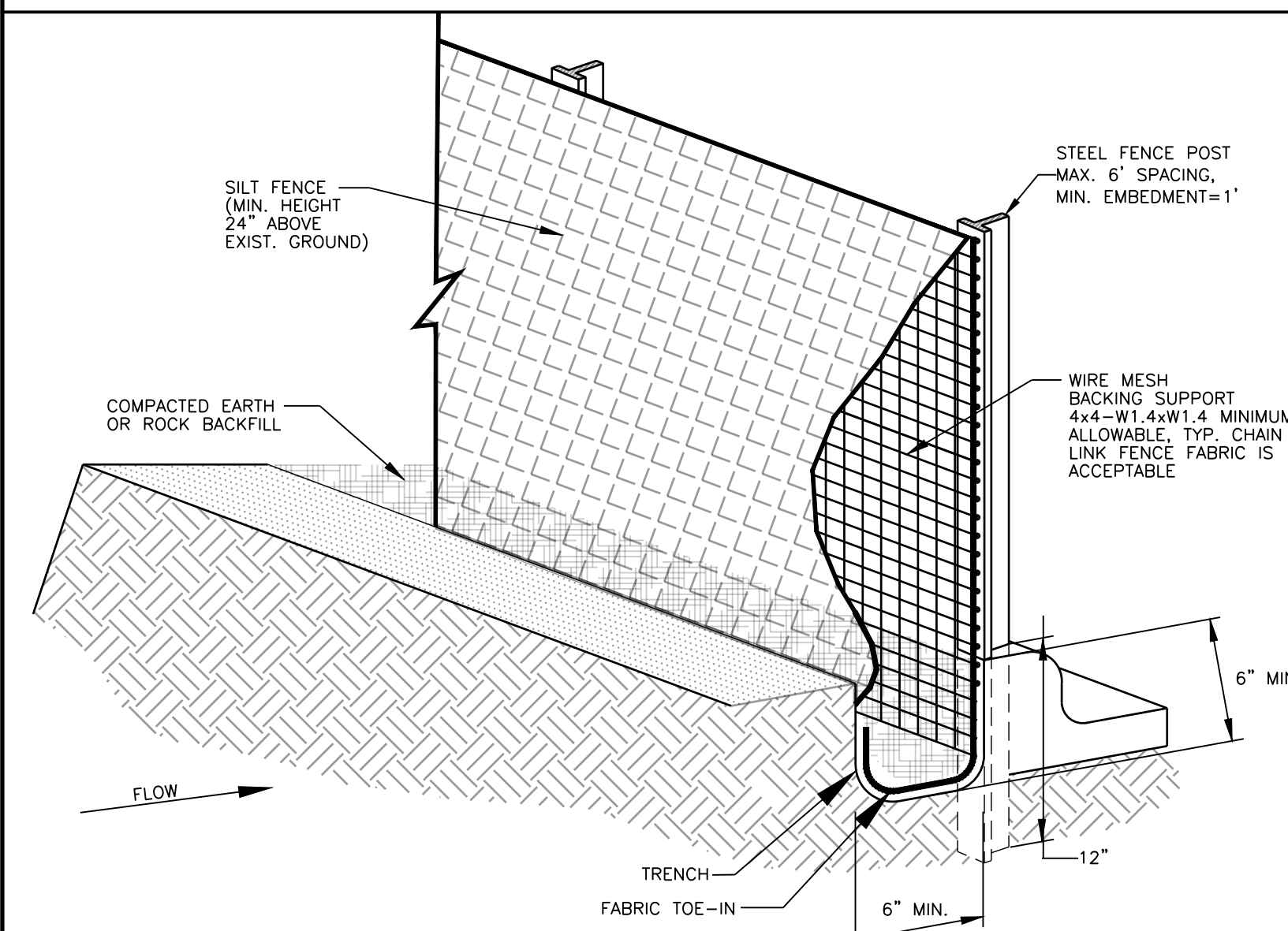
CURB INLET ON GRADE PROTECTION DETAIL
N.T.S.

NOTES:

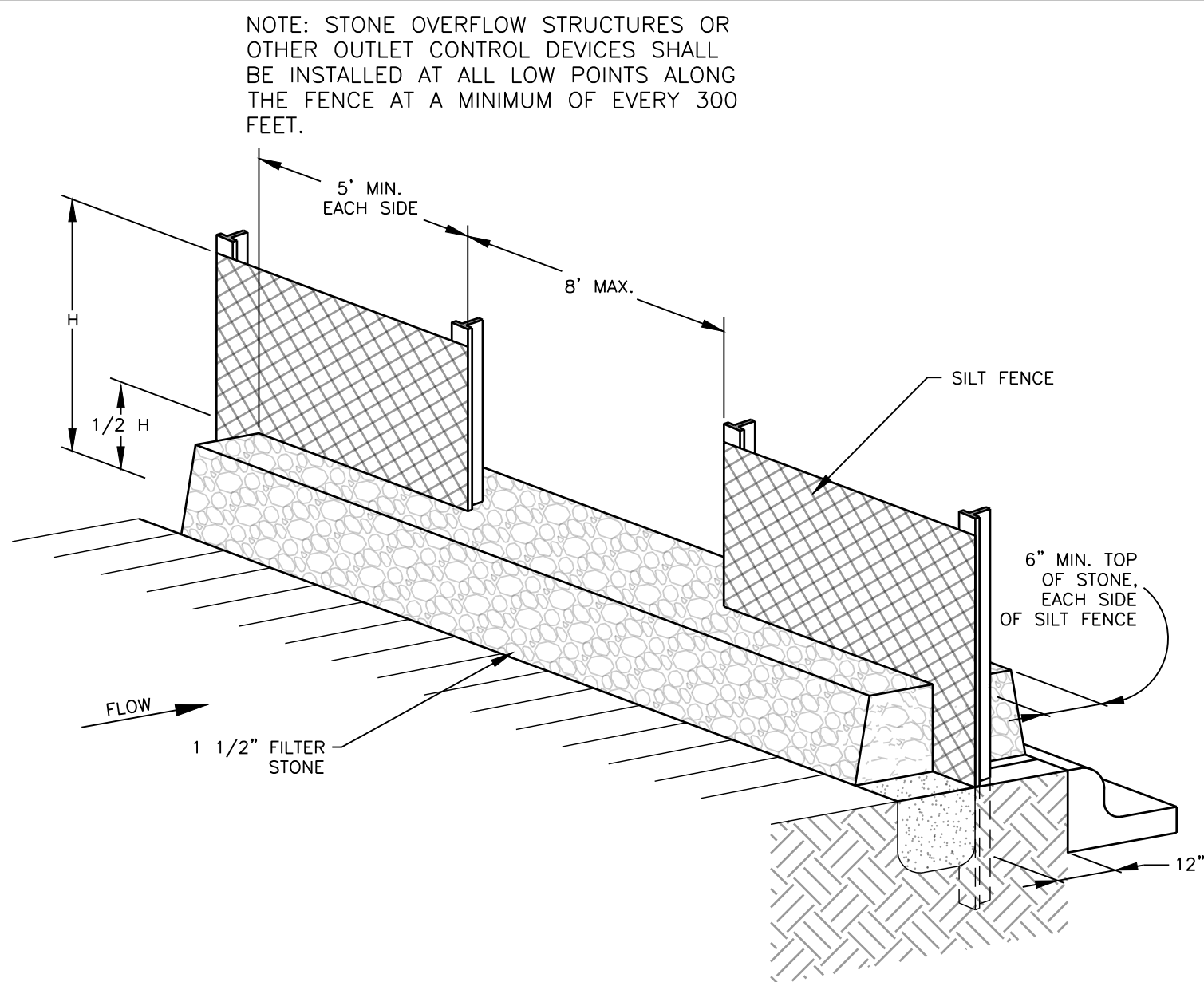
1. A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL TO PROVIDE A 4" MINIMUM CLEAR OPENING. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
2. INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
3. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM-WATER BEGINS TO OVERTOP THE CURB.
4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

