



RAYMORE PLANNING AND ZONING COMMISSION AGENDA

Tuesday, April 6, 2021 - 7:00 p.m.

City Hall Council Chambers
100 Municipal Circle
Raymore, Missouri 64083

1. Call to Order
2. Pledge of Allegiance
3. Roll Call
4. Personal Appearances - None
5. Consent Agenda
 - a. Approval of Minutes from March 16, 2021 meeting
6. Unfinished Business - None
7. New Business
 - a. Case # 21001: South Town Storage Site Plan
8. City Council Report
9. Staff Report
10. Public Comment
11. Commission Member Comment
12. Adjournment

MEETING PROCEDURES

The following rules of conduct apply:

1. Public can only speak during the meeting under the following circumstances:
 - a. The citizen has made a formal request to the Development Services Department to make a personal appearance before the Planning Commission; or,
 - b. A public hearing has been called by the Chairman and the Chairman has asked if anyone from the public has comments on the application being considered; or
 - c. A citizen may speak under Public Comment at the end of the meeting.
2. If you wish to speak to the Planning Commission, please proceed to the podium and state your name and address. Spelling of your last name would be appreciated.
3. Please turn off (or place on silent) any pagers or cellular phones.
4. Please no talking on phones or with another person in the audience during the meeting.
5. Please no public displays, such as clapping, cheering, or comments when another person is speaking.
6. While you may not agree with what an individual is saying to the Planning Commission, please treat everyone with courtesy and respect during the meeting.

Every application before the Planning Commission will be reviewed as follows:

1. Chairman will read the case number from the agenda that is to be considered, and open the public hearing, if applicable.
2. Applicant will present their request to the Planning Commission.
3. Staff will provide a staff report.
4. If the application requires a public hearing, Chairman will invite anyone to speak on the request.
5. Chairman will close the public hearing.
6. Planning Commission members can discuss the request amongst themselves, ask questions of the applicant or staff, and may respond to a question asked from the public.
7. Planning Commission members will vote on the request.

THE **PLANNING AND ZONING COMMISSION** OF THE CITY OF RAYMORE, MISSOURI, MET IN REGULAR SESSION **TUESDAY, MARCH 16, 2021**, IN THE COUNCIL ROOM AT RAYMORE CITY HALL, 100 MUNICIPAL CIRCLE, RAYMORE, MISSOURI WITH THE FOLLOWING COMMISSION MEMBERS PRESENT: CHAIRMAN MATTHEW WIGGINS, WILLIAM FAULKNER, KELLY FIZER, JEREMY MANSUR, TOM ENGERT, JIM PETERMANN, ERIC BOWIE (arrived at 7:08 p.m.) AND MAYOR KRIS TURNBOW. ABSENT WAS MARIO URQUILLA. ALSO PRESENT WERE CITY PLANNER KATIE JARDIEU, DEVELOPMENT SERVICES DIRECTOR JIM CADORET, AND ASSISTANT CITY MANAGER MIKE EKEY.

1. **Call to Order** – Chairman Wiggins called the meeting to order at 7:00 p.m.
2. **Pledge of Allegiance**
3. **Roll Call** – Roll was taken and Chairman Wiggins declared a quorum present to conduct business.
4. **Personal Appearances** – None
5. **Consent Agenda**
 - a. **Approval of the minutes of the February 16, 2021 meeting.**

Motion by Commissioner Faulkner, Seconded by Commissioner Petermann, to approve the minutes.

Vote on Motion:

Chairman Wiggins	Aye
Commissioner Faulkner	Aye
Commissioner Bowie	Absent
Commissioner Fizer	Aye
Commissioner Engert	Aye
Commissioner Petermann	Aye
Commissioner Urquilla	Absent
Commissioner Mansur	Aye
Mayor Turnbow	Aye

Motion passed 7-0-0.

6. Unfinished Business - None

7. New Business -

a. Presentation on proposed Local Use Tax

Assistant City Manager Mike Ekey reviewed the details of the proposed Local Use Tax, highlighting that the Local Use Tax is a 2.5% tax added to online businesses without a physical location in Raymore that do not charge sales tax, such as Amazon, and that it could allow nearly \$1 million in additional funds to employ police officers, public works employees, and Parks & Recreation workers. Mayor Turnbow added some information to Mr. Ekey's presentation about the Local Use Tax, and the need for it to pass.

Commissioner Engert questioned what the plan B is should this vote not pass?

Mr. Ekey responded that the focus is on the Use Tax passing. There will be several months during the summer should the tax not pass where the budget will be reviewed

and necessary changes can be made. Mayor Turnbow added that if the Use Tax does not pass, the City will have to look at what other infrastructure areas can be cut back on to be able to add necessary personnel, such as police officers and public works personnel.

Commissioner Bowie had a few questions.

Q - Why does the presentation include the need to grow an already satisfactory department?

Mr. Ekey responded that while we already have a high satisfaction level, the projected growth of Raymore will outpace the staff the City currently has. The Use Tax will ensure that the level of satisfaction of Raymore residents is maintained, and the added personnel employed from the Use Tax will help to get ahead of the downward satisfaction curve if the staff were not added soon enough. The Use Tax will also help to make sure that there will not be service cuts, and the city staff will be able to keep up with the growth of the city.

Q - What is the projected growth numbers that would spur the need for this to pass?
City Planner Katie Jardieu stated that the growth has been conservatively projected at 1.8% per year.

b. Review of Completed Projects

City Planner Katie Jardieu presented an overview of the staff report submitted to the Commission.

i. Raymore Activity Center - Site plan approved on November 15, 2016

Q - *What aspects of the design do you like or dislike? Would you like to see design elements from this design, as well as Centerview, in other Parks projects as an element of continuity?*

a. After discussion amongst the Commissioners, the general consensus is that the Raymore Activity Center (RAC) should have the sidewalks completed per the approved plan, and should have beautification measures completed once the next building phase is complete. The Commissioners like the wood elements of the building, as well as the continuity between the RAC and Centerview, and encourage the use of these design elements in future Parks projects.

ii. Brightside Children's Center Expansion - Site plan approved on May 15, 2018

Q - *Does this give the intended architectural relief? Do the different material types help achieve the design where there isn't relief?*

a. After discussion amongst the Commissioners, the general consensus is that the project expansion is architecturally the same as the plan drawings, and the different design elements and roof detailing give the impression of architectural relief. The Commissioners also agreed that the distance from the road was well planned for the facility, and that the building design maintains the architecture of the neighboring buildings nicely.

iii. Discover Vision Center - Site plan approved on July 18, 2017

Q - *Do you like the mix of materials to help achieve the 4-sided design?*

a. The Commissioners discussed a few topics for this project. They agreed that the building has a modern exterior, and that it is appealing and fits in with the other buildings around it, especially the shopping strip at 58 Hwy and Dean Ave. The Commissioners also like how close the building is to 58 Hwy, and the trees planted around the trash dumpster area, as long as they continue to maintain the landscaping. Commissioner Bowie feels

that the entrance is somewhat odd, but overall agrees with the general consensus.

- iv. American Self Storage - Site plan approved on August 15, 2017
 - Q** - *Does the landscaping around the monument sign achieve the necessary result? Is landscaping at the monument base something the City of Raymore should continue to require?*
 - a. The general consensus by the Commissioners for this project is that the main building is too close to 58 Hwy, and the monument sign is insignificant and will be overgrown by the landscaping that has been planted around it unless maintained appropriately. They feel that the building architecture is too industrial and that the homeowners on each side of the property have cause to be unhappy with the tree removal/replanting along the east and west sides.
- v. Schlotzsky's - Site plan review by Commission not required
 - Q** - *Should the City require plan review when commercial or industrial sites have a change of use and/or when exterior changes are made to the building? What should the threshold be for Site Plan review while still remaining flexible to encourage development?*
 - a. Ms. Jardieu explained that Development Services staff maintain a right to approve designs with a less than 10% change to the building. After reviewing, a few Commissioners came to a conclusion that this building should have been brought to the Commission, as they feel that more than 10% of the building has been changed. The rest of the Commissioners did not feel that the building needed to have gone through Plan Review, although they questioned how much change is allowed within the 10% guideline. The commissioners agreed that the building is appealing looking, and that the transition was done well, but that in the future, the change in use of the building (ex., from a restaurant into a clothing retailer) should be taken into consideration when deciding to submit plans to Plan Review.
- vi. Compass Health - Site plan approved on December 17, 2019
 - Q** - *What aspects of the design are successful? Are there aspects to be improved?*
 - a. After discussion, the Commissioners agreed that the building fulfilled the plan, although Commissioner Wiggins stated that he would have liked to see the original plan completed and the pond on the property.

8. City Council Report

Development Services Director Jim Cadoret stated that there have been two meetings of Council since the Commission last met. The February 22nd agenda was very short, with no development items included. The March 8th meeting had one item of new business. The Planning Commission had given a favorable recommendation for the Alexander Creek phase 4 preliminary plat, and on March 8th, Council accepted the recommendation and unanimously approved the preliminary plat. They have started sitework, and will be required to come back to the Commission and Council for the final plat.

9. Staff Report

Ms. Jardieu stated that the single family homes are keeping in stride with last year. Scooter's Coffee is beginning to train employees and should be opening in around a week or so. The April 6th meeting has gotten two applications: Parkside - first phase final plat, and South Town Storage site plan review. April 12th is when Parkside will go before the City Council. There has been a plan submitted for part of the Carroll property on the What's Happening app. The Venue at the Good Ranch is continuing to

be reviewed, a final plat is still needed, but they are moving forward. The Sunset Plaza townhouses should be coming soon, they have to wait until April, but should be moving forward fairly quickly.

10. Public Comment

No public comment.

11. Commission Member Comment

Commissioner Bowie appreciates the information, no other comments or questions.

Commissioner Engert thanked the city staff, and will be encouraging voters on the Use Tax.

Commissioner Petermann had no comments this evening.

Commissioner Fizer enjoyed the Community Conversation a few weeks ago, and it's a good opportunity for people to speak their opinions.

Commissioner Faulkner thanked everyone, and informed everyone that Judy Goff has passed away, and shared a bit of history of her time with the City Council.

Commissioner Mansur thanked Mr. Ekey for the presentation for the Use Tax, thanked Ms. Jardieu, and city staff.

Chairman Wiggins thanked city staff, and stated that he enjoys this type of exercise to talk about finished projects.

Mayor Turnbow had no comments this evening.

12. Adjournment

Motion by Commissioner Mansur, Seconded by Commissioner Petermann, to adjourn the March 16, 2021 Planning and Zoning Commission meeting.

Vote on Motion:

Chairman Wiggins	Aye
Commissioner Faulkner	Aye
Commissioner Bowie	Aye
Commissioner Fizer	Aye
Commissioner Petermann	Aye
Commissioner Engert	Aye
Commissioner Urquilla	Absent
Commissioner Mansur	Aye
Mayor Turnbow	Aye

Motion passed 8-0-0.

The March 16, 2021 meeting adjourned at 8:19 p.m.

Respectfully submitted,

Emily Jordan

To: Planning and Zoning Commission
From: Katie Jardieu, City Planner
Date: April 6, 2021
Re: **Case #21001** **South Town Storage Site Plan**

GENERAL INFORMATION

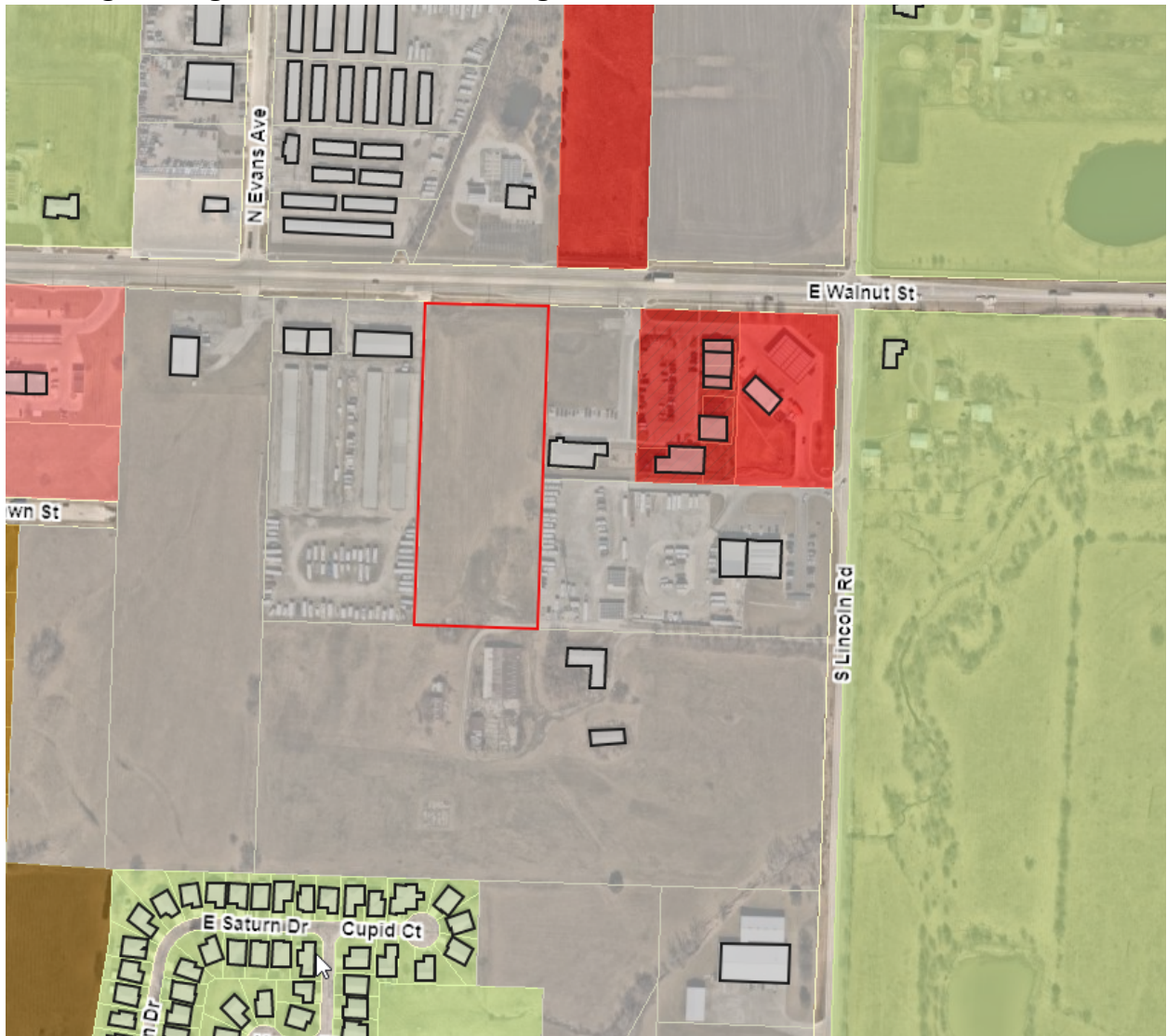
Applicant/ Bill Breit
Property Owner: South Town Storage, LLC
P.O Box 107
Raymore, MO 64083

Requested Action: Site Plan approval for South Town Storage
Property Location: South side of Hwy 58 adjacent to Brightside Day Care.



Existing Zoning:

M-1 Light Industrial District



Existing Surrounding Uses:

North: M-1, C-2
South: M-1
East: M-1
West: M-1

Total Tract Size: 4.50 Acres

Growth Management Plan: The Future Land Use Plan Map contained in the Growth Management Plan identifies this property as appropriate for Light Industrial development.

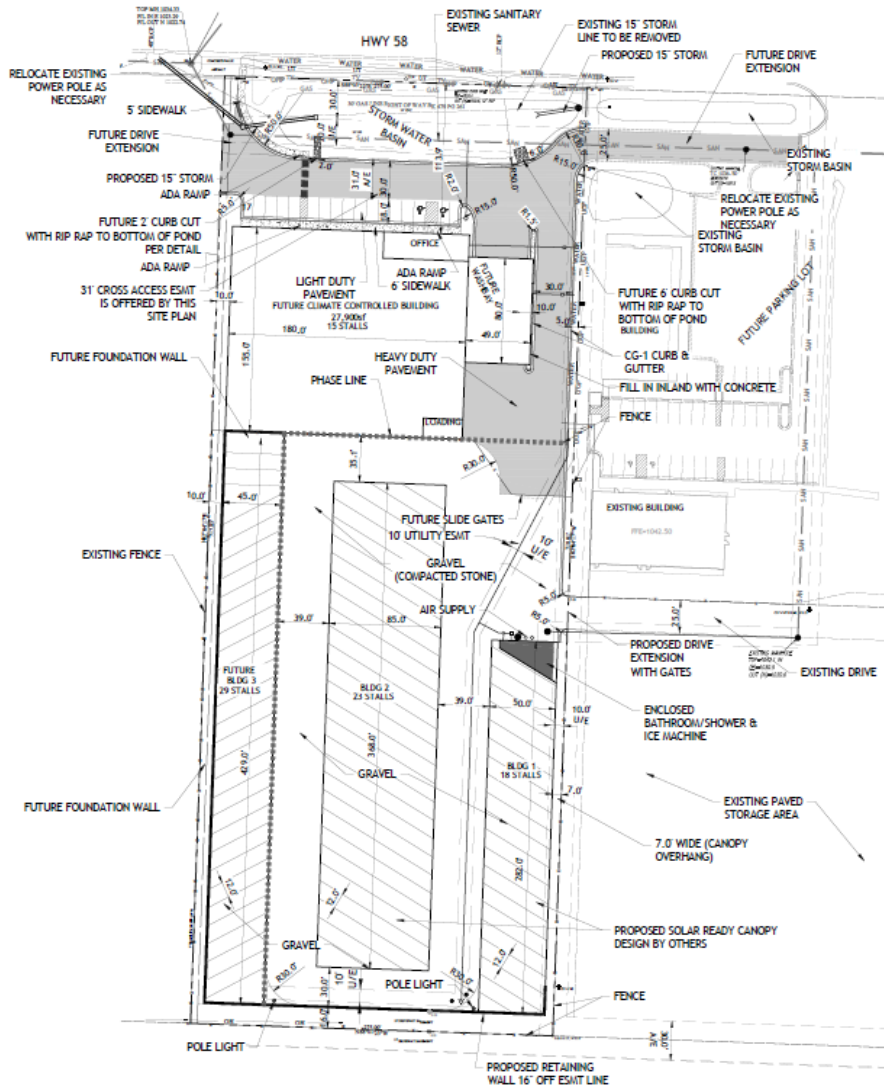
Major Street Plan: The Major Thoroughfare Plan Map contained in the Growth Management Plan identifies Hwy 58/E Walnut Street as a major arterial road.

Advertisement: City Ordinance does not require advertisement for Site Plans.

Public Hearing: City Ordinance does not require a public hearing for Site Plans.

PROPOSAL

Outline of Requested Action: The applicant seeks to obtain site plan approval for Phase 1 and Phase 2 of a site plan that includes 3 open air vehicle storage buildings. The buildings in Phase 1 include 70 stalls with an onsite enclosed bathroom, shower and ice machine.



SITE PLAN REQUIREMENTS AND STANDARDS

In order for the applicant to accomplish the aforementioned action, they must meet the provisions of the Unified Development Code. Chapter 470 of the Unified Development Code outlines the requirements and actions that need to be taken in order to site plan property, specifically Section 470.160.

Section 470.160 Site Plan Review

A. Purpose

The City of Raymore recognizes that the nature of land development creates the potential for traffic congestion, overcrowding, adverse visual and environmental impacts, and health problems. The City strives to promote growth in Raymore while stabilizing the established residential character of the area. Site plan review regulates the development of structures and sites in a manner that takes into consideration the following considerations:

1. the balancing of landowners' rights to use their land, with the corresponding rights of neighboring landowners, residents and the general public, to live without undue disturbances (e.g., noise, smoke, vibration, fumes, dust, odor, glare, stormwater runoff, etc.);
2. the convenience and safety of vehicular and pedestrian movement within the site and in relation to adjacent areas or roads;
3. the adequacy of waste disposal methods and protection from pollution of surface or groundwater;
4. the protection of historic and environmental features on the site under review and in adjacent areas;
5. the stability of the built environment, particularly residential neighborhoods, by promoting urban development which is compatible with clearly identified natural resources; and
6. the adequacy of provisions for resulting additional system demands which may be imposed by the development upon roads and streets, water supply and storage, storm sewerage, sanitary sewerage and wastewater treatment and the consistency of the development with the City's Growth Management Plan.

B. Applicability

1. All applications for building permits for developments in the multi-family, commercial and industrial zoning districts are subject to site plan review in accordance with this section. All nonresidential uses in residential districts require site plan review.
2. No building permit will be issued without being granted site plan approval when it is required by this subsection.

C. Application

Applications for site plan review may be obtained from the Community Development Director. The application must be completed in its entirety in accordance with Section 470.010C and filed with the Community Development Director. The applicant must submit copies in accordance with the submission schedule regularly adopted by the Planning and Zoning Commission.

D. Procedure

1. Community Development Director Action
 - a. All site plans will be reviewed by the Community Development Director.

- b. The Community Development Director has the authority to take final action (approve, conditionally approve or deny) on applications for:
 - (1) developments that have an approved site plan on file where the application proposes to expand the existing use by less than 10 percent or 5,000 square feet, whichever is less; or
 - (2) developments that have an approved site plan on file where the application proposes to modify signage, parking, landscaping or other minor feature and the proposed modifications will be in compliance with all requirements of this Code.
- c. The Community Development Director must complete the review within 20 days of receiving a complete application.

2. Planning and Zoning Commission Action

With the exception of those cases identified in paragraph 1 above, all other applications for site plan review will be reviewed by the Community Development Director, and forwarded to the Planning and Zoning Commission for review and action. The Commission has the authority to take final action, and may approve, approve with conditions or disapprove the application.

3. Conditions of Approval

In approving a site plan, the Planning and Zoning Commission or, when applicable the Community Development Director may impose reasonable conditions, safeguards and restrictions upon the applicant and the premises.

E. Findings of Fact

- 1. In order to be approved, the Community Development Director or Planning and Zoning Commission must find that the following conditions are met:
 - a. the plan complies with all applicable standards of this code and all other applicable City ordinances and policies;
 - b. the plan does not conflict with the adopted plans of the City of Raymore or the purpose and intent of this code;
 - c. the proposed use is allowed in the district in which it is located;
 - d. vehicular ingress and egress to and from the site, and circulation within the site provides provides for safe, efficient, and convenient movement not only within the site but also on adjacent roadways;
 - e. the plan provides for safe, efficient, and convenient movement of pedestrians on and to the site;
 - f. the arrangement of structures and buildings on the site allows for efficient use of the land, is compatible with development on adjacent property, and minimizes potential adverse impacts on existing or planned municipal infrastructure and services;
 - g. open space and natural features on the site are arranged in such a way that unique natural resources are preserved and creates a desirable and functional environment for site users;
 - h. the plan avoids unnecessary or unreasonable alterations to existing topography, preserves existing healthy, mature trees and woodlands, and designs drainage facilities to promote the use and preservation of natural watercourses;
 - i. provides adequate parking for the use, including logical and safe parking and circulation;

- j. provides landscaping and screening as required by this code that creates logical transitions to adjoining uses, screens incompatible uses, minimizes the visual impact of the development on adjacent roads and properties, and utilizes native plant materials selected to withstand the local climate and individual site microclimates; and
- k. includes site illumination that has been designed and located to minimize adverse impacts on adjacent properties.

F. Effect of Approval

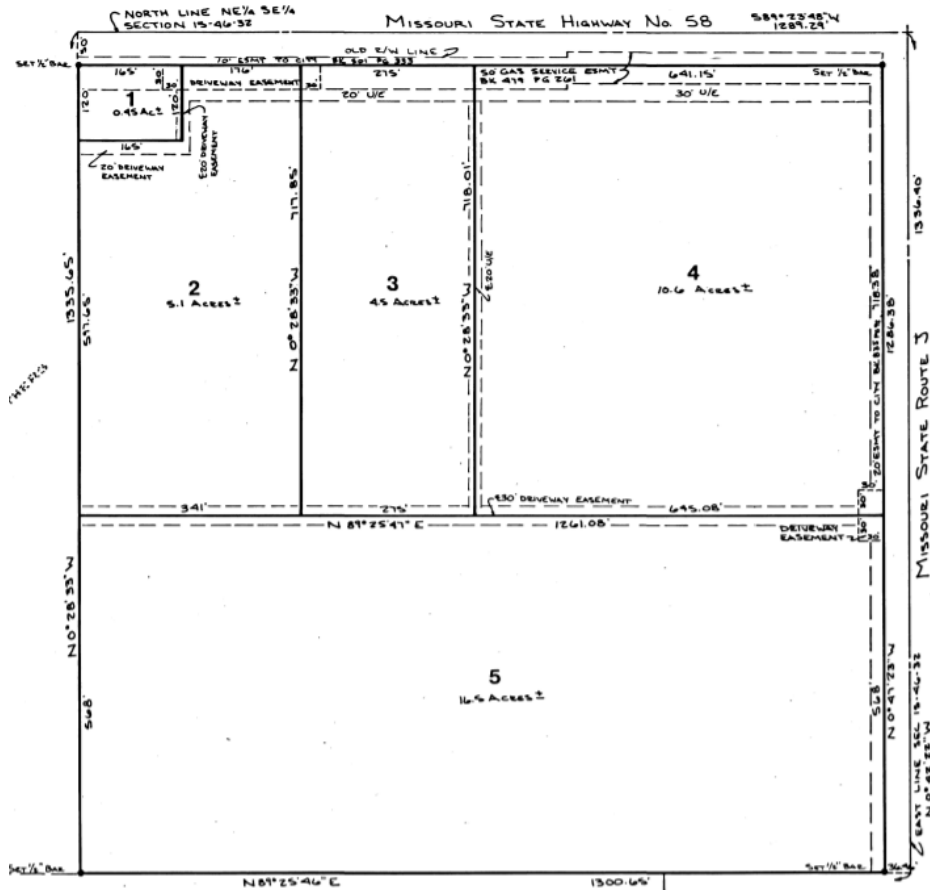
If the Planning and Zoning Commission or, when applicable, the Community Development Director approves a site plan, it will be considered permission to prepare and submit a building permit application that complies with the approved site plan and conditions of approval.

G. Appeals

1. The applicant may appeal the decision of the Community Development Director to the Planning and Zoning Commission.
 - a. The applicant must notify the Community Development Director of their intent to appeal within 10 days of the date of decision from the Community Development Director.
 - b. The Community Development Director will schedule the appeal for the next regularly scheduled Planning and Zoning Commission meeting which is no sooner than 15 days from the date the intent to appeal was filed.
 - c. The applicant must provide an additional 15 review copies of the drawings and the additional required fee along with the intent to appeal.
2. The applicant may appeal the decision of the Planning and Zoning Commission to the City Council.
 - a. The applicant must notify the Community Development Director of their intent to appeal, in writing, within 10 days of the date of the Planning and Zoning Commission meeting when the application was considered.
 - b. The Community Development Director will schedule the appeal for the next regularly scheduled City Council meeting provided it is at least 15 days from the date the intent to appeal was filed.
 - c. The applicant will provide an additional 15 review copies of the drawings along with the intent to appeal.

PREVIOUS ACTIONS ON THE PROPERTY

1. The property has been zoned M-1 “Light Industrial” district since 1990.
2. A site plan for an expansion of Brightside Day Care, including an additional two buildings was approved in May 2018. As of April 2021, only one additional building has been constructed.
3. The proposed facility is to be located on Lot 3 of the Bush Industrial Complex, which was originally platted in 1992.



ENGINEERING DIVISION COMMENTS

The Engineering Division of Public Works has reviewed the application and determined that it complies with all of the applicable requirements of City Code.

STAFF COMMENTS

- Development Standards:** The current bulk and dimensional standards for the "M-1" Light Industrial District zoning classification for the property is provided below.

	M-1
Minimum Lot Area	none
per lot	-
per dwelling unit	-
Minimum Lot Width (feet)	200
Minimum Lot Depth (feet)	200
Yards, Minimum (feet)	
front	30

rear	20
side	10
side, abutting residential district	20
Maximum Building Height (feet)	80
Maximum Building Coverage (%)	50

The property and proposed building comply with the M-1 district development standards.

2. **Parking:** The minimum parking standards for the use allowed within the proposed development is as follows:

Use	Minimum Parking Spaces Required
INDUSTRIAL USES	
Mini Warehouse	1 per 1000 square feet of non-office floor area plus 1 per 300 square feet of office area

Section 425.020 Off-Street Parking Requirements

B. 5. Uses Not Listed

In the case of buildings or uses not mentioned in this chapter, the Development Services Director must determine which standard is most appropriate. The Development Services Director may require the applicant to submit a parking study or other evidence to help determine the most appropriate parking standard for the proposed use.

The first phase of this site plan does not include an office building. Staff has determined that there is adequate space between buildings, which are open units to allow pull-through of vehicles, to allow for parking while items are unloaded and stored. Similar storage facilities, with no office space, have not been required to accommodate parking in their site plan. Therefore no parking is deemed necessary with this phase of the site plan.

3. **Landscaping**

Twenty percent (20%) of the site is required to be reserved for landscaped area. A landscaped area a minimum of six feet (6') in width shall be provided along each street frontage and along all perimeter property lines.

As part of Phase 1, the minimum six-foot (6') landscaped area is provided along Hwy 58 and the west property line as open space. There is also a 15-foot landscaped area along the rear property line. Future phases will keep the area along Hwy 58 as a stormwater basin allowing for grass and potential plantings as well. The west property line has a foundation wall along the property line in lieu of perimeter landscaping. Those areas and necessary landscaping improvements will be considered in the future phases.

Since no interior parking is required for Phase 1, no interior parking lot landscaping or trees are necessary.

The proposed landscape plan, as part of Phase 1 of the site plan complies with the landscaping requirements of the UDC. Future phases will need to be addressed as part of a site plan or site plan amendment.

4. Building Design:

The proposed development must comply with the building design standards contained in Section 440.010 of the UDC.

Section 440.010 Building Design Standards

C. Building Materials

1. Masonry Construction

A minimum of 50 percent of the front and side facades shall consist of materials described by this sub-section.

- a. Masonry construction shall include all masonry construction which is composed of solid, cavity, faced or veneered-wall construction, or similar materials approved by the Planning and Zoning Commission.
- b. Stone materials used for masonry construction may consist of granite, sandstone, slate, limestone, marble or other hard and durable all-weather stone. Ashlar, cut stone and dimensioned stone construction techniques are acceptable.
- c. Brick material used for masonry construction shall be composed of hard-fired (kiln-fired), all weather common brick or other all-weather common brick or all-weather-facing brick.
- d. Concrete finish or precast concrete panel (tilt wall) construction shall be exposed or aggregate, hammered, sandblasted or other finish as approved by the Planning and Zoning Commission.
- e. Stucco or approved gypsum concrete/plaster materials are also permitted.

2. Glass Walls

Glass walls shall include glass-curtain walls or glass-block construction. A glass-curtain wall shall be defined as an exterior wall which carries no floor or roof loads and which may consist of a combination of metal, glass and other surfacing materials supported in a metal frame.

3. Metal Walls

- a. The use of metal siding is permitted only in industrial districts and only for side and rear façades. The materials used on the front façade shall be incorporated into any façade visible from a public street to break up the monotony of those facades.
- b. The use of corrugated panels, with a depth of less than three-quarter inch or a thickness less than U.S. Standard 26 gauge is prohibited.
- c. The use of unpainted metal panels, excluding panels made from copper, weathering steel, or stainless steel, is prohibited. The color finish of metal panels and exposed fasteners shall have extended durability with high resistance to fade and chalk.

- d. Corrugated metal facades shall be complemented with masonry, brick, stone, stucco or split-face block. Architectural metal panels may be an acceptable substitute for masonry. Appropriate landscaping shall be used to complement and enhance a building's design, color and material.

Phase 1 includes open air storage buildings, with minimal facade facing, in the rear of the property.



The Phase 2 climate controlled building will be required to meet the architectural design standards. A site plan amendment will be required with compliant building elevations for Planning Commission approval.

5. Pedestrian Access:

The first Phase of the site plan is at least 228.9 feet from Hwy 58. It is not feasible to construct a pedestrian path of this length. Phase 1 also does not contain an office and therefore a pedestrian path is not needed. Phase 2 does include a pedestrian connection to the existing sidewalk along 58 Highway.

6. Signage:

No signs are being proposed with this plan. Any sign approvals are done through a sign permit application as a separate submittal and application.

7. Fire District Review:

The site plan was reviewed by the South Metropolitan Fire Protection District.

The Fire District requires the issuance of a building permit separate from the building permit issued by the City of Raymore.

9. Stormwater Management:

Stormwater runoff is collected onsite in a dry pond, located within an existing sanitary sewer easement. Water is then treated and will be discharged to the existing Hwy 58 catch basin which is of adequate size to handle flow.

10. Site Lighting:

Lighting is proposed to aid in security onsite. A photometric plan was submitted with the site plan, and complies with UDC requirements.

11. Trash/Recycling Enclosure:

No trash enclosure is proposed for Phase 1.

12. Screening of Mechanical Equipment:

All electrical and mechanical equipment located on the property shall be screened from view from adjacent properties and any adjacent street. Accessory utility facilities that are in excess of 3 ½ feet shall be screened. This requirement will be monitored when the equipment is installed to determine the applicability of the requirement.

13. Wetlands

No wetlands are on site.

14. Site Access:

Access to the site, for Phase 1, will be provided off of the private access drive that exists on the southern portion of the site, off of J Highway.

15. **Off-site Improvements:** None

16. **Gasline Easement**

There is an existing gas line that crosses through the northern portion of the site. While the dry detention pond overlays the utility easement, there is sufficient coverage to protect utility lines, which is permissible under the terms of the easement.

STAFF PROPOSED FINDINGS OF FACT

Section 470.160 of the Unified Development Code states that the Planning and Zoning Commission must make findings of fact taking into consideration the following:

a. the plan complies with all applicable standards of this code and all other applicable City ordinances and policies;

The site plan does comply with all applicable standards of the Unified Development Code and all other applicable City ordinances and policies.

b. the plan does not conflict with the adopted plans of the City of Raymore or the purpose and intent of this code;

The site plan does not conflict with any of the adopted master plans of the City or the purpose and intent of the Unified Development Code.

c. the proposed use is allowed in the district in which it is located;

The proposed use(s) are allowed within the existing "M-1" Light Industrial District.

d. vehicular ingress and egress to and from the site, and circulation within the site provides for safe, efficient, and convenient movement not only within the site but also on adjacent roadways;

Vehicular ingress and egress to and from the site and circulation within the site provides for safe, efficient and convenient movement of vehicles.

e. the plan provides for safe, efficient, and convenient movement of pedestrians on and to the site;

The width of drive lanes allows for the safe movement of pedestrians as they load and unload. No sidewalk connection is necessary during Phase 1. Phase 2 includes a sidewalk connection with the existing sidewalk along 58 Highway.

f. the arrangement of structures and buildings on the site allows for efficient use of the land, is compatible with development on adjacent property, and

minimizes potential adverse impacts on existing or planned municipal infrastructure and services;

The placement of the building on the site does allow for efficient use of the land and minimizes potential adverse impacts on existing and planned municipal infrastructure and services.

- g. open space and natural features on the site are arranged in such a way that unique natural resources are preserved and creates a desirable and functional environment for site users;**

Open space is provided where the utility easement is located along the northern property line.

- h. the plan avoids unnecessary or unreasonable alterations to existing topography, preserves existing healthy, mature trees and woodlands, and designs drainage facilities to promote the use and preservation of natural watercourses;**

The site plan avoids unnecessary alterations to the site. There is minimal site grading necessary to develop the property.

- i. provides adequate parking for the use, including logical and safe parking and circulation;**

Parking for the vehicle storage area of the site is not necessary, however circulation through the site is well planned and allows for loading and unloading as needed. Adequate parking has been provided for the future Phase 2 indoor climate controlled storage area.

- j. provides landscaping and screening as required by this code that creates logical transitions to adjoining uses, screens incompatible uses, minimizes the visual impact of the development on adjacent roads and properties, and utilizes native plant materials selected to withstand the local climate and individual site microclimates; and**

Adequate landscaping is provided for the site. No street trees are required as part of Phase 1. The landscape plan does illustrate street trees as part of Phase 2.

- k. includes site illumination that has been designed and located to minimize adverse impacts on adjacent properties.**

Appropriate lighting that complies with requirements has been provided.

REVIEW OF INFORMATION AND SCHEDULE

Action
Site Plan Review

Planning Commission
April 6, 2021

STAFF RECOMMENDATION

Staff recommends the Planning and Zoning Commission then accept the staff proposed findings of fact and approve Case #21001 South Town Storage Site Plan subject to the following conditions:

Prior to commencement of any land disturbance activities:

1. State of Missouri and City of Raymore land disturbance permits shall be obtained prior to the commencement of any site grading or land disturbance activities.
2. All erosion control measures identified on the site disturbance plan and required by the land disturbance permit must be installed prior to grading and these measures must be maintained until the requirements of the SWPPP are satisfied.

Prior to issuance of a Building Permit

3. Building construction plans shall be approved by the Building Official.
4. Building elevations must be approved by the Planning and Zoning Commission as part of a site plan amendment prior to issuance of a building permit as part of Phase 2.

Prior to issuance of a Certificate of Occupancy:

5. A shared, east-west, drive connection must be completed prior to the Certificate of Occupancy of Phase 2. The connection is the responsibility of the land owner and starts where the drive connection ends on the adjacent property to the East and must continue to the West at the property line.
6. All accessible parking spaces must be identified by signs complying with the Manual of Uniform Traffic Control Devices and the Department of Justice, Code of Federal Regulation 28 CFR Part 36, ADA Standards for Accessible Design. The sign must be vertically mounted on a post or wall no more than five feet from the space and centered on the width of the space.
7. Van accessible parking spaces shall be served by an access aisle a minimum of ninety-six inches wide and shall be designated "lift van accessible only" with signs that meet the requirements of the federal Americans with Disabilities Act.
8. If the electrical transformer box and any other accessory utility facility is taller than three and one-half feet or covers more than twenty-five square feet in

area then it must be screened in accordance with Section 420.040D of the Unified Development Code.

9. Exterior utility connections to the building shall be screened.
10. All work shall be completed in accordance with the site plan approved by the Planning and Zoning Commission.

Perpetual Conditions:

11. Prior to removing erosion control measures at the conclusion of the project, the contractor must obtain concurrence from the City.
12. A signed copy of the weekly and post rain event erosion control inspection reports shall be submitted to the City upon completion of each report.
13. Owner must immediately notify City staff of any illicit discharge that enters or has the potential to enter the storm sewer system.

SOUTH TOWN STORAGE, LLC

PHASE I & II

A PROPOSED SITE PLAN IN THE CITY OF RAYMORE, CASS COUNTY, MISSOURI

PLANS & SPECIFICATIONS

ABBREVIATIONS

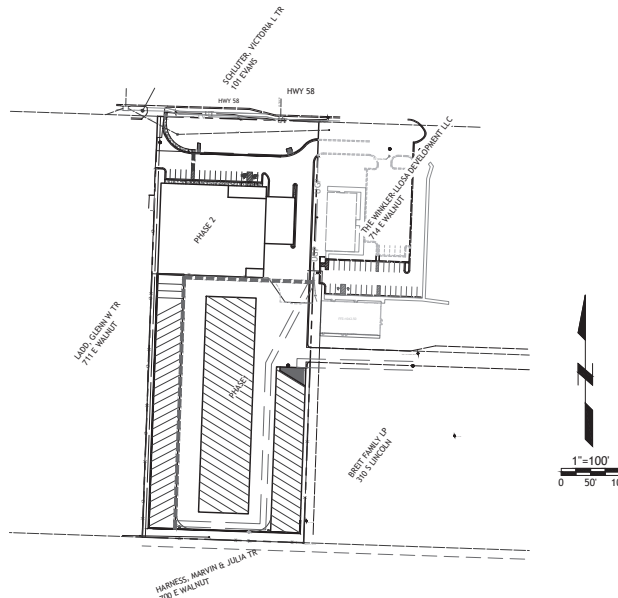
- Ac. = ACRES
- BLDG = BUILDING
- BOB = BOTTOM OF BANK
- BOC = BACK OF CURB
- BW = BOTTOM OF WALL
- CB = CATCH BASIN
- C. F. = CUBIC FEET
- CM = CONCRETE MONUMENT
- CMP = CORRUGATED METAL PIPE
- CN = CURVE NUMBER
- CO = CLEANOUT
- DIA, Ø = DIAMETER
- DIP = DUCTILE IRON PIPE
- EG = EXISTING GRADE
- EL, ELEV = ELEVATION
- ESMT = EASEMENT
- EX = EXISTING
- FES = FLARED END SECTION
- FG = FINISHED GRADE
- FF = FINISHED FLOOR
- FL = FLOW LINE
- FM = FORCE MAIN
- FOC = FACE OF CURB
- HDPE = HIGH DENSITY POLYETHYLENE
- INVY = INVERT
- IPF = IRON PIPE FOUND
- IPS = IRON PIPE SET
- LAT = LATERAL
- LF = LINEAR FEET
- MAX = MAXIMUM
- MIN = MINIMUM
- MH = MANHOLE
- NTS = NOT TO SCALE
- OC = ON CENTER
- PL = PROPERTY LINE
- PR = PROPOSED
- PVC = POLY-VINYL CHLORIDE
- RCP = REINFORCED CONCRETE PIPE
- R/W = RIGHT-OF-WAY
- SAN. = SANITARY
- SB = SOIL BORING
- S. F. = SQUARE FEET
- SS = SANITARY SEWER
- STA = STATION
- SW = SIDEWALK
- TC = TOP OF CURB
- TE = TOP ELEVATION
- TOB = TOP OF BANK
- TP = TEST PIT
- TYP. = TYPICAL
- TW = TOP OF WALL
- X/S = CROSS SECTION



UTILITIES INVOLVED

AT&T	816-275-1640
Kansas City Power & Light	816-471-5275
KCP&L Business Office	816-221-2323
Southern Star Central Gas	913-310-7615
Comcast	866-771-2281
Spire	816-537-4681
Raymore Engineering Department	816-331-1852
Missouri One Call	1-800-Dig-Rite
Water/Sanitary City of Raymore	816-331-2377

THE PURPOSE OF THESE PLANS IS TO DETAIL THE PROPOSED SITE IMPROVEMENTS NECESSARY TO CONSTRUCT 2 SOLAR READY CANOPY'S FOR RV STORAGE, ONE COVERED RV STORAGE BUILDING, A CLIMATE CONTROLLED STORAGE BUILDING AND A DRIVE THRU CAR WASH. THE ARCHITECTURAL DESIGN OF THESE IS BY OTHERS.