TABLE EC1

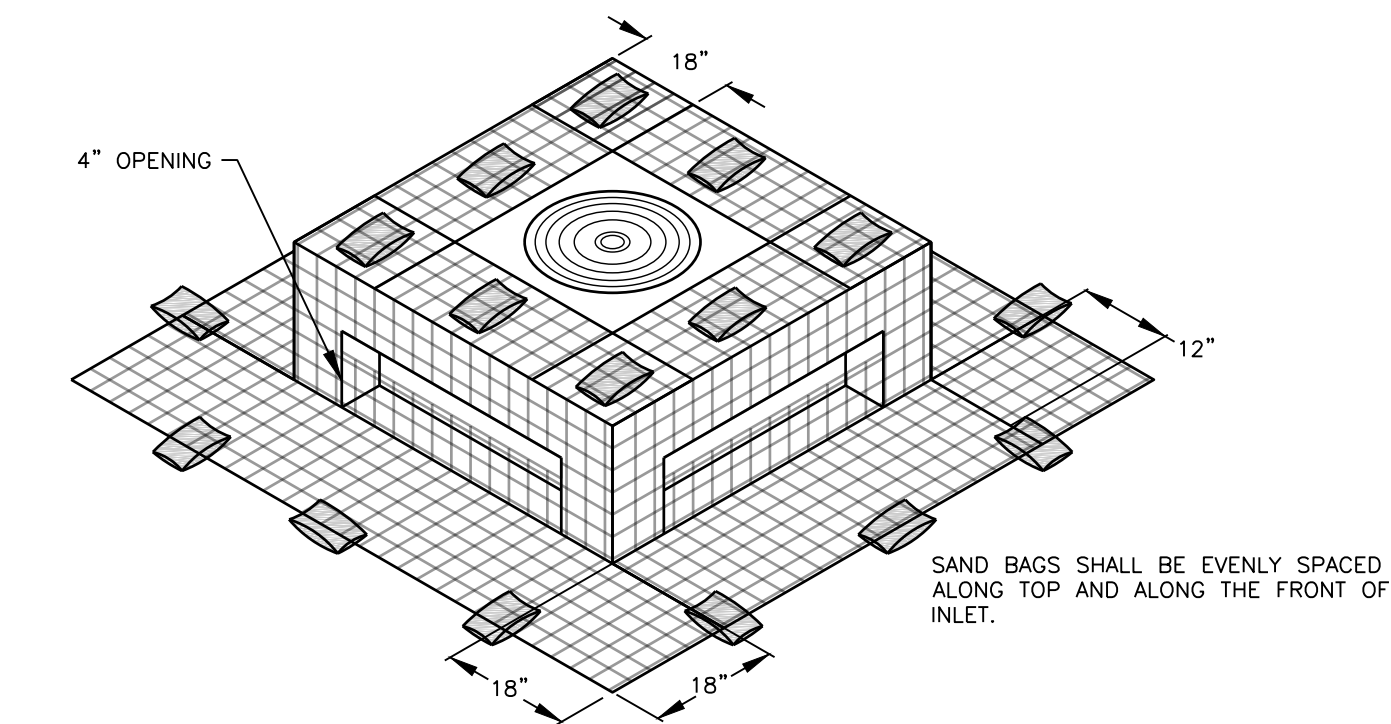
INLET OPENING	MINIMUM NUMBER OF SAND BAGS	
	TOP	FRONT
5'	2	3
10'	3	3
15'	3	4
20'	4	4



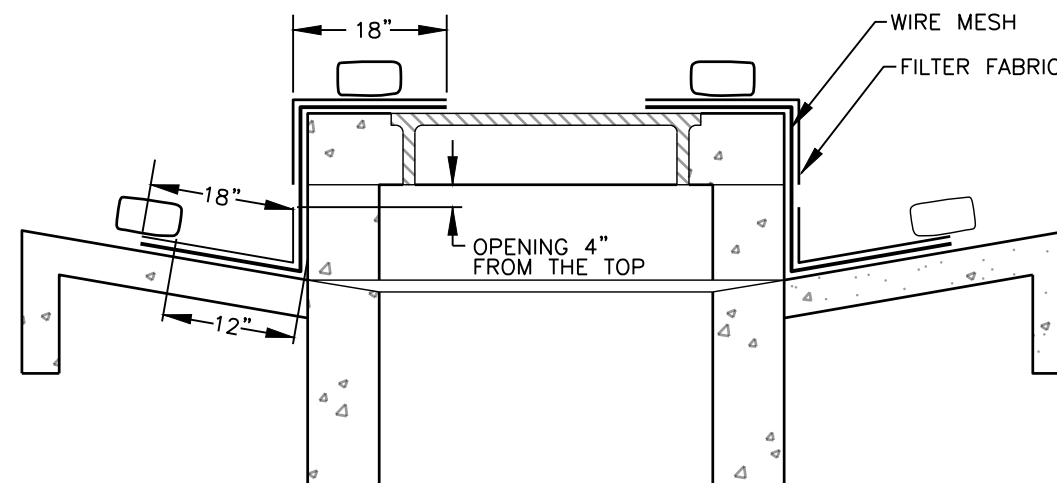
ISOMETRIC PLAN VIEW
N.T.S.



SILT FENCE
STONE OVERFLOW STRUCTURE
N.T.S.

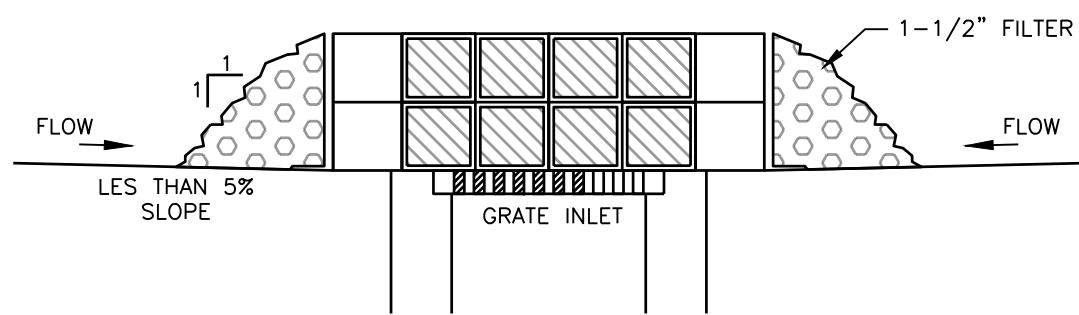


ISOMETRIC VIEW

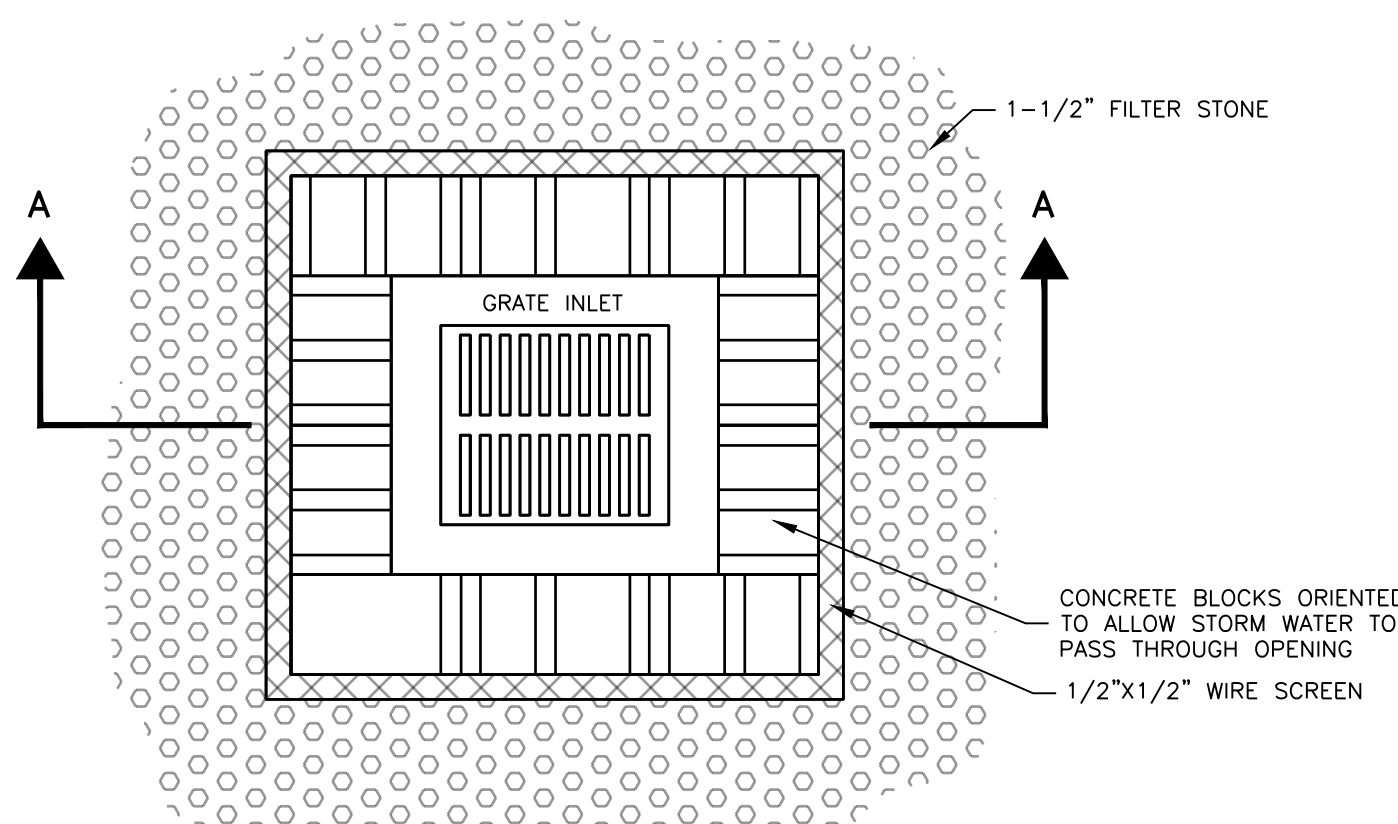


SECTION

FILTER FABRIC WYE INLET PROTECTION
N.T.S.



SECTION A-A

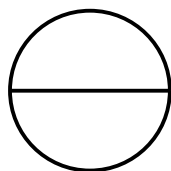


GRATE INLET PROTECTION
N.T.S.

Silt Fence General Notes

1. Steel posts which support the silt fence shall be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of one foot.
2. The toe of the silt fence shall be trenched-in with spade or mechanical trencher, so that the down slope face of the trench is flat and perpendicular to the line of flow. Where silt fence cannot be trenched-in (e.g. pavement or rock surface), weight fabric flap with rock on uphill side to prevent flow from seeping under fence.
3. The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.
4. Silt fence should be securely fastened to each steel support post or to woven wire which in turn is attached to the steel fence post. There shall be a 3 foot overlap, securely fastened where ends of fabric meet.
5. Reinforced silt fence shall be inspected weekly and maintained when bulges occur or when sediment accumulations reach 50% of the fabric height. The reinforced silt fence should be inspected daily for damage by construction equipment.
6. Silt fence shall be removed when the site is completely stabilized.
7. Silt fence shall not be installed and used in concentrated high flow discharge areas. Rock Filter Dams shall be installed and maintained in lieu of silt fence.

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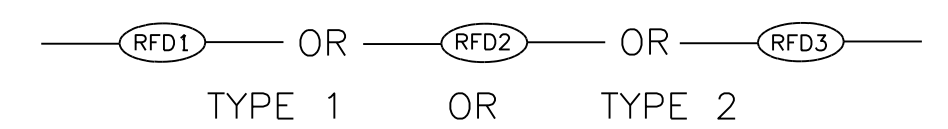
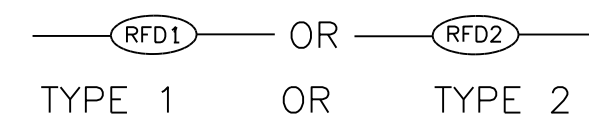


EROSION CONTROL 3 OF 4

STANDARD DETAILS



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1. IF SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, FILTER DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND/OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. MATERIALS (AGGREGATE, WIRE MESH, SANDBAGS, ETC.) SHALL BE AS INDICATED BY THE SPECIFICATION FOR "ROCK FILTER DAMS FOR EROSION AND SEDIMENTATION CONTROL".
3. THE ROCK FILTER DAM DIMENSIONS SHALL BE AS INDICATED ON THE SWP3 OR EROSION CONTROL PLANS.
4. STONE SIDE SLOPES SHOULD BE 2:1 OR FLATTER. DAMS WITHIN THE SAFETY ZONE SHALL HAVE SIDE SLOPES OF 6:1 OR FLATTER.
5. MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK FILTER DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.
6. FILTER DAMS SHOULD BE EMBEDDED A MINIMUM OF 4" INTO EXISTING GROUND.
7. THE SEDIMENT TRAP FOR PONDING OF SEDIMENT LADEN RUNOFF SHALL BE OF THE DIMENSIONS SHOWN ON THE PLANS.
8. ROCK FILTER DAM TYPES 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO THE HEIGHT & SLOPES SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. IN STREAM USE THE MESH SHOULD BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
9. SACK GABIONS SHOULD BE STAKED DOWN WITH 3/4" DIA. REBAR STAKES.
10. FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK, ETC.).
11. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.
12. ALL MATERIAL INCORPORATED IN THE CONSTRUCTION SHALL BE NEW.
13. MAX TEMPORARY EARTH SLOPE IS 3:1 WITH 4:1 RECOMMENDED IF PRACTICAL.