OWNER'S CERTIFICATION

I HEREBY CERTIFY THAT I AM THE LEGAL REPRESENTATIVE OWNER OF THE PROPERTY SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY DIRECTION, THAT I ACKNOWLEDGE THE SAME TO BE MY ACT, AND DESIRE THE PLAN TO BE DEVELOPED IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

SOUTH TOWN STORAGE, LLC DATE _____

ENGINEER'S CERTIFICATION

I, THOMAS R. BARTOSEWICZ, P.E. HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF MISSOURI, AND THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF MISSOURI.

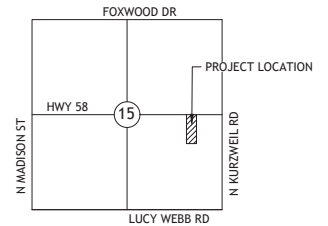
THOMAS R. BARTOSEWICZ, P.E. DATE _____

BASIS OF BEARINGS:

MISSOURI COORDINATE SYSTEM OF 1983 WEST ZONE

PHASE I IMPROVEMENTS	45,380sf
CANOPY AREA	
STORAGE SPACES	
12'X85'	23
12'X50'	18
TOTAL	41

PHASE II IMPROVEMENTS	
ENCLOSED BY STORAGE	
CLIMATE CONTROLLED STORAGE	27,900sf
REGULAR PARKING SPACES (PX18)	17 (INCLUDES 2 ADA SPACES)
OFFICE 1,300sf	
LOADING AREA 450sf	
CLIMATE CONTROLLED STORAGE 26,850sf	
TOTAL = 27,900sf	



SECTION MAP
SEC. 15 TW. 46 RNG. 32

INDEX OF SHEETS

1. COVER SHEET
2. LAYOUT PLAN
3. UTILITY PLAN
4. OVERALL GRADING PLAN
5. PHASE I GRADING PLAN
6. EROSION CONTROL PLAN
7. EROSION DETAILS
8. DETAILS
9. DETAILS
10. LANDSCAPE PLAN
11. TRAFFIC CONTROL
12. TRAFFIC DETAILS

DEVELOPER:

SOUTH TOWN STORAGE, LLC
P.O. BOX 107
RAYMORE, MO 64083

SURVEYOR

HUFFMAN & ASSOCIATES
16112 SLATER AVE
BELTON, MO 64012
(816) 322-4544

ENGINEER

SITE ENGINEERING CONSULTANTS, LLC
5251 WY 16th PL., SUITE 200,
LEAWOOD, KANSAS 66211
(913) 515-7209

LEGAL DESCRIPTION:

LOT 3, BUSH INDUSTRIAL PARK, A SUBDIVISION IN RAYMORE, CASS COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF, OF RECORD IN PLAT BOOK 12 AT PAGE 193.

NOTES:

- A. A CROSS ACCESS DEDICATION IS OFFERED BY THIS SITE PLAN FOR ACCESS TO ADJACENT PROPERTIES
- ACCESS WAYS WITHIN THIS SITE PLAN ARE TO BE PRIVATE AND ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS.
- CONTOUR ELEVATIONS BASED ON NORTH AMERICAN DATUM OF 1983 (NAD83).
- LOCATION AND SIZE OF STORMWATER FACILITIES IS AS SHOWN.

NOTES:

1. SANITARY SEWER LOCATION WITH RELATION TO THE WATER MAINS
 - A. SANITARY SEWER SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAINS. THE DISTANCE SHALL BE MEASURED OUTSIDE EDGE TO OUTSIDE EDGE.
 - B. SANITARY SEWER CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SANITARY SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE OR BELOW THE SANITARY SEWER. THE CROSSING SHALL BE ARRANGED SO THAT THE SANITARY SEWER JOINTS WILL BE EQUIDISTANCE AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SANITARY SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SANITARY SEWER TO PREVENT DAMAGE TO THE WATER MAIN.
 - C. WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, CONCRETE ENCASUREMENT SHALL BE REQUIRED TO BE INSTALLED A MINIMUM OF 3 FEET EACH SIDE OF THE CROSSING POINT ON THE LOWEST UTILITY. SEE CONCRETE ENCASUREMENT DETAIL.
 - D. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SEWER MANHOLE.
2. CONTRACTOR TO FIELD VERIFY ALL EXISTING FEATURES PRIOR TO CONSTRUCTION.

GENERAL NOTES

1. THE PERIMETER SURVEY AND TOPOGRAPHIC SURVEY SHOWN ON THIS SITE PLAN WAS TAKEN FROM A PERIMETER SURVEY PREPARED BY MIKE HUFFMAN DATED FEBRUARY 19, 2020 AND SEALED BY MO PLS MIKE HUFFMAN.
2. ACCORDING TO FIRM PANEL 29037C0037F, DATED JANUARY 1, 2013, THE PROPERTY IS LOCATED IN FLOOD ZONE X. "AREA OF MINIMAL FLOOD HAZARD".
3. THE PROPERTY IS ZONED "M1" PER RAYMORE UNIFIED DEVELOPMENT ORDINANCE.
 - FRONT 30', REAR 20', SIDE 10'
 - MAXIMUM HEIGHT 80'
4. PUBLIC WATER TO BE PROVIDED BY CITY OF RAYMORE.
5. PUBLIC SANITARY SEWER TO BE PROVIDED BY THE CITY OF RAYMORE.
6. EXISTING UTILITIES SHOWN ARE BASED UPON THE BEST AVAILABLE INFORMATION. PLEASE CALL MO ONE CALL 800-DIG-RITE PRIOR TO ANY EARTH DISTURBING ACTIVITIES
7. TOTAL STORAGE SPACED PROPOSED: 77 BUS TALLS
8. ALL PROPOSED LIGHTING WILL BE IN ACCORDANCE WITH SITE LIGHTING PLAN
9. OUTDOOR TRASH STORAGE IS NOT PROPOSED. IF AN OUTDOOR TRASH CONTAINERS ARE ADDED IT WILL BE ENCLOSED ON THREE SIDES.
10. THERE ARE NO KNOWN ENVIRONMENTALLY SENSITIVE LANDS ON-SITE OR WITHIN FIVE- HUNDRED (500) FEET OF THE SITE INCLUDING BUT NOT LIMITED TO WETLANDS, HABITAT AREAS, HILLSIDES, STEEP SLOPES, LAKES, TREED OR FORESTED AREAS, BROWNFIELD SITES AND STREAMS AND STREAM CORRIDORS WHICH COULD BE AFFECTED BY THIS DEVELOPMENT.
11. A TRAFFIC MEMO WAS PREPARED BY KELLER ENGINEERING DATED 3-8-21 TRIP DATA: 278

Table 1: Trip Generation (TE) Trip Generation, 10th Edition

CDE Code	New Land Use	Size	Average Daily Trips		AM Peak Hour Trips				PM Peak Hour Trips						
			Rate	Total	Rate	% In	% Out	Total	Rate	% In	% Out	Total			
101	Storage (empty)	45.4 ADF	1.51	69	0.10	60%	3	46%	2	5	0.17	47%	4	9	
102	Storage (climate controlled)	27.9 ADF	1.74	49	0.17	77%	4	25%	1	5	0.10	25%	1	7%	4
040	Car Wash	3.2 ADF	-	200	-	60%	12	60%	12	24	14.20	50%	23	50%	23
	Subtotal		345	19	18	18	34		23	31	39				
	20% Internal Closures		-70	-	-4	-4	-7		-4	-4	-13				
	Total		275	19	18	18	27		22	29	47				

ADF = Thousand Daily Feet

The values of Transportation Engineers (TE) Trip Generation Manual, 10th Edition are not precise stated data on Average Daily Trips (ADT) or AM Peak Hour Trips for the car wash land use (CDE Code 040). An exact 10% of the proposed hour of generation data used for the AM peak hour and 20% for the PM peak hour data were used for ADT.

TITLE:

COVER SHEET (PHASE I & 2)

PROJECT:

SOUTH TOWN STORAGE, LLC
SOUTH TOWN STORAGE, LLC
COUNTY PIN NO.: 04-05-15-400-000-001.004
SEC. 15 TWP. 46, RNS32
COUNTY: CASS CO

THIS PLAN AND THE LOCATION SHOWN ARE THE EXCLUSIVE PROPERTY OF SITE ENGINEERING CONSULTANTS, LLC, AND SHALL NOT BE ALTERED OR COPIED WITHOUT WRITTEN APPROVAL.

DATE	REVISION	CHKD.
3-26-21	CITY COMMENTS	TR
DATE	REVISION	CHKD.
DRAWN BY: GO	CHECKED BY: TRB	DATE: 3-1-21
SCALE: 1"=40'	PROJECT NO.: 0059	SHEET NO.: 1

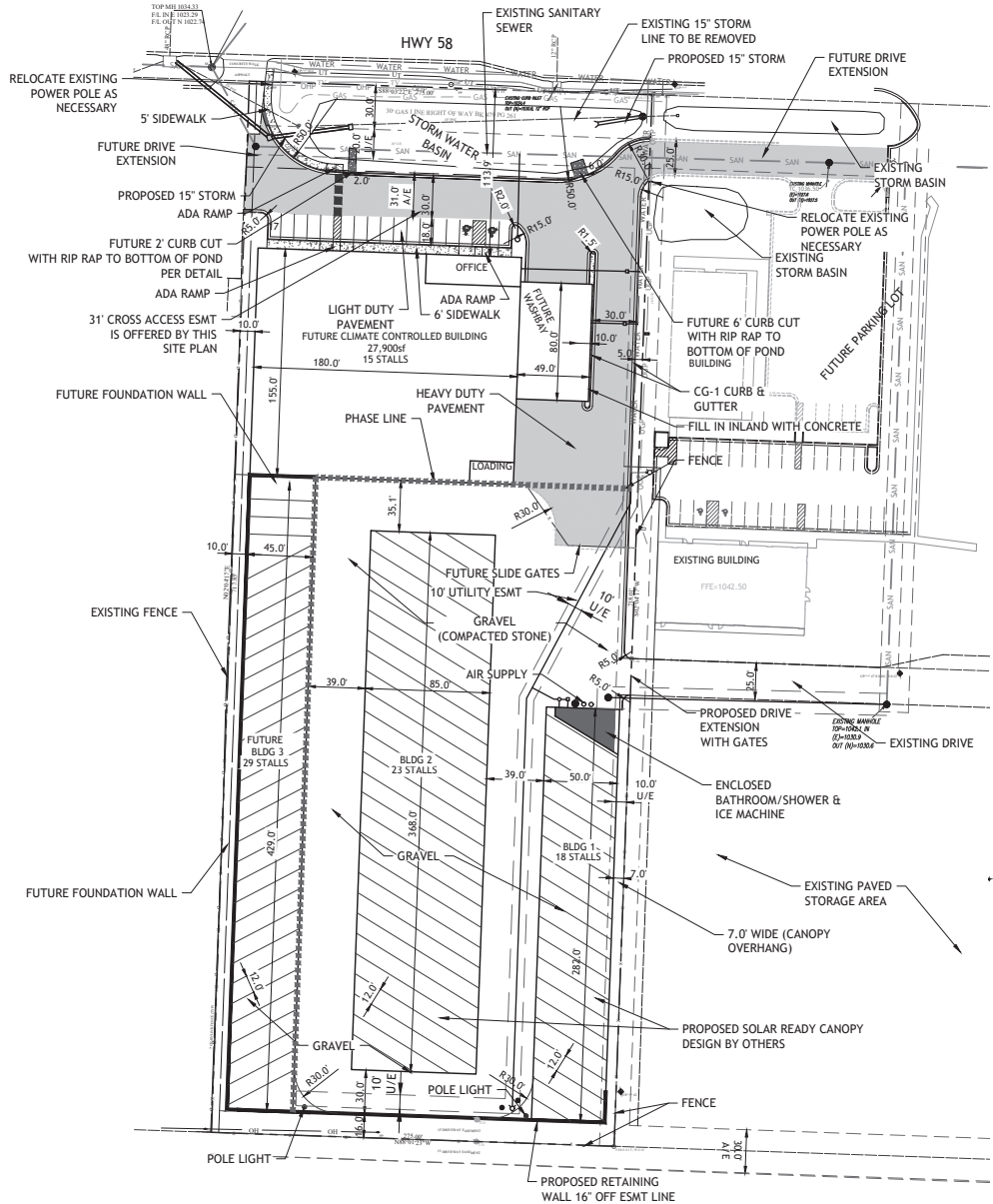
"ENGINEERING SERVICES"
SITE ENGINEERING
CONSULTANTS, LLC
PROFESSIONAL ENGINEERING COMPANY
5251 WY 16th PL., SUITE 200, LEAWOOD, KANSAS 66211
(913) 515-7209 • FAX (913) 765-2379
"TODAY'S TECHNOLOGY YESTERDAY'S QUALITY"

NOTE:
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EXCAVATION

- EXCAVATION SHALL CONSIST OF THE REMOVAL AND FINAL DISPOSAL, AS FURTHER SPECIFIED, OF ALL MATERIALS EXCEPT THOSE SPECIFIED UNDER CLEARING AND GRUBBING AND TRENCH EXCAVATION TAKEN FROM WITHIN THE LIMITS OF THE WORK CONTRACTED FOR AND NECESSARY FOR THE PREPARATION AND CONSTRUCTION OF VARIOUS ELEMENTS OF THE WORK, ON THE LINES AND GRADES SHOWN ON THE PLANS, PROFILES, AND CROSS-SECTIONS OR AS DIRECTED. IT SHALL INCLUDE THE GRADING AND COMPACTING OF THE EMBANKMENT, AND THE CLEANING AND SLOPING OF THE EMBANKMENT, AND CUT SLOPES TO THE REQUIRED LINES AND GRADES. EXCAVATION ALSO INCLUDES THE SALVAGING AND STOCKPILING OF TOPSOIL FOR RE-USE, THE BACKFILLING OF AREAS WHEN UNSUITABLE MATERIAL HAS BEEN REMOVED, THE FINAL DRESSING OF THE SLOPES, DITCHES AND SHOULDERS, AND THE REMOVAL AND DISPOSAL OF ALL MATERIAL NOT OTHERWISE PROVIDED FOR SO THAT THE PROJECT WILL BE COMPLETED IN A NEAT AND WORKMANLIKE MANNER.
- EXCAVATION SHALL BE MADE IN ACCORDANCE WITH THESE STANDARDS AND SPECIFICATIONS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, AND TYPICAL CROSS-SECTIONS SHOWN ON THE PLANS OR ESTABLISHED BY THE ENGINEER, AND NO ALLOWANCE WILL BE MADE FOR MATERIAL EXCAVATED BEYOND OR BELOW SUCH LINES AND GRADES UNLESS IT HAS BEEN SO ORDERED. ALL SUITABLE MATERIAL REMOVED AS EXCAVATION SHALL BE USED IN THE FORMATION OF EMBANKMENTS, SLOPES, ETC., BEFORE SECURING OR HAULING ANY BORROW UNLESS SPECIFICALLY APPROVED BY THE SOILS ENGINEER. NO UNSUITABLE MATERIAL OF ANY DESCRIPTION WILL BE ALLOWED IN THE FORMATION OF EMBANKMENTS. ALL SLOPES OF CUTS AND EMBANKMENTS, DITCHES AND WATERWAYS SHALL BE CLEANED AND CLEARED OF OBSTRUCTION AND SHALL BE LEFT IN A NEAT AND TRIMMED CONDITION.
- PRIOR TO THE GENERAL GRADING OPERATION, THE CONTRACTOR SHALL REMOVE TOPSOIL FROM AREAS AS REQUIRED FOR EACH PROJECT, AND STOCKPILE IT AS DESIGNATED ON THE PLANS FOR REUSE IF THE TOPSOIL IS SUITED FOR REUSE. SILT FENCE SHALL BE PLACED AROUND THE AREAS OF THE STOCKPILE.
- THE SUBGRADE FOR PAVING AND STRUCTURES SHALL BE PROPERLY SHARED AND UNIFORMLY AND THOROUGHLY COMPACTED. IN CONFORMITY WITH THE LINES AND GRADES SHOWN ON THE PLANS AND/OR ESTABLISHED IN THE FIELD BEFORE ANY SUBBASE, BASE OR SURFACING MATERIAL IS PLACED, THE SUBGRADE SHALL BE FREE FROM BOULDERS, LARGER ROCKS, MUCK, VEGETATION, OR OTHER MATERIALS THAT WOULD PROVE DETRIMENTAL TO THE ROAD DEPRESSIONS THAT DEVELOP DURING THE ROLLING SHALL BE FILLED WITH SUITABLE MATERIAL AND THE SUBGRADE SHALL BE ROLLED ON UNTIL DEPRESSIONS DEVELOP, WHERE EXCAVATION TO THE FINISHED GRADED SECTION RESULTS IN A SUBGRADE OR SLOPES ON UNSUITABLE SOIL, THE SOILS ENGINEER MAY REQUIRE THE CONTRACTOR TO REMOVE THE UNSUITABLE MATERIALS AND BACKFILL TO THE FINISHED GRADED SECTION WITH APPROVED MATERIAL.
- WHEN DIRECTED, TEST ROLLING SHALL BE PERFORMED UPON THE PREPARED SUBGRADE FOR PAVING AND STRUCTURES PRIOR TO THE PLACEMENT OF ANY BASE OR SUBBASE MATERIAL. TEST ROLLING SHALL BE PERFORMED WITH SELF-PROPELLED EQUIPMENT WHICH SHALL BE OF THE SIZE, TYPE AND WEIGHT THAT WILL REVEAL ANY SOFT, YIELDING, OR SPONGY AREAS. THE EQUIPMENT SHALL BE RUN LONGITUDINALLY SO THAT THERE SHALL NOT BE OVER 18" OF UNROLLED AREA BETWEEN THE TIRE STRIPS. IF, IN THE OPINION OF THE SOILS ENGINEER, THERE ARE AREAS TO BE REMOVED OR UNDOUBT, THEY MAY BE ORDERED EXCAVATED AND REPLACED, HOWEVER, AS DETERMINED BY THE SOILS ENGINEER, AREAS WHICH BECOME SOFT, OR SPONGY DUE TO THE CONTRACTOR'S METHODS OF OPERATION, THEY SHALL BE REMOVED AND/OR REPAIRED AT THE CONTRACTOR'S EXPENSE.
- THE SUBGRADE MUST BE MAINTAINED IN SUCH CONDITION THAT IT WILL DRAIN. ALL FACILITIES NECESSARY FOR COMPLETE DRAINAGE OF THE CONSTRUCTION AREAS SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR. IN NO CASE SHALL VEHICLES BE ALLOWED TO TRAVEL IN A SINGLE TRACK AND FORM RUTS IN THE SUBGRADE, AND IF ANY SHARP IRREGULARITIES ARE FORMED, THE SUBGRADE SHALL BE SCARIFIED AND RECOMPACTED.
- ALL SURPLUS MATERIALS EXCAVATED AND SUITABLE WASTE OF EVERY DESCRIPTION SHALL BE USED IN OR TO WIDEN EMBANKMENTS, FLATTEN SIDE SLOPES, OR BE DEPOSITED IN SUCH PLACES AS MAY BE DIRECTED; OR THIS MATERIAL AND ALL OTHER MATERIALS NOT PERMITTED IN THE EMBANKMENTS, ETC., SHALL BE HAULED FROM WITHIN THE LIMITS OF THE SITE AND DISPOSED OF AS PER STATE, FEDERAL AND LOCAL CRITERIA.