Type 1 Rock Filter Dam — RFD1

Type 2 Rock Filter Dam — RFD2

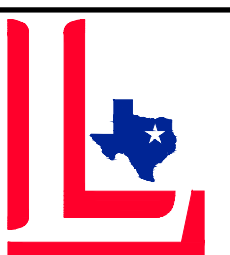
Type 3 Rock Filter Dam — RFD3



Type 4 (Sack gabions): Type 4 May be used in ditches and smaller channels to form an erosion control dam.



STANDARD DETAILS

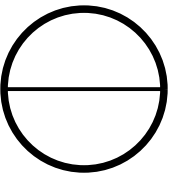


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GENERAL NOTES:
A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF LANCASTER, WHICH HAS ALSO ADOPTED THE FOURTH EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION – NORTH CENTRAL TEXAS HEREIN REFERRED TO AS N.C.T.C.O.G. SPECIFICATIONS. COPIES MAY BE OBTAINED FROM THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, 616 SIX FLAGS DRIVE, SUITE 200, ARLINGTON, TEXAS 76005-5888. (817) 640-3300. THESE SPECIFICATIONS ARE ALSO AVAILABLE AT WWW.PUBLICWORKS.DFWINFO.COM
B. FLEXIBLE BASE MATERIAL SHALL BE TYPE 'A' GRADE 1 PER TxDOT ITEM 247 AND NCTCOG ITEM 301.5
C. MODIFIED FLOWABLE FILL (REFER TO N.C.T.C.O.G. ITEM 504.2.3.5): MODIFIED FLOWABLE BACKFILL IN AREAS OF POSSIBLE FUTURE EXCAVATION SUCH AS UTILITY INSTALLATIONS SHALL CONSIST OF A MIXTURE OF NATIVE SOILS OR MANUFACTURED MATERIALS, CEMENT AND/OR FLY ASH, AIR-ENTRAINING MATERIAL AND WATER WHICH PRODUCES A MATERIAL WITH UNCONFINED COMPRESSIVE STRENGTH OF BETWEEN 50-PSI AND 150-PSI (4 TO 11-KG/CM2) AFTER 28 DAYS. MODIFIED FLOWABLE BACKFILL MAY BE USED IN ABANDONED PIPE CLOSURES, ABUTMENTS AND EMBANKMENTS. ANY MATERIALS USED SHALL BE PRIMARILY GRANULAR WITH A PLASTICITY INDEX OF <12 AND WITH 100% PASSING A 3/4 IN. SIEVE. THE FLOWABLE MIXTURE SHALL BE MIXED IN A PUG MIL, CONCRETE MIXER, OR TRANSIT MIXER AND SHALL HAVE A MINIMUM SLUMP OF 5 IN. (13 CM). THE FLOWABLE MIXTURE MUST BE ALLOWED TO SET PRIOR TO THE PLACEMENT OF ANY OVERLYING MATERIAL. REFER TO N.C.T.C.O.G. ITEM 504.2.3.5 FOR ADDITIONAL INFORMATION.
D. FRANCHISE UTILITIES: FLOWABLE BACKFILL MAY BE USED IN PLACE OF FLEXIBLE BASE OR NATIVE MATERIAL BY FRANCHISE UTILITIES FOR LIMITED STREET REPAIRS WITH INSPECTOR APPROVAL.

SPECIFIC NOTES:
1. FULL-DEPTH SAWCUT TO REPAIR ASPHALT OR CONCRETE PAVEMENT PRIOR TO OPENING THE DITCH IN ORDER TO ENSURE A NEAT STRAIGHT EDGE.
2. MODIFIED FLOWABLE BACKFILL MAY BE UTILIZED IN-LIEU OF NATIVE MATERIAL.
3. DEPTH OF CONCRETE REPAIR SHALL MATCH EXISTING PAVING DEPTH OR 8" MINIMUM, WHICHEVER IS GREATER.
4. REFER TO THE PLANS FOR SPECIFIED WIDTH OF REPLACEMENT.
5. RECOMMENDED WIDTHS – VARIES BASED ON DEPTH AND SOIL MATERIAL.
6. MECHANICALLY TAMP NATIVE MATERIAL (6"Ø CLOSDS OR SMALLER IN 6"-8" LIFTS) TO 95% OF THE MAXIMUM DRY DENSITY DETERMINED BY THE STD. PROCTOR TEST, ASTM D698 WITH MOISTURE CONTENT OF THE FILL AT THE TIME OF COMPACTION TO BE 0 TO 4% ABOVE PROCTOR OPTIMUM VALUE.
7. CONCRETE FOR PAVING REPAIRS SHALL BE MADE WITH A MINIMUM OF 6 1/2 SACKS OF CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
8. ALL REINFORCING STEEL SHALL BE NEW, NEAT, BILLET-STEEL PER ASTM DESIGNATION A-615, GRADE 60 AND SHALL BE DETAILED AND PLACED PER ACI MANUALS SP-88 AND 318, LATEST ADDITIONS. ALL REINFORCING STEEL SHALL HAVE MINIMUM 15 INCH LAP SPLICES, UNLESS NOTED OTHERWISE ON THE PLANS.
9. THE CONTRACTOR SHALL USE A LIQUID MEMBRANE-FORMING CURING COMPOUND PER N.C.T.C.O.G. ITEM 303.2.13.1.1.
10. STORM DRAIN PIPES AND CULVERTS WITH SLOPES EXCEEDING 10% SHALL BE BACKFILLED WITH FLOWABLE FILL MATERIAL BETWEEN SPRING LINE AND 6" (INCHES) ABOVE THE STORM DRAIN PIPE.