CLEARING AND GRUBBING

- CLEARING AND GRUBBING SHALL CONSIST OF CLEARING, GRUBBING, REMOVING AND DISPOSING OF ALL VEGETATION AND DEBRIS WITHIN THE LIMITS OF DISTURBED AREAS, EXCEPT SUCH OBJECTS AS ARE DESIGNATED TO REMAIN OR ARE TO BE REMOVED IN ACCORDANCE WITH OTHER SECTIONS OF THESE PLANS. THIS WORK SHALL ALSO INCLUDE THE PRESERVATION FROM INJURY OR DEFACEMENT OF ALL VEGETATION, TREES, AND OBJECTS DESIGNATED TO REMAIN.
- THE CONTRACTOR SHALL PERFORM THE WORK OF CLEARING AND GRUBBING SO AS TO REMOVE ONLY MATERIAL HEREIN SPECIFIED AND, IF HE CHOOSES TO DO SUCH WORK WITH MECHANICAL EQUIPMENT AND REMOVES AND WASTES SUITABLE MATERIAL, REQUIRED ON THE PROJECT, ANY SUITABLE MATERIAL REMOVED WITH THE CLEARED AND GRUBBED MATERIAL SHALL BE REPLACED BY THE CONTRACTOR. ALL MATERIALS REMOVED BY THE CLEARING AND GRUBBING OPERATION SHALL BE REMOVED FROM THE PROJECT OR OTHERWISE DISPOSED OF AS SPECIFIED OR DIRECTED BY THE DEVELOPER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH ALL APPLICABLE REGULATIONS OF THE CITY OF BAYNEOR.
- TREES DESIGNATED TO REMAIN
THE DEVELOPER SHALL DESIGNATE SUCH TREES, SHRUBBERY AND PLANTS WHICH ARE NOT TO BE REMOVED AND THE CONTRACTOR SHALL PROTECT THEM FROM ANY DAMAGE. IF ANY SUCH TREES, SHRUBBERY OR PLANTS ARE DAMAGED, THEY SHALL BE REPLACED OR REPAIRED BY A COMPETENT TREE SURGEON. PAINT REQUIRED FOR CUT OR SCARRED SURFACES OF TREES OR SHRUBS SELECTED FOR RETENTION SHALL BE APPROVED ASPHALTUM BASE PAINT PREPARED ESPECIALLY FOR TREE SURGERY.
- DISPOSAL OF TREES, STUMPS, BRUSH, RUBBISH, ETC.
ALL TREES, TIMBER, STUMPS, BRUSH, RUBBISH OR OTHER MATERIAL TO BE REMOVED FROM THE SITE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND ALL MATERIALS REMOVED FROM THE SITE IN ACCORDANCE WITH THESE REQUIREMENTS SHALL BE SALVAGED, OR DISPOSED OF OUT OF SIGHT FROM THE SITE. ANY BURNING SHALL BE DONE WITHIN THE REQUIREMENTS OF STATE OR LOCAL LAWS OR REGULATIONS AND BE UNDER COMPLETE CONTROL AT ALL TIMES.
- PREPARATION OF GROUND SURFACE
GRADING OPERATIONS SHALL NOT BE STARTED IN ANY AREA, UNTIL ALL OPERATIONS OF CLEARING AND GRUBBING WITHIN THE AFFECTED AREA HAVE BEEN COMPLETED. IN AREAS WHERE EXCAVATION IS TO BE MADE, THE GROUND SHALL BE CLEARED OF ALL LIVING OR DEAD TREES, STUMPS, BRUSH, OR OTHER OBJECTIONABLE MATERIAL. ALL EMBEDDED STUMPS, ROOT MATS, ETC., SHALL BE REMOVED TO A DEPTH OF NOT LESS THAN 3 FEET BELOW THE SUBGRADE OR SLOPE SURFACES. ALL DEPRESSIONS MADE BELOW THE SUBGRADE OR SLOPE SURFACES BY THE REMOVAL OF STUMPS OR ROOTS SHALL BE BACKFILLED WITH APPROVED MATERIAL AND COMPACTED AS DIRECTED. IN AREAS WHERE EMBANKMENT IS TO BE MADE 5 FEET OR MORE IN DEPTH, TREES AND STUMPS SHALL BE CUT OFF AS CLOSE TO THE GROUND AS IS PRACTICABLE, BUT NOT TO EXCEED 6 FEET ABOVE THE GROUND SURFACE. NEAR THE TOE OF EMBANKMENT SLOPES, NO STUMP SHALL EXTEND ABOVE A POINT 1 FOOT BENEATH THE SLOPE SURFACE. AREAS WHERE EMBANKMENT IS TO BE MADE LESS THAN 5 FEET DEEP, ALL TREES, STUMPS, ROOTS, BRUSH, ROOT MAT, AND DEBRIS SHALL BE REMOVED, GRUBBED OR BLASTED FROM THE GROUND AND ALL SUCH MATERIALS SHALL BE GRUBBED IN THE MANNER REQUIRED WHERE EXCAVATION IS TO BE MADE.
- UNLESS OTHERWISE DIRECTED, THE SITE SHALL BE CLEARED, FLUSH WITH THE GROUND, OF ALL TREES, BRUSH, SHRUBS, DOWN TIMBER, ROTTEN WOOD, RUBBISH AND OTHER OBJECTIONABLE DEBRIS AND VEGETATION. IN ADDITION, SUCH LIVE TREES AS MAY INTERFERE WITH SIGHT DISTANCE, EITHER VERTICALLY OR HORIZONTALLY, SHALL BE CLEARED FROM THESE AREAS.

NOTE:
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SITE DATA:

TOTAL SITE	4.53ac (197,430sf)
TOTAL CANOPIES	66,830sf
TOTAL ENCLOSED BUILDINGS	27,900sf
CAR WASH	3,200sf
TOTAL GRAVEL AREA	123,386sf
ASPHALT	26,525sf
TOTAL IMPERVIOUS AREA	149,911sf
TOTAL OPEN SPACE	247,541sf
PHASE 1 PARKING	19,252sf = (9.8%)
COMPLETE BUILD OUT CAR PARKING	41 BUS STALLS
	77 BUS STALLS
	17 STALLS

PROPERTY IMPROVEMENTS WILL BE FENCED
TITLE:
SITE PLAN PHASE 1 & 2

PROJECT:
SOUTH TOWN STORAGE, LLC
PREPARED FOR:
SOUTH TOWN STORAGE, LLC
COUNTY PIN NO.: 04-05-15-400-000-001.004
SEC.15 TWP.46, RNG.32
COUNTY: GASS CO

DATE	REVISION	CITY COMMENTS	TS
3-26-21			
DRAWN BY: GO	CHECKED BY: TRB	DATE: 3-1-21	SCALE: 1"=40'
		PROJECT No.: 0059	SHEET No.: 2

ENGINEERING SERVICES
SITE ENGINEERING CONSULTANTS, LLC
PROFESSIONAL ENGINEERING COMPANY
5251 W 116th Pl., SUITE 200, LEAWOOD, KANSAS 66211
(913) 515-7209 • FAX (913) 765-2579
"TODAY'S TECHNOLOGY * YESTERDAY'S QUALITY"

SANITARY SEWER MATERIALS

1. SANITARY SEWER PIPE SHALL BE PVC, SDR 26 WITH PUSH ON TYPE JOINTS USING FLEXIBLE ELASTOMERIC SEALS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATION. FITTINGS SHALL BE OF THE SAME MATERIAL AS THE PIPE IN WHICH THEY ARE INSTALLED OR APPROVED EQUAL.
2. MANHOLES SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 WITH O-RING JOINTS CONFORMING TO ASTM C443 AND C393. THE MANHOLES SHALL UTILIZE A LOCK GASKETS OR EQUAL, CAST INTEGRALLY IN THE WALL AND LOCATED AS REQUIRED FOR SEWER PIPE CONNECTIONS. MANHOLE STEPS SHALL BE PS-48 POLYPROPYLENE. COAT ALL EXTERIOR MANHOLE SURFACES IN ACCORDANCE WITH THE SYSTEM 46-41 OR EQUAL.
3. PRIOR TO PURCHASE OR INSTALLATION, THE CONTRACTOR SHALL SUBMIT IN A TIMELY MANNER SHOP DRAWING OF AT LEAST THE FOLLOWING ITEMS AND SYSTEMS TO THE ENGINEER FOR REVIEW.
 - A. PIPE AND FITTINGS
 - B. MANHOLES, FRAMES AND COVERS (IF REQUIRED)
 - C. DETECTION TAPE
 - D. SEPTIC TANK
4. SELECT BORROW SHALL BE BORROW IN ACCORDANCE WITH MISSOURI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
5. CONCRETE SHALL BE CLASS A PORTLAND CEMENT CONCRETE, CONFORMING TO THE MATERIALS, DESIGN AND CONTROL REQUIREMENTS OF THE MISSOURI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

CONSTRUCTION METHODS

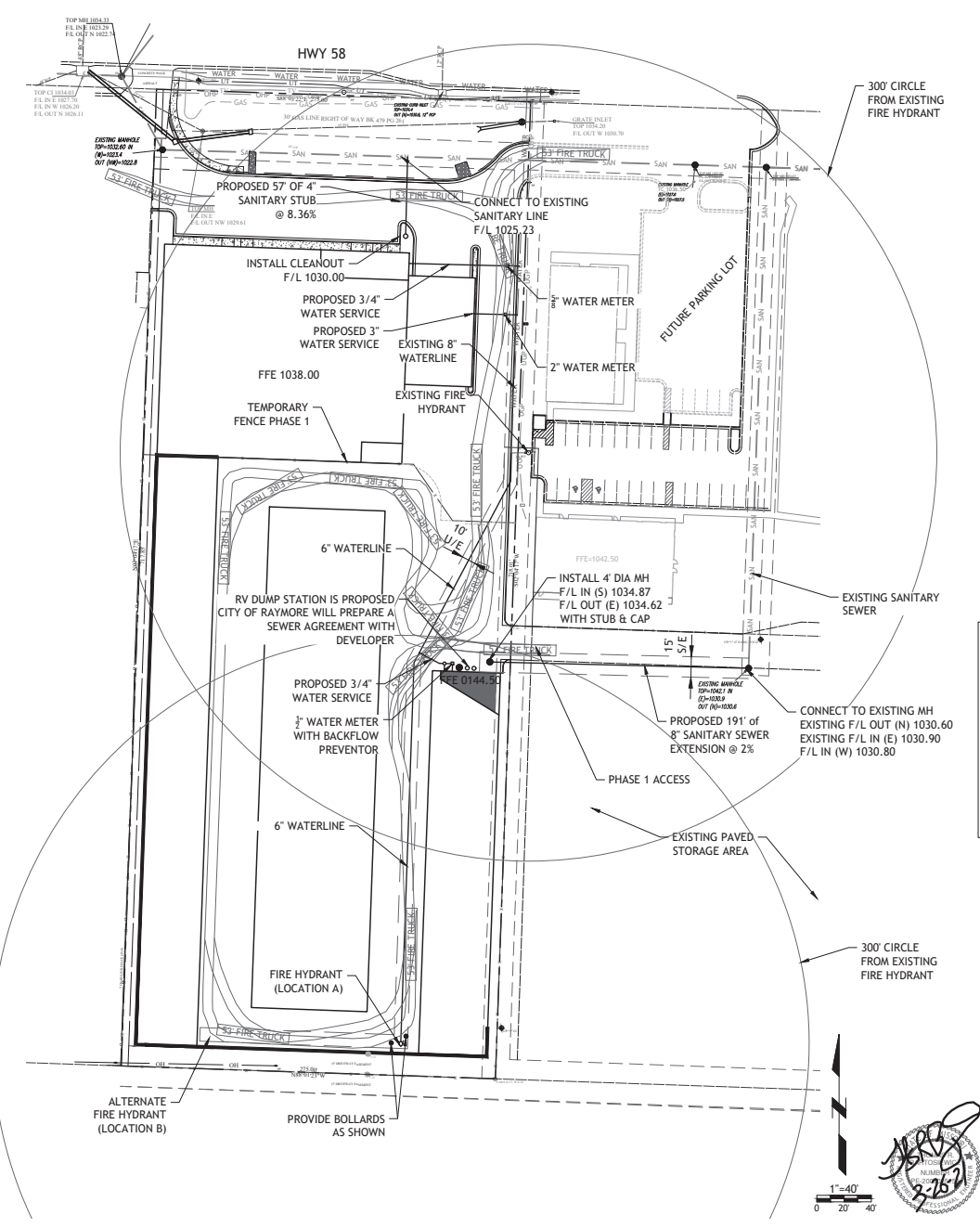
1. ALL SEWER MAINS AND APPURTENANCES SHALL BE INSTALLED AND PLACED INTO SERVICE IN CONFORMANCE WITH ASTM D2231, THE MANUFACTURERS RECOMMENDATIONS AND THE RECOMMEND STANDARDS FOR SEWAGE WORK, "10 STATE STANDARD" LATEST EDITION.
2. MAINTAIN MINIMUM 10 FOOT HORIZONTAL AND 18 INCH VERTICAL SEPARATION BETWEEN ALL CONCRETE ENCASMENT 10 FEET EITHER SIDE OF WATER MAIN.
3. DETECTION AND WARNING TAPE SHALL BE PLACED BETWEEN 18 INCHES AND 24 INCHES ABOVE THE FORCE MAIN WHEN PVC PIPE IS BEING INSTALLED. AT NO TIME SHALL IT BE PLACED AT A DEPTH LESS THAN 6 INCHES. DETECTION AND WARNING TAPE SHALL BE OF THE METALLIC TYPE WITH METAL FOIL RUNNING THE FULL LENGTH AND WIDTHS. FOIL SHALL BE ENCASED IN A HIGH VISIBILITY, COLOR CODED, INSERT PLASTIC JACKET WITH CONTINUOUS IDENTIFICATION LEGENDS CLEARLY IMPRINTED ON IT. FOR SEWER SYSTEMS THE COLOR SHALL BE "SAFETY PRECAUTION GREEN" WITH THE LEGEND READING "CAUTION BURIED SEWER LINE BELOW".
4. TRENCHES SHALL BE EXCAVATED TO THE NECESSARY WIDTH AND DEPTH AND MUST BE DRY DURING PIPE PLACEMENT AND BACK. BACKFIELD SHALL BE THE MATERIAL EXCAVATED. PROVIDED IT IS FREE OF ORGANIC MATTER, HEAVY CLAY, DEBRIS, ETC., THE BACKFILL IS TO BE HAND TAMPED TO AT LEAST 12 INCHES ABOVE THE TOP OF THE PIPE AND SHALL BE MECHANICALLY TAMPED IN 8 INCH LIFTS TO FINISHED GRADE. EACH LIFT SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY.
5. IT IS INTENDED THAT EXCAVATED MATERIAL BE USED FOR BACKFILL. IN THE EVENT REQUIRED COMPACTING CANNOT BE ACHIEVED OR THE MATERIAL IS UNSUITABLE IN OTHER RESPECTS, SLUMPS, TRASH, ECT., THE BACKFILL MATERIAL WILL BE SUITABLY PROVIDED FROM OFF-SITE SOURCES, AT NO ADDITIONAL COST.
6. PAVED AREAS DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED EQUAL OR BETTER THAN THAT DISTURBED.
7. REPLACE ALL SIGNS, MAIL BOXES, ECT. THAT ARE REMOVED DURING CONSTRUCTION.

ACCEPTANCE TESTING

1. GRAVITY SEWERS SHALL BE SUBJECT TO MIRROR-LIGHT TESTING TO DETERMINE THAT THE ALIGNMENT IS STRAIGHT AND TRUE. SEWERS NOT ALLOWING THE PASSAGE OF REFLECTED LIGHT SHALL NOT BE ACCEPTED.
2. ALL SEWERS ABOVE THE GROUND WATER LINE SHALL BE TESTED BY THE EXFILTRATION METHOD. DURING EXFILTRATION TESTING THE MAXIMUM INTERNAL PIPE PRESSURE AT THE LOWEST END SHALL NOT EXCEED 25 FEET OF WATER. ALL SEWERS BELOW THE GROUND WATER LINE SHALL BE TESTED BY THE INFILTRATION METHOD. THE MAXIMUM ALLOWABLE LEAKAGE THE LOW PRESSURE AIR TEST MAY BE USED AS AN ALTERNATIVE METHOD ACCEPTANCE TEST. THE ENGINEER SHALL DETERMINE ACCEPTANCE CRITERIA FOR ALL TESTS.
3. MANHOLES SHALL BE FREE FROM FOREIGN MATERIALS AND INFILTRATION. THE CONTRACTOR SHALL REPAIR TO THE FULL SATISFACTION OF THE ENGINEER ANY OBSERVED LEAKAGE IN THE MANHOLES.
4. THE CONTRACTOR SHALL GUARANTEE THAT ALL WORKMANSHIP, MATERIALS, AND WORK PERFORMED UNDER THE CONTRACT, SHALL BE IN STRICT ACCORDANCE WITH THE DRAWING, SPECIFICATION AND OTHER CONTRACT DOCUMENTS. THIS GUARANTEE SHALL BE FOR A PERIOD OF ONE YEAR FROM AND AFTER DATE OF COMPLETION AND ACCEPTANCE OF THE WORK. THE CONTRACTOR SHALL REPAIR, CORRECT OR REPLACE AS REQUIRED, PROMPTLY AND WITHOUT CHARGE, ALL WORK, EQUIPMENT AND MATERIAL, OR PARTS THEREOF, WHICH FAIL TO BE GUARANTEE, OR WHICH IN ANY WAY FAIL TO COMPLY WITH OR FAIL TO BE IN STRICT ACCORDANCE WITH THE TERMS AND PROVISIONS AND REQUIREMENTS OF THE CONTRACT DURING SUCH ONE YEAR PERIOD.

NOTE:
A LOCK BOX CONTAINING KEYS FOR FIRE DEPARTMENT ACCESS SHALL BE PROVIDED. THE LOCK BOX SHALL BE LISTED OR APPROVED BY THE STATE OR CITY FIRE MARSHAL FOR THE INTENDED USE AND INSTALLED IN SUCH A MANNER THAT THE FIRE DEPARTMENT WILL HAVE ACCESS TO THE BOX. CONTACT THE LOCAL FIRE CHIEF FOR ORDERING INFORMATION AND LOCATION OF BOX ON BUILDING.

NOTE:
THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
THIS PLAN AND THE DESIGN SHOWN ARE THE EXCLUSIVE PROPERTY OF SITE ENGINEERING CONSULTANTS, LLC AND SHALL NOT BE ALTERED OR COPIED WITHOUT WRITTEN APPROVAL.



- GENERAL NOTES:**
- 1) ALL WATER MAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF RAYMORE UTILITIES CONSTRUCTION SPECIFICATIONS AND ALL AMENDMENTS THERETO.
 - 2) INSTALL PIPE AROUND BENDS PER MANUFACTURERS RECOMMENDATIONS
 - 3) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN THE APPROVAL AND THE ACCEPTANCE OF THE WATER MAINS BY CITY OF RAYMORE. AND THE DEPARTMENT OF PUBLIC HEALTH, OFFICE OF DRINKING WATER IF REQUIRED UPON COMPLETION OF CONSTRUCTION.
 - 4) EXISTING UTILITIES ARE IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT UTILITY ONE CALL AT 1-800-DC-RITE (3) THREE DAYS PRIOR TO CONSTRUCTION IN ORDER TO VERIFY AND ALLOW FOR THEIR LOCATION AND DEPTH IN THE FIELD.
 - 5) CONTRACTOR SHALL DEPRESS WATER LINE AS REQUIRED WITH APPROVED FITTINGS TO AVOID CONFLICTS WITH STORM SEWERS, CULVERTS AND SANITARY PLANS .
 - 6) THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY AND ALL DAMAGES DONE TO THEM DUE TO THEIR NEGLIGENCE SHALL BE IMMEDIATELY AND COMPETENTLY REPAIRED AT THEIR EXPENSE.
 - 7) ALL NECESSARY PERMITS, LICENSES, INSURANCE, ETC. REQUIRED BY LOCAL, STATE, OR FEDERAL LAWS SHALL BE PROVIDED BY THE CONTRACTOR.
 - 8) PLAN LOCATION AND DIMENSIONS SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 - 9) THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF DAMAGED OR DESTROYED LANDSCAPE.
 - 10) ALL INSTALLATIONS SHALL USE PRESSURE WATER PIPE CLASS 150 (SDR-15) C-900 ANWMA APPROVED FURNISHED IN 20 FOOT LENGTHS WITH INTEGRAL BELLS OR AS INDICATED ON THE CONTRACT DRAWINGS. ALL PIPE MUST BE NSF-PW APPROVED. WHERE REQUIRED, HIGH DEFLECTION COUPLINGS SHALL BE USED.
 - 11) ALL FIRE LINES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE MISSOURI STATE FIRE PREVENTION REGULATIONS.
 - 12) CONTRACTOR TO FIELD VERIFY EXISTING HYDRANT LOCATION AND CORRECT SPACING OF PROPOSED FIRE HYDRANTS.
 - 13) CITY OF RAYMORE SHALL BE RESPONSIBLE FOR PROVIDING FLOW TEST DATA TO THE STATE FIRE MARSHAL. FLOW TEST SHALL HAVE BEEN PERFORMED WITHIN THE PAST YEAR.
 - 14) ALL FITTINGS TO BE IN WITH RETAINER GLANDS.
 - 15) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SUBMIT (UPON COMPLETION OF INSTALLATION OF WATER DISTRIBUTION SYSTEMS) AS-BUILT DRAWINGS TO CITY OF RAYMORE IN DRAWING FORMAT ON A REMOVABLE DRIVE.
 - 16) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SUBMIT (UPON COMPLETION OF INSTALLATION OF THE WATER DISTRIBUTION SYSTEMS) AS-BUILT DRAWINGS INCLUDING PROFILES TO THE DEPARTMENT OF PUBLIC HEALTH, OFFICE OF DRINKING WATER, IF REQUIRED.
 - 17) ALL PROPOSED FIRE HYDRANTS TO BE B-62-B, UNLESS OTHERWISE SPECIFIED.
 - 18) HYDRANT LOCATION SHOWN CAN BE MODIFIED AT THE DISCRETION OF THE CITY OF RAYMORE (TO LOCATION B) AT THE EXPENSE OF THE DEVELOPER.

FIRE MARSHAL NOTES:

1. OWNER/DEVELOPER: SOUTH TOWN STORAGE, LLC P.O. BOX 107 RAYMORE, MO 64083
2. CIVIL/SITE ENGINEER: SITE ENGINEERING CONSULTANTS, LLC 2221 W116TH PLACE, SUITE 200 LEAWOOD, KANSAS 66211 Phone: (913) 515-7209 Fax: (913) 765-2379 c/o ENGINEER
3. APPLICANT: SOUTH TOWN STORAGE, LLC P.O. BOX 107 RAYMORE, MO 64083
4. TAX MAP NUMBER: 04-05-15-400-000-001.004
5. PROJECT NAME: SOUTH TOWN STORAGE
6. INTENDED USE: RV STORAGE
7. WATER SUPPLIER: CITY OF RAYMORE
8. MAX HEIGHT OF BUILDING: 40'
9. BUILDING CONSTRUCTION TYPE: CONSTRUCTION
10. SPRINKLER SYSTEM: PER CODE
11. ALL FIRE LINES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE STATE FIRE PREVENTION REGULATIONS

TITLE:
UTILITY & FIRE ACCESS PLAN PHASE 1 & 2

PROJECT:
SOUTH TOWN STORAGE, LLC
SOUTH TOWN STORAGE, LLC
COUNTY PIN NO.: 04-05-15-400-000-001.004
SEC. 15 TWP. 46, R. 03 S2
COUNTY: CLATSOP

PREPARED FOR:
SOUTH TOWN STORAGE, LLC

DATE: 3-26-21

REVISION:

CITY COMMENTS:

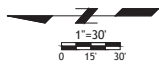
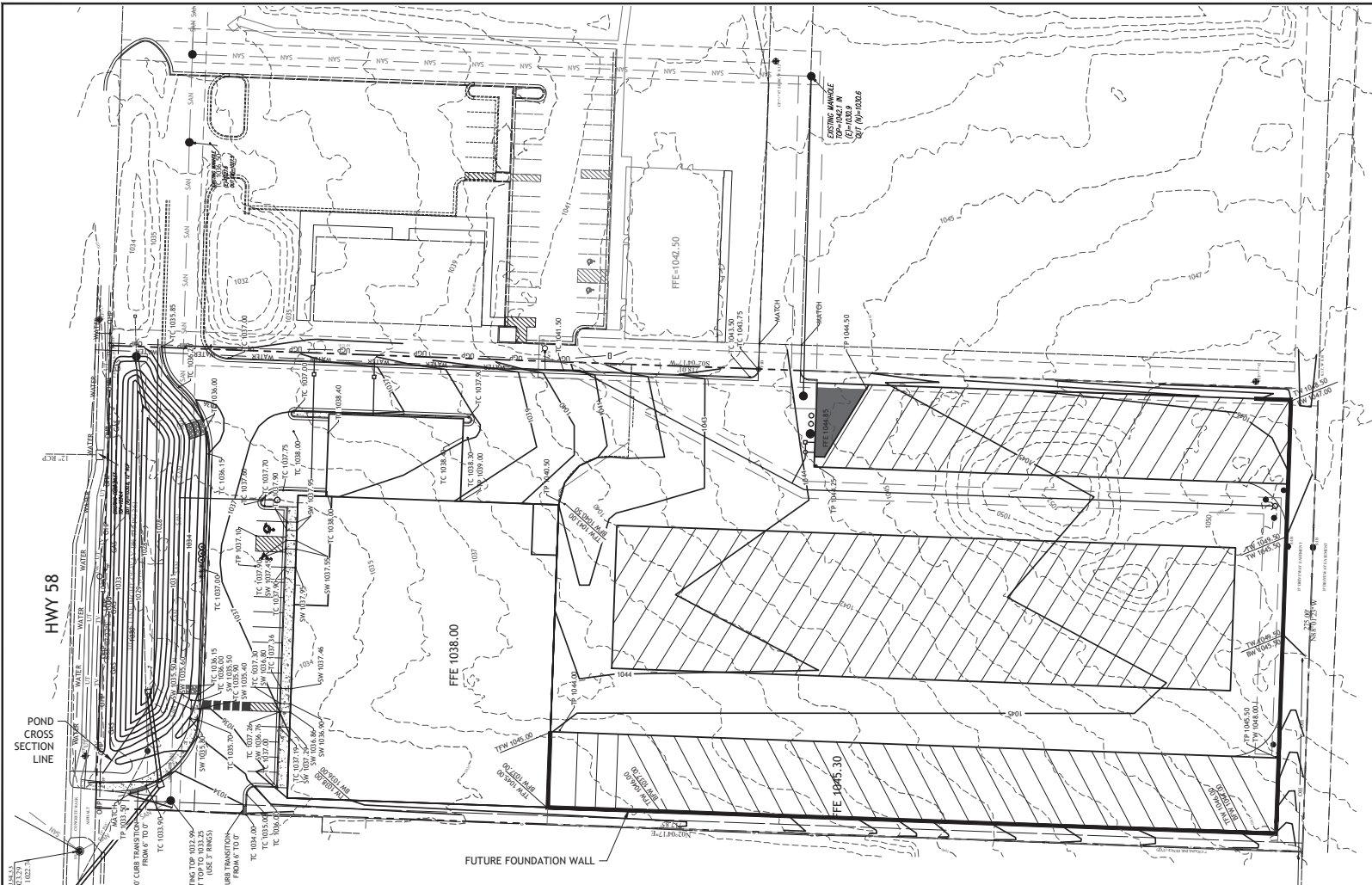
DATE: 3-1-21

SCALE: 1"=40'

PROJECT NO.: 0059

SHEET NO.: 3

ENGINEERING SERVICES
SITE ENGINEERING CONSULTANTS, LLC
PROFESSIONAL ENGINEERING COMPANY
5251 W 116th Pl., Suite 200, Leawood, Kansas 66211
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VEGETATIVE STABILIZATION WITH TEMPORARY SEEDING:

LIME - APPLY DOLOMITIC LIMESTONE AT THE RATE OF 1 TO 2 TON PER ACRE. APPLY LIMESTONE UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL.

FERTILIZER - APPLY 10-10-10 FERTILIZER AT THE RATE OF 600 LBS PER ACRE. APPLY FERTILIZER UNIFORMLY AND INCORPORATE INTO THE TOP 4 - 6 INCHES OF SOIL.

SEEDING:

SPECIES	SEEDING RATES (PER ACRE)(LBS/1000 SQ. FT.)	PLANTING DEPTH (INCHES)	SEEDING DATES
RYE	2 - bu. 3.2	1-2	2/1 - 4/30 B 8/15 - 11/30

MULCHING - APPLY UNROTTED SMALL GRAIN STRAW AT THE RATE OF 1 - 2 TONS PER ACRE OR 70-90 LBS PER 1000 SQ. FT. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY.

VEGETATIVE STABILIZATION WITH PERMANENT SEEDING

LIME - APPLY DOLOMITIC LIMESTONE AT THE RATE OF 2 TONS PER ACRE. APPLY LIMESTONE UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL.

FERTILIZER - APPLY 10-10-10 FERTILIZER AT THE RATE OF 1000 LBS PER ACRE. APPLY FERTILIZER UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL.

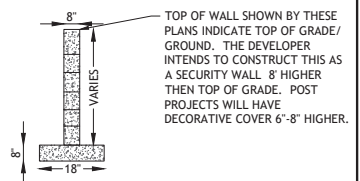
SEEDING:

SEEDING MIXTURE (USE CERTIFIED SEED)	SEEDING RATE (LBS/ACRE)(LBS / 1000 SQ. FT.)	SEEDING DATES
KENTUCKY BLUEGRASS (50%)	45	1.0
RED TOP (10%)	9	0.2
RED FESCUE (40%)	36	0.8

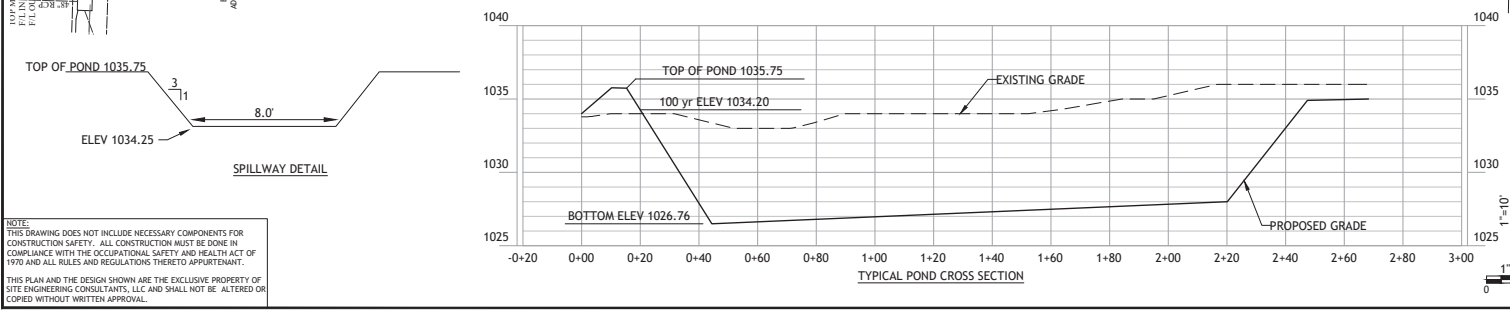
MULCHING - APPLY UNROTTED SMALL GRAIN STRAW AT THE RATE OF 1 - 2 TONS PER ACRE. OR 70-90 LBS PER 1000 SQ. FT. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY.

NOTE: SITE PREPARATION, SOIL PREPARATION, MULCH ANCHORING, IRRIGATION, MAINTENANCE AND DUST CONTROL, SHOULD IT BECOME NECESSARY, SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR VEGETATIVE STABILIZATION WITH TEMPORARY AND PERMANENT SEEDING.

NOTE: CONTRACTOR RESPONSIBLE FOR PROVIDING MODULAR BLOCK RETAINING WALL CONSTRUCTION DRAWINGS SEALED BY A MISSOURI STATE PROFESSIONAL ENGINEER



SOUTH RETAINING WALL (BY OTHERS)



NOTE: THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT. THIS PLAN AND THE DESIGN SHOWN ARE THE EXCLUSIVE PROPERTY OF SITE ENGINEERING CONSULTANTS, LLC AND SHALL NOT BE ALTERED OR COPIED WITHOUT WRITTEN APPROVAL.

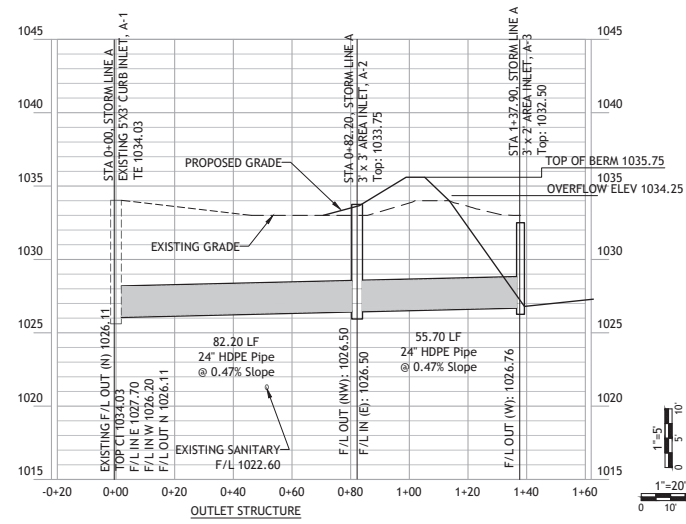
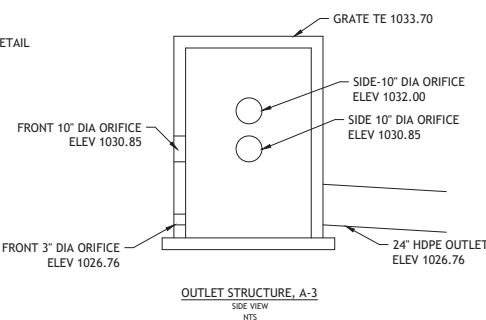
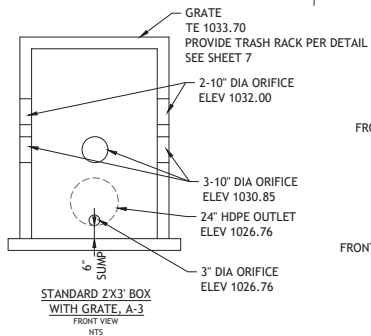
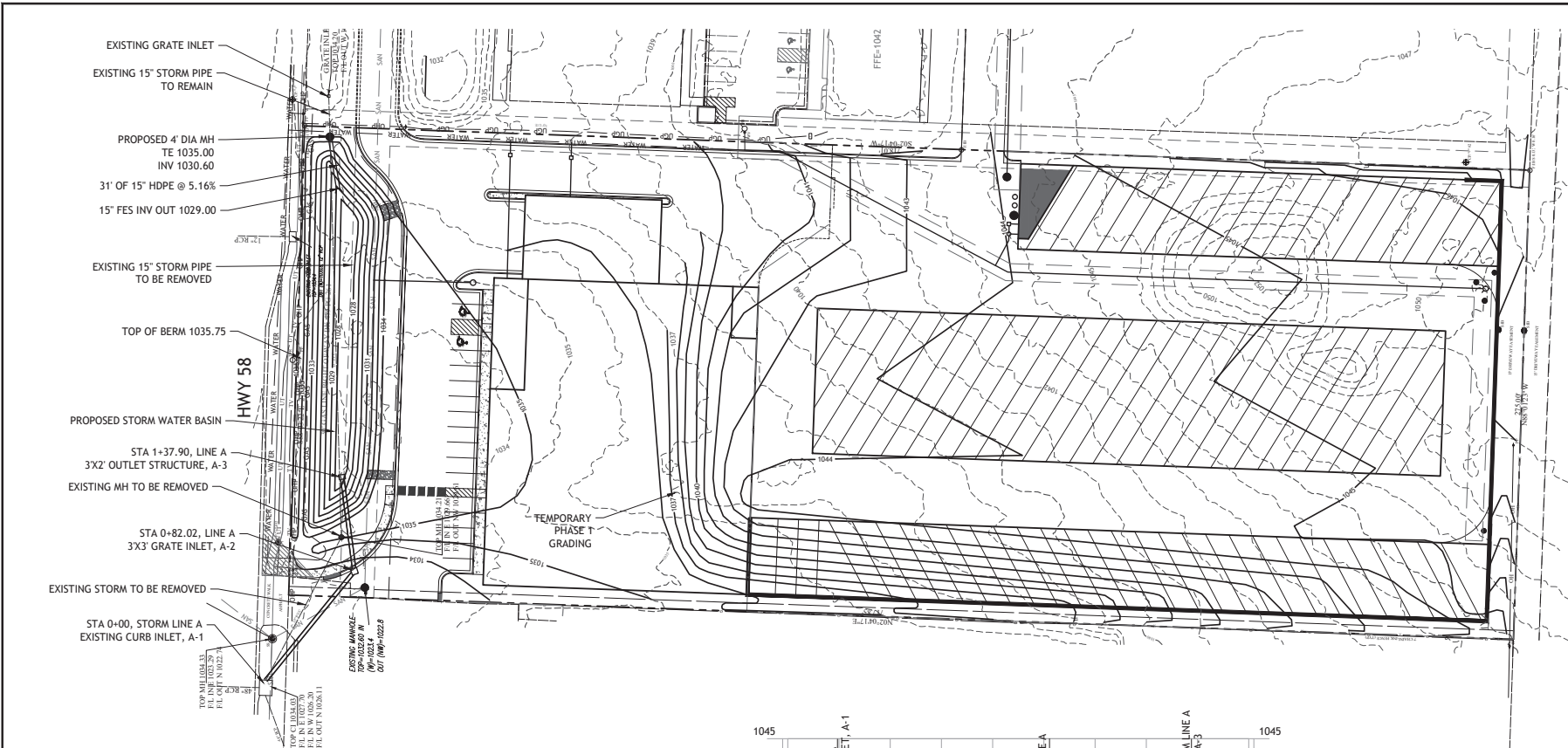
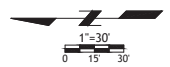
TITLE: OVERALL GRADING PLAN
PROJECT: SOUTH TOWN STORAGE, LLC
PREPARED FOR: SOUTH TOWN STORAGE, LLC
COUNTY PIN NO.: 04-05-15-400-000-001.004
SEC.15 TWP46, RNG32
COUNTY: GASS CO



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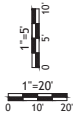
DATE	REVISION	CITY COMMENTS	TS
3-26-21			

ENGINEERING*SERVICES
SITE ENGINEERING CONSULTANTS, LLC
 PROFESSIONAL ENGINEERING COMPANY
 5251 W 116th Pl., SUITE 200, LEAWOOD, KANSAS 66211
 (913) 515-7209 • FAX (913) 765-2379
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NOTE:
THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
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TITLE:
PHASE 1 GRADING PLAN / STORM LINE PROFILE
PROJECT:
SOUTH TOWN STORAGE, LLC
PREPARED FOR:
SOUTH TOWN STORAGE, LLC
COUNTY PIN NO.: 04-05-15-400-000-001.004
SEC.15 TWP.46, RNG.32
COUNTY: CASS CO