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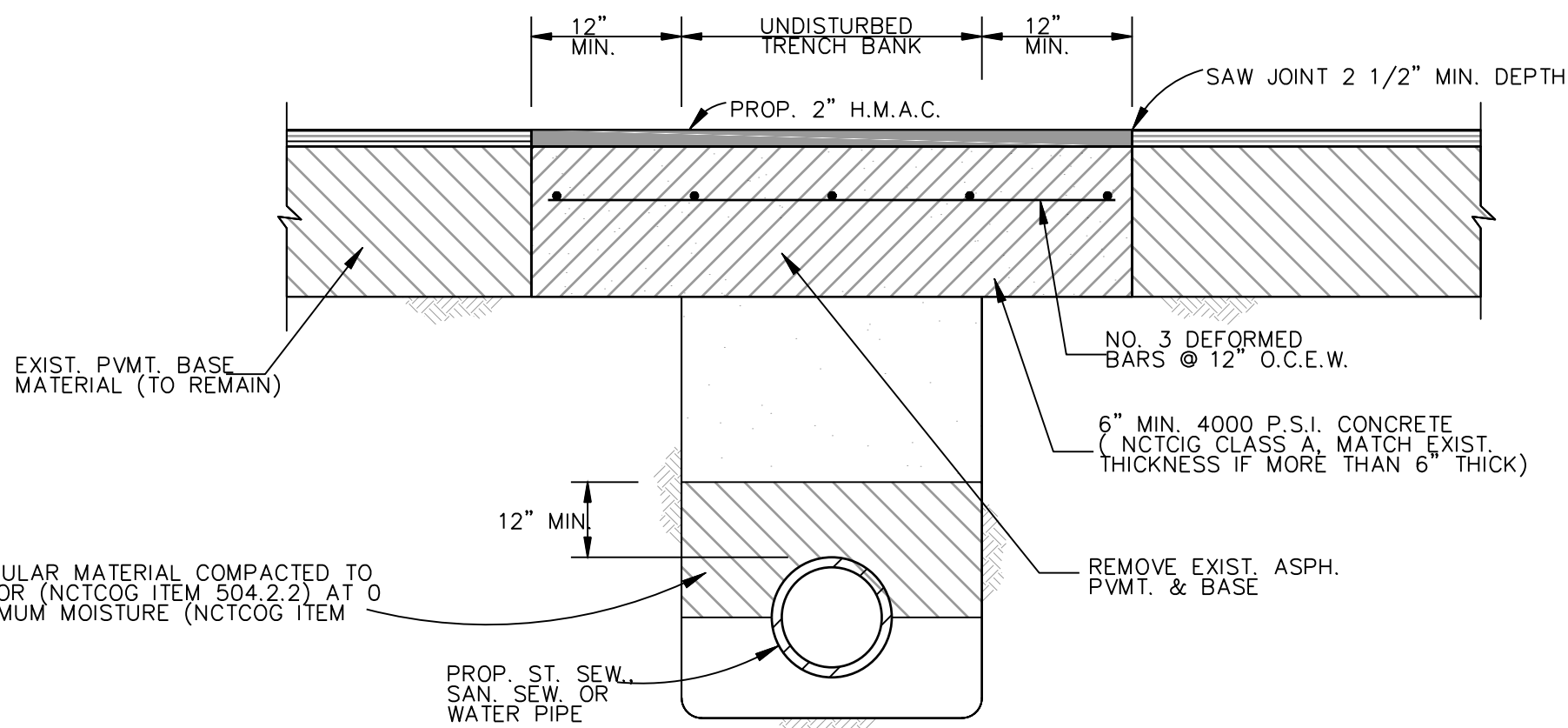
PAVEMENT AND BACKFILL