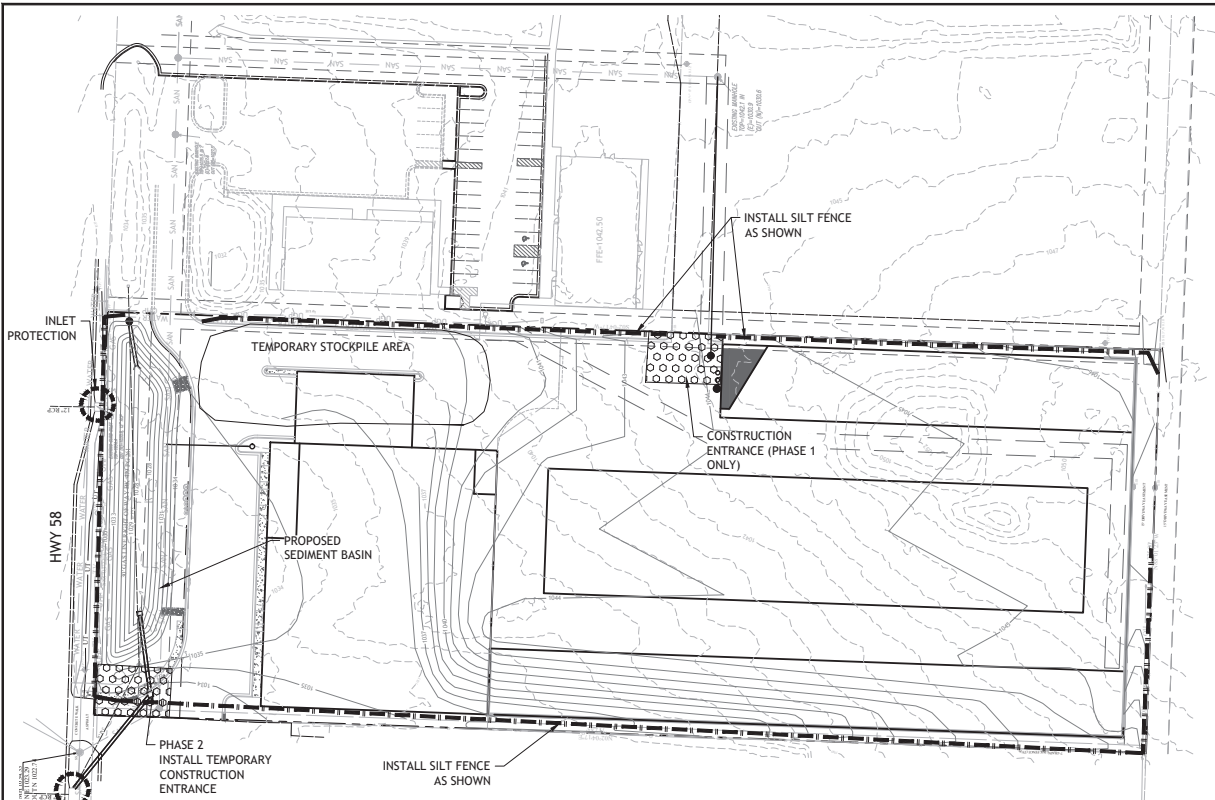


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DATE	REVISION	CITY COMMENTS	TS	CHRD.
3-26-21				

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DRAWN BY: GO CHECKED BY: TRB DATE: 3-1-21 SCALE: 1"=30' PROJECT NO.: 0059 SHEET NO.: 5



GENERAL SEDIMENT AND STORMWATER NOTES

1. ALL NECESSARY PERMITS, LICENSES, BONDS, INSURANCE POLICIES, ETC. REQUIRED BY LOCAL STATE AND/OR FEDERAL LAWS SHALL BE PROVIDED BY THE CONTRACTOR AT HIS OWN EXPENSE.
2. LIMITS OF DISTURBANCE MUST BE DELINEATED IN THE FIELD. TOTAL DISTURBED ACREAGE- 4.50+ ACRES. THE LIMITS OF DISTURBANCE SHALL BE CLEARLY DEFINED AT ALL TIMES DURING CONSTRUCTION. (BREAK DOWN PER PHASES IF APPLICABLE).
3. SHOULD QUESTIONS ARISE REGARDING THE MAINTENANCE OF EROSION AND SEDIMENT CONTROL PRACTICES, THE SITE CONTRACTOR SHALL CONTACT THE CONSULTING ENGINEER EXPEDITIOUSLY FOR TECHNICAL ASSISTANCE.
4. THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OF DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHALL BE CHECKED DAILY AND ADJUSTED AND/OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENT FROM LEAVING THE SITE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE CITY INSPECTOR.
5. ALL PERIMETER CONTROLS FOR EROSION AND SEDIMENT SHALL BE IN PLACE PRIOR TO ANY OTHER LAND DISTURBING ACTIVITIES.
6. A CONCRETE WASHOUT STATION AND STAGING AREA INCLUDING DUMPSTER(S) SHALL BE PROVIDED NEAR THE CONSTRUCTION ENTRANCE IN A LOCATION ACCEPTABLE TO THE CONTRACTOR. THIS LOCATION SHALL BE APPROVED BY THE CITY DURING THE PRE CONSTRUCTION MEETING.

VEGETATIVE STABILIZATION WITH TEMPORARY SEEDING:

LIME - APPLY DOLOMITIC LIMESTONE AT THE RATE OF 1 TO 2 TON PER ACRE. APPLY LIMESTONE UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL.

FERTILIZER - APPLY 10-10-10 FERTILIZER AT THE RATE OF 600 LBS PER ACRE. APPLY FERTILIZER UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL.

SEEDING:

SPECIES	SEEDING RATES (PER ACRE)(LBS/1000 SQ. FT.)	PLANTING DEPTH (INCHES)	SEEDING DATES
RYE	2 - bu. 3.2	1-2	2/1 - 4/30 & 8/15 - 11/30

MULCHING - APPLY UNROTTED SMALL GRAIN STRAW AT THE RATE OF 1 - 2 TONS PER ACRE OR 70-90 LBS PER 1000 SQ. FT. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY.

VEGETATIVE STABILIZATION WITH PERMANENT SEEDING

LIME - APPLY DOLOMITIC LIMESTONE AT THE RATE OF 2 TONS PER ACRE. APPLY LIMESTONE UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL.

FERTILIZER - APPLY 10-10-10 FERTILIZER AT THE RATE OF 1000 LBS PER ACRE. APPLY FERTILIZER UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL.

SEEDING:

SEEDING MIXTURE (USE CERTIFIED SEED)	SEEDING RATE (LBS/ACRE)(LBS/1000 SQ. FT.)	SEEDING DATES
KENTUCKY BLUEGRASS (90%)	45 1.0	2/1 - 4/30 &
RED TOP (10%)	9 0.2	8/15 - 10/31
RED FESCUE (40%)	36 0.8	

MULCHING - APPLY UNROTTED SMALL GRAIN STRAW AT THE RATE OF 1 - 2 TONS PER ACRE, OR 70-90 LBS PER 1000 SQ. FT. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY.

NOTE: SITE PREPARATION, SOIL PREPARATION, MULCH ANCHORING, IRRIGATION, MAINTENANCE AND DUST CONTROL, SHOULD IT BECOME NECESSARY, SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR VEGETATIVE STABILIZATION WITH TEMPORARY AND PERMANENT SEEDING.

PRE-BULK GRADING EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION

1. NOTIFY THE CITY OF RAYMORE FIVE (5) DAYS PRIOR TO COMMENCING WITH CONSTRUCTION AND ARRANGE A PRE-CONSTRUCTION MEETING.
2. INSTALL THE STABILIZED CONSTRUCTION ENTRANCE AT THE LOCATION SHOWN ON THE PLAN. REFER TO THE STANDARD DETAIL FOR MINIMUM SPECIFICATIONS.
3. CLEAR AND GRUB AREAS DESIGNATED FOR PERIMETER EROSION AND SEDIMENT CONTROLS.
4. INSTALL SILT FENCE PER PLAN OR AS DIRECTED BY THE SITE SUPERINTENDENT.
5. CONSTRUCT THE STORM WATER BASIN TO THE DIMENSIONS SHOWN ON THE PLAN REFER TO THE STANDARD DETAIL FOR MINIMUM SPECIFICATIONS. INSTALL OUTLET PIPES AND DEWATERING STRUCTURES.
6. TOPSOIL SHALL BE STOCKPILED AT THE LOCATION SHOWN ON THE PLAN. THE TOPSOIL STOCKPILE SHALL BE SURROUNDED BY SILT FENCE.
7. CONTACT THE ENGINEER AND ARRANGE FOR A PERIMETER CONTROL INSPECTION.

POST-BULK GRADING EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION

1. AFTER INITIAL PERIMETER CONTROLS HAVE BEEN INSPECTED AND APPROVED, ROUGH GRADE SITE IN ACCORDANCE WITH ITEM 2 BELOW. ALL DISTURBED AREAS ARE TO RECEIVE TEMPORARY STABILIZATION IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION REQUIREMENTS.
2. INSTALL ACCESSWAYS AS SHOWN TO ROUGH GRADE PER THE ROW SECTION DETAIL. A REGISTERED ENGINEER WITH A BACKGROUND IN GEOTECHNICAL ENGINEERING MUST APPROVE THE METHOD & SUITABILITY OF ALL MATERIALS WITH THE ROW.
3. INSTALL SITE UTILITIES INCLUDING: SANITARY SEWER, WATER DISTRIBUTION, STORM SEWER, ETC. CATCH BASINS SHALL BE FITTED WITH INLET PROTECTION FILTERS TO PREVENT SEDIMENT FROM ENTERING THE STORM SEWER.
4. INSTALL RIP-RAP APPROX IN STORM BASIN AND AT THE END OF PROPOSED CURB CUTS AS SHOWN ON THE PLAN IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS. ALL RIP-RAP SHALL BE UNDERLAIN WITH FILTER FABRIC.
5. CONSTRUCT IMPERVIOUS AREAS, STABILIZE WITH BASE COURSE AND COMPLETE FINAL GRADING OF SITE. ALL FINAL GRADED AREAS ARE TO RECEIVE PERMANENT STABILIZATION IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION REQUIREMENTS.
6. AFTER SITE STABILIZATION HAS BEEN ACHIEVED AND UPON APPROVAL BY THE ENGINEER, REMOVE ACCUMULATED SEDIMENT FROM THE STORM WATER BASIN. REFER TO THE STORMWATER POND CONVERSION SEQUENCE FOR PERMANENT STORMWATER MANAGEMENT INSTALLATION REQUIREMENTS.

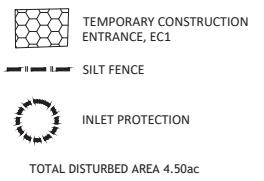
STORMWATER POND CONVERSION SEQUENCE OF CONSTRUCTION

1. Dewater & excavate the stormwater management basins in accordance with the elevations shown on the lines and grades plan.
2. INSTALL THE OUTLET STRUCTURES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STORMWATER MANAGEMENT PLAN.
3. FINAL GRADE ALL DISTURBED AREAS AND STABILIZE IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION REQUIREMENTS.
4. SEDIMENT CONTROL DEVICES ARE TO BE KEPT FREE FROM SEDIMENT AND PROPERLY MAINTAINED THROUGHOUT CONSTRUCTION.
5. TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES CAN BE REMOVED ONLY AFTER APPROVAL BY THE ENGINEER & CITY OF RAYMORE JACKS INSPECTOR.

EROSION AND SEDIMENT CONTROL NOTES:

1. THE CITY OF RAYMORE MUST BE NOTIFIED IN WRITING FIVE (5) DAYS PRIOR TO COMMENCING WITH CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
2. REVIEW AND APPROVAL OF SEDIMENT AND STORMWATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE SEDIMENT AND STORMWATER REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS ON THE APPROVED PLAN.
3. IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY THE APPROPRIATE REVIEW AUTHORITY.
4. THE CITY OF RAYMORE RESERVES THE RIGHT TO ENTER PRIVATE PROPERTY FOR PURPOSES OF PERIODIC SITE INSPECTION.
5. FOLLOWING SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 14 CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER SEDIMENT CONTROLS, TOPSOIL STOCKPILES, AND ALL OTHER DISTURBED OR GRADED AREAS ON THE PROPOSED SITE.
6. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE STATE OF MISSOURI & CITY OF RAYMORE EROSION AND SEDIMENT CONTROL REGULATIONS.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN AND REPAIR ALL STORMWATER AND SEDIMENT CONTROL PRACTICES DURING CONSTRUCTION AND UTILITY INSTALLATION.
8. IT SHALL BE THE OWNER'S RESPONSIBILITY TO MAINTAIN THE PROPERTY DURING THE PLAN REVIEW AND APPROVAL PROCESS. IT SHALL BE THE OWNERS RESPONSIBILITY TO MAINTAIN STORMWATER FACILITY.
9. AS-BUILT SURVEYS AND DRAWINGS ARE TO BE SUBMITTED TO THE CITY WITHIN 120-DAYS OF STORMWATER MANAGEMENT FACILITY COMPLETION.
11. APPROVAL OF A SEDIMENT AND STORMWATER PLAN DOES NOT GRANT NOR IMPLY A RIGHT TO DISCHARGE STORMWATER RUNOFF. THE OWNER/DEVELOPER IS RESPONSIBLE FOR ACQUIRING ANY AND ALL AGREEMENTS, EASEMENTS, ETC., NECESSARY TO COMPLY WITH STATE DRAINAGE AND OTHER APPLICABLE LAWS.
12. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAINFALL. MAINTENANCE MUST BE PERFORMED AFTER EACH INSPECTION AS NECESSARY. ANY ERODED AREAS SHALL BE STABILIZED AND ANY ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF ACCORDING TO PLAN.
13. THE EROSION AND SEDIMENT CONTROL OBJECTIVES WILL BE ACHIEVED BY MINIMIZING EXPOSURE TIME OF POTENTIALLY ERODIBLE SOILS TO RUNOFF, AND INSTALLATION OF THE TEMPORARY AND PERMANENT CONSERVATION MEASURES IN PROPER SEQUENCE WITH CONSTRUCTION.
14. TOPSOIL STOCKPILED ON THE SITE SHALL BE STABILIZED WITH SEED AND MULCH WITHIN 5 CALENDAR DAYS OF PLACEMENT OF THE TOPSOIL. THE TEMPORARY TOPSOIL STOCKPILE SHALL BE USED FOR FINAL GRADING OF SITE ALL REMAINING STOCKPILED MATERIAL, IF APPLICABLE SHALL BE REMOVED FROM THE SITE IN AN APPROVED MANNER.
15. CONTRACTOR SHALL TAKE CARE NOT TO "TRACK" MUD OFF SITE WITH CONSTRUCTION VEHICLES AND EQUIPMENT.
16. ALL AREAS NOT STABILIZED BY STONE BASE COARSE OR PAVING ARE TO BE STABILIZED ACCORDING TO THE STABILIZATION SCHEDULE IMMEDIATELY AFTER DESIGN GRADE IS ACHIEVED. MUDRO SEEDING IS RECOMMENDED WHERE SLOPES EXCEED 3:1.
17. IN THE EVENT EARTHWORK OPERATIONS ARE HALTED FOR THE WINTER MONTHS, BEFORE FINAL GRADING AND SEEDING OF ALL DISTURBED AREAS ARE COMPLETED, THOSE AREAS ARE TO BE STABILIZED PER THE STABILIZATION GUIDELINES OR STABILIZED WITH A MULCH, OR TACKED WITH A CHEMICAL ADHESIVE.
18. EROSION CONTROL MATTING SHALL BE USED ON ALL SLOPES THAT ARE 3:1 (3 UNITS HORIZONTAL TO 1 UNIT VERTICAL) OR GREATER AND IN AREAS OF CONCENTRATED FLOW WHERE GRADES EXCEED 1% AND IN DISTURBED AREAS WHERE HEAVILY ERODIBLE SOILS ARE PRESENT. EROSION CONTROL BLANKET SHALL BE TYPE S-150 AS MANUFACTURED BY NORTH AMERICAN GREEN OR AN APPROVED EQUIVALENT.
19. IF DUST CONTROL BECOMES A PROBLEM, METHODS SUCH AS MULCHING, OR SPRINKLING WATER SHALL BE IMPLEMENTED.
20. SILTSACK INLET PROTECTION IS TO BE USED FOR CATCH BASIN PROTECTION OR APPROVED EQUAL.
21. ALL FILTER FABRIC TO BE USED UNDER RIP-RAP SHALL BE 600# 60" OR APPROVED EQUIVALENT.

LEGEND

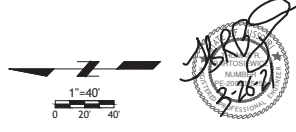


TITLE:
EROSION CONTROL PLAN PHASE 1

PROJECT:
SOUTH TOWN STORAGE, LLC
PREPARED FOR:
SOUTH TOWN STORAGE, LLC
COUNTY PIN NO.: 04-05-15-400-000-001.004
SEC.15 TWP.46, RNG.32
COUNTY: GASS CO

DATE	REVISION	CITY COMMENTS	TS
3-26-21			
DATE	REVISION	CHD.	
DRAWN BY: GO	CHECKED BY: TRB	DATE: 3-1-21	SCALE: 1"=30'
PROJECT NO.: 0059	SHEET NO.: 6		

NOTE:
THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
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PROFESSIONAL ENGINEERING COMPANY
5251 W 116th Pl., SUITE 200, LEAWOOD, KANSAS 66211
(913) 515-7209 • FAX (913) 760-2379
"TODAY'S TECHNOLOGY YESTERDAY'S QUALITY"

Notes for Concrete Washout:

- Concrete washout area shall be installed prior to or concurrent with concrete placement.
- Concrete washout area shall be installed prior to or concurrent with concrete placement.
- Concrete washout area shall be installed prior to or concurrent with concrete placement.
- Concrete washout area shall be installed prior to or concurrent with concrete placement.
- Concrete washout area shall be installed prior to or concurrent with concrete placement.
- Concrete washout area shall be installed prior to or concurrent with concrete placement.

Notes for Construction Entrance:

- Installation shall be in accordance with the manufacturer's instructions.
- Installation shall be in accordance with the manufacturer's instructions.
- Installation shall be in accordance with the manufacturer's instructions.
- Installation shall be in accordance with the manufacturer's instructions.
- Installation shall be in accordance with the manufacturer's instructions.
- Installation shall be in accordance with the manufacturer's instructions.

CONCRETE WASHOUT

AMERICAN PUBLIC WORKS ASSOCIATION

KANSAS CITY METRO CHAPTER

TERENCE DEANE ENGINEERING INC.
REGISTERED PROFESSIONAL ENGINEER
NO. 22574
EXPIRES 12/31/2026

CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT

Revised from 2015 Standard Plan Detailed Details for Erosion and Sediment Control
By Erosion and Sediment Control

SILT FENCE

4:1 POND SLOPE

AMERICAN PUBLIC WORKS ASSOCIATION

KANSAS CITY METRO CHAPTER

TERENCE DEANE ENGINEERING INC.
REGISTERED PROFESSIONAL ENGINEER
NO. 22574
EXPIRES 12/31/2026

SILT FENCE

Revised from 2015 Standard Plan Detailed Details for Erosion and Sediment Control
By Erosion and Sediment Control

Sediment Basin Design Summary ()**

Design Item	Basin #1	Basin #2	Notes
Basin Size	15' x 30'	15' x 30'	
Flow Rate	150 cfs	150 cfs	
Design Velocity	1.0 ft/s	1.0 ft/s	Minimum design velocity
Retention Time	10 min	10 min	
Overflow Elevation	868.15	868.15	
Bottom Elevation	867.85	867.85	
Freeboard	0.30 ft	0.30 ft	Minimum freeboard
Basin Depth	4.00 ft	4.00 ft	
Inlet Pipe Diameter	24"	24"	
Inlet Pipe Slope	1:20	1:20	
Outlet Pipe Diameter	30"	30"	
Outlet Pipe Slope	1:20	1:20	
Outlet Pipe Elevation	868.15	868.15	
Outlet Pipe Length	100.00'	100.00'	
Basin Area	450.00 sq ft	450.00 sq ft	
Basin Volume	1800.00 cu ft	1800.00 cu ft	
Basin Capacity	1800.00 cu ft	1800.00 cu ft	
Basin Weight	10800.00 lbs	10800.00 lbs	
Basin Cost	\$1800.00	\$1800.00	

Sediment Basin Notes:

- Inlet velocity shall be limited to reduce short-circuiting of the basin. Do not exceed 1.0 ft/s for approved inlet velocity.
- Outlet velocity shall be limited to 1.0 ft/s to reduce sediment transport. Do not exceed 1.0 ft/s for approved outlet velocity.
- Basin capacity shall be limited to 1800 cu ft. Do not exceed 1800 cu ft for approved basin capacity.
- Basin weight shall be limited to 10800 lbs. Do not exceed 10800 lbs for approved basin weight.
- Basin cost shall be limited to \$1800. Do not exceed \$1800 for approved basin cost.