TRENCH REPAIR

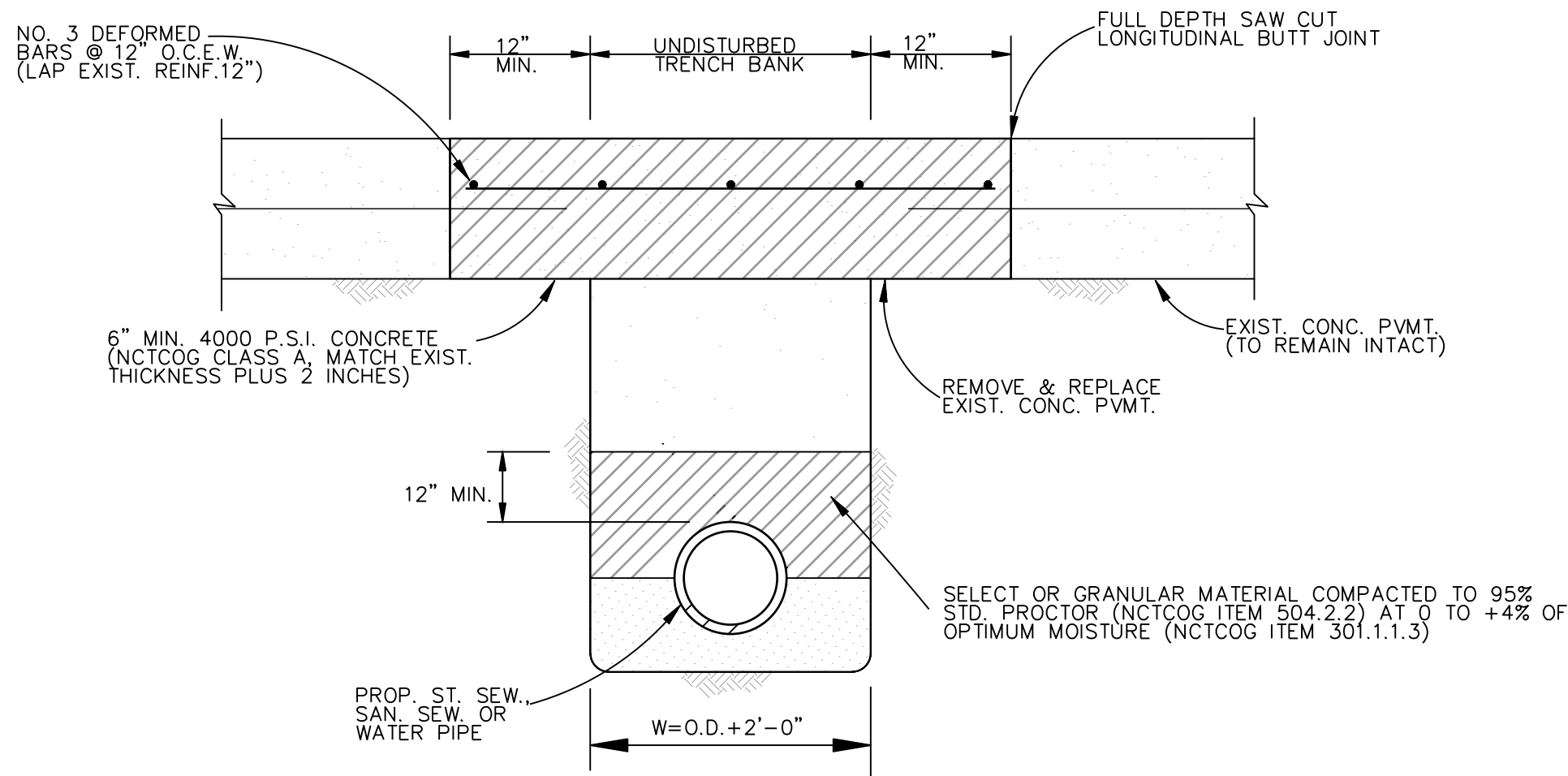
STANDARD DETAILS



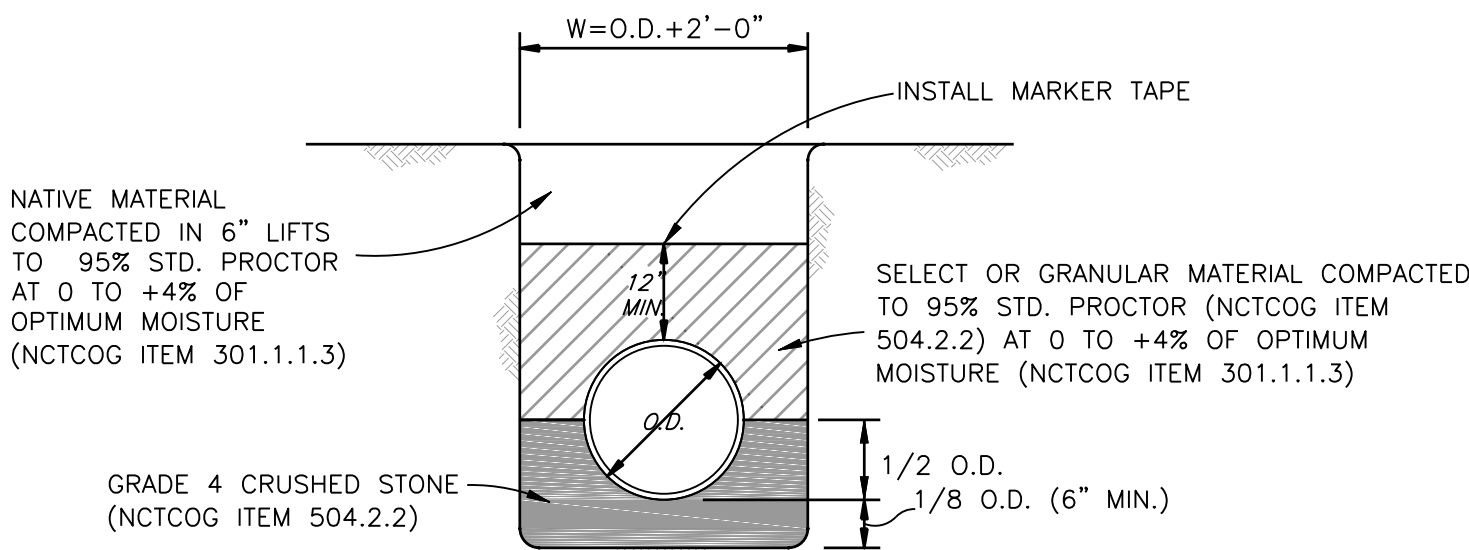
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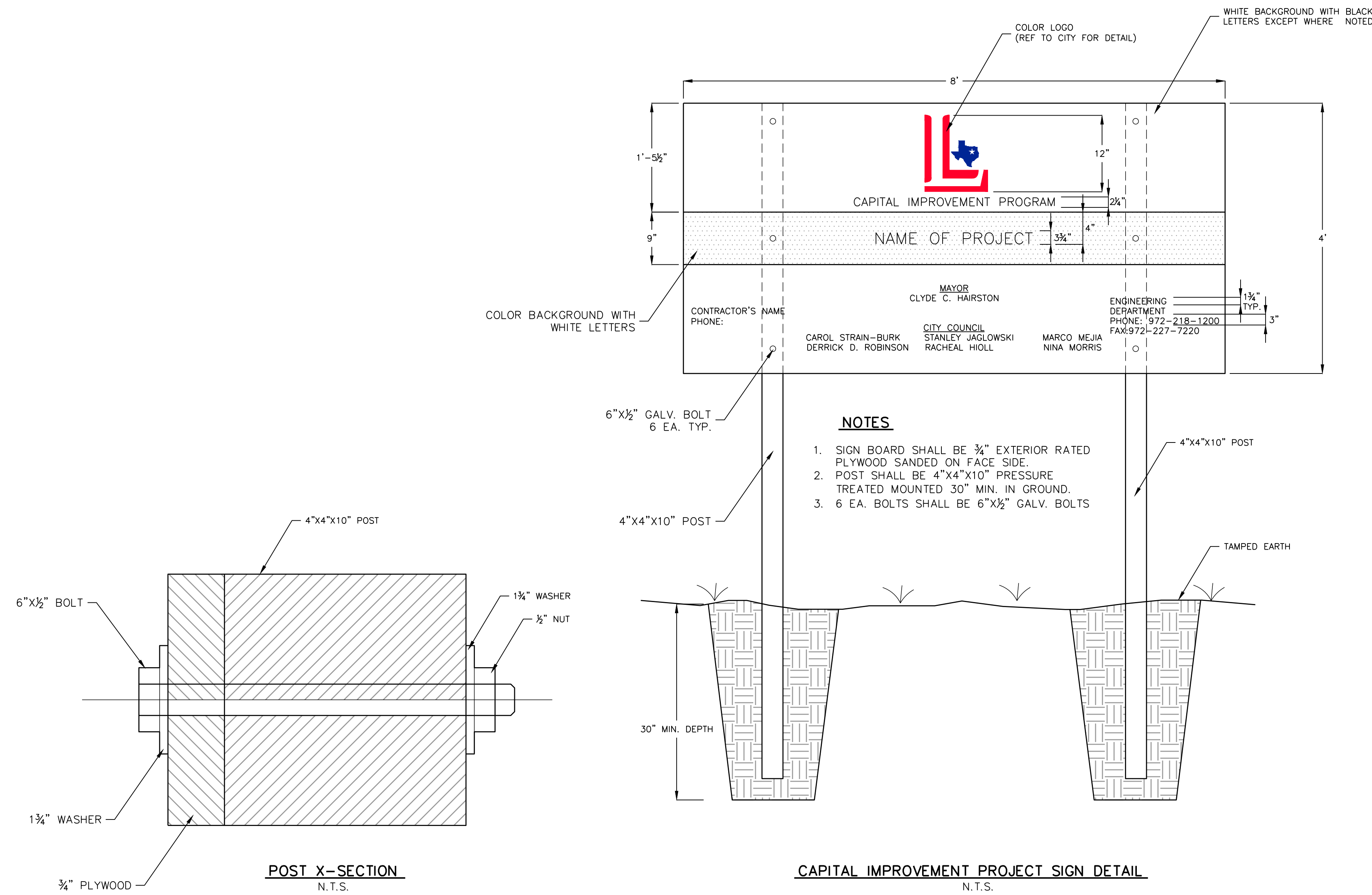
ASPHALT STREET OR DRIVEWAY REPAIR
CLASS B+ EMBEDMENT