AMERICAN PUBLIC WORKS ASSOCIATION

KANSAS CITY METRO CHAPTER

TERENCE DEANE ENGINEERING INC.
REGISTERED PROFESSIONAL ENGINEER
NO. 22574
EXPIRES 12/31/2026

SEDIMENT BASIN

Revised from 2015 Standard Plan Detailed Details for Erosion and Sediment Control
By Erosion and Sediment Control

OUTLET CONTROL STRUCTURE

AMERICAN PUBLIC WORKS ASSOCIATION

KANSAS CITY METRO CHAPTER

TERENCE DEANE ENGINEERING INC.
REGISTERED PROFESSIONAL ENGINEER
NO. 22574
EXPIRES 12/31/2026

OUTLET CONTROL STRUCTURE

Revised from 2015 Standard Plan Detailed Details for Erosion and Sediment Control
By Erosion and Sediment Control

TRASH RACK DETAIL

AMERICAN PUBLIC WORKS ASSOCIATION

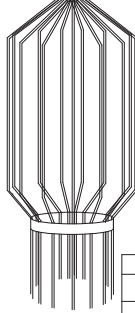
KANSAS CITY METRO CHAPTER

TERENCE DEANE ENGINEERING INC.
REGISTERED PROFESSIONAL ENGINEER
NO. 22574
EXPIRES 12/31/2026

TRASH RACK DETAIL

Revised from 2015 Standard Plan Detailed Details for Erosion and Sediment Control
By Erosion and Sediment Control

Agri Drain CORPORATION BAR GUARDS™



THE BAR GUARD INTAKE IS AN EXCELLENT CHOICE IN ANY SITUATION WHERE A LOW PROFILE, HIGH CAPACITY INTAKE IS REQUIRED.

ITS UNIQUE DESIGN HELPS KEEP INTAKES FROM PLUGGING W/ CROP RESIDUE OR ANY OTHER TYPE OF TRASH.

THE BAR GUARD MAY ALSO PROTECT A POND FROM RODENT ENTRY.

CONSTRUCTED OF 1/4" STEEL (5/16" STEEL ON 15" AND LARGER SIZES) FOR DURABILITY.

YELLOW POWDER COATED FINISH RESISTS CORROSION AND IS BRIGHTER FOR BETTER VISIBILITY.

Size	Price	Size	Price	Size	Price
4"	\$16	10"	\$22	18"	\$44
5"	\$17	10"-H*	\$22	21"	\$52
6"	\$18	12"	\$28	24"	\$60
8"	\$19	12"-H*	\$32	30"***	\$95
8"-H*	\$19	15"	\$36	36"***	\$125

*SPECIAL SIZED BAR GUARDS TO FIT HICKENBTOW INTAKES.
**SPECIAL SIZED BAR GUARDS IN 2 PIECES, TWO HALVES BOLT TOGETHER (BOLTS, WASHERS, & NUTS ARE INCLUDED).

1462 340th Street*P.O.Box 458*Adair, Iowa 50002
Ph-1-800-232-4742 Fax- 1-800-282-3353

ALTERNATE TEMPORARY DEWATERING DEVICE

(NOT TO SCALE)

AMERICAN PUBLIC WORKS ASSOCIATION

KANSAS CITY METRO CHAPTER

TERENCE DEANE ENGINEERING INC.
REGISTERED PROFESSIONAL ENGINEER
NO. 22574
EXPIRES 12/31/2026

ALTERNATE TEMPORARY DEWATERING DEVICE

Revised from 2015 Standard Plan Detailed Details for Erosion and Sediment Control
By Erosion and Sediment Control

TITLE:
EROSION CONTROL DETAILS

PROJECT:
SOUTH TOWN STORAGE, LLC

PREPARED FOR:
SOUTH TOWN STORAGE, LLC
COUNTY PIN NO.: 04-05-15-400-000-001.004
SEC.15 TWP.46, R.16G.32
COUNTY: CASS CO

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DATE	REVISION	CHD.	TS
3-26-21	CITY COMMENTS		
DATE	REVISION	CHD.	TS

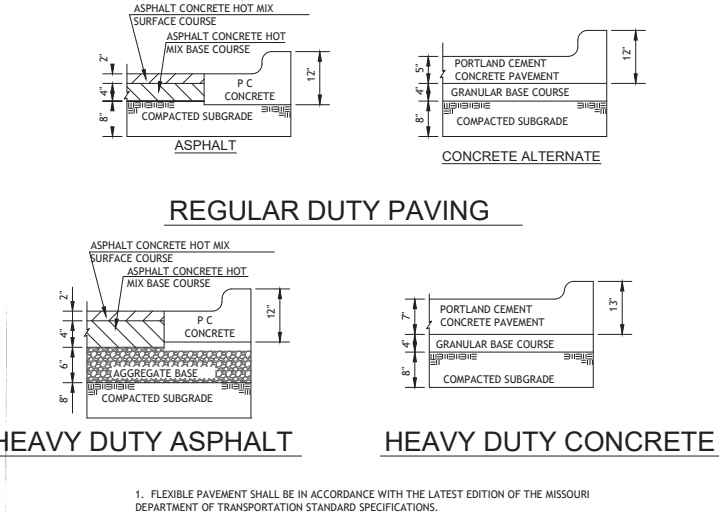
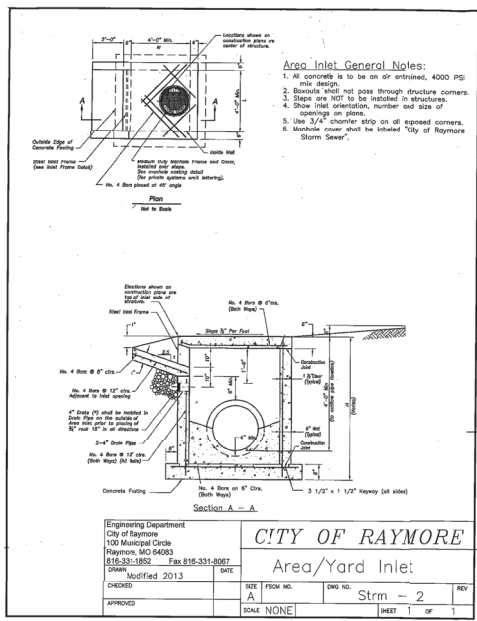
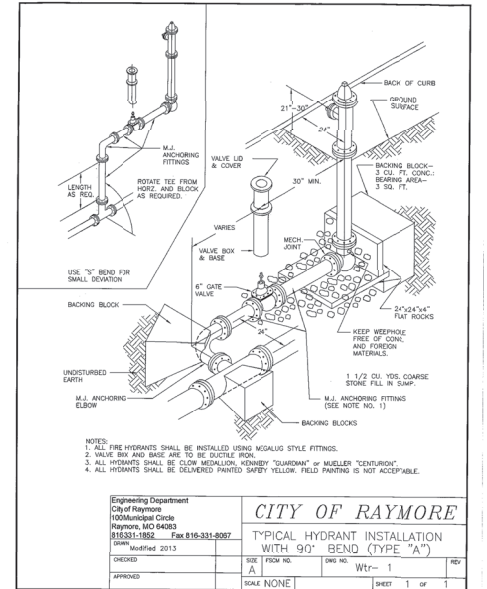
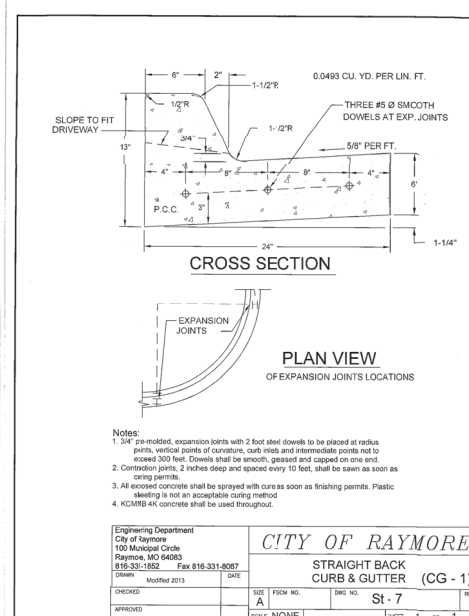
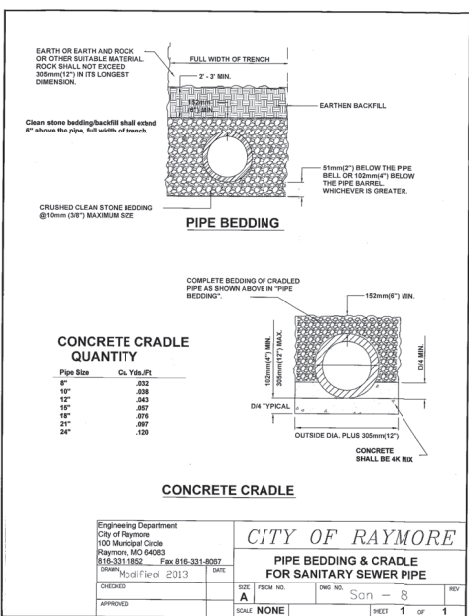
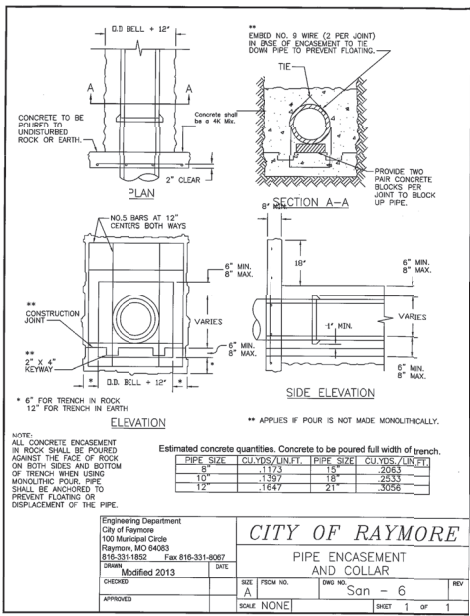
ENGINEERING SERVICES

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PROFESSIONAL ENGINEERING COMPANY

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(913) 515-7209 • FAX (913) 765-2379
"TODAY'S TECHNOLOGY, YESTERDAY'S QUALITY"

DRAWN BY: GO CHECKED BY: TRB DATE: 3-1-21 SCALE: 1"=30' PROJECT NO.: 0059 SHEET NO.: 7



TITLE:
SITE CONSTRUCTION DETAILS

PROJECT:
SOUTH TOWN STORAGE, LLC

PREPARED FOR:
SOUTH TOWN STORAGE, LLC

COUNTY PIN NO.: 04-05-15-400-000-001.004

SEC. 15 TWP 46, RNG 32

COUNTY: GASS CO

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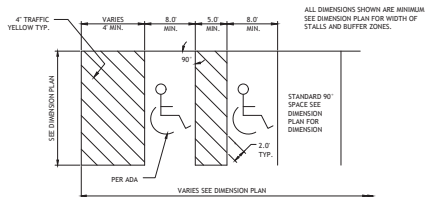
ENGINEERING SERVICES
SITE ENGINEERING CONSULTANTS, LLC
PROFESSIONAL ENGINEERING COMPANY
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(913) 515-7209 • FAX (913) 765-2379
"TODAY'S TECHNOLOGY YESTERDAY'S QUALITY"

DATE: 3-26-21
REVISION: _____
CITY COMMENTS: _____
DATE: _____
REVISION: _____
CITY COMMENTS: _____

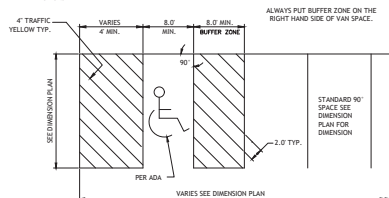
DRAWN BY: GO
CHECKED BY: TRB
DATE: 3-1-21
SCALE: 1'-3/8"
PROJECT NO.: 0059
SHEET NO.: 8

NOTE:
THIS DRAWING DOES NOT INCLUDE NECESSARY CONDITIONS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPLICABLE.

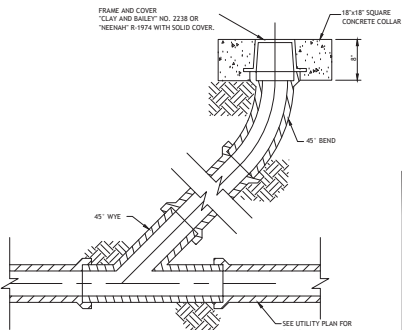
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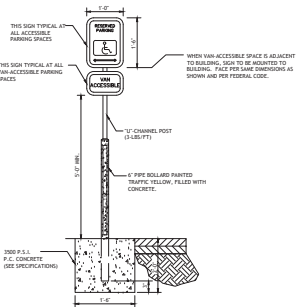
NOTE: PARKING SPACES AND ACCESS ISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 IN ALL DIRECTIONS.



90° ACCESSIBLE & VAN ACCESSIBLE SPACE STRIPING

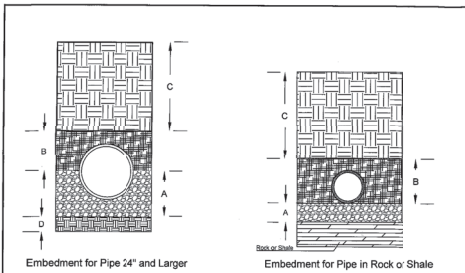


CLEAN-OUT



ACCESSIBLE PARKING SIGN

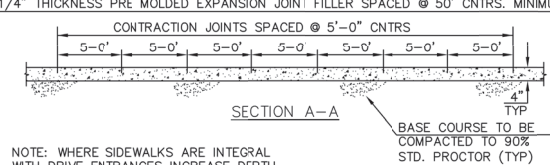
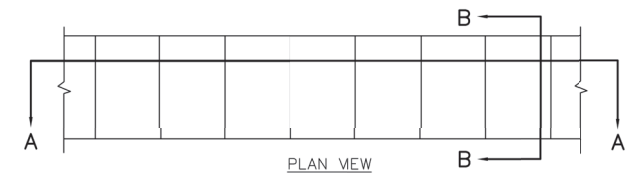
NOTE: THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT. THIS PLAN AND THE DESIGN SHOWN ARE THE EXCLUSIVE PROPERTY OF SITE ENGINEERING CONSULTANTS, LLC AND SHALL NOT BE ALTERED OR COPIED WITHOUT WRITTEN APPROVAL.



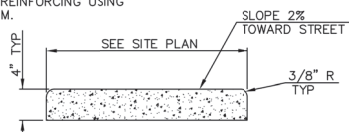
Legend
 "A" - 3/8" to 1/2" clean gravel placed to a minimum depth of 4" below bell.
 "B" - Loosely compacted backfill, free of rock or shale, placed to a depth covering the pipe by 6".
 "C" - Compacted backfill.
 "D" - Undisturbed earth.

Notes:
 1. Ductile iron pipe 12" in diameter and larger shall be polywrapped and taped as per spec.
 2. Rock and shale shall be over-excavated to a depth where gravel can be placed to a depth of 4" below the bell.

Engineering Department City of Raymore 100 Municipal Circle Raymore, MO 64083 (816)331-1852 Fax: 816-331-8007		CITY OF RAYMORE	
DRAWN: Modified 2013		EMBEDMENTS FOR WATER MAINS	
CHECKED:	DATE:	SIZE: FROM NO.:	DWG NO.:
APPROVED:	SCALE: NONE	Wtr - 6	SHEET 1 OF 1

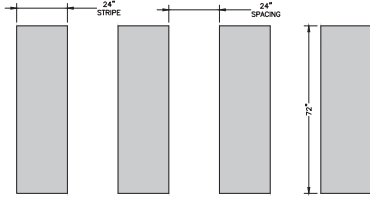


NOTE: WHERE SIDEWALKS ARE INTEGRAL WITH DRIVE ENTRANCES INCREASE DEPTH TO 6" AND PROVIDE REINFORCING USING 6x6 #10 WIRE MINIMUM.



CONCRETE SIDEWALK

NOTE: CONCRETE SHALL BE CLASS A WITH f_c = 3000 PSI.



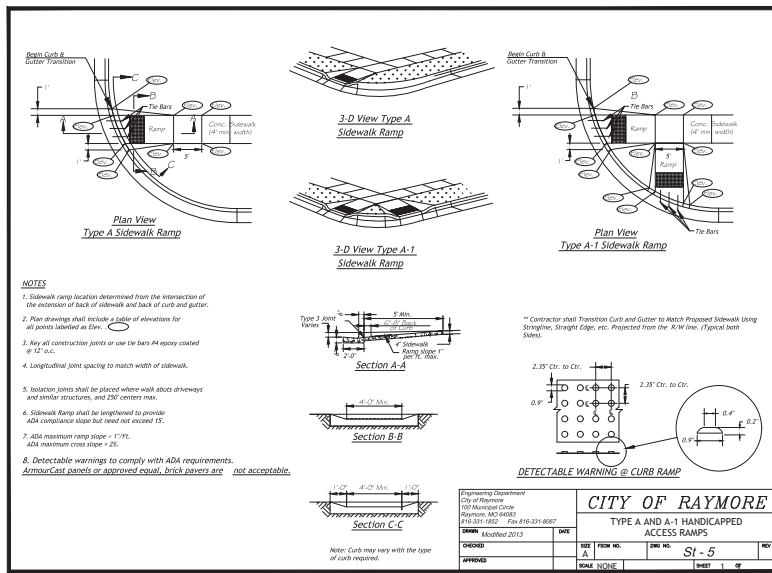
MAXIMUM CROSS SLOPE IS NOT TO EXCEED 2% NOR MAXIMUM LONGITUDINAL SLOPE EXCEED 1:12

PEDESTRIAN CROSSWALK DETAIL (NO SCALE)

TITLE:
SITE CONSTRUCTION DETAILS (PHASE 1)

PROJECT:
SOUTH TOWN STORAGE, LLC
 PREPARED FOR:
SOUTH TOWN STORAGE, LLC
 COUNTY PIN NO.: 04-05-15-400-000-001.004
 SEC.15 TWP.46, RNG.32
 COUNTY: CASS CO

DATE:	REVISION:	CITY COMMENTS:	TS
3-26-21			
DATE:	REVISION:	CITY COMMENTS:	CHSD.



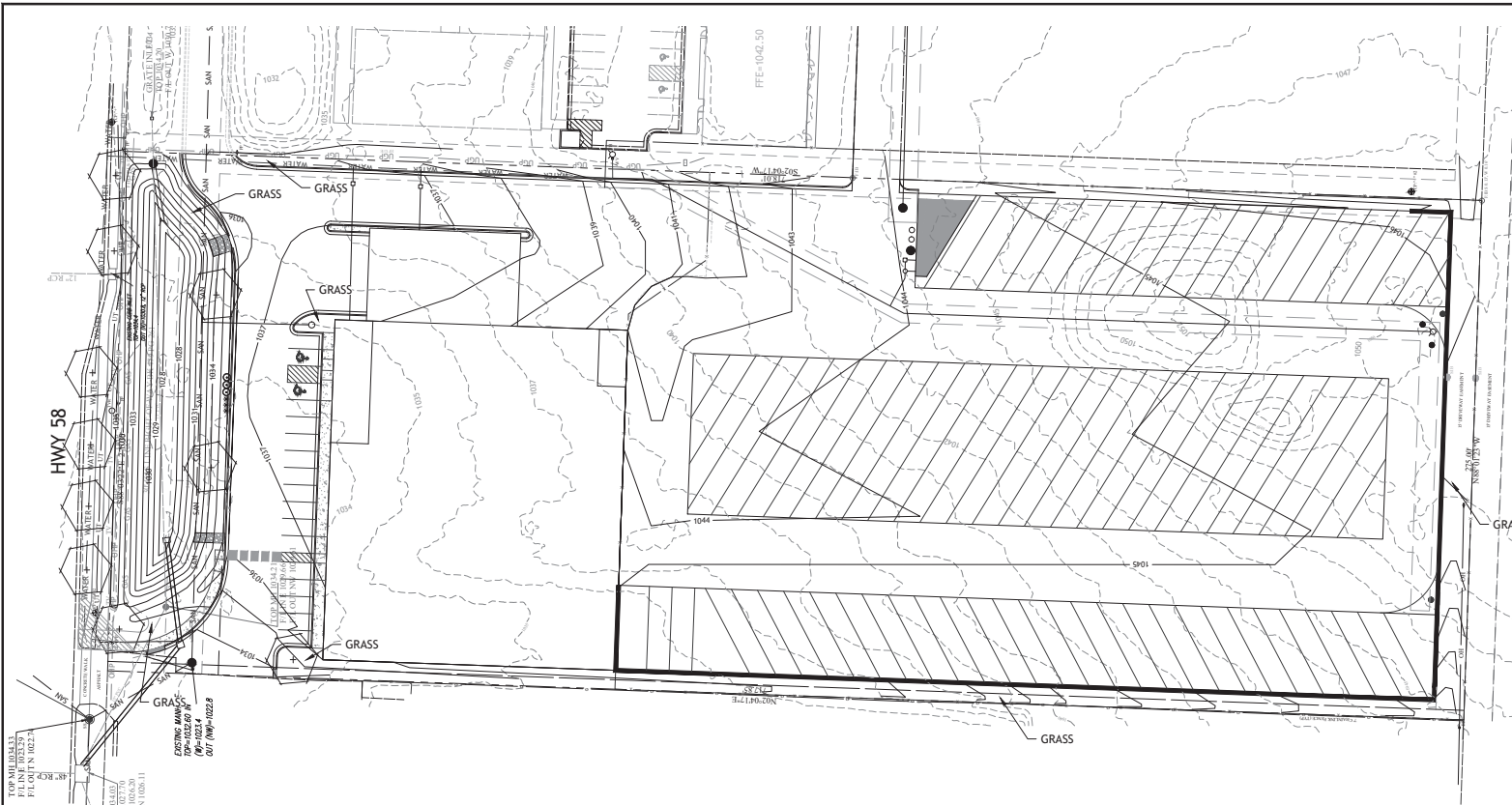
NOTES
 1. Sidewalk ramp location determined from the intersection of the extension of back of sidewalk and back of curb and gutter.
 2. Plan drawings shall include a table of elevations for all points labeled as Elev. Callouts.
 3. Key all construction joints to use tie bars #4 epoxy coated @ 12" o.c.
 4. Longitudinal joints spacing to match width of sidewalk.
 5. Isolation joints shall be placed where walk abuts driveways and similar structures, and 250' centers max.
 6. Sidewalk Ramp shall be lengthened to provide ADA compliance when not used as a ramp.
 7. ADA maximum ramp slope = 1:12.
 8. Detectable warnings to comply with ADA requirements. ArrowCurt panels or approved equal, brick pavers are not acceptable.