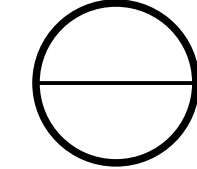



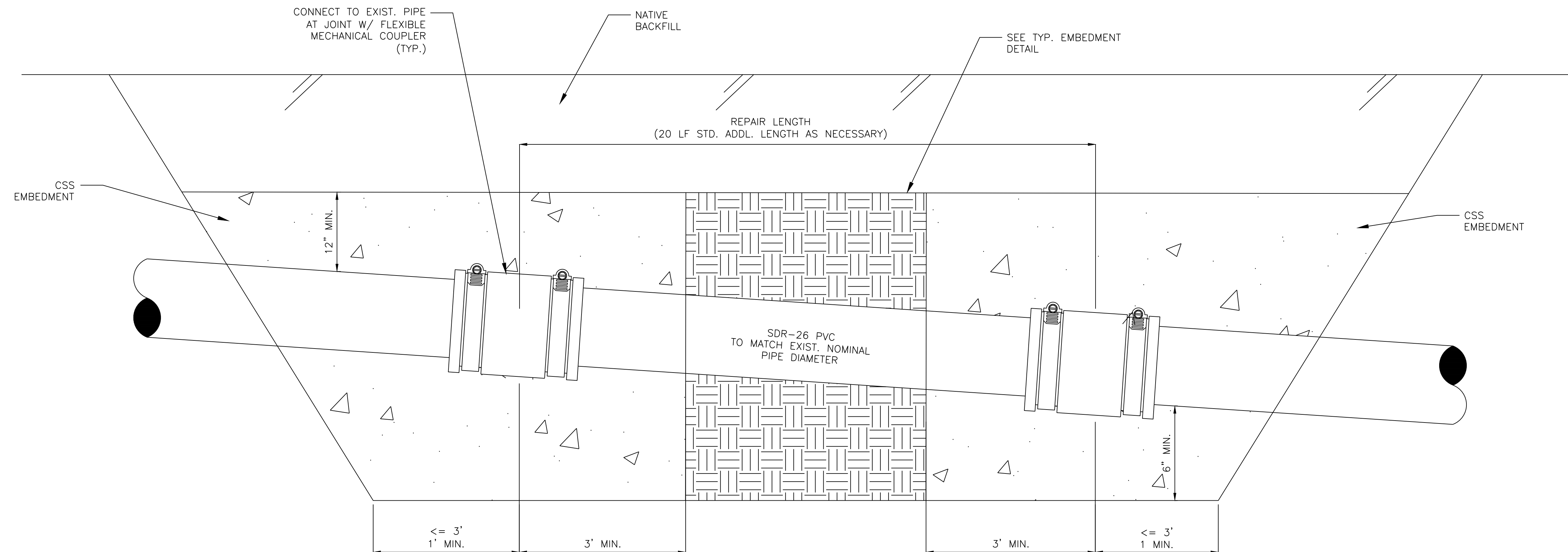
CONCRETE STREET OR DRIVEWAY REPAIR
CLASS B+ EMBEDMENT



CLASS B+ EMBEDMENT



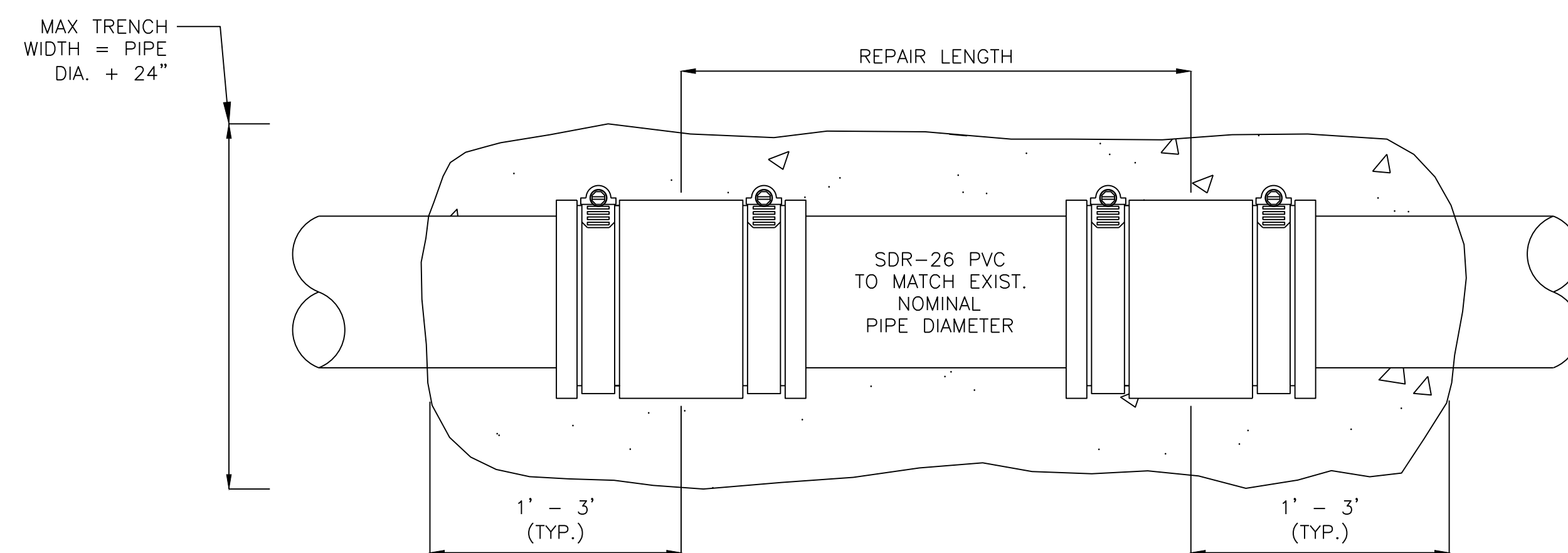
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CAPITAL IMPROVEMENT						
PROJECT SIGN						
STANDARD DETAILS						
						
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
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1A POINT REPAIR: PROFILE VIEW
SCALE: NONE

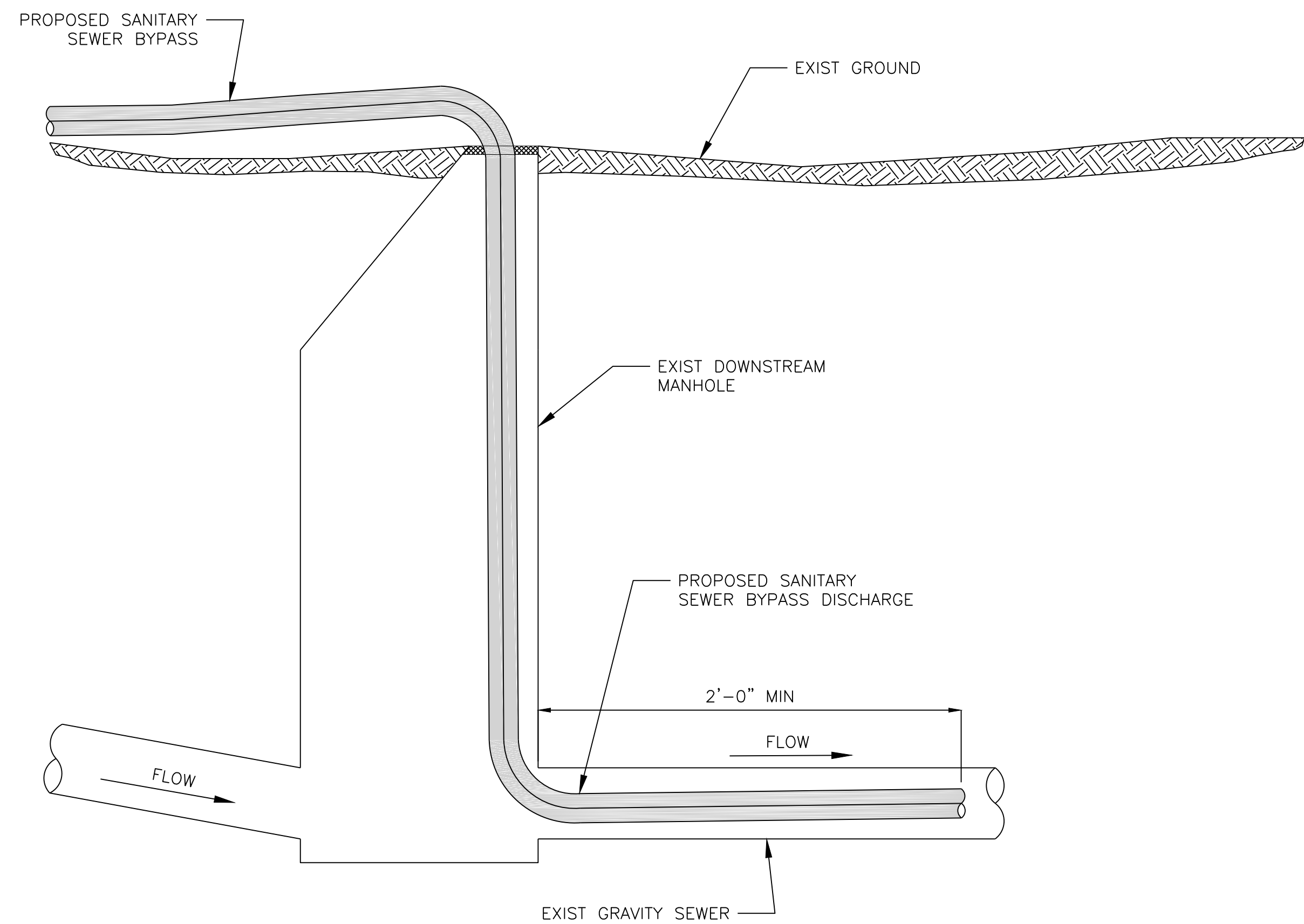
NOTES:

1. POINT REPAIR PIPE DIA. TO MATCH EXIST. NOMINAL PIPE DIA. BEING REPAIRED.
2. STD. REPAIR LENGTH IS UP TO 20 LF. REMOVE EXIST. PIPE TO NEAREST USABLE JOINT. POINT REPAIR GREATER THAN 20 LF WILL BE PAID WITH ADDITIONAL FOOTAGE BID ITEM. FOR EXAMPLE, A REPAIR REQUIRING 30 LF OF REPLACEMENT PIPE WILL BE PAID FOR W/1 STD. LENGTH REPAIR PLUS 10 LF OF ADDITIONAL FOOTAGE.
3. SUPPORT REPLACEMENT PIPE AS NECESSARY TO MAINTAIN CONSISTENT SLOPE.
4. FLEXIBLE COUPLING SHALL COMPLY WITH ASTM D5926, AND C1173 WITH STAINLESS STEEL BAND CLAMPS.
5. CONTRACTOR TO RESTORE SURFACE TO MATCH EXIST. SURFACE.

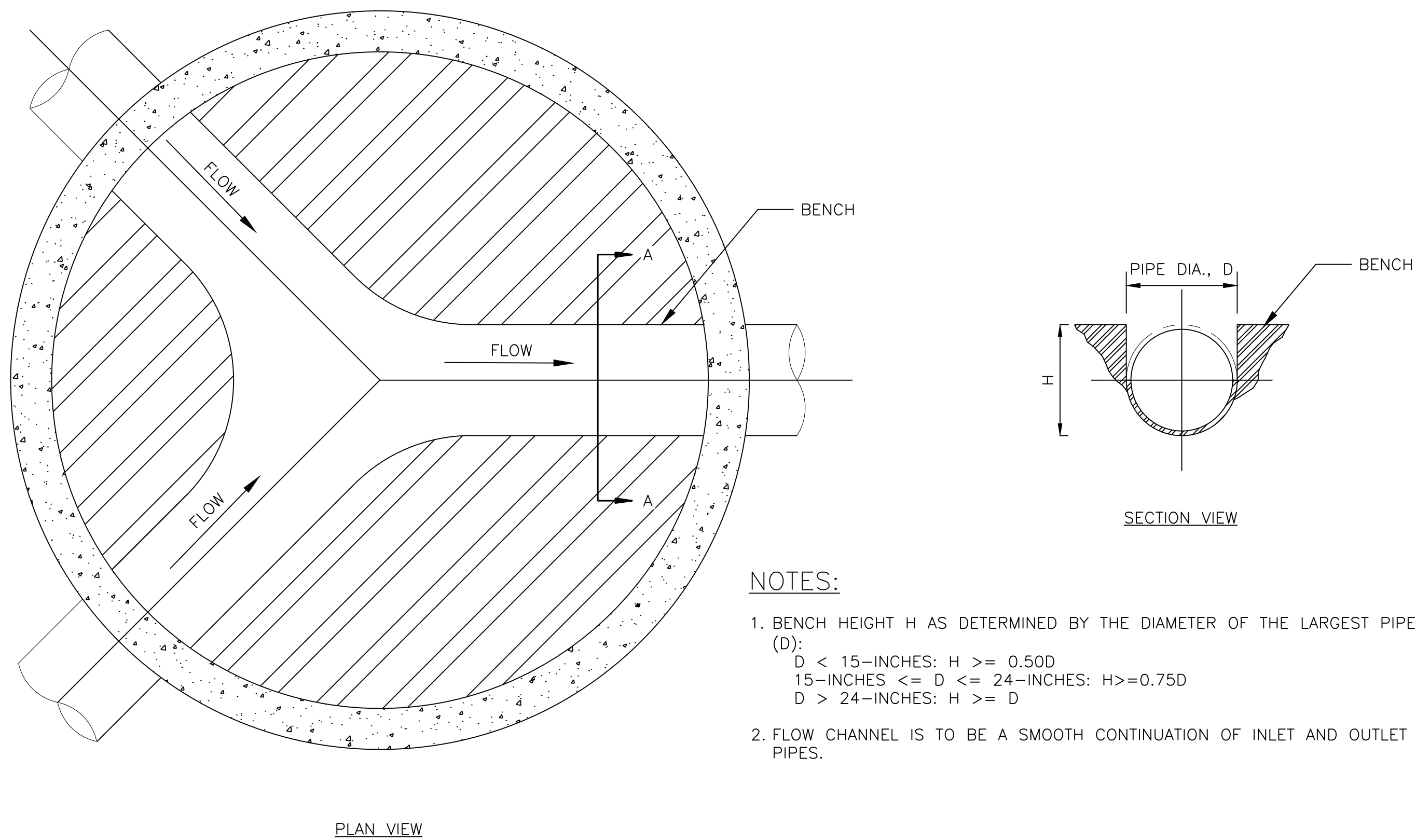


1B POINT REPAIR: PLAN VIEW
SCALE: NONE


CERTIFICATION: THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.						
PIPEBURSTING DETAIL						
SHEET 1 OF 2						
STANDARD DETAILS						
						
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	MISC-1	52 OF 53



1 BYPASS DISCHARGE DETAIL
SCALE: NONE



2 BENCH REPAIR
SCALE: NONE

CERTIFICATION: THIS CITY OF LANCASTER STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM THE CITY OF LANCASTER.						
<div>  </div>						
PIPEBURSTING DETAIL						
SHEET 2 OF 2						
STANDARD DETAILS						
DESIGN	DRAWN	CHECK	DATE	SCALE	SECTION	NO.
			May 2021	N.T.S.	MISC-2	53 OF 53