Engineering Department City of Raymore 100 Municipal Circle Raymore, MO 64083 (816)331-1852 Fax: 816-331-8007		CITY OF RAYMORE	
DRAWN: ArrowCurt Modified 2013		TYPE A AND A-1 HANDICAPPED ACCESS RAMP	
CHECKED:	DATE:	SIZE: FROM NO.:	DWG NO.:
APPROVED:	SCALE: NONE	S1 - 5	SHEET 1 OF 1

Note: Curb may vary with the type of curb required.



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 "TODAY'S TECHNOLOGY YESTERDAY'S QUALITY"



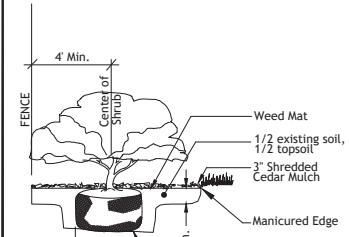
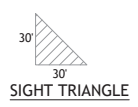
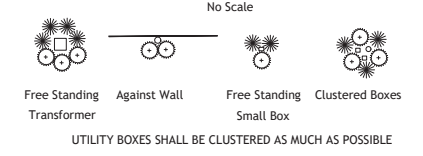
LANDSCAPE DATA:
 NORTH PROPERTY 275'
 REQUIRED
 1 SHADE / 40' STREET FRONTAGE = 7
 PROVIDED 7

INTERIOR PARKING
 17 PARKING STALLS
 REQUIRED
 1 SHADE 3 SHRUBS / 10 PARKING STALLS
 1 TREES AND 3 SHRUBS

PROVIDED
 2 SHADE
 6 SHRUBS

LANDSCAPE NOTES
 CONTRACTOR REQUIRED TO LOCATE ALL UTILITIES BEFORE INSTALLATION TO BEGIN.
 Contractor shall verify all landscape material quantities and shall report any discrepancies to the Landscape Architect prior to installation.
 No plant material substitutions are allowed without Landscape Architect or Owners approval.
 Contractor shall guarantee all landscape work and plant material for a period of one year from date of acceptance of the work by the Owner. Any plant material which dies during the one year guarantee period shall be replaced by the contractor during normal planting seasons.
 Contractor shall be responsible for maintenance of the plants until completion of the job and acceptance by the Owner.
 Successful landscape contractor shall be responsible for design that complies with minimum irrigation requirements, and installation of an irrigation system. Irrigation system to be approved by the owner before starting any installation.
 All plant material shall be specimen quality stock as determined in the 'American Standards For Nursery Stock' published by The American Association of Nurserymen, free of plant diseases and pest, of typical growth of the species and having a healthy, normal root system.
 Sizes indicated on the plant list are the minimum, acceptable size. In no case will sizes less than specified be accepted.
 All shrub beds within lawn areas to receive a manicured edge.
 All shrub beds shall be mulched with 3" of shredded cedar mulch.
 All sod areas to be fertilized & sodded with a Turf-Type-Tall Fescue seed blend.
 All seed areas shall be hydro-seeded with a Turf-Type-Tall Fescue seed blend.

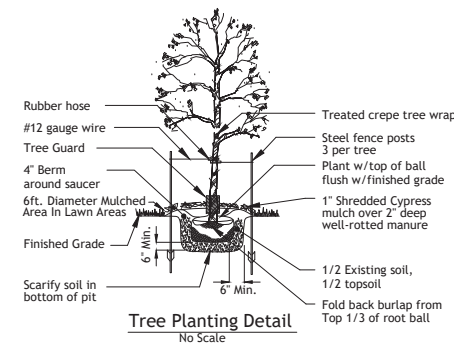
Typical Utility Box Screening Details



Shrub Bed & Parking Setback Detail
 No Scale

NOTE:
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Tree Planting Detail
 No Scale

Tree List

Symbol	Quantity	Common Name	Botanical Name	Size	Condition	Spacing
⬠	10	Skyline Honeylocust	Gleditsia Triacanthos 'Skyline'	2' cal	BB	As Shown

Shrub List

Symbol	Quantity	Common Name	Botanical Name	Size	Condition	Spacing
⊙	3	Dwarf Winged Euonymus	Euonymus Alatus 'Compactus'	18"-24" sp.	Cont.	4'o.c.
✱	3	Morning Light Maiden Grass	Miscanthos Sinensis 'Morning Light'	3 gal.	Cont.	4'o.c.

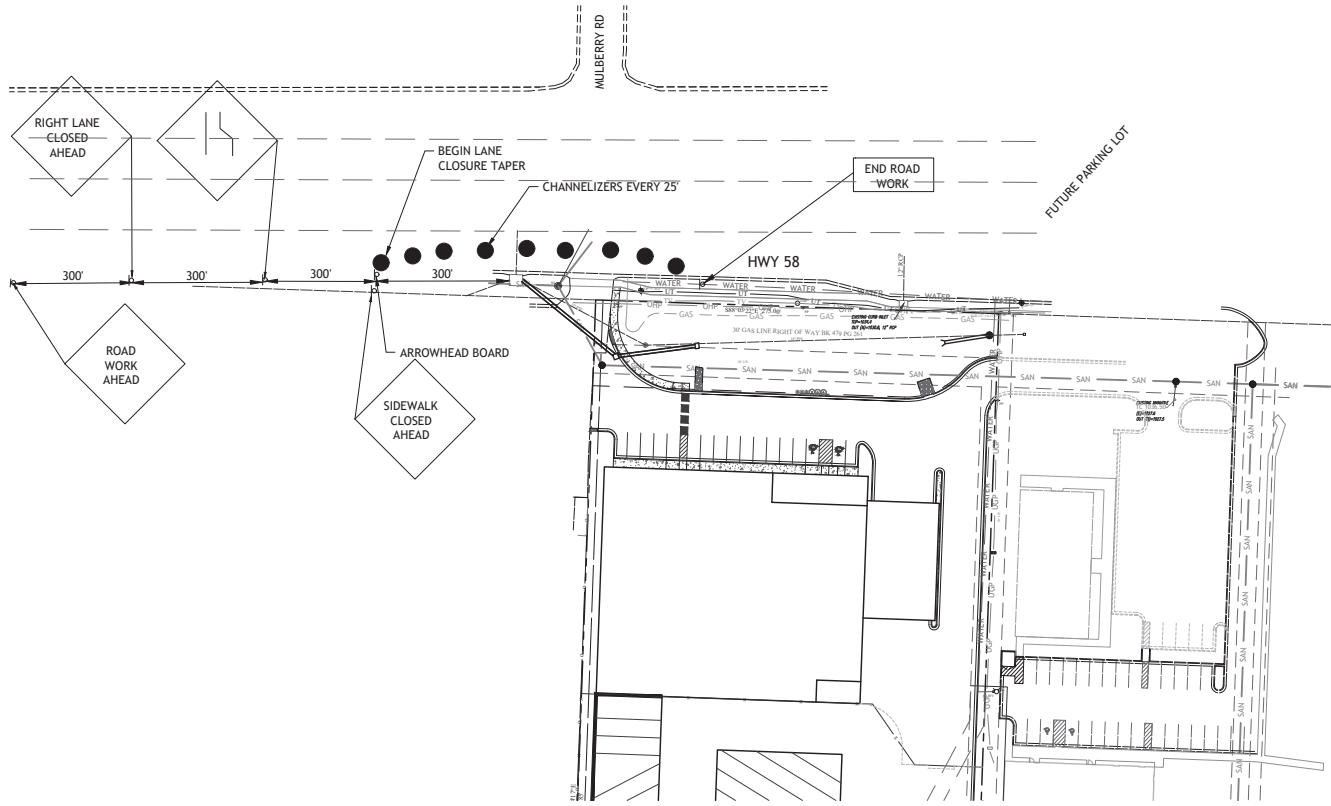
TITLE:
 LANDSCAPE PLAN
PROJECT:
 SOUTH TOWN STORAGE, LLC
PREPARED FOR:
 SOUTH TOWN STORAGE, LLC
COUNTY PIN NO.: 04-05-15-400-000-001.004
SEC.15 TWP.4E, RNG.32
COUNTY: GASS CO



ENGINEERING SERVICES
SITE ENGINEERING CONSULTANTS, LLC
 PROFESSIONAL ENGINEERING COMPANY
 5251 W 116th Pl., SUITE 200, LEAWOOD, KANSAS 66211
 (913) 515-7209 • FAX (913) 765-2379
 "TODAY'S TECHNOLOGY YESTERDAY'S QUALITY"

DATE: 3-26-21
 REVISION: _____
 CHD: _____

DRAWN BY: GO
 CHECKED BY: GO
 DATE: 3-1-21
 SCALE: 1"=30'
 PROJECT NO.: 0059
 SHEET NO.: 10



NOTE:
 THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPLICANT.
 THIS PLAN AND THE DESIGN SHOWN ARE THE EXCLUSIVE PROPERTY OF SITE ENGINEERING CONSULTANTS, LLC AND SHALL NOT BE ALTERED OR COPIED WITHOUT WRITTEN APPROVAL.

TITLE:
 TRAFFIC CONTROL

PROJECT:
 SOUTH TOWN STORAGE, LLC
PREPARED FOR:
 SOUTH TOWN STORAGE, LLC
 COUNTY PIN NO.: 04-05-15-400-000-001.004
 SEC.15 TWP46, RNG32
 COUNTY: CASS CO



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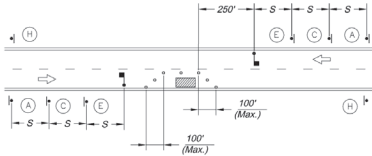


ENGINEERING SERVICES
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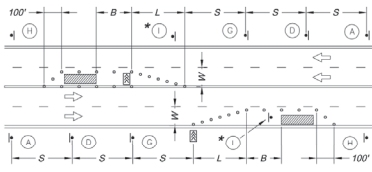
DATE	REVISION	BY	CHKD.
3-26-21	CITY COMMENTS	TS	

SYMBOL LEGEND

- ▨ - Work Area
- - Channelizer
- ⊕ - Sign
- ▭ - Arrow Panel
- ⊓ - Barricade
- ⚡ - Flagger
- ↔ - Direction of Travel

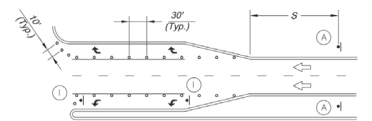


LANE CLOSURE - TWO LANE STREET



LANE CLOSURE - FOUR LANE STREET

* Install Signs Every 200 Feet Throughout the Closed Lane or As Needed



TURN LANE CLOSURE

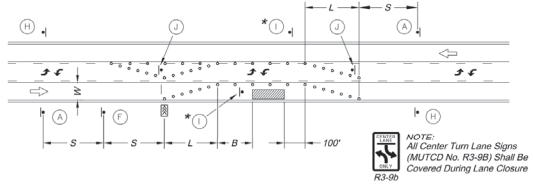
Sign Spacing "S"		Taper Dimensions (Feet)				
Speed Limit (mph)	Spacing (Feet)	Speed Limit (mph)	Minimum Taper Length "L" per Lane Width "W"	Minimum Number of Channelizers		
25	100	10	11	12	6	
30 - 35	250	25	105	115	125	7
≥ 40	350	30	150	165	180	7
		35	205	225	245	8
		40	270	295	320	9
		45	450	495	540	13

Guidelines for Length of Longitudinal Buffer Space "R"		Maximum Channelizer Spacing		
Speed Limit (mph)	Length (Feet)	Speed Limit (mph)	Within Taper (Feet)	Outside Taper (Feet)
25	35	25	25	50
30	55	30	30	60
35	85	35	35	70
40	120	40	40	80
45	170	45	45	90

SIGN LEGEND

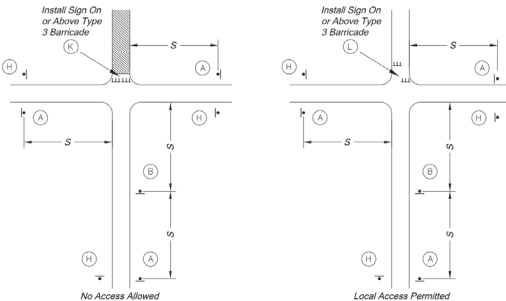
- A W20-1 36" x 36" ROAD WORK AHEAD
- B W20-2 36" x 36" ROAD CLOSED AHEAD
- C W20-4 36" x 36" ONE LANE ROAD AHEAD
- D W20-5R 36" x 36" RIGHT LANE CLOSED AHEAD
- E W20-7a 36" x 36" LEFT W20-5L
- F W1-4L 36" x 36" ROAD CLOSED TO THRU TRAFFIC
- G W4-2L 36" x 36" END ROAD WORK
- H G20-2 36" x 18" USE ONLY AS APPROVED BY CITY TRAFFIC ENGINEER
- I R3-2 24" x 24" KEEP RIGHT
- J R4-7a 24" x 30" ROAD CLOSED
- K R11-2 48" x 30" ROAD CLOSED TO THRU TRAFFIC
- L R11-4 60" x 30" ROAD CLOSED TO THRU TRAFFIC

TYPICAL SIGNING FOR WORK ADJACENT TO THE STREET



LANE CLOSURE - THREE LANE STREET

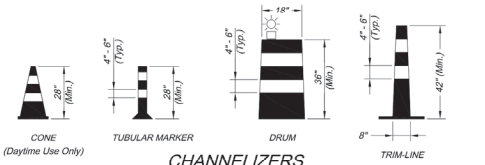
* Install Signs Every 200 Feet Throughout the Closed Lane or As Needed



TYPICAL STREET CLOSURE

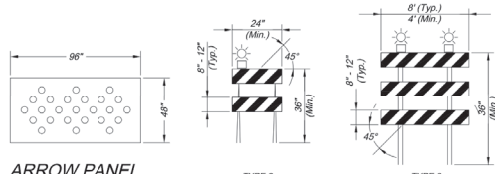
GENERAL NOTES:

- All signs, barricades, channelizers, markings and other traffic control devices shall conform to the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- All traffic control devices shall be standard in size, shape, color, and message, in good condition, and retro-reflective. All signs shall be securely mounted with height and lateral location as described in the MUTCD.
- Warning lights shall be used on barricades in place of right and on warning signs which alert drivers about a change in alignment, traffic control, lane closure, or road closure.
- Flaggers shall be used where indicated on the plans, where construction vehicles interact with normal traffic, or where construction activities impose a restriction on traffic, as directed by the City Traffic Engineer. Where flaggers are used, advance signing shall be erected as shown in the details or as specified in the MUTCD. Flaggers shall meet the requirements in the MUTCD in regard to character, training, attire, and behavior.
- Trim-lines are the City's preferred channelizing device. Cones may not be used at nighttime.
- Traffic control devices not in use or not applicable shall be either covered or removed from the work area.
- The Contractor shall use barricades, steel plates, or fencing as needed to effectively shield pedestrian and vehicular traffic from exposed objects, excavations, and construction activities.
- Access shall be maintained to all driveways and side streets unless noted otherwise on the plans.
- No street shall be closed without the approval of the City Traffic Engineer. The Contractor shall notify the City Traffic Engineer at least 7 days in advance of any street closure. If a detour route around the closure is to be provided, all detour signing shall be as shown on a plan approved by the City Traffic Engineer.
- Construction vehicles parked along streets shall be located within the work area (traffic control) or where otherwise normally permitted. Construction materials, including traffic control and vehicles shall not restrict sight distance for vehicles exiting at streets or drives.
- Construction materials shall be kept off of sidewalks, consolidated in one location within City right-of-way, and removed daily unless otherwise approved by the Inspector. Dirt, mud, and other construction debris on streets and sidewalks shall be removed immediately.
- The Contractor shall not perform any work that will restrict vehicular traffic in any way between the hours of 7:00 a.m. and 9:00 a.m. or 4:00 p.m. and 6:00 p.m. Monday through Friday unless otherwise indicated in the specifications.
- All travel lanes should be at least 11 feet wide unless otherwise authorized by the City Traffic Engineer. A "Narrow Lanes" sign shall be installed in advance of a lane width reduction to less than 11 feet.
- All edge drop-offs of more than 2 inches and less than 4 inches should be protected by a wedge or barrier and all edge drop-offs greater than 4 inches shall have edge protection (see Traffic Control Specifications for edge treatment requirements).
- The "Workers" symbolic sign (MUTCD No. W21-1a) may be used instead of the "Road Work Ahead" sign for work with a duration of 12 hours or less. The "End Road Work" sign is not required to be installed after the "Workers" sign.
- No traffic signal shall be altered or modified in any way without a plan approved by the City Traffic Engineer.
- The Contractor shall be responsible for maintaining all traffic control devices on an around-the-clock basis, whether or not work is actively being pursued and any deficiencies noted shall be corrected immediately.
- The traffic control requirements shown on these plans are minimum requirements only and do not attempt to address in depth the variety of situations that may occur once construction has started. In no way do the requirements shown on these plans relieve the Contractor of his responsibility for selecting the proper traffic control devices and implementation procedures that will assure the safety of drivers, pedestrians, and workers at all times.
- Should the contractor fail to enforce the traffic control plan or fail to clean, replace or otherwise maintain the traffic control devices when directed to do so by the City Traffic Engineer or representative, the City may take one or more of the following actions:
 - A) Employ another agency to correct deficiencies in traffic control devices and deduct the cost from the Contractor's pay estimate.
 - B) Stop the work until deficiencies are corrected.
 - C) Suspend all pay estimates until deficiencies are corrected, or
 - D) Place the Contractor in default.



CHANNELIZERS

NOTE: White Bands On Barricades and Channelizers Shall Be Made From High Intensity Sheeting Material.



ARROW PANEL

BARRICADES

CITY OF LEES SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEES SUMMIT, MISSOURI 64063
PHONE: (816) 899-1600 FAX: (816) 899-1699



TRAFFIC CONTROL DETAILS

STANDARD DRAWING TC-1

Project: _____
Sheet Name: _____
Drawn By: JJW
Checked By: MP
Date: 12-10-2008
Project No.: X
x OF x

TITLE:
TRAFFIC DETAILS

PROJECT:
SOUTH TOWN STORAGE, LLC
PREPARED FOR:
SOUTH TOWN STORAGE, LLC
COUNTY PIN NO.: 04-05-15-400-000-001.004
SEC.15 TWP.4E, RNG.32
COUNTY: CASS CO

DATE	REVISION	CHKD.
3-26-21	CITY COMMENTS	TS

DRAWN BY: GO CHECKED BY: TRB DATE: 3-1-21 SCALE: 1"=40' PROJECT NO.: 0059 SHEET NO.: 12

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